

# **imagePROGRAF TX-4000 TX-3000**

# **SERVICE MANUAL**



# **Canon**

**October 13, 2017  
Rev. 0**

## **Application**

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**Important:**  
**Not all features, functions and models mentioned  
in this document are available in all markets.**



## Recommended System

**Browser:** Adobe Acrobat Reader 7.0 or later  
(To see the movie or animation, Adobe Flash Player is required.)

**Operation confirmed OS:** Windows 7

## Revision History

Revision	Date	Revised items
00	Oct. 2017	New edi on

## Applicable Products

TX-2000	Q51-2707-000
TX-3000	Q51-2717-000
TX-4000	Q51-2727-000

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# PRODUCT OUTLINE

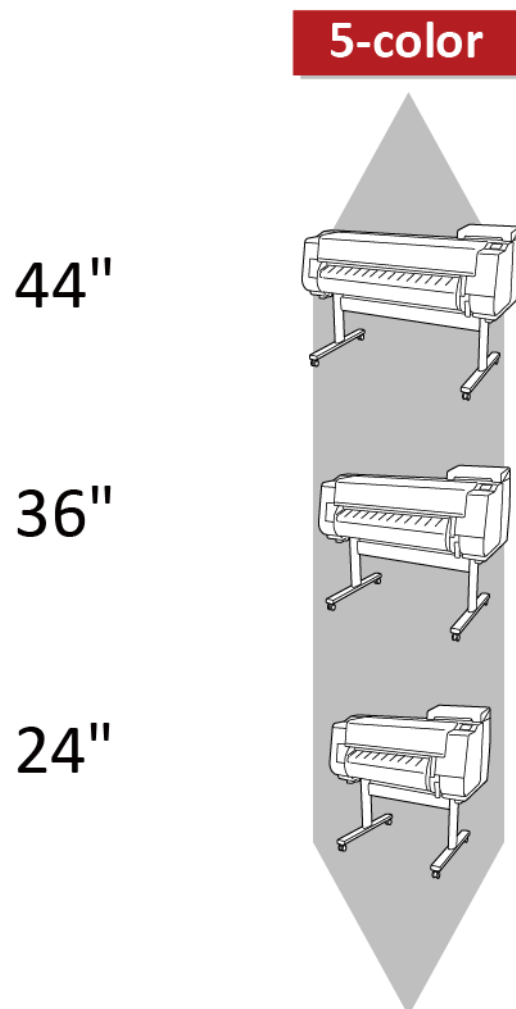
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## 1-1. Product Overview

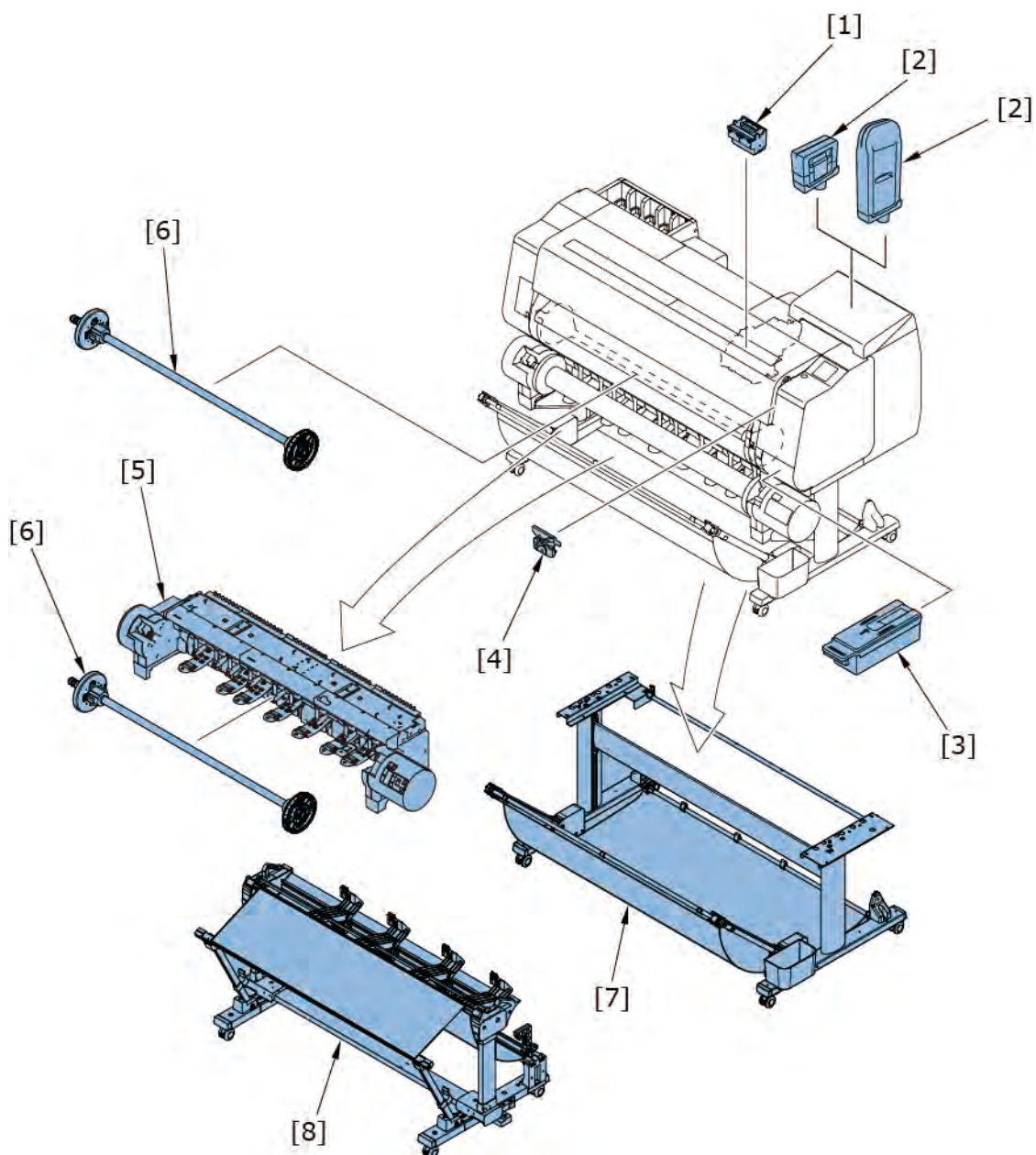
### Product Overview

The new printers introduce updates to the core technologies of current 5-color models. All five colors of LUCIA TD pigment ink have been newly developed. Also new is the print head, optimized for the TX series, and the high-precision mechanical platform, featured in 2016 PRO graphic arts models. Other enhancements include dual rolls that are easy to load, as well as more robust security. The printers combine the productivity, usability, and security sought in the high-end CAD inkjet market with the favorable print quality on uncoated paper and low running costs sought in the entry-level LED plotter market, where the printers will gain share. In this way, the models target both high-end inkjet and entry-level LED plotter users by offering a viable alternative that enables us to gain MIF share.

### imagePROGRAFTX series Lineup



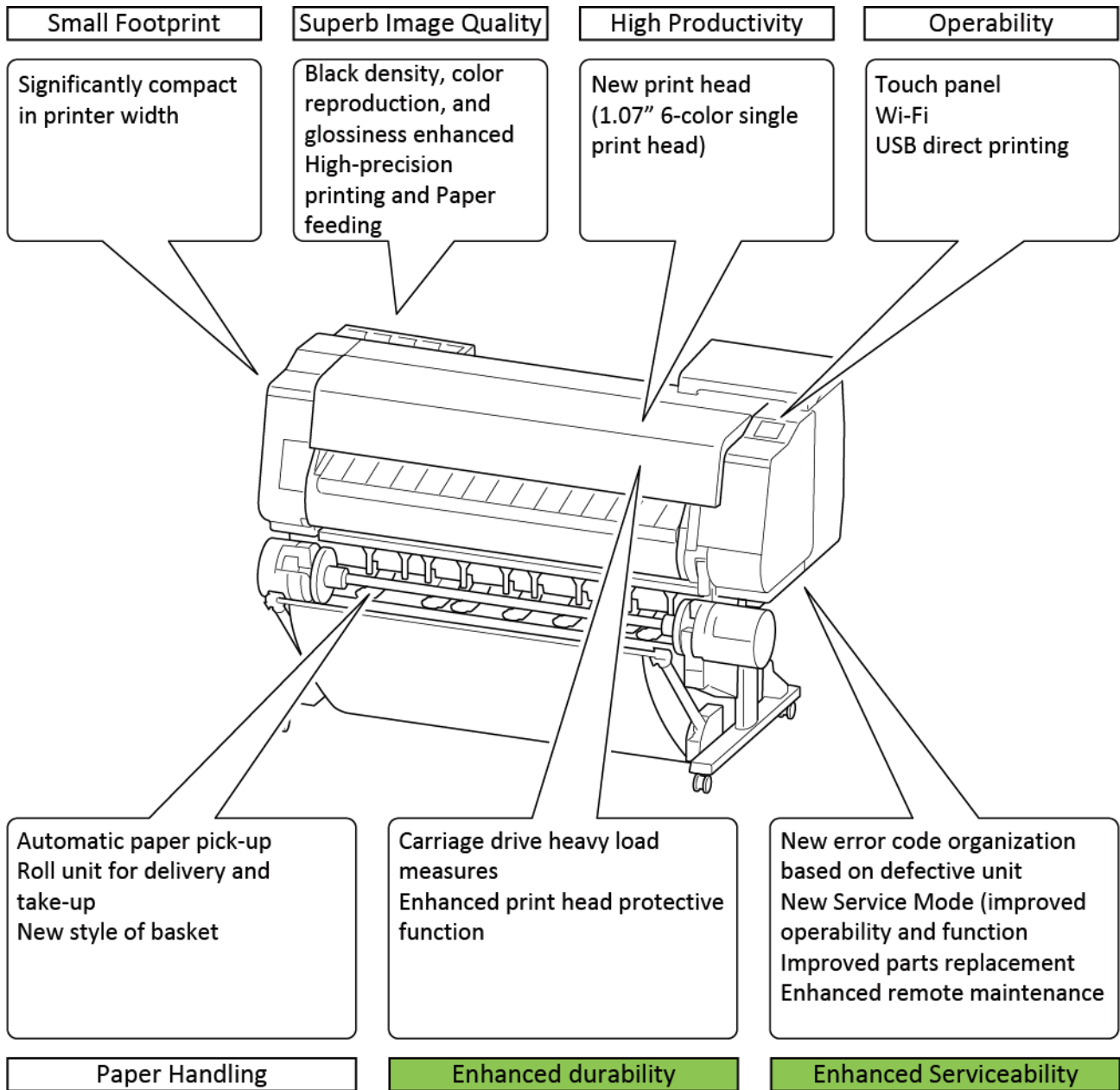
## Names of Components



No	Name	Remarks
[1]	PRINT HEAD	Consumables
[2]	INK CARTRIDGE	Consumables
[3]	MAINTENANCE CARTRIDGE	Consumables
[4]	CUTTER BLADE	Consumables
[5]	ROLL UNIT	
[6]	ROLL HOLDER	
[7]	PRINTER STAND	
[8]	STACKER	Optio

## 1-2. Features

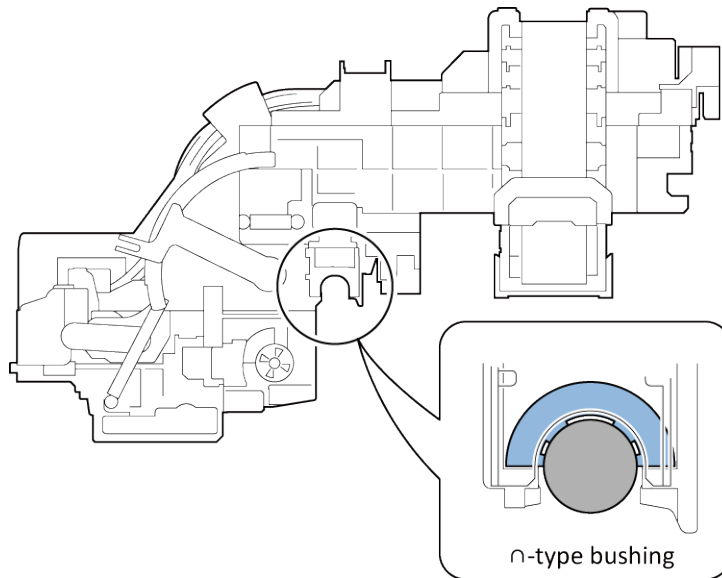
### Product Features



## Enhanced durability

- Carriage drive heavy sliding load reduction

Adopts  $\cap$ -type bushing. Reduces mist-induced sliding load as a challenge of the current LFP cylindrical bushing.





## Enhanced Serviceability

- New error code organization based on defective unit

Realizes new error code organization based on defective unit by enhancing printer self-diagnostic function

### Previous LFP error code organization      New error code organization

#### Only phenomenon indicated

2F26  
Carriage motion error

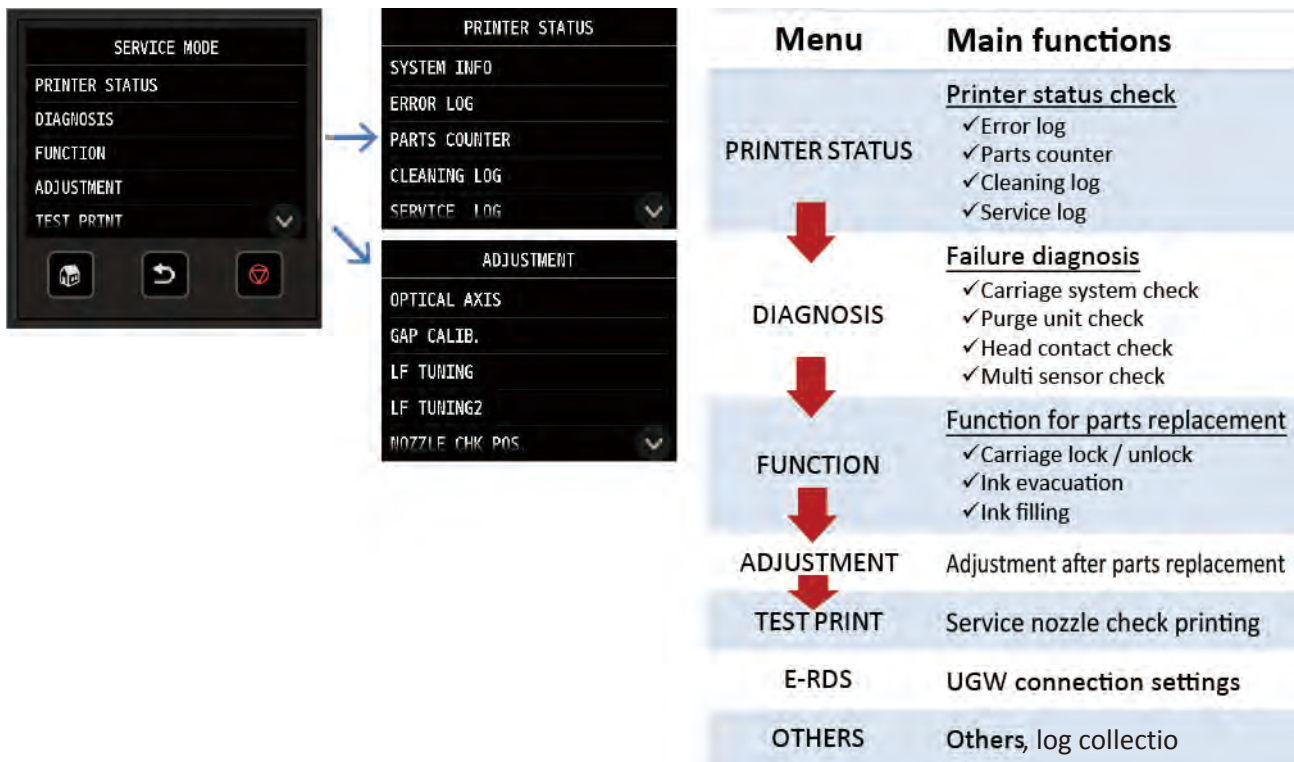
Defective phenomenon can be seen.  
Cannot determine where the defective unit is.

#### Phenomenon and estimated causes are indicated

New error codes	Causes Exxx	Phenomenon Yyyy
EC01-2F90	Bushing	Carriage overload error
EC04-2F91	Encoder	Carriage encoder error
EC05-2F92	Carriage motor	Carriage operation error
EC0F-2F93	Paper jam	Carriage jam error

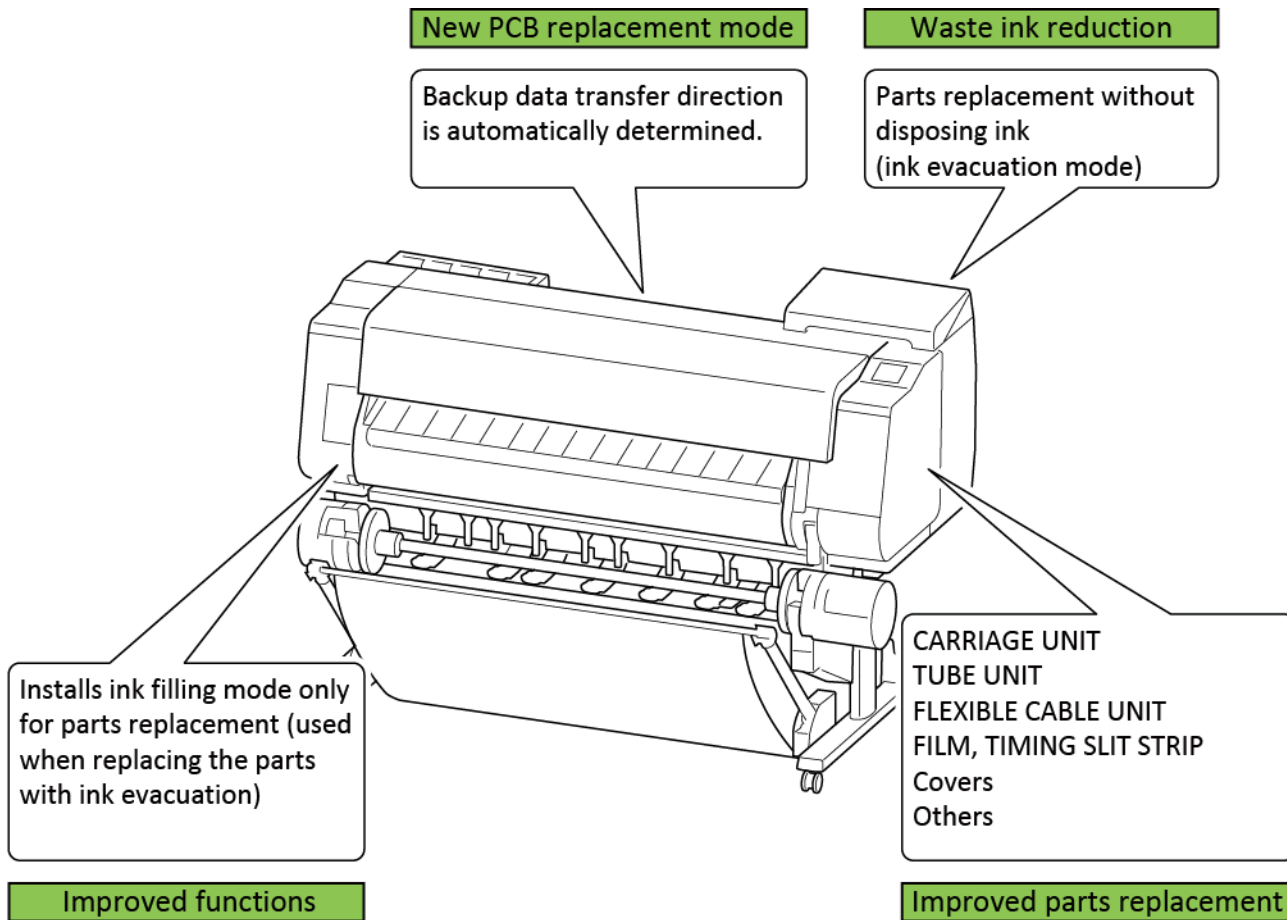
- New Service Mode

- Easy operation using 3.0 color touch panel.
- Enhances failure diagnosis (newly contains carriage system/PURGE UNIT/PAPER FEED ENCODER UNIT diagnostic function. Improves usability of other functions)



Improved parts replacement performance

Improves parts replacement performance of the main units.



▪Enhanced remote maintenance

Enhances the information obtained using UGW.

Information obtained by UGW		Current LFP	imagePROGRAF TX series	Remarks
Error codes	Hardware error	Old error codes	<b>New error codes</b>	New error codes based on defective units
	Jam error	One type	<b>Twelve types</b>	The following jams are detected: <ul style="list-style-type: none"> <li>· Jams while paper is fed</li> <li>· Skewed paper feeding</li> <li>· Paper edge detection error</li> <li>· Jams while carriage drives</li> <li>· Jams when paper is cut</li> <li>· Rewinding error (Roll paper, Cut sheet, top and bottom paper roll)</li> </ul>
	Operator error/warning	Obtained	Obtained	
Parts counter		Obtained	Obtained	
Consumables	Head dot count	Obtained	Obtained	
	Remaining ink	Warning only	<b>Obtained in %</b>	
	Remaining maintenance cartridge	Obtained in %	Obtained in %	
Others	Temperature/humidity	N/A	<b>Obtained</b>	Utilized for the diagnosis of image failure due to temperature and humidity/paper jam

- Enhanced items are indicated by boldface.

- Can obtain the same information obtained by UGW as imagePROGRAF PRO series.

## 1-3. Product Specifications

### TX-2000

Item		specifi atio
Model		TX-2000
Class		24"
Ink Type		Five-color pigment inks (Mbk, bk, C, M, Y)
Maximum Print Resolutio		2400 × 1200dpi
Installatio		User installatio
Product Durability		25,000sheets of A1 size (n o maintenance) 50,000sheets of A1 size (With service maintenance) Printing onditions: 12.5% × 3 olor (CMY) + 6.8% (Mbk) + 5.7% (bk) = 50% Duty, Canon Coated Paper hg , standard mode
stand	Type	Assembly type
	Installatio	User installatio
Dimensions W × D × h (mm), Weight (kg) (Unit)	Main Unit	1110 × 734 × 629 Weight : 74 kg (including Roll holder set, excluding ink and print head)
	Main Unit + stand + basket	1110 × 984 × 1168 mm (basket Opened: Position1 1110 × 766 × 1168 mm (basket Closed) Weight: 91 kg (Including Roll holder set, excluding ink and print head)
	Main Unit + Roll Unit + stand + basket	Weight: 107 kg (Including Roll holder set, excluding ink and print head)
	Main Unit + Roll Unit + stand + stacker	1110 × 1188 × 1168 mm (stacker Opened) 1110 × 1122 × 1168 mm (stacker Closed) Weight: 117 kg (Including Roll holder set, excluding ink and print head)
Dimensions W × D × h (mm), Weight (kg) (Package)	Printer (Main unit with pallet)	1324 × 902 × 1055 mm, Weight: 110 kg
	stand + basket	1111 × 797 × 223 mm, Weight: 23 kg
	Printer (Main unit with stand and pallet)	1324 × 902 × 1055 mm, Weight: 131 kg
	stacker	969 × 906 × 291 mm, Weight: 21kg
	Roll Unit	1244 × 562 × 461 mm, Weight: 22 kg
Power supply	Input power	AC 100-240 V (50-60 hz)
	Power consumption (Using wi ed LAN)	91 W or less
	sleep mode (Using wired LAN)	3.6 W or less
	sleep mode (Using all ports) <EU only-data for ErP Lot 26>	3.6 W or less
	Power off	0.3 W or less
	Default setting or the time o enter the sleep mode <EU only-data for ErP Lot 26>	301sec
Recommended Environment		Temperature: 15 to 30°C humidity: 10 to 80%Rh (n o dew condensation)
Acoustic noise	Acoustic p essage	Operation: 50 b(A) or less (Plain paper, line drawing, standard mode) stand by: 35 db(A) or less (Measured on IsO7779 standard)
	Acoustic p wer	Operation: 6.8 bels or less (Plain paper, line drawing, standard mode) (Measured on IsO7779 standard)

Item		Specification	
Detector and Adjustment	Registration adjustment	Automatic, Manual	
	Banding adjustment	Automatic, Manual	
	Line length adjustment	Manual	
	Head slant adjustment	Automatic, Manual	
	Color calibration	No	
	Head gap adjustment	Automatic, Manual (8 levels)	
	Non-firing detection	Auto	
	Non-firing compensation	Auto	
	Roll media remaining detection function	Barcode print, Auto	
Line Accuracy		<p>±0.1 % or less</p> <p>User adjustments necessary. Printing environment and media must match those used for the adjustments.</p> <p>CAD paper required: Plain paper, CAD tracing paper, coated paper, CAD translucent matte film only</p>	
Memory	Standard memory	128 GB (Physical memory 2 GB)	
	Expansion slot	No	
Firmware	Languages	Printer language	SGRaster (Swift Graphic Raster)
		HP-GL/2	
		HP RTL	
		PDF	<p>Supported Version 1.7</p> <ul style="list-style-type: none"> <li>- Not supported: Over print function, Transparent function, and some others</li> <li>- Not supported: The file has been set with password</li> <li>- Recommended: Embedded font. Use the build-in font if there is not it</li> <li>- List of the built-in fonts Times-Roman, Helvetica, Courier, Symbol, Times-Bold, Helvetica-Bold, Courier-Bold, ZapfDingbats, Times-Italic, Helvetica-Oblique, Courier-Oblique, Times-Bold Italic, Helvetica-Bold Oblique, Courier-Bold Oblique</li> </ul>
	JPEG	<p>Supported Version JFIF1.02</p> <ul style="list-style-type: none"> <li>- Compression: Basic DCT (discrete cosine transform)</li> <li>- Color Mode: RGB, GrayScale</li> <li>- Color bit: 24bit, 8bit</li> <li>- Pixel: 19,200 pixel or less both vertically and horizontally</li> <li>*Not supported: Full function of sampling</li> </ul>	
		Job control	IVEC
		Status reply	SNMP-MIB (Standard MIB, Canon-MIB), IVEC, CPCA
		Direct Print	HP-GL/2, HP RTL, PDF, JPEG
		Type	Flash ROM
		Update	Updated by printer panel operation Updated from USB (Utility use) Ethernet port (without Utility use)
Operation panel	Display	LCD (3.0 inch (7.62cm) TFT color)	
	Language on operation panel	<p>21 Languages Selectable:</p> <p>Japanese, English, French, German, Italian, Spanish, Brazilian Portuguese, Dutch, Polish, Russian, Simplified Chinese, traditional Chinese, Korean, Thai, Indonesian, Turkish, Czech, Danish, Swedish, Norwegian, Finnish</p>	

Item		Specification	
Hard Disk		500GB (Encrypted)	
Interface	USB B Port	Type	Built in (Hi-Speed USB)
		Mode	Full Speed (12 Mbit/sec), High Speed (480 Mbit/sec), Bulk transfer
		Connector type	Series B (4 pins)
	USB A Port		USB Memory (Direct Print)
	Gigabit Ethernet	Type	Built in
		Standard	IEEE 802.3 10base-T IEEE 802.3u 100base-TX/Auto-Negotiation IEEE 802.3ab 1000base-T/Auto-Negotiation IEEE 802.3x Full Duplex
		Protocol	SNMP (Canon-MIB), HTTP, TCP/IP (IPv4, IPv6), ftp
	Wireless LAN	Standard	IEEE802.11n, IEEE802.11g, IEEE802.11b
Security		WEP (64bit, 128bit) WPA-PSK (TKIP, AES) WPA2-PSK (TKIP, AES)	
Expansion Slot		No	

## Print Head

Item		Specification
Print Head	Model	PF-06
	Type	Bubble-jet on demand
	Head configuration	6 Color integrated Type × 1 print head
	Nozzle pitch	1200dpi (2 lines)
	Nozzle per chip	15,360 nozzles (MBK 5,120 nozzles, OtherColors 2,560 nozzles each)
	Droplet size	Minimum 5pl per color
	Head replacement	User replacement

## Ink Tank

Item		Specification	
Ink Tank	Model	PFI-110 (160 ml), PFI-310 (330 ml), PFI-710 (700 ml)	
	Supply*	Tubing system (with sub-tank)	
	*: printer's ink supply spec	Sub ink tank Capacity*	Each color 30 ml
	Colors	Pigment 5 Color (MBK, BK, C, M, Y)	
	Capacity	Sales use: 160 ml, 330 ml, 700 ml Starter use: 330 ml (MBK), 160 ml (BK, C, M, Y)	
	Level detection	Detected by dot count and electrode (Empty)	
	Smart chip	Each ink tank is equipped with EEPROM which stores its ink level	

## Cutter

Item		Specification
Cutter	Model	CT-07
	Type	Automatic horizontal cutting (rotary cutter): standard
	Cutter durability (cuts)	25,000 cuts 5,000 cuts for canvas and cloth media 2,000 cuts for adhesive media
	Replacement	User replacement

## Media Handling

	Item	Specification
Media Feed and Output	Roll paper	One Roll, Front-loading, Front Output
	Added Roll Paper	One Roll, Front-loading, Front Output
	Cut sheet	Front-loading, Front Output (Manual feed using media locking lever)
	Paper path switch (Roll/Cut sheet)	Manually switchable by user Upper Roll/Lower Roll Automatically switchable* * excludes at the end of roll * excludes medias which are not available for Automatic paper loading
	Delivery direction	Face-up, Front side
	Media Take-up Unit	Dual directions rolling take-up
	Maximum stacking number of delivered prints	<ul style="list-style-type: none"> <li>▪ Multiposition Ballet</li> <li>Standard position: 1 sheet</li> <li>Flat position: A2 landscape, glossy paper 10 sheets or less, coated paper 20 sheets or less, plain paper 20 sheets or less</li> <li>(Excludes strong curled condition)</li> <li>*Operability confirmed media as follows.</li> <li>Glossy paper: <ul style="list-style-type: none"> <li>Luster Photo Paper</li> <li>Glossy Photo Paper 170gsm</li> <li>Satin Photo Paper 170gsm</li> <li>Glossy Photo Paper HG 170</li> <li>Semi-Glossy Photo Paper HG 170</li> <li>Glossy Photo Paper 200gsm</li> <li>Satin Photo Paper 200gsm</li> <li>Glossy Photo Paper 240gsm</li> <li>Satin Photo Paper 240gsm</li> <li>Glossy Photo Paper HG 255</li> <li>Semi-Glossy Photo Paper HG 255</li> <li>Premium RC Photo Luster, 10mil</li> <li>Premium Glossy Paper 2 280</li> <li>Premium Semi-Glossy Paper 2 280</li> </ul> </li> <li>Coated paper: <ul style="list-style-type: none"> <li>Heavyweight Coated Paper HG 145 gsm</li> </ul> </li> </ul>

Item		specifi atio	
Media Feed and Output	Maximum stacking number of delivered prints	<p>*stacker basket Position: 1 sheet Under the condition below: 10 sheets</p> <ul style="list-style-type: none"> <li>· Environment: n/n (23°C, 50%)</li> <li>· Image: CAD (coverage)</li> <li>· Media: Plain Paper (Premium Plain Paper, standard Plain Paper 2)</li> <li>· Media size (width × length): A1 594 × 841 mm</li> </ul> <p>*Except when media is curled</p> <p>stacking Position stacking sheets: 20 sheets under the conditions of 1' below 100 sheets under the conditions of 1' and 2' below</p> <p>*Except when media is curled</p> <ul style="list-style-type: none"> <li>· Environment: n/n (23°C, 50%)</li> <li>· Image:CAD (coverage)</li> <li>· Position</li> </ul> <p>1: Folding position Media: Plain Paper (Premium Plain Paper, standard Plain Paper 2) Media size (width × length): ARCh D 610×914 mm (24" × 36") A1 594 × 841 mm</p> <p>1': Folding position Media: Uncoated Paper (Oce Redlabel75) Media size (width × length): ARCh D 610 × 914 mm (24" × 36") A1 594 × 841 mm</p> <p>2': stacking position Media:Uncoated Paper (Oce Redlabel75), Plain Paper (Premium Plain Paper, standard Plain Paper 2) Media size (width × length): ARCh C 610×457 mm (24" × 18") A2 594 × 420 mm</p>	
Media size	Roll paper (Width)	ISO	A3, A3+, A2, A1
		JIS	b4, b3, b2
		ARCh	24"
		Others	8", 10", 12", 14", 16", 17", 20" 300 mm, 500 mm, 600 mm
	Cut sheet	ISO	A4, A3, A3+, A2, A2+, A1 b4, b3, b2
		DIN	C4, C3, C2
		JIS	b4, b3, b2
		ANSI	8.5 × 11", 8.5 × 14", 11 × 17", 13 × 19", 17 × 22", 22 × 34"
		ARCh	9 × 12", 12 × 18", 18 × 24", 24 × 36"
		Photo	(20 × 24"), (18 × 22"), (14 × 17"), (12 × 16"), (10 × 12"), (10 × 15"), (8 × 10"), (16 × 20")
Poster	20 × 30", 300 × 900 mm		
Others	13 × 22"		
Media Thickness	Roll paper	0.07 to 0.8 mm	
	Cut sheet		
Maximum Outside Diameter of Roll Paper		170 mm or less	
Media Core size		Internal diameter of roll core: 2", 3"	
Media Width	Roll paper	203.2 to 610 mm	
	Cut sheet	203.2 to 610 mm	



Item		specifi atio	
Minimum Printable Paper Length		203.2 mm	
Maximum Printable Paper Length	Roll paper	18m (Varies according to the Os and application)	
	Cut sheet	1.6m (With stand)	
Margins	Reco mmended area	Roll paper	Top: 20 mm, bo om: 3 mm, side: 3 mm
		Cut sheet	Top: 20 mm, bo om: 20 mm, side: 3 mm
	Printable area	Roll paper	Top: 3 mm, bo om: 3 mm, side: 3 mm
		Roll paper (borderless print)	Top: 0 mm, bo om: 0 mm, side: 0 mm
	Cut sheet	Top: 3 mm, bo om: 20 mm, side: 3 mm	
borderless Printing	Media Width	[Reco mmended] 515 mm (JIs b2), 594 mm (IsO A1), 10", 14", 17", 24" [Printable] 257 mm (JIs b4), 297 mm (IsO A3), 329 mm (IsO A3+), 420 mm (IsO A2), 8", 12", 16", 20", 300 mm, 500 mm, 600 mm	

## TX-3000

Item		Specifi atio
Model		TX-3000
Class		36"
Ink Type		Five-color pigment inks (MBK, BK, C, M, Y)
Maximum Print Resolutio		2400 × 1200dpi
Installatio		User installatio
Product Durability		25,000sheets of A0 size (No maintenance) 100,000sheets of A0 size (With service maintenance) Printing onditions: 12.5% × 3 olor (CMY) + 6.8% (MBK) + 5.7% (BK) = 50% Duty Canon Coated Paper HG, standard mode
Stand	Type	Assembly type
	Installatio	User installatio
Dimensions W × D × H (mm), Weight (kg) (Unit)	Main Unit + Stand + Basket	1390 × 984 × 1168 mm (Basket Opened: Position1) 1390 × 766 × 1168 mm (Basket Closed) Weight: 105 kg (Including Roll Holder Set, excluding ink and print head)
	Main Unit + Roll Unit + Stand + Basket	Weight: 124 kg (Including Roll Holder Set, excluding ink and print head)
	Main Unit + Roll Unit + Stand + Stacker	1390 × 1188 × 1168 (Stacker Opened) 1390 × 1122 × 1168 (Stacker Closed) Weight: 136 kg (Including Roll Holder Set, excluding ink and print head)
Dimensions W × D × H (mm), Weight (kg) (Package)	Printer (Main unit with stand and pallet)	1606 × 903 × 1061 mm, Weight: 153 kg
	Stacker	1249 × 906 × 291 mm, Weight: 24kg
	Roll Unit	1524 × 562 × 461 mm, Weight: 26 kg
Power Supply	Input power	AC 100-240 V (50-60 Hz)
	Power consumption (Using wi ed LAN)	105 W or less
	Sleep mode (Using wired LAN)	3.6 W or less
	Sleep mode (Using all ports) <EU only-data for ErP Lot 26>	3.6 W or less
	Power off	0.3 W or less
	Default setting or the time o enter the Sleep mode <EU only-data for ErP Lot 26>	301sec
Recommended Environment		Temperature: 15 to 30°C Humidity: 10 to 80%RH (No dew condensation)
Acoustic Nois	Acoustic p essure	Operation: 51 dB(A) or les (Plain paper, line drawing, standard mode) Stand by: 35 dB(A) or less
	Acoustic p wer	Operation : 6.9 Bels or les (Plain paper, line drawing, standard mode) (Measured on ISO7779 standard)
Detector and Adjustment	Registration adju tment	Automatic, Manua
	Banding adjustment	Automatic ,Manua
	Line length adjustment	Manual
	Head slant adjustment	Automatic ,Manua
	Color calibratio	No
	Head gap adjustment	Automatic, Manual (8 l vels)
	Non-firing d tectio	Auto
	Non-firing ompensation	Auto
Roll media remaining detection functi		Barcode print, Auto

Item		Specification	
Line Accuracy		±0.1 % or less User adjustments necessary. Printing environment and media must match those used for the adjustments. CAD paper required: Plain paper, CAD tracing paper, coated paper, CAD translucent matte film only	
Memory	Standard memory	128 GB (Physical memory 2 GB)	
	Expansion slot	No	
Firmware	Languages	Printer language	
		SGRaster (Swift Graphic Raster)	
		HP-GL/2	
		HP RTL	
		PDF	Supported Version 1.7 - Not supported: Over print function, Transparent function, and some others - Not supported: The file has been set with password - Recommended: Embedded font. Use the build-in font if there is not it - List of the built-in fonts Times-Roman, Helvetica, Courier, Symbol, Times-Bold, Helvetica-Bold, Courier-Bold, ZapfDingbats, Times-Italic, Helvetica-Oblique, Courier-Oblique, Times-Bold Italic, Helvetica-Bold Oblique, Courier-Bold Oblique
		JPEG	Supported Version JFIF1.02 - Compression: Basic DCT (discrete cosine transform) - Color Mode: RGB, GrayScale - Color bit: 24bit, 8bit - Pixel: 19,200 pixel or less both vertically and horizontally *Not supported: Full function of sampling
		Job control	I/VEC
	Status reply	SNMP-MIB (Standard MIB, Canon-MIB), I/VEC, CPCA	
	Direct Print	HP-GL/2, HP RTL, PDF, JPEGF	
	Type	Flash ROM	
Update	Updated by printer panel operation Updated from USB (Utility use) Ethernet port (without Utility use)		
Operation panel	Display	LCD (3.0 inch (7.62cm) TFT color)	
	Language on operation panel	21 Languages Selectable: Japanese, English, French, German, Italian, Spanish, Brazilian Portuguese, Dutch, Polish, Russian, Simplified Chinese, traditional Chinese, Korean, Thai, Indonesian, Turkish, Czech, Danish, Swedish, Norwegian, Finnish	
Hard Disk		500 GB (Encrypted)	

Item		Specification	
Interface	USB B Port	Type	Built in (Hi-Speed USB)
		Mode	Full Speed (12 Mbit/sec), High Speed (480 Mbit/sec), Bulk transfer
		Connector type	Series B (4 pins)
	USB A Port		USB Memory (Direct Print)
	Gigabit Ethernet	Type	Built in
		Standard	IEEE 802.3 10base-T IEEE 802.3u 100base-TX/Auto-Negotiation IEEE 802.3ab 1000base-T/Auto-Negotiation IEEE 802.3x Full Duplex
		Protocol	SNMP (Canon-MIB), HTTP, TCP/IP (IPv4, IPv6), FTP
Wireless LAN	Standard	IEEE802.11n, IEEE802.11g, IEEE802.11b	
	Security	WEP (64bit, 128bit) WPA-PSK (TKIP, AES) WPA2-PSK (TKIP, AES)	
Expansion Slot		No	

## Print Head

Item		Specification
Print Head	Model	PF-06
	Type	Bubble-jet on demand
	Head configuration	6 Color integrated Type x 1 print head
	Nozzle pitch	1200dpi (2lines)
	Nozzle per chip	15,360 nozzles (MBK 5,120 nozzles, OtherColors 2,560 nozzles each)
	Droplet size	Minimum 5pl per color
	Head replacement	User replacement

## Ink Tank

Item		Specification
Ink Tank  *: printer's ink supply spec	Model	PFI-110 (160 ml), PFI-310 (330 ml), PFI-710 (700 ml)
	Supply*	Tubing system (with sub-tank)
	Sub ink tank Capacity*	Each color 30 ml
	Colors	Pigment 5 Color (MBK, BK, C, M, Y)
	Capacity	Sales use: 160 ml, 330 ml, 700 ml Starter use: 330 ml (MBK), 160 ml (BK, C, M, Y)
	Level detection	Detected by dot count and electrode (Empty)
	Smart chip	Each ink tank is equipped with EEPROM which stores its ink level

## Cutter

Item		Specification
Cutter	Model	CT-07
	Type	Automatic horizontal cutting (rotary cutter): standard
	Cutter durability (cuts)	25,000 cuts 5,000 cuts for canvas and cloth media 2,000 cuts for adhesive media
	Replacement	User replacement

## Media Handling

	Item	Specification
Media Feed and Output	Roll paper	One Roll, Front-loading, Front Output
	Added Roll Paper	One Roll, Front-loading, Front Output
	Cut sheet	Front-loading, Front Output (Manual feed using media locking lever)
	Paper path switch (roll/cut sheet)	Manually switchable by user Upper Roll/Lower Roll Automatically switchable* *Excludes at the end of roll *Excludes medias which are not available for Automatic paper loading
	Delivery direction	Face-up, Front side
	Media Take-up Unit	Dual directions rolling take-up
	Maximum stacking number of delivered prints	<ul style="list-style-type: none"> <li>▪ Multiposition Batch</li> </ul> <p>Standard position: 1 sheet Flat position: A2 landscape, glossy paper 10 sheets or less, coated paper 20 sheets or less, plain paper 20 sheets or less</p> <p>(Excludes strong curled condition *Operability confirmed media as follows.</p> <p>Glossy paper:</p> <ul style="list-style-type: none"> <li>Luster Photo Paper</li> <li>Glossy Photo Paper 170gsm</li> <li>Satin Photo Paper 170gsm</li> <li>Glossy Photo Paper HG 170</li> <li>Semi-Glossy Photo Paper HG 170</li> <li>Glossy Photo Paper 200gsm</li> <li>Satin Photo Paper 200gsm</li> <li>Glossy Photo Paper 240gsm</li> <li>Satin Photo Paper 240gsm</li> <li>Glossy Photo Paper HG 255</li> <li>Semi-Glossy Photo Paper HG 255</li> <li>Premium RC Photo Luster, 10mil</li> <li>Premium Glossy Paper 2 280</li> <li>Premium Semi-Glossy Paper 2 280</li> </ul> <p>Coated paper:</p> <ul style="list-style-type: none"> <li>Heavyweight Coated Paper HG 145gsm</li> </ul>

Item		specifi atio								
Media Feed and Output	Maximum stacking number of delivered prints	<p>*stacker basket Position: 1 sheet Under the condition below: 10 sheets</p> <ul style="list-style-type: none"> <li>· Environment: n/n (23°C, 50%)</li> <li>· Image: CAD (color)</li> <li>· Media: Plain Paper (Premium Plain Paper, standard Plain Paper 2)</li> <li>· Media size (width × length): A0 841 × 1189mm A1 594 × 841mm</li> </ul> <p>*Except when media is curled</p> <p>stacking Position stacking sheets: 20 sheets under the conditions of 1' below 100 sheets under the conditions of 1' and 2' below</p> <p>*Except when media is curled</p> <p>Environment: n/n (23°C, 50%) Image: CAD (color) Position</p> <p>1: Folding position Media: Plain Paper (Premium Plain Paper, standard Plain Paper 2) Media size (width × length): ARCh E 914×1219 mm (36" × 48") A0 841×1189mm ARCh D 610×914 mm (24" × 36") A1 594×841 mm</p> <p>1': Folding position Media: Uncoated Paper (Oce Redlabel75) Media size (width × length): ARCh E 914 × 1219 mm (36" × 48") A0 841×1189 mm ARCh D 610 × 914 mm (24" × 36") A1 594 × 841 mm</p> <p>2': stacking position Media: Uncoated Paper (Oce Redlabel75), Plain Paper (Premium Plain Paper, standard Plain Paper 2) Media size (width × length): ARCh D 914 × 610 mm (36" × 24") A1 841 × 594mm ARCh C 610 × 457 mm (24" × 18") A2 594×420 mm</p>								
Media size	Roll paper (Width)	<table border="1"> <tr> <td>ISO</td> <td>A3, A3+, A2, A2+, A1, A0</td> </tr> <tr> <td>JIS</td> <td>b4, b3, b2, b1</td> </tr> <tr> <td>ARCh</td> <td>24", 30", 36"</td> </tr> <tr> <td>Others</td> <td>8", 10", 12", 14", 16", 17", 20" 300 mm, 500 mm, 600 mm, 800 mm, 1000mm</td> </tr> </table>	ISO	A3, A3+, A2, A2+, A1, A0	JIS	b4, b3, b2, b1	ARCh	24", 30", 36"	Others	8", 10", 12", 14", 16", 17", 20" 300 mm, 500 mm, 600 mm, 800 mm, 1000mm
ISO	A3, A3+, A2, A2+, A1, A0									
JIS	b4, b3, b2, b1									
ARCh	24", 30", 36"									
Others	8", 10", 12", 14", 16", 17", 20" 300 mm, 500 mm, 600 mm, 800 mm, 1000mm									

Item			Specifi atio
Media Size	Cut sheet	ISO	A4, A3, A3+, A2, A2+, A1, A0 B4, B3, B2, B1
		DIN	C4, C3, C2, C1, C0
		JIS	B4, B3, B2, B1
		ANSI	8.5 × 11", 8.5 × 14", 11 × 17", 13 × 19", 17 × 22", 22 × 34", 28 × 40", 34 × 44"
		ARCH	9 × 12", 12 × 18", 18 × 24", 24 × 36", 26 × 38", 27 × 39", 30 × 42", 36 × 48"
		Photo	(20 × 24"), (18 × 22"), (14 × 17"), (12 × 16"), (10 × 12"), (10 × 15"), (8 × 10"), (16 × 20")
		Poster	20 × 30", 30 × 40", 300 × 900 mm
		Others	13 × 22"
Media Thickness	Roll paper		0.07 to 0.8 mm
	Cut sheet		
Maximum Outside Diameter of Roll Paper			170 mm or less
Media Core Size			Internal diameter of roll core: 2", 3"
Media Width	Roll paper		203.2 to 917 mm
	Cut sheet		203.2 to 917 mm
Minimum Printable Paper Length			203.2 mm
Maximum Printable Paper Length	Roll paper		18 m (Varies according to the OS and application)
	Cut sheet		1.6 m
Margins	Reco mmended area	Roll paper	Top: 20 mm, Bo om: 3 mm, Side: 3 mm
		Cut sheet	Top: 20 mm, Bo om: 20 mm, Side: 3 mm
	Printable area	Roll paper	Top: 3 mm, Bo om: 3 mm, Side: 3 mm
		Roll paper (borderless print)	Top: 0 mm, Bo om: 0 mm, Side: 0 mm
Cut sheet		Top: 3 mm, Bo om: 20 mm, Side: 3 mm	
Borderless Printing	Media Width		[Recommend] 515 mm (JIS B2), 728 mm (JIS B1), 594mm (ISO A1), 841 mm (ISO A0), 10", 14", 17", 24", 36" [Printable] 257 mm (JIS B4), 297 mm (ISO A3), 329 mm (ISO A3+), 420mm (ISO A2), 8", 12", 16", 20", 30", 300mm, 500mm, 600mm, 800mm

## TX-4000

Item		Specifi atio
Model		TX-4000
Class		44"
Ink Type		Five-color pigment inks (MBK, BK, C, M, Y)
Maximum Print Resolutio		2400 × 1200 dpi
Installatio		User installatio
Product Durability		25,000sheets of A0 size (No maintenance) 100,000sheets of A0 size (With service maintenance) Printing onditions: 12.5% × 3 olor (CMY) + 6.8% (MBK) + 5.7% (BK) = 50% Duty Canon Coated Paper HG, standard mode
Stand	Type	Assembly type
	Installatio	User installatio
Dimensions W × D × H (mm), Weight (kg) (Unit)	Main Unit + Stand + Basket	1593 × 984 × 1168 mm (Basket Opened: Position ) 1593 × 766 × 1168 mm (Basket Closed) Weight: 114 kg (Including Roll Holder Set, excluding ink and print head)
	Main Unit + Roll Unit + Stand + Basket	Weight: 134 kg (Including Roll Holder Set, excluding ink and print head)
	Main Unit + Roll Unit + Stand + Stacker	1593 × 1188 × 1168 (Stacker Opened) 1593 × 1122 × 1168 (Stacker Closed) Weight: 146 kg (Including Roll Holder Set, excluding ink and print head)
Dimensions W × D × H (mm), Weight (kg) (Package)	Printer (Main unit with stand and pallet)	1820 × 915 × 1061 mm, Weight: 165 kg
	Stacker	1464 × 906 × 291 mm, Weight: 25kg
	Roll Unit	1727 × 562 × 461 mm, Weight: 30 kg
Power Supply	Input power	AC 100-240 V (50-60 Hz)
	Power consumption (Using wi ed LAN)	107 W or less
	Sleep mode (Using wired LAN)	3.6 W or less
	Sleep mode (Using all ports) <EU only-data for ErP Lot 26>	3.6 W or less
	Power off	0.3 W or less
	Default setting or the time o enter the Sleep mode <EU only-data for ErP Lot 26>	301sec
Recommended Environment		Temperature: 15 to 30°C Humidity: 10 to 80%RH (No dew condensation)
Acoustic Nois	Acoustic p essure	Operation: 51(A) or les (Plain paper, line drawing, standard mode) Stand by: 35 dB(A) or less (Measured on ISO7779 standard)
	Acoustic p wer	Operation 6.9 Bels or less (Plain paper, line drawing, standard mode) (Measured on ISO7779 standard)
Detector and Adjustment	Registration adju tment	Automatic, Manua
	Banding adjustment	Automatic, Manua
	Line length adjustment	Manual
	Head slant adjustment	Automatic, Manua
	Color calibratio	No
	Head gap adjustment	Automatic, Manual (8 l vels)
	Non-firing d tectio	Auto
	Non-firing ompensation	Auto
Roll media remaining detection functi		Barcode print, Auto



Item		Specification	
Line Accuracy		±0.1 % or less User adjustments necessary. Printing environment and media must match those used for the adjustments. CAD paper required: Plain paper, CAD tracing paper, coated paper, CAD translucent matte film onl	
Memory	Standard memory	128 GB (Physical memory 2GB)	
	Expansion slot	No	
Firmware	Languages	Printer language	SGRaster (Swift Graphic Raster)
		HP-GL/2	
		HP RTL	
		PDF	Supported Version 1.7 - Not supported: Over print function, Transparent function, and some others - Not supported: The file has been set with password - Recommended: Embedded font. Use the build-in font if there is not it - List of the built-in fonts Times-Roman, Helvetica, Courier, Symbol, Times-Bold, Helvetica-Bold, Courier-Bold, ZapfDingbats, Times-Italic, Helvetica-Oblique, Courier-Oblique, Times-Bold Italic, Helvetica-Bold Oblique, Courier-Bold Oblique
	JPEG	Supported Version JFIF1.02 - Compression: Basic DCT (Discrete cosine transform) - Color Mode: RGB, GrayScale - Color bit: 24bit, 8bit - Pixel: 19,200 pixel or less both vertically and horizontally *Not supported: Full function of sampling	
	Job control	IVEC	
	Status reply	SNMP-MIB (Standard MIB, Canon-MIB), IVEC, CPCA	
	Direct Print	HP-GL/2, HP RTL, PDF, JPEG	
	Type	Flash ROM	
	Update	Updated by printer panel operation, Updated from USB (Utility use Ethernet port (Without Utility use	
Operation panel	Display	LCD (3.0 inch (7.62cm) TFT color)	
	Language on operation panel	21 Languages Selectable: Japanese, English, French, German, Italian, Spanish, Brazilian Portuguese, Dutch, Polish, Russian, Simplified Chinese, traditional Chinese, Korean, Thai, Indonesian, Turkish, Czech, Danish, Swedish, Norwegian, Finnish	
Hard Disk		500 GB (Encrypted)	

Item		Specification	
Interface	USB B Port	Type	Built in (Hi-Speed USB)
		Mode	Full Speed (12 Mbit/sec), High Speed (480 Mbit/sec), Bulk transfer
		Connector type	Series B (4 pins)
	USB A Port		USB Memory (Direct Print)
	Gigabit Ethernet	Type	Built in
		Standard	IEEE 802.3 10base-T IEEE 802.3u 100base-TX/Auto-Negotiation IEEE 802.3ab 1000base-T/Auto-Negotiation IEEE 802.3x Full Duplex
		Protocol	SNMP (Canon-MIB), HTTP, TCP/IP (IPv4, IPv6), FTP
	Wireless LAN	Standard	IEEE802.11n, IEEE802.11g, IEEE802.11b
Security		WEP (64bit, 128bit) WPA-PSK (TKIP, AES) WPA2-PSK (TKIP, AES)	
Expansion Slot		No	

## Print Head

Item		Specification
Print Head	Model	PF-06
	Type	Bubble-jet on demand
	Head configuration	6 Color integrated Type × 1 print head
	Nozzle pitch	1200dpi (2lines)
	Nozzle per chip	15,360 nozzles (MBK 5,120 nozzles, OtherColors 2,560 nozzles each)
	Droplet size	Minimum 5pl per color
	Head replacement	User replacement

## Ink Tank

Item		Specification
Ink Tank  *: printer's ink supply spec	Model	PFI-110 (160 ml), PFI-310 (330 ml), PFI-710 (700 ml)
	Supply*	Tubing system (with sub-tank)
	Sub ink tank Capacity*	Each color 30 ml
	Colors	Pigment 5 Color (MBK, BK, C, M, Y)
	Capacity	Sales use: 160 ml, 330 ml, 700 ml Starter use: 330 ml (MBK), 160 ml (BK, C, M, Y)
	Level detection	Detected by dot count and electrode (Empty)
	Smart chip	Each ink tank is equipped with EEPROM which stores its ink level

## Cutter

Item		Specification
Cutter	Model	CT-07
	Type	Automatic horizontal cutting rotary cutter): standard
	Cutter durability (cuts)	25,000 cuts 5,000 cuts for canvas and cloth media 2,000 cuts for adhesive media
	Replacement	User replacement

## Media Handling

	Item	Specification
Media Feed and Output	Roll paper	One Roll, Front-loading, Front Output
	Added Roll Paper	One Roll, Front-loading, Front Output
	Cut sheet	Front-loading, Front Output (Manual feed using media locking lever)
	Paper path switch (roll/cut sheet)	Manually switchable by user Upper Roll/Lower Roll Automatically switchable* *Excludes at the end of roll *Excludes medias which are not available for Automatic paper loading
	Delivery direction	Face-up, Front side
	Media Take-up Unit	Dual directions Rolling take-up
	Maximum stacking number of delivered prints	<ul style="list-style-type: none"> <li>▪ Multiposition Baset</li> <li>Standard position: 1 sheet</li> <li>Flat position: A2 lands cape, glossy paper 10 sheets or less, coated paper 20 sheets or less, plain paper 20 sheets or less</li> <li>(Excludes strong curled condition)</li> <li>*Operability confirmed media as follows.</li> <li>Glossy paper: <ul style="list-style-type: none"> <li>Luster Photo Paper</li> <li>Glossy Photo Paper 170gsm</li> <li>Satin Photo Paper 170gsm</li> <li>Glossy Photo Paper HG 170</li> <li>Semi-Glossy PhotoPaper HG 170</li> <li>Glossy Photo Paper 200gsm</li> <li>Satin Photo Paper 200gsm</li> <li>Glossy Photo Paper 240gsm</li> <li>Satin Photo Paper 240gsm</li> <li>Glossy Photo Paper HG 25</li> <li>Semi-Glossy Photo Paper HG 255</li> <li>Premium RC Photo Luster, 10mil</li> <li>Premium Glossy Paper 2 280</li> <li>Premium Semi-Glossy Paper 2 280</li> </ul> </li> <li>Coated paper: <ul style="list-style-type: none"> <li>Heavyweight Coated Paper HG 145gsm</li> </ul> </li> </ul>

Item		specifi atio								
Media Feed and Output	Maximum stacking number of delivered prints	<ul style="list-style-type: none"> <li>▪stacker</li> <li>basket Position: 1 sheet</li> <li>Under the condition below: 10 sheets</li> <li>· Environment: n/n (23°C, 50%)</li> <li>· Image: CAD (color)</li> <li>· Media: Plain Paper (Premium Plain Paper, standard Plain Paper 2)</li> <li>· Media size (width × length): A0 841 × 1189mm A1 594 × 841mm</li> <li>*Except when media is curled</li> </ul> <p>stacking Position</p> <ul style="list-style-type: none"> <li>stacking sheets: 20 sheets under the conditions of 1' below 100 sheets under the conditions of 1' and 2' below</li> <li>*Except when media is curled</li> </ul> <ul style="list-style-type: none"> <li>· Environment: n/n (23°C, 50%)</li> <li>· Image: CAD (color)</li> <li>· Position</li> <li>1: Folding position</li> <li>Media: Plain Paper (Premium Plain Paper, standard Plain Paper 2)</li> <li>Media size (width × length): ARCh E 914 × 1219mm (36" × 48") A0 841 × 1189mm ARCh D 610 × 914mm (24" × 36") A1 594×841mm</li> <li>1': Folding position</li> <li>Media: Uncoated Paper (Oce Redlabel75)</li> <li>Media size (width × length): ARCh E 914 × 1219mm (36" × 48") A0 841 × 1189mm ARCh D 610 × 914mm (24" × 36") A1 594 × 841mm</li> <li>2': stacking position</li> <li>Media: Uncoated Paper (Oce Redlabel75), Plain Paper (Premium Plain Paper, standard Plain Paper 2)</li> <li>Media size (width × length): ARCh D 914 × 610mm (36" × 24") A1 841 × 594mm ARCh C 610 × 457mm (24" × 18") A2 594 × 420mm</li> </ul>								
Media size	Roll paper (Width)	<table border="1"> <tr> <td>IsO</td> <td>A3, A3+, A2, A1, A0</td> </tr> <tr> <td>JIs</td> <td>b4, b3, b2, b1, b0</td> </tr> <tr> <td>ARCh</td> <td>24", 30", 36"</td> </tr> <tr> <td>Others</td> <td>8", 10", 12", 14", 16", 17", 20", 42", 44", 300mm, 500mm, 600mm, 800mm, 1000mm</td> </tr> </table>	IsO	A3, A3+, A2, A1, A0	JIs	b4, b3, b2, b1, b0	ARCh	24", 30", 36"	Others	8", 10", 12", 14", 16", 17", 20", 42", 44", 300mm, 500mm, 600mm, 800mm, 1000mm
IsO	A3, A3+, A2, A1, A0									
JIs	b4, b3, b2, b1, b0									
ARCh	24", 30", 36"									
Others	8", 10", 12", 14", 16", 17", 20", 42", 44", 300mm, 500mm, 600mm, 800mm, 1000mm									

Item		Specification	
Media Size	Cut sheet	ISO	A4, A3, A3+, A2, A2+, A1, A0 B4, B3, B2, B1, B0
		DIN	C4, C3, C2, C1, C0
		JIS	B4, B3, B2, B1, B0
		ANSI	8.5 × 11", 8.5 × 14", 11 × 17", 13 × 19", 17 × 22", 22 × 34", 28 × 40, 34 × 44"
		ARCH	9 × 12", 12 × 18", 18 × 24", 24 × 36", 26 × 38", 27 × 39", 30 × 42", 36 × 48"
		Photo	(20 × 24"), (18 × 22"), (14 × 17"), (12 × 16"), (10 × 12"), (10 × 15"), (8 × 10"), (16 × 20")
		Poster	20 × 30", 30 × 40", 42 × 60", 44 × 62", 300 × 900 mm
		Others	13×22"
Media Thickness	Roll paper	0.07 to 0.8 mm	
	Cut sheet		
Maximum Outside Diameter of Roll Paper		170 mm or less	
Media Core Size		Internal diameter of roll core: 2", 3"	
Media Width	Roll paper	203.2 to 1118 mm	
	Cut sheet	203.2 to 1118 mm	
Minimum Printable Paper Length		203.2 mm	
Maximum Printable Paper Length	Roll paper	18 m (Varies according to the OS and application)	
	Cut sheet	1.6 m	
Margins	Recommended area	Roll paper	Top: 20 mm, Bottom: 3 mm, Side: 3 mm
		Cut sheet	Top: 20 mm, Bottom: 20 mm, Side: 3 mm
	Printable area	Roll paper	Top: 3 mm, Bottom: 3 mm, Side: 3 mm
		Roll paper (Borderless print)	Top: 0 mm, Bottom: 0 mm, Side: 0 mm
		Cut sheet	Top: 3 mm, Bottom: 20 mm, Side: 3 mm
Borderless Printing	Media Width	[Recommended] 515 mm (JIS B2), 728 mm (JIS B1), 1030 mm (JIS B0), 594 mm (ISO A1), 841 mm (ISO A0), 10", 14", 17", 24", 36", 42", 44" [Printable] 257 mm (JIS B4), 297mm (ISO A3), 329 mm (ISO A3+), 420 mm (ISO A2), 8", 12", 16", 20", 30", 300mm, 500mm, 600mm, 800mm, 1000mm	

## 1-4. Special Notes

### Notes on Servicing

#### Service mode login

- When the printer is started up in the service mode, printing other than internal printing (nozzle check pattern, adjustment patterns, etc.) cannot be performed.
- The operations of the functions in the user mode when the printer is started up in the service mode are out of operation guarantee. To use the functions of the user mode, be sure to start the printer up in the user mode.

#### When starting the printer up/turning it off

Do not disconnect the power cord while starting the printer up and turning it off. (It takes approx. 2 minutes and approx. 40 seconds respectively to start the printer up and to turn it off).

#### When executing PCB replacement mode

Some data is not restored even the PCB replacement mode is executed after the main PCB is replaced. For details, see [7-3. PCB Replacement Mode](#).

#### When using the printer at high altitude

If the printer is used at a high altitude (approx. 2,000 meters or higher), streaks or faint printing may occur periodically (every two or three months).

In such cases, occurrence of the phenomenon can be reduced or prevented by System Cleaning at a shorter interval.

However, System Cleaning consumes a larger amount of ink than regular Cleaning, and System Cleaning at a shorter interval will consume more ink than at regular interval in total. Consider them when changing the frequency of System Cleaning.

#### How to reset the printer's media information to default

The method of resetting the media information in the printer to default is to restore the default media information file<sup>\*1</sup> (backup file) by using the application software, Media Configuration Tool.

<sup>\*1</sup>: For details on the default media information file (backup file), refer to the Service Information "QDR-12E-7029." (The revised version adding TX series will be issued at a later date).

For reference:

Examples when the printer's media information needs to be reset to default:

- When a user asks how to recover his/her printer's default media information including customized media information
- To reset the media information of the leased printers
- To refurbish printers

## Notes on Lithium Battery (for Germany)

### When replacing or discarding the lithium battery

A lithium battery is installed in the printer. Be cautious of the following:

At repair:

Risk of explosion if battery is replaced by an incorrect type.

Explosionsrisiko, falls Batterie nicht mit vorgeschriebenem Batterietypus ersetzt wird.

At disposal:

Dispose of used batteries according to the local regulations

Batterieentsorgung gemäss lokalen Vorschriften.

When the Service Manual issued by CINC is localized, be sure to include the above cautions ( t repair and disposal) in German.

## MECHANISM

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## 2-1. Main Unit Configuration

### 2-1-1. Main Unit Configuration

#### Paper feed mechanism

It is the mechanism of loading, feeding and ejecting the roll paper or cut sheet (manual feed).

The feature of this printer is as follows.

#### • Paper feed:

The paper is fed from the Roll Unit (the Upper Roll Unit and the Lower Roll Unit\*) in feeding.


To feed the paper is switched automatically by utilizing the Paper Entry Sensor in the Paper Feed Roller part, the Roll Paper Entry Sensor in the upper/Lower Roll Unit, and the active roll brake unit.

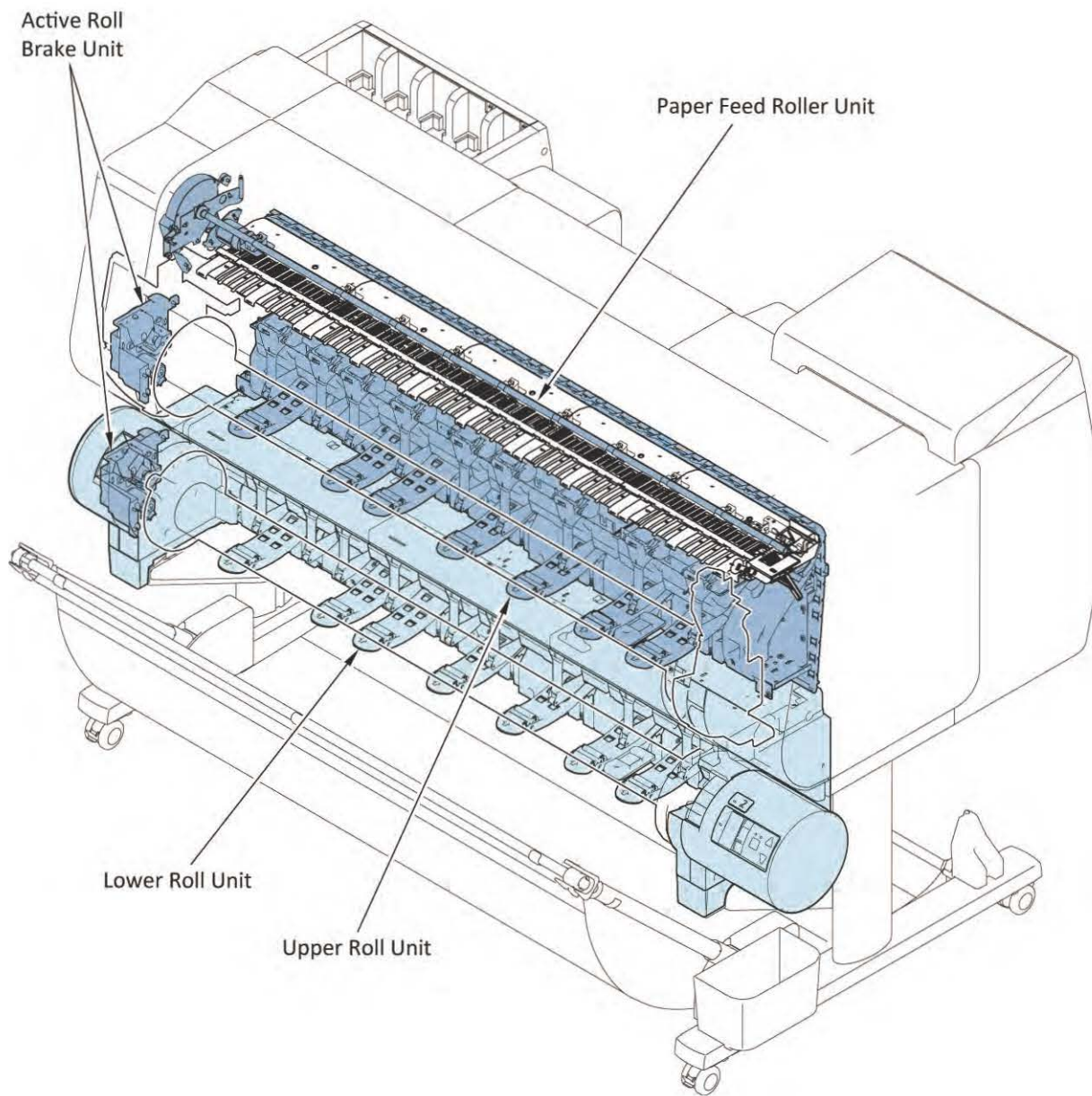
In addition, to improve accuracy in feeding the roll paper, the torque in the Active Roll Brake Unit is controlled.

\*: The Lower Roll Unit is the option

#### • Paper ejection:

In addition to ejecting paper to the output stacker, take-up paper ejection to the Lower Roll Unit is newly adopted. In the take-up paper ejection, the outward and inward take-up paper ejections are available. By utilizing the Active Roll Unit, the weight is no longer needed.

	<p>▪ <b>Active roll brake unit</b> Function of the active roll brake unit is as follows.</p> <p>- <b>To improve roll paper feed accuracy:</b> Torque change caused by such as the roll paper diameter, the weight, and the slack (caused by the back tension change) is controlled, and accuracy in feeding the paper is improved in printing</p> <p>- <b>To feed roll paper:</b> When the roll paper is installed, feeding the roll paper and switching the Upper and Lower Roll Paper is automatically performed.</p> <p>- <b>To take-up roll paper:</b> By monitoring the torque change and rolling up the paper in an appropriate timing, the weight is no longer needed.</p>
---	---



### Ink Supply Mechanism

Ink inside the Ink Tank is supplied to the Print Head through the ink supply tube.

Ink is supplied to the Print Head by utilizing the water-head-difference, or by the negative pressure generated from the Pump Roller Drive. When ink amount inside the Ink Tank is sufficient, you can replace the old ink tank with new one without interrupting the printing. In the current models, the initial ink filling check is executed only for the no-ejection detection units after ink is filled; however, in this printer, two kinds of the remaining ink detection pins (detecting ink-full and no-ink in the Sub Ink Tank) are adopted to this printer. Therefore a mechanism problem at the initial ink filling can be detected in early stage without wasting ink

### Purge Unit

To maintain the high quality print, maintenance of the Print Head (cleaning, Capping, wiping) is performed. The Purge Motor (to drive the purge main cam and pump roller) and wiper blade motor (to drive the Wiper Blade) are installed.

### Carriage Unit

It fixes the Print Head and ink supply tube, and moves left to right.

To reduce uneven printing, an acceleration sensor is newly adopted to this printer.

In addition, the vibration information from the acceleration sensor is utilized to strengthen the function which identifies each error (the paper jam error, the overload error and the encoder error).

### Print Head Management Sensor Unit

The nozzle check to detect the non-ejection nozzle in the Print Head is adopted.

The information of the detected non-ejection nozzle is utilized for non-ejection complementary and for recovery.

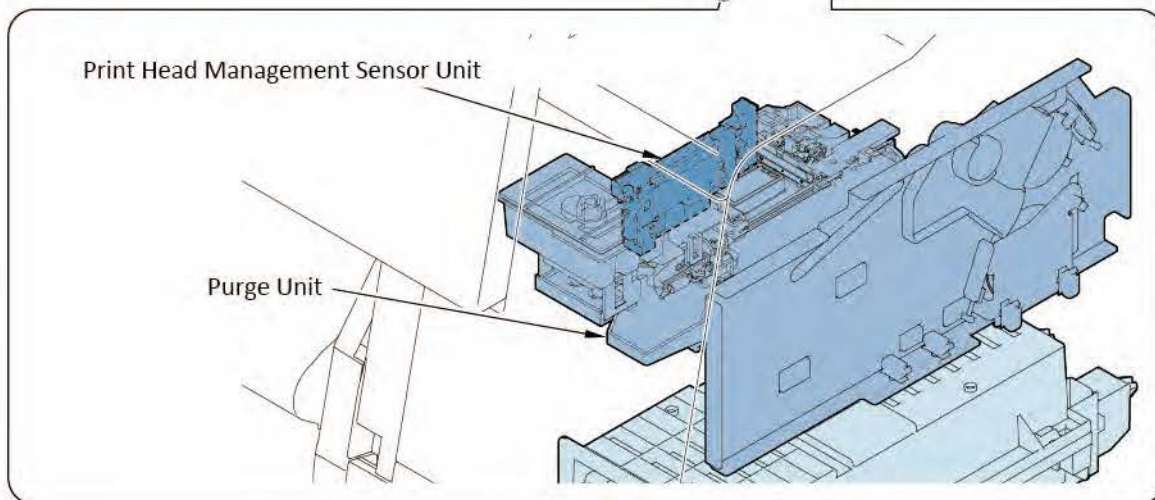
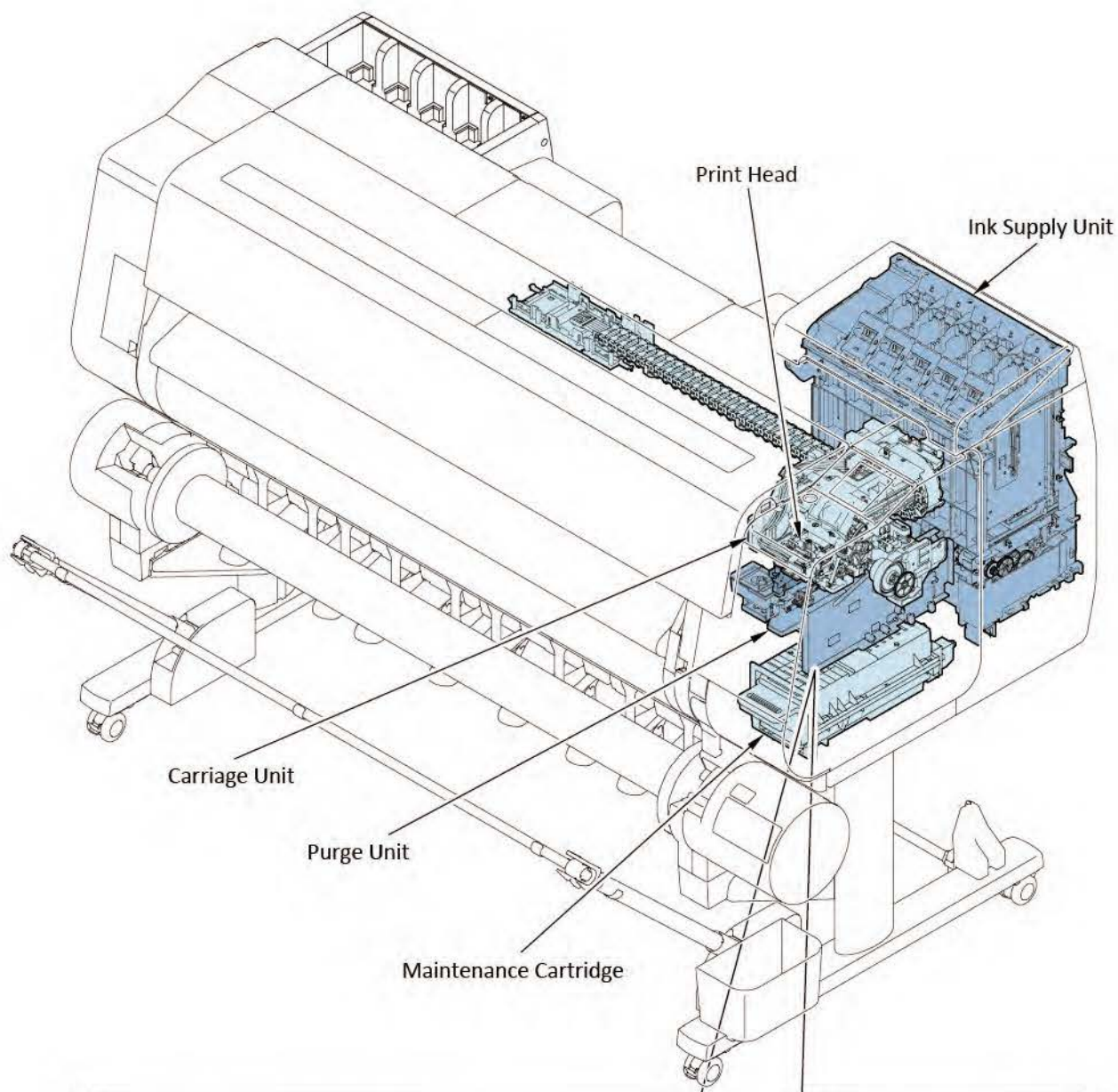
#### **Print Head:**

It receives the print signal from the main PCB, and ink from the ink supply unit is ejected.

#### **Maintenance cartridge:**

It collects ink ejected from purging and pre-printing ejection in the Purge Unit.

If the amount of collected ink recorded to the memory in the maintenance cartridge is exceeded than specified amount, an error occurs and operation is stopped.





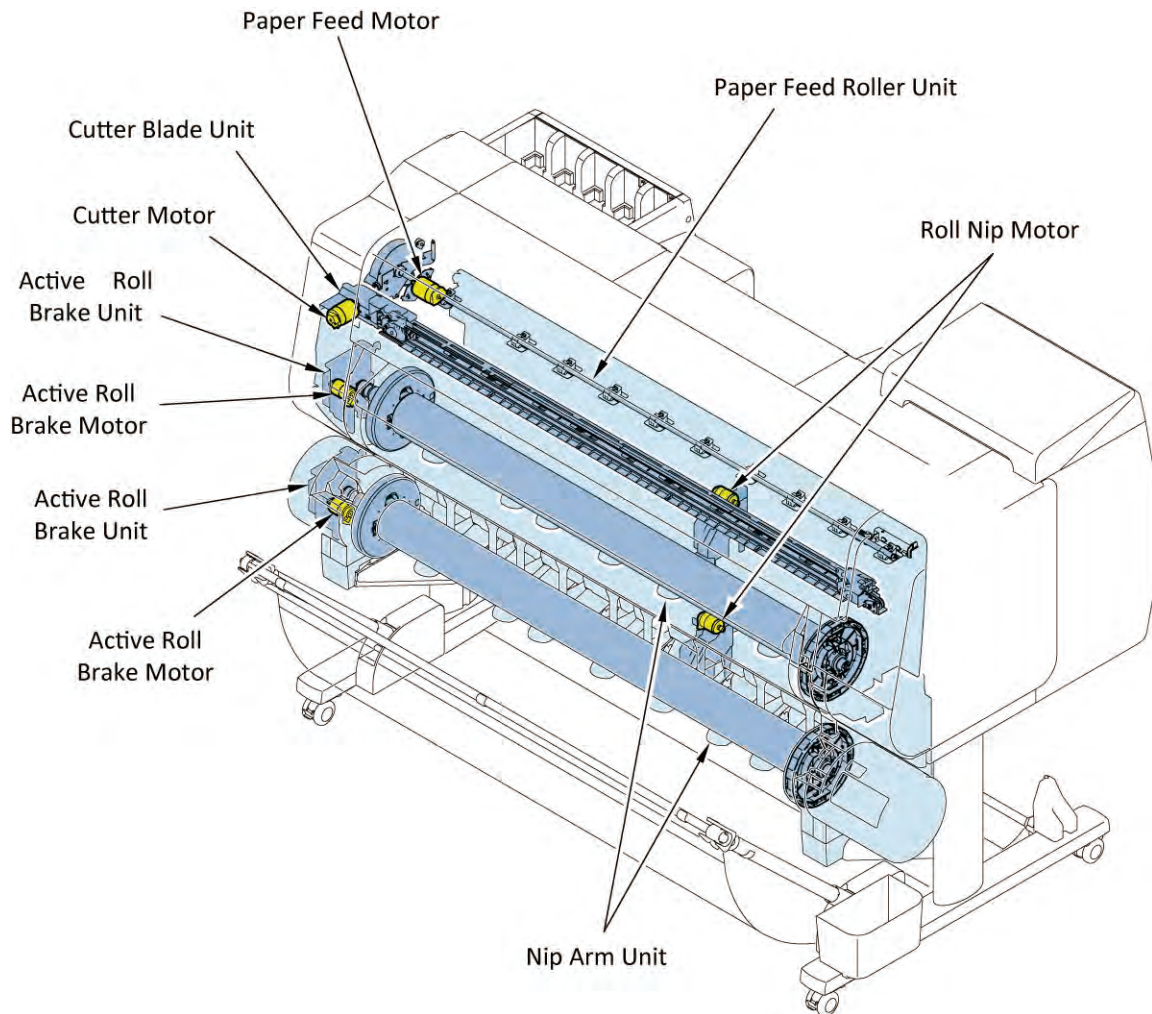
## 2-2. Operation Principle

### 2-2-1. Paper Feed Mechanism

#### 1. Configuration

In the paper feed mechanism, it consists of the Upper Roll Paper Feed Part, the Lower Roll Paper Feed Part (option), the feed roller part, and the paper ejection part. In addition, the sensors to detect the each performance and paper condition are installed.

#### Power of the paper feed mechanism:

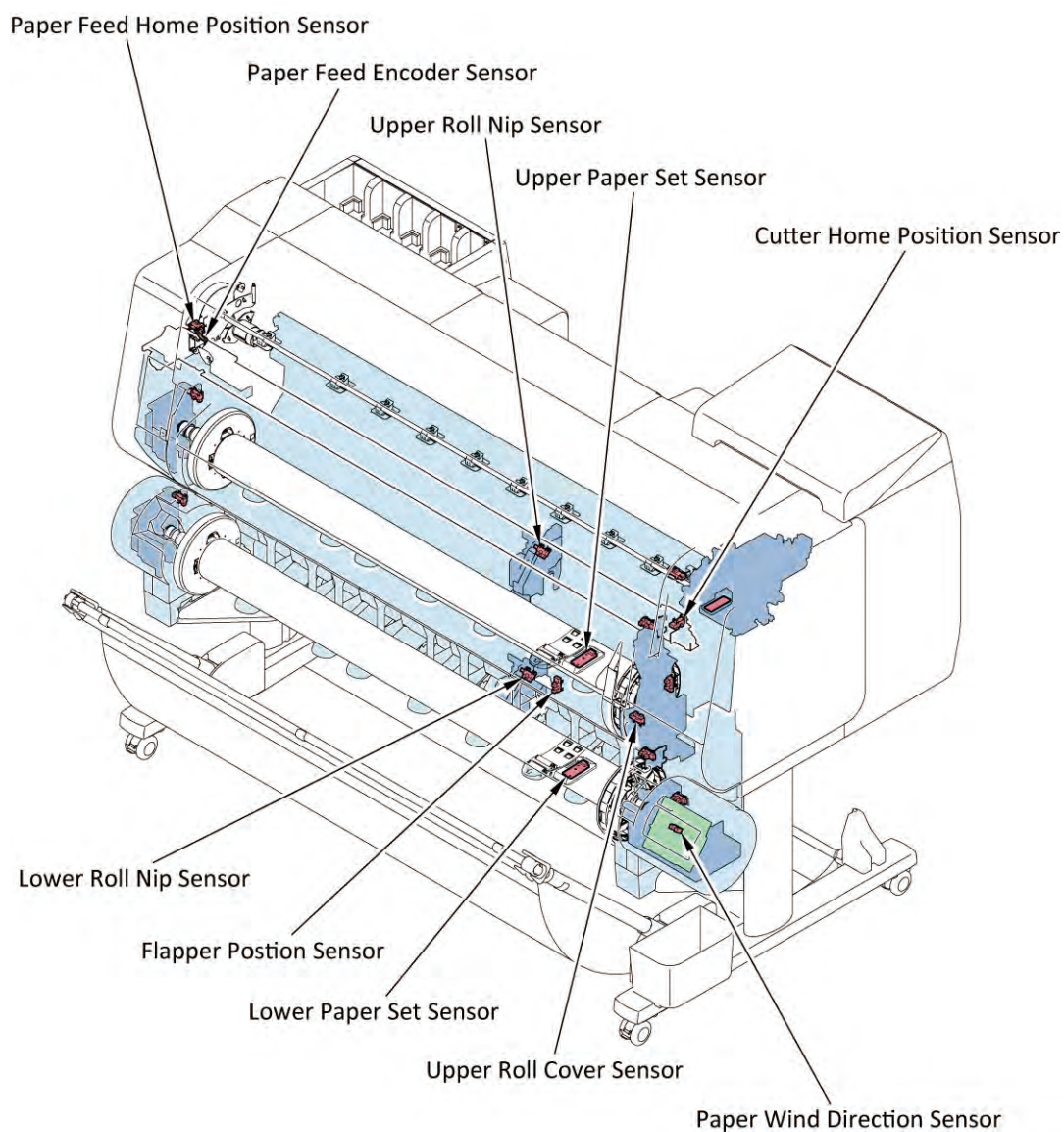


Units to be driven	Power supply source
Active Roll Brake Unit	Active Roll Brake Motor
Nip Arm Unit	Roll Nip Motor
Paper Feed Roller Unit	Paper Feed Motor
Cutter Blade Unit	Cutter Motor

## Sensor

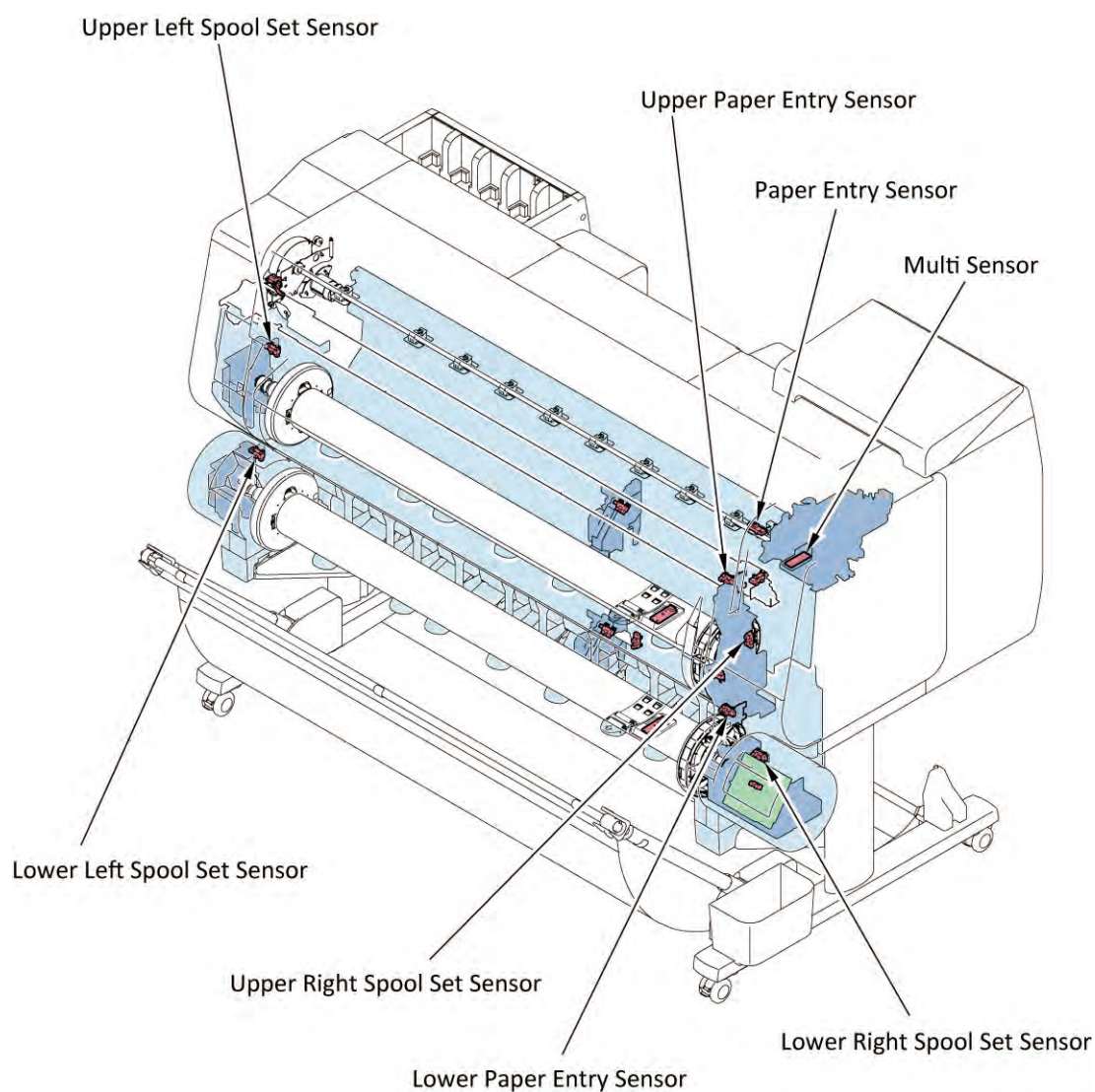
In the paper feed mechanism, two kinds of sensors, which detect the mechanism movement and position of the feeding paper, are installed to this printer.

### Sensors to detect the mechanism movement:



Name of sensor	Detectio
Paper Feed Encoder Sensor	Detects the rotation amount of the Paper Feed Roller.
Paper Feed Home Position Sensor	Detects the home position of the Paper Feed Roller.
Upper Roll Nip Sensor	Detects the roll nip arm status of the Upper Roll Unit.
Lower Roll Nip Sensor	Detects the roll nip arm status of the Lower Roll Unit.
Cutter Home Position Sensor	Detects the position of the Cutter Unit.
Upper Roll Cover Sensor	Detects the cover opening and closing in the Upper Roll Unit.
Flapper Position Sensor	Detects status of the separation flapper in the Lower Roll Unit.
Paper Wind Direction Sensor	Detects that either the inward winding or the outward winding was selected in the Lower Roll Unit.
Upper Paper Set Sensor	Detects leading edge of the Upper Roll Paper.
Lower Paper Set Sensor	Detects leading edge of the Lower Roll Paper

### Sensors to detect the paper:



Name of sensor	Detectio
Multi Senso	It is installed in the Carriage Unit, and detects the paper edge and paper width in the Carriage Unit.
Paper Entry Sensor	Detects the paper presence near the Paper Feed Roller.
Upper Paper Entry Sensor	Detects the paper presence in the Upper Roll Paper Feed Part.
Lower Paper Entry Sensor	Detects the paper presence in the Lower Roll Paper Feed Part.
Upper Right Spool Sensor	Detects the Spool Unit presence in the right side of the Upper Roll Paper Feed Part.
Upper Left Spool Senso	Detects the Spool Unit presence in the left side of the Upper roll Paper Feed Part.
Lower Right Spool Sensor	Detects the Spool Unit presence in the right side of the Lower Roll Paper Feed Part.
Lower Left Spool Senso	Detects the Spool Unit presence in the left side of the Lower Roll Paper Feed Part.



## 2. Paper feed mechanism

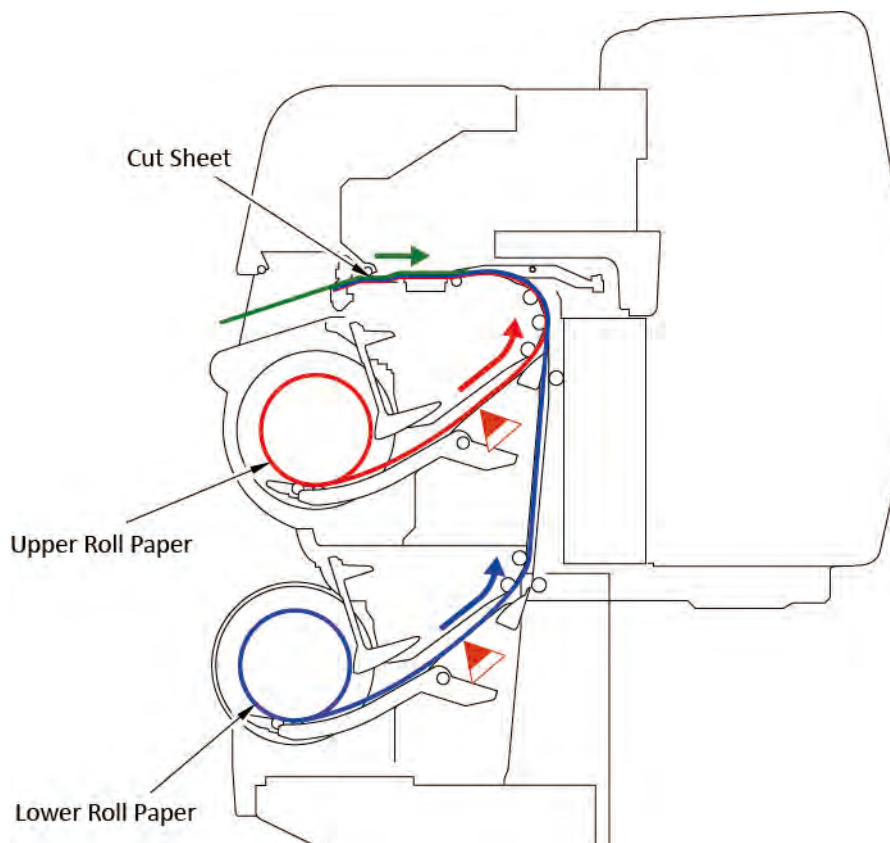
### Paper feed

In this printer, there are three ways to feed the paper as follows.

- 1) Feeds from the Upper Roll Unit.
- 2) Feeds from the Lower Roll Unit. (The Lower Roll Unit is the option.)
- 3) Feeds the cut sheet manually.

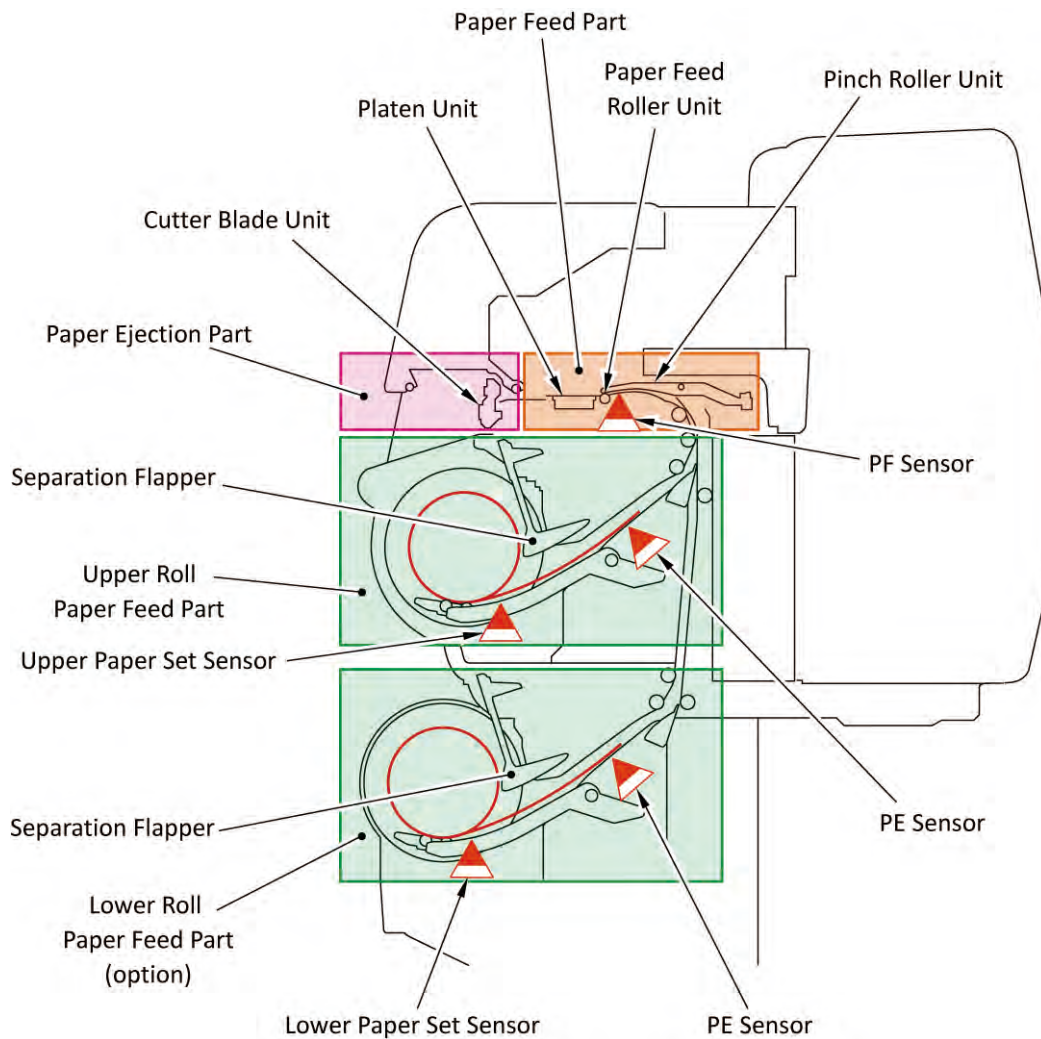
Note:

If the paper type, the size, and the rest are the same in the upper and Lower Roll Paper, then the Upper Roll Paper will be fed first.





## Roll paper feeding



### Paper separation and paper feed:

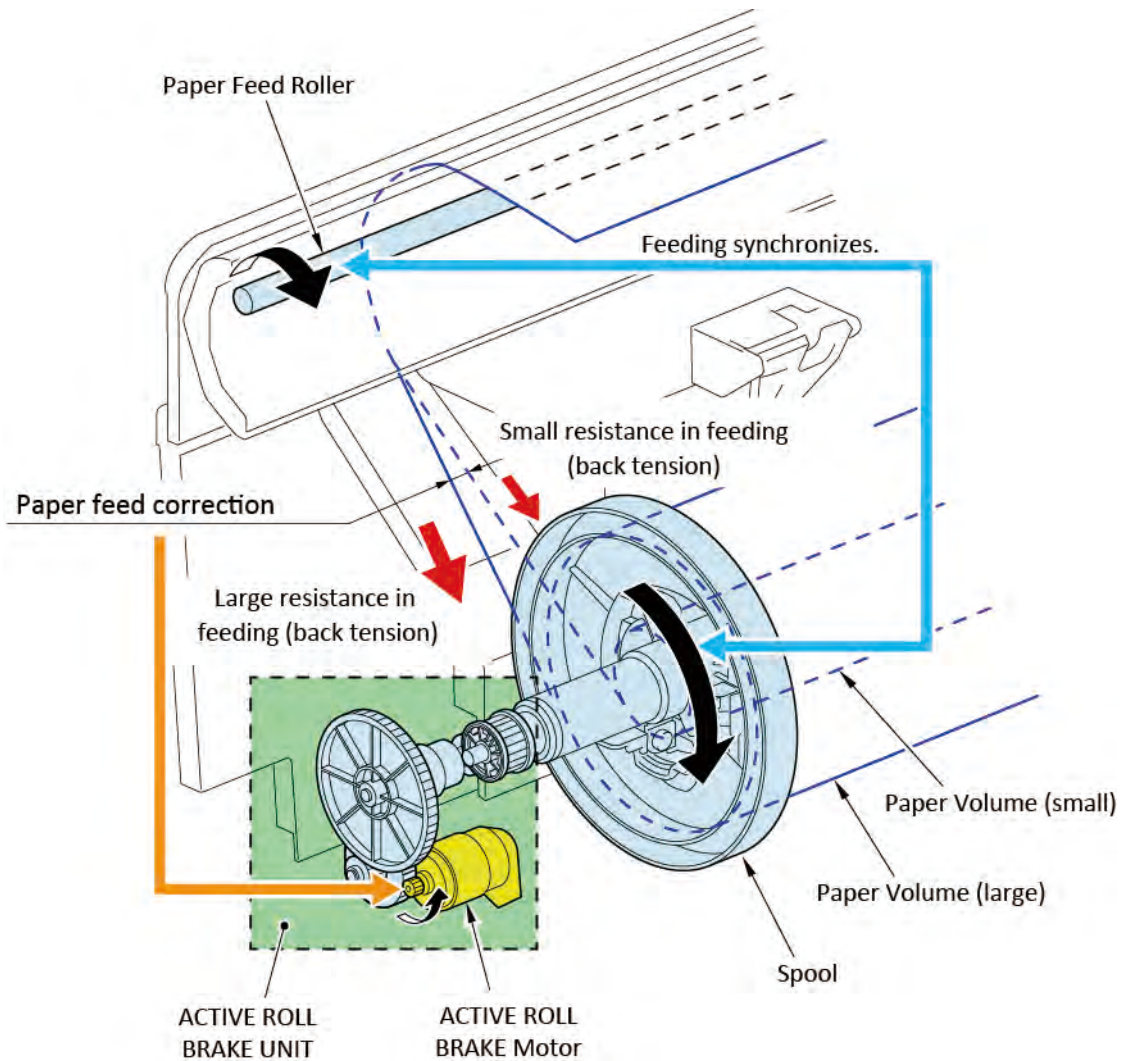
When the roll paper is rotated by the Active Roll Brake Motor, leading edge of the roll paper is separated by the separation flapper (the paper set sensor detects separation of the roll paper). To feed the roll paper, the Spool Unit is rotated while the paper is nipped by the Nip Roller. A friction force generated by the Nip Roller pressure on the roll paper is used to feed the paper.

### Paper feeding:

In feeding the roll paper, paper width and paper skew are detected by the multi sensor. In case that the paper skew or paper width needs to be corrected, the paper is repeatedly fed forward and backward by the Active Roll Brake Unit, then slack and skew on the roll paper is corrected. In feeding paper and printing, air suction is performed by the Platen Unit to prevent paper floating. In addition, to reduce uneven printing in feeding direction, the following is performed for control and correction

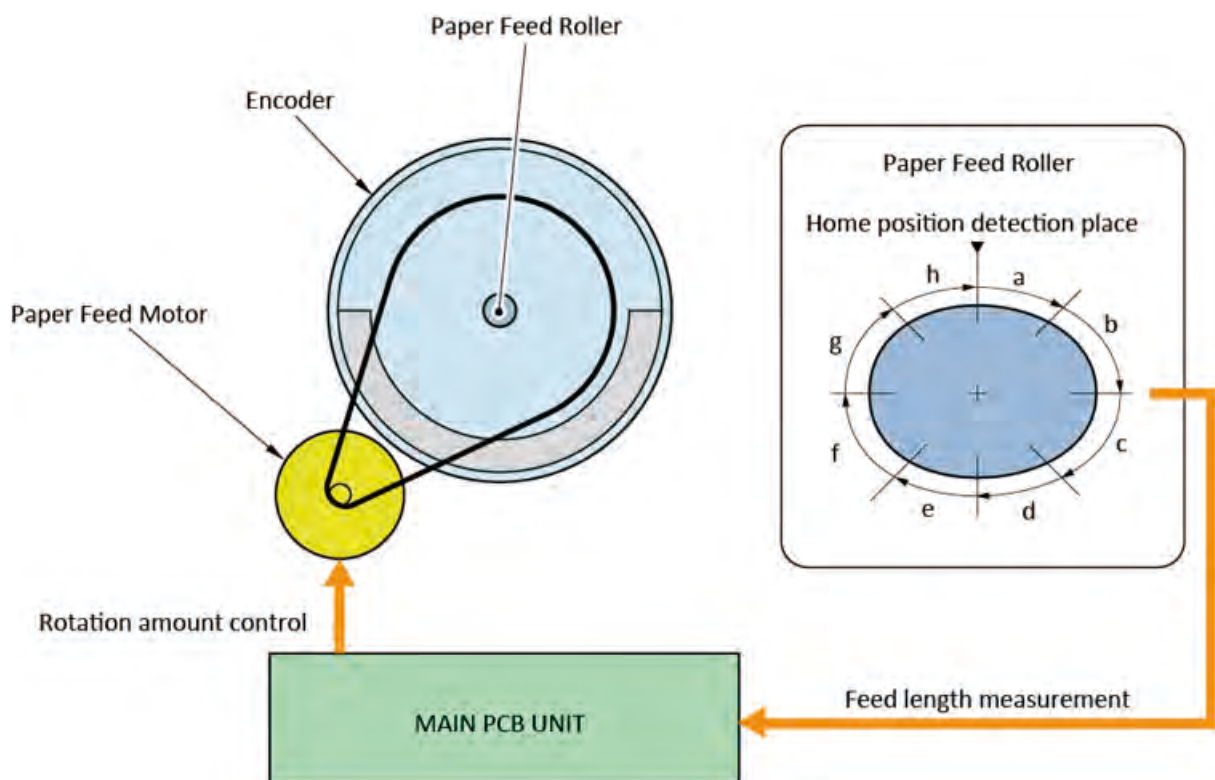
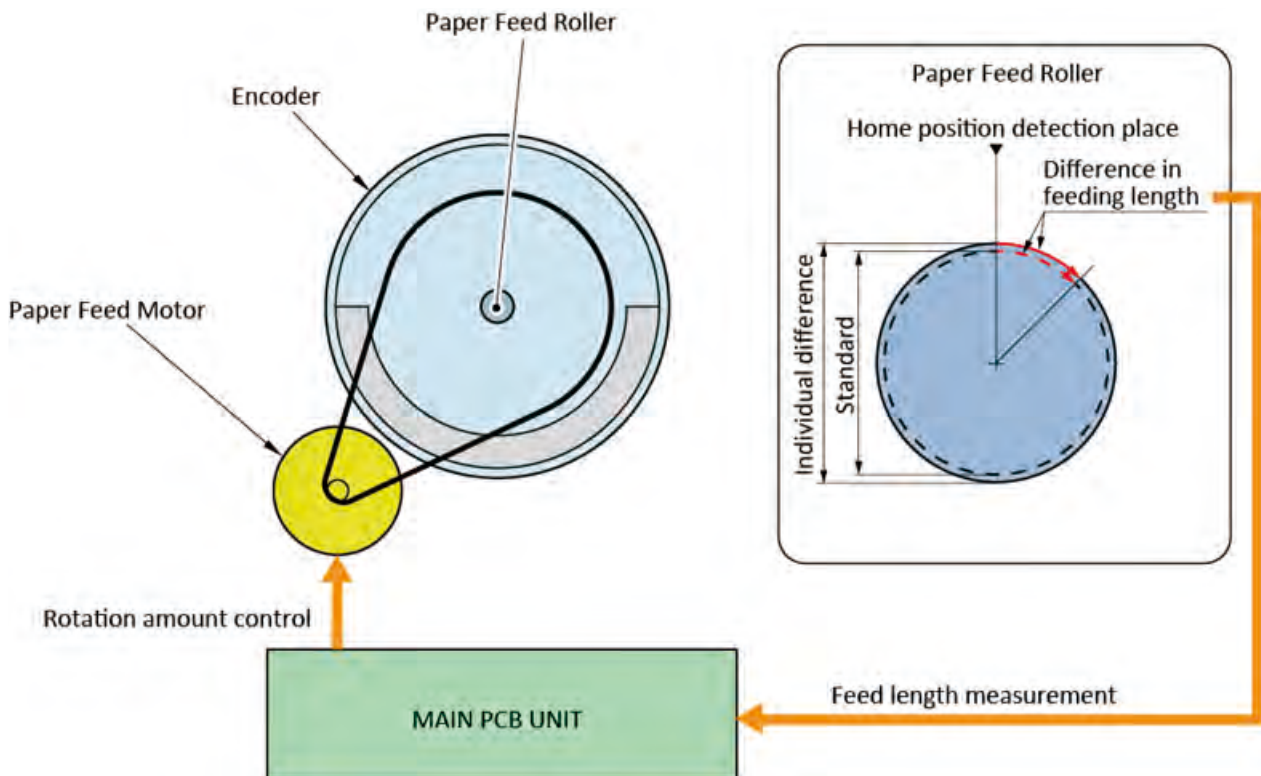
### Torque control in feeding paper:

An inertial force acts on the roll paper in feeding. The inertial force acts to the resistance direction of the feeding, or acts to the slack direction. This force is changed by the amount of paper remaining. It is detected by the Active Roll Brake Unit, and the feed length is constant by having the torque controlled.



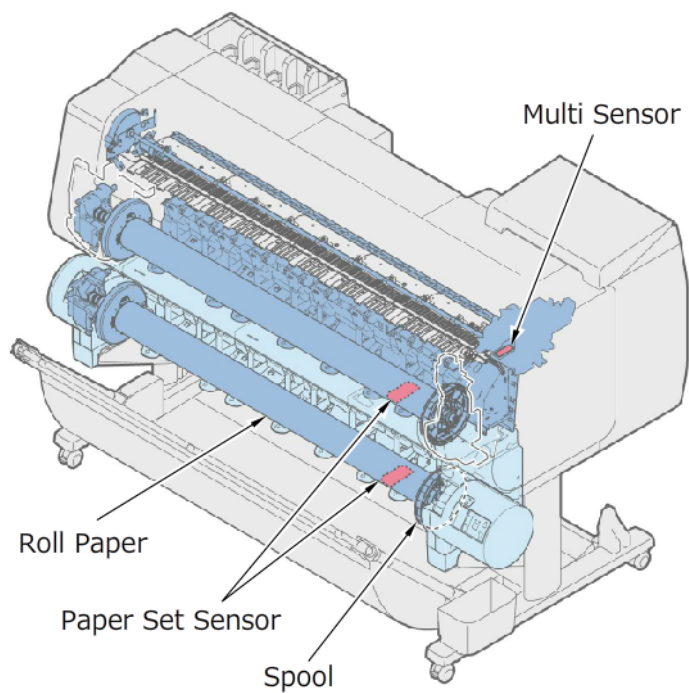
### Paper feed correction (eccentric correction):

The individual difference in size or distortion of the Paper Feed Roller will make a difference in the paper feed amount although the amount of rotation is the same. Therefore, to have the paper feed amount constant, the amount of Paper Feed Roller rotation is controlled.



### Switching the upper and Lower Roll Paper feed:

In case that the roll paper is specified to feed from another roll paper feed unit while the one roll paper has been already set onto the platen, the spool and Paper Feed Roller will be rotated in reverse direction, then the roll paper which was set first is rewound to the standby position. The roll paper which was set and specified later will be fed first.



### Paper cut:

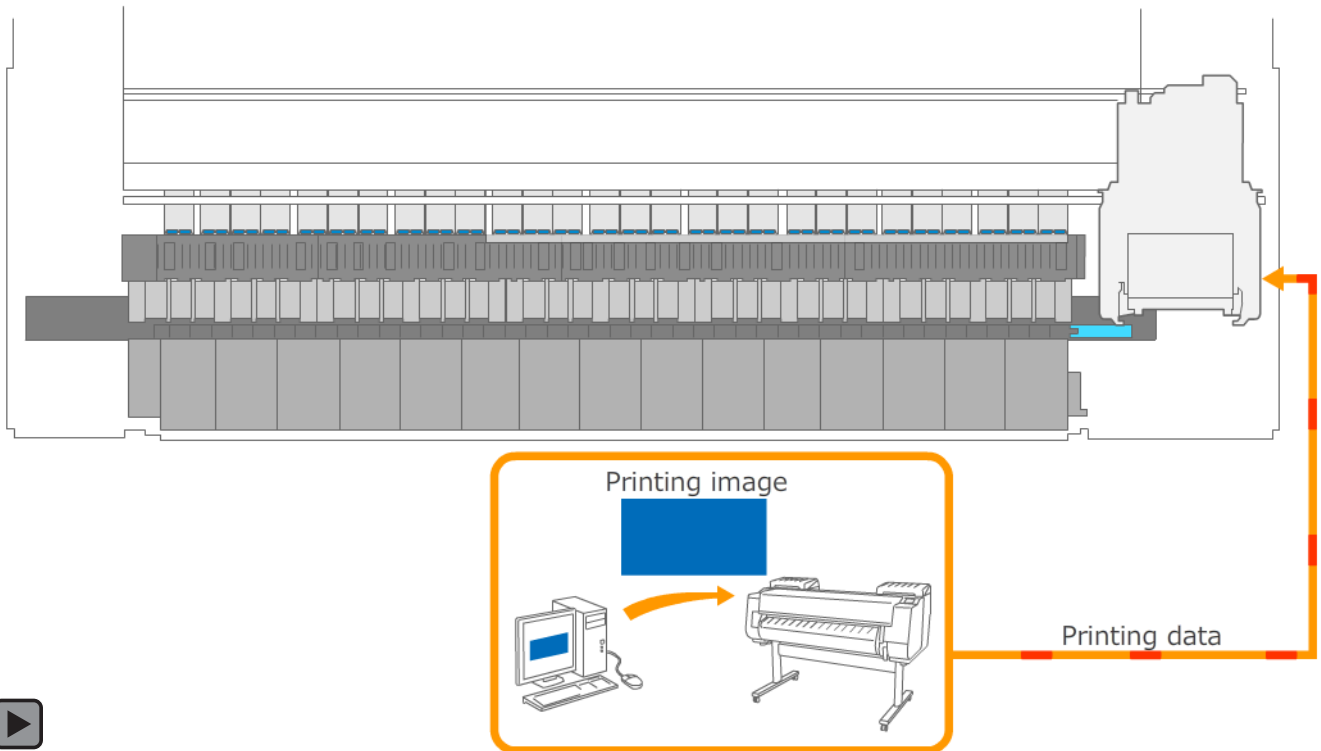
If “automatic cut” is selected as the cut mode, the roll paper is automatically cut after printed.

In addition, the pre-cut is performed in advance in the following cases.

- When the leading edge of the roll paper is not straight in feeding.
- When the borderless printing, the leading and trailing edge of the roll paper is cut.

To cut the paper straight, the amount of minimum cut is given for each paper type.

(For more details, see the user manual)





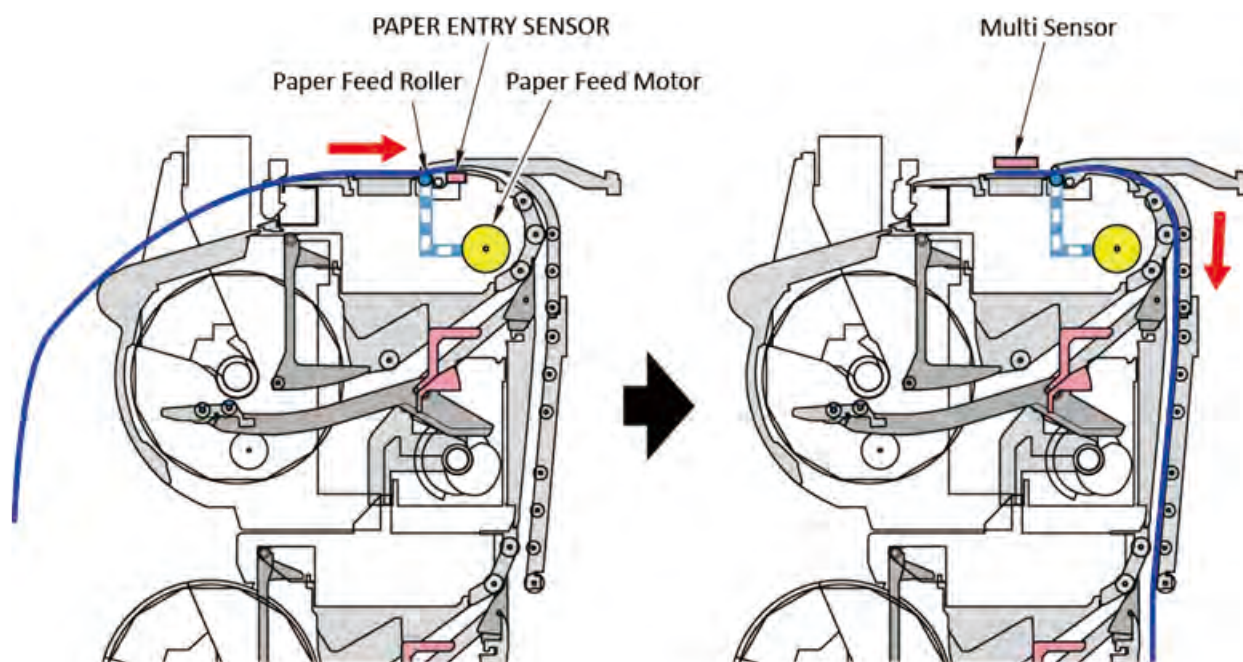
### Cut sheet feeding:

The cut sheet is usable by feeding it manually.

Flow of feeding the cut sheet is as follows:

1. Lift the release lever up to release the Paper Feed Roller and Pinch Roller.
2. Insert the cut sheet manually between the Paper Feed Roller and Pinch Roller.
3. Lower the release lever to nip the paper with the Paper Feed Roller and Pinch Roller.
4. The Paper Feed Roller is rotated in normal direction, and the paper tail edge is detected by the Paper Entry Sensor.
5. After the detection, the Paper Feed Roller is rotated in reverse direction, and the sheet is fed into the printer.
6. The sheet edge (the side of edge when printing) is detected by the multi sensor.
7. The printer becomes the standby mode.

Note: When the cut sheet is fed manually, the paper skew is not corrected.



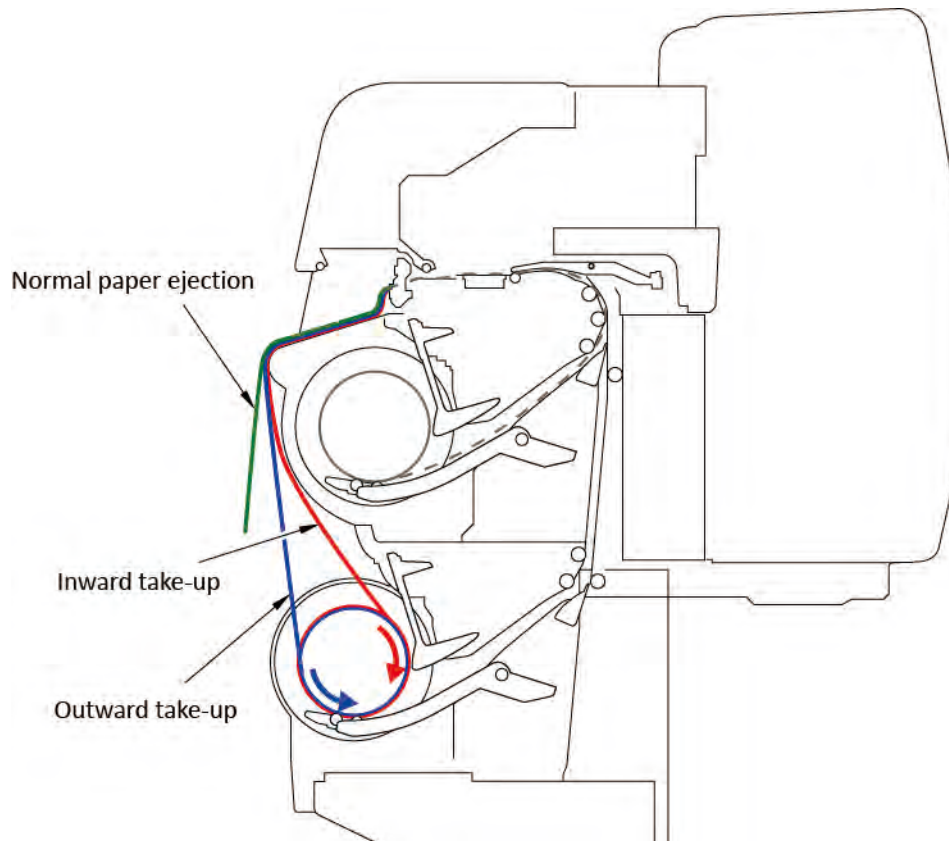
### 3. Take-up paper ejection

In this printer, there are three ways to eject the paper as follows.

- Normal ejection. (Ejects to the output stacker.)
- Outward take-up by the Lower Roll Unit.
- Inward take-up by the Lower Roll Unit.

Note:

The take-up paper ejection can be performed only when the Lower Roll Unit is installed and is set as the take-up mode.



#### Taking-up inward & outward

In addition to the outward take-up in the current models, the inward take-up is newly adopted to this printer.

In the inward take-up, the printed side comes inside. Scratches and smears on the printing face can be prevented by winding the paper toward inward when storing, transporting, and cutting.

## Taking-up

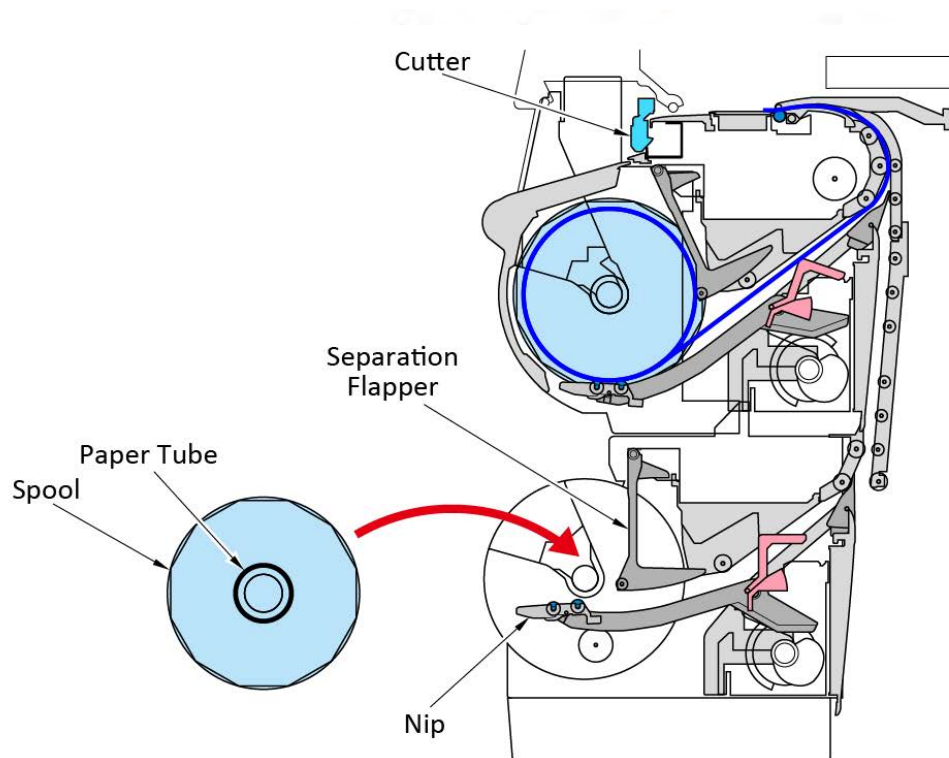
The current size of the roll core and the torque is identified and the torque is controlled, then, the tension in taking up is optimized automatically. The weight which is used in the current large size printer is no longer needed.



Tension is optimized by the Active Roll Brake Unit

## Taking-up the paper end

The nip pressure is controlled, and the paper end is rolled up automatically.  
(For more details, see the movie.)



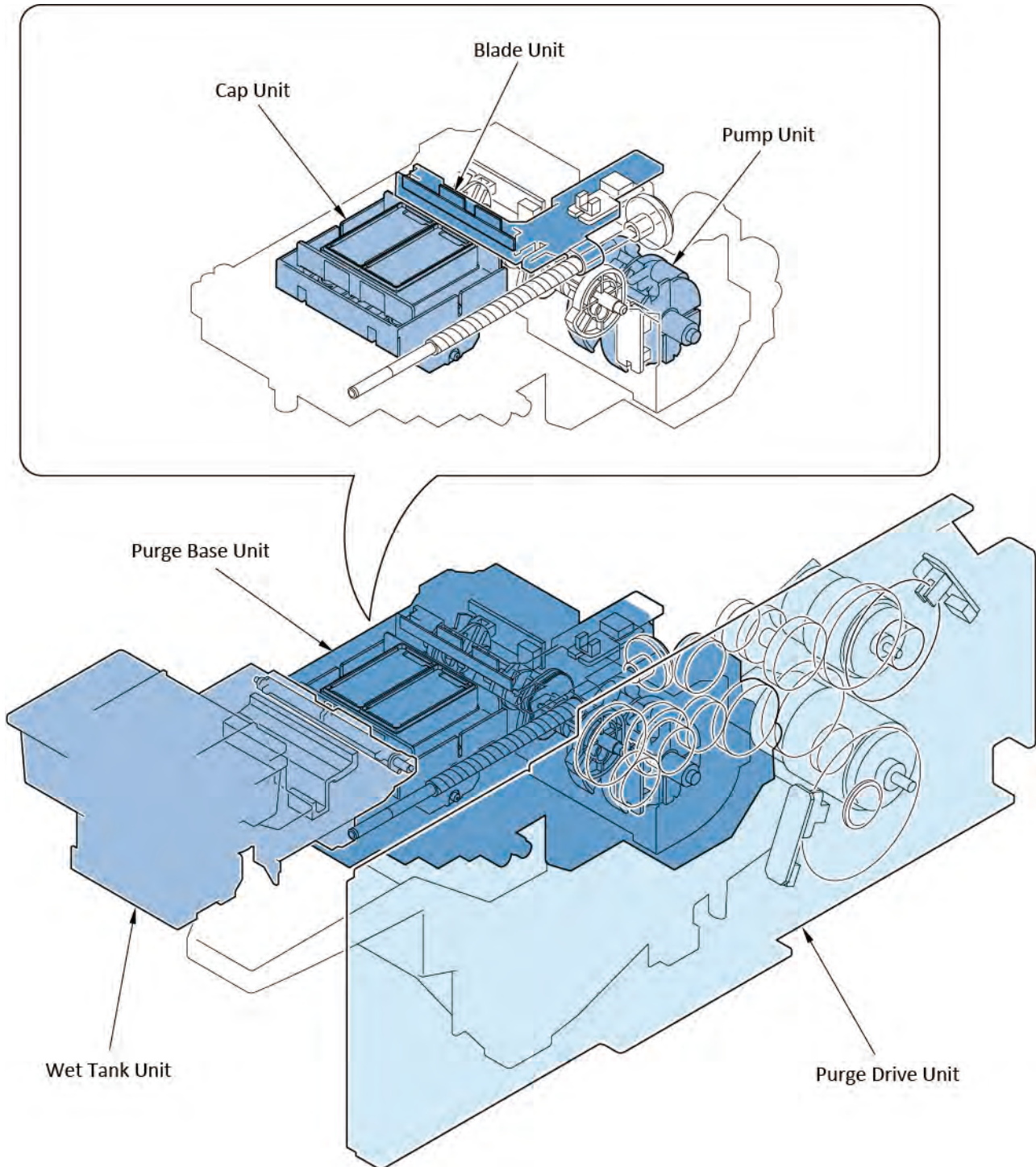


## 2-2-2. Purge Unit

### 1. Configuration

The Purge Unit consists of the Purge Base Unit, the Purge Drive Unit, and the Wet Tank Unit.

The Purge Base Unit consists of the Cap unit, the Plade Unit, and the Pump Unit.



## 2. Function of Purge Unit

The function of the Purge Unit is to perform maintenance against the Print Head nozzle (for ejecting ink) and to prevent the non-ink ejection. To be more precise, the following three maintenances are performed.

### Capping:

If the nozzles are exposed to the air, moisture of ink will get dried and ink becomes hard. To prevent this, the Print Head should be always Capped except when printing is performed.

### Cleaning:

By vacuuming ink from the nozzles, the ink flow path in the Print Head will be filled with a new ink, and dusts and bubbles are eliminated from the ink flow path.

### Wiping:

The rubber wiper wipes the Print Head surface, removing dust and ink droplet.

In the pigment-based ink model, to improve wiping, the Wiper Blade is moistened with the wet liquid (glycerin).

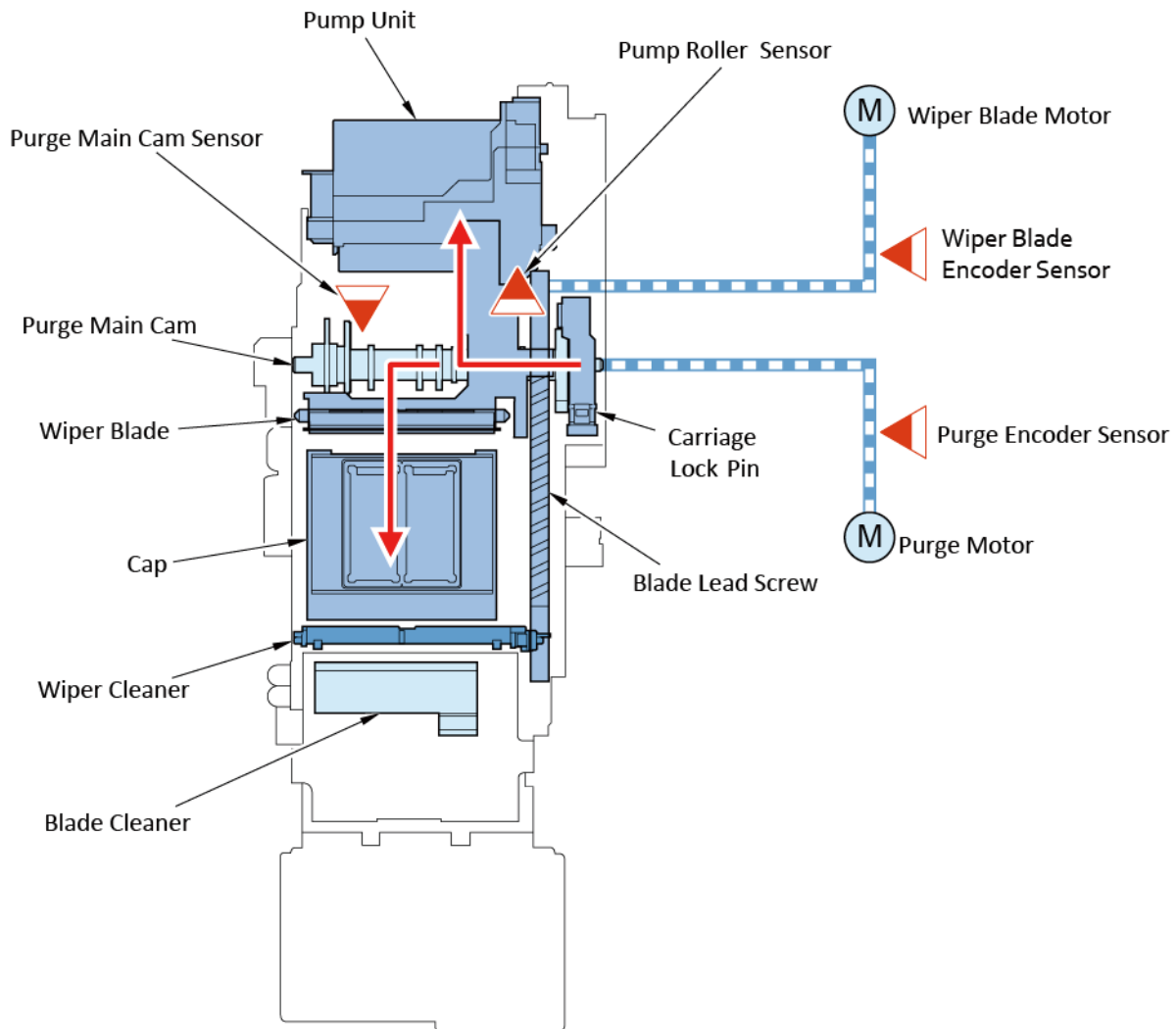
For details of purpose and operation for each maintenance, see "[4. Capping](#)", "[5. Cleaning](#)" and "[6. Wiping.](#)"

### 3. Drive power transmission & Problem detection

#### Transmission of the drive power to the Purge Unit:

The drive for the Purge Unit is supplied from the Purge Motor and Wiper Motor.

The direction of the motor rotation and performance is as follows.

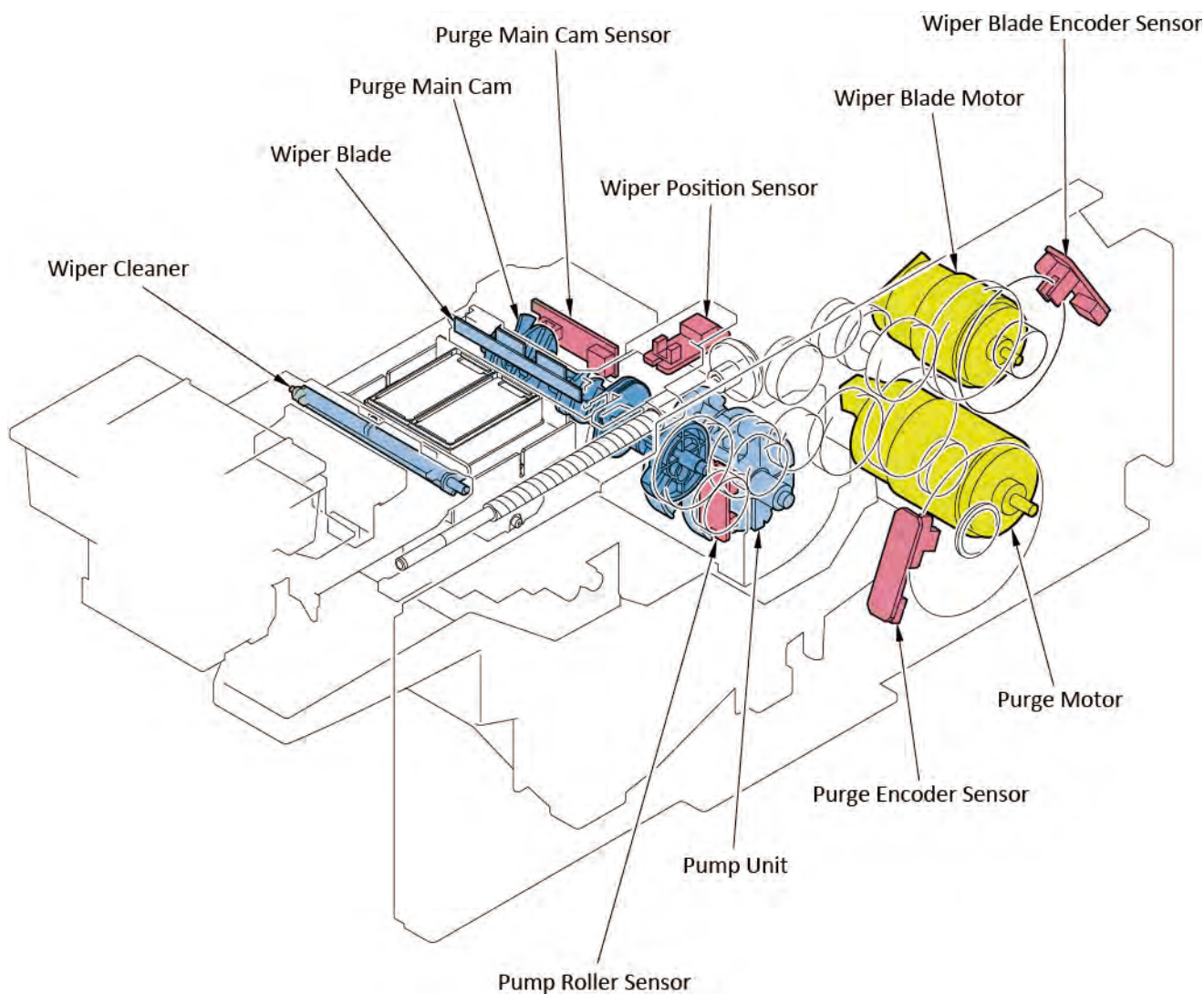


Drive Motor	Rotation Direction	Destination of Power Transmission	Performance
Purge Motor	Normal direction	Purge Main Cam	The Cap is moved up and down. The Air Valve is opened and closed. The carriage is locked and unlocked.
	Reverse direction	Pump Unit	Purging is performed.
Wiper Blade Motor	Normal direction	Blade Lead Screw	The Print Head surface is wiped off.
	Reverse direction	Blade Lead Screw	The Wiper blade is returned.

### Detection of problem:

Abnormal movement in the Purge Unit is detected by the Purge Main Cam Sensor, the Pump Roller Sensor, the Wiper Position Sensor, the Purge Encoder Sensor, and the Blade Encoder Sensor.

The function of each sensor is as follows.



Name of Sensor	Function
Purge Main Cam Sensor	By detecting rotation of the purge main cam, detects the abnormal movement of the valve in opening and closing while Capping and cleaning.
Pump Roller Sensor	By detecting rotation of the pump unit, detects the abnormal cleaning behavior.
Wiper Position Sensor	By detecting movement of wiping direction or the Wiper Blade, detects the abnormal wiping behavior.
Purge Encoder Sensor	By reading the disk film slit, detects the movement amount and speed of the Purge Motor.
Wiper Blade Encoder Sensor	By reading the disk film slit, detects the movement amount and speed of the Wiper Blade motor.



## 4. Capping

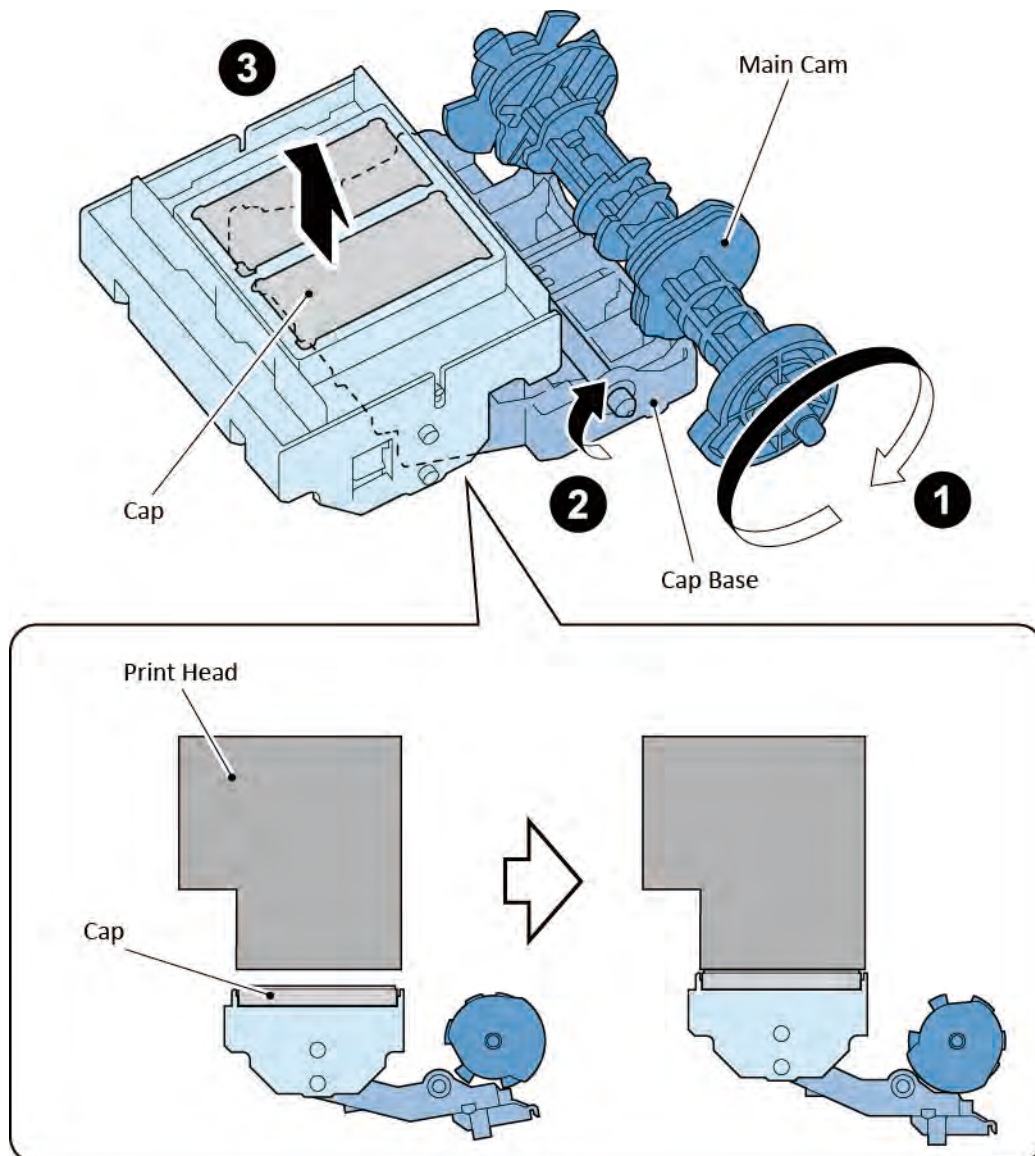
### Purpose of Capping:

To prevent clogging caused by the dried ejection slot and to prevent the print failure caused by dusts on the Print Head, the Cap in the Purge Unit and Print Head surface are attached each other tightly.

### Capping procedures:

Capping is performed in the following procedures:

- 1) The drive from the Purge Motor is transmitted to the main cam and it is rotated. ("No. 1" in the diagram below)
- 2) The Main Cam pushes up the Cap base. ("No. 2" in the diagram below)
- 3) The Cap moves up to fit to the Print Head surface. ("No. 3" in the diagram below)

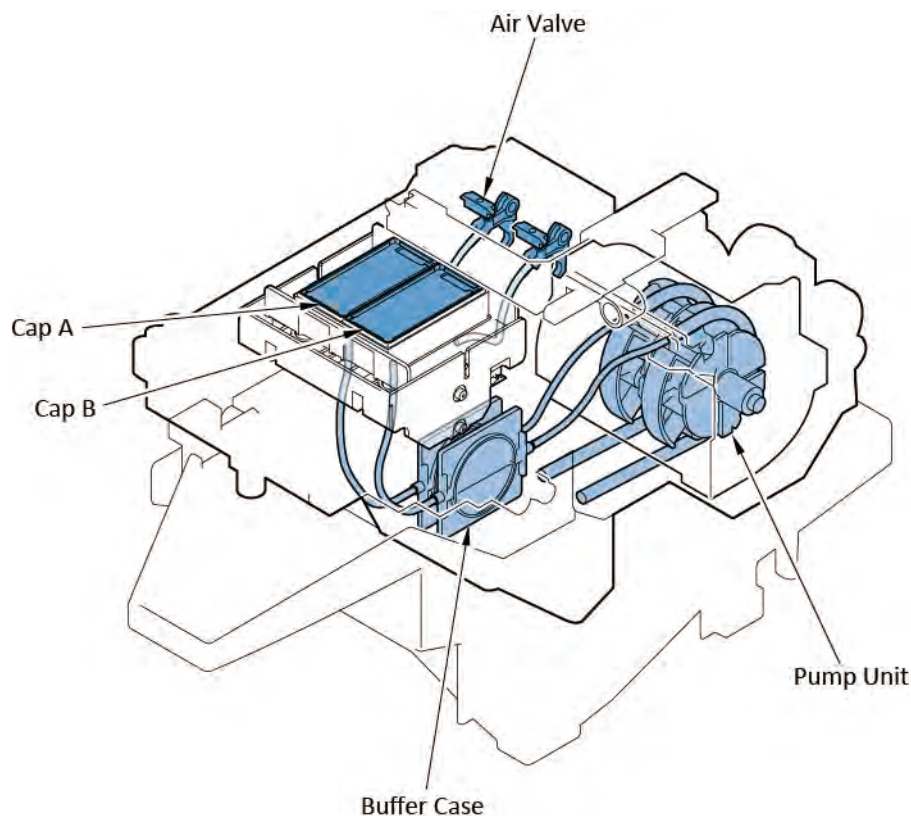


## 5. Cleaning

### Purpose of Cleaning:

By sucking out ink from the nozzles, the ink flow passage in the Print Head is filled with new ink, and eliminates the dusts and bubbles from the passage.

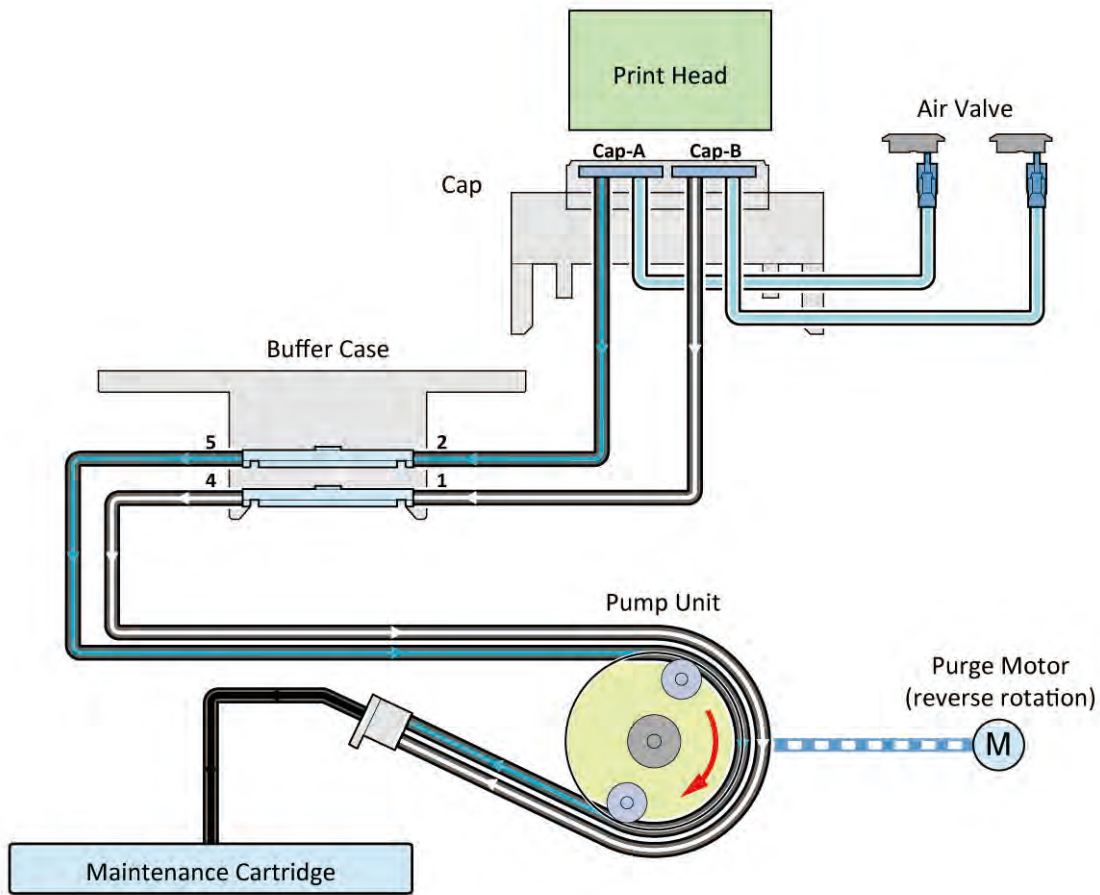
### [Configuration]



### Cleaning procedures:

- 1) The Cap is attached to the Print Head surface tightly after Capping.
- 2) The Air Valve is closed.
- 3) The Pump Unit is rotated in normal direction, and the negative pressure is generated inside the Ink Tube.
- 4) The Pump Unit is rotated in reverse direction, and the negative pressure inside the Ink Tube is released.

[Conceptual diagram of cleaning]



**Other mechanism**

To maintain good performance in the ink ejection, the pre-print ink ejection and the air intake are adopted besides the cleaning.

**Pre-printing ink ejection:**

It is a function that ejects ink to the Cap in the Purge Unit before printing or ejects ink to the Platen Absorber and Cap while printing. By performing the pre-print ink ejection, ink droplets and dusts adhering on surface of the Print Head can be removed.

**Air suction:**

It is a function that sucks ink ejected from purging and ink accumulated on the Cap from pre-ink ejection. If the amount of the ejected ink gets exceeded than specified amount, the air suction is performed to prevent ink leakage.

## Cleaning type

Domain (Indication in PRINT INF)	Cleaning Operatio	Descriptio
A-AB	Cleaning (All Cap)	Removes dried ink from nozzles, thick ink accumulated on the face, and paper particles
A-A	Cleaning (Cap-A)	
A-B	Cleaning (Cap-B)	
R-AB	Deep cleaning (All Cap)	Performs suction stronger than normal cleaning to unclog nozzles.
R-A	Deep cleaning (Cap-A)	
R-B	Deep cleaning (Cap-B)	
S-AB	System cleaning (All Cap)	Performs suction stronger than when adjusting the ink fillin amount in the Head or normal cleaning to unclog nozzles.
S-A	System cleaning (Cap-A)	
S-B	System cleaning (Cap-B)	
EX	Ink removal at the Head replacement	Drains ink to replace the Head (Drains only the ink in the Head).
H	Ink filling t the Head replacement	Performs ink filling er replacing the Head
T1	Ink removal from all ink paths before printer transport outdoors	Fills the empty tube (during installation er secondary transport) with ink, and performs normal cleaning
T2	Move indoors to a di erent floor	
T3	Move indoors on the same floo	
FI	Ink filling t the installation er printer transportatio	Fills the empty tube (during installation er secondary transport) with ink, and performs normal cleaning.
C	On arrival ink fillin	Fills the empty tube (during initial in tallation) with ink, and performs normal cleaning



## Cleaning timing and the amount of ink consumed

24" model

Printer Status	Descriptio		Domain	Ink Consumption Amou t
Initial In tallatio	At initial in tallatio	MBK	C	Approx. 180 g/one color*
		C,M,Y,BK		Approx. 140 g/one color*
Standby	70 days elapsed since last system cleaning or head replacement.		S-A	Approx. 6 g/one color
	15 days elapsed since the suction in initial i tallatio		S-B	
Power-on	Print Head is Capped.	The same as "Standby."		Approx. 6 g/one color
		S-A	S-B	
	Print Head is not Capped.	Up to 72 hours elapsed a er an abort		A-AB
Over 72 hours elapsed a er an abort		R-AB	Approx. 3 g/one color	
Before printin	The same as "Standby."		S-A S-B	Approx. 6 g/one color
A er printin	When one of chips (color) ejected approximately 200 ml since last system cleaning or the Head replacement, a er the suction t the initial in tallation		S-A S-B	Approx. 6 g/one color
When the "Head Cleaning" is executed	When "Cleaning" is selected.		A-A A-B	Approx. 1 g/one color
	When "Deep cleaning" is selected.		R-A R-B	Approx. 3 g/one color
	When "System cleaning" is selected.		S-A S-B	Approx. 6 g/one color
When the "Replace Print Head" is executed	A er head replacement		EX + H	Approx. 15 g/one color
When the "Move Printer" is executed	When "Transport outdoors" is selected.		T1	Approx. 850 g/all colors
	When "Move indoors to a di erent floo " is selected.		T2	Approx. 350 g/all colors
	When "Move indoors on the same floo " is selected.		T3	Approx. 350 g/all colors
	At reinstallation	MBK	FI	Approx. 220 g/one color
C,M,Y,BK		Approx. 150 g/one color		

\* Including the ink filled in the Ink ubes and Print Head.

36" model

Printer Status	Description		Domain	Ink Consumption Amount
Initial Installation	At initial installation	MBK	C	Approx. 180 g/one color*
		C,M,Y,BK		Approx. 140 g/one color*
Standby	70 days elapsed since last system cleaning or head replacement. 20 days elapsed since the suction in initial installation		S-A S-B	Approx. 6 g/one color
Power-on	Print Head is Capped.	The same as "Standby."	S-A S-B	Approx. 6 g/one color
	Print Head is not Capped.	Up to 72 hours elapsed after an abort	A-AB	Approx. 1 g/one color
		Over 72 hours elapsed after an abort	R-AB	Approx. 3 g/one color
Before printing	The same as "Standby."		S-A S-B	Approx. 6 g/one color
After printing	When one of chips (color) ejected approximately 200 ml since last system cleaning or the Head replacement, after the suction at the initial installation		S-A S-B	Approx. 6 g/one color
When the "Head Cleaning" is executed	When "Cleaning" is selected.		A-A A-B	Approx. 1 g/one color
	When "Deep cleaning" is selected.		R-A R-B	Approx. 3 g/one color
	When "System cleaning" is selected.		S-A S-B	Approx. 6 g/one color
When the "Replace Print Head" is executed	After head replacement		EX + H	Approx. 15 g/one color
When the "Move Printer" is executed	When "Transport outdoors" is selected.		T1	Approx. 900 g/all colors
	When "Move indoors to a different floor" is selected.		T2	Approx. 350 g/all colors
	When "Move indoors on the same floor" is selected.		T3	Approx. 350 g/all colors
	At reinstallation	MBK	FI	Approx. 240 g/one color
C,M,Y,BK		Approx. 160 g/one color		

\* Including the ink filled in the Ink tubes and Print Head.

44" model

Printer Status	Description		Domain	Ink Consumption Amount
Initial Installation	At initial installation	MBK	C	Approx. 180 g/one color*
		C,M,Y,BK		Approx. 140 g/one color*
Standby	70 days elapsed since last system cleaning or head replacement. 20 days elapsed since the suction in initial installation		S-A S-B	Approx. 6 g/one color
Power-on	Print Head is Capped.	The same as "Standby."	S-A S-B	Approx. 6 g/one color
	Print Head is not Capped.	Up to 72 hours elapsed after an abort	A-AB	Approx. 1 g/one color
		Over 72 hours elapsed after an abort	R-AB	Approx. 3 g/one color
Before printing	The same as "Standby."		S-A S-B	Approx. 6 g/one color
After printing	When one of chips (color) ejected approximately 200 ml since last system cleaning or the Head replacement, after the suction at the initial installation		S-A S-B	Approx. 6 g/one color
When the "Head Cleaning" is executed	When "Cleaning" is selected.		A-A A-B	Approx. 1 g/one color
	When "Deep cleaning" is selected.		R-A R-B	Approx. 3 g/one color
	When "System cleaning" is selected.		S-A S-B	Approx. 6 g/one color
When the "Replace Print Head" is executed	After head replacement		EX + H	Approx. 15 g/one color
When the "Move Printer" is executed	When "Transport outdoors" is selected.		T1	Approx. 900 g/all colors
	When "Move indoors to a different floor" is selected.		T2	Approx. 350 g/all colors
	When "Move indoors on the same floor" is selected.		T3	Approx. 350 g/all colors
	At reinstallation	MBK	FI	Approx. 240 g/one color
C,M,Y,BK		Approx. 160 g/one color		

\* Including the ink filled in the Ink Tubes and Print Head.

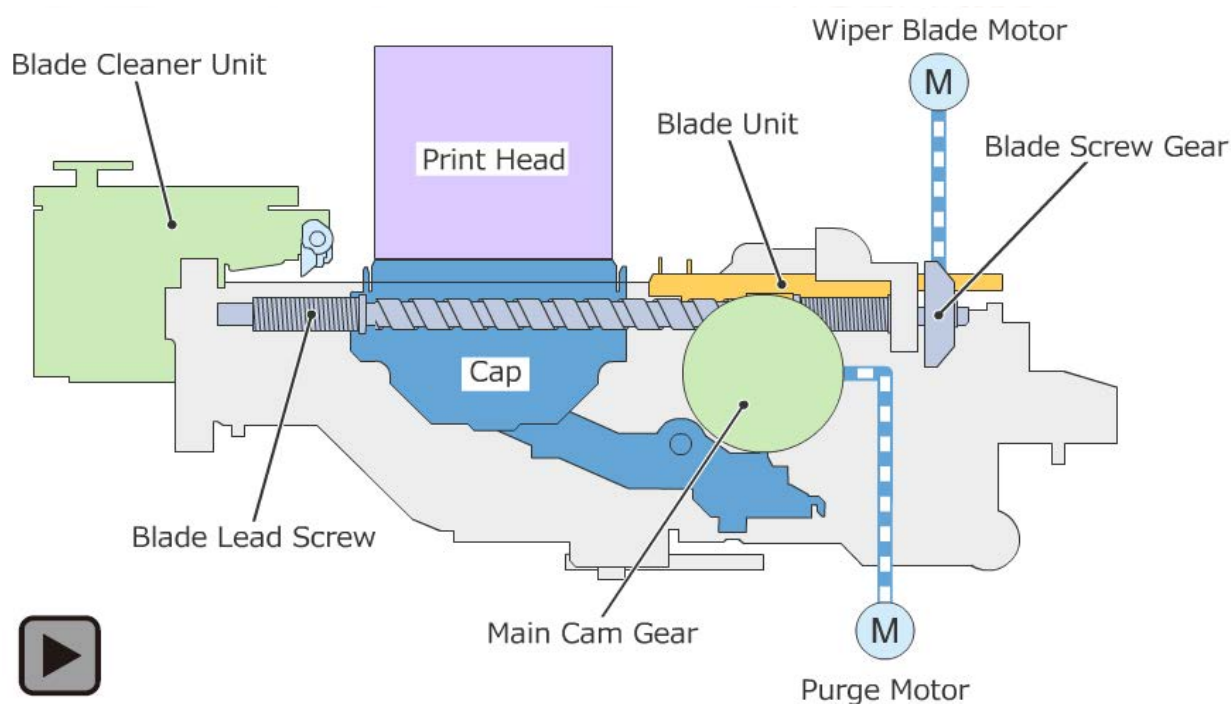
## 6. Wiping

### Purpose of Cleaning:

It is to wipe off ink droplets and dusts adhering on the surface of the Print Head with the Wiper Blade to prevent the Print Head Nozzles from clogging.

### Wiping procedures:

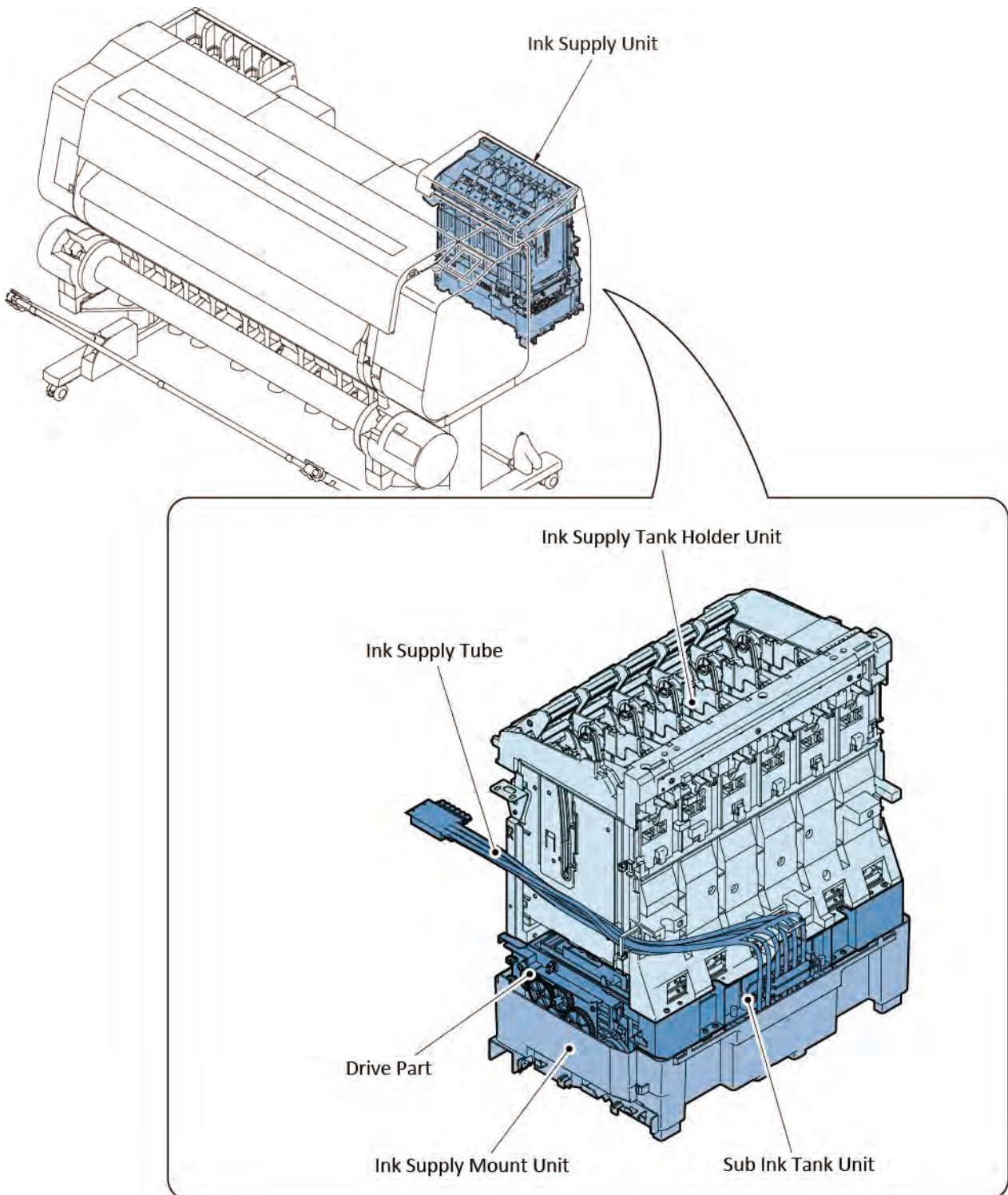
- 1) The Main Cam is rotated by the drive transmitted from the Purge Motor (normal rotation) and then the Cap gets lower.
- 2) The Lead Screw is rotated by the drive transmitted from the Wiper Blade motor (normal rotation)
- 3) The Wiper Blade is moved and wipes off the Print Head surface.
- 4) The Wiper wipes off the dusts and ink droplets adhering on the Wiper Blade with the wiper cleaner.
- 5) The wet liquid is attached to the Wiper Blade.
- 6) The Blade Unit is returned by the drive transmitted from the Wiper Blade Motor (reverse rotation)



## 2-2-3. Ink Supply Unit

### 1. Configuration

In this ink supply unit, the Ink Tank holder unit, the Sub Ink Tank unit, and the Ink Supply Mount Unit are consisted.



## 2. Function of Ink Supply Unit

### Ink supply

Ink inside the Ink Tank is supplied to the Print Head.

For detail of ink supply, see [“3. Ink supply/Agitation > Ink suppl .”](#)

### Agitation

The pigment-based ink may be settled out by leaving it for a long period. To resolve this problem, the agitation is performed.

For details of the agitation performance, see [“3. Ink supply/Agitation > Agitation performance.”](#)

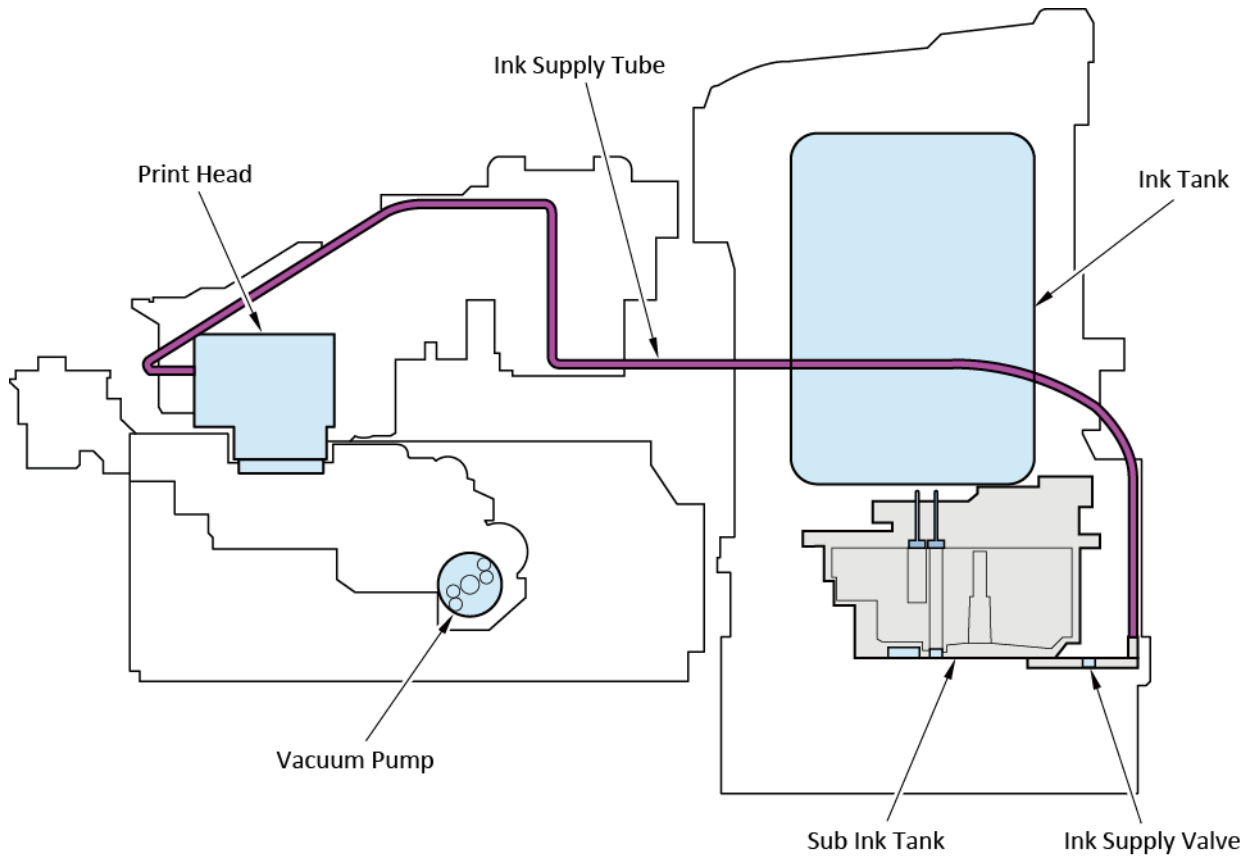
### Remaining ink management

To detect the remaining ink amount, the dot count and remaining ink detection pins are installed to this printer.

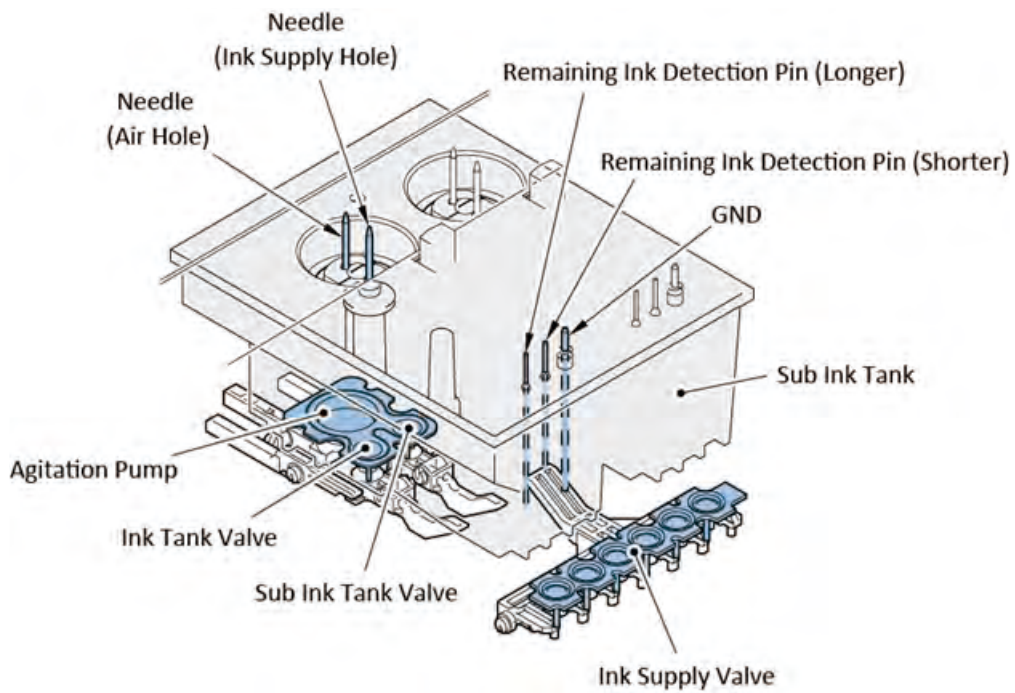
For details of the remaining ink amount management, see [“4. Drive power transmission and problem detection > Remaining ink detection”](#)

### 3. Ink supply/Agitation

[Conceptual diagram of ink supply flow]



[Detail of sub ink tank]





## Ink Supply

### 1. Process of ink supply

#### 1) Ink supply from the Ink Tank to the Ink Supply Valve:

As the Ink Tank is installed, the Ink Tank is pierced by the two needles (for supplying ink and air) in the Sub Ink Tank. When the Ink Tank valve and sub ink tank valve are opened, ink in the Ink Tank is flowed from the needle (ink supply hole) into the Ink Supply Valve via the Sub Ink Tank.

#### 2) Ink supply from the Ink Supply Valve to the Print Head:

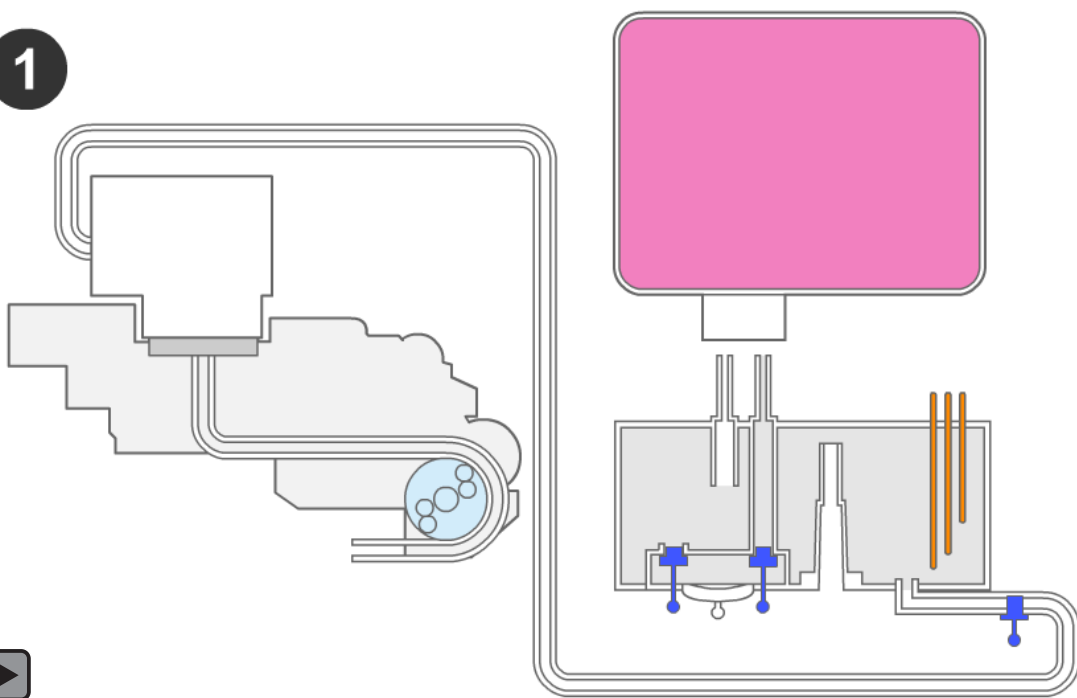
Ink is filled into the Print Head by Capping the Print Head, driving the Vacuum Pump and opening the Ink Supply Valve.

#### 3) Ink supply while printing

The Ink Supply Valve is opened while printing. Ink is supplied from the Ink Tank as ink in the Print Head is consumed. The Sub Ink Tank is installed to this printer. When ink amount remains in the Sub Ink Tank, you can replace the old ink tank with new one without interruption while printing.



1



**Mechanism of ink supply**

	Outline of performance	Ink Tank Valve	Sub Ink Tank Valve	Ink Supply Valve
1.	The Ink Tank is installed.	Opened	Opened	Opened
2.	Ink is filled from the Ink Tank into the Sub Ink Tank.	Opened	Opened	Opened
3.	The Ink Supply Valve is closed and the Vacuum Pump is rotated. (Refer to the Ink Supply Valve check) (By rotating the Purge Motor in reverse direction, the Vacuum Pump is driven.)	Closed	Closed	Closed
4.	The Ink Supply Valve is opened (Print head ink filling check) (Ink filled in the Sub Ink Tank is filled into the Print Head from the Ink Supply Valve.)	Closed	Closed	Opened
5.	The Ink Supply Valve is closed and the Vacuum Pump is rotated. (By rotating the Purge Motor in reverse direction, the Vacuum Pump is driven.)	Opened	Opened	Closed
6.	The Ink Supply Valve is opened. (The Ink Supply Valve in the Sub Ink Tank is opened, and ink is filled into the Print Head.)	Opened	Opened	Opened
7.	Filling ink to the Print Head is completed.	Opened	Opened	Opened
8.	Printing is performed. (Remaining ink amount is decreased.)	Opened	Opened	Opened
9.	Printing is continued while the Ink Tank is replaced due to no-ink.	Opened	Opened	Opened

## 2. Flow of the initial ink filling check

The remaining ink detection pins installed in the Sub Ink Tank enable the initial ink filling check precisely.

### 1) Print head installation check

If failure in installing the Print Head is detected, to check the status of the Print Head installation is prompted.

### 2) Sub ink tank ink filling check

When filling ink into the Sub Ink Tank, the remaining ink detection pin (longer) detects whether ink in the Sub Ink Tank is increasing. Then, it detects that ink has been filled from the Ink Tank to the Sub Ink Tank properly. At initial ink filling, or after ink tank replacement, if the remaining ink detection pin was not turned on although the ink amount in the Ink Tank exceeded the threshold level, an error, "Reserve tank ink filling error (231x)" occurs.

### 3) Ink supply valve check :

(Procedure "No. 3" in the description of maintenance)

After ink is filled into the Sub Ink Tank, the remaining ink detection pin (shorter) detects that ink level in the Sub Ink Tank is not decreasing while the Ink Supply Valve and ink tank valve are closed. Then, it detects whether the Ink Supply Valve is closed properly. If failure in filling ink into the Sub Ink Tank is detected by the remaining ink detection pin, an error, "Ink supply valve leak at initial ink filling (C33-402x) error" occurs.

### 4) Print head ink filling check

(Procedure No. 4 in the description of maintenance)

When the Ink Tank valve is closed and the Ink Supply Valve is opened, the Vacuum Pump in the Purge Unit is driven; then, ink level in the Sub Ink Tank becoming low is detected. In addition, detecting low ink level in the Sub Ink Tank allows the following detection

- a) If the Ink Supply Valve is opened properly.
- b) If the Cap or pump in the Purge Unit is performed properly.

After ink was filled into the Sub Ink Tank, if filling ink into the tube and Print Head had not been done properly, an error, "vacuum error at initial ink filling (C3F-402F)" occurs.

### 5) Nozzle ejection check

Non-ejection nozzles are detected by the Head management sensor.

## Agitation

It is to circulate ink for the purpose of preventing ink from settling out by leaving it for a long period. The ink agitation is performed for the predetermined time according to the elapsed time since the previous agitation. The agitation is performed about 20 minutes at a maximum. After the agitation is performed, the standing time is reset and counting is restarted.

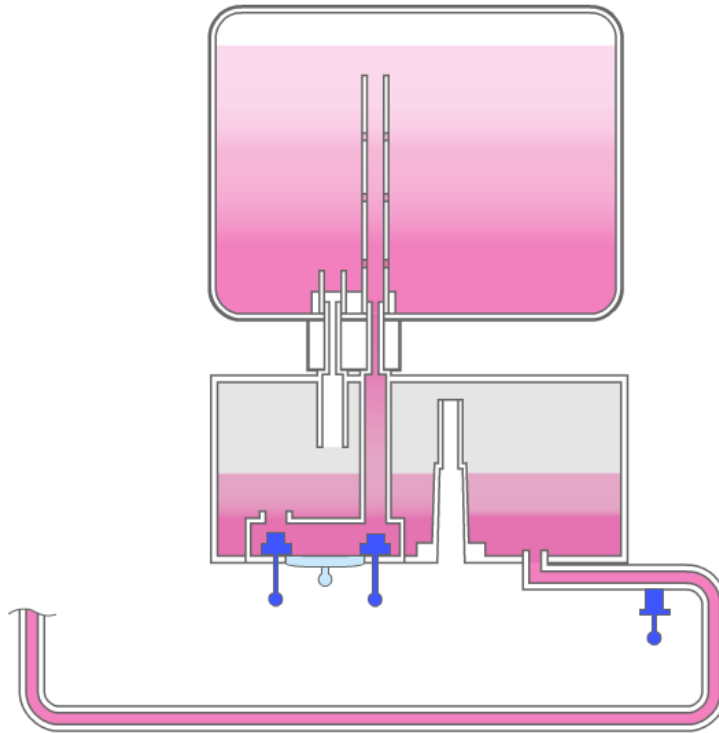
### 1) When to perform the agitation

- When the power is turned on. (Or before feeding a first page when the print job is set and the power is turned on while the auto power is turned on.)
- Recovering from sleep.
- Starting printing
- Before cleaning.

### 2) Cases that performing agitation is interrupted:

Cases	Performance of agitation after stopped
When the print job was received.	After the print job is finished, agitation is performed for the specified time
When the tank cover was opened.	After the tank cover is closed, the agitation is restarted.
When cleaning was executed.	After agitating the minimum time, cleaning is executed, and then, when the cleaning is completed, the rest of agitation is performed.
When the power source was turned off.	When the power source is ON again, the agitation is executed from the beginning, including the time that the printer had been stood since the previous power-OFF.

[Process of agitation]

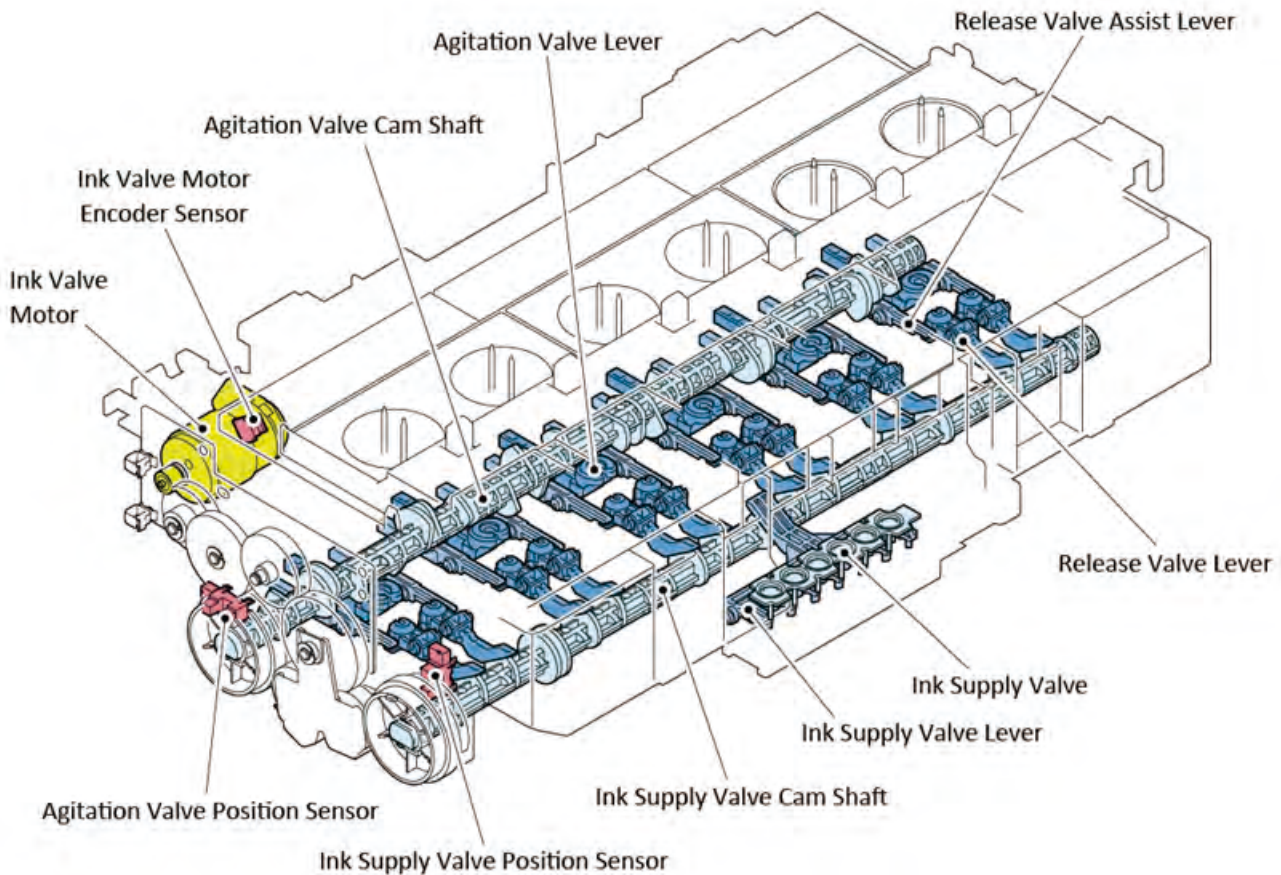


**Mechanism of ink supply**

No	Outline of performance	Ink Tank Valve	Sub Ink Tank Valve	Ink Supply Valve
1	Circulation is performed by agitating			
1-1	The Ink Supply Valve is opened.			Opened
1-2	The agitation pump is performed, and ink in the Ink Tank and sub ink tank is circulated.	Opened/ Closed	Opened/ Closed	Opened
2	Agitating ink in the Sub Ink tank is performed.			
2-1	The Ink Supply Valve is opened.			Opened
2-2	The agitation pump is driven, and ink in the Sub Ink Tank is circulated.	Opened	Opened	Opened

## 4. Drive power transmission and problem detection

[Ink supply mechanism of drive parts]



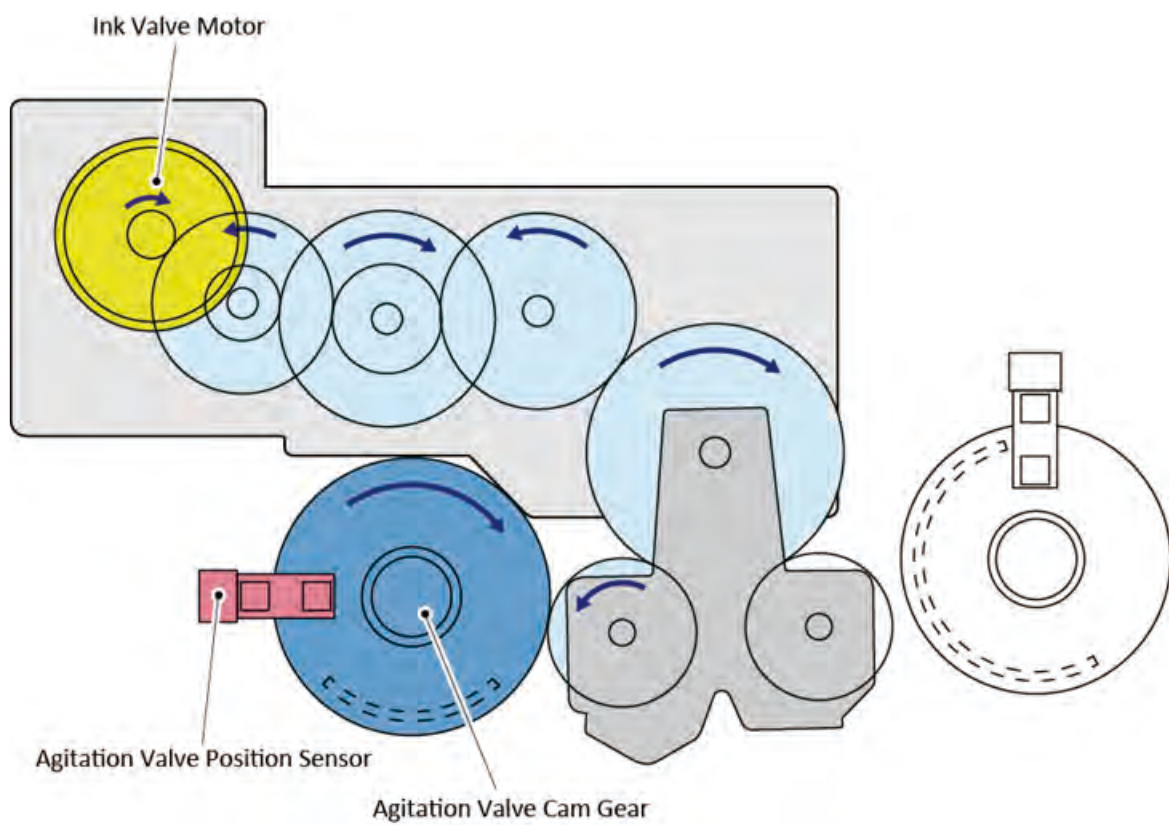
### Drive power transmission:

The drive power for the ink supply unit comes from the ink valve motor in the Sub Ink Tank Unit.

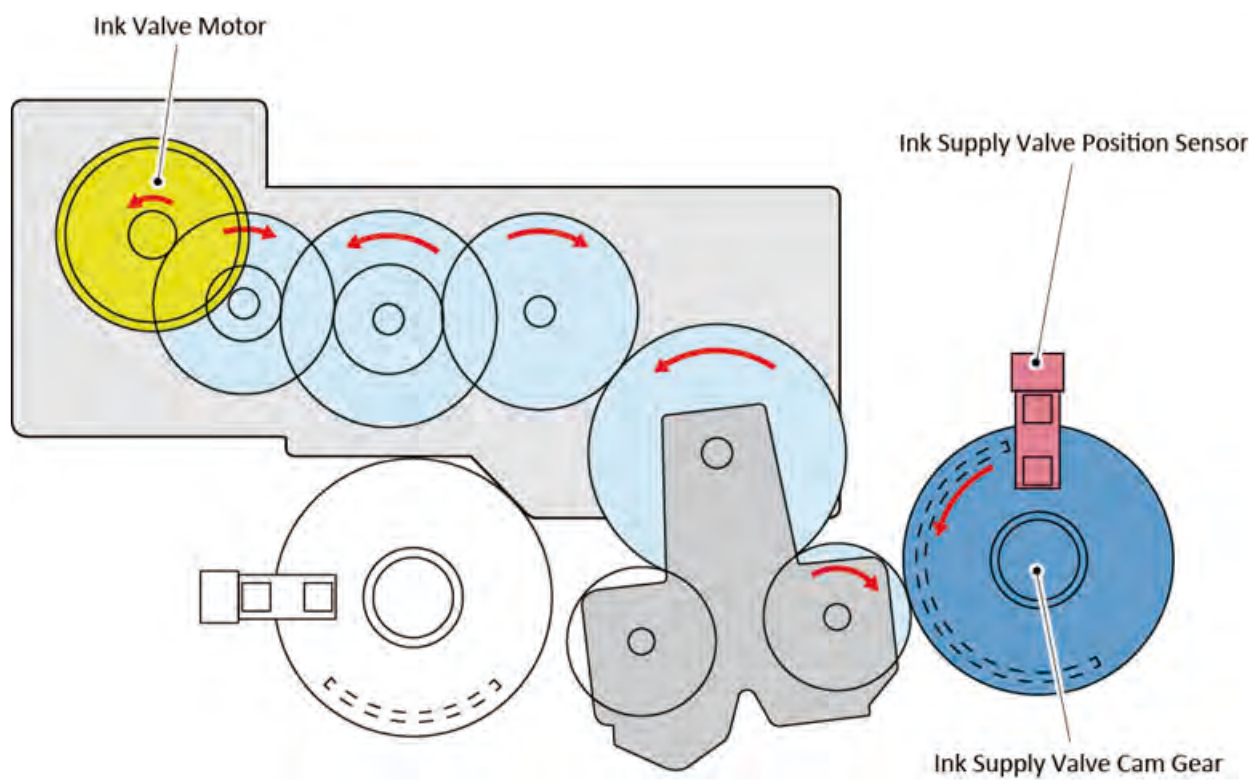
The destination of drive power transmission and performance is as follows.

Direction of rotation	Destination of Drive Power Transmission	Performance
Rotates in normal direction	Agitation Valve Cam Shaft	The Ink Tank valve and sub ink tank valve are opened and closed. The agitation pump is driven.
Rotates in reverse direction	Ink Supply Valve Cam Shaft	The Ink Supply Valve is opened and closed.

[Rotation in normal direction]



[Rotation in reverse direction]





## Problem detection

Name of Sensor	Detectio	Detected Error
Agitation valve Position Senso	Detects the behavior of the cam shaft y detecting the flag of th agitation valve cam gear passing through and blocking out the light by the flag of the agi ation valve cam gear.	<ul style="list-style-type: none"> <li>· Time out error of left nd right agita on drive (EC33-2604)</li> <li>· Time out error of right agita on drive (EC33-2605)</li> <li>· Time out error of left gita on valve drive (EC33-2606)</li> </ul>
Ink Supply Valve Position Senso	Detects the behavior of the cam shaft y detecting the flag of th agitation valve cam gear passing through and blocking out the light by the flag of the Ink Supply valve cam gear.	<ul style="list-style-type: none"> <li>· Time out error of left nd right ink supply drive (EC33-2601)</li> <li>· Time out error of right ink supply valve drive (EC33-2602)</li> <li>· Time out error of left ink upply drive (EC33-2603)</li> </ul>
Ink Valve Motor Encoder	Detects the movement amount and speed of the ink valve motor by reading the slit in the disk film.	<ul style="list-style-type: none"> <li>· Left nd right ink valve motor error (EC33-2F3A)</li> <li>· Right ink valve motor error (EC33-2F3B)</li> <li>· Left nk valve motor error (EC33-2F3C)</li> </ul>



## Remaining ink detection

How to detect the remaining amount of ink:

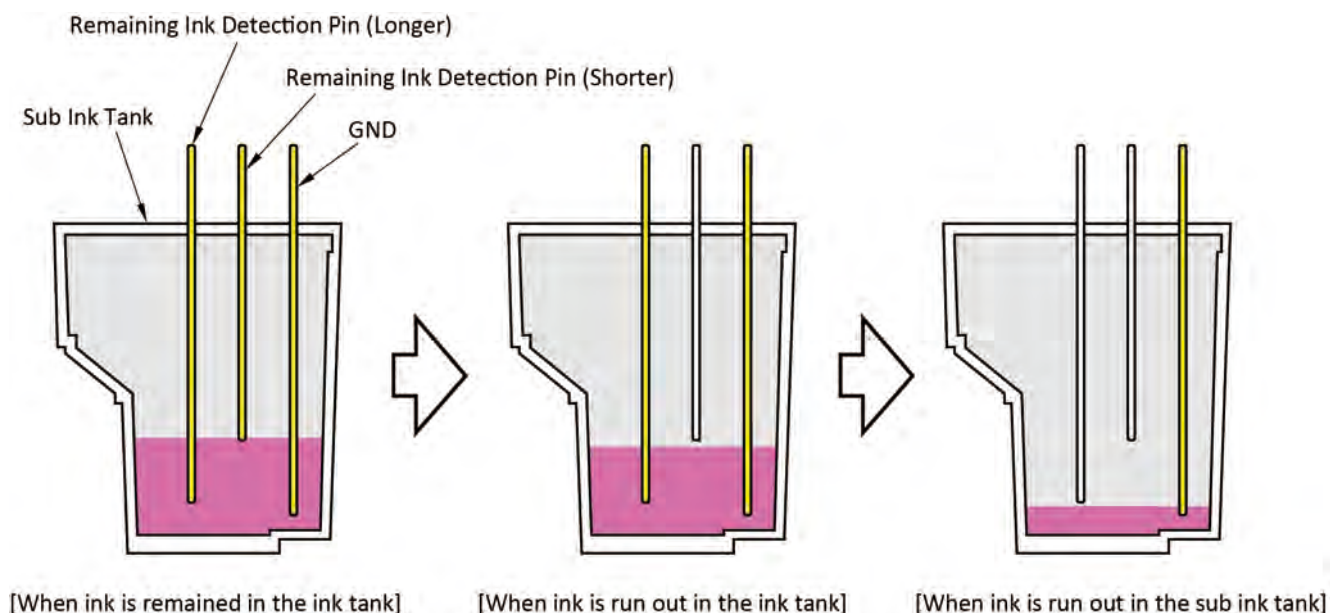
To detect the remaining amount of ink, the following two methods are adopted to this printer.

- Detected by the dot count
- Detected electrically by the remaining ink detection pin installed in the Sub Ink Tank

How to detect by the remaining ink detection pin in the Sub Ink Tank:

Remaining Ink Detection Pin	Detection
Remaining Ink Detection Pin (Shorter)	Detects that the sub-ink tank is full with ink. If ink level gets lower than the remaining ink detection pin (shorter), "no-ink in the Ink Tank" is displayed on the printer operation panel.
Remaining Ink Detection Pin (Longer)	Detects that there is no amount of ink in printing

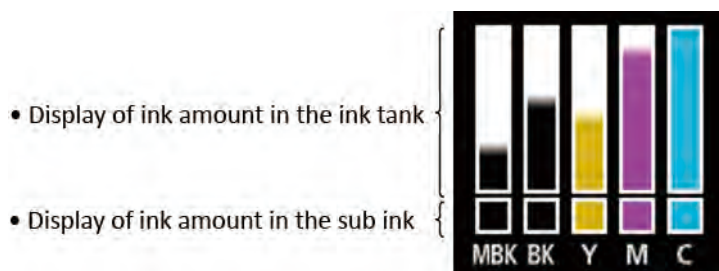
### [Transition status of ink level in the Sub Ink Tank]









Ink amount display:

The remaining amount of ink for each color in the Ink Tank and sub ink tank is displayed on the LCD.

### [How to check ink amount displaying on the operation panel]



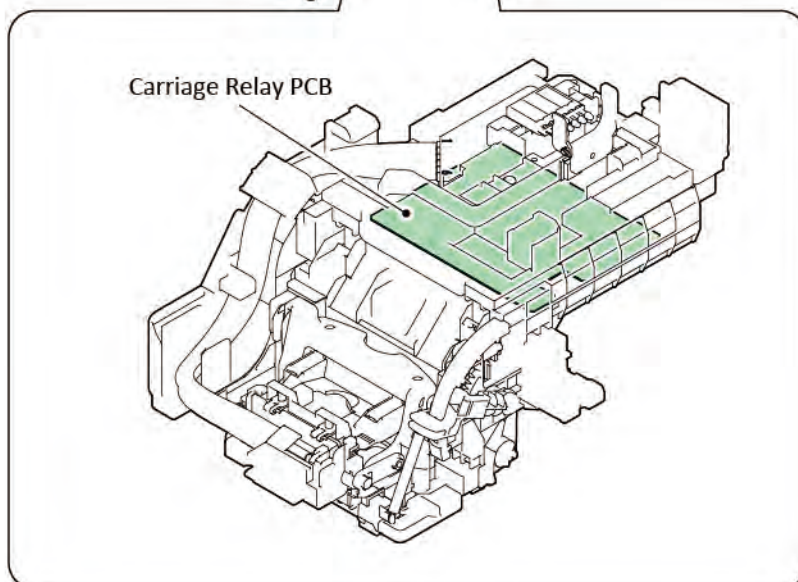
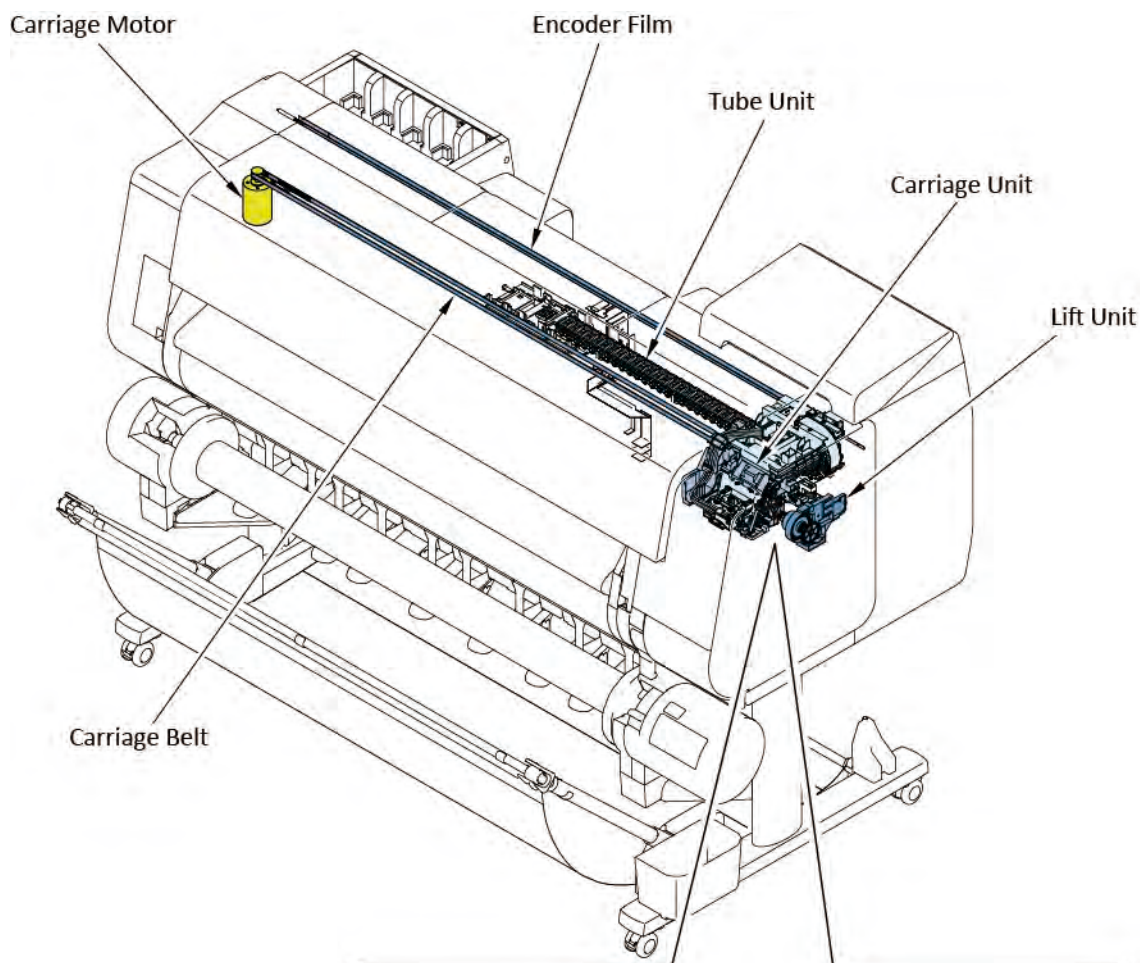
### Display of ink amount and Status of ink:

Ink Level	Ink Amount	How to detect
	Ink amount remains in the Ink Tank.	It is detected by the dot count in the Ink Tank.
	Remaining ink amount is small.	It is detected by the dot count in the Ink Tank.
	Ink in the Ink Tank is run out.	If it is detected that ink level gets lower than remaining ink detection pin (shorter) in the Sub Ink Tank, "no-ink in the Ink Tank" will be displayed on the printer operation panel. After that, the dot count in the Sub Ink Tank is started. Printable until it is detected by the dot count that ink in the Sub Ink Tank is run out.
	Ink in the Sub Ink Tank is run out.	If the dot count in the Sub Ink Tank is reached to the certain value and running out of ink is detected before printing, it is unable to print. If ink level becomes lower than the remaining ink detection pin (longer) while printing, the print job will be interrupted.
	The remaining ink amount is unknown.	When it is detected that the amount of ink consumption (the dot count in the Ink Tank) is exceeded than the specified amount.
	Remaining ink amount is unconfirmed	After removing and installing ink tank, it is displayed until remaining ink amount in the Sub Ink Tank and ink tank are confirmed

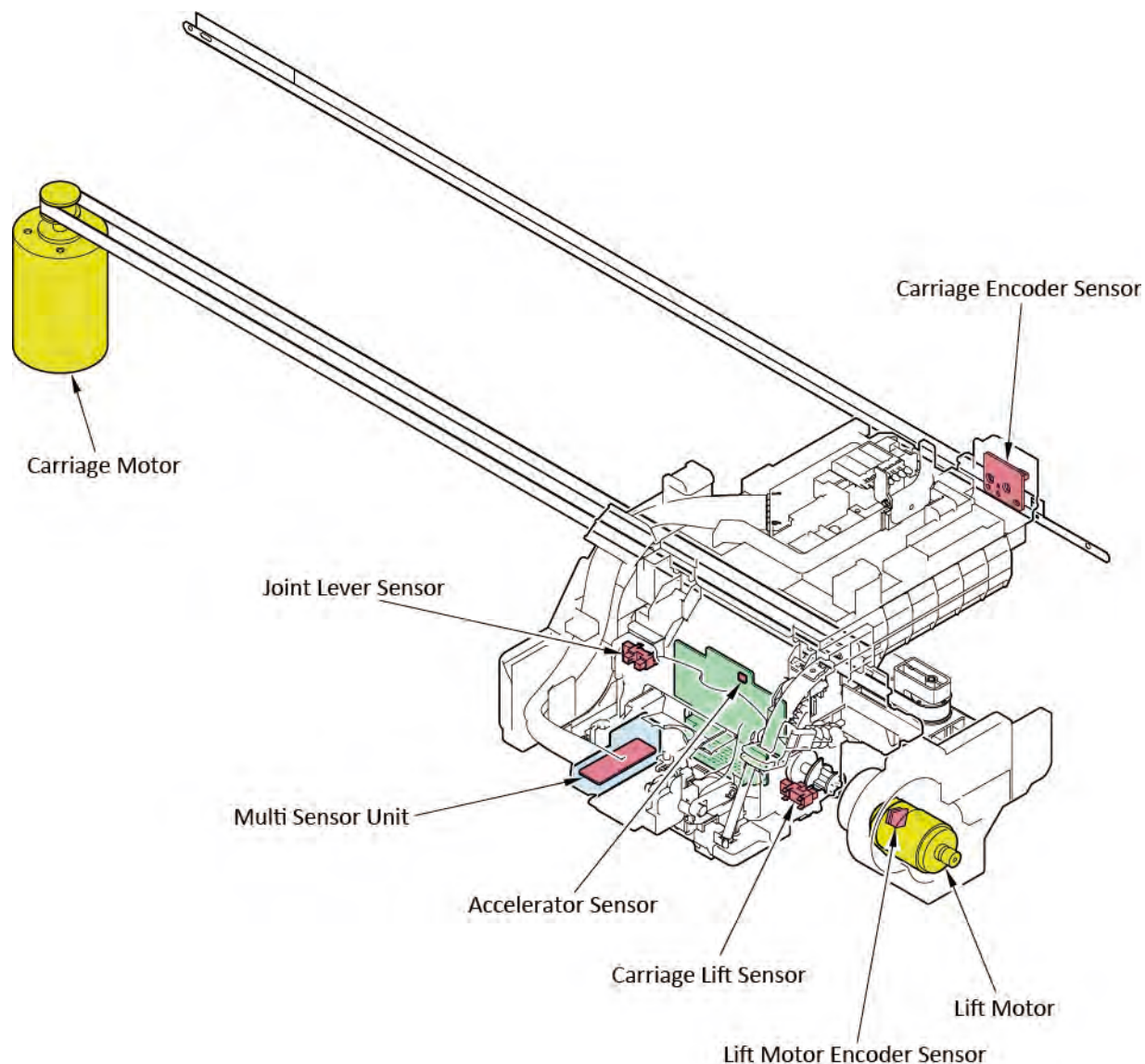
## 2-2-4. Carriage Unit

### 1. Configuration

#### 1) Layout of unit:



## 2) Layout of sensor/motor:



### Sensors function:

Name of Sensor	Detection performance
Carriage Encoder Sensor	Reads the slit in the encoder film and detects the Carriage Unit movement amount moving left to right and the speed.
Multi Sensor Uni	The photo sensor receives the reflected light from the LED light radiated from the LED to the paper (the printing pattern in the color calibration)
Acceleration Sensor	Detects the Carriage Unit vibration and shock detection The vibration information is used to reduce uneven printing The information of the shock detection is used to identify the error.
Joint Lever Sensor	Detects that the joint lever is opened and closed.
Carriage Lift Sensor	Detects that the flag of the carriage lift arm rotated by the lift motor power is switched.
Lift Motor Encoder Sensor	By detecting the amount of motor movement (after detecting the flag in the carriage lift arm switched), detects whether the Head-to-paper distance has been moved to the desired position

### Motors function:

Name of Motor	Performance
Carriage Motor	Source of power to move the Carriage Unit to the right direction
Lift Motor	Source of power to switch the carriage height.

## 2. Function of Carriage Unit

Function of the Carriage Unit is to receive printing order (an electrical signal), moves the Print Head left or right, and ejects ink to accurate place from the nozzles. For the purpose of achieving these, the following functions are installed to this printer.

- Reduces unevenness in printing by controlling carriage speed evenly.
- Corrects ink dot placement both in the accelerating zone and decelerating zone by ejecting ink at different timing
- Corrects misplaced printing position caused by mechanical accidental error.
- Improves accuracy of the ink dot placement by optimizing the carriage height.
- Various adjustments and detection by the Multi Senso .

### 1) Reducing uneven printing by equalizing the carriage speed (Carriage cogging correction):

#### a) Equalizing the carriage speed by the motor torque correction:

The correction table which corrects uneven carriage speed caused by the Carriage Motor torque (the anti phase signal) is equipped on this printer. By controlling the motor speed, uneven printing (occurs in about 5 mm to 7 mm interval) caused by inconstant speed, which is caused by the motor torque, is reduced. This correction is also adopted to the current LEP.

#### b) Equalizing carriage speed by acceleration correction signal

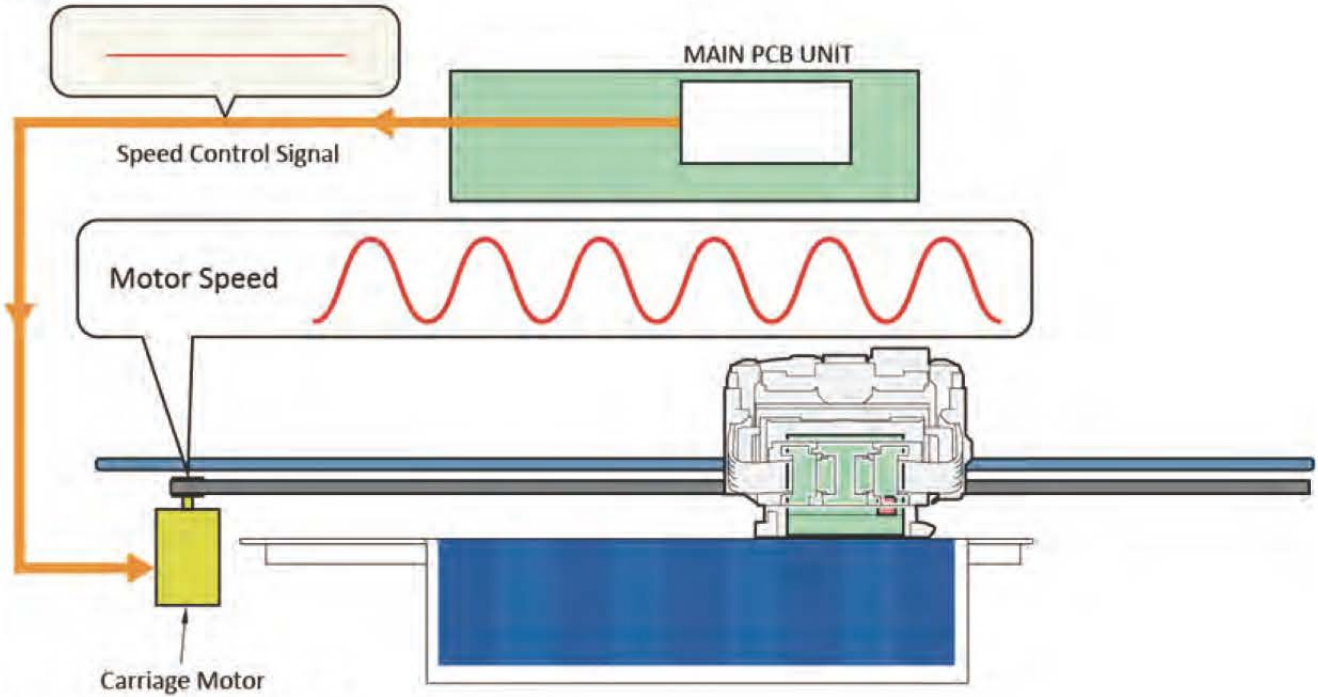
The acceleration sensor is newly adopted to this printer to achieve high quality print and to improve carriage speed equalization, besides equalizing the carriage speed by the motor torque correction table. The acceleration information read by the acceleration sensor during moving carriage is fed back to the motor torque correction table, and the carriage speed is controlled in real time



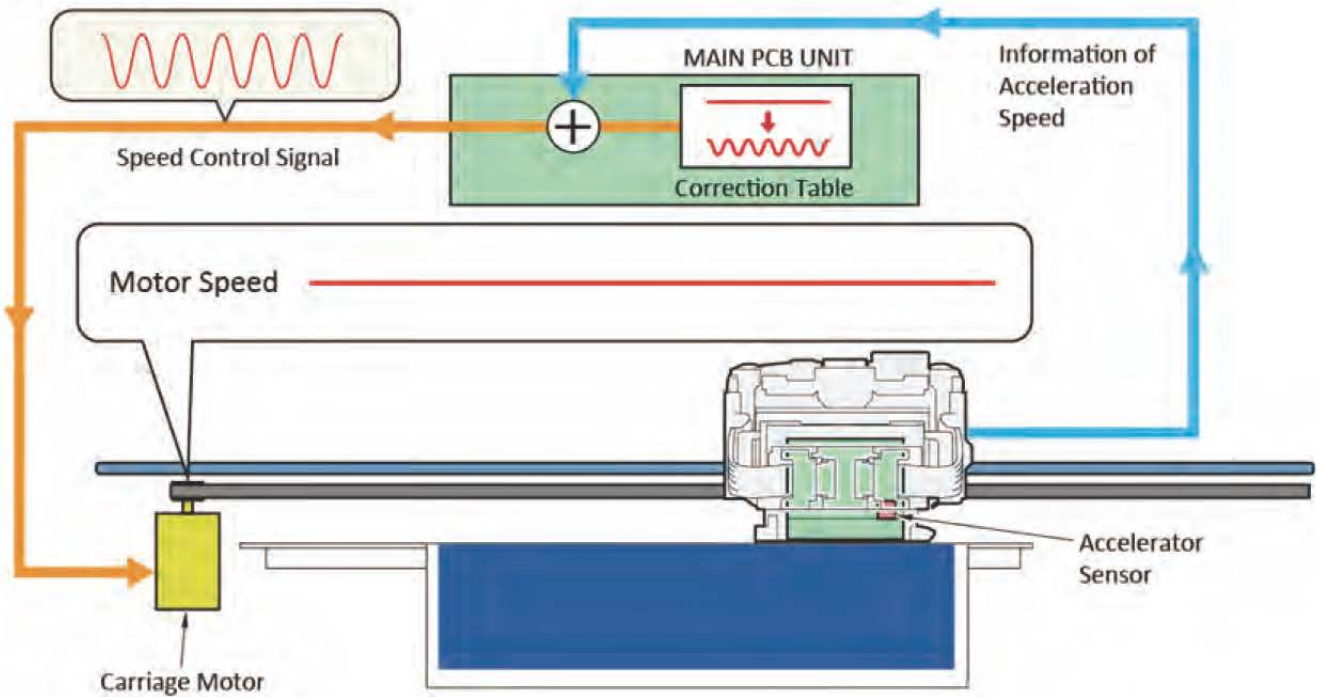
Image of the carriage feeding speed correction:



### Before Correction

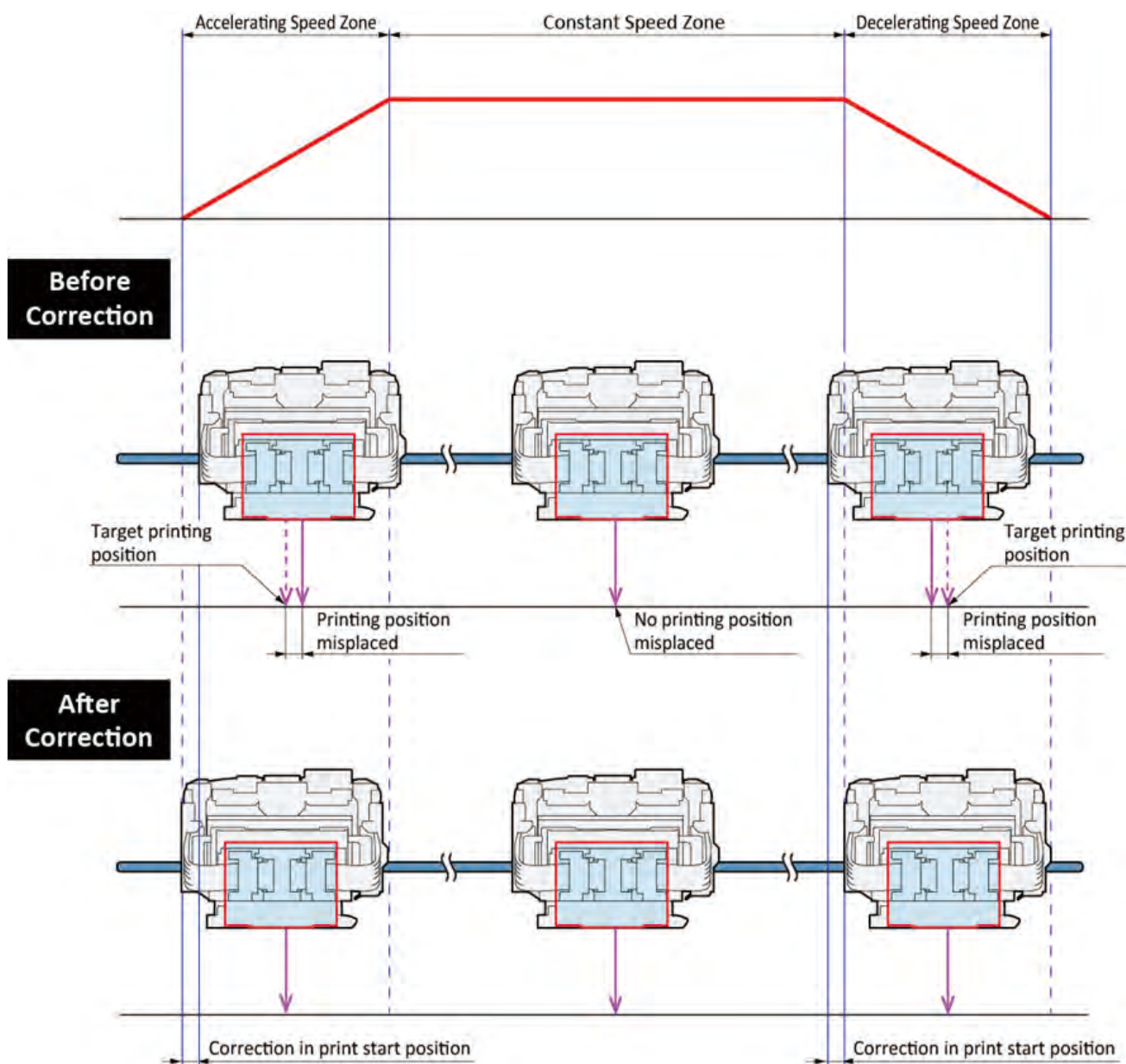


### After Correction



## 2) Correcting ink dot placement in the accelerating and decelerating speed zone:

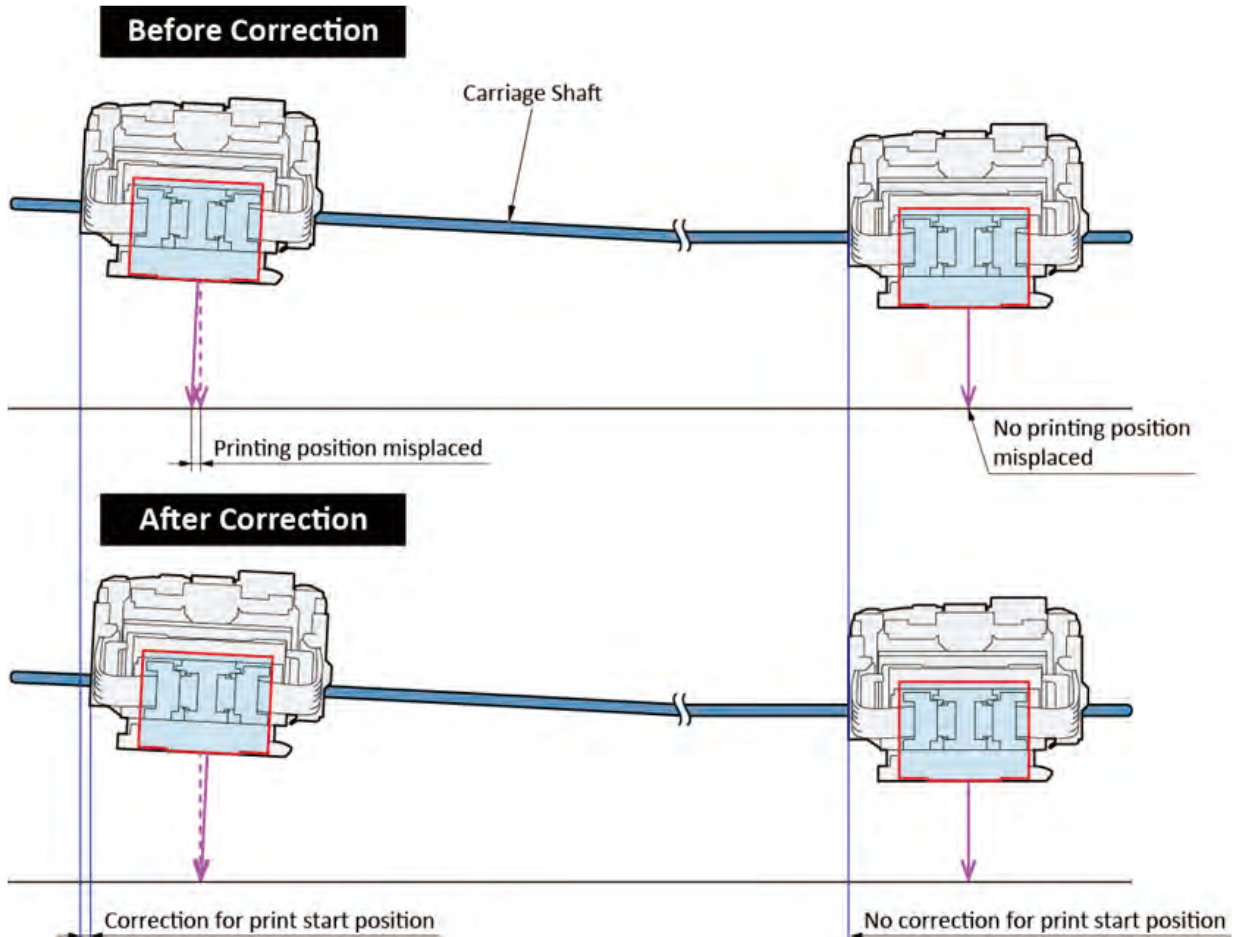
It controls timing of ink ejection against the ink dot misplacement caused by the carriage speed in the acceleration and deceleration zone. When the carriage speed is constant at all times, ink dot can be landed to the desired printing position while speed of ink ejection of the ink dot landing is included. In this product, to improve printing speed, printing is performed while the carriage is accelerated and decelerated in the printing area. If timing of ink ejection is controlled evenly without considering the difference in speed between the acceleration /decelerating zone and the constant speed zone, printing error occurs against the desired printing position (refer to the "Before correction" in the picture below). By controlling print start timing with considering difference in speed between the acceleration /decelerating speed zone and the constant speed zone, misplacement of a printing position can be avoided.





### 3) Correcting misplacement of printing position caused by mechanical error:

This correction is to perform against misplacement of the printing position in scanning direction, which cannot be corrected by the Print Head alignment in the user mode. The correction tables are provided for the both direction. Applying this correction table, which is created for each print start position, can prevent faulty printing.



#### 4) Improving ink dot placement accuracy by optimizing the carriage height:

As the carriage height gets wider, ink mist, which is generated when ink is ejected from the Print Head and the ink dot is landed to the paper, increases. When the carriage height gets narrow, the Print Head may be contacted.

To print in accurate carriage height, the Print Head is adjusted to optimum height automatically according to the paper type and environment (temperature/moisture) before printing. The carriage height has 8 positions as follows.

Positio	Distance from the Print Head nozzle to the platen	Main Usage
-4	1.0 mm	
-3	1.2 mm	
-2	1.4 mm	Carriage lock, Wiping
-1	1.6 mm	
0	1.8 mm	
+1	2.0 mm	
+2	2.2 mm	
+3	2.6 mm	

## Procedure to change the carriage height

To change the carriage height is performed in the following procedure.

1) Connects to the coupling:

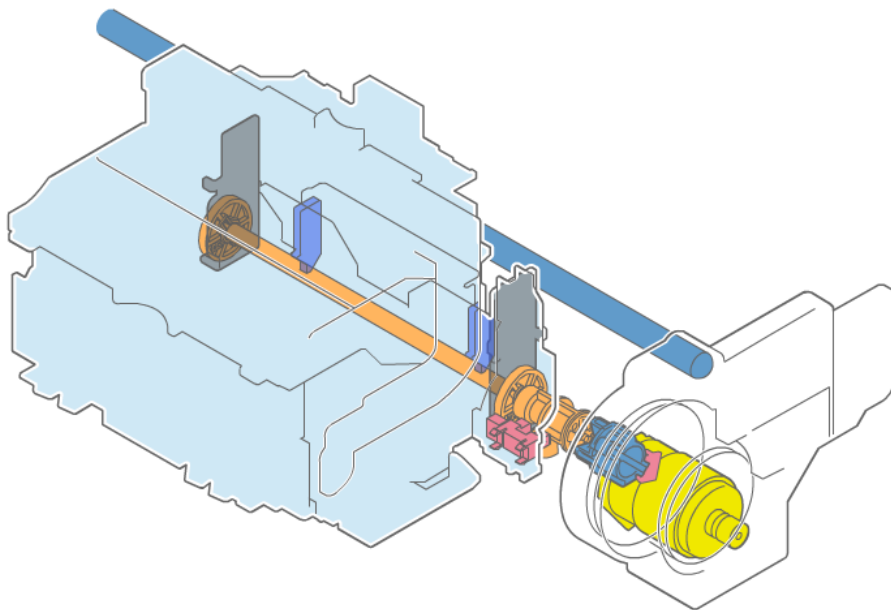
By power from the Carriage Motor, the Carriage Unit is moved to the certain place to change the carriage height, and connects to the coupling.

2) Changes the carriage height:

The power from the Lift Motor is transmitted to the Carriage Cam Shaft, and the Carriage Lift Cam is rotated. With the cam rotated, the carriage front part is moved up and down, and the carriage height is switched to optimum height.

3) Stops the lift motor:

As the Carriage Unit front part is moved to the desired carriage height, the Lift Motor stops, and to change the carriage height is completed.



Process	Performance
1	The Carriage Unit is moved to the carriage height changed position, and connects to the coupling of the Lift Unit.
2	The power in the lift motor is transmitted to the Carriage Cam Shaft, and the Carriage Cam is rotated. Flag switchover in the lift cam sensor is detected, and the movement amount is detected by the Lift Cam Encoder Sensor.
3	The Carriage Unit front part is moved to optimal height for the carriage height.
4	The Lift Motor stops.

## 5) Various adjustment and detection by the multi sensor:

To improve accuracy of printing position, the paper width and paper position are measured automatically. Print to outside of the paper can avoid. The multi sensor is also used for GAP detection, Print Head alignment, paper feed adjustment, color calibration, and etc.

### Configuration

The multi sensor consists of the paper edge detection part, the GAP detection part, and the density detection part. The light-emitting part (LED) and the light-receiving part (photo sensor) are installed in each part.

#### A) Paper edge detection

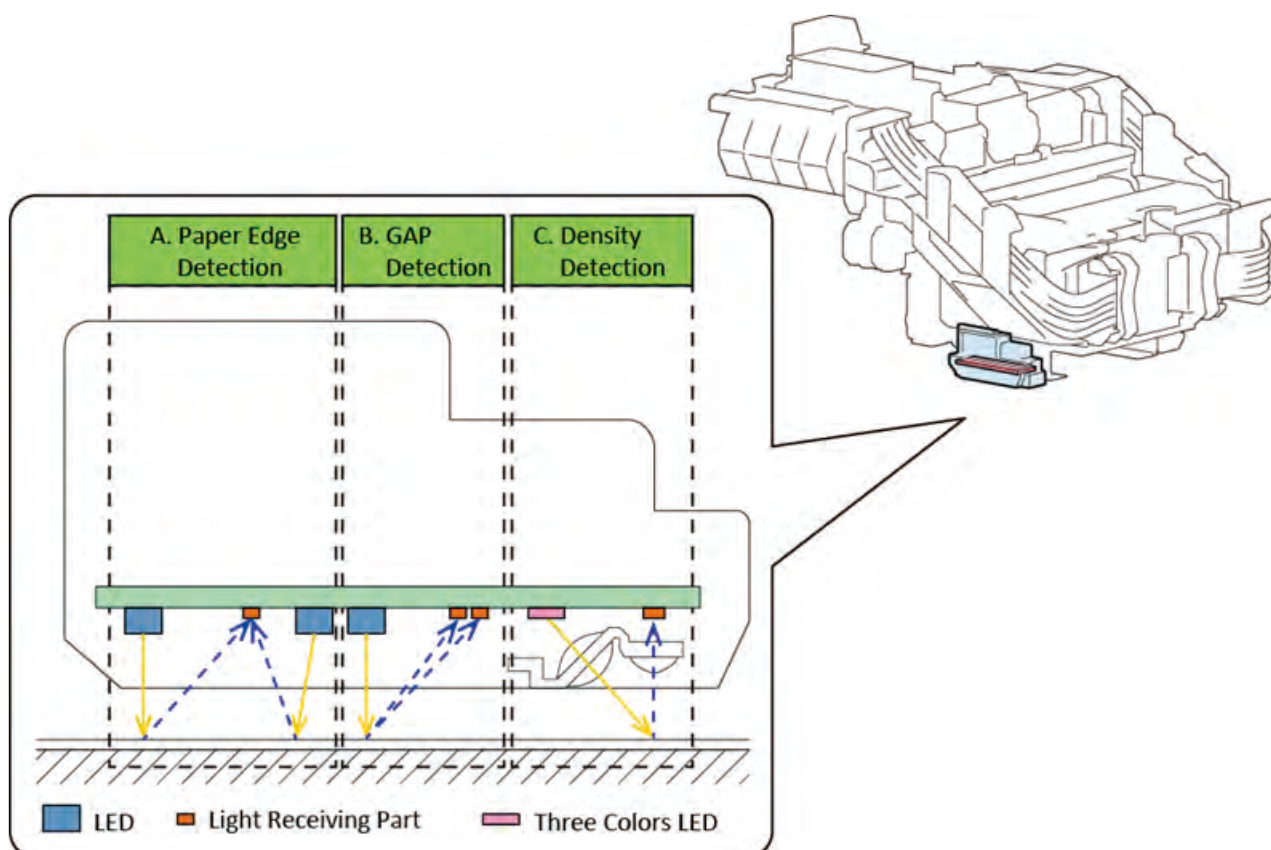
LED (the A in the picture below) light is radiated to a paper. The reflected light from the LED light is received by the photo sensor, then, it detects the paper edge, the paper width, and the paper skew.

#### B) GAP detection

LED (the B in the picture below) light is radiated to a paper and the reflected light from the LED light is received by two photo sensors. The height between the Print Head and the paper is measured and is adjusted.

#### C) Density detection

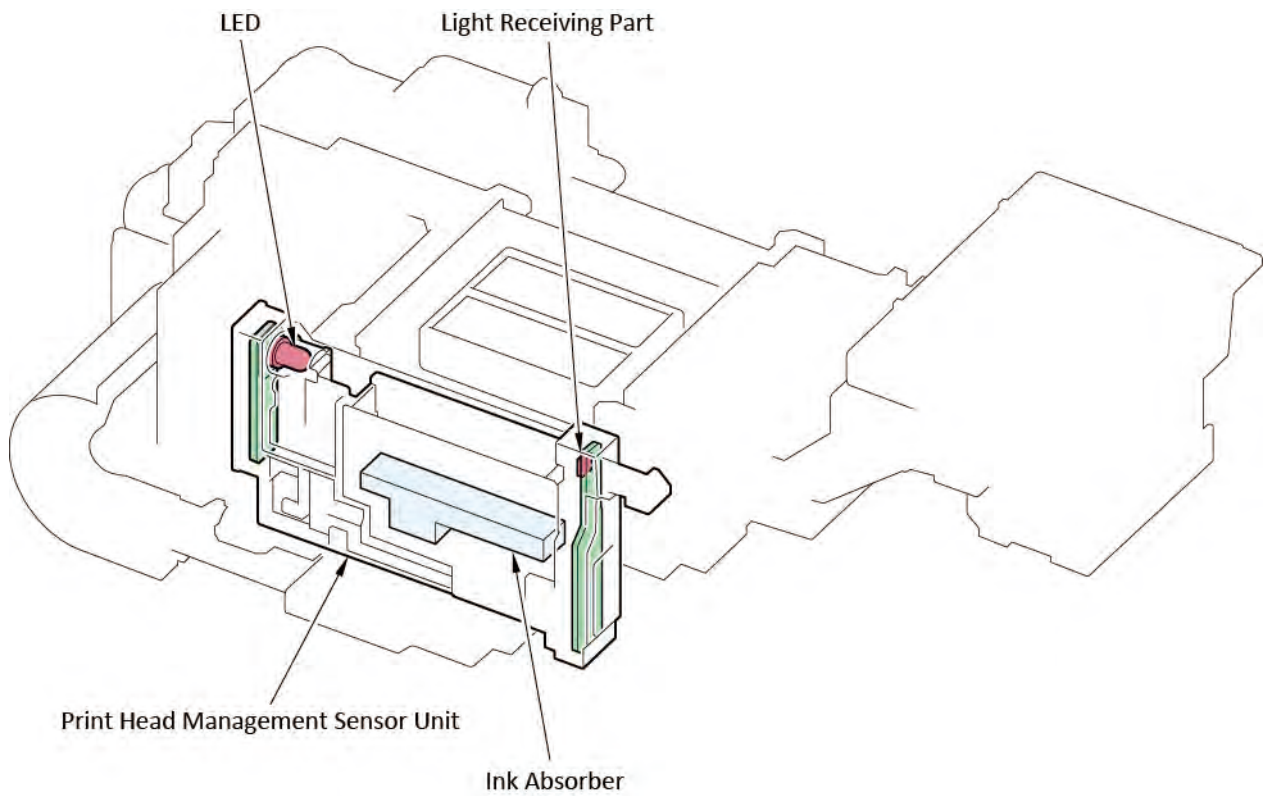
In the printed printing pattern, the reflected light from the LED light which is radiated from three colors LED (the C in the picture below) is received by the photo sensor, and the color calibration is performed.



## 2-2-5. Print Head Management Sensor Unit

### 1. Configuration

The Print Head management sensor is composed of the LED, the light receiving part, and the ink absorber.



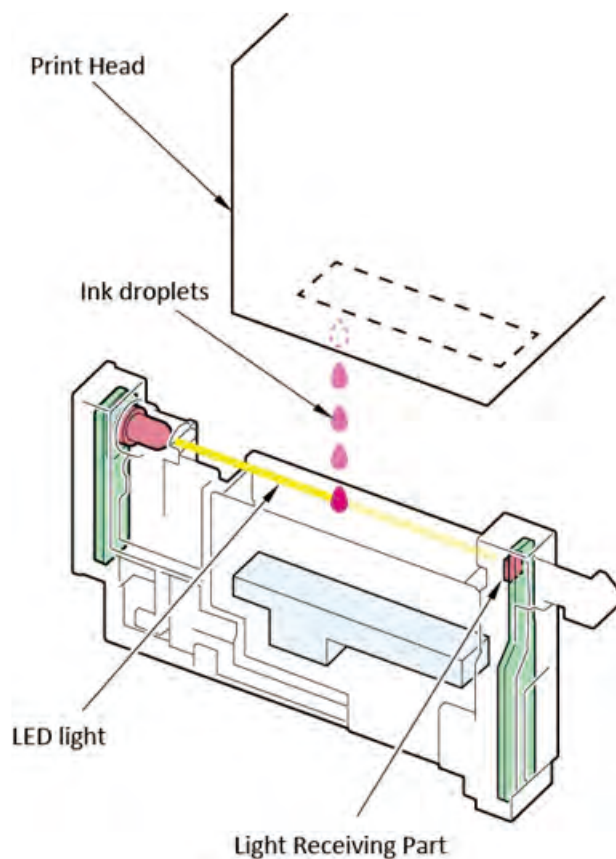
## 2. Operation outline

The sensor receives the LED light while non-ejection detection is performing.

The LED light is blocked by ink ejected from the Print Head; as a result, the amount of received light in the sensor is changed. When the LED light is not blocked, the amount of light is not changed.

The nozzle of which the amount of light is not changed, it is judged as the non-ejection nozzle.

The result of non-ejection detection is saved to the RAM area after the non-ejection detection is performed. It is used for recovering by cleaning or non-ejection complementary. Deterioration of the printing quality due to non-ejection of ink can be prevented.



### 3. Non-ejection detection process flow

Non-ejection nozzles' detection is performed in the following order.

#### 1) Optical axis adjustment

Outline:

To implement the non-ejection detection, the appropriate head management sensor position is detected and the non-ejection detection position is determined against all the nozzles.

When to implement:

- At initial start
  - After initial filling in the initial setting, "Optical axis adjustment" -> "Detecting non-ejection" is performed automatically.
- After removing and installing the Print Head.
- After ink filling after transportation
- If there are more than 100 nozzles not matched with the previous result of non-ejection detection, then, the optical axis adjustment after the recovery cleaning is performed.

#### 2) Non-ejection detection

When to implement:

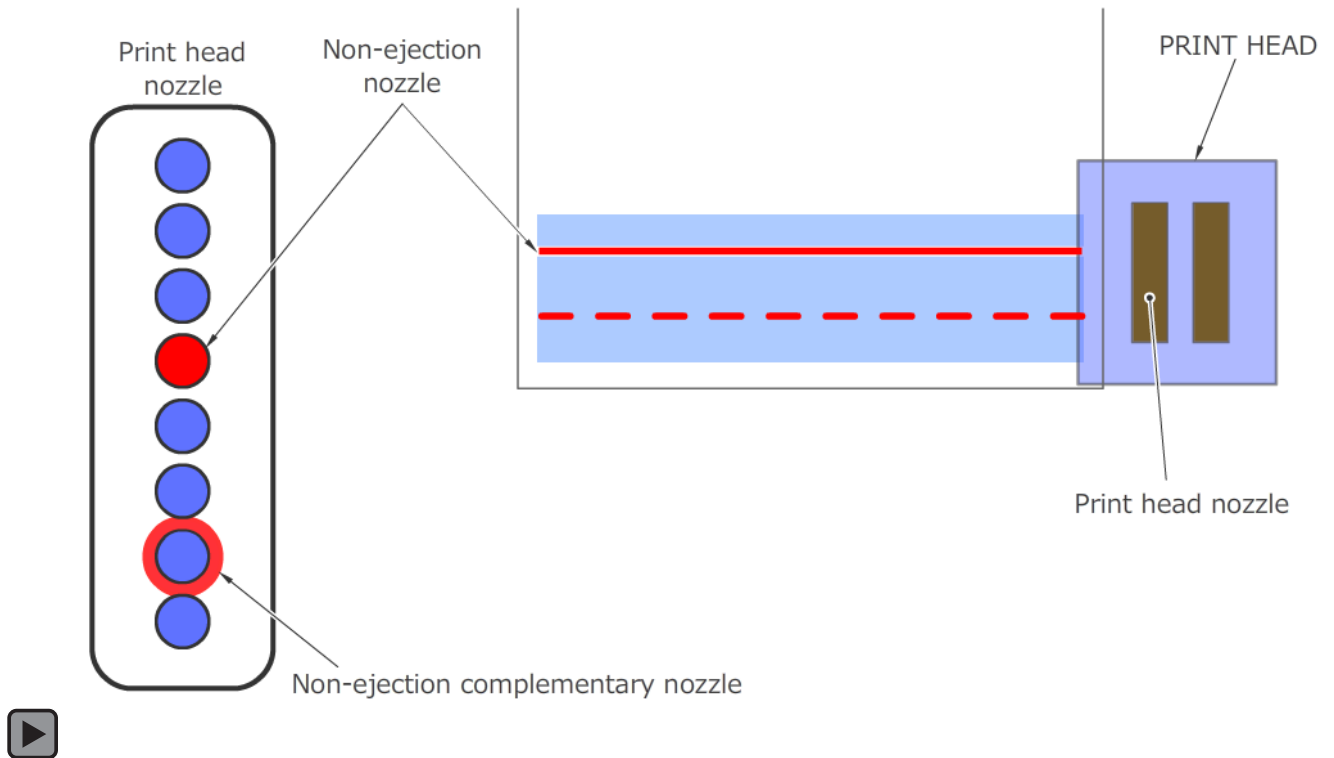
- When filling ink in setting
- After conducting various cleaning.
- After the specified amount of ink (by dot count) is ejected since the previous non-ejection detection performance.
- After printing number of pages set by the customer since the previous non-ejection detection performance. (It is performed between pages even while the print jobs are executing.)
- After replacing the Print Head.
- After ink filling after the transportation
- After 168-hours elapsed since the previous ejection



### 3) Recovery operation after detecting the non-ejection

The following operation is performed after the clogging nozzle is detected.

- The nozzles are recovered by cleaning.
- Ejection from the clogging nozzle is stopped. Non-ejection is complemented by ejection from the other nozzles.



## 2-2-6. Function of Platen

Function of the platen is as follows:

- Preventing paper float during printing
- Preventing ink smearing on the back side of paper during printing
- Preventing non-ejection of ink during printing

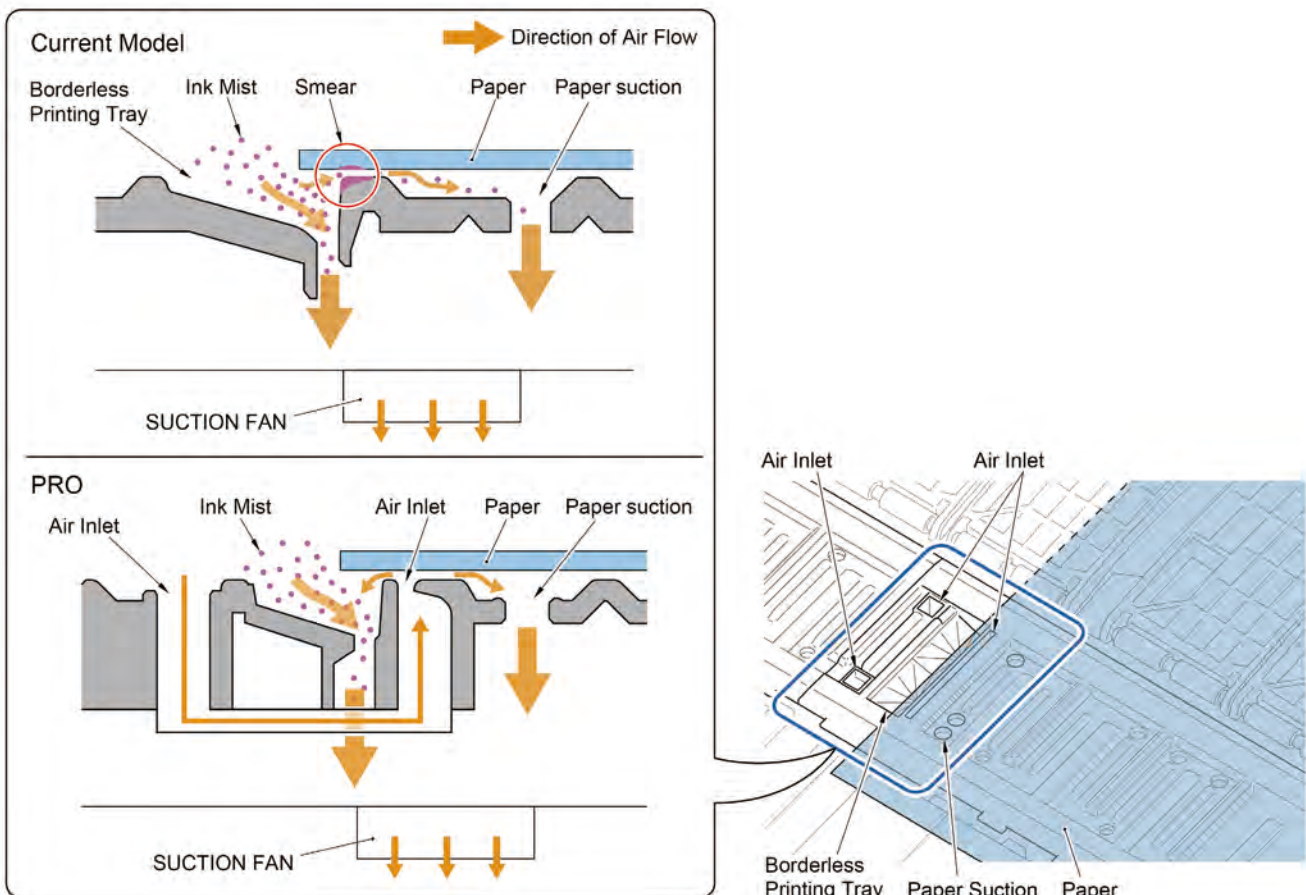
### 1. To prevent paper floating during printing:

Performing air suction by the suction fan to a paper prevents paper floating

### 2. To prevent ink smear on the back side of paper during printing:

In the existing models (imagePROGRAF series), in some cases, when air suction is performed by the suction fan, the suction fan vacuums ink mist during printing, as a consequence, the back side of paper smears.

However, in the imagePROGRAF TX series, the air inlet is newly adopted between the opening for paper suction and the borderless printing tray, and then, direction of air flow under the paper is reversed, as a result, smearing on the back side of paper caused by the ink mist going in under the paper can be prevented.



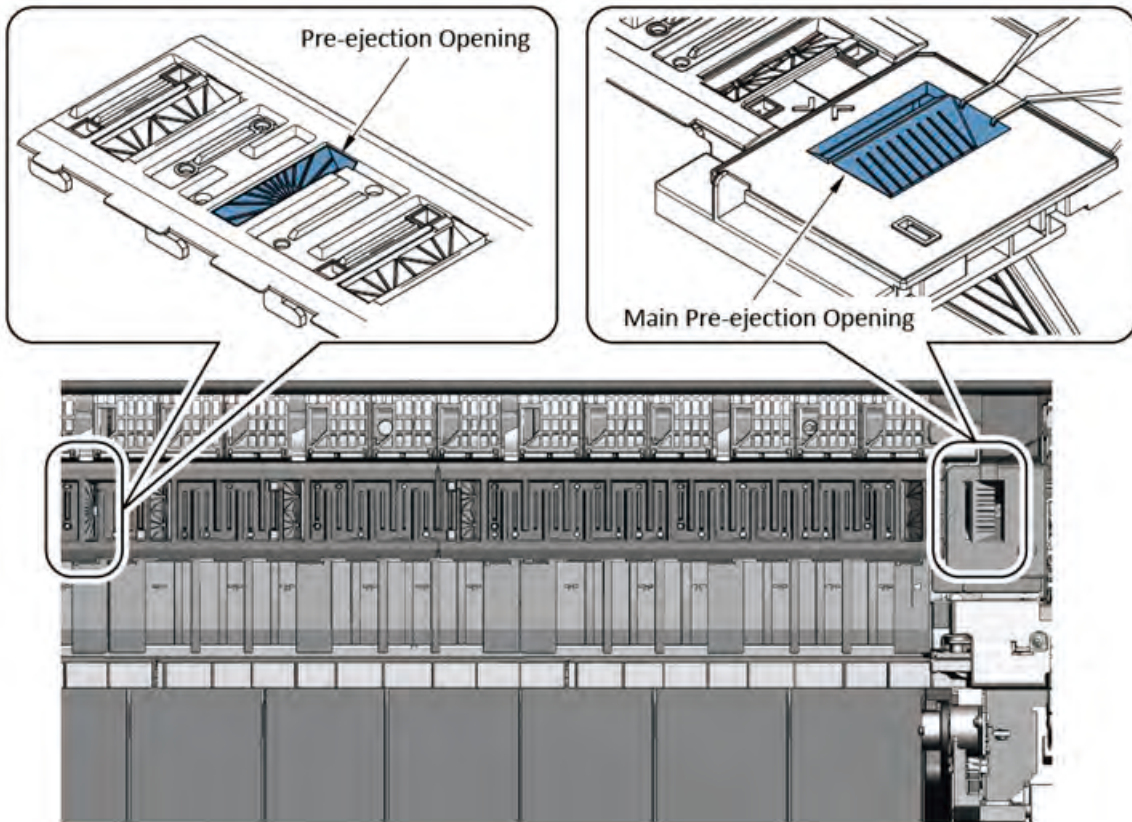
In the TX series, in case of smearing on the back side of paper, increase “vacuum power of the paper feeding part.”

Note: In the existing model, “decrease” the vacuum power in order to reduce the ink mist going in under the paper when the back side of paper smears.

### 3. To prevent non-ejection of ink during printing

To achieve high quality print, pre-ejection is performed while printing

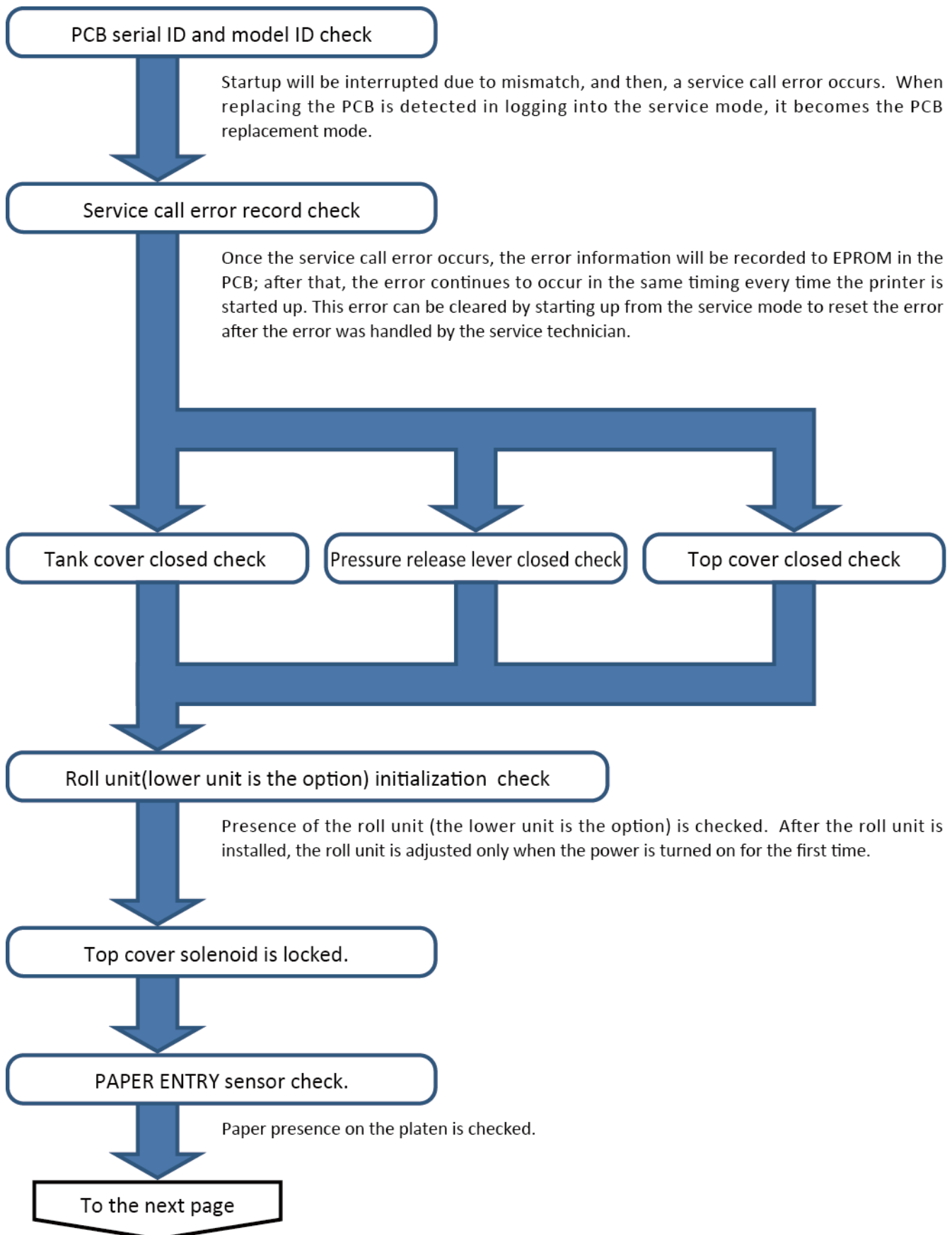
The old ink inside the nozzles, the air bubble, and the mixed color ink are ejected. In addition, the dusts are removed. Place to perform the pre-ejection is based on the paper detection result.

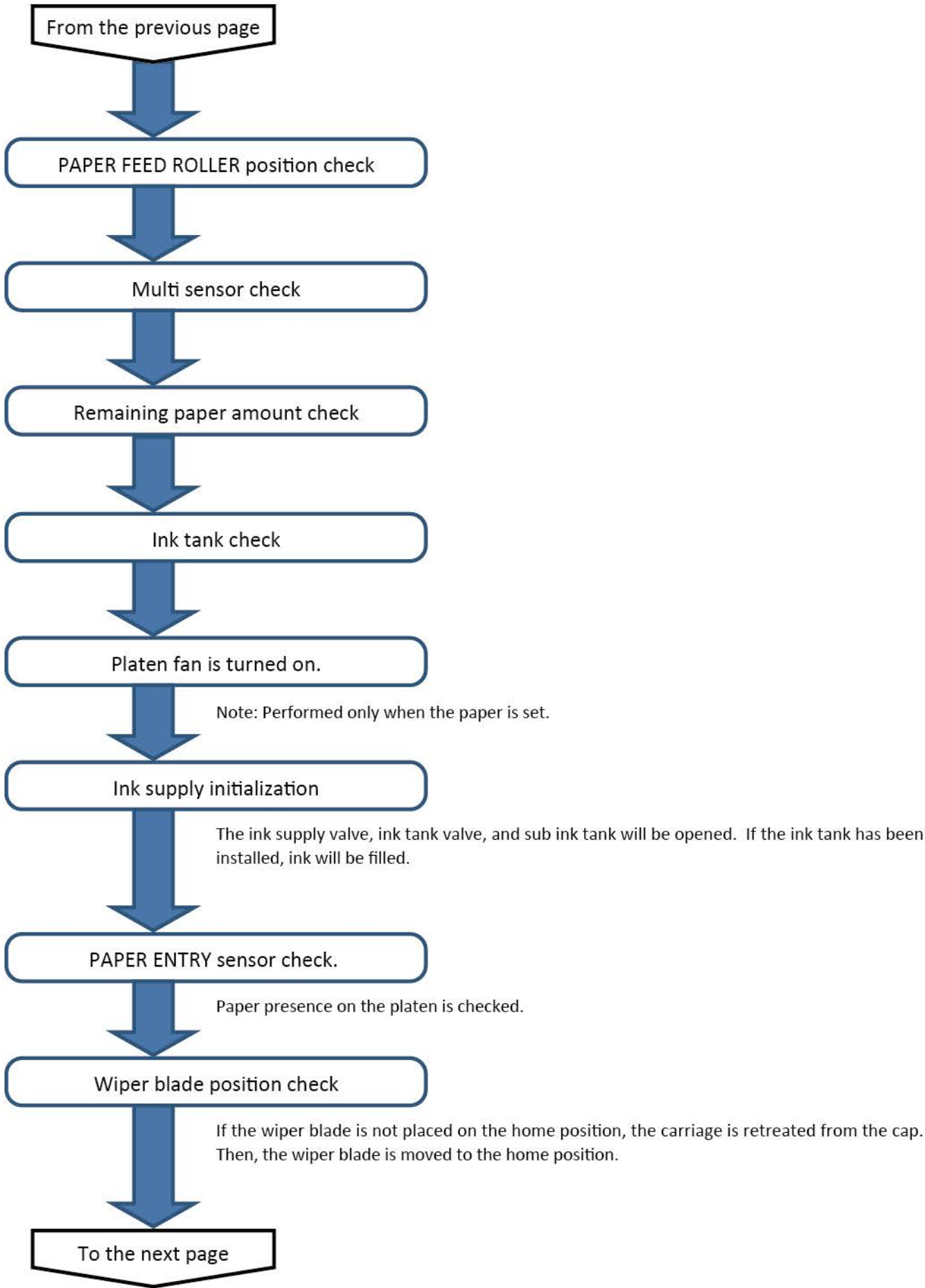


## 2-3. Initial Flowchart

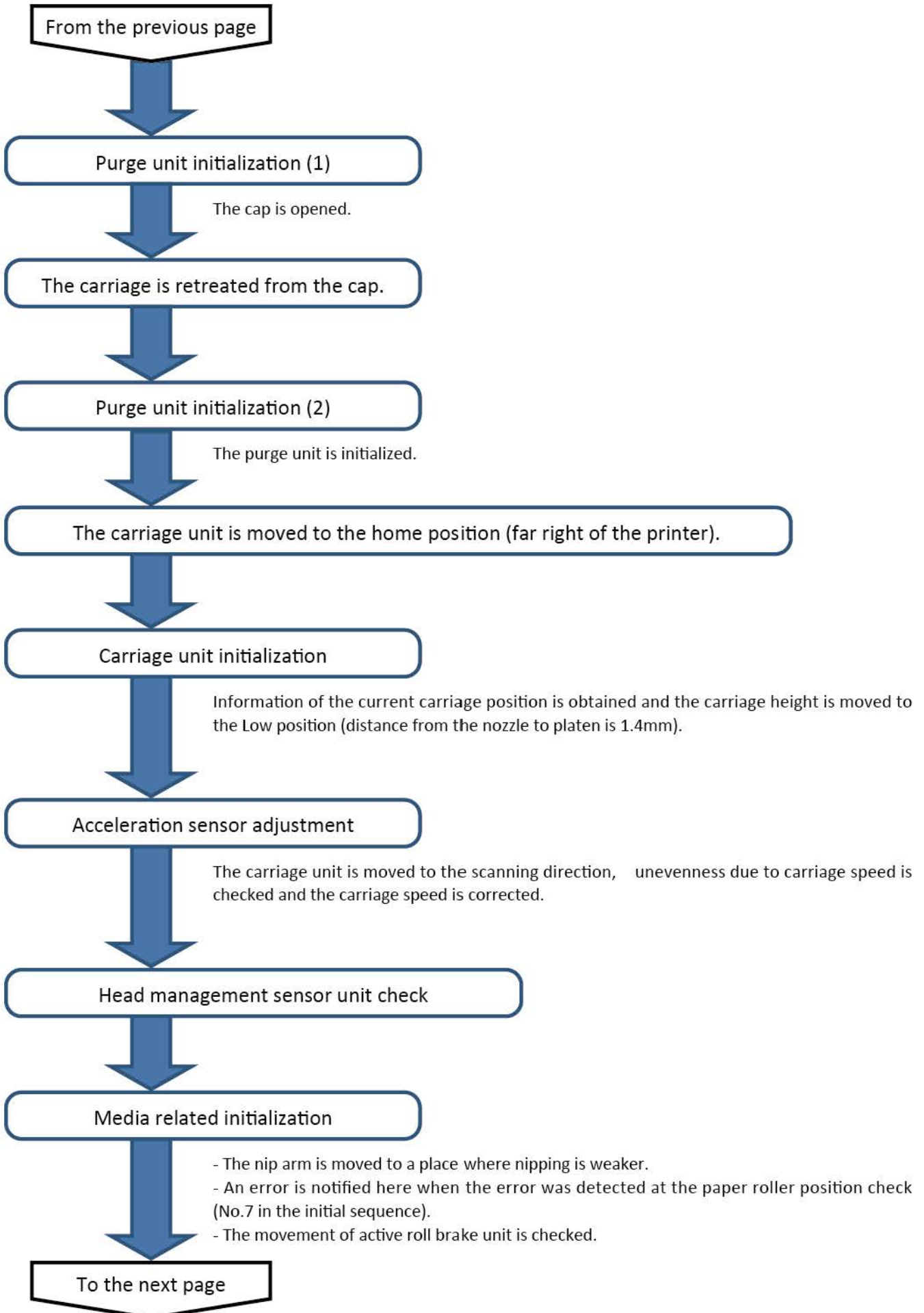
### 2-3-1. Initial Flowchart

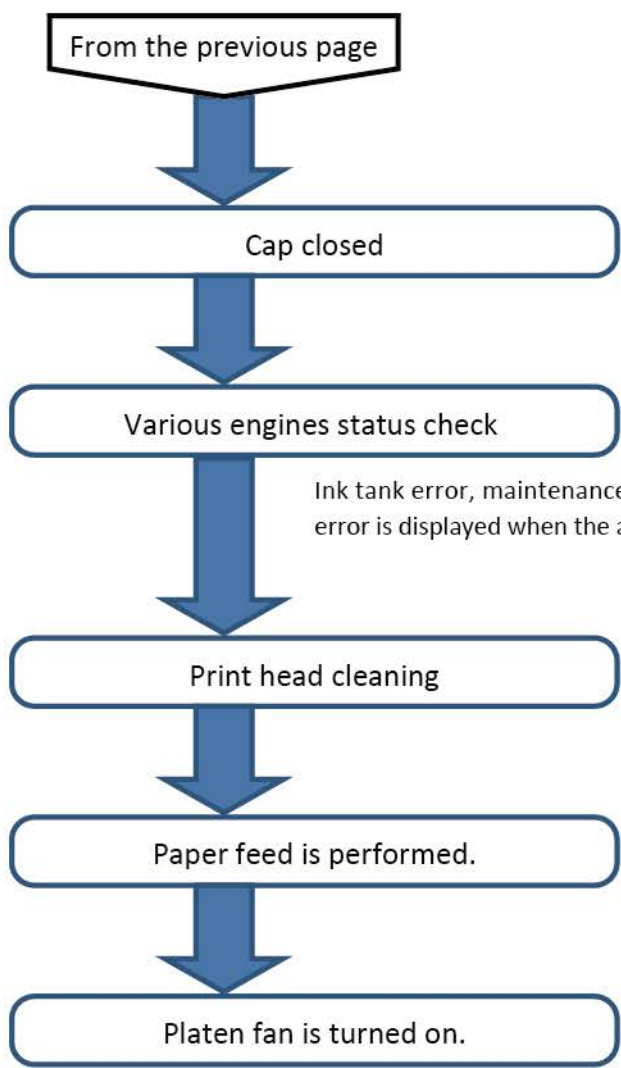
The flowchart below shows the initial printer operation from power-on till the printer gets ready for printing.











Ink tank error, maintenance cartridge error, print head error, and engines are checked. An error is displayed when the abnormal behavior is detected.

Note: Only when the paper is set.



# INSTALLATION

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## 3-1. Printer Installation, Transportation, Reinstallation

### 3-1-1. Printer Installation

#### Confirming the Installation Space

It is recommended that you reserve space of the following dimensions to allow you to work around the printer.

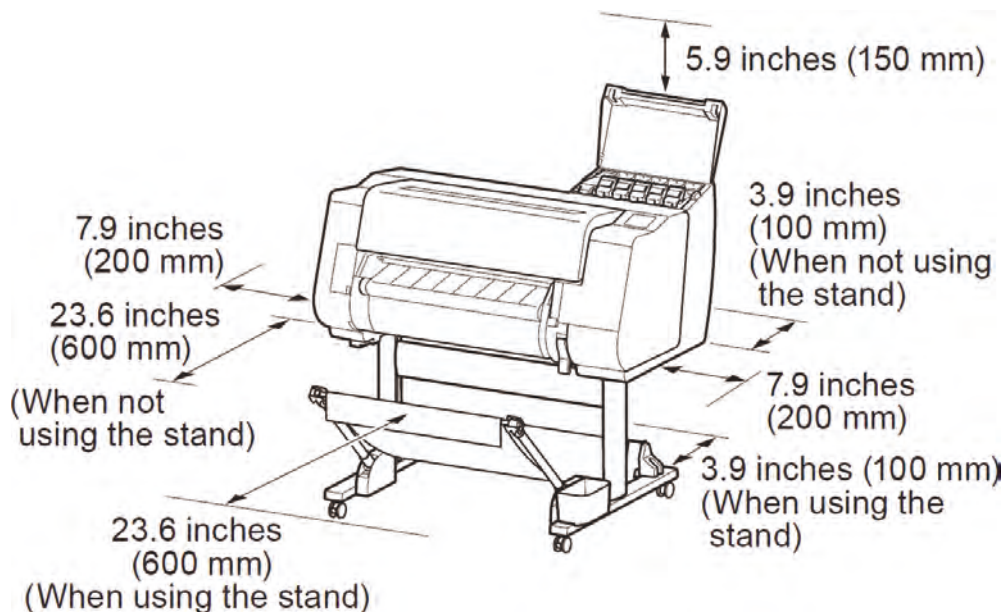
Check the completed image of the printer you purchased and make sure you have enough space to install the printer.

