

**imagePROGRAF**

**PRO-2000**

**PRO-4000**

**PRO-6000**

**PRO-520**

**PRO-540**

**PRO-560**

# **Service Manual**

Revision 05

**Canon**

**SM-16004E-05**

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## **Application**

This manual has been issued by Canon Inc. for qualified persons to learn technical theory, installation, maintenance, and repair of products. This manual covers all localities where the products are sold. For this reason, there may be information in this manual that does not apply to your locality.

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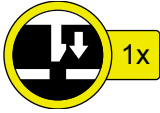















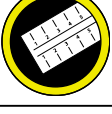
CANON INC.

Inkjet Quality Assurance Center

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## Explanation of Symbols

The following symbols are used throughout this Service Manual.

Symbols	Meanings	Symbols	Meanings
	Check.		Remove the claw.
	Check visually.		Insert the claw.
	Check a sound.		Push the part.
	Disconnect the connector.		Connect the power cable.
	Connect the connector.		Disconnect the power cable.
	Remove the cable or wire from the cable guide or wire saddle.		Turn on the power.
	Install the cable or wire to the cable guide or wire saddle.		Turn off the power.
	Remove the screw.		Loosen the screw.
	Install the screw.		Tighten the screw.
	Cleaning is needed.		Measurement is needed.

## Recommended System

**Browser:** Adobe Acrobat Reader 7.0 or later

(To see the movie or animation, Adobe Flash Player is required.)

**Service document data capacity:** 180 MB

**Operation confirmed OS:** Windows 7

## Revision History

Revision	Date	Revised items
00	May 2016	New edition
01	Jul. 2016	New models added (PRO-520, PRO-540).
02	Mar. 2017	Correction
03	Jul. 2017	New model added (PRO-6000).
04	Sep. 2017	New model added (PRO-560).
05	Oct. 2018	Periodical maintenance

## Applicable Products

PRO-2000 PRO-520	Q51-2607-000
PRO-4000 PRO-540	Q51-2617-000
PRO-6000 PRO-560	Q51-2737-000

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# PRODUCT OUTLINE

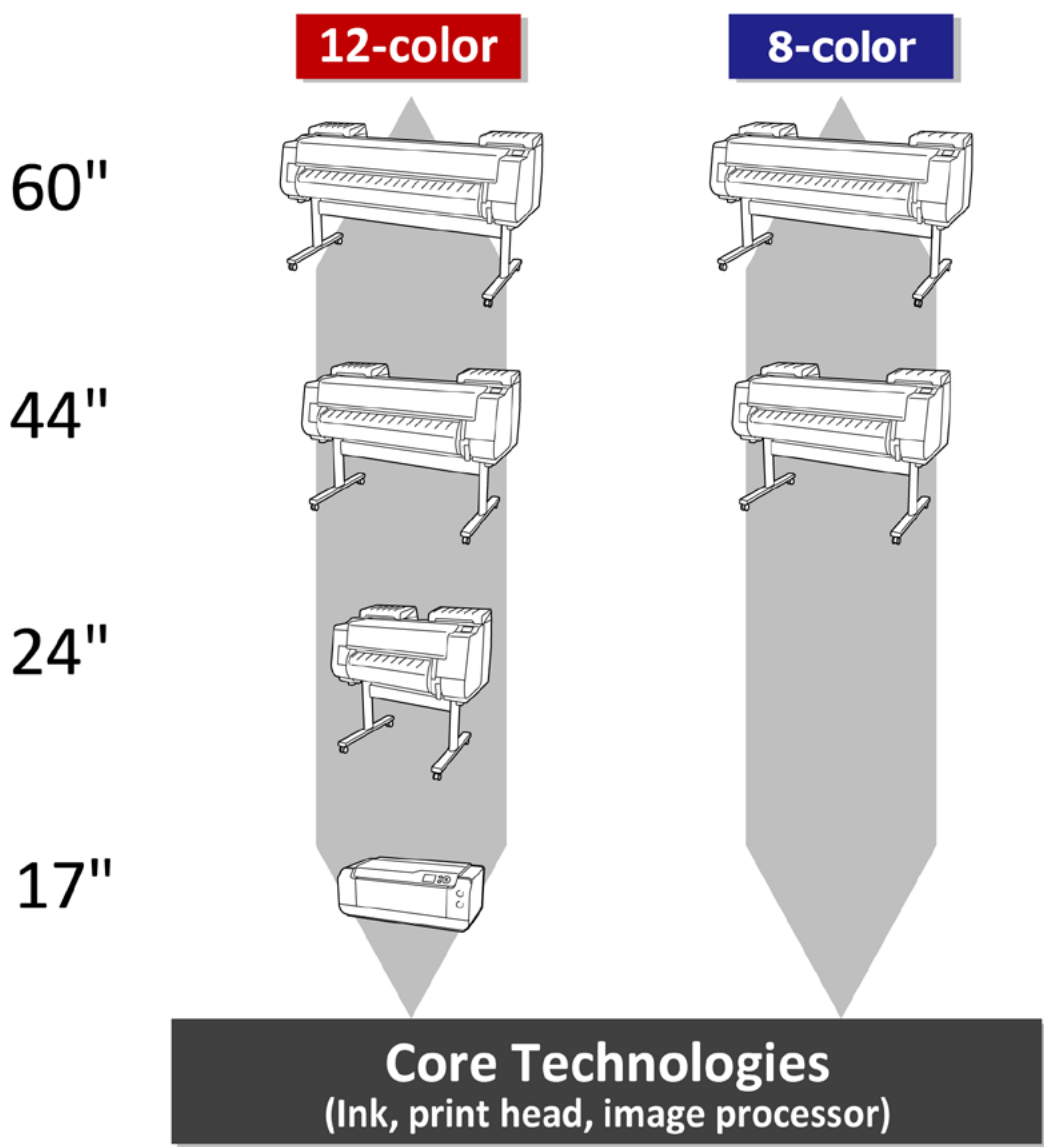
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# 1-1. Product Overview

## Product Overview

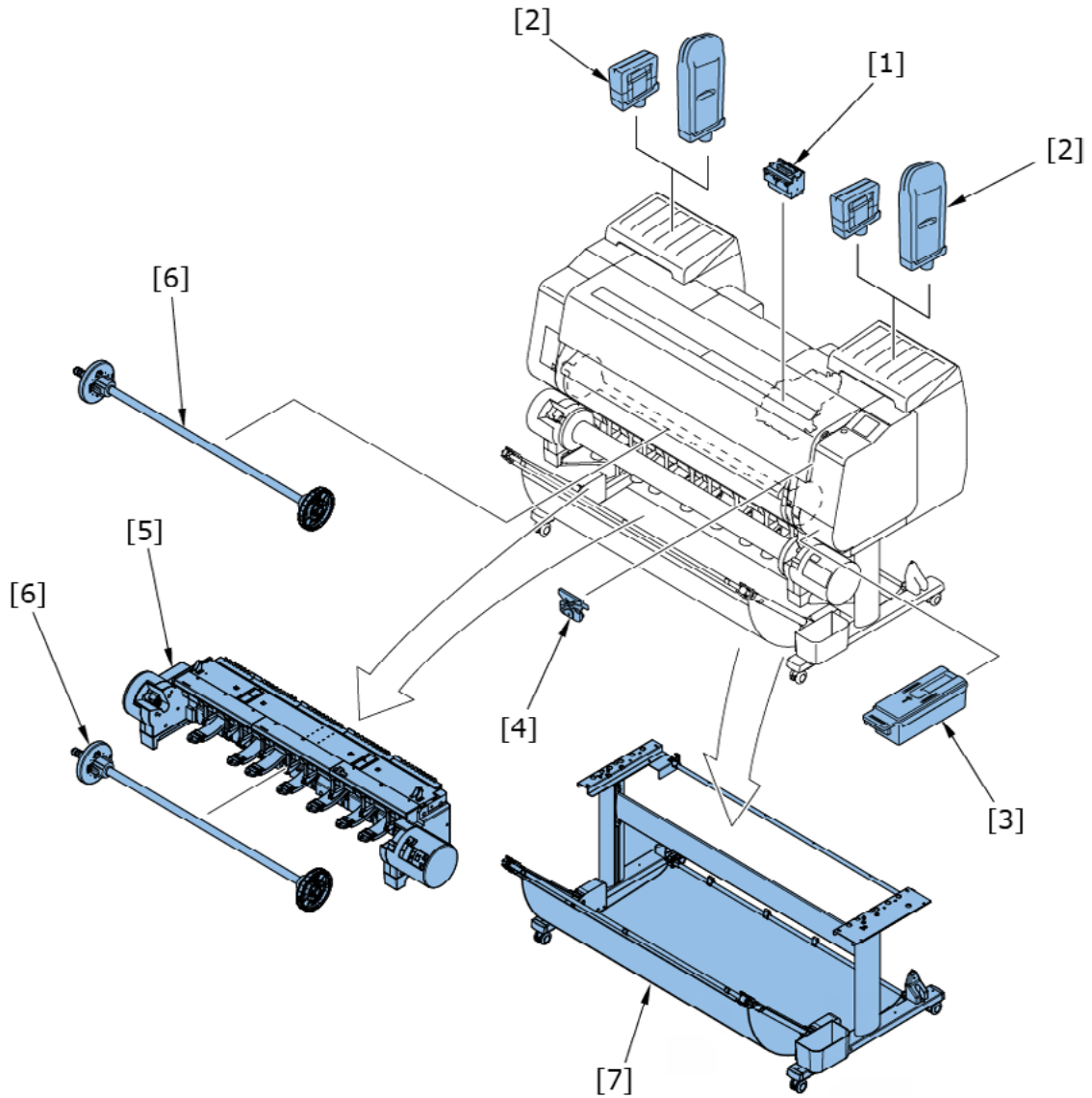
imagePROGRAF PRO series is photographic large format printer. It is equipped with a new print head, ink, media, ASIC, and image processing. 12-color models including chroma optimizer ink in twelve-color ink configuration enhance the gloss and black density expression overwhelming silver halide photography, and realizes the superb photo image quality in the pro photo industry. 8-color models fully realize the highest speed in the industry in addition to the image quality required for graphic markets by eight-color ink configuration. In order to facilitate production, intuitive operation is achieved as a paper handling innovation.

### imagePROGRAF PRO series Lineup





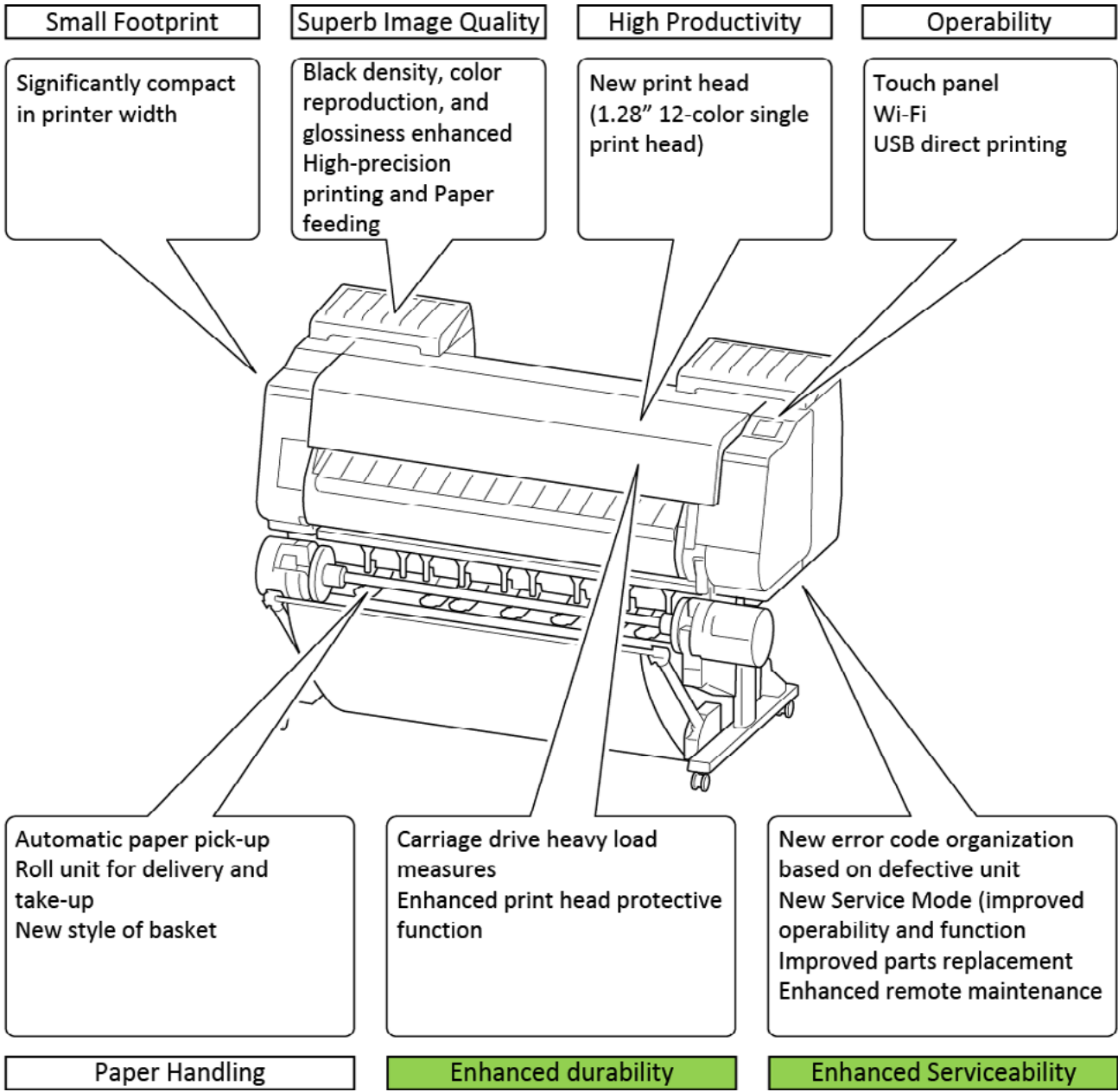
# Names of Components



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	

# 1-2. Features

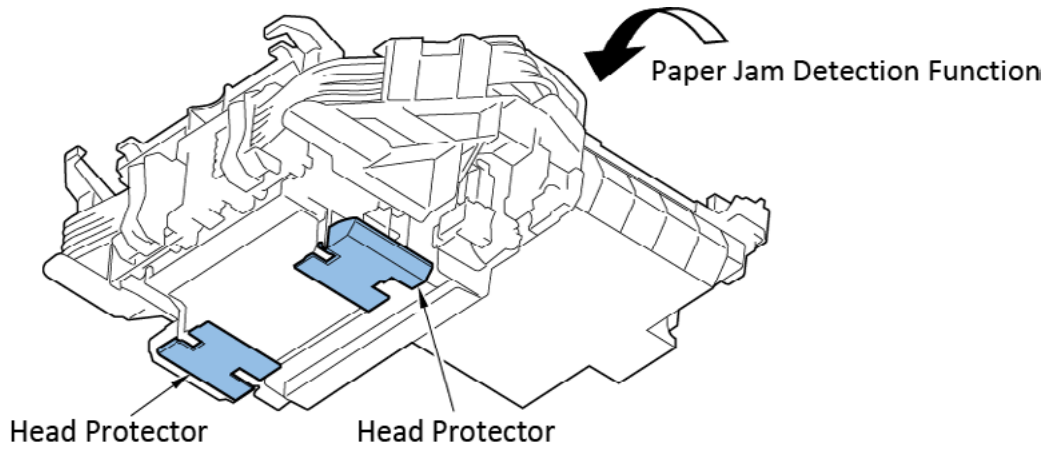
## Product Features



## Enhanced durability

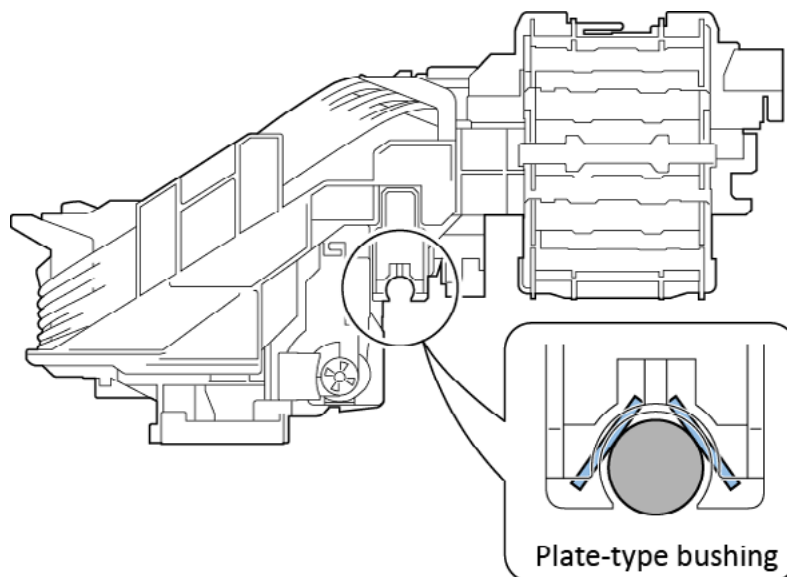
### ▪Enhanced print head protective function

Paper jam detection function and print head protector are newly introduced. Print head failure due to paper jam is suppressed.



### ▪Carriage drive heavy sliding load reduction

Adopts plate-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



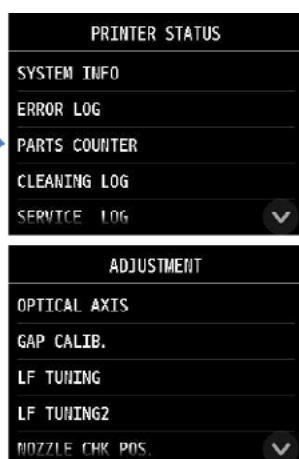
Defective phenomenon can be seen.  
Cannot determine where the defective unit is.

#### Phenomenon and estimated causes are indicated

New error codes	Causes Exxx	Phenomenon yyyy
FC01-2F90	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 3.5 color touch panel.
- Enhances failure diagnosis (newly contains carriage system / PURGE UNIT / PAPER FEED ENCODER UNIT diagnostic function. Improves usability of other functions).



Menu	Main functions
PRINTER STATUS	<b>Printer status check</b> ✓ Error log ✓ Parts counter ✓ Cleaning log ✓ Service log
DIAGNOSIS	<b>Failure diagnosis</b> ✓ Carriage system check ✓ Purge unit check ✓ Head contact check ✓ Multi sensor check
FUNCTION	<b>Function for parts replacement</b> ✓ Carriage lock / unlock ✓ Ink evacuation ✓ Ink filling
ADJUSTMENT	Adjustment after parts replacement
TEST PRINT	Service nozzle check printing
E-RDS	UGW connection settings
OTHERS	Others

▪Improved parts replacement performance

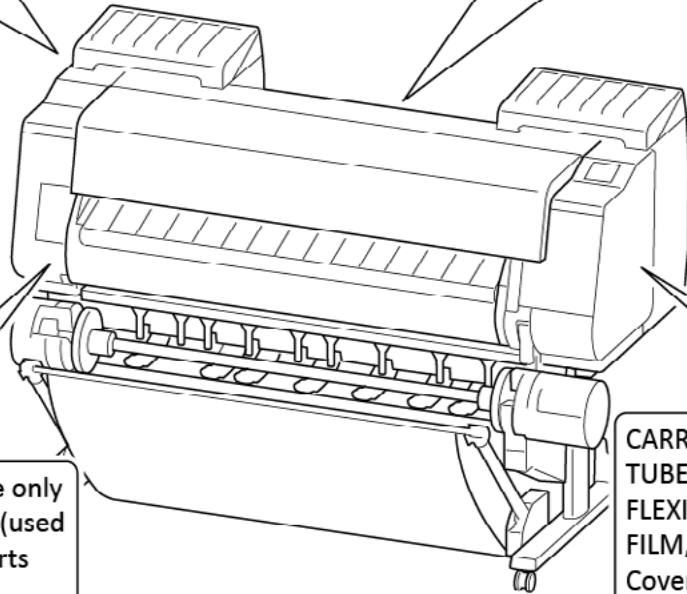
Improves parts replacement performance of the main units.

**Waste ink reduction**

Parts replacement without disposing ink (ink evacuation mode)

**New PCB replacement mode**

Backup data transfer direction is automatically determined.



Installs ink filling mode only for parts replacement (used when replacing the parts with ink evacuation)

CARRIAGE UNIT  
TUBE UNIT  
FLEXIBLE CABLE UNIT  
FILM, TIMING SLIT STRIP  
Covers  
Others

**Improved functions**

**Improved parts replacement**

- Enhanced remote maintenance

Enhances the information obtained using UGW.

Information obtained by UGW		Current LFP	imagePROGRAF PRO 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: Jams while paper is fed Skewed paper feeding Paper edge detection error Jams while carriage drives Jams when paper is cut Rewinding error (Roll paper /Cut sheet /top and bottom paper roll)
	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.

## 1-3. Product Specifications

### PRO-2000, PRO-520

Item		Specification	
Model		PRO-2000, PRO-520	
Class		24"	
Ink Type		Pigment inks /12 color PBK/MBK/C/M/Y/PC/PM/GY/PGY/R/B/CO	
Maximum Print Resolution		2400×1200dpi	
Product Durability		15,000 sheets of A1 size (No maintenance) 50,000 sheets of A1-size (with service maintenance) Printing conditions: each color 11.5 % x 11 color =126.5% duty,Canon Glossy Photo Paper HG, standard mode	
Stand	Type	Assembly type	
Dimensions WxDxH (mm), Weight (Kg) (Unit)	Main Unit + Stand + Basket	1110×984×1168(Basket Opened) 1110×766×1168(Basket Closed) Weight: approx. 101 kg (including Roll Holder Set, excluding ink and print head)	
	Main Unit + Roll Unit + Stand + Basket	Weight: approx. 117 kg (including Roll Holder Set, excluding ink and print head)	
Dimensions WxDxH (mm), Weight (Kg) (Package)	Printer (Main unit with pallet)	1324 x 902 x 1042 mm, Weight: approx. 129kg	
	Stand/Basket	1111 x 797 x 223 mm, Weight: approx. 23kg	
	Printer (Main unit with stand and pallet) for USA model	1324 x 902 x 1042 mm, Weight: approx. 144kg	
	Roll Unit	1244 x 562 x 461 mm, Weight: approx. 23kg	
Power Supply	Input power	AC 100-240V(50-60Hz)	
	Power consumption	Printing: 112 W or less	
	Sleep mode		3.6 W or less (Wired LAN connected)
			1.8 W or less (USB connected)
			3.6 W or less (All port connected) <EU only - ErP Lot 26>
	Power off	0.5 W or less	
Default setting for the time to enter the Sleep mode	approx. 5 min <EU only - ErP Lot 26>		
Recommended Environment		Temperature: 15 to 30°C, Humidity: 10 to 80%RH (no dew condensation)	
Acoustic Noise	Acoustic pressure	Operation approx. 48 dB (A) (Glossy paper, Image, Print priority: Standard) Standby: 35 dB (A) or less (Measured on ISO7779 standard)	
	Acoustic power	Operation approx. 6.4 Bels or less (Glossy paper, Image, Print priority: Standard) (Measured on ISO7779 standard)	
Detector and Adjustment	Registration adjustment	Automatic / Manual	
	Banding adjustment	Automatic / Manual	
	Line length adjustment	Manual	
	Head slant adjustment	Automatic	
	Color calibration	Yes (with a color calibration notification function)	
	Head gap adjustment	Automatic / Manual (6 levels)	
	Non-firing detection	Yes	
	Non-firing compensation	Yes	
Roll media remaining detection function	Yes		

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	3GB	
	Expansion slot	No	
Firmware	Languages	Printer language	SGRaster(Swift Graphic Raster)
		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-BoldItalic, Helvetica-BoldOblique, Courier-BoldOblique
	JPEG	Supported Version JFIF1.02 - Compression: Basuc DCT (discrete cosine transform) - Color Mode: RGB/GrayScale - Color bit: 24bit/8bit - Pixel: Less than 19,200 pixel both vertically and horizontally *Not supported: Full fanchion of sampling	
	Job control	IVEC	
	Status reply	SNMP-MIB(Standard MIB, Canon-MIB), IVEC, CPCA	
	Direct Print	JPEG/PDF	
	Type	Flash ROM	
	Update	Updated from USB, Ethernet port (Utility use)	
Operation Panel	Display	LCD(3.5 inch/8.8 cm TFT color)	
	Language on operation panel	16 Languages Selectable: Japanese/English/German/Italian/Spanish/ Brazilian Portuguese/Dutch/Polish/Russian/ Danish/Simplified Chinese/Traditional Chinese/ Korean/Thai/Indonesian/Turkish	
Hard Disk		320GB	



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)	
Wireless LAN	Standard	IEEE802.11n/IEEE802.11g/IEEE802.11b	
	Security	WEP(64/128bit) WPA-PSK(TKIP/AES) WPA2-PSK(TKIP/AES)	
Expansion Slot		No	

## Print Head

Item	Specification
Print Head	
Model	PF-10
Type	Bubble-jet on demand
Head configuration	12 Color integrated Type ×1 print head
Nozzle pitch	600dpi ×2
Nozzle per chip	18,432 nozzles(1536 nozzles×12 colors )
Droplet size	minimum 4pl per color
Head replacement	User replacement

## Ink Tank

Item	Specification
Ink Tank	
Model	PRO-2000: PFI-1100(160ml)/PFI-1300(330ml)/PFI-1700(700ml) PRO-520: PFI-51(160ml)/PFI-53(330ml)/PFI-57(700ml)
Supply	Tubing system (with sub-tank)
Sub inktank Capacity	Each color 30ml
Colors	Pigment 12 Color(PBK/MBK/C/M/Y/PC/PM/GY/PGY/R/B/CO)
Capacity	Sales use: 160ml/330ml/700ml Starter use: 160ml
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
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 (60-inch model: Default , 44-inch and 24-inch models : Option)	
	Cut sheet	Front-loading, Front Output (Manual feed using media locking lever)	
	Paper path switch (roll/cut sheet)	Manual switching (Roll paper, Cut sheet) Automatic switching (Upper Roll , Lower Roll)* *Set Lower Roll Unit *Except Roll End *Except unavailable paper for auto feeding	
	Delivery direction	Face-up, Front side	
	Media Take-up Unit	dual directions rolling take-up	
	Maximum stacking number of delivered prints	Standard position: 1 sheet Flat position A2 landscape, glossy paper less 10 sheets, coated paper less than 20 sheets (excludes strong curled condition) *Operability confirmed media as follows. Glossy paper: Luster Photo Paper, Glossy Photo Paper 170gsm, Satin Photo Paper 170gsm, Glossy Photo Paper HG 170, Semi-GlossyPhotoPaperHG170, Glossy Photo Paper 200gsm, Satin Photo Paper 200gsm, Glossy Photo Paper 240gsm, Satin Photo Paper 240gsm, Glossy Photo Paper HG 255, Semi-Glossy Photo Paper HG 255, Premium RC Photo Luster,10mil, Premium Glossy Paper 2 280, Premium Semi-Glossy Paper 2 280 Coated paper: Heavyweight Coated Paper HG 145gsm	
Media Size	Roll paper (Width)	ISO	A3, A3+, A2, A1
		JIS	B4, B2
		ARCH	24"
		Others	8", 10", 14", 16", 17", Banner (300mm)
	Cut sheet	ISO	A4, A3, A3+, A2, A2+, A1 B4, B3, B2
		DIN	C4, C3, C2
		JIS	B4, B3, B2
		ANSI	8.5 x 11", 8.5 x 14", 11 x 17", 13 x 19", 17 x 22", 22 x 34"
		ARCH	9 x 12", 12 x 18", 18 x 24", 24 x 36"
		Photo	(20 x 24"), (18 x 22"), (14 x 17"), (12 x 16"), (10 x 12"), (10 x 15"), (8 x 10"), US photo(16 x 20")
Poster	20 x 30", 300x900mm		
Others	13x22"		
Media Thickness	Roll paper	0.07 to 0.8mm	
	Cut sheet	0.07 to 0.8mm	
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 610mm	
	Cut sheet	203.2 to 610mm	
Minimum Printable Paper Length		203.2mm	
Maximum Printable Paper Length	Roll paper	18 m (Varies according to the OS and application)	
	Cut sheet	1.6 m (With Stand)	

Item		Specification	
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]515mm(JIS B2), 594mm(ISO A1), 10", 14", 17", 24" [Printable ]257mm(JIS B4), 297mm(ISO A3), 329mm(ISO A3+), 420mm(ISO A2), 8", 16", 300mm	

## PRO-4000, PRO-540

Item		Specification	
Model		PRO-4000, PRO-540	
Class		44"	
Ink Type		Pigment inks /12 color PBK/MBK/C/M/Y/PC/PM/GY/PGY/R/B/CO	
Maximum Print Resolution		2400×1200dpi	
Product Durability		20,000 sheets of A0 size (No maintenance) 50,000 sheets of A0-size (with service maintenance) Printing conditions: each color 11.5 % x 11 color =126.5% duty,Canon Glossy Photo Paper HG, standard mode	
Stand	Type	Assembly type	
Dimensions WxDxH (mm), Weight (Kg) (Unit)	Main Unit + Stand + Basket	1593×984×1168 (Basket Opened) 1593×766×1168 (Basket Closed) Weight approx. 123 kg (including Roll Holder Set, excluding ink and print head)	
	Main Unit + Roll Unit + Stand + Basket	Weight approx. 143 kg (including Roll Holder Set, excluding ink and print head)	
Dimensions WxDxH (mm), Weight (Kg) (Package)	Printer (Main unit with stand and pallet)	1820 x 915 x 1019 mm, Weight: approx. 174kg	
	Roll Unit	1727 x 562 x 461 mm, Weight: approx. 31kg	
Power Supply	Input power	AC 100-240V(50-60Hz)	
	Power consumption	Printing: 112 W or less	
	Sleep mode		3.6 W or less (Wired LAN connected)
			1.8 W or less (USB connected)
			3.6 W or less (All port connected) <EU only - ErP Lot 26>
	Power off	0.5 W or less	
Default setting for the time to enter the Sleep mode	approx. 5 min <EU only - ErP Lot 26>		
Recommended Environment		Temperature: 15 to 30°C, Humidity: 10 to 80%RH (no dew condensation)	
Acoustic Noise	Acoustic pressure	Operation approx. 48 dB (A) (Glossy paper, Image, Print priority: Standard) Standby: 35 dB (A) or less (Measured on ISO7779 standard)	
	Acoustic power	Operation approx. 6.4 Bels or less (Glossy paper, Image, Print priority: Standard) (Measured on ISO7779 standard)	
Detector and Adjustment	Registration adjustment	Automatic / Manual	
	Banding adjustment	Automatic / Manual	
	Line length adjustment	Manual	
	Head slant adjustment	Automatic	
	Color calibration	Yes (with a color calibration notification function)	
	Head gap adjustment	Automatic / Manual (6 levels)	
	Non-firing detection	Yes	
	Non-firing compensation	Yes	
Roll media remaining detection function	Yes		
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	3GB	
	Expansion slot	No	

Item			Specification	
Firmware	Languages	Printer language	SGRaster (Swift Graphic Raster )	
		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-BoldItalic, Helvetica-BoldOblique, Courier-BoldOblique	
		JPEG	Supported Version JFIF1.02 - Compression: Basuc DCT (discrete cosine transform) - Color Mode: RGB/GrayScale - Color bit: 24bit/8bit - Pixel : Less than 19,200 pixel both vertically and horizontally *Not supported: Full fanchon of sampling	
		Job control	IVEC	
	Status reply	SNMP-MIB(Standard MIB, Canon-MIB), IVEC, CPCA		
	Direct Print	JPEG/PDF		
	Type		Flash ROM	
Update		Updated from USB, Ethernet port (Utility use)		
Operation Panel	Display		LCD(3.5 inch/8.8 cm TFT color)	
	Language on operation panel		16 Languages Selectable: Japanese/English/German/Italian/Spanish/ Brazilian Portuguese/Dutch/Polish/Russian/ Danish/Simplified Chinese/Traditional Chinese/ Korean/Thai/Indonesian/Turkish	
Hard Disk			320GB	
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
	Protocol		IEEE 802.3x Full Duplex	
			SNMP (Canon-MIB , HTTP, TCP/IP(IPv4/IPv6)	
Wireless LAN	Standard		IEEE802.11n/IEEE802.11g/IEEE802.11b	
	Security		WEP(64/128bit) WPA-PSK(TKIP/AES) WPA2-PSK(TKIP/AES)	
Expansion Slot			No	

**Print Head**

	Item	Specification
Print Head	Model	PF-10
	Type	Bubble-jet on demand
	Head configuration	12 Color integrated Type ×1 print head
	Nozzle pitch	600dpi ×2
	Nozzle per chip	18,432 nozzles(1536 nozzles×12 colors )
	Droplet size	minimum 4pl per color
	Head replacement	User replacement

**Ink Tank**

	Item	Specification
Ink Tank	Model	PRO-4000: PFI-1100(160ml)/PFI-1300(330ml)/PFI-1700(700ml)
	Supply	Tubing system (with sub-tank )
	Sub inktank Capacity	Each color 30ml
	Colors	Pigment 12 Color(PBK/MBK/C/M/Y/PC/PM/GY/PGY/R/B/CO )
	Capacity	Sales use: 160ml/330ml/700ml Starter use: 330ml
	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
	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 (60-inch model: Default , 44-inch and 24-inch models : Option)	
	Cut sheet	Front-loading, Front Output (Manual feed using media locking lever)	
	Paper path switch (roll/cut sheet)	Manual switching (Roll paper, Cut sheet) Automatic switching (Upper Roll , Lower Roll)* *Set Lower Roll Unit *Except Roll End *Except unavailable paper for auto feeding	
	Delivery direction	Face-up, Front side	
	Media Take-up Unit	dual directions rolling take-up	
	Maximum stacking number of delivered prints	Standard position: 1 sheet Flat position A2 landscape, glossy paper less 10 sheets, coated paper less than 20 sheets (excludes strong curled condition) *Operability confirmed media as follows. Glossy paper: Luster Photo Paper, Glossy Photo Paper 170gsm, Satin Photo Paper 170gsm, Glossy Photo Paper HG 170, Semi-GlossyPhotoPaperHG170, Glossy Photo Paper 200gsm, Satin Photo Paper 200gsm, Glossy Photo Paper 240gsm, Satin Photo Paper 240gsm, Glossy Photo Paper HG 255, Semi-Glossy Photo Paper HG 255, Premium RC Photo Luster,10mil, Premium Glossy Paper 2 280, Premium Semi-Glossy Paper 2 280 Coated paper: Heavyweight Coated Paper HG 145gsm	
Media Size	Roll paper (Width)	ISO	A3, A3+, A2, A1, A0
		JIS	B4, B2, B1, B0,
		ARCH	24", 30", 36"
		Others	8", 10", 14", 16", 17", 42", 44", Banner(300mm)
	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 x 11", 8.5 x 14", 11 x 17", 13 x 19", 17 x 22", 22 x 34", 28 x 40, 34 x 44"
		ARCH	9 x 12", 12 x 18", 18 x 24", 24 x 36", 26 x 38", 27 x 39", 30 x 42", 36 x 48"
		Photo	(20 x 24"), (18 x 22"), (14 x 17"), (12 x 16"), (10 x 12"), (10 x 15"), (8 x 10"), US photo(16 x 20")
Poster	20 x 30", 30 x 40", 42 x 60", 44 x 62", 300x900mm		
Others	13x22"		
Media Thickness	Roll paper	0.07 to 0.8mm	
	Cut sheet	0.07 to 0.8mm	
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 1118mm	
	Cut sheet	203.2 to 1118mm	
Minimum Printable Paper Length		203.2mm	

Item		Specification	
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]515mm(JIS B2), 728mm(JIS B1), 1030mm(JIS B0), 594mm(ISO A1), 841mm(ISO A0), 10", 14", 17", 24", 36", 42", 44" [Printable]257mm(JIS B4), 297mm(ISO A3), 329mm(ISO A3+), 420mm(ISO A2), 8", 16", 30", 300mm	



Item		Specification
Model		PRO-6000, PRO-560
Class		60"
Ink Type		Pigment inks /12 color PBK/MBK/C/M/Y/PC/PM/GY/PGY/R/B/CO
Maximum Print Resolution		2400×1200dpi
Product Durability		20,000 sheets of A0 size (No maintenance) 50,000 sheets of A0-size (with service maintenance) Printing conditions: each color 11.5 % x 11 color =126.5% duty,Canon Glossy Photo Paper HG, standard mode
Stand	Type	Assembly type
Dimensions WxDxH (mm), Weight (Kg) (Unit)	Main Unit + Stand + Basket	1999×984×1168 (Basket Opened) 1999×766×1168 (Basket Closed) Weight approx. 141 kg (including Roll Holder Set, excluding ink and print head)
	Main Unit + Roll Unit + Stand + Basket	Weight approx. 167 kg (including Roll Holder Set, excluding ink and print head)
Dimensions WxDxH (mm), Weight (Kg) (Package)	Printer (Main unit with stand and pallet)	2227 x 915 x 1022 mm, Weight: approx. 210 kg
	Roll Unit	2133 x 562 x 461 mm Weight: approx. 40kg
Power Supply	Input power	AC 100-240V(50-60Hz)
	Power consumption	Printing: 103 W or less
	Power consumption(At the sleep mode)	3.6 W or less(Wired LAN connected)
		1.8 W or less(USB connected)
		3.6 W or less(All ports coonected) <EU only - ErP Lot 26>
Power consumption(At the power off)	0.3W or less	
	Default setting for the time to enter the Sleep mode	approx. 5 min <EU only - ErP Lot 26>
Recommended Environment		Temperature: 15 to 30°C, Humidity: 10 to 80%RH (no dew condensation)
Acoustic Noise	Acoustic pressure	Operation: 50 dB (A) or less (Glossy paper, Image, Print priority: Standard) Standby: 35 dB (A) or less (Measured on ISO7779 standard)
	Acoustic power	Operation: 6.7 Bels or less (Glossy paper, Image, Print priority: Standard) (Measured on ISO7779 standard)
Detector and Adjustment	Registration adjustment	Automatic / Manual
	Banding adjustment	Automatic / Manual
	Line length adjustment	Manual
	Head slant adjustment	Automatic
	Color calibration	Yes (with a color calibration notification function)
	Head gap adjustment	Automatic / Manual (6 levels)
	Non-firing detection	Yes
	Non-firing compensation	Yes
	Roll media remaining detection function	Yes
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	3GB
	Expansion slot	No

Item			Specification	
Firmware	Languages	Printer language	SGRaster(Swift Graphic Raster )	
		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-BoldItalic, Helvetica-BoldOblique, Courier-BoldOblique	
		JPEG	Supported Version JFIF1.02 - Compression: Basuc DCT (discrete cosine transform) - Color Mode: RGB/GrayScale - Color bit: 24bit/8bit - Pixel: Less than 19,200 pixel both vertically and horizontally *Not supported: Full fansion of sampling	
		Job control	IVEC	
	Status reply	SNMP-MIB(Standard MIB, Canon-MIB), IVEC, CPCA		
	Direct Print	JPEG/PDF		
	Type	Flash ROM		
Update	Updated from operation Panel or Updated from USB, Ethernet port (Utility use)			
Operation Panel	Display	LCD(3.5 inch/8.8 cm TFT color)		
	Language on operation panel	16 Languages Selectable: Japanese/English/German/Italian/Spanish/ Brazilian Portuguese/Dutch/Polish/Russian/ Danish/Simplified Chinese/Traditional Chinese/ Korean/Thai/Indonesian/Turkish		
Hard Disk			320GB	
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	
	Protocol	SNMP (Canon-MIB , HTTP, TCP/IP(IPv4/IPv6)		
Wireless LAN	Standard	IEEE802.11n/IEEE802.11g/IEEE802.11b		
	Security	WEP(64/128bit) WPA-PSK(TKIP/AES) WPA2-PSK(TKIP/AES)		
Expansion Slot			No	

## Print Head

	Item	Specification
Print Head	Model	PF-10
	Type	Bubble-jet on demand
	Head configuration	12 Color integrated Type ×1 print head
	Nozzle pitch	600dpi ×2
	Nozzle per chip	18,432 nozzles(1536 nozzles×12 colors)
	Droplet size	minimum 4pl per color
	Head replacement	User replacement

## Ink Tank

	Item	Specification
Ink Tank	Model	PRO-6000: PFI-1100(160ml)/PFI-1300(330ml)/PFI-1700(700ml) PRO-560: PFI-51(160ml)/PFI-53(330ml)/PFI-57(700ml)
	Supply	Tubing system (with sub-tank )
	Sub inktank Capacity	Each color 30ml
	Colors	Pigment 12 Color(PBK/MBK/C/M/Y/PC/PM/GY/PGY/R/B/CO )
	Capacity	Sales use: 160ml/330ml/700ml Starter use: 330ml
	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
	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 (60-inch model: Default , 44-inch and 24-inch models: Option)	
	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 switchabl* *excludes at the end of roll *excludes medias which are not availabe 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	Standard position: 1 sheet Flat position A2 landscape, glossy paper less 10 sheets, coated paper less than 20 sheets (excludes strong curled condition) *Operability confirmed media as follows. Glossy paper: Luster Photo Paper, Glossy Photo Paper 170gsm, Satin Photo Paper 170gsm, Glossy Photo Paper HG 170, Semi-GlossyPhotoPaperHG170, Glossy Photo Paper 200gsm, Satin Photo Paper 200gsm, Glossy Photo Paper 240gsm, Satin Photo Paper 240gsm, Glossy Photo Paper HG 255, Semi-Glossy Photo Paper HG 255, Premium RC Photo Luster,10mil, Premium Glossy Paper 2 280, Premium Semi-Glossy Paper 2 280 Coated paper: Heavyweight Coated Paper HG 145gsm	
Media Size	Roll paper (Width)	ISO	A3, A3+, A2, A1, A0
		JIS	B4, B2, B1, B0,
		ARCH	24", 30", 36"
		Others	8", 10", 14", 16", 17", 42", 44", Banner(300mm)
	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 x 11", 8.5 x 14", 11 x 17", 13 x 19", 17 x 22", 22 x 34", 28 x 40, 34 x 44"
		ARCH	9 x 12", 12 x 18", 18 x 24", 24 x 36", 26 x 38", 27 x 39", 30 x 42", 36 x 48"
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Others	13x22"		
Media Thickness	Roll paper	0.07 to 0.8mm	
	Cut sheet	0.07 to 0.8mm	
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 1118mm	
	Cut sheet	203.2 to 1118mm	
Minimum Printable Paper Length		203.2mm	

Item		Specification	
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]515mm(JIS B2), 728mm(JIS B1), 1030mm(JIS B0), 594mm(ISO A1), 841mm(ISO A0), 10", 14", 17", 24", 36", 42", 44" [Printable]257mm(JIS B4), 297mm(ISO A3), 329mm(ISO A3+), 420mm(ISO A2), 8", 16", 30", 300mm	

## 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 6-3. 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\* (backup file) by using the application software, Media Configuration Tool.

\*For details on the default media information file (backup file), refer to the Service Information "QDR-12E-7029."

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

### Notes

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.

Batterienentsorgung gemaess lokalen Vorschriften.





# INSTALLATION

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## 2-1. Printer Installation, Transportation, Reinstallation

### 2-1-1. Printer Installation, Transportation, Reinstallation

#### 1. Printer Installation

##### Before Setting Up the Printer

Before setting up the printer, check the completed image of the printer you purchased and make sure you have enough space to install the printer.

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

##### <Important>

- The printer stand and roll unit may be options depending on the model. Care is required because the required space may differ depending on whether or not the options are used.
- The space required in front of the printer differs on how the basket supplied with the printer stand is used. This shows the installation space when used in the position in the illustration.

24" model

Installation space (W x D x H)

- When not using the stand

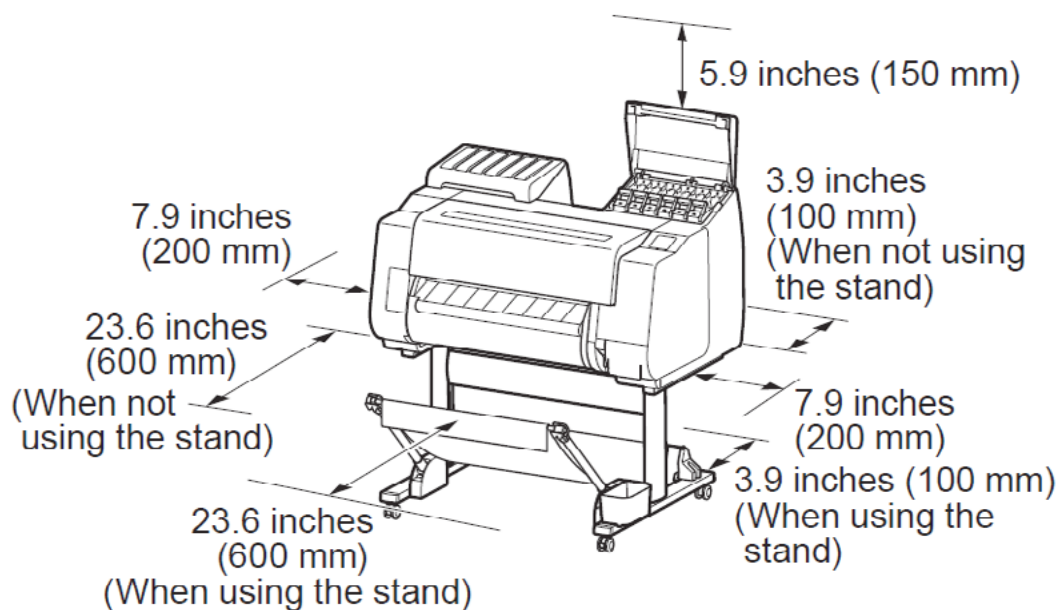
59.5 x 56.5 x 40.2 inches

(1510 x 1434 x 1020 mm)

- When using the stand

59.5 x 66.3 x 61.5 inches

(1510 x 1684 x 1560 mm)

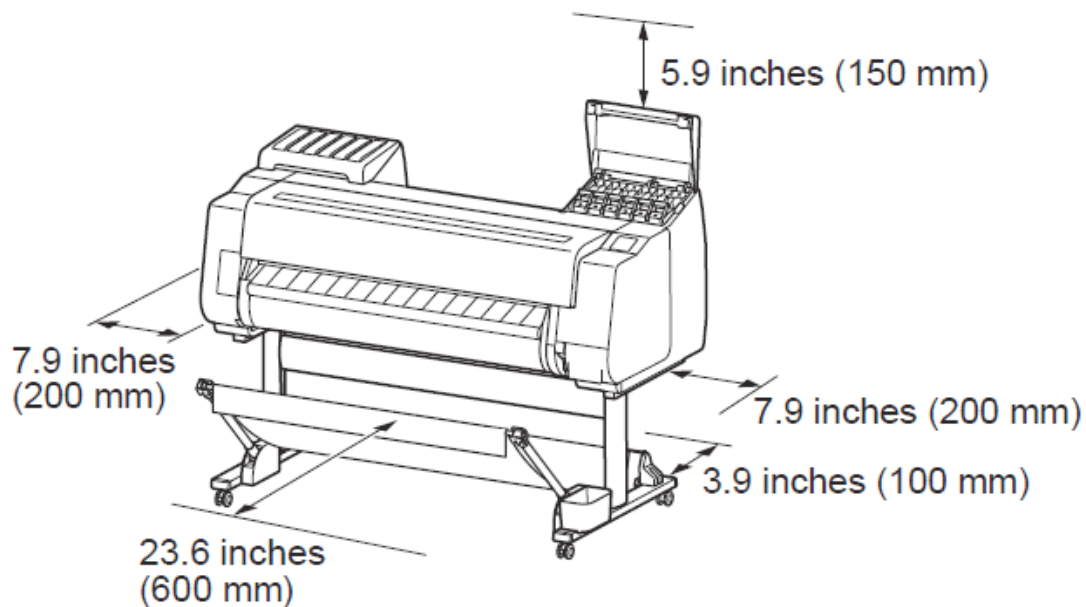


44" model

Installation space (W x D x H)

78.5 x 66.3 x 61.5 inches

(1993 x 1684 x 1560 mm)

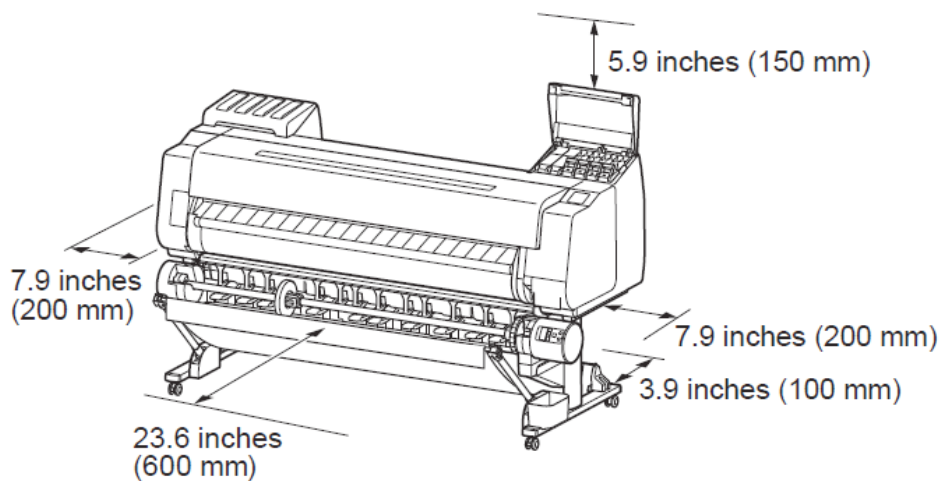


60" model

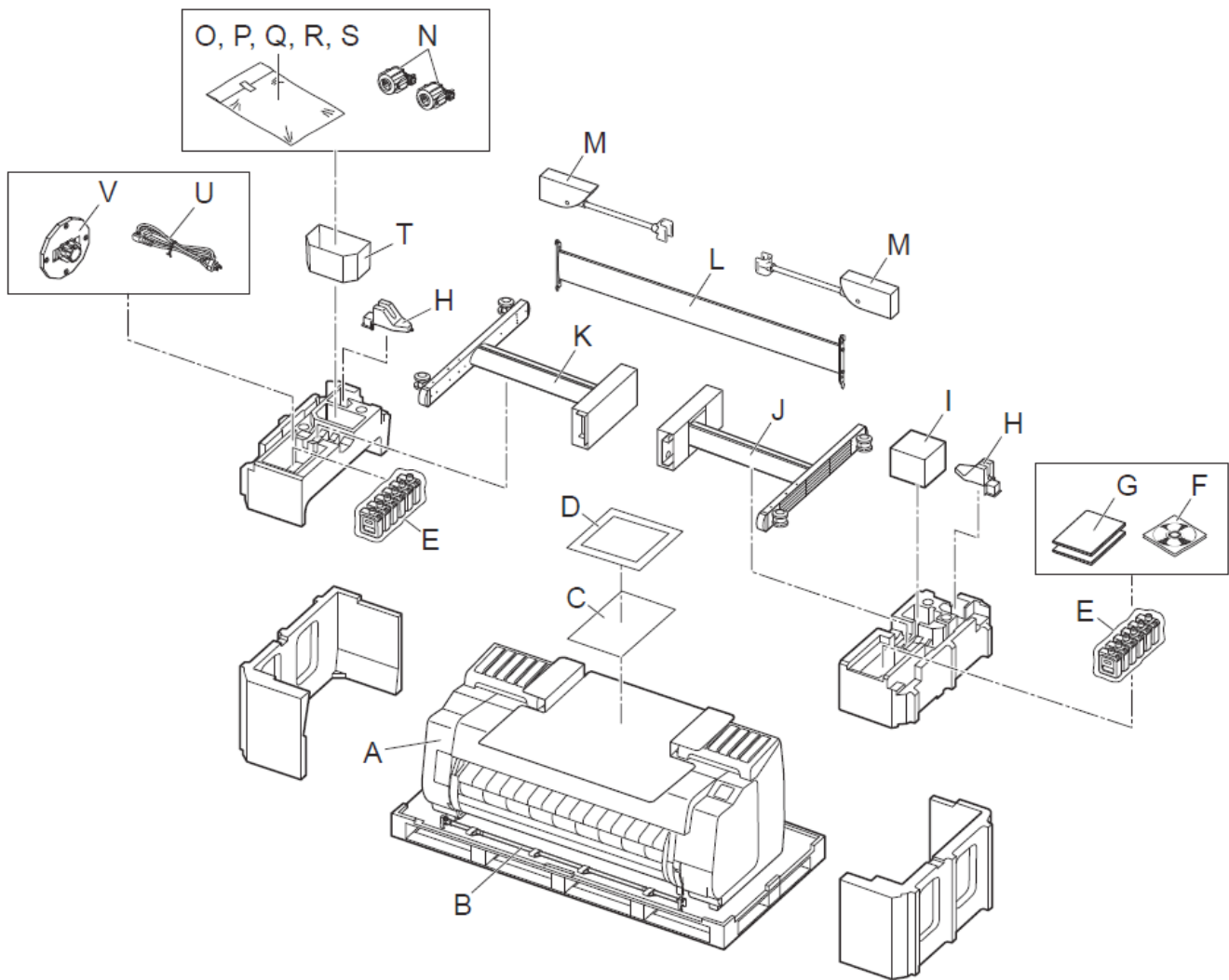
Installation space (W x D x H)

94.5 x 66.3 x 61.5 inches

(2399 x 1684 x 1560 mm)



## Package Contents



- A. Printer
- B. Basket rod / Basket cloth (\*1)
- C. Paper for adjustment
- D. Setup Guide (this manual)
- E. Starter ink tanks (x 2) (\*2)
- F. Set of CD-ROMs
- G. Set of printer documentation
- H. Rod holder (x 2) (\*1)
- I. Print head
- J. Stand leg L (\*1)
- K. Stand leg R (\*1)
- L. Stand stay (\*1)
- M. Basket arm (x 2) (\*1)
- N. 3-inch paper core attachment (x 2)
- O. M4 hex screw (x 9) (\*1)
- P. M8 hex screw (x 4) (\*1)
- Q. M4 Hex screw for basket arm (x 4) (\*1)

- R. M8 Allen wrench (\*1)
- S. M4 Allen wrench (\*1)
- T. Accessory pocket (\*1)
- U. Power cord
- V. Holder stopper (\*3)

\*1: 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.

\*2: The number and types of ink tanks differ between models.

For the 12-color model :

MBK, PBK, C, M, Y, PC, PM, R, CO, B, GY, PGY

For the 8-color model :

MBK, PBK, C, M, Y, PC, PM, GY

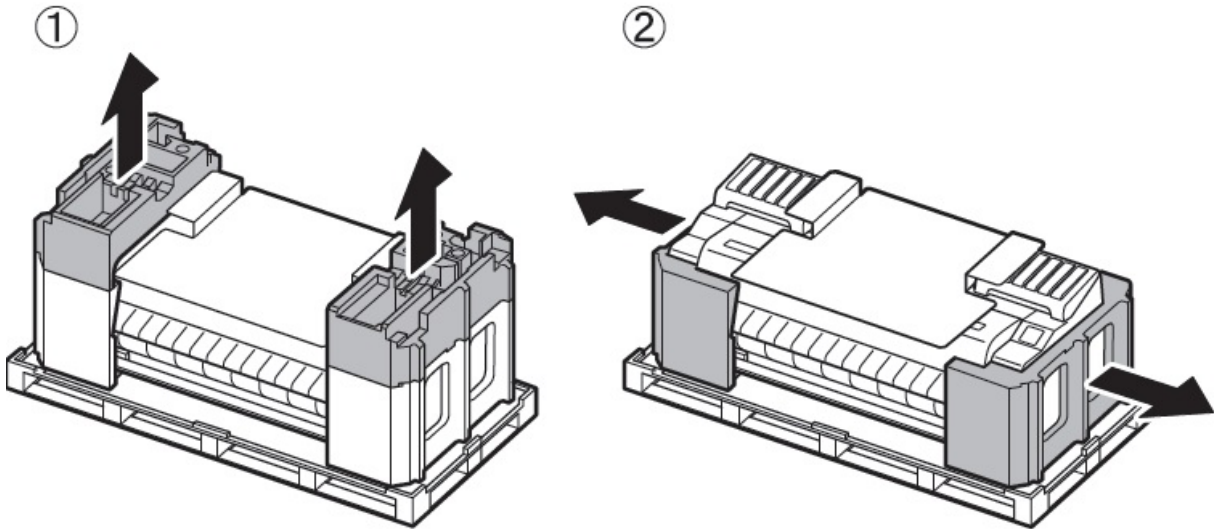
\*3: The holder stopper is used when loading roll paper. For details, refer to the Online Manual.

## Assemble the Stand

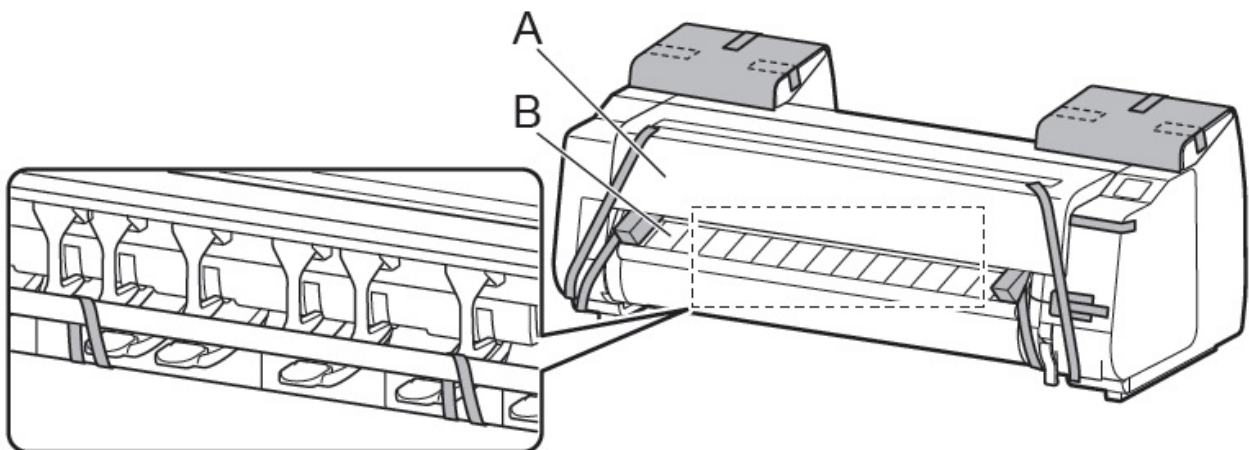
- Models That Use a Stand Assemble the stand on which you will install the printer.
  - > Refer to “Assemble the Stand” to “Prepare to Install the Printer” in the Printer Stand Setup Guide (separate manual).
- Models That Do Not Use a Stand Proceed to “Install the Printer”.

## Install the Printer

1. Remove the packaging material.



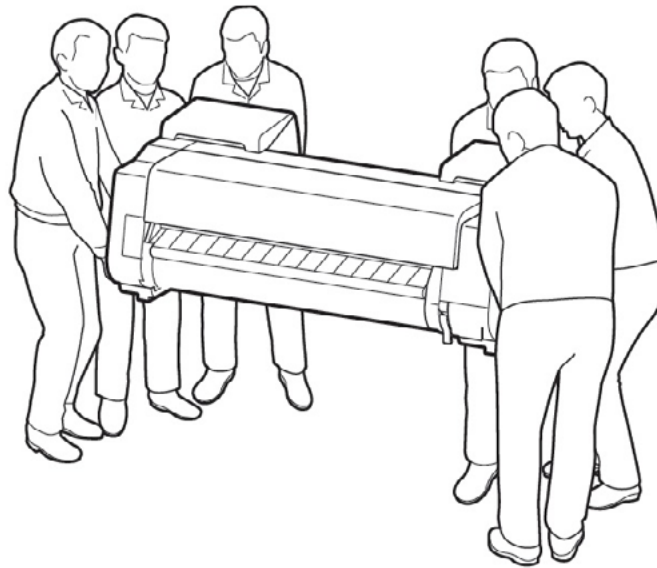
2. Remove all of the tape and other packaging material. Open the top cover (A) and output guide (B), and then remove the tape affixed to the roll holder.



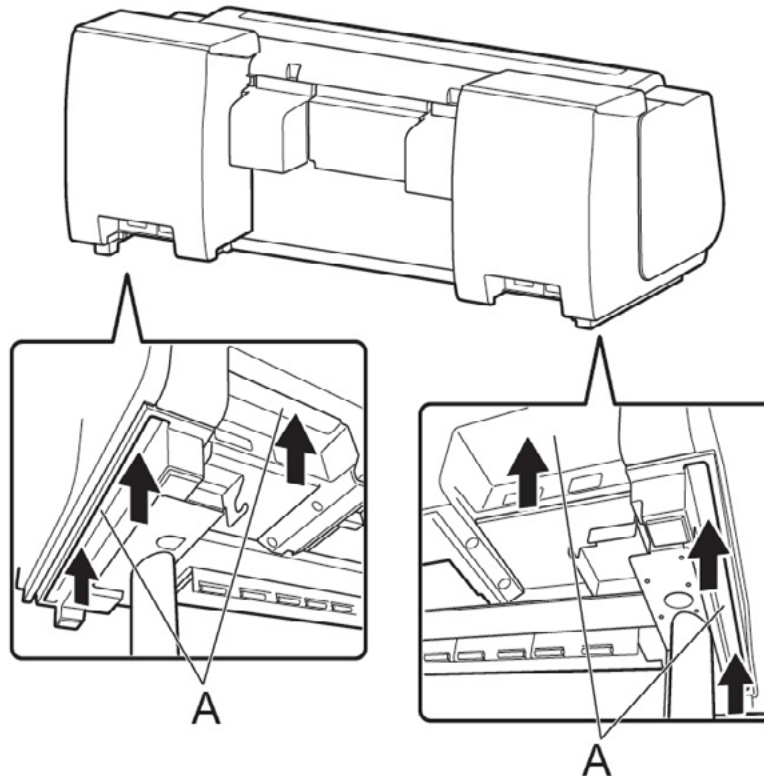
3. With 3 people holding the carrying handles under the printer on both ends, lift the printer.

<Caution>

- Moving the printer requires at least 6 people, 3 on either side. Be careful to avoid back strain and other injuries.

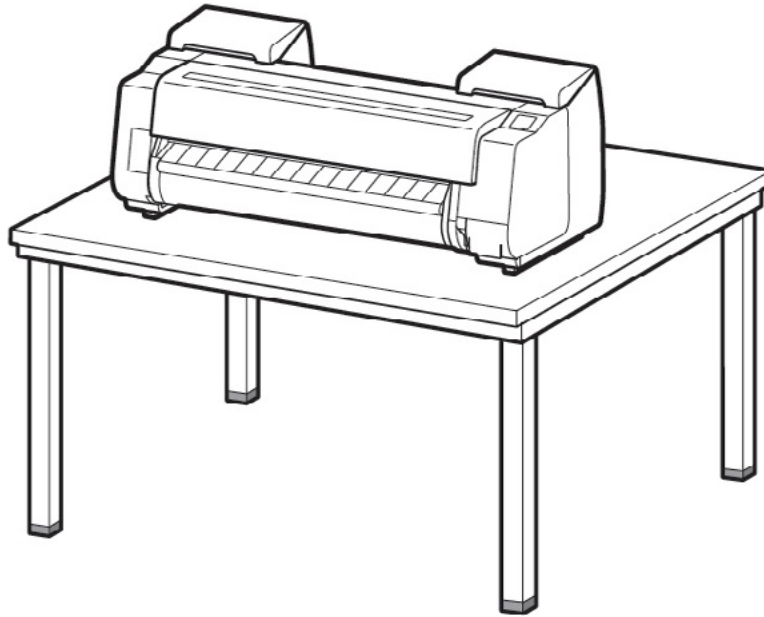


- When moving the printer, firmly grasp the carrying handles (A) under each side. Holding the printer at other positions is dangerous and cause injury and damage if the printer is dropped.





- 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.



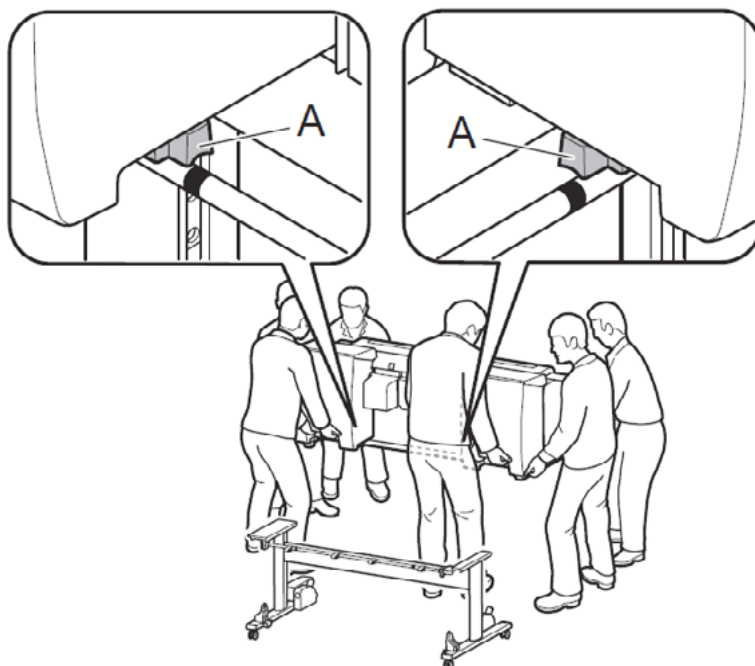
- When standing up the printer or supporting the printer, hold the metal parts of the printer. If you hold a plastic part, the printer may become damaged.



- 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. 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.

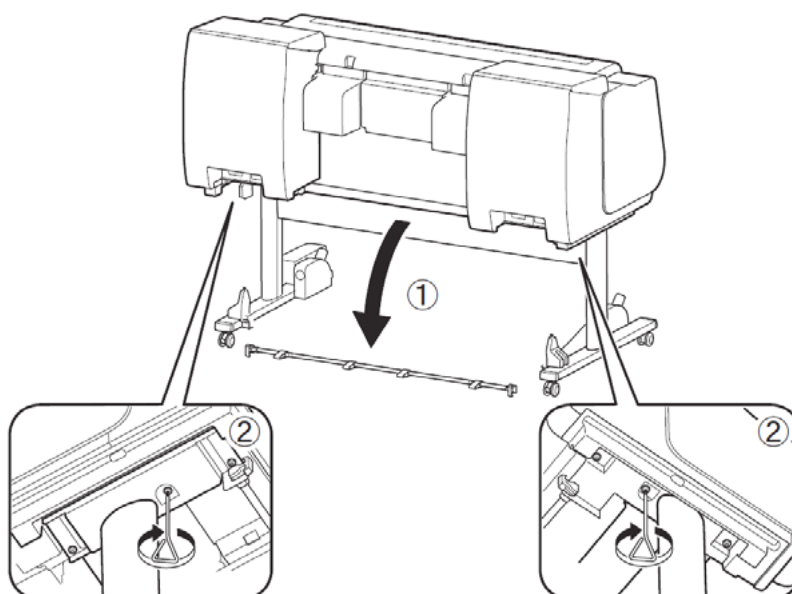


<Important>

- 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 basket 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.



## Attach the Roll Unit

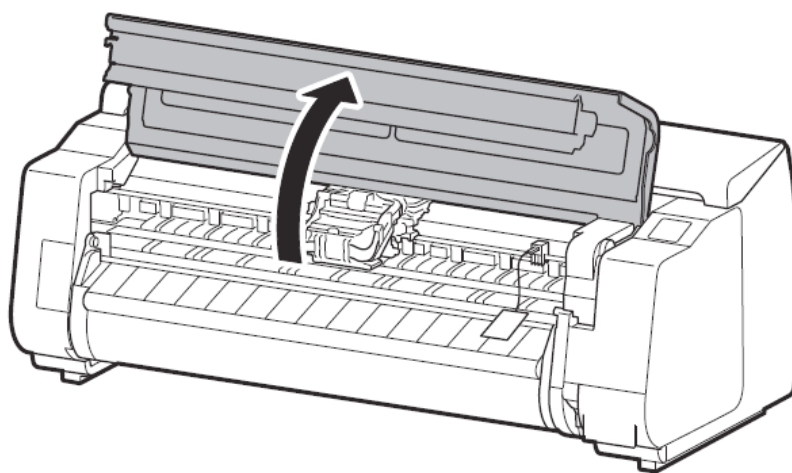
- Models That Use the Roll Unit Attach the roll unit to the stand.  
-> Refer to the Roll Unit Setup Guide (separate manual).
- Models That Do Not Use the Roll Unit Proceed to “Attach the Basket”.

## Attach the Basket

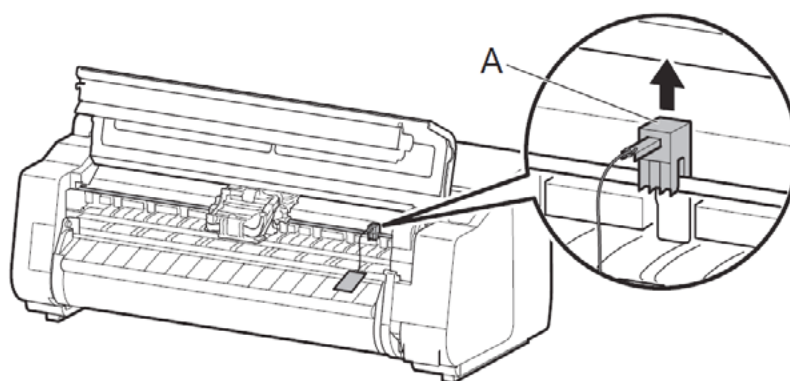
- Models That Use a Stand Attach the basket to the stand.  
-> Refer to “Attach the Basket” in the Printer Stand Setup Guide (separate manual).
- Models That Do Not Use a Stand Proceed to “Turn On the Printer”.

## Turn On the Printer

1. Open the top cover

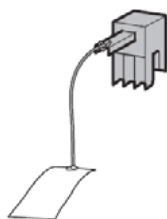


2. Pull up and remove the belt stopper (A).



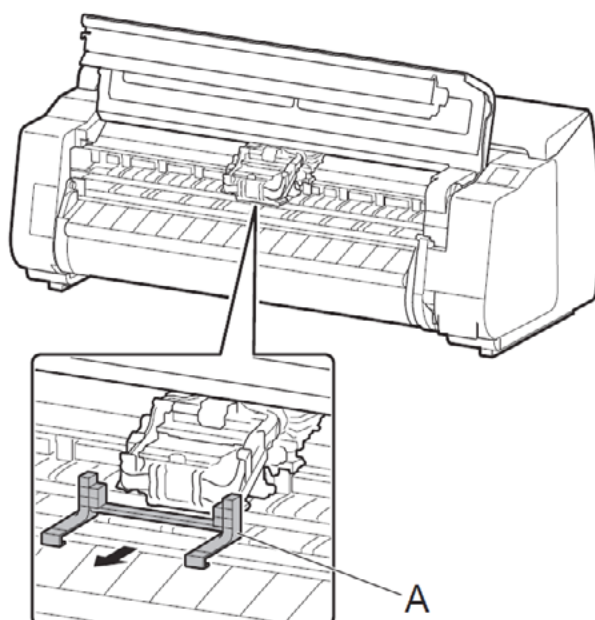
<Note>

- Keep the belt stopper you removed for future use. You will need them in case you move the printer to another location.

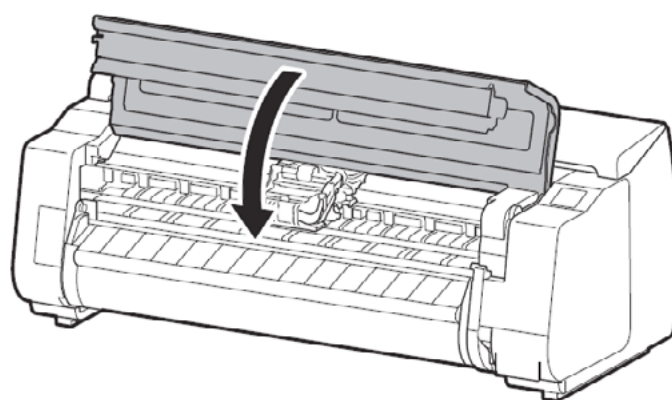


- When you open the top cover, a cleaning brush is stored on the right side. Take it out and use it when cleaning inside the top cover.

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

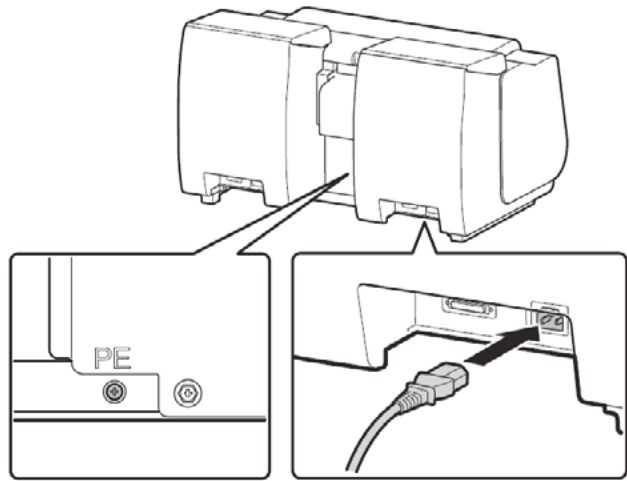


4. Close the top cover.

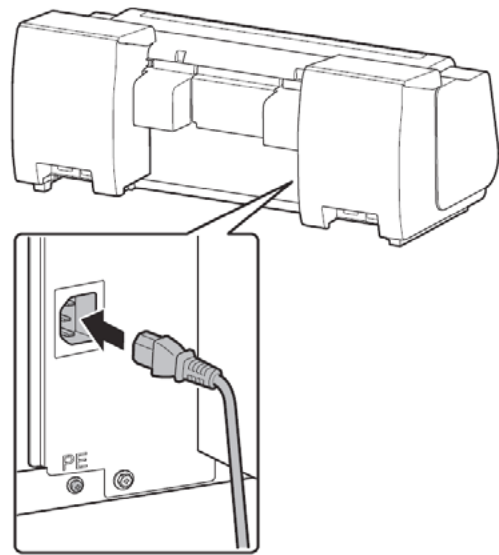


5. Plug the power cord into the power supply connector on the back of the printer.

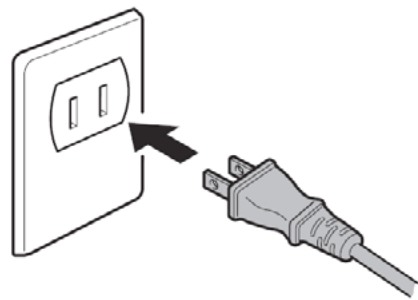
24" model



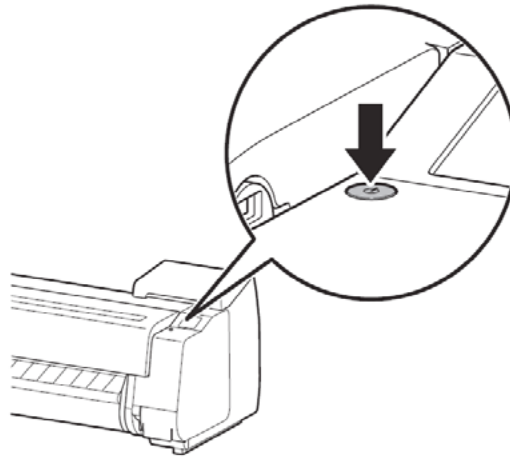
44" model, 60" model



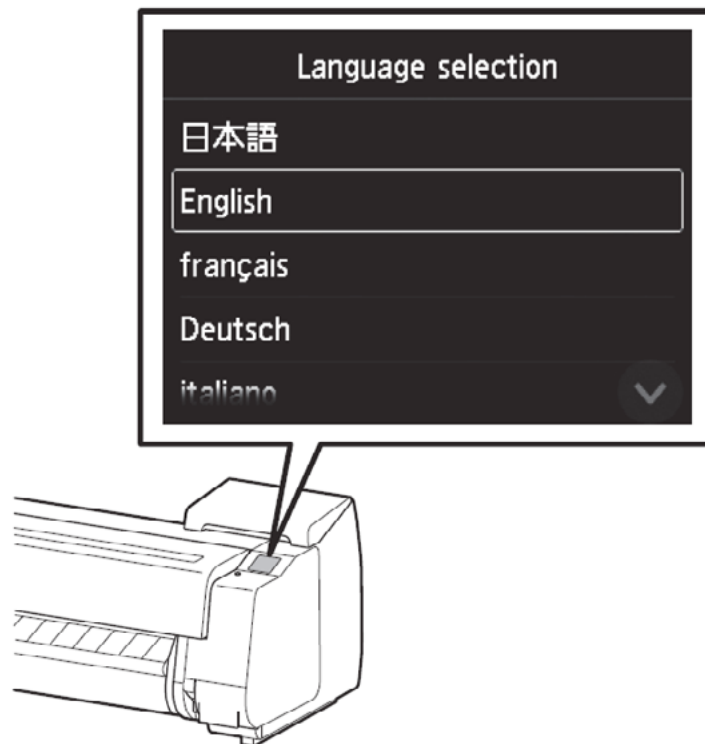
6. Plug the power cord into the outlet.



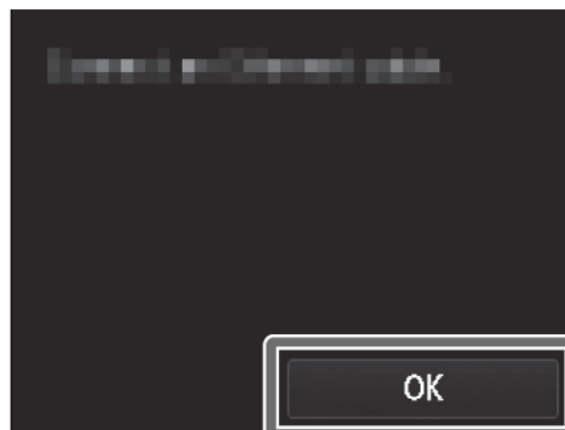
7. Turn on the printer.



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.



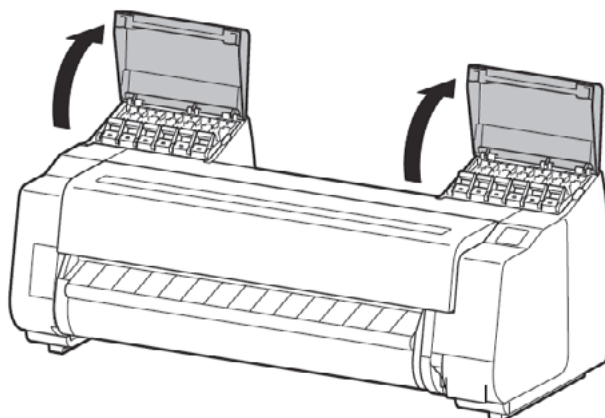
9. When a message prompting you to start the setup appears on the touch screen, tap OK.



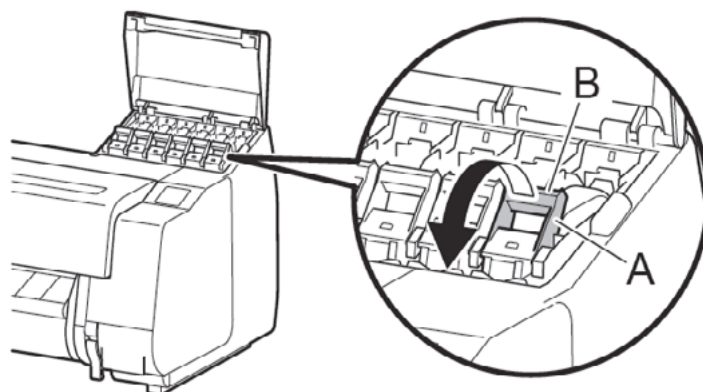
## Install the Ink Tanks

Install the ink tanks. The 12-color model uses 12 ink tanks, and the 8-color model uses 8 ink tanks.

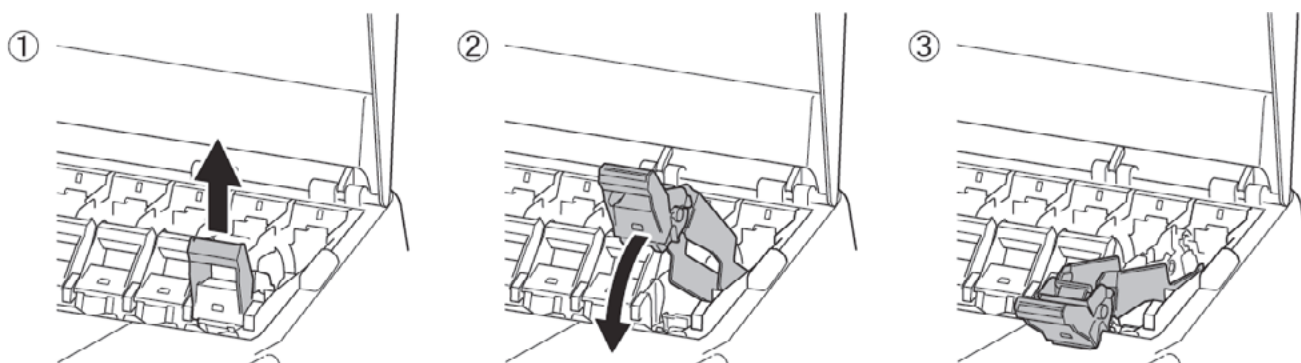
1. Instructions on ink tank installation are shown on the screen. Open the ink tank covers as instructed.



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



3. Lift up the ink tank lock lever until it stops, and then pull it towards you.

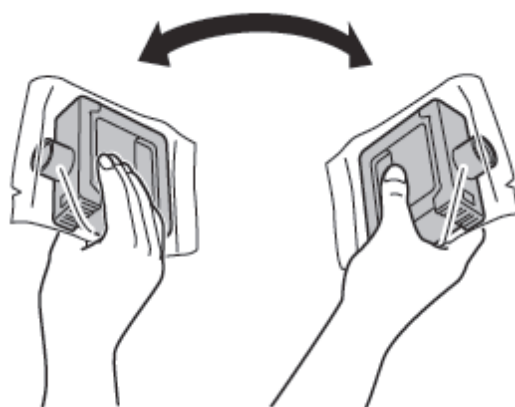


<Important>

- 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.



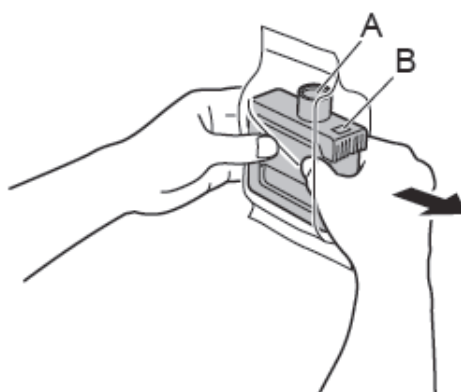
<Important>

- 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.

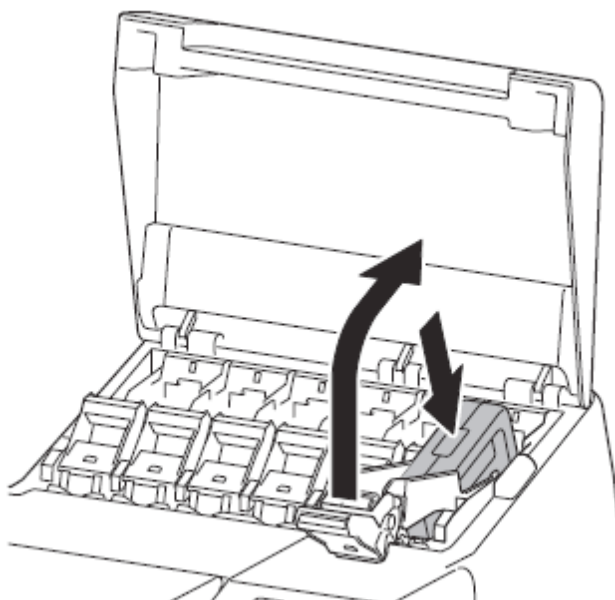
6. Orient the ink tanks and mount them in the holders with ink holes down and metal contacts on the bottom.



<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.

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



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



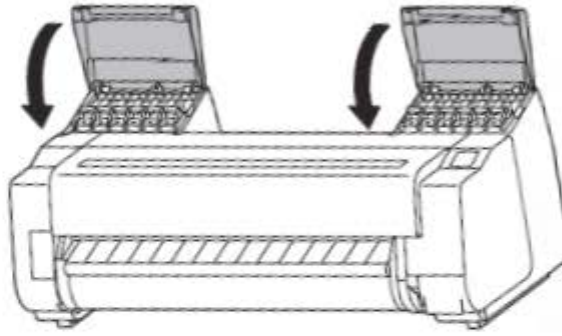
9. Make sure the ink lamp lights red.



<Important>

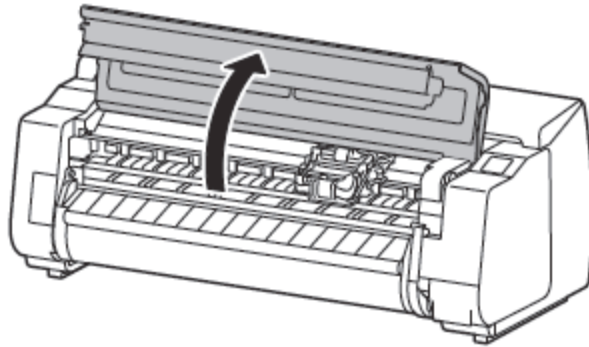
- If the ink lamp does not light, repeat steps 2, 3, 7, and 8.

10. Repeat steps 2 to 9 to install each of the ink tanks. Close the ink tank covers.

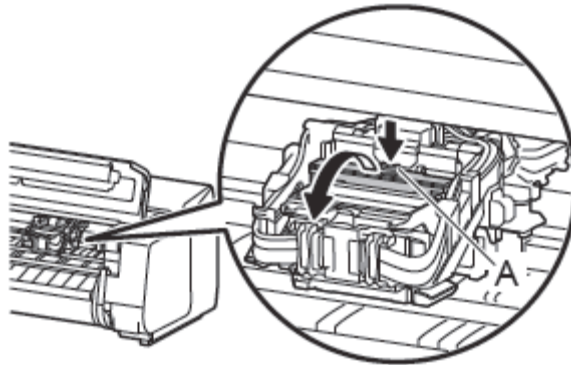


## Install the Print Head

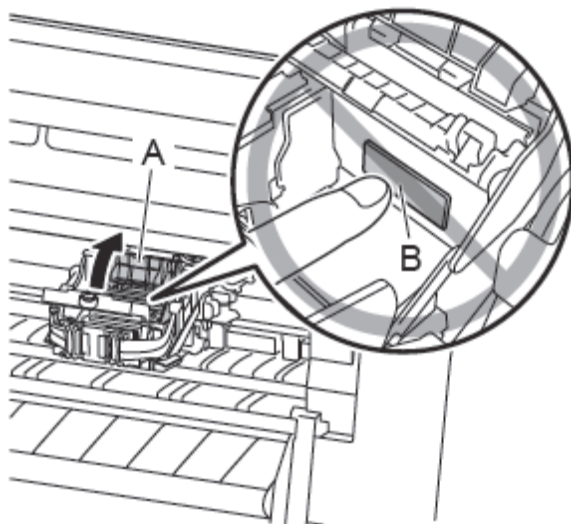
1. When the instruction to open the top cover appears on the screen, open the top cover. Instructions are now shown on the screen regarding print head installation.



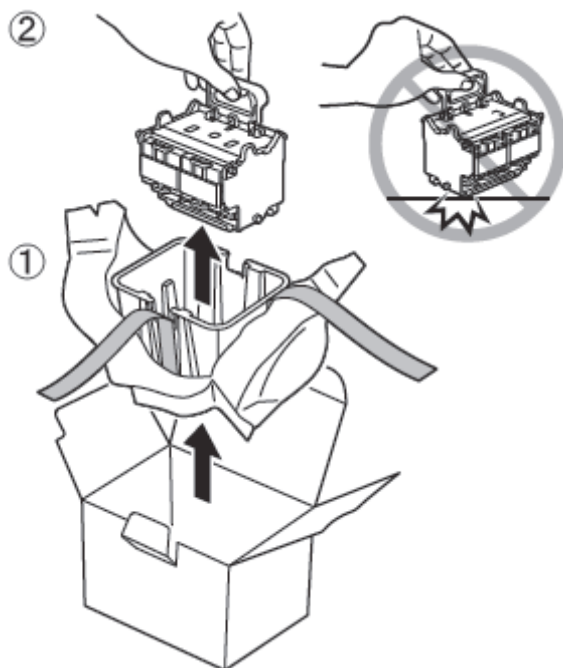
2. Pull the print head lock lever towards you while pressing the button (A) in the middle until it stops and then open it. Remove the protective sheet if there is one attached.



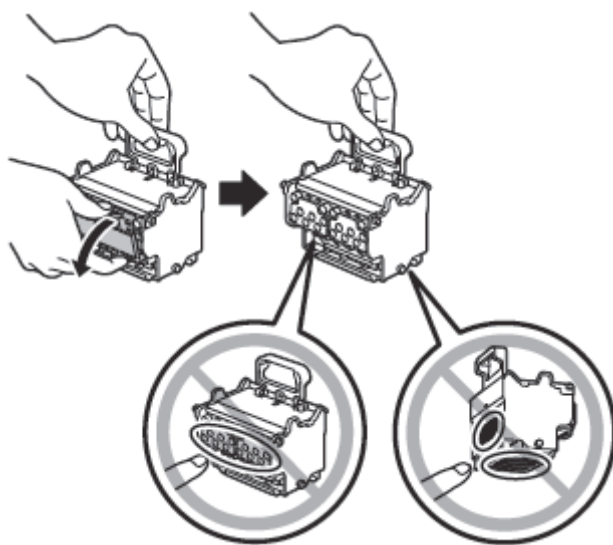
3. Grasp the grip (A) and open the print head locking cover until it stops. Do not touch the contacts (B) on the carriage.



4. ① Remove the print head from the box and bag, and peel off the fixing tape. ② Grasp the blue handle and remove the print head.



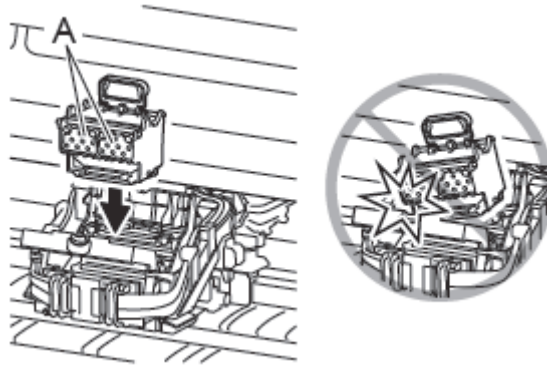
5. Remove the orange protective caps (2 pieces).



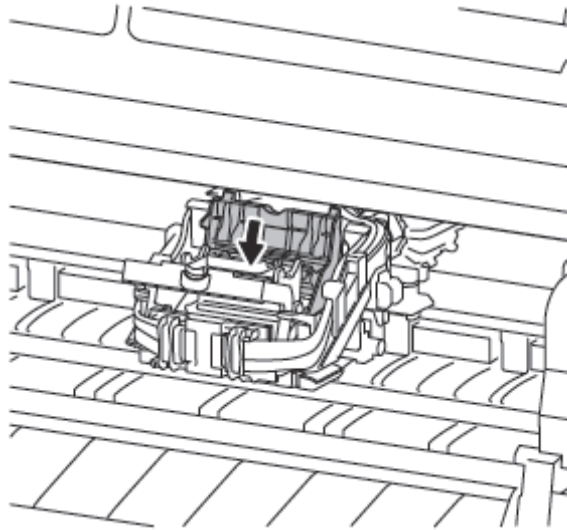
<Important>

- Do not touch any part other than the handle or put down the unit.
- The print head contains ink, so be careful not to spill it once the protective caps are removed.
- Do not reattach the protective caps after removing them. Dispose of them according to local regulations.

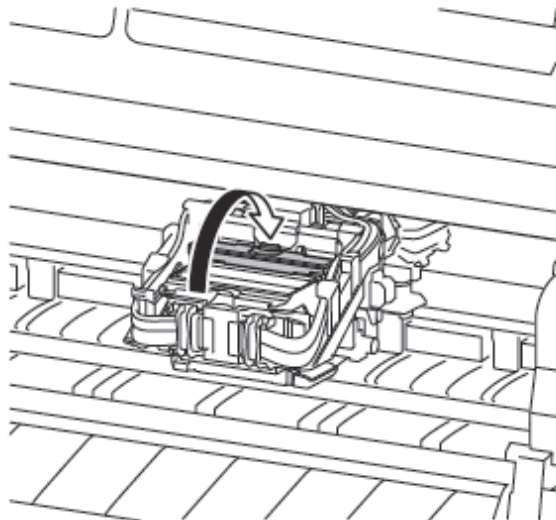
6. Insert the print head into the carriage with the ink holes (A) on the upper side and facing towards you as shown in the figure. Carefully push the print head firmly into the carriage, ensuring that the part covered by the protective caps does not touch the carriage.



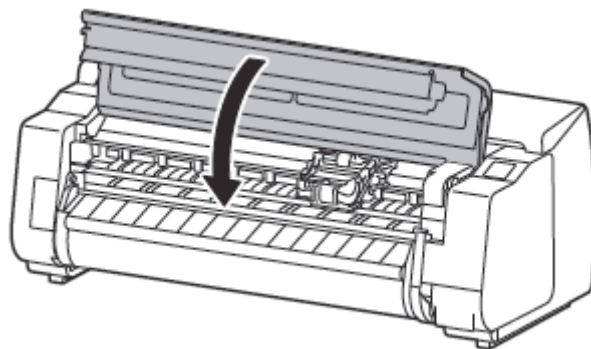
7. Pull the print head fixer cover down toward the front to lock the print head in place.



8. Push the print head lock lever all the way in until it makes a click sound.



9. Close the top cover.



<Note>

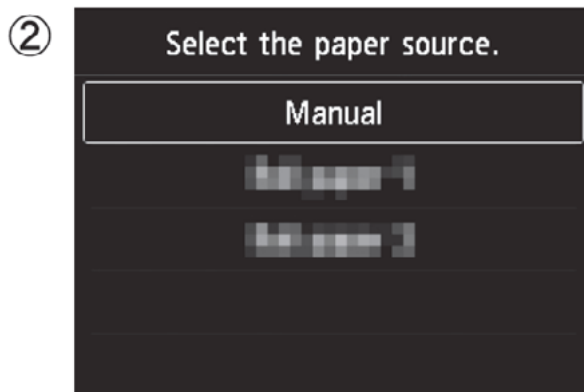
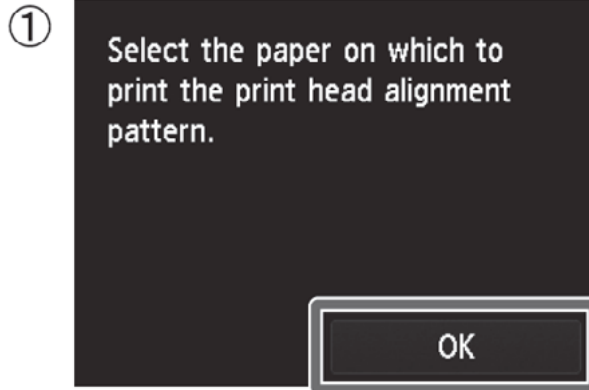
- If the roll unit is installed, the roll unit calibration starts automatically after the print head is attached. If the roll holder is mounted on the roll unit at this time, calibration cannot be executed. Do not mount the roll holder on the roll unit until the setup has finished.



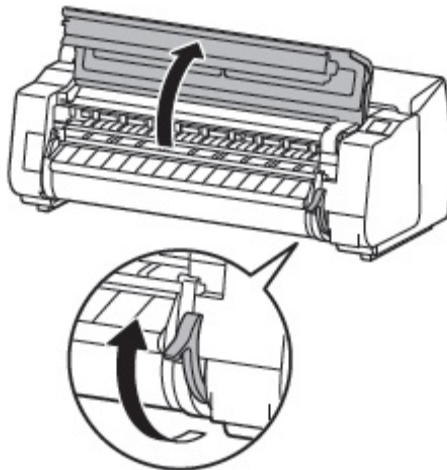
## Load the Paper

Load the paper for adjustment.

1. ① Tap OK. ② Tap Manual.

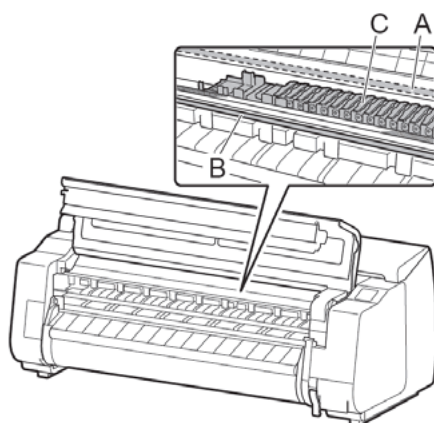


2. Open the top cover and lift the release lever.

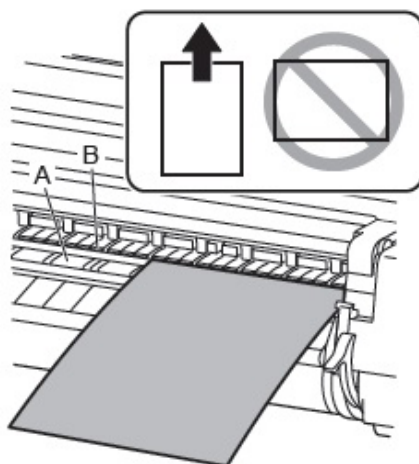


<Important>

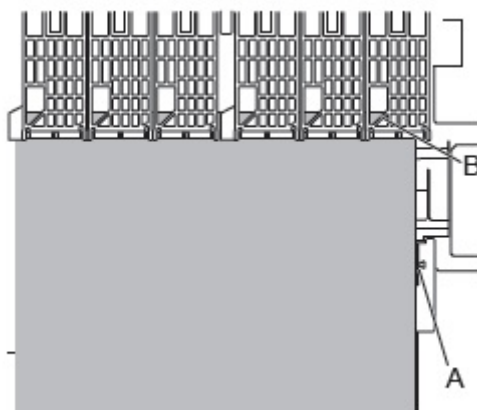
- Do not touch the linear scale (A), carriage shaft (B), or ink tube stabilizer (C). Touching them may cause damage.



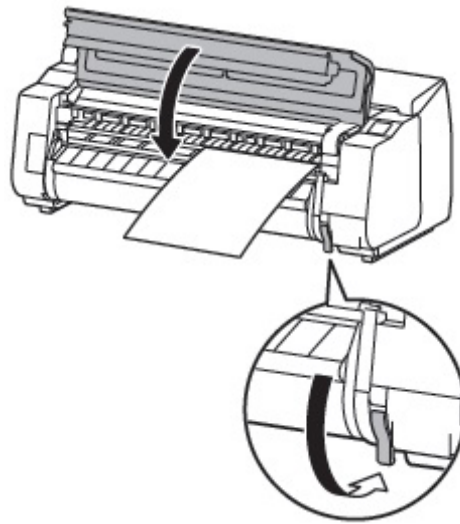
3. Insert the paper for adjustment between the platen (A) and paper retainer (B) in portrait orientation with the printed side of the paper facing up.



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 HW Coated HG.

<Note>

- If "The paper is loaded askew." appears, repeat steps 2 to 5.

The remainder of this procedure differs depending on the model you are using.

Check the name of the model you are using, and proceed to the following page.

For the 24" model:

Go to [Perform Print Head Adjustment and Select the Connection Method on the 24" model]

For the 44" model and 60" model:

Go to [Select the Connection Method and Perform Print Head Adjustment on the 44" model and 60" model]

## Perform Print Head Adjustment and Select the Connection Method on the 24" Model

1. The paper starts feeding, and then the printer automatically starts charging the system with ink and adjusting the printhead. Charging the system with ink and adjusting the print head for the first time takes about 50 minutes and uses 5 sheets of paper for adjustment.

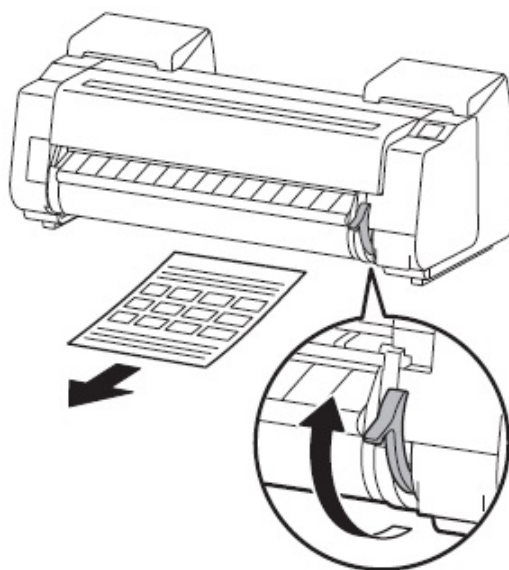
<Important>

- 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.

<Note>

- 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.

2. Once a single sheet of the adjustment pattern has finished printing, lift up the release lever and remove the paper for adjustment.

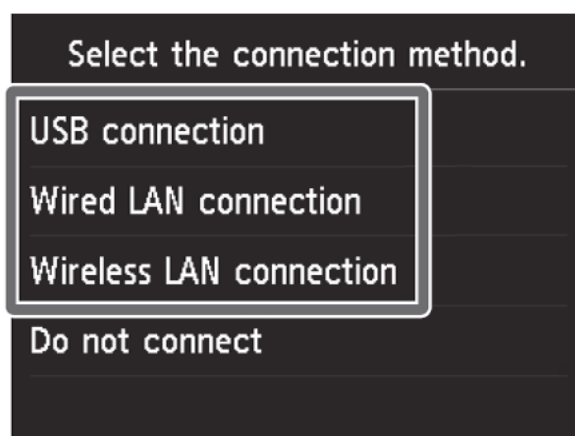



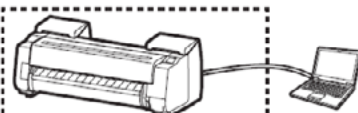

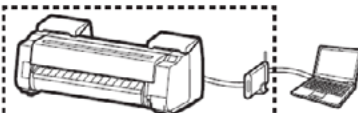


3. Load the next paper by referring to steps 2 to 5 on Print head adjustment uses 5 sheets of paper. Repeat steps 2 and 3 until the printing has finished.

4. Once the print head adjustment has finished, the screen below appears.

Tap the connection method to use.

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



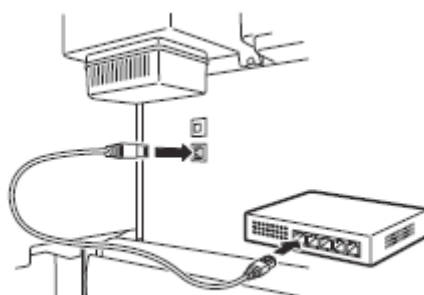
<p> <b>USB connection</b> The printer is connected to a computer using a USB cable. This can be connected the most easily. Only 1 printer can be connected.</p>	 <p>USB connection</p>
<p> <b>Wired LAN connection</b> The printer is connected to the network using a LAN cable.</p>	 <p>Wired LAN connection</p>
<p> <b>Wireless LAN connection</b> The printer is connected to the network without using a cable.</p>	 <p>Wireless LAN connection</p>

5. If you selected USB connection

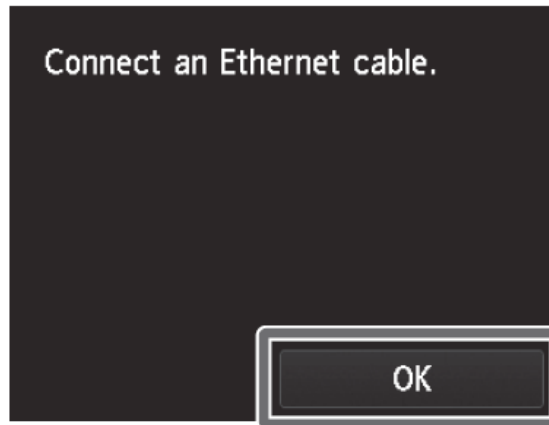
Proceed to “Connect to the Printer.”

If you selected Wired LAN connection

1) Use the LAN cable to connect the wired LAN connector on the back of the printer to the hub port.

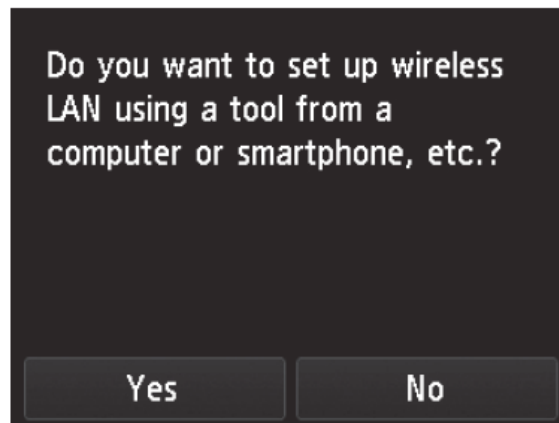


2) Tap OK, and then proceed to “Connect to the Printer.”



If you selected Wireless LAN connection

To configure the wireless LAN settings using a computer, tap Yes, or to configure the wireless LAN settings on the printer, tap No, and proceed to “Connect to the Printer.”



If you selected Do not connect

Setup has finished at this point. However, the connection settings and software installation will need to be performed separately in order to use the printer from a computer. (Refer to “Connect to the Printer”).

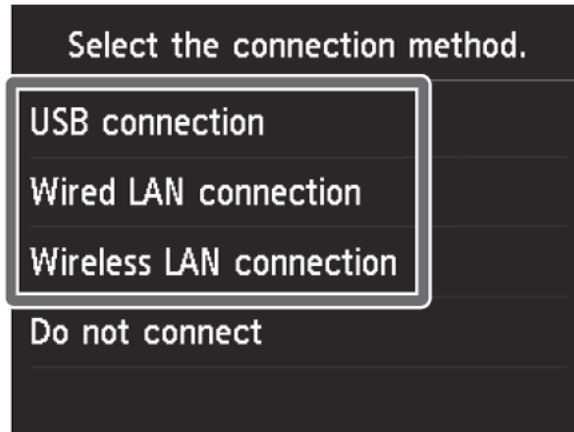
To load roll paper after setup, tap the paper settings display area from the home screen, then (roll paper icon), then Replace paper, and follow the instructions on the screen.


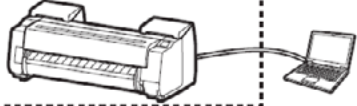




To load roll paper after setup, tap the paper settings display area from the home screen, then (roll paper icon), then Replace paper, and follow the instructions on the screen.

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

## Select the Connection Method and Perform Print Head Adjustment on the 44" Model and 60" Model

- When the screen for selecting the connection method appears, tap the connection method to use. Check the message about the connection method and tap Yes if there are no problems.

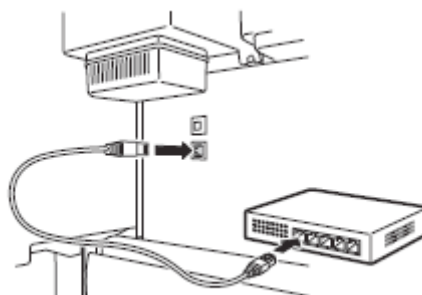


 USB connection	<p>The printer is connected to a computer using a USB cable. This can be connected the most easily. Only 1 printer can be connected.</p>	 <p>USB connection</p>
 Wired LAN connection	<p>The printer is connected to the network using a LAN cable.</p>	 <p>Wired LAN connection</p>
 Wireless LAN connection	<p>The printer is connected to the network without using a cable.</p>	 <p>Wireless LAN connection</p>

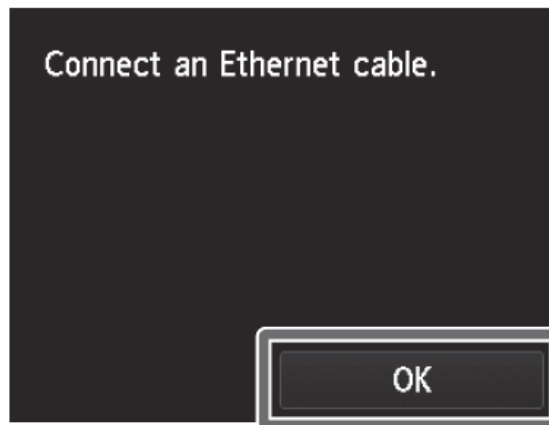
- If you selected USB connection or Do not connect  
Proceed to step 3.

If you selected Wired LAN connection

- Use the LAN cable to connect the wired LAN connector on the back of the printer to the hub port.

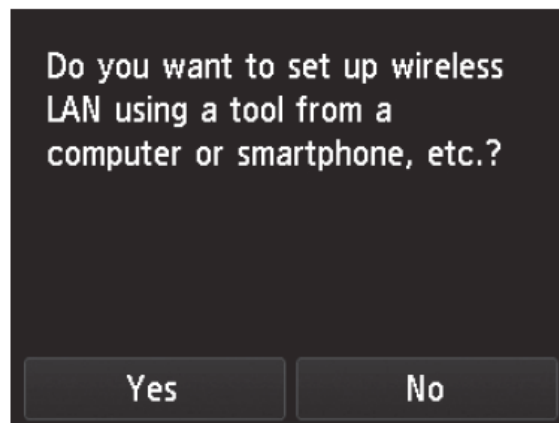


2) Tap OK, and then Proceed to step 3.



If you selected Wireless LAN connection

To configure the wireless LAN settings using a computer, tap Yes, or to configure the wireless LAN settings on the printer, tap No, and Proceed to step 3.



3. 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 55 minutes.

During this time, configure the printer and computer connection settings and install the software. (Refer to "Connect to the Printer")

<Important>

- 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.

<Note>

- 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.
- Do not connect the USB cable before installing the printer driver. The printer driver will not be able to install correctly. Connect the USB cable by following the on-screen instructions during the installation.



- If you selected Do not connect in step 1, setup is finished at this point. However, the connection settings and software installation will need to be performed separately in order to use the printer from a computer. (Refer to “Connect to the Printer”).

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.

## Connect to the Printer

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

However, if you selected Wireless LAN connection -> Yes -> No in steps 4 to 5 on or steps 1 to 2 on configure the wireless LAN settings only using the printer. Proceed to "Configure Wireless LAN Settings on the Printer."

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



<Note>

- If you are using a Windows PC, you can also start this from the CD-ROM. If you have started from the CD-ROM, proceed to step 4.

2. Click Set Up.

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



3. Click Download to download the setup files.

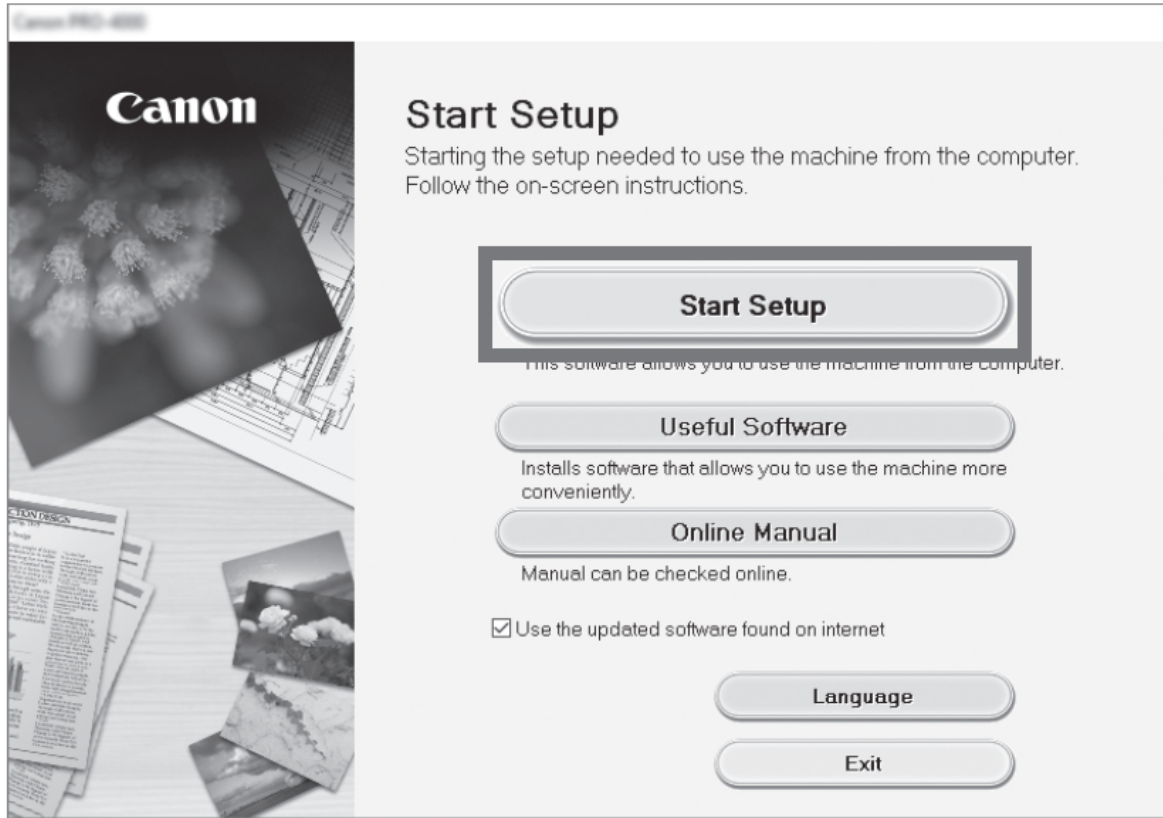
If a warning screen about downloading appears, select Do not block, Allow, etc. to proceed with the operation.

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

Download

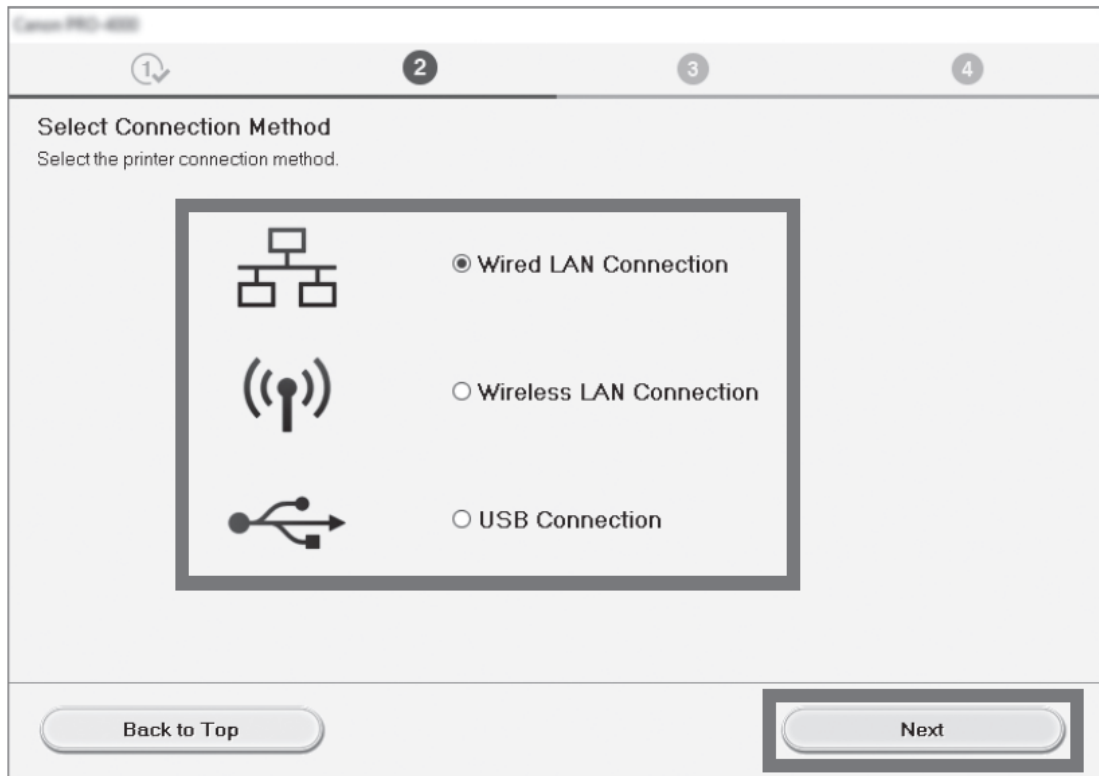
4. Run the file you downloaded and click Start Setup.

Configure the settings by following the instructions on the screen.

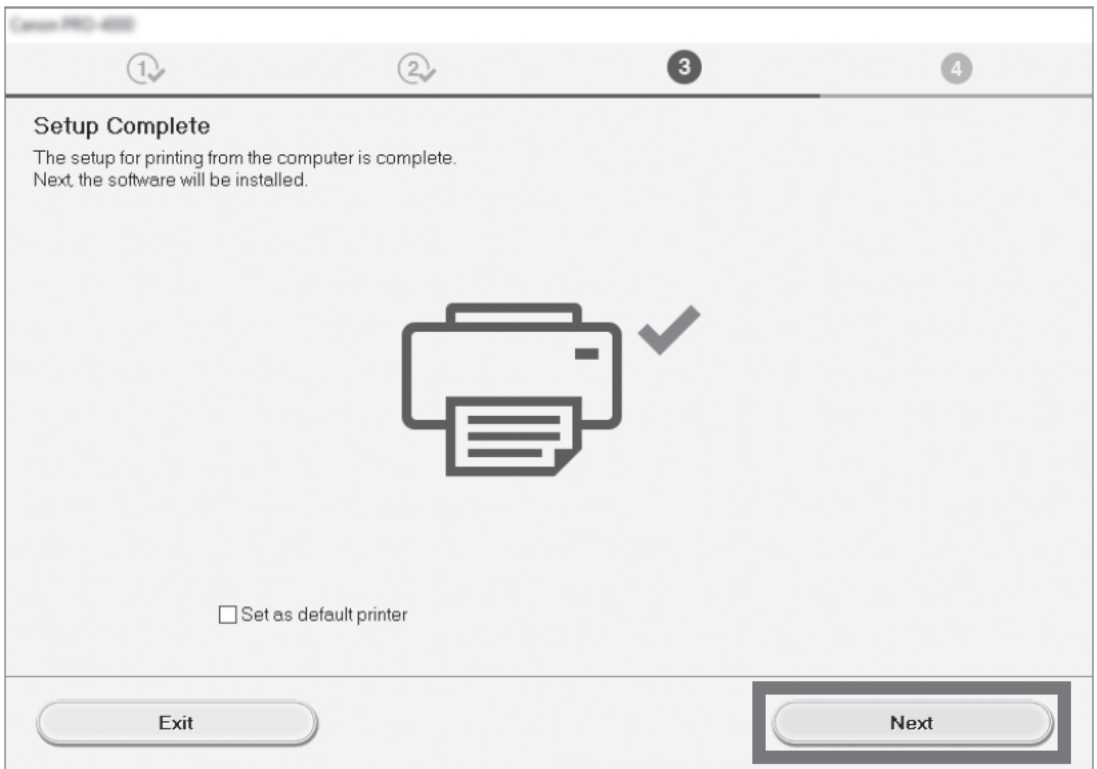


5. Select the printer connection method and click Next.

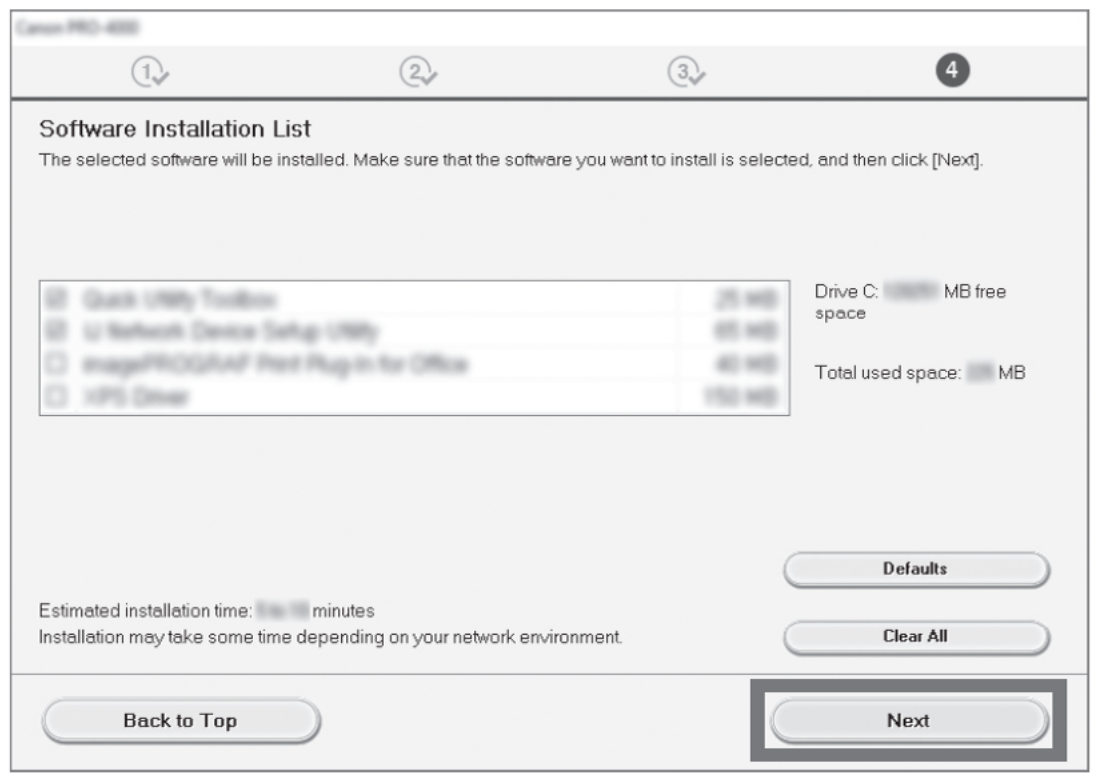
Configure the remaining settings by following the instructions on the screen.



6. When the following screen appears, you can use the printer. Next, click Next to proceed to installing the software.



7. When the following screen appears, select the software to install and click Next. Configure the remaining settings by following the instructions on the screen. This completes the connection with the computer.



## Configure Wireless LAN Settings on the Printer

If you selected Wireless LAN connection -> Yes -> No in steps 4 to 5 or steps 1 to 2, configure the wireless LAN settings using the printer touch screen.

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



<Note>

- If the following message appears, the printer initial settings are not finished. Wait until the above screen appears.

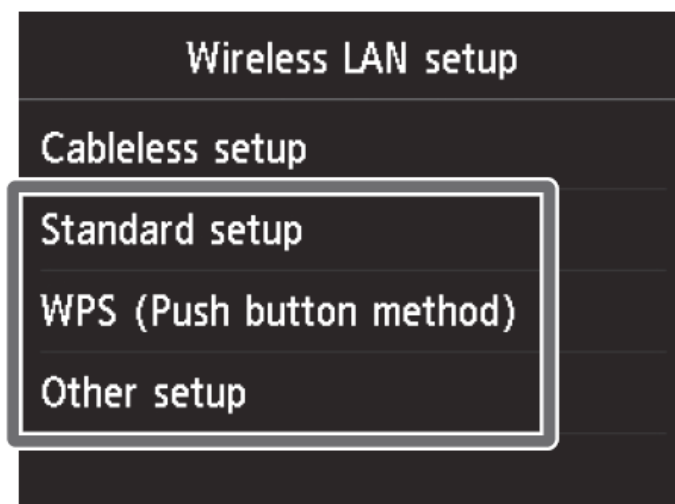
Checking the nozzle.

Injecting the ink.

Cleaning...

2. Select and tap the connection method.

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



Chapter 1

Chapter 2

Chapter 3

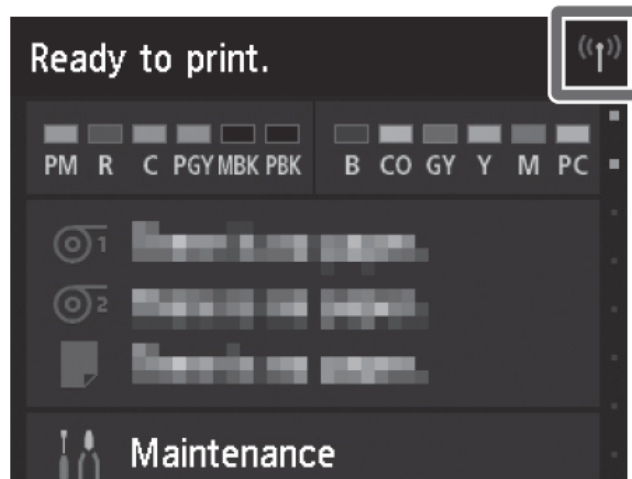
Chapter 4

Chapter 5

Chapter 6

Chapter 7

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

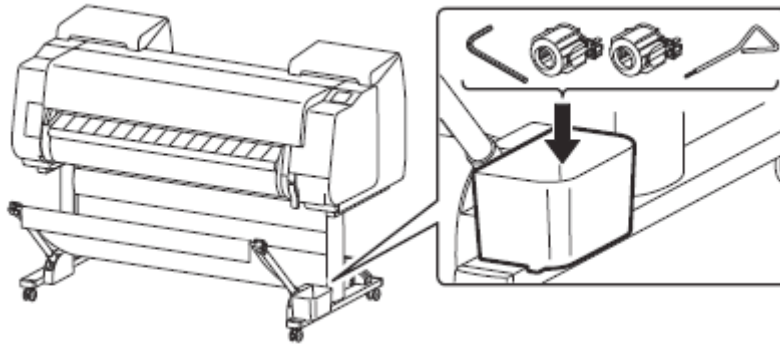


<Note>

- Once you have finished setting up the printer and software, it is recommended that you execute color calibration. You can compensate for variations in color tone due to differences between printers and variations due to aging by executing color calibration. Color calibration is executed using paper for adjustment that supports color calibration. For details on other supported paper, refer to "List of Paper Information" in the Online Manual. To execute color calibration, select Maintenance from the home screen -> Color calibration -> Auto adjust. Executing color calibration takes about 10 minutes.
- If you are using color calibration, it is convenient to configure the function for notifying the execution time (Calibration guide setting). For details on this function, refer to "Performing Color Calibration" in the Online Manual.

## Store Accessories in the Pockets

Store accessories such as the 3-inch paper core attachment in the accessory pocket.

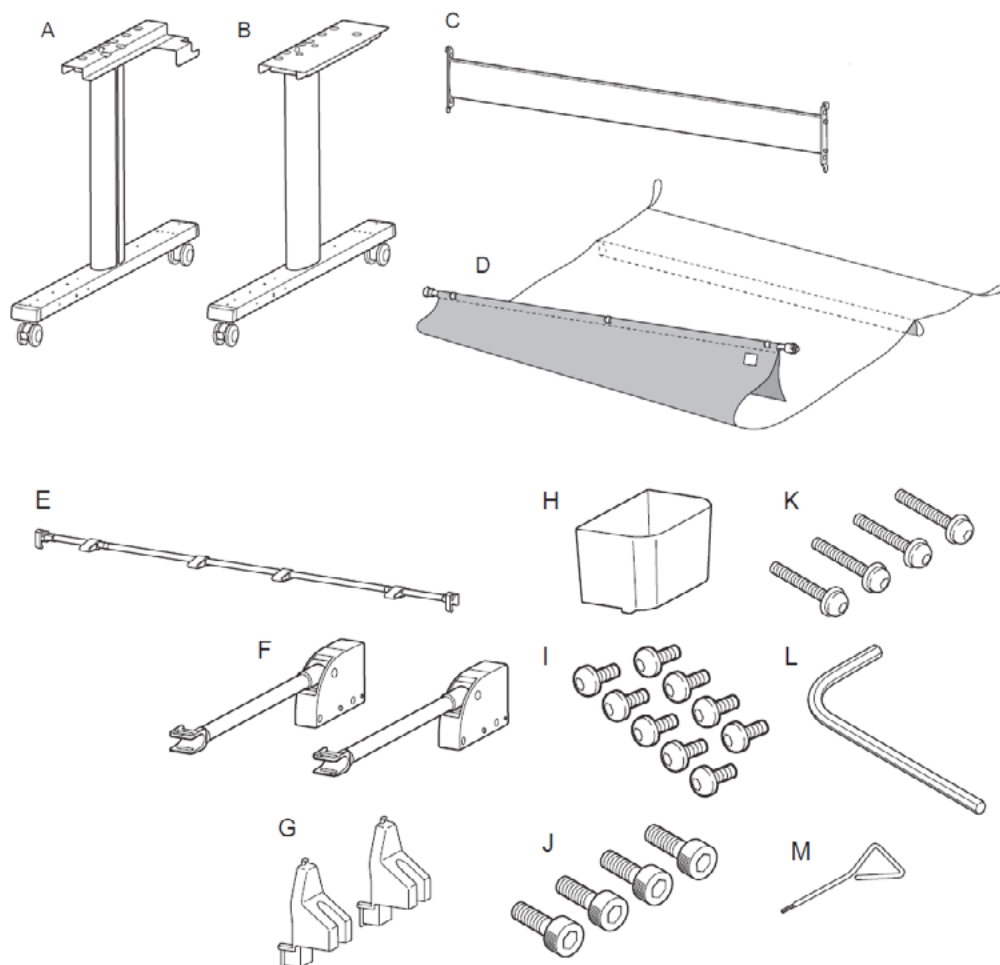


<Note>

- When the setup is completed, refer to the various manuals to use the printer. Refer to “The Manuals Supplied with This Printer”.

## 2. Printer Stand Setup

### Package Contents



- A. Stand leg L
- B. Stand leg R
- C. Stand stay
- D. Basket cloth / Basket rod (tag side) \*
- E. Basket rod (cord side)
- F. Basket arm (x 2)
- G. Rod holder (x 2)
- H. Accessory pocket
- I. M4 hex screw (x 9)
- J. M8 hex screw (x 4)
- K. M4 Hex screw for basket arm (x 4)
- L. M8 Allen wrench
- M. M4 Allen wrench

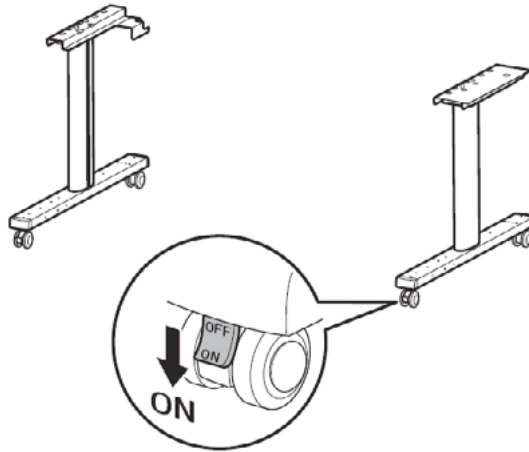


## Assemble the Stand

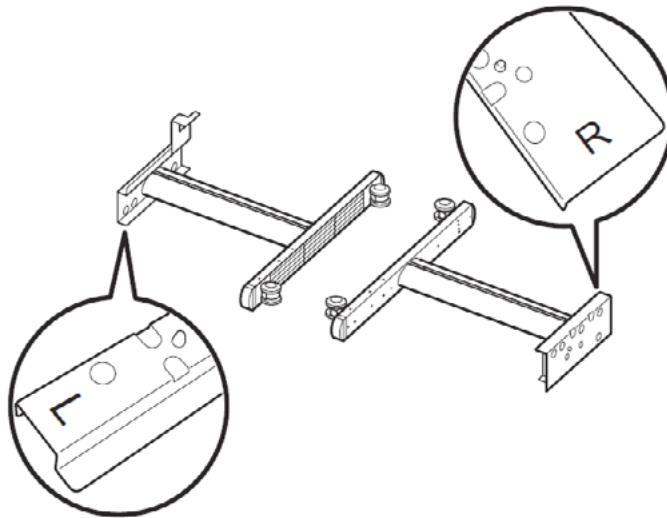
<Caution>

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

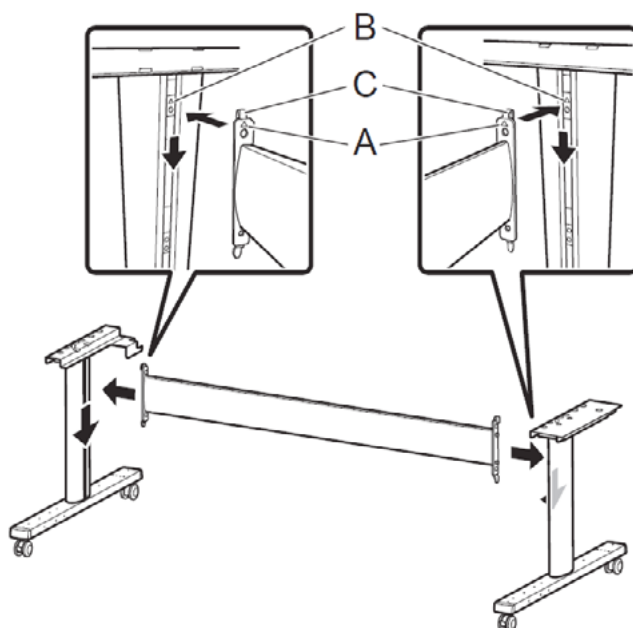
1. Check that locks on a total of 4 casters on both stand leg L and stand leg R are engaged.



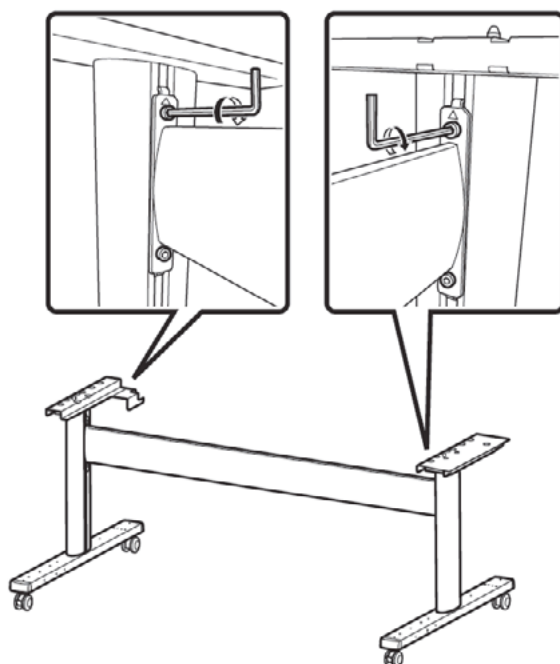
2. Arrange the stand leg L and stand leg R as shown in the diagram.



3. 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.

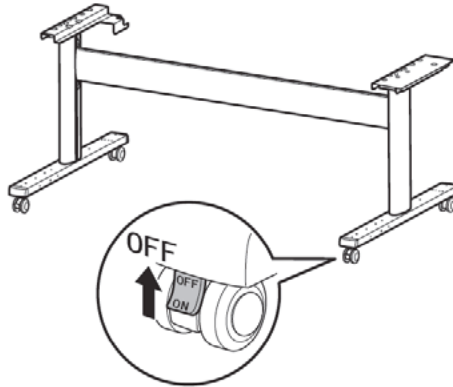


4. Affix the stand stay using 2 M8 hex screws each on the left and right sides. Securely tighten the screws using the M8 Allen wrench.

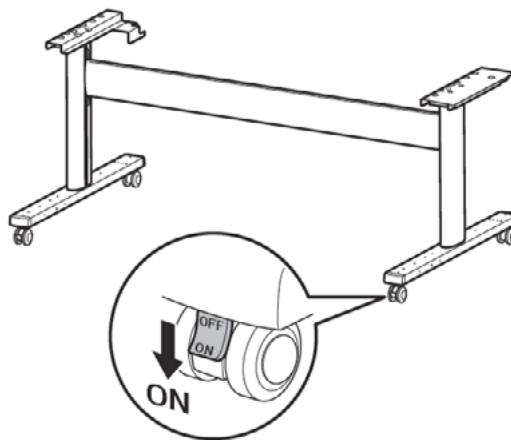


## Prepare to Install the Printer

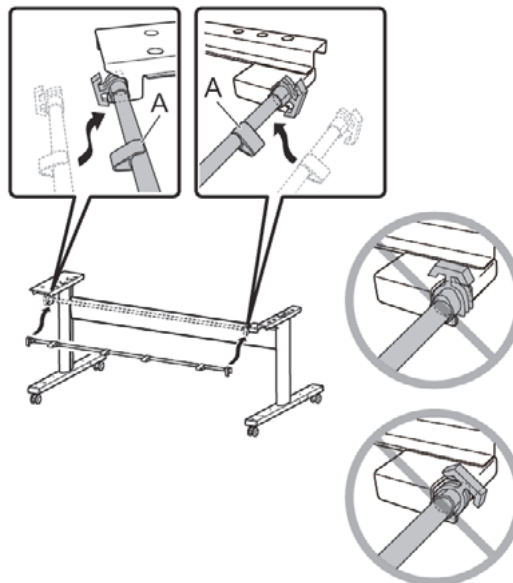
1. Move the stand to a location that will make it easy to install the printer. When moving the stand, switch the locks on all 4 casters to off.



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

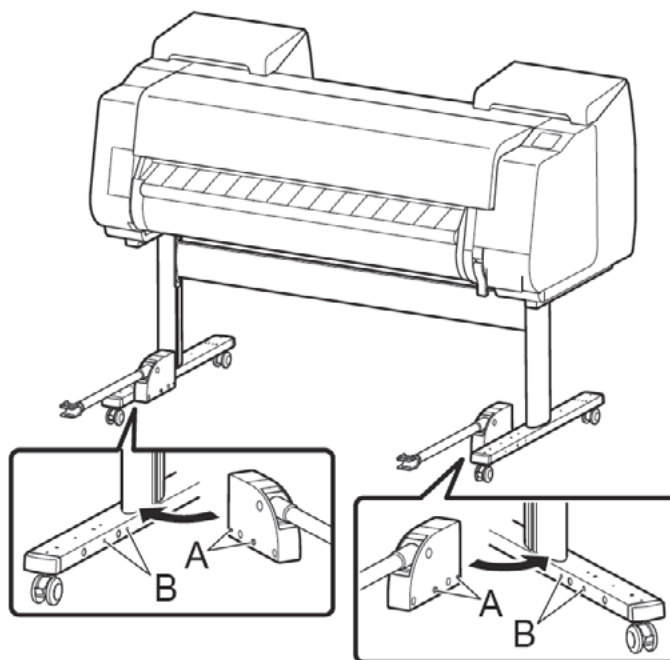


3. Attach the basket rod to the supporting plates on the stand legs. Attach with the protrusions (A) on the basket rod facing towards you.



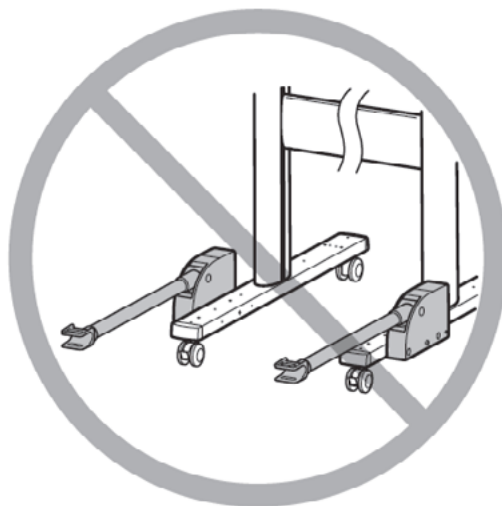
## Attach the Basket

1. 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.



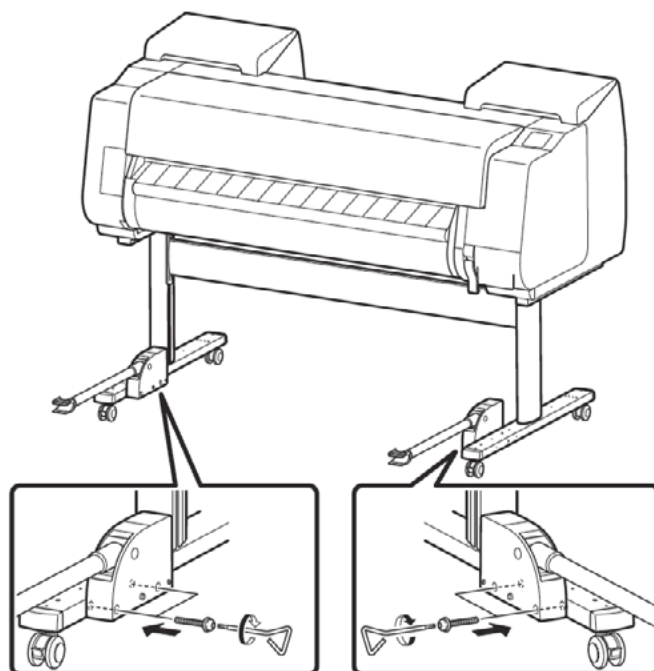
<Caution>

- 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.

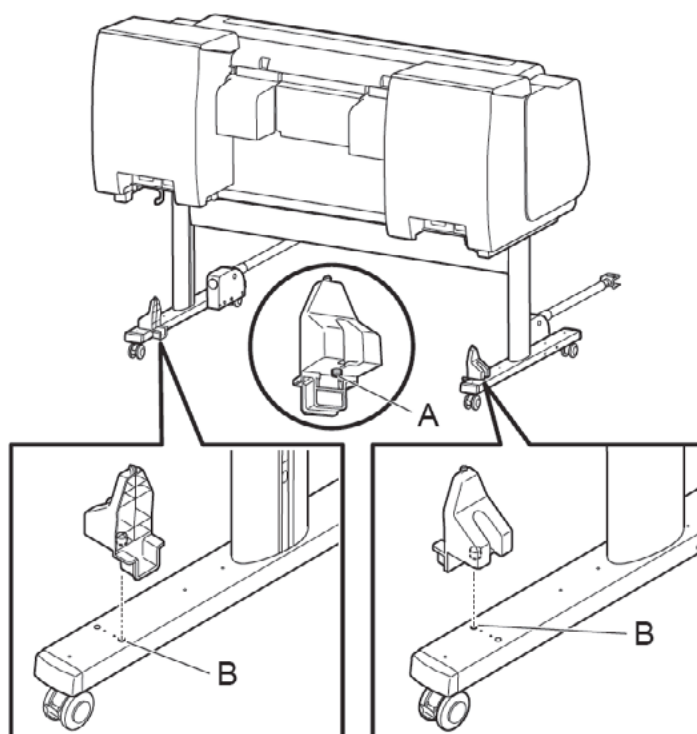


2. Affix the basket arms to the stand using 2 M4 hex screws for the basket arms. Securely tighten the screws using the M4 Allen wrench.

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

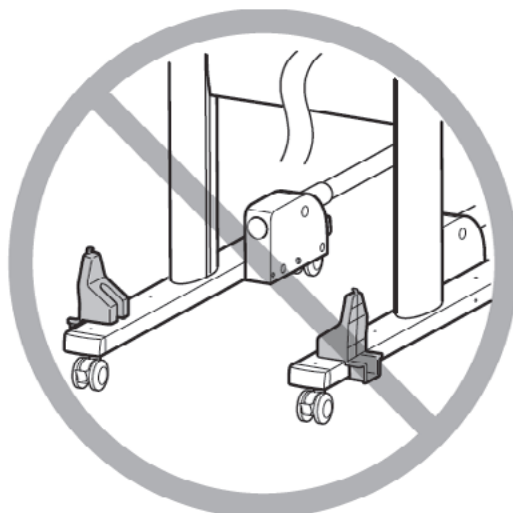


3. Insert the protrusion (A) on the base of the rod holder into the hole that is innermost (B) from among the 4 holes on the rear side of the stand leg, and attach the rod holder.



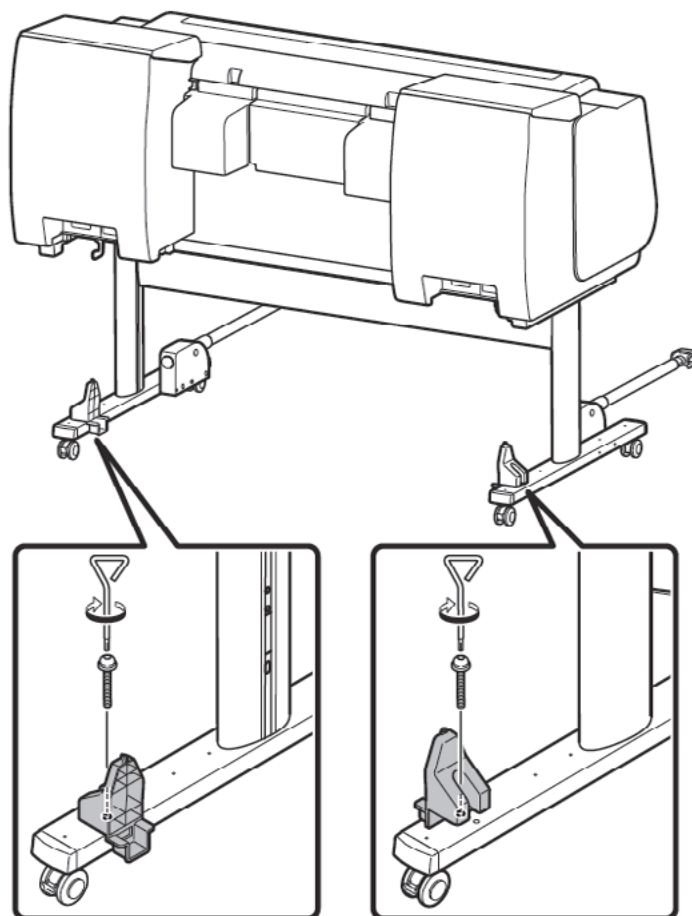
<Caution>

- Always attach the rod holders to the inner side holes of the stand. If you attach them to the wrong side, you will not be able to assemble the basket as described below.

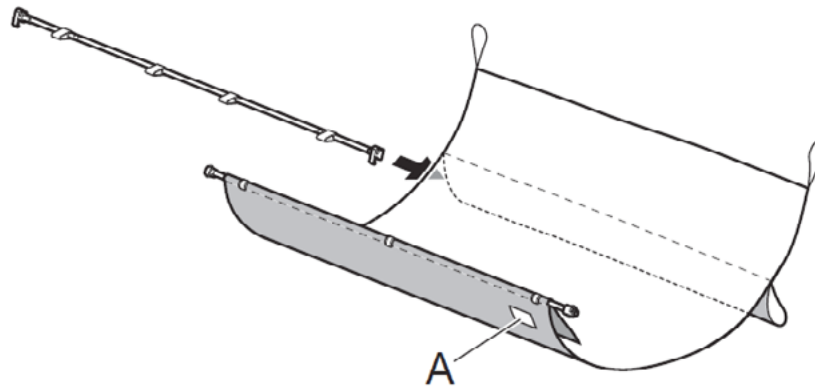


4. Affix the rod holder to the stand using 1 M4 hex screw.

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



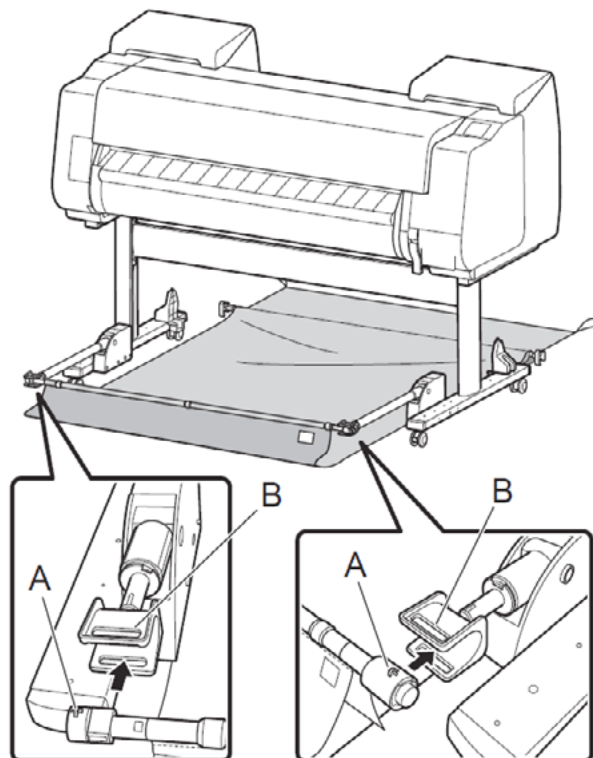
5. Spread out the basket cloth with the surface that does not have the white tag (A) facing up, and feed the basket rod (cord side) through the cylindrical part of the basket cloth.



<Note >

- The basket rod (tag side) is already attached to the basket cloth.

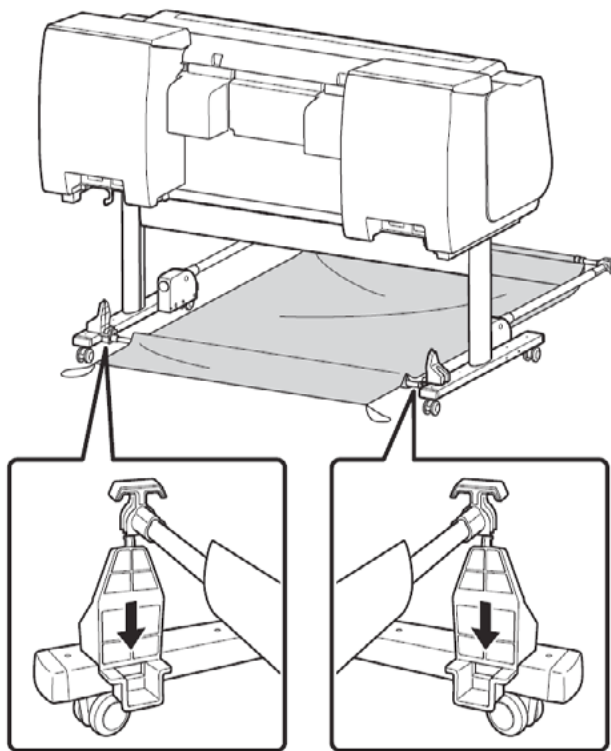
6. Attach both ends of the basket rod (tag side) to the tips of the basket arms. Insert the protrusions (A) on the basket rod into the elliptical holes (B) in the tips of the basket arms to attach them.



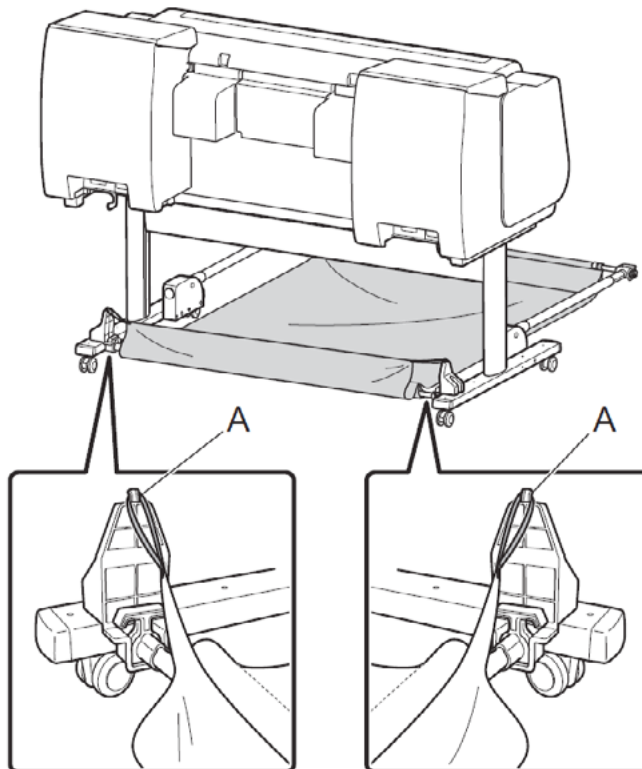
<Caution>

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

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



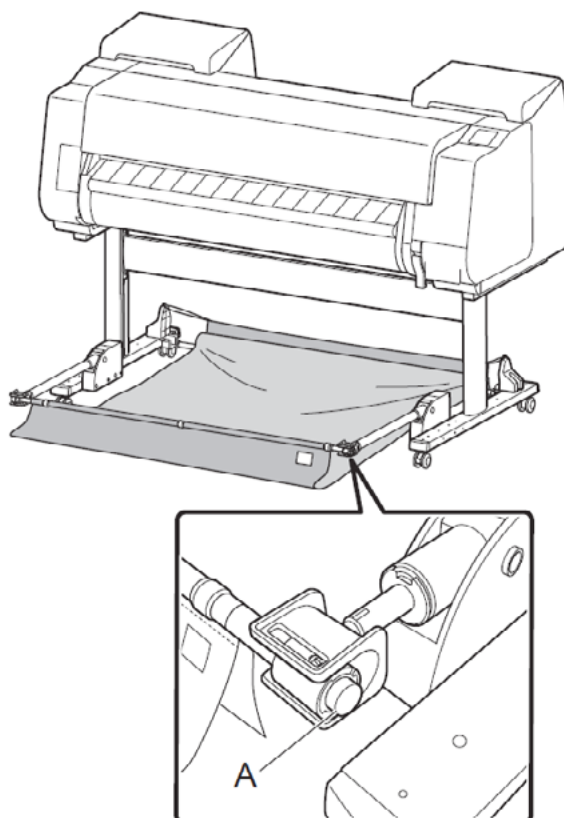
8. Hook the black cord of the basket cloth onto the hooks (A) at the top of the rod holders.





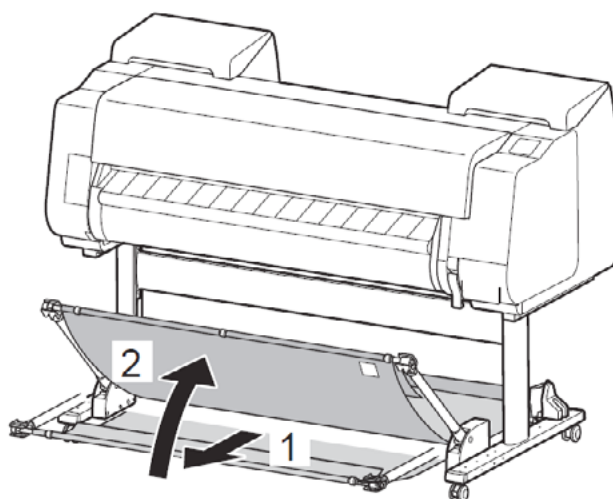
9. Check that the basket cloth is not wrapped around the basket rod (tag side).

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.



10. 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).

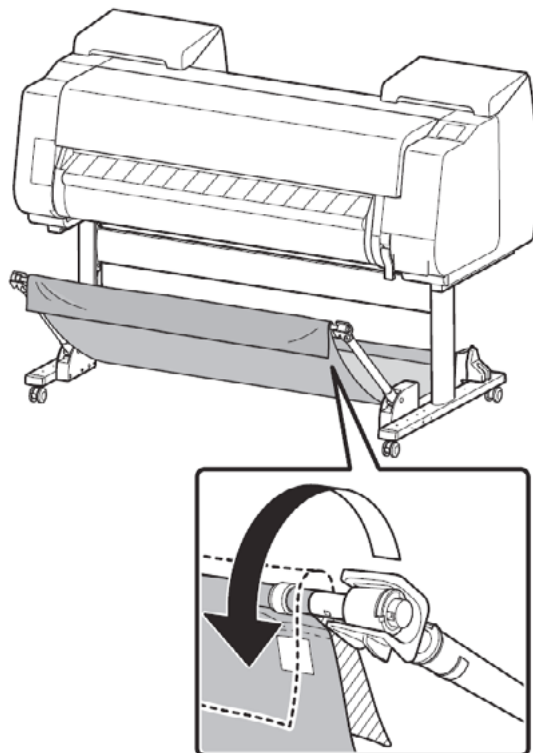


<Important>

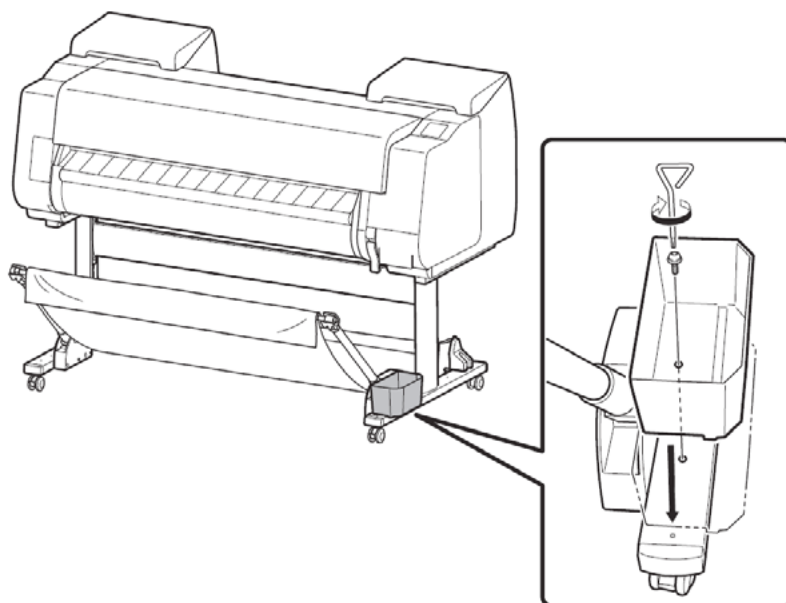
- Work by grasping the thick parts of the basket arms.
- Pull the basket arms out completely before lifting up the basket rod.

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

If it is inside, remove it to the outside.

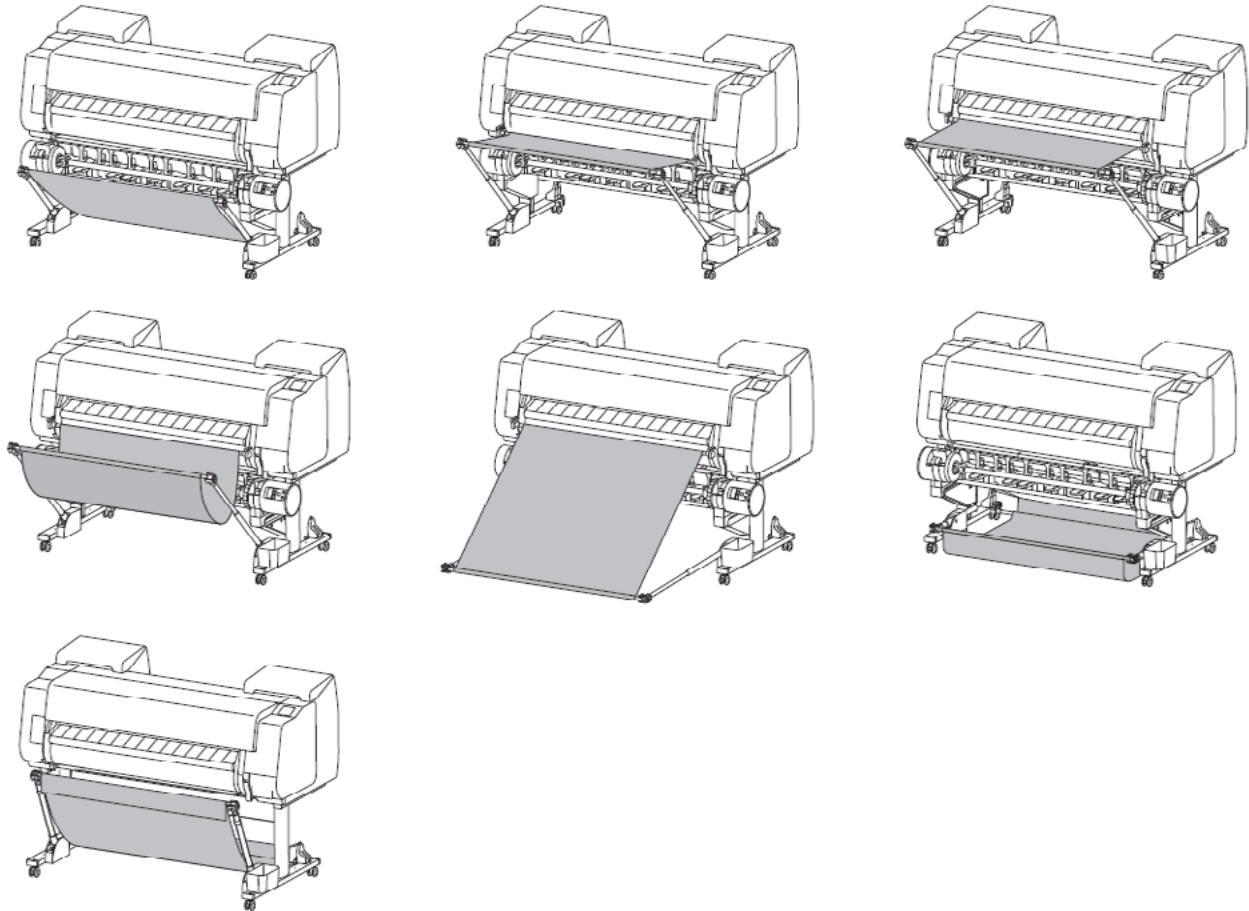


12. Affix the accessory pocket using 1 M4 hex screw. Securely tighten the screw using the M4 Allen wrench included with the printer.



## 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.

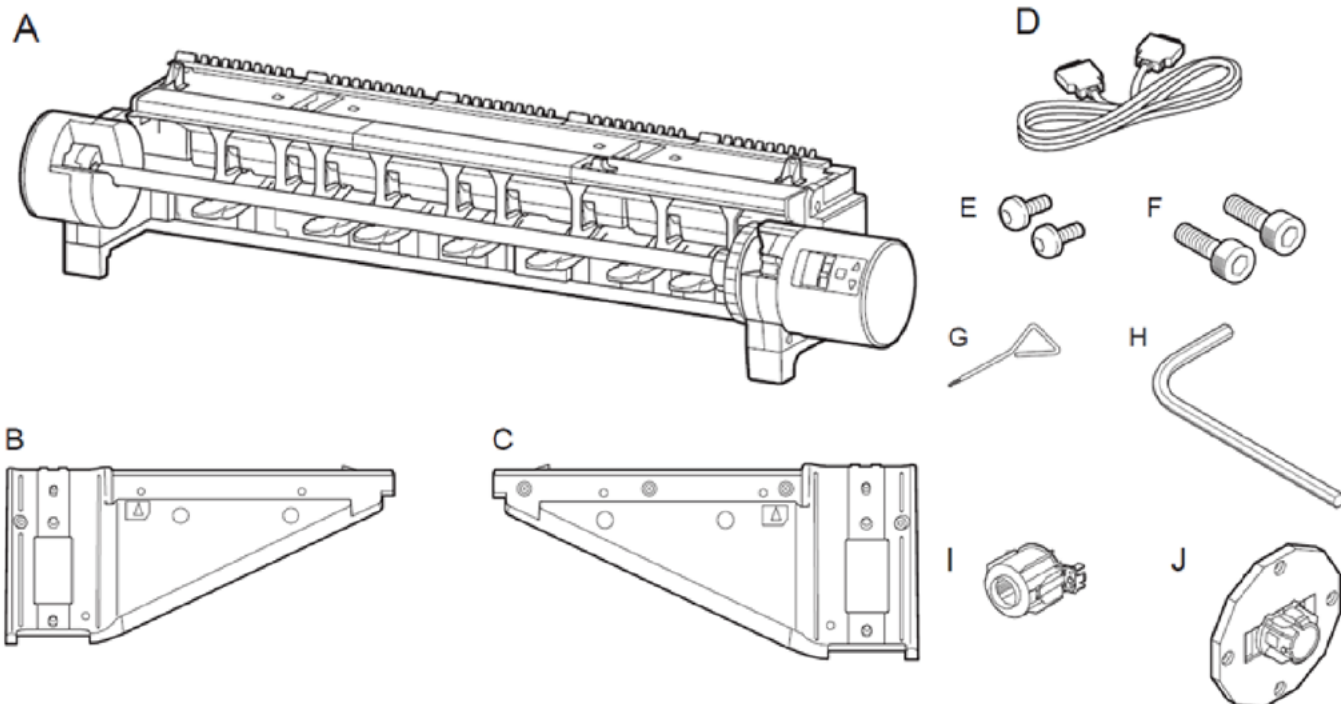


### <Important>

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

### 3. Roll Unit Setup

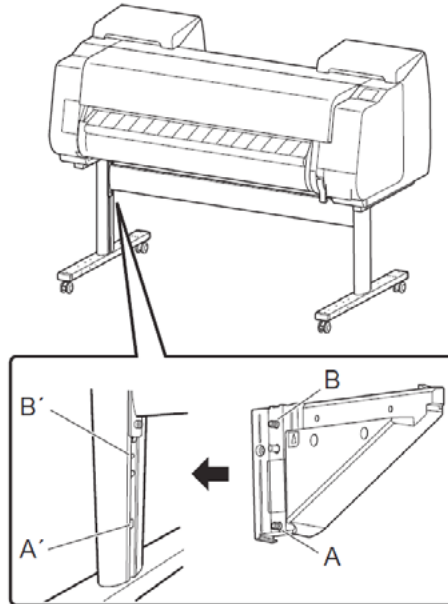
#### Package Contents



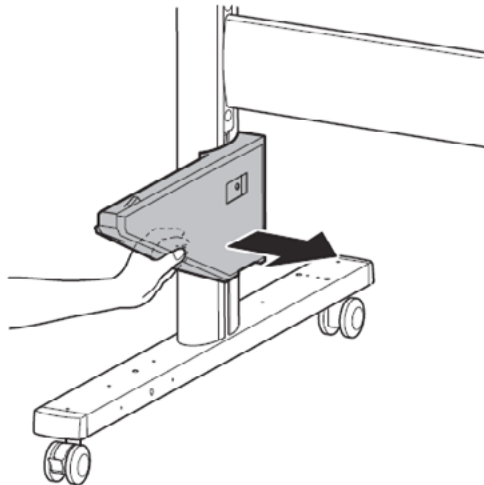
- A. Roll unit
- B. Support rail L
- C. Support rail R
- D. Roll unit cable
- E. M4 hex screw (x 2)
- F. M8 hex screw (x 2)
- G. M4 Allen wrench
- H. M8 Allen wrench
- I. 3-inch paper core attachment (x 2)
- J. Holder stopper

## Attach the Roll Unit

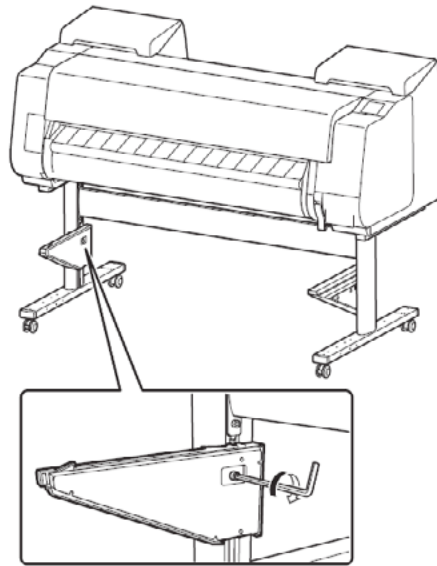
1. Check that the printer is installed on the stand.
2. Attach the support rail L with the protrusions (A) and (B) aligned with the holes (A') and (B') in the stand leg L.



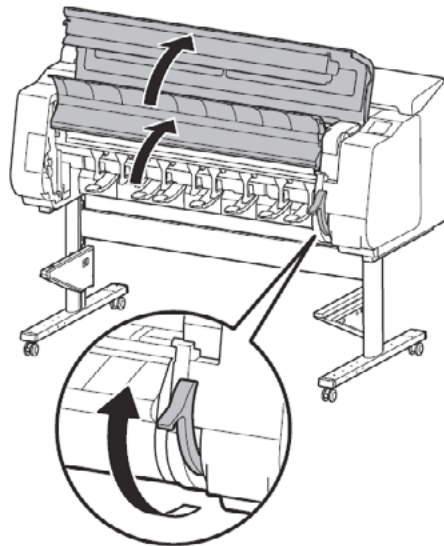
3. Firmly grasp the bottom of the support rail L and apply force horizontally toward the inside of the stand to check that the support rail L is correctly attached.



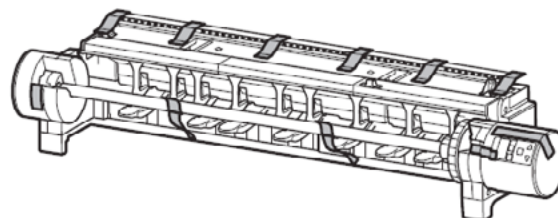
4. Affix the support rail L using an M8 hex screw. Securely tighten the screws using the M8 Allen wrench.



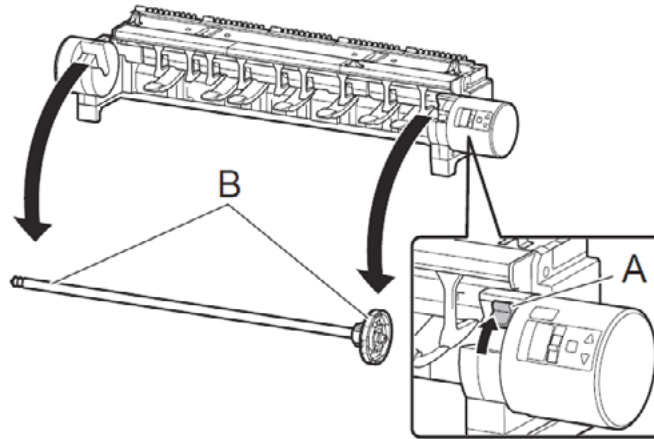
5. Open the top cover and output guide of the printer, and raise the release lever.



6. Remove the tape attached to the roll unit.



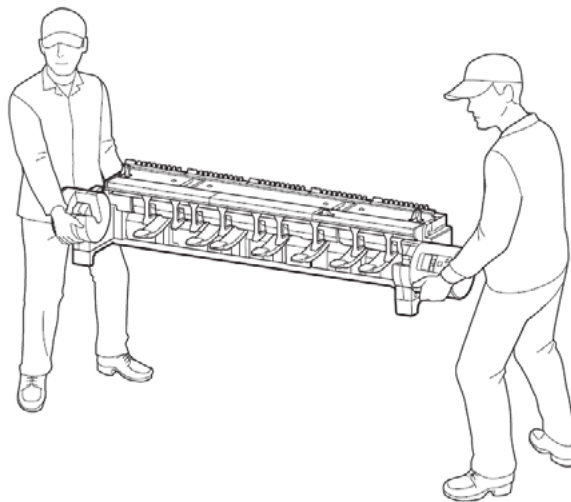
7. Release the roll holder lock switch (A), and grasp the (B) part of the roll holder to remove the roll holder.



<Note>

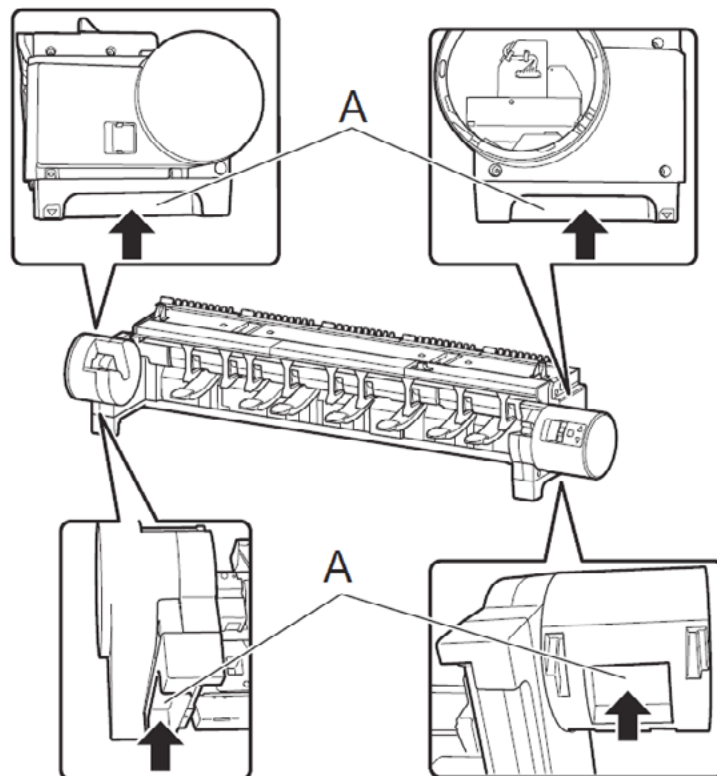
- The removed roll holder is used when loading roll paper.

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

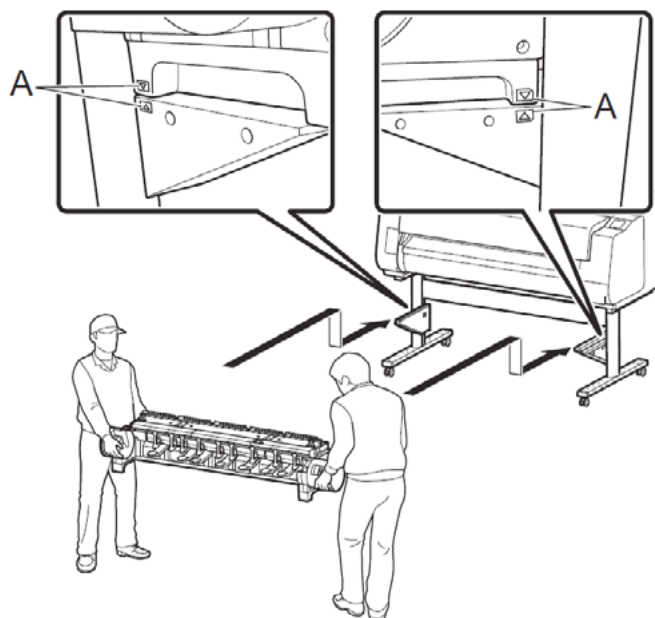


<Caution>

- 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.

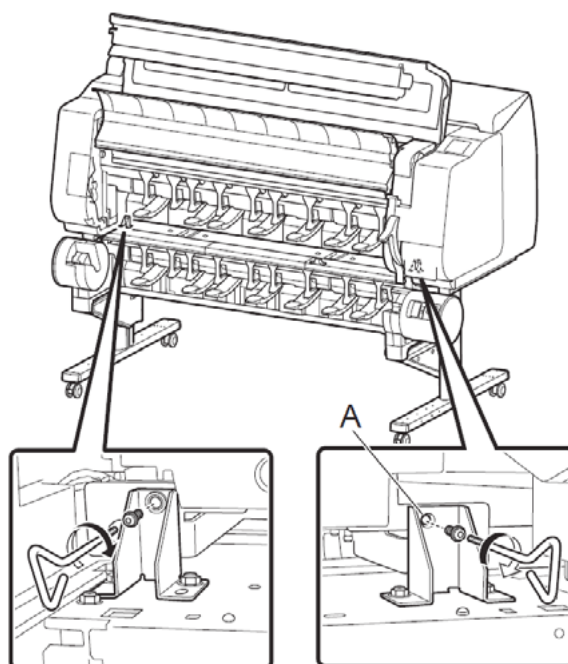


9. While checking the positions on the left and right sides, place the roll unit on top of the support rails, and push the roll unit all the way in until the points of the ▲ markings (A) on the left and right sides are aligned.



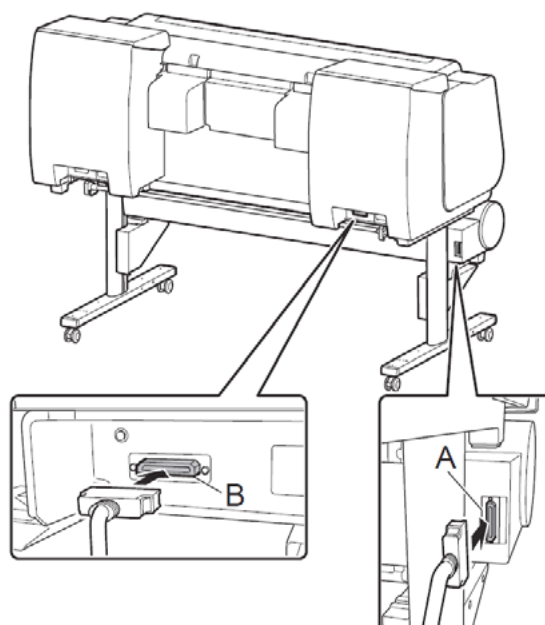


10. Align the hole (A) for the M4 hex screw on the right side of the roll unit with the printer side position, and affix the roll unit using 1 M4 hex screw on each of the left and right sides. Securely tighten the screws using the M4 Allen wrench.



11. Connect the roll unit to the printer.

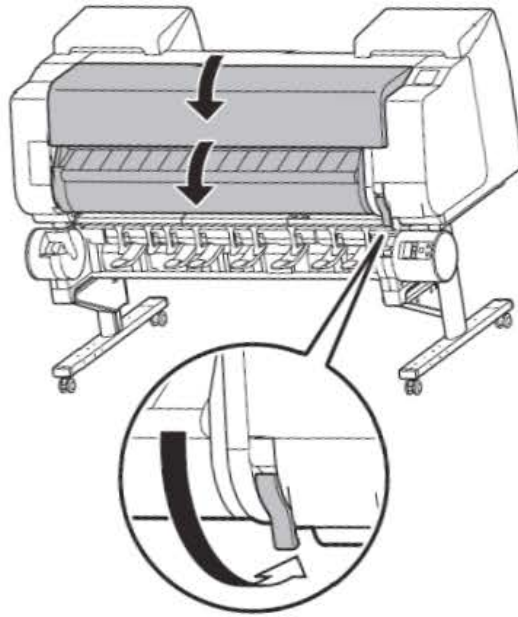
Securely insert both ends of the roll unit cable into the connector (A) on the back of the roll unit and the roll unit connector (B) on the back of the printer until you hear a click.



<Caution>

- Do not turn the printer on yet.

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



## 2-1-2. Transportation

### 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 5. Reinstallation.

#### 1. Transportation modes

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



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.

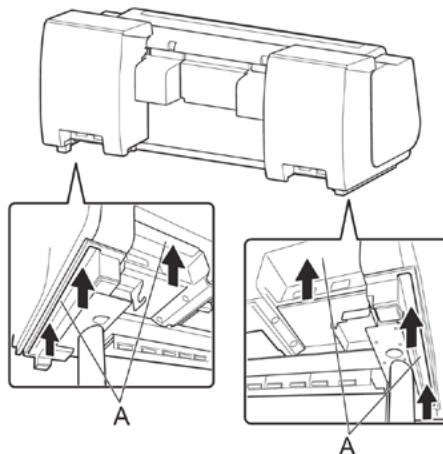
Print the nozzle check pattern before making preparations for transporting the printer, and keep the print results.

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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.

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· When carrying the printer, be sure to follow the Setup Guide instructions, and be careful not to hurt your back.



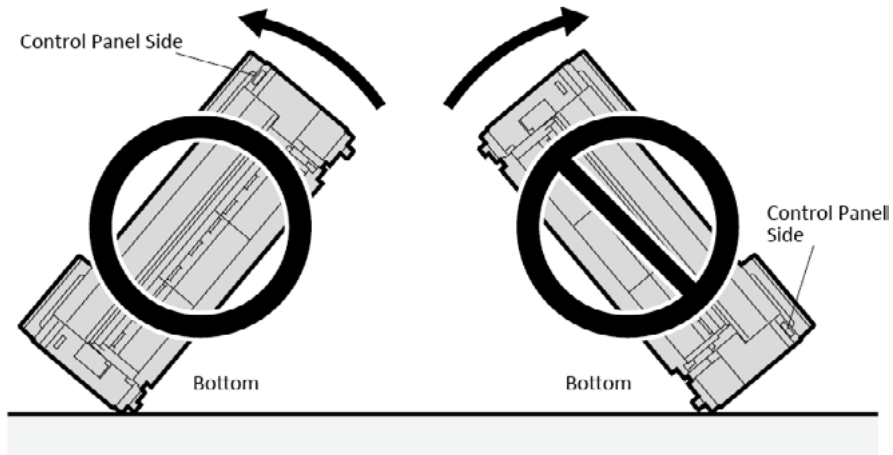
- Do not place or transport the printer with load placed only at the center of the printer. Otherwise the printer can be deformed or damaged.



- 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.

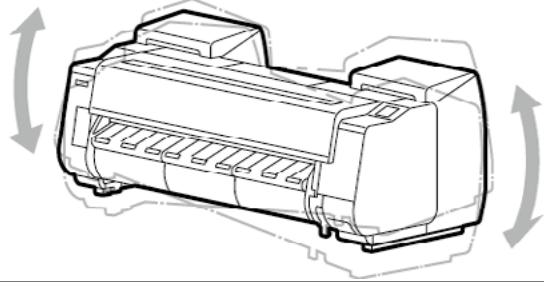


· When tilting the printer, support the printer at bottom left side of the printer. If the printer is supported at any other location, the printer may be damaged or deformed.

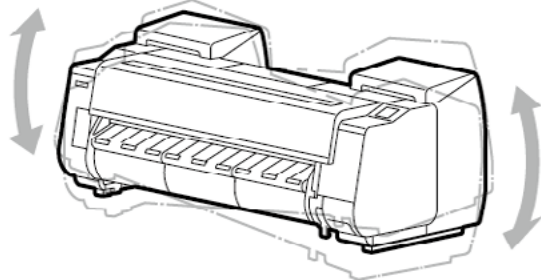
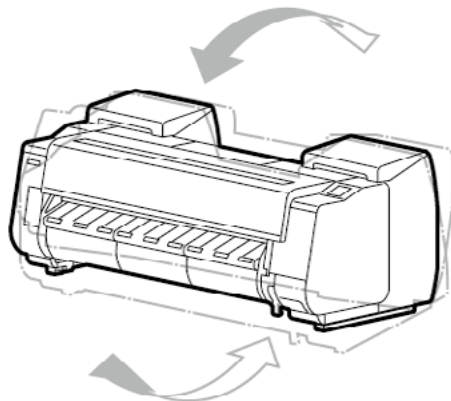


## 2. Details of transportation modes

### Move indoors by carrying

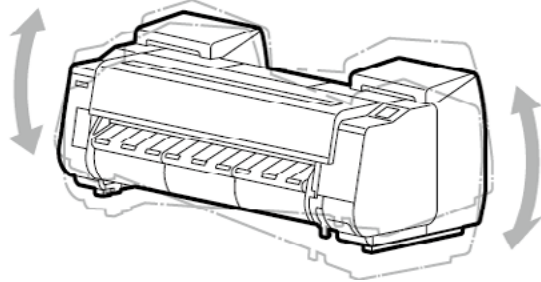
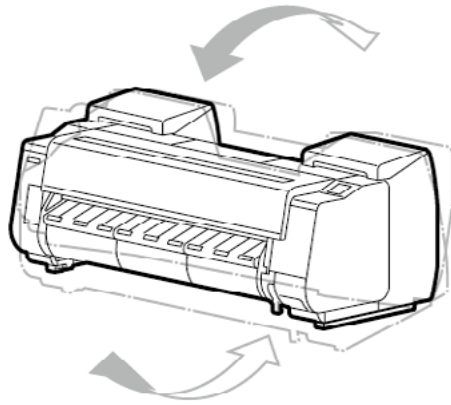
Item	Description
[Prepare to transportation] in Maintenance menu	Execute [Move indoors on the same floors].
Allowed tilting angle	30° or less omnidirectionally
	
Ink tank	It may be installed or removed.
Separation of main unit and stand	They do not need to be separated.
Number of maintenance cartridge to be used	Up to three pieces.
Replacement of consumable parts	Replacement of consumable parts and resetting of counter may be necessary. For details, refer to 3. Replacing consumable parts during transportation.
Service support	If consumable parts must be replaced, service support is necessary.
Transporting and storing 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 omnidirectionally
	
	
Ink tank	Remove all ink tanks.
Separation of main unit and stand	Separate.
Number of maintenance cartridge to be used	Up to three pieces.
Replacement of consumable parts	Replacement of consumable parts and resetting of counter must be necessary. For details, refer to 3. Replacing consumable parts during transportation.
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	Description
[Prepare to transportation] in Maintenance menu	Execute [Transport outdoors].
Allowed tilting angle	90° or less omnidirectionally
	
	
Ink tank	Remove all ink tanks.
Separation of main unit and stand	Separate.
Number of maintenance cartridge to be used	Up to three pieces.
Replacement of consumable parts	Replacement of consumable parts and resetting of counter must be necessary. For details, refer to 3. Replacing consumable parts during transportation.
Service support	If consumable parts must be replaced, service support is necessary.
Transporting and storing in low temperature environment	Can be performed

### 3. Replacing consumable parts during transportation

#### 24" model

No	Part number	Part name	Service mode	[Move indoors on the same floors] 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

#### 44" model

No	Part number	Part name	Service mode	[Move indoors on the same floors] 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]	QM4-6307	WASTE INK ABSORBER UNIT & C S	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	158.9
[9]	QM4-4228	MIST FAN DUCT UNIT 1		

#### 60" model

No	Part number	Part name	Service mode	[Move indoors on the same floors] 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]	QM4-4244	WASTE INK ABSORBER UNIT D	Wia4	150
[5]	QM4-5751	WASTE INK ABSORBER UNIT	Wia6	200
[6]	QM4-5861	SUCTION FAN UNIT	Wia7	60
[7]	QM4-4261	SUCTION FAN DUCT UNIT		
[8]	QM4-4038	HEAD MANAGEMENT SENSOR UNIT	HMa1	2.9
[9]	QM4-4227	MIST FAN DUCT UNIT 2	Mi1	183.4

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.

## 4. Transportation procedure

### Remove paper.

1. Remove the paper.

### Select the menu in [Prepare to transportation].

1. If touch screen indicates to replace Maintenance Cartridge, replace Maintenance Cartridge.
2. Flick Home screen and tap [Maintenance].
3. Tap [Prepare to transportation].
4. Select and tap transfer level.  
Displays the confirmation screen.
5. Tap [Yes].

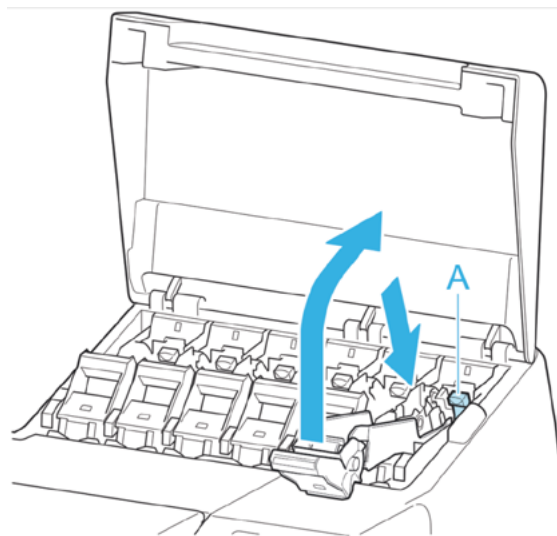
The printer is now prepared for transfer.

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

Remove the ink tanks before packing the printer.

### Remove ink tanks.

1. Open left and right Ink Tank Cover to remove all ink tanks.
2. Push down release lever (A) as shown as you gently return all Ink Tank Lock Lever to their original positions.



3. Close the ink tank cover.

When the purging process of the ink in the tube finishes, the completion message is displayed.



If a maintenance cartridge is removed while the ink is purged, ink leakage may occur.

Do not remove the maintenance cartridge other than when the message for replacing the maintenance cartridge is displayed.

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4. Replace the current maintenance cartridge with a new one.
5. Select Power button to turn off the printer.

### Manual ink draining

If [Prepare to transportation] cannot be executed due to the printer defect, manually drain the ink inside the printer.

< How to drain ink manually >

- 1) Drain the ink inside the tube unit into the ink tank unit manually.
- 2) Remove the ink tank unit from the printer.
- 3) Tilt the ink tank unit and drain the ink from the tube mouth.

NOTE: For details on 1) and 2),

refer to 5-2. Disassembly and Reassembly > 1. INK TANK UNIT (L) and 10. INK TANK UNIT (R).

### Pack the printer.

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

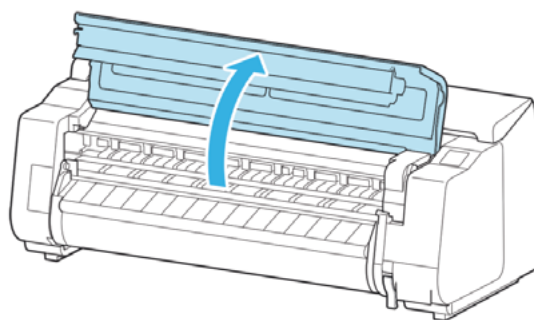
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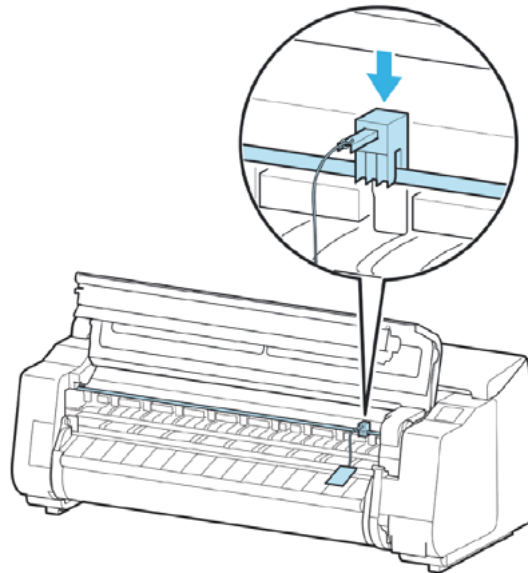
Turn off the printer, then remove the power cord. If the power cord is removed before turning off the printer, insert the power cord, install the ink tank, and then do the transportation preparation from the start. Otherwise, the printer may be damaged.

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2. Open the top cover.

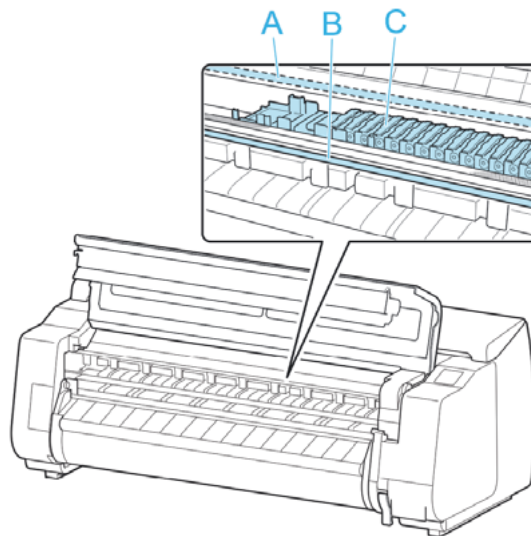


3. Pinch the belt and install a belt stopper at the position shown in the figure below.

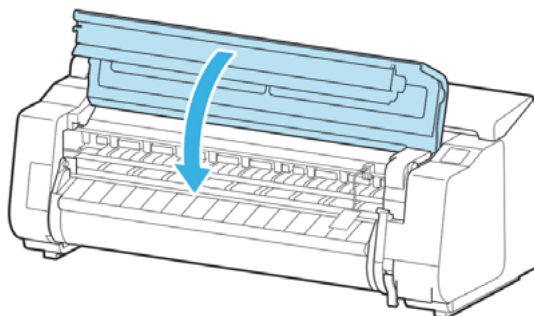


Install the belt stopper kept after removed when unpacking the printer. Or, it may cause the failure of the printer.

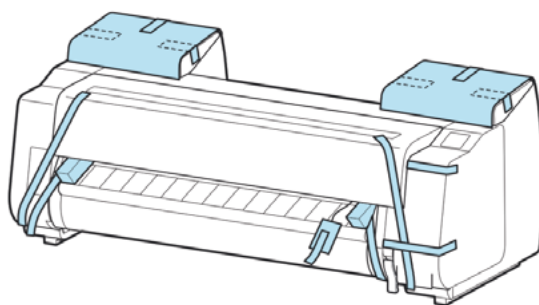
Never touch the Linear Scale (A), Carriage Shaft (B), or Ink Tube Stabilizer (C). Touching may damage them.



4. Close the top cover.



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



6. Remove basket 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.

## 5. Reinstallation

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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.

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### Assemble the stand

1. Referring to the Printer Stand Setup Guide, assemble the Stand.

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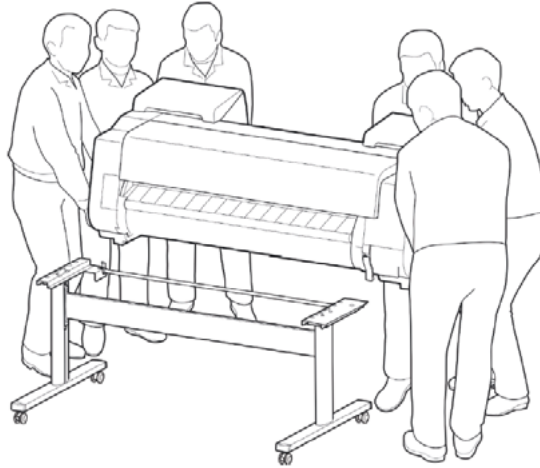
The Stand must be assembled by at least two people on a flat surface. Attempting assembly by yourself poses a risk of injury or bending the Stand.

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.

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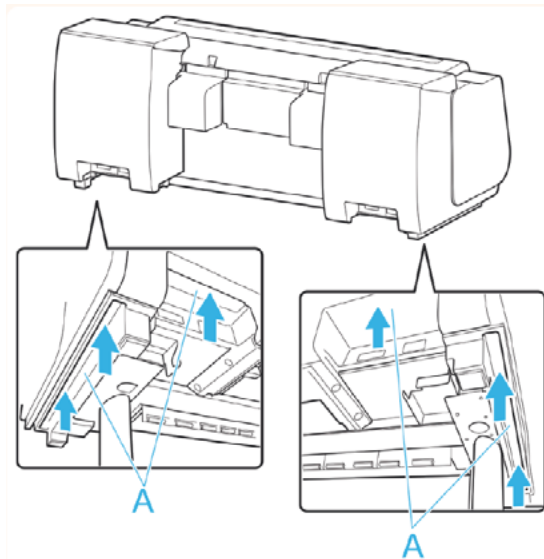
## Install the printer

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

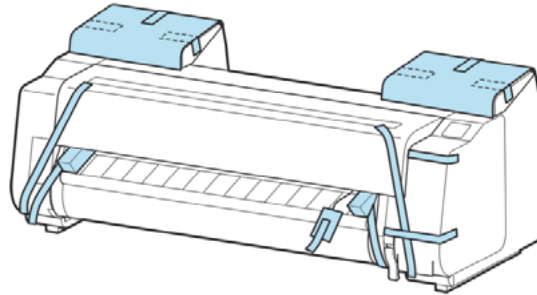


Moving the printer requires at least six people, holding it on both sides. Be careful to avoid back strain and other injuries.

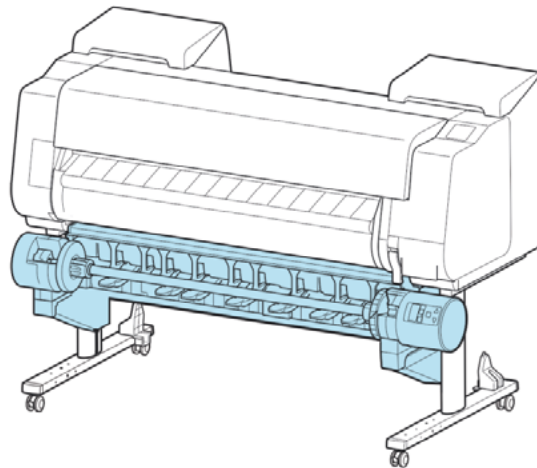
When carrying the printer, hold it securely by the Carrying Handles on the bottom left, right, and rear. The printer may be unsteady if you hold it at other positions, which poses a risk of injury from dropping the printer.



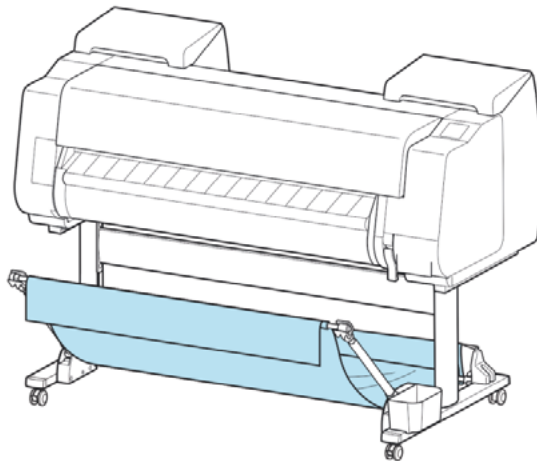
2. Remove tape and packaging material attached to the printer. Also open the Top Cover and remove stoppers and spacers inside the printer.



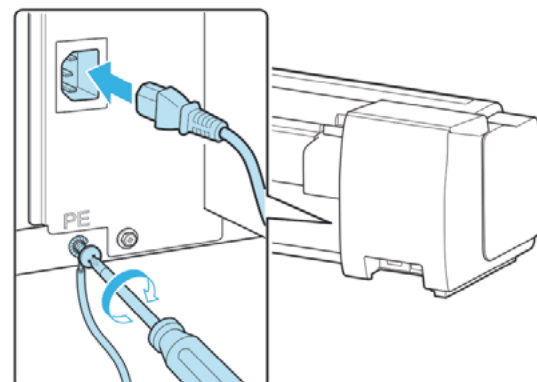
3. If using optional roll unit, refer to Setup Guide provided with roll unit and attach roll unit to Stand.



4. Refer to Printer Stand Setup Guide and attach basket to Stand.



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



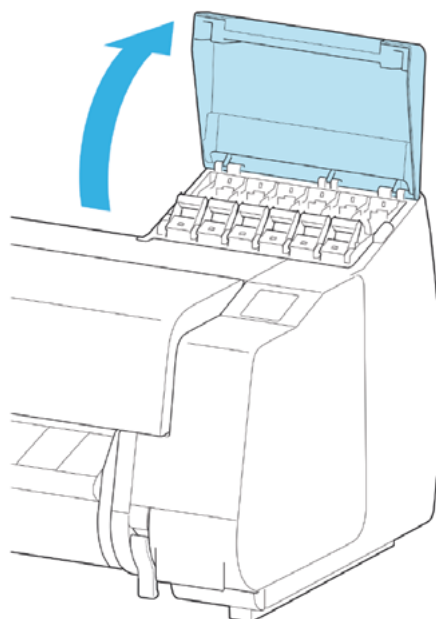


6. Plug the power cord into the outlet.

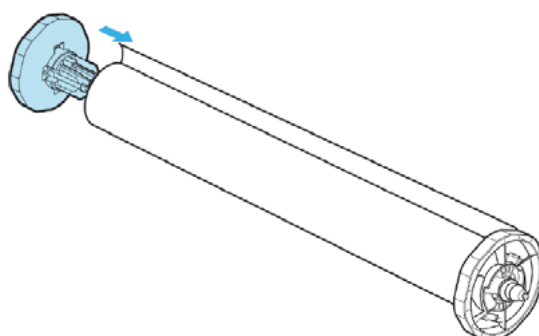
7. Press the power button to turn the printer on.

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

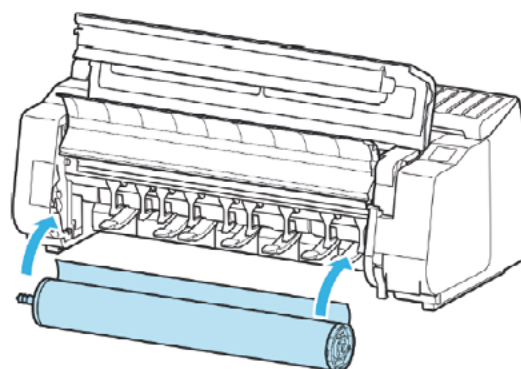
8. When instructions for loading ink tank appear on touch screen, open Ink Tank Cover and load ink tank.



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.

## 2-2. Connection Settings for Remote Service

### 1) Outline

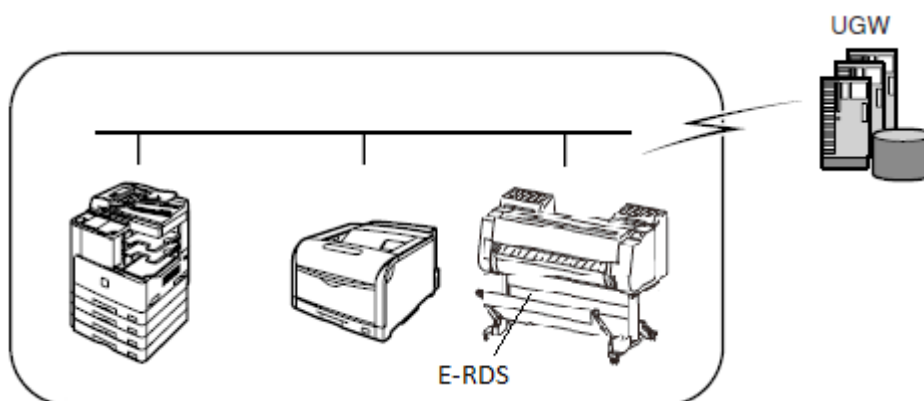
Remote service (NETEYE/e-Maintenance/imageWARE Remote) is printer remote monitoring service on the Internet based on the agreement with the customer.

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:

MEMO:

- E-RDS (EMBEDDED-RDS): Monitoring program operating in the printer
- UGW (Universal Gateway Server): Remote service administrative server
- HTTPS/SOAP protocol is used for the communication between UGW and the printer.



### 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)

MEMO:

- Obtain the network environment information of the installation location from the system administrator of the user's network environment.
- 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.

### < 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).

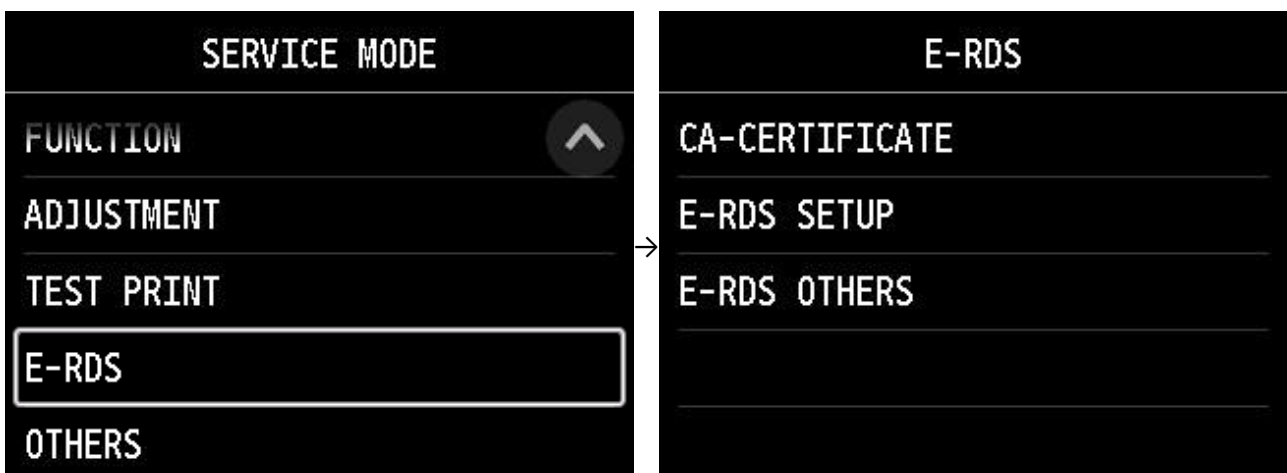
For details, see [Details of E-RDS](#) in Chapter 6.

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

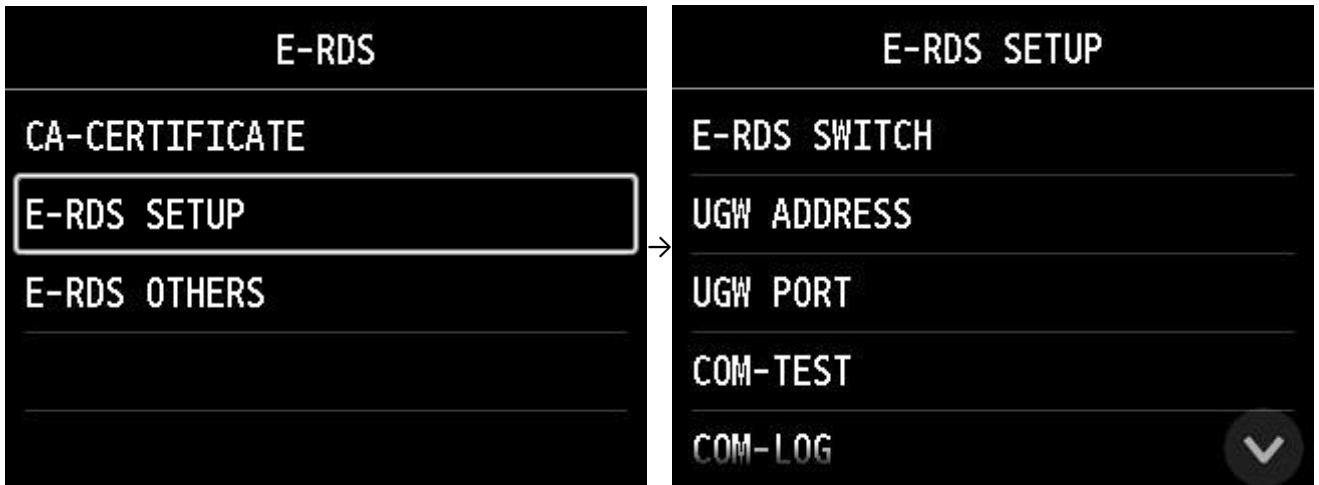
1. Launch the service mode.
2. Enable E-RDS function in service mode, and then execute the communication test.

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

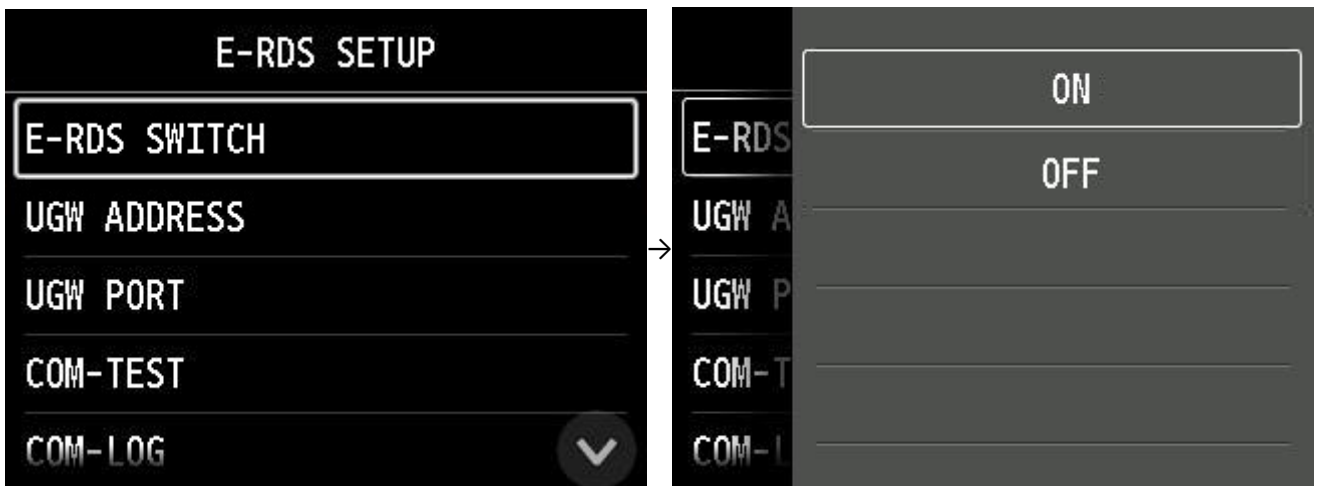
[SERVICE MODE] >



(2) Select [E-RDS SETUP].



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



The E-RDS function is enabled.

**MEMO:**

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

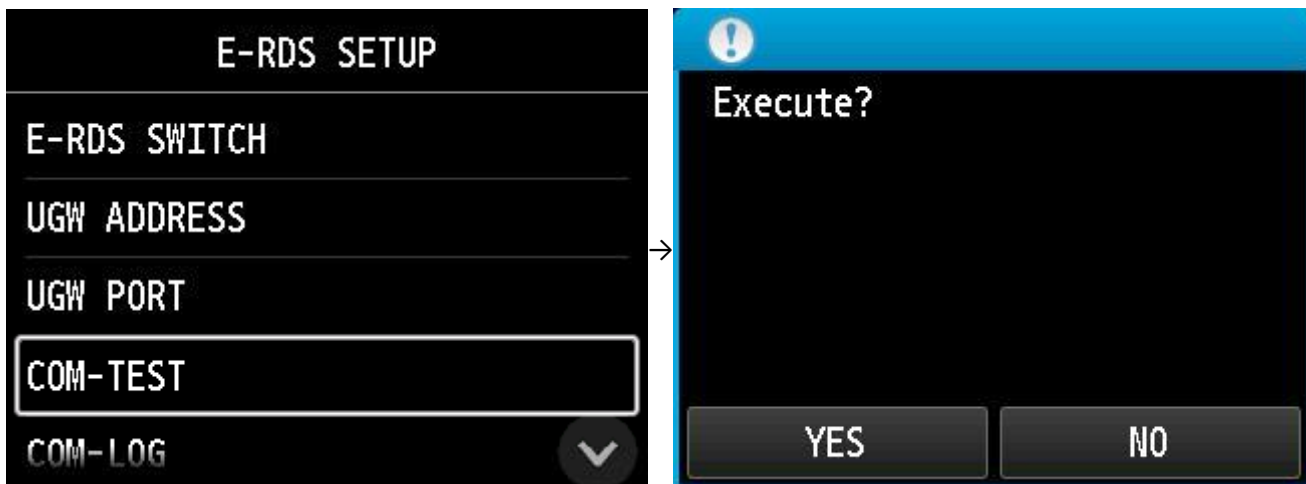
**NOTE:**

The values of URL (UGW ADDRESS) and port number (UGW PORT) for UGW must not be changed unless otherwise indicated.

If they are changed, a communication error with UGW occurs.

If they are mistakenly changed, reset E-RDS from [E-RDS OTHERS] > [RESET E-RDS DAT], and then, perform the E-RDS setting again.

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

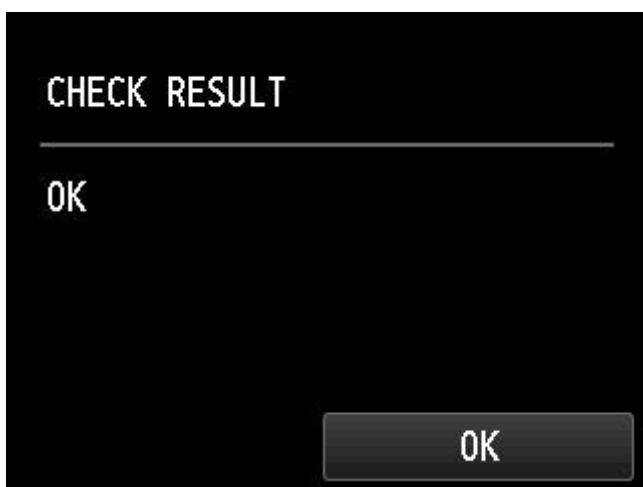


The communication test with UGW is executed.



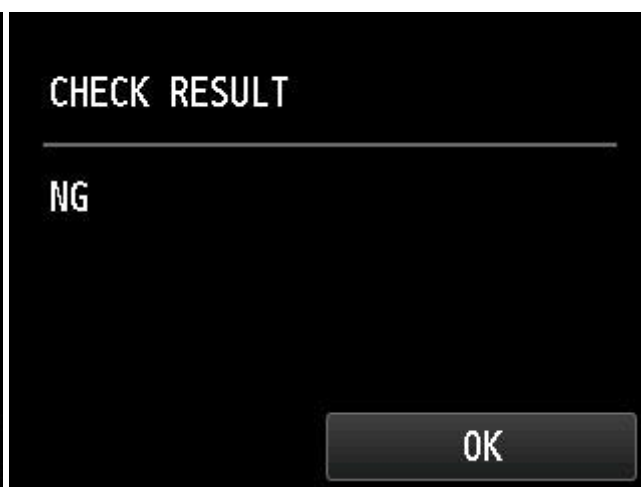
The message "CHECK NOW..." is displayed. When the test is finished, the following message is displayed:

When the communication test was successful:



"CHECK RESULT / OK"

When the communication test was failed:

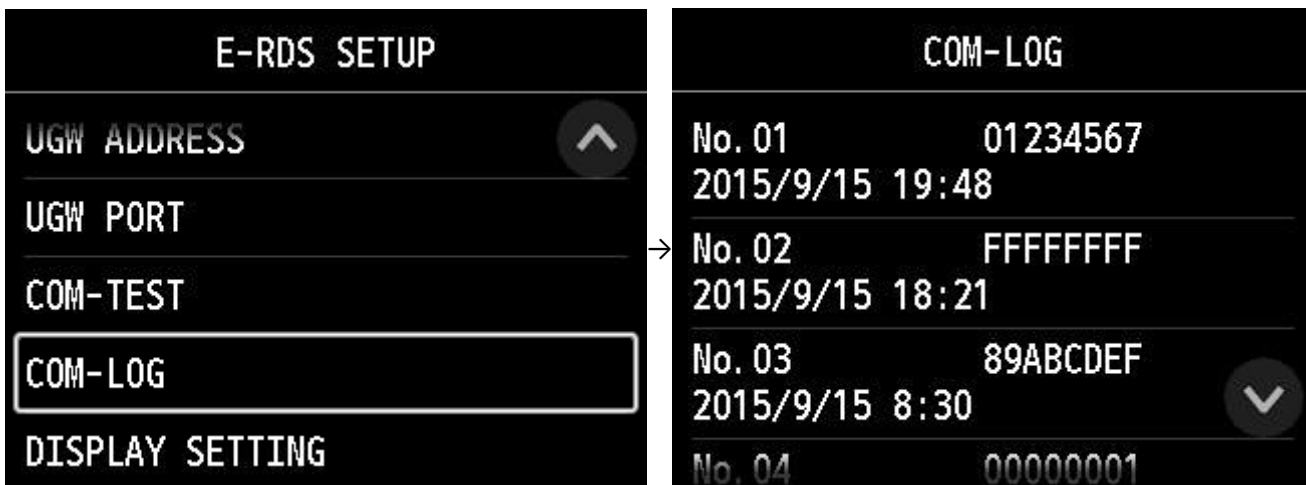


"CHECK RESULT / NG"

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

When the communication test was successful, the connection setting to 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.

MEMO:

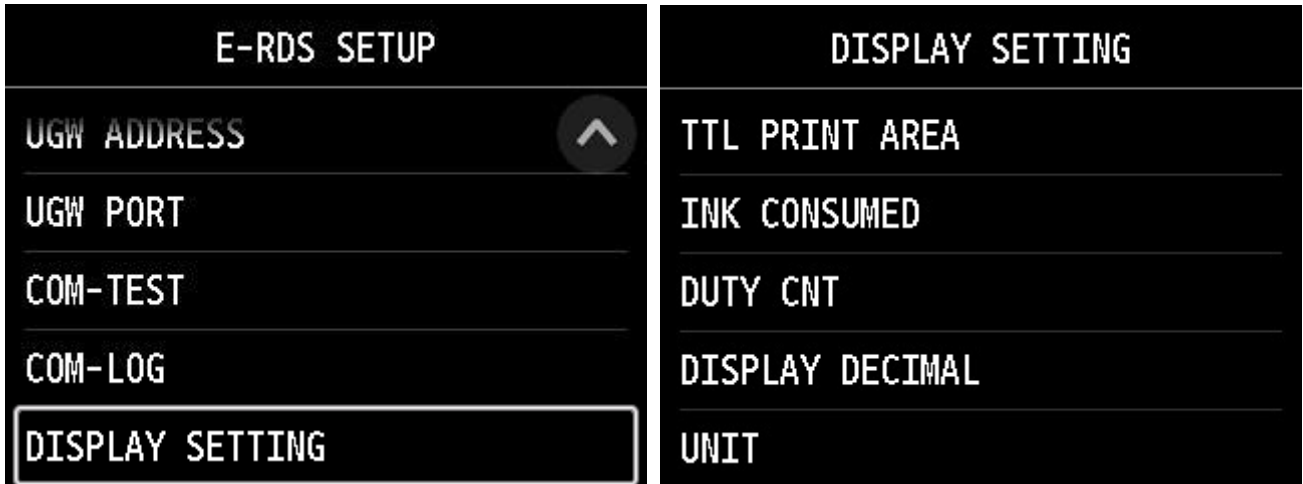
- The communication test cannot be cancelled during the test execution (no other operations are not be accepted until the test results are obtained).
- E-RDS obtains schedule information and starts monitoring by executing the communication test with UGW.
- For the error information in [Communication log], see [5\) Error information displayed in communication log \[COM-LOG\]](#) to be described.

NOTE:

- 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.

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.

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



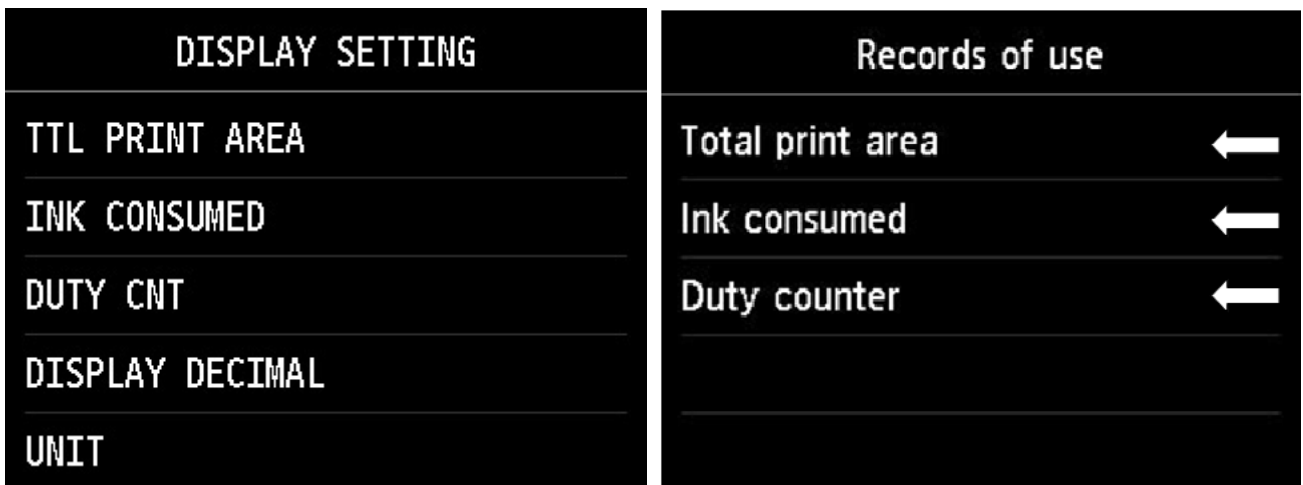
This setting is reflected in [Printer information] > [Records of use] in user mode.

[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

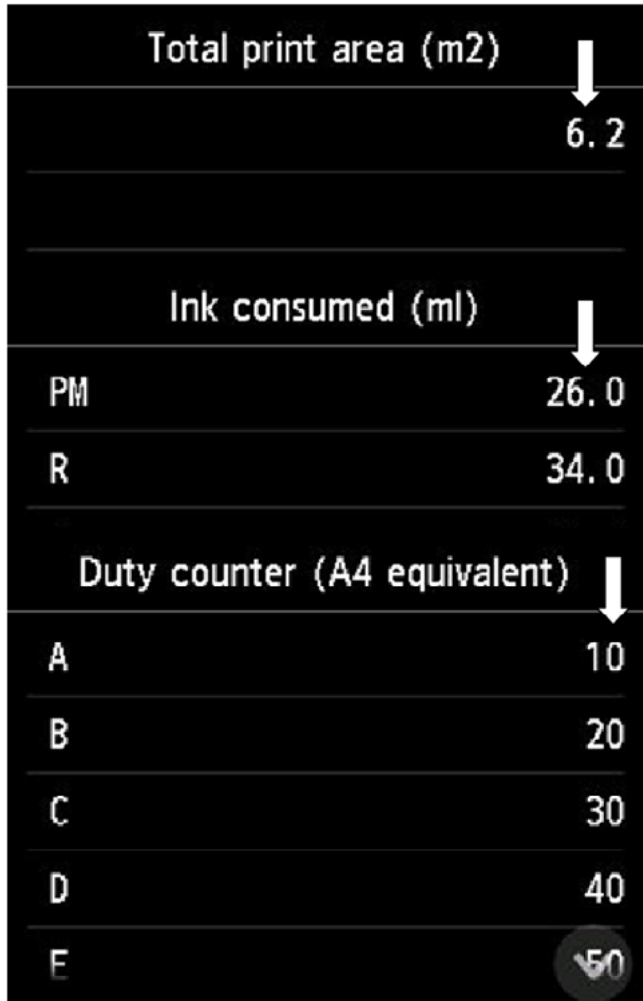
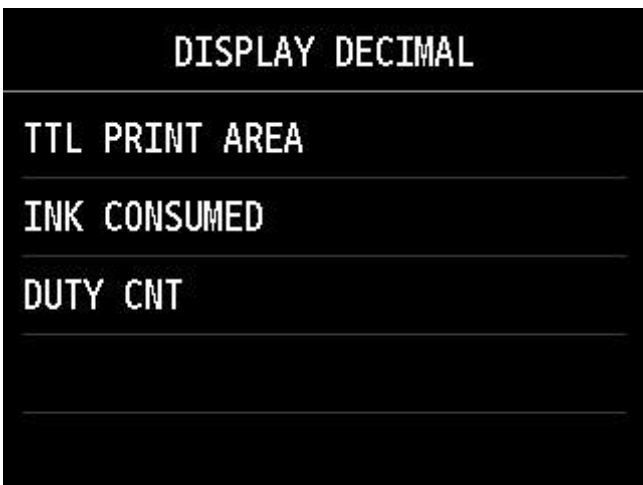


[DISPLAY SETTING] > [DISPLAY DECIMAL] >

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

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

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

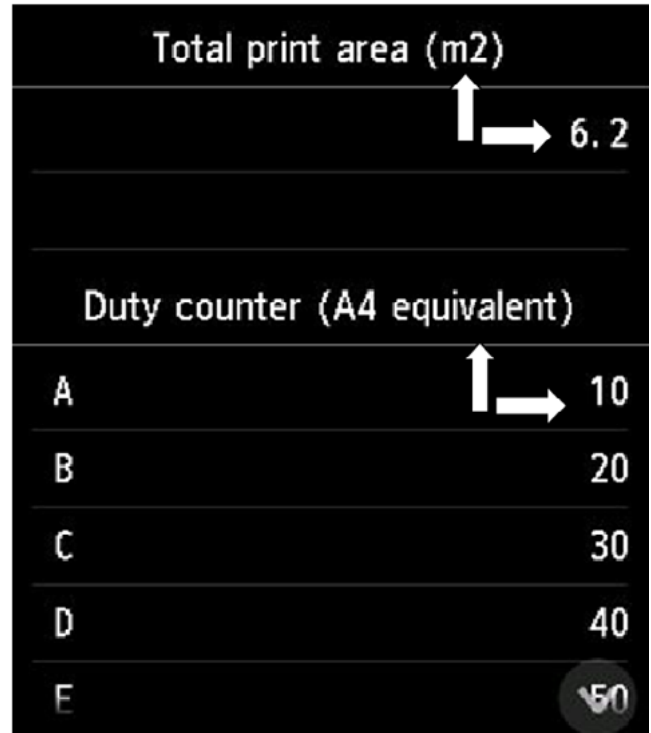
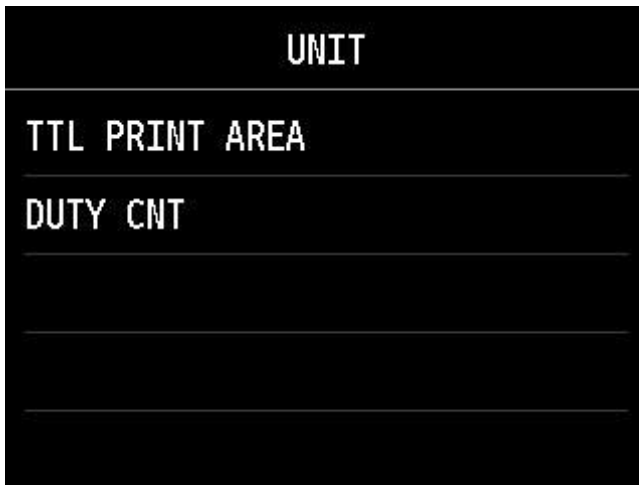




[DISPLAY SETTING] > [UNIT] >

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

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



Setting unit: unit / value

[LENGTH UNIT]: m2

[A4]: A4 equivalent

[LETTER]: LTR equivalent

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

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

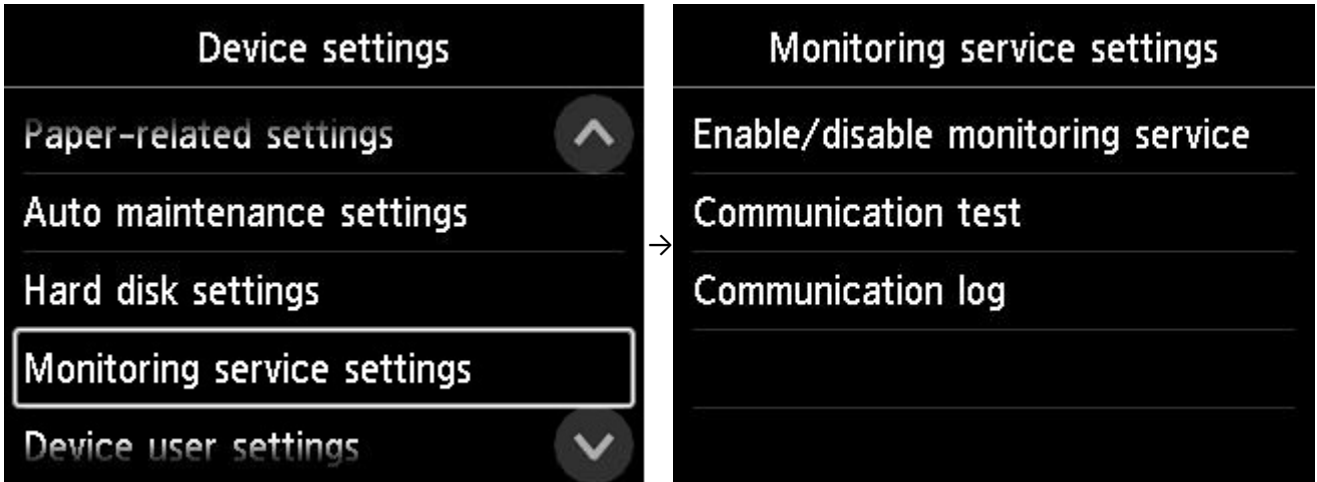
NOTE: Underlined setting values for each setting ([ON/OFF], [LENGTH UNIT/A4/LETTER]) are defaults.

< E-RDS settings procedures (user mode) >

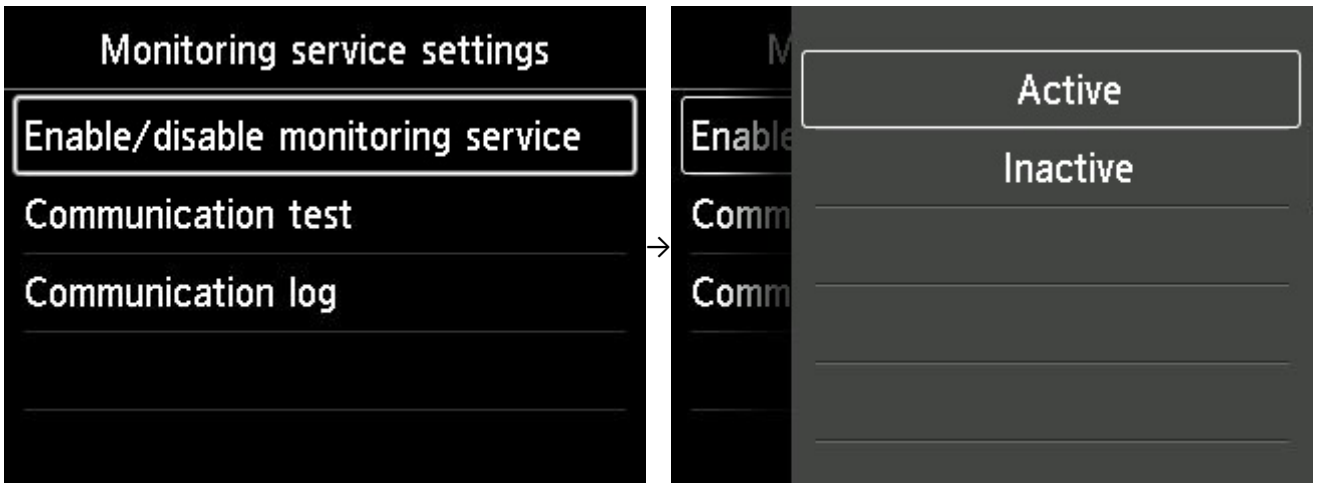
1. Launch the user mode.
2. Enable E-RDS function in user mode, and then execute the communication test.

(1) Select the following items:

[Device settings] > [Monitoring service settings]



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

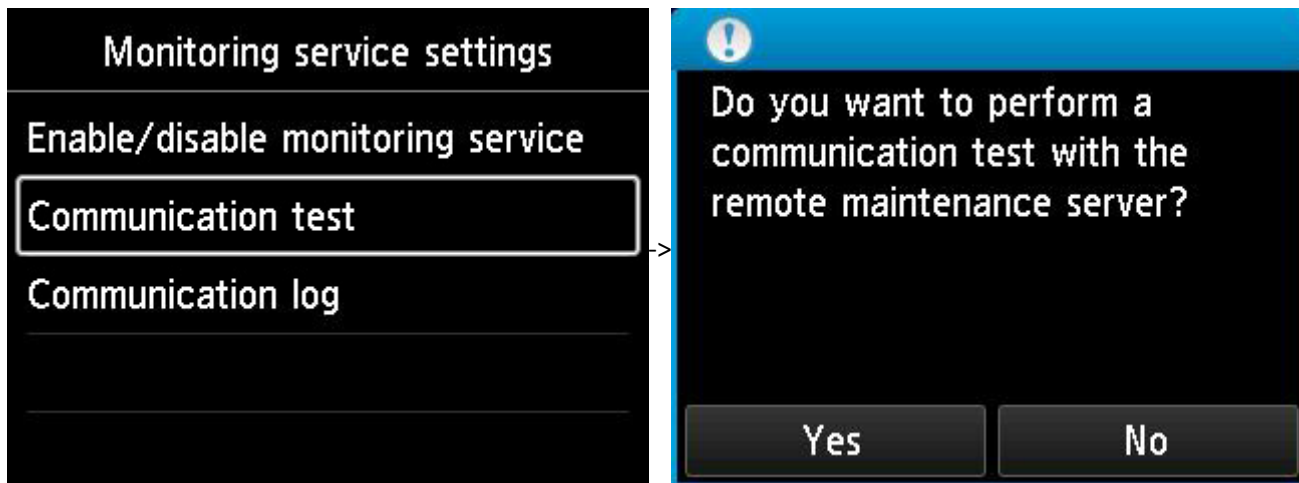


The E-RDS function is enabled.

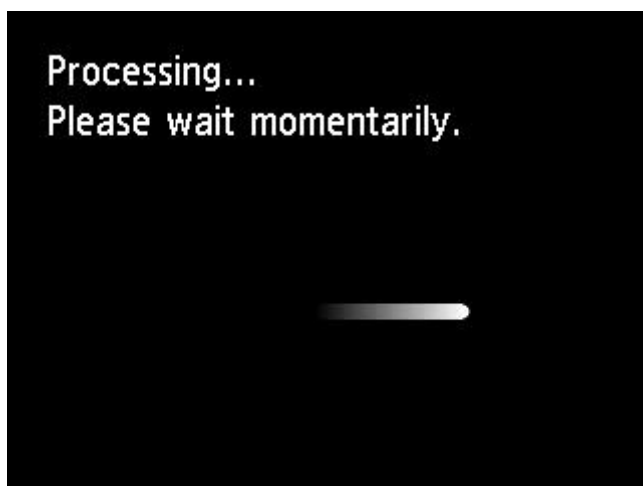
MEMO:

When the E-RDS function is enabled, the function that 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?"

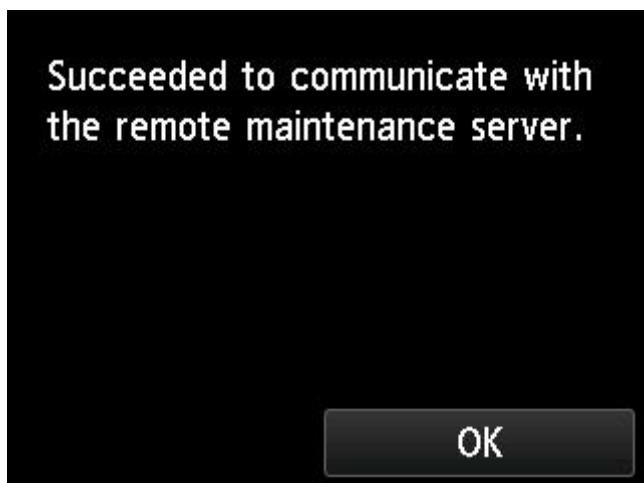


The communication test with UGW is executed.

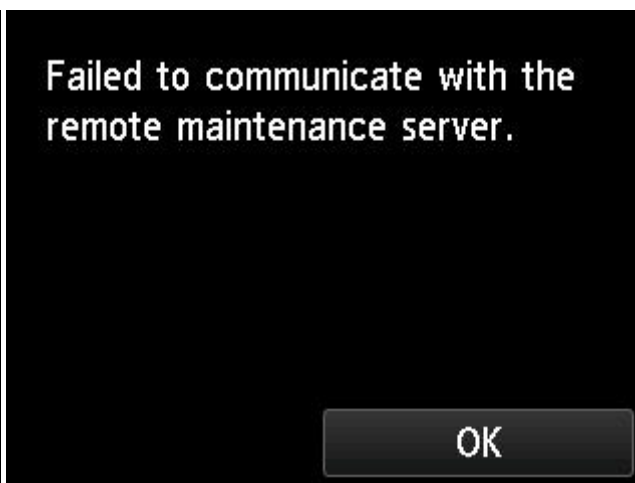


"Processing... Please wait momentarily." is displayed. When the test is finished, the following message is displayed:

When the communication test was successful:



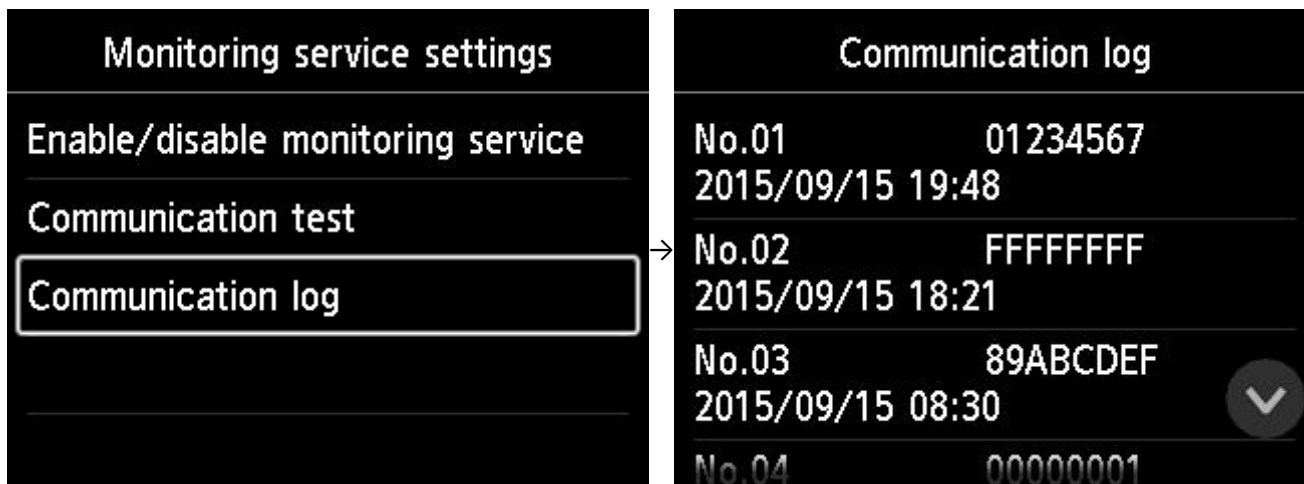
When the communication test was failed:



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.

#### MEMO:

- The communication test cannot be cancelled during the test execution (no other operations are not be accepted until the test results are obtained).
- E-RDS obtains schedule information and starts monitoring by executing the communication test with UGW.
- For the error information in [Communication log], see [5\) Error information displayed in communication log \[COM-LOG\]](#) to be described.

#### NOTE:

- 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.

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.