 <b>Important</b>	<ul style="list-style-type: none"> <li>The printer stand and roll unit may be options depending on the model. Ca e is required because the required space may di er depending on whether or not the options a e used.</li> <li>The space required in front of the printer di ers on how the basket supplied with the printer stand is used. This shows the installation space when used in the position i the illustration</li> </ul>
---	---

<TX-2000>

Installation space (W × D × H)

- When not using the stand  
59.5 × 56.5 × 40.2 inches  
(1510 × 1434 × 1020 mm)
- When using the stand  
59.5 × 66.3 × 61.5 inches  
(1510 × 1684 × 1560 mm)

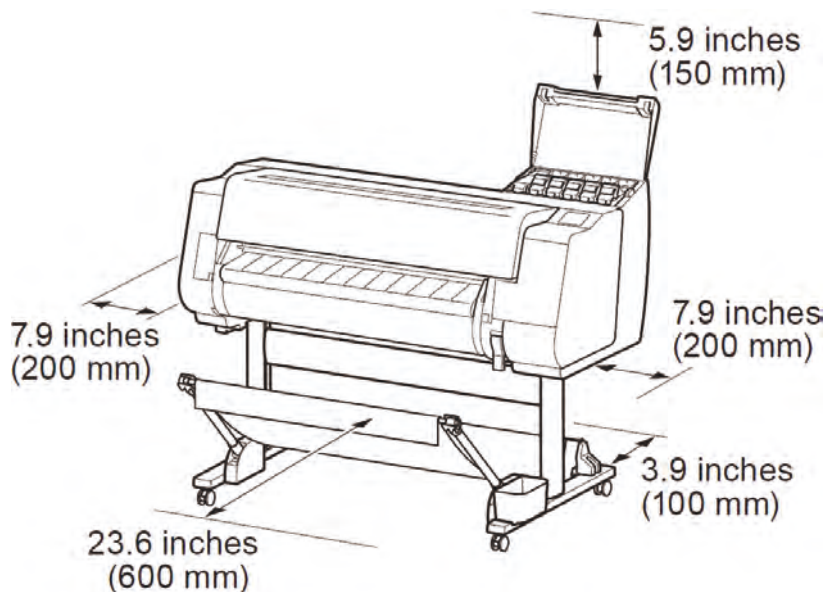


<TX-3000>

Installation space (W × D × H)

70.5 × 66.3 × 61.5 inches

(1790 × 1684 × 1560 mm)

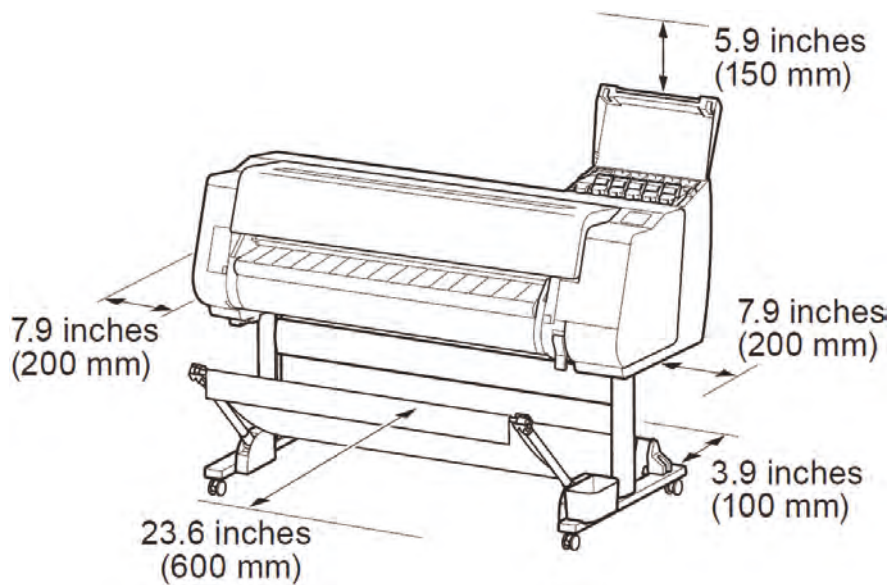


<TX-4000>

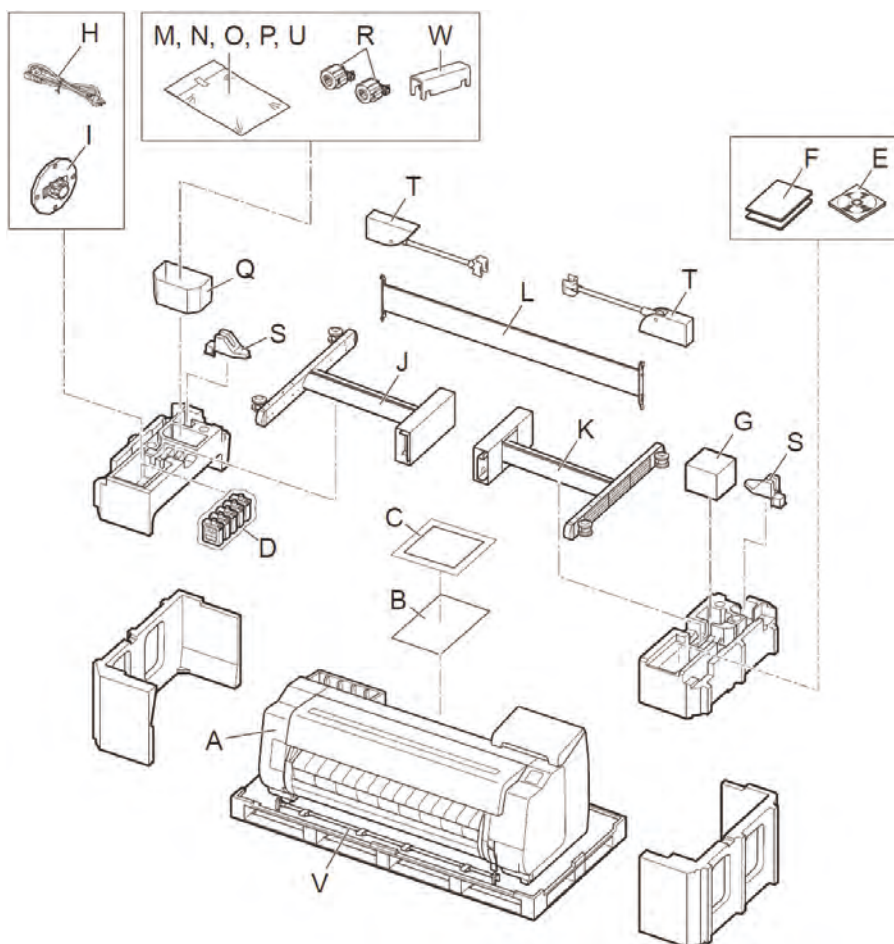
Installation space (W × D × H)

78.5 × 66.3 × 61.5 inches

(1993 × 1684 × 1560 mm)



## Package Contents



- Printer

- A. Printer
- B. Paper for adjustment
- C. Setup Guide
- D. Starter ink tanks (C, M, Y, MBK, BK)
- E. Set of CD-ROMs
- F. Set of printer documentatio
- G. Print head
- H. Power cord
- I. Holder stopper (\*)

\* The holder stopper is used when loading roll paper.  
For details, refer to the Online Manual.

- Stand

Only included with models where the stand is included as standard. Furthermore, it may be packaged in a separate box depending on the region where you purchased the printer.

J. Stand leg L

K. Stand leg R

L. Stand stay

M. M4 hex screw (× 9)

N. M8 hex screw (× 4)

O. M8 Allen wrench

P. M4 Allen wrench

Q. Accessory pocket

R. 3-inch paper core attachment (× 2)

- Basket

These items might not be included depending on your region.

S. Rod holder (× 2)

T. Basket arm (× 2)

U. M4 Hex screw for basket arm (× 4)

V. Basket rod/Basket cloth

W. Basket locking support (× 2)



- Some items are included with the printer but not described in this manual. Keep these items in a safe place after setup because they are used in various printing applications
- A cable to connect the printer to a computer is not provided with the printer.



## Assemble the Stand

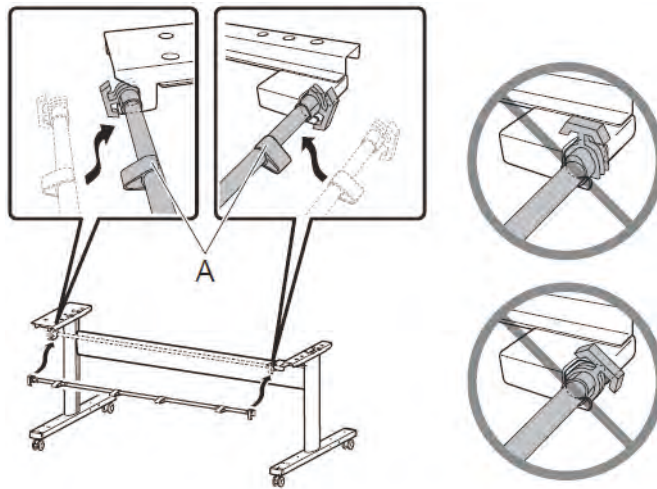
- When using the stand
  - > Assemble the stand on which you will install the printer by referring to the [3-1-2. Printer Stand Setup](#).
- When not using the stand
  - > Proceed to "[Install the Printer](#)"

## Attach the Alignment Rod

Attach the rod for aligning the printer to the stand.

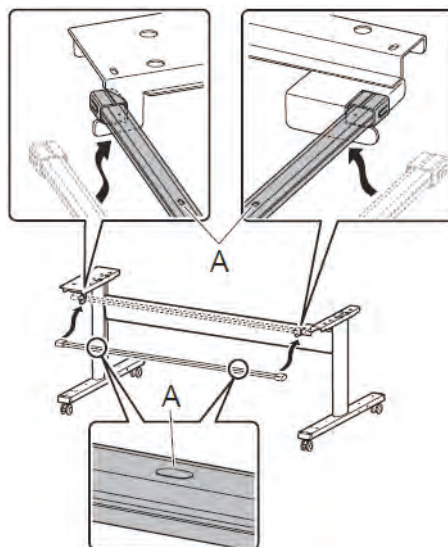
[When using the basket included with the stand]

1. Prepare the basket rod (cord side).
2. Hook the basket rod onto the supporting plates of the stand legs.
  - Attach such that the protrusions (A) on the basket rod are facing towards you.



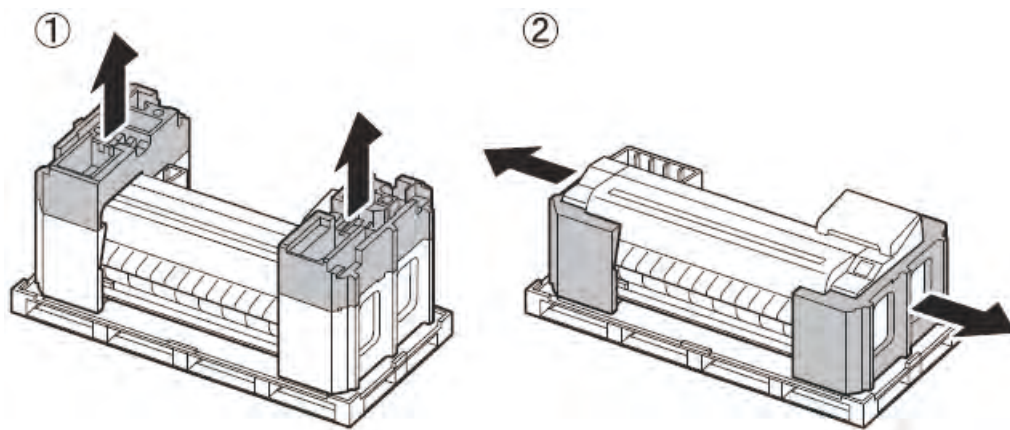
[When using the stacker]

1. Open the stacker box and take out rod 2.
2. Hook rod 2 onto the supporting plates of the stand legs.
  - Attach such that the holes (A) on rod 2 are facing up.

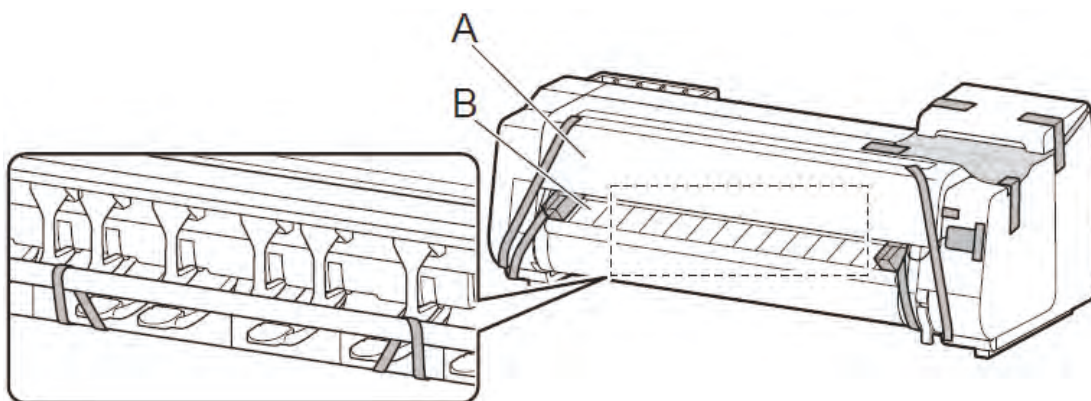


## Install the Printer

1. Remove the packaging material.



2. Remove all of the tape and other packaging material. Open the top cover (A) and output guide (B), and then remove the tape attached to the roll holder.



3. With 3 people holding the carrying handles under the printer on both ends, lift the printer.



Caution

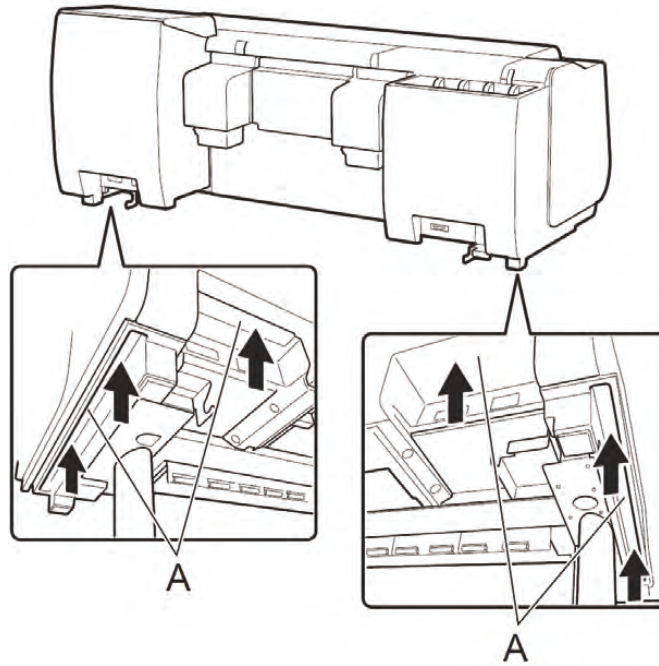
- The printer alone weighs differently depending on the model. TX-2000 is approx. 163 lb (74 kg), TX-3000 is approx. 191 lb (87 kg), and TX-4000 is approx. 211 lb (96 kg). Moving the printer requires at least 6 people, 3 on either side. Be careful to avoid back strain and other injuries.





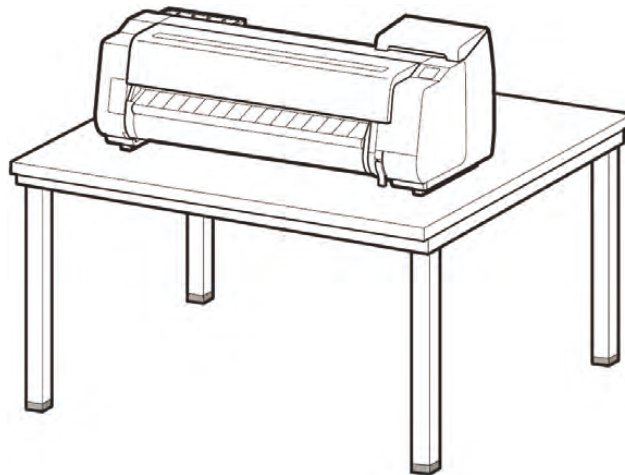
Caution

- When moving the printer, firmly grasp the carrying handles (A) under each side. Holding the printer at other positions is dangerous and cause injury and damage if the printer is dropped.



Caution

- When setting the printer down temporarily make sure to put the printer on a flat, stable place.





- When standing the printer up, make sure the side with the control panel is up, and place cardboard or other material underneath to prevent scratching. Furthermore, make sure that the weight of the printer is taken by the corner of the printer. If the weight is taken by any other part of the printer, the printer may become damaged.



- When standing up the printer or supporting the printer, hold the metal parts of the printer. If you hold a plastic part, the printer may become damaged.



- The way to set the printer down or to carry with the load only to the center of the printer, may cause damage to the printer.

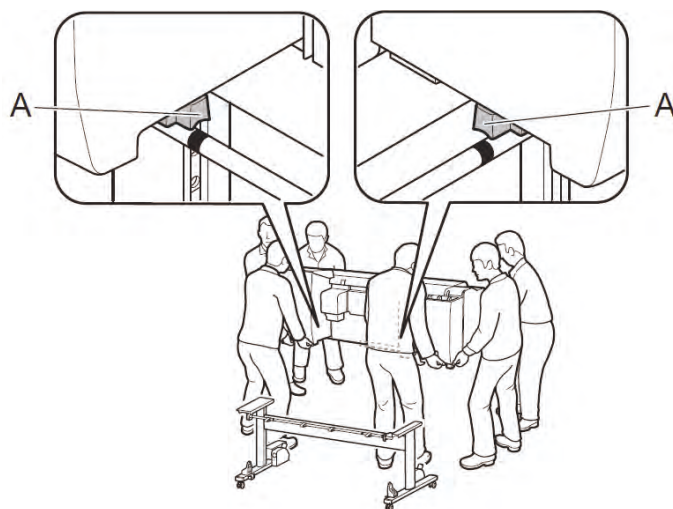




#### 4. Align the position of the printer

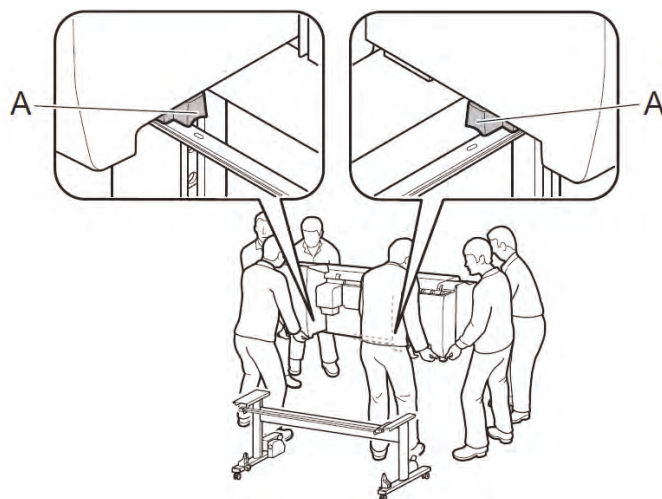
[When using the basket included the stand]

Place the printer on the stand such that the protrusion (A) for aligning the position of the printer under the rear side of the printer is aligned with the position of the black marker on the basket rod attached to the supporting plate.



[When using the stacker]

Place the printer on the stand such that the protrusion (A) for aligning the position of the printer under the rear side of the printer is aligned with the position of the holes on rod 2 attached to the supporting plate.



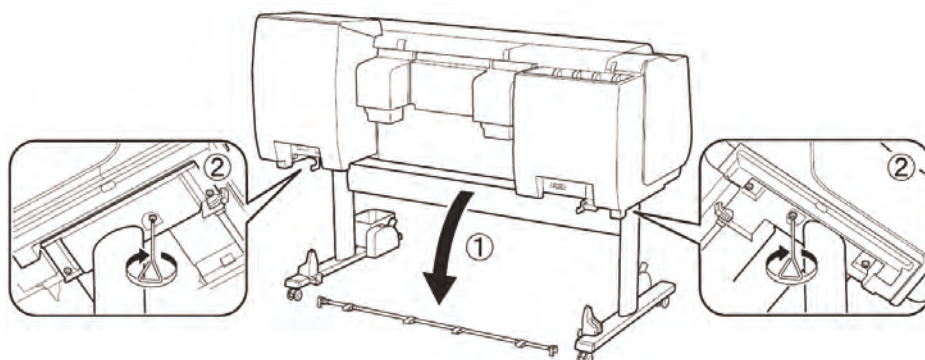
Important

- If you are not using a stand, place the printer in the installation location and proceed to [“Turn On the Printer”](#).

5. Affix the printer to the stand.

1) Remove the alignment rod.

2) Use an M4 Allen wrench to securely affix by using three M4 hex screws each on the left and right from the bottom of the supporting plate.



Important

- The removed alignment rod will be used when attaching the basket.

### Attach the Roll Unit

- When using the roll unit
  - > Attach the roll unit to the stand by referring to the [3-1-3. Roll Unit Setup](#).
- When not using the roll unit
  - > Proceed to "[Attach the Basket](#)".

### Attach the Basket

- When using the basket included with the stand
  - > Attach the basket to the stand by referring to the [3-1-2. Printer Stand Setup](#).
  - Proceed to "[Attach the Basket](#)".
- When not using the basket
  - > Proceed to "[Assemble the Stacker](#)".

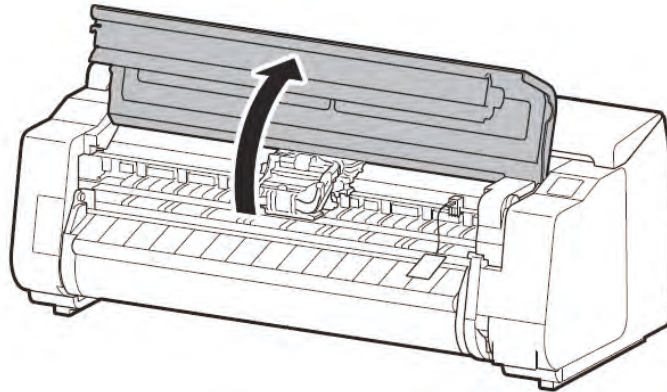
### Assemble the Stacker

- When using the stacker
  - > Assemble the stacker by referring to the [3-1-4. Stacker Setup](#).
- When not using the stacker
  - > Proceed to "[Turn On the Printer](#)".

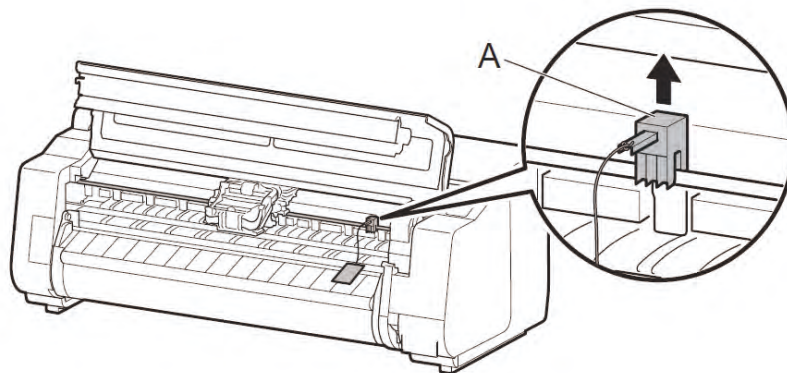



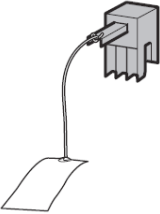
## Turn On the Printer

1. Open the top cover.

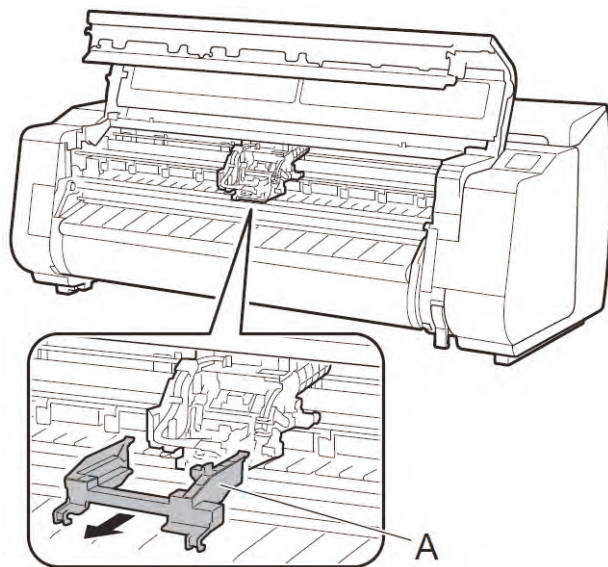


2. Pull up and remove the belt stopper (A).

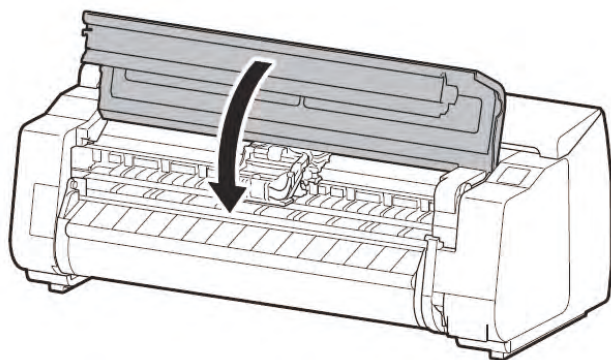


 <b>Note</b>	<ul style="list-style-type: none"> <li>• Keep the belt stopper you removed for future use. You will need them in case you move the printer to another location</li> </ul>  <ul style="list-style-type: none"> <li>• When you open the top cover, a cleaning brush is stored on the right side. Take it out and use it when cleaning inside the top cover.</li> </ul>
--	---

3. Peel off the tape attached to the carriage, and then pull the protective material (A) towards you and remove it. Remove the protective sheet if there is one attached.

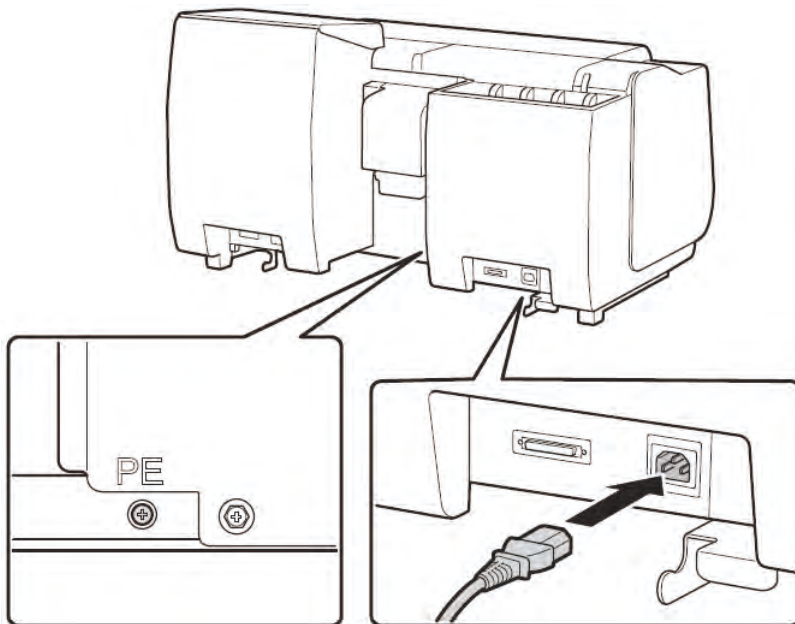


4. Close the top cover.

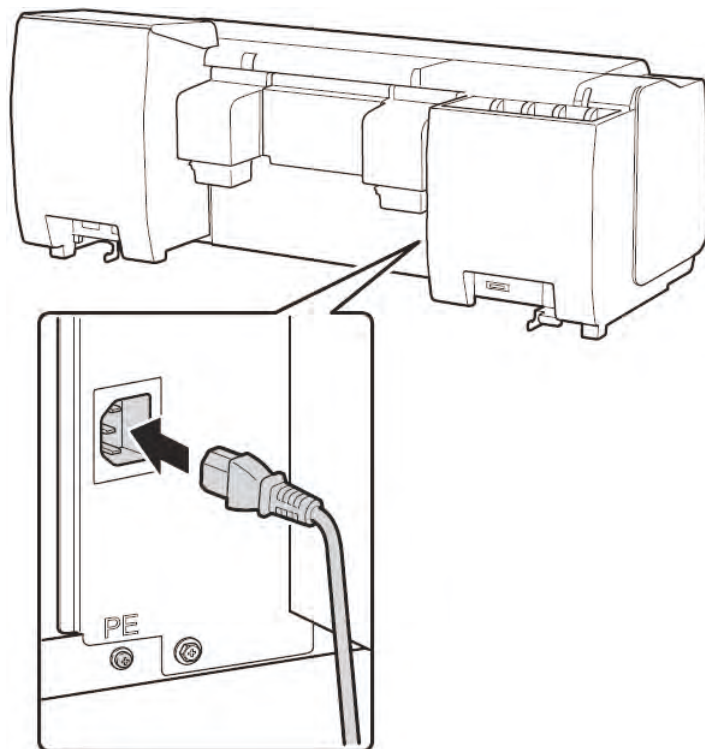


5. Plug the power cord into the power supply connector on the back of the printer.

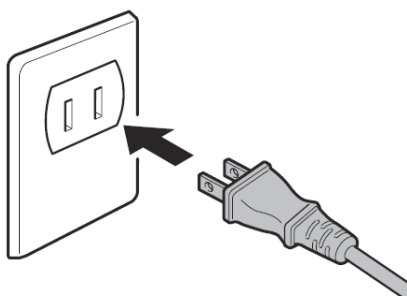
<TX-2000/TX-3000>



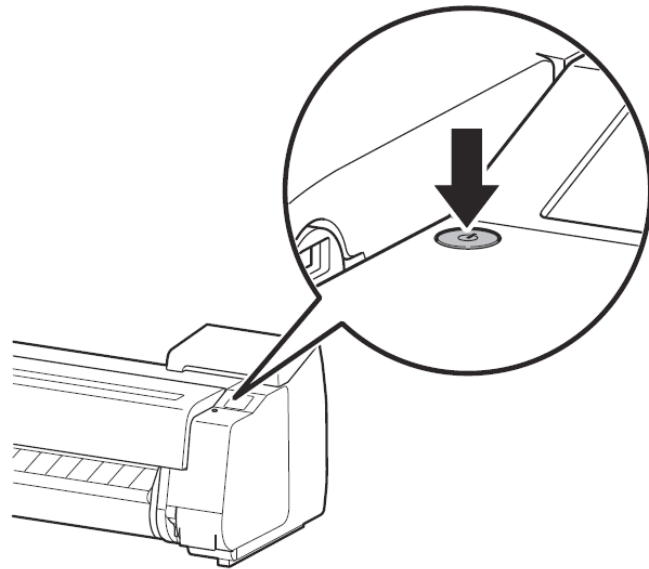
<TX-4000>



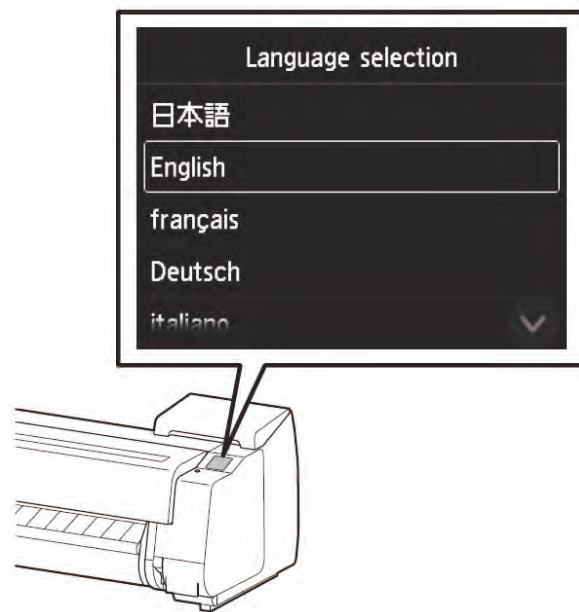
6. Plug the power cord into the outlet.



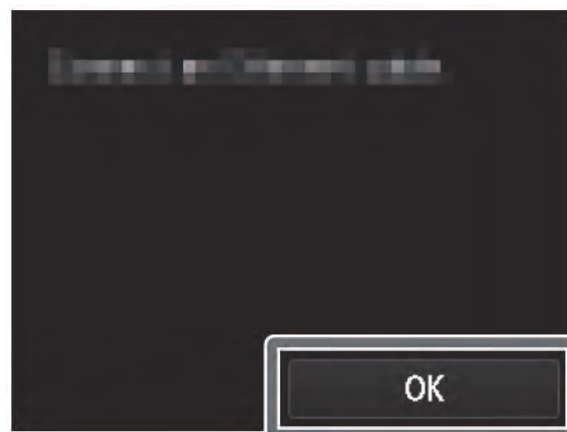
7. Turn on the printer.



8. When the language selection screen appears on the touch screen, select and tap a language (lightly with your finger, and then move your finger away). Then, if the screen for selecting a time zone appears, select and tap your region.



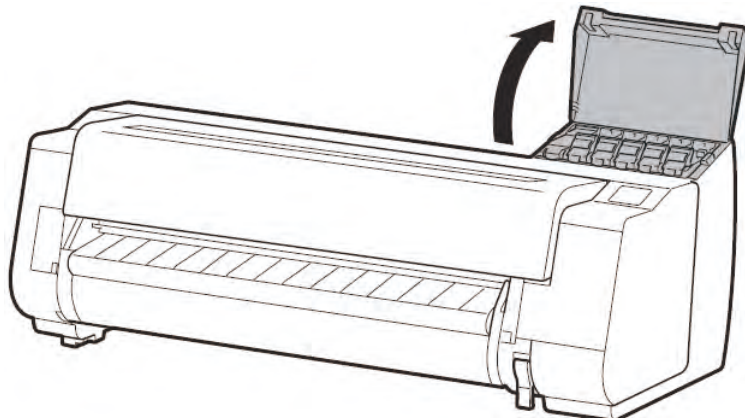
9. When a message prompting you to start the setup appears on the touch screen, tap OK.



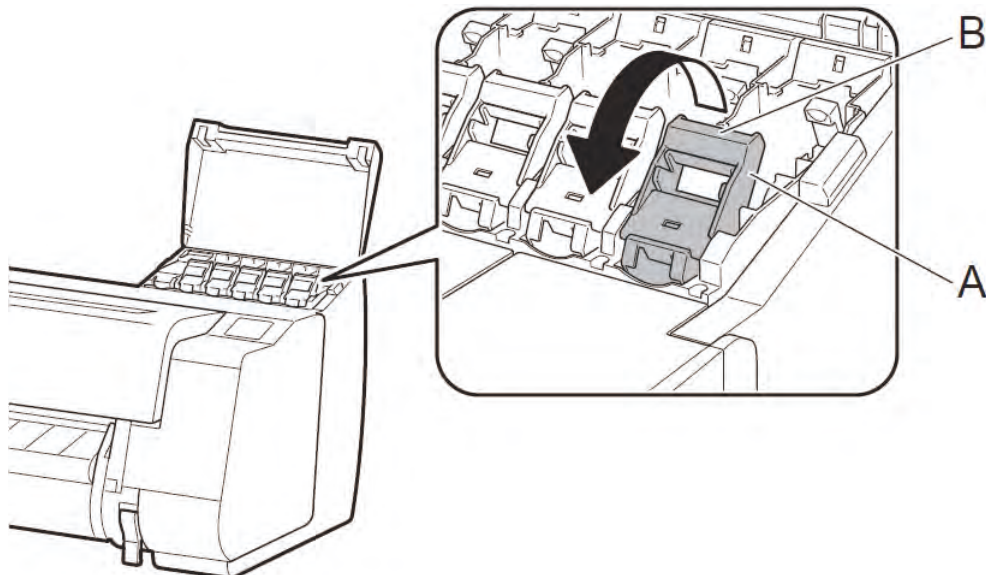
## Install the Ink Tanks

Install the 5 ink tanks by following the instructions on the screen.

1. Instructions on ink tank installation are shown on the screen. Open the ink tank cover as instructed.

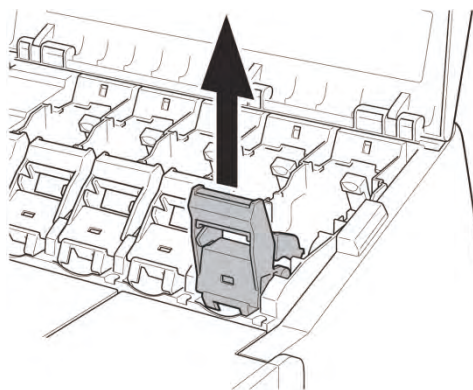


2. Release the ink tank lock lever for the color of ink to install. Pull the handle part (A) towards you while pressing the button at position (B)



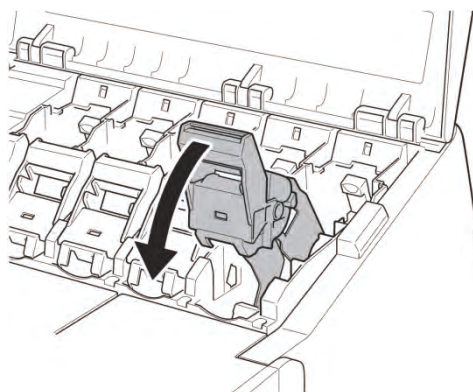
3. Pull out the ink tank lock lever.

- ① Pull straight up.

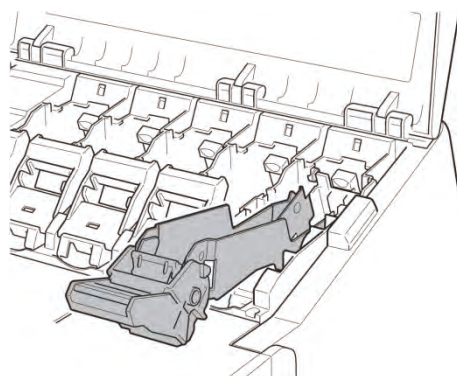




- ② Pull towards you.



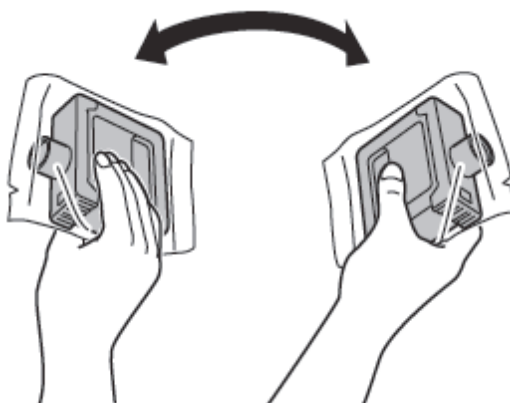
- ③ Securely lay down at a position where it does not return when you release your hand.



Important

- Make sure the ink tank lock lever stays in the locked position

4. Shake each ink tank gently 7 or 8 times before opening its pouch.



Important

- Failure to shake the ink tanks may result in reduced print quality because ink ingredients have settled on the bottom of the tank.

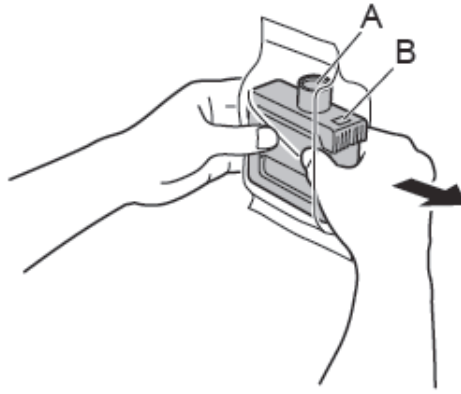


Note

- If the ink tank is cold, allow it to adjust to room temperature before attaching it to the printer.



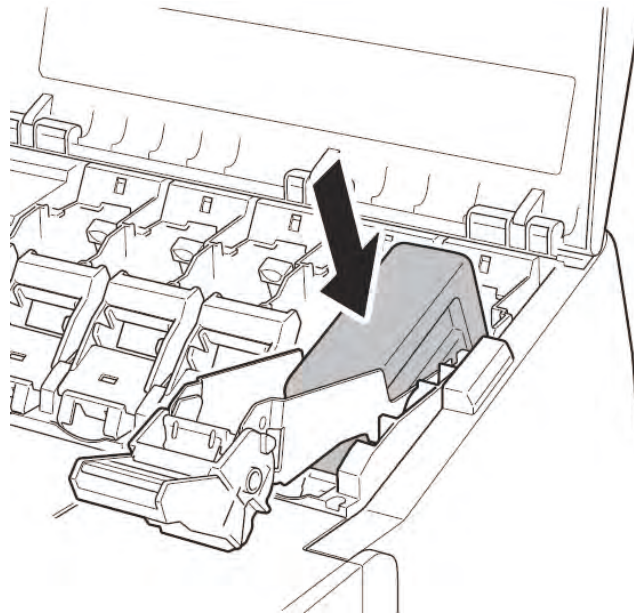
5. Open the pouch and remove the ink tank.



Important

- Never touch the ink holes (A) or metal contacts (B). Touching these parts may cause stains, damage the ink tank, and affect print quality.
- Avoid dropping the ink tank after removing it from the pouch. Otherwise, ink may leak and cause stains.
- Do not remove ink tanks to shake them after they have been mounted. Doing so may cause ink to spill.

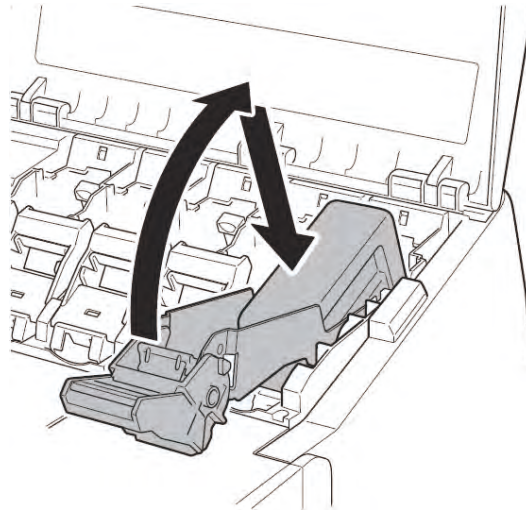
6. Mount the ink tank in the holder. Install with the ink holes facing down and the metal contacts facing away from you.



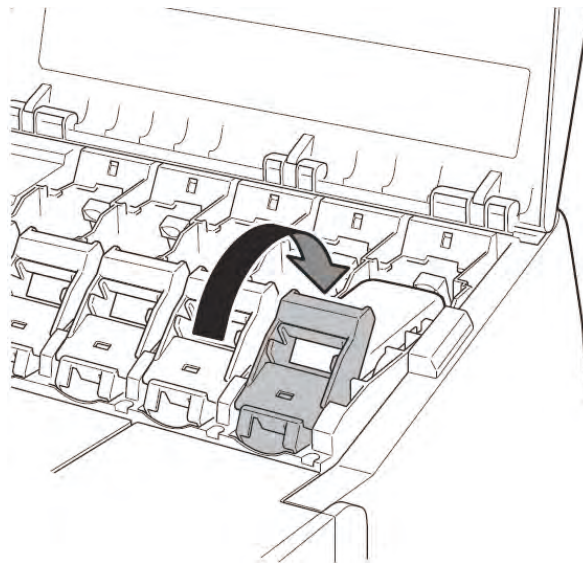
Important

- An ink tank cannot be mounted in the holder if it is not oriented correctly for the color.
- Do not try to force an ink tank into the holder if it does not go in normally. Check the color indicated on the label and the ink tank orientation, and then try mounting the tank into the holder again.

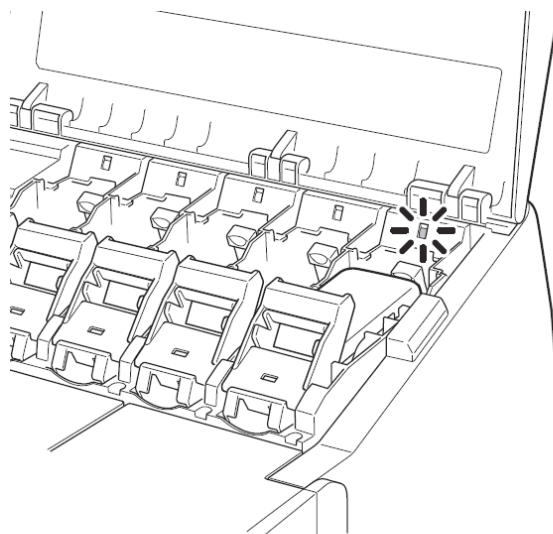
- Lift up the ink tank lock lever once and then push it down.



- Firmly push down the handle part of the ink tank lock lever all the way in.



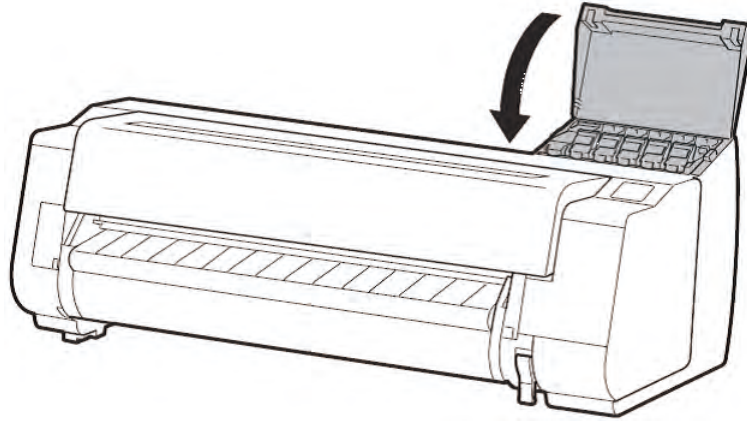
- Make sure the ink lamp lights red.



Important

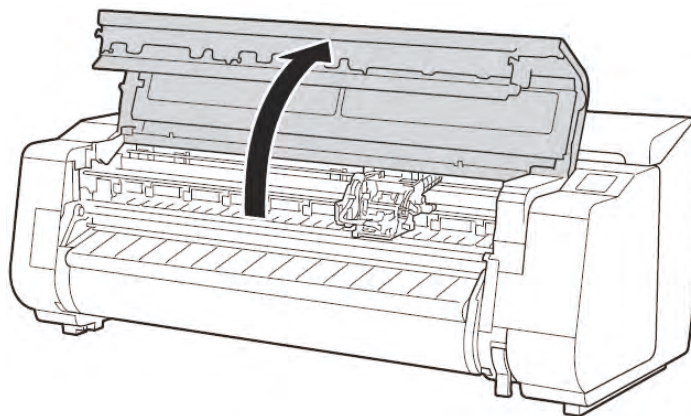
- If the ink lamp does not light, repeat steps 2, 3, 7, and 8.

- Repeat steps 2 to 9 to install each of the ink tanks. Close the ink tank cover. When the screen for confirming installation of the ink tank appears, tap OK.

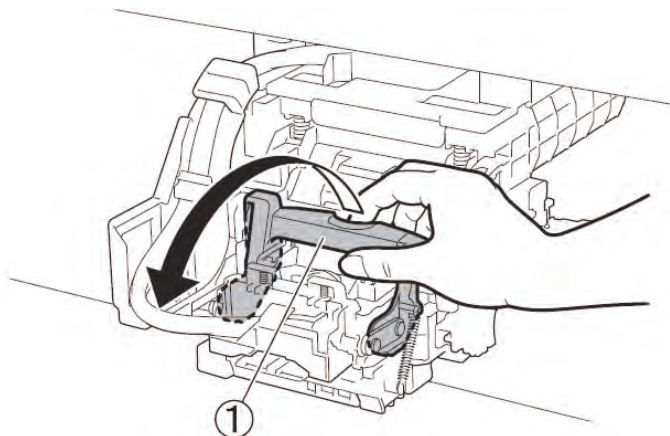


### Install the Print Head

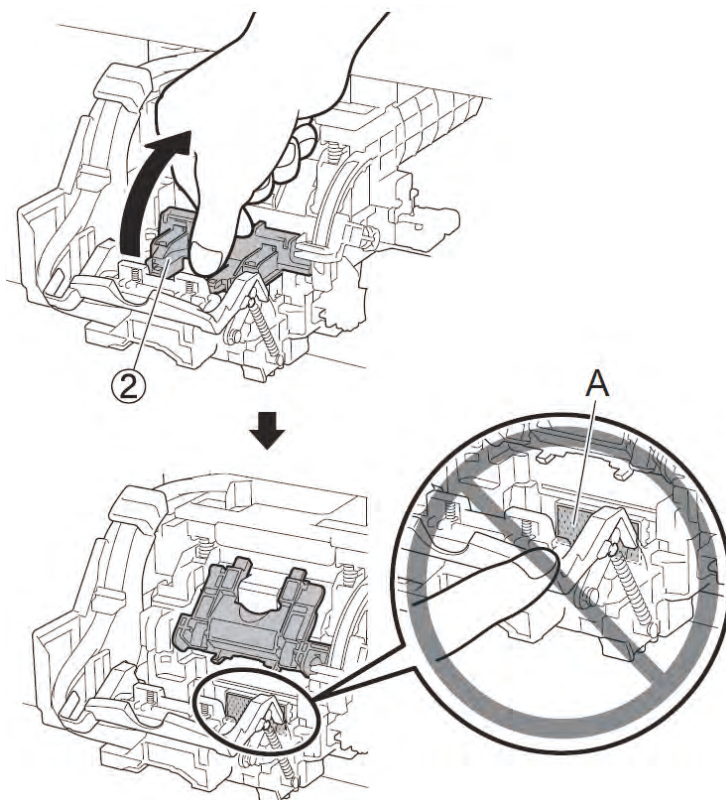
1. When the instruction to open the top cover appears on the screen, open the top cover. Instructions are now shown on the screen regarding print head installation



2. Tilt the print head lock lever ① towards you.

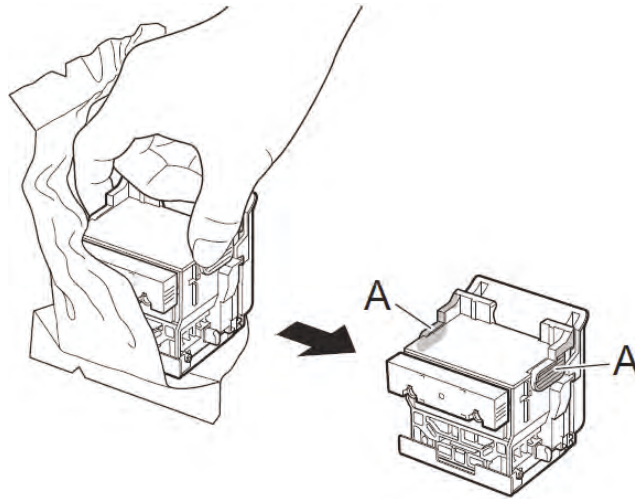


3. Open the print head locking cover ② by following the instructions on the screen, and tap OK. Do not touch (A) on the carriage.

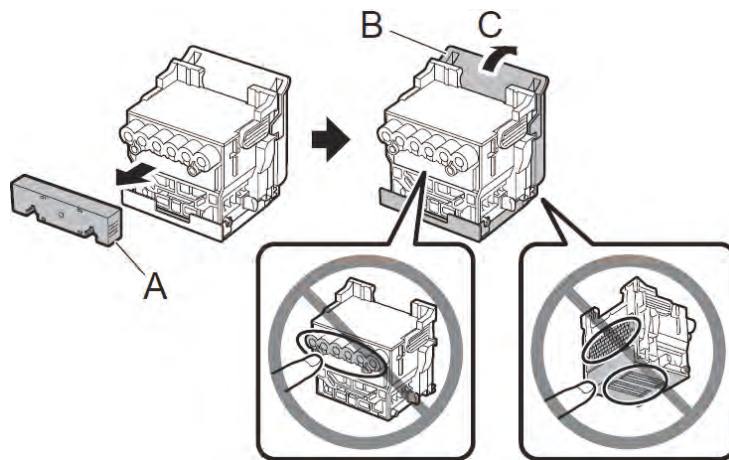




4. Remove the print head from the bag by holding the tab parts (A)



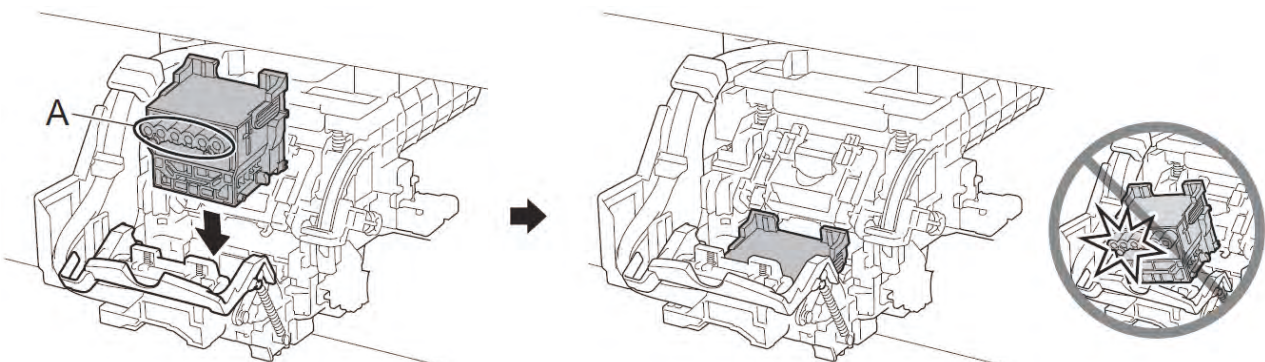
5. Remove the orange protective caps (A and B). Remove the protective cap (B) by holding the tab part (C).



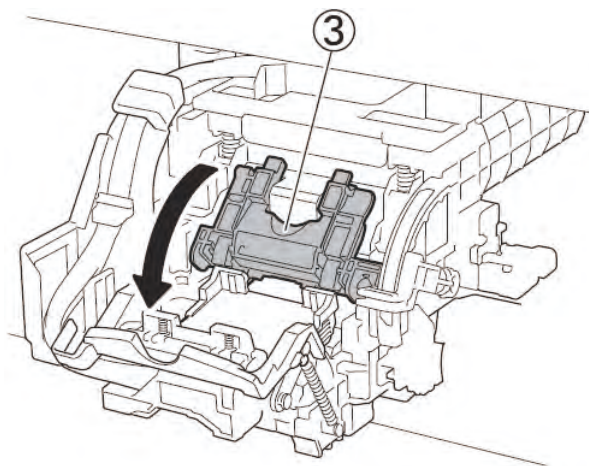
Important

- Do not touch the part that was being protected by the protective cap under any circumstances. Touching it may cause damage to the print head or printing problems.
- The print head contains ink, so be careful not to spill it once the protective caps are removed.
- Do not reach the protective caps after removing them. Dispose of them according to local regulations

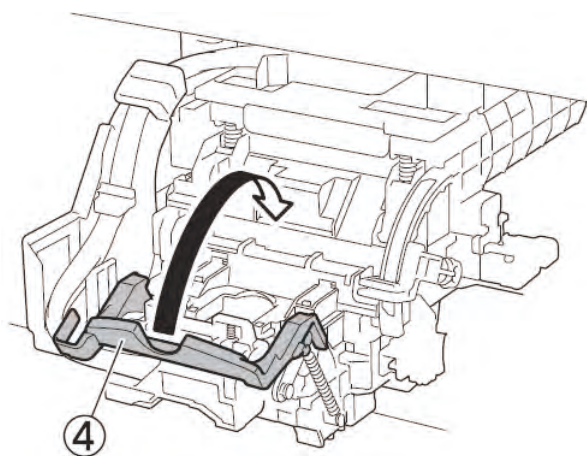
6. Insert the print head into the carriage with the ink holes (A) on the upper side and facing towards you as shown in the figure. Carefully push the print head firmly into the carriage, ensuring that the part covered by the protective caps does not touch the carriage.



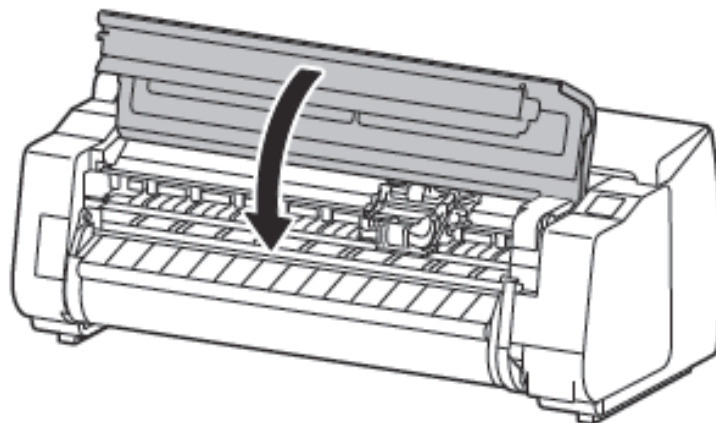
7. Pull the print head locking cover ③ down toward the front to lock the print head in place.



8. Push the print head lock lever ④ all the way to the end.



9. Close the top cover.



Note

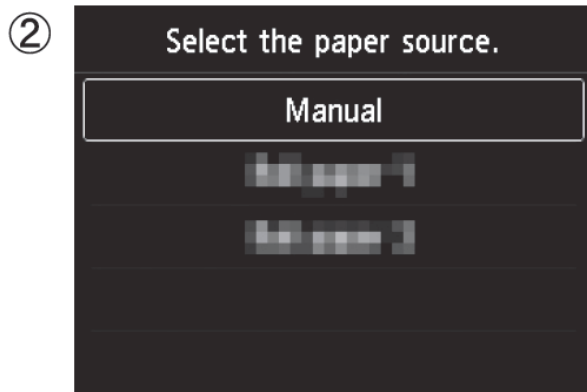
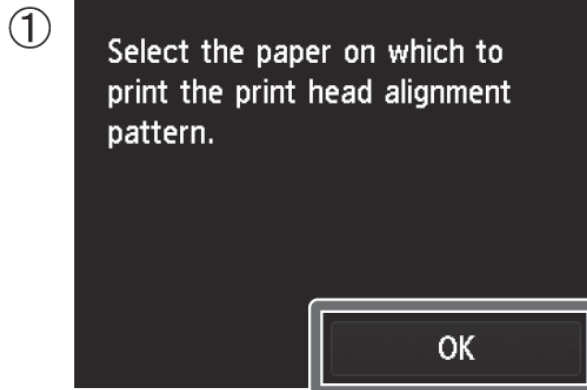
- If the roll unit is installed, the roll unit calibration starts automatically after the print head is attached. If the roll holder is mounted on the roll unit at this time, calibration cannot be executed. Do not mount the roll holder on the roll unit until the setup has finished.



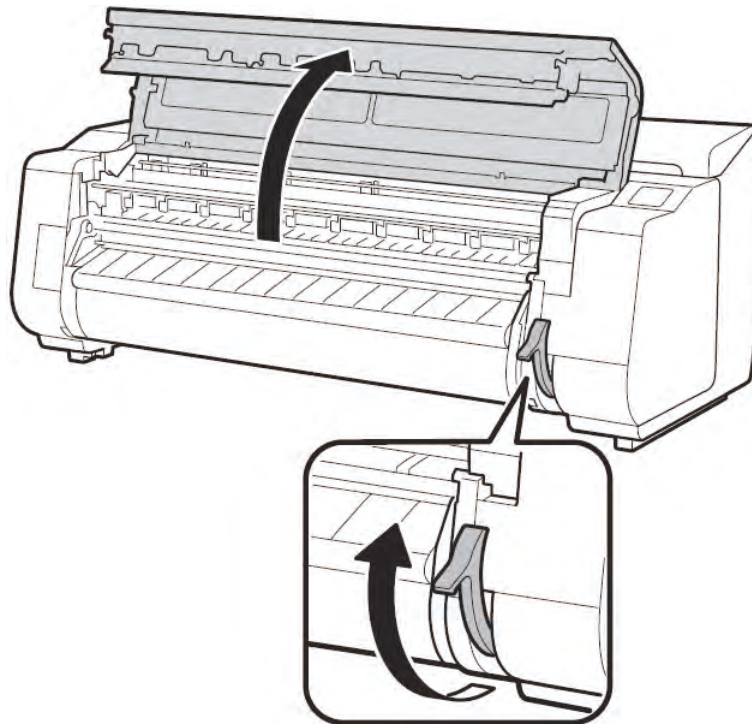
## Load the Paper

Load the paper for adjustment.

1. ① Tap [OK].  
② Tap [Manual].

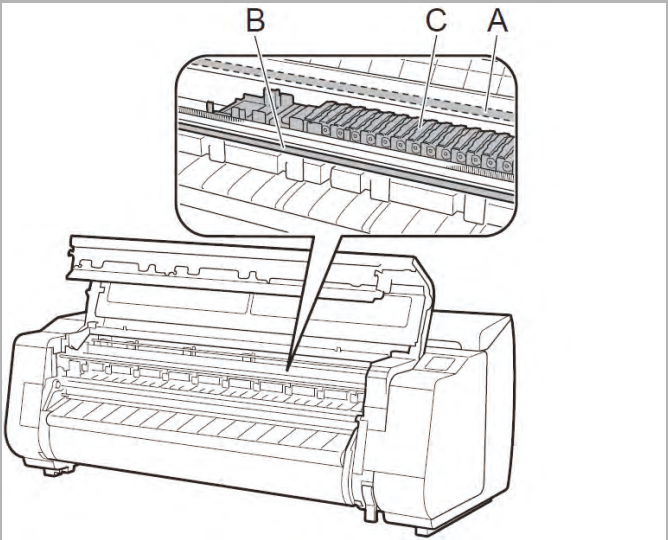


2. Open the top cover and lift the release lever.

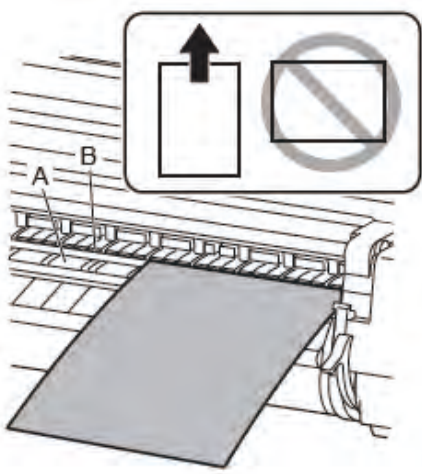





- Do not touch the linear scale (A), carriage shaft (B), or ink tube tabilizer (C). Touching them may cause damage.



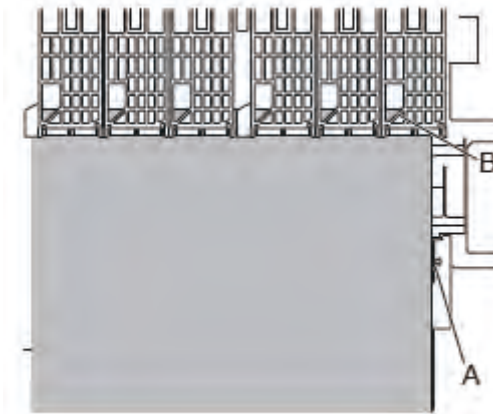
3. Insert the paper for adjustment between the platen (A) and paper retainer (B) in portrait orientation with the printed side of the paper facing up. Only one sheet of paper is needed.



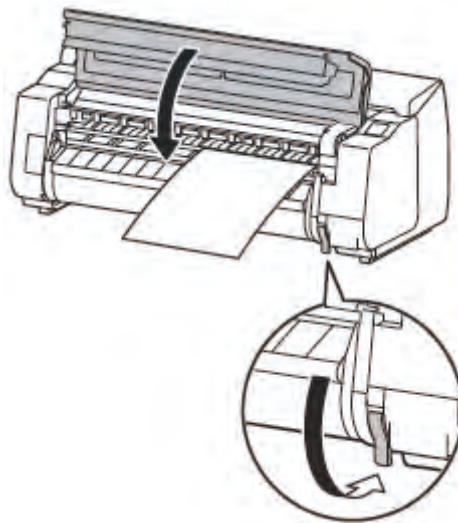
[When using the TX-2000 without the printer stand]

 Important	<ul style="list-style-type: none"><li>• Check that there is nothing under the printer. If there is anything under the printer, it may cause scratches on the paper or paper jams, and you might not be able to adjust the print head correctly.</li></ul>
--	---


4. Load the paper aligned with the paper alignment lines (A) to ensure that the paper is not crooked, and align the leading edge of the paper with the front side of the line (B).



5. Lower the release lever to lock the paper and close the top cover.

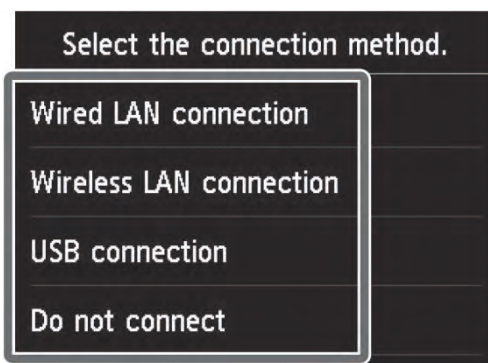


6. The screen for selecting the paper type appears. Tap the type of paper you loaded. In this case, tap Coated papers then Coated papers.

 Note	<ul style="list-style-type: none"><li>• If "The paper is loaded askew." appears, repeat steps 2 to 5.</li></ul>
---	---

## Perform Print Head Adjustment and Select the Connection Method

- When the screen for selecting the connection method appears, select the connection method to use.



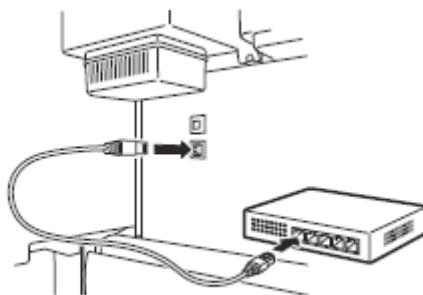
Note

- If you are connecting the printer to the network using a fixed IP address, select Do not connect. Configure the settings from the touch screen of the printer after the printer has finished changing the ink for the first time and adjusting the print head.

### [Wired LAN connection]

This is the method for connecting the printer to the network using a LAN cable

- Tap Wired LAN connection
  - Check the message about the connection method and tap Yes if there are no problems.
  - A message prompting you to connect the LAN cable appears.
  - Use the LAN cable to connect the wired LAN connector on the back of the printer to the hub port.



- Tap OK.

### [Wireless LAN connection]

This is the method for connecting the printer to the network without using a LAN cable


- Tap Wireless LAN connection
  - Check the message about the connection method and tap Yes if there are no problems.
  - A message prompting you to set up the wireless LAN appears.
  - If you are configuring from a computer
    - > Tap Yes.

If you are configuring from the printer

-> Tap No.


[USB connection


This is the method for connecting the printer to a computer using a USB cable. Only 1 printer can be connected.

 <b>Important</b>	<ul style="list-style-type: none"> <li>Do not connect the USB cable yet..</li> </ul>
---	--

- Tap USB connection. Check the message about the connection method and tap Yes if there are no problems.

When the connection is completed, The paper starts feeding, and then the printer automatically starts charging the system with ink and adjusting the print head. Charging the system with ink and adjusting the print head for the first time takes about 35 minutes.

 <b>Important</b>	<ul style="list-style-type: none"> <li>Do not open the covers of the printer or turn the power off while the ink is charging for the first time and the print head adjustment is executing</li> </ul>
---	---

 <b>Note</b>	<ul style="list-style-type: none"> <li>If you selected Do not connect, the connection settings and software installation will need to be performed separately. Proceed to "<a href="#">Connect to the Printer</a>"</li> <li>Charging the system with ink fills the system from the ink tanks to the print head. In addition, cleaning is performed to keep the printer in optimal condition. This may cause the remaining ink indicator and maintenance cartridge capacity indicator to drop some amount. The starter ink tank is for first-time installation. It is recommended that you purchase replacement ink tanks quickly.</li> </ul>
--	--

[Wired LAN connection and USB connection

Configure the printer and computer connection settings and install the software while the ink is charging for the first time and the print head is adjusting

Proceed to "[Connect to the Printer](#)"

[Wireless LAN connection

If you are configuring from a computer

-> Configure the printer and computer connection settings and install the software while the ink is charging for the first time and the print head is adjusting

Proceed to "[Connect to the Printer](#)"

If you are configuring from a printer

-> Configure the wireless LAN settings from the printer has finished charging the ink for the first time and adjusting the print head.

Proceed to "[Configure Wireless LAN Setting on the Printer](#)"

## Connect to the Printer

The printer connection settings and software installation are performed using a computer.

You can download the setup files from our website. If you are using a Windows PC, you can also start this from the CD-ROM.

However, if you selected No in step 3 for connecting to a wireless LAN on [Perform Print Head Adjustment and Select the Connection Method], configure the wireless LAN settings only using the printer. Proceed to "[Configure Wireless LAN Settings on the Printer](#)"

- Downloading and running from the website

1. Enter the following URL in the web browser of your computer to access the website.



2. Click [Set Up].

Perform the remaining operations by following the instructions on the screen.



3. Click [Download] to download the setup files

If a warning screen about downloading appears, select [Do not block, Allow], etc. and then proceed to the next step.

- Click **Download** on the computer to which you want to connect the printer.

- Running from the CD-ROM



[If you are using Windows 10 or Windows 8.1]

1. Insert the setup CD-ROM into the computer.




2. Click the popup message for the disk drive and click [Run Msetup4.exe] on the screen this is displayed.

**If the message did not appear (or has disappeared)**

- ① Click  or  [File Explorer] on the taskbar.
- ② Click **This PC** on the left side of the window that opens.



- ③ Double-click the  CD-ROM icon on the right side of the window.
  - ④ If the contents of the CD-ROM appear, double-click [Msetup4.exe].
3. If the [User Account Control] dialog box appears, click [Yes] and proceed to the next step.


[If you are using Windows 7]

- 1. Insert the setup CD-ROM into the computer.

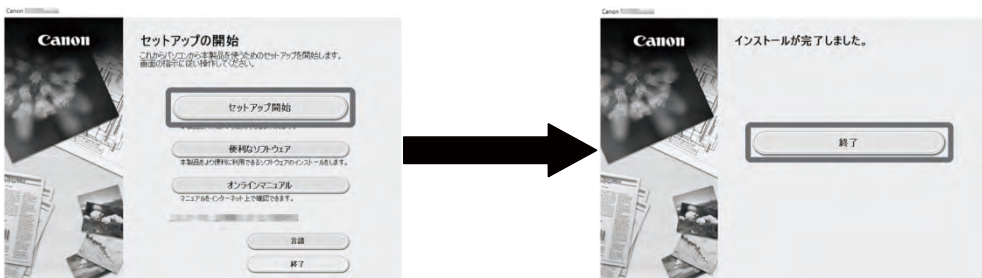


- 2. When the [AutoPlay] screen appears, click Run [Msetup4.exe].


**If the AutoPlay screen does not appear**

- ① Click Computer from the start menu.
  - ② Double-click the  CD-ROM icon on the right side of the window.
  - ③ If the contents of the CD-ROM appear, double-click [Msetup4.exe].
3. If the [User Account Control] dialog box appears, click [Continue] and proceed to the next step.
4. Click [Start Setup].

Configure the settings by following the instructions on the screen.



This completes the setup.


 <b>Note</b>	<ul style="list-style-type: none"> <li>• A screen for selecting the printer connection method may be displayed in the middle of configuring the setting. If this happens, select the method you selected on [Perform Print Head Adjustment and Select the Connection Method], and then click [Next] and continue with the rest of the setting</li> </ul>
--	--

## Configure Wireless LAN Settings on the Printer

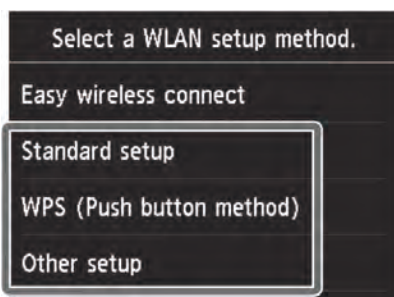
If you selected No in step 3 for connecting to a wireless LAN on [Perform Print Head Adjustment and Select the Connection Method], configure the wireless LAN settings using the touch screen of the printer.

- Once the print head adjustment has finished, check that the following screen appears and tap OK.



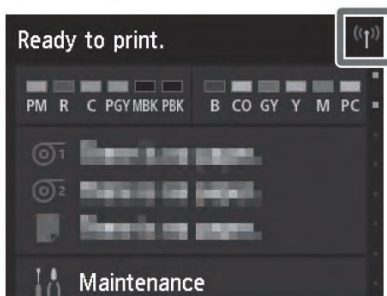
 <p>Note</p>	<ul style="list-style-type: none"> <li>If the following message appears, the printer initial settings are not finished. Wait until the above screen appears.           <ul style="list-style-type: none"> <li>Checking the nozzle.</li> <li>Injecting the ink</li> <li>Cleaning...</li> </ul> </li> </ul>
---	---


- Select and tap the connection method.



Configure the wireless LAN settings by following the instructions on the screen.

- When the home screen appears and  appears, the wireless LAN settings are complete.



 <p>Note</p>	<ul style="list-style-type: none"> <li>Before using the printer, the software needs to be installed on the computer that is connected to the printer. Proceed to <a href="#">“Connect to the Printer”</a></li> </ul>
---	--

## Storage Locations

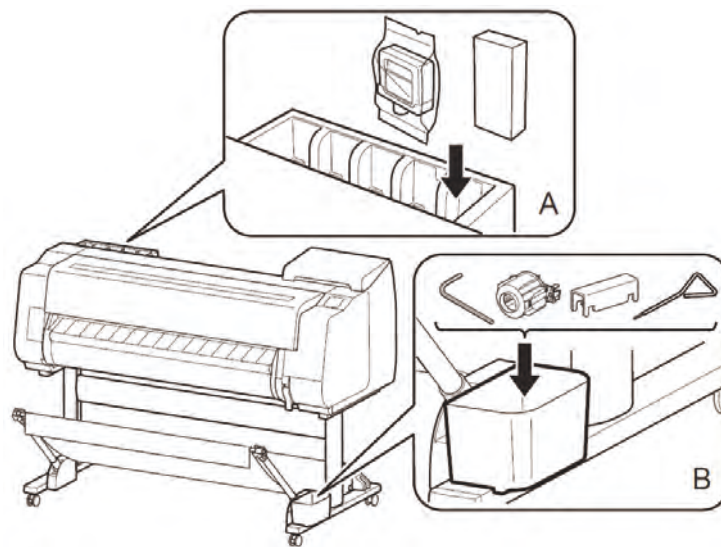
A: Spare ink box


Can be used to store spare ink tanks.

 <b>Important</b>	<ul style="list-style-type: none"> <li>Do not place a used ink tank.</li> </ul>
---	---

B: Accessory pocket

- Can be used to store accessories such as the 3-inch paper core attachment.
- The accessory pocket is included with the stand. Refer to [the section 13 of “Attach the Basket”](#) in the 3-1-2. Printer Stand Setup for details on how to attach.



To load roll paper after setup, tap the paper settings display area from the home screen, then  (roll paper icon), then Replace Paper, and follow the instructions on the screen.

For details, refer to the Online Manual that can be accessed by the procedure in “How to Display the Online Manuals”.

## How to Display the Online Manuals

Online Manual that describes how to use the printer in detail is published on the Web. Access it using the following procedure as needed.

1. Access the Canon website by any of the following methods.

- Enter the URL

<http://ij.start.canon>



- Scan the QR code



\* A special app is needed in order to scan the QR code.

2. Click or tap [Read Online Manual].

Perform the remaining operations by following the instructions on the screen to display the Online Manual.



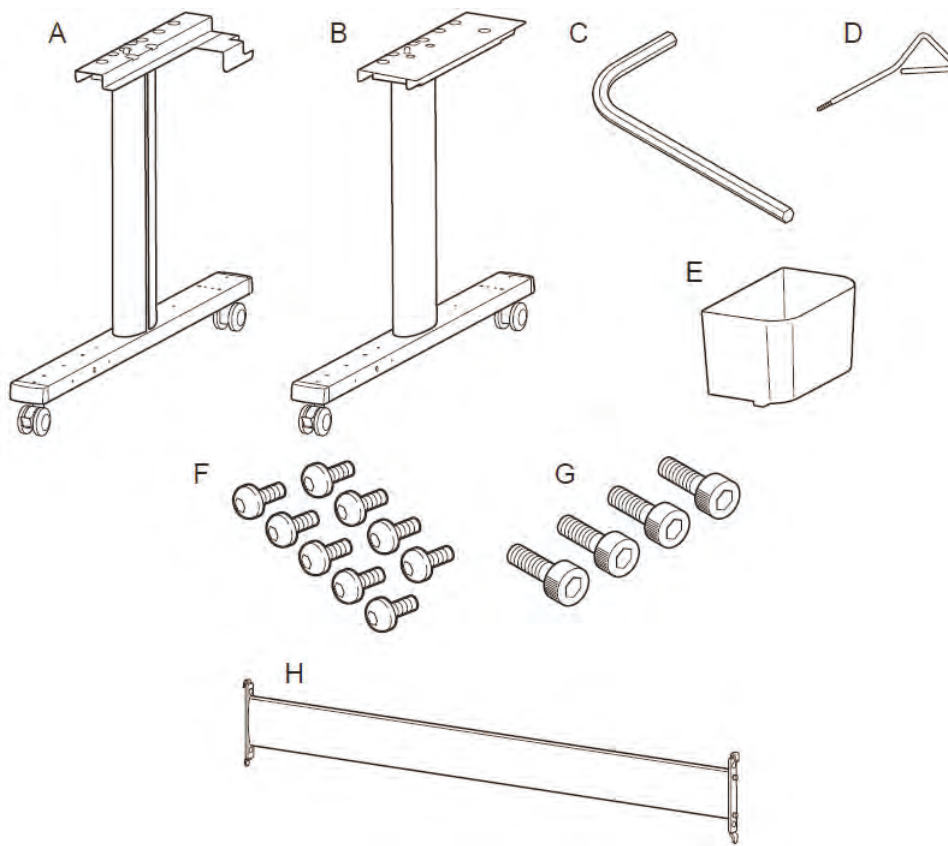
## Responding to Messages

Error messages may appear on the touch screen of the operation panel when setting up printer. If so, it may not indicate a problem with the printer, and the issue may be easily resolved. Common messages and the causes are listed here with corrective actions. For details on other messages, refer to the Online Manual.

Message	Cause	Corrective Action
The ink tank is not installed. Install the ink tank properly.	There is no ink tank loaded.	Load or reload the ink tank. (Refer to step 1-10 of Install the Ink Tanks)
	The ink tank is not firmly installed all the way in.	
Print head cannot be recognized correctly. Open the top cover and install the correct print head.	The print head is not installed.	Install the print head. (Refer to step 1-9 of Install the Print Head)
	Electrical contact failure in the print head.	Remove the print head, make sure that no debris becomes adhered to the contacts on the print head and the carriage, and then reinstall the print head.
The paper is loaded askew. Lift the release lever and reload the paper.	The paper may not be aligned with the paper alignment line.	Reload the paper so that the edge of the paper is aligned with the paper alignment line. (Refer to step 2-6 of Load the Paper)
Unsupported paper size. Lift the release lever and replace the paper.	The roll paper is fed even though cut sheet remains selected as the paper source.	Release the release lever and reload the paper. Tap the paper settings display area from the home screen, then  (roll paper icon), then <b>Replace paper</b> , and feed the roll paper again. For details, refer to "Removing the Upper Roll from the Printer" and "Loading the Upper Roll on the Printer" in the Online Manual.
Hardware error ECxx-xxxx (x represents a letter or number) Printer error has occurred. Turn the device off, wait a while, and then turn it on again.	The belt stopper or the tape inside the top cover has not been removed.	Turn off the power, open the top cover, and remove the tape and the belt stopper, then turn the power on.
	You may have encountered an error that cannot be resolved.	Turn off the printer and wait at least 3 seconds before restoring the power. If the message appears again, write down the error code and message, turn off the printer, and contact your Canon dealer for assistance.
Error E0xxx-xxxx (x represents a letter or number) Printer error has occurred. See the manual and contact the service center.	You may have encountered an error that cannot be resolved.	Write down the error code and message, turn off the printer, and contact your Canon dealer for assistance.

## 3-1-2. Printer Stand Setup

### Package Contents



- A. Stand leg L
- B. Stand leg R
- C. M8 Allen wrench
- D. M4 Allen wrench
- E. Accessory pocket
- F. M4 hex screw (× 9)
- G. M8 hex screw (× 4)
- H. Stand stay

- These items might not be included depending on your region.

I. M4 Hex screw for basket arm (× 4)

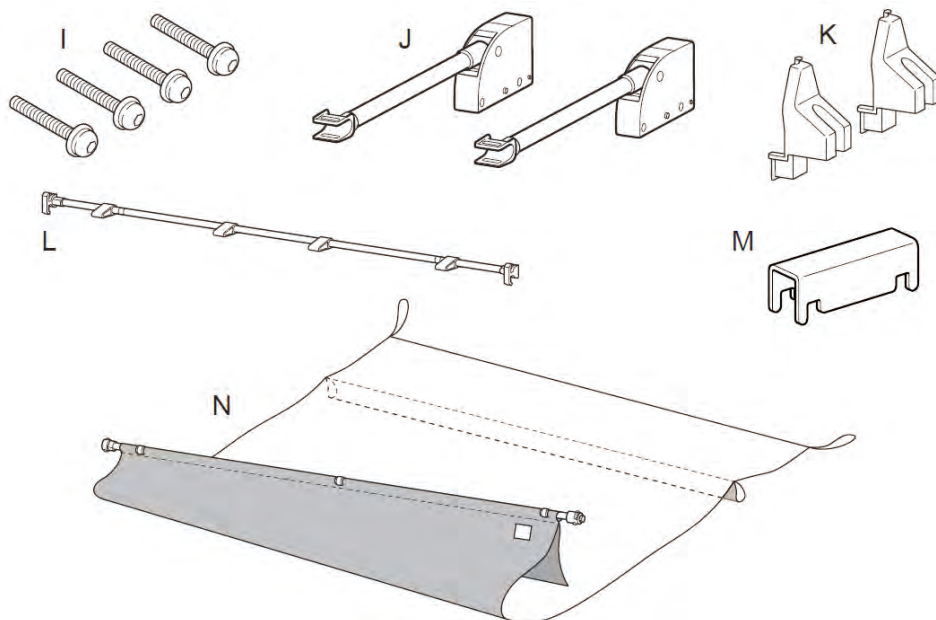
J. Basket arm (× 2)

K. Rod holder (× 2)

L. Basket rod (cord side) \*1

M. Basket locking support (x 2)

N. Basket cloth/Basket rod (tag side) \*2



\*1 The basket rod (cord side) can also be used as an alignment rod when installing the printer.

\*2 The basket rod (tag side) is already attached to the basket cloth.

- Other documentation may also be included in the package.
- Although the illustrations may differ from the model you are using, the basic procedure is the same.

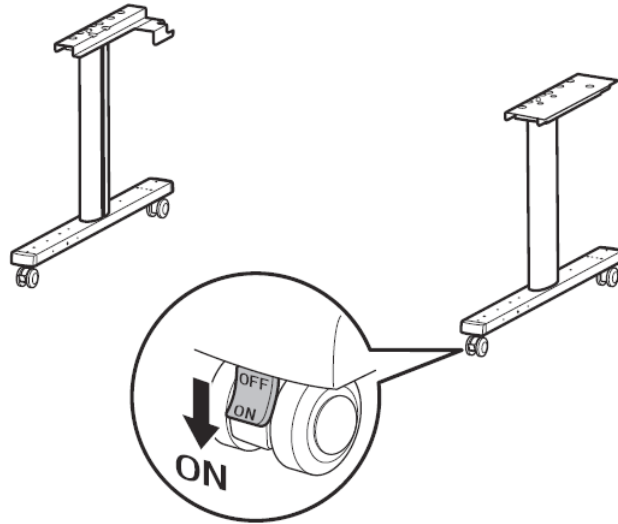


## Assemble the Stand

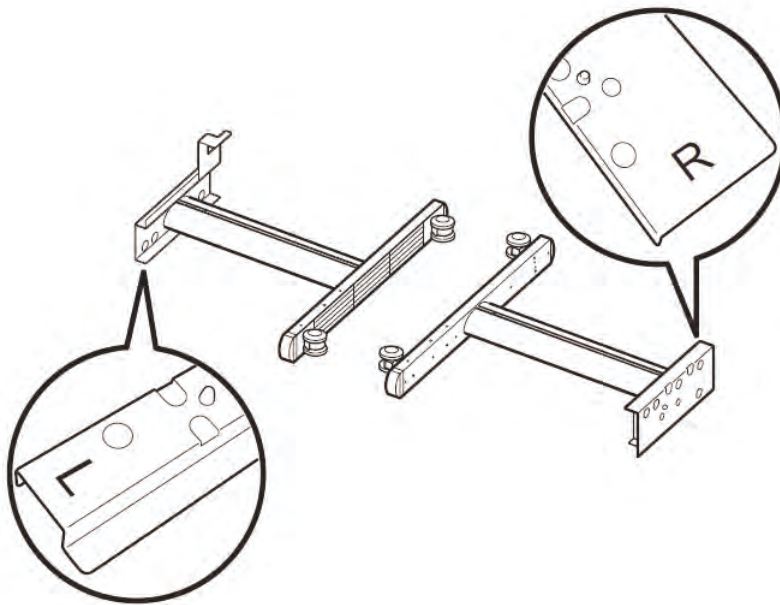


- Stand assembly requires 2 or more people. Assembling the Stand alone poses a risk of injury or accidental bending of the stand.

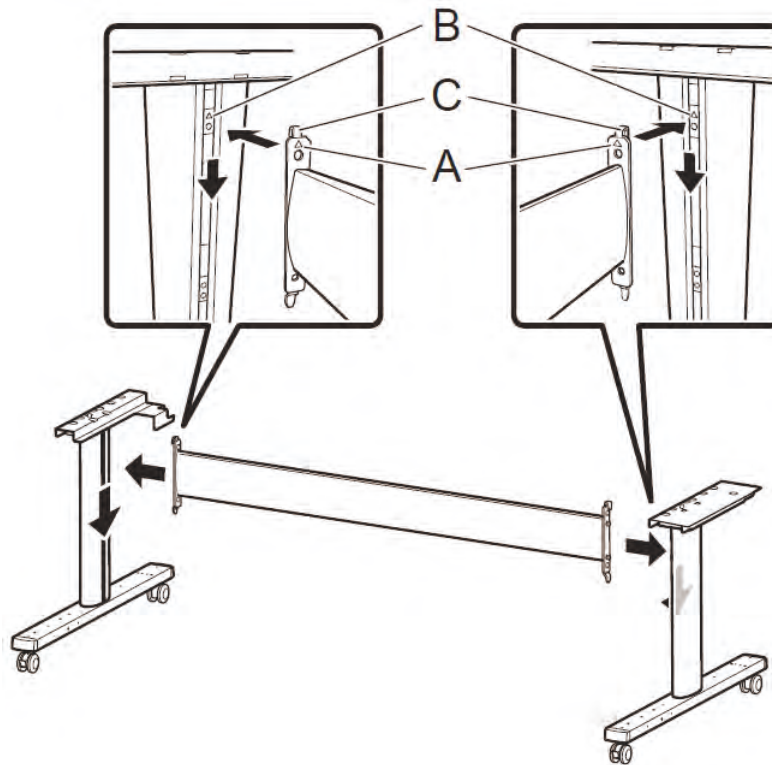
1. Check that locks on a total of 4 casters on both stand leg L and stand leg R are engaged.



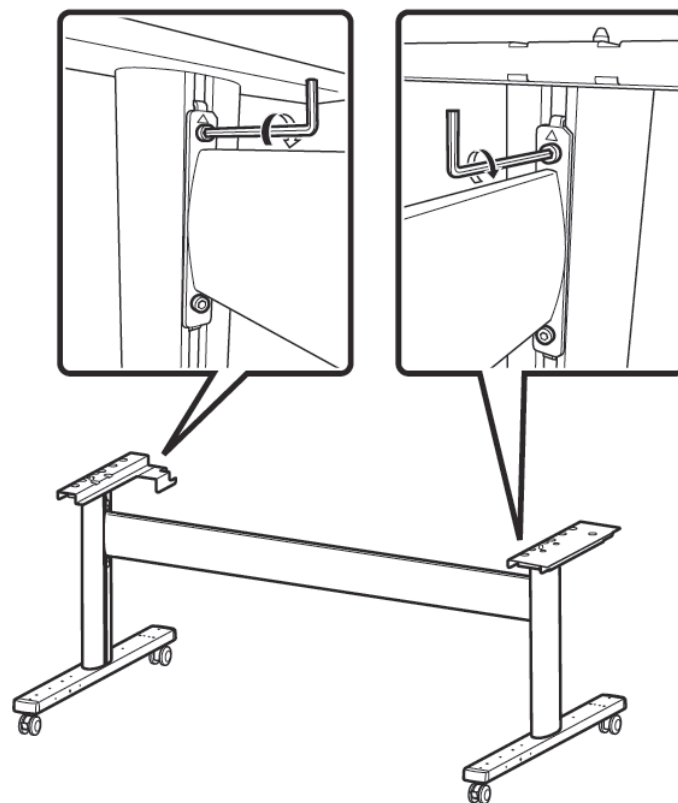
2. Arrange the stand leg L and stand leg R as shown in the diagram.



- Align the positions of the ▲ (A) stamped on the left and right of the stand stay to overlap with the ▲ (B) stamped on the inner sides of the stand legs, and hook the hook-shaped parts of the stand stay (C) onto the stand legs.

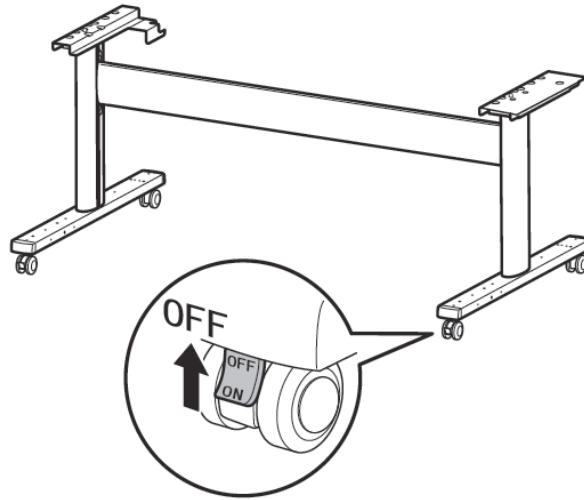


- Affix the stand stay using 2 M8 hex screws each on the left and right sides. Securely tighten the screws using the M8 Allen wrench.

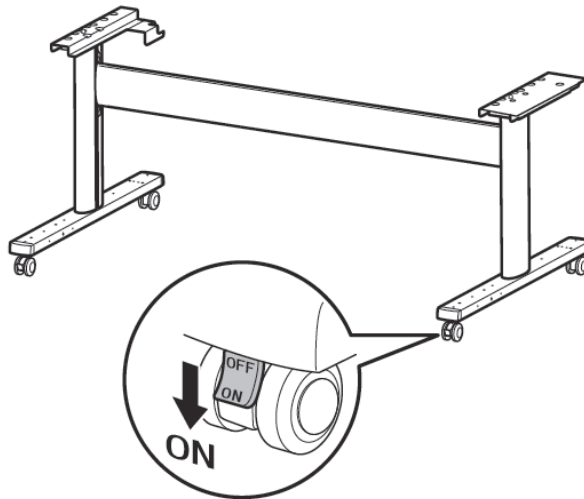


## Prepare to Install the Printer

1. Move the stand to a location that will make it easy to install the printer. When moving the stand, switch the locks on all 4 casters to off.



2. After moving the stand, return all 4 of the caster locks to on.



## Install the Printer

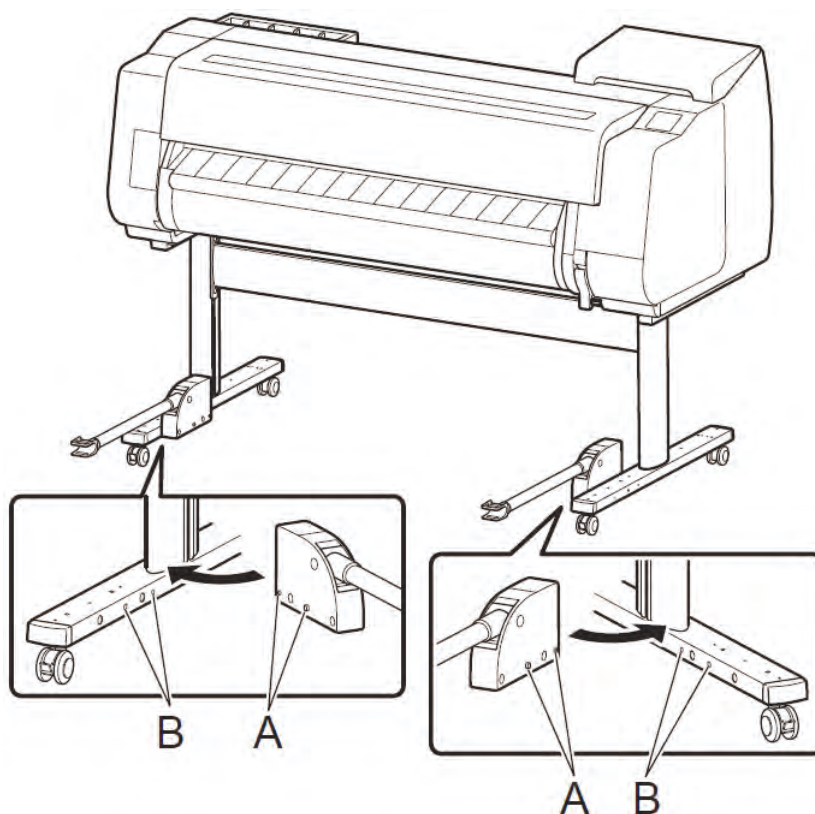
Install the printer on the stand. Refer to 3-1-1. Printer Installation and proceed to [“Attach the Alignment Rod.”](#)

## Attach the Basket

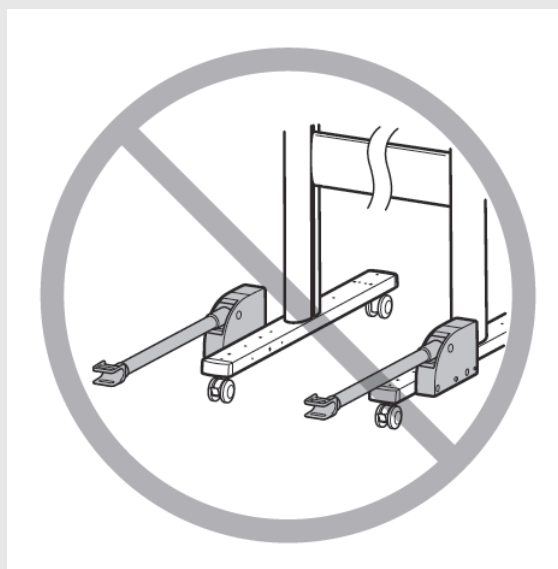


- The basket included with the stand cannot be used while using the stacker.

1. Check that the printer is installed on the stand. If it is not installed, install the printer by referring to the Setup Guide for the printer.
2. Align the protrusion (A) on the side of the basket arm with the hole (B) on the inner side of the stand leg, and attach the basket arm to the stand.

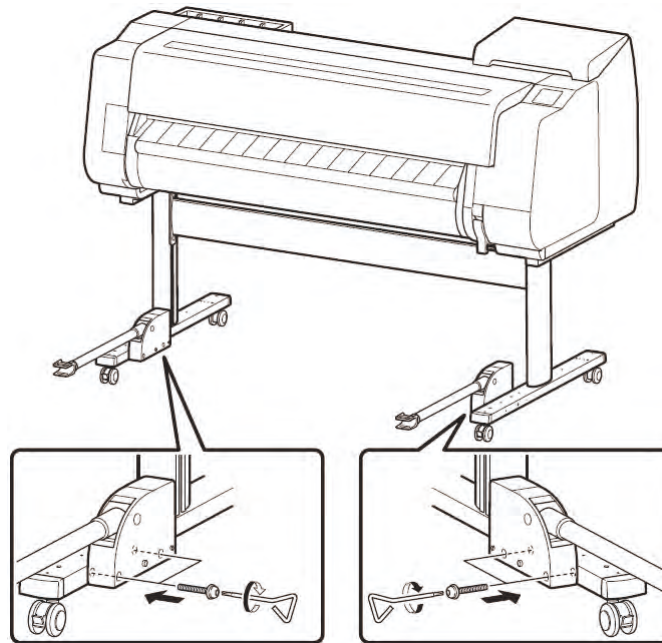


- Always attach the basket arms to the inner side of the stand. If you attach them to the outer side, you will not be able to assemble the basket as described below.

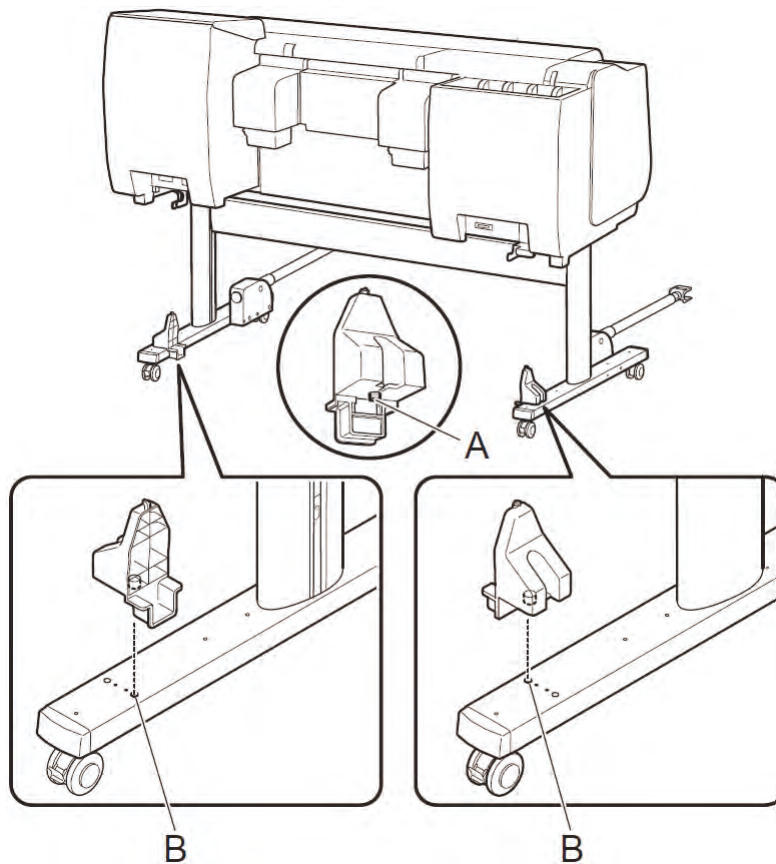




3. Affix the basket arms to the stand using 2 M4 hex screws for the basket arms. Securely tighten the screws using the M4 Allen wrench.

Repeat steps 1 and 2 also for the other stand leg to affix the left and right basket arms.



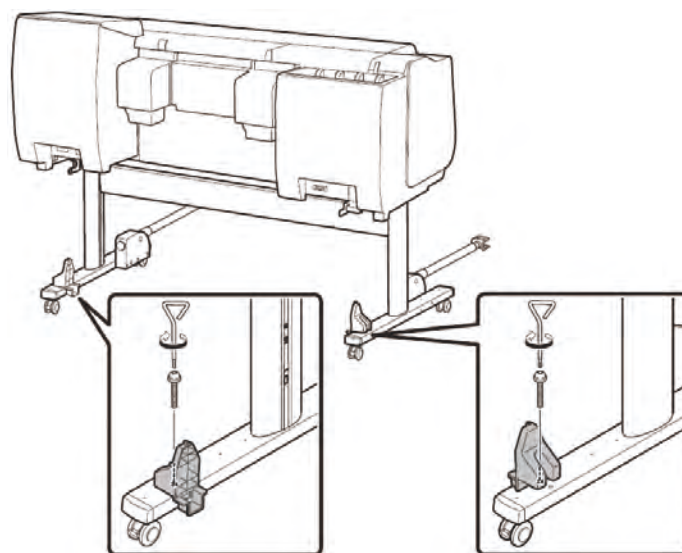
4. Insert the protrusion (A) on the base of the rod holder into the hole that is innermost (B) from among the 4 holes on the rear side of the stand leg, and attach the rod holders.



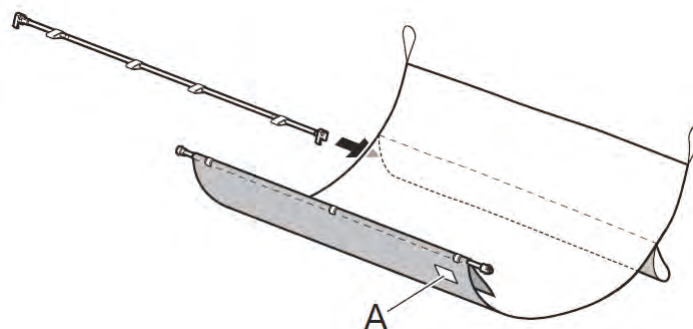
 <p>Caution</p>	<ul style="list-style-type: none"> <li>Always attach the basket arms to the inner side of the stand. If you attach them to the outer side, you will not be able to assemble the basket as described below.</li> </ul> 
--	--


5. Affix the rod holder to the stand using 1 M4 hex screw.

Repeat steps 3 and 4 also for the other stand leg to affix the left and right rod holders.



6. Spread out the basket cloth with the surface that does not have the white tag (A) facing up, and feed the basket rod (cord side) through the cylindrical part of the basket cloth.

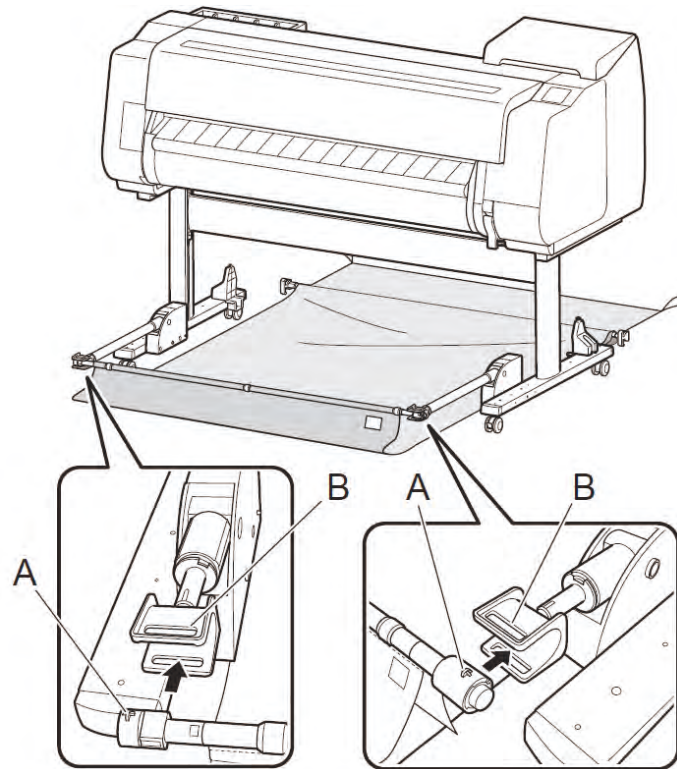


 <p>Note</p>	<ul style="list-style-type: none"> <li>The basket rod (tag side) is already attached to the basket cloth.</li> </ul>
---	--



7. Attach both ends of the basket rod (tag side) to the tips of the basket arms.

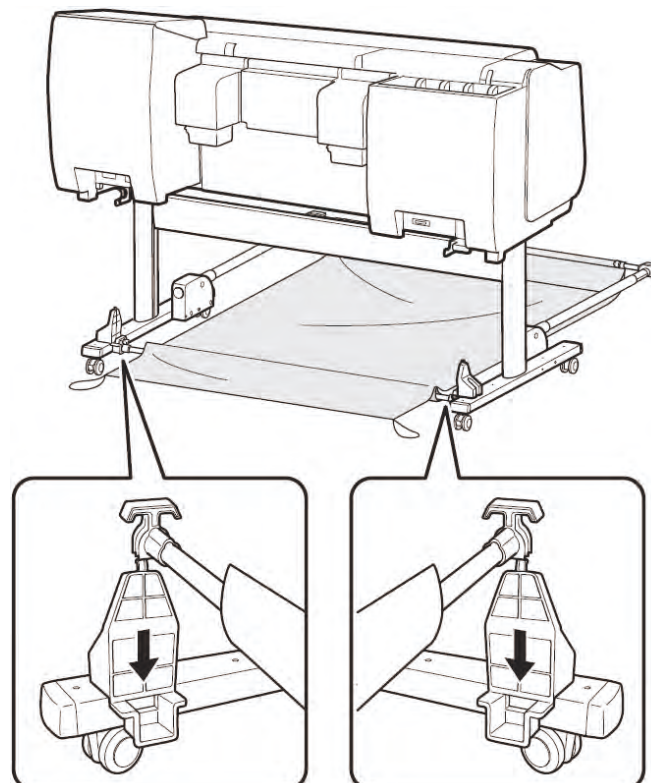
Insert the protrusions (A) on the basket rod into the elliptical holes (B) in the tips of the basket arms to attach them.



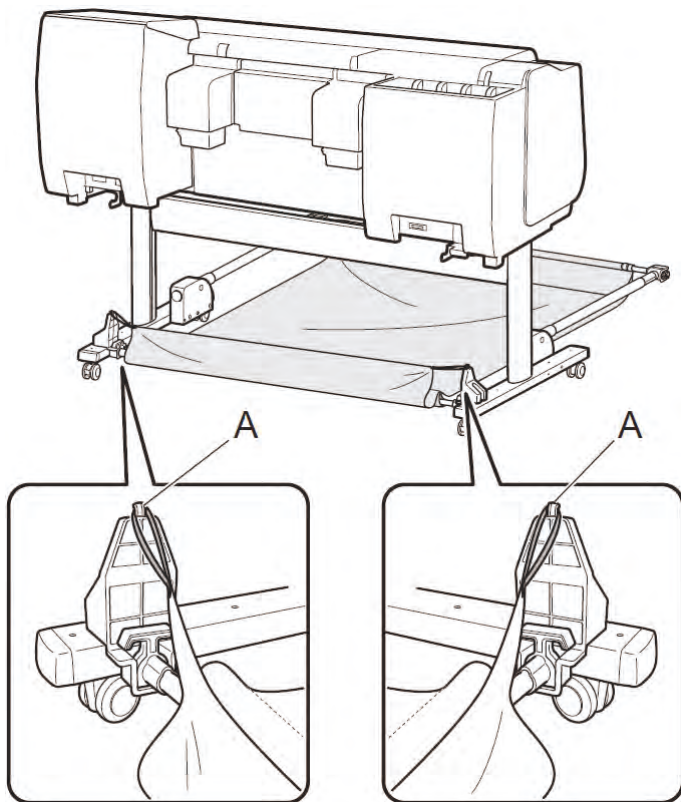
Caution

- Attach using the basket cloth with the side that does not have white tags facing up.

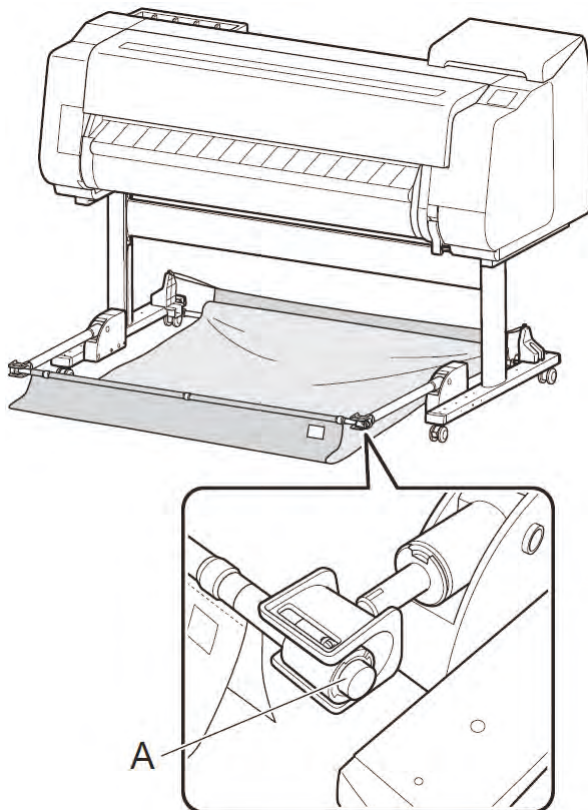
8. Attach both ends of the basket rod (cord side) to the inner sides of the rod holders as shown in the diagram.



9. Hook the black cord of the basket cloth onto the hooks (A) at the top of the rod holders.

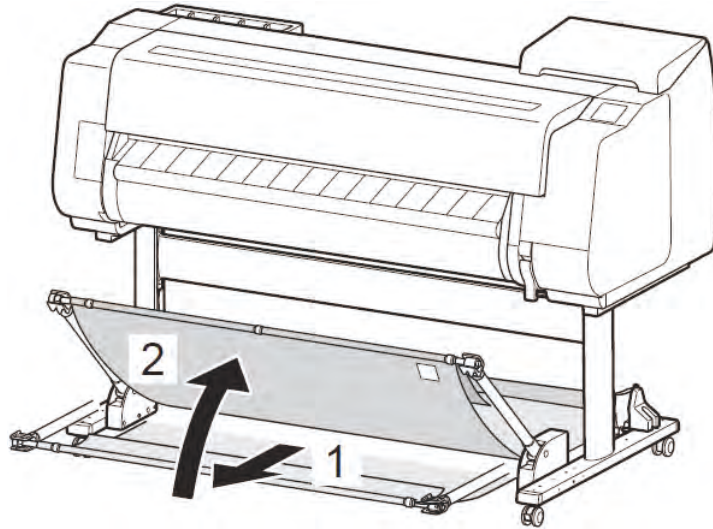


10. Check that the basket cloth is not wrapped around the basket rod (tag side). If it is wrapped around, press the button (A) on the right side of the basket rod (tag side) to remove the wrapped up basket.



11. Lift up the basket.

- 1) Grasp the thick parts of the basket arms and pull out until they stop.
- 2) Lift up the basket rod (tag side).

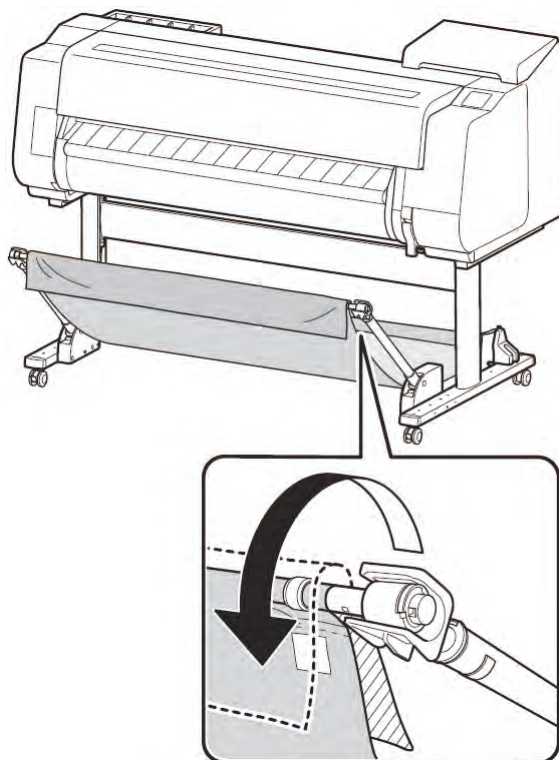



Important

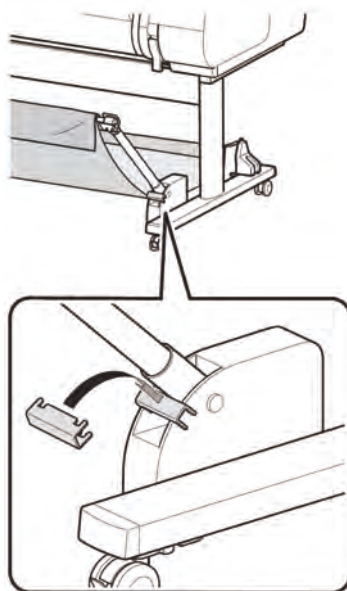
- Work by grasping the thick parts of the basket arms.
- Pull the basket arms out completely before lifting up the basket rod.

12. Check that the edge of the basket cloth is not inside the basket.

If it is inside, remove it to the outside.

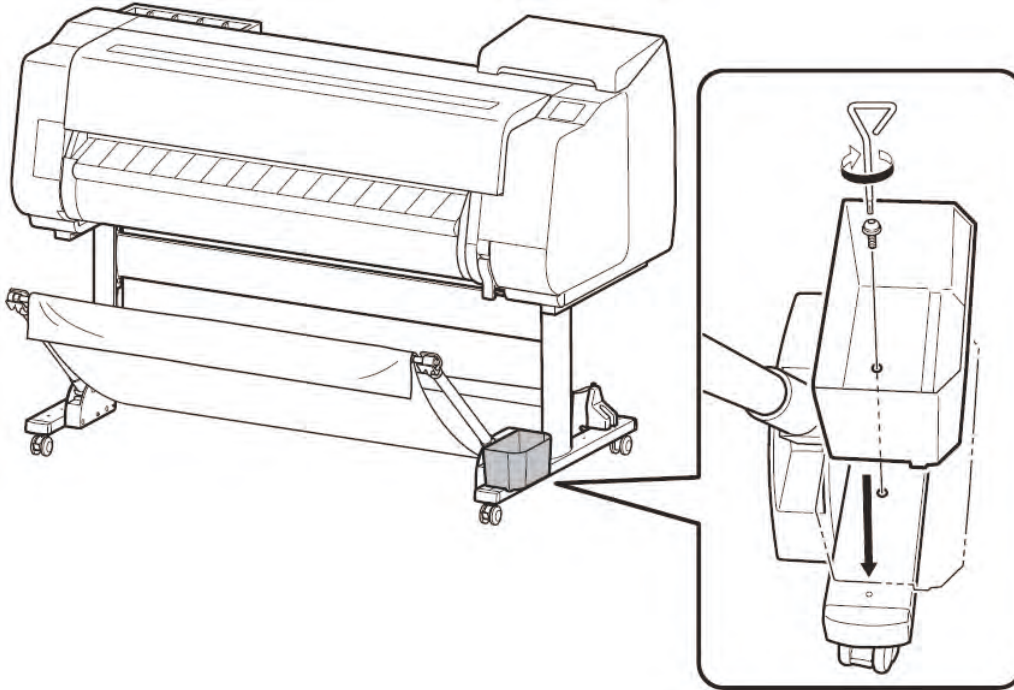


 <p>Important</p>	<ul style="list-style-type: none"> <li>• If the basket falls open, affix the basket arms using the basket locking supports. Refer to “Using the Basket” in the Online Manual for details.</li> </ul>
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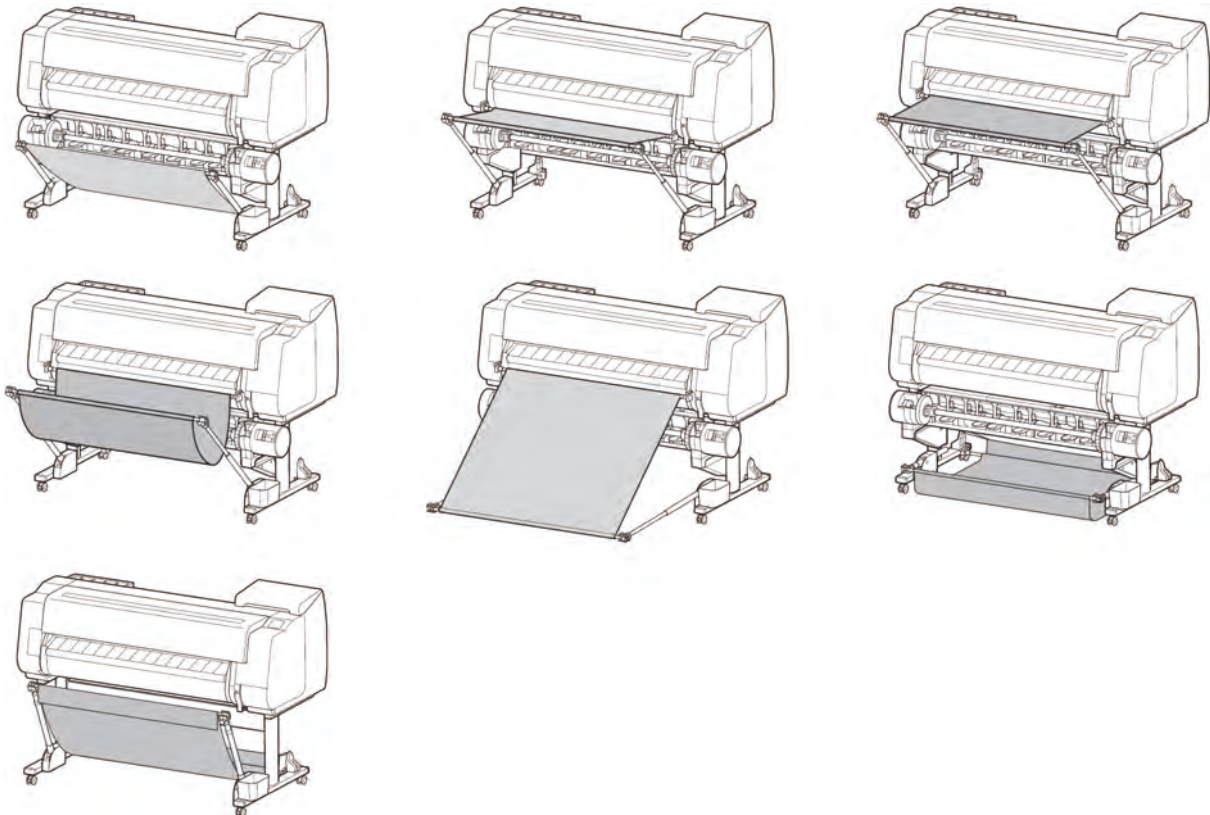


13. Affix the access y pocket using 1 M4 hex screw. Securely tig ten the screw using the M4 Allen wrench included with the printer.



### Example Basket Positions

- The position of the basket can be changed depending on the application  
Refer to “Example Basket Configurations” in the Online Manual for details.

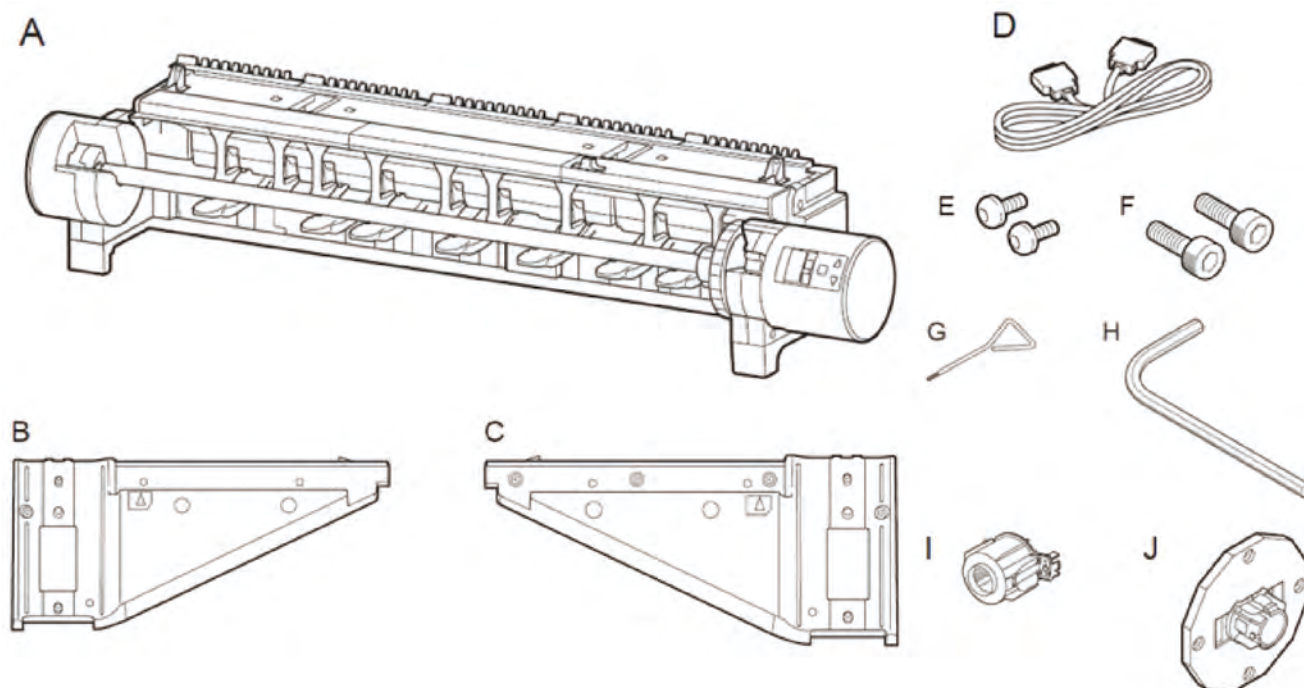


Important

- You must change the position of the basket depending on how the roll unit is used.

### 3-1-3. Roll Unit Setup

#### Package Contents



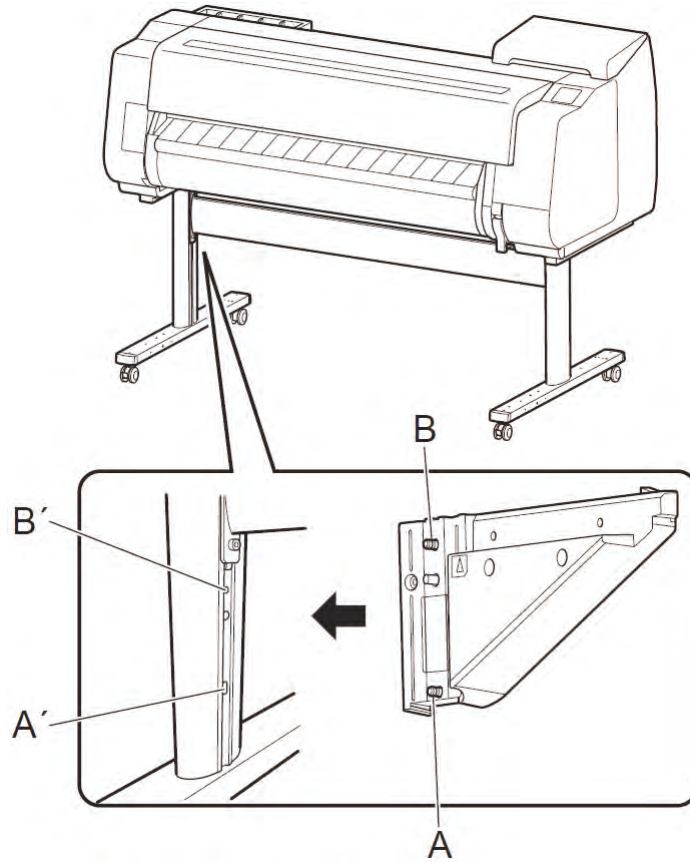
- A. Roll unit
- B. Support rail L
- C. Support rail R
- D. Roll unit cable
- E. M4 hex screw (× 2)
- F. M8 hex screw (× 2)
- G. M4 Allen wrench
- H. M8 Allen wrench
- I. 3-inch paper core attachment (× 2)
- J. Holder stopper

- Other documentation may also be included in the package.
- Although the illustrations may differ from the model you are using, the basic procedure is the same.

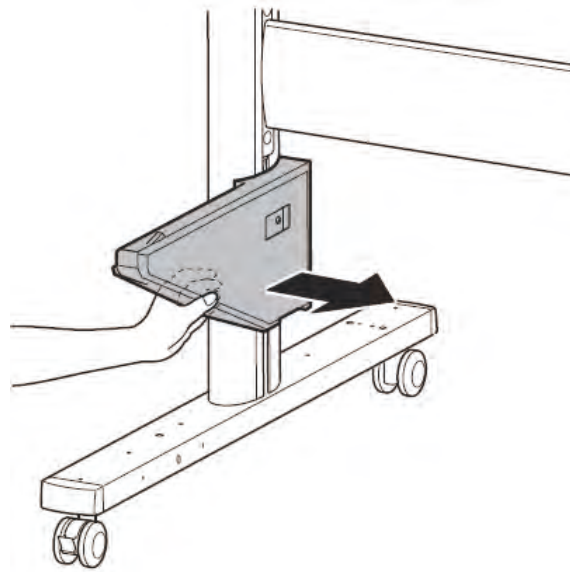


## Attach the Roll Unit

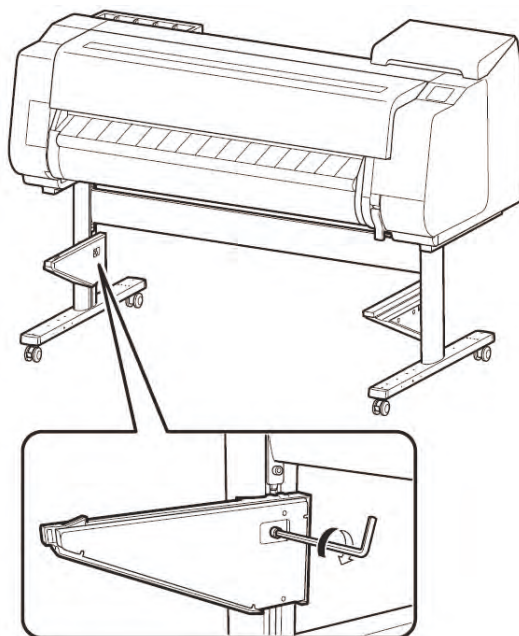
1. Check that the printer is installed on the stand.
2. Attach the support rail L with the protrusions (A) and (B) aligned with the holes (A') and (B') in the stand leg L.



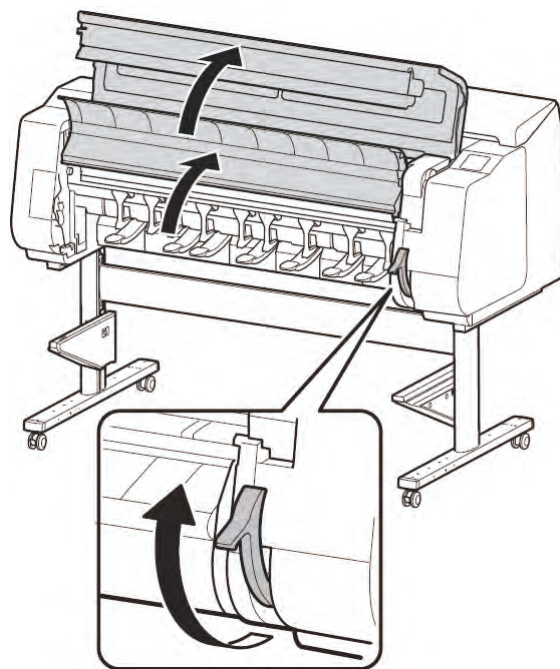
3. Firmly grasp the bottom of the support rail L and apply force horizontally toward the inside of the stand to check that the support rail L is correctly attached.



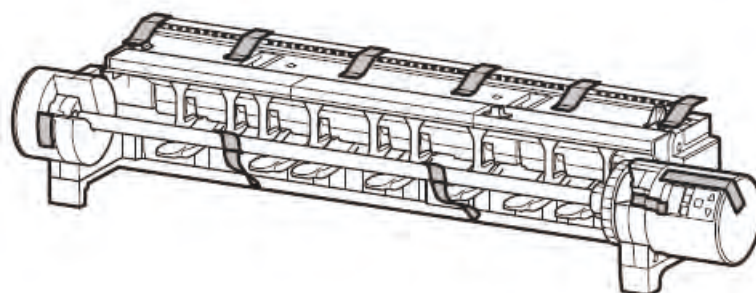
4. Affix the support rail L using an M8 hex screw. Securely tighten the screws using the M8 Allen wrench.




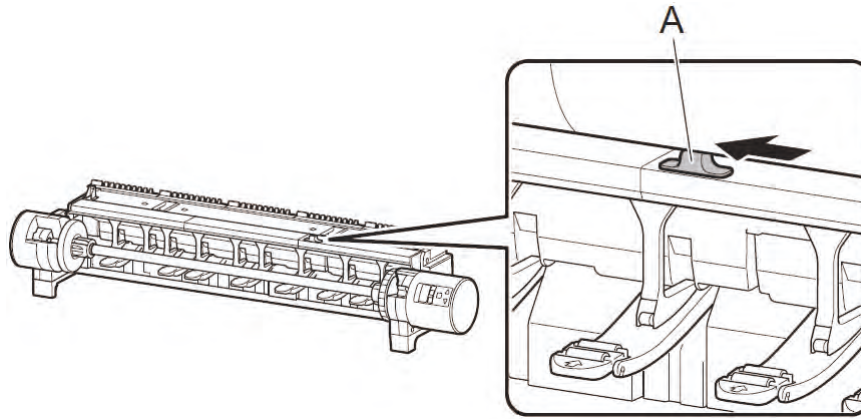
5. Open the top cover and output guide of the printer, and raise the release lever.



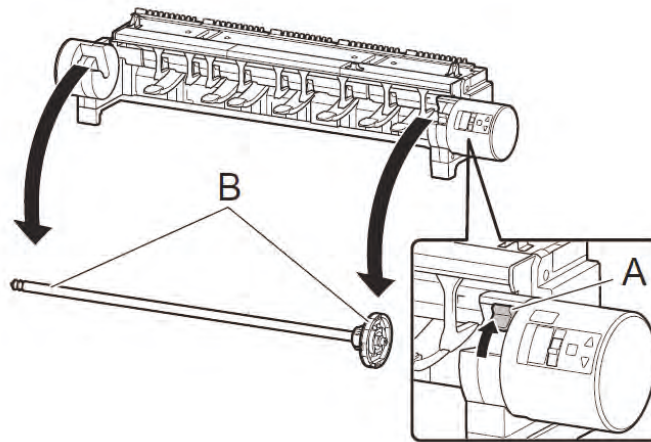
6. Remove the tape attached to the roll unit.



7. Switch the feed flap switch (A) to the position of the  (feed icon) on the left



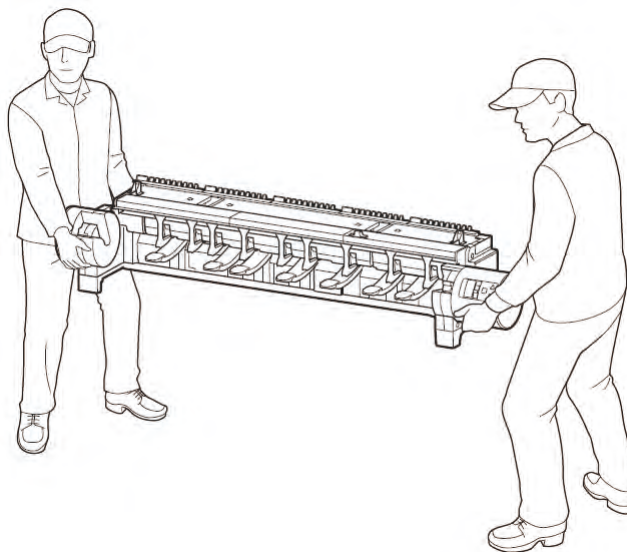
8. Release the roll holder lock switch (A), and grasp the (B) part of the roll holder to remove the roll holder.



Note

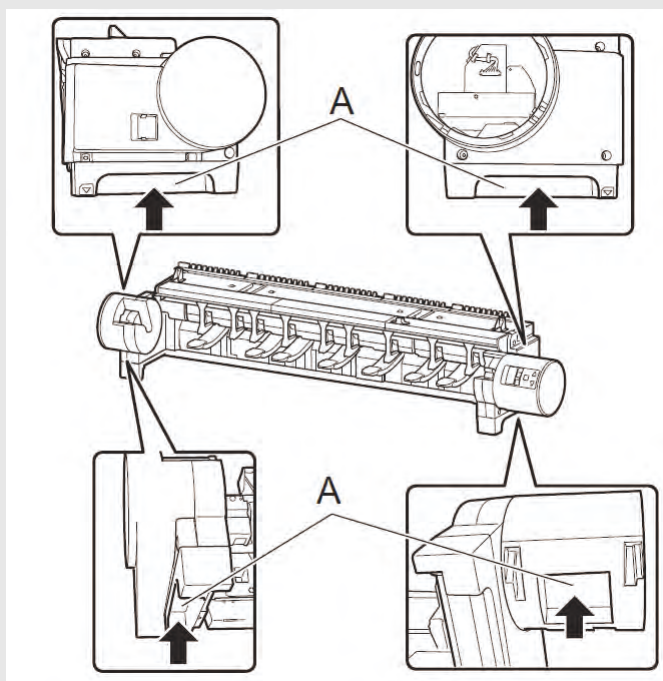
- The removed roll holder is used when loading roll paper.

9. Have 2 people lift the roll unit by the carrying handles on the left and right sides of the roll unit.

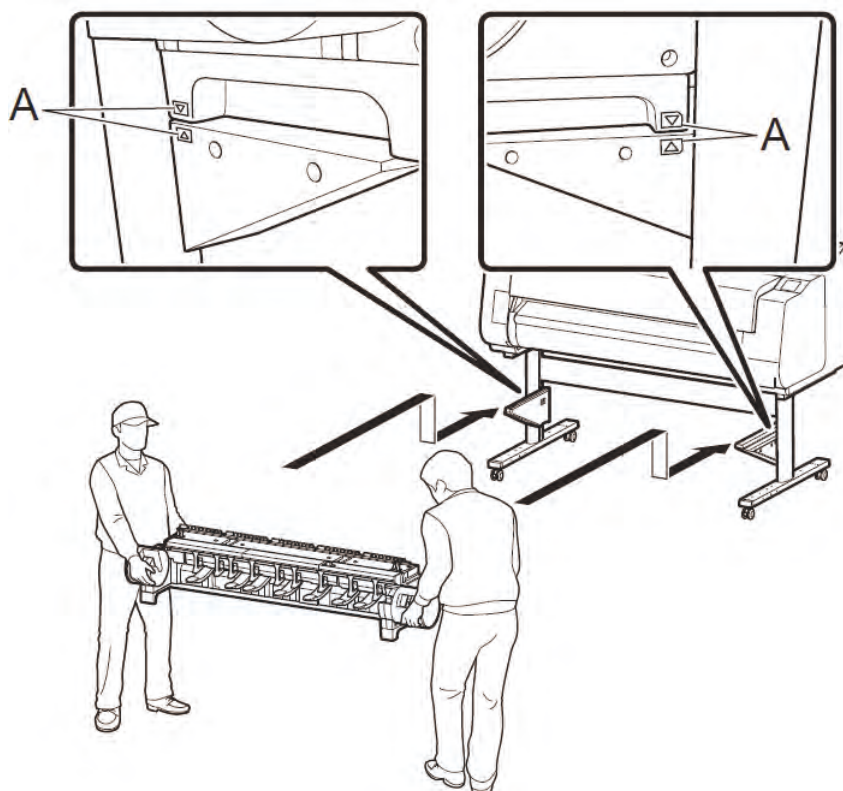




- Moving the roll unit requires at least 2 people on the left and right sides. Be careful to avoid back strain and other injuries.
- When moving the roll unit, firmly grasp the carrying handles (A) on the left and right sides of the base.

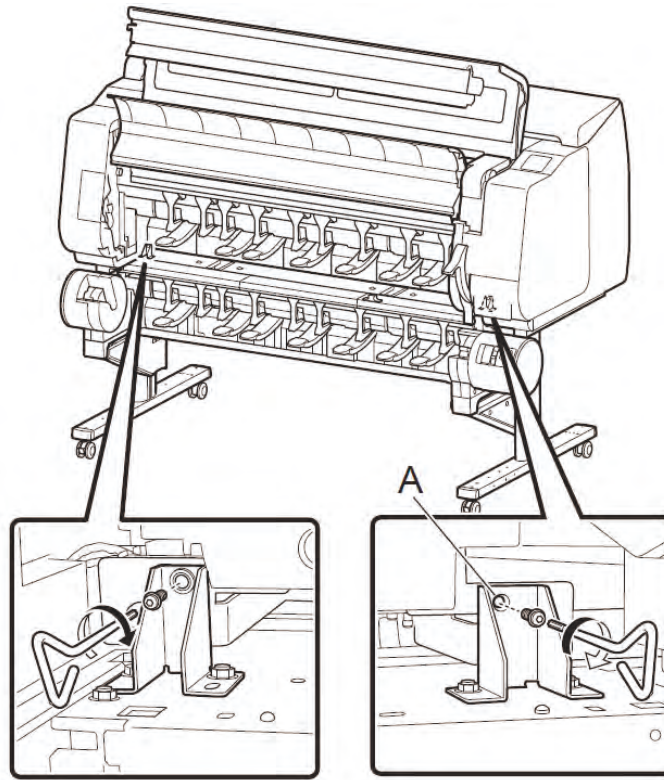


10. While checking the positions on the left and right sides, place the roll unit on top of the support rails, and push the roll unit all the way in until the points of the ▲ markings (A) on the left and right sides are aligned.



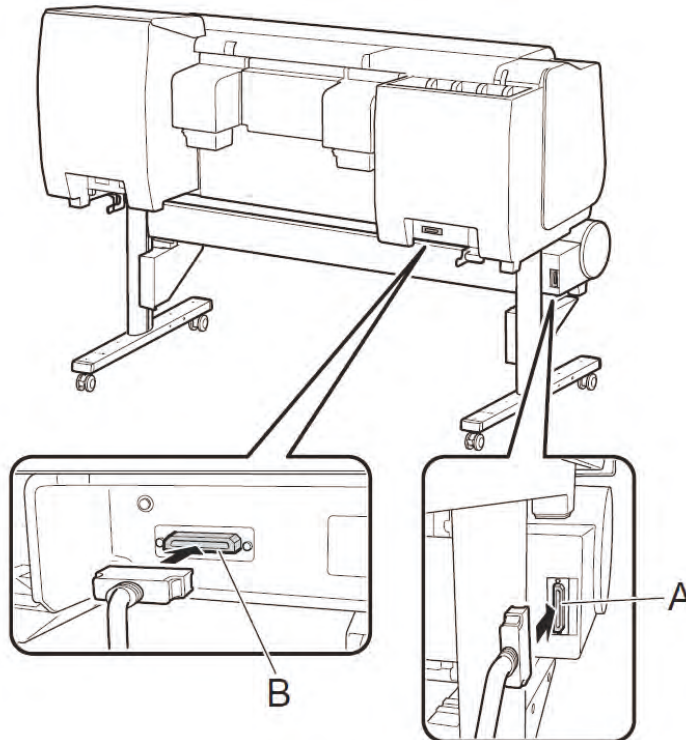


11. Align the hole (A) for the M4 hex screw on the right side of the roll unit with the printer side position, and affix the roll unit using 1 M4 hex screw on each of the left and right sides. Securely tighten the screws using the M4 Allen wrench.



12. Connect the roll unit to the printer.

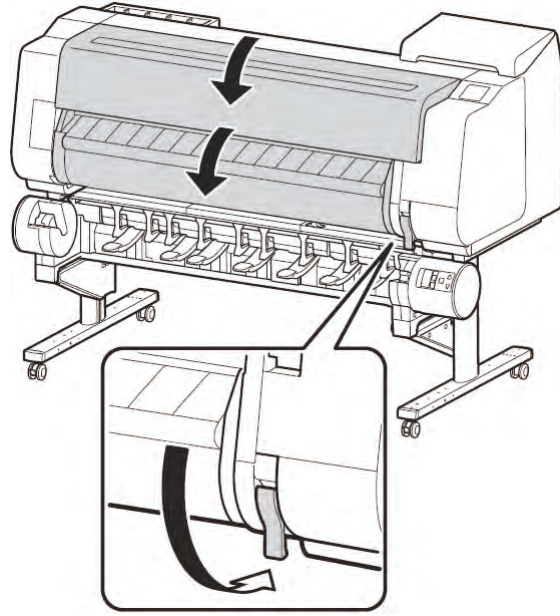
Securely insert both ends of the roll unit cable into the connector (A) on the back of the roll unit and the roll unit connector (B) on the back of the printer until you hear a click.



Caution

- Do not turn the printer on yet.

13. Close the top cover and output guide, and lower the release lever.



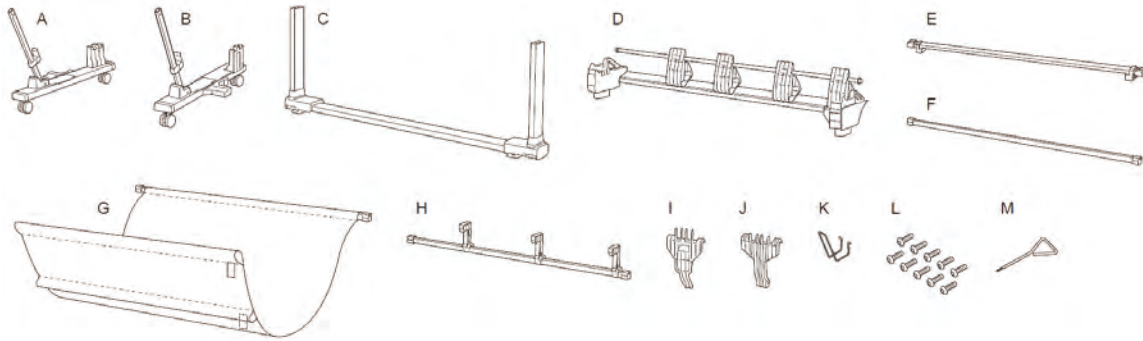
### Attach the Basket

Attach the basket. Refer to 3-1-1. Printer Installation and proceed to [“Attach the Basket”](#).



## 3-1-4. Stacker Setup



### Package Contents



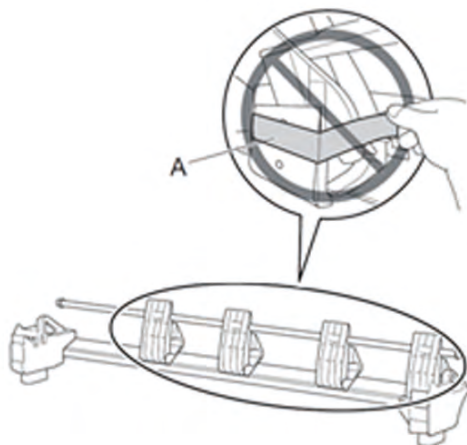
- A. Foot L
- B. Foot R
- C. Bottom stay
- D. Top stay
- E. Rod 1
- F. Rod 2
- G. Basket cloth/Rod 3
- H. Paper stopper rod
- I. Paper guide (SS-41, SS-31: x 3, SS-21: x 2)
- J. Paper stopper base
- K. Paper stopper wire
- L. M4 hex screw (x 10)
- M. M4 Allen wrench

- Rod 2 may be used for alignment when placing the printer on the stand.
- Rod 3 is already attached to the basket cloth.
- Other documentation may also be included in the package.
- Although the illustrations may differ from the model you are using, the basic procedure is the same.

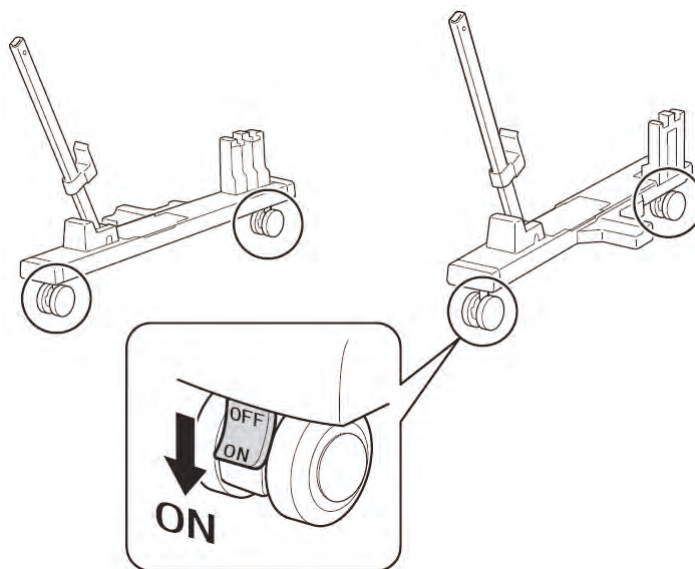
### Assemble the Stacker

 <b>Caution</b>	<ul style="list-style-type: none"> <li>• Always use 2 or more people when assembling the stacker. Performing the work using only 1 person may cause injuries or deformation of the stacker.</li> </ul>
 <b>Important</b>	<ul style="list-style-type: none"> <li>• When the basket that is included with the printer stand is already attached to the printer stand, first remove the basket together with the basket arms. The stacker cannot be used while the basket is attached.</li> <li>• When using the stacker, ensure in advance that there is sufficient space for removing the stacker in front of the printer.</li> </ul>

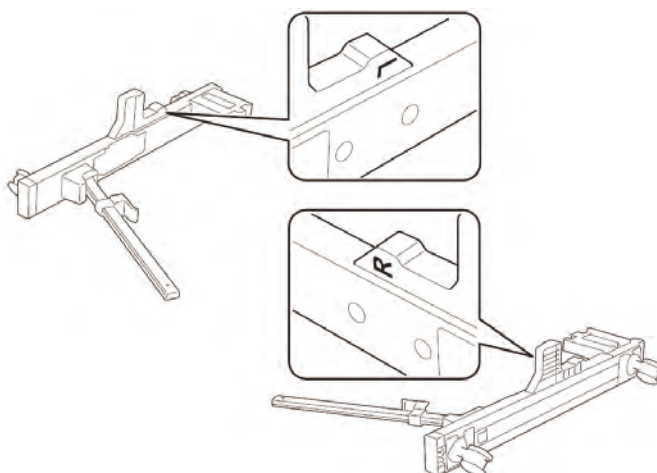
1. Remove tape and packing material. However, do not remove tape A at this stage.



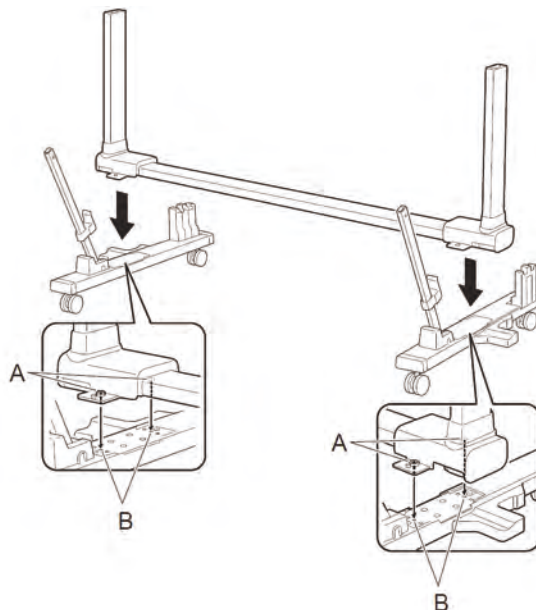
2. Check that locks on a total of 4 casters on both foot L and foot R are engaged.



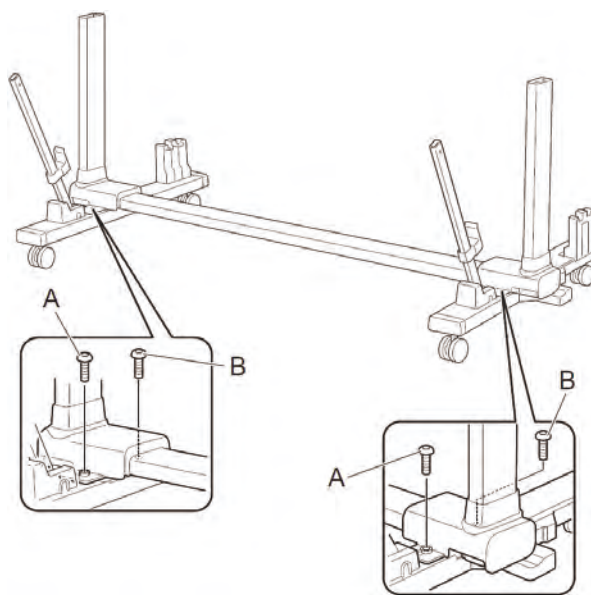
3. Arrange foot L and foot R as shown in the illustration



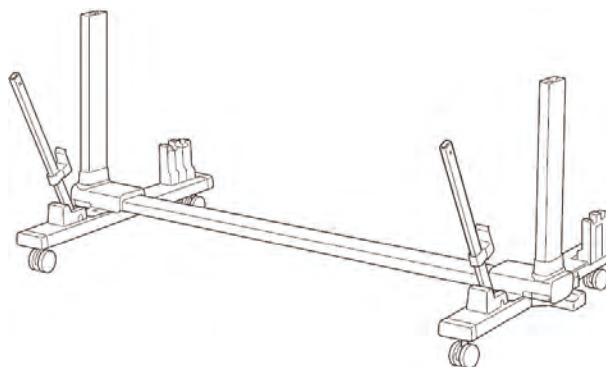
- Stand up foot L and foot R, and place the boom stay on top. Arrange the parts so that the positions of the screw holes (A and B) in the boom stay and feet are aligned.



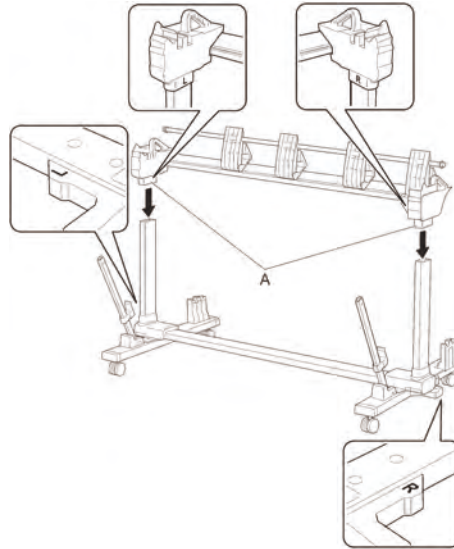
- Affix the boom stay, foot L, and foot R using M4 hex screws. Securely tighten the screws using the M4 Allen wrench in the order A then B.



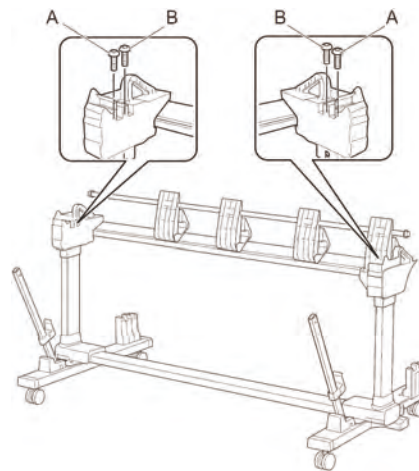
- Notes that in the remainder of this procedure, the direction that is facing front in the illustration on the right is referred to as "front".



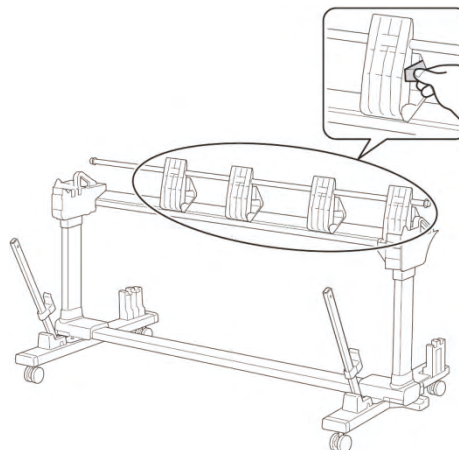
6. Hold the top stay such that the L and R markings on the top stay are aligned with foot L and foot R, and insert the bottom stay into the left and right base parts (A) of the top stay.



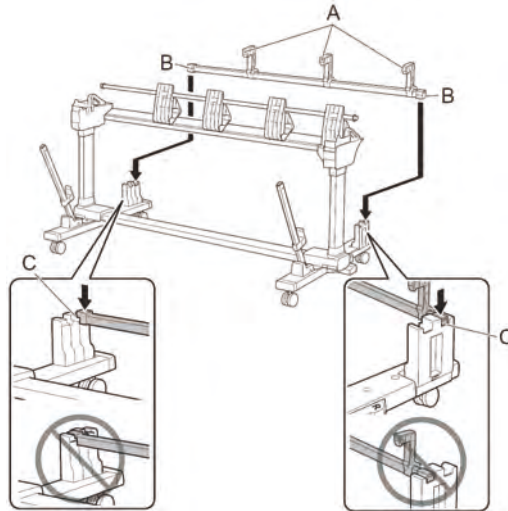
7. Affix the top stay and bottom stay using M4 hex screws. Securely tighten the screws using the M4 Allen wrench in the order A then B.



8. Remove the tape that is securing the flap.



9. Attach the paper stopper rod by inserting both ends (B) into the C positions on the front L and R with the A ties facing forward.



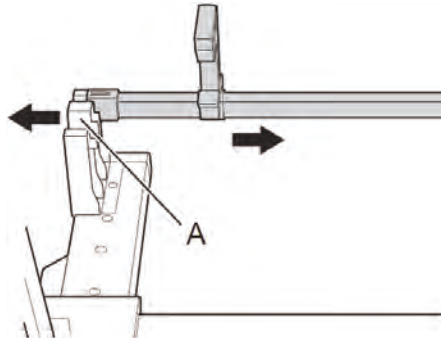
Important

- Do not lift up the tacker by grabbing the attached rod. If the rod detaches, the stacker will fall and may cause injuries.

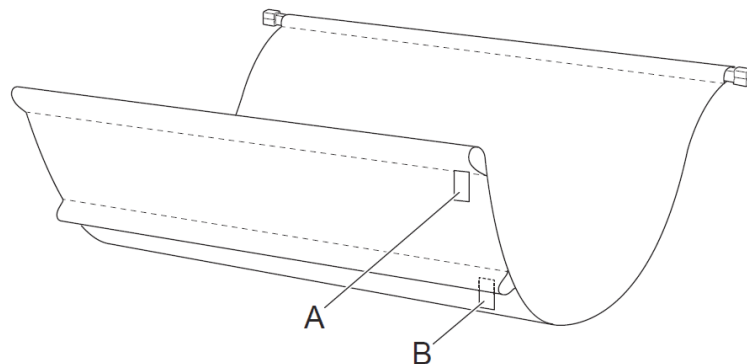


Note

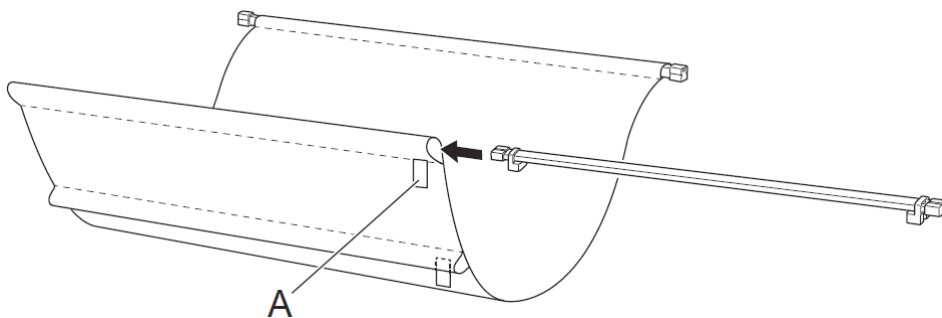
- If you get the attachment location or the orientation wrong, remove one end at a time by applying force in the direction shown in the illustration to remove the rod from the parts (A) attached to the rod.



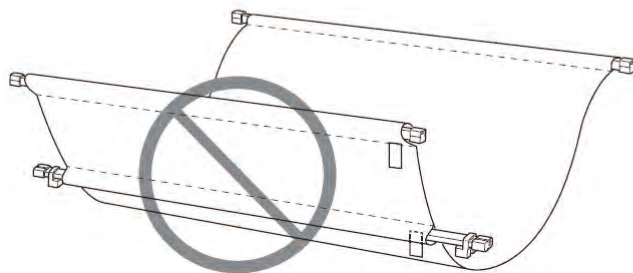
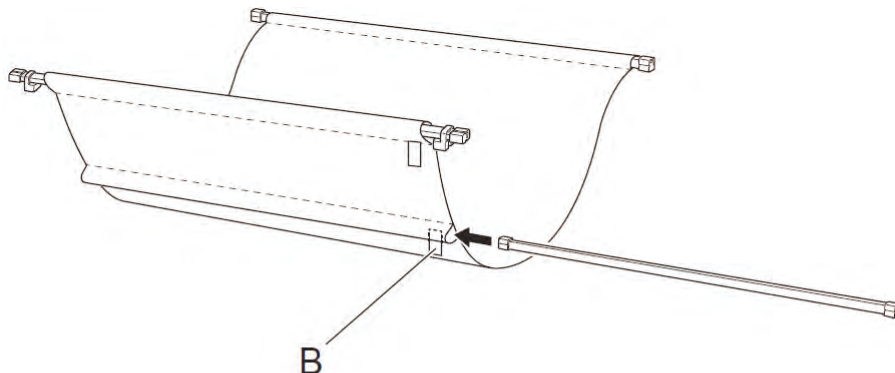
10. Spread out the basket cloth/rod 3 with the surface that the white tags (A and B) are attached to facing down.



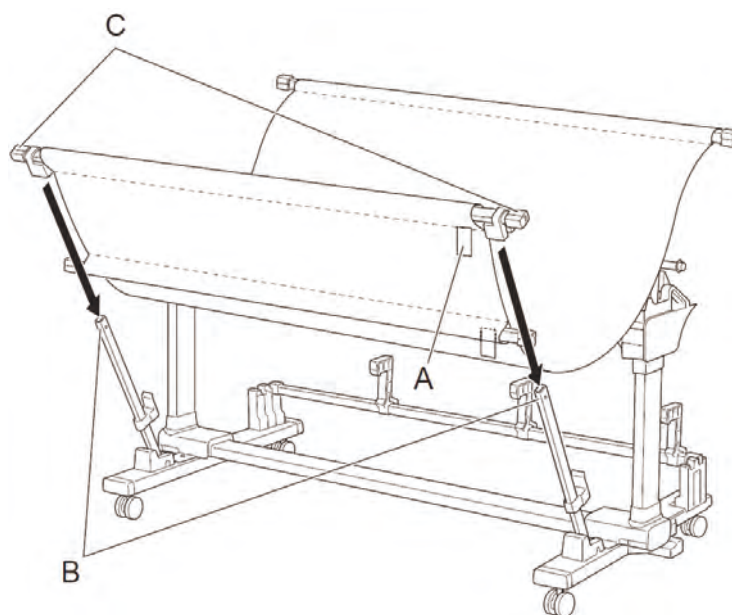
11. Feed rod 1 through the tubular part where white tag A is attached.



12. Feed rod 2 through the tubular part where white tag B is attached.

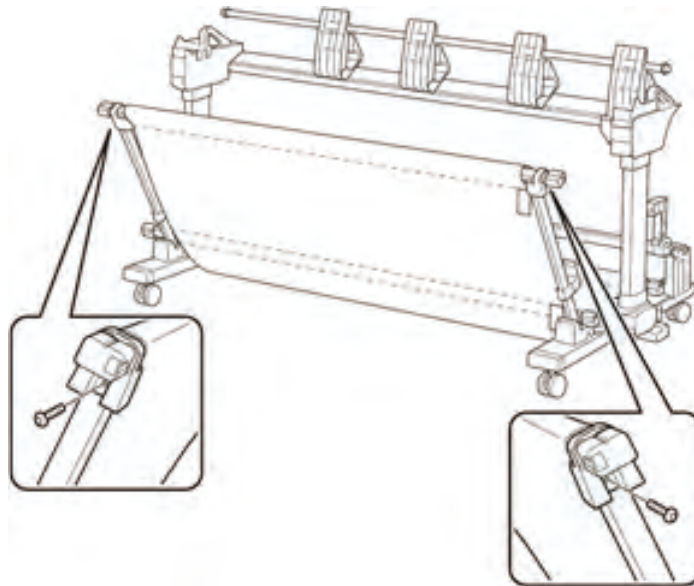


13. Insert the ties (B) of the arm into both ends (C) of rod 1 such that the white tag (A) is oriented in the position shown in the illustration

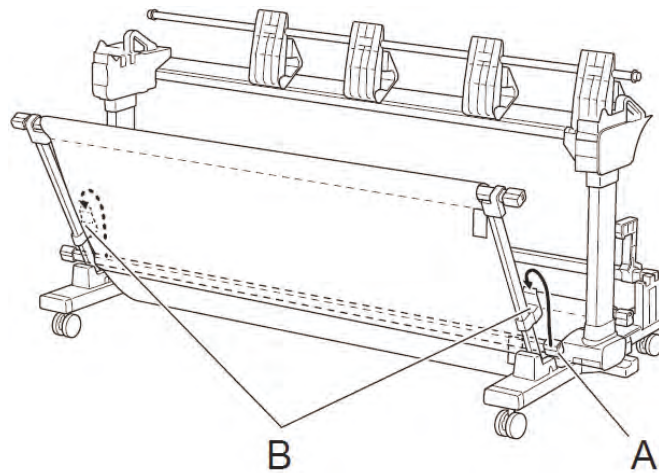




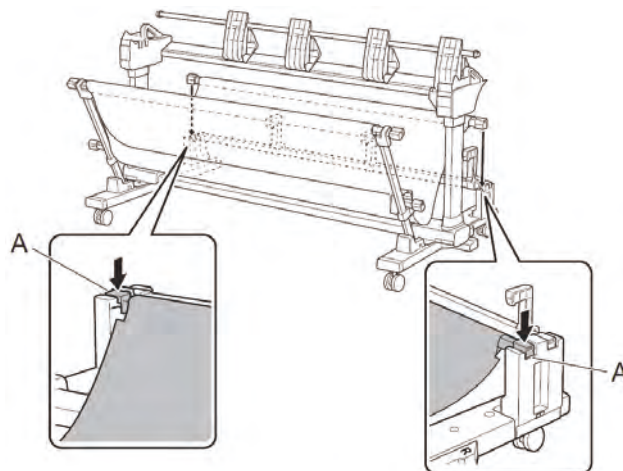
14. Affix both ends of rod 1 using M4 hex screws. Securely tighten the screws using the M4 Allen wrench.



15. Place rod 2 (A) such that it hooks onto the left and right arms of the B parts.



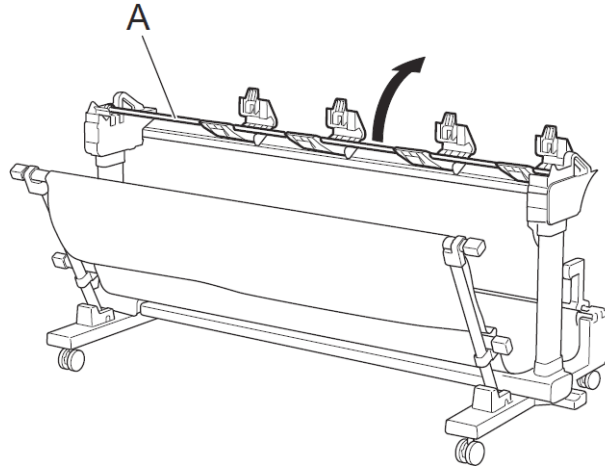
16. Insert and attach rod 3 which was originally attached to the basket cloth into the grooves (A) in the front of the paper stopper rod.



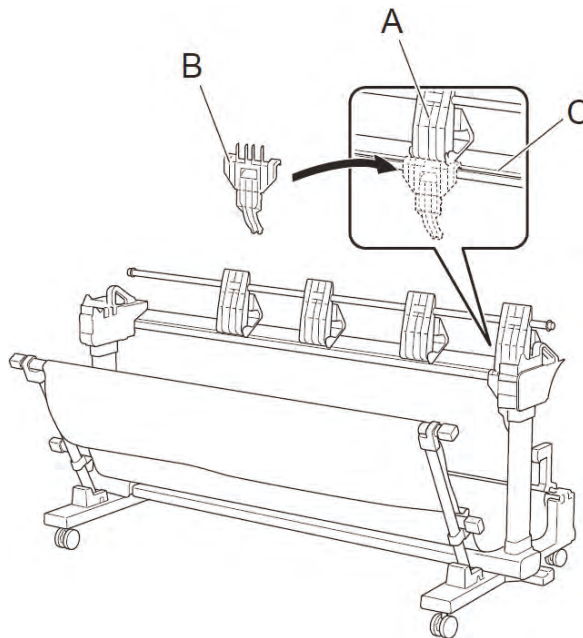
Note

- If you attach it incorrectly, remove by using the same method as the paper stopper rod.

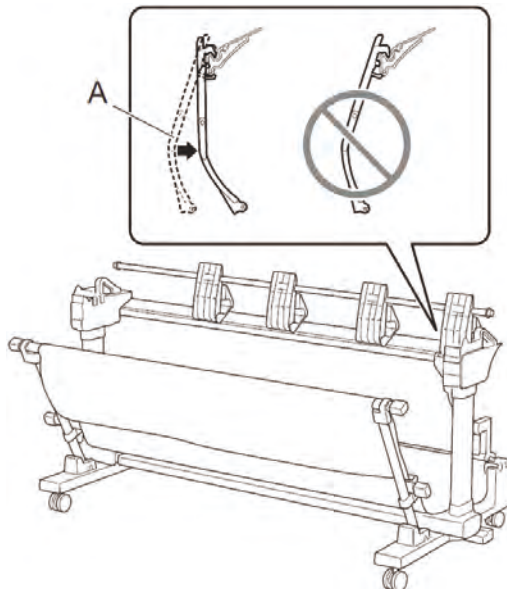
- 17. Check the condition of the top stay. If the movable parts of the top stay is tilted over, stand it up by lifting up the A part.



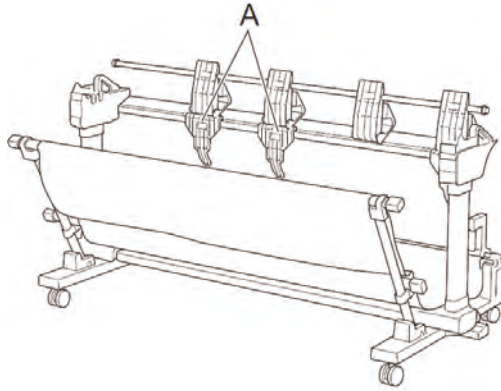
- 18. Hook the upper part of the paper guide (B) into the groove (C) in the top stay such that it is aligned with the position of the A part of the top stay.



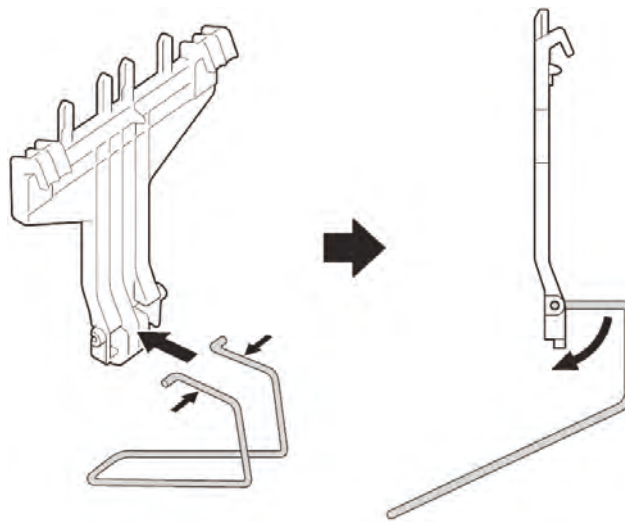
- 19. Push in and attach the A part of the paper guide.



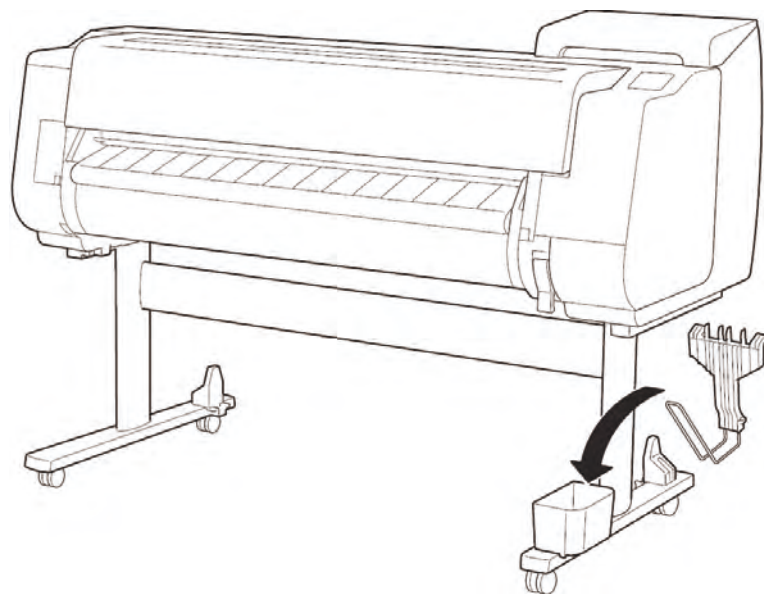
20. Attach the remaining paper guides by repeating steps 18 and 19 in the two locations indicated by A (only the leftmost one position or the SS-21).



21. Squeeze the paper stopper wire to reduce the width, attach it to the paper stopper base, and rotate the paper stopper wire to a position where it can no longer return.



22. Store the paper stopper in the accessory pocket on the printer stand. This completes the assembly of the stacker.

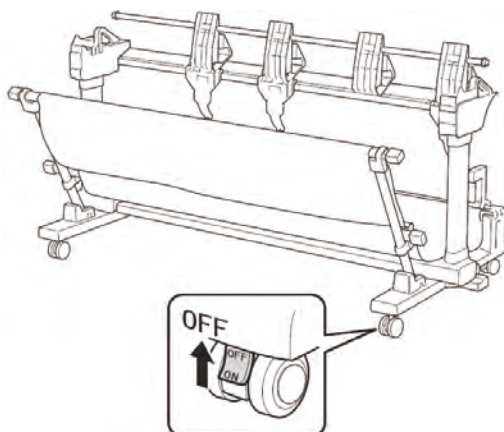


Note

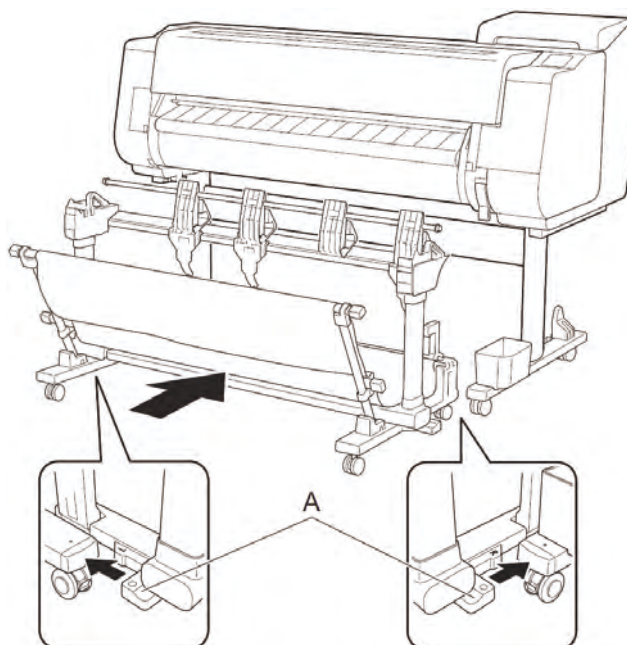
- The paper stopper is used depending on the size of the output paper. Refer to “Example Stacker Configurations” in the Online Manual for details.

## Attach the Stacker to the Printer

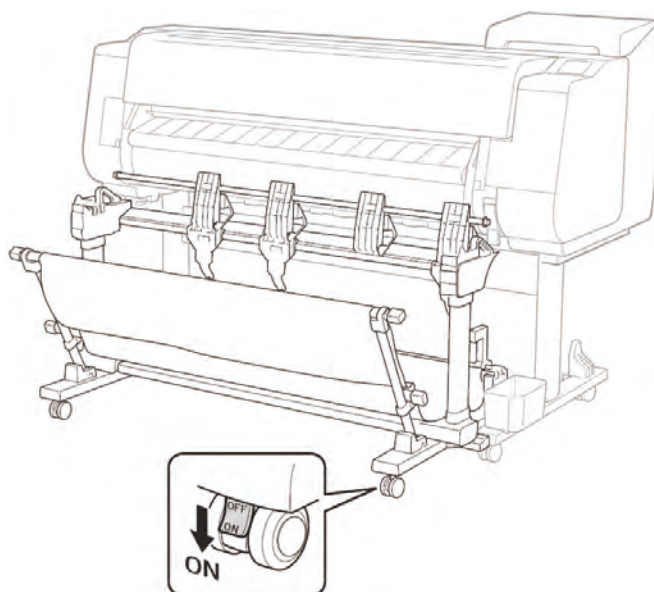
1. Switch all 4 of the caster locks of the stacker to off .



2. Move the stacker in front of the printer that is attached to the printer stand, and push the protruding parts (A) on both side of the stacker feet until they touch the printer stand on both the left and right sides.



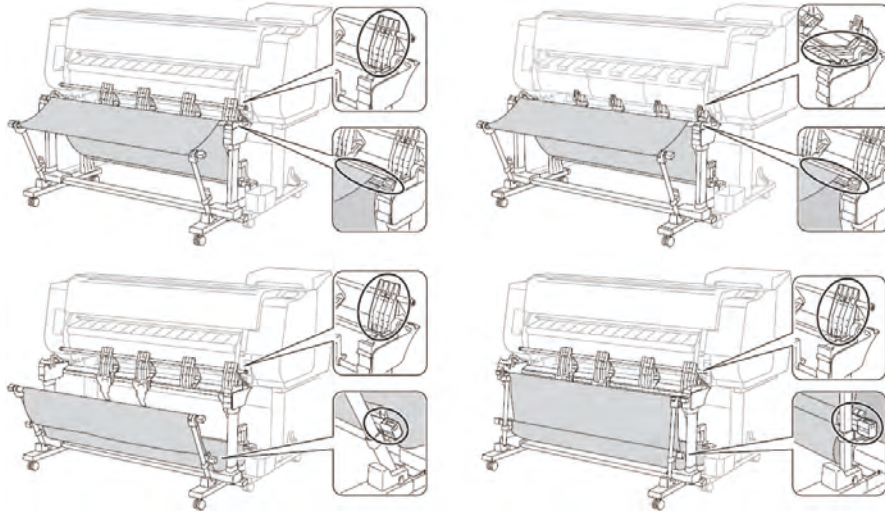
3. Switch all 4 of the caster locks of the stacker to on.





## Example Stacker Positions

- The position of the stacker can be changed depending on the application. Refer to “Example Stacker Configurations” in the Online Manual for details.





Important

- Remove the stacker from the printer when not using the stacker such as when using the roll unit as a roll up device.

## 3-1-5. Transportation


### 3-1-5-1. Transportation outline

Before transporting the printer, be sure to perform the following procedures in order to protect the internal mechanism. The procedure depends on the transportation modes. Select the appropriate transportation modes from the following. Regarding printer packing and reinstallation after transporting the printer, refer to [3-1-6. Reinstallation](#).

 <p>Important</p>	<ul style="list-style-type: none"> <li>• Ink may leak and damage the printer if you do not prepare the printer correctly and it is tipped or stood on end in transit.</li> </ul>
 <p>Note</p>	<ul style="list-style-type: none"> <li>• The maintenance cartridge needs to be replaced when you tap [Prepare to move]. Prepare the maintenance cartridge in advance while referring to <a href="#">3-1-5-2. Details of transportation mode</a>. The number of maintenance cartridge required varies depending on the amount remaining in the maintenance cartridge being used.</li> <li>• If you can move the printer in a level state using casters or something similar, you do not need to tap [Prepare to move].</li> </ul>

#### 1. Transportation modes

- Move indoors by carrying
- Moving the printer while temporarily tilting it such as when using the stairs
- Transporting by vehicle

 <p>Caution</p>	<ul style="list-style-type: none"> <li>• When transporting the printer, the print head must be capped and stay in the carriage. In spite of this precaution, shocks incurred during transportation can damage the print head. Print the nozzle check pattern before making preparations for transporting the printer, and keep the print results.</li> </ul>
--	--





Caution

- Moving the printer requires at least six people, holding it on both sides. Be careful to avoid back strain and other injuries.

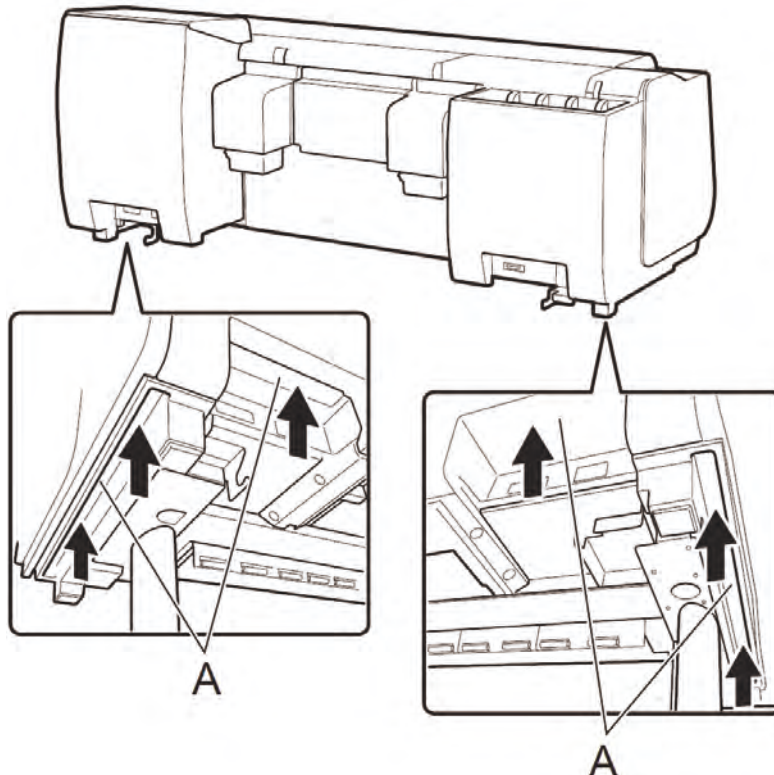
<Printer weight (printer only)>

- TX-4000: Approx. 211lb (96kg)
- TX-3000: Approx. 191lb (87kg)
- TX-2000: Approx. 163lb (74kg)



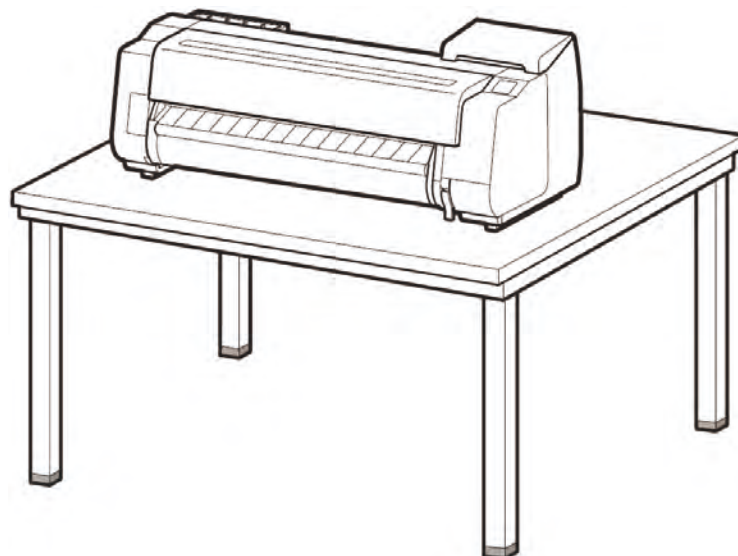
Caution

- When moving the printer, firmly grasp the carrying handles (A) under each side. Holding the printer at other positions is dangerous and cause injury and damage if the printer is dropped.





- When setting the printer down temporarily make sure to put the printer on a flat, stable place.



- When standing the printer up, make sure the side with the control panel is up, and place cardboard or other material underneath to prevent scratching. Furthermore, make sure that the weight of the printer is taken by the corner of the printer. If the weight is taken by any other part of the printer, the printer may become damaged.





Caution

- When standing up the printer or supporting the printer, hold the metal parts of the printer. If you hold a plastic part, the printer may become damaged.



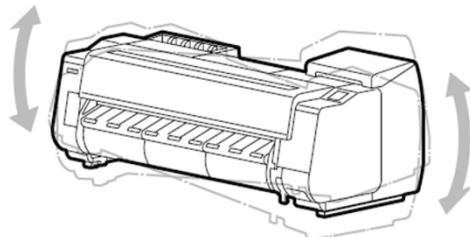
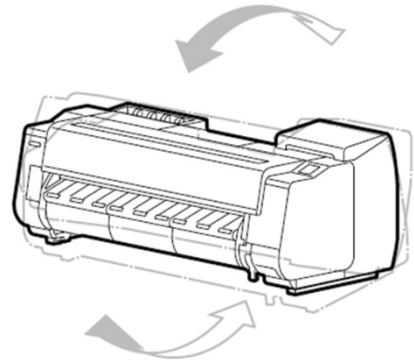
Caution

- Do not place or transport the printer with load placed only at the center of the printer. Otherwise the printer can be deformed or damaged.

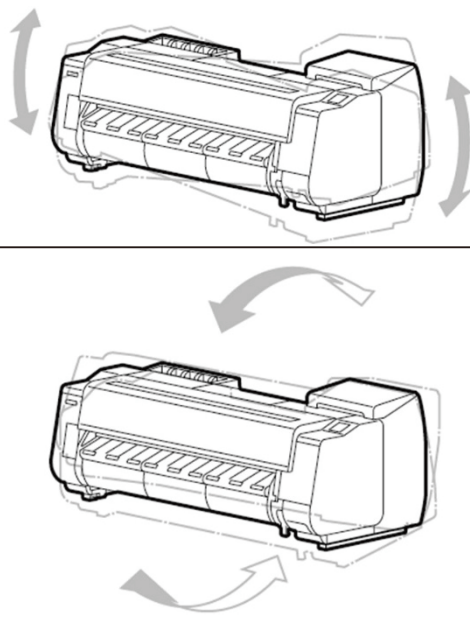


### 3-1-5-2. Details of transportation modes

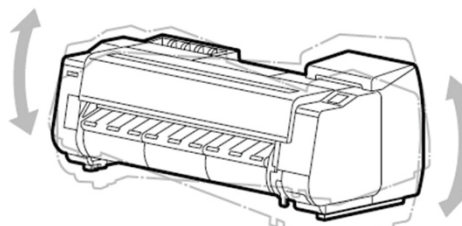
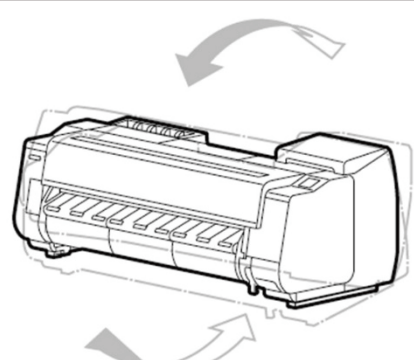
#### Move indoors by carrying

Item	Descriptio
[Prepare to transportation] in Mai tenance menu	Execute [Move indoors on the same floo s].
Allowed tilting ang	30° or less omnidirectionall
	 
Ink tank	It may be installed or removed.
Separation of main unit and tand	They do not need to be separated.
Number of maintenance cartridge to be used	One or two
Replacement of consumable parts	Replacement of consumable parts and resetting of ounter may be necessary. For details, refer to <a href="#">3-1-5-3. Replacing consumable parts during transportatio</a> .
Service support	If consumable parts must be replaced, service support is necessary.
Transporting and toring in low temperature environment	Cannot be performed.

### Moving the printer while temporarily tilting it such as when using the stairs

Item	Description
[Prepare to transportation] in Maintenance menu	Execute [Move indoors to a different floor]
Allowed tilting angle	90° or less omnidirectional
	
Ink tank	Remove all ink tanks.
Separation of main unit and stand	Separate.
Number of maintenance cartridge to be used	One or two
Replacement of consumable parts	Replacement of consumable parts and resetting of counter must be necessary. For details, refer to <a href="#">3-1-5-3. Replacing consumable parts during transportation</a> .
Service support	If consumable parts must be replaced, service support is necessary.
Transporting and storing in low temperature environment	Cannot be performed.

## Transporting by vehicle

Item	Descriptio
[Prepare to transportation] in Mai tenance menu	Execute [Transport outdoors].
Allowed tilting ang	90° or less omnidirectionall
	
	
Ink tank	Remove all ink tanks.
Separation of main unit and tand	Separate.
Number of maintenance cartridge to be used	Two
Replacement of consumable parts	Replacement of consumable parts and resetting of ounter must be necessary. For details, refer to <a href="#">3-1-5-3. Replacing consumable parts during transportatio</a> .
Service support	If consumable parts must be replaced, service support is necessary.
Transporting and toring in low temperature environment	Can be performed.



### 3-1-5-3. Replacing consumable parts during transportation

#### 24" model

No	Part number	Part name	Service mode	[Move indoors on the same floor s] Threshold value of counter (Unit: ml)
			PARTS xx	
[1]	QM4-4241	WASTE INK ABSORBER UNIT A	Wia1	80
[2]	QM4-4242	WASTE INK ABSORBER UNIT B	Wia2	150
[3]	QM4-5751	WASTE INK ABSORBER UNIT	Wia6	200
[4]	QM4-5861	SUCTION FAN UNIT	Wia7	60
[5]	QM4-4261	SUCTION FAN DUCT UNIT		
[6]	QM4-4038	HEAD MANAGEMENT SENSOR UNIT	HMa1	2.9
[7]	QM4-4227	MIST FAN DUCT UNIT 2	Mi1	91.7

#### 36" model

No	Part number	Part name	Service mode	[Move indoors on the same floor s] Threshold value of counter (Unit: ml)
			PARTS xx	
[1]	QM4-4241	WASTE INK ABSORBER UNIT A	Wia1	80
[2]	QM4-4242	WASTE INK ABSORBER UNIT B	Wia2	150
[3]	QM4-5354	WASTE INK ABSORBER UNIT E	Wia5	150
[4]	QM4-5751	WASTE INK ABSORBER UNIT	Wia6	200
[5]	QM4-5861	SUCTION FAN UNIT	Wia7	60
[6]	QM4-4261	SUCTION FAN DUCT UNIT		
[7]	QM4-4038	HEAD MANAGEMENT SENSOR UNIT	HMa1	2.9
[8]	QM4-4228	MIST FAN DUCT UNIT 1	Mi1	69.2
[9]	QM4-5738	MIST FAN DUCT UNIT 3	Mi2	

#### 44" model

No	Part number	Part name	Service mode	[Move indoors on the same floor s] Threshold value of counter (Unit: ml)
			PARTS xx	
[1]	QM4-4241	WASTE INK ABSORBER UNIT A	Wia1	80
[2]	QM4-4242	WASTE INK ABSORBER UNIT B	Wia2	150
[3]	QM4-4243	WASTE INK ABSORBER UNIT C	Wia3	150
[4]	QM4-5751	WASTE INK ABSORBER UNIT	Wia6	200
[5]	QM4-5861	SUCTION FAN UNIT	Wia7	60
[6]	QM4-4261	SUCTION FAN DUCT UNIT		
[7]	QM4-4038	HEAD MANAGEMENT SENSOR UNIT	HMa1	2.9
[8]	QM4-4227	MIST FAN DUCT UNIT 2	Mi1	91.6
[9]	QM4-4228	MIST FAN DUCT UNIT 1	Mi2	69.2

When replacing consumables, be careful about waste ink leakage.

After replacing consumables, select [SERVICE MODE > PRINTER STATUS > PARTS COUNTER > RESET] in the operation panel to reset the parts counter information


### 3-1-5-4. Transportation procedure

1. Remove the paper.
2. If touch screen indicates to replace Maintenance Cartridge, replace Maintenance Cartridge.
3. Tap [Maintenance] on the HOME screen.  
The [Maintenance] screen appears.
4. Tap [Prepare to move].
5. Tap [Move indoors on the same floor , Move indoors to a different floor , or Transport outdoors].  
A confirmation message appears.
6. Tap [Yes].

The printer is now prepared for transfer.

When the preparation is finished, instructions appear on the touch screen.

Remove the ink tanks before packing the printer.

 Important	<ul style="list-style-type: none"> <li>• If consumables must be replaced, a message appears on the touch screen, and preparation is disabled.</li> </ul>
--	--


7. Open Ink Tank Cover to remove all ink tanks.
8. Push down release lever (A) as shown as you gently return all Ink Tank Lock Lever to their original positions



9. Close the ink tank cover.

At this point, ink is drawn out from inside the tubes.


A confirmation message will appear when the process is finished

 Important	<ul style="list-style-type: none"> <li>• Do not remove the maintenance cartridge except when the message indication replacement is displayed.</li> <li>• If you remove the maintenance cartridge while ink is being removed, the ink may leak out.</li> </ul>
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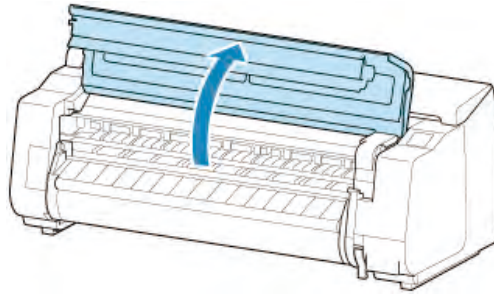
10. Replace the current maintenance cartridge with a new one.
11. Press The power button and turn off printer

## Pack the printer.

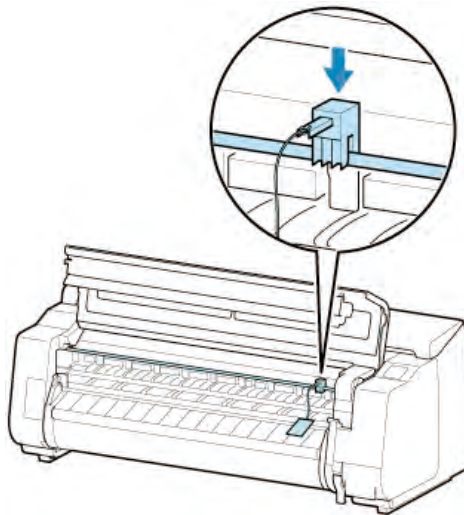
1. Remove power cord, ground wire, and interface cable.


 <b>Important</b>	<ul style="list-style-type: none"> <li>• Turn off the printer, then remove the power cord. If the power cord is removed before turning off the printer, insert the power cord, install the ink tank, and then do the transportation preparation from the start. Otherwise, the printer may be damaged.</li> </ul>
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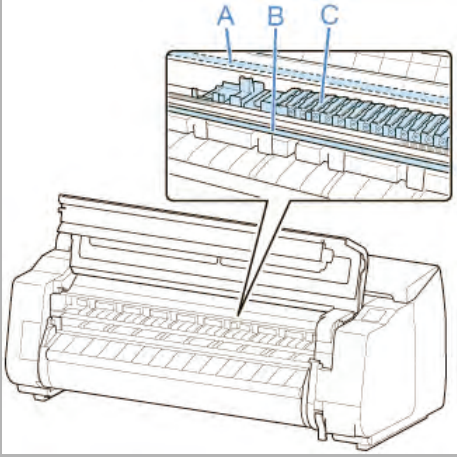
2. Open the top cover.



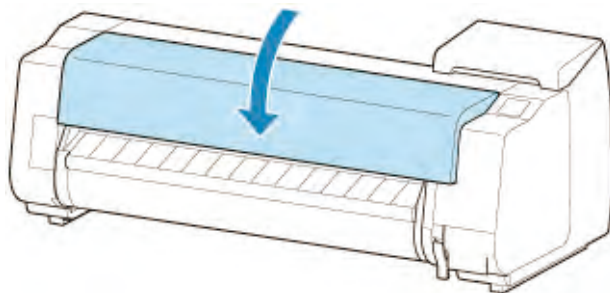
3. Pinch the belt and install a belt stopper at the position shown in the figure below.



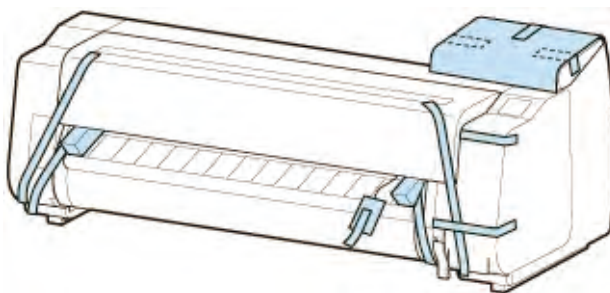
 <b>Important</b>	<ul style="list-style-type: none"> <li>• Install the belt stopper kept after removed when unpacking the printer. Or, it may cause the failure of the printer.</li> <li>• Never touch the Linear Scale (A), Carriage Shaft (B), or Ink Tube Stabilizer (C). Touching may damage them.</li> </ul>
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4. Close the top cover.



5. Secure each cover of the printer with a tape in reverse order to unpacking the printer.




6. Remove the basket or the stacker by reversing installation procedure.
7. Remove the Stand by reversing the installation procedure, when it was attached to the printer.
8. Disassemble and repackage the Stand by following the installation procedure in reverse.
9. Repack Roll Holder, holder stopper, and printer in shipping materials, and then package them in shipping box.

## 3-1-6. Reinstallation

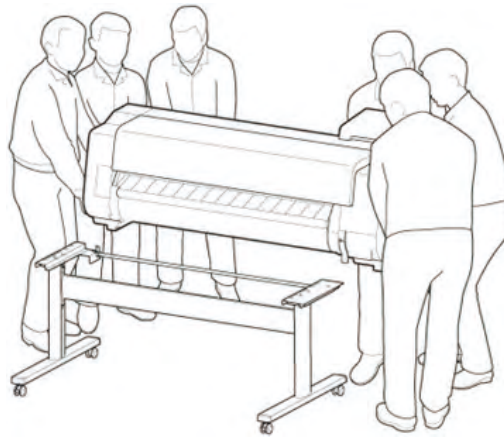
### Assemble the Stand


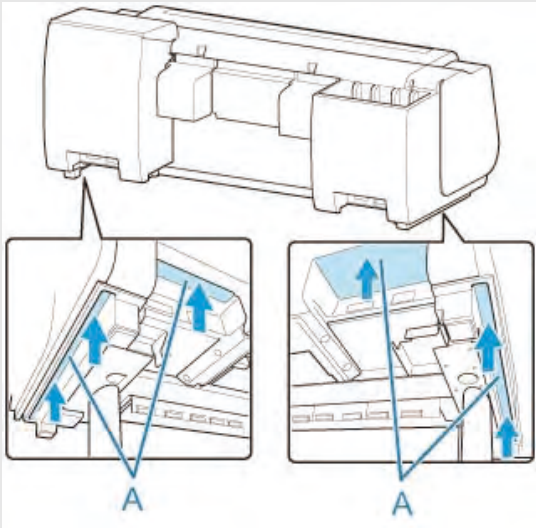
1. Referring to the [3-1-2. Printer Stand Setup](#), assemble the Stand.

 <b>Caution</b>	<ul style="list-style-type: none"> <li>• The Stand must be assembled by at least two people on a flat surface. Attempting assembly by yourself poses a risk of injury or bending the Stand.</li> <li>• When assembling the Stand, lock the casters. In addition, always unlock the casters before moving the assembled Stand. Attempting to move the stand when the casters are locked poses a risk of injury or damage to the location site.</li> </ul>
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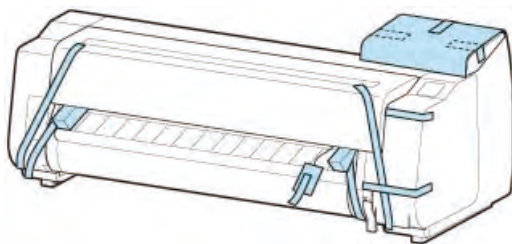
### Install the printer

1. Mount the printer on the assembled Stand and tighten the screws firmly.

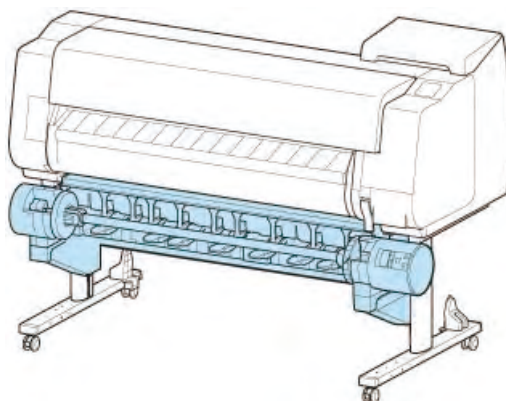


 <b>Caution</b>	<ul style="list-style-type: none"> <li>• Moving the printer requires at least six people, holding it on both sides. Be careful to avoid back strain and other injuries.</li> <li>• When carrying the printer, hold it securely by the Carrying Handles (A) on the bottom left, right, and rear. The printer may be unsteady if you hold it at other positions, which poses a risk of injury from dropping the printer.</li> </ul>
	

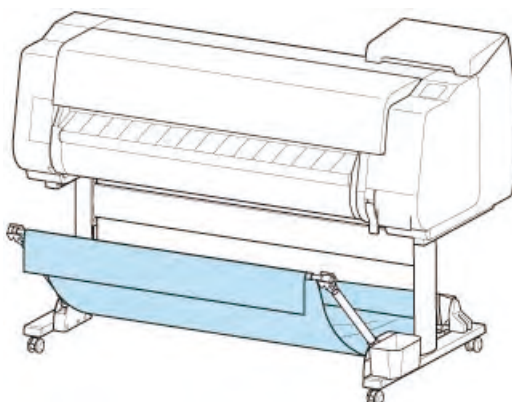
2. Remove tape and packaging material attached to the printer. Also open the Top Cover and remove stoppers and spacers inside the printer.



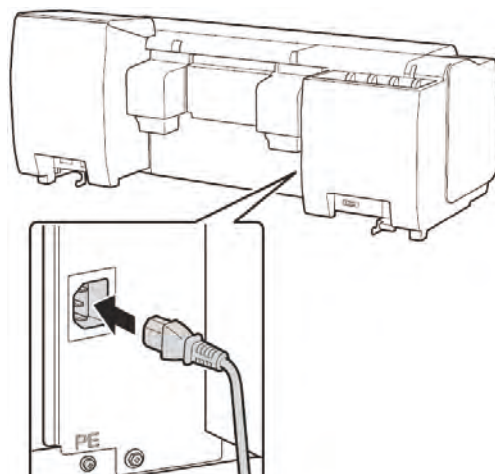
3. If using optional roll unit, refer to [3-1-3. Roll Unit Setup](#) and attach roll unit to Stand.



4. Refer to [3-1-2. Printer Stand Setup](#) and attach basket to Stand.



5. Connect the power cord to the Power Supply Connector on the back of the printer.



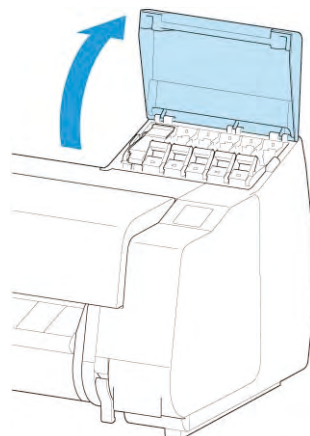


6. Plug the power cord into the outlet.

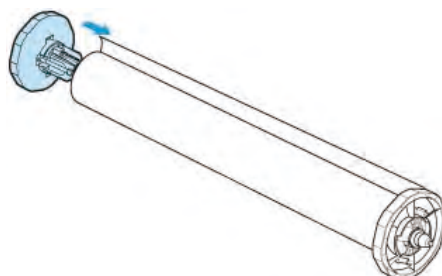
7. Press the power button to turn the printer on.

When “Do you want to install the transported printer? Do not install the ink tanks yet.” appears, tap Yes.

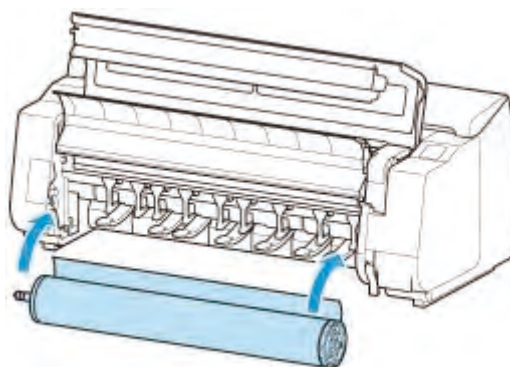
8. When instructions for loading ink tank appear on touch screen, open Ink Tank Cover and load ink tank.



9. Attach the Roll Holder to the Roll Media.



10. Load the Roll Media in the printer.



11. Install the software.

Note that the driver installation procedure varies depending on the type of connection



- The shocks incurred during transportation may damage the print head. Therefore, print the nozzle check pattern again after installing the printer at the new location, and confirm that the same print quality is kept by comparing the two output results before and after transportation. If any problem such as nozzle clogging cannot be resolved by print head cleaning, replace the print head with a new one.


## 3-2. Connection Settings for Remote Service

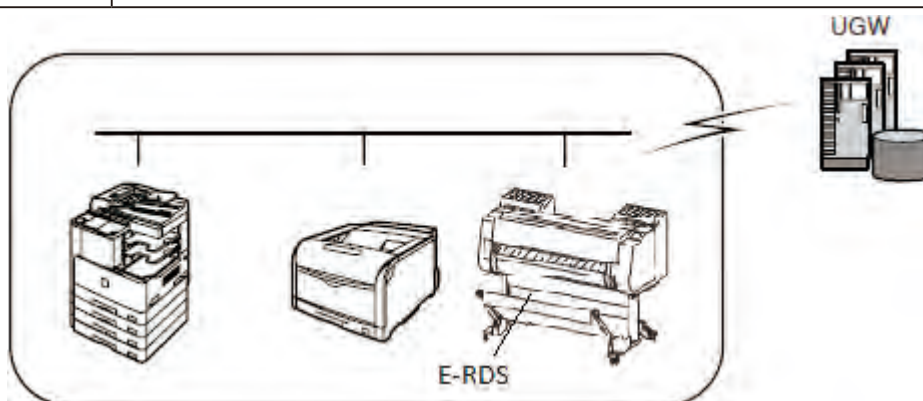
### 1) Outline

Remote service (NETEYE/e-Maintenance/imageWARE Remote) is printer remote monitoring service on the Internet based on the agreement with the customer.

The remote service can be used by the agreement, the registration of the printer information on UGW, and enabling the E-RDS setting of the printer. The status change of the printer, counter information, problem information, etc. are transmitted to UGW via the Internet.

Based on the agreement, perform the following setting procedures:

	<ul style="list-style-type: none"> <li>• E-RDS (EMBEDDED-RDS): Monitoring program operating in the printer</li> <li>• UGW (Universal Gateway Server): Remote service administrative server</li> <li>• HTTPS/SOAP protocol is used for the communication between UGW and the printer.</li> </ul>
---	---



### 2) Settings procedures


#### < Advance preparation >

1. Before using this function, confirm the following items and perform the setting in advance:

(1) Confirm with the UGW administrator that the printer for setting E-RDS UGW is registered in UGW.

(2) Confirm the items below. If the settings necessary for internet connection are not made, do those settings

- IP address setting
- DNS server setting
- Proxy server setting (If authentication is required, also perform the setting of authentication information)

 <b>Note</b>	<ul style="list-style-type: none"> <li>Obtain the network environment information of the installation location from the system administrator of the user's network environment.</li> <li>The network-related setting is assumed to be performed by the user in advance. If necessary settings are not performed, advise the user to perform the setting or do the settings with his/her agreement.</li> </ul>
--	---

### <E-RDS settings procedures>

The setting (E-RDS SWITCH ON/OFF, Communication test) required for enabling E-RDS functions can be performed both in service mode and user mode.

The setting in the service mode is required for displaying Record of use (Total print area/Ink consumed/Duty counter).

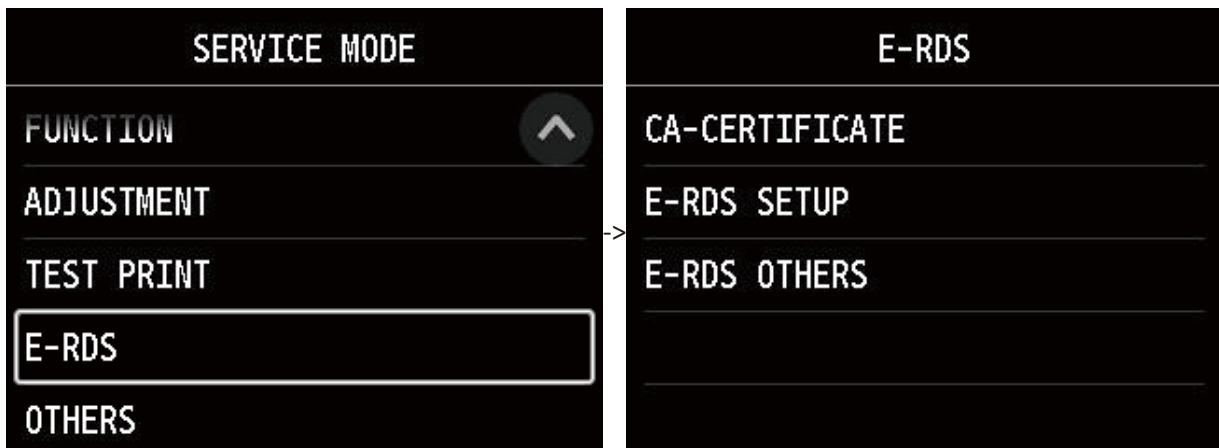
For details, see [Details of E-RDS](#) in Chapter 7.

### <E-RDS settings procedures (service mode)>

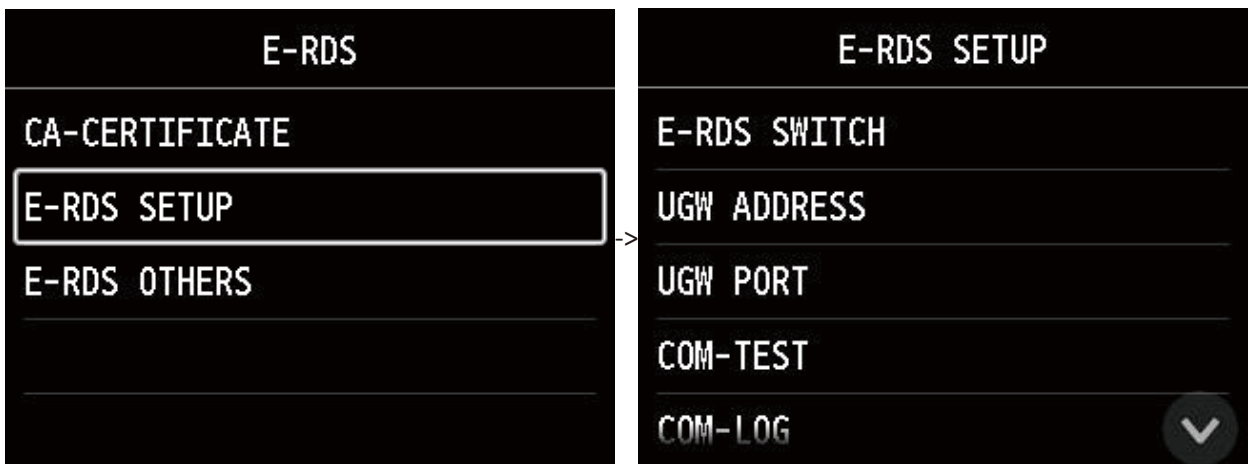
1. Launch the service mode.
2. Enable E-RDS function in service mode, and then execute the communication test.

(1) Select [SERVICE MODE > E-RDS].

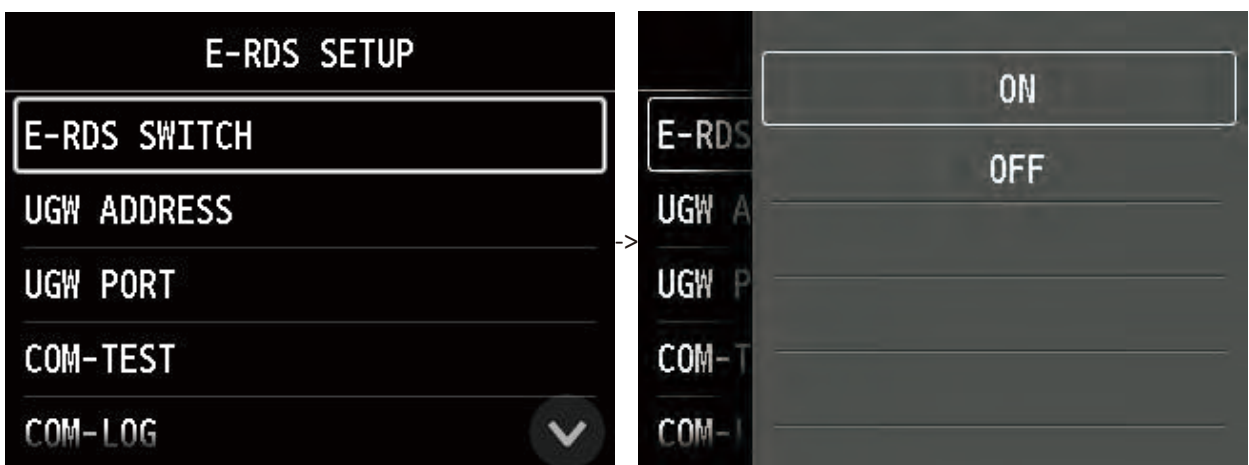
[SERVICE MODE] >




(2) Select [E-RDS SETUP].




(3) Select [E-RDS SWITCH], and then click [ON].

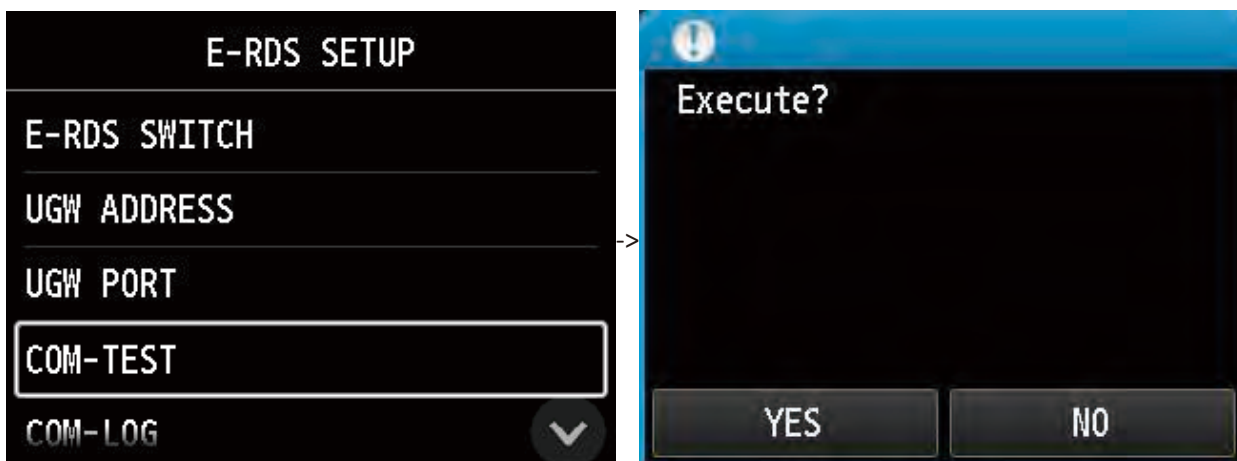


The E-RDS function is enabled

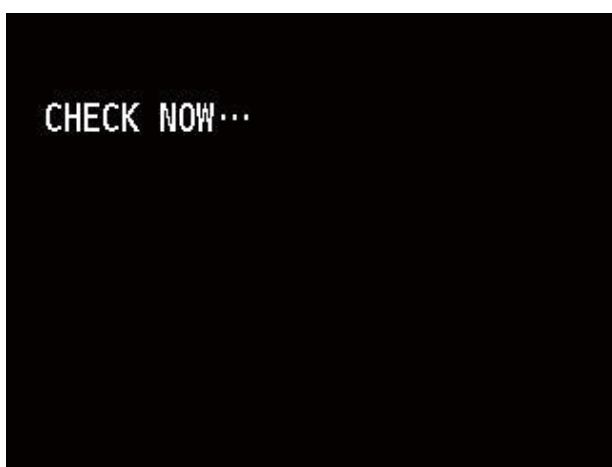
 Note	<ul style="list-style-type: none"><li>• When the E-RDS function is enabled, the function t t communicates with UGW is enabled.</li></ul>
---	--

 Caution	<ul style="list-style-type: none"><li>• The values of URL (UGW ADDRESS) and port number (UGW PORT) for UGW must not be changed unless otherwise indicated.</li><li>• If they are changed, a communication er or with UGW occurs.</li><li>• If they are mistakenly changed, reset E-RDS from [E-RDS OTHERS] &gt; [RESET E-RDS DAT], and then, perform the E-RDS setting ain.</li></ul>
--	---

(4) Select [COM-TEST], then click [YES].

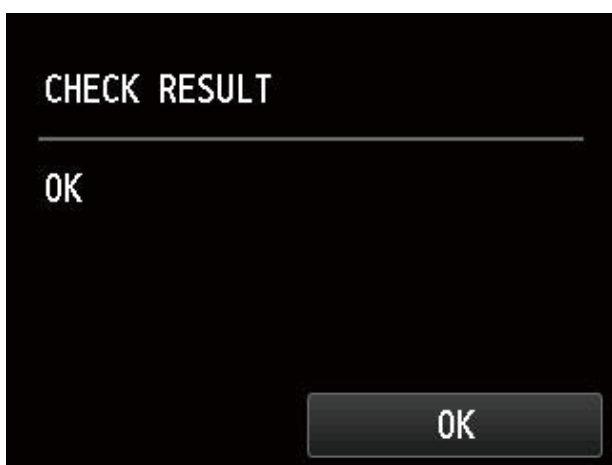


The communication test with UGW is executed.



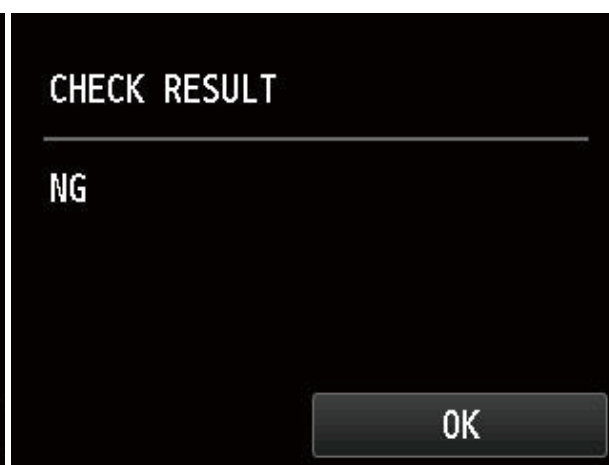
The message "CHECK NOW..." is displayed. When the test is finished, the following message is displayed:

When the communication test was successful:



"CHECK RESULT/OK"

When the communication test was failed:

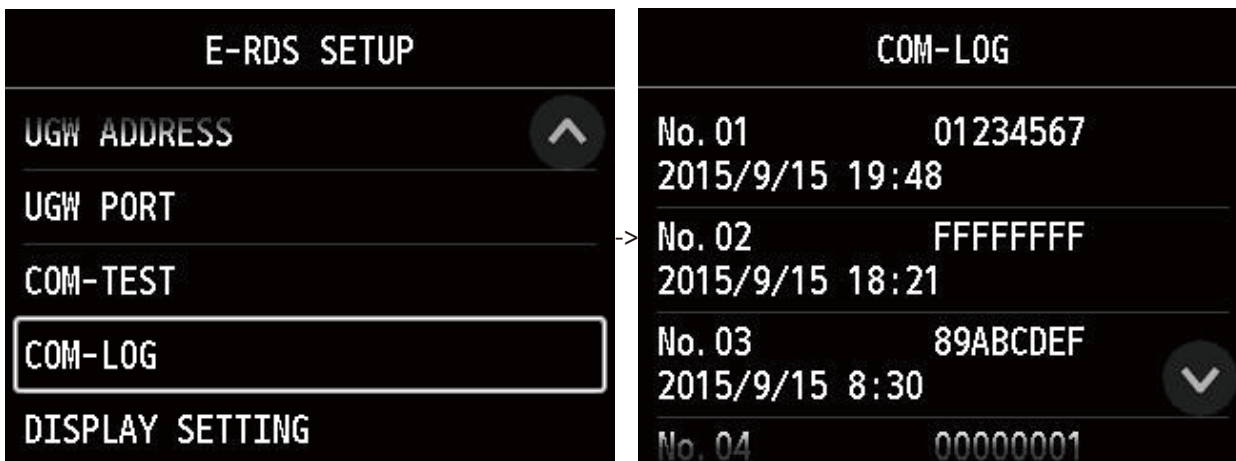


"CHECK RESULT/NG"


In both cases, select [OK] to return to the main menu.


When the communication test was successful, the connection setting of remote service is completed. Go to (5).

When the communication test was failed, refer to [COM-LOG] to confirm the failure information, and then check the network settings necessary for internet connection



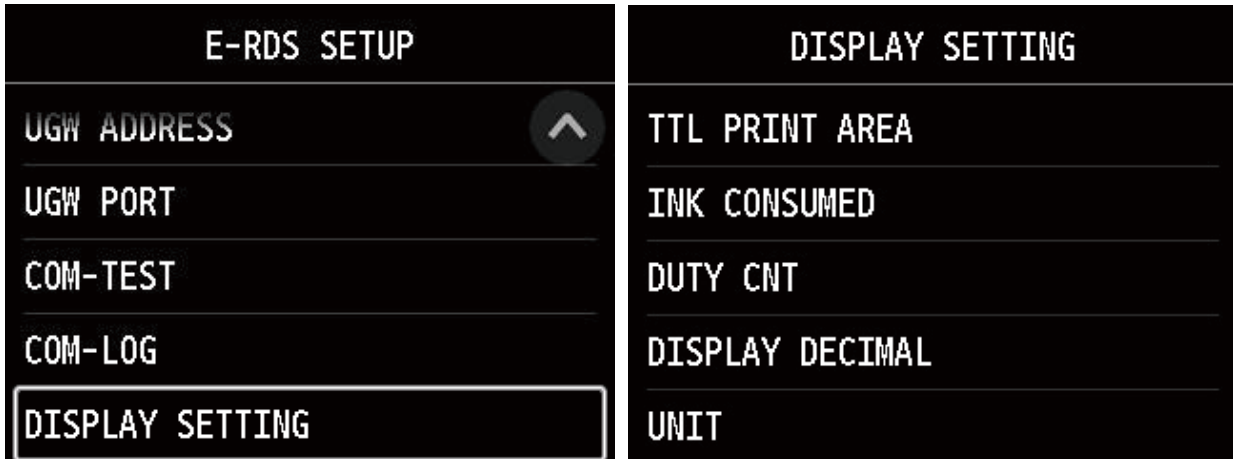
After the above confirmation and settings, follow < E-RDS settings procedures (service mode) > again.

 <b>Note</b>	<ul style="list-style-type: none"> <li>The communication test cannot be cancelled during the test execution (no other operations are not be accepted until the test results are obtained).</li> <li>E-RDS obtains schedule information and starts monitoring by executing the communication test with UGW.</li> <li>For the error information in [Communication log], see <a href="#">5) Error information displayed in communication log [COM-LOG]</a> to be described.</li> </ul>
---	---

 <b>Caution</b>	<ul style="list-style-type: none"> <li>When the E-RDS setting is enabled in the setting on the printer side without registering the printer information on UGW, the status change of the printer, counter information, problem information, etc. are transmitted to UGW via the Internet.</li> <li>In order that the applicable printer will be monitored by the remote services such as NETEYE, e-Maintenance, and imageWARE Remote, it is required to register the printer information in UGW.</li> </ul>
---	---



(5) Select [DISPLAY SETTING], and specify the ON/OFF settings of records of use (Total print area/Ink consumed/Duty counter) in user mode.



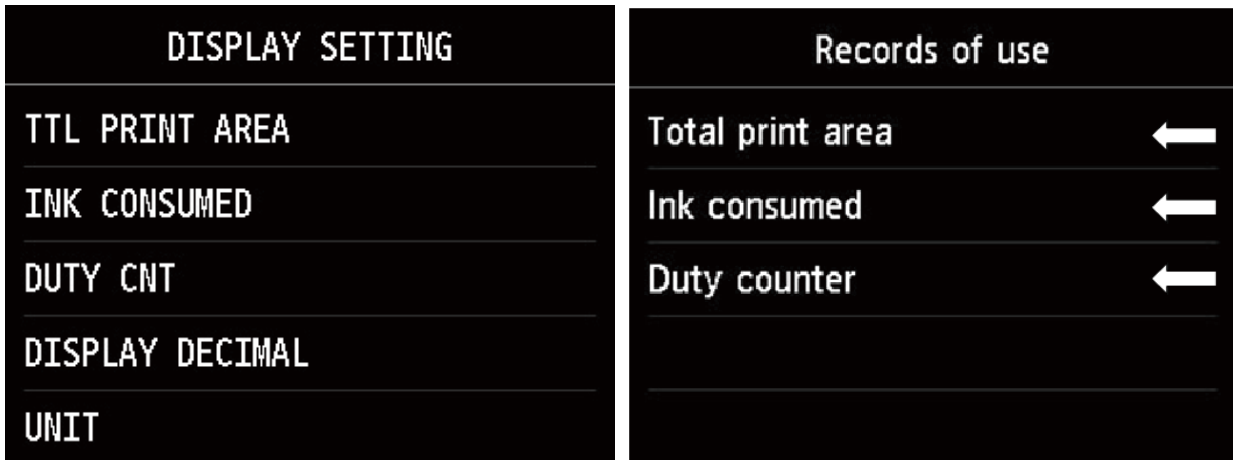
This setting is reflected in [Printer information] > [Records of use] in user mode.

[DISPLAY SETTING] >

[TTL PRINT AREA]-[ON/OFF] -> [Total print area] ON/OFF setting

[INK CONSUMED]-[ON/OFF] -> [Ink consumed] ON/OFF setting

[DUTY CNT]-[ON/OFF] -> [Duty counter] ON/OFF setting

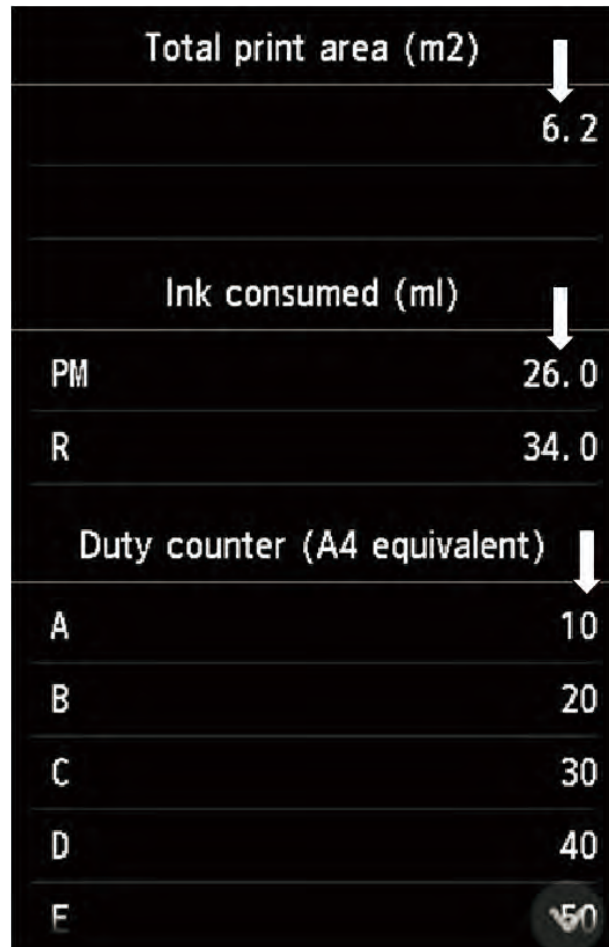
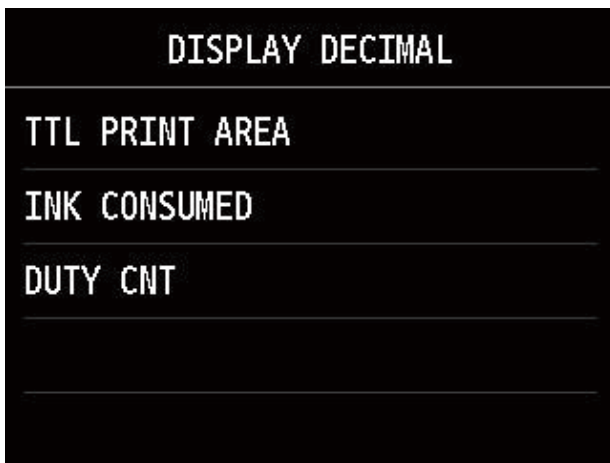


[DISPLAY SETTING] > [DISPLAY DECIMAL] >

[TTL PRINT AREA]-[ON/OFF] -> [Total print area] decimal point ON/OFF setti

[INK CONSUMED]-[ON/OFF] -> [Ink consumed] decimal point ON/OFF setti

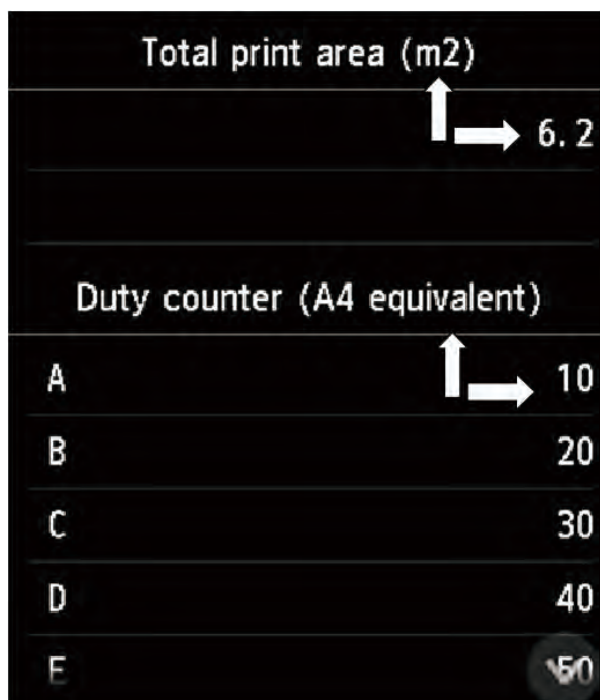
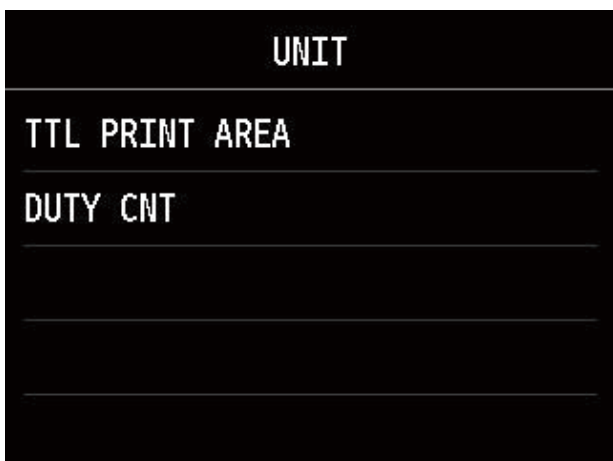
[DUTY CNT]-[ON/OFF] -> [Duty counter] decimal point ON/OFF setti



[DISPLAY SETTING] > [UNIT] >

[TTL PRINT AREA]-[LENGTH UNIT/A4/LETTER] -> [Total print area] unit/value setti

[DUTY CNT]-[LENGTH UNIT/A4/LETTER] -> [Duty counter] unit/value setti



Setting un	unit/value
[LENGTH UNIT]	m2
[A4]	A4 equivalent
[LETTER]	LTR equivalent

**[E-RDS SETUP] > [DISPLAY SETTING] menu configuration**

Fourth level	Fifth l vel	Six level	Contents
TTL PRINT AREA	<u>ON</u>	/	Display setti ([Total print area] ON/OFF settin
	OFF		
INK CONSUMED	<u>ON</u>	/	Display setti ([Ink consumed] ON/OFF settin
	OFF		
DUTY CNT	<u>ON</u>	/	Display setti ([Duty counter] ON/OFF settin
	OFF		
DISPLAY DECIMAL	TTL PRINT AREA	<u>ON</u>	Decimal point display setti
		OFF	([Total print area] decimal point ON/OFF settin
	INK CONSUMED	<u>ON</u>	Decimal point display setti
		OFF	([Ink consumed] decimal point ON/OFF settin
	DUTY CNT	<u>ON</u>	Decimal point display setti
		OFF	([Duty counter] decimal point ON/OFF settin
UNIT	TTL PRINT AREA	<u>LENGTH UNIT</u>	Unit setti
		A4	([Total print area] unit/value settin
		LETTER	
	DUTY CNT	<u>LENGTH UNIT</u>	Unit setti
		A4	([Duty counter] unit/value settin

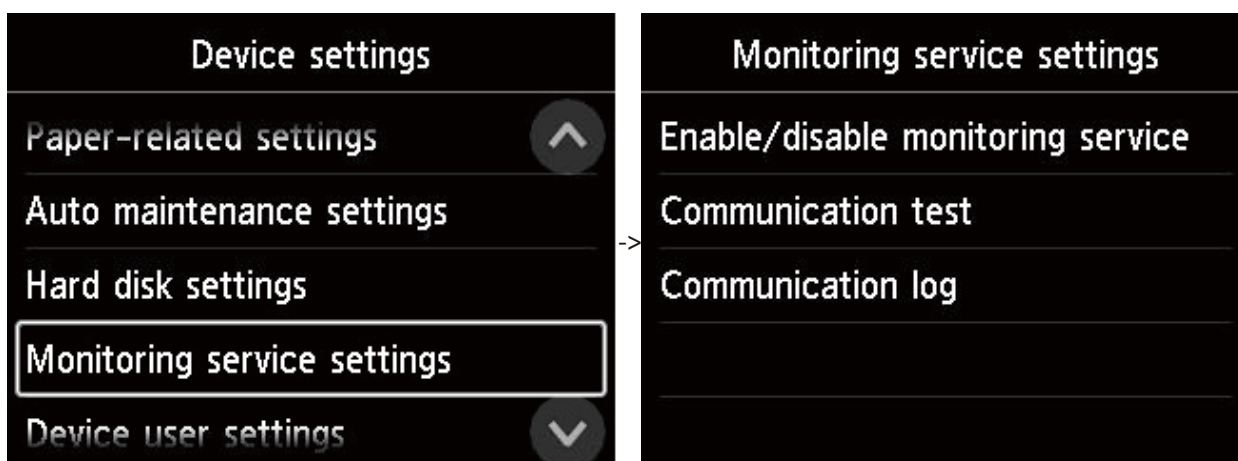
\* Underlined setting alues for each setting ([ON/OFF], [LENGTH UNIT/A4/LETTER]) are defaults.

## <E-RDS settings procedures (user mode)>

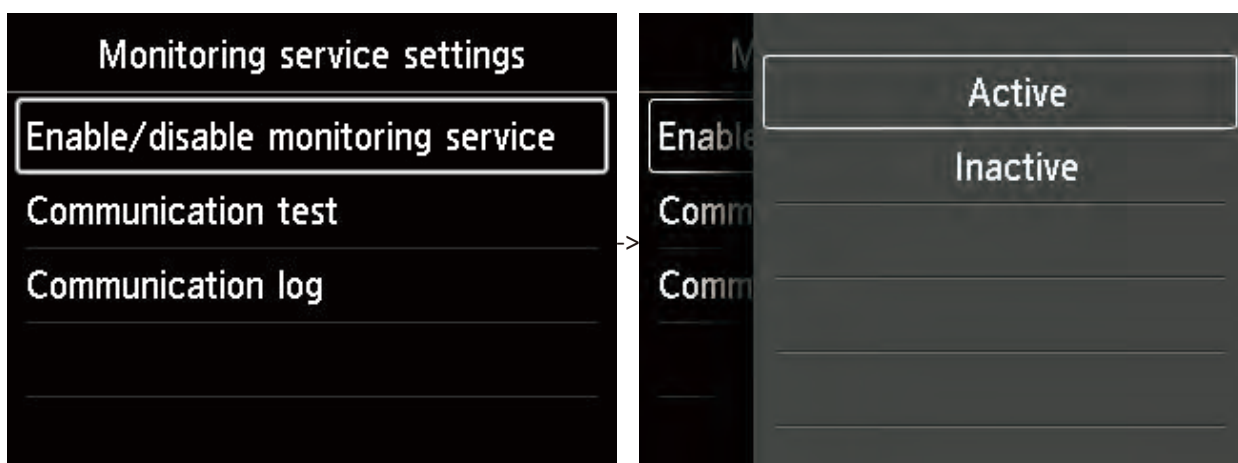
1. Launch the user mode.
2. Enable E-RDS function in user mode, and then execute the communication test.

(1) Select the following items:

[Device settings] > [Monitoring service setting]



(2) Select [Enable/disable monitoring service], and click [Active].

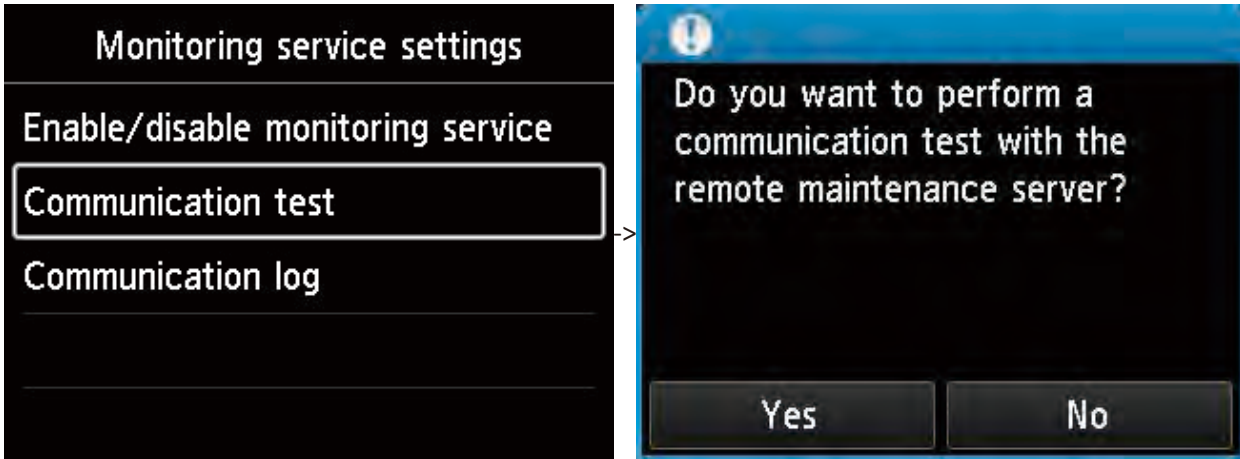


The E-RDS function is enabled



- When the E-RDS function is enabled, the function test communicates with UGW is enabled.

(3) Select [Communication test], and then select [Yes] for “Do you want to perform a communication test with the remote maintenance server?”

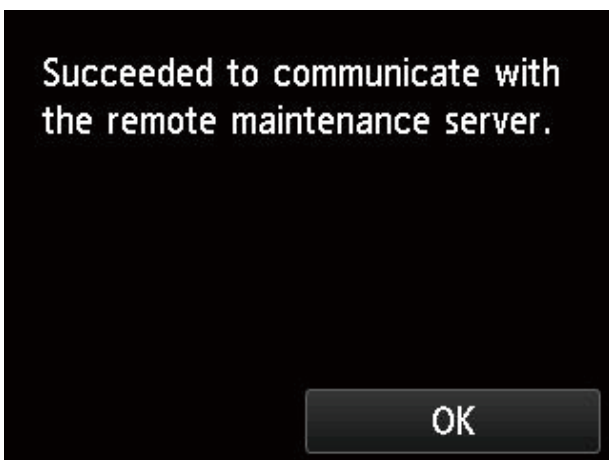


The communication test with UGW is executed.

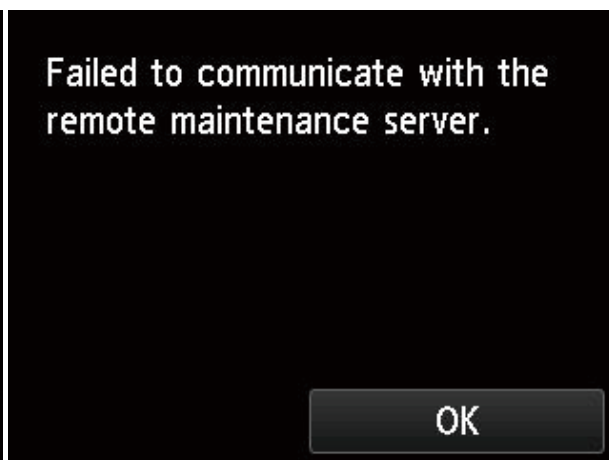


“Processing... Please wait momentarily.” is displayed. When the test is finished, the following message is displayed:

When the communication test was successful:



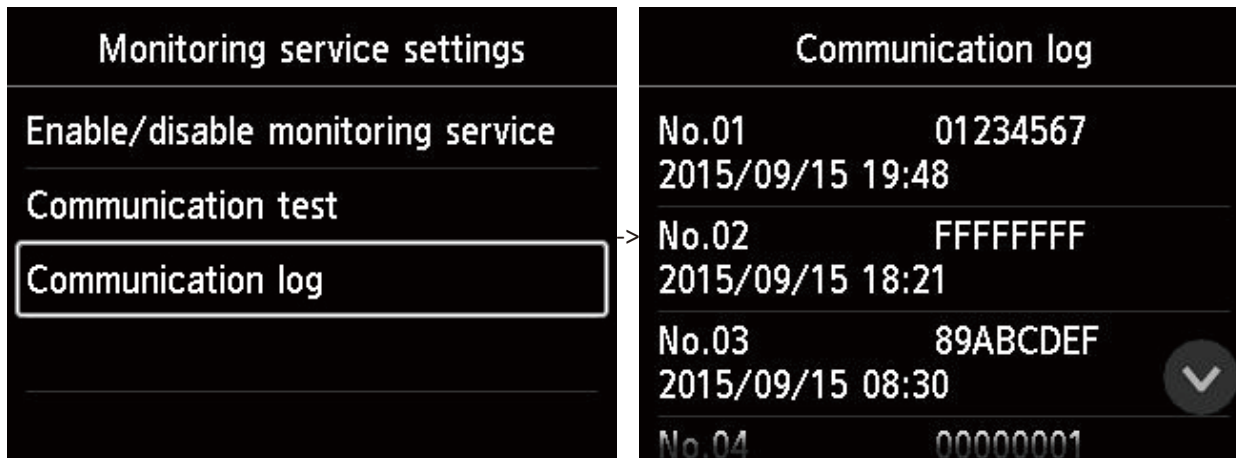
When the communication test was failed:




In both cases, select [OK] to return to the main menu.


When the communication test was successful, the connection setting to remote service is completed.

When the communication test was failed, refer to [Communication log] to confirm the failure information, and then check the network settings necessary for internet connection.



After the above confirmation and settings, follow **<E-RDS settings procedures (user mode)>** again.

 <p>Note</p>	<ul style="list-style-type: none"> <li>The communication test cannot be cancelled during the test execution (no other operations are not be accepted until the test results are obtained).</li> <li>E-RDS obtains schedule information and starts monitoring by executing the communication test with UGW.</li> <li>For the error information in [Communication log], see <a href="#">5) Error information displayed in communication log [ _OM-LOG]</a> to be described.</li> </ul>
--	--

 <p>Caution</p>	<ul style="list-style-type: none"> <li>When the E-RDS setting is enabled in the setting on the printer side without registering the printer information on UGW, the status change of the printer, counter information, problem information, etc. are transmitted to UGW via the Internet.</li> </ul> <p>In order that the applicable printer will be monitored by the remote services such as NETEYE, e-Maintenance, and imageWARE Remote, it is required to register the printer information in UGW.</p>
--	---



### 3) Notes on servicing

- After the MAIN PCB UNIT is replaced, the remote service transmission schedule information is lost.

Based on the agreement on remote service (NETEYE/e-Maintenance/imageWARE Remote), if the E-RDS function is enabled, it is necessary to execute a communication test after replacing MAIN PCB UNIT.

If not executed, the subsequent transmission schedule information will not be acquired again, and will not be transmitted to UGW. Therefore, this will affect the provision of remote service to customers.

\*see [7-3. PCB Replacement Mode](#) in Chapter 7 to be described.

- If the agreement of remote service (NETEYE/e-Maintenance/imageWARE Remote) of the printer becomes invalid,  
set[E-RDS SWITCH] to [OFF] in service mode  
or  
set [Enable/disable monitoring service] to [Inactive] in user mode.

## 4) FAQ

No.	Question	Answers
1	Fails in communication test [COM-TEST].	<p>If communication test [COM-TEST] fails, the following factors are possible:</p> <ol style="list-style-type: none"> <li>1. Network cable is removed or broken.</li> <li>2. Name resolution fails (host name is incorrect or DNS server has been halted).</li> <li>3. The network setting (IP address/DNS server/proxy server (authentication)) is incorrect.</li> <li>4. The setting of UGW-ADDRESS or UGW-PORT has been changed.</li> </ol> <p>-&gt; Check communication log [COM-LOG], and then see 5. Error information displayed in communication log [COM-LOG] on the next page to solve the error.</p>
2	The UGW printer (E-RDS) is once unregistered and is registered again. However, the counter information of the printer (E-RDS) is not reflected in UGW.	When the UGW printer (E-RDS) is unregistered, the records on the applicable printer (E-RDS) are deleted from the database. Therefore, it is necessary to perform the communication test [COM-TEST] again after the re-registration to avoid the registration of the applicable printer being invalid. It is because the registration of the applicable printer becomes invalid after seven days have elapsed since the re-registration of the printer (E-RDS) based on the judgment that the communication test has not been executed.
3	Can the printer be turned off during remote servicing?	While remote service is operated, the printer and the networking equipment such as HUB must be always powered ON. Do not leave the printer and the networking equipment OFF over a long time
4	Timing of transmitting data from the printer (E-RDS) to UGW and its data size	<p>The start time and timing of data transmitting are specified by the UGW side.</p> <p>Transmitted once per 12 hours, 16 hours and 7 days, and when a printer status changed.</p> <p>Each data size is approx. 150K byte in maximum.</p>

### 5) Error information displayed in communication log [COM-LOG]

No.	Error code	Error strings	Details of errors	Solution
1	0500 0003	Communication test is not performed	E-RDS has restarted (printer reboot) with ERDS SWITCH = ON but the communication test had not been performed yet.	Perform the communication test [COM-TEST].
2	8600 0002 8600 0003 8600 0101 8600 0201 8600 0305 8600 0306 8600 0401 8600 0403 8600 0414 8600 0415	Event Registration is failed	Processing inside the printer (even registration) is failed.	Turn on and off the printer. If this error recurs even after turning OFF and ON, check the necessity of rewriting the printer firmware (version upgrade).
3	8xxx 2001	URL Scheme error (not https)	The header of the URL of the registered UGW is not in https format. A "https://" input error.	Check UGW-ADDRESS setting <code>tt s://a01.***)*1.</code>
4	8xxx 200A	Server connection error	An UGW connection error. Displayed in the event of a TCP/IP communication fault.	Check the network-related setting
5	8xxx 2002	URL server specified is illegal	UGW-specified URL error URL address setting error	Check UGW-ADDRESS setting <code>tt s://a01.***)*1.</code>
6	8xxx 2014	Proxy connection error	Proxy connection error Cannot connect to proxy server.	Check proxy server address.
7	8xxx 201E	Proxy authentication error	Proxy authentication error The proxy authentication fails.	Confirm user name and password required for logging into proxy server.
8	8xxx 2028	Server certificate error	Server certificate error The printer's route certificate is unavailable.	Check the necessity of rewriting the printer firmware (version upgrade).
9	8xxx 2046	Server certificate expired	Server certificate is expired. The route certificate registered with the printer has expired.	Set the printer time and date correctly. If the printer time and date are correct, check the necessity of rewriting the printer firmware (version upgrade).
10	8xxx 2058	Unknown error	Other communication error	Perform communication test [COM-TEST] again after an interval. Then, if the same error occurs, check the UGW status with UGW administrator.
11	8xxx 2063	SOAP Fault	SOAP communication error	Confirm that the value of UGW-PORT is 443.
12	8xxx 0101	Server response error (NULL)	UGW response error (UGW error code processing has failed) HTTPS communication error	Perform communication test [COM-TEST] again after an interval. Then, if the same error occurs, check the UGW status with UGW administrator.
13	8xxx 2004	Server response error (hex number) Hex number: Error detailed in the UGW	UGW response error Communication with UGW has been successful, but UGW responds error due to some sort of error.	Perform communication test [COM-TEST] again after an interval. Confirm the error code (hex number) from UGW displayed after the message appears.
14	xxxx xxxx	Device internal error	Printer internal error An error due to the device side	Turn on and off the printer. Or check the necessity of rewriting the printer firmware (version upgrade).
15	8xxx 0201 8xxx 0202 8xxx 0203 8xxx 0204 8xxx 0206	Server schedule is invalid	During the communication test, there has been some kind of error in the schedule values passed from UGW.	Report to support department on detailed information when error occurs. After any action is taken on the UGW side, perform communication test [COM-TEST] again.
16	8xxx 2047	Server response time out	UGW response time out Late response due to network congestion	When the error occurs during communication test, perform communication test [COM-TEST] again after an interval.
17	8xxx 2048	Server not found	Server is not found (URL path is incorrect).	Check UGW-ADDRESS setting <code>tt s://a01.***)*1.</code>
18	84xx 0003	E-RDS switch is set OFF	E-RDS is disabled.	Perform the communication test [COM-TEST] with E-RDS SWITCH=ON.
19	0xxx 0003	Server schedule is not exist	Server schedule does not exist. Blank schedule data has been received from UGW.	Check the printer settings status with the UGW administrator.
20	8xxx 2003	Network is not ready, try later	Network-related settings have not been made for the printer.	Perform the network-related settings of the printer properly.
21	8xxx 2052	URL error	URL setting error Non-URL text string entered in URL field	Check UGW-ADDRESS setting <code>tt s://a01.***)*1.</code>
22	8xxx 2015	Proxy address resolution error	Proxy server address resolution error	Check the setting of the proxy server name.
23	8xxx 2029	Server certificate verify error	The server certificate verification (URL check) error.	Check UGW-ADDRESS setting <code>tt s://a01.***)*1.</code>
24	8xxx 200B	Server address resolution error	UGW address resolution error	Check UGW-ADDRESS setting <code>tt s://a01.***)*1.</code>

\*1: Not included in this manual for security purpose.

# **MAINTENANCE, CONSUMABLE PARTS**

- 4-1. Outline ..... 189**
- 4-2. Periodic Replacement Parts ..... 190**
- 4-3. Consumable Parts ..... 191**
- 4-4. Periodic Maintenance ..... 194**

## 4-1. Outline

This chapter explains the maintenance conducted by a service person.

## 4-2. Periodic Replacement Parts

Level	Periodic replacement parts
User	None
Service	None



## 4-3. Consumable Parts

24" model

Counter name*1	Part name	Part number	Life sheets/ A1*2	Warning level threshold			Panel message*3		Items to be counted
				Level 1	Level 2	Unit	Level 1	Level 2	
Wia1	<a href="#">WASTE INK ABSORBER UNIT A</a>	QM4-4241	16000	718.77	741.00	ml	W1	EC43-4001	The number of dots
Wia2	<a href="#">WASTE INK ABSORBER UNIT B</a>	QM4-4242		1015.59	1047.00	ml	W1	EC44-4001	The number of dots
Wia6	<a href="#">WASTE INK ABSORBER UNIT</a>	QM4-5751		938.96	968.00	ml	W1	EC47-4001	The number of dots
Wia7	<a href="#">SUCTION FAN UNIT</a> <a href="#">SUCTION FAN DUCT UNIT</a>	QM4-5861 QM4-4261	140000	203.70	210.00	ml	W1	EC41-4001	The number of dots
WF1	<a href="#">WASTE INK TANK UNIT</a>	QM4-5862	-	106.70	110.00	ml	W1	EC48-4001	The number of dots
CR1	<a href="#">CARRIAGE UNIT</a>	QM4-5318	50000	27857142	30952380	(× 210) mm	W1	W2	CR scan length
CR2	<a href="#">CARRIAGE UNIT FILM, TIMING SLIT STRIP</a>	QM4-5318 QD1-2177		67500000	75000000	(× 1000000) dot	W1	W2	Total ejected ink amount
CR3	<a href="#">CARRIAGE UNIT</a>	QM4-5318	25000	162000	180000	Times	W1	W2	The rotation number of carriage height changing cam
CR4	<a href="#">INK TUBE UNIT</a>	QM4-5365	35000	6624000	7360000	Times	W1	EC32-4001	The number of CR scanning
CR5	<a href="#">MULTI SENSOR UNIT</a>	QM4-5328	50000	67500000	75000000	(× 1000000) dot	W1	W2	Total ejected ink amount
CR6	<a href="#">FLEXIBLE CABLE UNIT</a>	QM4-5855	35000	6624000	7360000	Times	W1	EC32-4001	The number of CR scanning
PG1	<a href="#">PURGE UNIT</a>	QM4-5309	25000	140400	156000	Times	W1	EC31-4001	The number of capping
PG2				895500	995000	Times	W1	EC31-4001	The number of pump rotatio
PG3				25200	28000	Times	W1	EC31-4001	The number of wiping
HMa1	<a href="#">HEAD MANAGEMENT SENSOR UNIT</a>	QM4-4038	50000	3.88	4.00	ml	W1	EC22-4001	The number of dots in Head Management Sensor Unit
MT1	<a href="#">MOTOR, DC, 47.8W</a>	QK2-2200	28000	3060	3400	h	W1	W2	CR driving time
PL1	<a href="#">ACTIVE ROLL BRAKE UNIT</a>	QM4-8678	1000000	27000	30000	h	W1	W2	Paper feeding tim
Mi1	<a href="#">MIST FAN DUCT UNIT 2</a>	QM4-4227	25000	996.19	1027.00	ml	W1	EC25-4001	The number of dots in mist collecting b x
MS1	<a href="#">MULTI SENSOR UNIT</a>	QM4-5328				%	-	W2	

\*1: The counter name displayed when selecting [SE VICE MODE > PRINTER STATUS > PARTS COUNTER > COUNTER XX-X] in the operation pane

\*2: The timing of replacing consumables varies depending on print mode usage conditions

Printi g condi ons: Canon Heavyweight Coated Paper HG 145gsm, standard mode/12.5 % × 3 color (CMY) + 6.8% (MBK) + 5.7% (BK) = 50% Duty

\*3: If the threshold value of counter with an error code exceeds 100%, an error code is displayed and the printer stops. If not, predetermined message is displayed and the printer does not stop.

NOTE:

After consumable parts are replaced, select [SERVICE MODE > PRINTER STATUS > PARTS COUNTER > RESET] to reset the parts counter.

36" model

Counter name*1	Part name	Part number	Life sheets / A0*2	Warning level threshold			Panel message*3		Items to be counted
				Level 1	Level 2	Unit	Level 1	Level 2	
Wia1	<a href="#">WASTE INK ABSORBER UNIT A</a>	QM4-4241	30000	718.77	741.00	ml	W1	EC43-4001	The number of dots
Wia2	<a href="#">WASTE INK ABSORBER UNIT B</a>	QM4-4242		1015.59	1047.00	ml	W1	EC44-4001	The number of dots
Wia5	<a href="#">WASTE INK ABSORBER UNIT E</a>	QM4-5354		855.54	882.00	ml	W1	EC49-4001	The number of dots
Wia6	<a href="#">WASTE INK ABSORBER UNIT</a>	QM4-5751		938.96	968.00	ml	W1	EC47-4001	The number of dots
Wia7	<a href="#">SUCTION FAN UNIT</a> <a href="#">SUCTION FAN DUCT UNIT</a>	QM4-5861 QM4-4261	100000	203.70	210.00	ml	W1	EC41-4001	The number of dots
WF1	<a href="#">WASTE INK TANK UNIT</a>	QM4-5862	-	106.70	110.00	ml	W1	EC48-4001	The number of dots
CR1	<a href="#">CARRIAGE UNIT</a>	QM4-5319	25000	27857142	30952380	(× 210)mm	W1	W2	CR scan length
CR2	<a href="#">CARRIAGE UNIT</a> <a href="#">FILM, TIMING SLIT STRIP</a>	QM4-5319 QC5-6283	25000	67500000	75000000	(× 1000000) dot	W1	W2	Total ejected ink amount
CR3	<a href="#">CARRIAGE UNIT</a>	QM4-5319	25000	162000	180000	Times	W1	W2	The rotation number of carriage height changing cam
CR4	<a href="#">INK TUBE UNIT</a>	QM4-5859	25000	6624000	7360000	Times	W1	EC32-4001	The number of CR scanning
CR5	<a href="#">MULTI SENSOR UNIT</a>	QM4-5328	25000	67500000	75000000	(× 1000000) dot	W1	W2	Total ejected ink amount
CR6	<a href="#">FLEXIBLE CABLE UNIT</a>	QM4-5856	35000	6624000	7360000	Times	W1	EC32-4001	The number of CR scanning
PG1	<a href="#">PURGE UNIT</a>	QM4-5309	25000	140400	156000	Times	W1	EC31-4001	The number of capping
PG2				895500	995000	Times	W1	EC31-4001	The number of pump rotatio
PG3				25200	28000	Times	W1	EC31-4001	The number of wiping
HMa1	<a href="#">HEAD MANAGEMENT SENSOR UNIT</a>	QM4-4038	25000	3.88	4.00	ml	W1	EC22-4001	The number of dots in Head Management Sensor Unit
MT1	<a href="#">MOTOR, DC, 47.8W</a>	QK2-2200	28000	3060	3400	h	W1	W2	CR driving time
PL1	<a href="#">ACTIVE ROLL BRAKE UNIT</a>	QM4-8678	700000	27000	30000	h	W1	W2	Paper feeding tim
Mi1	<a href="#">MIST FAN DUCT UNIT 1</a>	QM4-4228	26000	751.75	775.00	ml	W1	EC25-4001	The number of dots in mist collecting b x
Mi2	<a href="#">MIST FAN DUCT UNIT 3</a>	QM4-5738	26000	751.75	775.00	ml	W1	EC25-4001	The number of dots in mist collecting b x
MS1	<a href="#">MULTI SENSOR UNIT</a>	QM4-5328				%	-	W2	

\*1: The counter name displayed when selecting [SE VICE MODE > PRINTER STATUS > PARTS COUNTER > COUNTER XX-X] in the operation pane

\*2: The timing of replacing consumables varies depending on print mode usage conditions  
 Printing conditions: Canon Heavyweight Coated Paper HG 145gsm, standard mode/12.5% × 3 color (CMY) + 6.8% (MBK) + 5.7% (BK) = 50% Duty

\*3: If the threshold value of counter with an error code exceeds 100%, an error code is displayed and the printer stops. If not, predetermined message is displayed and the printer does not stop.

NOTE:

After consumable parts are replaced, select [SERVICE MODE > PRINTER STATUS > PARTS COUNTER > RESET] to reset the parts counter.

44" model

Counter name*1	Part name	Part number	Life sheets / A0*2	Warning level threshold			Panel message*3		Items to be counted
				Level 1	Level 2	Unit	Level 1	Level 2	
Wia1	<a href="#">WASTE INK ABSORBER UNIT A</a>	QM4-4241	30000	718.77	741.00	ml	W1	EC43-4001	The number of dots
Wia2	<a href="#">WASTE INK ABSORBER UNIT B</a>	QM4-4242		1015.59	1047.00	ml	W1	EC44-4001	The number of dots
Wia3	<a href="#">WASTE INK ABSORBER UNIT C</a>	QM4-4243		1489.92	1536.00	ml	W1	EC45-4001	The number of dots
Wia6	<a href="#">WASTE INK ABSORBER UNIT</a>	QM4-5751		938.96	968.00	ml	W1	EC47-4001	The number of dots
Wia7	<a href="#">SUCTION FAN UNIT</a> <a href="#">SUCTION FAN DUCT UNIT</a>	QM4-5861 QM4-4261	100000	203.70	210.00	ml	W1	EC41-4001	The number of dots
WF1	<a href="#">WASTE INK TANK UNIT</a>	QM4-5862	-	106.70	110.00	ml	W1	EC48-4001	The number of dots
CR1	<a href="#">CARRIAGE UNIT</a>	QM4-5320	25000	27857142	30952380	(× 210)mm	W1	W2	CR scan length
CR2	<a href="#">CARRIAGE UNIT</a> <a href="#">FILM, TIMING SLIT STRIP</a>	QM4-5320 QD1-2178	25000	67500000	75000000	(× 1000000) dot	W1	W2	Total ejected ink amount
CR3	<a href="#">CARRIAGE UNIT</a>	QM4-5320	25000	162000	180000	Times	W1	W2	The rotation number of carriage height changing cam
CR4	<a href="#">INK TUBE UNIT</a>	QM4-5366	25000	6624000	7360000	Times	W1	EC32-4001	The number of CR scanning
CR5	<a href="#">MULTI SENSOR UNIT</a>	QM4-5328	25000	67500000	75000000	(× 1000000) dot	W1	W2	Total ejected ink amount
CR6	<a href="#">FLEXIBLE CABLE UNIT</a>	QM4-5857	35000	6624000	7360000	Times	W1	EC32-4001	The number of CR scanning
PG1	<a href="#">PURGE UNIT</a>	QM4-5309	25000	140400	156000	Times	W1	EC31-4001	The number of capping
PG2				895500	995000	Times	W1	EC31-4001	The number of pump rotatio
PG3				25200	28000	Times	W1	EC31-4001	The number of wiping
HMa1	<a href="#">HEAD MANAGEMENT SENSOR UNIT</a>	QM4-4038	25000	3.88	4.00	ml	W1	EC22-4001	The number of dots in Head Management Sensor Unit
MT1	<a href="#">MOTOR, DC, 47.8W</a>	QK2-2200	28000	3060	3400	h	W1	W2	CR driving time
PL1	<a href="#">ACTIVE ROLL BRAKE UNIT</a>	QM4-8678	700000	27000	30000	h	W1	W2	Paper feeding tim
Mi1	<a href="#">MIST FAN DUCT UNIT 2</a>	QM4-4227	29000	996.19	1027.00	ml	W1	EC25-4001	The number of dots in mist collecting b x
Mi2	<a href="#">MIST FAN DUCT UNIT 1</a>	QM4-4228	29000	751.75	775.00	ml	W1	EC25-4001	The number of dots in mist collecting b x
MS1	<a href="#">MULTI SENSOR UNIT</a>	QM4-5328				%	-	W2	

\*1: The counter name displayed when selecting [SE VICE MODE > PRINTER STATUS > PARTS COUNTER > COUNTER XX-X] in the operation pane

\*2: The timing of replacing consumables varies depending on print mode usage conditions  
 Printing conditions: Canon Heavyweight Coated Paper HG 145gsm, standard mode/12.5% × 3 color (CMY) + 6.8% (MBK) + 5.7% (BK) = 50% Duty

\*3: If the threshold value of counter with an error code exceeds 100%, an error code is displayed and the printer stops. If not, predetermined message is displayed and the printer does not stop.

NOTE:

After consumable parts are replaced, select [SERVICE MODE > PRINTER STATUS > PARTS COUNTER > RESET] to reset the parts counter.

## 4-4. Periodic Maintenance

Level	Periodic maintenance
User	Printer cleaning (once a month)
Service	None

In order to maintain print quality or prevent troubles, recommend users to clean the printer periodically. For how to perform cleaning, refer to “Maintenance and Consumables” in User’s Guide.

Recommend the users to confirm that the firmware is the latest version. If it is not the latest one, recommend to upgrade the firmware.

## ERROR CODE

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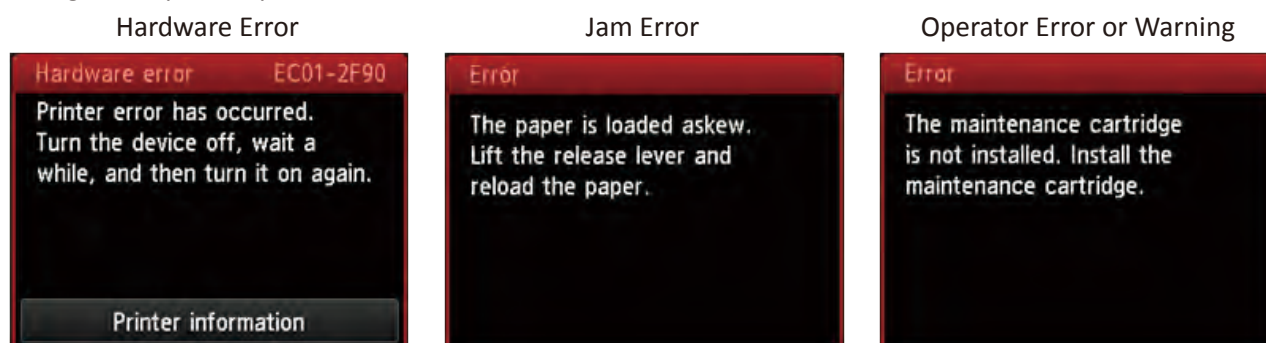
## 5-1. Error Code Outline

### Outline

When trouble occurs on this product, error messages are indicated on the operation panel. Users or service technicians need to check the indicated message and perform appropriate handling. Error messages are divided into three categories as follows.

Error Category	Description	Handling
<a href="#">Hardware Error</a>	The message appears when a trouble is caused by the printer. * The error code is indicated only when the trouble needs to be handled by service technicians.	User or Service Technician
<a href="#">Jam Error</a>	The message appears when a trouble is caused by the printer	User
<a href="#">Operator Error and Warning</a>	The error or warning appears when the trouble is caused by the user's operation	User

Message Example of Operation Panel



### Error Code System

This product adopts different error code systems by each category so that service technicians are able to troubleshoot with error codes.

Error Category	Code Systems	Description
<a href="#">Hardware Error</a>	ECxx-yyyy	ECxx: Assumed defect part* <sup>1</sup> yyyy: Defect description (Detail Code)* <sup>2</sup>
<a href="#">Jam Error</a>	aabbcc* <sup>3</sup>	aa: Jammed unit (printer or option part) bb: Jam type cc: Jammed part
<a href="#">Operator Error and Warning</a>	yyyy	Warning description and how to handle* <sup>2</sup>



\*1 How to read ECxx

Suspected Error Part		Suspected Error Part	
EC0x	Carriage Drive System	EC3x	Ink Supply System
EC1x	Paper Feed System	EC4x	Waste Ink System
EC2x	Print System	EC5x	Electric System

\*2-1 The ink color of the error codes subdivided by ink color is able to be identified by its last digit.

Last Digit	Ink Color	Last Digit	Ink Color
yyy0	PBK	yyy6	MBK
yyy1	Y	yyy8	GY
yyy2	M	yyy9	PGY
yyy3	C	yyyA	R
yyy4	PM	yyyB	B
yyy5	PC	yyyD	CO

\*2-2 Detail Code (4yyy, 5yyy) requires removal of the error in service mode after repairing.

\*3 How to read Jam Code

aa (Jammed unit)	
00	Printer Unit
31	Lower Roll Unit
FF	Unidentifi

bb (Jam type)			
11	Paper feed failure (roll paper)	40	Cut error
12	Paper feed failure (cut paper)	51	Paper take-up failure (tape peel off of roll paper core roll, paper take-up in reverse direction)
21	Paper skew	52	Paper take-up failure (motor defect, insufficient torque)
22	Paper edge detection failure	00	unidentifi
31	Paper flo tin , Paper folding		

cc (Jammed part)	
11	Between UPPER PAPER ENTRY SENSOR and PAPER ENTRY SENSOR (Between LOWER PAPER ENTRY SENSOR and PAPER ENTRY SENSOR)
12	Between PAPER ENTRY SENSOR and the end of paper feeding
13	Between UPPER PAPER SET SET SENSOR - UPPER PAPER ENTRY SENSOR (Between LOWER PAPER SET SET SENSOR - LOWER PAPER ENTRY SENSOR)
15	Between paper loading and the end of paper feeding (cut paper)
21	MULTI SENSOR
30	Platen, Feed roller
40	Cu er
50	Lower roll unit (take-up settin
00	Unidentifi

<Reference> Other error code system

Support Code: The error code for users indicated on PCs and online manuals. For service technicians, see the error code for service technicians described in this manual to perform troubleshooting

Alarm Code: The error code to control operator error and warning in UGW. (90xxxx or 01xxxx is indicated in UGW (xxxx is the alarm code).)