### 3. Notes on servicing

- After the MAIN PCB UNIT is replacement, 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 [PCB Replacement Mode](#) in Chapter 6 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.	Questions	Answers
1	Fails in communication test [COM-TEST].	If communication test [COM-TEST] fails, the following factors are possible: 1. Network cable is removed or broken. 2. Name resolution fails (host name is incorrect or DNS server has been halted). 3. The network setting (IP address / DNS server / proxy server (authentication)) is incorrect. 4. The setting of UGW-ADDRESS or UGW-PORT has been changed. -> 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.
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	The start time and timing of data transmitting are specified by the UGW side. Transmitted once per 12 hours, 16 hours and 7 days, and when a printer status changed. Each data size is approx. 150K byte in maximum.

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

No.	Error code	Error strings	Details of errors	Solutions
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 (https://a01.***)*1.
4	8xxx 200A	Server connection error	An UGW connection error. Displayed in the event of a TCP/IP communication fault.	Check the network-related settings.
5	8xxx 2002	URL server specified is illegal	UGW-specified URL error URL address setting error	Check UGW-ADDRESS setting (https://a01.***)*1.
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 (https://a01.***)*1.
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 (https://a01.***)*1.
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 (https://a01.***)*1.
24	8xxx 200B	Server address resolution error	UGW address resolution error	Check UGW-ADDRESS setting (https://a01.***)*1.

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





# MAINTENANCE, CONSUMABLE PARTS

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- 3-2. Periodic Replacement Parts ..... 123
- 3-3. Consumable Parts ..... 124
- 3-4. Periodic Maintenance ..... 127

## 3-1. Outline

This chapter explains the maintenance conducted by a service person.

## 3-2. Periodic Replacement Parts

Level	Periodic replacement parts
User	None
Service	None

### 3-3. 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	Where to refer in 5-2. Disassembly and Reassembly
				Level 1	Level 2	Unit	Level 1	Level 2		
Wia1	WASTE INK ABSORBER UNIT A	QM4-4241	15000	684.5	705.7	ml	W1	EC43-4001	The number of dots	<a href="#">5-2, 5</a>
Wia2	WASTE INK ABSORBER UNIT B	QM4-4242		967.2	997.1	ml	W1	EC44-4001	The number of dots	<a href="#">5-2, 5</a>
Wia6	WASTE INK ABSORBER UNIT	QM4-5751		894.2	921.9	ml	W1	EC47-4001	The number of dots	<a href="#">5-2, 5</a>
Wia7	SUCTION FAN UNIT SUCTION FAN DUCT UNIT	QM4-5861 QM4-4261	150000	194	200	ml	W1	EC41-4001	The number of dots	<a href="#">5-2, 6</a> <a href="#">5-2, 9</a>
WF1	WASTE INK UNIT	QM4-4226	-	101.6	104.7	ml	W1	EC48-4001	The number of dots	<a href="#">5-2, 9</a>
CR1	CARRIAGE UNIT	QM4-8637	50000	27857142	30952380	(x210) mm	W1	W2	CR scan length	<a href="#">5-2, 12</a>
CR2	CARRIAGE UNIT FILM, TIMING SLIT STRIP	QM4-8637 QD1-2177		67500000	75000000	(x1000000) dot	W1	W2	Total ejected ink amount	<a href="#">5-2, 12</a> <a href="#">5-2, 11</a>
CR3	CARRIAGE UNIT	QM4-8637	87000	162000	180000	Times	W1	W2	The rotation number of carriage height changing cam	<a href="#">5-2, 12</a>
CR4	INK TUBE UNIT	QM4-8662	35000	6624000	7360000	Times	W1	EC32-4001	The number of CR scanning	<a href="#">5-2, 12</a>
CR5	MULTI SENSOR UNIT	QM4-4341	50000	67500000	75000000	(x1000000) dot	W1	W2	Total ejected ink amount	<a href="#">5-2, 11</a>
PG1	PURGE UNIT	QM4-4352	25000	140400	156000	Times	W1	EC31-4001	The number of capping	<a href="#">5-2, 9</a>
PG2				895500	995000	Times	W1	EC31-4001	The number of pump rotation	<a href="#">5-2, 9</a>
PG3				25200	28000	Times	W1	EC31-4001	The number of wiping	<a href="#">5-2, 9</a>
HMa1	HEAD MANAGEMENT SENSOR UNIT	QM4-4038	50000	3.7	3.8	ml	W1	EC22-4001	The number of dots in HEAD MANAGEMENT SENSOR UNIT	<a href="#">5-2, 9</a>
MT1	MOTOR, DC, 47.8W (CARRIAGE)	QK1-2868	28000	3060	3400	h	W1	W2	CR driving time	<a href="#">5-2, 11</a>
PL1	ACTIVE ROLL BRAKE UNIT	QM4-8678	1000000	27000	30000	h	W1	W2	Paper feeding time	<a href="#">5-2, 2</a>
Mi1	MIST FAN DUCT UNIT 2	QM4-4227	369000	948.7	978.1	ml	W1	EC25-4001	The number of dots in mist collecting box	<a href="#">5-2, 13</a>
MS1	MULTI SENSOR UNIT	QM4-4341			10000	%	-	W2	The degree of ejected ink amount deviation by color.*4	<a href="#">5-2, 11</a>

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

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

Printing conditions: Canon photo glossy paper HG standard / each color 11.5 % x 11 colors = 126.5 % 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.

\*4: The large deviation degree affects color calibration.

No life guideline (because this is not depending on the ejected ink amount but the deviation degree of ejected ink amount).

#### 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	Where to refer in 5-2. Disassembly and Reassembly
				Level 1	Level 2	Unit	Level 1	Level 2		
Wia1	WASTE INK ABSORBER UNIT A	QM4-4241	30000	684.5	705.7	ml	W1	EC43-4001	The number of dots	<a href="#">5-2, 5</a>
Wia2	WASTE INK ABSORBER UNIT B	QM4-4242		967.2	997.1	ml	W1	EC44-4001	The number of dots	<a href="#">5-2, 5</a>
Wia3	WASTE INK ABSORBER UNIT C	QM4-4243		1418.9	1462.8	ml	W1	EC45-4001	The number of dots	<a href="#">5-2, 5</a>
Wia6	WASTE INK ABSORBER UNIT & C S	QM4-6307		894.2	921.9	ml	W1	EC47-4001	The number of dots	<a href="#">5-2, 5</a>
Wia7	SUCTION FAN UNIT SUCTION FAN DUCT UNIT	QM4-5861 QM4-4261	100000	194	200	ml	W1	EC41-4001	The number of dots	<a href="#">5-2, 6</a> <a href="#">5-2, 9</a>
WF1	WASTE INK UNIT	QM4-4226	-	101.6	104.7	ml	W1	EC48-4001	The number of dots	<a href="#">5-2, 9</a>
CR1	CARRIAGE UNIT	QM4-8638	25000	27857142	30952380	(x210)mm	W1	W2	CR scan length	<a href="#">5-2, 12</a>
CR2	CARRIAGE UNIT FILM, TIMING SLIT STRIP	QM4-8638 QD1-2178	25000	67500000	75000000	(x1000000) dot	W1	W2	Total ejected ink amount	<a href="#">5-2, 12</a> <a href="#">5-2, 11</a>
CR3	CARRIAGE UNIT	QM4-8638	87000	162000	180000	Times	W1	W2	The rotation number of carriage height changing cam	<a href="#">5-2, 12</a>
CR4	INK TUBE UNIT	QM4-8663	25000	6624000	7360000	Times	W1	EC32-4001	The number of CR scanning	<a href="#">5-2, 12</a>
CR5	MULTI SENSOR UNIT	QM4-4341	25000	67500000	75000000	(x1000000) dot	W1	W2	Total ejected ink amount	<a href="#">5-2, 11</a>
PG1	PURGE UNIT	QM4-4352	25000	140400	156000	Times	W1	EC31-4001	The number of capping	<a href="#">5-2, 9</a>
PG2				895500	995000	Times	W1	EC31-4001	The number of pump rotation	<a href="#">5-2, 9</a>
PG3				25200	28000	Times	W1	EC31-4001	The number of wiping	<a href="#">5-2, 9</a>
HMa1	HEAD MANAGEMENT SENSOR UNIT	QM4-4038	30000	3.6	3.8	ml	W1	EC22-4001	The number of dots in HEAD MANAGEMENT SENSOR UNIT	<a href="#">5-2, 9</a>
MT1	MOTOR, DC, 47.8W (CARRIAGE)	QK1-2868	28000	3060	3400	h	W1	W2	CR driving time	<a href="#">5-2, 11</a>
PL1	ACTIVE ROLL BRAKE UNIT	QM4-8678	700000	27000	30000	h	W1	W2	Paper feeding time	<a href="#">5-2, 2</a>
Mi1	MIST FAN DUCT UNIT 2 MIST FAN DUCT UNIT 1	QM4-4227 QM4-4228	218000	1644.3	1695.2	ml	W1	EC25-4001	The number of dots in mist collecting box	<a href="#">5-2, 13</a>
MS1	MULTI SENSOR UNIT	QM4-4341			10000	%	-	W2	The degree of ejected ink amount deviation by color.*4	<a href="#">5-2, 11</a>

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

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

Printing conditions: Canon photo glossy paper HG standard / each color 11.5 % x 11 colors = 126.5 % 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.

\*4: The large deviation degree affects color calibration.

No life guideline (because this is not depending on the ejected ink amount but the deviation degree of ejected ink amount).

## NOTE:

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

60" model

Counter name*1	Part name	Part number	Life sheets / A0*2	Warning level threshold			Panel message*3		Items to be counted	Where to refer in 5-2. Disassembly and Reassembly
				Level1	Level2	Unit	Level1	Level2		
Wia1	WASTE INK ABSORBER UNIT A	QM4-4241	47000	684.5	705.7	ml	W1	EC43-4001	The number of dots	<a href="#">5-2, 5</a>
Wia2	WASTE INK ABSORBER UNIT B	QM4-4242		967.2	997.1	ml	W1	EC44-4001	The number of dots	<a href="#">5-2, 5</a>
Wia3	WASTE INK ABSORBER UNIT C	QM4-4243		1418.9	1462.8	ml	W1	EC45-4001	The number of dots	<a href="#">5-2, 5</a>
Wia4	WASTE INK ABSORBER UNIT D	QM4-4244		1236	1274.2	ml	W1	EC46-4001	The number of dots	<a href="#">5-2, 5</a>
Wia6	WASTE INK ABSORBER UNIT	QM4-5751		894.2	921.9	ml	W1	EC47-4001	The number of dots	<a href="#">5-2, 5</a>
Wia7	SUCTION FAN UNIT SUCTION FAN DUCT UNIT	QM4-5861 QM4-4261	103000	194	200	ml	W1	EC41-4001	The number of dots	<a href="#">5-2, 6</a> <a href="#">5-2, 9</a>
WF1	WASTE INK UNIT	QM4-4226	-	101.6	104.7	ml	W1	EC48-4001	The number of dots	<a href="#">5-2, 9</a>
CR1	CARRIAGE UNIT	QM4-8639	25000	27857142	30952380	(x210)mm	W1	W2	CR scan length	<a href="#">5-2, 12</a>
CR2	CARRIAGE UNIT FILM, TIMING SLIT STRIP	QM4-8639 QD1-2179	25000	67500000	75000000	(x1000000) dot	W1	W2	Total ejected ink amount	<a href="#">5-2, 12</a> <a href="#">5-2, 11</a>
CR3	CARRIAGE UNIT	QM4-8639	87000	162000	180000	Times	W1	W2	The rotation number of carriage height changing cam	<a href="#">5-2, 12</a>
CR4	INK TUBE UNIT	QM4-8664	25000	6624000	7360000	Times	W1	EC32-4001	The number of CR scanning	<a href="#">5-2, 12</a>
CR5	MULTI SENSOR UNIT	QM4-4341	25000	67500000	75000000	(x1000000) dot	W1	W2	Total ejected ink amount	<a href="#">5-2, 11</a>
PG1	PURGE UNIT	QM4-4352	25000	140400	156000	Times	W1	EC31-4001	The number of capping	<a href="#">5-2, 9</a>
PG2				895500	995000	Times	W1	EC31-4001	The number of pump rotation	<a href="#">5-2, 9</a>
PG3				25200	28000	Times	W1	EC31-4001	The number of wiping	<a href="#">5-2, 9</a>
HMa1	HEAD MANAGEMENT SENSOR UNIT	QM4-4038	44000	6.6	6.8	ml	W1	EC22-4001	The number of dots in HEAD MANAGEMENT SENSOR UNIT	<a href="#">5-2, 9</a>
MT1	MOTOR, DC, 47.8W (CARRIAGE)	QK1-2868	28000	3060	3400	h	W1	W2	CR driving time	<a href="#">5-2, 11</a>
PL1	ACTIVE ROLL BRAKE UNIT	QM4-8678	700000	27000	30000	h	W1	W2	Paper feeding time	<a href="#">5-2, 2</a>
Mi1	MIST FAN DUCT UNIT 2	QM4-4227	134000	1897.5	1956.1	ml	W1	EC25-4001	The number of dots in mist collecting box	<a href="#">5-2, 13</a>
MS1	MULTI SENSOR UNIT	QM4-4341			100000	%	-	W2	The degree of ejected ink amount deviation by color.*4	<a href="#">5-2, 11</a>

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

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

Printing conditions: Canon photo glossy paper HG standard / each color 11.5 % x 11 colors = 126.5 % 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.

\*4: The large deviation degree affects color calibration.

No life guideline (because this is not depending on the ejected ink amount but the deviation degree of ejected ink amount).

NOTE:

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

## 3-4. 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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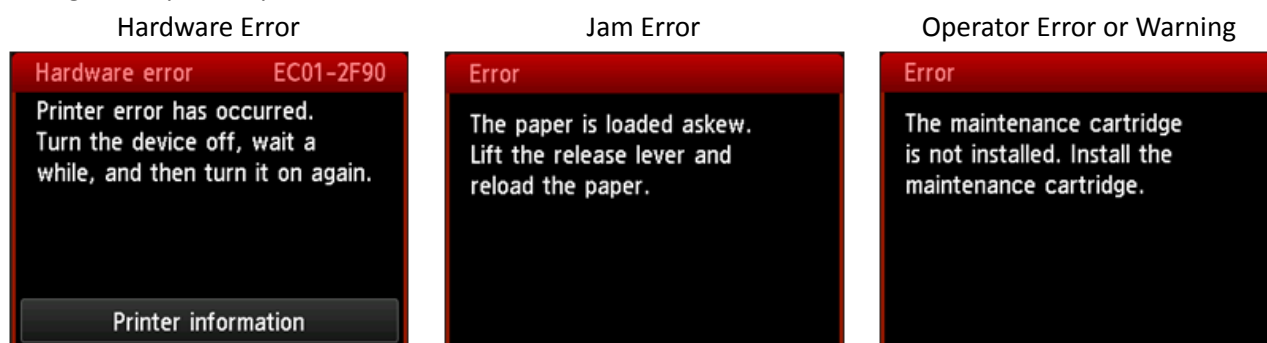
## 4-1. Error Code Outline

### 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 system 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	Unidentified

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	unidentified
31	Paper floating, Paper folding		

cc (Jammed part)	
11	Between UPPER PAPER ENTRY SENSOR and PAPER ENTRY SENSOR (Between LOPWER PAPER ENTRY SENSOR and PAPER ENTRY SENSOR)
12	Between PAPER ENTRY SENSOR and the end of paper feeding
15	Between paper loading and the end of paper feeding (cut paper)
21	MULTI SENSOR
30	Platen, Feed roller
40	Cutter
50	Lower roll unit (take-up setting)
00	Unidentified

<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.

## 4-2. 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="#">EC21-2F59</a>	<a href="#">EC21-2F79</a>	<a href="#">EC32-4001</a>
<a href="#">EC01-2F95</a>	<a href="#">EC17-2024</a>	<a href="#">EC21-2F5A</a>	<a href="#">EC21-2F7A</a>	<a href="#">EC33-2601</a>
<a href="#">EC03-403A</a>	<a href="#">EC17-2028</a>	<a href="#">EC21-2F5B</a>	<a href="#">EC21-2F7B</a>	<a href="#">EC33-2604</a>
<a href="#">EC03-403B</a>	<a href="#">EC17-2029</a>	<a href="#">EC21-2F5C</a>	<a href="#">EC21-2F7D</a>	<a href="#">EC33-2F3A</a>
<a href="#">EC03-4061</a>	<a href="#">EC17-2039</a>	<a href="#">EC21-2F5D</a>	<a href="#">EC22-2F30</a>	<a href="#">EC33-4020</a>
<a href="#">EC04-2F31</a>	<a href="#">EC17-202D</a>	<a href="#">EC21-2F60</a>	<a href="#">EC22-2F47</a>	<a href="#">EC33-4021</a>
<a href="#">EC04-2F91</a>	<a href="#">EC17-202F</a>	<a href="#">EC21-2F61</a>	<a href="#">EC22-4001</a>	<a href="#">EC33-4022</a>
<a href="#">EC05-2F92</a>	<a href="#">EC19-2F21</a>	<a href="#">EC21-2F62</a>	<a href="#">EC23-260E</a>	<a href="#">EC33-4023</a>
<a href="#">EC06-2F9A</a>	<a href="#">EC1A-2F45</a>	<a href="#">EC21-2F63</a>	<a href="#">EC23-2F11</a>	<a href="#">EC33-4024</a>
<a href="#">EC06-2F9B</a>	<a href="#">EC1B-2030</a>	<a href="#">EC21-2F64</a>	<a href="#">EC23-2F18</a>	<a href="#">EC33-4025</a>
<a href="#">EC06-2F9C</a>	<a href="#">EC1B-2031</a>	<a href="#">EC21-2F65</a>	<a href="#">EC23-2F32</a>	<a href="#">EC33-4026</a>
<a href="#">EC07-2F19</a>	<a href="#">EC1B-2032</a>	<a href="#">EC21-2F66</a>	<a href="#">EC24-4049</a>	<a href="#">EC33-4028</a>
<a href="#">EC07-4060</a>	<a href="#">EC1B-2033</a>	<a href="#">EC21-2F67</a>	<a href="#">EC24-404A</a>	<a href="#">EC33-4029</a>
<a href="#">EC0F-2F93</a>	<a href="#">EC1C-2034</a>	<a href="#">EC21-2F68</a>	<a href="#">EC24-404B</a>	<a href="#">EC33-402A</a>
<a href="#">EC0F-2F96</a>	<a href="#">EC1C-2035</a>	<a href="#">EC21-2F69</a>	<a href="#">EC25-2F16</a>	<a href="#">EC33-402B</a>
<a href="#">EC11-2F2A</a>	<a href="#">EC1C-2036</a>	<a href="#">EC21-2F6D</a>	<a href="#">EC25-4001</a>	<a href="#">EC33-402D</a>
<a href="#">EC12-2F29</a>	<a href="#">EC1C-2037</a>	<a href="#">EC21-2F6E</a>	<a href="#">EC31-2F09</a>	<a href="#">EC34-2602</a>
<a href="#">EC12-2F2B</a>	<a href="#">EC21-282D</a>	<a href="#">EC21-2F6F</a>	<a href="#">EC31-2F10</a>	<a href="#">EC34-2605</a>
<a href="#">EC12-2F2C</a>	<a href="#">EC21-282E</a>	<a href="#">EC21-2F70</a>	<a href="#">EC31-2F1B</a>	<a href="#">EC34-2F3B</a>
<a href="#">EC13-2F17</a>	<a href="#">EC21-2F43</a>	<a href="#">EC21-2F71</a>	<a href="#">EC31-2F1C</a>	<a href="#">EC35-2603</a>
<a href="#">EC15-2E23</a>	<a href="#">EC21-2F50</a>	<a href="#">EC21-2F72</a>	<a href="#">EC31-2F1D</a>	<a href="#">EC35-2606</a>
<a href="#">EC16-2021</a>	<a href="#">EC21-2F51</a>	<a href="#">EC21-2F73</a>	<a href="#">EC31-2F1E</a>	<a href="#">EC35-2F3C</a>
<a href="#">EC16-2022</a>	<a href="#">EC21-2F53</a>	<a href="#">EC21-2F74</a>	<a href="#">EC31-2F1F</a>	<a href="#">EC3F-2F40</a>
<a href="#">EC16-2027</a>	<a href="#">EC21-2F54</a>	<a href="#">EC21-2F75</a>	<a href="#">EC31-2F22</a>	<a href="#">EC3F-2F41</a>
<a href="#">EC16-2038</a>	<a href="#">EC21-2F56</a>	<a href="#">EC21-2F76</a>	<a href="#">EC31-2F23</a>	<a href="#">EC3F-402F</a>
<a href="#">EC16-202A</a>	<a href="#">EC21-2F57</a>	<a href="#">EC21-2F77</a>	<a href="#">EC31-2F94</a>	<a href="#">EC41-4001</a>
<a href="#">EC16-202E</a>	<a href="#">EC21-2F58</a>	<a href="#">EC21-2F78</a>	<a href="#">EC31-4001</a>	<a href="#">EC43-4001</a>

[EC44-4001](#)      [EC51-3303](#)[EC45-4001](#)      [EC51-3304](#)[EC46-4001](#)      [EC51-3306](#)[EC47-4001](#)      [EC51-3307](#)[EC48-4001](#)      [EC51-3308](#)[EC51-2F07](#)      [EC51-3309](#)[EC51-2F14](#)      [EC51-330A](#)[EC51-2F15](#)      [EC51-4041](#)[EC51-2F38](#)      [EC51-4042](#)[EC51-2FDD](#)      [EC51-4045](#)[EC51-2FDE](#)      [EC51-4046](#)[EC51-2FDF](#)      [EC51-4047](#)[EC51-3000](#)      [EC51-4070](#)[EC51-3001](#)      [EC51-4071](#)[EC51-3002](#)      [EC51-4072](#)[EC51-3003](#)      [EC51-404C](#)[EC51-3004](#)      [EC51-404D](#)[EC51-3005](#)      [EC51-404E](#)[EC51-3006](#)      [EC51-5001](#)[EC51-3100](#)      [EC51-5002](#)[EC51-3101](#)      [EC51-5003](#)[EC51-3102](#)      [EC52-4038](#)[EC51-3103](#)      [EC52-4039](#)[EC51-3104](#)      [EC54-290A](#)[EC51-3105](#)      [EC54-401A](#)[EC51-3106](#)      [EC54-405A](#)[EC51-3107](#)      [EC54-405B](#)[EC51-3108](#)      [EC55-2F20](#)[EC51-3109](#)      [EC56-2FE0](#)[EC51-3110](#)      [EC57-4040](#)[EC51-3301](#)      [EC57-404F](#)[EC51-3302](#)      [EC58-2F12](#)

## 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="#">0x002221</a>	<a href="#">0x004040</a>	<a href="#">0x315150</a>
<a href="#">0x001112</a>	<a href="#">0x001215</a>	<a href="#">0x311111</a>	<a href="#">0x315250</a>
<a href="#">0x002121</a>	<a href="#">0x003130</a>	<a href="#">0x311112</a>	<a href="#">0xFF0000</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="#">140D</a>	<a href="#">200E</a>	<a href="#">2407</a>	<a href="#">2542</a>
<a href="#">1001</a>	<a href="#">1410</a>	<a href="#">200F</a>	<a href="#">2408</a>	<a href="#">2543</a>
<a href="#">1002</a>	<a href="#">1411</a>	<a href="#">2010</a>	<a href="#">2409</a>	<a href="#">2544</a>
<a href="#">1003</a>	<a href="#">1412</a>	<a href="#">2016</a>	<a href="#">240A</a>	<a href="#">2545</a>
<a href="#">1004</a>	<a href="#">1413</a>	<a href="#">2017</a>	<a href="#">2500</a>	<a href="#">2546</a>
<a href="#">1005</a>	<a href="#">1414</a>	<a href="#">2018</a>	<a href="#">2501</a>	<a href="#">2548</a>
<a href="#">1006</a>	<a href="#">1415</a>	<a href="#">2019</a>	<a href="#">2502</a>	<a href="#">2549</a>
<a href="#">1008</a>	<a href="#">1416</a>	<a href="#">201C</a>	<a href="#">2503</a>	<a href="#">254A</a>
<a href="#">1009</a>	<a href="#">1418</a>	<a href="#">201D</a>	<a href="#">2504</a>	<a href="#">254B</a>
<a href="#">100A</a>	<a href="#">1419</a>	<a href="#">202B</a>	<a href="#">2505</a>	<a href="#">254D</a>
<a href="#">100B</a>	<a href="#">141A</a>	<a href="#">202C</a>	<a href="#">2506</a>	<a href="#">2580</a>
<a href="#">100D</a>	<a href="#">141B</a>	<a href="#">2040</a>	<a href="#">2508</a>	<a href="#">2581</a>
<a href="#">1012</a>	<a href="#">141D</a>	<a href="#">2041</a>	<a href="#">2509</a>	<a href="#">2582</a>
<a href="#">1021</a>	<a href="#">1701</a>	<a href="#">2042</a>	<a href="#">250A</a>	<a href="#">2583</a>
<a href="#">1051</a>	<a href="#">1702</a>	<a href="#">2043</a>	<a href="#">250B</a>	<a href="#">2584</a>
<a href="#">1052</a>	<a href="#">1703</a>	<a href="#">2044</a>	<a href="#">250D</a>	<a href="#">2585</a>
<a href="#">1053</a>	<a href="#">1706</a>	<a href="#">2310</a>	<a href="#">2520</a>	<a href="#">2586</a>
<a href="#">1054</a>	<a href="#">1707</a>	<a href="#">2311</a>	<a href="#">2521</a>	<a href="#">2588</a>
<a href="#">1055</a>	<a href="#">1708</a>	<a href="#">2312</a>	<a href="#">2522</a>	<a href="#">2589</a>
<a href="#">1400</a>	<a href="#">1709</a>	<a href="#">2313</a>	<a href="#">2523</a>	<a href="#">258A</a>
<a href="#">1401</a>	<a href="#">1900</a>	<a href="#">2314</a>	<a href="#">2524</a>	<a href="#">258B</a>
<a href="#">1402</a>	<a href="#">1901</a>	<a href="#">2315</a>	<a href="#">2525</a>	<a href="#">258D</a>
<a href="#">1403</a>	<a href="#">1902</a>	<a href="#">2316</a>	<a href="#">2526</a>	<a href="#">25B0</a>
<a href="#">1404</a>	<a href="#">1903</a>	<a href="#">2318</a>	<a href="#">2528</a>	<a href="#">25B1</a>
<a href="#">1405</a>	<a href="#">1904</a>	<a href="#">2319</a>	<a href="#">2529</a>	<a href="#">25B2</a>
<a href="#">1406</a>	<a href="#">1905</a>	<a href="#">231A</a>	<a href="#">252A</a>	<a href="#">25B3</a>
<a href="#">1408</a>	<a href="#">1906</a>	<a href="#">231B</a>	<a href="#">252B</a>	<a href="#">25B4</a>
<a href="#">1409</a>	<a href="#">1907</a>	<a href="#">231D</a>	<a href="#">252D</a>	<a href="#">25B5</a>
<a href="#">140A</a>	<a href="#">1908</a>	<a href="#">2405</a>	<a href="#">2540</a>	<a href="#">25B6</a>
<a href="#">140B</a>	<a href="#">200C</a>	<a href="#">2406</a>	<a href="#">2541</a>	<a href="#">25B8</a>



<a href="#">25B9</a>	<a href="#">2734</a>	<a href="#">2802</a>	<a href="#">2E0D</a>	<a href="#">2EA8</a>
<a href="#">25BA</a>	<a href="#">2735</a>	<a href="#">280D</a>	<a href="#">2E0E</a>	<a href="#">2EA9</a>
<a href="#">25BB</a>	<a href="#">2736</a>	<a href="#">2812</a>	<a href="#">2E0F</a>	<a href="#">2EAA</a>
<a href="#">25BD</a>	<a href="#">2738</a>	<a href="#">2816</a>	<a href="#">2E15</a>	<a href="#">2EAB</a>
<a href="#">2700</a>	<a href="#">2739</a>	<a href="#">2817</a>	<a href="#">2E1B</a>	<a href="#">2EBC</a>
<a href="#">2701</a>	<a href="#">273A</a>	<a href="#">2818</a>	<a href="#">2E1C</a>	<a href="#">2EBD</a>
<a href="#">2702</a>	<a href="#">273B</a>	<a href="#">2819</a>	<a href="#">2E20</a>	<a href="#">2EBE</a>
<a href="#">2703</a>	<a href="#">273D</a>	<a href="#">281A</a>	<a href="#">2E21</a>	<a href="#">2EBF</a>
<a href="#">2704</a>	<a href="#">27D0</a>	<a href="#">281B</a>	<a href="#">2E30</a>	<a href="#">2F6A</a>
<a href="#">2705</a>	<a href="#">27D1</a>	<a href="#">2829</a>	<a href="#">2E31</a>	<a href="#">2F6B</a>
<a href="#">2706</a>	<a href="#">27D2</a>	<a href="#">2901</a>	<a href="#">2E32</a>	<a href="#">2F7C</a>
<a href="#">2707</a>	<a href="#">27D3</a>	<a href="#">2902</a>	<a href="#">2E33</a>	<a href="#">3000</a>
<a href="#">2708</a>	<a href="#">27D4</a>	<a href="#">2905</a>	<a href="#">2E34</a>	<a href="#">3001</a>
<a href="#">2709</a>	<a href="#">27D5</a>	<a href="#">2906</a>	<a href="#">2E38</a>	<a href="#">3002</a>
<a href="#">270A</a>	<a href="#">27D6</a>	<a href="#">2907</a>	<a href="#">2E3A</a>	<a href="#">3003</a>
<a href="#">270B</a>	<a href="#">27D8</a>	<a href="#">2920</a>	<a href="#">2E3B</a>	<a href="#">3004</a>
<a href="#">270D</a>	<a href="#">27D9</a>	<a href="#">2921</a>	<a href="#">2E3C</a>	<a href="#">3005</a>
<a href="#">2710</a>	<a href="#">27DA</a>	<a href="#">2D00</a>	<a href="#">2E3D</a>	<a href="#">3006</a>
<a href="#">2711</a>	<a href="#">27DB</a>	<a href="#">2D01</a>	<a href="#">2E3E</a>	<a href="#">3007</a>
<a href="#">2712</a>	<a href="#">27DD</a>	<a href="#">2D02</a>	<a href="#">2E3F</a>	<a href="#">3008</a>
<a href="#">2713</a>	<a href="#">27E0</a>	<a href="#">2D03</a>	<a href="#">2E40</a>	<a href="#">3009</a>
<a href="#">2714</a>	<a href="#">27E1</a>	<a href="#">2D08</a>	<a href="#">2E41</a>	<a href="#">3010</a>
<a href="#">2715</a>	<a href="#">27E2</a>	<a href="#">2D09</a>	<a href="#">2E42</a>	<a href="#">3011</a>
<a href="#">2716</a>	<a href="#">27E3</a>	<a href="#">2D0A</a>	<a href="#">2E43</a>	<a href="#">3012</a>
<a href="#">2718</a>	<a href="#">27E4</a>	<a href="#">2D0B</a>	<a href="#">2E45</a>	<a href="#">3013</a>
<a href="#">2719</a>	<a href="#">27E5</a>	<a href="#">2D0C</a>	<a href="#">2E75</a>	<a href="#">3014</a>
<a href="#">271A</a>	<a href="#">27E6</a>	<a href="#">2D0D</a>	<a href="#">2EA1</a>	<a href="#">3015</a>
<a href="#">271B</a>	<a href="#">27E8</a>	<a href="#">2E02</a>	<a href="#">2EA2</a>	<a href="#">3016</a>
<a href="#">271D</a>	<a href="#">27E9</a>	<a href="#">2E08</a>	<a href="#">2EA3</a>	<a href="#">3017</a>
<a href="#">2730</a>	<a href="#">27EA</a>	<a href="#">2E09</a>	<a href="#">2EA4</a>	<a href="#">3018</a>
<a href="#">2731</a>	<a href="#">27EB</a>	<a href="#">2E0A</a>	<a href="#">2EA5</a>	<a href="#">3022</a>
<a href="#">2732</a>	<a href="#">27ED</a>	<a href="#">2E0B</a>	<a href="#">2EA6</a>	<a href="#">3023</a>
<a href="#">2733</a>	<a href="#">2800</a>	<a href="#">2E0C</a>	<a href="#">2EA7</a>	<a href="#">3024</a>

[3025](#)

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[3305](#)

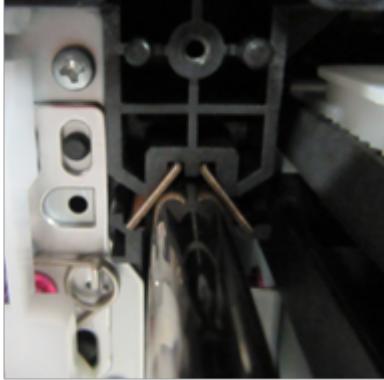

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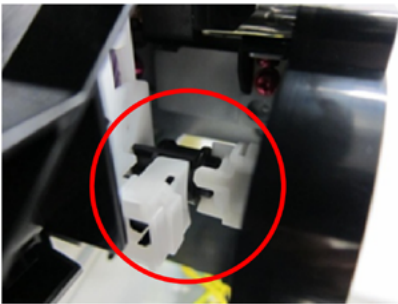
## 4-3. Detail of Hardware Error

### Carriage Drive System

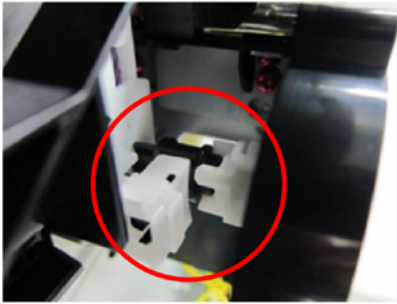
E Code	Detail Code	Description	
EC01	2F90	Error	Carriage overload (support number : 4801)
		Detection Description	The motor keeps 100% output. In addition, CARRIAGE UNIT scans more than a constant length.
		Handling	
		1	Check stain on the carriage shaft. No stain Go to 2. Stain adheres Perform cleaning of the shaft and replace <a href="#">BUSHING / CLEANER KIT</a> .
2	Perform <a href="#">[DIAGNOSIS &gt; CR SYSTEM CHECK]</a> to diagnose carriage system. No problem Replace <a href="#">carriage motor</a> . Abnormal Failure in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a> . Failure in LONG FFC CHECK or <a href="#">CRC value</a> changes after turning the printer off and back on Replace <a href="#">FLEXIBLE CABLE UNIT</a> .		
EC01	2F95	Error	Carriage drive timeout (support number : 4801)
		Detection Description	CARRIAGE UNIT does not finish driving within the scheduled time.
		Handling	
		1	Check the items below. a) Stain on the carriage shaft. b) Cable connection of the carriage motor. c) Looseness and abrasion of BELT, CARRIAGE. Appropriate Go to 2. Inappropriate a) Perform cleaning of the shaft and replace <a href="#">BUSHING / CLEANER KIT</a> . b) Connect the cable. c) Replace <a href="#">BELT, CARRIAGE</a> .
2	Perform <a href="#">[DIAGNOSIS &gt; CR SYSTEM CHECK]</a> to diagnose carriage system. No problem Replace <a href="#">carriage motor</a> . Abnormal Failure in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a> . Failure in LONG FFC CHECK or <a href="#">CRC value</a> changes after turning the printer off and back on Replace <a href="#">FLEXIBLE CABLE UNIT</a> .		
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	403B	Error	Printer VSH recognition failure (support number : B20A) Memo : Remove the error in service mode when handling is completed.
		Detection Description	The printer cannot confirm sub heater 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.* * 12-color model and 8-color model adopt the same board. 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 44" &amp; 60" 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>c) BUSHING attachment position. (when this error occurs after replacing BUSHING / CLEANER KIT)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>correct position</p> </div> <div style="text-align: center;">  <p>incorrect position</p> </div> </div> <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 BUSHING / CLEANER KIT.</p> <p>c) Correct the BUSHING attachment position.</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 Description	The motor keeps 100% output. In addition, CARRIAGE UNIT stops less than a constant scanning length.
		Handling	
		1	<p>Check the items below.</p> <p>a) Cable connection of the carriage motor.</p> <p>b) Looseness and abrasion of BELT, CARRIAGE.</p> <p>c) Obstacle.</p> <p>d) The position of 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 motor error (support number : 4801)
		Detection Description	Overload on the lift motor.
		Handling	
1	<p>Check the items below.</p> <p>a) Cable connection of LIFT UNIT.</p> <p>b) Positioning CARRIAGE UNIT at the home position and butting 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 against the lift unit at the home position side.			
EC06	2F9B	Error	Carriage lift sensor error (support number : 4801)
		Detection Description	<ul style="list-style-type: none"> <li>· Although the lift motor is rotating with generating larger than a constant torque, 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) Cable connection of CARRIAGE 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>		

[To Error Code Table](#)

EC06	2F9C	Error	Carriage docking error (support number : 4801)
		Detection Description	<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>	
			
		Coupling part	
EC07	2F19	Error	Carriage acceleration sensor error (support number : 4801)
		Detection Description	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 or <a href="#">CRC value</a> changes after turning the printer off and back on Replace <a href="#">FLEXIBLE CABLE UNIT</a>.</p>	
EC07	4060	Error	Carriage EEPROM error (support number : 6820) Memo : Remove the error in service mode when handling is completed.
		Detection Description	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 or <a href="#">CRC value</a> changes after turning the printer off and back on 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 Description	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 Description	While carriage system is in error status, operation is indicated from firmware.
		Handling	
		1	<p>Check the items below.</p> <p>a) Cable connection of the carriage 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>



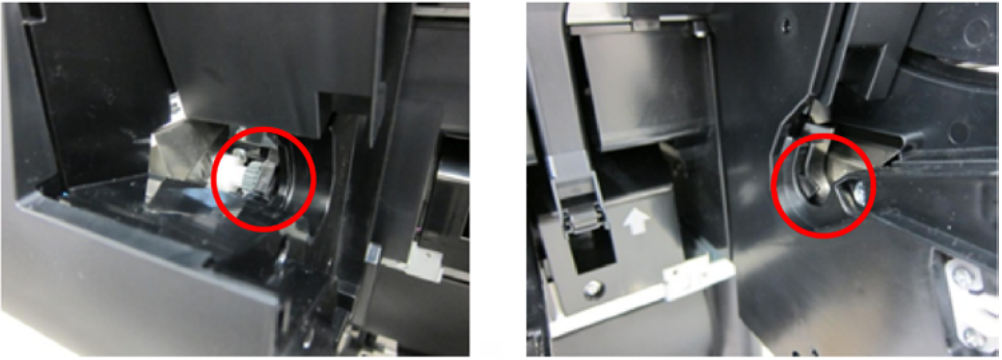
## Paper Feed System

E Code	Detail Code	Description	
EC11	2F2A	Error	Paper feed home position error (support number : 4801)
		Detection Description	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 Description	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 Description	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 Description	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 Description	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 44" &amp; 60" model</a>).</p> <ul style="list-style-type: none"> <li>▪ After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>		



EC15	2E23	Error	Cutter blade unit error (support number : 4801)
		Detection Description	<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;">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 Description	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 44" &amp; 60" 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 Description	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 44" &amp; 60" 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 Description	The timing when upper roll drive timeout or upper roll drive overload occurs, operation instruction 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 44" &amp; 60" model</a>).</p> <ul style="list-style-type: none"> <li>After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>		
EC16	2038	Error	Upper ARB motor calibration error (support number : 4801)
		Detection Description	Calibration of upper ACTIVE ROLL BRAKE UNIT motor fails.
		Handling	
1	<p>Perform readjustment. (<a href="#">[ADJUSTMENT &gt; UPPER ARB CALIB]</a>)</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace <a href="#">ACTIVE ROLL BRAKE UNIT</a>.</p>		

EC16	202A	Error	Upper roll motor drive control abnormal (support number : 4801)
		Detection Description	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 44" &amp; 60" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>		
EC16	202E	Error	Upper roll spool detection error (support number : 100E)
		Detection Description	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>	

EC17	2023	Error	Lower roll drive timeout (support number : 4801)
		Detection Description	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 44" &amp; 60" model</a>).</p> <ul style="list-style-type: none"> <li>After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>		
EC17	2024	Error	Lower roll drive overload (support number : 4801)
		Detection Description	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 44" &amp; 60" model</a>).</p> <ul style="list-style-type: none"> <li>After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>		
EC17	2028	Error	Lower roll motor error (support number : 4801)
		Detection Description	The timing when lower roll drive timeout or lower roll drive overload occurs, operation instruction 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 44" &amp; 60" model</a>).</p> <ul style="list-style-type: none"> <li>After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>		

EC17	2029	Error	Lower roll motor drive control abnormal (support number : 4801)
		Detection Description	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 44" &amp; 60" model</a>).</p> <p>▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>		
EC17	2039	Error	Lower ARB motor calibration error (support number : 4801)
		Detection Description	Calibration of lower ACTIVE ROLL BRAKE UNIT motor fails.
		Handling	
		1	<p>Perform readjustment. (<a href="#">[ADJUSTMENT &gt; LOWER ARB CALIB]</a>)</p> <p>The problem is resolved Complete.</p> <p>The problem is not resolved Replace <a href="#">ACTIVE ROLL BRAKE UNIT</a>.</p>
EC17	202D	Error	No lower roll unit (support number : 1875)
		Detection Description	<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 Description	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>	
			
		left spool sensor lever	right spool sensor lever
EC19	2F21	Error	Release lever open at access cover locking (support number : 1214)
		Detection Description	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 Replace <a href="#">ACCESS COVER LOCK UNIT R</a>.</p> <p>Inappropriate 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>	



EC1A	2F45	Error	Platen valve stay position error (support number : 4801)
		Detection Description	The motor keeps 100% output. In addition, PLATEN VALVE POSITION DETECT SENSOR and PLATEN VALVE HOME DETECT SENSOR cannot detect · SHAFT UNIT, PLATEN SHUTTER in constant time duration.
		Handling	
		1	<p>Check the items below.</p> <p>a) Stain and/or damage of · DRIVE UNIT, PLATEN SHUTTER · PLATEN SHUTTER UNIT 1</p> <p>b) Perform <a href="#">[DIAGNOSIS &gt; I/O DISPLAY]</a> to check PLATEN VALVE POSITION DETECT SENSOR and PLATEN VALVE HOME DETECT SENSOR operation.</p> <p>Clean unit and proper operation Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 44" &amp; 60" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments. Stained or damaged unit or improper operation.</p> <p>a) Perform cleaning or replace the damaged unit. b) Replace PLATEN VALVE POSITION DETECT SENSOR or PLATEN VALVE HOME DETECT SENSOR.</p>
EC1B	2030	Error	Upper roll nip arm sensor non-detection (support number : 4801)
		Detection Description	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. b) Perform <a href="#">[DIAGNOSIS &gt; I/O DISPLAY]</a> to check UPPER ROLL NIP SENSOR operation.</p> <p>Appropriate Replace <a href="#">DRIVE NIP ARM UNIT</a>.</p> <p>Inappropriate a) Remove the foreign substance. b) Replace <a href="#">UPPER ROLL NIP SENSOR</a>.</p>
EC1B	2031	Error	Upper roll nip arm drive timeout (support number : 4801)
		Detection Description	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 Replace <a href="#">DRIVE NIP ARM UNIT</a>.</p> <p>With foreign substances Remove the foreign substance.</p>
EC1B	2032	Error	Upper roll nip arm drive overload (support number : 4801)
		Detection Description	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 Replace <a href="#">DRIVE NIP ARM UNIT</a>.</p> <p>With foreign substances Remove the foreign substance.</p>
EC1B	2033	Error	Upper roll nip arm motor error (support number : 4801)
		Detection Description	At the timing when upper DRIVE NIP ARM UNIT drive timeout or drive overload occurs, firmware receives operation command.
		Handling	
		1	<p>Check if foreign substances are adhering around upper DRIVE NIP ARM UNIT.</p> <p>Without foreign substance Replace <a href="#">DRIVE NIP ARM UNIT</a>.</p> <p>With foreign substances Remove the foreign substance.</p>

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

## Print System

E Code	Detail Code	Description	
EC21	282D	Error	Print head Si melting (reboot request) (support number : 140C)
		Detection Description	Si solution amount is more than the standard solution amount. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Reboot the printer.
EC21	282E	Error	Print head Si melting (print head replacement request) (support number : 1403)
		Detection Description	The printer does not recover by rebooting after print head Si solution error.
		Handling	
		1	Replace the print head.
EC21	2F43	Error	Print head 768 nozzles complete non-ejection (support number : 1494)
		Detection Description	Non-ejection in 768 nozzles is detected through non-ejection detection.
		Handling	
		1	When the printer does not recover by rebooting, check if the ink is filled into tubes. Ink is filled Go to 2. (Ink inside of the print head insufficiency or print head defect is suspected.) Ink is not filled Replace the <a href="#">TUBE UNIT</a> .
		2	Perform deep cleaning, and print nozzle check pattern. Proper nozzle pattern Complete. Improper nozzle pattern Replace the print head.
EC21	2F50	Error	VH leak at print head replacement (support number : 1477)
		Detection Description	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 or <a href="#">CRC value</a> changes after turning the printer off and back on 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.
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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.		

EC21	2F51	Error	VH leak at starting up, cleaning, and print starting (support number : 4801)
		Detection Description	VH leak is detected at starting up, cleaning, and print starting.
		Handling	
	1	Reboot the printer.	
EC21	2F53	Error	VH leak at rebooting (support number : 1478)
		Detection Description	The printer does not recover by rebooting after 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 or <a href="#">CRC value</a> changes after turning the printer off and back on 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.
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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.		

EC21	2F54	Error	Print head VH voltage abnormal (support number : 4801)
		Detection Description	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 or <a href="#">CRC value</a> changes after turning the printer off and back on 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	2F56	Error	VHTR leak at print head replacement (support number : 1477)
		Detection Description	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 or <a href="#">CRC value</a> changes after turning the printer off and back on 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.
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 44" &amp; 60" 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 Description	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 Description	The printer does not recover by rebooting after 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 or <a href="#">CRC value</a> changes after turning the printer off and back on 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.	
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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.			

EC21	2F59	Error	Print head VHTR voltage abnormal (support number : 4801)
		Detection Description	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 or <a href="#">CRC value</a> changes after turning the printer off and back on 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	2F5A	Error	VSH leak at print head replacement (support number : 1477)
		Detection Description	VSH 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 or <a href="#">CRC value</a> changes after turning the printer off and back on 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.
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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.		

EC21	2F5B	Error	VSH leak at starting up, cleaning, and print starting (support number : 4801)	
		Detection Description	VSH leak is detected at starting up, cleaning, and print starting.	
		Handling		
	1	Reboot the printer.		
EC21	2F5C	Error	VSH leak at rebooting (support number : 1478)	
		Detection Description	The printer does not recover by rebooting after the VSH 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 or <a href="#">CRC value</a> changes after turning the printer off and back on 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.	
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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.			



EC21	2F5D	Error	Print head VSH voltage abnormal (support number : 4801)
		Detection Description	Abnormal VSH voltage of the print head is detected.
		Handling	
		1	Perform <a href="#">[DIAGNOSIS &gt; CR SYSTEM CHECK]</a> to check the result of LONG FFC CHECK and if <a href="#">CRC value</a> changes after turning the printer off and back on. (When CRC value changes, wires are broken.) Without broken wires Go to 2. With broken wires 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	2F60	Error	H3V voltage abnormal at print head replacement (support number : 1477)
		Detection Description	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 or <a href="#">CRC value</a> changes after turning the printer off and back on 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.		
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 44" &amp; 60" 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 Description	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 Description	The printer does not recover by rebooting after 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 or <a href="#">CRC value</a> changes after turning the printer off and back on 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.	
		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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.			
EC21	2F63	Error	Print head contact error at print head replacement (support number : 1479)	
		Detection Description	Direct diode sensor detects print head contact failure at print head replacement.	
		Handling		
		1	Remove the print head and check the condition of print head contacting part. Proper condition Go to 2. Improper condition Clean the surface of the print head contacting part. (The waste 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 and if <a href="#">CRC value</a> changes after turning the printer off and back on (When CRC value changes, wires are broken). Without broken wires Replace <a href="#">CARRIAGE UNIT</a> . With broken wires Replace <a href="#">FLEXIBLE CABLE UNIT</a> .			

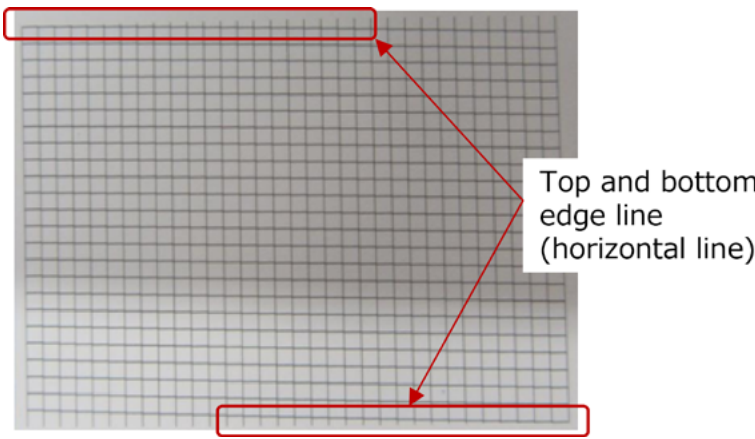
EC21	2F64	Error	Print head contact error at starting up (support number : 4801)
		Detection Description	Direct diode sensor detects print head contact failure at print head replacement.
		Handling	
		1	<p>Perform <a href="#">[DIAGNOSIS &gt; CR SYSTEM CHECK]</a> to diagnose carriage system.</p> <p>No problem Go to 2.</p> <p>Abnormal</p> <ul style="list-style-type: none"> <li>· Problem in ACC. SENSOR CHECK or CR VIBRATIONCHECK Replace <a href="#">CARRIAGE UNIT</a>.</li> <li>· Problem in LONG FFC CHECK or <a href="#">CRC value</a> changes after turning the printer off and back on Replace <a href="#">FLEXIBLE CABLE UNIT</a>.</li> </ul>
2	<p>Remove the print head, and check the items below.</p> <p>a) Condition of the print head nozzle side surface. b) Condition of the print head contacting part</p> <p>Proper condition Go to 3</p> <p>Abnormal condition</p> <p>a) Replace the print head. b) Clean the surface of the print head contacting part. (The waste cloth without a nap must be used.)</p>		
3	<p>Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model, for 44" &amp; 60" model</a>).</p> <ul style="list-style-type: none"> <li>▪ After replacement, perform PCB replacement mode and necessary adjustments.</li> </ul>		
EC21	2F65	Error	Diode temperature abnormal at print head replacement (support number : 1477)
		Detection Description	Direct diode sensor detects abnormal value at print head replacement.
		Handling	
		1	<p>Remove the print head and check the condition of print head contacting part.</p> <p>Proper condition Go to 2.</p> <p>Abnormal condition Clean the surface of the print head contacting part. (The waste cloth without a nap must be used.)</p>
2	<p>Perform <a href="#">[DIAGNOSIS &gt; CR SYSTEM CHECK]</a> to check the result of LONG FFC CHECK and if <a href="#">CRC value</a> changes after turning the printer off and back on (When CRC value changes, wires are broken).</p> <p>Without broken wires Replace <a href="#">CARRIAGE UNIT</a>.</p> <p>With broken wires Replace <a href="#">FLEXIBLE CABLE UNIT</a>.</p>		

EC21	2F66	Error	Diode temperature abnormal at starting up (support number : 4801)
		Detection Description	Direct diode sensor detects abnormal value at starting up.
		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 or <a href="#">CRC value</a> changes after turning the printer off and back on 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.
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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.		
EC21	2F67	Error	Print head H3V voltage abnormal during printing (support number : 4801)
		Detection Description	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 or <a href="#">CRC value</a> changes after turning the printer off and back on 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.
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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.		

EC21	2F68	Error	Print head temperature abnormal (reboot request) (support number : 4801)
		Detection Description	Print head temperature is detected more than the specified times. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Reboot the printer.
EC21	2F69	Error	Print head temperature abnormal (print head replacement request) (support number : 1478)
		Detection Description	The printer does not recover by rebooting after this error. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Replace the print head.
EC21	2F6D	Error	Print head EEPROM checksum error 2 (support number : 140F)
		Detection Description	Abnormity is detected in checksum judgement of EEPROM at print head installation and starting up. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Replace the print head.
EC21	2F6E	Error	Print head circuit abnormal (reboot request) (support number : 4801)
		Detection Description	Abnormal temperature of the print head is detected more than the specified times. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Reboot the printer.
EC21	2F6F	Error	Print head circuit abnormal (print head replacement request) (support number : 1478)
		Detection Description	The printer does not recover by rebooting after this error. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Replace the print head.
EC21	2F70	Error	Print head diode temperature abnormal (reboot request) (support number : 1408)
		Detection Description	Abnormal temperature of the diode is detected at diode correction. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Reboot the printer.
EC21	2F71	Error	Print head diode temperature unstable (support number : 1409)
		Detection Description	Diode temperature is detected to be unstable at diode correction. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Reboot the printer.
EC21	2F72	Error	Print head diode correction error (reboot request) (support number : 140A)
		Detection Description	Abnormal value is detected at diode correction. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Reboot the printer.

EC21	2F73	Error	Print head diode temperature abnormal (print head replacement request) (support number : 1408)
		Detection Description	The printer does not recover by rebooting after this error. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Replace the print head.
EC21	2F74	Error	Print head diode temperature unstable (print head replacement request) (support number : 1409)
		Detection Description	The printer does not recover by rebooting after this error. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Replace the print head.
EC21	2F75	Error	Print head diode correction error (print head replacement request) (support number : 140A)
		Detection Description	The printer does not recover by rebooting after this error. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Replace the print head.
EC21	2F76	Error	Print head abnormal temperature rising H (reboot request) (support number : 5200)
		Detection Description	Abnormal temperature rising is detected from heater board at home position side. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Reboot the printer.
EC21	2F77	Error	Print head abnormal temperature rising M (reboot request) (support number : 5200)
		Detection Description	Abnormal temperature rising is detected from heater board at the center of the print head. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Reboot the printer.
EC21	2F78	Error	Print head abnormal temperature rising A (reboot request) (support number : 5200)
		Detection Description	Abnormal temperature rising is detected from heater board at away position side. (support number : 5200) ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Reboot the printer.
EC21	2F79	Error	Print head abnormal temperature rising H (reboot request) (support number : 1478)
		Detection Description	The printer does not recover by rebooting after this error. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Replace the print head.

EC21	2F7A	Error	Print head abnormal temperature rising M (reboot request) (support number : 1478)
		Detection Description	The printer does not recover by rebooting after this error. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Replace the print head.
EC21	2F7B	Error	Print head abnormal temperature rising A (reboot request) (support number : 1478)
		Detection Description	The printer does not recover by rebooting after this error. ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		Handling	
		1	Replace the print head.
EC21	2F7D	Error	Print head contact error before non-ejection detection (support number : 4801)
		Detection Description	Sending command to the print head is disabled.
		Handling	
		1	Remove the print head and check the condition of print head contacting part. Proper condition Go to 2. Abnormal condition Clean the surface of the print head contacting part. (The waste cloth without a nap must be used.) ▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.
		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 or <a href="#">CRC value</a> changes after turning the printer off and back on Replace <a href="#">FLEXIBLE CABLE UNIT</a> .

EC22	2F30	Error	Head management sensor position adjustment error (support number : 4801)
		Detection Description	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>	 <p>Top and bottom edge line (horizontal line)</p>	
EC22	2F47	Error	Head management sensor unit failure (support number : 4801)
		Detection Description	The head management sensor unit is detected to be faulty at starting up and non-ejection detection.
		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 proper connection Go to 2.</p> <p>Inappropriate condition or improper connection</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 44" &amp; 60" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>		



EC22	4001	Error	End-of-life of head management sensor unit (support number : 5B16) Memo : Remove the error in service mode after handling.
		Detection Description	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 Description	Abnormity is detected at GAP adjustment.
		Handling	
		1	Check the cable connection of MULTI SENSOR UNIT. Proper connection Replace <a href="#">MULTI SENSOR UNIT</a> . Improper connection Connect the cable.
EC23	2F11	Error	Multi sensor bus communication error (support number : 4801)
		Detection Description	Communicating with multi sensor related hard ware, such as LED driver and multi sensor EEPROM, is failed.
		Handling	
		1	Check the cable connection of MULTI SENSOR UNIT. Proper connection Replace <a href="#">MULTI SENSOR UNIT</a> . Improper connection Connect the cable. ▪ This error is caused by Multi sensor malfunction. Communication error of other ICs is indicated when communication failure occurs, since confirmation of communication with other ICs in the carriage is performed prior to confirmation of communication of the multi sensor.
EC23	2F18	Error	Carriage board I2C bus communication error (support number : 4801)
		Detection Description	I2C writing and reading to ICs on the carriage board is failed.
		Handling	
		1	Perform <a href="#">[DIAGNOSIS &gt; CR SYSTEM CHECK]</a> to check broken wires of FLEXIBLE CABLE UNIT. Without broken wires Replace <a href="#">CARRIAGE UNIT</a> . With broken wires Replace <a href="#">FLEXIBLE CABLE UNIT</a> .
EC23	2F32	Error	Multi sensor error (support number : 4801)
		Detection Description	Abnormity is detected in multi sensor EEPROM reading at each automatic adjustment, paper edge detection, GAP adjustment, and starting up.
		Handling	
		1	Check the cable connection of MULTI SENSOR UNIT. Proper connection Replace <a href="#">MULTI SENSOR UNIT</a> . Improper connection Connect the cable.
EC24	4049	Error	Abnormal temperature by temperature and humidity sensor (support number : 8200) Memo : Remove the error in service mode after handling.
		Detection Description	Abnormity is detected at reading temperature.
		Handling	
		1	Check the cable connection of SENSOR, HUMIDITY. Proper connection Replace <a href="#">SENSOR, HUMIDITY</a> . Improper connection Connect the cable.

EC24	404A	Error	Abnormal humidity by temperature and humidity sensor (support number : 8200) Memo : Remove the error in service mode after handling.
		Detection Description	Abnormity is detected at reading humidity.
		Handling	
		1	<p>Check the cable connection of SENSOR, HUMIDITY.</p> <p>Proper connection Replace SENSOR, HUMIDITY.</p> <p>Improper connection 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 Description	Abnormity is detected at reading temperature and humidity.
		Handling	
		1	<p>Check the cable connection of SENSOR, HUMIDITY.</p> <p>Proper connection Replace <a href="#">SENSOR, HUMIDITY</a>.</p> <p>Improper connection Connect the cable.</p>
EC25	2F16	Error	Mist fan error (support number : 4801)
		Detection Description	Abnormity is detected at reading humidity.
		Handling	
		1	<p>Check the cable connection of MIST FAN.</p> <p>Proper connection Go to 2.</p> <p>Improper connection Connect the cable.</p>
		2	<p>Replace the parts below.</p> <p>&lt;24" model&gt; <a href="#">MIST FAN DUCT UNIT 2</a></p> <p>&lt;44" model&gt; <a href="#">MIST FAN DUCT UNIT 1</a>, <a href="#">MIST FAN DUCT UNIT 2</a></p> <p>&lt;60" model&gt; MIST FAN DUCT UNIT 2 x 2</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 44" &amp; 60" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>
EC25	4001	Error	End-of-life of mist collecting duct (support number : 5B20) Memo : Remove the error in service mode after handling.
		Detection Description	Ink amount in the mist collecting duct exceeds the threshold.
		Handling	
		1	<p>Replace the parts below.</p> <p>&lt;24" model&gt; <a href="#">MIST FAN DUCT UNIT 2</a></p> <p>&lt;44" model&gt; <a href="#">MIST FAN DUCT UNIT 1</a>, <a href="#">MIST FAN DUCT UNIT 2</a></p> <p>&lt;60" model&gt; <a href="#">MIST FAN DUCT UNIT 2</a> x 2</p>

# Ink Supply System

E Code	Detail Code	Description	
EC31	2F09	Error	Wiper blade encoder and motor error (support number : 4801)
		Detection Description	The encoder does not detect the wiper moved to the specified position.
		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 operation Reboot and recheck operation.</p> <p>Improper operation Replace <a href="#">PURGE UNIT</a>.</p>		
EC31	2F10	Error	Wiper blade motor overload (support number : 4801)
		Detection Description	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 operation Reboot and recheck operation.</p> <p>Improper operation Replace <a href="#">PURGE UNIT</a>.</p>		
EC31	2F1B	Error	Wiper blade position detecting sensor error (support number : 4801)
		Detection Description	WIPER POSITION SENSOR does not detect wiper position despite having moved the wiper to the specified position.
		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 operation Reboot and recheck operation.</p> <p>Improper operation Replace <a href="#">PURGE UNIT</a>.</p>		

EC31	2F1C	Error	Purge main cam sensor error (support number : 4801)
		Detection Description	The following failure is detected. · Initialization of purge main cam position is failed. · CARRIAGE UNIT is not able to be moved to the specified position 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 operation Reboot and recheck the operation. Abnormal operation Replace <a href="#">PURGE UNIT</a> .		
EC31	2F1D	Error	Purge motor error (support number : 4801)
		Detection Description	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 operation Reboot and recheck the operation. Abnormal operation Replace <a href="#">PURGE UNIT</a> .		
EC31	2F1E	Error	Purge motor overload (support number : 4801)
		Detection Description	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 operation Reboot and recheck the operation. Abnormal operation Replace <a href="#">PURGE UNIT</a> .		
EC31	2F1F	Error	Pump roller position detecting sensor error (support number : 4801)
		Detection Description	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 operation Reboot and recheck the operation. Abnormal operation Replace <a href="#">PURGE UNIT</a> .		


[To Error Code Table](#)

EC31	2F22	Error	Purge motor drive timeout (support number : 4801)
		Detection Description	The purge motor drive does not complete the specified operation within the specified time.
		Handling	
		1	<p>Check if the foreign substances such as paper debris are adhering around PURGE UNIT.</p> <p>Without foreign substance Go to 2.</p> <p>With foreign substances Remove the foreign substance.</p>
2	<p>Perform <a href="#">[DIAGNOSIS &gt; PURGE CHECK &gt; INITIALIZE CHECK]</a> to check purge unit operation.</p> <p>Proper operation Reboot and recheck the operation.</p> <p>Abnormal operation Replace the <a href="#">PURGE UNIT</a>.</p>		
EC31	2F23	Error	Wiper blade motor drive timeout (support number : 4801)
		Detection Description	The purge motor drive does not complete the specified operation within the specified time.
		Handling	
		1	<p>Check if the foreign substances such as paper debris are adhering around PURGE UNIT.</p> <p>Without foreign substance Go to 2.</p> <p>With foreign substances Remove the foreign substance.</p>
2	<p>Perform <a href="#">[DIAGNOSIS &gt; PURGE CHECK &gt; INITIALIZE CHECK]</a> to check purge unit operation.</p> <p>Proper operation Reboot and recheck the operation.</p> <p>Abnormal operation Replace the <a href="#">PURGE UNIT</a>.</p>		
EC31	2F94	Error	Carriage obstacle error (support number : 4801)
		Detection Description	When the detected value by acceleration sensor exceeds the threshold. In addition, is in the opposite direction of CARRIAGE UNIT scanning direction.
		Handling	
		1	<p>Check the items below.</p> <p>a) The foreign substances such as paper debris around PURGE UNIT.</p> <p>b) The purge lock pin strikes to CARRIAGE UNIT during CARRIAGE UNIT operation.</p> <p>Foreign substance is adhering or the purge lock pin strikes</p> <p>a) Remove the foreign substance.</p> <p>b) Replace the <a href="#">PURGE UNIT</a>.</p>
EC31	4001	Error	End-of-life of purge unit (support number : 5C00) Memo : Remove the error in service mode after handling.
		Detection Description	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 Description	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	2601	Error	Left and right choke valve drive timeout (support number : 4801)
		Detection Description	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 left and right choke valve position sensor operation. Proper operation 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 L</a> and the <a href="#">SUB INK TANK UNIT R</a> . Abnormal operation Replace the <a href="#">SUB INK TANK UNIT L</a> and the <a href="#">SUB INK TANK UNIT R</a> .	
EC33	2604	Error	Left and right agitation valve drive timeout (support number : 4801)
		Detection Description	The agitation valve does not complete driving within the scheduled time.
		Handling	
	1	Perform <a href="#">[DIAGNOSIS &gt; I/O DISPLAY]</a> to check the left and right agitation valve position sensor operation. Proper operation 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 L</a> and the <a href="#">SUB INK TANK UNIT R</a> . Abnormal operation Replace the <a href="#">SUB INK TANK UNIT L</a> and the <a href="#">SUB INK TANK UNIT R</a> .	
EC33	2F3A	Error	Left and right ink valve motor error (support number : 4801)
		Detection Description	The encoder value of both left and right ink valve motor is not able to be detected.
		Handling	
	1	Replace the <a href="#">SUB INK TANK UNIT L</a> and the <a href="#">SUB INK TANK UNIT R</a> .	
EC33	402x	Error	Choke valve leak at initial ink filling (support number : B510) Memo : Remove the error in service mode after handling.
		Detection Description	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 L</a> , <a href="#">SUB INK TANK UNIT R</a> )	
EC34	2602	Error	Right choke valve drive timeout (support number : 4801)
		Detection Description	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 operation 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 operation Replace the <a href="#">SUB INK TANK UNIT R</a> .	
EC34	2605	Error	Right agitation valve drive timeout (support number : 4801)
		Detection Description	The agitation 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 operation 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 operation Replace the <a href="#">SUB INK TANK UNIT R</a> .	

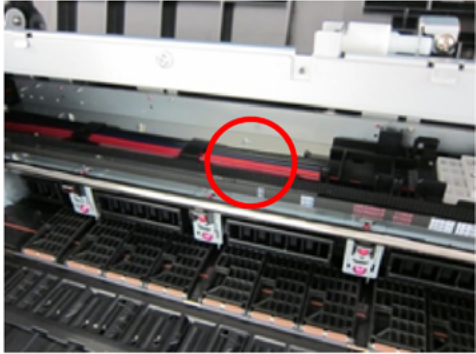
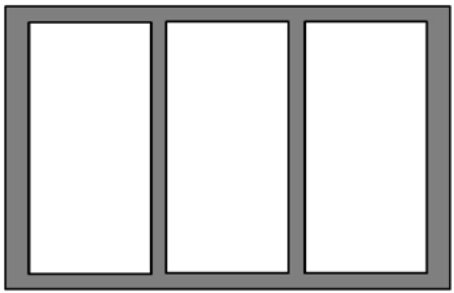
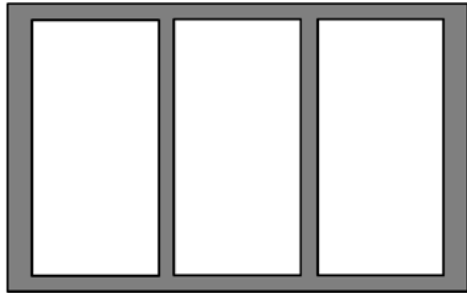
[To Error Code Table](#)

EC34	2F3B	Error	Right ink valve motor error (support number : 4801)
		Detection Description	Encoder value of the right ink valve motor is not detected.
		Handling	
		1	Replace the <a href="#">SUB INK TANK UNIT R.</a>
EC35	2603	Error	Left choke valve drive timeout (support number : 4801)
		Detection Description	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 LEFT CHOKE VALVE POSITION SENSOR operation. Proper operation 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 L.</a> Abnormal operation Replace the <a href="#">SUB INK TANK UNIT L.</a>
EC35	2606	Error	Left agitation valve drive timeout (support number : 4801)
		Detection Description	The agitation valve does not complete driving within the scheduled time.
		Handling	
		1	Perform <a href="#">[DIAGNOSIS &gt; I/O DISPLAY]</a> to check the LEFT CHOKE VALVE POSITION SENSOR operation. Proper operation 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 L.</a> Abnormal operation Replace the <a href="#">SUB INK TANK UNIT L.</a>
EC35	2F3C	Error	Left ink valve motor error (support number : 4801)
		Detection Description	Encoder value of the left ink valve motor is not detected.
		Handling	
		1	Replace the <a href="#">SUB INK TANK UNIT L.</a>

EC3F	2F40	Error	Complete non-ejection in all colors through non-ejection detection (support number : 1492)
		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 by ink.</p> <p>c) SIX-RING RUBBER CHAIN is attached properly. (when this error occurs after TUBE UNIT replacement).</p>
		2	<p></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 by ink.</p> <p>a) Remove the foreign substance.</p> <p>b) Go to 3.</p> <p>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>
3	<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.</p> <p>b) Replace the <a href="#">FLEXIBLE CABLE UNIT</a>.</p>		
4	<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 L</a> or 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 Description	Non-ejection in all nozzles of the one color is detected through non-ejection detection after cleaning.
		Handling	
		1	<p>Check if the ink is filling into tubes.</p> <p>Ink is filled Go to 2. (Insufficient ink in the print head or print head defect is suspected.)</p> <p>Ink is not filled Go to 3.</p>
2	<p>Perform deep cleaning and print nozzle check pattern.</p> <p>Complete. Inappropriate Replace the print head.</p>		
3	<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 L</a> or the <a href="#">SUB INK TANK UNIT R</a>, of the color that ink has not been filled.</p>		



EC3F	402F	Error	Ink vacuum error at initial ink filling. (support number : B510) Memo : Remove the error in service mode when handling is completed.
		Detection Description	After filling ink to the sub tank, ink filling into the tubes and the print head fails.
		Handling	
	1	<p>Check if ink is filling each tube and check ink filling condition by each cap.</p> <p>Not ink filling failure by each cap Go to 2.</p> <p>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> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>PM, R, C, PGY BK, MBK, CO, GY B, Y, M, PC 12-color model</p> </div> <div style="text-align: center;">  <p>C, M, Y, PM BK, MBK, MBK, GY PC, Y, M, C 8-color model</p> </div> </div>	
	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.</p> <p>Proper function Replace the print head.</p> <p>Improper function Go to 3.</p>	
	3	<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 L</a> or the <a href="#">SUB INK TANK UNIT R</a>, of the color that ink has not been filled.</p>	


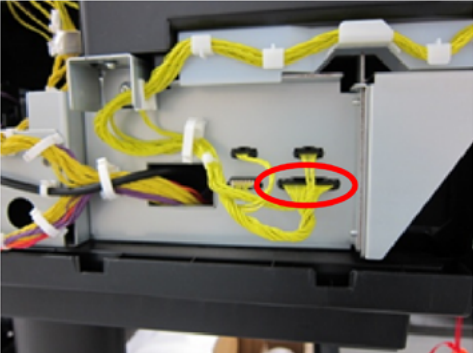
## Waste Ink System


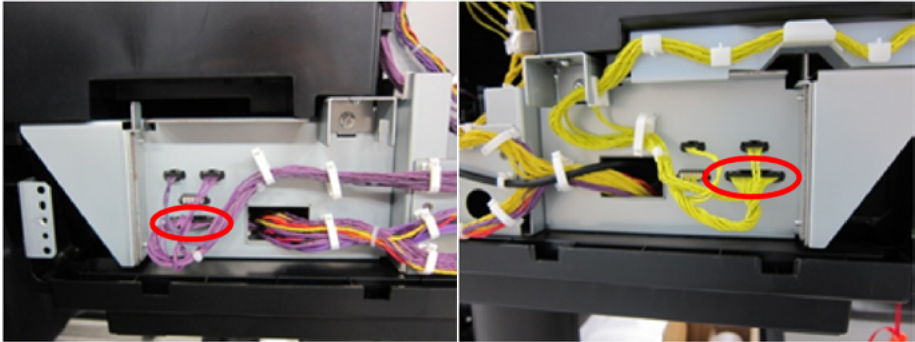
E Code	Detail Code	Description	
EC41	4001	Error	End-of-life of platen fan duct (support number : 5B20) Memo : Remove the error in service mode after handling.
		Detection Description	Ink filled up in SUCTION FAN UNIT or in SUCTION FAN DUCT UNIT is detected.
		Handling	
		1	Replace the <a href="#">SUCTION 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 after handling.
		Detection Description	Ink filled up in WASTE 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 after handling.
		Detection Description	Ink filled up in WASTE 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 after handling.
		Detection Description	Ink filled up in WASTE INK ABSORBER UNIT C is detected.
		Handling	
		1	Replace the <a href="#">WASTE INK ABSORBER UNIT C</a> .
EC46	4001	Error	End-of-life of waste ink absorber unit D (support number : 5B20) Memo : Remove the error in service mode after handling.
		Detection Description	Ink filled up in WASTE INK ABSORBER UNIT D is detected.
		Handling	
		1	Replace the <a href="#">WASTE INK ABSORBER UNIT D</a> .
EC47	4001	Error	End-of-life of waste ink absorber unit (support number : 5B20) Memo : Remove the error in service mode after handling.
		Detection Description	Ink filled up in WASTE 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 after handling.
		Detection Description	Ink filled up in WASTE INK TANK UNIT is detected.
		Handling	
		1	Replace the <a href="#">WASTE INK TANK UNIT</a> .

## Electric System

E Code	Detail Code	Description	
EC51	2F07	Error	USB Vbus overcurrent (support number : 9000)
		Detection Description	Vbus overcurrent is detected.
		Handling	
		1	Reboot.
EC51	2F14	Error	Main PCB I2C bus error (support number : 4801)
		Detection Description	Abnormal checksum value of the ink agitation timer or ink cleaning timer is detected, or accessing DA converter is disabled.
		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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.
EC51	2F15	Error	Unable to allocate memory (support number : 4801)
		Detection Description	Acquisition of OS memory pool packet is disabled.
		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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.
EC51	2F38	Error	Access cover open error at the cover locking (support number : 1214)
		Detection Description	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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.

EC51	2FDD	Error	Left ink level detection error (support number : 4801)
		Detection Description	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 MAIN PCB UNIT.</p> <p>Proper connection Go to 2.</p> <p>Improper connection Connect the connector.</p>	 <p style="text-align: center;">The place to check the connection of the MAIN PCB UNIT</p>
	2	<p>Check the connection of the left TANK PCB UNIT.</p> <p>Proper connection Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 44" &amp; 60" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p> <p>Improper connection Connect the connector.</p>	 <p style="text-align: center;">The place to check the connection of the left TANK PCB UNIT.</p>

EC51	2FDE	Error	Right ink level detection error (support number : 4801)
		Detection Description	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 style="text-align: center;">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 44" &amp; 60" 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 style="text-align: center;">The place to check the connection of the right TANK PCB UNIT.</p>

EC51	2FDF	Error	Left and right ink level detection error (support number : 4801)
		Detection Description	The state that the both left and right longer ink level detection pins in the sub ink tank units are OFF. In addition, the shorter ink level detection pins are ON is detected. (It occurs at cable connection failure. This state does not normally occur.)
Handling			
	1	<p>Check the connection of the MAIN PCB UNIT.</p> <p>Proper connection Go to 2.</p> <p>Improper connection Connect the connector.</p>	 <p style="text-align: center;">The place to check the connection of the MAIN PCB UNIT.</p>
	2	<p>Check the connection of the left TANK PCB UNIT.</p> <p>Proper connection Replace MAIN PCB UNIT (Disassembly &amp; Reassembly <a href="#">for 24" model</a>, <a href="#">for 44" &amp; 60" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p> <p>Improper connection Connect the connector.</p>	 <p style="text-align: center;">The place to check the connection of the left and right TANK PCB UNIT.</p>
EC51	3000	Error	Network sub-system launch error (support number : 6900)
		Detection Description	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 Go to 2.</p>	
	2	<p>Reinstall the firmware.</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 44" &amp; 60" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>	

EC51	3001	Error	Network sub-system timeout (support number : 6901)
		Detection Description	Network sub system does not respond.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
EC51	3002	Error	Wireless LAN device non-connection (support number : 6910)
		Detection Description	Wireless LAN device is not recognized.
		Handling	
		1	Check the WIRELESS LAN PCB UNIT flexible cable connection Proper connection Replace the <a href="#">WIRELESS LAN PCB UNIT</a> . Improper connection Connect the flexible cable.
EC51	3003	Error	Wireless LAN hardware error (support number : 6911)
		Detection Description	The wireless LAN device is physically broken.
		Handling	
		1	Check the WIRELESS LAN PCB UNIT flexible cable connection Proper connection Replace the <a href="#">WIRELESS LAN PCB UNIT</a> . Improper connection Connect the flexible cable.
EC51	3004	Error	Wired LAN driver error (support number : 6920)
		Detection Description	The fatal error occurs in the ethernet driver.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
EC51	3004	2	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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.



EC51	3005	Error	Wired LAN hardware error (support number : 6921)
		Detection Description	Ethernet driver is physically broken.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
2	Check the connection of the I/F PCB UNIT and the MAIN PCB UNIT. The problem is resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 44" &amp; 60" model</a> ). ▪ After 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 Description	Starting up sequence of network sub-system fails.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
2	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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.		
EC51	3100	Error	USB control-out bus error (support number : 6930)
		Detection Description	Bus error occurs at USB control-out end point occurs.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
2	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. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.		

EC51	3101	Error	USB control-in bus error (support number : 6931)
		Detection Description	USB control-in end point bus error occurs
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
EC51	3102	Error	USB print bulk-out bus error (support number : 6932)
		Detection Description	Bus error occurs at print bulk-out end point
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
EC51	3103	Error	USB print bulk-in bus error (support number : 6933)
		Detection Description	Bus error occurs at print bulk-in end point.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
EC51	3103	Error	USB print bulk-in bus error (support number : 6933)
		Detection Description	Bus error occurs at print bulk-in end point.
		Handling	
		2	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. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.

EC51	3104	Error	USB sub-system firmware error (support number : 6940)
		Detection Description	USB firm error occurs.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
EC51	3105	Error	USB sub-system command error (support number : 6941)
		Detection Description	USB command error occurs.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
EC51	3106	Error	USB sub-system timeout (support number : 6942)
		Detection Description	USB watch dog error occurs.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
EC51	3107	Error	USB sub-system data copy error (support number : 6943)
		Detection Description	USB-Relax firmware data copy error occurs.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
EC51	3104	Error	USB sub-system firmware error (support number : 6940)
		Detection Description	USB firm error occurs.
		Handling	
		2	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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.

EC51	3108	Error	USB sub-system instruction error (support number : 6944)
		Detection Description	USB-Relax firm ware instruction copy error is occurs.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
EC51	3109	Error	USB sub-system not started properly (support number : 6945)
		Detection Description	Boot error of USB-Relax firmware occurs.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
EC51	3110	Error	USB sub-system improper timeout setting (support number : 6946)
		Detection Description	Initial value set error of USB-Relax firmware watch dog occurs.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved Go to 2.
EC51	3301	Error	Sub-chip connection error (support number : 4801)
		Detection Description	When starting up the printer or returning from power saving mode, connecting to sub-chip fails.
		Handling	
		1	Reboot. The problem is resolved Complete. The problem is not resolved 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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.

EC51	3302	Error	Sub-chip initialization error (support number : 4801)
		Detection Description	When starting up the printer or returning from power saving mode, initialization of the sub-chip fails.
		Handling	
	1	Reboot. The problem is resolved Complete. The problem is not resolved Reinstall the firmware. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model, for 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.	
EC51	3303	Error	Sub-chip firmware loading error (support number : 4801)
		Detection Description	When starting up the printer or returning from power saving mode, downloading sub-chip firmware fails.
		Handling	
	1	Reboot. The problem is resolved Complete. The problem is not resolved Reinstall the firmware. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model, for 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.	
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.	
	2	Reboot. The problem is resolved Complete. The problem is not resolved Reinstall the firmware. The problem is resolved Complete. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model, for 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.	

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	Reboot. The problem is resolved Complete. The problem is not resolved 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 44" &amp; 60" 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	Reboot. The problem is resolved Complete. The problem is not resolved 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 44" &amp; 60" 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	Reboot. The problem is resolved Complete. The problem is not resolved 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 44" &amp; 60" 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	Reboot. The problem is resolved Complete. The problem is not resolved 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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.	

EC51	330A	Error	Firmware size error (support number : 4905)
		Detection Description	The size information described in the received firmware data and the actual received size does not match at firmware updating.
		Handling	
	1	<p>Reboot. The problem is resolved Complete.</p> <p>The problem is not resolved 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 44" &amp; 60" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>	
EC51	4041	Error	Main PCB failure in SROM deletion (support number : 6820) Memo : Remove the error in service mode when handling is completed.
		Detection Description	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 44" &amp; 60" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>	
EC51	4042	Error	Main PCB failure in SROM writing (support number : 6820) Memo : Remove the error in service mode when handling is completed.
		Detection Description	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 44" &amp; 60" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>	
EC51	4045	Error	Main PCB EEPROM error (support number : 6820) Memo : Remove the error in service mode when handling is completed.
		Detection Description	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 44" &amp; 60" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>	
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 Description	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 44" &amp; 60" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>	

EC51	4047	Error	Main PCB failure in NAND flash writing (support number : 6820) Memo : Remove the error in service mode when handling is completed.
		Detection Description	Writing to NAND flash 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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.
EC51	404C	Error	Serial ID mismatch (support number : 6820) Memo : Remove the error in service mode when handling is completed.
		Detection Description	Mismatch of the serial ID in the BACKUP PCB UNIT and the MAIN PCB UNIT at starting up the printer is detected.
		Handling	
		1	This error occurs after MAIN PCB UNIT replacement Go to 2. This error occurs without performing MAIN PCB UNIT replacement. Go to 3.
		2	Start up the printer in service mode. Perform PCB replacement mode. (Automatic transformation from service mode to PCB replacement mode at starting up.)
3	Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments. The problem is resolved Complete. 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> .		
EC51	404D	Error	Model ID mismatch (support number : 6820) Memo : Remove the error in service mode when handling is completed.
		Detection Description	When starting up the printer, model ID mismatch between MAIN PCB UNIT and BACKUP PCB UNIT is detected.
		Handling	
		1	This error occurs after MAIN PCB UNIT replacement Go to 2. This error occurs without performing MAIN PCB UNIT replacement Go to 3. This error occurs after replacing to the BACKUP PCB UNIT that has been installed to the other model Replace with the new <a href="#">BACKUP PCB UNIT</a> .
		2	Start up the printer in service mode. Perform PCB replacement mode. (Automatic transformation from service mode to PCB replacement mode at starting up.)
3	Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments. The problem is resolved Complete. 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> .		



EC51	404E	Error	Model mismatch after rewriting main PCB EEPROM or firmware (support number : 6820) Memo : Remove the error in service mode when handling is completed.
		Detection Description	<ul style="list-style-type: none"> <li>· Access to the main PCB EEPROM fails.</li> <li>· The printer is started up after firmware for a different model has been written (refer to the Memo).</li> </ul> Memo : This error occurs after writing firmware for a different model with using FIRMWARE UPDATE(USB) function in service mode.
		Handling	
		1	Reinstall the firmware. The problem is resolved Go to 2. The problem is not resolved Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model</a> , <a href="#">for 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.
EC51	4070	Error	Main PCB NAND flash ECC error (support number : 6820) Memo : Remove the error in service mode when handling is completed.
		Detection Description	ECC error in NAND flash during firmware updating occurs.
		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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.
EC51	4071	Error	Main PCB failure in NAND flash initialization (support number : 6820) Memo : Remove the error in service mode when handling is completed.
		Detection Description	When starting up the printer or returning from power saving mode, initialization of NAND flash 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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.
EC51	4072	Error	Main PCB failure in NAND flash format (support number : 6820) Memo : Remove the error in service mode when handling is completed.
		Detection Description	When starting up the printer or returning from power saving mode, formatting of NAND flash 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 44" &amp; 60" model</a> ). ▪ After 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 Description	Starting up the printer fails.
		Handling	
		1	Check cable connection to the MAIN PCB UNIT. Proper connection Go to 2. Improper connection Connect the cable.
		2	Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model, for 44" &amp; 60" model</a> ). ▪ After 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.
EC51	5002	Error	Start-up disabled (support number : 7051) Memo : Remove the error in service mode when handling is completed.
		Detection Description	Starting up the printer fails.
		Handling	
		1	Check cable connection to the MAIN PCB UNIT. Proper connection Go to 2. Improper connection Connect the cable.
		2	Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model, for 44" &amp; 60" model</a> ). ▪ After 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..
EC51	5003	Error	Start-up disabled (support number : 7052) Memo : Remove the error in service mode when handling is completed.
		Detection Description	Starting up the printer fails.
		Handling	
		1	Check cable connection to the MAIN PCB UNIT. Proper connection Go to 2. Improper connection Connect the cable.
		2	Replace MAIN PCB UNIT (Disassembly & Reassembly <a href="#">for 24" model, for 44" &amp; 60" model</a> ). ▪ After 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.

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 Description	Power supply from the power supply unit stops at waiting or printing.
		Handling	
		1	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 Go to 2.
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 Description	Power supply from the power supply unit stops at leak detection.
		Handling	
		1	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 Go to 2.
EC54	290A	Error	Hard disk unconnected (support number : 4801)
		Detection Description	Hard disk detection at 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.
EC54	290A	2	Replace the hard disk cable. The problem is resolved Complete. The problem is not resolved Go to 3.
		3	Replace the <a href="#">hard disk</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 44" &amp; 60" model</a> ). ▪ After replacement, perform PCB replacement mode and necessary adjustments.

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 to 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 <a href="#">hard disk</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 <a href="#">hard disk</a> .
EC55	2F20	Error	Flexible cable connection error (support number : 4801)
		Detection Description	Abnormity, left connection, or inappropriate connection in flexible cable connection between MAIN PCB UNIT and CARRIAGE RELAY PCB UNIT.
		Handling	
		1	Check the flexible cable connection. Proper connection Replace the <a href="#">FLEXIBLE CABLE UNIT</a> . Improper connection Reconnect the FLEXIBLE CABLE UNIT. The problem is not resolved Go to 2.
EC56	2FE0	Error	Sub-ink tank unit power supply error (support number : 6502)
		Detection Description	The power is not supplied to ink tank ROMs.
		Handling	
		1	Check the MAIN PCB UNIT cable connection. Proper connection Go to 2. Improper connection Connect the cable.
2	Check if the ink tank is empty. Not empty Replace the SUB INK TANK UNIT ( <a href="#">replacement procedure for SUB INK TANK UNIT L</a> , <a href="#">replacement procedure for SUB INK TANK UNIT R</a> ). Empty Replace the INK TANK.		

EC57	4040	Error	RTC time unknown (support number : 6702) Memo : Remove the error in service mode when handling is completed.
		Detection Description	Unsetting GMT in RTC is detected at printer start-up in user mode.
		Handling	
		1	<p>Check if the battery is mounted in the I/F PCB UNIT.</p> <p>Battery is mounted Replace the battery and set GMT time by [OTHERS&gt;RTC SETTING] GMT</p> <p>Battery is not mounted Remount the battery and set GMT time by [OTHERS&gt;RTC SETTING].</p> <p>▪ GMT time = Greenwich Mean Time</p>
EC57	404F	Error	RTC non-connection (support number : 6700) Memo : Remove the error in service mode when handling is completed.
		Detection Description	Reading / writing on information is disabled.
		Handling	
		1	<p>Check I/F PCB UNIT connection</p> <p>Proper connection Go to 2.</p> <p>Improper connection Connect the I/F PCB UNIT.</p>
		2	<p>Replace the <a href="#">I/F PCB 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 44" &amp; 60" model</a>). ▪ After replacement, perform PCB replacement mode and necessary adjustments.</p>
EC58	2F12	Error	Backup PCB EEPROM error (support number : 4801)
		Detection Description	BACKUP PCB UNIT EEPROM Memo : Remove the error in service mode when handling is completed.
		Handling	
		1	<p>Check the cable connection</p> <p>Proper connection Replace the BACKUP PCB UNIT.</p> <p>Improper connection Connect the cable.</p>

## 4-4. Detail of Jam Error

### Detail of Jam Error

Jam Code	Detail Code	Description	
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)		
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		

315150	2921	Error	Take-up error (support number : 4922)
		Detection Description	Take-up error (nonstop take-up) of the roll paper occurs at paper take-up part of the lower roll unit.
		Handling	
		1	<p>Check the tape on the roll paper core.</p> <p>The tape is pasted. Go to 2.</p> <p>The tape is not pasted Paste the tape on the roll paper core and press [OK].</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>· 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>		
315250	2920	Error	Take-up error (support number : 4922)
		Detection Description	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 after 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>		
002121	2010	Error	Skew (support number : 1317)
		Detection Description	The multi sensor detects skew.
		Handling	
		1	<p>Release the release lever. Reload the paper. (Reset to the spool with setting the paper straight.)</p> <p>The error is removed Complete.</p> <p>The error is not removed Go to 2.</p>
2	Replace the <a href="#">MULTI SENSOR UNIT</a> . Adjustment and counter reset is necessary.		
3	<p>Check other suspected cause.</p> <ul style="list-style-type: none"> <li>· Curly end edge of the roll paper</li> </ul>		
002221	200C	Error	Paper detection failure (at the top edge of the paper) (support number : 1322)
		Detection Description	The multi sensor fails to detect the paper during paper feeding.
		Handling	
		1	<p>Release the release lever. Check the top edge of the paper. Reload the paper.</p> <p>The error is removed Complete.</p> <p>The error is not removed Go to 2.</p>
2	Replace the <a href="#">MULTI SENSOR UNIT</a> . Adjustment and counter reset is necessary.		
002221	2017	Error	Paper detection failure (at the right edge of the paper) (support number : 1322)
		Detection Description	The multi sensor fails to detect the paper during paper feeding.
		Handling	
		1	<p>Release the release lever. Check the right edge of the paper and the media type.</p> <p>The error is removed Complete.</p> <p>The error is not removed Go to 2.</p>
2	Replace the <a href="#">MULTI SENSOR UNIT</a> . Adjustment and counter reset is necessary.		

002221	2018	Error	Paper detection failure (at the left edge of the paper) (support number : 1322)
		Detection Description	The multi sensor fails to detect the paper during paper feeding.
		Handling	
001215	200D	1	Release the release lever. Check the left edge 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.
		Handling	
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	
311111	2E3B	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.



001111	2E3A	Error	Paper feeding failure (upper roll) (support number : 1300)
		Detection Description	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>
001215	2016	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>
		Error	
001215	2016	Detection Description	Feeding of the cut sheet fails at the paper path. (from the paper setting to end of loading in paper path)
		Handling	
		1	<p>Release the release lever and reload the sheet. Or check and replace the cut sheet.</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="#">PAPER ENTRY SENSOR.</a></li> <li>· <a href="#">PAPER FEED MOTOR UNIT.</a></li> <li>· <a href="#">PAPER FEED ENCODER UNIT.</a></li> <li>· <a href="#">FILM, TIMING SLIT DISK.</a></li> <li>· <a href="#">HARNESS ASS'Y, L.</a></li> </ul>
311112	2E3E	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 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>
311112	2E3E	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>
		Error	

001112	2E3D	Error	Paper feeding failure (upper roll) (support number : 1300)
		Detection Description	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. The error is not removed Go to 2.</p>
FF0000	2E3F	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>
		Handling	
001215	2E3C	Error	Paper feeding failure (support number : 1300)
		Detection Description	Paper jam occurs.
		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. The error is not removed Go to 2.</p>
FF0000	2E3F	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>
		Handling	
001215	2E3C	Error	Paper feeding failure (support number : 1300)
		Detection Description	Feeding of the cut sheet fails at the paper path. (from paper loading to end of feeding in paper path)
		Handling	
		1	<p>Release the release lever. Reload the sheet. (Remove left paper pieces and check the top edge of the sheet.)</p> <p>The error is removed Complete. The error is not removed Go to 2.</p>
FF0000	2E3F	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="#">PAPER FEED ENCODER UNIT.</a></li> <li>· <a href="#">MULTI SENSOR UNIT.</a> Adjustment and counter reset is necessary.</li> </ul>

## 4-5. 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 setting 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 setting 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 setting 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 3mm 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> </ul> *Deleting the saved job data in the shared box may help avoiding HDD capacity shortage that occurs in conversion into print data.
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	Print is not approved at print approval confirmation before the process starts.
	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	Error	Paper detection failure (support number : 1322, alarm code : -)
	Detection Timing	The multi sensor fails to detect the paper frontside edge.  ▪ Assumed cause of this error is as follows: · The paper is loaded out of position. · The paper loaded is curling. · Due to taking out the cut paper just before printing, PAPER ENTRY SENSOR is not able to detect the cut paper.
	Handling	Reload the paper. ▪ 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.
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) ▪ Detection timing is at paper width detection for roll papers, and paper width detection and paper length detection for cut sheets.
	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	· Reload the paper. · Remove the roll holder. Put the roll paper into the spool until it hits the frange. Set the roll holder to the printer. · Select "OFF" or "Loose" in [Skew detection accuracy] in the printer menu.* *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.
2016	Error	Paper feeding failure (support number : 3332, 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.* *The change of the cut paper feed amount due to some reasons such as paper jam may cause this error.
	Handling	· Remove the paper when it is jamming inside. · Reload papers when papers are not jammed inside.

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 was 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. · Neither the number of cutter motor rotations nor rotation speed satisfy the specified rotation number and rotation speed during cutting. · The edge detection position is off +/-5mm or more from the reference position in edge detection after cutting.
	Handling	· The cut paper is remaining on the ejection guide. => Remove the remaining paper. · The foreign substance around the ejection guide hits the cutter blade. => Remove the foreign substance. · The media is not used in the recommended use environment. => Use the media in the recommended environment.* · The paper in use does not support [Automatic cut]. => Select [User cut] for roll paper cut setting and cut the roll paper with scissors. · Replace the cutter blade, in case of other than above states. *See the user manual for recommended use environment.
201C 201D	Error	Edge detection error during printing (support number : 1300, alarm code : -) ▪ 201C for cut sheet, 201D for roll paper
	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. ▪ The assumed situation is the folded paper during paper feeding.
	Handling	Lift the lever up to release the error, then reload or replace the paper.
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 generates 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 generates 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. <ul style="list-style-type: none"> <li>· [Detect paper setting mismatch] is set at other than "Pause".</li> <li>· 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.*</li> </ul> <p>*&lt;Assumed situation&gt; 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.</p>
	Handling	<ul style="list-style-type: none"> <li>· Reload the roll paper if the skew is caused in the paper feed unit.</li> <li>· 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.</li> <li>· Select [Print with border] and continue printing.</li> </ul>
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. <ul style="list-style-type: none"> <li>· [Detect paper setting mismatch] in the operation panel is set at "Hold job" or "Pause".</li> <li>· 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.</li> </ul>
	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.
231x	Error	Sub-ink tank ink filling failure (support number : 1757, alarm code : 0321 to 0333)
	Detection Timing	In initial ink filling or sub 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. <ul style="list-style-type: none"> <li>▪ Ink may not be flowing from the ink tank to the sub tank.</li> </ul>
	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. <ul style="list-style-type: none"> <li>· The paper is loaded out of position.</li> </ul> <p>&lt;When the printer driver is set at [Fit Roll Paper Width]&gt;  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 at away position side.</p> <p>&lt;When the printer driver is set at other than [Fit Roll Paper Width]&gt;  The multi sensor detects that the paper edge at the home position side is off 3mm or more from the reference position.</p>
	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. <ul style="list-style-type: none"> <li>· The paper feeding slot specified in the data is the slot other than roll paper feeding ports.</li> <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 3mm 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 > Detect 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. <ul style="list-style-type: none"> <li>Refilling ink to the ink cartridge may cause this error.</li> </ul>
	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 to 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 reinstalling 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	· Check if the paper is jammed. · Reduce the paper amount to wind by the take-up unit. · When there is no problem in the above operation, replace the lower roll unit.
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. Attach the paper with the tape on the roll core.
2D00 2D08 2D0B	Error	Common calibration not performed (support number : 3101, alarm code : -) ▪ 2D00 = for upper roll paper, 2D08 = for lower roll paper, 2D0B = for cut paper
	Detection Timing	Calibration unsupported media is loaded. In addition, history of calibration for all media is not existed.
	Handling	Perform calibration as required.
2D01 2D09 2D0C	Error	Alarm to perform common calibration (support number : 3101, alarm code : -)
	Detection Timing	Calibration unsupported media is loaded. Despite calibration timing for all media, calibration has not been performed.
	Handling	Perform calibration as required.

[To Error Code Table](#)

2D02 2D0A 2D0D	Error	Alarm to perform media-specific calibration (support number : 3101, alarm code : -) ▪ 2D02 = for upper roll paper, 2D0A = for lower roll paper, 2D0D = for cut sheet
	Detection Timing	Calibration operable media is loaded. Despite calibration timing for each media, calibration has not been performed.
	Handling	Perform calibration as required.
2D03	Error	Incomplete print head alignment (support number : 3000, alarm code : -)
	Detection Timing	At the initial installation or at the incomplete print head position adjustment after the print head replacement. (including cancel)
	Handling	Perform the print head alignment.
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” at [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] setting for 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] setting for lower roll printing may cause this error.
	Handling	Cut the printed paper and restart printing.
2EOF	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" at [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 - three sides borderless printing is disabled (operator error) (support number : 4113, alarm code : -)
	Detection Timing	When the following condition is satisfied. · [Detect paper setting 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 judgement 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 judgement 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 judgement for carriage cogging adjustment process, the measured value is out of the specified range. ▪ The detecting timing of carriage cogging adjustment is as follows. · After print head replacement, After print head alignment adjustment. · After the carriage related error occurs.
	Handling	· Check if the linear scale is attached properly free from scratch and dirt. Confirm any scratch and dirt are not on it. · If the linear scale is in appropriate condition, replace the carriage encoder sensor.
2EBD	Error	Media type unsupported for color calibration (support number : 4924, alarm code : -)
	Detection Timing	Color calibration unsupported media is fed.
	Handling	Feed color calibration supported media.
2EBE	Error	Media size unsupported for color calibration (support number : 4926, alarm code : -)
	Detection Timing	Color calibration unsupported media is fed.
	Handling	Feed color calibration supported media.

2EBF	Error	Detected data error in color calibration (support number : 4927, alarm code : 0523)
	Detection Timing	In performing color calibration, multi sensor read value is abnormal.
	Handling	<ul style="list-style-type: none"> <li>· Remove strong light from the printer.</li> <li>· Print out the nozzle check pattern and check the print head condition*.</li> <li>· Check the paper condition for adjustment pattern printing. E.g. smear on the paper? or colored paper is not used?</li> </ul> <p>*When the pattern has blanks or white streaks, the print head nozzle is clogging. Perform print head cleaning in this case. If the clogging is not removed by the head cleaning, or replace the print head.</p>
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. <ul style="list-style-type: none"> <li>▪ After connecting the flexible cable, when this error occurs at printer rebooting, the cause is connection of the FLEXIBLE CABLE UNIT. Check the cable connection, and reboot the printer.</li> </ul>
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" [Active wired LAN] or [Active 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. · The printer is in the middle of operation. · Remote UI is selecting the printer settings.
	Handling	· Terminate other operations and select settings again.
3017	Error	[Raku Raku WLAN Start] timeout error (support number : 4957, alarm code : -)
	Detection Timing	Connecting via [Raku Raku WLAN Start] fails.
	Handling	Follow the message on the operation panel.
3018	Error	[Raku Raku WLAN Start] other errors (support number : 4957, alarm code : -)
	Detection Timing	The wireless LAN router in Raku Raku wireless mode is not detected.
	Handling	Follow the message on the operation panel.
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.

[To Error Code Table](#)



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.
4001	Error	Multi sensor durability judgement (support number : 4925, alarm code : 0522)
	Detection Timing	Optical adjustment of the multi sensor fails in color calibration. ▪ When printing with a particular color, mist of the particular color ink may stick to the multi sensor and cause this error. In color calibration, the threshold value to judge optical adjustment result is set up more accurately than the optical adjustment performed in other than color calibration such as adjustment, and paper edge detection. This error does not occur in such optical adjustment.
	Handling	<ul style="list-style-type: none"> <li>· Stop the color calibration. Other printing or adjustments are available. Ejecting ink may recover the multi sensor since this error is caused by the unbalance ink ejection rate by each color.</li> <li>· When performing color calibration, replace the multi sensor.</li> </ul>
-	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.

## 4-6. 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
1051	1021
1052	1054
1054	1051
1055	1052
1056	1053
1057	1055
1061	2E15
1201	25B0, 25B1, 25B2, 25B3, 25B4, 25B5, 25B6, 25B8, 25B9, 25BA, 25BB, 25BD
1214	EC19-2F21, EC51-2F38
1300	2016, 201D, 2E3A, 2E3B, 2E3C, 2E3D, 2E3E, 2E3F
1306	2E0A
1317	2010
1318	EC0F-2F93
1322	2017, 2018, 200C
1323	200E, 200F
1324	2E0B
1325	2E0C
1401	2800
1403	EC21-282E
1408	EC21-2F73
1409	EC21-2F74
140A	EC21-2F75
140B	2F7C
140C	EC21-282D
140F	EC21-2F6D
1477	EC21-2F50, EC21-2F56, EC21-2F5A, EC21-2F60, EC21-2F65

Support No.	Error Code (E code & Detail code)
1478	EC21-2F53, EC21-2F58, EC21-2F5C, EC21-2F62, EC21-2F69, EC21-2F6F, EC21-2F79, EC21-2F7A, EC21-2F7B
1479	EC21- 2F63
1480	2F6A
1481	2F6B
1485	2802, 2812
1492	EC3F-2F40, EC3F-2F41
1494	EC21-2F43
1495	280D
1500	1000, 1001, 1002, 1003, 1004, 1005, 1006, 1008, 1009, 100A, 100B, 100D
1551	27E0, 27E1, 27E2, 27E3, 27E4, 27E5, 27E6, 27E8, 27E9, 27EA, 27EB, 27ED
1552	27D0, 27D1, 27D2, 27D3, 27D4, 27D5, 27D6, 27D8, 27D9, 27DA, 27DB, 27DD
1570	1400, 1401, 1402, 1403, 1404, 1405, 1406, 1408, 1409, 140A, 140B, 140D
1571	1410, 1411, 1412, 1413, 1414, 1415, 1416, 1418, 1419, 141A, 141B, 141D
1660	2520, 2521, 2522, 2523, 2524, 2525, 2526, 2528, 2529, 252A, 252B, 252D
168B	2540, 2541, 2542, 2543, 2544, 2545, 2546, 2548, 2549, 254A, 254B, 254D
1720	2819, 281B
1721	2818
1722	2816, 2817
1730	2700, 2701, 2702, 2703, 2704, 2705, 2706, 2708, 2709, 270A, 270B, 270D
1731	2710, 2711, 2712, 2713, 2714, 2715, 2716, 2718, 2719, 271A, 271B, 271D
1752	2500, 2501, 2502, 2503, 2504, 2505, 2506, 2508, 2509, 250A, 250B, 250D
1753	2730, 2731, 2732, 2733, 2734, 2735, 2736, 2738, 2739, 273A, 273B, 273D
1756	2580, 2581, 2582, 2583, 2584, 2585, 2586, 2588, 2589, 258A, 258B, 258D 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2598, 2599, 259A, 259B, 259D
1757	2310, 2311, 2312, 2313, 2314, 2315, 2316, 2318, 2319, 231A, 231B, 231D
1875	EC17-202D
2001	3034
2002	3035
2130	2E08
2131	2E30
2132	2E20, 2E21, 2E38
3000	2D03
3001	1012
3101	2D00, 2D01, 2D02, 2D08, 2D09, 2D0A, 2D0B, 2D0C, 2D0D
3200	3200
3201	3201
3250	281A
3306	3305
3311	1701
3312	1702
3313	1703
3314	1706
3315	1707

Support No.	Error Code (E code & Detail code)
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, EC1A-2F45, EC1B-2030, EC1B-2031, EC1B-2032, EC1B-2033, EC1C-2034, EC1C-2035, EC1C-2036, EC1C-2037, EC21-2F51, EC21-2F54, EC21-2F57, EC21-2F59, EC21-2F5B, EC21-2F5D, EC21-2F61, EC21-2F64, EC21-2F66, EC21-2F67, EC21-2F68, EC21-2F6E, EC21-2F70, EC21-2F71, EC21-2F72, 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, EC33-2601, EC33-2604, EC33-2F3A, EC34-2602, EC34-2605, EC34-2F3B, EC35-2603, EC35-2606, EC35-2F3C, EC51-2F14, EC51-2F15, EC51-2FDD, EC51-2FDE, EC51-2FDF, EC51-3301, EC51-3302, EC51-3303, EC54-290A, EC55-2F20, EC58-2F12
4900	2905
4901	2EA7
4903	2906
4905	EC51-3304, EC51-3306, EC51-3307, EC51-3308, EC51-3309, EC51-330A
4910	2E45
4911	2E42
4913	2409, 240A
4920	2019
4922	2920, 2921
4923	2829
4924	2EBD
4925	4001
4926	2EBE
4927	2EBF
4928	2EAB
4929	2EAA
4930	2EBC
4931	2EA8
4932	2EA3
4933	2EA5
4934	2EA4
4935	2EA6
4936	2EA9
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	EC21-2F76, EC21-2F77, EC21-2F78

Support No.	Error Code (E code & Detail code)
5A60	EC33-4020, EC33-4021, EC33-4022, EC33-4023, EC33-4024, EC33-4025, EC33-4026, EC33-4028, EC33-4029, EC33-402A, EC33-402B, EC33-402D
5A61	EC3F-402F
5B16	EC22-4001
5B20	EC25-4001, EC41-4001, EC43-4001, EC44-4001, EC45-4001, EC46-4001, EC47-4001
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, EC51-404E
6900	EC51-3000
6901	EC51-3001
6902	EC51-3006
6910	EC51-3002
6911	EC51-3003
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
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, EC03-403B
B510	EC32-4001





## DISASSEMBLY AND REASSEMBLY

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15. MAIN HARNESS .....	518

<b>16. LOWER ROLL UNIT (1)</b> .....	<b>538</b>
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<b>18. LOWER ROLL UNIT (3)</b> .....	<b>562</b>

## 5-1. 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.

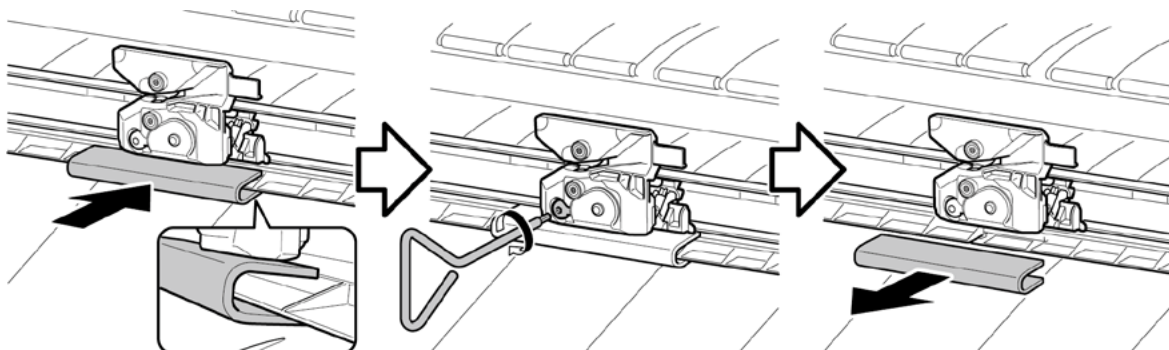
Each procedure is based on 44" model with 24" model and 60" model information added when necessary.

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

### Notes on disassembly and reassembly:

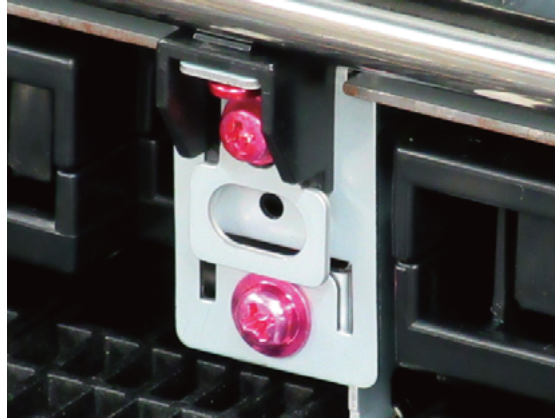
#### General notes:

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 cutter 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.

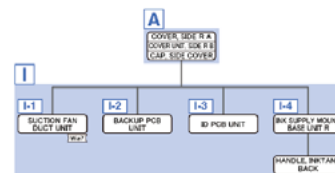
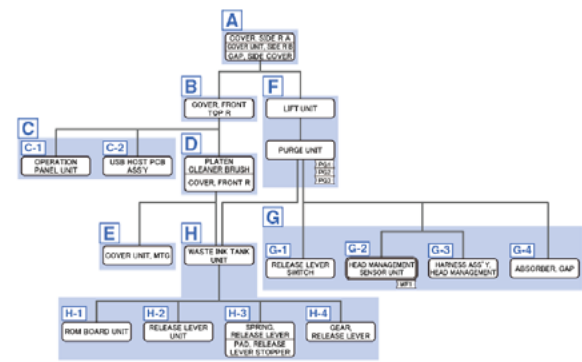
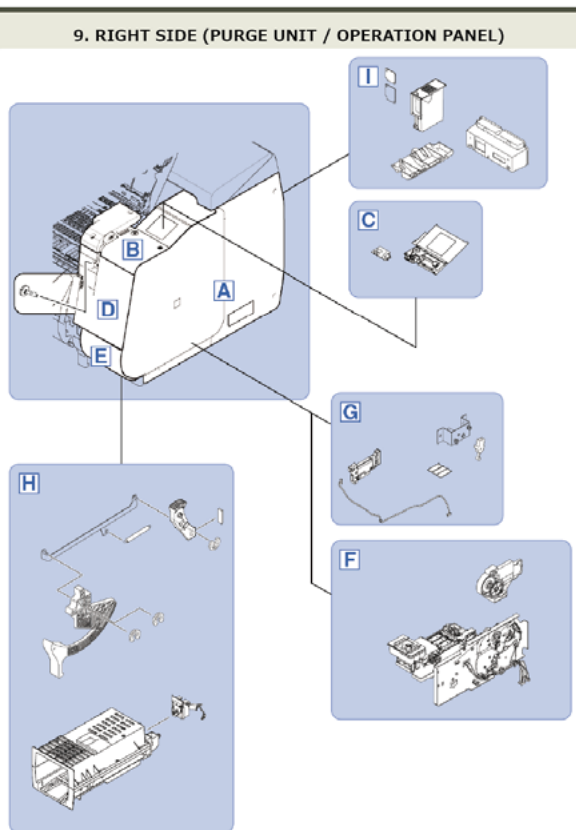
To assemble the unit, follow the disassembly procedures in reverse order unless otherwise specified.

### 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.



### Detailed procedures:

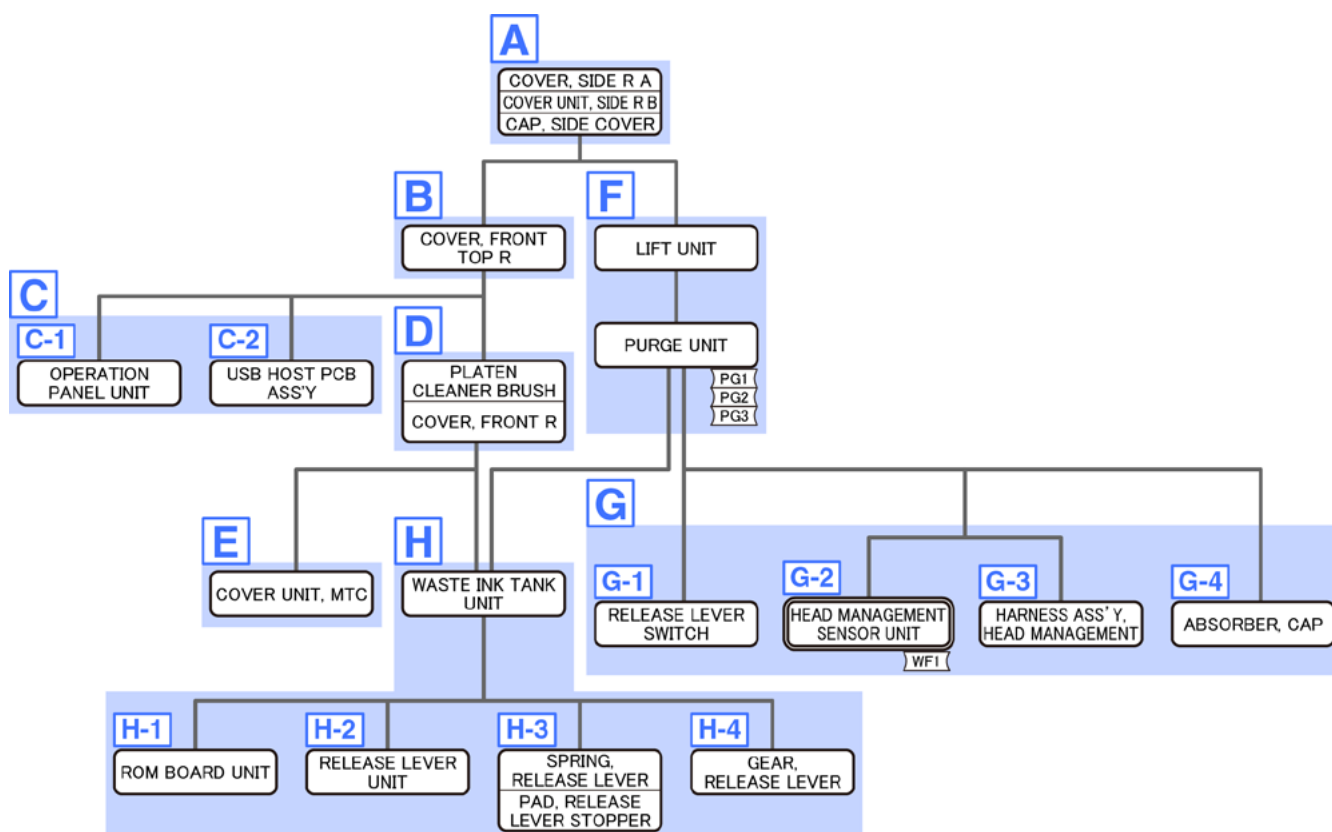
- The disassembly procedures outlined in the flowchart are explained step by step.
- The icon shown below is provided in some of the detailed procedures, which indicates that the how-to video of that procedure is available.



# 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).



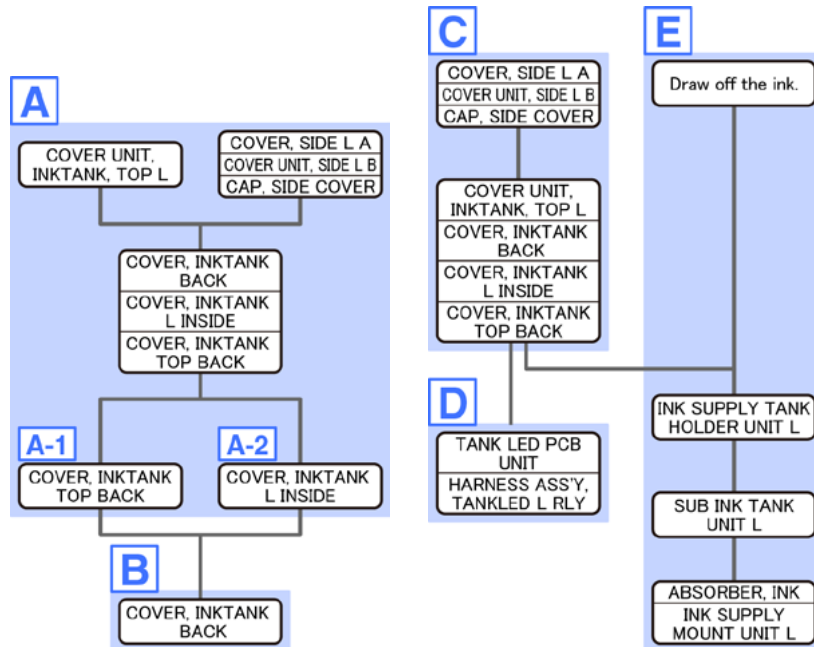
: Group in the detailed procedures.

## How to use the flowchart:

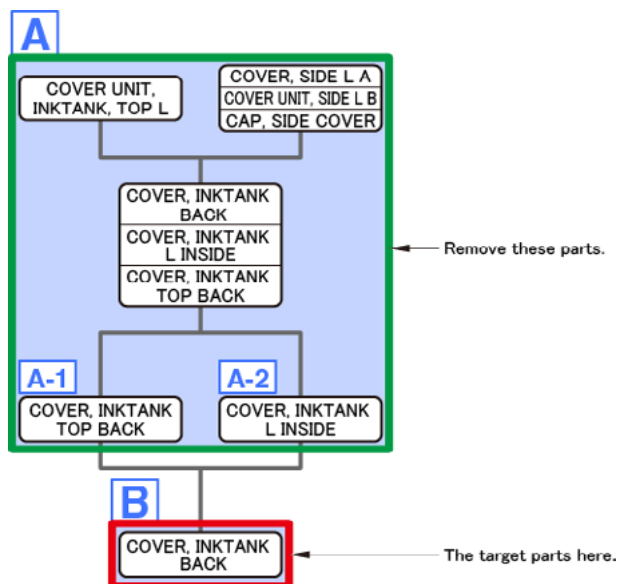
Each flowchart starts from the first step of disassembly with the printer standing still. Go through the flowchart from the top to the target part.