## How to Check Error History

Error history is able to be checked with the operation panel, status print, service log (PRINT INF), and UGW.

The checkable error category is as follows.

Error History	Operation Panel	Status Print	Service Log (PRINT INF)	UGW
Hardware Error	indicated	indicated	indicated	indicated
Jam Error	Indicated* <sup>1</sup>	indicated* <sup>1</sup>	indicated* <sup>2</sup>	indicated
Operator Error / Warning	Indicated/ not indicated	Indicated/indicated	Indicated/indicated	Indicated* <sup>2</sup> / indicated* <sup>2</sup>

\*1 Indicated in operator error.

\*2 Not all of the errors are indicated.

## 5-2. Error Code Table

### Hardware Error

The description (phenomenon, detected condition, countermeasure) will be displayed by clicking the error codes listed below.

<a href="#">EC01-2F90</a>	<a href="#">EC17-2023</a>	<a href="#">EC21-2F54</a>	<a href="#">EC23-2F32</a>	<a href="#">EC3F-2F41</a>
<a href="#">EC01-2F95</a>	<a href="#">EC17-2024</a>	<a href="#">EC21-2F56</a>	<a href="#">EC24-4049</a>	<a href="#">EC3F-4120</a>
<a href="#">EC02-2F42</a>	<a href="#">EC17-2028</a>	<a href="#">EC21-2F57</a>	<a href="#">EC24-404A</a>	<a href="#">EC3F-4121</a>
<a href="#">EC03-403A</a>	<a href="#">EC17-2029</a>	<a href="#">EC21-2F58</a>	<a href="#">EC24-404B</a>	<a href="#">EC3F-4122</a>
<a href="#">EC03-4061</a>	<a href="#">EC17-202D</a>	<a href="#">EC21-2F59</a>	<a href="#">EC25-2F16</a>	<a href="#">EC3F-4123</a>
<a href="#">EC04-2F31</a>	<a href="#">EC17-202F</a>	<a href="#">EC21-2F60</a>	<a href="#">EC25-4001</a>	<a href="#">EC3F-4126</a>
<a href="#">EC04-2F91</a>	<a href="#">EC17-2039</a>	<a href="#">EC21-2F61</a>	<a href="#">EC31-2F09</a>	<a href="#">EC41-4001</a>
<a href="#">EC05-2F92</a>	<a href="#">EC17-203A</a>	<a href="#">EC21-2F62</a>	<a href="#">EC31-2F10</a>	<a href="#">EC43-4001</a>
<a href="#">EC06-2F9A</a>	<a href="#">EC17-203D</a>	<a href="#">EC21-2F63</a>	<a href="#">EC31-2F1B</a>	<a href="#">EC44-4001</a>
<a href="#">EC06-2F9B</a>	<a href="#">EC19-2F21</a>	<a href="#">EC21-2F64</a>	<a href="#">EC31-2F1C</a>	<a href="#">EC45-4001</a>
<a href="#">EC06-2F9C</a>	<a href="#">EC1B-2030</a>	<a href="#">EC21-2F67</a>	<a href="#">EC31-2F1D</a>	<a href="#">EC47-4001</a>
<a href="#">EC07-2F19</a>	<a href="#">EC1B-2031</a>	<a href="#">EC21-2F6D</a>	<a href="#">EC31-2F1E</a>	<a href="#">EC48-4001</a>
<a href="#">EC07-4060</a>	<a href="#">EC1B-2032</a>	<a href="#">EC21-2F70</a>	<a href="#">EC31-2F1F</a>	<a href="#">EC49-4001</a>
<a href="#">EC0F-2F93</a>	<a href="#">EC1B-2033</a>	<a href="#">EC21-2F71</a>	<a href="#">EC31-2F22</a>	<a href="#">EC51-203C</a>
<a href="#">EC0F-2F96</a>	<a href="#">EC1C-2034</a>	<a href="#">EC21-2F72</a>	<a href="#">EC31-2F23</a>	<a href="#">EC51-2F07</a>
<a href="#">EC11-2F2A</a>	<a href="#">EC1C-2035</a>	<a href="#">EC21-2F73</a>	<a href="#">EC31-2F94</a>	<a href="#">EC51-2F14</a>
<a href="#">EC12-2F29</a>	<a href="#">EC1C-2036</a>	<a href="#">EC21-2F74</a>	<a href="#">EC31-4001</a>	<a href="#">EC51-2F15</a>
<a href="#">EC12-2F2B</a>	<a href="#">EC1C-2037</a>	<a href="#">EC21-2F75</a>	<a href="#">EC32-4001</a>	<a href="#">EC51-2F38</a>
<a href="#">EC12-2F2C</a>	<a href="#">EC1D-2050</a>	<a href="#">EC21-2F7D</a>	<a href="#">EC33-4020</a>	<a href="#">EC51-2FDE</a>
<a href="#">EC13-2F17</a>	<a href="#">EC1E-2053</a>	<a href="#">EC21-2F7E</a>	<a href="#">EC33-4021</a>	<a href="#">EC51-3000</a>
<a href="#">EC15-2E23</a>	<a href="#">EC21-282D</a>	<a href="#">EC21-2F7F</a>	<a href="#">EC33-4022</a>	<a href="#">EC51-3001</a>
<a href="#">EC16-2021</a>	<a href="#">EC21-282E</a>	<a href="#">EC22-2F30</a>	<a href="#">EC33-4023</a>	<a href="#">EC51-3004</a>
<a href="#">EC16-2022</a>	<a href="#">EC21-2F43</a>	<a href="#">EC22-2F47</a>	<a href="#">EC33-4026</a>	<a href="#">EC51-3005</a>
<a href="#">EC16-2027</a>	<a href="#">EC21-2F44</a>	<a href="#">EC22-4001</a>	<a href="#">EC34-2602</a>	<a href="#">EC51-3006</a>
<a href="#">EC16-202A</a>	<a href="#">EC21-2F50</a>	<a href="#">EC23-260E</a>	<a href="#">EC34-2605</a>	<a href="#">EC51-3100</a>
<a href="#">EC16-202E</a>	<a href="#">EC21-2F51</a>	<a href="#">EC23-2F11</a>	<a href="#">EC34-2F3B</a>	<a href="#">EC51-3101</a>
<a href="#">EC16-2038</a>	<a href="#">EC21-2F53</a>	<a href="#">EC23-2F18</a>	<a href="#">EC3F-2F40</a>	<a href="#">EC51-3102</a>

## Chapter 1

[EC51-3103](#)[EC54-290A](#)[EC51-3104](#)[EC54-290C](#)[EC51-3105](#)[EC54-401A](#)[EC51-3106](#)[EC54-405A](#)

## Chapter 2

[EC51-3107](#)[EC54-405B](#)[EC51-3108](#)[EC54-4080](#)[EC51-3109](#)[EC54-4081](#)[EC51-3110](#)[EC55-2F20](#)

## Chapter 3

[EC51-3301](#)[EC55-2F24](#)[EC51-3302](#)[EC55-2F6C](#)[EC51-3303](#)[EC56-2FE0](#)[EC51-3304](#)[EC57-4040](#)

## Chapter 4

[EC51-3306](#)[EC57-404F](#)[EC51-3307](#)[EC58-2F12](#)[EC51-3308](#)[EC59-3002](#)[EC51-3309](#)[EC59-3003](#)

## Chapter 5

[EC51-330A](#)[EC51-4041](#)[EC51-4042](#)[EC51-4045](#)[EC51-4046](#)

## Chapter 6

[EC51-4047](#)[EC51-404C](#)[EC51-404D](#)[EC51-4070](#)

## Chapter 7

[EC51-4071](#)[EC51-4072](#)[EC51-5001](#)[EC51-5002](#)

## Chapter 8

[EC51-5003](#)[EC52-4038](#)[EC52-4039](#)

## Jam Code

The description (phenomenon, detected condition, countermeasure) of the corresponding jam error will be displayed by clicking the error codes listed below.

<a href="#">0x001111</a>	<a href="#">0x001215</a>	<a href="#">0x003130</a>	<a href="#">0x311112</a>	<a href="#">0x315250</a>
<a href="#">0x001112</a>	<a href="#">0x002121</a>	<a href="#">0x004040</a>	<a href="#">0x311113</a>	<a href="#">0xFF0000</a>
<a href="#">0x001113</a>	<a href="#">0x002221</a>	<a href="#">0x311111</a>	<a href="#">0x315150</a>	

## Operator Error and Warning

The description (jam occurrence, part, countermeasure) of the corresponding error code will be displayed by clicking the error codes listed below.

<a href="#">1000</a>	<a href="#">1901</a>	<a href="#">2052</a>	<a href="#">2546</a>	<a href="#">27D6</a>
<a href="#">1001</a>	<a href="#">1902</a>	<a href="#">2054</a>	<a href="#">2580</a>	<a href="#">27E0</a>
<a href="#">1002</a>	<a href="#">1903</a>	<a href="#">2055</a>	<a href="#">2581</a>	<a href="#">27E1</a>
<a href="#">1003</a>	<a href="#">1904</a>	<a href="#">2056</a>	<a href="#">2582</a>	<a href="#">27E2</a>
<a href="#">1006</a>	<a href="#">1905</a>	<a href="#">2057</a>	<a href="#">2583</a>	<a href="#">27E3</a>
<a href="#">1012</a>	<a href="#">1906</a>	<a href="#">2310</a>	<a href="#">2586</a>	<a href="#">27E6</a>
<a href="#">1021</a>	<a href="#">1907</a>	<a href="#">2311</a>	<a href="#">25B0</a>	<a href="#">2800</a>
<a href="#">1051</a>	<a href="#">1908</a>	<a href="#">2312</a>	<a href="#">25B1</a>	<a href="#">2802</a>
<a href="#">1052</a>	<a href="#">200C</a>	<a href="#">2313</a>	<a href="#">25B2</a>	<a href="#">280D</a>
<a href="#">1053</a>	<a href="#">200D</a>	<a href="#">2316</a>	<a href="#">25B3</a>	<a href="#">2812</a>
<a href="#">1054</a>	<a href="#">200E</a>	<a href="#">2405</a>	<a href="#">25B6</a>	<a href="#">2816</a>
<a href="#">1055</a>	<a href="#">200F</a>	<a href="#">2406</a>	<a href="#">2700</a>	<a href="#">2817</a>
<a href="#">1400</a>	<a href="#">2010</a>	<a href="#">2407</a>	<a href="#">2701</a>	<a href="#">2818</a>
<a href="#">1401</a>	<a href="#">2016</a>	<a href="#">2408</a>	<a href="#">2702</a>	<a href="#">2819</a>
<a href="#">1402</a>	<a href="#">2017</a>	<a href="#">2409</a>	<a href="#">2703</a>	<a href="#">281A</a>
<a href="#">1403</a>	<a href="#">2018</a>	<a href="#">240A</a>	<a href="#">2706</a>	<a href="#">281B</a>
<a href="#">1406</a>	<a href="#">2019</a>	<a href="#">2500</a>	<a href="#">2710</a>	<a href="#">2829</a>
<a href="#">1410</a>	<a href="#">201C</a>	<a href="#">2501</a>	<a href="#">2711</a>	<a href="#">2901</a>
<a href="#">1411</a>	<a href="#">201D</a>	<a href="#">2502</a>	<a href="#">2712</a>	<a href="#">2902</a>
<a href="#">1412</a>	<a href="#">2020</a>	<a href="#">2503</a>	<a href="#">2713</a>	<a href="#">2905</a>
<a href="#">1413</a>	<a href="#">2025</a>	<a href="#">2506</a>	<a href="#">2716</a>	<a href="#">2906</a>
<a href="#">1416</a>	<a href="#">2026</a>	<a href="#">2520</a>	<a href="#">2730</a>	<a href="#">2907</a>
<a href="#">1701</a>	<a href="#">202B</a>	<a href="#">2521</a>	<a href="#">2731</a>	<a href="#">2920</a>
<a href="#">1702</a>	<a href="#">202C</a>	<a href="#">2522</a>	<a href="#">2732</a>	<a href="#">2921</a>
<a href="#">1703</a>	<a href="#">2040</a>	<a href="#">2523</a>	<a href="#">2733</a>	<a href="#">2D03</a>
<a href="#">1706</a>	<a href="#">2041</a>	<a href="#">2526</a>	<a href="#">2736</a>	<a href="#">2D04</a>
<a href="#">1707</a>	<a href="#">2042</a>	<a href="#">2540</a>	<a href="#">27D0</a>	<a href="#">2E02</a>
<a href="#">1708</a>	<a href="#">2043</a>	<a href="#">2541</a>	<a href="#">27D1</a>	<a href="#">2E08</a>
<a href="#">1709</a>	<a href="#">2044</a>	<a href="#">2542</a>	<a href="#">27D2</a>	<a href="#">2E09</a>
<a href="#">1900</a>	<a href="#">2051</a>	<a href="#">2543</a>	<a href="#">27D3</a>	<a href="#">2E0A</a>



<a href="#">2E0B</a>	<a href="#">2EA6</a>	<a href="#">3026</a>
<a href="#">2E0C</a>	<a href="#">2EA7</a>	<a href="#">3027</a>
<a href="#">2E0D</a>	<a href="#">2EA8</a>	<a href="#">3028</a>
<a href="#">2E0E</a>	<a href="#">2EA9</a>	<a href="#">3029</a>
<a href="#">2E0F</a>	<a href="#">2EAA</a>	<a href="#">3030</a>
<a href="#">2E15</a>	<a href="#">2EAB</a>	<a href="#">3031</a>
<a href="#">2E1B</a>	<a href="#">2EBC</a>	<a href="#">3032</a>
<a href="#">2E1C</a>	<a href="#">2F6A</a>	<a href="#">3033</a>
<a href="#">2E20</a>	<a href="#">2F6B</a>	<a href="#">3034</a>
<a href="#">2E21</a>	<a href="#">2F7C</a>	<a href="#">3035</a>
<a href="#">2E30</a>	<a href="#">3000</a>	<a href="#">3200</a>
<a href="#">2E31</a>	<a href="#">3001</a>	<a href="#">3201</a>
<a href="#">2E32</a>	<a href="#">3002</a>	<a href="#">3305</a>
<a href="#">2E33</a>	<a href="#">3003</a>	
<a href="#">2E34</a>	<a href="#">3004</a>	
<a href="#">2E38</a>	<a href="#">3005</a>	
<a href="#">2E3A</a>	<a href="#">3006</a>	
<a href="#">2E3B</a>	<a href="#">3007</a>	
<a href="#">2E3C</a>	<a href="#">3008</a>	
<a href="#">2E3D</a>	<a href="#">3009</a>	
<a href="#">2E3E</a>	<a href="#">3010</a>	
<a href="#">2E3F</a>	<a href="#">3011</a>	
<a href="#">2E40</a>	<a href="#">3012</a>	
<a href="#">2E41</a>	<a href="#">3013</a>	
<a href="#">2E42</a>	<a href="#">3014</a>	
<a href="#">2E43</a>	<a href="#">3015</a>	
<a href="#">2E45</a>	<a href="#">3016</a>	
<a href="#">2E75</a>	<a href="#">3017</a>	
<a href="#">2EA1</a>	<a href="#">3018</a>	
<a href="#">2EA2</a>	<a href="#">3022</a>	
<a href="#">2EA3</a>	<a href="#">3023</a>	
<a href="#">2EA4</a>	<a href="#">3024</a>	
<a href="#">2EA5</a>	<a href="#">3025</a>	

## 5-3. Detail of Hardware Error

### Detail of Hardware Error

#### Carriage Drive System

E Code	Detail Code	Description	
EC01	2F90	Error	Carriage overload (support number: 4801)
		Detection Descriptio	The motor keeps 100% output. In addition, CARRI GE UNIT scans more than a constant length.
		Handling	
		1	<p>Check stain on the carriage shaft</p> <p>No stain Go to 2.</p> <p>Stain adheres Perform cleaning of the shaft and eplace <a href="#">BUSHING / CLEANER KIT</a>.</p>
2	<p>Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system.</p> <p>No problem Replace <a href="#">carriage motor</a>.</p> <p>Abnormal Failure in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a>.</p> <p>Failure in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a>.</p>		
EC01	2F95	Error	Carriage drive timeout (support number: 4801)
		Detection Descriptio	CARRIAGE UNIT does not finish driving within the scheduled time
		Handling	
		1	<p>Check the items below.</p> <p>a) Stain on the carriage shaft b) Cable connection of the arriage motor. c) Looseness and abrasion of BELT, CARRIAGE.</p> <p>Appropriate Go to 2.</p> <p>Inappropriate a) Perform cleaning of the shaft and eplace <a href="#">BUSHING / CLEANER KIT</a>. b) Connect the cable. c) Replace <a href="#">BELT, CARRIAGE</a>.</p>
2	<p>Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system.</p> <p>No problem Replace <a href="#">carriage motor</a>.</p> <p>Abnormal Failure in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a>.</p> <p>Failure in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a>.</p>		




EC02	2F42	Error	Complete non-ejection in one line of nozzles (support number: 1492)
		Detection Description	Complete non-ejection in one of the print head nozzle lines of one color is detected in non-ejection detection
		Handling	
		1	When the printer does not recover with restarting, check if the ink is filling into tubes. Ink is filled Go to 2. (Insufficient ink in the print head or print head defect is suspected.) Ink is not filled Replace <a href="#">TUBE UNIT</a> .
2	Perform <a href="#">[DIAGNOSIS&gt;HEAD CNT CHECK]</a> and check the condition of print head contacting part Proper condition Go to 3. Abnormal condition Clean the surface of the print head contacting part. (The waste cloth without a nap must be used.)		
3	Perform deep cleaning and print nozzle check pattern. Proper nozzle pattern Complete. Improper nozzle pattern Replace the print head.		
EC03	403A	Error	Printer VH recognition failure (support number: B20A) Memo: Remove the error in service mode when handling is completed.
		Detection Description	The printer cannot confirm VH output.
		Handling	
		1	Check the connection of FLEXIBLE CABLE UNIT. (both MAIN PCB UNIT side and CARRIAGE RELAY PCB UNIT side) Proper connection Go to 2.
2	Replace <a href="#">CARRIAGE RELAY PCB UNIT</a> . The problem is resolved Complete. The problem is not resolved Replace <a href="#">FLEXIBLE CABLE UNIT</a> .		
EC03	4061	Error	Carriage unit for wrong model installed (support number: 5106) Memo: Remove the error in service mode when handling is completed.
		Detection Description	The CARRIAGE UNIT for a different printer model is connected.
		Handling	
		1	Check the items below. a) Connection of FLEXIBLE CABLE UNIT. (both MAIN PCB UNIT side and CARRIAGE RELAY PCB UNIT side) b) Check if the CARRIAGE RELAY PCB UNIT for different model has been installed. Proper connection and correct model. Go to 2. Improper connection or wrong model. a) Connect FLEXIBLE CABLE UNIT again. b) Install the proper CARRIAGE RELAY PCB UNIT model.
2	Replace the <a href="#">CARRIAGE UNIT</a> . The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.		



EC04	2F31	Error	Accuracy error of carriage parking position in non-ejection detection (support number: 4801)
		Detection Description	The parked position of the carriage is slightly off when performing non-ejection detection or adjusting the head management sensor position
		Handling	
		1	<p>Check the items below.</p> <p>a) Installation, scratch, and stain on FILM, TIMING SLIT STRIP.</p> <p>b) Stain on the carriage shaft</p> <p>Fine condition Go to 2.</p> <p>Installation failure, scratch, or stain is found</p> <p>a) Perform cleaning or replace FILM, TIMING SLIT STRIP.</p> <p>b) Perform cleaning of shaft and replace <a href="#">BUSHING / CLEANER KIT</a>.</p>
2	<p>Replace <a href="#">TUBE UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace <a href="#">CARRIAGE UNIT</a>.</p>		
EC04	2F91	Error	Carriage encoder error (support number: 4801)
		Detection Description	When detected value of acceleration sensor exceeds the threshold. In addition, it is in the CARRIAGE UNIT scanning direction
		Handling	
		1	<p>Check the items below.</p> <p>a) Installation, scratch, and stain on FILM, TIMING SLIT STRIP.</p> <p>b) Connection of FLEXIBLE CABLE UNIT. (When the error occurs after connecting and disconnecting the cable)</p> <p>Appropriate Go to 2.</p> <p>Inappropriate</p> <p>a) Perform cleaning or replace <a href="#">FILM, TIMING SLIT STRIP</a>.</p> <p>b) Connect FLEXIBLE CABLE UNIT again.</p>
2	<p>Replace <a href="#">CARRIAGE ENCODER UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace <a href="#">FLEXIBLE CABLE UNIT</a>.</p>		




EC05	2F92	Error	Carriage movement disabled (support number: 4801)
		Detection Descriptio	The motor keeps 100% output. In addition, CARRI GE UNIT stops less than a constant scanning length.
		Handling	
		1	<p>Check the items below.</p> <p>a) Cable connection of the arriage motor.</p> <p>b) Looseness and abrasion of BELT, CARRIAGE.</p> <p>c) Obstacle.</p> <p>d) The position f FILM, TIMING SLIT STRIP</p> <p>Appropriate without any obstacle Go to 2.</p> <p>Inappropriate or obstacles are blocking</p> <p>a) Connect the cable.</p> <p>b) Replace <a href="#">BELT, CARRIAGE</a>.</p> <p>c) Remove the obstacle.</p> <p>d) Place it in the right position</p>
2	<p>Replace <a href="#">carriage motor</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Go to 3.</p>		
3	<p>Replace <a href="#">CARRIAGE UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace <a href="#">FLEXIBLE CABLE UNIT</a>.</p>		
EC06	2F9A	Error	Carriage lift mo or error (support number: 4801)
		Detection Descriptio	Overload on the lift mo or.
		Handling	
1	<p>Check the items below.</p> <p>a) Cable connection of LIFT UNI .</p> <p>b) Posi oning CARRIAGE UNIT at the home position and bu against the lift unit, turn the gear of LIFT UNIT manually and check if the load is abnormally heavy.</p> <p>Appropriate Replace <a href="#">CARRIAGE UNIT</a>.</p> <p>Inappropriate Replace <a href="#">LIFT UNIT</a>.</p>		
CARRIAGE UNIT is butting ainst the lift unit t the home position side.			
EC06	2F9B	Error	Carriage lift sensor er or (support number: 4801)
		Detection Descriptio	· Although the lift otor is rota ng with genera ng larger than a constant torque, CARRIAGE LIFT SENSOR cannot detect ON/OFF.
		Handling	
1	<p>Check the items below.</p> <p>a) Cable connection of CARRI GE LIFT SENSOR.</p> <p>b) Execute <a href="#">[DIAGNOSIS &gt; I/O DISPLAY]</a> and check the CARRIAGE LIFT SENSOR operation</p> <p>Appropriate Replace <a href="#">CARRIAGE RELAY PCB UNIT</a>.</p> <p>Inappropriate Replace <a href="#">LIFT UNIT</a>.</p>		



Each function of service mode is operable only when the printer successfully enters in service mode.

[To Error Code Table](#)

EC06	2F9C	Error	Carriage docking error (support number: 4801)
		Detection Descriptio	<ul style="list-style-type: none"> <li>Although the lift motor is rotating, generated torque is smaller than a constant value. In addition, CARRIAGE LIFT SENSOR cannot detect ON/OFF.</li> <li>CARRIAGE UNIT does not move to the home position during detecting home position.</li> </ul>
		Handling	
	1	<p>Check the items below.</p> <p>a) Check if CARRIAGE UNIT is positioned at the home position when the error occurs.</p> <p>b) If CARRIAGE UNIT is at the home position, check if the coupling part is damaged.</p> <p>Appropriate Go to <a href="#">EC05-2F92</a> error.</p> <p>Inappropriate</p> <p>a) Go to <a href="#">EC05-2F92</a> error.</p> <p>b) When the coupling at LIFT UNIT side is damaged Replace <a href="#">LIFT UNIT</a>.</p> <p>When the coupling at CARRIAGE UNIT side is damaged Replace <a href="#">CARRIAGE UNIT</a>.</p>	
		 <p>Coupling part</p>	
EC07	2F19	Error	Carriage acceleration sensor error (support number: 4801)
		Detection Descriptio	Access to acceleration sensor is disabled.
		Handling	
	1	<p>Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system.</p> <p>Failure in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a>.</p> <p>Failure in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a>.</p> <p>* If the error occurred after reseating the flexible cables, check the condition of flexible cables' connection</p>	
EC07	4060	Error	Carriage EEPROM error (support number: 6820) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	EEPROM defect in the carriage PCB is detected.
		Handling	
	1	<p>Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system.</p> <p>No problem Replace <a href="#">CARRIAGE UNIT</a>.</p> <p>Failure in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a>.</p>	
EC0F	2F93	Error	Carriage jam error (support number: 1318) ▪ Only this error code assigns jam code also.
		Detection Descriptio	The detected value of acceleration sensor toward Y and Z direction exceeds the threshold.
		Handling	
	1	<p>Open the access cover and check paper jam. When jam is found, remove the jam and check the operation again.</p> <p>Proper operation Complete. Check media specifications and use environment (temperature and humidity) of the customer, and give the customer appropriate instruction for jam prevention</p> <p>Improper operation Replace <a href="#">CARRIAGE UNIT</a>.</p>	



ECOF	2F96	Error	Carriage motor error (support number: 4801)
		Detection Descriptio	While carriage system is in error status, operation is indi ated from fir ware.
		Handling	
	1	<p>Check the items below.</p> <p>a) Cable connection of the arriage motor.</p> <p>b) Looseness and abrasion of BELT, CARRIAGE.</p> <p>Appropriate Replace <a href="#">CARRIAGE UNIT</a>.</p> <p>Inappropriate</p> <p>a) Connect the cable.</p> <p>b) Replace <a href="#">BELT, CARRIAGE</a>.</p>	



Each function of se vice mode is operable only when the printer successfully enters in service mode.

[To Error Code Table](#)

## Paper Feed System

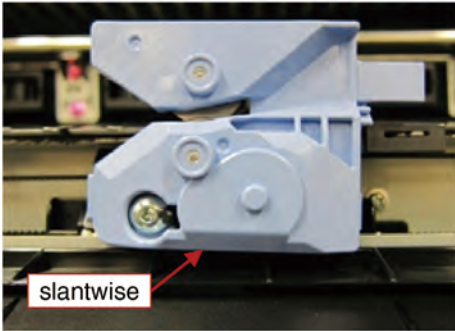
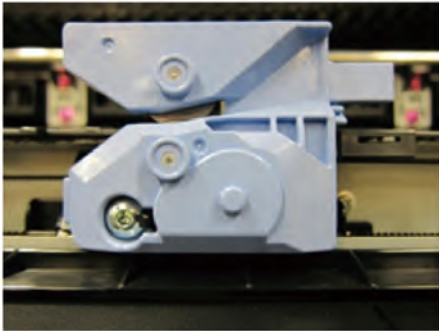
E Code	Detail Code	Descriptio	
EC11	2F2A	Error	Paper feed home position error (support number: 4801)
		Detection Descriptio	Paper feed home position adjustment is failed.
		Handling	
		1	<p>Check the items below in PAPER FEED ENCODER UNIT.</p> <p>a) Installation of FILM, TIMING SLIT DISK, scratches, circumference shaving, and smear.</p> <p>b) Looseness and abrasion of BELT, PAPER TRANSPORT.</p> <p>c) Cable connection</p> <p>d) Perform <a href="#">[DIAGNOSIS &gt; I/O DISPLAY]</a> and check the unit operation</p> <p>Appropriate condition and proper operation Replace <a href="#">PAPER FEED ENCODER UNIT.</a></p> <p>Inappropriate condition or improper operation</p> <p>a) Perform cleaning or replace FILM, TIMING SLIT DISK.</p> <p>b) Rearrange or replace <a href="#">BELT, PAPER TRANSPORT.</a></p> <p>c) Cable connection</p> <p>d) Replace PAPER FEED ENCODER UNIT.</p>
EC12	2F29	Error	Paper feed drive timeout (support number: 4801)
		Detection Descriptio	Paper feed drive does not finish driving within the scheduled time
		Handling	
		1	<p>Check the items below.</p> <p>a) Jam inside of the printer.</p> <p>b) Looseness and abrasion of BELT, PAPER TRANSPORT.</p> <p>Appropriate Go to 2.</p> <p>Inappropriate</p> <p>a) Remove jam.</p> <p>b) Replace <a href="#">BELT, PAPER TRANSPORT.</a></p>
		2	<p>Replace <a href="#">PAPER FEED MOTOR UNIT.</a></p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace <a href="#">PAPER FEED ENCODER UNIT.</a></p>
EC12	2F2B	Error	Paper feed overload (support number: 4801)
		Detection Descriptio	Paper feed motor keeps 100% output for a certain period.
		Handling	
		1	<p>Check the items below.</p> <p>a) Jam inside of the printer.</p> <p>b) Check if the paper in use has strong stiffness, is a heavy roll paper, or is easy to get curled.</p> <p>c) Smear or paper jam in the PAPER FEED ROLLER UNIT.</p> <p>Appropriate Go to 2.</p> <p>Inappropriate</p> <p>a) Remove jam.</p> <p>b) Change the paper to use.</p> <p>c) Perform cleaning or replace <a href="#">PAPER FEED ROLLER UNIT</a> and <a href="#">HOLDER, PAPER FEED ROLLER.</a></p>
		2	<p>Replace <a href="#">FILM, TIMING SLIT DISK</a> and <a href="#">PAPER FEED MOTOR UNIT.</a></p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace <a href="#">PAPER FEED ROLLER UNIT.</a></p>

EC12	2F2C	Error	PAPER FEED motor error (support number: 4801)
		Detection Descriptio	The paper does not reach to the specified position while driving the paper feed motor.
		Handling	
		1	<p>Check the items below.</p> <p>a) Jam inside of the printer.</p> <p>b) Check if the paper in use has strong stiffness, is a heavy roll paper, or is easy to get curled.</p> <p>c) Smear or paper jam in the PAPER FEED ROLLER UNIT.</p> <p>Appropriate Go to 2.</p> <p>Inappropriate</p> <p>a) Remove jam.</p> <p>b) Change the paper to use.</p> <p>c) Perform cleaning or replace <a href="#">PAPER FEED ROLLER UNIT</a> and <a href="#">HOLDER, PAPER FEED ROLLER</a>.</p>
2	<p>Replace <a href="#">FILM, TIMING SLIT DISK</a> and <a href="#">PAPER FEED MOTOR UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace <a href="#">PAPER FEED ROLLER UNIT</a>.</p>		
EC13	2F17	Error	Platen suction fan error (support number: 4801)
		Detection Descriptio	SUCTION FAN UNIT Lock signal is detected.
		Handling	
1	<p>Replace <a href="#">SUCTION FAN UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>		



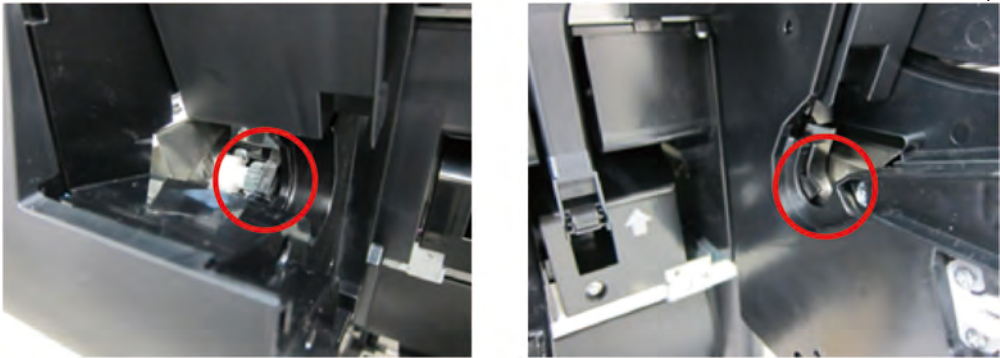
Each function of service mode is operable only when the printer successfully enters in service mode.

[To Error Code Table](#)

EC15	2E23	Error	Cutter blade unit error (support number: 4801)
		Detection Descriptio	<ul style="list-style-type: none"> <li>CUTTER HOME POSITION SENSOR cannot be detected.</li> <li>Abnormal encoder value is detected when returning the cutter to the home position.</li> </ul>
		Handling	
		1	<p>Check the items below.</p> <p>a) Foreign substances on CUTTER BLADE UNIT.</p> <p>b) Check if the cutter (CT-07) is being attached slantwise.</p> <p>c) Perform <a href="#">[DIAGNOSIS &gt; I/O DISPLAY]</a> and check CUTTER HOME POSITION SENSOR operation.</p> <p>d) Check the harness connection.</p> <p>No foreign substance and proper condition Go to 2.</p> <p>Foreign substance is adhering or improper condition</p> <p>a) Remove the foreign substance.</p> <p>b) Reattach the cutter (CT-07).</p> <p>c) Replace <a href="#">CUTTER HOME POSITION SENSOR</a>.</p> <p>d) Connect the harness.</p>
<div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: center;">proper attachment                      improper attachment</p> <p style="text-align: center;">Attachment condition of the cutter (CT-07)</p>			
2	<p>Replace <a href="#">CUTTER MOTOR UNIT, W/ENCODER</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace <a href="#">CUTTER BLADE UNIT</a>.</p>		
EC16	2021	Error	Upper roll drive timeout (support number: 4801)
		Detection Descriptio	The target value of operation command is not achieved when controlling upper ACTIVE ROLL BRAKE UNIT motor.
		Handling	
		1	<p>Check the items below.</p> <p>a) Foreign substances or jam at paper feed part.</p> <p>b) Engagement of the spool with the gear of the printer side.</p> <p>c) Check if the paper in use has strong stiffness, is a heavy roll paper, or is easy to get curled.</p> <p>Appropriate Go to 2.</p> <p>Inappropriate</p> <p>a) Remove the foreign substance and jam.</p> <p>b) Reset the spool.</p> <p>c) Change the paper to use.</p>
2	<p>Replace <a href="#">ACTIVE ROLL BRAKE UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>		

EC16	2022	Error	Upper roll drive overload (support number: 4801)
		Detection Descriptio	Current value reaches to the maximum value when controlling upper ACTIVE ROLL BRAKE UNIT motor.
		Handling	
		1	<p>Check the items below.</p> <p>a) Foreign substances or jam at paper feed part.</p> <p>b) Engagement of the spool with the gear of the printer side.</p> <p>c) Check if the paper in use has strong stiffness, is a heavy roll paper, or is easy to get curled.</p> <p>Appropriate Go to 2.</p> <p>Inappropriate</p> <p>a) Remove the foreign substance and jam.</p> <p>b) Reset the spool.</p> <p>c) Change the paper to use.</p>
2	<p>Replace <a href="#">ACTIVE ROLL BRAKE UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>▪ After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>		
EC16	2027	Error	Upper role motor error (support number: 4801)
		Detection Descriptio	The timing when upper roll drive timeout or upper roll drive overload occurs, operation in traction is indicated by firmware.
		Handling	
		1	<p>Check the items below.</p> <p>a) Foreign substances or jam at paper feed part.</p> <p>b) Engagement of the spool with the gear of the printer side.</p> <p>c) Check if the paper in use has strong stiffness, is a heavy roll paper, or is easy to get curled.</p> <p>Appropriate Go to 2.</p> <p>Inappropriate</p> <p>a) Remove the foreign substance and jam.</p> <p>b) Reset the spool.</p> <p>c) Change the paper to use.</p>
2	<p>Replace <a href="#">ACTIVE ROLL BRAKE UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>▪ After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>		



EC16	202A	Error	Upper roll motor drive control abnormal (support number: 4801)
		Detection Descriptio	Abnormity is detected at control IC on the main PCB during upper ACTIVE ROLL BRAKE UNIT controlling.
		Handling	
		1	<p>Check the items below.</p> <p>a) Foreign substances or jam at paper feed part.</p> <p>b) Engagement of the spool with the gear of the printer side.</p> <p>c) Check if the paper in use has strong stiffness, is a heavy roll paper, or is easy to get curled.</p> <p>Appropriate Go to 2.</p> <p>Inappropriate</p> <p>a) Remove the foreign substance and jam.</p> <p>b) Reset the spool.</p> <p>c) Change the paper to use.</p>
2	<p>Replace <a href="#">ACTIVE ROLL BRAKE UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>		
EC16	202E	Error	Upper roll spool detection error (support number: 100E)
		Detection Descriptio	UPPER RIGHT SPOOL SET SENSOR or UPPER LEFT SPOOL SET SENSOR detects "No spool" when SPOOL LOCK UNIT is ON.
		Handling	
		1	<p>Check the items below.</p> <p>a) Engagement of the spool with the gear of the printer side.</p> <p>b) Check if the paper in use has strong stiffness, is a heavy roll paper, or is easy to get curled.</p> <p>c) Damage of the spool sensor lever.</p> <p>d) Perform <a href="#">[DIAGNOSIS &gt; I/O DISPLAY]</a> and check the operation of UPPER RIGHT SPOOL SET SENSOR and UPPER LEFT SPOOL SET SENSOR</p> <p>Appropriate Replace <a href="#">SPOOL LOCK UNIT</a>.</p> <p>Inappropriate</p> <p>a) Reset the spool.</p> <p>b) Change the paper to use.</p> <p>c) Replace <a href="#">COVER, ROLL GEAR L</a> and/or <a href="#">SPOOL SENSOR UNIT</a>.</p> <p>d) Replace <a href="#">SPOOL SENSOR UNIT</a> and/or <a href="#">UPPER LEFT SPOOL SET SENSOR</a> when the connect condition of the harness is not troubled.</p>
		<p>left spool sensor lever</p> <p>right spool sensor lever</p>	
EC16	2038	Error	Upper ARB motor calibration error (support number: 4801)
		Detection Descriptio	Calibration of upper ACTIVE ROLL BRAKE UNIT motor fails.
		Handling	
1	<p>Check if a spool is installed in the upper roll unit.</p> <p>With the spool Remove the spool from the upper roll unit and reboot the main unit*</p> <p>Without the spool Replace <a href="#">ACTIVE ROLL BRAKE UNIT</a>.</p> <p>* The spool must be removed before calibrating the upper roll unit.</p>		





EC17	2023	Error	Lower roll drive timeout (support number: 4801)
		Detection Descriptio	Lower ACTIVE ROLL BRAKE UNIT does not reach to its motor control target value.
		Handling	
		1	<p>Check the items below.</p> <p>a) Foreign substances or jam at paper feed part.</p> <p>b) Engagement of the spool with the gear of the printer side.</p> <p>c) Check if the paper in use has strong stiffness, is a heavy roll paper, or is easy to get curled.</p> <p>Appropriate Go to 2.</p> <p>Inappropriate</p> <p>a) Remove the foreign substance and jam.</p> <p>b) Reset the spool.</p> <p>c) Change the paper to use.</p>
2	<p>Replace <a href="#">ACTIVE ROLL BRAKE UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <p>▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>		
EC17	2024	Error	Lower roll drive overload (support number: 4801)
		Detection Descriptio	Current value reaches to the maximum value when controlling lower ACTIVE ROLL BRAKE UNIT motor.
		Handling	
		1	<p>Check the items below.</p> <p>a) Foreign substances or jam at paper feed part.</p> <p>b) Engagement of the spool with the gear of the printer side.</p> <p>c) Check if the paper in use has strong stiffness, is a heavy roll paper, or is easy to get curled.</p> <p>Appropriate Go to 2.</p> <p>Inappropriate</p> <p>a) Remove the foreign substance and jam.</p> <p>b) Reset the spool.</p> <p>c) Change the paper to use.</p>
2	<p>Replace <a href="#">ACTIVE ROLL BRAKE UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <p>▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>		



Each function of service mode is operable only when the printer successfully enters in service mode.

[To Error Code Table](#)

EC17	2028	Error	Lower roll motor error (support number: 4801)
		Detection Descriptio	The timing when lower roll drive timeout or lower roll drive overload occurs, operation in traction is indicated by firmware.
		Handling	
		1	<p>Check the items below.</p> <p>a) Foreign substances or jam at paper feed part.</p> <p>b) Engagement of the spool with the gear of the printer side.</p> <p>c) Check if the paper in use has strong stiffness, is a heavy roll paper, or is easy to get curled.</p> <p>Appropriate Go to 2.</p> <p>Inappropriate</p> <p>a) Remove the foreign substance and jam.</p> <p>b) Reset the spool.</p> <p>c) Change the paper to use.</p>
2	<p>Replace <a href="#">ACTIVE ROLL BRAKE UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <p>▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>		
EC17	2029	Error	Lower roll motor drive control abnormal (support number: 4801)
		Detection Descriptio	Abnormity is detected at control IC on the main PCB during lower ACTIVE ROLL BRAKE UNIT controlling.
		Handling	
		1	<p>Check the items below.</p> <p>a) Foreign substances or jam at paper feed part.</p> <p>b) Engagement of the spool with the gear of the printer side.</p> <p>c) Check if the paper in use has strong stiffness, is a heavy roll paper, or is easy to get curled.</p> <p>Appropriate Go to 2.</p> <p>Inappropriate</p> <p>a) Remove the foreign substance and jam.</p> <p>b) Reset the spool.</p> <p>c) Change the paper to use.</p>
2	<p>Replace <a href="#">ACTIVE ROLL BRAKE UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <p>▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>		
EC17	202D	Error	No lower roll unit (support number: 1875)
		Detection Descriptio	<ul style="list-style-type: none"> <li>· The lower roll unit is not recognized when starting printing from the lower roll.</li> <li>· The lower roll unit is not recognized despite feed available state of the lower roll.</li> </ul>
		Handling	
		1	<p>Check the items below.</p> <p>a) Lower roll I/F cable connection.</p> <p>b) Lower roll unit connection</p> <p>Connected Replace <a href="#">I/F PCB UNIT, RU</a> and/or <a href="#">RELAY PCB UNIT, RU</a>.</p> <p>Disconnected</p> <p>a) Connect the cable.</p> <p>b) Connect the unit.</p>

EC17	202F	Error	Lower roll spool detection error (support number: 100F)
		Detection Descriptio	LOWER RIGHT SPOOL SET SENSOR or LOWER LEFT SPOOL SET SENSOR detects "No spool" when spool lock solenoid is ON.
		Handling	
		1	<p>Check the items below.</p> <p>a) Engagement of the spool with the gear of the printer side.</p> <p>b) Check if the paper in use has strong stiffness, is a heavy roll paper, or is easy to get curled.</p> <p>c) Damage of the spool sensor lever.</p> <p>d) Perform <a href="#">[DIAGNOSIS &gt; I/O DISPLAY]</a> to check the operation of LOWER RIGHT SPOOL SET SENSOR and LOWER LEFT SPOOL SET SENSOR.</p> <p>Appropriate Replace <a href="#">SPOOL LOCK UNIT</a>.</p> <p>Inappropriate</p> <p>a) Reset the spool.</p> <p>b) Change the paper to use.</p> <p>c) Replace <a href="#">COVER, ROLL GEAR L</a> and/or <a href="#">LOCK LEVER A</a> and/or <a href="#">LOCK LEVER B</a>.</p> <p>d) Replace <a href="#">LOWER RIGHT SPOOL SET SENSOR</a> and/or <a href="#">LOWER LEFT SPOOL SET SENSOR</a> when the connect condition of the harness is not troubled.</p>
			<div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: center;">left spool sensor lever                      right spool sensor lever</p>
EC17	2039	Error	Lower ARB motor calibration error (support number: 4801)
		Detection Descriptio	Calibration of Lower ACTIVE ROLL BRAKE UNIT motor fails.
		Handling	
		1	<p>Check if a spool is installed in the upper roll unit.</p> <p>With the spool Remove the spool from the upper roll unit and reboot the main unit*</p> <p>Without the spool Replace <a href="#">ACTIVE ROLL BRAKE UNIT</a>.</p> <p>* The spool must be removed before calibrating the upper roll unit.</p>
EC17	203A	Error	Non-supported lower roll unit installed (support number: 1039)
		Detection Descriptio	Installation of an unsupported lower roll unit is detected.
		Handling	
		1	<p>Check the items below.</p> <p>a) The installed lower roll unit is for PRO series.</p> <p>b) Connection of the lower roll I/F cable.</p> <p>Correct roll unit and proper cable connection Replace <a href="#">I/F PCB UNIT, RU</a>, <a href="#">RELAY PCB UNIT, RU</a>, and lower roll I/F cable.</p> <p>Incorrect roll unit or improper cable connection</p> <p>a) Install the lower roll unit for TX series.</p> <p>b) Connect the cable.</p>

EC17	203D	Error	Motor driver boot sequence failure of lower roll unit (support number: 4804)
		Detection Descriptio	The motor driver boot sequence of lower roll unit was not completed properly in starting up.
		Handling	
		1	<p>Check the items below.</p> <p>a) Connection of the lower roll I/F cable.</p> <p>b) Installation of the lower roll unit.</p> <p>Correct roll unit and proper cable connectio</p> <p>Replace <a href="#">I/F PCB UNIT, RU</a>, <a href="#">RELAY PCB UNIT, RU</a>, and lower roll I/F cable.</p> <p>Incorrect roll unit or improper cable connectio</p> <p>a) Connect the cable.</p> <p>b) Install the lower roll unit.</p>
EC19	2F21	Error	Release lever open at access cover locking (support number: 1214)
		Detection Descriptio	Release lever is released when locking the access cover.
		Handling	
		1	<p>Start up the printer in service mode.</p> <p>Move the release lever back and forth. Perform <a href="#">[DIAGNOSIS &gt; I/O DISPLAY]</a> to check RELEASE LEVER SWITCH operation</p> <p>Appropriate</p> <p>Replace <a href="#">ACCESS COVER LOCK UNIT R</a>.</p> <p>Inappropriate</p> <p>Replace <a href="#">RELEASE LEVER SWITCH</a>.</p> <p>Memo : Release lever open cannot be performed since release lever and access cover are locked with the same solenoid.</p>
EC1B	2030	Error	Upper roll nip arm sensor non-detection (support number: 4801)
		Detection Descriptio	UPPER ROLL NIP SENSOR cannot detect nip position when starting up or switching nip position.
		Handling	
		1	<p>Check the items below.</p> <p>a) Foreign substances around upper DRIVE NIP ARM UNIT.</p> <p>b) Perform <a href="#">[DIAGNOSIS&gt; I/O DISPLAY]</a> to check UPPER ROLL NIP SENSOR operation</p> <p>Appropriate</p> <p>Replace <a href="#">DRIVE NIP ARM UNIT</a>.</p> <p>Inappropriate</p> <p>a) Remove the foreign substance.</p> <p>b) Replace <a href="#">UPPER ROLL NIP SENSOR</a>.</p>
EC1B	2031	Error	Upper roll nip arm drive timeout (support number: 4801)
		Detection Descriptio	Upper DRIVE NIP ARM UNIT does not complete driving within the scheduled time
		Handling	
		1	<p>Check if foreign substances are adhering around upper DRIVE NIP ARM UNIT.</p> <p>Without foreign substance</p> <p>Replace <a href="#">DRIVE NIP ARM UNIT</a>.</p> <p>With foreign substances</p> <p>Remove the foreign substance.</p>
EC1B	2032	Error	Upper roll nip arm drive overload (support number: 4801)
		Detection Descriptio	The motor of upper DRIVE NIP ARM UNIT keeps 100% output for more than a specified duration.
		Handling	
		1	<p>Check if foreign substances are adhering around upper DRIVE NIP ARM UNIT.</p> <p>Without foreign substance</p> <p>Replace <a href="#">DRIVE NIP ARM UNIT</a>.</p> <p>With foreign substances</p> <p>Remove the foreign substance.</p>

EC1B	2033	Error	Upper roll nip arm motor error (support number: 4801)
		Detection Descriptio	At the timing when upper DRIVE NIP ARM UNIT drive timeout or drive overload occurs, firmware receives operation command.
		Handling	
	1	Check if foreign substances are adhering around upper DRIVE NIP ARM UNIT. Without foreign substance Replace <a href="#">DRIVE NIP ARM UNIT</a> . With foreign substances Remove the foreign substance.	
EC1C	2034	Error	Lower roll nip arm sensor non-detection (support number: 4801)
		Detection Descriptio	LOWER ROLL NIP SENSOR fails to detect nip position when starting up or shifting nip position.
		Handling	
	1	Check the items below. a) Foreign substances around lower DRIVE NIP ARM UNIT. b) Perform <a href="#">[DIAGNOSIS &gt; I/O DISPLAY]</a> to check LOWER ROLL NIP SENSOR operation No foreign substance and proper operation Replace <a href="#">DRIVE NIP ARM UNIT</a> . Foreign substance is adhering or improper operation a) Remove the foreign substance. b) Replace <a href="#">LOWER ROLL NIP SENSOR</a> .	
EC1C	2035	Error	Lower roll nip arm drive timeout (support number: 4801)
		Detection Descriptio	Lower DRIVE NIP ARM UNIT does not finish driving within the scheduled time
		Handling	
	1	Check if foreign substances are adhering around lower DRIVE NIP ARM UNIT. Without foreign substance Replace <a href="#">DRIVE NIP ARM UNIT</a> . With foreign substances Remove the foreign substance.	
EC1C	2036	Error	Lower roll nip arm drive overload (support number: 4801)
		Detection Descriptio	The motor of lower DRIVE NIP ARM UNIT keeps 100% output for longer than the specified duration.
		Handling	
	1	Check if foreign substances are adhering around lower DRIVE NIP ARM UNIT. No foreign substance Replace <a href="#">DRIVE NIP ARM UNIT</a> . Foreign substances are adhering Remove the foreign substances.	
EC1C	2037	Error	Lower roll nip arm motor error (support number: 4801)
		Detection Descriptio	At the timing when lower DRIVE NIP ARM UNIT drive timeout or drive overload occurs, firmware receives operation command.
		Handling	
	1	Check if foreign substances are adhering around lower DRIVE NIP ARM UNIT. Without foreign substance Replace <a href="#">DRIVE NIP ARM UNIT</a> . With foreign substances Remove the foreign substance.	
EC1D	2050	Error	Upper roll paper set sensor error (support number: 4805)
		Detection Descriptio	Communicating with the upper roll paper set sensor failed when loading the upper roll paper.
		Handling	
	1	Check the cable connection of ROLL PAPER SET SENSOR UNIT (for upper roll). Proper connection Replace <a href="#">NIP ARM SENSOR UNIT (for upper roll)</a> . Improper connection Connect the cable.	



EC1E	2053	Error	Lower roll paper set sensor error (support number: 4805)
		Detection Descriptio	Communicating with the l wer roll paper set sensor failed when loading the lower roll paper.
		Handling	
	1	<p>Check the cable connection of OLL PAPER SET SENSOR UNIT (for lower roll).</p> <p>Proper connectio</p> <p>Replace <a href="#">NIP ARM SENSOR UNIT (for lower roll)</a>.</p> <p>Improper connectio</p> <p>Connect the cable.</p>	





## Print System

E Code	Detail Code	Descriptio	
EC21	282D	Error	Print head Si melting ( eboot request) (support number: 140C)
		Detection Descriptio	Si solution amou t is more than the standard solution amou t.
		Handling	
		1	Reboot the printer.
EC21	282E	Error	Print head Si melting (pri t head replacement request) (support number: 1403)
		Detection Descriptio	The printer does not recover by rebooting er print head Si solution er or.
		Handling	
		1	Replace the print head.
EC21	2F43	Error	Print head 768 nozzles complete non-ejection (support number: 1494)
		Detection Descriptio	Non-ejection in 768 n zzles is detected through non-ejection d tectio.
		Handling	
		1	When the printer does not recover by rebootin , check if the ink is filled i to tubes. Ink is fille Go to 2. (Ink inside of the print head insufficiency or pri t head defect is suspected.) Ink is not fille Replace the <a href="#">TUBE UNIT</a> .
		2	Perform deep cleaning, and print nozzle check pa ern. Proper nozzle pa ern Complete. Improper nozzle pa ern Replace the print head.
EC21	2F44	Error	Abnormal increase of non-ejection n zzles from last non-ejection d tectio (suppo t number: 1492)
		Detection Descriptio	Since last non-ejection d tectio, fifty or e non-ejection n zzles are newly detected out of six hundred forty nozzles in a print head.
		Handling	
		1	Perform deep cleaning and print nozzle check pa ern. Proper nozzle pa ern Complete. Improper nozzle pa ern Replace the print head.

EC21	2F50	Error	VH leak at print head replacement (support number: 1477)
		Detection Descriptio	VH leak is detected at print head replacement.
		Handling	
		1	Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system. No problem Go to 2. Abnormal · Problem in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a> . · Problem in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a> .
		2	Remove the print head and check the condition of pri t head contacting part Proper conditio Replace the print head. Improper conditio Go to 3.
3	Clean the surface of the print head contacting part. (The aste cloth without a nap must be used.) The problem is resolved Complete. The problem is not resolved Go to 4.		
4	Replace the print head. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments.		
EC21	2F51	Error	VH leak at starting up, cleanin , and print starting (support number: 4801)
		Detection Descriptio	VH leak is detected at starting up, cleanin , and print starting
		Handling	
1	Reboot the printer.		



EC21	2F53	Error	VH leak at rebooting (support number: 1478)
		Detection Descriptio	The printer does not recover by rebooting er the VH leak error at starting up, cleaning, and print starting.
		Handling	
		1	Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system. No problem Go to 2. Abnormal · Problem in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a> . · Problem in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a> .
		2	Remove the print head and check the condition of pri t head contacting part Proper conditio Replace the print head. Improper conditio Go to 3.
3	Clean the surface of the print head contacting part. (The aste cloth without a nap must be used.) The problem is resolved Complete. The problem is not resolved Go to 4.		
4	Replace the print head. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments.		
EC21	2F54	Error	Print head VH voltage abnormal (support number: 4801)
		Detection Descriptio	VH voltage of the print head is detected.
		Handling	
		1	Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system. No problem Go to 2. Abnormal · Problem in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a> . · Problem in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a> .
		2	Remove the print head and check the condition of pri t head contacting part Proper conditio Replace the print head. Improper conditio Go to 3.
3	Clean the surface of the print head contacting part. (The aste cloth without a nap must be used.) The problem is resolved Complete. The problem is not resolved Go to 4.		
4	Replace the print head. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments.		



Each function of se vice mode is operable only when the printer successfully enters in service mode.

[To Error Code Table](#)

EC21	2F56	Error	VHTR leak at print head replacement (support number: 1477)
		Detection Descriptio	VHTR leak is detected at print head replacement.
		Handling	
		1	Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system. No problem Go to 2. Abnormal · Problem in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a> . · Problem in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a> .
		2	Remove the print head and check the condition of print head contacting part Proper conditio Replace the print head. Improper conditio Go to 3.
3	Clean the surface of the print head contacting part. (The waste cloth without a nap must be used.) The problem is resolved Complete. The problem is not resolved Go to 4.		
4	Replace the print head. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.		
EC21	2F57	Error	VHTR leak at starting up, cleaning, and print starting (support number: 4801)
		Detection Descriptio	The printer does not recover by rebooting after the VHTR leak error at starting up, cleaning, and print starting
		Handling	
1	Reboot the printer.		

EC21	2F58	Error	VHTR leak at rebooting (support number: 1478)
		Detection Descriptio	The printer does not recover by rebooting er the VHTR leak error at starting up, cleaning, and print starting
		Handling	
		1	Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system. No problem Go to 2. Abnormal · Problem in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a> . · Problem in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a> .
		2	Remove the print head and check the condition of pri t head contacting part Proper conditio Replace the print head. Improper conditio Go to 3.
EC21	2F59	Error	Print head VHTR voltage abnormal (support number: 4801)
		Detection Descriptio	Abnormal VHTR voltage of the print head is detected.
		Handling	
		1	Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system. No problem Go to 2. Abnormal · Problem in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a> . · Problem in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a> .
2	Remove the print head and check the condition of pri t head contacting part Proper conditio Replace the print head. Improper conditio Go to 3.		
3	Clean the surface of the print head contacting part. (The aste cloth without a nap must be used.) The problem is resolved Complete. The problem is not resolved Go to 4.		
4	Replace the print head. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments.		



Each function of se vice mode is operable only when the printer successfully enters in service mode.

[To Error Code Table](#)

EC21	2F60	Error	H3V voltage abnormal at print head replacement (support number: 1477)
		Detection Descriptio	Abnormal H3V voltage is detected at print head replacement.
		Handling	
		1	Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system. No problem Go to 2. Abnormal · Problem in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a> . · Problem in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a> .
		2	Remove the print head and check the condition of print head contacting part Proper conditio Replace the print head. Improper conditio Go to 3.
3	Clean the surface of the print head contacting part. (The duster cloth without a nap must be used.) The problem is resolved Complete. The problem is not resolved Go to 4.		
4	Replace the print head. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.		
EC21	2F61	Error	H3V voltage abnormal at starting up, cleaning, and print starting (support number: 4801)
		Detection Descriptio	Abnormal H3V voltage is detected at starting up, cleaning, and print starting
		Handling	
		1	Reboot the printer.





EC21	2F62	Error	VHTR leak at rebooting (support number: 1478)
		Detection Descriptio	The printer does not recover by rebooting er the VHTR leak error at starting up, cleaning, and print starting
		Handling	
		1	Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system. No problem Go to 2. Abnormal · Problem in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a> . · Problem in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a> .
		2	Remove the print head and check the condition of pri t head contacting part Proper conditio Replace the print head. Improper conditio Go to 3.
EC21	2F63	Error	Print head contact error at print head replacement (support number: 1479)
		Detection Descriptio	Direct diode sensor detects print head contact failure at print head replacement.
		Handling	
1	Remove the print head and check the condition of pri t head contacting part Proper conditio Go to 2. Improper conditio Clean the surface of the print head contacting part. (The aste cloth without a nap must be used.)		
2	Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to check the result of LONG FFC CHECK. Without broken wires Replace <a href="#">CARRIAGE UNIT</a> . With broken wires Replace <a href="#">FLEXIBLE CABLE UNIT</a> .		



Each function of se vice mode is operable only when the printer successfully enters in service mode.

[To Error Code Table](#)

EC21	2F64	Error	Print head contact error at starting up (support number: 4801)
		Detection Descriptio	Direct diode sensor detects print head contact failure at print head replacement.
		Handling	
		1	Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system. No problem Go to 2. Abnormal · Problem in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a> . · Problem in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a> .
EC21	2F67	2	Remove the print head, and check the items below. a) Condition of the print head nozzle side surface. b) Condition of the print head contacting part Proper condition Go to 3 Abnormal condition a) Replace the print head. b) Clean the surface of the print head contacting part. (The waste cloth without a nap must be used.)
		3	Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.
		Handling	
EC21	2F67	Error	Print head H3V voltage abnormal during printing (support number: 4801)
		Detection Descriptio	Abnormal H3V voltage of the print head is detected during printing.
		Handling	
		1	Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system. No problem Go to 2. Abnormal · Problem in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a> . · Problem in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a> .
		2	Remove the print head and check the condition of print head contacting part Proper condition Replace the print head. Improper condition Go to 3.
EC21	2F6D	3	Clean the surface of the print head contacting part. (The waste cloth without a nap must be used.) The problem is resolved Complete. The problem is not resolved Go to 4.
		4	Replace the print head. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.
EC21	2F6D	Error	Print head EEPROM checksum error 2 (support number: 140F)
		Detection Descriptio	Abnormity is detected in checksum judgement of EEPROM at print head installation and starting up.
		Handling	
		1	Replace the print head.

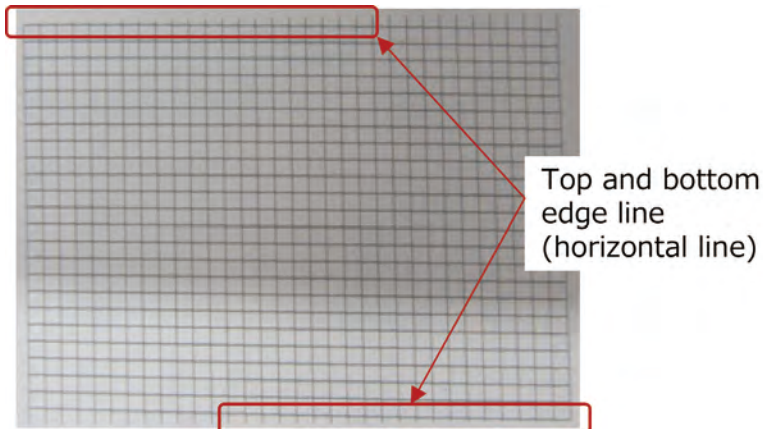
EC21	2F70	Error	Print head diode temperature abnormal (reboot request) (support number: 1408)
		Detection Descriptio	Abnormal temperature of the diode is detected at diode correction.
		Handling	
		1	Reboot the printer.
EC21	2F71	Error	Print head diode temperature unstable (support number: 1409)
		Detection Descriptio	Diode temperature is detected to be unstable at diode correction.
		Handling	
		1	Reboot the printer.
EC21	2F72	Error	Print head diode correction er or (reboot request) (support number: 140A)
		Detection Descriptio	Abnormal value is detected at diode correction
		Handling	
		1	Reboot the printer.
EC21	2F73	Error	Print head diode temperature abnormal (print head replacement request) (support number: 1408)
		Detection Descriptio	The printer does not recover by rebooting er this error.
		Handling	
		1	Replace the print head.
EC21	2F74	Error	Print head diode temperature unstable (print head replacement request) (support number: 1409)
		Detection Descriptio	The printer does not recover by rebooting er this error.
		Handling	
		1	Replace the print head.
EC21	2F75	Error	Print head diode correction er or (print head replacement request) (support number: 140A)
		Detection Descriptio	The printer does not recover by rebooting er this error.
		Handling	
		1	Replace the print head.
EC21	2F7D	Error	Print head contact error before non-ejection d tectio (support number: 4801)
		Detection Descriptio	Sending command to the print head is disabled.
		Handling	
		1	Remove the print head and check the condition of pri t head contacting part Proper conditio Go to 2. Abnormal conditio Clean the surface of the print head contacting part. (The aste cloth without a nap must be used.)
		2	Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to diagnose carriage system. No problem Replace the print head. Abnormal · Problem in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a> . · Problem in LONG FFC CHECK Replace <a href="#">FLEXIBLE CABLE UNIT</a> .
EC21	2F7E	Error	Print head abnormal temperature rising (reboot request) (support number: 5200)
		Detection Descriptio	Abnormal temperature rising on the print head heater board is detected.
		Handling	
		1	Reboot the printer.



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[To Error Code Table](#)

EC21	2F7F	Error	Print head abnormal temperature rising (print head replacement request) (support number: 1478)
		Detection Descriptio	The printer detects print head abnormal temperature rising and does not recover by rebooting
		Handling	
		1	Replace the print head.
EC22	2F30	Error	Head management sensor position adjustment error (support number: 4801)
		Detection Descriptio	Adjusting head management sensor position is failed.
		Handling	
		1	<p>Check if the ink is filled into ink tubes.</p> <p>Ink is filled Go to 2.</p> <p>Ink is not filled Perform <a href="#">[DIAGNOSIS &gt; PURGE CHECK]</a> to diagnose ink vacuum of PURGE UNIT.</p> <p>PURGE UNIT ink vacuum diagnosis</p> <p>Proper operation Perform deep cleaning and fill the ink. When the ink vacuum does not recover, replace the print head.</p> <p>Abnormal operation Replace PURGE UNIT.</p>
		2	<p>Print user nozzle check pattern or service nozzle check pattern to check the nozzle condition. (Check if blur or non-ejection appears at the top and bottom edge line of the nozzle check pattern.)</p> <p>Appropriate condition Replace <a href="#">HEAD MANAGEMENT SENSOR UNIT</a>.</p> <p>Abnormal condition Perform deep cleaning and fill the ink. When the ink vacuum does not recover, replace the print head.</p>



EC22	2F47	Error	Head management sensor unit failure (support number: 4801)
		Detection Descriptio	The head management sensor unit is detected to be faulty at starting up and non ejection d tectio.
		Handling	
		1	<p>Check the items below.</p> <p>a) Adherence of paper dust and hairs on the HEAD MANAGEMENT SENSOR UNIT.</p> <p>b) Adherence or laying-up of large amount of ink mist on the HEAD MANAGEMENT SENSOR UNIT.</p> <p>c) Connector condition</p> <p>Appropriate condition and p oper connectio Go to 2.</p> <p>Inappropriate condition or imp oper connectio</p> <p>a) Remove it.</p> <p>b) Perform cleaning or replace <a href="#">HEAD MANAGEMENT SENSOR UNIT</a>.</p> <p>c) Connect the connector.</p>
2	<p>Check if the fuse (FU5202) on MAIN PCB UNIT is disconnected.</p> <p>Connected Replace <a href="#">HEAD MANAGEMENT SENSOR UNIT</a>.</p> <p>Disconnected Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>▪ A er replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>		
EC22	4001	Error	End-of-life of head management sensor unit (support number: 5B16) Memo : Remove the error in service mode a er handling.
		Detection Descriptio	Ink amount in the head management sensor exceeds the threshold.
		Handling	
1	Replace <a href="#">HEAD MANAGEMENT SENSOR UNIT</a> .		
EC23	260E	Error	Gap adjustment error (support number: 4801)
		Detection Descriptio	Abnormity is detected at GAP adjustment.
		Handling	
1	<p>Check the cable connection of MU TI SENSOR UNIT.</p> <p>Proper connectio Replace <a href="#">MULTI SENSOR UNIT</a>.</p> <p>Improper connectio Connect the cable.</p>		
EC23	2F11	Error	Multi sensor bus ommunication er or (support number: 4801)
		Detection Descriptio	Communicating with multi sensor elated hard ware, such as LED driver and multi sensor EEPROM, is failed.
		Handling	
1	<p>Check the cable connection of MU TI SENSOR UNIT.</p> <p>Proper connectio Replace <a href="#">MULTI SENSOR UNIT</a>.</p> <p>Improper connectio Connect the cable.</p> <ul style="list-style-type: none"> <li>▪ This error is caused by Multi sensor malfunction. Commun ation er or of other ICs is indicated when communication ailure occurs, since confirm tion of ommunication with other ICs in the carriage is performed prior to confirm tion of ommunication of the multi sens .</li> </ul>		
EC23	2F18	Error	Carriage board I2C bus communication er or (support number: 4801)
		Detection Descriptio	I2C writing and eading to ICs on the carriage board is failed.
		Handling	
1	<p>Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to check broken wires of FLEXIBLE CABLE UNIT.</p> <p>Without broken wires Replace <a href="#">CARRIAGE UNIT</a>.</p> <p>With broken wires Replace <a href="#">FLEXIBLE CABLE UNIT</a>.</p>		



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[To Error Code Table](#)

EC23	2F32	Error	Multi sensor error (support number: 4801)
		Detection Descriptio	Abnormity is detected in multi sensor EEPROM reading at each automatic adjustment, paper edge detection, GAP adjustment, and starting up.
		Handling	
		1	<p>Check the cable connection of MULTI SENSOR UNIT.</p> <p>Proper connectio Replace <a href="#">MULTI SENSOR UNIT</a>.</p> <p>Improper connectio Connect the cable.</p>
EC24	4049	Error	Abnormal temperature by temperature and humidity sensor (support number: 8200) Memo: Remove the error in service mode after handling.
		Detection Descriptio	Abnormity is detected at reading temperature.
		Handling	
		1	<p>Check the cable connection of SENSOR, HUMIDITY .</p> <p>Proper connectio Replace <a href="#">SENSOR, HUMIDITY</a>.</p> <p>Improper connectio Connect the cable.</p>
EC24	404A	Error	Abnormal humidity by temperature and humidity sensor (support number: 8200) Memo: Remove the error in service mode after handling.
		Detection Descriptio	Abnormity is detected at reading humidity.
		Handling	
		1	<p>Check the cable connection of SENSOR, HUMIDITY .</p> <p>Proper connectio Replace <a href="#">SENSOR, HUMIDITY</a>.</p> <p>Improper connectio Connect the cable.</p>
EC24	404B	Error	Temperature and humidity sensor non-connection (support number: 8200) Memo: Remove the error in service mode after handling.
		Detection Descriptio	Abnormity is detected at reading temperature and humidity.
		Handling	
		1	<p>Check the cable connection of SENSOR, HUMIDITY .</p> <p>Proper connectio Replace <a href="#">SENSOR, HUMIDITY</a>.</p> <p>Improper connectio Connect the cable.</p>



EC25	2F16	Error	Mist fan error (support number: 4801)
		Detection Descriptio	Abnormity is detected at reading humidity.
		Handling	
		1	<p>Check the cable connection of MI T FAN.            Proper connectio            Go to 2.            Improper connectio            Connect the cable.</p>
2	<p>Replace the parts below.</p> <p>&lt;24" model&gt;  <a href="#">MIST FAN DUCT UNIT 2</a>            &lt;36" model&gt;  <a href="#">MIST FAN DUCT UNIT 1</a>, <a href="#">MIST FAN DUCT UNIT 3</a>            &lt;44" model&gt;  <a href="#">MIST FAN DUCT UNIT 1</a>, <a href="#">MIST FAN DUCT UNIT 2</a></p> <p>The problem is resolved            Complete.            The problem is not resolved            Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>▪ A er replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>		
EC25	4001	Error	End-of-life of mist collecting duct (support number: 5B20 Memo: Remove the error in service mode a er handling.
		Detection Descriptio	Ink amount in the mist collecting duct xceeds the threshold.
		Handling	
		1	<p>Replace the parts below.</p> <p>&lt;24" model&gt;  <a href="#">MIST FAN DUCT UNIT 2</a>            &lt;36" model&gt;  <a href="#">MIST FAN DUCT UNIT 1</a>, <a href="#">MIST FAN DUCT UNIT 3</a>            &lt;44" model&gt;  <a href="#">MIST FAN DUCT UNIT 1</a>, <a href="#">MIST FAN DUCT UNIT 2</a></p>



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[To Error Code Table](#)

# Ink Supply System

E Code	Detail Code	Descriptio	
EC31	2F09	Error	Wiper blade encoder and motor error (support number: 4801)
		Detection Descriptio	The encoder does not detect the wiper moved to the specified positio
		Handling	
		1	<p>Check if the foreign substances such as paper debris are adhering around PURGE UNIT.</p> <p>Without foreign substances Go to 2.</p> <p>With foreign substances Remove the foreign substances.</p>
2	<p>Perform <a href="#">[DIAGNOSIS &gt; PURGE CHECK &gt; INITIALIZE CHECK]</a> to check purge unit operation</p> <p>Proper operatio Reboot and recheck operation</p> <p>Improper operatio Replace <a href="#">PURGE UNIT</a>.</p>		
EC31	2F10	Error	Wiper blade motor overload (support number: 4801)
		Detection Descriptio	The motor keeps 100% output.
		Handling	
		1	<p>Check if the foreign substances such as paper debris are adhering around PURGE UNIT.</p> <p>Without foreign substances Go to 2.</p> <p>With foreign substances Remove the foreign substances.</p>
2	<p>Perform <a href="#">[DIAGNOSIS &gt; PURGE CHECK &gt; INITIALIZE CHECK]</a> to check purge unit operation</p> <p>Proper operatio Reboot and recheck operation</p> <p>Improper operatio Replace <a href="#">PURGE UNIT</a>.</p>		
EC31	2F1B	Error	Wiper blade position d tecting sensor er or (support number: 4801)
		Detection Descriptio	WIPER POSITION SENSOR does not detect wiper position despi e having moved the wiper to the specified positio
		Handling	
		1	<p>Check if the foreign substances such as paper debris are adhering around PURGE UNIT.</p> <p>Without foreign substances Go to 2.</p> <p>With foreign substances Remove the foreign substances.</p>
2	<p>Perform <a href="#">[DIAGNOSIS &gt; PURGE CHECK &gt; INITIALIZE CHECK]</a> to check purge unit operation</p> <p>Proper operatio Reboot and recheck operation</p> <p>Improper operatio Replace <a href="#">PURGE UNIT</a>.</p>		



EC31	2F1C	Error	Purge main cam sensor error (support number: 4801)
		Detection Descriptio	The following failure is detected. · Initializa on of purge main cam posi on is failed. · CARRIAGE UNIT is not able to be moved to the speci ed posi on when capping.
		Handling	
		1	Check the items below. a) The foreign substances such as paper debris are adhering around PURGE UNIT. b) Scratch or stain on FILM, TIMING SLIT STRIP. Without paper debris, scratch, and stain Go to 2. With paper debris, scratch, and stain a) Remove the foreign substance. b) Perform cleaning or replace <a href="#">FILM, TIMING SLIT STRIP</a> .
2	After unlocking CARRIAGE UNIT with <a href="#">[FUNCTION &gt; CR UNLOCK]</a> , perform <a href="#">[FUNCTION &gt; CR LOCK]</a> to check CARRIAGE UNIT lock operation Proper operatio Reboot and recheck the operation Abnormal operatio Replace <a href="#">PURGE UNIT</a> .		
EC31	2F1D	Error	Purge motor error (support number: 4801)
		Detection Descriptio	The motor does not operate.
		Handling	
		1	Check if the foreign substances such as paper debris are adhering around PURGE UNIT. Without foreign substance Go to 2. With foreign substances Remove the foreign substance.
2	Perform <a href="#">[DIAGNOSIS &gt; PURGE CHECK &gt; INITIALIZE CHECK]</a> to check purge unit operation Proper operatio Reboot and recheck the operation Abnormal operatio Replace <a href="#">PURGE UNIT</a> .		
EC31	2F1E	Error	Purge motor overload (support number: 4801)
		Detection Descriptio	The motor keeps 100% output.
		Handling	
		1	Check if the foreign substances such as paper debris are adhering around PURGE UNIT. Without foreign substance Go to 2. With foreign substances Remove the foreign substance.
2	Perform <a href="#">[DIAGNOSIS &gt; PURGE CHECK &gt; INITIALIZE CHECK]</a> to check purge unit operation Proper operatio Reboot and recheck the operation Abnormal operatio Replace <a href="#">PURGE UNIT</a> .		
EC31	2F1F	Error	Pump roller position d tecting sensor er or (support number: 4801)
		Detection Descriptio	The PUMP ROLLER SENSOR fails to detect pump rolling position when driving the pump.
		Handling	
		1	Check if the foreign substances such as paper debris are adhering around PURGE UNIT. Without foreign substance Go to 2. With foreign substances Remove the foreign substance.
2	Perform <a href="#">[DIAGNOSIS &gt; PURGE CHECK &gt; INITIALIZE CHECK]</a> to check purge unit operation Proper operatio Reboot and recheck the operation Abnormal operatio Replace <a href="#">PURGE UNIT</a> .		



Each function of se vice mode is operable only when the printer successfully enters in service mode.

[To Error Code Table](#)


EC31	2F22	Error	Purge motor drive timeout (support number: 4801)
		Detection Descriptio	The purge motor drive does not complete the specified operation within the specified time
		Handling	
		1	Check if the foreign substances such as paper debris are adhering around PURGE UNIT. Without foreign substance Go to 2. With foreign substances Remove the foreign substance.
EC31	2F23	Error	Wiper blade motor drive timeout (support number: 4801)
		Detection Descriptio	The purge motor drive does not complete the specified operation within the specified time
		Handling	
		1	Check if the foreign substances such as paper debris are adhering around PURGE UNIT. Without foreign substance Go to 2. With foreign substances Remove the foreign substance.
EC31	2F94	Error	Carriage obstacle error (support number: 4801)
		Detection Descriptio	When the detected value by acceleration sensor exceeds the threshold. In addition, it is in the opposite direction of CARRI GE UNIT scanning direction.
		Handling	
		1	Check the items below. a) The foreign substances such as paper debris around PURGE UNIT. b) The purge lock pin strikes to CARRIAGE UNIT during CARRIAGE UNIT operation No foreign substance and the purge lock pin does not strike Go to 2. Foreign substance is adhering or the purge lock pin strikes a) Remove the foreign substance. b) Replace the <a href="#">PURGE UNIT</a> .
EC31	4001	Error	End-of-life of purge unit (support number: 5C00) Memo : Remove the error in service mode after handling.
		Detection Descriptio	The purge unit lifespan runs out.
		Handling	
1	Replace the <a href="#">PURGE UNIT</a> .		
EC32	4001	Error	End-of-life of tube unit (support number: B510) Memo : Remove the error in service mode after handling.
		Detection Descriptio	The amount of carriage scan time exceeds the threshold, and the tube unit lifespan runs out.
		Handling	
1	Replace the <a href="#">INK TUBE UNIT</a> .		
EC33	402x	Error	Choke valve leak at initial ink filling (support number: 5A6) Memo : Remove the error in service mode after handling.
		Detection Descriptio	The ink level detection pin detects ink filling failure of the sub tank. Reference: Ink colors are identified with the last number of detail codes. ( <a href="#">Detail of the last numbers</a> )
		Handling	
1	Replace the SUB INK TANK UNIT that ink filling error occurred. (Disassembly & Reassembly for <a href="#">SUB INK TANK UNIT R</a> )		

EC34	2602	Error	Right choke valve drive timeout (support number: 4801)
		Detection Descriptio	The choke valve does not complete driving within the scheduled time.
		Handling	
	1	Perform <a href="#">[DIAGNOSIS &gt; I/O DISPLAY]</a> to check the RIGHT CHOKE VALVE POSITION SENSOR operation Proper operatio Reboot and recheck the operation When the printer does not recover, drive system overload is suspected. In this case, replace the <a href="#">SUB INK TANK UNIT R.</a> Abnormal operatio Replace the <a href="#">SUB INK TANK UNIT R.</a>	
EC34	2605	Error	Right agitation alve drive timeout (support number: 4801)
		Detection Descriptio	The agitation alve does not complete driving within the scheduled time
		Handling	
	1	Perform <a href="#">[DIAGNOSIS &gt; I/O DISPLAY]</a> to check the RIGHT CHOKE VALVE POSITION SENSOR operation Proper operatio Reboot and recheck the operation When the printer does not recover, drive system overload is suspected. In this case, replace the <a href="#">SUB INK TANK UNIT R.</a> Abnormal operatio Replace the <a href="#">SUB INK TANK UNIT R.</a>	
EC34	2F3B	Error	Right ink valve motor error (support number: 4801)
		Detection Descriptio	Encoder value of the right ink valve motor is not detected.
		Handling	
	1	Replace the <a href="#">SUB INK TANK UNIT R.</a>	



Each function of se vice mode is operable only when the printer successfully enters in service mode.

[To Error Code Table](#)

EC3F	2F40	Error	Complete non-ejection in all colors through non-ejection detection
		Detection Description	Complete non-ejection in all colors through non-ejection detection
		Handling	
		1	<p>Check the items below.</p> <p>a) Foreign substances such as paper debris around HEAD MANAGEMENT SENSOR UNIT.</p> <p>b) Tubes are filled with ink.</p> <p>c) SIX-RING RUBBER CHAIN is attached properly. (when this error occurs after TUBE UNIT replacement).</p>
			 <p>improper attachment</p> <p>No foreign substances and ink is filled Go to 2*.</p> <p>Foreign substances are adhering or tubes are not filled with ink.</p> <p>a) Remove the foreign substance. b) Go to 3. c) Correct the SIX-RING RUBBER CHAIN attachment position</p> <p>* There is little possibility of print head contact failure factor (because print head contact failure is checked by the automatic diagnosis at print head installation or before performing non-ejection detection)</p>
2	<p>Check the items below.</p> <p>a) Printability of the service nozzle check pattern.</p> <p>b) Perform <a href="#">[DIAGNOSIS &gt; CR_SYSTEM_CHECK]</a> to check broken wires of FLEXIBLE CABLE UNIT.</p> <p>Printable without broken wires Replace <a href="#">HEAD MANAGEMENT SENSOR UNIT</a>.</p> <p>Not printable or broken wires</p> <p>a) Replace the print head. b) Replace the <a href="#">FLEXIBLE CABLE UNIT</a>.</p>		
3	<p>Perform <a href="#">[DIAGNOSIS&gt;PURGE CHECK&gt;PRESSURE CHECK]</a> to check vacuum operation of PURGE UNIT.</p> <p>Proper operation Go to 4.</p> <p>Abnormal operation Replace the PURGE UNIT.</p>		
4	<p>Replace the <a href="#">TUBE UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace the sub tank unit, the <a href="#">SUB INK TANK UNIT R</a>, of the color that ink has not been filled.</p>		


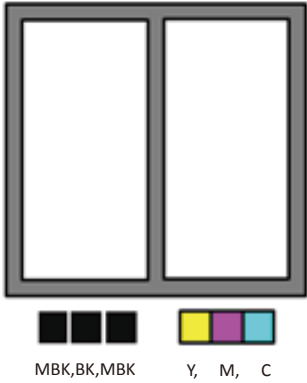


EC3F	2F41	Error	Complete non-ejection in one color (support number: 1492)
		Detection Descriptio	Non-ejection in all nzzles of the one color is detected through non-ejection detection er cleaning.
		Handling	
		1	<p>Check if the ink is filling i to tubes. Ink is fille Go to 2. (Insuffici t ink in the print head or print head defect is suspected.) Ink is not fille Go to 3.</p>
2	<p>Perform deep cleaning and print nozzle check pa ern. Complete. Inappropriate Replace the print head.</p>		
3	<p>Replace the <a href="#">TUBE UNIT</a>. The problem is resolved Complete. The problem is not resolved Replace the sub tank unit, the <a href="#">SUB INK TANK UNIT R</a>, of the color that ink has not been filled</p>		



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[To Error Code Table](#)

EC3F	4120	Error	Ink vacuum error at initial ink filling. (support number: B51 Memo: Remove the error in service mode when handling is completed.
	4121		
	4122	Detection	
	4123	Description	After filling ink into the sub tank, ink filling into the tubes and the print head fails.
4126		Handling	
	1	<p>Check if ink is filling each tube and check ink filling condition by each cap.          Not ink filling failure by each cap          Go to 2.          Ink filling failure by each cap          Replace the <a href="#">PURGE UNIT</a>.</p> <p>&lt;The places to check ink filling condition of ink tubes&gt;</p>  <p>&lt;The ink to be vacuumed by each cap&gt;</p> 	
	2	<p>Perform <a href="#">[FUNCTION &gt; HEAD REPLACEMENT]</a> and remove the print head. Install the other print head. Then, check the installation function.          Proper function          Replace the print head.          Improper function          Go to 3.</p>	
	3	<p>Replace the <a href="#">TUBE UNIT</a>.          The problem is resolved          Complete.          The problem is not resolved          Replace the sub tank unit, the <a href="#">SUB INK TANK UNIT R</a>, of the color that ink has not been filled</p>	

## Waste Ink System

E Code	Detail Code	Descriptio	
EC41	4001	Error	End-of-life of platen fan duct (support number: 5B20) Memo : Remove the error in service mode a er handling.
		Detection Descriptio	Ink filled up in SU TION FAN UNIT or in SUCTION FAN DUCT UNIT is detected.
		Handling	
		1	Replace the <a href="#">SUCTION FAN UNIT</a> or <a href="#">SUCTION FAN DUCT UNIT</a> .
EC43	4001	Error	End-of-life of waste ink absorber unit A (support number: 5B20) Memo : Remove the error in service mode a er handling.
		Detection Descriptio	Ink filled up in ASTE INK ABSORBER UNIT A is detected.
		Handling	
		1	Replace the <a href="#">WASTE INK ABSORBER UNIT A</a> .
EC44	4001	Error	End-of-life of waste ink absorber unit B (support number: 5B20) Memo : Remove the error in service mode a er handling.
		Detection Descriptio	Ink filled up in ASTE INK ABSORBER UNIT B is detected.
		Handling	
		1	Replace the <a href="#">WASTE INK ABSORBER UNIT B</a> .
EC45	4001	Error	End-of-life of waste ink absorber unit C (support number: 5B20) Memo : Remove the error in service mode a er handling.
		Detection Descriptio	Ink filled up in ASTE INK ABSORBER UNIT C is detected.
		Handling	
		1	Replace the <a href="#">WASTE INK ABSORBER UNIT C</a> .
EC47	4001	Error	End-of-life of waste ink absorber unit (support number: 5B20) Memo : Remove the error in service mode a er handling.
		Detection Descriptio	Ink filled up in ASTE INK ABSORBER UNIT is detected.
		Handling	
		1	Replace the <a href="#">WASTE INK ABSORBER UNIT</a> .
EC48	4001	Error	End-of-life of waste ink tank unit (support number: 5B21) Memo : Remove the error in service mode a er handling.
		Detection Descriptio	Ink filled up in ASTE INK TANK UNIT is detected.
		Handling	
		1	Replace the <a href="#">WASTE INK TANK UNIT</a> .
EC49	4001	Error	End-of-life of waste ink tank unit (support number: 5B20) Memo : Remove the error in service mode a er handling.
		Detection Descriptio	Ink filled up in ASTE INK ABSORBER UNIT E is detected.
		Handling	
		1	Replace the <a href="#">WASTE INK ABSORBER UNIT E</a> .





Each function of se vice mode is operable only when the printer successfully enters in service mode.

[To Error Code Table](#)

## Electric System

E Code	Detail Code	Descriptio	
EC51	203C	Error	Motor driver boot sequence failure (support number: 4803)
		Detection Descriptio	Motor driver boot sequence was not completed properly in starting up
		Handling	
		1	When the printer does not recover by rebootin , replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments.
EC51	2F07	Error	USB Vbus overcurrent (support number: 9000)
		Detection Descriptio	Vbus overcurrent is detected.
		Handling	
		1	Reboot.
EC51	2F14	Error	Main PCB I2C bus error (support number: 4801)
		Detection Descriptio	Abnormal checksum value of the ink agitation timer or ink cleaning timer detected, or accessing DA converter is disabled.
		Handling	
		1	Reinstall the fir ware. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments.
EC51	2F15	Error	Unable to allocate memory (support number: 4801)
		Detection Descriptio	Acquisition of OS memo y pool packet is disabled.
		Handling	
		1	Reinstall the fir ware. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments.
EC51	2F38	Error	Access cover open error at the cover locking (support number: 1214)
		Detection Descriptio	Cover open is detected when the access cover is being locked.
		Handling	
		1	Close the access cover, and reboot. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments.



EC51	2FDE	Error	Right ink level detection error (support number: 4801)
		Detection Descriptio	The state that the longer ink level detection pin in the sub ink tank unit is OFF. In addition, the shorter ink level detection pin is ON is detected. (It occurs at cable connection failure. This state does not normally occur.)
		Handling	
		1	<p>Check the connection of the left MAIN PCB UNIT.</p> <p>Proper connection Go to 2.</p> <p>Improper connection Connect the connector.</p>  <p>The place to check the connection of the left MAIN PCB UNIT.</p>
2	<p>Check the connection of the right TANK PCB UNIT.</p> <p>Proper connection Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul> <p>Improper connection Connect the connector.</p>  <p>The place to check the connection of the right TANK PCB UNIT.</p>		
EC51	3000	Error	Network sub-system launch error (support number: 6900)
		Detection Descriptio	Starting up sequence of Network sub-system is failed.
		Handling	
1	<p>Reboot.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Reinstall the firmware.</p>		



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[To Error Code Table](#)

EC51	3001	Error	Network sub-system timeout (support number: 6901)
		Detection Descriptio	Network sub system does not respond.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
EC51	3004	Error	Wired LAN driver error (support number: 6920)
		Detection Descriptio	The fatal error occurs in the ethernet driver.
		Handling	
		1	Reinstall the fir ware. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments.
EC51	3005	Error	Wired LAN hardware error (support number: 6921)
		Detection Descriptio	Ethernet driver is physically broken.
		Handling	
		1	Check the connection of the I/F PCB UNIT and the MAIN PCB UNI . The problem is resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments. The problem is not resolved Connect the I/F PCB UNIT to the MAIN PCB UNIT.
EC51	3006	Error	Other network sub-system errors (support number: 6902)
		Detection Descriptio	Starting up sequence of n twork sub-system fails.
		Handling	
		1	Reinstall the fir ware. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments.



EC51	3100	Error	USB control-out bus error (support number: 6930)
		Detection Descriptio	Bus error occurs at USB control-out end point occurs.
		Handling	
	1	<p>Check the cable connection and if the cable in use supports USB2.0. When proper connection and USB2.0 is supported, reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>	
EC51	3101	Error	USB control-in bus error (support number: 6931)
		Detection Descriptio	USB control-in end point bus error occurs
		Handling	
	1	<p>Check the cable connection and if the cable in use supports USB2.0. When proper connection and USB2.0 is supported, reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>	
EC51	3102	Error	USB print bulk-out bus error (support number: 6932)
		Detection Descriptio	Bus error occurs at print bulk-out end point
		Handling	
	1	<p>Check the cable connection and if the cable in use supports USB2.0. When proper connection and USB2.0 is supported, reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>	
EC51	3103	Error	USB print bulk-in bus error (support number: 6933)
		Detection Descriptio	Bus error occurs at print bulk-in end point.
		Handling	
	1	<p>Check the cable connection and if the cable in use supports USB2.0. When connection is proper and USB2.0 is supported, reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>	
EC51	3104	Error	USB sub-system firmware error (support number: 6940)
		Detection Descriptio	USB firmware error occurs.
		Handling	
	1	<p>Reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>	



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[To Error Code Table](#)

EC51	3105	Error	USB sub-system command error (support number: 6941)
		Detection Descriptio	USB command error occurs.
		Handling	
		1	<p>Check the cable connection and if the cable in use supports USB2.0. When connection is proper and USB2.0 is supported, reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>
EC51	3106	Error	USB sub-system timeout (support number: 6942)
		Detection Descriptio	USB watch dog error occurs.
		Handling	
		1	<p>Reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>
EC51	3107	Error	USB sub-system data copy error (support number: 6943)
		Detection Descriptio	USB-Relax firmware data copy error occurs.
		Handling	
		1	<p>Reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>
EC51	3108	Error	USB sub-system instruction error (support number: 6944)
		Detection Descriptio	USB-Relax firmware instruction copy error is occurs.
		Handling	
		1	<p>Reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>
EC51	3109	Error	USB sub-system not started properly (support number: 6945)
		Detection Descriptio	Boot error of USB-Relax firmware occurs.
		Handling	
		1	<p>Reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>

EC51	3110	Error	USB sub-system improper timeout setting (support number: 694)
		Detection Descriptio	Initial value set error of USB-Relax firmware watch dog occurs.
		Handling	
		1	<p>Reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>▪ After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>
EC51	3301	Error	Sub-chip connection error (support number: 4801)
		Detection Descriptio	When starting up the printer or returning from power saving mode, connecting to sub-chip fails.
		Handling	
		1	<p>Reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>▪ After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>
EC51	3302	Error	Sub-chip initialization error (support number: 4801)
		Detection Descriptio	When starting up the printer or returning from power saving mode, initialization of the sub-chip fails.
		Handling	
		1	<p>Reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>▪ After replacement, perform PCB replacement mode and necessary adjustments.</li> <li>* If the error occurred after reseating the flexible cables, check the condition of flexible cables' connection</li> </ul>
EC51	3303	Error	Sub-chip firmware loading error (support number: 4801)
		Detection Descriptio	When starting up the printer or returning from power saving mode, downloading sub-chip firmware fails.
		Handling	
		1	<p>Reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>▪ After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>



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[To Error Code Table](#)

EC51	3304	Error	Media updating failure (support number: 4905)
		Detection Description	Updating the printer media information fails.
		Handling	
		1	Update the printer media information with Media Configuration tool. The problem is resolved Complete. The problem is not resolved Go to 2.
EC51	3306	Error	NAND file system initialization error (support number: 4905)
		Detection Description	When starting up the printer or returning from power saving mode, initialization of NAND file system fails.
		Handling	
		1	Reinstall the firmware. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.
EC51	3307	Error	NAND file system unformatted (support number: 4905)
		Detection Description	When starting up the printer or returning from power saving mode, formatting of NAND file system fails.
		Handling	
		1	Reinstall the firmware. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.
EC51	3308	Error	Checksum error at firmware update (support number: 4905)
		Detection Description	Checksum of the firmware sent at firmware updating does not match.
		Handling	
		1	Reinstall the firmware. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.
EC51	3309	Error	Memory allocation failure at firmware update (support number: 4905)
		Detection Description	Securing the operation area in RAM during firmware updating fails.
		Handling	
		1	Reinstall the firmware. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.

EC51	330A	Error	Firmware size error (support number: 4905)
		Detection Descriptio	The size information described in the received firmware data and the actual received size does not match at firmware updating.
		Handling	
		1	<p>Reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>
EC51	4041	Error	Main PCB failure in SROM deletion (support number: 6820) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	Deletion of the corresponding area in SROM during firmware updating fails.
		Handling	
		1	<p>Reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>
EC51	4042	Error	Main PCB failure in SROM writing (support number: 6820) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	Writing to SROM during firmware updating fails.
		Handling	
		1	<p>Reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>
EC51	4045	Error	Main PCB EEPROM error (support number: 6820) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	Abnormity is detected when information is written to the PCB EEPROM.
		Handling	
		1	<p>Reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>
EC51	4046	Error	Main PCB failure in NAND flash deletion (support number: 6820) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	Deletion of the corresponding area in NAND flash during firmware updating fails.
		Handling	
		1	<p>Reinstall the firmware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>



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[To Error Code Table](#)

EC51	4047	Error	Main PCB failure in NAND flash writing (support number: 682 Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	Writing o NAND flash during fi ware updating fails.
		Handling	
		1	<p>Reinstall the fir ware. The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>▪ A er replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>
EC51	404C	Error	Serial ID mismatch (support number: 6820) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	Mismatch of the serial ID in the BACKUP PCB UNIT and the MAIN PCB UNIT at starting up the pri ter is detected.
		Handling	
		1	<p>This error occurs a er MAIN PCB UNIT replacement Go to 2.</p> <p>This error occurs without performing MAIN PCB UNIT replacement. Go to 3.</p>
		2	Start up the printer in service mode. Perform PCB replacement mode. (Automatic transformation f om service mode to PCB replacement mode at starting up.
3	<p>Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>▪ A er replacement, perform PCB replacement mode and necessary adjustments.</li> </ul> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Put back the MAIN PCB UNIT, the one that has been installed before the replacement, and replace the <a href="#">BACKUP PCB UNIT</a>.</p>		
EC51	404D	Error	Model ID mismatch (support number: 6820) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	When starting up the pri ter, model ID mismatch between MAIN PCB UNIT and BACKUP PCB UNIT is detected.
		Handling	
		1	<p>This error occurs a er MAIN PCB UNIT replacement Go to 2.</p> <p>This error occurs without performing MAIN PCB UNIT replacement Go to 3.</p> <p>This error occurs a er replacing to the BACKUP PCB UNIT that has been installed to the other model Replace with the new <a href="#">BACKUP PCB UNIT</a>.</p>
		2	Start up the printer in service mode. Perform PCB replacement mode. (Automatic transformation f om service mode to PCB replacement mode at starting up.
3	<p>Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>▪ A er replacement, perform PCB replacement mode and necessary adjustments.</li> </ul> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Put back the MAIN PCB UNIT, the one that has been installed before the replacement, and replace the <a href="#">BACKUP PCB UNIT</a>.</p>		



EC51	4070	Error	Main PCB NAND flash CC error (support number: 6820) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	ECC error in NAND flash during fi ware updating occu s.
		Handling	
		1	Reinstall the fir ware. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments.
EC51	4071	Error	Main PCB failure in NAND flash initial ation (support number: 6820) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	When starting up the pri ter or returning from power saving mode, initiali ation of NAND flash fails.
		Handling	
		1	Reinstall the fir ware. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments.
EC51	4072	Error	Main PCB failure in NAND flash ormat (support number: 6820) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	When starting up the pri ter or returning from power saving mode, formatting o NAND flash fails.
		Handling	
		1	Reinstall the fir ware. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments.
EC51	5001	Error	Start-up disabled (support number: 7050) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	Starting up the pri ter fails.
		Handling	
		1	Check cable connection o the MAIN PCB UNIT. Proper connectio Go to 2. Improper connectio Connect the cable.
2	Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> ). ▪ A er replacement, perform PCB replacement mode and necessary adjustments. The problem is resolved Complete. The problem is not resolved Replace the ID PCB UNIT.* * Ask sales companies in each region on how to order.		



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[To Error Code Table](#)

EC51	5002	Error	Start-up disabled (support number: 7051) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	Starting up the pri ter fails.
		Handling	
		1	Check cable connection o the MAIN PCB UNIT. Proper connectio Go to 2. Improper connectio Connect the cable.
EC51	5003	Error	Start-up disabled (support number: 7052) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	Starting up the pri ter fails.
		Handling	
		1	Check cable connection o the MAIN PCB UNIT. Proper connectio Go to 2. Improper connectio Connect the cable.
EC52	4038	Error	Abnormal power supply voltage in standby or printing (support number: 9110) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	Power supply from the power supply unit stops at waiting or pri ting.
		Handling	
		1	Reconnect a er unplugging the power cable from the AC outlet for ten seconds or longer. The problem is resolved Complete. The problem is not resolved Go to 2.
EC52	4038	2	Replace the POWER SUPPLY UNIT. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT. ▪ A er replacement, perform PCB replacement mode and necessary adjustments. (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> )



EC52	4039	Error	Abnormal power supply voltage at VH leak detection (support number: 9110 Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	Power supply from the power supply unit stops at leak detection.
		Handling	
		1	Reconnect a er unplugging the power cable from the AC outlet for ten seconds or longer. The problem is resolved Complete. The problem is not resolved Go to 2.
EC54	290A	Error	Hard disk unconnected (support number: 4801)
		Detection Descriptio	Hard disk detection t start-up fails.
		Handling	
		1	Check if the hard disk cable is connected to the MAIN PCB UNIT. Connected Go to 2. Disconnected Connect the cable. The problem is resolved Complete. The problem is not resolved Go to 2.
2	Replace the hard disk cable. The problem is resolved Complete. The problem is not resolved Go to 3.		
3	Replace the hard disk. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT. ▪ A er replacement, perform PCB replacement mode and necessary adjustments. (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> )		
EC54	290C	Error	SED hard disk not initiali ed (support number: 4907)
		Detection Descriptio	Unspecified SED ha d disk settings is tected in starting up
		Handling	
1	Reboot the printer. A er rebootin , the message "initiali e the hard disk?" appears on the control panel. Select "Yes" and perform format.* *This error is generated when selecting "No" o the above message.		



Each function of se vice mode is operable only when the printer successfully enters in service mode.

[To Error Code Table](#)

EC54	401A	Error	Hard disk reading/writing error (support number: 7001) Memo: Remove the error in service mode when handling is completed.
		Detection Description	Reading/writing on the hard disk is disabled.
		Handling	
		1	Replace the hard disk cable. The problem is resolved Complete. The problem is not resolved Go to 2.
EC54	405A	Error	Hard disk capacity mismatch (support number: 7003) Memo: Remove the error in service mode when handling is completed.
		Detection Description	Hard disk capacity difference is detected at start-up.
		Handling	
		1	Replace the hard disk. (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> )
EC54	405B	Error	Hard disk model mismatch (support number: 7004) Memo: Remove the error in service mode when handling is completed.
		Detection Description	Hard disk model ID mismatch is detected at start-up.
		Handling	
		1	Replace the hard disk. (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> )
EC54	4080	Error	Non-supported hard disk connected (support number: 7005) Memo: Remove the error in service mode after handling.
		Detection Description	Installation of SED hard disk was not detected.
		Handling	
		1	Check the hard disk cable connection Proper connection Go to 2. Improper connection Connect the cable.
	2	Check if the SED hard disk (genuine) has been installed.* It is a genuine hard disk Replace MAIN PCB UNIT . ▪ After replacement, perform PCB replacement mode and necessary adjustments. It is not a genuine hard disk Replace with a genuine SED hard disk. *When whether the cause is the SED hard disk or not cannot be identified clearly, replace with a genuine SED hard disk. (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> )	

EC54	4081	Error	Hard disk SED function- elated communication error (support number: 7006) ▪After replacement, perform PCB replacement mode and necessary adjustments.
		Detection Descriptio	Performing the SED functioned ommand failed.
		Handling	
		1	Check the hard disk cable connection Proper connectio Go to 2. Improper connectio Connect the cable.
2	Replace the hard disk. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT. ▪After replacement, perform PCB replacement mode and necessary adjustments. (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> )		
EC55	2F20	Error	Flexible cable connection error (support number: 4801)
		Detection Descriptio	Abnormity, left onnection, or inapp opriate connection in xible cable connectio between the fl xible cable connection in the arriage unit or between FLEXIBLE CABLE UNIT and MAIN PCB UNIT.
		Handling	
		1	Check the fl xible cable connection in the arriage unit or between FLEXIBLE CABLE UNIT and MAIN PCB UNIT. Proper connectio Replace the <a href="#">FLEXIBLE CABLE UNIT</a> . Improper connectio Reconnect the FLEXIBLE CABLE UNIT. The problem is not resolved Go to 2.
2	Reconnect after unplugging the power cable from the AC outlet for ten seconds or longer. The problem is resolved Complete. The problem is not resolved Replace the POWER SUPPLY UNIT. (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> )		
EC55	2F24	Error	Flexible cable connected at an angle (support number: 1468)
		Detection Descriptio	Flexible cable connection t an angle or non-connection is d tected in the carriage unit or between MAIN PCB UNIT and CARRIAGE RELAY PCB UNIT.
		Handling	
		1	Check the fl xible cable connection in the arriage unit or between FLEXIBLE CABLE UNIT and MAIN PCB UNIT. Proper connectio Go to 2. Improper connectio Connect the fl xible cable properly. The problem is not resolved Go to 2.
2	Reconnect after unplugging the power cable for ten seconds or more from the AC outlet. The problem is resolved Complete. The problem is not resolved Replace <a href="#">FLEXIBLE CABLE UNIT</a> . The problem is not resolved Replace POWER SUPPLY UNIT. (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 36" model</a> , <a href="#">for 44" model</a> )		



Each function of service mode is operable only when the printer successfully enters in service mode.

[To Error Code Table](#)

EC55	2F6C	Error	Print head temperature reading error (support number: 4801)
		Detection Descriptio	Temperature reading by the direct diode sensor failed.
		Handling	
		1	<p>Check the fl xible cable connection in the arriage unit or between FLEXIBLE CABLE UNIT and MAIN PCB UNIT.</p> <p>Proper connectio Go to 2.</p> <p>Improper connectio Connect the fl xible cable properly. The problem is not resolved Go to 2.</p>
2	<p>Replace with <a href="#">CARRIAGE UNIT</a> or <a href="#">FLEXIBLE CABLE UNIT</a>.</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 36" model</a>, <a href="#">for 44" model</a>).</p> <ul style="list-style-type: none"> <li>▪ A er replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>		
EC56	2FE0	Error	Sub-ink tank unit power supply error (support number: 6502)
		Detection Descriptio	The power is not supplied to ink tank ROMs.
		Handling	
		1	<p>Check the MAIN PCB UNIT cable connection</p> <p>Proper connectio Go to 2.</p> <p>Improper connectio Connect the cable.</p>
2	<p>Check if the ink tank is empty.</p> <p>Not empty Replace the SUB INK TANK UNIT (<a href="#">replacement procedure for SUB INK TANK UNIT R</a>).</p> <p>Empty Replace the INK TANK.</p>		
EC57	4040	Error	RTC time unkn wn (support number: 6702) Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	Unsetting GMT in TC is detected at printer start-up in user mode.
		Handling	
		1	<p>Check if the ba ery is mounted in the I/F PCB UNIT.</p> <p>Ba ery is mounted Replace the ba ery and set GMT time y [OTHERS&gt;RTC SETTING] GMT</p> <p>Ba ery is not mounted Remount the ba ery and set GMT time y [OTHERS&gt;RTC SETTING].</p> <ul style="list-style-type: none"> <li>▪ GMT time = G eenwitch Mean Time</li> </ul>



EC57	404F	Error	RTC non-connection (support number: 6700 Memo: Remove the error in service mode when handling is completed.
		Detection Descriptio	Reading / writing on i formation is disabled.
		Handling	
		1	Check I/F PCB UNIT connectio Proper connectio Go to 2. Improper connectio Connect the I/F PCB UNIT.
EC58	2F12	Error	Backup PCB EEPROM error (support number: 4801)
		Detection Descriptio	BACKUP PCB UNIT EEPROM Memo: Remove the error in service mode when handling is completed.
		Handling	
		1	Check the cable connectio Proper connectio Replace the BACKUP PCB UNIT. Improper connectio Connect the cable.
EC59	3002	Error	Wireless LAN device non-connection (support number: 6910)
		Detection Descriptio	Wireless LAN device is not recognized.
		Handling	
		1	Check the WIRELESS LAN PCB UNIT fl xible cable connectio Proper connectio Replace the <a href="#">WIRELESS LAN PCB UNIT</a> . Improper connectio Connect the fl xible cable.
EC59	3003	Error	Wireless LAN hardware error (support number: 6911)
		Detection Descriptio	The wireless LAN device is physically broken.
		Handling	
		1	Check the WIRELESS LAN PCB UNIT fl xible cable connectio Proper connectio Replace the <a href="#">WIRELESS LAN PCB UNIT</a> . Improper connectio Connect the fl xible cable.



Each function of se vice mode is operable only when the printer successfully enters in service mode.

[To Error Code Table](#)

## 5-4. Detail of Jam Error

### Detail of Jam Error

Jam Code	Detail Code	Description	
001111	2E3A	Error	Paper feeding failure (upper roll) (support number: 1300)
		Detection Descriptio	Feeding of the roll paper fails at the upper roll paper path (roll1). (from the paper feed sensor to the PE sensor in paper path)
		Handling	
		1	<p>Reload the roll paper. (Remove left paper pieces and check the top edge of the paper.)</p> <p>The error is removed Complete.</p> <p>The error is not removed Go to 2.</p>
		2	<p>Replace the following parts from the top and check if the error is removed after each replacement. (from the loading sensor to the PE sensor)</p> <ul style="list-style-type: none"> <li>· <a href="#">ROLL PAPER FEED SENSOR UNIT.</a></li> <li>· <a href="#">HARNESS ASS'Y, RLNIP PF SNS.</a></li> <li>· <a href="#">PAPER ENTRY SENSOR.</a></li> <li>· <a href="#">DRIVE NIP ARM UNIT.</a></li> <li>· <a href="#">ACTIVE ROLL BRAKE UNIT.</a> Adjustment and counter reset is necessary.</li> </ul>
3	<p>Check other suspected cause.</p> <ul style="list-style-type: none"> <li>· Media related cause (size, media type mismatch, paper turn-up at the top edge)</li> <li>· Curly end edge of the roll paper</li> <li>· Avoid the paper with strong stiffness or heavy roll paper.</li> </ul>		
001112	2E3D	Error	Paper feeding failure (upper roll) (support number: 1300)
		Detection Descriptio	Feeding of the roll paper fails at the upper roll paper path (roll1). (from the PE sensor to end of feeding in paper path)
		Handling	
		1	<p>Release the release lever. Reload the paper. (Remove left paper pieces and check the top edge of the paper.)</p> <p>The error is removed Complete.</p> <p>The error is not removed Go to 2.</p>
		2	<p>Replace the following parts from the top and check if the error is removed after each replacement.</p> <ul style="list-style-type: none"> <li>· <a href="#">ROLL PAPER FEED SENSOR UNIT.</a></li> <li>· <a href="#">HARNESS ASS'Y, RLNIP PF SNS.</a></li> <li>· <a href="#">PAPER ENTRY SENSOR.</a></li> <li>· <a href="#">DRIVE NIP ARM UNIT.</a></li> <li>· <a href="#">MULTI SENSOR UNIT.</a> Adjustment and counter reset is necessary.</li> <li>· <a href="#">ACTIVE ROLL BRAKE UNIT.</a> Adjustment and counter reset is necessary.</li> </ul>
3	<p>Check other suspected cause.</p> <ul style="list-style-type: none"> <li>· Media related cause (size, media type mismatch, paper turn-up at the top edge)</li> <li>· Curly end edge of the roll paper</li> <li>· Avoid the paper with strong stiffness or heavy roll paper.</li> </ul>		
001113	2025	Error	Upper roll drive overload (in roll paper loading) (support number: 1328)
		Detection Descriptio	<p>The electric current reached to the maximum loadable value at the upper ACTIVE ROLL BRAKE UNIT motor control in paper loading (between UPPER PAPER SET SENSOR and UPPER PAPER ENTRY SENSOR).</p> <p>&lt;The assumed situation</p> <ul style="list-style-type: none"> <li>· ACTIVE ROLL BRAKE UNIT receives load, e.g. due to touching the roll paper by the user, during roll paper front edge detection with UPPER PAPER SET SENSOR.</li> <li>· Heavy roll paper is being loaded.</li> </ul>
		Handling	
		1	Feed the roll paper again. When re-feeding is disabled, feed the paper manually.

001113	2026	Error	Lower roll drive overload (in roll paper loading) (support number: 1329)
		Detection Descriptio	The electric current reached to the maximum loadable value at the lower ACTIVE ROLL BRAKE UNIT motor control in paper loading (between LOWER PAPER SET SENSOR and LOWER PAPER ENTRY SENSOR). <The assumed situation · ACTIVE ROLL BRAKE UNIT receives load, e.g. due to touching the roll paper by the user, during roll paper front edge detection with LOWER PAPER SET SENSOR. · Heavy roll paper is being loaded.
		Handling	
	1	Feed the roll paper again. When re-feeding is disabled, feed the paper manually.	
001113	2051	Error	Unable to pick up the upper roll paper (in roll paper loading) (support number: 1326)
		Detection Descriptio	UPPER PAPER SET SENSOR fails to detect the roll paper front edge in roll paper feeding. <The assumed situation · The front edge of the roll paper does not peel off from the roll paper. · The spool does not rotate due to gear damage in paper feeding. · Sensor malfunction
		Handling	
	1	Feed the roll paper again. When re-feeding is disabled, feed the paper manually.	
001113	2052	Error	Unable to pick up the upper roll paper (in roll paper loading) (support number: 1300)
		Detection Descriptio	UPPER PAPER ENTRY SENSOR fails to detect the roll paper front edge within the specified time period after UPPER PAPER SET SENSOR detected the roll paper front edge.
		Handling	
	1	Feed the roll paper again. When re-feeding is disabled, feed the paper manually.	
001113	2056	Error	Upper roll paper not loaded (support number: 1034)
		Detection Descriptio	UPPER PAPER SET SENSOR fails to detect loading of the roll paper in roll paper feeding.
		Handling	
	1	Reload the roll paper.	
001215	2E3C	Error	Paper feeding failure (support number: 1300)
		Detection Descriptio	Feeding of the cut sheet fails at the paper path. (from paper loading to end of feeding in paper path)
		Handling	
	1	Release the release lever. Reload the sheet. (Remove left paper pieces and check the top edge of the sheet.) The error is removed Complete. The error is not removed Go to 2.	
	2	Replace the following parts from the top and check if the error is removed after each replacement. · <a href="#">PAPER FEED ENCODER UNIT</a> . · <a href="#">MULTI SENSOR UNIT</a> . Adjustment and counter reset is necessary.	
001215	200D	Error	Paper detection failure (support number: 1322)
		Detection Descriptio	Detecting cut sheet fails at the paper path. (from paper setting to the end of loading operation in paper path)
		Handling	
		1	Release the release lever. Check the cut sheet length and paper jam. The error is removed Complete. The error is not removed Go to 2.
		2	Replace the following parts and check if the error is removed after each replacement. <a href="#">MULTI SENSOR UNIT</a> . Adjustment and counter reset is necessary. · <a href="#">PAPER ENTRY SENSOR</a> .
3	Check other suspected cause. · Media related cause (size, media type mismatch)		

001215	2016	Error	Paper feeding failure (support number: 1300)
		Detection Descriptio	Feeding of the cut sheet fails at the paper path. (from the paper setting o end of loading in paper path)
		Handling	
		1	Release the release lever and reload the sheet. Or check and replace the cut sheet. The error is removed Complete. The error is not removed Go to 2.
002121	2010	2	Replace the following parts from the top and check if the error is removed a er each replacement. · <a href="#">PAPER ENTRY SENSOR</a> . · <a href="#">PAPER FEED MOTOR UNIT</a> . · <a href="#">PAPER FEED ENCODER UNIT</a> . · <a href="#">FILM, TIMING SLIT DISK</a> . · <a href="#">HARNESS ASS'Y, L</a> .
		Error	Skew (support number: 1317)
		Detection Descriptio	The multi sensor d tects skew.
		Handling	
002221	200C	1	Release the release lever. Reload the paper. (Reset to the spool with setting the paper traight.) The error is removed Complete. The error is not removed Go to 2.
		2	Replace the <a href="#">MULTI SENSOR UNIT</a> . Adjustment and counter reset is necessary.
		3	Check other suspected cause. · Curly end edge of the roll paper
		Handling	
002221	2017	Error	Paper detection ailure (at the top edge of the paper) (support number: 1322)
		Detection Descriptio	The multi sensor ails to detect the paper during paper feeding.
		Handling	
		1	Release the release lever. Check the top edge of the paper. Reload the paper. The error is removed Complete. The error is not removed Go to 2.
002221	2018	2	Replace the <a href="#">MULTI SENSOR UNIT</a> . Adjustment and counter reset is necessary.
		Error	Paper detection ailure (at the right edge of the paper) (support number: 1322)
		Detection Descriptio	The multi sensor ails to detect the paper during paper feeding.
		Handling	
002221	2018	1	Release the release lever. Check the right edge of the paper and the media type. The error is removed Complete. The error is not removed Go to 2.
		Handling	
		2	Replace the <a href="#">MULTI SENSOR UNIT</a> . Adjustment and counter reset is necessary.
		Error	Paper detection ailure (at the left ed e of the paper) (support number: 1322)
002221	2018	Detection Descriptio	The multi sensor ails to detect the paper during paper feeding.
		Handling	
		1	Release the release lever. Check the left ed e of the paper and the media type. The error is removed Complete. The error is not removed Go to 2.
		2	Replace the <a href="#">MULTI SENSOR UNIT</a> . Adjustment and counter reset is necessary.

003130	201C	Error	Sheet edge detection error during printing - cut sheet (support number: 1300)
		Detection Description	Paper jam occurs at the platen or feed roller part during printing, or media detection fails.
		Handling	
		1	Release the release lever. Reload or replace the sheet. The error is removed Complete. The error is not removed Go to 2.
2		Replace the <a href="#">MULTI SENSOR UNIT</a> . Adjustment and counter reset is necessary.	
3		Check other suspected cause. Media related cause (size, media type mismatch)	
003130	201D	Error	Paper edge detection error during printing - roll paper (support number: 1300)
		Detection Description	Paper jam occurs at the platen or feed roller part during printing, or media detection fails.
		Handling	
		1	Release the release lever. Reload or replace the paper. The error is removed Complete. The error is not removed Go to 2.
2		Replace the <a href="#">MULTI SENSOR UNIT</a> . Adjustment and counter reset is necessary.	
3		Check other suspected cause. · Media related cause (size, media type mismatch) · Curly end edge of the roll paper	
004040	2019	Error	Cut failure (support number: 4920) Memo: Job will be canceled when the error is removed.
		Detection Description	The cutter in the printer fails to cut the paper.
		Handling	
		1	The error is removed by releasing the release lever. Shift the mode to manual cut and check the cutter operation The error is removed Complete. The error is not removed Go to 2.
2		Replace the following parts and check if the error is removed. · Cutter · <a href="#">CUTTER BLADE UNIT</a>	
3		Check other suspected cause. Media related cause (size, media type mismatch)	
311111	2E3B	Error	Paper feeding failure (lower roll) (support number: 1300)
		Detection Description	Feeding of the roll paper fails at the lower roll paper path (roll2). (from the paper feed sensor to the PE sensor in paper path)
		Handling	
		1	Reload the roll paper. (Remove left paper pieces and check the top edge of the paper.) The error is removed Complete. The error is not removed Go to 2.
2		Replace the following parts from the top and check if the error is removed after each replacement. · <a href="#">ROLL PAPER FEED SENSOR UNIT</a> . · <a href="#">HARNESS ASS'Y, RLNIP PF SNS</a> . · <a href="#">PAPER ENTRY SENSOR</a> . · <a href="#">DRIVE NIP ARM UNIT</a> . · <a href="#">ACTIVE ROLL BRAKE UNIT</a> . Adjustment and counter reset is necessary.	
3		Check other suspected cause. · Media related cause (size, media type mismatch, paper turn-up at the top edge) · Curly end edge of the roll paper · Avoid the paper with strong stiffness or heavy roll paper.	

311112	2E3E	Error	Paper feeding failure (lower roll) (support number: 1300)
		Detection Descriptio	Feeding of the roll paper fails at the lower roll paper path (roll2). (from the PE sensor to end of feeding in paper path)
		Handling	
		1	Release the release lever. Reload the paper. (Remove left paper pieces and check the top edge of the paper.) The error is removed Complete. The error is not removed Go to 2.
311113	2054	2	Replace the following parts from the top and check if the error is removed after each replacement. <ul style="list-style-type: none"> <li>· <a href="#">ROLL PAPER FEED SENSOR UNIT.</a></li> <li>· <a href="#">HARNESS ASS'Y, RLNIP PF SNS.</a></li> <li>· <a href="#">PAPER ENTRY SENSOR.</a></li> <li>· <a href="#">DRIVE NIP ARM UNIT.</a></li> <li>· <a href="#">MULTI SENSOR UNIT.</a> Adjustment and counter reset is necessary.</li> <li>· <a href="#">ACTIVE ROLL BRAKE UNIT.</a> Adjustment and counter reset is necessary.</li> </ul>
		3	Check other suspected cause. <ul style="list-style-type: none"> <li>· Media related cause (size, media type mismatch, paper turn-up at the top edge)</li> <li>· Curly end edge of the roll paper</li> <li>· Avoid the paper with strong stiffness or heavy roll paper.</li> </ul>
		Error	Unable to pick up the lower roll paper (in roll paper loading) (support number: 1327)
311113	2054	Detection Descriptio	LOWER PAPER SET SENSOR fails to detect the roll paper front edge in roll paper feeding. <The assumed situation <ul style="list-style-type: none"> <li>· The front edge of the roll paper does not peel off from the roll paper.</li> <li>· The spool does not rotate due to gear damage in paper feeding.</li> <li>· Sensor malfunction</li> </ul>
		Handling	
		1	Feed the roll paper again. When re-feeding is disabled, feed the paper manually.
311113	2055	Error	Unable to pick up the lower roll paper (in roll paper loading) (support number: 1300)
		Detection Descriptio	LOWER PAPER ENTRY SENSOR fails to detect the roll paper front edge within the specified time period after LOWER PAPER SET SENSOR detected the roll paper front edge.
		Handling	
311113	2057	1	Feed the roll paper again. When re-feeding is disabled, feed the paper manually.
		Error	Lower roll paper not loaded (support number: 1035)
		Detection Descriptio	LOWER PAPER SET SENSOR fails to detect loading of the roll paper in roll paper feeding.
315150	2921	Handling	
		1	Reload the roll paper.
		Error	Take-up error (support number: 4922)
315150	2921	Detection Descriptio	Take-up error (nonstop take-up) of the roll paper occurs at paper take-up part of the lower roll unit.
		Handling	
		1	Check the tape on the roll paper core. The tape is pasted. Go to 2. The tape is not pasted Paste the tape on the roll paper core and press [OK].
315150	2921	2	Replace the following parts from the top and check if the error is removed after each replacement. The roll holder set. <ul style="list-style-type: none"> <li>· <a href="#">ACTIVE ROLL BRAKE UNIT.</a> Adjustment and counter reset is necessary.</li> <li>· <a href="#">SPOOL LOCK UNIT</a> and <a href="#">COVER, ROLL GEAR L.</a></li> </ul>

315250	2920	Error	Take-up error (support number: 4922)
		Detection Descriptio	Take-up error (take-up disabled) of the roll paper occurs at paper take-up part of the lower roll unit.
		Handling	
		1	<p>Check if paper jam is occurred.</p> <p>Not jammed Go to 2.</p> <p>Paper is jammed Remove the paper jam and press [OK.]</p>
2	<p>Replace the following parts from the top and check if the error is removed a er each replacement.</p> <ul style="list-style-type: none"> <li>· The roll holder set.</li> <li>· <a href="#">ACTIVE ROLL BRAKE UNIT</a>. Adjustment and counter reset is necessary.</li> <li>· <a href="#">SPOOL LOCK UNIT</a> and <a href="#">COVER, ROLL GEAR L.</a></li> </ul>		
FF0000	2E3F	Error	Paper feeding failure (support number: 1300)
		Detection Descriptio	Paper jam occurs.
		Handling	
		1	<p>Release the release lever. Reload the paper. (Remove left paper pieces and check the op edge of the paper.)</p> <p>The error is removed Complete.</p> <p>The error is not removed Go to 2.</p>
		2	<p>Replace the following parts from the top and check if the error is removed a er each replacement.</p> <ul style="list-style-type: none"> <li>· <a href="#">ROLL PAPER FEED SENSOR UNIT</a>.</li> <li>· <a href="#">HARNESS ASS'Y, RLNIP PF SNS.</a></li> <li>· <a href="#">PAPER ENTRY SENSOR</a>.</li> <li>· <a href="#">DRIVE NIP ARM UNIT</a>.</li> <li>· <a href="#">MULTI SENSOR UNIT</a>. Adjustment and counter reset is necessary.</li> <li>· <a href="#">ACTIVE ROLL BRAKE UNIT</a>. Adjustment and counter reset is necessary.</li> </ul>
3	<p>Check other suspected cause.</p> <ul style="list-style-type: none"> <li>· Media related cause (size, media type mismatch, paper turn-up at the top edge)</li> <li>· Curly end edge of the roll paper</li> <li>· Avoid the paper with strong s neness or heavy roll paper.</li> </ul>		



## 5-5. Detail of Operator Error and Warning

### Detail of Operator Error and Warning

Detail Code	Description	
100x	Error	Low ink in the ink tank (support number: 1500, alarm code: -)
	Detection Timing	Ink dot count indicates low ink level value or lower.
	Handling	Replace the ink tank.
	Remarks	Ink colors are identified with the last number of detail codes. ( <a href="#">Detail of the last numbers</a> )
1012	Error	Print head non-ejection (support number: 3001, alarm code: 0017)
	Detection Timing	The number of non-ejection nozzles is zero to 100 after recovery cleaning of non-ejection detection. In addition, the number of non-ejection complementary disabled nozzles is 30 or more.
	Handle	Check the print out. Perform head cleaning as required. When non-ejection still occurs, replace the print head.
1021	Error	Media type mismatch (support number: 1051, alarm code: -)
	Detection Timing	The media type selected in the printer driver does not match the media loaded into the printer.
	Handling	Match the media type set in the printer driver with the media type set to the printer. Or reset the printer driver to match the media type set to the printer.
1051	Error	Size clip warning (support number: 1054, alarm code: -)
	Detection Timing	Loading of smaller media into the printer than the media selected in the printer driver.
	Handling	Match the media type set in the printer driver with the media type set to the printer. Or reset the printer driver to match the media type set to the printer.
1052	Error	Borderless printing disabled (borderless printing unsupported media (warning)) (support number: 1055 / alarm code: -)
	Detection Timing	When the following conditions are satisfied <ul style="list-style-type: none"> <li>· [Detect paper sensing mismatch] is set at other than "Pause".</li> <li>· Loading of borderless printing unsupported media in borderless printing.</li> </ul>
	Handling	Set the paper with wide enough paper width for borderless printing.
1053	Error	Borderless printing disabled (paper edge detection error at home position side (warning)) (support number: 1056 / alarm code: -)
	Detection Timing	When the following conditions are satisfied <ul style="list-style-type: none"> <li>· [Detect paper sensing mismatch] is set at other than "Pause".</li> <li>· The multi sensor detects that the paper edge at the home position side is not positioned within +/-3mm from the reference paper position when borderless printing is started.</li> </ul>
	Handling	Reset the paper. When borderless printing is still disabled, replace the paper.
1054	Error	Roll paper width mismatch (support number: 1052, alarm code: -)
	Detection Timing	Mismatch of the roll paper width selected in [Fit Roll Paper Width] in the printer driver and the roll paper width loaded into the printer.
	Handling	Match the roll paper width set in the printer driver with the roll paper width set to the printer. Or reset the printer driver to match the roll paper width set to the printer.
1055	Error	Borderless printing disabled (three sides borderless printing disabled (warning)) (support number: 1057, alarm code: -)
	Detection Timing	When the following conditions are satisfied <ul style="list-style-type: none"> <li>· [Detect paper sensing mismatch] is set at "Display warning".</li> <li>· The multi sensor detects that the paper feed position of the borderless printing supported paper is off mm or more from the tray for borderless printing at away position side during printing.</li> </ul>
	Handling	<ul style="list-style-type: none"> <li>· Load the paper in wider width than the print job paper size.</li> <li>· Specify the shorter paper width in print job than the loaded paper size.</li> </ul>
140x	Error	No ink in the ink tank (support number: 1570, alarm code: 0020 to 0031)
	Detection Timing	At the timing when ink level detection pin is OFF.
	Handling	Replace the ink tank.
	Remarks	Ink colors are identified with the last number of detail codes. ( <a href="#">Detail of the last numbers</a> )

[To Error Code Table](#)

141x	Error	Ink tank removed (support number: 1571, alarm code: -)
	Detection Timing	The tank cover is opened and ink tank is removed during printing.
	Handling	Reinstall the ink tank.
	Remarks	Ink colors are identified with the last number of detail codes. ( <a href="#">Detail of the last numbers</a> )
1701	Error	SGRaster general error: false number of parameters (support number: 3311/alarm code: -)
	Detection Timing	The number of print data parameters is incorrect.
	Handling	Check the print result. When using print program such as RIP (Raster Image Processor), ask the manufacturer of the print program.
1702	Error	SGRaster general error: omission of non-optional item (support number: 3312, alarm code: -)
	Detection Timing	The omission prohibited parameter in the print data is omitted.
	Handling	Check the print result. When using print program such as RIP (Raster Image Processor), ask the manufacturer of the print program.
1703	Error	SGRaster general error: unsupported data (support number: 3313, alarm code: -)
	Detection Timing	The data out of setting range is set in the print data.
	Handling	Check the print result. When using print program such as RIP (Raster Image Processor), ask the manufacturer of the print program.
1706	Error	SGRaster particular error: unsupported resolution value (support number: 3314, alarm code: -)
	Detection Timing	The resolution setting in the print data is out of setting range.
	Handling	Check the print result. When using print program such as RIP (Raster Image Processor), ask the manufacturer of the print program.
1707	Error	SGRaster particular error: unsupported pressure value (support number: 3315, alarm code: -)
	Detection Timing	The compression method of the print data is inappropriate.
	Handling	Check the print result. When using print program such as RIP (Raster Image Processor), ask the manufacturer of the print program.
1708	Error	SGRaster particular error: invalid format of data form (support number: 3316, alarm code: -)
	Detection Timing	The format of print data form (color sequence, the number of bits) is inappropriate.
	Handling	Check the print result. When using print program such as RIP (Raster Image Processor), ask the manufacturer of the print program.
1709	Error	SGRaster particular error: combination failure of resolution and image data format (support number: 3317, alarm code: -)
	Detection Timing	The combination of print data resolution and image data format is inappropriate.
	Handling	Check the print result. When using print program such as RIP (Raster Image Processor), ask the manufacturer of the print program.
1900	Error	PDF/JPEG input output error (support number: 3330, alarm code: -)
	Detection Timing	Read/Write of print job was disabled.
	Handling	Check the print data.
1901	Error	Converting PDF/JPEG into print data disabled (support number: 3331, alarm code: -)
	Detection Timing	The hard disk capacity became insufficient in the middle of PDF or JPEG data conversion into print data with HDD.
	Handling	<ul style="list-style-type: none"> <li>· Delete the saved data in the shared box in the printer HDD*.</li> <li>· Print with smaller print size or lower print quality when printing PDF/JPEG.</li> <li>· *Deleting the saved job data in the shared box may help avoiding HDD capacity shortage that occurs in conversion into print data.</li> </ul>
1902	Error	Invalid JPEG format (support number: 3332, alarm code: -)
	Detection Timing	Unsupported JPEG format. The supported format is JPEG that complies with JFIF1.02.
	Handling	Print from PC.
1903	Error	JPEG decode error (support number: 3333, alarm code: -)
	Detection Timing	Unsupported JPEG format. The supported format is JPEG that complies with JFIF1.02.
	Handling	Print from PC.

1904	Error	PDF authentication error (support number: 3334, alarm code: -)
	Detection Timing	The print setting in PDF file is set to "Not allowed to print".
	Handling	Open PDF file with Adobe Acrobat to check if the printing has been permitted.
1905	Error	PDF parse error (support number: 3335, alarm code: -)
	Detection Timing	PDF file broken.
	Handling	Check the PDF file
1906	Error	PDF font error (support number: 3336, alarm code: -)
	Detection Timing	Font substitution occurs because neither the font is set in the PDF file nor included in the installed font.
	Handling	Set and save embedding of the necessary fonts to PDF file.
1907	Error	Image process parameter error (support number: 3340, alarm code: -)
	Detection Timing	Image process parameter to follow the print setting does not exist at the print job processing.
	Handling	When using print program such as RIP (Raster Image Processor), ask the manufacturer of the print program.
1908	Error	Image process table error (support number: 3341, alarm code: -)
	Detection Timing	Image failure is found in image process table check when processing the print job.
	Handling	When using print program such as RIP (Raster Image Processor), ask the manufacturer of the print program.
200C 200D	Error	Paper detection failure (support number: 1322, alarm code: -)
	Detection Timing	The multi sensor fails to detect the paper frontside edge.  <ul style="list-style-type: none"> <li>▪ Assumed cause of this error is as follows: <ul style="list-style-type: none"> <li>· The paper is loaded out of position</li> <li>· The paper loaded is curling.</li> <li>· Due to taking out the cut paper just before printing, PAPER ENTRY SENSOR is not able to detect the cut paper.</li> </ul> </li> </ul>
	Handling	Reload the paper. <ul style="list-style-type: none"> <li>▪ When using clear film, paper size may not be detected if ink is stained on the platen. In this case, open the top cover and clean the whole platen.</li> </ul>
200E 200F	Error	Paper size out of standard (support number: 1323, alarm code: -)
	Detection Timing	The width or length of the paper in set is shorter than the supported smallest value. (200E)The width or length of the paper in set is longer than the supported largest value. (200F) <ul style="list-style-type: none"> <li>▪ Detection timing is set paper width detection for roll papers, and paper width detection and paper length detection for cut sheets.</li> </ul>
	Handling	Lift the lever up to release the error, then feed the supported size paper.
2010	Error	Skew (support number: 1317, alarm code: -)
	Detection Timing	During the paper feeding, the multi sensor detects that the paper edge at home position side moved +/-1mm or more (for cut paper, +/-2mm or more) off the original edge position per 300mm feeding.
	Handling	<ul style="list-style-type: none"> <li>· Reload the paper.</li> <li>· Remove the roll holder. Put the roll paper into the spool until it hits the frange. Set the roll holder to the printer.</li> <li>· Select "OFF" or "Loose" in [Skew detection accuracy] in the printer menu.*</li> </ul> <p>*Skew printing causes paper jam, failure in image, or stain on the platen, which may cause ink smear on the reverse side of the paper in the next printing</p>
2016	Error	Paper feeding failure (support number: 1300, alarm code: -)
	Detection Timing	The length in feed direction of the cut paper detected by PAPER ENTRY SENSOR during printing is different from that of which detected during paper feeding.* <ul style="list-style-type: none"> <li>*The change of the cut paper feed amount due to some reasons such as paper jam may cause this error.</li> </ul>
	Handling	<ul style="list-style-type: none"> <li>· Remove the paper when it is jamming inside.</li> <li>· Reload papers when papers are not jammed inside.</li> </ul>

2017	Error	Detection failure of home position side paper edge (support number: 1322, alarm code: -)
	Detection Timing	The multi sensor detected that the paper edge at home position side is off 5mm during paper feeding.* *Loading the paper being off the reference position may also cause this error.
	Handling	Lift the lever up to release the error. Check the right edge position, and reload or replace the paper.
2018	Error	Paper detection failure (support number: 1322, alarm code: -)
	Detection Timing	The multi sensor failed to detect the away side paper edge during paper feeding.* *Feeding clear films may cause this error.
	Handling	Change [Detect paper width] in printer menu to "Disable".
2019	Error	Cut failure (support number: 4920, alarm code: -)
	Detection Timing	This error occurs in the following conditions <ul style="list-style-type: none"> <li>Neither the number of cutter motor rotations nor rotation speed satisfy the specified rotation number and rotation speed during cutting.</li> <li>The edge detection position is off +/-10mm or more from the reference position in edge detection after cutting.</li> </ul>
	Handling	<ul style="list-style-type: none"> <li>The cut paper is remaining on the ejection guide. =&gt; Remove the remaining paper.</li> <li>The foreign substance around the ejection guide hits the cutter blade. =&gt; Remove the foreign substance.</li> <li>The media is not used in the recommended use environment. =&gt; Use the media in the recommended environment.*</li> <li>The paper in use does not support [Automatic cut]. =&gt; Select [User cut] for roll paper cutting and cut the roll paper with scissors.</li> <li>Replace the cutter blade, in case of other than above states.</li> </ul> *See the user manual for recommended use environment.
201C 201D	Error	Edge detection error during printing (support number: 1300, alarm code: -) <ul style="list-style-type: none"> <li>201C for cut sheet, 201D for roll paper</li> </ul>
	Detection Timing	The paper width was changed +/-10mm or more at the home position side paper edge or away side paper edge during printing with border. <ul style="list-style-type: none"> <li>The assumed situation is the olded paper during paper feeding.</li> </ul>
	Handling	Lift the lever up to release the error, then reload or replace the paper.
2020	Error	No lower roll unit (support number: 1036, alarm code: 0218)
	Detection Timing	The printer receives the print job that requires lower roll paper despite of lower roll unit non-installation.
	Handling	<ul style="list-style-type: none"> <li>Cancel the print job. Print it again without specifying lower roll paper.</li> <li>Turn off the power. Check the cable connection between the lower roll unit and the main unit.</li> </ul>
2025	Error	Upper roll drive overload (at roll paper loading) (support number: 1328, alarm code: -)
	Detection Timing	The electric current reached to the maximum loadable value at the upper ACTIVE ROLL BRAKE UNIT motor control in paper loading (between UPPER PAPER SET SENSOR and UPPER PAPER ENTRY SENSOR). <The assumed situation <ul style="list-style-type: none"> <li>ACTIVE ROLL BRAKE UNIT receives load, e.g. due to touching the roll paper by the user, during roll paper front edge detection with UPPER PAPER SET SENSOR.</li> <li>Heavy roll paper is being loaded.</li> </ul>
	Handling	Switch "Roll paper auto feed" setting in the operation panel to "Disable," and feed the roll paper again. When re-feeding is disabled, feed the paper manually.
2026	Error	Lower roll drive overload (in roll paper loading) (support number: 1329, alarm code: -)
	Detection Timing	The electric current reached to the maximum loadable value at the lower ACTIVE ROLL BRAKE UNIT motor control in paper loading (between LOWER PAPER SET SENSOR and LOWER PAPER ENTRY SENSOR). <The assumed situation <ul style="list-style-type: none"> <li>ACTIVE ROLL BRAKE UNIT receives load, e.g. due to touching the roll paper by the user, during roll paper front edge detection with LOWER PAPER SET SENSOR.</li> <li>Heavy roll paper is being loaded.</li> </ul>
	Handling	Switch "Roll paper auto feed" setting in the operation panel to "Disable," and feed the roll paper again. When re-feeding is disabled, feed the paper manually.

202B	Error	Upper roll end error (strong adhesion) (support number: 1024, alarm code: -)
	Detection Timing	During paper feeding from the upper roll unit, the end edge detection error (the abnormal amount of rotation drive in ACTIVE ROLL BRAKE UNIT control) of the roll paper occurs due to strong adhesive on the roll end. ▪ The assumed situation is that the roll paper edge does not peel off from the roll core during paper feeding or printing, or paper feeding is disabled due to heaviness of the roll paper.
	Handling	The roll paper run out. => Replace the roll paper. The roll paper has been loaded but feeding does not work. => Change print mode and print (change the amount of paper feeding.) => Replace the roll paper with less amount of windings. (light weight roll paper) ▪ Loose roll papers may also generate this error. (Check if the roll paper is loose when this error occurs while the roll paper is remaining.)
202C	Error	Lower roll end error (strong adhesion) (support number: 1025, alarm code: -)
	Detection Timing	During paper feeding from the lower roll unit, the end edge detection error (the abnormal amount of rotation drive in ACTIVE ROLL BRAKE UNIT control) of the roll paper occurs due to strong adhesive on the roll end. ▪ <The assumed situation> The roll paper edge does not peel off from the roll core during paper feeding or printing, or paper feeding is disabled due to heaviness of the roll paper.
	Handling	The roll paper run out. => Replace the roll paper. The roll paper has been loaded but feeding does not work. => Change print mode and print (change the amount of paper feeding.) => Replace the roll paper with the less amount of windings. (light weight roll paper) ▪ Loose roll papers may also generate this error. (Check if the roll paper is loose when this error occurs while the roll paper is remaining.)
2040	Error	Borderless printing disabled in take-up mode - borderless printing unsupported paper (support number: 4118, alarm code: -)
	Detection Timing	Loading of the borderless printing unsupported paper is detected when the printing starts, while the lower roll unit is taking up the paper.
	Handling	Print with border or press "Cancel" to stop the printing.
2041	Error	Borderless printing disabled in take-up mode - paper edge detection error at home position side (operator error) (support number: 4119, alarm code: -)
	Detection Timing	When the following condition is satisfied · [Detect paper sensing mismatch] is set at other than "Pause". · Besides the lower roll unit is used for taking up the paper, the multi sensor detects that the paper edge at home position side is not positioned within +3mm from the reference position when the printing starts.* * <Assumed situation> When the paper is skewed during taking up, due to inappropriate fixing of the paper with taping to the take-up roll core put into the lower roll unit spool.
	Handling	· Reload the roll paper if the skew is caused in the paper feed unit. · Put the tape and fix the roll paper on the take-up roll core again if the skew is caused in the take-up unit. · Select [Print with border] and continue printing.
2042	Error	Borderless printing disabled in take-up mode - receiving borderless printing unsupported data (support number: 4120, alarm code: -)
	Detection Timing	The printer receives the data specifying the borderless printing unsupported paper types or unsupported paper width during the lower roll unit is taking up the paper.
	Handling	Print with border or press "Cancel" to stop the printing
2043	Error	Borderless printing disabled in take-up mode - three sides borderless printing is disabled (operator error) (support number: 4121, alarm code: -)
	Detection Timing	When the following condition is satisfied · [Detect paper sensing mismatch] in the operation panel is set at "Hold job" or "Pause". · The multi sensor detects that the paper feed position of the borderless printing supported paper is off 3mm or more from the tray for borderless printing at away position side (3mm or more from the default margin) when the printing starts.
	Handling	Print with border or press "Cancel" to stop the printing
2044	Error	Insufficient amount of remaining roll paper in take-up mode. (support number: 1021, alarm code: -)
	Detection Timing	The lower roll unit is taking up the paper, [Manage remaining roll amount] is set at "Enable", and the printer receives a print job that requires the longer paper size than the remaining paper length.
	Handling	Print with the set paper, "Replace paper," or press "Cancel" to stop the printing.

[To Error Code Table](#)



2051	Error	Unable to pick up the upper roll paper (in roll paper loading) (support number: 1326, alarm code: -)
	Detection Timing	UPPER PAPER SET SENSOR fails to detect the roll paper front edge in roll paper feeding. <The assumed situation · The front edge of the roll paper does not peel off from the roll paper. · The spool does not rotate due to gear damage in paper feeding. · Sensor malfunction.
	Handling	Switch "Roll paper auto feed" setting in the operation panel to "Disable," and feed the roll paper again. When re-feeding is disabled, feed the paper manually.
2052	Error	Unable to pick up the upper roll paper (in roll paper loading) (support number: 1300, alarm code: -)
	Detection Timing	UPPER PAPER ENTRY SENSOR fails to detect the roll paper front edge within the specified time period after UPPER PAPER SET SENSOR detected the roll paper front edge.
	Handling	Switch "Roll paper auto feed" setting in the operation panel to "Disable," and feed the roll paper again. When re-feeding is disabled, feed the paper manually.
2054	Error	Unable to pick up the lower roll paper (in roll paper loading) (support number: 1327, alarm code: -)
	Detection Timing	LOWER PAPER SET SENSOR fails to detect the roll paper front edge in roll paper feeding. <The assumed situation · The front edge of the roll paper does not. · The spool does not rotate due to gear damage in paper feeding. · Sensor malfunction.
	Handling	Switch "Roll paper auto feed" setting in the operation panel to "Disable," and feed the roll paper again. When re-feeding is disabled, feed the paper manually.
2055	Error	Unable to pick up the lower roll paper (in roll paper loading) (support number: 1300, alarm code: -)
	Detection Timing	LOWER PAPER ENTRY SENSOR fails to detect the roll paper front edge within the specified time period after LOWER PAPER SET SENSOR detected the roll paper front edge.
	Handling	Switch "Roll paper auto feed" setting in the operation panel to "Disable," and feed the roll paper again. When re-feeding is disabled, feed the paper manually.
2056	Error	Upper roll paper not loaded (support number: 1034, alarm code: -)
	Detection Timing	UPPER PAPER SET SENSOR fails to detect loading of the roll paper in roll paper feeding.
	Handling	Reload the roll paper.
2057	Error	Lower roll paper not loaded (support number: 1035, alarm code: -)
	Detection Timing	LOWER PAPER SET SENSOR fails to detect loading of the roll paper in roll paper feeding.
	Handling	Reload the roll paper.
231x	Error	Sub-ink tank ink filling failure (support number: 1757, alarm code: 0321 to 0333)
	Detection Timing	In initial ink filling or sub-ink tank ink filling when replacing the ink tank, the ink level detection pin in the sub-ink tank is not turned ON even after a certain time has passed from ink tank installation
	Handling	Remove and reinstall the ink tank, or replace the ink tank with other ink tanks. ▪ Ink may not be flowing from the ink tank to the sub tank.
	Remarks	Ink colors are identified with the last number of detail codes. ( <a href="#">Detail of the last numbers</a> )
2405	Error	Borderless printing disabled - off the loading position (support number: 4116, alarm code: -)
	Detection Timing	Borderless printing is disabled due to the following reasons. The paper is loaded out of position <When the printer driver is set at [Fit Roll Paper Width]> The multi sensor detects that the paper feed position of the borderless printing supported paper is off 3mm or more from paper edge at the home position side or from the tray for borderless printing stay position side <When the printer driver is set at other than [Fit Roll Paper Width]> The multi sensor detects that the paper edge at the home position side is off 3mm or more from the reference position
	Handling	Print after replacing the paper, select "print with border," or press "cancel" to stop printing.

2406	Error	Borderless printing disabled - receiving borderless printing unsupported data (support number: 4117, alarm code: -)
	Detection Timing	The borderless print data is received when printing starts. In addition, one or more of the following conditions is satisfied The paper feeding slot specified in the data is the slot other than roll paper feeding ports. <ul style="list-style-type: none"> <li>The print mode set in the data does not support borderless printing.</li> <li>Banner printing is specified in the data.</li> <li>The paper size that does not support borderless printing is specified in the job.</li> <li>Oversize amount of borderless printing in the data is out of standard.</li> </ul>
	Handling	Print after replacing the paper, select "print with border," or press "cancel" to stop printing
2407	Error	Borderless printing disabled - the paper edge is off during printing (support number: 4114, alarm code: -)
	Detection Timing	<ul style="list-style-type: none"> <li>The multi sensor detects that the paper edge at the home position side is not positioned within +3mm from the reference paper position.</li> <li>The printer driver is set at [Fit Roll Paper Width]. Besides, the multi sensor detects that the paper edge at away position side is off mm or more from the tray for borderless printing during borderless printing.</li> </ul>
	Handling	Reload the paper.
2408	Error	Borderless printing disabled - borderless printing unsupported paper (operator error) (support number: 4115, alarm code: -)
	Detection Timing	When the following condition is satisfied <ul style="list-style-type: none"> <li>The printer driver is set at [Fit Roll Paper Width].</li> <li>The printer fed the roll paper in borderless printing unsupported size.</li> </ul>
	Handling	Print after replacing the paper, select "print with border," or press "cancel" to stop printing
2409	Error	Borderless printing disabled - after restarting the hold job (off the loading position) (support number: 4913, alarm code: -)
	Detection Timing	When restarting the hold job after replacing the paper with [Replace paper] button, the following cause may disable borderless printing. <ul style="list-style-type: none"> <li>The loaded paper position is off the reference position</li> </ul> *What is "Hold Job?" When "Hold Job?" is selected at [Device settings > paper-related settings > select paper setting mismatch] from the operation panel, the printer saves the printing jobs in HDD without performing printing. These saved jobs are called "Hold Job".
	Handling	Reload the paper.
240A	Error	Borderless printing disabled - after restarting the hold job (borderless printing unsupported paper) (support number: 4913, alarm code: -)
	Detection Timing	When restarting the hold job after replacing the paper with [Replace paper] button, the following cause may disable borderless printing <ul style="list-style-type: none"> <li>The loaded paper is not in the borderless printing supported size.</li> </ul>
	Handling	Print after replacing the paper, select "print with border," or press "cancel" to stop printing
250x	Error	Ink empty (support number: 1752, alarm code: 0301 to 0314)
	Detection Timing	During printing or cleaning, remaining ink dot count reaches to the value of empty.
	Handling	Replace the ink tank.
252x	Error	No ink tank (support number: 1660, alarm code: -)
	Detection Timing	Ink tank is not detected when closing the tank cover.
	Handling	Install the ink tank.
254x	Error	Ink tank ID error (support number: 168B, alarm code: 0111 to 0124)
	Detection Timing	At the timing when the ink tank that does not support the corresponding product is installed.
	Handling	Install the ink tank that supports the corresponding products.
258x	Error	Insufficient ink (support number: 1756, alarm code: -)
	Detection Timing	Necessary ink amount is not left before cleaning.
	Handling	Replace the ink tank.



25Bx	Error	Ink level detection pin OFF when the tank cover is open (support number: 1201, alarm code: -)
	Detection Timing	Ink level detection pin turns off when the tank cover is open.
	Handling	Close the tank cover. Check the remaining ink amount. When ink is not left, replace the ink tank.
270x	Error	Remaining ink amount unknown (genuine ink)(support number: 1730, alarm code: 0661 to 0793)
	Detection Timing	The ink consumption amount used for status print, pattern adjustment printing, or print head cleaning exceeded the specified amount. ▪ Refilling ink in the ink cartridge may cause this error.
	Handling	Select [Cancel job] to remove the error temporarily or release [ink level detection].
	Remarks	Ink colors are identified with the last number of detail codes. <a href="#">(Detail of the last numbers)</a>
271x	Error	Remaining ink amount unknown (non-genuine ink)(support number: 1731, alarm code: 0701 to 0853)
	Detection Timing	Installation of the non-genuine ink tank.
	Handling	Select [Cancel job] to remove the error temporarily or release [ink level detection]
	Remarks	Ink colors are identified with the last number of detail codes. <a href="#">(Detail of the last numbers)</a>
273x	Error	Remaining ink amount unknown (no detection by ink level detection pin)(support number: 1753, alarm code: 0601 to 0613)
	Detection Timing	Excess of the specified ink consumption amount in the ink cartridge during printing user's data. ▪ Refilling ink in the ink cartridge may cause this error.
	Handling	Select [Cancel job] to remove the error temporarily or release [ink level detection]
	Remarks	Ink colors are identified with the last number of detail codes. <a href="#">(Detail of the last numbers)</a>
27Dx	Error	Notification of new ink tank installation (support number: 1552, alarm code: -)
	Detection Timing	The new ink tank installation is detected.
	Handling	Press [OK] button to remove the error or the printer recovers when certain amount of time passed.
	Remarks	Ink colors are identified with the last number of detail codes. <a href="#">(Detail of the last numbers)</a>
27Ex	Error	Notification of used ink tank installation (support number: 1551, alarm code: -)
	Detection Timing	The used ink tank installation is detected.
	Handling	Press [OK] button to remove the error or the printer recovers when certain amount of time passed.
	Remarks	Ink colors are identified with the last number of detail codes. <a href="#">(Detail of the last numbers)</a>
2800	Error	No print head (support number: 1401, alarm code: 0181)
	Detection Timing	The access cover is closed though no print head is detected.
	Handling	Replace the print head when the printer does not recover by confirming installation or reinstalling the print head.
2802	Error	Print head ID error (support number: 1485, alarm code: 0189)
	Detection Timing	When installing the print head, incorrect ID is detected.
	Handling	Replace the print head when the printer does not recover by confirming installation or reinstalling the print head.
280D	Error	Non-ejection (support number: 1495, alarm code: 0192)
	Detection Timing	After recovery cleaning of non-ejection detection, 100 to 767 nozzles are non-ejection. In addition, 30 or more nozzles are non-ejection complementary disabled nozzles.
	Handling	Check the printout and perform print head cleaning as required. Replace the print head when the error is not removed yet.
2812	Error	Print head version error (support number: 1485, alarm code: 0194)
	Detection Timing	Installation of inappropriate print head version.
	Handling	Replace the print head when the printer does not recover by confirming installation or reinstalling the print head.

2816	Error	Maintenance cartridge EEPROM error (support number: 1722, alarm code: 0197)
	Detection Timing	At maintenance cartridge EEPROM accessing, communication error occurs.
	Handling	Replace the maintenance cartridge when the printer does not recover by confirming installation or re-installing the print head.
2817	Error	Maintenance cartridge ID error (support number: 1722, alarm code: 0198)
	Detection Timing	At maintenance cartridge EEPROM accessing, the maintenance cartridge that had been installed to the other model is detected.
	Handling	Replace the maintenance cartridge.
2818	Error	No maintenance cartridge (support number: 1721, alarm code: -)
	Detection Timing	No maintenance cartridge is detected.
	Handling	Check the maintenance cartridge installation or replace the maintenance cartridge.
2819	Error	Maintenance cartridge full (support number: 1720, alarm code: 0063)
	Detection Timing	At maintenance cartridge EEPROM accessing, the maintenance cartridge is detected to be full.
	Handling	Check remaining capacity of the maintenance cartridge or replace the maintenance cartridge.
281A	Error	Little remaining capacity of maintenance cartridge (support number: 3250, alarm code: -)
	Detection Timing	At maintenance cartridge EEPROM accessing, the value indicates little capacity is left in the maintenance cartridge.
	Handling	Check remaining capacity of the maintenance cartridge or replace the maintenance cartridge.
281B	Error	Insufficient capacity of maintenance cartridge (support number: 1720, alarm code: -)
	Detection Timing	Insufficient capacity in the maintenance cartridge for cleaning is detected when accessing to the maintenance cartridge EEPROM.
	Handling	Check remaining capacity of the maintenance cartridge or replace the maintenance cartridge.
2829	Error	Multi sensor optical axis correction error (support number: 4923, alarm code: 0209)
	Detection Timing	The correction value exceeds the threshold during optical axis adjustment. ▪ If the optical axis of multi sensor is off the correct position paper edge detection by the multi sensor results in incorrect detection. With measuring the difference between the theoretical printing position of optical correction pattern and the actual printing position the multi sensor detects and corrects the difference amount of the optical axis.
	Handling	Check if the printed optical adjustment pattern has blur. If it is blurry, perform print head cleaning. If it is not blurry, check the multi sensor installation and perform "GAP CALIB" in service mode.
2901	Error	Hard disk capacity warning (support number: 3350, alarm code: -)
	Detection Timing	The total capacity of the personal box in the printer hard disk became smaller than 1GB.
	Handling	Remove the job saved in the personal box.
2902	Error	Printing without saving to the hard disk (support number: 3352, alarm code: -)
	Detection Timing	Printing starts without saving due to hard disk factors. (example: no blank capacity in the hard disk, etc.)
	Handling	Remove the job saved in the personal box.
2905	Error	Hard disk full (support number: 4900, alarm code: -)
	Detection Timing	The value indicates capacity is full in the hard disk.
	Handling	Remove the job saved in the personal box.
2906	Error	Max. number of files saved to the hard disk (support number: 4903, alarm code: -)
	Detection Timing	The number of files saved in the hard disk reaches the max.
	Handling	Remove the job saved in the personal box.
2907	Error	Almost the max. number of files saved to the hard disk (support number: 3351, alarm code: -)
	Detection Timing	The number of files saved in the hard disk is almost reaching the max.
	Handling	Remove the job saved in the personal box.
2920	Error	Take-up disabled (support number: 4922, alarm code: -)
	Detection Timing	The paper feed amount by ACTIVE ROLL UNIT is insufficient against the paper feed amount by PAPER FEED MOTOR. (example: lack of torque, electrical failure of the motor, etc.)
	Handling	<ul style="list-style-type: none"> <li>· Check if the paper is jammed.</li> <li>· Reduce the paper amount to wind by the take-up unit.</li> <li>· When there is no problem in the above operation, replace the lower roll unit.</li> </ul>

[To Error Code Table](#)

2921	Error	Nonstop take-up (support number: 4922, alarm code: -)
	Detection Timing	The paper feed amount by ACTIVE ROLL UNIT is too much against the paper feed amount by PAPER FEED MOTOR. (example: no paper, gear damage, out-of-control motor, etc.)
	Handling	Remove the error by pressing [OK] key. Advance the paper with the tape on the roll core.
2D03	Error	Incomplete print head alignment (support number: 3000, alarm code: -)
	Detection Timing	At the initial installation or after the incomplete print head position adjustment after the print head replacement. (including cancel)
	Handling	Perform the print head alignment.
2D04	Error	Print head alignment failure (support number: 4937, alarm code: -)
	Detection Timing	The printer fails to adjust print head alignment toward the print head nozzle line direction.
	Handling	Check the nozzle condition with the nozzle check pattern. Perform head cleaning as necessary. When the nozzle condition does not recover by the nozzle cleaning, replace the print head.
2E02	Error	No cut sheet (support number: 1005, alarm code: -)
	Detection Timing	The cut sheet is not fed when receiving the job selecting cut sheet. Or "No sheets." is detected after starting printing.
	Handling	Load cut sheets on the paper feed slot.
2E08	Error	Roll paper width mismatch (support number: 2130, alarm code: -)
	Detection Timing	The paper roll width indicated in the print job and the roll paper width loaded on the printer are not matched.
	Handling	Replace the paper. Or continue printing.
2E09	Error	Insufficient roll paper left (support number: 1021, alarm code: -)
	Detection Timing	The printer, which is selecting "Enable" for [Manage remaining roll amount], receives a print job that requires the longer paper size than the remaining paper length. ▪ When the lower roll unit has not been installed, this error appears. When the lower roll unit has been installed, 2E31 or 2E32 appears.
	Handling	Select "Print with the loaded paper", "Replace the paper and print", or "cancel" to suspend printing.
2EOA	Error	Cut sheet has been fed while received data is for roll paper (support number: 1306, alarm code: -)
	Detection Timing	The printer receives roll paper print data while feeding has completed with cut sheet.
	Handling	Remove the cut sheet, and load the roll paper.
2EOB	Error	Roll paper has been fed while received data is for cut sheet (support number: 1324, alarm code: -)
	Detection Timing	The printer receives cut sheet print data while feeding has completed with roll paper.
	Handling	Remove the roll paper, and load the cut sheet.
2EOC	Error	Cut sheet data received in take-up mode (support number: 1325, alarm code: -)
	Detection Timing	The printer receives the print data selecting cut sheet printing while take-up unit is in use.
	Handling	Remove the roll paper, and load the cut sheet.
2EOD	Error	Lower roll paper data received though upper roll paper is not yet ejected (support number: 4107, alarm code: 0433)
	Detection Timing	The upper roll paper feeding has been completed, but the printed roll paper is still on the upper roll unit. In this state, the printer receives the print data that requires to select the lower roll paper setting ▪ Selecting "No" or "Print cut Guideline" in [Automatic Cutting] printing or upper roll printing may cause this error.
	Handling	Cut the printed paper and restart printing
2EOE	Error	Upper roll paper data received though lower roll paper is not yet ejected (support number: 4107, alarm code: 0434)
	Detection Timing	The lower roll paper feeding has been completed, but the printed roll paper is still on the lower roll unit. In this state, the printer receives the print data that requires to select the upper roll paper setting ▪ Selecting "No" or "Print cut Guideline" in [Automatic Cutting] printing or lower roll printing may cause this error.
	Handling	Cut the printed paper and restart printing

2E0F	Error	Lower roll unit setting error (support number: 4112, alarm code: -)
	Detection Timing	The purpose of the lower roll unit setting is other than paper feeding, when printing is commanded to the lower roll unit.
	Handling	Confirm the roll unit setting.
2E15	Error	Media type mismatch (support number: 1061, alarm code: -)
	Detection Timing	The media type selected in the job is different from the actual fed media.
	Handling	Confirm the media type selection of the print job and the printer.
2E1B	Error	End of roll paper (support number: 1024, alarm code: -)
	Detection Timing	UPPER PAPER ENTRY SENSOR detects the paper end during feeding the roll paper (the upper roll paper if the printer equips a lower roll unit).
	Handling	Replace the roll paper.
2E1C	Error	End of roll paper (lower roll) (support number: 1025, alarm code: -)
	Detection Timing	LOWER PAPER ENTRY SENSOR detects the paper end during feeding the lower roll paper.
	Handling	Replace the roll paper.
2E20	Error	Inappropriate paper type or size for printing paper feeding system adjustment pattern (support number: 2132, alarm code: -)
	Detection Timing	When adjusting feeding system with cut sheets, media type or size of page2 or after is fed as different sheet from those of page 1, and appropriate adjustment is considered to be disabled.
	Handling	Check the size of the loaded cut sheet. Or reload the sheet.
2E21	Error	Inappropriate paper type or size for printing print head position adjustment pattern (support number: 2132, alarm code: -)
	Detection Timing	When adjusting the print head position with cut sheets, media type or size of page2 or after is fed as different sheet from those of page 1, and appropriate adjustment is considered to be disabled.
	Handling	Check the size of the loaded cut sheet. Or reload the sheet.
2E30	Error	Size clip error (support number: 2131, alarm code: -)
	Detection Timing	The paper width loaded on the printer is shorter than the paper width in print job.
	Handling	Confirm the media type of the print job and the printer.
2E31 2E32	Error	Insufficient roll paper left (2E31 = upper roll) (support number: 1022, alarm code: -) Insufficient roll paper left (2E32 = lower roll) (support number: 1023, alarm code: -)
	Detection Timing	The printer, which is selecting "Enable" for [Manage remaining roll amount], receives a print job that requires the longer paper size than the remaining paper length. ▪ When the lower roll unit has not been installed, this error appears. When the lower roll unit has been installed, the error 2E09 appears.
	Handling	Select "Replace the paper and print" or press "cancel" to stop printing.
2E33 2E34	Error	Roll paper not loaded (2E33 = upper roll) (support number: 100A, alarm code: -) Roll paper not loaded (2E34 = lower roll) (support number: 100B, alarm code: -)
	Detection Timing	When receiving the roll paper selected print job, the roll paper (upper roll or lower roll) has not been fed. The upper roll nor lower roll has not been fed. In addition, the paper feeding slot is "Auto" in job setting.
	Handling	Load the roll paper (the upper roll or the lower roll).
2E38	Error	Small paper size for status print. (support number: 2132, alarm code: -)
	Detection Timing	In printing the printer internal data, the smaller paper than the size specified by each printing content is loaded.
	Handling	Load the specified size or larger paper.
2E3A 2E3B	Error	Paper feeding failure (2E3A = upper roll) (support number: 1300, alarm code: -) Paper feeding failure (2E3B = lower roll) (support number: 1300, alarm code: -)
	Detection Timing	PAPER ENTRY SENSOR fails to detect the paper edge at the proper timing during roll paper feeding.
	Handling	Rewind all the paper manually, and reload the paper.
2E3C	Error	Paper feeding failure (cut sheet) (support number: 1300, alarm code: -)
	Detection Timing	PAPER ENTRY SENSOR detects no paper loaded on the printer when the printing starts.
	Handling	Lift the release lever up, and reload the cut sheet.

2E3D 2E3E	Error	Paper feeding failure (2E3D = upper roll) (support number: 1300, alarm code: -) Paper feeding failure (2E3E = lower roll) (support number: 1300, alarm code: -)
	Detection Timing	When the paper passes PAPER ENTRY SENSOR, the multi sensor fails to detect the paper edge. ▪ This error occurs when the LF roller is catching the paper.
	Handling	Lift the release lever up, and reload the cut sheet.
2E3F	Error	Paper feeding failure (other) (support number: 1300, alarm code: -)
	Detection Timing	Paper jam other than the above Detail Codes (2E3A to 2E3E).
	Handling	Lift the release lever up, and reload the cut sheet.
2E40 2E41	Error	Roll paper not loaded (2E40 = upper roll) (support number: 100A, alarm code: -) Roll paper not loaded (2E40 = lower roll) (support number: 100B, alarm code: -)
	Detection Timing	After starting printing, "No roll sheets" (at upper roll or lower roll) is detected.
	Handling	Load the roll paper at the upper or lower roll unit.
2E42	Error	Media type mismatch after resuming the held job (support number: 4911, alarm code: -)
	Detection Timing	The size of the paper selected in the held job is different from the actual fed paper.
	Handling	Select "Replace the paper and print" or press "cancel" to stop printing
2E43	Error	Media type unknown (support number: 4111, alarm code: -)
	Detection Timing	The job is selecting an unregistered media type in the printer. ▪ This error occurs under the following situation 1. A print job that required a paper type which had been registered in the printer at some point of time was saved in the HDD. After that, this media type was deleted from the printer by MCT. However, this job was executed. 2. When printing from driver, media type data is not obtained from the printer until pressing "Get Information.." button. After deleting a media type from MCT, executing a print job that specifies this deleted media, without pressing "Get Information.." button, may generate this error.
	Handling	Check the media type settings and print again.
2E45	Error	Roll paper width mismatch after resuming the held job (support number: 4910, alarm code: -)
	Detection Timing	The width of the roll paper selected in the held job is different from the width of actual fed roll paper.
	Handling	Select "Replace the paper and print" or press "cancel" to stop printing
2E75	Error	Borderless printing disabled - the sides borderless printing is disabled (operator error) (support number: 4113, alarm code: -)
	Detection Timing	When the following condition is satisfied · [Detect paper sensing mismatch] in the operation panel is set at "Hold job" or "Pause". · The printer driver is not set at [Fit Roll Paper Width]. · The multi sensor detects that the paper feed position is off 3mm or more from the tray for borderless printing at away position side when the printing starts.
	Handling	· Select [Fit Roll Paper Width] for the printer driver setting. · Suspend the printing. Switch to [Print with border] and print again. · Replace the paper and print again.
2EA1 2EA2	Error	Spool detection error in the upper ACTIVE ROLL BRAKE UNIT calibration (Detail Code: 2EA1, support number: 1018, alarm code: -) Spool detection error in the lower ACTIVE ROLL BRAKE UNIT calibration (Detail Code: 2EA2, support number: 1019, alarm code: 0521)
	Detection Timing	At the timing when the spool is detected in ACTIVE ROLL BRAKE UNIT calibration
	Handling	Remove the spool installed in the printer.
2EA3	Error	Print head alignment unavailable for the media (support number: 4932, alarm code: 0100)
	Detection Timing	The media for films which has too high transparency to adjust the print head position is loaded.
	Handling	When a highly transparent film media* is loaded, replace the media. *Tracing paper, semi-transparent matte film, Clear Films, etc.
2EA4	Error	Blur printing of the print head alignment pattern (support number: 4934, alarm code: 0102)
	Detection Timing	Print blur occurs when the density at the pattern edge is lower than prescribed value.
	Handling	Check the print out by nozzle check. Perform cleaning as required. When the problem is not removed, replace the print head.



2EA5	Error	Insufficient contrast in the print head alignment pattern (support number: 4933, alarm code: 0101)
	Detection Timing	The difference of the density in the pattern is lower than the prescribed value.
	Handling	Check the print out by nozzle check. Perform cleaning as required. When the problem is not removed, replace the print head.
2EA6	Error	Abnormal print head alignment value (support number: 4935, alarm code: 0103)
	Detection Timing	The print head alignment value is higher than the prescribed value.
	Handling	Check the print out by nozzle check. Perform cleaning as required. When the problem is not removed, replace the print head.
2EA7	Error	Hard disk format abnormal (support number: 4901, alarm code: 0524)
	Detection Timing	The hard disk format type is different.
	Handling	Format the hard disk.
2EA8	Error	Automatic feeding adjustment error (support number: 4931, alarm code: 0206)
	Detection Timing	Unreadable patches are six or more.
	Handling	Check if smudge is on the pattern print sheet. Check if the environment is where the natural light comes in. Perform cleaning the print head.
2EA9	Error	Eccentricity adjustment error (support number: 4936, alarm code: 0207)
	Detection Timing	Eccentricity automatic adjustment value is out of the prescribed value.
	Handling	Check if smudge is on the pattern print sheet. Check if the environment is where the natural light comes in. Perform cleaning the print head.
2EAA	Error	Automatic feeding adjustment failure (support number: 4929, alarm code: 0211)
	Detection Timing	In processing of automatic judgment for uneven paper feeding, multi sensor read value is out of the prescribed value.
	Handling	Check if smudge is on the pattern print sheet. Check if the environment is where the natural light comes in. Perform cleaning the print head.
2EAB	Error	Failure in automatic judgment of uneven printing in the carriage moving direction (support number: 4928, alarm code: 0278)
	Detection Timing	In processing of automatic judgment for uneven printing toward carriage scanning direction, multi sensor read value is out of the prescribed value.
	Handling	Check the print out by nozzle check. Perform cleaning the print head as required. When the problem is not removed, replace the print head.
2EBC	Error	Carriage cogging correction failure (support number: 4930, alarm code: 0215)
	Detection Timing	In the automatic judgment for carriage cogging adjustment process, the measured value is out of the specified range. <ul style="list-style-type: none"> <li>▪ The detecting timing of carriage cogging adjustment is as follows. <ul style="list-style-type: none"> <li>· After print head replacement, After print head alignment adjustment.</li> <li>· After the carriage related error occurs.</li> </ul> </li> </ul>
	Handling	<ul style="list-style-type: none"> <li>· Check if the linear scale is attached properly free from scratch and dirt. Confirm any scratch and dirt are not on it.</li> <li>· If the linear scale is in appropriate condition, replace the carriage encoder sensor.</li> </ul>
2F6A	Error	Installed print head model error (support number: 1480, alarm code: -)
	Detection Timing	The print head which had been installed into a different model before was installed.
	Handling	Install a print head that has been installed into the same model or install a new print head.
2F6B	Error	Installed print head model error (ink system) (support number: 1481, alarm code: -)
	Detection Timing	The print head which had been installed into the model that used a different ink set before was installed. <ul style="list-style-type: none"> <li>▪ This error occurs in service mode only.</li> </ul>
	Handling	Install a print head that has been installed into the same model or install a new print head.
2F7C	Error	Print head contact error at print head replacement (support number: 140B, alarm code: -)
	Detection Timing	Despite of print head installation, the print head is not recognized.
	Handling	Reinstall the print head. When the problem is not removed, replace the print head.

3000	Error	WPSPIN timeout (support number: 4950, alarm code: -)
	Detection Timing	WPS (PIN mode) processing terminates with error due to timeout
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3001	Error	WPSPBC timeout (support number: 4950, alarm code: -)
	Detection Timing	WPS (PBC mode) processing terminates with error due to timeout
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3002	Error	WPSPBC session overlap (support number: 4950, alarm code: -)
	Detection Timing	WPS (PBC mode) processing terminates with error due to session overlapping.
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3003	Error	WPS credential error (support number: 4950, alarm code: -)
	Detection Timing	WPS (PBC mode) processing terminates with error due to false credential (encryption mode is WEP).
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3004	Error	Other WPS errors (support number: 4950, alarm code: -)
	Detection Timing	The failure of the reasons other than above WPS.
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3005	Error	AOSS multiple access points error (support number: 4951, alarm code: -)
	Detection Timing	Multiple wireless LAN routers in AOSS mode are detected.
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3006	Error	AOSS timeout (support number: 4951, alarm code: -)
	Detection Timing	Wireless LAN router in AOSS mode is not detected.
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3007	Error	AOSS connection error (support number: 4951, alarm code: -)
	Detection Timing	The other device is connecting to the wireless router.
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3008	Error	AOSS security setting error (support number: 4951, alarm code: -)
	Detection Timing	When confirming wireless LAN router and security information, the error occurs.
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3009	Error	Other AOSS errors (support number: 4951, alarm code: -)
	Detection Timing	Wireless LAN set-up by AOSS fails.
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3010	Error	Access point connection failure (support number: 4952, alarm code: -)
	Detection Timing	Connecting to the access point by setting wireless LAN manually fails.
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3011	Error	Access point not detected with the specified SSID (support number: 4952, alarm code: -)
	Detection Timing	In set-up, AP detection of the input SSID fails.
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3012	Error	Connection alarm due to IP address obtaining failure (support number: 4953, alarm code: -)
	Detection Timing	In wireless detail setting, despite selecting [WEP], obtaining IP address fails, and AutoIP is set.
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3013	Error	Cableless setup timeout (support number: 4954, alarm code: -)
	Detection Timing	In cableless set-up, wireless LAN setting process was finished in error due to timeout.
	Handling	Follow the message on the operation panel. (Check the setting and reset)



3014	Error	Cableless setup setting failure (support number: 4954, alarm code: -)
	Detection Timing	In cableless set-up, wireless LAN setting fails.
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3015	Error	LAN invalid in IPv4/IPv6 setting (support number: 4955, alarm code: -)
	Detection Timing	LAN is invalid when IPv4/IPv6 is selected.
	Handling	"Enable" [Activate wired LAN] or [Activate wireless LAN].
3016	Error	LAN setting unavailable (support number: 4956, alarm code: -)
	Detection Timing	When changing LAN setting, the setting change was not available due to the following reasons. <ul style="list-style-type: none"> <li>· The printer is in the middle of operation.</li> <li>· Remote UI is selecting the printer settings.</li> </ul>
	Handling	<ul style="list-style-type: none"> <li>· Terminate other operations and select settings again.</li> </ul>
3017	Error	[Raku Raku WLAN Start] timeout error (support number: 4957, alarm code: -)
	Detection Timing	Connecting via [Raku Raku WLAN Start] fails.
	Handling	Connect again.
3018	Error	[Raku Raku WLAN Start] other errors (support number: 4957, alarm code: -)
	Detection Timing	Accessing to the mail server fails.
	Handling	Check with the remote UI if the secure connection (SSL) settings of the mail server and the printer are matching.
3022	Error	Wi-Fi Direct connection request (support number: 4959, alarm code: -)
	Detection Timing	Connection is requested from Wi-Fi Direct supported device.
	Handling	Select "Yes (accept)" or "No (not accept)."
3023	Error	SMTP server setting error (support number: 3414, alarm code: -)
	Detection Timing	Connecting to SMTP server fails.
	Handling	Check with the remote UI if the address and port number of the mail server for outgoing message (SMTP) in the mail server settings are correct.
3024	Error	POP server setting error (support number: 3415, alarm code: -)
	Detection Timing	Connecting to POP server fails.
	Handling	Check with the remote UI if the address and port number of the mail server for incoming message (POP3) in the mail server settings are correct.
3025	Error	SMTP SSL connection error (support number: 3416, alarm code: -)
	Detection Timing	Connecting SMTP server with SSL fails.
	Handling	Check with the remote UI if the secure connection (SSL) settings of the mail server and the printer are matching.
3026	Error	POP SSL connection error (support number: 3417, alarm code: -)
	Detection Timing	Connecting POP server with SSL fails.
	Handling	Check with the remote UI if the secure connection (SSL) settings of the mail server and the printer are matching.
3027	Error	SMTP command error (support number: 3418, alarm code: -)
	Detection Timing	Sending command to SMTP server fails.
	Handling	Check with the remote UI if the items related to the mail server for outgoing message (SMTP) in the mail server settings are correct.
3028	Error	SMTP authorization error (support number: 3419, alarm code: -)
	Detection Timing	SMTP authorization user name is not specified, SMTP authorization password is not specified, or SMTP authorization fails.
	Handling	Check with the remote UI if the account and the password for outgoing message in the mail server settings are correct.

3029	Error	POP command error (support number: 3420, alarm code: -)
	Detection Timing	Sending command to POP server fails.
	Handling	Check with the remote UI if the items related to the mail server for incoming message (POP3) in the mail server settings are correct.
3030	Error	POP authorization error (support number: 3421, alarm code: -)
	Detection Timing	POP authorization user name is not specified, POP authorization password is not specified, or POP authorization fails.
	Handling	Check with the remote UI if the account and the password for incoming message in the mail server settings are correct.
3031	Error	APOP authorization error (support number: 3422, alarm code: -)
	Detection Timing	APOP authorization fails.
	Handling	Check with the remote UI if the APOP settings are appropriate.
3032	Error	Socket server connection error (support number: 3423, alarm code: -)
	Detection Timing	Communication timeout occurs in connecting with SMTP server. Or socket error such as Read/Write occurs.
	Handling	Check with the remote UI if the mail server settings are appropriate.
3033	Error	Destination mail address error (support number: 3424, alarm code: -)
	Detection Timing	Destination mail address is incorrect.
	Handling	Select a correct e-mail address of destination with the remote UI and send again.
3034	Error	Unsupported device connected (support number: 2001, alarm code: -)
	Detection Timing	USB host unsupported device is connected.
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3035	Error	Hub not supported (support number: 2002, alarm code: -)
	Detection Timing	USB hub is connected to USB host.
	Handling	Follow the message on the operation panel. (Check the setting and reset)
3200	Error	Parts counter alarm 1 (support number: 3200, alarm code: 0525)
	Detection Timing	The value reached to the number indicating W1 level in the parts counter.
	Handling	The part is available for a while until the operation panel indicates "Part replacement needed".
3201	Error	Parts counter alarm 2 (support number: 3201, alarm code: 0526)
	Detection Timing	The value reached to the number indicating W2 level in the parts counter.
	Handling	Replace the corresponding part, and clear the corresponding counter data in service mode.
3305	Error	Media update corruption (support number: 3306, alarm code: 0520)
	Detection Timing	Recognizing the media data properly fails due to the broken media data of the printer.
	Handling	Start up [Media Configuration Tool] and recover the printer media data.
-	Error	Ink tank cover opening during operation (support number: 1210, alarm code: -)
	Detection Timing	The ink tank cover is opened in other than the following timing Standby, closed standby, during printing, during paper feeding, at ink related error occurrence, and in ink related alarm after no remaining ink in the ink tank.
	Handling	Close the ink tank cover.
-	Error	Ink tank cover opening (support number: 1201, alarm code: -)
	Detection Timing	The ink tank cover is opened when opening and closing is operable.
	Handling	Close the ink tank cover.
-	Error	Access cover opening (support number: 1200, alarm code: -)
	Detection Timing	The access cover is opened when opening and closing is operable.
	Handling	Close the access cover.
-	Error	Release lever lifting (support number: 1213, alarm code: -)
	Detection Timing	The release lever is lifted when lifting up and down is operable.
	Handling	Lower the release lever.

## 5-6. Appendix

### Contrast List of Error Code and Support Number

Support No.	Error Code (E code & Detail code)
1005	2E02
100A	2E33, 2E40
100B	2E34, 2E41
100E	EC16-202E
100F	EC17-202F
1018	2EA1
1019	2EA2
1021	2044, 2E09
1022	2E31
1023	2E32
1024	202B, 2E1B
1025	202C, 2E1C
1034	2056
1035	2057
1036	2020
1039	EC17-203A
1051	1021
1052	1054
1054	1051
1055	1052
1056	1053
1057	1055
1061	2E15
1201	25B0, 25B1, 25B2, 25B3, 25B6
1214	EC19-2F21, EC51-2F38
1300	2016, 201C, 201D, 2052, 2055, 2E3A, 2E3B, 2E3C, 2E3D, 2E3E, 2E3F
1306	2E0A
1317	2010
1318	EC0F-2F93
1322	200C, 200D, 2017, 2018
1323	200E, 200F
1324	2E0B
1325	2E0C
1326	2051
1327	2054
1328	2025
1329	2026
1401	2800
1403	EC21-282E

Support No.	Error Code (E code & Detail code)
1408	EC21-2F70, EC21-2F73
1409	EC21-2F71, EC21-2F74
140A	EC21-2F72, EC21-2F75
140B	2F7C
140C	EC21-282D
140F	EC21-2F6D
1468	EC55-2F24
1477	EC21-2F50, EC21-2F56, EC21-2F60
1478	EC21-2F53, EC21-2F58, EC21-2F62, EC21-2F7F
1479	EC21- 2F63
1480	2F6A
1481	2F6B
1485	2802, 2812
1492	EC02-2F42, EC21-2F44, EC3F-2F40, EC3F-2F41
1494	EC21-2F43
1495	280D
1500	1000, 1001, 1002, 1003, 1006
1551	27E0, 27E1, 27E2, 27E3, 27E6
1552	27D0, 27D1, 27D2, 27D3, 27D6
1570	1400, 1401, 1402, 1403, 1406
1571	1410, 1411, 1412, 1413, 1416
1660	2520, 2521, 2522, 2523, 2526
168B	2540, 2541, 2542, 2543, 2546
1720	2819, 281B
1721	2818
1722	2816, 2817
1730	2700, 2701, 2702, 2703, 2706
1731	2710, 2711, 2712, 2713, 2716
1752	2500, 2501, 2502, 2503, 2506
1753	2730, 2731, 2732, 2733, 2736
1756	2580, 2581, 2582, 2583, 2586
1757	2310, 2311, 2312, 2313, 2316
1875	EC17-202D
2001	3034
2002	3035
2130	2E08
2131	2E30
2132	2E20, 2E21, 2E38
3000	2D03
3001	1012
3200	3200
3201	3201
3250	281A

Support No.	Error Code (E code & Detail code)
3306	3305
3311	1701
3312	1702
3313	1703
3314	1706
3315	1707
3316	1708
3317	1709
3330	1900
3331	1901
3332	1902
3333	1903
3334	1904
3335	1905
3336	1906
3340	1907
3341	1908
3350	2901
3351	2907
3352	2902
3414	3023
3415	3024
3416	3025
3417	3026
3418	3027
3419	3028
3420	3029
3421	3030
3422	3031
3423	3032
3424	3033
4107	2E0D, 2E0E
4111	2E43
4112	2E0F
4113	2E75
4114	2407
4115	2408
4116	2405
4117	2406
4118	2040
4119	2041
4120	2042
4121	2043

Support No.	Error Code (E code & Detail code)
4801	EC01-2F90, EC01-2F95, EC04-2F31, EC04-2F91, EC05-2F92, EC06-2F9A, EC06-2F9B, EC06-2F9C, EC07-2F19, EC0F-2F96, EC11-2F2A, EC12-2F29, EC12-2F2B, EC12-2F2C, EC13-2F17, EC15-2E23, EC16-2021, EC16-2022, EC16-2027, EC16-202A, EC16-2038, EC17-2023, EC17-2024, EC17-2028, EC17-2029, EC17-2039, EC1B-2030, EC1B-2031, EC1B-2032, EC1B-2033, EC1C-2034, EC1C-2035, EC1C-2036, EC1C-2037, EC21-2F51, EC21-2F54, EC21-2F57, EC21-2F59, EC21-2F61, EC21-2F64, EC21-2F67, EC21-2F7D, EC22-2F30, EC22-2F47, EC23-260E, EC23-2F11, EC23-2F18, EC23-2F32, EC25-2F16, EC31-2F09, EC31-2F10, EC31-2F1B, EC31-2F1C, EC31-2F1D, EC31-2F1E, EC31-2F1F, EC31-2F22, EC31-2F23, EC31-2F94, EC34-2602, EC34-2605, EC34-2F3B, EC51-2F14, EC51-2F15, EC51-2FDE, EC51-3301, EC51-3302, EC51-3303, EC54-290A, EC55-2F20, EC55-2F6C, EC58-2F12
4803	EC51-203C
4804	EC17-203D
4805	EC1D-2050, EC1E-2053
4900	2905
4901	2EA7
4903	2906
4905	EC51-3304, EC51-3306, EC51-3307, EC51-3308, EC51-3309, EC51-330A
4907	EC54-290C
4910	2E45
4911	2E42
4913	2409, 240A
4920	2019
4922	2920, 2921
4923	2829
4928	2EAB
4929	2EAA
4930	2EBC
4931	2EA8
4932	2EA3
4933	2EA5
4934	2EA4
4935	2EA6
4936	2EA9
4937	2D04
4950	3000, 3001, 3002, 3003, 3004
4951	3005, 3006, 3007, 3008, 3009
4952	3010, 3011
4953	3012
4954	3013, 3014
4955	3015
4956	3016
4957	3017, 3018
4959	3022
5106	EC03-4061
5200	EC21-2F7E
5A60	EC33-4020, EC33-4021, EC33-4022, EC33-4023, EC33-4026
5B16	EC22-4001



Support No.	Error Code (E code & Detail code)
5B20	EC25-4001, EC41-4001, EC43-4001, EC44-4001, EC45-4001, EC47-4001, EC49-4001
5B21	EC48-4001
5C00	EC31-4001
6502	EC56-2FE0
6700	EC57-404F
6702	EC57-4040
6820	EC07-4060, EC51-4041, EC51-4042, EC51-4045, EC51-4046, EC51-4047, EC51-4070, EC51-4071, EC51-4072, EC51-404C, EC51-404D
6900	EC51-3000
6901	EC51-3001
6902	EC51-3006
6910	EC59-3002
6911	EC59-3003
6920	EC51-3004
6921	EC51-3005
6930	EC51-3100
6931	EC51-3101
6932	EC51-3102
6933	EC51-3103
6940	EC51-3104
6941	EC51-3105
6942	EC51-3106
6943	EC51-3107
6944	EC51-3108
6945	EC51-3109
6946	EC51-3110
7001	EC54-401A
7003	EC54-405A
7004	EC54-405B
7005	EC54-4080
7006	EC54-4081
7050	EC51-5001
7051	EC51-5002
7052	EC51-5003
8200	EC24-4049, EC24-404A, EC24-404B
9000	EC51-2F07
9110	EC52-4038, EC52-4039
B20A	EC03-403A
B510	EC32-4001, EC3F-4120, EC3F-4121, EC3F-4122, EC3F-4123, EC3F-4126

## DISASSEMBLY AND REASSEMBLY

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12 CARRIAGE UNIT (2) .....	538
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<b>15 MAIN HARNESS .....</b>	<b>630</b>
<b>16 LOWER ROLL UNIT (1).....</b>	<b>666</b>
<b>17 LOWER ROLL UNIT (2).....</b>	<b>676</b>
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## 6-1. Introduction

This chapter gives procedures for disassembling and reassembling the printer.

After failure diagnostics, the service technician is requested to follow the instructions in this chapter to replace a faulty unit.

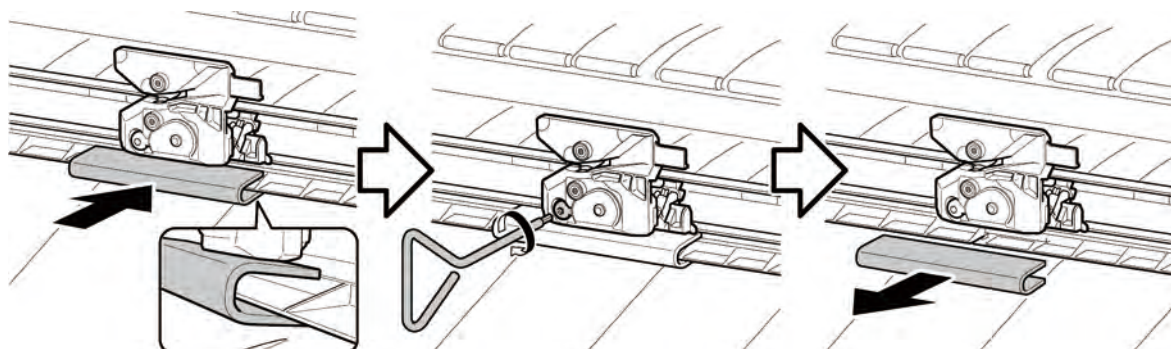
Each procedure is based on 44" model with 24" model and 36" model information added when necessary.

Harnesses, wire saddles, and edge saddles are subject to change without notice.

### Notes on disassembly and reassembly:

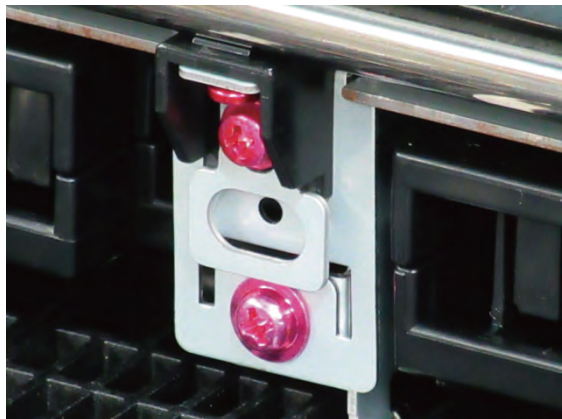
#### General notes:

1. Before disassembly or reassembly, be sure to unplug the power cord for the safety purpose.
2. Before disassembly or reassembly, remove the paper from the printer.
3. When draining ink into the sub tank or disconnecting the ink tube, be cautious not to drop ink or smear the units and surroundings with ink.
4. Adjustment or counter resetting is required for some of the parts after they are assembled. Be sure to perform the specified adjustment or counter resetting at the end of assembly. (Counter resetting is specifically mentioned in the applicable disassembly procedures.)
5. In reassembling the unit, make sure to use the proper screw (length and diameter).
6. DO NOT make the printer operate with a part or unit removed in principle.
7. Before handling the circuit board, touch the metal part of the printer to discharge static electricity and protect the board from damaged due to static electricity.
8. Before replacing the circuit board, unplug the AC power cord from the printer and wait for three minutes or longer to ensure discharge of electricity from the board.
9. Tighten the screw cautiously not to apply any extra power. Screwing too tight or too strong will break or deform the screw hole.
10. For works where you can get ink smearing, it is recommended to put on vinyl gloves.
11. When placing a removed print head, keep the face surface free from contacting anything. Never place the print head with the face surface facing down.
12. When the print head is removed or it is uncapped during the work, it is recommended to perform Print Head Cleaning at the end of the work (reassembly).
13. When attaching the counter unit, attach the special tool under the unit with the unit positioned in the center as shown below, then tighten the screw.



**Units that are not allowed to be disassembled:**

The unit that is fixed with a red screw cannot be adjusted in the field, thus it must not be disassembled. If the red screw is loosened or removed, the printer will not be able to operate or print properly. DO NOT loosen or remove the red screw.



## How to use this manual:

### Points:

Each section consists of “disassembly flowchart and illustration” and detailed procedures.”

With the part name in the flowchart and the part illustration, you will be able to have a quick look at the shortest way to reach the target part.

To assemble the unit, follow the disassembly procedures in reverse order unless otherwise specified

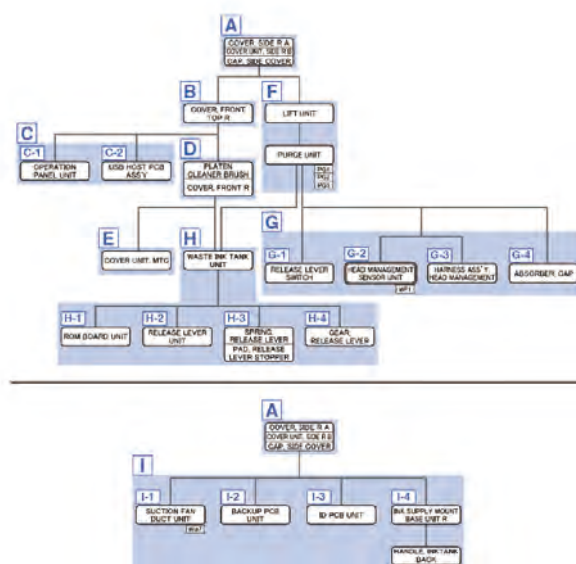
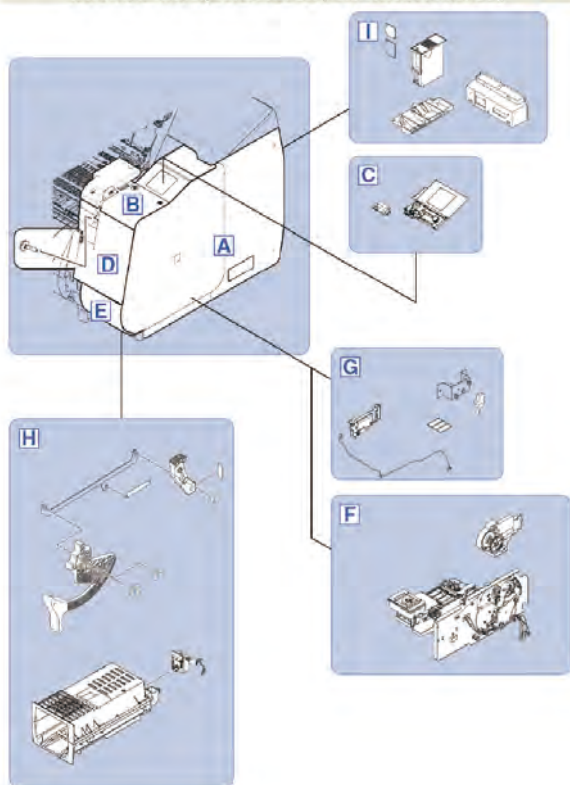
### Disassembly flowchart:

- The steps to remove the target part are shown in the simple diagram.
- Only the service parts are given in the flowchart.

### Illustration:

- Each group of parts corresponding to the one in the disassembly flowchart is shown.
- The service parts are indicated in the color white.

#### 9. RIGHT SIDE (PURGE UNIT / OPERATION PANEL)



### Detailed procedures:

- The disassembly procedures outlined in the flowchart are explained step by step.
- The icon shown below is provided in some of the detailed procedures, which indicates that the how-to video of that procedure is available.

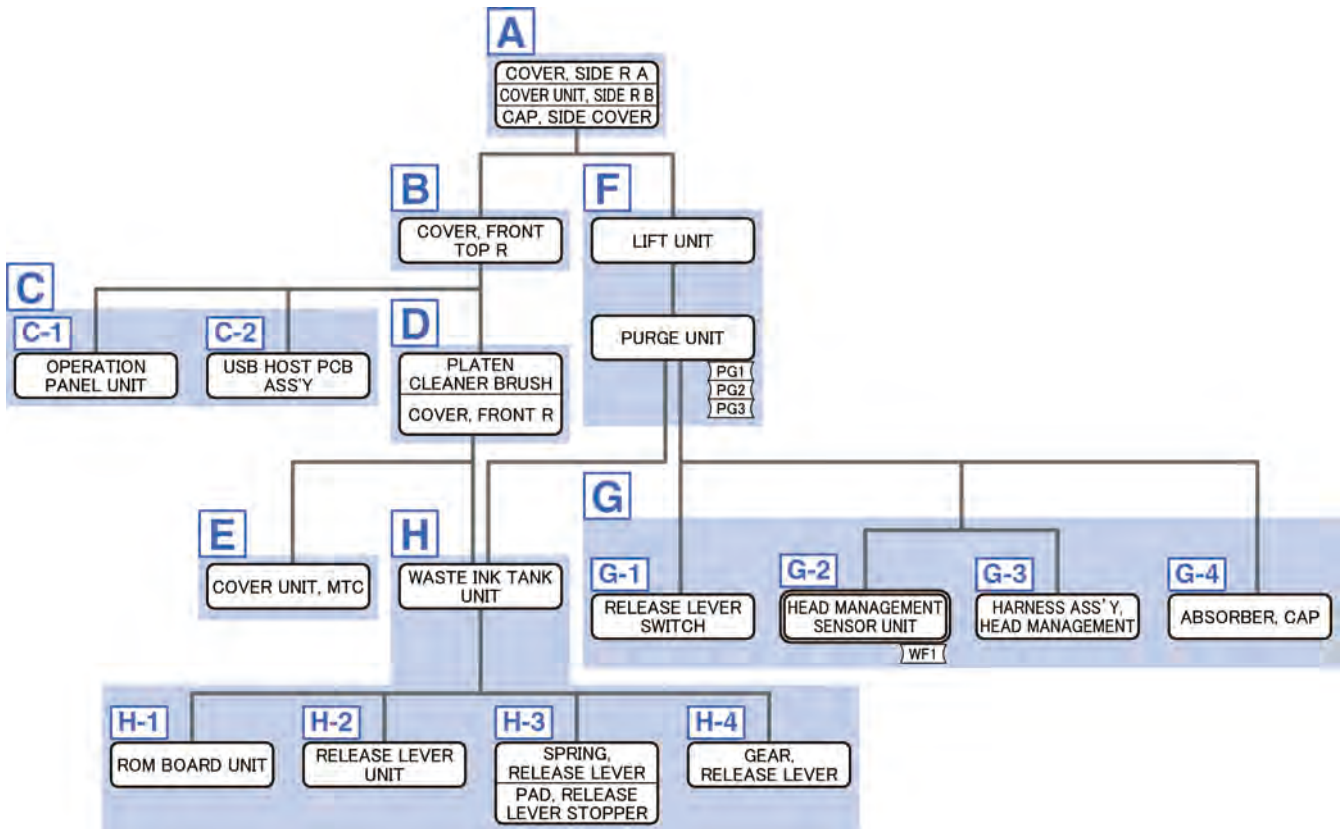




## How to read the flowchart:

### Legend:

< Example >



: Part name.



: Adjustment in the Service Mode is necessary when this part is attached.



: This counter needs to be reset when the part is replaced.  
Reset the listed counter(s).



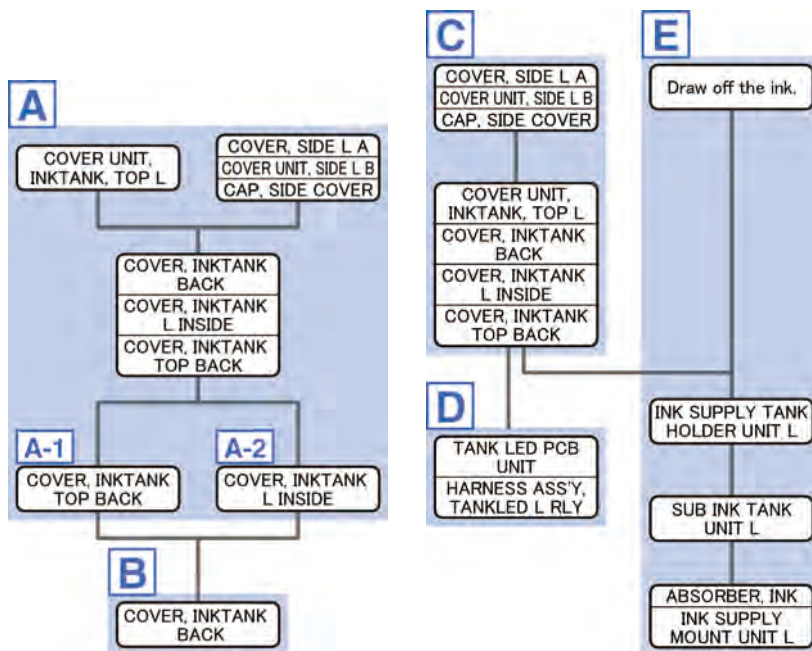
: Group in the detailed procedures.

### How to use the flowchart:

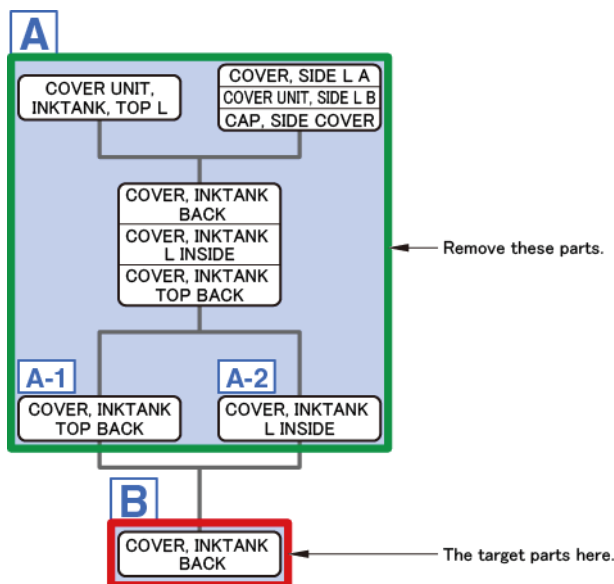
Each flowchart starts from the first step of disassembly with the printer standing still. Go through the flowchart from the top to the target part.

Multiple parts in the same frame mean that they are handled as a unit.

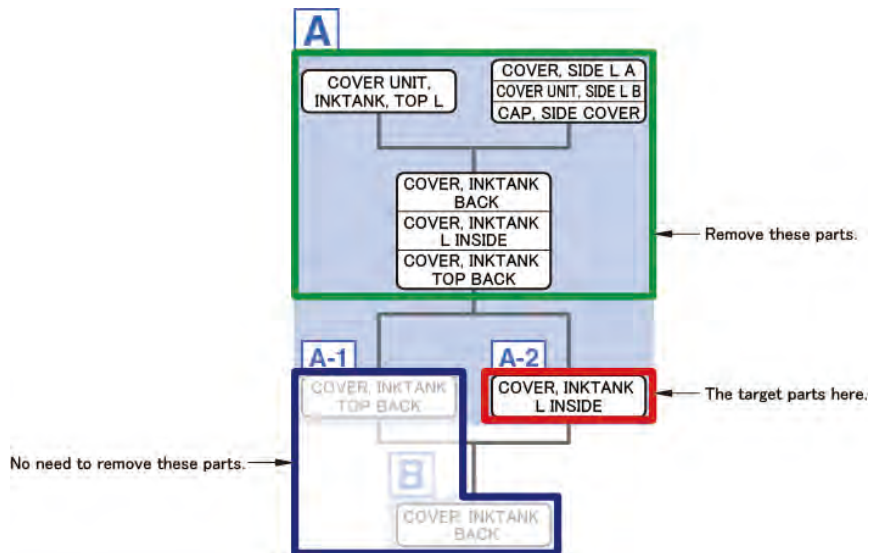
< Example >



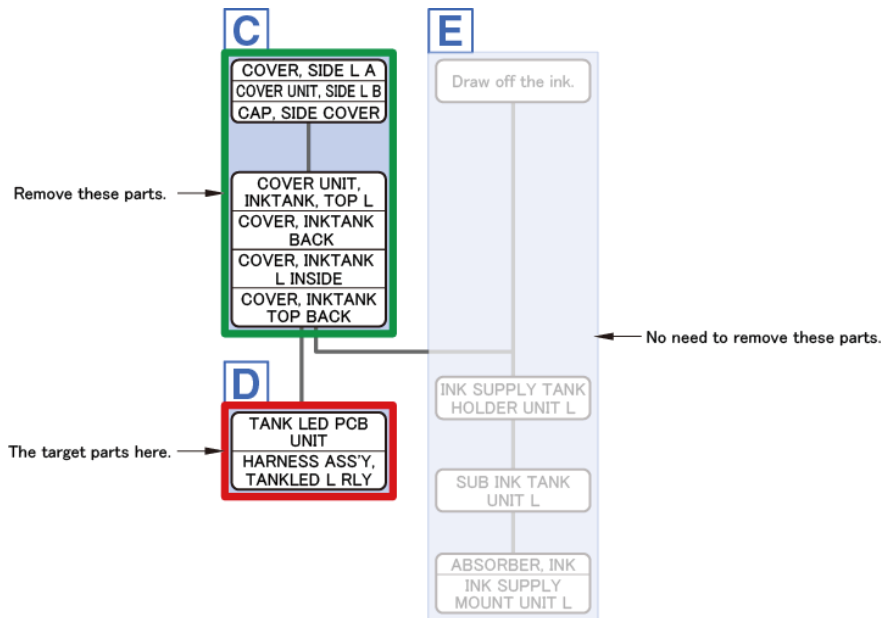
Example 1) To remove COVER, INKTANK BACK:



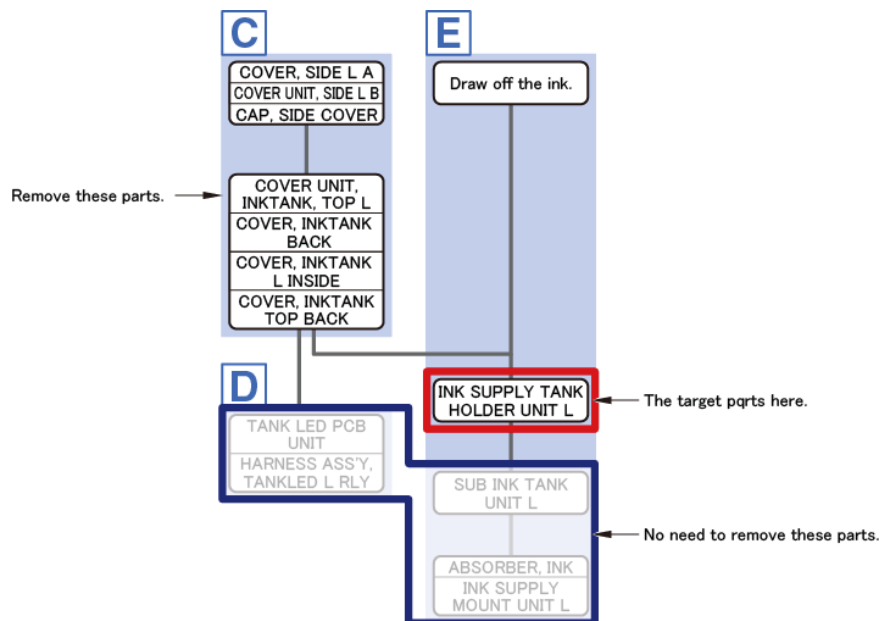
Example 2) To remove COVER, INKTANK L INSIDE:



Example 3) To remove HARNESS ASS'Y, TANKLED L RLY:






















Example 4) To remove INK SUPPLY TANK HOLDER UNIT L:



## Explanation of Symbols

The following symbols are used throughout this Service Manual.

Symbols	Meanings	Symbols	Meanings
	Check visually.		Remove the claw.
	Remove the RS screw.		Release the hook.
	Remove the TP screw.		Release the boss.
	Remove the binding head screw.		Release the tab.
	Remove the toothed lock washer screw.		Remove the split lock washer.
	Remove the double washer SEMS screw.		Remove the toothed lock washer.
	Loosen the screw.		Remove the E-clip retaining ring.
	Tighten the screw.		Disconnect the connector.
<p>Description of screw characteristics.</p> <div style="display: flex; align-items: center; gap: 20px;"> <div style="text-align: center;">  BK         </div> <div style="text-align: center;">  LONG         </div> <div> <p>Black screw = BK Long screw = LONG</p> </div> </div>		 <p>Remove the bundle cable or bundle wire from the cable guide, the edging saddle, or the wire saddle.</p> <p>The following four wiring tools are used for wiring harnesses. In this manual, these tools are described in the abbreviations as follows:</p> <p>Edging saddle = [E] Wire saddle = [W] Cable guide = [G] Reuse band = [R]</p>	

## 6-2. Disassembly and Reassembly

### Index by Parts Names

Parts names and where to find them in the disassembly and reassembly procedures are listed below.

With regard to the individual electric component (such as motors, sensors, and switches), instead of the component name itself, the name of the unit where the applicable component is used is given in the list (the component name is in the parentheses under the unit name).

### Printer

Part Name	Disassembly & Reassembly Procedures		Remarks
	Title	Group	
ABSORBER	1	A-1	
ABSORBER, CAP	9	G-4	
ABSORBER, INK	10	E	
ACCESS COVER LOCK UNIT R	8	C-1	
ACTIVE ROLL BRAKE UNIT	2	C	
ARM, LEVER LINK	11	A-1	
AWAY PLATEN	4	C	
BACKUP PCB UNIT	9	I-2	
BASE, CHAIN LINK	12	E-3	
BELT, CARRIAGE	12	B-1	
BELT, PAPER TRANSPORT	2	D-2	
BOX INKTANK	1	A-1	
BUSH UNIT, ROLL COVER L	6	A	24" model, 36" model
BUSH, ARM ROTARY SHAFT	13	D	
BUSH, ROLL COVER L	6	A	44" model
BUSHING / CLEANER KIT	11	E-1	
BUSHING, PR RELEASE	13	B	
BUSHING, PRESSURE RELEASE	13	B	
CAM SHAFT UNIT	5	E-4	
CAP, ROLL COVER SHAFT	6	A	
CAP, SIDE COVER	1	A	L
CAP, SIDE COVER	9	A	R
CARRIAGE ENCODER UNIT	12	C-2	
CARRIAGE LIFT SENSOR	12	B-4	
"CARRIAGE MOTOR (MOTOR, DC, 47.8W)"	11	D	
CARRIAGE RELAY PCB UNIT	12	C-1	
CARRIAGE UNIT	12	B-1	
CASE, SPOOL SIDE INNER R	8	C	
CODEWHEEL COVER UNIT	2	D	
COUPLING, CARRIAGE	12	B-3	
COVER UNIT, BACK TOP CENTER	3	D	
COVER UNIT, BACK TOP R	8	A	
COVER UNIT, INKTANK, TOP R	10	A	
COVER UNIT, MTC	9	E	
COVER UNIT, SIDE L B	1	A	
COVER UNIT, SIDE R B	9	A	
COVER, BACK POSITION	14	B-1	
COVER, BACK RIGHT	13	A	24" model
COVER, FRONT L	3	C	
COVER, FRONT R	8	A	

Part Name	Disassembly & Reassembly Procedures		Remarks
	Title	Group	
COVER, FRONT TOP R	8	A	
COVER, HOME POSITION	14	B	
COVER, INKTANK BACK	10	B	
COVER, INKTANK L INSIDE	1	A-1	
COVER, INKTANK R INSIDE	10	A-2	
COVER, INKTANK TOP BACK	10	A-1	
COVER, LEVER PI, CR	11	A-3	
COVER, MIST FAN	13	A	
COVER, PF ENCODER OUTER	2	D	
COVER, PI SENSOR, CR	12	B-4	
COVER, ROLL BACK UP	5	A	
COVER, ROLL GEAR L	2	C-1	
COVER, SIDE L A	1	A	
COVER, SIDE R A	9	A	
COVER, SPOOL L	6	E	
COVER, SPOOL R	6	B	
COVER, TOP L	1	A	
CUTTER BLADE UNIT	14	B-1	
"CUTTER HP SENSOR (IC, PHOTO INTERRUPTER)"	14	B-2	
CUTTER MOTOR UNIT, W/ENCODER	14	B-1	
DAMPER UNIT, ROLL COVER R	6	C-2	
DRIVE NIP ARM UNIT	5	E-3	
FILM, TIMING SLIT DISK	2	D-1	
FILM, TIMING SLIT STRIP	11	C	
FLANGE, PULLEY	2	D-1	
FLAPPER SEPARATE UNIT W/SP	5	A	
FLAPPER SEPARATE UNIT	5	A	
FLEXIBLE CABLE UNIT	12	E-2	
GEAR, PRESSURE RELEASE	13	B	
GEAR, RELEASE LEVER	9	H-4	
GUARD ACCESS COVER UNIT W/SPUR	4	A	
GUIDE UNIT, LOW A	5	D	
GUIDE UNIT, LOW B	5	D	
GUIDE UNIT, LOW C	5	D	36" model, 44" model
GUIDE UNIT, LOW D	5	D	44" model
GUIDE UNIT, OUTSIDE A	6	G-1	
GUIDE UNIT, OUTSIDE B	6	G-2	24" model, 44" model
HANDLE, INKTANK BACK	9	I-4	
HARD DISK (HDD, MQ01ABU050W)	7	A-3	24" model, 36" model
	7	B	44" model
HARNESS ASS' Y, ARB MOTOR	2	C	
HARNESS ASS' Y, HEAD MANAGEMENT	9	G-3	
HARNESS ASS' Y, INLET RELAY	7	B-1	24" model, 36" model
	7	A-5	44" model
HARNESS ASS' Y, INTERLOCK SW	3	B	L
HARNESS ASS' Y, INTERLOCK SW	8	B-3	R
HARNESS ASS' Y, L	15		
HARNESS ASS' Y, LFPE SNS	13	C-2	
HARNESS ASS' Y, PANEL LVDS	8	B-1	
HARNESS ASS' Y, POWER SUPPLY	7	C	24" model, 36" model
	7	A-3	44" model
HARNESS ASS' Y, R	15		
HARNESS ASS' Y, RLNIP PF SNS	5	E-2	
HARNESS ASS' Y, RSIDE FRONT	8	C-2	

Part Name	Disassembly & Reassembly Procedures		Remarks
	Title	Group	
HARNESS ASS' Y, RU RELAY	1	A-4	
HARNESS ASS' Y, TANK CVR MFAN R	9	J	
HARNESS ASS' Y, TANKLED R RLY	10	D	
HARNESS ASS' Y, UP RLNIP RELAY	5	F-1	
HARNESS ASS'Y MFAN L	2	E	36" model, 44" model
HARNESS ASS'Y, ROLL SEP RLY	5	F-2	
HDD CABLE ASS' Y	7	A-4	24" model, 36" model
	7	A-6	44" model
HEAD COVER SENSOR (IC, PHOTO INTERRUPTER)	11	A-3	
HEAD LEVER UNIT	11	A-2	
HEAD MANAGEMENT SENSOR UNIT	9	G-2	
HOLDER, PAPER FEED ROLLER	13	D	
HOLDER, SLIDER PRESSURE, CR	12	B-5	
HOLDER, SPOOL SIDE L	6	E	
HOLDER, SPOOL SIDE R	6	B	
HOLDER, SWITCH	3	B	L
	8	B-3	R
I/F PCB UNIT	7	A-2	24" model, 36" model
	7	A-4	44" model
ID PCB UNIT	9	I-3	
INK SUPPLY MOUNT BASE UNIT L	1	A-2	
INK SUPPLY MOUNT BASE UNIT R	9	I-4	
INK SUPPLY MOUNT UNIT R	10	E	
INK SUPPLY TANK HOLDER UNIT R	10	E	
INK TUBE UNIT	12	E-1	
INLET UNIT	1	A-3	
JOINT LEVER UNIT	11	A-1	
LEFT TOP COVER SWITCH (MICRO SWITCH)	3	B	
LEVER, PAPER FEED SENSOR	5	E-1	
LIFT UNIT	9	F	
LOCK LEVER, ACCESS COVER L	3	E	
MAIN PCB UNIT	7	A-1	
MIST FAN DUCT UNIT 1	13	B	36" model, 44" model
MIST FAN DUCT UNIT 2	13	B	24" model, 44" model
MIST FAN DUCT UNIT 3	13	B	36" model
MULTI SENSOR UNIT	11	A-4	
NIP ARM SENSOR UNIT	5	E-4	
NIP ARM UNIT	5	E-4	
OPERATION PANEL UNIT	9	C-1	
PAD, BUSHING, CR	11	E-1	
PAD, RELEASE LEVER STOPPER	9	H-3	
PAPER ENTRY SENSOR (PHOTO INTERRUPTER)	13	C-1	
PAPER FEED ENCODER UNIT	2	D	
PAPER FEED MOTOR UNIT	2	D-2	
PAPER FEED ROLLER UNIT	13	D	
PINCH ROLLER UNIT	13	D	
PINCH ROLLER UNIT L	13	D	
PLATE UNIT, SPOOL SIDE SUPPORT	6	F	
PLATE, SPRING SWITCH	3	B	L
PLATE, SPRING SWITCH	8	B-3	R
PLATEN CLEANER BRUSH	8	A	
PLATEN REAR	13	D	



Part Name	Disassembly & Reassembly Procedures		Remarks
	Title	Group	
PLATEN REAR LS	13	D	
PLATEN UNIT, TOP A	4	C	
PLATEN UNIT, TOP AWAY	4	C	
PLATEN UNIT, TOP B	4	C	
PLATEN UNIT, TOP C	4	C	
PLATEN UNIT, TOP D	4	C	
PLATEN, INK PRE EJECTION	14	A	
PLATEN, UNDER A	14	B-1	
PLATEN, UNDER C	14	B-1	36" model
PLATEN, UNDER HOME	14	B-1	
POWER SUPPLY UNIT	7	B-2	24" model, 36" model
	7	A-2	44" model
PRE PRINTING PLATEN BASE ASS'Y	14	A	
PURGE UNIT	9	F	
RELAY PCB UNIT, RU	1	A-2	
RELEASE LEVER SWITCH (DETECT MICRO SWITCH)	9	G-1	
RELEASE LEVER UNIT	9	H-2	
RIGHT TANK COVER SWITCH (DETECT MICRO SWITCH)	8	B-2	
RIGHT TOP COVER SWITCH (MICRO SWITCH)	8	B-3	
ROLL PAPER FEED SENSOR UNIT	5	E-2	
ROM BOARD UNIT	9	H-1	
ROTARY DAMPER	4	D-2	
SENSOR, HUMIDITY	2	B	
SHAFT, PRESSURE RELEASE UNIT	13	B	
SIX-RING RUBBER CHAIN	12	E-1	
SLIDER BUSHING, OILLESS, CR	12	B-6	
SOLENOID	3	E	
SPOOL LOCK UNIT	2	C-1	
SPOOL SENSOR UNIT	6	C-1	
SPRING, COMPRESSION	11	F	
SPRING, EARTH	6	A	
SPRING, EJECT EARTH	8	C-1	
SPRING, FILM STRIP	11	C	
SPRING, LOCK	3	E	
SPRING, PAPER FEED SENSOR	5	E-1	
SPRING, PAPER SET	5	E-4	
SPRING, RELEASE LEVER	9	H-3	
SPRING, SLIDER PRESSURE, CR	12	B-5	
SPRING, SPOOL COVER	6	B	R
SPRING, SPOOL COVER	6	E	L
SPRING, TENSION	2	D-2	
SPRING, TENSION	11	A-1	
SPRING, TENSION	12	B-2, B-3	
STOPPER, SUB SLIDER, CR	12	B-5	
SUB INK TANK UNIT R	10	E	
SUCTION FAN DUCT UNIT	9	I-1	
SUCTION FAN UNIT	6	G	
TANK LED PCB UNIT	10	D	
TUBE UNIT	12	E-1	
UPPER LEFT SPOOL SET SENSOR (IC, PHOTO INTERRUPTER)	2	C-2	

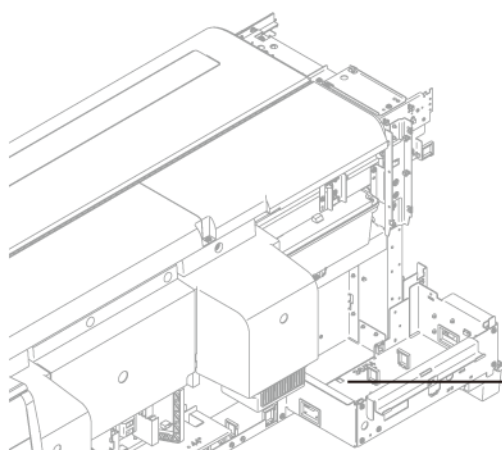
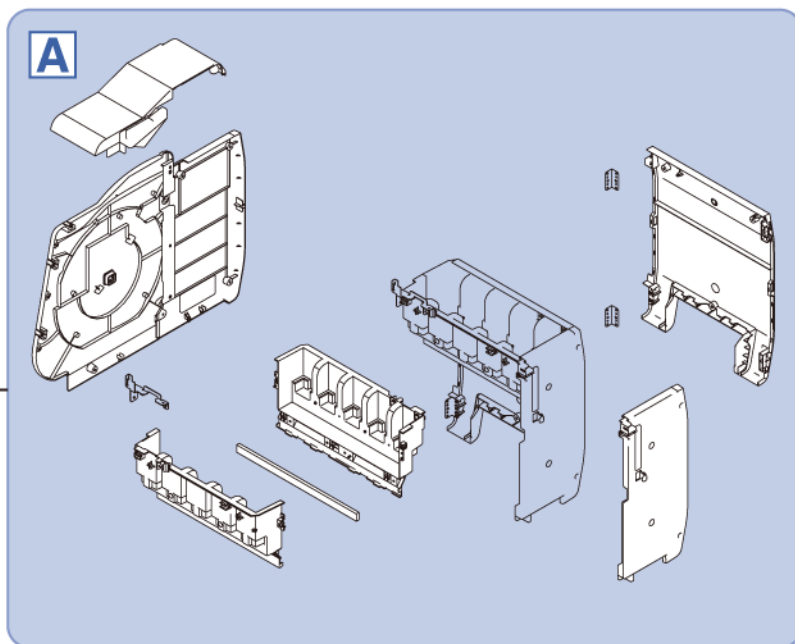
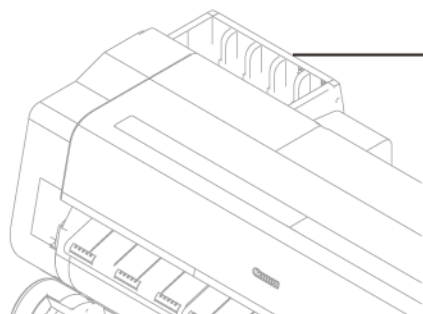
Part Name	Disassembly & Reassembly Procedures		Remarks
	Title	Group	
UPPER LEFT SPOOL SET SENSOR (IC, PHOTO INTERRUPTER)	2	C-2	
UPPER ROLL NIP SENSOR (IC, PHOTO INTERRUPTER)	5	E-3	
USB HOST PCB ASS'Y	9	C-2	
WASTE INK ABSORBER UNIT	5	C	
WASTE INK ABSORBER UNIT A	5	A	
WASTE INK ABSORBER UNIT B	5	A	
WASTE INK ABSORBER UNIT C	5	A	44" model
WASTE INK ABSORBER UNIT E	5	A	36" model
WASTE INK TANK UNIT	9	H	
WINDOW	4	D-1	
WINDOW R	4	D-1	
WIRELESS LAN PCB UNIT	7	D	24" model, 36" model
	7	C	44" model

## Lower Roll Unit

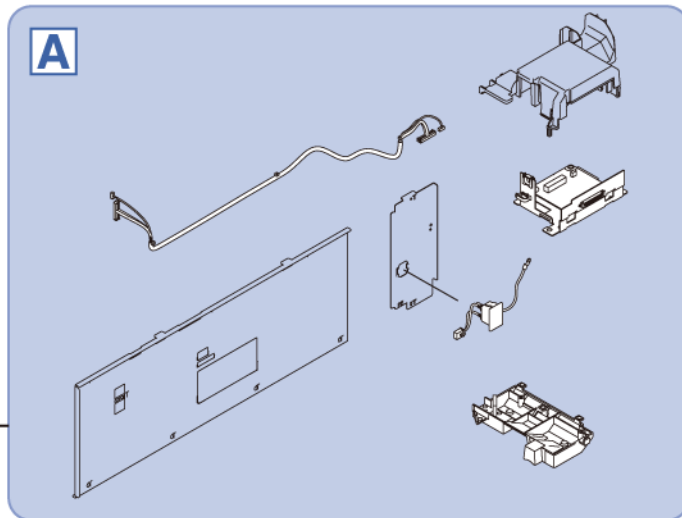
Part Name	Disassembly & Reassembly Procedures		Remarks
	Title	Group	
ACTIVE ROLL BRAKE UNIT	17	B	
BUSHING, DRIVE	16	H	
CAM SHAFT UNIT	18	I	
CAM, FLAP SELEC	18	F-1	
CAP, COVER SIDE L	17	A	
COVER UNIT, SIDE OUTER L	17	A	
COVER UNIT, SIDE OUTER R	17	F	
COVER, ROLL GEAR L	17	B-1	
COVER, SIDE L SUB	17	A	
COVER, SIDE R	16	E	
COVER, SIDE R REAR	16	G-1	
COVER, SIDE TOP L	17	B-2	
DRIVE NIP ARM UNIT	18	H-1	
FLAPPER POSITION SENSOR (IC, PHOTO INTERRUPTER)	18	D-1	
FLAPPER SEPARATE UNIT W/SP	18	G	
FLAPPER SEPARATE UNIT	18	G	
GUIDE UNIT, LOW A	18	G	
GUIDE UNIT, LOW B	18	G	
GUIDE UNIT, LOW C	18	G	36" model, 44" model
GUIDE UNIT, LOW D	18	G	44" model
GUIDE, UPPER	16	A	L
GUIDE, UPPER	16	B	R
HANDLE UNIT, LOWER SUPPORT L	18	B-1	
HANDLE UNIT, LOWER SUPPORT R	18	B-1	
HARNESS ASS' Y, ARB MOTOR	17	E-5	
HARNESS ASS' Y, LO FLAP SPLSET	18	D-2	
HARNESS ASS' Y, LO ROLL SEP RLY	17	E-3	
HARNESS ASS' Y, LO SPL SOL	17	E-2	
HARNESS ASS' Y, LO SPLSET L	17	E-4	
HARNESS ASS' Y, RLNIP PF SNS	18	J-1	
HARNESS ASS' Y, ROLL SEP RLY	18	K-2	
HARNESS ASS' Y, RU MAIN	18	K-1	
HARNESS ASS' Y, RU PANEL RLY	17	F	
HOLDER, SPOOL L	16	A	
HOLDER, SPOOL R	16	B	
I/F PCB UNIT, RU	17	E-1	
KNOB, OPERATION	16	H	
LEVER ASS'Y, SPL LOCK R	16	H	
LEVER, PAPER FEED SENSOR	18	J-2	
LOCK LEVER A	16	C-1	
LOCK LEVER B	16	C-1	
LOWER LEFT SPOOL SET SENSOR (IC, PHOTO INTERRUPTER)	17	D	
LOWER RIGHT SPOOL SET SENSOR (IC, PHOTO INTERRUPTER)	16	G-2	
LOWER ROLL NIP SENSOR (IC, PHOTO INTERRUPTER)	18	H-1	
NIP ARM SENSOR UNIT	18	H-3	
NIP ARM UNIT	18	H-2	
OPERATION PANEL UNIT, RU	16	G-1	
PAPER GUIDE ROLLER UNIT, RU A	18	G	
PAPER GUIDE ROLLER UNIT, RU B	18	G	
PAPER GUIDE ROLLER UNIT, RU C	18	G	44" model

Part Name	Disassembly & Reassembly Procedures		Remarks
	Title	Group	
PAPER GUIDE ROLLER UNIT, RU E	18	G	36" model
PLATE, SPOOL GROUND	16	C-2	
RAIL UNIT L	18	B-2	
RAIL UNIT R	18	B-2	
ROLL PAPER FEED SENSOR UNIT	18	J-1	
ROLLER, LOCK	16	D	
SPOOL LOCK UNIT	17	C	
SPRING, LOCK A	16	C-1	
SPRING, LOCK C	16	F	
SPRING, PAPER FEED SENSOR	18	J-2	
SPRING, PAPER SET	18	H-2, H-3	
SUPPORT, FLAP SELEC	18	F-2	

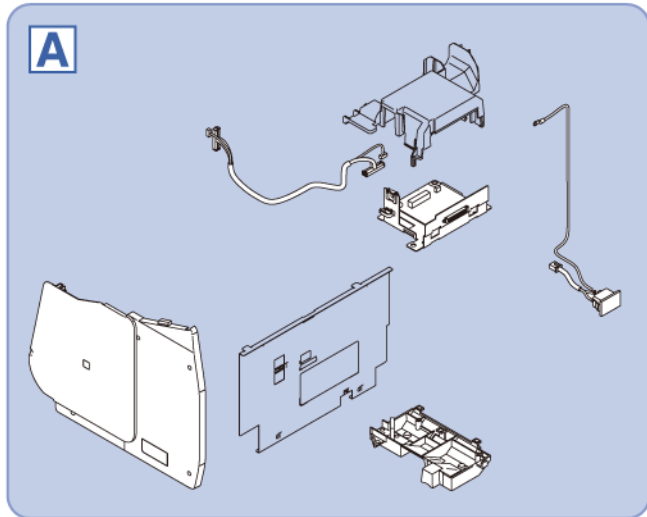
# 1 INK TANK BOX UNIT (L)



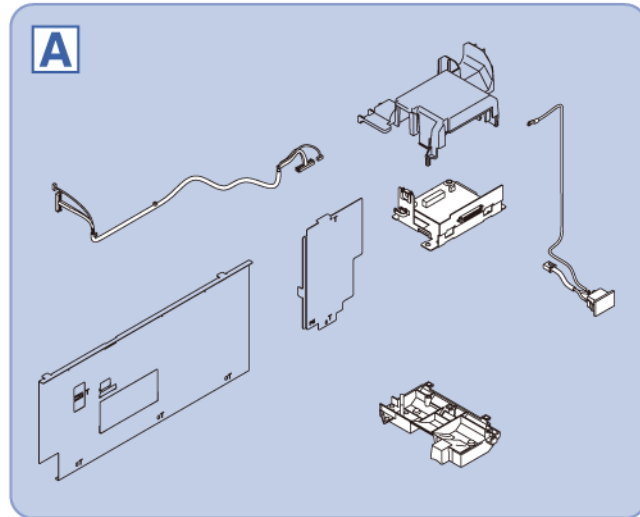
44" model



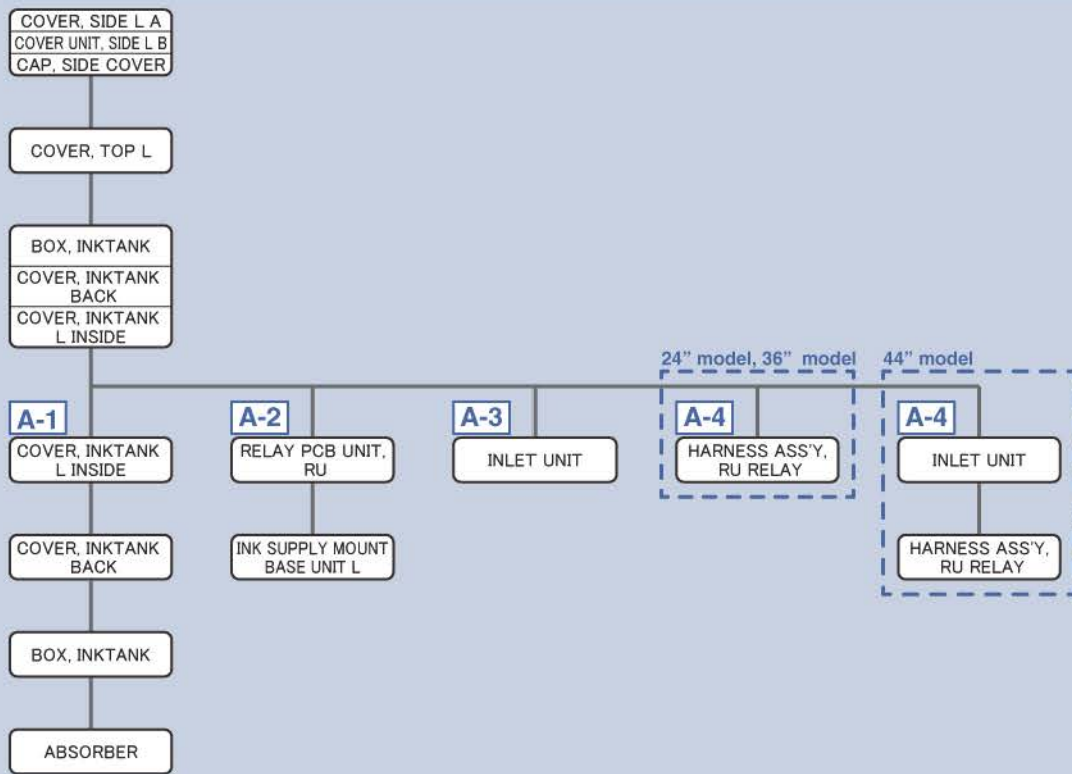
24" model



36" model






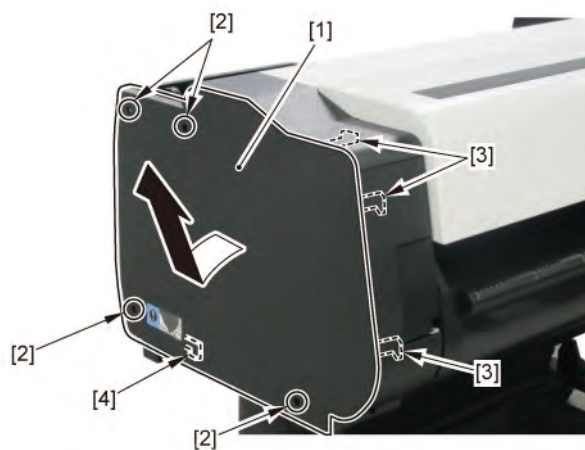
A



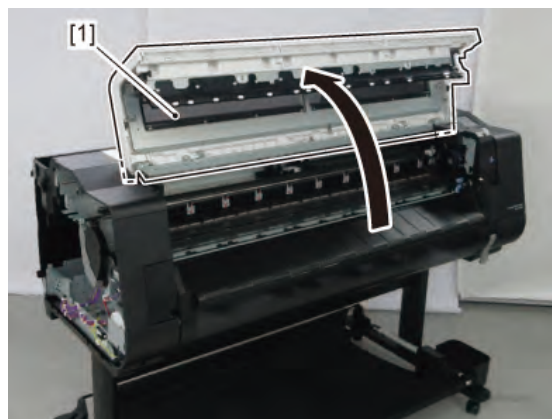
## A

- Remove [1] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.

[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc





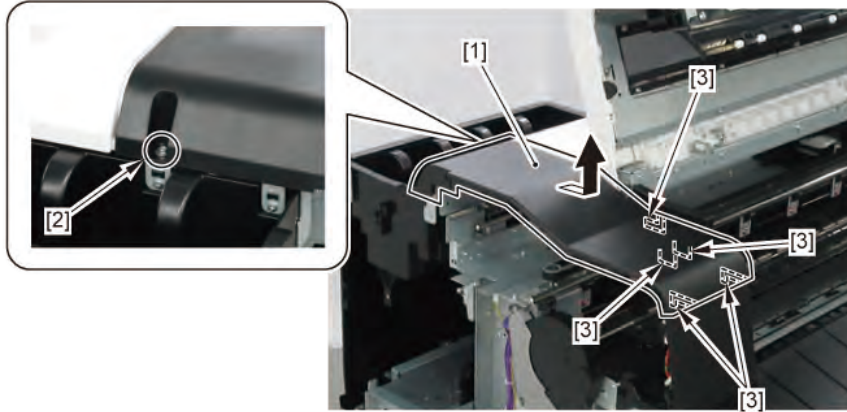
- Open [1] the access cover.







### 3. Remove [1] COVER, TOP L.

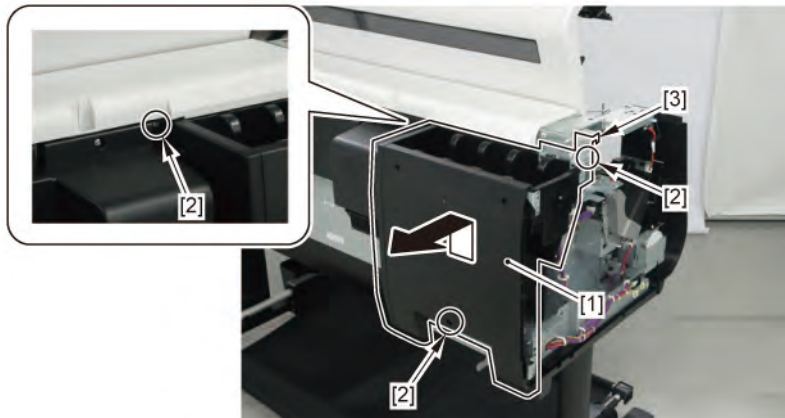
[2]	[3]
	
1 pc	5 pcs



### 4. Remove [1] a set of



- BOX, INKTANK
- COVER, INKTANK BACK
- COVER, INKTANK L INSIDE.

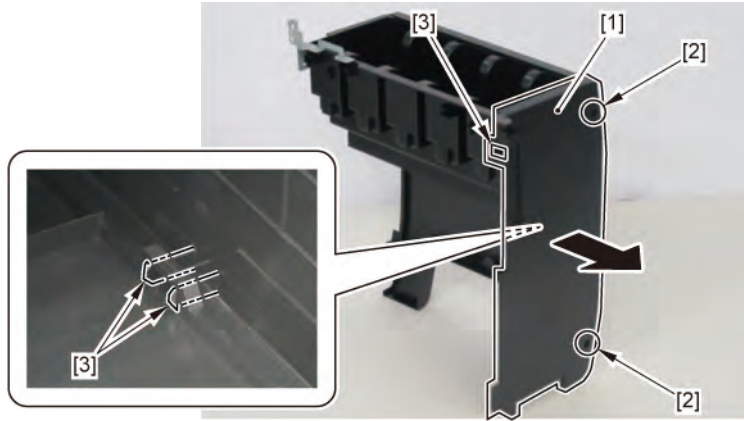
[2]	[3]
	
3 pcs	1 pc




**A-1**

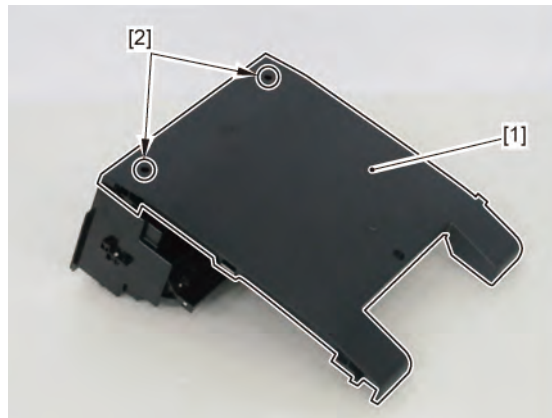
5. Remove [1] COVER, INKTANK L INSIDE.

[2]	[3]
	
2 pcs	3 pcs





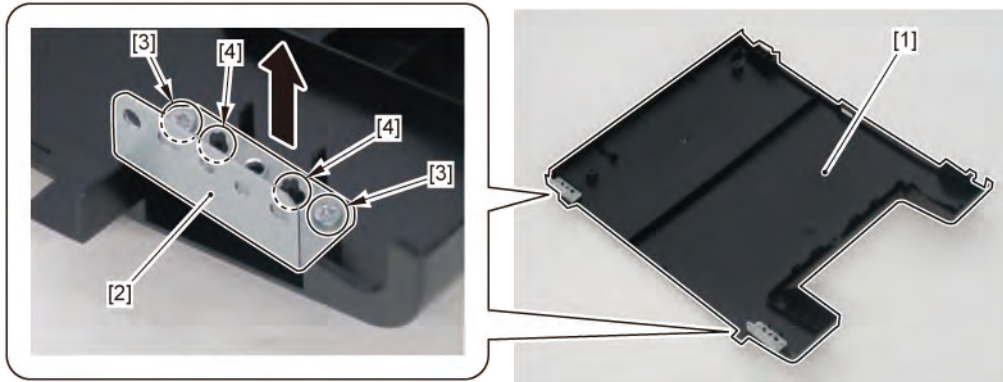
6. Remove [1] COVER, INKTANK BACK.

[2]

2 pcs





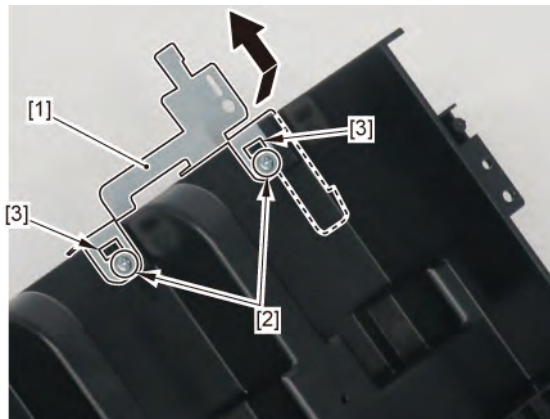
7. From [1] COVER, INKTANK BACK, remove [2] two plates.

[3]	[4]
	
2 pcs each	2 pcs each





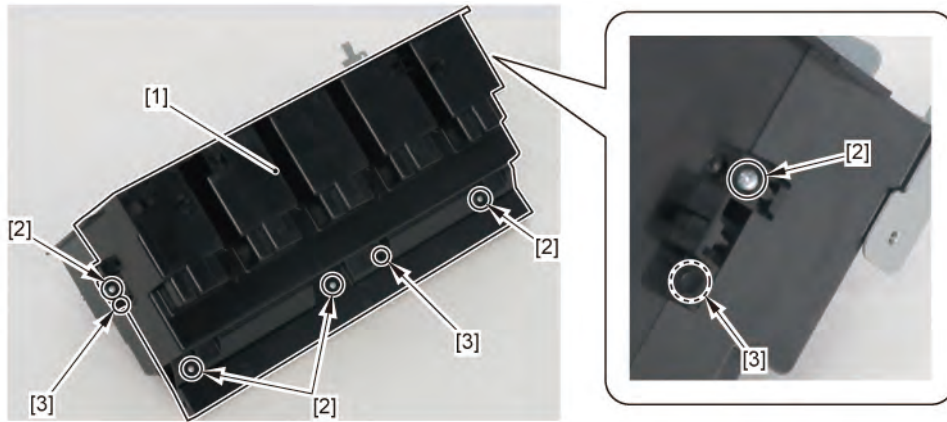
8. Remove [1] the plate.

[2]	[3]
	
2 pcs	2 pcs

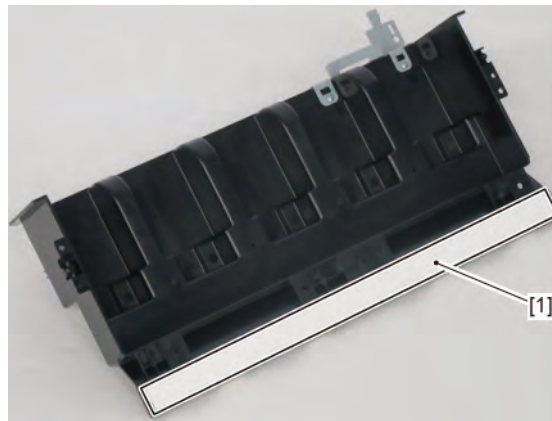


9. Remove [1] BOX, INKTANK.

[2]	[3]
	
5 pcs	3 pcs





10. Remove [1] ABSORBER.




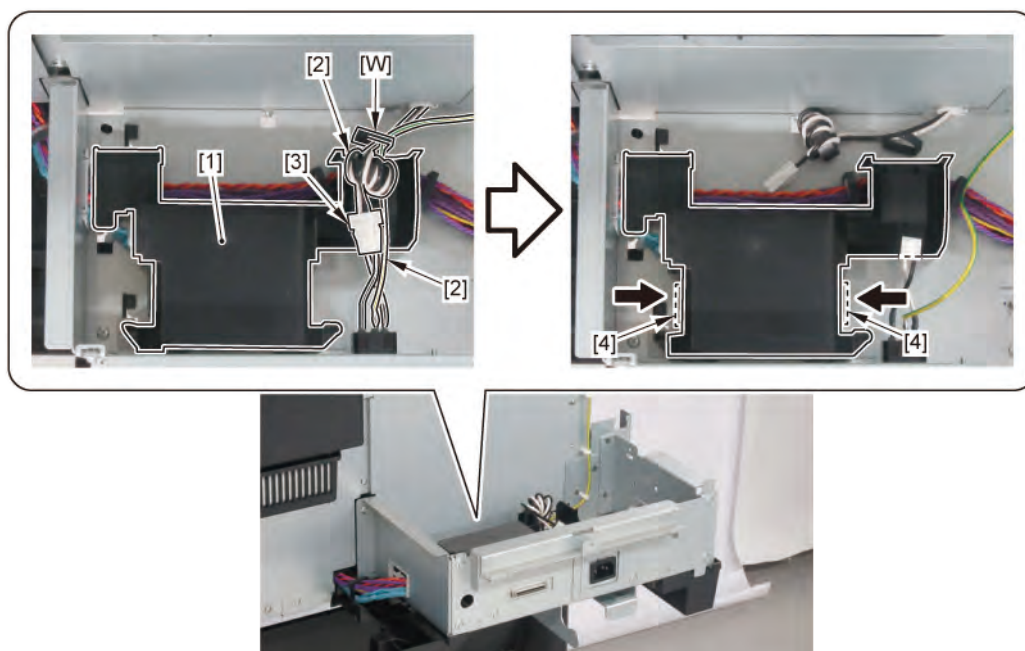
## A-2 (24" model, 36" model)

5. From [1] the cover of the RELAY PCB, release [2] the cable.





[3]	[W]
	
1 pc	1 pc

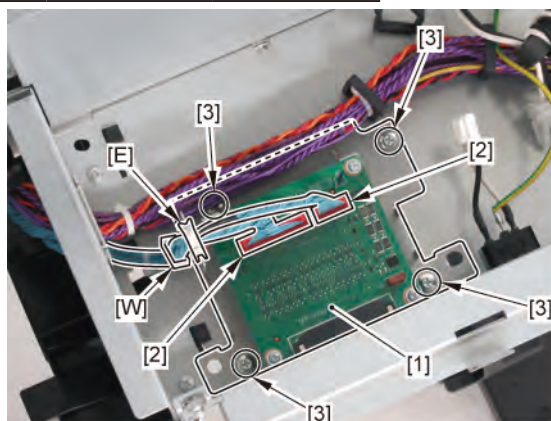
6. Remove [1] the cover of the RELAY PCB.

[4]

2 pcs






7. Remove [1] RELAY PCB UNIT, RU.

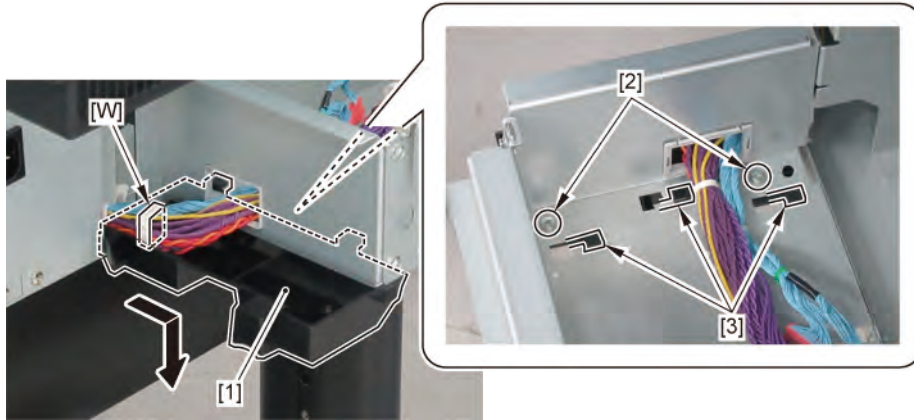
[2]	[3]	[W]	[E]
			
2 pcs	4 pcs	1 pc	1 pc






8. Remove [1] INK SUPPLY MOUNT BASE UNIT L.

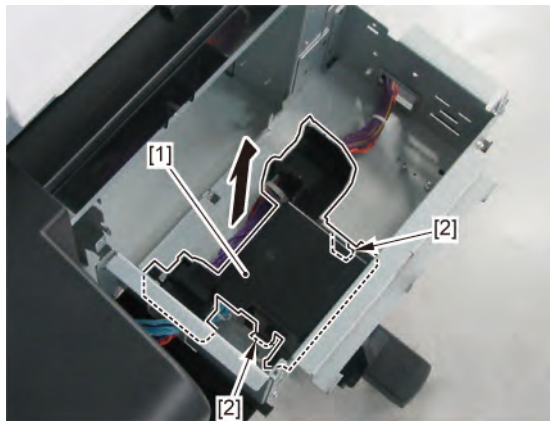
[2]	[3]	[W]
		
2 pcs	3 pcs	1 pc







**A-2 (44" model)**

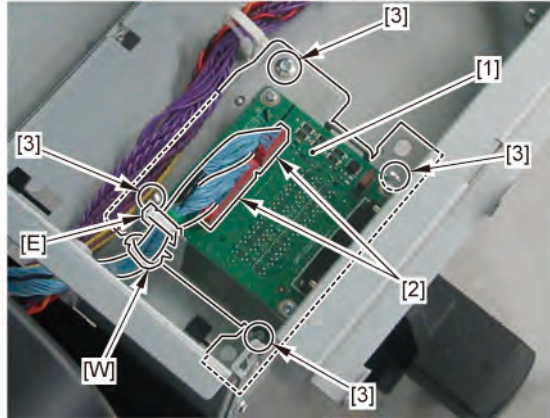
5. Remove [1] the cover of the RELAY PCB.

[2]

2 pcs






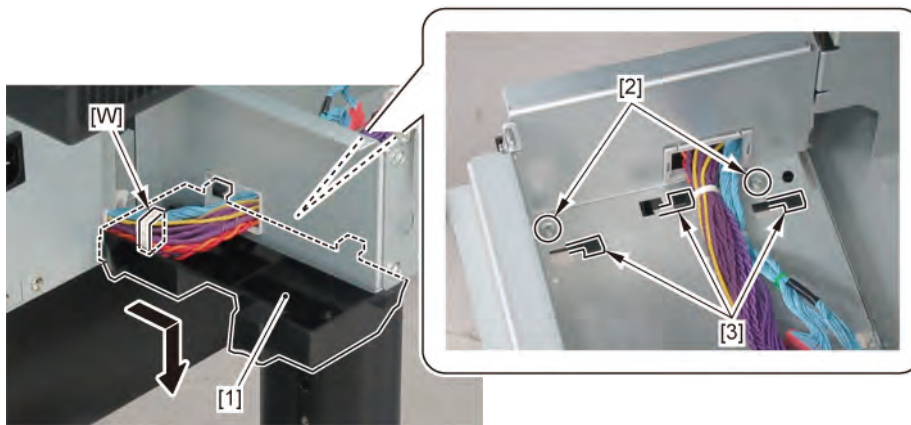
## 6. Remove [1] RELAY PCB UNIT, RU.

[2]	[3]	[W]	[E]
			
2 pcs	4 pcs	1 pc	1 pc



## 7. Remove [1] INK SUPPLY MOUNT BASE UNIT L.






[2]	[3]	[W]
		
2 pcs	3 pcs	1 pc

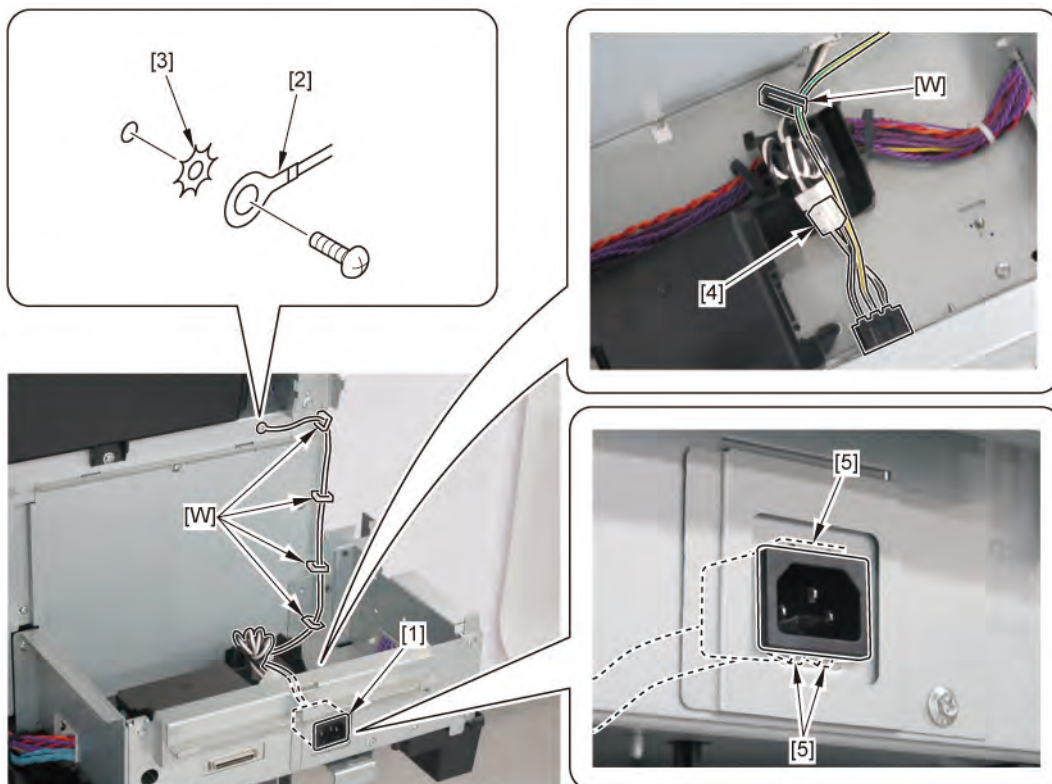




## A-3 (24" model, 36" model)




5. Remove [1] INLET UNIT.

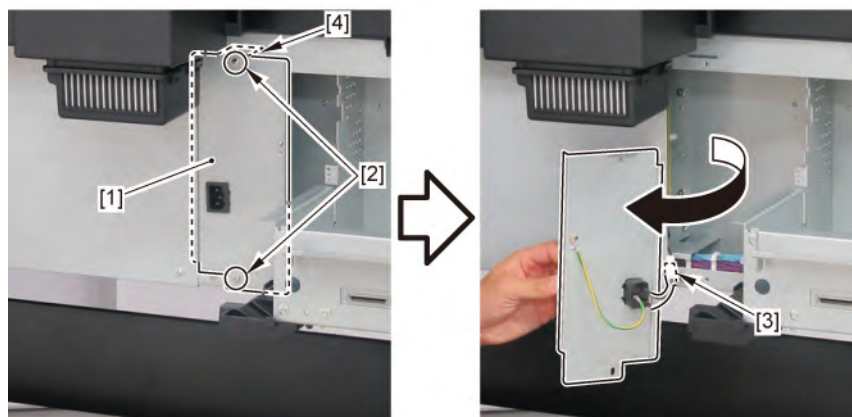
[2]	[3]	[4]	[5]	[W]
				
1 pc	1 pc	1 pc	3 pcs	5 pcs






## A-3 (44" model)

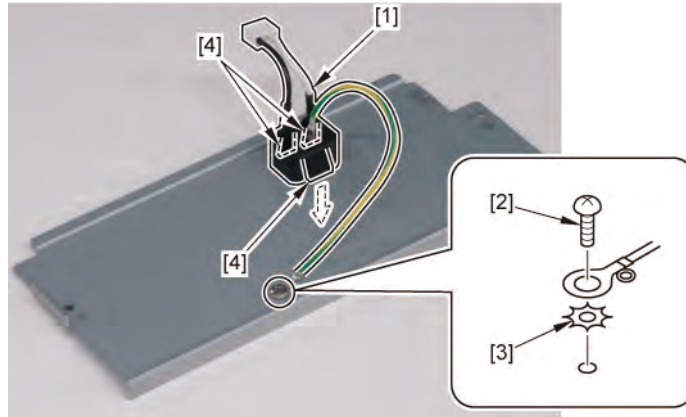
5. Remove [1] the plate (with the INLET UNIT).

[2]	[3]	[4]
		
2 pcs	1 pc	1 pc




## 6. Remove [1] INLET UNIT.

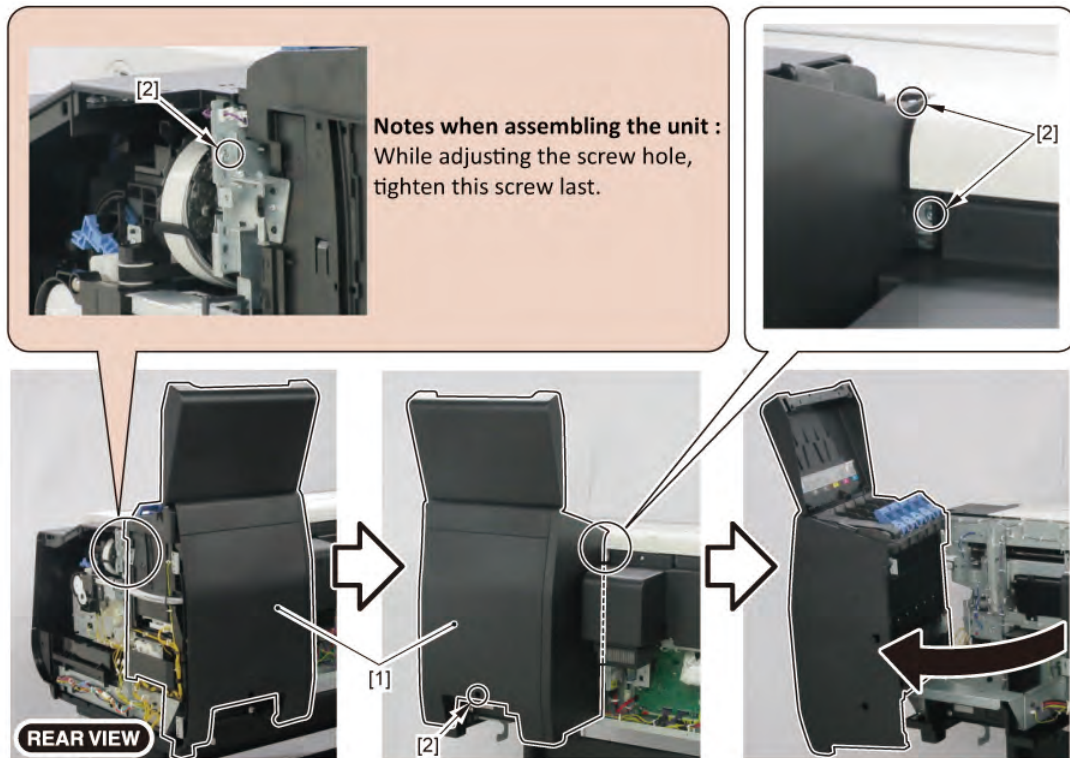
[2]	[3]	[4]
		
1 pc	1 pc	3 pcs





## A-4 (24" model)

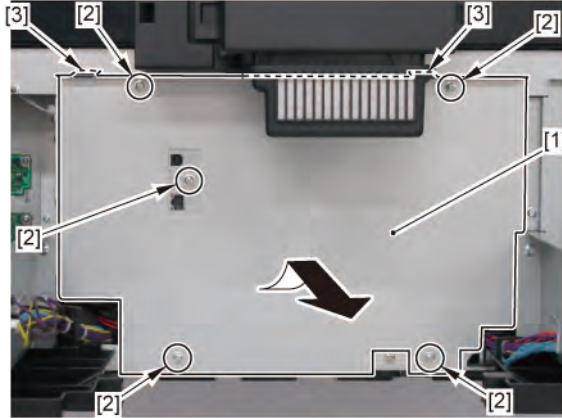
### 5. Open [1] the right ink unit.

[2]

4 pcs





6. Remove [1] the plate.


[2]	[3]
	
5 pcs	2 pcs

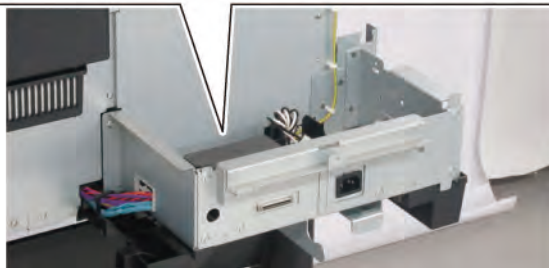
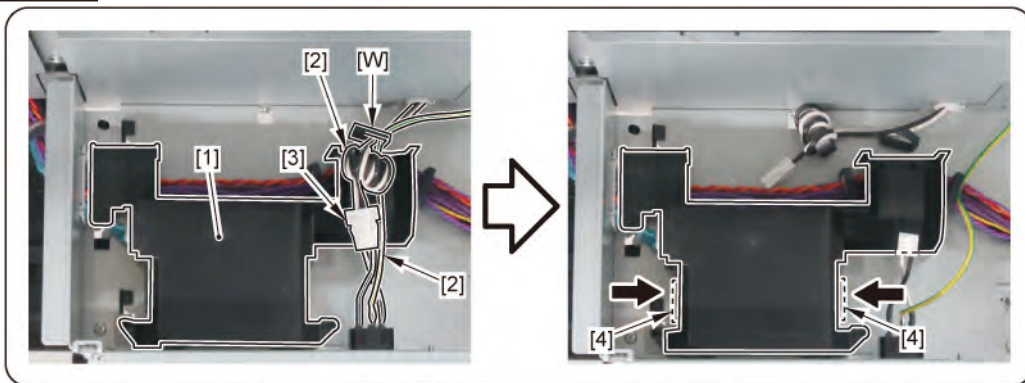


7. From [1] the cover of the RELAY PCB, release [2] the cable.

[3]	[W]
	
1 pc	1 pc




8. Remove [1] the cover of the RELAY PCB.

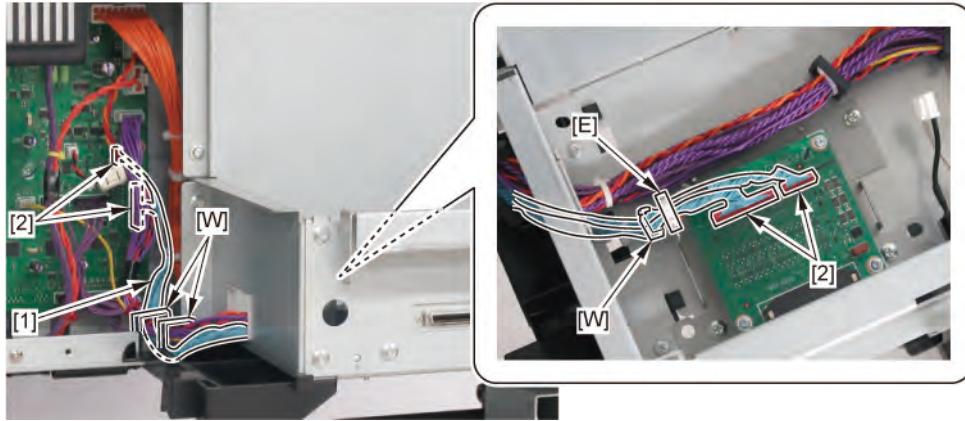
[4]

2 pcs





9. Remove [1] HARNESS ASS'Y, RU RELAY.

[2]	[W]	[E]
		
4 pcs	3 pcs	1 pc

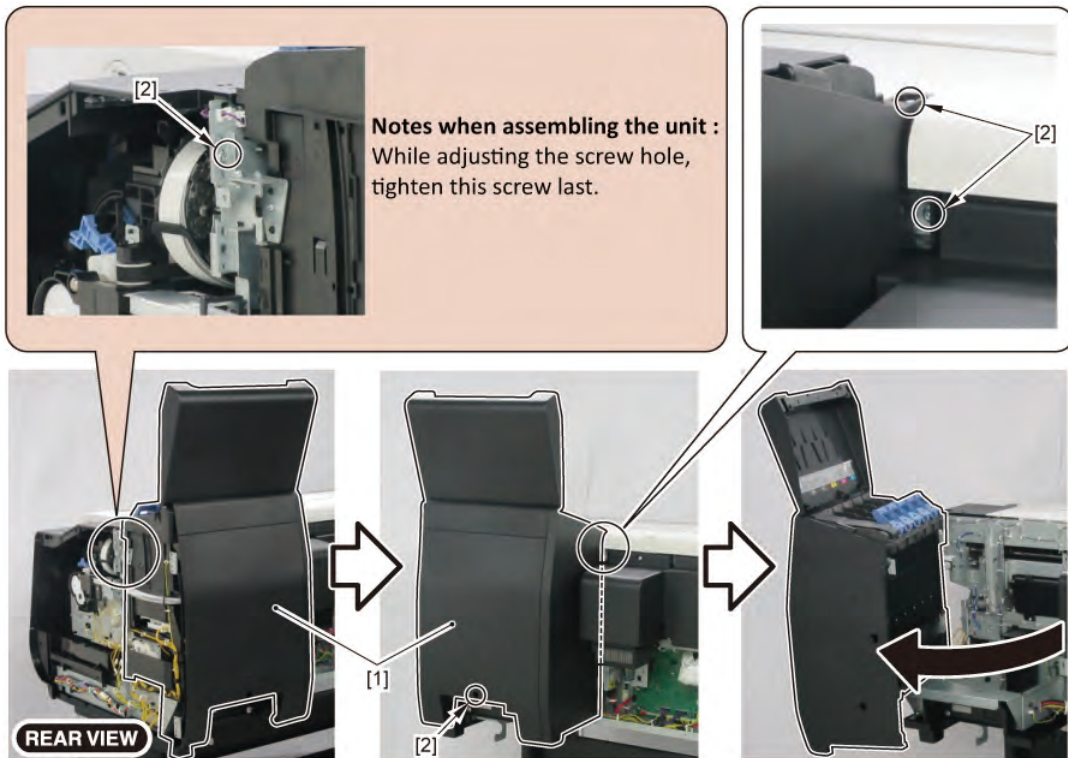


**A-4 (36" model)**



5. Open [1] the right ink unit.

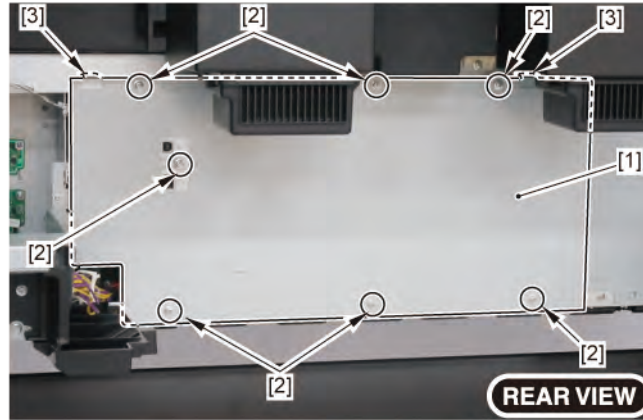
[2]

4 pcs





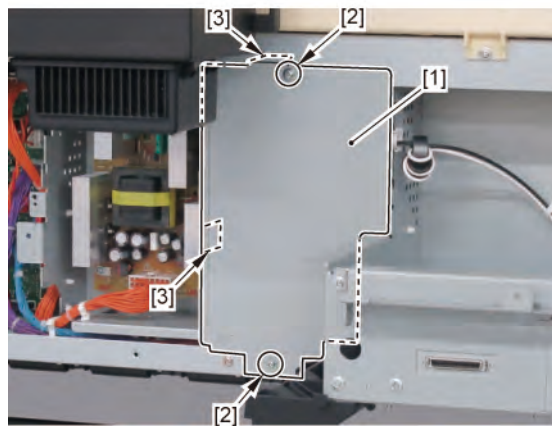
6. Remove [1] the plate.

[2]	[3]
	
7 pcs	2 pcs





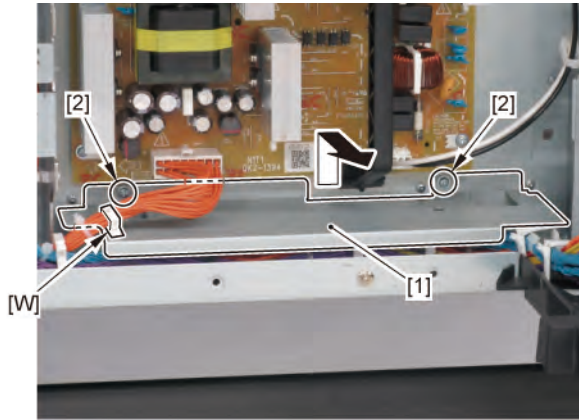
7. Remove [1] the plate.

[2]	[3]
	
2 pcs	2 pcs





8. Remove [1] the plate.


[2]	[W]
	
2 pcs	1 pc

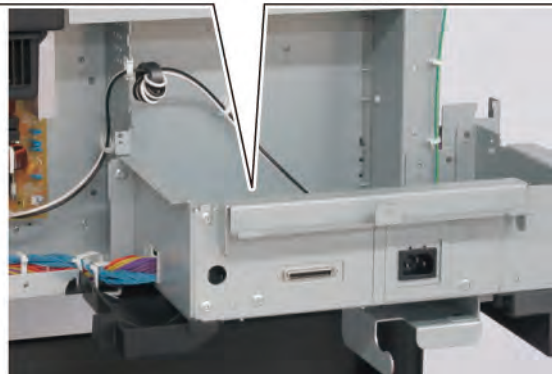
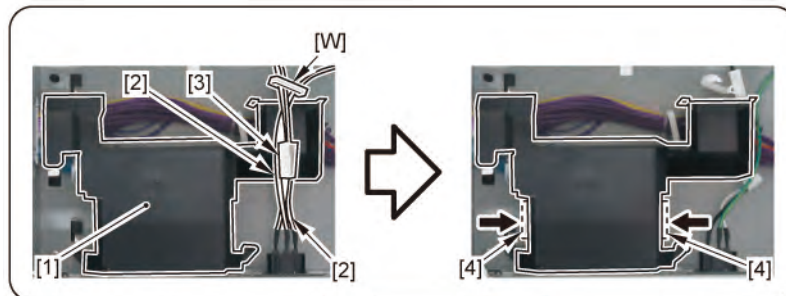


9. From [1] the cover of the RELAY PCB, release [2] the cable.




[3]	[W]
	
1 pc	1 pc

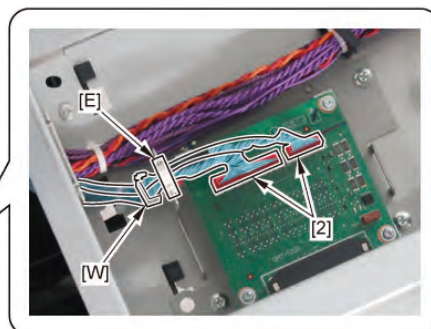
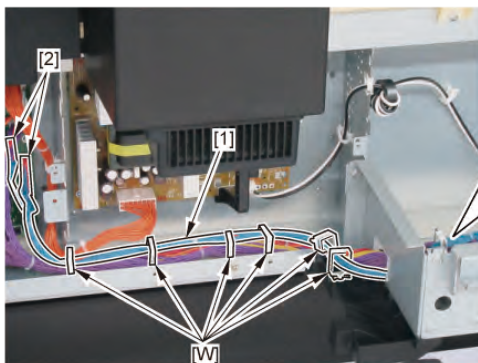
10. Remove [1] the cover of the RELAY PCB.

[4]

2 pcs





## 11. Remove [1] HARNESS ASS'Y, RU RELAY.

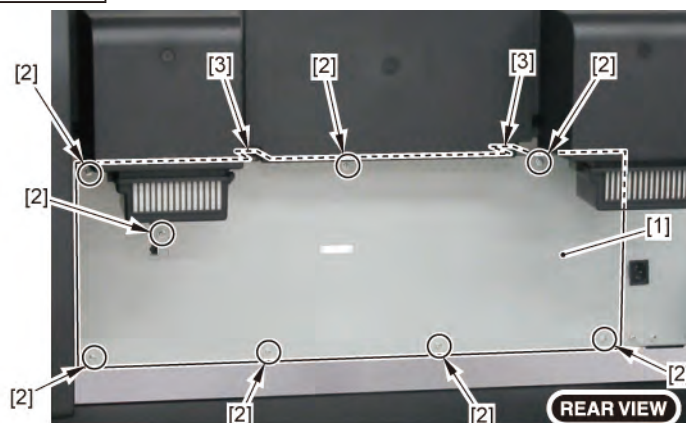
[2]	[W]	[E]
		
4 pcs	7 pcs	1 pc



## A-4 (44" model)




### 5. Remove [1] the plate.

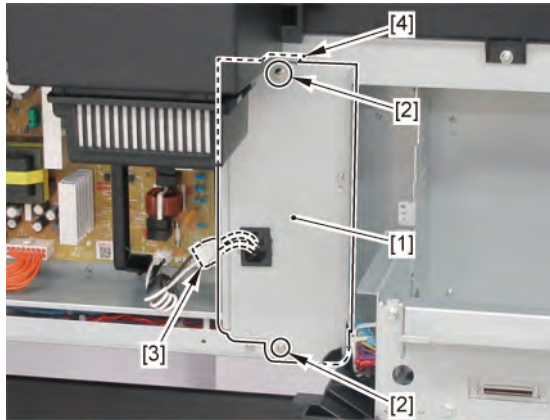
[2]	[3]
	
8 pcs	2 pcs







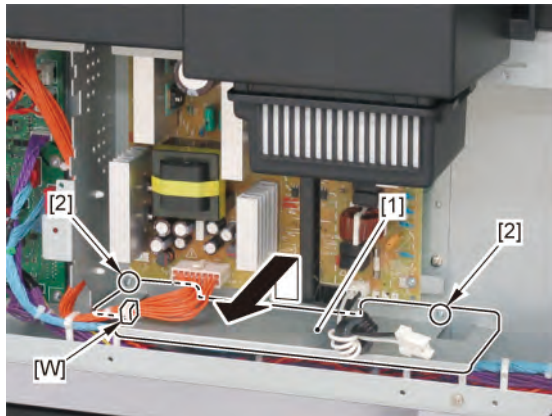
6. Remove [1] the plate (with the INLET UNIT).

[2]	[3]	[4]
		
2 pcs	1 pc	1 pc




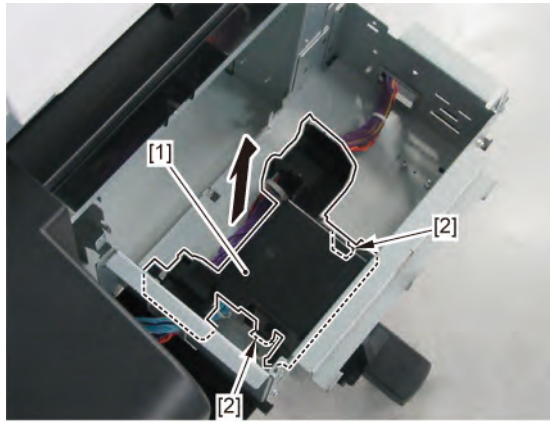
7. Remove [1] the plate.

[2]	[W]
	
2 pcs	1 pc






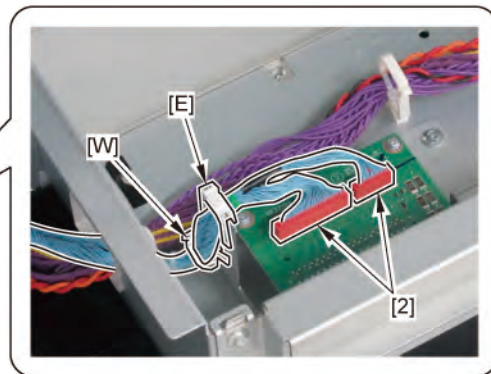
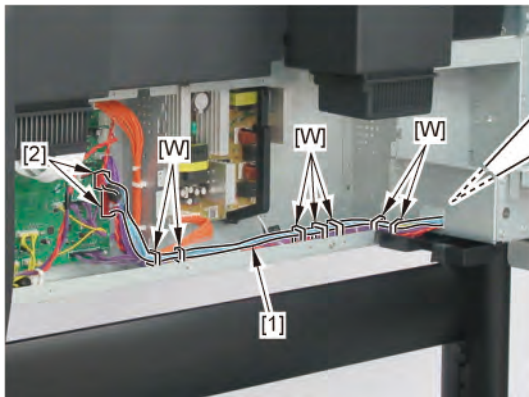
8. Remove [1] the cover of the RELAY PCB.

[2]

2 pcs



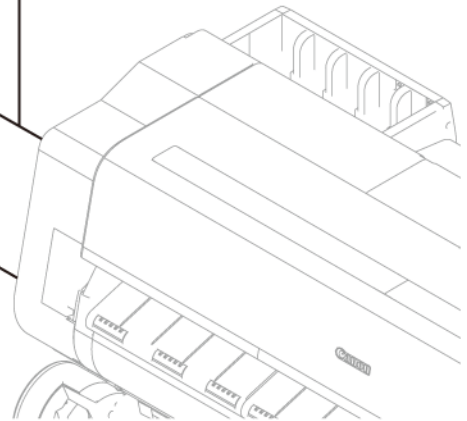
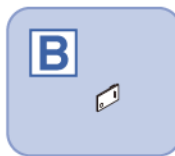
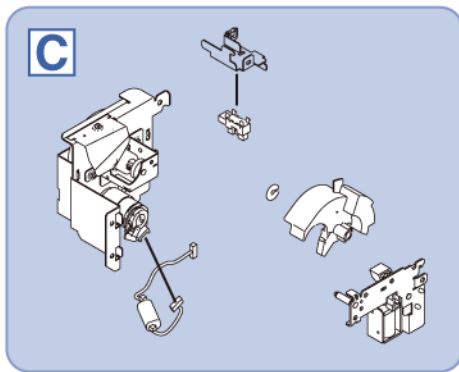
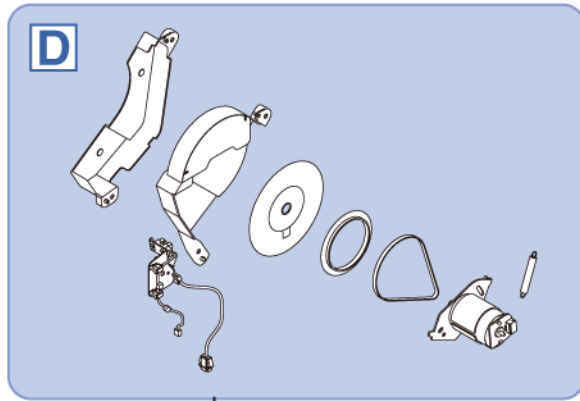
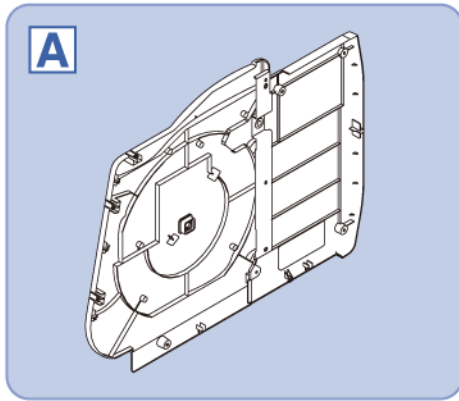
9. Remove [1] HARNESS ASS'Y, RU RELAY.

[2]	[W]	[E]
		
4 pcs	8 pcs	1 pc

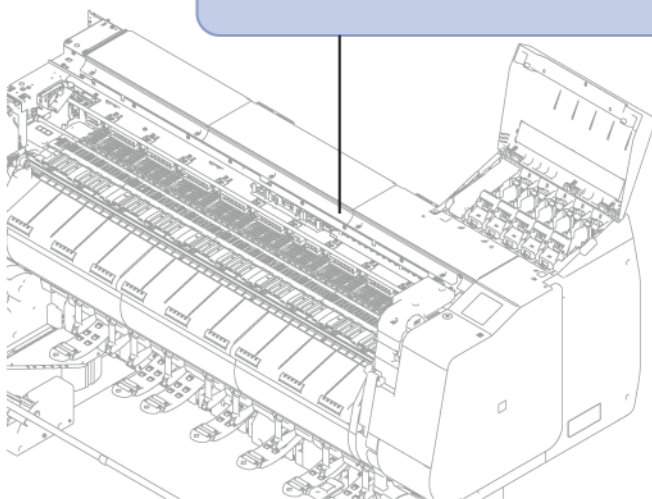
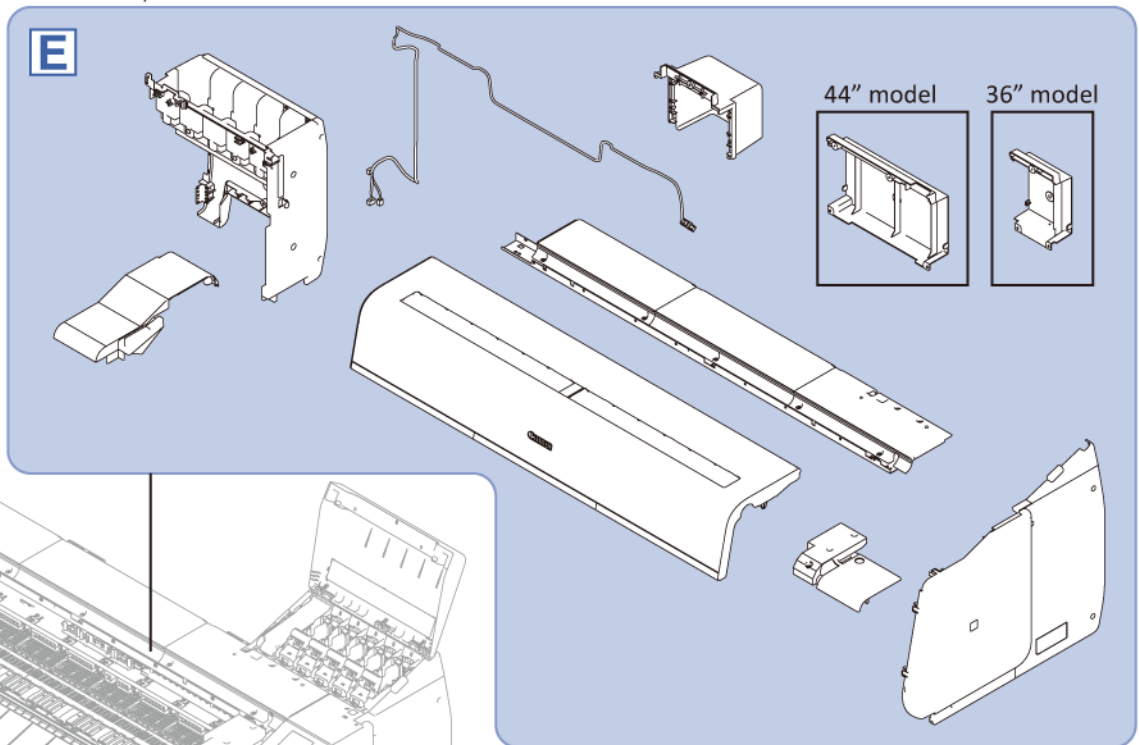


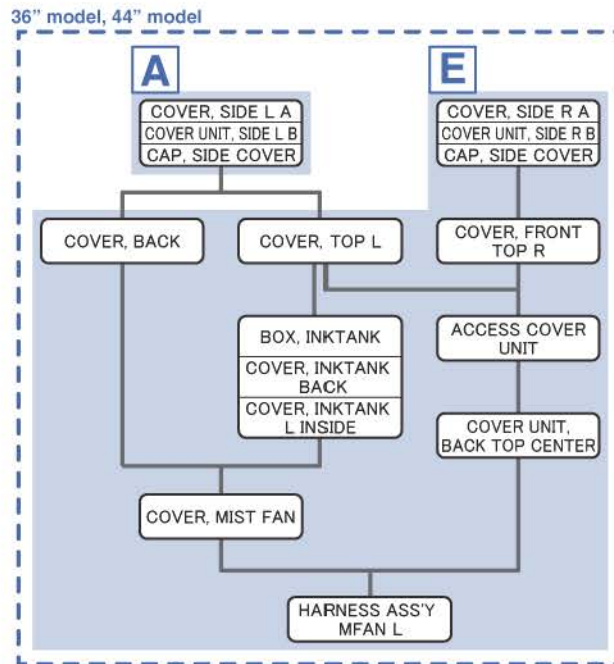
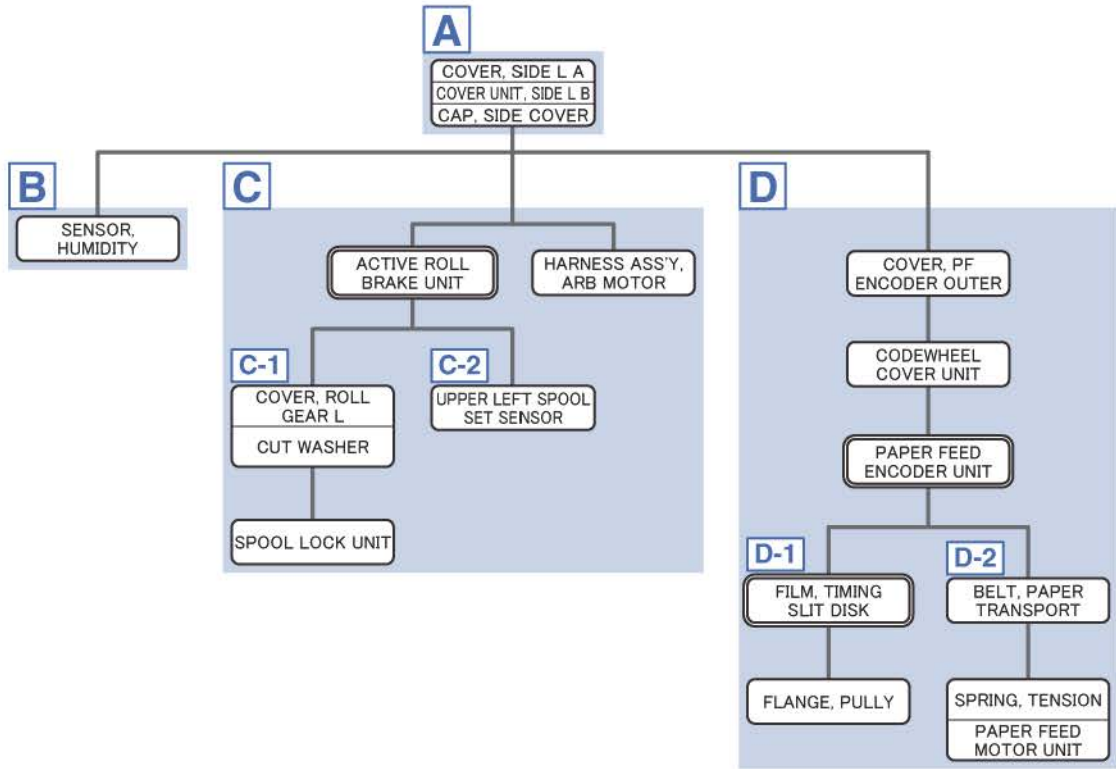


## 2 LEFT SIDE (ACTIVE ROLL BRAKE UNIT / PF ENCODER UNIT)






36" model, 44" model

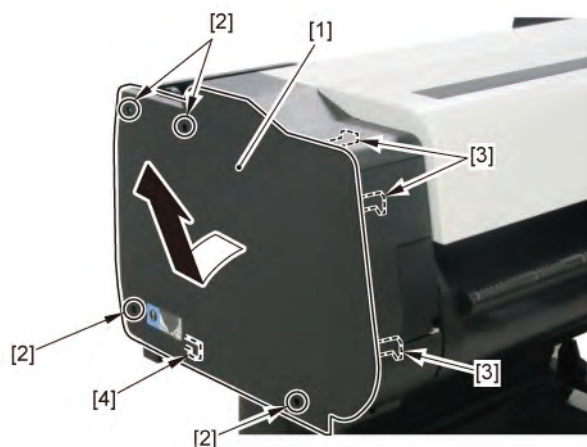




## A



- Remove [1] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.

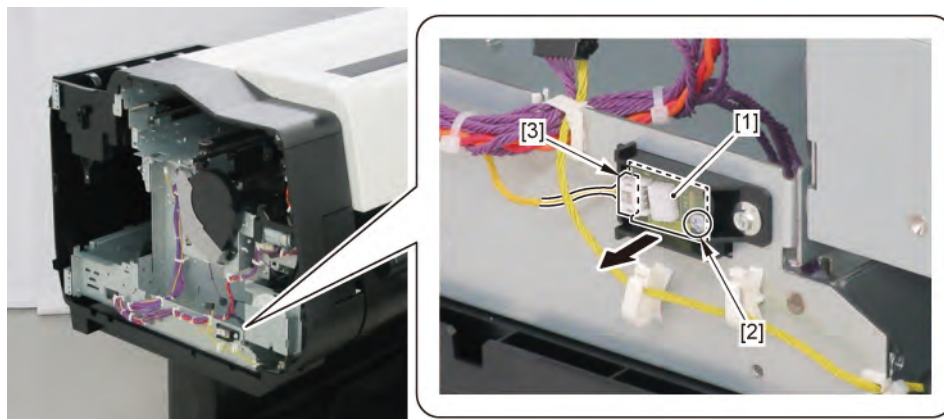
[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc



## B

- Remove all the parts of Group A.
- Remove [1] SENSOR, HUMIDITY.





[2]	[3]
	
1 pc	1 pc

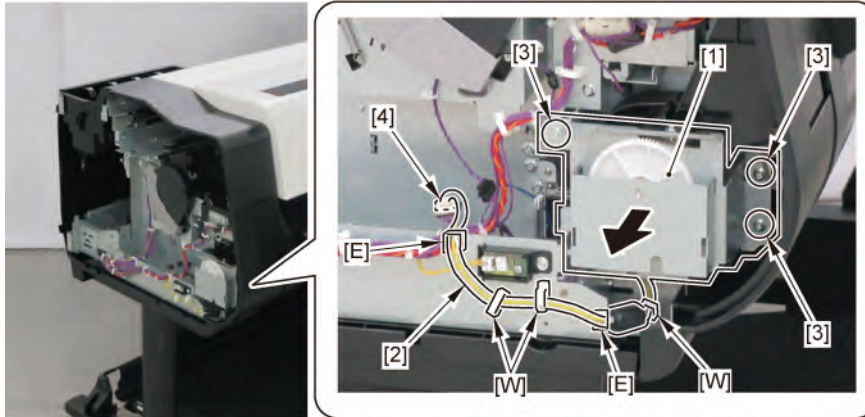




C

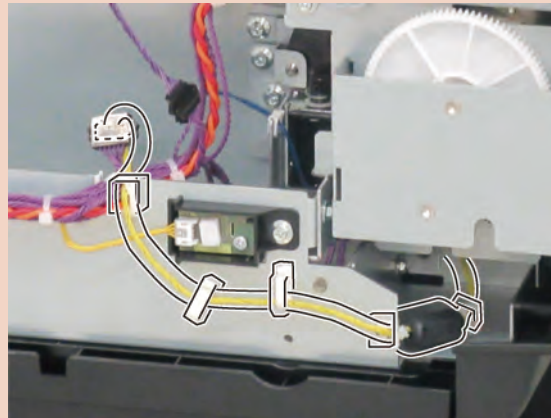
1. Remove all the parts of Group A.
2. Remove [1] ACTIVE ROLL BRAKE UNIT and [2] HARNESS ASS'Y, ARB MOTOR.

[3]	[4]	[W]	[E]
			
3 pcs	1 pc	3 pcs	2 pcs



#### Notes when assembling the unit:

- Arrange the HARNESS ASS'Y, ARB MOTOR as shown below.



- Perform adjustment at the end of assembly.

[SERVICE MODE > ADJUSTMENT > UPPER\_ARB\_CALIB]

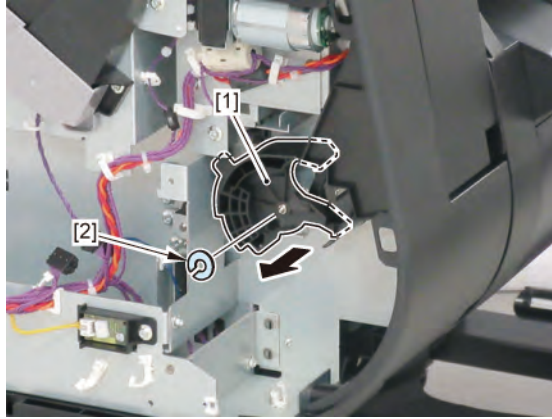
Point

**C-1**



3. Remove [1] COVER, ROLL GEAR L.

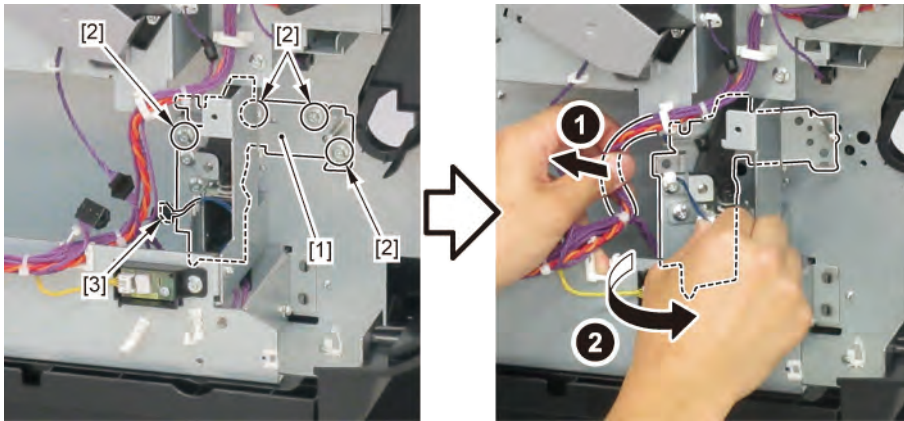
[2]

1 pc





4. Remove [1] SPOOL LOCK UNIT.

[2]	[3]
	
4 pcs	1 pc




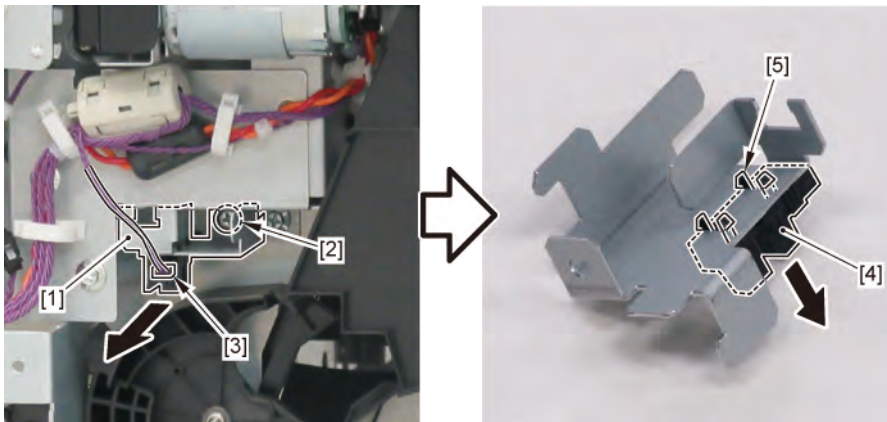
## C-2

3. Remove [1] the plate (with the UPPER LEFT SPOOL SET SENSOR).

[2]	[3]
	
1 pc	1 pc



4. Remove [4] UPPER LEFT SPOOL SET SENSOR.

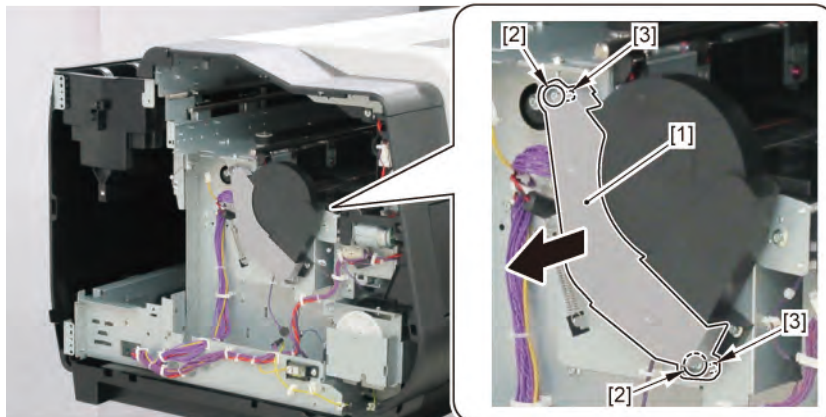
[5]

4 pcs






## D

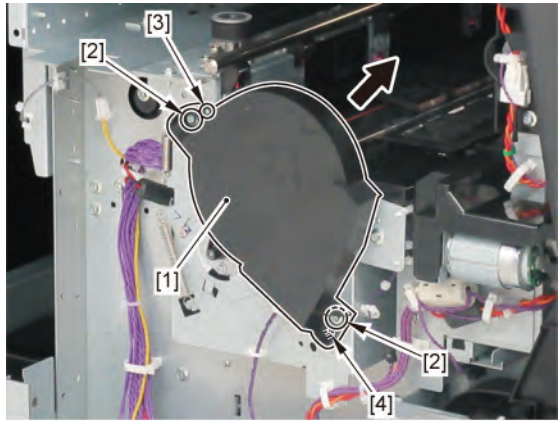
1. Remove all the parts of Group A.  
2. Remove [1] COVER, PF ENCODER OUTER.

[2]	[3]
	
2 pcs	2 pcs







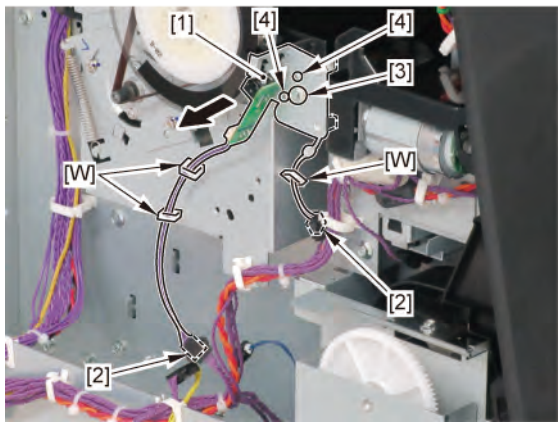
3. Remove [1] CODEWHEEL COVER UNIT.


[2]	[3]	[4]
		
2 pcs	1 pc	1 pc



4. Remove [1] PAPER FEED ENCODER UNIT.

[2]	[3]	[4]	[W]
			
2 pcs	1 pc	2 pcs	3 pcs



	<p><b>Notes when assembling the unit:</b></p> <p>Perform adjustment at the end of assembly.</p> <p>[SERVICE MODE &gt; ADJUSTMENT &gt; LF_ENC_ADJ]</p>
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**D-1**

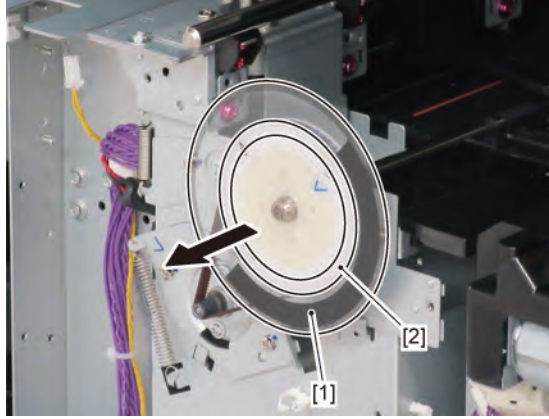
5. Remove [1] FILM, TIMING SLIT DISK.

**Point****Notes when assembling the unit:**

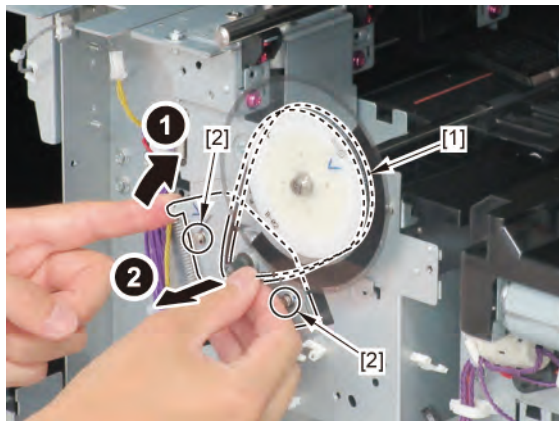
Perform adjustment at the end of assembly.

[SERVICE MODE &gt; ADJUSTMENT &gt; LF TUNING2]




6. Remove [2] FLANGE, PULLEY.

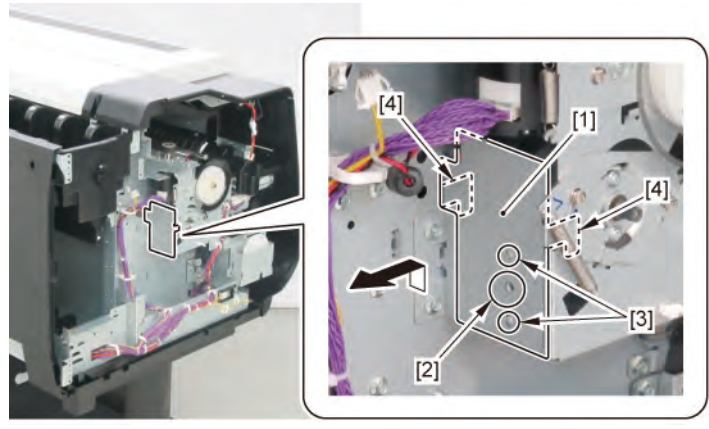
**D-2**

5. Remove [1] BELT, PAPER TRANSPORT.





6. Remove [1] the plate.

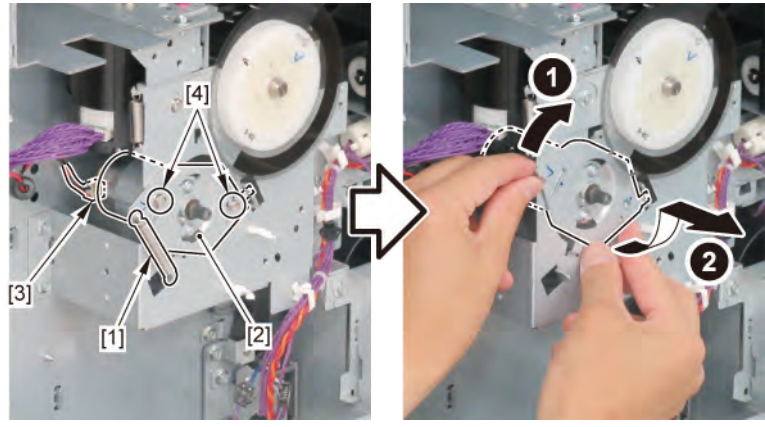
[2]	[3]	[4]
		
1 pc	2 pcs	2 pcs



7. Remove [1] SPRING, TENSION.

8. Remove [2] PAPER FEED MOTOR UNIT.

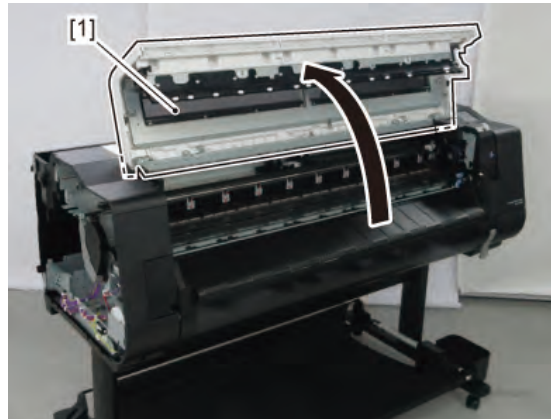
[3]	[4]
	
1 pc	2 pcs







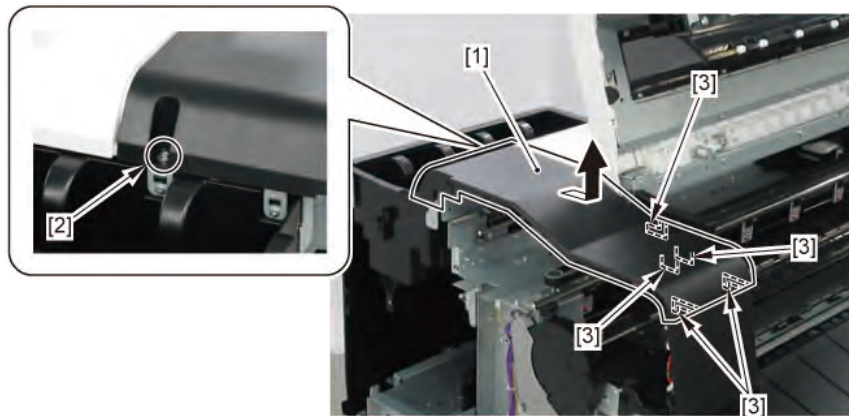
## E (36" model, 44" model)

1. Remove all the parts of Group A.
2. Open [1] the access cover.





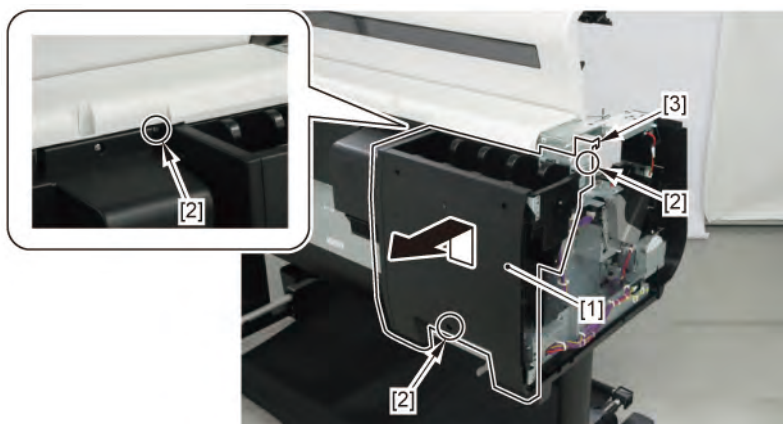
3. Remove [1] COVER, TOP L.

[2]	[3]
	
1 pc	5 pcs





4. Remove [1] a set of
- BOX, INKTANK
  - COVER, INKTANK BACK
  - COVER, INKTANK L INSIDE.

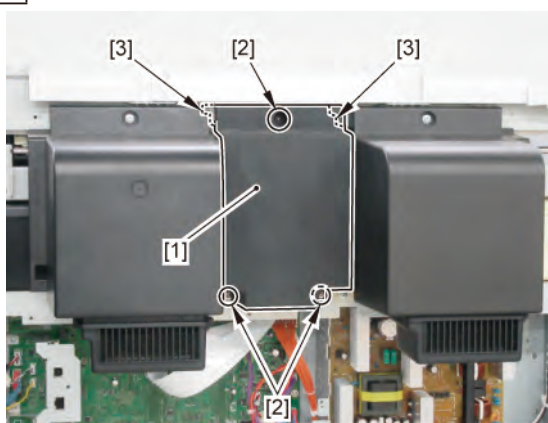
[2]	[3]
	
3 pcs	1 pc





5. Remove [1] COVER, BACK.

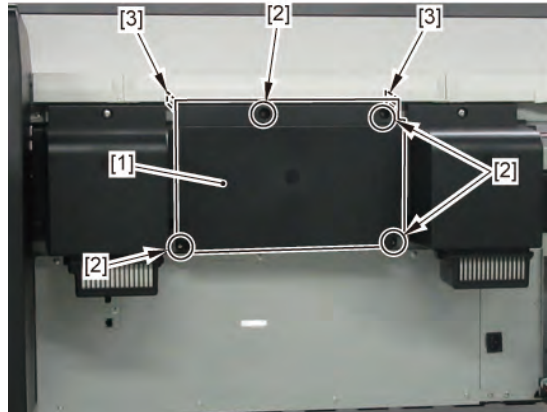
(36" model)

[2]	[3]
	
3 pcs	2 pcs





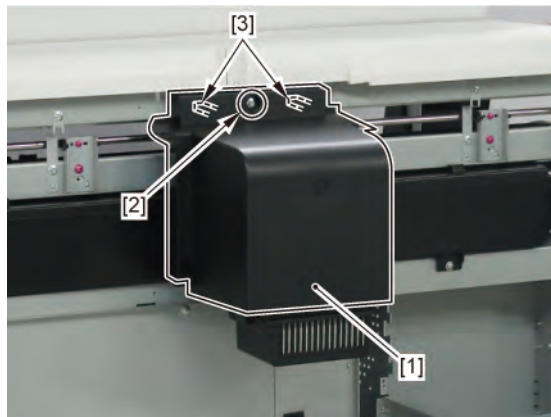
(44" model)

[2]	[3]
	
4 pcs	2 pcs



## 6. Remove [1] COVER, MIST FAN.




[2]	[3]
	
1 pc	2 pcs

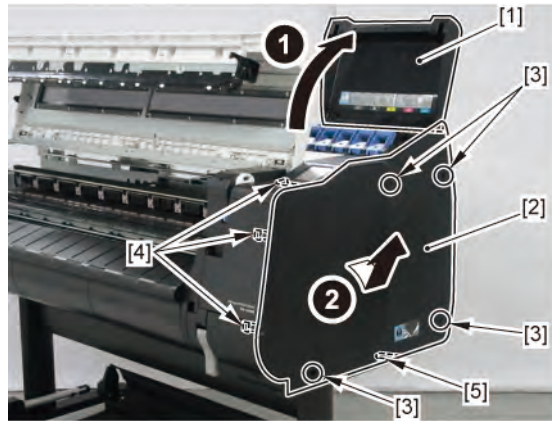


7. Open [1] the right ink tank cover.

8. Remove [2] a set of

- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

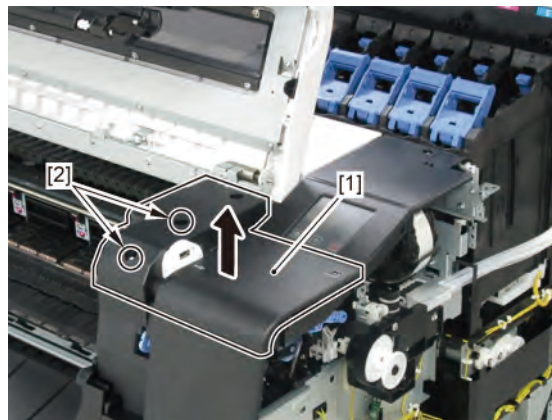
[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc




9. Remove [1] COVER, FRONT TOP R.

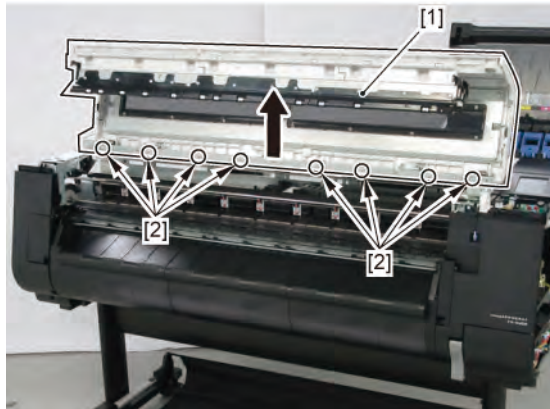
[2]

2 pcs



10. Remove [1] ACCESS COVER UNIT with holding the handles.

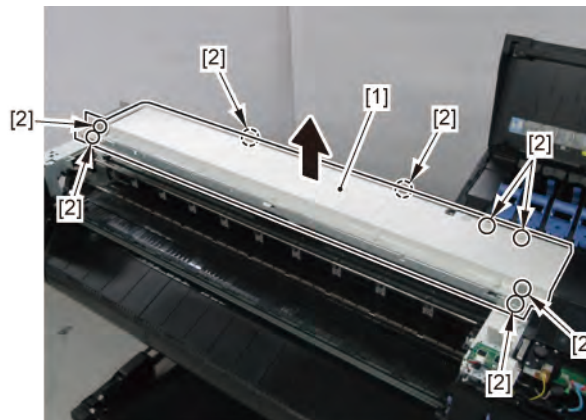
	[2]
	
36" model	7 pcs
44" model	8 pcs







11. Remove [1] COVER UNIT, BACK TOP CENTER.

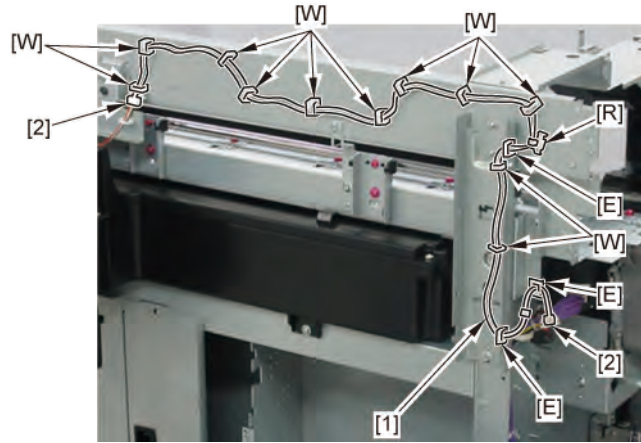
[2]

8 pcs



### 12. Disconnect [1] HARNESS ASS'Y, MFAN L.

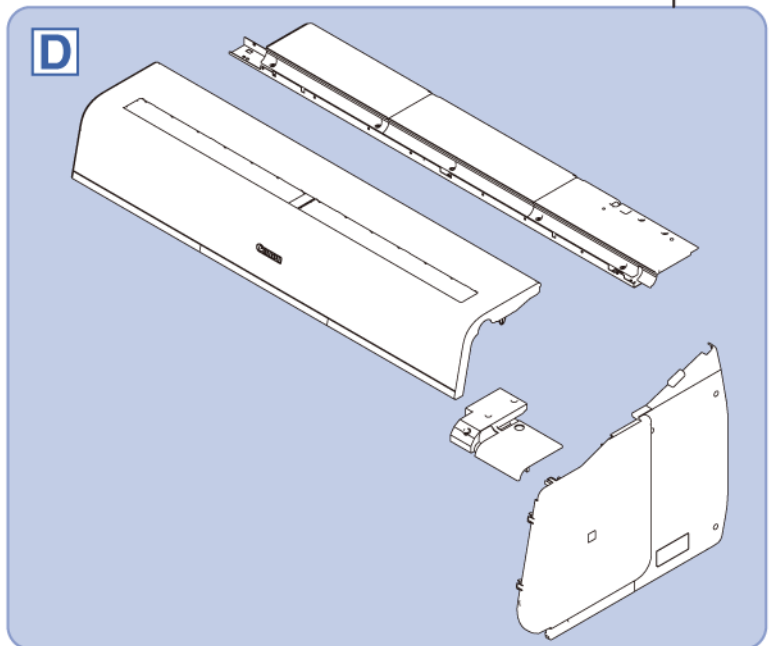
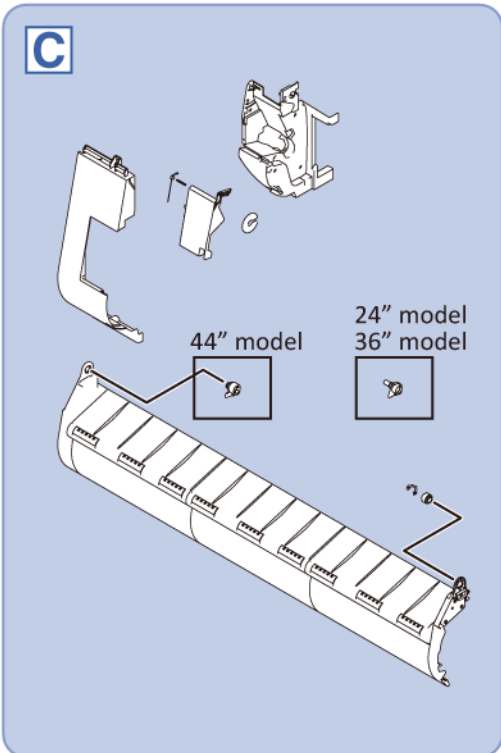
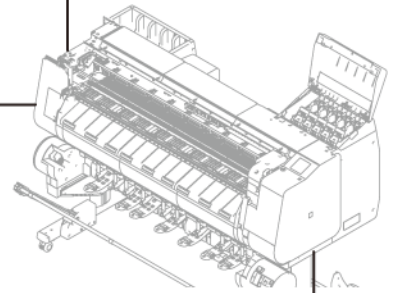
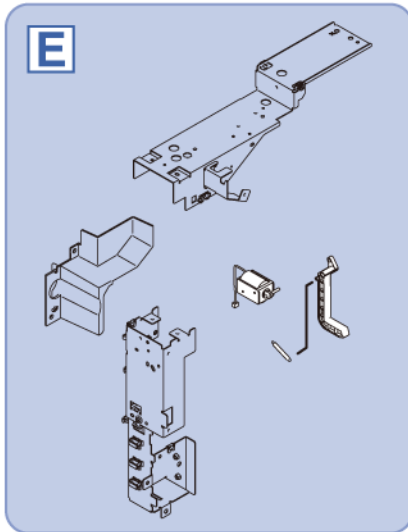
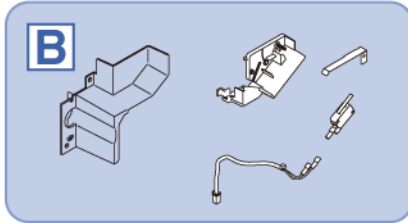
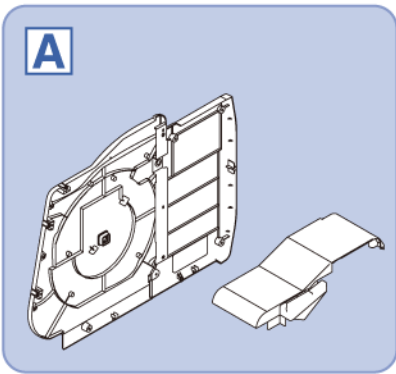
[2]	[W]	[E]	[R]
			
2 pcs	11 pcs	3 pcs	1 pc

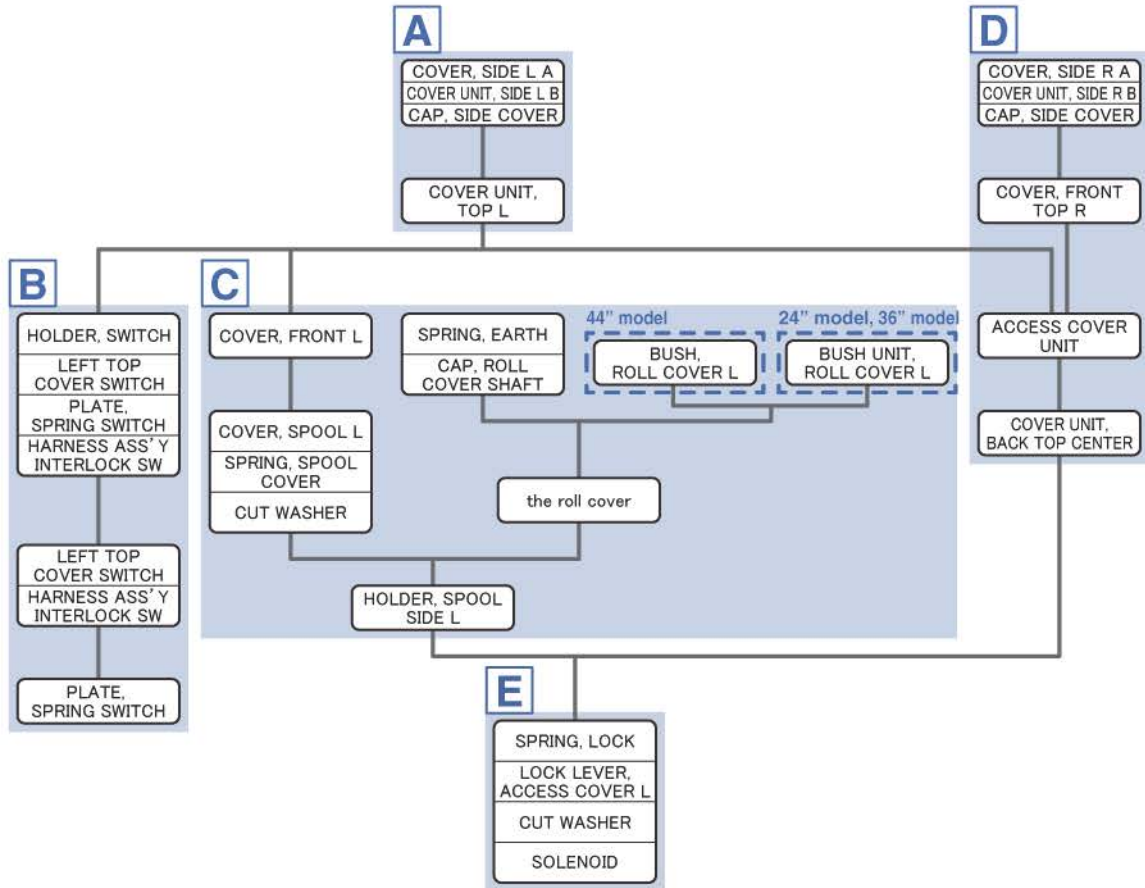









### 3 LEFT FRONT (ACCESS COVER LOCK L)

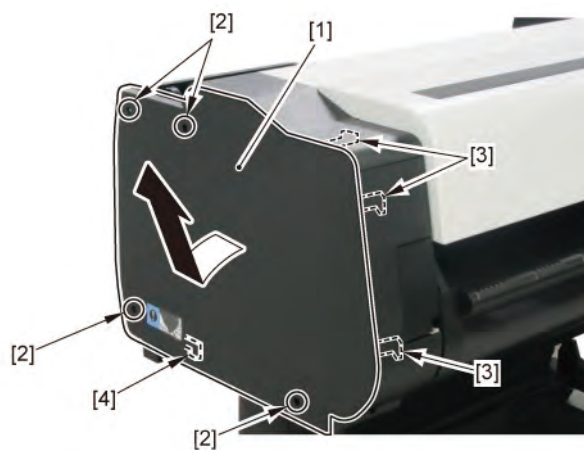




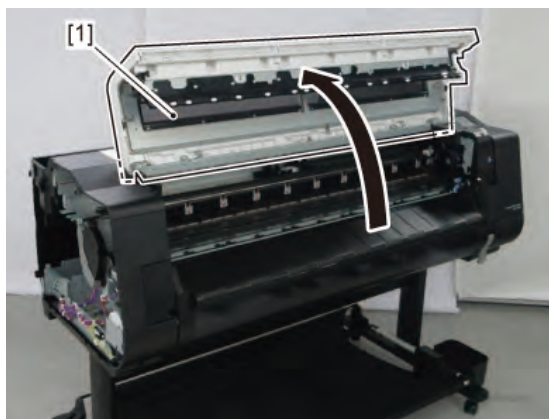
**A**

- Remove [1] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.



[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc

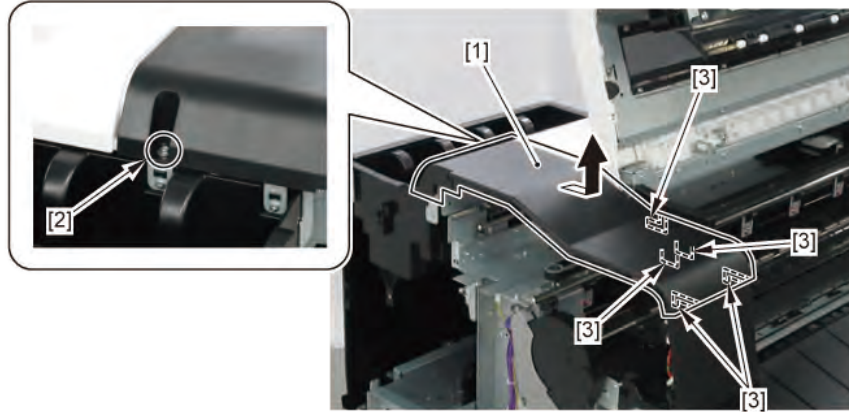


- Open [1] the access cover.





### 3. Remove [1] COVER, TOP L.

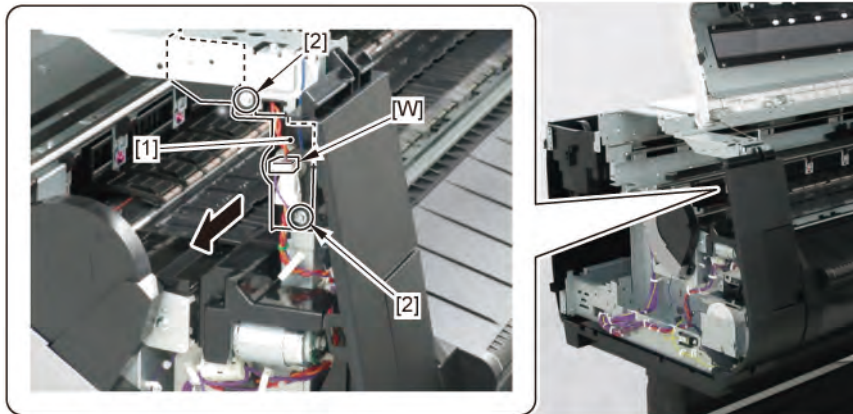
[2]	[3]
	
1 pc	5 pcs



## B




1. Remove all the parts of Group A.
2. Remove [1] the inner cover L.

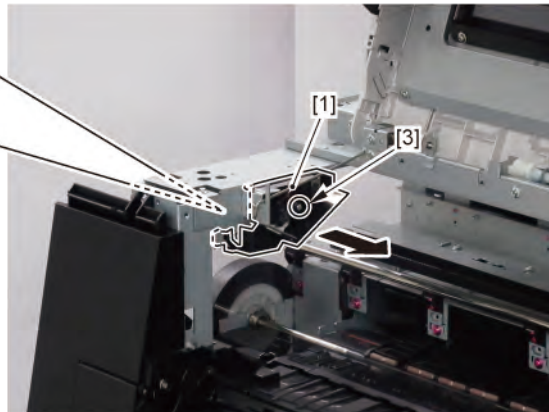
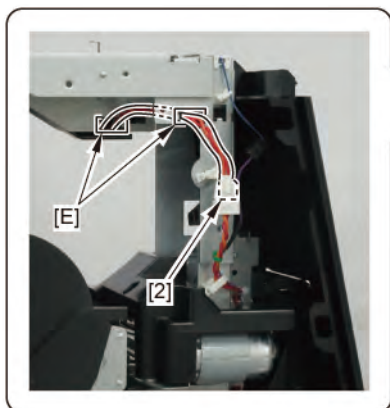
[2]	[W]
	
2 pcs	1 pc




### 3. Remove [1] HOLDER, SWITCH (with

- LEFT TOP COVER SWITCH
- PLATE, SPRING SWITCH
- HARNESS ASS'Y, INTERLOCK SW).

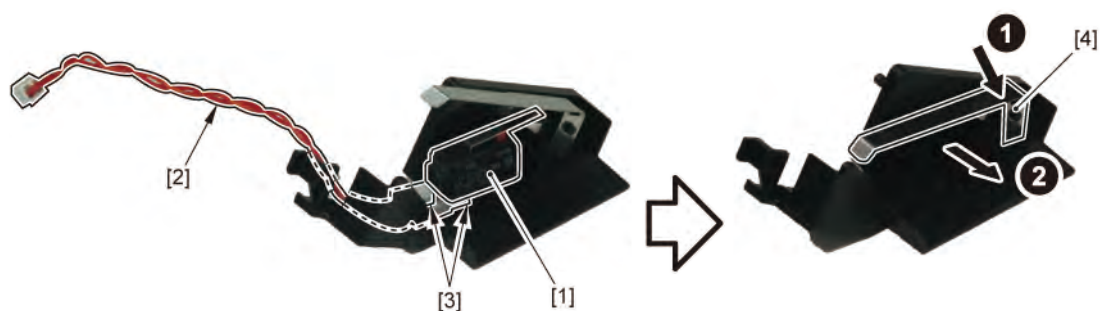
[2]	[3]	[E]
	 LONG	
1 pc	1 pc	2 pcs



### 4. Remove [1] LEFT TOP COVER SWITCH and [2] HARNESS ASS'Y, INTERLOCK SW.

[3]

2 pcs


### 5. Remove [4] PLATE, SPRING SWITCH.

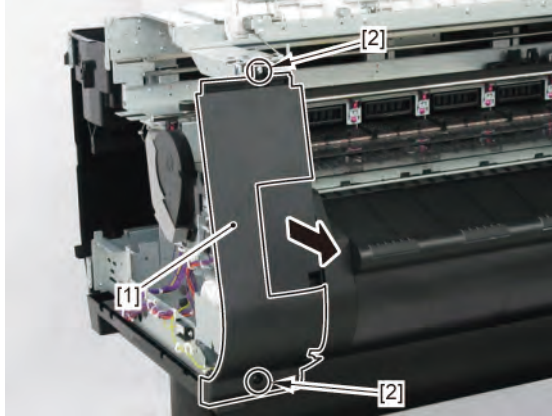




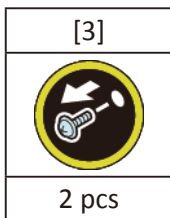
C

1. Remove all the parts of Group A.
2. Remove [1] COVER, FRONT L.

[2]

2 pcs

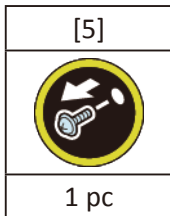


3. Remove [1] SPRING, EARTH and [2] CAP, ROLL COVER SHAFT.

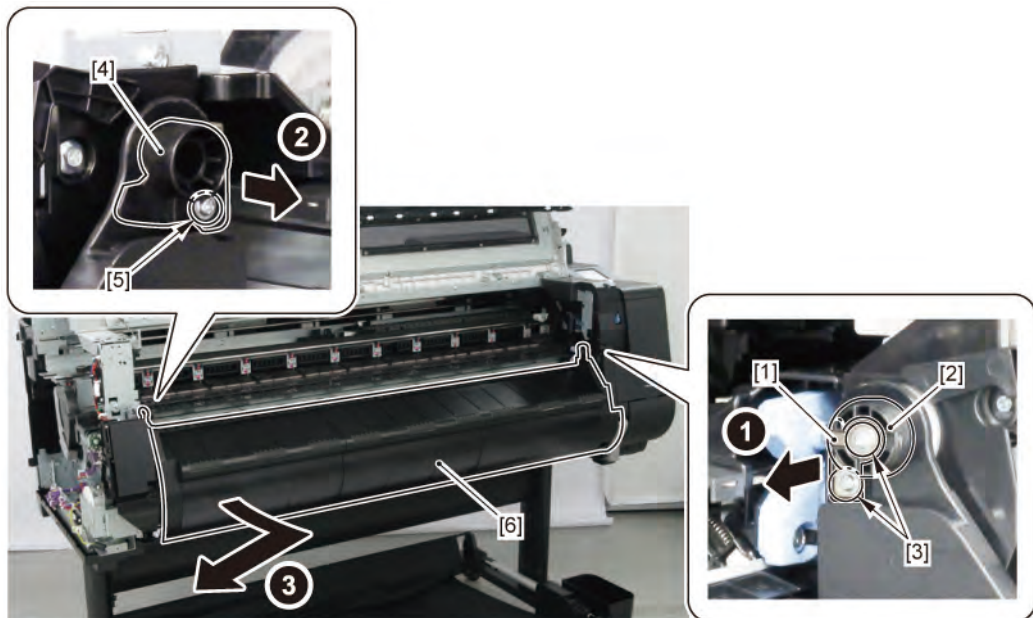


4. Remove [4] BUSH, ROLL COVER L.

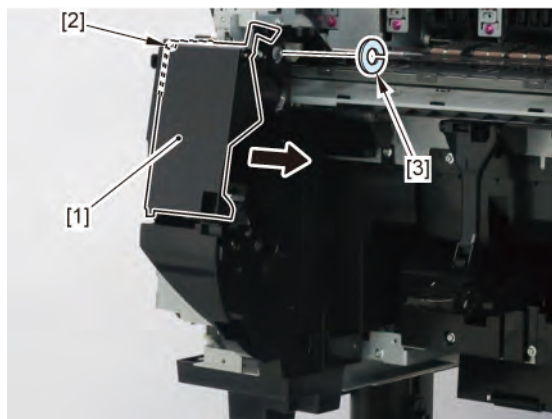
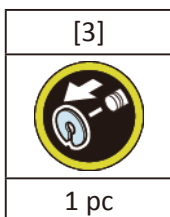
(the BUSH UNIT, ROLL COVER L in 24" model and 36" model)




5. Remove [6] the roll cover.

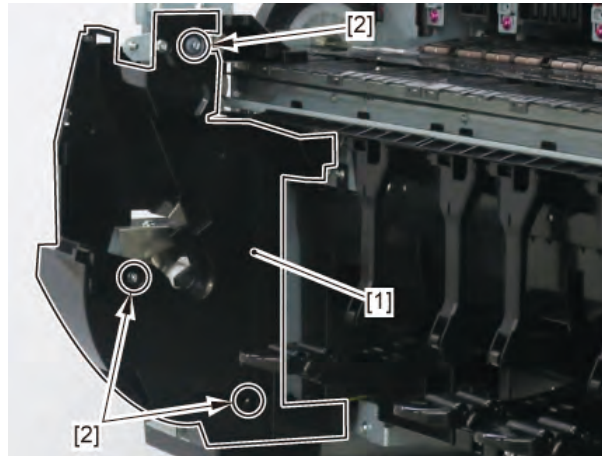


6. Remove [1] COVER, SPOOL L and [2] SPRING, SPOOL COVER.






## 7. Remove [1] HOLDER, SPOOL SIDE L.

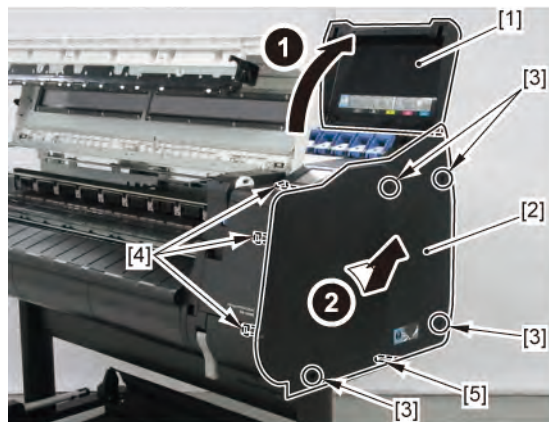
[2]

3 pcs




## D

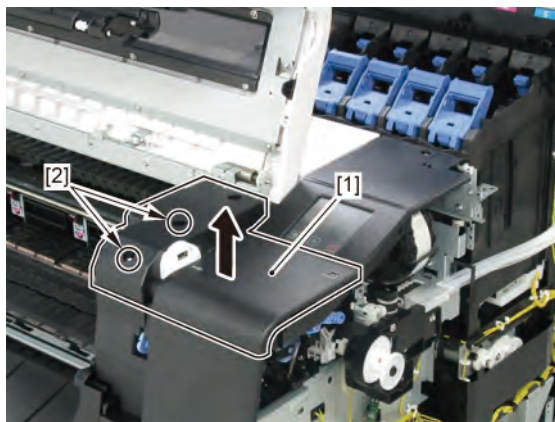
1. Remove all the parts of Group A.
2. Open [1] the right ink tank cover.
3. Remove [2] a set of
  - COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc




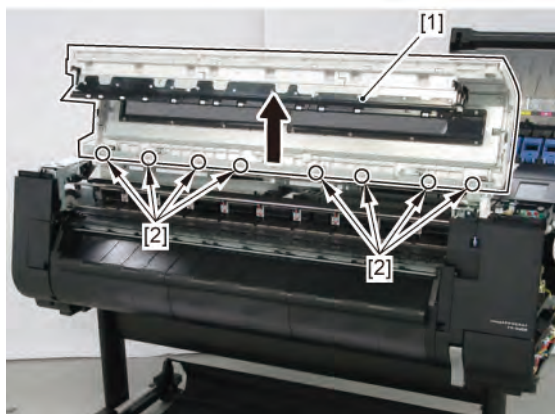
4. Remove [1] COVER, FRONT TOP R.

[2]

2 pcs




5. Remove [1] ACCESS COVER UNIT with holding the handles.

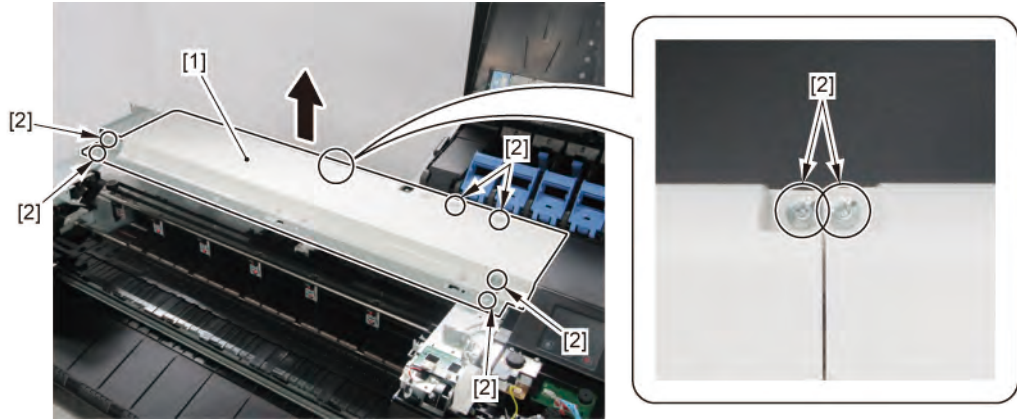
	[2]
	
24" model	5 pcs
36" model	7 pcs
44" model	8 pcs



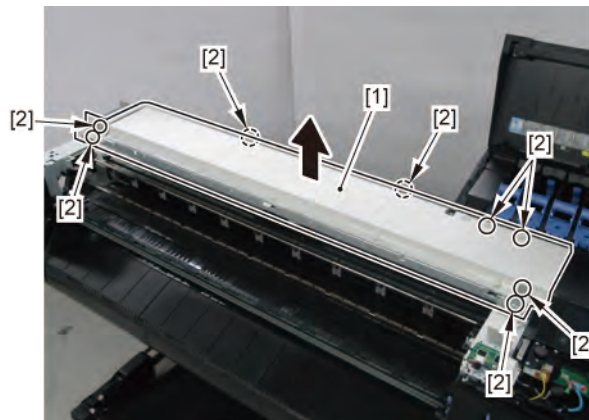
6. Remove [1] COVER UNIT, BACK TOP CENTER.

[2]

8 pcs

(24" model)





(36" model, 44" model)

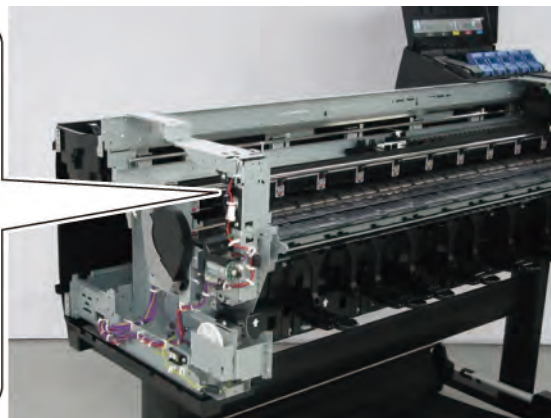
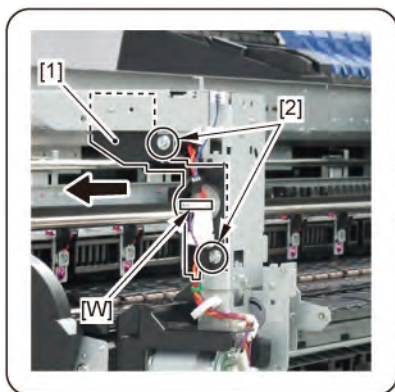







## E

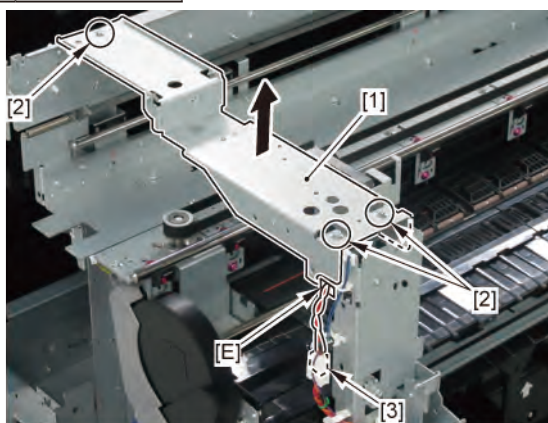
1. Remove all the parts of Groups A, C, and D.
2. Remove [1] the inner cover.

[2]	[W]
	
2 pcs	1 pc



3. Remove [1] the plate.

[2]	[3]	[E]
		
3 pcs	1 pc	1 pc








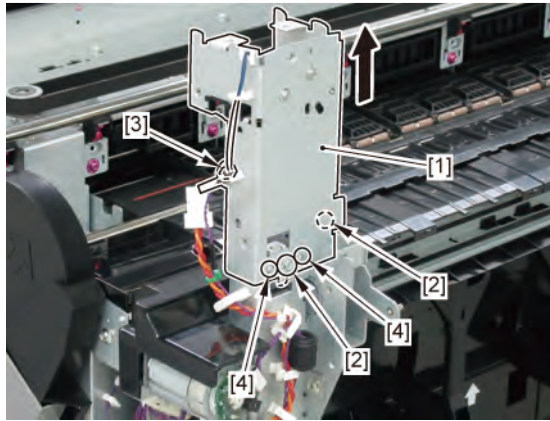
#### 4. Remove [1] the plate with

- SPRING, LOCK

- LOCK LEVER, ACCESS COVER L


- SOLENOID.

[2]	[3]	[4]
		
2 pcs	1 pc	2 pcs






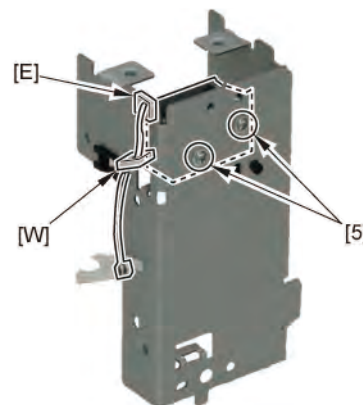
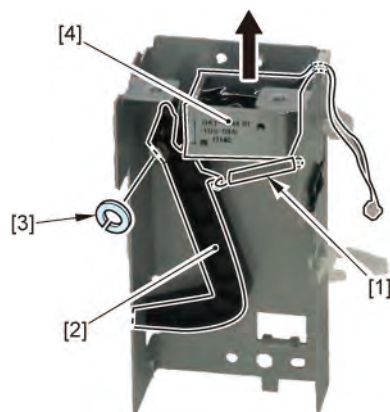
#### 5. Remove [1] SPRING, LOCK.

#### 6. Remove [2] LOCK LEVER, ACCESS COVER L.

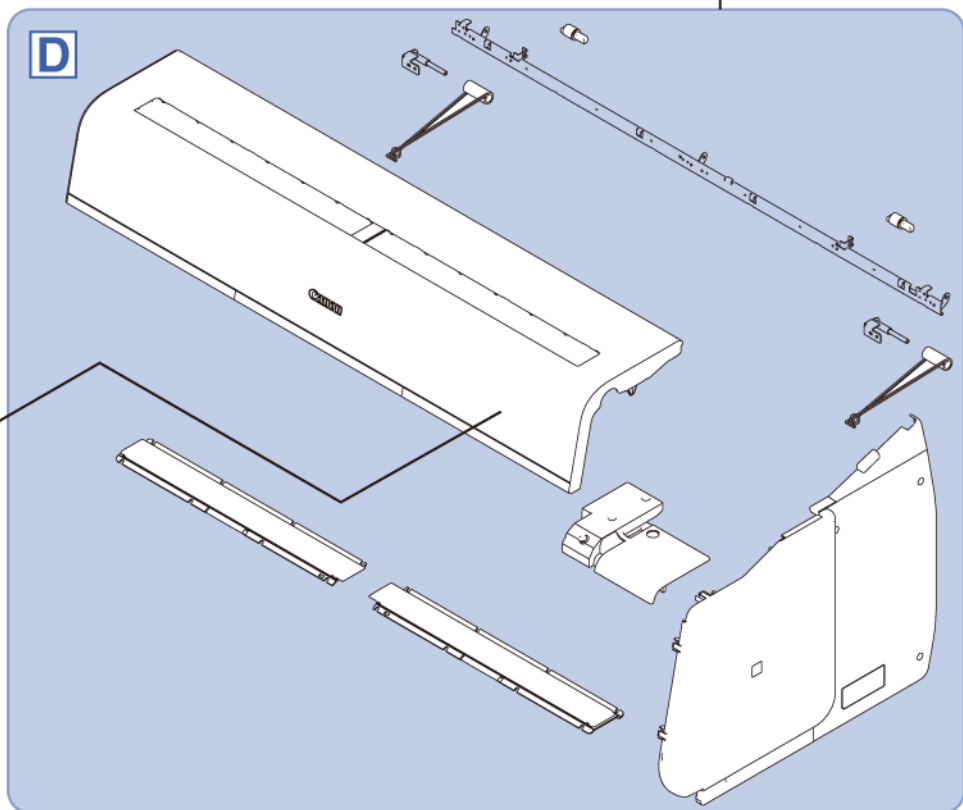
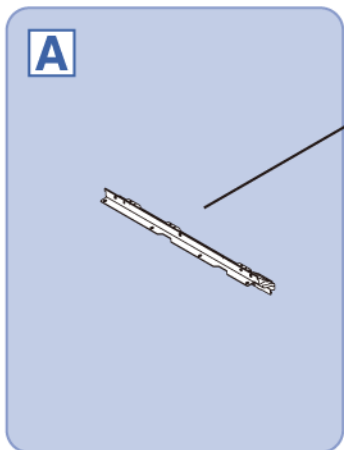
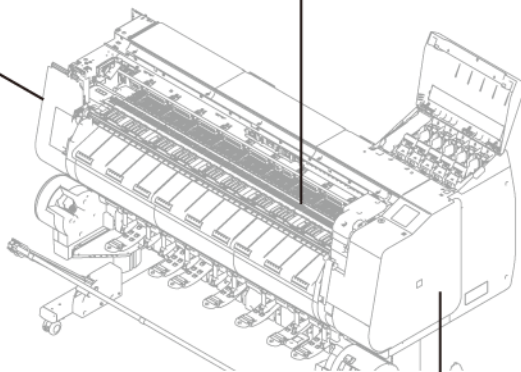
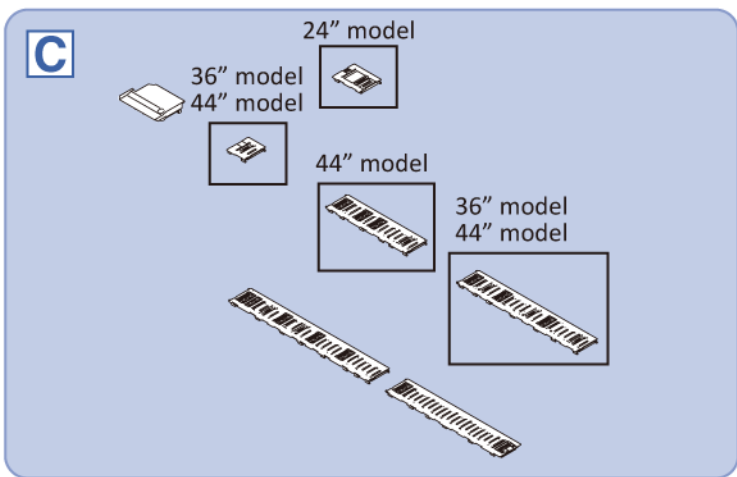
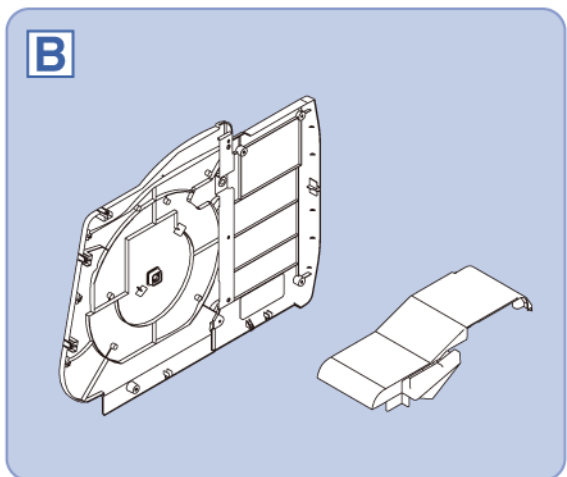
[3]

1 pc

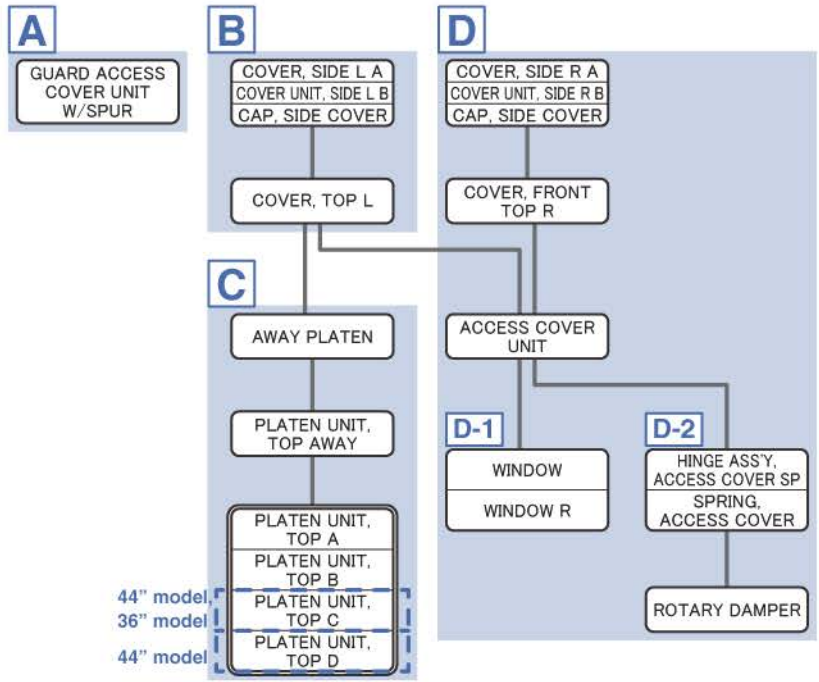
#### 7. Remove [4] SOLENOID.

[5]	[W]	[E]
		
2 pcs	1 pc	1 pc



# 4 ACCESS COVER






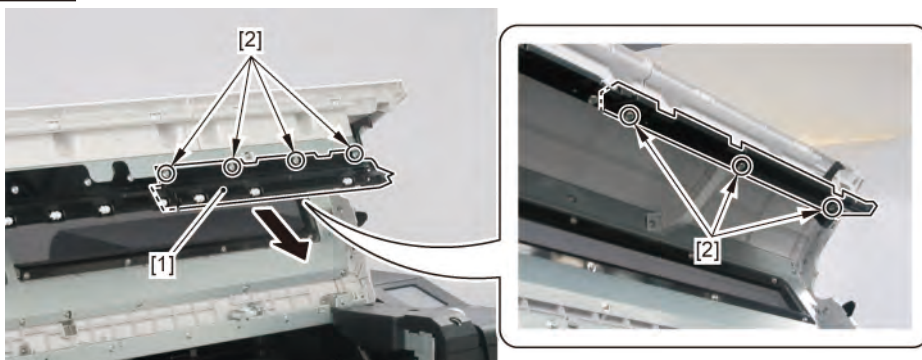
A

1. Open [1] the access cover.






2. Remove [1] GUARD ACCESS COVER UNIT W/SPUR.

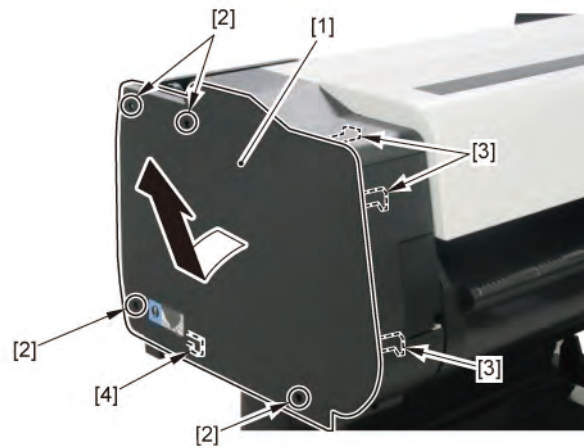
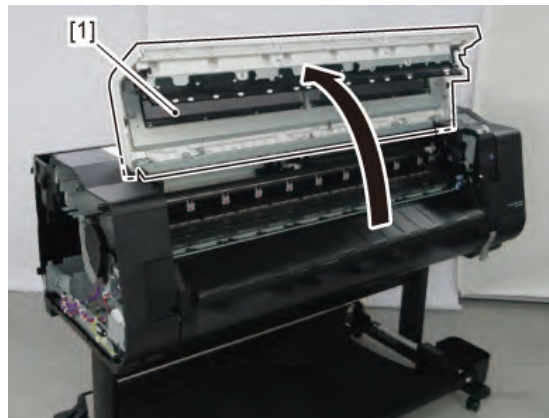
[2]

7 pcs





**B****1.** Remove [1] a set of

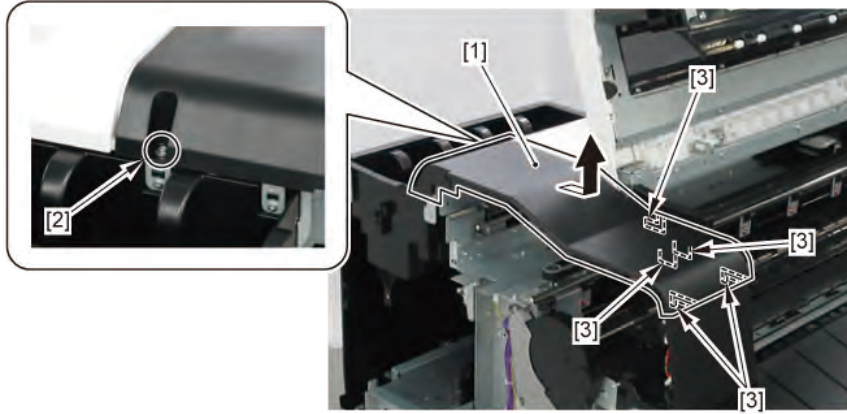
- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.

[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc

**2.** Open [1] the access cover.



3. Remove [1] COVER, TOP L.

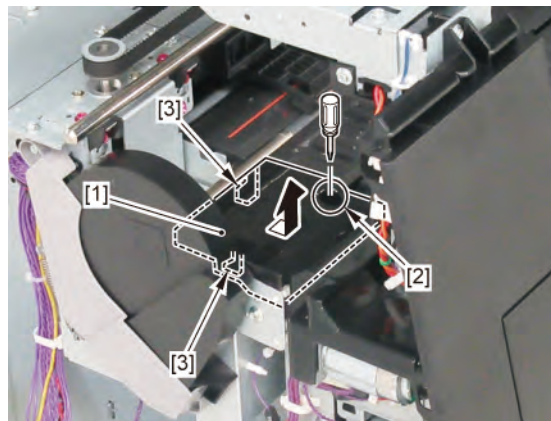
[2]	[3]
	
1 pc	5 pcs



C

1. Remove all the parts of Group B.
2. Remove [1] AWAY PLATEN.


[2]	[3]
	
1 pc	2 pcs

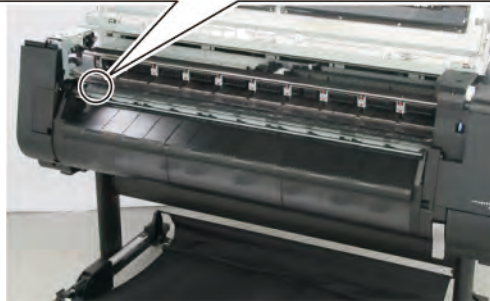
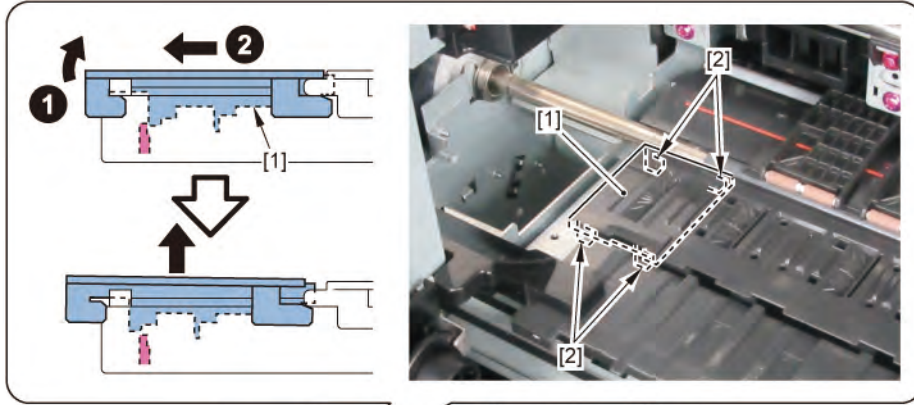


Use a stubby screwdriver.



3. Remove [1] PLATEN UNIT, TOP AWAY.

[2]

4 pcs







## 4. Remove

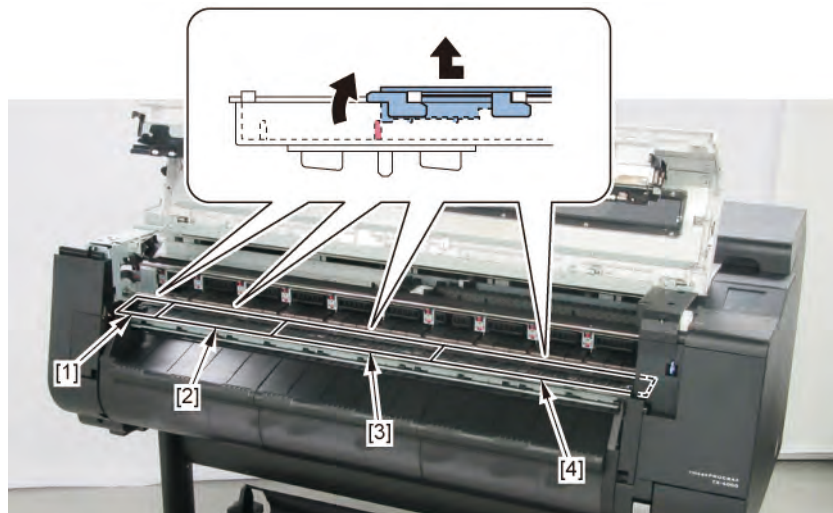
[1] PLATEN UNIT, TOP D

[2] PLATEN UNIT, TOP C

[3] PLATEN UNIT, TOP B, and

[4] PLATEN UNIT, TOP A.

	PLATEN UNIT, TOP			
	A [4]	B [3]	C [2]	D [1]
				
	12 pcs	16 pcs	14 pcs	12 pcs
24" model	remove	remove	-	-
36" model	remove	remove	remove	-
44" model	remove	remove	remove	remove






### Notes when assembling the unit:

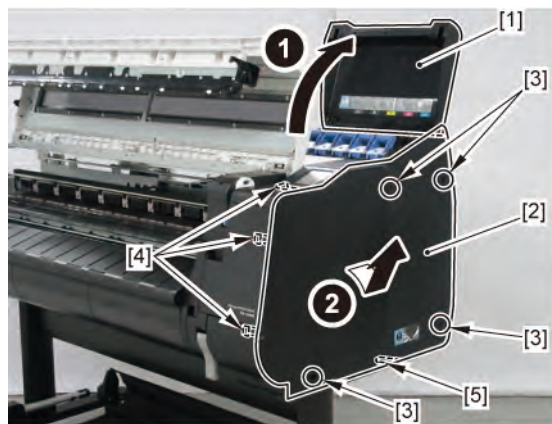
Perform adjustment at the end of assembly.

[SERVICE MODE > ADJUSTMENT > CR REG]


## D

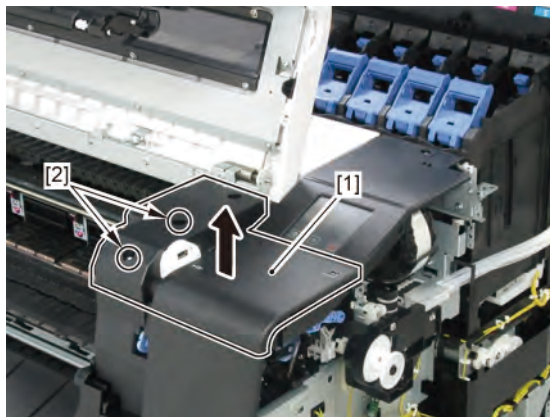
1. Remove all the parts of Group B.
2. Open [1] the right ink tank cover.
3. Remove [2] a set of
  - COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc




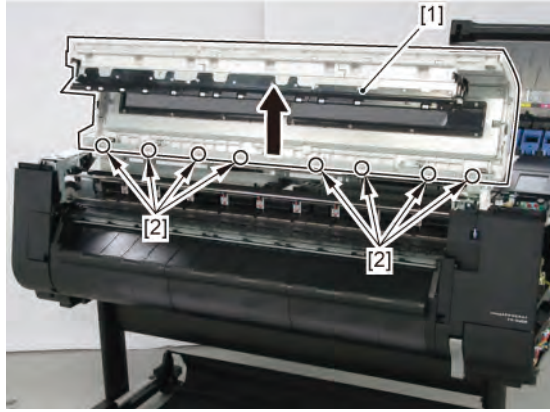
4. Remove [1] COVER, FRONT TOP R.

[2]

2 pcs




5. Remove [1] ACCESS COVER UNIT with holding the handles.

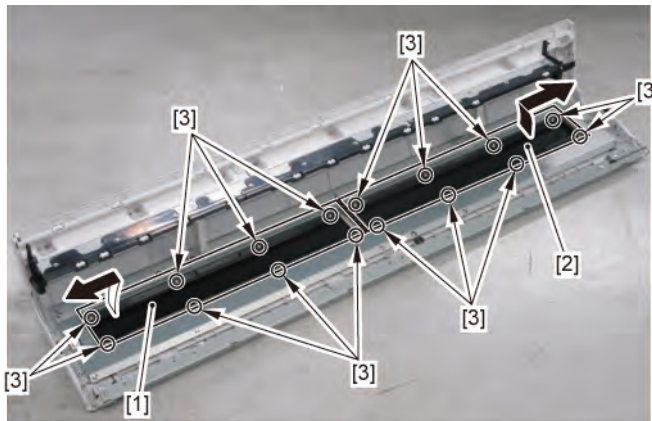
	[2]
	
24" model	5 pcs
36" model	7 pcs
44" model	8 pcs



**D-1**


6. Remove [1] WINDOW and [2] WINDOW R.

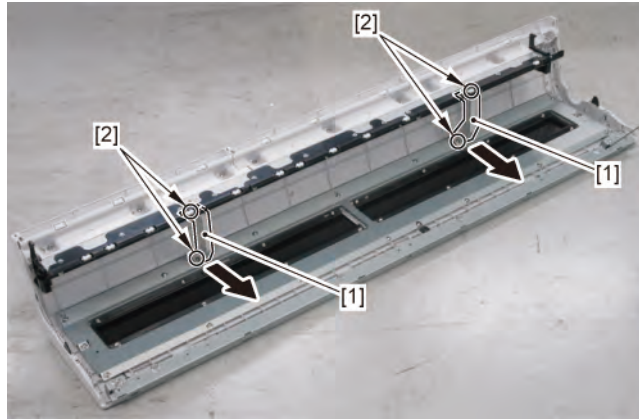
[3]

8 pcs each




## D-2

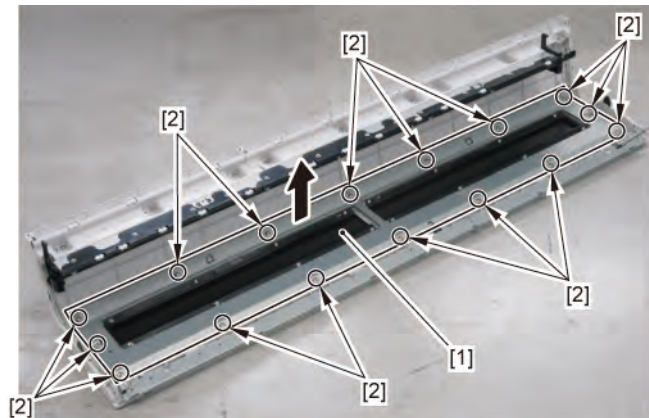
6. Remove [1] two handles.

[2]

2 pcs each





7. Remove [1] the plate.

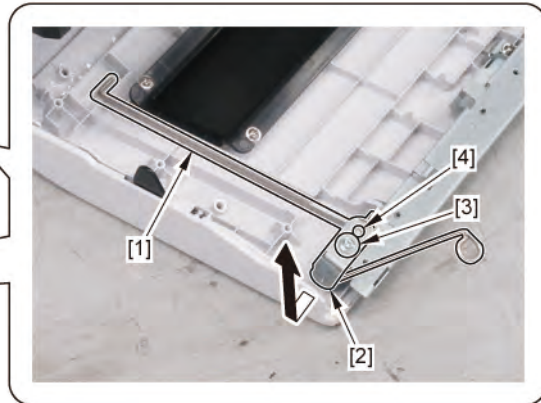
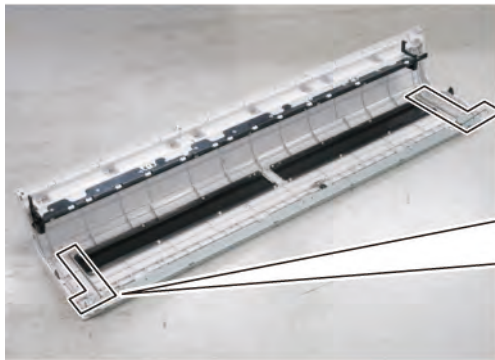
	[2]
	
24" model	12 pcs
36" model	16 pcs
44" model	16 pcs





8. Remove [1] two SPRING, ACCESS COVER and [2] two HINGE ASS'Y, ACCESS COVER SP.

[3]	[4]
	
1 pc each	1 pc each

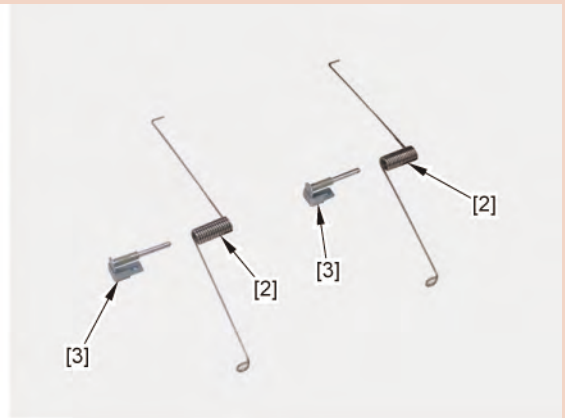
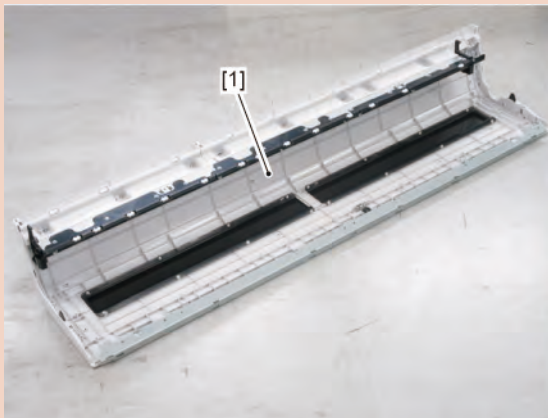


**Notes when replacing ACCESS COVER UNIT:**

[2] SPRING, ACCESS COVER and [3] HINGE ASS'Y, ACCESS COVER SP are not included in [1] ACCESS COVER UNIT S.



When replacing ACCESS COVER UNIT, detach SPRING, ACCESS COVER, and HINGE ASS'Y, ACCESS COVER SP from the removed old ACCESS COVER UNIT. Attach the detached SPRING, ACCESS COVER and HINGE ASS'Y, ACCESS COVER SP to a new ACCESS COVER UNIT S.

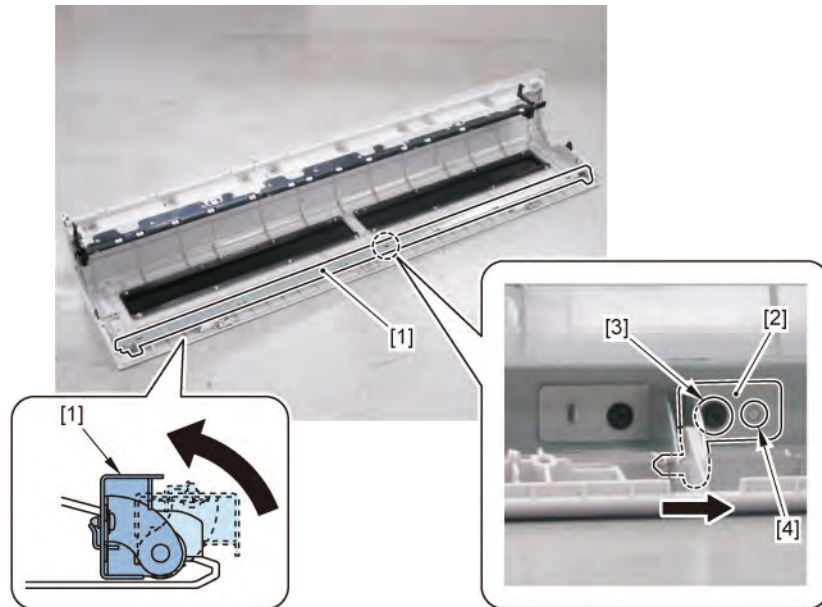
**Point**





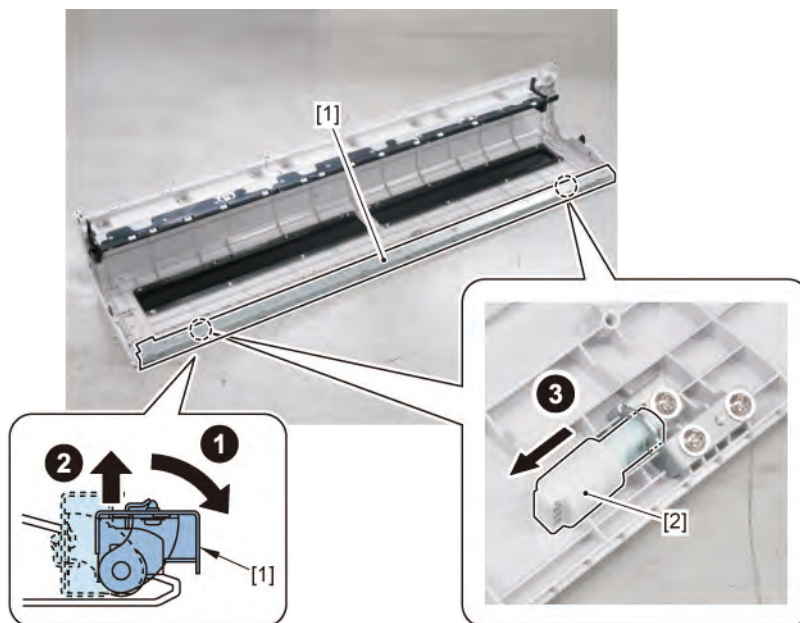
9. Turn [1] the plate as shown below and remove [2] the shaft

[3]	[4]
	
BK	
1 pc	1 pc

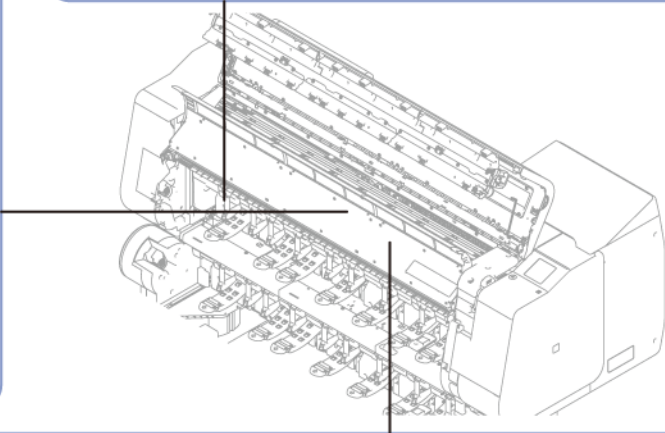
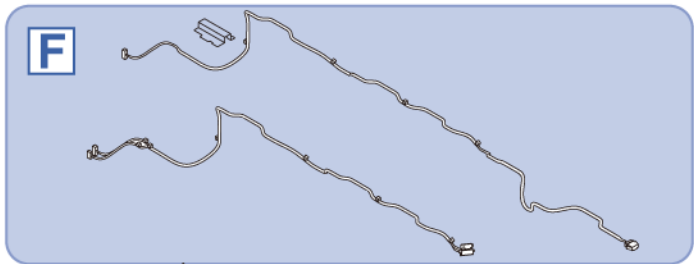
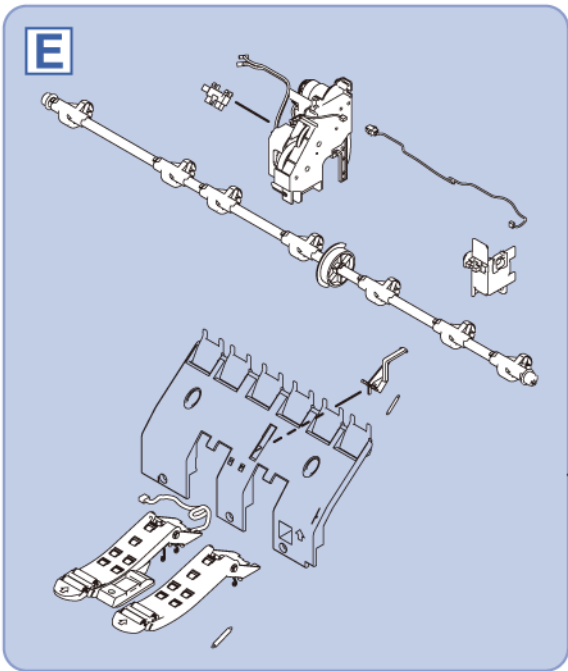


10. Return [1] the plate to the original position, then remove the plate.

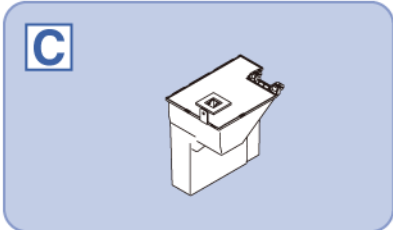
11. Remove [2] ROTARY DAMPER.



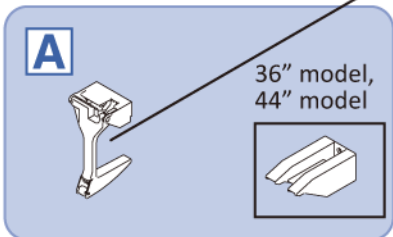
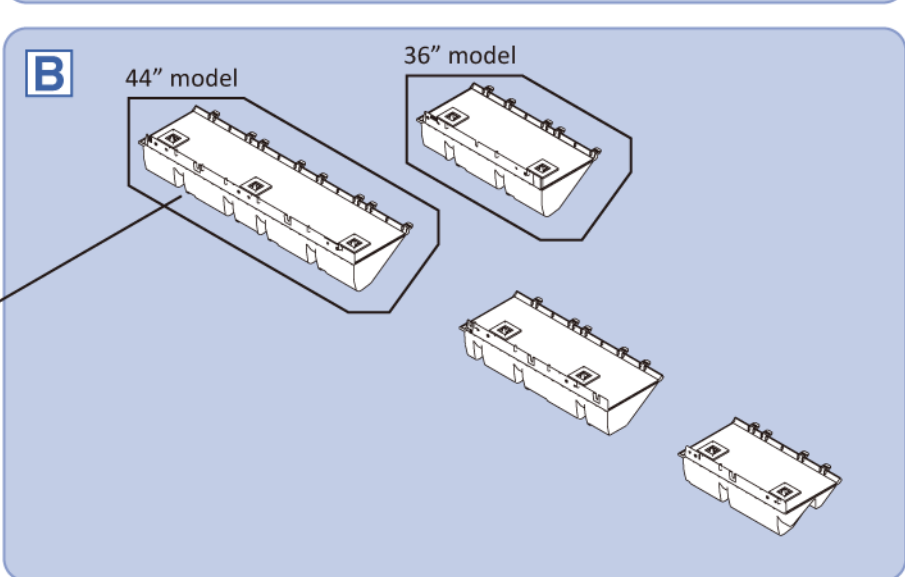
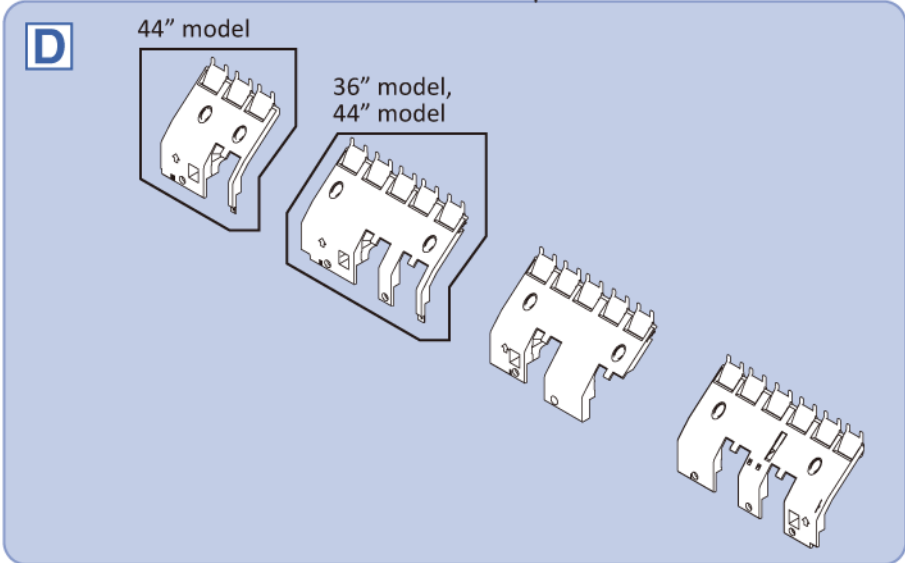
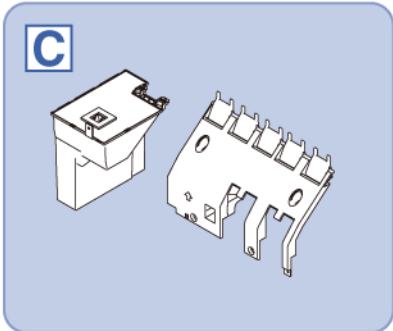
# 5 FRONT1 (NIP ARM UNIT / WASTE INK ABSORBER)

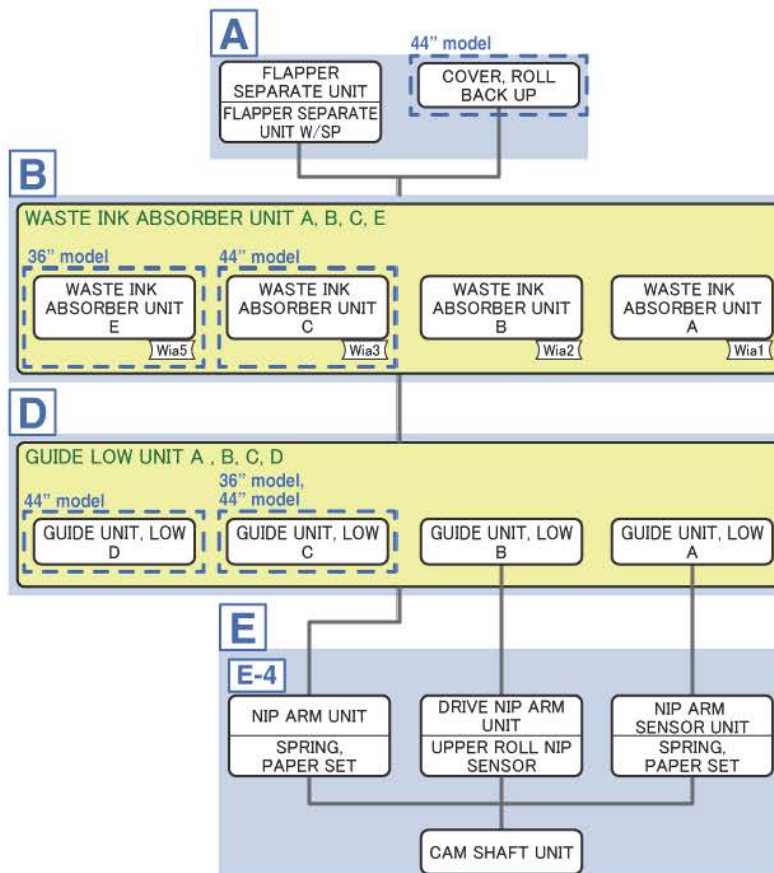
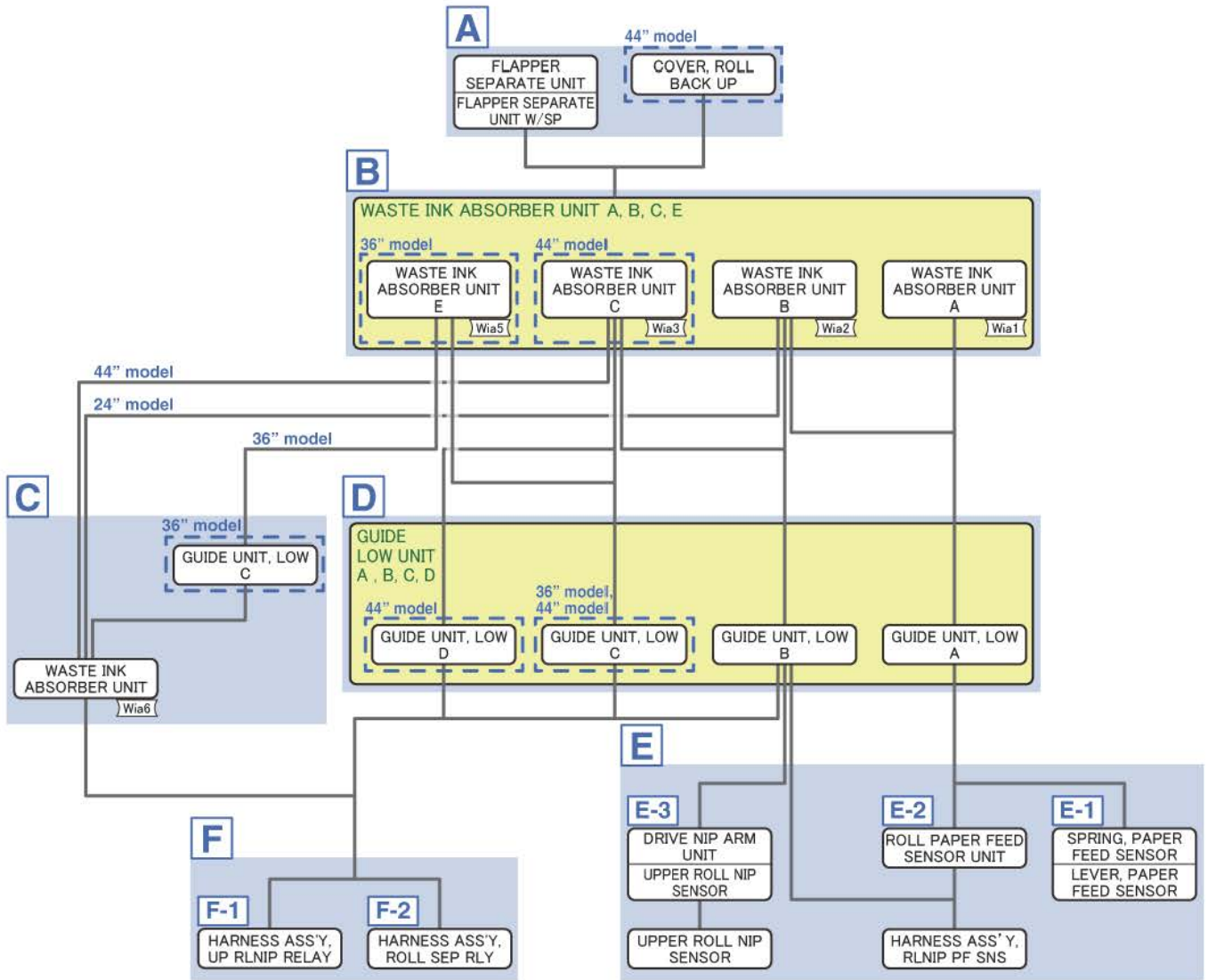


24" model, 44" model



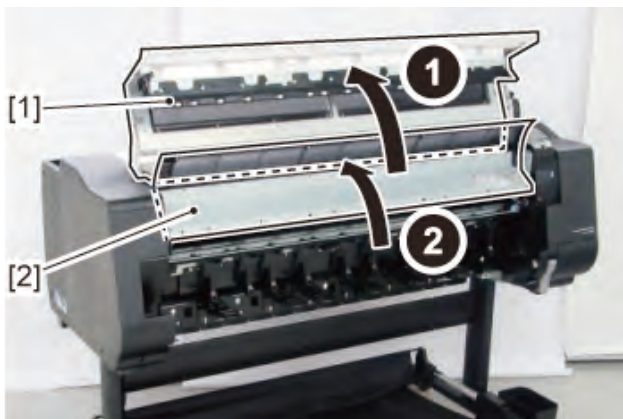
36" model





**A**

1. Open [1] the access cover.
2. Open [2] the roll cover.



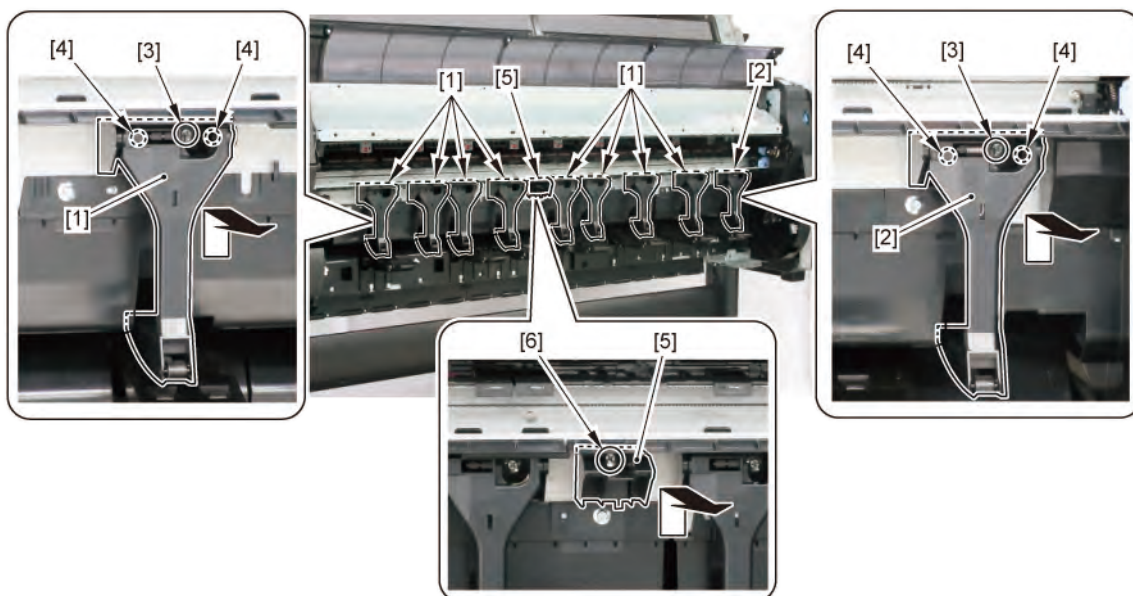
3. Remove eight pieces of [1] FLAPPER SEPARATE UNIT (four pieces in 24" model, six pieces in 36" model) and [2] FLAPPER SEPARATE UNIT W/SP.

[3]	[4]
1 pc each	2 pcs each

4. (44" model only)

Remove [5] COVER, ROLL BACK UP.

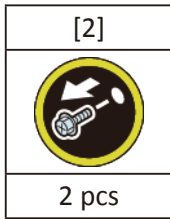
[6]
1 pc



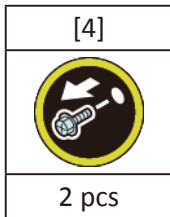


**B**

1. Remove all the parts of Group A.
2. Remove [1] WASTE INK ABSORBER UNIT A.

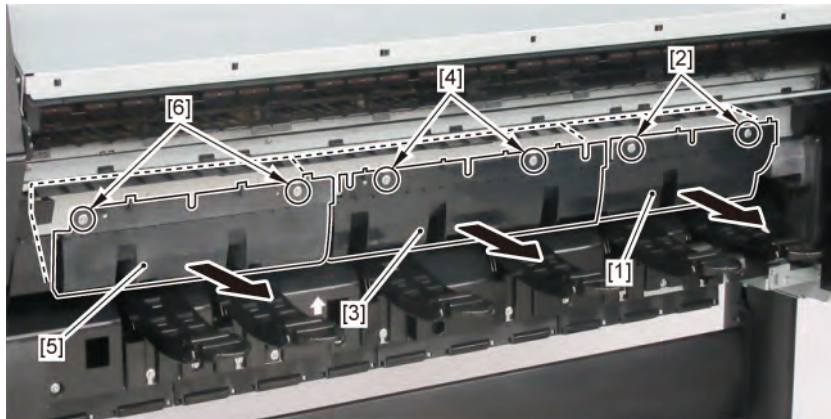
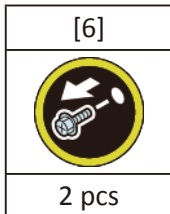


3. Remove [3] WASTE INK ABSORBER UNIT B.




4. (36" model only)

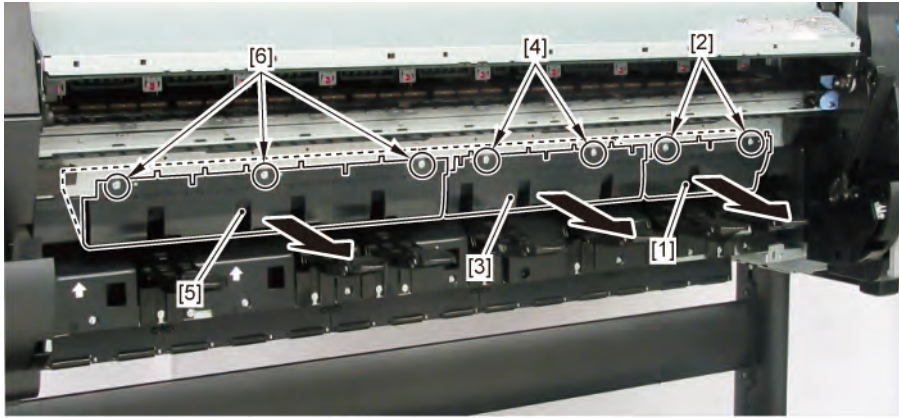
Remove [5] WASTE INK ABSORBER UNIT E.



#### 4. (44" model only)

Remove [5] WASTE INK ABSORBER UNIT C.

[6]

3 pcs



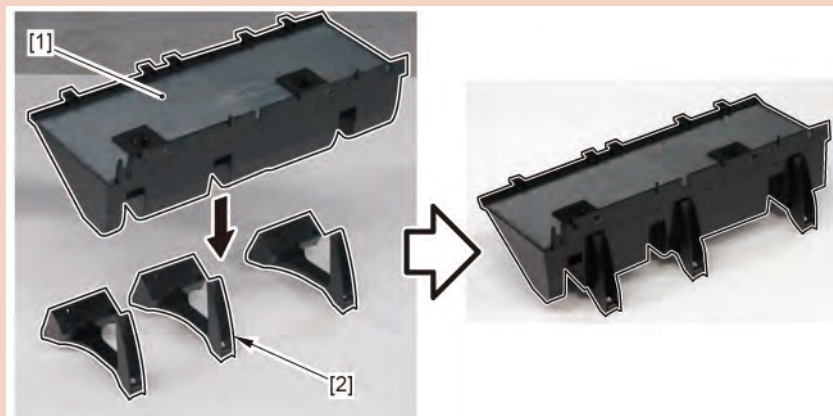
#### Points of disassembly:

- When removing GUIDE UNIT, LOW A, B, C, or D, or INK ABSORBER UNIT, remove only the corresponding WASTE INK ABSORBER UNIT A, B, C, or E, described as "remove" in the list.

	WASTE INK ABSORBER UNIT A	WASTE INK ABSORBER UNIT B	WASTE INK ABSORBER UNIT C	WASTE INK ABSORBER UNIT E
GUIDE UNIT, LOW A	remove	remove	-	-
GUIDE UNIT, LOW B	-	remove	remove	-
GUIDE UNIT, LOW C	-	-	remove (44")	remove (36")
GUIDE UNIT, LOW D	-	-	remove (44")	-
WASTE INK ABSORBER UNIT	-	remove (24")	remove (44")	remove (36")



- To prevent ink leakage from the absorber, place the removed [1] WASTE INK ABSORBER with [2] FLAPPER, SEPARATE fi ed in place as shown below.







**Notes when the unit is replaced:**

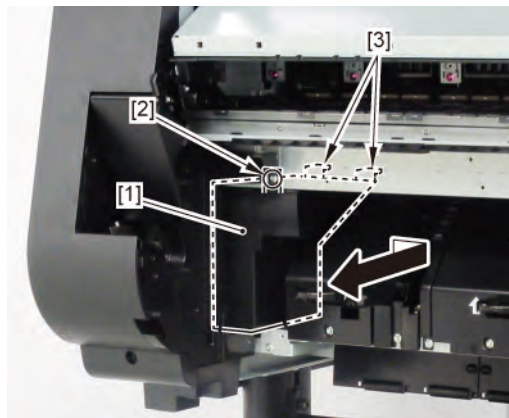
Reset the applicable counter when the unit is replaced:

- WASTE INK ABSORBER UNIT A  
[SERVICE MODE > PARTS COUNTER > Wia1]
- WASTE INK ABSORBER UNIT B  
[SERVICE MODE > PARTS COUNTER > Wia2]
- WASTE INK ABSORBER UNIT C  
[SERVICE MODE > PARTS COUNTER > Wia3]
- WASTE INK ABSORBER UNIT E  
[SERVICE MODE > PARTS COUNTER > Wia5]

**C (24" model, 44" model)**

1. Remove all the parts of Groups A and B.
2. Remove [1] WASTE INK ABSORBER UNIT.

[2]	[3]
	
1 pc	2 pcs

**Notes when the unit is replaced:**


Reset the counter when the unit is replaced.

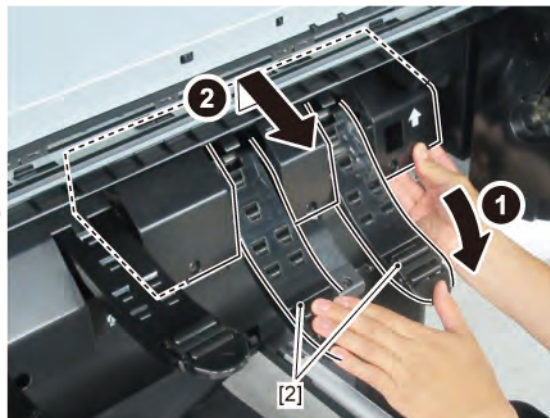
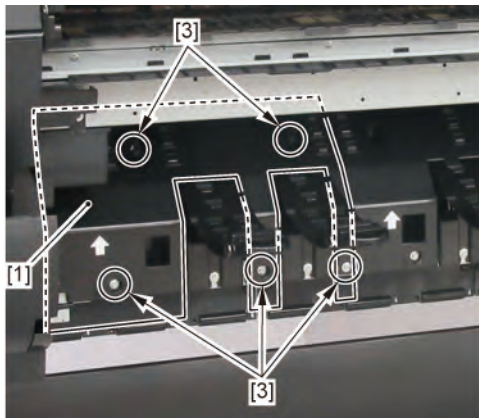
[SERVICE MODE > PARTS COUNTER > Wia6]



### C (36" model)

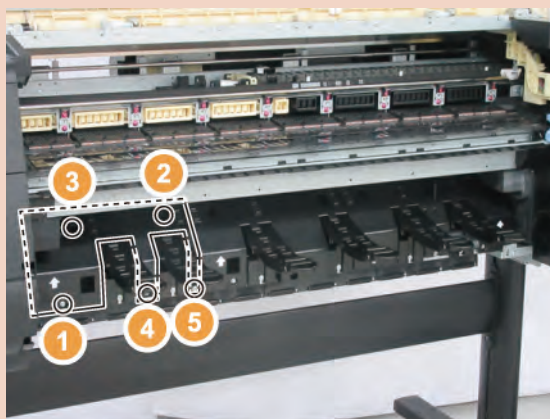
1. Remove all the parts of Groups A and B.
2. Push down [2] NIP ARM UNIT and remove [1] GUIDE UNIT, LOW C.

[3]

5 pcs





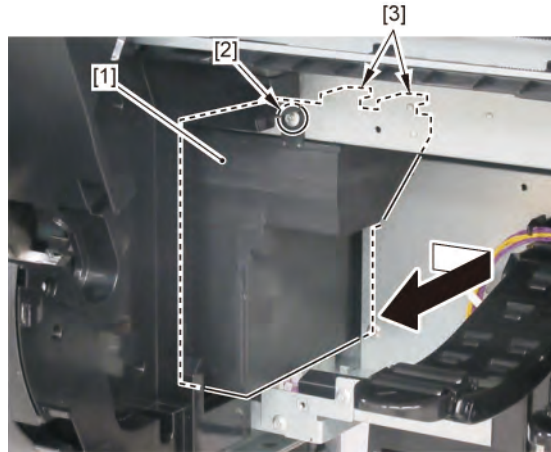
#### Notes when assembling the unit:

Tighten the screws in the order of numbers shown below.



### 3. Remove [1] WASTE INK ABSORBER UNIT.

[2]	[3]
	
1 pc	2 pcs



#### Notes when the unit is replaced:

Reset the counter when the unit is replaced.

[SERVICE MODE > PARTS COUNTER > Wia6]

## D





1. Remove all the parts of Groups A and B.
2. Push down [2] NIP ARM UNIT and remove [1] GUIDE UNIT, LOW A.
3. Push down [2] NIP ARM UNIT and remove [4] GUIDE UNIT, LOW B.

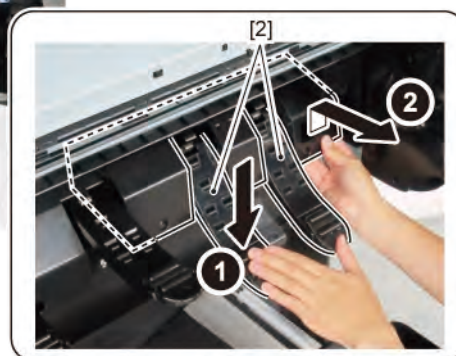
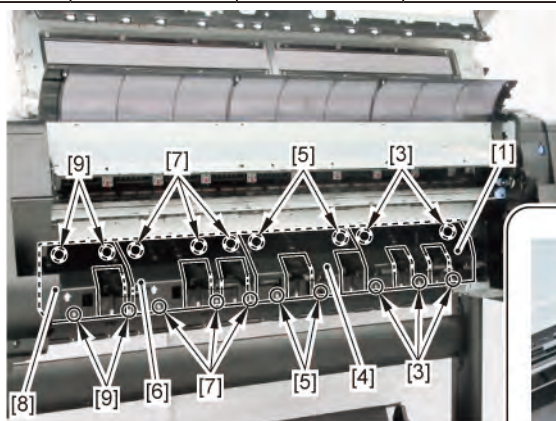
4. (36" model, 44" model only)

Push down [2] NIP ARM UNIT and remove [6] GUIDE UNIT, LOW C.

5. (44" model only)

Push down [2] NIP ARM UNIT and remove [8] GUIDE UNIT, LOW D.

	[3]	[5]	[7]	[9]
				
24" model	5 pcs	4 pcs	-	-
36" model	5 pcs	4 pcs	5 pcs	-
44" model	5 pcs	4 pcs	6 pcs	4 pcs



**Points of disassembly:**

- When removing GUIDE UNIT, LOW A to D or INK ABSORBER UNIT individually, remove only the corresponding parts described in “remove” in the list.

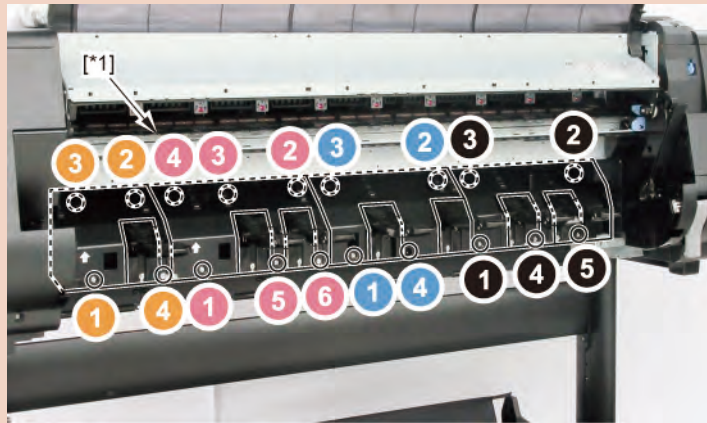
Point

	GUIDE UNIT, LOW A	GUIDE UNIT, LOW B	GUIDE UNIT, LOW C	GUIDE UNIT, LOW D
SPRING, PAPER FEED SENSOR	remove	-	-	-
LEVER, PAPER FEED SENSOR	remove	-	-	-
ROLL PAPER FEED SENSOR UNIT	remove	-	-	-
HARNESS ASS'Y, RLNIP PF SNS	remove	remove	-	-
DRIVE NIP ARM UNIT	-	remove	-	-
UPPER ROLL NIP SENSOR	-	remove	-	-
HARNESS ASS'Y, UP RLNIP RELAY	-	remove	remove	remove
CAM SHAFT UNIT	remove	remove	remove	remove

**Notes when assembling the unit:**

Tighten the screws in the order of numbers shown below.

Point



[\*1] 44" model only.

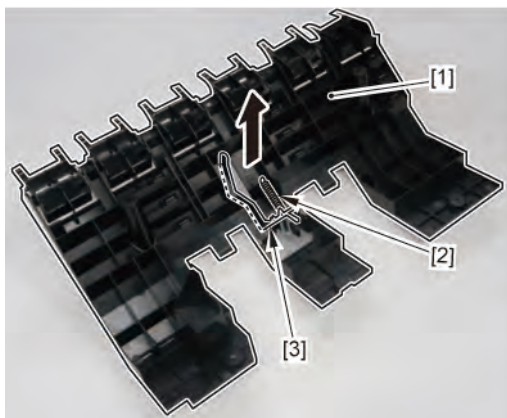


**E**




1. Remove all the parts of Groups A, B, and D.

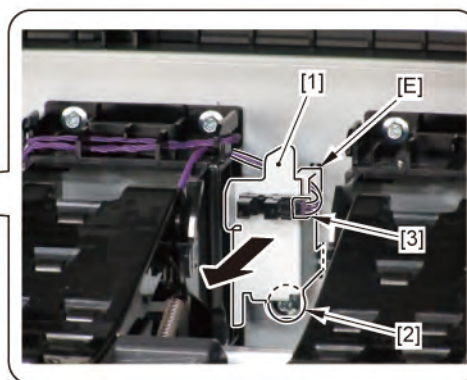
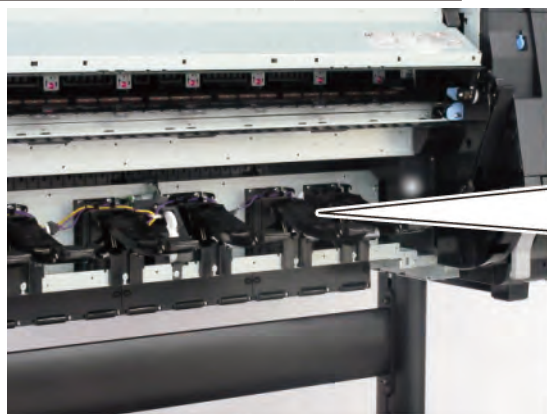
**E-1**

2. From [1] GUIDE UNIT, LOW A, remove [2] SPRING, PAPER FEED SENSOR and [3] LEVER, PAPER FEED SENSOR.

**E-2**




2. Remove [1] ROLL PAPER FEED SENSOR UNIT.

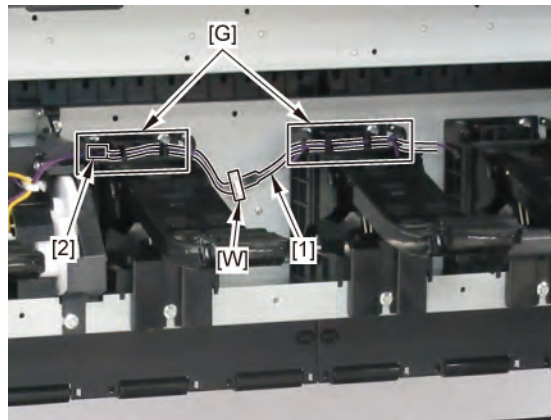
[2]	[3]	[E]
		
1 pc	1 pc	1 pc










### 3. Disconnect [1] HARNESS ASS'Y, RLNIP PF SNS.

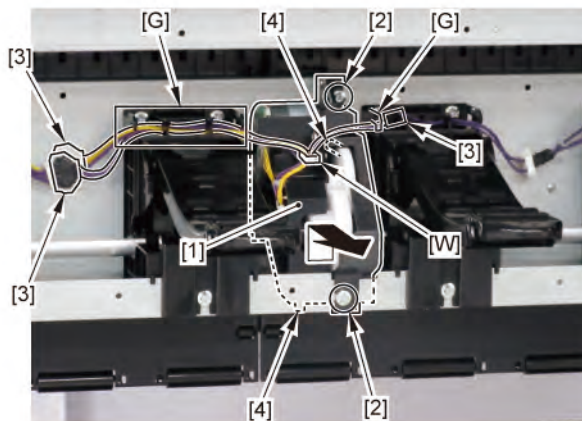
[2]	[W]	[G]
		
1 pc	1 pc	2 pcs





## E-3

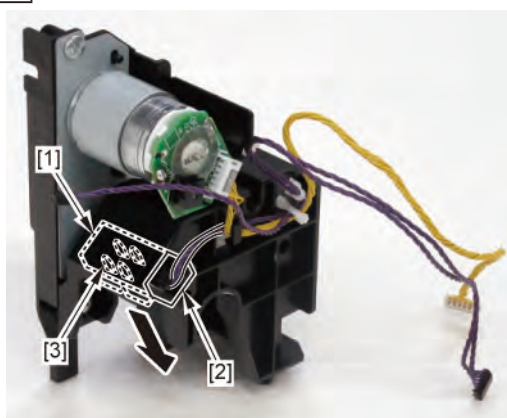
### 2. Remove [1] DRIVE NIP ARM UNIT.

[2]	[3]	[4]	[W]	[G]
				
2 pcs	3 pcs	2 pcs	1 pc	2 pcs








### 3. Remove [1] UPPER ROLL NIP SENSOR.

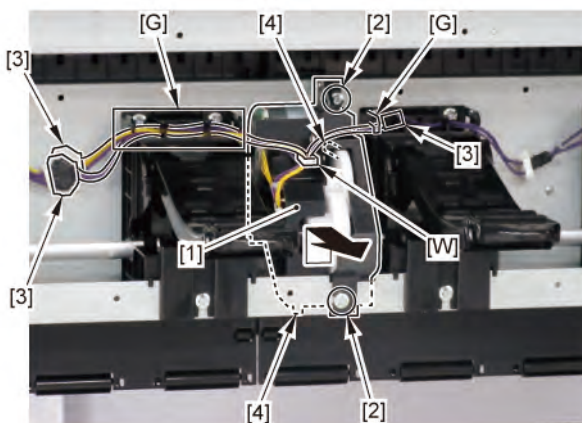
[2]	[3]
	
1 pc	4 pcs





## E-4

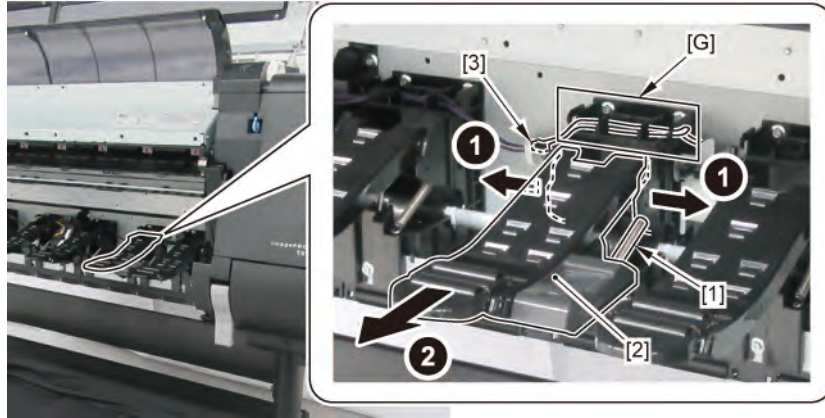
### 2. Remove [1] DRIVE NIP ARM UNIT.

[2]	[3]	[4]	[W]	[G]
				
2 pcs	3 pcs	2 pcs	1 pc	2 pcs

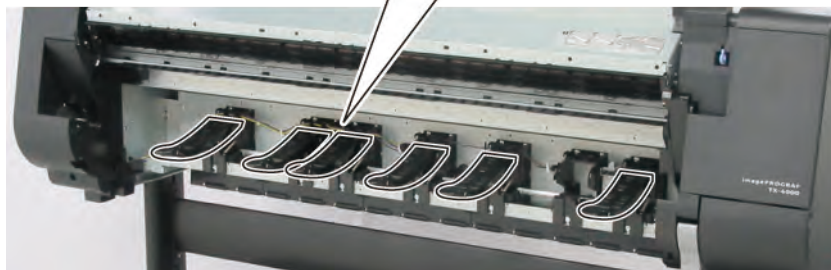
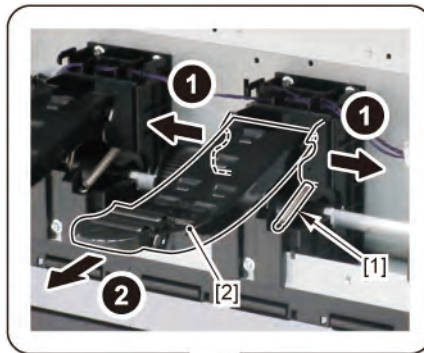


3. Remove [1] SPRING, PAPER SET and [2] NIP ARM SENSOR UNIT.

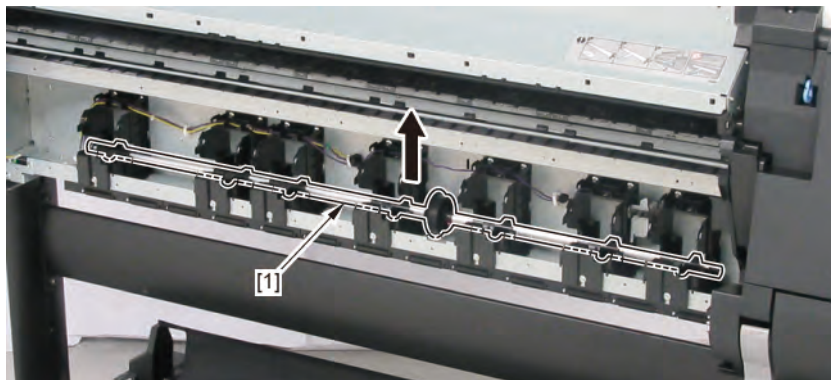
[3]	[G]
	
1 pc	1 pc



4. Remove six pieces each of [1] SPRING, PAPER SET and [2] NIP ARM UNIT.  
(three pieces each in 24" model, five pieces each in 36" model).



5. Remove [1] CAM SHAFT UNIT.

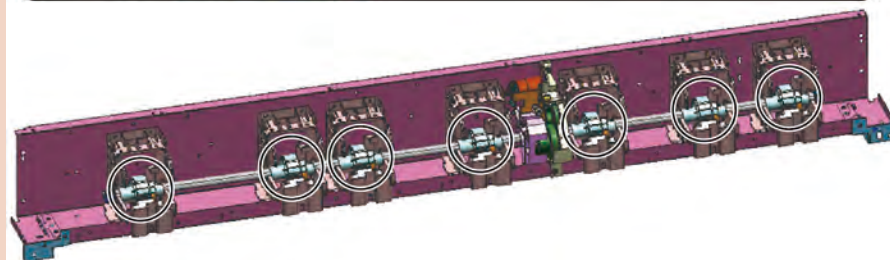
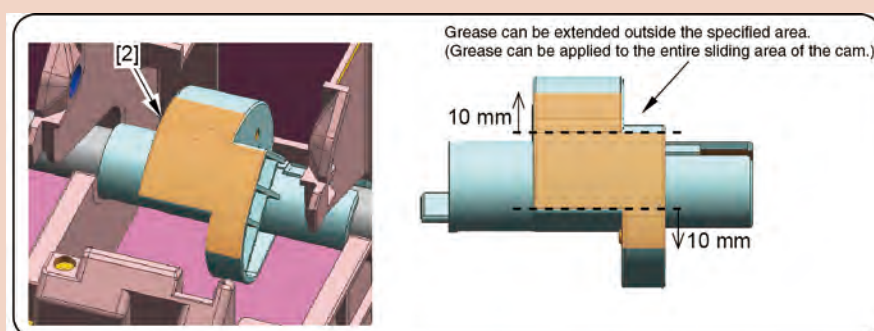
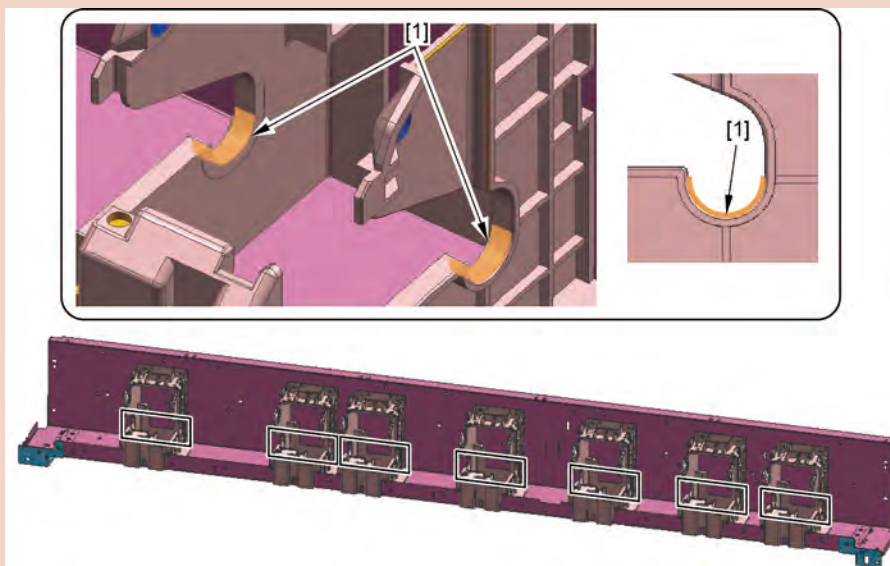




### Notes when the CAM SHAFT UNIT is replaced:

Apply grease to the portions specified below.


- [1]: FLOIL G-31KB, 9 to 18 mg
- [2]: FLOIL G-31KB, 27 to 54 mg

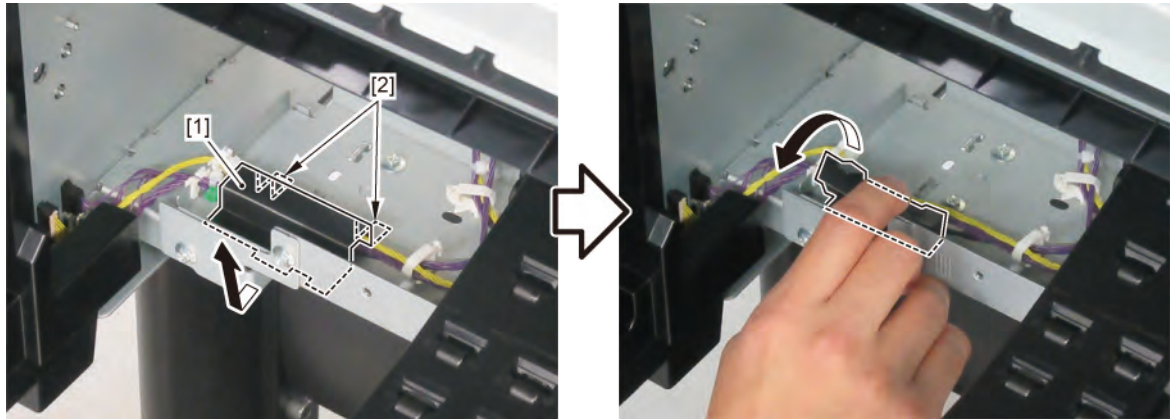




**F**





1. Remove all the parts of Groups A, B, C, and D.
2. Remove [1] the cable cover.

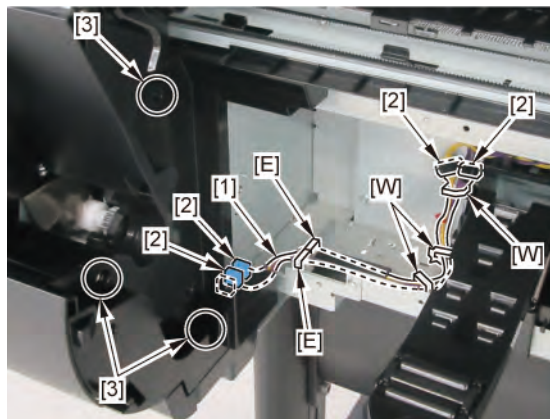
[2]

2 pcs

**F-1**






3. Disconnect [1] HARNESS ASS'Y, UP RLNIP RELAY.

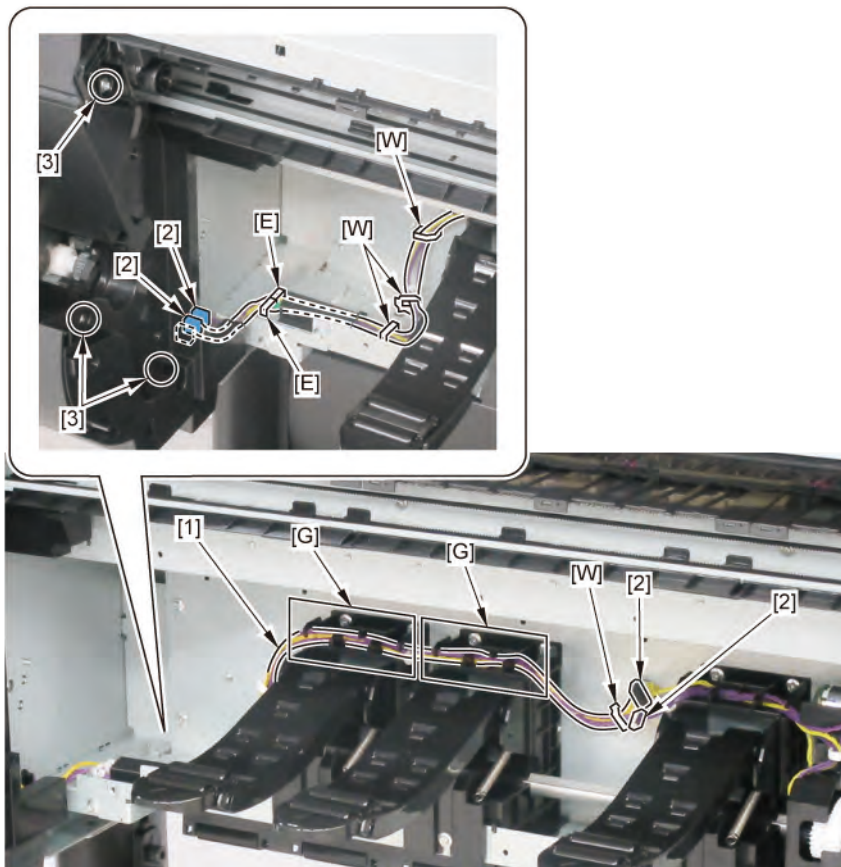
(24" model)

[2]	[3]	[W]	[E]
			
4 pcs	3 pcs	3 pcs	2 pcs








(36" model)

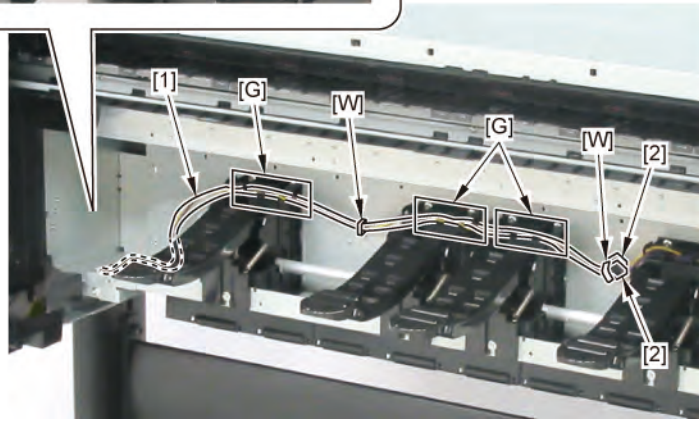
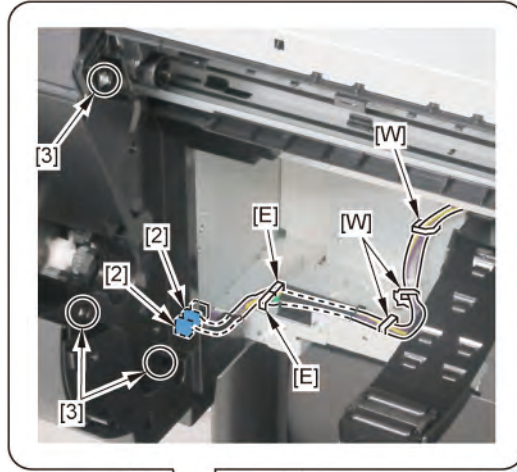
[2]	[3]	[W]	[E]	[G]
				
4 pcs	3 pcs	4 pcs	2 pcs	2 pcs





(44" model)

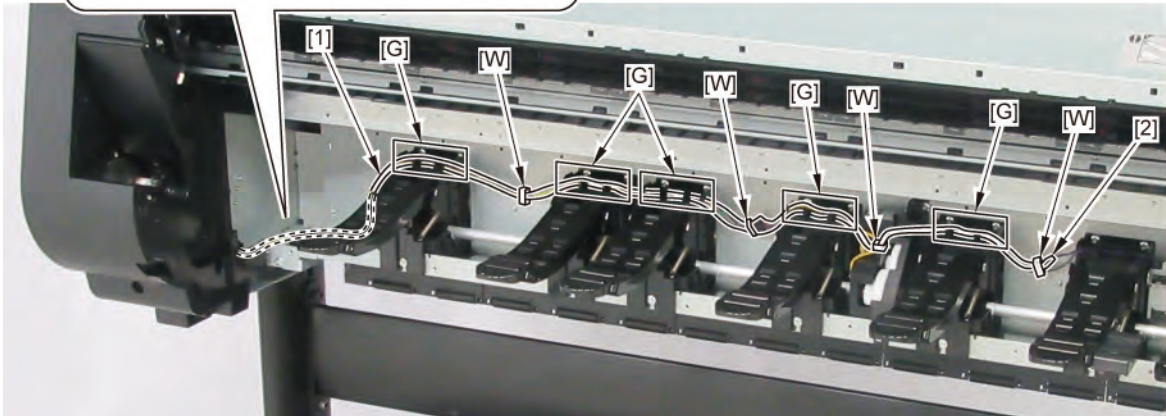
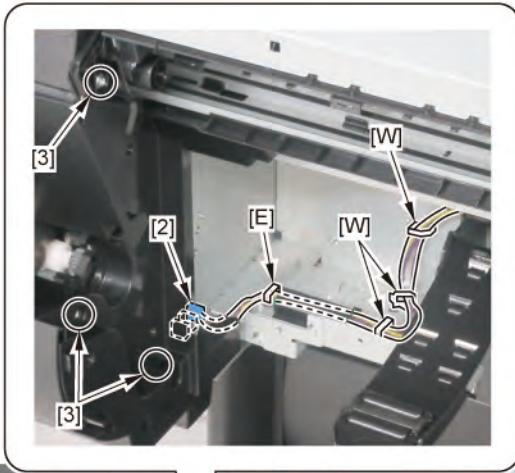
[2]	[3]	[W]	[E]	[G]
				
4 pcs	3 pcs	5 pcs	2 pcs	3 pcs



# F-2

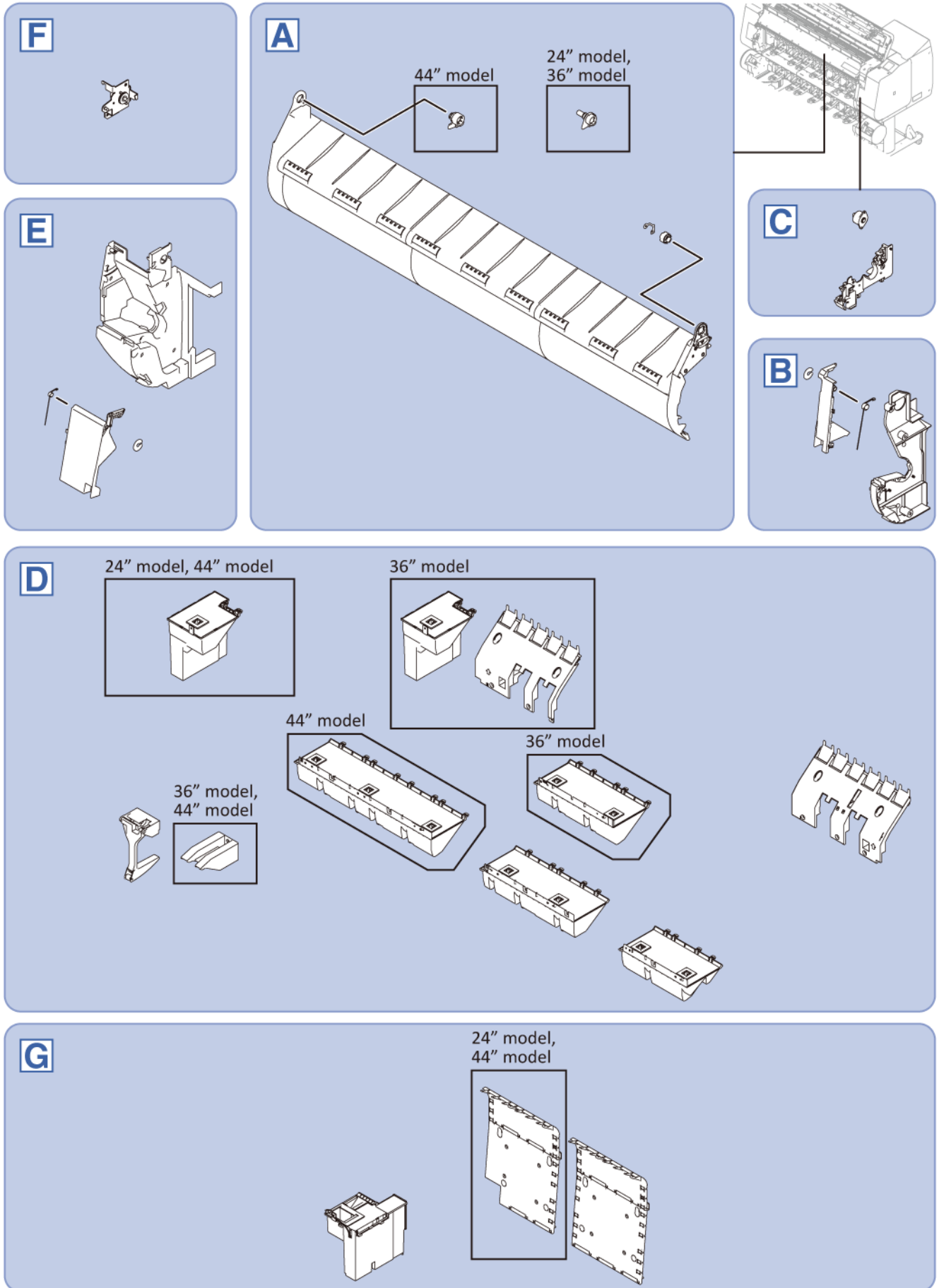
## 3. Disconnect [1] HARNESS ASS'Y, ROLL SEP RLY.

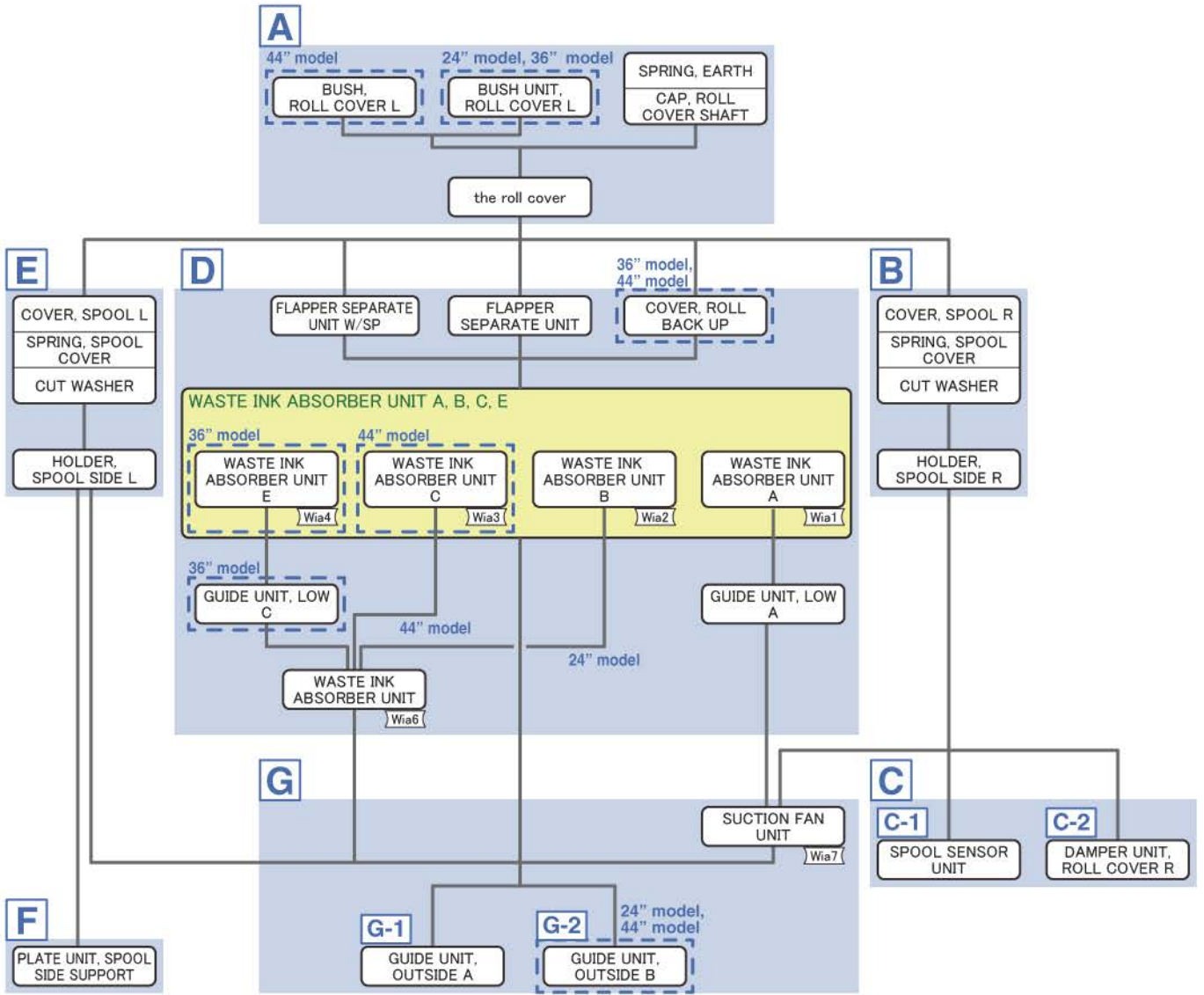
	[2]	[3]	[W]	[E]	[G]
24" model	2 pcs	3 pcs	5 pcs	1 pc	2 pcs
36" model	2 pcs	3 pcs	5 pcs	1 pc	4 pcs
44" model	2 pcs	3 pcs	7 pcs	1 pc	5 pcs





# 6 FRONT2 (SUCTION FAN UNIT / SPOOL SENSOR UNIT)





## A

1. Open [1] the access cover.
2. Remove [1] SPRING, EARTH and [2] CAP, ROLL COVER SHAFT.

[3]

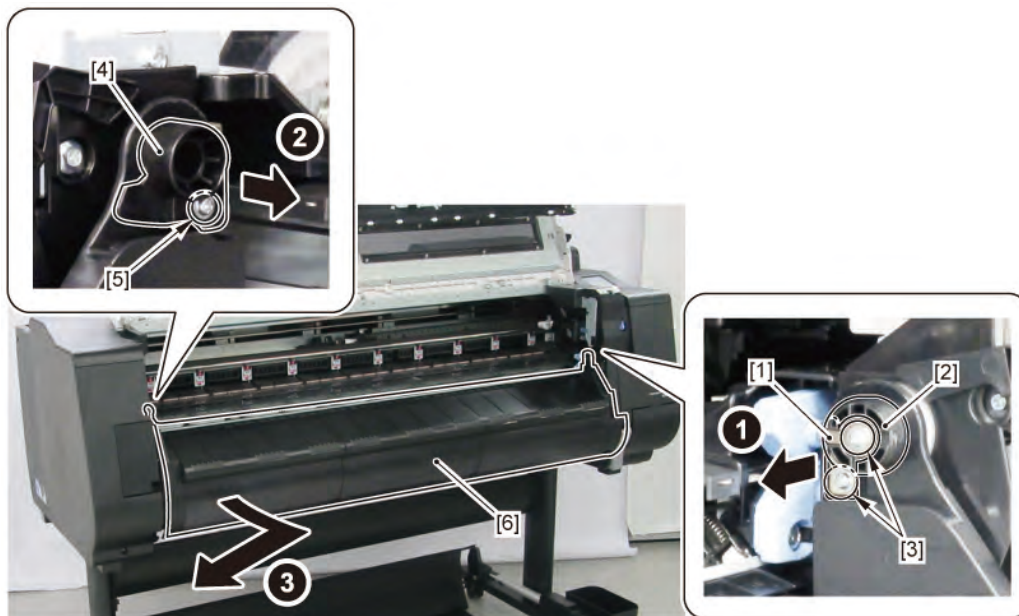
2 pcs

3. Remove [4] BUSH, ROLL COVER L  
(the BUSH UNIT, ROLL COVER L in 24" model and 36" model).

[5]

1 pc


4. Remove [6] the roll cover.

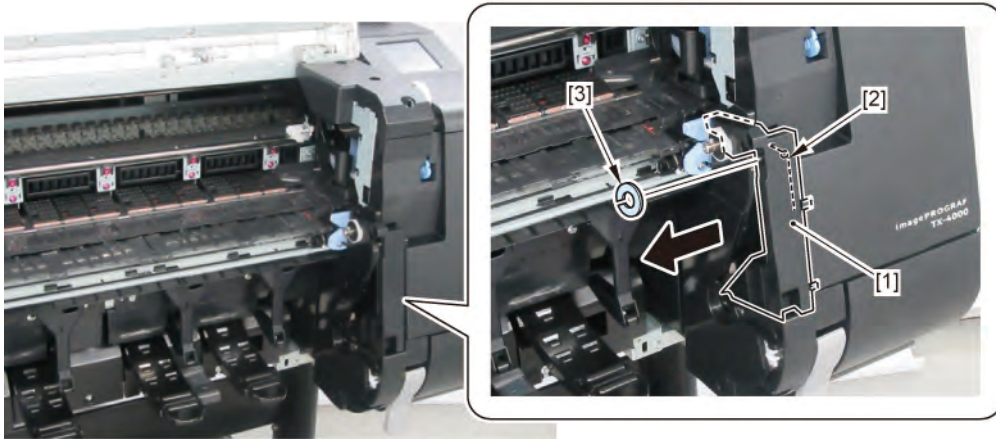






**B**

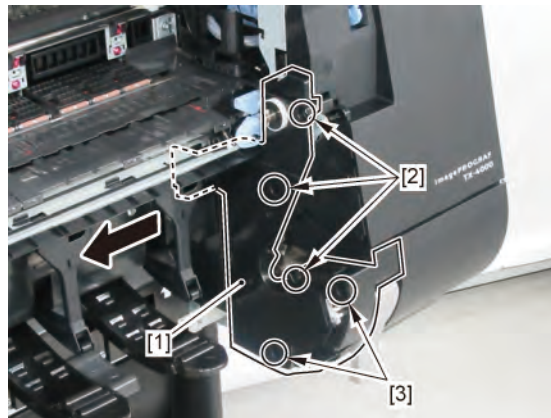
1. Remove all the parts of Group A.
2. Remove [1] COVER, SPOOL R and [2] SPRING, SPOOL COVER.

[3]

1 pc



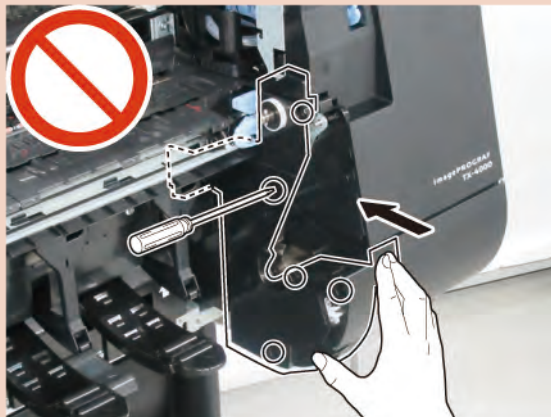
3. Remove [1] HOLDER, SPOOL SIDE R.

[2]	[3]
	
3 pcs	2 pcs



**Notes when assembling the unit:**

- When tightening the screws, DO NOT push the HOLDER, SPOOL SIDE R against the printer in the black-arrowed direction. Just place it in the proper position and fasten the screws.



- After the unit is fixed, confirm that the spool slides in place to the end smoothly.

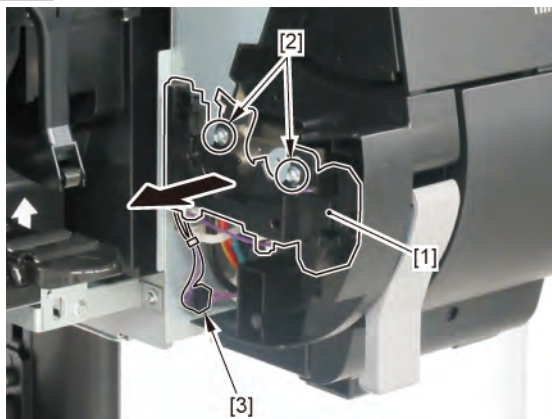
**C**

1. Remove all the parts of Groups A and B.

**C-1**

2. Remove [1] SPOOL SENSOR UNIT.

[2]	[3]
2 pcs	1 pc

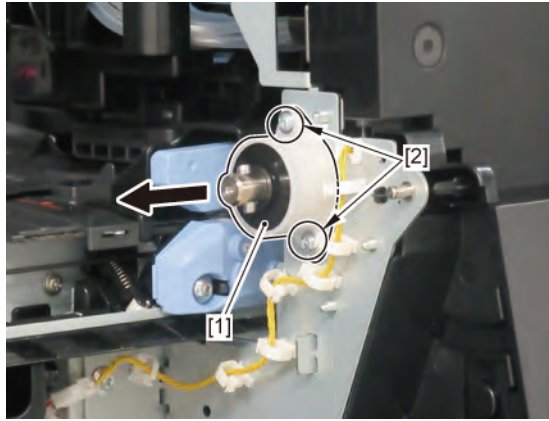


## C-2

2. Remove [1] DAMPER UNIT, ROLL COVER R.



[2]

2 pcs




## D

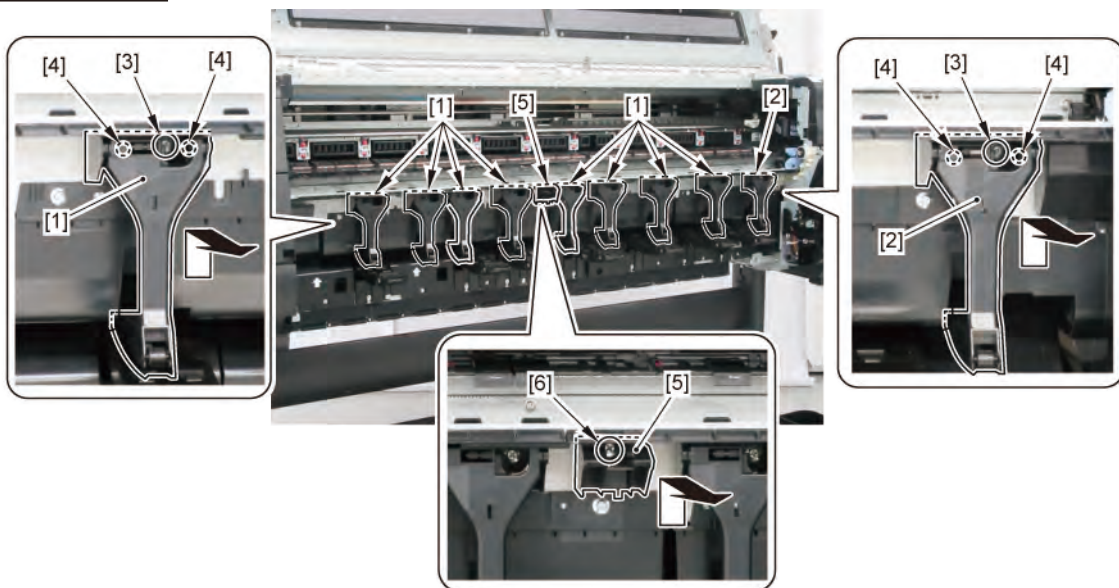
1. Remove all the parts of Group A.
2. Remove eight pieces of [1] FLAPPER SEPARATE UNIT (four pieces in 24" model, six pieces in 36" model) and [2] FLAPPER SEPARATE UNIT W/SP.

[3]	[4]
	
1 pc each	2 pcs each

3. (44" model only)

Remove [5] COVER, ROLL BACK UP.

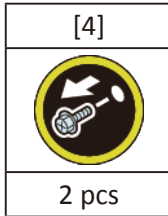
[6]

1 pc



4. Remove [1] WASTE INK ABSORBER UNIT A.

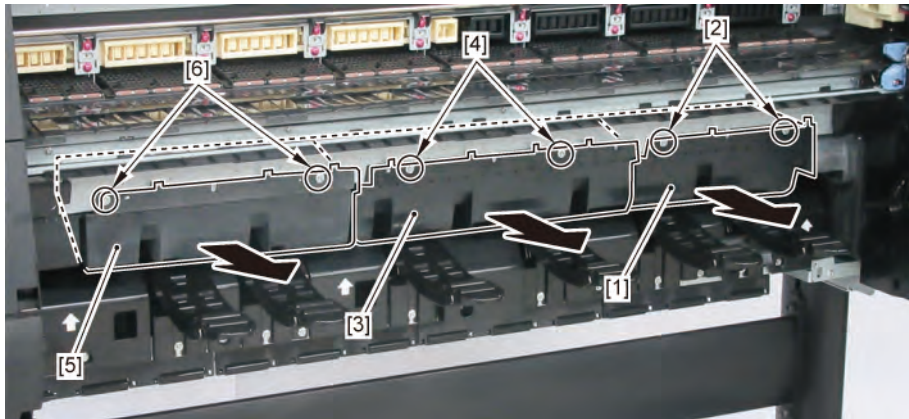
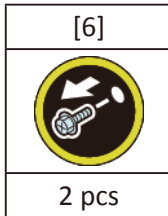


5. Remove [3] WASTE INK ABSORBER UNIT B.



6. (36" model only)

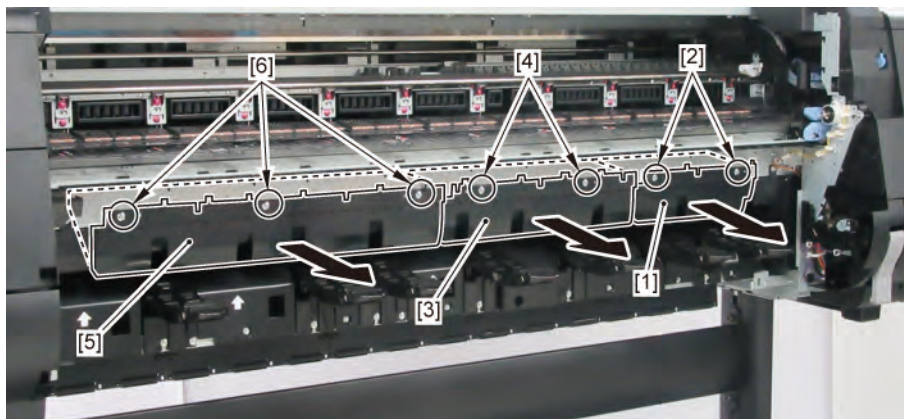
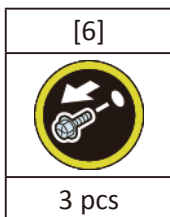
Remove [5] WASTE INK ABSORBER UNIT E.





## 6. (44" model only)

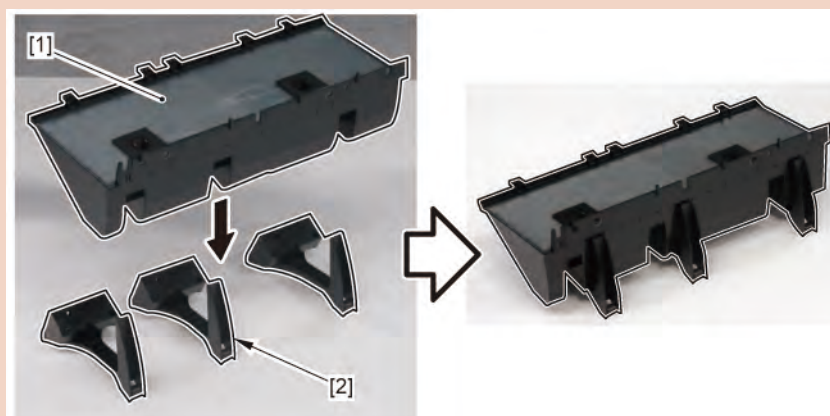
Remove [5] WASTE INK ABSORBER UNIT C.



### Points of disassembly:

To prevent ink leakage from the absorber, place the removed [1] WASTE INK ABSORBER with [2] FLAPPER, SEPARATE fi ed in place as shown below.

Point



### Notes when the unit is replaced:

Reset the applicable counter when the unit is replaced:



- WASTE INK ABSORBER UNIT A  
[SERVICE MODE > PARTS COUNTER > Wia1]
- WASTE INK ABSORBER UNIT B  
[SERVICE MODE > PARTS COUNTER > Wia2]
- WASTE INK ABSORBER UNIT C  
[SERVICE MODE > PARTS COUNTER > Wia3]
- WASTE INK ABSORBER UNIT E  
[SERVICE MODE > PARTS COUNTER > Wia5]

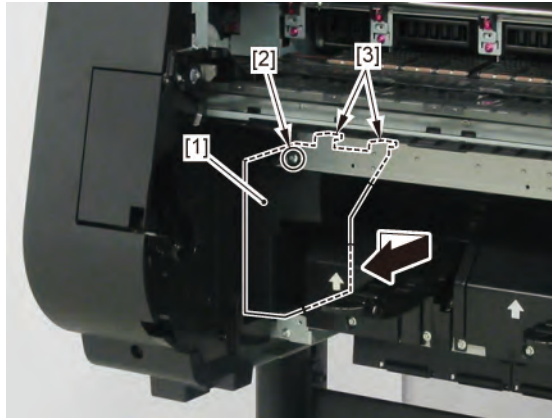
Point




(24" model, 44" model)


7. Remove [1] WASTE INK ABSORBER UNIT.

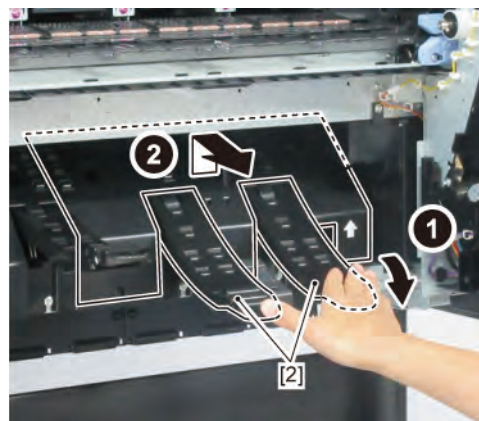
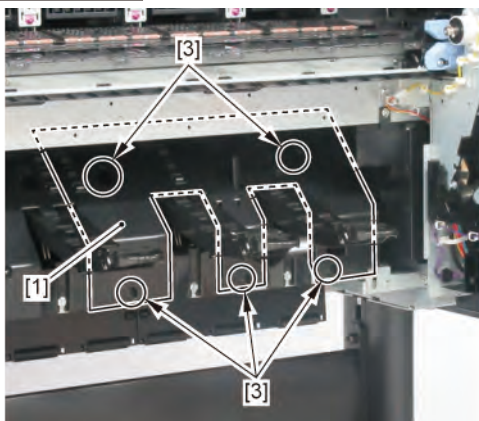
[2]	[3]
	
1 pc	2 pcs



	<b>Notes when the unit is replaced:</b> Reset the counter when the unit is replaced. [SERVICE MODE > PARTS COUNTER > Wia6]
---	--


8. Push down [2] NIP ARM UNIT and remove [1] GUIDE UNIT, LOW A.

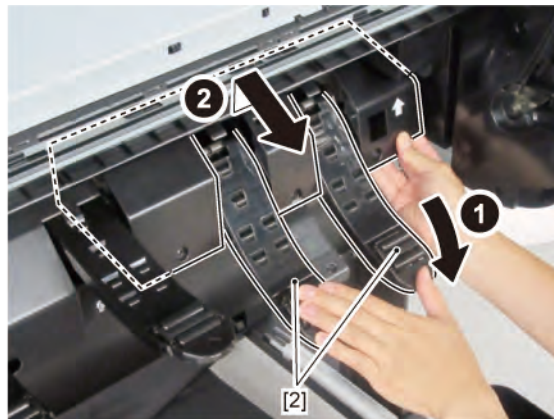
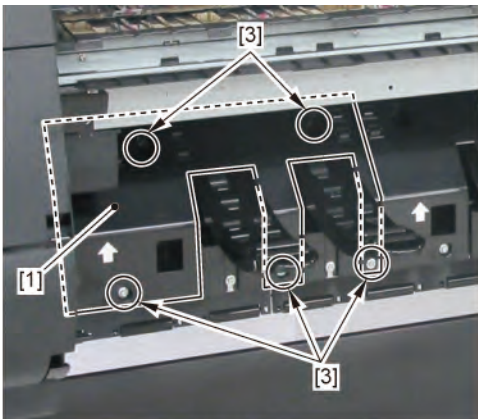
[3]

5 pcs



(36" model)

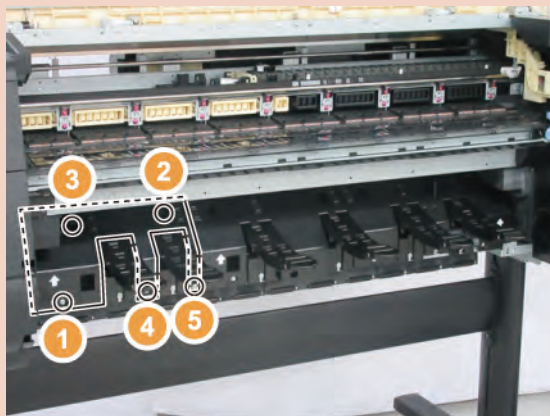
7. Push down [2] NIP ARM UNIT and remove [1] GUIDE UNIT, LOW C.

[3]

5 pcs





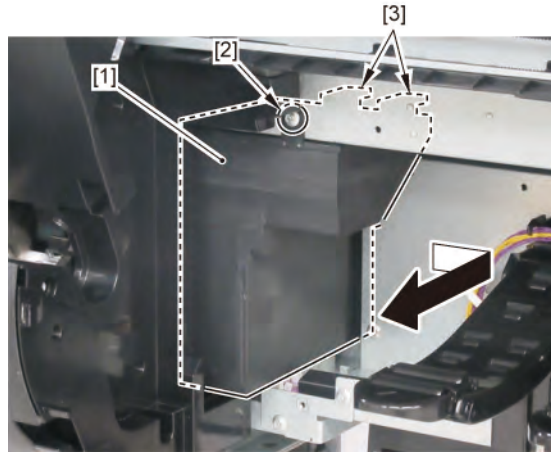
**Notes when assembling the unit:**

Tighten the screws in the order of numbers shown below.



## 8. Remove [1] WASTE INK ABSORBER UNIT.

[2]	[3]
	
1 pc	2 pcs




**Point**

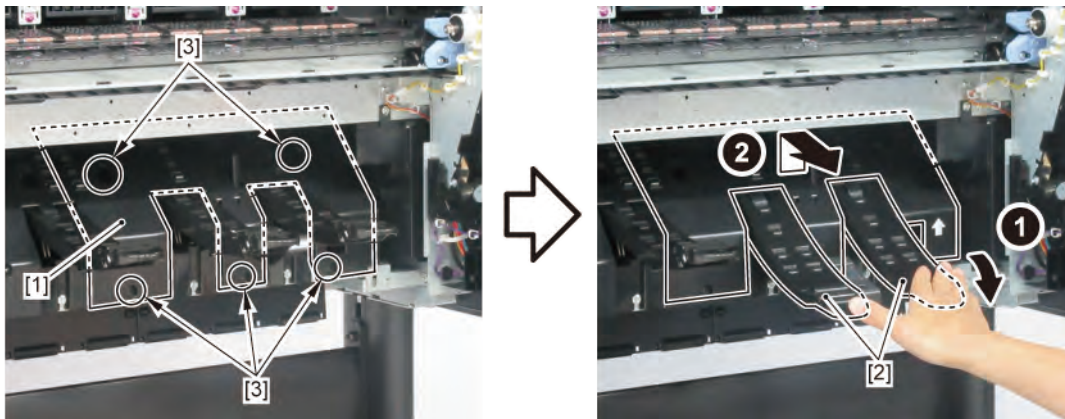
### Notes when the unit is replaced:

Reset the counter when the unit is replaced.

[SERVICE MODE > PARTS COUNTER > Wia6]

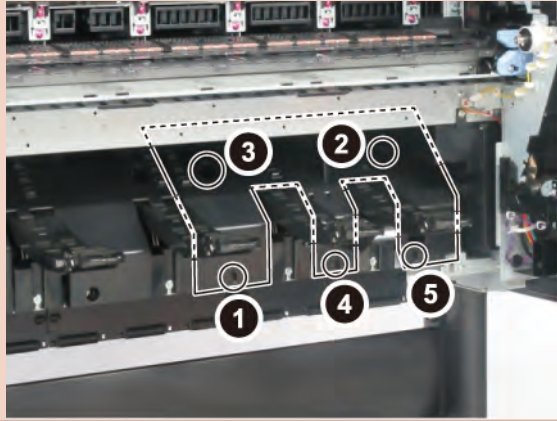
## 9. Push down [2] NIP ARM UNIT and remove [1] GUIDE UNIT, LOW A.

[3]

5 pcs



**Notes when assembling the unit:**

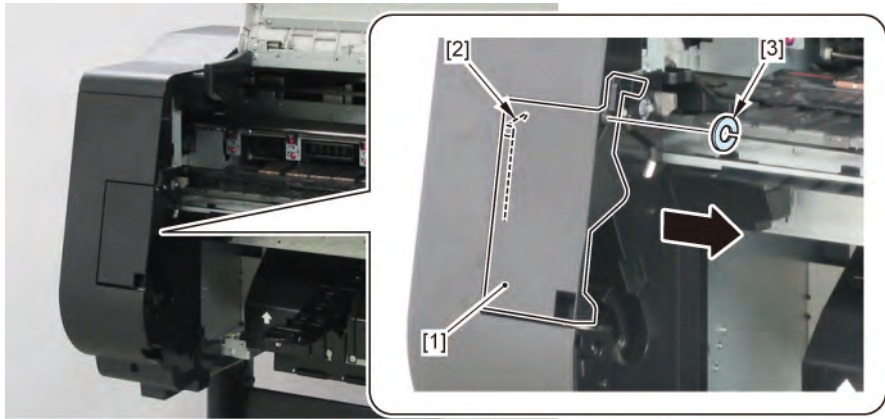
Tighten the screws in the order of numbers shown below.



**E**


1. Remove all the parts of Group A.
2. Remove [1] COVER, SPOOL L and [2] SPRING, SPOOL COVER.

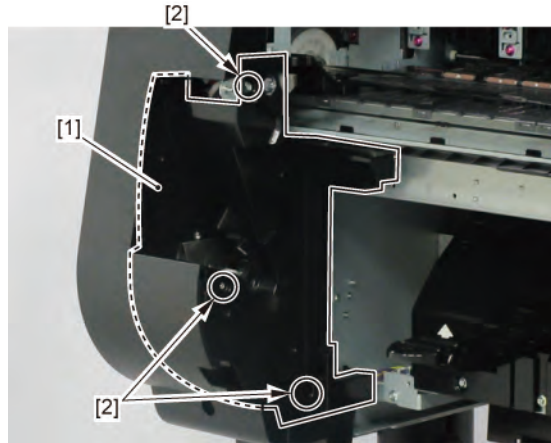
[3]
1 pc





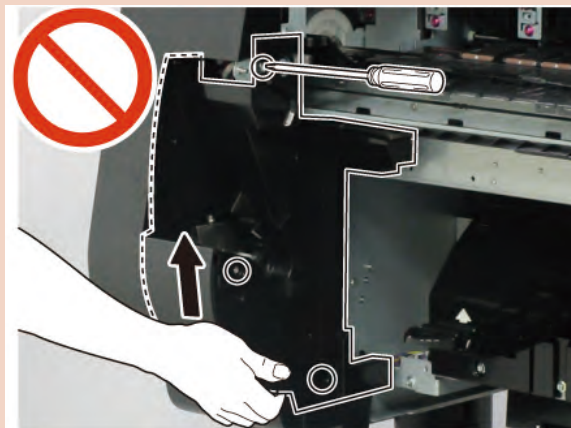
3. Remove [1] HOLDER, SPOOL SIDE L.

[2]

3 pcs



**Notes when assembling the unit:**

- When tightening the screws, DO NOT lift or hold the HOLDER, SPOOL SIDE , upward. Just place it in the proper position and tighten the screws.






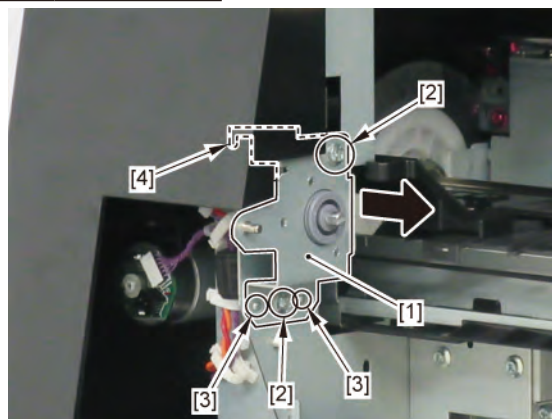
- After the unit is fixed, confirm that the COVER, SPOOL L works well.

Point





**F**

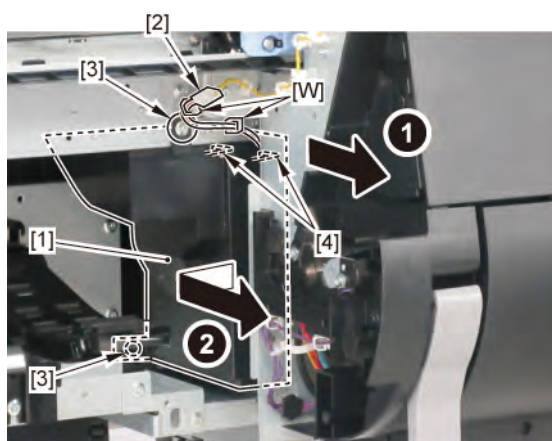
1. Remove all the parts of Groups A and E.
2. Remove [1] PLATE UNIT, SIDE SUPPORT.

[2]	[3]	[4]
		
2 pcs	2 pcs	1 pc

**G**

1. Remove all the parts of Groups A, B, D, and E.
2. Remove [1] SUCTION FAN UNIT.

[2]	[3]	[4]	[W]
			
1 pc	2 pcs	2 pcs	2 pcs




**Notes when the unit is replaced:**

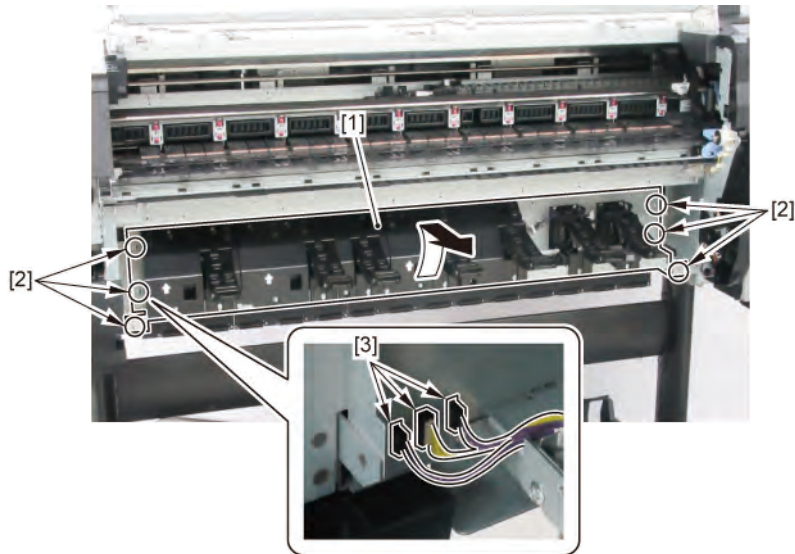
Reset the applicable counter.

[SERVICE MODE &gt; PARTS COUNTER &gt; Wia7]



3. Remove [1] the paper feed guide.



[2]	[3]
	
6 pcs	3 pcs

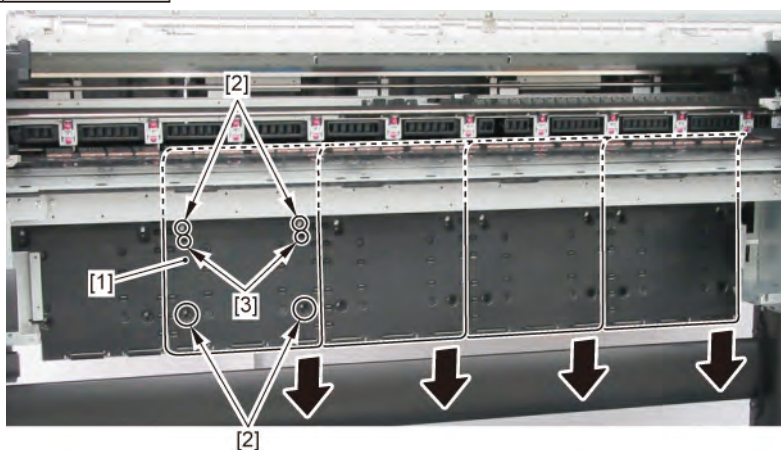


### G-1 (24" model, 44" model)

4. Remove four pieces of [1] GUIDE UNIT, OUTSIDE A. (two pieces in 24" model)



(To remove the rightmost GUIDE UNIT, the adjacent GUIDE UNIT on the left needs to be removed first.)

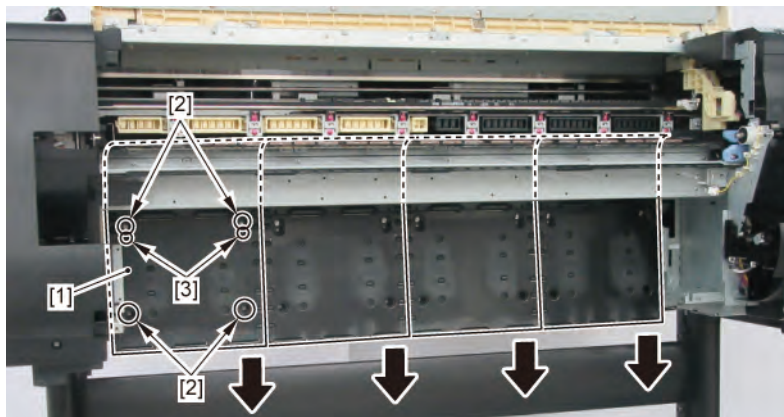
[2]	[3]
	
4 pcs each	2 pcs each



## G-1 (36" model)



4. Remove four pieces of [1] GUIDE UNIT, OUTSIDE A. (To remove the rightmost GUIDE UNIT, the adjacent GUIDE UNIT on the left needs to be removed first, and vice versa.)

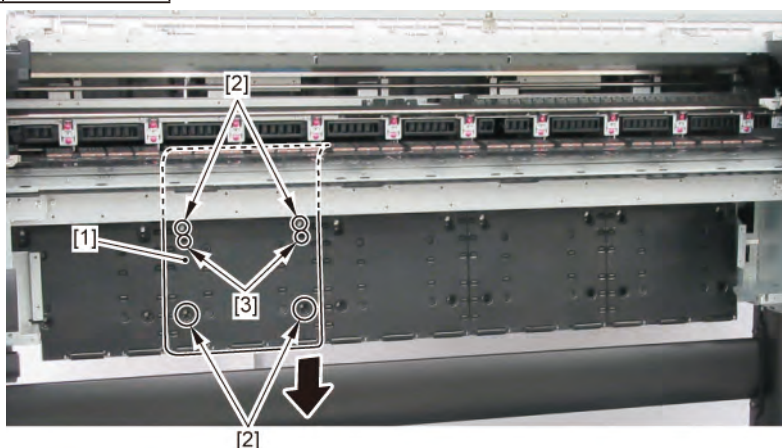
[2]	[3]
	
4 pcs each	2 pcs each





## G-2 (24" model, 44" model)

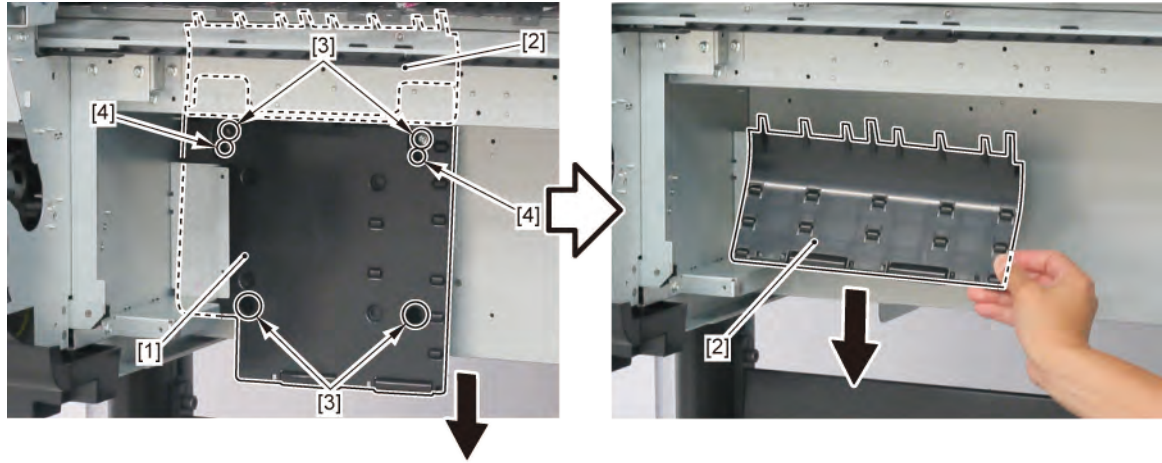
4. Remove [1] GUIDE UNIT, OUTSIDE A.

[2]	[3]
	
4 pcs	2 pcs

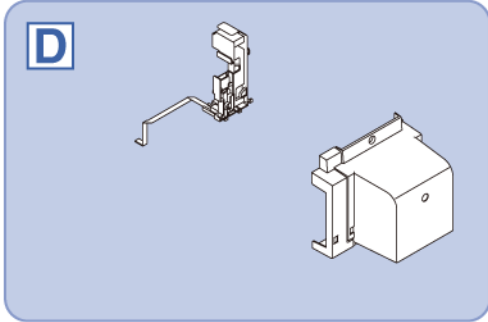
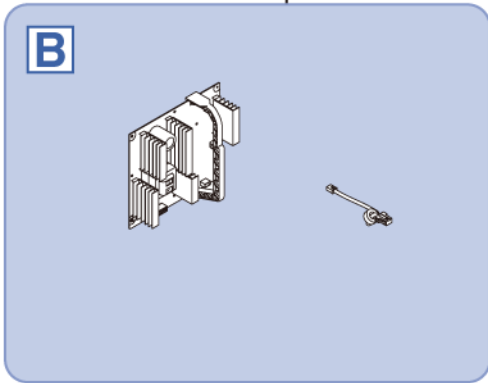
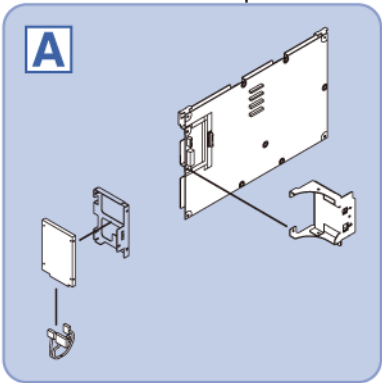
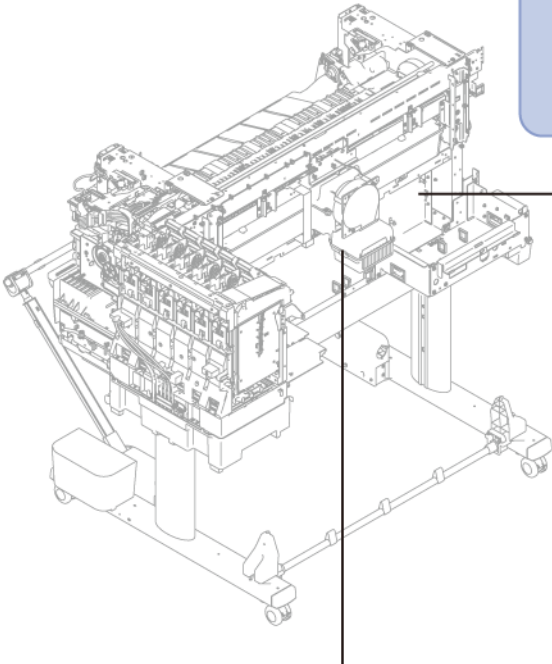
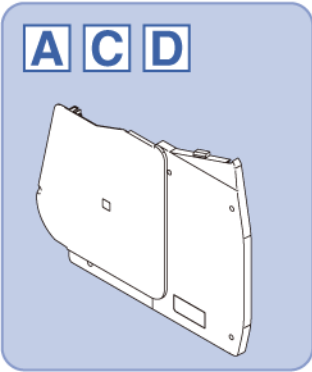
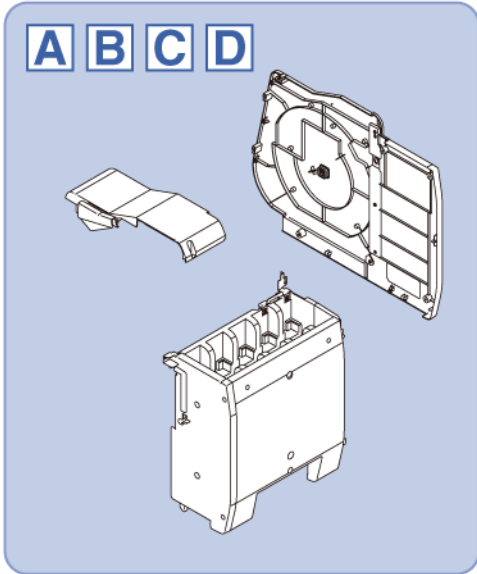


5. Remove the GUIDE UNIT, OUTSIDE B ([1] and [2]). Separate the joint of [1] and [2]. Remove [2] the lower part of the guide unit first, then [1] the upper part.

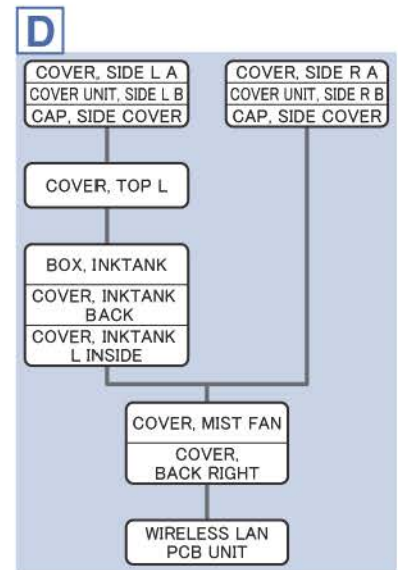
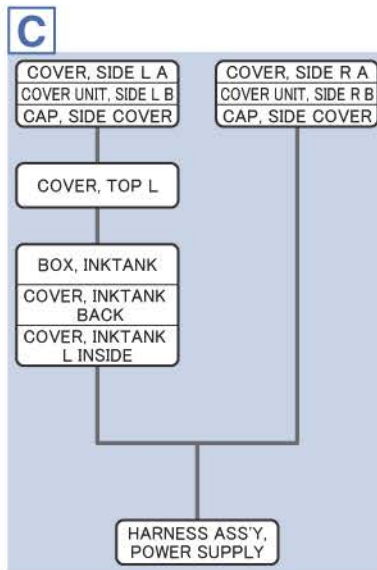
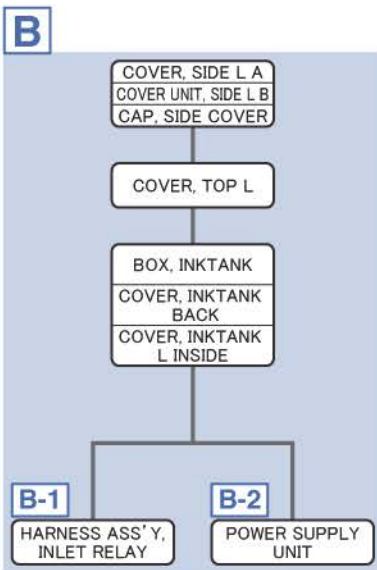
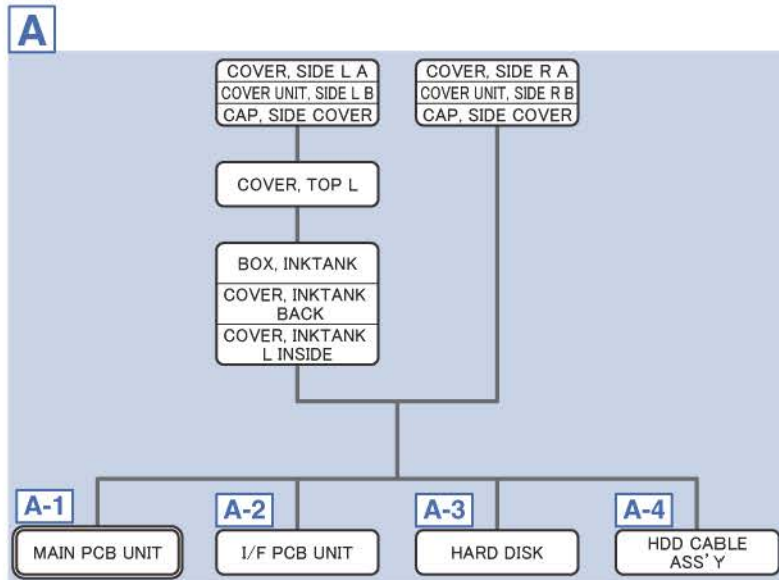
[3]	[4]
	
4 pcs	2 pcs



# 7 MAIN PCB UNIT / POWER SUPPLY UNIT / HARD DISK DRIVE (24" model)






# 24" MODEL

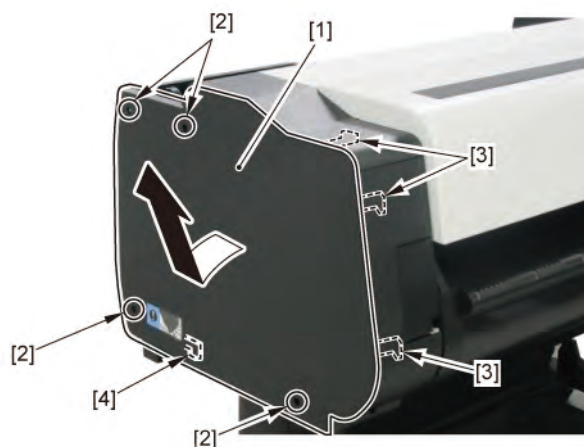




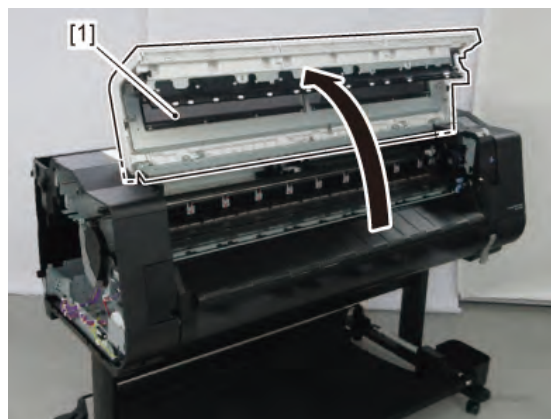
A

- Remove [1] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.

[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc





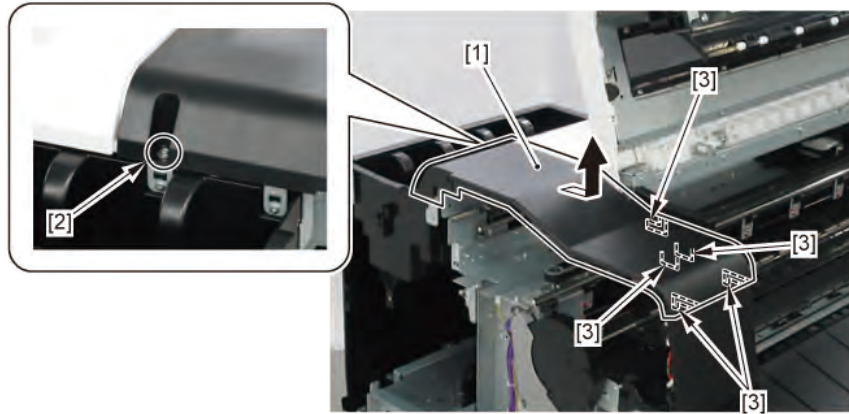
- Open [1] the access cover.







### 3. Remove [1] COVER, TOP L.

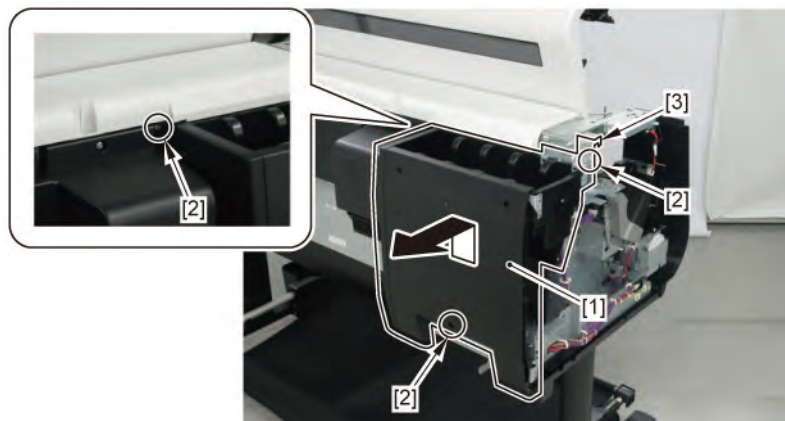
[2]	[3]
	
1 pc	5 pcs



### 4. Remove [1] a set of

- BOX, INKTANK
- COVER, INKTANK BACK
- COVER, INKTANK L INSIDE.




[2]	[3]
	
3 pcs	1 pc

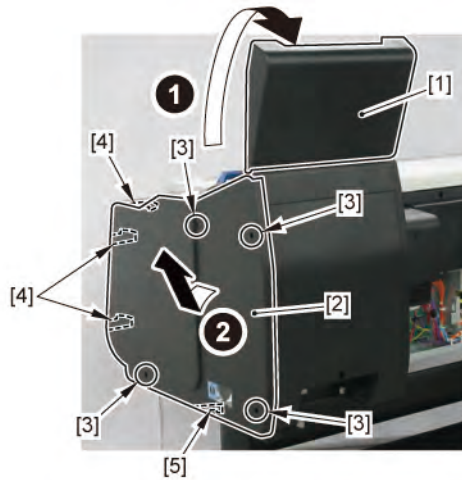


5. Open [1] the right ink tank cover.


6. Remove [2] a set of

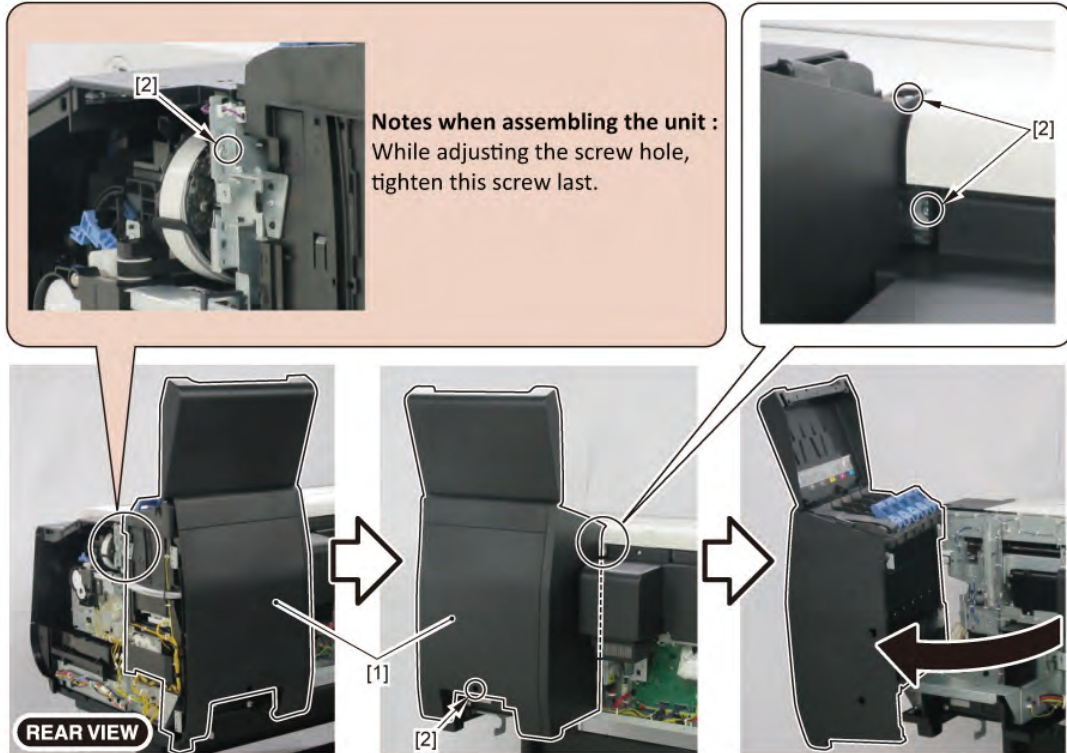
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc





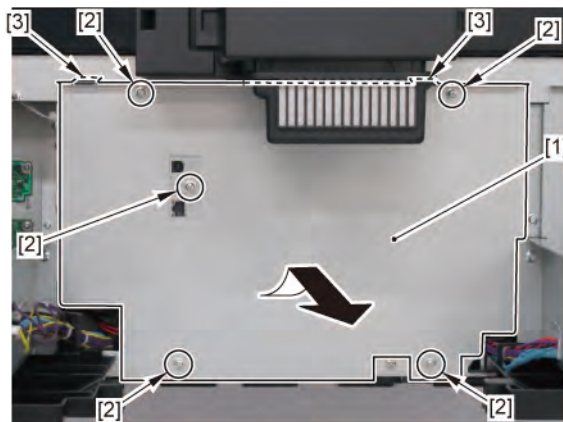
## 7. Open [1] the right ink unit.

[2]

4 pcs



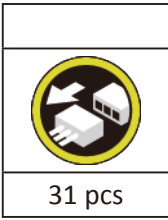
## 8. Remove [1] the plate.

[2]	[3]
	
5 pcs	2 pcs

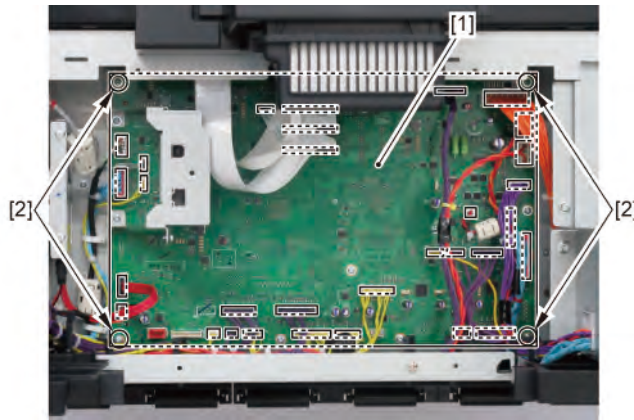
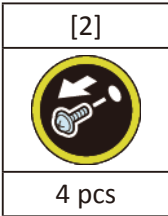


**A-1**

9. Disconnect all the cables from [1] MAIN PCB UNIT.





10. Remove the MAIN PCB UNIT.

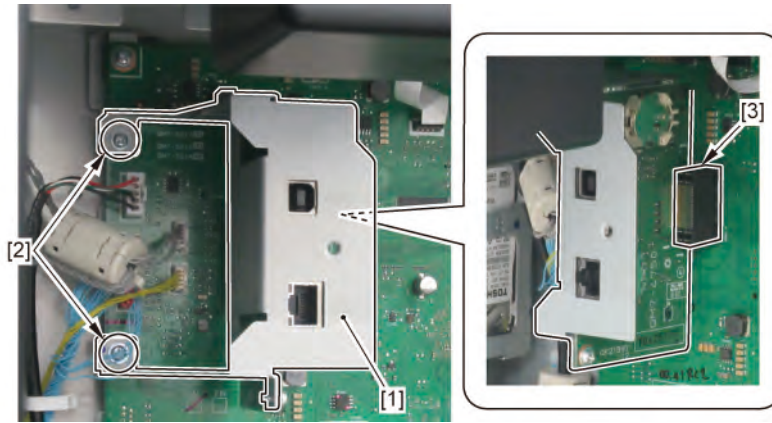


	<p><b>Notes when assembling the unit:</b></p> <p>Perform adjustment at the end of assembly.</p> <p>[SERVICE MODE &gt; ADJUSTMENT &gt; LF_ENC_ADJ]</p> <p>[SERVICE MODE &gt; ADJUSTMENT &gt; UPPER_ARB_CALIB]</p> <p>[SERVICE MODE &gt; ADJUSTMENT &gt; LOWER_ARB_CALIB]</p> <p>[SERVICE MODE &gt; ADJUSTMENT &gt; TOUCH PANEL CALIBRATION]</p>
--	--

## A-2

9. Remove [1] I/F PCB UNIT.

[2]	[3]
	
2 pcs	1 pc





### Notes when the unit is replaced:

The date and time needs to be set in the Service Mode after replacing the I/F PCB UNIT.  
See 7-2. Service Mode > Details of OTHERS > 2) OTHERS menu level > RTC SETTING.




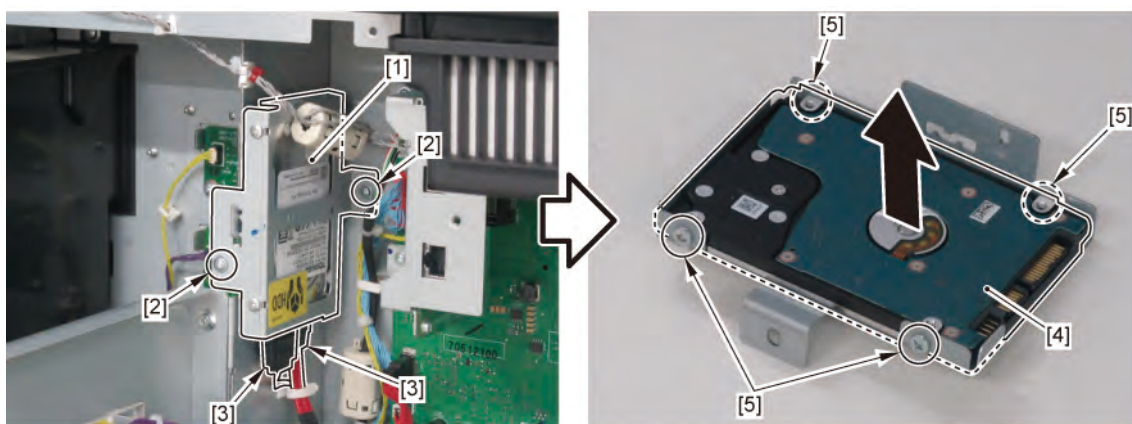
## A-3

9. Remove [1] the bracket (with the HARD DISK).

[2]	[3]
	
2 pcs	2 pcs



10. Remove [4] the HARD DISK.

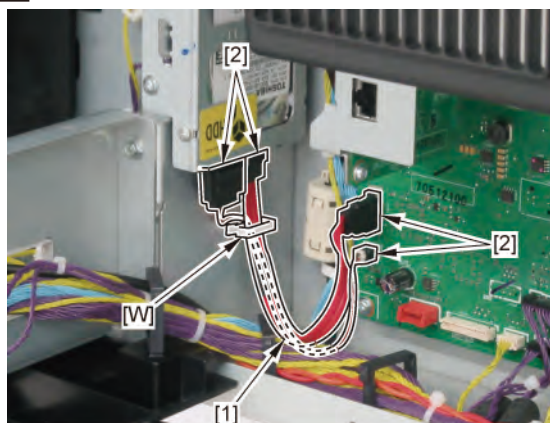
[5]

4 pcs



## A-4

9. Disconnect [1] HDD CABLE ASS'Y.

[2]	[W]
	
4 pcs	1 pc






**Notes when assembling the unit:**

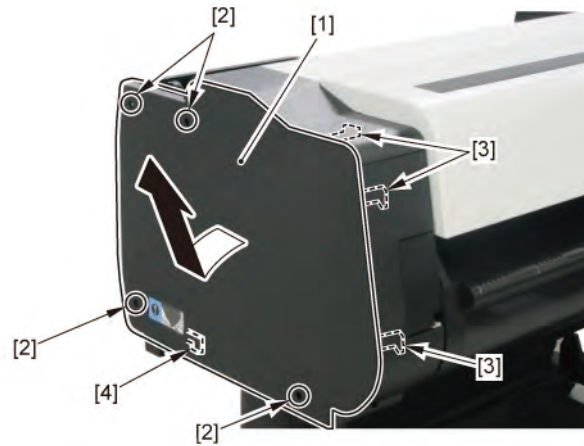
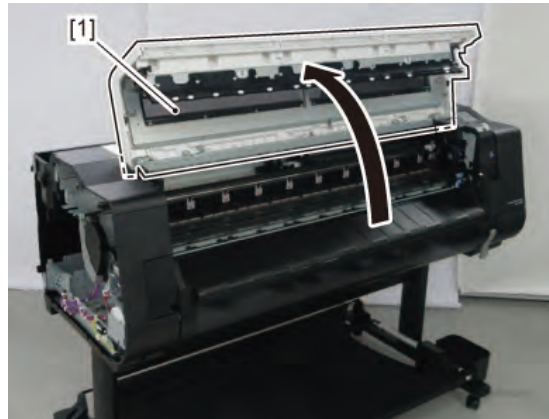
The HDD CABLE ASS'Y must be on top of the other cables.





**B****1.** Remove [1] a set of

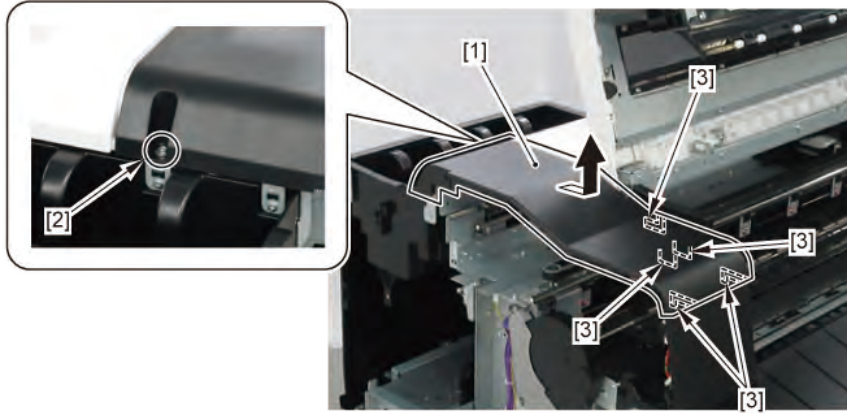
- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER

[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc

**2.** Open [1] the access cover.



3. Remove [1] COVER, TOP L.

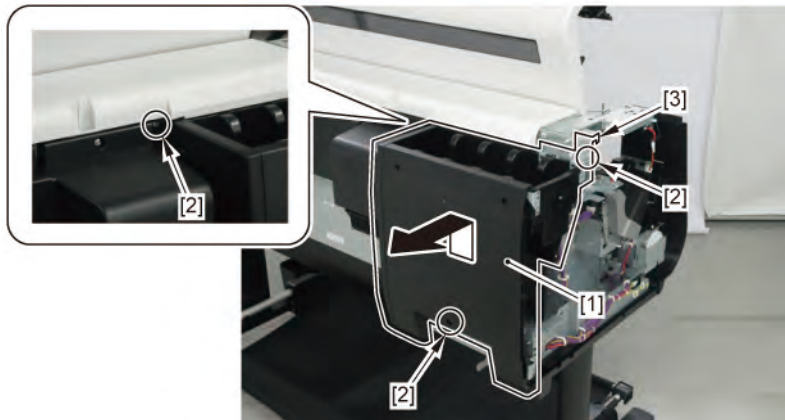
[2]	[3]
	
1 pc	5 pcs



4. Remove [1] a set of




- BOX, INKTANK
- COVER, INKTANK BACK
- COVER, INKTANK L INSIDE.

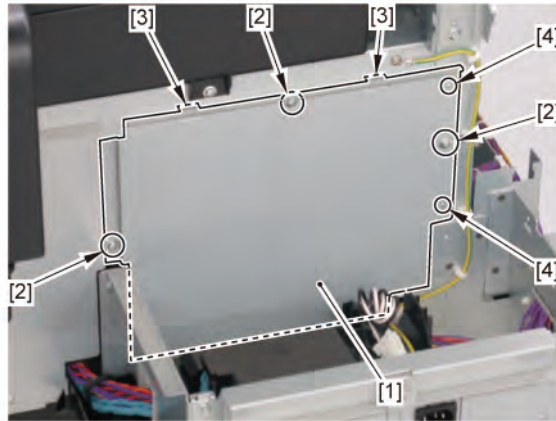
[2]	[3]
	
3 pcs	1 pc






## B-1

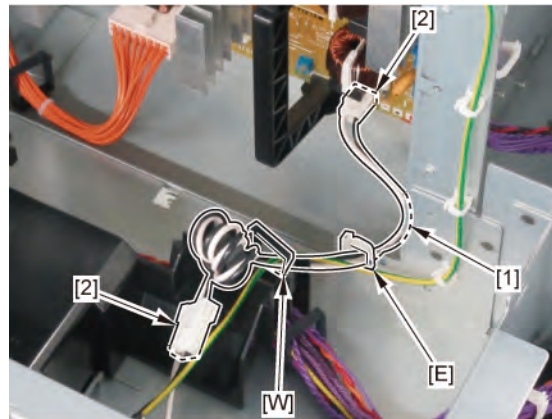
5. Remove [1] the plate.

[2]	[3]	[4]
		
3 pcs	2 pcs	2 pcs






6. Disconnect [1] HARNESS ASS'Y, INLET RELAY.

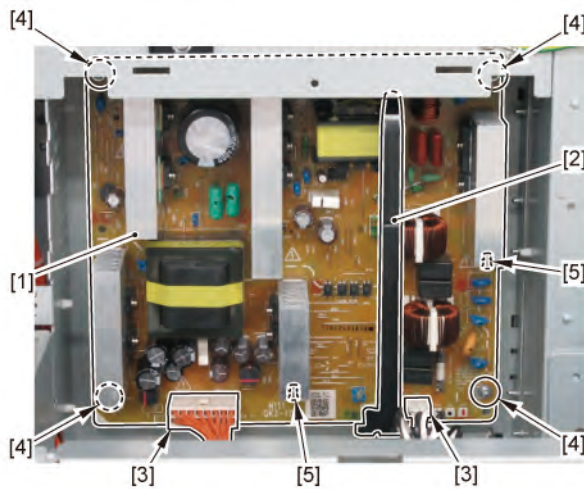
[2]	[W]	[E]
		
2 pcs	1 pc	1 pc



**B-2**

5. While holding [2] the handle, remove [1] POWER SUPPLY UNIT.




[3]	[4]	[5]
		
2 pcs	4 pcs	2 pcs

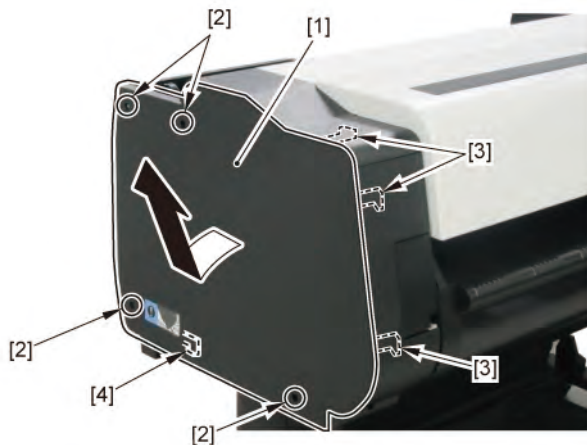


**C**

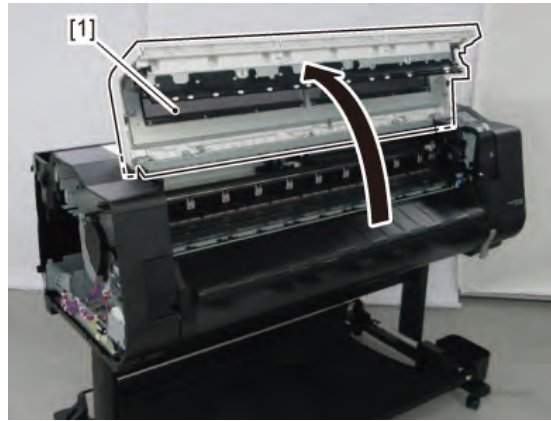
1. Remove [1] a set of

- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.



[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc

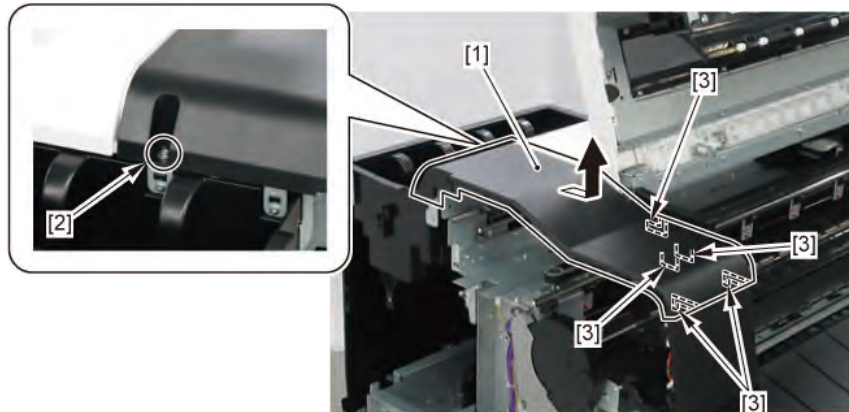


2. Open [1] the access cover.





3. Remove [1] COVER, TOP L.

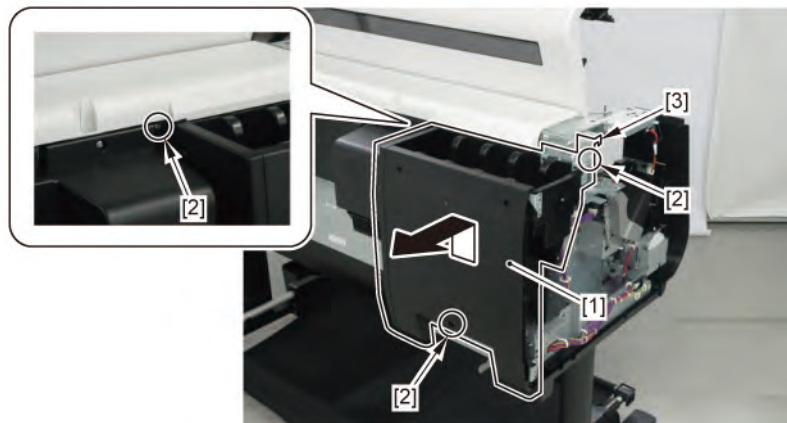
[2]	[3]
	
1 pc	5 pcs








4. Remove [1] a set of
- BOX, INKTANK
  - COVER, INKTANK BACK
  - COVER, INKTANK L INSIDE.

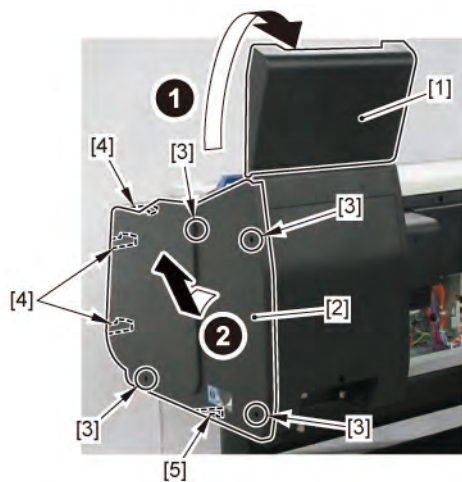
[2]	[3]
	
3 pcs	1 pc



5. Open [1] the right ink tank cover.


6. Remove [2] a set of
- COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.

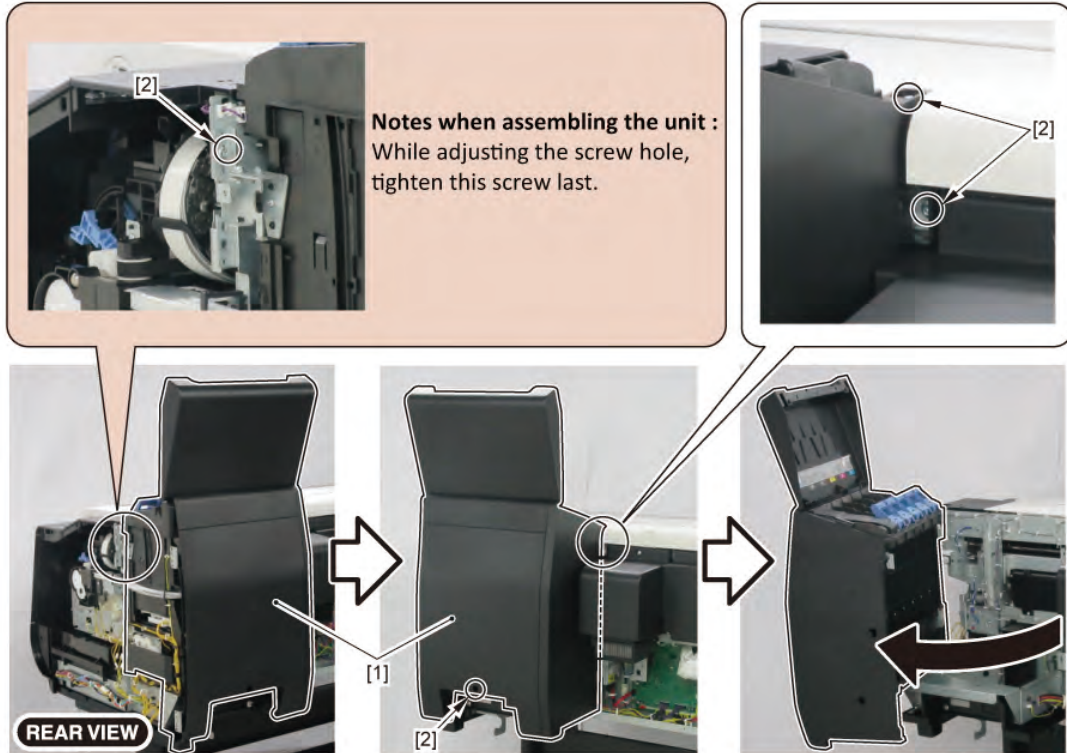
[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc







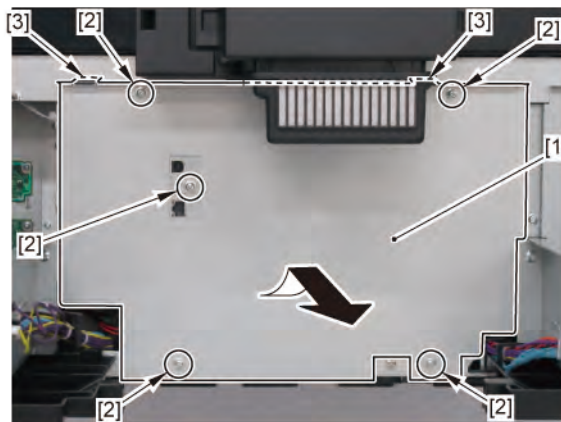
## 7. Open [1] the right ink unit.

[2]

4 pcs






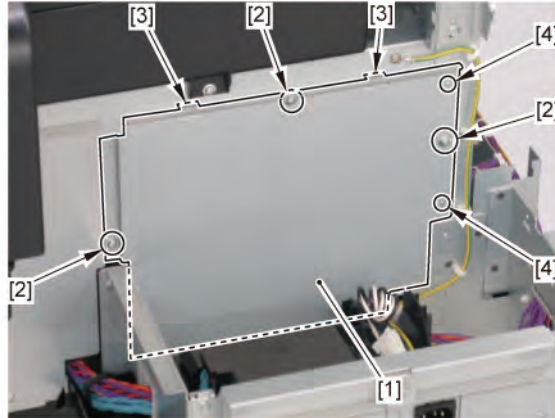
## 8. Remove [1] the plate.

[2]	[3]
	
5 pcs	2 pcs





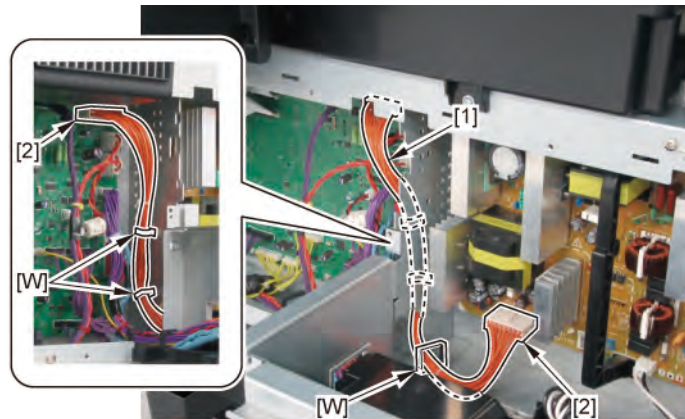
9. Remove [1] the plate.

[2]	[3]	[4]
		
3 pcs	2 pcs	2 pcs






10. Disconnect [1] HARNESS ASS'Y, POWER SUPPLY.

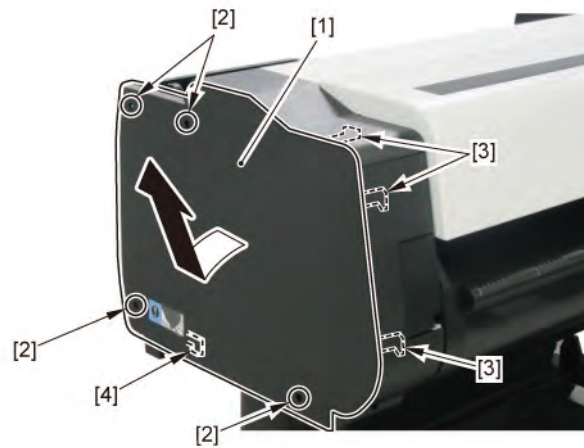
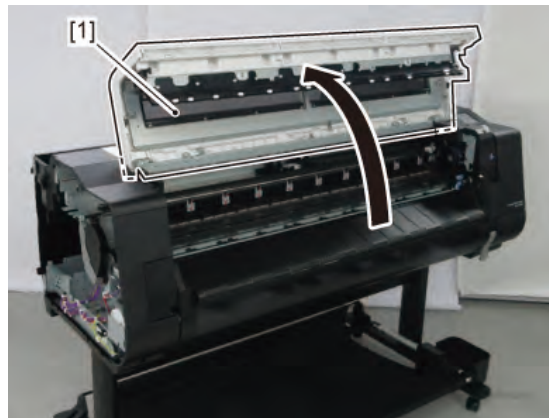
[2]	[W]
	
2 pcs	3 pcs





**D****1.** Remove [1] a set of

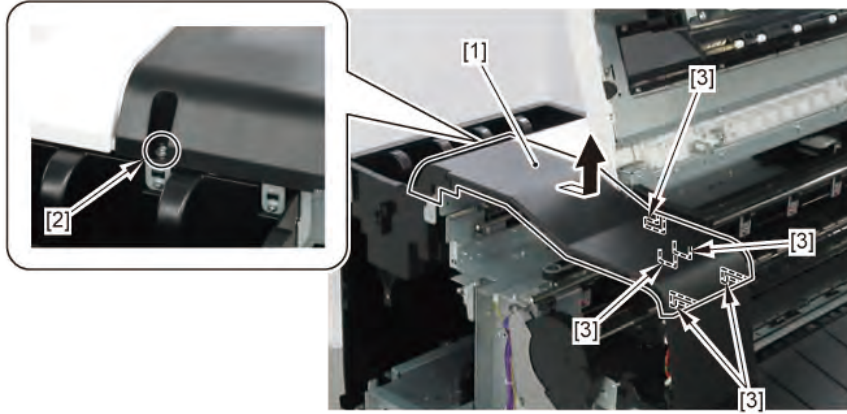
- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.

[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc

**2.** Open [1] the access cover.



3. Remove [1] COVER, TOP L.

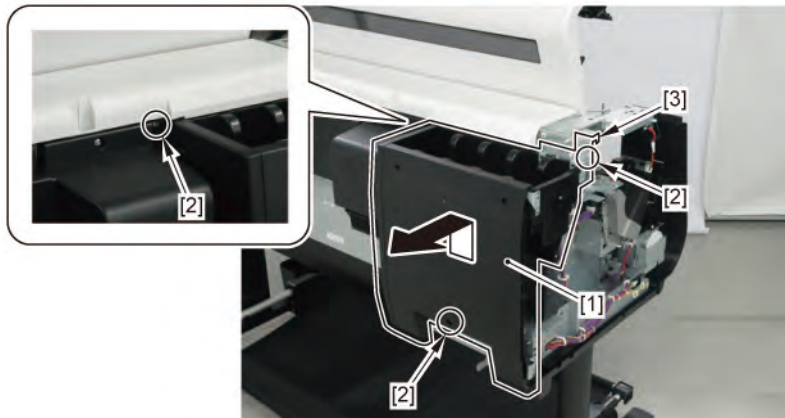
[2]	[3]
	
1 pc	5 pcs



4. Remove [1] a set of

- BOX, INKTANK
- COVER, INKTANK BACK
- COVER, INKTANK L INSIDE.

[2]	[3]
	
3 pcs	1 pc






5. Open [1] the right ink tank cover.

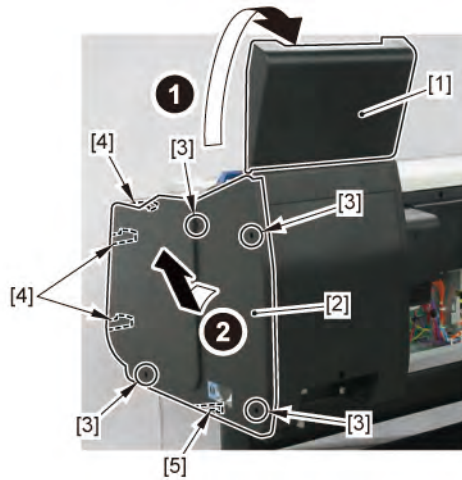
6. Remove [2] a set of

- COVER, SIDE R A

- COVER UNIT, SIDE R B

- CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc

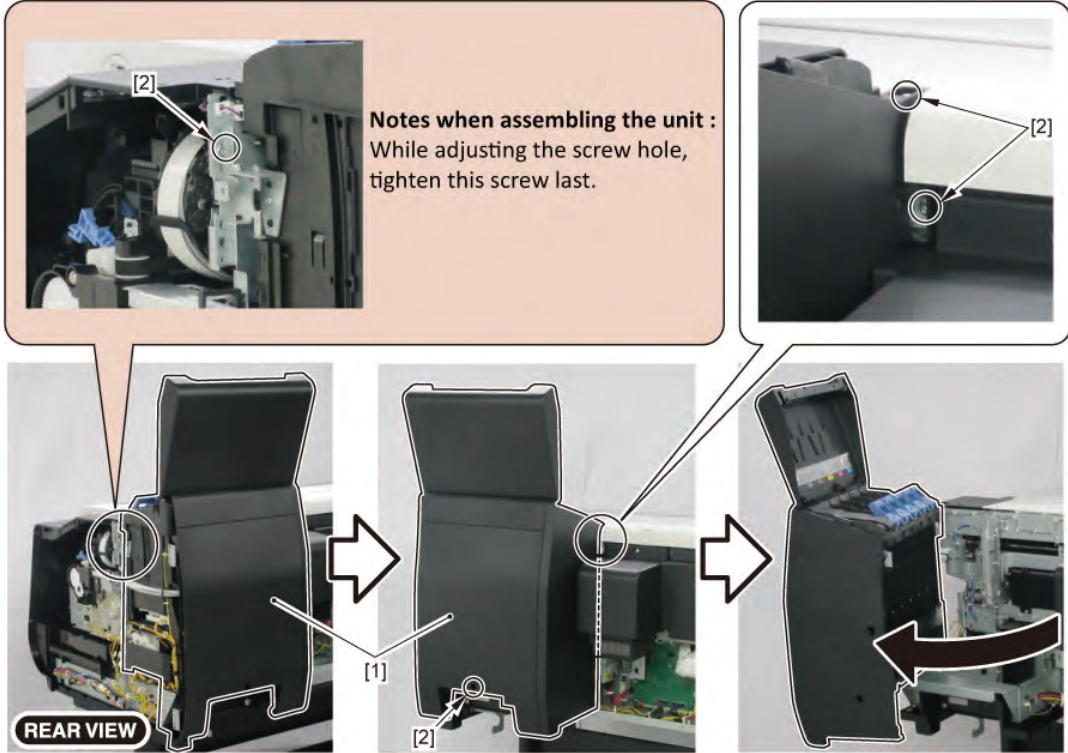




7. Open [1] the right ink unit.



[2]

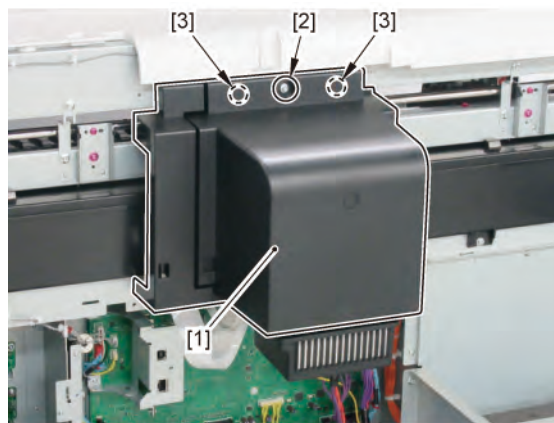
4 pcs



8. Remove [1] a set of




- COVER, MIST FAN
- COVER, BACK RIGHT.

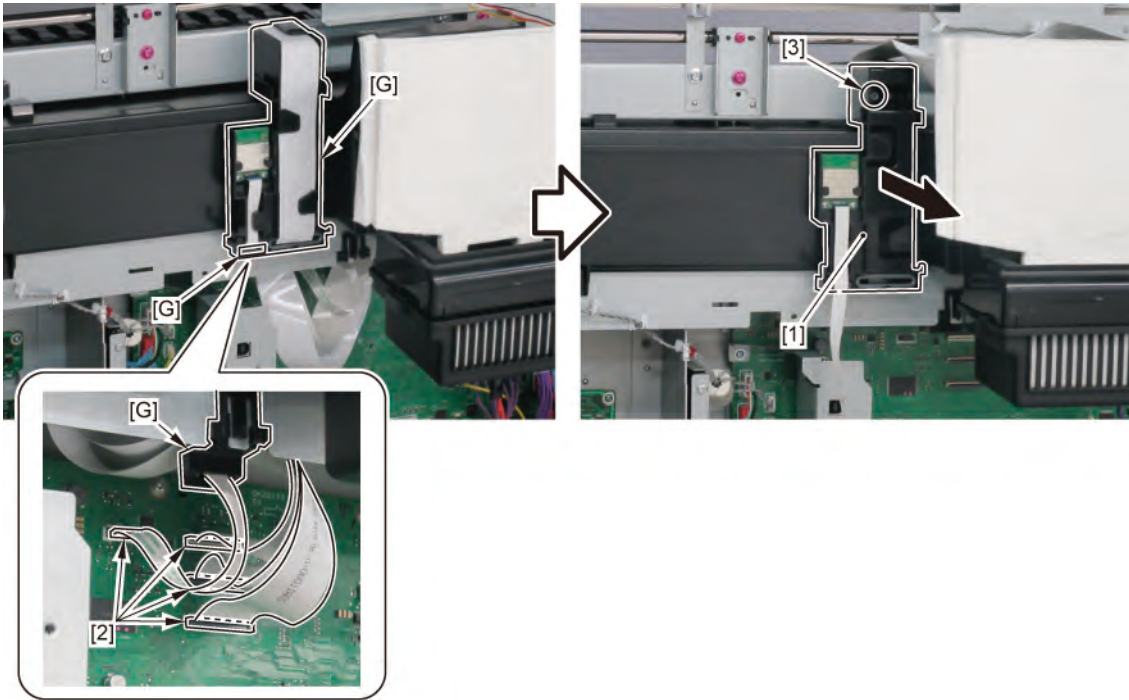
[2]	[3]
	
1 pc	2 pcs



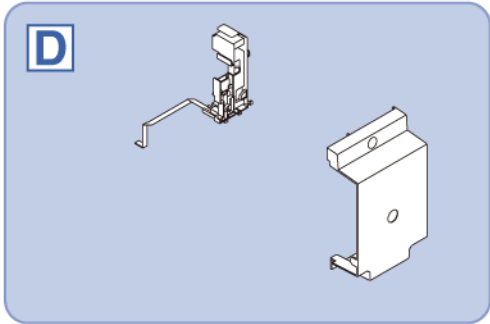
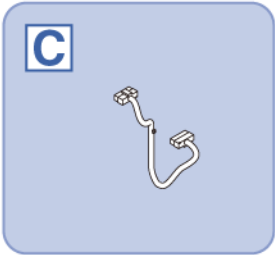
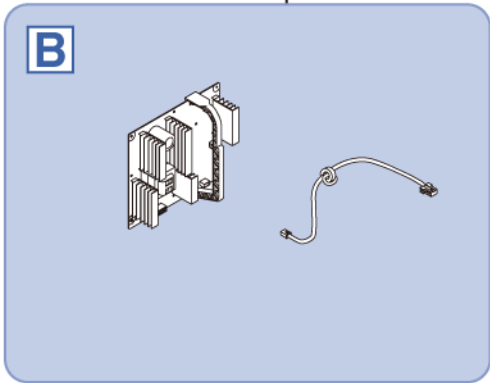
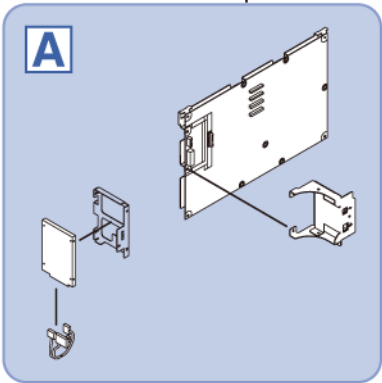
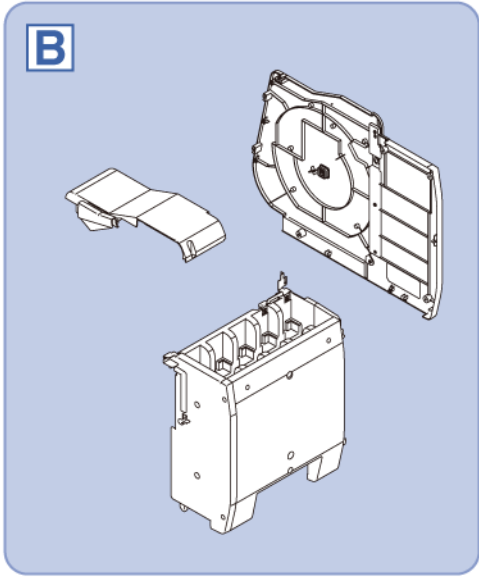
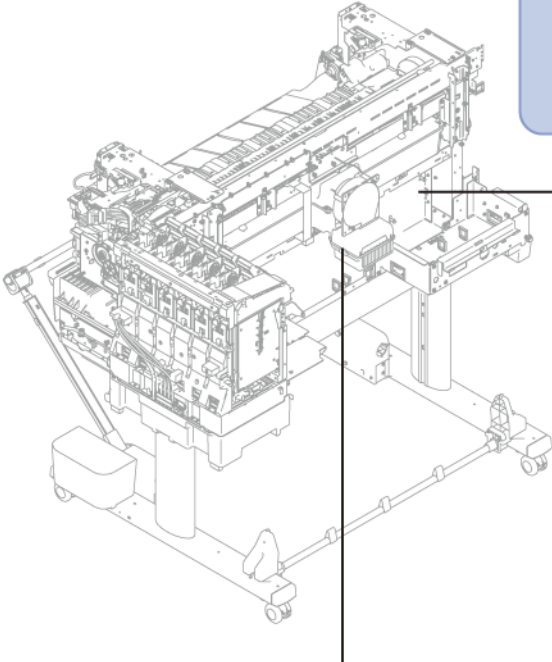
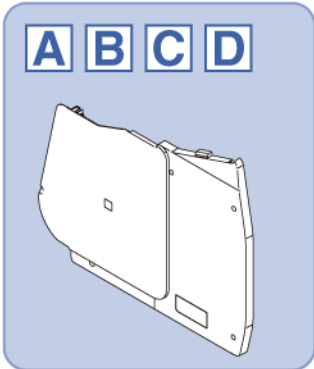


9. Remove [1] WIRELESS LAN PCB UNIT.

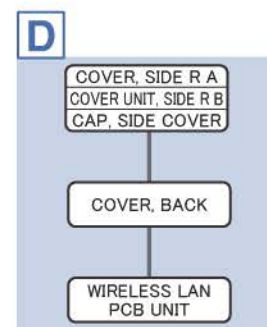
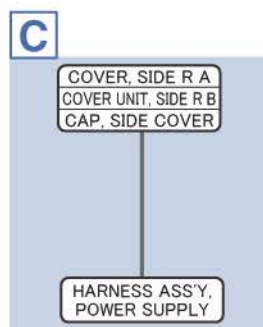
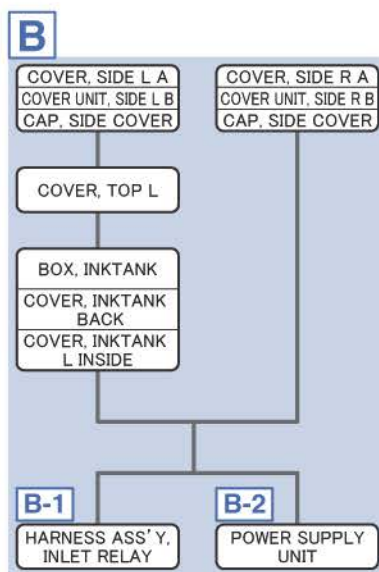
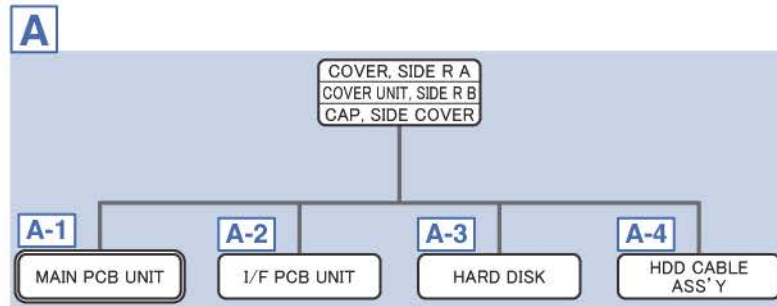
[2]	[3]	[G]
		
4 pcs	1 pc	3 pcs



# 7 MAIN PCB UNIT / POWER SUPPLY UNIT / HARD DISK DRIVE (36" model)



# 36" MODEL






## A

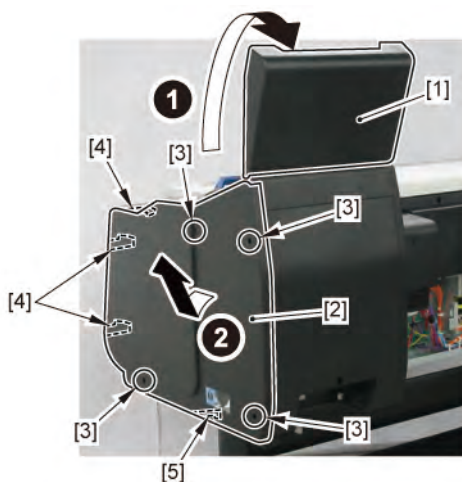
1. Open [1] the right ink tank cover.
2. Remove a set of [2]

- COVER, SIDE R A


- COVER UNIT, SIDE R B

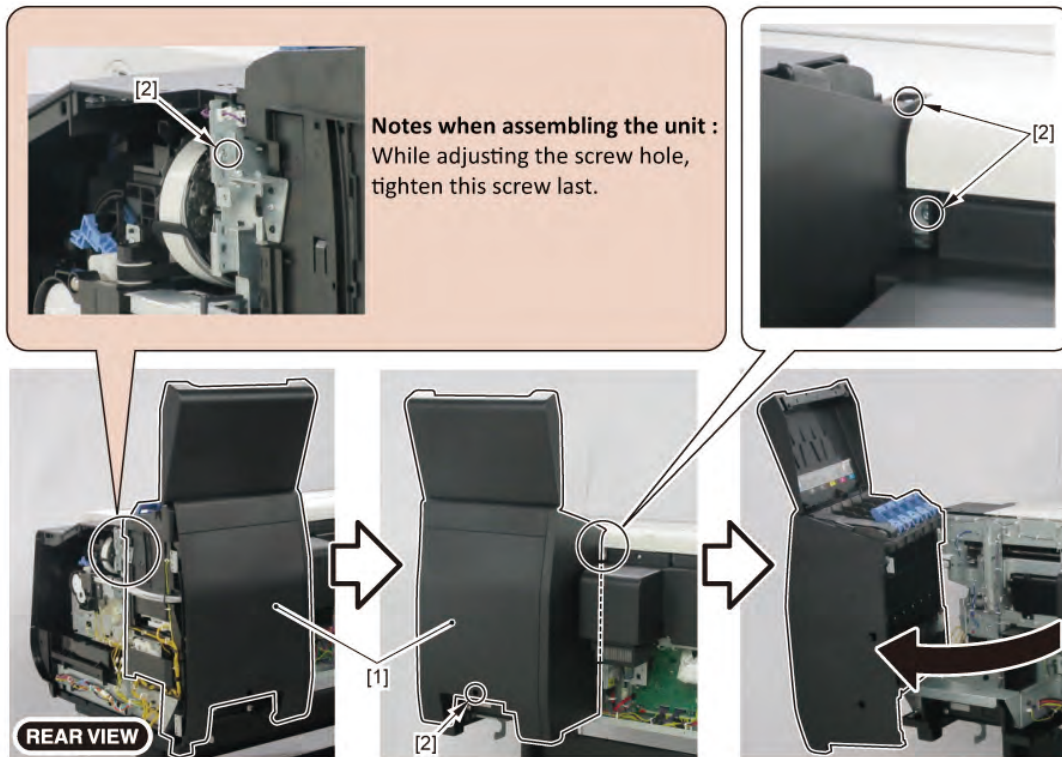
- CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc





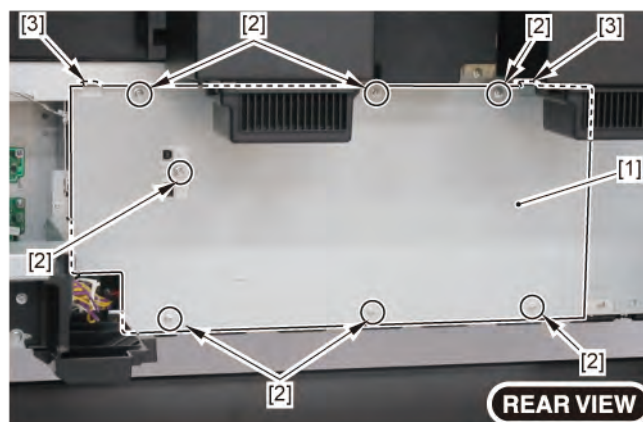
### 3. Open [1] the right ink unit.