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

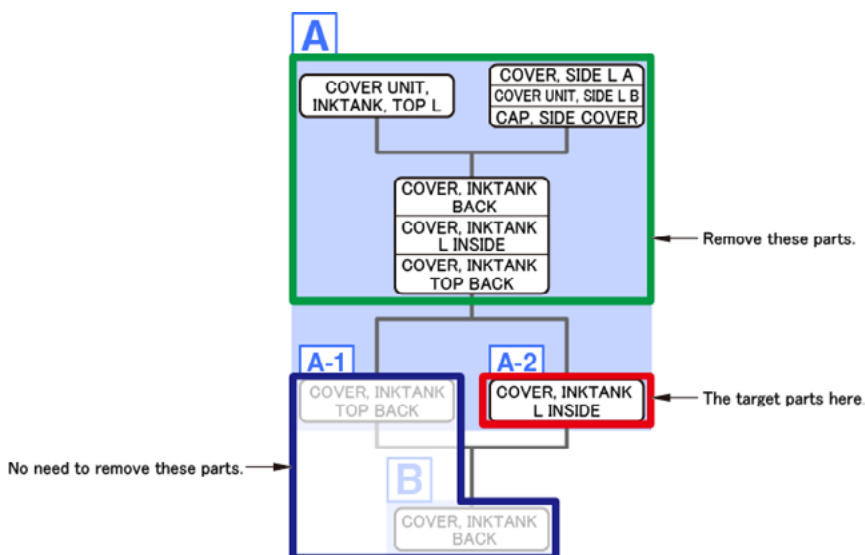
< Example >



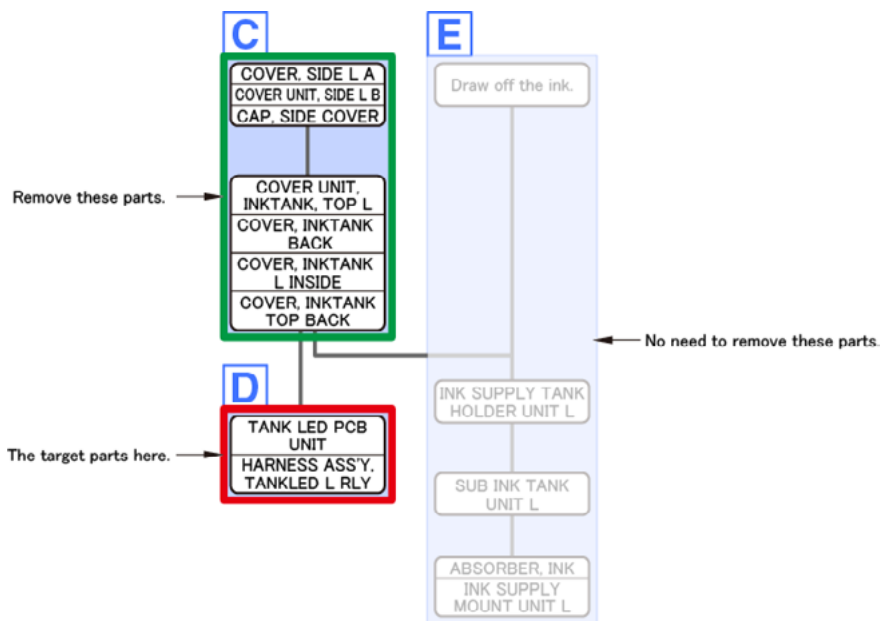
Example 1) To remove COVER, INKTANK BACK:



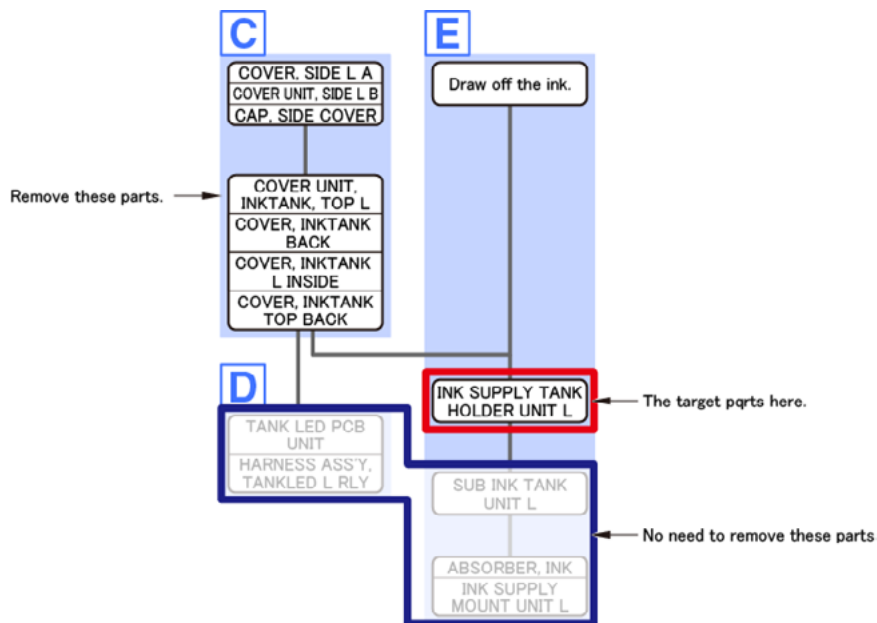
Example 2) To remove COVER, INKTANK L INSIDE:



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



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





## 5-2. 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, CAP	9	G-4	
ABSORBER, INK	1	E	
ACCESS COVER LOCK UNIT R	8	C-1	
ACCESS COVER UNIT S	4	D	
ACTIVE ROLL BRAKE UNIT	2	C	
ARM, LEVER LINK	12	A	
AWAY PLATEN	4	C	
BACKUP PCB UNIT	9	I-2	
BELT, CARRIAGE	12	B-1	
BELT, PAPER TRANSPORT	2	D-2	
BUSH UNIT, ROLL COVER L	6	A	24" model
BUSH, ARM ROTARY SHAFT	13	D	
BUSH, ROLL COVER L	6	A	44" model, 60" model
BUSHING / CLEANER KIT	11	E-2	
BUSHING, PR RELEASE	13	B	
BUSHING, PRESSURE RELEASE	13	B	
CAM SHAFT UNIT	5	E-4	
CAP, ROLL COVER SHAFT	6	A	
CARRIAGE ENCODER UNIT	12	B-3	
CARRIAGE MOTOR (MOTOR, DC, 47.8W)	11	D	
CARRIAGE RELAY PCB UNIT	12	B-2	
CARRIAGE UNIT	12	B-1	
CASE, SPOOL SIDE INNER R	8	C	
CODEWHEEL COVER UNIT	2	D	
COVER UNIT, BACK TOP CENTER	3	E	
COVER UNIT, BACK TOP R	8	A	
COVER UNIT, INKTANK, TOP L	1	A	
COVER UNIT, INKTANK, TOP R	10	A	
COVER UNIT, MTC	9	E	
COVER UNIT, TOP L	3	A	
COVER, BACK	13	A	
COVER, BACK POSITION	14	B	
COVER, FRONT L	3	D	
COVER, FRONT R	8	A	
COVER, FRONT TOP R	8	A	
COVER, HOME POSITION	14	B	
COVER, INKTANK BACK	1	B	
COVER, INKTANK L INSIDE	1	A-2	
COVER, INKTANK R INSIDE	10	A-2	
COVER, INKTANK TOP BACK	1	A-1	
COVER, MIST FAN	13	A	

Part Name	Disassembly & Reassembly Procedures		Remarks
	Title	Group	
COVER, ROLL BACK UP	5	A	
COVER, ROLL GEAR L	2	C-1	
COVER, SPOOL L	6	E	
COVER, SPOOL R	6	B	
CUTTER BLADE UNIT	14	B	
CUTTER HP SENSOR (IC, PHOTO INTERRUPTER)	14	E	
CUTTER MOTOR UNIT, W/ENCODER	14	C-1	
DAMPER UNIT, ROLL COVER R	6	C-2	
DRIVE NIP ARM UNIT	5	E-3	
DRIVE UNIT, PLATEN SHUTTER	14	D-1	60" model
FILM, TIMING SLIT DISK	2	D-1	
FILM, TIMING SLIT STRIP	11	C	
FLAG, SENSOR	14	D-1	60" model
FLANGE, PULLEY	2	D-1	
FLAPPER SEPARATE UNIT	5	A	
FLEXIBLE CABLE UNIT	12	D-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	
GUIDE UNIT, LOW D	5	D	44" model, 60" model
GUIDE UNIT, LOW E	5	C	60" model
GUIDE UNIT, OUTSIDE A	6	G-1	
GUIDE UNIT, OUTSIDE B	6	G-2	44" model, 60" model
GUIDE UNIT, OUTSIDE C	6	G-2	60" model
HANDLE, INKTANK BACK	2	E-2	L
HANDLE, INKTANK BACK	9	I-4	R
HARD DISK (HDD, ST320LT012)	7	B	44" model, 60" model
	7	A-3	24" model
HARNESS ASS'Y, ARB MOTOR	2	C	
HARNESS ASS'Y, HEAD MANAGEMENT	9	G-3	
HARNESS ASS'Y, INLET RELAY	7	A-5	44" model, 60" model
	7	B-1	24" model
HARNESS ASS'Y, INTERLOCK SW	3	C	
HARNESS ASS'Y, L	15		
HARNESS ASS'Y, LFPE SNS	13	C-2	
HARNESS ASS'Y, P STAY HP SNS	14	D-3	60" model
HARNESS ASS'Y, P STAY PS MOT	14	D-2	60" model
HARNESS ASS'Y, P STAY PS SNS	14	D-2	60" model
HARNESS ASS'Y, P STAY RELAY	14	C-2	60" model
HARNESS ASS'Y, PANEL LVDS	8	B-1	
HARNESS ASS'Y, POWER SUPPLY	7	A-3	
HARNESS ASS'Y, R	15		
HARNESS ASS'Y, RLNIP PF SNS	5	E-2	
HARNESS ASS'Y, RSIDE FRONT	8	C-2	
HARNESS ASS'Y, RU RELAY	2	E-4	
HARNESS ASS'Y, TANK CVR L	2	F	24" model
HARNESS ASS'Y, TANK CVR MFAN L	2	F	44" model, 60" model
HARNESS ASS'Y, TANK CVR MFAN R	9	J	
HARNESS ASS'Y, TANKLED L RLY	1	D	
HARNESS ASS'Y, TANKLED R RLY	10	D	
HARNESS ASS'Y, UP RLNIP RELAY	5	F	

Part Name	Disassembly & Reassembly Procedures		Remarks
	Title	Group	
HDD CABLE ASS'Y	7	A-6	44" model, 60" model
	7	A-4	24" model
HEAD MANAGEMENT SENSOR UNIT	9	G-2	
HOLDER, CARRIAGE UNIT	11	A	L
	11	E-2	R
HOLDER, PAPER FEED ROLLER	13	D	
HOLDER, SPOOL SIDE L	6	E	
HOLDER, SPOOL SIDE R	6	B	
HOLDER, SWITCH	3	C	L
	8	B-3	R
I/F PCB UNIT	7	A-4	44" model, 60" model
	7	A-2	24" model
ID PCB UNIT	9	I-3	
INK SUPPLY MOUNT BASE UNIT L	2	E-1	
INK SUPPLY MOUNT BASE UNIT R	9	I-4	
INK SUPPLY MOUNT UNIT L	1	E	
INK SUPPLY MOUNT UNIT R	10	E	
INK SUPPLY TANK HOLDER UNIT L	1	E	
INK SUPPLY TANK HOLDER UNIT R	10	E	
INK TUBE UNIT	12	D-1	
INLET UNIT	2	E-3	
JOINT LEVER UNIT	11	A	
LEFT TANK COVER SWITCH (DETECT MICRO SWITCH)	3	B	
LEFT TOP COVER SWITCH (MICROSWITCH)	3	C	
LEVER, HEAD SET	11	A	
LEVER, PAPER FEED SENSOR	5	E-1	
LIFT UNIT	9	F	
LOCK LEVER, ACCESS COVER L	3	F	
MAIN PCB UNIT	7	A-1	
MIST FAN DUCT UNIT 1	13	B	
MIST FAN DUCT UNIT 2	13	B	
MULTI SENSOR UNIT	11	E-1	
NIP ARM UNIT	5	E-4	
OPERATION PANEL UNIT	9	C-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	C	L
	8	B-3	R
PLATEN CLEANER BRUSH	8	A	
PLATEN SHUTTER UNIT 1	14	D-3	60" model
PLATEN SHUTTER UNIT 2	14	D-4	60" model
PLATEN UNIT, TOP A	4	C	
PLATEN UNIT, TOP AWAY	4	C	
PLATEN UNIT, TOP B	4	C	
PLATEN UNIT, TOP C	4	C	44" model, 60" model
PLATEN UNIT, TOP D	4	C	44" model, 60" model
PLATEN UNIT, TOP E	4	C	60" model

Part Name	Disassembly & Reassembly Procedures		Remarks
	Title	Group	
PLATEN UNIT, TOP F	4	C	60" model
PLATEN, INK PRE EJECTION	14	A	
PLATEN, REAR	13	D	
PLATEN, REAR LS	13	D	60" model
PLATEN, UNDER A	14	B	
PLATEN, UNDER B	14	B	60" model
PLATEN, UNDER HOME	14	B	
POWER SUPPLY UNIT	7	A-2	44" model, 60" model
	7	B-2	24" model
PRE PRINTING PLATEN BASE ASS'Y	14	A	
PURGE UNIT	9	F	
RAIL CLEANER UNIT	11	E-2	
RELAY PCB UNIT, RU	2	E-1	
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 (MICROSWITCH)	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	
SHAFT UNIT, PLATEN SHUTTER	14	D-1	60" model
SIX-RING RUBBER CHAIN	12	D-1	
SOLENOID	3	F	
SPOOL LOCK UNIT	2	C-1	
SPOOL SENSOR UNIT	6	C-1	
SPRING, EARTH	6	A	
SPRING, EJECT EARTH	8	C-1	
SPRING, FILM STRIP	11	C	
SPRING, HEAD SET LEVER	11	A	
SPRING, LOCK	3	F	
SPRING, PAPER FEED SENSOR	5	E-1	
SPRING, PAPER SET	5	E-4	
SPRING, RELEASE LEVER	9	H-3	
SPRING, SPOOL COVER	6	E	L
	6	B	R
SPRING, TENSION	2	D-2	
SUB INK TANK UNIT L	1	E	
SUB INK TANK UNIT R	10	E	
SUCTION FAN DUCT UNIT	9	I-1	
SUCTION FAN UNIT	6	G	
TANK LED PCB UNIT	1	D	
TUBE UNIT	12	D-1	
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	B	
WASTE INK ABSORBER UNIT B	5	B	
WASTE INK ABSORBER UNIT C	5	B	44" model, 60" model

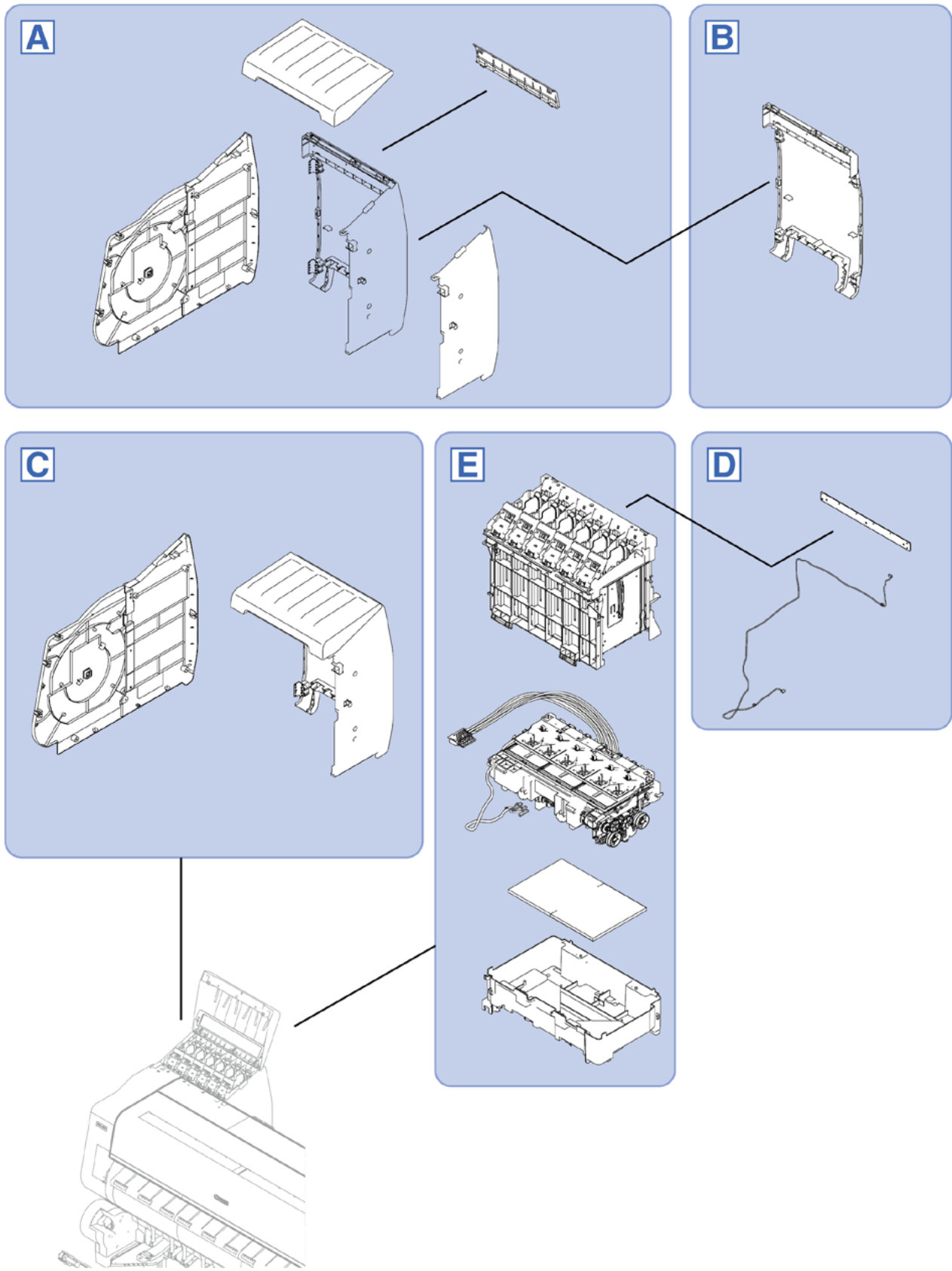
Part Name	Disassembly & Reassembly Procedures		Remarks
	Title	Group	
WASTE INK ABSORBER UNIT D	5	B	60" model
WASTE INK TANK UNIT	9	H	
WINDOW	4	D-1	
WINDOW R	4	D-1	
WIRELESS LAN PCB UNIT	7	C	44" model, 60" model
	7	D	24" model

## Lower Roll Unit

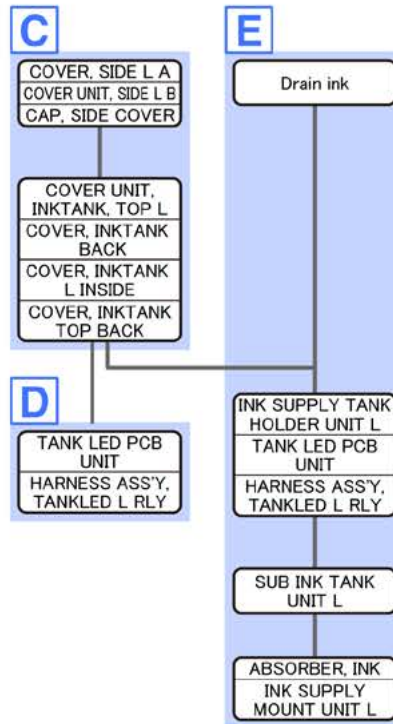
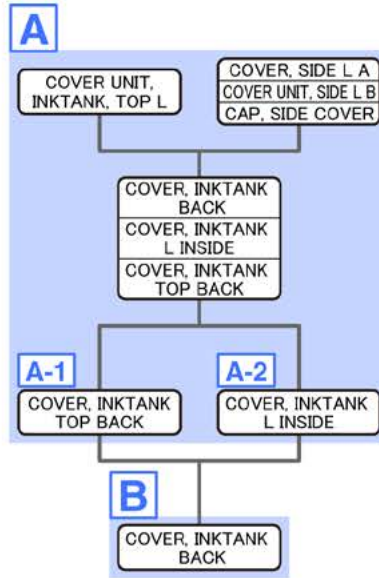
Part Name	Disassembly & Reassembly Procedures		Remarks
	Title	Group	
ACTIVE ROLL BRAKE UNIT	17	B	
BUSHING, DRIVE	16	H	
CAM SHAFT UNIT	18	I	
CAM, FLAP SELEC	18	F-1	
CAP, COVER SIDE L	17	A	
COVER UNIT, SIDE OUTER L	17	A	
COVER UNIT, SIDE OUTER R	17	F	
COVER, ROLL GEAR L	17	B-1	
COVER, SIDE L SUB	17	A	
COVER, SIDE R	16	E	
COVER, SIDE R REAR	16	E	
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	18	G	
GUIDE UNIT, LOW A	18	G	
GUIDE UNIT, LOW B	18	G	
GUIDE UNIT, LOW C	18	G	
GUIDE UNIT, LOW D	18	G	44" model, 60" model
GUIDE UNIT, LOW E	18	G	60" model
GUIDE, UPPER	16	A	
HANDLE UNIT, LOWER SUPPORT L	18	B-1	
HANDLE UNIT, LOWER SUPPORT R	18	B-1	
HARNESS ASS'Y, ARB MOTOR	17	E-4	
HARNESS ASS'Y, LO FLAP SPLSET	18	D-2	
HARNESS ASS'Y, LO SPL SOL	17	E-2	
HARNESS ASS'Y, LO SPLSET L	17	E-3	
HARNESS ASS'Y, RLNIP PF SNS	18	J-1	
HARNESS ASS'Y, RU MAIN	18	K	
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 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, 60" model
PAPER GUIDE ROLLER UNIT, RU D	18	G	60" model
PLATE, SPOOL GROUND	16	C-2	
RAIL UNIT L	18	B-2	
RAIL UNIT R	18	B-2	

Part Name	Disassembly & Reassembly Procedures		Remarks
	Title	Group	
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	
SUPPORT, FLAP SELEC	18	F-2	

# 1. INK TANK UNIT (L)

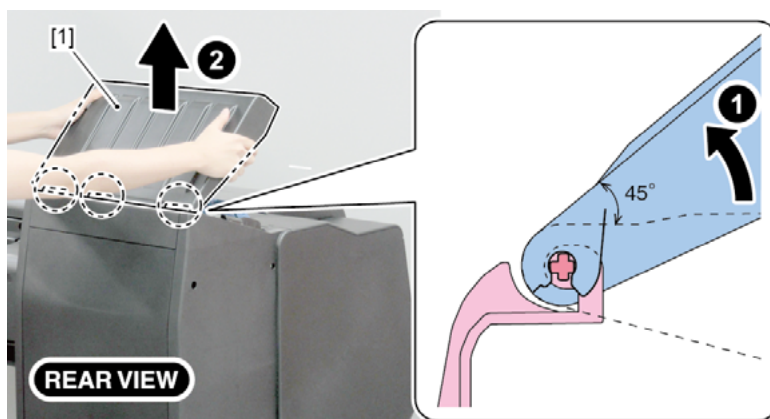






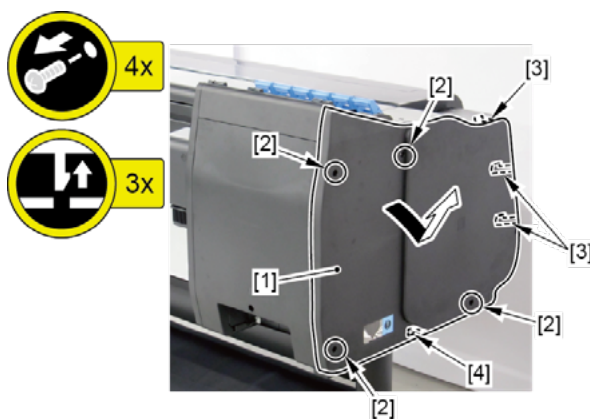
**A**

1. Remove [1] COVER UNIT, INKTANK, TOP L.



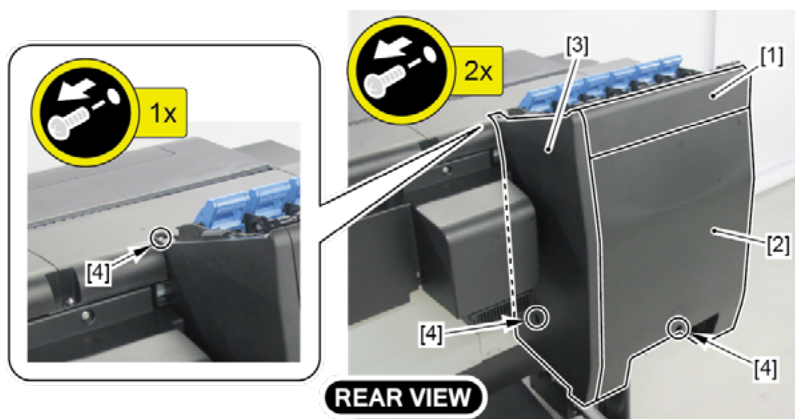
2. Remove [1] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.

- [2]: 4 screws
- [3]: 3 claws
- [4]: 1 hook



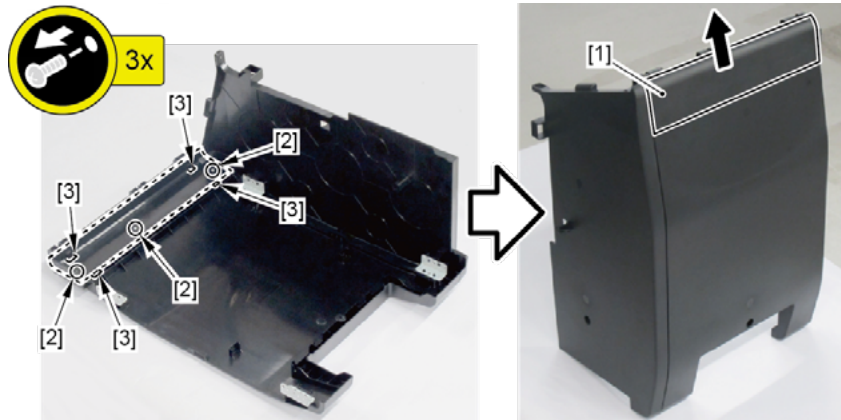
3. Remove [1] COVER, INKTANK TOP BACK, [2] COVER, INKTANK BACK, and [3] COVER, INKTANK L INSIDE.

- [4]: 3 screws

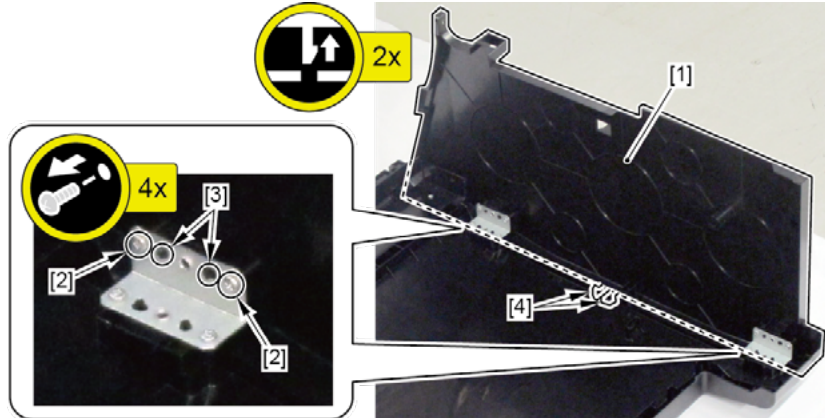


**A-1****4.** Remove [1] COVER, INKTANK TOP BACK.

- [2]: 3 screws
- [3]: 4 hooks

**A-2****4.** Remove [1] COVER, INKTANK L INSIDE.

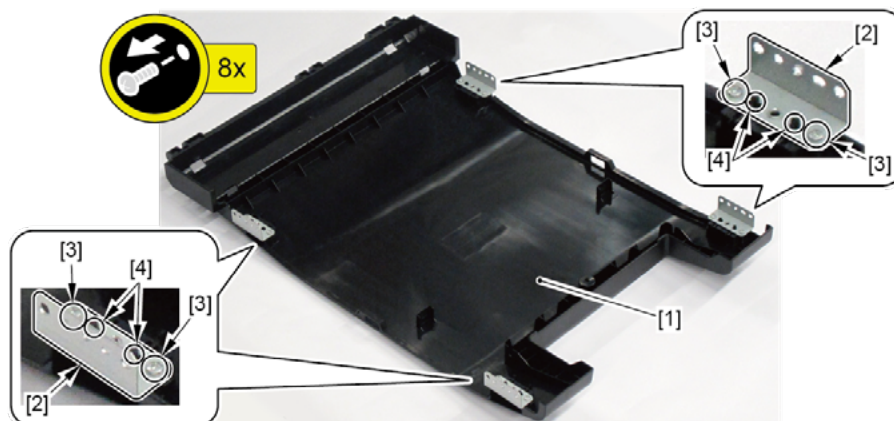
- [2]: 4 screws
- [3]: 4 bosses
- [4]: 2 claws



## B

1. Remove all the parts of Group A.
2. From [1] COVER, INKTANK BACK, remove [2] four plates.

- [3]: 8 screws
- [4]: 8 bosses

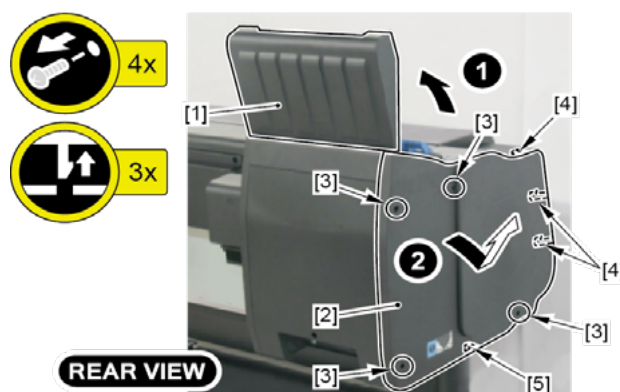


## C

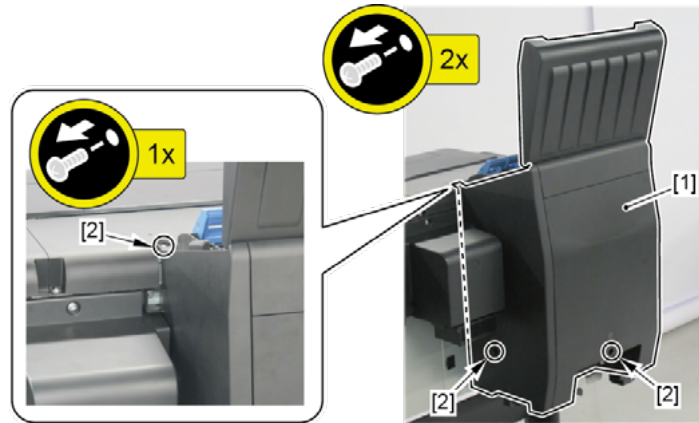
1. Open [1] the left ink tank cover.
2. Remove [2] a set of

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

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook

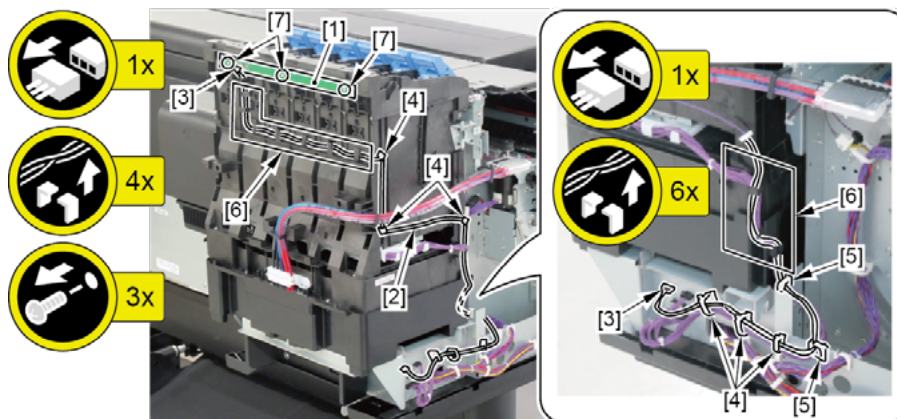


3. Remove [1] a set of
  - COVER UNIT, INKTANK, TOP L
  - COVER, INKTANK TOP BACK
  - COVER, INKTANK BACK
  - COVER, INKTANK L INSIDE.
- [2]: 3 screws



## D

1. Remove all the parts of Group C.
2. Remove [1] TANK LED PCB UNIT and [2] HARNESS ASS'Y, TANKLED L RLY.
  - [3]: 2 connectors
  - [4]: 6 wire saddles
  - [5]: 2 edge saddles
  - [6]: Cable guides in two areas
  - [7]: 3 screws

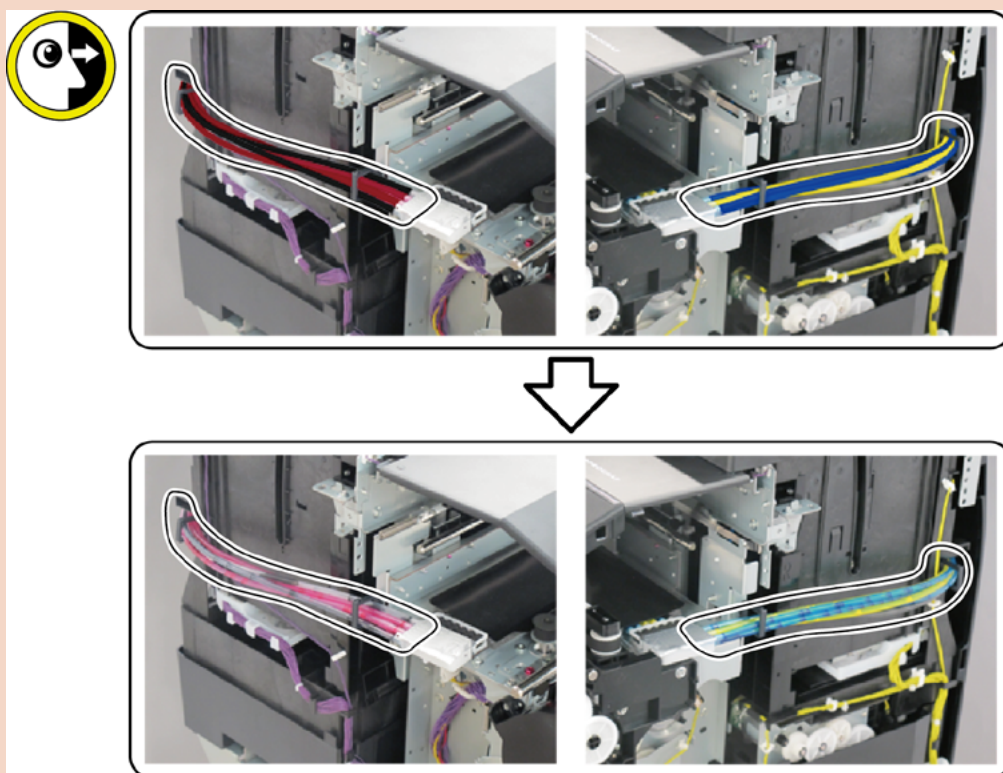


## E

1. Remove all the ink tanks.
2. Drain ink into the sub tank.

**To do it in the Service Mode:**

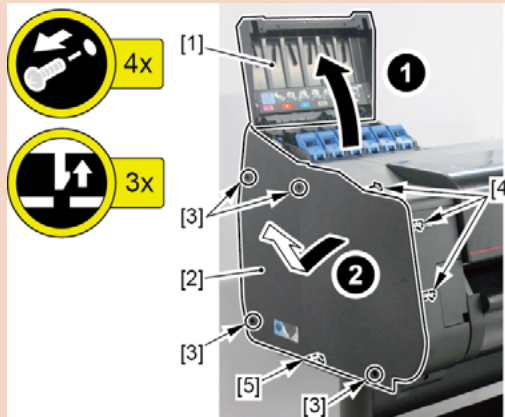
1. Unlock the carriage from [SERVICE MODE > FUNCTION > CR UNLOCK] in the operation panel, manually move the carriage unit to the position where the print head can be replaced, then remove the print head.
2. On the printer operation panel, select [SERVICE MODE > FUNCTION > INK SUPPLY VALVE OPEN > OPEN]. The supply valves (choke valves) of the right and left SUB INK TANK UNITS 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 is drained from the tubes.



5. Power off the printer and unplug the power cord.

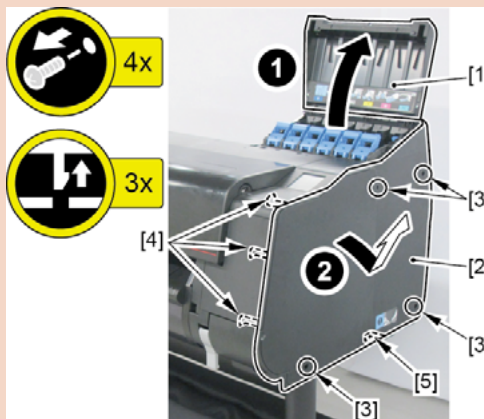
**To do it manually:**

1. Open [1] the left ink tank cover.
  2. Remove [2] a set of
    - COVER, SIDE L A
    - COVER UNIT, SIDE L B
    - CAP, SIDE COVER.
- [3]: 4 screws
  - [4]: 3 claws
  - [5]: 1 hook



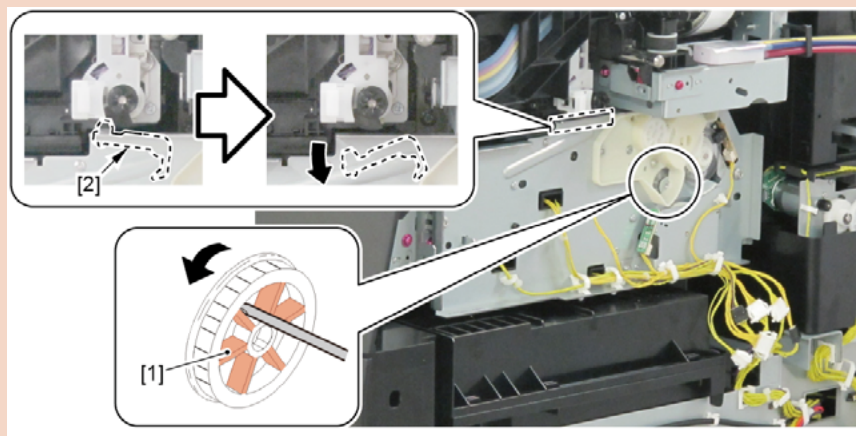
3. Open [1] the right ink tank cover.
4. Remove [2] a set of

- COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.
- [3]: 4 screws
  - [4]: 3 claws
  - [5]: 1 hook



## 5. Unlock the carriage.

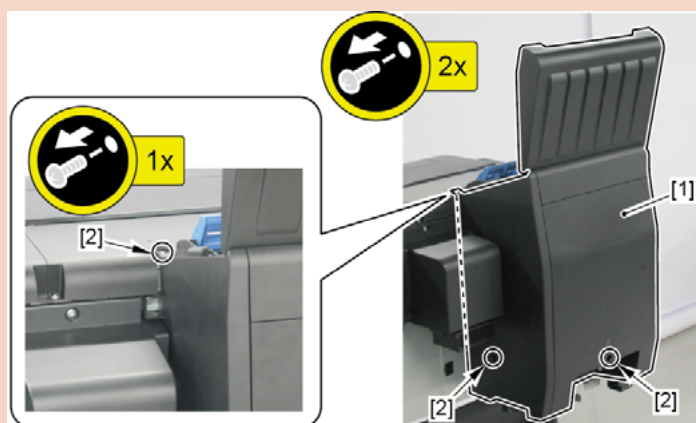
Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



## 6. Remove [1] a set of

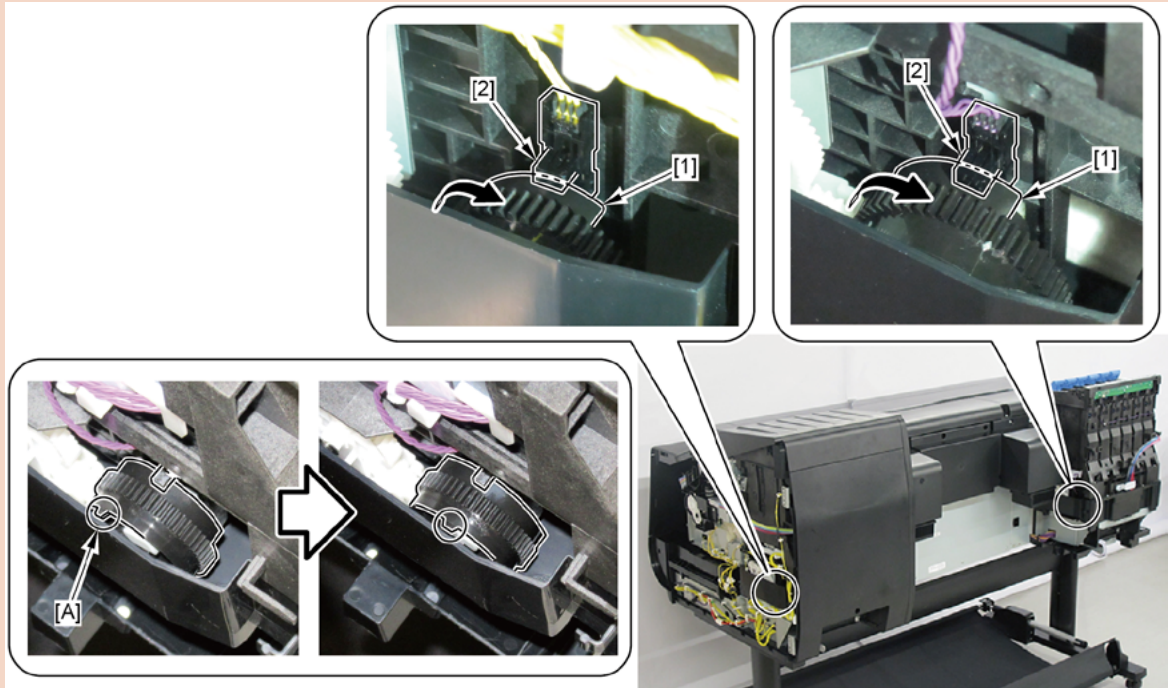
- COVER UNIT, INKTANK, TOP L
- COVER, INKTANK TOP BACK
- COVER, INKTANK BACK
- COVER, INKTANK L INSIDE.

- [2]: 3 screws

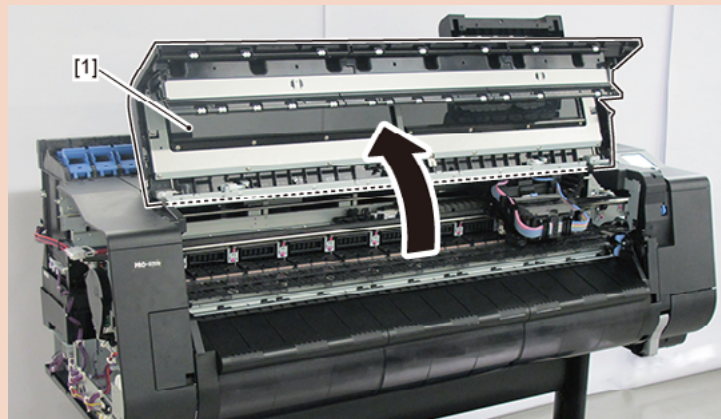




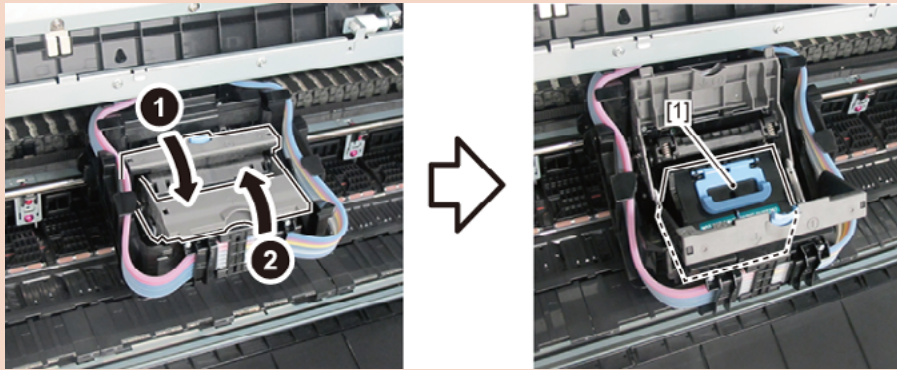
7. Turn the gear in the arrowed direction to open the right and left ink tank unit valves.  
When [1] the gear flag comes under [2] the sensor, the valves will open.  
When [A] the tab is at the top center, the valves are fully opened.



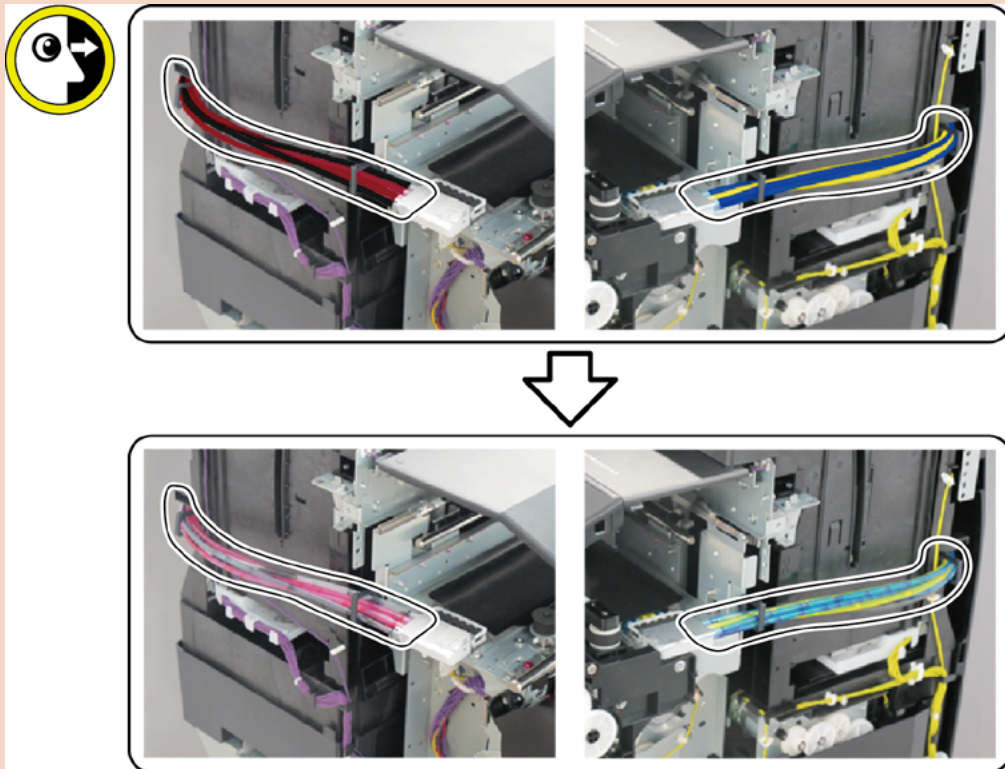
8. Open [1] the access cover.



9. Remove [1] PRINT HEAD.



10. Wait for five to ten minutes, then confirm that the ink is drained from the tubes.



**Notes when ink is drained from the tubes:**

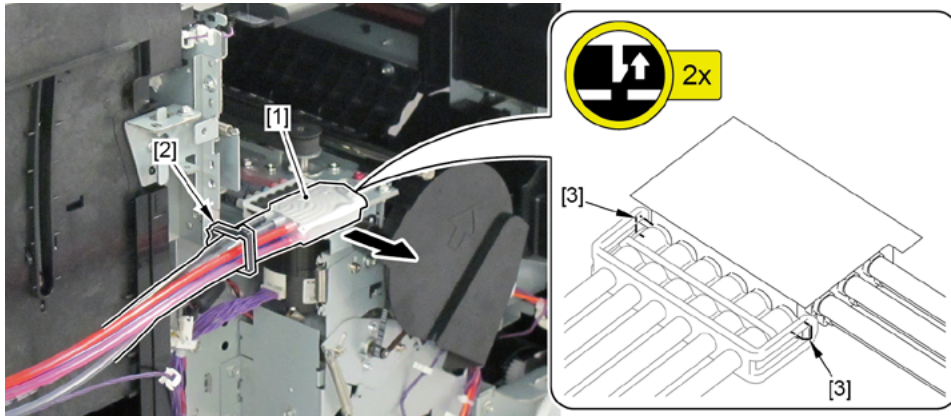


Be sure to perform Ink Filling at the end of reassembly.  
 [SERVICE MODE > FUNCTION > INK FILLING]

3. Remove all the parts in Group C.

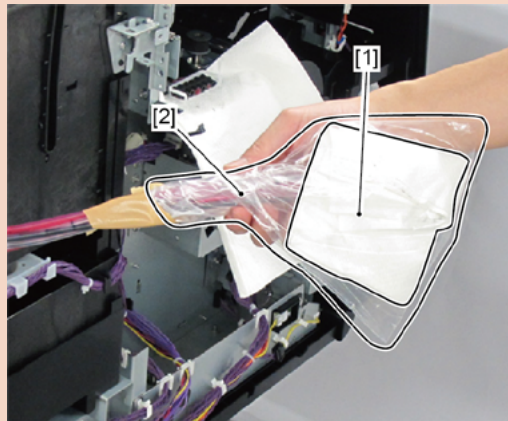
4. Disconnect [1] the tube joint.

- [2]: 1 wire saddle
- [3]: 2 claws



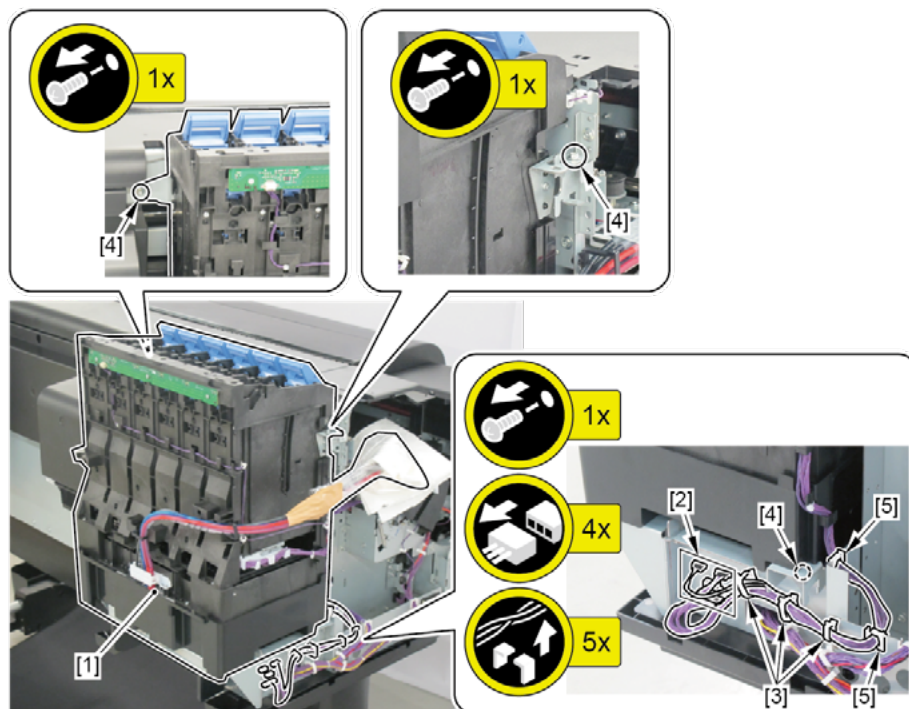
**Notes when removing the unit:**

Wrap the joint in [1] paper towel, etc., put them in [2] a plastic bag, and close the bag.



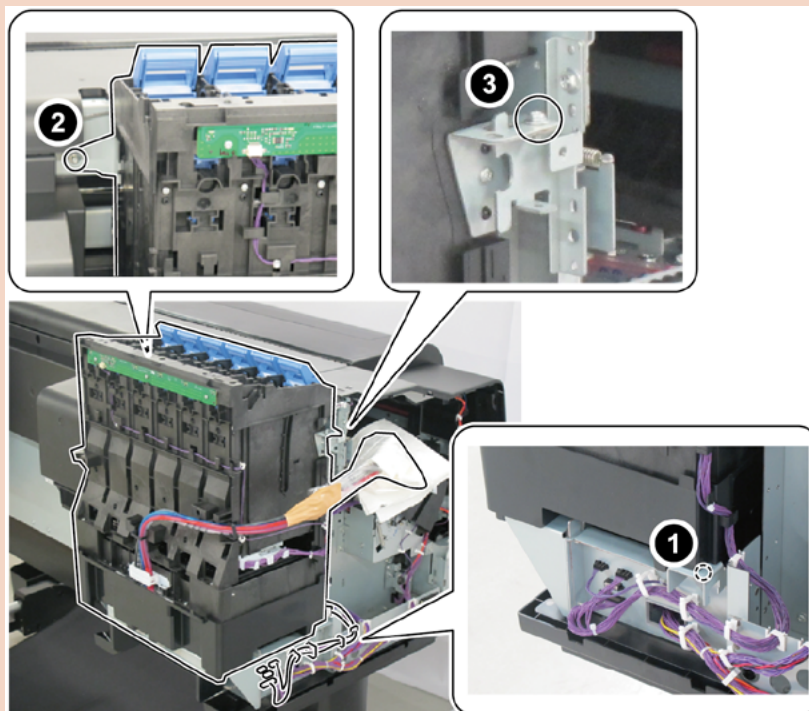
## 5. Remove [1] the ink tank unit.

- [2]: 4 connectors
- [3]: 3 wire saddles
- [4]: 3 screws
- [5]: 2 edge saddles



### Notes when assembling the unit:

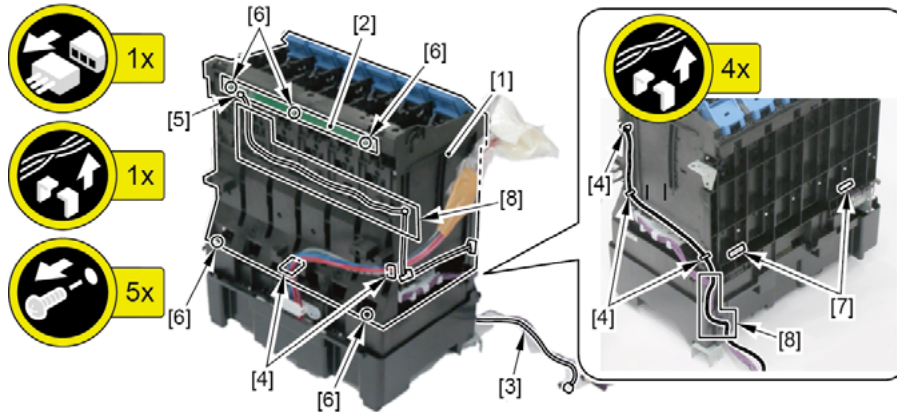
Tighten each screw in the order of numbers shown below.



Point

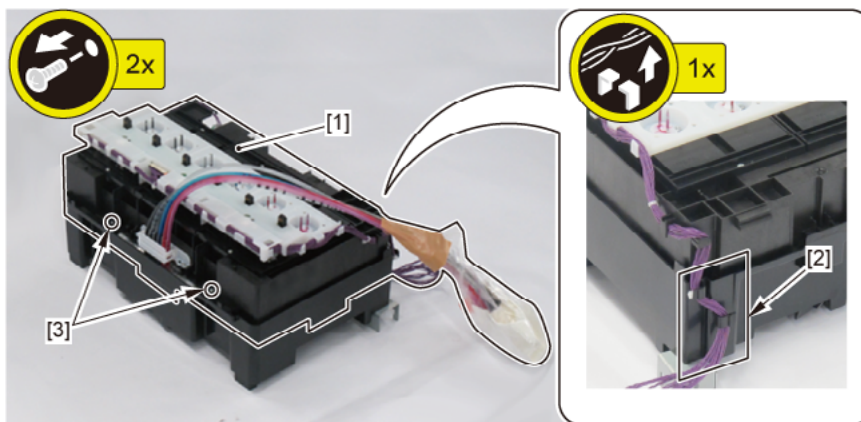
## 6. Remove [1] INK SUPPLY TANK HOLDER UNIT L, [2] TANK LED PCB UNIT, and [3] HARNESS ASS'Y, TANKLED L RLY.

- [4]: 5 wire saddles (3 on the cables, 2 on the ink tubes)
- [5]: 1 connector
- [6]: 5 screws
- [7]: 2 hooks
- [8]: Cable guides in two areas



## 7. Remove [1] SUB INK TANK UNIT L.

- [2]: Cable guide in one area
- [3]: 2 screws

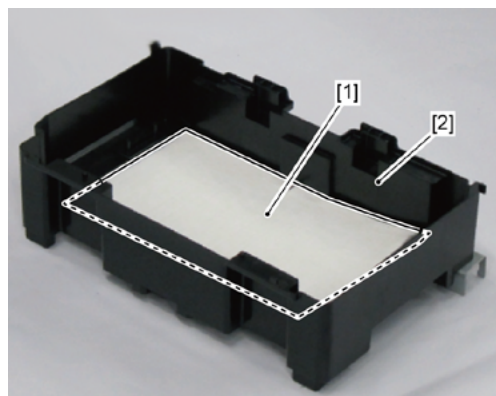


### Notes when the SUB INK TANK UNIT R is replaced:

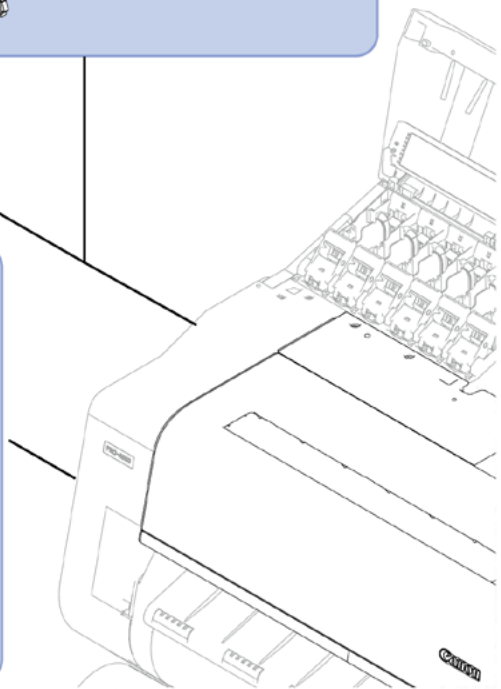
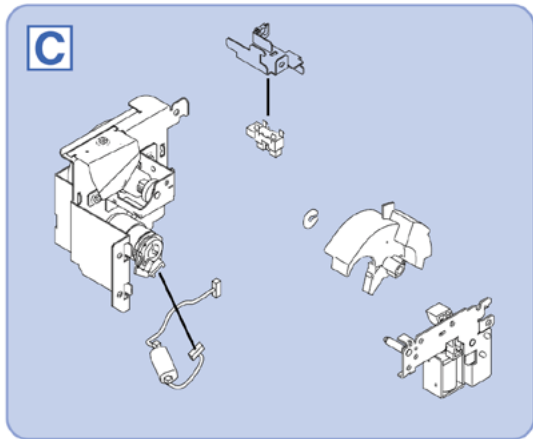
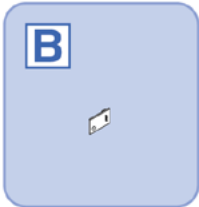
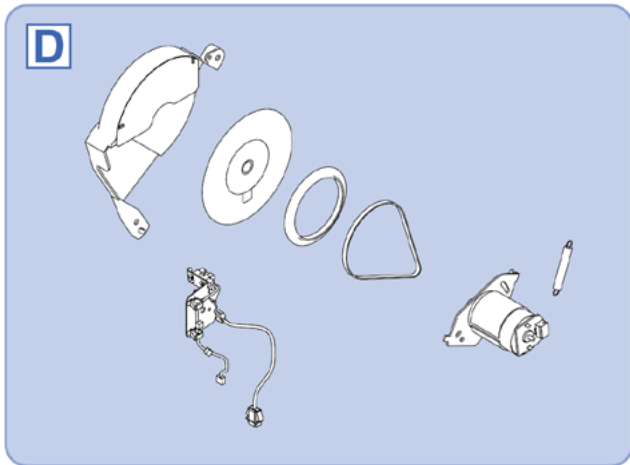
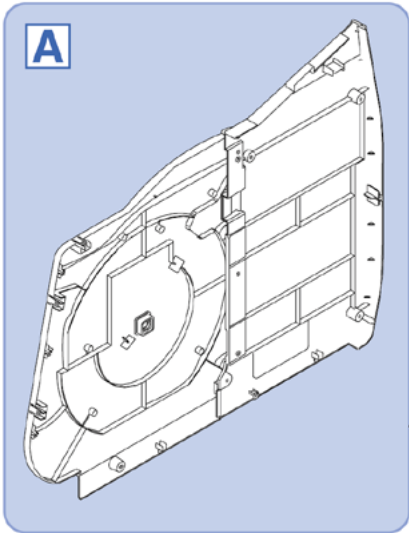


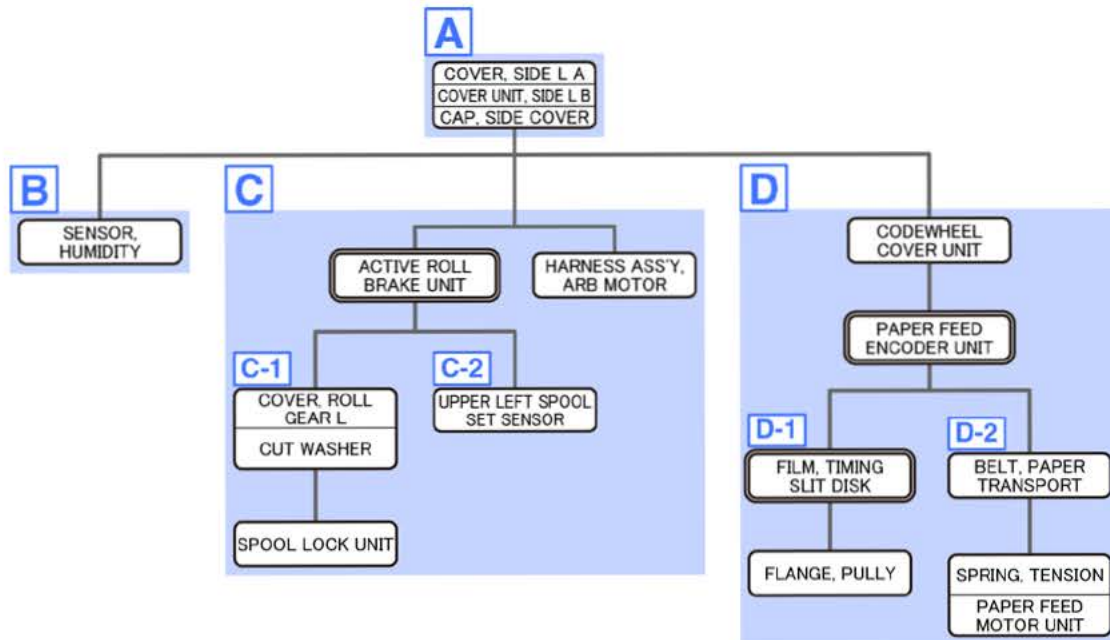
Dispose of ink of the replaced (old) SUB INK TANK UNIT R into a waste ink bottle (or in a bucket) before carrying it.

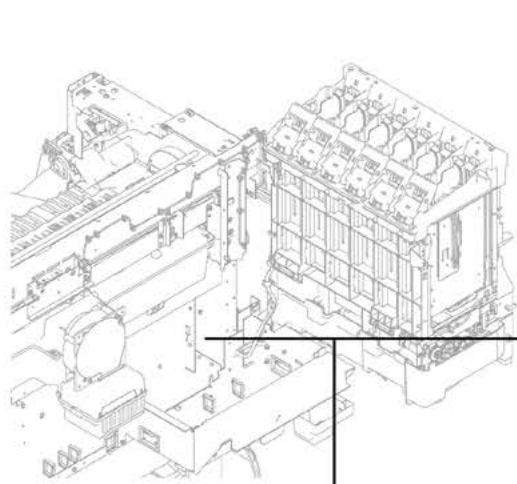
## 8. Remove [1] ABSORBER, INK from [2] INK SUPPLY MOUNT UNIT L.



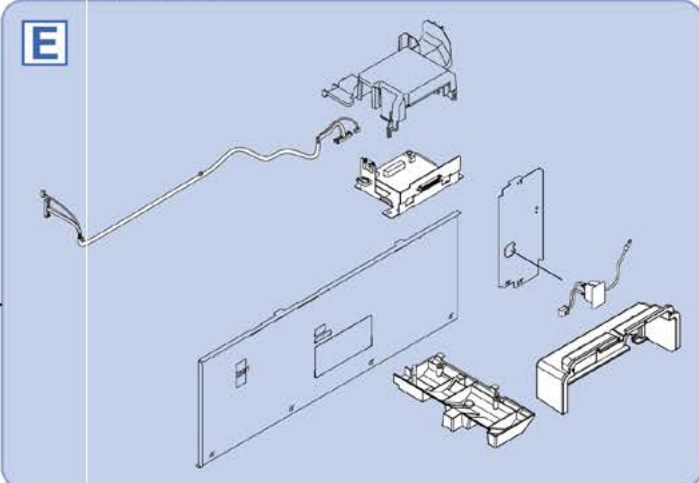
## 2. LEFT SIDE (ACTIVE ROLL BRAKE UNIT, PAPER FEED ENCODER UNIT)



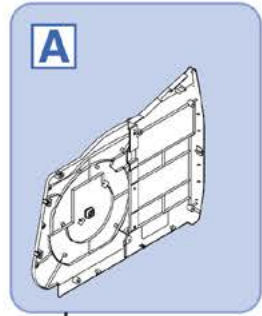
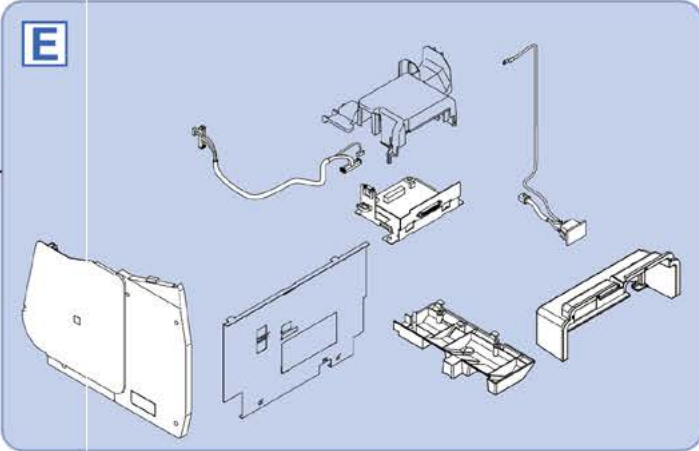




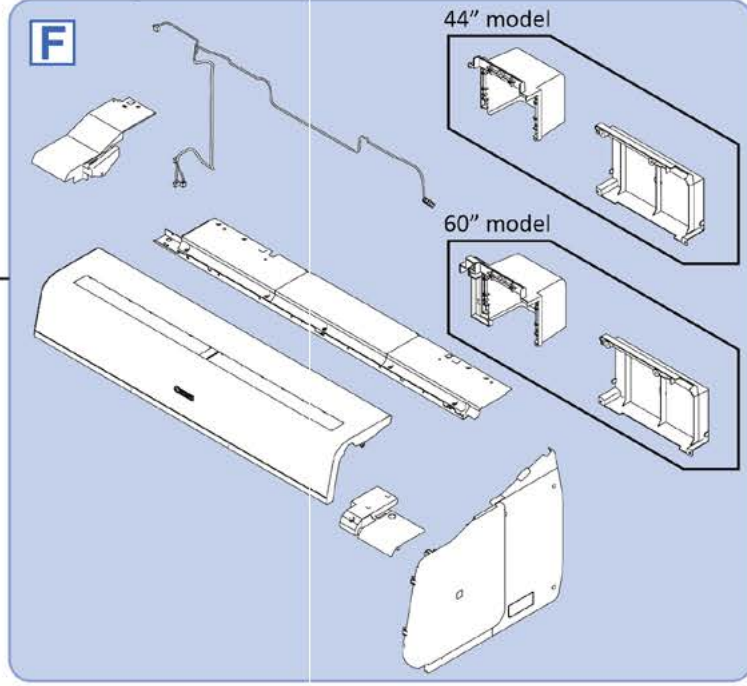
44" model, 60" model



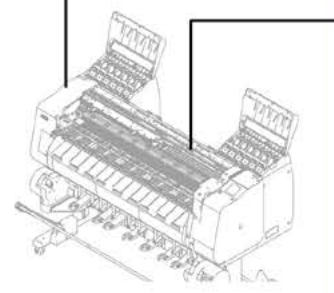
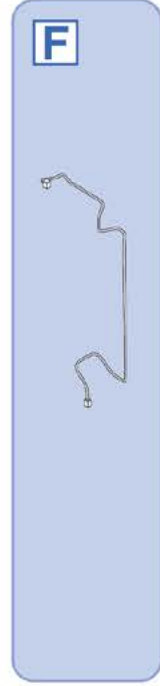
24" model



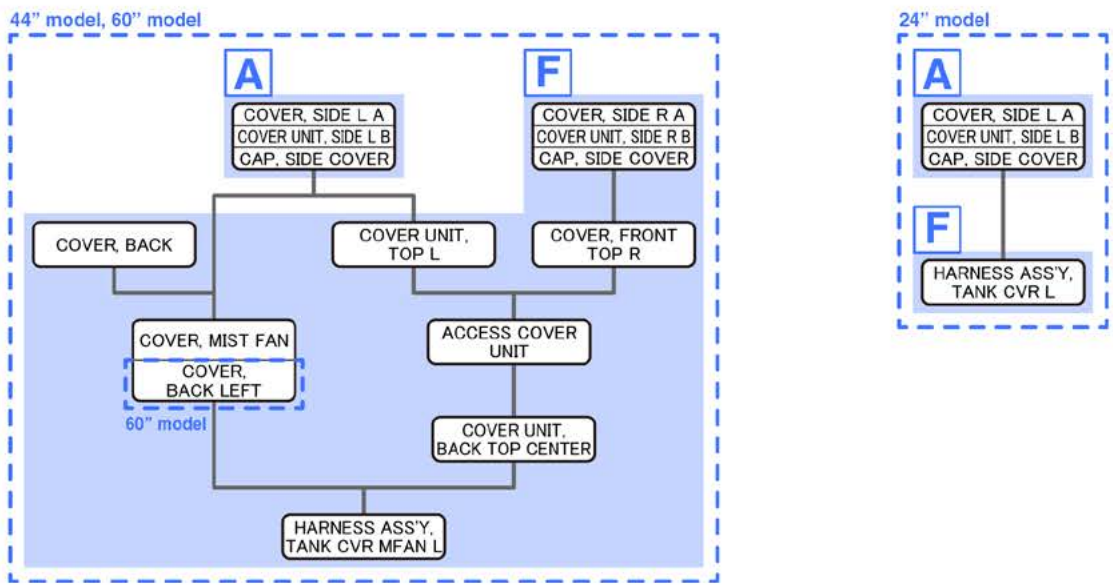
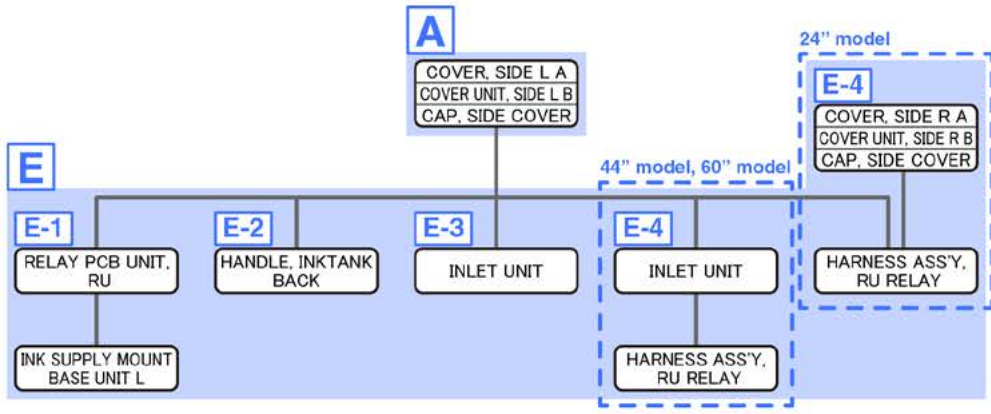
44" model, 60" model



24" model

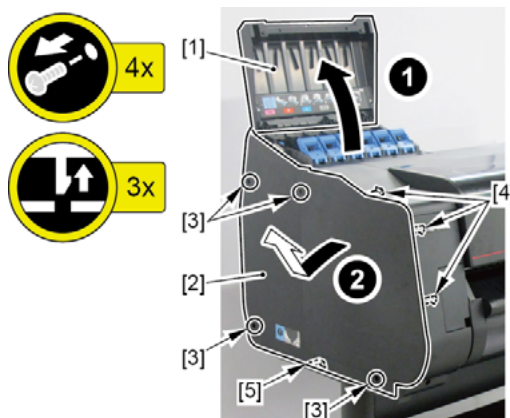






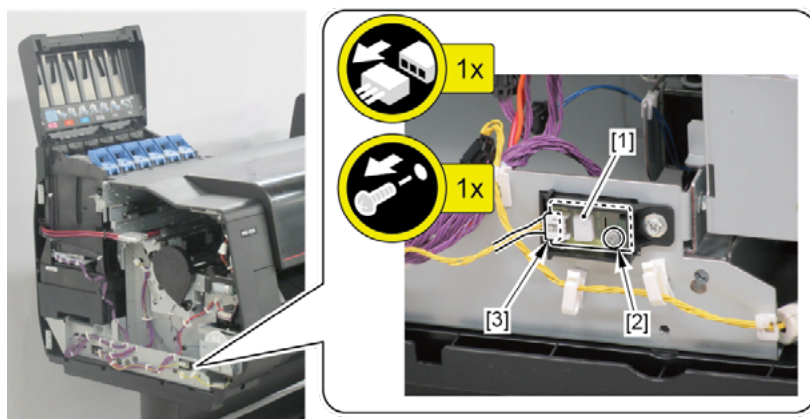
## A

1. Open [1] the left ink tank cover.
  2. Remove [2] a set of
    - COVER, SIDE L A
    - COVER UNIT, SIDE L B
    - CAP, SIDE COVER.
- [3]: 4 screws
  - [4]: 3 claws
  - [5]: 1 hook



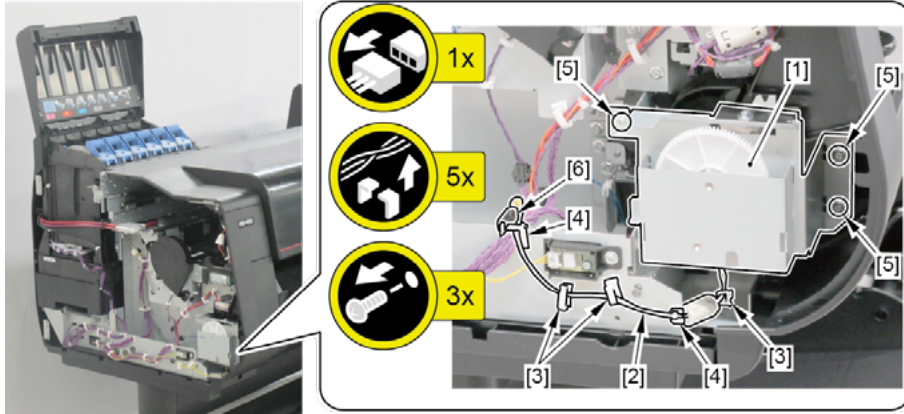
## B

1. Remove all the parts of Group A.
2. Remove [1] SENSOR, HUMIDITY.
  - [2]: 1 screw
  - [3]: 1 connector



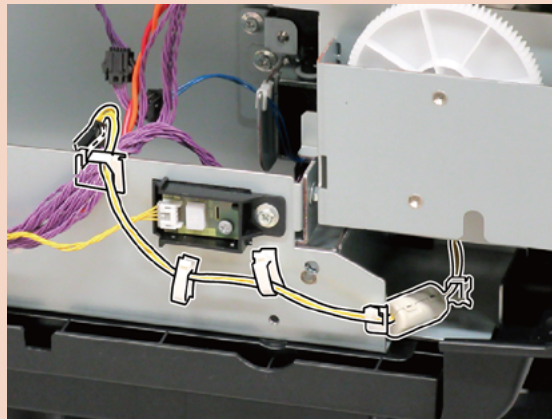
C

1. Remove all the parts of Group A.
2. Remove [1] ACTIVE ROLL BRAKE UNIT and [2] HARNESS ASS'Y, ARB MOTOR.
  - [3]: 3 wire saddles
  - [4]: 2 edge saddles
  - [5]: 3 screws
  - [6]: 1 connector



#### Notes when assembling the unit:

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



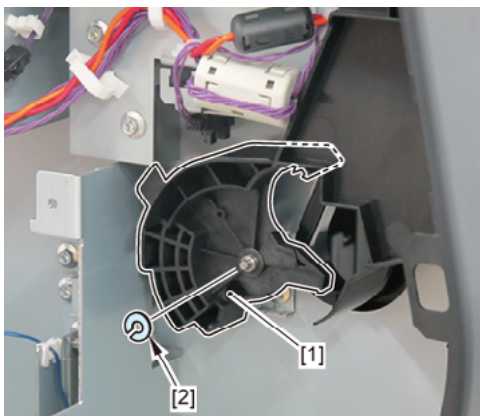
- Perform adjustment at the end of assembly.

[SERVICE MODE > ADJUSTMENT > UPPER ARB CALIB]

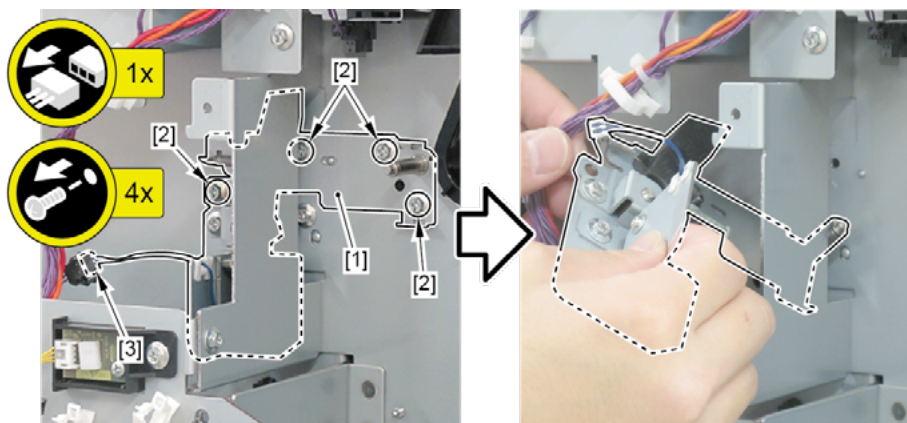
Point

**C-1**

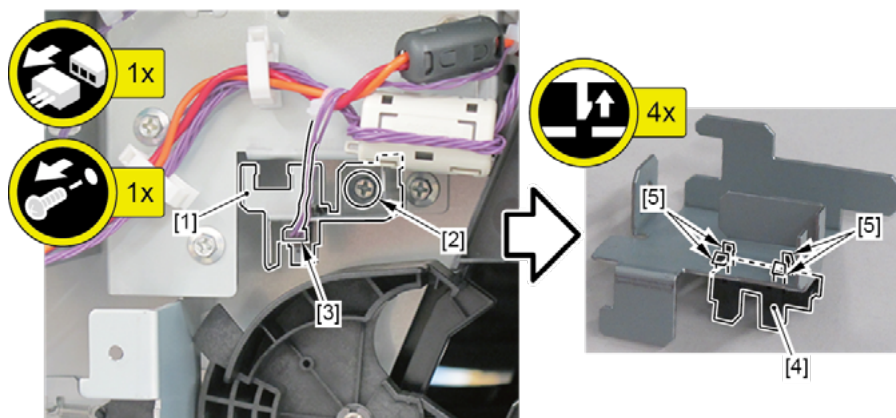
3. Remove [1] COVER, ROLL GEAR L.
  - [2] 1 CUT WASHER



4. Remove [1] SPOOL LOCK UNIT.
  - [2]: 4 screws
  - [3]: 1 connector

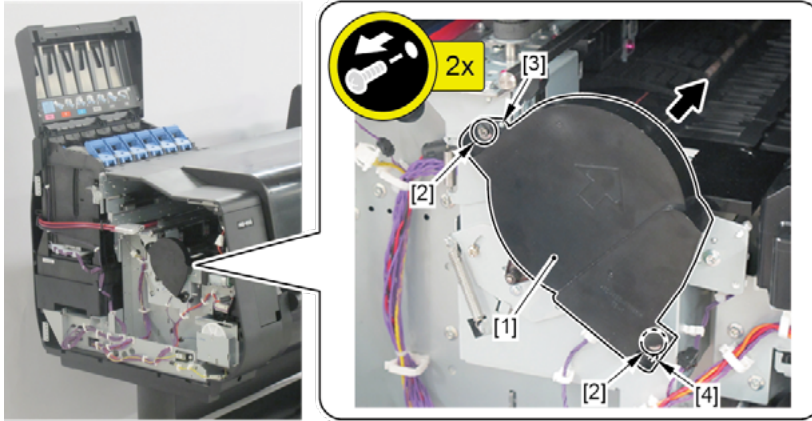
**C-2**

3. Remove [1] the plate (with the UPPER LEFT SPOOL SET SENSOR).
  - [2]: 1 screw
  - [3]: 1 connector
4. Remove [4] UPPER LEFT SPOOL SET SENSOR.
  - [5]: 4 claws

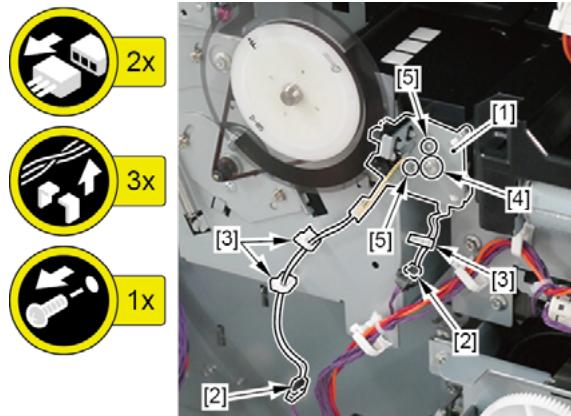


D

1. Remove all the parts of Group A.
2. Remove [1] CODEWHEEL COVER UNIT.
  - [2]: 2 screws
  - [3]: 1 boss
  - [4]: 1 protrusion



3. Remove [1] PAPER FEED ENCODER UNIT.
  - [2]: 2 connectors
  - [3]: 3 wire saddles
  - [4]: 1 screw
  - [5]: 2 bosses


**Notes when assembling the unit:**


Perform adjustment at the end of assembly.

[SERVICE MODE > ADJUSTMENT > LF ENC ADJ]

## D-1

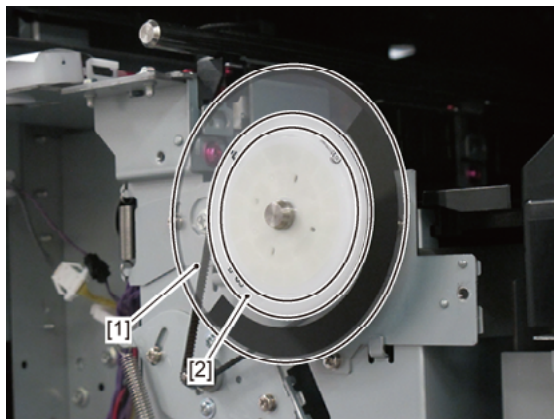
- Remove [1] FILM, TIMING SLIT DISK.


**Notes when assembling the unit:**

Perform adjustment at the end of assembly.

[SERVICE MODE > ADJUSTMENT > LF TUNING2]

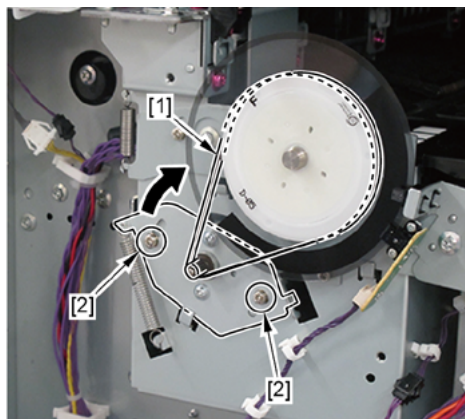
- Remove [2] FLANGE, PULLEY.



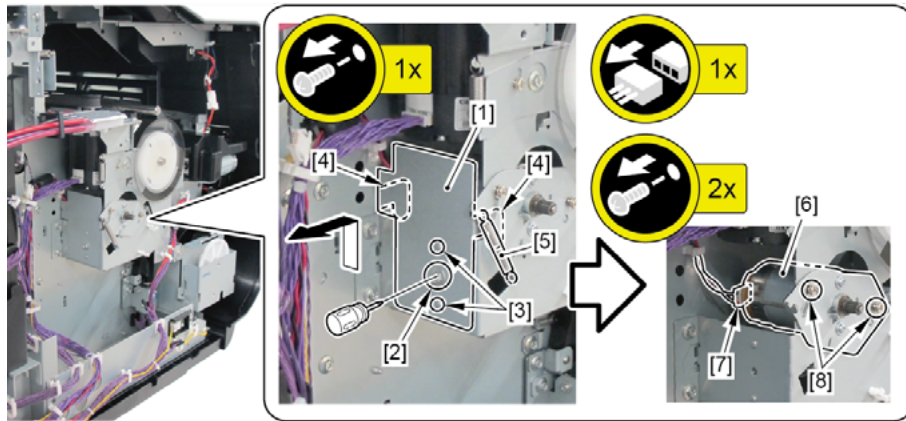
## D-2

- Remove [1] BELT, PAPER TRANSPORT.

- [2]: 2 screws (Loosen them.)

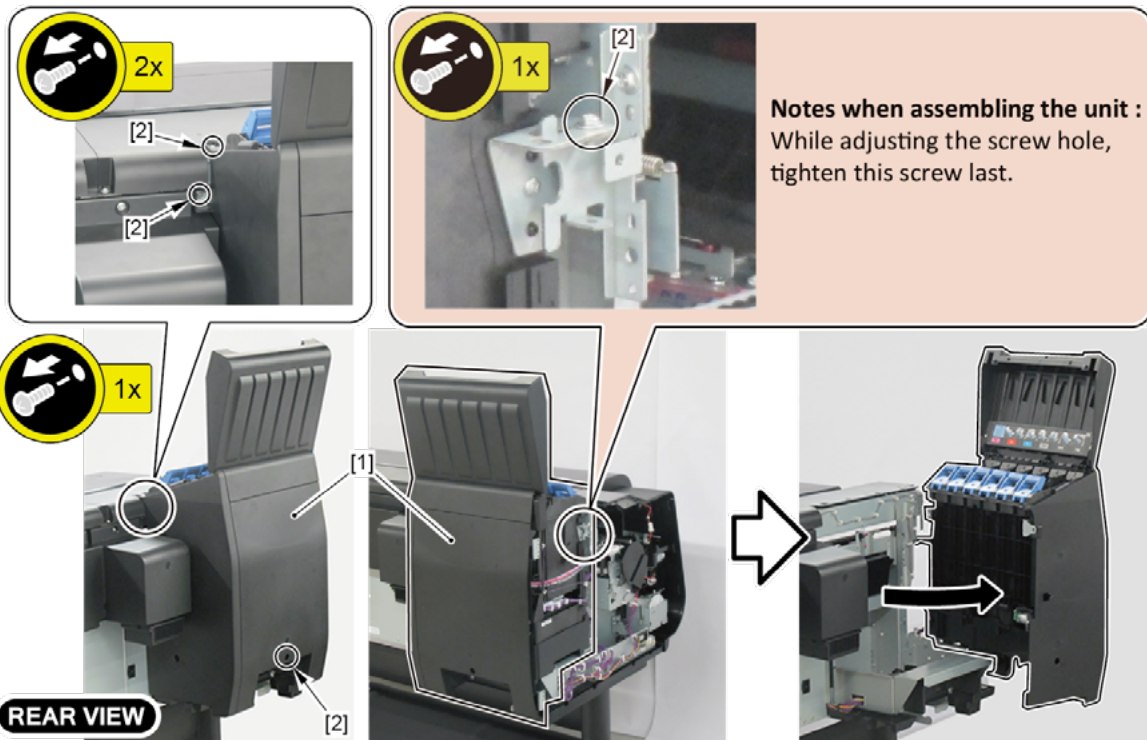


5. Remove [1] the plate.
  - [2]: 1 screw (Use a stubby screwdriver.)
  - [3]: 2 bosses
  - [4]: 2 hooks
6. Remove [5] SPRING, TENSION.
7. Remove [6] PAPER FEED MOTOR UNIT.
  - [7]: 1 connector
  - [8]: 2 screws



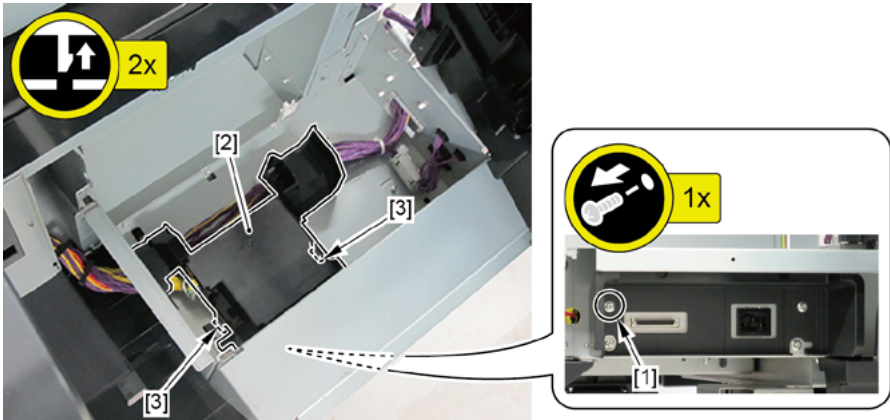
## E

1. Remove all the parts of Group A.
2. Open [1] the left ink unit.
  - [2]: 4 screws

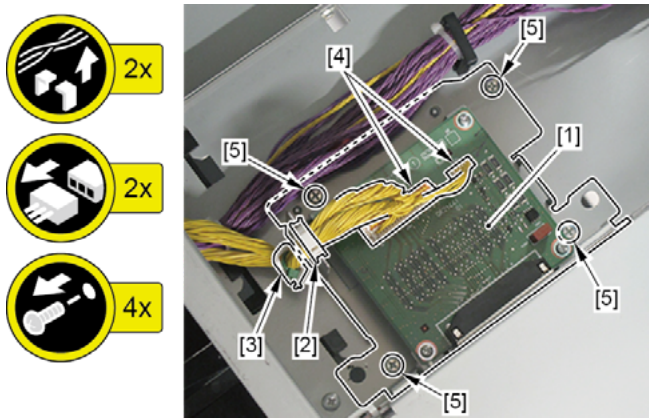


### E-1 (44" model, 60" model)

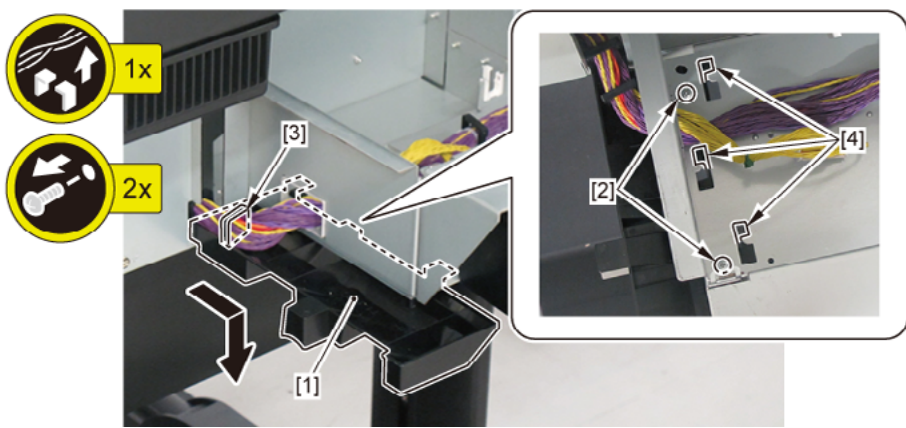
- 3. Remove [1] the screw (to avoid the cover of the RELAY PCB from scratched when removed).
- 4. Remove [2] the cover of the RELAY PCB.
  - [3] 2 claws



- 5. Remove [1] RELAY PCB UNIT, RU.
  - [2]: 1 edge saddle
  - [3]: 1 wire saddle
  - [4]: 2 connectors
  - [5]: 4 screws



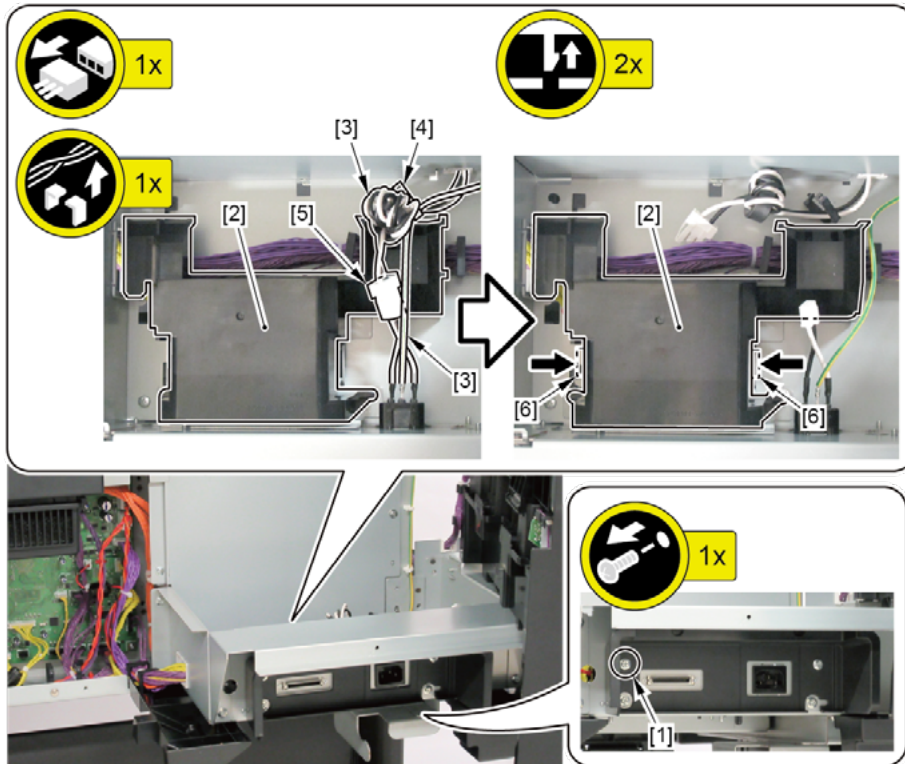
- 6. Remove [1] INK SUPPLY MOUNT BASE UNIT L.
  - [2]: 2 screws
  - [3]: 1 wire saddle
  - [4]: 3 hooks



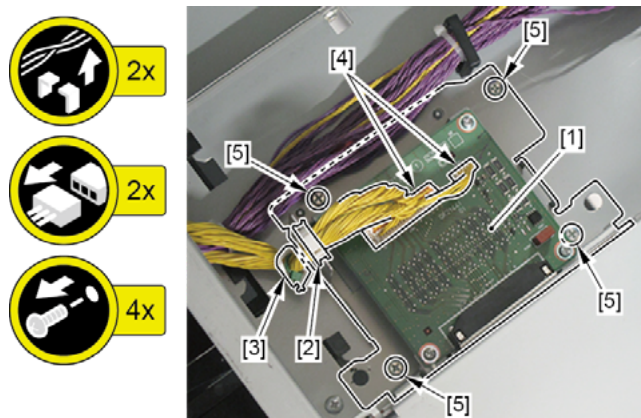


## E-1 (24" model)

3. Remove [1] the screw (to avoid the cover of the RELAY PCB from scratched when removed).
4. From [2] the cover of the RELAY PCB, release [3] the cable.
  - [4]: 1 wire saddle
  - [5]: 1 connector
5. Remove [2] the cover of the RELAY PCB.
  - [6]: 2 claws (Push them in the direction of the arrows as shown below.)

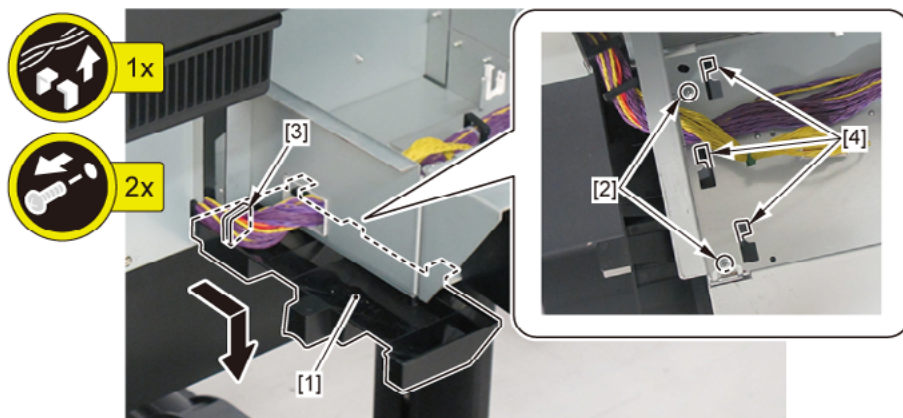


6. Remove [1] RELAY PCB UNIT, RU.
  - [2]: 1 edge saddle
  - [3]: 1 wire saddle
  - [4]: 2 connectors
  - [5]: 4 screws



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

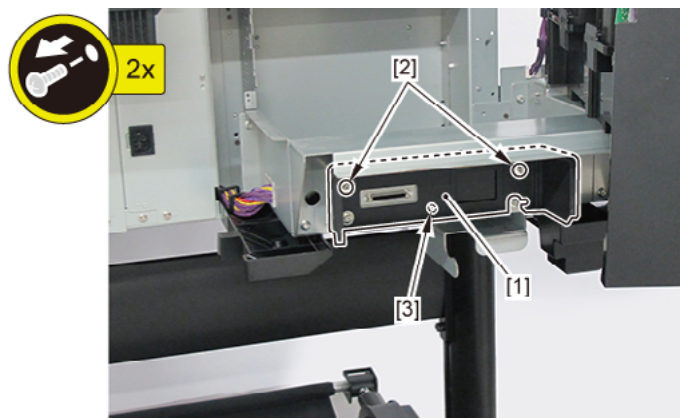
- [2]: 2 screws
- [3]: 1 wire saddle
- [4]: 3 hooks



### E-2

## 3. Remove [1] HANDLE, INKTANK BACK.

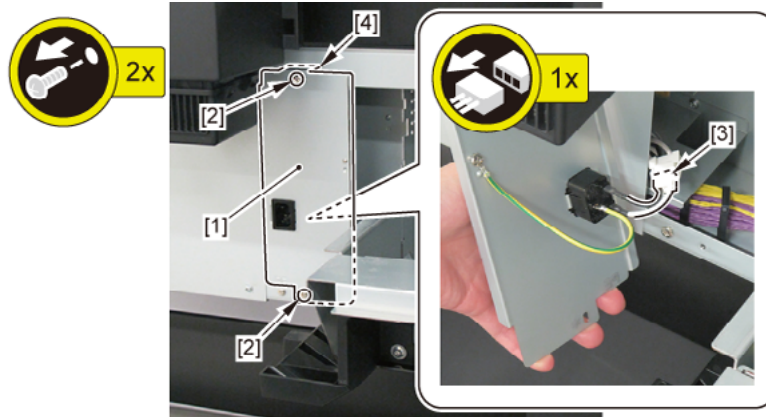
- [2]: 2 screws
- [3]: 1 protrusion



## E-3 (44" model, 60" model)

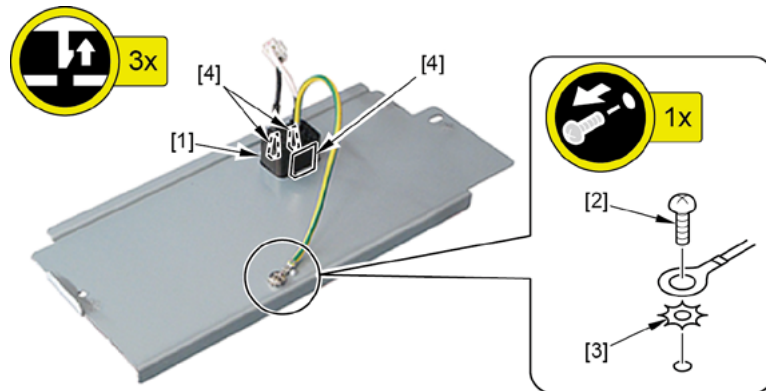
### 3. Remove [1] the plate (with the INLET UNIT).

- [2]: 2 screws with washers
- [3]: 1 connector
- [4]: 1 hook



### 4. Remove [1] INLET UNIT.

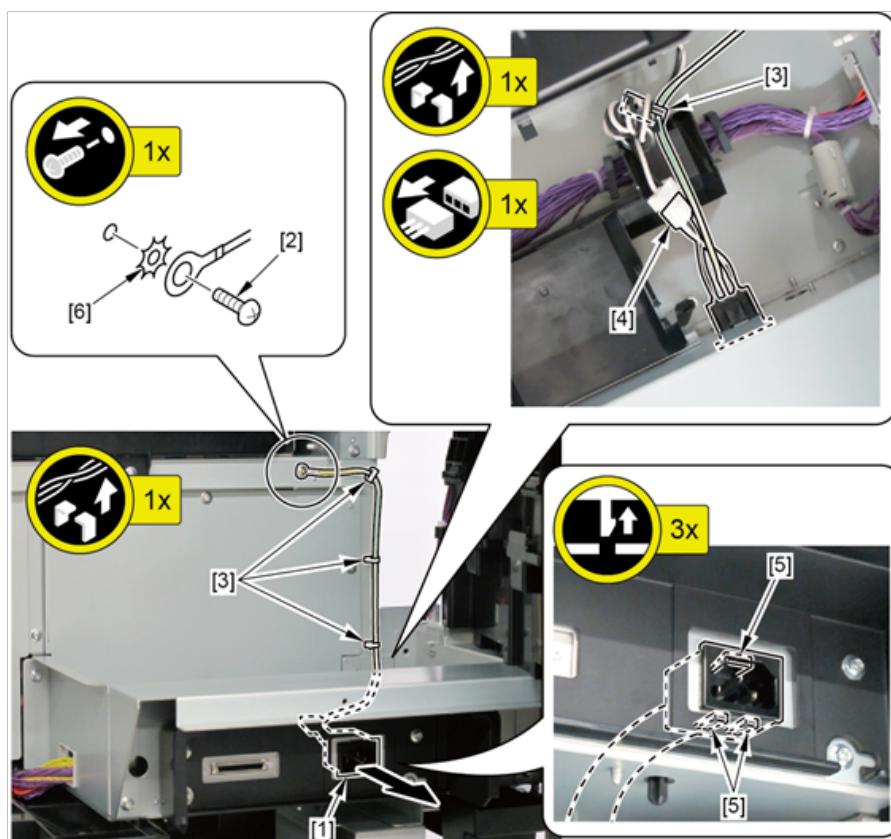
- [2]: 1 screw with washer
- [3]: 1 WASHER, TOOTHED LOCK, M4
- [4]: 3 claws



## E-3 (24" model)

### 3. Remove [1] INLET UNIT.

- [2]: 1 screw
- [3]: 4 wire saddles
- [4]: 1 connector
- [5]: 3 claws
- [6]: 1 WASHER, TOOTHED LOCK, M4

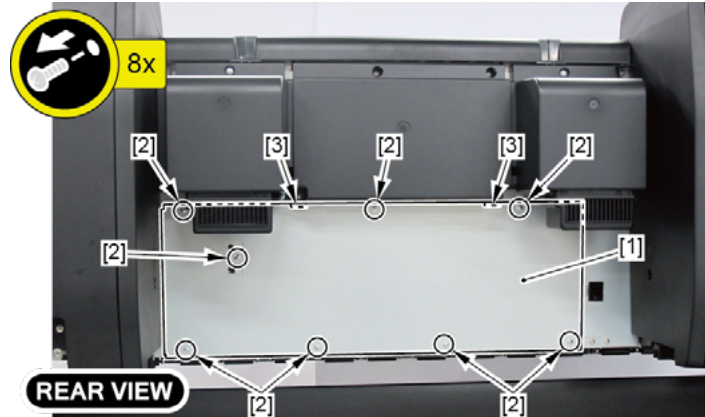


## E-4 (44" model, 60" model)

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

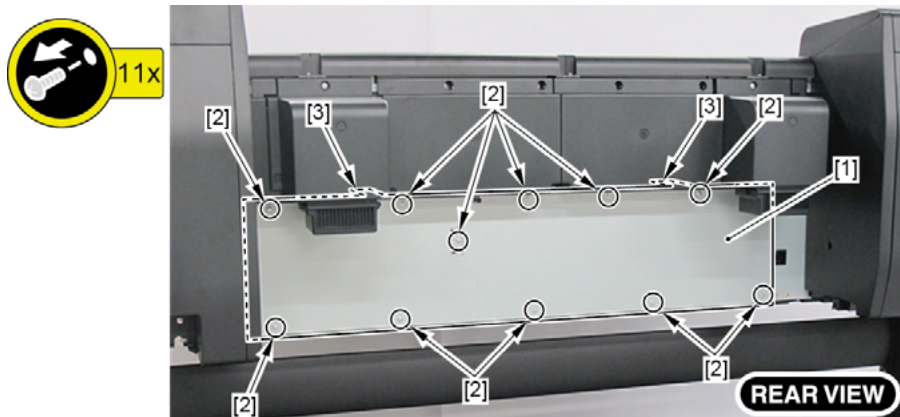
(44" model)

- [2]: 8 screws
- [3]: 2 protrusions



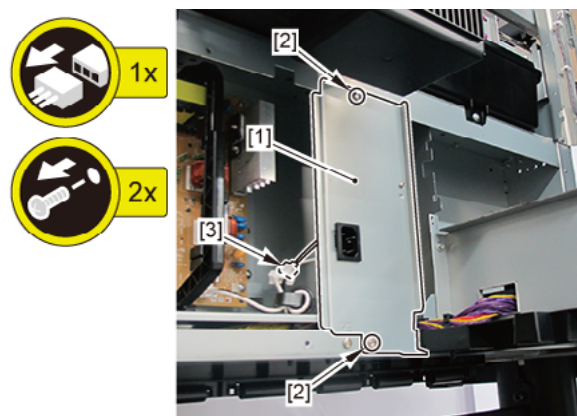
(60" model)

- [2]: 11 screws
- [3]: 2 protrusions



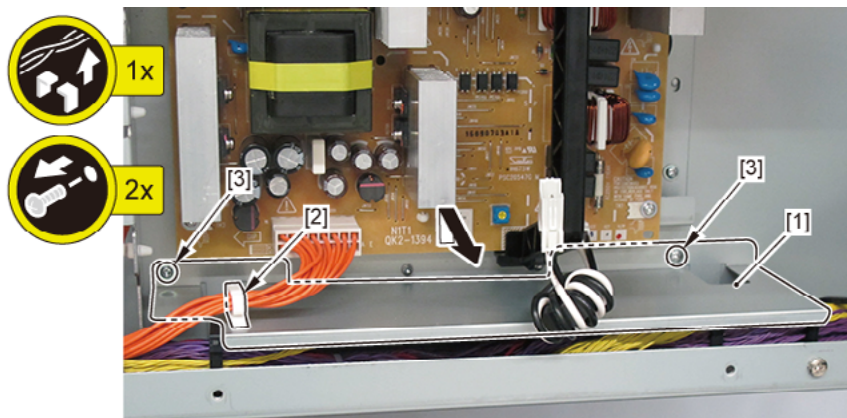
### 5. Remove [1] the plate (with the INLET UNIT).

- [2]: 2 screws
- [3]: 1 connector



## 6. Remove [1] the plate.

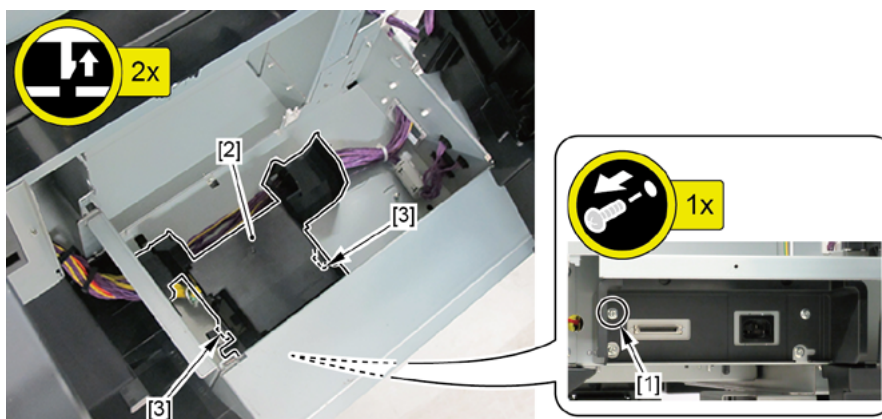
- [2]: 1 wire saddle
- [3]: 2 screws



## 7. Remove [1] the screw (to avoid the cover of the RELAY PCB from scratched when removed).

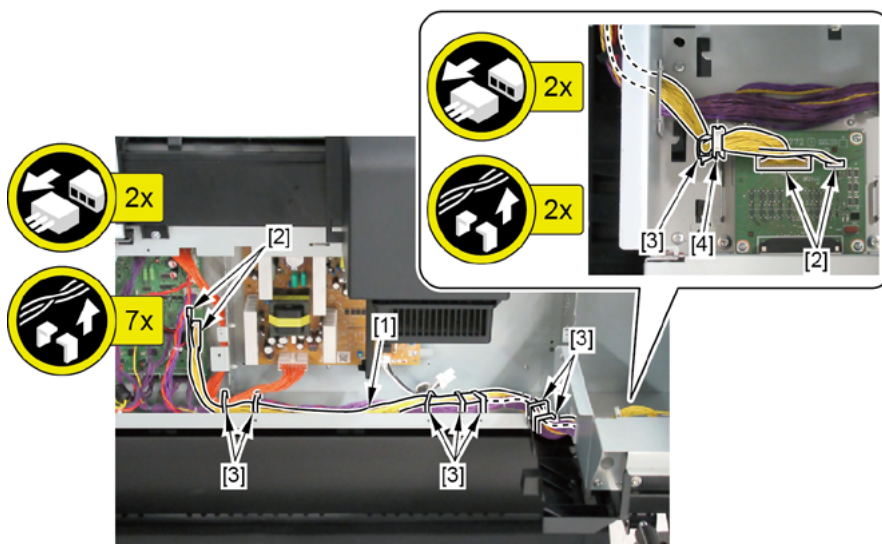
## 8. Remove [2] the cover of the RELAY PCB.

- [3]: 2 claws



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

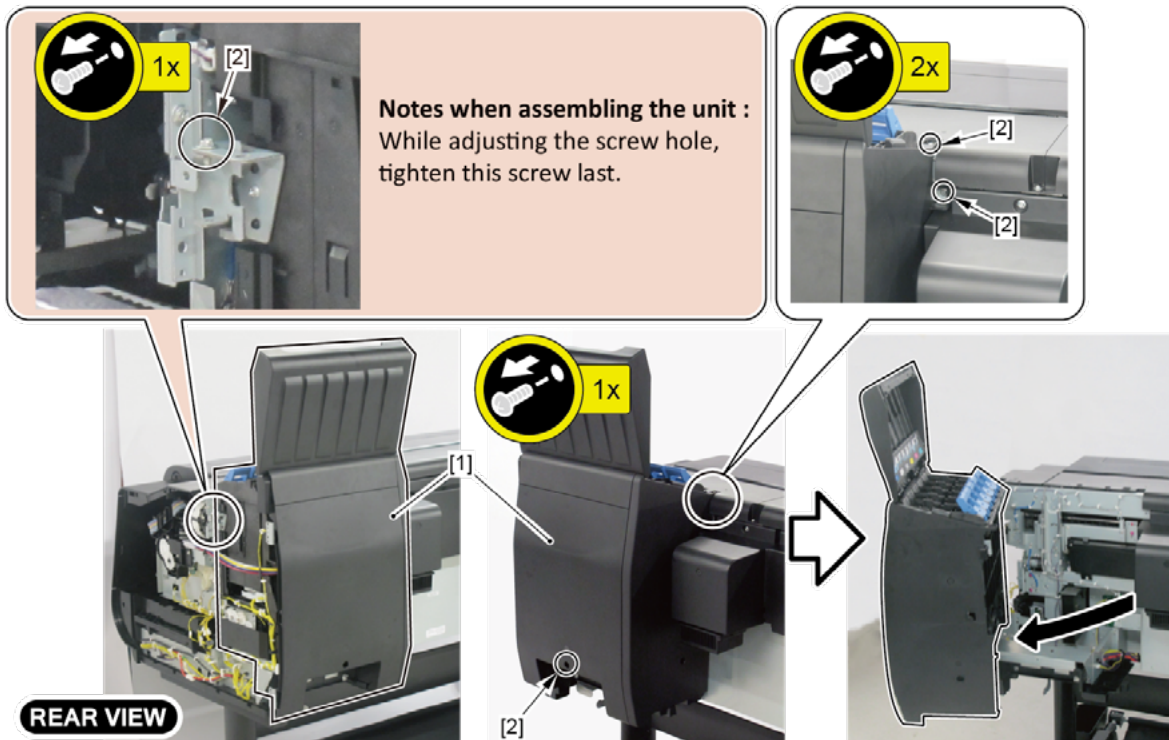
- [2]: 4 connector
- [3]: 8 wire saddle
- [4]: 1 edge saddle



## E-4 (24" model)

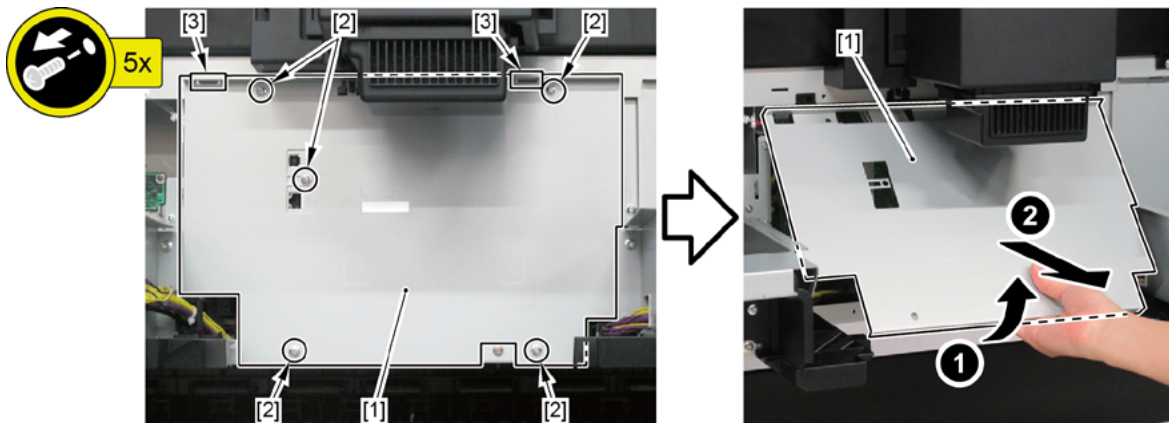
### 3. Open [1] the right ink unit.

- [2]: 4 screws

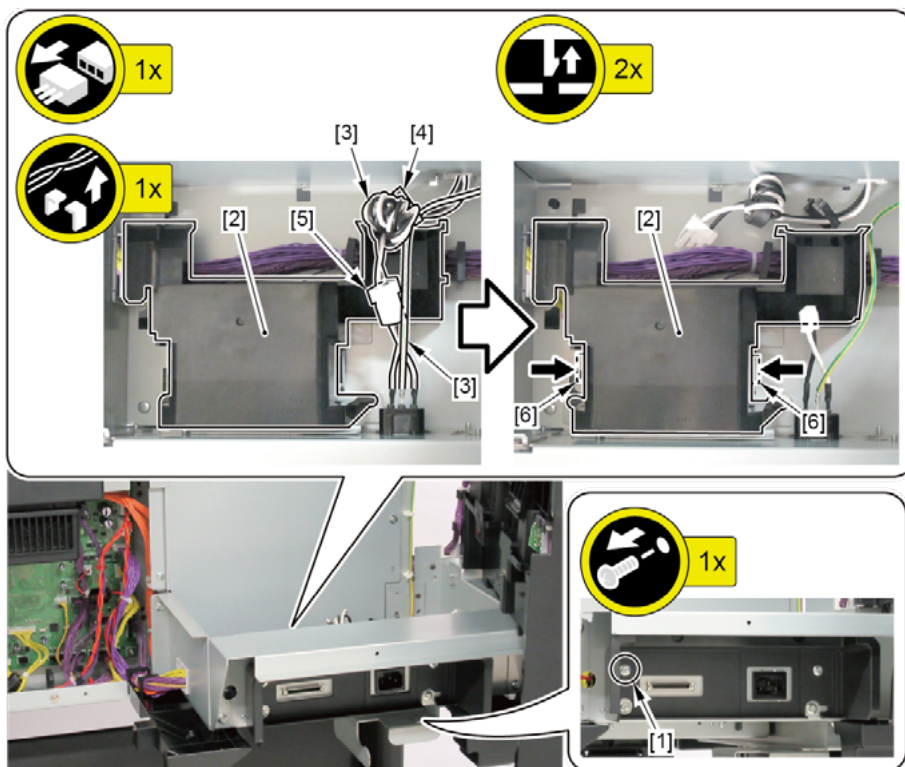


### 4. Remove [1] the plate.

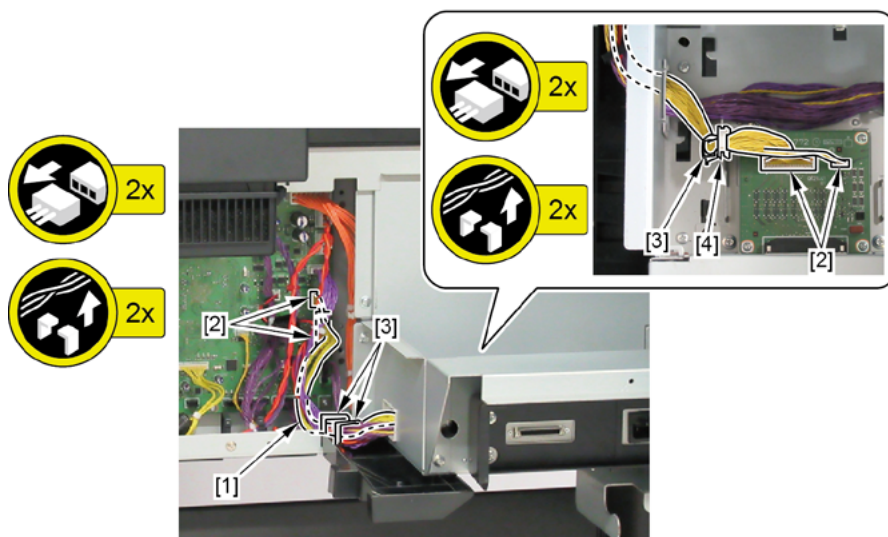
- [2]: 5 screws
- [3]: 2 protrusions



5. Remove [1] the screw (to avoid the cover of the RELAY PCB from scratched when removed).
6. From [2] the cover of the RELAY PCB, disconnect [3] the cable.
  - [4]: 1 wire saddle
  - [5]: 1 connector
7. Remove [2] the cover of the RELAY PCB.
  - [6]: 2 claws (Push them in the arrowed direction.)



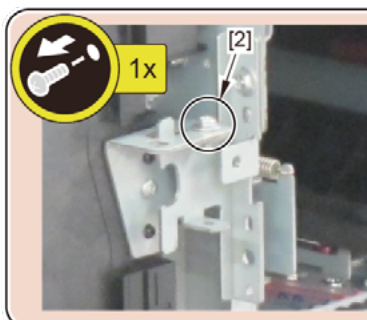
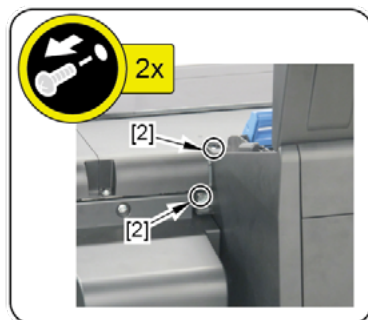
8. Disconnect [1] HARNESS ASS'Y, RU RELAY.
  - [2]: 4 connectors
  - [3]: 3 wire saddles
  - [4]: 1 edge saddle



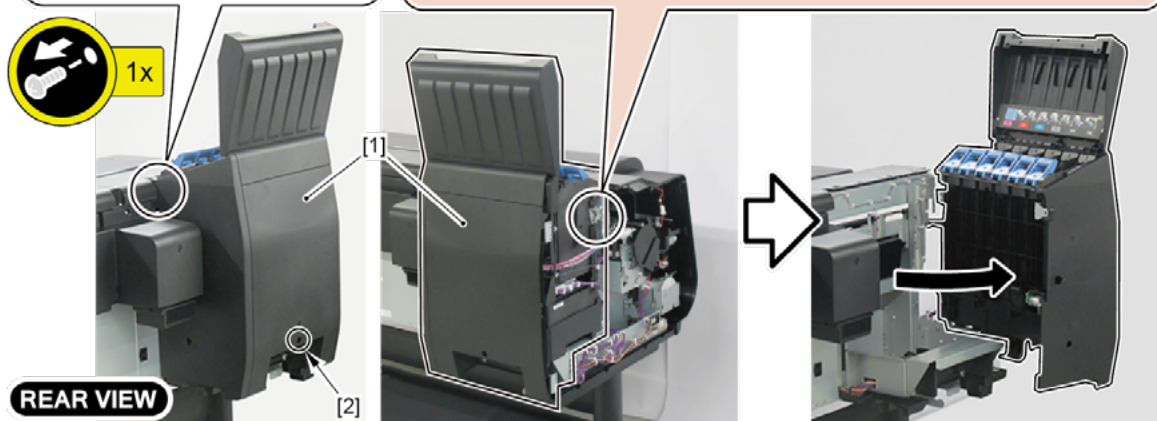


## F (44" model, 60" model)

1. Remove all the parts of Group A.
2. Open [1] the left ink unit.
  - [2]: 4 screws



**Notes when assembling the unit :**  
While adjusting the screw hole,  
tighten this screw last.

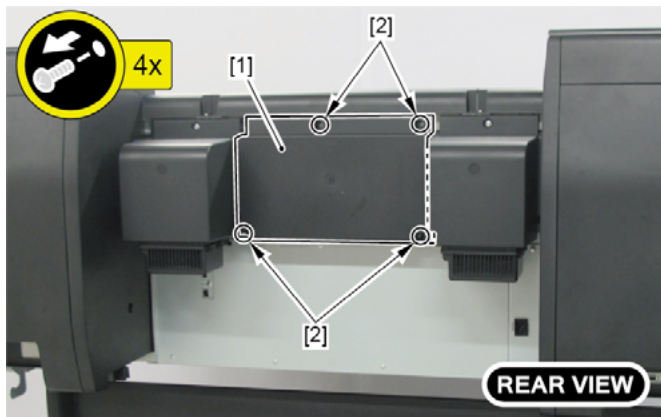


### 3.

(44" model)

Remove [1] COVER, BACK.

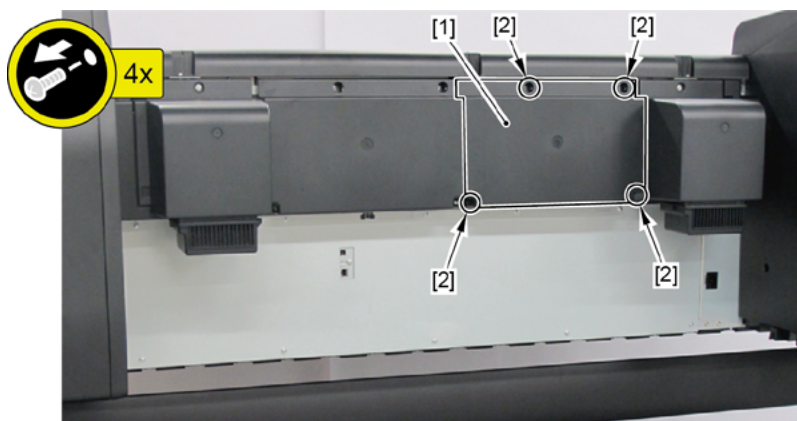
- [2]: 4 screws



(60" model)

Remove [1] COVER, BACK.

- [2]: 4 screws

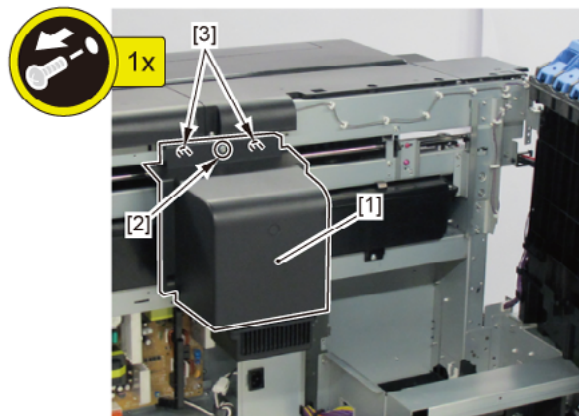


### 4.

(44" model)

Remove [1] COVER, MIST FAN.

- [2]: 1 screw
- [3]: 2 bosses

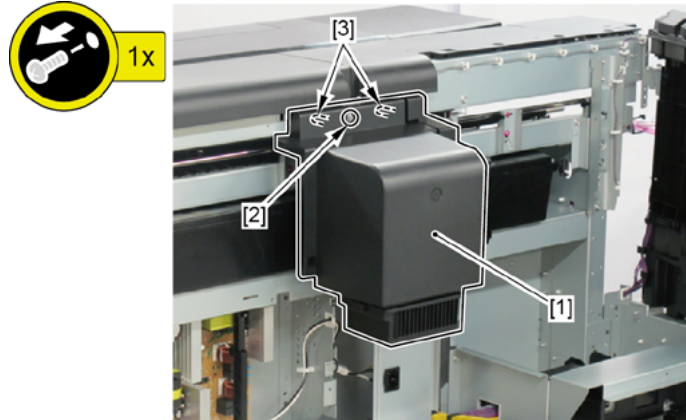


(60" model)

Remove [1] a set of

- COVER, MIST FAN
- COVER, BACK LEFT.

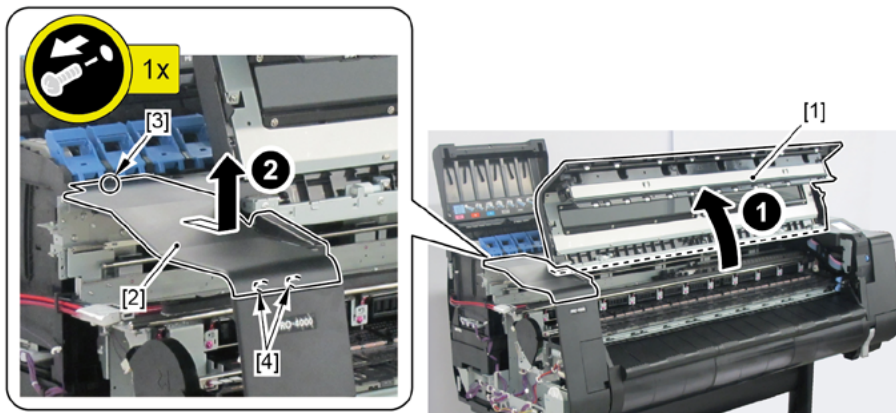
- [2]: 1 screw
- [3]: 2 bosses



5. Open [1] the access cover.

6. Remove [2] COVER UNIT, TOP L.

- [3]: 1 screw
- [4]: 2 hooks

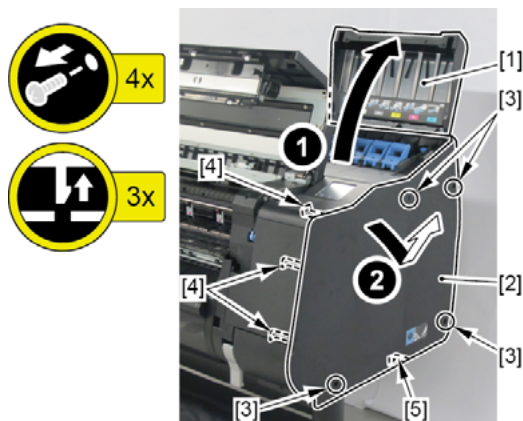


7. Open [1] the right ink tank cover.

8. Remove [2] a set of

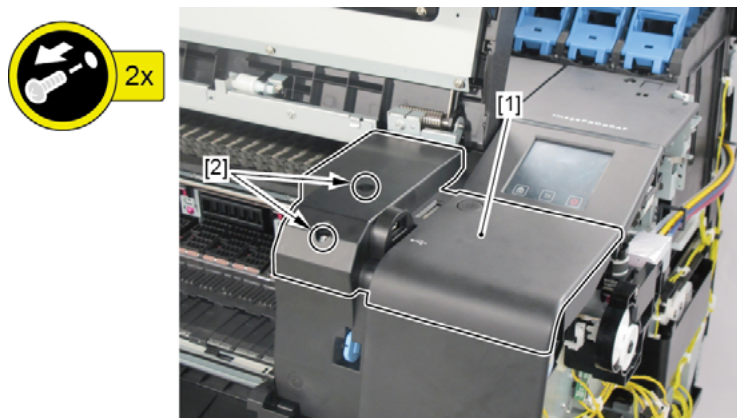
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



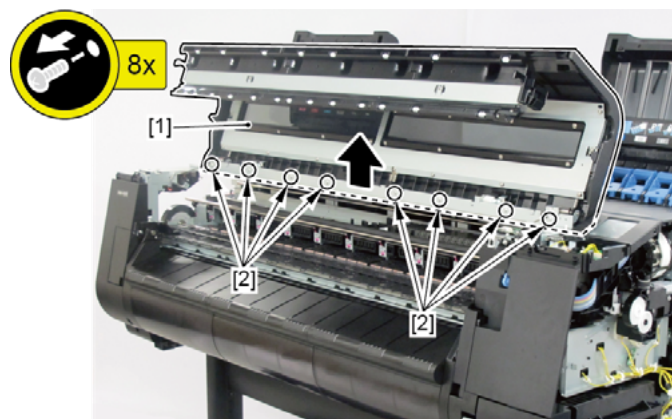
9. Remove [1] COVER, FRONT TOP R.

- [2]: 2 screws



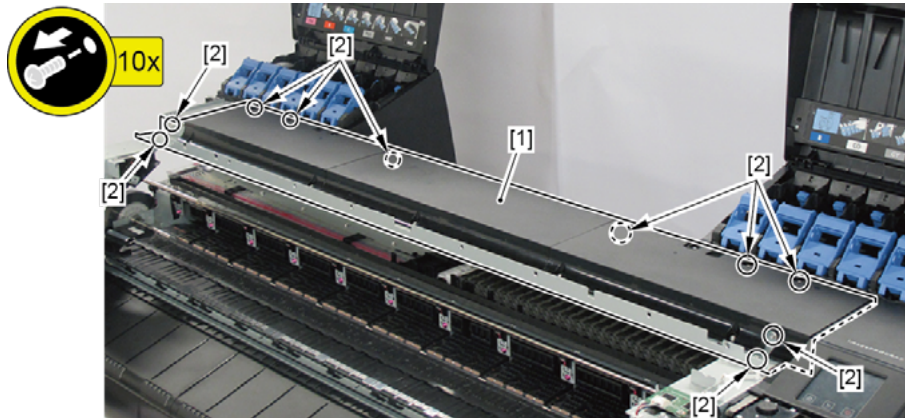
10. Remove [1] ACCESS COVER UNIT with holding the handles.

- [2]: 8 screws (10 screws in 60" model)



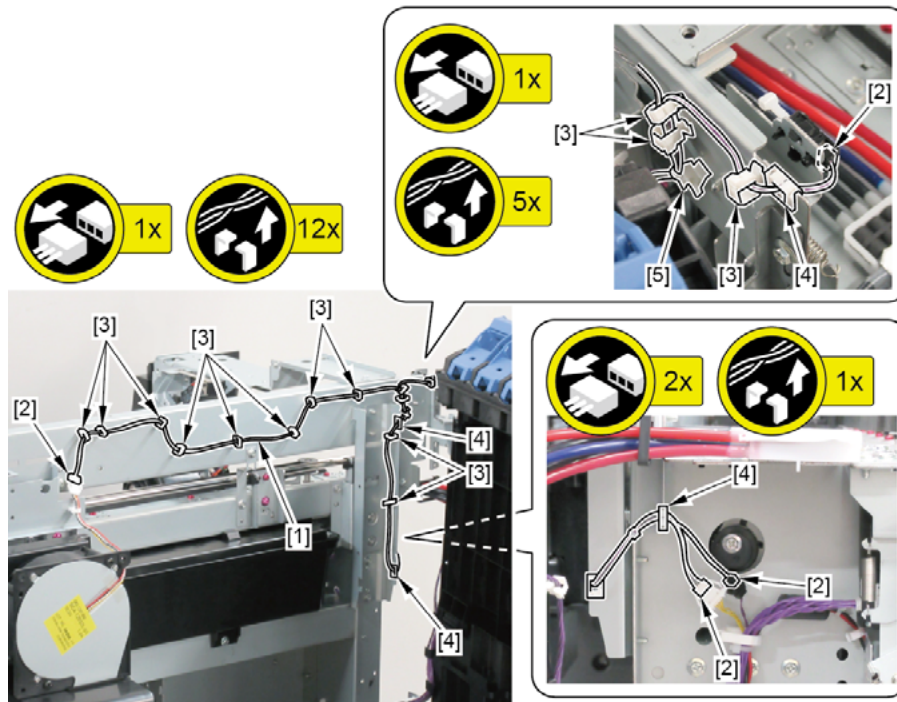
## 11. Remove [1] COVER UNIT, BACK TOP CENTER.

- [2]: 10 screws (11 screws in 60" model)



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

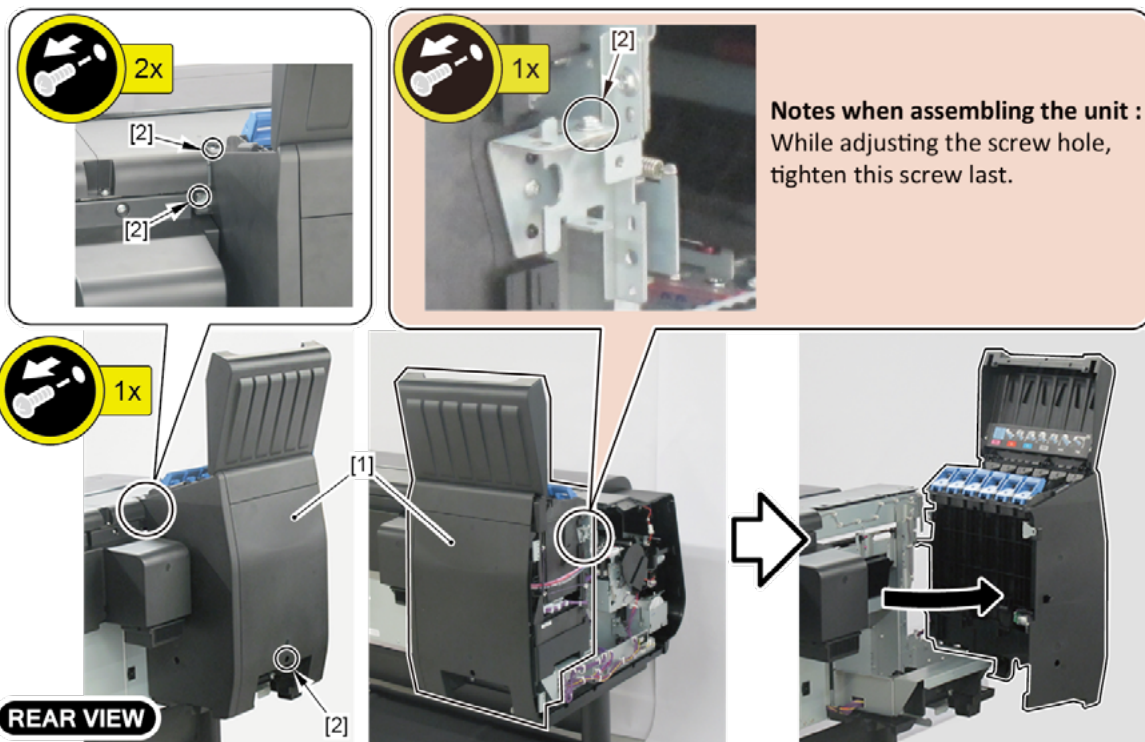
- [2]: 4 connectors
- [3]: 14 wire saddles
- [4]: 4 edge saddles
- [5]: 1 reusable band



## F (24" model)

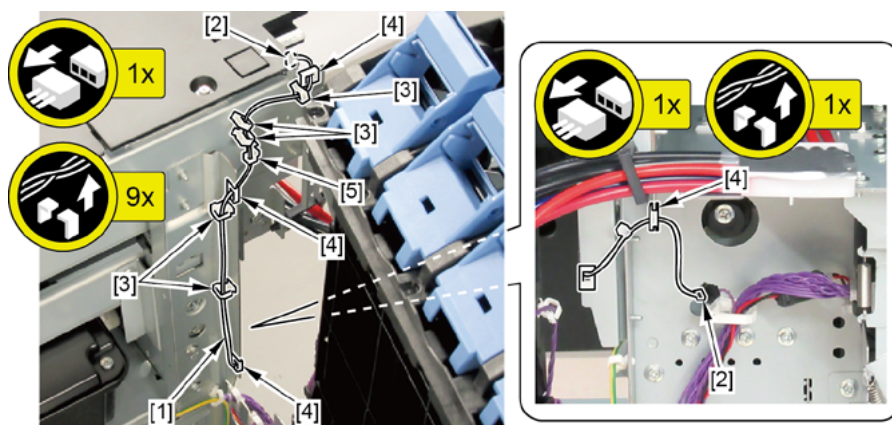
1. Remove all the parts of Group A.
2. Open [1] the left ink unit.

· [2]: 4 screws



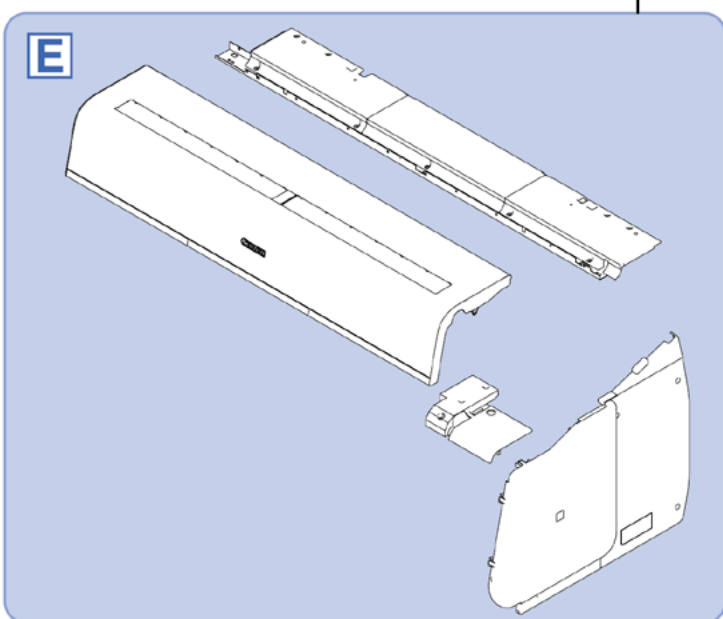
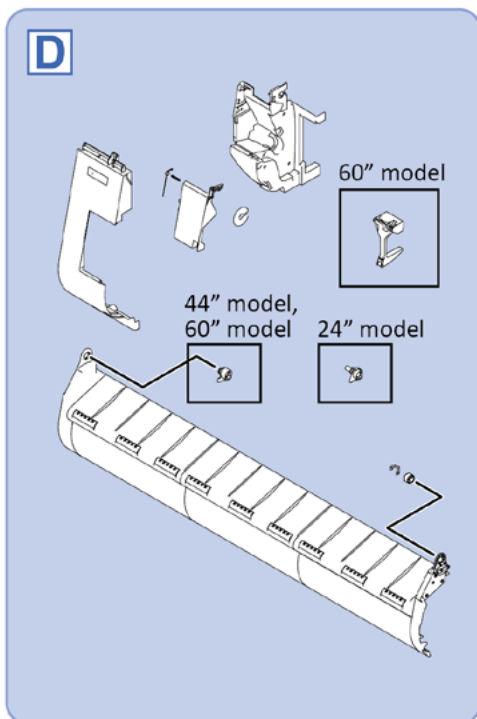
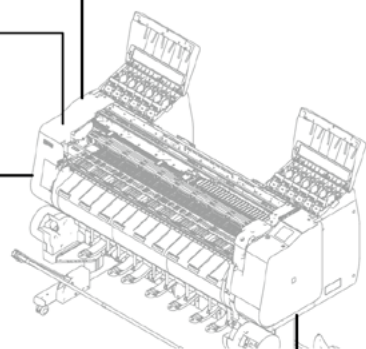
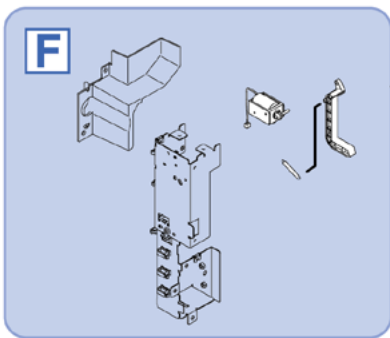
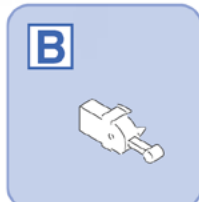
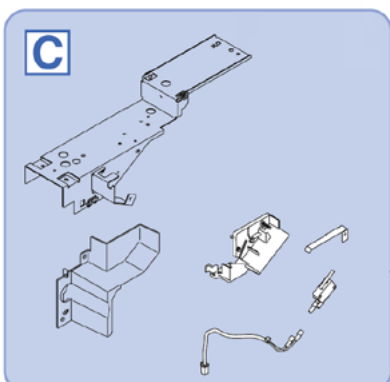
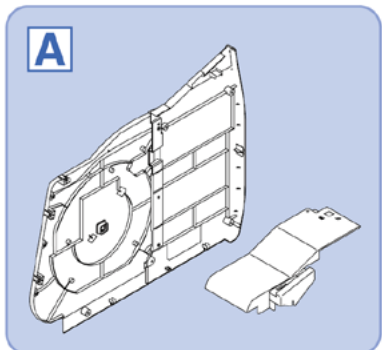
3. Disconnect [1] HARNESS ASS'Y, TANK CVR L.

- [2]: 2 connectors
- [3]: 5 wire saddles
- [4]: 4 edge saddles
- [5]: 1 reusable band

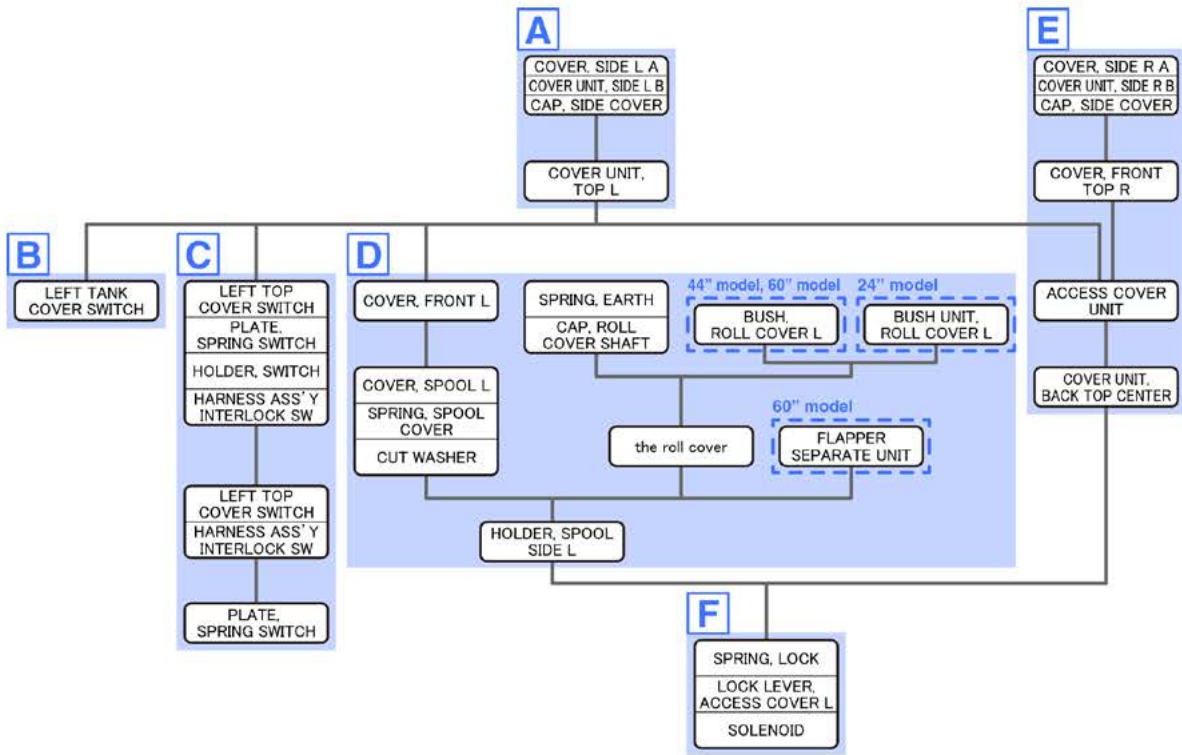




### 3. LEFT FRONT (ACCESS COVER LOCK L)



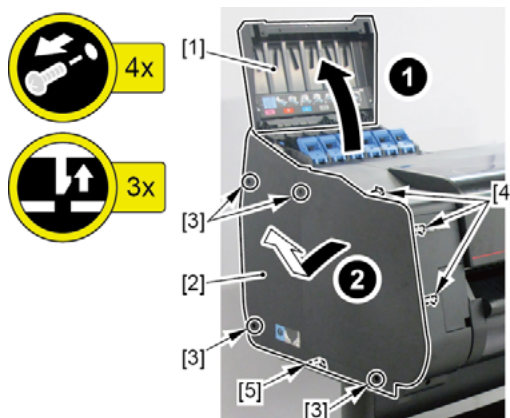




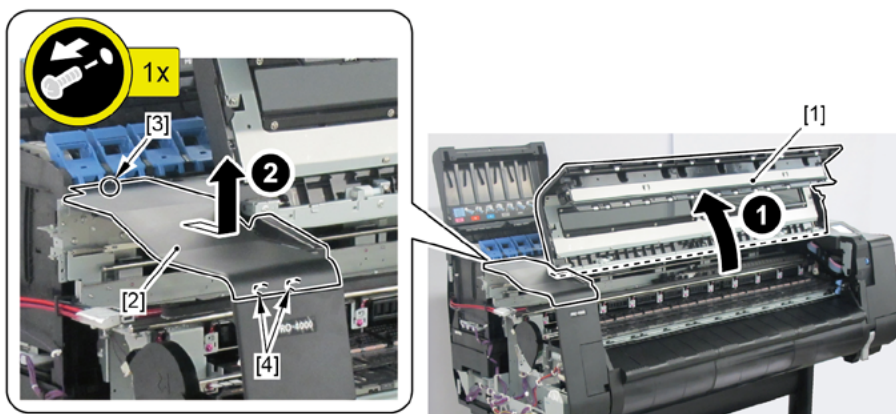
A

1. Open [1] the left ink tank cover.
2. Remove [2] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook

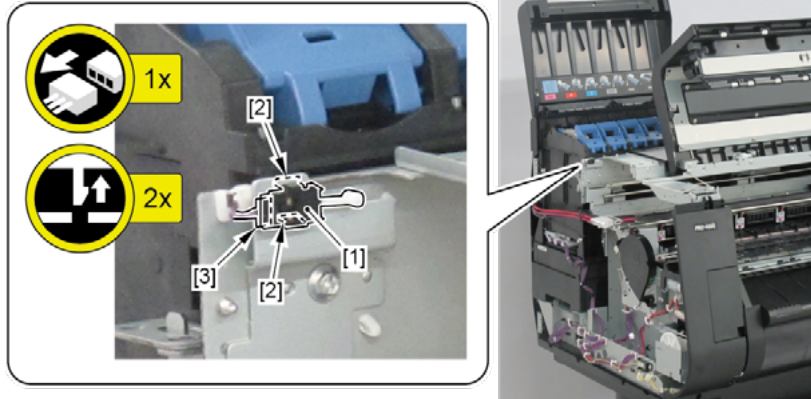


3. Open [1] the access cover.
4. Remove [2] COVER UNIT, TOP L.
  - [3]: 1 screw
  - [4]: 2 hooks

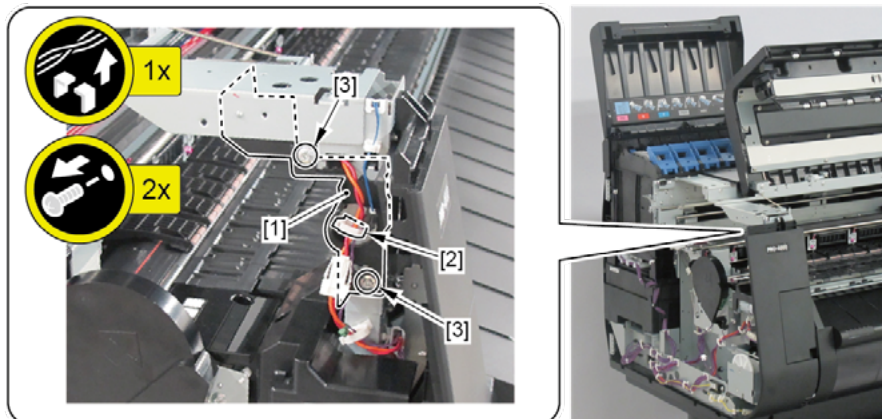


**B**

1. Remove all the parts of Group A.
2. Remove [1] LEFT TANK COVER SWITCH.
  - [2]: 2 claws
  - [3]: 1 connector

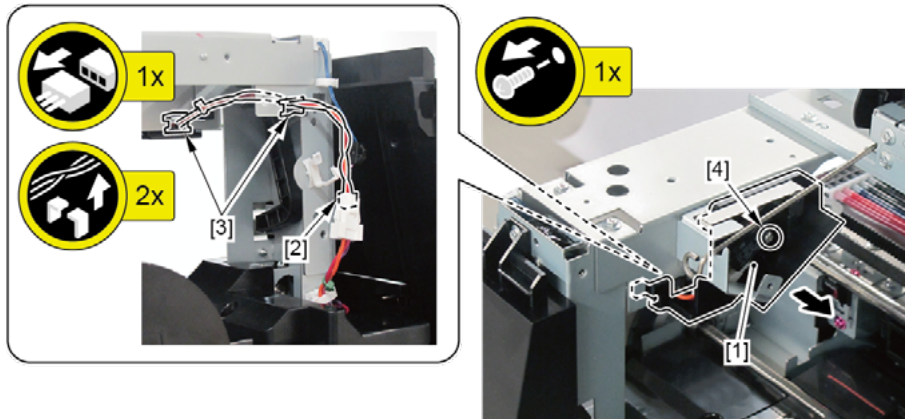
**C**

1. Remove all the parts of Group A.
2. Remove [1] the inner cover L.
  - [2]: 1 wire saddle
  - [3]: 2 screws

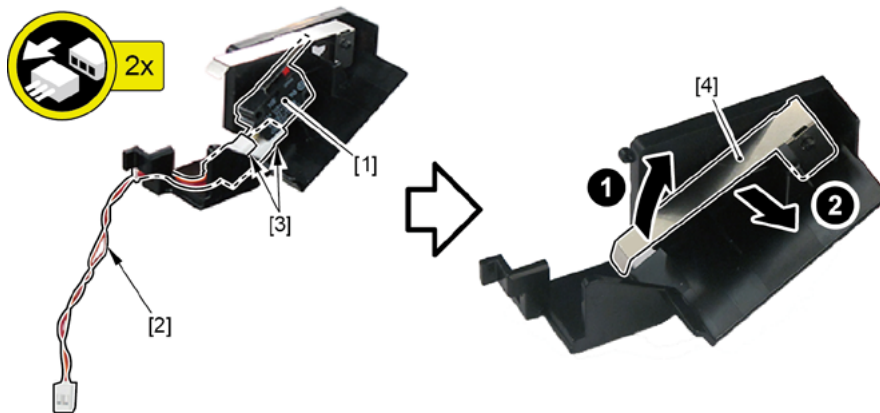


- 3.** Remove [1] HOLDER, SWITCH (with
- LEFT TOP COVER SWITCH
  - PLATE, SPRING SWITCH
  - HARNESS ASS'Y, INTERLOCK SW).

- [2]: 1 connector
- [3]: 2 edge saddles
- [4]: 1 screw

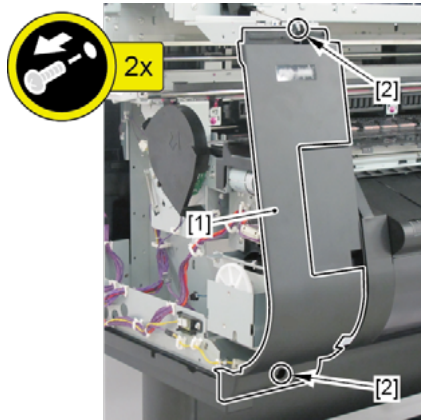


- 4.** Remove [1] LEFT TOP COVER SWITCH and [2] HARNESS ASS'Y, INTERLOCK SW.
- [3]: 2 connectors
- 5.** Remove [4] PLATE, SPRING SWITCH.

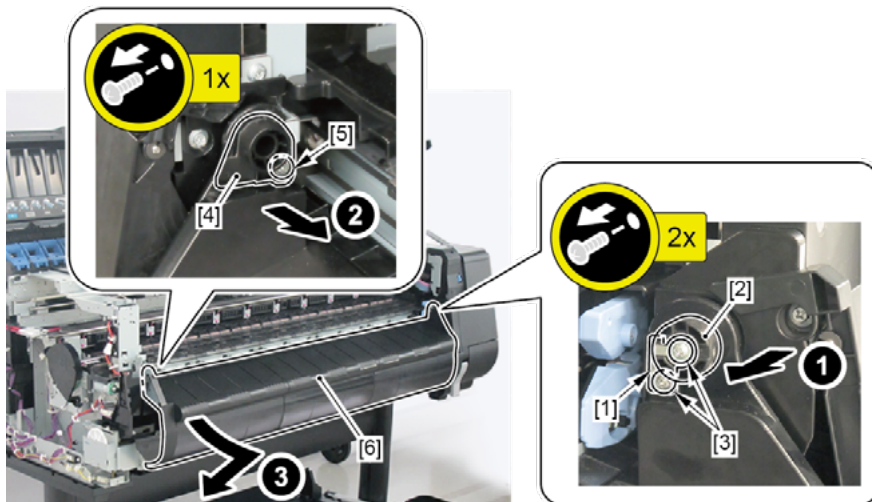


**D**

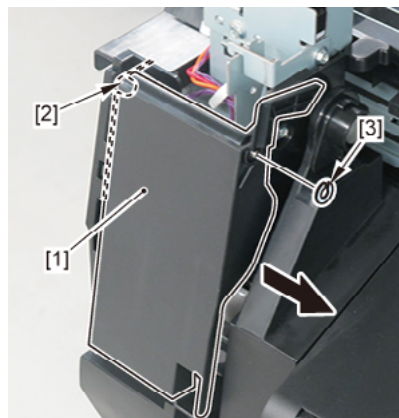
1. Remove all the parts of Group A.
2. Remove [1] COVER, FRONT L.
  - [2]: 2 screws



3. Remove [1] SPRING, EARTH and [2] CAP, ROLL COVER SHAFT.
  - [3]: 2 screws
4. Remove [4] BUSH, ROLL COVER L (the BUSH UNIT, ROLL COVER L in 24" model).
  - [5]: 1 screw
5. Remove [6] the roll cover.



6. Remove [1] COVER, SPOOL L and [2] SPRING, SPOOL COVER.
  - [3]: 1 CUT WASHER

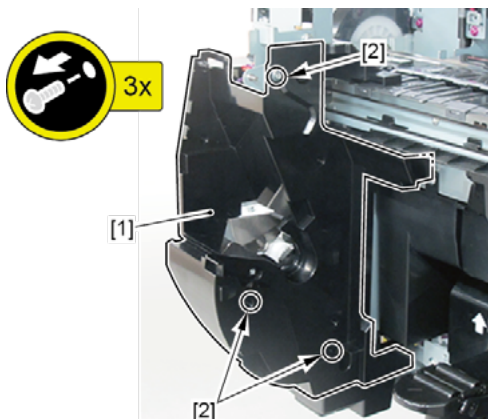


## 7.

(24" model, 44" model)

Remove [1] HOLDER, SPOOL SIDE L.

- [2]: 3 screws



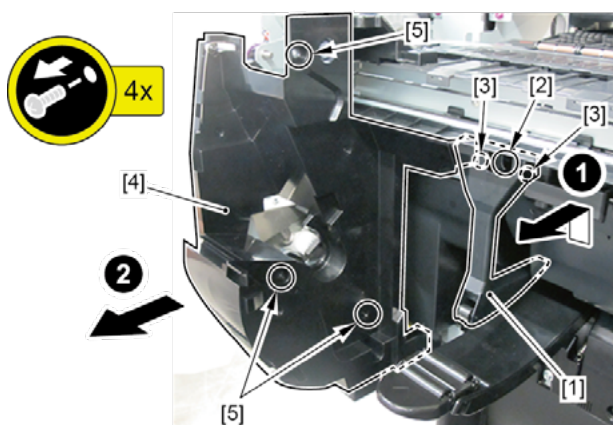
(60" model)

1. Remove [1] FLAPPER SEPARATE UNIT.

- [2]: 1 screw
- [3]: 2 bosses

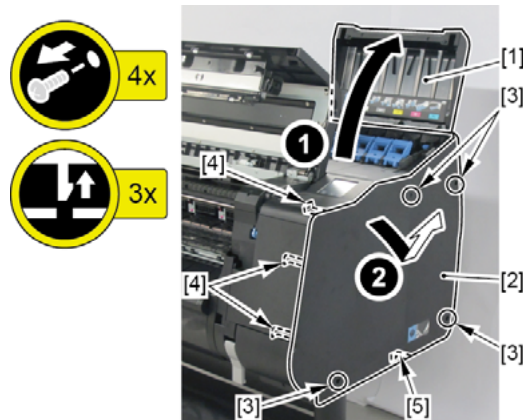
2. Remove [4] HOLDER, SPOOL SIDE L.

- [5]: 3 screws

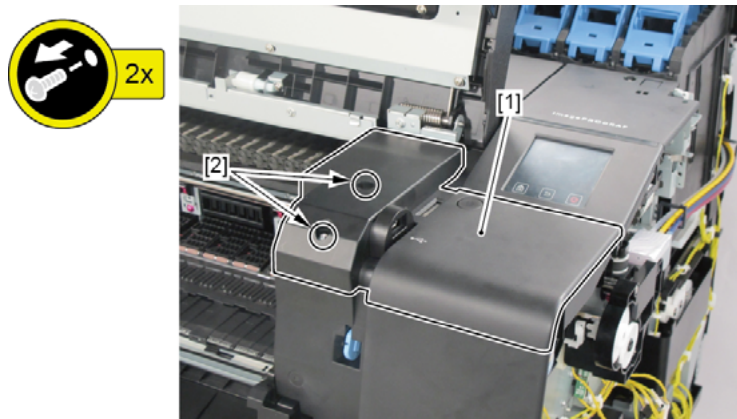


## E

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 screws
  - [4]: 3 claws
  - [5]: 1 hook

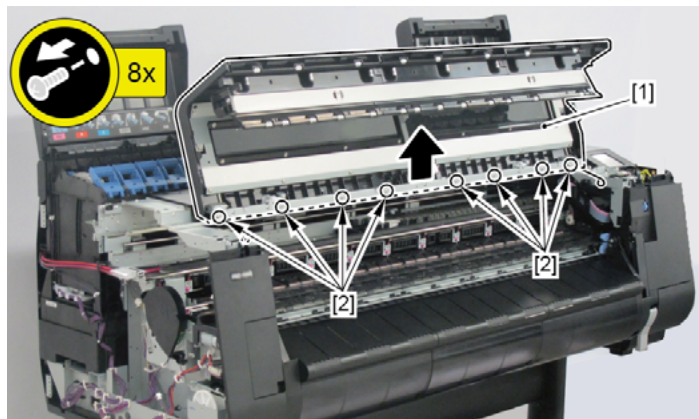


4. Remove [1] COVER, FRONT TOP R.
  - [2]: 2 screws



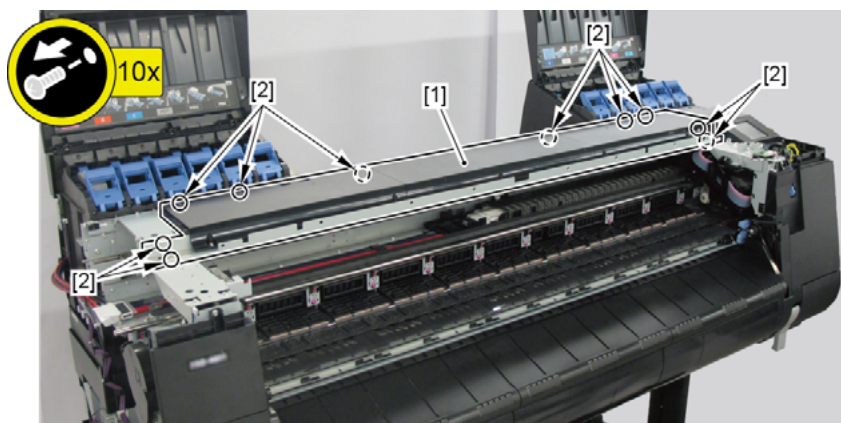
5. Remove [1] ACCESS COVER UNIT with holding the handles.

- [2]: 8 screws (5 screws in 24" model, 10 screws in 60" model)

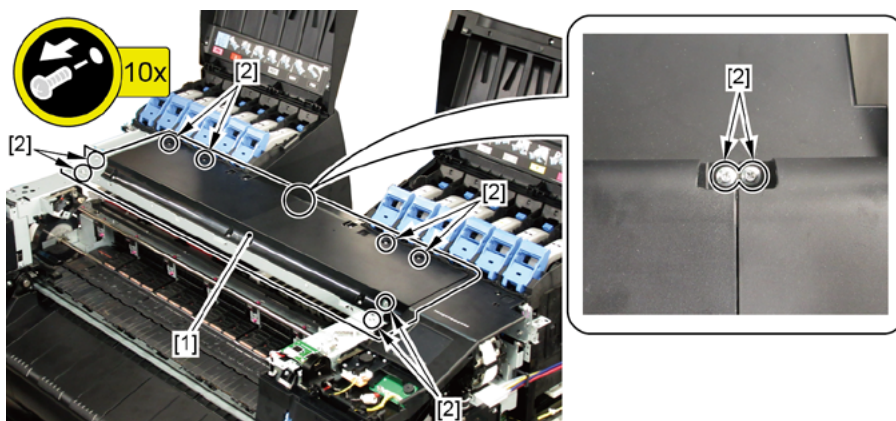


6. Remove [1] COVER UNIT, BACK TOP CENTER.

- [2]: 10 screws (11 screws in 60" model) (44" model)



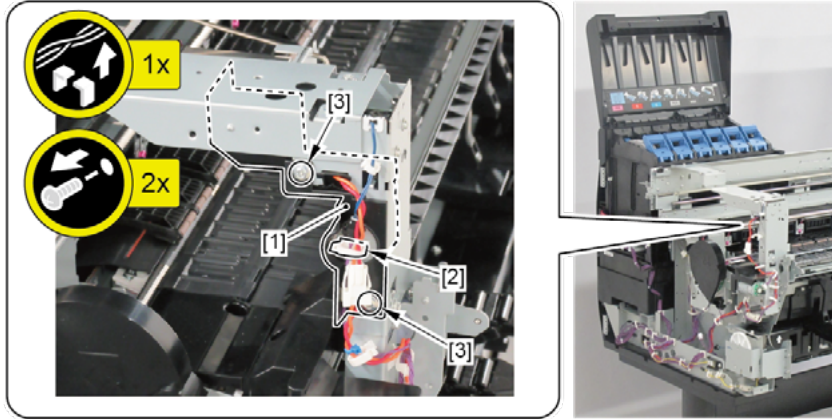
(24" model)



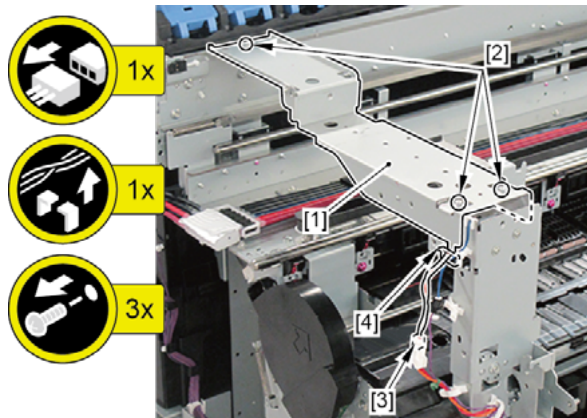


F

1. Remove all the parts of Groups A, D, and E.
2. Remove [1] the inner cover.
  - [2]: 1 wire saddle
  - [3]: 2 screws

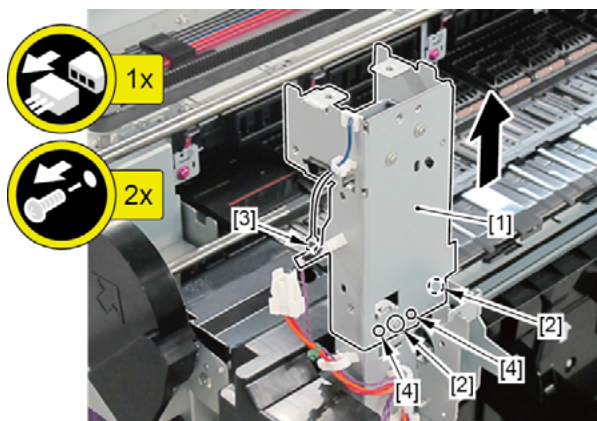


3. Remove [1] the plate.
  - [2]: 3 screws
  - [3]: 1 connector
  - [4]: 1 edge saddle



#### 4. Remove [1] the plate (with the following parts):

- SPRING, LOCK
- LOCK LEVER, ACCESS COVER L
- SOLENOID
- [2]: 2 screws
- [3]: 1 connector
- [4]: 2 bosses



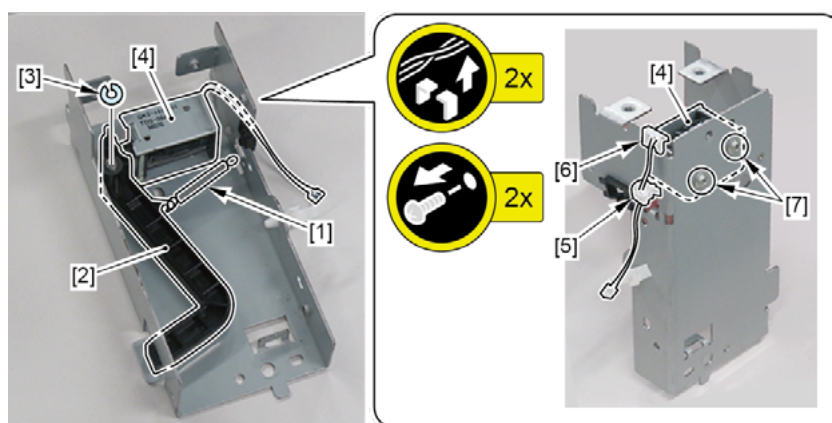
#### 5. Remove [1] SPRING, LOCK.

#### 6. Remove [2] LOCK LEVER, ACCESS COVER L.

- [3]: 1 CUT WASHER

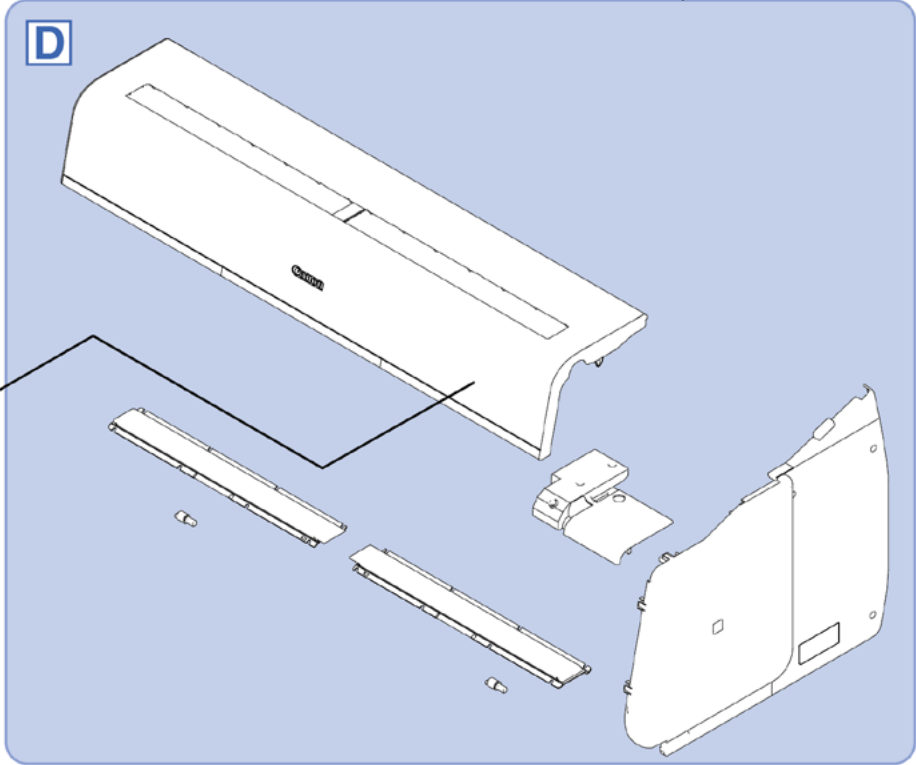
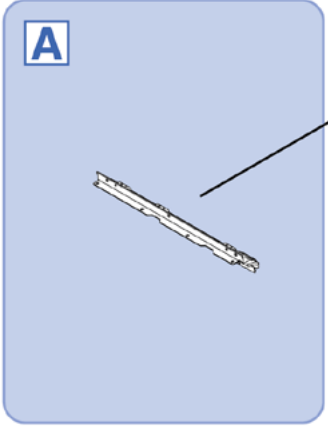
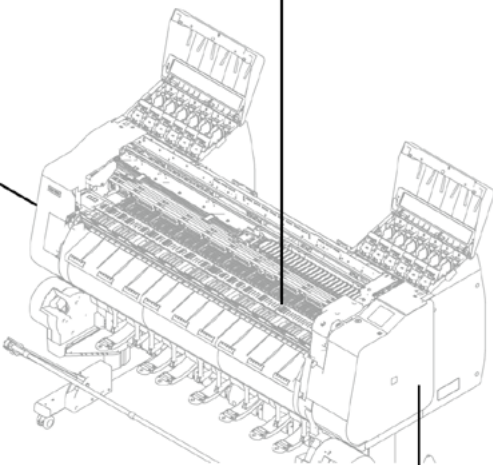
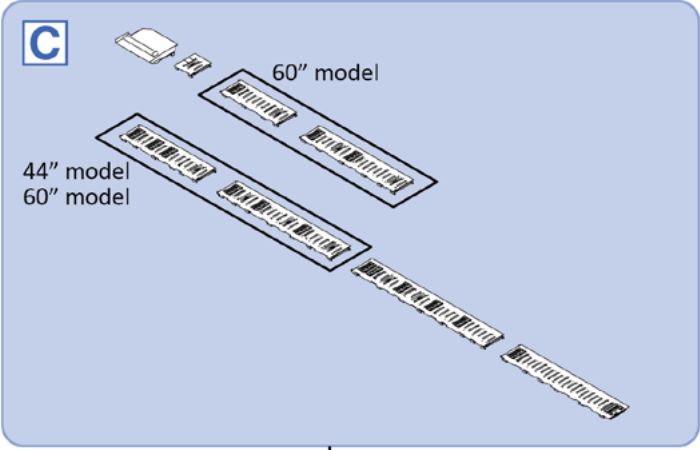
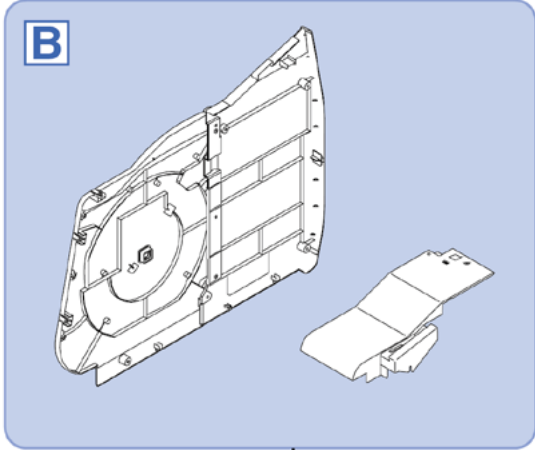
#### 7. Remove [4] SOLENOID.

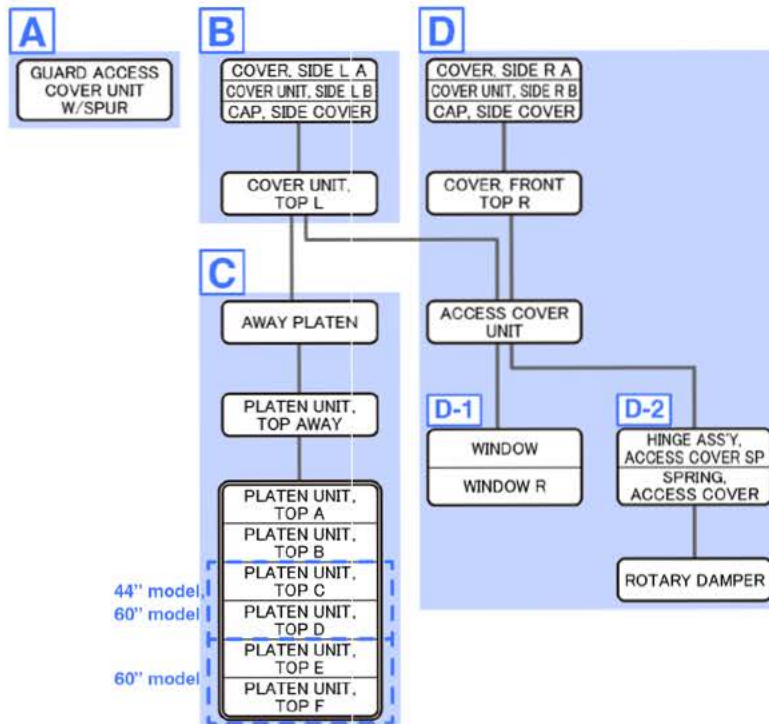
- [5]: 1 wire saddle
- [6]: 1 edge saddle
- [7]: 2 screws





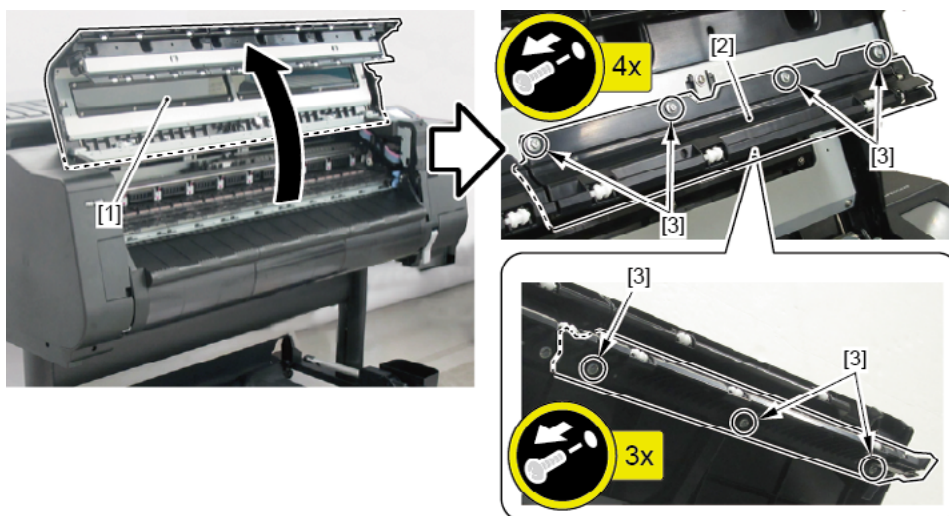
# 4. ACCESS COVER





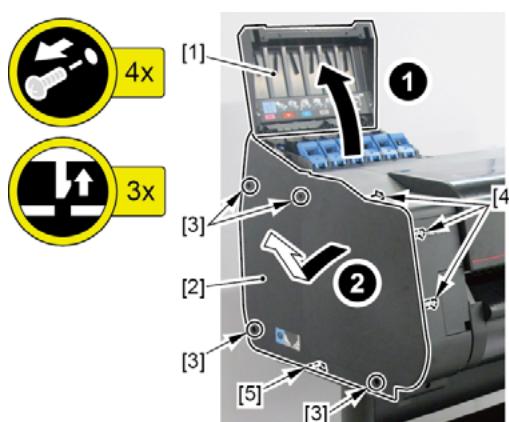
## A

1. Open [1] the access cover.
2. Remove [2] GUARD ACCESS COVER UNIT W/SPUR.
  - [3]: 7 screws

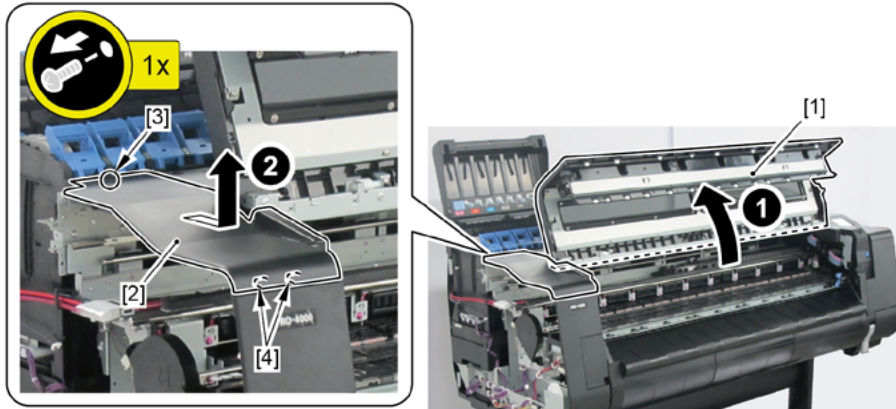


## B

1. Open [1] the left ink tank cover.
2. Remove [2] a set of
  - COVER SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.
  - [3]: 4 screws
  - [4]: 3 claws
  - [5]: 1 hook

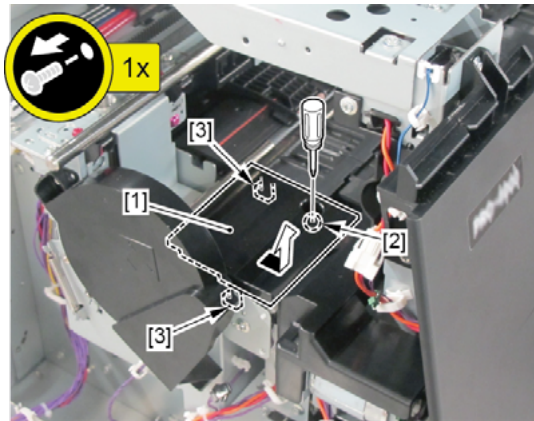


3. Open [1] the access cover.
4. Remove [2] COVER UNIT, TOP L.
  - [3]: 1 screw
  - [4]: 2 hooks



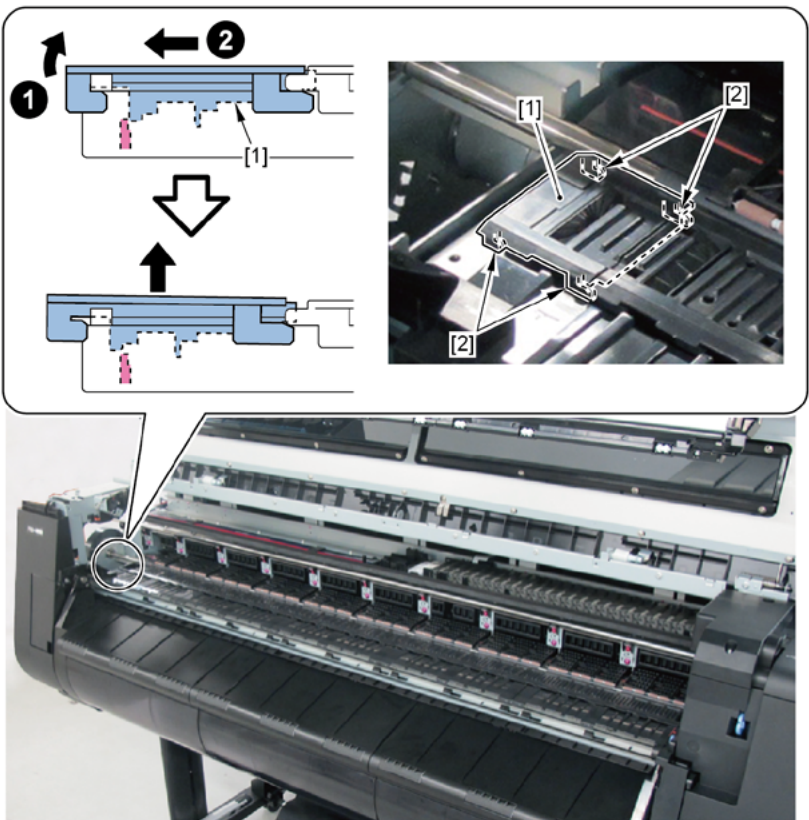
## C

1. Remove all the parts of Group B.
2. Remove [1] AWAY PLATEN.
  - [2]: 1 screw (Use a stubby screwdriver.)
  - [3]: 2 hooks



### 3. Remove [1] PLATEN UNIT, TOP AWAY.

- [2]: 4 hooks



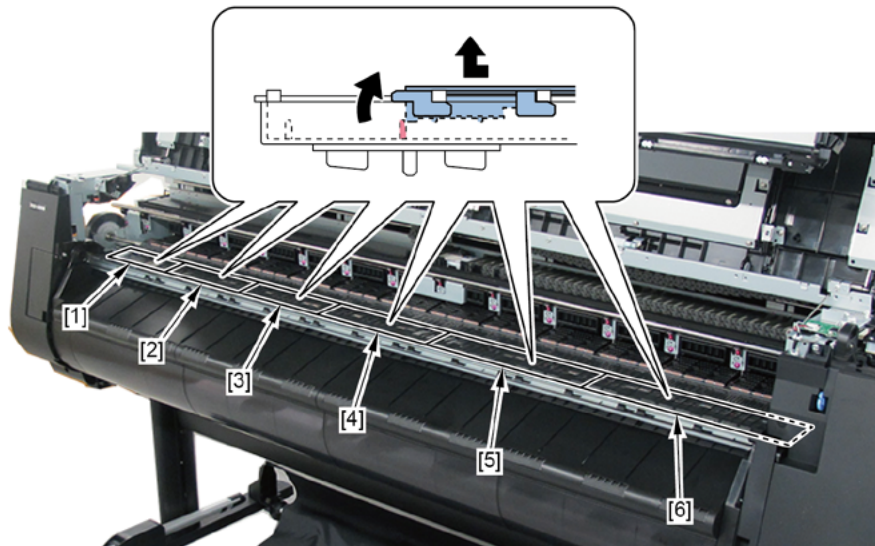


## 4. Remove

- [1] PLATEN UNIT, TOP F
- [2] PLATEN UNIT, TOP E
- [3] PLATEN UNIT, TOP D
- [4] PLATEN UNIT, TOP C
- [5] PLATEN UNIT, TOP B, and
- [6] PLATEN UNIT, TOP A.

The Number of Hooks by each PLATEN UNIT, TOP A to F

	PLATEN UNIT, TOP					
	A[6]	B[5]	C[4]	D[3]	E[2]	F[1]
The Number of Hooks	12	16	14	12	12	8
24" Model	Yes	Yes	-	-	-	-
44" Model	Yes	Yes	Yes	Yes	-	-
60" Model	Yes	Yes	Yes	Yes	Yes	Yes



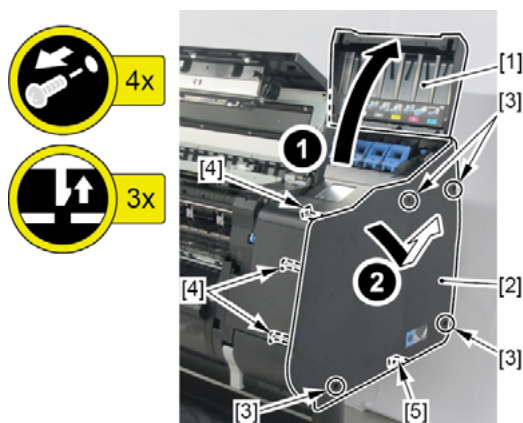
### Notes when assembling the unit:

Perform adjustment at the end of assembly.

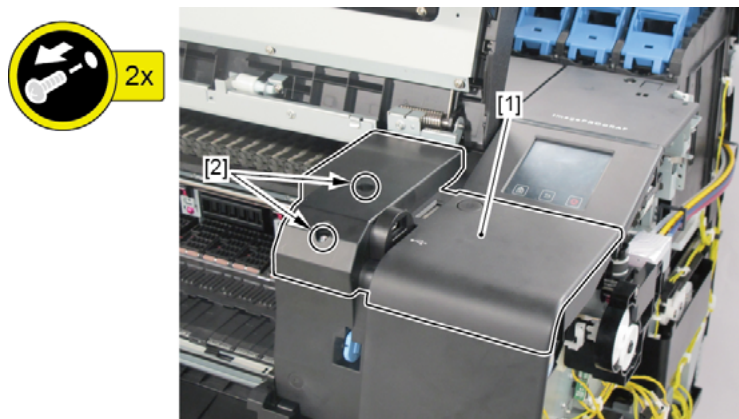
[SERVICE MODE > ADJUSTMENT > CR REG]

## 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 screws
  - [4]: 3 claws
  - [5]: 1 hook

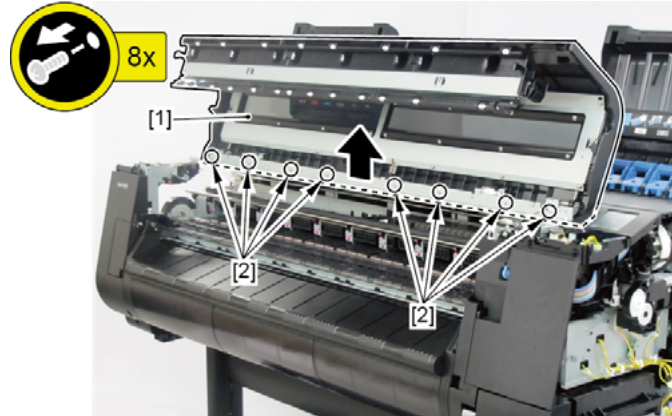


4. Remove [1] COVER, FRONT TOP R.
  - [2]: 2 screws



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

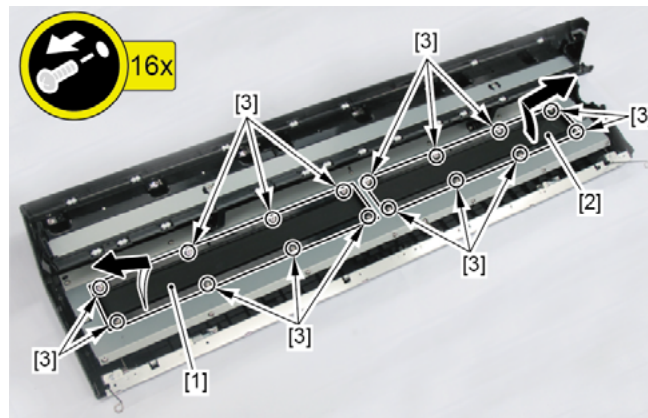
- [2]: 8 screws (5 screws in 24" model, 10 screws in 60" model)



### D-1

## 6. Remove [1] WINDOW and [2] WINDOW R.

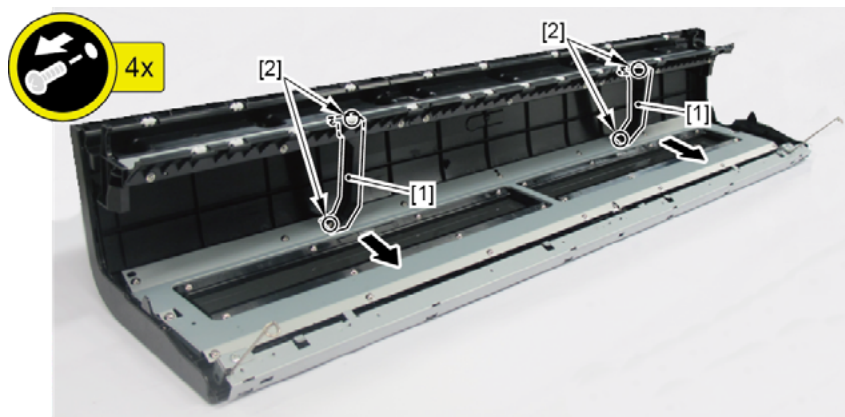
- [3]: 8 screws each



### D-2 (24" model, 44" model)

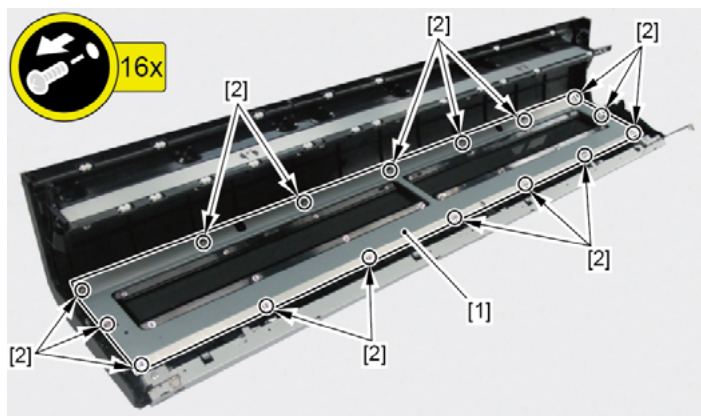
## 6. Remove [1] two handles.

- [2]: 2 screws each



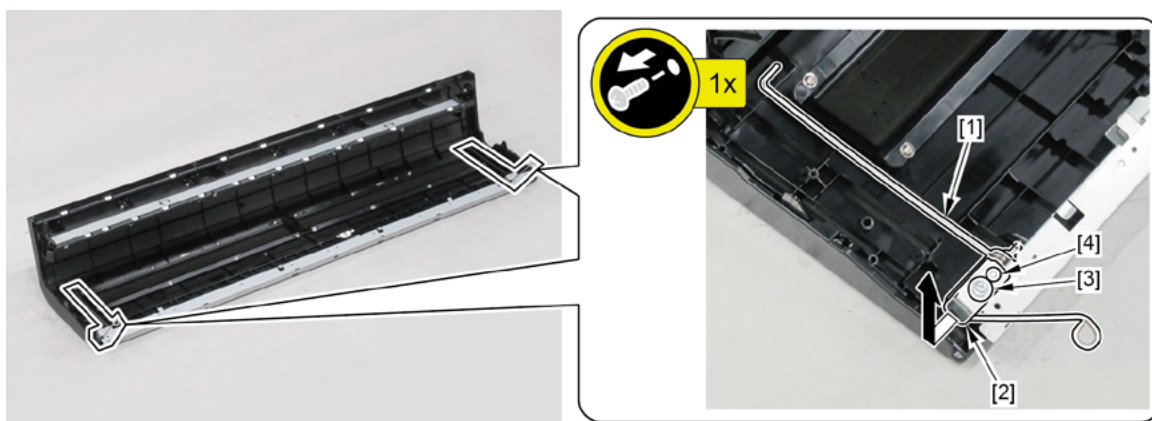
## 7. Remove [1] the plate.

- [2]: 16 screws (12 screws in 24" model)



## 8. Remove [1] two springs (with the shaft plate).

- [2]: 1 screw each
- [3]: 1 boss each

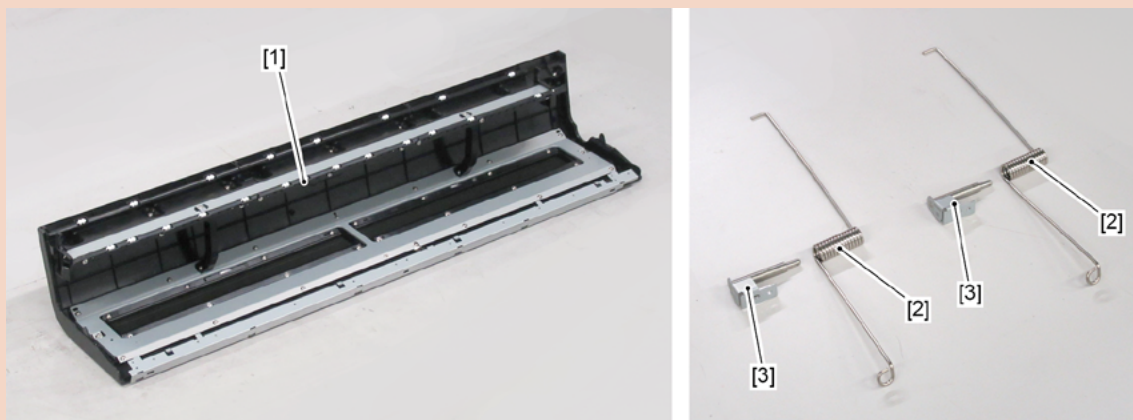


### Notes when replacing ACCESS COVER UNIT:

[2] SPRING, ACCESS COVER and [3] HINGE ASS'Y, ACCESS COVER SP are not included in [1] ACCESS COVER UNIT S.

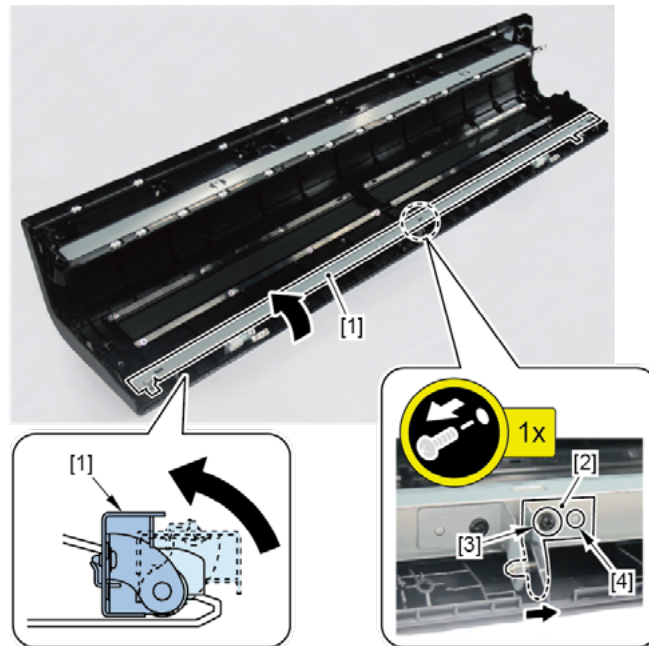
When replacing ACCESS COVER UNIT, detach SPRING, ACCESS COVER, and HINGE ASS'Y, ACCESS COVER SP from the removed old ACCESS COVER UNIT. Attach the detached SPRING, ACCESS COVER and HINGE ASS'Y, ACCESS COVER SP to a new ACCESS COVER UNIT S.

Point



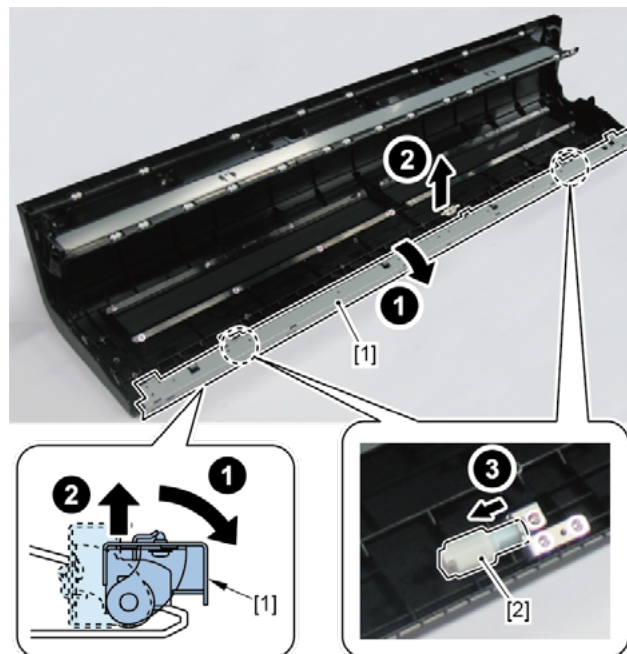
**9.** Turn [1] the plate as shown below and remove [2] the shaft.

- [3]: 1 screw
- [4]: 1 boss



**10.** Return [1] the plate to the original position, then remove it.

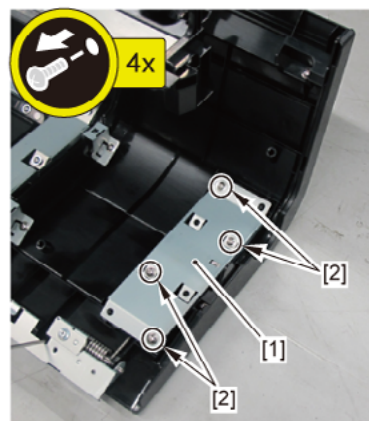
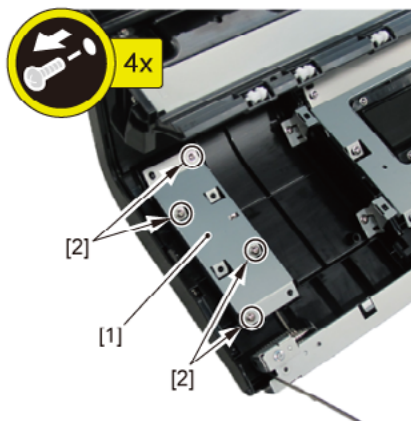
**11.** Remove [2] ROTARY DAMPER.



## D-2 (60" model)

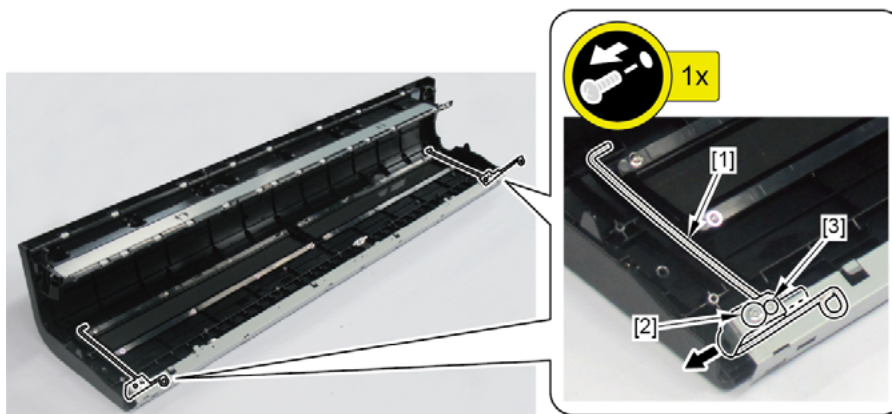
### 6. Remove [1] two plates.

- [2]: 8 screws



### 7. Remove [1] two springs (with the shaft plate).

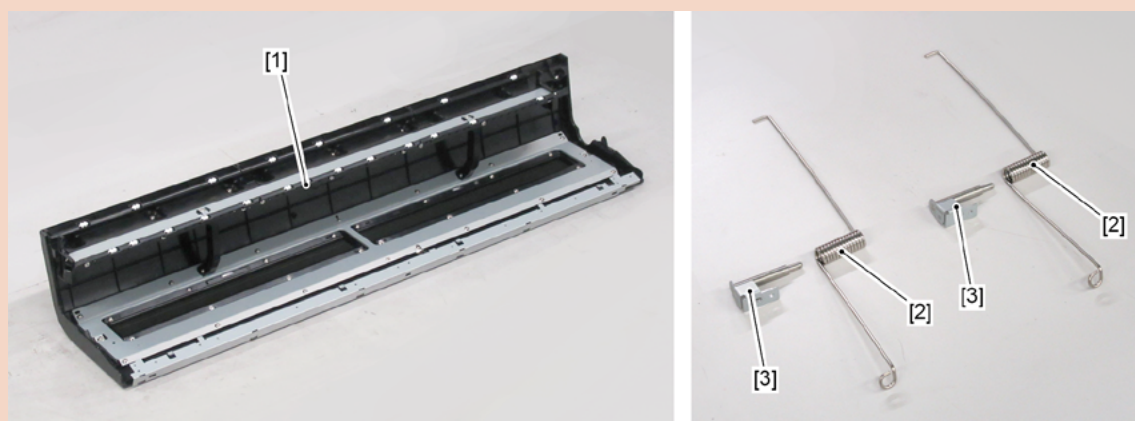
- [2]: 1 screw each
- [3]: 1 boss each



#### 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.



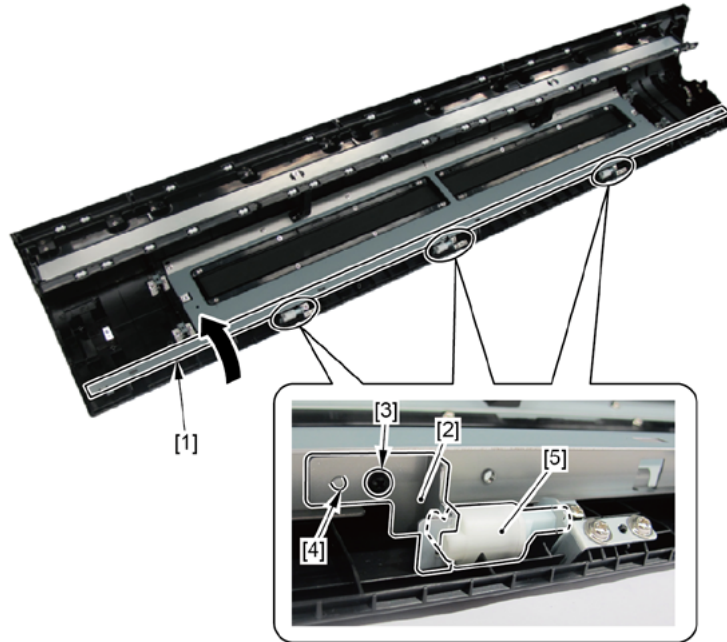
8. Raise [1] the plate in the arrowed direction.

9. Remove [2] the plate.

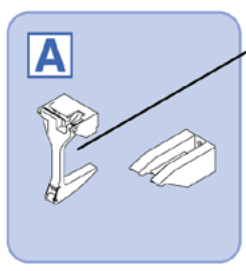
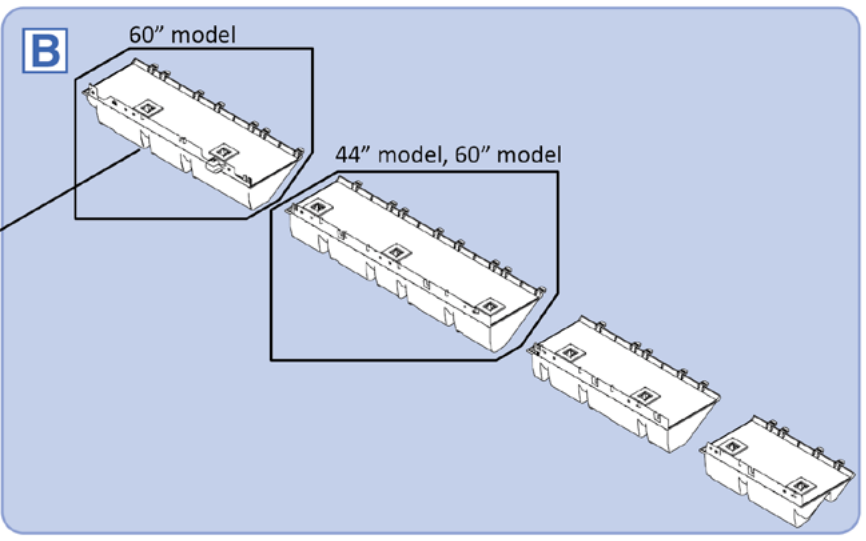
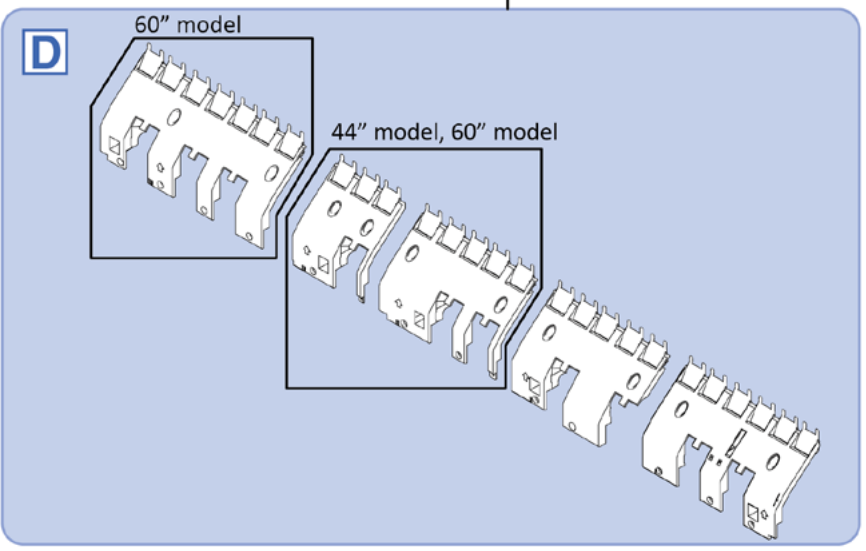
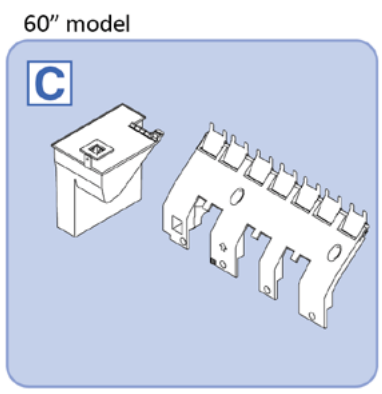
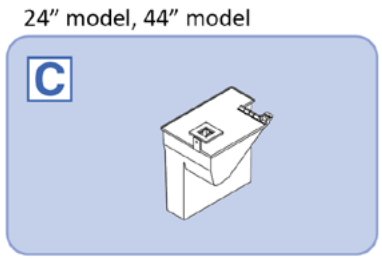
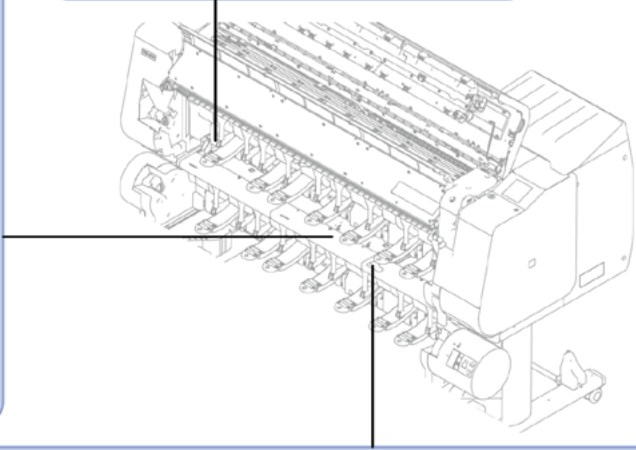
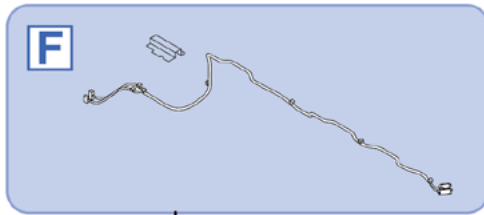
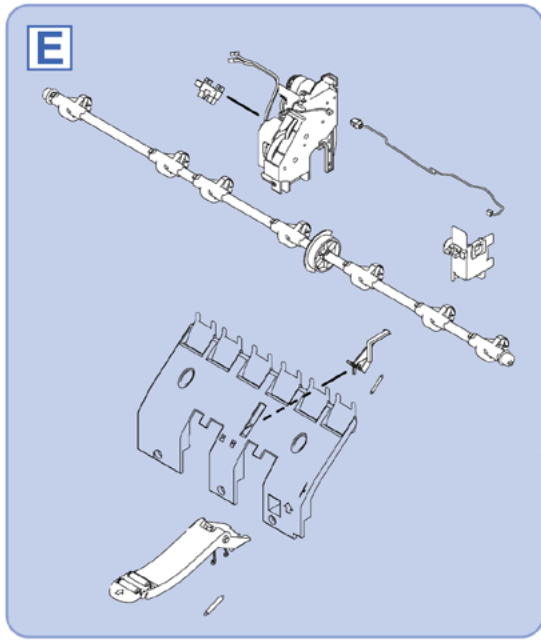
· [3]: 1 screw

· [4]: 1 boss

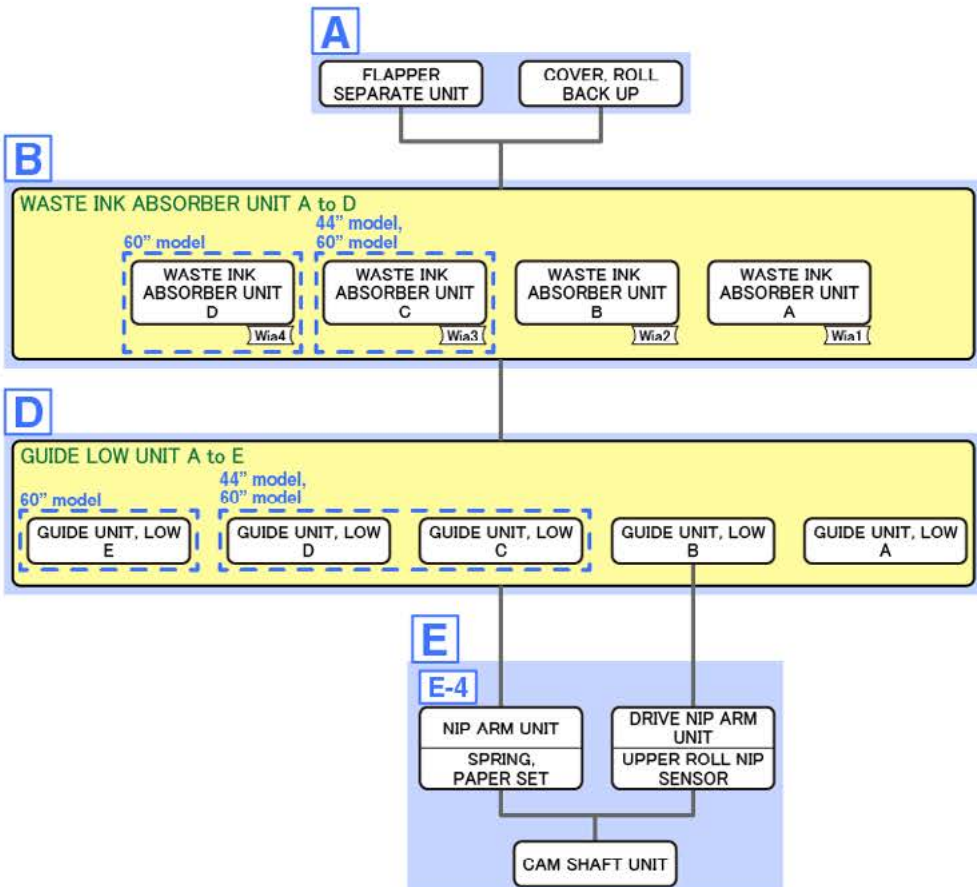
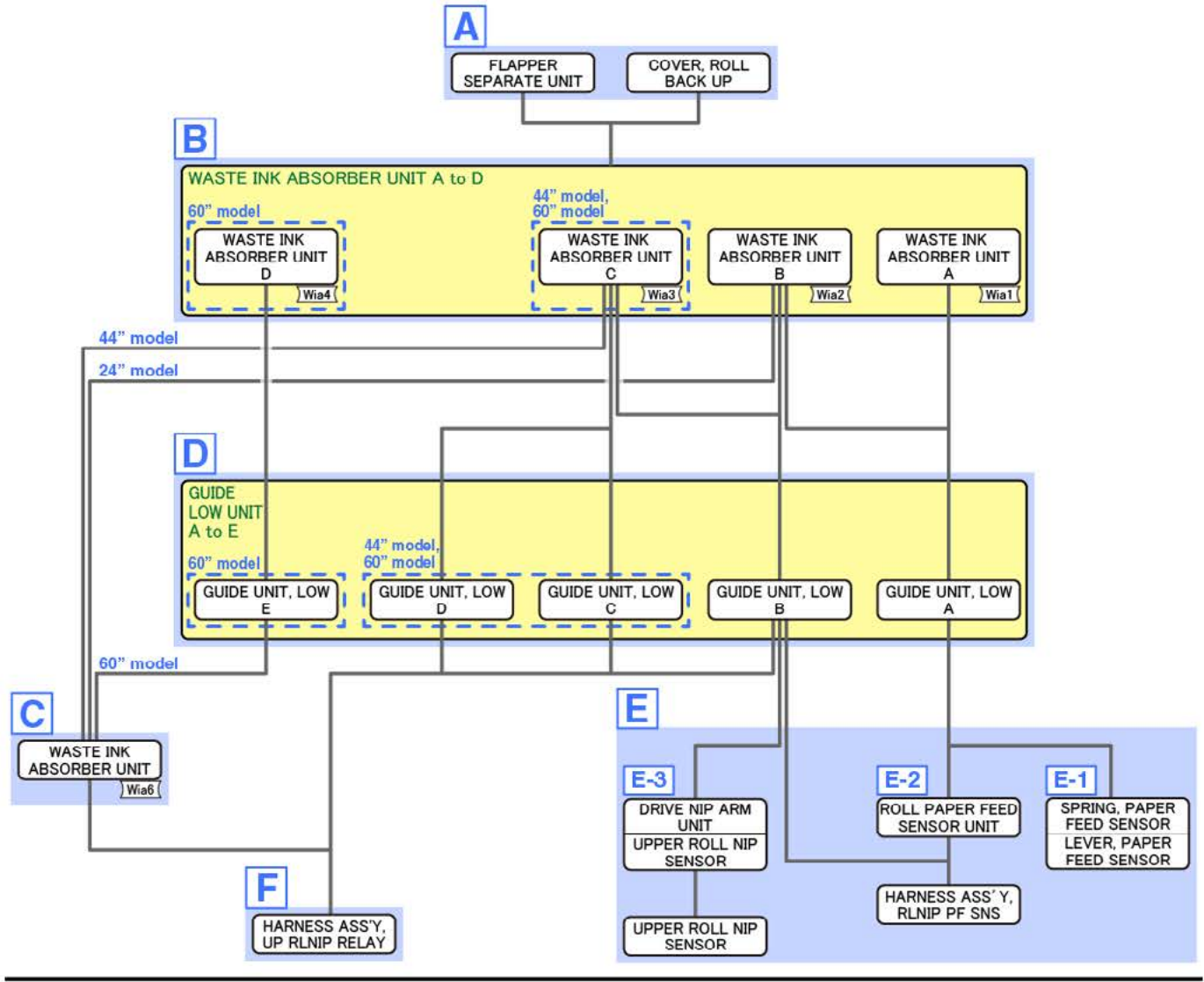
10. Remove [5] ROTARY DAMPER.



# 5. FRONT SIDE 1 (NIP ARM UNIT, WASTE INK ABSORBER)

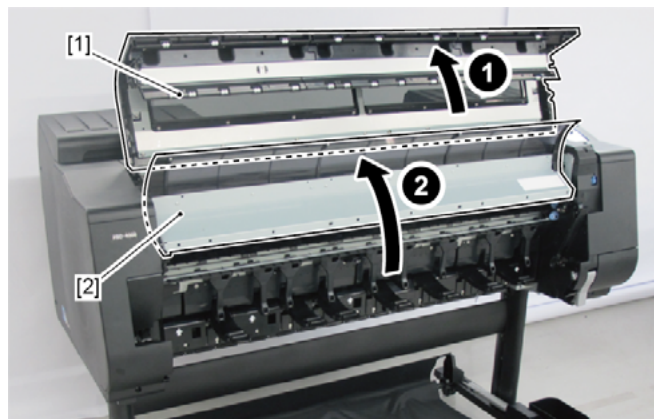




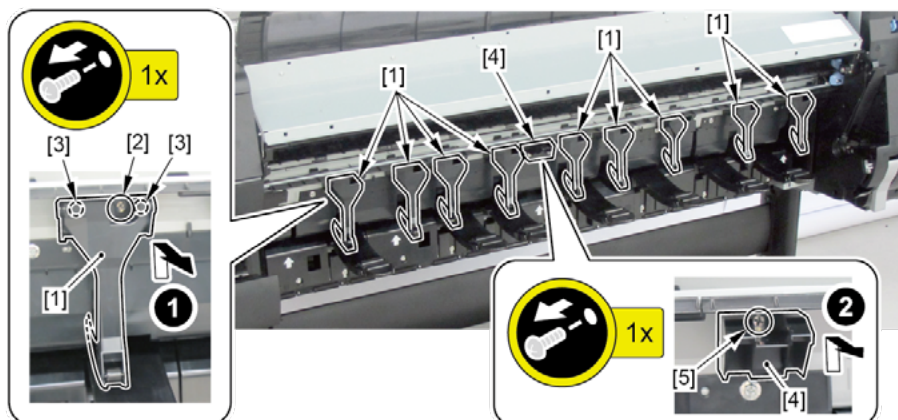


A

1. Open [1] the access cover.
2. Open [2] the roll cover.

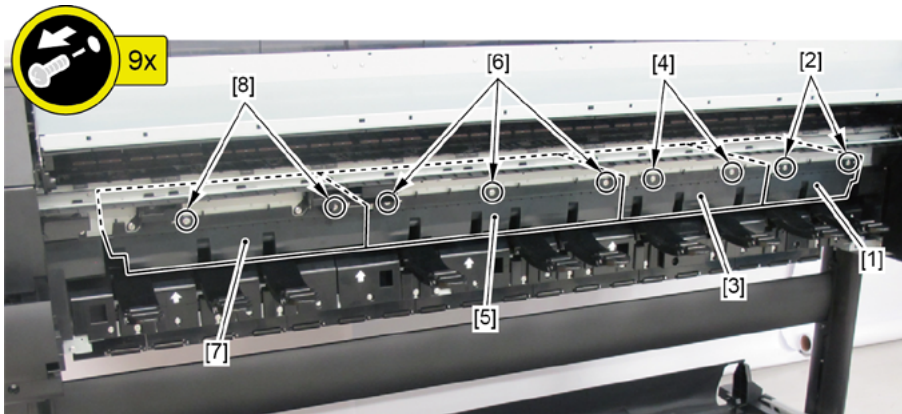


3. Remove nine pieces of [1] FLAPPER SEPARATE UNIT (five pieces in 24" model, twelve pieces in 60" model).
  - [2]: 1 screw each
  - [3]: 2 bosses each
4. Remove [4] COVER, ROLL BACK UP (not applicable to 24" model, two pieces in 60" model).
  - [5]: 1 screw each



## B

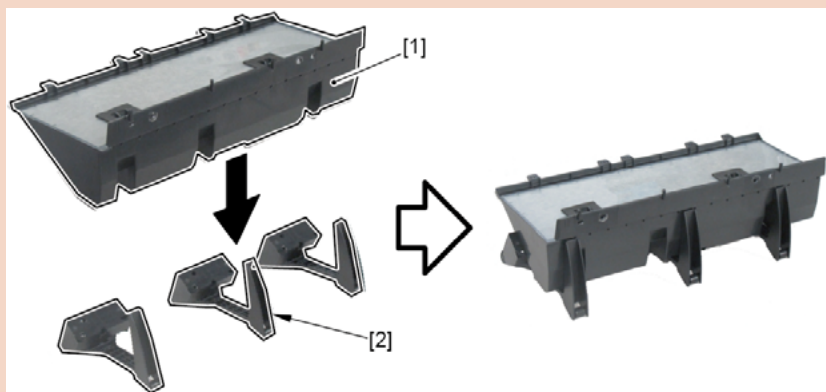
1. Remove all the parts of Group A.
2. Remove [1] WASTE INK ABSORBER UNIT A.
  - [2]: 2 screws
3. Remove [3] WASTE INK ABSORBER UNIT B.
  - [4]: 2 screws
4. Remove [5] WASTE INK ABSORBER UNIT C (not applicable to 24" model).
  - [6]: 3 screws
5. Remove [7] WASTE INK ABSORBER UNIT D (not applicable to 24" model and 44" model).
  - [8]: 2 screws

**Points of disassembly:**

- When removing GUIDE UNIT, LOW A to E or INK ABSORBER UNIT individually, remove only the corresponding WASTE INK ABSORBER UNIT A, B, C, or D, described in "remove" in the list.

	WASTE INK ABSORBER UNIT A	WASTE INK ABSORBER UNIT B	WASTE INK ABSORBER UNIT C	WASTE INK ABSORBER UNIT D
GUIDE UNIT, LOW A	remove	remove	-	-
GUIDE UNIT, LOW B	-	remove	remove	-
GUIDE UNIT, LOW C	-	-	remove	-
GUIDE UNIT, LOW D	-	-	remove	-
GUIDE UNIT, LOW E	-	-	-	remove
WASTE INK ABSORBER UNIT	-	remove (24")	remove (44")	remove (60")

- To prevent ink leakage from the absorber, place the removed [1] WASTE INK ABSORBER with [2] FLAPPER, SEPARATE fitted in place as shown below.



Point



### Notes when the unit is replaced:

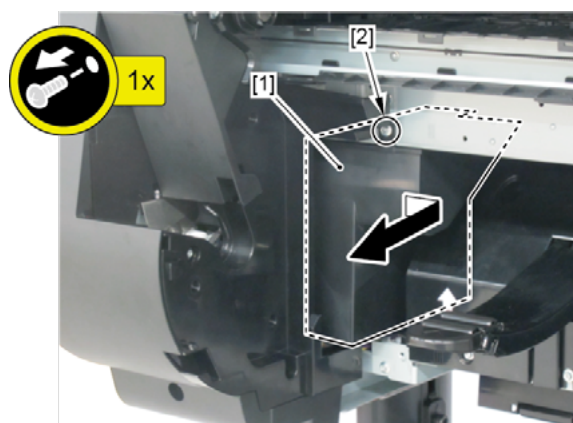
Reset the applicable counter when the unit is replaced:

- 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 D  
[SERVICE MODE > PARTS COUNTER > Wia4]

## C

(24" model, 44" model)

1. Remove all the parts of Groups A and B.
2. Remove [1] WASTE INK ABSORBER UNIT.
  - [2]: 1 screw



### Notes when the unit is replaced:

Reset the counter when the unit is replaced.

24" model

- WASTE INK ABSORBER UNIT

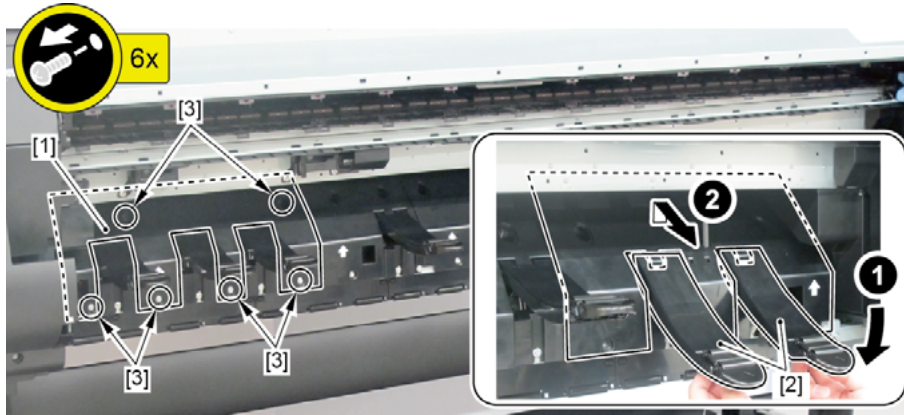
44" model

- WASTE INK ABSORBER UNIT & C S (a Set of WASTE INK ABSORBER UNIT and WASTE INK ABSORBER UNIT C)

[SERVICE MODE > PARTS COUNTER > Wia6]

(60" model)

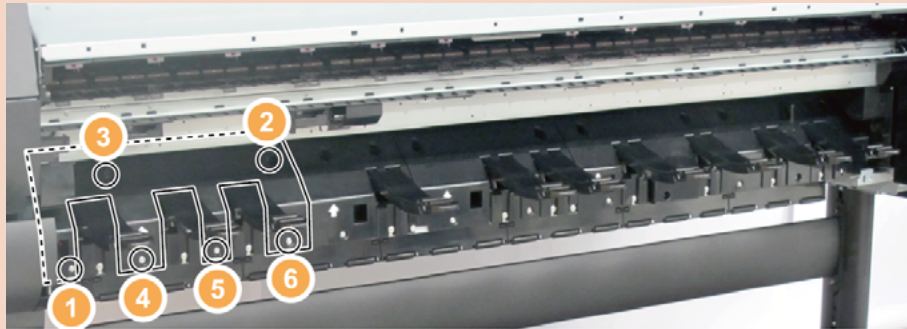
1. Remove all the parts of Groups A and B.
2. Push down [2] NIP ARM UNIT and remove [1] GUIDE UNIT, LOW E.
  - [3]: 6 screws



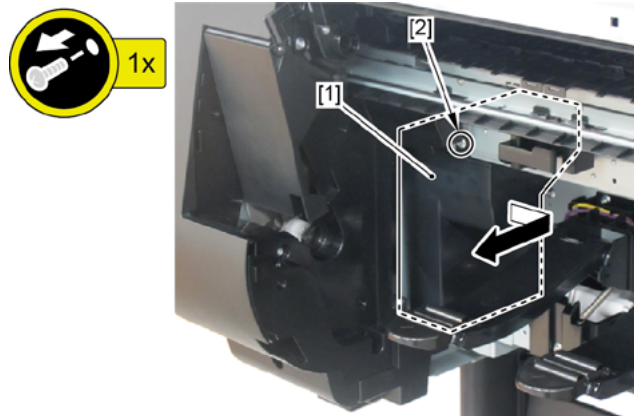
**Notes when assembling the unit:**

Tighten the screws in the order of numbers shown below.

Point



3. Remove [1] WASTE INK ABSORBER UNIT.
  - [2]: 1 screw



**Notes when the unit is replaced:**

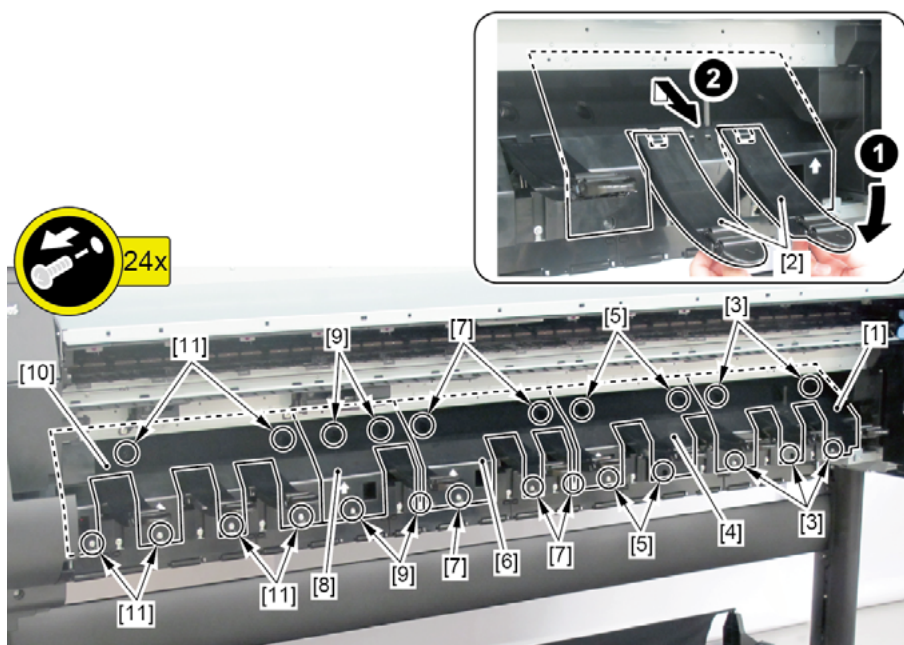
Reset the counter when the unit is replaced.

[SERVICE MODE > PARTS COUNTER > Wia6]

Point

## 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]: 5 screws
3. Push down [2] NIP ARM UNIT and remove [4] GUIDE UNIT, LOW B.
  - [5]: 4 screws
4. Push down [2] NIP ARM UNIT and remove [6] GUIDE UNIT, LOW C (not applicable to 24" model).
  - [7]: 5 screws
5. Push down [2] NIP ARM UNIT and remove [8] GUIDE UNIT, LOW D (not applicable to 24" model).
  - [9]: 4 screws
6. Push down [2] NIP ARM UNIT and remove [10] GUIDE UNIT, LOW E (not applicable to 24" model and 44" model).
  - [11]: 6 screws

**Points of disassembly:**

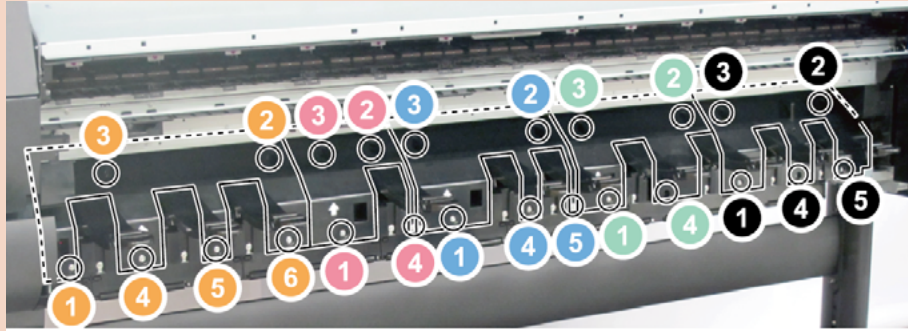
- When removing SPRING, PAPER FEED SENSOR / LVER, PAPER FEED SENSOR / ROLL PAPER FEED SENSOR UNIT / HARNESS ASS' Y, RLNIP PF SNS / DRIVE NIP ARM UNIT / UPPER ROLL NIP SENSOR / HARNESS ASS' Y, UP RLNIP RELAY / CAM SHAFT UNIT individually, it is necessary to remove GUIDE UNIT, LOW A to E indicated as "remove" in the list.



	GUIDE UNIT, LOW A	GUIDE UNIT, LOW B	GUIDE UNIT, LOW C	GUIDE UNIT, LOW D	GUIDE UNIT, LOW E
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	remove
CAM SHAFT UNIT	remove	remove	remove	remove	remove

**Notes when assembling the unit:**

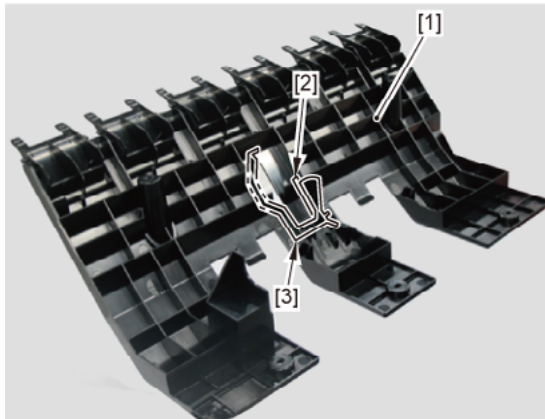
Tighten the screws in the order of numbers shown below.

**E**

1. Remove all the parts of Groups A, B, and D.

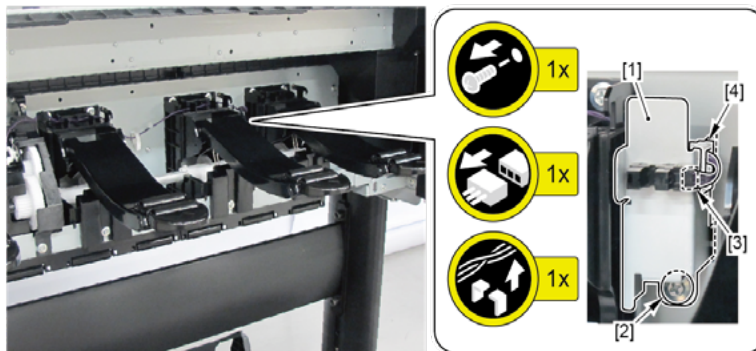
**E-1**

2. From [1] GUIDE UNIT, LOW A, remove [2] SPRING, PAPER FEED SENSOR and [3] LEVER, PAPER FEED SENSOR.

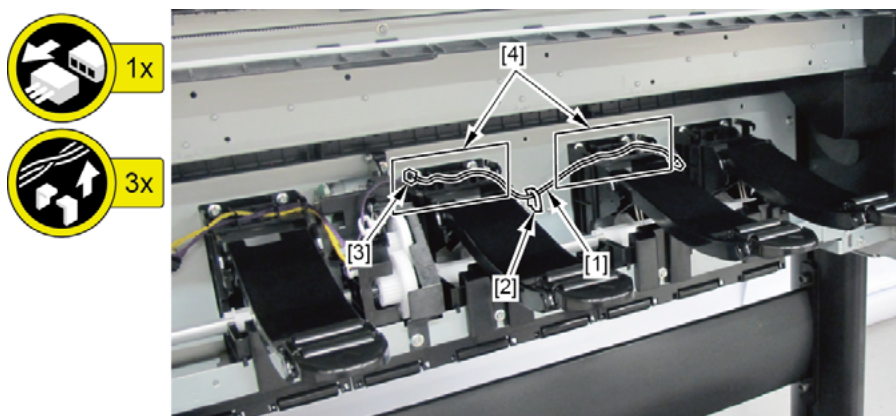


**E-2****2.** Remove [1] ROLL PAPER FEED SENSOR UNIT.

- [2]: 1 screw
- [3]: 1 connector
- [4]: 1 edge saddle

**3.** Disconnect [1] HARNESS ASS'Y, RLNIP PF SNS.

- [2]: 1 wire saddle
- [3]: 1 connector
- [4]: Cable guides in two areas

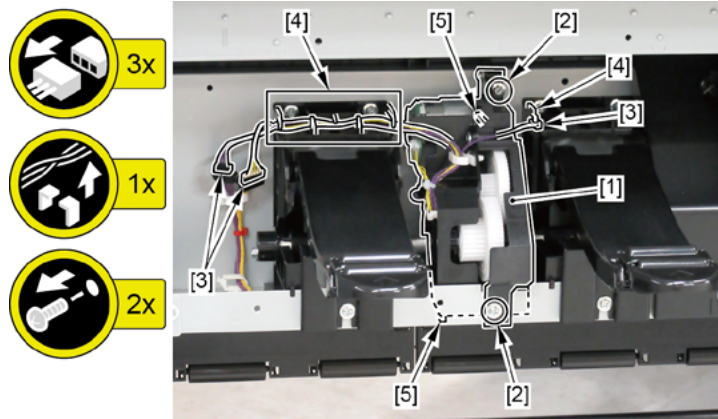




## E-3

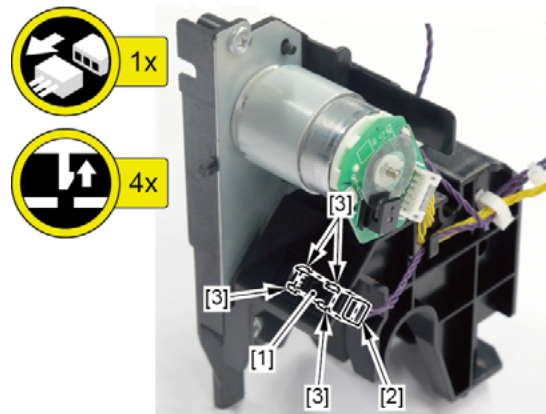
### 2. Remove [1] DRIVE NIP ARM UNIT.