[2]

4 pcs



### 4. Remove [1] the plate.

[2]	[3]
	
7 pcs	2 pcs

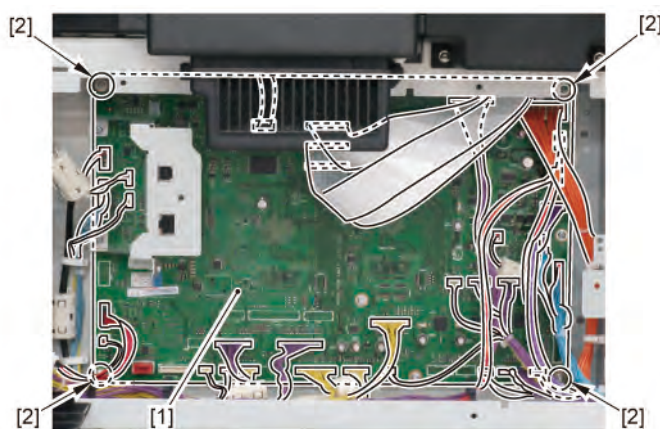
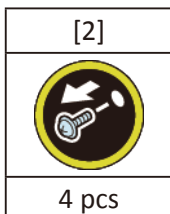


## A-1

5. Disconnect all the cables from [1] MAIN PCB UNIT.



6. Remove [1] MAIN PCB UNIT.



**Notes when assembling the unit:**



Perform adjustment at the end of assembly.

[SERVICE MODE > ADJUSTMENT > LF\_ENC\_ADJ]

[SERVICE MODE > ADJUSTMENT > UPPER\_ARB\_CALIB]



[SERVICE MODE > ADJUSTMENT > LOWER\_ARB\_CALIB]

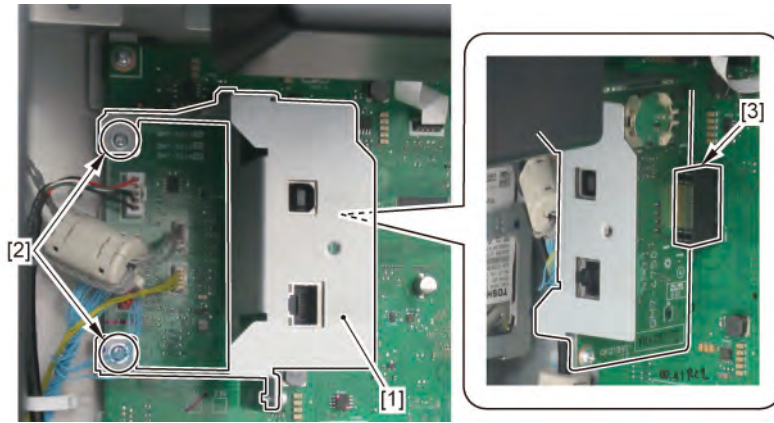
[SERVICE MODE > ADJUSTMENT > TOUCH PANEL CALIBRATION]



## A-2

## 5. Remove [1] I/F PCB UNIT.



[2]	[3]
	
2 pcs	1 pc

**Notes when the unit is replaced:**


The date and time needs to be set in the Service Mode after replacing the I/F PCB UNIT.  
See 7-2. Service Mode > Details of OTHERS > 2) OTHERS menu level > RTC SETTING.

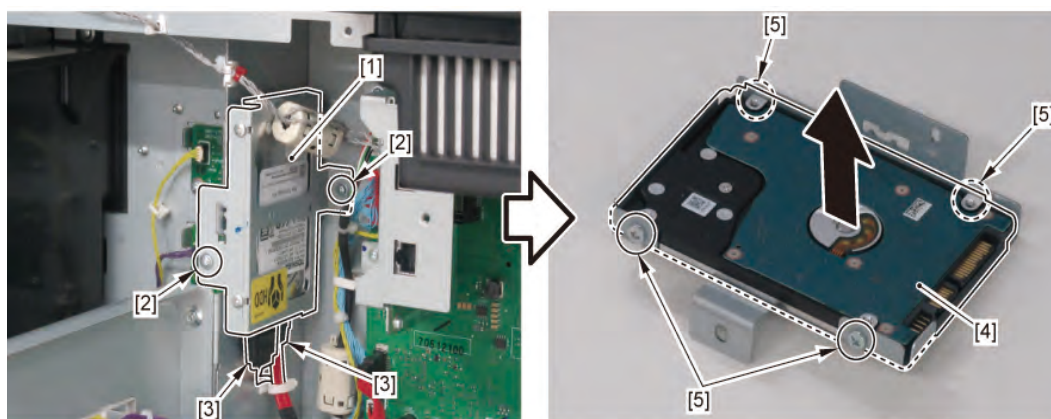
## A-3

5. Remove [1] the bracket (with the HARD DISK).

[2]	[3]
	
2 pcs	2 pcs



6. Remove [4] the HARD DISK.

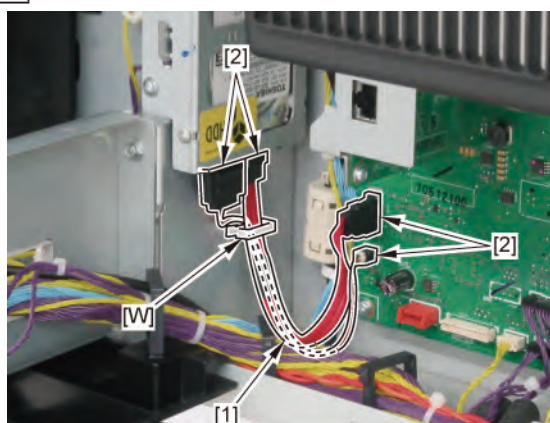
[5]

4 pcs



## A-4

5. Disconnect [1] HDD CABLE ASS'Y.

[2]	[W]
	
4 pcs	1 pc






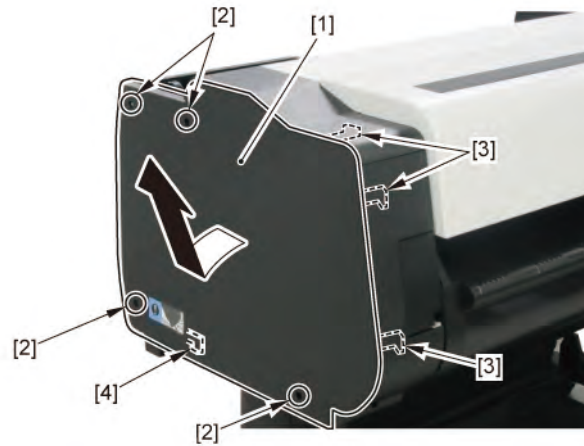
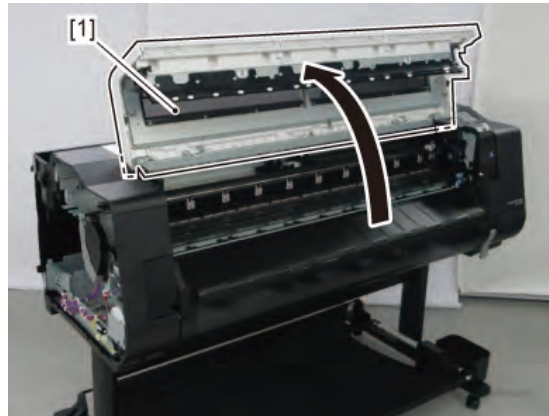
**Notes when assembling the unit:**

The HDD CABLE ASS'Y must be on top of the other cables.



**B****1.** Remove a set of [1]

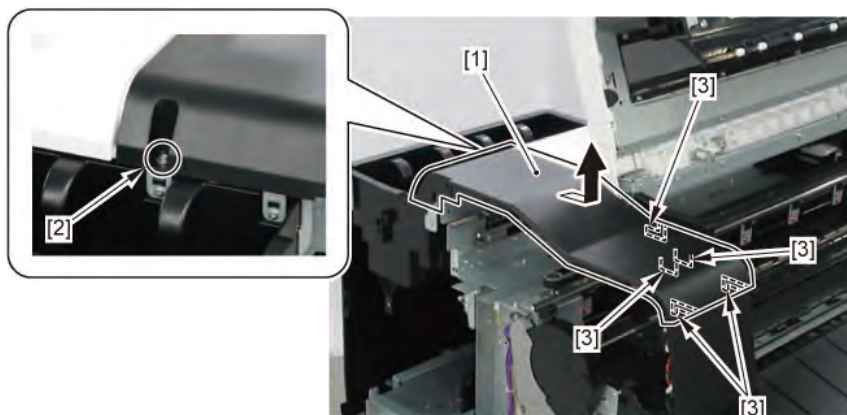
- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.

[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc

**2.** Open [1] the access cover.



### 3. Remove [1] COVER, TOP L.

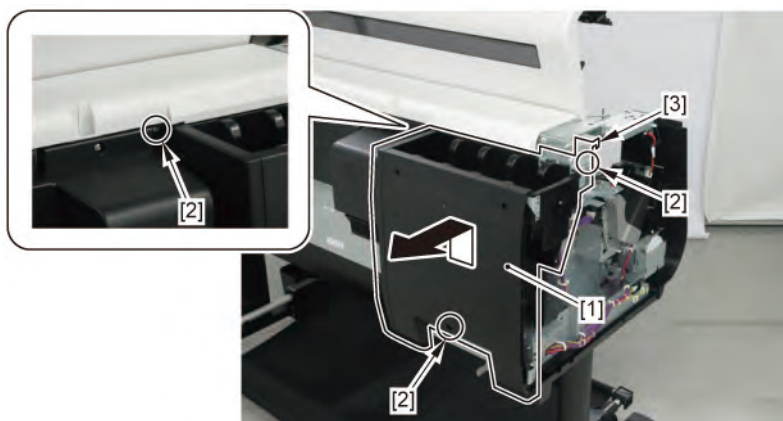
[2]	[3]
	
1 pc	5 pcs



### 4. Remove [1] a set of

- BOX, INKTANK
- COVER, INKTANK BACK
- CAVER, INKTANK L INSIDE.

[2]	[3]
	
3 pcs	1 pc






5. Open [1] the right ink tank cover.

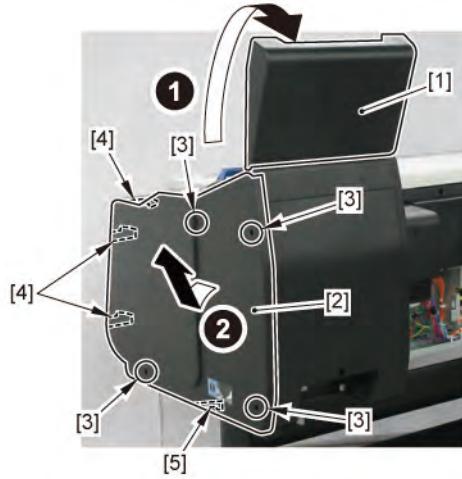
6. Remove a set of [2]

- COVER, SIDE R A

- COVER UNIT, SIDE R B

- CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc

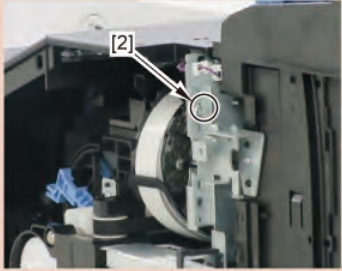




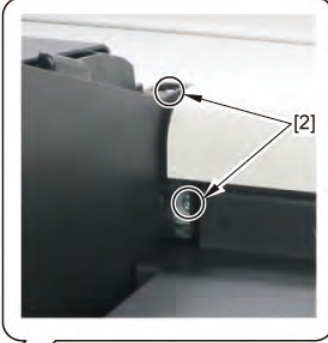
7. Open [1] the right ink unit.

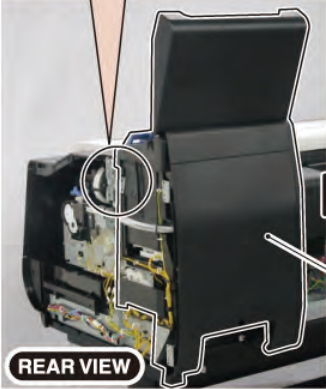
[2]

4 pcs

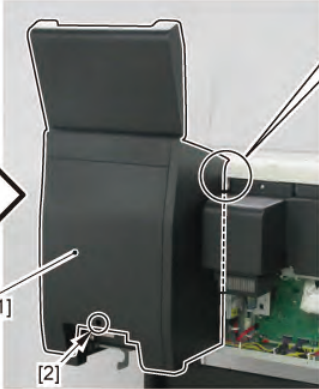


**Notes when assembling the unit :**  
While adjusting the screw hole,  
tighten this screw last.

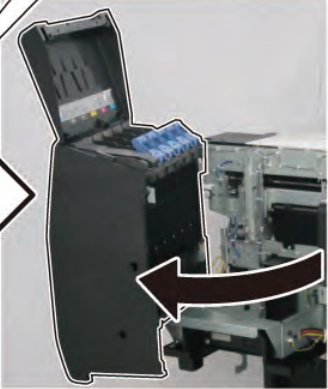




**REAR VIEW**





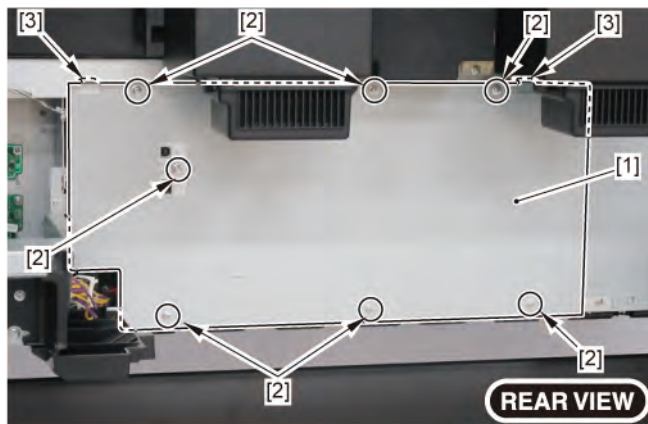
[1]  
[2]



[2]



8. Remove [1] the plate.

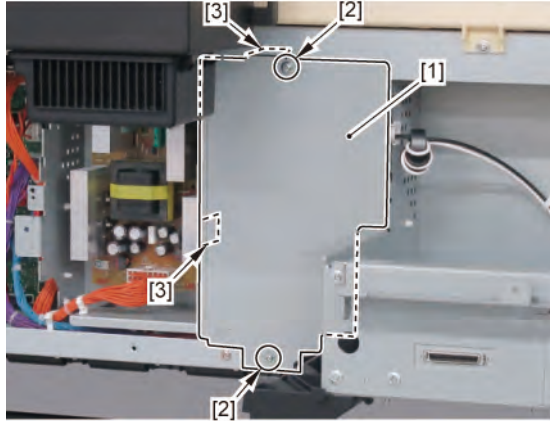
[2]	[3]
	
7 pcs	2 pcs








9. Remove [1] the plate.

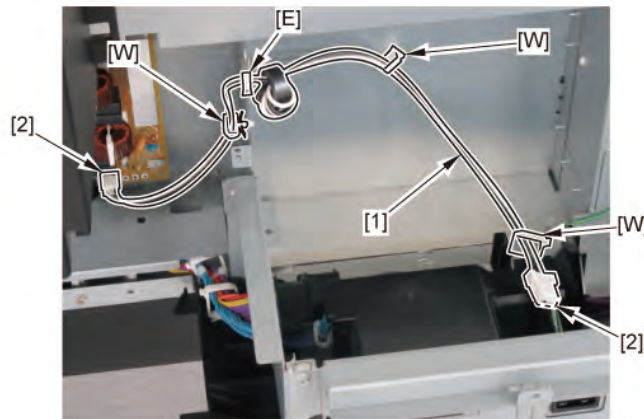
[2]	[3]
	
2 pcs	2 pcs



## B-1




10. Disconnect [1] HARNESS ASS'Y, INLET RELAY.

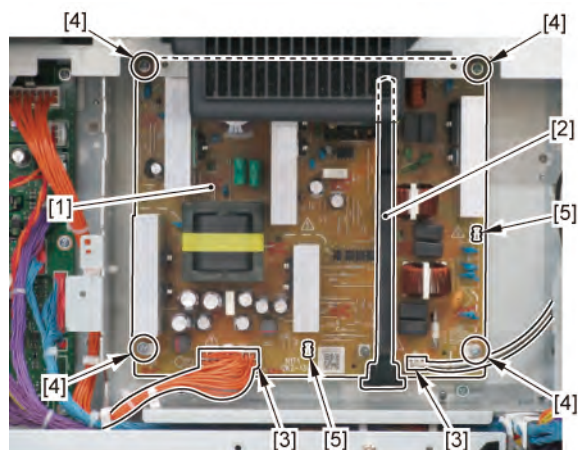
[2]	[W]	[E]
		
2 pcs	3 pcs	1 pc



## B-2




10. While holding [2] the handle, remove [1] POWER SUPPLY UNIT.

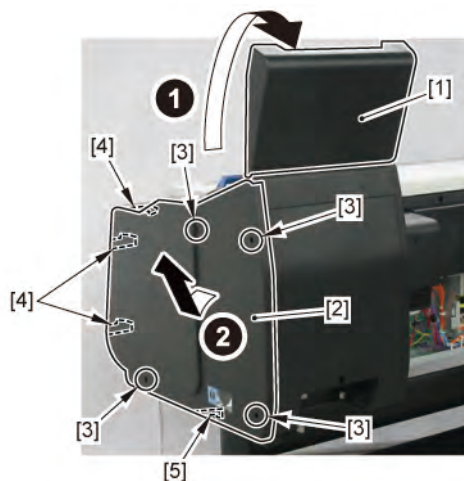
[3]	[4]	[5]
		
2 pcs	4 pcs	2 pcs



## C

1. Open [1] the right ink tank cover.
2. Remove [2] a set of
  - COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.

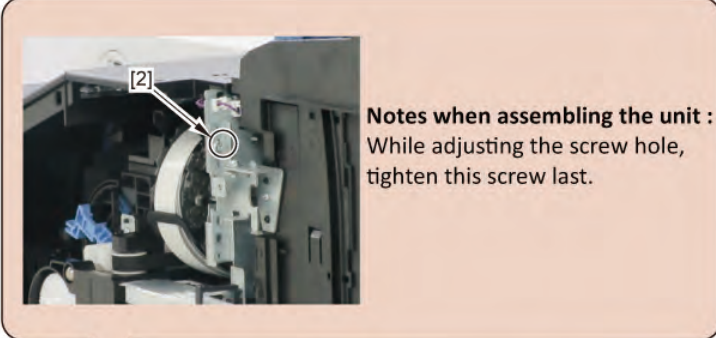
[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc



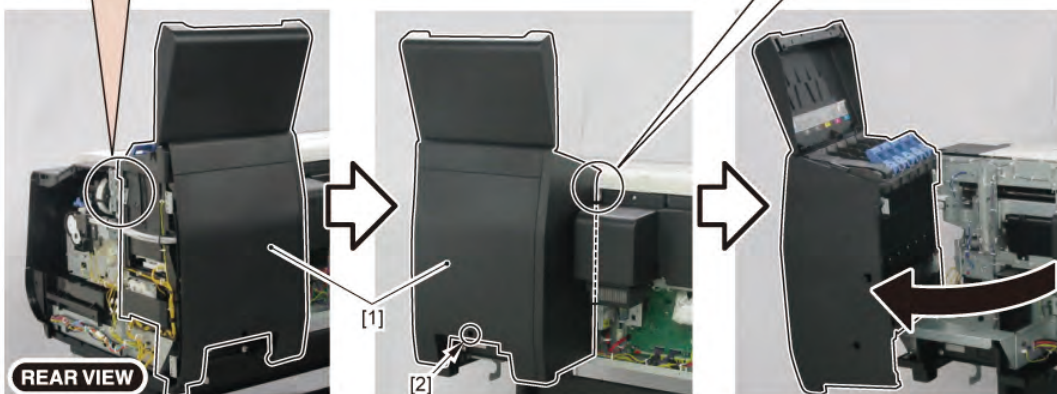
3. Open [1] the right ink unit.

[2]



4 pcs

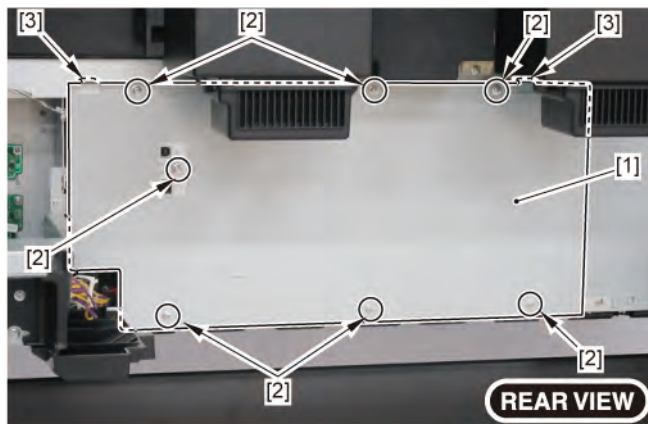


Notes when assembling the unit :  
While adjusting the screw hole,  
tighten this screw last.





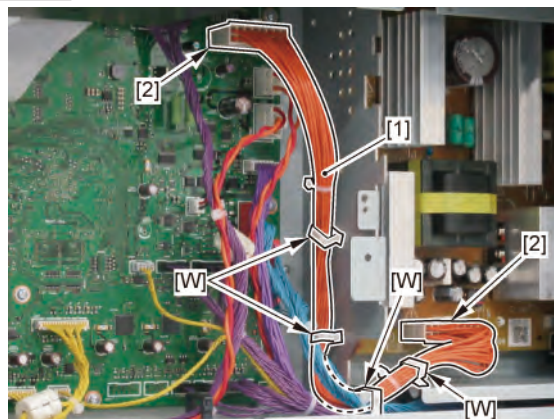
4. Remove [1] the plate.

[2]	[3]
	
7 pcs	2 pcs






## 5. Disconnect [1] HARNESS ASS'Y, POWER SUPPLY.

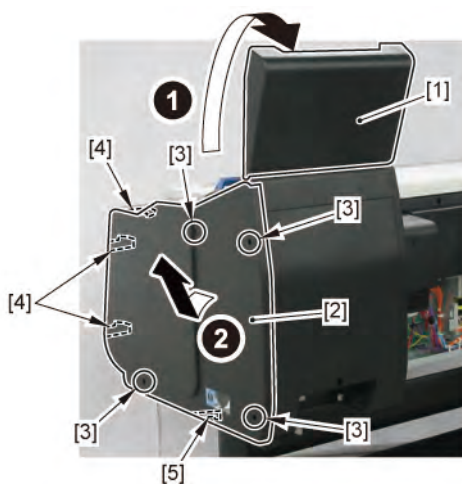
[2]	[W]
	
2 pcs	4 pcs



### D


1. Open [1] the right ink tank cover.
2. Remove [2] a set of
  - COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.

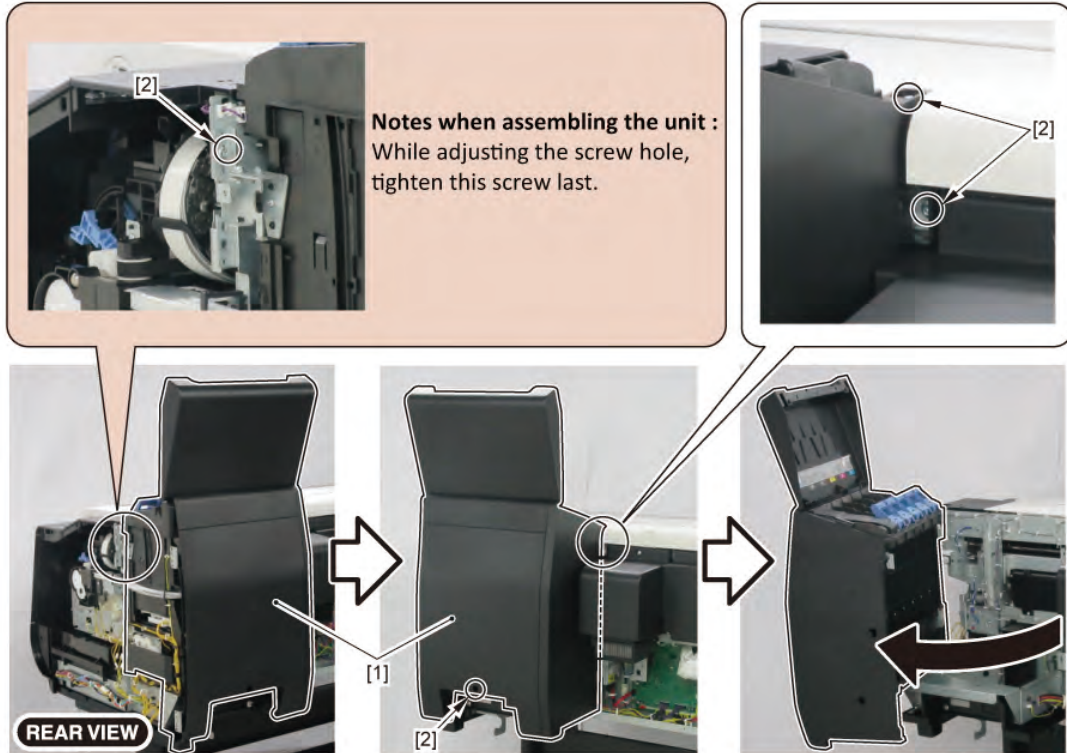
[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc







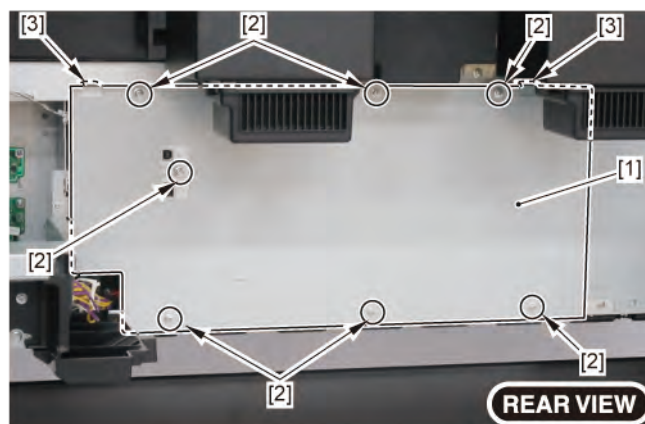
### 3. Open [1] the right ink unit.

[2]

4 pcs





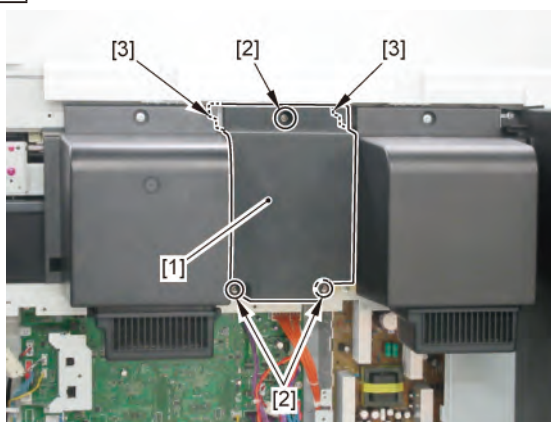
### 4. Remove [1] the plate.

[2]	[3]
	
7 pcs	2 pcs






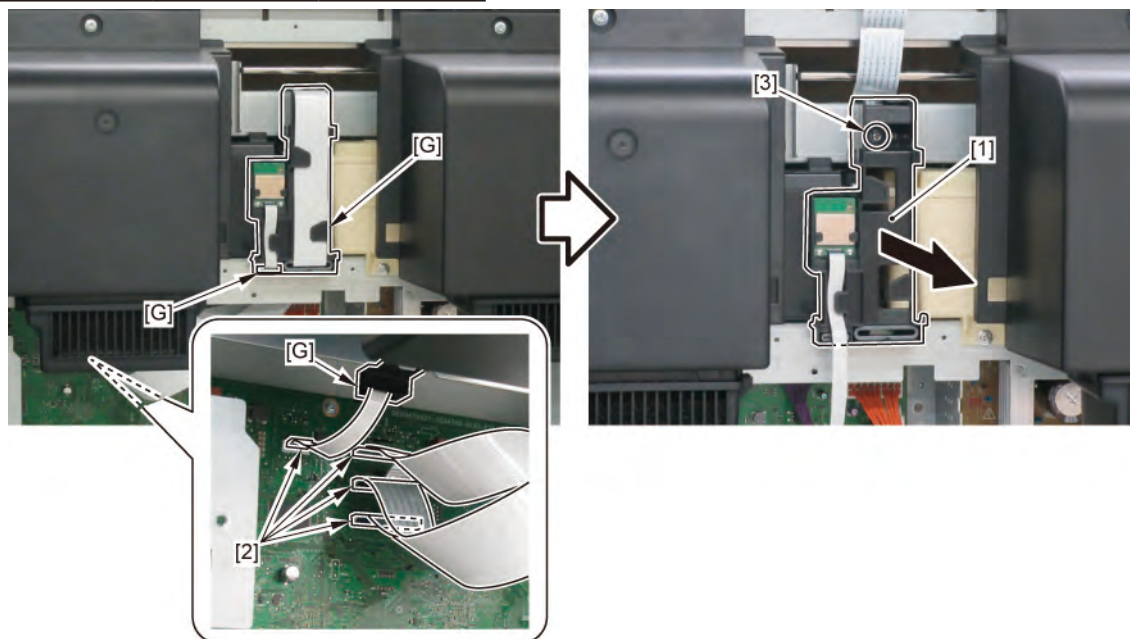
## 5. Remove [1] COVER, BACK.

[2]	[3]
	
3 pcs	2 pcs



## 6. Remove [1] WIRELESS LAN PCB UNIT.

[2]	[3]	[G]
		
4 pcs	1 pc	3 pcs







# 7 MAIN PCB UNIT / POWER SUPPLY UNIT / HARD DISK DRIVE (44" model)

Chapter 1

Chapter 2

Chapter 3

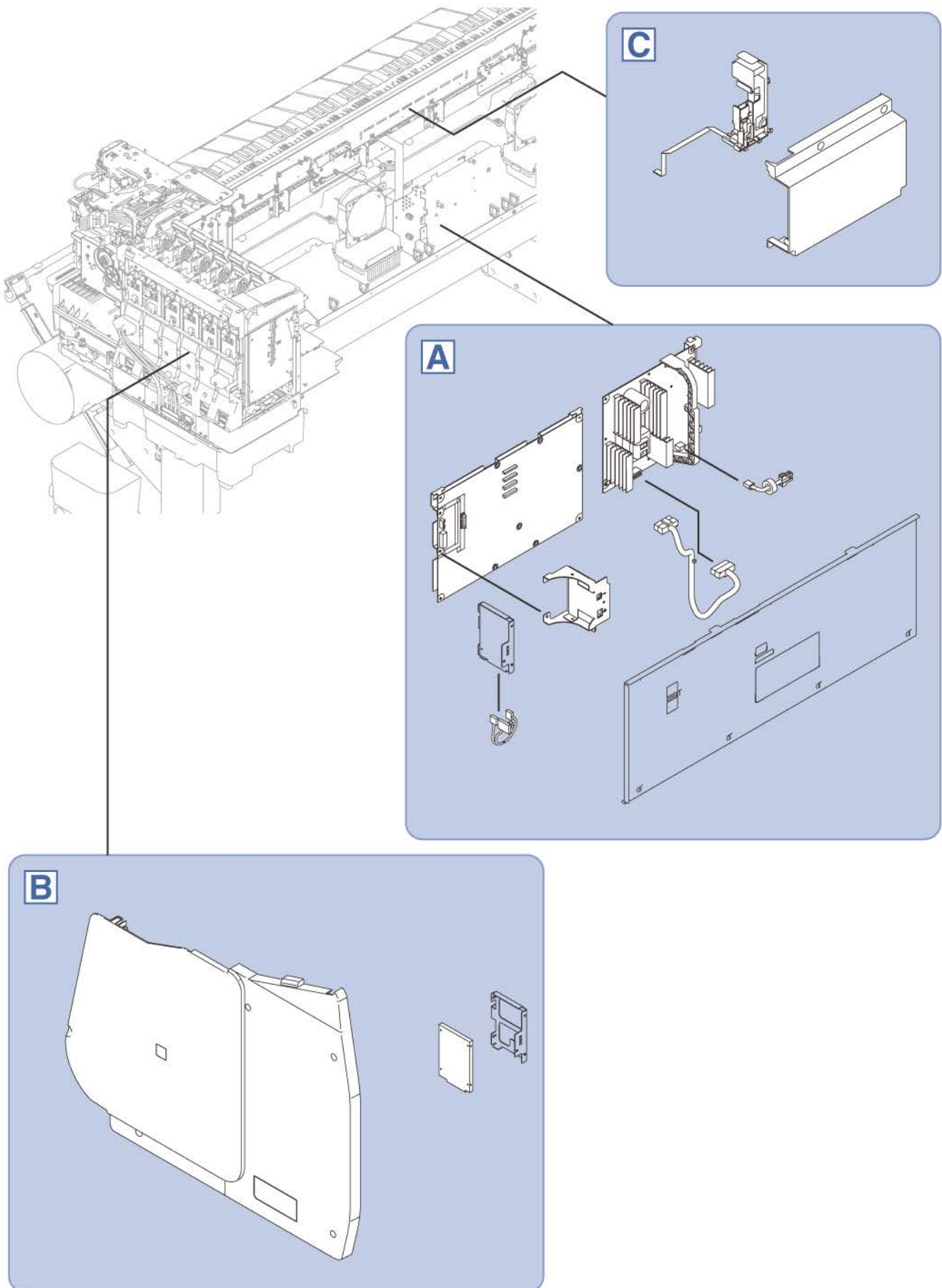
Chapter 4

Chapter 5

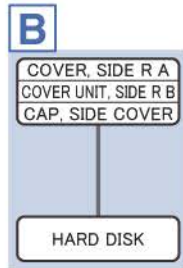
Chapter 6

Chapter 7

Chapter 8





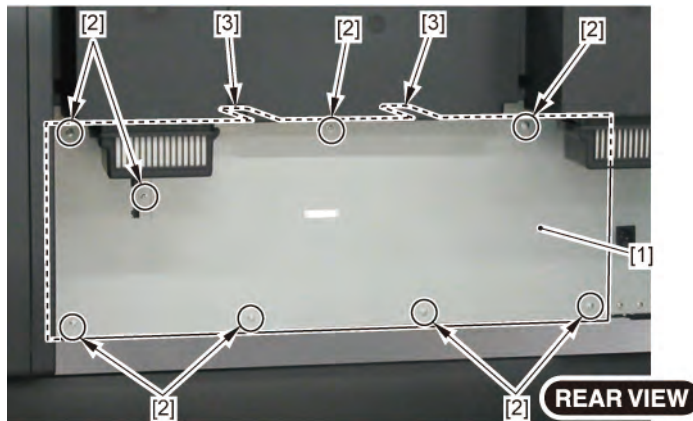
# 44" MODEL



**A**


1. Remove [1] the plate.

[2]	[3]
	
8 pcs	2 pcs



**A-1**

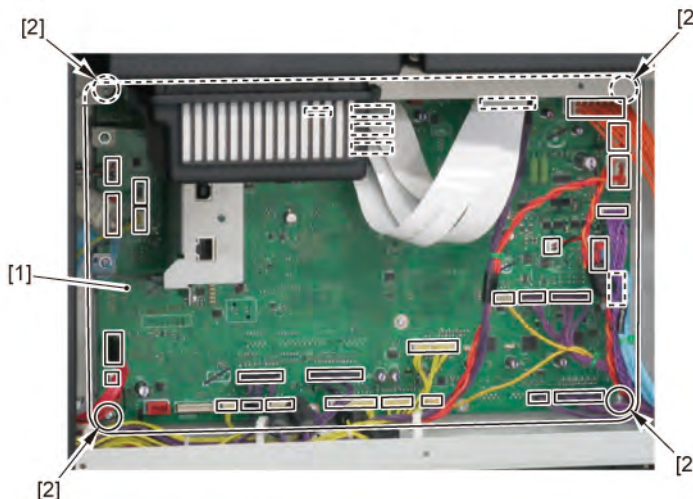
2. Disconnect all the cables from [1] MAIN PCB UNIT.


32 pcs

3. Remove [1] MAIN PCB UNIT.

[2]

4 pcs



**Notes when assembling the unit:**

Perform adjustment at the end of assembly.

[SERVICE MODE > ADJUSTMENT > LF\_ENC\_ADJ]





[SERVICE MODE > ADJUSTMENT > UPPER\_ARB\_CALIB]

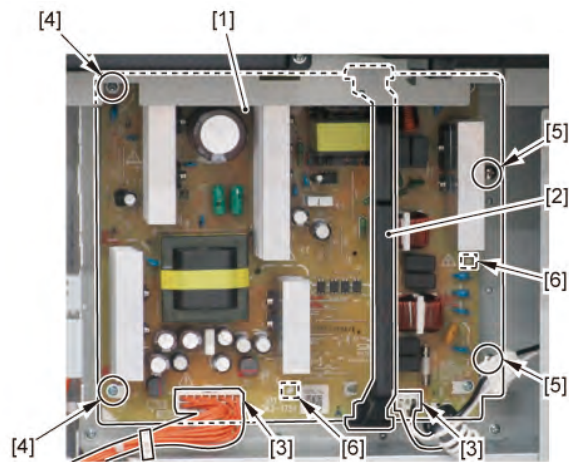
[SERVICE MODE > ADJUSTMENT > LOWER\_ARB\_CALIB]

[SERVICE MODE > ADJUSTMENT > TOUCH PANEL CALIBRATION]


**A-2**



2. While holding [2] the handle, remove [1] POWER SUPPLY UNIT.

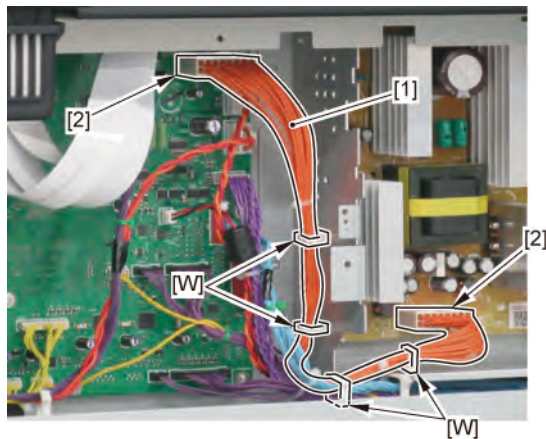
[3]	[4]	[5]	[6]
			
2 pcs	2 pcs	2 pcs	2 pcs



## A-3



2. Disconnect [1] HARNESS ASS'Y, POWER SUPPLY.

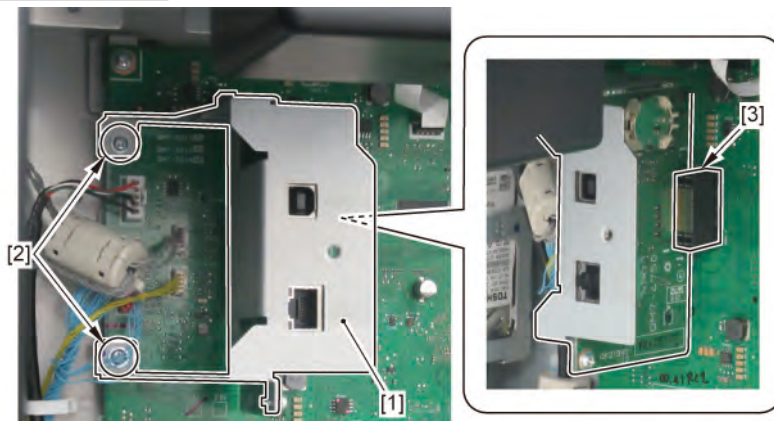
[2]	[W]
	
2 pcs	4 pcs



## A-4

2. Remove [1] I/F PCB UNIT.

[2]	[3]
	
2 pcs	1 pc




**Notes when the unit is replaced:**

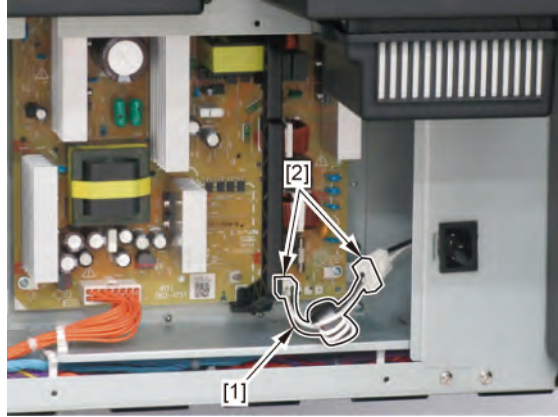
The date and time needs to be set in the Service Mode after replacing the I/F PCB UNIT.  
See 7-2. Service Mode > Details of OTHERS > 2) OTHERS menu level > RTC SETTING.



## A-5



2. Disconnect [1] HARNESS ASS'Y, INLET RELAY.

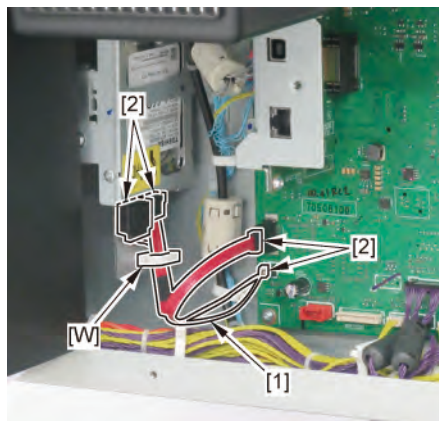
[2]

2 pcs



## A-6

2. Disconnect [1] HDD CABLE ASS'Y.

[2]	[W]
	
4 pcs	1 pc





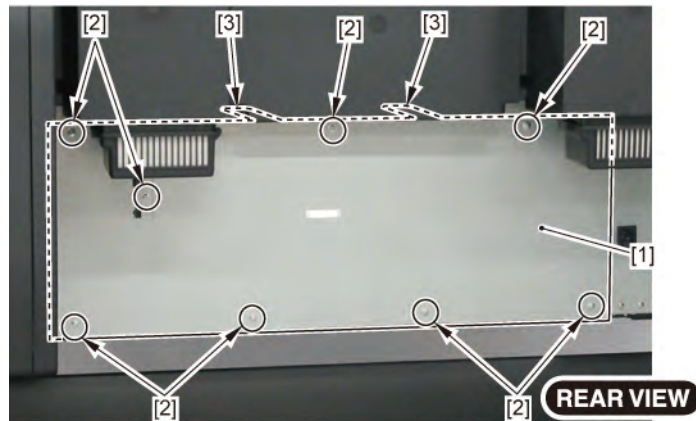
**Notes when assembling the unit:**

The HDD CABLE ASS'Y must be on top of the other cables.

## B

1. Remove [1] the plate.




[2]	[3]
	
8 pcs	2 pcs

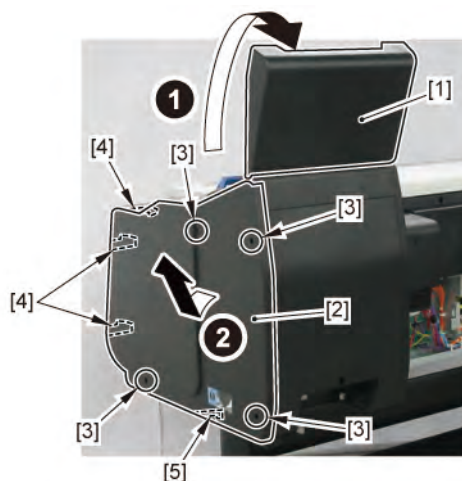


2. Open [1] the right ink tank cover.

3. Remove [2] a set of

- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

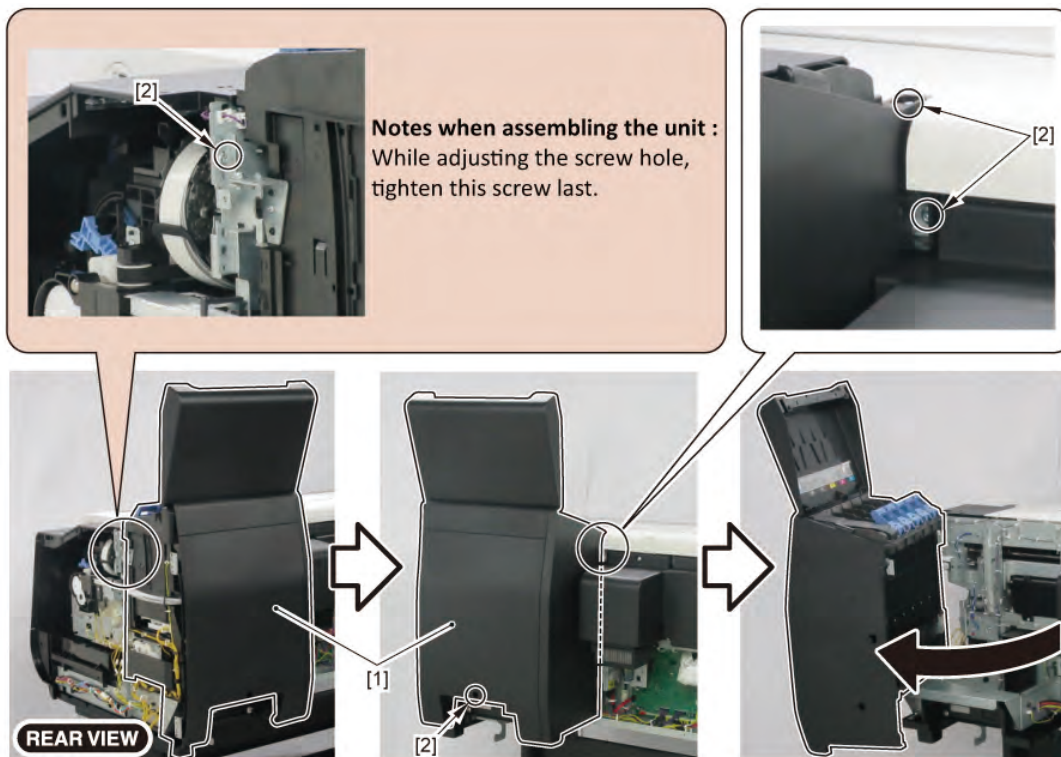
[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc





4. Open [1] the right ink unit.

[2]


4 pcs

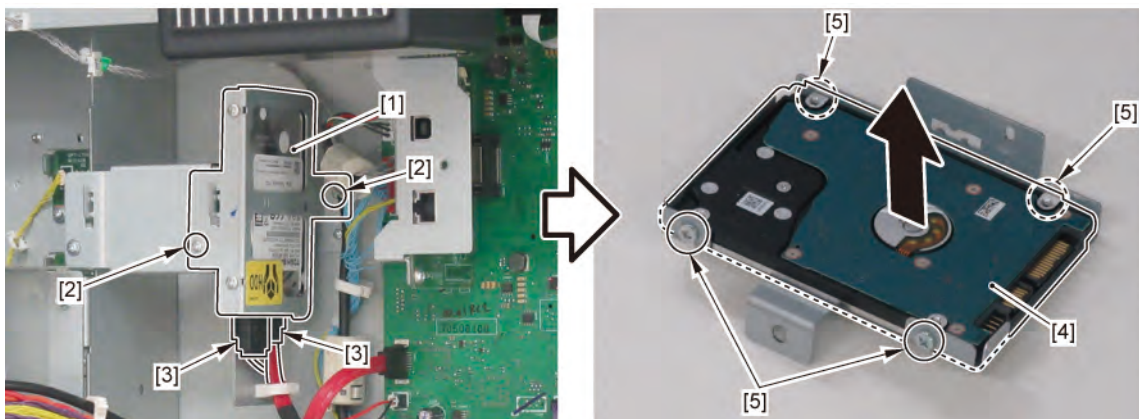


5. Remove [1] the bracket (with the HARD DISK).

[2]	[3]
	
2 pcs	2 pcs

6. Remove [4] HARD DISK.

[5]

4 pcs

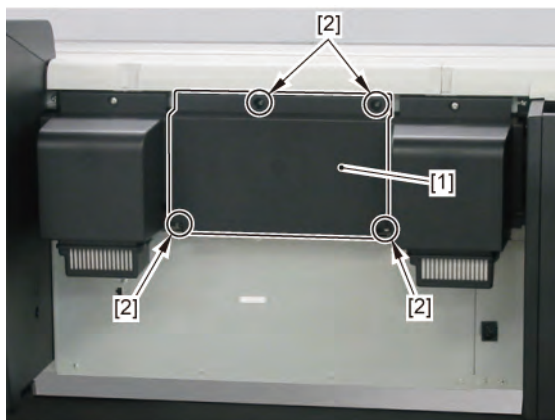


C



1. Remove [1] COVER, BACK.

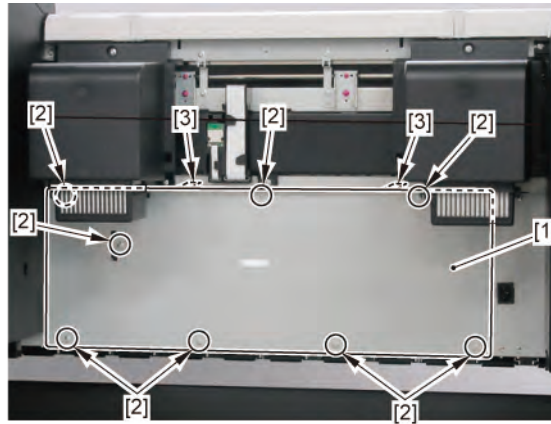
[2]

4 pcs






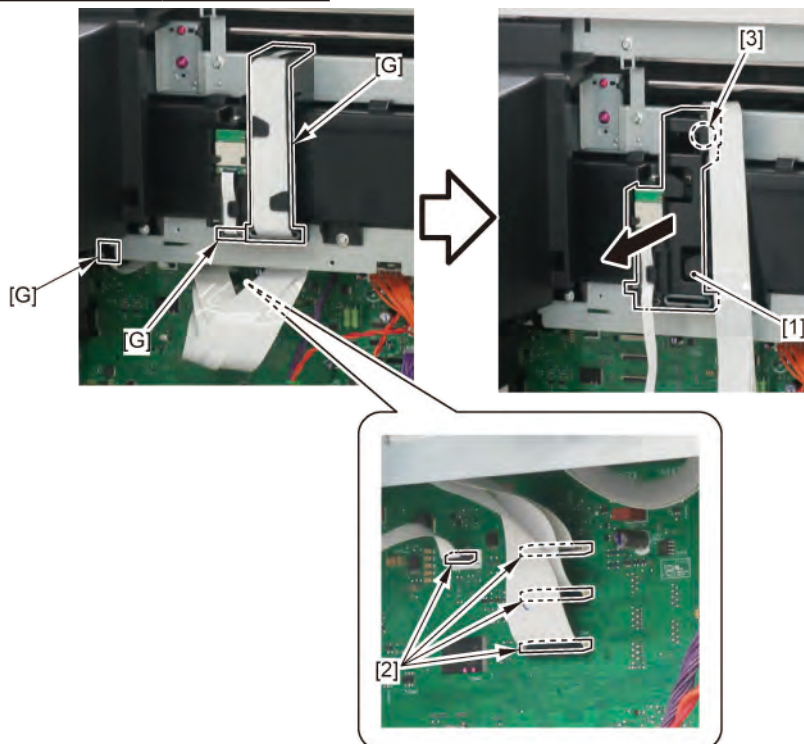
## 2. Remove [1] the plate.

[2]	[3]
	
8 pcs	2 pcs



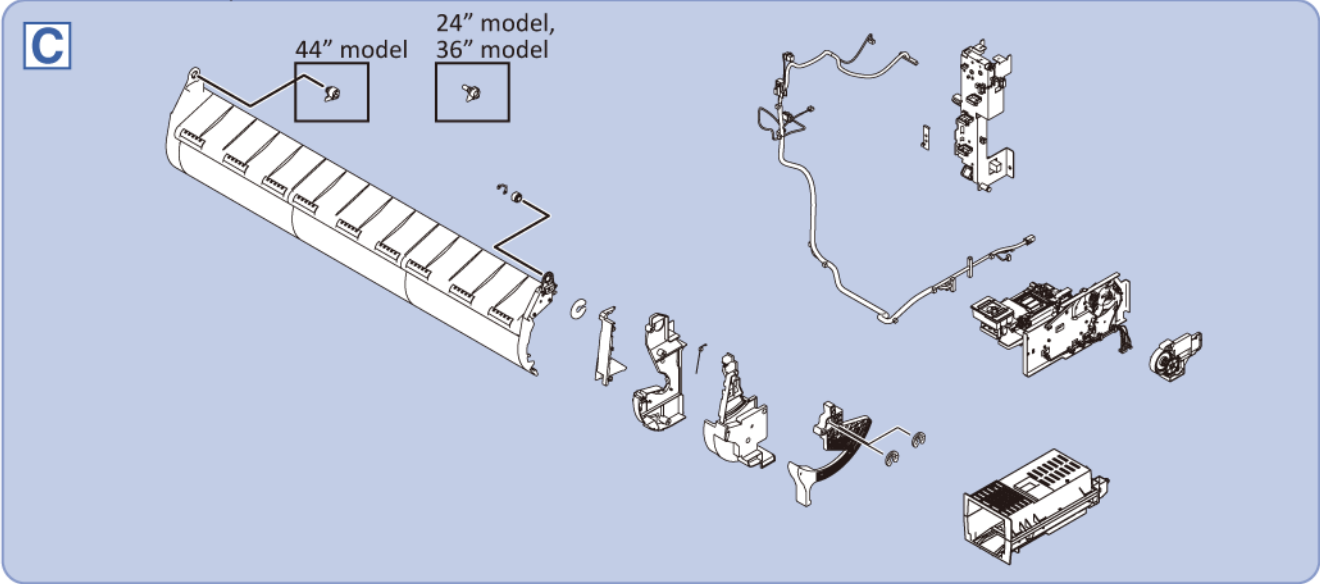
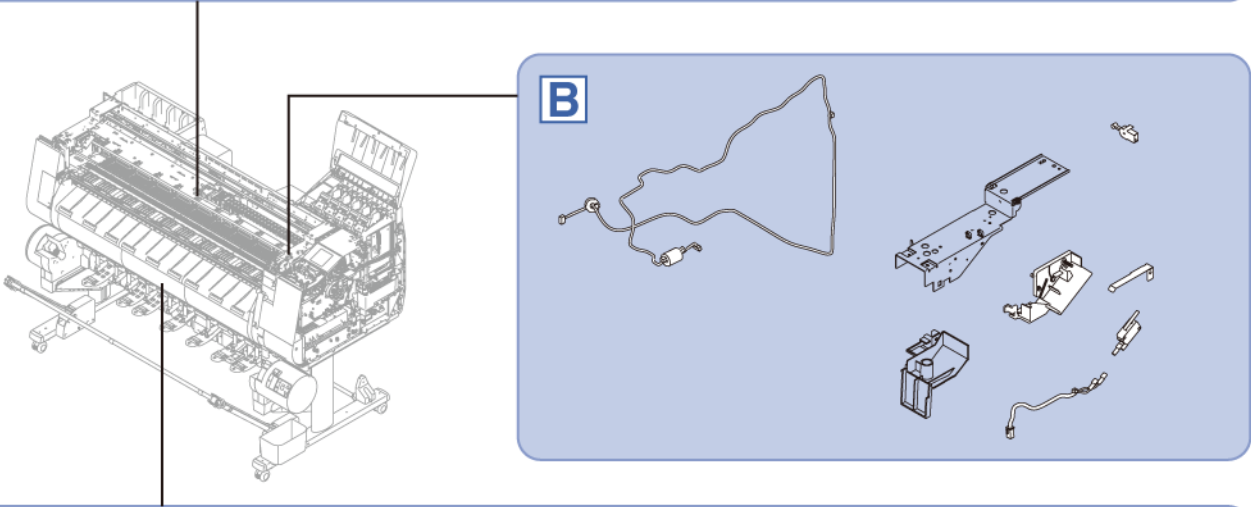
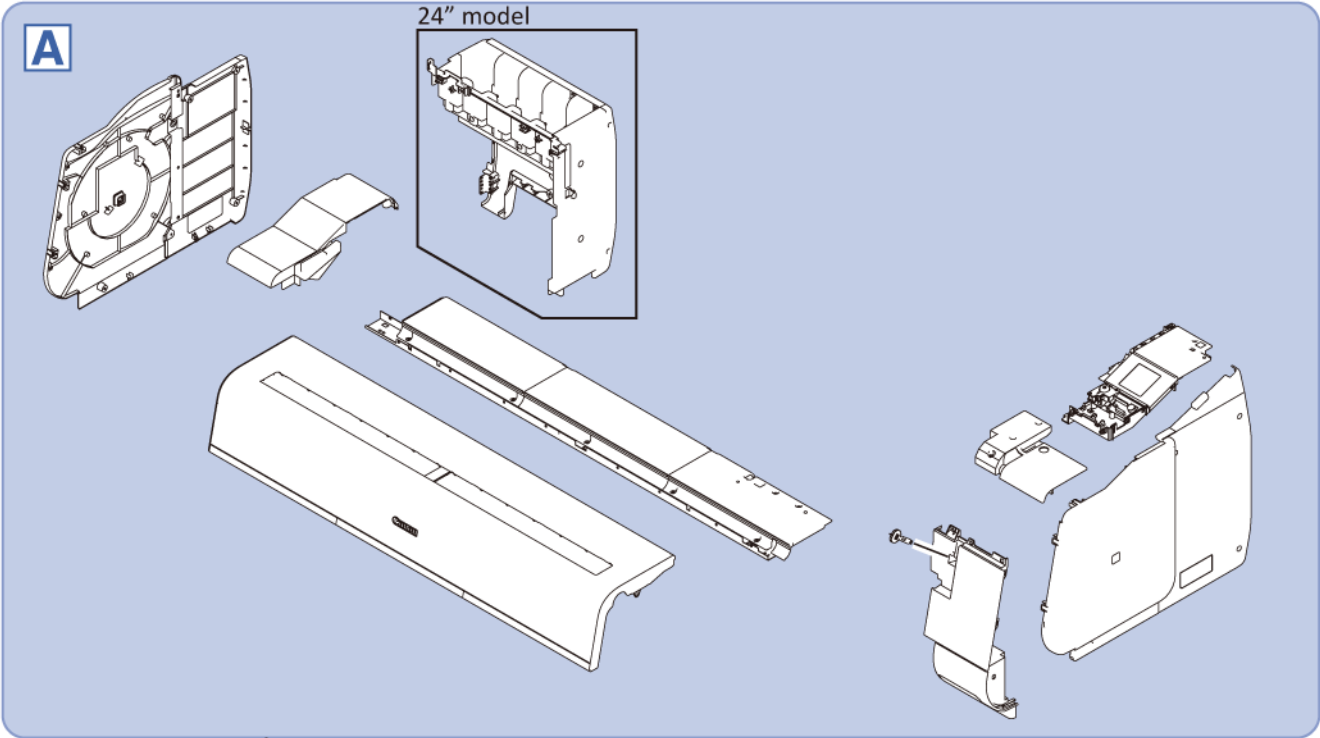
## 3. Remove [1] WIRELESS LAN PCB UNIT.

[2]	[3]	[G]
		
4 pcs	1 pc	3 pcs

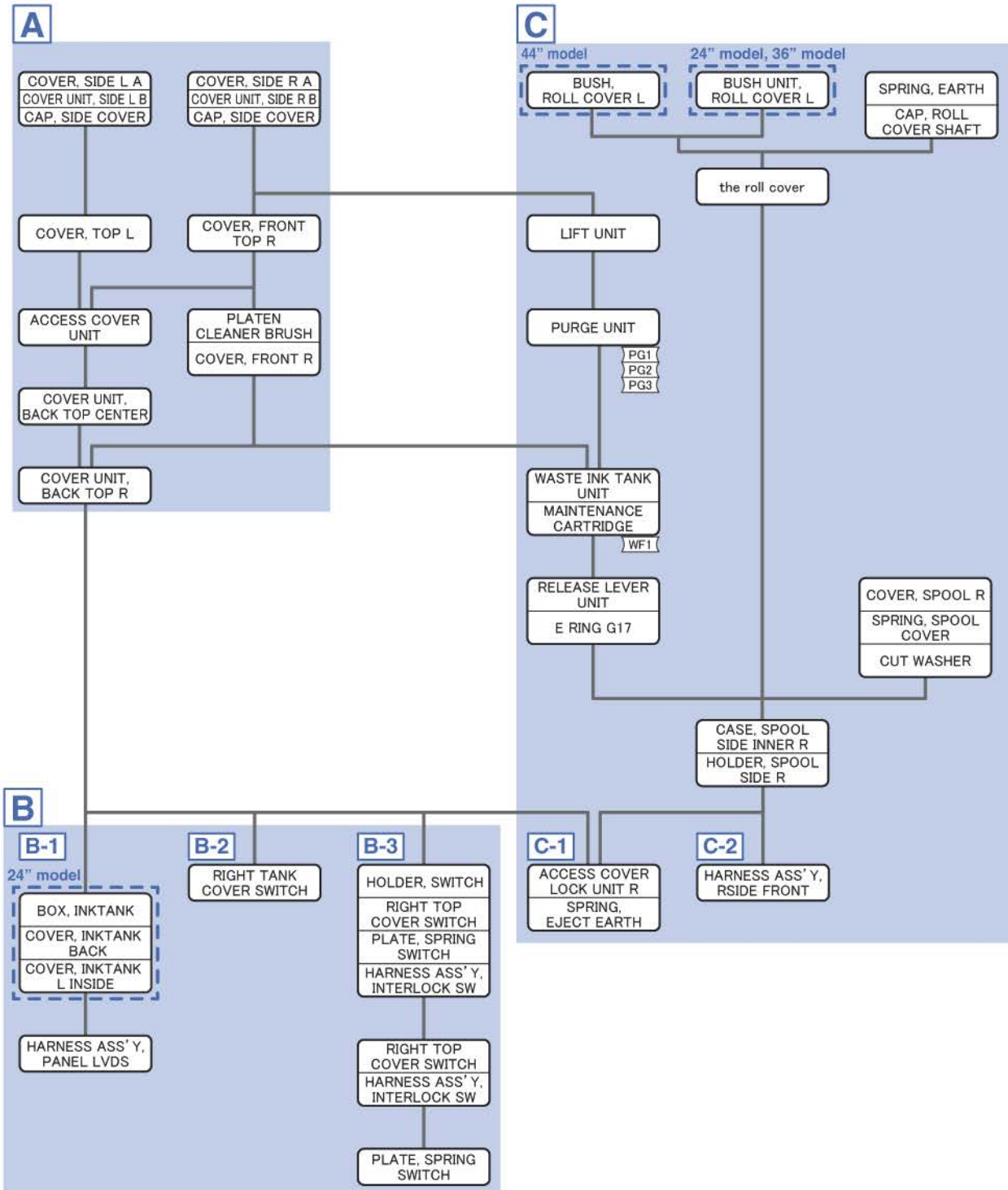




# 8 RIGHT FRONT (ACCESS COVER LOCK R)






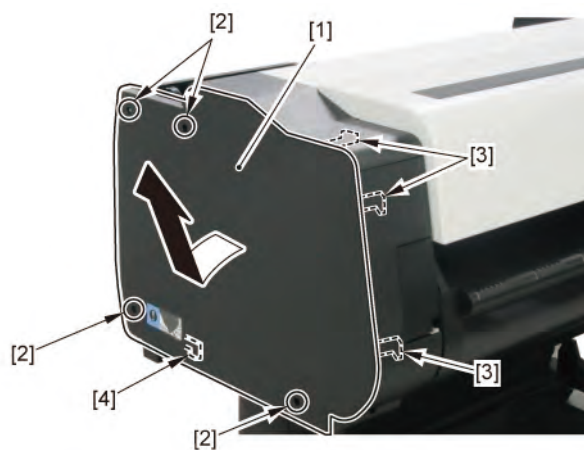




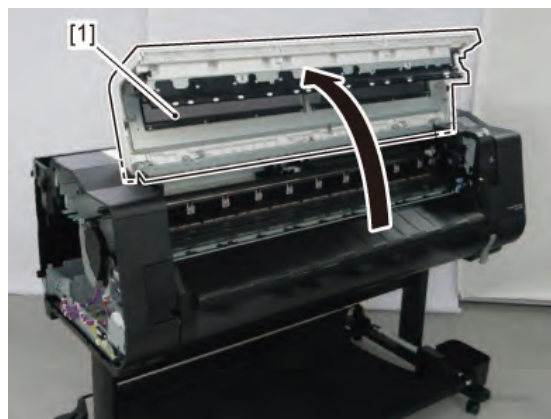
**A**

- Remove [1] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.



[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc

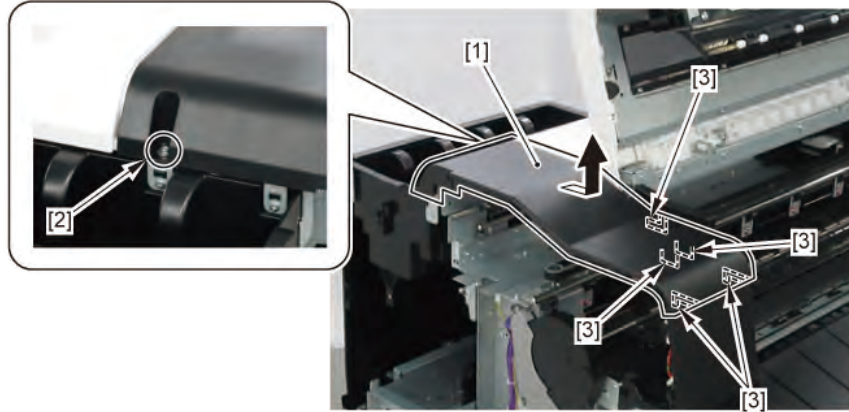


- Open [1] the access cover.



### 3. Remove [1] COVER, TOP L.




[2]	[3]
	
1 pc	5 pcs

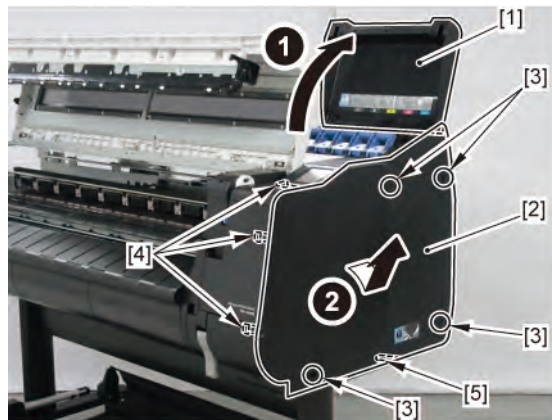


### 4. Open [1] the right ink tank cover.


### 5. Remove [2] a set of

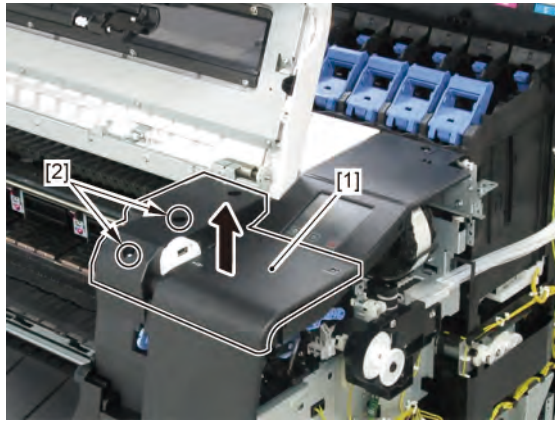
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc




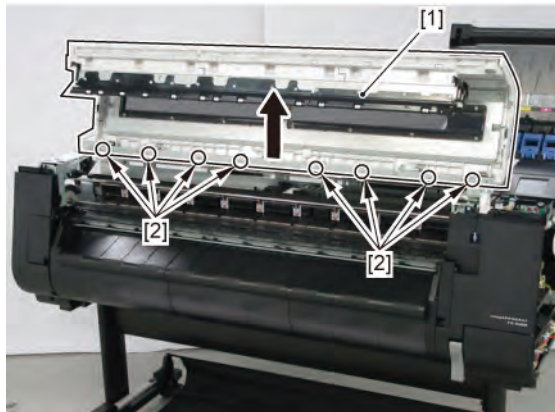
6. Remove [1] COVER, FRONT TOP R.

[2]

2 pcs



7. Remove [1] ACCESS COVER UNIT with holding the handles.

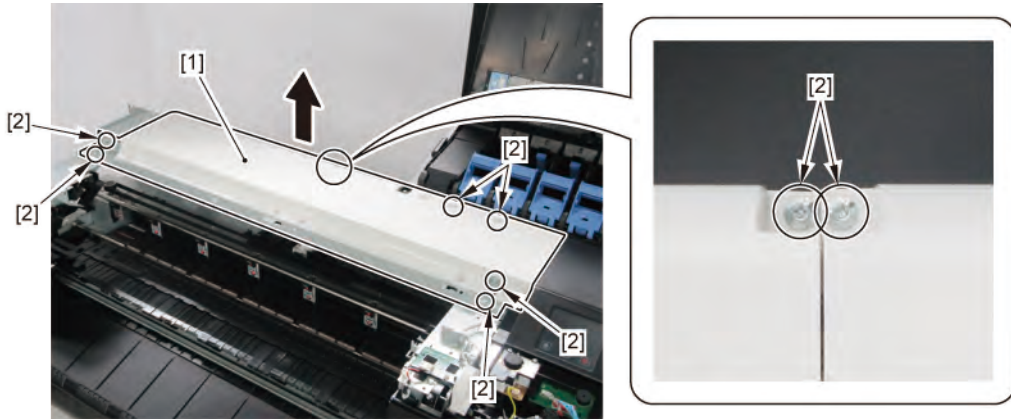
	[2]
	
24" model	5 pcs
36" model	7 pcs
44" model	8 pcs



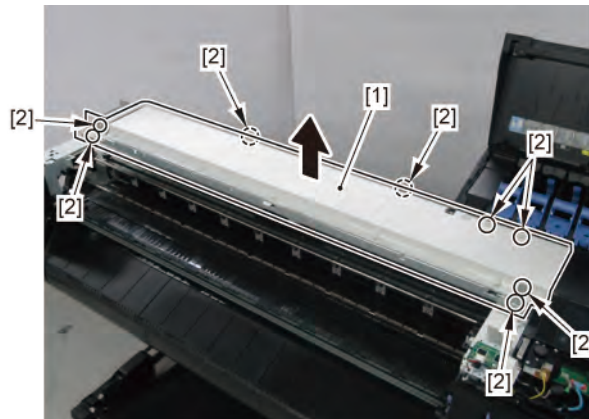
8. Remove [1] COVER UNIT, BACK TOP CENTER.



(24" model)



(36" model, 44" model)





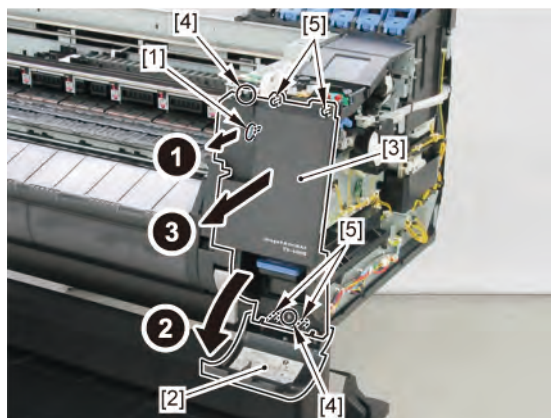


9. Remove [1] PLATEN CLEANER BRUSH.






10. Open [2] COVER UNIT, MTC.

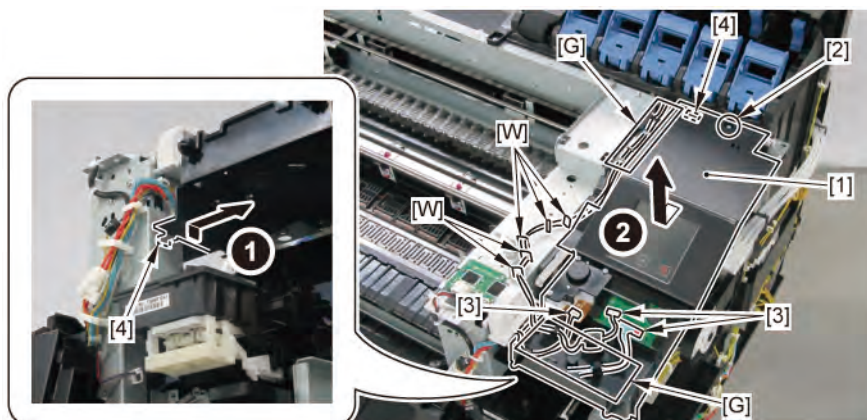
11. Remove [3] COVER, FRONT R.

[4]	[5]
	
2 pcs	4 pcs



12. Remove [1] COVER UNIT, BACK TOP R (with the OPERATION PANEL UNIT).

[2]	[3]	[4]	[W]	[G]
				
1 pc	3 pcs	2 pcs	5 pcs	2 pcs



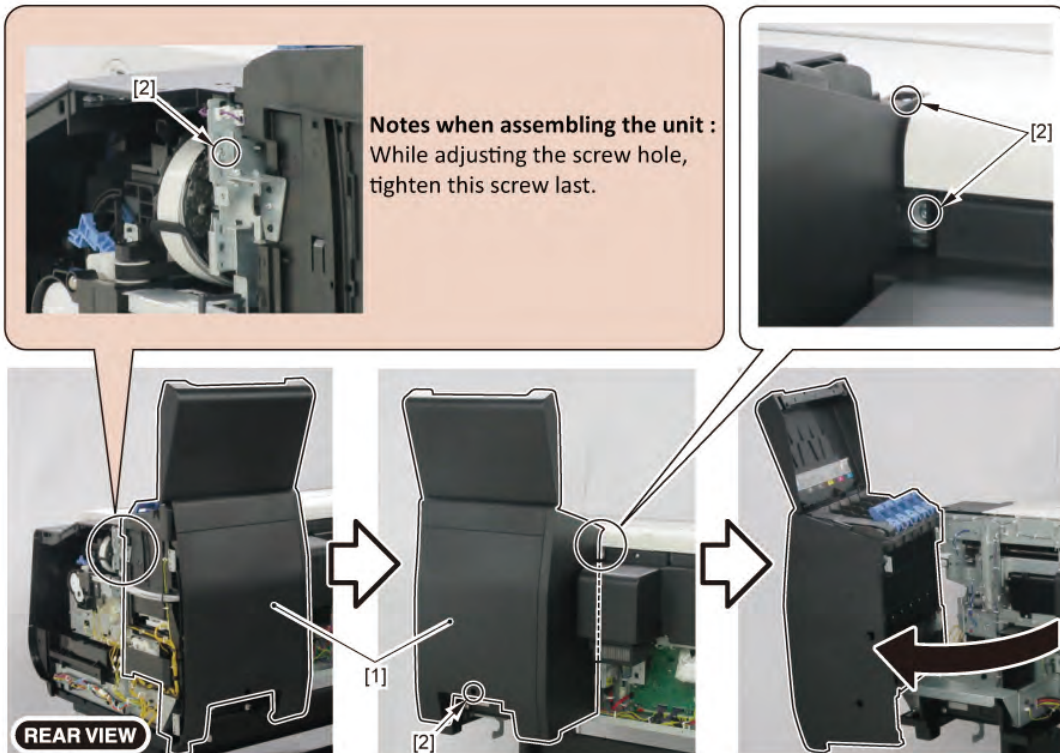
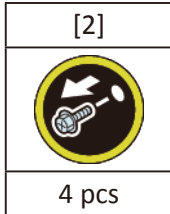


**B**



1. Remove all the parts of Group A.

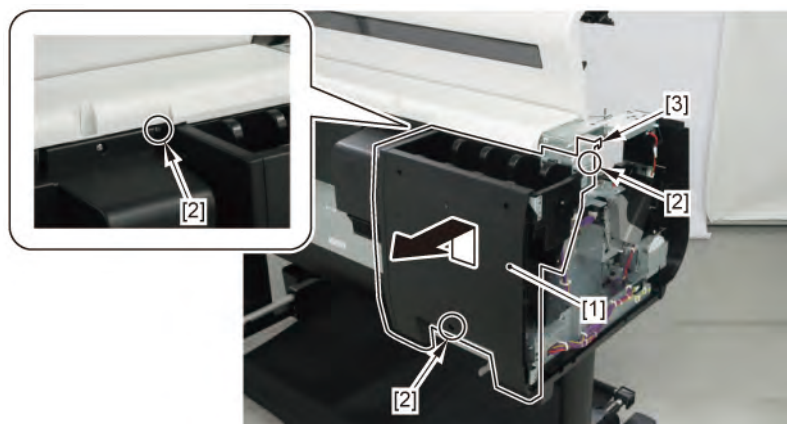
**B-1 (24" model)**

2. Open [1] the right ink unit.





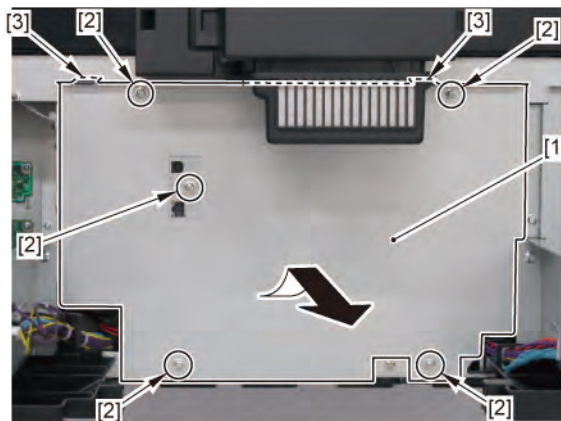
3. Remove [1] a set of
- BOX, INKTANK
  - COVER, INKTANK BACK
  - COVER, INKTANK L INSIDE.

[2]	[3]
	
3 pcs	1 pc






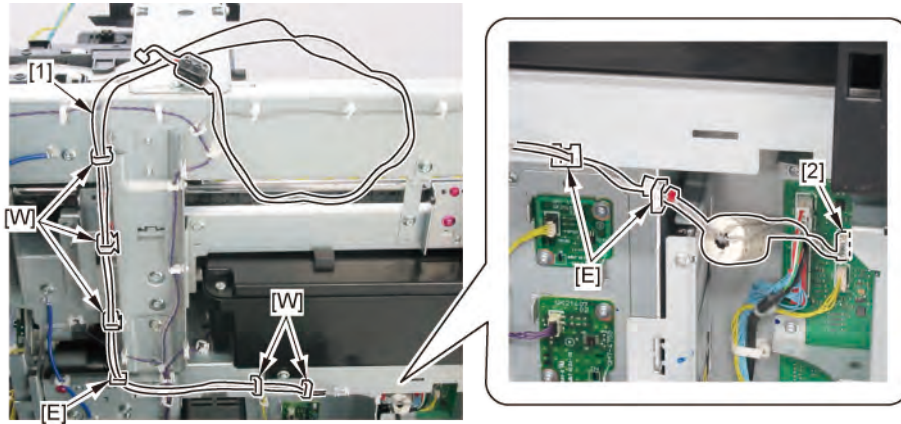
4. Remove [1] the plate.

[2]	[3]
	
5 pcs	2 pcs




5. Disconnect [1] HARNESS ASS'Y, PANEL LVDS.

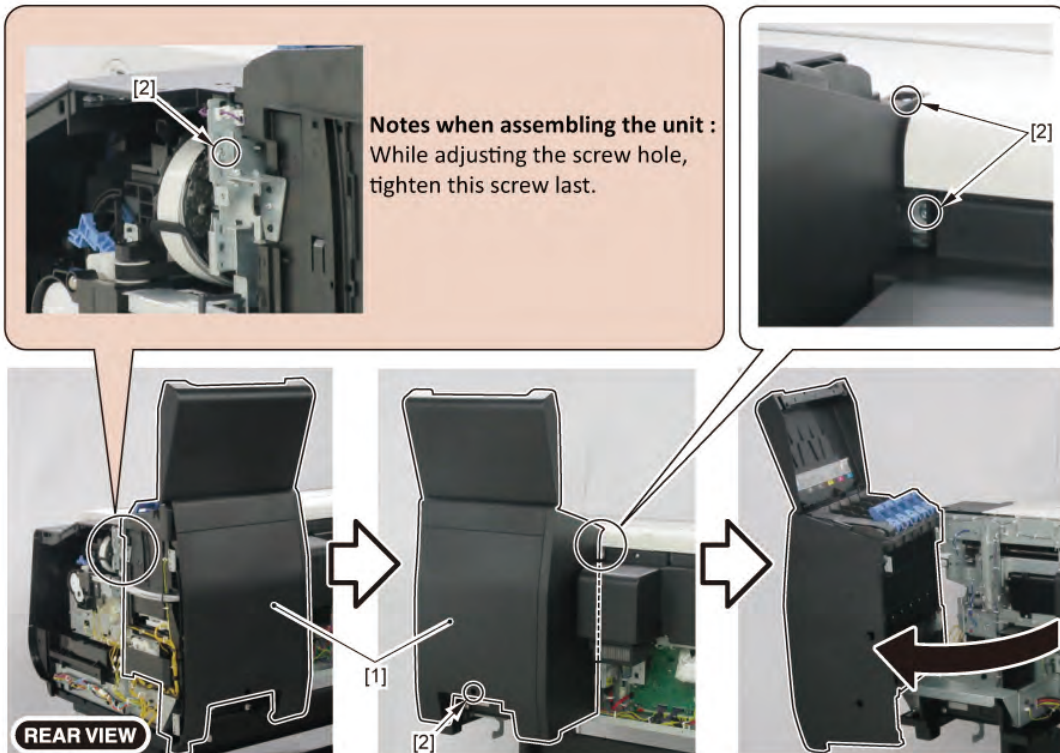
[2]	[W]	[E]
		
1 pc	5 pcs	3 pcs



**B-1 (36" model, 44" model)**



2. Open [1] the right ink unit.

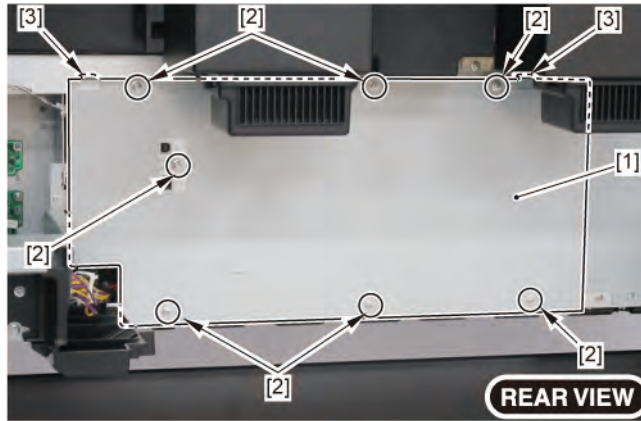
[2]

4 pcs





3. Remove [1] the plate.

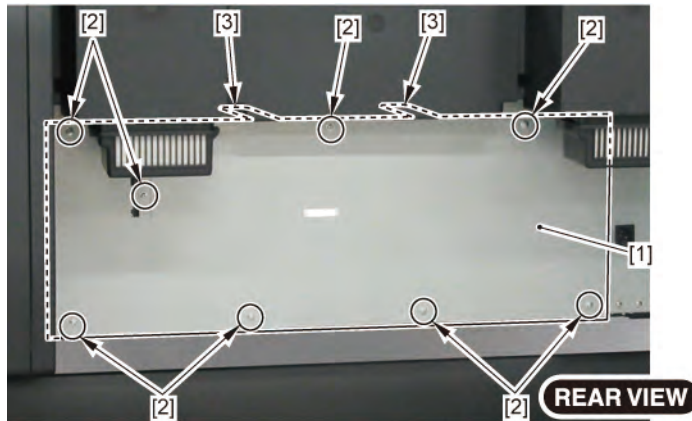
(36" model)

[2]	[3]
	
7 pcs	2 pcs






(44" model)

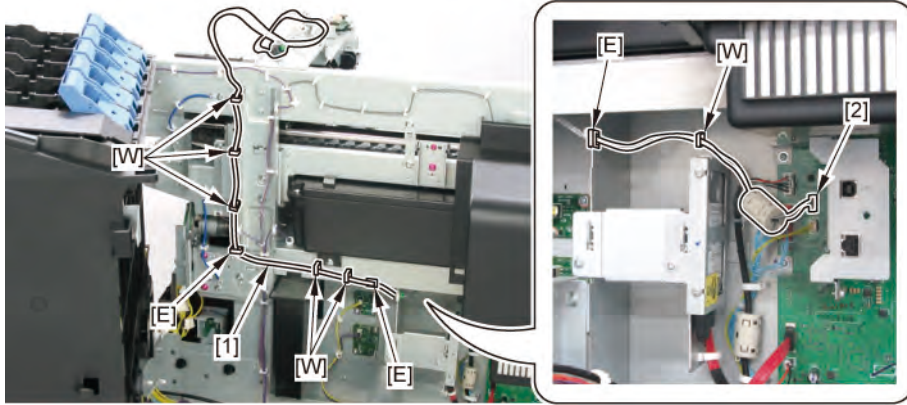
[2]	[3]
	
8 pcs	2 pcs







4. Disconnect [1] HARNESS ASS'Y, PANEL LVDS.

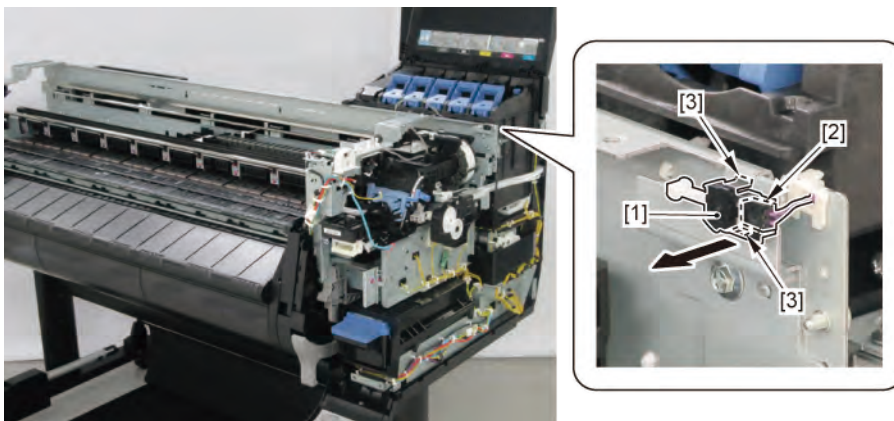
[2]	[W]	[E]
		
1 pc	6 pcs	3 pcs



**B-2**

2. Remove [1] RIGHT TANK COVER SWITCH.





[2]	[3]
	
1 pc	2 pcs

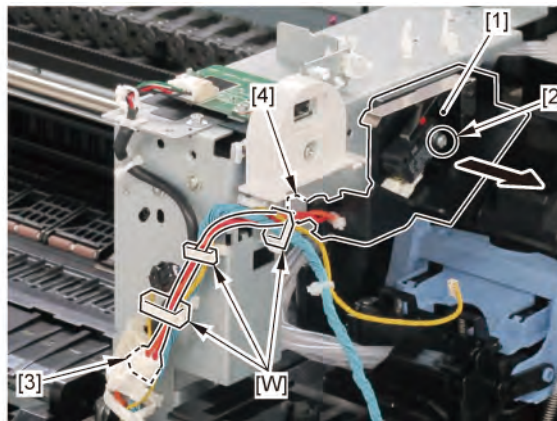


## B-3


2. Remove [1] HOLDER, SWITCH with

- RIGHT TOP COVER SWITCH
- PLATE, SPRING SWITCH
- HARNESS ASS'Y, INTERLOCK SW.

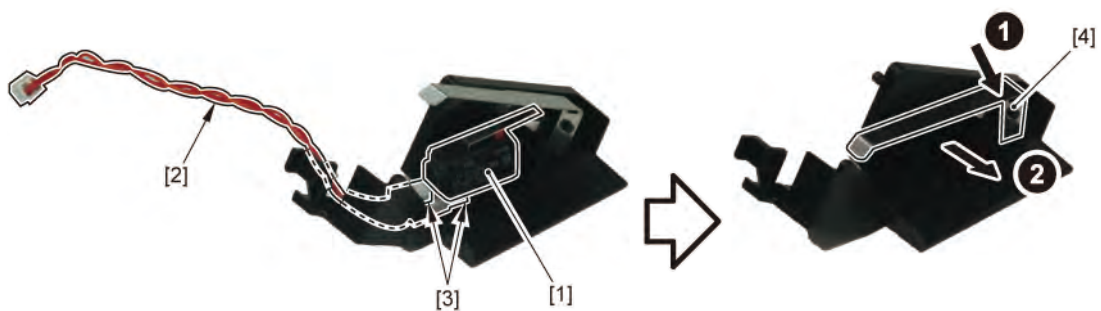
[2]	[3]	[4]	[W]
			
LONG			
1 pc	1 pc	1 pc	3 pcs



3. Remove [1] RIGHT TOP COVER SWITCH and [2] HARNESS ASS'Y, INTERLOCK SW.

[3]

2 pcs



4. Remove [4] PLATE, SPRING SWITCH.

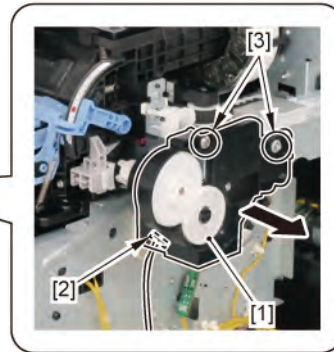
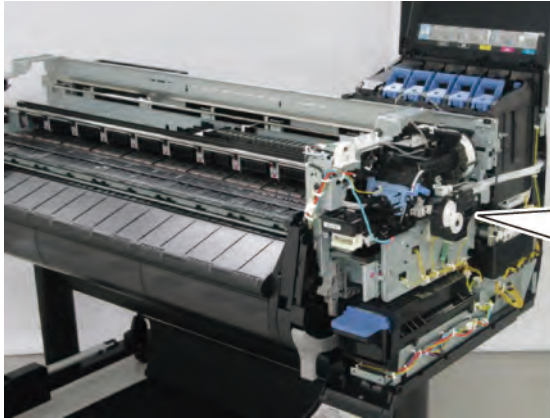




C

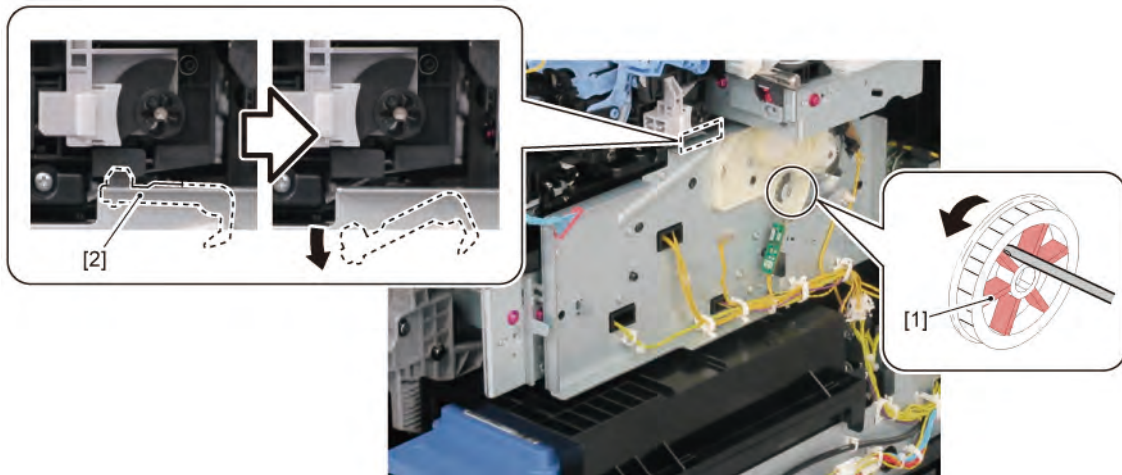
1. Remove all the parts of Group A.
2. Remove [1] LIFT UNIT.

[2]	[3]
	
1 pc	2 pcs





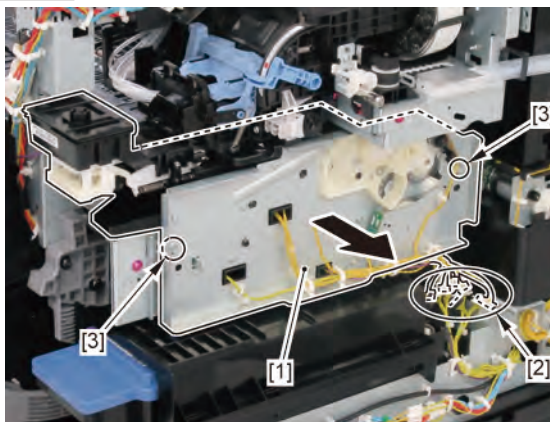
3. Unlock the carriage.

Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



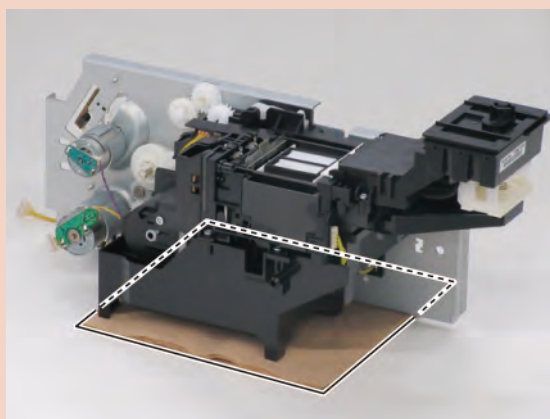
4. Remove [1] PURGE UNIT.

[2]	[3]
	
6 pcs	2 pcs





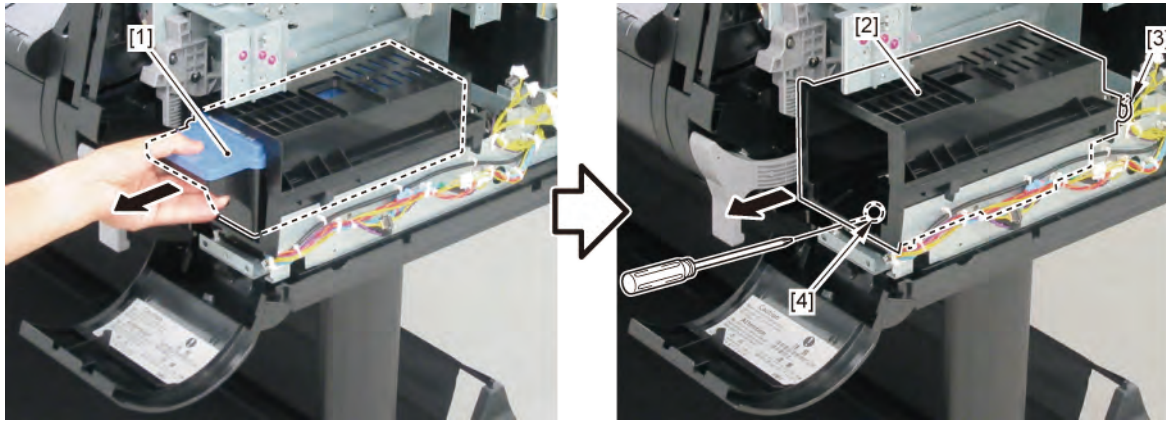
**Notes when removing the unit:**

There is an opening on the bottom of the PURGE UNIT. Place the unit on paper towel, etc.



5. Remove [1] MAINTENANCE CARTRIDGE and [2] WASTE INK TANK UNIT.

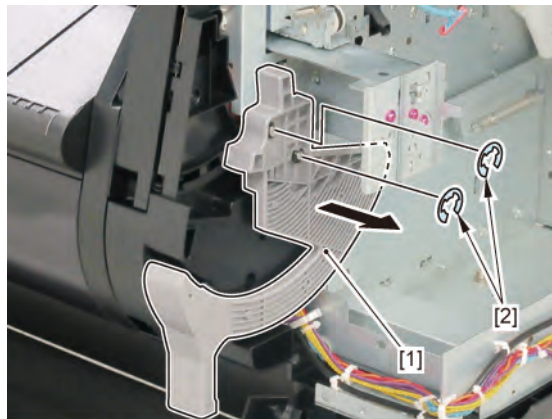
[3]	[4]
	
1 pc	1 pc



6. Remove [1] RELEASE LEVER UNIT.

[2]

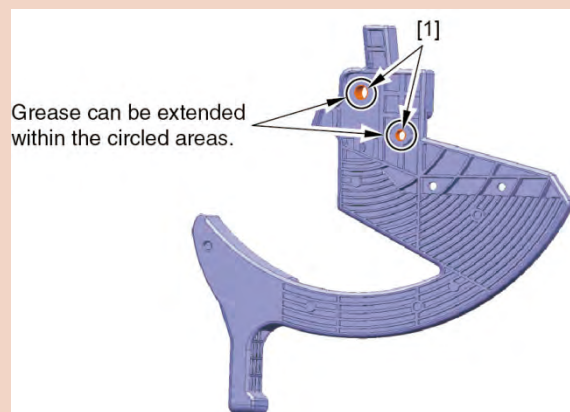
2 pcs



**Notes when the RELEASE LEVER UNIT is replaced:**


Apply grease to the portions specified below.

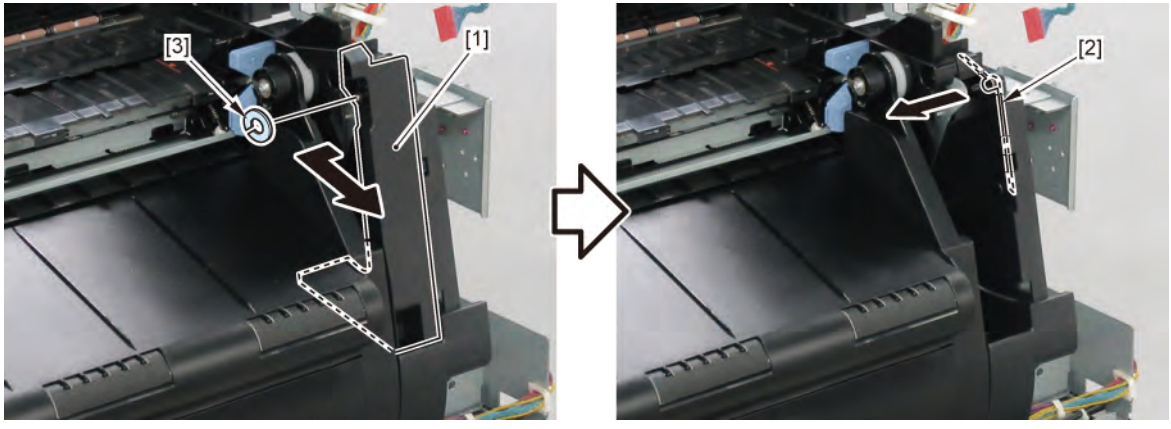
[1]: FLOIL G-31KB, 9 to 18 mg






7. Remove [1] COVER, SPOOL R and [2] SPRING, SPOOL COVER.

[3]

1 pc




8. Remove [1] SPRING, EARTH and [2] CAP, ROLL COVER SHAFT.

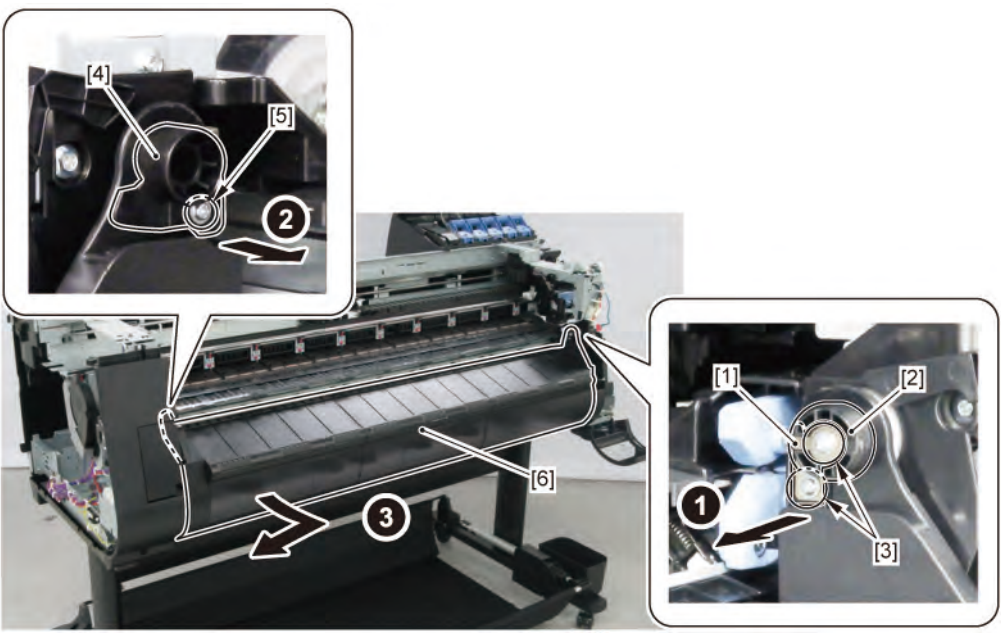
[3]

2 pcs

9. Remove [4] BUSH, ROLL COVER L



(the BUSH UNIT, ROLL COVER L in 24" model and 36" model).

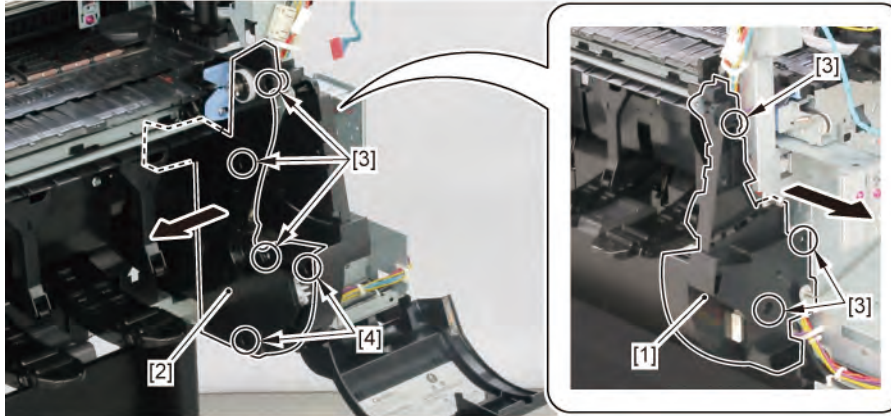
[5]

1 pc

10. Remove [6] the roll cover.







11. Remove [1] CASE, SPOOL SIDE INNER R and [2] HOLDER, SPOOL SIDE R.

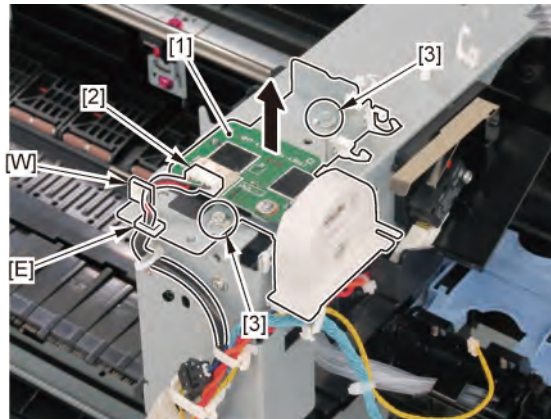
[3]	[4]
	
6 pcs	2 pcs





### C-1

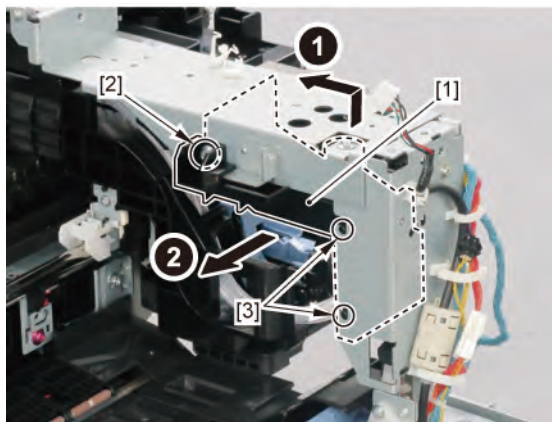
12. Remove [1] the plate (with the USB HOST PCB ASS'Y).

[2]	[3]	[W]	[E]
			
1 pc	2 pcs	1 pc	1 pc






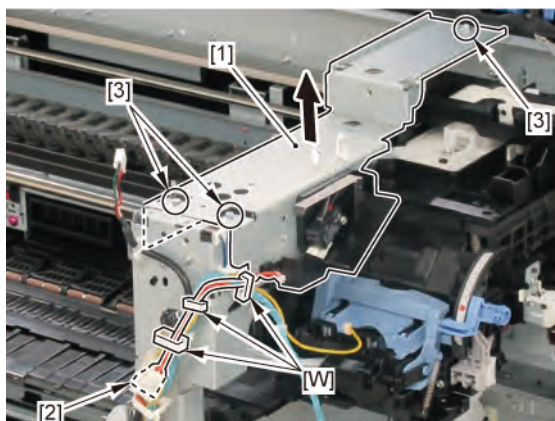
13. Remove [1] the inner cover R.

[2]	[3]
	
1 pc	2 pcs








14. Remove [1] the plate.

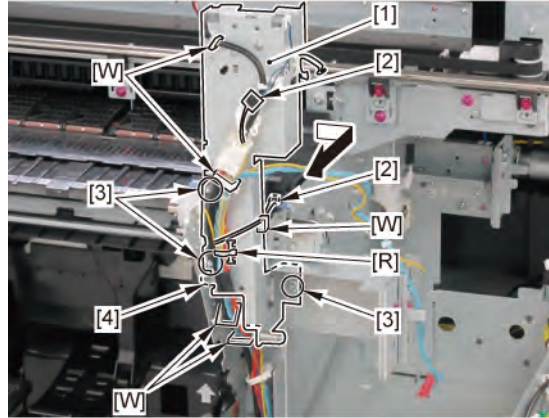
[2]	[3]	[W]
		
1 pc	3 pcs	3 pcs








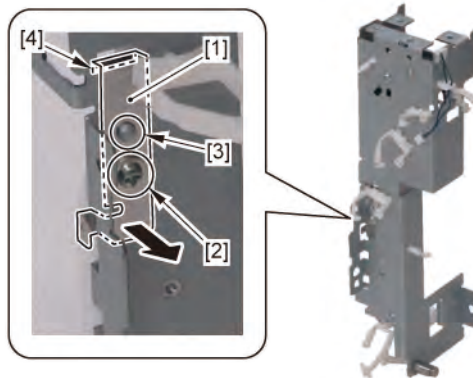
## 15. Remove [1] ACCESS COVER LOCK UNIT R.

[2]	[3]	[4]	[W]	[R]
				
2 pcs	3 pcs	1 pc	5 pcs	1 pc







## 16. Remove [1] SPRING, EJECT EARTH.

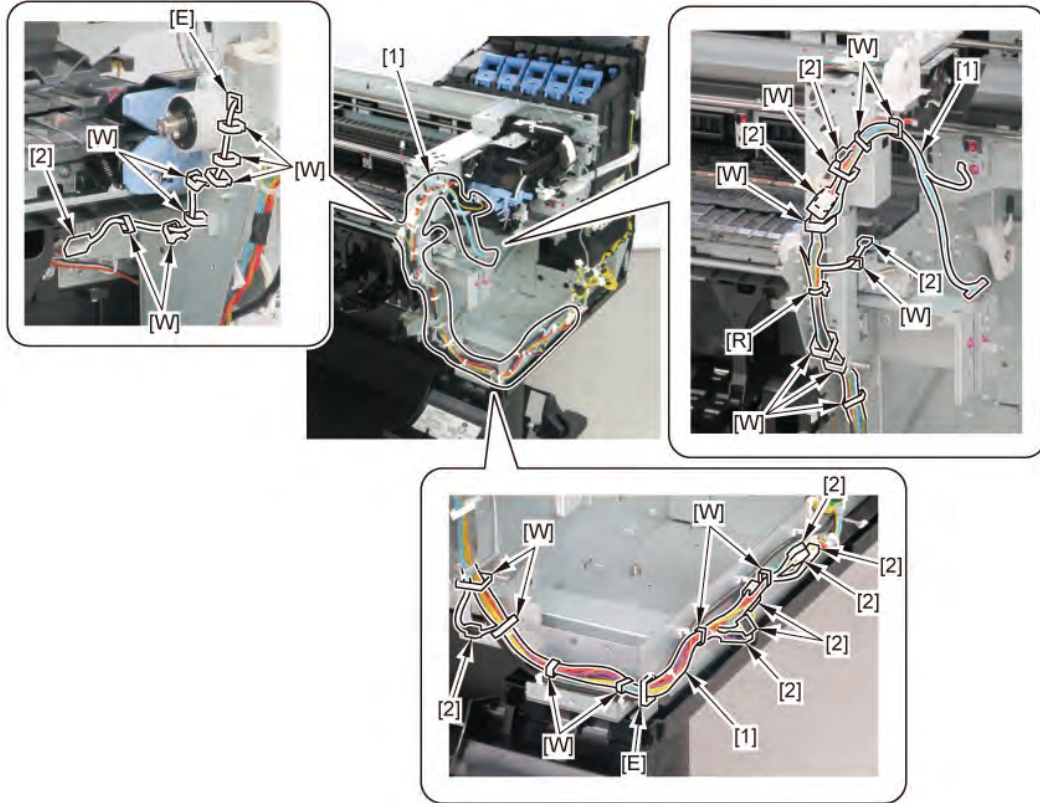
[2]	[3]	[4]
		
1 pc	1 pc	1 pc



# C-2

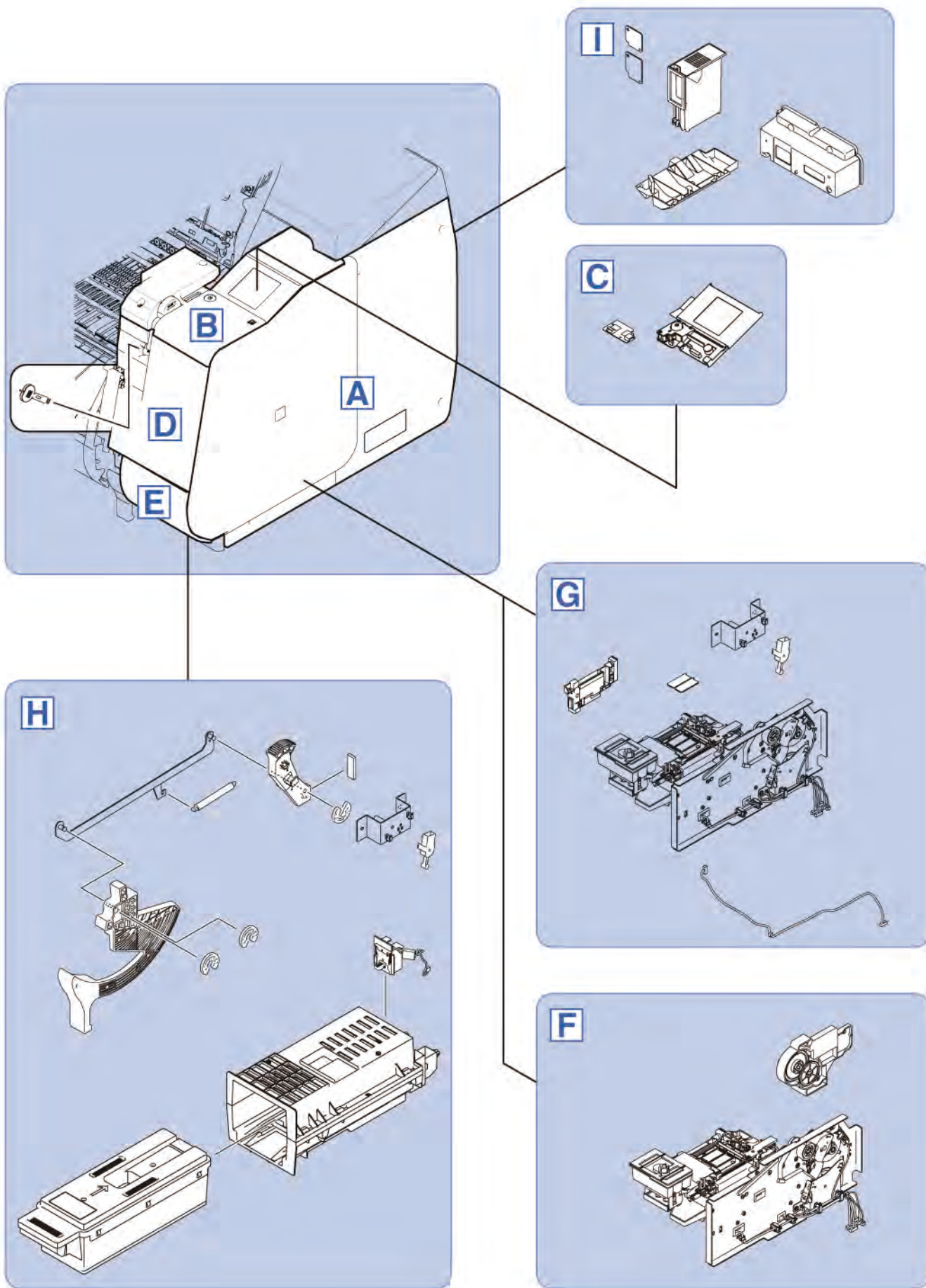
## 12. Disconnect [1] HARNESS ASS'Y, RSIDE FRONT.

[2]	[W]	[E]	[R]
			
11 pcs	21 pcs	2 pcs	1 pc

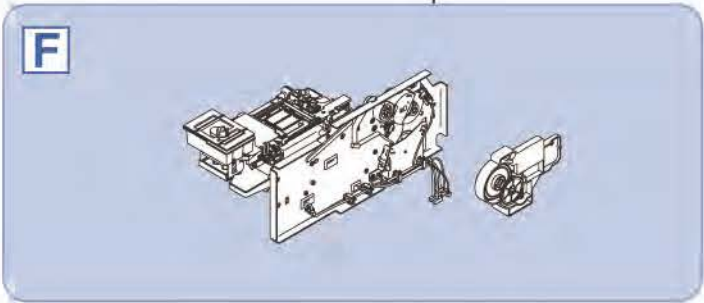
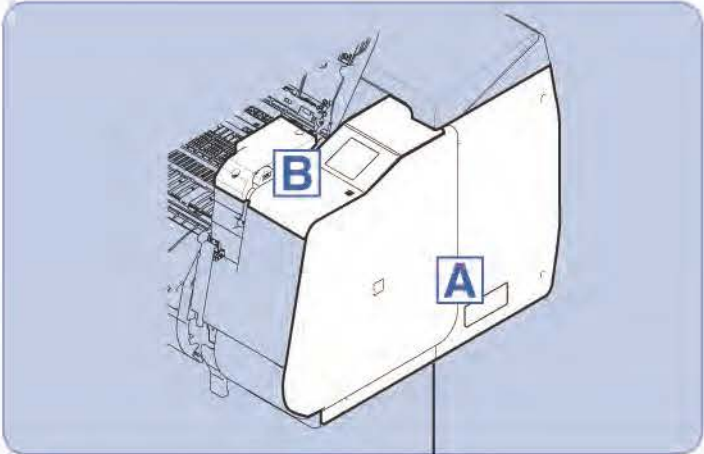
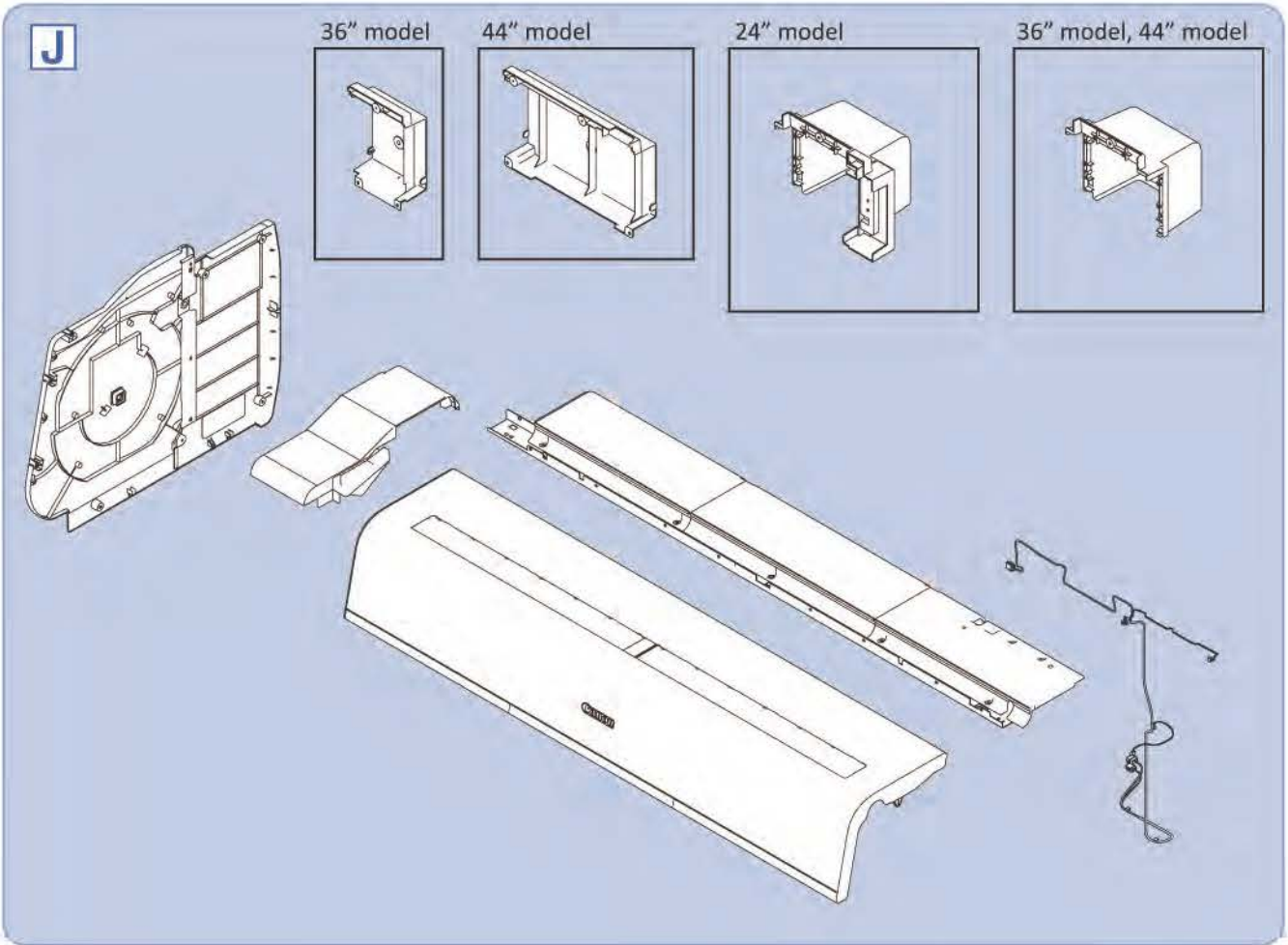


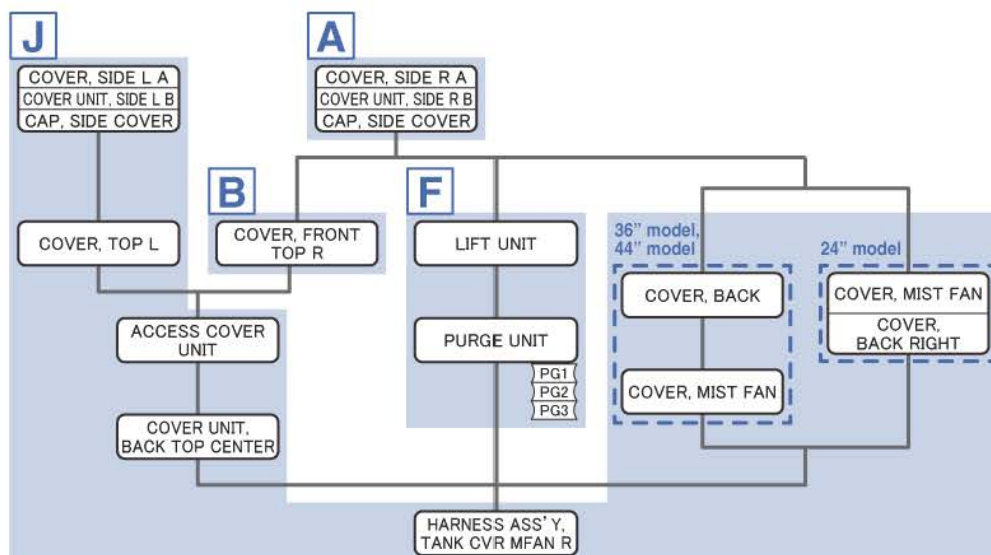
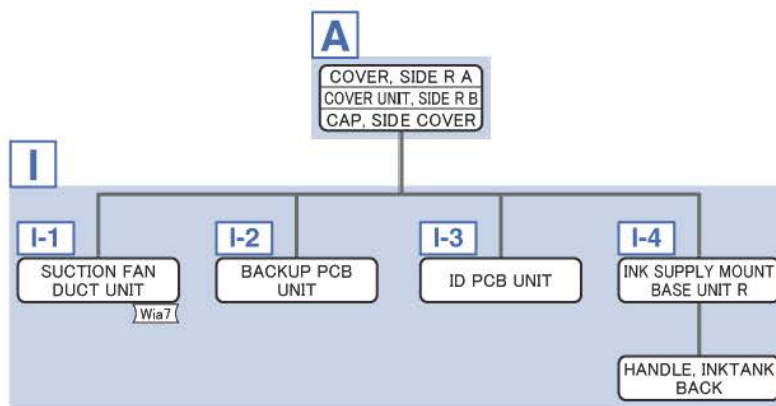
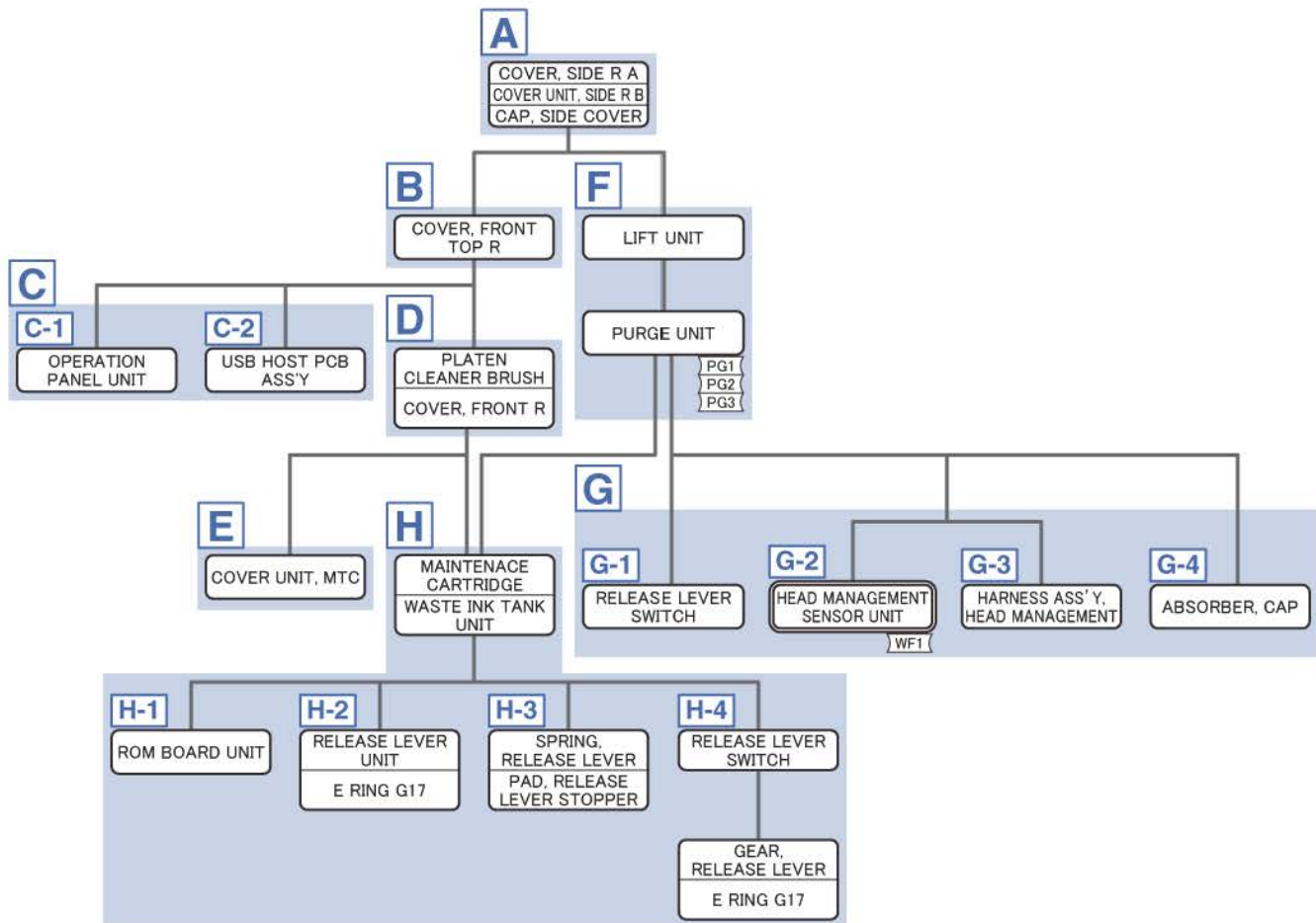


# 9 RIGHT SIDE (PURGE UNIT / OPERATION PANEL)










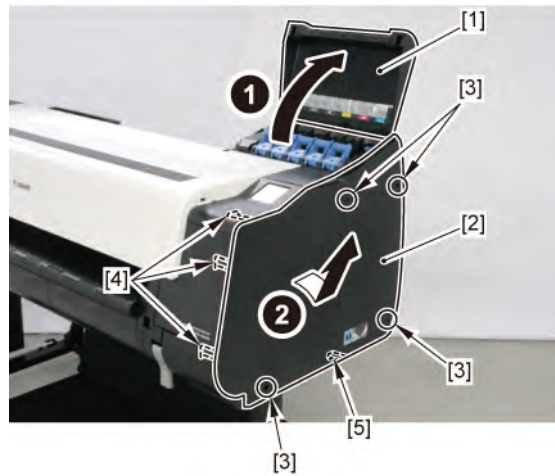





**A**

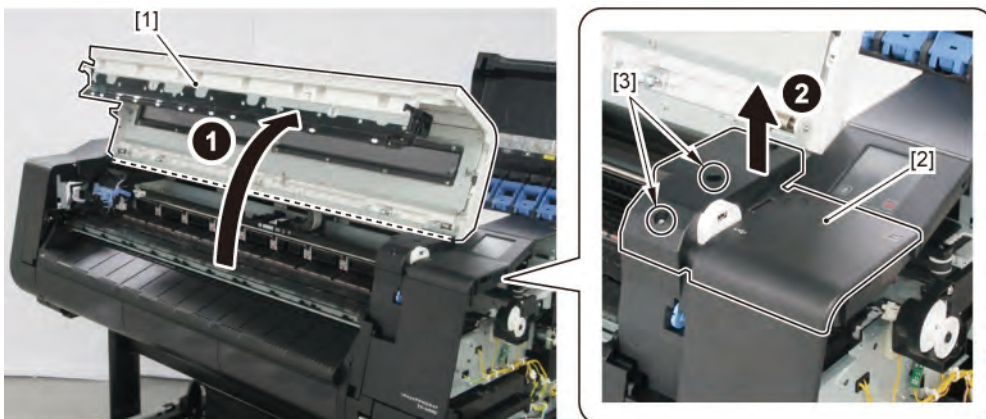
1. Open [1] the right ink tank cover
2. Remove [2] a set of
  - COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc

**B**

1. Remove all the parts of Group A.
2. Open [1] the access cover.
3. Remove [2] COVER, FRONT TOP R.

[3]

2 pcs




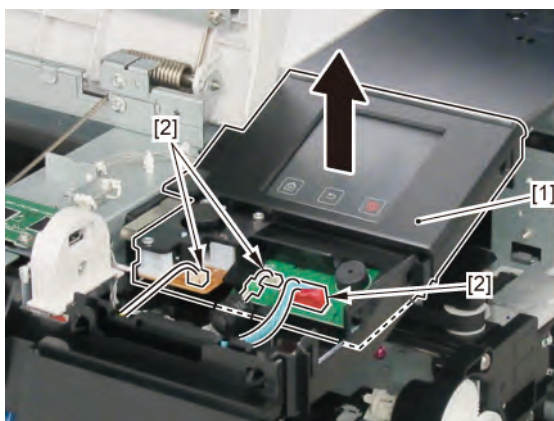
## C

1. Remove all the parts of Groups A and B.

## C-1

2. Remove [1] OPERATION PANEL UNIT.

[2]

3 pcs




**Notes when assembling the unit:**

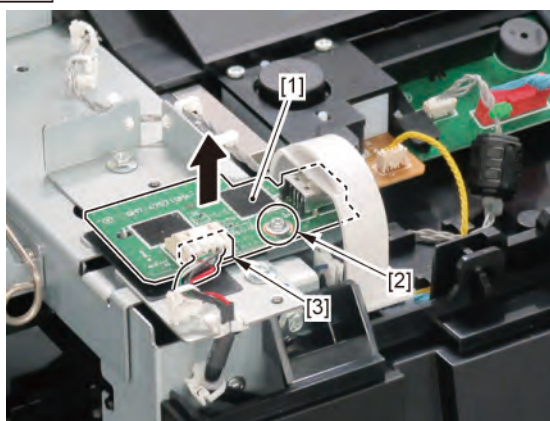
Perform adjustment at the end of assembly.

[SERVICE MODE > ADJUSTMENT > TOUCH PANEL CALIBRATION]

## C-2



2. Remove [1] USB HOST PCB ASS'Y.

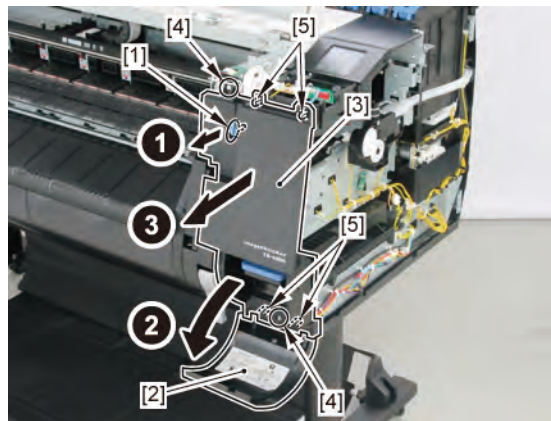
[2]	[3]
	
1 pc	1 pc



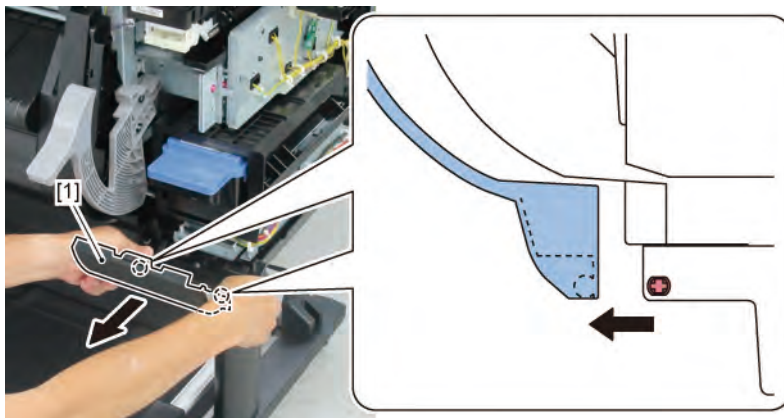
**D**

1. Remove all the parts of Groups A and B.
2. Remove [1] PLATEN CLEANER BRUSH.
3. Open [2] COVER UNIT, MTC.
4. Remove [3] COVER, FRONT R.

[4]	[5]
	
2 pcs	4 pcs



**E**

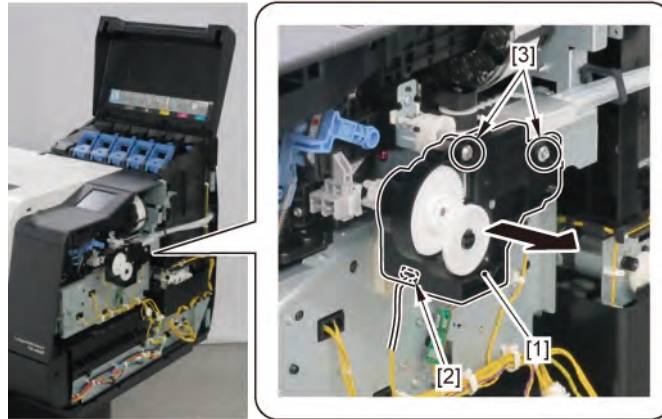
1. Remove all the parts of Groups A, B, and D.
2. Remove [1] COVER UNIT, MTC.



**F**

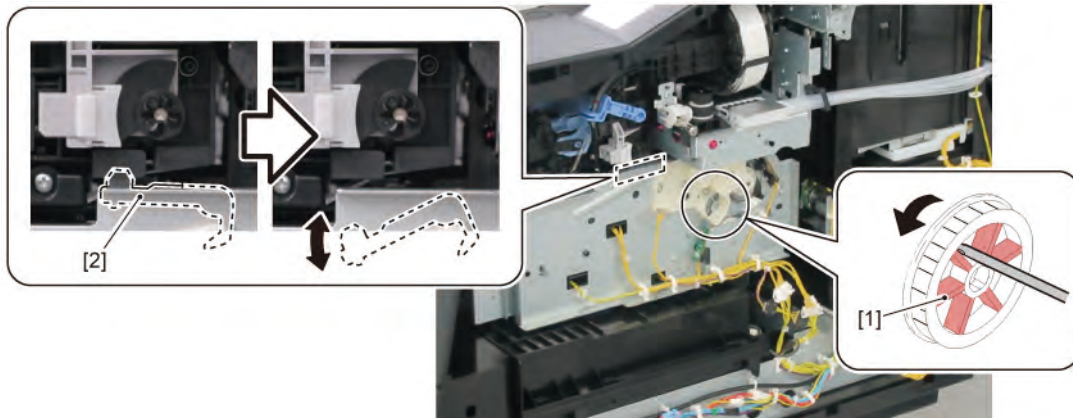
1. Remove all the parts of Group A.
2. Remove [1] LIFT UNIT.

[2]	[3]
	
1 pc	2 pcs





3. Unlock the carriage.

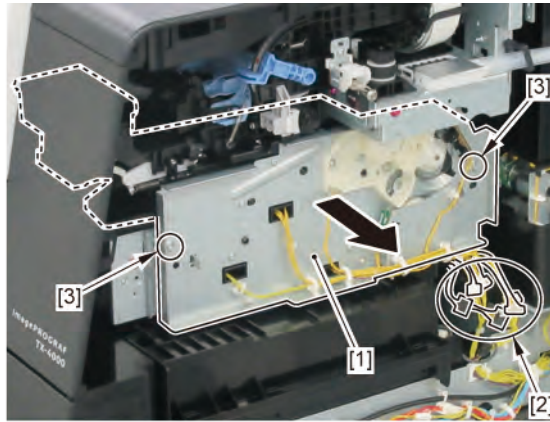
Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.





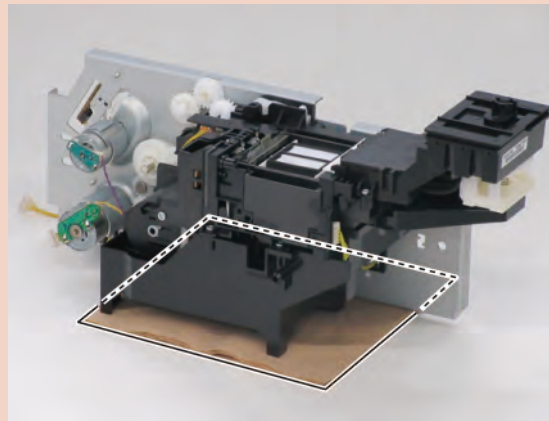
#### 4. Remove [1] PURGE UNIT.

[2]	[3]
	
6 pcs	2 pcs



#### Notes when removing the unit:

There is an opening on the bottom of the PURGE UNIT. Place the unit on paper towel, etc.



#### Notes when the unit is replaced:

Reset the applicable counter when the unit is replaced.

[SERVICE MODE > PARTS COUNTER > PG1]

[SERVICE MODE > PARTS COUNTER > PG2]

[SERVICE MODE > PARTS COUNTER > PG3]






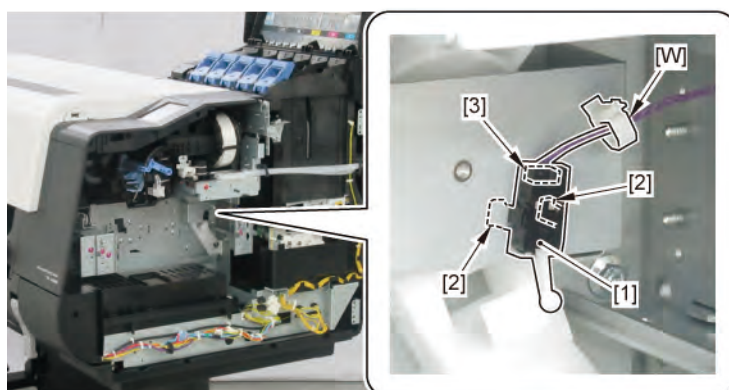
## G

1. Remove all the parts of Groups A and F.

## G-1



2. Remove [1] RELEASE LEVER SWITCH.

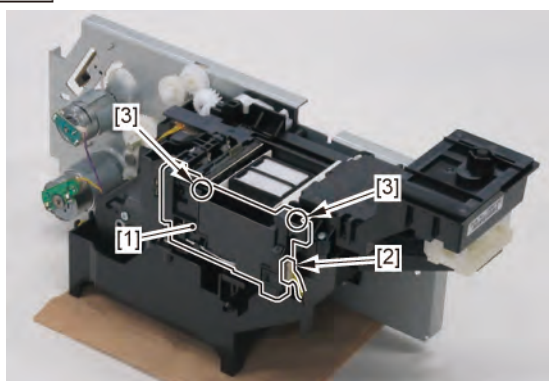
[2]	[3]	[W]
		
2 pcs	1 pc	1 pc



## G-2

2. Remove [1] HEAD MANAGEMENT SENSOR UNIT.

[2]	[3]
	
1 pc	2 pcs


**Notes when assembling the unit:**

Perform adjustment at the end of assembly.

[SERVICE MODE > ADJUSTMENT > NOZZLE CHK POS.]


**Notes when the unit is replaced:**



Reset the counter when the unit is replaced.

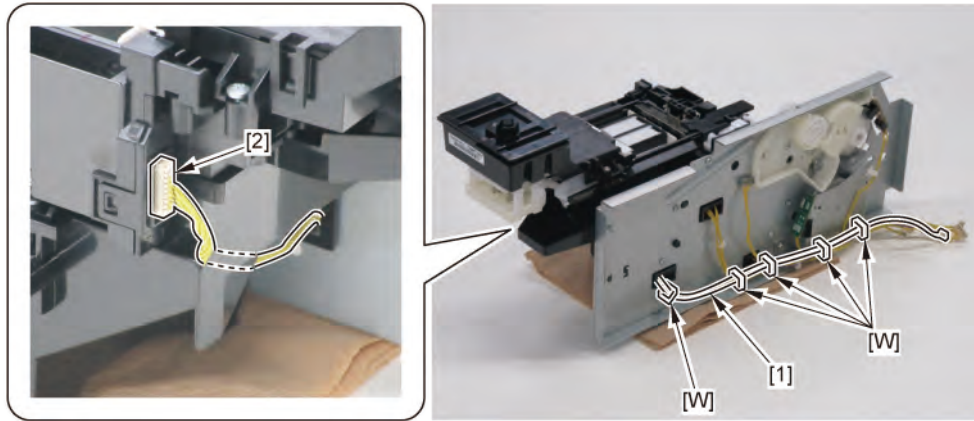
[SERVICE MODE > PARTS COUNTER > WF1]



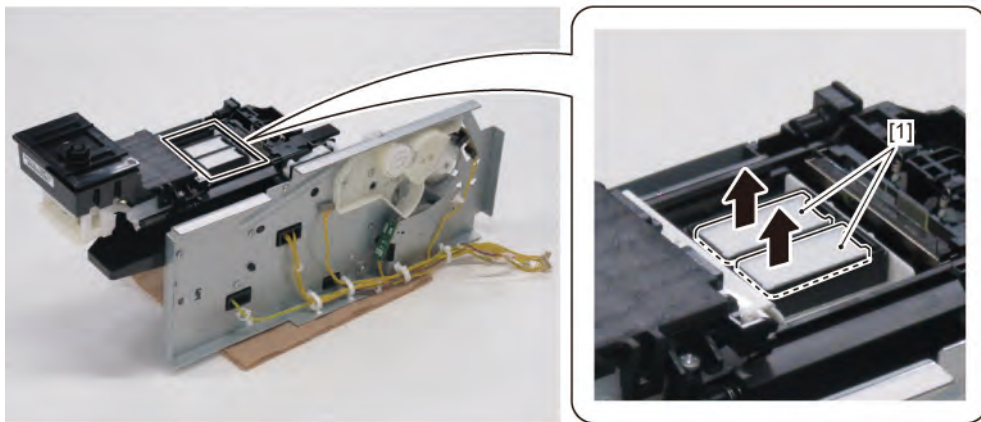
**G-3**

2. Disconnect [1] HARNESS ASS'Y, HEAD MANAGEMENT.

[2]	[W]
	
1 pc	5 pcs



**G-4**

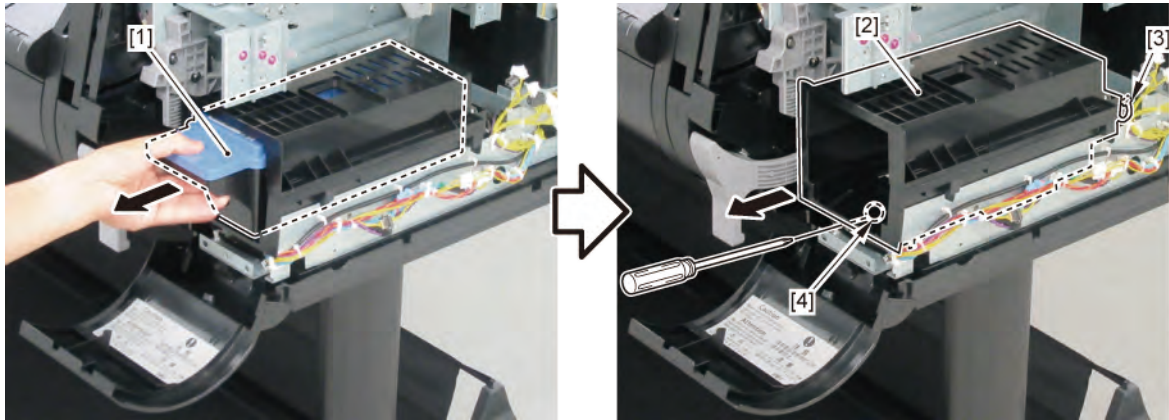
2. Remove two pieces of [1] ABSORBER, CAP.



# H



1. Remove all the parts of Groups A, B, D, and F.
2. Remove [1] MAINTENANCE CARTRIDGE and [2] WASTE INK TANK UNIT.

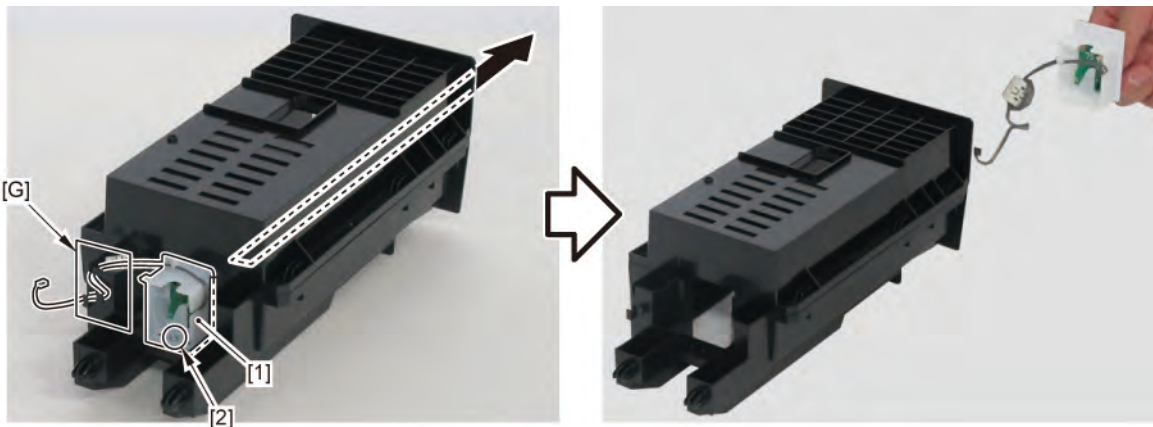
[3]	[4]
	
1 pc	1 pc



# H-1

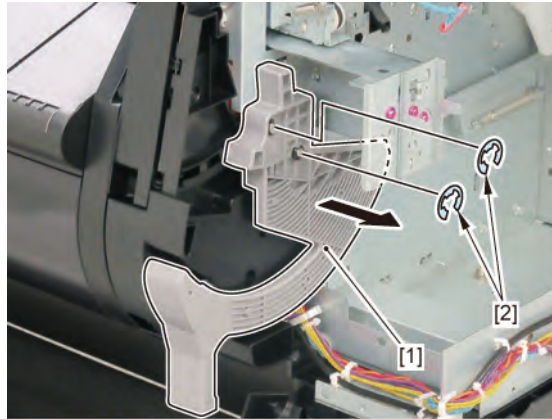
3. Remove [1] ROM BOARD UNIT.

[2]	[G]
	
1 pc	1 pc



## H-2

- Remove [1] RELEASE LEVER UNIT.

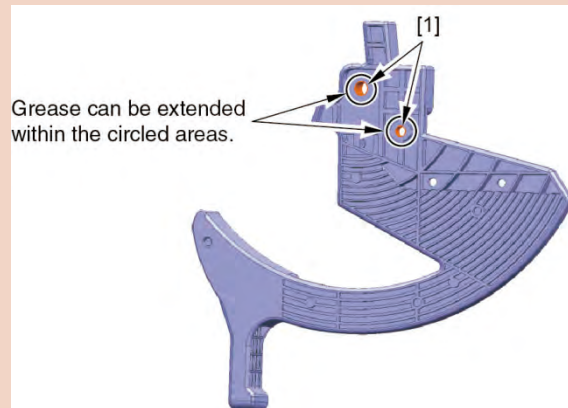


### Notes when the RELEASE LEVER UNIT is replaced:

Apply grease to the portions specified below.

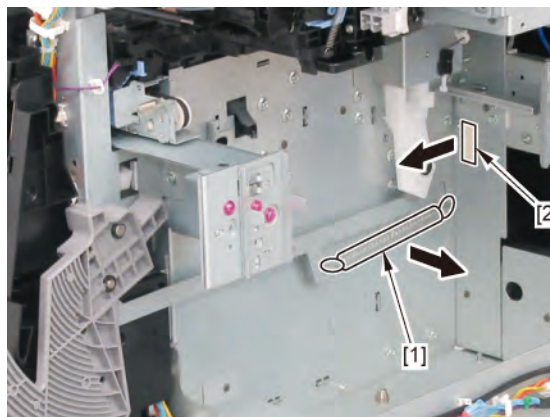
[1]: FLOIL G-31KB, 9 to 18 mg

Point





## H-3

- Remove [1] SPRING, RELEASE LEVER.
- Remove [2] PAD, RELEASE LEVER STOPPER.





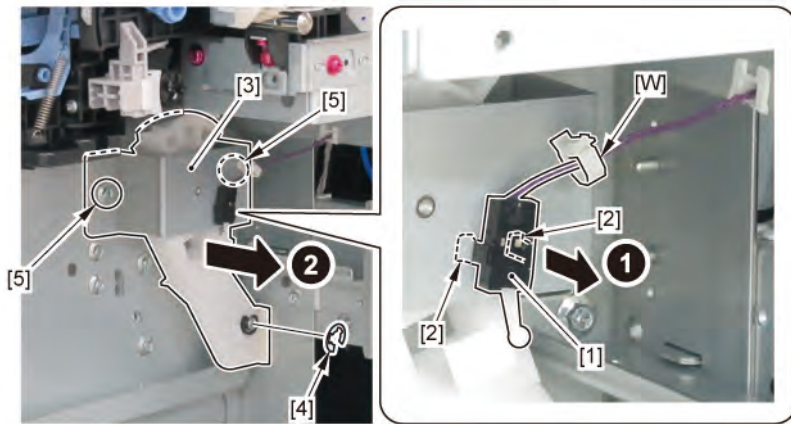
# H-4

3. Remove [1] RELEASE LEVER SWITCH.

[2]	[W]
	
2 pcs	1 pc

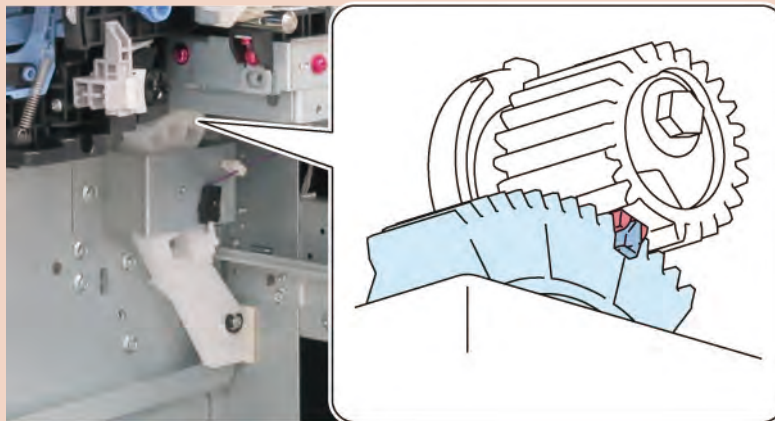
4. Remove [3] the plate (with the GEAR, RELEASE LEVER).

[4]	[5]
	
1 pc	2 pcs



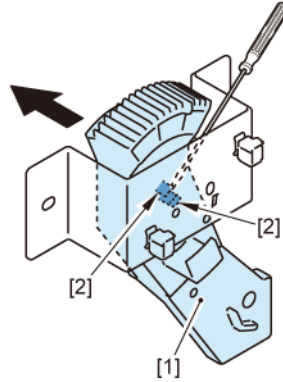
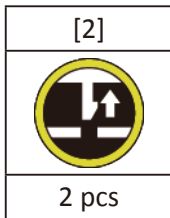
### Notes when assembling the unit:

Adjust the phase of gears.

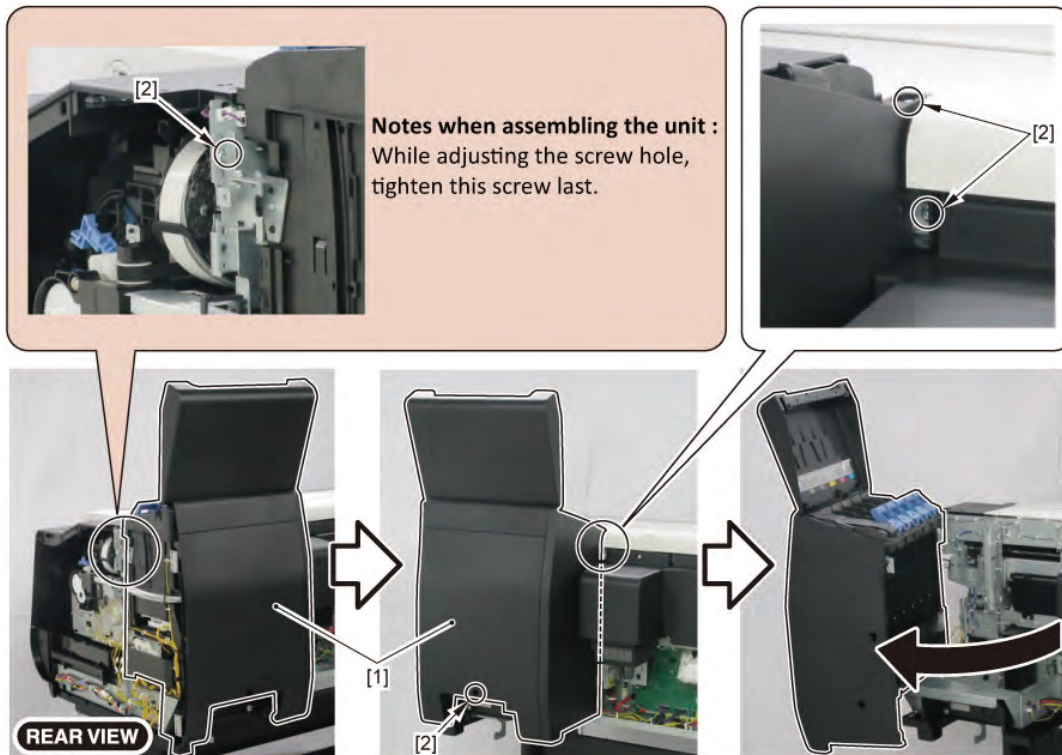




## 5. Remove [1] GEAR, RELEASE LEVER.





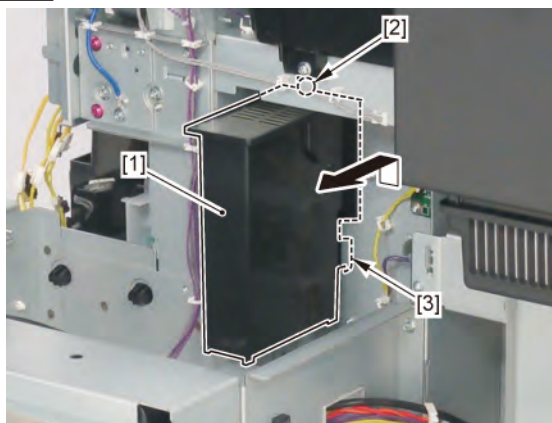
1. Remove all the parts of Group A.
2. Open [1] the right ink unit.



I-1



3. Remove [1] SUCTION FAN DUCT UNIT.

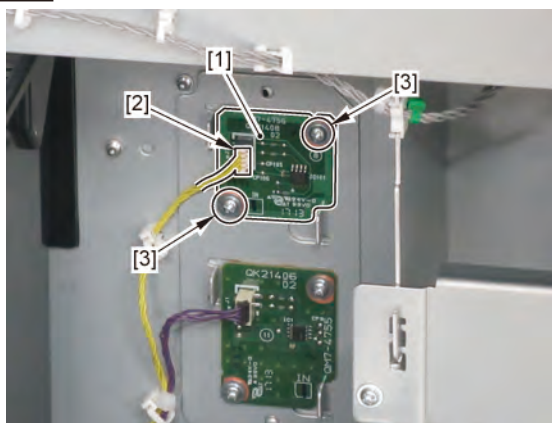
[2]	[3]
	
1 pc	1 pc



I-2

3. Remove [1] BACKUP PCB UNIT.



[2]	[3]
	
1 pc	2 pcs

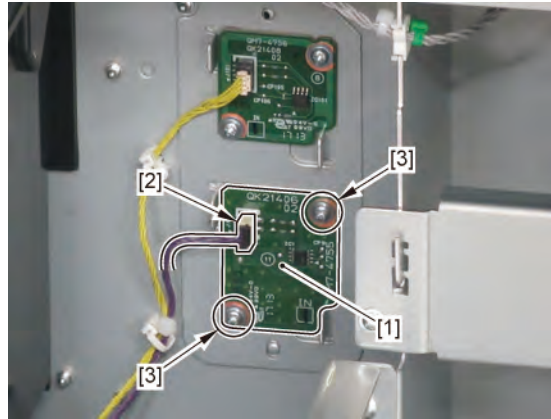




## I-3




## 3. Remove [1] ID PCB UNIT.

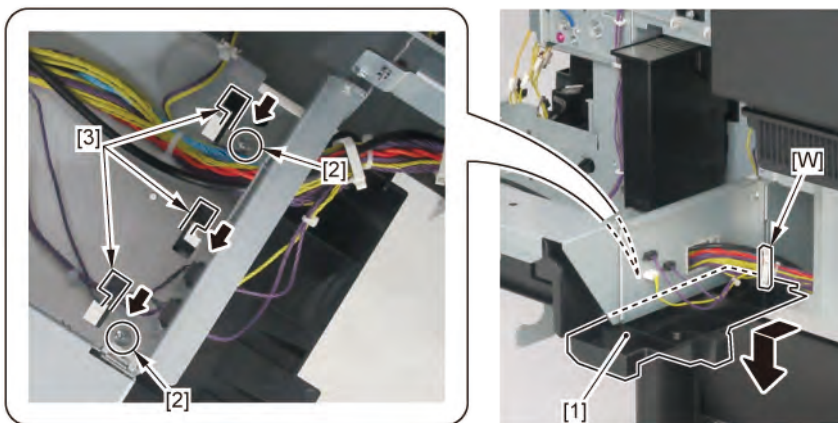
[2]	[3]
	
1 pc	2 pcs





## I-4

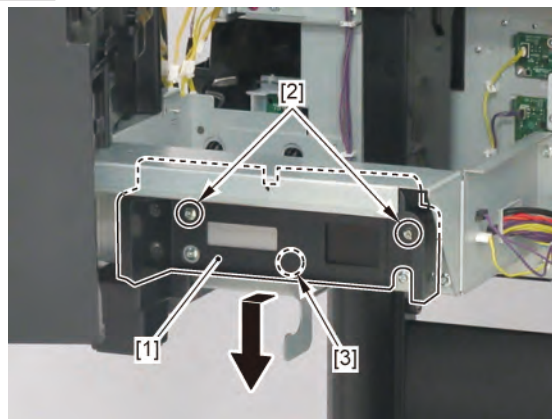
## 3. Remove [1] INK SUPPLY MOUNT BASE UNIT R.

[2]	[3]	[W]
		
2 pcs	3 pcs	1 pc




#### 4. Remove [1] HANDLE, INKTANK BACK.

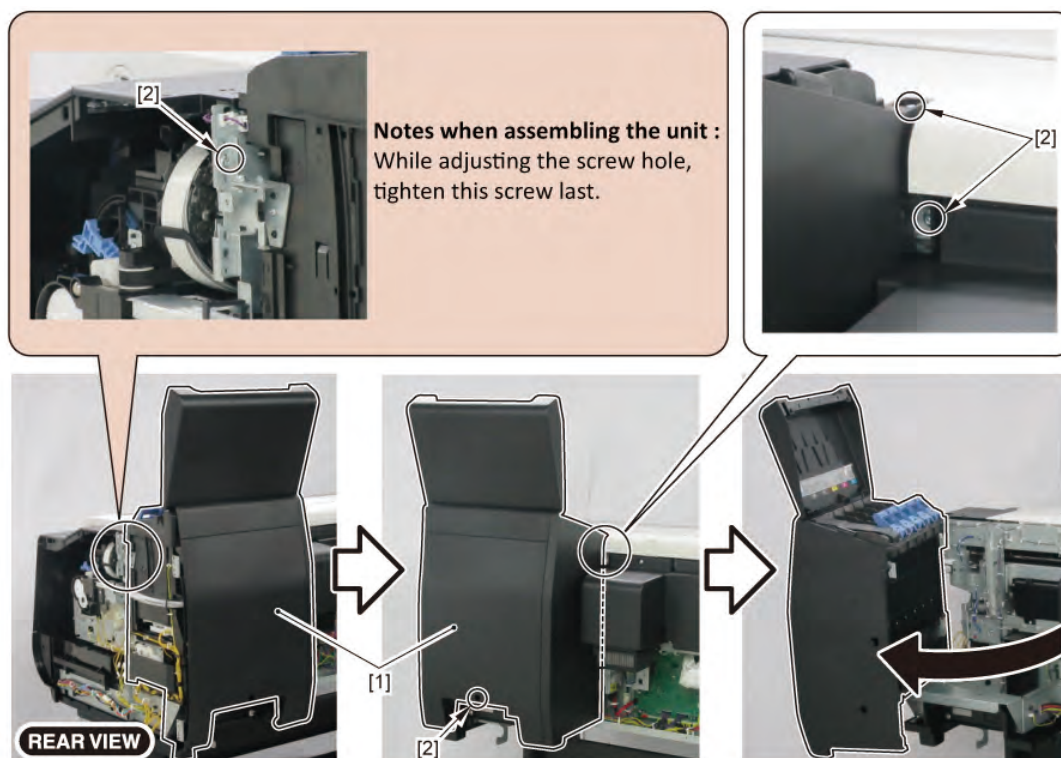
[2]	[3]
	
2 pcs	1 pc



#### J


1. Remove all the parts of Groups A, B and F.
2. Open [1] the right ink unit.

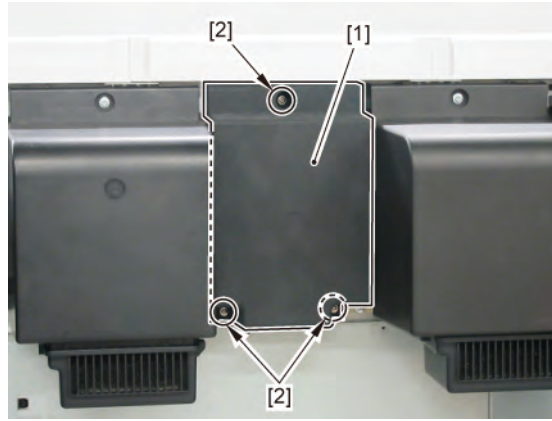
[2]

4 pcs





### 3. Remove [1] COVER, BACK.

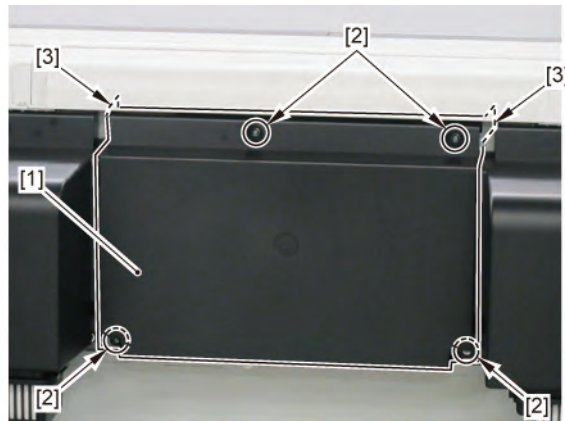
(36" model)

[2]

3 pcs



(44" model)

[2]	[3]
	
4 pcs	2 pcs





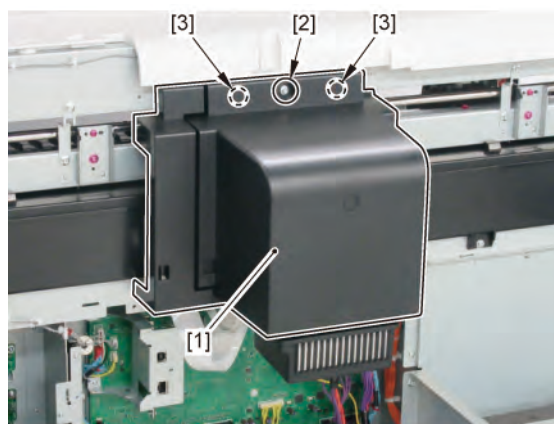
#### 4. (24" model)

Remove [1] a set of

- COVER, MIST FAN



- COVER, BACK RIGHT.

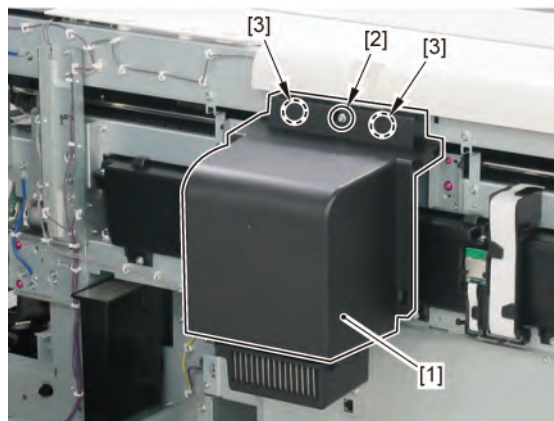
[2]	[3]
	
1 pc	2 pcs



(36" model, 44" model)




Remove [1] COVER, MIST FAN.

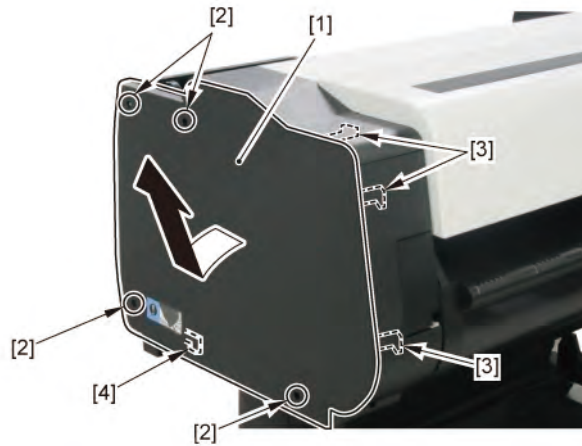
[2]	[3]
	
1 pc	2 pcs



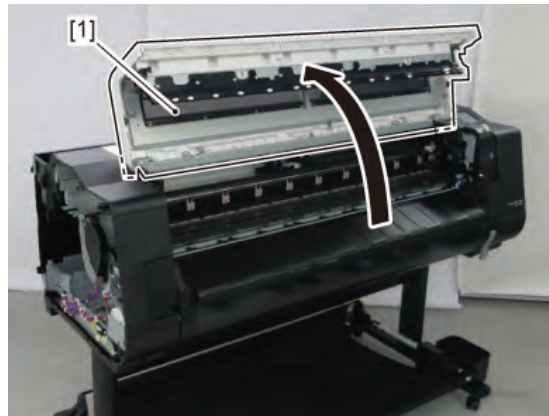
## 5. Remove [1] a set of

- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.

[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc





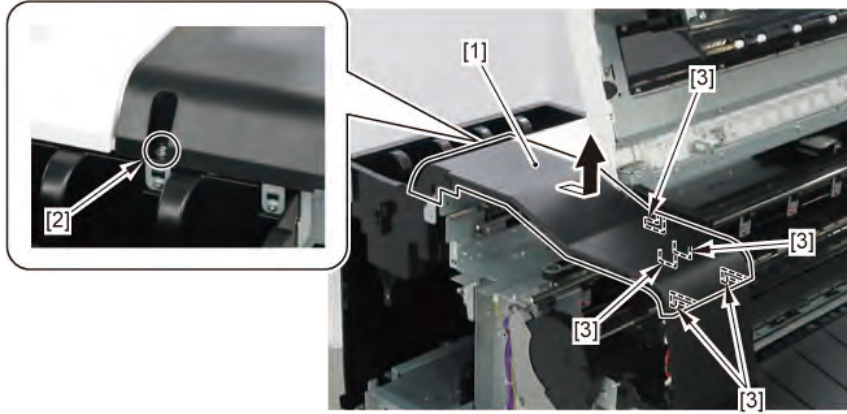
## 6. Open [1] the access cover.






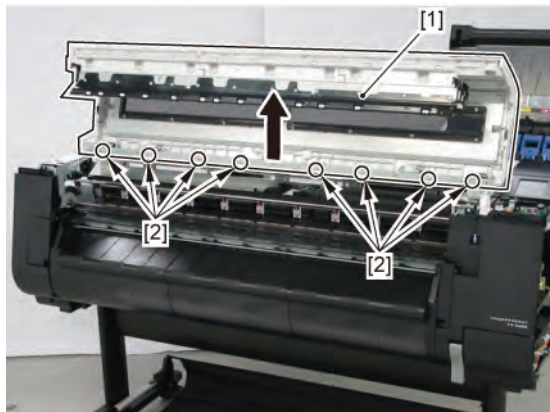
7. Remove [1] COVER, TOP L.

[2]	[3]
	
1 pc	5 pcs



8. Remove [1] ACCESS COVER UNIT with holding the handles.

	[2]
	
24" model	5 pcs
36" model	7 pcs
44" model	8 pcs

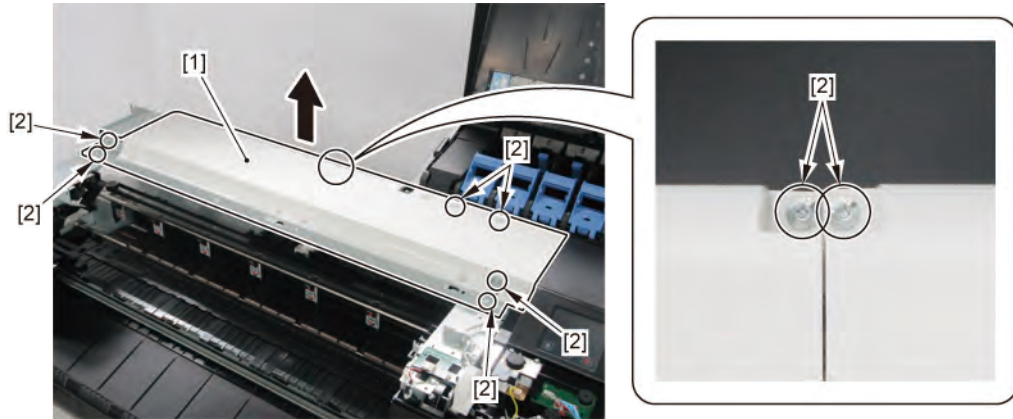




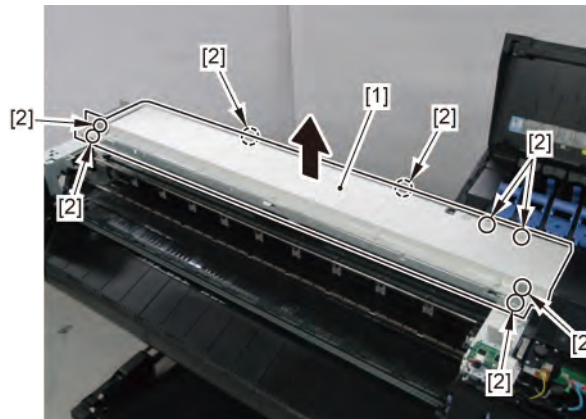
9. Remove [1] COVER UNIT, BACK TOP CENTER.







(24" model)

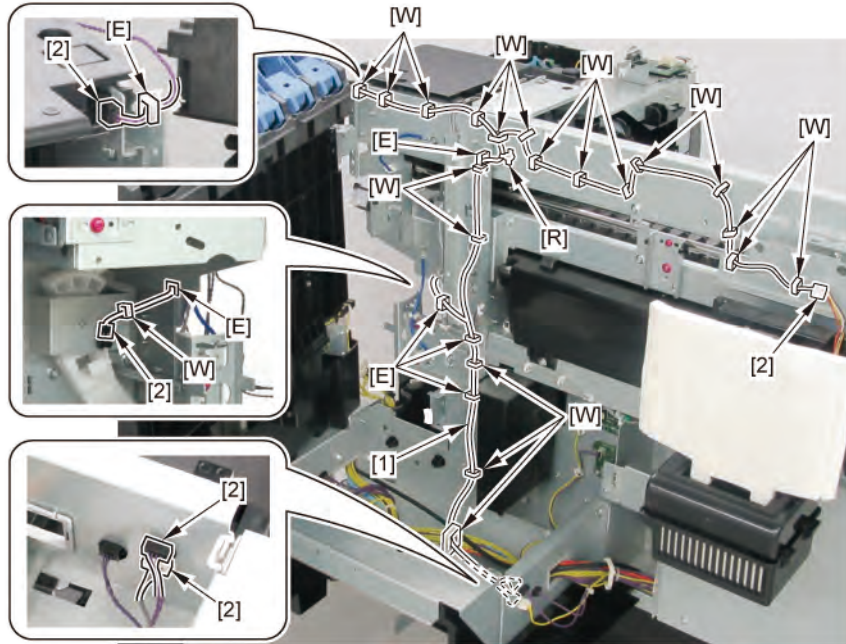


(36" model, 44" model)



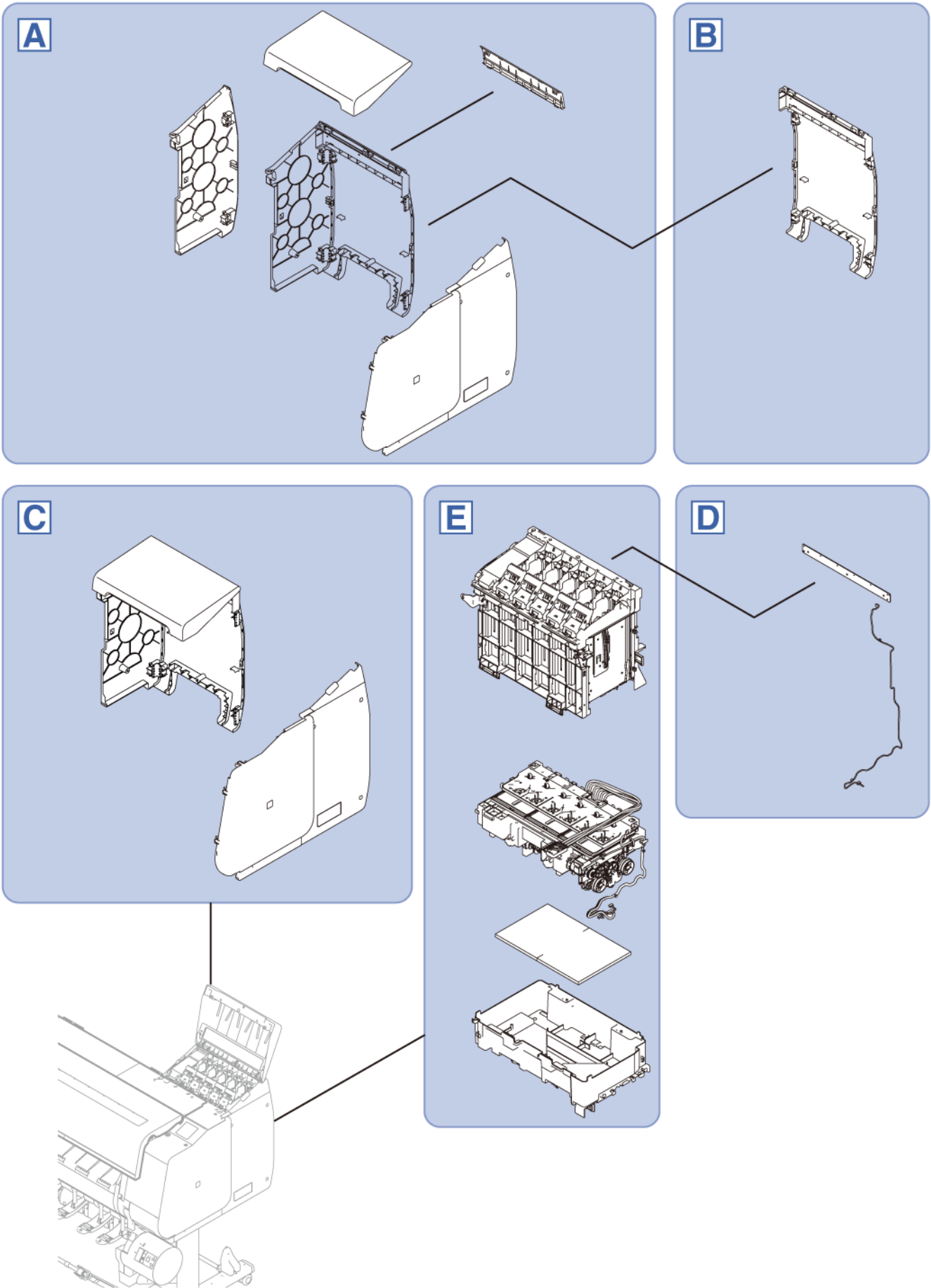
10. Disconnect [1] HARNESS ASS'Y, TANK CVR MFAN R.

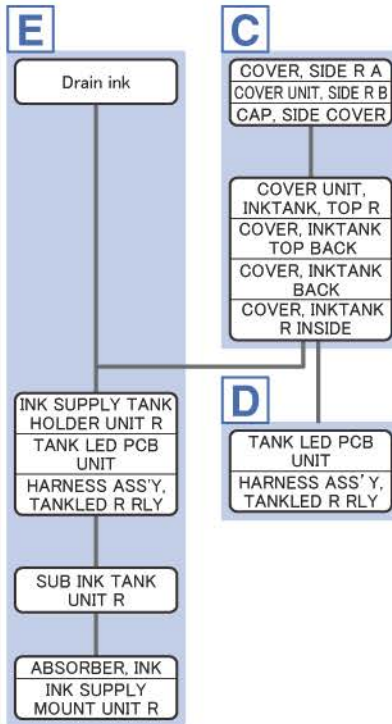
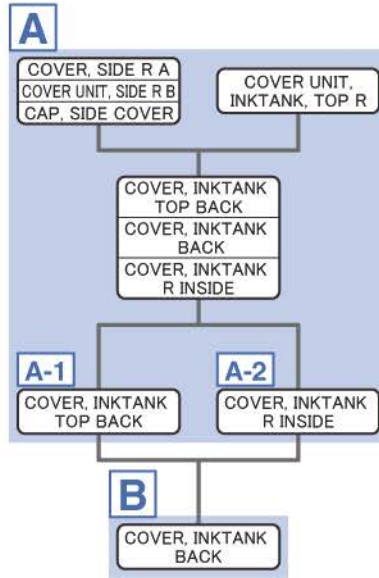
[2]	[W]	[E]	[R]
			
5 pcs	20 pcs	6 pcs	1 pc





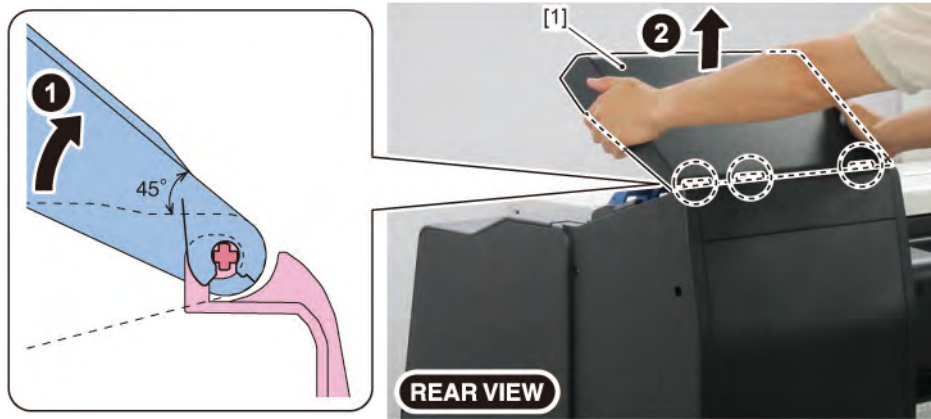
# 10 INK TANK UNIT (R)





**A**

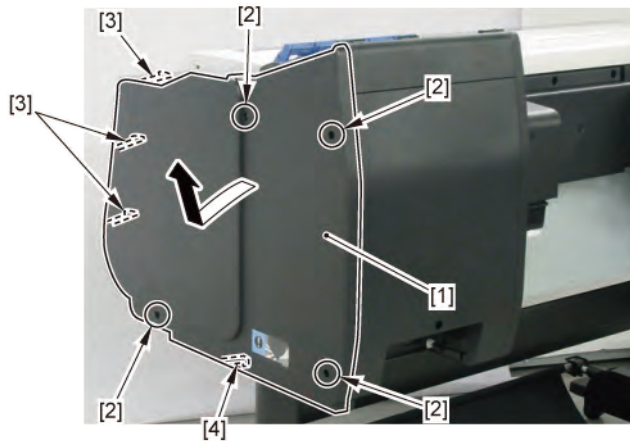
1. Remove [1] COVER UNIT, INK TANK, TOP R.



2. Remove [1] a set of


- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

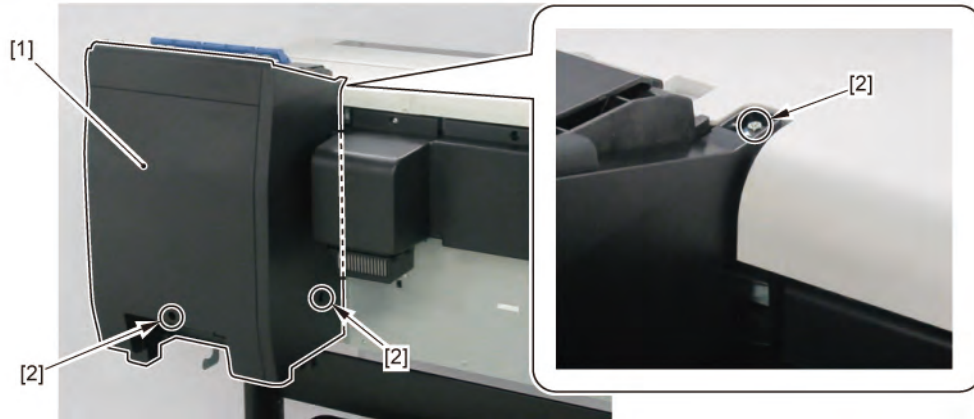
[2]	[3]	[4]
4 pcs	3 pcs	1 pc







3. Remove [1] a set of
- COVER, INKTANK TOP BACK
  - COVER, INKTANK BACK
  - COVER, INKTANK R INSIDE.

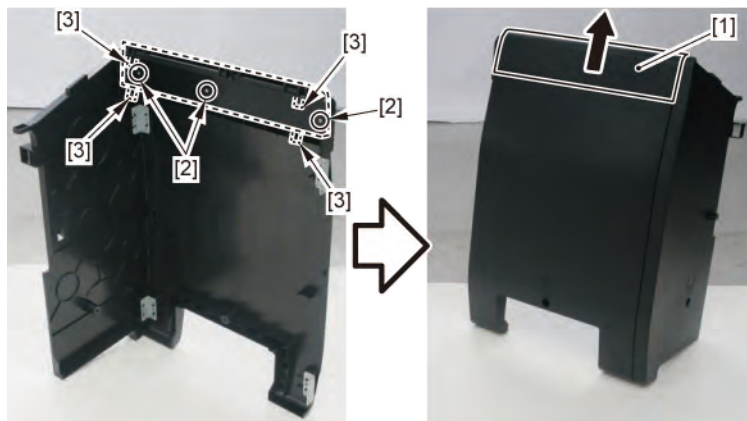
[2]

3 pcs



### A-1




4. Remove [1] COVER, INKTANK TOP BACK.

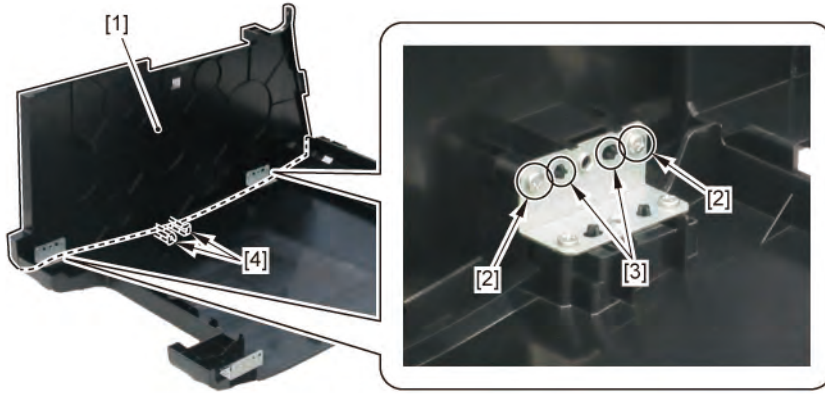
[2]	[3]
	
3 pcs	4 pcs



# A-2



4. Remove [1] COVER, INKTANK R INSIDE.

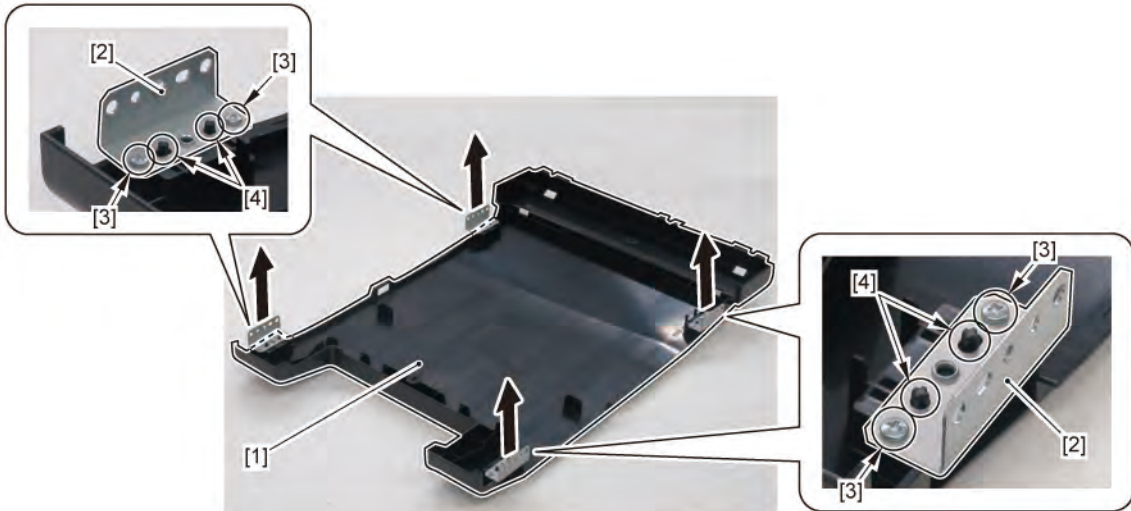
[2]	[3]	[4]
		
2 pcs each	2 pcs each	2 pcs



# B

1. Remove all the parts of Group A.
2. From [1] COVER, INKTANK BACK, remove [2] four plates.




[3]	[4]
	
2 pcs each	2 pcs each

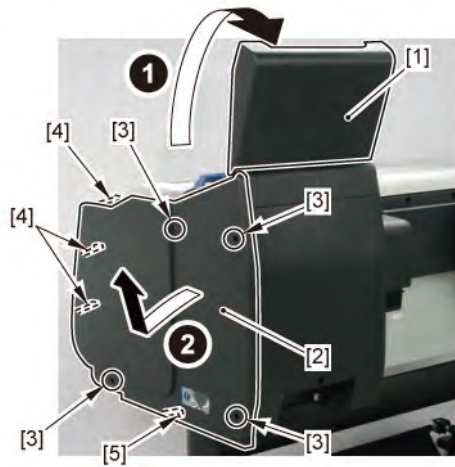


C


1. Open [1] the right ink tank cover.
2. Remove [2] a set of

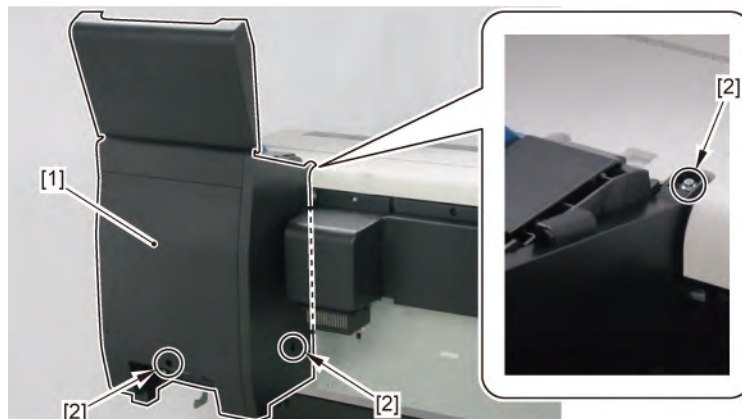
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc








3. Remove [1] a set of
  - COVER UNIT, INKTANK, TOP R
  - COVER, INKTANK TOP BACK
  - COVER, INKTANK BACK
  - COVER, INKTANK R INSIDE.

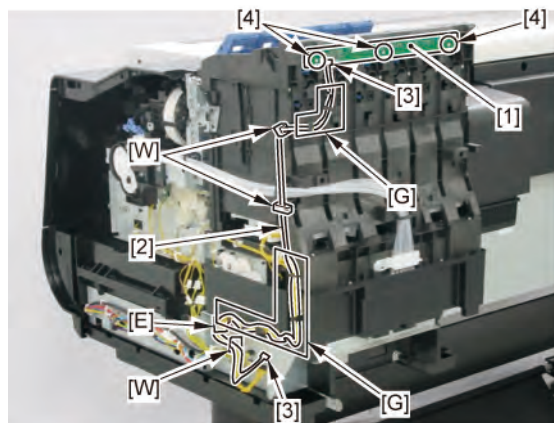
[2]

3 pcs



## D

1. Remove all the parts of Group C.
2. Remove [1] TANK LED PCB UNIT and [2] HARNESS ASS'Y, TANKLED R RLY.

[3]	[4]	[W]	[E]	[G]
				
2 pcs	3 pcs	3 pcs	1 pc	2 pcs

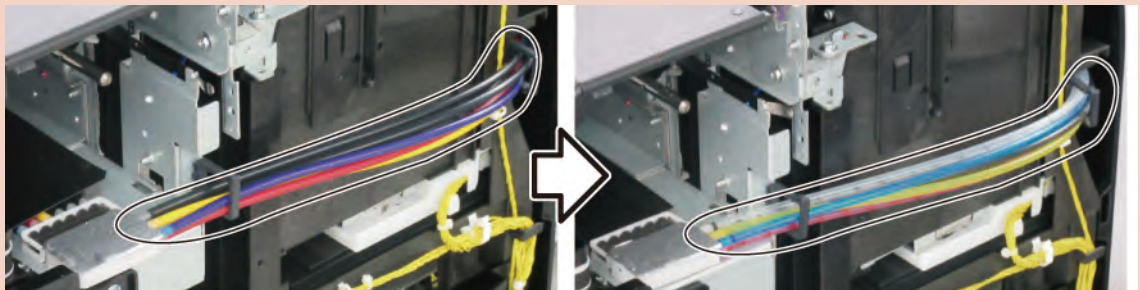


## E

1. Remove all the ink tanks.
2. Drain ink into the sub ink tank.

▪ **To do it in the Service Mode:**




1. Unlock the carriage by selecting [SEVICE MODE > FUNCTION > CR UNLOCK] in the operation panel, manually move the carriage unit to the position where the print head can be
2. On the printer operation panel, select [SEVICE MODE > FUNCTION > INK SUPPLY VALVE OPEN > OPEN]. The supply valve (choke valve) of SUB INK TANK UNIT will open.
3. Ink will be drained from the CARRIAGE UNIT (or INK TUBE UNIT) into the SUB INK TANK UNIT.
4. Wait for five to ten minutes, then confirm that the ink has been drained from the tubes.

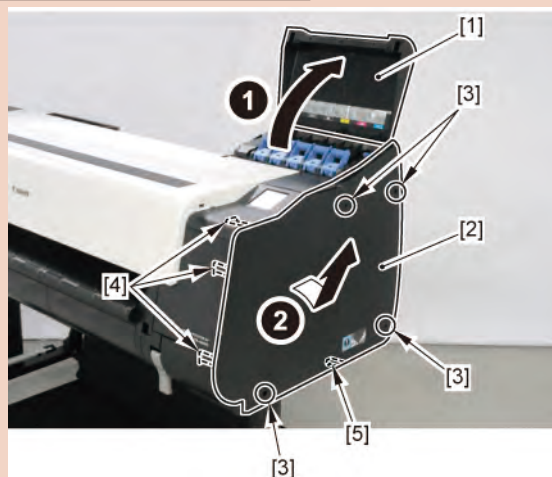


5. Power off the printer and unplug the power cord.

▪ **To do it manually:**

1. Open [1] the right ink tank cover.
2. Remove [2] a set of
  - COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc

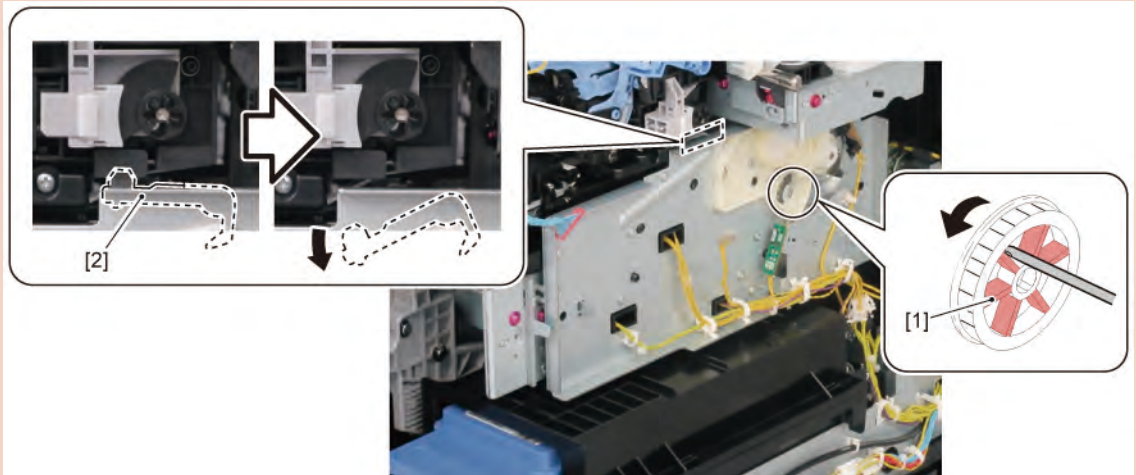


Point



3. Unlock the carriage.

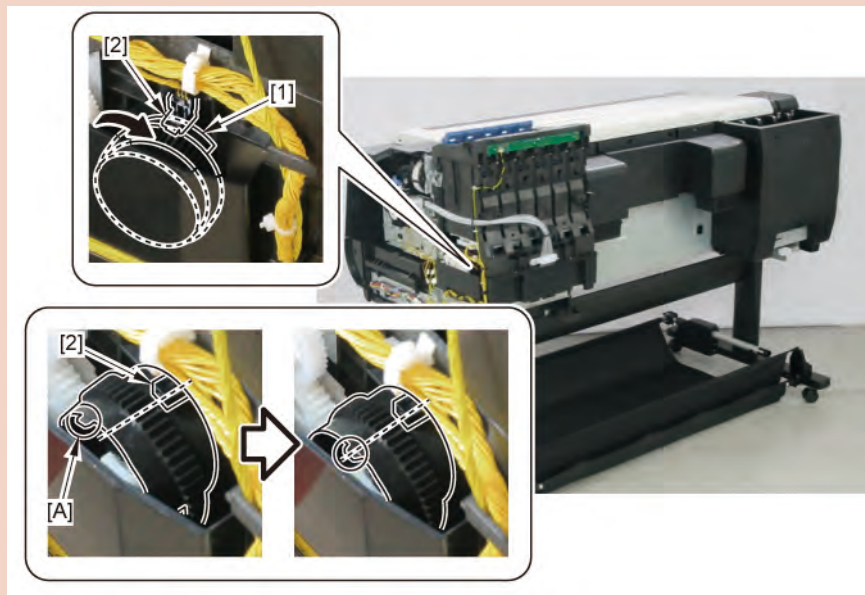
Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



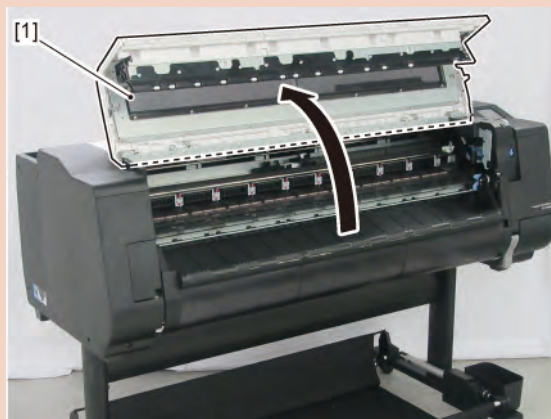
4. Turn the gear in the arrowed direction to open ink tank unit valve.

When [1] the gear flag comes under [2] the sensor, the valve will open.

When [A] the tab is at the top center, the valve is fully opened.

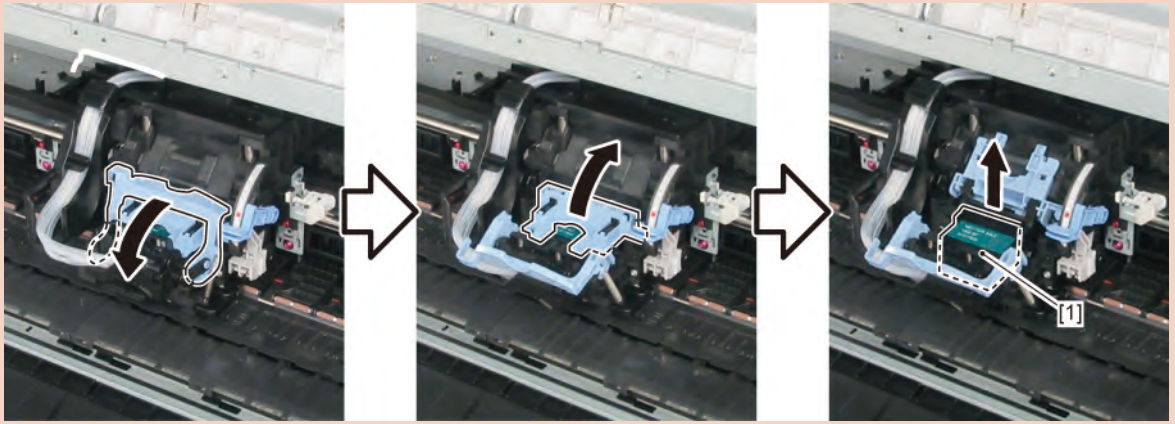


5. Open [1] the access cover.

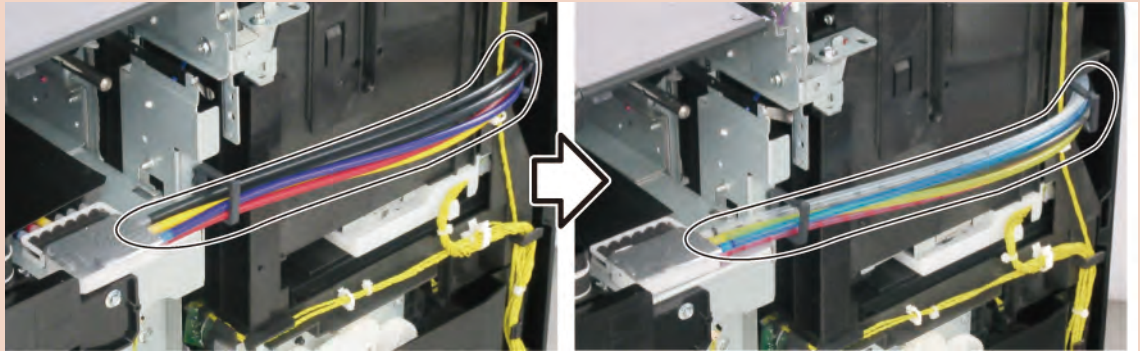




## 6. Remove [1] PRINT HEAD.



## 7. Wait for five to ten minutes, then confirm that the ink has been drained from the tubes.



### Point



#### Notes when ink is drained from the tubes:

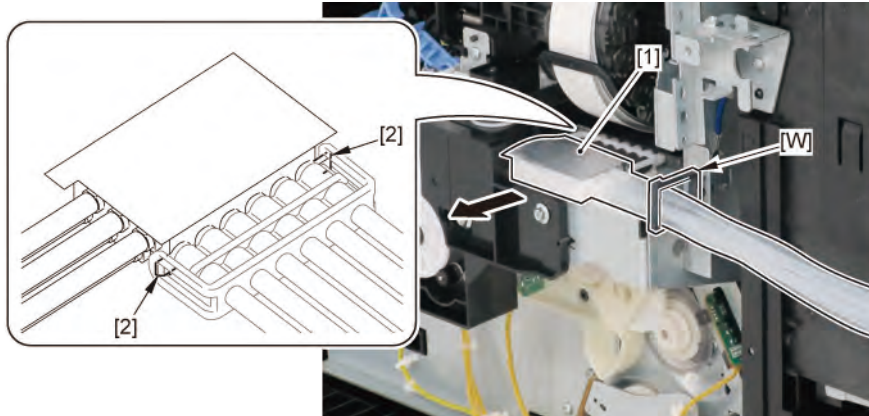
Be sure to perform Ink Filling at the end of assembly.

[SERVICE MODE > FUNCTION > INK FILLING]

3. Remove all the parts of Group C.

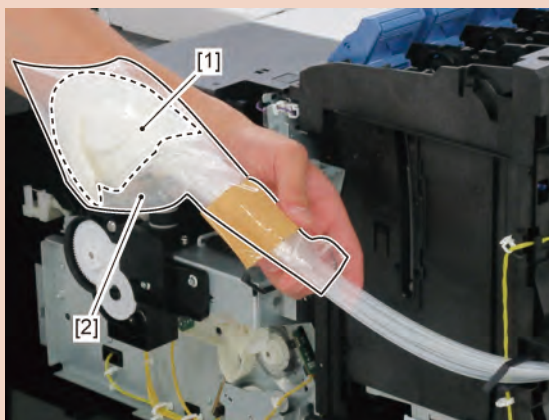
4. Disconnect [1] the tube joint.

[2]	[W]
	
2 pcs	1 pc






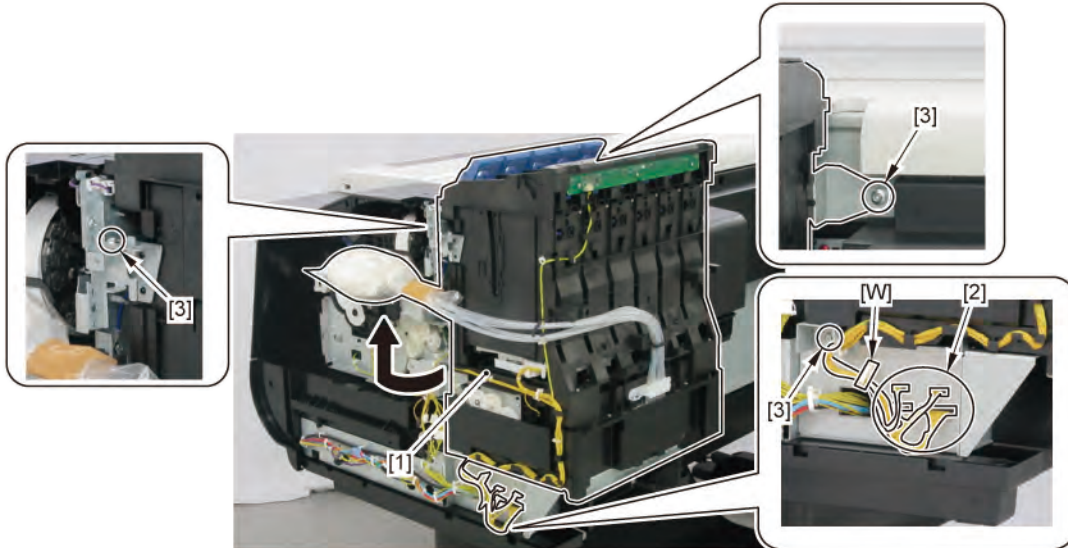
**Notes when removing the unit:**

Wrap the joint in [1] paper towel, etc., put them in [2] a plastic bag, and close the bag.



## 5. Remove [1] the ink tank unit.

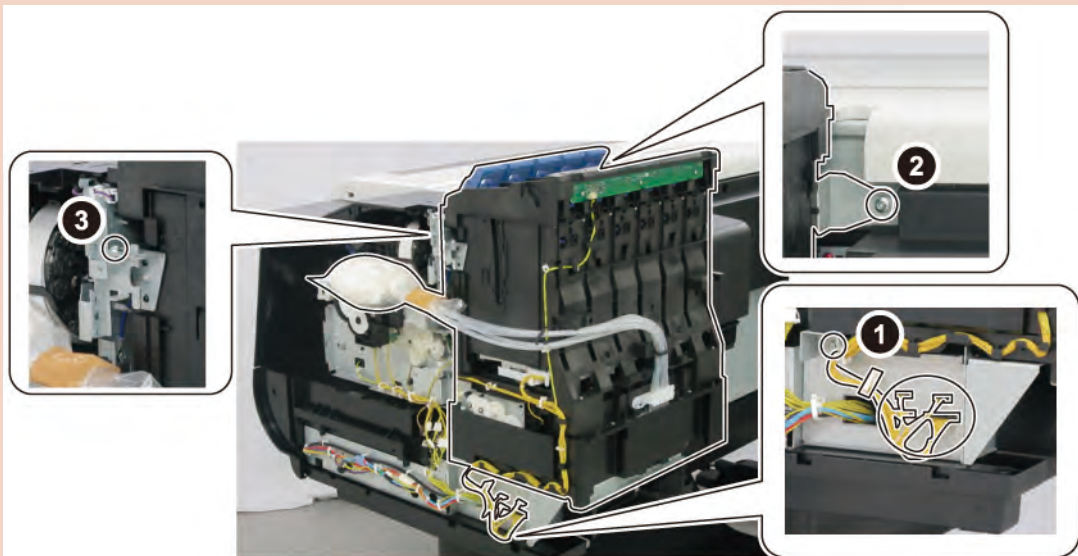
[2]	[3]	[W]
		
4 pcs	3 pcs	1 pc



### Notes when assembling the unit:

Tighten each screw in the order of numbers shown below.







Point

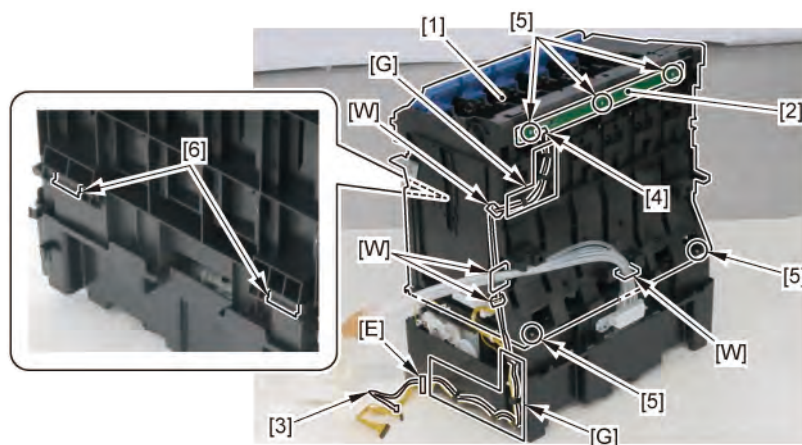






6. Remove [1] INK SUPPLY TANK HOLDER UNIT R, [2] TANK LED PCB UNIT, and [3] HARNESS ASS'Y, TANK LED

R RLY.


[4]	[5]	[6]	[W]	[E]	[G]
					
1 pc	5 pcs	2 pcs	4 pcs	1 pc	2 pcs

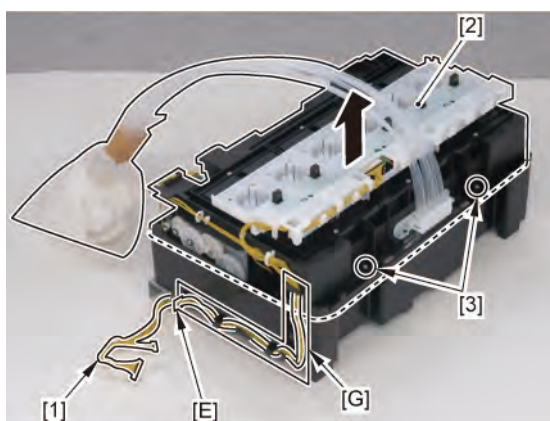


7. Disconnect the harness.

[E]	[G]
	
1 pc	1 pc

8. Remove [2] SUB INK TANK UNIT R.

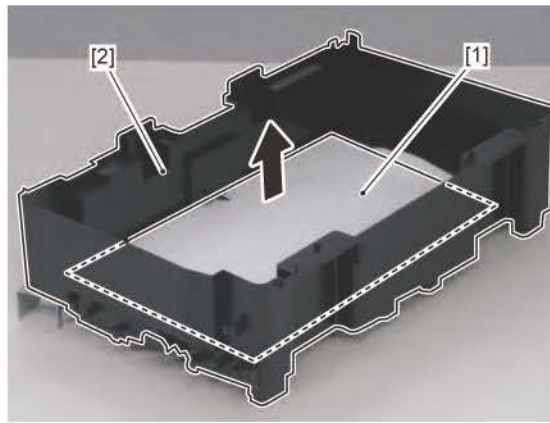
[3]

2 pcs



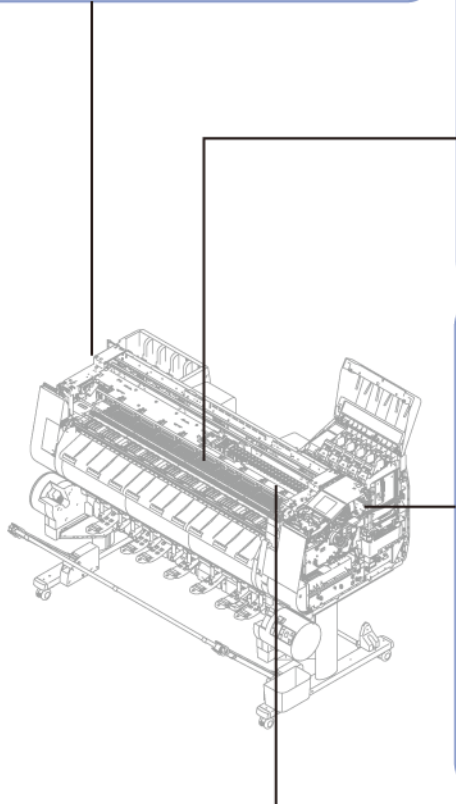
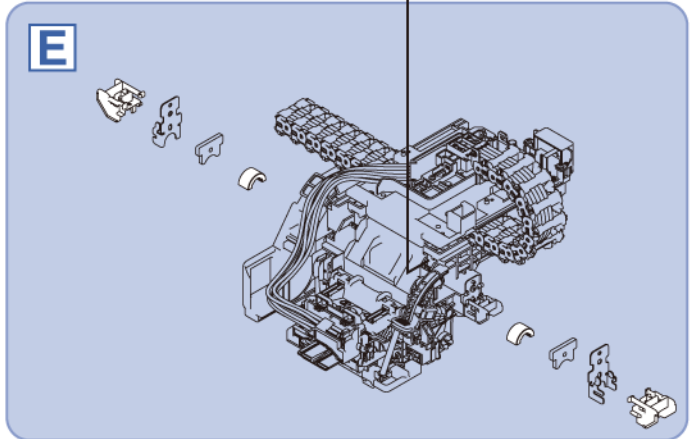
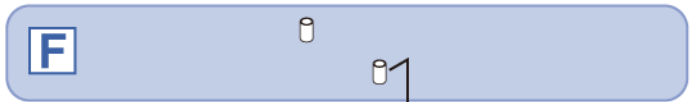
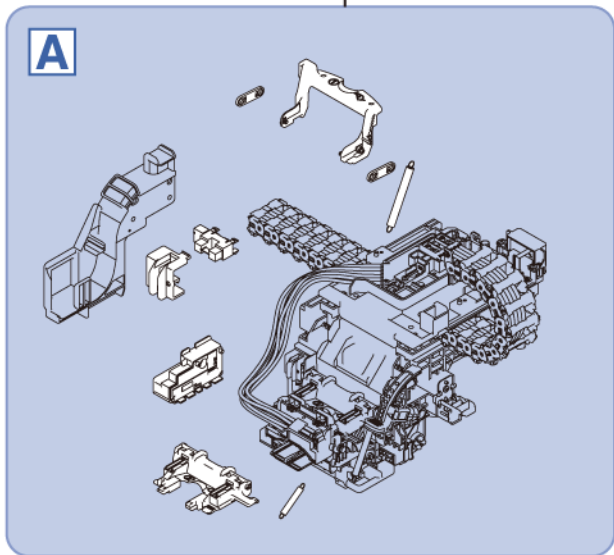
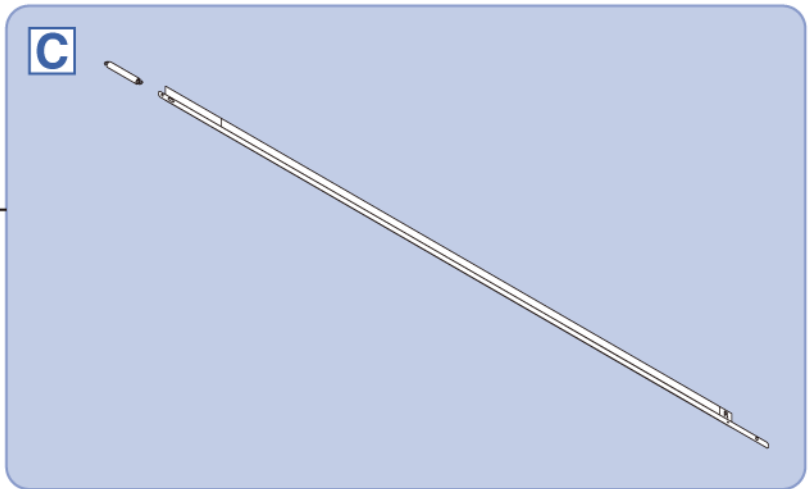
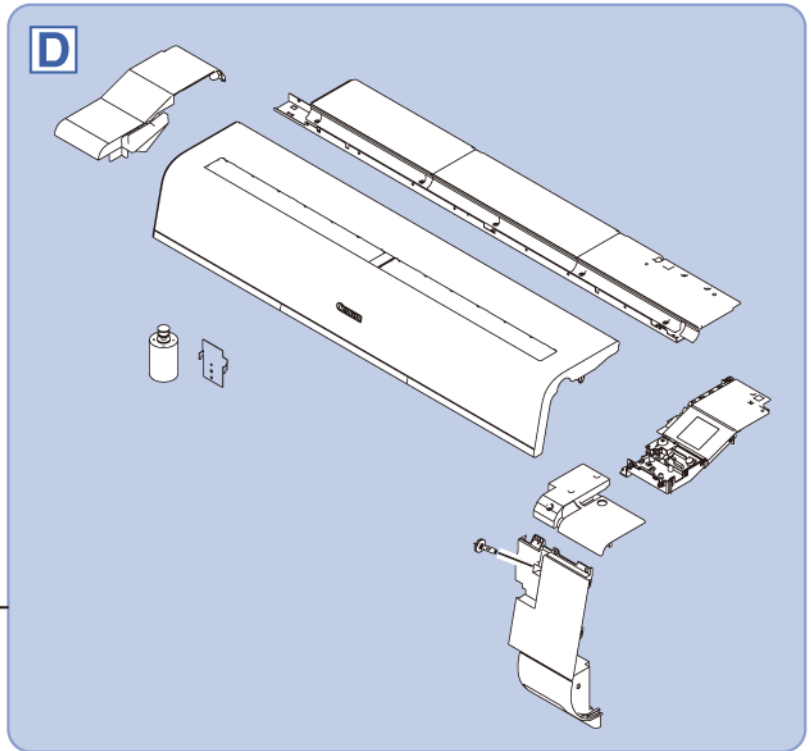
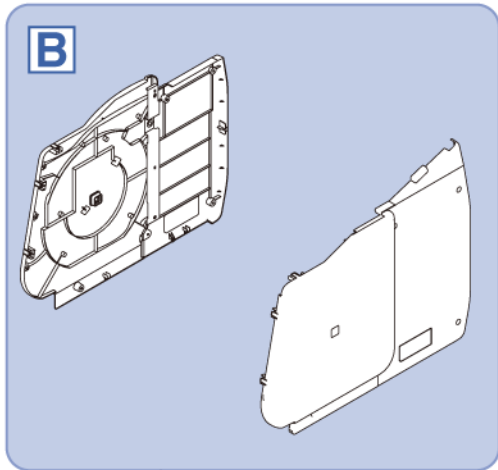
**Notes when the SUB INK TANK UNIT R is replaced:**

Dispose of ink of the replaced (old) SUB INK TANK UNIT R into a waste ink bottl (or in a bucket) before carrying it.

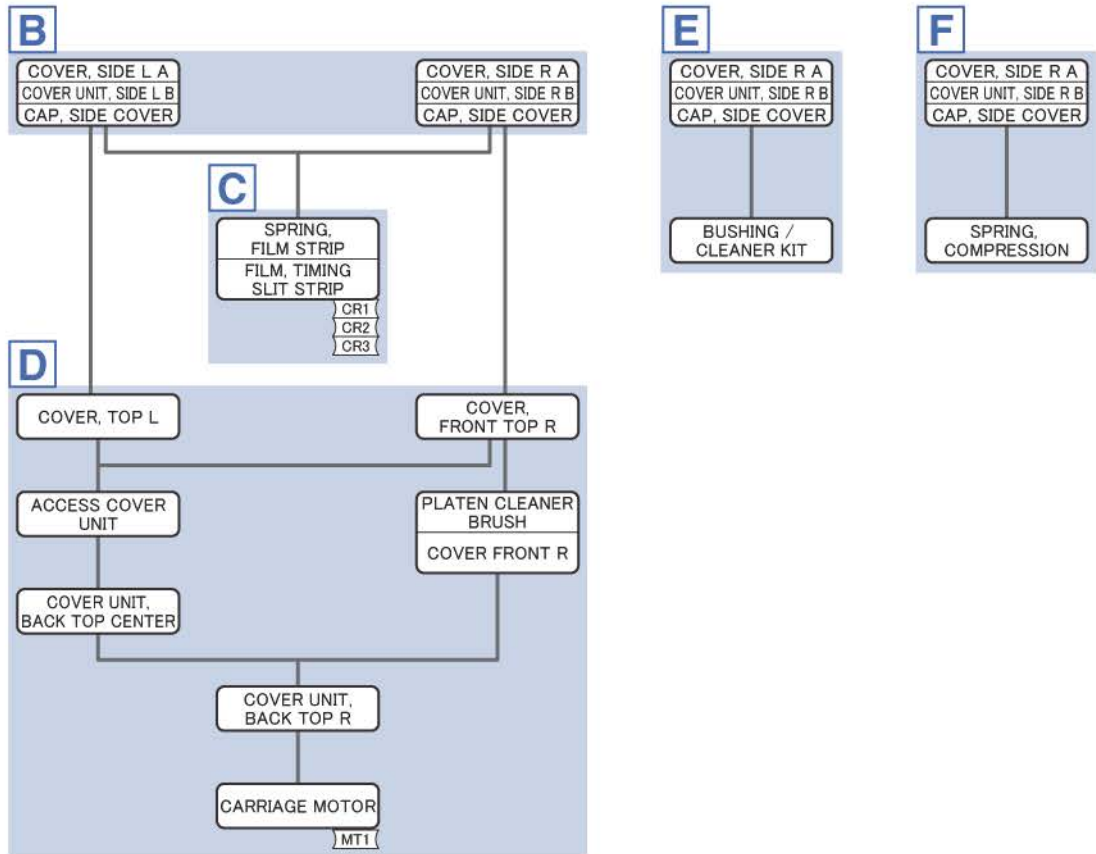
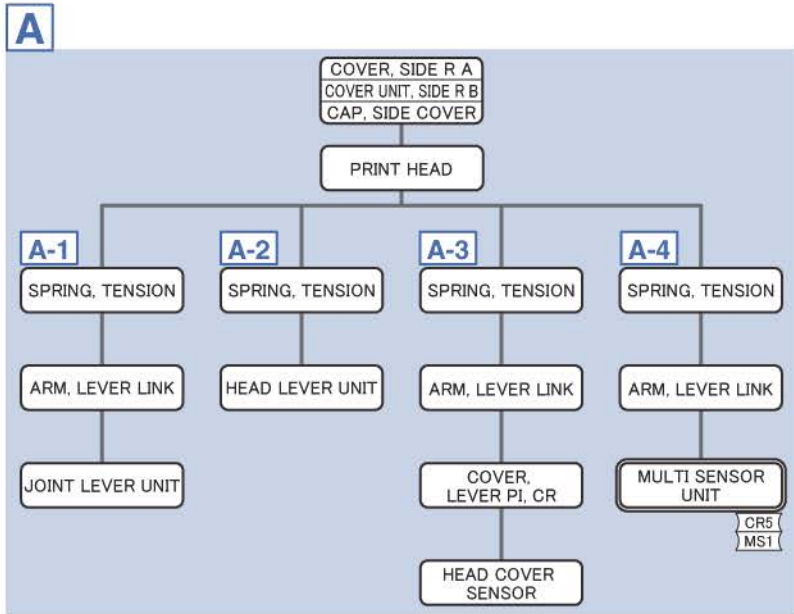
9. Remove [1] ABSORBER, INK from [2] INK SUPPLY MOUNT UNIT R.



# 11 CARRIAGE UNIT (1)






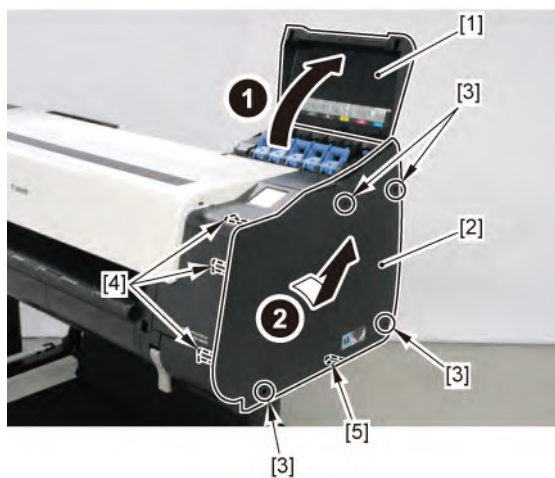




**A**

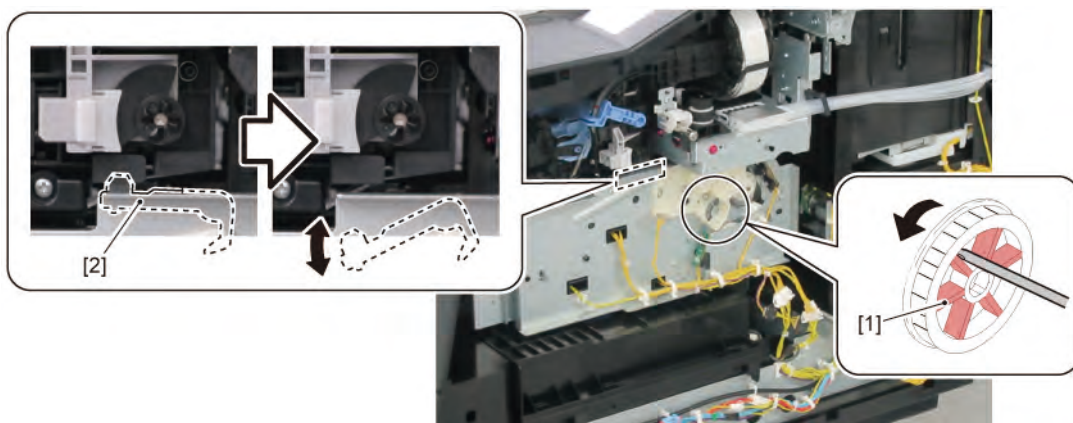
1. Open [1] the right ink tank cover.
2. Remove [2] a set of
  - COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc

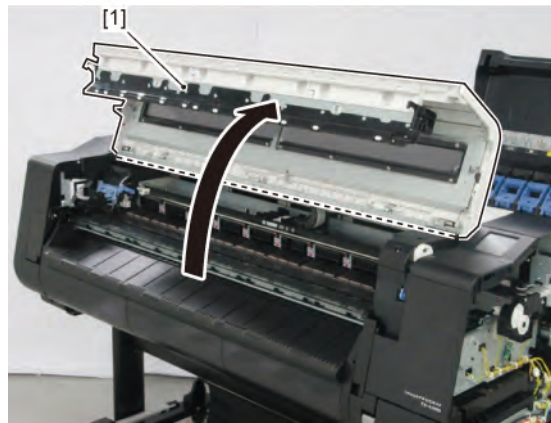


3. Unlock the carriage.

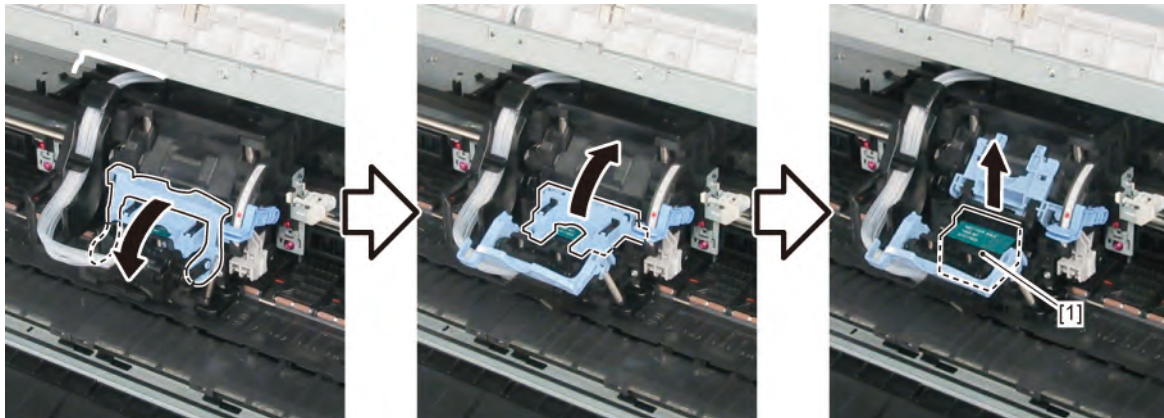
Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



4. Open [1] the access cover.

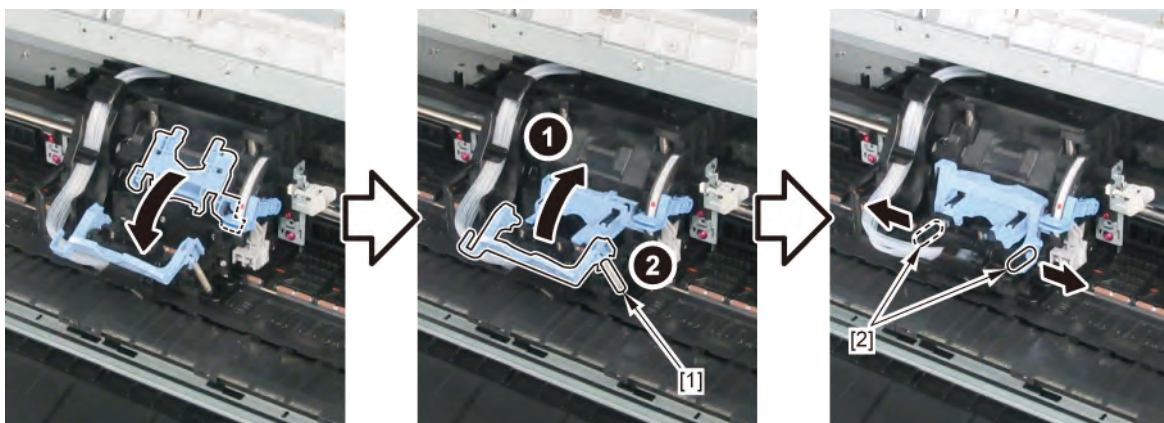


5. Remove [1] PRINT HEAD.



**A-1**

6. Remove [1] SPRING, TENSION and two pieces of [2] ARM, LEVER LINK.

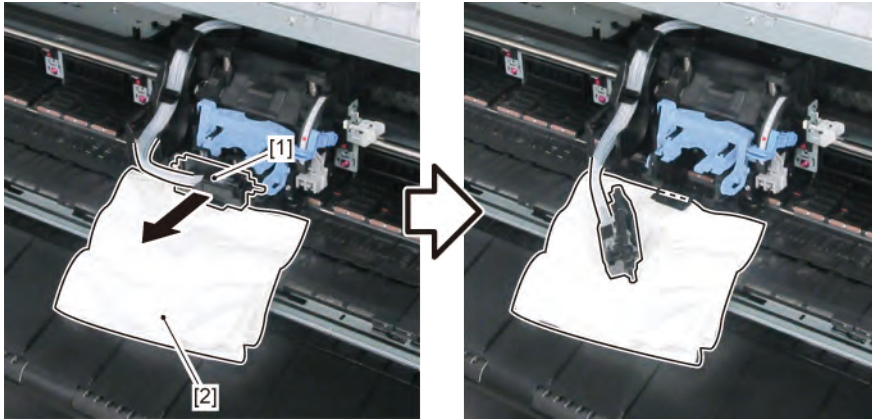


7. Remove [1] the joint base.



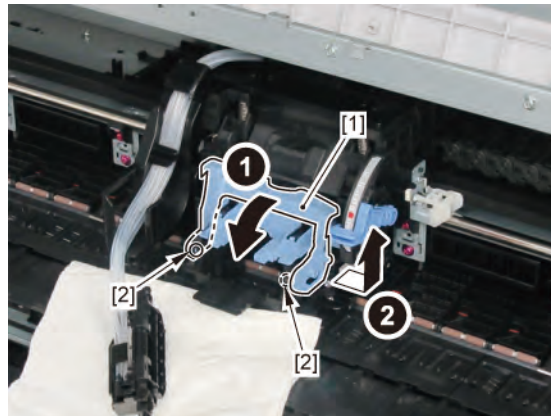
**Notes when removing the unit:**

Place the unit on [2] a paper towel, etc. as shown below.



8. Remove [1] JOINT LEVER UNIT.

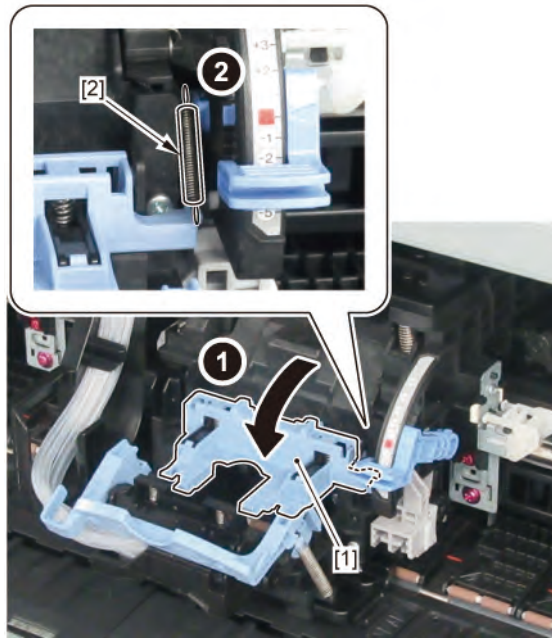
[2]
2 pcs



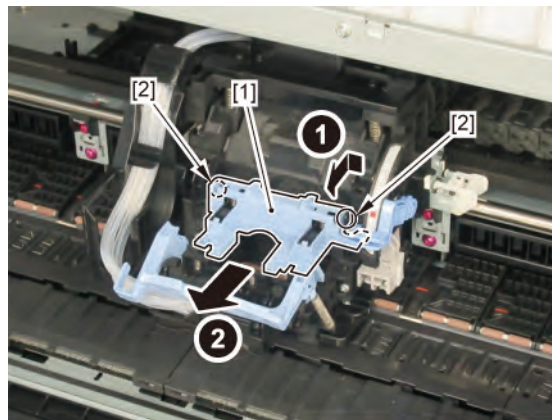
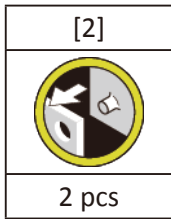


# A-2

6. Close [1] HEAD LEVER UNIT and remove [2] SPRING, TENSION.

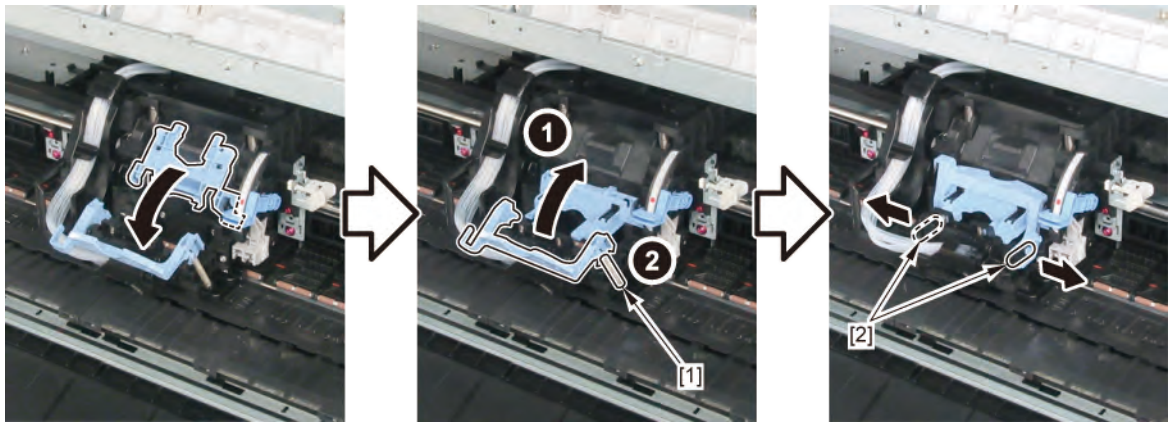


7. Remove [1] HEAD LEVER UNIT.



# A-3

6. Remove [1] SPRING, TENSION and two pieces of [2] ARM, LEVER LINK.

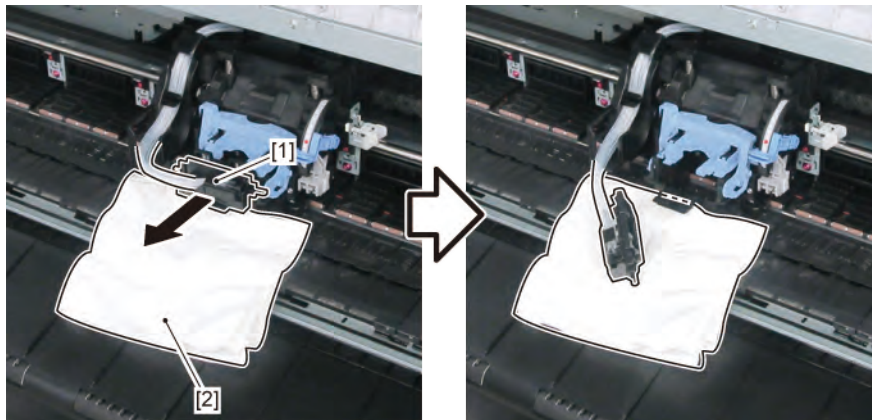


7. Remove [1] the joint base.

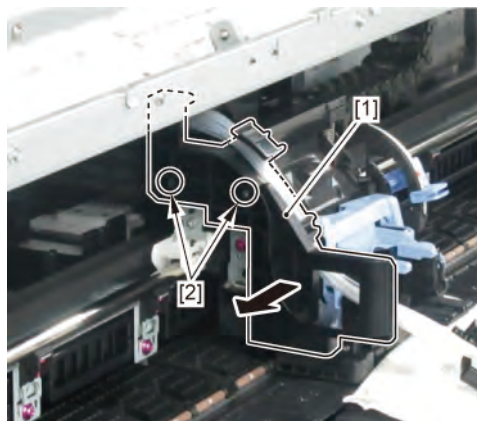


### Notes when removing the unit:

Place the unit on [2] a paper towel, etc. as shown below.




8. Remove [1] the tube guide.

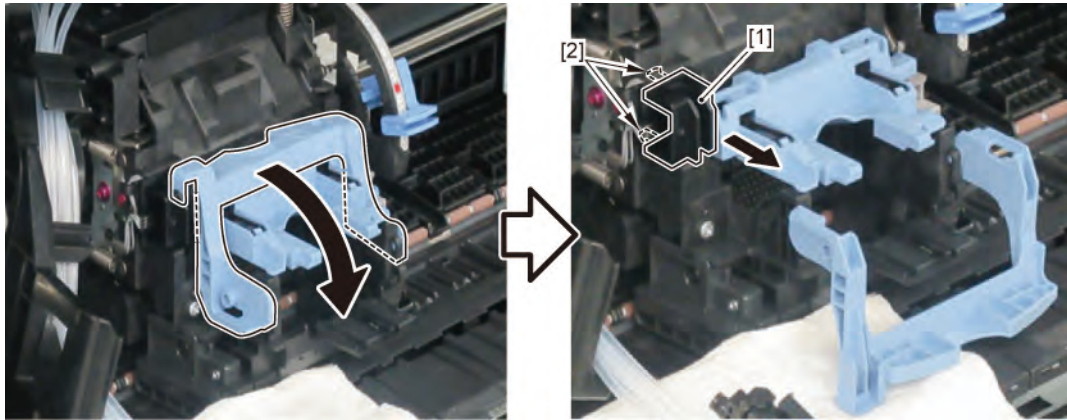


Chapter 1  
Chapter 2  
Chapter 3  
Chapter 4  
Chapter 5  
Chapter 6  
Chapter 7  
Chapter 8





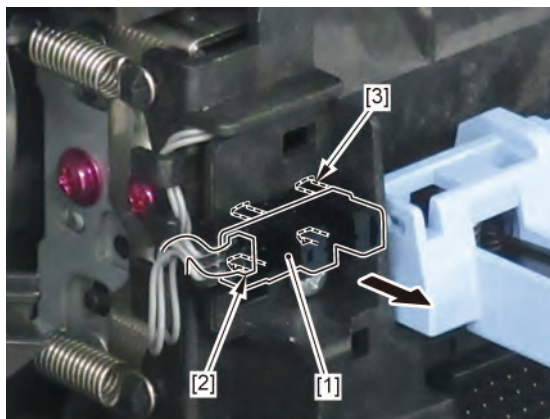
9. Remove [1] COVER, LEVER PI, CR.

[2]

2 pcs



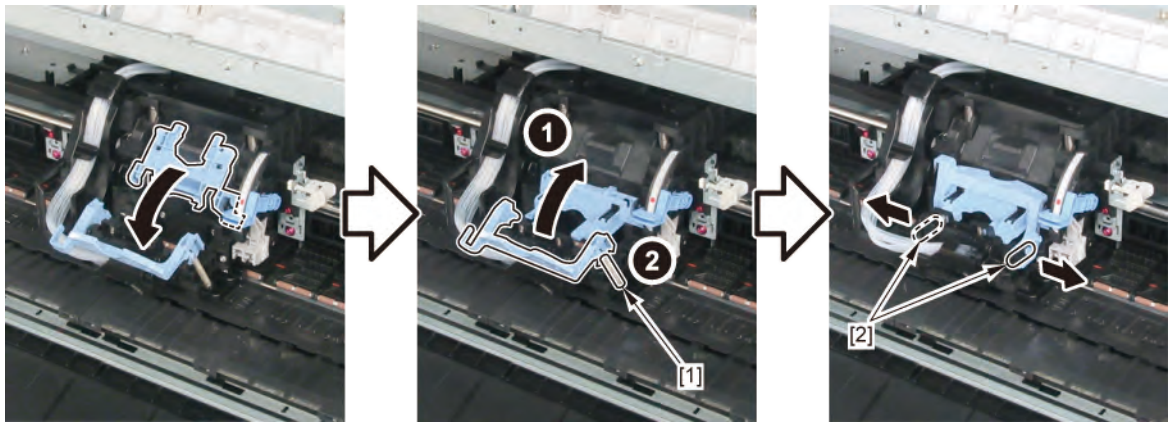
10. Remove [1] HEAD COVER SENSOR.

[2]	[3]
	
1 pc	4 pcs



# A-4

6. Remove [1] SPRING, TENSION and two pieces of [2] ARM, LEVER LINK.

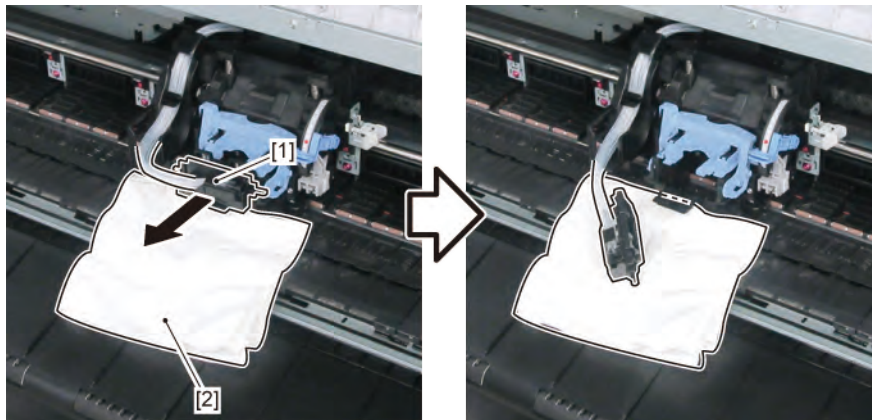


7. Remove [1] the joint base.

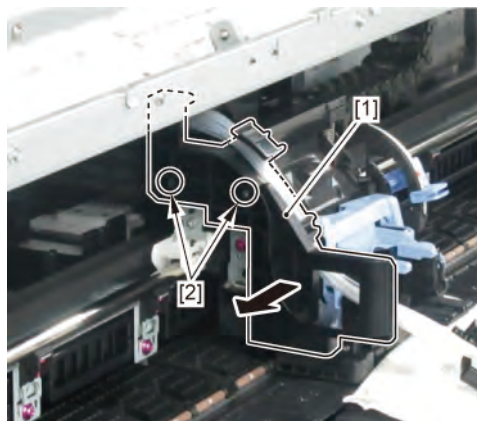
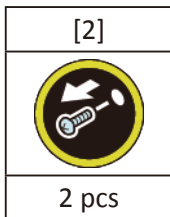


### Notes when removing the unit:



Place the unit on [2] a paper towel, etc. as shown below.

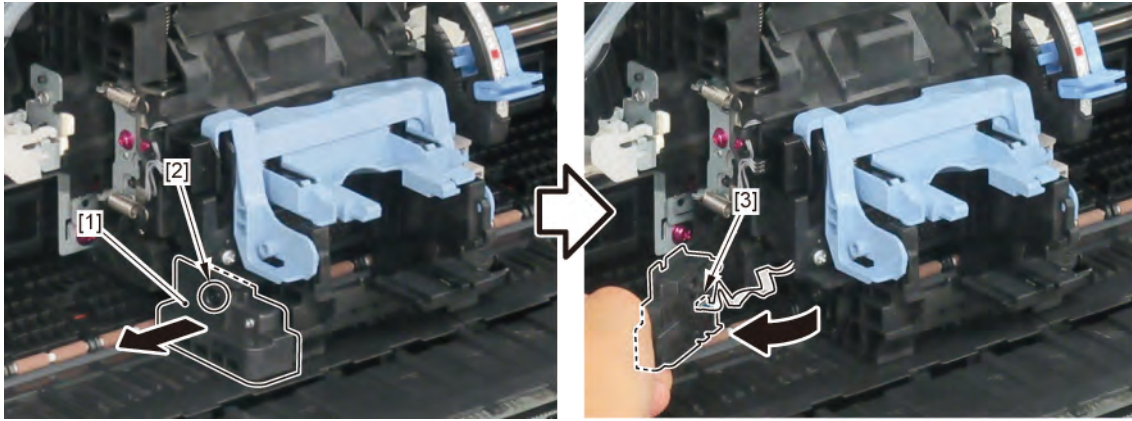


8. Remove [1] the tube guide.



9. Remove [1] MULTI SENSOR UNIT.

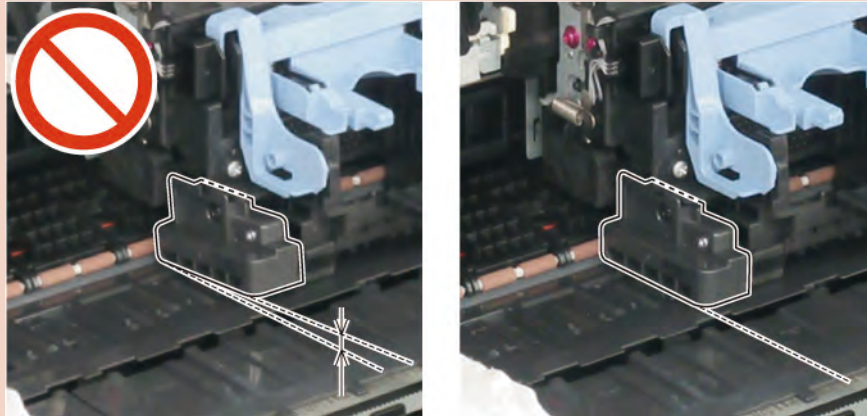
[2]	[3]
	
BK	
1 pc	1 pc



**Notes when attaching the unit:**

The unit must be attached straight. It must not be slanted or tilted.

Point



**Notes when assembling the unit:**

Perform adjustment at the end of assembly.  
 [SERVICE MODE > ADJUSTMENT > OPTICAL AXIS]  
 [SERVICE MODE > ADJUSTMENT > GAP CALIB.]

Point

**Notes when the unit is replaced:**

Reset the applicable counter when the unit is replaced:  
 [SERVICE MODE > PARTS COUNTER > CR5]  
 [SERVICE MODE > PARTS COUNTER > MS1]




Point

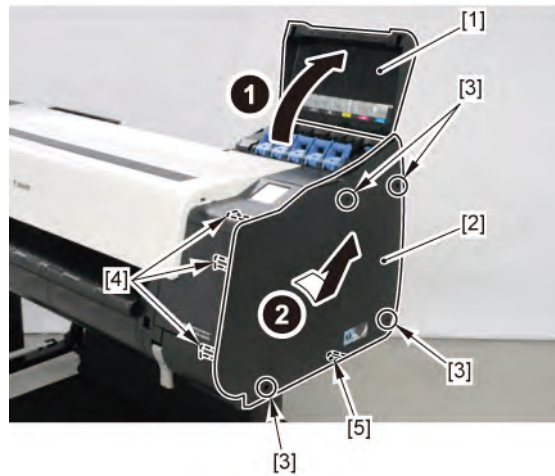


## B

1. Open [1] the right ink tank cover.
2. Remove [2] a set of




- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

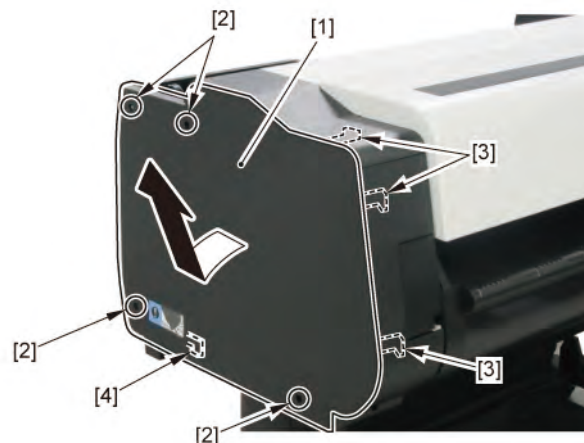
[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc



3. Remove [1] a set of

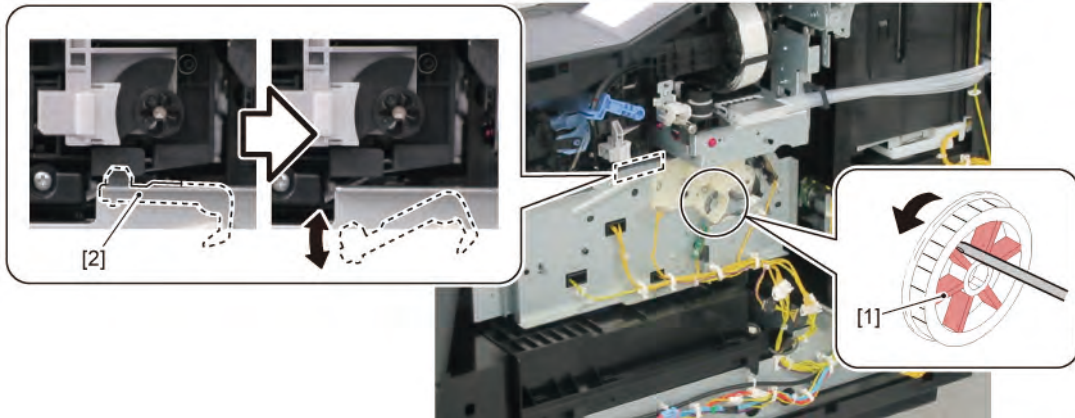
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.

[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc



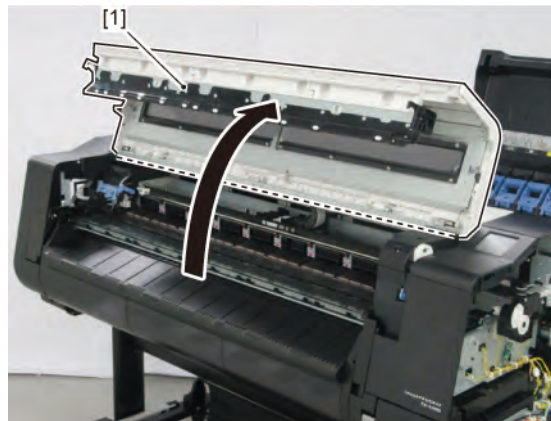
#### 4. Unlock the carriage.

Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.

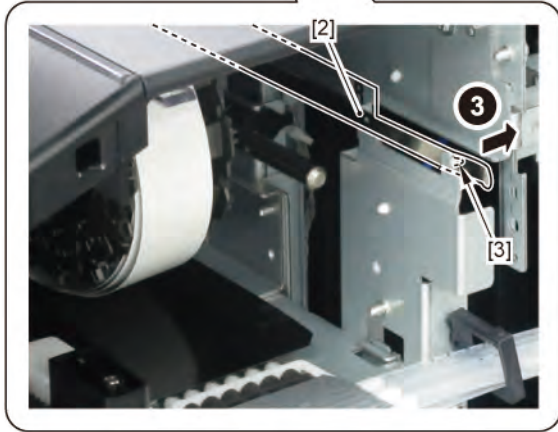
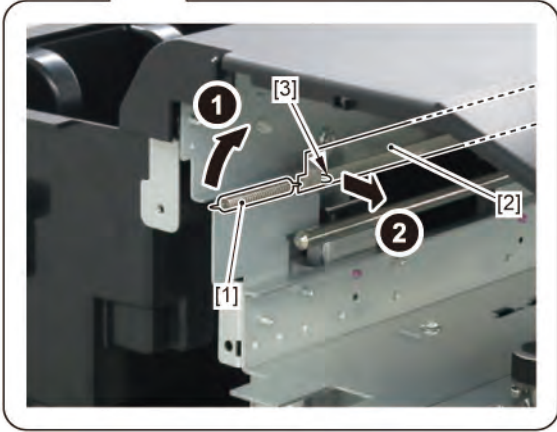
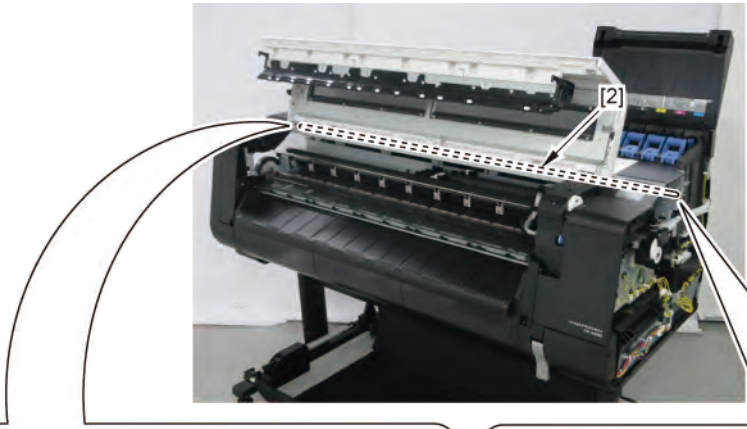
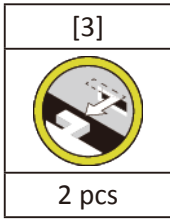


### C

1. Remove all the parts of Group B.
2. Open [1] the access cover.



3. Remove [1] SPRING, FILM STRIP and [2] FILM, TIMING SLIT STRIP.

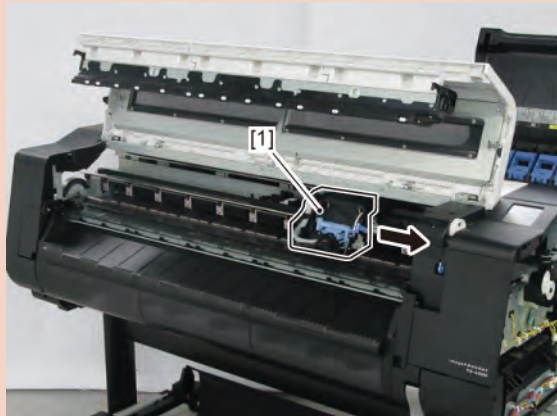


How to assemble the unit:



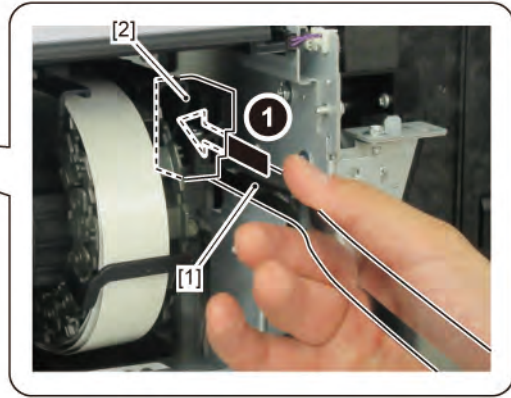
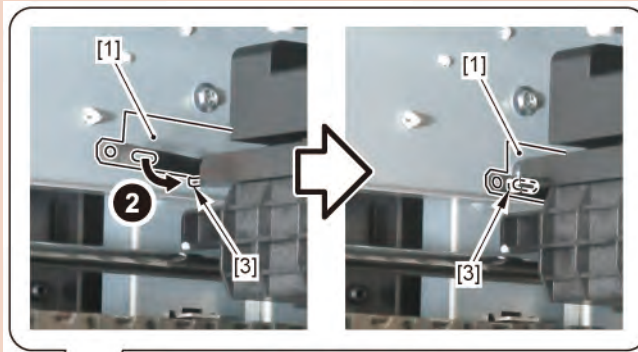
FILM, TIMING SLIT STRIP attachment (Steps 2, 3, 4, 5)

1. Move [1] the carriage unit to the Home Position

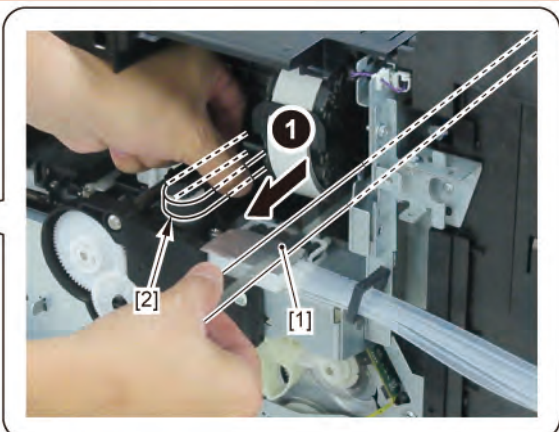
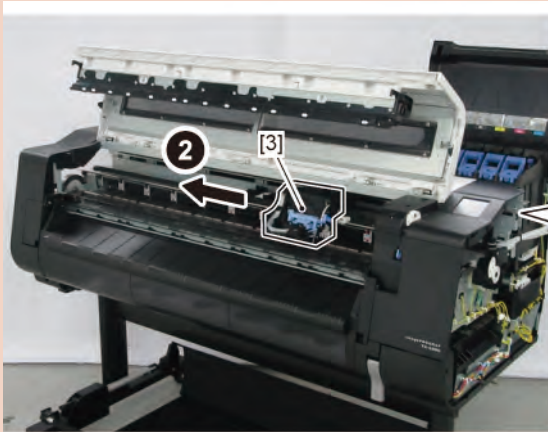




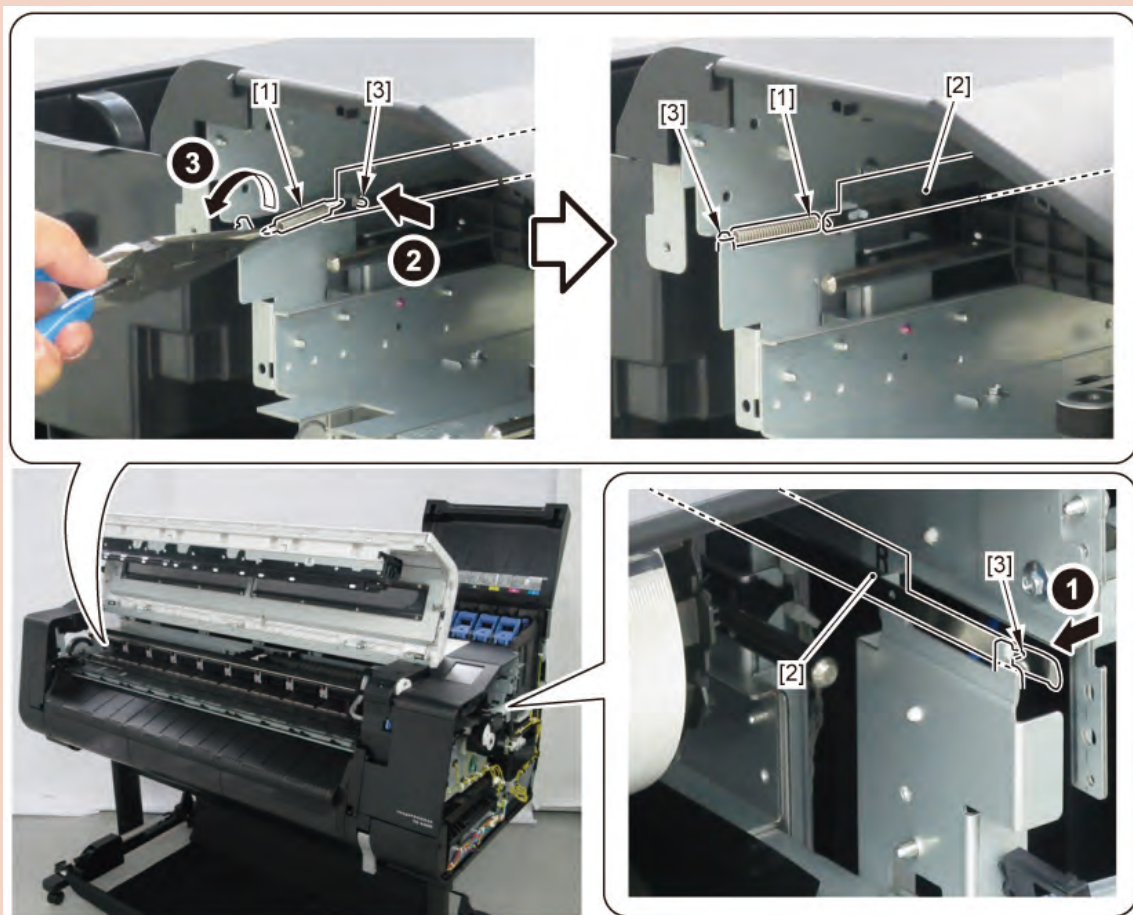
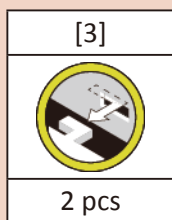
2. Pass [1] FILM, TIMING SLIT STRIP through [2] CARRIAGE ENCODER SENSOR.
3. Hook [1] FILM, TIMING SLIT STRIP to [3] the hook.



4. While keeping [1] FILM, TIMING SLIT STRIP slightly stretched, forward [2] the carriage belt to move the carriage unit to the Back Position.



## 5. Hook [1] SPRING, FILM STRIP and [2] FILM, TIMING SLIT STRIP.



### Notes when replacing the unit:

Keep the FILM, TIMING SLIT STRIP free from any grease.

How to clean the FILM, TIMING SLIT STRIP:

- Clean it with a dry cloth.
- Clean it with pure water.
- Clean it with ethanol.



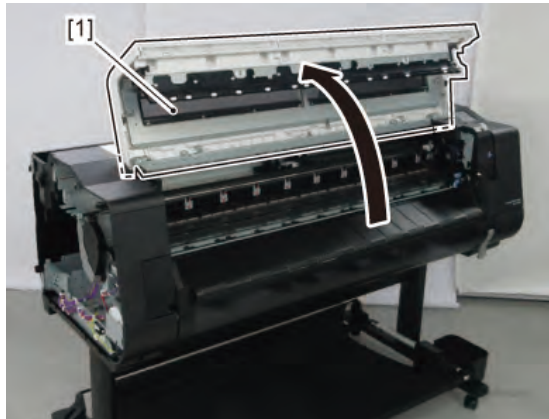
When cleaning the strip in the printer without removing it, avoid applying any excessive power to the film

Be sure to confirm the following at the end of cleaning:



- The film does not come off from the carriage encoder.
- The film does not come off from the linear scale and it is properly positioned on the plate.

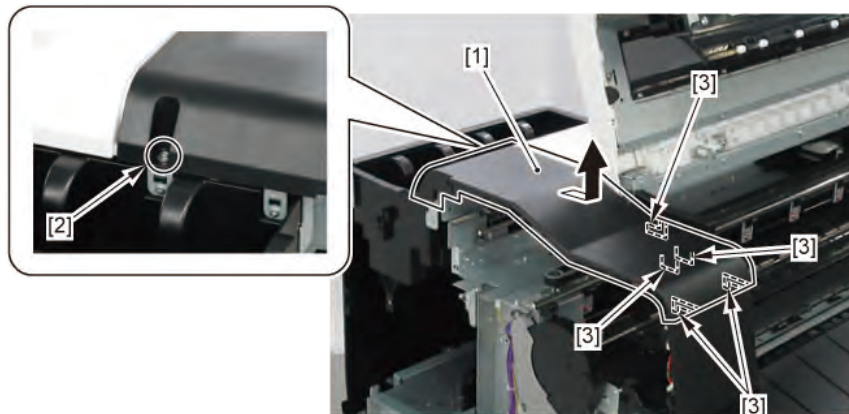
D

1. Remove all the parts of Group B.
2. Open [1] the access cover.




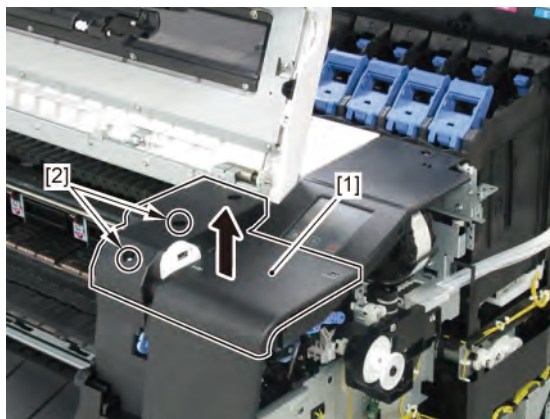
3. Remove [1] COVER, TOP L.