- [2]: 2 screws
- [3]: 3 connectors
- [4]: Cable guide in one area
- [5]: 2 protrusions



### 3. Remove [1] UPPER ROLL NIP SENSOR.

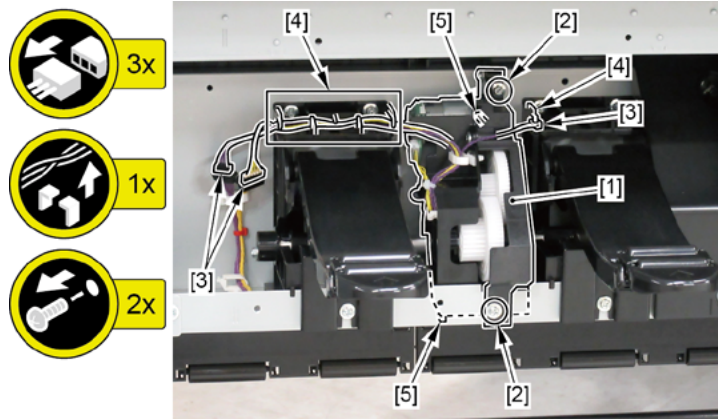
- [2]: 1 connector
- [3]: 4 claws



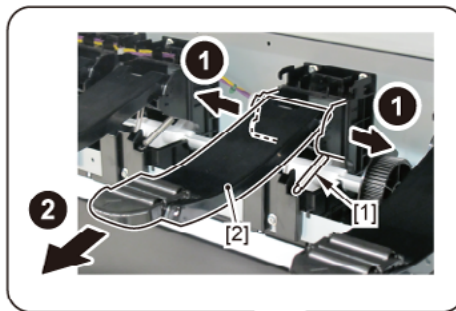
**E-4**

2. Remove [1] DRIVE NIP ARM UNIT.

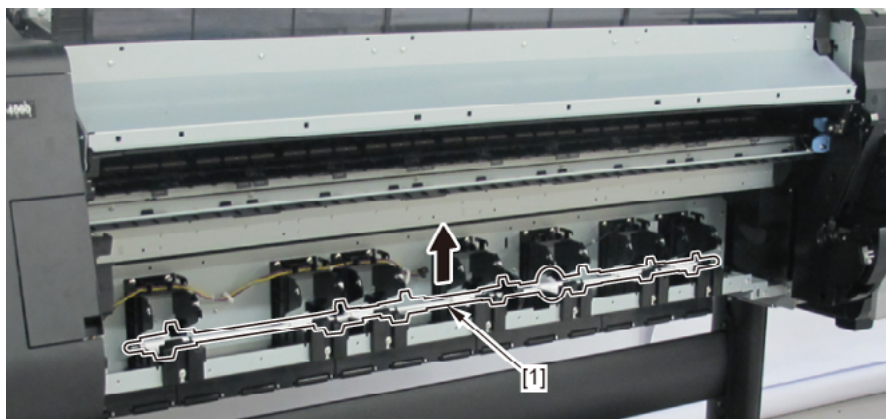
- [2]: 2 screws
- [3]: 3 connectors
- [4]: Cable guide in one area
- [5]: 2 protrusions



3. Remove seven pieces each of [1] SPRING, PAPER SET and [2] NIP ARM UNIT (4 pieces each in 24" model, 10 pieces each in 60" model).



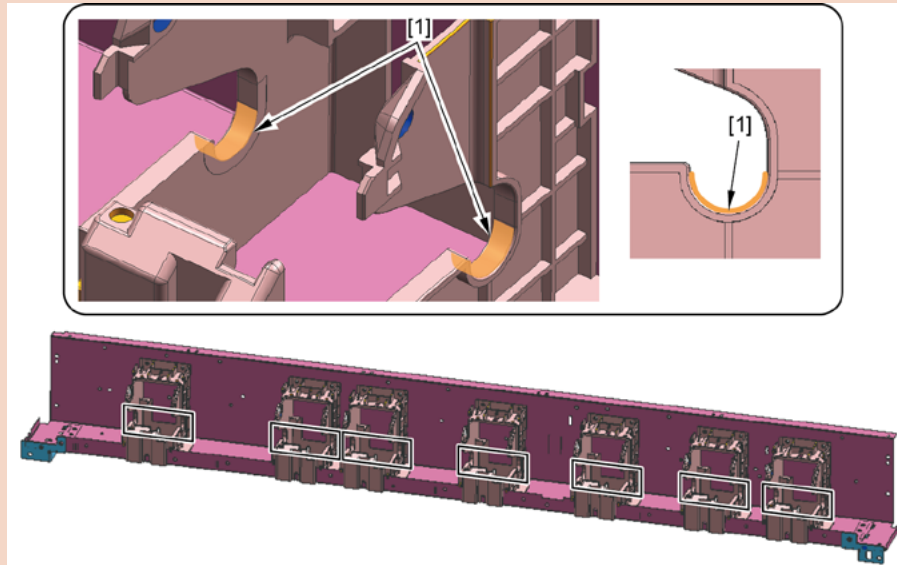
4. Remove [1] CAM SHAFT UNIT.



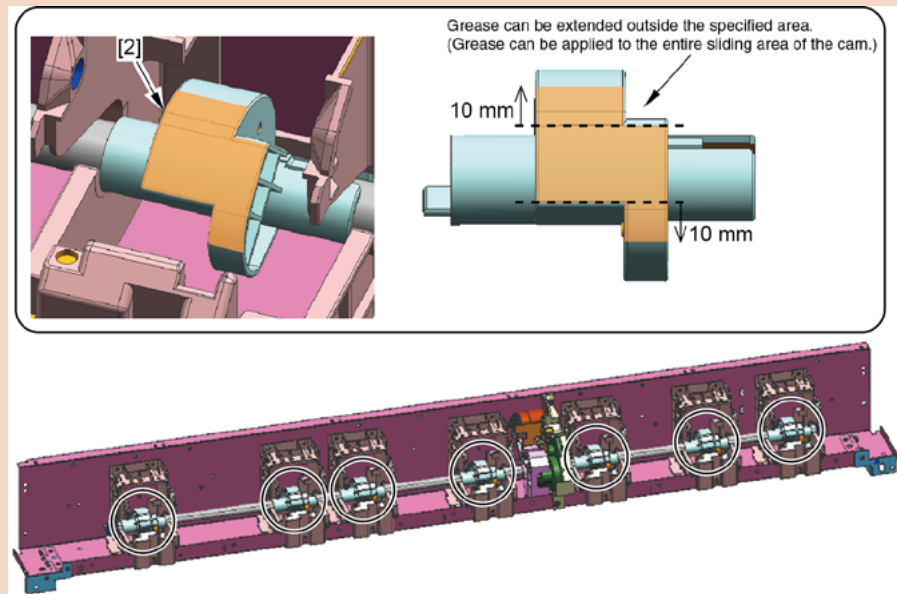
### Notes when the CAM SHAFT UNIT is replaced:

Apply grease to the portions specified below.

- [1]: FLOIL G-31KB, 9 to 18 mg
- [2]: FLOIL G-31KB, 27 to 54 mg

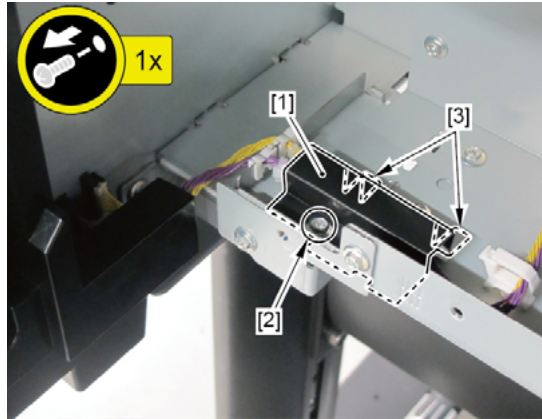


Point



## F

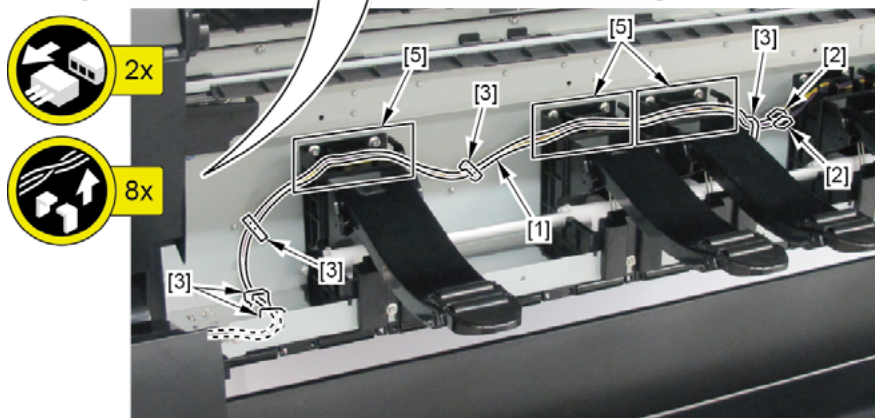
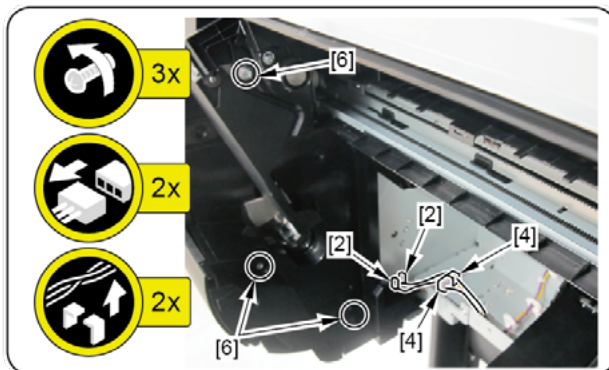
1. Remove all the parts of Groups A, B, C, and D.
2. Remove [1] the cable cover.
  - [2]: 1 screw
  - [3]: 2 hooks



3. Disconnect [1] HARNESS ASS'Y, UP RLNIP RELAY.

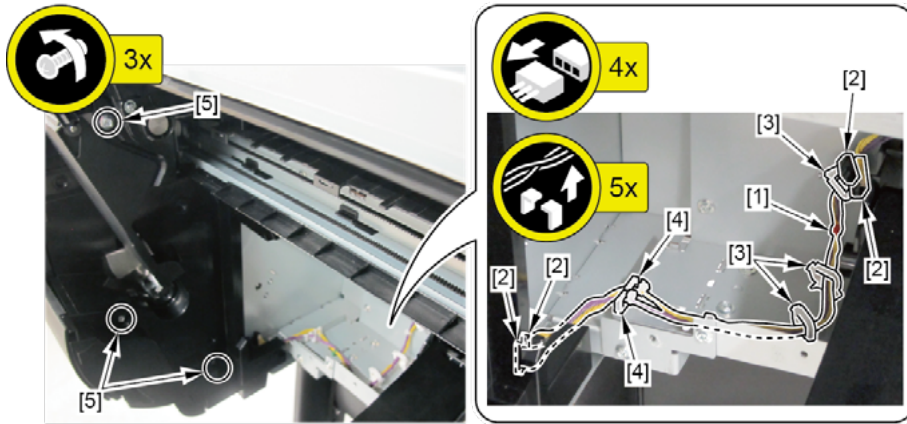
(44" model)

- [2]: 4 connectors
- [3]: 5 wire saddles
- [4]: 2 edge saddles
- [5]: Cable guides in three areas
- [6]: 3 screws (Loosen them.)



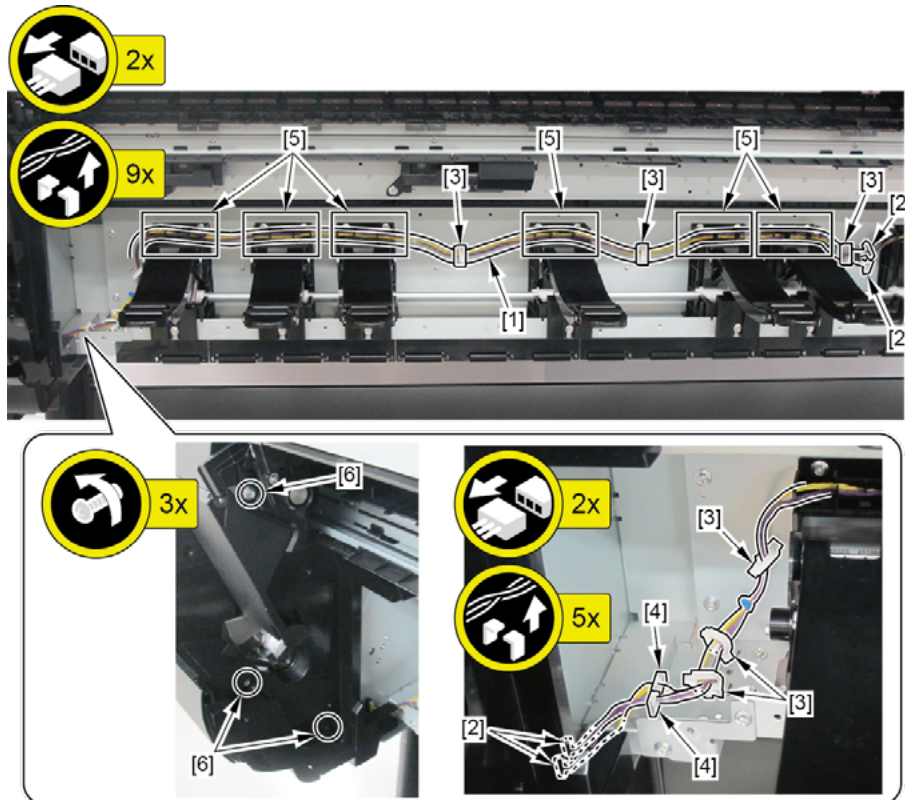
(24" model)

- [2]: 4 connectors
- [3]: 3 wire saddles
- [4]: 2 edge saddles
- [5]: 3 screws (Loosen them.)

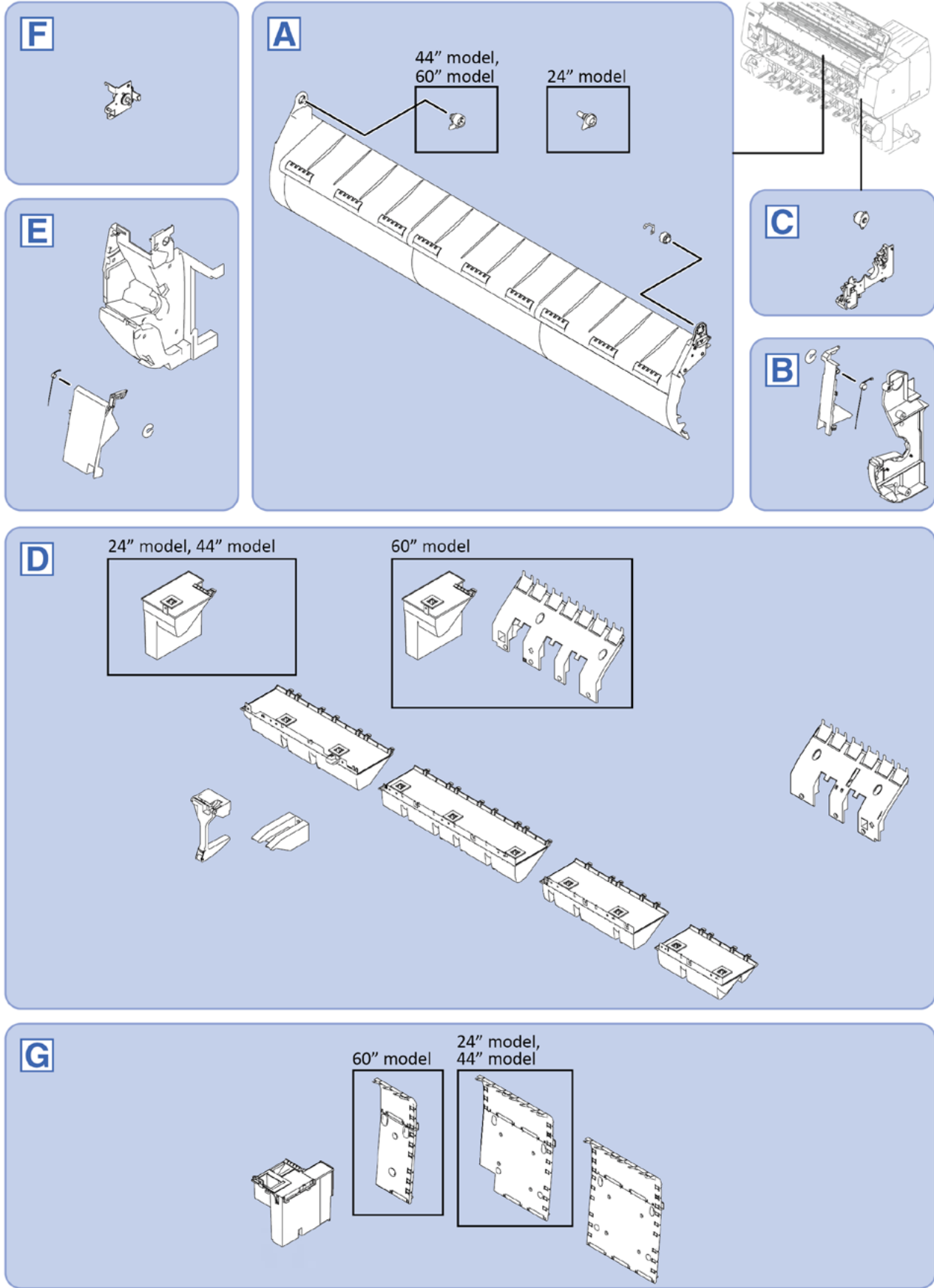


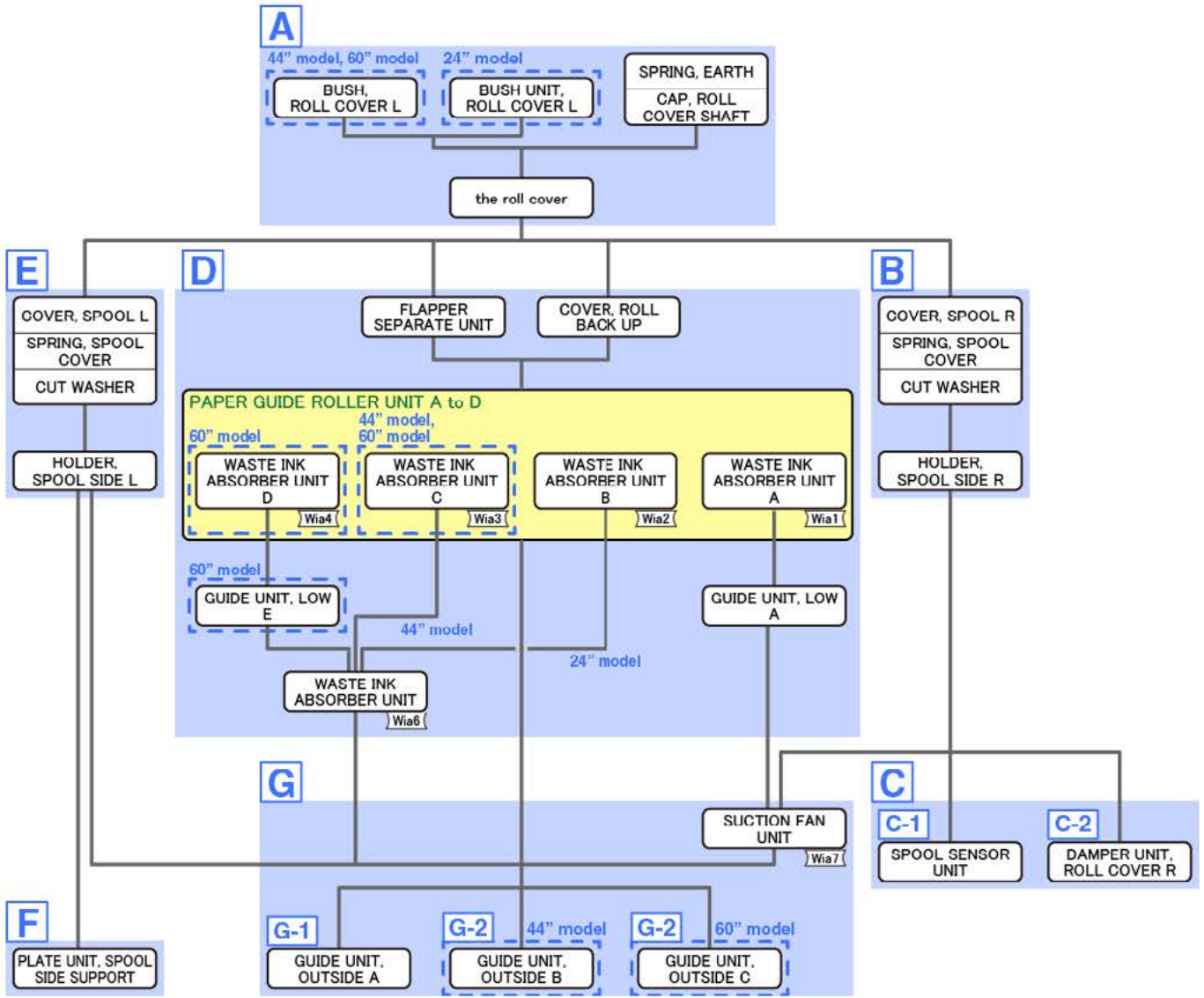
(60" model)

- [2]: 4 connectors
- [3]: 6 wire saddles
- [4]: 2 edge saddles
- [5]: Cable guides in six areas
- [6]: 3 screws (Loosen them.)



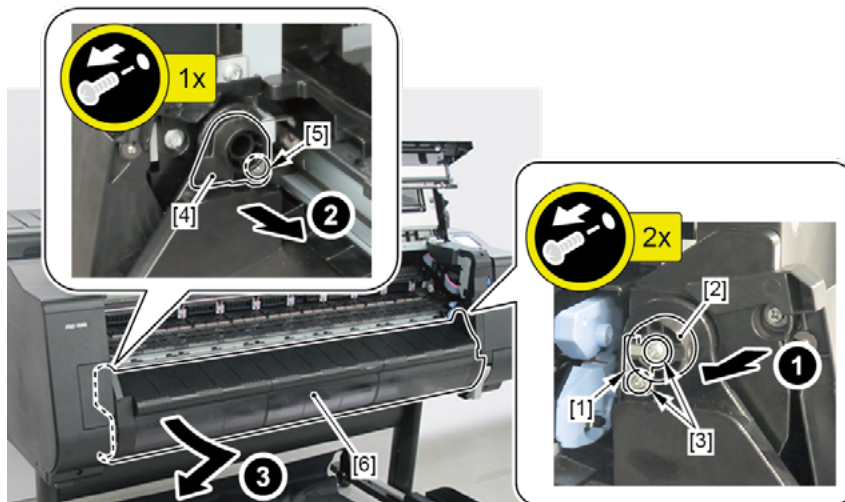
# 6. FRONT SIDE 2 (SUCTION FAN UNIT, SPOOL SENSOR UNIT)





## A

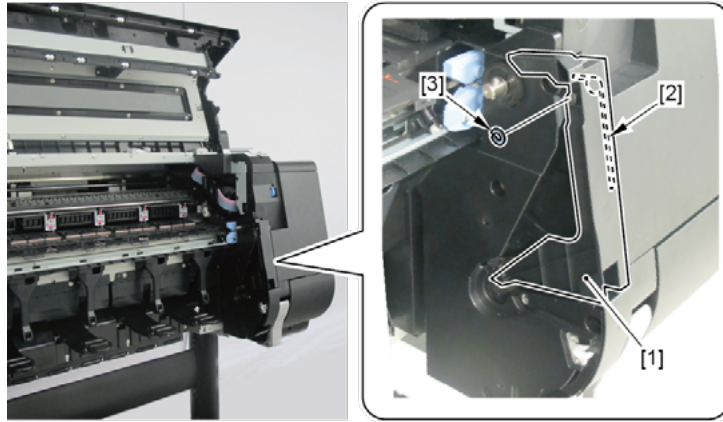
1. Open the access cover.
2. Remove [1] SPRING, EARTH and [2] CAP, ROLL COVER SHAFT.
  - [3]: 2 screws
3. Remove [4] BUSH, ROLL COVER L (the BUSH UNIT, ROLL COVER L in 24" model).
  - [5]: 1 screw
4. Remove [6] the roll cover.



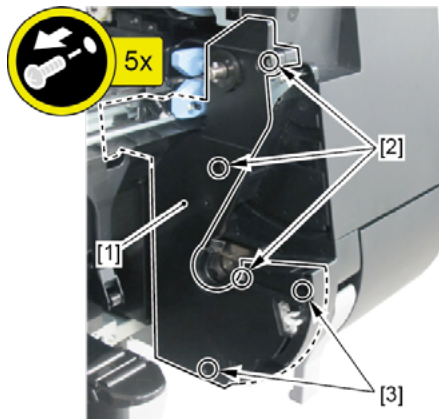


**B**

1. Remove all the parts of Group A.
2. Remove [1] COVER, SPOOL R and [2] SPRING, SPOOL COVER.
  - [3]: 1 CUT WASHER

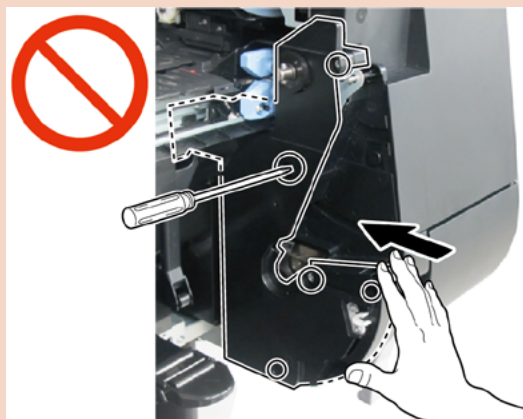


3. Remove [1] HOLDER, SPOOL SIDE R.
  - [2]: 3 screws
  - [3]: 2 binding head screws



#### 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.



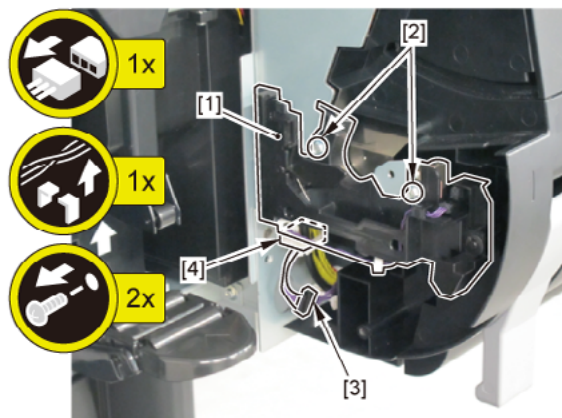
## C

1. Remove all the parts of Groups A and B.

## C-1

2. Remove [1] SPOOL SENSOR UNIT.

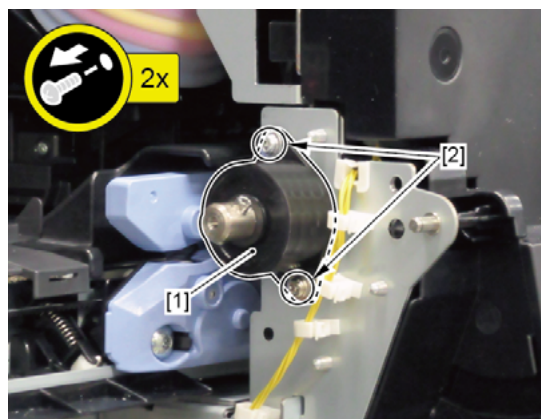
- [2]: 2 screws
- [3]: 1 connector
- [4]: 1 wire saddle



## C-2

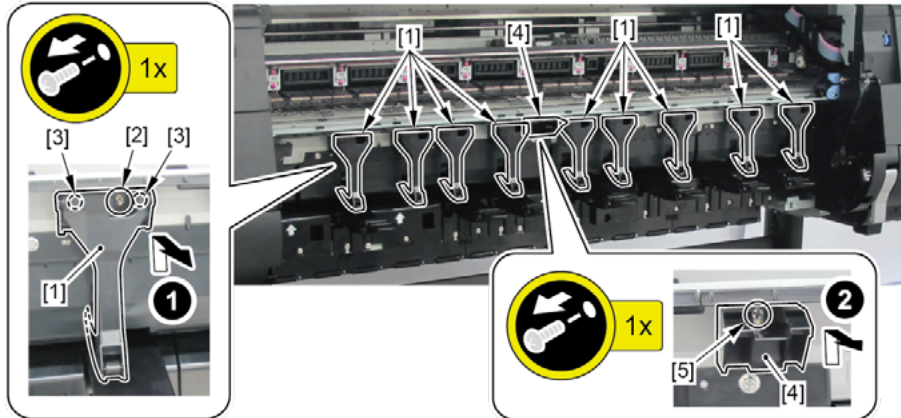
2. Remove [1] DAMPER UNIT, ROLL COVER R.

- [2]: 2 screws

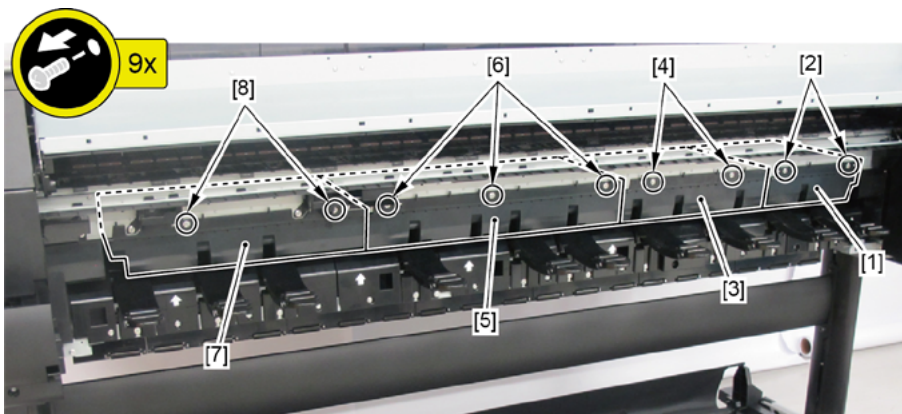


**D**

1. Remove all the parts of Group A.
2. Remove nine pieces of [1] FLAPPER SEPARATE UNIT (5 pieces in 24" model, 12 pieces in 60" model).
  - [2]: 1 screw each
  - [3]: 2 bosses each
3. Remove [4] COVER, ROLL BACK UP (not applicable to 24" model, 2 pieces in 60" model).
  - [5]: 1 screw



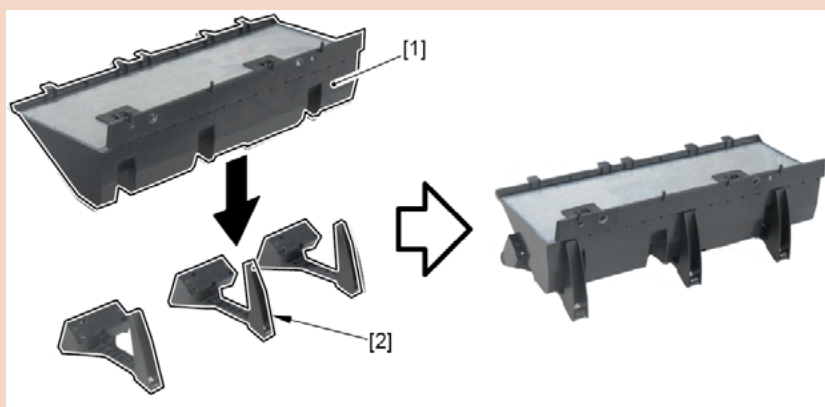
4. Remove [1] WASTE INK ABSORBER UNIT A.
  - [2]: 2 screws
5. Remove [3] WASTE INK ABSORBER UNIT B.
  - [4]: 2 screws
6. Remove [5] WASTE INK ABSORBER UNIT C (not applicable to 24" model).
  - [6]: 3 screws
7. Remove [7] WASTE INK ABSORBER UNIT D (not applicable to 24" model and 44" model).
  - [8]: 2 screws





### Points of disassembly:

To prevent ink leakage from the absorber, place the removed [1] WASTE INK ABSORBER with [2] FLAPPER, SEPARATE fitted in place as shown below.



### Notes when the unit is replaced:

Reset the applicable counter when the unit is replaced:

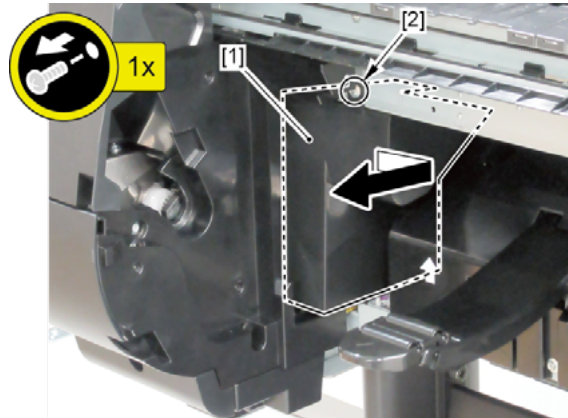
- WASTE INK ABSORBER UNIT A  
[SERVICE MODE > PARTS COUNTER > Wia1]
- WASTE INK ABSORBER UNIT B  
[SERVICE MODE > PARTS COUNTER > Wia2]
- WASTE INK ABSORBER UNIT C  
[SERVICE MODE > PARTS COUNTER > Wia3]
- WASTE INK ABSORBER UNIT D  
[SERVICE MODE > PARTS COUNTER > Wia4]

## 8.

(24" model, 44" model)

Remove [1] WASTE INK ABSORBER UNIT.

- [2]: 1 screw

**Notes when the unit is replaced:**

Reset the counter when the unit is replaced.

24" model

- WASTE INK ABSORBER UNIT

44" model

- WASTE INK ABSORBER UNIT & C S (a Set of WASTE INK ABSORBER UNIT and WASTE INK ABSORBER UNIT C)

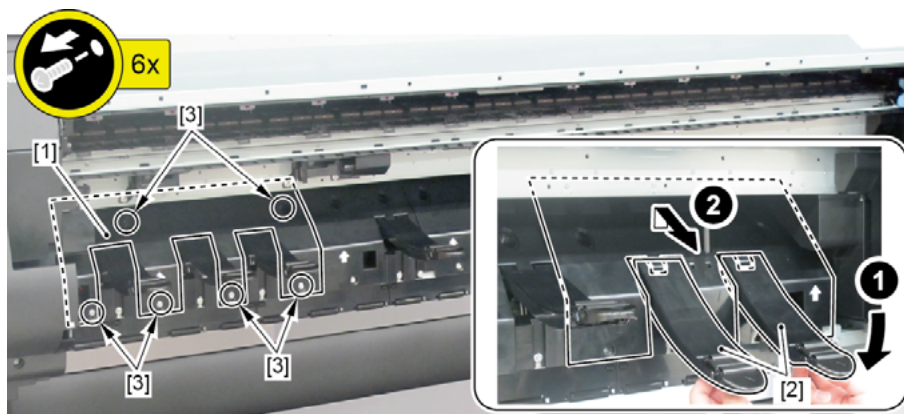
[SERVICE MODE &gt; PARTS COUNTER &gt; Wia6]



(60" model)

1. Push down [2] NIP ARM UNIT and remove [1] GUIDE UNIT, LOW E.

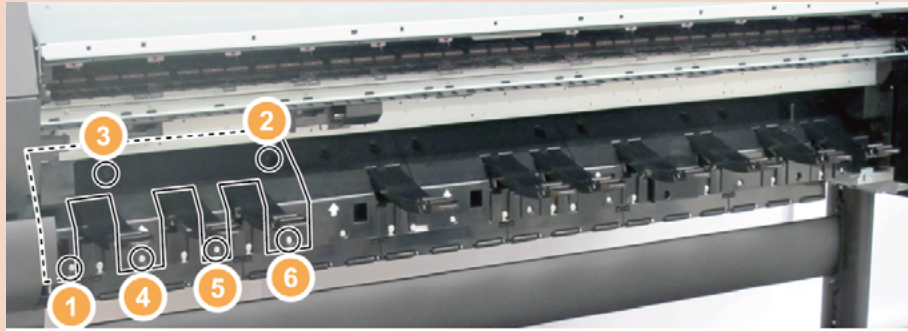
- [3]: 6 screws



**Notes when assembling the unit:**

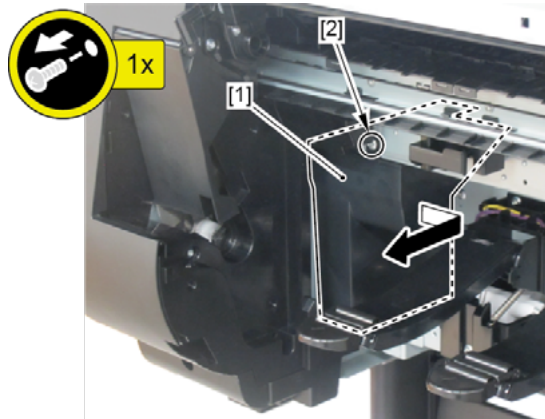
Tighten the screws in the order of numbers shown below.

Point



2. Remove [1] WASTE INK ABSORBER UNIT.

- [2]: 1 screw



**Notes when the unit is replaced:**

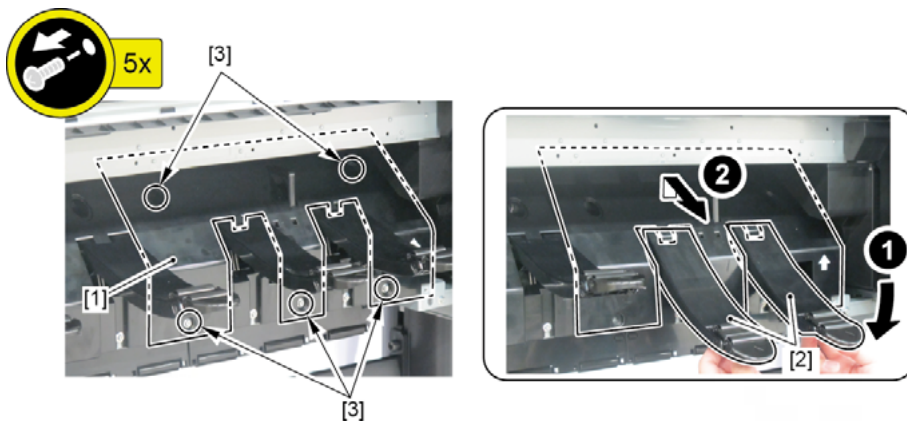
Reset the counter when the unit is replaced.

[SERVICE MODE > PARTS COUNTER > Wia6]

Point

9. Push down [2] NIP ARM UNIT and remove [1] GUIDE UNIT, LOW A.

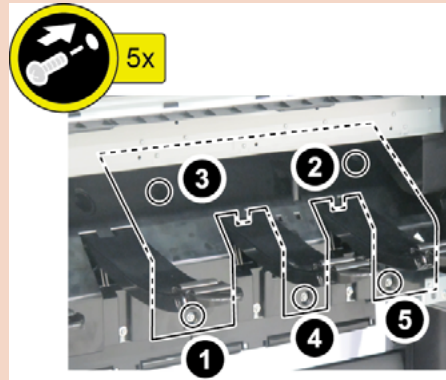
- [3]: 5 screws



**Notes when assembling the unit:**

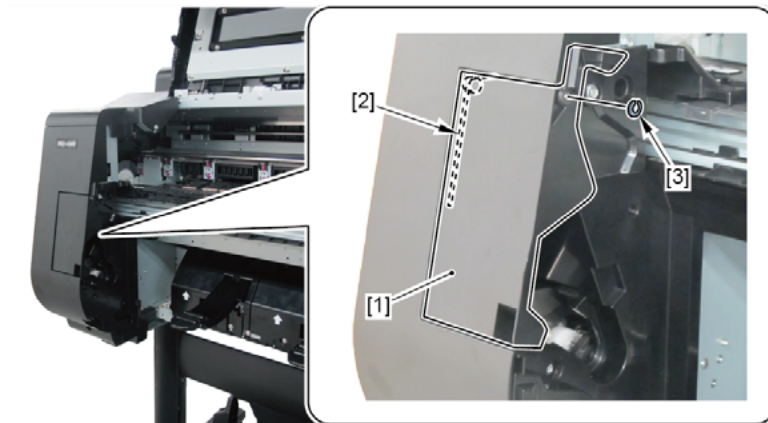
Tighten the screws in the order of numbers shown below.

Point

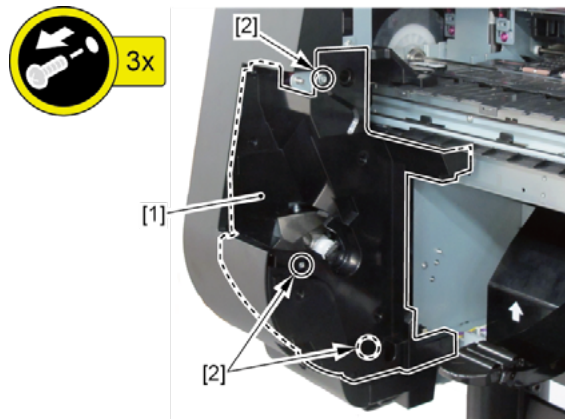


**E**

1. Remove all the parts of Group A.
2. Remove [1] COVER, SPOOL L and [2] SPRING, SPOOL COVER.
  - [3]: 1 CUT WASHER

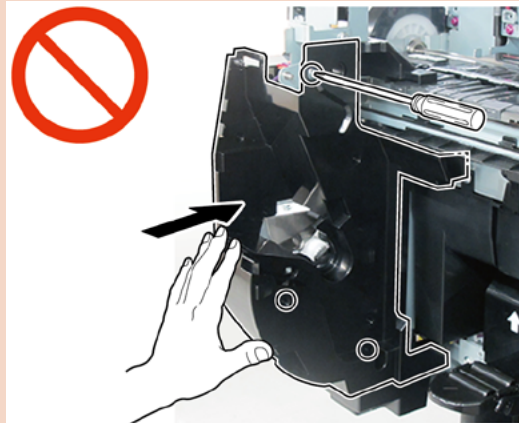


3. Remove [1] HOLDER, SPOOL SIDE L.
  - [2]: 3 screws



**Notes when assembling the unit:**

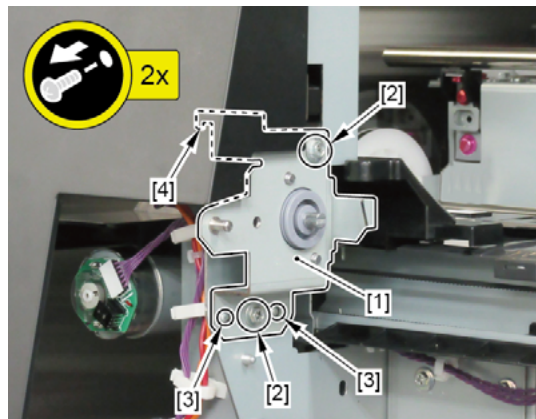
- When tightening the screws, DO NOT lift or hold the HOLDER, SPOOL SIDE L, upward. Just place it in the proper position and fasten the screws.



- After the unit is fixed, confirm that the COVER, SPOOL L works well.

**F**

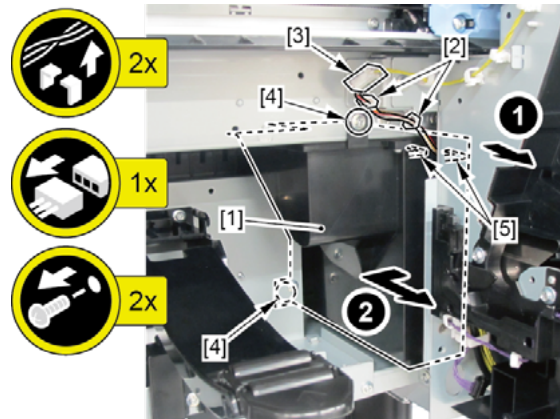
1. Remove all the parts of Groups A and E.
2. Remove [1] PLATE UNIT, SPOOL SIDE SUPPORT.
  - [2]: 2 screws
  - [3]: 2 bosses
  - [4]: 1 hooks





## G

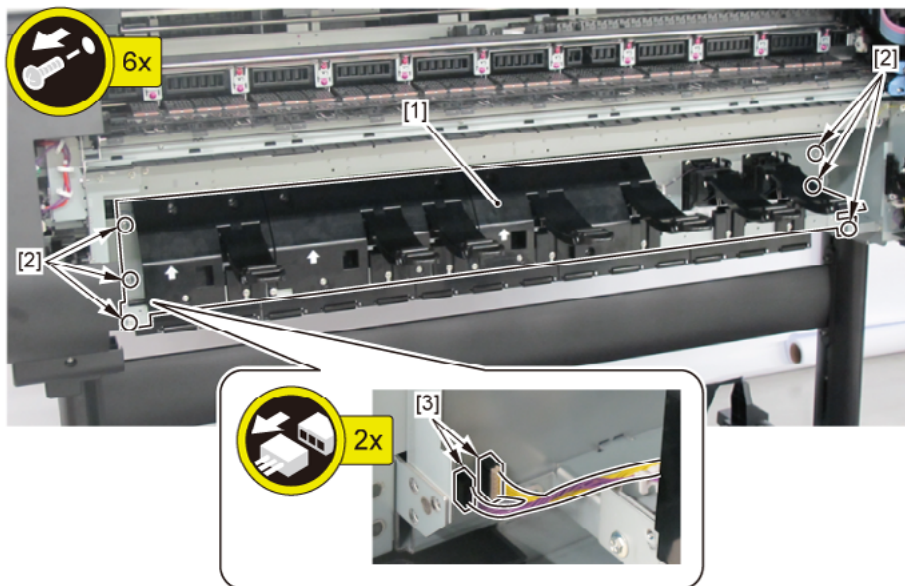
1. Remove all the parts of Groups A, B, D, and E.
2. Remove [1] SUCTION FAN UNIT.
  - [2]: 2 wire saddles
  - [3]: 1 connector
  - [4]: 2 screws
  - [5]: 2 hooks


**Notes when the unit is replaced:**

Reset the applicable counter.

[SERVICE MODE > PARTS COUNTER > Wia7]

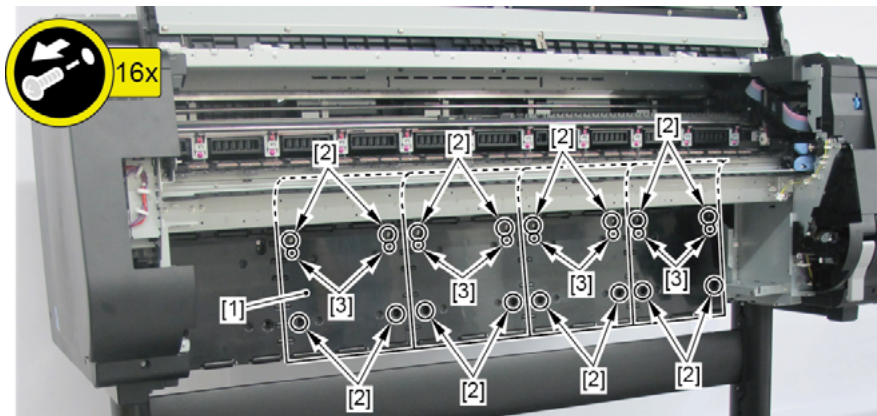
3. Remove [1] the paper feed guide.
  - [2]: 6 screws
  - [3]: 2 connectors



**G-1**

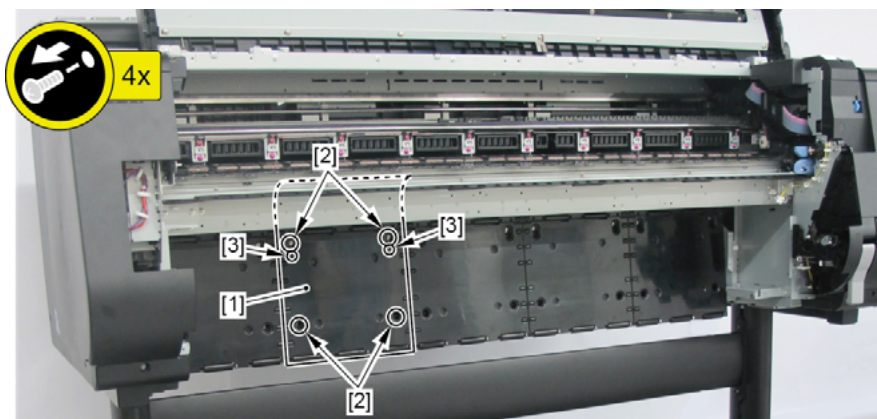
4. Remove [1] GUIDE UNIT, OUTSIDE A. (To remove the rightmost GUIDE UNIT, the adjacent GUIDE UNIT on the left needs to be removed first.)

- [2]: 4 screws each
- [3]: 2 bosses each

**G-2 (24" model, 44" model)**

4. Remove [1] GUIDE UNIT, OUTSIDE A.

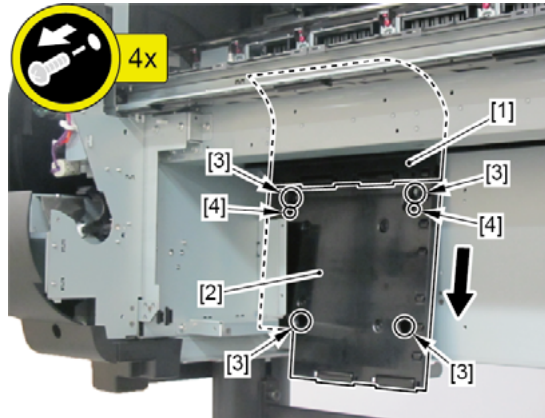
- [2]: 4 screws
- [3]: 2 bosses



**5.** Remove the GUIDE UNIT, OUTSIDE B (a set of [1] and [2] in the photo below).

Remove [2] the lower part of the guide unit first, then [1] the upper part.

- [3]: 4 screws
- [4]: 2 bosses



## G-2 (60" model)

- Remove [1] GUIDE UNIT, OUTSIDE A. (To remove the rightmost GUIDE UNIT, the adjacent GUIDE UNIT on the left needs to be removed first.)

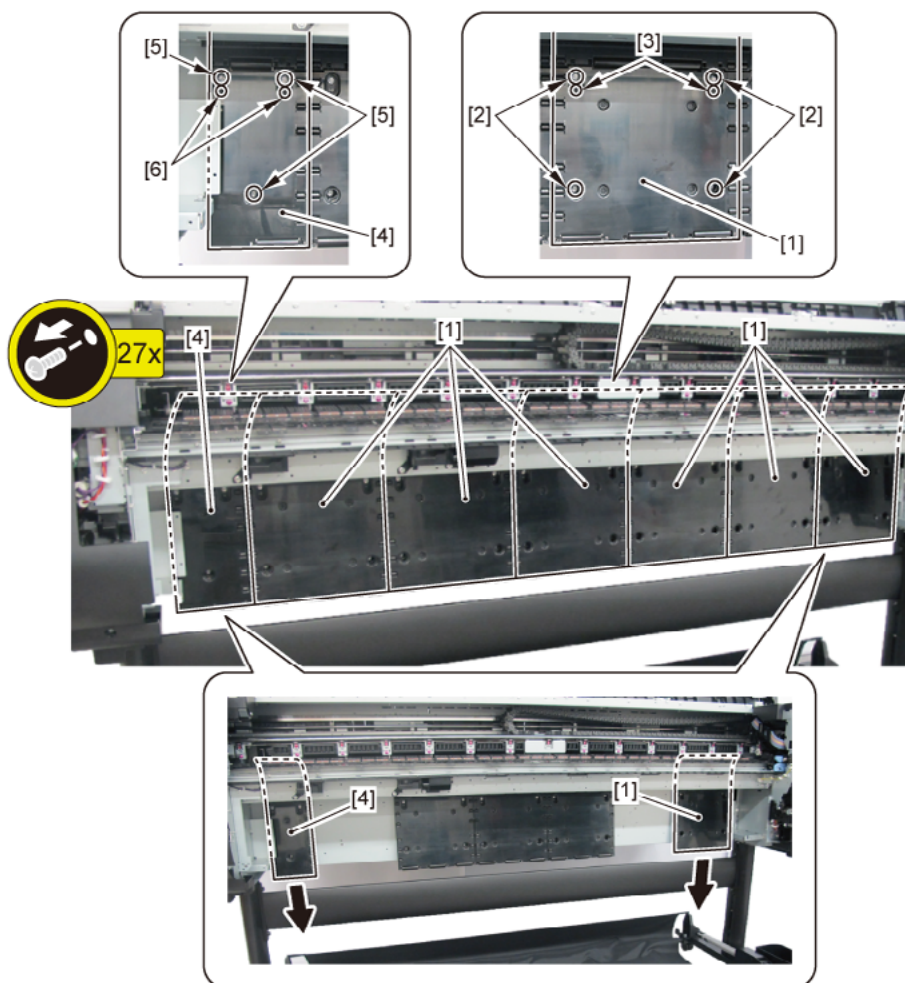
- [2]: 4 screws each

- [3]: 2 bosses each

- Remove [4] GUIDE UNIT, OUTSIDE C. (To remove it, the adjacent GUIDE UNIT on the right needs to be removed first.)

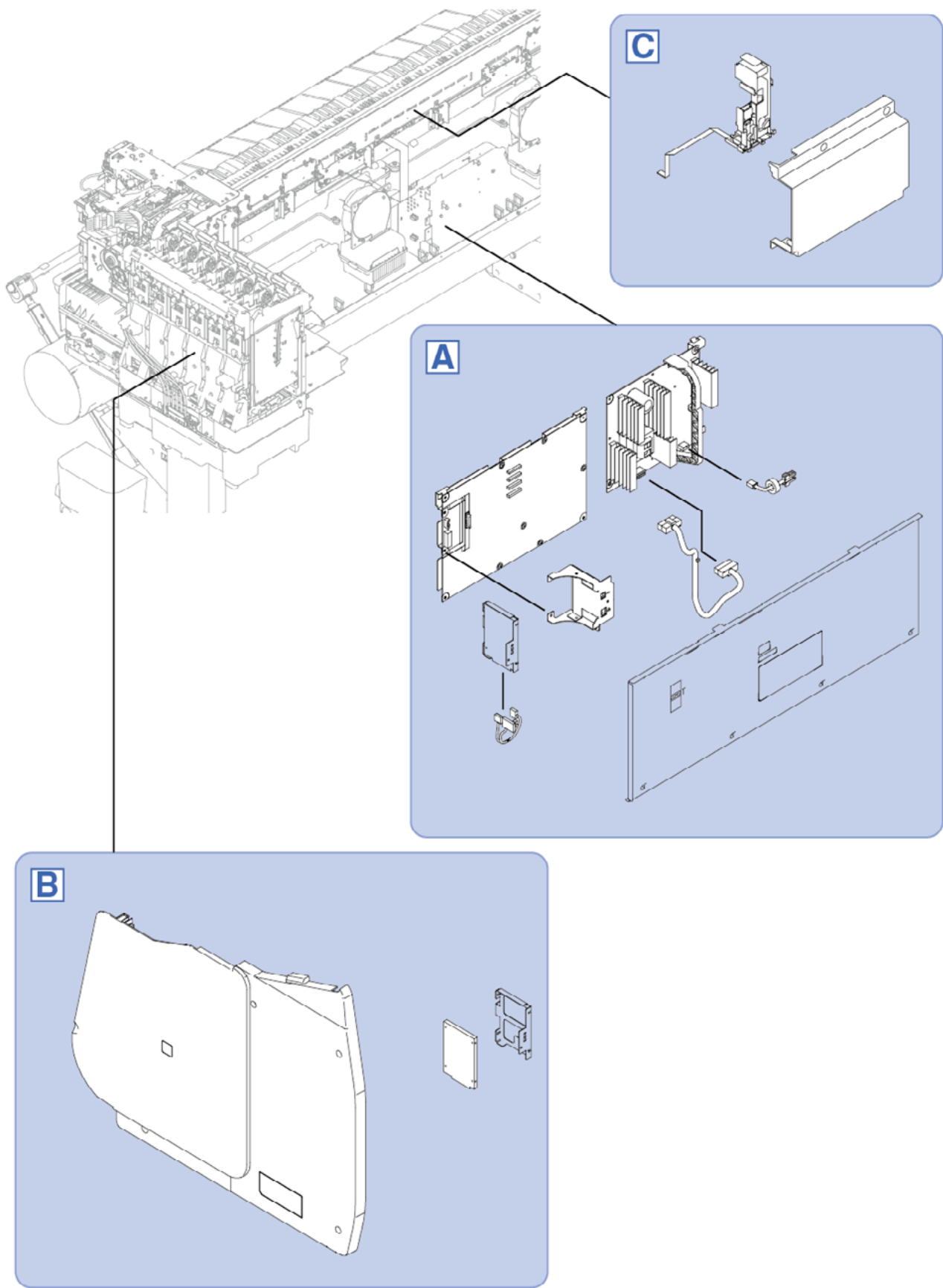
- [5]: 3 screws

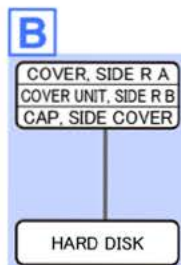
- [6]: 2 bosses





# 7. MAIN PCB UNIT, POWER SUPPLY UNIT, HARD DISK DRIVE (44" model, 60" model)



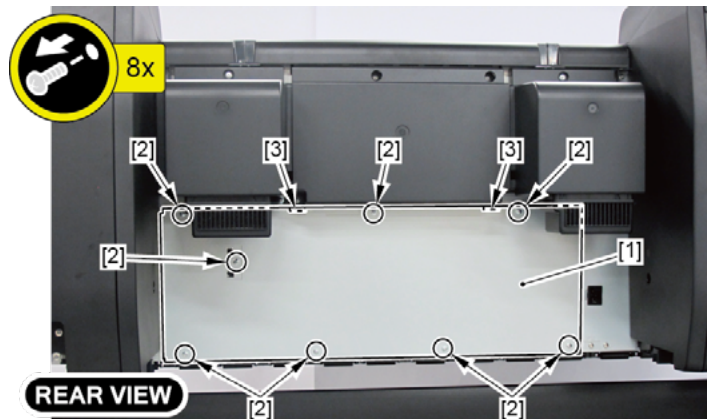


## A

1. Remove [1] the plate.

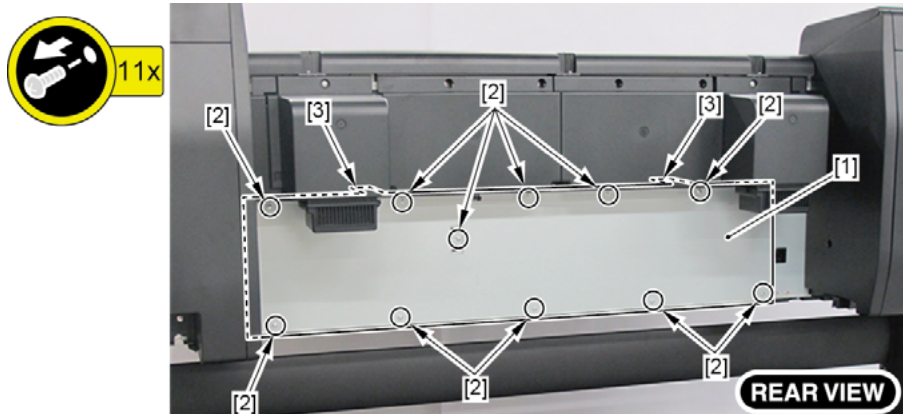
(44" model)

- [2]: 8 screws
- [3]: 2 protrusions



(60" model)

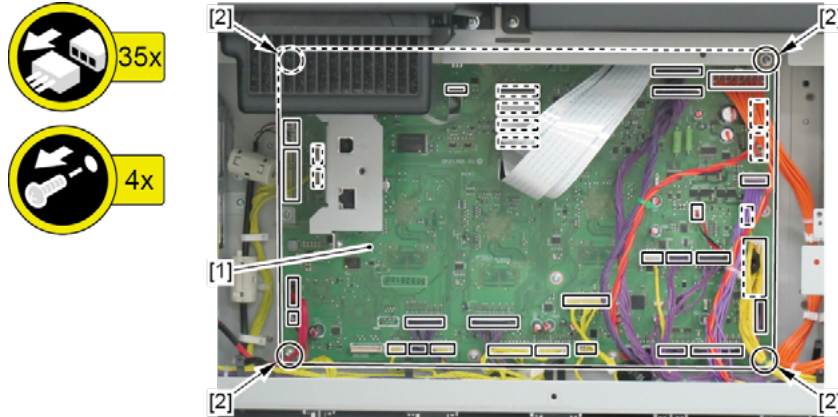
- [2]: 11 screws
- [3]: 2 protrusions





## A-1 (44" model)

2. Disconnect all the cables from [1] MAIN PCB UNIT.
  - 35 connectors
3. Remove the MAIN PCB UNIT.
  - [2]: 4 screws



### 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]



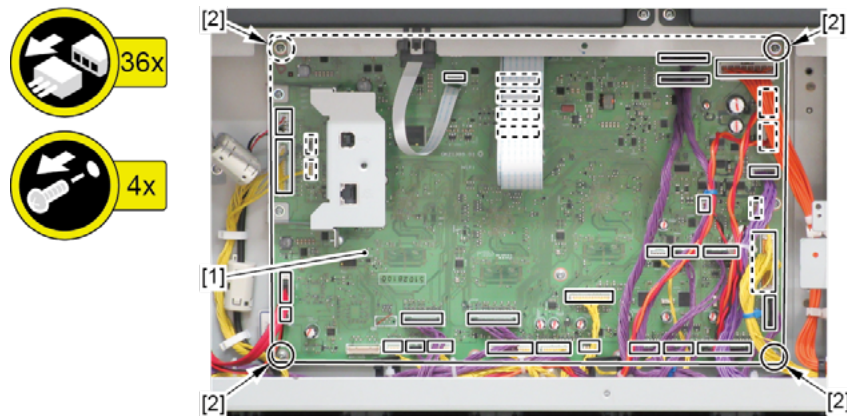
## A-1 (60" model)

2. Disconnect all the cables from [1] MAIN PCB UNIT.

- 36 connectors

3. Remove the MAIN PCB UNIT.

- [2]: 4 screws



### 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]



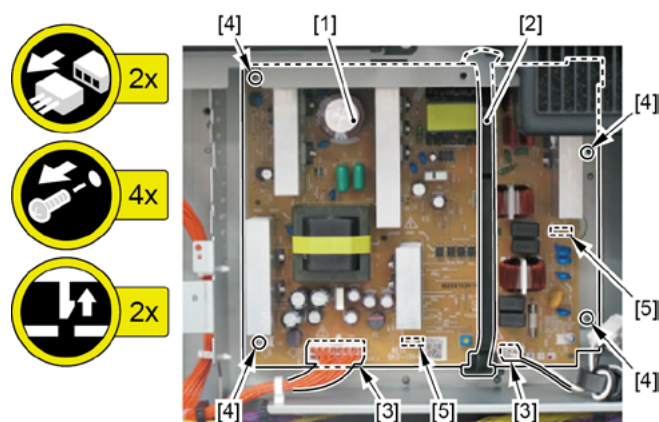
## A-2 (44" model)

2. While holding [2] the handle, remove [1] POWER SUPPLY UNIT.

- [3]: 2 connectors

- [4]: 4 screws

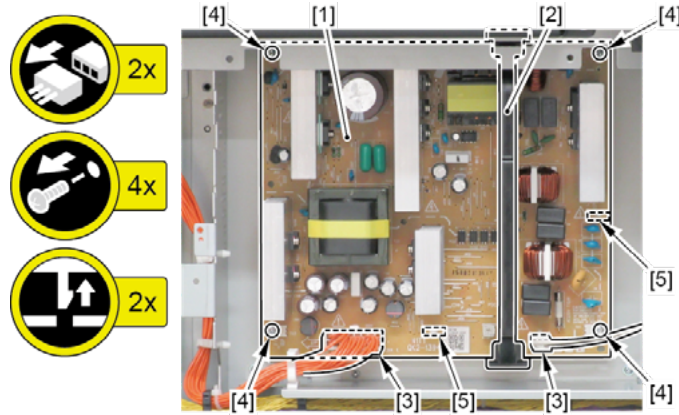
- [5]: 2 claws



## A-2 (60" model)

2. While holding [2] the handle, remove [1] POWER SUPPLY UNIT.

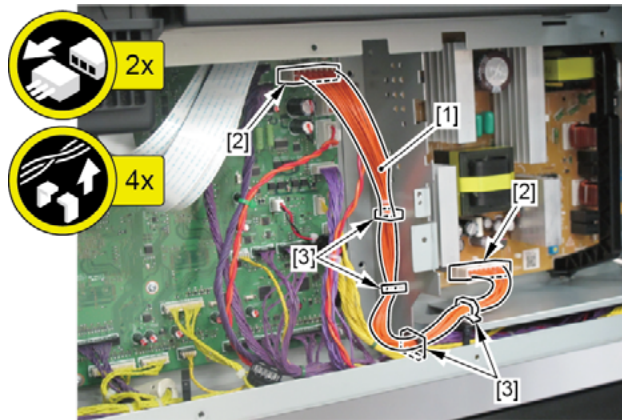
- [3]: 2 connectors
- [4]: 4 screws
- [5]: 2 claws



## A-3

2. Disconnect [1] HARNESS ASS'Y, POWER SUPPLY.

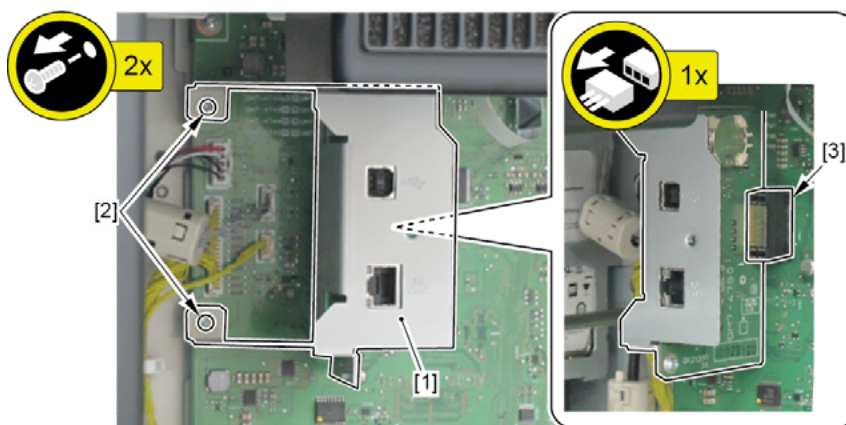
- [2]: 2 connectors
- [3]: 4 wire saddles



## A-4

## 2. Remove [1] I/F PCB UNIT.

- [2]: 2 screws
- [3]: 1 connector

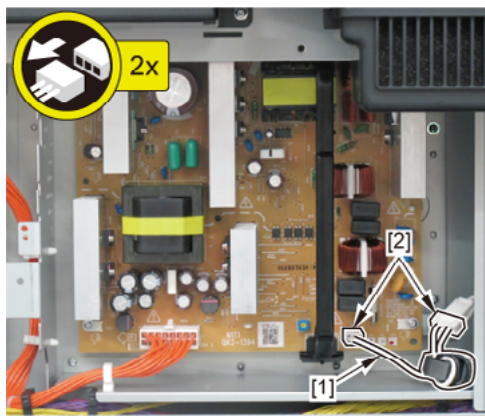
**Notes when the unit is replaced:**

The date and time needs to be set in the Service Mode after replacing the I/F PCB UNIT.  
See 6-2. Service Mode > Details of OTHERS > 2) OTHERS menu level > RTC SETTING.

## A-5

## 2. Disconnect [1] HARNESS ASS'Y, INLET RELAY.

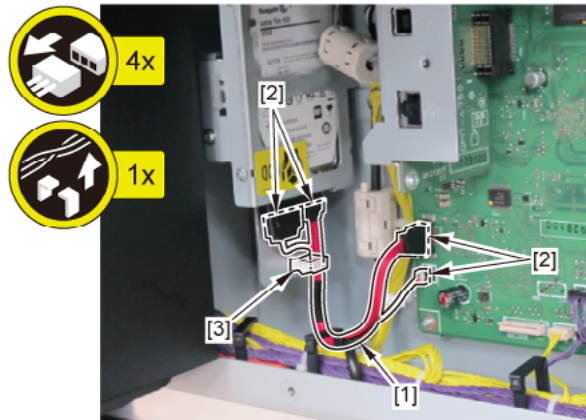
- [2]: 2 connectors



## A-6

## 2. Disconnect [1] HDD CABLE ASS'Y.

- [2]: 4 connectors
- [3]: 1 wire saddle

**Notes when assembling the unit:**

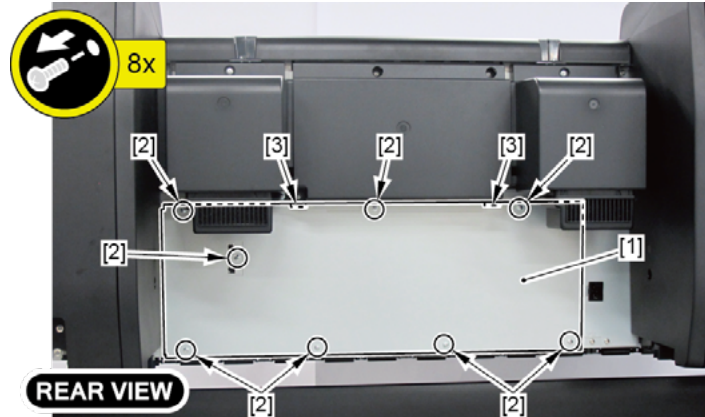
The HDD CABLE ASS'Y must be on top of the other cables.

## B

1. Remove [1] the plate.

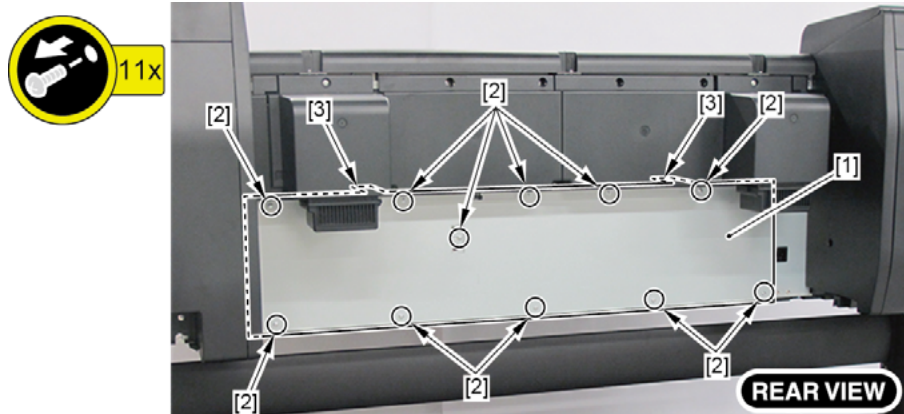
(44" model)

- [2]: 8 screws
- [3]: 2 protrusions



(60" model)

- [2]: 11 screws
- [3]: 2 protrusions

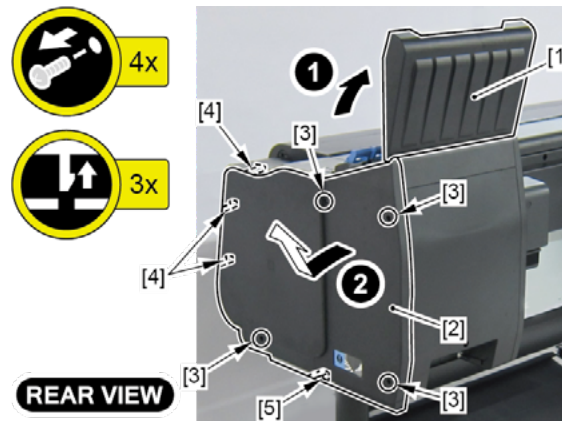


2. Open [1] the right ink tank cover.

3. Remove [2] a set of

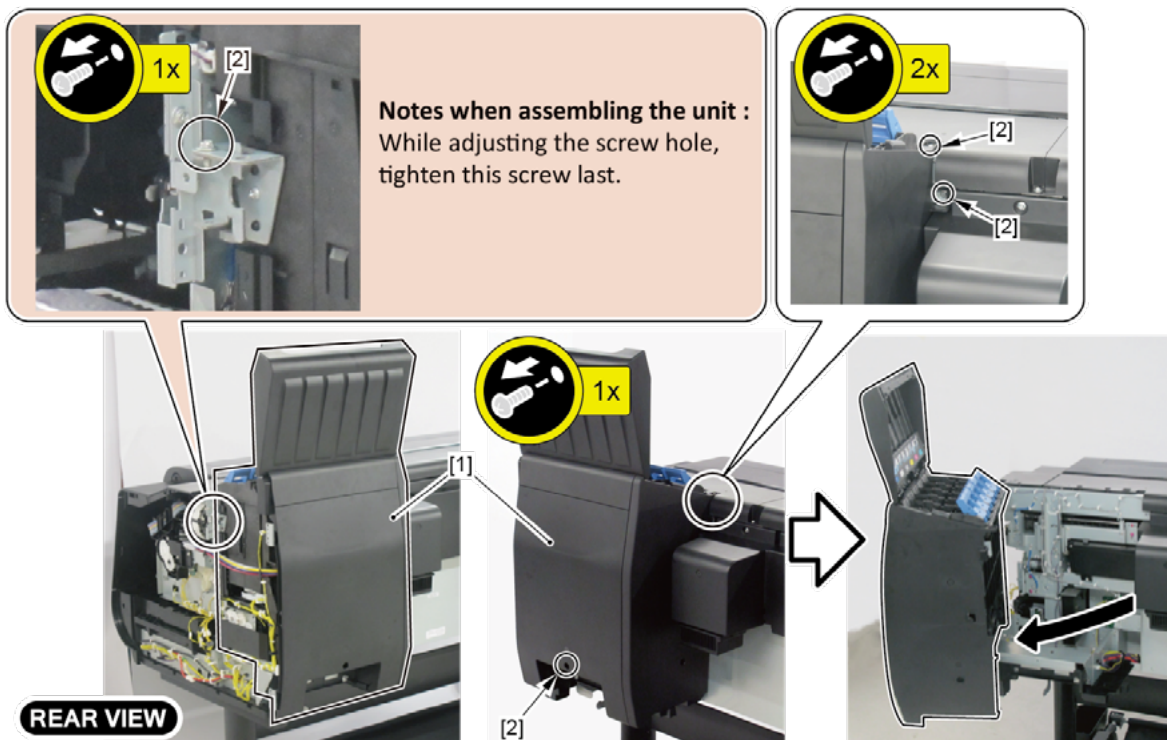
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



4. Open [1] the right ink unit.

- [2]: 4 screws

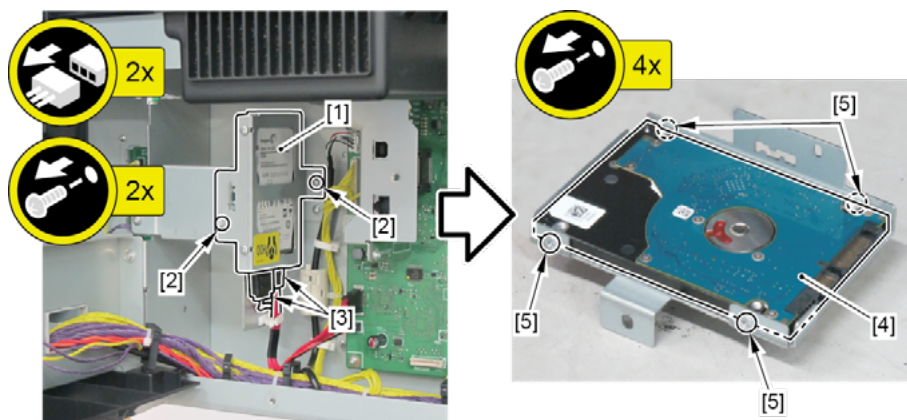


## 5. Remove [1] the bracket (with the HARD DISK).

- [2]: 2 screws
- [3]: 2 connectors

## 6. Remove [4] HARD DISK.

- [5]: 4 screws.



### Notes when the unit is replaced:

The message, " The hard disk has not been formatted. Select [OK] to start formatting. ", is displayed when starting up the main unit after hard disk replacement.

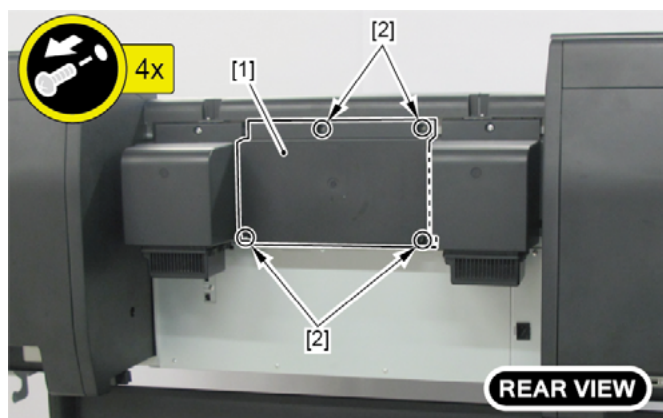
## C

### 1.

(44" model)

Remove [1] COVER, BACK.

- [2]: 4 screws

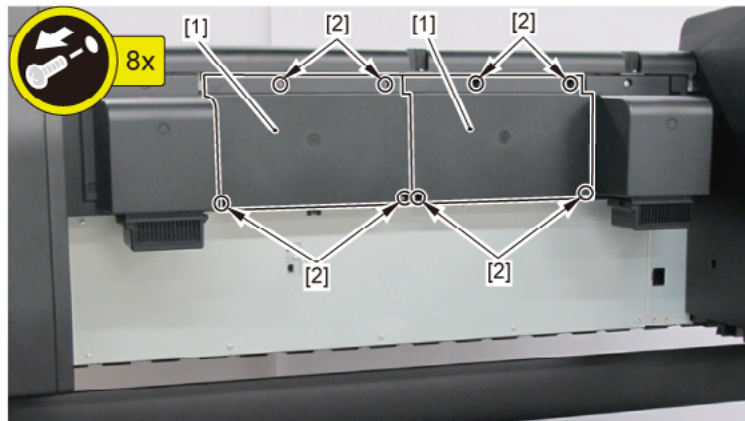




(60" model)

Remove two pieces of [1] COVER, BACK.

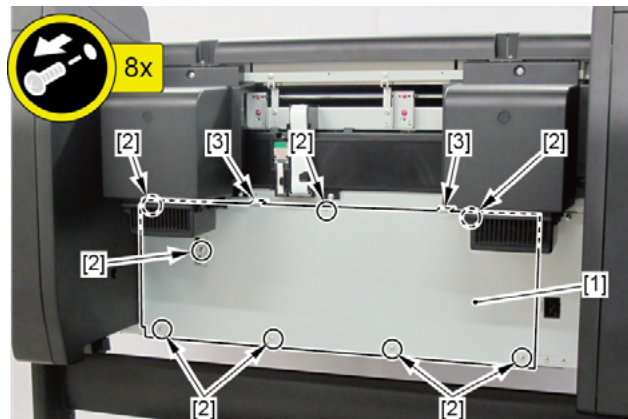
- [2]: 4 screws each



## 2. Remove [1] the plate.

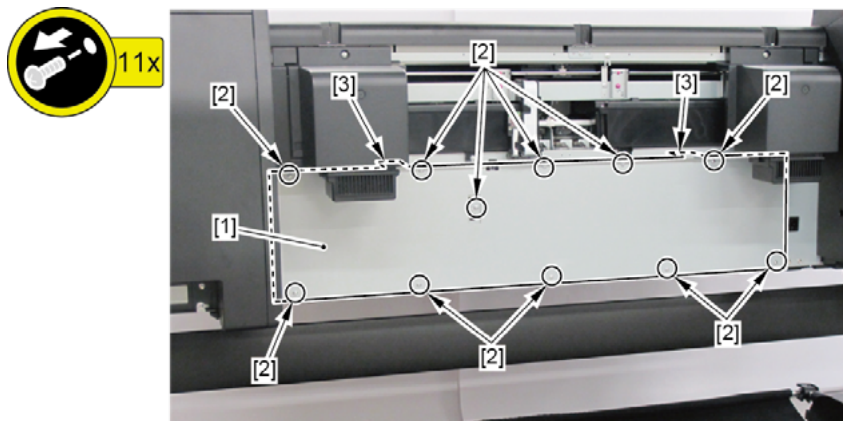
(44" model)

- [2]: 8 screws
- [3]: 2 protrusions



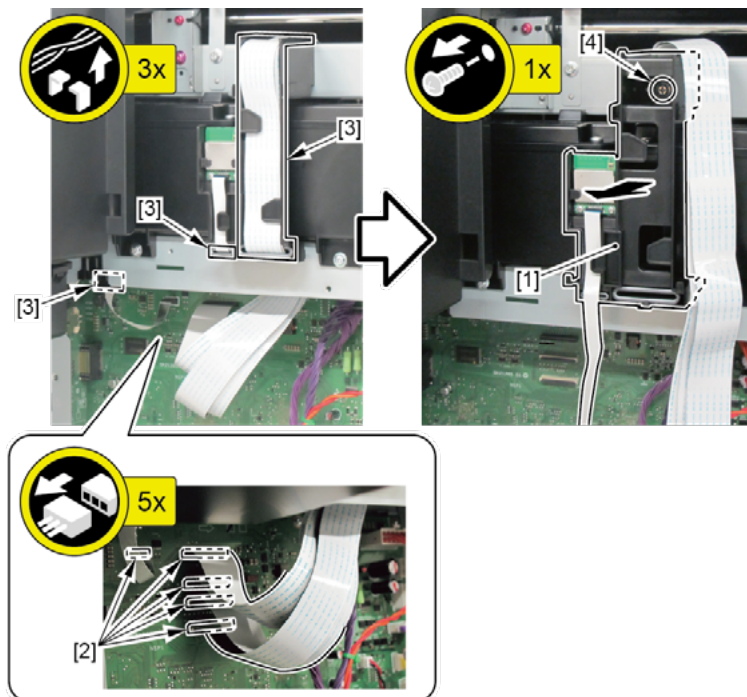
(60" model)

- [2]: 11 screws
- [3]: 2 protrusions



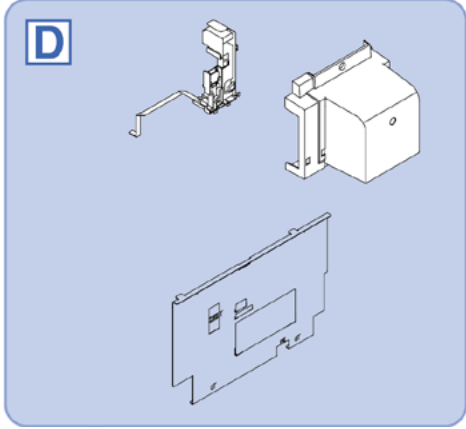
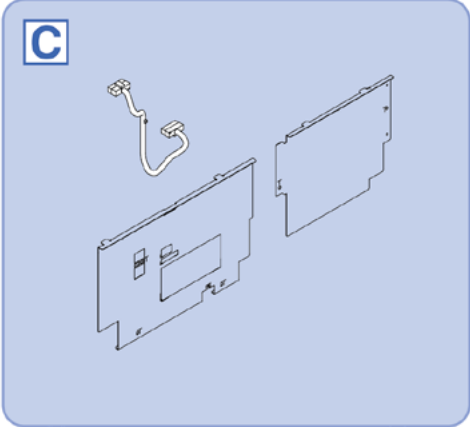
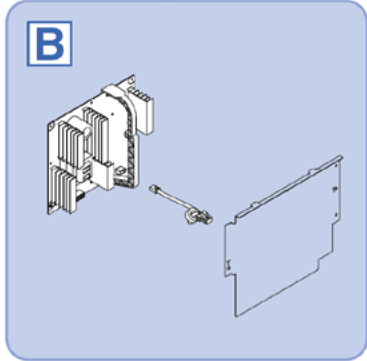
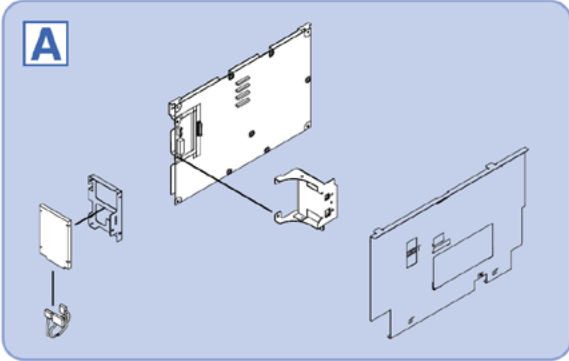
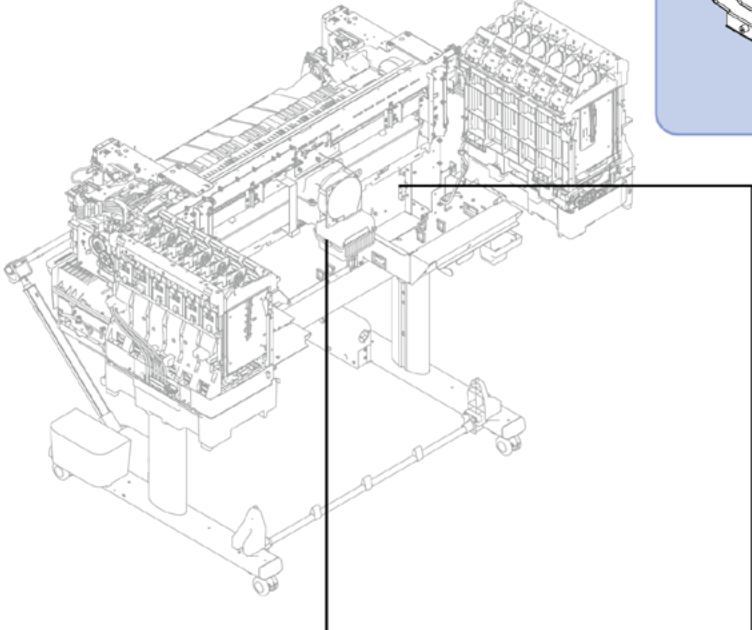
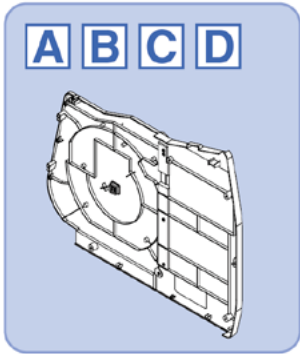
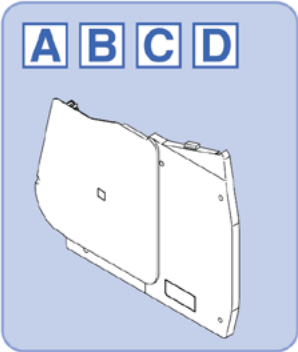
### 3. Remove [1] WIRELESS LAN PCB UNIT.

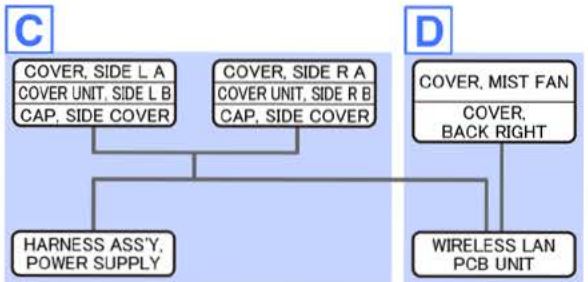
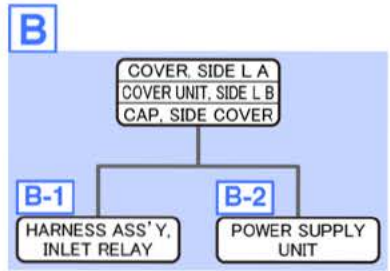
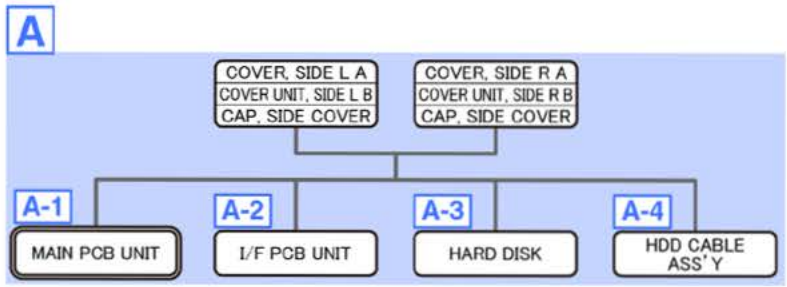
- [2]: 5 connectors
- [3]: Cable guides in three areas
- [4]: 1 screw





# 7. MAIN PCB UNIT, POWER SUPPLY UNIT, HARD DISK DRIVE (24" model)

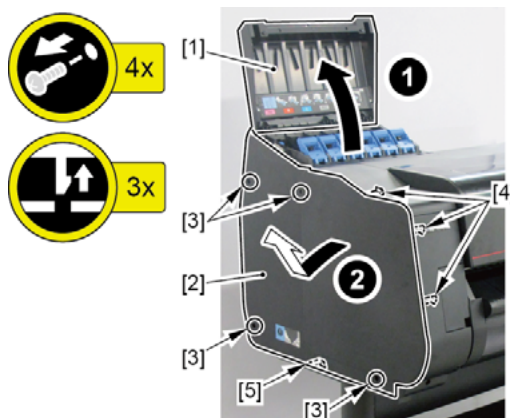




## A

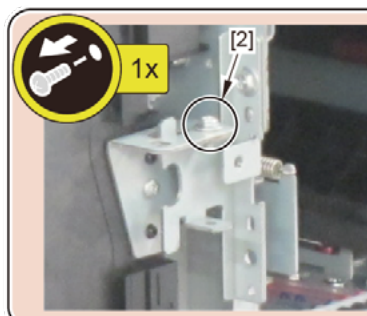
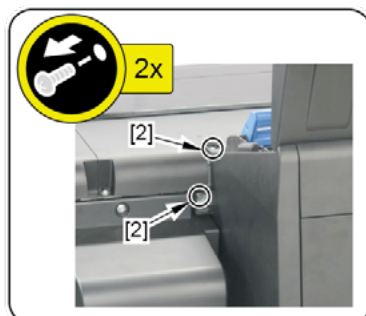
1. Open [1] the left ink tank cover.
2. Remove [2] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook

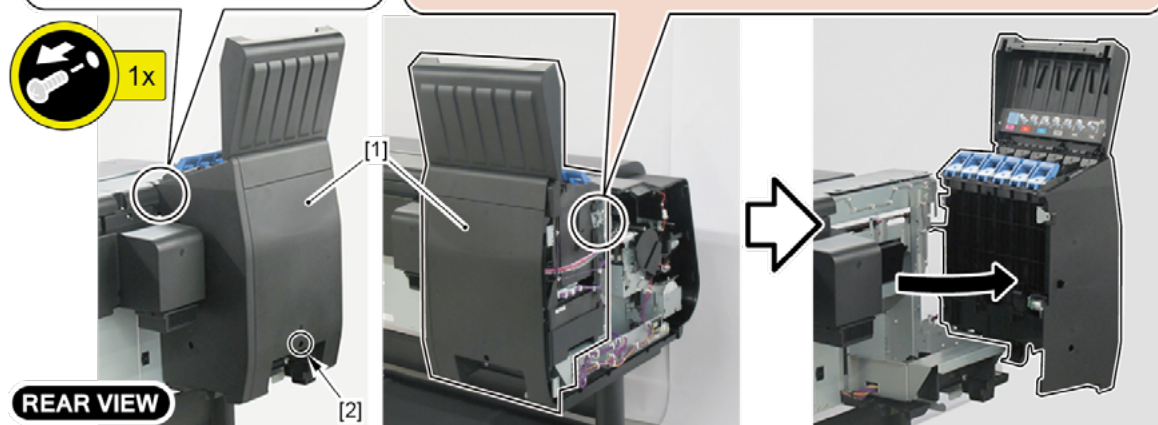


3. Open [1] the left ink unit.

- [2]: 4 screws



**Notes when assembling the unit :**  
While adjusting the screw hole,  
tighten this screw last.

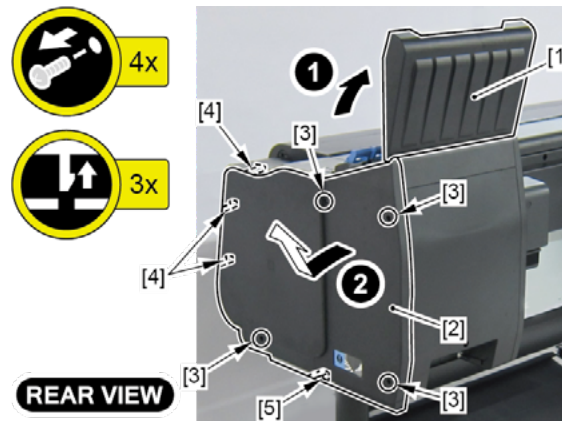


4. Open [1] the right ink tank cover.

5. Remove [2] a set of

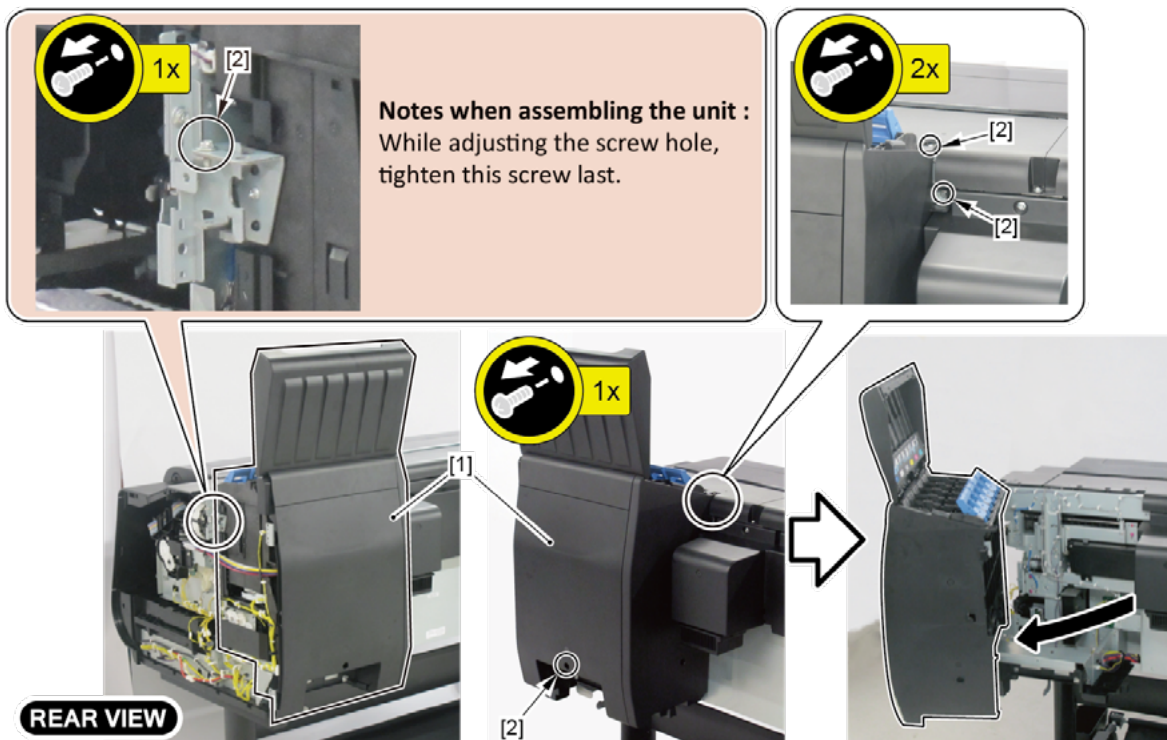
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



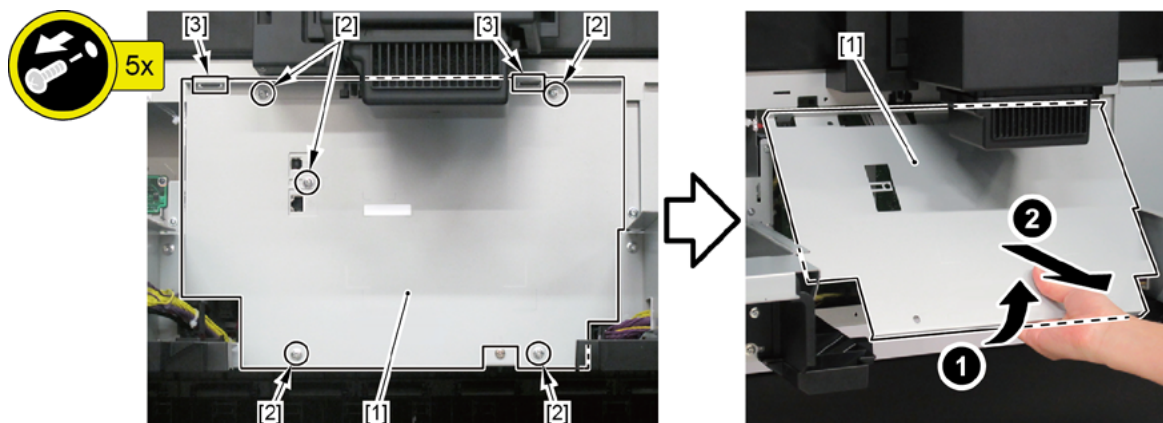
6. Open [1] the right ink unit.

- [2]: 4 screws



## 7. Remove [1] the plate.

- [2]: 5 screws
- [3]: 2 protrusions



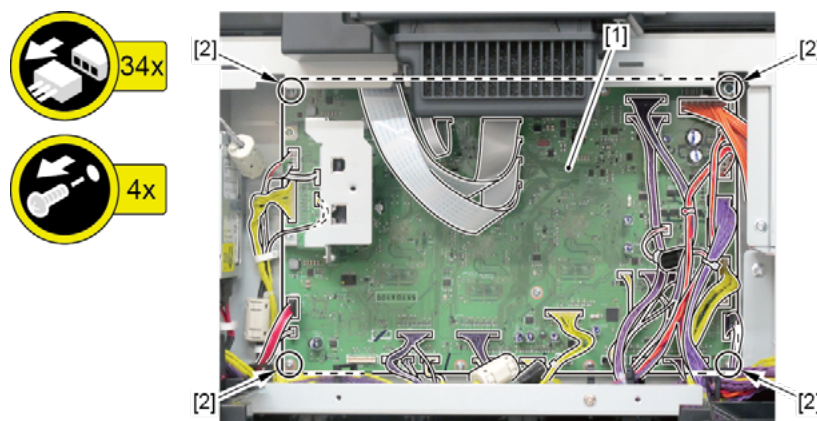
### A-1

## 8. Disconnect all the cables from [1] MAIN PCB UNIT.

- 34 connectors

## 9. Remove the MAIN PCB UNIT.

- [2]: 4 screws



### 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]

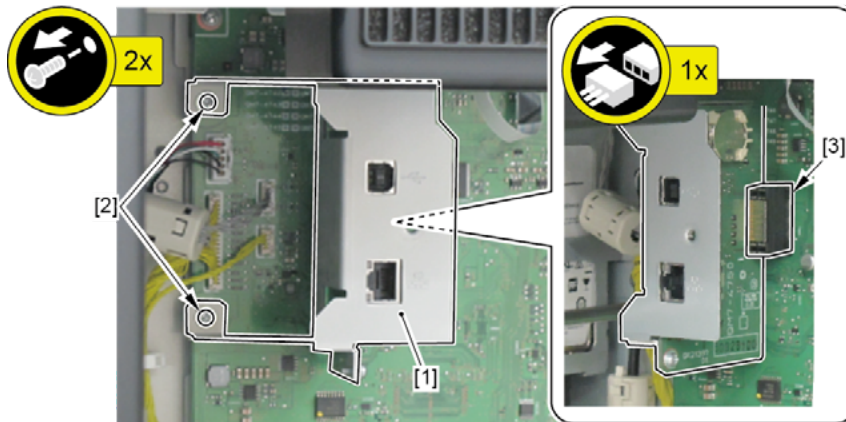




## A-2

## 8. Remove [1] I/F PCB UNIT.

- [2]: 2 screws
- [3]: 1 connector

**Notes when the unit is replaced:**

See 6-2. Service Mode > Details of OTHERS > 2) OTHERS menu level > RTC SETTING.

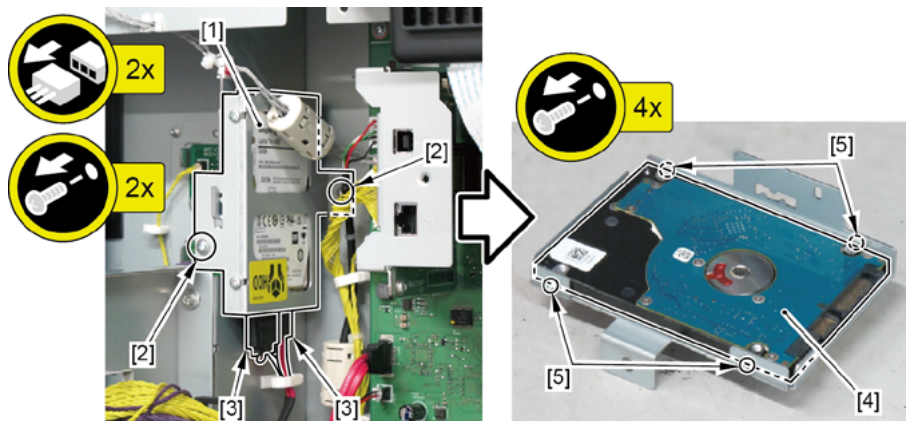
## A-3

## 8. Remove [1] the bracket (with the HARD DISK).

- [2]: 2 screws
- [3]: 2 connectors

## 9. Remove [4] HARD DISK.

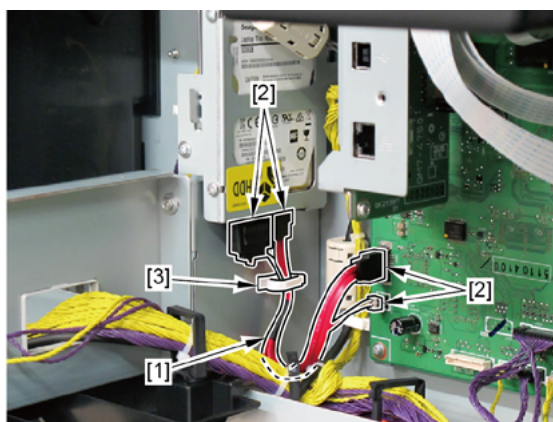
- [5]: 4 screws

**Notes when the unit is replaced:**

The message, " The hard disk has not been formatted. Select [OK] to start formatting. ", is displayed when starting up the main unit after hard disk replacement.

## A-4

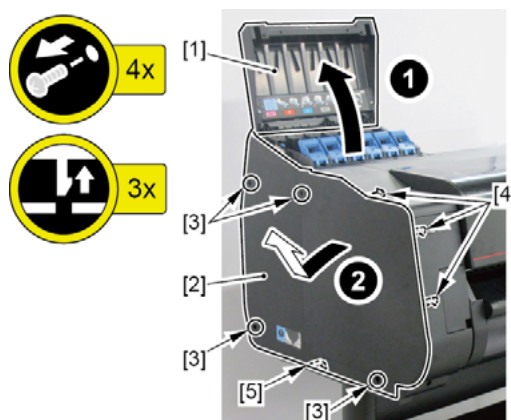
8. Disconnect [1] HDD CABLE ASS'Y.
  - [2]: 4 connectors
  - [3]: 1 wire saddle


**Notes when assembling the unit:**

The HDD CABLE ASS'Y must be on top of the other cables.

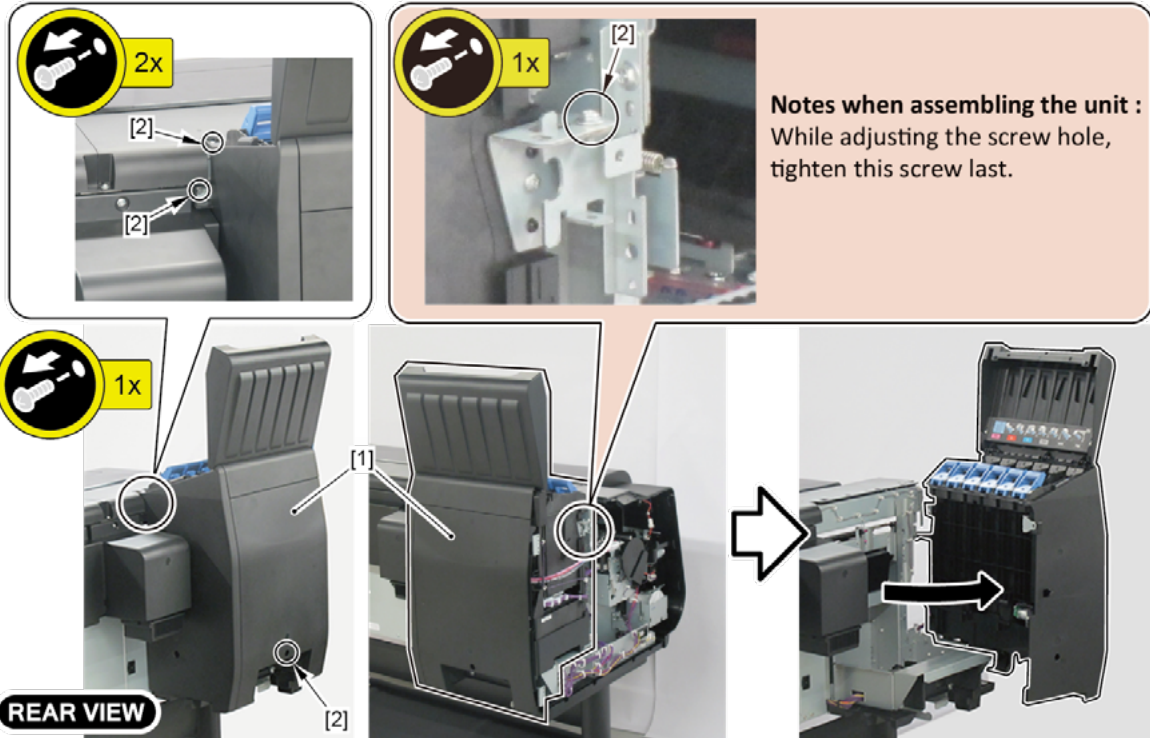
## B

1. Open [1] the left ink tank cover.
  2. Remove [2] a set of
    - COVER, SIDE L A
    - COVER UNIT, SIDE L B
    - CAP, SIDE COVER.
- [3]: 4 screws
  - [4]: 3 claws
  - [5]: 1 hook



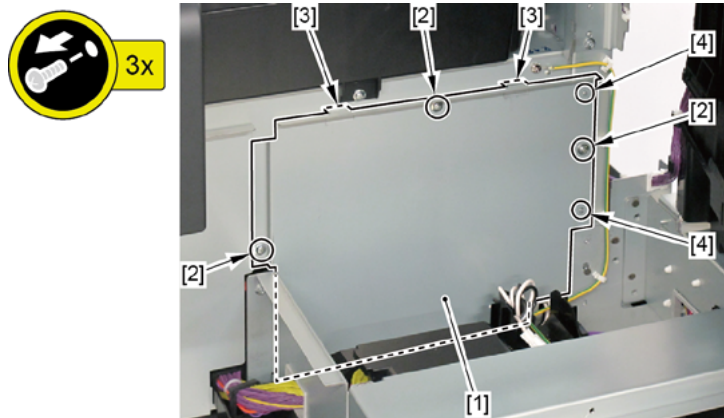
### 3. Open [1] the left ink unit.

- [2]: 4 screws



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

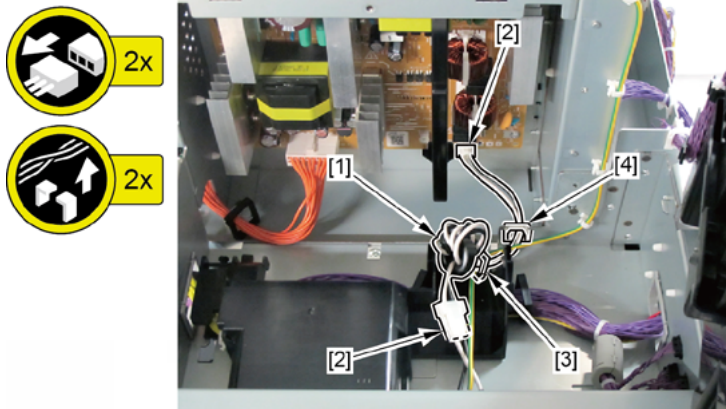
- [2]: 3 screws
- [3]: 2 protrusions
- [4]: 2 bosses



**B-1**

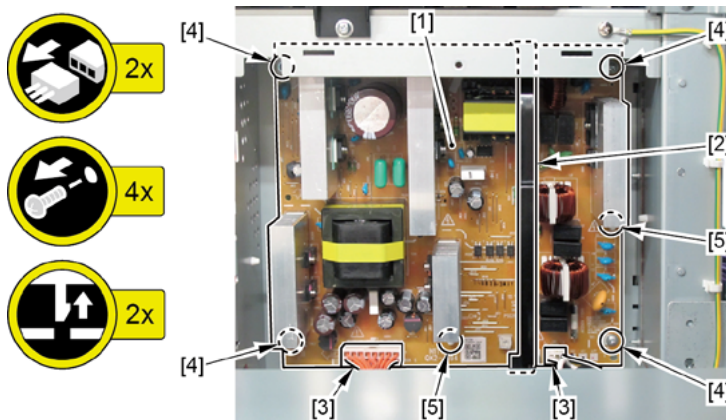
5. Disconnect [1] HARNESS ASS'Y, INLET RELAY.

- [2]: 2 connectors
- [3]: 1 wire saddle
- [4]: 1 edge saddle

**B-2**

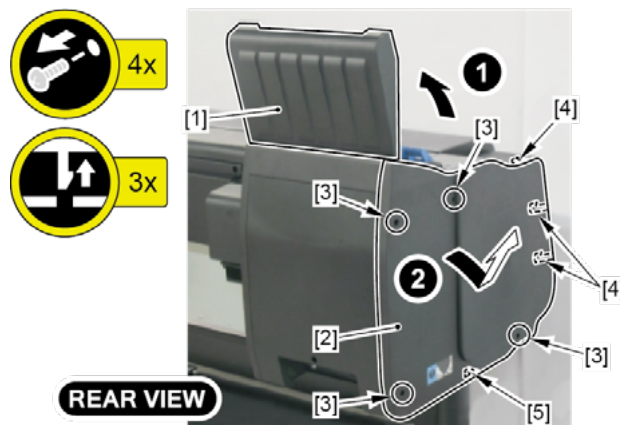
5. While holding [2] the handle, remove [1] POWER SUPPLY UNIT.

- [3]: 2 connectors
- [4]: 4 screws
- [5]: 2 claws

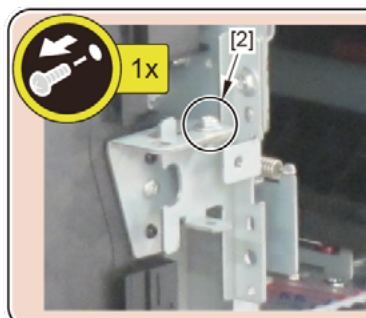
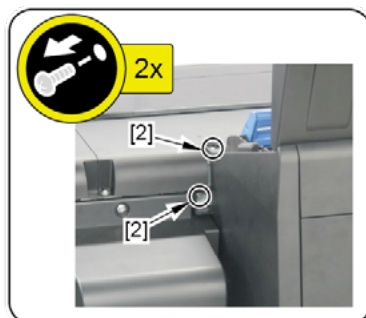


C

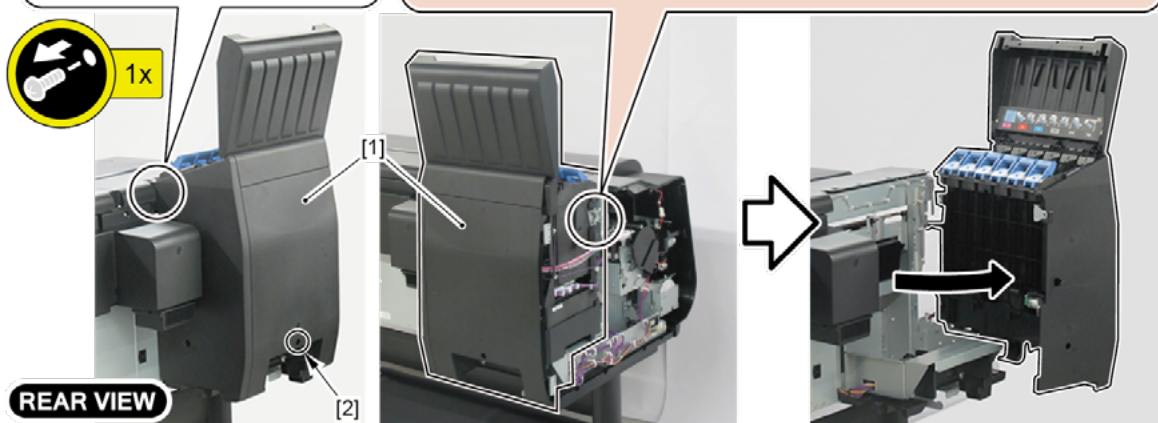
1. Open [1] the left ink tank cover.
2. Remove [2] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.
  - [3]: 4 screws
  - [4]: 3 claws
  - [5]: 1 hook



3. Open [1] the left ink unit.
  - [2]: 4 screws



**Notes when assembling the unit :**  
While adjusting the screw hole,  
tighten this screw last.

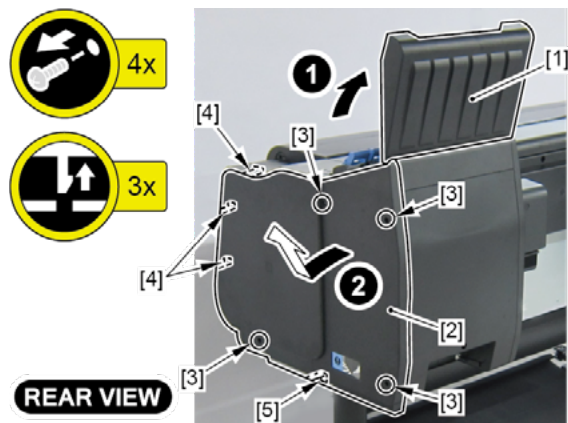


4. Open [1] the right ink tank cover.

5. Remove [2] a set of

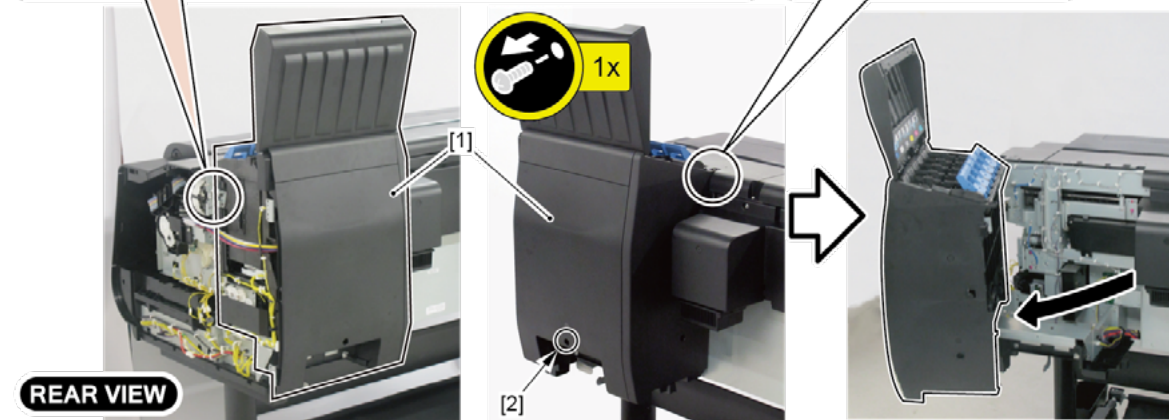
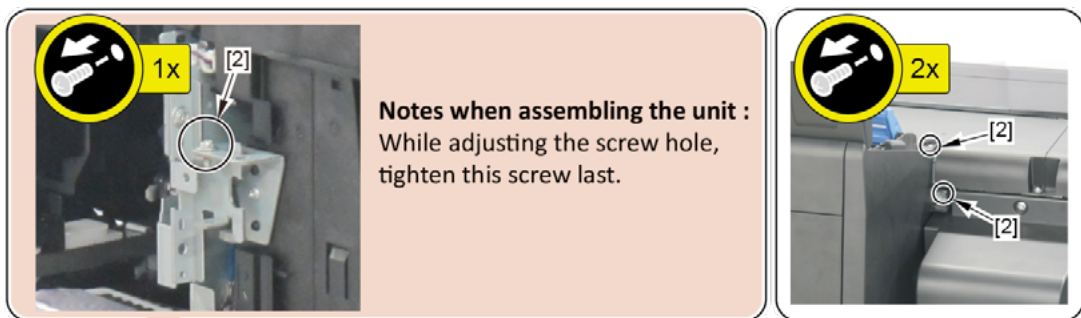
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



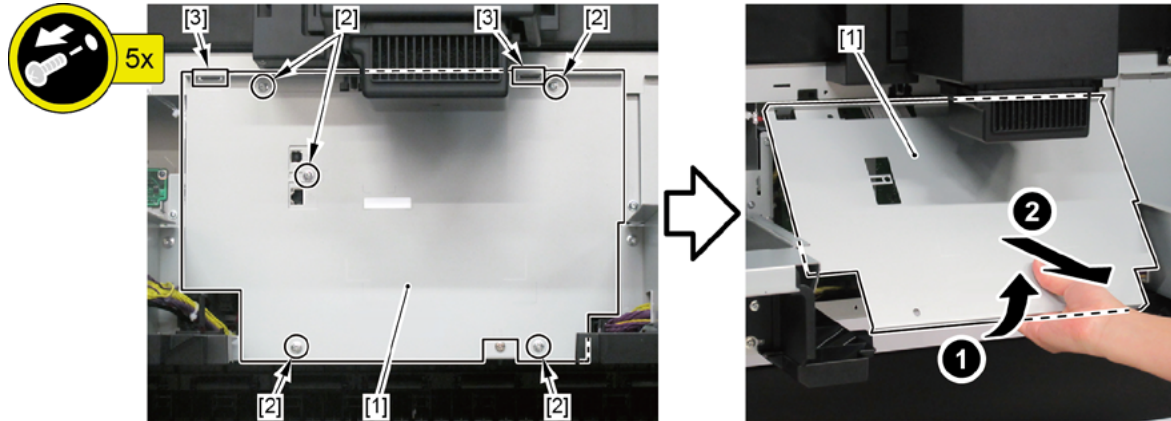
6. Open [1] the right ink unit.

- [2]: 4 screws



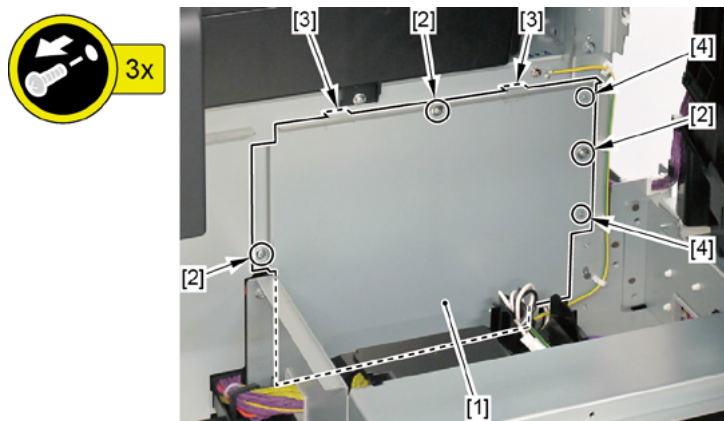
## 7. Remove [1] the plate.