[2]	[3]
	
1 pc	5 pcs




4. Remove [1] COVER, FRONT TOP R.

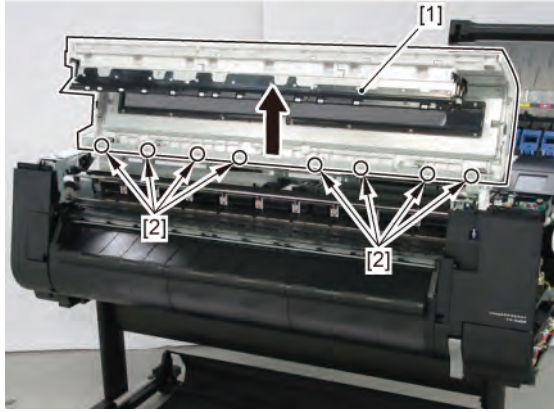
[2]

2 pcs





5. Remove [1] ACCESS COVER UNIT with holding the handles.

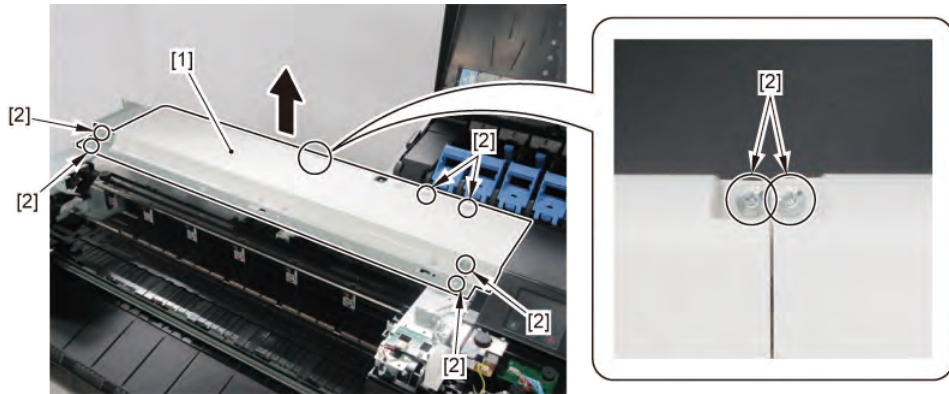
	[2]
	
24" model	5 pcs
36" model	7 pcs
44" model	8 pcs



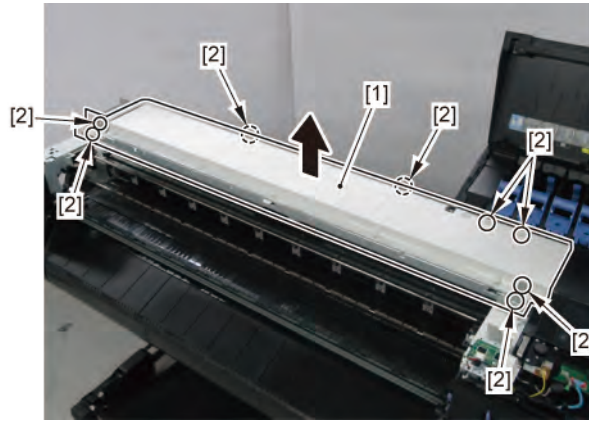
6. Remove [1] COVER UNIT, BACK TOP CENTER.

	[2]
	
	8 pcs



(24" model)

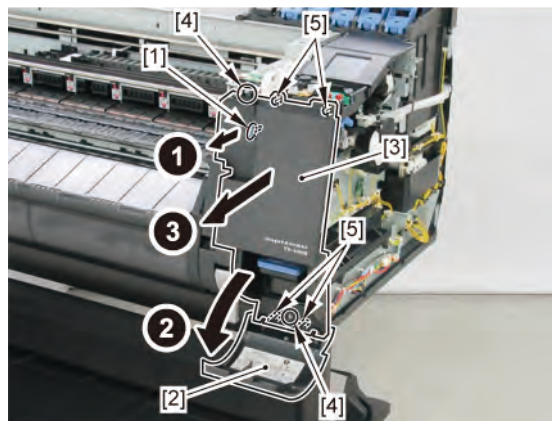


(36" model, 44" model)








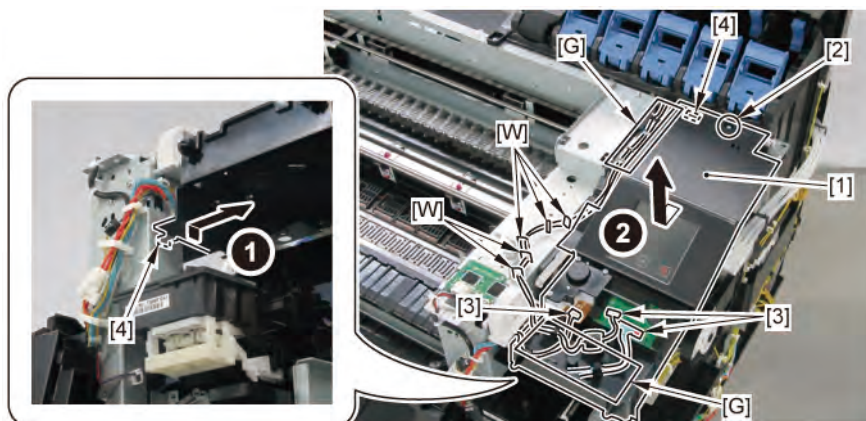
7. Remove [1] PLATEN CLEANER BRUSH.
8. Open [2] COVER UNIT, MTC.
9. Remove [3] COVER, FRONT R.

[4]	[5]
	
2 pcs	4 pcs




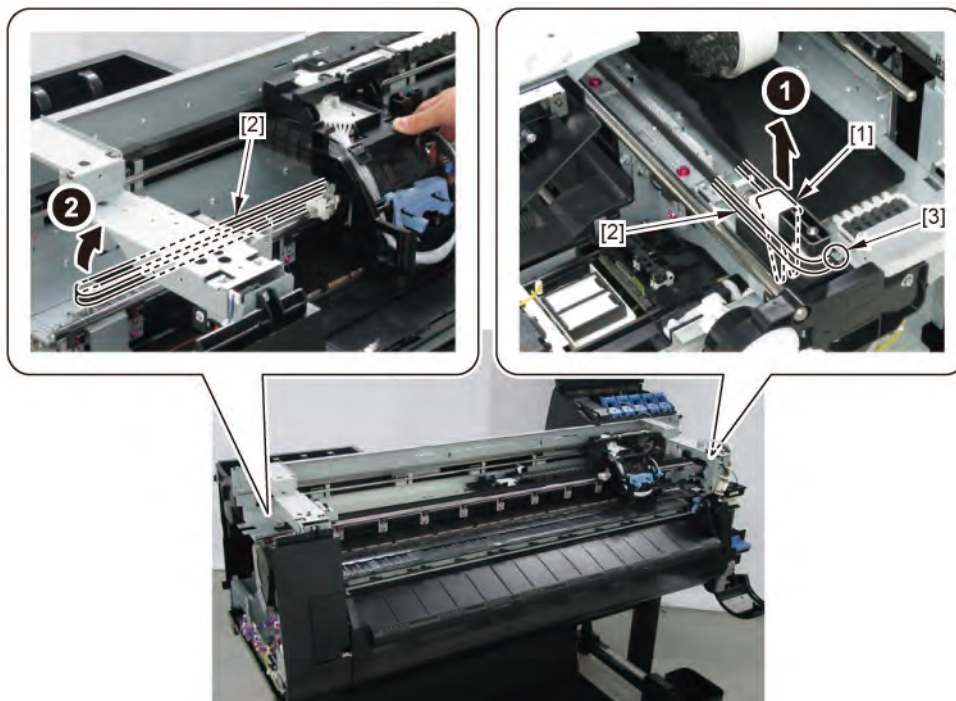
## 10. Remove [1] COVER UNIT, BACK TOP R (with the OPERATION PANEL UNIT).

[2]	[3]	[4]	[W]	[G]
				
1 pc	3 pcs	2 pcs	5 pcs	2 pcs






## 11. Remove [1] the wedge and loosen [2] BELT, CARRIAGE.

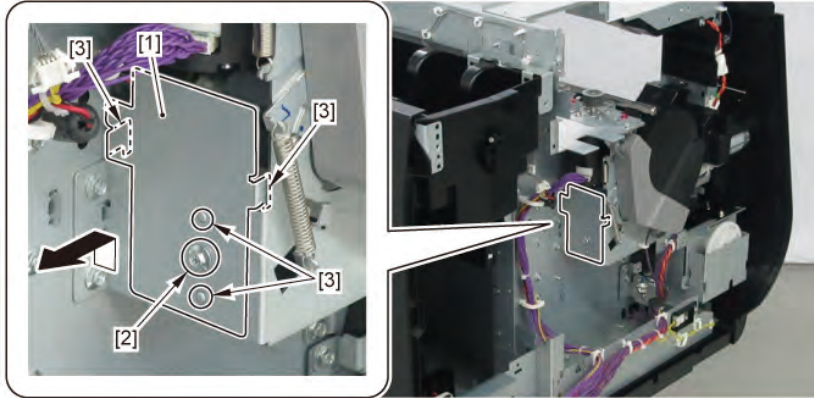
[3]

1 pc








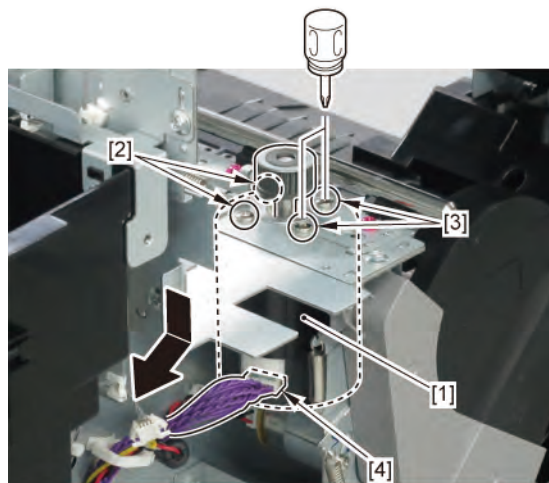
## 12. Remove [1] the plate.

[2]	[3]	[4]
		
1 pc	2 pcs	2 pcs






## 13. Remove [1] MOTOR, CARRIAGE.

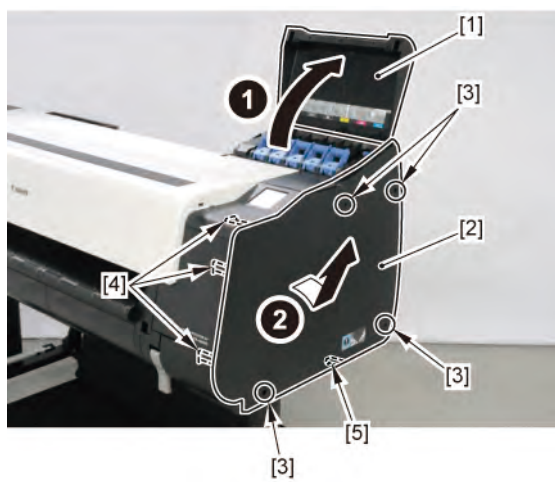
[2]	[3]	[4]
		
2 pcs	2 pcs	1 pc



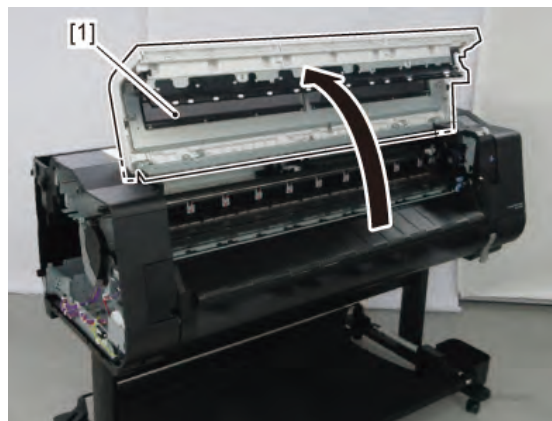
E

1. Open [1] the right ink tank cover.
2. Remove [2] a set of
  - COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc



3. Open [1] the access cover.



#### Notes when removing/attaching the bushing:

When removing or attaching, lift the carriage slightly. At this time, be careful with handling the tool\* not to hit the carriage shaft

\*The needle-nose pliers or tweezers are recommended.



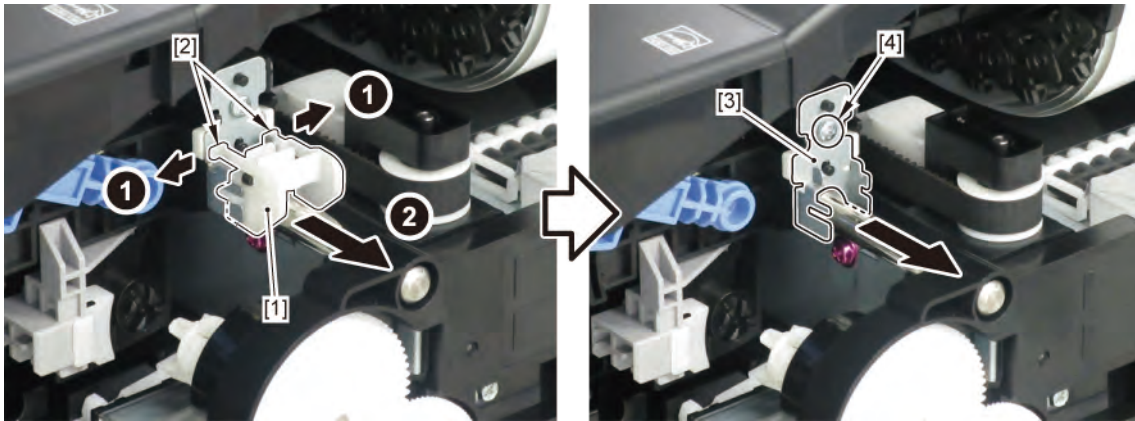
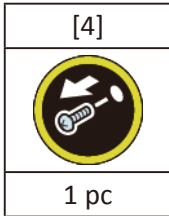
#### Notes when replacing the bushing:

- Be sure to replace the right and left shaft cleaners and the right and left bushings at the same time (using BUSHING / CLEANER KIT).
- DO NOT lift up the carriage when it is capped. (Lifting up the capped carriage may damage the purging system.)

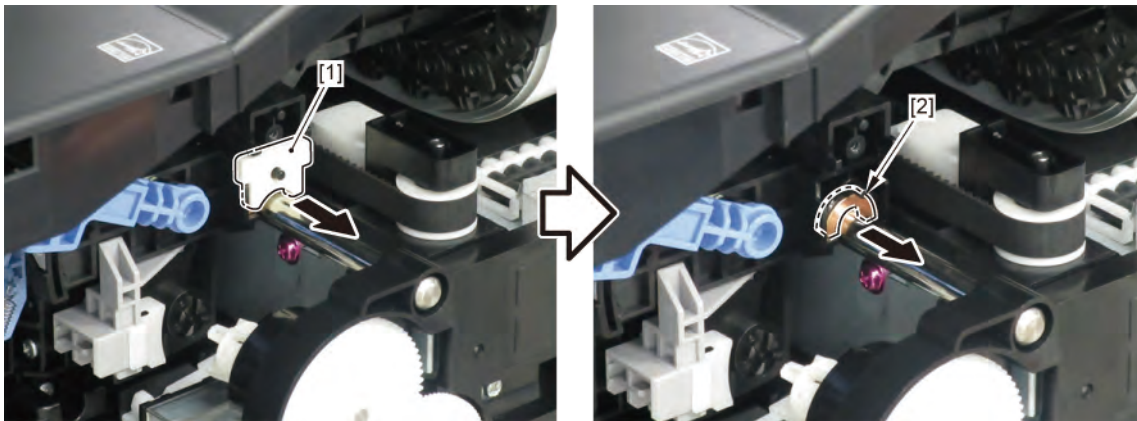
4. Remove [1] the RAIL CLEANER UNIT S (from the right side of the carriage).



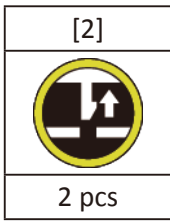
5. Remove [3] the plate (from the right side of the carriage).



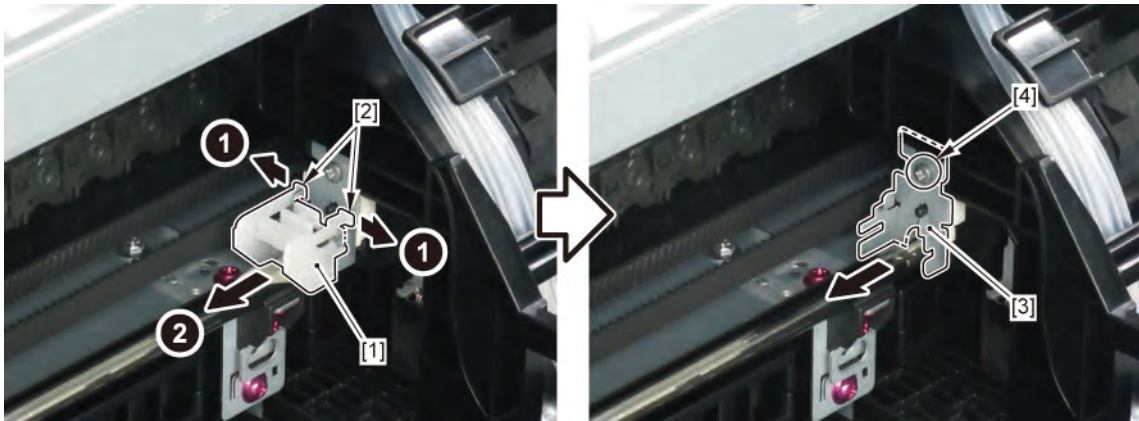
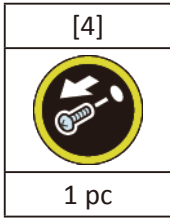
6. Remove [1] the PAD, BUSHING, CR (from the right side of the carriage).  
7. Remove [2] the bushing (from the right side of the carriage).



8. Remove [1] the RAIL CLEANER UNIT S (from the left side of the carriage).

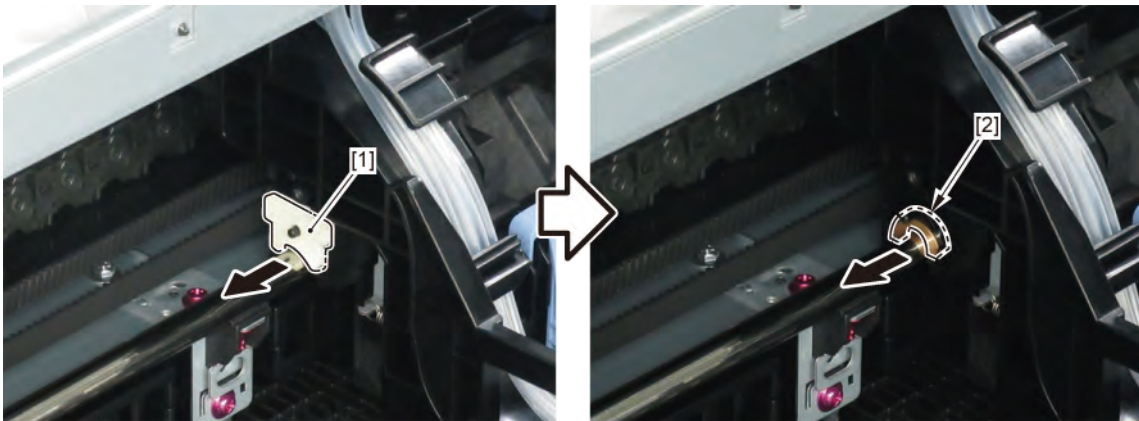


9. Remove [3] the plate (from the left side of the carriage).



10. Remove [1] the PAD, BUSHING, CR (from the left side of the carriage).




11. Remove [2] the bushing (from the left side of the carriage).

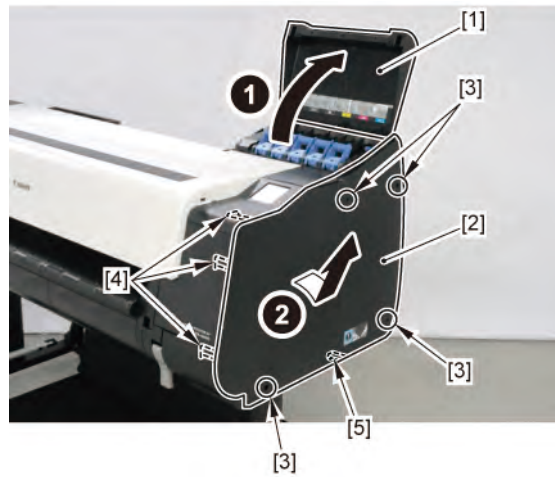




F

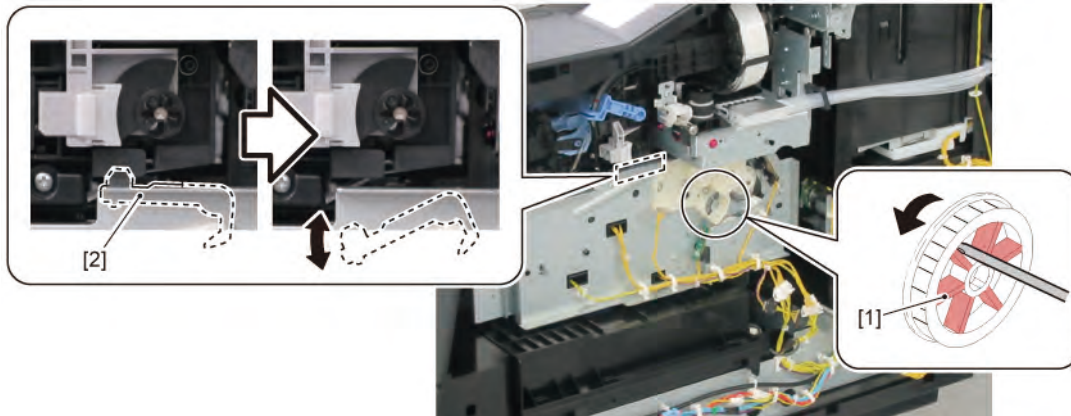
1. Open [1] the right ink tank cover.
2. Remove [1] a set of
  - COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc

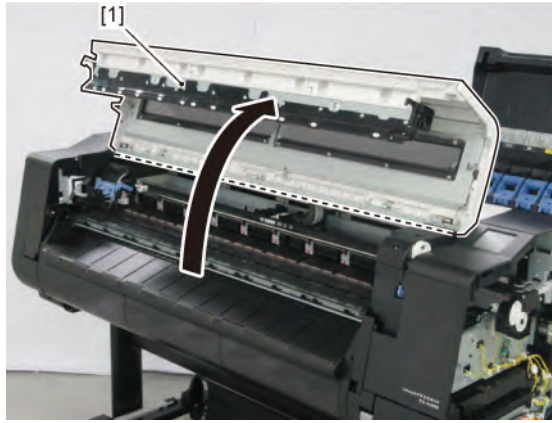


3. Unlock the carriage.

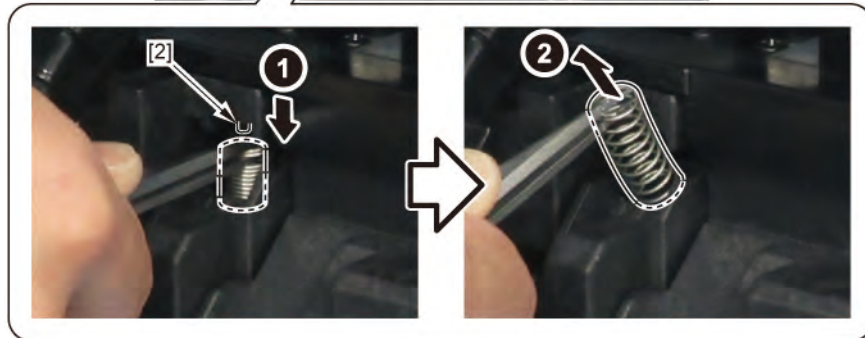
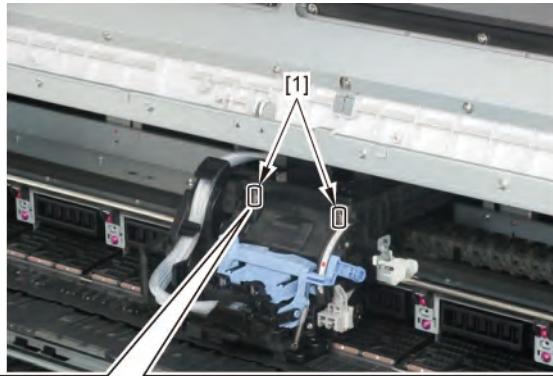
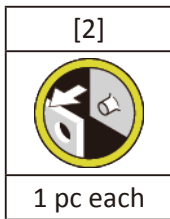
Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



4. Open [1] the access cover.



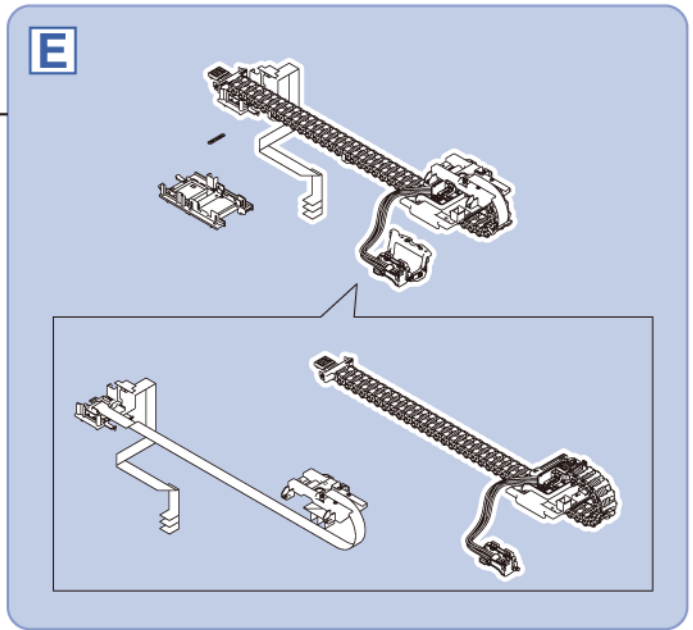
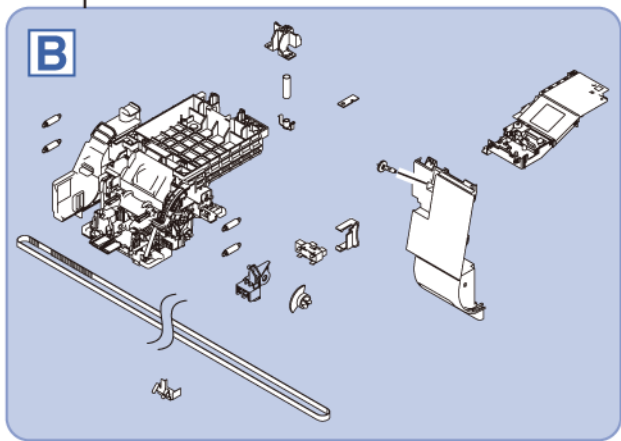
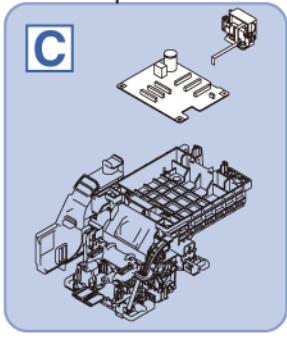
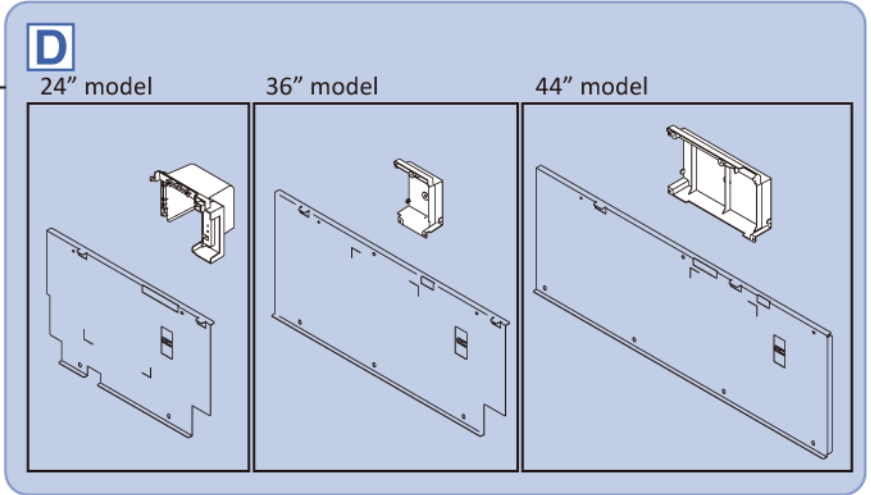
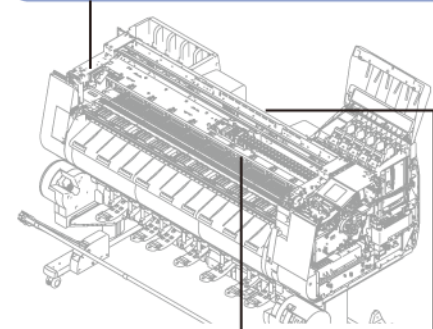
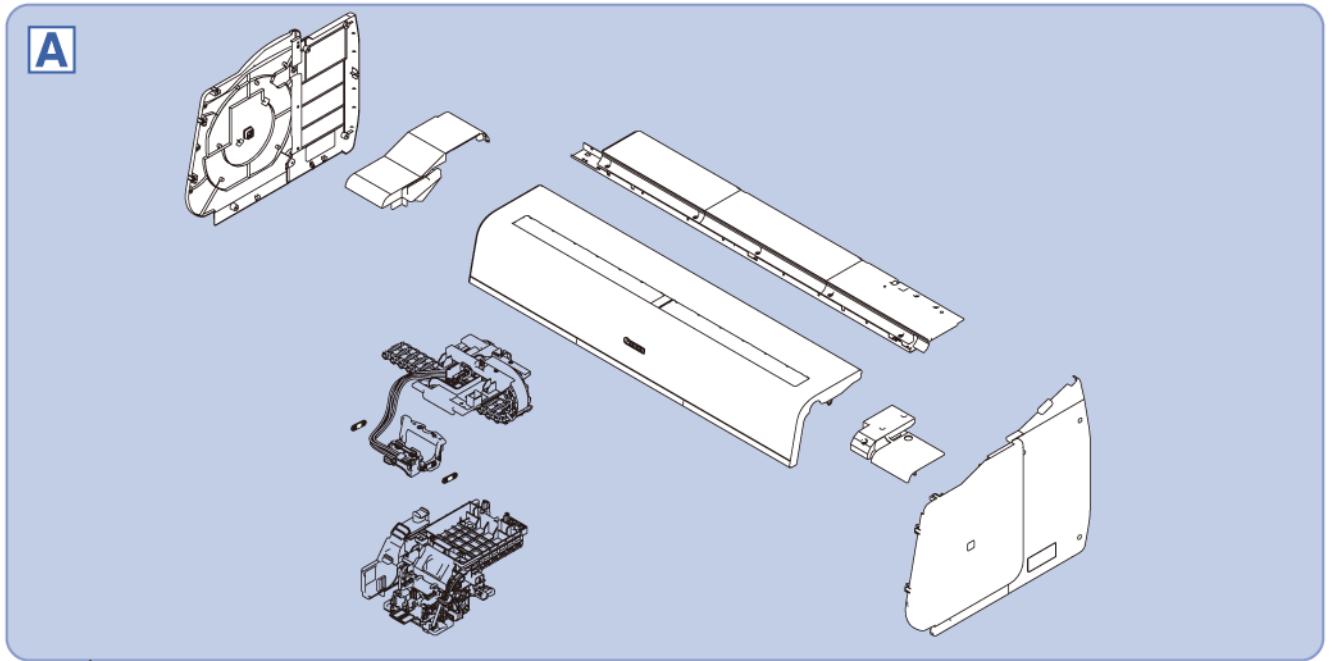
5. Remove two [1] SPRING, COMPRESSION.

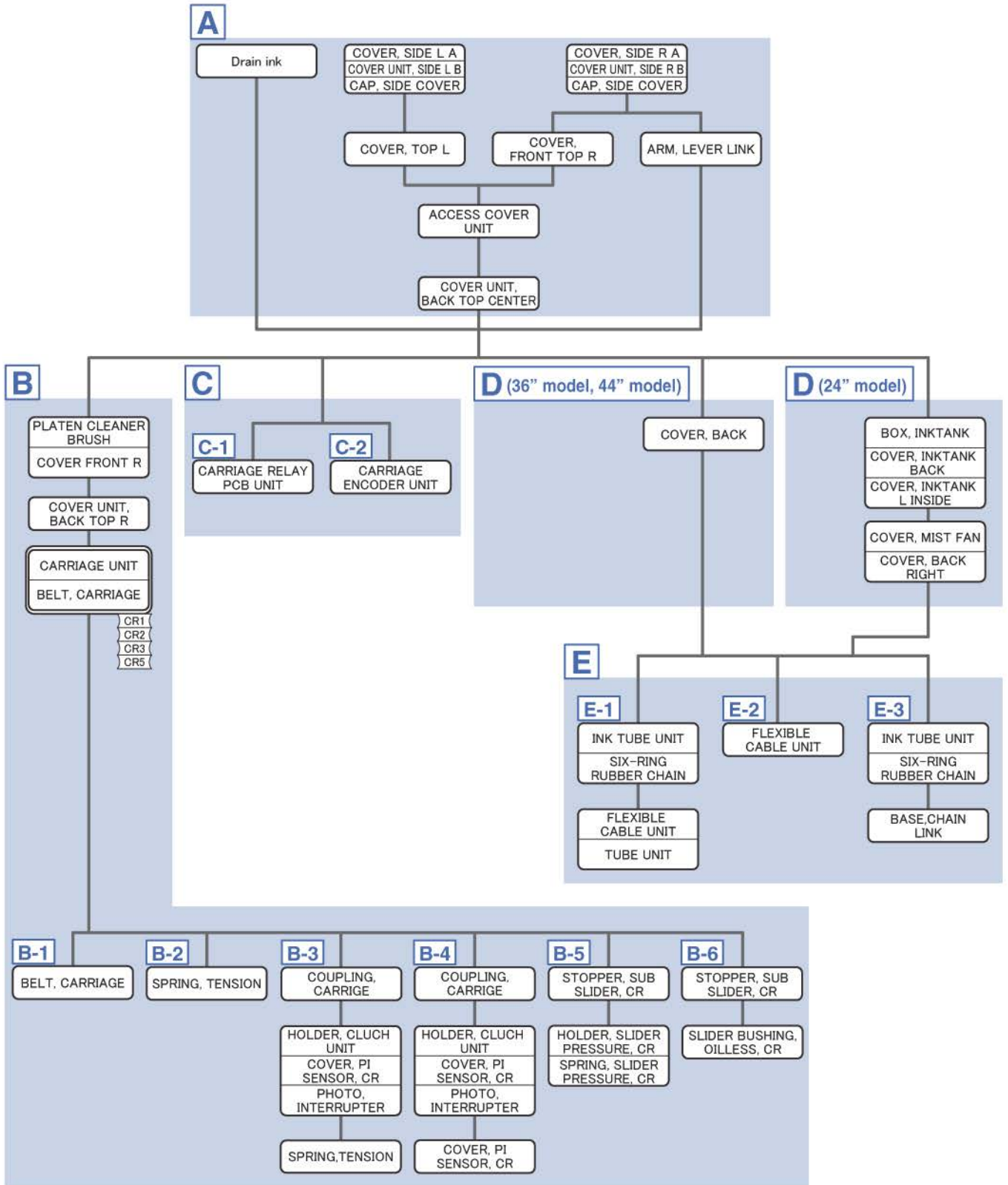






# 12 CARRIAGE UNIT (2)



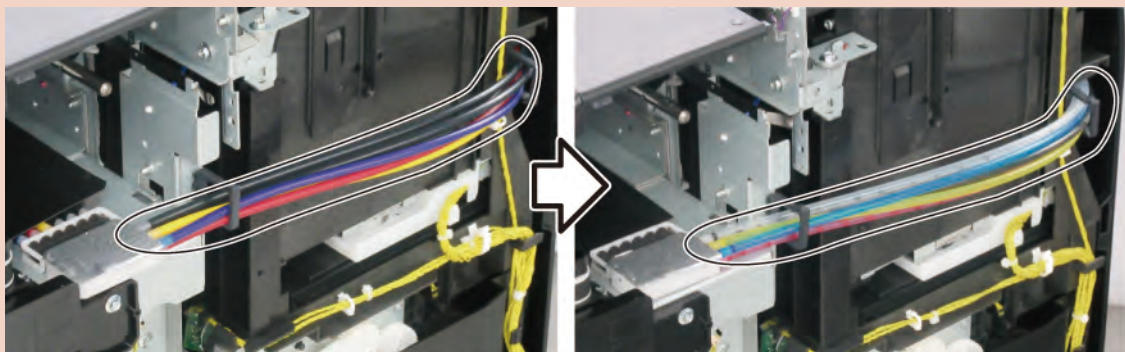


## A

## 1. Drain ink into the sub ink tank.

- **To do it in the Service Mode:**

1. Unlock the carriage by selecting [SE VICE MODE > FUNCTION > CR UNLOCK]
2. On the printer operation panel, select [SE VICE MODE > FUNCTION > INK SUPPLY VALVE OPEN > OPEN]. The supply valve (choke valve) of SUB INK TANK UNIT will open.
3. Ink will be drained from the CARRIAGE UNIT (or INK TUBE UNIT) into the SUB INK TANK UNIT.
4. Wait for five to ten minutes, then confirm that the ink has been drained from the tubes.



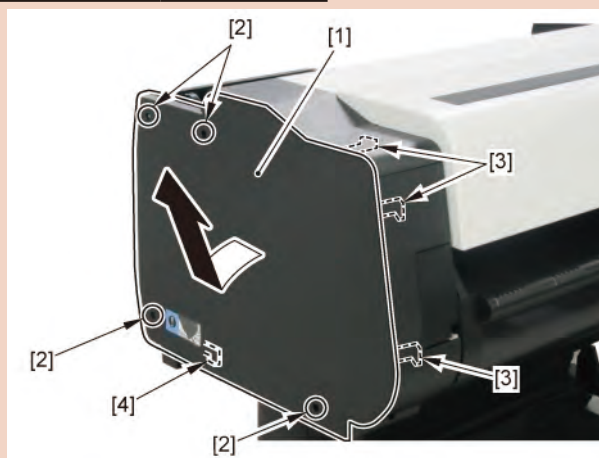
5. Power off the printer and unplug the power cord.

- **To do it manually:**

1. Remove [1] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.






[2]	[3]	[4]
4 pcs	3 pcs	1 pc

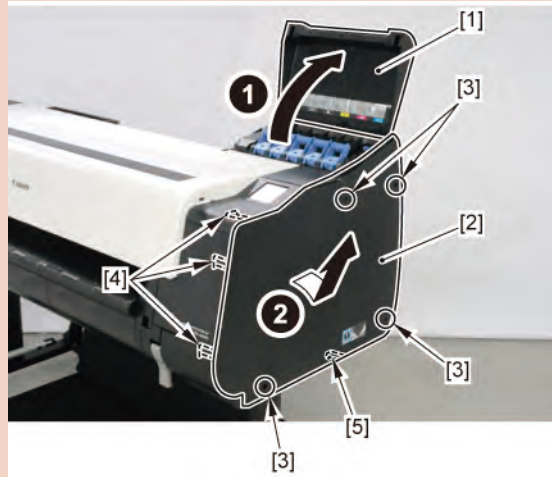


2. Open [1] the right ink tank cover.

3. Remove [2] a set of

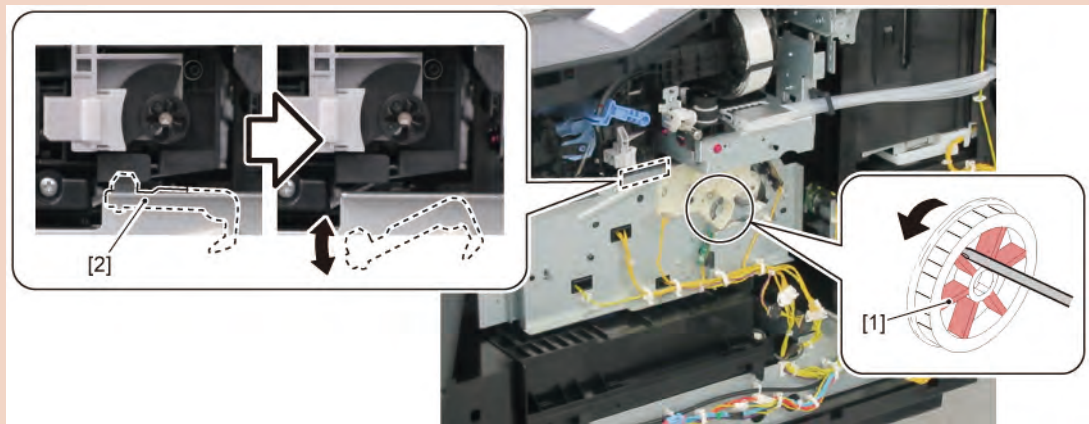
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc





4. Unlock the carriage.

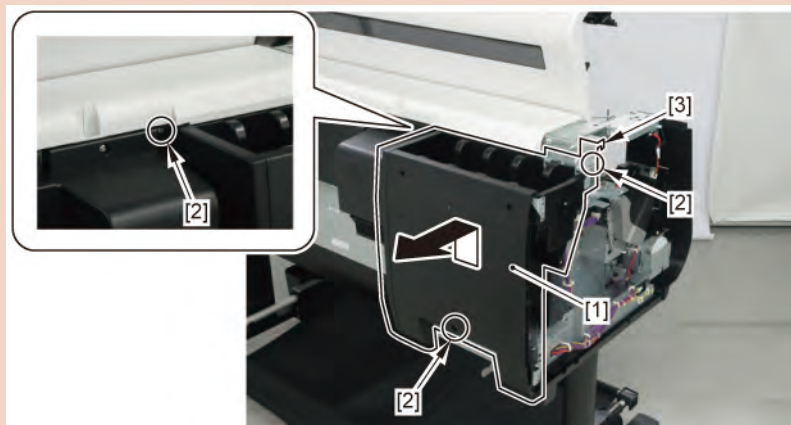
Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



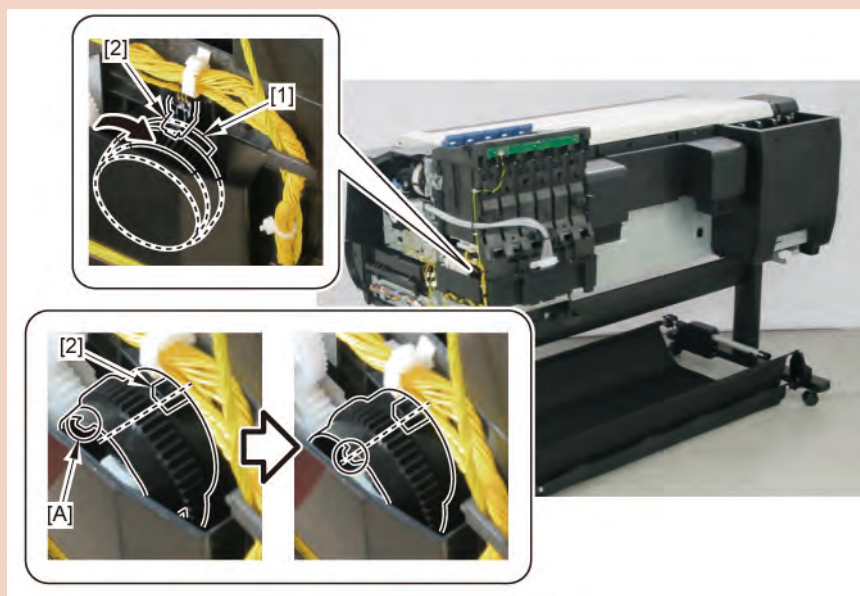


5. Remove [1] a set of
- BOX, INKTANK
  - COVER, INKTANK BACK
  - CAVER, INKTANK L INSIDE.

[2]	[3]
	
3 pcs	1 pc

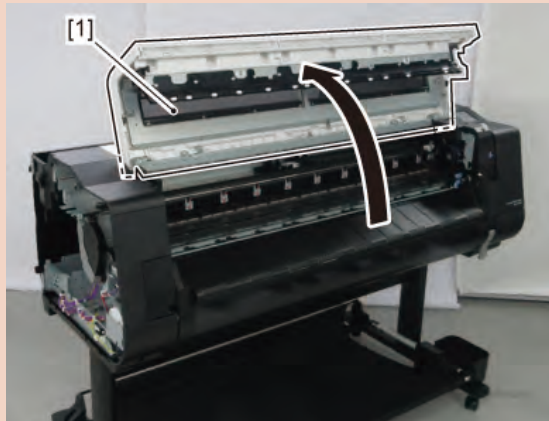


6. Turn the gear in the arrowed direction to open ink tank unit valve.
- When [1] the gear flag comes under [2] the sensor, the valve will open.
- When [A] the tab is at the top center, the valve is fully opened.

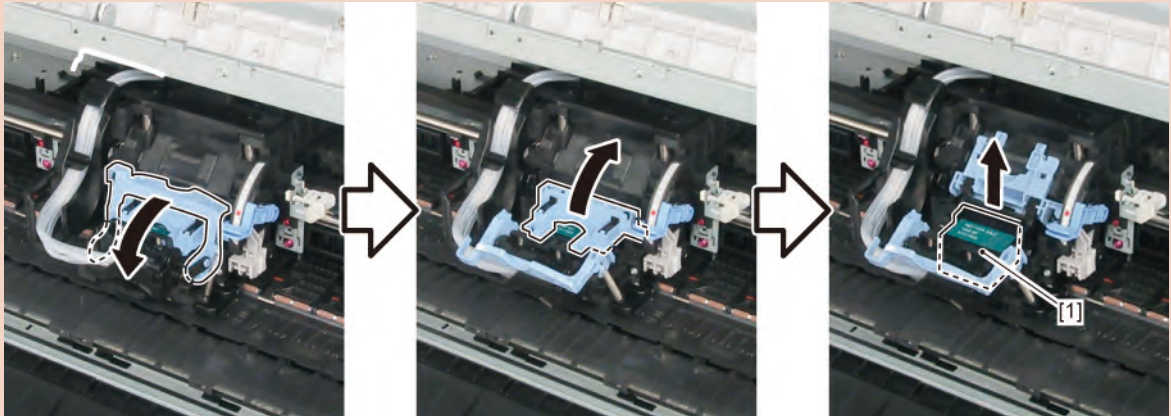




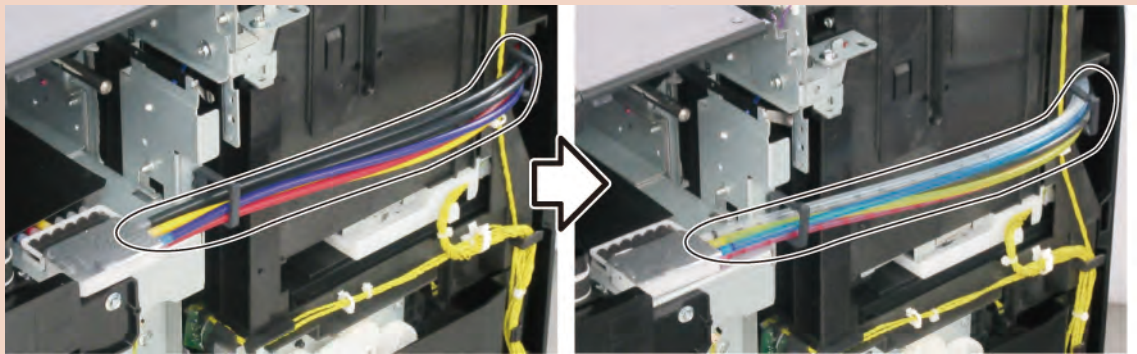
7. Open [1] the access cover.



8. Remove [1] PRINT HEAD.



9. Wait for five to ten minutes, then confirm that the ink has been drained from the tubes.



**Notes when ink is drained from the tubes:**




Be sure to perform Ink Filling when reassembly is completed.

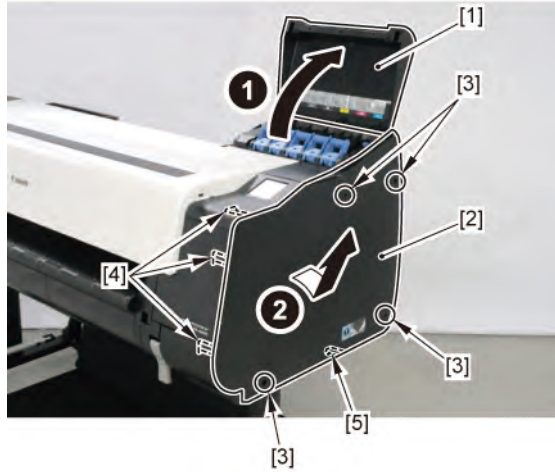
[SERVICE MODE > FUNCTION > INK FILLING]

2. Open [1] the right ink tank cover.

3. Remove [2] a set of

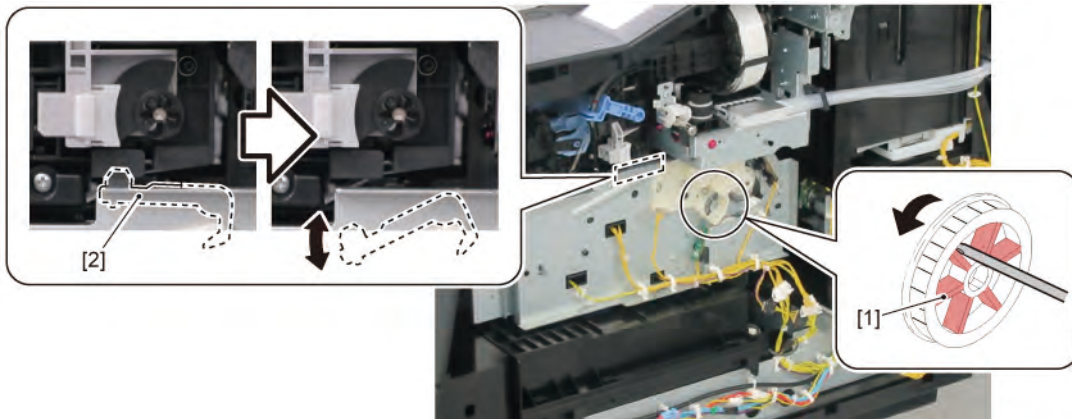
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc

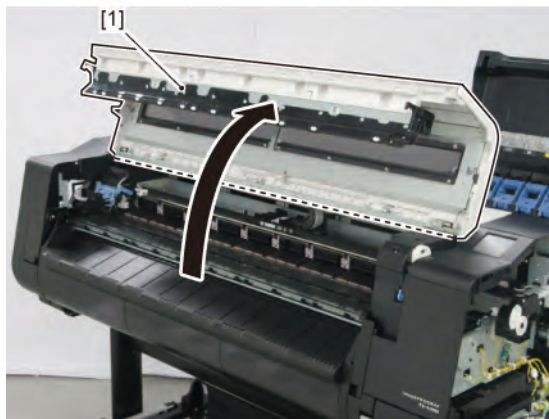


4. Unlock the carriage.

Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.

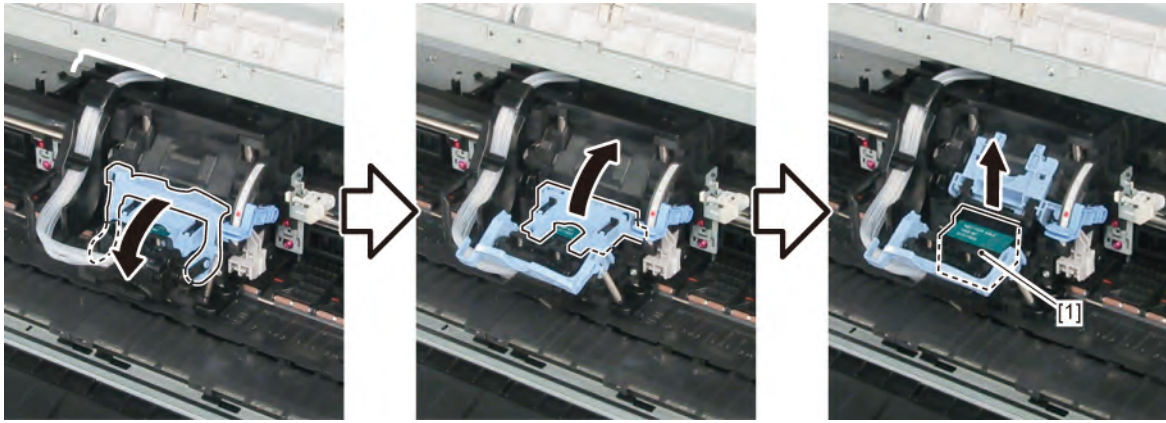


5. Open [1] the access cover.

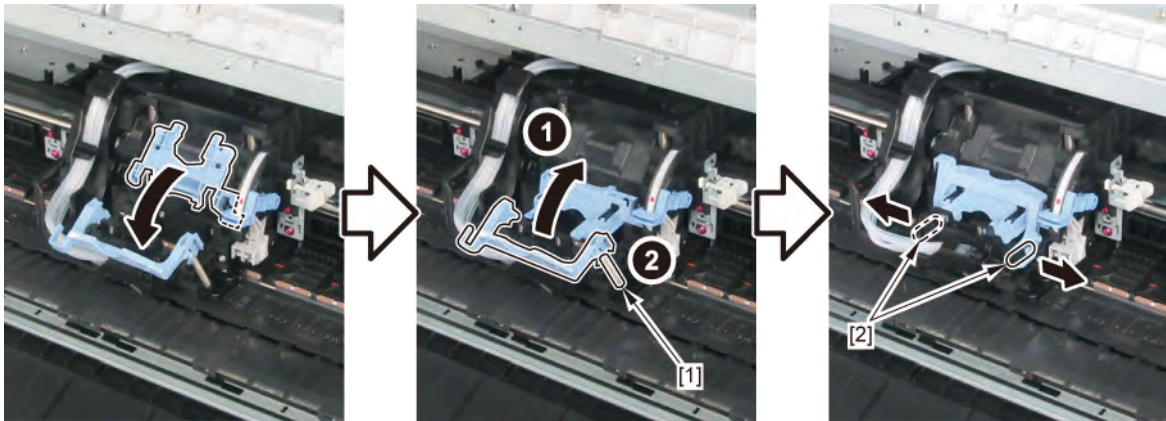




## 6. Remove [1] PRINT HEAD.



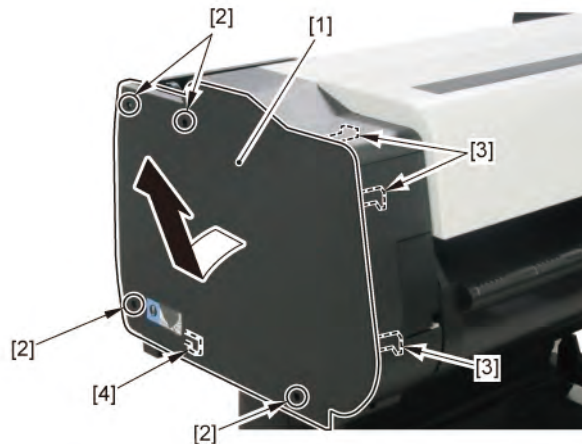
## 7. Remove [1] SPRING, TENSION and two pieces of [2] ARM, LEVER LINK.





## 8. Remove [1] a set of

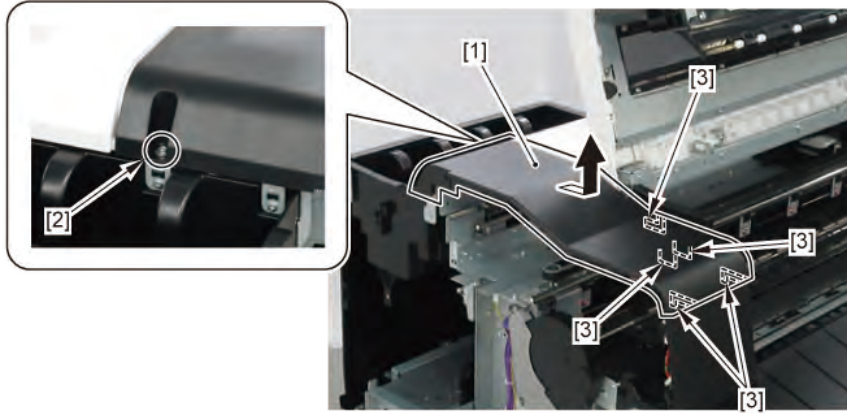
- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.

[2]	[3]	[4]
4 pcs	3 pcs	1 pc




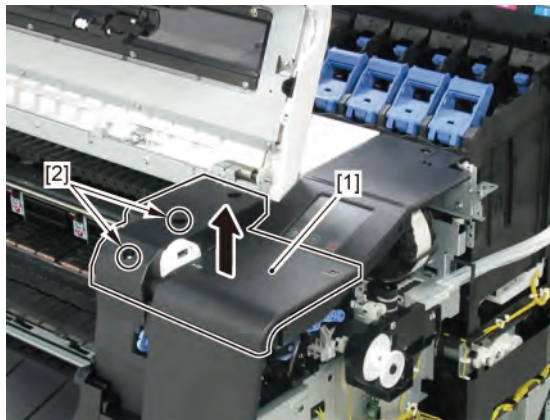
9. Remove [1] COVER, TOP L.

[2]	[3]
	
1 pc	5 pcs




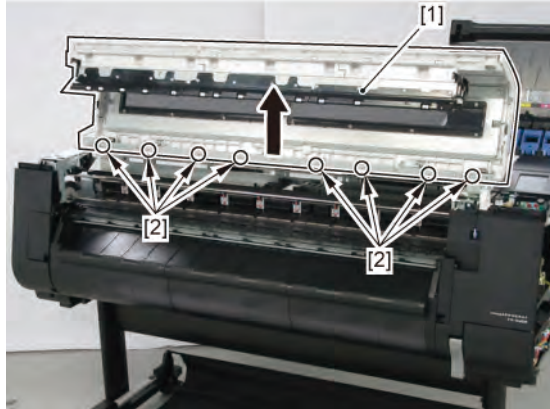
10. Remove [1] COVER, FRONT TOP R.

[2]

2 pcs



11. Remove [1] ACCESS COVER UNIT with holding the handles.

	[2]
	
24" model	5 pcs
36" model	7 pcs
44" model	8 pcs

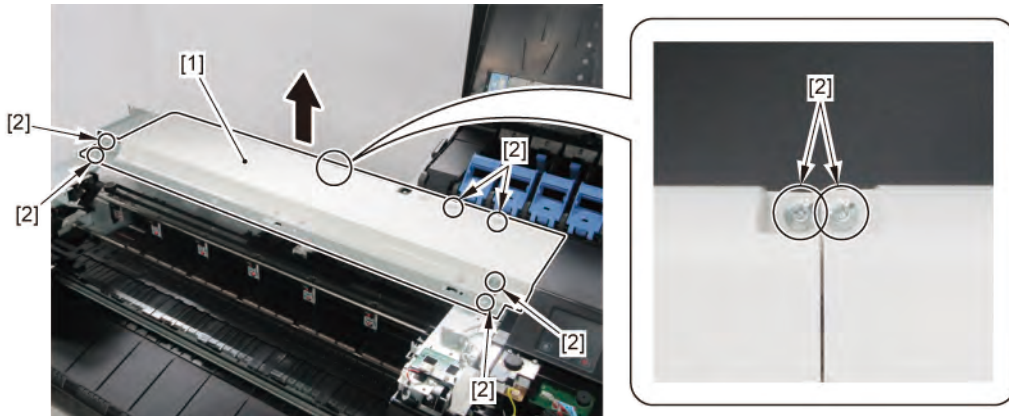


12. Remove [1] COVER UNIT, BACK TOP CENTER.

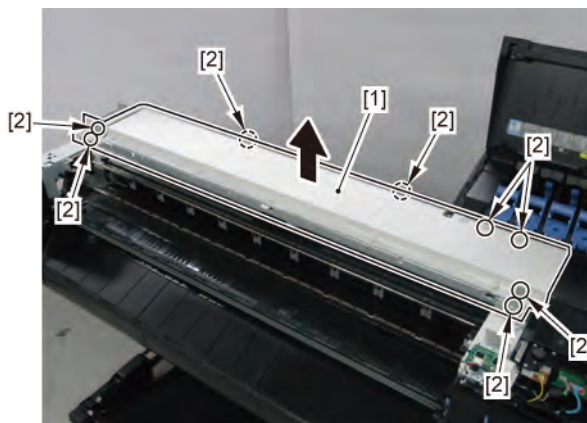
[2]

8 pcs

(24" model)



(36" model, 44" model)



**B**



CARRIAGE UNIT removal (Step 2, 3, 8, 9)



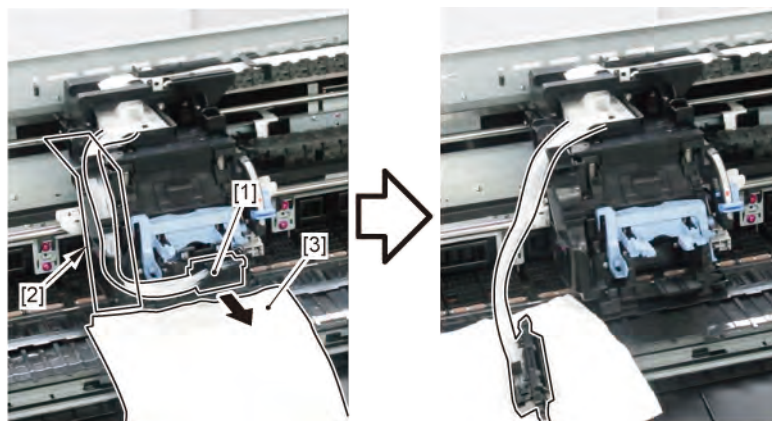
CARRIAGE UNIT attachment (Step 2, 3, 8, 9)

1. Remove all the parts of Group A.
2. Release [1] the tubes from [2] the guide.





**Notes when removing the unit:**

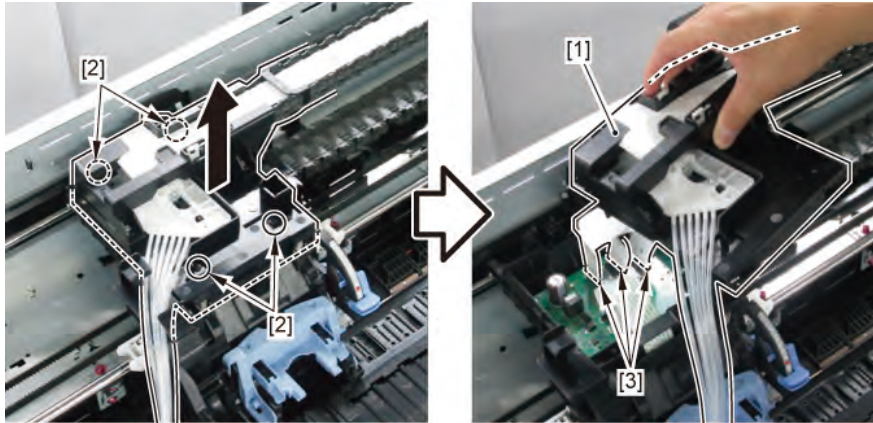
Place the unit on [3] a paper towel, etc. as shown below.





3. Remove [1] INK TUBE UNIT from the CARRIAGE UNIT.



[2]	[3]
	
BK	
4 pcs	3 pcs

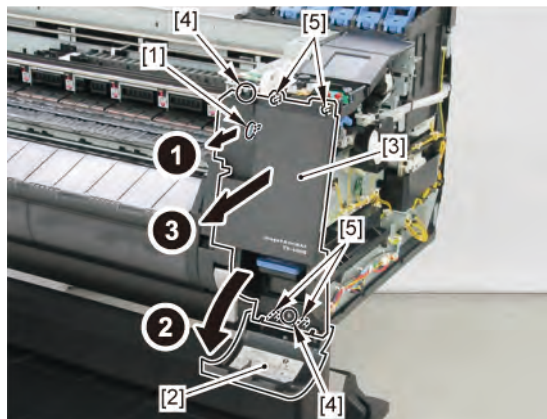


4. Remove [1] PLATEN CLEANER BRUSH.






5. Open [2] COVER UNIT, MTC.

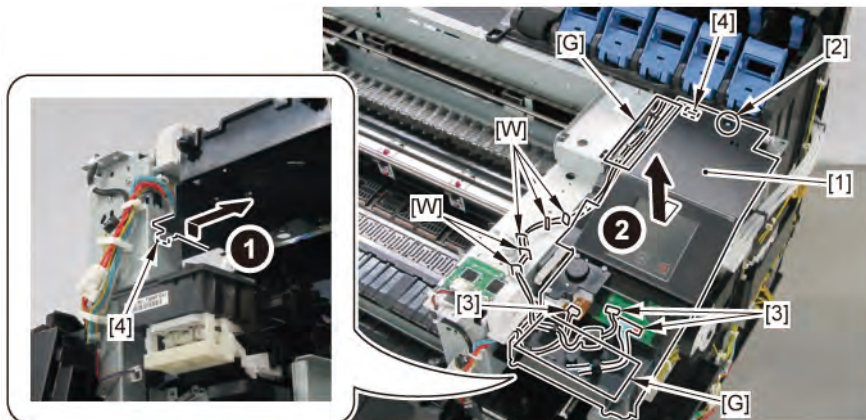
6. Remove [3] COVER, FRONT R.

[4]	[5]
	
2 pcs	4 pcs




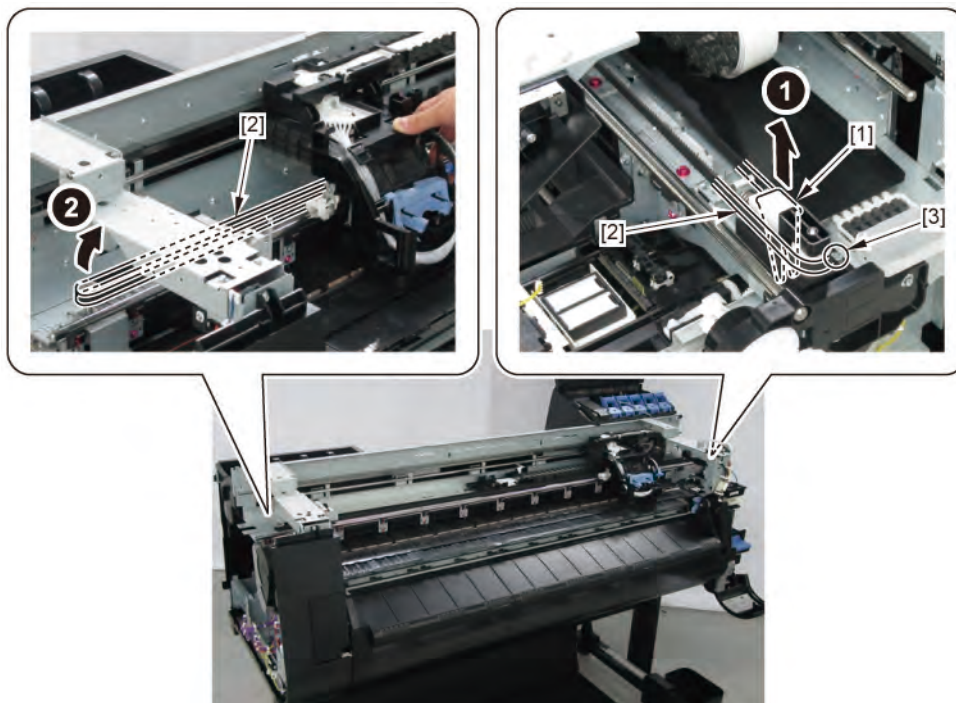
## 7. Remove [1] COVER UNIT, BACK TOP R. (with the OPERATION PANEL UNIT)

[2]	[3]	[4]	[W]	[G]
				
1 pc	3 pcs	2 pcs	5 pcs	2 pcs

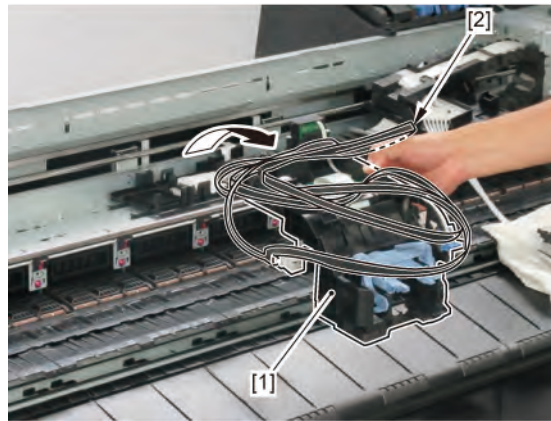



## 8. Remove [1] the wedge and loosen [2] BELT, CARRIAGE.


[3]

1 pc



9. Remove [1] CARRIAGE UNIT and [2] BELT, CARRIAGE together.



	<p><b>Notes when assembling the unit:</b></p> <p>Perform adjustment at the end of assembly.</p> <p>[SERVICE MODE &gt; FUNCTION &gt; OPTICAL AXIS]</p> <p>[SERVICE MODE &gt; FUNCTION &gt; GAP CALIB.]</p> <p>[SERVICE MODE &gt; FUNCTION &gt; CR MOTOR COG]</p>
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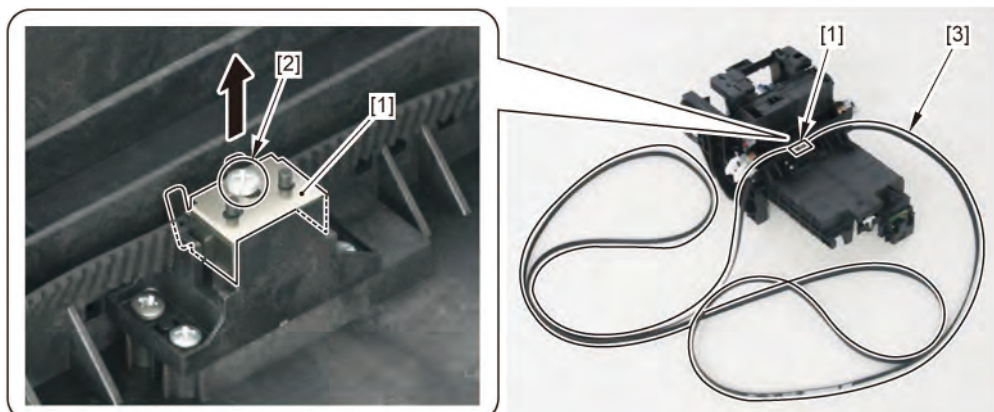
	<p><b>Notes when the unit is replaced:</b></p> <p>Reset the applicable counter when the unit is replaced:</p> <p>[SERVICE MODE &gt; PARTS COUNTER &gt; CR1]</p> <p>[SERVICE MODE &gt; PARTS COUNTER &gt; CR2]</p> <p>[SERVICE MODE &gt; PARTS COUNTER &gt; CR3]</p> <p>[SERVICE MODE &gt; PARTS COUNTER &gt; CR5]</p>
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## B-1

10. Remove [1] the plate.



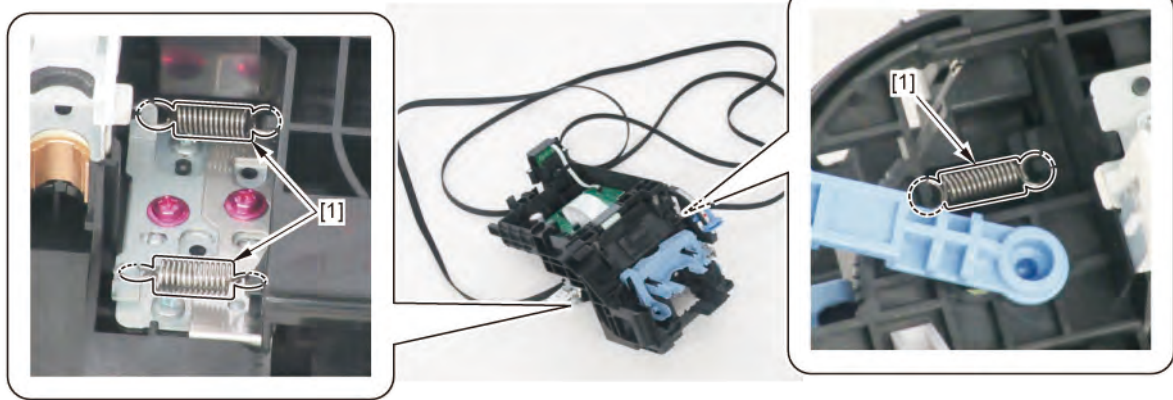
11. Remove [3] BELT, CARRIAGE.





**B-2**

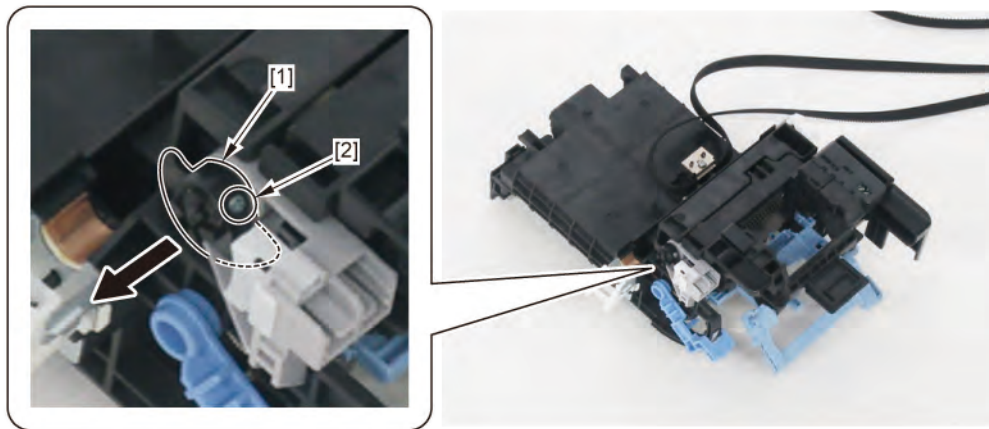
10. Remove three pieces of [1] SPRING, TENSION.



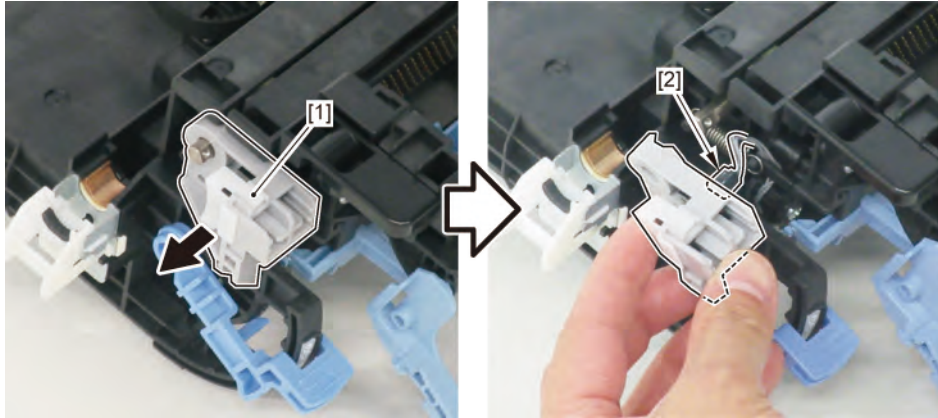
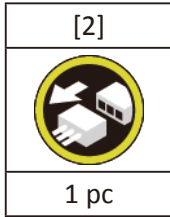
**B-3**

10. Remove [1] COUPLING, CARRIAGE.

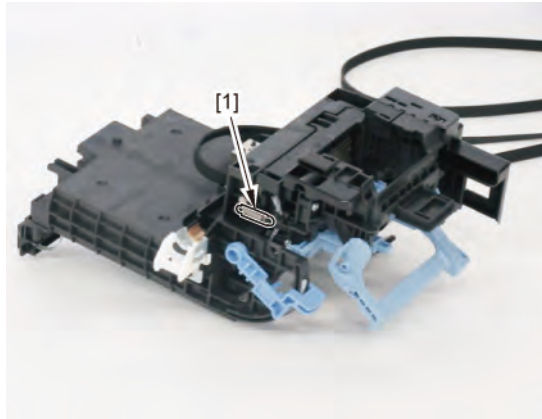
[2]
1 pc



- 11.** Remove [1] a set of
- HOLDER, CLUCH UNIT
  - COVER, PI SENSOR, CR
  - CARRIAGE LIFT SENSOR.




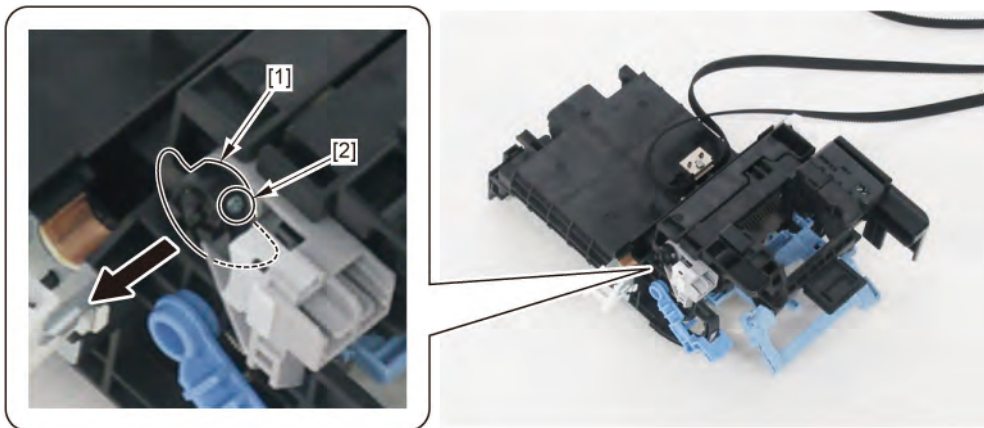
- 12.** Remove [1] SPRING TENSION.



**B-4**

10. Remove [1] COUPLING, CARRIAGE.

[2]

1 pc

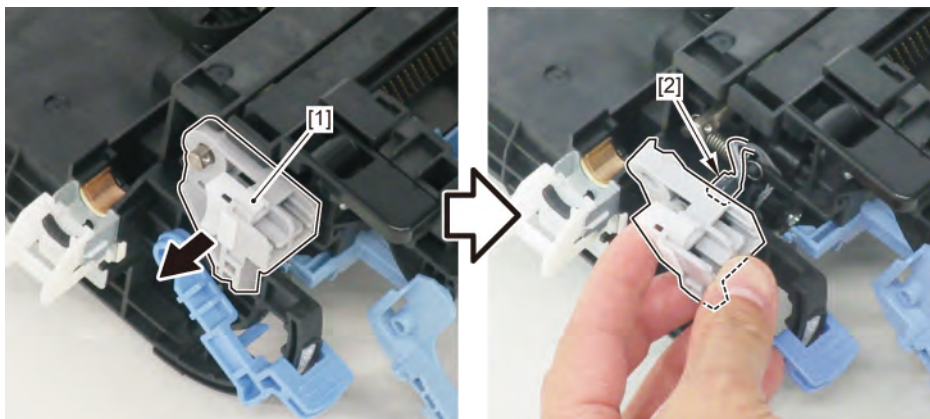


11. Remove [1] a set of

- HOLDER, CLUCH UNIT
- COVER, PI SENSOR, CR
- CARRIAGE LIFT SENSOR.

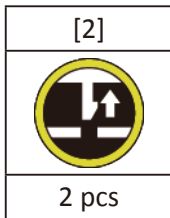
[2]

1 pc

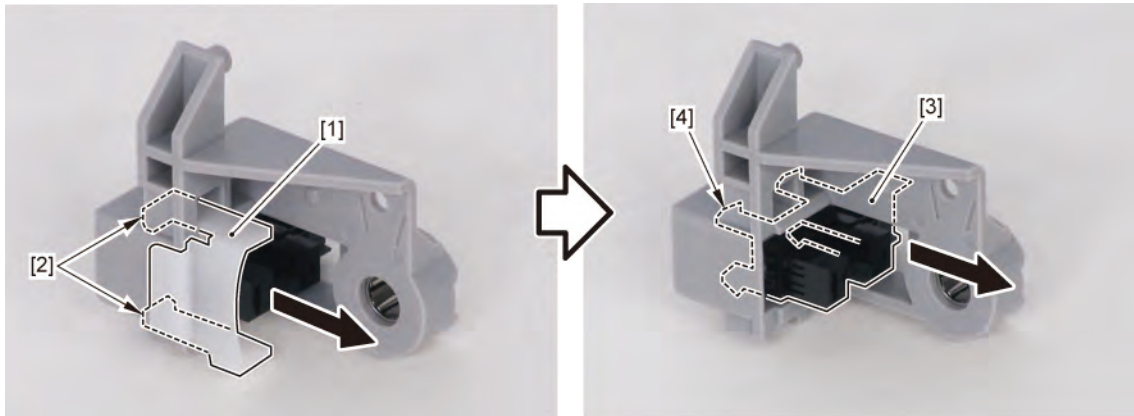
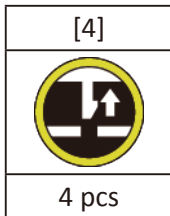




12. Remove [1] COVER, PI SENSOR CR.

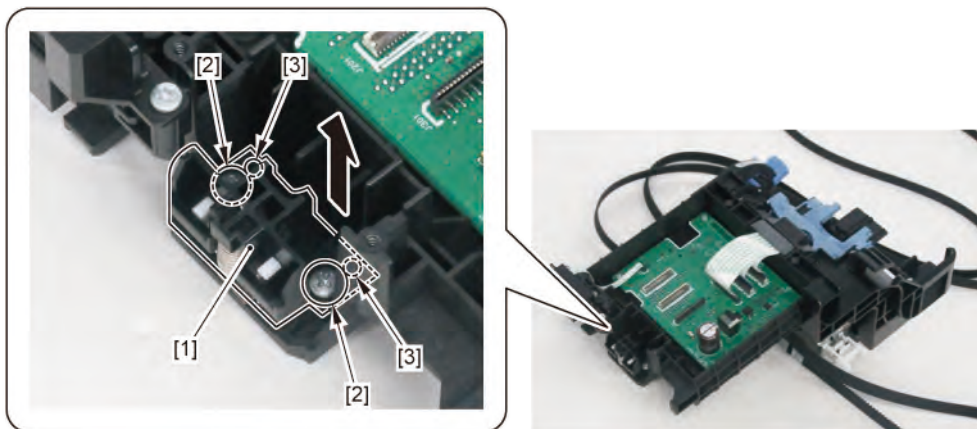
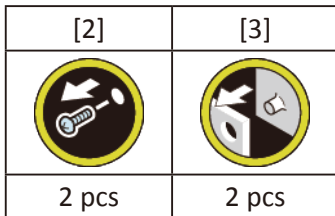


13. Remove [3] CARRIAGE LIFT SENSOR.




## B-5

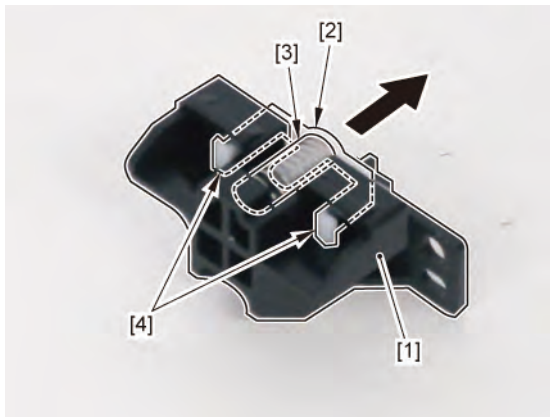
10. Remove [1] STOPPER, SUB SLIDER, CR.



11. Remove [2] HOLDER, SLIDER PRESSURE, CR and [3] SPRING, SLIDER PRESSURE, CR from [1] STOPPER, SUB



SLIDER, CR.

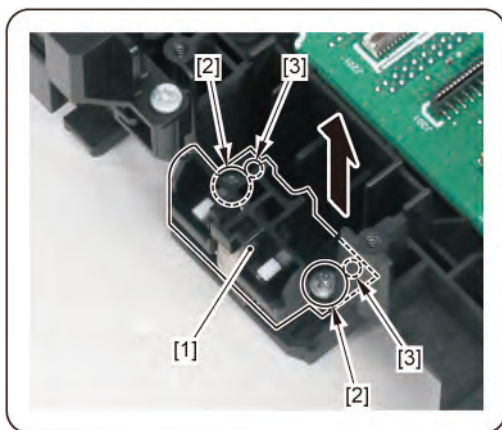
[4]

2 pcs




**B-6**

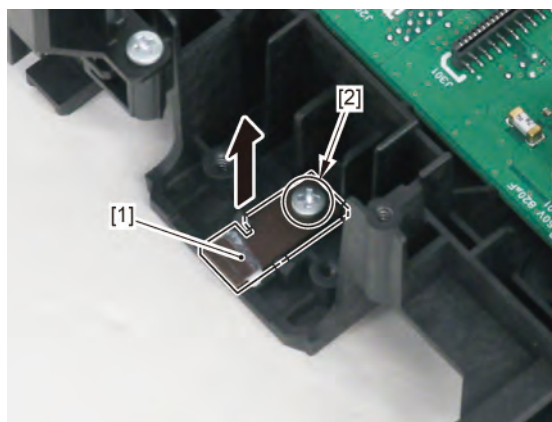
10. Remove [1] STOPPER, SUB SLIDER, CR.

[2]	[3]
	
2 pcs	2 pcs



11. Remove [1] SLIDER BUSHING, OILLESS, CR.

[2]

1 pc



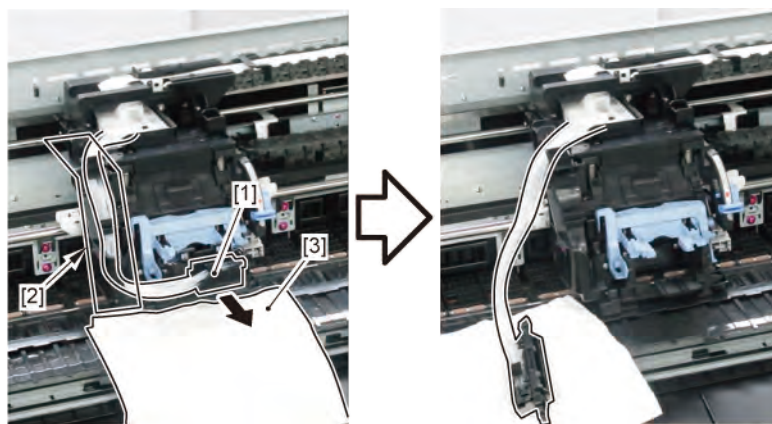
C

1. Remove all the parts of Group A.
2. Release [1] the tubes from [2] the guide.





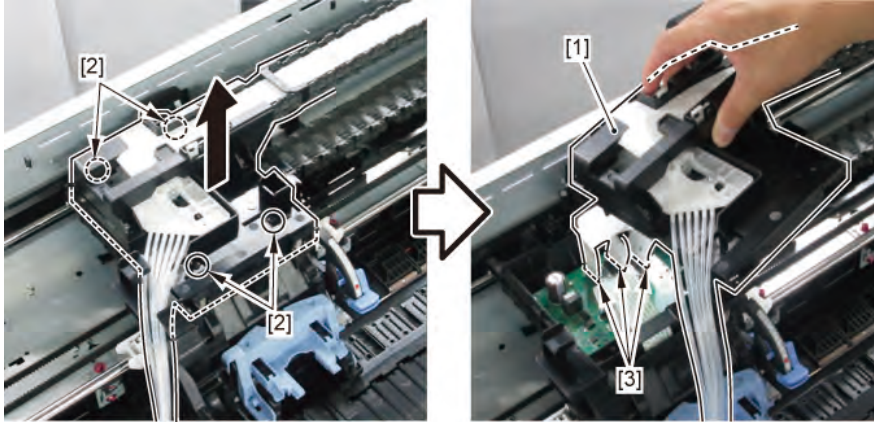
**Notes when removing the unit:**

Place the unit on [3] a paper towel, etc. as shown below.



3. Remove [1] INK TUBE UNIT from the CARRIAGE UNIT.



[2]	[3]
	
BK	
4 pcs	3 pcs

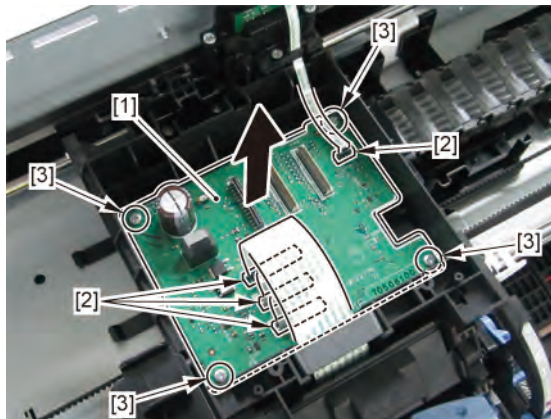


C-1

4. Remove all the parts of Group A.

5. Remove [1] CARRIAGE RELAY PCB UNIT.



[2]	[3]
	
4 pcs	4 pcs

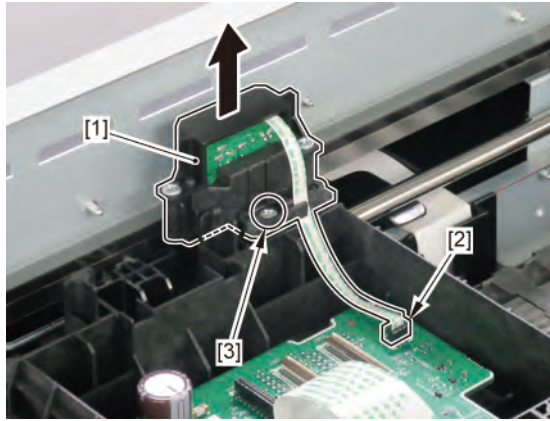




## C-2



4. Remove [1] CARRIAGE ENCODER UNIT.

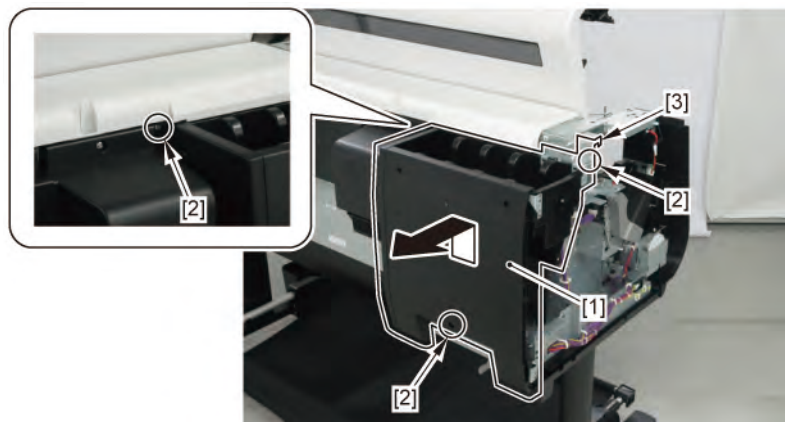
[2]	[3]
	
1 pc	1 pc



## D (24" model)

- Remove all the parts of Group A.
- Remove [1] a set of
  - BOX, INKTANK
  - COVER, INKTANK BACK
  - COVER, INKTANK L INSIDE.

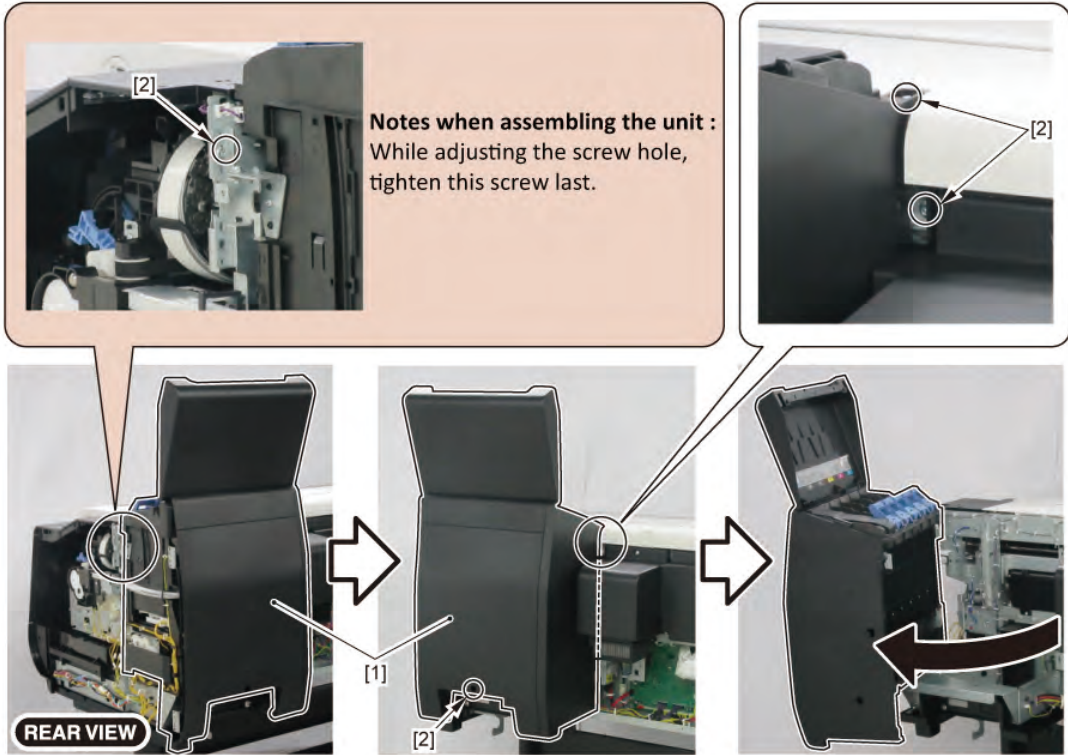
[2]	[3]
	
3 pcs	1 pc





3. Open [1] the right ink unit.

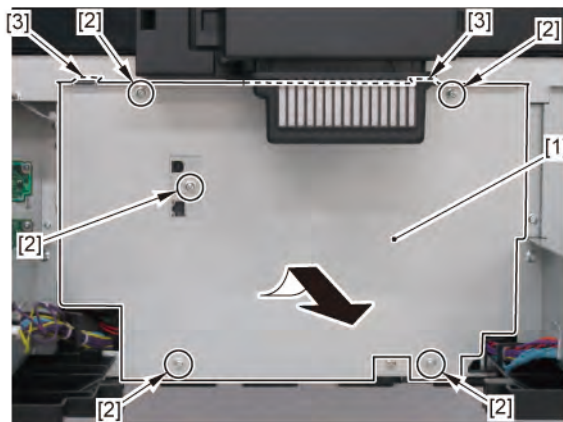
[2]

4 pcs



4. Remove [1] the plate.

[2]	[3]
	
5 pcs	2 pcs





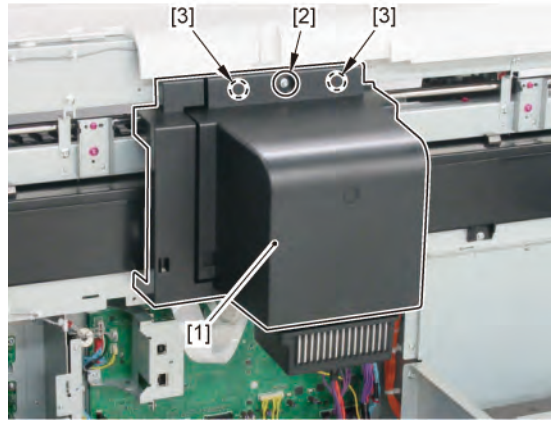


## 5. Remove [1] a set of

- COVER, MIST FAN

- COVER, BACK RIGHT.

[2]	[3]
	
1 pc	2 pcs



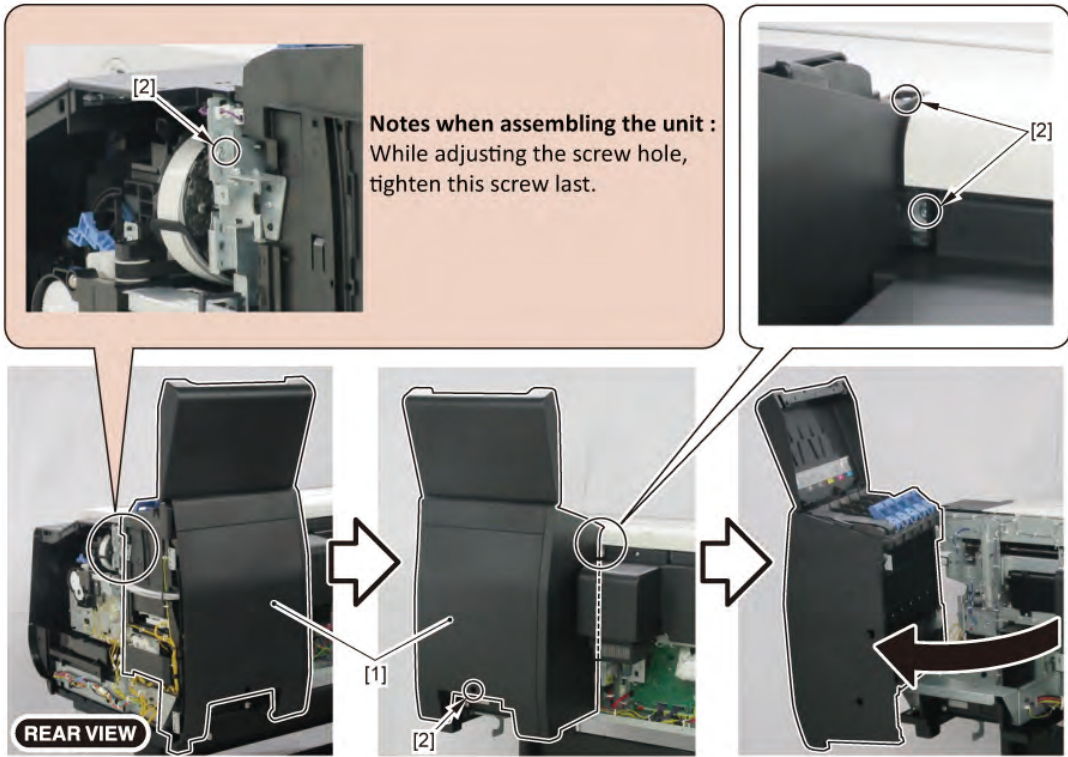
# D (36" model, 44" model)

1. Remove all the parts of Group A.
2. (36" model only)

Open [1] the right ink unit.

[2]

4 pcs



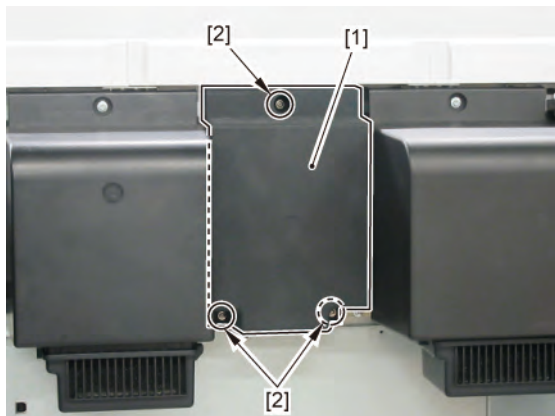
**Notes when assembling the unit :**  
While adjusting the screw hole, tighten this screw last.

3. Remove [1] COVER, BACK.



(36" model)

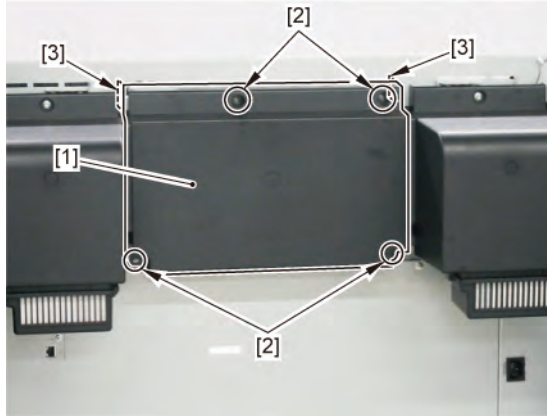
[2]

3 pcs





(44" model)

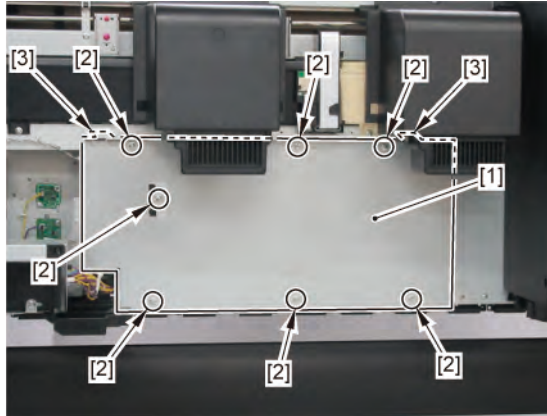
[2]	[3]
	
4 pcs	2 pcs





4. Remove [1] the plate.

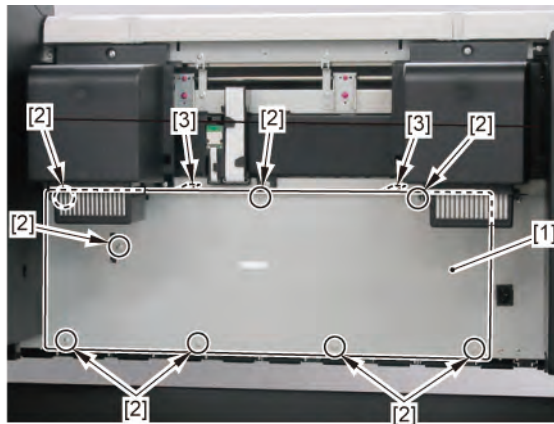
(36" model)

[2]	[3]
	
7 pcs	2 pcs




(44" model)

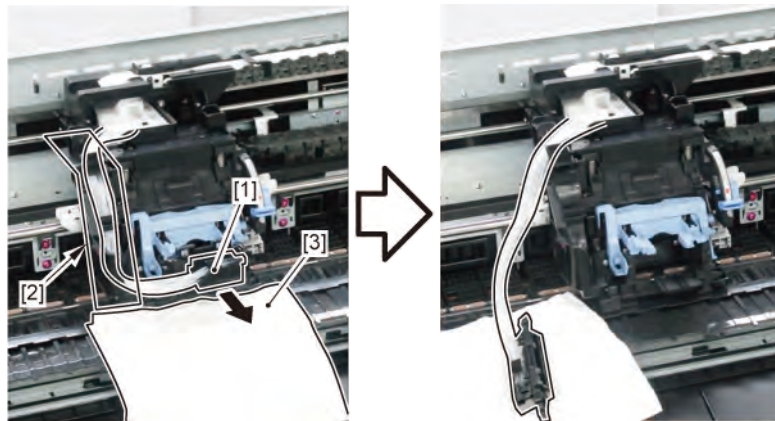
[2]	[3]
	
8 pcs	2 pcs





**E**

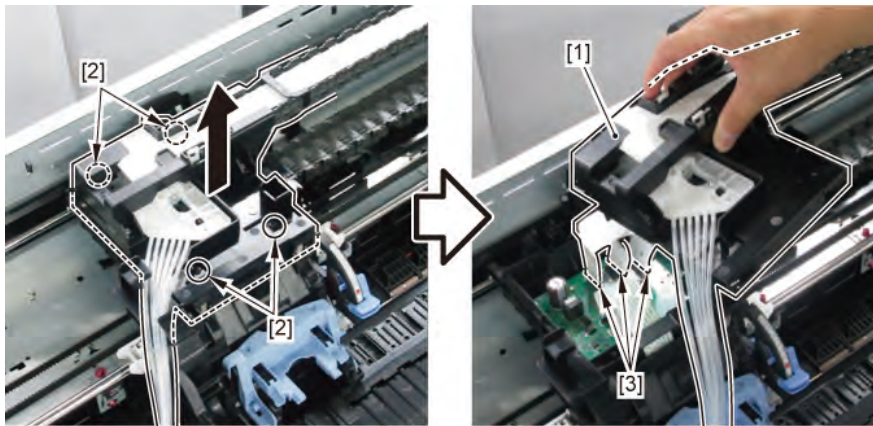
1. Remove all the parts of Groups A and D.
2. Release [1] the tubes from [2] the guide.

	<p><b>Notes when removing the unit:</b></p> <p>Place the unit on [3] a paper towel, etc. as shown below.</p>
---	--



### 3. Remove [1] INK TUBE UNIT from the CARRIAGE UNIT.

[2]	[3]
	
BK	
4 pcs	3 pcs



#### E-1





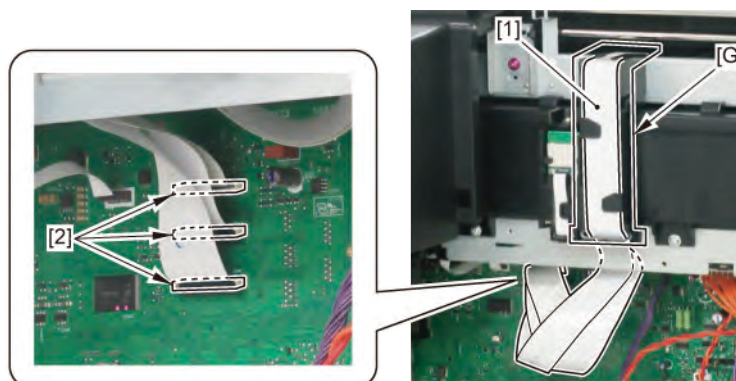
INK TUBE UNIT removal (Step 2, 3)



INK TUBE UNIT attachment (Step 2, 3)




### 4. Disconnect and release [1] the flexible cables.

[2]	[G]
	
3 pcs	1 pc





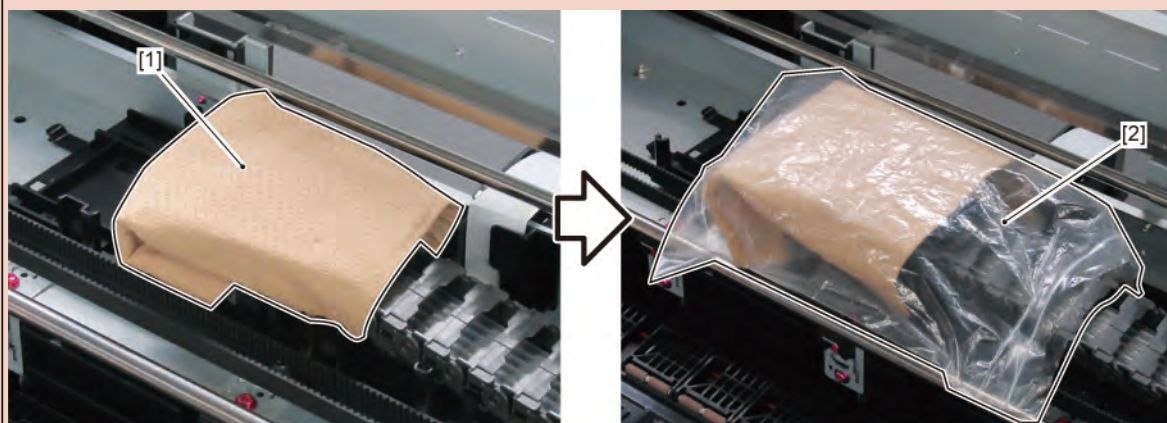
## 5. Remove [1] INK TUBE UNIT and [2] SIX-RING RUBBER CHAIN.

[3]	[4]	[5]
	 LONG	
2 pcs	2 pcs	2 pcs

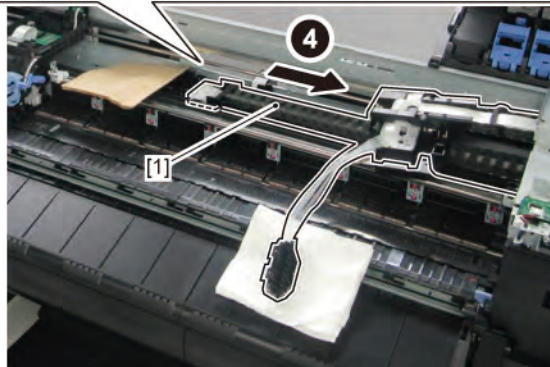
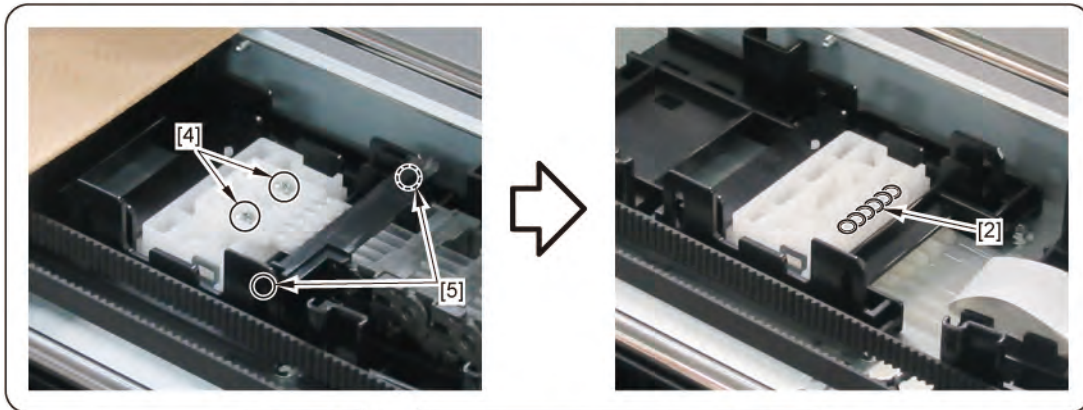
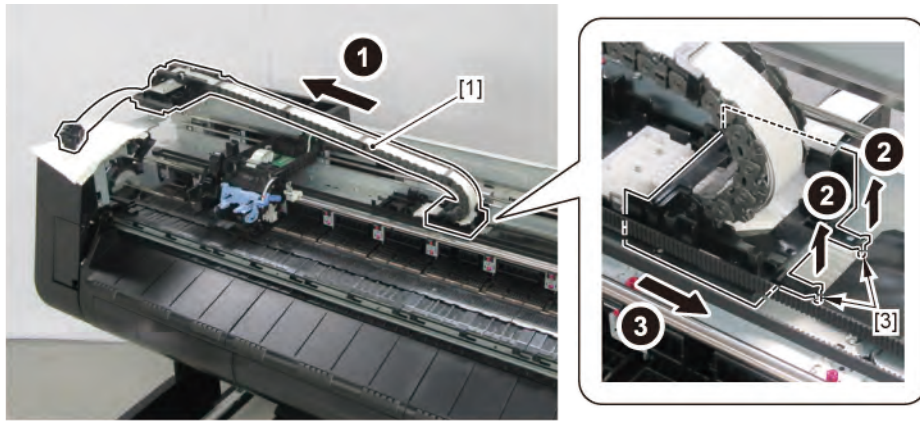
### Notes when removing the unit:

- To avoid smearing with ink, spread a paper towel, etc.
- To avoid ink leakage, wrap the joint in [1] paper towel, etc., put them in [2] a plastic bag, and close the bag.

Point





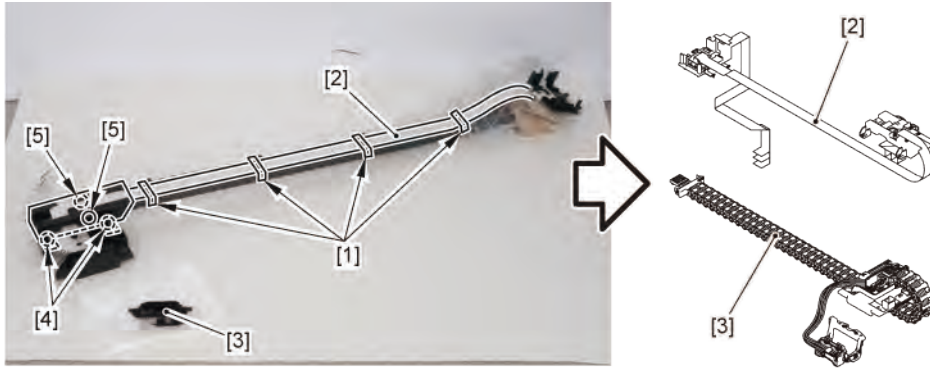


#### Notes when assembling the unit:

Make sure that SIX-RING RUBBER CHAIN is attached at the proper position, and fix INK TUB UNIT to bosses from the top of SIX-RING RUBBER CHAIN.

6. Remove four pieces of [1] cable holders (three pieces in 24" model). Separate the INK TUBE UNIT into two parts, [2] FLEXIBLE CABLE UNIT and [3] TUBE UNIT.

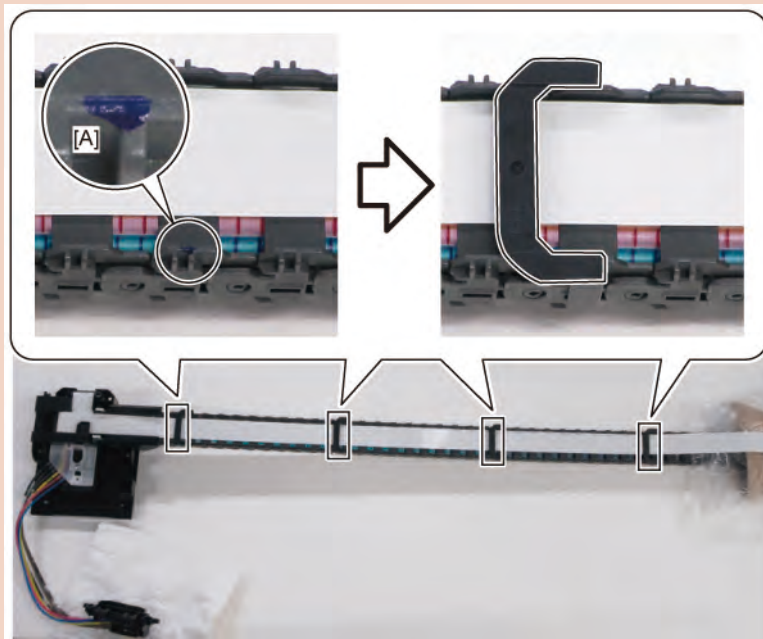
[1]	[4]	[5]
4 pcs	2 pcs	2 pcs



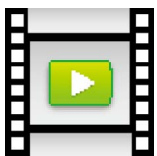
**Notes when assembling the unit:**

Fit the cable holders to the cable guide at marking ([A]).

Point





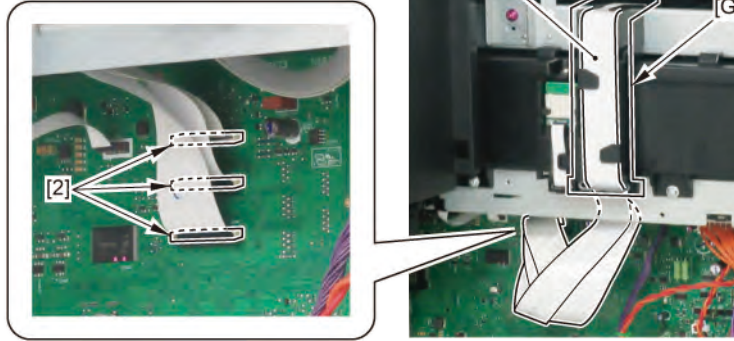
**E-2**







FLEXIBLE CABLE UNIT removal (Step 3)

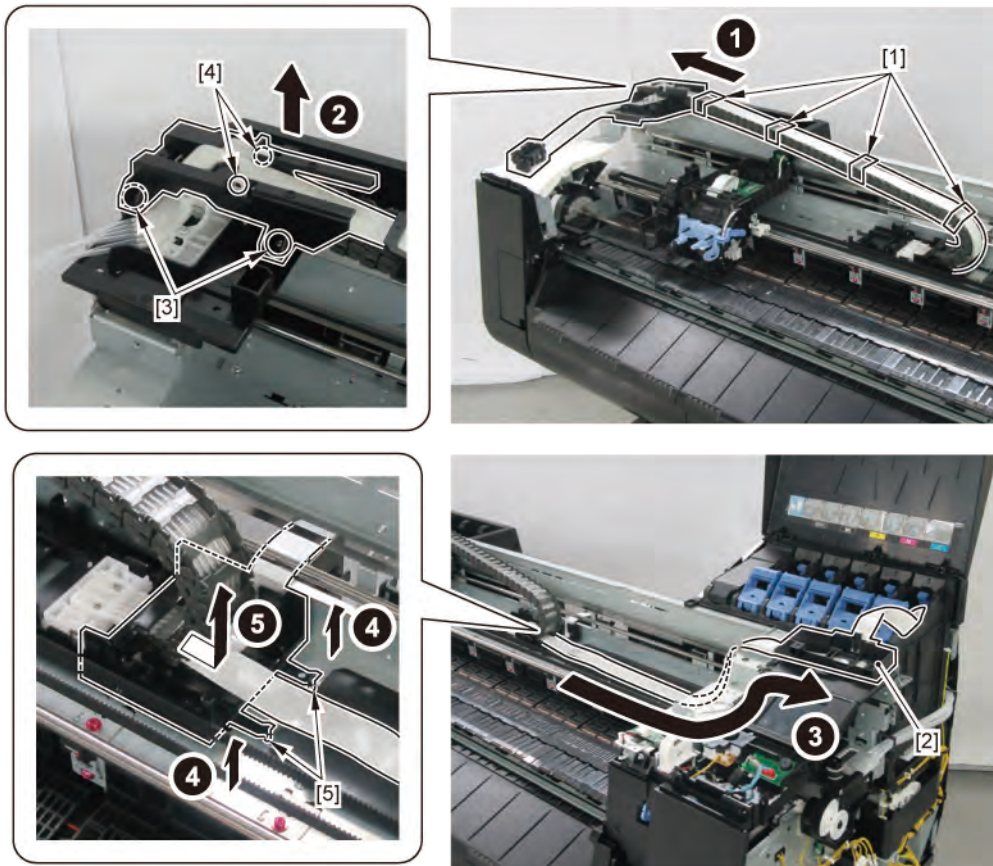
4. Disconnect and release [1] the flexible cables.

[2]	[G]
	
3 pcs	1 pc



5. Remove four pieces of [1] cable holders (three pieces in 24" model) and [2] FLEXIBLE CABLE UNIT.

[1]	[3]	[4]	[5]
			
4 pcs	2 pcs	2 pcs	2 pcs

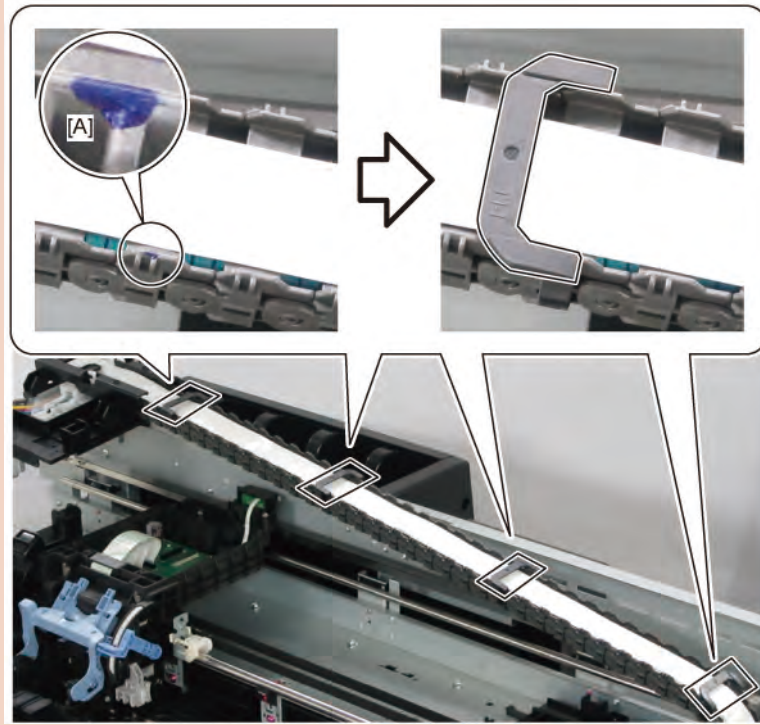




**Notes when assembling the unit:**

Fit the cable holders to the cable guide at marking ([A]).

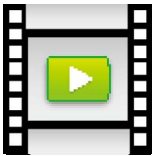
Point



**E-3**



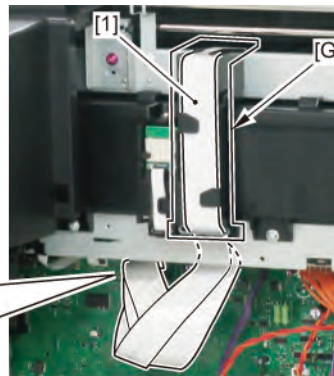
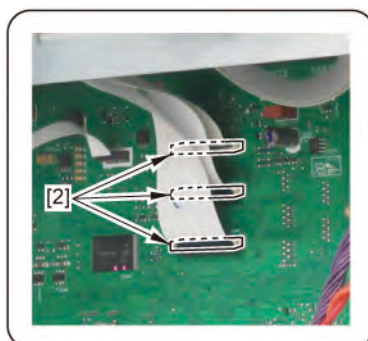
INK TUBE UNIT removal (Step 2, 3)






INK TUBE UNIT attachment (Step 2, 3)

4. Disconnect and release [1] the flexible cables.

[2]	[G]
3 pcs	1 pc



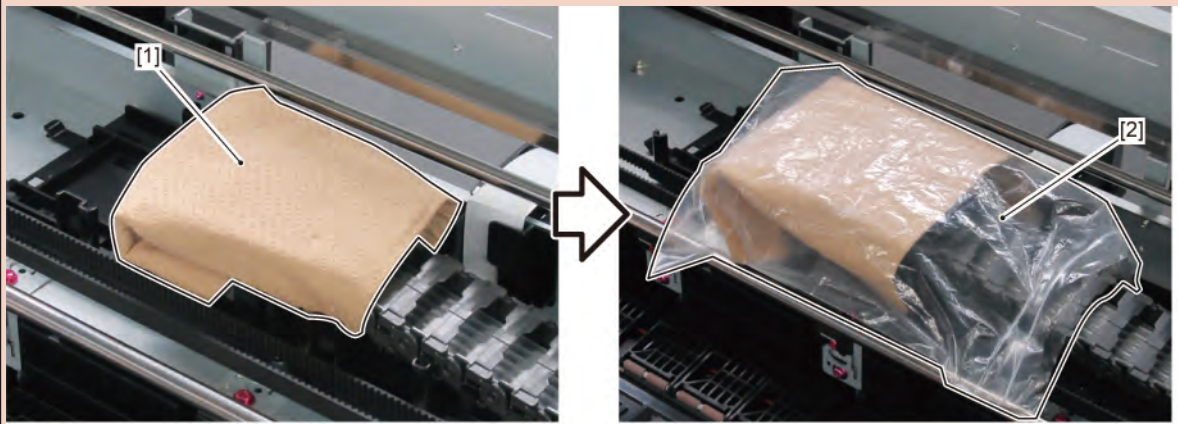
5. Remove [1] INK TUBE UNIT and [2] SIX-RING RUBBER CHAIN.

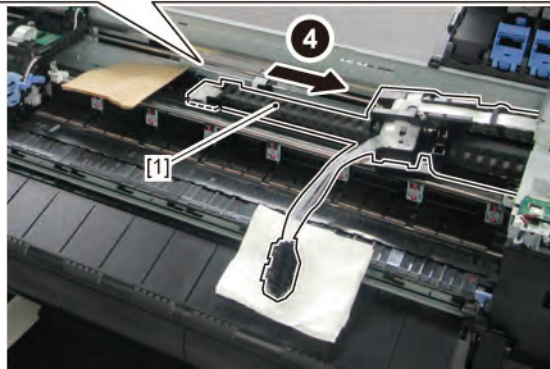
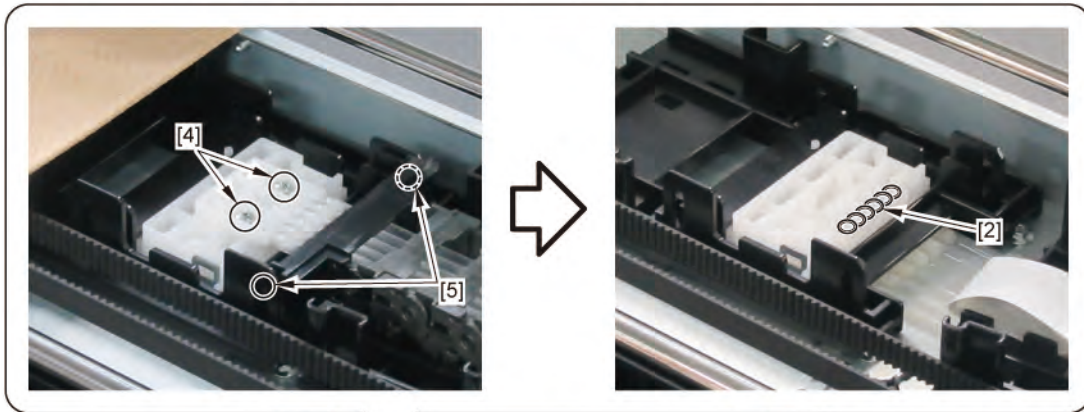
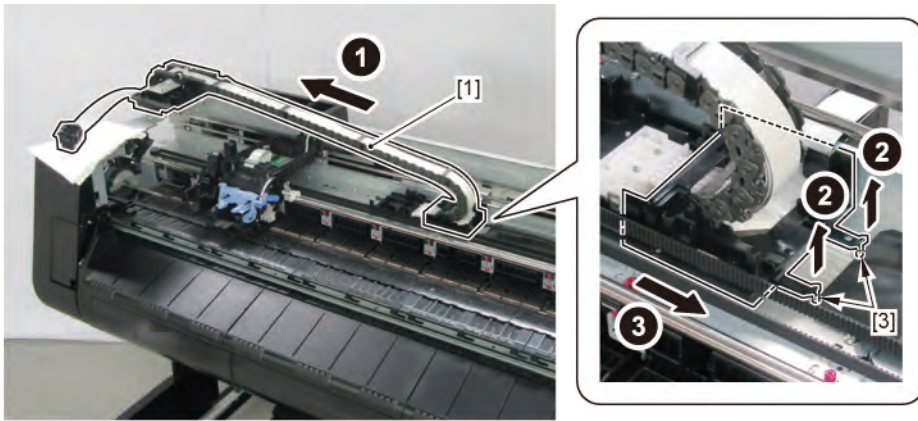
[3]	[4]	[5]
	 LONG	
2 pcs	2 pcs	2 pcs

**Notes when removing the unit:**

- To avoid smearing with ink, spread a paper towel, etc.
- To avoid ink leakage, wrap the joint in [1] paper towel, etc., put them in [2] a plastic bag, and close the bag.

Point



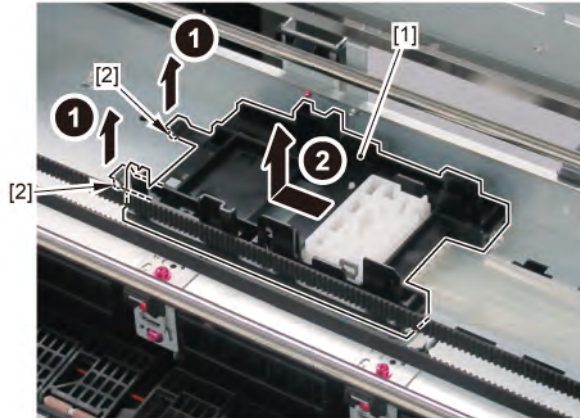
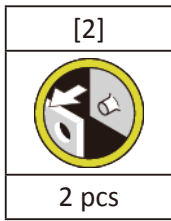


**Notes when assembling the unit:**

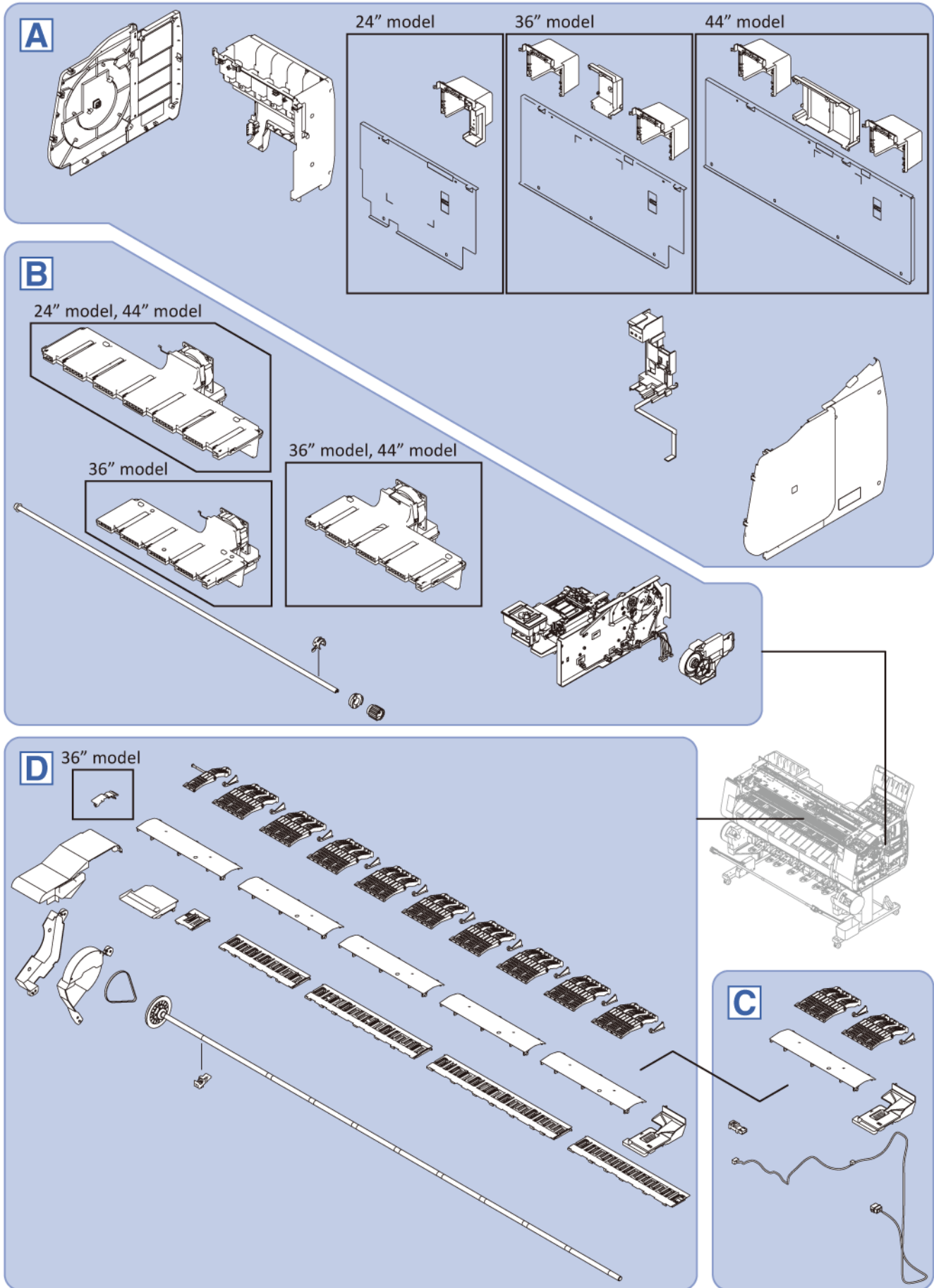
**Point** Make sure that SIX-RING RUBBER CHAIN is attached at the proper position, and fix INK TUB UNIT to bosses from the top of SIX-RING RUBBER CHAIN.



6. Remove [1] BASE, CHAIN LINK.



# 13 PAPER FEED ROLLER UNIT (PINCH ROLLER UNIT)



24" model

A (24" model)

COVER, SIDE L A  
COVER UNIT, SIDE L B  
CAP, SIDE COVER

COVER, SIDE R A  
COVER UNIT, SIDE R B  
CAP, SIDE COVER

COVER, TOP L

BOX, INKTANK  
COVER, INKTANK  
BACK  
COVER, INKTANK  
L INSIDE

COVER, MIST FAN  
COVER,  
BACK RIGHT  
WIRELESS LAN  
PCB UNIT

36" model, 44" model

A (36" model)

A (44" model)

COVER, SIDE L A  
COVER UNIT, SIDE L B  
CAP, SIDE COVER

COVER, BACK

COVER, SIDE R A  
COVER UNIT, SIDE R B  
CAP, SIDE COVER

COVER, TOP L

BOX, INKTANK  
COVER, INKTANK  
BACK  
COVER, INKTANK  
L INSIDE

COVER, MIST FAN

WIRELESS LAN  
PCB UNIT

COVER, MIST FAN

D

AWAY PLATEN

COVER, PF  
ENCODER OUTER

PLATEN UNIT,  
TOP AWAY

CODEWHEEL  
COVER UNIT

PLATEN UNIT,  
TOP A  
PLATEN UNIT,  
TOP B  
PLATEN UNIT,  
TOP C  
PLATEN UNIT,  
TOP D

44" model  
36" model,  
44" model  
24" model,  
36" model,  
44" model

BELT, PAPER  
TRANSPORT

BUSH, ARM  
ROTARY SHAFT  
PINCH ROLLER  
UNIT  
PINCH ROLLER  
UNIT L

PLATEN, INK  
PRE EJECTION

PLATEN, REAR

PLATEN, REAR LS

36" model

PAPER FEED  
ROLLER UNIT

HOLDER, PAPER  
FEED ROLLER

B

MIST FAN DUCT  
UNIT 1  
MIST FAN DUCT  
UNIT 2  
MIST FAN DUCT  
UNIT 3

36" model,  
44" model  
24" model,  
44" model  
36" model

BUSHING,  
PRESSURE RELEASE

GEAR, PRESSURE  
RELEASE  
SHAFT PRESSURE  
RELEASE UNIT  
BUSHING,  
PR RELEASE

LIFT UNIT

PURGE UNIT

PG1  
PG2  
PG3

C

BUSH, ARM  
ROTARY SHAFT  
PINCH ROLLER  
UNIT

PLATEN, INK  
PRE EJECTION

PLATEN, REAR




C-1  
PAPER ENTRY  
SENSOR

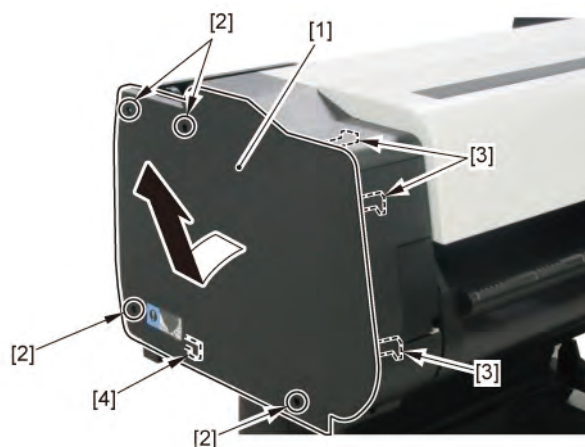
C-2  
HARNESS ASS'Y,  
LFPE SNS

## A (24" model)

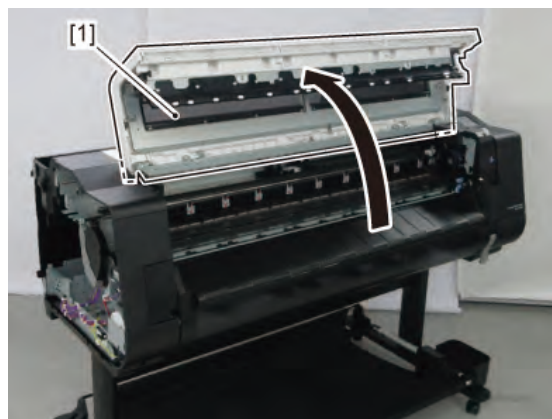
### 1. Remove [1] a set of

- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.



[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc

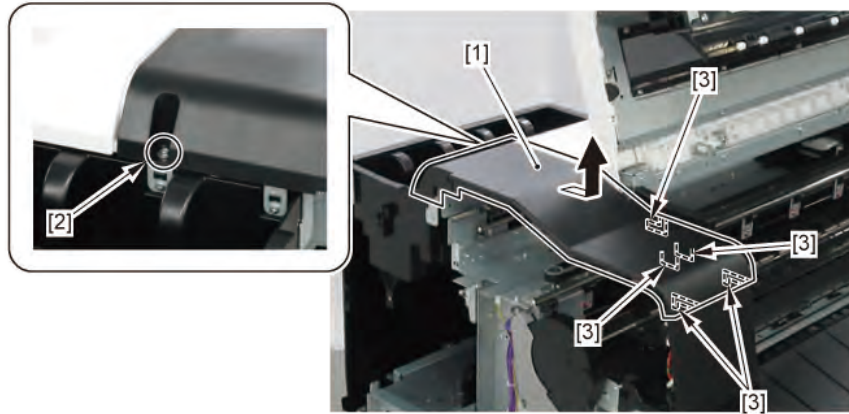


### 2. Open [1] the access cover.





### 3. Remove [1] COVER, TOP L.

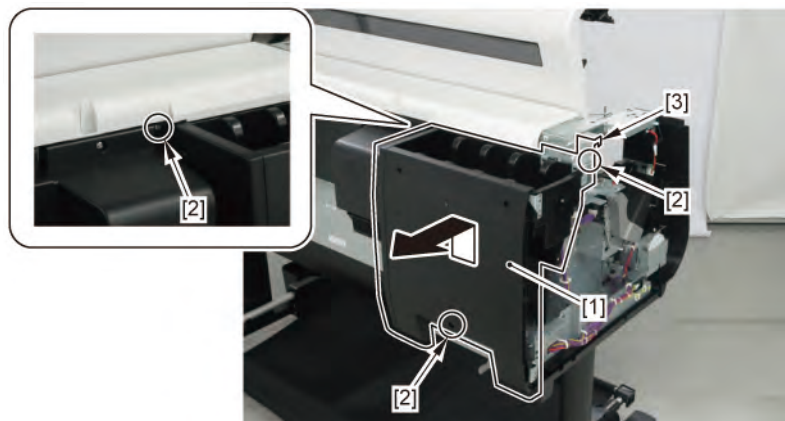
[2]	[3]
	
1 pc	5 pcs



### 4. Remove [1] a set of

- BOX, INKTANK
- COVER, INKTANK BACK
- COVER, INKTANK L INSIDE.

[2]	[3]
	
3 pcs	1 pc






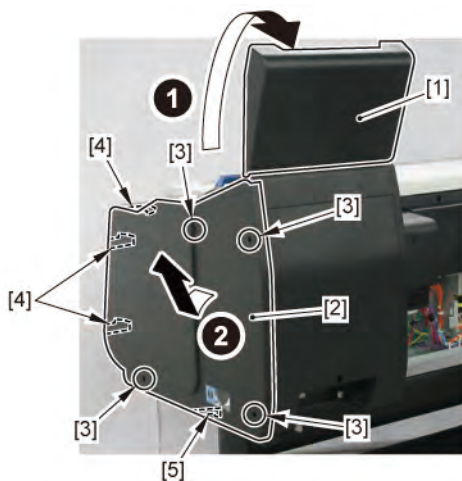


5. Open [1] the right ink tank cover.

6. Remove [2] a set of

- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

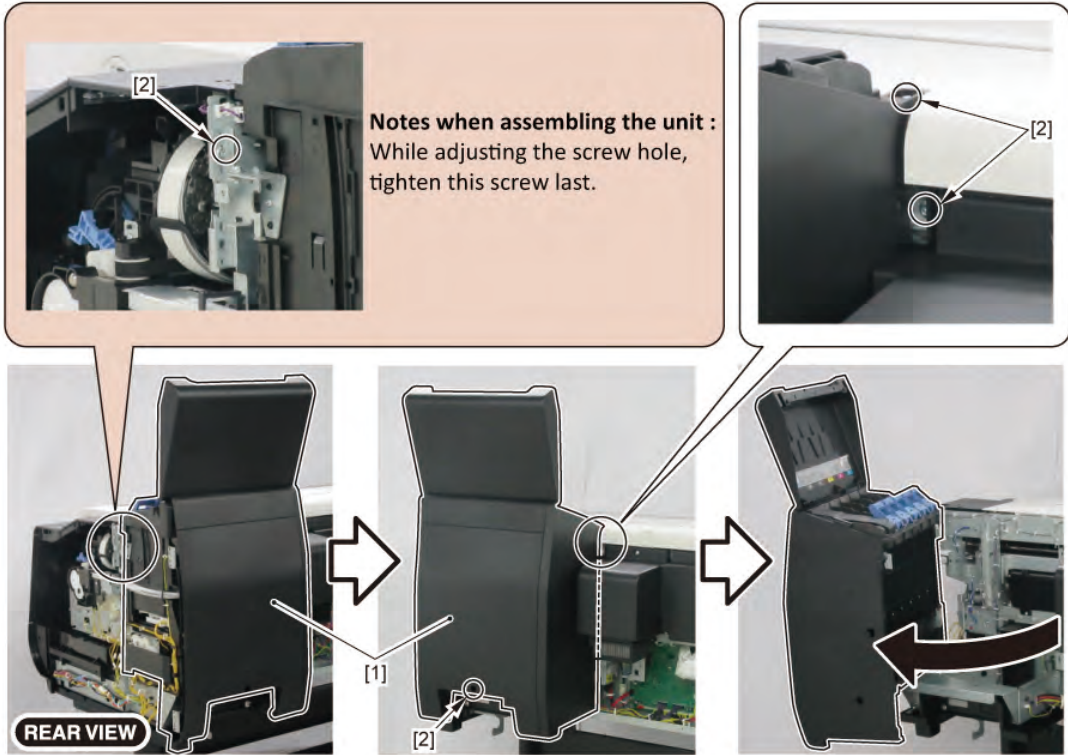
[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc





7. Open [1] the right ink unit.

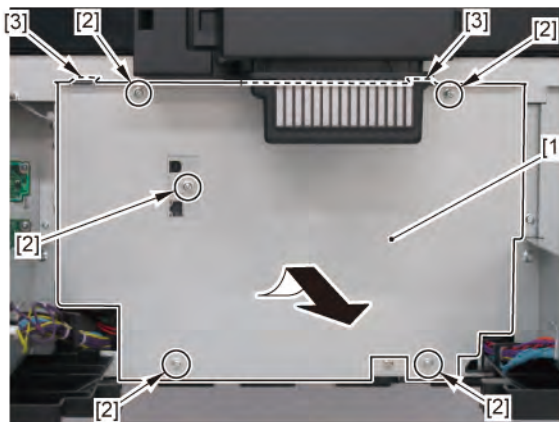
[2]

4 pcs





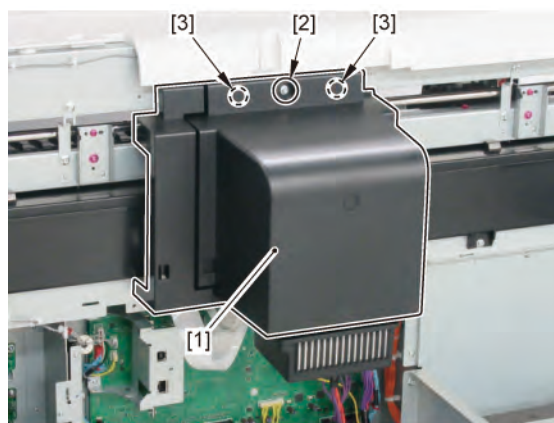
8. Remove [1] the plate.

[2]	[3]
	
5 pcs	2 pcs






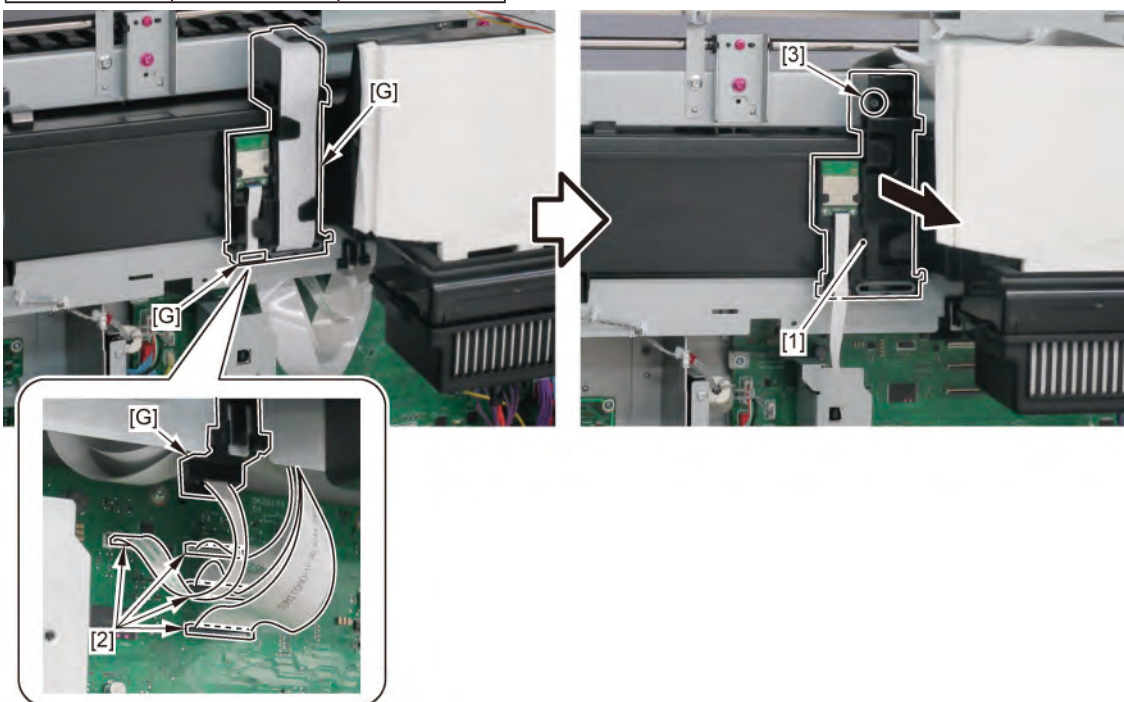
9. Remove [1] a set of
- COVER, MIST FAN
  - COVER, BACK RIGHT.

[2]	[3]
	
1 pc	2 pcs






10. Remove [1] WIRELESS LAN PCB UNIT.

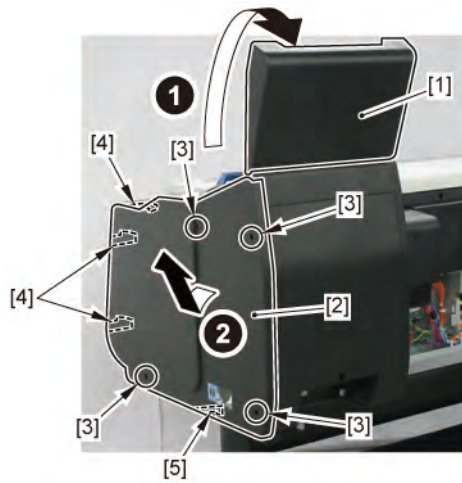
[2]	[3]	[G]
		
4 pcs	1 pc	3 pcs



## A (36" model)

1. Open [1] the right ink tank cover.
2. Remove [2] a set of
  - COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.

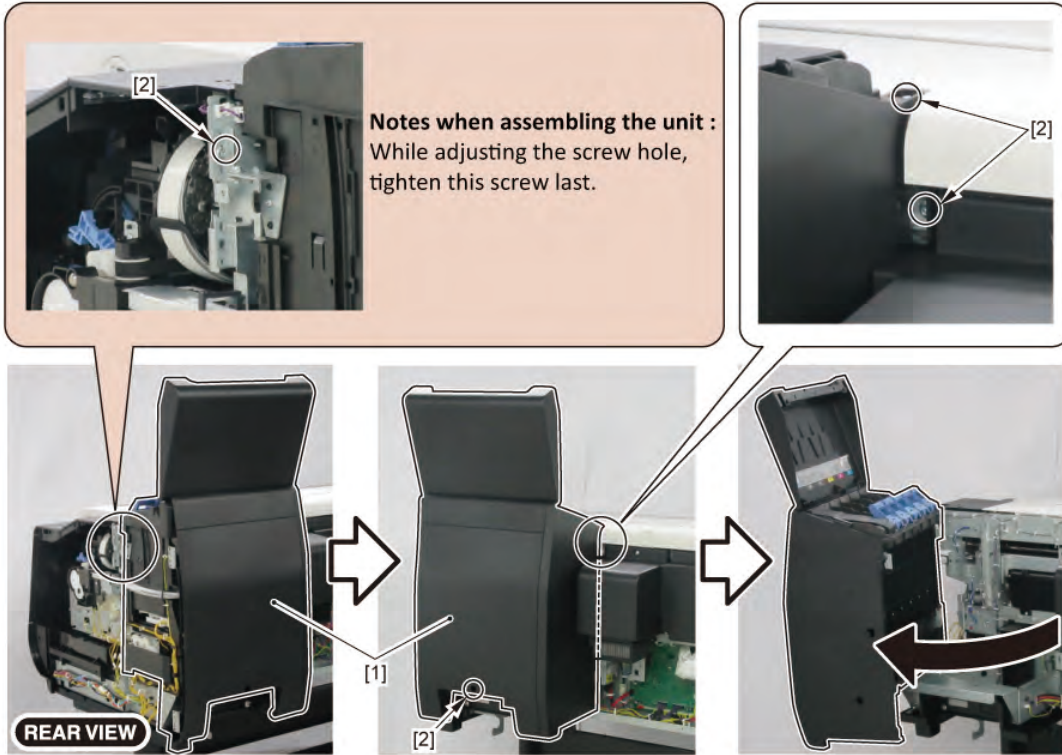
[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc



3. Open [1] the right ink unit.

[2]

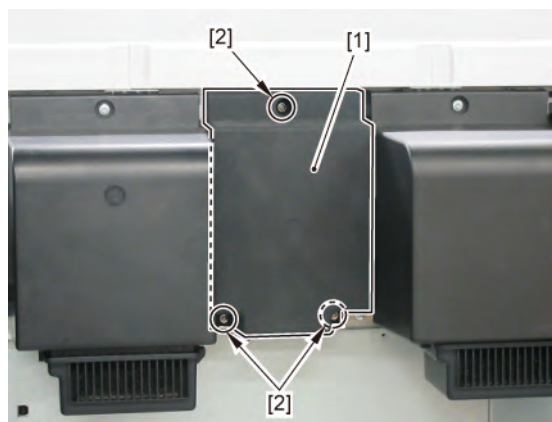
4 pcs



4. Remove [1] COVER, BACK.



[2]

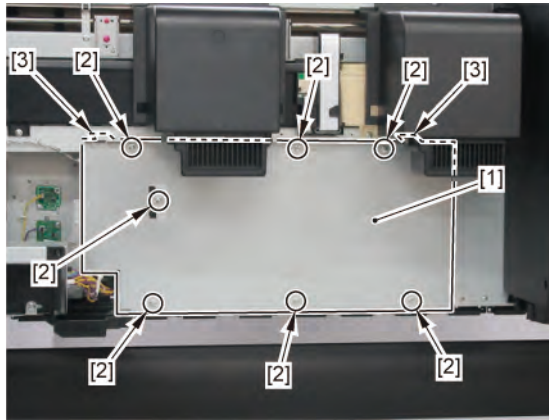
3 pcs








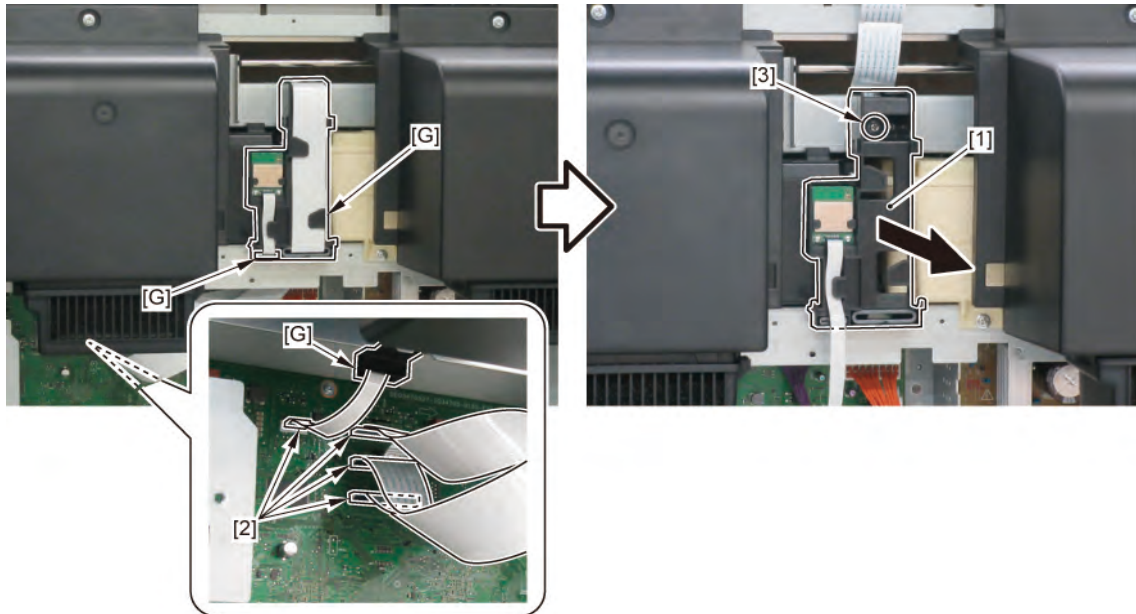
5. Remove [1] the plate.

[2]	[3]
	
7 pcs	2 pcs






6. Remove [1] WIRELESS LAN PCB UNIT.

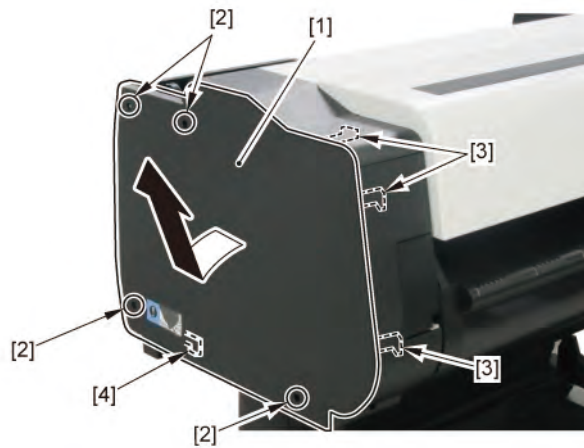
[2]	[3]	[G]
		
4 pcs	1 pc	3 pcs



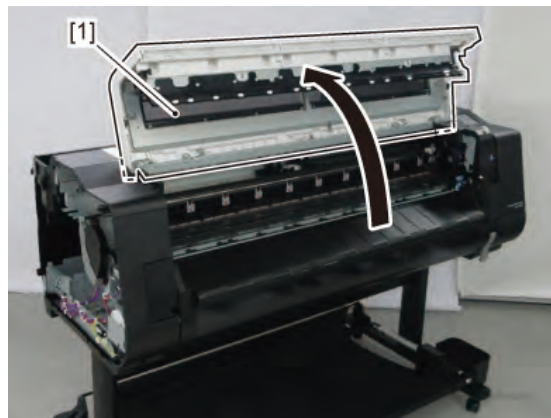
7. Remove [1] a set of

- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.



[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc

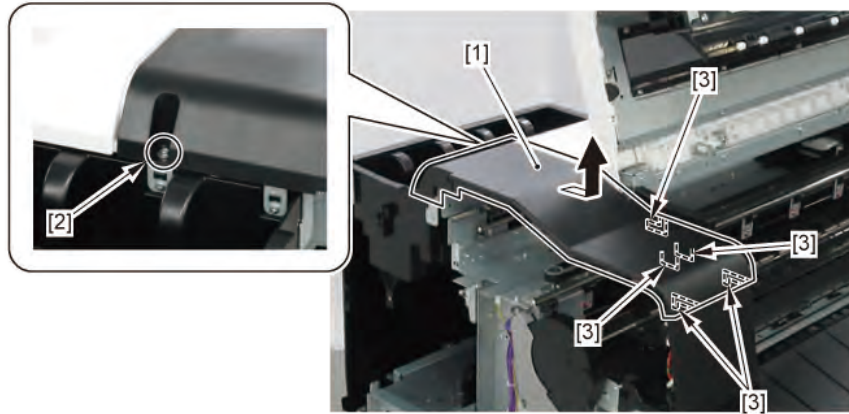


8. Open [1] the access cover.





## 9. Remove [1] COVER, TOP L.

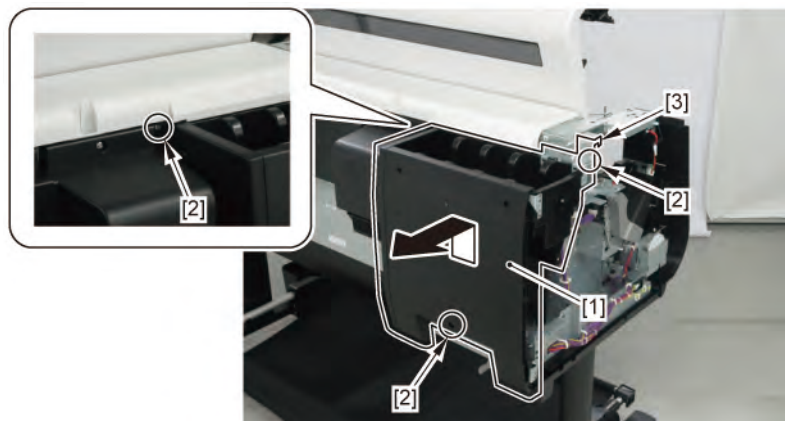
[2]	[3]
	
1 pc	5 pcs





## 10. Remove [1] a set of

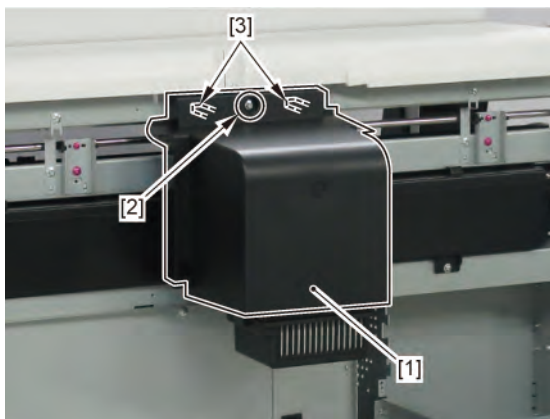
- BOX, INKTANK
- COVER, INKTANK BACK
- COVER, INKTANK L INSIDE.

[2]	[3]
	
3 pcs	1 pc





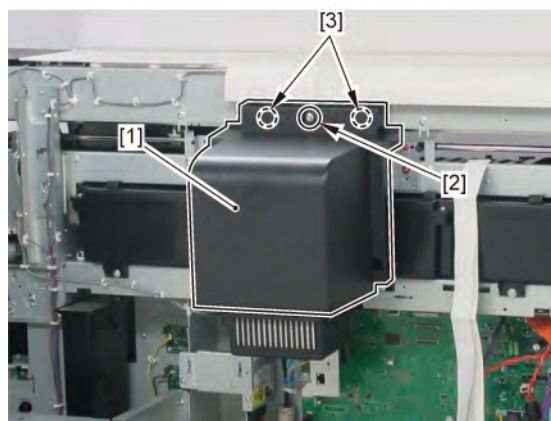
11. Remove [1] COVER, MIST FAN.

[2]	[3]
	
1 pc	2 pcs



12. Remove [1] COVER, MIST FAN.

[2]	[3]
	
1 pc	2 pcs

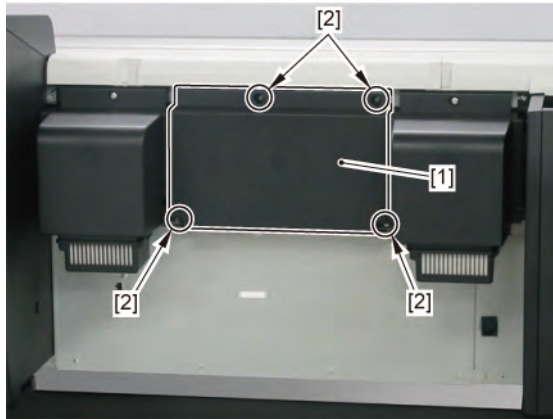


## A (44" model)



1. Remove [1] COVER, BACK.

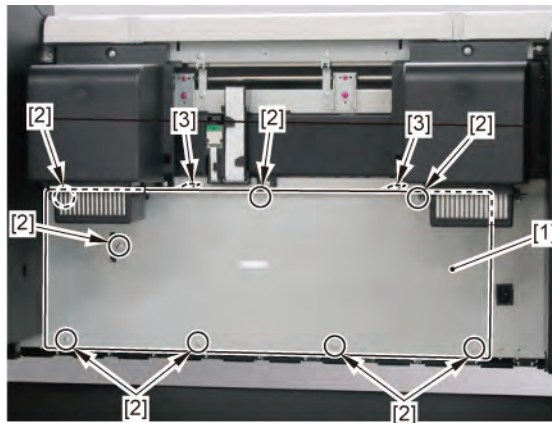
[2]

4 pcs






2. Remove [1] the plate.

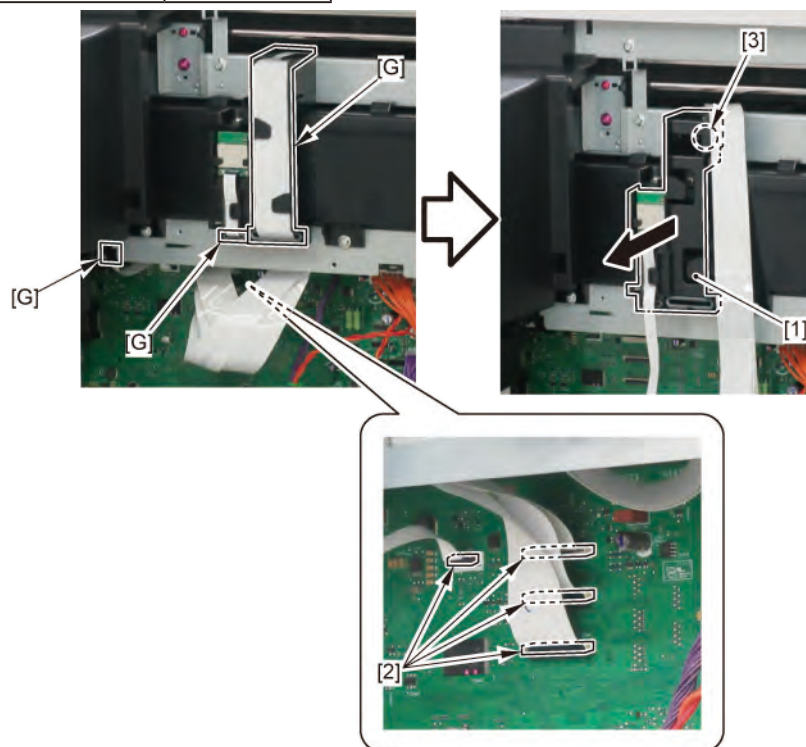
[2]	[3]
	
8 pcs	2 pcs








### 3. Remove [1] WIRELESS LAN PCB UNIT.

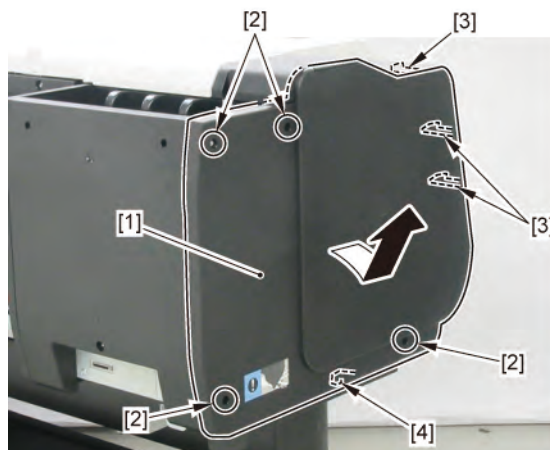
[2]	[3]	[G]
		
4 pcs	1 pc	3 pcs



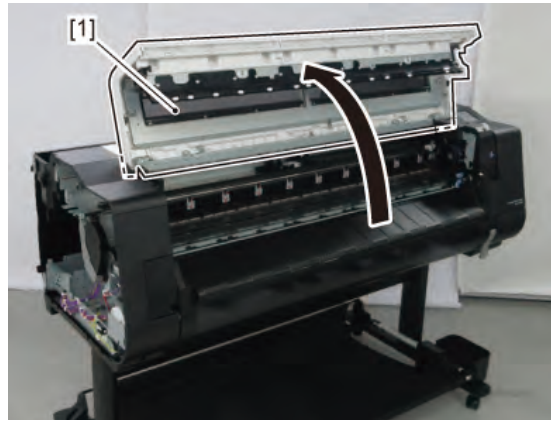
### 4. Remove [1] a set of

- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.

[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc

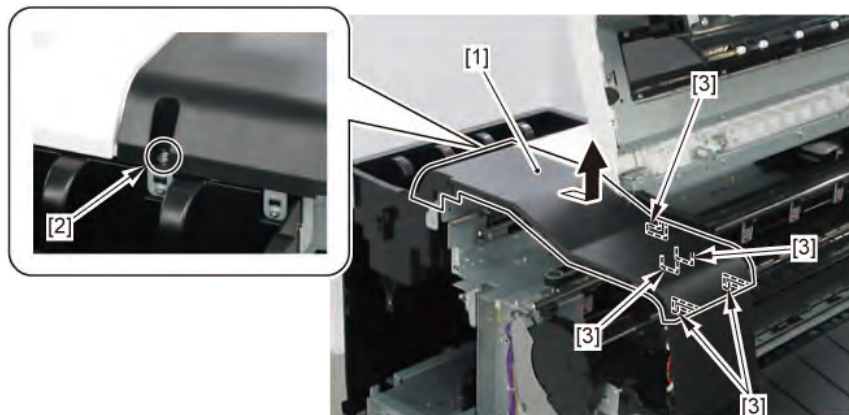


5. Open [1] the access cover.





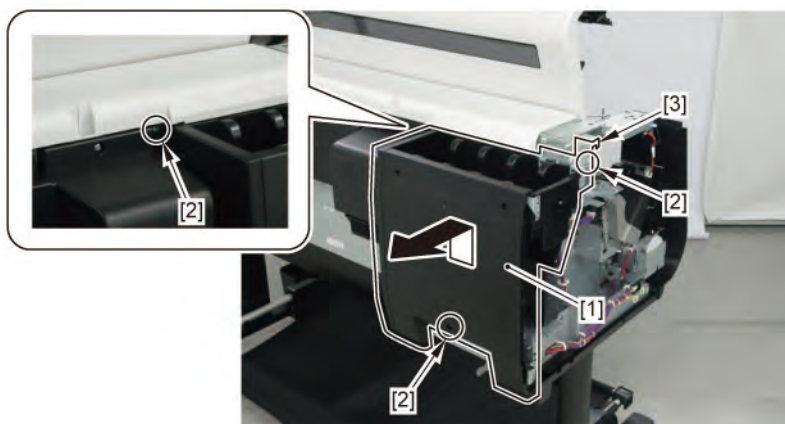
6. Remove [1] COVER, TOP L.

[2]	[3]
1 pc	5 pcs





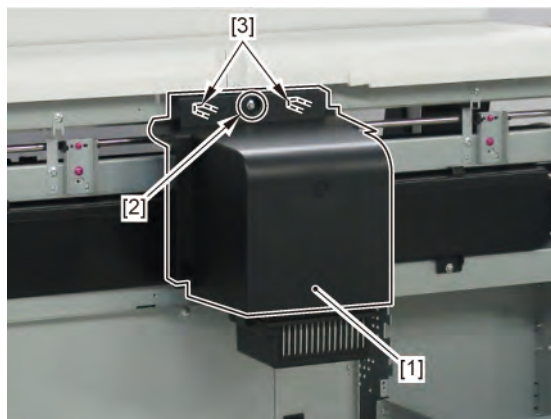
7. Remove [1] a set of
- BOX, INKTANK
  - COVER, INKTANK BACK
  - COVER, INKTANK L INSIDE.

[2]	[3]
	
3 pcs	1 pc



8. Remove [1] COVER, MIST FAN.

[2]	[3]
	
1 pc	2 pcs






9. Open [1] the right ink tank cover.

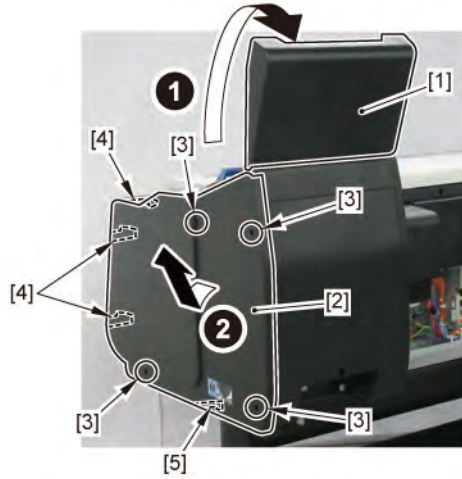
10. Remove [2] a set of

- COVER, SIDE R A


- COVER UNIT, SIDE R B

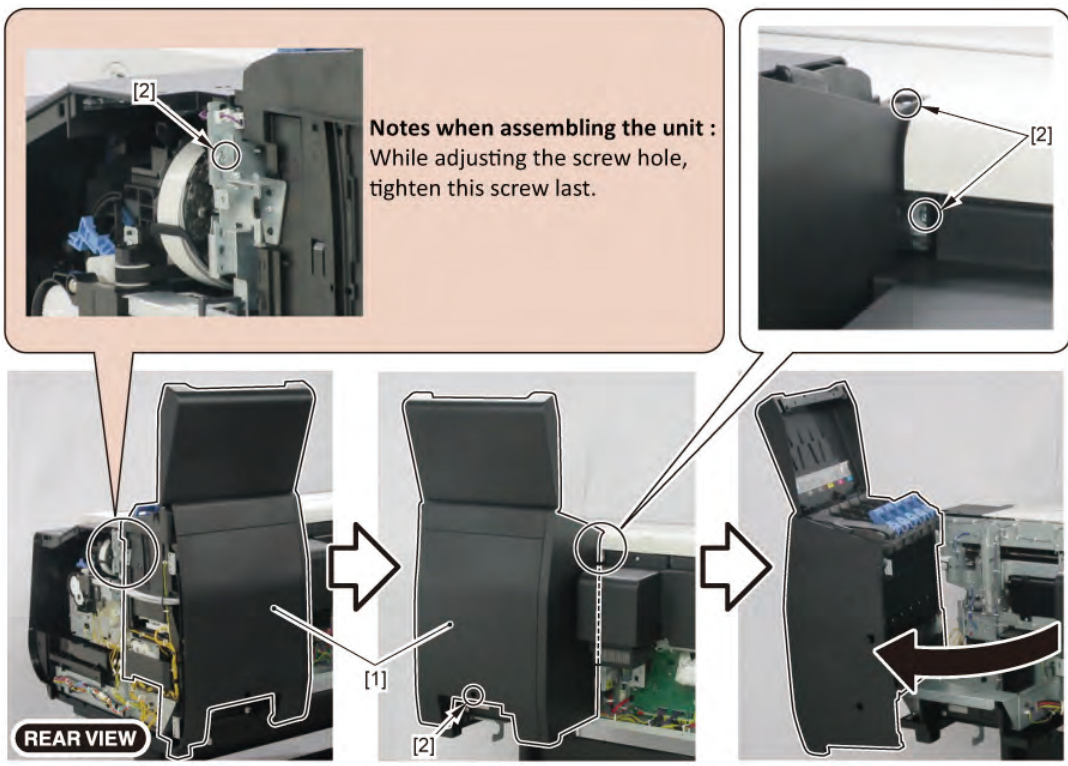
- CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc





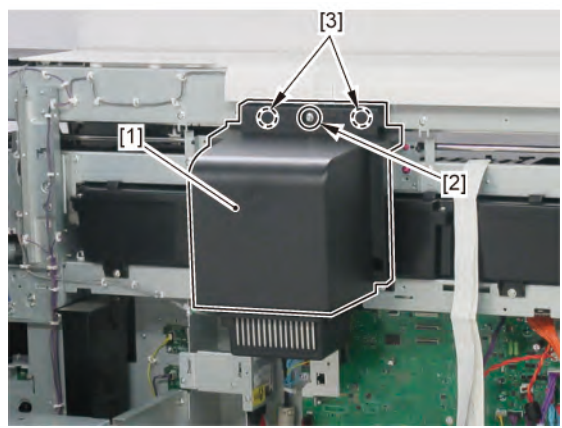
11. Open [1] the right ink unit.

[2]

4 pcs



12. Remove [1] COVER, MIST FAN.



[2]	[3]
	
1 pc	2 pcs

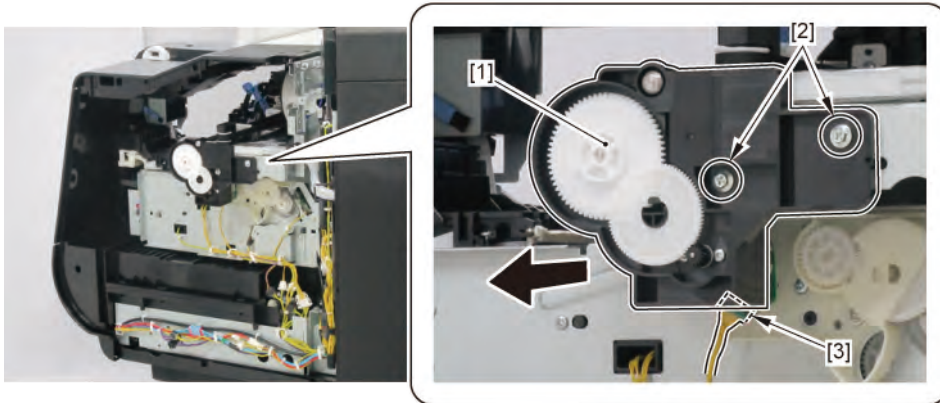




## B

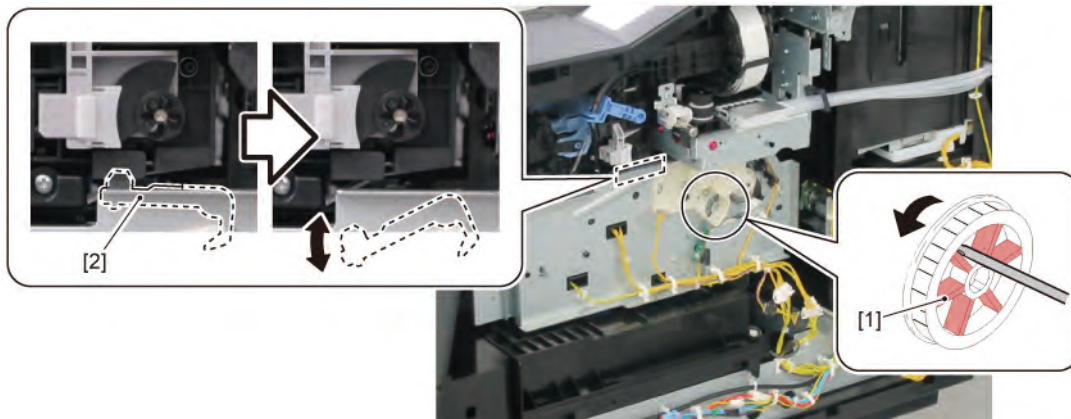
1. Remove all the parts of Group A.
2. Remove [1] LIFT UNIT.

[2]	[3]
	
2 pcs	1 pc





3. Unlock the carriage.

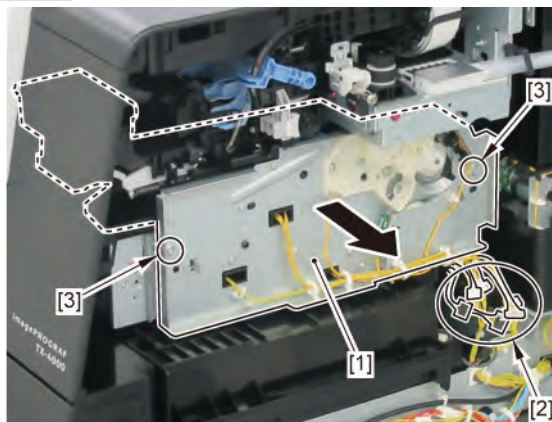
Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



4. Move the carriage unit to the left end (back position side).

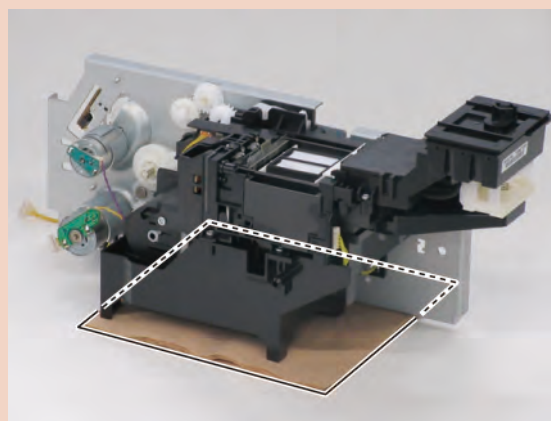
## 5. Remove [1] PURGE UNIT.

[2]	[3]
	
6 pcs	2 pcs



### Notes when removing the unit:

There is an opening on the bottom of the PURGE UNIT. Place the unit on paper towel, etc.



### Notes when the unit is replaced:

Reset the applicable counter when the unit is replaced:

[SERVICE MODE > PARTS COUNTER > PG1]




[SERVICE MODE > PARTS COUNTER > PG2]

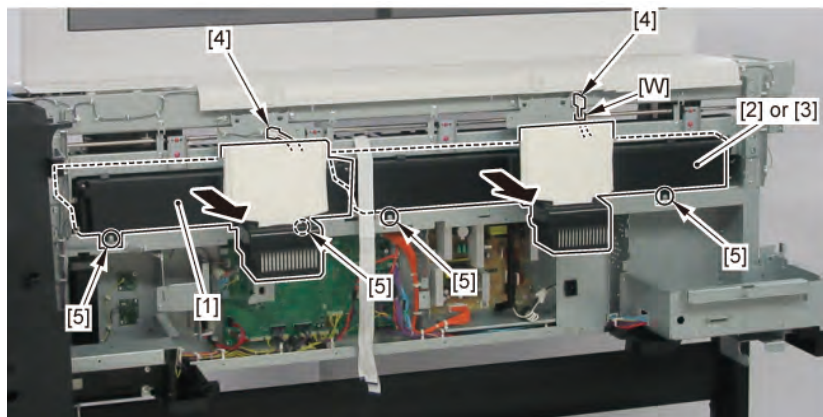
[SERVICE MODE > PARTS COUNTER > PG3]



## 6. Remove the [1] MIST FAN DUCT UNIT.

	[1]	[2]	[3]
	MIST FAN DUCT UNIT 1	MIST FAN DUCT UNIT 2	MIST FAN DUCT UNIT 3
24" model	-	remove	-
36" model	remove	-	remove
44" model	remove	remove	-

[4]	[5]	[W]
		
1 pc each	2 pcs each	-
1 pc each	2 pcs each	1 pc each
1 pc each	2 pcs each	1 pc each

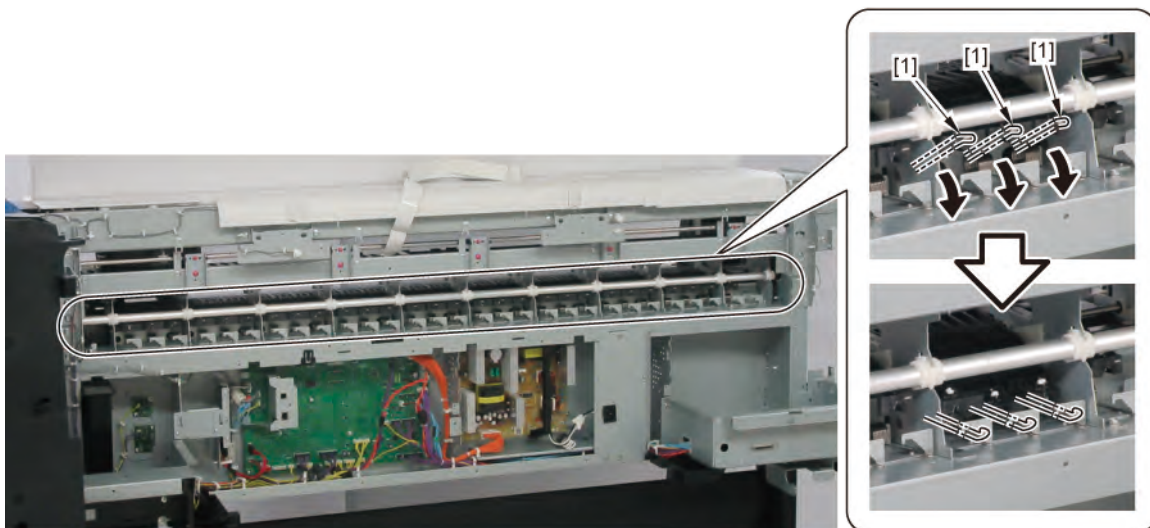


Notes when replacing the MIST FAN DUCT UNIT:

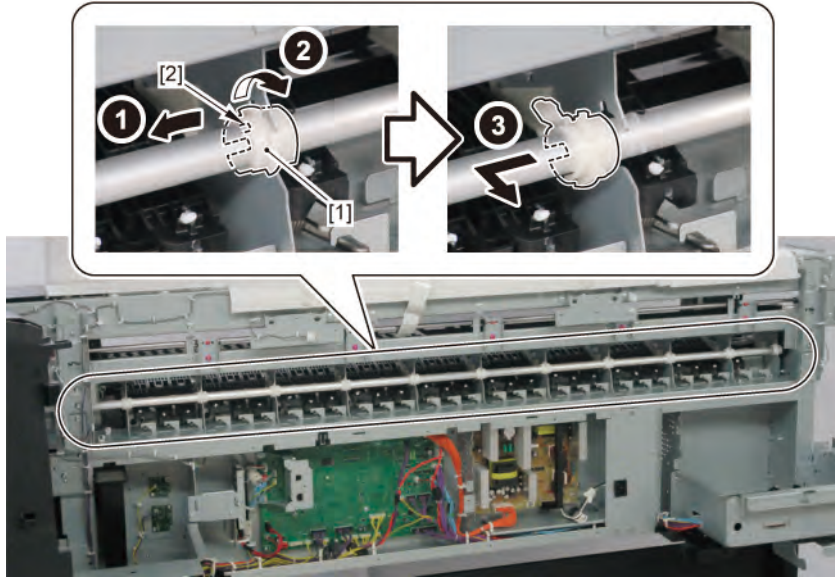
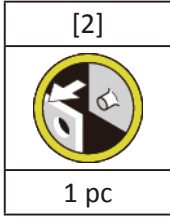
- Be sure to replace MIST FAN DUCT UNIT 1, MIST FAN DUCT UNIT 2, and MIST FAN DUCT UNIT 3 at the same time
- Reset the counter when the units are replaced:  
[SERVICE MODE > PARTS COUNTER > Mi1]



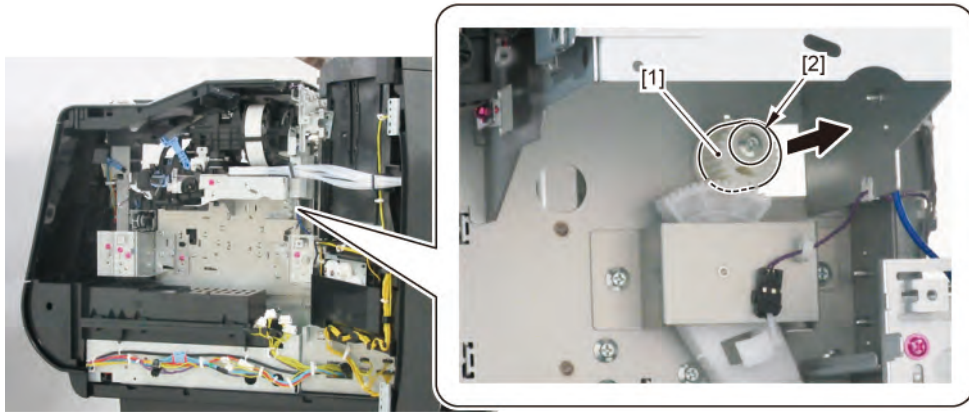
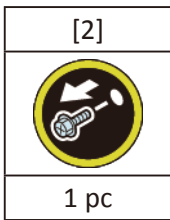
## 7. Release [1] the pinch roller springs.



8. Remove 11 pieces of [1] BUSHING, PRESSURE RELEASE  
 (seven pieces in 24" model, nine pieces in 36" model).



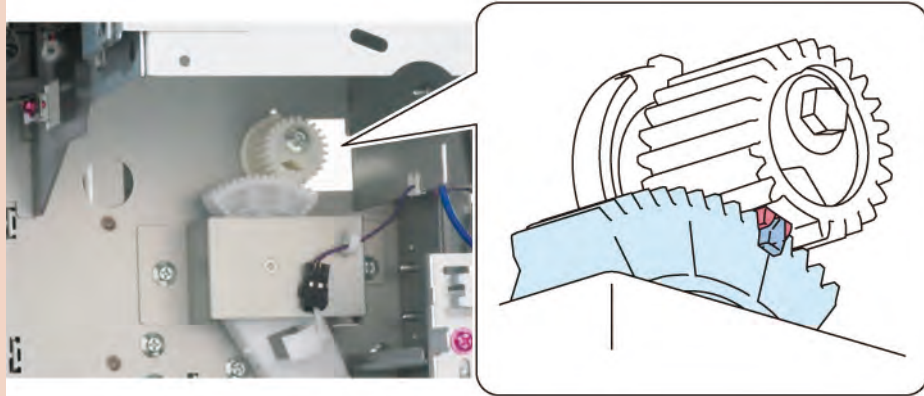
9. Remove [1] GEAR, PRESSURE RELEASE.



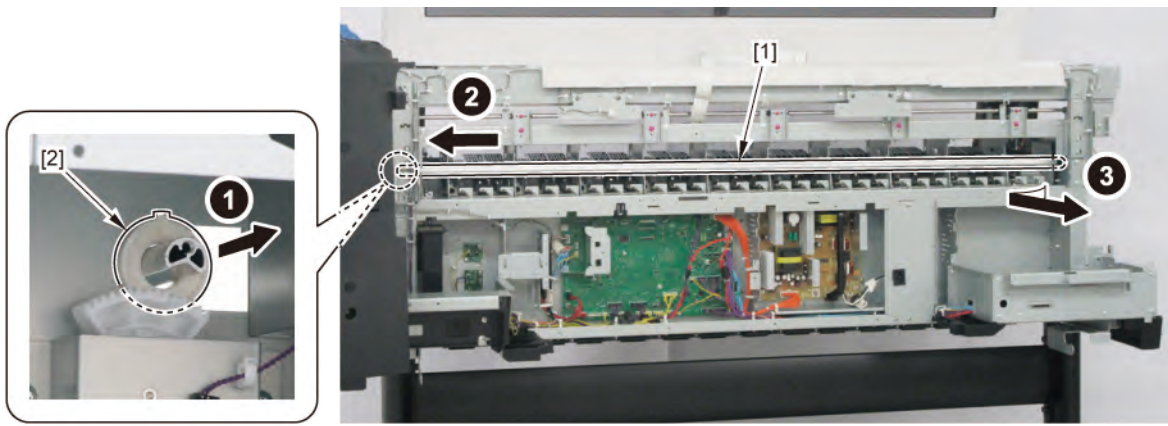


**Notes when assembling the unit:**

Adjust the phase of gears.

**Point**

**10.** Remove [1] SHAFT, PRESSURE RELEASE UNIT and [2] BUSHING, PR RELEASE.

**Point****Points of disassembly:**

Pulling out SHAFT, PRESSURE RELEASE UNIT to the right side without removing GEAR, PRESSURE RELEASE is possible when there is enough room at the right side of the printer.




**Notes when the SHAFT, PRESSURE RELEASE UNIT is replaced:**

Apply grease to the portion specified below.

- [1]: FLOIL G-31KB, 18 to 36 mg

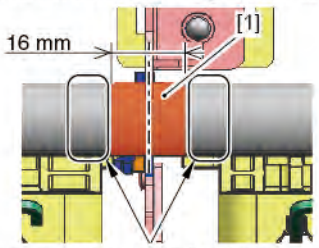


Apply grease to the entire round part of the shaft.



[1]

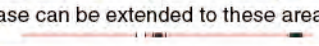
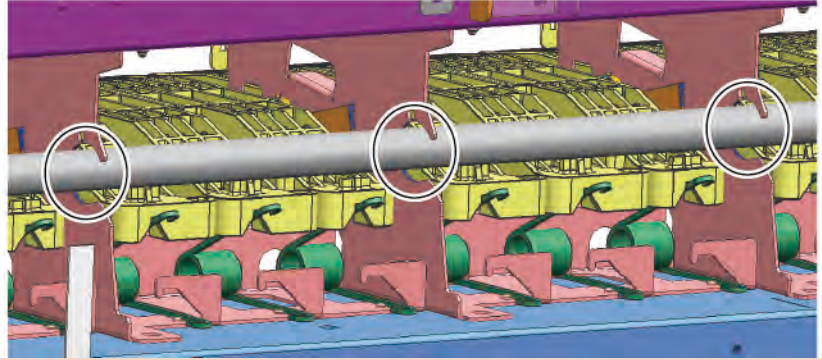
Apply grease to approx. 16 mm-wide area with the PLATE PR SUPPORT edge at the center.



16 mm

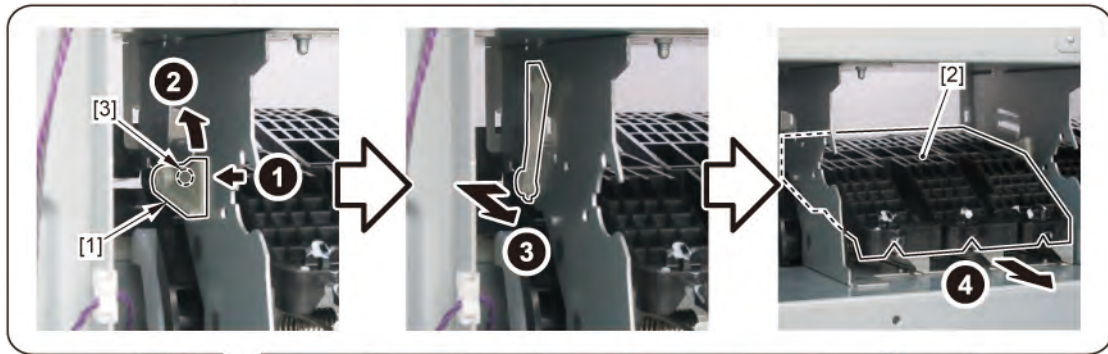
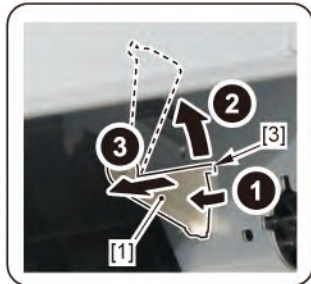
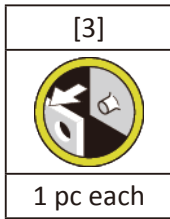
[1]

Grease can be extended to these areas.

C

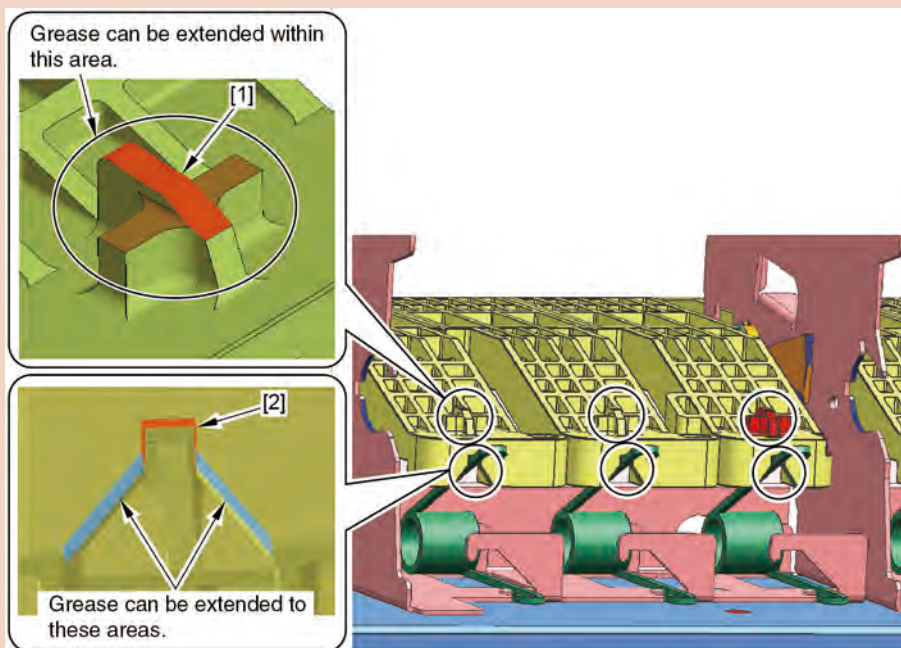
1. Remove all the parts of Groups A and B.
2. Remove two pieces each of [1] BUSH, ARM ROTARY SHAFT and [2] PINCH ROLLER UNIT.



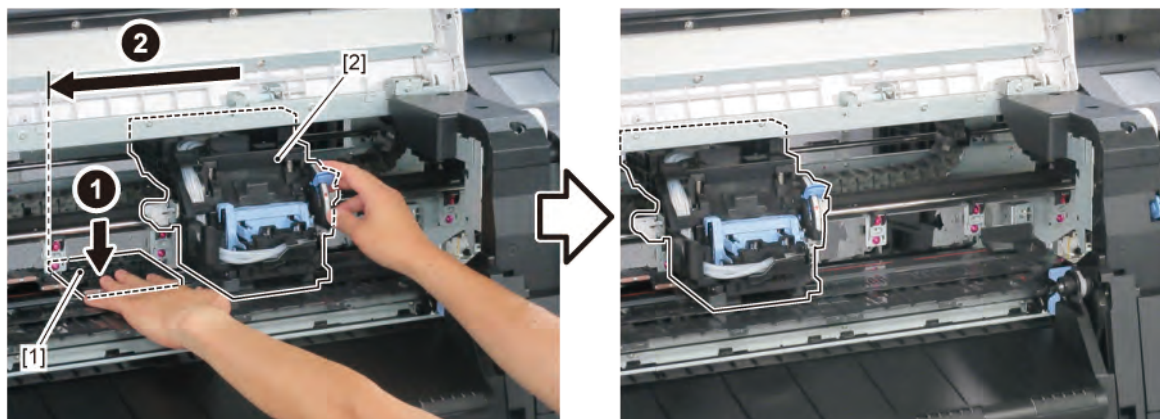
**Notes when the PINCH ROLLER UNIT or PINCH ROLLER UNIT L is replaced:**

Apply grease to the portions specified below.

- [1]: FLOIL G-31KB, 9 to 18 mg
- [2]: FLOIL G-31KB, 9 to 18 mg





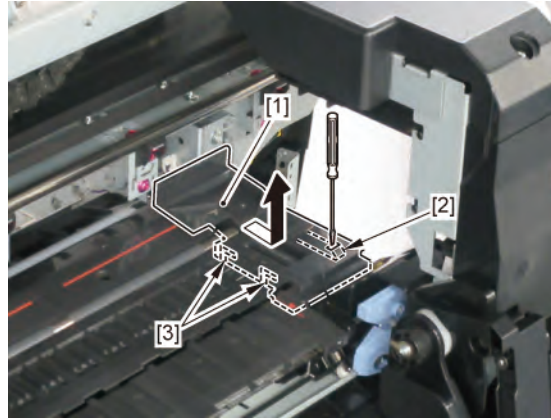
3. With pressing [1] the pinch roller unit, move [2] CARRIAGE UNIT to the arrowed direction.





#### 4. Remove [2] PLATEN, INK PRE EJECTION.

[2]	[3]
	
1 pc	2 pcs





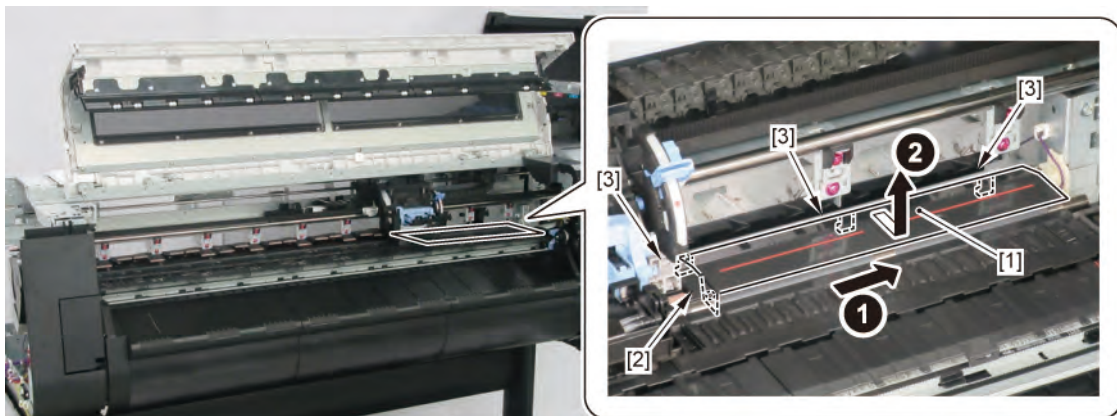
#### Notes when removing the unit:

Place the PLATEN, INK PRE EJECTION on paper towel, etc.





#### 5. Remove [1] PLATEN REAR.

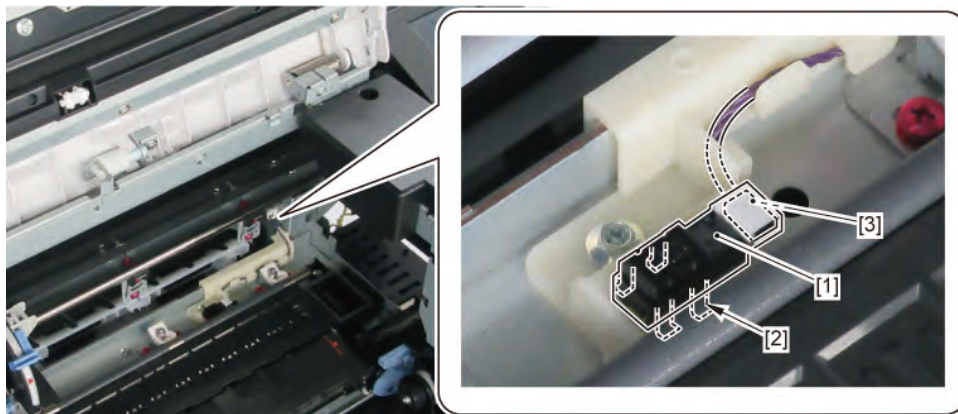
[2]	[3]
	
1 pc	3 pcs



## C-1

6. Remove [1] PAPER ENTRY SENSOR.

[2]	[3]
	
4 pcs	1 pc







**Notes when removing the unit:**

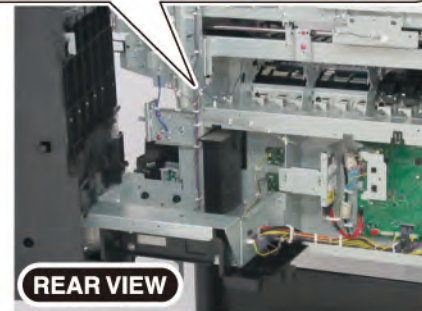
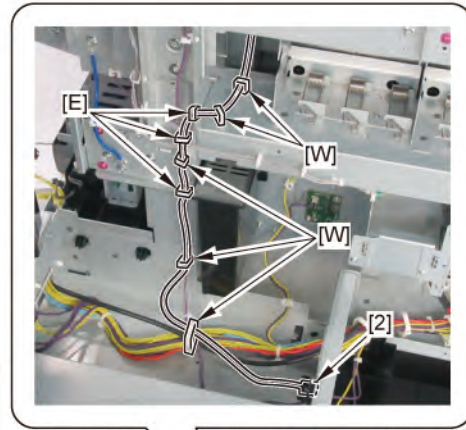
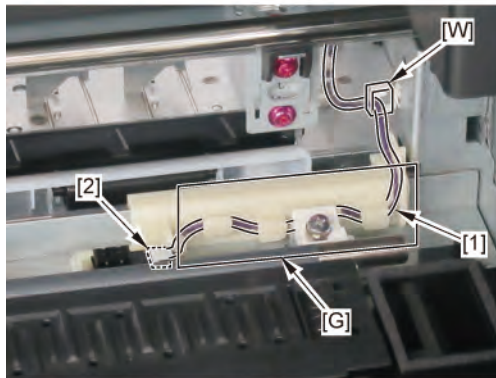
When removing PAPER ENTRY SENSOR as a unit, the screwdriver hits the carriage shaft, and it will be inserted slantwise. Therefore, remove the single SENSOR with your hand without removing screws.



# C-2

6. Disconnect [1] HARNESS ASS'Y, LFPE SNS.


[2]	[W]	[E]	[G]
			
2 pcs	6 pcs	3 pcs	1 pc

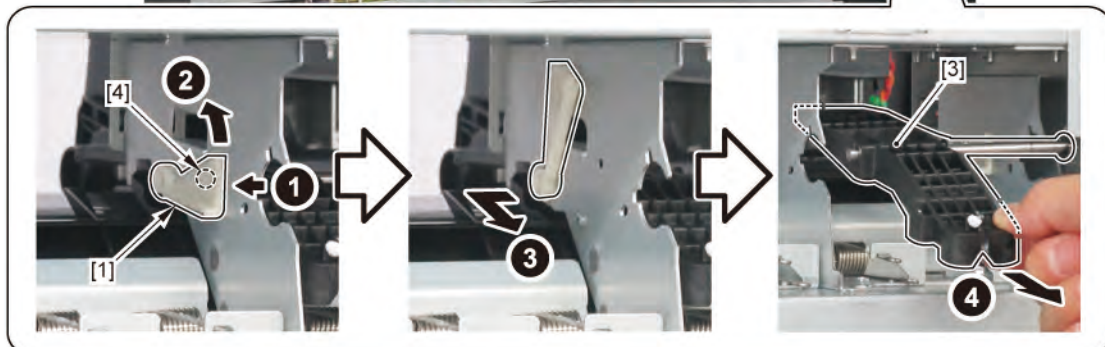
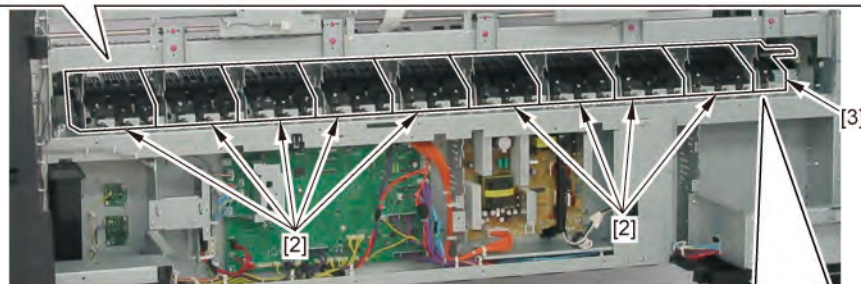
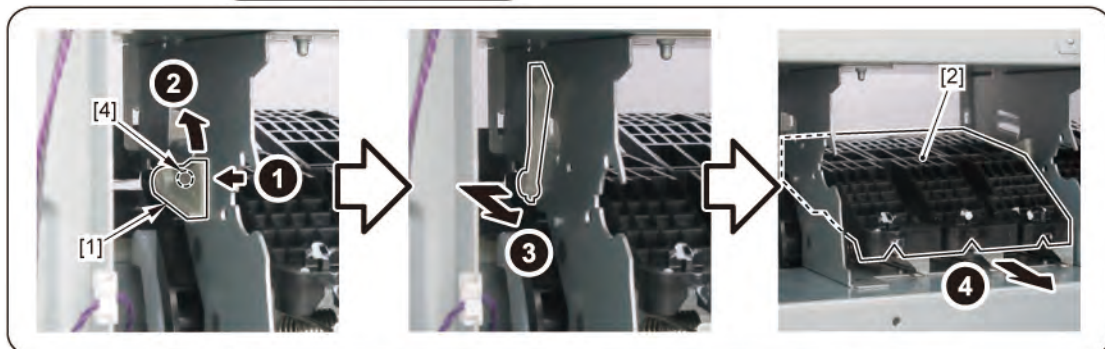
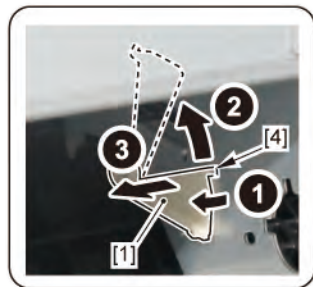


## D

1. Remove all the parts of Groups A and B.
2. Remove [1] BUSH, ARM ROTARY SHAFT, [2] PINCH ROLLER UNIT, and [3] PINCH ROLLER UNIT L.

	[1]	[2]	[3]
	BUSH, ARM ROTARY SHAFT	PINCH ROLLER UNIT	PINCH ROLLER UNIT L
24" model	6	5	1
36" model	8	7	1
44" model	10	9	1

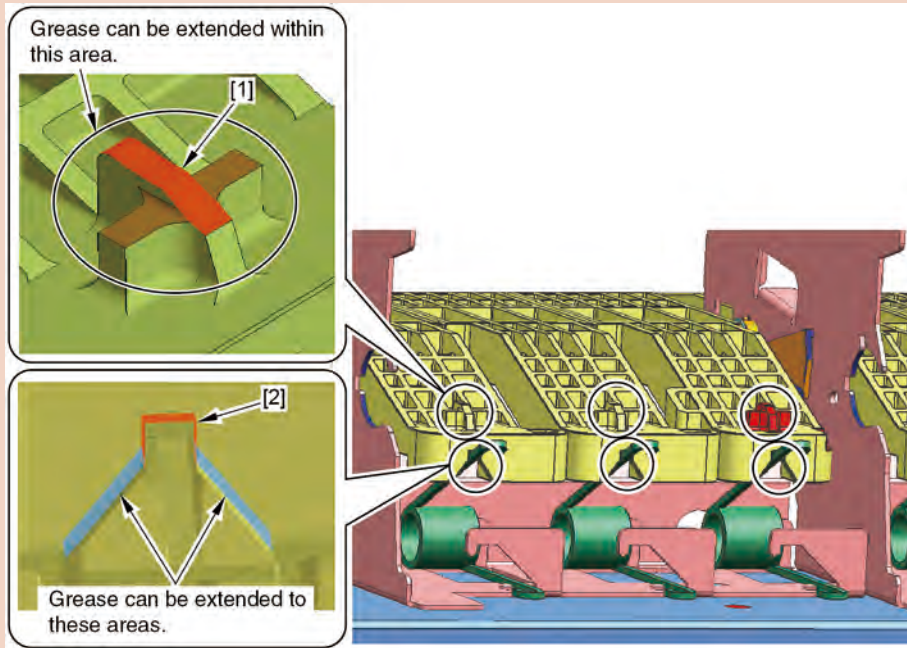
[4]

1 pc each



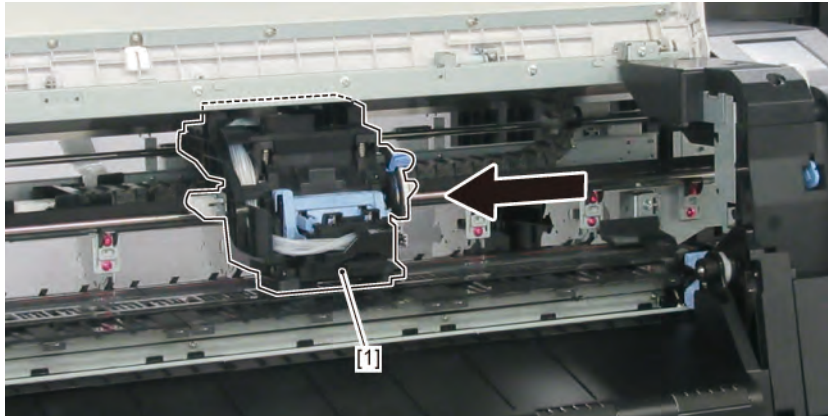
### Notes when the PINCH ROLLER UNIT or PINCH ROLLER UNIT L is replaced:

Apply grease to the portions specified below.

- [1]: FLOIL G-31KB, 9 to 18 mg
- [2]: FLOIL G-31KB, 9 to 18 mg





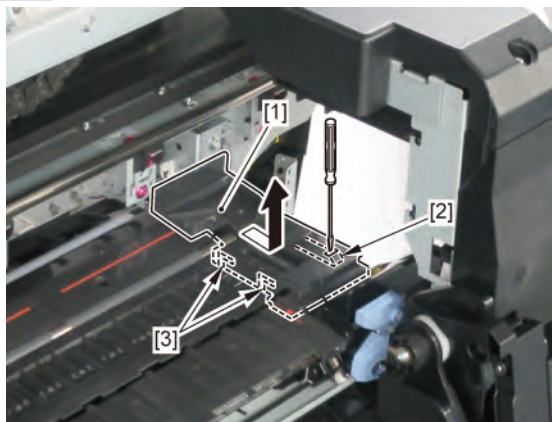
3. Move [1] CARRIAGE UNIT to the arrowed direction.





4. Remove [1] PLATEN, INK PRE EJECTION.

[2]	[3]
	
1 pc	2 pcs

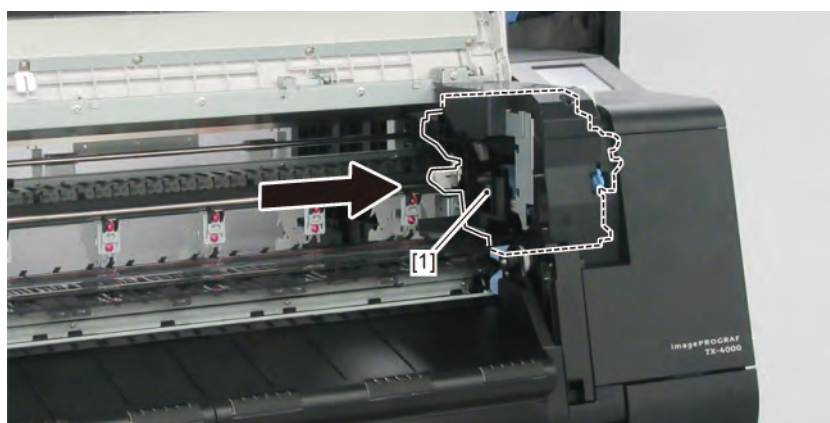


Notes when removing the unit:

Place the PLATEN, INK PRE EJECTION on paper towel, etc.





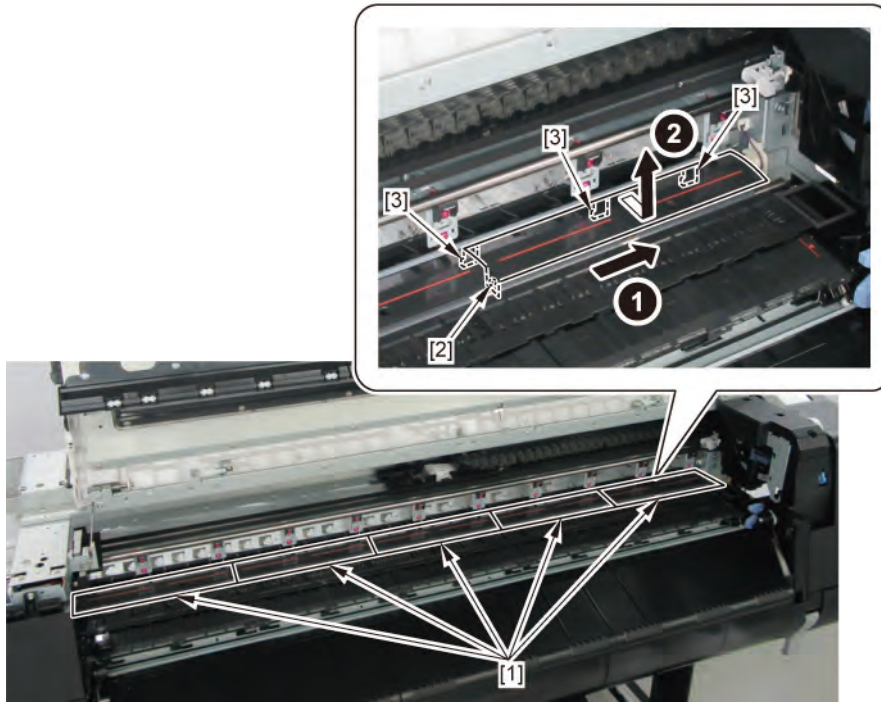
5. Move [1] CARRIAGE UNIT to the Home Position.



6. (24" model, 44" model)

Remove five pieces of [1] PLATEN REAR (three pieces in 24" model).



[2]	[3]
	
1 pc each	3 pcs each

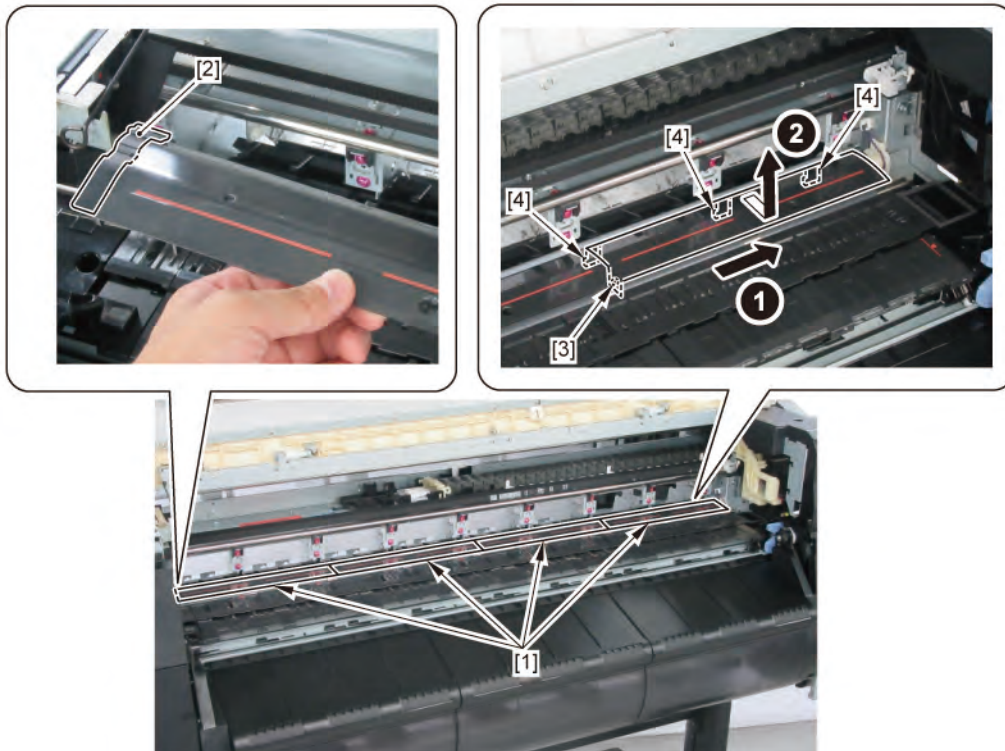






### 7. (36" model)

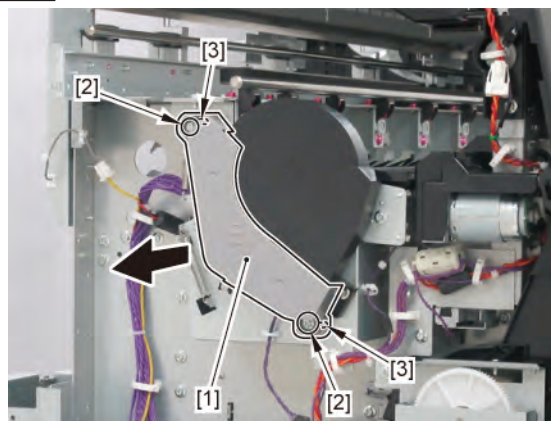
Remove four pieces of [1] PLATEN REAR and [2] PLATEN REAR LS.

[3]	[4]
	
1 pc each	3 pcs each

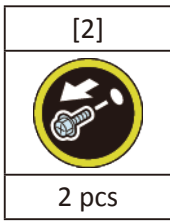


### 8. Remove [1] COVER, PF ENCODER OUTER.

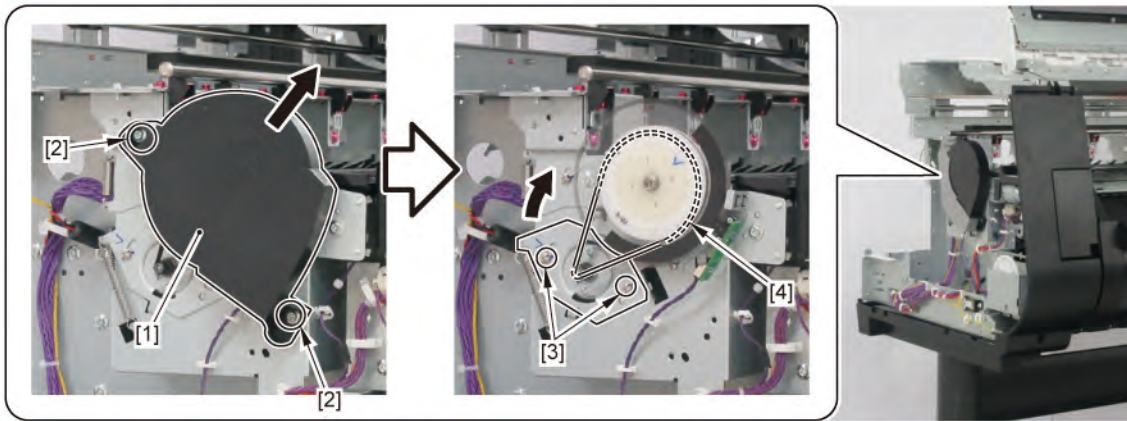
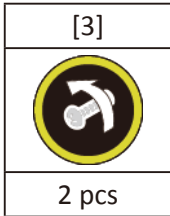
[2]	[3]
	
2 pcs	2 pcs



9. Remove [1] CODE WHEEL COVER UNIT.



10. Remove [4] BELT, PAPER TRANSPORT.

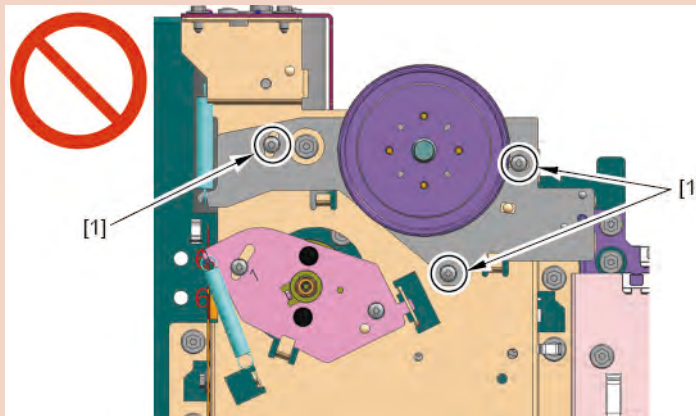


11. Remove [1] PAPER FEED ROLLER UNIT.



Notes when removing the unit:

DO NOT remove [1] these screws.

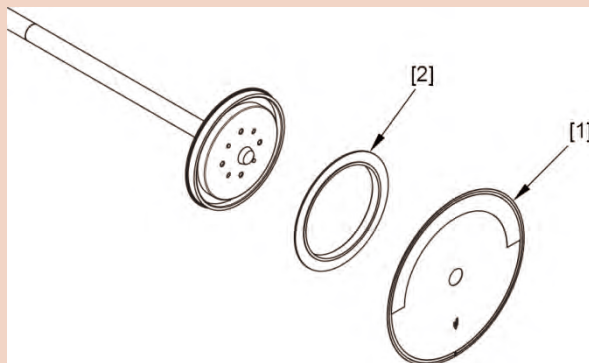


Point

**Notes when replacing the PAPER FEED ROLLER UNIT:**

From the removed PAPER FEED ROLLER UNIT, separate [1] FILM, TIMING SLIT DISK and [2] FLANGE, PULLEY.

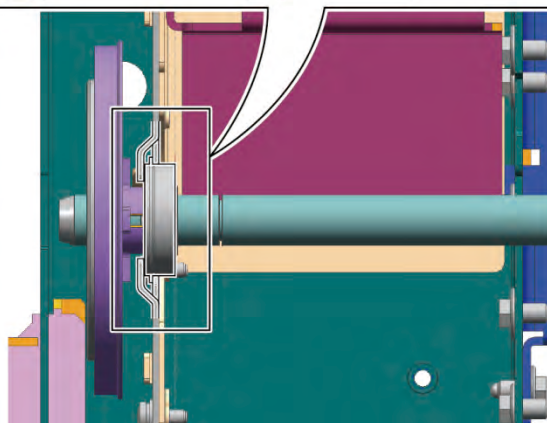
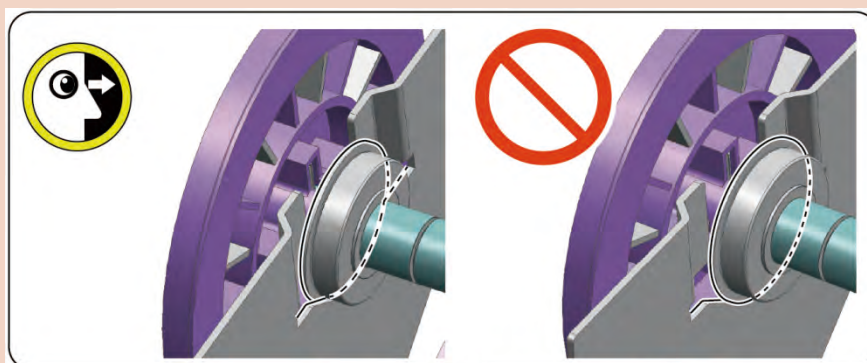
- Replace [1] FILM, TIMING SLIT DISK at the same time when the PAPER FEED ROLLER UNIT is replaced.
- Attach the removed [2] FLANGE, PULLEY to the new PAPER FEED ROLLER UNIT.



Point

**Notes when assembling the unit:**

Confirm that the PAPER FEED ROLLER UNIT bearing securely fits in place

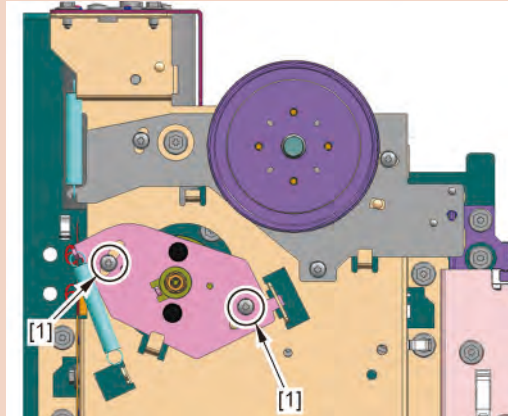
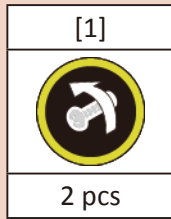




The PAPER FEED ROLLER UNIT needs to be adjusted after it is attached.

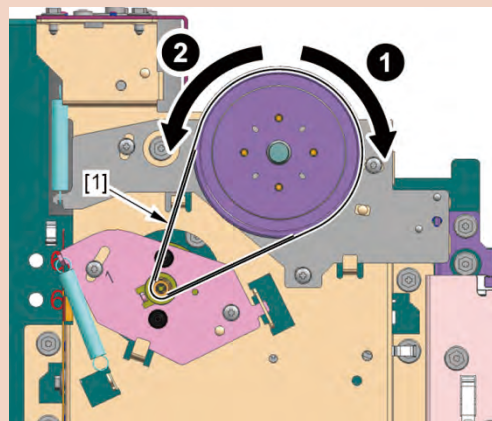
Perform the following when the unit is attached:

1. Confirm that the PINCH ROLLER UNIT applies pressure to the PAPER FEED ROLLER UNIT.



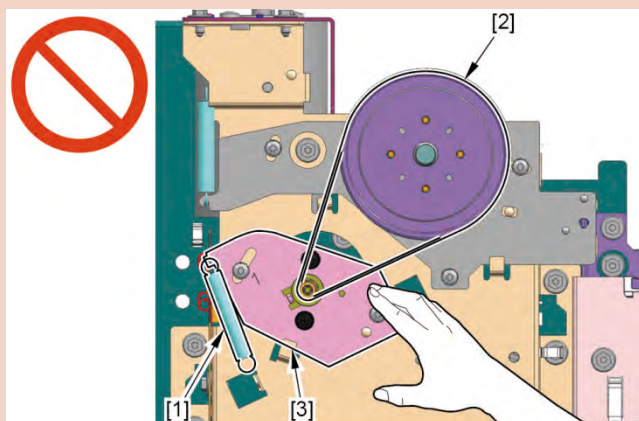
2. Attach [1] BELT, PAPER TRANSPORT.

Turn the pulley clockwise and counterclockwise one time each to confirm that the belt does not come off and it is tight and straight on the pulley.



#### Caution

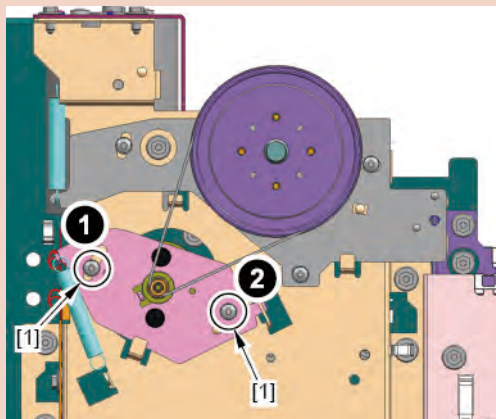
DO NOT touch [1] SPRING, TENSION, [2] BELT, PAPER TRANSPORT, and [3] PAPER FEED MOTOR UNIT until after the screws are tightened.



3. Tighten [1] two screws in the order of numbers.

[1]



2 pcs

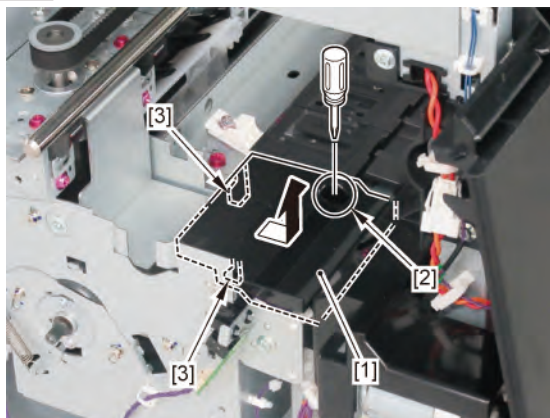


4. Attach the FLANGE, PULLEY.

5. Attach the FILM, TIMING SLIT DISK.


12. Remove [1] AWAY PLATEN.

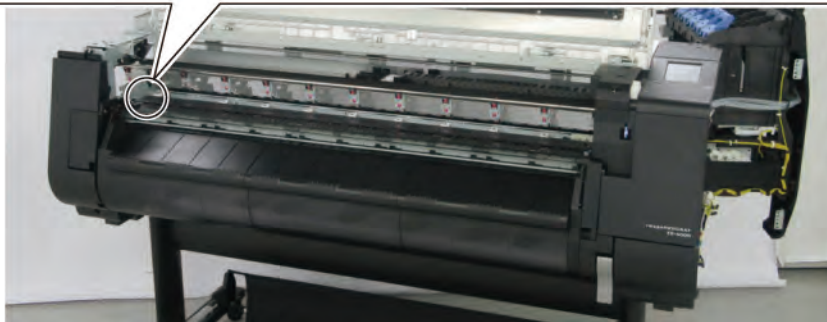
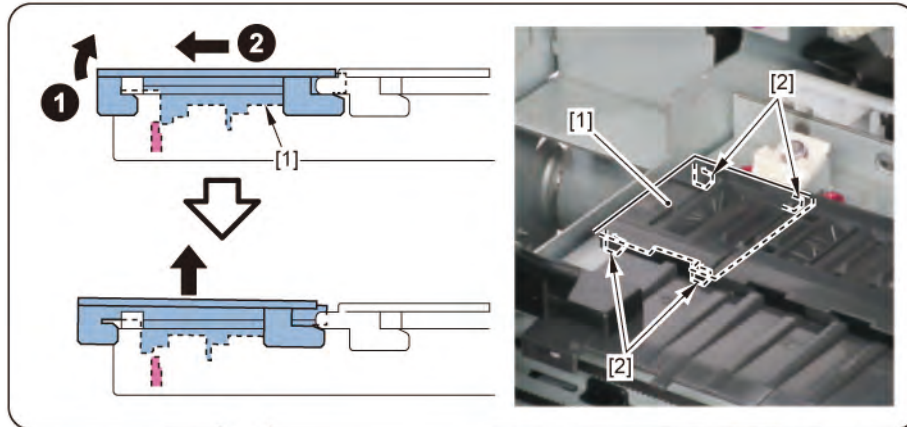
[2]	[3]
	
1 pc	2 pcs





### 13. Remove [1] PLATEN UNIT, TOP AWAY.

[2]

4 pcs







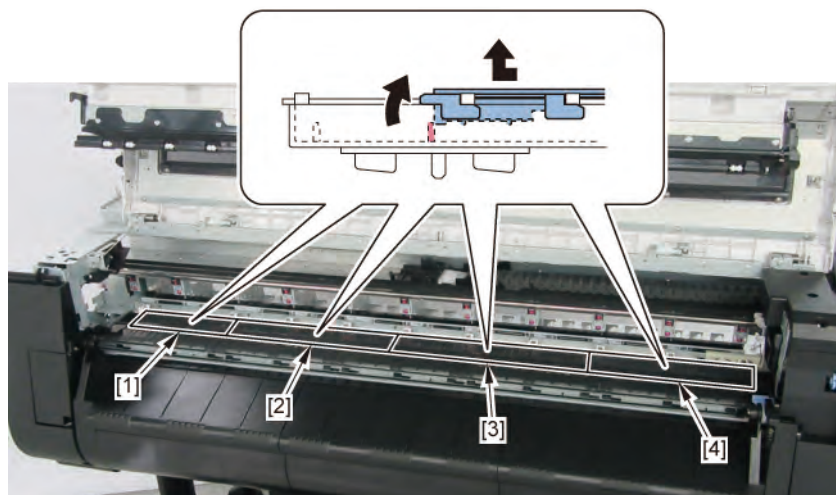
#### Notes when assembling the unit:

Perform adjustment at the end of assembly.

[SERVICE MODE > ADJUSTMENT > CR REG]

14. Remove [1] PLATEN UNIT, TOP D, [2] PLATEN UNIT, TOP C, [3] PLATEN UNIT, TOP B, and [4] PLATEN UNIT, TOP A.

	PLATEN UNIT, TOP			
	D [1]	C [2]	B [3]	A [4]
				
	12 pcs	16 pcs	14 pcs	12 pcs
24" model	remove	remove	-	-
36" model	remove	remove	remove	-
44" model	remove	remove	remove	remove




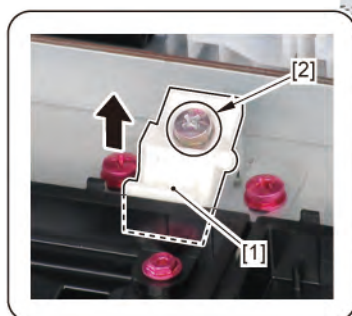
**Notes when assembling the unit:**

Perform adjustment at the end of assembly.

[SERVICE MODE > ADJUSTMENT > CR REG]

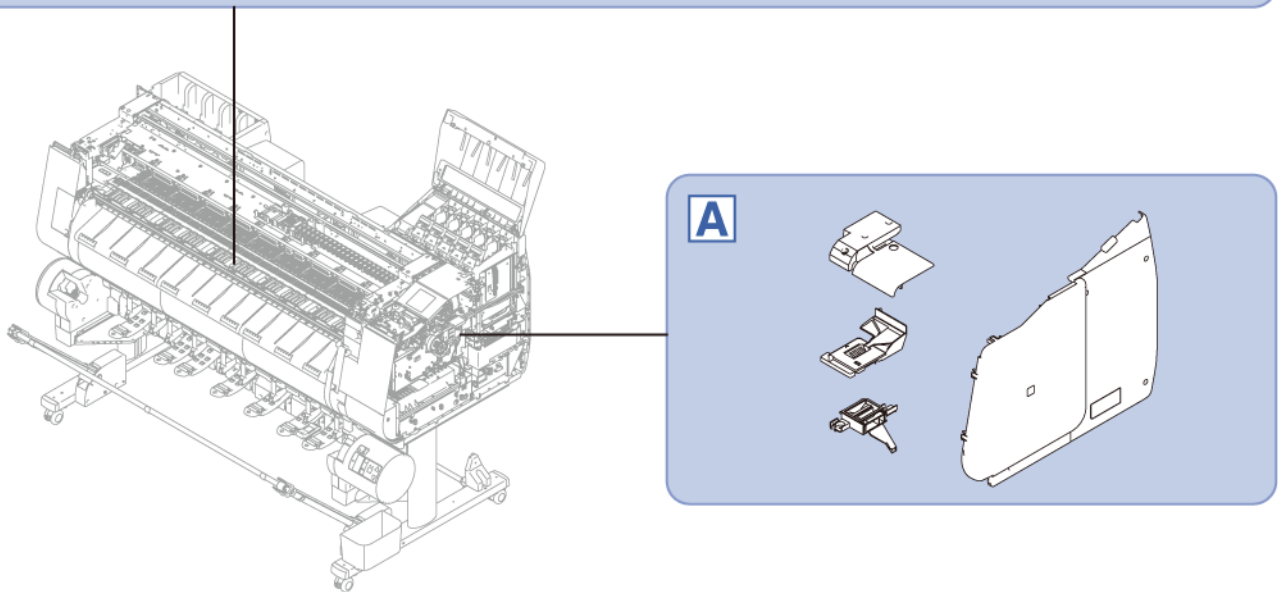
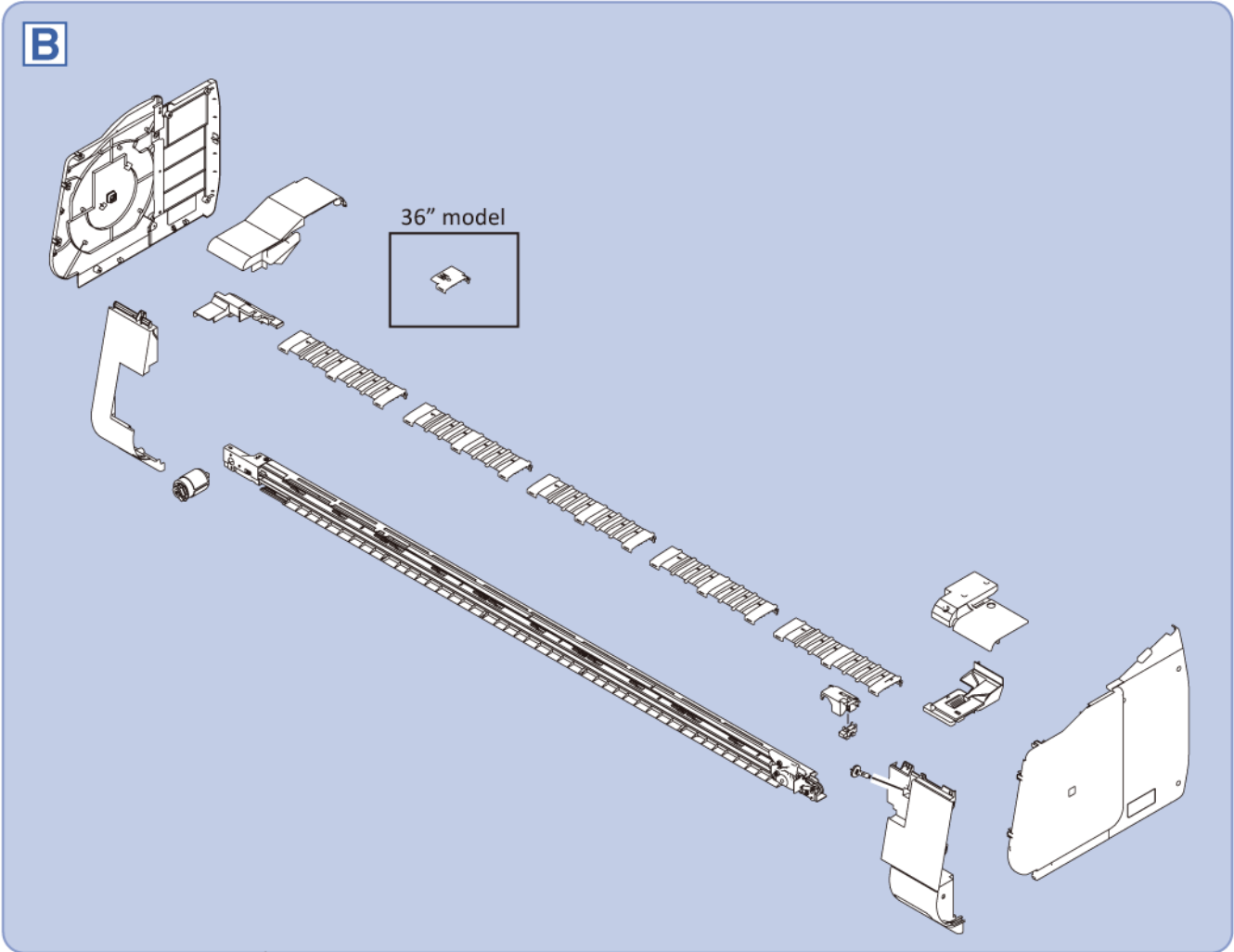
15. Remove ten pieces of [1] HOLDER, PAPER FEED ROLLER.  
(six pieces in 24" model, nine pieces in 36" model).

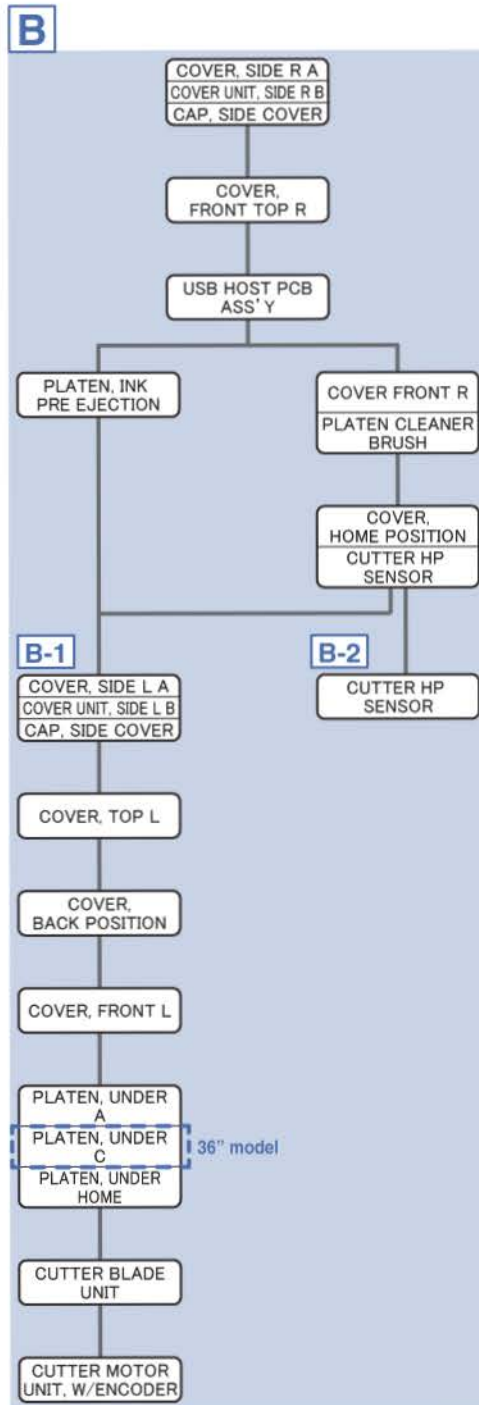
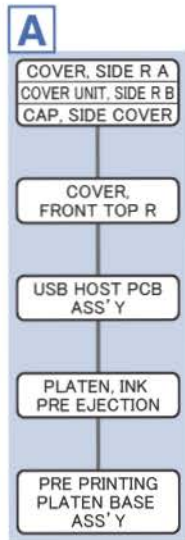
[2]

1 pc each





# 14 CUTTER BLADE UNIT








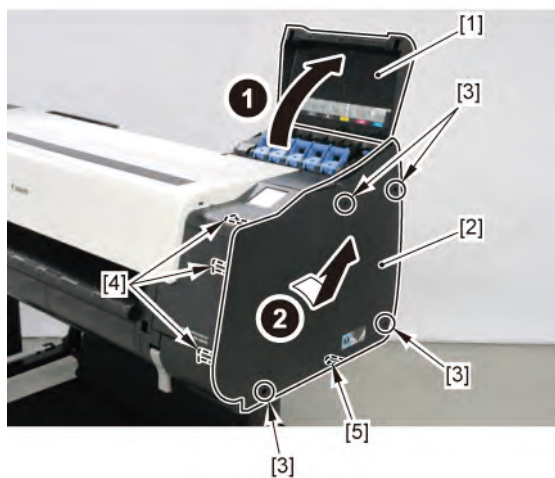


## A


1. Open [1] the right ink tank cover.
2. Remove [2] a set of

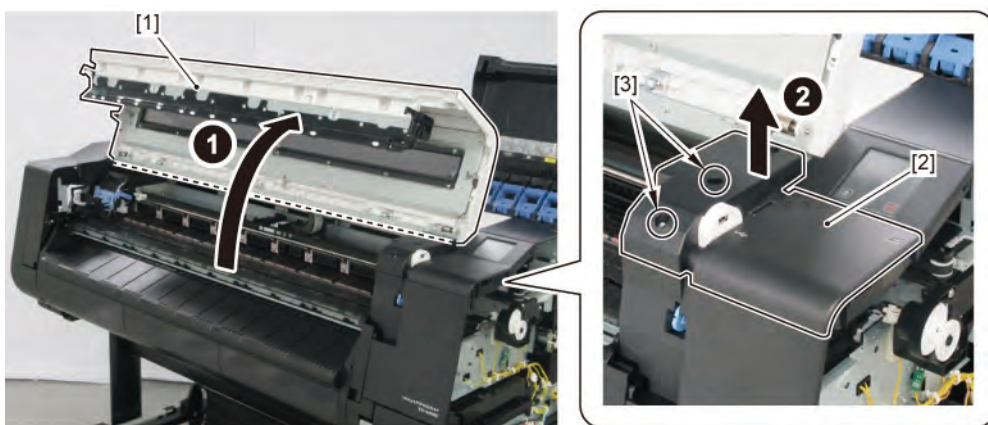
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc







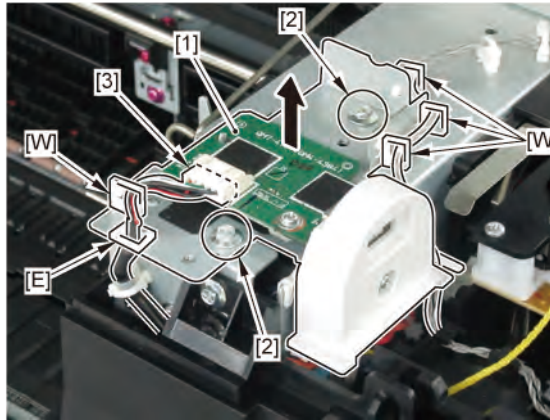
3. Open [1] the access cover.
4. Remove [2] COVER, FRONT TOP R.

[3]

2 pcs



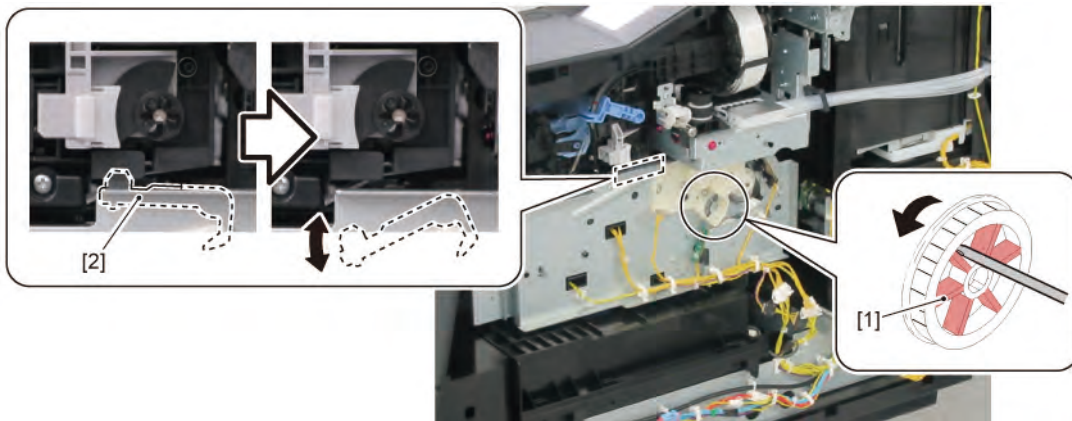
5. Remove [1] the plate (with the USB HOST PCB ASS'Y).

[2]	[3]	[W]	[E]
			
2 pcs	1 pc	4 pcs	1 pc





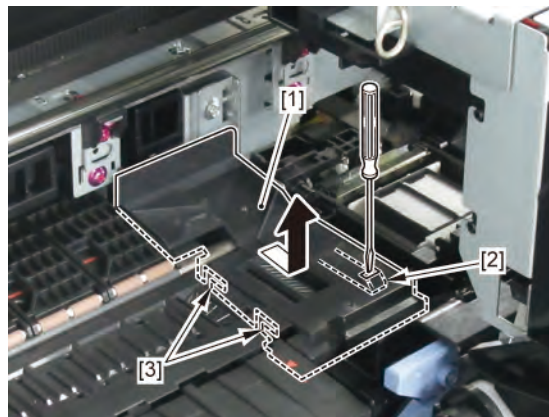
6. Unlock the carriage.

Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



7. Remove [1] PLATEN, INK PRE EJECTION.

[2]	[3]
	
1 pc	2 pcs



**Notes when removing the unit:**

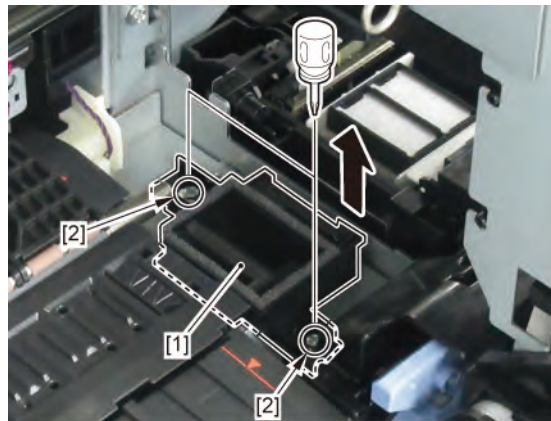
Place the PLATEN, INK PRE EJECTION on paper towel, etc.



8. Remove [1] PRE PRINTING PLATEN BASE ASS'Y.

[2]

2 pcs



**Notes when removing the unit:**




Place the PRE PRINTING PLATEN BASE ASS'Y on paper towel, etc.

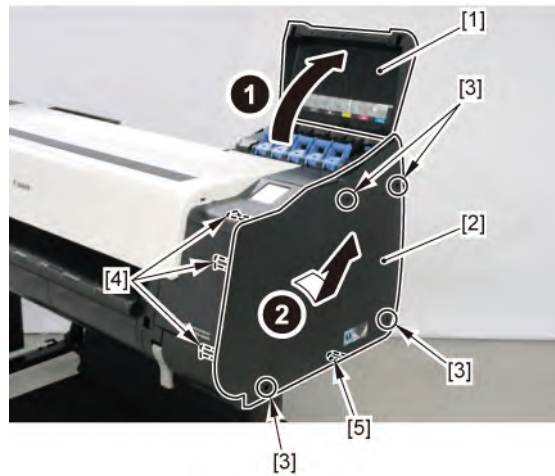


## B


1. Open [1] the right ink tank cover.
2. Remove [2] a set of

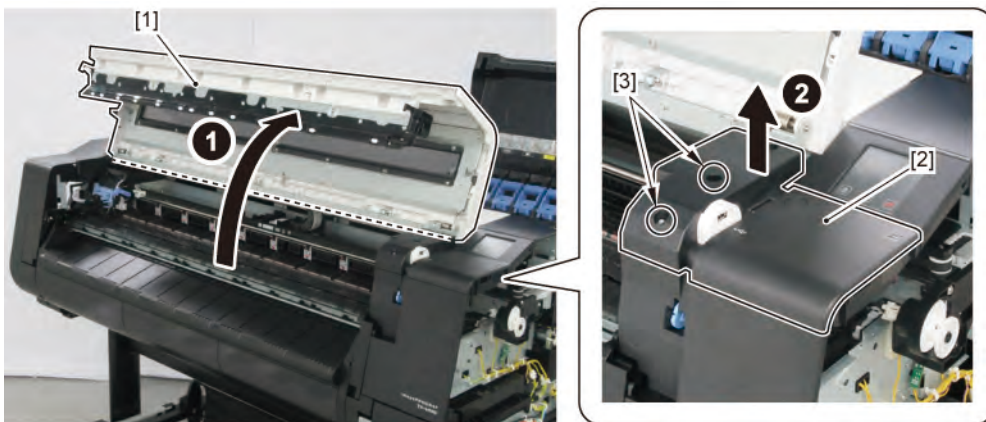
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc







3. Open [1] the access cover.
4. Remove [2] COVER, FRONT TOP R.

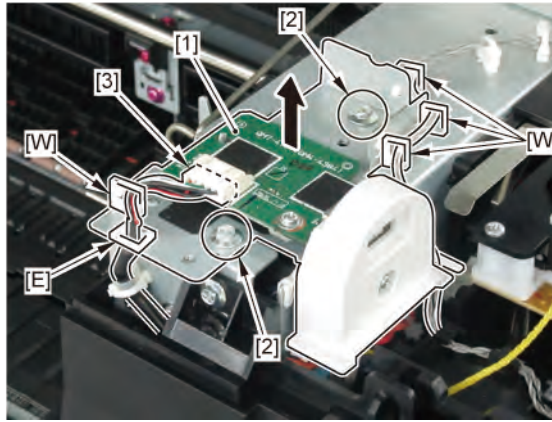
[3]

2 pcs





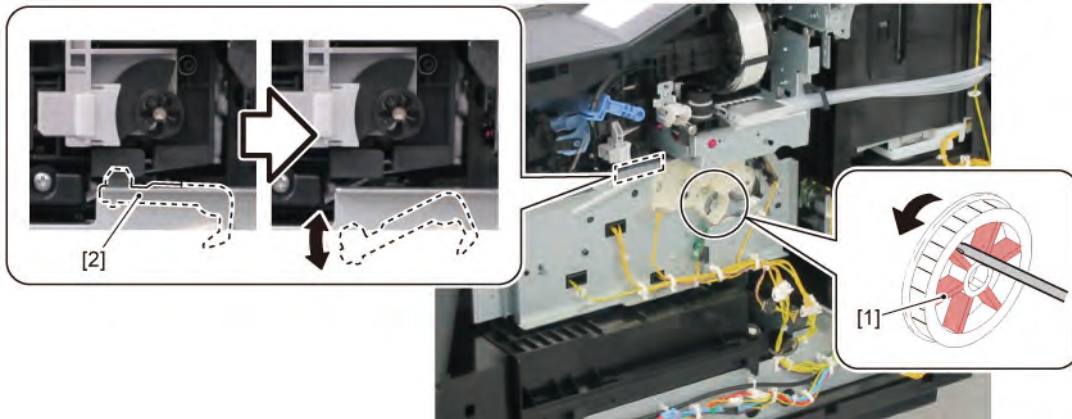
5. Remove [1] the plate (with the USB HOST PCB ASS'Y).

[2]	[3]	[W]	[E]
			
2 pcs	1 pc	4 pcs	1 pc





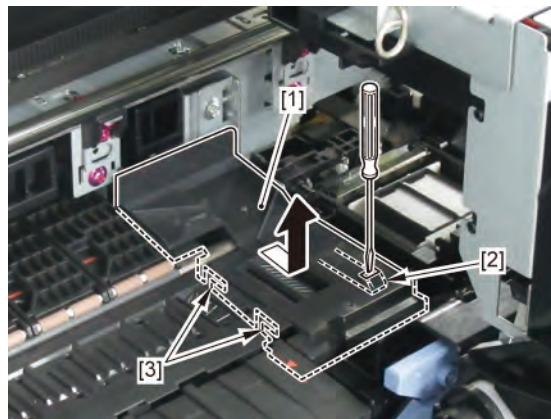
6. Unlock the carriage.

Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



7. Remove [1] PLATEN, INK PRE EJECTION.

[2]	[3]
	
1 pc	2 pcs







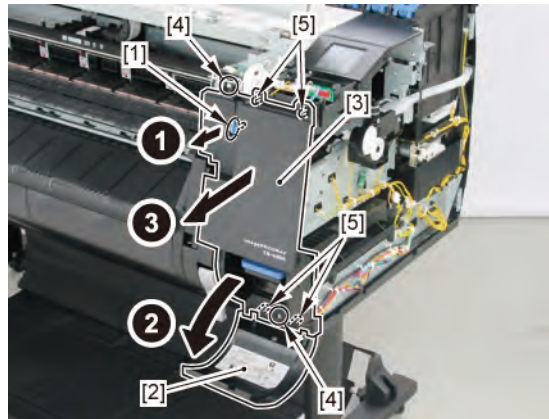
**Notes when removing the unit:**

Place the PLATEN, INK PRE EJECTION on paper towel, etc.




**Point**

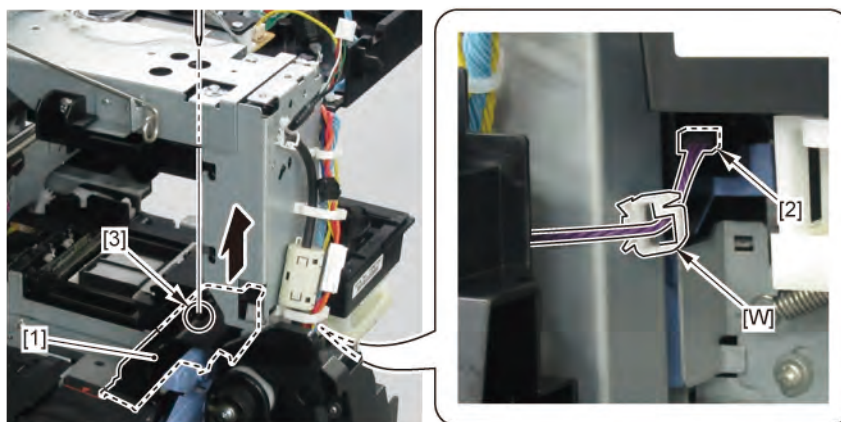
8. Remove [1] PLATEN CLEANER BRUSH.
9. Open [2] COVER UNIT, MTC.
10. Remove [3] COVER, FRONT R.

[4]	[5]
	
2 pcs	4 pcs



## 11. Remove [1] COVER, HOME POSITION.




[2]	[3]	[W]
		
1 pc	1 pc	1 pc

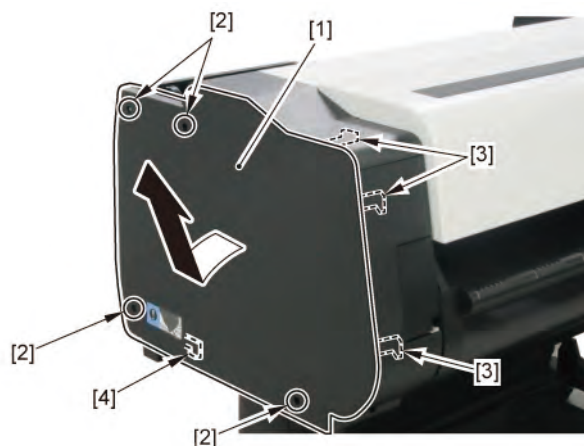


### B-1



## 12. Remove [2] a set of

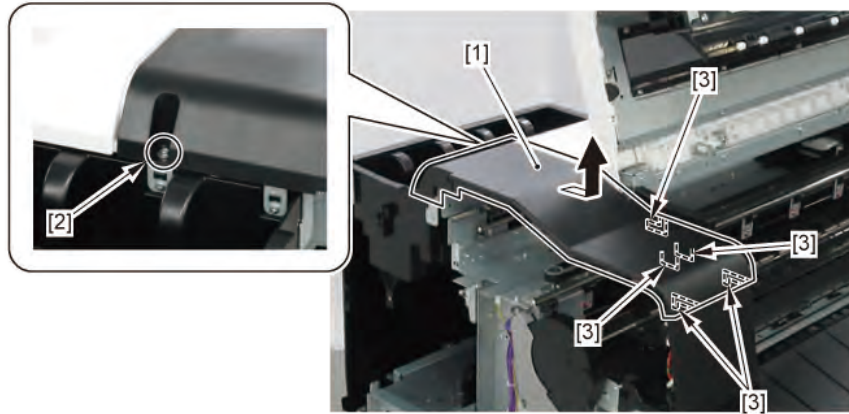
- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.

[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc





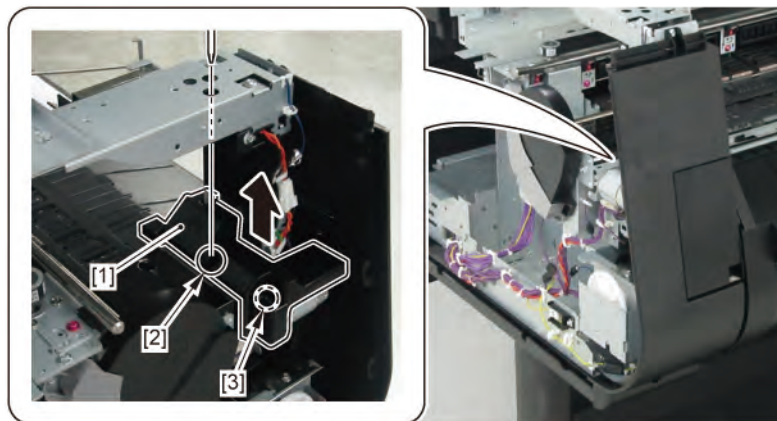
### 13. Remove [1] COVER, TOP L.

[2]	[3]
	
1 pc	5 pcs



### 14. Remove [1] COVER, BACK POSITION.

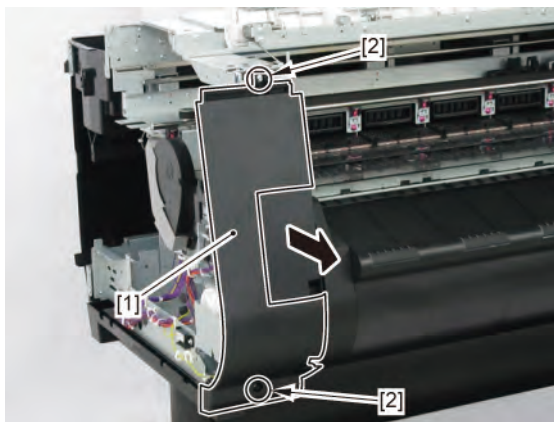
[2]	[3]
	
1 pc	1 pc



15. Remove [1] COVER, FRONT L.



[2]

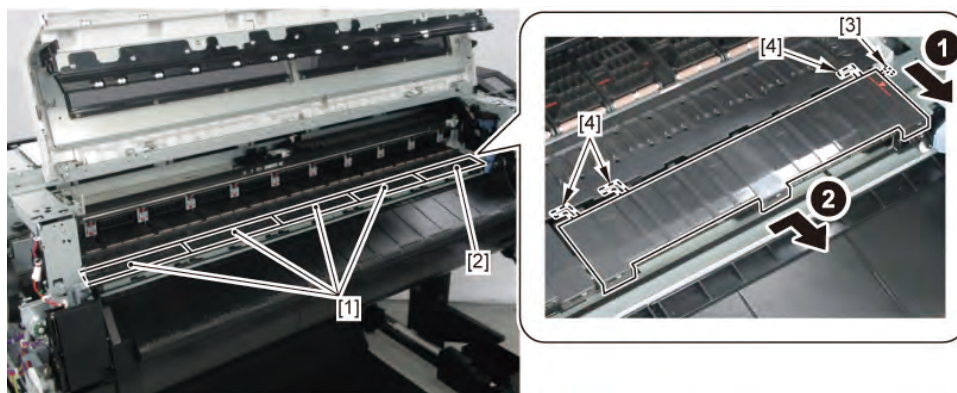
2 pc



16. (24" model, 44" model)

Remove [1] PLATEN, UNDER HOME and [2] four pieces of PLATEN, UNDER A (two pieces in 24" model).