- [2]: 5 screws
- [3]: 2 protrusions



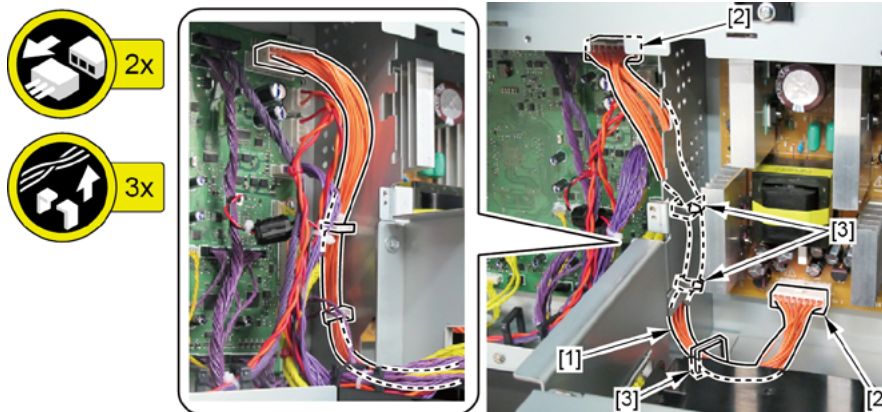
## 8. Remove [1] the plate.

- [2]: 3 screws
- [3]: 2 protrusions
- [4]: 2 bosses



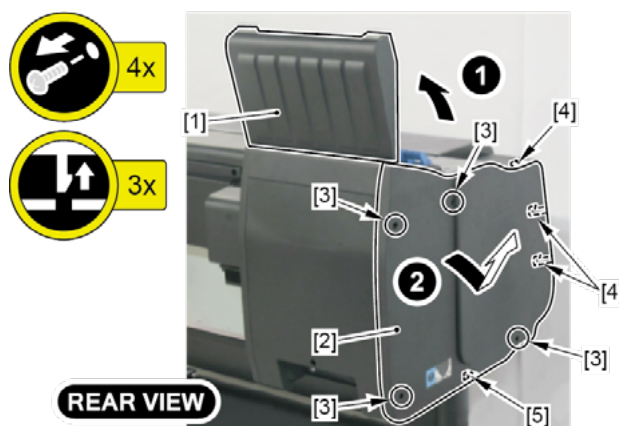
## 9. Disconnect [1] HARNESS ASS'Y, POWER SUPPLY.

- [2]: 2 connectors
- [3]: 3 wire saddles

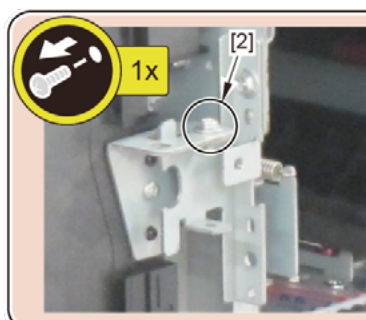
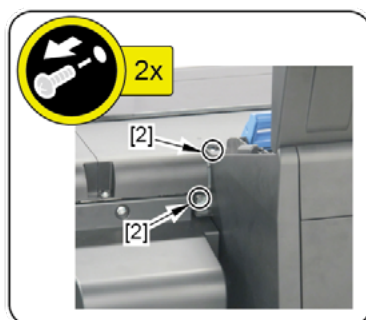


## D

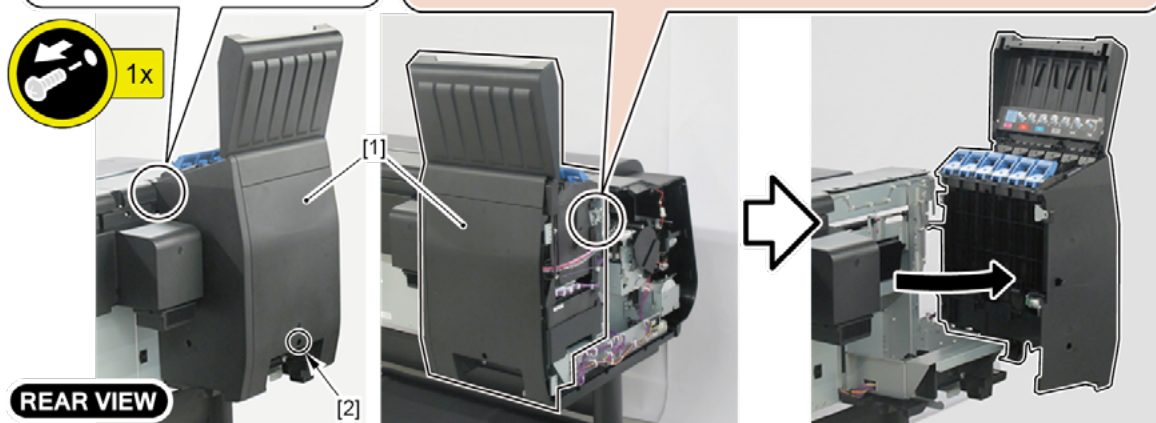
1. Open [1] the left ink tank cover.
2. Remove [2] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.
  - [3]: 4 screws
  - [4]: 3 claws
  - [5]: 1 hook



3. Open [1] the left ink unit.
  - [2]: 4 screws



**Notes when assembling the unit :**  
While adjusting the screw hole,  
tighten this screw last.



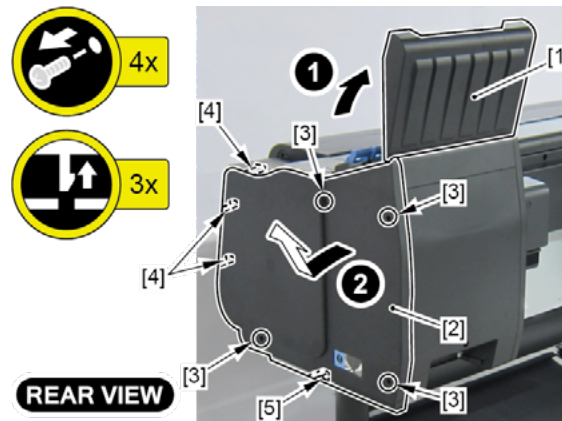


4. Open [1] the right ink tank cover.

5. Remove [2] a set of

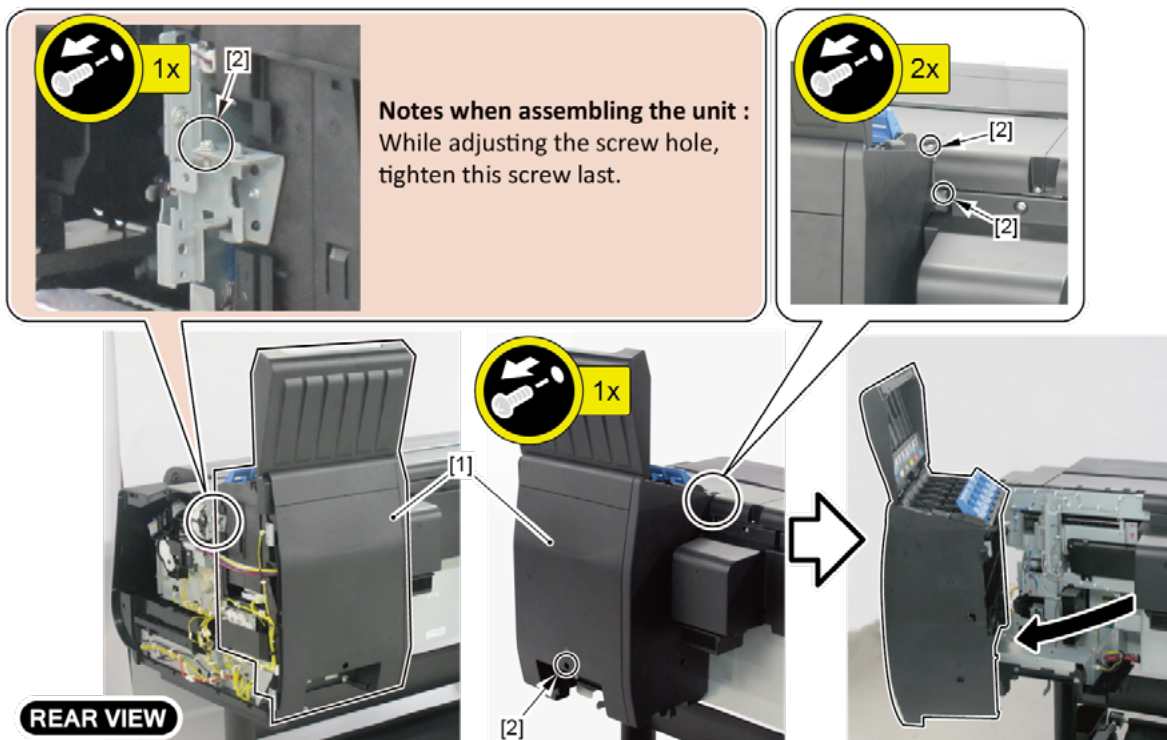
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



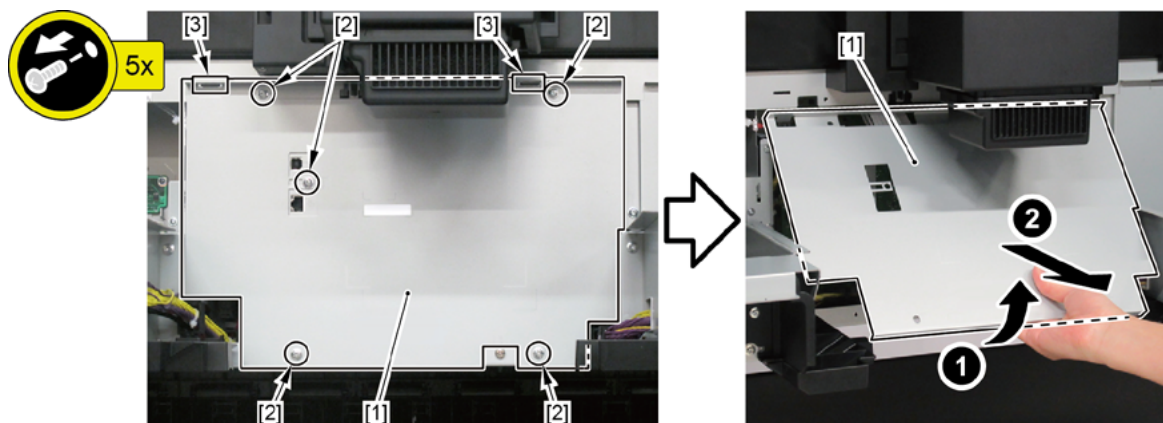
6. Open [1] the right ink unit.

- [2]: 4 screws



## 7. Remove [1] the plate.

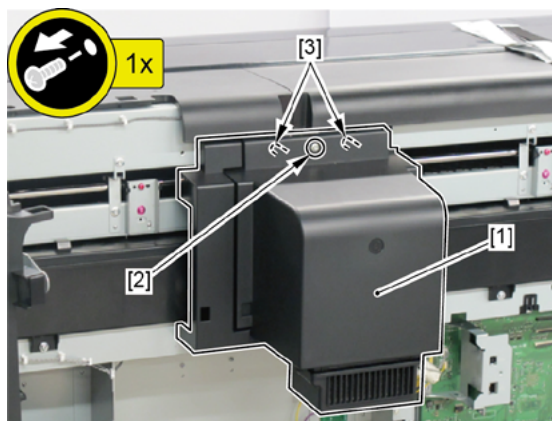
- [2]: 5 screws
- [3]: 2 protrusions



## 8. Remove [1] a set of

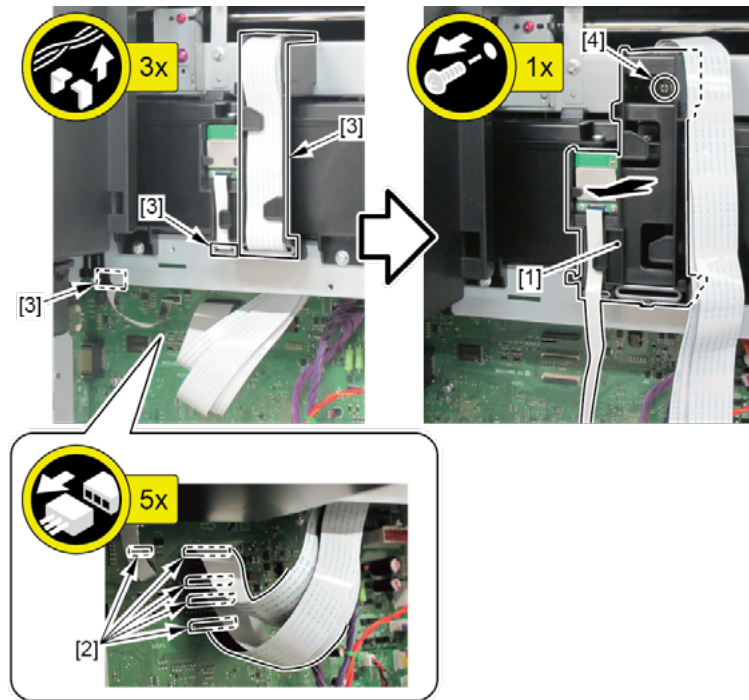
- COVER, MIST FAN
- COVER, BACK RIGHT.

- [2]: 1 screw
- [3]: 2 bosses

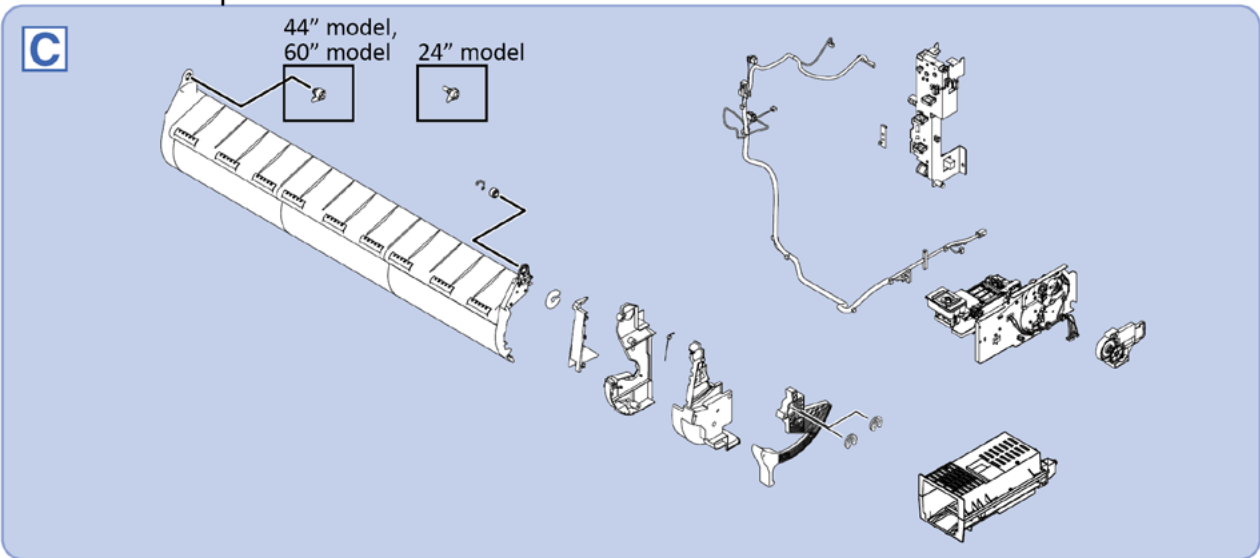
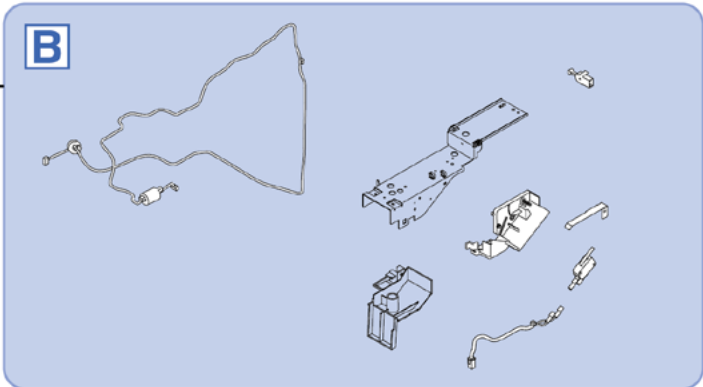
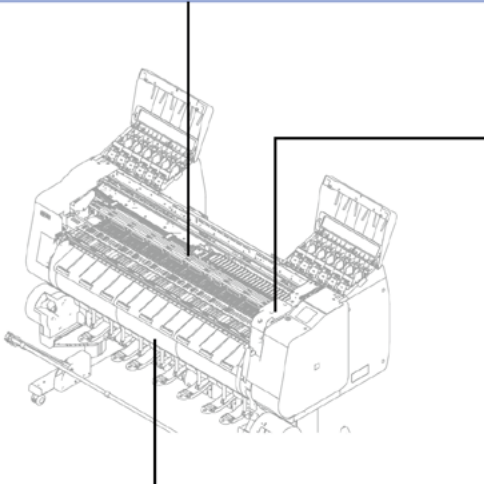
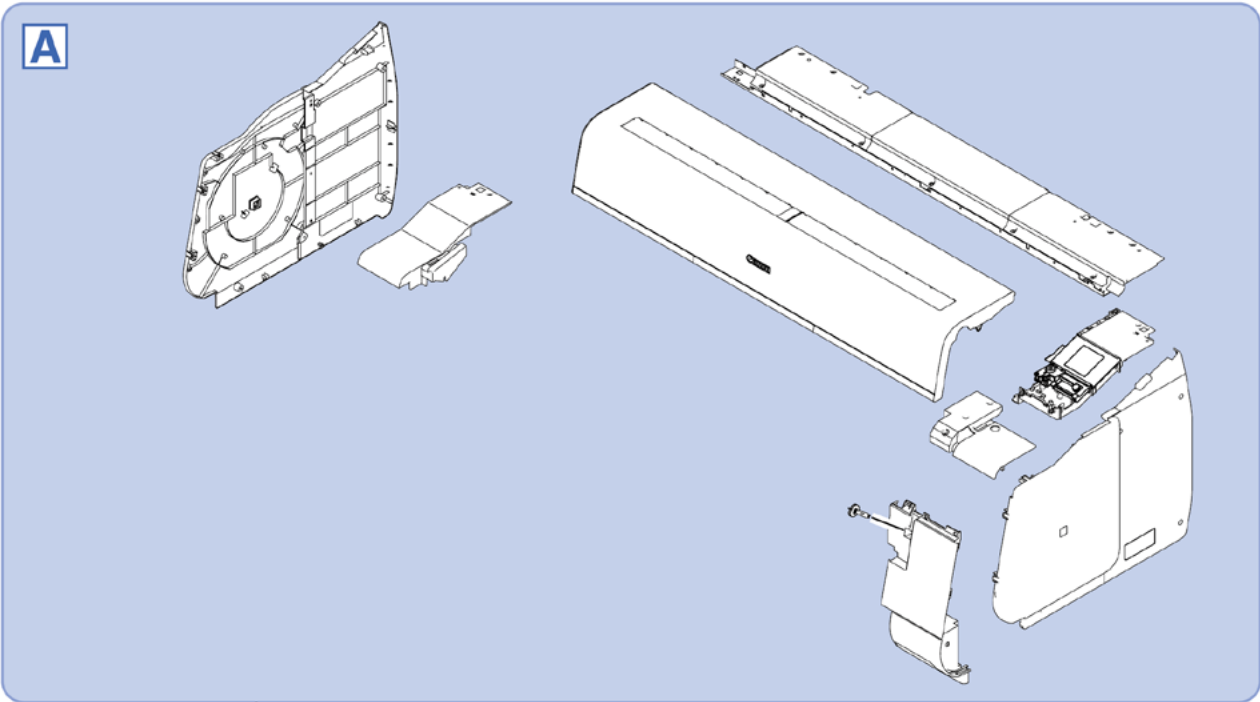


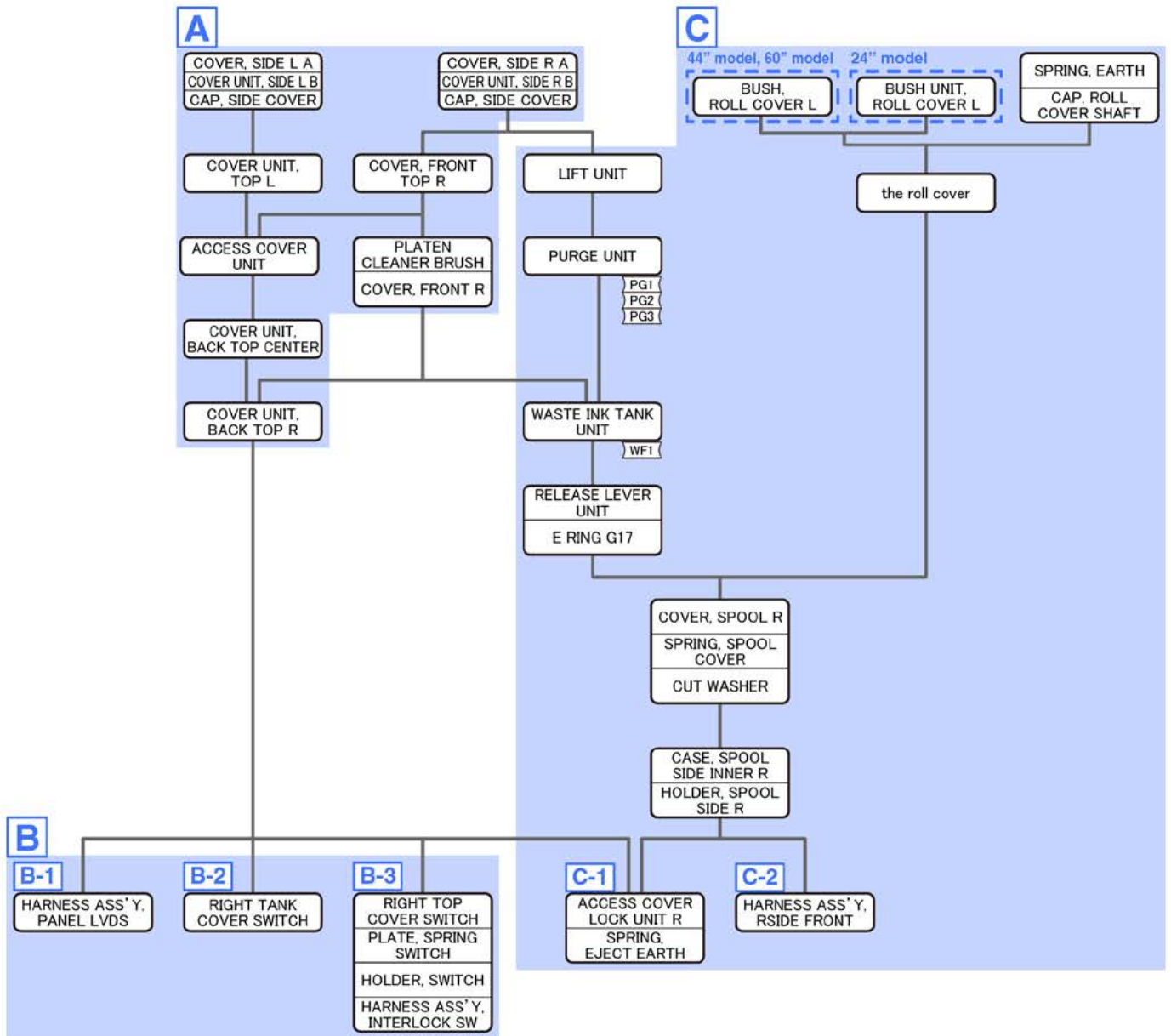
## 9. Remove [1] WIRELESS LAN PCB UNIT.

- [2]: 5 connectors
- [3]: Cable guides in three areas
- [4]: 1 screw



# 8. RIGHT FRONT (ACCESS COVER LOCK R)

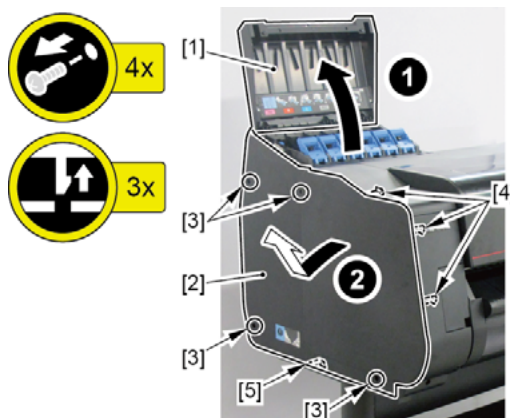




A

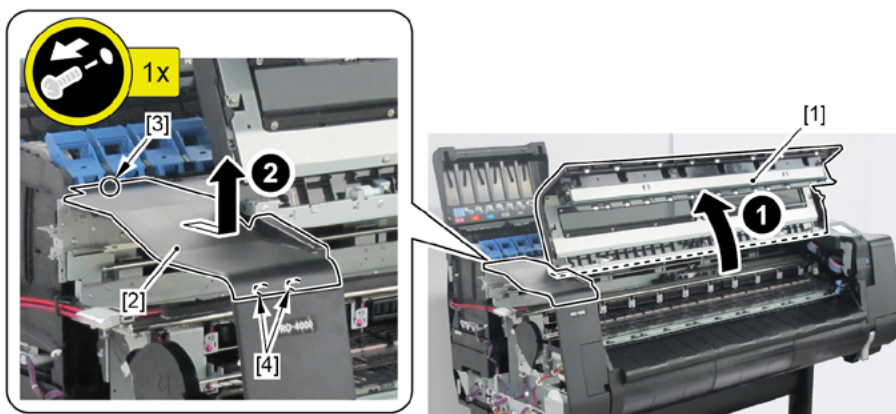
1. Open [1] the left ink tank cover.
2. Remove [2] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



3. Open [1] the access cover.
4. Remove [2] COVER UNIT, TOP L.

- [3]: 1 screw
- [4]: 2 hooks

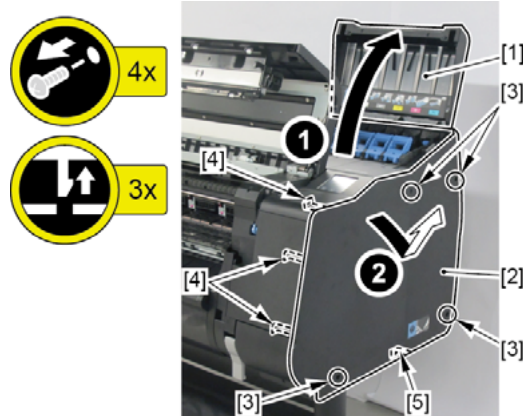


5. Open [1] the right ink tank cover.

6. Remove [2] a set of

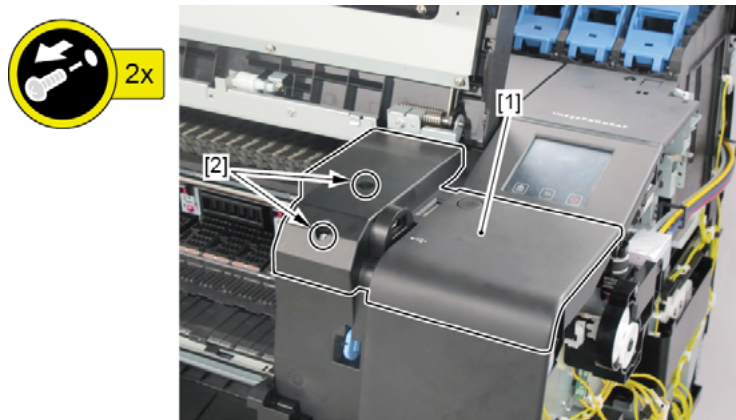
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



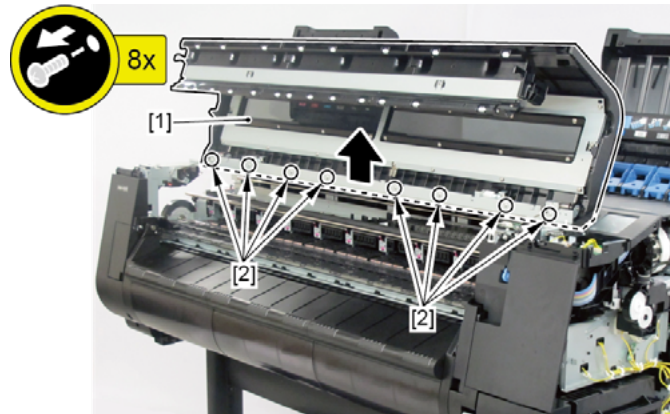
7. Remove [1] COVER, FRONT TOP R.

- [2]: 2 screws



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

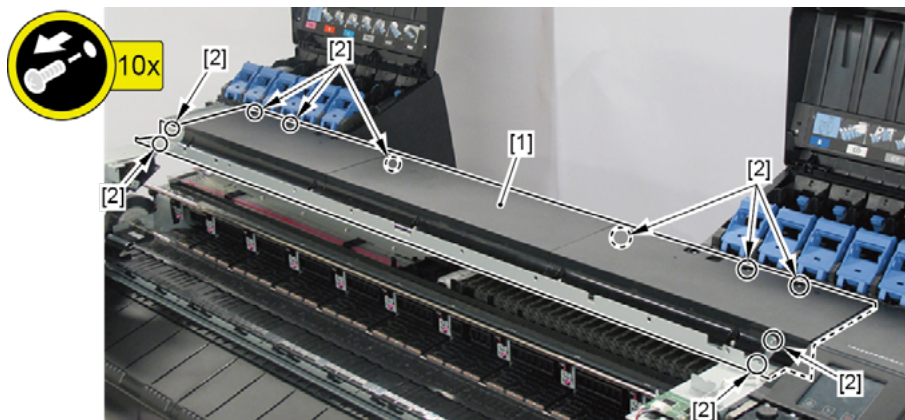
- [2]: 8 screws (5 screws in 24" model, 10 screws in 60" model)



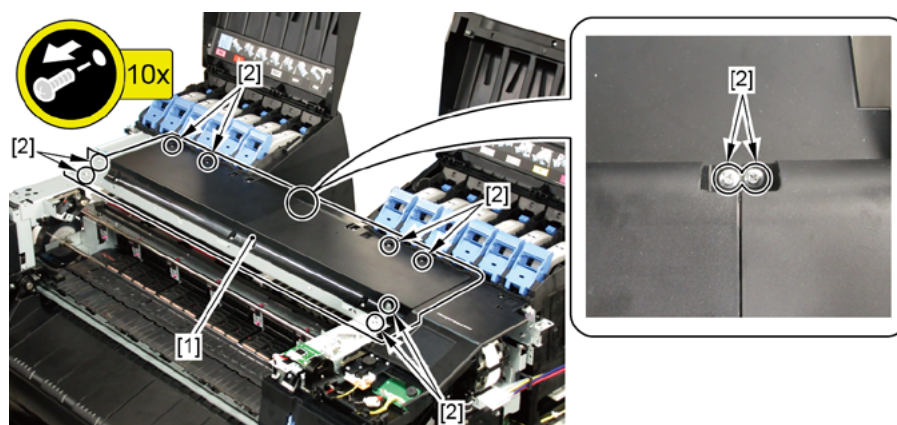
9. Remove [1] COVER UNIT, BACK TOP CENTER.

- [2]: 10 screws (11 screws in 60" model)

(44" model)



(24" model)

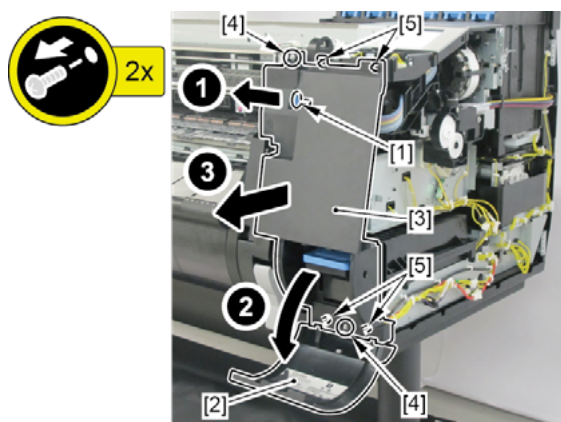


10. Remove [1] PLATEN CLEANER BRUSH.

11. Open [2] COVER UNIT, MTC.

12. Remove [3] COVER, FRONT R.

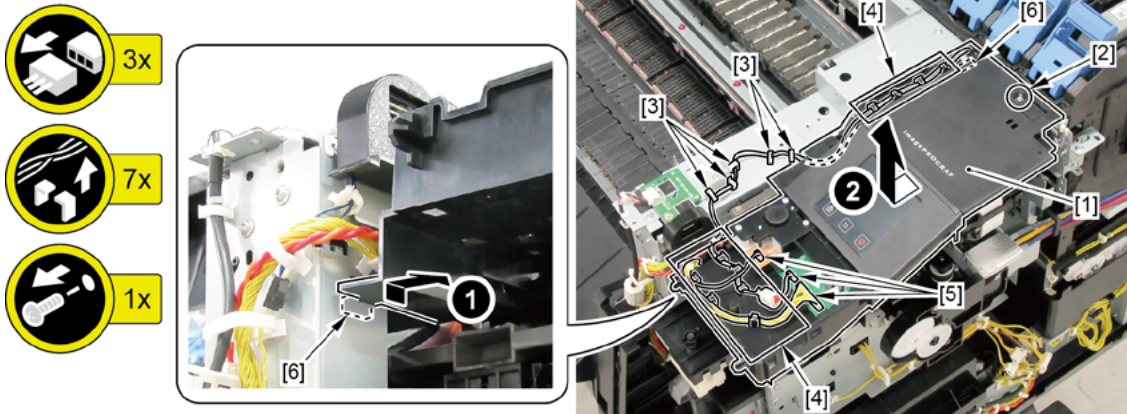
- [4]: 2 screws
- [5]: 4 protrusions





### 13. Remove [1] COVER UNIT, BACK TOP R (with the OPERATION PANEL UNIT).

- [2]: 1 screw
- [3]: 5 wire saddles
- [4]: Cable guides in two areas
- [5]: 3 connectors
- [6]: 2 hooks



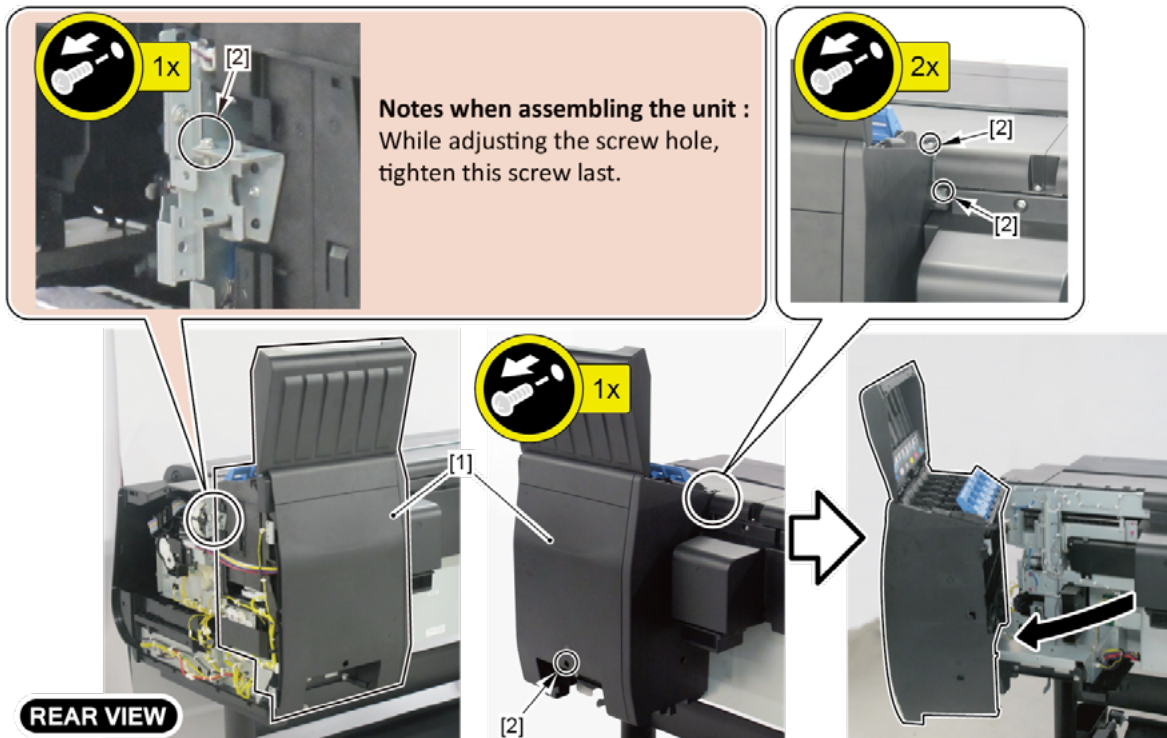
## B

1. Remove all the parts of Group A.

### B-1 (44" model, 60" model)

2. Open [1] the right ink unit.

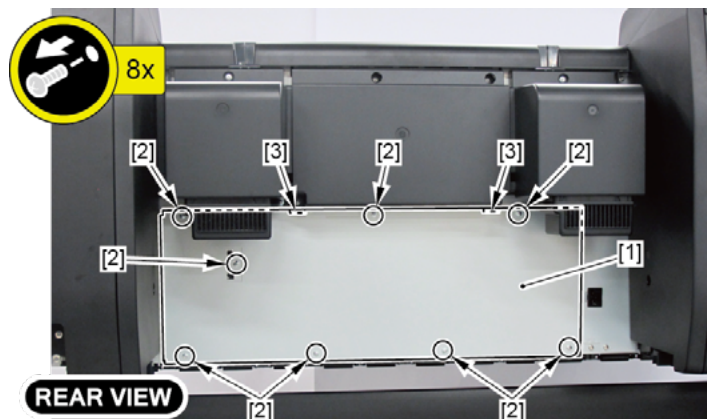
- [2]: 4 screws



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

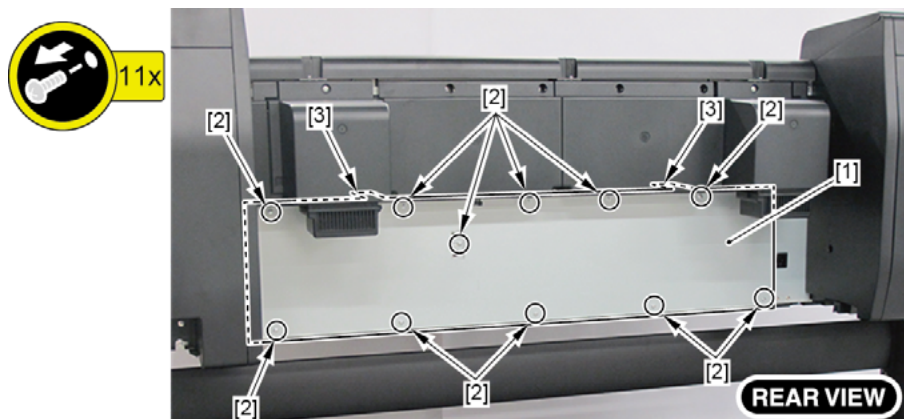
(44" model)

- [2]: 8 screws
- [3]: 2 protrusions



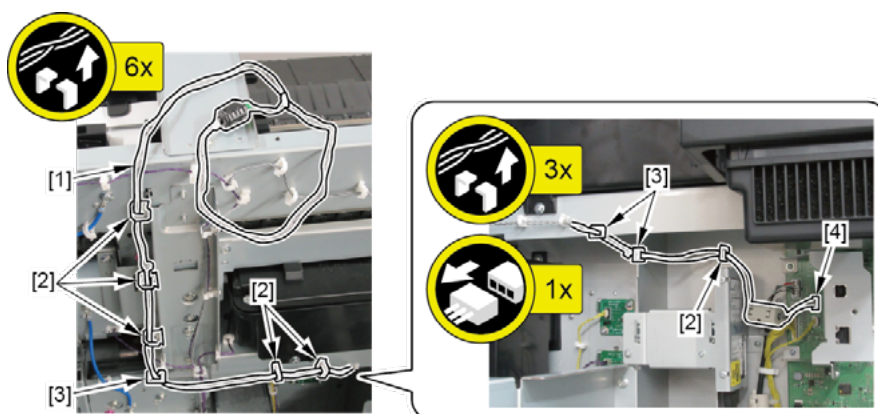
(60" model)

- [2]: 11 screws
- [3]: 2 protrusions



### 4. Disconnect [1] HARNESS ASS'Y, PANEL LVDS.

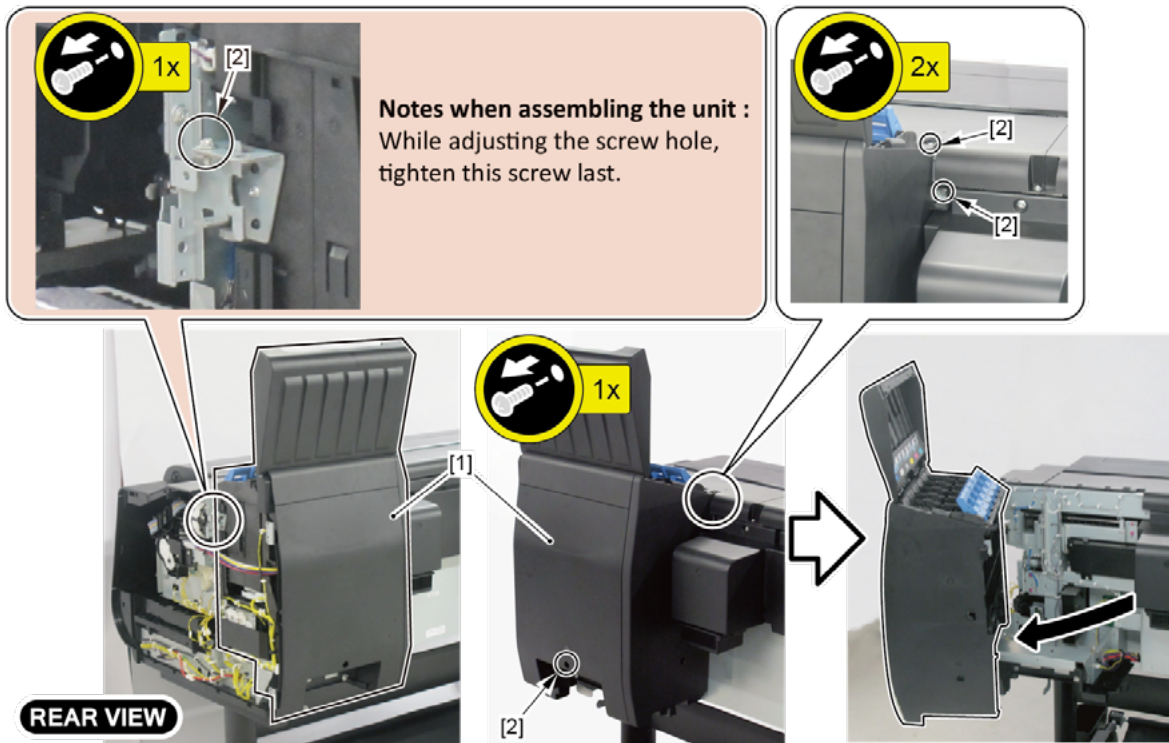
- [2]: 6 wire saddles
- [3]: 3 edges saddles
- [4]: 1 connector



## B-1 (24" model)

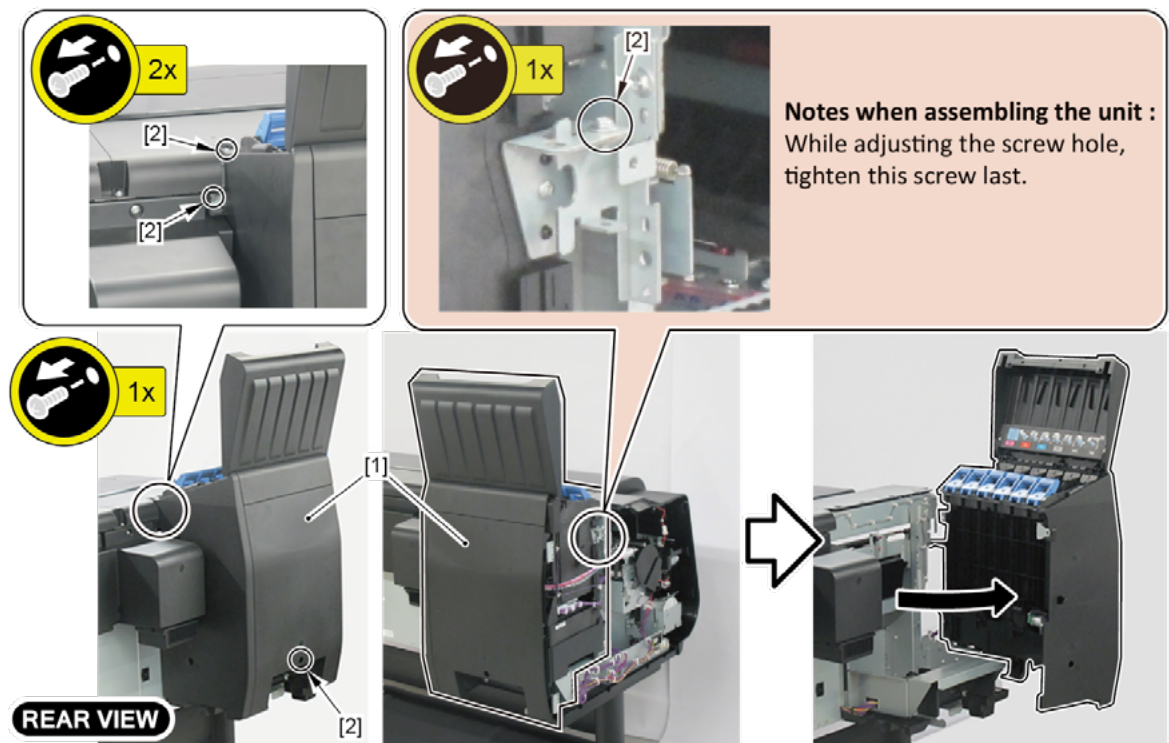
### 2. Open [1] the right ink unit.

- [2]: 4 screws



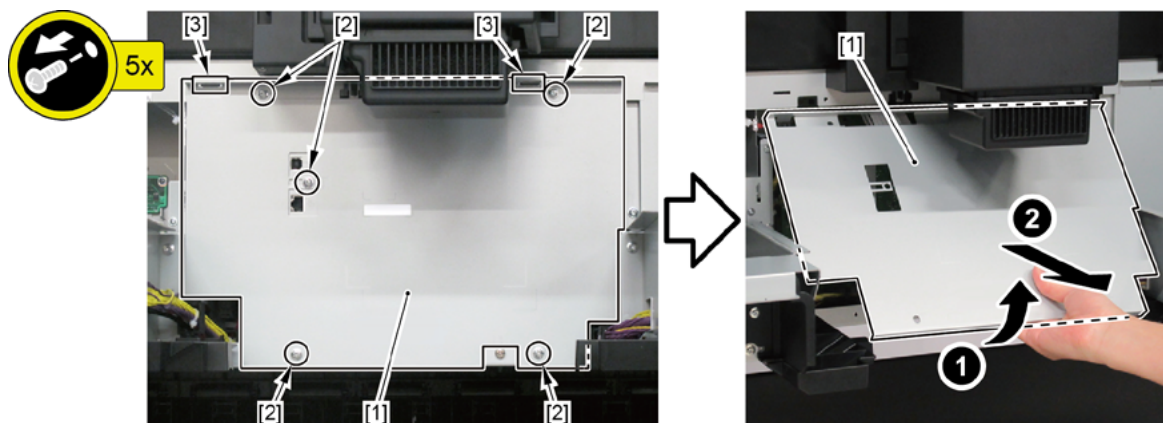
### 3. Open [1] the left ink unit.

- [2]: 4 screws



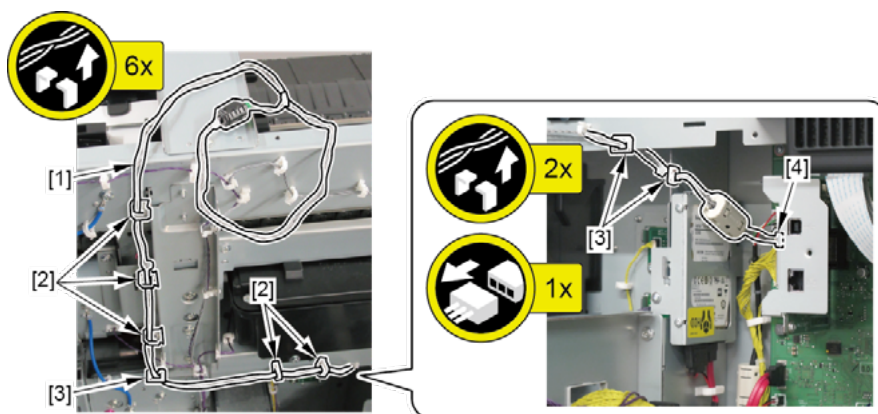
#### 4. Remove [1] the plate.

- [2]: 5 screws
- [3]: 2 protrusions



#### 5. Disconnect [1] HARNESS ASS'Y, PANEL LVDS.

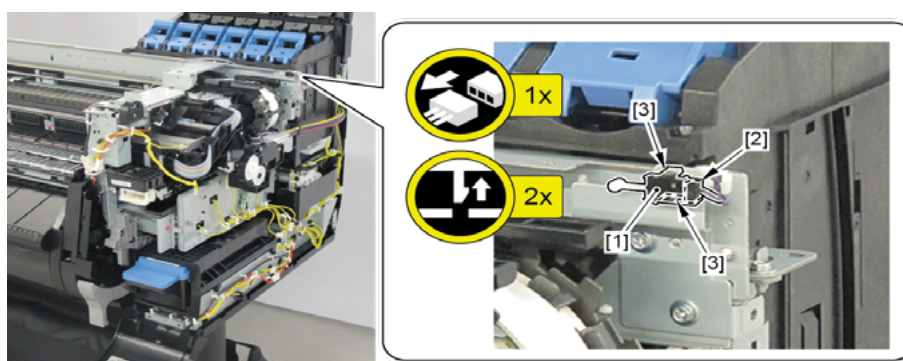
- [2]: 5 wire saddles
- [3]: 3 edges saddles
- [4]: 1 connector



### B-2

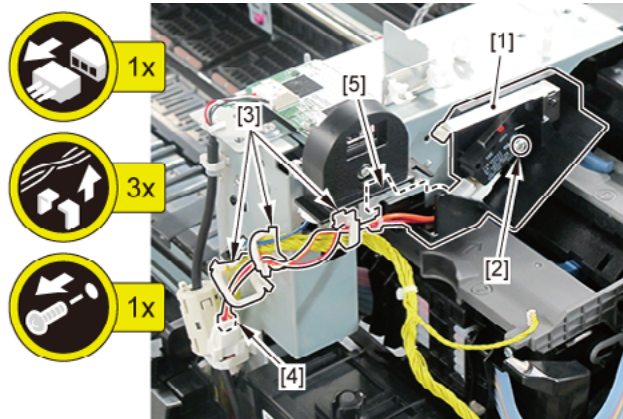
#### 2. Remove [1] RIGHT TANK COVER SWITCH.

- [2]: 1 connector
- [3]: 2 claws

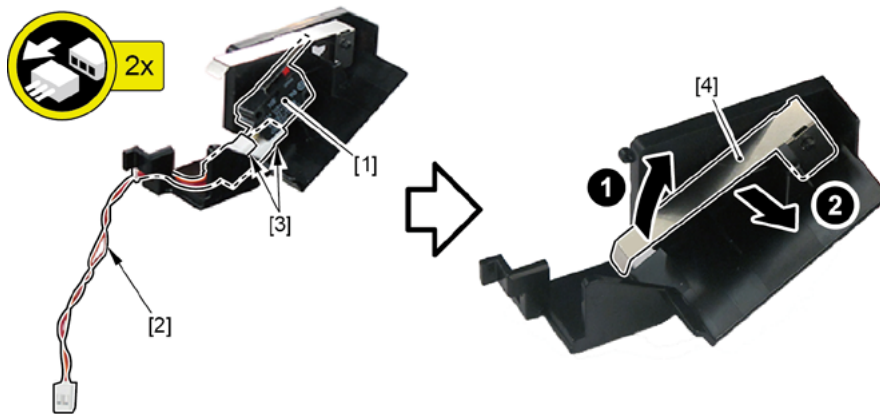


## B-3

2. Remove [1] HOLDER, SWITCH (with
    - RIGHT TOP COVER SWITCH
    - PLATE, SPRING SWITCH
    - HARNESS ASS'Y, INTERLOCK SW).
- [2]: 1 screw
  - [3]: 3 wire saddles
  - [4]: 1 connector
  - [5]: 1 hook

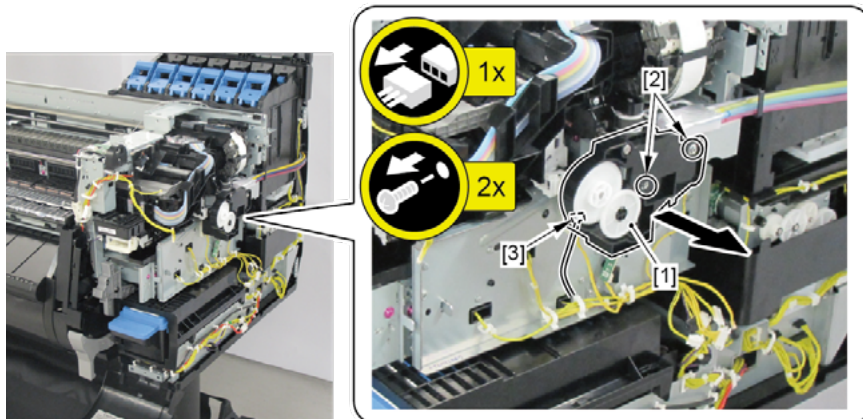


3. Remove [1] RIGHT TOP COVER SWITCH and [2] HARNESS ASS'Y, INTERLOCK SW.
  - [3]: 2 connectors
4. Remove [4] PLATE, SPRING SWITCH.

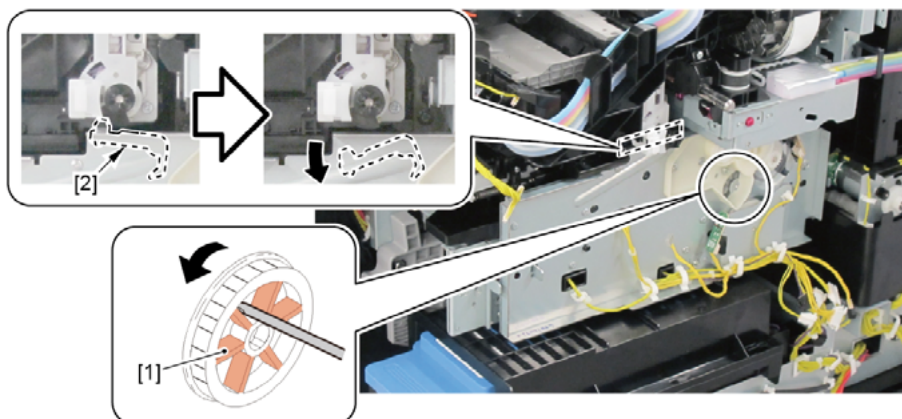


## C

1. Remove all the parts of Group A.
2. Remove [1] LIFT UNIT.
  - [2]: 1 connector
  - [3]: 2 screws

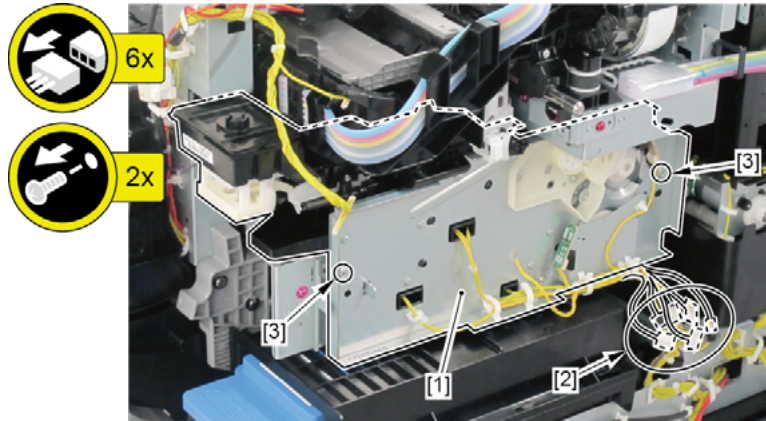


3. Unlock the carriage.
  - Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



#### 4. Remove [1] PURGE UNIT.

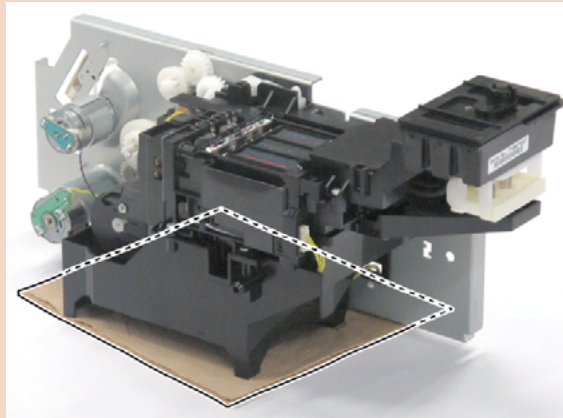
- [2]: 6 connectors
- [3]: 2 screws



#### Notes when removing the unit:

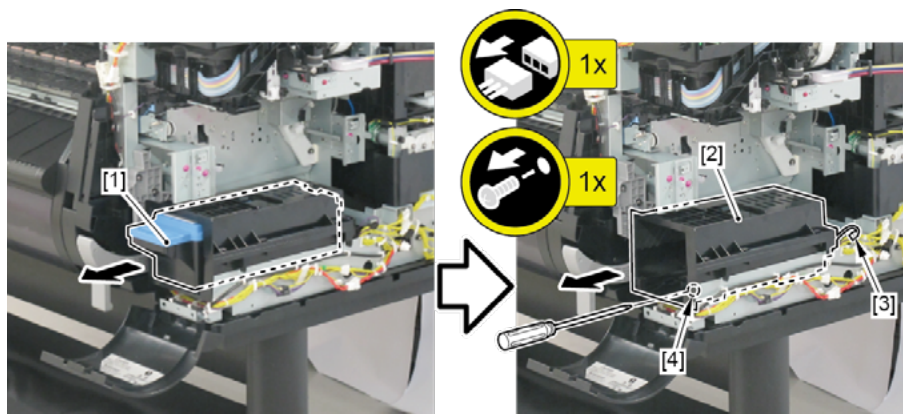
There is an opening on the bottom of the PURGE UNIT. Place the unit on paper towel, etc.

Point



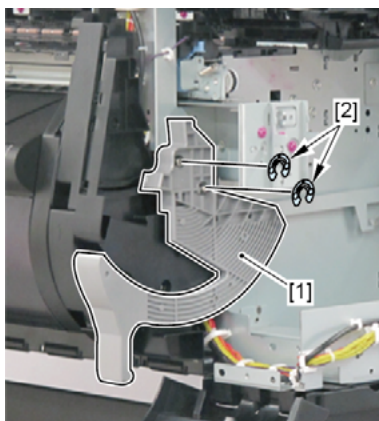
#### 5. Remove [1] MAINTENANCE CARTRIDGE and [2] WASTE INK TANK UNIT.

- [3]: 1 connector
- [4]: 1 screw



## 6. Remove [1] RELEASE LEVER UNIT.

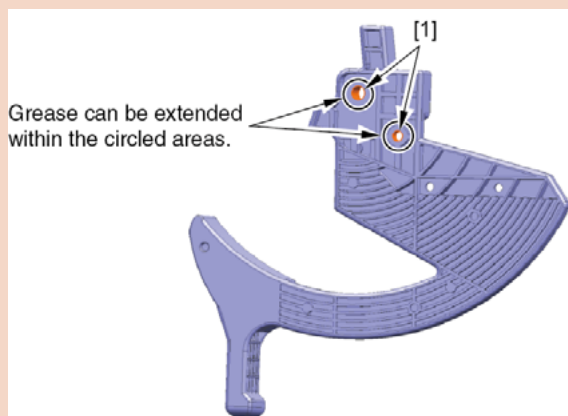
- [2]: 2 E-Rings (E RING G17)



### Notes when the RELEASE LEVER UNIT is replaced:

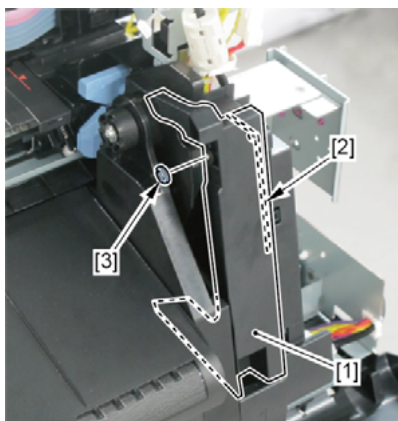
Apply grease to the portions specified below.

[1]: FLOIL G-31KB, 9 to 18 mg



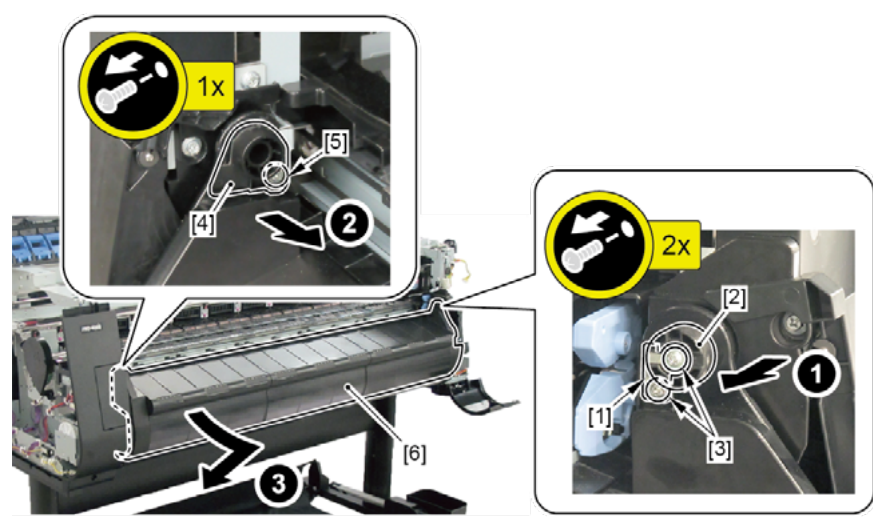
## 7. Remove [1] COVER, SPOOL R and [2] SPRING, SPOOL COVER.

- [3]: 1 CUT WASHER

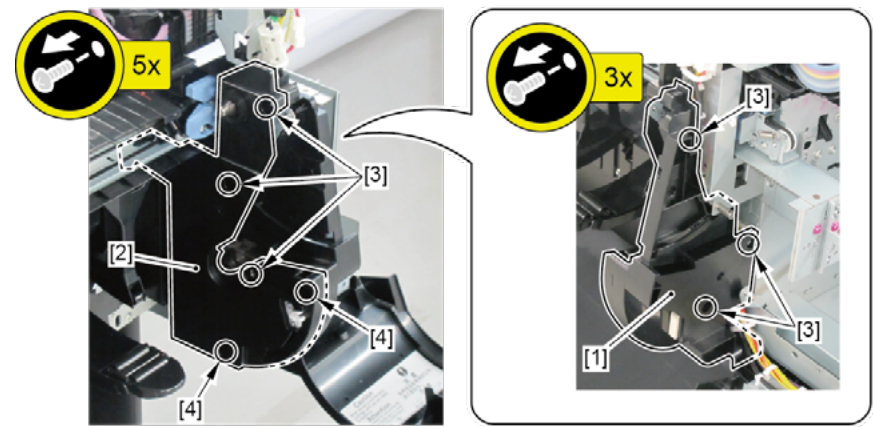




- 8. Remove [1] SPRING, EARTH and [2] CAP, ROLL COVER SHAFT.
  - [3]: 2 screws
- 9. Remove [4] BUSH, ROLL COVER L (the BUSH UNIT, ROLL COVER L in 24" model).
  - [5]: 1 screw
- 10. Remove [6] the roll cover.



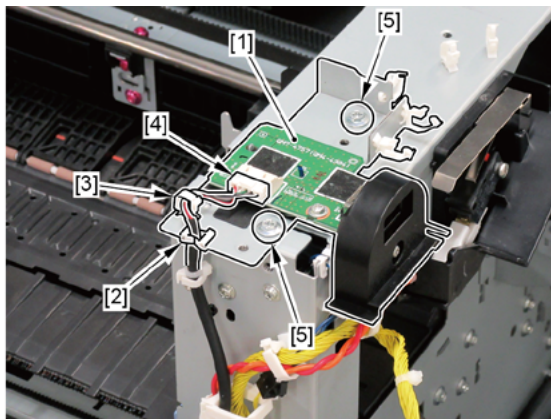
- 11. Remove [1] CASE, SPOOL SIDE INNER R and [2] HOLDER, SPOOL SIDE R.
  - [3]: 6 screws
  - [4]: 2 binding head screws



## C-1

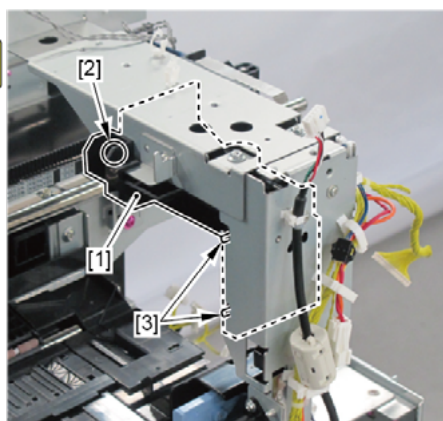
12. Remove [1] the plate (with the USB HOST PCB ASS'Y).

- [2]: 1 edge saddle
- [3]: 1 connector
- [4]: 2 screws



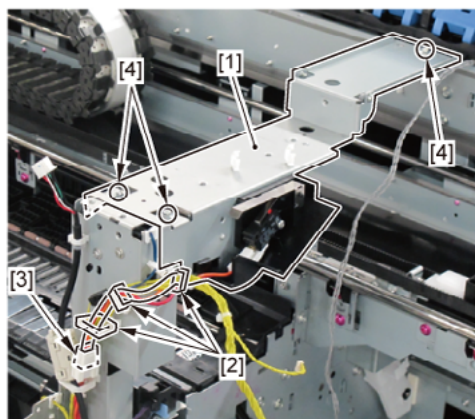
13. Remove [1] the inner cover R.

- [2]: 1 screw
- [3]: 2 bosses



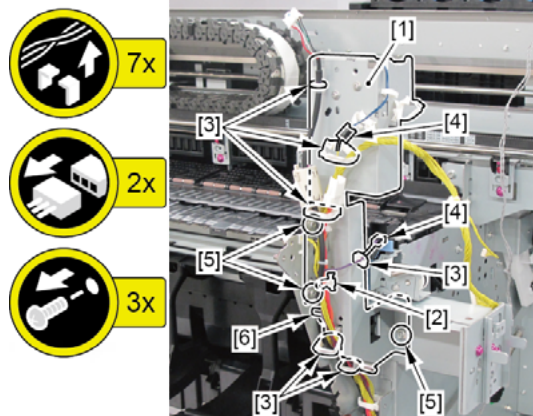
14. Remove [1] the plate.

- [2]: 3 wire saddles
- [3]: 1 connector
- [4]: 3 screws



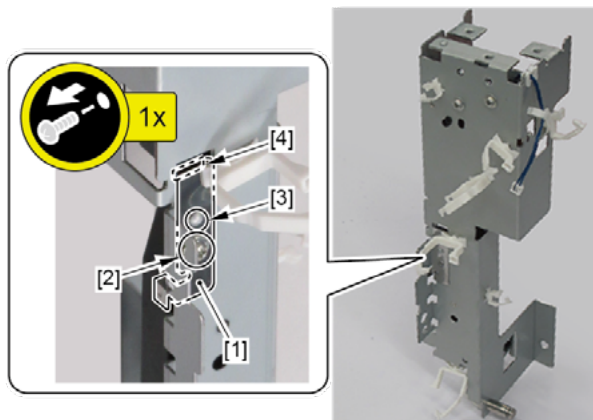
## 15. Remove [1] ACCESS COVER LOCK UNIT R.

- [2]: 1 reusable band
- [3]: 6 wire saddles
- [4]: 2 connectors
- [5]: 3 screws
- [6]: 1 protrusion



## 16. Remove [1] SPRING, EJECT EARTH.

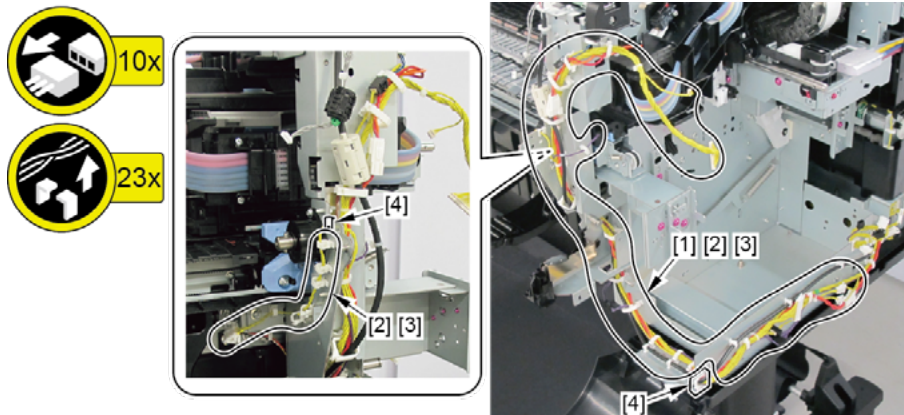
- [2]: 1 screw
- [3]: 1 boss
- [4]: 1 hook



## C-2

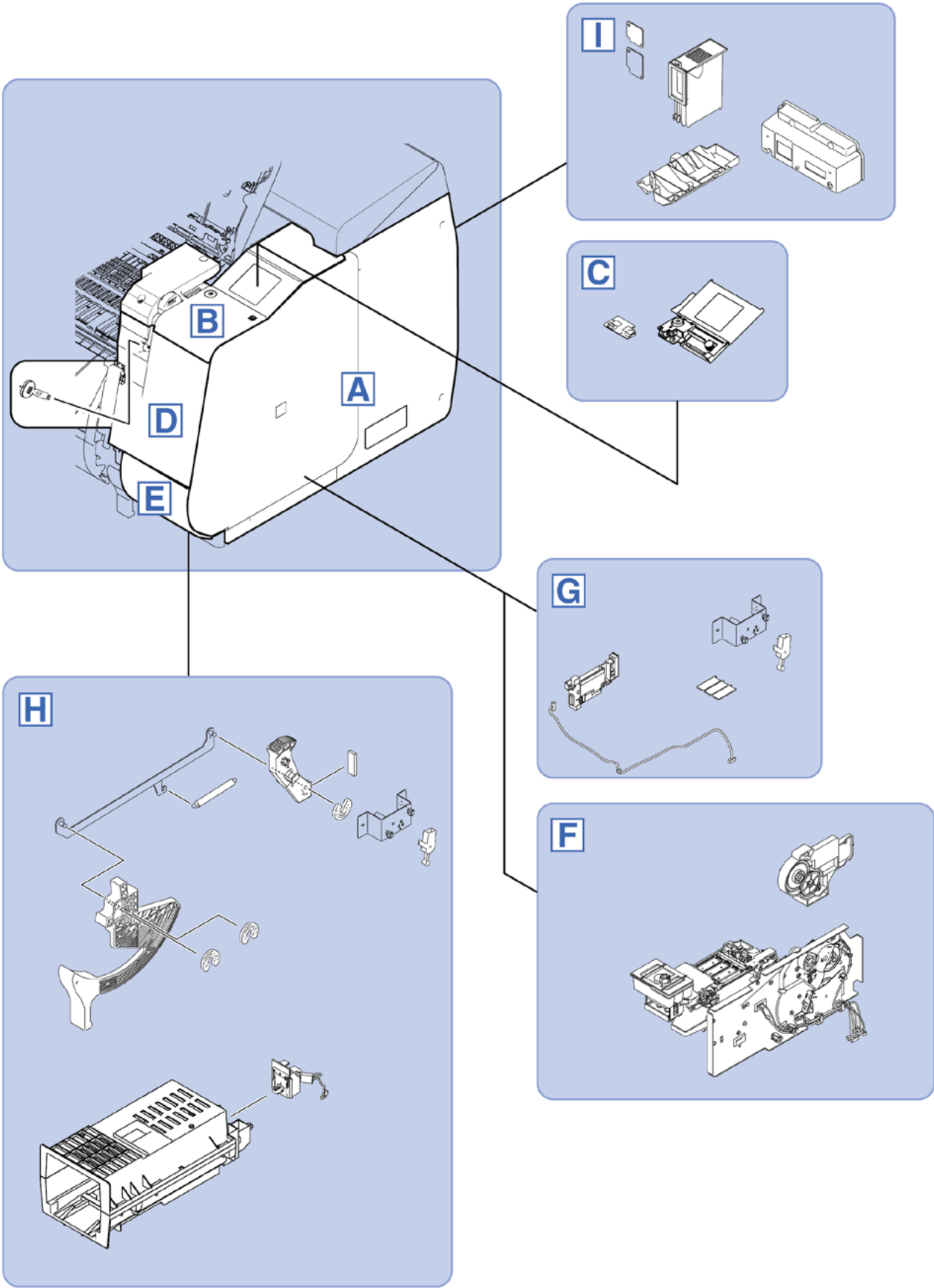
## 12. Disconnect [1] HARNESS ASS'Y, RSIDE FRONT.

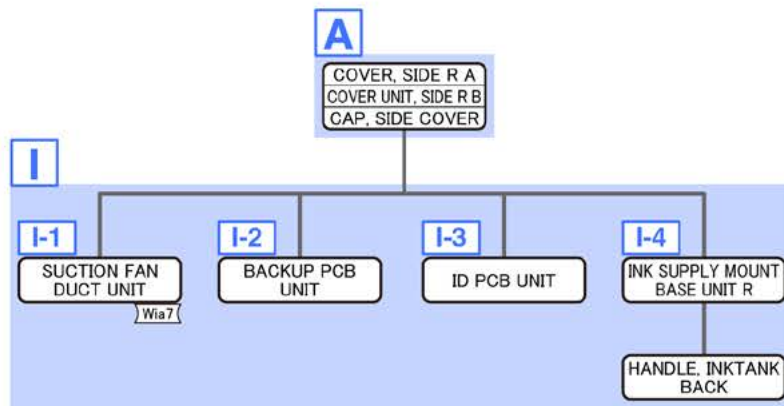
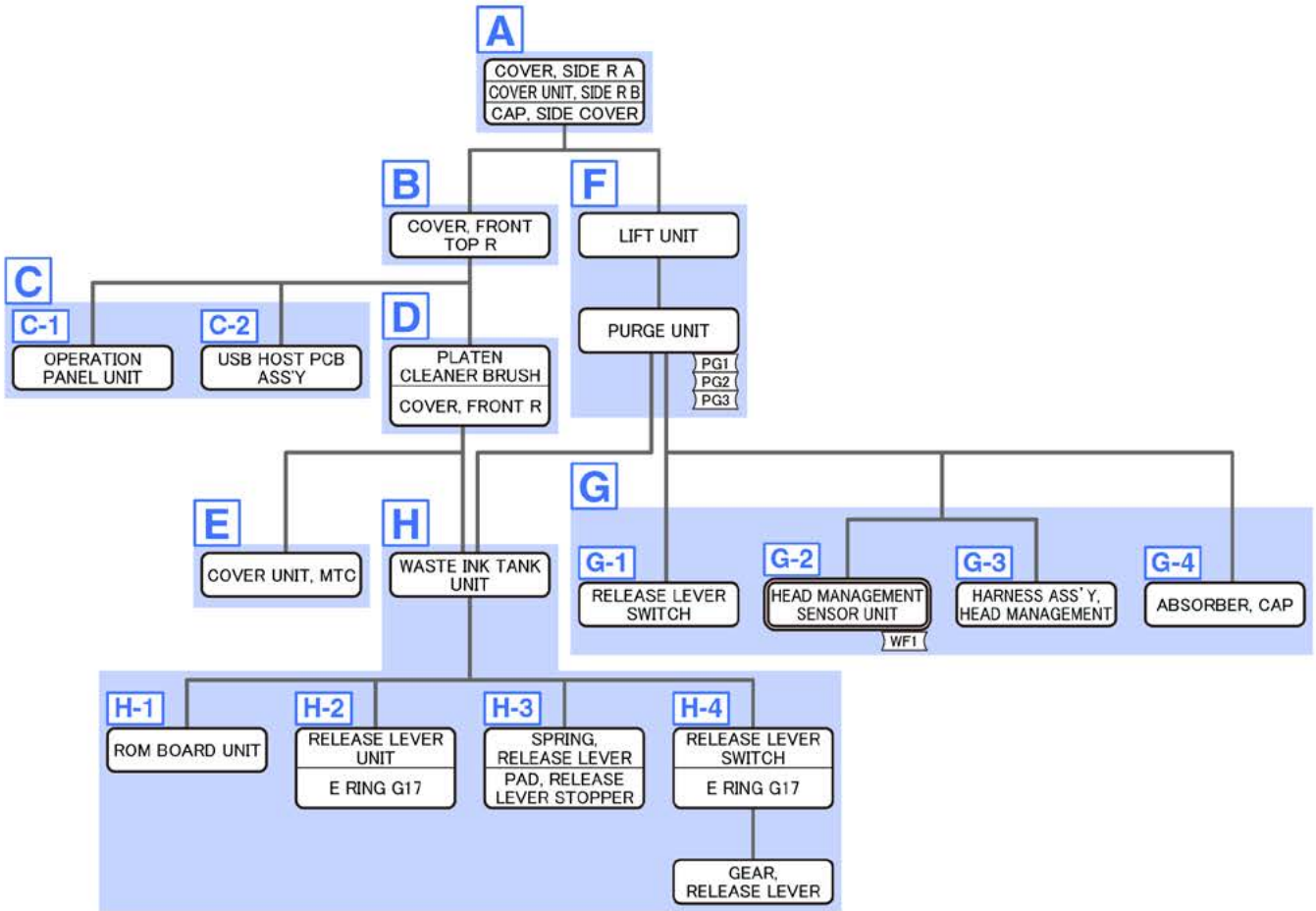
- [2]: 10 connectors
- [3]: 21 wire saddles
- [4]: 2 edges saddles

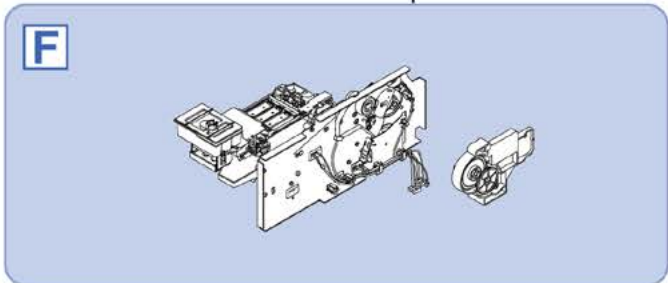
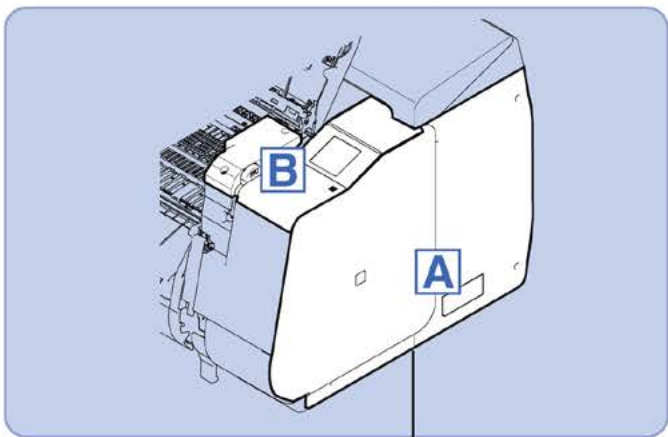
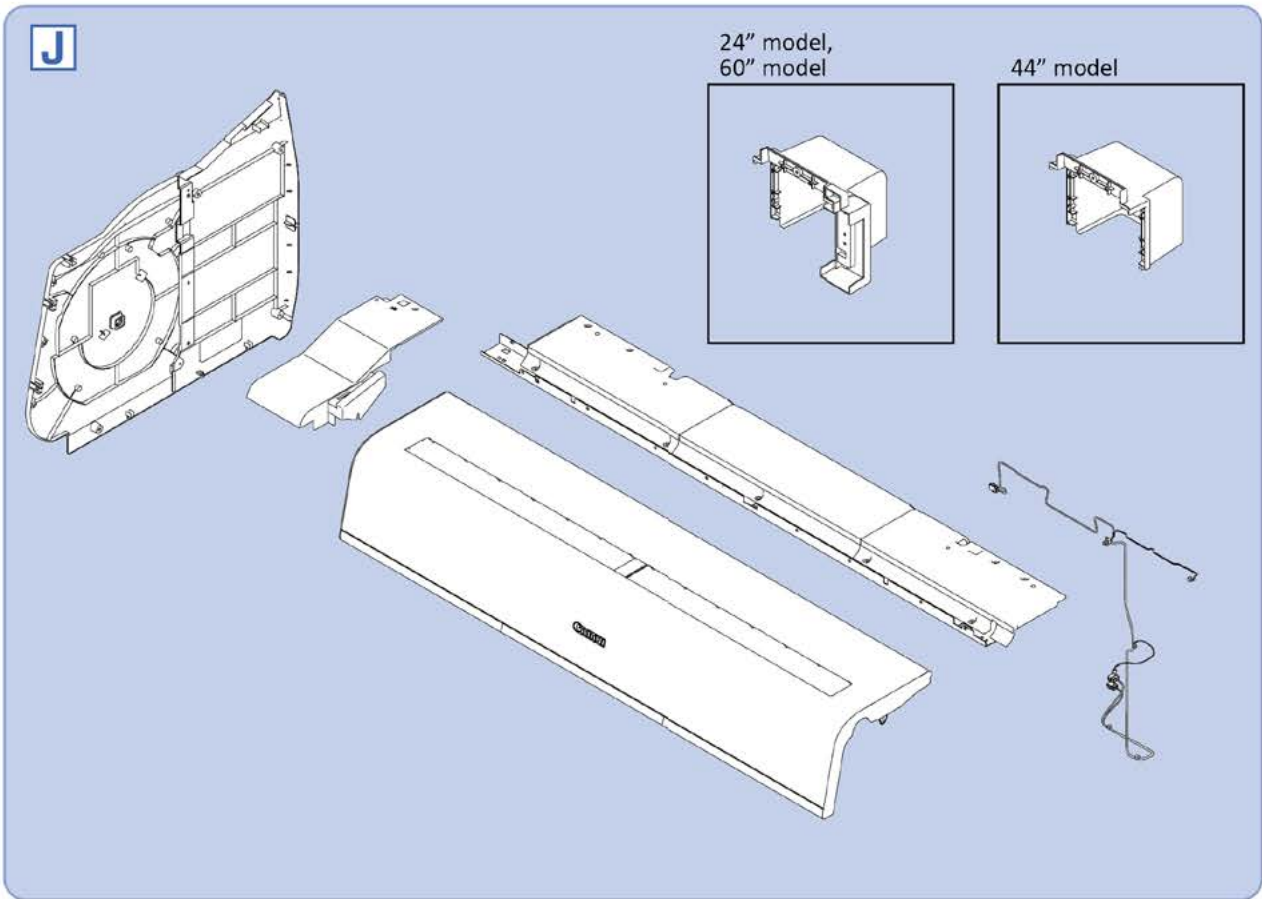




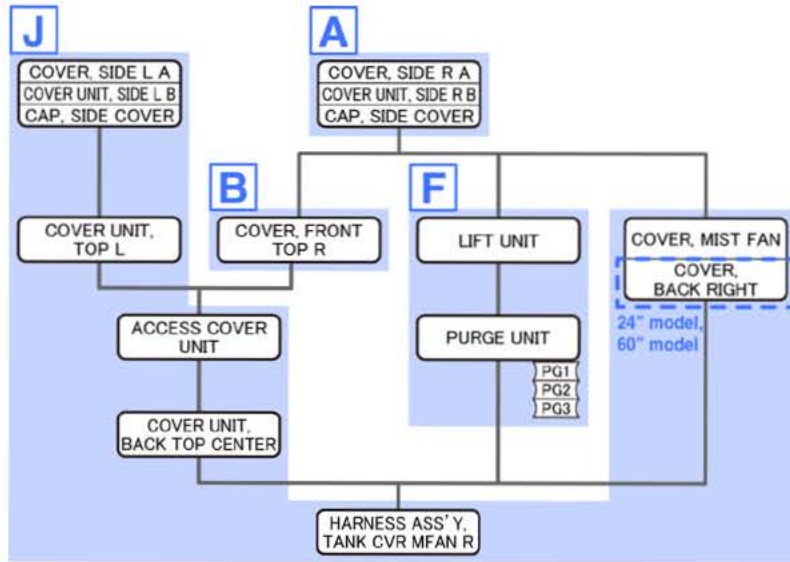
# 9. RIGHT SIDE (PURGE UNIT, OPERATION PANEL)





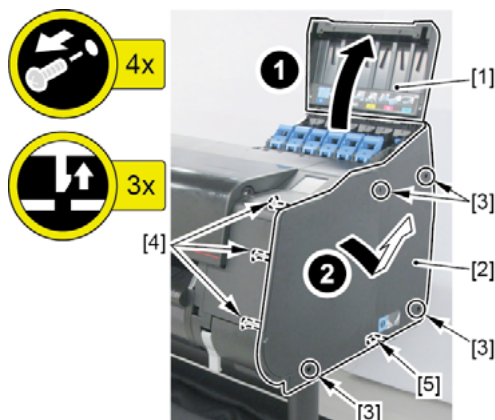






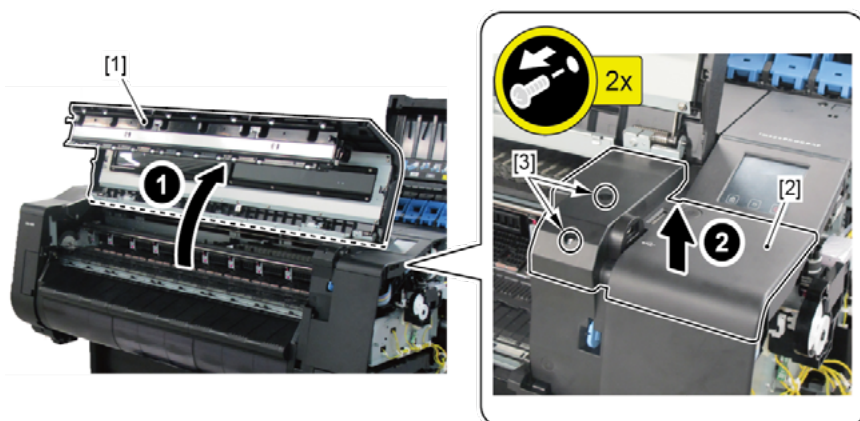
## A

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 screws
  - [4]: 3 claws
  - [5]: 1 hook



## B

1. Remove all the parts of Group A.
2. Open [1] the access cover.
3. Remove [2] COVER, FRONT TOP R.
  - [3]: 2 screws



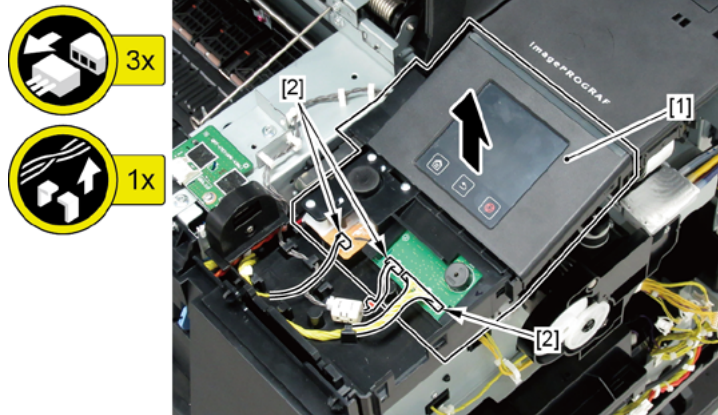
**C**

1. Remove all the parts of Groups A and B.

**C-1**

2. Remove [1] OPERATION PANEL UNIT.

- [2]: 3 connectors


**Notes when assembling the unit:**

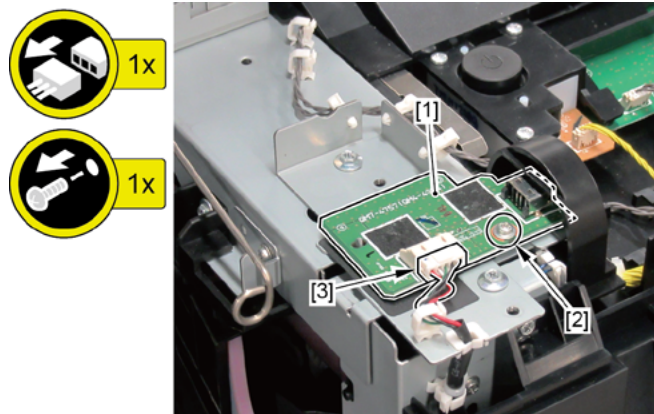
Perform adjustment at the end of assembly.

[SERVICE MODE > ADJUSTMENT > TOUCH PANEL CALIBRATION]

**C-2**

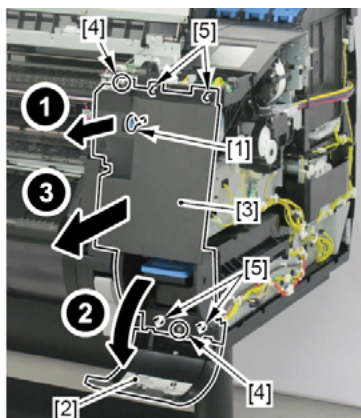
2. Remove [1] USB HOST PCB ASS'Y.

- [2]: 1 screw
- [3]: 1 connector



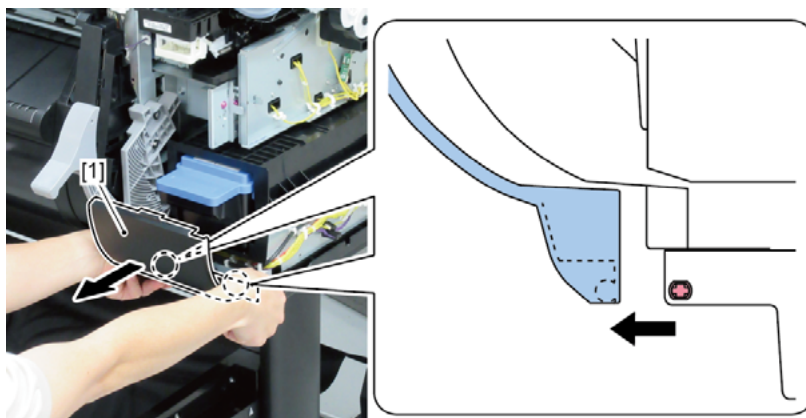
## D

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]: 2 screws
  - [5]: 4 protrusions



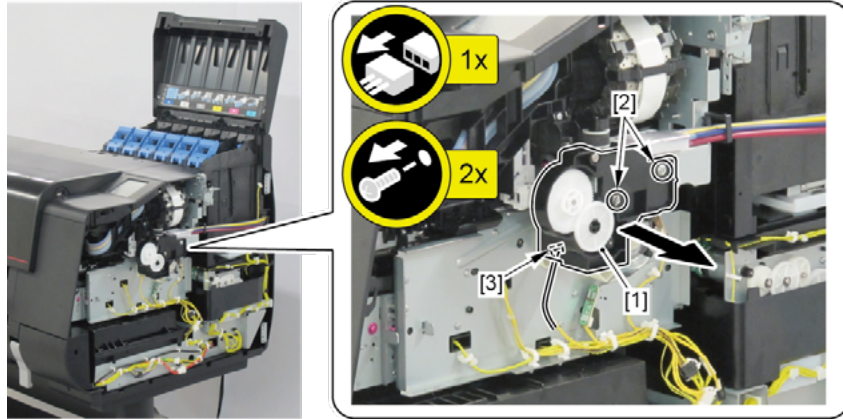
## E

1. Remove all the parts of Groups A, B, and D.
2. Remove [1] COVER UNIT, MTC.



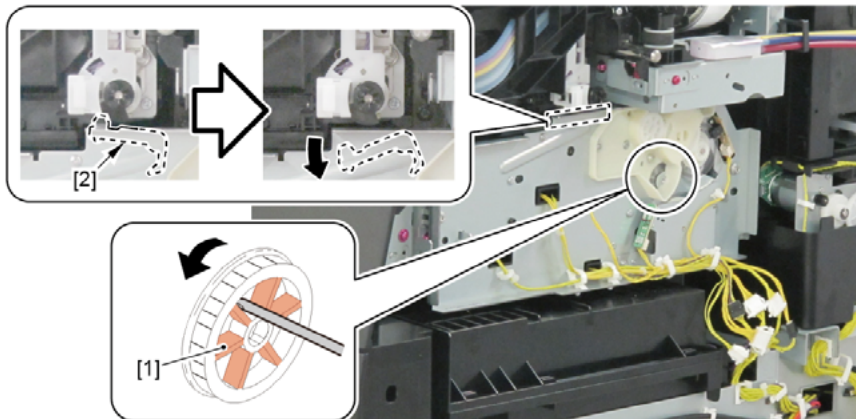
**F**

1. Remove all the parts of Group A.
2. Remove [1] LIFT UNIT.
  - [2]: 2 screws
  - [3]: 1 connector



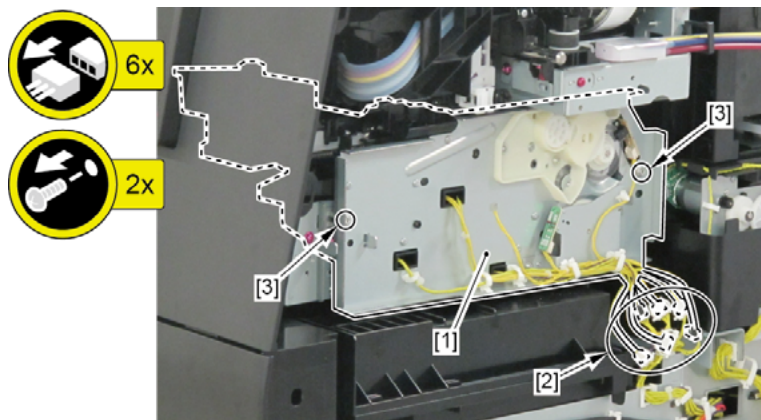
3. Unlock the carriage.

Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



#### 4. Remove [1] PURGE UNIT.

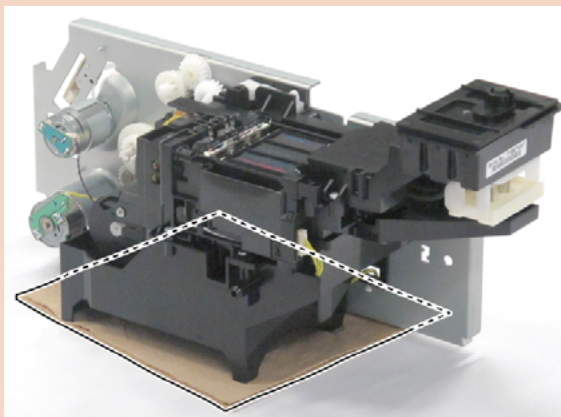
- [2]: 6 connectors
- [3]: 2 screws



#### Notes when removing the unit:

There is an opening on the bottom of the PURGE UNIT. Place the unit on paper towel, etc.

Point



#### 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]

Point

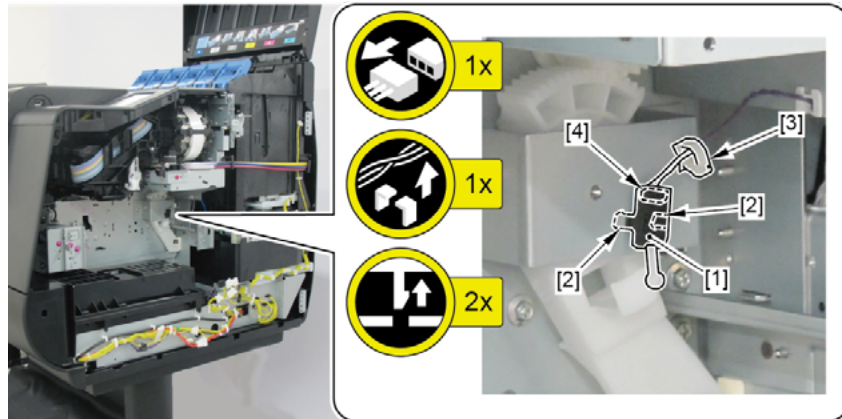
**G**

1. Remove all the parts of Groups A and F.

**G-1**

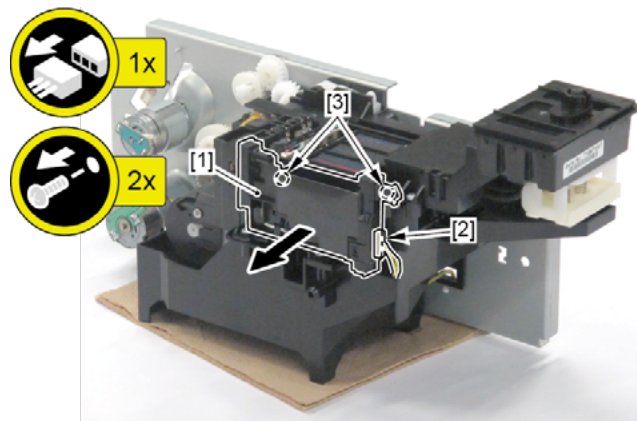
2. Remove [1] RELEASE LEVER SWITCH.

- [2]: 2 claws
- [3]: 1 wire saddle
- [4]: 1 connector

**G-2**

2. Remove [1] HEAD MANAGEMENT SENSOR UNIT.

- [2]: 1 connector
- [3]: 2 binding head screws

**Notes when assembling the unit:**

Perform adjustment at the end of assembly.  
[SERVICE MODE > ADJUSTMENT > NOZZLE CHK POS.]

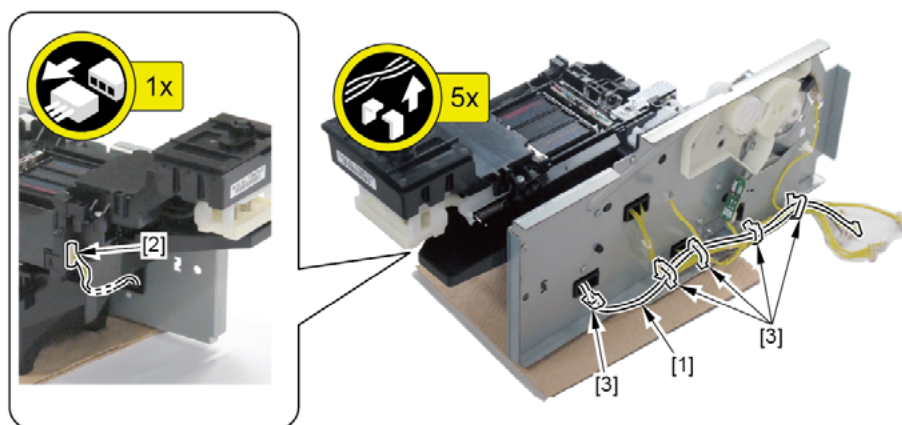
**Notes when the unit is replaced:**

Reset the counter when the unit is replaced.  
[SERVICE MODE > PARTS COUNTER > WF1]

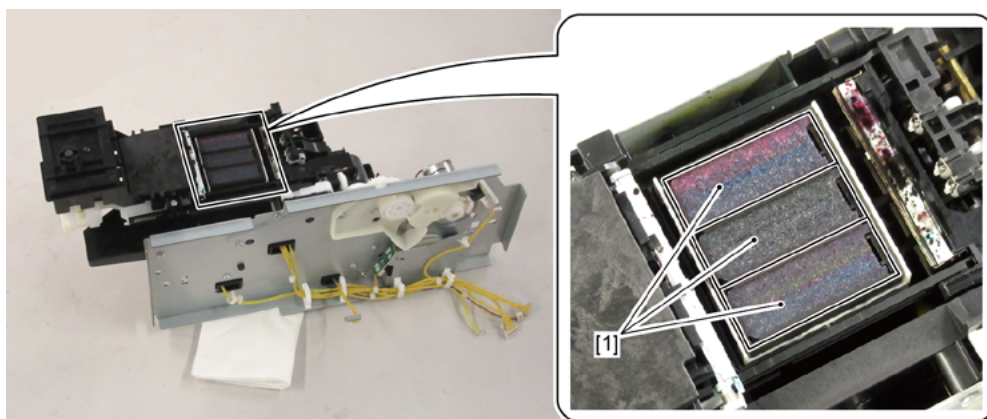
**G-3**

2. Remove [1] HARNESS ASS'Y, HEAD MANAGEMENT.

- [2]: 1 connector
- [3]: 5 wire saddles

**G-4**

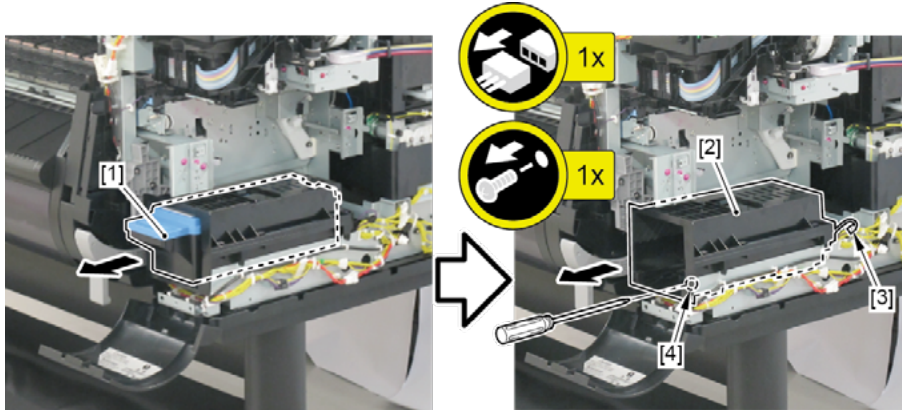
2. Remove three pieces of [1] ABSORBER, CAP.



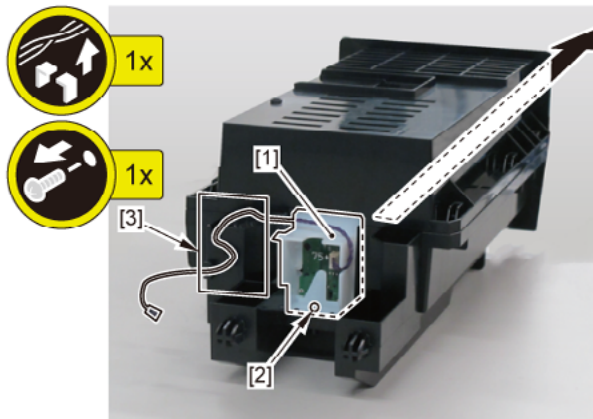


**H**

1. Remove all the parts of Groups A, B, D, and F.
2. Remove [1] MAINTENANCE CARTRIDGE and [2] WASTE INK TANK UNIT.
  - [3]: 1 connector
  - [4]: 1 screw

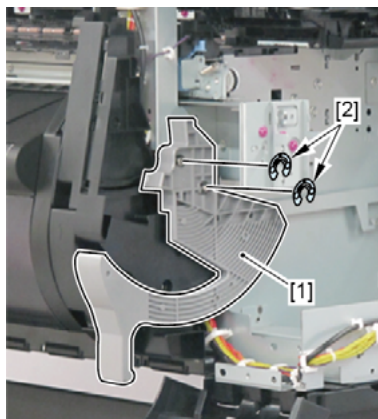
**H-1**

3. Remove [1] ROM BOARD UNIT.
  - [2]: 1 screw
  - [3]: Cable guide in one area



**H-2**

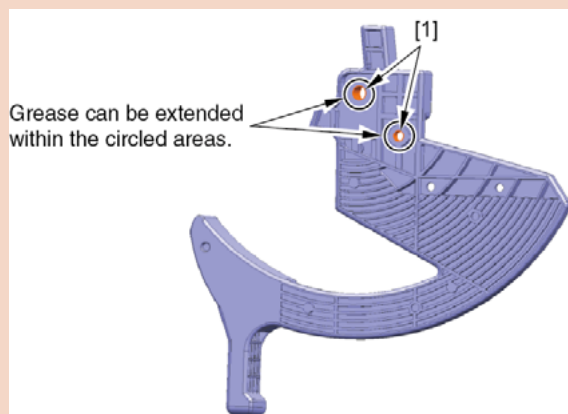
3. Remove [1] RELEASE LEVER UNIT.
  - [2]: 2 E-Rings (E RING G17)



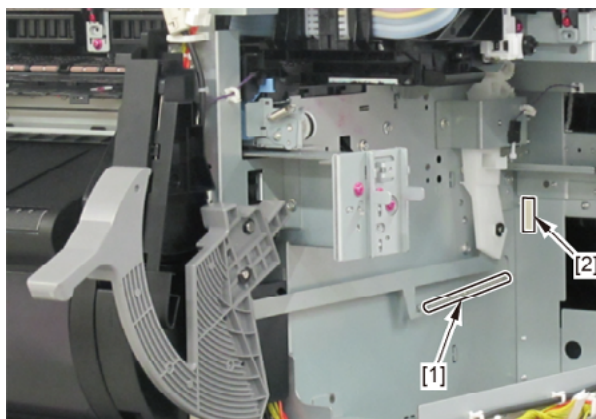
**Notes when the RELEASE LEVER UNIT is replaced:**

Apply grease to the portions specified below.

[1]: FLOIL G-31KB, 9 to 18 mg

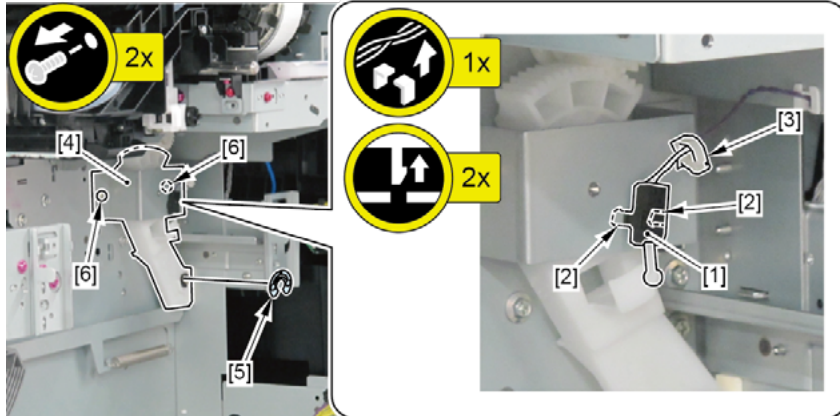
**H-3**

3. Remove [1] SPRING, RELEASE LEVER.
4. Remove [2] PAD, RELEASE LEVER STOPPER.



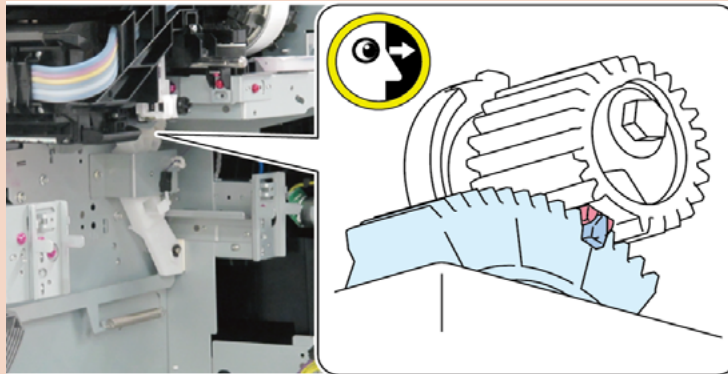
**H-4**

3. Remove [1] RELEASE LEVER SWITCH.
  - [2]: 2 claws
  - [3]: 1 wire saddle
4. Remove [4] the plate (with the GEAR, RELEASE LEVER).
  - [5]: 1 E-Ring (E RING G17)
  - [6]: 2 screws

**Notes when assembling the unit:**

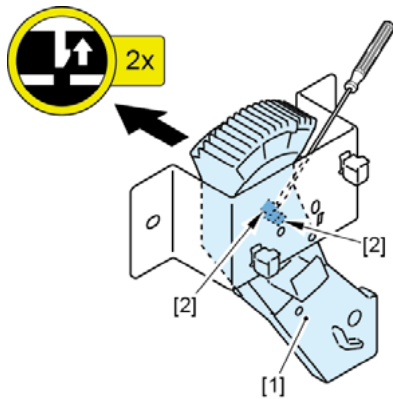
Adjust the phase of gears.

Point



5. Remove [1] GEAR, RELEASE LEVER.

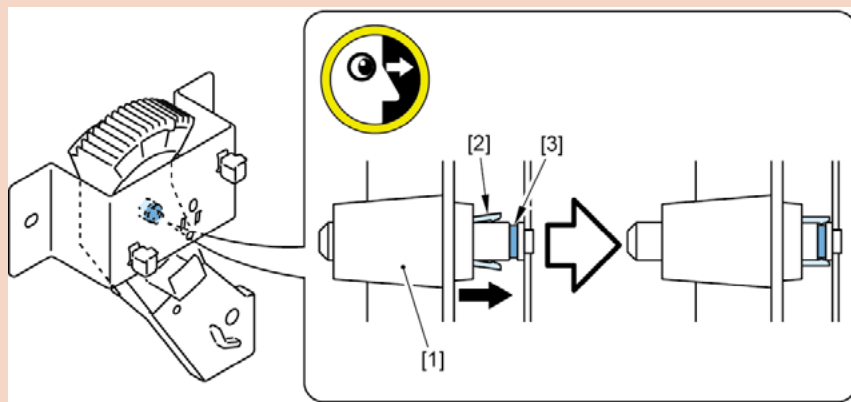
- [2]: 2 claws



Notes when assembling the unit:

Confirm that [2] the tabs of [1] GEAR, RELEASE LEVER securely fit in place of [3] the grooves.

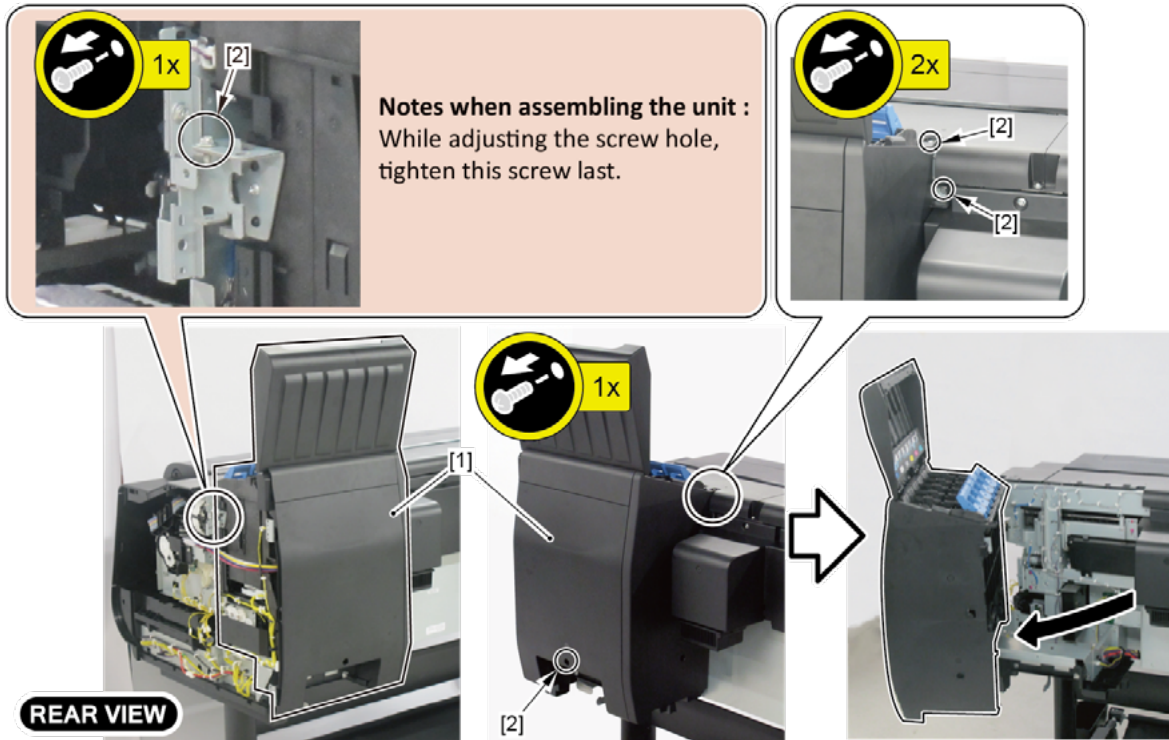
Point



## I

1. Remove all the parts of Group A.
2. Open [1] the right ink unit.

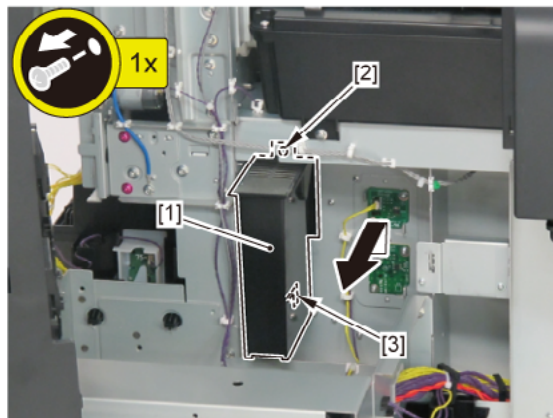
- [2]: 4 screws



## I-1

3. Remove [1] SUCTION FAN DUCT UNIT.

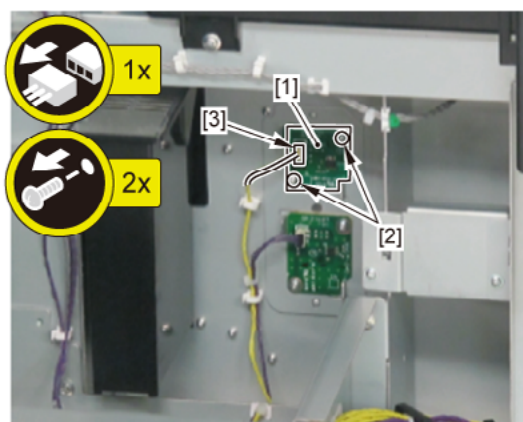
- [2]: 1 screw
- [3]: 1 hook



## I-2

## 3. Remove [1] BACKUP PCB UNIT.

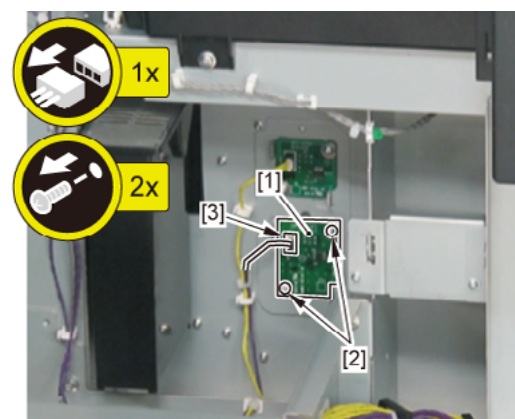
- [2]: 2 screws
- [3]: 1 connector



## I-3

## 3. Remove [1] ID PCB UNIT.

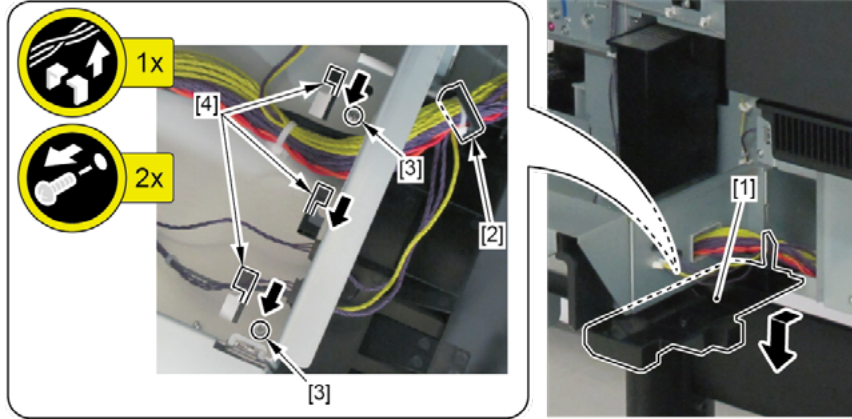
- [2]: 2 screws
- [3]: 1 connector



1-4

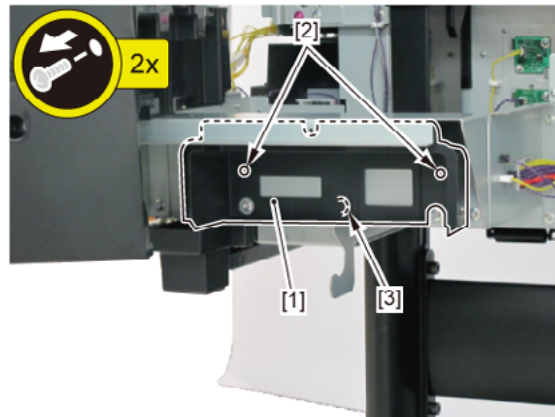
### 3. Remove [1] INK SUPPLY MOUNT BASE UNIT R.