[3]	[4]
	
1 pc each	3 pcs each

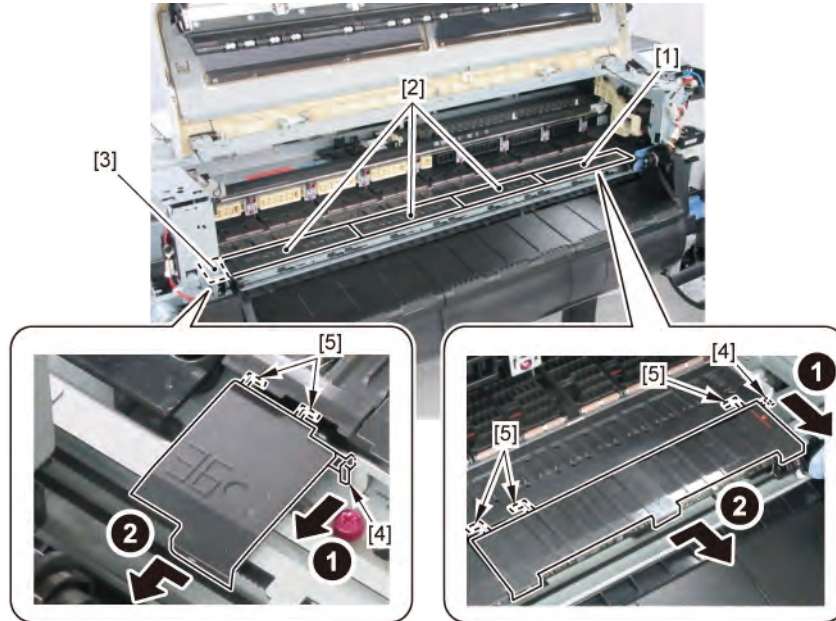






(36" model)

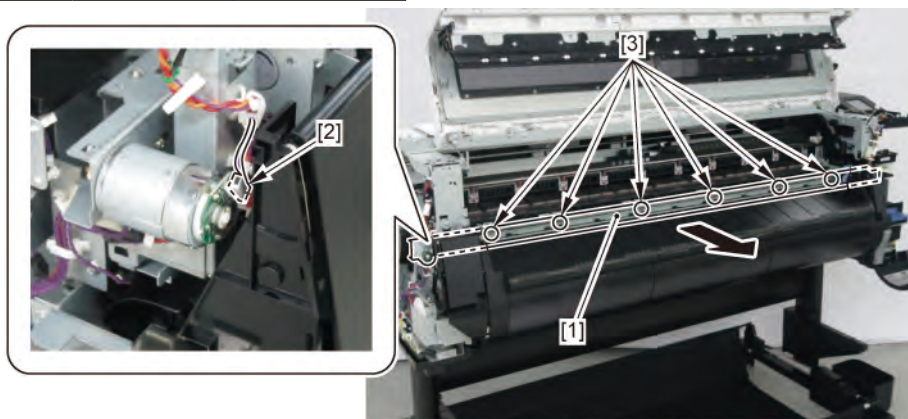
Remove [1] PLATEN, UNDER HOME, three pieces of [2] PLATEN, UNDER A, and [3] PLATEN, UNDER C.

	[4]	[5]
		
PLATEN, UNDER HOME [1]	1 pc	3 pcs
PLATEN, UNDER A [2]	1 pc each	3 pcs each
PLATEN, UNDER C [3]	1 pc	2 pcs



## 17. Remove [1] CUTTER BLADE UNIT.

	[2]	[3]
		
24" model	1 pc	4 pcs
36" model	1 pc	5 pcs
44" model	1 pc	6 pcs

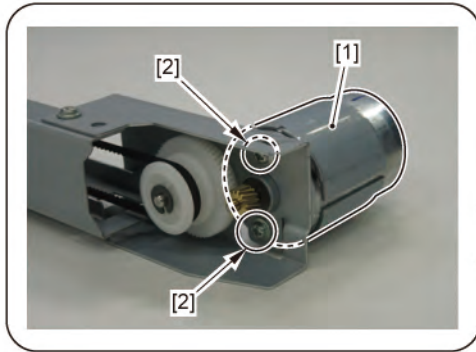




18. Remove [1] CUTTER MOTOR UNIT, W/ENCODER.


[2]

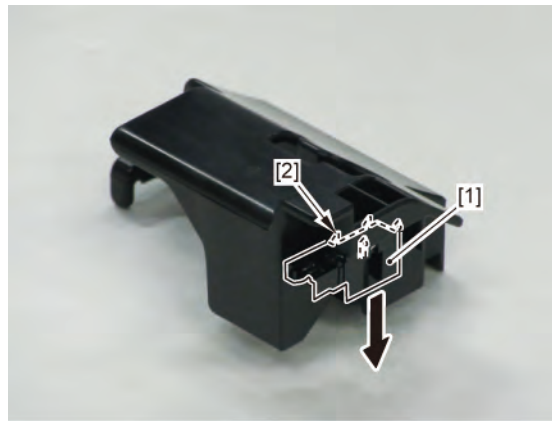
2 pcs



**B-2**

12. Remove [1] CUTTER HP SENSOR.

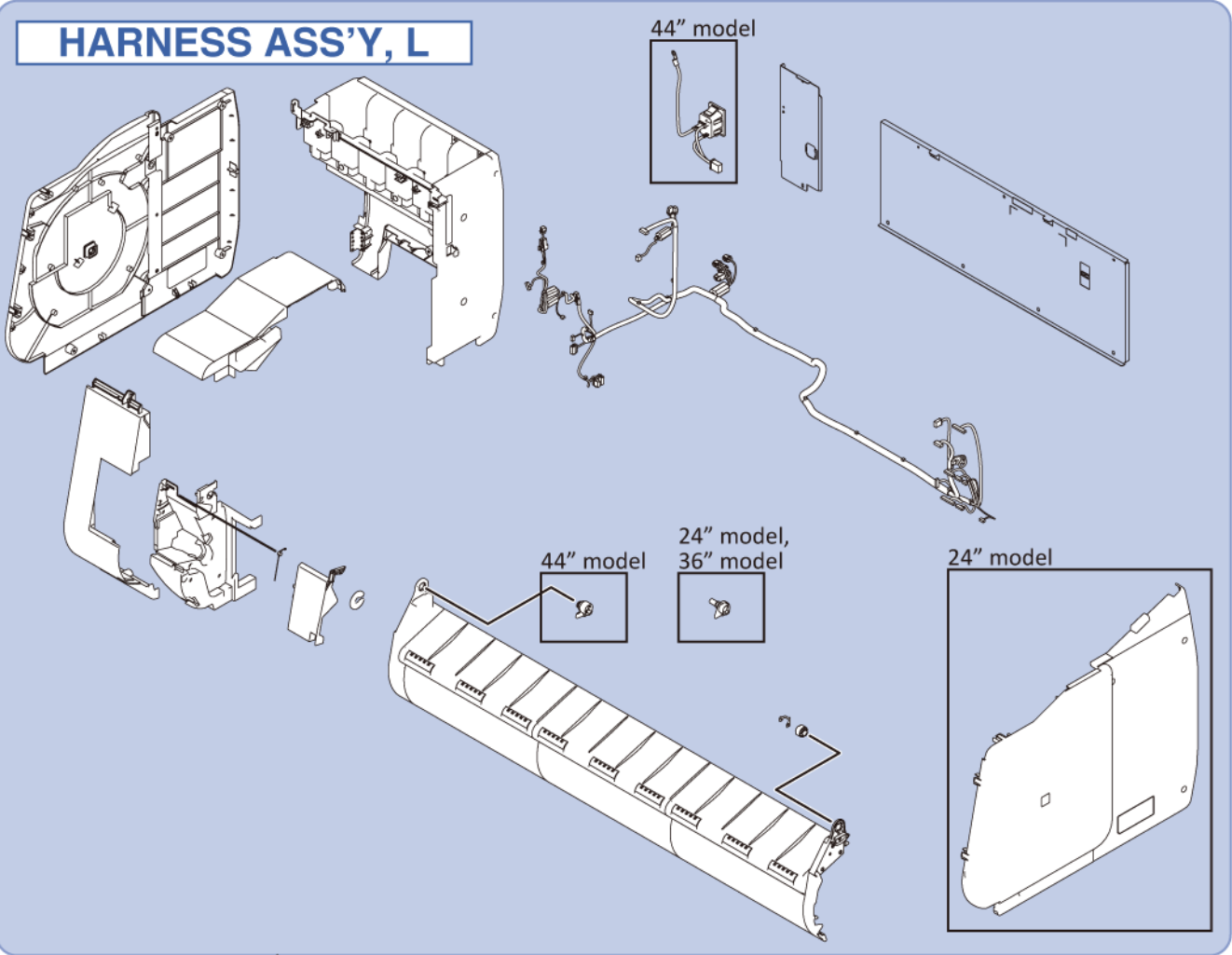
[2]

4 pcs



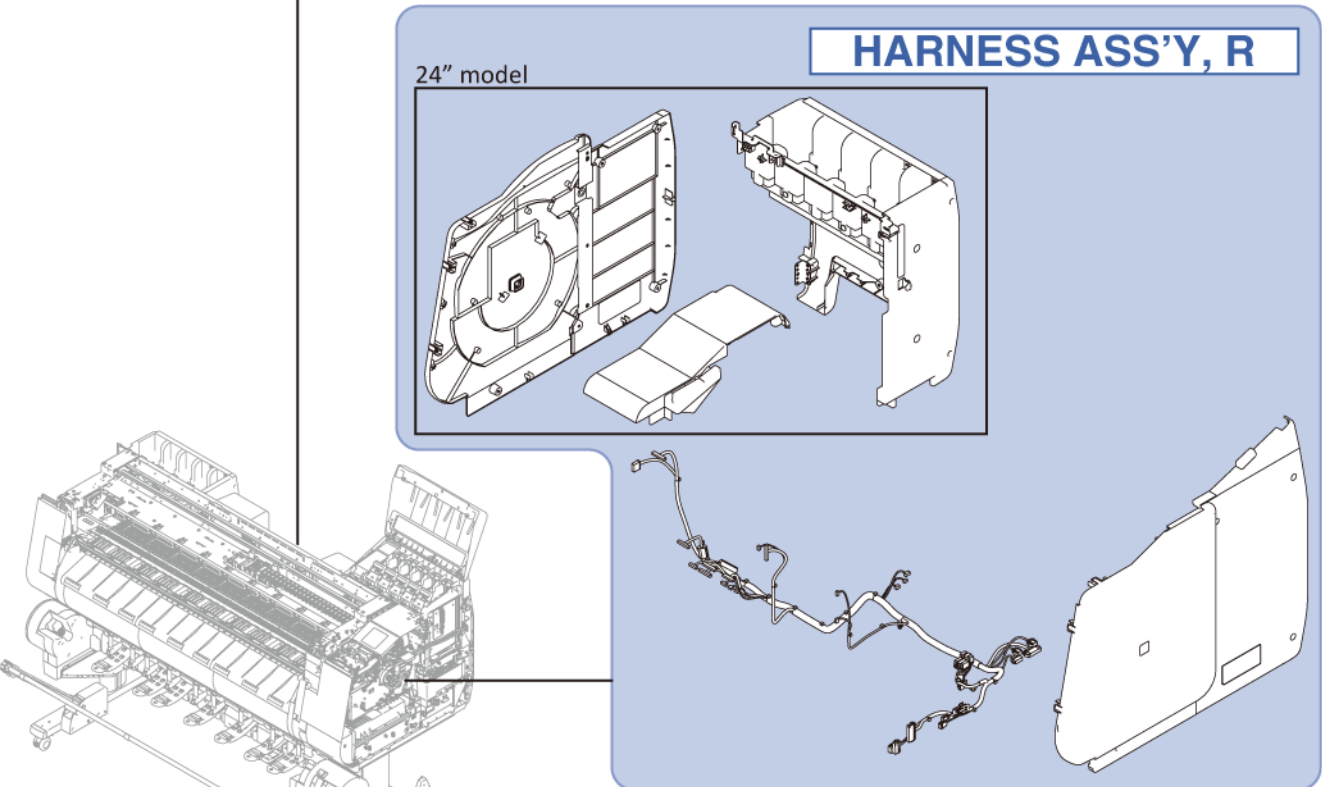


# 15 MAIN HARNESS

## HARNESS ASS'Y, L

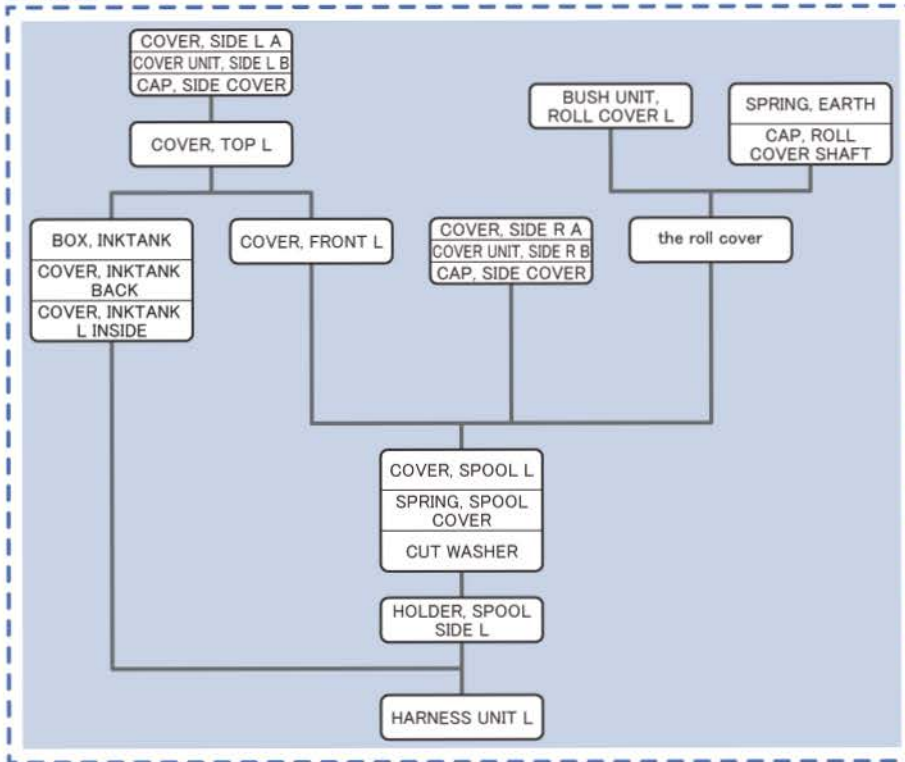


## HARNESS ASS'Y, R

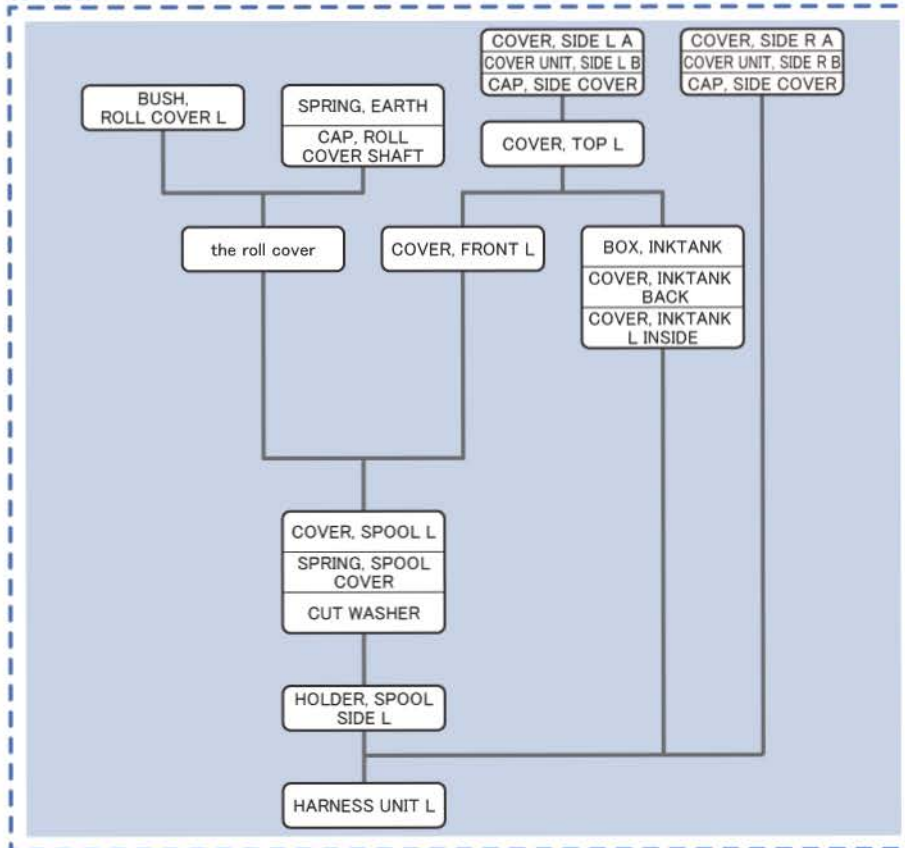


## HARNES ASS`Y L

24" model

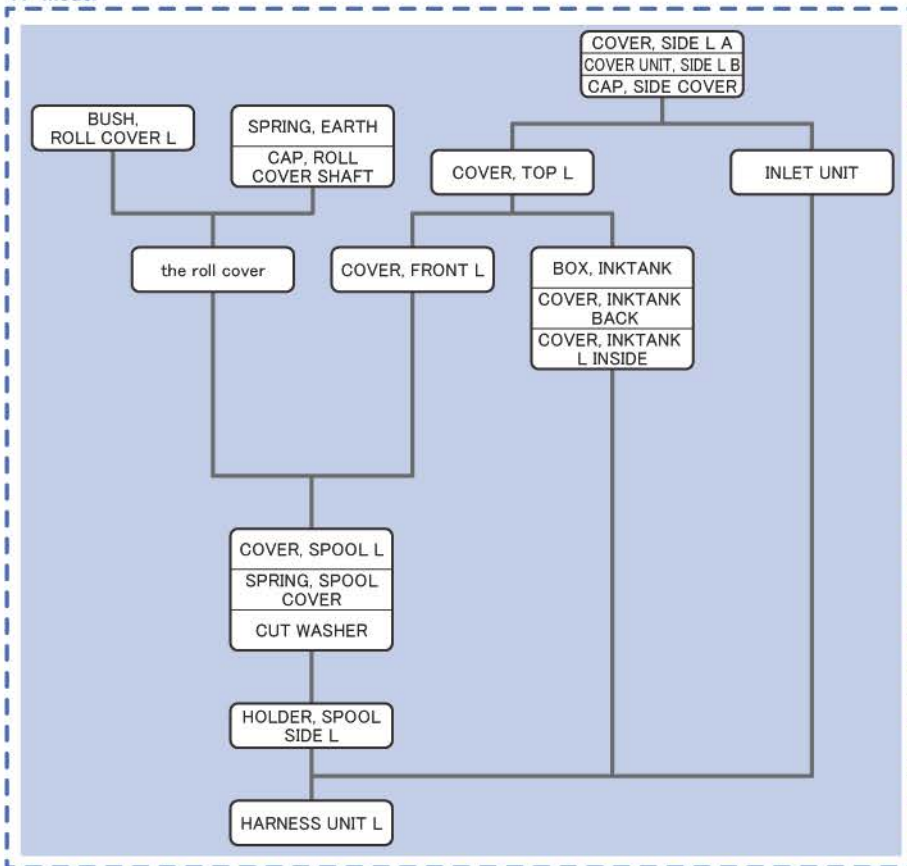


36" model



# HARNESS ASS'Y L

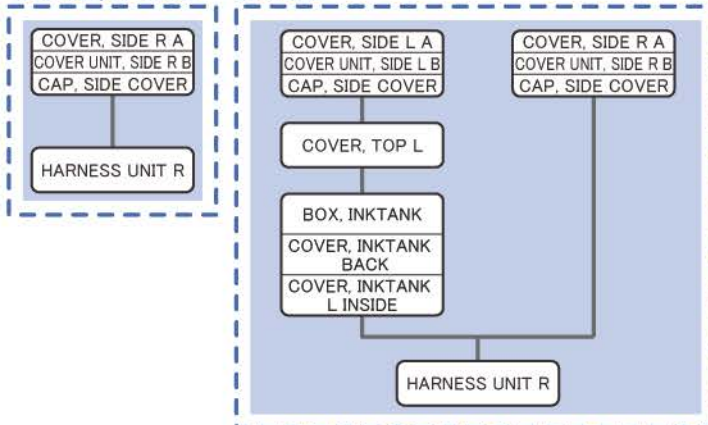
44" model



# HARNESS ASS'Y R

36" model, 44" model

24" model






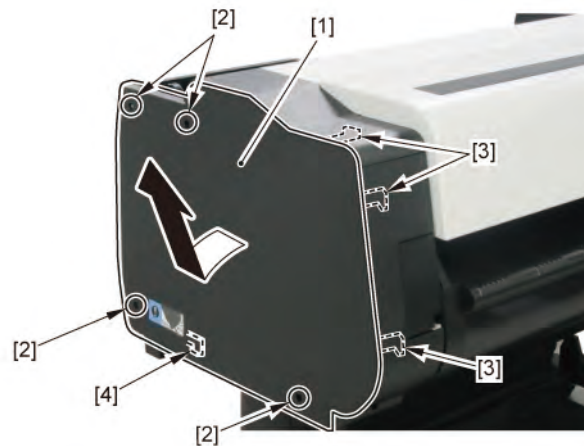


## HARNESS ASS'Y, L (24" model)

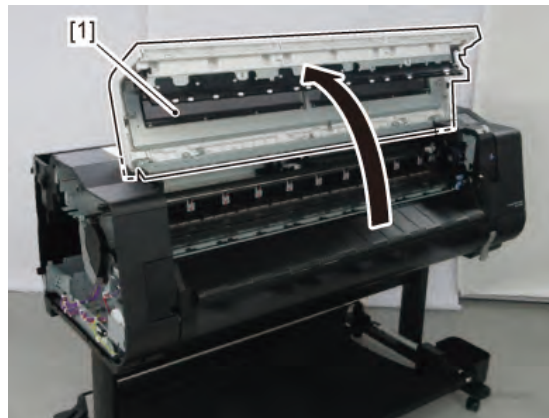
### 1. Remove [1] a set of

- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.



[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc

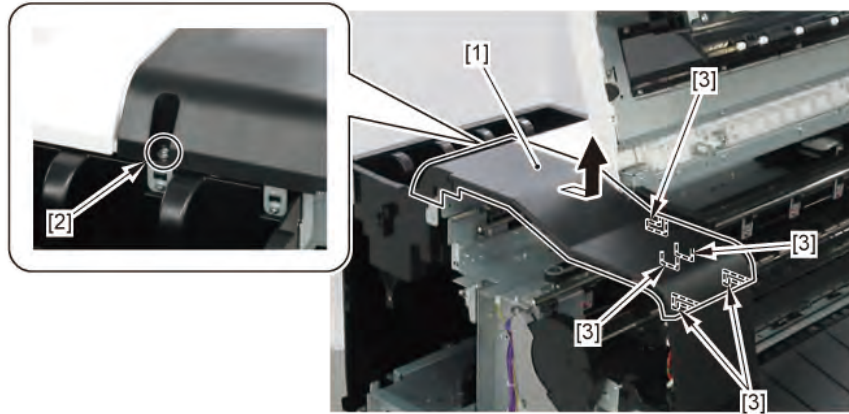


### 2. Open [1] the access cover.





3. Remove [1] COVER, TOP L.

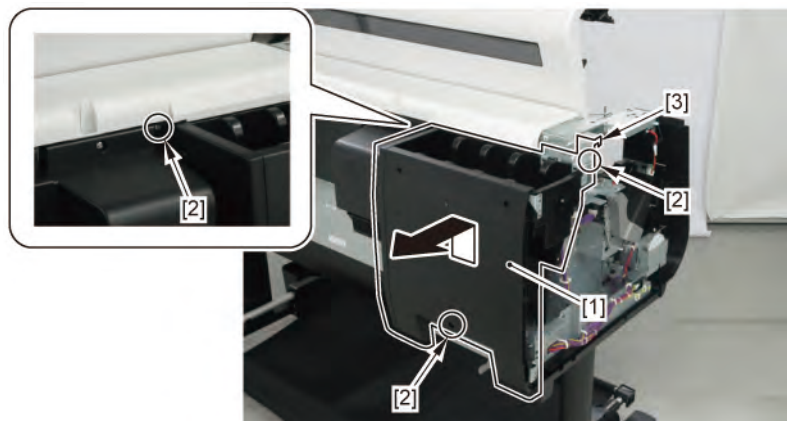
[2]	[3]
	
1 pc	5 pcs



4. Remove [1] a set of

- BOX, INKTANK
- COVER, INKTANK BACK
- COVER, INKTANK L INSIDE.

[2]	[3]
	
3 pcs	1 pc






5. Open [1] the right ink tank cover.

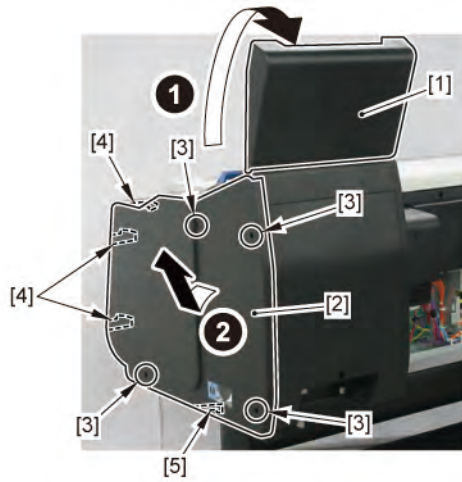
6. Remove [2] a set of

- COVER, SIDE R A

- COVER UNIT, SIDE R B

- CAP, SIDE COVER.

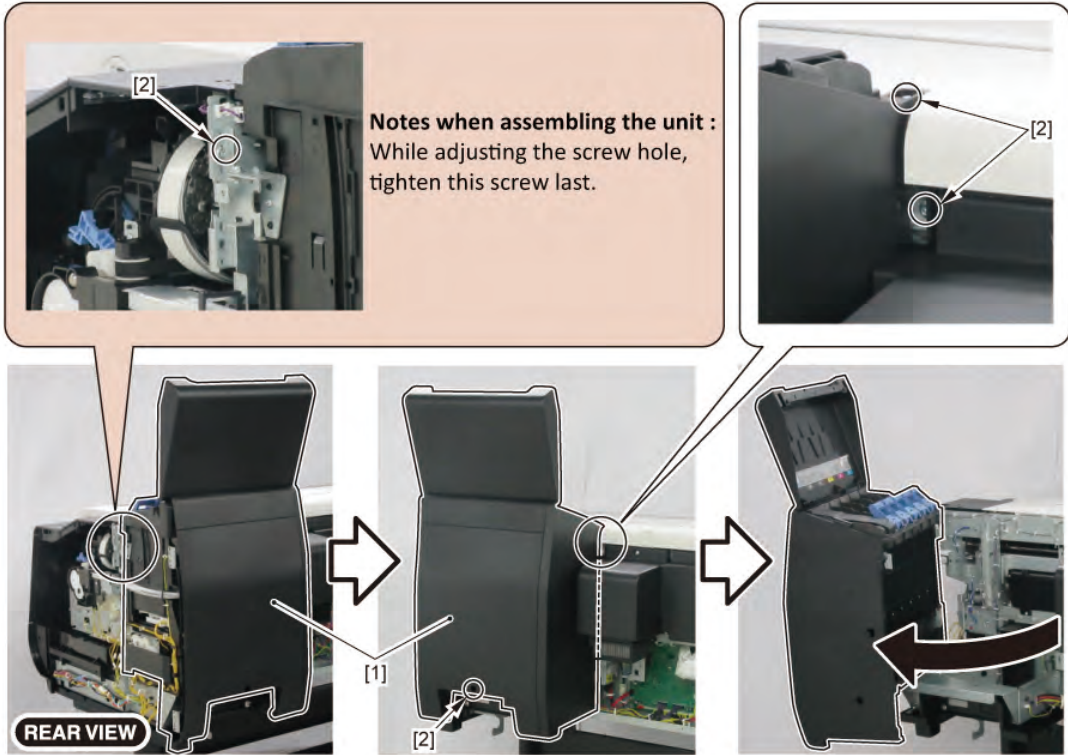
[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc





7. Open [1] the right ink unit.

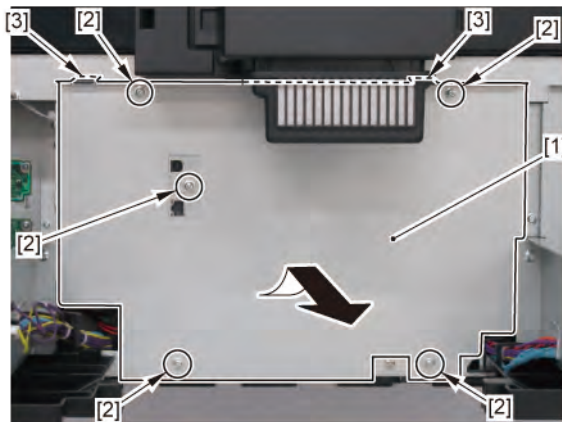
[2]

4 pcs





8. Remove [1] the plate.


[2]	[3]
	
5 pcs	2 pcs

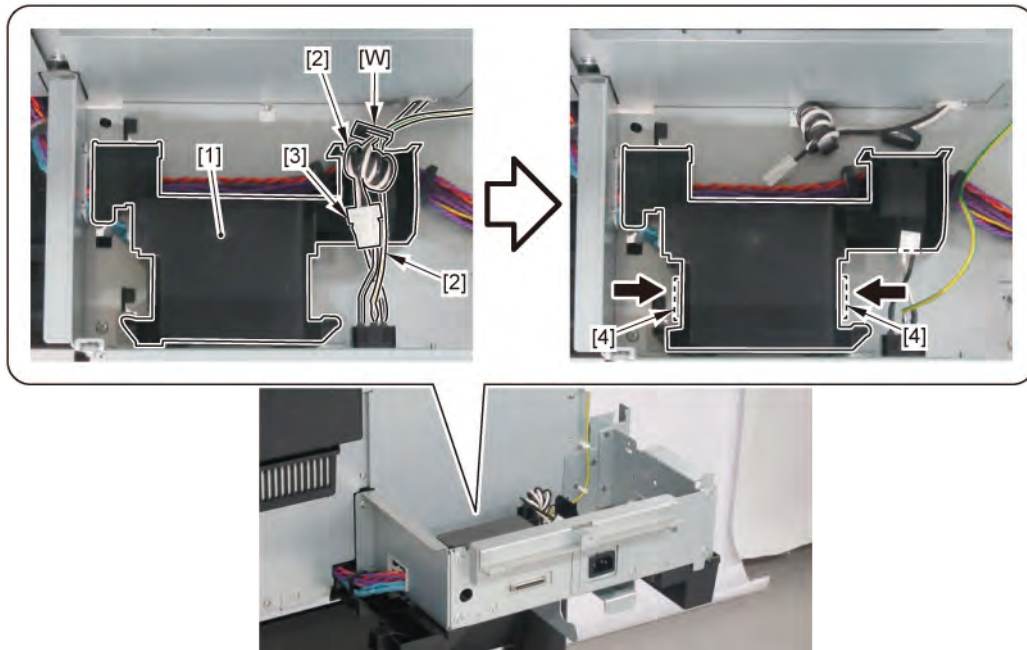


9. Disconnect [2] the cables from [1] the cover of the RELAY PCB.




[3]	[W]
	
1 pc	1 pc

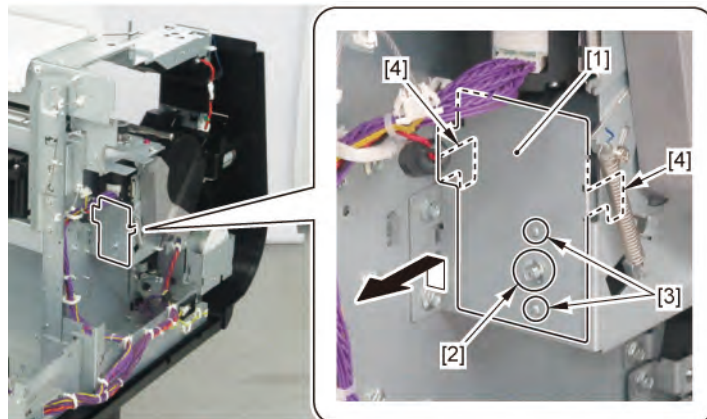
10. Remove [1] the cover of the RELAY PCB.

[4]

2 pcs



11. Remove [1] the plate.

[2]	[3]	[4]
		
1 pc	2 pcs	2 pcs

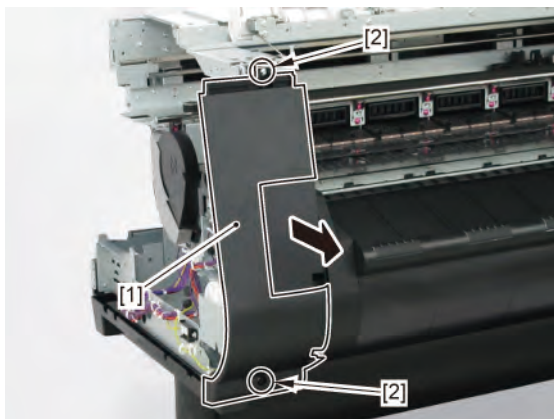





12. Remove [1] COVER, FRONT L.

[2]

2 pcs



13. Remove [1] SPRING, EARTH and [2] CAP, ROLL COVER SHAFT.

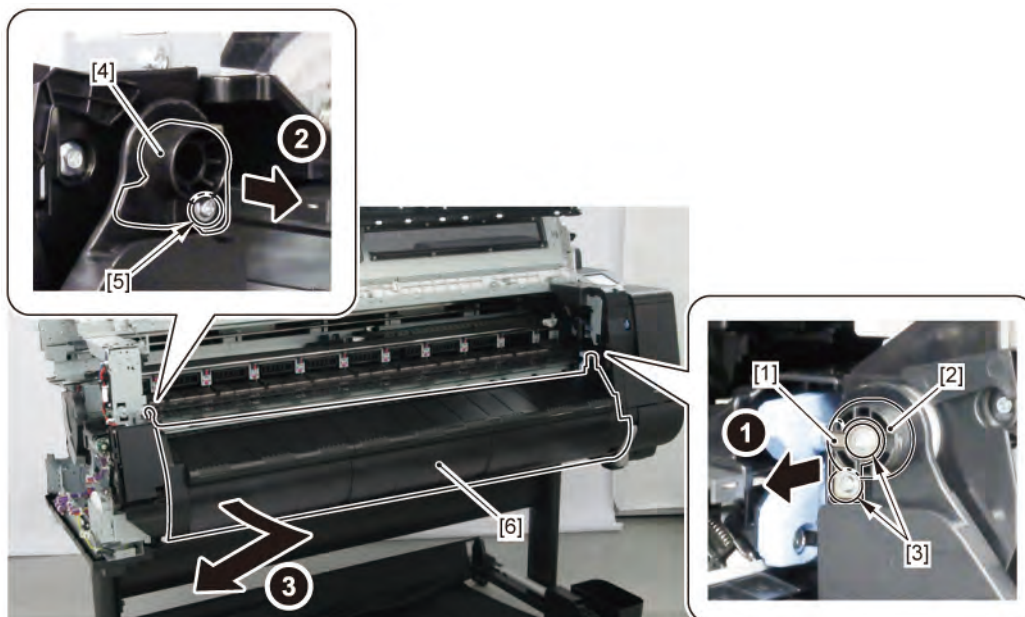
[3]

2 pcs

14. Remove [4] BUSH UNIT, ROLL COVER L.

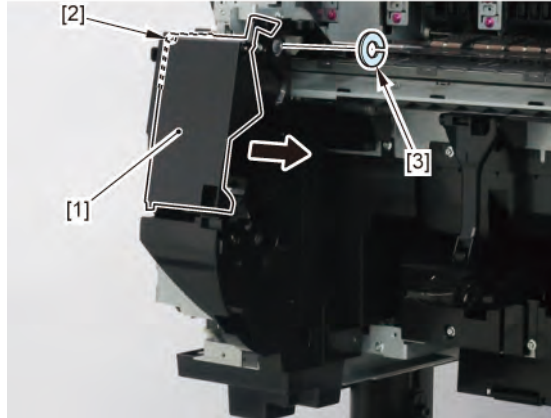
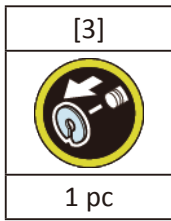
[5]

1 pc

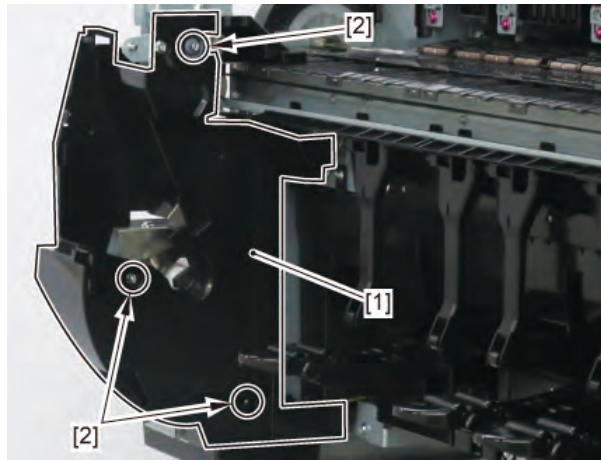
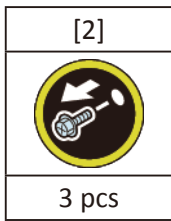
15. Remove [6] the roll cover.







16. Remove [1] COVER, SPOOL L and [2] SPRING, SPOOL COVER.

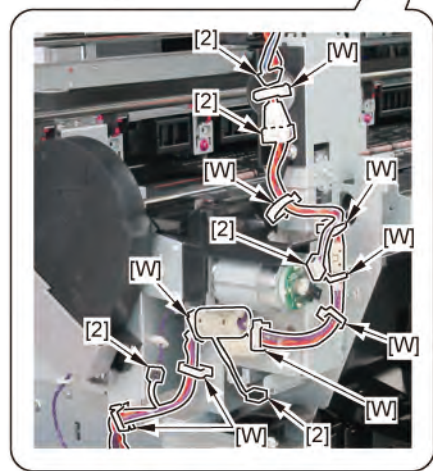
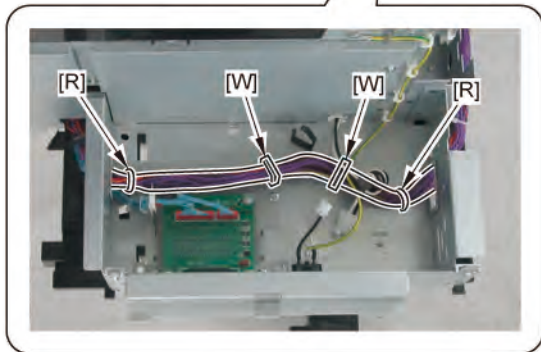
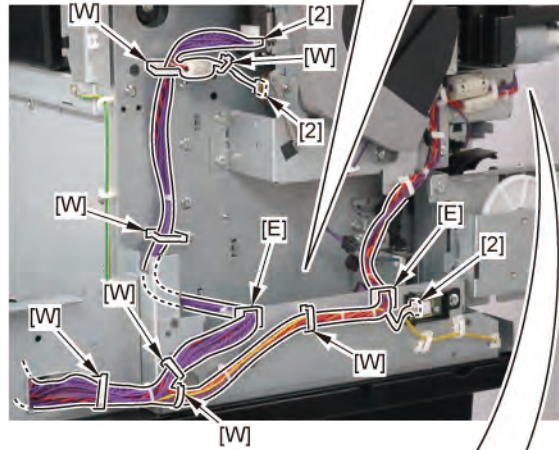
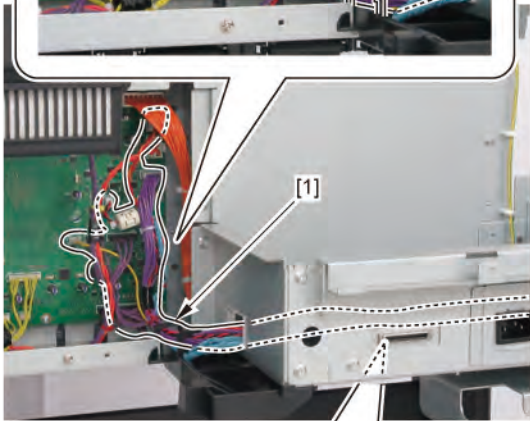
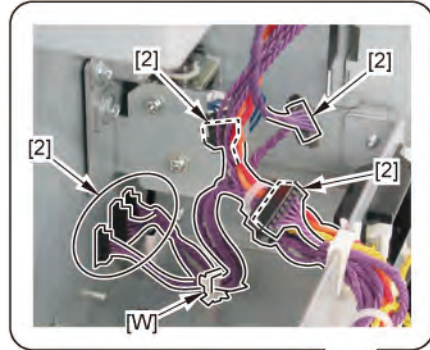
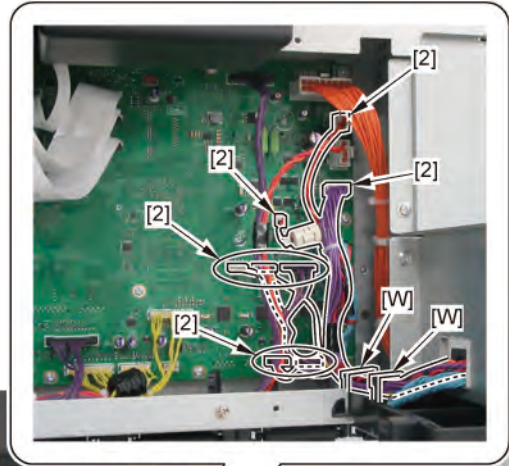


17. Remove [1] HOLDER, SPOOL SIDE L.






18. Disconnect [1] HARNESS ASS'Y, L.

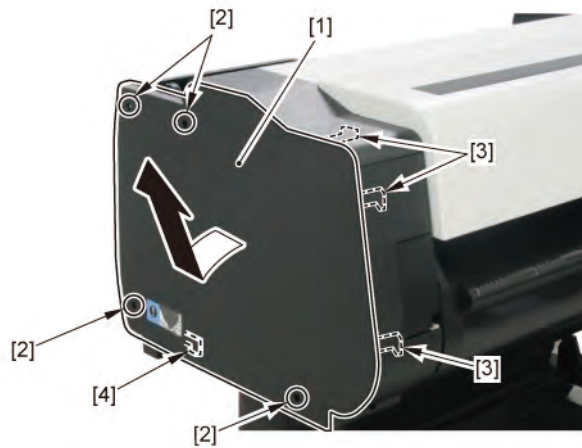
[2]	[W]	[E]	[R]
			
22 pcs	21 pcs	2 pcs	2 pcs



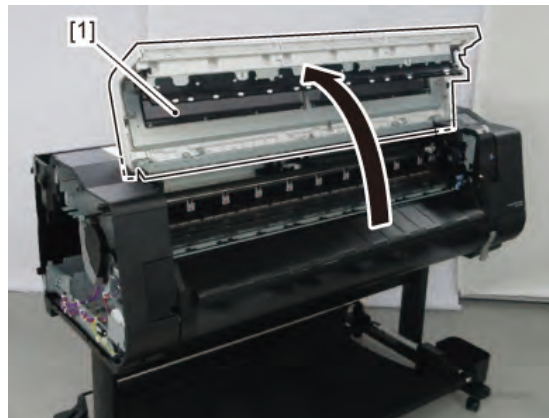
# HARNESS ASS'Y, L (36" model)

- Remove [1] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.

[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc





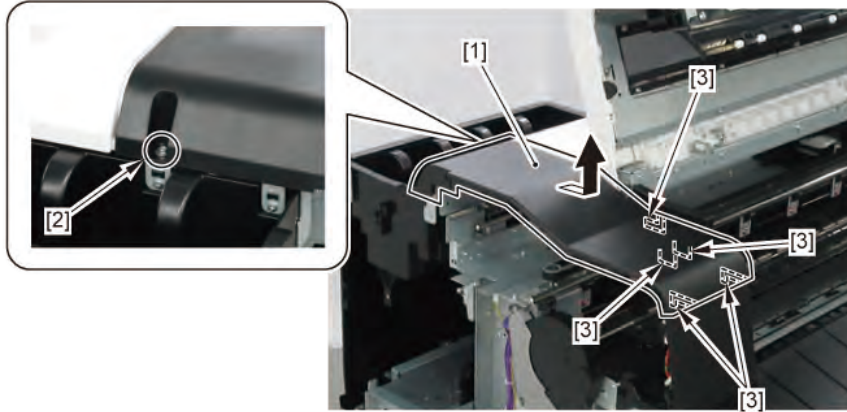
- Open [1] the access cover.







3. Remove [1] COVER, TOP L.

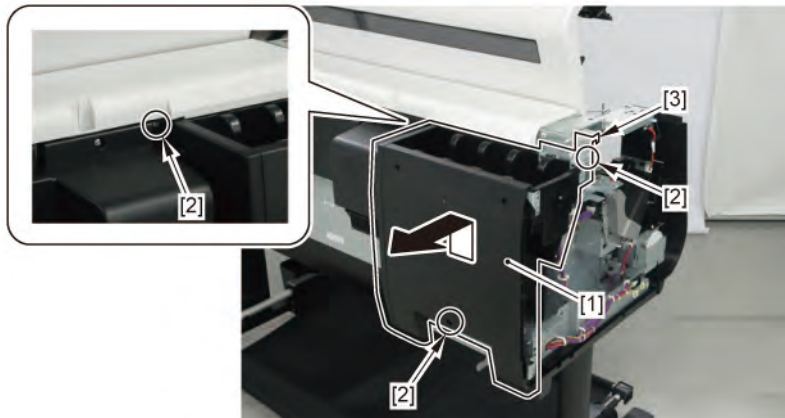
[2]	[3]
	
1 pc	5 pcs



4. Remove [1] a set of

- BOX, INKTANK
- COVER, INKTANK BACK
- COVER, INKTANK L INSIDE.

[2]	[3]
	
3 pcs	1 pc








5. Open [1] the right ink tank cover.

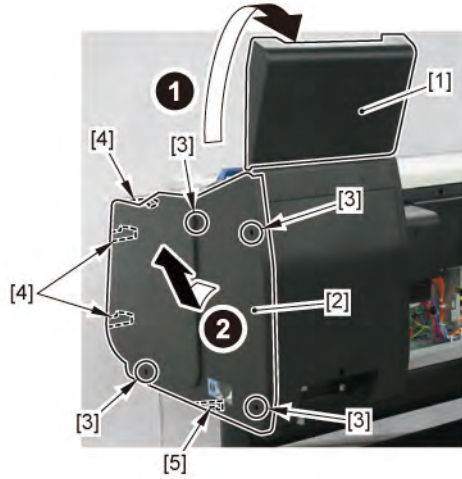
6. Remove [2] a set of

- COVER, SIDE R A

- COVER UNIT, SIDE R B

- CAP, SIDE COVER.

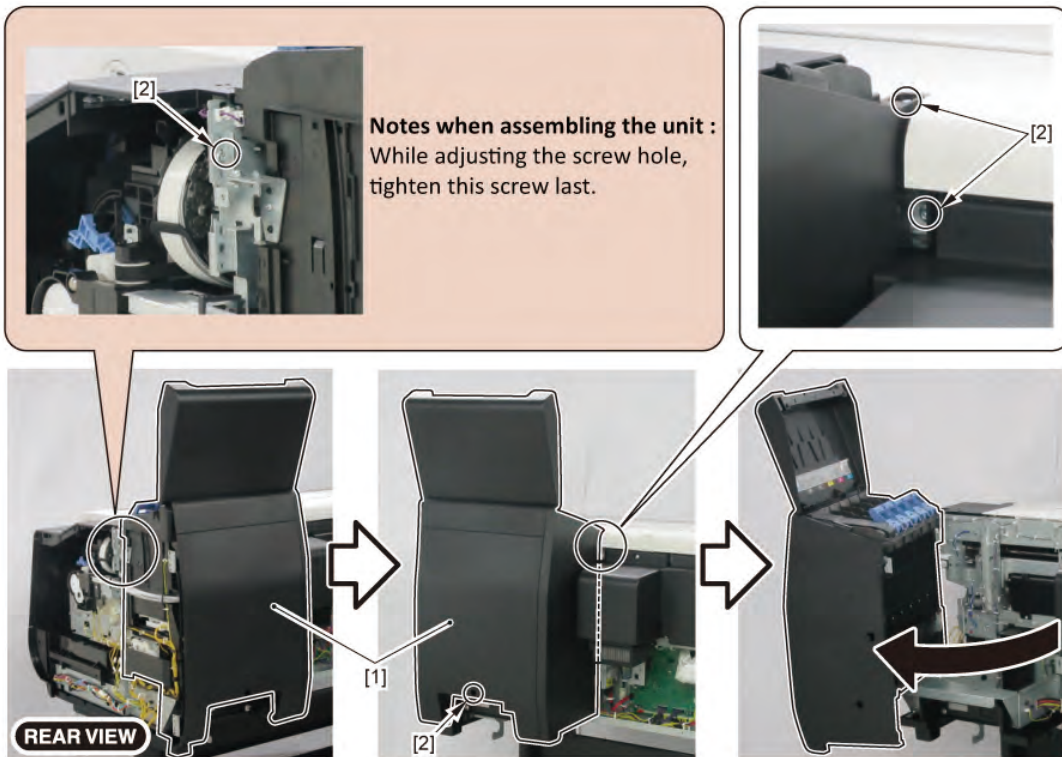
[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc



7. Open [1] the right ink unit.

[2]



4 pcs

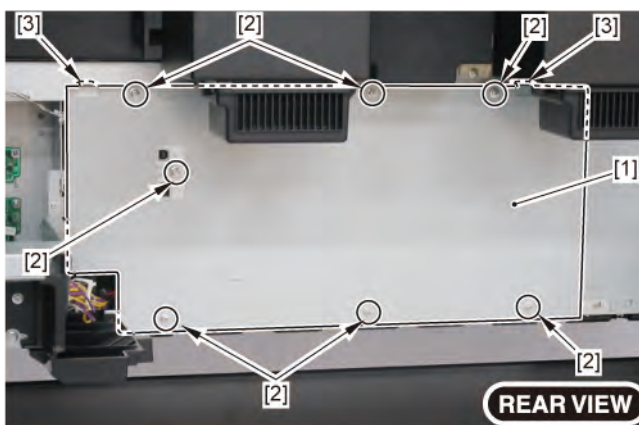


**Notes when assembling the unit :**  
While adjusting the screw hole, tighten this screw last.



**REAR VIEW**

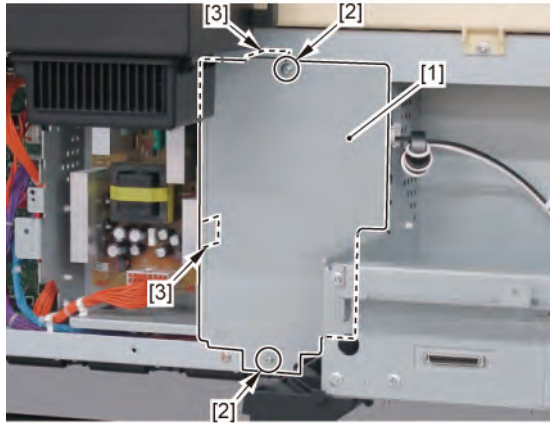
8. Remove [1] the plate.

[2]	[3]
	
7 pcs	2 pcs





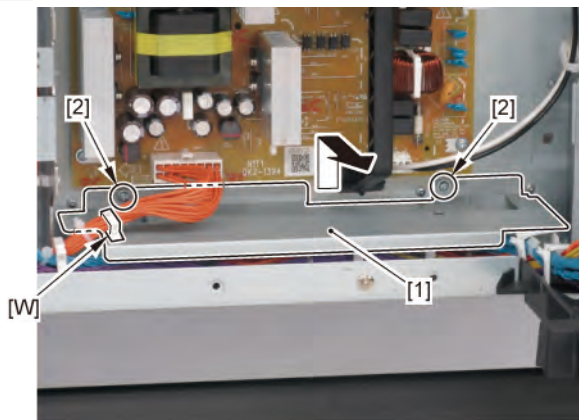
9. Remove [1] the plate.

[2]	[3]
	
2 pcs	2 pcs





10. Remove [1] the plate.


[2]	[W]
	
2 pcs	1 pc

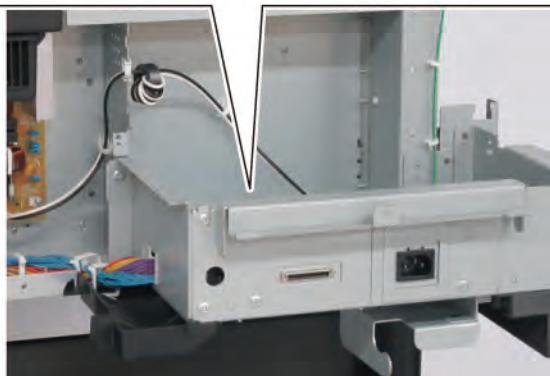
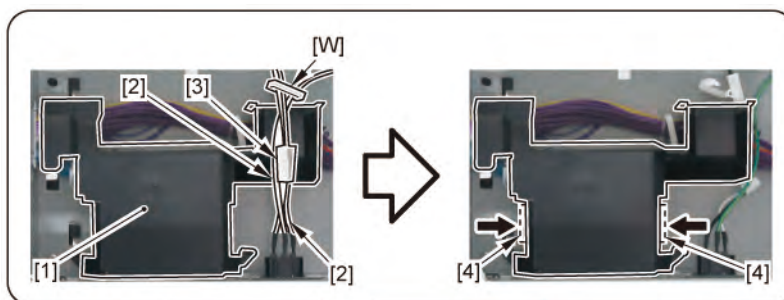


11. Disconnect [2] the cables from [1] the cover of the RELAY PCB.




[3]	[W]
	
1 pc	1 pc

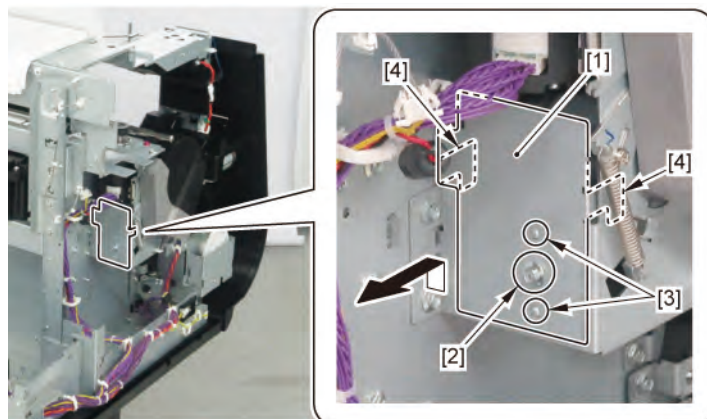
12. Remove [1] the cover of the RELAY PCB.

[4]

2 pcs

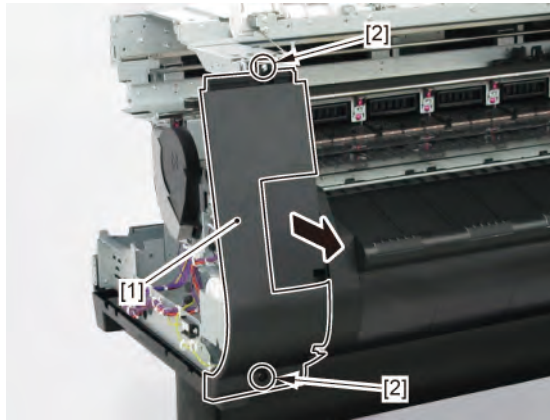
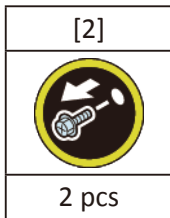


13. Remove [1] the plate.

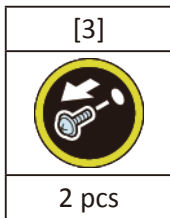
[2]	[3]	[4]
		
1 pc	2 pcs	2 pcs



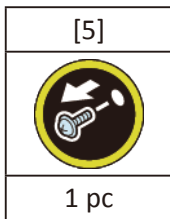
## 14. Remove [1] COVER FRONT L.



## 15. Remove [1] SPRING, EARTH and [2] CAP, ROLL COVER SHAFT.



## 16. Remove [4] BUSH UNIT, ROLL COVER L.




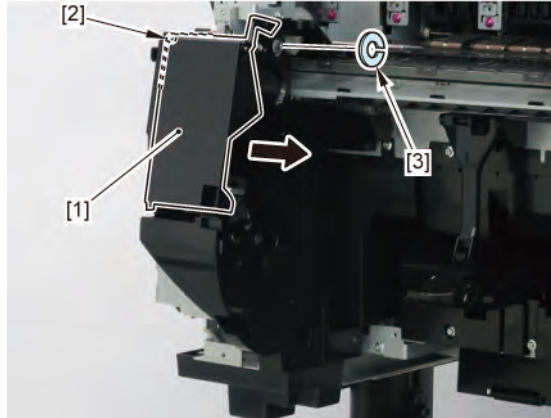
## 17. Remove [6] the roll cover.






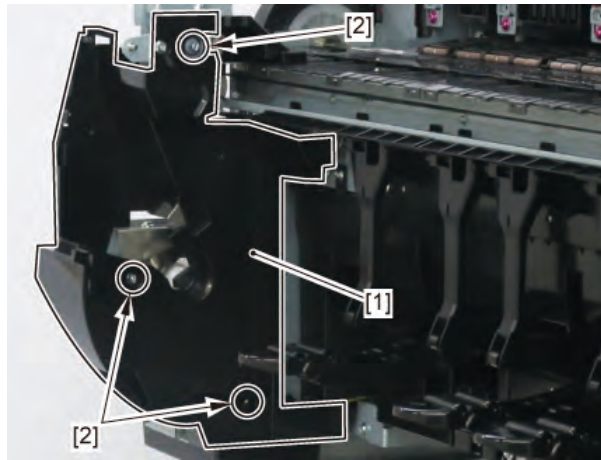
18. Remove [1] COVER, SPOOL L and [2] SPRING, SPOOL COVER.

[3]

1 pc







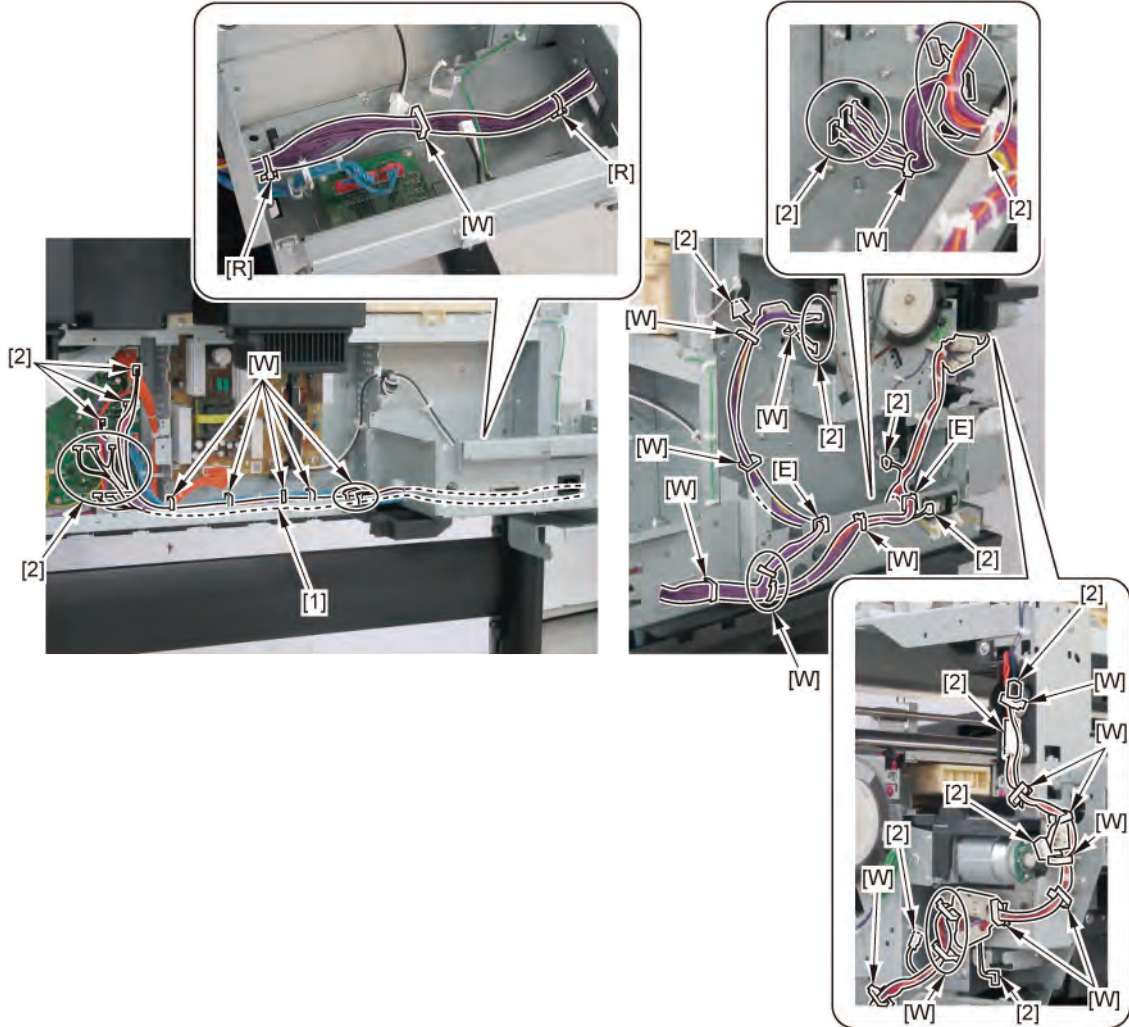
19. Remove [1] HOLDER, SPOOL SIDE L.

[2]

3 pcs






20. Disconnect [1] HARNESS ASS'Y, L.

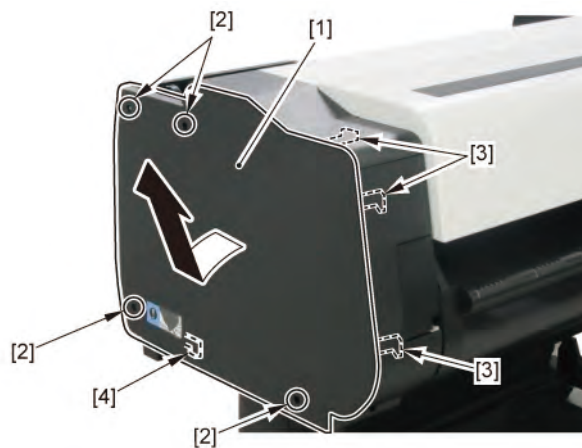
[2]	[W]	[E]	[R]
			
24 pcs	24 pcs	2 pcs	2 pcs



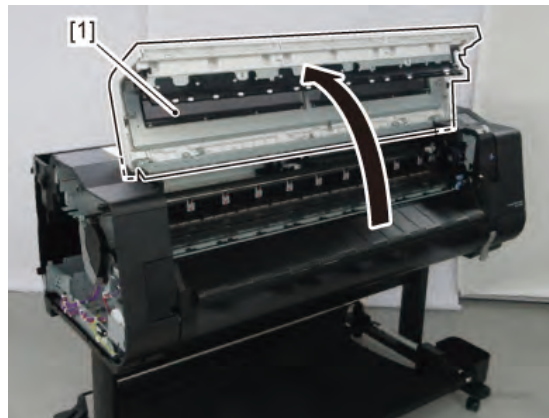
## HARNESS ASS'Y, L (44" model)

- Remove [1] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.



[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc

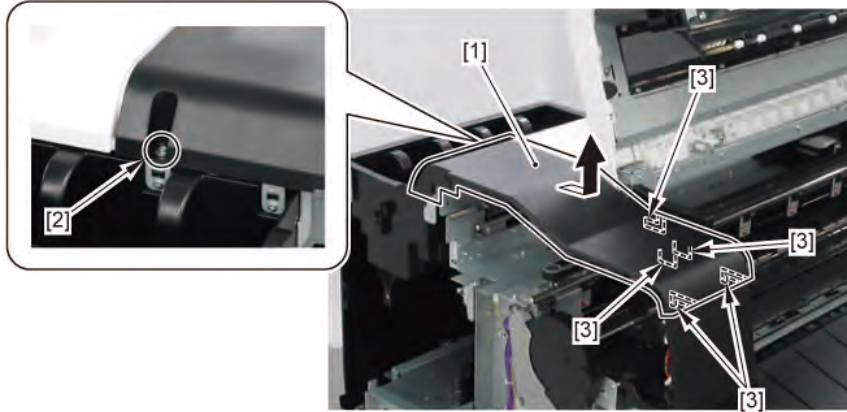


- Open [1] the access cover.





### 3. Remove [1] COVER, TOP L.

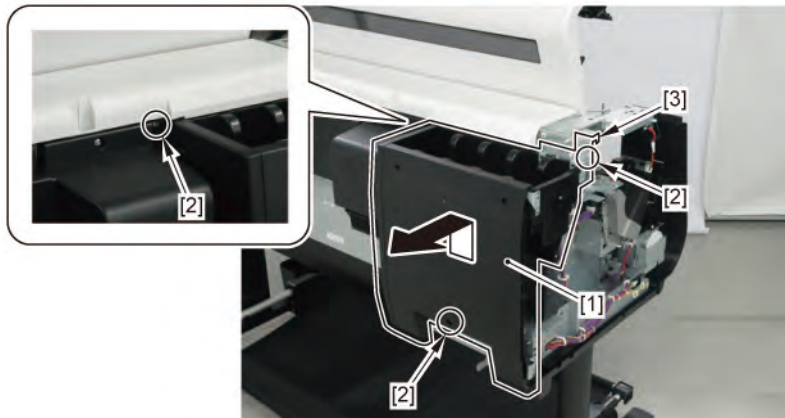
[2]	[3]
	
1 pc	5 pcs





### 4. Remove [1] a set of

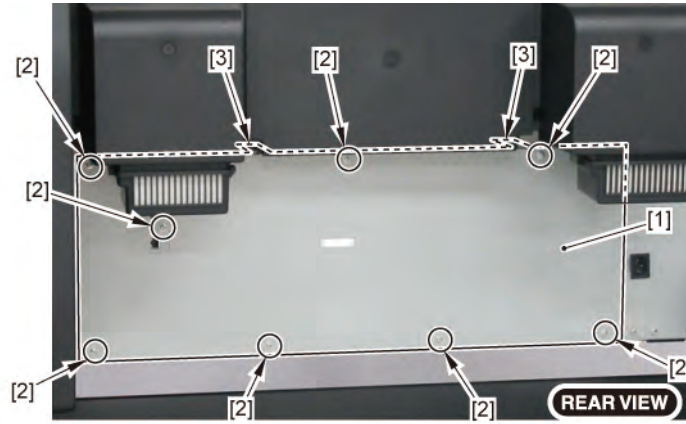
- BOX, INKTANK
- COVER, INKTANK BACK
- COVER, INKTANK L INSIDE.

[2]	[3]
	
3 pcs	1 pc






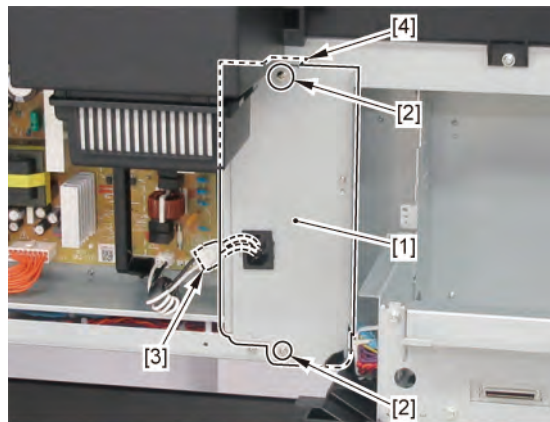
5. Remove [1] the plate.

[2]	[3]
	
8 pcs	2 pcs





6. Remove [1] the plate (with the INLET UNIT).

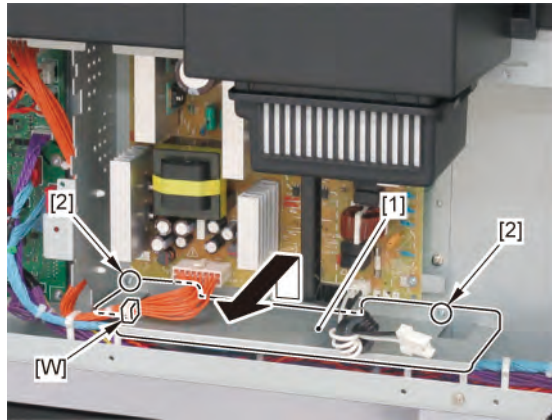
[2]	[3]	[4]
		
2 pcs	1 pc	1 pc





7. Remove [1] the plate.

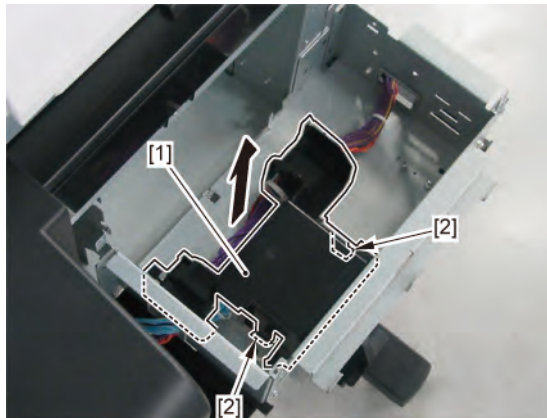
[2]	[W]
	
2 pcs	1 pc






8. Remove [1] the cover of the RELAY PCB.

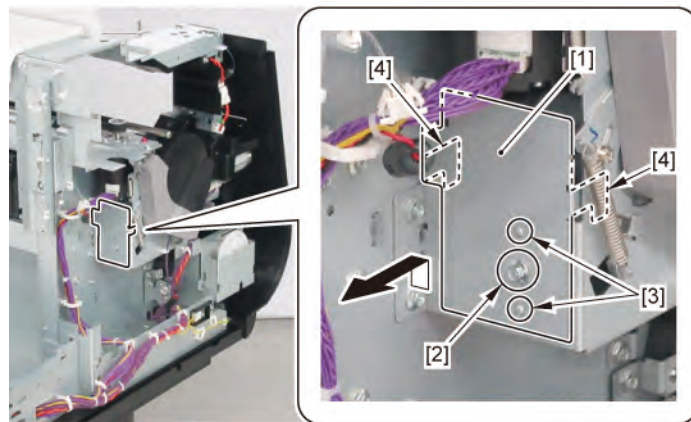
[2]

2 pcs




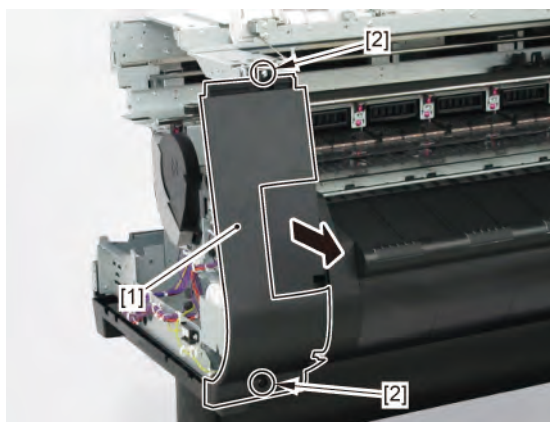
9. Remove [1] the plate.

[2]	[3]	[4]
		
1 pc	2 pcs	2 pcs

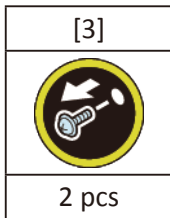


10. Remove [1] COVER FRONT L.

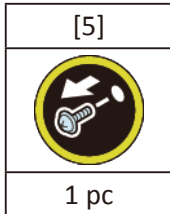
[2]

2 pcs



11. Remove [1] SPRING, EARTH and [2] CAP, ROLL COVER SHAFT.



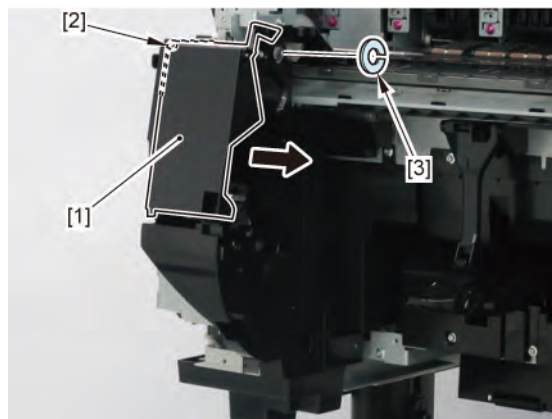
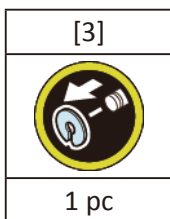
12. Remove [4] BUSH, ROLL COVER L.




13. Remove [6] the roll cover.

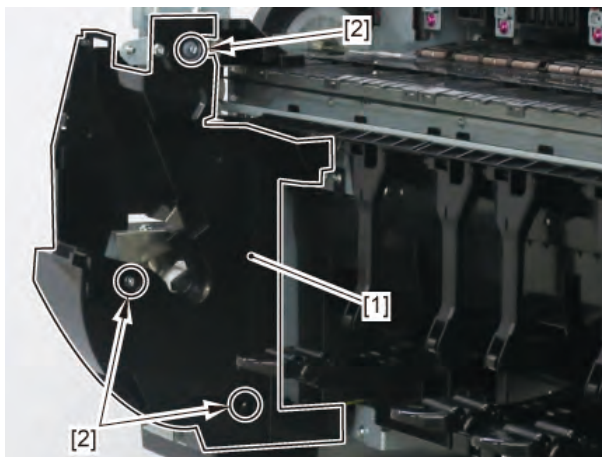


14. Remove [1] COVER, SPOOL L and [2] SPRING, SPOOL COVER.







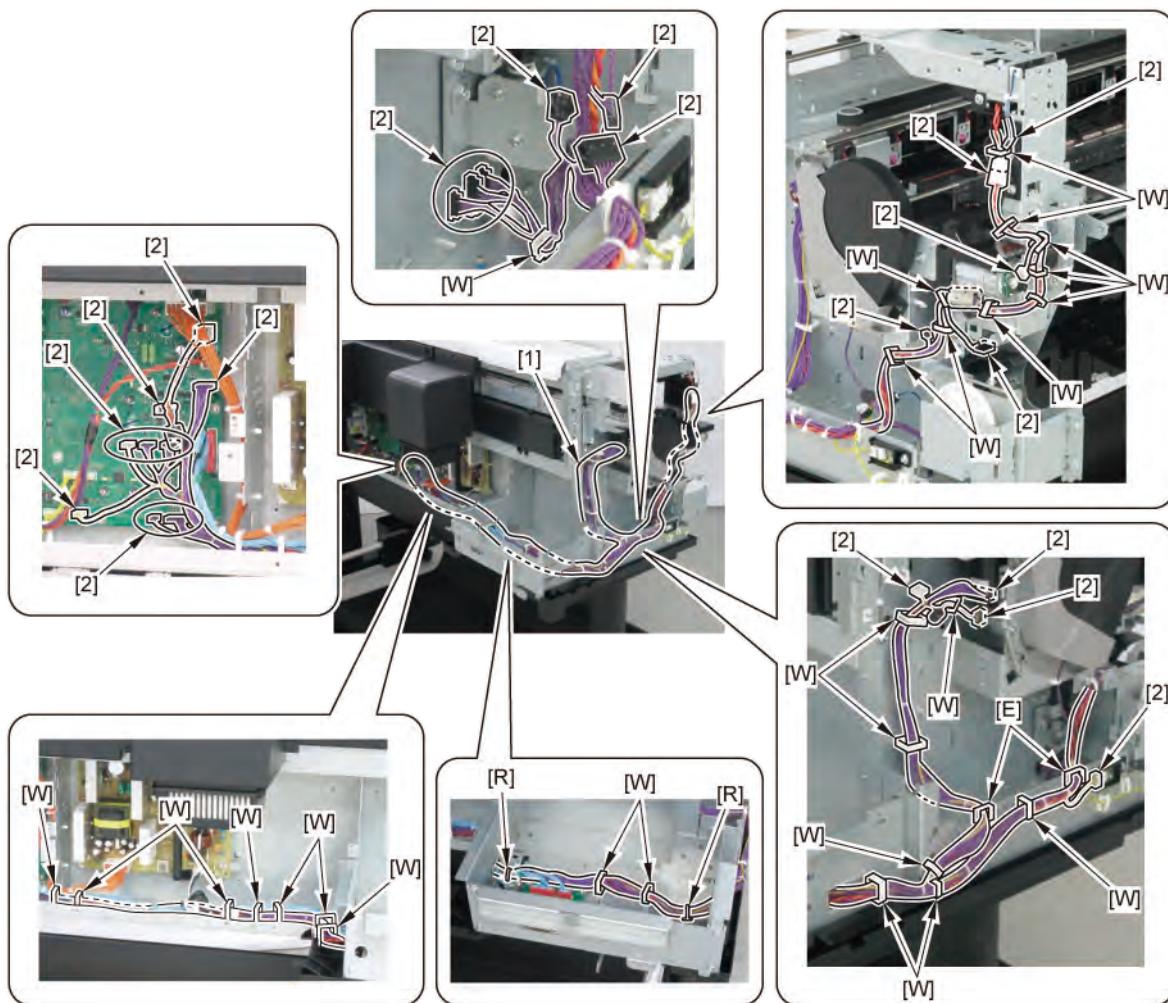
15. Remove [1] HOLDER, SPOOL SIDE L.

[2]

3 pcs



16. Disconnect [1] HARNESS ASS'Y, L.




[2]	[W]	[E]	[R]
			
24 pcs	26 pcs	2 pcs	2 pcs

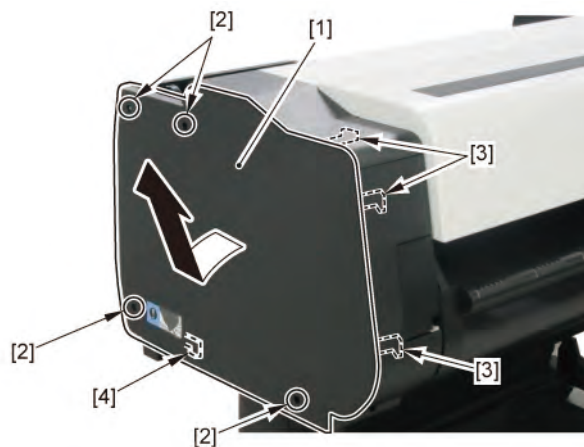




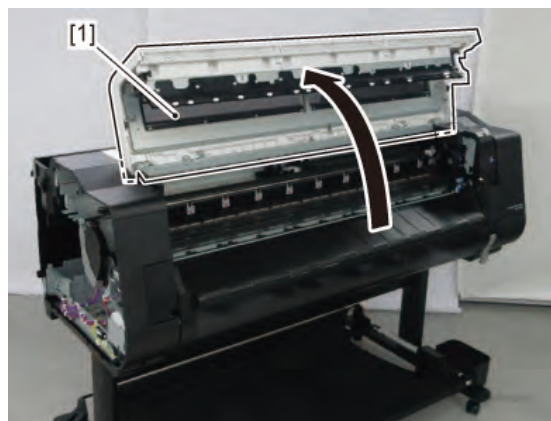
## HARNESS ASS'Y, R (24" model)

1. Remove [1] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.

[2]	[3]	[4]
		
4 pcs	3 pcs	1 pc





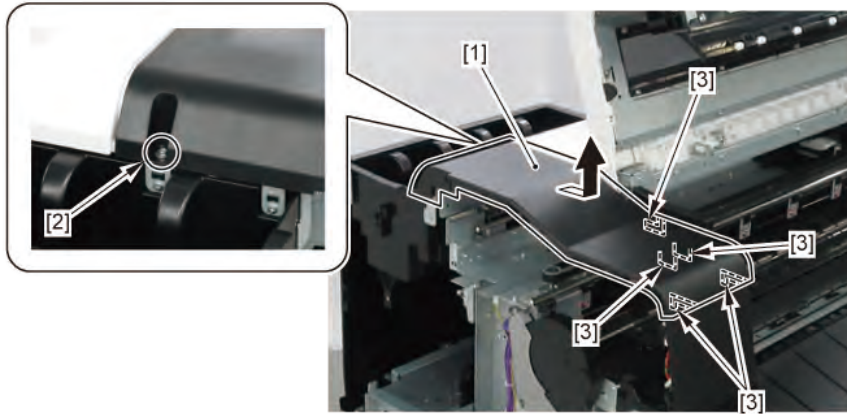
2. Open [1] the access cover.







3. Remove [1] COVER, TOP L.

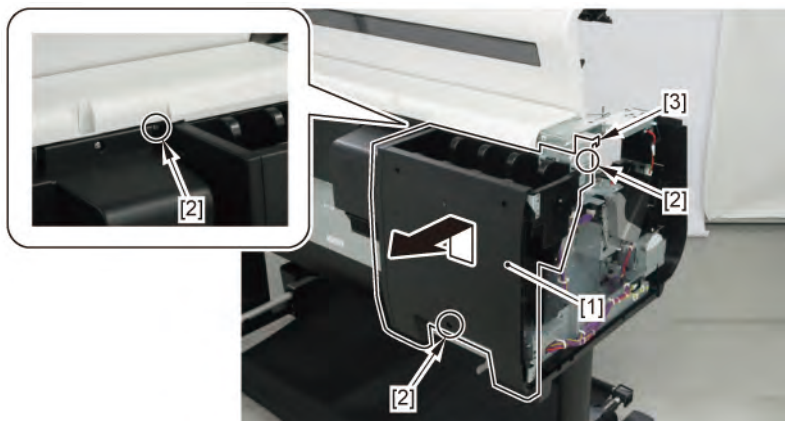
[2]	[3]
	
1 pc	5 pcs



4. Remove [1] a set of

- BOX, INKTANK
- COVER, INKTANK BACK
- COVER, INKTANK L INSIDE.

[2]	[3]
	
3 pcs	1 pc






5. Open [1] the right ink tank cover.

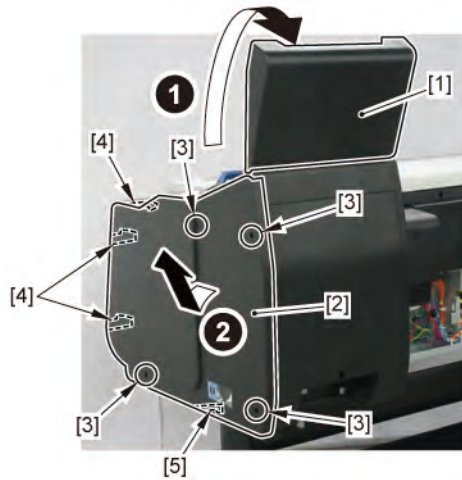
6. Remove [2] a set of

- COVER, SIDE R A

- COVER UNIT, SIDE R B

- CAP, SIDE COVER.

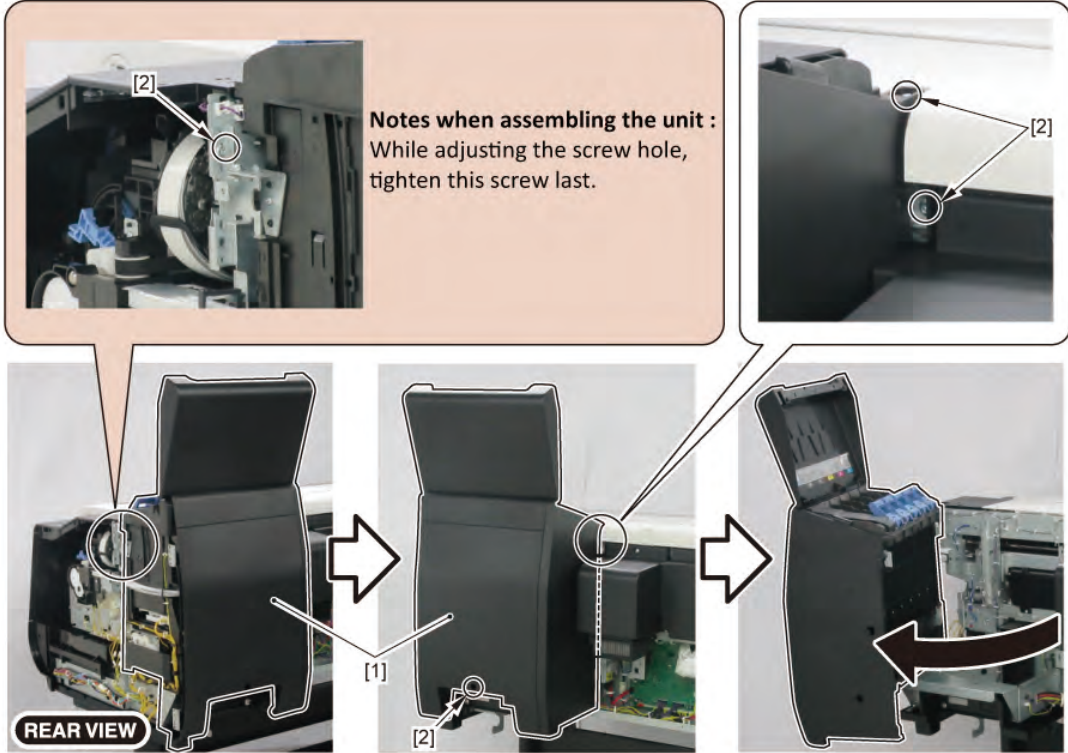
[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc





7. Open [1] the right ink unit.

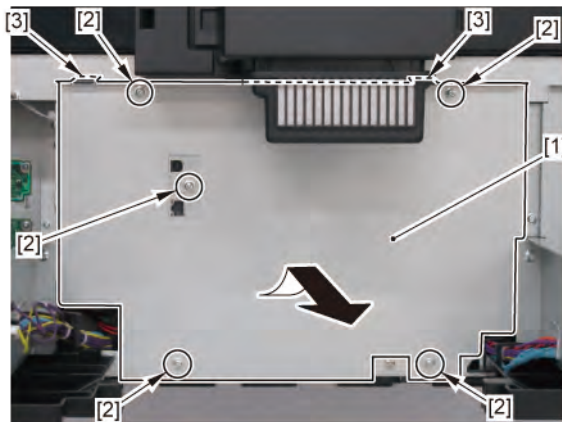
[2]

4 pcs







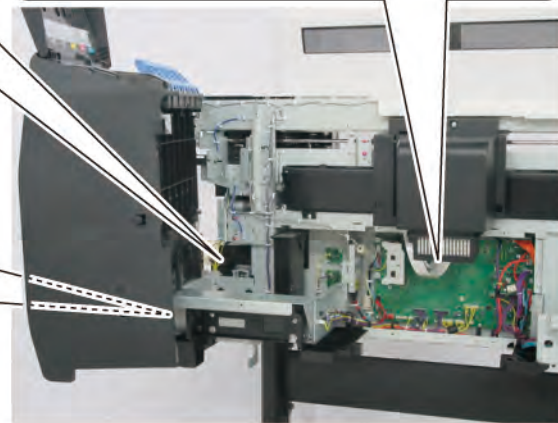
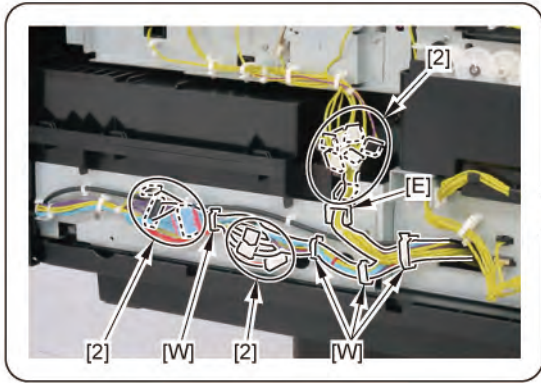
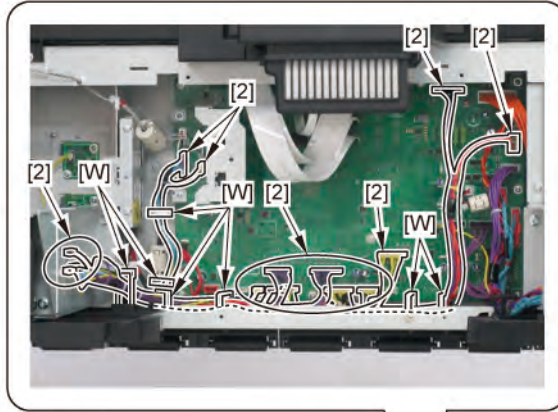
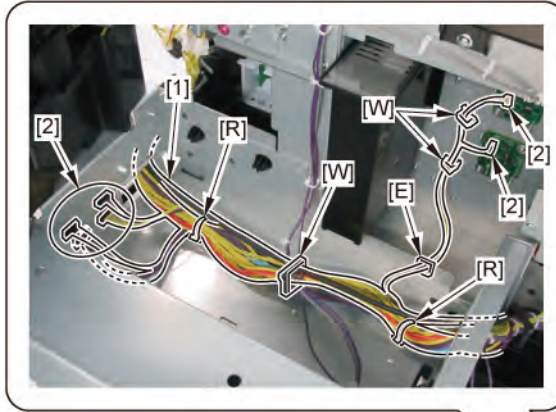
8. Remove [1] the plate.

[2]	[3]
	
5 pcs	2 pcs



9. Disconnect [1] HARNESS ASS'Y, R.

[2]	[W]	[E]	[R]
			
34 pcs	14 pcs	2 pcs	2 pcs



## HARNESS ASS'Y, R (36" model, 44" model)




1. Open [1] the right ink tank cover.

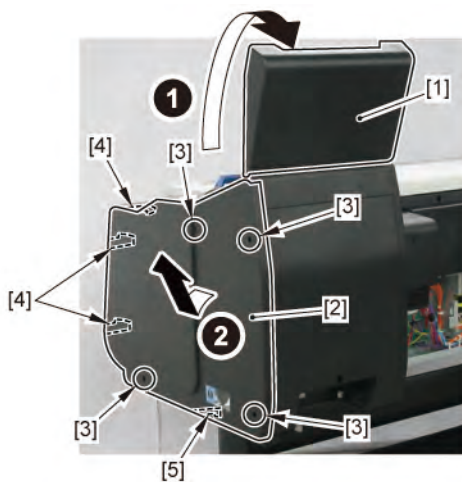
2. Remove [2] a set of

- COVER, SIDE R A

- COVER UNIT, SIDE R B


- CAP, SIDE COVER.

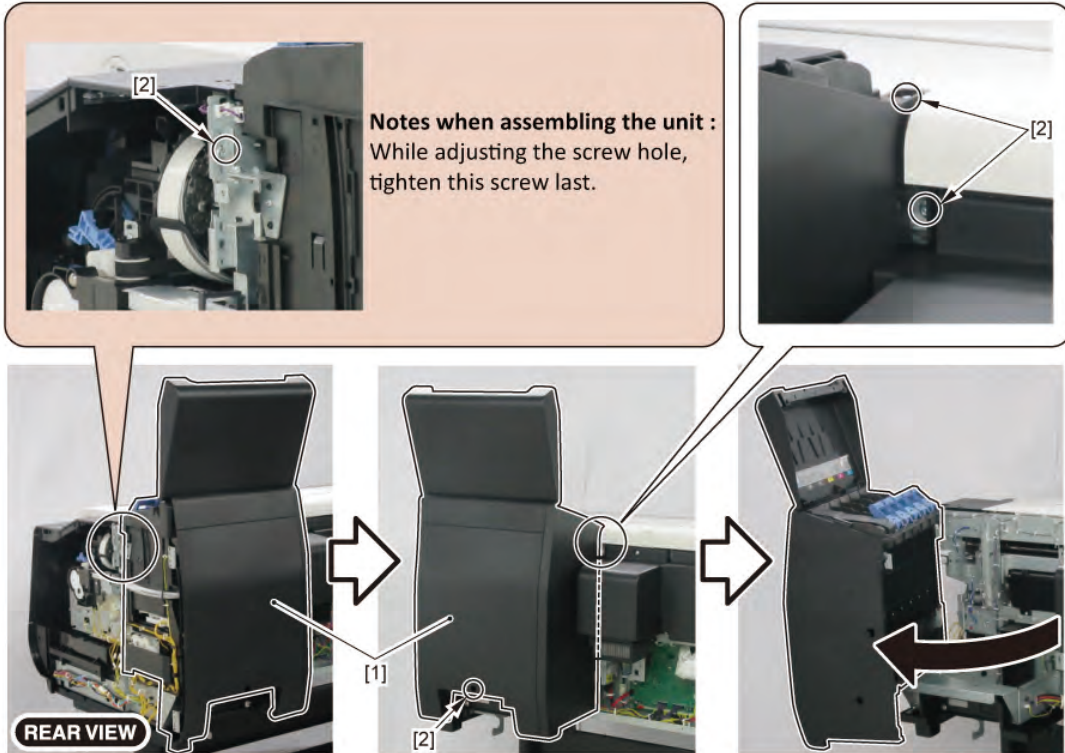
[3]	[4]	[5]
		
4 pcs	3 pcs	1 pc







### 3. Open [1] the right ink unit.

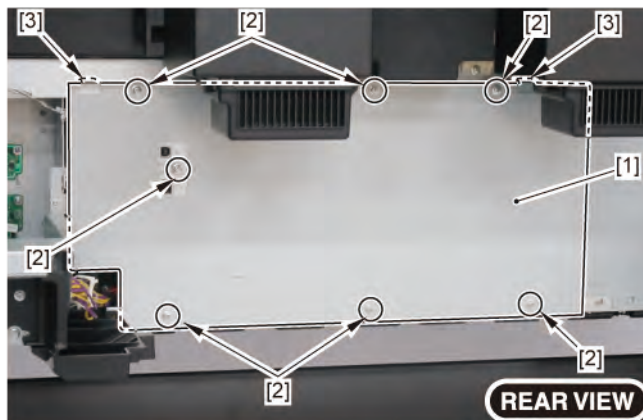
[2]

4 pcs





### 4. Remove [1] the plate.

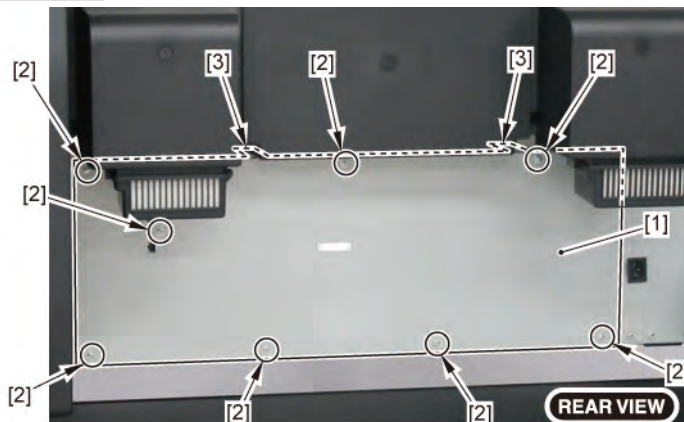
(36" model)

[2]	[3]
	
7 pcs	2 pcs







(44" model)

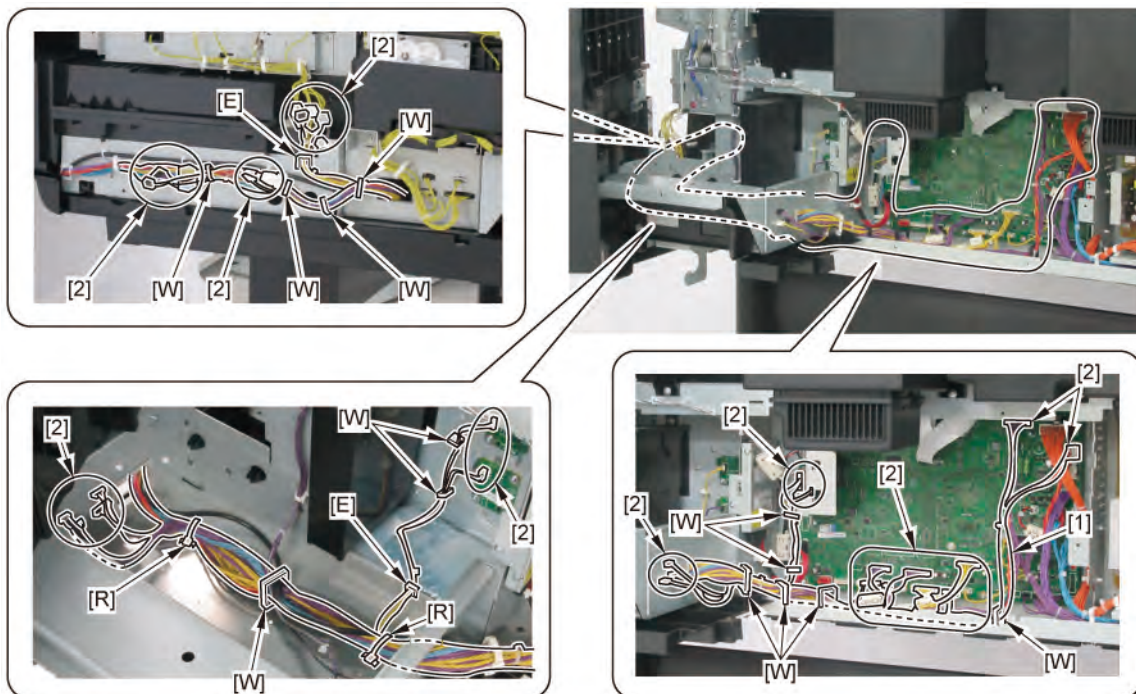
[2]	[3]
	
8 pcs	2 pcs







5. Disconnect [1] HARNESS ASS'Y, R.

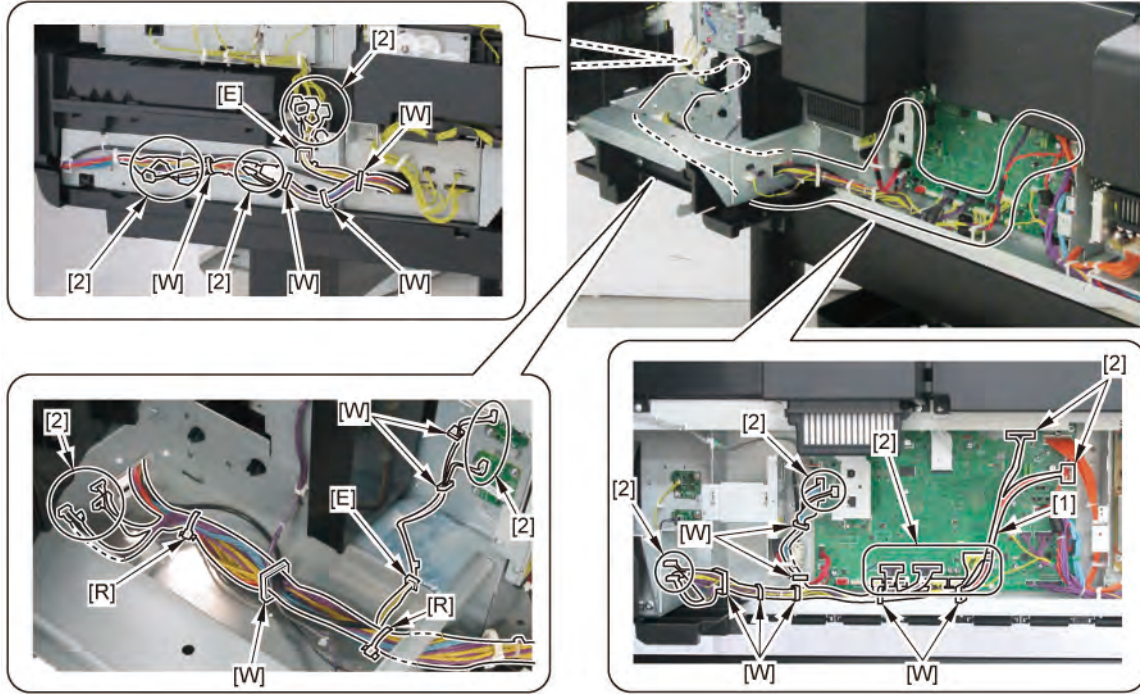
(36" model)

[2]	[W]	[E]	[R]
			
33 pcs	13 pcs	2 pcs	2 pcs



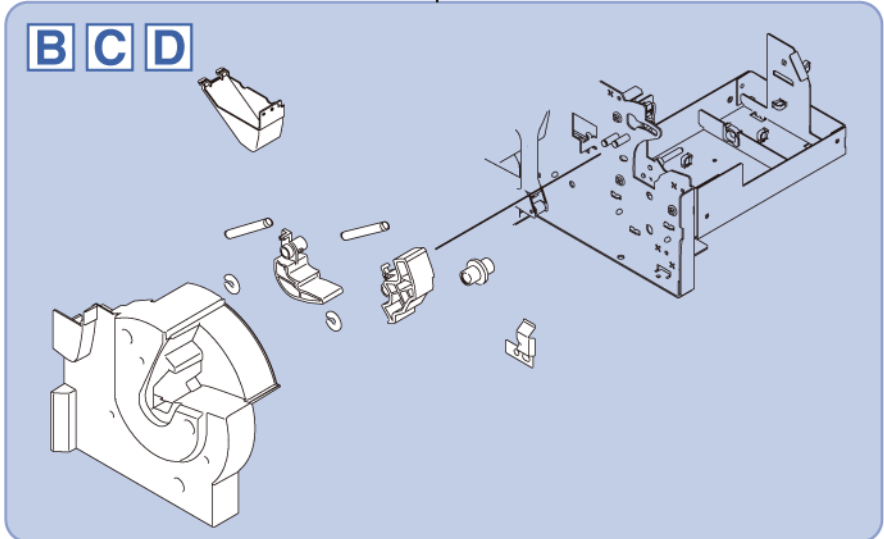
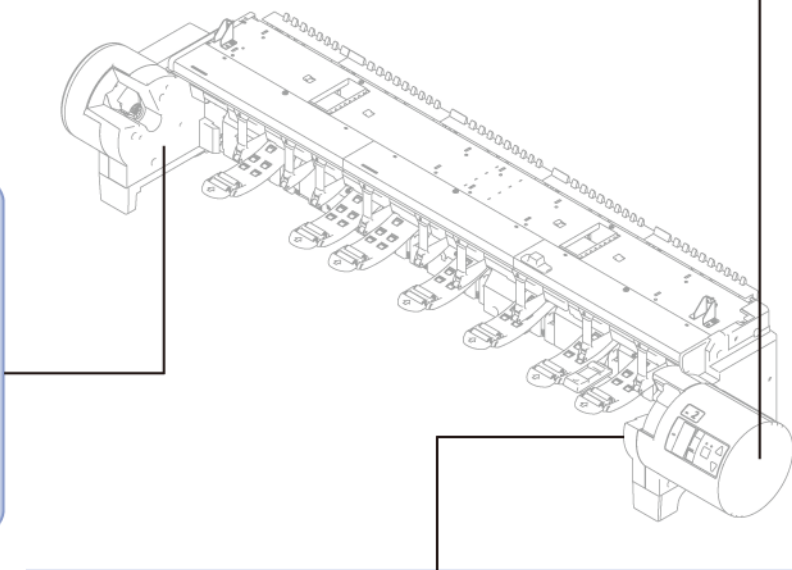
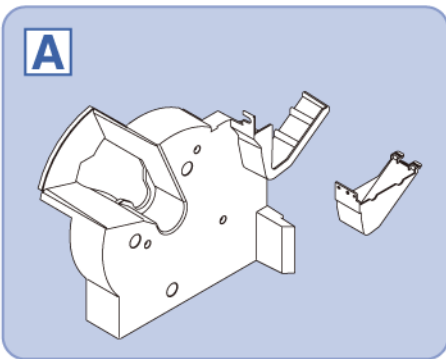
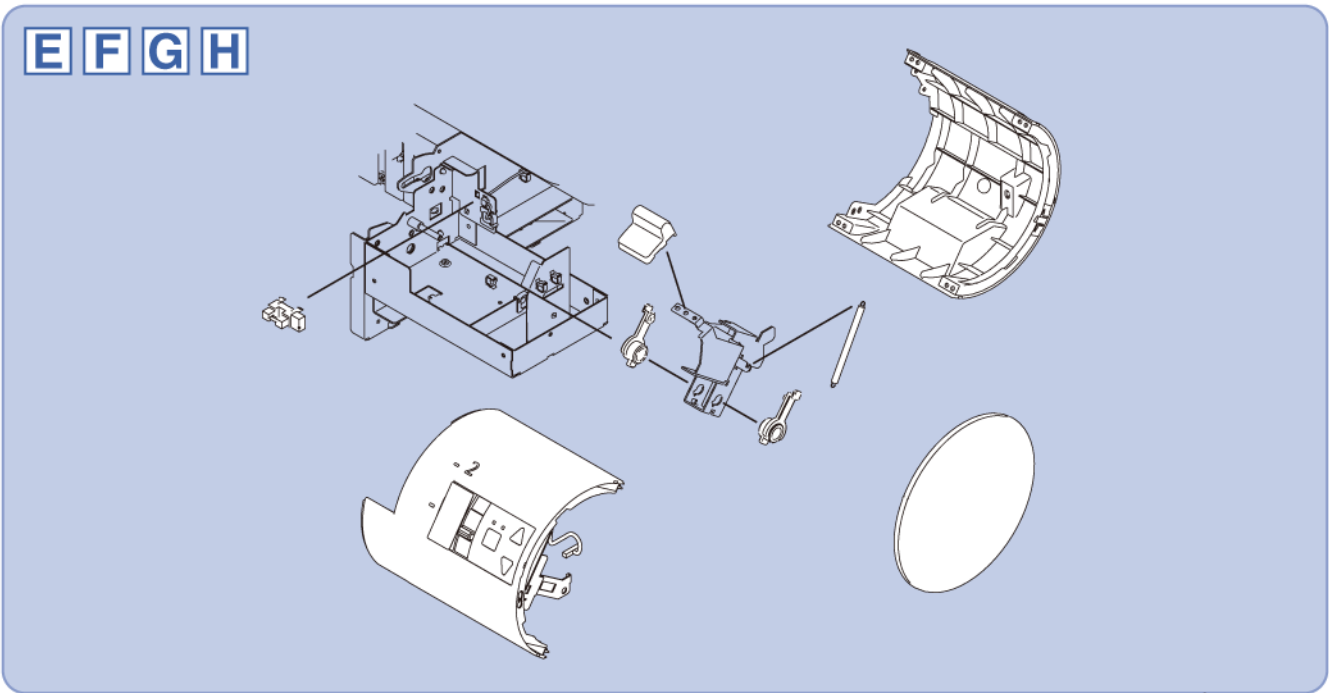
(44" model)

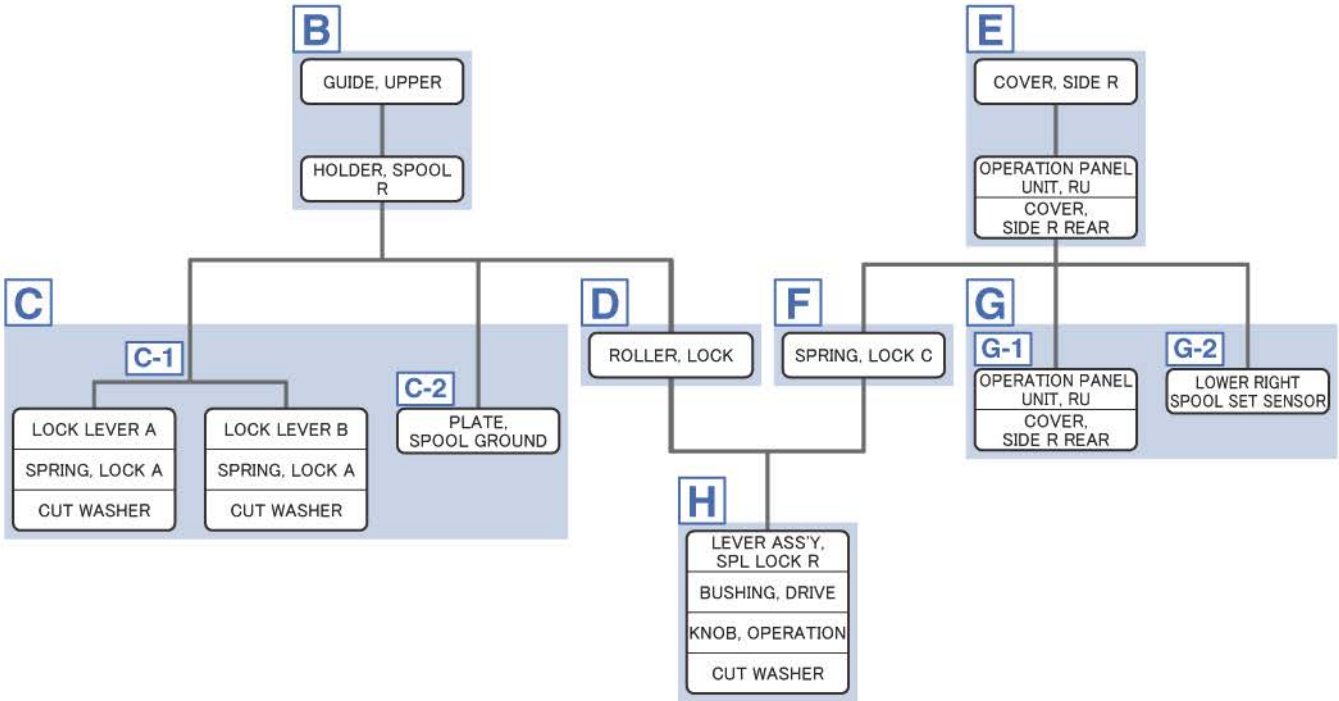
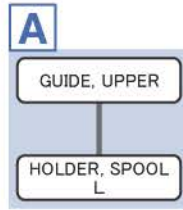
[2]	[W]	[E]	[R]
			
34 pcs	14 pcs	2 pcs	2 pcs





# 16 LOWER ROLL UNIT (1)





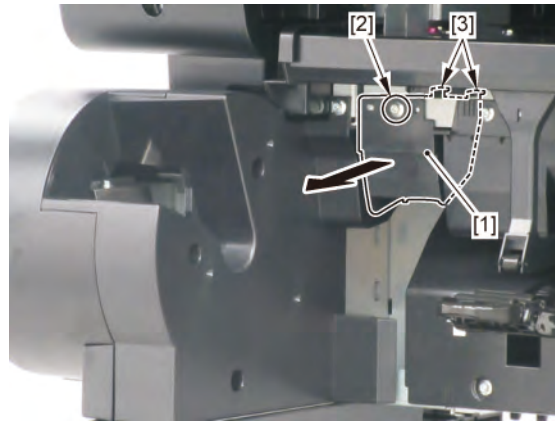






**A**

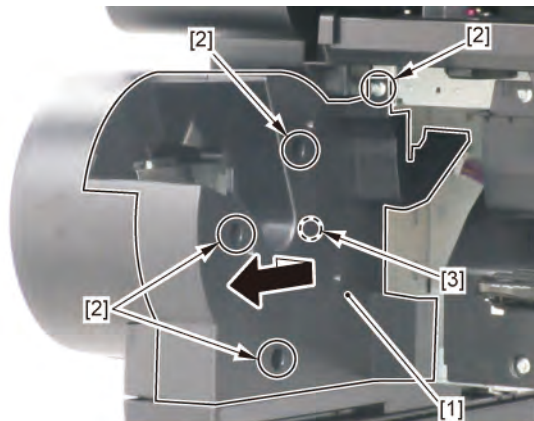
1. From the left side of the printer, remove [1] GUIDE, UPPER.

[2]	[3]
	
1 pc	2 pcs





2. Remove [1] HOLDER, SPOOL L.

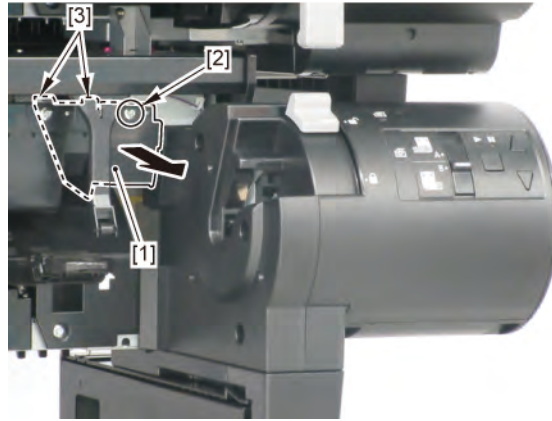
[2]	[3]
	
4 pcs	1 pc





**B**

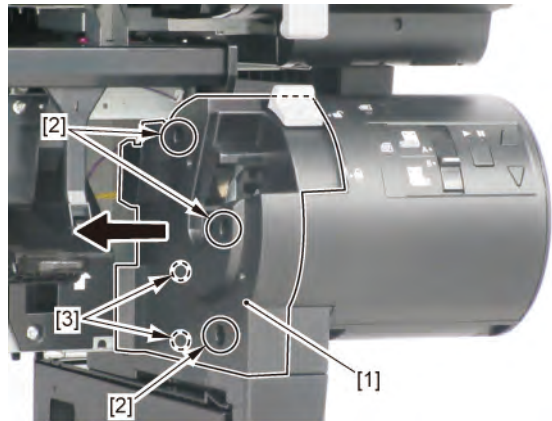
- From the right side of the printer, remove [1] GUIDE, UPPER.

[2]	[3]
	
1 pc	2 pcs



- Remove [1] HOLDER, SPOOL R.

[2]	[3]
	
3 pcs	2 pcs

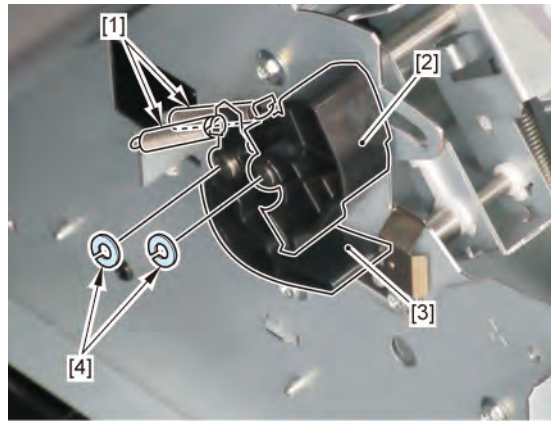
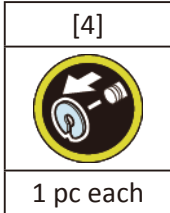


C

1. Remove all the parts of Group B.

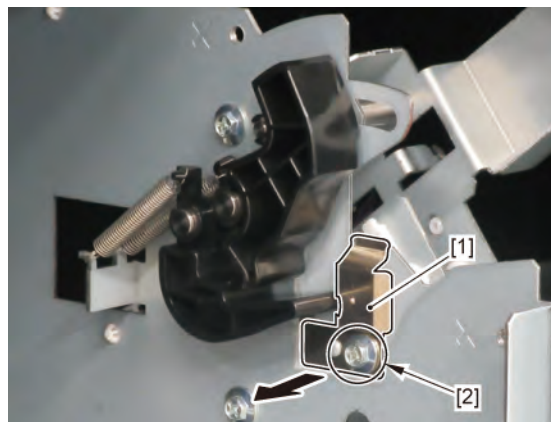
C-1

2. Remove [1] SPRING, LOCK A, then remove [2] LOCK LEVER A and [3] LOCK LEVER B.



C-2

2. Remove [1] PLATE, SPOOL GROUND.

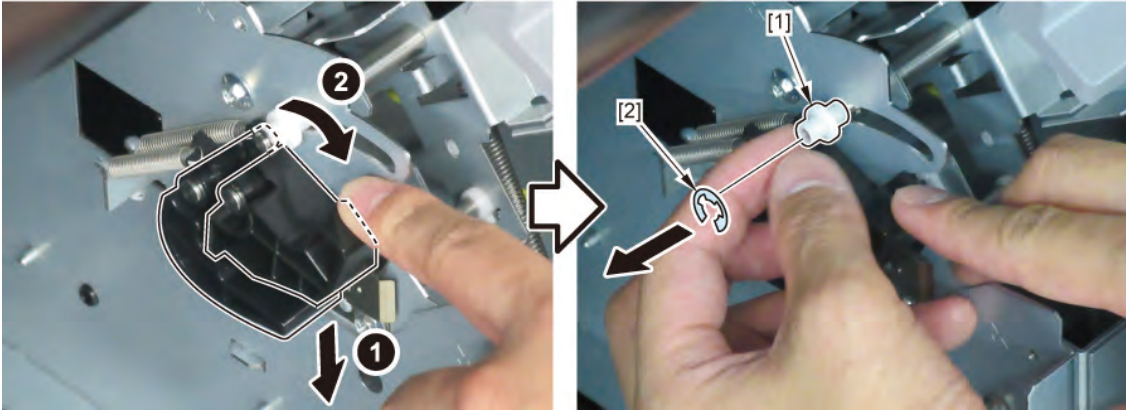


**D**


1. Remove all the parts of Group B.
2. Remove [1] ROLLER, LOCK.

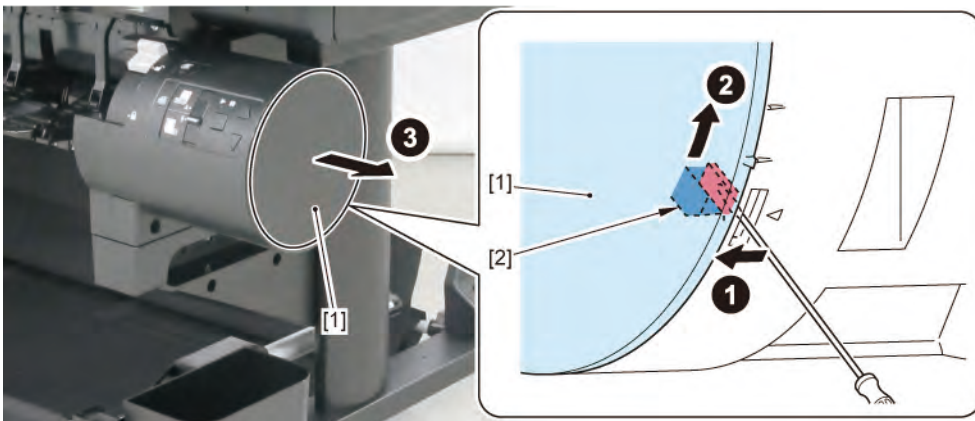
[2]

1 pc





**E**

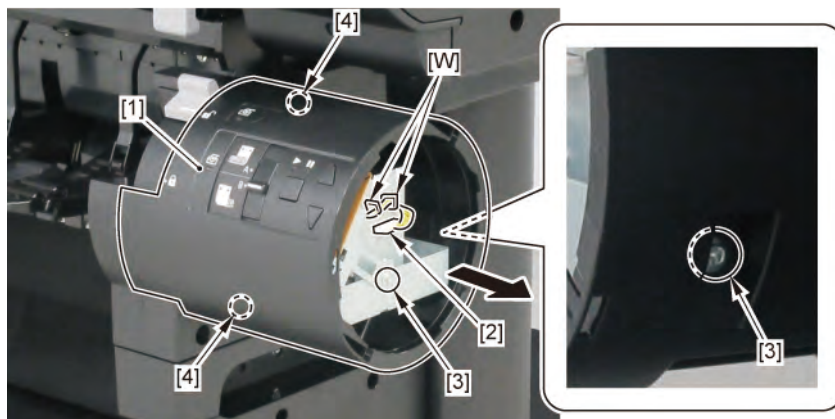
1. Remove [1] COVER, SIDE R.

[2]

1 pc



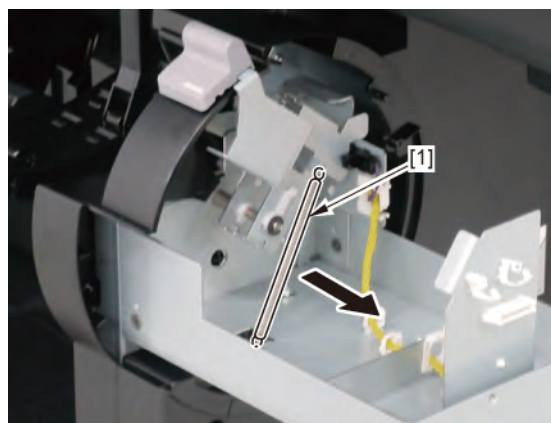
2. Remove [1] a set of
  - OPERATION PANEL UNIT, RU
  - COVER, SIDE R REAR.

[2]	[3]	[4]	[W]
			
1 pc	2 pcs	2 pcs	2 pcs



**F**

1. Remove all the parts of Group E.
2. Remove [1] SPRING, LOCK C.



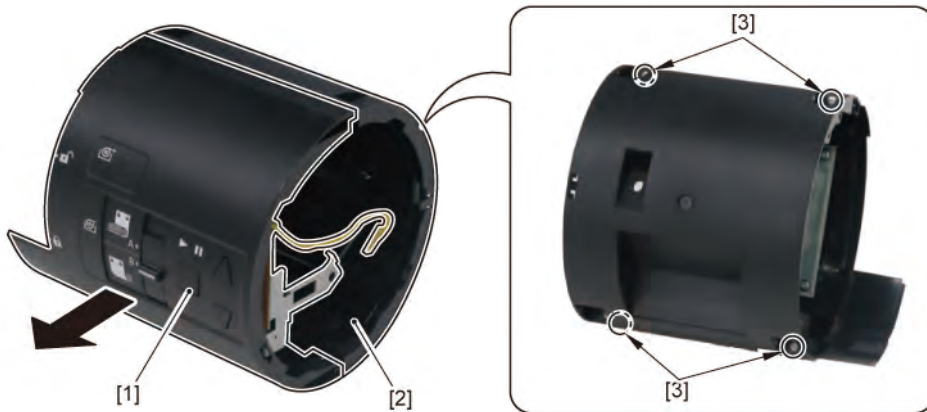
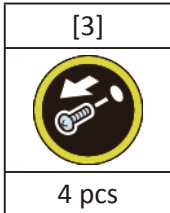


**G**

1. Remove all the parts of Group E.

**G-1**



2. Remove [1] OPERATION PANEL UNIT, RU from the [2] COVER, SIDE R REAR.

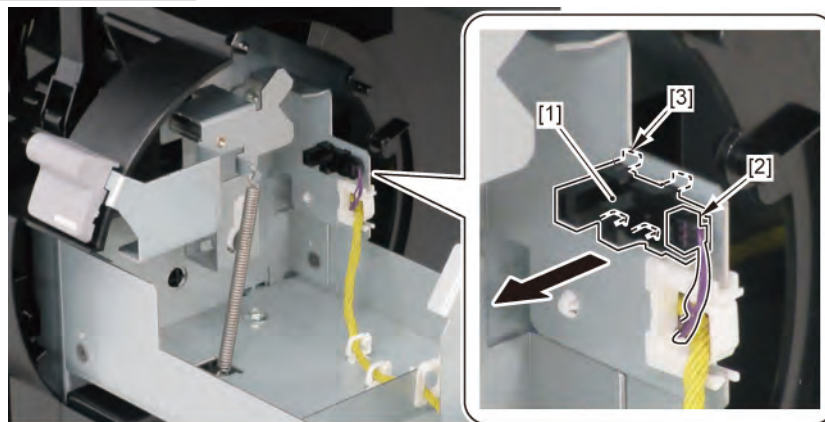
**G-2**

2. While pressing and holding [1] the spool lock lever downward, lower [2] KNOB, OPERATION.




### 3. Remove [1] LOWER RIGHT SPOOL SET SENSOR.

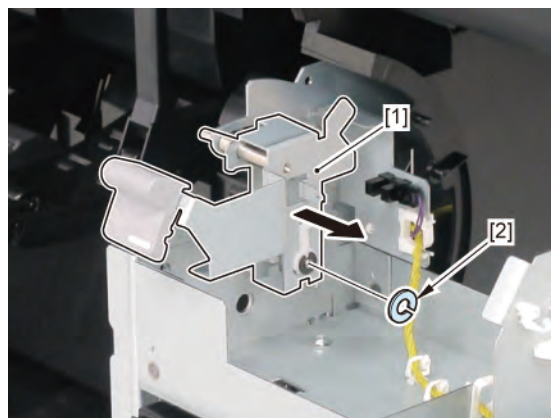
[2]	[3]
	
1 pc	4 pcs



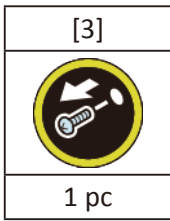
## H

1. Remove all the parts of B, D, E, and F.
2. Remove [1] a set of
  - LEVER ASS'Y, SPL LOCK R
  - KNOB, OPERATION
  - BUSHING, DRIVE.

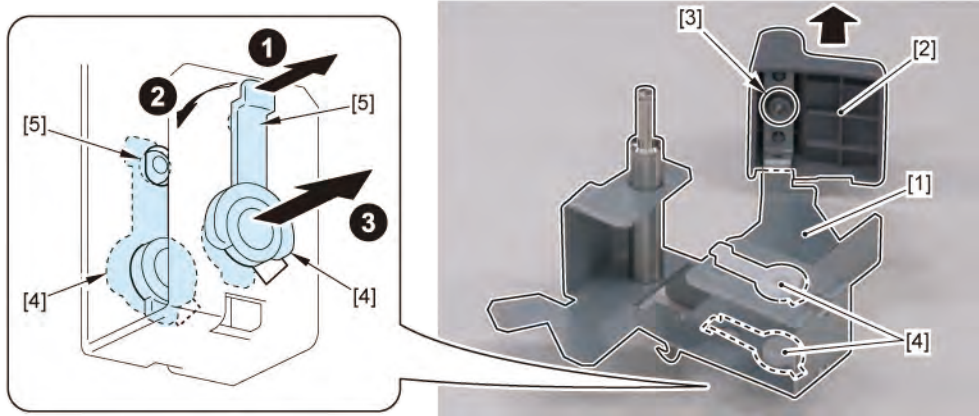
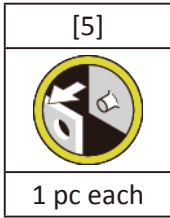
[2]

1 pc



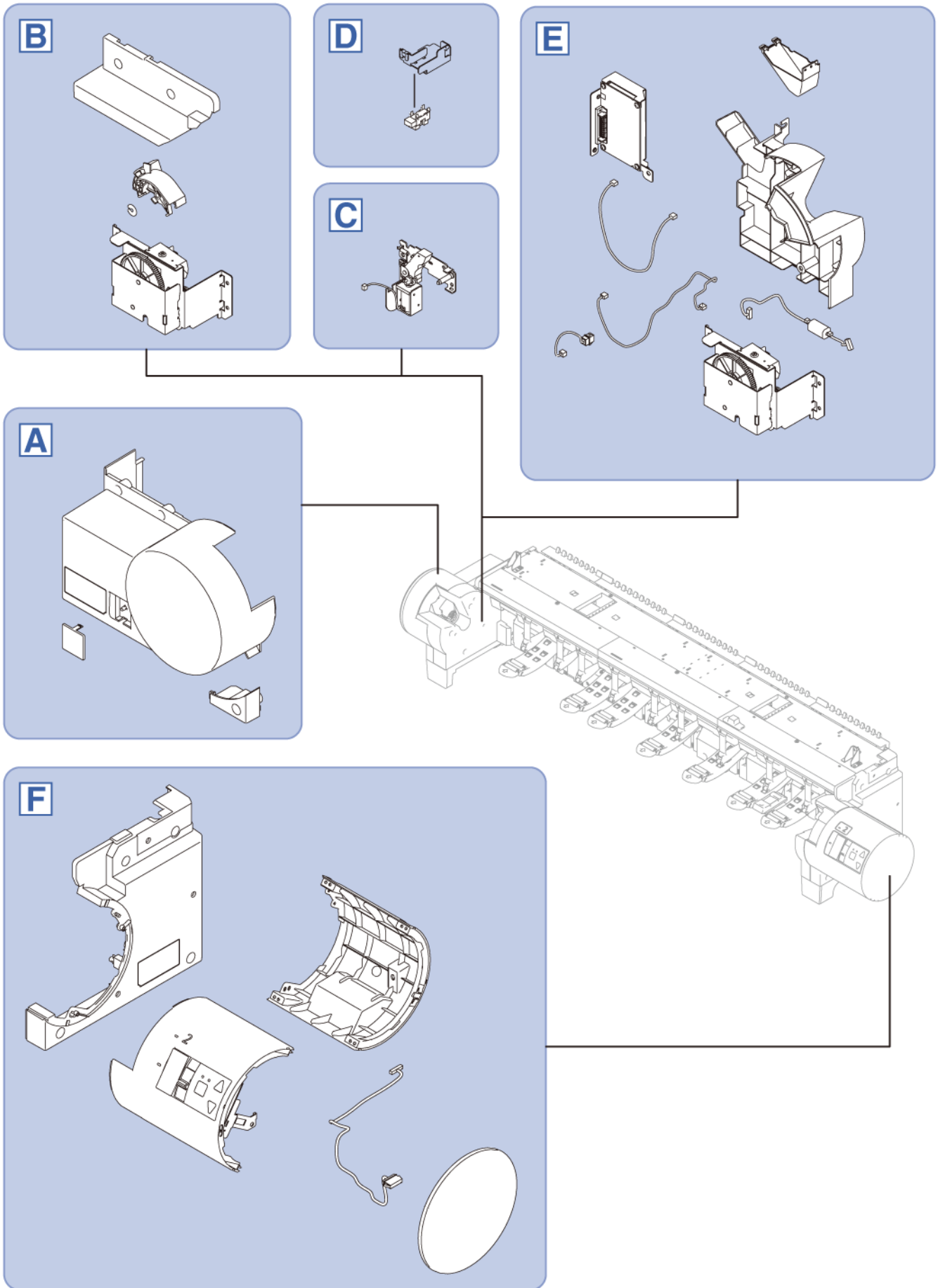
3. Remove [2] KNOB, OPERATION from [1] LEVER ASS'Y, SPL LOCK R.

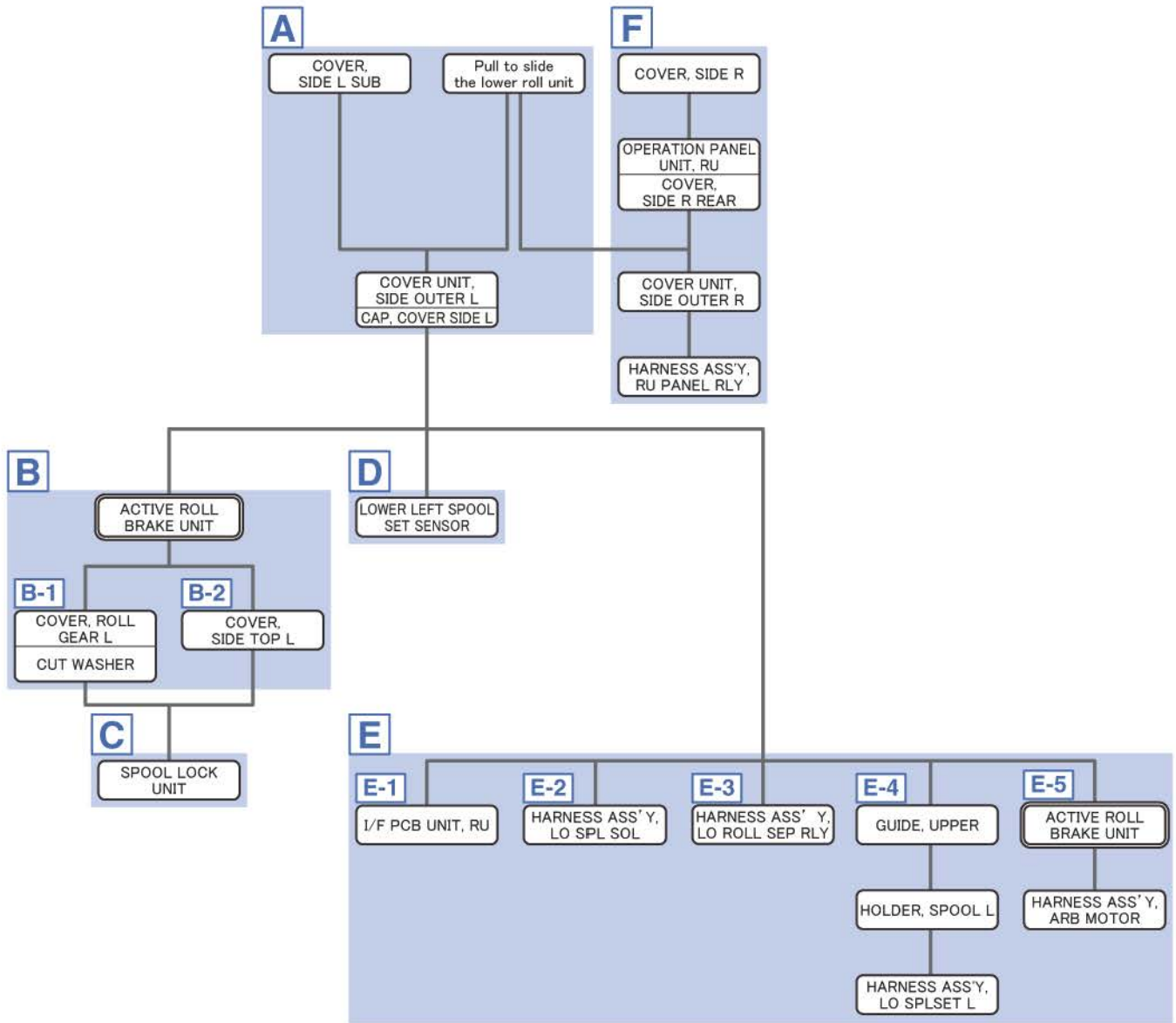


4. Remove [4] BUSHING, DRIVE from [1] LEVER ASS'Y, SPL LOCK R.



# 17 LOWER ROLL UNIT (2)





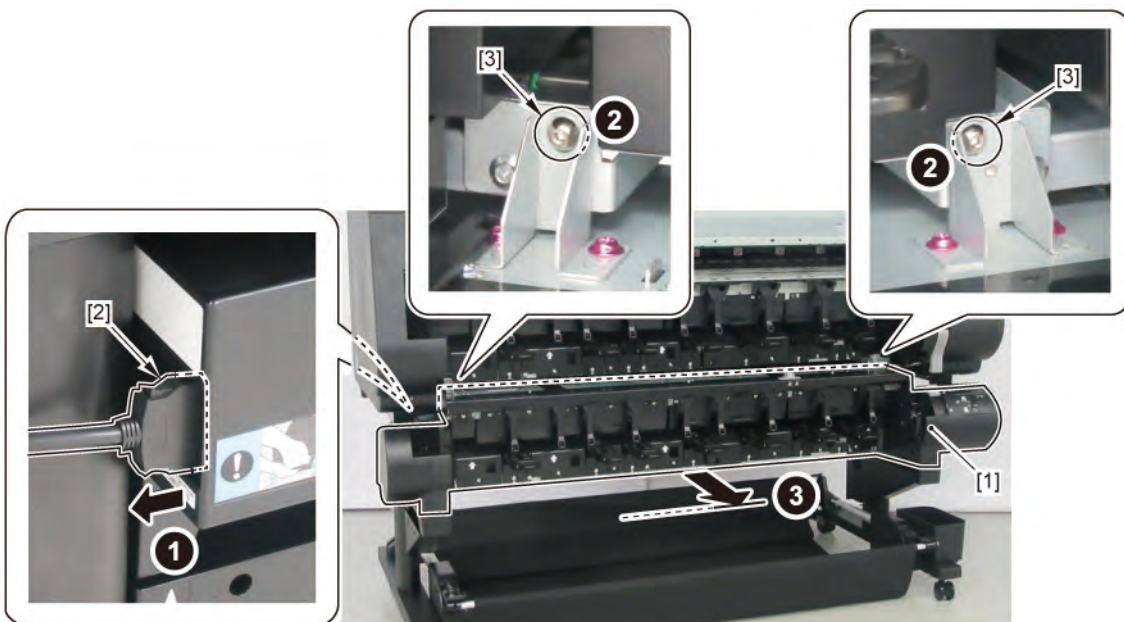




**A**

1. Pull [1] the lower roll unit toward you.

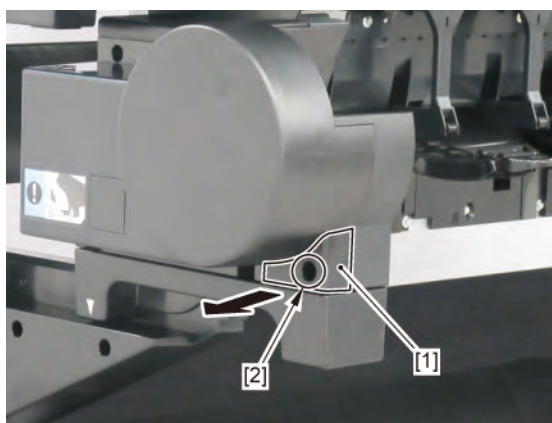
[2]	[3]
	
1 pc	2 pcs



2. Remove [1] COVER, SIDE L SUB.

[2]

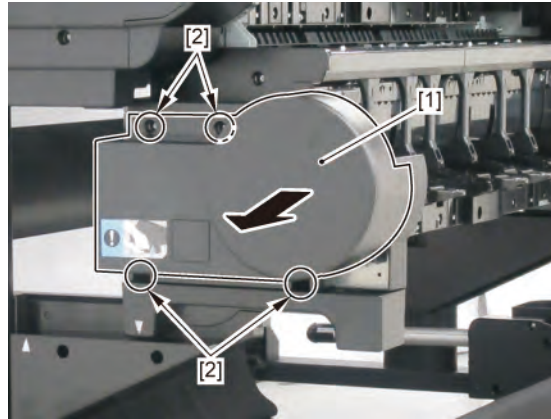
1 pc



3. Remove [1] a set of
- COVER UNIT, SIDE OUTER L
  - CAP, COVER SIDE L.



[2]

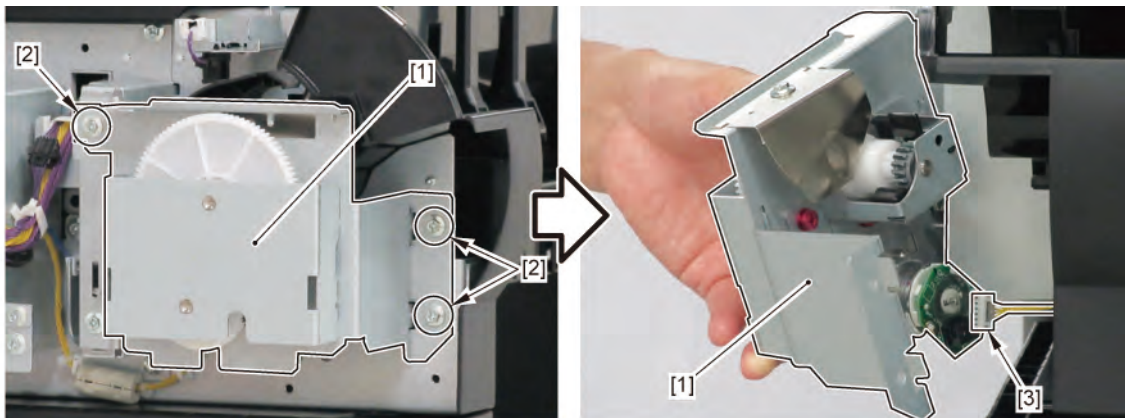
4 pcs



B

1. Remove all the parts of Group A.
2. Remove [1] ACTIVE ROLL BRAKE UNIT.

[2]	[3]
	
3 pcs	1 pc



Point


**Notes when assembling the unit:**

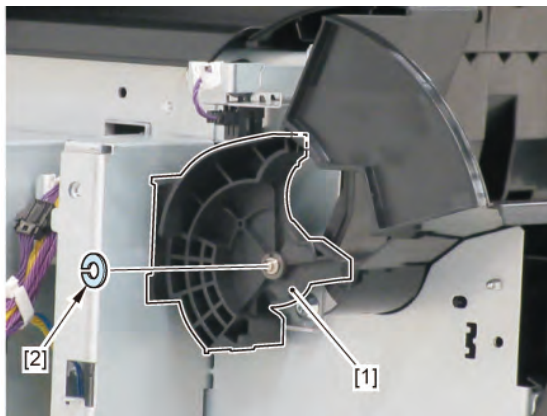
Perform adjustment at the end of assembly.

[SERVICE MODE &gt; ADJUSTMENT &gt; LOWER\_ARB\_CALIB]

**B-1**

3. Remove [1] COVER, ROLL GEAR L.

[2]

1 pc

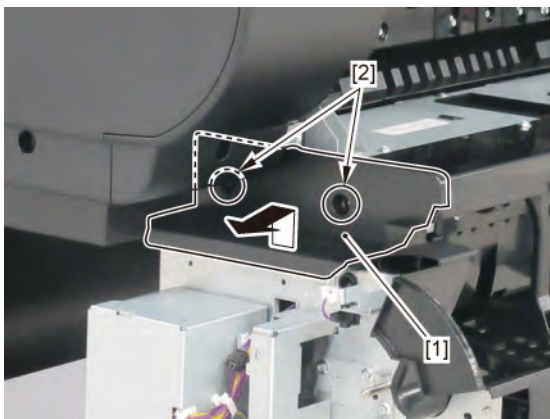


**B-2**

3. Remove [1] COVER, SIDE TOP L.




[2]

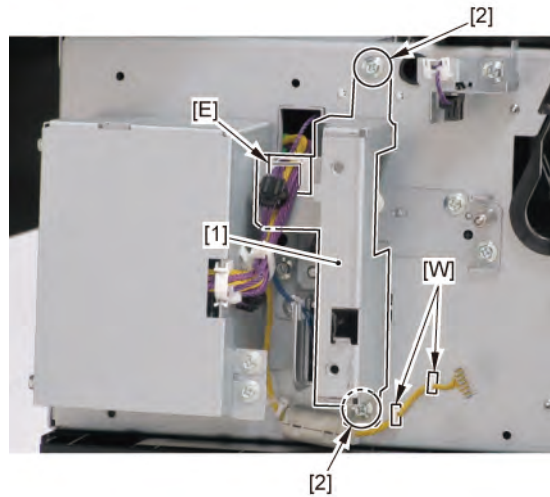
2 pcs






C

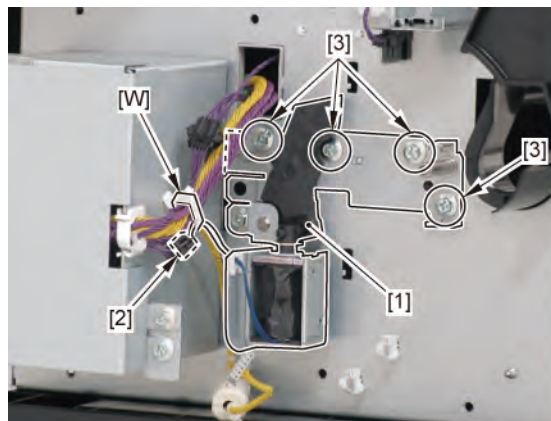
1. Remove all the parts of Groups A and B.
2. Remove [1] the plate.

[2]	[W]	[E]
		
2 pcs	2 pcs	1 pc






3. Remove [1] SPOOL LOCK UNIT.

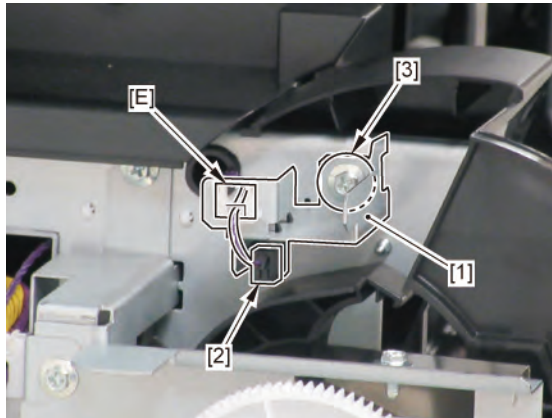
[2]	[3]	[W]
		
1 pc	4 pcs	1 pc




D

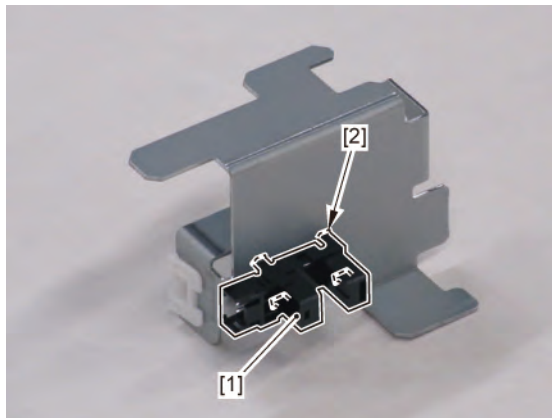
1. Remove all the parts of Group A.
2. Remove [1] the plate (with the LOWER LEFT SPOOL SET SENSOR).

[2]	[3]	[E]
		
1 pc	1 pc	1 pc



3. Remove [1] LOWER LEFT SPOOL SET SENSOR.

[2]

4 pcs



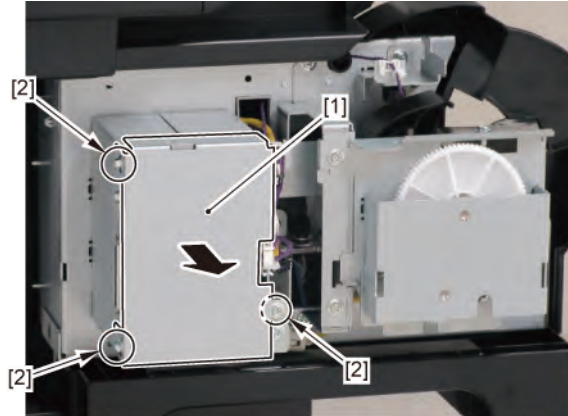


**E**




1. Remove all the parts of Group A.
2. Remove [1] the plate.

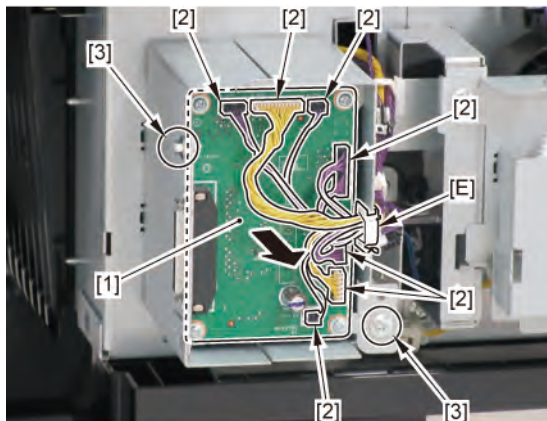
[2]

3 pcs

**E-1**



3. Remove [1] I/F PCB UNIT, RU.

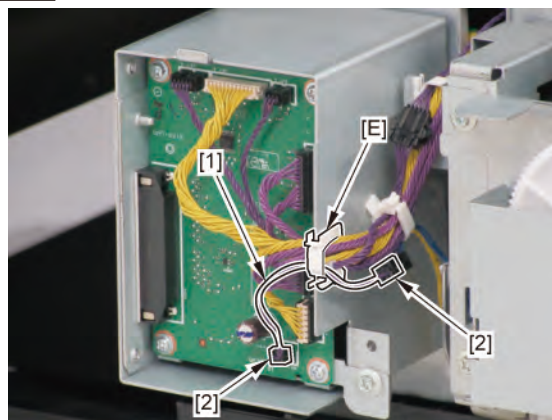
[2]	[3]	[E]
		
7 pcs	2 pcs	1 pc






**E-2**

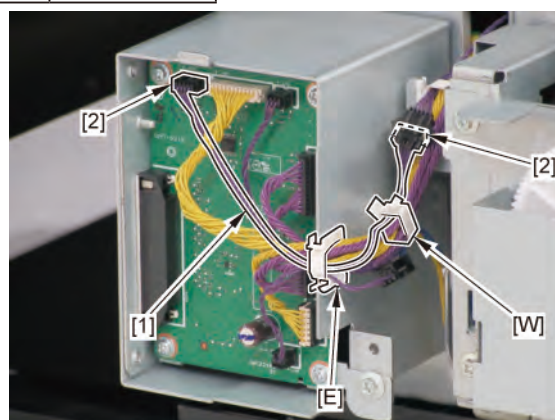
3. Disconnect [1] HARNESS ASS'Y, LO SPL SOL.

[2]	[E]
	
2 pcs	1 pc

**E-3**



3. Disconnect [1] HARNESS ASS'Y, LO ROLL SEP RLY.

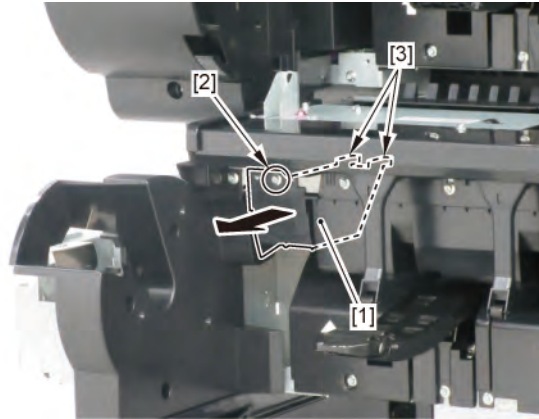
[2]	[W]	[E]
		
2 pcs	1 pc	1 pc




## E-4

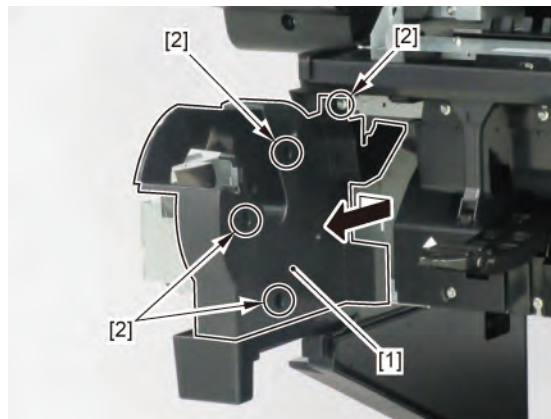
3. From the left side of the printer, remove [1] GUIDE, UPPER.

[2]	[3]
	
1 pc	2 pcs






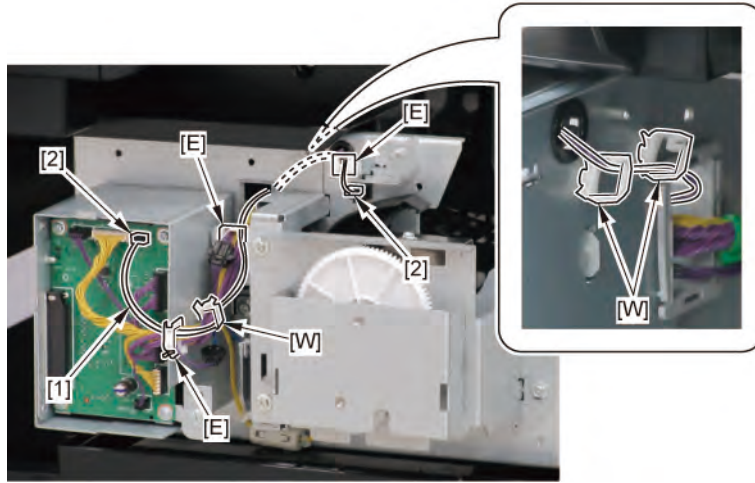
4. Remove [1] HOLDER, SPOOL L.

[2]

4 pcs





5. Disconnect [1] HARNESS ASS'Y, LO SPLSET L.

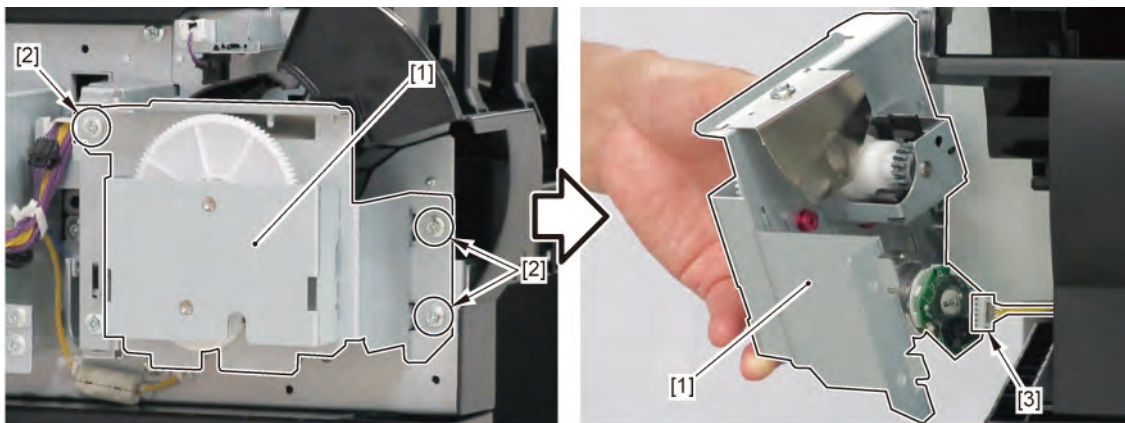
[2]	[W]	[E]
		
2 pcs	3 pcs	3 pcs






E-5

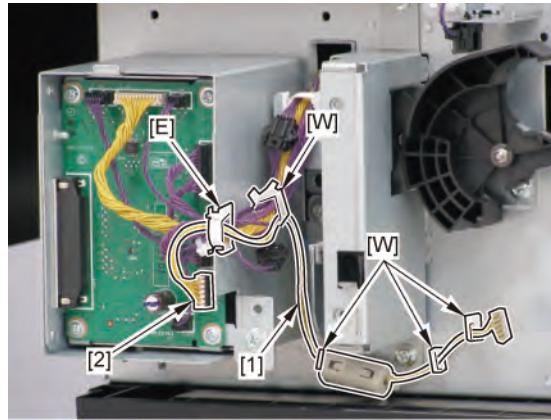
3. Remove [1] ACTIVE ROLL BRAKE UNIT.

[2]	[3]
	
3 pcs	1 pc





4. Disconnect [1] HARNESS ASS'Y, ARB MOTOR.

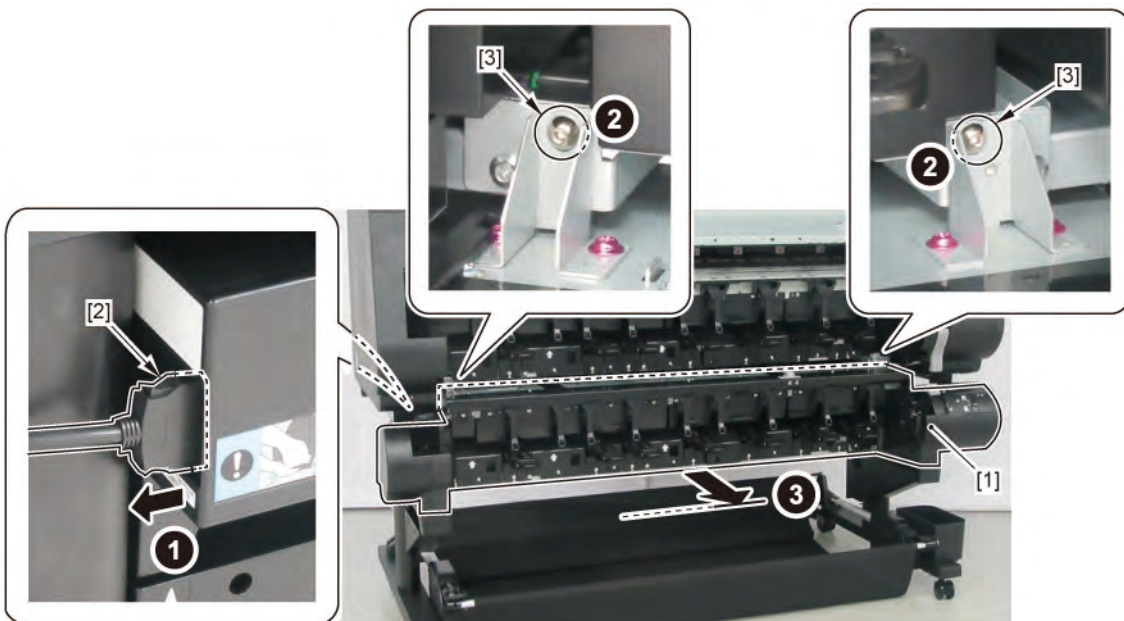
[2]	[W]	[E]
		
1 pc	4 pcs	1 pc



**F**


1. Pull [1] the lower roll unit toward you.

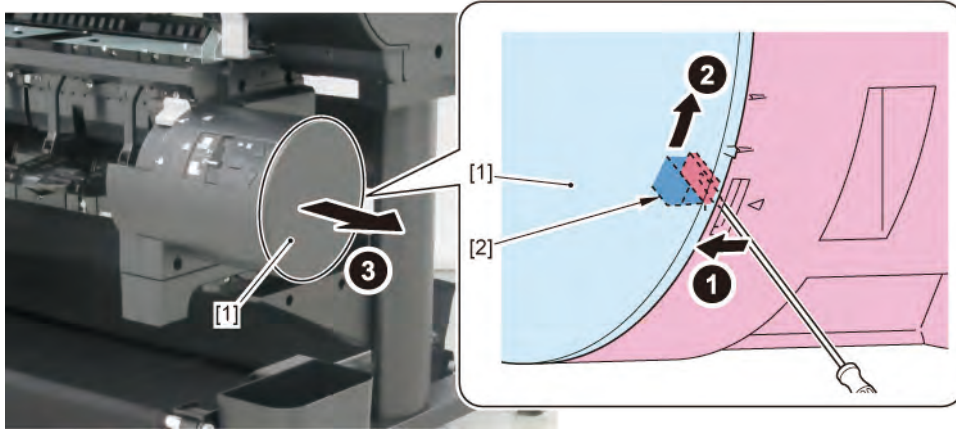
[2]	[3]
	
1 pc	2 pcs









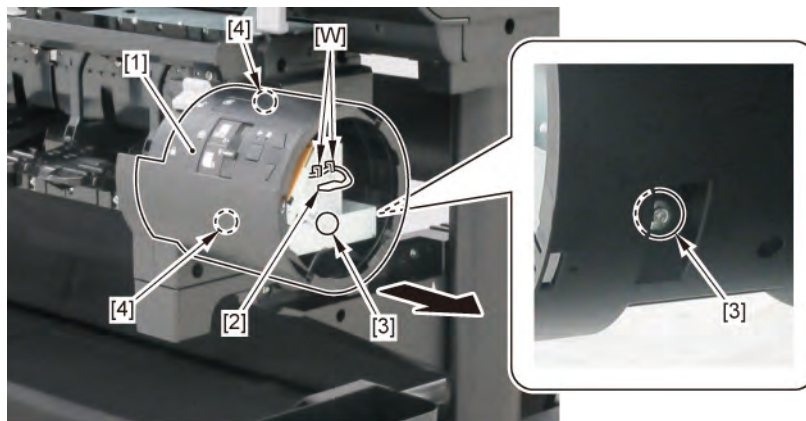
2. Remove [1] COVER, SIDE R.

[2]

1 pc



3. Remove [1] a set of  
 - OPERATION PANEL UNIT, RU  
 - COVER, SIDE R REAR.

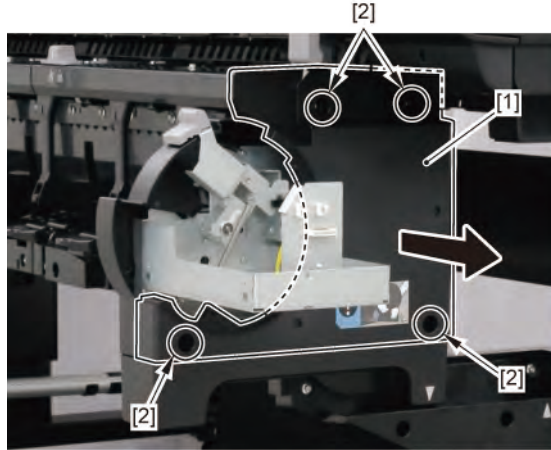
[2]	[3]	[4]	[W]
			
1 pc	2 pcs	2 pcs	2 pcs






4. Remove [1] COVER UNIT, SIDE OUTER R.

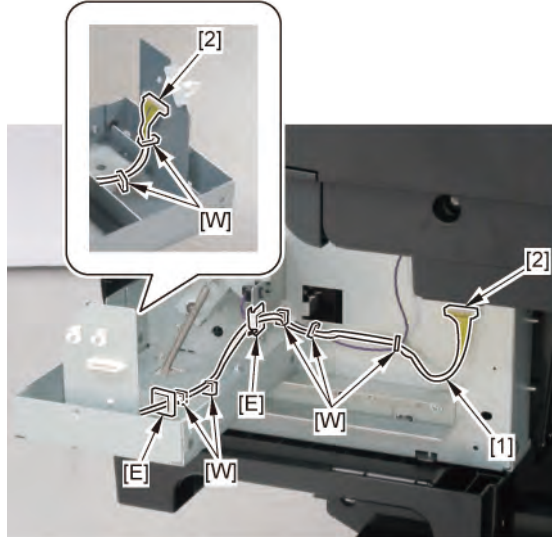
[2]

4 pcs

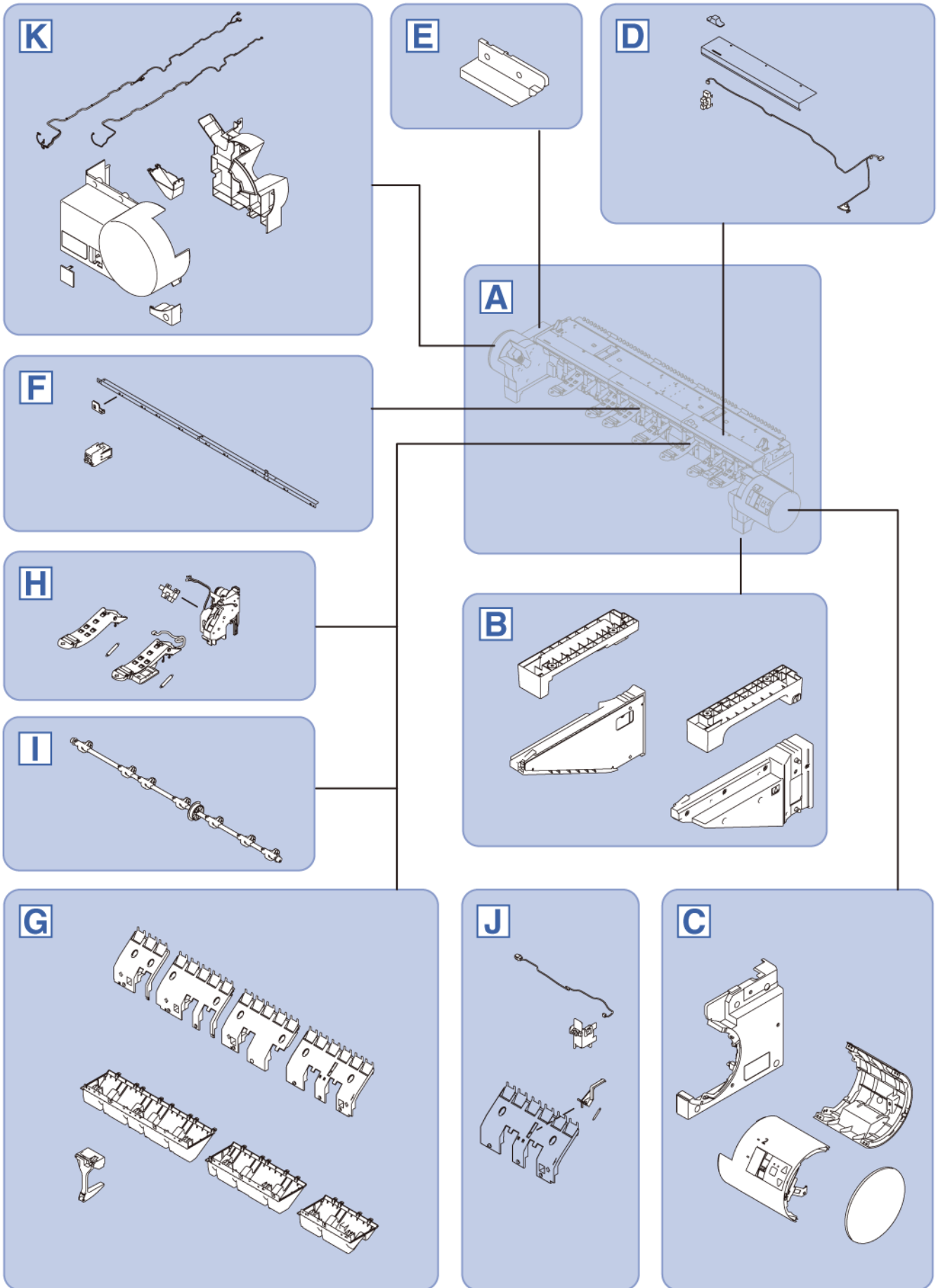


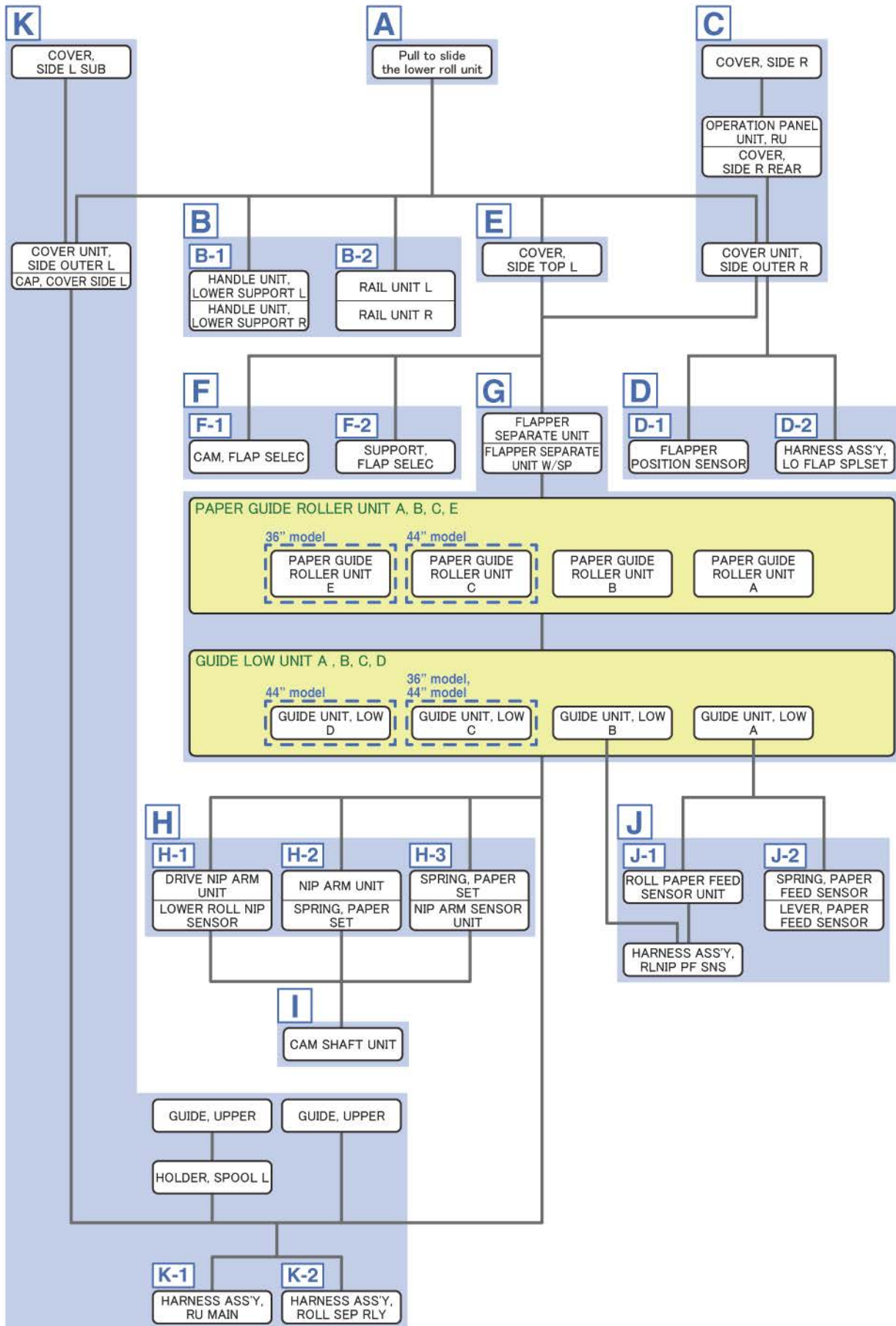
5. Disconnect [1] HARNESS ASS'Y, RU PANEL RLY.

[2]	[W]	[E]
		
2 pcs	7 pcs	2 pcs





# 18 LOWER ROLL UNIT (3)

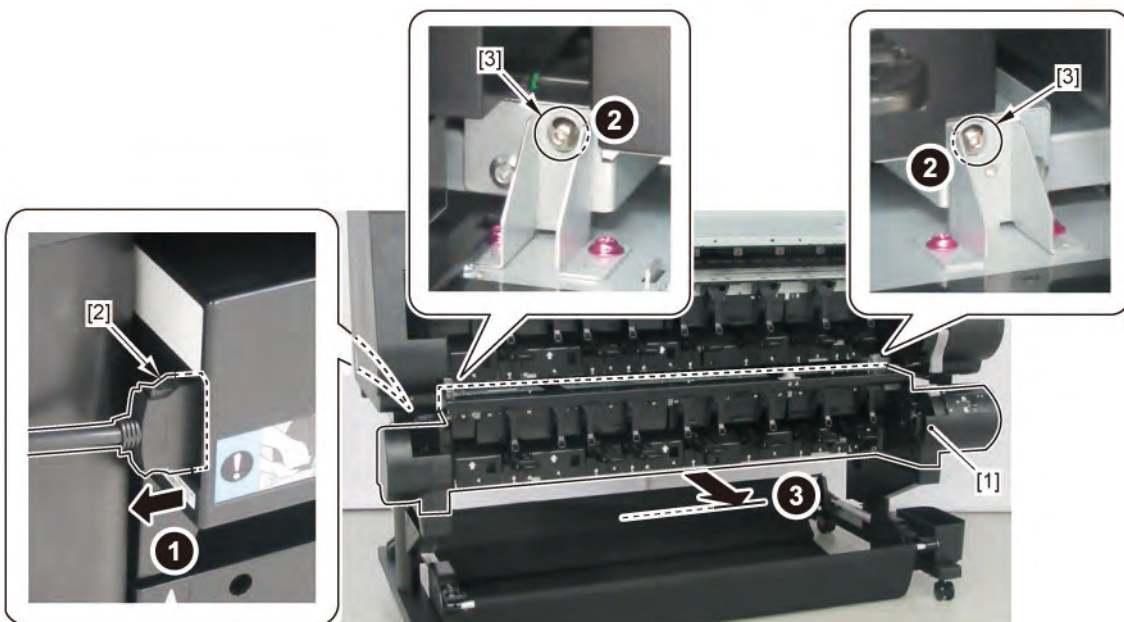




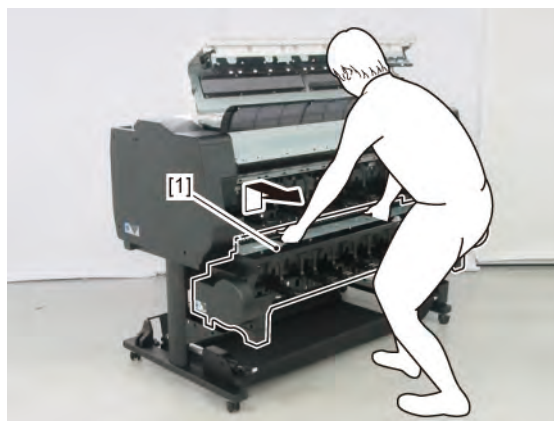
**A**

1. Pull [1] the lower roll unit toward you.

[2]	[3]
	
1 pc	2 pcs



2. Take down [1] the lower roll unit on the floor .

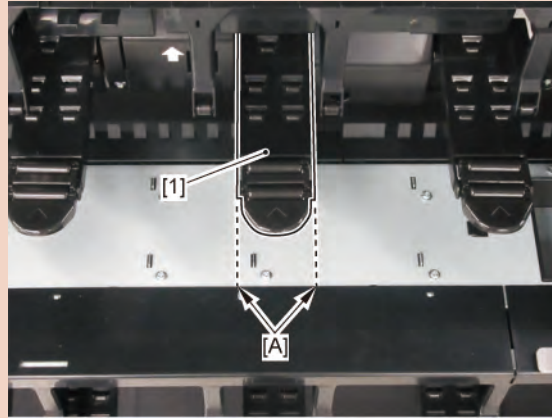




**Notes when assembling the unit:**

Fit the frame line of the center [1] NIP ARM UNIT to [A] the markings at the upper surface of the lower roll unit as shown below.

Point

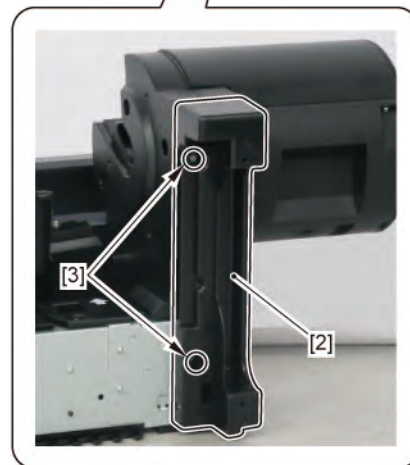
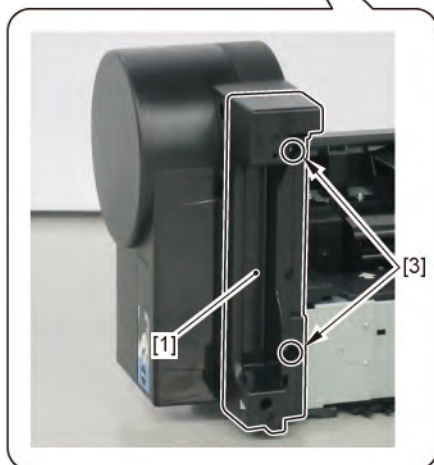
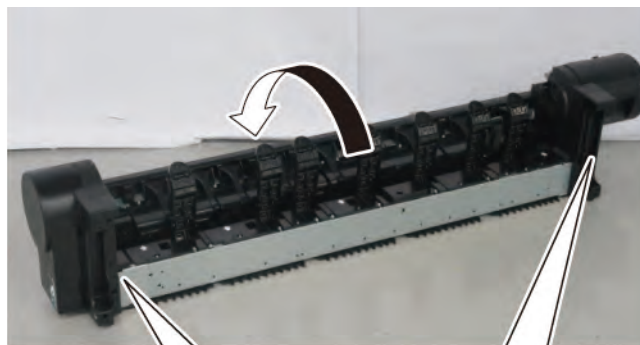
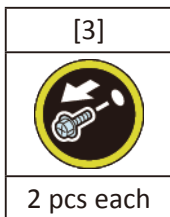


**B**

1. Remove all the parts of Group A.

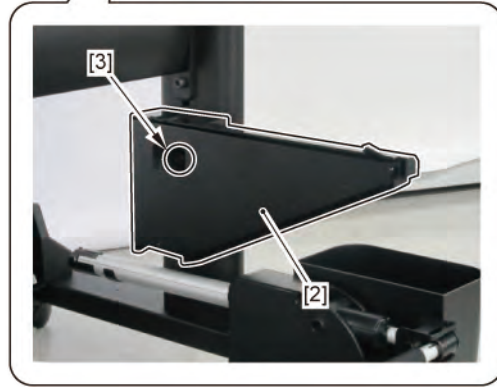
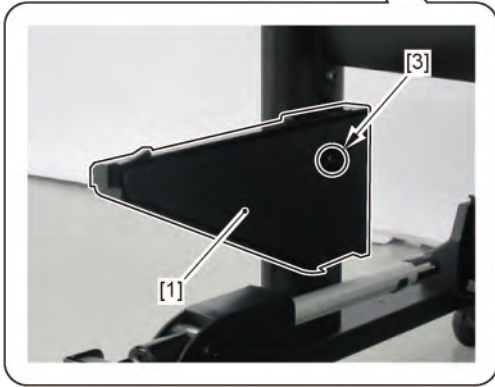
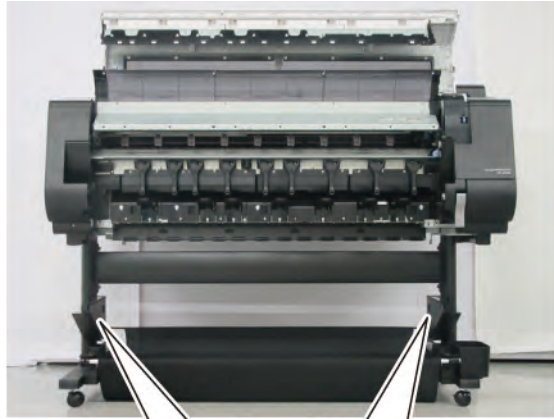
**B-1**

2. Remove [1] HANDLE UNIT, LOWER SUPPORT L and [2] HANDLE UNIT, LOWER SUPPORT R.




## B-2

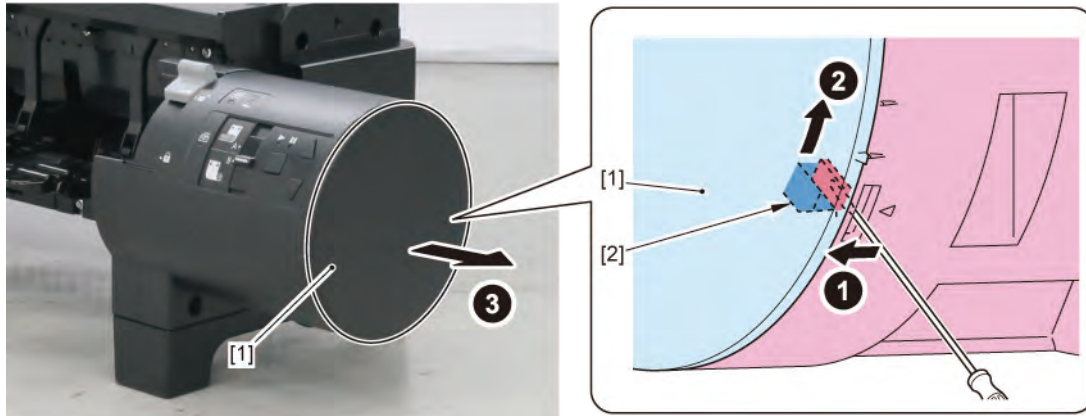
2. Remove [1] RAIL UNIT L and [2] RAIL UNIT R.







C

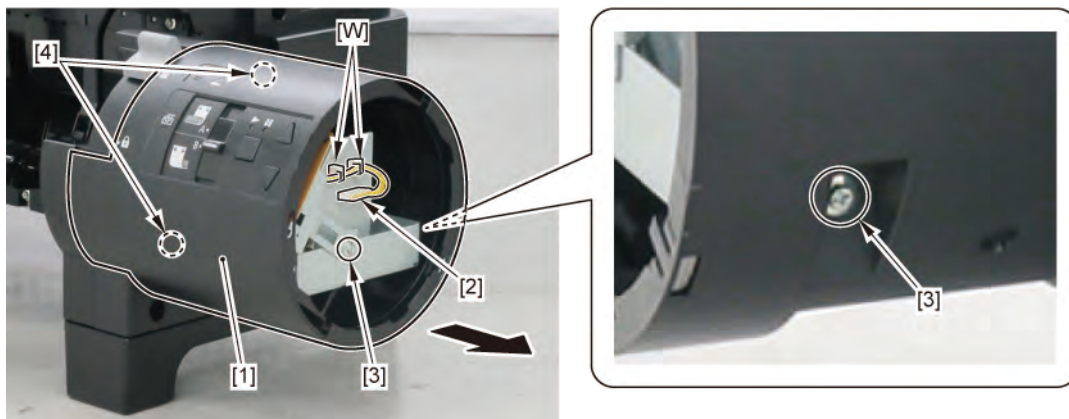
1. Remove all the parts of Groups A.
2. Remove [1] COVER, SIDE R.

[2]

1 pc




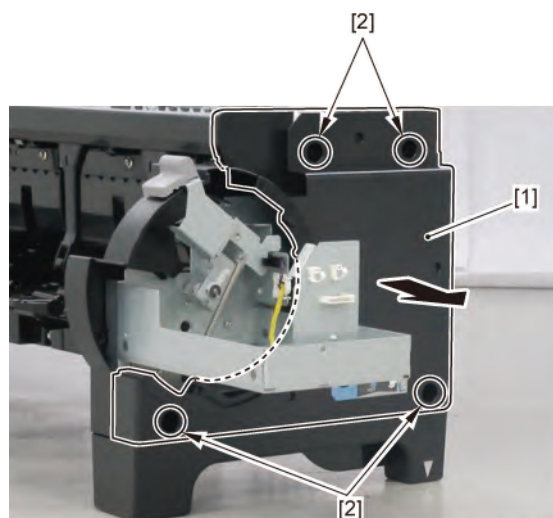
3. Remove [1] a set of
  - OPERATION PANEL UNIT, RU
  - COVER, SIDE R REAR.

[2]	[3]	[4]	[W]
			
1 pc	2 pcs	2 pcs	2 pcs



#### 4. Remove [1] COVER UNIT, SIDE OUTER R.

[2]

4 pcs

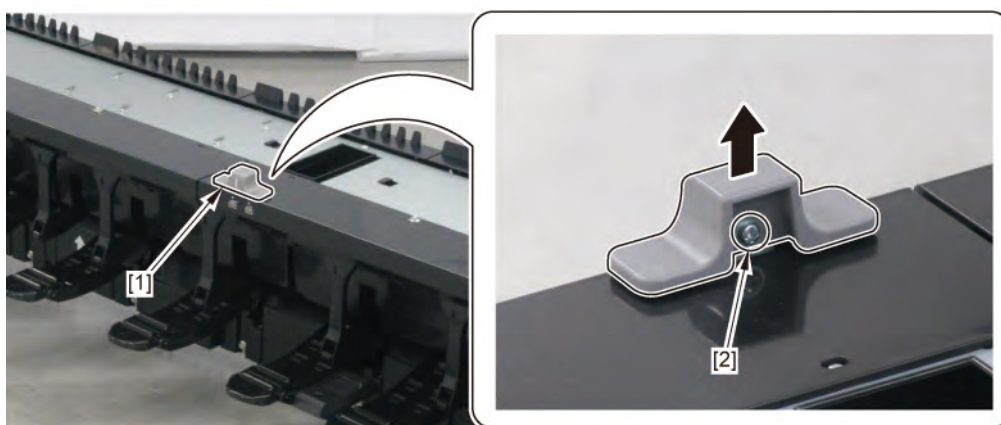


### D



1. Remove all the parts of Groups A and C.
2. Remove [1] the cap.

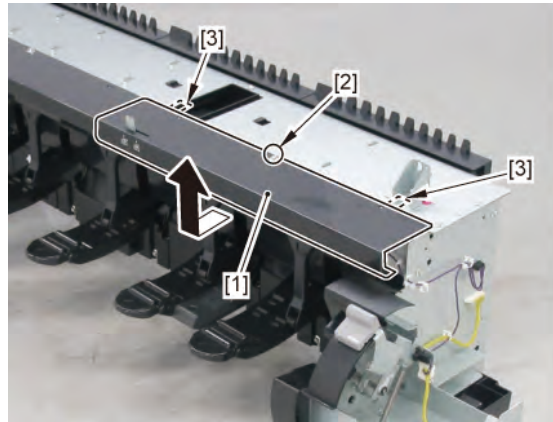
[2]

1 pc



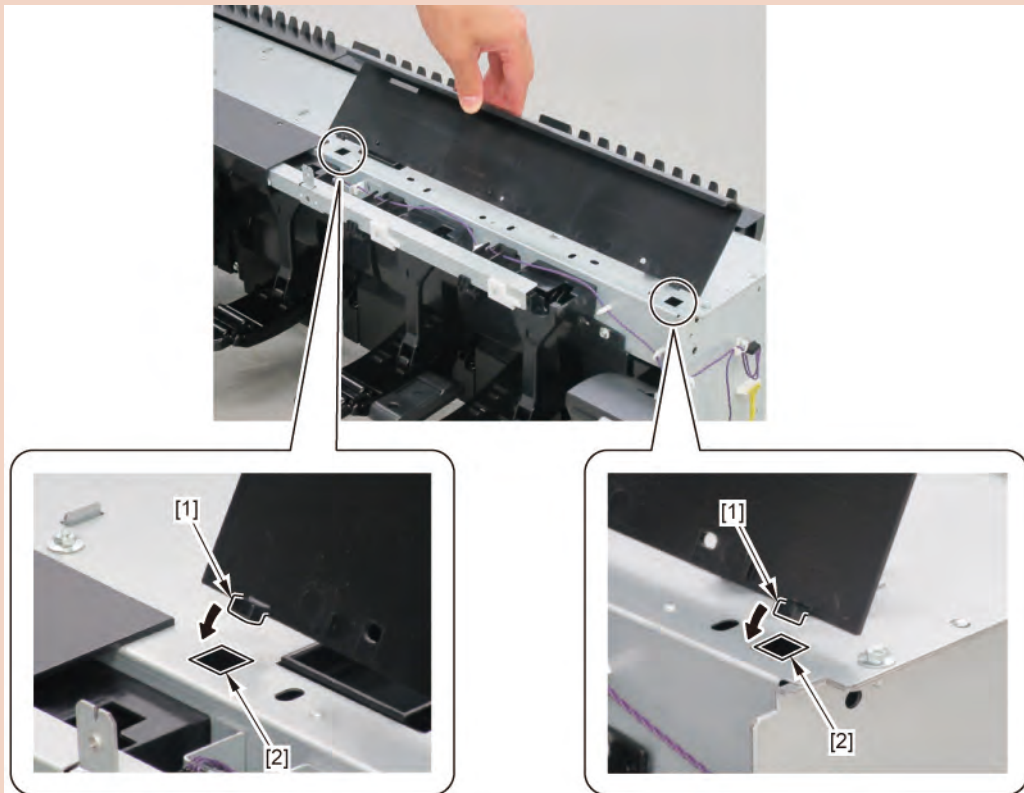
### 3. Remove [1] the right top cover.

[2]	[3]
	
1 pc	2 pcs



#### Notes when assembling the unit:



Securely fit [1] the hook i to [2] the hole.

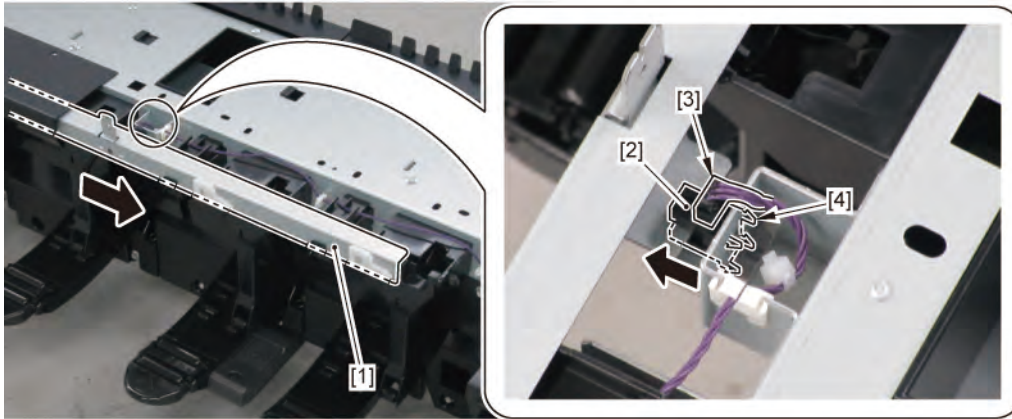




## D-1




4. Slide [1] the plate to the right, and remove [2] FLAPPER POSITION SENSOR.

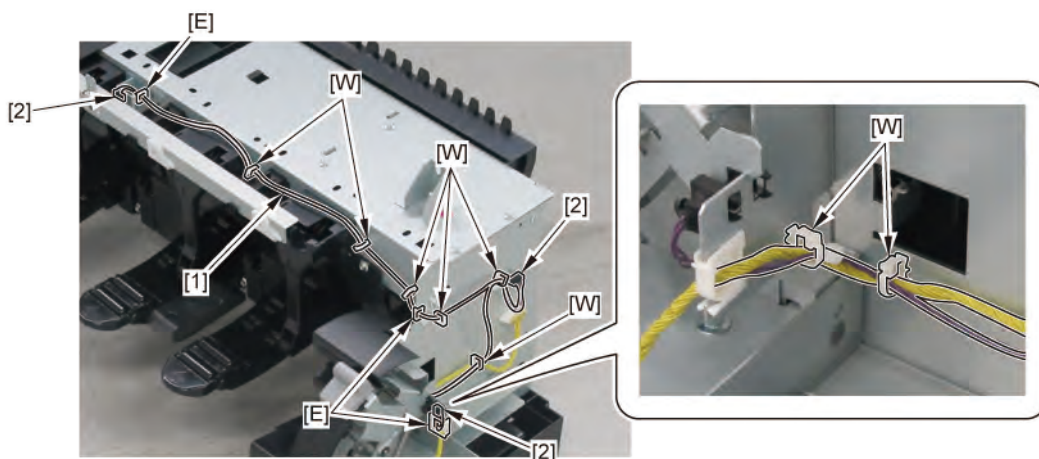
[3]	[4]
	
1 pc	4 pcs



## D-2


4. Remove [1] HARNESS ASS'Y, LO FLAP SPLSET.

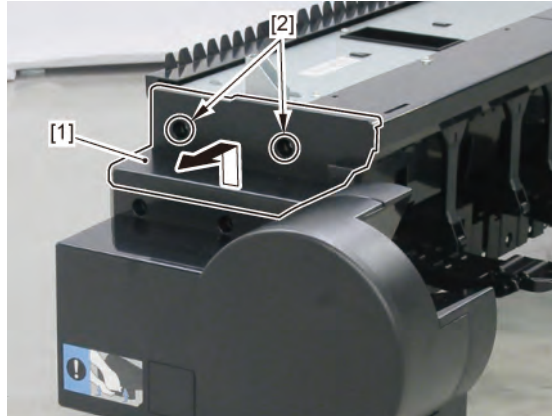
[2]	[W]	[E]
		
3 pcs	8 pcs	3 pcs





**E**

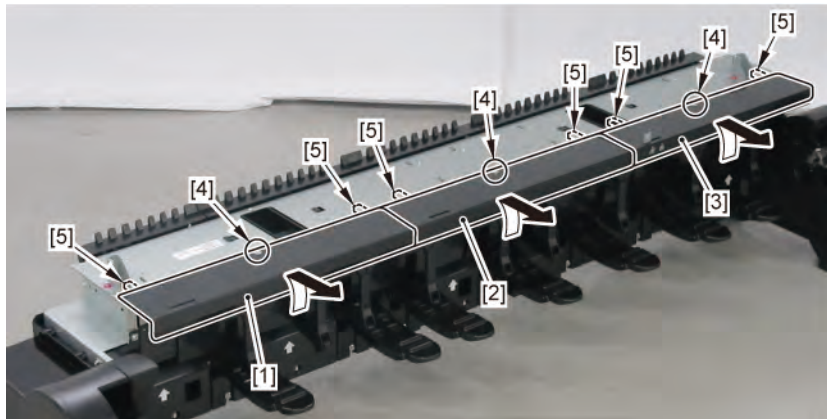
1. Remove all the parts of Group A.
2. Remove [1] COVER, SIDE TOP L.

[2]

2 pcs



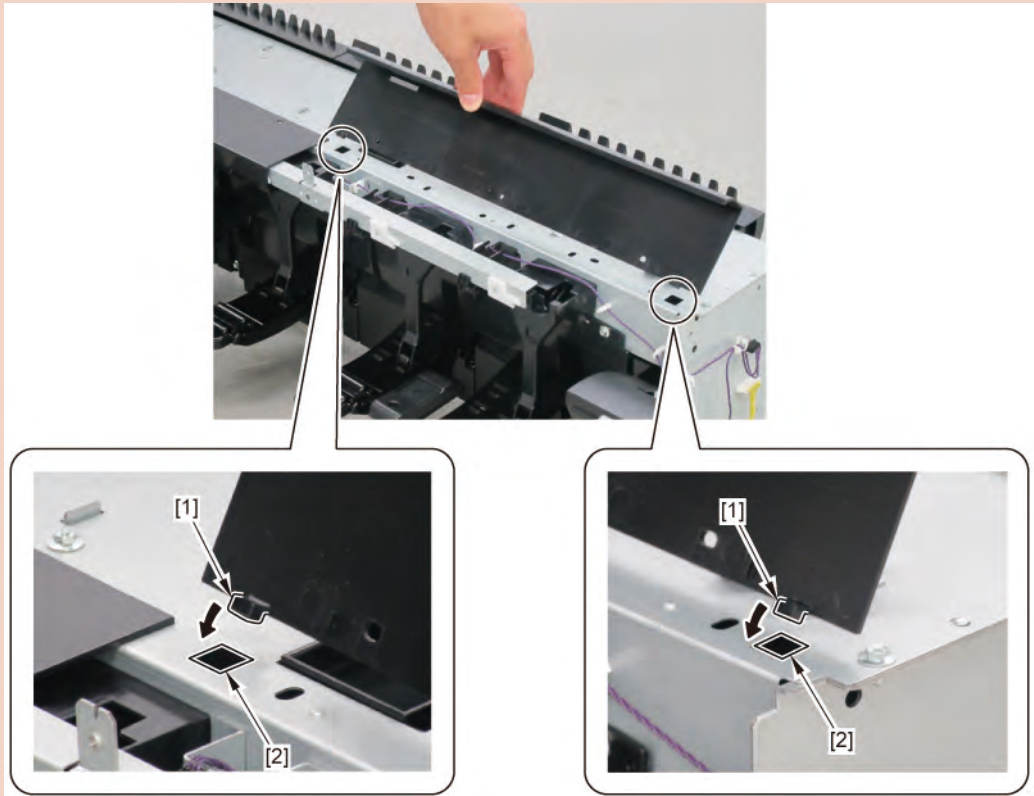
3. Remove the top covers [1] to [3].

[4]	[5]
	
1 pc each	2 pcs each

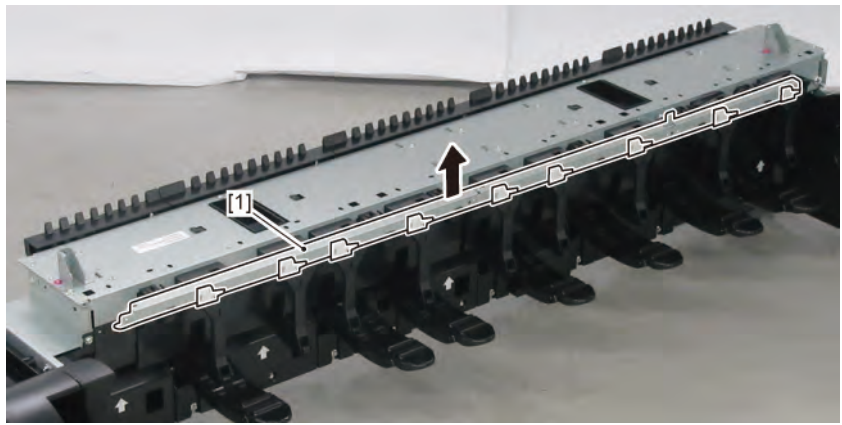


**Notes when assembling the unit:**

Securely fit [1] the hook i to [2] the hole.



4. Remove [1] the plate (with the CAM, FLAP SELEC).

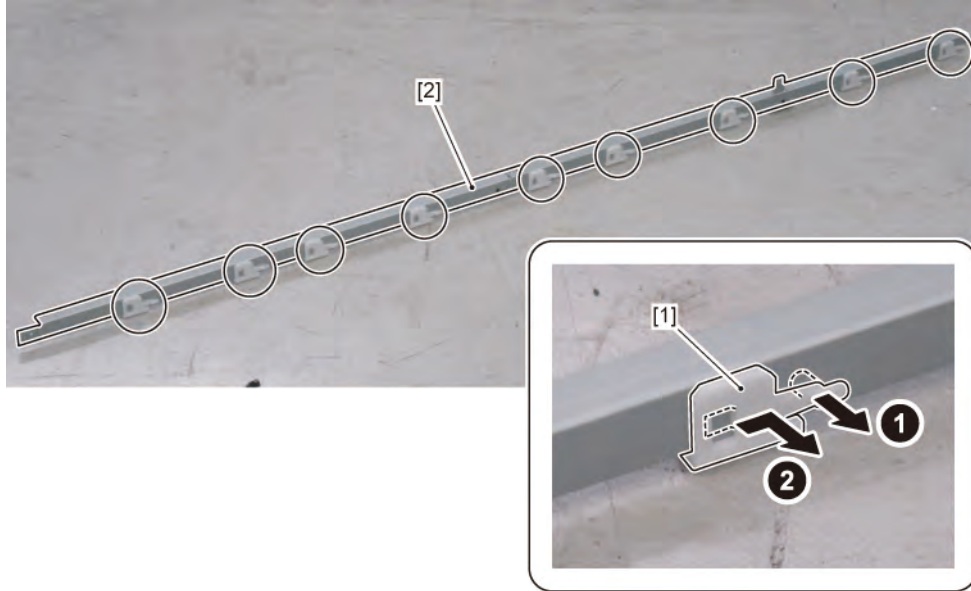


**F**

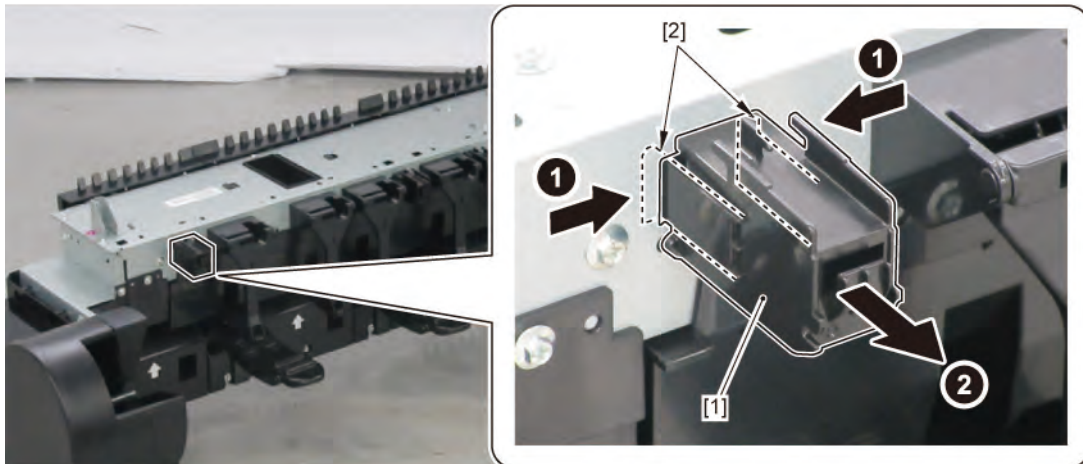
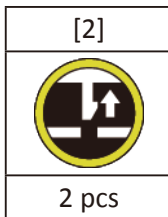
1. Remove all the parts of Groups A, C, and E.

**F-1**

2. Remove nine pieces of [1] CAM, FLAP SELEC from [2] the plate  
(fi e pieces in 24" model, seven pieces in 36" model).

**F-2**



2. Remove six pieces of [1] SUPPORT, FLAP SELEC  
(three pieces in 24" model, fi e pieces in 36" model).

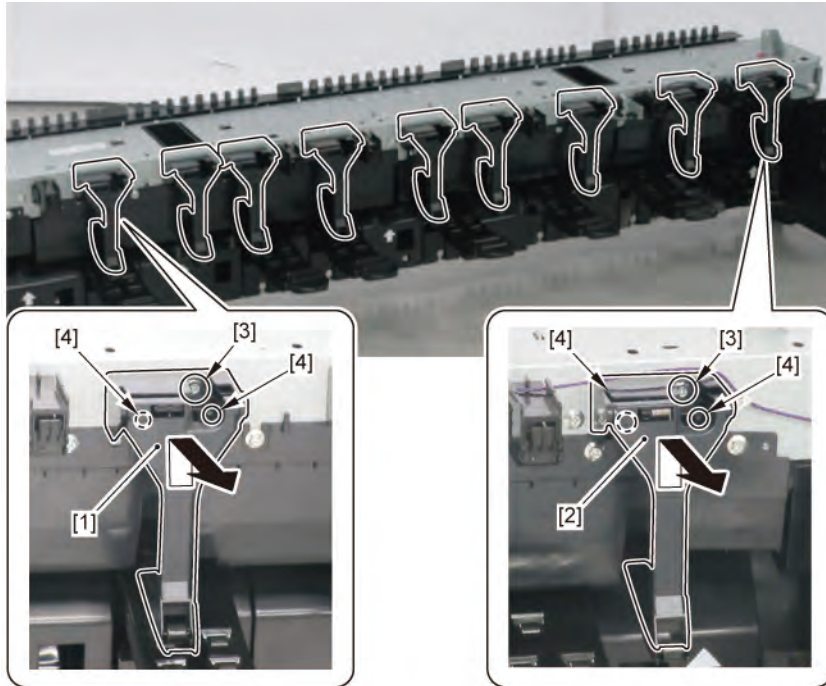




**G**

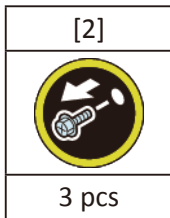
1. Remove all the parts of Groups A, C, and E.
2. Remove eight pieces of [1] FLAPPER SEPARATE UNIT (four pieces in 24" model, six pieces in 36" model) and [2] FLAPPER SEPARATE UNIT W/SP.

[3]	[4]
	
1 pc each	2 pcs each

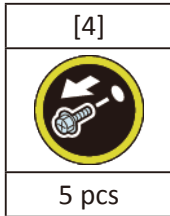




3. Remove [1] PAPER GUIDE ROLLER UNIT, RU A.

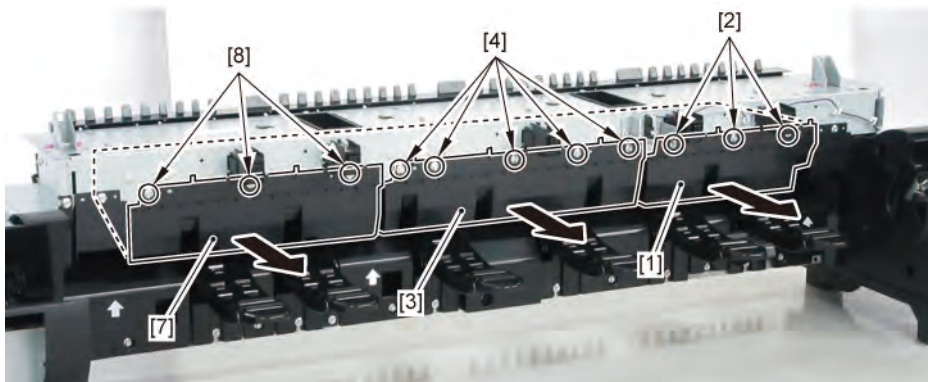
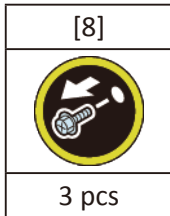


4. Remove [3] PAPER GUIDE ROLLER UNIT, RU B.



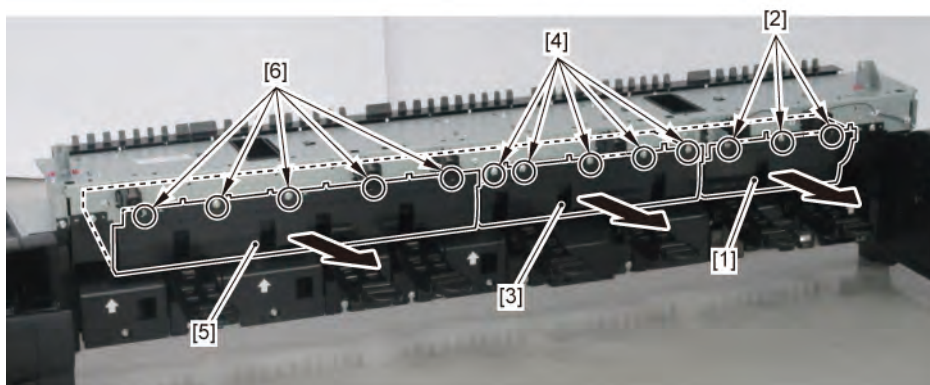
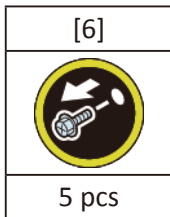
5. (36" model only)

Remove [7] PAPER GUIDE ROLLER UNIT, RU E.




5. (44" model only)


Remove [5] PAPER GUIDE ROLLER UNIT, RU C.



6. Push down [2] NIP ARM UNIT and remove [1] GUIDE UNIT, LOW A.

[3]

5 pcs

7. Push down [2] NIP ARM UNIT and remove [4] GUIDE UNIT, LOW B.

[5]

4 pcs

8. (36" model, 44" model only)


Push down [2] NIP ARM UNIT and remove [6] GUIDE UNIT, LOW C.

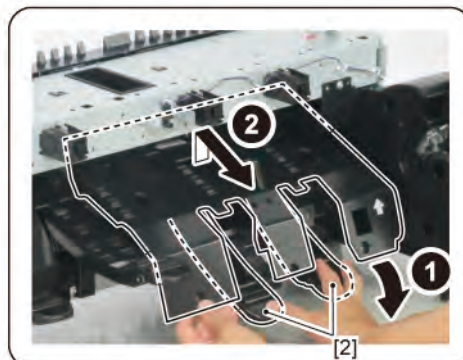
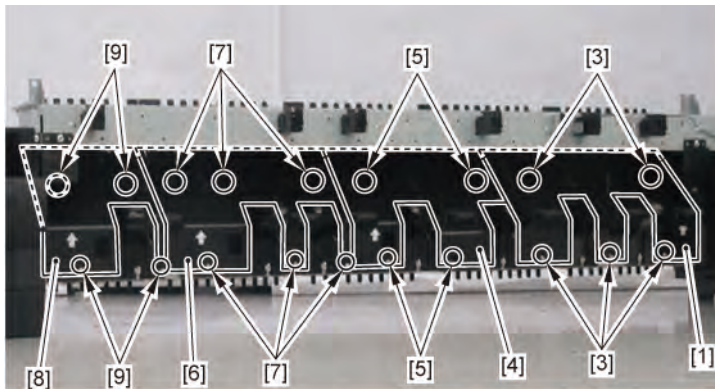
[7]

6 pcs

9. (44" model only)

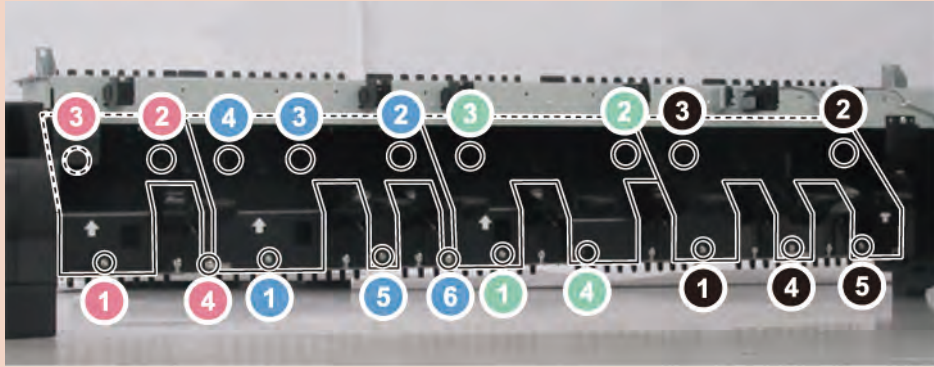
Push down [2] NIP ARM UNIT and remove [8] GUIDE UNIT, LOW D.

[9]

4 pcs



**Notes when assembling the unit:**

Tighten the screws in the order of numbers shown below.

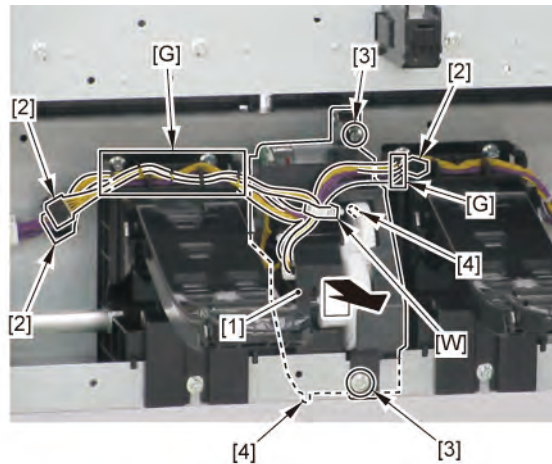
**H**

1. Remove all the parts of Groups A, C, E, and G.



**H-1**

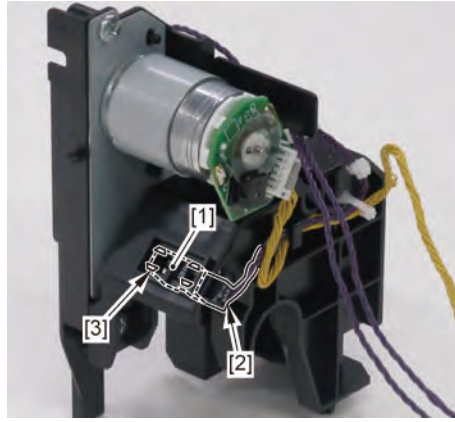
2. Remove [1] DRIVE NIP ARM UNIT.

[2]	[3]	[4]	[W]	[G]
3 pcs	2 pcs	2 pcs	1 pc	2 pcs



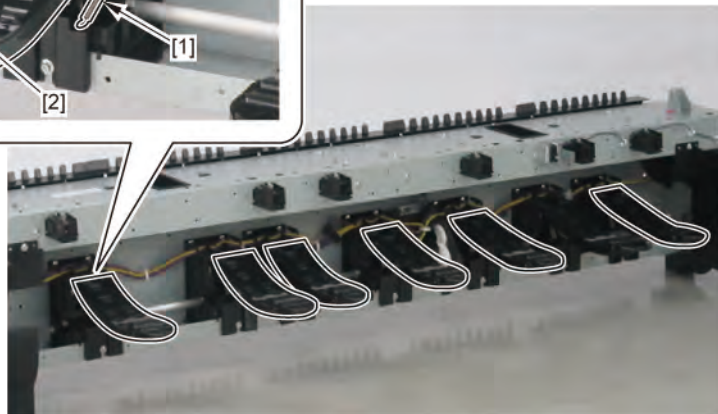
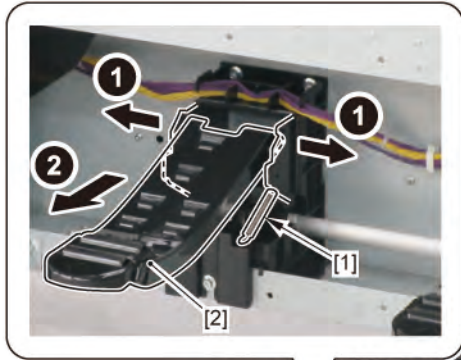
3. Remove [1] LOWER ROLL NIP SENSOR.

[2]	[3]
	
1 pc	4 pcs



H-2

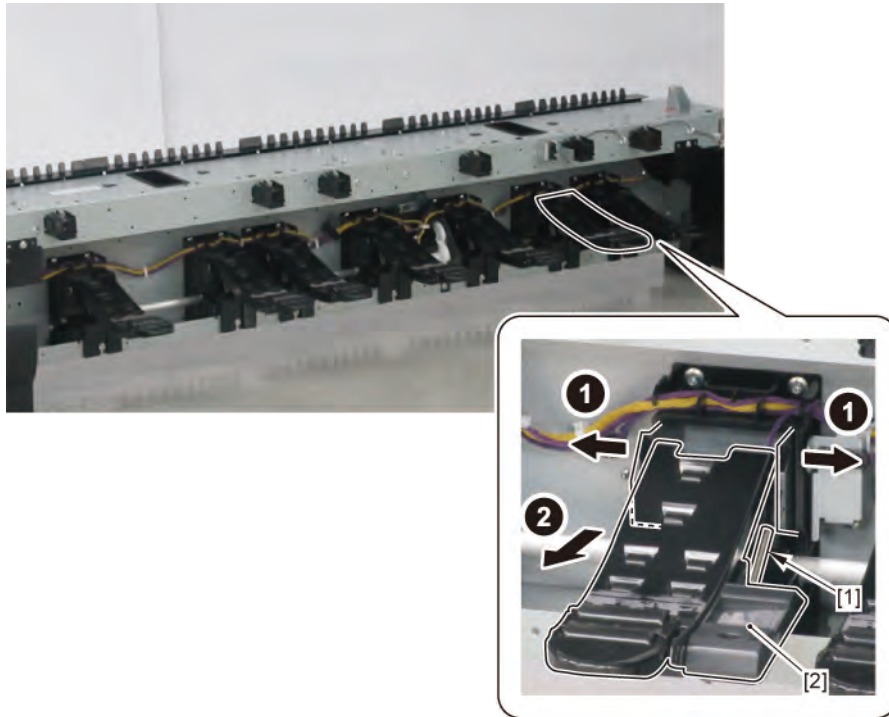
2. Remove six pieces each of [1] SPRING, PAPER SET and [2] NIP ARM UNIT (three pieces each in 24" model, five pieces each in 36" model).





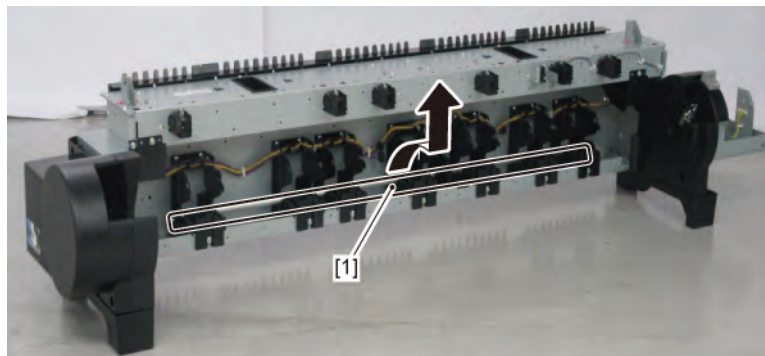
## H-3

2. Remove [1] SPRING, PAPER SET and [2] NIP ARM SENSOR UNIT.



## I

1. Remove all the parts of Groups A, C, E, G, and H.
2. Remove [1] CAM SHAFT UNIT.








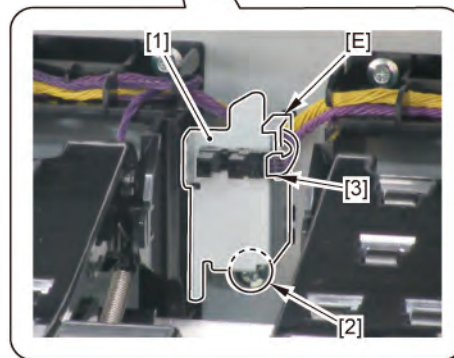
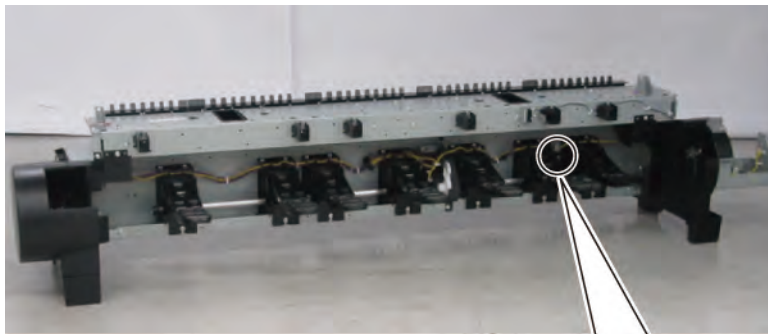
## J

1. Remove all the parts of Groups A, C, E, and G.




## J-1

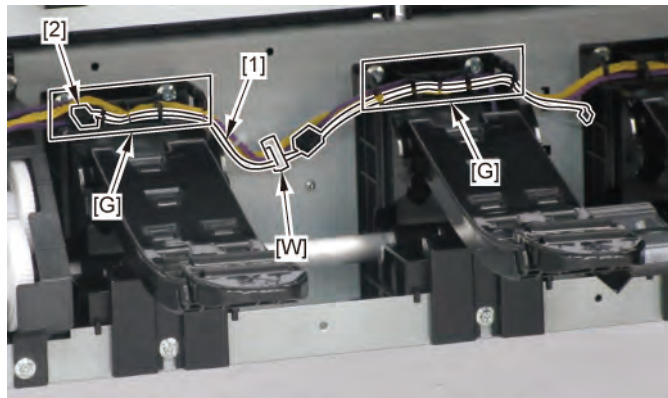
2. Remove [1] ROLL PAPER FEED SENSOR UNIT.

[2]	[3]	[E]
		
1 pc	1 pc	1 pc



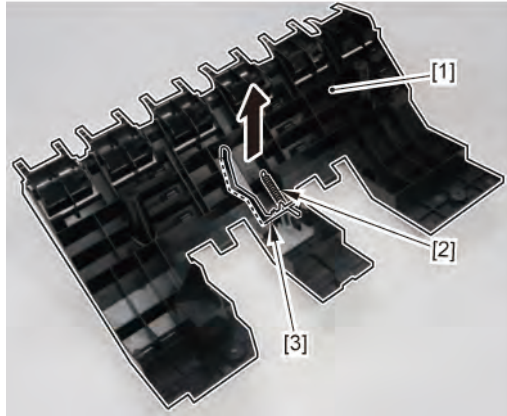
3. Disconnect [1] HARNESS ASS'Y, RLNIP PF SNS.

[2]	[W]	[G]
		
1 pc	1 pc	2 pcs



## J-2

- From [1] GUIDE UNIT, LOW A, remove [2] SPRING, PAPER FEED SENSOR and [3] LEVER, PAPER FEED SENSOR.

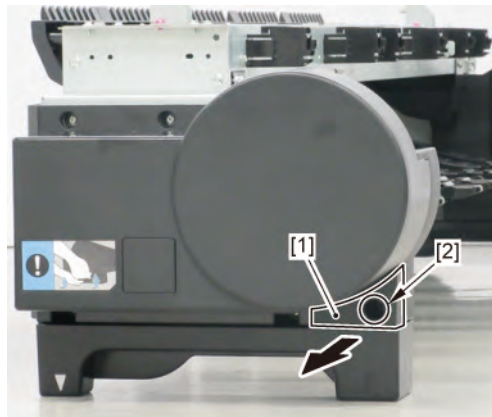


## K

- Remove all the parts of Groups A, C, E, and G.
- Remove [1] COVER, SIDE L SUB.

[2]

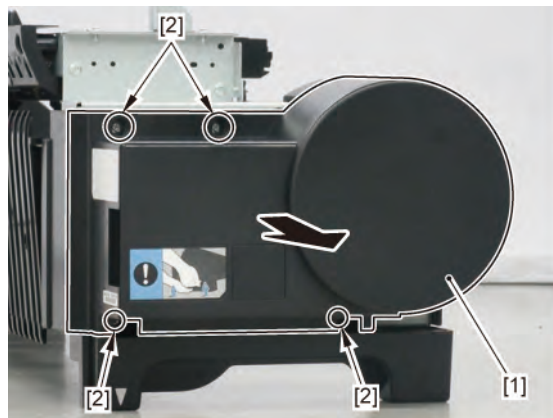
1 pc




3. Remove [1] a set of
- COVER UNIT, SIDE OUTER L
  - CAP, COVER SIDE L.

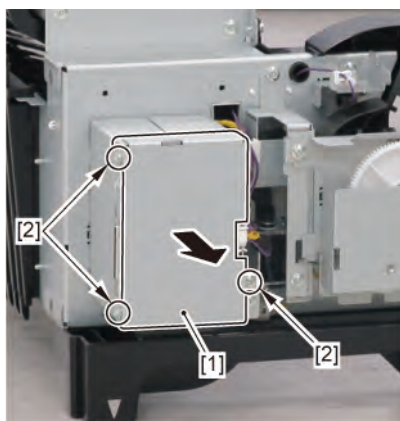
[2]

4 pcs





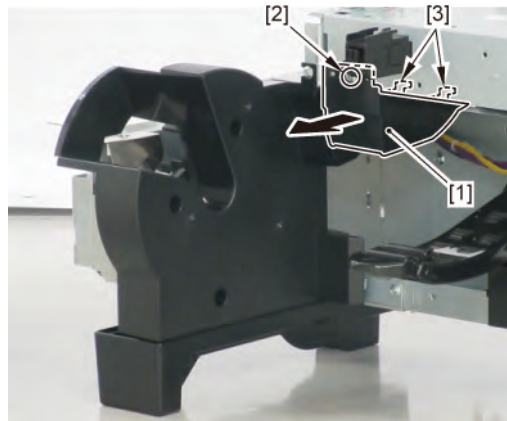
4. Remove [1] the plate.

[2]

3 pcs





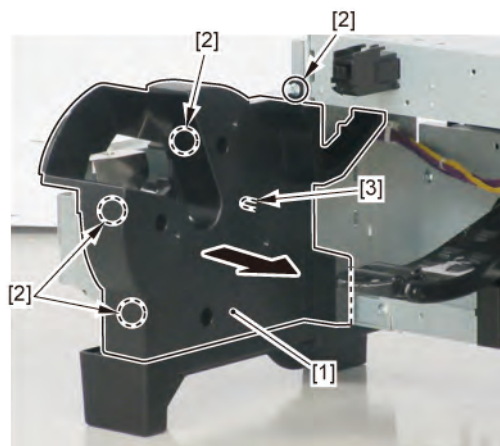
5. From the left side of the printer, remove [1] GUIDE, UPPER.

[2]	[3]
	
1 pc	2 pcs





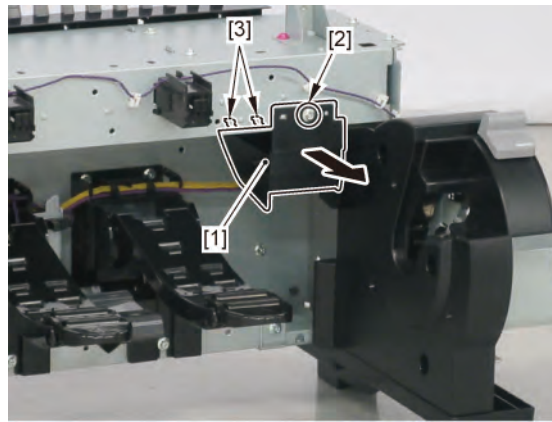
6. Remove [1] HOLDER, SPOOL L.

[2]	[3]
	
4 pcs	1 pc







7. From the right side of the printer, remove [1] GUIDE, UPPER.

[2]	[3]
	
1 pc	2 pcs

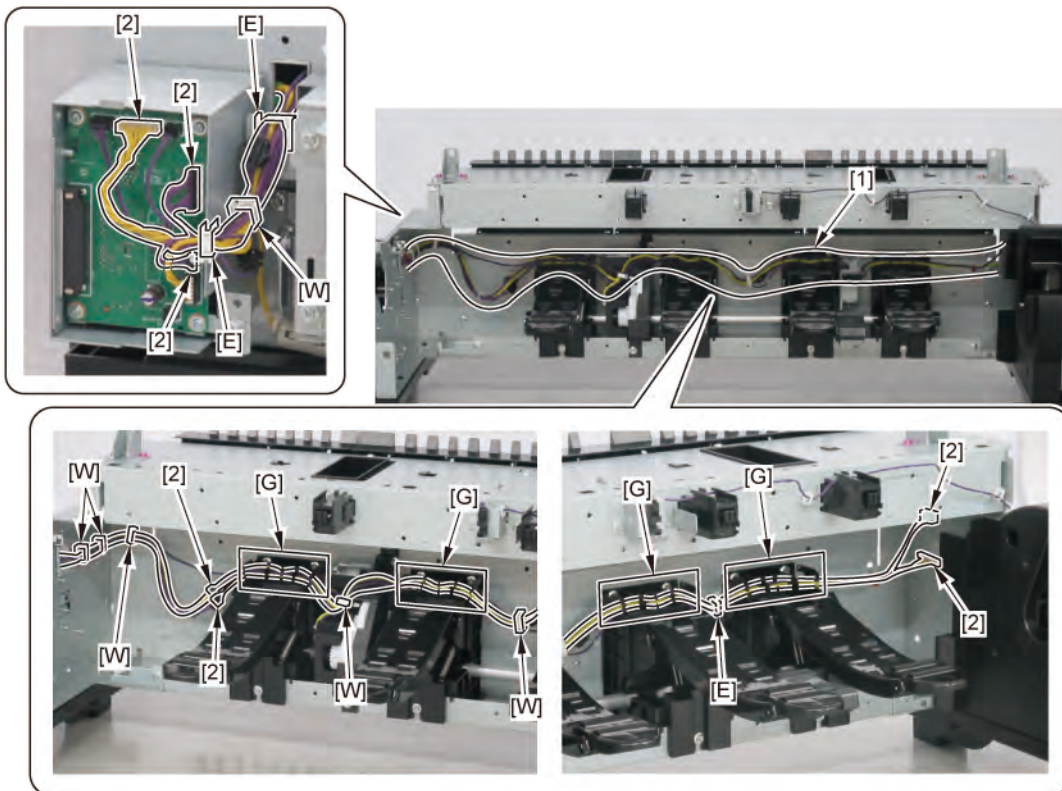




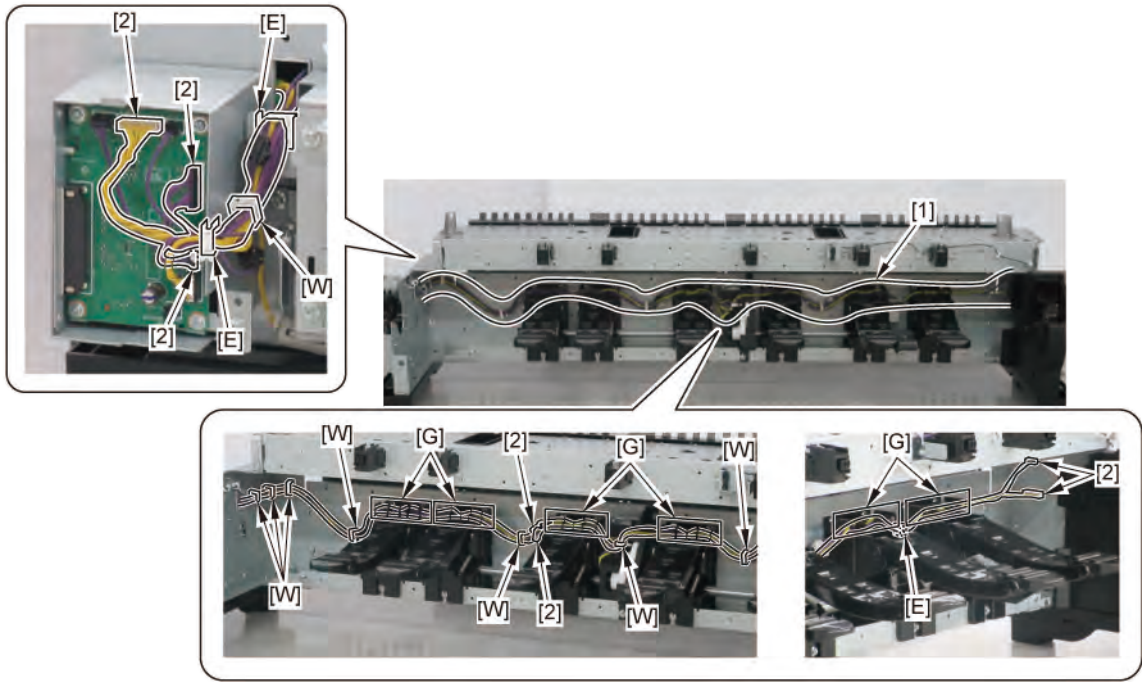
8. Disconnect [1] HARNESS ASS'Y, RU MAIN.

	[2]	[W]	[E]	[G]
				
24" model	7 pcs	6 pcs	3 pcs	4 pcs
36" model	7 pcs	8 pcs	3 pcs	6 pcs
44" model	7 pcs	8 pcs	3 pcs	7 pcs

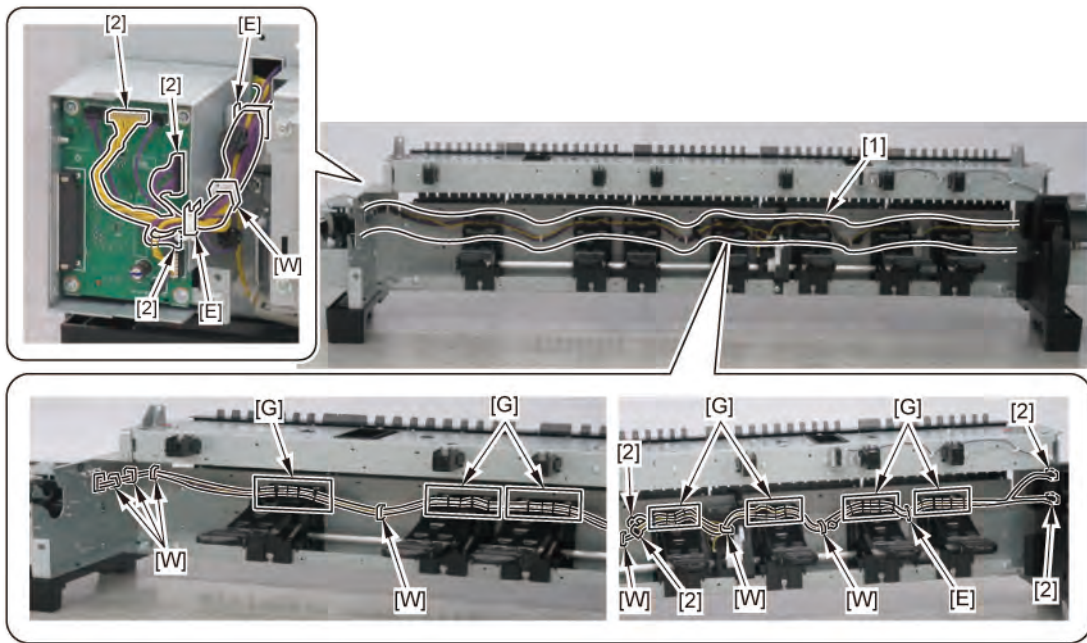
(24" model)







(36" model)



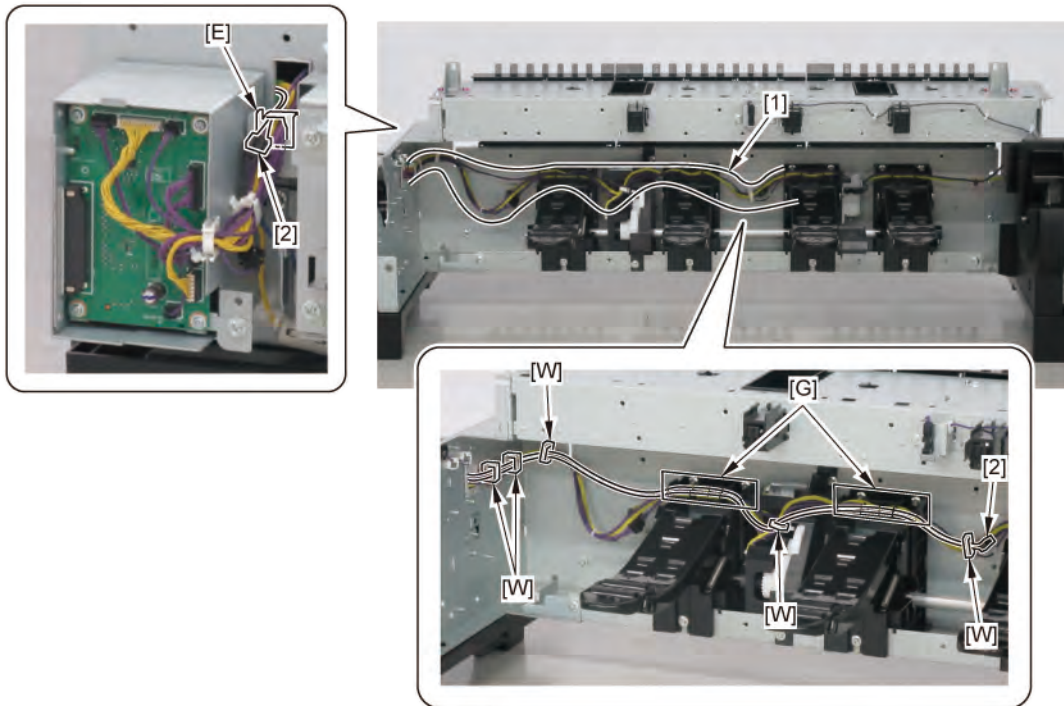
(44" model)



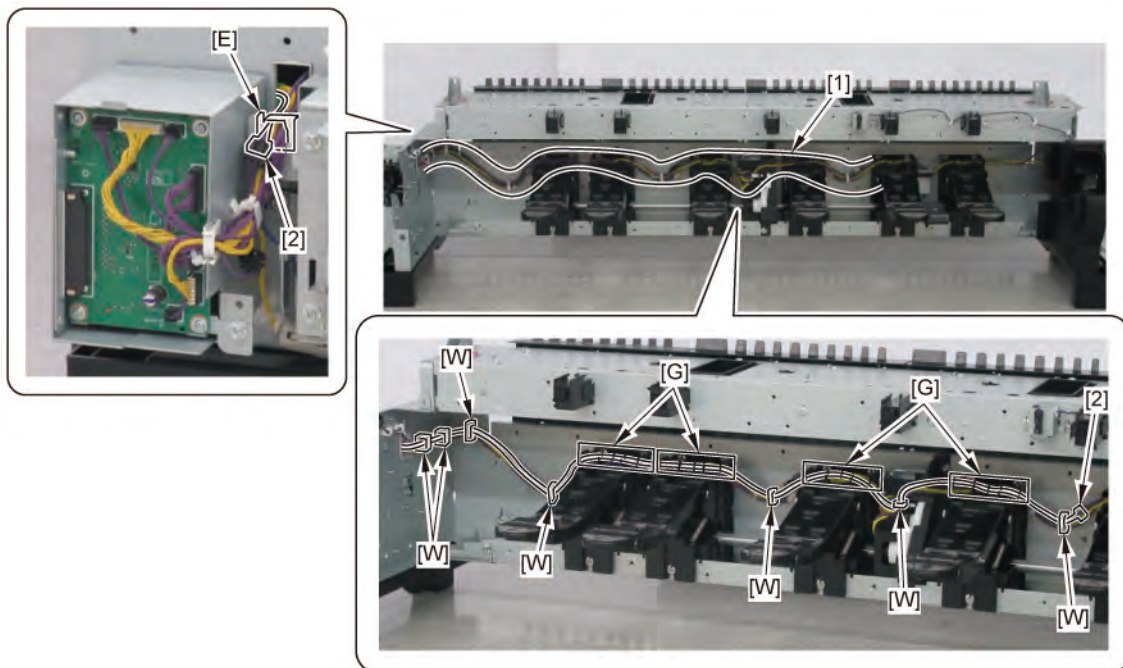
8. Disconnect [1] HARNESS ASS'Y, ROLL SEP RLY.

	[2]	[W]	[E]	[G]
				
24" model	2 pcs	5 pcs	1 pc	2 pcs
36" model	2 pcs	7 pcs	1 pc	4 pcs
44" model	2 pcs	7 pcs	1 pc	5 pcs

(24" model)

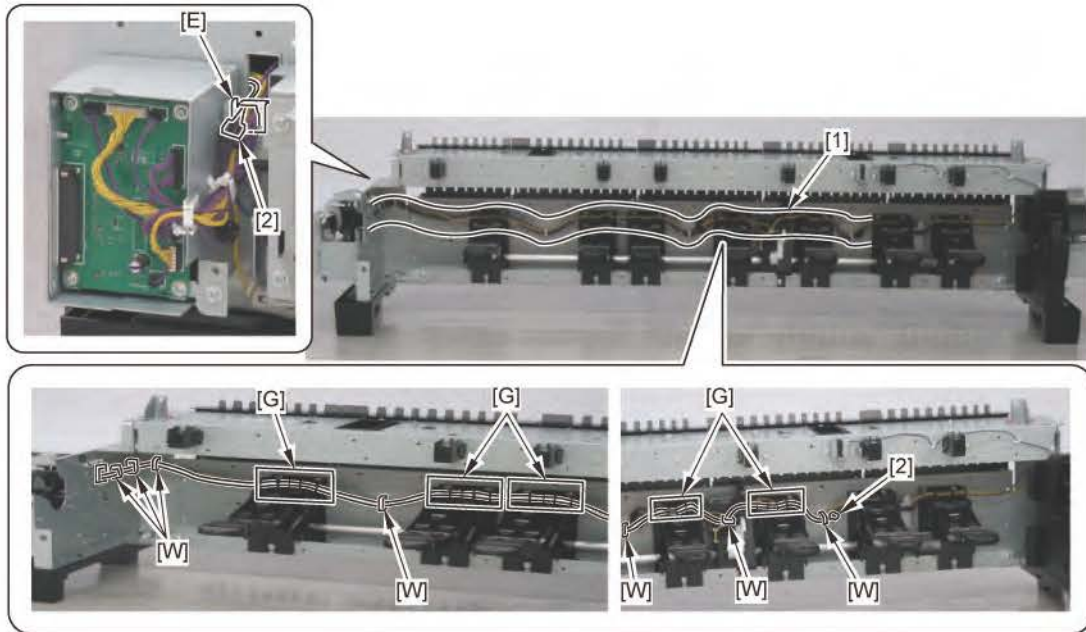


(36" model)





(44" model)







# SERVICING FUNCTIONS AND TOOLS

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## 7-1. Servicing Functions Outline

### 1) Outline

There are two servicing functions, "Service mode" and "PCB replacement mode." Use the two modes as the following servicing usages:

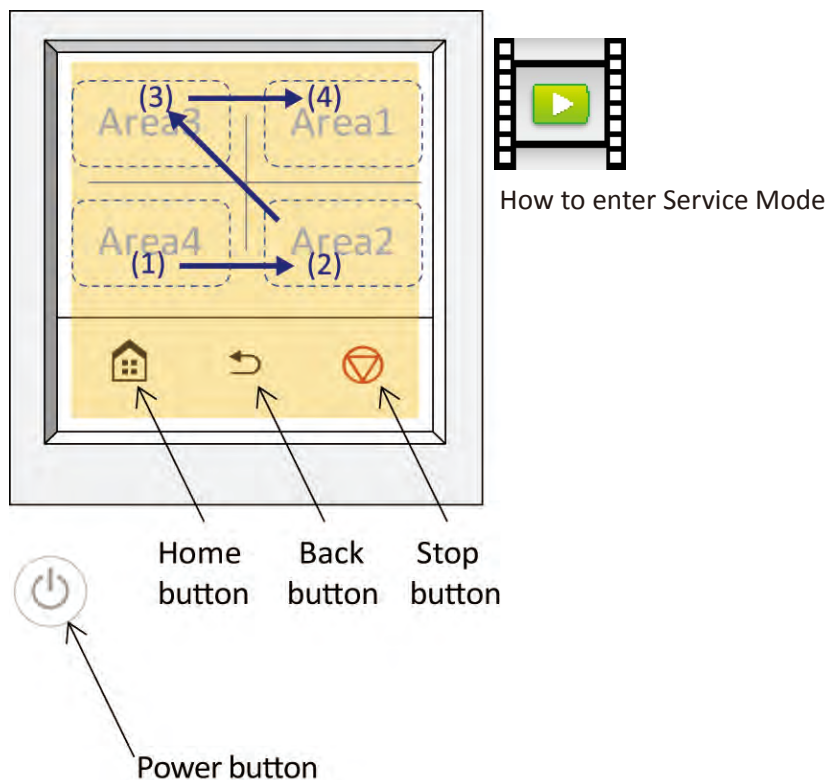
Service mode: Printer status check, adjustment, diagnosis, test printing, E-RDS setting, and etc.

PCB replacement mode: When the MAIN PCB UNIT or the BACK UP PCB UNIT is replaced in repair servicing, etc., the adjustment value and settings before the PCB replacement are automatically written in the new PCB.

### 2) Servicing functions

#### <How to launch service mode>

1. Press and hold the Power button while touching Area4 (lower left) of the operation panel. (DO NOT release the buttons.)
2. When the Canon logo is displayed on the operation panel, release the finger touching Area4 (lower left) while holding the Power button, touch in order of Area2 (lower right,) Area3 (upper left) and Area1 (upper right) of the operation panel, release the finger from Area1 (upper right) and finally release the Power button within two seconds.



3. When the service mode is successfully launched, the orange lamp blinks above the operation panel at the timing when the message “Starting the system... Please wait.” is displayed.



**NOTE:**

- The touch interval should be within two seconds.
- If you release the Power button while touching the operation panel, start the printer in the user mode.
- If you make a mistake in touching order, start the printer in the user mode.

**<How to launch PCB replacement mode>**

When the printer is launched following the procedures for starting service mode after replacing a MAIN PCB UNIT or a BACK UP PCB UNIT, the printer automatically enters the PCB replacement mode. For details, refer to [7-3. PCB Replacement Mode](#).

**3) The function for servicing and users (recovery mode)**

“Recovery mode” is the function for not only servicing but users. In recovery mode, when the power of the printer is disconnected during firmware update\*<sup>1</sup> for some reason, the screen automatically transits to the recovery mode at the next launch of the printer. For details, refer to [7-5. Recovery Mode](#).

\*<sup>1</sup>: Firmware update by Firm update tool, iPF PRO Service Tool or FIRMWARE UPDATE(USB) of service mode.

## 7-2. Service Mode

### 1) Purpose

The service mode is to be used when a service person provides the customer with servicing of this product (troubleshooting, repair, diagnosis, servicing adjustment, and etc.). Servicing is classified into the following seven items: "PRINTER STATUS," "DIAGNOSIS," "FUNCTION," "ADJUSTMENT," "TEST PRINT," "E-RDS," and "OTHERS." These items are displayed in the menu of the operation panel only when the service mode is launched.

The purpose and the details of each item are to be described later item by item.

### 2) The differences from user mode

The behavior differences between user mode and service mode are shown below.

#### The specific error codes are ignored.

In the user mode, when the error codes below are displayed, the maintenance cartridge is required to be replaced. On the other hand, in the service mode, the error codes below are ignored, therefore, the counter of the maintenance cartridge can be reset from the service mode menu.

E codes	Detail codes	Status
-	2819 (1720)	Maintenance cartridge full
-	281B (1720)	Lack of maintenance cartridge remaining capacity error

NOTE: The number in parenthesis is a support number, which is an error code for users displayed on PC or online manual.

#### Releasing the error with detail code starting from four or five.

When the printer is started in the service mode, the message for releasing the error with detail code starting from four or five (4\*\*\* or 5\*\*\*) is displayed so that a service person can perform troubleshooting.

#### The user's print jobs cannot be printed.

If the user made the printer enter the service mode, printing cannot be performed.

#### The print head can be swapped between the models among TX series.

As the print head can be swapped among TX series in the service mode, the number of the print head for tool required for print-head-related troubleshooting is minimized.

When replacing the print head, select [SERVICE MODE > FUNCTION > HEAD REPLACEMENT]. (Do not use CR LOCK/CR UNLOCK to replace the print head).



**Automatic cleaning is not performed.**

No automatic cleaning prevents the increase of the service operating time due to unintended automatic cleaning.

**Auto Power OFF and sleep timer are not performed.**

Prevents unintended powering off and sleep transition in troubleshooting

Select [Device settings > Device user settings > Energy saving settings > Auto power off/Sleep timer] in the operation panel

## Service mode menu hierarchy

Service mode menu		Descriptio
First hierarchy	Second hierarchy	
PRINTER STATUS	SYSTEM INFO	Printer information (serial number environmental temperature/cumulati e PV, etc.)
	ERROR LOG	Error history (up to 10 cases for ERROR LOG, up to 5 cases for JAM LOG)
	PARTS COUNTER	Clearing parts counter values
	CLEANING LOG	Cumulati e number of cleaning (past history: Up to three times)
	SERVICE LOG	Date of the latest adjustment
	HEAD USAGE LOG	Head information (head lot number/dot count information, tc.)
	INK USAGE LOG	Ink information (cumul ti e ink usage/ elapsed days a er ink tank installation, etc.)
	OTHER CONSUMABLES USAGE LOG	Maintenance cartridge usage log/cu er usage log
	USER COMMAND LOG	Head alignment history/color calibratio history
DIAGNOSIS	CR_SYSTEM_CHECK	Carriage drive functional diagnosi
	PURGE CHECK	Purge unit functional diagnosi
	I/O DISPLAY	I/O DISPLAY (each sensor and switch functional diagnosis)
	OPT SENS CHECK	Multi sensor functional diagnos
	NOZZLE CHECK	Head management sensor functional diagnosis
	HEAD CNT CHECK	Functional diagnosis of head ontact detectio
	ANALOG ENCODER CHECK	LF encoder sensor functional diagnosi
FUNCTION	CR LOCK	Carriage lock
	CR UNLOCK	Carriage unlock
	HEAD REPLACEMENT	Head removal and reinstallation (Ink is not removed from the head)
	INK SUPPLY VALVE OPEN	Ink supply valve opening and closing operatio
	INK FILLING	Ink filling ( er parts replacement)
ADJUSTMENT	OPTICAL AXIS	Multi sensor opti al axis adjustment
	GAP CALIB	GAP calibratio
	LF TUNING	LF correction and ccentricity correctio
	NOZZLE CHK POS	Adjustment of the opti al axis in the head management sensor
	CR REG	Dynamic head alignment
	CR MOTOR COG	Cogging torque control
	TOUCH PANEL CALIBRATION	Touch panel calibratio
	MANUAL HEAD ADJ	Manual head alignment
	MARGIN ADJ	Margin adjustment
	LF_ENC_ADJ	LF encoder adjustment
	UPPER_ARB_CALIB	Upper paper feed unit calibratio
	LOWER_ARB_CALIB	Lower paper feed unit calibratio
TEST PRINT	PRINT INF	Service log printin
	SERVICE NOZZLE CHECK	Service nozzle check pa ern printin
E-RDS	CA-CERTIFICATE	E-maintenance certi ate/CA-certi ate information displ y
	E-RDS SETUP	E-RDS setup
	E-RDS OTHERS	E-maintenance CA-certi ate deletio

OTHERS	RTC SETTING	RTC setti
	PV AUTO JUDGE	Waste ink reduction mode s tti
	PRINT HEAD INFO SETTING	Availability of print head warranty information displ y
	HDD BOX PASS	HDD BOX password reset
	FIRMWARE UPDATE(USB)	Firmware installation using USB flas drive
	GET PRINT INF (USB)	Storing PRINT INF information o USB flash dri e
	GET ENCRYPTING LOG(USB)	Storing serial log to USB flash dri e
	DELETE ENCRYPTING LOG	Deletion of serial logs tored in HDD

## Details of PRINTER STATUS

## 1) Purpose

PRINTER STATUS checks the printer status and obtains the information necessary for diagnosis.

## 2) How to use PRINTER STATUS

Execute the menu in PRINTER STATUS, and the detailed information will be displayed on the operation panel.

Menu level: Select [SERVICE MODE > PRINTER STATUS] in the operation panel.

PRINTER STATUS menu level					
Second level	Third level		Fourth level		Fifth level
Menu	Operation panel display	Details	Operation panel display	Details	Operation panel display
SYSTEM INFO	S/N: xxxxxxxx TMP [C]/TMP [F] RH [%] AFTER INSTLATION [days] PV TTL [m2] PV TTL [sq.f] PV TTL [A4] ROLL1 TOTAL [m2] ROLL1 TOTAL [sq.f] ROLL1 TOTAL[A4] ROLL2 TOTAL [m2] ROLL2 TOTAL [sq.f] ROLL2 TOTAL[A4] CUTSHEET TOTAL [m2] CUTSHEET TOTAL [sq.f] CUTSHEET TOTAL[A4] PV ENV A: **** B: **** C: **** D: **** E: **** F: ****	(1) Printer serial number (2) Environmental temperature (Celsius / Fahrenheit) (3) Environmental humidity (4) Number of days passed since the initial installation sequence started (5) Cumulative PV (m2) (6) Cumulative PV (sq.f) (7) Cumulative PV (in A4 equivalent) (8) Roll paper 1 (upper) Cumulative PV (m2) (9) Roll paper 1 (upper) Cumulative PV (sq.f) (10) Roll paper 1 (upper) Cumulative PV (in A4 equivalent) (11) Roll paper 2 (lower) Cumulative PV (m2) (12) Roll paper 2 (lower) Cumulative PV (sq.f) (13) Roll paper 2 (lower) Cumulative PV (in A4 equivalent) (14) CUTSHEET Cumulative PV (m2) (15) CUTSHEET Cumulative PV (sq.f) (16) CUTSHEET Cumulative PV (in A4 equivalent) (17) PV per environmental temperature A: Temperature 15°C to 25°C/Humidity 40% to 60% B: Temperature 25°C to 30°C/Humidity 40% to 60% C: Temperature 15°C to 30°C/Humidity 10% to 40% D: Temperature 15°C to 30°C/Humidity 60% to 80% E: Temperature 15°C to 30°C/Humidity 0% to 10%, or temperature up to 15°C, 30°C or higher/Humidity 0% to 50% F: Temperature 15°C to 30°C/Humidity 80% to 100%, or temperature up to 15°C, 30°C or higher/Humidity 50% to 100%			

PRINTER STATUS menu level						
Second level	Third level	Fourth level	Fifth level	Details	Operation panel display	Details
Menu	Operation panel display	Details	Operation panel display	Details	Operation panel display	Details
ERROR LOG	HARDWARE ERROR LOG	(1)HARDWARE ERROR LOG (Hardware error)	HARDWARE ERROR LOG MM/DD HH:MM Exxx-xxxx(xxxx) ...	(5) The date and time of HARDWARE ERROR (the latest ten cases) and their error codes are displayed.	DETAILS Number SheetS [A4]	Details of each HARDWARE ERROR/ERROR/ WARNING
	ERROR LOG	(2)ERROR LOG (Operator error)	ERROR LOG MM/DD HH:MM xxxx(xxxx) ...	(6) The date and time of ERROR (the latest ten operator errors) and their error codes are displayed.	TMP [C]	(9) PV when each error/warning occurs (in A4 equivalent)
	WARNING LOG	(3)WARNING LOG (Warning)	WARNING LOG MM/DD HH:MM xxxx(xxxx) ...	(7) The date and time of WARNING (the latest ten warnings) and their warning types are displayed.	TMP [F] RH [%]	(10) Environmental temperature when each error/warning occurs (Celsius) (11) Environmental temperature when each error/warning occurs (Fahrenheit) (12) Environmental humidity when each error/warning occurs
	JAM LOG	(4)JAM LOG (Jam error)	JAM LOG MM/DD HH:MM xxxxxx(xxxx) ...	(8) The date and time of the latest ten JAM errors and their warning types are displayed.	DETAILS 01:x 02:x 03:x 04:x 05:x 06:x 07:x ...	Details of JAM (13) Detailed information when a JAM error occurs (*1) <a href="#">*1: Detailed information when a JAM error occurs (See the Appendix 1).</a>
PARTS COUNTER	Wia1 xx /yyyy/mm/dd/ xxx%	(1) Parts name (*2)	DETAILS	Details of each parts counter		
	Wia2 xx /yyyy/mm/dd/ xxx%	(2) Status: xx (OK/W1/W2/E)	COUNTER NAME xxxxxx	(5) Parts name		
	Wia3 xx /yyyy/mm/dd/ xxx%	W1: Warning 1/W2: Warning 2/E: Error	COUNTER VALUE xxxxxx	(6) Counter value		
	Wia5 xx /yyyy/mm/dd/ xxx%	(3) The date of resetting counter: yyyy/mm/dd	PART LIFE xxxxxx	(7) Parts life threshold		
	Wia6 xx /yyyy/mm/dd/ xxx%	(4) Usage rate: xxx%	ACCUMULATION xxxxxx	(8) Accumulated counter value		
	Wia7 xx /yyyy/mm/dd/ xxx%	<a href="#">*2: Details of the parts to reset the counter (See the Appendix 2).</a>	THE NO. OF RESET xxxxxx	(9) The number of times of the counter value reset		
	WF1 xx /yyyy/mm/dd/ xxx%					
	CR1 xx /yyyy/mm/dd/ xxx%		[Reset]	[Parts counter reset]		
	CR2 xx /yyyy/mm/dd/ xxx%		Execute?	Select [YES], the counter value will be reset. (The cumulative counter value is not cleared).		
	CR3 xx /yyyy/mm/dd/ xxx%		YES/NO			
	CR4 xx /yyyy/mm/dd/ xxx%					
	CR5 xx /yyyy/mm/dd/ xxx%					
	CR6 xx /yyyy/mm/dd/ xxx%					
	PG1 xx /yyyy/mm/dd/ xxx%					
	PG2 xx /yyyy/mm/dd/ xxx%					
	PG3 xx /yyyy/mm/dd/ xxx%					
	HMa1 xx /yyyy/mm/dd/ xxx%					
MT1 xx /yyyy/mm/dd/ xxx%						
PL1 xx /yyyy/mm/dd/ xxx%						
Mi1 xx /yyyy/mm/dd/ xxx%						
Mi2 xx /yyyy/mm/dd/ xxx%						
MS1 xx /yyyy/mm/dd/ xxx%						



PRINTER STATUS menu level						
Second level	Third level		Fourth level		Fifth level	
Menu	Operation panel display	Details	Operation panel display	Details	Operation panel display	Details
CLEANING LOG	A-AB ***(***) A-A ***(***) A-B ***(***) S-AB ***(***) S-A ***(***) S-B ***(***) R-AB ***(***) R-A ***(***) R-B ***(***) EX *** H *** T1 *** T2 *** C *** FI-AB *** FI-A *** FI-B *** IR-AB *** IR-A *** IR-B ***	(1) Cleaning name (*3) *3: Cleaning mode list (Figure 1: CAP-A/CAP-B layout) A-AB: Cleaning (All CAP) / A-A: Cleaning (CAP-A) / A-B: Cleaning (CAP-B) / S-AB: System cleaning (All CAP) / S-A: System cleaning (CAP-A) / S-B: System cleaning (CAP-B) / R-AB: Deep cleaning (All CAP) / R-A: Deep cleaning (CAP-A) / R-B: Deep cleaning (CAP-B) / EX: Ink removal at the head replacement / H: Ink filling t the head replacement / T1: Ink removal (Transport outdoors) / T2: Ink removal (total frequency of ""Move indoors to a di erent floor"" and ""M ve indoors on the same floor"" ) / C: On arri al ink filling / FI-AB: Ink filling t the installation er printer transportation (All CAP) / FI-A: Ink filling t the installation er printer transportation (CA -A) / FI-B: Ink filling t the installation er printer transportation (CA -B) / IR-AB: Ink filling er irregular recovery (All CAP) / IR-A: Ink filling er irregular recovery (CAP-A) / IR-B: Ink filling er irregular recovery (CAP-B)  (2) Accumulated number of automatic and manual cleaning (Accumulated number of manual cleaning)	DETAILS yyyy/mm/dd yyyy/mm/dd yyyy/mm/dd	Details of each cleaning (3) Execution hi tory of each cleaning (the last three cases)		
SERVICE LOG	SERVICE ADJUSTMENT LOG	(1) Service adjustment execution hi tory	SERVICE ADJUSTMENT LOG GAP_CALIB:yyyy/mm/dd OPTICAL_AXIS:yyyy/mm/dd CR_MOTOR_COG:yyyy/mm/dd LF_TUNING:yyyy/mm/dd CR_REG:yyyy/mm/dd ... PCB REPLACEMENT LOG 01:yyyy/mm/dd x 02:yyyy/mm/dd x 03:yyyy/mm/dd x 04:yyyy/mm/dd x 05:yyyy/mm/dd x ... ...	Details of each service adjustment execution history (3) Each service adjustment name (4) Last implementation d te of each service adjustment		
	PCB REPLACEMENT LOG	(2) PCB replacement execution hi tory		Details of PCB replacement execution hi tory (5) The date of PCB replacement and the case number (the last ten cases) · Case number 0: BACKUP PCB replacement The data is copied from main PCB to backup PCB. ... · Case number 1: MAIN PCB replacement The data is copied from backup PCB to main PCB. · Case number 2: Both of main PCB and backup PCB are replaced. The data is copied from GID PCB to main PCB and backup PCB.		

PRINTER STATUS menu level						
Second level	Third level	Fourth level	Fifth level	Details	Operation panel display	Details
Menu	Operation panel display	Details	Operation panel display	Details	Operation panel display	Details
HEAD USAGE LOG	CURRENT HEAD	(1) The currently-installed print head information	CURRENT HEAD LOT DATE OF INSTALL DOT COUNT [Details]	(5) The currently-installed print head · Lot number · Print head installation date · Total dot count [Details of the currently-installed print head]	DETAILS DOT COUNT MBK:xxxxxx Bk:xxxxxx MBK2:xxxxxx Y:xxxxxx M:xxxxxx C:xxxxxx	(9) Head dot count (per color)
	PREVIOUS HEAD	(2) The previously-installed print head information	PREVIOUS HEAD LOT DATE OF INSTALL DOT COUNT [Details]	(6) The previously-installed print head · Lot number · Print head installation date · Total dot count [Details of the previously-installed print head]	REFILL INKTANK USAGE HISTORY A:*** B:*** C:*** D:*** E:*** F:***	(10) Refill ink tank usage log (per chip: *4) <a href="#">*4: The correlation between chip positions and colors (See the Appendix 3)</a>
	DOT COUNT ACCUMULATED	(3) The currently-installed print head dot count	<u>DOT COUNT ACCUMULATED</u> TTL:***** [Details]	(7) The accumulated currently-installed print head dot count (in total) [Details of print head dot count]	THE NO. OF NON-EJECTION NOZZLES A1:*** A2:*** B1:*** B2:*** C1:*** C2:*** D1:*** D2:*** E1:*** E2:*** F1:*** F2:***	(11) The number of the non-ejection nozzles (per chip: *4)
	THE NO. OF REPLACEMENT	(4) The number of times of print head replacement	<u>THE NO. OF REPLACEMENT</u> REPLACEMENT:** S:**	(8) THE NO. OF REPLACEMENT means the number of times of print head replacement. "S" means the number of times that the commands for removing and installing print head in Service mode are executed. (SERVICE MODE > FUNCTION > TEMPORARY HEAD REPLACEMENT)	DETAILS MBK:xxxxxx Bk:xxxxxx MBK2:xxxxxx Y:xxxxxx M:xxxxxx C:xxxxxx	(12) The accumulated currently-installed print head dot count (total per color)
INK USAGE LOG	ACCUMULATED INK USAGE	(1) Accumulated ink usage	<u>INK-USE1 INK-TTL [ml]</u> <u>INK-USE1 NINK-TTL [ml]</u> <u>INK-USE2 INK-TTL [ml]</u> <u>INK-USE2 NINK-TTL [ml]</u>	(3) Accumulated genuine ink usage (INK-USE1 INK-TTL) (4) Accumulated refilled ink usage (INK-USE1 NINK-TTL) (5) Genuine ink interval usage (INK-USE2 INK-TTL) (6) Refilled ink interval usage (INK-USE2 NINK-TTL)	INK-USE1 INK DETAILS MBK:xxxxxx Bk:xxxxxx Y:xxxxxx M:xxxxxx C:xxxxxx INK-USE1 NINK DETAILS MBK:xxxxxx Bk:xxxxxx Y:xxxxxx M:xxxxxx C:xxxxxx INK-USE2 INK DETAILS MBK:xxxxxx Bk:xxxxxx Y:xxxxxx M:xxxxxx C:xxxxxx INK-USE2 NINK DETAILS MBK:xxxxxx Bk:xxxxxx Y:xxxxxx M:xxxxxx C:xxxxxx	(8) Accumulated genuine ink usage (per color) (INK-USE1 INK DETAILS) (9) Accumulated refilled ink usage (per color) (INK-USE1 NINK DETAILS) (10) Genuine ink (per color) interval usage (INK-USE2 INK DETAILS) (11) Refilled ink (per color) interval usage (INK-USE2 NINK DETAILS)
	THE NO. OF INK-USE2 CLEAR	(2) Ink interval usage clear is executed. (THE No. OF INK-USE2 CLEAR)	THE NO. OF INK-USE2 CLEAR COUNT:**  [CLEAR] Execute? YES/NO	(7) The number of times of clearing the ink interval usage  [ink interval usage clear] Select [YES], clear the ink interval usage.		
	OTHER CONSUMABLES USAGE LOG	MAINTENANCE CARTRIDGE USAGE	(1) Maintenance cartridge usage log	MAINTENANCE CARTRIDGE USAGE USAGE:**% THE NO. OF REPLACEMENT:** THE NO. OF RESET:**  [Reset] Execute? YES *NO	(3) Maintenance cartridge usage (%) (4) The number of maintenance cartridge replacement (5) The number of maintenance cartridge usage reset  [Maintenance cartridge volume reset] Select [YES], and the volume of the maintenance cartridge will be reset.	

PRINTER STATUS menu level						
Second level	Third level		Fourth level		Fifth level	
Menu	Operation panel display	Details	Operation panel display	Details	Operation panel display	Details
	CUTTER USAGE	(2) Cutter usage log	CUTTER USAGE THE NO. OF REPLACEMENT THE NO. OF CUTS(CURRENT) THE NO. OF CUTS(PRE)	(6) The number of times of cutter blade replacement (7) The number of times of cuts of the current cutter (8) The number of times of cuts of the previous cutter	THE NO. OF REPLACEMENT TOTAL: *** THE NO. OF CUTS(CURRENT) TOTAL: *** 1:MEDIA1: *** 2:MEDIA2: *** THE NO. OF CUTS(PRE) TOTAL: *** 1:MEDIA1: *** 2:MEDIA2: ***	(9) The number of times of cutter blade replacement  (10) The number of times of cuts of the current cutter - TOTAL: The total number of times of cuts - 1: The media name and the number of times of cuts or the most common media type - 2: The media name and the number of times of cuts or the second most common media type (11) The number of times of cuts of the previous cutter - TOTAL: The total number of times of cuts - 1: The media name and the number of times of cuts or the most common media type - 2: The media name and the number of times of cuts or the second most common media type
USER COMMAND LOG	ADJUSTMENT	(1) Print head alignment log	ADJUSTMENT 0: YYYY/MM/DD HH:MM auto(*) 1: YYYY/MM/DD HH:MM auto(*) 2: YYYY/MM/DD HH:MM manual 3: 4: D: MM/DD HH:MM auto(*)	(3) Print head alignment log (past five cases) - Log number: 00 to 04 & D 00 to 04 (the newest event has the smallest history number), D: Latest detailed adjustment - Adjustment type auto(d): Detailed adjustment, auto(S): Standard adjustment, manual: Manual	Details DATE:***** MEDIA TYPE:***** HEAD:*** TMP [C]:*** TMP [F]:*** RH [%]:***	(5) Details of adjustment - DATE: Implementation date - MEDIA: Media type - HEAD: Head height - TMP [C]: Environmental temperature (Celsius) - TMP [F]: Environmental temperature (Fahrenheit) - RH: Environmental humidity

Appendix 1: Detailed information when a AM error occurs

No.	Contents	Details
01	Paper width detection OFF mod	1: ON, 2: OFF, -: Unknown
02	Carriage height	0: SL, 1: L, 2: M1, 3: M2, 4: M3, 5: H, -: Unknown
03	The position of pl ten shu er	1: Closed, 2: Half-open, 3: Fully open <1/4>, 4: Fully open <2/4>, 5: Fully open <3/4>, 6: Fully open <4/4>, -: Unknown
04	Cut mode	1: User cut, 2: Eject cut, 3: Automatic cut, *: Unkn wn
05	Paper feeding environment	0: Temperature 15°C to 25°C/Humidity 40% to 60% 1: Temperature 25°C to 30°C/Humidity 40% to 60% 2: Temperature 15°C to 30°C/Humidity 10% to 40% 3: Temperature 15°C to 30°C/Humidity 60% to 80% 4: Temperature 15°C to 30°C/Humidity 0% to 10% or Temperature up to 15°C, 30°C or higher/Humidity 0% to 50% 5: Temperature 15°C to 30°C/Humidity 80% to 100% or Temperature up to 15°C, 30°C or higher/Humidity 50% to 100% -: Unknown
06	Borderless/bordered	1: Bordered printin , 2: Borderless printin , -: Unknown
07	Spur positio	1: Top, 2: Down, -: Unknown
08	Print mode label No.	Internal information (Not used in se vicing)
09	Paper width	The size is displayed. (Unit: mm) *Only when paper width detection is O -: Unknown
10	Paper type	Displayed by paper name. -: Unknown

Appendix 2: Details of the parts to reset the counter

If the parts to reset the counter are replaced, reset parts counter value by selecting [SE VICE MODE > PRINTER STATUS > PARTS COUNTER > xxx (select the parts to reset the counter) > RESET THE COUNTER? > [YES].

Counter name	The parts to reset the counter	Applicable models
Wia1	WASTE INK ABSORBER UNIT A	All models
Wia2	WASTE INK ABSORBER UNIT B	All models
Wia3	WASTE INK ABSORBER UNIT C	44" model
Wia5	WASTE INK ABSORBER UNIT E	36" model
Wia6	WASTE INK ABSORBER UNIT	All models
Wia7	SUCTION FAN UNIT SUCTION FAN DUCT UNIT	All models
WF1	WASTE INK TANK UNIT	All models
CR1	BUSHING & CLEANER KIT	All models
CR2	FILM, TIMING SLIT STRIP	All models
CR3	CARRIAGE UNIT	All models
CR4	INK TUBE UNIT	All models
CR5	MULTI SENSOR UNIT	All models
CR6	FLEXIBLE CABLE UNIT	All models
PG1	PURGE UNIT	All models
PG2	PURGE UNIT	All models
PG3	PURGE UNIT	All models
HMa1	HEAD MANAGEMENT SENSOR UNIT	All models
MT1	MOTOR, DC, 47.8 W	All models
PL1	ACTIVE ROLL BRAKE UNIT	All models
Mi1	MIST FAN DUCT UNIT 1&2	All models
Mi2	MIST FAN DUCT UNIT 1&3	36" model, 44" model
MS1	MULTI SENSOR UNIT	All models

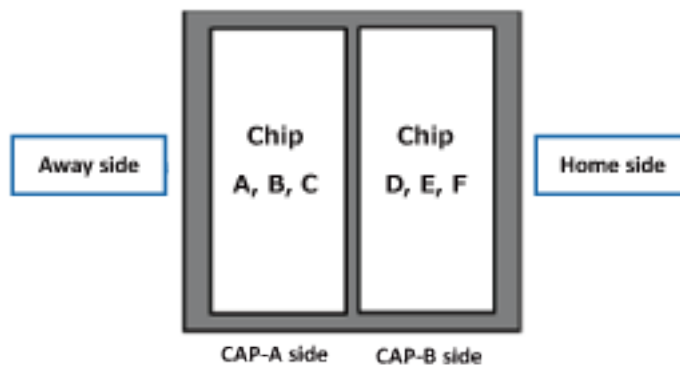
\* All models: 24" model, 36" model, and 44" model



Appendix 3: The correlation between chip positions and colors (to be shared among all the supported models.)

Chip position	A	B	C	D	E	F
Color	MBK	BK	MBK2	Y	M	C

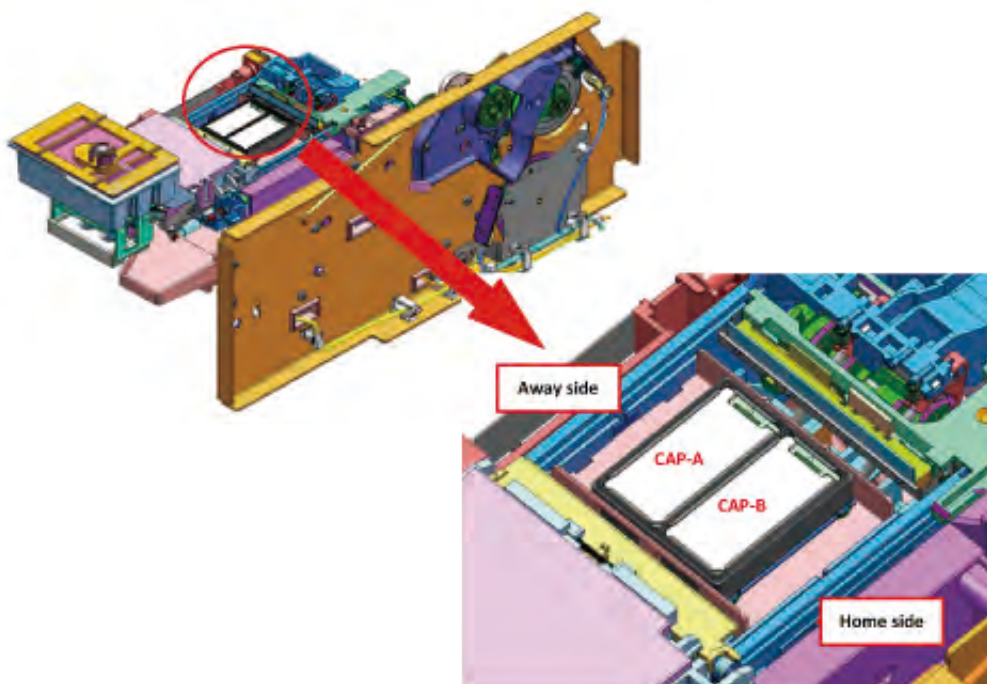
<Figure seen from the contact pad side of the print head>



\*Figure 1: PURGE UNIT CAP-A/CAP-B layout

There are two CAPs, one CAP per chip, "CAP-A" and "CAP-B" in order from the Away side.

Seen from the front of the printer, Away side is on the left side, and Home side is on the right side.



## Details of DIAGNOSIS

### 1) Purpose

The diagnosis functions (select [SERVICE MODE > DIAGNOSIS] from the operation panel) diagnose the printer operations as normal or abnormal, and display their results on the operation panel. The diagnosis results and the diagnosis date are recorded in service logs. Therefore, you can confirm the previous diagnosis results by selecting [SERVICE MODE > PRINTER STATUS > SERVICE LOG > SERVICE ADJUSTMENT LOG] or printing [SERVICE MODE > TEST PRINT > PRINT INF] on the operation panel. For how to obtain service log, see [Details of TEST PRINT \(2\)](#).

DIAGNOSIS menu	Details	When to use
<a href="#">CR SYSTEM CHECK</a>	The diagnosis of CARRIAGE UNIT and FLEXIBLE CABLE UNIT: <ul style="list-style-type: none"> <li>· Checking flexible cable disconnection</li> <li>· Checking flexible cable inserted at an angle</li> <li>· Checking acceleration sensor</li> </ul>	<ul style="list-style-type: none"> <li>· When a carriage error occurs</li> <li>· When an error code (ECOF) occurs</li> <li>· After CARRIAGE UNIT is replaced</li> <li>· After INK TUBE UNIT and FLEXIBLECABLE UNIT are replaced</li> <li>· After flexible cable is removed and inserted</li> </ul>
<a href="#">PURGE CHECK</a>	The diagnosis of PURGE UNIT: <ul style="list-style-type: none"> <li>· Cap opening/closing operation check</li> <li>· Purging operation check</li> </ul>	When an ink supply-related troubles are distinguished
<a href="#">I/O DISPLAY</a>	The diagnosis of each sensor and switch	Troubleshooting of abnormal sensor and switch
<a href="#">OPT SENS CHECK</a>	The diagnosis of multi sensor	When a multi sensor error occurs
<a href="#">NOZZLE CHECK</a>	The diagnosis of HEAD MANAGEMENT SENSOR UNIT	When head management sensor-related error (EC22) occurs with a normal nozzle check pattern
<a href="#">HEAD CNT CHECK</a>	The diagnosis of head contact detection	When a print head-related error occurs
<a href="#">ANALOG ENCODER CHECK</a>	The diagnosis of analog encoder sensor	When an analog encoder-related error occurs

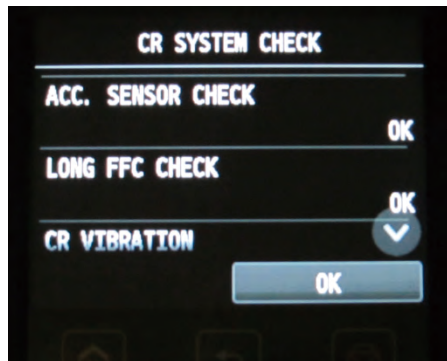
NOTE:

In each diagnosis result (OK/NG) displayed on the operation panel, OK means Passed, and NG means Failed.

## 2) How to use diagnosis function

### <CR SYSTEM CHECK>

- Select [SERVICE MODE > DIAGNOSIS > CR SYSTEM CHECK > YES] from the operation panel
  - When [YES] is selected: CR SYSTEM CHECK is executed.
  - When [NO] is selected: Returns to the CR SYSTEM CHECK screen.
- After CR SYSTEM CHECK is completed, the diagnosis result (OK or NG) is displayed on the operation panel

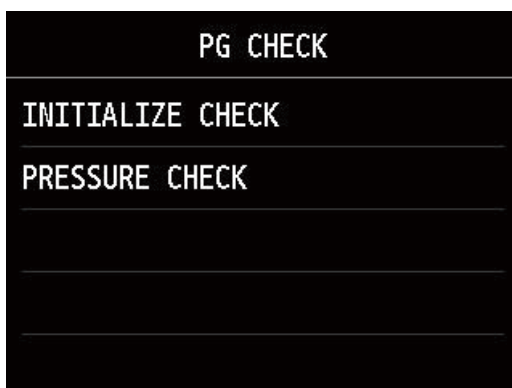


### How to handle NG items

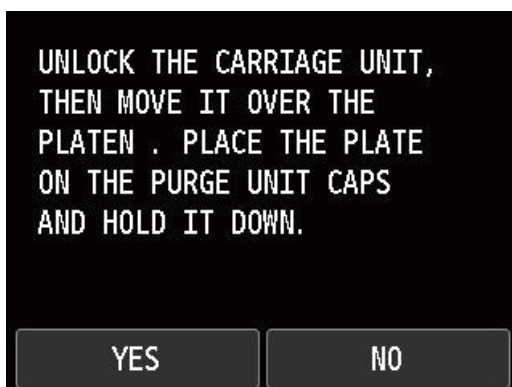
Diagnosis items	How to solve
Acceleration sensor check (ACC. SENSOR CHECK)	If NG is displayed even after AIL CLEANER UNIT is replaced, replace CARRIAGE UNIT.
Flexible cable disconnection check (LONG FFC CHECK)	If NG is displayed when confirming removal or insertion of FLEXIBLE CABLE, replace FLEXIBLE CABLE UNIT.
CR vibration measurement (CR VIBRATION)	If NG is displayed even after RAIL CLEANER UNIT is replaced, replace CARRIAGE UNIT.

**<PURGE CHECK>****INITIALIZE CHECK**

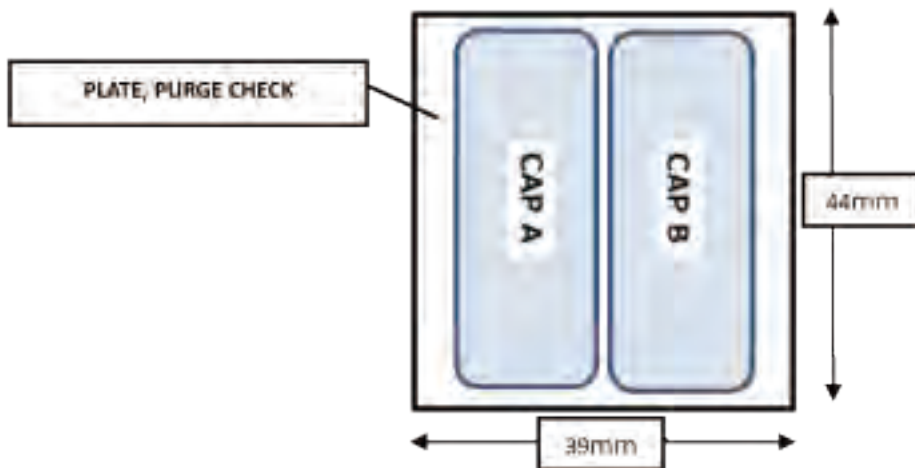
1. Select [SERVICE MODE > DIAGNOSIS > PURGE CHECK > INITIALIZE CHECK > YES] from the operation panel
  - When [YES] is selected: The initialize check of the purge unit is executed.
  - When [NO] is selected: Returns to the screen to select [INITIALIZE CHECK] or [PRESSURE CHECK].
2. When the initialize check is completed, the following screen is displayed again. Confirm that an error is not displayed on the operation panel. If an error occurs, see [5-3. Detail of Hardware](#) to handle the error.

**PRESSURE CHECK**

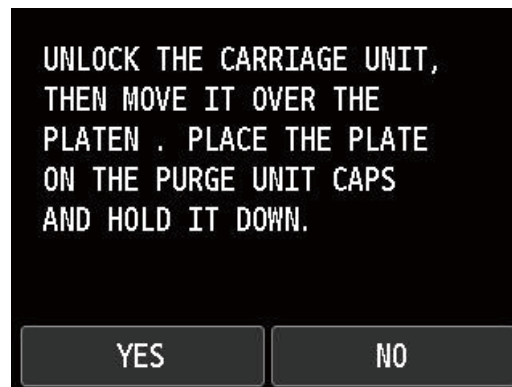
1. Remove four screws for fixing right side cover, and remove the right side cover from the printer. Then, select [SERVICE MODE > FUNCTION > CR UNLOCK] from the operation panel to release the lock of the carriage.
2. Return to the menu screen, and select [SERVICE MODE > DIAGNOSIS > PURGE CHECK > PRESSURE CHECK > YES].
  - When [YES] is selected: Transits to the next screen.
  - When [NO] is selected: Returns to the screen to select [INITIALIZE CHECK] or [PRESSURE CHECK].
3. When the following message is displayed on the operation panel, move CARRIAGE UNIT manually so that the CAP part of Purge Unit can be visually checked.



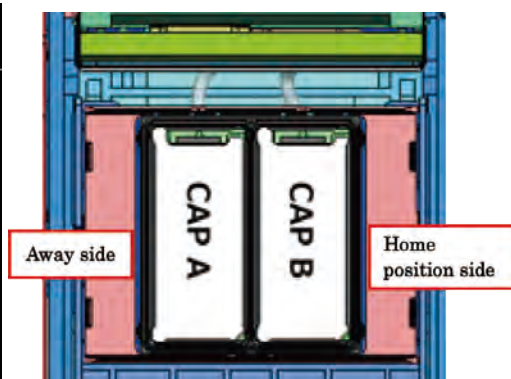
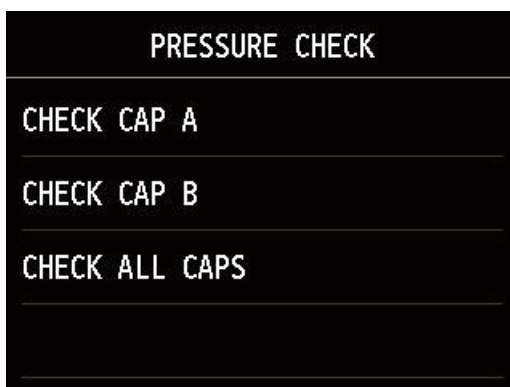
4. Wash the surface of the PLATE, PURGE CHECK, a service jig, with ethanol. Then, put it on the CAP of PURGE UNIT. Be sure to remove a thin vinyl sheet on the surface of a new PLATE, PURGE CHECK.



5. Select [YES].
- When [YES] is selected: Transits to the next screen.
  - When [NO] is selected: Returns to the screen to select INITIALIZE CHECK or PRESSURE CHECK.

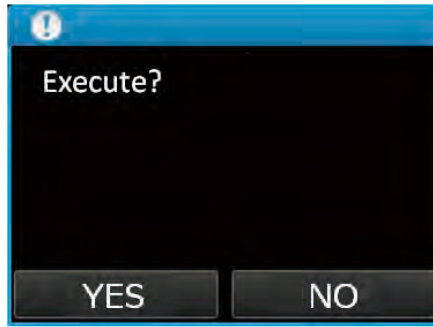


6. Select CAP for checking suctioning operation. Check the suctioning operation in the following order from the top (CAP A => CAP B => ALL CAPS) (Execute three times in total).
- When [CHECK CAP A] is selected: The suctioning operation of CAP A is checked.
  - When [CHECK CAP B] is selected: The suctioning operation of CAP B is checked.
  - When [CHECK ALL CAPS] is selected: The suctioning operations of All CAPs are checked at the same time

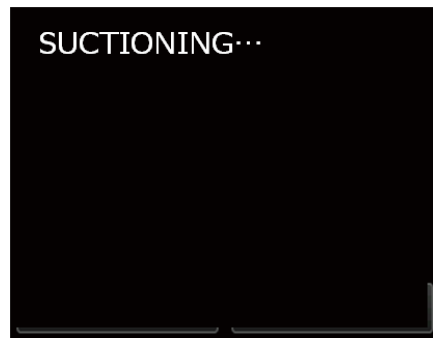




7. After selecting CAP, select [YES].

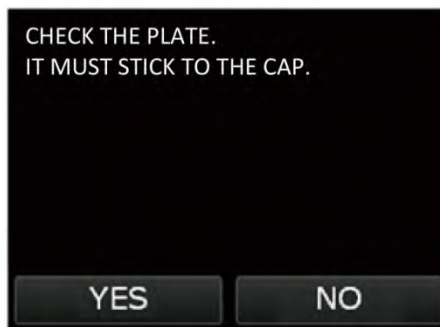


8. Select [YES], and the following message will be displayed and suctioning operation will be executed. Here, manually apply the slight pressure to the PLATE, PURGE CHECK from above.



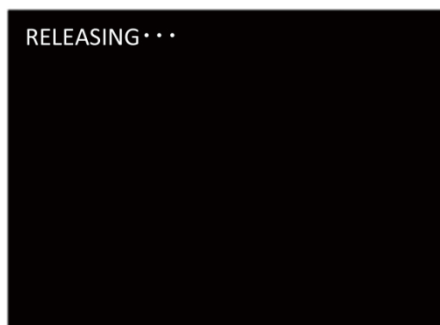
9. After the suctioning operation is completed, the following message is displayed on the operation panel. Check the negative pressure of CAP.

The PLATE, PURGE CHECK must not be peeled even by slightly pulling with one's hand. If the PLATE, PURGE CHECK is easily peeled, Purge Unit may be defective.

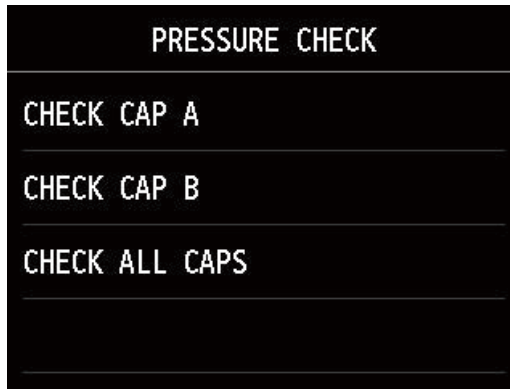


10. Check the negative pressure, then select [OK].

11. Select [OK], and the following message will be displayed and the negative pressure will be released.



12. After the negative pressure is released, the following screen is displayed again.



13. Check the remaining suctioning operation (CAP B => ALL CAPS) in the same procedures.

Make sure to check the suctioning operation per CAP. If the suctioning operation is checked by selecting ALL CAPS only, even if any of the CAPs is not normal, as the PLATE, PURGE CHECK is not removed, it is possible that the negative pressure of the abnormal CAP is mistakenly regarded as OK when you check. (For example, even if CAP B has not suctioned ink, if the negative pressure of CAP A is left, it is possible that the negative pressure of CAP B is mistakenly regarded as OK when you check.)

<I/O DISPLAY>

1. Select [SERVICE MODE > DIAGNOSIS > I/O DISPLAY] from the operation panel. The following screen is displayed in the operation panel



2. Check the switching information of sensors and switches by the display on the operation panel (0: not shielded or 1: shielded) or the beeping sounds when they are switched ON and OFF.

<<I/O check list of the sensors and switches displayed on the operation panel>

Display		Sensor and switch names
0	0	PURGE MAIN CAM SENSOR
	1	PAPER ENTRY SENSOR
	2	PAPER FEED HOME POSITION SENSOR
	3	PUMP ROLLER SENSOR
	4	CARRIAGE LIFT SENSOR
	5	WIPER POSITION SENSOR
	6	CUTTER HOME POSITION SENSOR
	7	RIGHT CHOKE VALVE POSITION SENSOR
	8	-
	9	RIGHT AGITATION VALVE POSITION SENSOR
	A	-
	B	RIGHT TANK COVER SWITCH
	C	-
	D	PAPER WIND DIRECTION SENSOR
	E	PAPER WIND SWITCH
	F	PAPER UNWIND SWITCH

- For the positions of sensors and switches, refer to 8. UNIT CONFIGURATION [Sensors](#).
- When you check the sensor you cannot touch, manually rotate the gear or cam to switch ON and OFF.
- When the Paper Entry Sensor (0:1) is shielded, the roller is rotated, and PAPER FEED HOME POSITION SENSOR (0:2) is switched ON and OFF.

Display		Sensor and switch names
1	0	RELEASE LEVER SWITCH
	1	RIGHT TOP COVER SWITCH
	2	LEFT TOP COVER SWITCH
	3	LOWER PAPER ENTRY SENSOR
	4	UPPER PAPER ENTRY SENSOR
	5	UPPER ROLL NIP SENSOR
	6	LOWER ROLL NIP SENSOR
	7	FLAPPER POSITION SENSOR
	8	HEAD COVER SENSOR
	9	PAPER WIND ON/OFF SWITCH
	A	UPPER LEFT SPOOL SET SENSOR
	B	UPPER RIGHT SPOOL SET SENSOR
	C	LOWER LEFT SPOOL SET SENSOR
	D	LOWER RIGHT SPOOL SET SENSOR
E	UPPER ROLL COVER SENSOR	
F	-	
Display		Sensor and switch names
2	0	-
	1	-
	2	-
	3	-
	4	-
	5	-
	6	-
	7	-
	8	-
	9	-
	A	-
	B	-
	C	-
	D	-
E	-	
F	-	

- For the positions of sensors and switches, refer to 8. UNIT CONFIGURATION [Sensors](#).
- When you check the sensor you cannot touch, manually rotate the gear or cam to switch ON and OFF.
- When you check Right Top Cover Switch (1:1) and Left Top Cover Switch (1:2), switch both of them ON and OFF at the same time
- Check LOWER RIGHT SPOOL SET SENSOR (1:D) with spool lock cover closed.

## <OPT SENS CHECK>

1. Select [SERVICE MODE > DIAGNOSIS > OPT SENS CHECK] from the operation panel, and check the status of multi sensor.
2. After the functional diagnosis is completed, the diagnosis result (OK or NG) is displayed on the operation panel.
  - DENSITY SENSOR: The functional diagnosis result of density sensor is displayed.
  - EDGE SENSOR: The functional diagnosis result of edge sensor is displayed.
  - GAP SENSOR: The functional diagnosis result of GAP sensor is displayed.

OPT SENS CHECK	
DENSITY SENSOR	OK
EDGE SENSOR	OK
GAP SENSOR	OK

### - Main factors of the NG items:

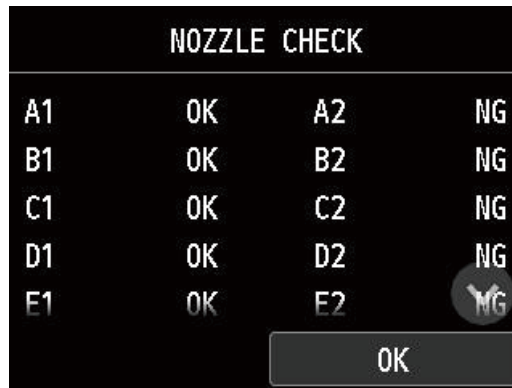
- The inadequacy of multi sensor optical axis adjustment (SERVICE MODE > ADJUSTMENT > OPTICAL AXIS)
- The inadequacy of multi sensor GAP calibration (SERVICE MODE > ADJUSTMENT > GAP CALIB)
- The failure of multi sensor

- For the details of handling, refer to 5-3. Detail of Hardware Error (E code: [EC23](#)).



**<NOZZLE CHECK>**

1. Select [SERVICE MODE > DIAGNOSIS > NOZZLE CHECK > RUN > YES] from the operation panel. After selecting [YES], execute the functional diagnosis of HEAD MANAGEMENT SENSOR.
  - When [YES] is selected: Non-ejection detection is executed.
  - When [NO] is selected: Returns to the RUN/RESULT screen.
  
2. Return to the menu screen, select [SERVICE MODE > DIAGNOSIS > NOZZLE CHECK > RESULT]. After [RESULT] is selected, the results of non-ejection detection (OK/NG) are displayed per chip position (NG Criteria: When NG nozzles are 50 or more per color).



- The correlation between chip positions and colors (Share among all the supported models)

Chip position	Color	Chip position	Color	Chip position	Color	Chip position	Color
A1	MBK	A2	MBK	B1	BK	B2	BK
C1	MBK2	C2	MBK2	D1	Y	D2	Y
E1	M	E2	M	F1	C	F2	C

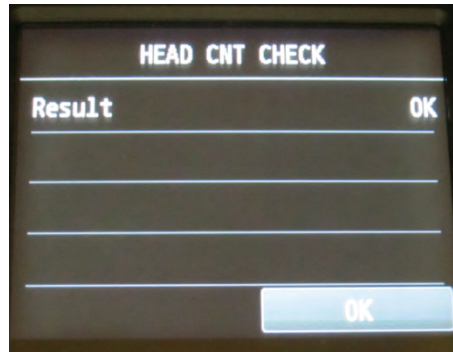
- Main factors of the NG items:

- The inadequacy of HEAD MANAGEMENT SENSOR UNIT adjustment [SERVICE MODE > ADJUSTMENT > NOZZLE CHK POS]
- The failure of HEAD MANAGEMENT SENSOR UNIT

- For the details of handling, refer to 5-3. Detail of Hardware Error (E code: [EC22](#)).

## <HEAD CNT CHECK>

1. Select [SERVICE MODE > DIAGNOSIS > HEAD CNT CHECK > YES] from the operation panel. After selecting [YES], execute the functional diagnosis of head contact check.
2. After the functional diagnosis is completed, the diagnosis result (OK or NG) is displayed on the operation panel.



- Main factors of the NG items:

- Insufficient print head cleaning
- The inadequacy of PRINT HEAD installation
- The failure of PRINT HEAD
- The failure of CARRIAGE UNIT

- For the details of handling, refer to 5-3. Detail of Hardware Error (E code: [EC21](#)).

### <ANALOG ENCODER CHECK>

1. Select [SERVICE MODE > DIAGNOSIS > ANALOG ENCODER CHECK] from the operation panel, and execute the functional diagnosis of PAPER FEED ENCODER UNIT.
2. The diagnosis result (OK or NG) is displayed on the operation panel
  - LED level: The diagnosis result of LED light volume adjustment
  - OUTPUT level: Output results

ANALOG ENCODER CHECK	
LED Level	OK
OUTPUT Level	OK

- Main factors of the NG items:

- Paper jam inside the printer
- Film, Timing Slit Disk (paper feed part) is not clean or deformed.
- The failure of PAPER FEED ENCODER UNIT
- The failure of PAPER FEED MOTOR UNIT

- For the details of handling, refer to 5-3. Detail of Hardware Error (E code: [EC11/EC12](#)).

## 1) Purpose

The servicing functions (select [SERVICE MODE > FUNCTION] from the operation panel) reduce the product downtime by servicing efficiency and minimize the disposal of ink.

FUNCTION menu	Function description	When to use
CR LOCK	Returning a carriage to the home position	<ul style="list-style-type: none"> <li>When carriage failure-related troubleshooting finishes.</li> </ul>
CR UNLOCK	Releasing the lock of the carriage without removing the outer cover	<ul style="list-style-type: none"> <li>To move CARRIAGE UNIT for servicing, and etc.</li> <li>To make a functional diagnosis of PURGE UNIT.</li> <li>To replace PURGE UNIT.</li> <li>To manually confirm the movement CARRIAGE UNIT.</li> <li>To check the condition of CARRIAGE UNIT visually.</li> <li>To remove the print head when drawing off ink.</li> </ul>
HEAD REPLACEMENT	Removing and installing a print head again without withdrawing ink inside the print head	<ul style="list-style-type: none"> <li>To replace print head</li> <li>To check the condition of the print head.</li> <li>To check the condition of the contact portion.</li> <li>To inspect or replace any of CARRIAGE UNIT (or INK TUBE UNIT) or ink supply-related unit.</li> </ul>
INK SUPPLY VALVE OPEN	Opening and closing ink supply valve (choke valve) without removing the outer cover	<ul style="list-style-type: none"> <li>To drain ink before replacing CARRIAGE UNIT</li> <li>To drain ink before replacing INK TUBE UNIT</li> <li>To drain ink from the tube before replacing SUB INK TANK UNIT</li> </ul>
INK FILLING	Ink fillin	<ul style="list-style-type: none"> <li>To replace any of CARRIAGE UNIT (or INK TUBE UNIT) or ink supply-related unit.</li> </ul>

## 2) How to use servicing functions

### <CR LOCK>

- Select [SERVICE MODE > FUNCTION > CR LOCK > YES] from the operation panel
- Move the carriage to the home position, and lock the cap and the carriage.

### <CR UNLOCK>

- Select [SERVICE MODE > FUNCTION > CR UNLOCK > YES] from the operation panel
- Close the ink supply valve, and release the lock of the carriage.
- The carriage can be moved manually.




Do not replace the print head using CR LOCK and CR UNLOCK. (Use HEAD REPLACEMENT when replacing the print head.)

## <HEAD REPLACEMENT>

The print head can be removed and installed without draining the ink from the print head when replacing the print head or checking its condition. When the printer is launched in the user mode after this function is used, print head ink filling starts as per specifications.

1. Select [SERVICE MODE > FUNCTION > HEAD REPLACEMENT > YES] from the operation panel.
2. The carriage moves to the head replacement position without draining the ink from the print head, and the print head can be removed and installed.

	<p>After the print head is removed and reinstalled, or replaced, perform printing confirmation. If required, perform print head alignment. (It is because slight misalignment of print head installing position may affect printing.)</p>
---	---

## <INK SUPPLY VALVE OPEN>

Open supply valves (choke valves) of SUB INK TANK UNITS using this function when draining the ink from the tube into SUB INK TANK UNIT.

### Case (1): When replacing CARRIAGE UNIT or INK TUBE UNIT

1. Unlock the carriage from [SERVICE MODE > FUNCTION > CR UNLOCK] in the operation panel, manually move the carriage unit to the position where the print head can be replaced, then remove the print head.
2. Select [SERVICE MODE > FUNCTION > INK SUPPLY VALVE OPEN > OPEN] from the operation panel, and open the supply valves (choke valves) of the right and left SUB INK TANK UNITS.
3. Drain the ink from the tube to SUB INK TANK UNIT.
4. After the ink has drained, the CARRIAGE UNIT (or INK TUBE UNIT) can be removed. For how to remove the CARRIAGE UNIT (or INK TUBE UNIT), see [6-2. Disassembly Procedures](#).

### Case (2): When replacing SUB INK TANK UNIT

1. Unlock the carriage from [SERVICE MODE > FUNCTION > CR UNLOCK] in the operation panel, manually move the carriage unit to the position where the print head can be replaced, then remove the print head.
2. Select [SERVICE MODE > FUNCTION > INK SUPPLY VALVE OPEN > OPEN] from the operation panel, and open the supply valves (choke valves) of the right and left SUB INK TANK UNITS.
3. Drain the ink from the tube to SUB INK TANK UNIT.
4. After the ink is drained, SUB INK TANK UNIT can be removed. After the ink has drained, the SUB INK TANK UNIT can be removed. For how to remove the SUB INK TANK UNIT, see [6-2. Disassembly Procedures](#).



**<INK FILLING>**

This function is used when filling ink in the printer after replacing ink supply-related unit (CARRIAGE UNIT or INK TUBE UNIT).

If this function is executed without draining the ink from the tube into SUB INK TANK UNIT, note that the ink in the tube is drained into the maintenance cartridge.

<How to start the service mode after installing the print head (Recommended procedure 1)>

1. Install the print head.
2. Launch the printer in the service mode.
3. Select [SERVICE MODE > FUNCTION > INK FILLING > YES] from the operation panel
4. Ink filling starts.

<How to start the service mode without installing the print head (Recommended procedure 2)>

1. Launch the printer in the service mode.
2. Select [SERVICE MODE > FUNCTION > HEAD REPLACEMENT > YES] from the operation panel
3. The carriage moves to the print head replacement position. Install the print head.
4. Select [SERVICE MODE > FUNCTION > INK FILLING > YES] from the operation panel
5. Ink filling starts.

**<<Precautions>**

Do not install the print head using CR UNLOCK and CR LOCK.



Depending on consumed ink amount of maintenance cartridge, a maintenance cartridge full error may occur while INK FILLING is executed, therefore, prepare a new maintenance cartridge.

## Details of ADJUSTMENT

### 1) Purpose

Servicing adjustment (select [SERVICE MODE > ADJUSTMENT] from the operation panel) is required in order to meet the printer functions after parts replacement by printer maintenance or repair service, or after the parts requiring servicing adjustment. After the parts listed in 3) The list of the parts requiring servicing adjustment are replaced or the printer is disassembled and assembled, be sure to perform the following adjustments:

### 2) Details on each adjustment

ADJUSTMENT menu	Adjustment name	Details
OPTICAL AXIS	Multi sensor optical axis adjustment	Multi sensor installed in the carriage unit varies among printers due to installation precision. This adjustment corrects the variation among printers. Use Canon Glossy Photo Paper HG 170 that the size is A4 or larger in width. (*1)
GAP CALIB	GAP calibration	The multi sensor installed in the carriage unit detects the head-to-paper distance, and adjusts the carriage position depending on that distance. Use Canon Glossy Photo Paper HG 170 that the size is A4 or larger in width. (*1)
LF TUNING	LF correction (Automatic)	Corrects the horizontal line feed amount to reduce band uneven printing. Use the greatest width of Canon Glossy Photo Paper HG 170 that can be used for printing from the printer. Accordingly, the correction can be effective to other kinds of paper. (*1/*2)
NOZZLE CHK POS	Adjustment of the optical axis in the head management sensor	Determines the optimal position of the head management sensor in order to execute non-ejection detection for all the nozzles.
CR REG	Dynamic head alignment	Corrects the ink dot misplacement due to the carriage position (scanning direction). Use the greatest width of Canon Glossy Photo Paper HG 170 that can be used for printing from the printer. (*1/*2)
CR MOTOR COG	Cogging torque control	Controls carriage vibration due to motor cogging torque.
TOUCH PANEL CALIBRATION	LCD calibration	Calibrates so that the touch panel function of the operation panel can be used properly.
MANUAL HEAD ADJ	Manual head alignment	When the print result is not improved even by performing the automatic head adjustment, the print head is aligned manually.
MARGIN ADJ	Margin adjustment	When margins shift during paper feeding, the margin can be manually adjusted.
LF_ENC_ADJ	LF encoder adjustment	Calculates the paper feeding position/paper feeding speed of the paper feed roller, and the adjustment is performed for moving the paper feed roller properly.
UPPER_ARB_CALIB	Upper ARB paper feed unit calibration	There are load changes by motor individual variation and gear driving in ARB paper feed unit. These variable factors occur due to the individual variation in ARB paper feed unit, therefore, calibration is executed for each unit.
LOWER_ARB_CALIB	Lower ARB paper feed unit calibration	Same as above.

\*1: When Canon Glossy Photo Paper HG 170 is not available, use Canon Premium Glossy Paper 2 280 or Canon Premium Semi-Glossy Paper 2 280.

\*2: In each of 24" model, 36" model, and 44" model, use the paper whose maximum size can be used with the printer. If not, the message "Please set the specified size of paper." is displayed and the subsequent adjustment is not performed. Note that the paper whose width is 42 inch can be used only for 44" model as an exception

### 3) The list of the parts requiring servicing adjustment

Service part name	Necessary service adjustment
HEAD MANAGEMENT SENSOR UNIT	· NOZZLE CHK POS
MULTI SENSOR UNIT	· GAP CALIB · OPTICAL AXIS
CARRIAGE UNIT	· GAP CALIB · OPTICAL AXIS · CR MOTOR COG
BELT, CARRIAGE	· CR MOTOR COG
MOTOR, DC, 47.8W	· CR MOTOR COG
CARRIAGE ENCODER UNIT	· CR MOTOR COG
- (*3)	· LF TUNING
PLATEN UNIT, TOP A TO F PLATEN UNIT, TOP AWAY	· CR REG
PAPER FEED ENCODER UNIT	· LF_ENC_ADJ
ACTIVE ROLL BRAKE UNIT	· UPPER_ARB_CALIB · LOWER_ARB_CALIB
OPERATION PANEL UNIT	· TOUCH PANEL CALIBRATION
MAIN PCB UNIT	· LF_ENC_ADJ · UPPER_ARB_CALIB · LOWER_ARB_CALIB · TOUCH PANEL CALIBRATION

\*3: Perform service adjustment when horizontal band uneven printing occurs.

## 4) Servicing adjustment menu level

The following table indicates servicing adjustment menu level. Execute each servicing adjustment command after selecting [Y S].

Menu level: Select [SERVICE MODE > ADJUSTMENT] in the operation panel

First h level	Second level	Third level	Fourth level	
ADJUSTMENT	OPTICAL AXIS	YES		
		NO		
	GAP CALIB	YES		
		NO		
	LF TUNING	YES		
		NO		
	NOZZLE CHK POS	YES		
		NO		
	CR REG	RUN	YES	YES
			NO	NO
		RESET (*1)	YES	YES
			NO	NO
	CR MOTOR COG	YES		
		NO		
	TOUCH PANEL CALIBRATION	YES		
		NO		
	MANUAL HEAD ADJ	PRINT DETAIL ADJ (*2)	YES	YES
			NO	NO
		PRINT BASIC ADJ (*3)	YES	YES
			NO	NO
		INPUT ADJ (*4)		INPUT ADJ A01-A36 B01-B36
		RESET SETTING (*5)	YES	YES
	NO		NO	
	MARGIN ADJ	INPUT TOP MARGIN (*6)		-5.0 through 0.0 to 5.0 (mm)
		INPUT BOTTOM MARGIN(*7)		-5.0 through 0.0 to 5.0 (mm)
		PRINT PATTERN (*8)	YES	YES
	LF_ENC_ADJ	YES		
		NO		
	UPPER_ARB_CALIB (*9)	YES		
		NO		
	LOWER_ARB_CALIB (*9)	YES		
		NO		

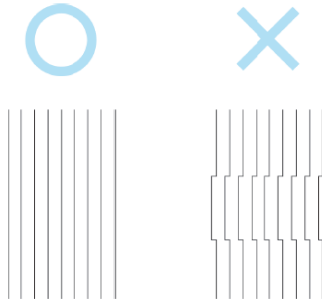
\*1: Reset all the dynamic head alignment values to zero.

\*2: Print all the print head alignment patterns. (Note that the print head alignment pattern differs between user mode and service mode).

\*3: Print two-way print head alignment pattern only.

\*4: Input the print head alignment value.

Check print head alignment pattern visually, and select the best print quality pattern in the following each group:



- A01-A36: Even-odd print head alignment value (printing direction: from HOME side to away side, select setting value from 0 to 20).
- B01-B36: Even-odd print head alignment value (printing direction: From away side to HOME side, select setting value from 0 to 20).
- C01-C36: Color separation print head alignment value (select setting value from 0 to 20).
- D01-D38: Two-way print head alignment value (select setting value from 0 to 20).
- E01-E12: Vertical print head alignment value (select setting value from 0 to 4).
- F01: Slanted print head alignment value (select setting value from 0 to 12).
- Register the alignment value by pressing [REGISTER].

\*5: Reset print head alignment value.

\*6: Input top margin alignment value. (If the adjustment is needed after visually checking the pattern for checking margins).

\*7: Input bottom margin alignment value. (If the adjustment is needed after visually checking the pattern for checking margins).

\*8: Print the pattern for checking margins.

- Horizontal line width: 1 dot, vertical line width: 32 dots
- Top/bottom/left and right: 5 mm
- Line for checking top/bottom margins: 8 mm from the end
- Printing length: 100 mm
- Ink color: BK

\*9: Execute without the roll paper and spool installed. (If executed with the roll paper and spool installed, an error occurs.)



## Details of TEST PRINT (1)

### 1) Purpose

Print the service nozzle check pattern to check if ink is properly ejected from the print head nozzles. Note that the specifications of the nozzle check pattern varies between user mode and service mode. This information is required for the analysis of printer troubles escalated to Canon Inc.

- User mode: Non-ejection of ink is interpolated when the nozzle check pattern is printed.
- Service mode: Non-ejection of ink is not interpolated when the nozzle check pattern is printed.

### 2) How to print the service nozzle check pattern

1. Select [SERVICE MODE > TEST PRINT > SERVICE NOZZLE CHECK > YES] in the operation panel
  - When [YES] is selected: The service nozzle check pattern is printed.
  - When [NO] is selected: Returns to the TEST PRINT screen.
2. The following information should be printed in service nozzle check pattern (see the print sample):
  - Printer name
  - Print date
  - Printer serial number
  - Print head LOT number
  - Date of print head installation
  - Refill ink tank usage log (NINK)
  - Service nozzle check pattern
  - Last implementation date of cleaning
    - Cleaning: A-12 (CAP-A and CAP-B), A-1 (CAP-A), A-2 (CAP-B)
    - Deep cleaning: R-12 (CAP-A and CAP-B), R-1 (CAP-A), R-2 (CAP-B)
    - System cleaning: S-12 (CAP-A and CAP-B), S-1 (CAP-A), S-2 (CAP-B)

### 3) Service nozzle check pattern print (sample)

Canon TX-4000 Service Nozzle Check Pattern

2017/04/20

Printer S/N NEP3DE219

HEAD LOT NUMBER 000 00 0a

Date of Print Head installation 2017/02/28

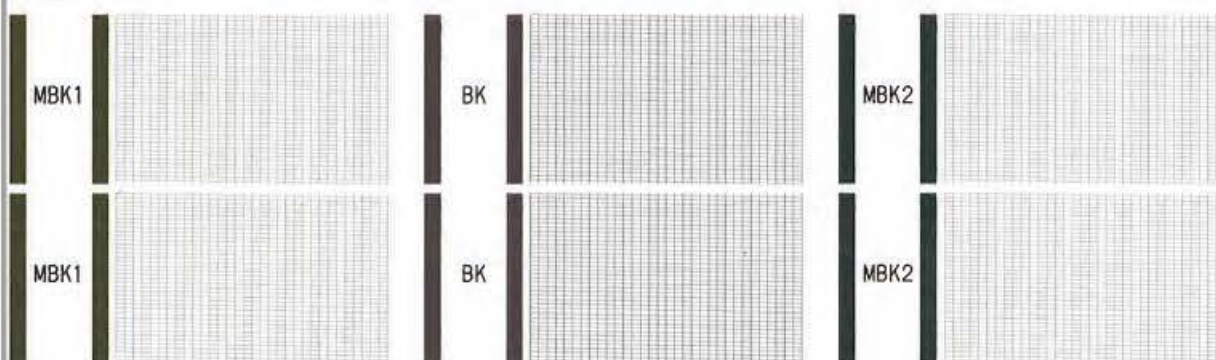
NINK 0

A-12 2017/04/20 S-12 2017/04/19 R-12 2017/04/14

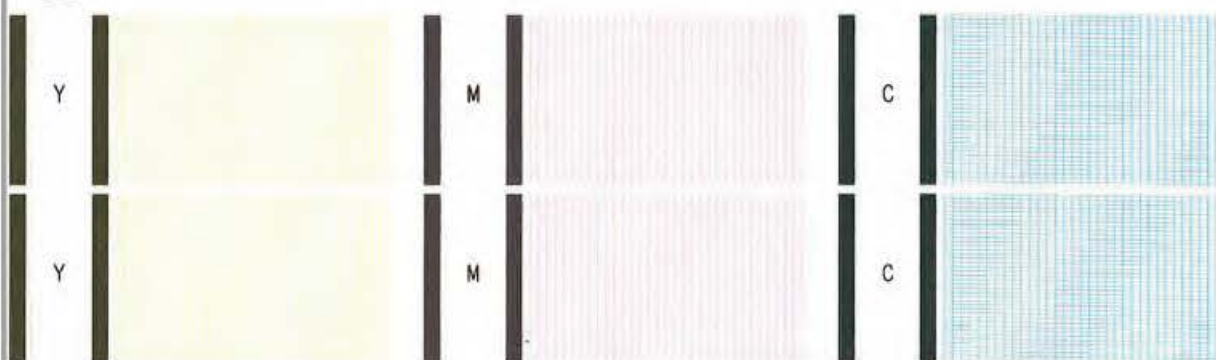
A-1 2017/04/12 S-1 2017/04/07 R-1 2017/04/19

A-2 2017/04/12 S-2 2017/04/14 R-2 2017/04/12

1



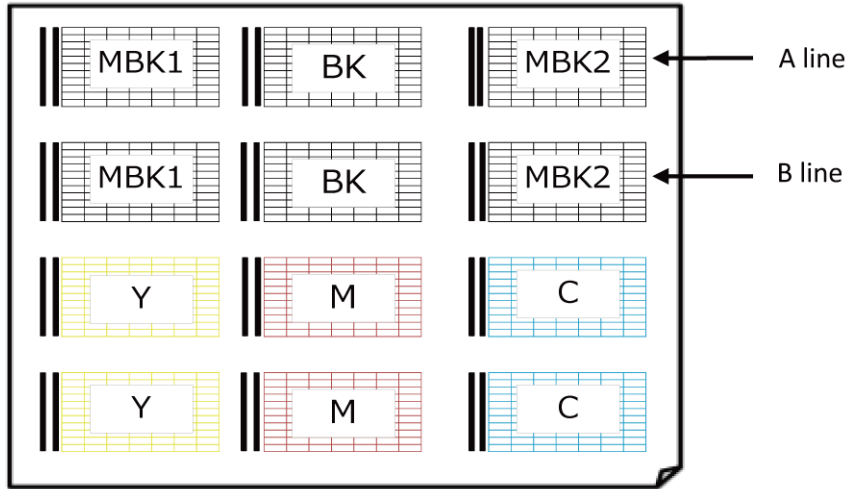
2



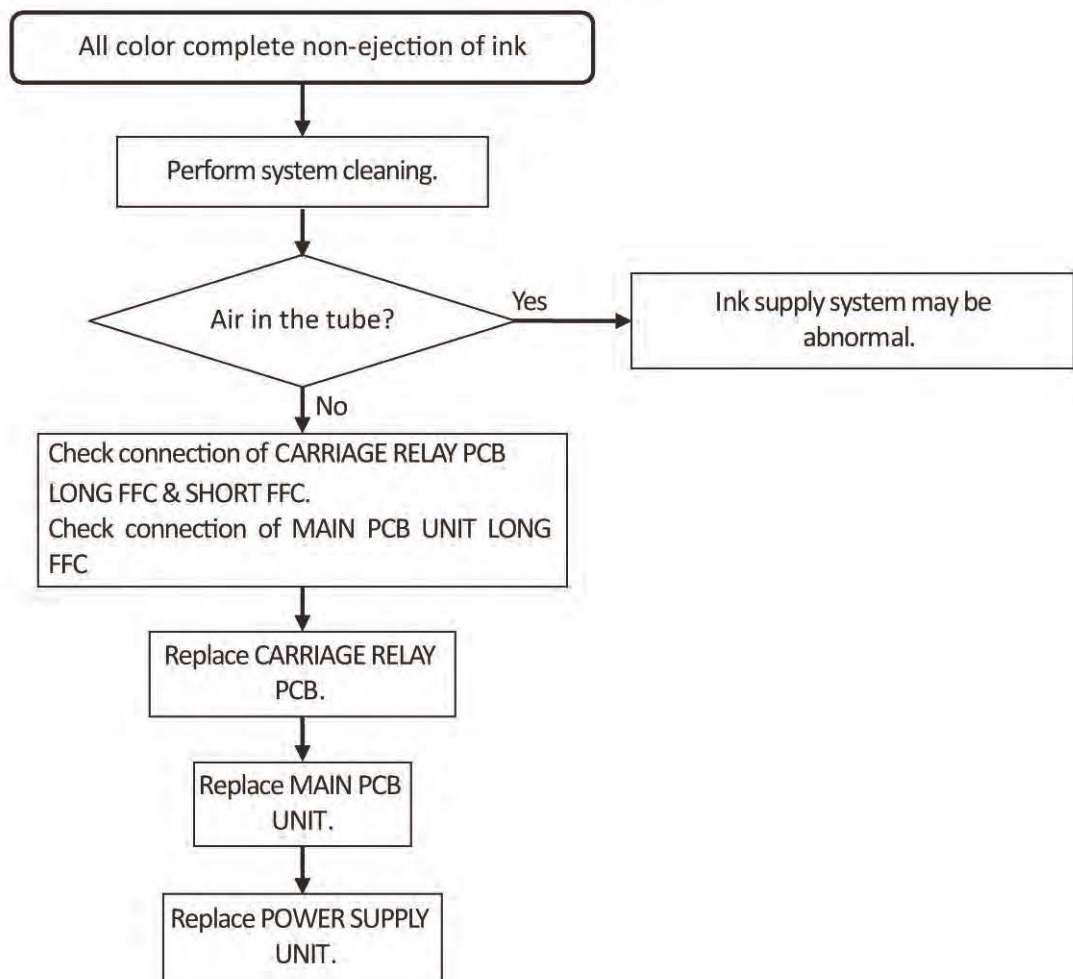
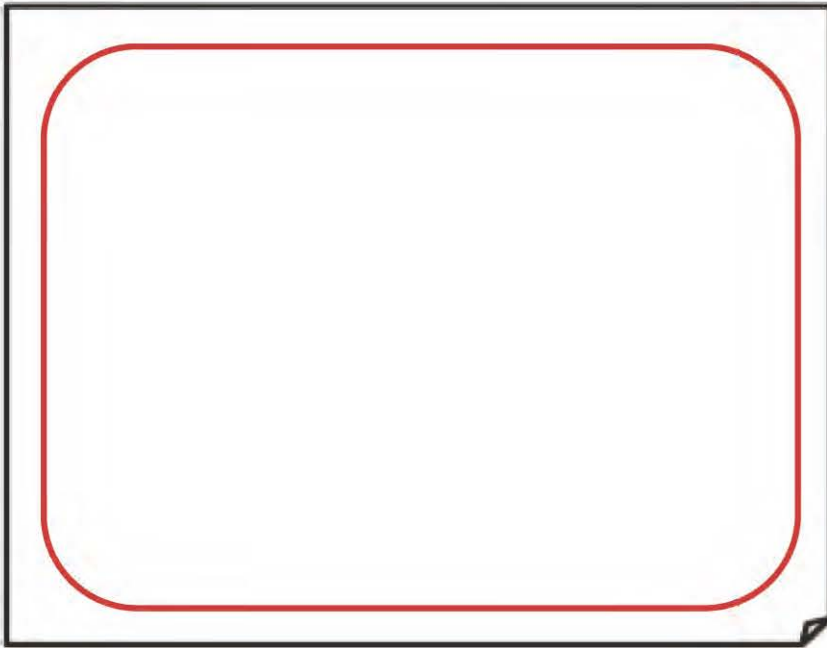
#### 4) How to read nozzle check pattern & troubleshooting

How to read nozzle check pattern

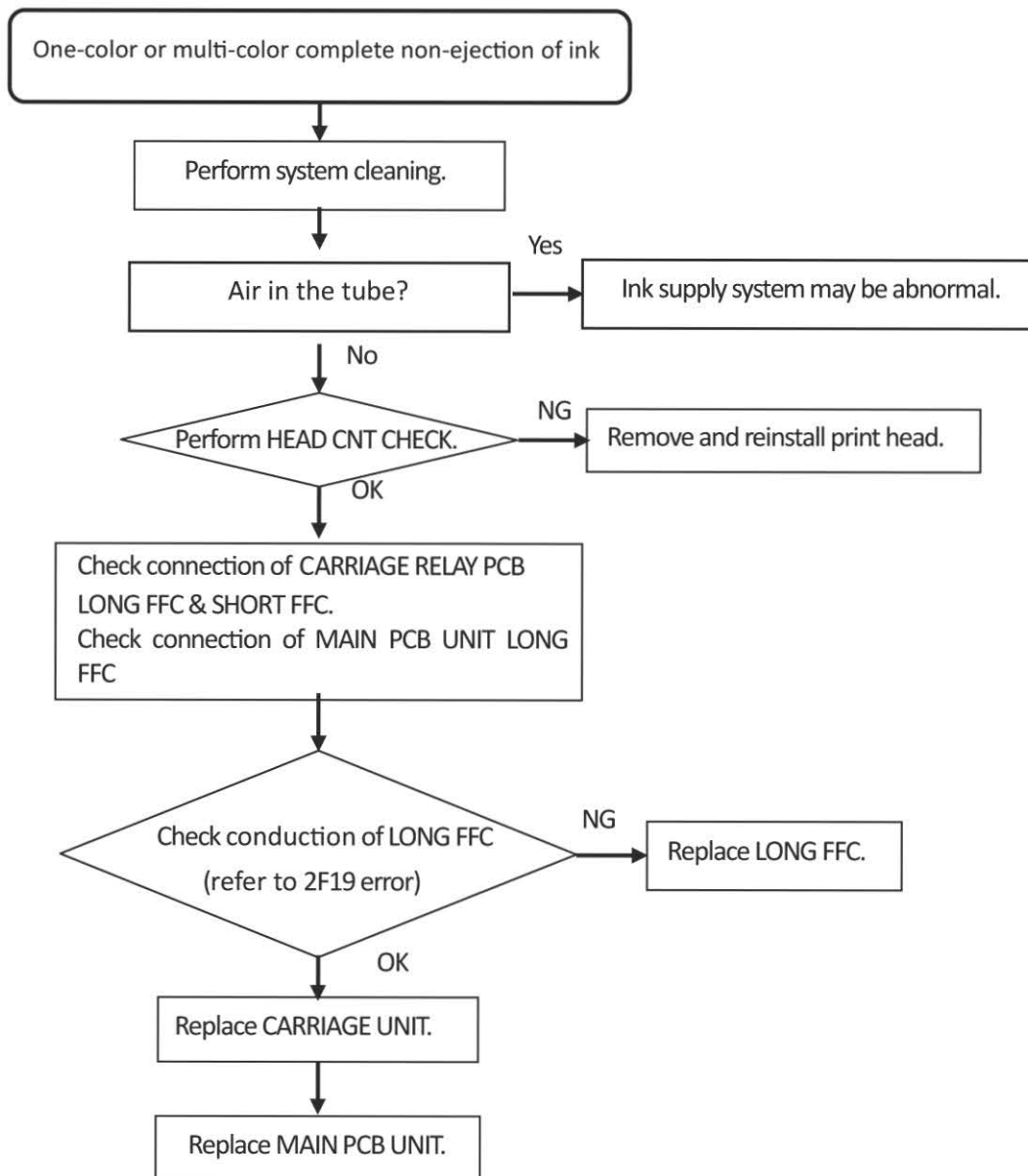
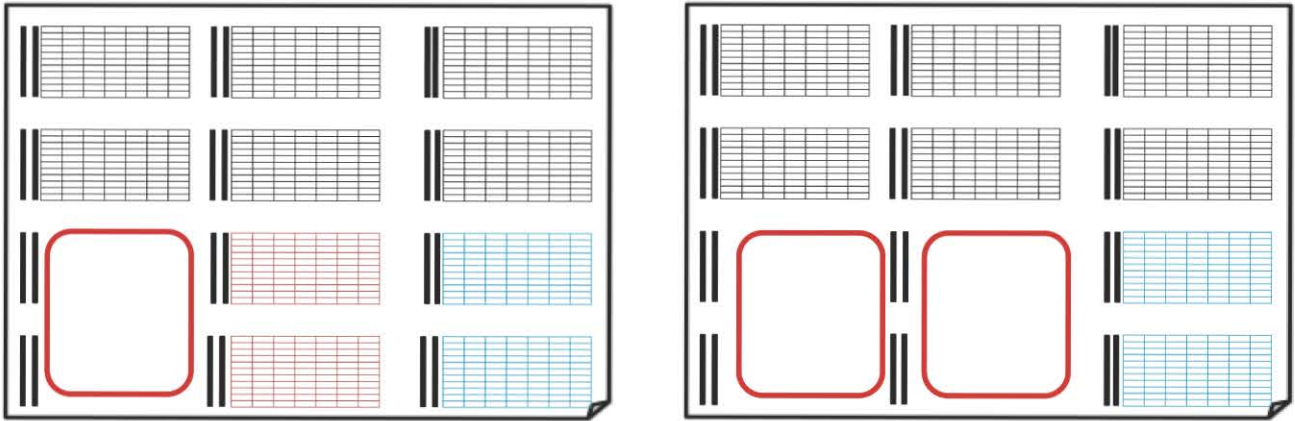
5-color models



All color complete non-ejection of ink

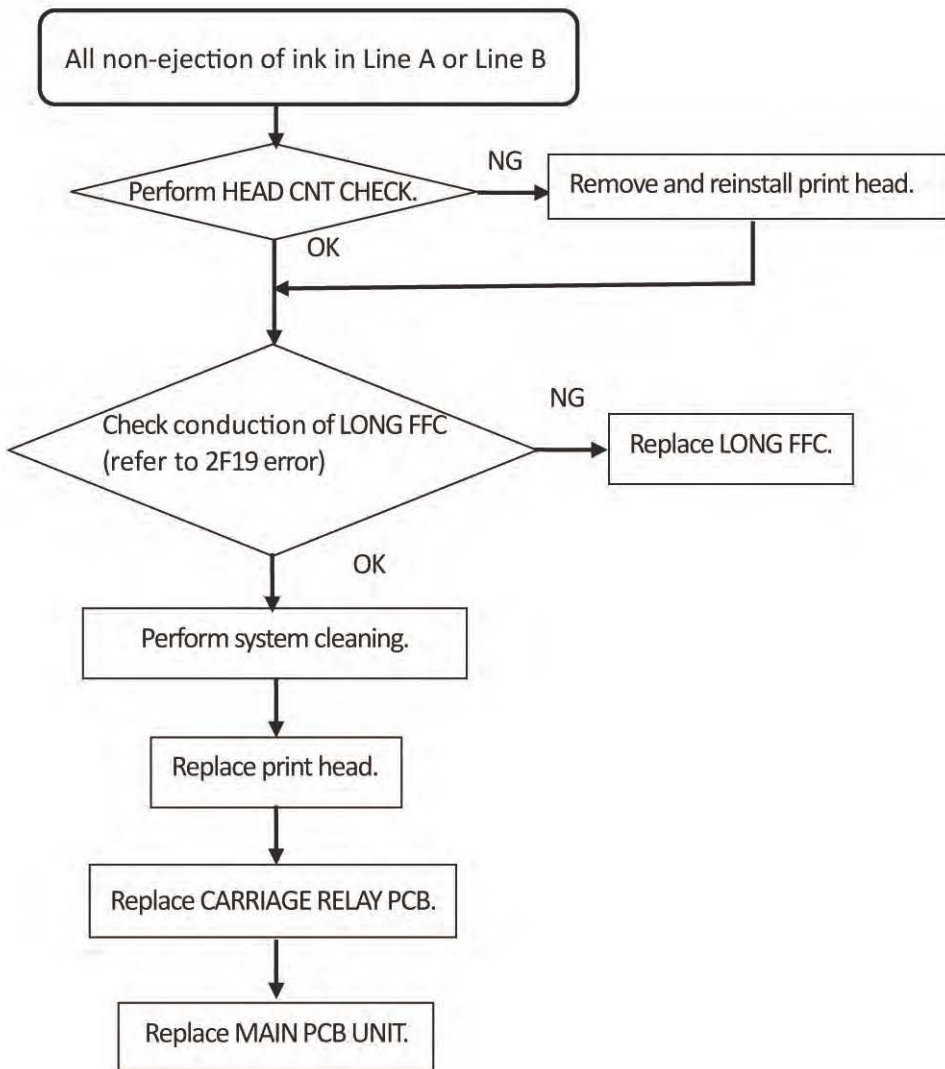
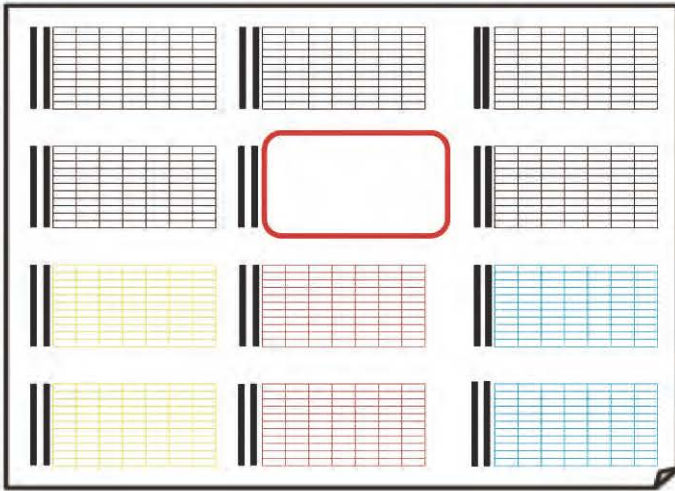


One-color or multi-olor complete non-ejection of in



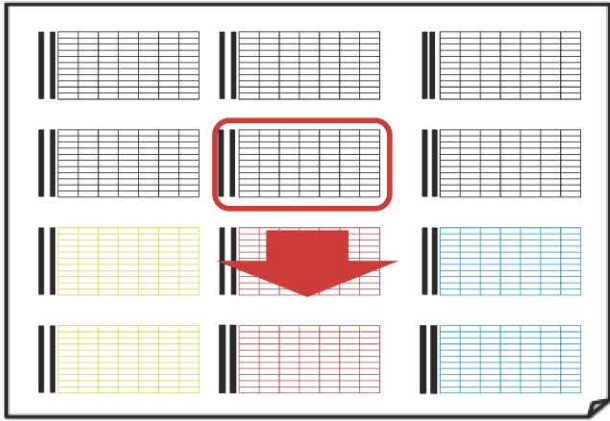


All non-ejection of ink of Line A or Line

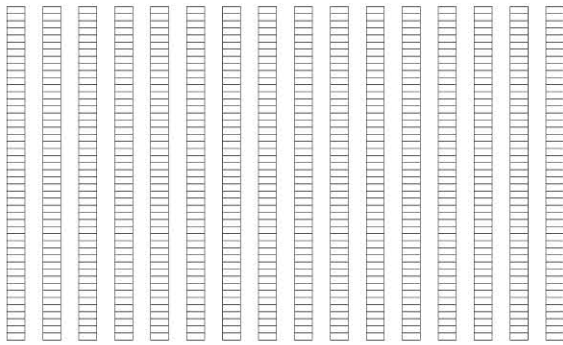


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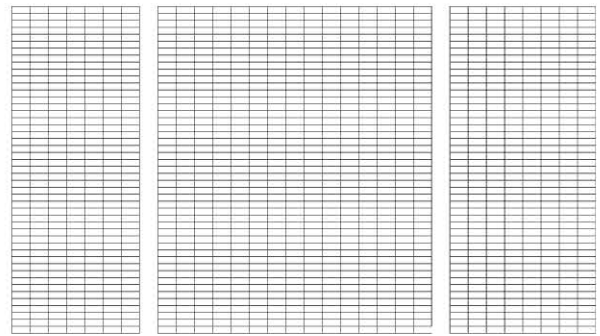
Non-ejection of ink with regularity of a line



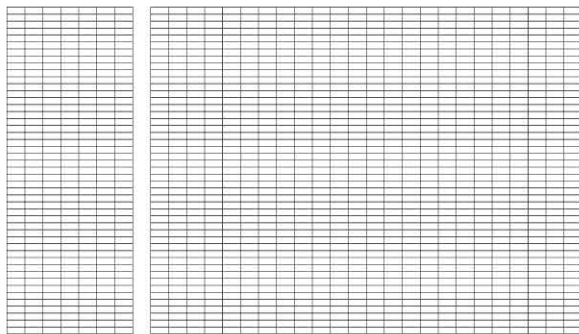
Per 2 nozzles



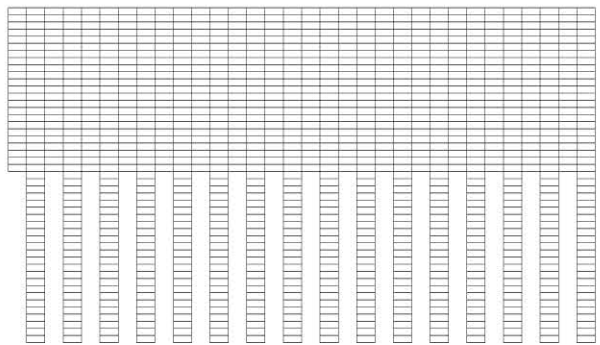
Per 16 nozzles



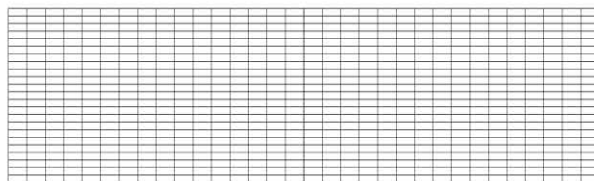
Per 32 nozzles



Non-ejection of ink in upper half of the line or lower half of the line



Non-ejection of ink in upper half of the line or lower half of the line

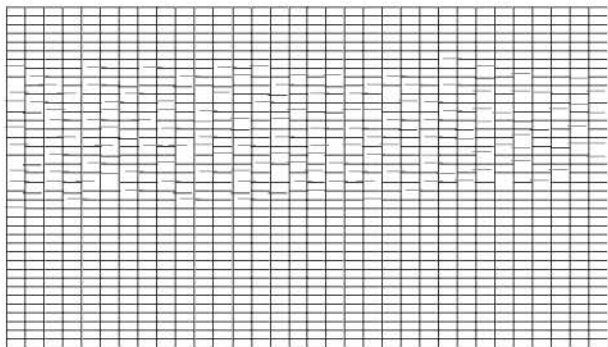


Non-ejection of ink with regularity of a line.

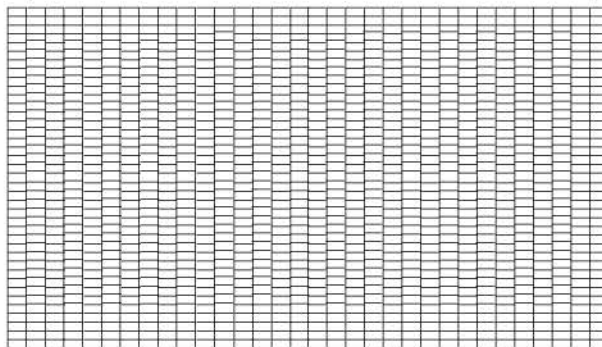
Replace print head.

Dot mis-alignment

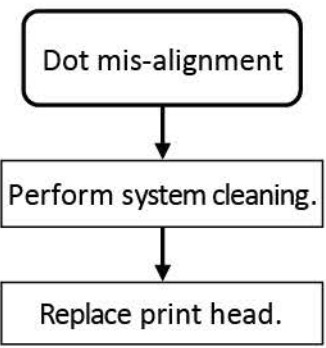
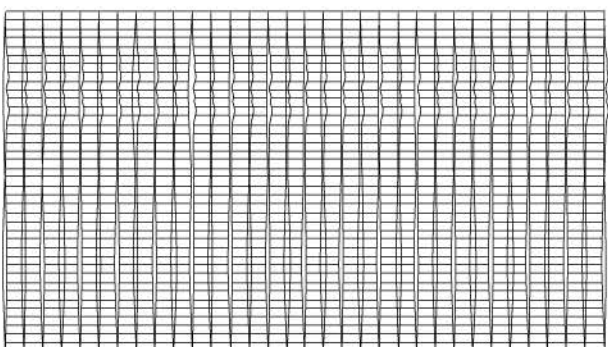
Dot mis-alignment and non-ejection of ink



Dot mis-alignment

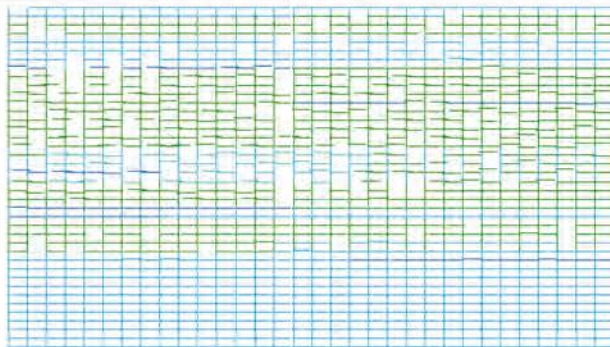


Double vertical line



Mixed color (non-ejection of ink and dot mis-alignme t)

Mixed color (non-ejection of ink and dot mis-alignment)



Mixed color (non-ejection of ink and dot mis-alignment)

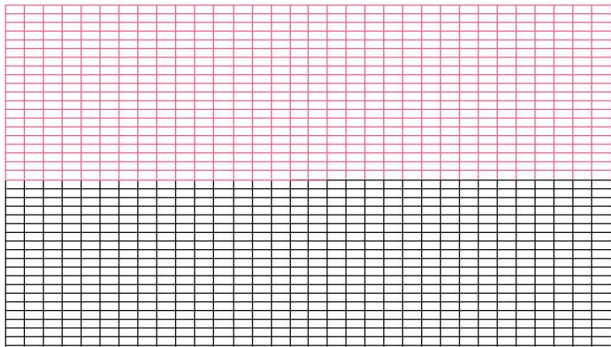
Perform system cleaning.

Replace print head.

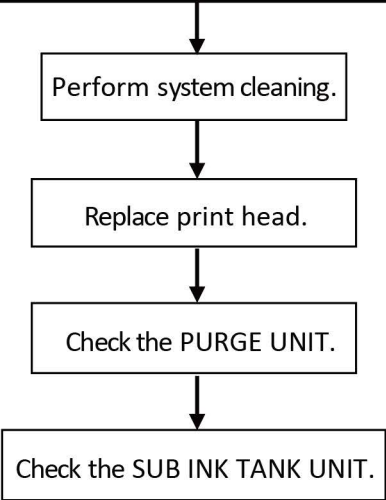
Replace PURGE UNIT.

Mixed color (non-ejection of ink and dot mis-alignme t)

Mixed color (non-ejection of ink and dot mis-alignment)



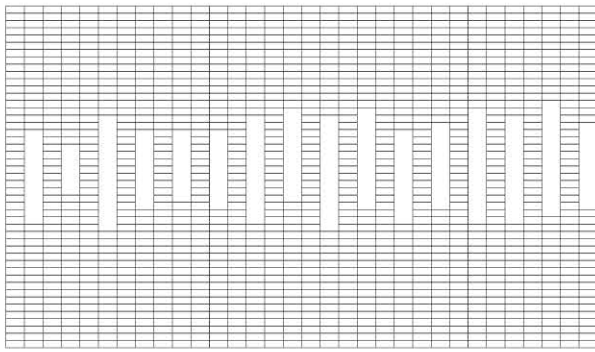
Mixed color (non-ejection of ink and dot mis-alignment)



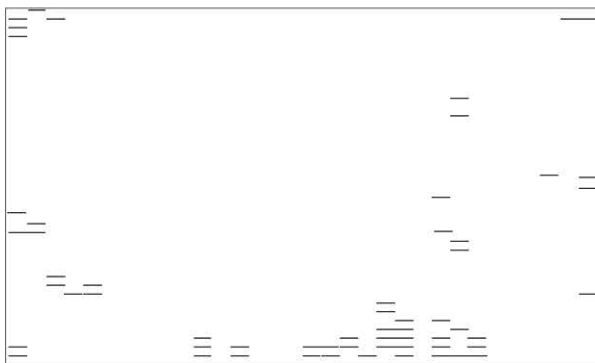


Non-ejection of ink without regularity of line

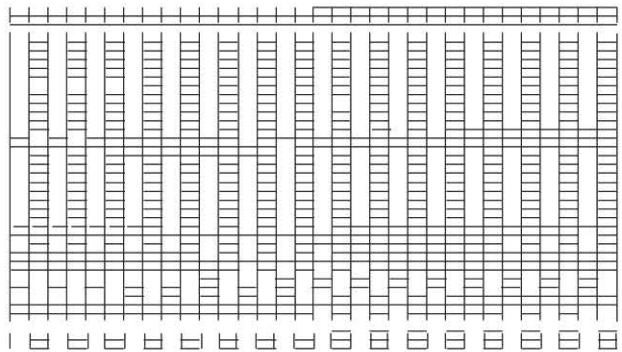
Non-ejection of ink without regularity of line



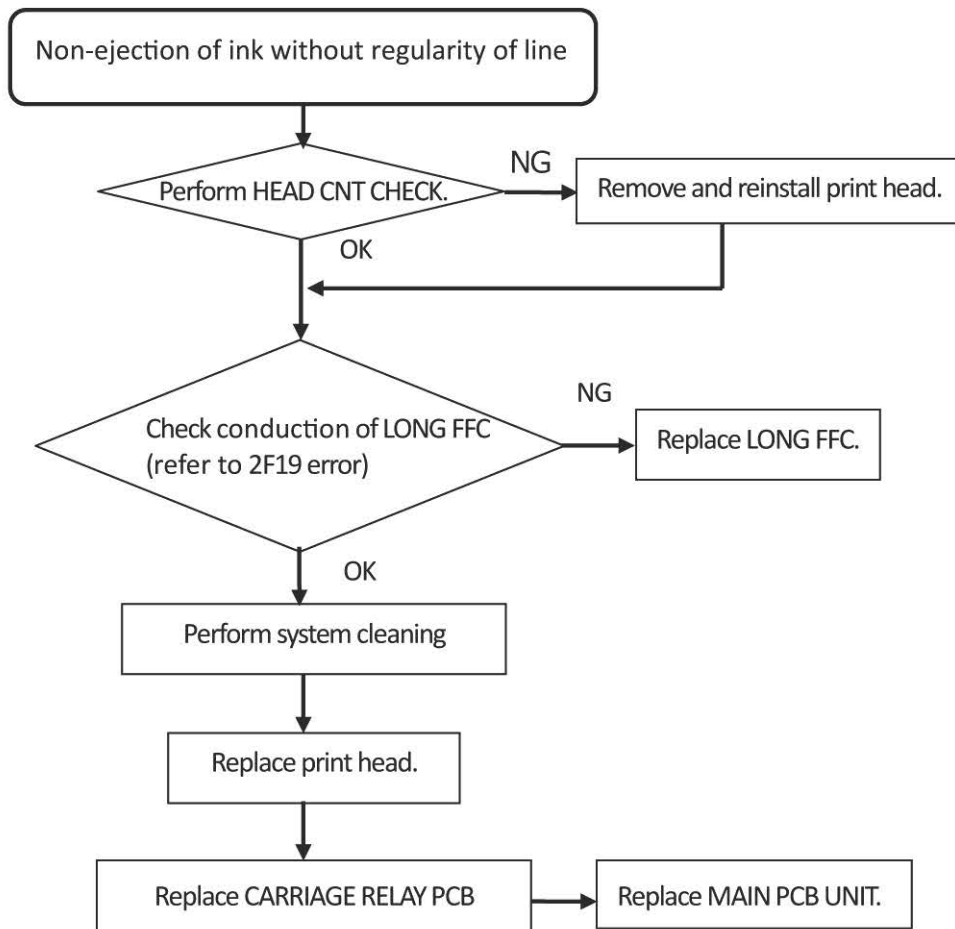
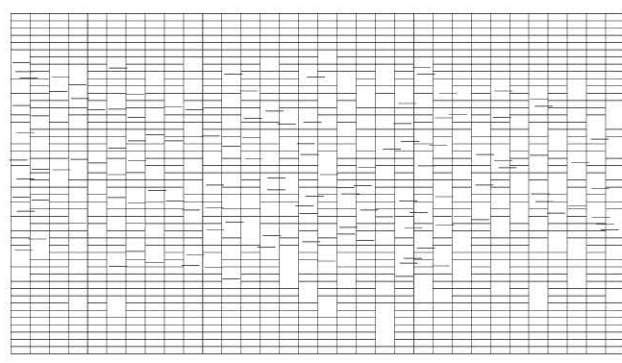
Blur (small amount of ink ejection)



Non-ejection of ink without regularity of line



Blur (non-ejection of ink and dot mis-alignment)



## Details of TEST PRINT (2)

### 1) Purpose

The detailed information on printer usage and the previous service records, etc. can be obtained as service log (PRINT INF). This information is required for the analysis of printer troubles.

### 2) How to obtain service log (PRINT INF)

The service log can be obtained by using service mode or iPF PRO Service Tool. This section explains the method using service mode. For how to obtain the service log using iPF PRO Service Tool, see [7-4. iPF PRO Service Tool](#).

1. Select [SERVICE MODE > TEST PRINT > PRINT INF > YES] in the operation panel
2. The service log is printed.

### 3) The contents recorded in service log (PRINT INF)

The contents recorded in service log are almost the same as the ones displayed in each menu of [SERVICE MODE > PRINTER STATUS]. Therefore, see [Details of PRINTER STATUS](#). for details of each item of service log. For the items recorded in the service log only, see service log print sample from the page onwards.

#### 4) Service log (PRINT INF) print sample

See [Details of PRINTER STATUS](#) regarding SYSTEM INFO, ERROR LOG, PARTS COUNTER, CLEANING LOG, SERVICE LOG, HEAD USAGE LOG, INK USAGE LOG, OTHER CONSUMABLES USAGE LOG, and USER COMMAND LOG indicated by red square in the following print sample

Printer name / printer serial number / firmware version / boot code / service log print date

Canon TX-3000 PRINT INF S/N:\*\*\*\*\* Firm:00.\*\*RC1 Boot:00.\*\* Date:2017/04/26

SYSTEM INFO TMP:25 RH:41 AFTER INST:62 DB Format Version:05  
PV TOTAL 317.7 m2 / 3420.5 sq.f / 5095(A4)  
ROLL1 TOTAL 239.4 m2 / 2577.2 sq.f / 3839(A4)  
ROLL2 TOTAL 74.9 m2 / 806.2 sq.f / 1201(A4)  
CUTSHEET TOTAL 3.1 m2 / 33.5 sq.f / 50(A4)  
ENV. A:2737 B:1999 C:344 D:13 E:0 F:0

See "SYSTEM INFO."

#### HARDWARE ERROR LOG

01:04/25 18:41 EC41-4001(5b20) 00005090 27 35 02:04/25 18:07 EC47-4001(5b20) 00005086 27 35  
03:04/25 17:21 EC44-4001(5b20) 00005068 27 35 04:04/25 16:17 EC43-4001(5b20) 00005046 27 35  
05:04/25 15:30 EC25-4001(5b20) 00005036 27 35 06:04/25 15:26 EC25-4001(5b20) 00005016 27 35  
07:04/25 11:14 EC22-4001(5b16) 00005013 26 35 08:04/25 11:13 EC22-4001(5b16) 00005013 26 35  
09:04/25 11:12 EC22-4001(5b16) 00005013 26 35 10:04/25 11:07 EC22-4001(5b16) 00005013 26 35

#### ERROR LOG

01:04/26 09:21 2818(1721) 00005090 25 41 02:04/26 09:18 2818(1721) 00005090 25 41  
03:04/26 09:07 2818(1721) 00005090 25 41 04:04/25 18:06 2E34(100b) 00005086 27 35  
05:04/24 08:46 2019(4920) 00004964 27 34 06:04/25 04:50 2818(1721) 00004864 26 35  
07:04/25 04:50 2818(1721) 00004864 26 35 08:04/25 04:46 2546(168b) 00004864 26 35  
09:04/22 09:21 2010(1317) 00004862 26 41 10:04/21 12:36 2E33(100a) 00004789 26 35

See "ERROR LOG."

#### WARNING LOG

01:04/25 18:40 3200(3200) 00005090 27 35 02:04/25 18:36 3200(3200) 00005086 27 35  
03:04/25 18:04 3200(3200) 00005086 27 35 04:04/25 17:47 3200(3200) 00005068 27 35  
05:04/25 17:13 3200(3200) 00005068 27 35 06:04/25 17:01 3200(3200) 00005063 27 35  
07:04/25 16:15 3200(3200) 00005046 27 34 08:04/25 16:04 3200(3200) 00005045 27 35  
09:04/25 15:24 3200(3200) 00005036 27 35 10:04/25 15:20 3200(3200) 00005033 27 35

#### JAM LOG

01:04/24 08:46 004040(4920) 01:1 02:3 03:\* 04:\* 05:1 06:\* 07:\* 08:\*  
09:\* 10:Plain Paper  
02:04/22 09:21 002121(1317) 01:1 02:3 03:\* 04:\* 05:1 06:\* 07:\* 08:\*  
09:\* 10:Plain Paper  
03:04/19 12:37 002221(1322) 01:1 02:3 03:\* 04:\* 05:1 06:\* 07:\* 08:\*  
09:\* 10:Plain Paper  
04:04/18 11:54 311113(1327) 01:1 02:3 03:\* 04:\* 05:1 06:\* 07:\* 08:\*  
09:915.2 10:Plain Paper



PARTS COUNTER LOG

Wia1:	OK	****/**/**	0.0	705.7	0%	0.0	0
Wia2:	OK	****/**/**	0.0	997.1	0%	0.0	0
Wia5:	OK	****/**/**	0.0	840.0	0%	0.0	0
Wia6:	OK	****/**/**	1.8	921.9	0%	1.8	0
Wia7:	OK	****/**/**	0.1	200.0	0%	0.1	0
WF1 :	OK	****/**/**	0.0	104.7	0%	0.0	0
CR1 :	OK	****/**/**	5510	30952380	0%	5510	0
CR2 :	OK	****/**/**	143666	75000000	0%	143666	0
CR3 :	OK	****/**/**	1832	180000	1%	1832	0
CR4 :	OK	****/**/**	27640	7360000	0%	27640	0
CR5 :	OK	****/**/**	143666	75000000	0%	143666	0
CR6 :	OK	****/**/**	27811	7360000	0%	27811	0
PG1 :	OK	****/**/**	1473	156000	0%	1473	0
PG2 :	OK	****/**/**	21572	995000	2%	21572	0
PG3 :	OK	****/**/**	363	28000	1%	363	0
HMa1:	OK	****/**/**	0.1	3.8	2%	0.1	0
MT1 :	OK	****/**/**	11	3400	0%	11	0
PL1 :	OK	****/**/**	3	30000	0%	3	0
Mi1 :	OK	****/**/**	0.0	738.0	0%	0.0	0
Mi2 :	OK	****/**/**	0.0	738.0	0%	0.0	0

See "PARTS COUNTER."

CLEANING LOG

A-AB	4( 2)	2017/04/24, 2017/04/03, 2017/04/03	EX	5	2017/04/13	H	0
****/**/**							
A-A	0( 0)	****/**/**, ****/**/**, ****/**/**	T1	0	****/**/**	T2	0
****/**/**							
A-B	5( 0)	2017/04/03, 2017/03/30, 2017/03/27	C	2	2017/04/13	FI-AB	0
****/**/**							
S-AB	11( 9)	2017/04/18, 2017/04/04, 2017/04/04	FI-A	0	****/**/**	FI-B	0
****/**/**							
S-A	0( 0)	****/**/**, ****/**/**, ****/**/**	IR-AB	1	2017/04/13	IR-A	0
****/**/**							
S-B	0( 0)	****/**/**, ****/**/**, ****/**/**	IR-B	0	****/**/**		0
R-AB	3( 3)	2017/04/03, 2017/03/30, 2017/02/22					
R-A	0( 0)	****/**/**, ****/**/**, ****/**/**					
R-B	2( 2)	2017/04/25, 2017/04/25, ****/**/**					

See "CLEANING LOG."

SERVICE ADJUSTMENT LOG

GAP_CALIB	2016/07/26	OPTICAL_AXIS	****/**/**	CR_MOTOR_COG	2017/04/25	CGC_REG	
****/**/**							
LF_TUNING	2017/04/13	CR_REG	****/**/**	NOZZLE_CHECK_POS	2017/04/13		
TOUCH PANEL CALIBRATION	****/**/**	UPPER_ARB_CALIB	****/**/**	LOWER_ARB_CALIB			
2017/04/13							
LF_ENC_ADJ	2017/04/12						

See "SERVICE LOG."

PCB REPLACEMENT LOG

01:	2017/02/22	2	02:	****/**/**	0	03:	****/**/**	0	04:	****/**/**	0	05:	****/**/**	0
06:	****/**/**	0	07:	****/**/**	0	08:	****/**/**	0	09:	****/**/**	0	10:	****/**/**	0

PV AUTO JUDGE : ON(NORMAL) , 0

PV AUTO JUDGE (ON/OFF): Ink reduction mode setting information  
 ON: Normal mode (cleaning is executed at the specified timing regardless of PV)  
 OFF: AUTO mode (the number of cleaning is reduced depending on PV)  
 Number of times: The number of mode switching from normal mode to AUTO mode

Chapter 1

Chapter 2

Chapter 3

Chapter 4

Chapter 5

Chapter 6

Chapter 7

Chapter 8

CONSUMABLES USAGE INFO

HEAD INF.1 LOT:000 00 0a DATE OF PRINT HEAD INSTALLATION: 2017/04/04  
 DOT COUNT TTL:40430  
 MBK:9138 BK:2947 MBK2:9127 Y:9221 M:5110 C:4884  
 THE NUMBER OF N INK INSTALLED THE NUMBER OF NON-EJECTION NOZZLES  
 A:000 B:000 C:000 D:000 A1: 0 A2: 0 B1: 1 B2: 1  
 E:000 F:001 C1: 0 C2: 0 D1: 0 D2: 0  
 E1: 0 E2: 0 F1: 0 F2: 0

HEAD INF.2 LOT:000 00 0a DATE OF PRINT HEAD INSTALLATION: 2017/04/04  
 DOT COUNT TTL:\*\*\*\*\*  
 MBK:\*\*\*\*\* BK:\*\*\*\*\* MBK2:\*\*\*\*\* Y:\*\*\*\*\* M:\*\*\*\*\* C:\*\*\*\*\*  
 THE NUMBER OF N INK INSTALLED THE NUMBER OF NON-EJECTION NOZZLES  
 A:000 B:000 C:000 D:000 A1: 0 A2: 0 B1: 1 B2: 4  
 E:000 F:000 C1: 0 C2: 0 D1: 1 D2: 0  
 E1: 0 E2: 0 F1: 1 F2: 1

THE NUMBER OF HEAD REPLACEMENT: 6 S: 2  
 THE ACCUMULATION OF DOT COUNT TTL:143666  
 MBK:19031 BK:4528 MBK2:19003  
 Y:35363 M:33506 C:32232

INK INFO  
 INK-USE1 INK-TTL: 927.5ml NINK-TTL: 0.0ml  
 INK MBK: 188.0ml BK: 91.9ml Y: 215.8ml M: 223.0ml C: 208.8ml  
 NINK MBK: 0.0ml BK: 0.0ml Y: 0.0ml M: 0.0ml C: 0.0ml  
 INK-USE2 INK-TTL: 9.4ml NINK-TTL: 0.0ml  
 INK MBK: 0.9ml BK: 0.3ml Y: 5.4ml M: 0.3ml C: 2.5ml  
 NINK MBK: 0.0ml BK: 0.0ml Y: 0.0ml M: 0.0ml C: 0.0ml  
 THE NUMBER OF INK-USE2 CLEAR:0

MAINTENANCE CARTRIDGE INFO  
 USAGE:0% THE NUMBER OF REPLACEMENT:13 THE NUMBER OF RESET: 5

CUTTER INFO THE NUMBER OF REPLACEMENT:0  
 THE NUMBER OF CUTS  
 CURRENT TOTAL:1966 1:Plain Paper :1824 2:Coated Paper :133  
 PREV.1 TOTAL:0 1:\*\*\*\*\*:0 2:\*\*\*\*\*:0

See "HEAD USAGE LOG."

See "INK USAGE LOG."

See "OTHER CONSUMABLES USAGE LOG."



DIAGNOSIS INFO

CR SYSTEM CHECK \*\*\*\*/\*\*/\*\* ACC.SENSOR \*\* FFC \*\* CR Vib. \*\*
PURGE CHECK \*\*\*\*/\*\*/\*\* \*\*
NOZZLE CHECK \*\*\*\*/\*\*/\*\* \*\*
HEAD CNT CHECK \*\*\*\*/\*\*/\*\* \*\*
OPT SENS CHECK 2017/04/26 DENSITY OK EDGE OK GAP OK
ANALOG ENCODER CHECK 2017/04/12 LED LEVEL OK OUTPUT LEVEL OK

The DIAGNOSIS information

USER COMMAND LOG

ADJUSTMENT
No:ADJ.TYPE HEAD TEMP&HUM MEDIA TYPE DATE TIME GAP1 GAP2
1:auto(d) A(2,3) 27C 81F 34% Coated Paper 2017/04/13 09:02 140, 160
2:----- --(-,-) ---C---F---% -----
3:----- --(-,-) ---C---F---% -----
4:----- --(-,-) ---C---F---% -----
5:----- --(-,-) ---C---F---% -----
D:auto(d) A(2,3) 27C 81F 34% Coated Paper 2017/04/13 09:02 140, 160

Indicates carriage height. (Unit: 1/100 mm)

See "USER COMMAND LOG."

JOB LOG

N:M HEAD TEMP&HUM MEDIA TYPE DATE TIME GAP JOB NAME
1:C3 A(2) 27C 81F 35% Plain Paper 2017/04/25 18:36 140

\*\*\*\*\*
\*\*\*\*\*
2:C3 A(2) 27C 81F 35% Plain Paper 2017/04/25 17:43 140
\*\*\*\*\*
\*\*\*\*\*
3:C3 A(2) 27C 81F 35% Plain Paper 2017/04/25 17:00 140
\*\*\*\*\*
\*\*\*\*\*
4:A4 A(4) 27C 81F 35% Plain Paper 2017/04/25 16:51 180
\*\*\*\*\*
\*\*\*\*\*
5:C2 A(2) 27C 81F 35% Plain Paper 2017/04/25 16:04 140
\*\*\*\*\*
\*\*\*\*\*

JOB LOG: The latest five print job logs are displayed.
- N: The smaller figure shows the newer log (1 to 5)
- M: Print mode
- HEAD: Head height (Automatic or fixed, height)
- TEMP&HUM: Temperature and humidity
- MEDIA TYPE: Type of media
- DATE: Date of printing
- TIME: Time of printing
- GAP: Carriage height (Unit: 1/100 mm)
- JOB NAME: Not displayed for personal information (Indicated by 128 asterisks)

HEAD

HEAD INF.1 LOT:000 00 0a  
 1:2017/04/12 2017/04/12 2017/04/04 2:2017/04/12 2017/04/12 \*\*\*\*/\*\*/\*\*  
 3:NEPB45212 NEPB45212 NEPB45212  
 4: 1 5:\*\*\*\*\* 6:\*\*\*\*\* 7:NA 8:\*\*\*\*\* 9:\*\*\*\*\* 10: 2 11:NA 12: 5  
 13:\*\*\*\*\*  
 14:\*\*\*\*\* 15:NA 16: 2 17:\*\*\* 18:\*\*\* 19:\*\*\* 20:NA 21: 1 22:\*\*\*  
 23:\*\*\*  
 24:\*\*\* 25: 1 26:\*\*\* 27:\*\*\* 28:\*\*\* 29:1287  
 31:01:2017/04/25 EC41-4001(5b20) 02:2017/04/25 3200(3200)  
 03:2017/04/25 3200(3200) 04:2017/04/25 EC47-4001(5b20)  
 05:2017/04/25 3200(3200) 06:2017/04/25 3200(3200)  
 33:00.38 2017/04/22 00.37 2017/04/18 00.37 2017/04/18  
 34:A:61 B:64 C:62 D:63 E:66 F:60 35:NA

HEAD INF.2 LOT:000 00 0a  
 1:2017/04/12 \*\*\*\*/\*\*/\*\* 2017/04/04 2:2017/04/12 2017/04/12 \*\*\*\*/\*\*/\*\*  
 3:NEPB45212 NEPB45212 000000000  
 4:\*\*\*\*\* 5:\*\*\*\*\* 6:\*\*\*\*\* 7:NA 8:\*\*\*\*\* 9:\*\*\*\*\* 10:\*\*\*\*\* 11:NA 12:\*\*\*\*\*  
 13:\*\*\*\*\*  
 14:\*\*\*\*\* 15:NA 16:\*\*\* 17:\*\*\* 18:\*\*\* 19:\*\*\* 20:NA 21:\*\*\* 22:\*\*\*  
 23:\*\*\*  
 24:\*\*\* 25:\*\*\* 26:\*\*\* 27:\*\*\* 28:\*\*\* 29:462  
 31:01:2017/04/13 EC3F-4126(5a61) 02:2017/04/13 EC3F-4121(5a61)  
 03:2017/04/13 EC3F-4122(5a61) 04:2017/04/13 EC3F-4123(5a61)  
 05:2017/04/13 EC3F-4120(5a61) 06:2017/04/13 EC3F-402F(5a61)  
 33:00.36 2017/04/10 00.35 2017/04/10 00.35 2017/04/10  
 34:A:61 B:64 C:62 D:63 E:66 F:60 35:NA

See  
Appendix 1.

INK

THE NUMBER OF REPLACEMENT INK-TTL:53 NINK-TTL:0  
 INK MBK:12 BK:9 Y:9 M:9 C:14  
 NINK MBK:0 BK:0 Y:0 M:0 C:0

DAYS AFTER INK CARTRIDGE INSTALLATION  
 CURRENT MBK:0 BK:0 Y:0 M:0 C:0

PRINTER LOG

POWER-ON: 230: 1 SLEEP-ON: 239:14  
 CARRIAGE PRINT: 19:56 DRIVE: 11: 3 CR-COUNT: 27640  
 CR-DIST.: 5510 CAPPING-COUNT: 1473 WIPE: 363  
 HEAD POS OFFSET: 0 CGC-FLG:0 CR\_LIFT: 1842  
 IIF 1: 0 2: 0 3: 23 4: 30 5: 832 6: 27 34 7: 5  
 MV\_LV1 1: 0 2: 0 3: 0 4: 0 5: 0 6: 0 0 7: 5  
 MV\_LV2 1: 0 2: 0 3: 0 4: 0 5: 0 6: 0 0 7: 5  
 MV\_LV3 1: 0 2: 0 3: 0 4: 0 5: 0 6: 0 0 7: 5

See  
Appendix 2.

NOTE: The above logs are reference information required for the analysis of the escalated printer troubles.



AENC 1:01d2 2:01e2 3:03b0 4:0393 5: 024d 024d 0fa0

HDD\_SMART

ID	Current	Worst	Threshold	Data
01	114	099	006	0000044c4148
03	099	099	000	000000000000
04	099	099	020	0000000004fb
05	100	100	036	000000000000
07	100	253	030	000000089f04
09	100	100	000	49d7000000da
0a	100	100	097	000000000000
0c	100	100	020	0000000001f7
b8	100	100	099	000000000000
bb	100	100	000	000000000000
bc	100	100	000	000000000000
bd	100	100	000	000000000000
be	067	051	045	000021210021
bf	100	100	000	000000000000
c0	100	100	000	000000000011
c1	100	100	000	0000000004fc
c2	033	049	000	001400000021
c5	100	100	000	000000000000
c6	100	100	000	000000000000
c7	200	200	000	000000000000
f0	100	100	000	b2c600000072
f1	100	253	000	0000affc1dcf
f2	100	253	000	00003bdfd8a1
fe	100	100	000	000000000000
00	000	000	000	000000000000
00	000	000	000	000000000000
00	000	000	000	000000000000
00	000	000	000	000000000000
00	000	000	000	000000000000
00	000	000	000	000000000000
00	000	000	000	000000000000

See Appendix 3.

See Appendix 2.

MULTI SENSOR 00		55	20	16	12	20	02	03	29	28	ad	12	31	0d	32	00	32	00		
DETAILS		MEADIA		LED OFF		PLATEN		GAIN		CURRENT										
		SPEC	ACTUAL	SPEC	ACTUAL	SPEC	ACTUAL	SPEC	ACTUAL	SPEC	ACTUAL	SPEC	ACTUAL	SPEC	ACTUAL	SPEC	ACTUAL	SPEC	ACTUAL	
DENSITY	RED	OK	0-1023	778	0-1023	66	0-1023	101	6-224	21	1- 61	9								
	GREEN	OK	0-1023	783	0-1023	66	0-1023	105	6-224	14	1- 61	9								
	BLUE	OK	0-1023	770	0-1023	67	0-1023	104	6-224	17	1- 61	9								
EDGE	S	OK	0-1023	797	0-1023	59	0-1023	85	6-224	54	1- 61	9								
	D	OK	0-1023	802	0-1023	63	0-1023	73	6-224	18	1- 61	9								
GAP	FAR	OK	0-1023	0	0-1023	0	0-1023	0	6-224	14	1- 61	9								
	NEAR	OK	0-1023	0	0-1023	0	0-1023	0	6-224	12	1- 61	9								

NOTE: The above logs are reference information required for the analysis of the escalated printer troubles.

PV INFO DETAILS

<p>MEDIA 1                  NAME : Plain Paper                  TTL : 305.6 m2 3289.5 sq.f                  ROLL1 : 235.8 m2 2539.0 sq.f                  ROLL2 : 66.8 m2 719.6 sq.f                  CUTSHEET : 2.8 m2 30.8 sq.f</p>				<p>MEDIA 2                  NAME : Coated Paper                  TTL : 11.6 m2 125.5 sq.f                  ROLL1 : 3.3 m2 35.5 sq.f                  ROLL2 : 8.1 m2 87.2 sq.f                  CUTSHEET : 0.2 m2 2.6 sq.f</p>			
<p>MEDIA 3                  NAME : GlossyPhotoHG170                  TTL : 0.3 m2 3.3 sq.f                  ROLL1 : 0.3 m2 3.3 sq.f                  ROLL2 : 0.0 m2 0.0 sq.f                  CUTSHEET : 0.0 m2 0.0 sq.f</p>				<p>MEDIA 4                  NAME :                  TTL : 0.0 m2 0.0 sq.f                  ROLL1 : 0.0 m2 0.0 sq.f                  ROLL2 : 0.0 m2 0.0 sq.f                  CUTSHEET : 0.0 m2 0.0 sq.f</p>			
<p>MEDIA 5                  NAME :                  TTL : 0.0 m2 0.0 sq.f                  ROLL1 : 0.0 m2 0.0 sq.f                  ROLL2 : 0.0 m2 0.0 sq.f                  CUTSHEET : 0.0 m2 0.0 sq.f</p>				<p>MEDIA 6                  NAME :                  TTL : 0.0 m2 0.0 sq.f                  ROLL1 : 0.0 m2 0.0 sq.f                  ROLL2 : 0.0 m2 0.0 sq.f                  CUTSHEET : 0.0 m2 0.0 sq.f</p>			
<p>MEDIA 7                  NAME :                  TTL : 0.0 m2 0.0 sq.f                  ROLL1 : 0.0 m2 0.0 sq.f                  ROLL2 : 0.0 m2 0.0 sq.f                  CUTSHEET : 0.0 m2 0.0 sq.f</p>				<p>MEDIA OTHER                  NAME : OTHER                  TTL : 0.0 m2 0.0 sq.f                  ROLL1 : 0.0 m2 0.0 sq.f                  ROLL2 : 0.0 m2 0.0 sq.f                  CUTSHEET : 0.0 m2 0.0 sq.f</p>			
<p>MEDIA SIZE1 ROLL P-SQ/P-CNT</p>				<p>MEDIA SIZE1 ROLL P-SQ/P-CNT</p>			
0-17:	10.2 m2	110.1 sq.f	164	17-24:	16.6 m2	179.2 sq.f	267
24-36:	20.5 m2	220.8 sq.f	329	36-44:	266.6 m2	2870.0 sq.f	4275
44-50:	0.3 m2	3.3 sq.f	5	50-60:	0.0 m2	0.0 sq.f	0
60- :	0.0 m2	0.0 sq.f	0				
<p>MEDIA SIZE1 CUT P-SQ/P-CNT</p>				<p>MEDIA SIZE1 CUT P-SQ/P-CNT</p>			
0-17:	3.1 m2	33.5 sq.f	50	17-24:	0.0 m2	0.0 sq.f	0
24-36:	0.0 m2	0.0 sq.f	0	36-44:	0.0 m2	0.0 sq.f	0
44-50:	0.0 m2	0.0 sq.f	0	50-60:	0.0 m2	0.0 sq.f	0
60- :	0.0 m2	0.0 sq.f	0				

See Appendix 4.

NOTE: The above logs are reference information required for the analysis of the escalated printer troubles.

Appendix 1: Detailed information of H AD and INK (reference information)

Items		Print number or print name	Print contents	
HEAD	HEAD INF.1 LOT:***** ** Currently-installed print head	1	Print head installation date and time (Last three cases)	
		2	Print head removal date and time (Last three cases)	
		3	Serial number of the printer with the applicable print head (Last three cases)	
	HEAD INF.2 LOT:***** ** Previously-installed print head	4	Number of cleaning A-I (AB cap)	
		5	Number of cleaning A-II (A cap)	
		6	Number of cleaning A-III (B cap)	
		7	-	
		8	Number of cleaning R-I (AB cap)	
		9	Number of cleaning R-II (A cap)	
		10	Number of cleaning R-III (B cap)	
		11	-	
		12	Number of cleaning S-I (AB cap)	
		13	Number of cleaning S-II (A cap)	
		14	Number of cleaning S-III (B cap)	
		15	-	
		16	Number of cleaning EX-I (Ink removal at the head replacement)	
		17	Number of cleaning H-I (Ink filling at the head replacement)	
		18	Number of cleaning T1-I (Transport outdoors)	
		19	Number of cleaning T2-I (Move indoors to a different floor, Move indoors on the same floor)	
		20	-	
		21	Number of cleaning C-I (on arrival)	
		22	Number of cleaning FI-I (ink filling at the installation or printer transportation)	
		23	Internal information (Not used in servicing)	
	24	Internal information (Not used in servicing)		
	25	Internal information (Not used in servicing)		
	26	Internal information (Not used in servicing)		
	27	Internal information (Not used in servicing)		
	28	Internal information (Not used in servicing)		
	29	Number of sheets printed (in A4 equivalent)		
	31	Error log NOTE: Error log recorded in head EEPROM (Last six cases)		
	33	History of firmware version and updated date (last three cases)		
	34	Head highest temperature (per chip A: *** B: ***)		
	35	-		
	INK	THE NUMBER OF REPLACEMENT	INK-TTL	Accumulated number of genuine ink tank replacement (in total) NOTE: Also counted up when the same ink tank is reinstalled.
			NINK-TTL	Accumulated number of refill ink tank replacement (in total) NOTE: Also counted up when the same ink tank is reinstalled.
INK			Accumulated number of genuine ink tank replacement (per color)	
NINK			Accumulated number of refill ink tank replacement (per color)	
DAYS AFTER INK CARTRIDGE INSTALLATION		CURRENT	Days after the installation of the currently-installed ink tank (per color)	



Appendix 2: Detailed information of PRINTER LOG (reference information)

Items		Print number or print name	Print contents	
PRINTER LOG	POWER	POWER-ON	Cumulative power-on time	
	SLEEP	SLEEP-ON	Cumulative sleep-on time	
	CARRIAGE	PRINT		Cumulative printing time
		DRIVE		Cumulative carriage moving time
		CR-COUNT		Cumulative carriage scan count (count as 1 by moving back and forth)
		CR-DIST.		Accumulated carriage scan length
		CAPPING-COUNT		Accumulated number of capping
		WIPE		Number of wiping
		HEAD POS OFFSET		Head Position shift set value NOTE: Number of critical-height offset pulse
		CGC-FLG		Setting NOTE: To check whether adjustment is executed or not.
		CR_LIFT		Number of CR lift
		IIF	1	
	2			Initial ink filling flag formatio
	3			The time until the detection of remaining amount of the initial-filled ink is 0
	4			Number of filling the tube with in
	5			Initial ink filling
	6			Temperature and humidity at initial setting (power-on)
	7			Flag split and display at initial ink filli
	MV_LV1	1		[[Transportation log moving indoors (carrying)]] Number of recovery purging
		2		Initial ink filling flag formatio
		3		The time until the detection of remaining amount of the initial-filled ink is 0
		4		Number of filling the tube with in
		5		Initial ink filling
		6		Temperature and humidity at initial setting (power-on)
		7		Flag split and display at initial ink filli
	MV_LV2	1		[[Transportation log moving indoors (steps/elevator)]] Number of recovery purging
		2		Initial ink filling flag formatio
		3		The time until the detection of remaining amount of the initial-filled ink is 0
		4		Number of filling the tube with in
		5		Initial ink filling
		6		Temperature and humidity at initial setting (power-on)
		7		Flag split and display at initial ink filli
	MV_LV3	1		[[Transportation log transporting outdoors]] Number of recovery purging
		2		Initial ink filling flag formatio
		3		The time until the detection of remaining amount of the initial-filled ink is 0
		4		Number of filling the tube with in
		5		Initial ink filling
		6		Temperature and humidity at initial setting (power-on)
		7		Flag split and display at initial ink filli

Items		Print number or print name	Print contents
	A_ENC	1	LF analog encoder central voltage (ADJUST_OFFSET_A)
		2	LF analog encoder central voltage (ADJUST_OFFSET_B)
		3	LF analog encoder amplitude magnification (ADJUST_ODDS_A)
		4	LF analog encoder amplitude magnification (ADJUST_ODDS_B)
		5	LF analog encoder current value (CURRENT)
	HDD_SMART	ID	ID
		Current	Current value
		Worst	Worst value
		Threshold	Threshold
	MULTI_SENSOR	Data	Data
			<p>Address dump value and PT_SENS_CHECK detailed information of multi sensor EEPROM is displayed.            &lt;OPT_SENS_CHECK detailed information            (1) Selected media (SELECTED MEDIA)            (2) LED output value per color (Red, green, and blue)            (3) Output value of regular reflection and diffuse reflection at media edge            (4) Output value in GAP detection</p> <p>The output value indicates the following information (results of the last light quantity adjustment):</p> <ul style="list-style-type: none"> <li>- Media output (MEADIA)</li> <li>- Outside light output (LEDOFF)</li> <li>- Platen output (PLATEN)</li> <li>- Gain (GAIN)</li> <li>- Current value (CURRENT)</li> </ul>

### Appendix 3: Information of HDD\_SMART (reference information)

HDD\_SMART is SMART information of general hard disk drive. Only the items helping your troubleshooting are included in the table below.

<Estimated causes when the value of any one of the following IDs is larger than a threshold value or zero>

1) ID: 01, 05, C3, C4, C5, or C6

It is highly possible that only hard disk drive is defective. If the value of any one of the above IDs is zero, it is highly likely that not hard disk drive cable or main board is defective.

2) ID: D2, D3, D4, DC, DD, or E4

Check the printer installation environment as the printer may be vibrated or shocked, or instantaneous power failure may occur.

ID	Item name	Details
01	Raw Read Error Rate	Indicates the rate of errors occurring when reading the raw data from hard disk. If the value is below a threshold value, a magnetic disk or magnetic head in the hard disk are abnormal.
05	Reallocated Sectors Count	Number of defective sectors that the alternative action (the data is reallocated to the backup area) is taken.
C3	Hardware ECC recovered	Number of errors detected by ECC (Error Correction Code)
C4	Reallocation Event Count	Number of alternative action or sectors
C5	Current Pending Sector Count	Number of sectors that is currently abnormal and waits for alternative action
C6	Offline Line Scan Uncorrectable Sector Count	Total number of uncorrectable sectors discovered in offline-line scan. If this value increases, there is a clear problem with a magnetic disk surface.
D2	Vibration During Write	Indicates large vibration during writing the data.
D3	Vibration During Read	Indicates large vibration during reading the data.
D4	Shock During Write	Indicates large shocks during writing the data.
DC	Disk Shift	Disk (platter) shift distances shifted from the original fixed position due to shocks
DD	G-Sense Error Rate	The rate of errors occurring due to shocks on hard disk. The shocks are detected by the sensor in the hard disk.
E4	Power-Off Retract Count	Number of urgent magnetic head retraction by hard disk compulsory stoppage due to power-off

Appendix 4: Detailed information of V INFO DETAILS (reference information)

Items		Print number or print name	Print contents
PV INFO DETAILS	MEDIA 1 to 7	NAME	Name of seven types of media with large cumulative print area
		TTL	Total print area of seven types of media with large cumulative print area
		ROLL	Roll paper print area of seven types of media with large cumulative print area
		ROLL2	Roll paper print area of seven types of media with large cumulative print area NOTE: For the printer supporting top and bottom paper rolls only.
		CUTSHEET	Cut sheet print area of seven types of media with large cumulative print area
	MEDIA OTHER	NAME	OTHER
		TTL	Total print area of media other than seven types of media with large cumulative print area
		ROLL	Total roll paper print area of seven types of media with large cumulative print area
		ROLL2	Roll paper print area of seven types of media with large cumulative print area NOTE: For the printer supporting top and bottom paper rolls only.
		CUTSHEET	Total cut sheet print area of seven types of media with large cumulative print area
	MEDIA SIZE1 ROLL P-SQ/P-CNT	60-	Print area of roll paper equal to or larger than 60 inches (by physical size)
		50-60	Print area of roll paper (50 or larger inches, less than 60 inches) (by physical size)
		44-50	Print area of roll paper (44 or larger inches, less than 50 inches) (by physical size)
		36-44	Print area of roll paper (36 or larger inches, less than 44 inches) (by physical size)
		24-36	Print area of roll paper (24 or larger inches, less than 36 inches) (by physical size)
		17-24	Print area of roll paper (17 or larger inches, less than 24 inches) (by physical size)
		0-17	Print area of roll media less than 17 inches (by physical size)
	MEDIA SIZE1 CUT P-SQ/P-CNT	60-	Print area of cut sheet equal to or larger than 60 inches (physical size)
		50-60	Print area of cut sheet (50 or larger inches, less than 60 inches) (by physical size)
		44-50	Print area of cut sheet (44 or larger inches, less than 50 inches) (by physical size)
		36-44	Print area of cut sheet (36 or larger inches, less than 44 inches) (by physical size)
		24-36	Print area of cut sheet (24 or larger inches, less than 36 inches) (by physical size)
		17-24	Print area of cut sheet (17 or larger inches, less than 24 inches) (by physical size)
		0-17	Print area of cut sheet less than 17 inches (by physical size)

\*Unit: m<sup>2</sup> and sq.f are used.

## Details of E-RDS

### 1) Purpose

E-RDS of service mode menu enables the E-RDS setting for communicating with UGW. If the remote service is provided using UGW, it is necessary to enable the E-RDS setting and perform the connection settings for remote service. (For details on the settings, see [3-2. Connection settings or remote service.](#))

E-RDS menu	Items to be set	Setting details/Items to be displayed
CA-CERTIFICATE	E-maintenance certificate	Display of CA-certificate information for E-RDS · When the certificate is valid: The validated date is displayed. · When the certificate is deleted: NOT INSTALLED is displayed.
E-RDS SETUP	E-RDS setup	· E-RDS ON/OFF setting · URL of UGW is displayed. · UGW port number display · E-RDS communication test · Communication log display (30 cases) · DISPLAY setting
E-RDS OTHERS	Other settings	· Deletion of CA-certificate information for E-RDS · E-RDS data initialization

### 2) Setting procedures

For the setting procedures and communication check, see 2) Settings procedures in [3-2 Connection settings or remote service.](#)



### 3) E-RDS menu level

The following table indicates [E-RDS] menu level. Execute [E-RDS] command after selecting [Y S].

Menu level: Select [SERVICE MODE > E-RDS] in the operation panel

Second level	Third level	Fourth level	Fifth level	Sixth level	Details	
CA-CERTIFICATE	VALIDITY yyyy/mm/dd				CA-certificate is valid. (The validated date is displayed).	
	NOT INSTALLED				CA-certificate is deleted.	
E-RDS SETUP	E-RDS SWITCH	ON			Whether E-RDS is used or not is set. ON: E-RDS is used. OFF: E-RDS is not used.	
		OFF (default)				
	UGW ADDRESS	http://*****			UGW address is displayed.	
	UGW PORT	*****			The number of the port communicating with UG is displayed.	
	COM-TEST (*1)	YES			The communication test with UGW is executed. YES: COM-TEST is executed. NO: Returns to the previous screen.	
		NO				
	COM-LOG (*2)	No.01 ***** yyyy/mm/dd hh:mm No.02 *****	***** ***** *****			The information on the communication error with UGW is displayed.
	DISPLAY SETTING	TTL PRINT AREA	ON (default)			Display setting (The setting of display/non-display of total print area)
			OFF			
		INK CONSUMED	ON (default)			Display setting (The setting of display/non-display of amount of consumed ink)
			OFF			
		DUTY CNT	ON (default)			Display setting (The setting of display/non-display of DUTY counter)
			OFF			
DISPLAY DECIMAL		TTL PRINT AREA	ON (default)			Setting of decimal point display (total print area)
			OFF			
		INK CONSUMED	ON (default)			Setting of decimal point display (amount of consumed ink)
OFF						
DUTY CNT	ON (default)			Setting of decimal point display (DUTY counter)		
	OFF					
UNIT	TTL PRINT AREA	LENGTH UNIT (default)			Unit setting (total print area)	
		A4				
	LETTER					
DUTY CNT	LENGTH UNIT	A4 (default)			Unit setting (DUTY counter)	
		LETTER				
	LETTER					

E-RDS OTHERS	DELATE CA-KEYS	YES			YES: CA-certificate is deleted.
		NO			NO: Returns to the previous screen.
	NORESET E-RDS DAT	YES			YES: E-RDS initialization
		NO			NO: Returns to the previous screen.

\*1: COM-TEST behavior

- While COM-TEST is executed, "CHECK NOW..." is displayed.
- COM-TEST cannot be cancelled halfway (no operations are accepted until the test results are obtained).
- After COM-TEST finishes, the following message is displayed:
  - If the communication test succeeds: CHECK RESULT: OK
  - If the communication test fails: CHECK RESULT: NG
- If no test results are obtained even though 60 seconds have passed after COM-TEST started, the communication test is viewed as a failure, and the message to that effect is displayed.

\*2: COM-LOG communication specification

- 30 cases of the communication logs are displayed. (The log number "1" is the latest one).
- COM-LOG communication error information is displayed up to 128 characters per case.
- When there is no detailed COM-LOG information, "NO ERROR DETAILS" is displayed.

## Details of OTHERS

### 1) Purpose

In [OTHERS] of [SERVICE MODE] menu, perform the service menus in the following table if needed:

OTHERS menu	Items	Setting tails
RTC SETTING	RTC time and date	The time and date after replacing I/F PCB UNIT or button battery are set. NOTE: Be sure to set the RTC time and date as the time stamp of each log information recorded in Print INF is incorrect if the time and date are not set.
PV AUTO JUDGE	Waste ink reduction mode	The waste ink reduction mode setting is switched between ON and OFF.
PRINT HEAD INFO SETTING	Print head warranty information display setting	Set the display/non-display of "print head information" in the operation panel
HDD BOX PW INIT	Passwords for the BOX in HDD	The passwords for the BOX in HDD are returned to the factory setting NOTE: Use this menu if the user forgets the password by himself/herself.
FIRMWARE UPDATE(USB)	Firmware update	The firmware is updated by installing USB flash drive in the printer.
GET PRINT INF (USB)	Acquisition of PRINT INF information	The PRINT INF information is stored in the USB flash drive. (To be stored in text format).
GET ENCRYPTING LOG(USB)	Acquisition of serial log information	The serial log information is stored in the USB flash drive. (As the file is encrypted, it cannot be confirmed at the sales companies' side. Attach the serial log information file when relating the problem to CINC.
DELETE ENCRYPTING LOG	Deletion of serial log information	Only the serial log information stored in HDD is deleted.

### 2) OTHERS menu level

The following table indicates [OTHERS] menu level. Select [YES] to execute the following menu:

HDD BOX PW INIT, FIRMWARE UPDATE(USB), GET PRINT INF (USB), GET ENCRYPTING LOG(USB), DELETE ENCRYPTING LOG

Menu level: Select [SERVICE MODE > OTHERS] in the operation panel

Second level	Third level	Fourth level	Details
RTC SETTING	DATE SETTING	yyyy/mm/dd	After replacing the applicable parts (I/F PCB UNIT or button battery), enter Greenwich Mean Time (GMT). After DATE and TIME is set, restart the printer.
	TIME SETTING	hh:mm	
PV AUTO JUDGE (*1)	ON		ON: Standard mode (Cleaning is performed at the predetermined timing regardless of print volume)
	OFF (default)		OFF: AUTO mode (The frequency of cleaning is reduced depending on the print volume)
PRINT HEAD INFO SETTING	ON (default)		ON: Displays print head warranty information on the operation panel
	OFF		OFF: Print head warranty information is not displayed on the operation panel

HDD BOX PW INIT	ALL BOX	YES	YES: Returns the password for all the BOXs to the factory setting
		NO	NO: Returns to the screen for selecting BOX.
	BOX 1 to BOX 29 (*2)	YES	YES: Returns the password for the specified BOX to the factory setting
		NO	NO: Returns to the screen for selecting BOX.
FIRMWARE UPDATE (USB) (*3)	The screen for selecting firmware	YES	YES: Update the firmware.
		NO	NO: Returns to the screen for selecting firmware.
	No USB flash drive. Please set.	When a USB flash drive is installed, the screen transits to the screen for selecting firmware	When USB flash drive is not installed
GET PRINT INF (USB)	YES		YES: The PRINT INF information is stored in the USB flash drive.
	NO		NO: Returns to the OTHERS menu.
GET ENCRYPTING LOG(USB)	YES		YES: The serial log information is stored in the USB flash drive.
	NO		NO: Returns to the OTHERS menu.
DELETE ENCRYPTING LOG	YES		YES: Only the serial log information stored in HDD is deleted.
	NO		NO: Returns to the OTHERS menu.

\*1: Low print volume users select **[PV AUTO JUDGE]** to resolve printing failure due to air bubbles created by ink left in the tubes

\*2: Scroll the screen to select the BOX whose password is to be reset.

\*3: How to use FIRMWARE UPDATE(USB)

- 1) Save the firmware to be updated to the USB thumb drive. (Advance preparation)
- 2) Install the USB thumb drive in the printer.
- 3) Select **[SERVICE MODE > OTHERS > FIRMWARE UPDATE(USB)]** in the operation panel. If a USB flash drive is not installed, the message "No USB flash drive. Please set." is displayed. Then when the USB flash drive is installed in the printer, the message "A USB flash drive is connected." is displayed, and the screen transits to the screen for selecting firmware.
- 4) The screen transits to the screen for selecting firmware.
- 5) Select the firmware to be updated. (File format: \*\*\*\*\*.fdl)
- 6) Select **[YES]**. If the file format of the file you select is not "\*\*\*\*\*.fdl," or if the firmware of the product different from the one you want to update is selected, "File format is invalid." is displayed, and the screen transits to the OTHERS screen.
- 7) The message "Executing..." appears, and the firmware update is executed. If an error occurs during updating, the message "Firmware update error." is displayed and the screen transits to the **[OTHERS]** menu window.
- 8) When the firmware update is completed, the printer restarts automatically.

**Notes in firmware update**

It takes approx. 20 minutes to update the firmware. If the printer is turned off during updating the firmware, the main board is damaged. Do not turn the printer off during firmware updating. When a warning message such as “The maintenance cartridge is full. Replace the maintenance cartridge.” is displayed on the operation panel, release the warning first, then perform the firmware update.

**Notes in using USB thumb drive**

Note that NTFS-format USB flash drive is not supported. If a NTFS-format USB flash drive is connected to the printer, there is no response from the operation panel, and the screen does not transit to the next one.

**Notes in storing serial logs**

If USB memory capacity is insufficient, or if the serial log data cannot be written for some reason in spite of sufficient USB memory capacity, an access error is displayed after Execute is executed.

As the file size of serial logs is nearly up to 3GB, it is recommended to use a USB flash drive with the capacity of 3GB or larger.



## 7-3. PCB Replacement Mode

### 1) Purpose

The PCB replacement mode is to be used in order to take over the printer-specific data (adjustment value, settings, etc.) to the new PCB when MAIN PCB UNIT or BACKUP PCB UNIT is replaced.

### 2) Procedures for taking over the data

When the service mode is launched after MAIN PCB UNIT or BACKUP PCB UNIT is replaced, the printer automatically transits to the PCB replacement mode. See the following the procedures for taking over the data.

#### <When MAIN PCB UNIT is replaced>

1. After replacing the MAIN PCB UNIT, start the printer in the service mode. (Do not start the printer with the network cable connected).
2. After the message "RESTORE PRINTER DATA FROM BACKUP PCB?" is displayed on the operation panel, select "YES."
3. After the data is taken over, the message "COMPLETED. PLEASE TURN OFF THE PRINTER." is displayed. Press the Power button to turn off the printer. (Do not plug off the power cord to turn off the printer.) If "NO" is selected in the step 2, the message "PLEASE TURN OFF THE PRINTER." is displayed.

#### <When BACKUP PCB UNIT is replaced>

1. After replacing BACKUP PCB UNIT, start the printer in the service mode. (Do not start the printer with the network cable connected).
2. After the message "SAVE PRINTER DATA TO BACKUP PCB?" is displayed on the operation panel, select "YES."
3. After the data is taken over, the message "COMPLETED. PLEASE TURN OFF THE PRINTER." is displayed. Press the Power button to turn off the printer. (Do not plug off the power cord to turn off the printer.) If "NO" is selected in the step 2, the message "PLEASE TURN OFF THE PRINTER." is displayed.

#### NOTE:

When the data of the PCB replacement mode is taken over after the MAIN PCB UNIT and BACKUP PCB UNIT are replaced at the same time, the adjustment value and settings at the factory is lost. In case of replacing both MAIN PCB UNIT and BACKUP PCB UNIT, replace one PCB and take over its data, then replace the other one and take over its data.

### 3) Items required by readjustment

After MAIN PCB UNIT is replaced, some adjustments require resetting as those adjustments include the driver IC characteristic of the MAIN PCB UNIT. The following items require readjustment:

- LF encoder adjustment  
[Operation panel > SERVICE MODE > ADJUSTMENT > LF\_ENC\_ADJ]
- Upper ARB paper feed unit calibration  
[Operation panel > SERVICE MODE > ADJUSTMENT > UPPER\_ARB\_CALIB]
- Lower ARB paper feed unit calibration  
[Operation panel > SERVICE MODE > ADJUSTMENT > LOWER\_ARB\_CALIB]

### 4) Notes on executing PCB replacement mode

Note that the following information is not restored even the PCB replacement mode is executed after the main PCB is replaced:

- Printer media information (paper settings and custom media information, head gap, vacuum strength)  
It is required to advise the customer to reset media information and to reset custom media information using MCT.
- Color calibration value  
If the customer use color calibration, it is required to advise the customer to perform color calibration after repairing.

- Remote service transmission schedule information  
Based on the agreement on remote service (NETEYE/e-Maintenance/imageWARE Remote), if the E-RDS function is enabled, it is necessary to execute a communication test after replacing MAIN PCB UNIT. If not executed, the subsequent transmission schedule information will not be acquired again, and will not be transmitted to UGW. Therefore, this will affect the provision of remote service to customers.

NOTE: Refer to [3-2. Connection settings or remote service](#).

## 7-4. iPF PRO Service Tool

### 1) Purpose

iPF PRO Service Tool is the software for servicing aims at realizing the following functions

Function	Details
Updating the version of printer firmware	Updates the firmware by sending the firmware data file to the printer you ask for.
Status printing and Print Inf collectin	Obtains the printer information ( status print and PRINT INF) from the printer you ask for.

### 2) How to launch

Double-click "setup.exe" in the folder to launch the software.

### 3) How to use

See the document attached to the software.

### 4) Precaution

- When the Service Mode is launched, the version of printer firmware cannot be updated.
- Use ASCII to input characters in [User Information] in the "Input User Information" dialog  
If language-specific characters are input, garbled characters may be generated in the texts of the obtained printer information

## 7-5. Recovery Mode

### 1) Purpose

If the printer is disconnected from the power source during updating the firmware, the firmware written in main board may be corrupted. The recovery means in this case was replacement of main board. Here, the printer will newly have recovery mode as a recovery means without replacing main board.

### 2) The items necessary for recovery

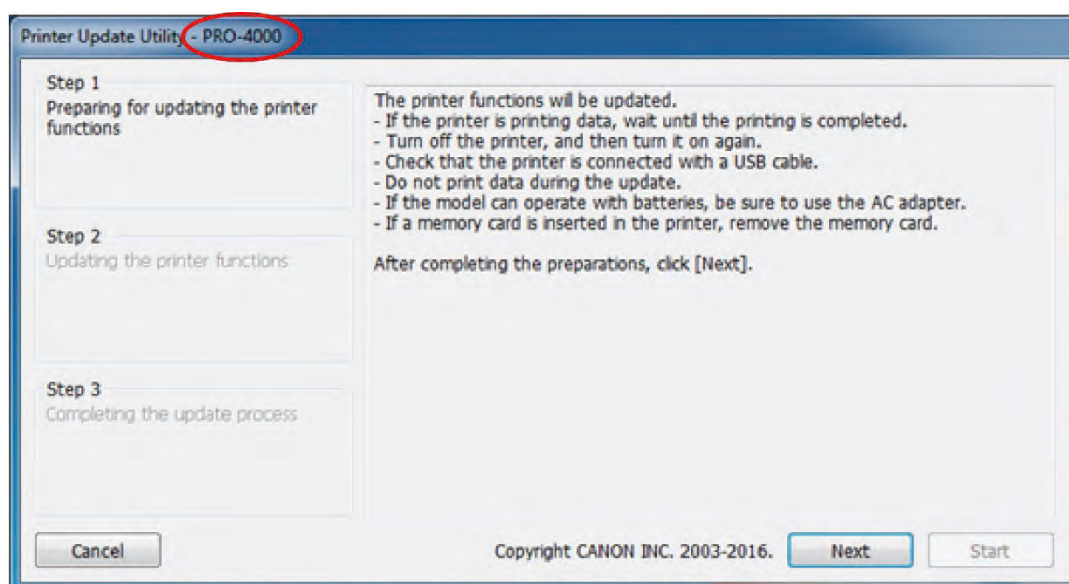
- Computer where the printer driver has been installed
- Printer Update Utility (Save to the computer.)
- USB cable

#### <Printer Update Utility>

Printer Update Utility is the software to rewrite the firmware of the printer launching in the recovery mode. The version of the firmware to be rewritten at this time is the version at initial shipping from a factory. After the firmware is rewritten, update to the latest version of the firmware if necessary.

Printer Update Utility is different by model. To differentiate from one another, check the file name or the part indicating the product name at the top of the window of the tool as shown below.

- Check the file name: "Printer Update\*\*\*\*\*Vxxxx.exe." (for Windows OS)  
mfuu-mac-\*\*\*\*\*-2\_4\_7+xxxx-ea7.dmg (for Mac)  
(\* shows a product name. xxxx indicates version information.)
- Check the product name in the red circle at the top of the window of the tool below (e.g.: For Windows OS, For PRO-4000 series)



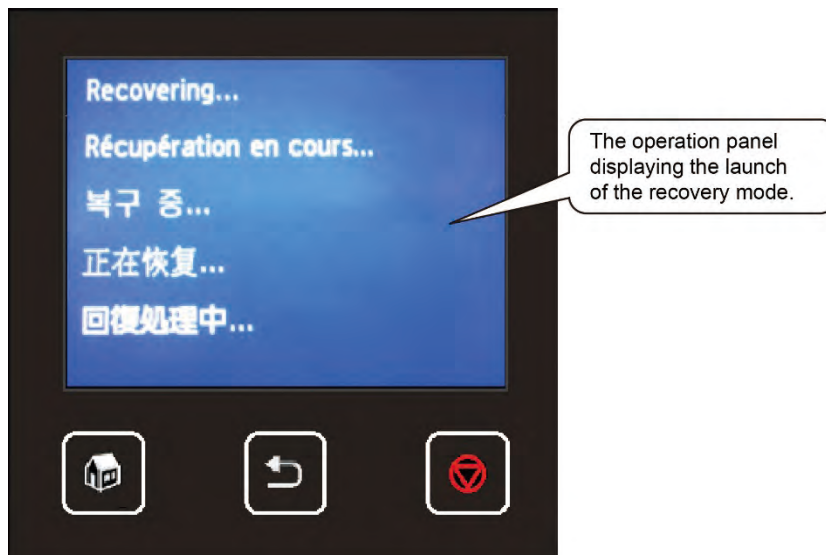
### <Printer Update Utility operation environment>

Supported OS:

- Windows 10 (32bit, 64bit), Windows 8.1 (32bit, 64bit), Windows 7 (32bit, 64bit)  
\*The environment where the latest service pack is applied
- Mac OS X v10.12, v10.11, v10.10.5 or later

### 3) Starting a recovery mode

If the printer is disconnected from the power source due to some reason, the recovery mode automatically starts by turning on the printer again.



### <Special notes>

- As this machine has a recovery mode, the recovery mode launches even if the printer is disconnected from the power source during updating the firmware by any of Firm update tool, iPF PRO Service Tool, or FIRMWARE UPDATE(USB) in the service mode.

<Firmware version supporting the recovery mode>

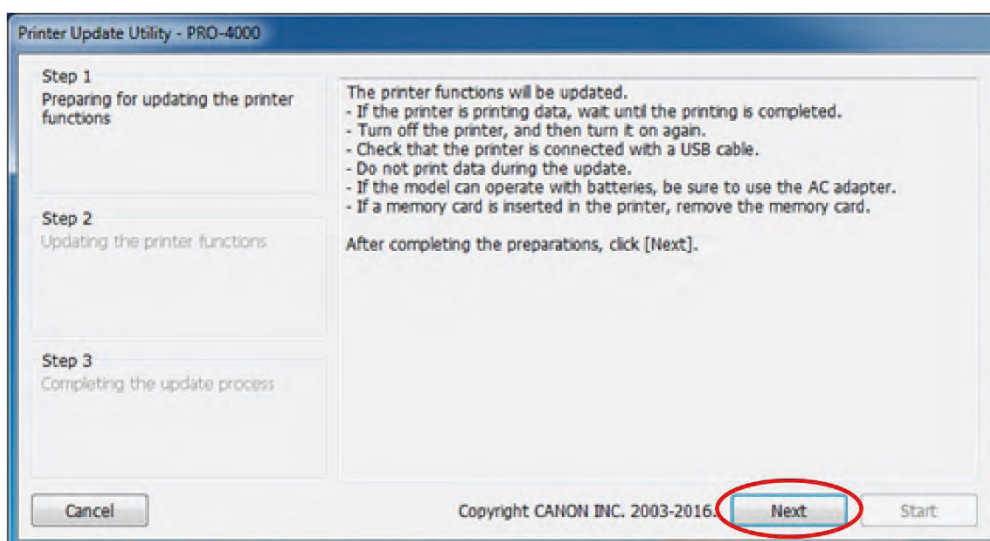
Product names	Supported versions
TX series	From the initial version


- In the processing of firmware update, the data is received first, then rewriting data starts after receiving the data is completed. The recovery mode is launched only when the power is disconnected during rewriting the data. If the printer is disconnected from the power source during receiving the data, the printer can be launched properly without entering a recovery mode.




## 4) Procedures for recovery

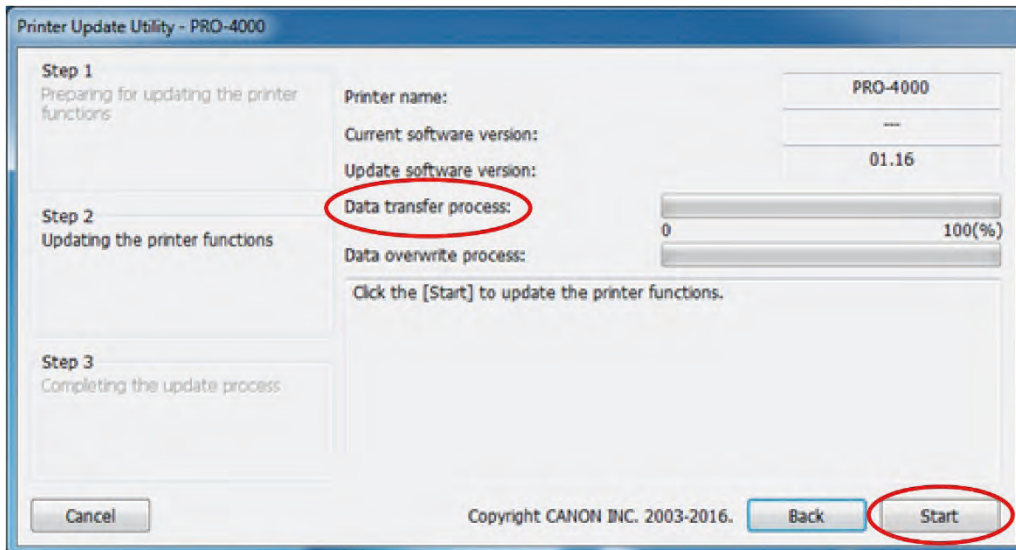
1. Connect the printer with the printer with a USB cable, and start the printer in the recovery mode.
2. Double-click Printer Update\*\*\*\*\*Vxxxx.exe. Confirm the messages in [Step 1] displayed on the Printer Update Utilit , then click [Next].



	<p>Printer Update Utility is different by model. Use Printer Update Utility or the product with the recovery mode installed.</p>
--	--

	<p>In order to communicate between the printer and Printer Update Utilit , the printer driver is required to be installed in the computer you want to use. And confirm that [Enable bi-directional support] is selected in the [Port] tab of the Properties window of the printer driver.</p> <p>If the communication is unsuccessful, click [Next], and the dialog "The printer could not be detected." will be displayed. Confirm the following:</p> <ul style="list-style-type: none"> <li>· The printer must be connected with the computer with a USB cable.</li> <li>· The printer must be launched in the recovery mode.</li> <li>· The printer driver for the product with the recovery mode installed must be installed in the computer you want to use.</li> </ul>
---	--

3. Click [Start] on Printer Update Utilit , and data transfer processing will be started.



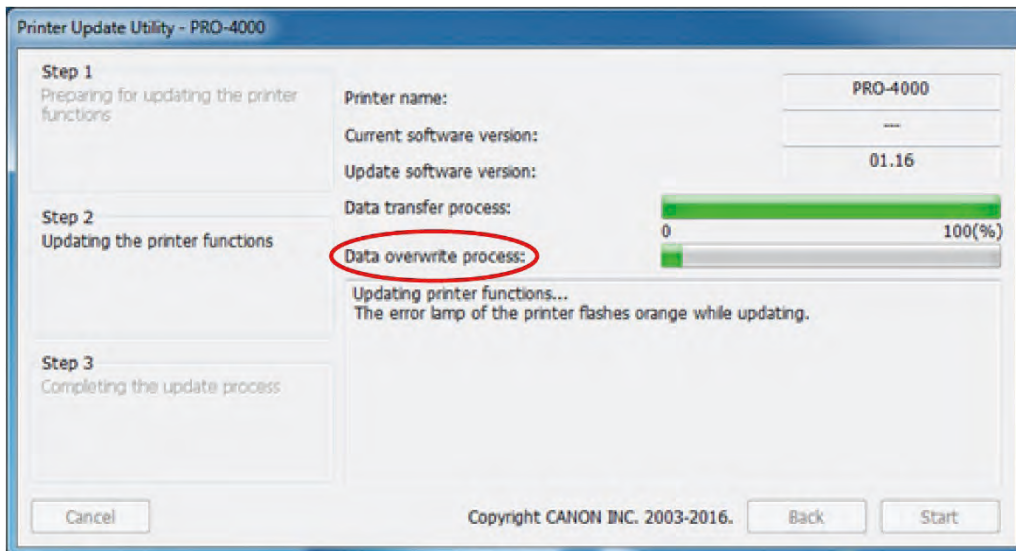
[Printer name]: The name of the printer connected to the computer

[Current software version]: The firmware version of the printer connected to the computer  
(This function is unavailable. “-” is displayed on the window.)

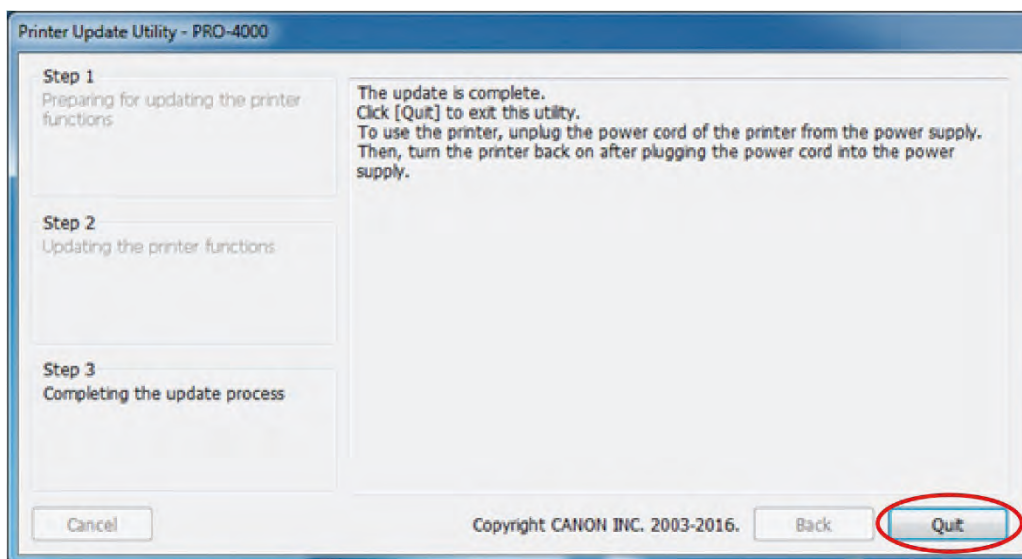
[Update software version]: The version of the firmware to be overwritten this time

	Do not turn off the printer or disconnect the USB cable until the firmware rewrite process is finished
--	--

4. When the data transfer process is finished, the data rewriting process is started.



- When the data rewriting process is finished, the printer is automatically disconnected from the power source. When the messages for [Step 3] is displayed on Printer Update Utility, confirm those messages and click [Quit].



- Before using the printer, disconnect the plug of the printer from an outlet. Then, plug the printer into the outlet to turn on the printer.
- If the firmware is rewritten using Printer Update Utility, recovery process is performed using the firmware of the version at initial shipping from a factory. Confirm the version of the latest firmware, and perform the firmware update usually (using such as Firm update tool, iPF PRO Service Tool, or Firmware Update (USB) in the service mode, etc.) if necessary.

# UNIT CONFIGURATION

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- 8-4. Fans ..... 797
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- 8-6. Main Controller PCB Connectors ..... 826

Chapter 1

Chapter 2

Chapter 3

Chapter 4

Chapter 5

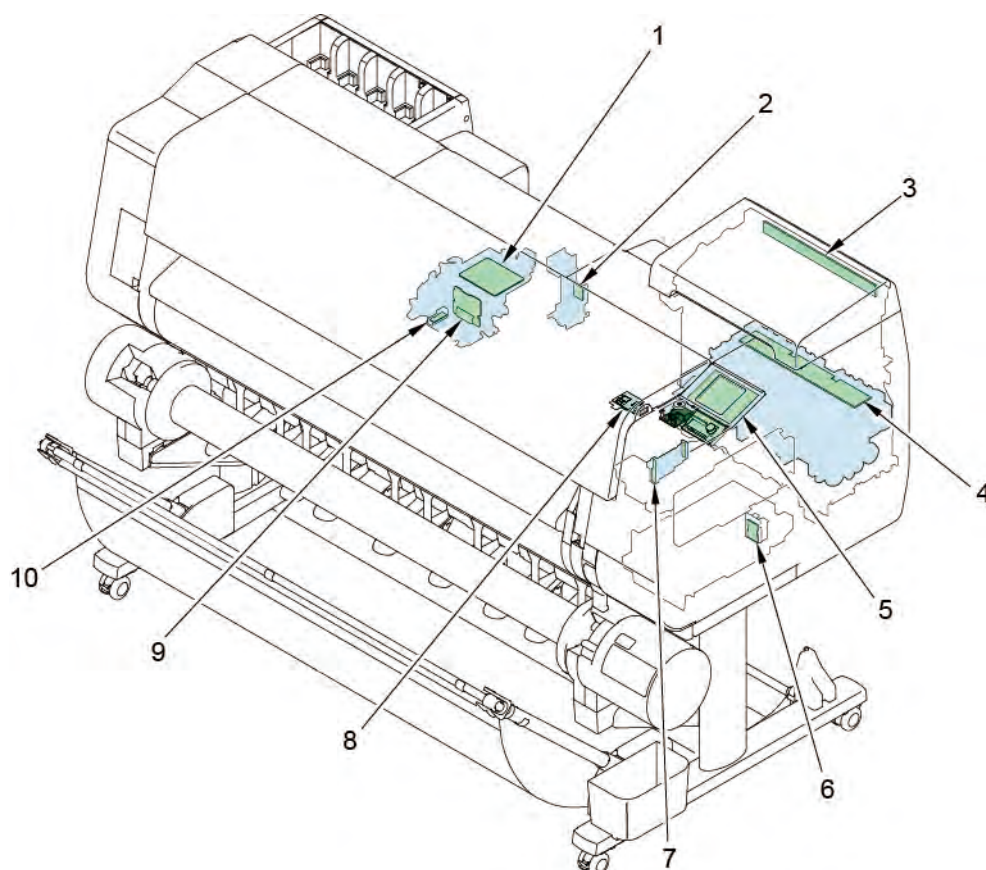
Chapter 6

Chapter 7

Chapter 8

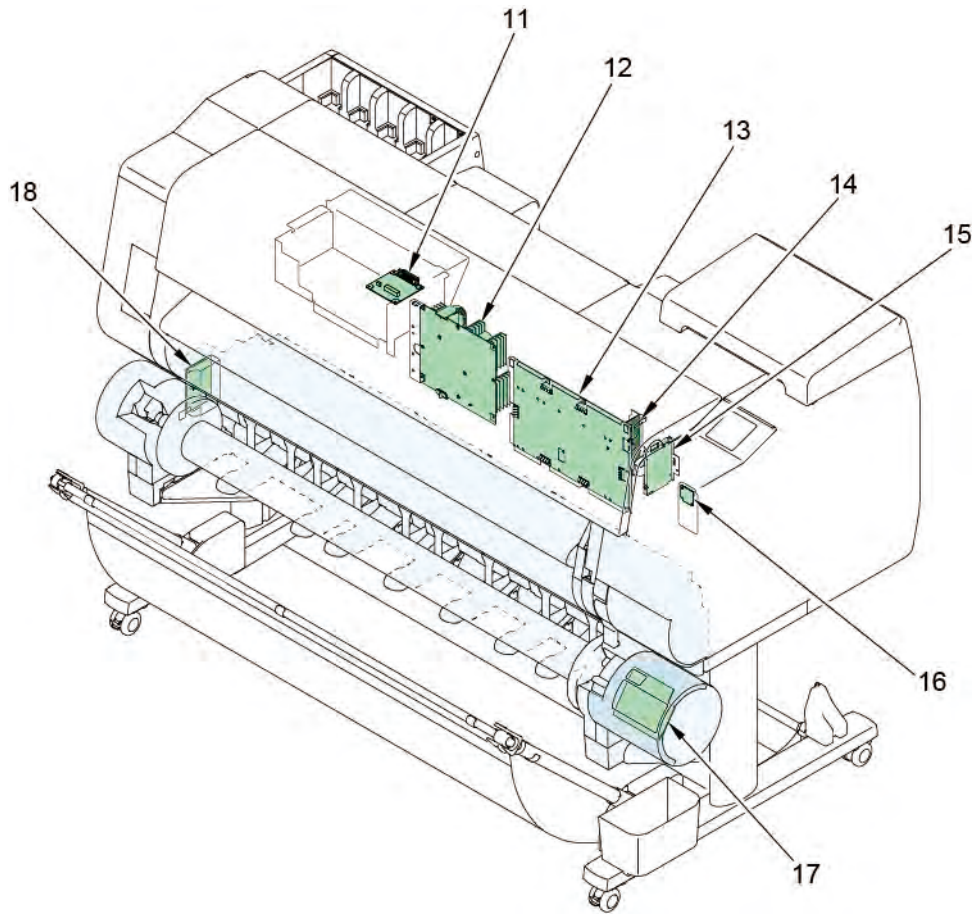


## 8-1. PCB



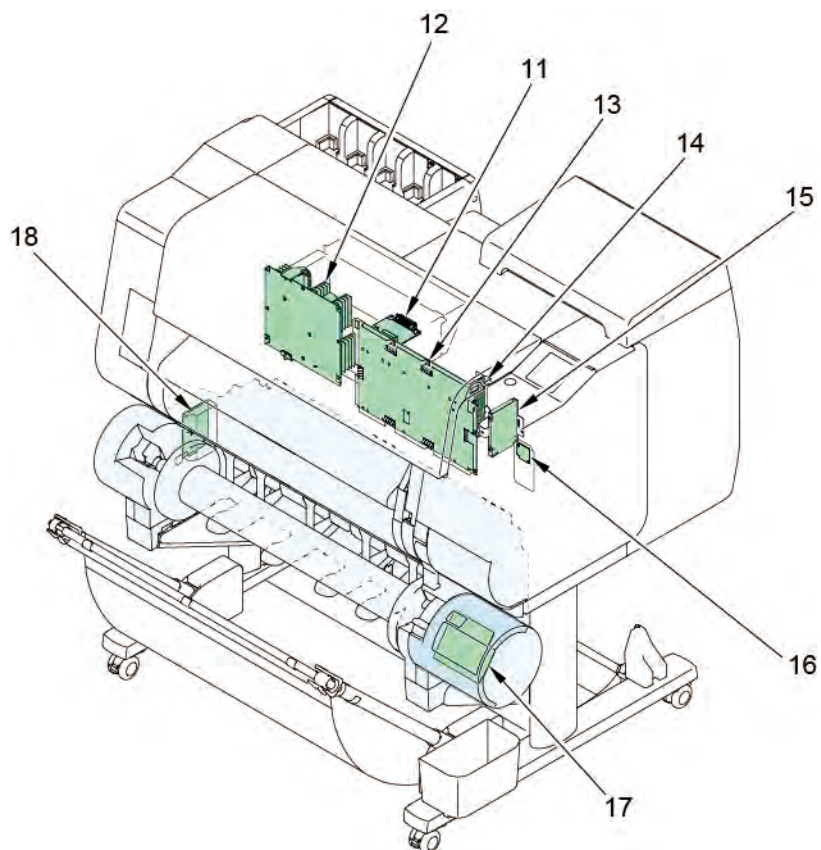
No.	Name	Remarks
1	CARRIAGE RELAY PCB UNIT	CARRIAGE RELAY PCB UNIT
2	WIRELESS LAN PCB(*1)	Included in WIRELESS LAN PCB UNIT
3	TANK LED PCB UNIT	TANK LED PCB UNIT
4	RIGHT TANK BOARD(*1)	Included in SUB INK TANK UNIT R
5	PANEL BOARD / POWER SWITCH BOARD(*1)	Included in OPERATION PANEL UNIT
6	ROM BOARD(*1)	Included in ROM BOARD UNIT
7	HEAD MANAGEMENT SENSOR BOARD(*1)	Included in HEAD MANAGEMENT SENSOR UNIT
8	USB HOST PCB(*1)	Included in USB HOST PCB ASS'Y
9	CARRIAGE BOARD(*1)	Included in CARRIAGE UNIT
10	MULTI SENSOR BOARD(*1)	Included in MULTI SENSOR UNIT

\*1: It should be replaced by the unit mentioned in the remarks, because it is unable to replace with the single parts.



No.	Name	Remarks
11	RELAY BORAD, RU(*1)	Included in RELAY PCB UNIT, RU
12	POWER SUPPLY UNIT	Included in POWER SUPPLY UNIT
13	MAIN BOARD(*1)	Included in MAIN PCB UNIT
14	I/F BOARD(*1)	Included in I/F PCB UNIT
15	HDD	HDD, MQ01ABU050W
16	BACKUP ROM BORAD(*1)	Included in BACKUP PCB UNIT
17	UR PANEL BOARD(*1)	Included in OPERATION PANEL UNIT, RU
18	CONTROL BOARD, UR(*1)	Included in I/F PCB UNIT, RU

\*1: It should be replaced by the unit mentioned in the remarks, because it is unable to replace with the single parts.

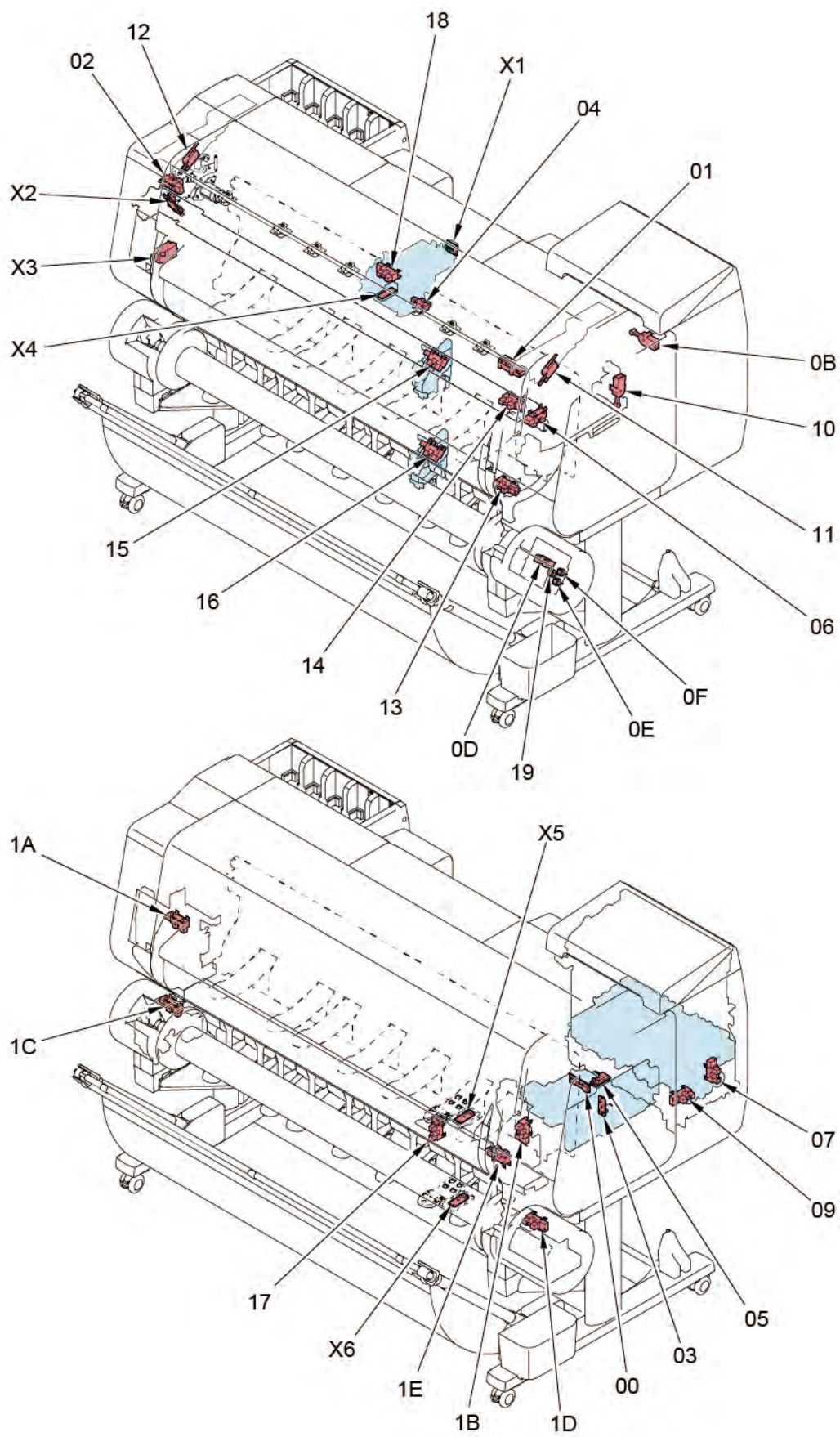


No.	Name	Remarks
11	RELAY BORAD, RU(*1)	Included in RELAY PCB UNIT, RU
12	POWER SUPPLY UNIT	Included in POWER SUPPLY UNIT
13	MAIN BOARD(*1)	Included in MAIN PCB UNIT
14	I/F BOARD(*1)	Included in I/F PCB UNIT
15	HDD	HDD, MQ01ABU050W
16	BACKUP ROM BORAD(*1)	Included in BACKUP PCB UNIT
17	UR PANEL BOARD(*1)	Included in OPERATION PANEL UNIT, RU
18	CONTROL BOARD, UR(*1)	Included in I/F PCB UNIT, RU

\*1: It should be replaced by the unit mentioned in the remarks, because it is unable to replace with the single parts.



# 8-2. Sensors



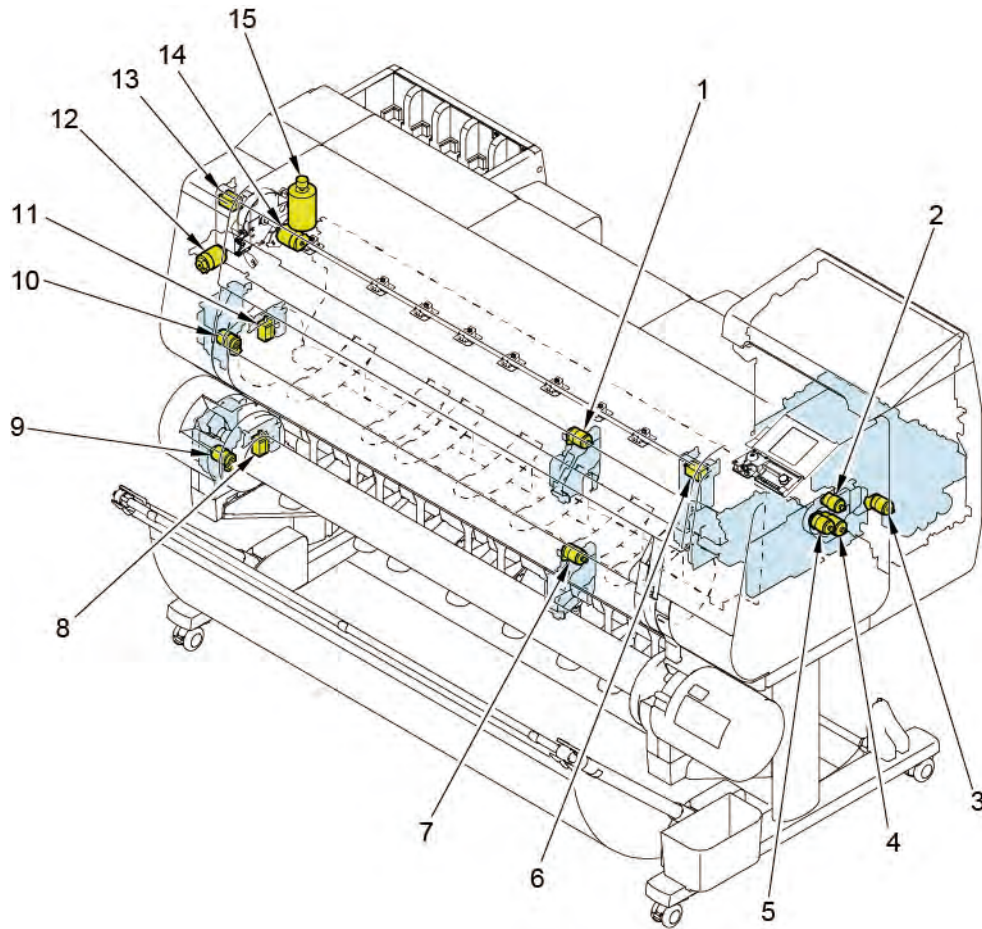
Operation pane Display	Name	Remarks	
0	0	PURGE MAIN CAM SENSOR(*1)	Included in PURGE UNIT
	1	PAPER ENTRY SENSOR	PHOTO INTERRUPTER
	2	PAPER FEED HOME POSITION SENSOR(*1)	Included in PAPER FEED ENCODER UNIT
	3	PUMP ROLLER SENSOR(*1)	Included in PURGE UNIT
	4	CARRIAGE LIFT SENSOR	IC, PHOTO INTERRUPTER
	5	WIPER POSITION SENSOR(*1)	Included in PURGE UNIT
	6	CUTTER HOME POSITION SENSOR(*1)	IC, PHOTO INTERRUPTER
	7	RIGHT CHOKE VALVE POSITION SENSOR(*1)	Included in SUB INK TANK UNIT R
	8	-	-
	9	RIGHT AGITATION VALVE POSITION SENSOR (*1)	Included in SUB INK TANK UNIT R
	A	-	-
	B	RIGHT TANK COVER SWITCH	DETECT MICRO SWITCH
	C	-	-
	D	PAPER WIND DIRECTION SENSOR(*1)	Included in OPERATION PANEL UNIT, RU
	E	PAPER WIND SWITCH(*1)	Included in OPERATION PANEL UNIT, RU
F	PAPER UNWIND SWITCH(*1)	Included in OPERATION PANEL UNIT, RU	
1	0	RELEASE LEVER SWITCH	DETECT MICRO SWITCH
	1	RIGHT TOP COVER SWITCH	MICROSWITCH
	2	LEFT TOP COVER SWITCH	MICROSWITCH
	3	LOWER PAPER ENTRY SENSOR(*1)	Included in ROLL PAPER FEED SENSOR UNIT
	4	UPPER PAPER ENTRY SENSOR(*1)	Included in ROLL PAPER FEED SENSOR UNIT
	5	UPPER ROLL NIP SENSOR	IC, PHOTO INTERRUPTER
	6	LOWER ROLL NIP SENSOR	IC, PHOTO INTERRUPTER
	7	FLAPPER POSITION SENSOR	IC, PHOTO INTERRUPTER
	8	HEAD COVER SENSOR	IC, PHOTO INTERRUPTER
	9	PAPER WIND ON/OFF SWITCH(*1)	Included in OPERATION PANEL UNIT, RU
	A	UPPER LEFT SPOOL SET SENSOR	IC, PHOTO INTERRUPTER
	B	UPPER RIGHT SPOOL SET SENSOR(*1)	Included in SPOOL SENSOR UNIT
	C	LOWER LEFT SPOOL SET SENSOR	IC, PHOTO INTERRUPTER
	D	LOWER RIGHT SPOOL SET SENSOR	IC, PHOTO INTERRUPTER
	E	UPPER ROLL COVER SENSOR(*1)	Included in SPOOL SENSOR UNIT
F	-	-	

NO	Name	Remarks
X1	CARRIAGE ENCODER SENSOR(*1)	Included in CARRIAGE ENCODER UNIT
X2	PAPER FEED ENCODER SENSOR(*1)	Included in PAPER FEED ENCODER UNIT
X3	TEMPERATURE HUMIDITY SENSOR(*1)	Included in SENSOR, HUMIDITY
X4	MULTI SENSOR(*1)	Included in MULTI SENSOR UNIT
X5	UPPER PAPER SET SENSOR(*1)	Included in NIP ARM SENSOR UNIT
X6	LOWER PAPER SET SENSOR(*1)	Included in NIP ARM SENSOR UNIT

\*1: It should be replaced by the unit mentioned in the remarks, because it is unable to replace with the single parts.



## 8-3. Motors and Solenoids

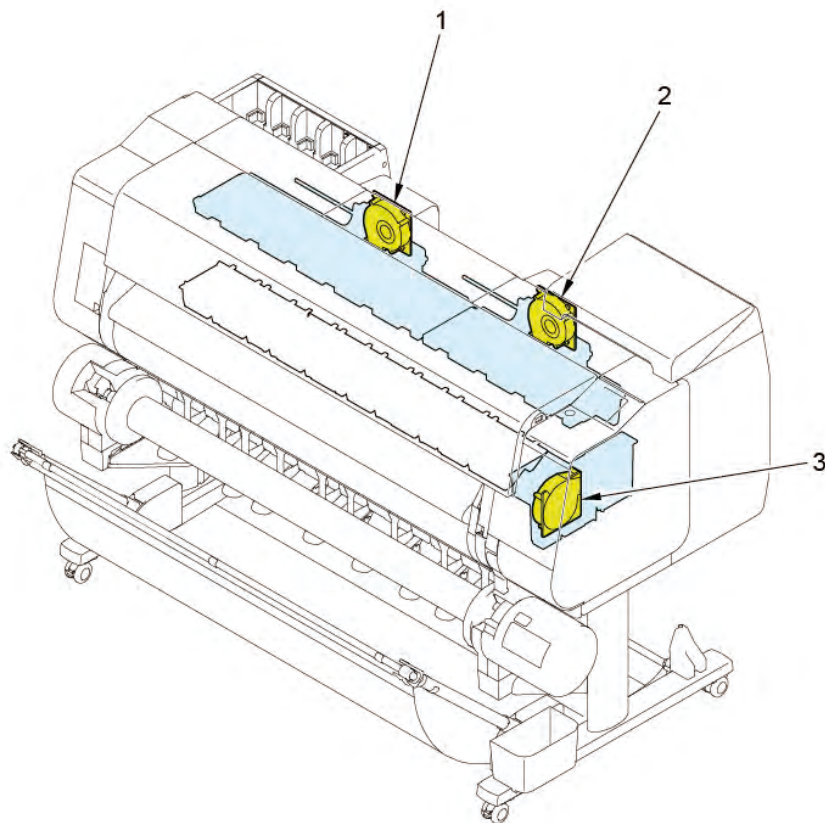


No.	Name	Remarks
1	UPPER ROLL NIP MOTOR(*1)	Included in DRIVE NIP ARM UNIT
2	WIPER BLADE MOTOR(*1)	Included in PURGE UNIT
3	RIGHT INK VALVE MOTOR(*1)	Included in SUB INK TANK UNIT R
4	PURGE MOTOR(*1)	Included in PURGE UNIT
5	LIFT MOTOR(*1)	Included in LIFT UNIT
6	RIGHT TOP COVER LOCK SOLENOID(*1)	Included in ACCESS COVER LOCK UNIT R
7	LOWER ROLL NIP MOTOR(*1)	Included in DRIVE NIP ARM UNIT
8	LOWER SPOOL LOCK SOLENOID (*1)	Included in SPOOL LOCK UNIT
9	LOWER ACTIVE ROLL BREAK MOTOR (OPTION) (*1)	Included in ACTIVE ROLL BREAK UNIT
10	UPPER ACTIVE ROLL BREAK MOTOR(*1)	Included in ACTIVE ROLL BREAK UNIT
11	UPPER SPOOL LOCK SOLENOID(*1)	Included in SPOOL LOCK UNIT
12	CUTTER MOTOR(*1)	Included in CUTTER MOTOR UNIT, W/ENCODER
13	LEFT TOP COVER LOCK SOLENOID	SOLENOID
14	PAPER FEED MOTOR(*1)	Included in PAPER FEED MOTOR UNIT
15	CARRIAGE MOTOR	MOTOR, DC, 47.8 W

\*1: It should be replaced by the unit mentioned in the remarks, because it is unable to replace with the single parts.

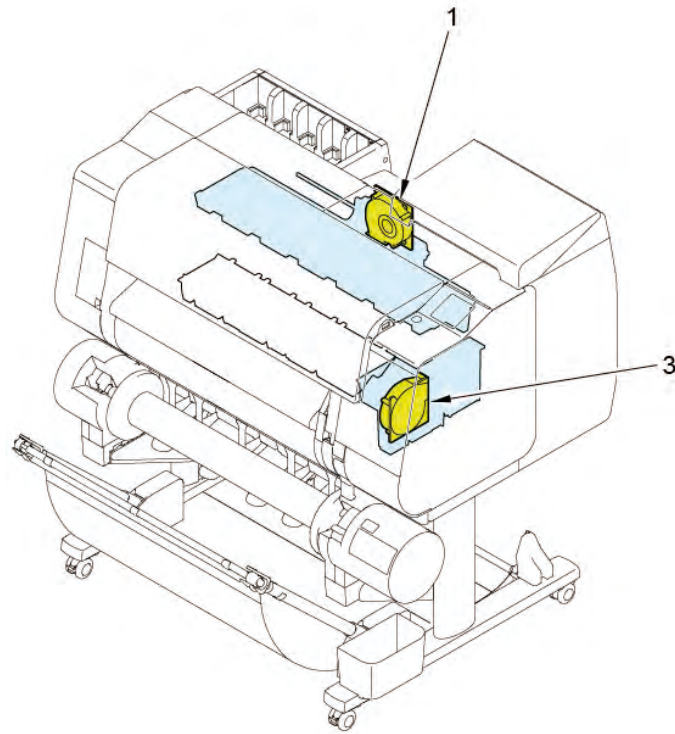
## 8-4. Fans

36" model, 44" model



No.	Name	Remarks
1	LEFT MIST FAN(*1)	(36" model) Included in MIST FAN DUCT UNIT 3 (44" model) Included in MIST FAN DUCT UNIT 2
2	RIGHT MIST FAN(*1)	Included in MIST FAN DUCT UNIT 1
3	SUCTION FAN(*1)	Included in SUCTION FAN UNIT

\*1: It should be replaced by the unit mentioned in the remarks, because it is unable to replace with the single parts.



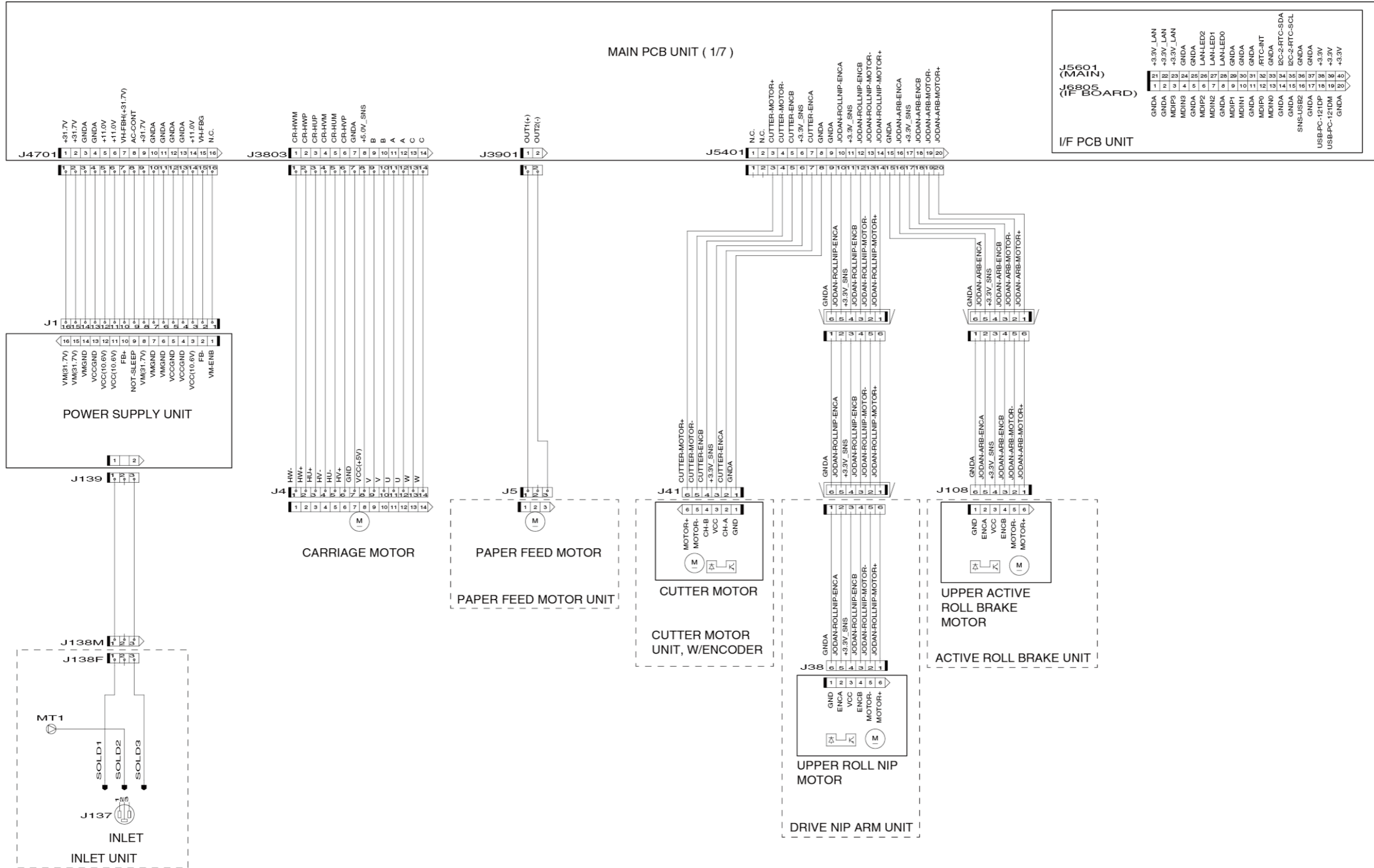
No.	Name	Remarks
1	LEFT MIST FAN(*1)	Included in MIST FAN DUCT UNIT 2
3	SUCTION FAN(*1)	Included in SUCTION FAN UNIT

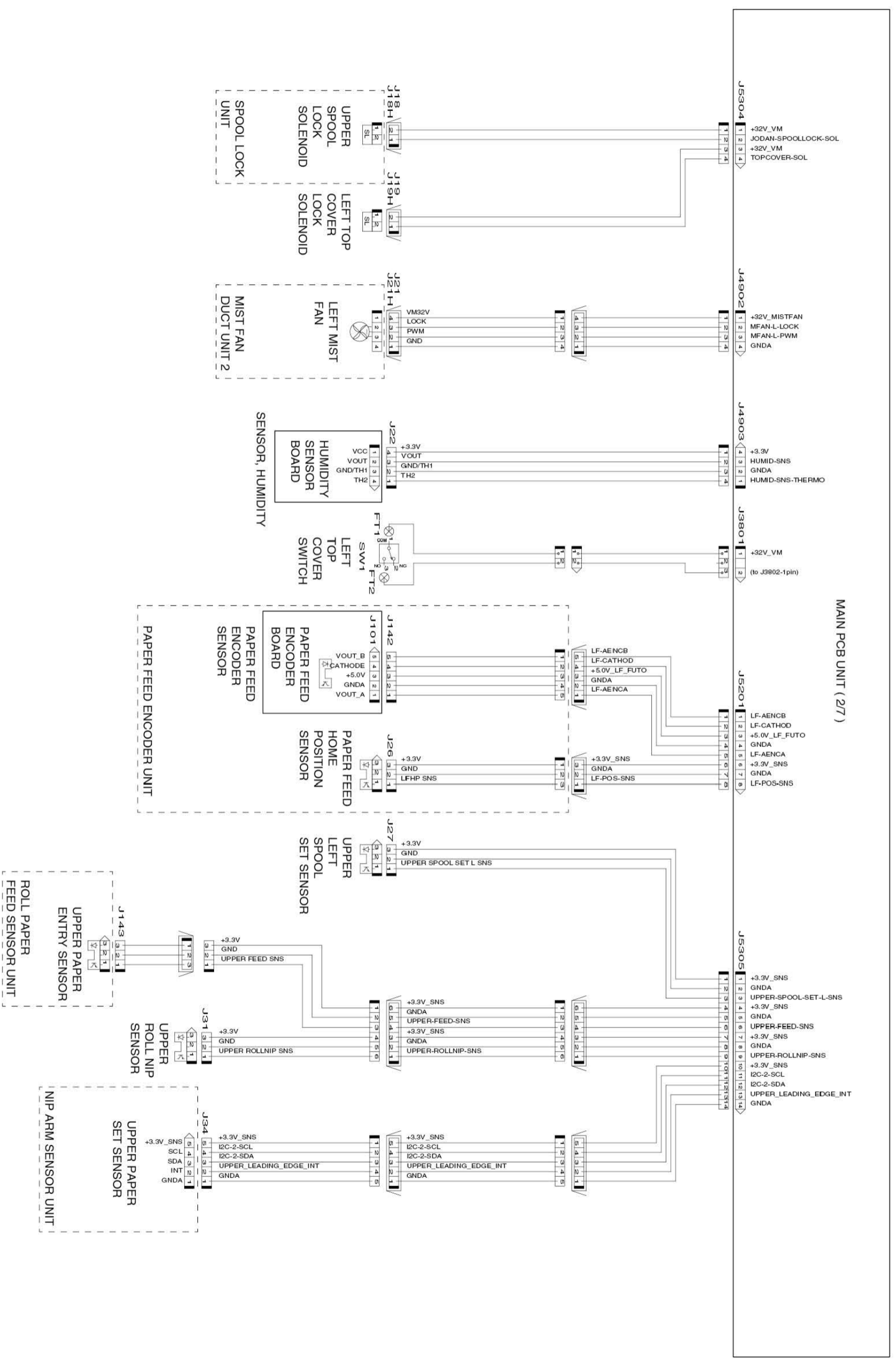
\*1: It should be replaced by the unit mentioned in the remarks, because it is unable to replace with the single parts.

# 8-5. Block Diagram

24" model

General Block Diagram (1/9)

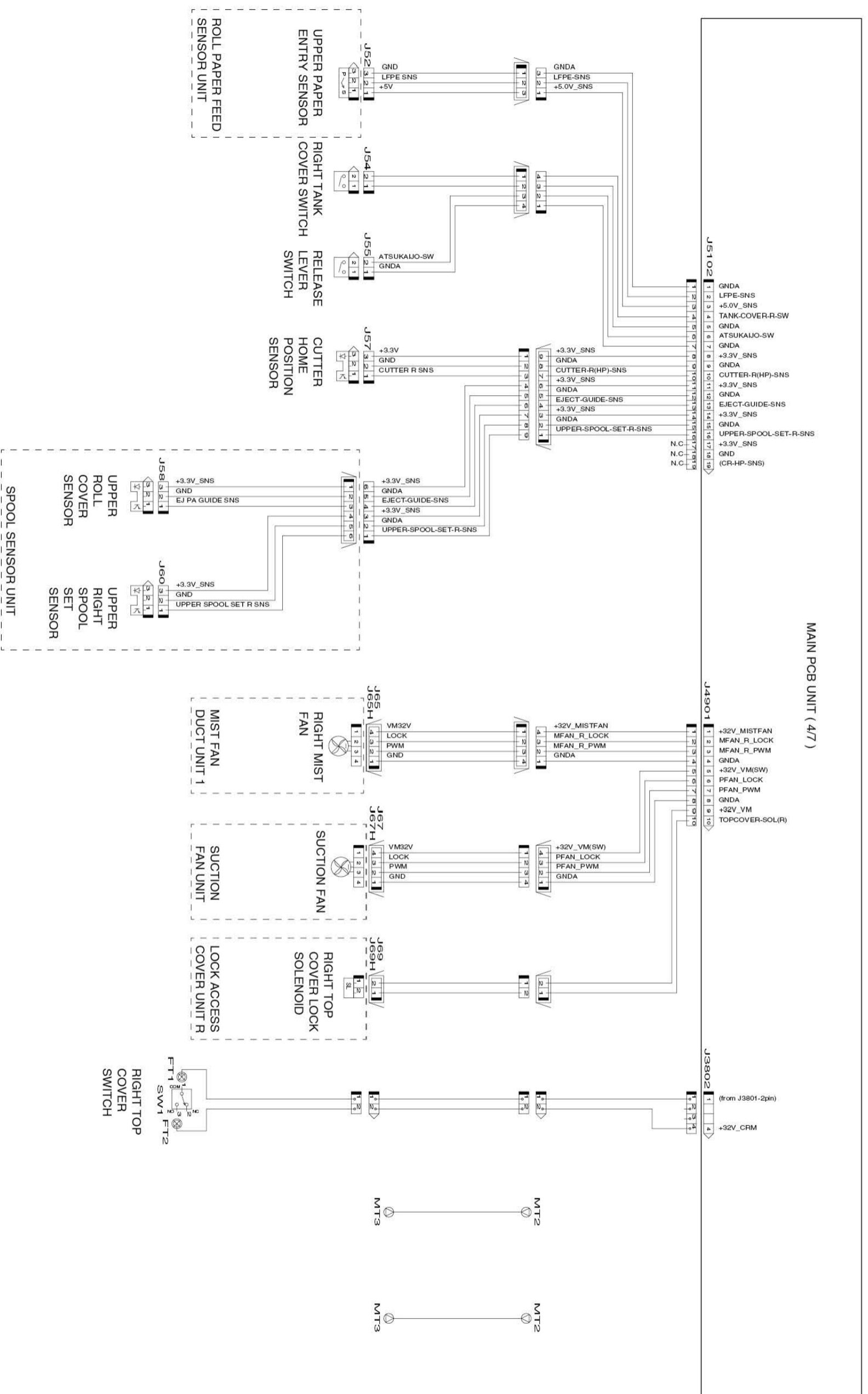


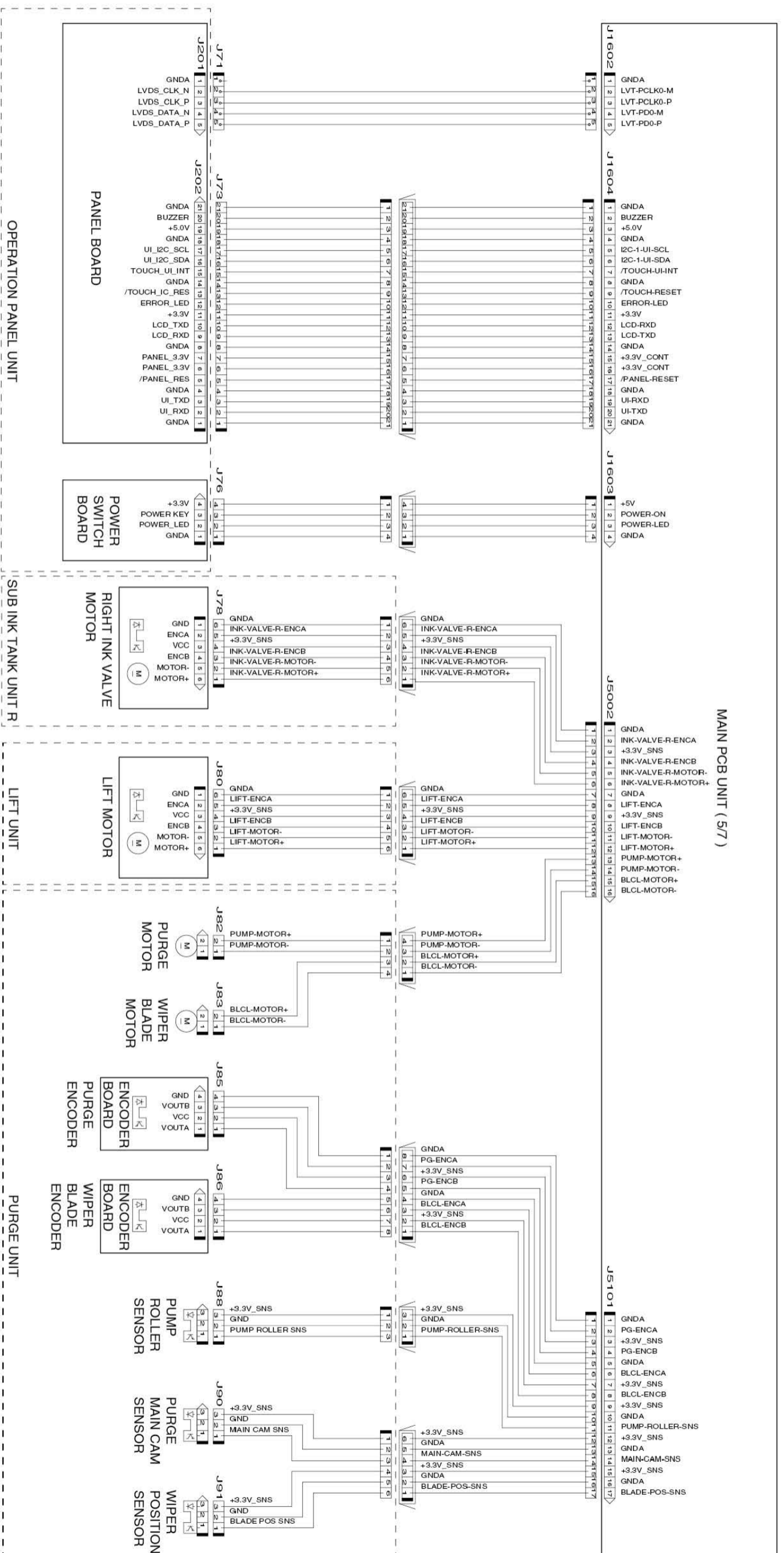


MAIN PCB UNIT (27)



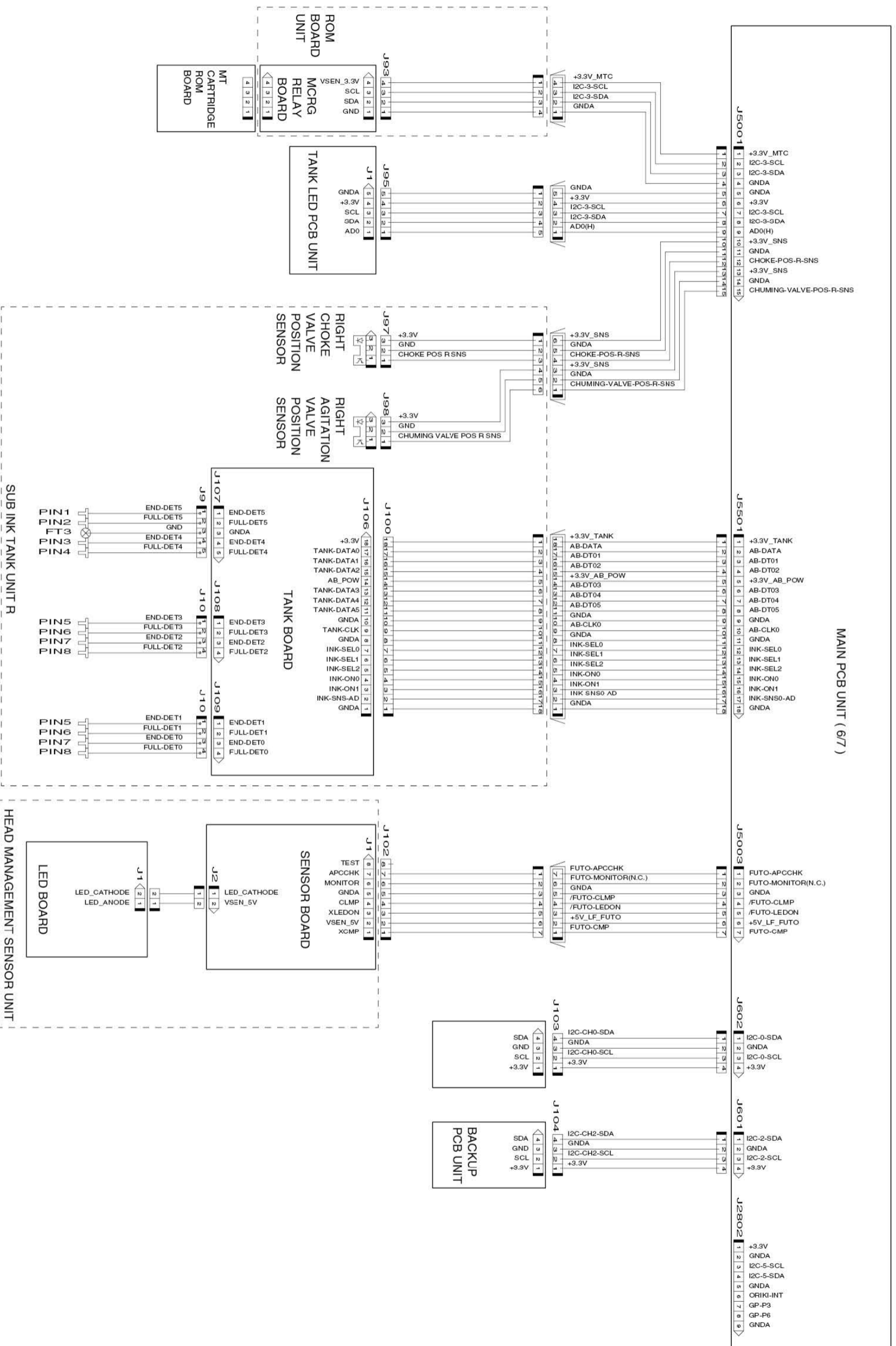


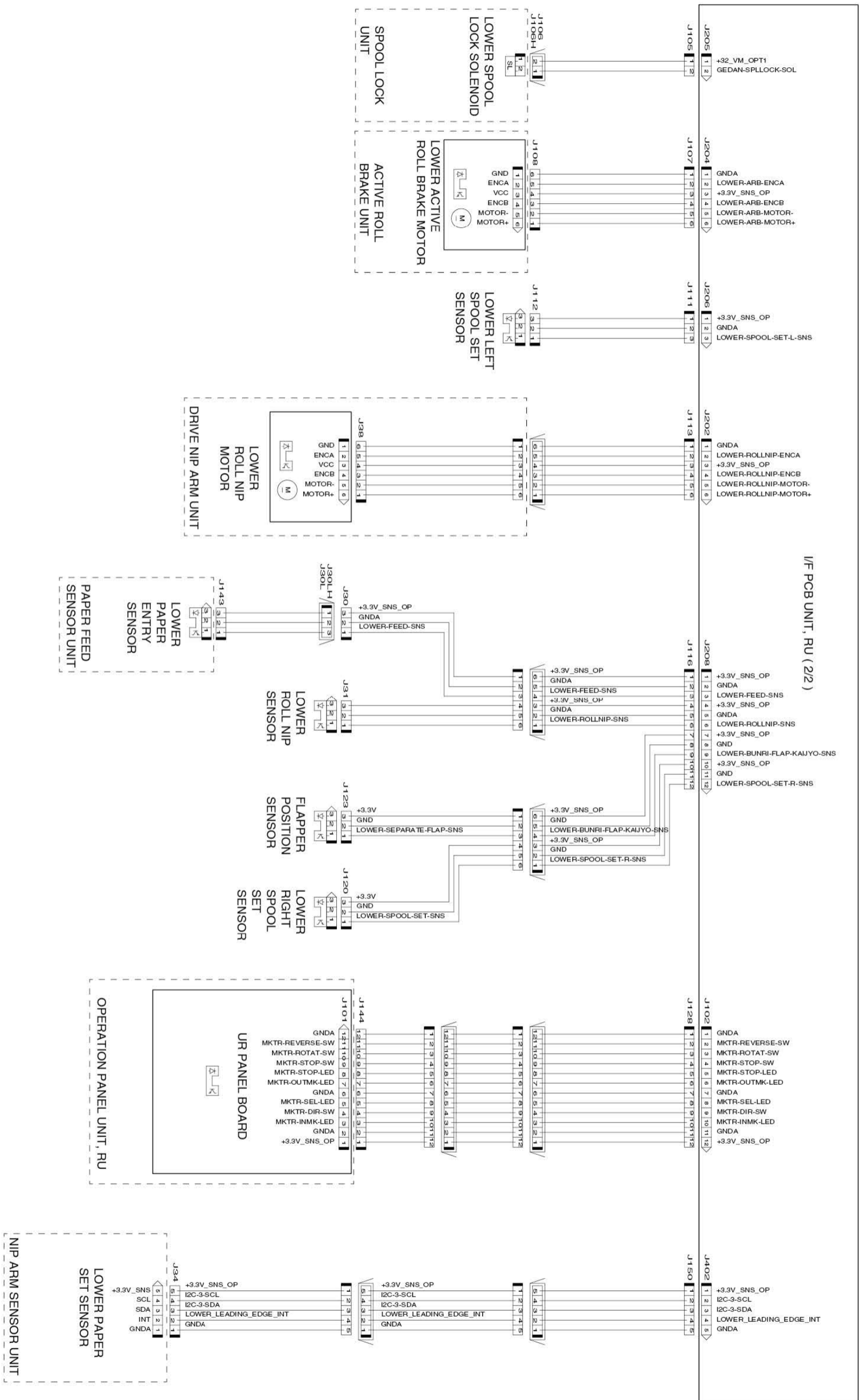




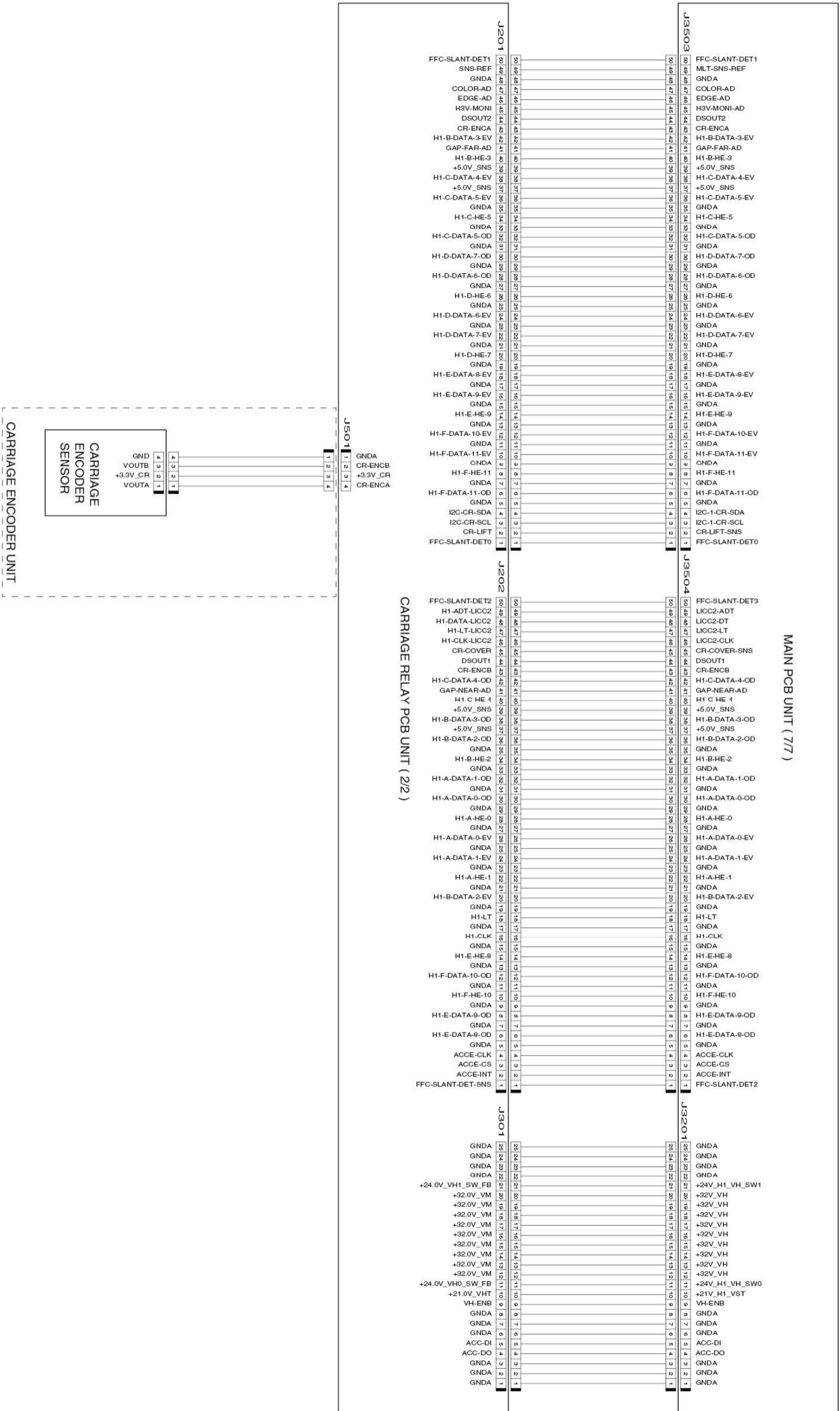


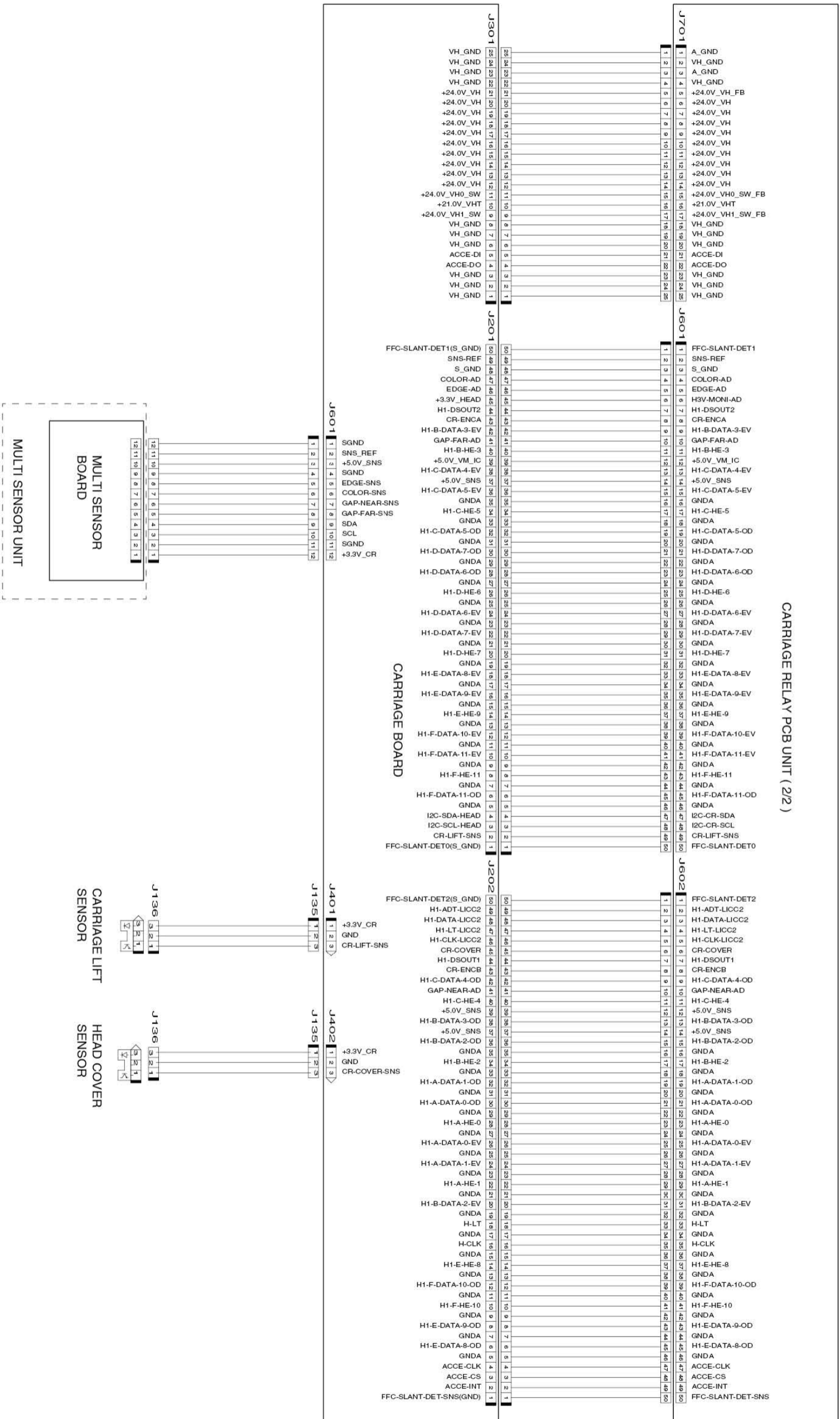
General Block Diagram (6/9)



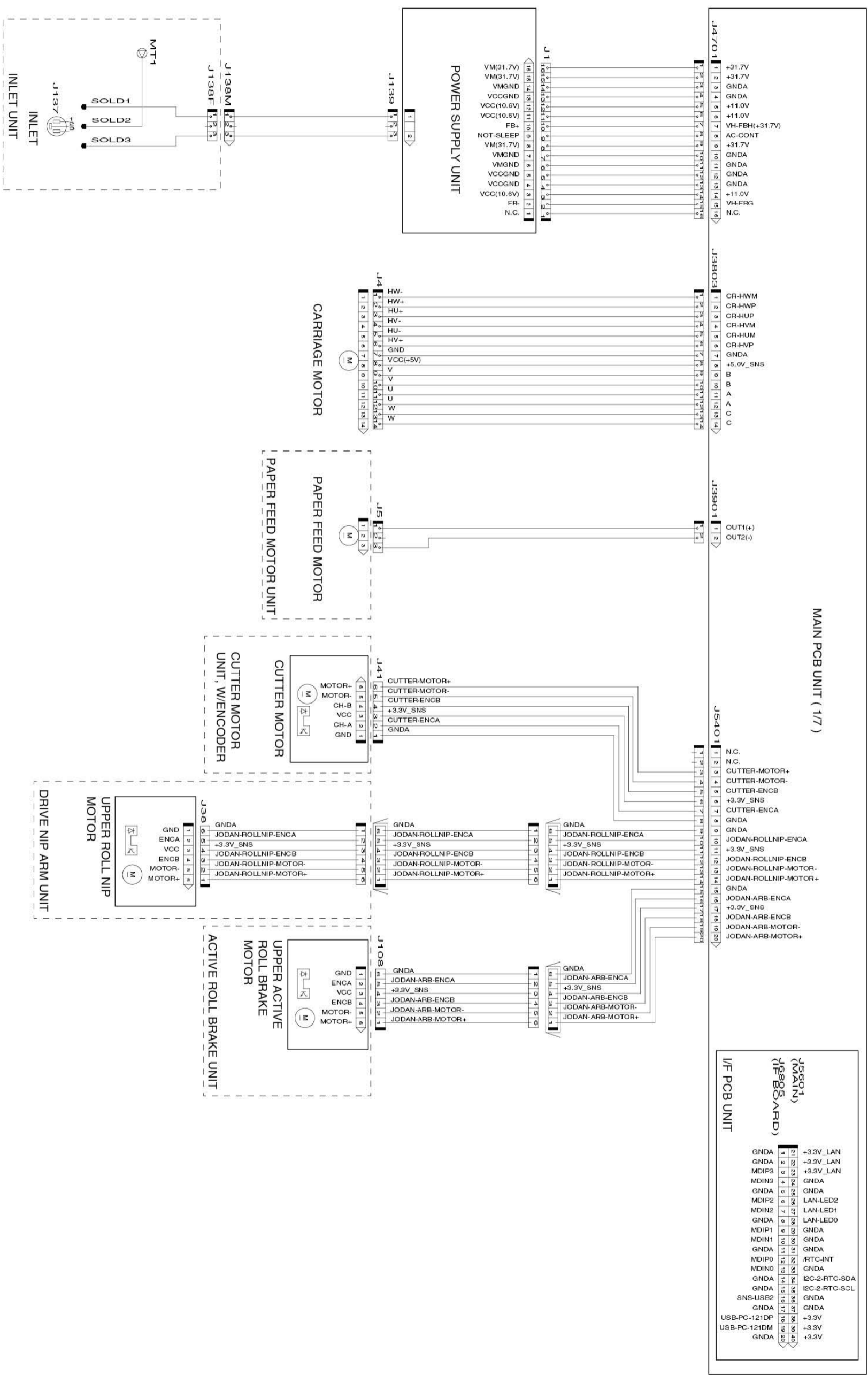






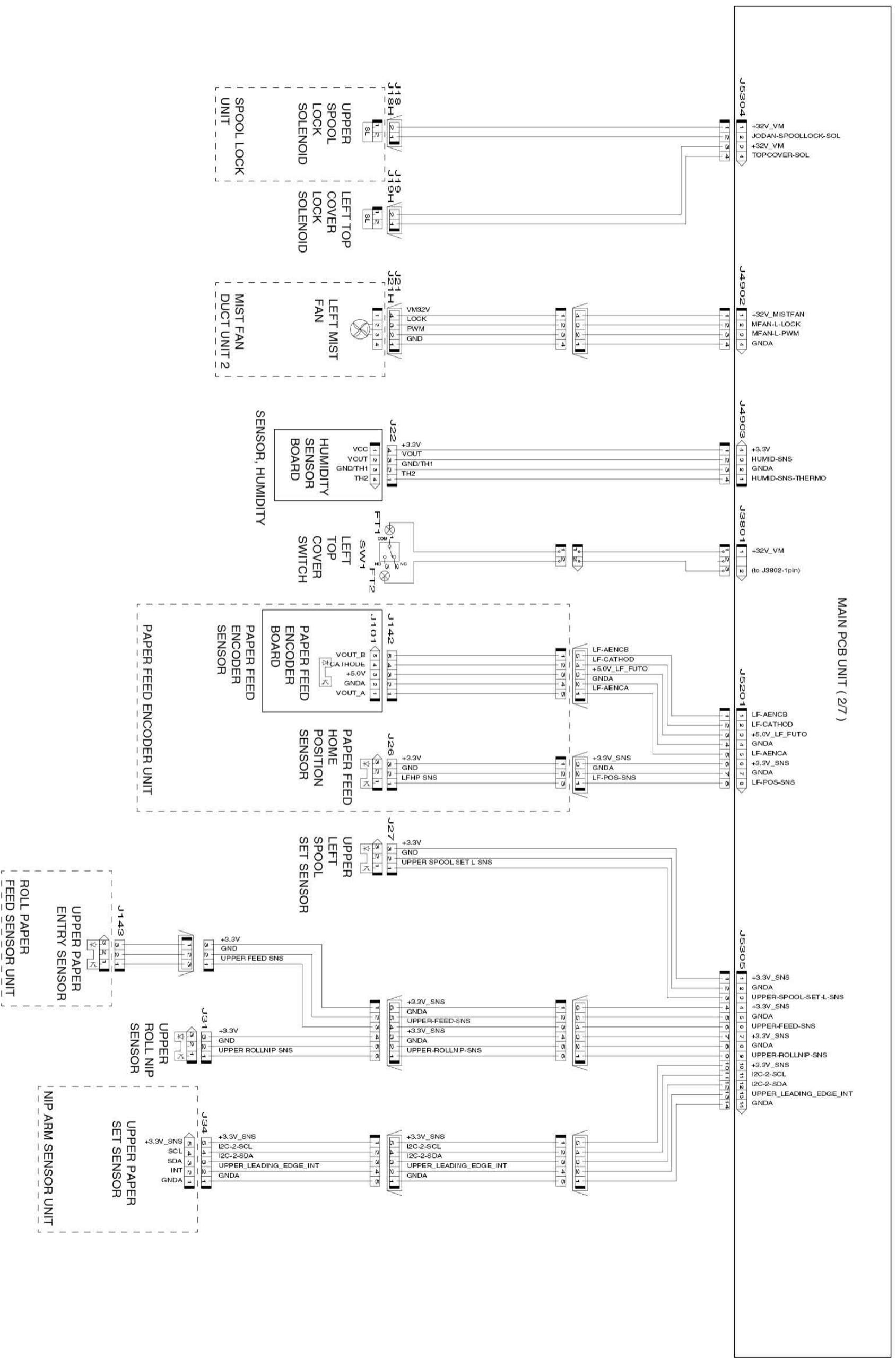


General Block Diagram (1/9)

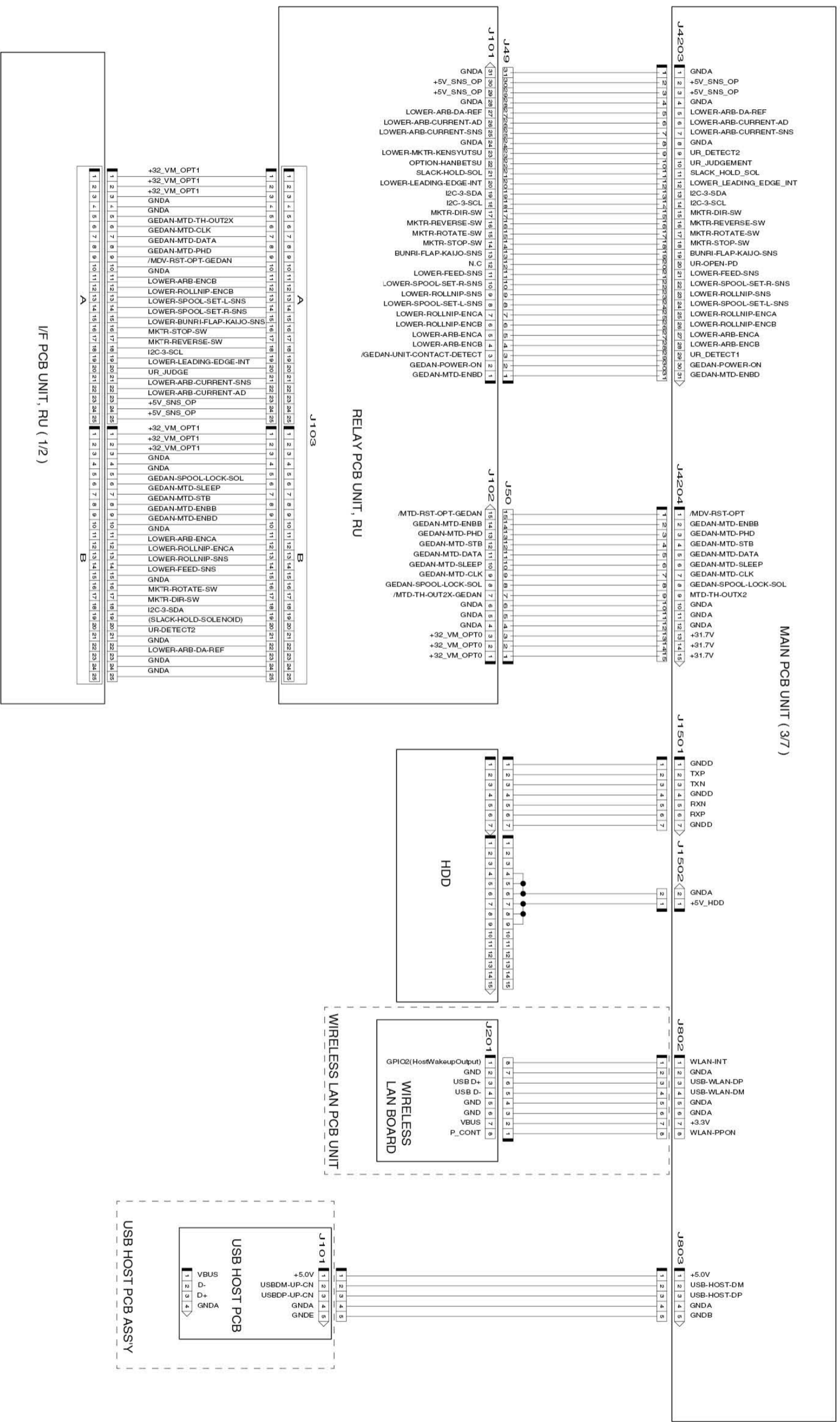




General Block Diagram (2/9)

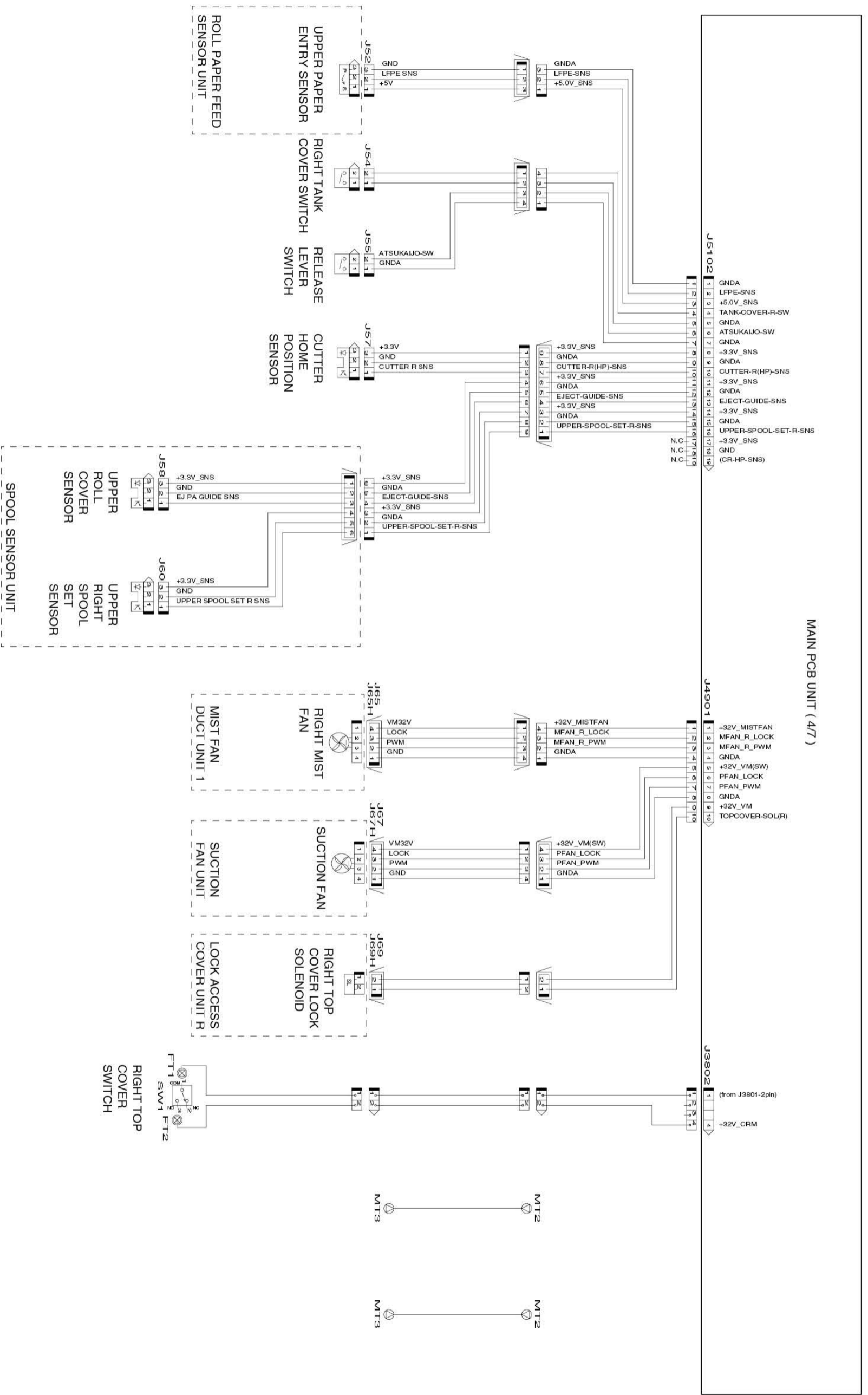


General Block Diagram (3/9)

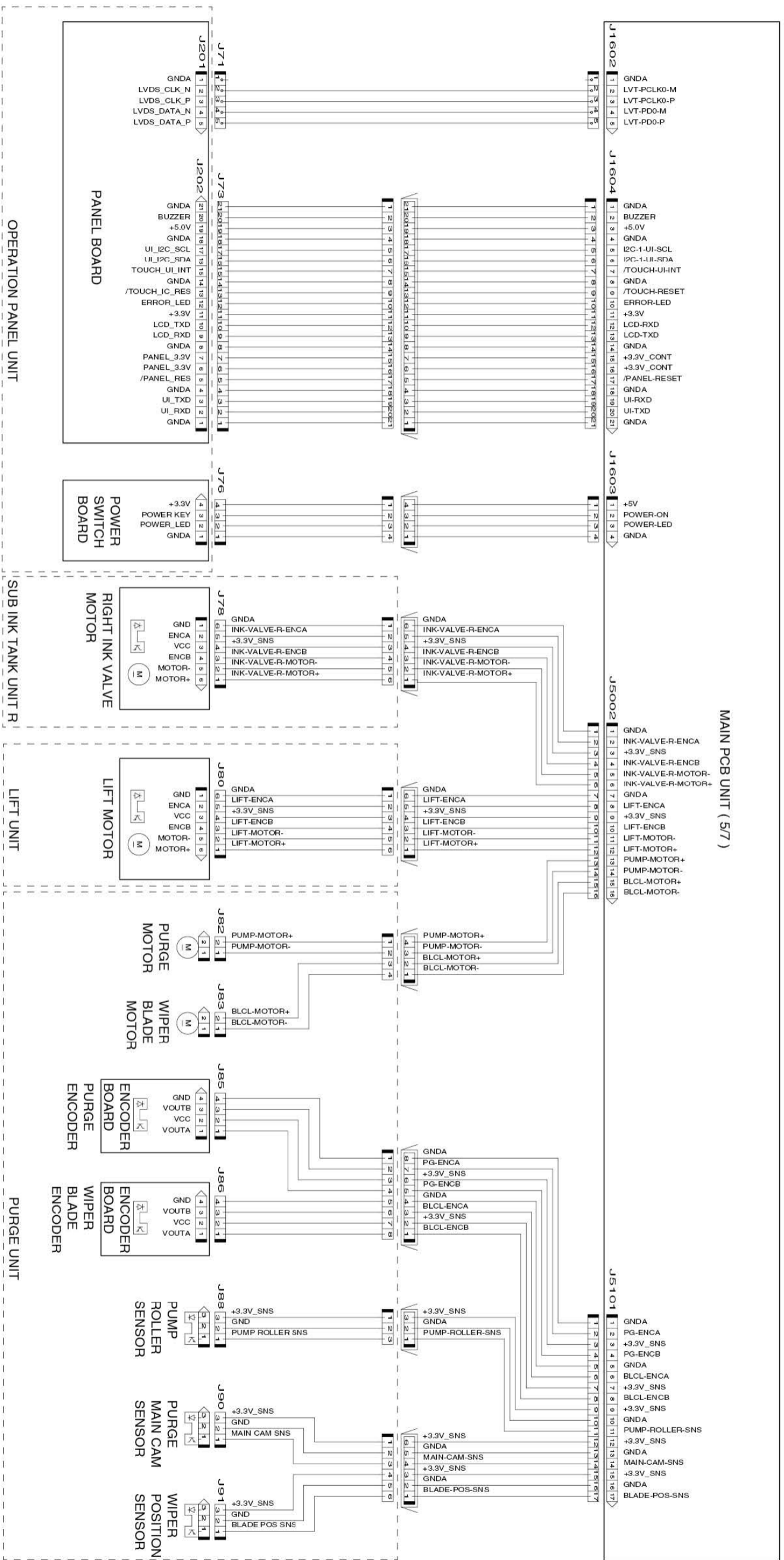




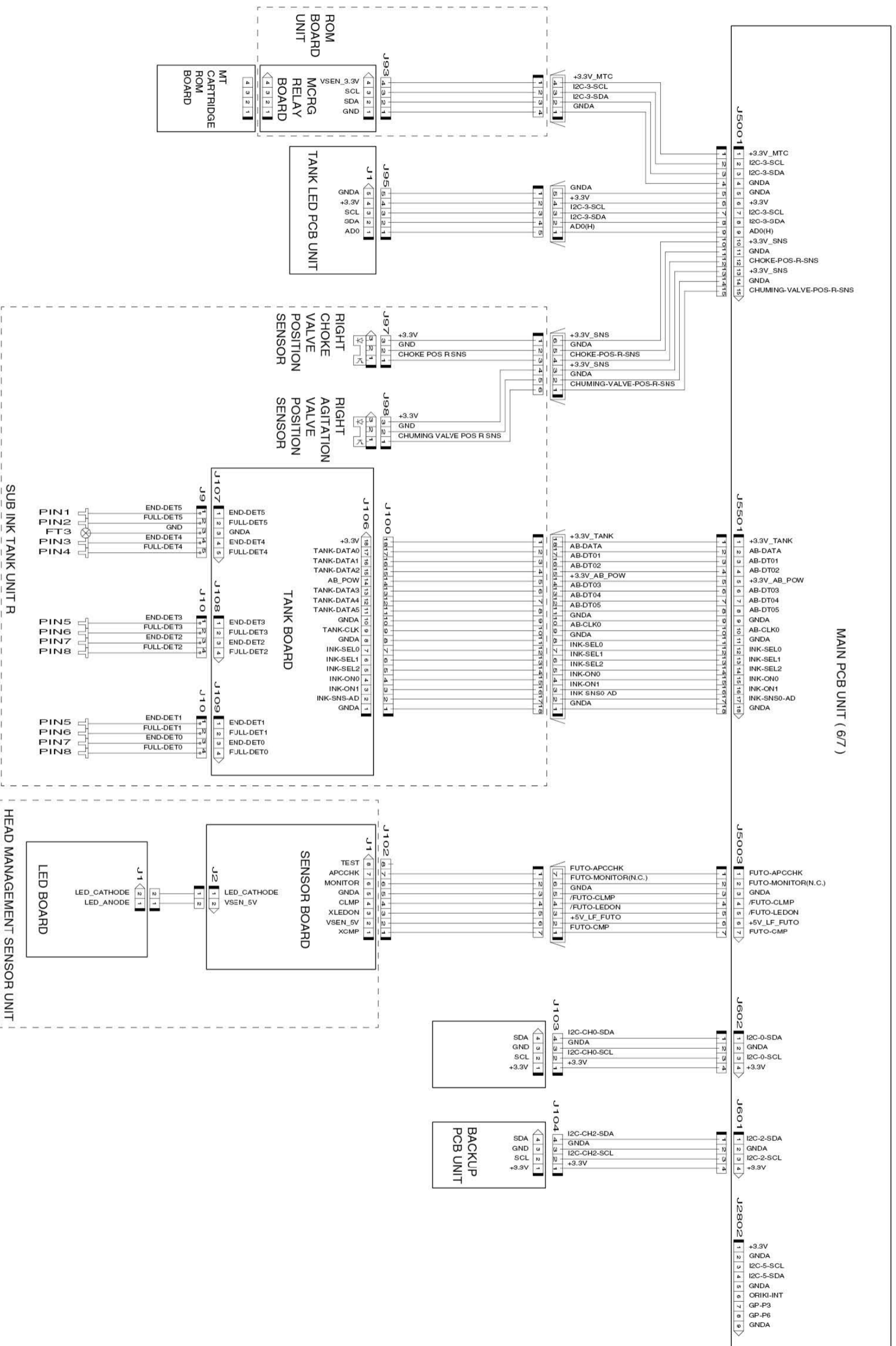
General Block Diagram (4/9)



General Block Diagram (5/9)

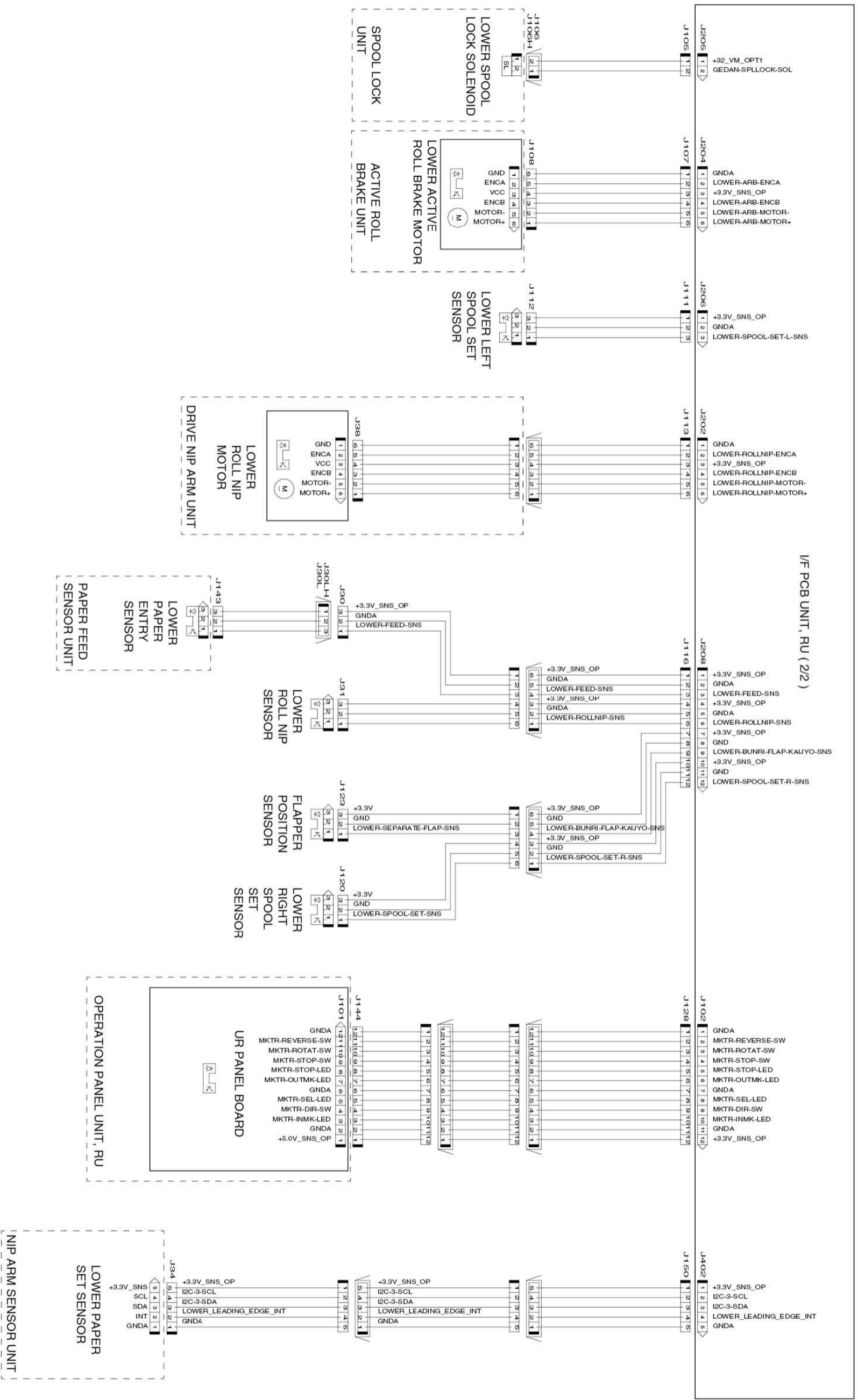


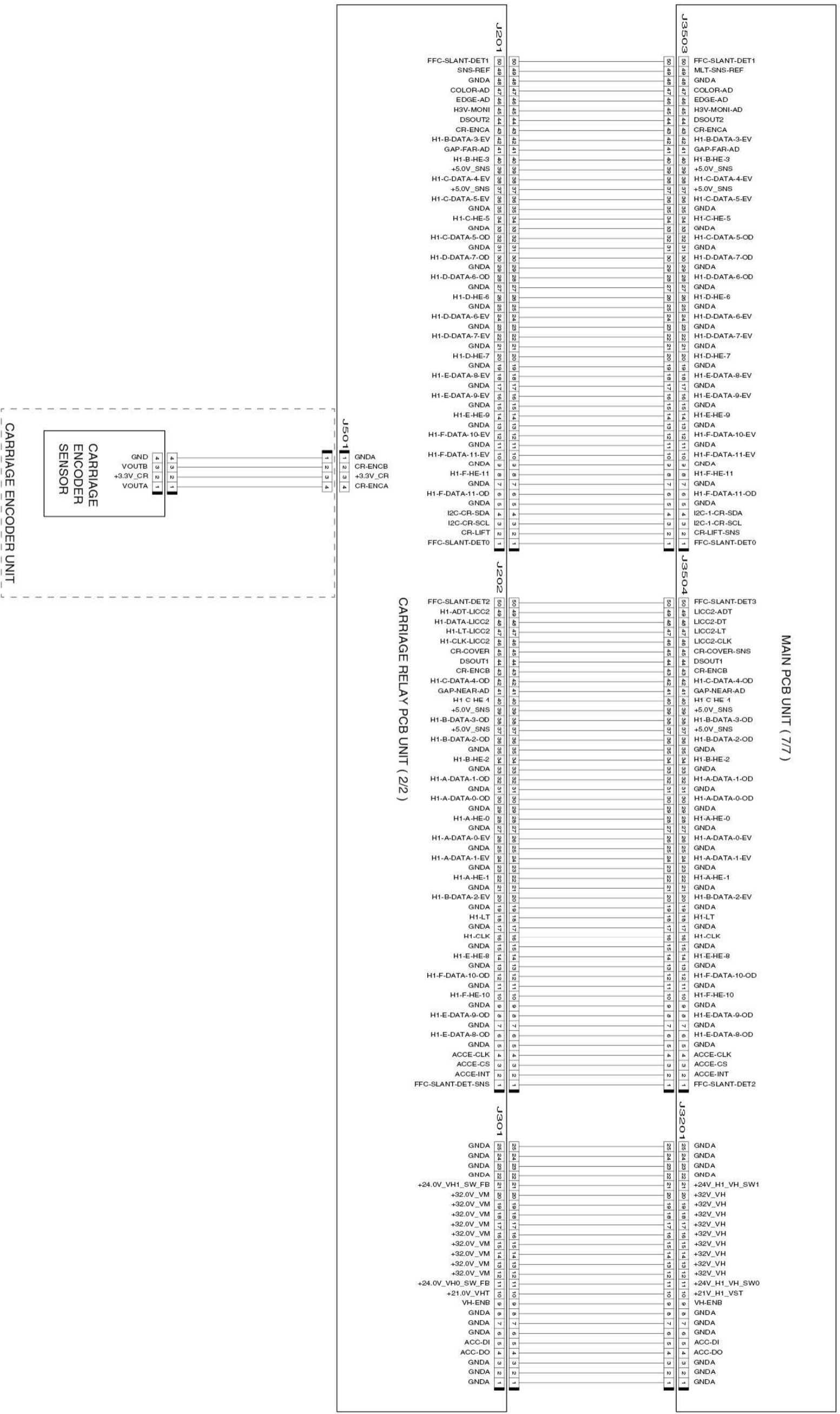
General Block Diagram (6/9)





General Block Diagram (7/9)

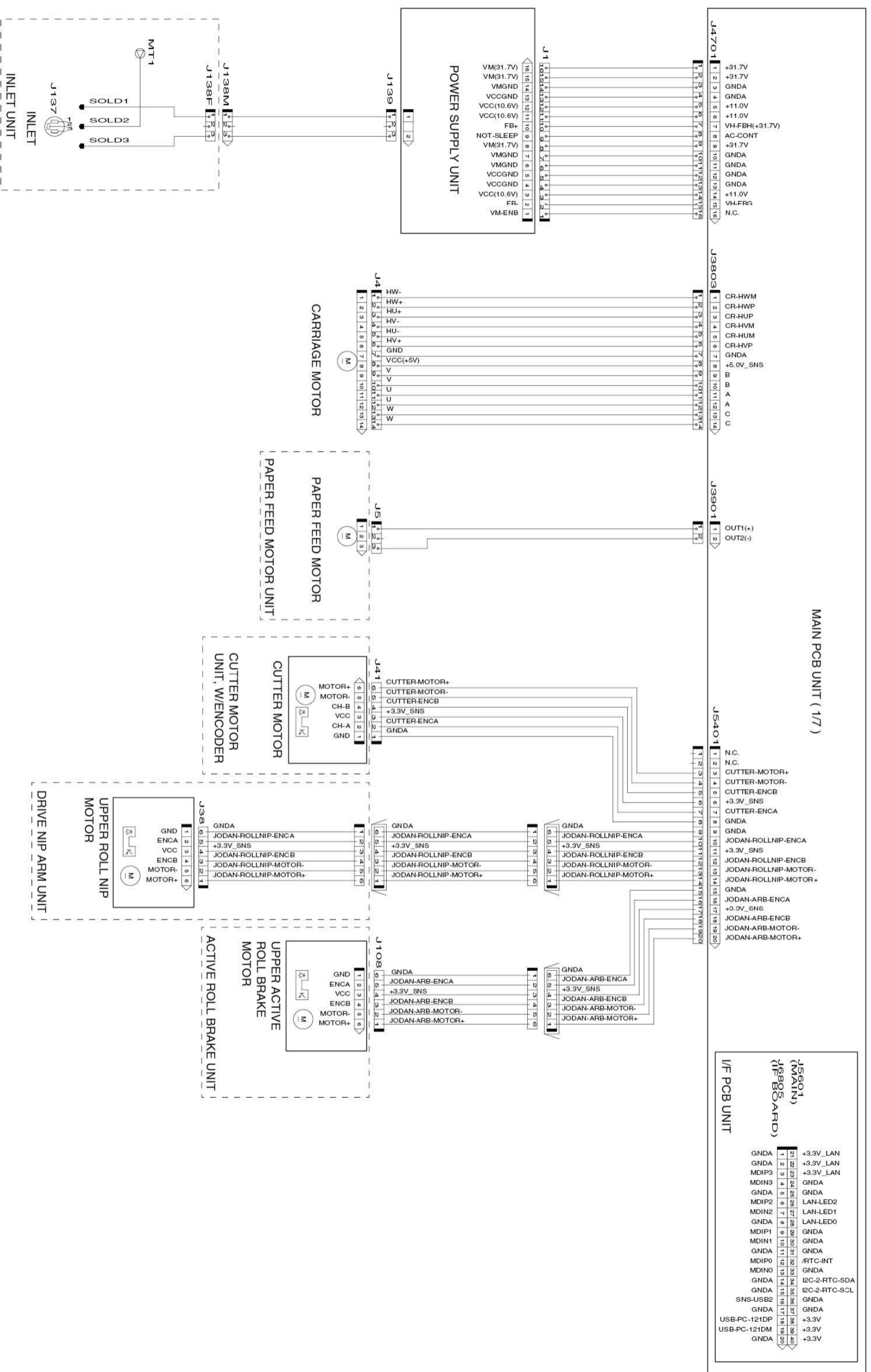




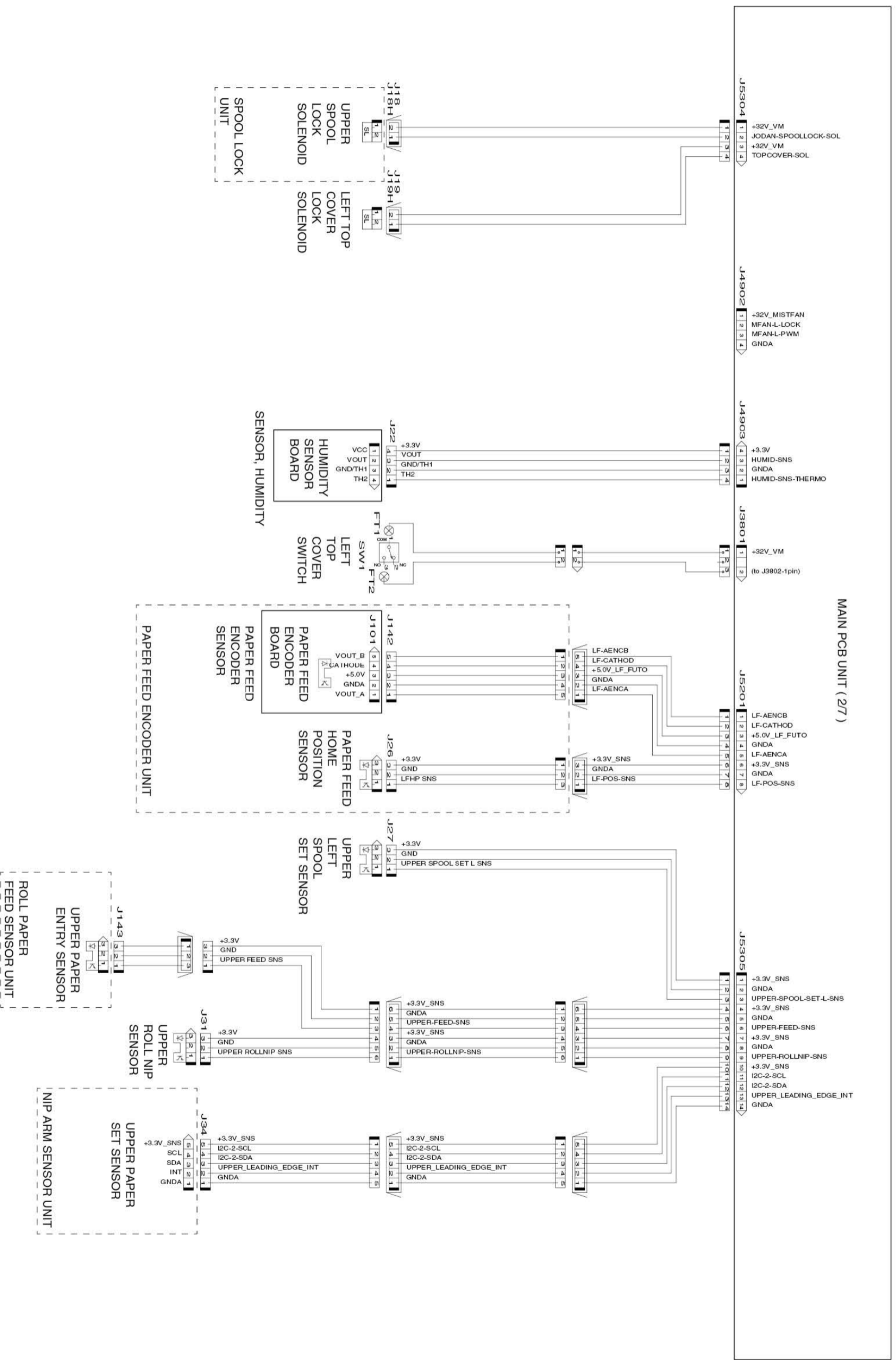




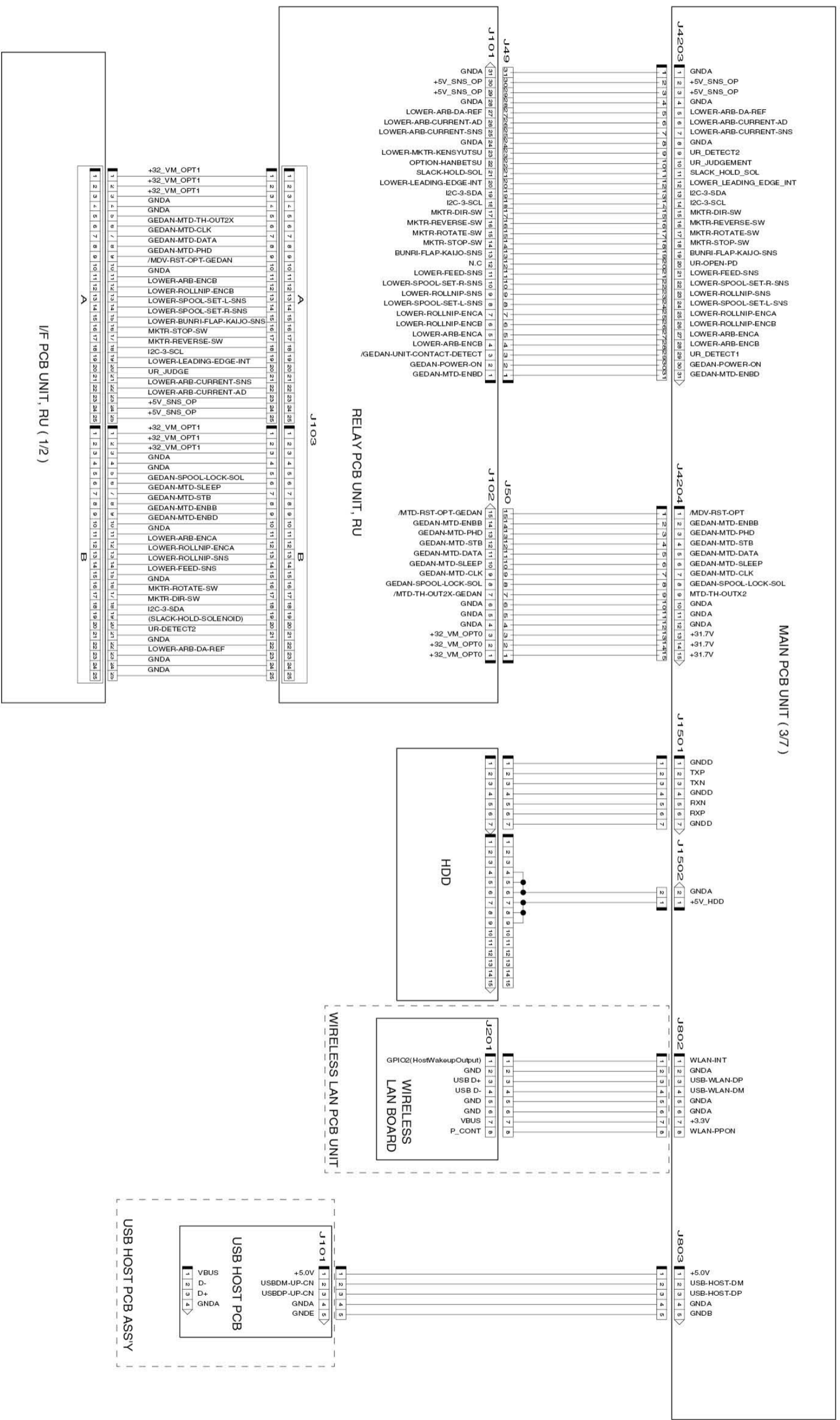
General Block Diagram (1/9)



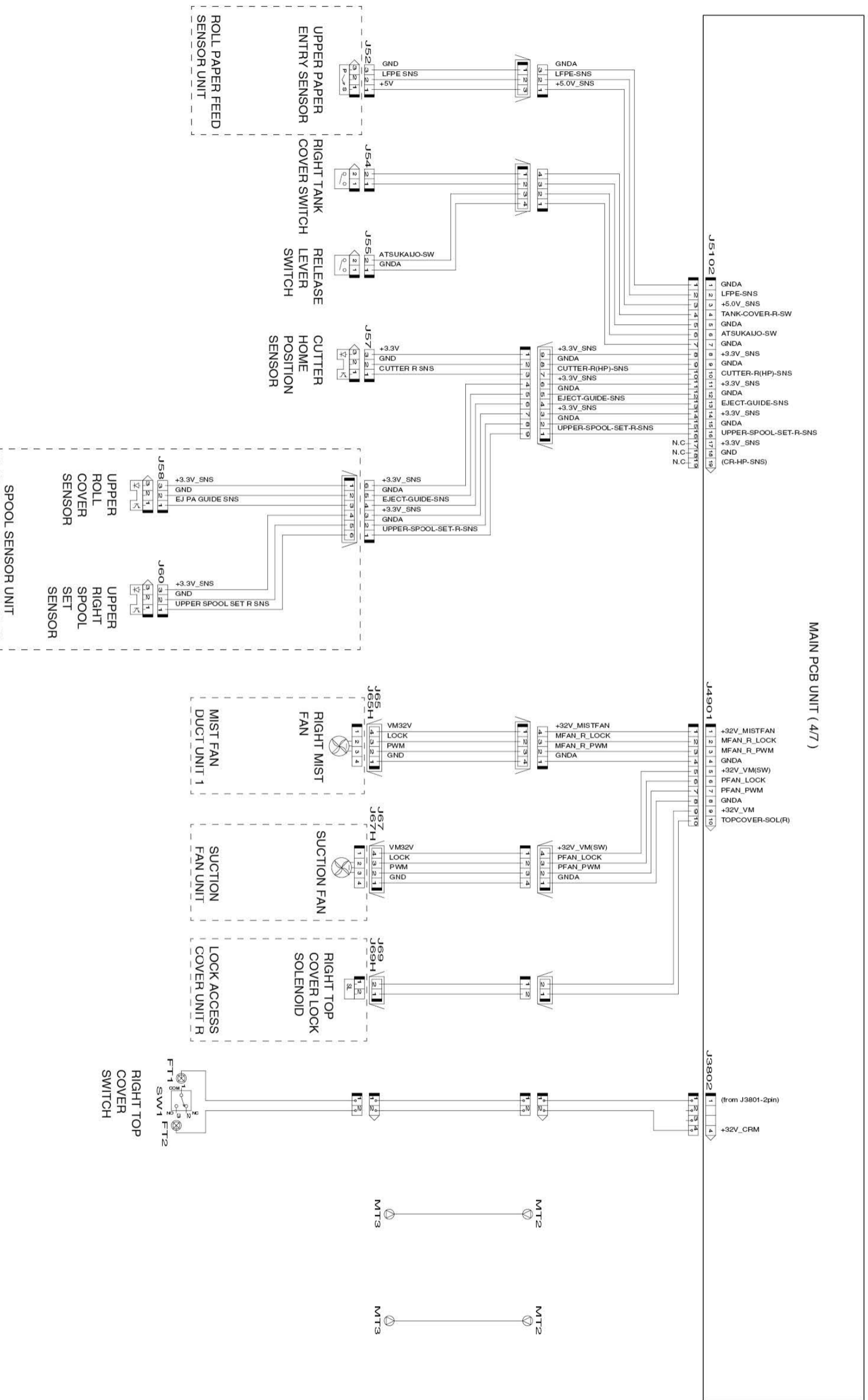
General Block Diagram (2/9)





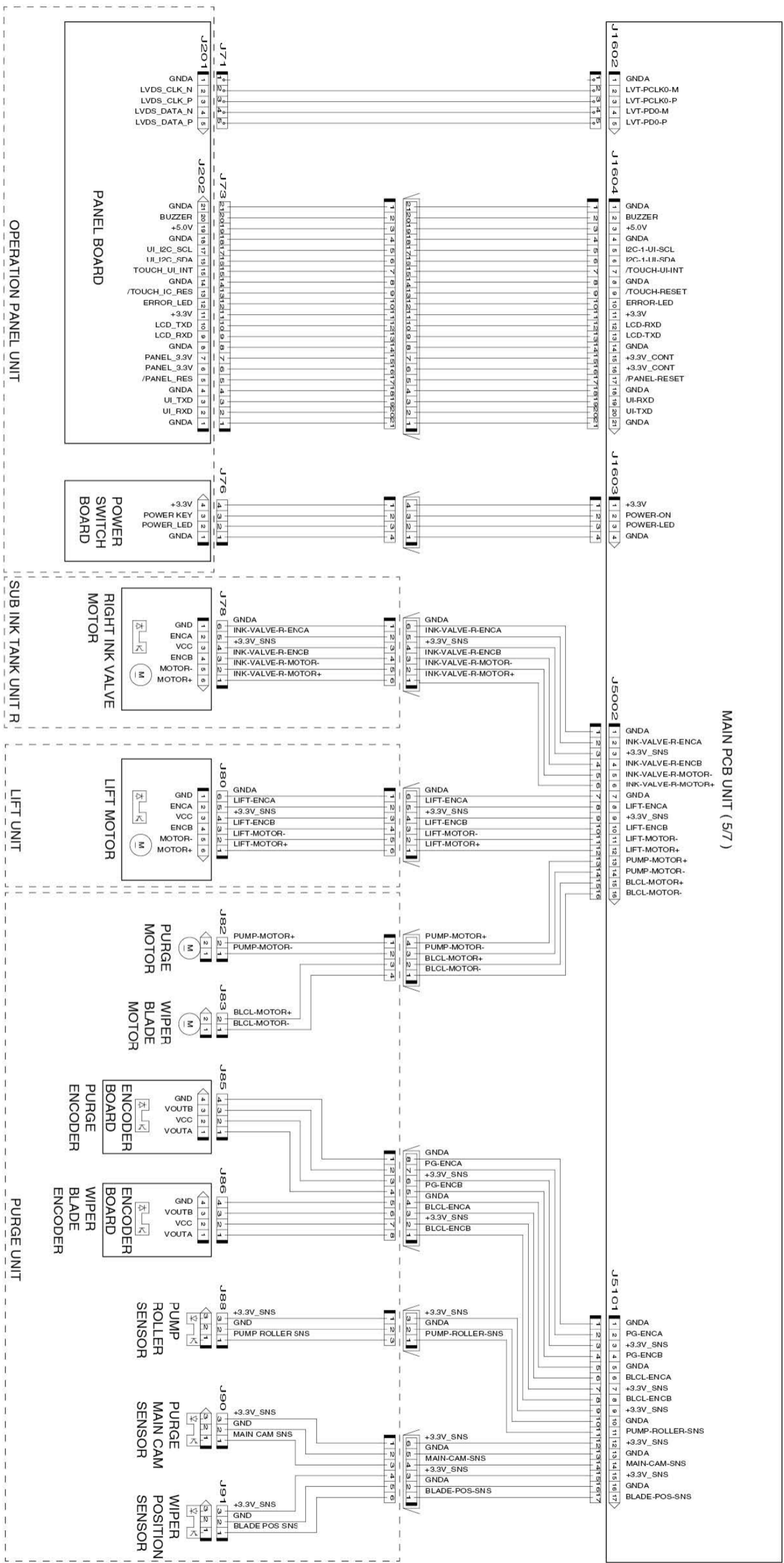


General Block Diagram (4/9)

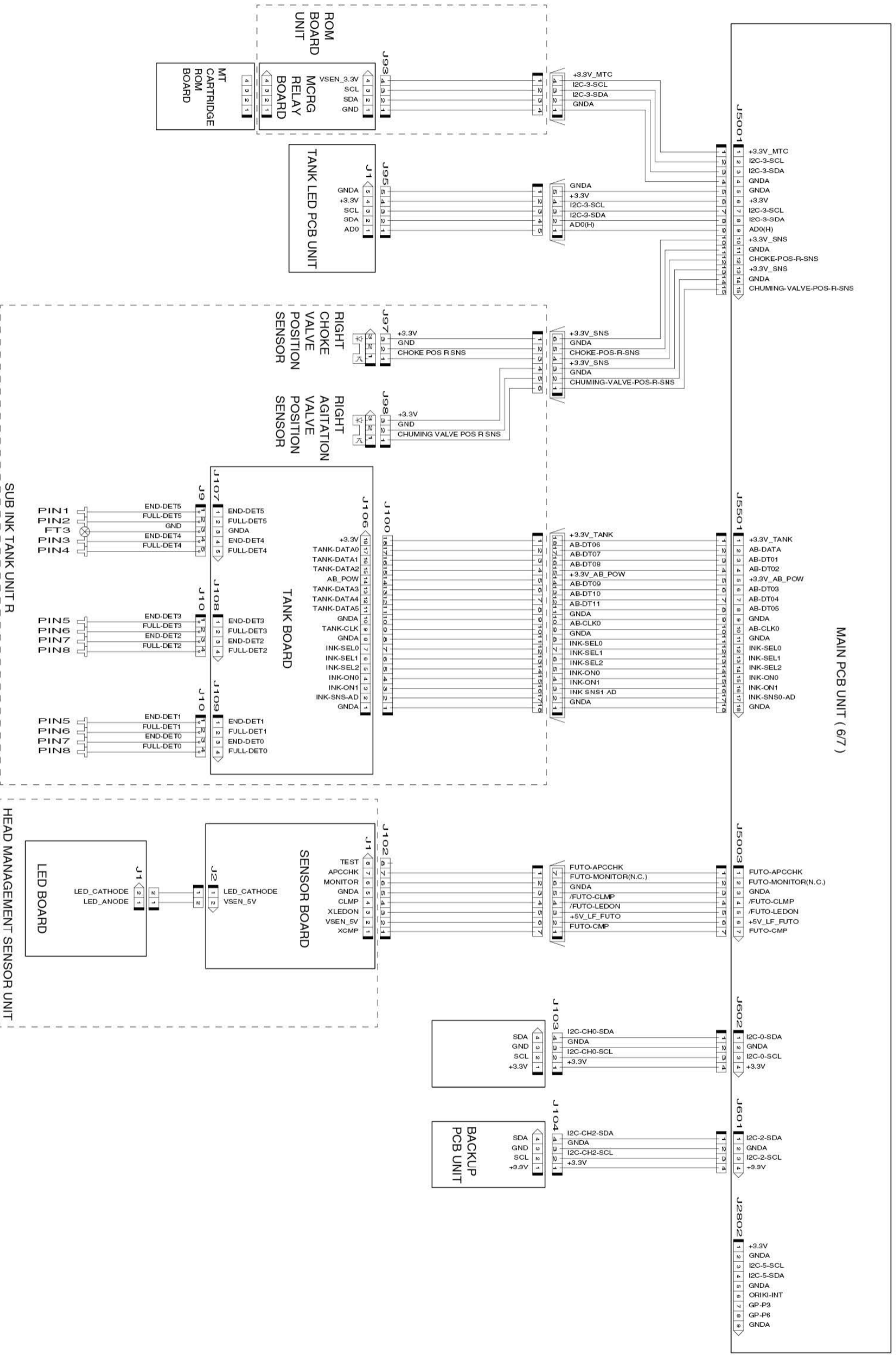


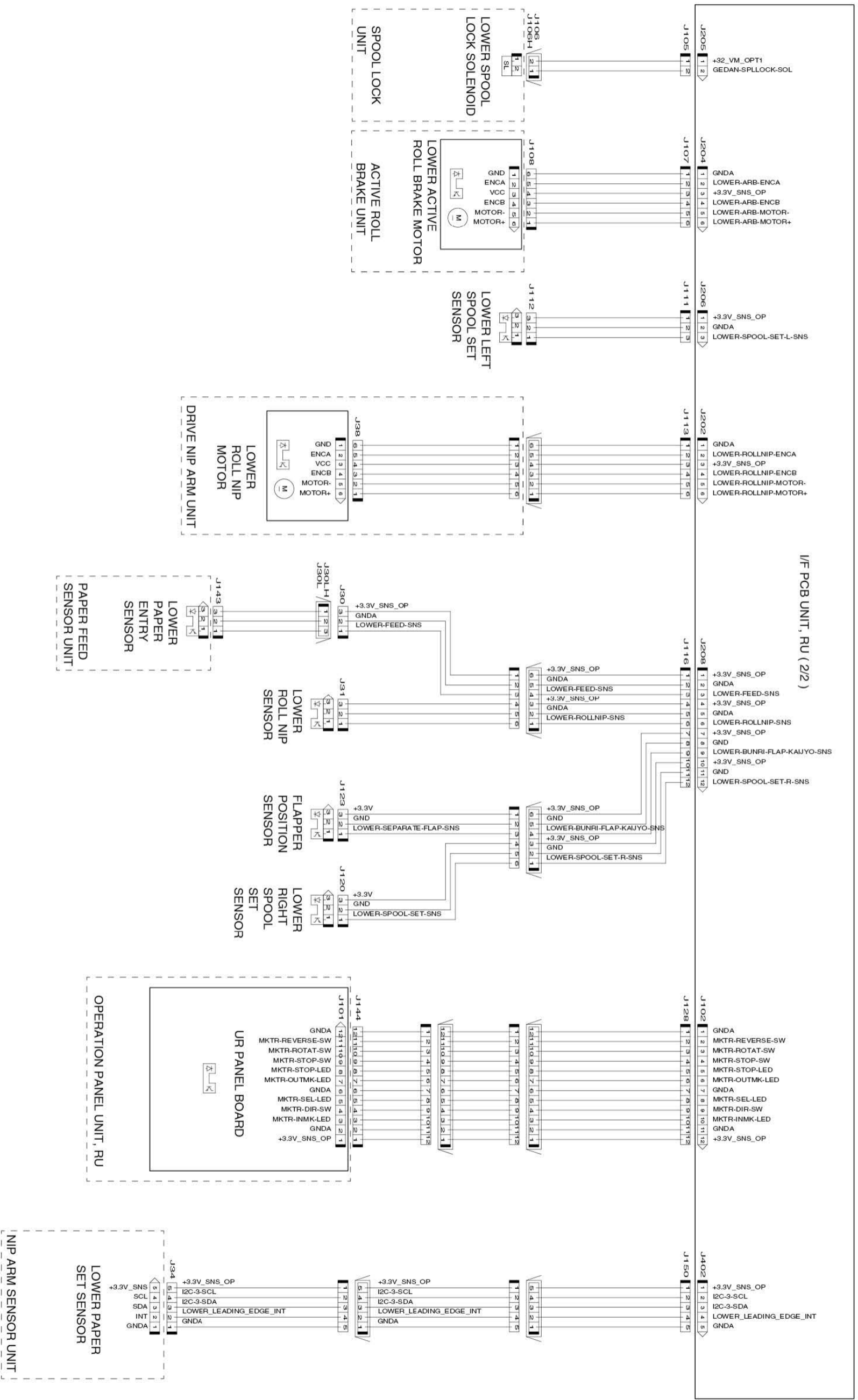


General Block Diagram (5/9)



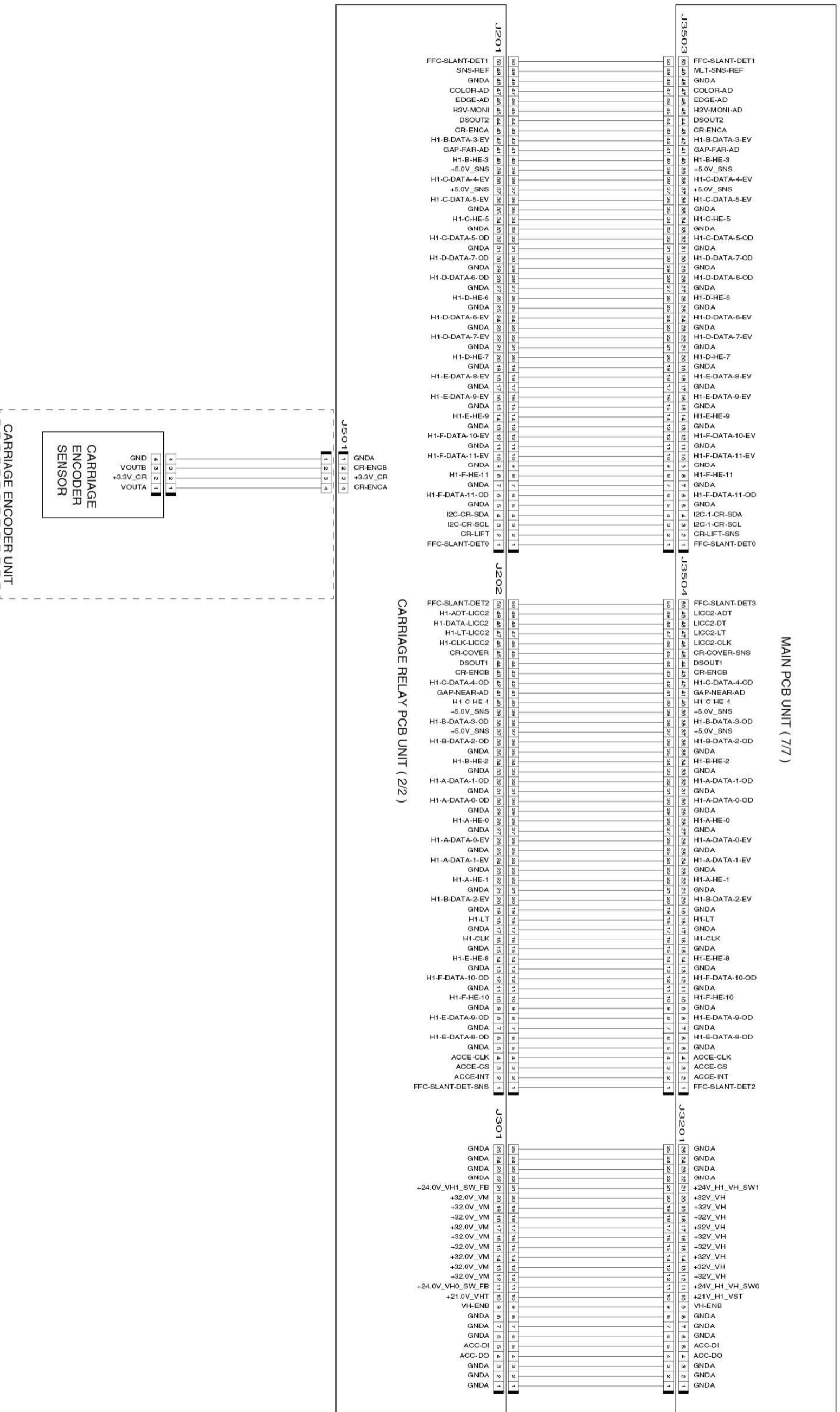
General Block Diagram (6/9)







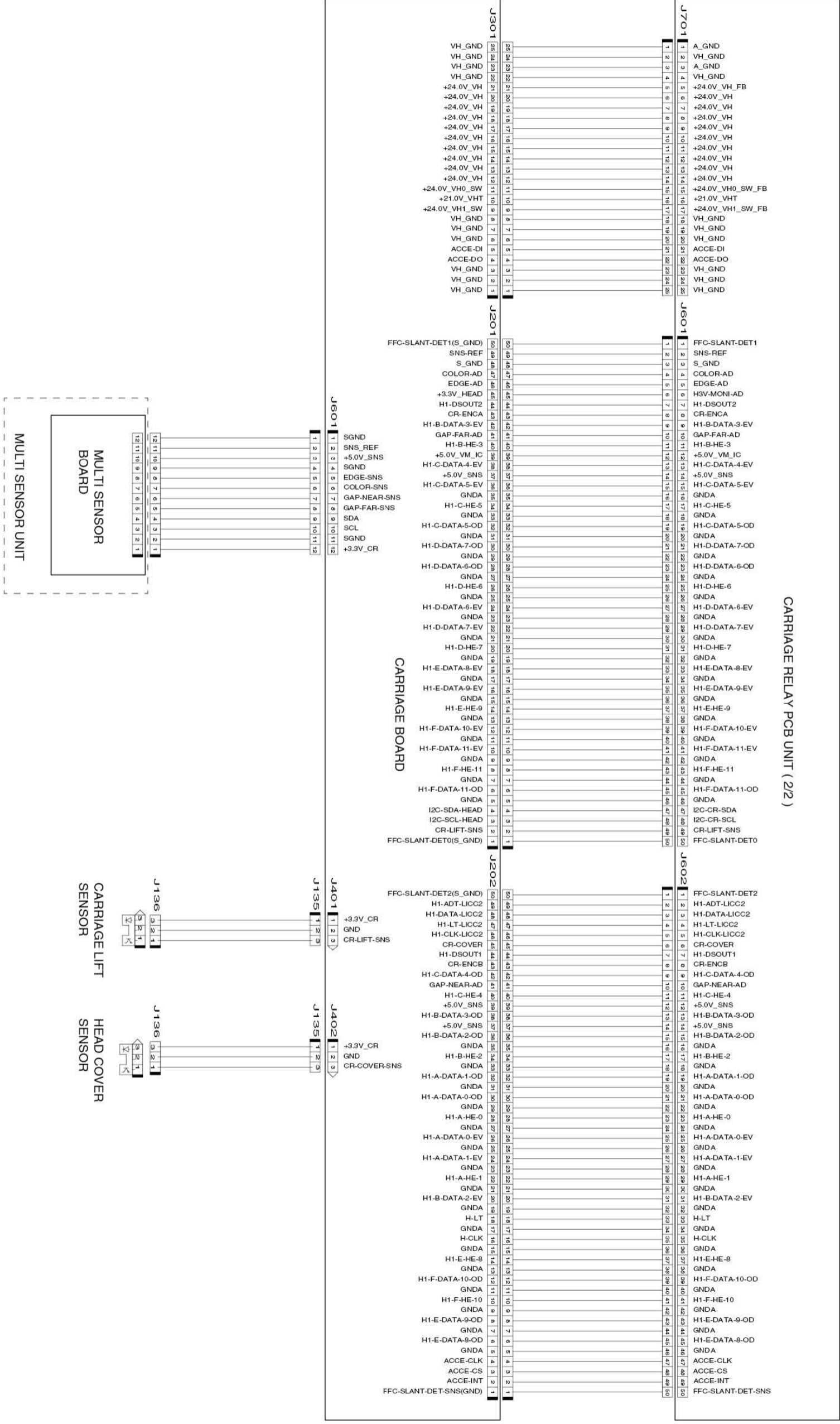
General Block Diagram (8/9)



MAIN PCB UNIT ( 777 )

CARRIAGE RELAY PCB UNIT ( 22 )

CARRIAGE ENCODER UNIT





# 8-6. Main Controller PCB Connectors