- [2]: 1 wire saddle
- [3]: 2 screws
- [4]: 3 hooks



### 4. Remove [1] HANDLE, INKTANK BACK.

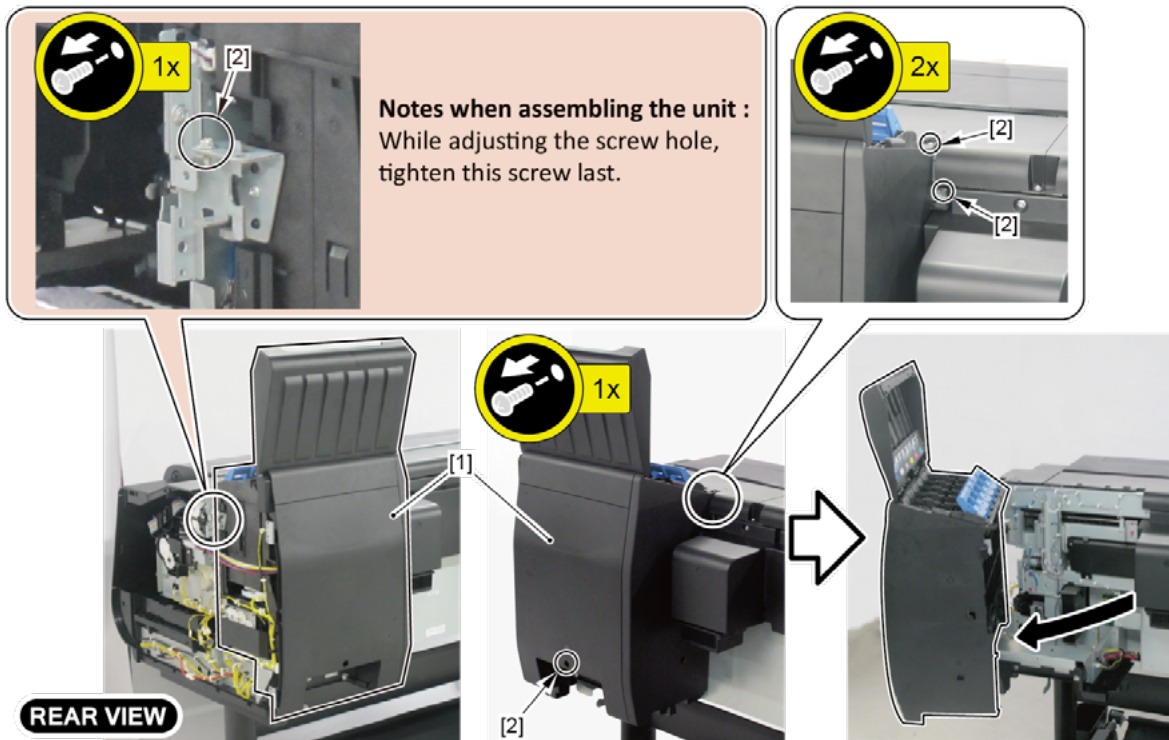
- [2]: 2 screws
- [3]: 1 boss



J

1. Remove all the parts of Groups A and F.
2. Open [1] the right ink unit.

- [2]: 4 screws

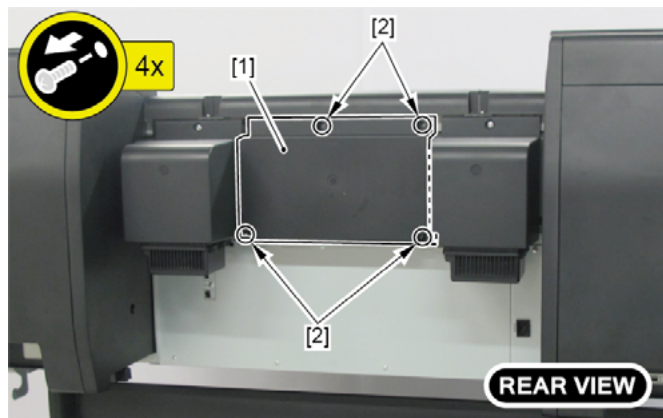


3.

(44" model)

Remove [1] COVER, BACK.

- [2]: 4 screws

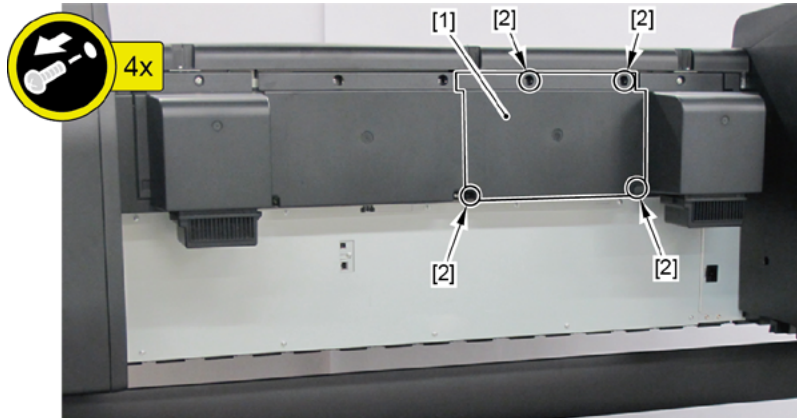




(60" model)

Remove [1] COVER, BACK.

- [2]: 4 screws

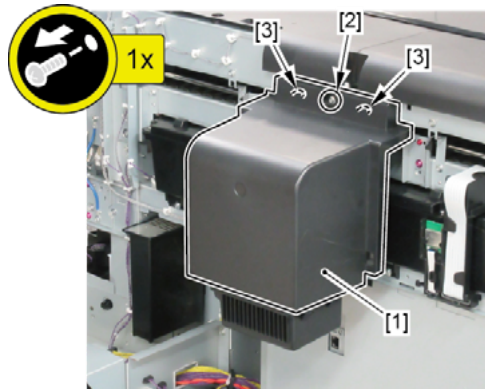


#### 4.

(44" model)

Remove [1] COVER, MIST FAN.

- [2]: 1 screw
- [3]: 2 bosses

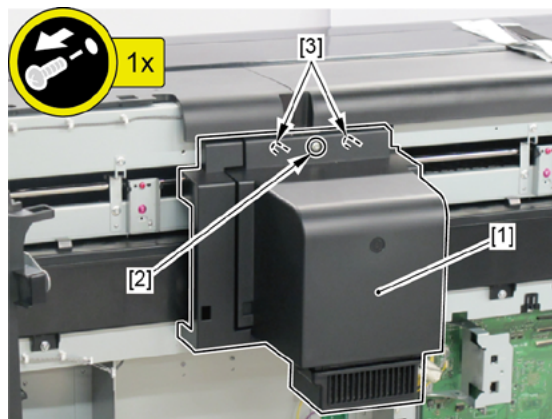


(24" model, 60" model)

Remove [1] a set of

- COVER, MIST FAN
- COVER, BACK RIGHT.

- [2]: 1 screw
- [3]: 2 bosses



5. Open [1] the left ink tank cover.

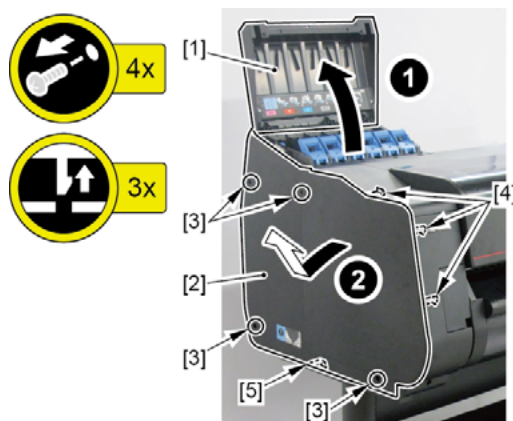
6. Remove [2] a set of

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

· [3]: 4 screws

· [4]: 3 claws

· [5]: 1 hook

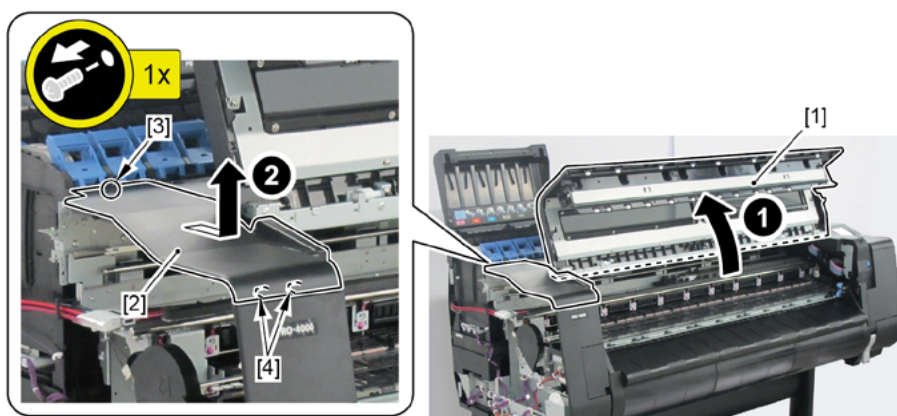


7. Open [1] the access cover.

8. Remove [2] COVER UNIT, TOP L.

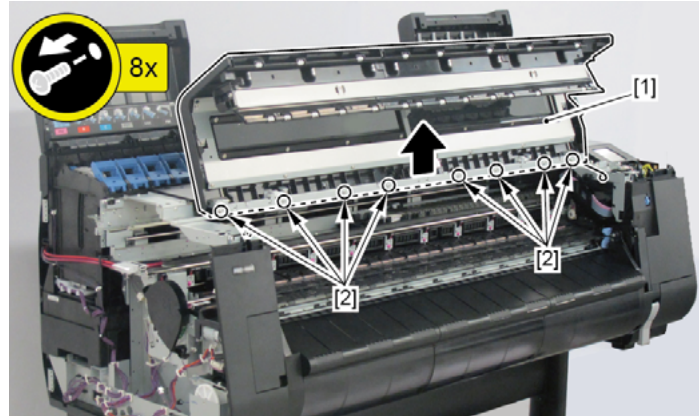
· [3]: 1 screw

· [4]: 2 hooks



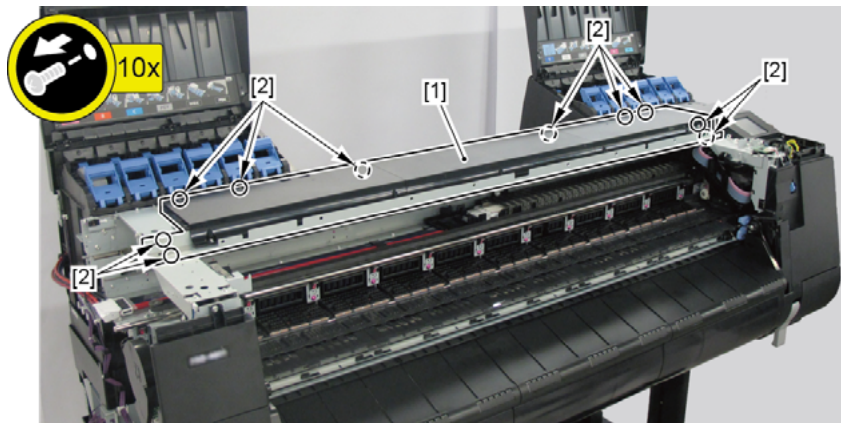
## 9. Remove [1] ACCESS COVER UNIT.

- [2]: 8 screws (5 screws in 24" model, 10 screws in 60" model)

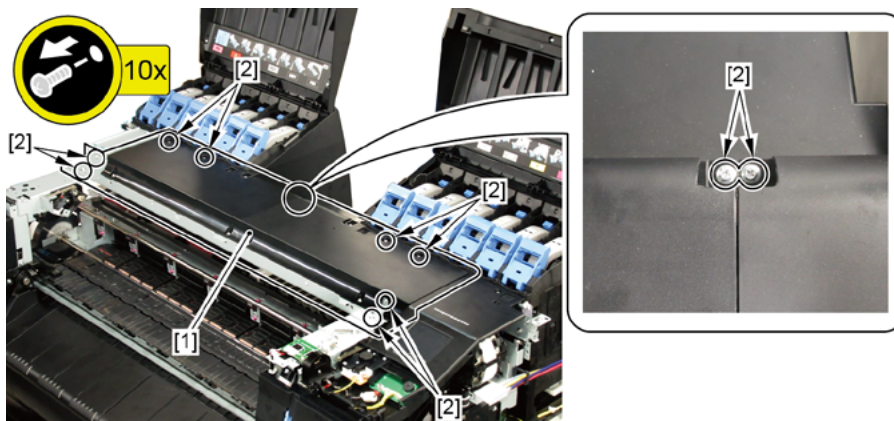


## 10. Remove [1] COVER UNIT, BACK TOP CENTER.

- [2]: 10 screws (11 screws in 60" model)  
(44" model)

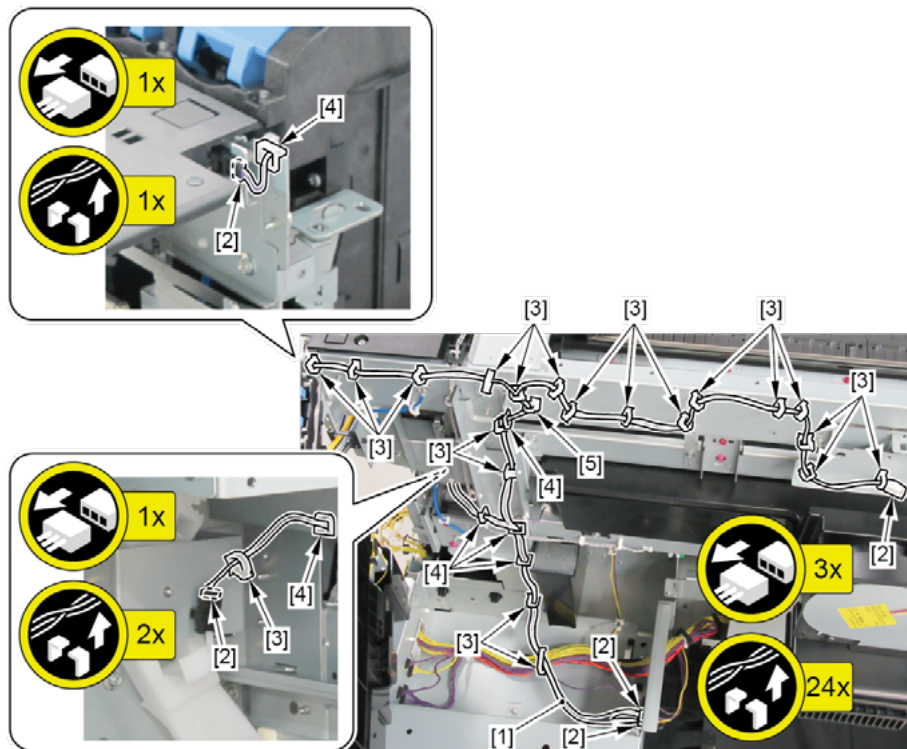


(24" model)



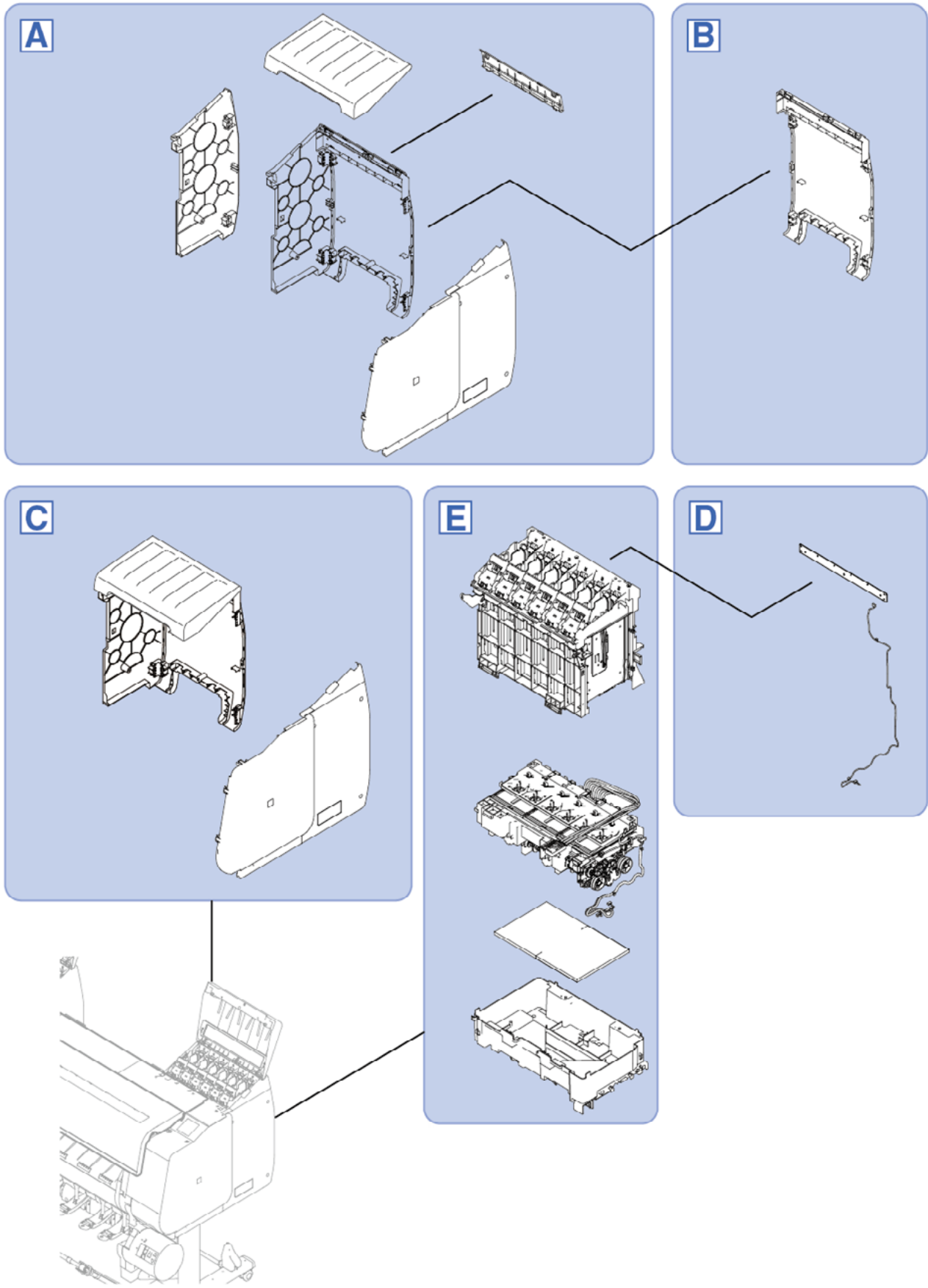
## 11. Disconnect [1] HARNESS ASS'Y, TANK CVR MFAN R.

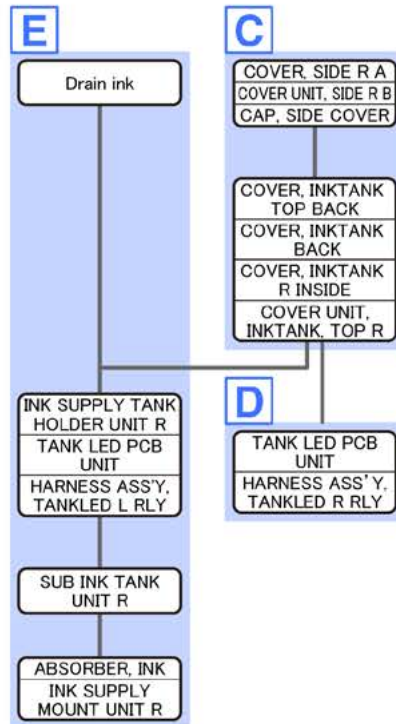
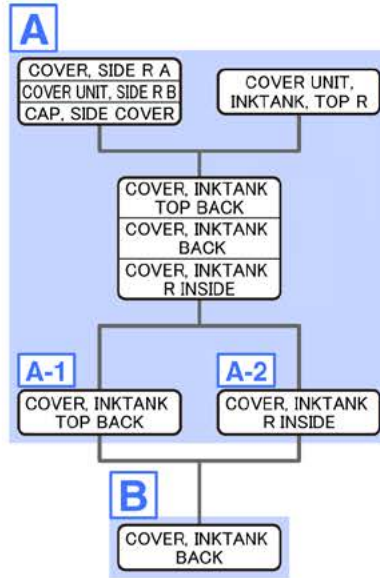
- [2]: 5 connectors
- [3]: 20 wire saddles
- [4]: 6 edge saddles
- [5]: 1 reusable band





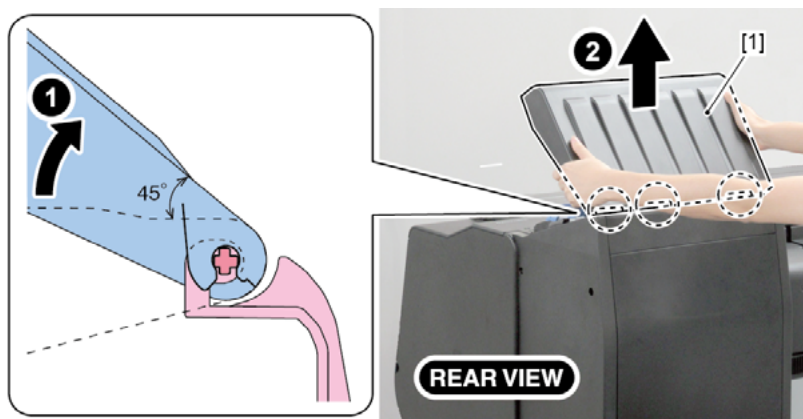
# 10. INK TANK UNIT (R)





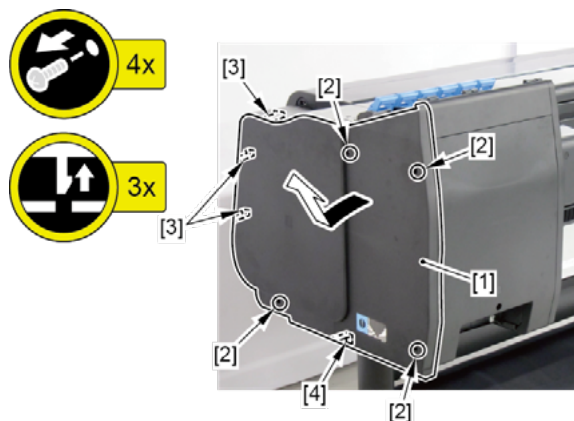
## A

1. Remove [1] COVER UNIT, INKTANK, TOP R.



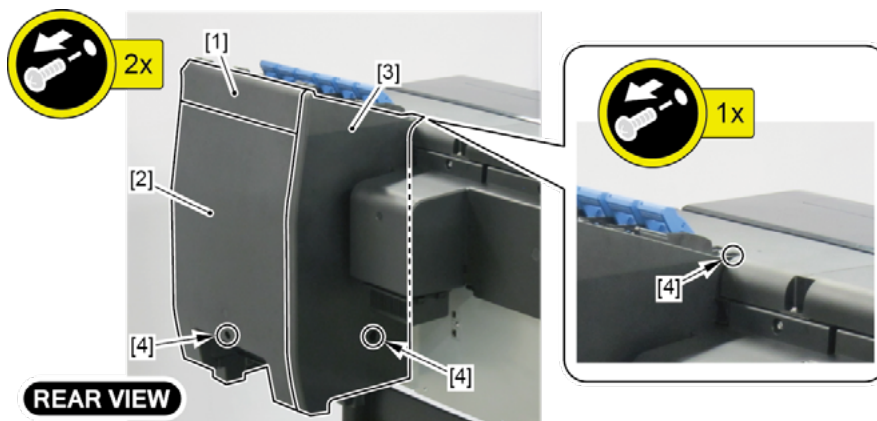
2. Remove [1] a set of
  - COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.

- [2]: 4 screws
- [3]: 3 claws
- [4]: 1 hook



3. Remove [1] COVER, INKTANK TOP BACK, [2] COVER, INKTANK BACK, and [3] COVER, INKTANK R INSIDE.

- [4]: 3 screws

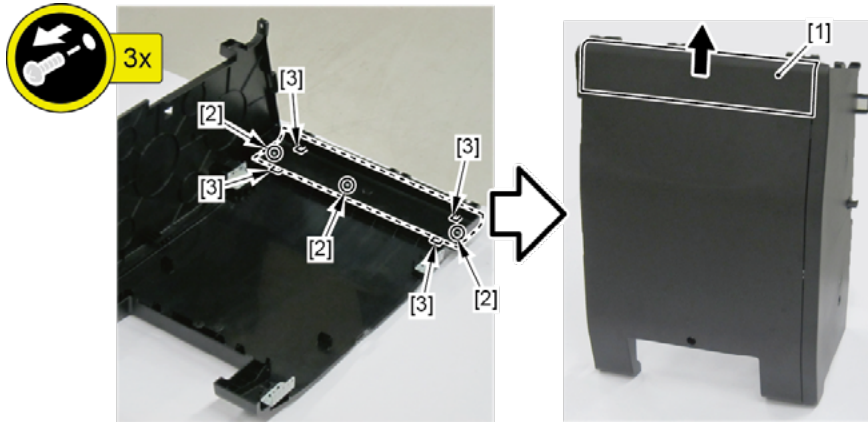




## A-1

## 4. Remove [1] COVER, INKTANK TOP BACK.

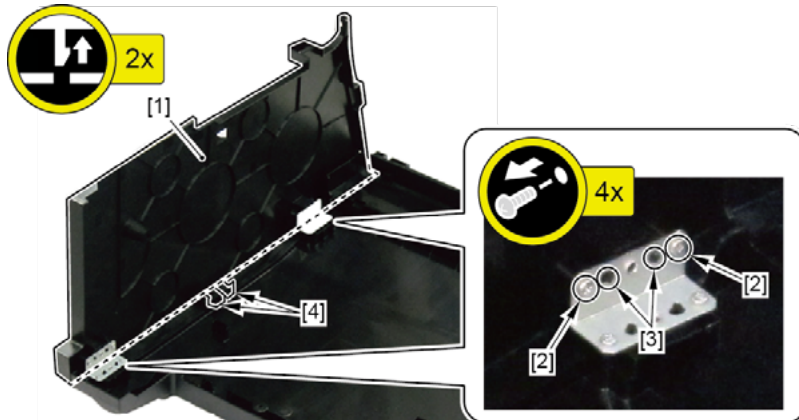
- [2]: 3 screws
- [3]: 4 hooks



## A-2

## 4. Remove [1] COVER, INKTANK R INSIDE.

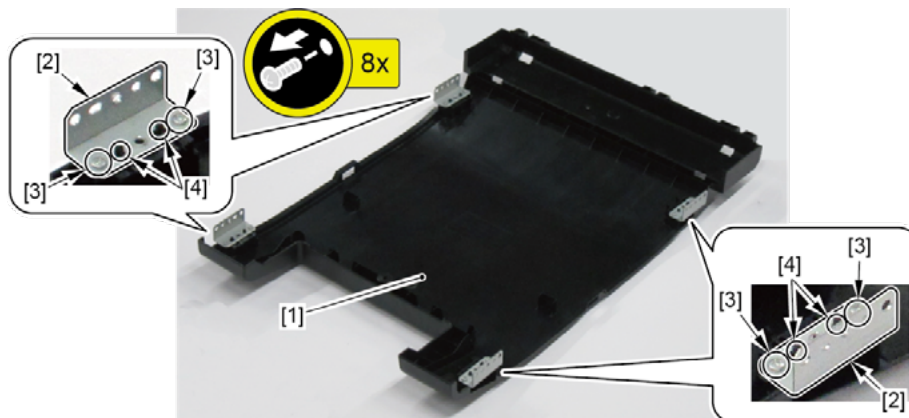
- [2]: 4 screws
- [3]: 4 bosses
- [4]: 2 claws



**B**

1. Remove all the parts of Group A.
2. From [1] COVER, INKTANK BACK, remove [2] four plates.

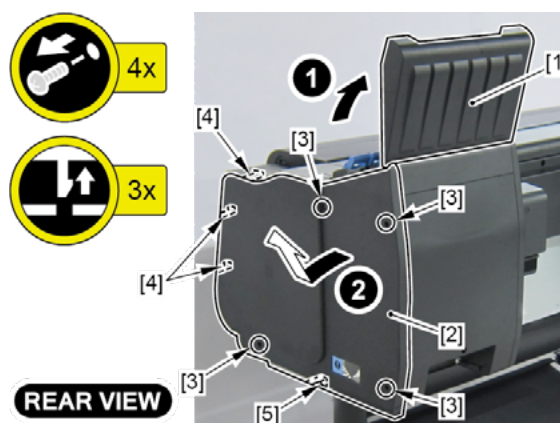
- [3]: 8 screws
- [4]: 8 bosses

**C**

1. Open [1] the right ink tank cover.
2. Remove [2] a set of

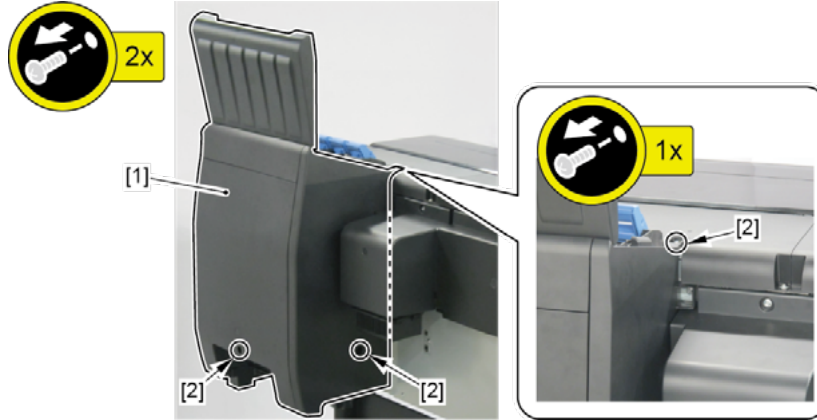
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



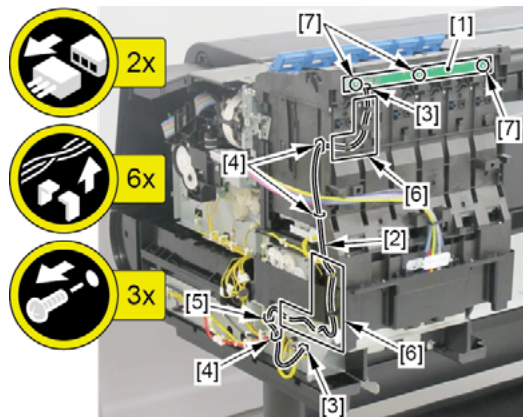
3. Remove [1] a set of
- COVER UNIT, INKTANK, TOP R
  - COVER, INKTANK TOP BACK
  - COVER, INKTANK BACK
  - COVER, INKTANK R INSIDE.

- [2]: 3 screws



## 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]: 2 connectors
  - [4]: 3 wire saddles
  - [5]: 1 edge saddle
  - [6]: Cable guides in two areas
  - [7]: 3 screws

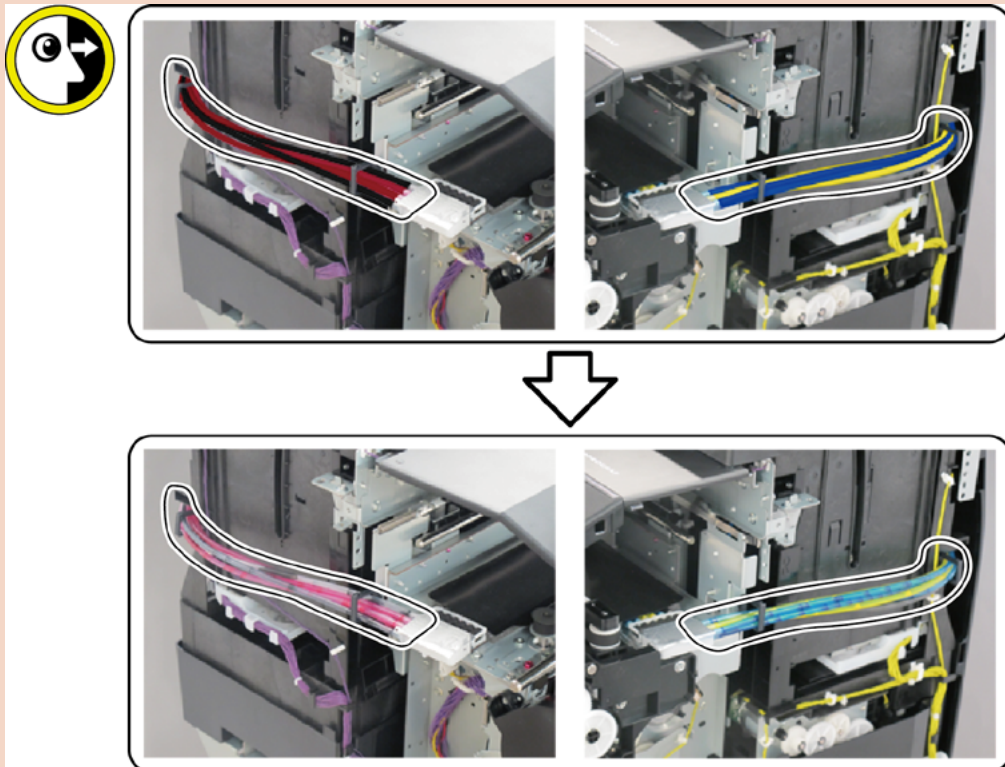


**E**

1. Remove all the ink tanks.
2. Drain ink into the sub tank.

**To do it in the Service Mode:**

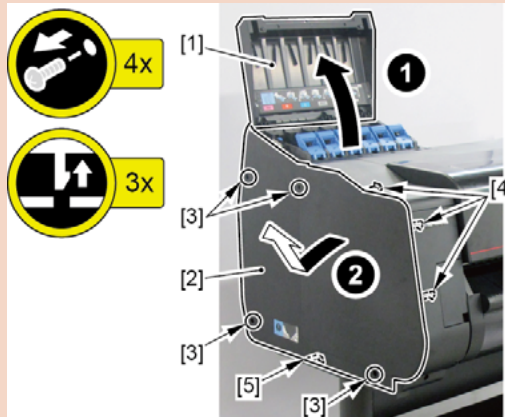
1. Unlock the carriage from [SERVICE MODE > FUNCTION > CR UNLOCK] in the operation panel, manually move the carriage unit to the position where the print head can be replaced, then remove the print head.
2. On the printer operation panel, select [SERVICE MODE > FUNCTION > INK SUPPLY VALVE OPEN > OPEN]. The supply valves (choke valves) of the right and left SUB INK TANK UNITS 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 is drained from the tubes.



5. Power off the printer and unplug the power cord.

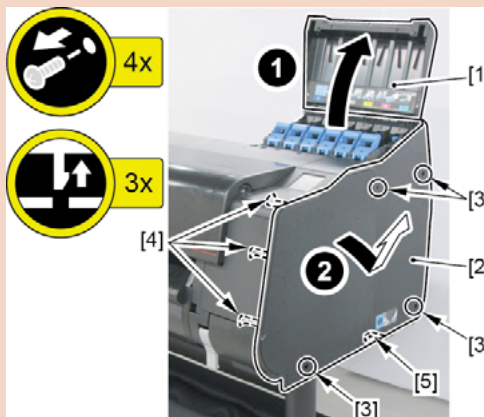
**To do it manually:**

1. Open [1] the left ink tank cover.
  2. Remove [2] a set of
    - COVER, SIDE L A
    - COVER UNIT, SIDE L B
    - CAP, SIDE COVER.
- [3]: 4 screws
  - [4]: 3 claws
  - [5]: 1 hook



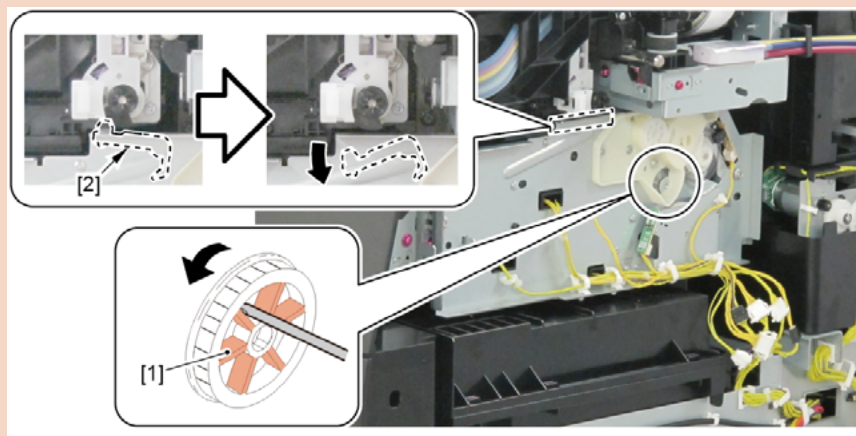
3. Open [1] the right ink tank cover.
4. Remove [2] a set of

- COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.
- [3]: 4 screws
  - [4]: 3 claws
  - [5]: 1 hook



## 5. Unlock the carriage.

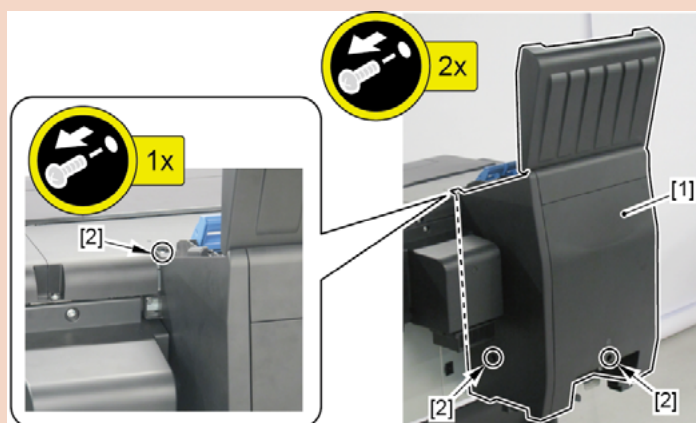
Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



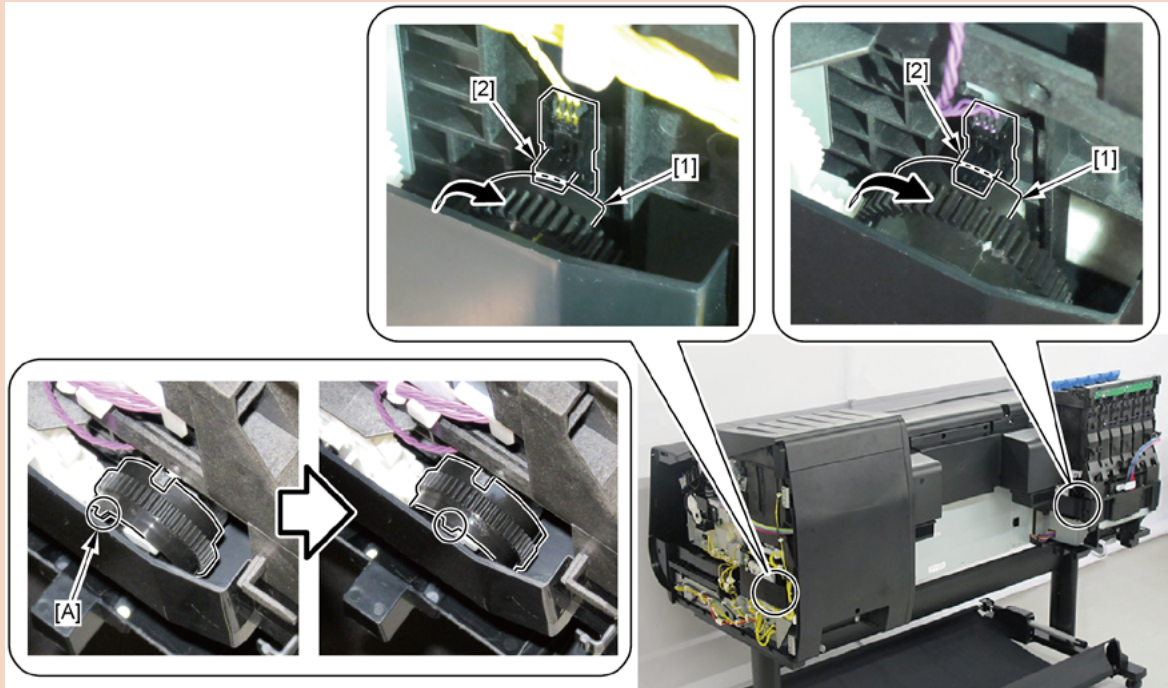
## 6. Remove [1] a set of

- COVER UNIT, INKTANK, TOP L
- COVER, INKTANK TOP BACK
- COVER, INKTANK BACK
- COVER, INKTANK L INSIDE.

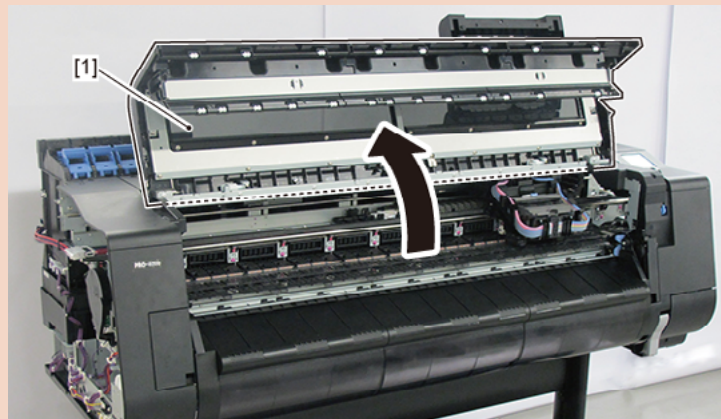
- [2]: 3 screws



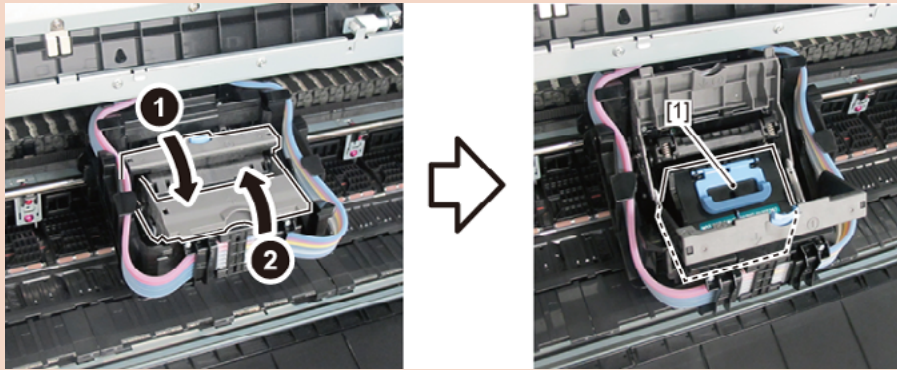
7. Turn the gear in the arrowed direction to open the right and left ink tank unit valves.  
When [1] the gear flag comes under [2] the sensor, the valves will open.  
When [A] the tab is at the top center, the valves are fully opened.



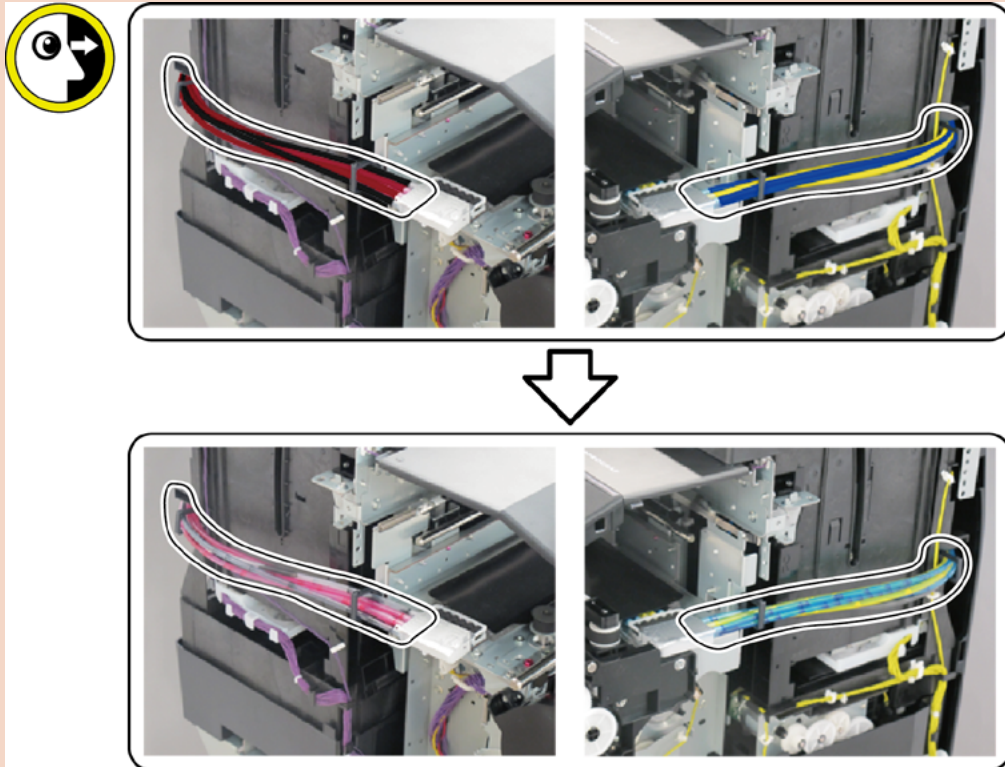
8. Open [1] the access cover.



9. Remove [1] PRINT HEAD.



10. Wait for five to ten minutes, then confirm that the ink is drained from the tubes.



**Notes when ink is drained from the tubes:**



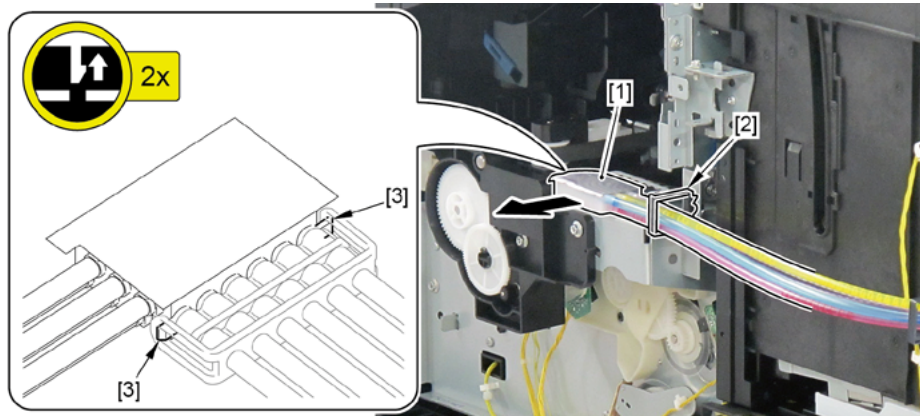
Be sure to perform Ink Filling at the end of assembly.  
[SERVICE MODE > FUNCTION > INK FILLING]



3. Remove all the parts of Group C.

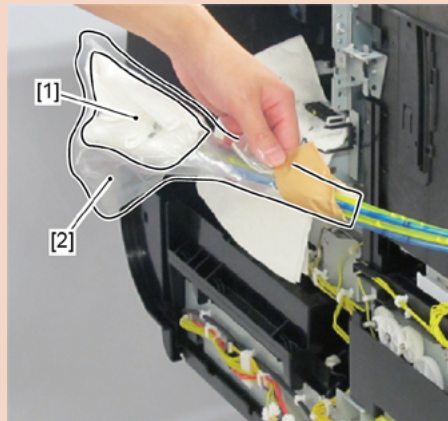
4. Disconnect [1] the tube joint.

- [2]: 1 wire saddle
- [3]: 2 claws



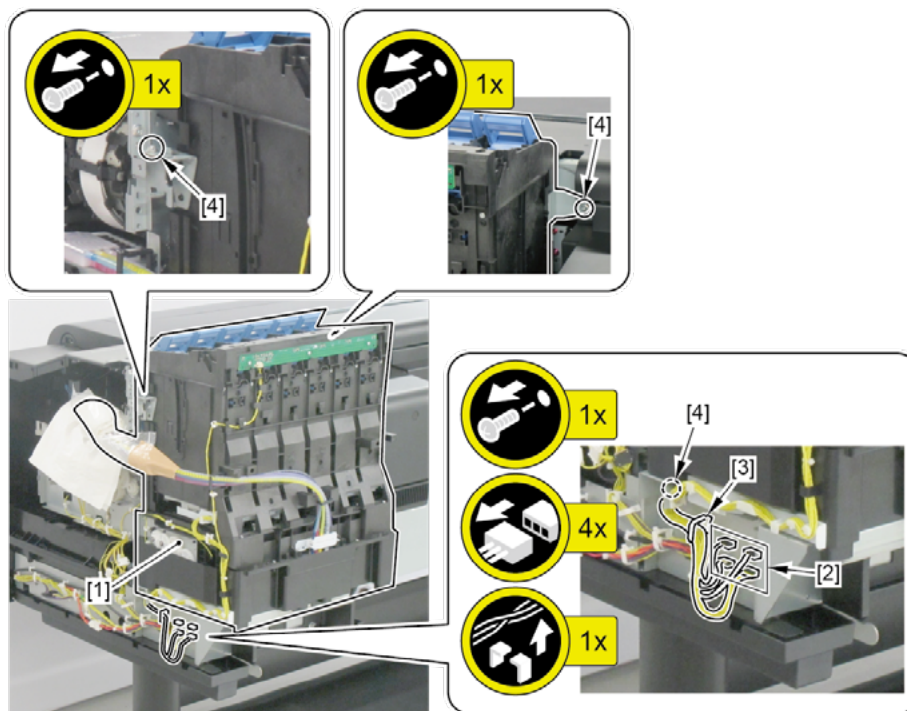
#### Notes when removing the unit:

Wrap the joint in [1] paper towel, etc., put them in [2] a plastic bag, and close the bag.



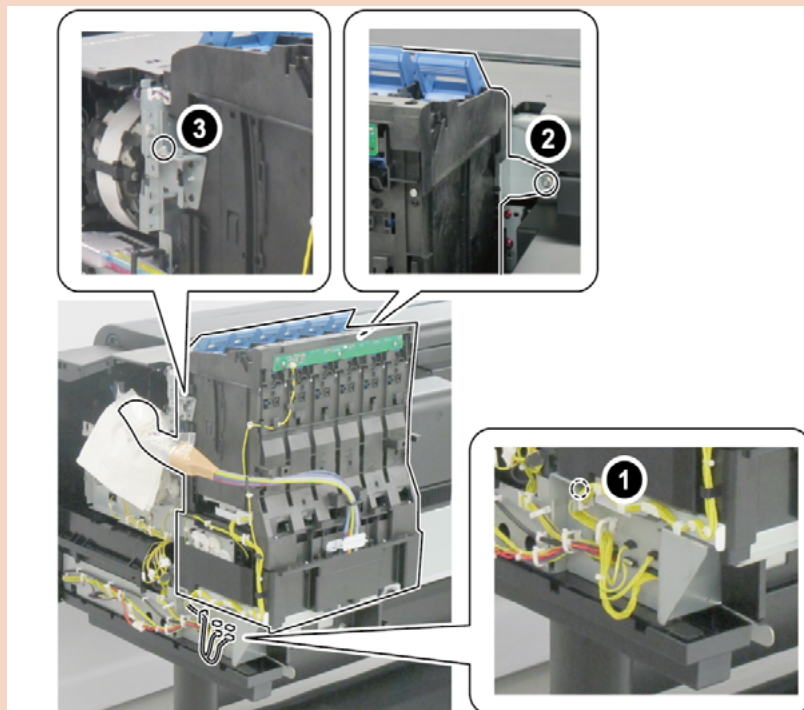
## 5. Remove [1] the ink tank unit.

- [2]: 4 connectors
- [3]: 1 wire saddle
- [4]: 3 screws

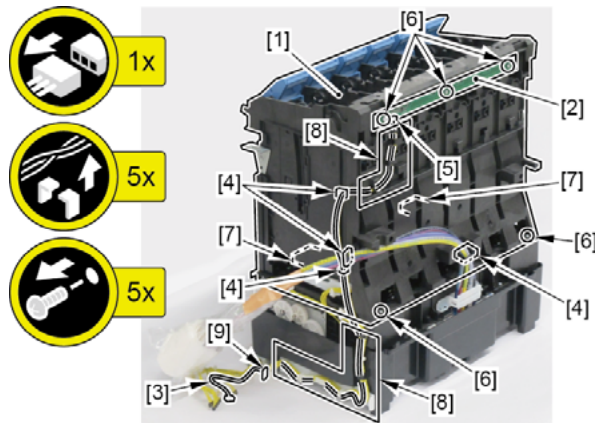


### Notes when assembling the unit:

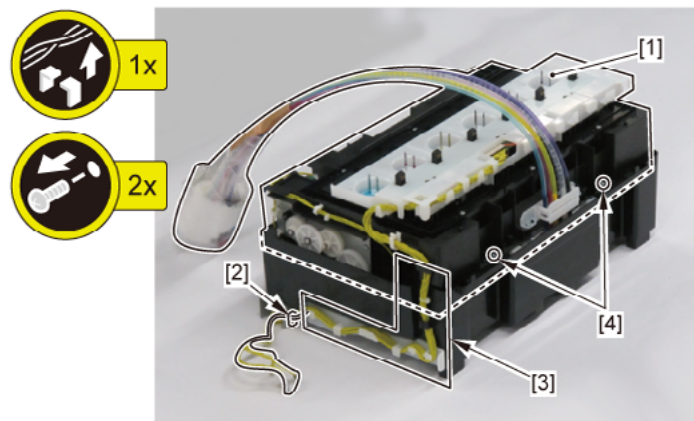
Tighten each screw in the order of numbers shown below.



6. Remove [1] INK SUPPLY TANK HOLDER UNIT R, [2] TANK LED PCB UNIT, and [3] HARNESS ASS'Y, TANK LED R RLY.
- [4]: 4 wire saddles (2 on the cables, 2 on the ink tubes)
  - [5]: 1 connector
  - [6]: 5 screws
  - [7]: 2 hooks
  - [8]: Cable guides in two areas
  - [9]: 1 edge saddle



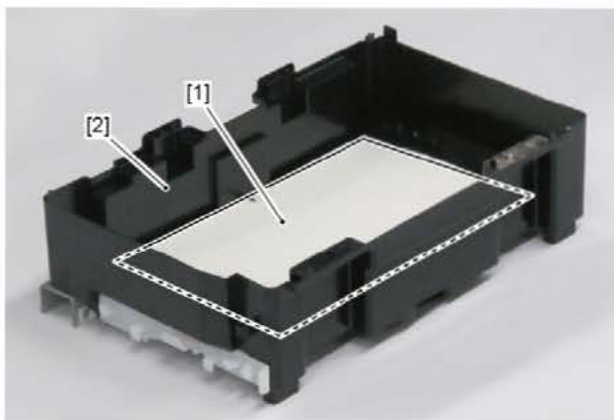
7. Remove [1] SUB INK TANK UNIT R.
- [2]: 1 edge saddle
  - [3]: Cable guide in one area
  - [4]: 2 screws



**Notes when the SUB INK TANK UNIT R is replaced:**

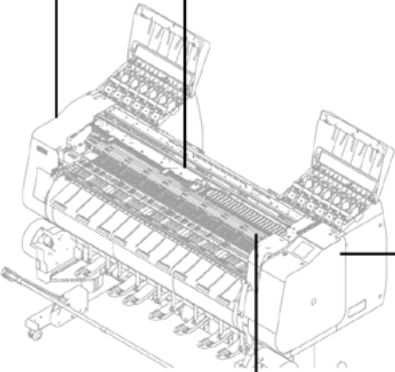
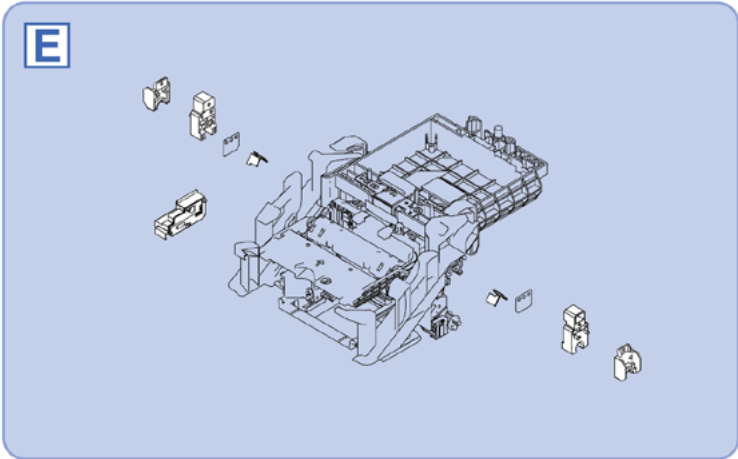
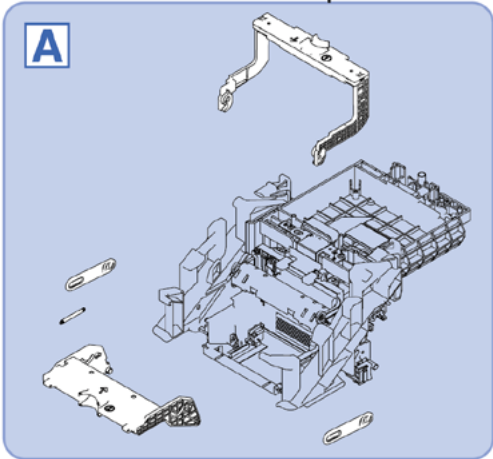
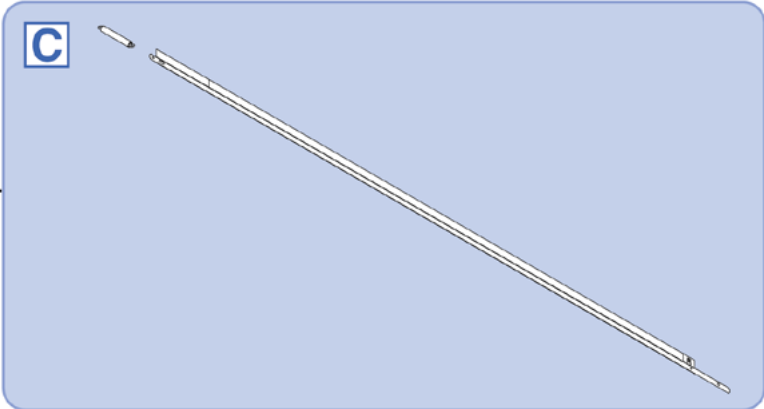
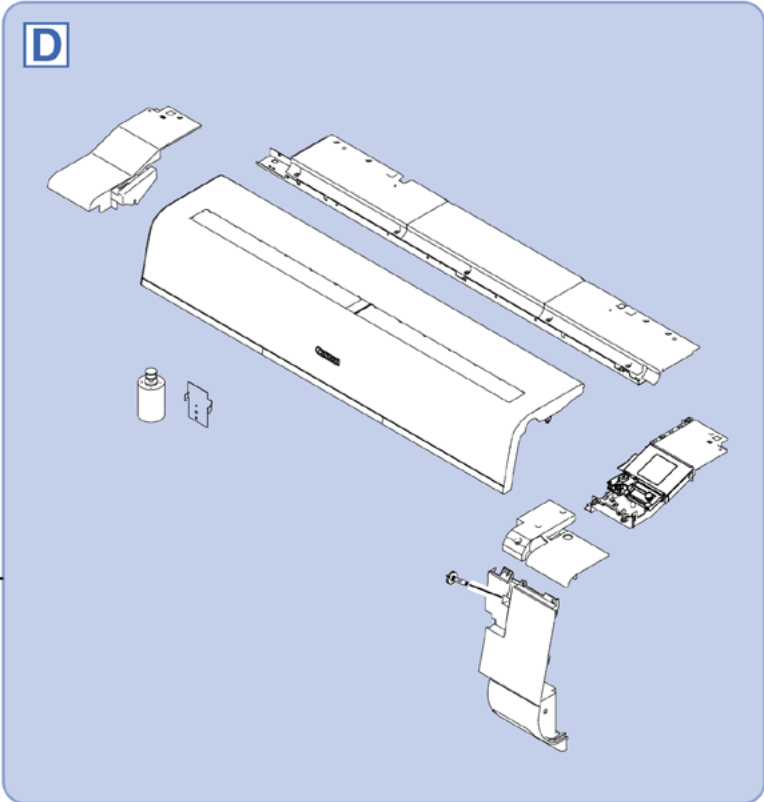
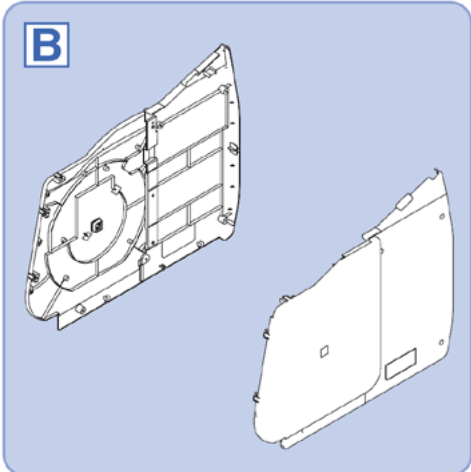
Dispose of ink of the replaced (old) SUB INK TANK UNIT R into a waste ink bottle (or in a bucket) before carrying it.

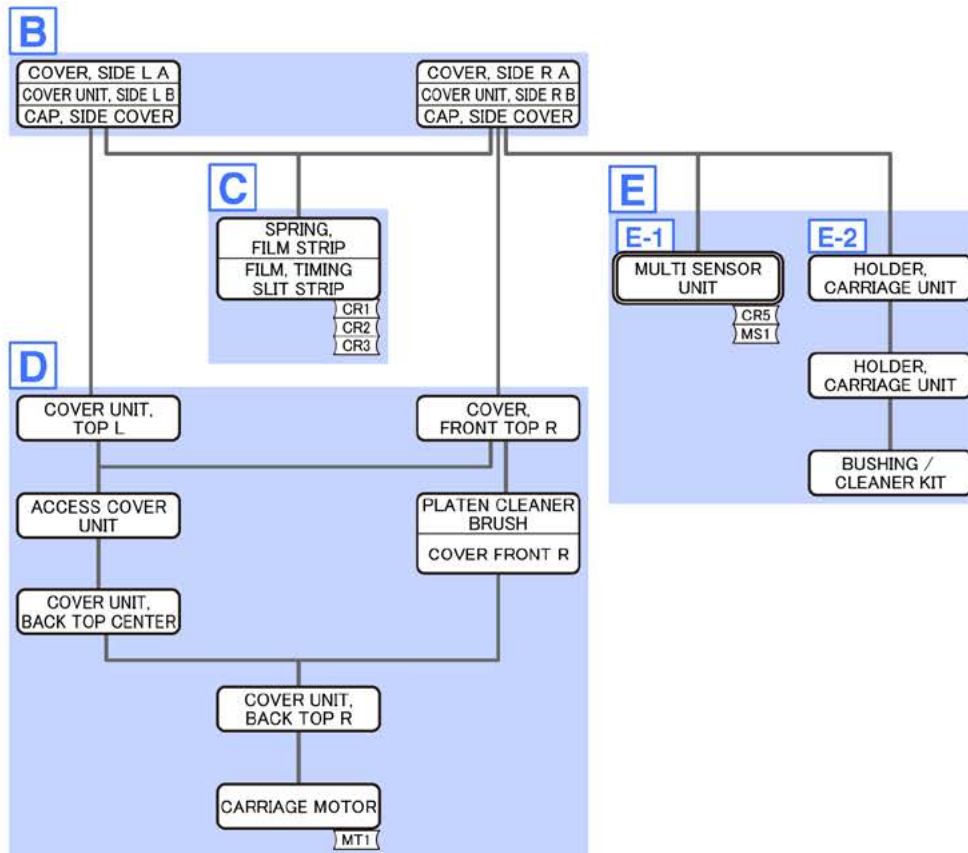
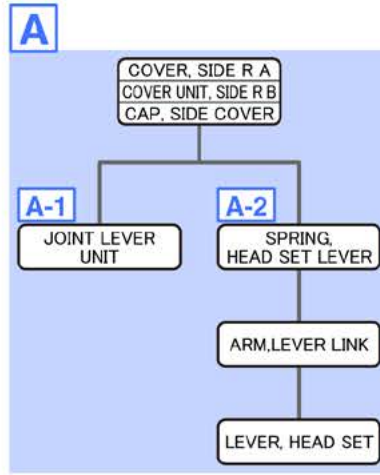
8. Remove [1] ABSORBER, INK from [2] INK SUPPLY MOUNT UNIT R.





# 11. CARRIAGE UNIT (1)

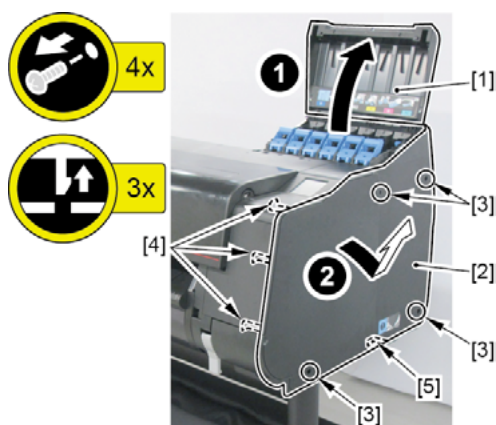




## A

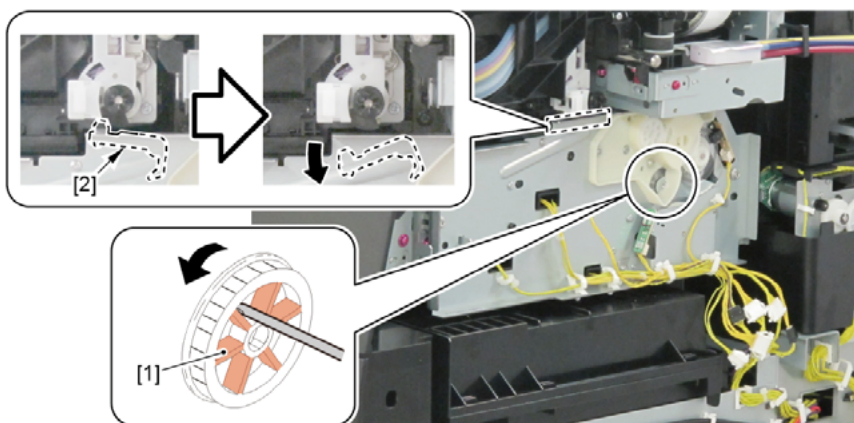
1. Open [1] the right ink tank cover.
2. Remove [2] a set of
  - COVER, SIDE R A
  - COVER UNIT, SIDE R B
  - CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



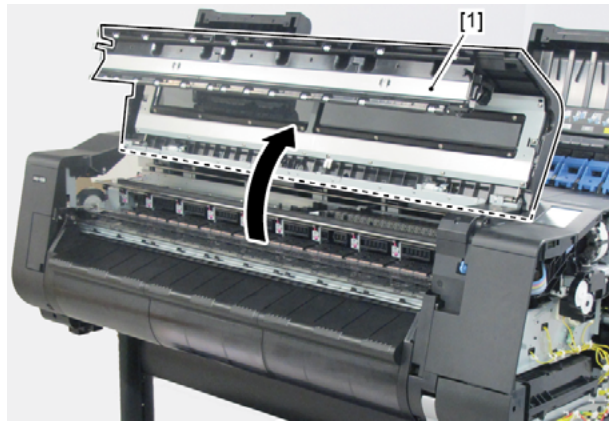
3. Unlock the carriage.

Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.

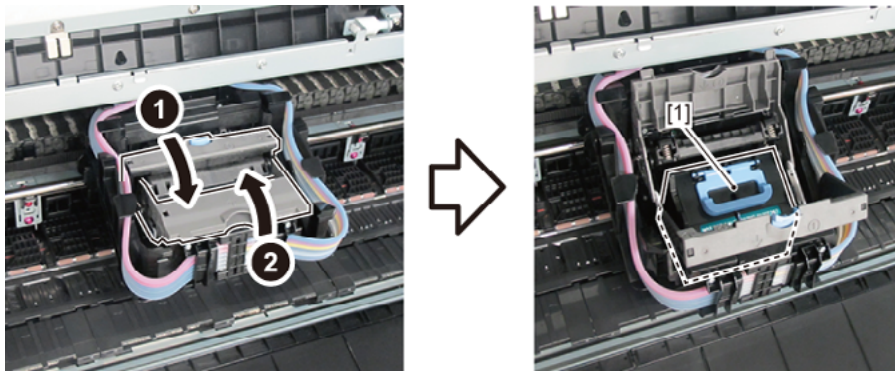




4. Open [1] the access cover.

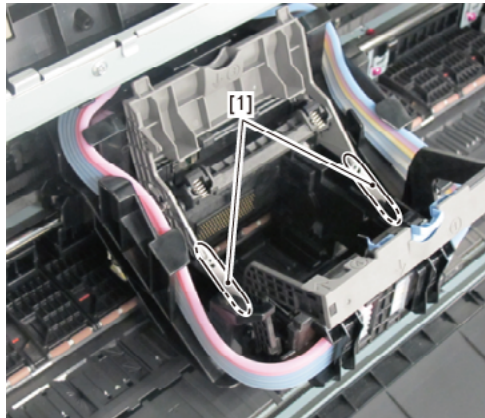


5. Remove [1] PRINT HEAD.



**A-1**

6. Remove two pieces of [1] ARM, LEVER LINK.

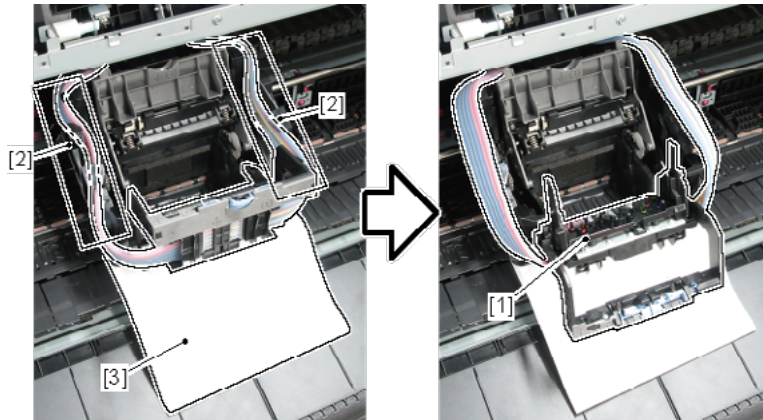


7. Release [1] the tubes from [2] the guide.

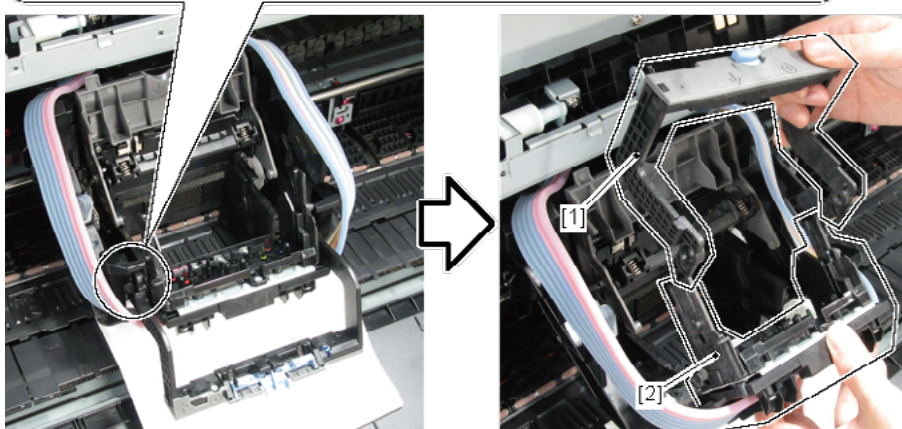
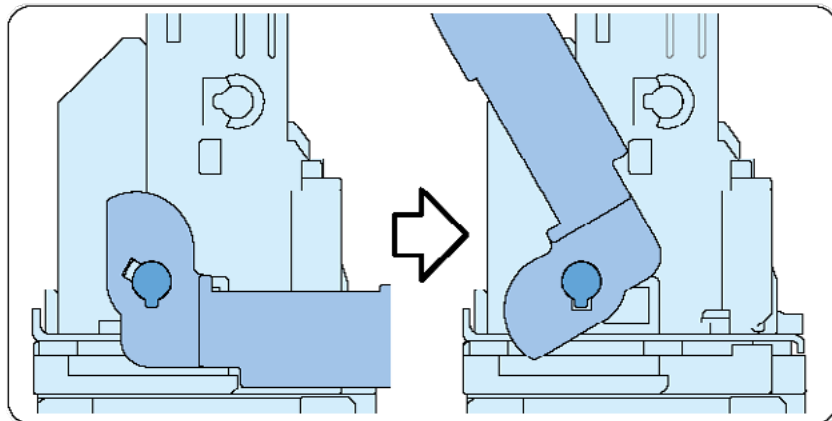


**Notes when removing the unit:**

Place the unit on [3] a paper towel, etc. as shown below.

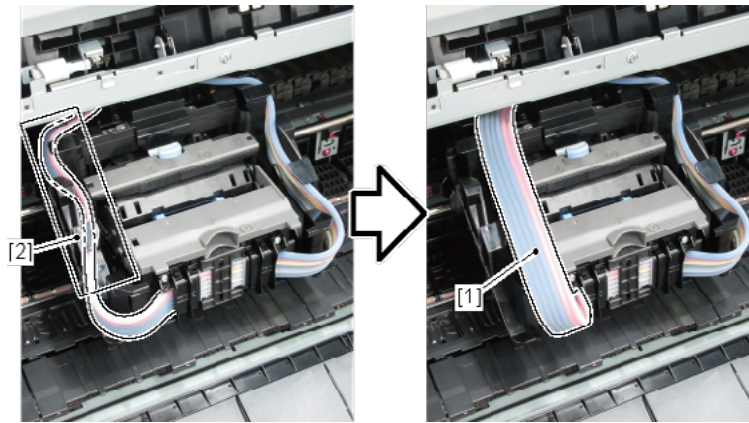


8. Remove [1] JOINT LEVER UNIT from [2] TUBE UNIT.



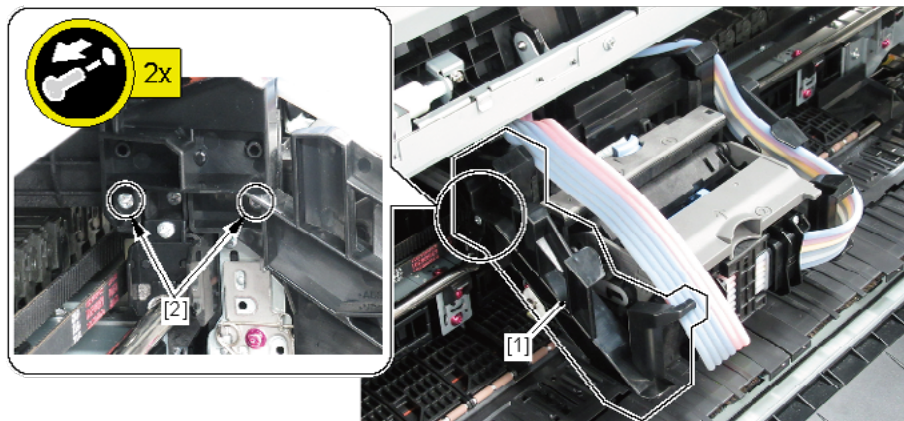
## A-2

6. Release [1] the tubes at the left side from [2] the guide.

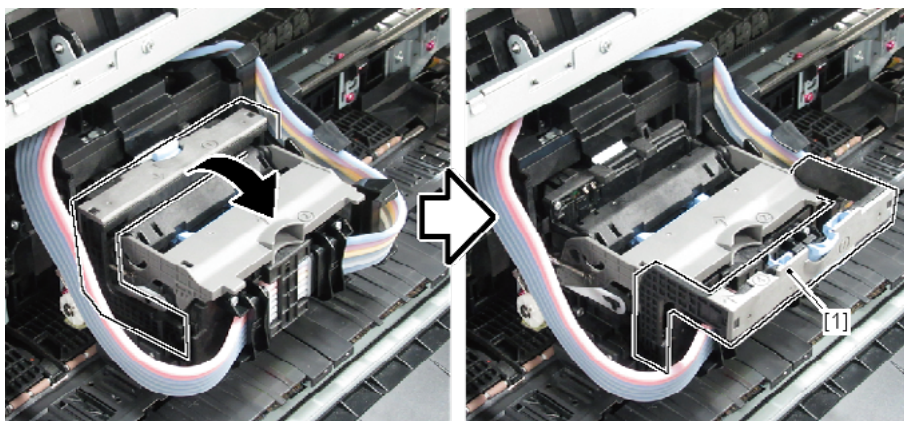


7. Remove the [1] the tube guide.

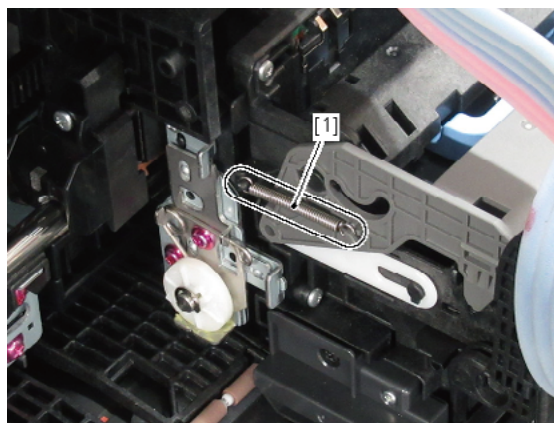
- [2] 2 screws



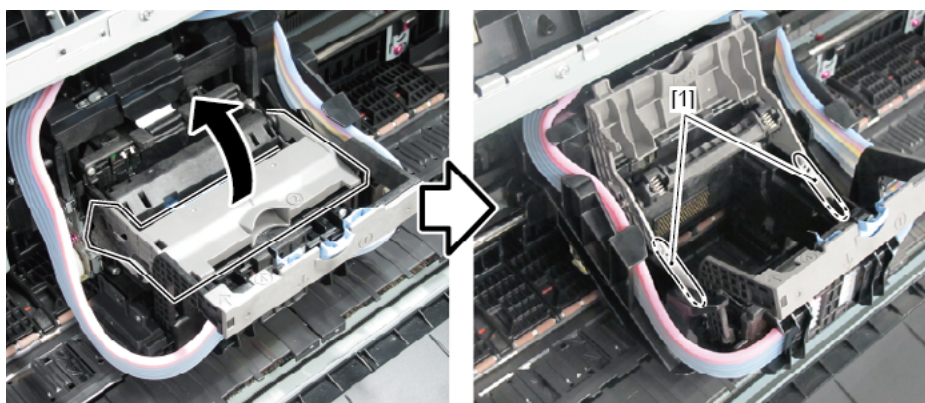
8. Open [1] JOINT LEVER UNIT.



9. Remove [1] SPRING, HEAD SET LEVER.

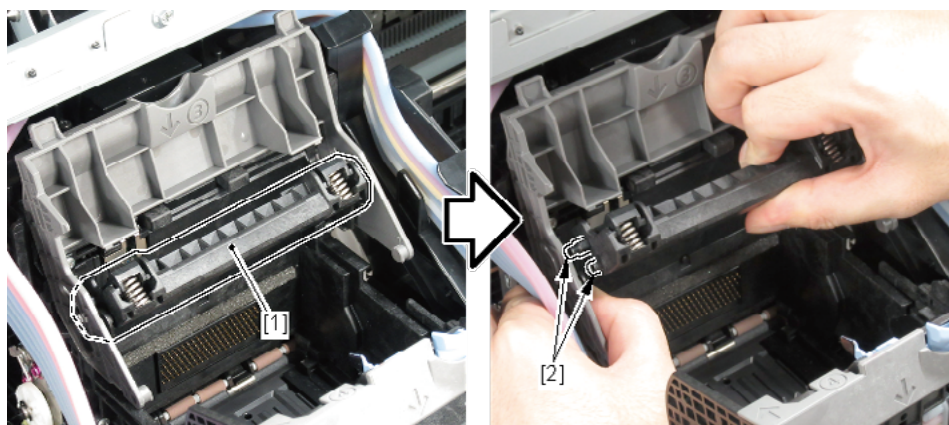


10. Remove two pieces of [1] ARM, LEVER LINK.

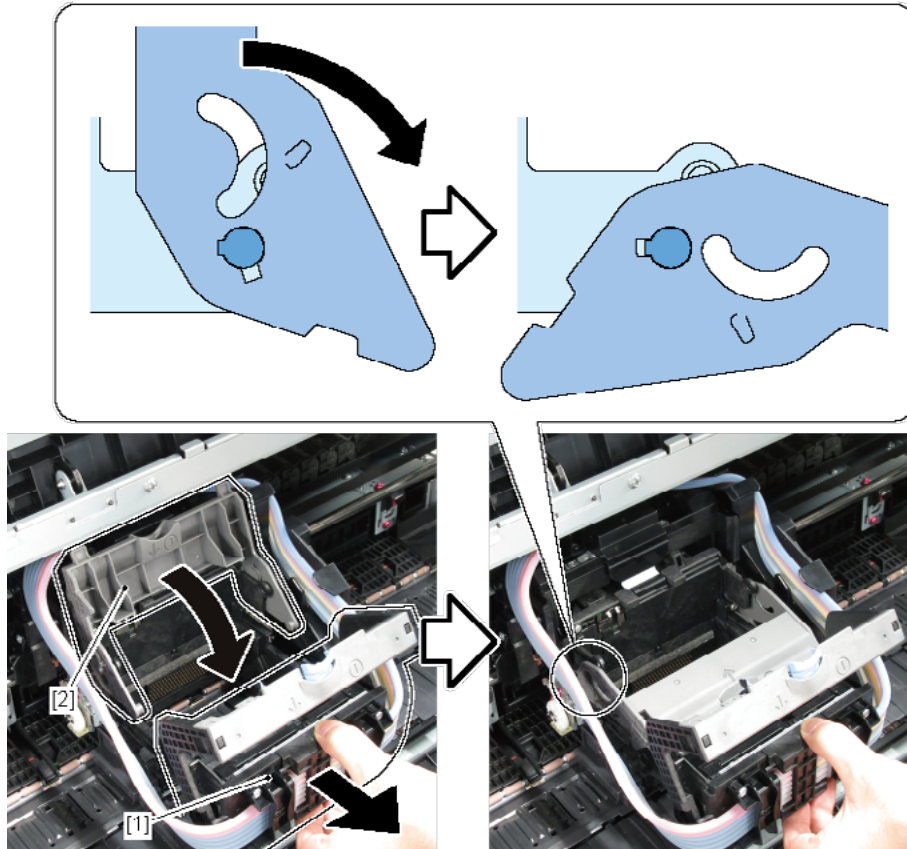


11. Remove [1] HEAD SET UNIT.

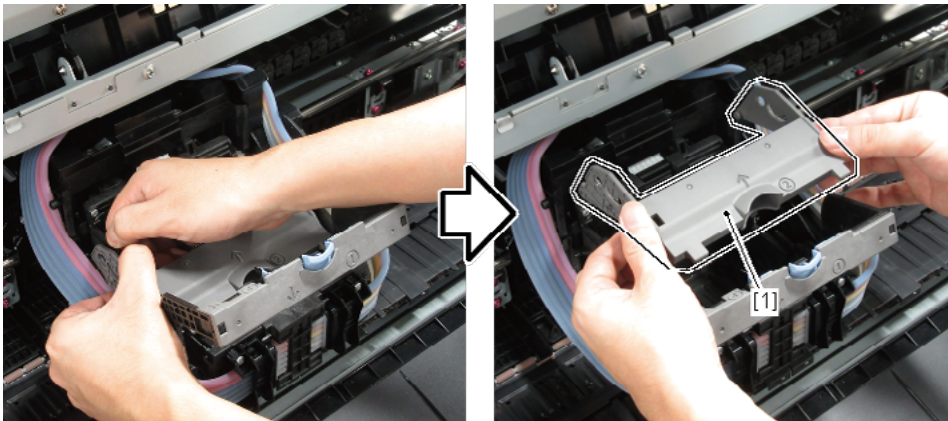
- [2] 2 screws for right side and left side each.



12. Pulling [1] JOINT BASE UNIT toward you, move [2] LEVER, HEAD SET downward until the shaft is firmly engaged with the hole.

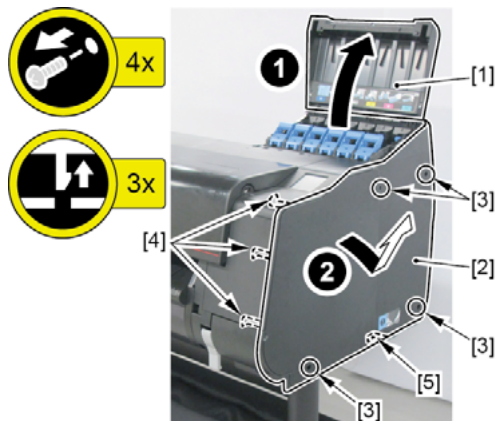


13. Remove [1] LEVER, HEAD SET.

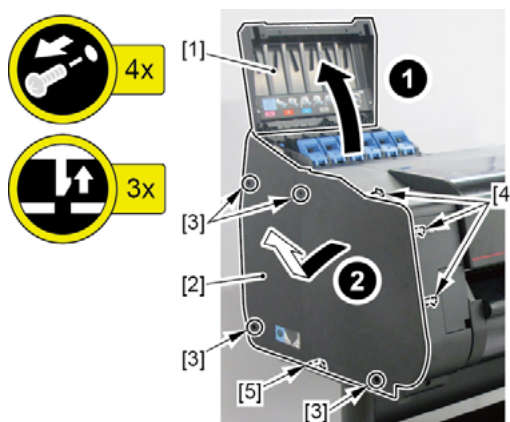


## B

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 screws
  - [4]: 3 claws
  - [5]: 1 hook

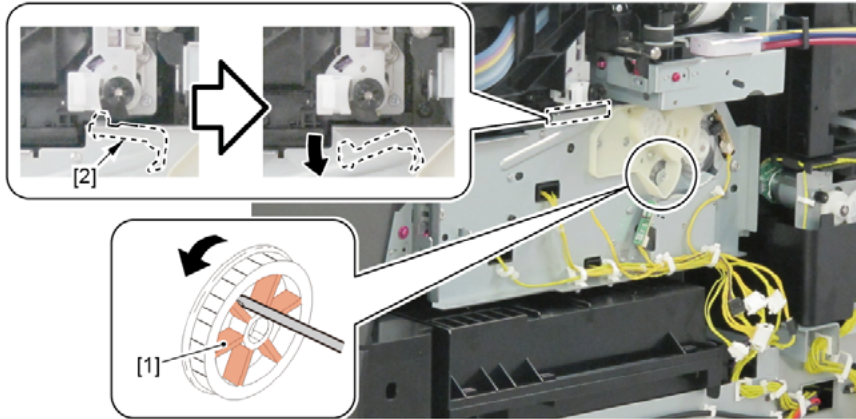


3. Open [1] the left ink tank cover.
4. Remove [2] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.
  - [3]: 4 screws
  - [4]: 3 claws
  - [5]: 1 hook



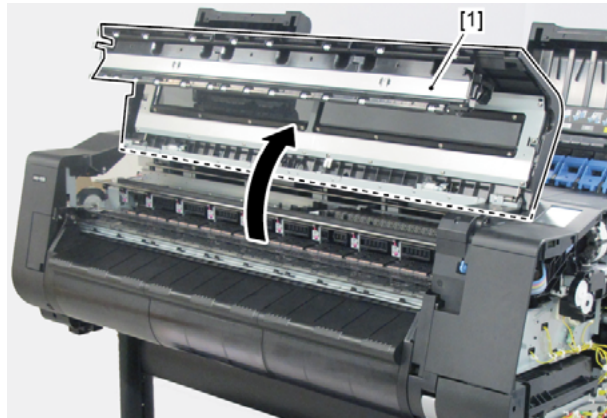
## 5. Unlock the carriage.

- Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



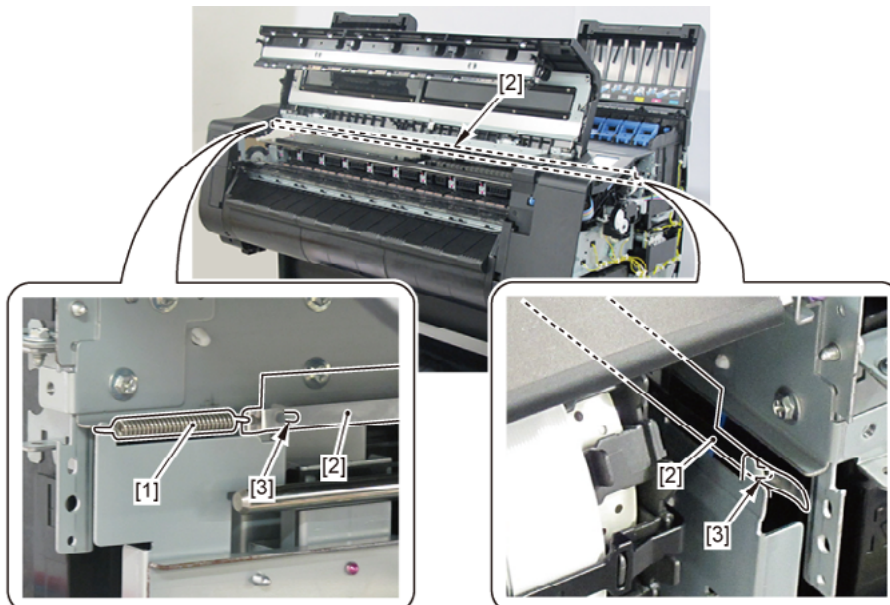
## C

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.

- [3]: 2 hooks

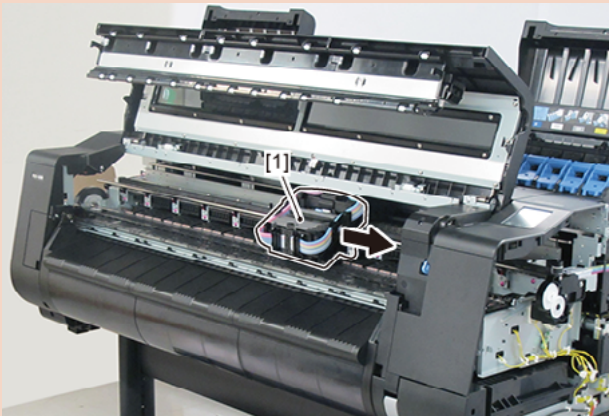


How to assemble the unit:

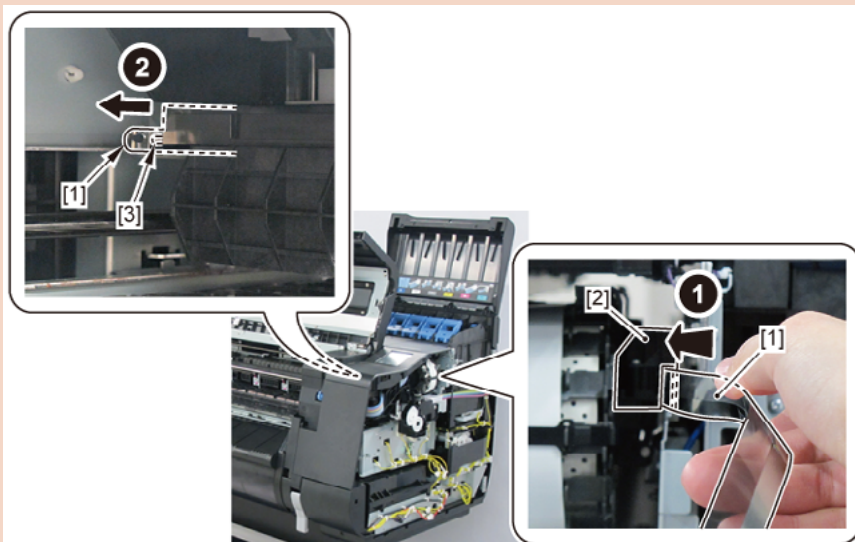


FILM, TIMING SLIT STRIP attachment (Steps 2 to 5)

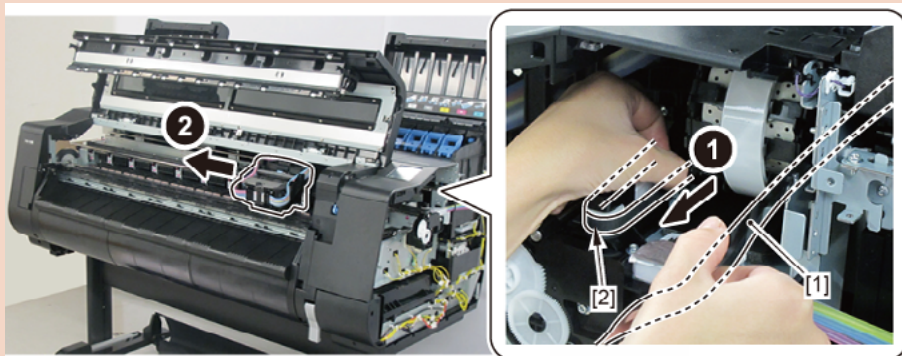
1. Move [1] the carriage unit to the Home Position.



2. Pass [1] FILM, TIMING SLIT STRIP through [2] CARRIAGE ENCODER SENSOR.
3. Hook [1] FILM, TIMING SLIT STRIP to [3] the hook.



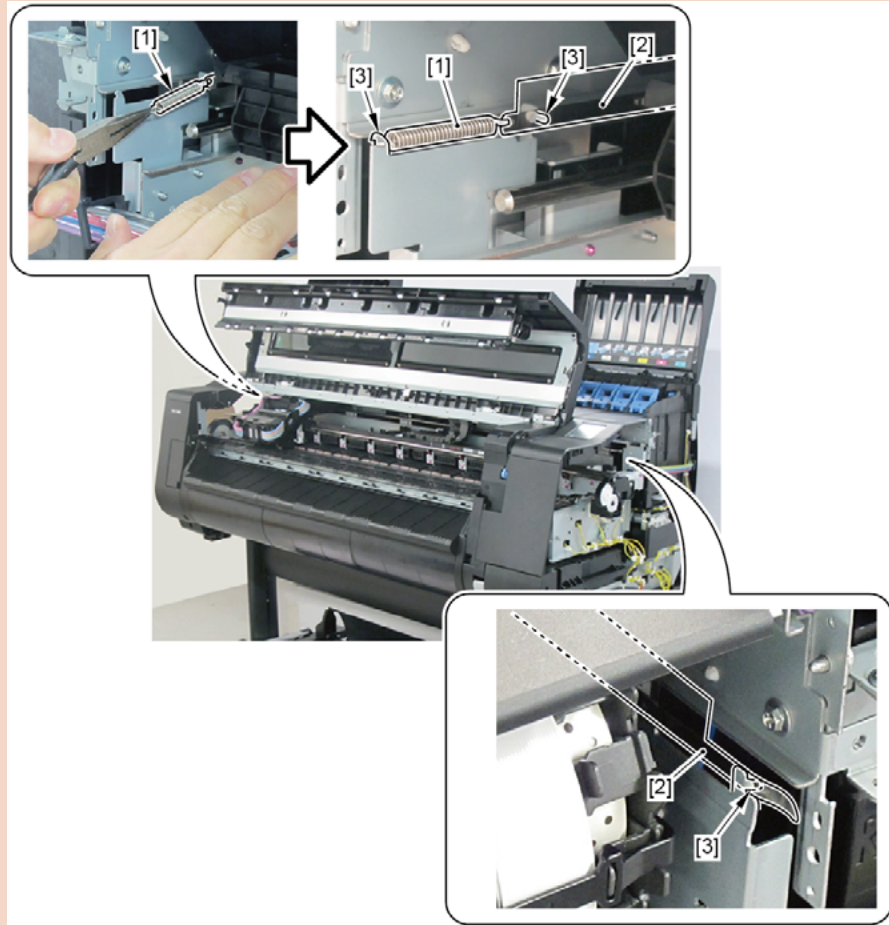
4. While keeping [1] FILM, TIMING SLIT STRIP slightly stretched, forward [2] the carriage belt to move the carriage unit to the Back Position.





## 5. Hook [1] SPRING, FILM STRIP and [2] FILM, TIMING SLIT STRIP.

- [3]: 3 hooks



### 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.



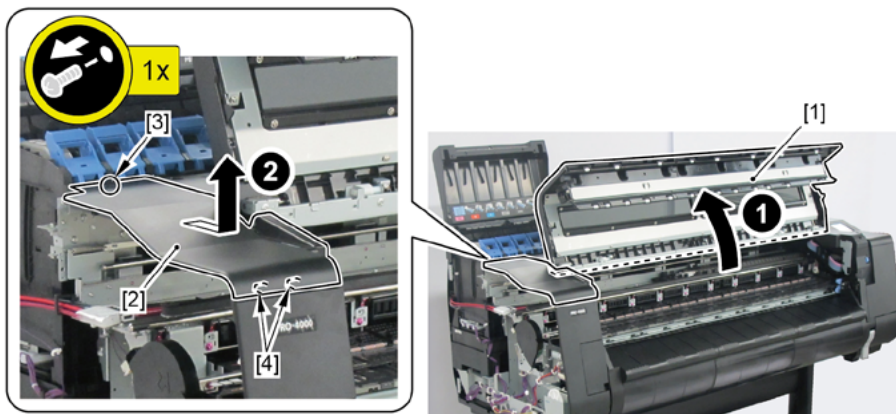
When cleaning the strip in the printer without removing it, avoid applying any excessive power to the film.

Be sure to confirm the following at the end of cleaning:

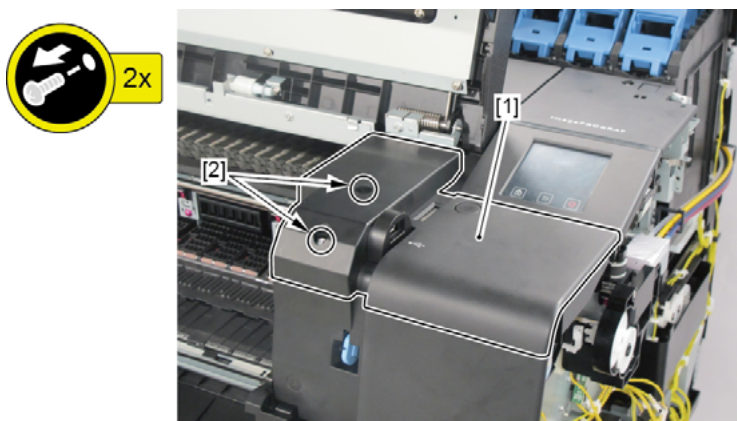
- The film does not come off from the carriage encoder.
- The film does not come off from the linear scale and it is properly positioned to the plate.

## D

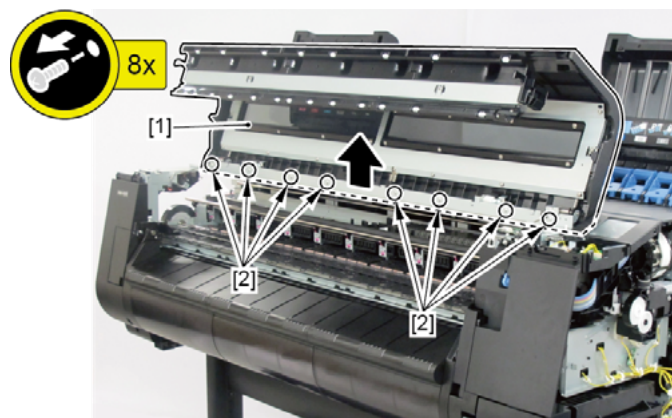
1. Remove all the parts of Group B.
2. Open [1] the access cover.
3. Remove [2] COVER UNIT, TOP L.
  - [3]: 1 screw
  - [4]: 2 hooks



4. Remove [1] COVER, FRONT TOP R.
  - [2]: 2 screws



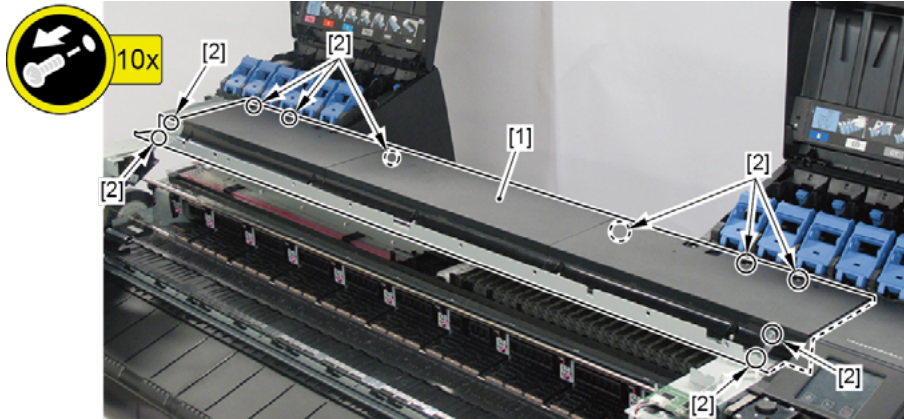
5. Remove [1] ACCESS COVER UNIT with holding the handles.
  - [2]: 8 screws (5 screws in 24" model, 10 screws in 60" model)



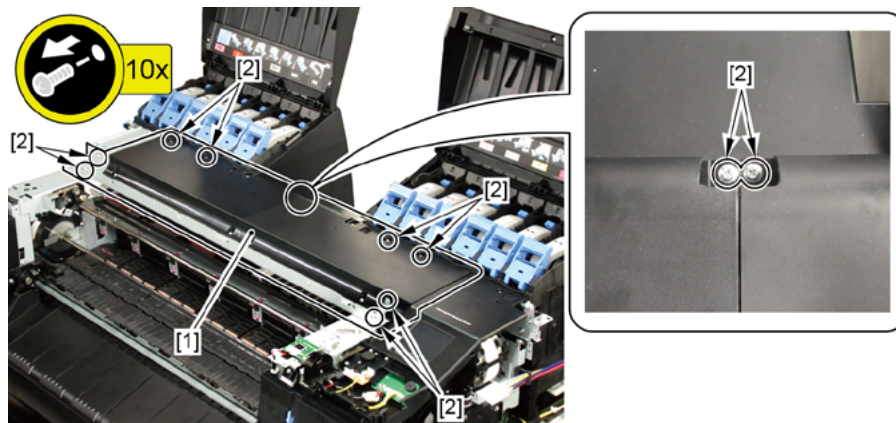
## 6. Remove [1] COVER UNIT, BACK TOP CENTER.

- [2]: 10 screws (11 screws in 60" model)

(44" model)



(24" model)

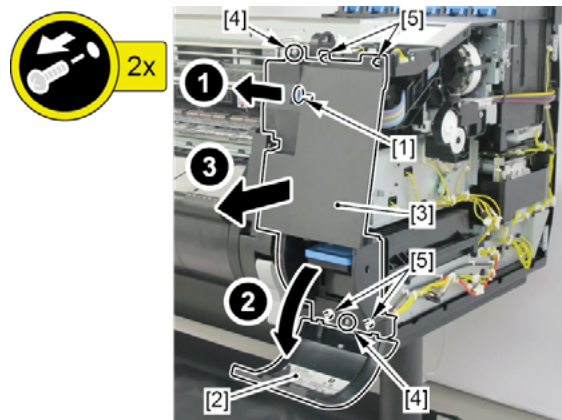


## 7. Remove [1] PLATEN CLEANER BRUSH.

## 8. Open [2] COVER UNIT, MTC.

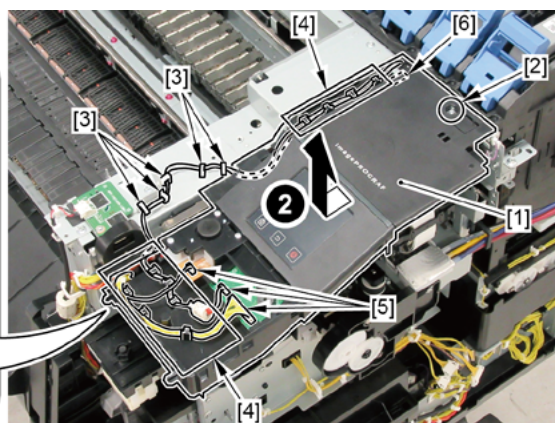
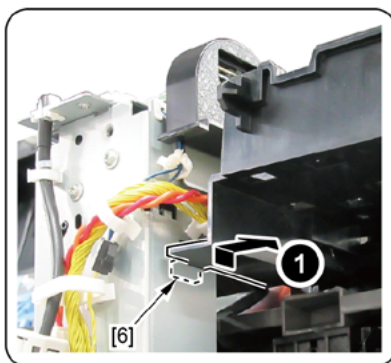
## 9. Remove [3] COVER, FRONT R.

- [4]: 2 screws
- [5]: 4 protrusions



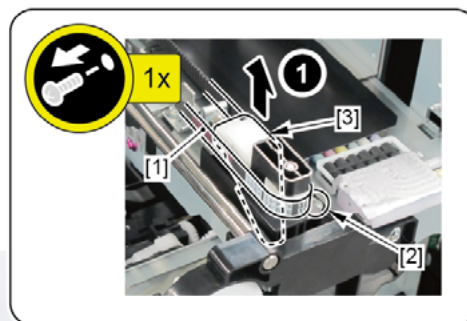
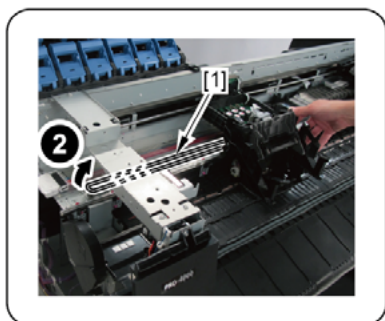
## 10. Remove [1] COVER UNIT, BACK TOP R.

- [2]: 1 screw
- [3]: 5 wire saddles
- [4]: Cable guide in one area
- [5]: 3 connectors
- [6]: 2 hooks



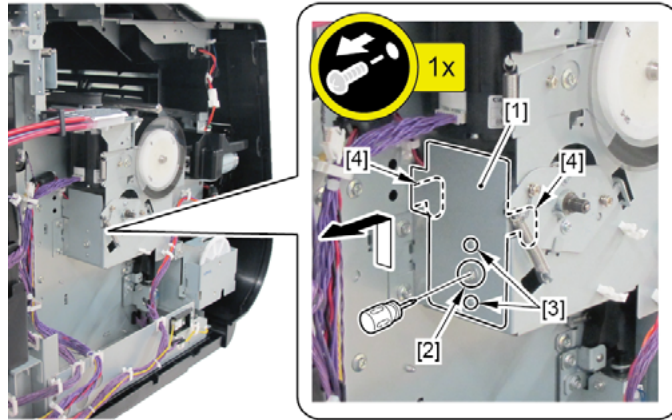
## 11. Loosen [1] BELT, CARRIAGE.

- [2]: 1 screw
- [3]: 1 wedge



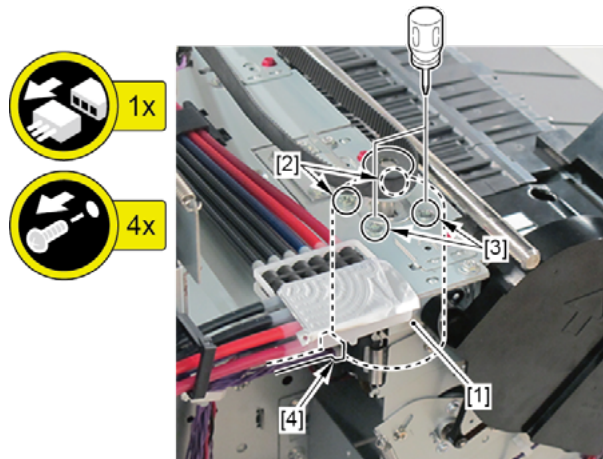
## 12. Remove [1] the plate.

- [2]: 1 screw (Use a stubby screwdriver.)
- [3]: 2 hooks
- [4]: 2 bosses



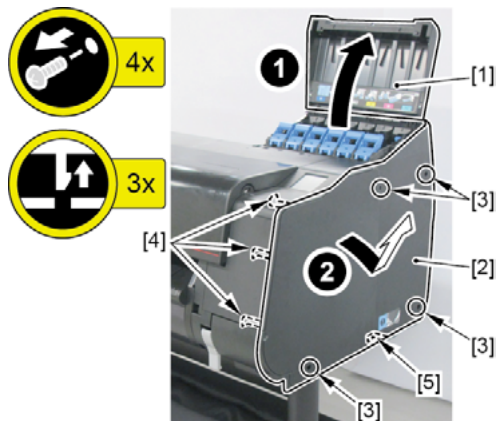
## 13. Remove [1] MOTOR, CARRIAGE.

- [2]: 2 screws
- [3]: 2 screws (Use a stubby screwdriver.)
- [4]: 1 connector



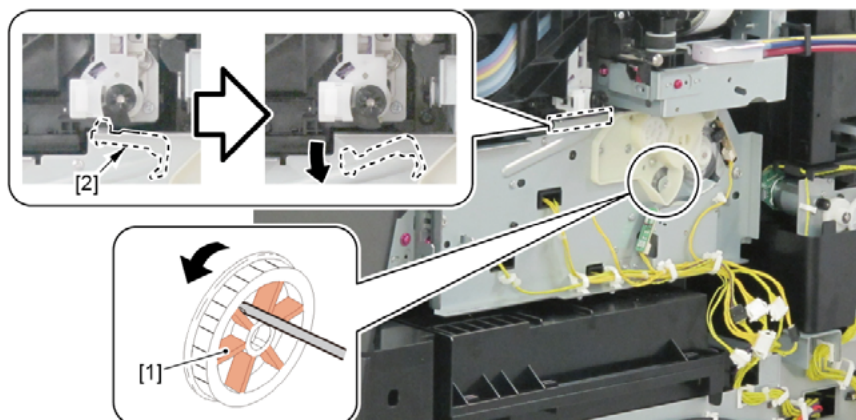
**E**

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 screws
  - [4]: 3 claws
  - [5]: 1 hook

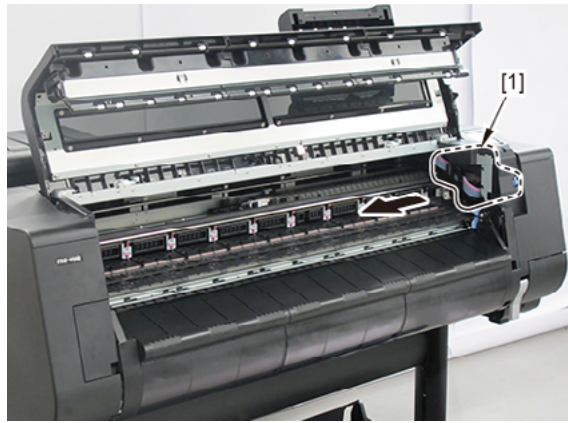
**E-1**

3. Unlock the carriage.

Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.

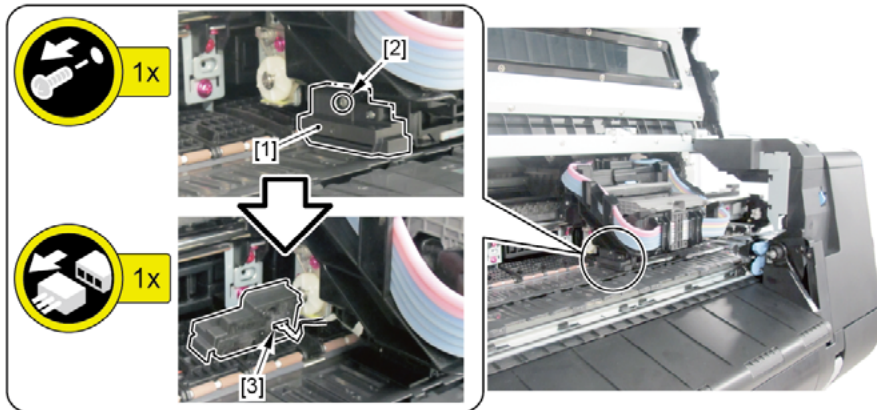


#### 4. Move [1] the carriage unit.



#### 5. Remove [1] MULTI SENSOR UNIT.

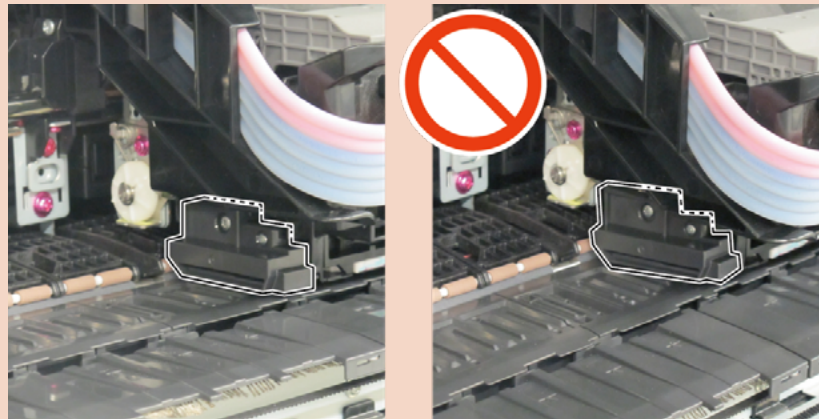
- [2]: 1 screw
- [3]: 1 connector



#### 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]

## E-2

- Remove [1] RAIL CLEANER UNIT (from the right side of the carriage).

· [2]: 1 screw

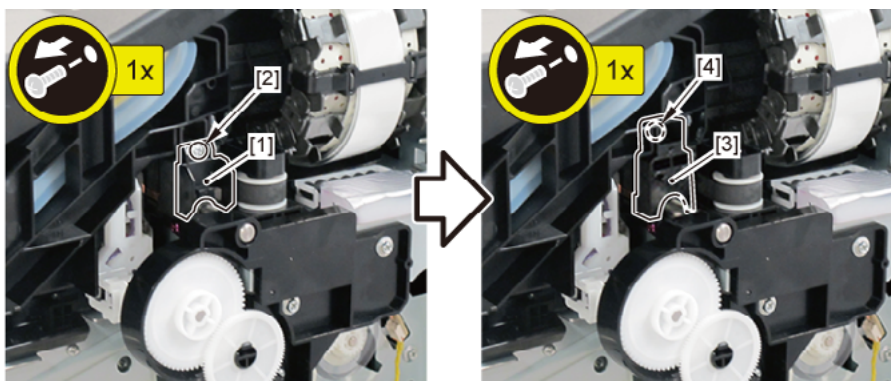


### Notes when replacing RAIL CLEANER UNIT:

Be sure to replace the right and left RAIL CLEANER UNIT and the right and left bushings at the same time (using the BUSHING / CLEANER KIT).

- Remove [3] HOLDER, CARRIAGE UNIT (from the right side of the carriage).

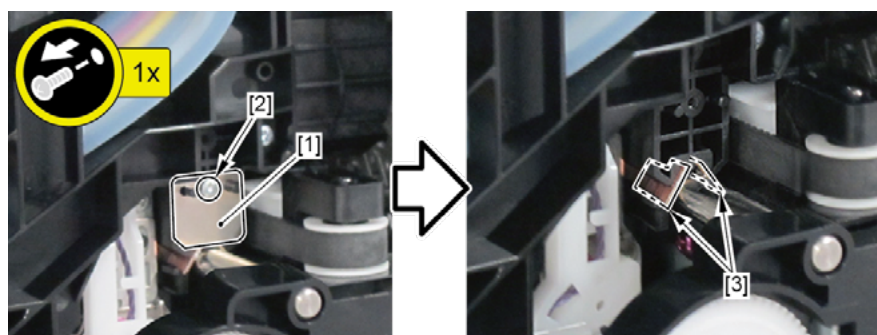
· [4]: 1 screw



- Remove [1] the plate.

· [2]: 1 screw

- Remove [3] two bushings (from the right side of the carriage).



### 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.



Point

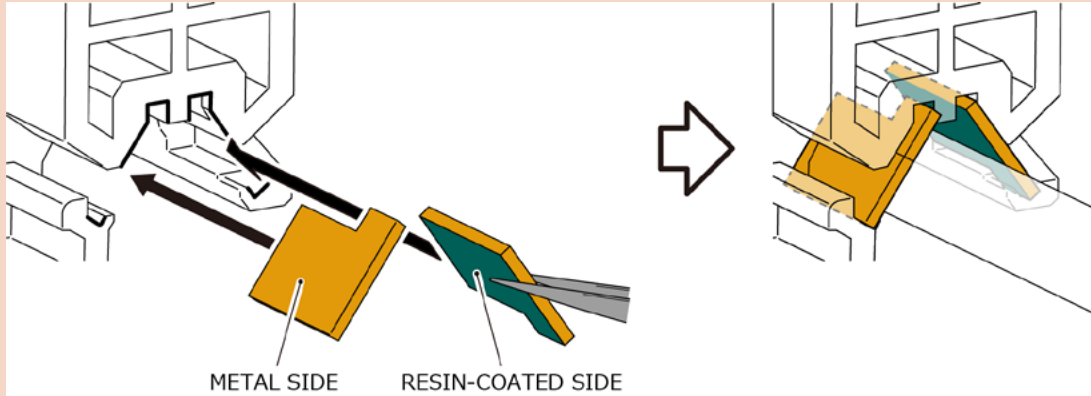
**Notes when replacing the bushing:**

- Be sure to replace the right and left RAIL CLEANER UNIT and the right and left bushings at the same time (using the BUSHING / CLEANER KIT).
- DO NOT lift up the carriage when it is capped. (Lifting up the capped carriage may damage the purging system.)

Point

**Notes when attaching the bushing:**

Attach the bushing so that its resin-coated side will contact the carriage shaft.



### 7. Remove [1] RAIL CLEANER UNIT (from the left side of the carriage).

- [2]: 1 screw

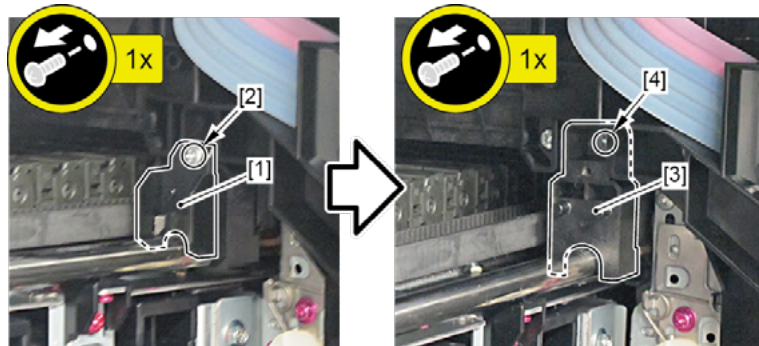
Point

**Notes when replacing RAIL CLEANER UNIT:**

Be sure to replace the right and left RAIL CLEANER UNIT and the right and left bushings at the same time (using the BUSHING / CLEANER KIT).

### 8. Remove [3] HOLDER, CARRIAGE UNIT (from the left side of the carriage).

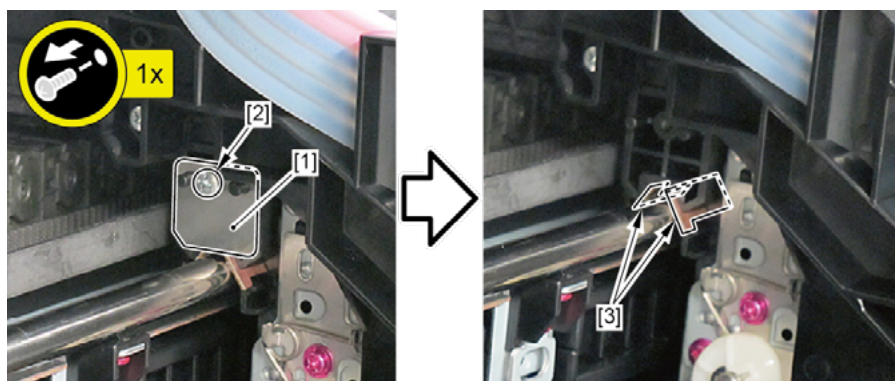
- [4]: 1 screw



## 9. Remove [1] the plate.

- [2]: 1 screw

## 10. Remove [3] two bushings (from the left side of the carriage).



### 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 RAIL CLEANER UNIT and the right and left bushings at the same time (using the BUSHING / CLEANER KIT).
- DO NOT lift up the carriage when it is capped. (Lifting up the capped carriage may damage the purging system.)



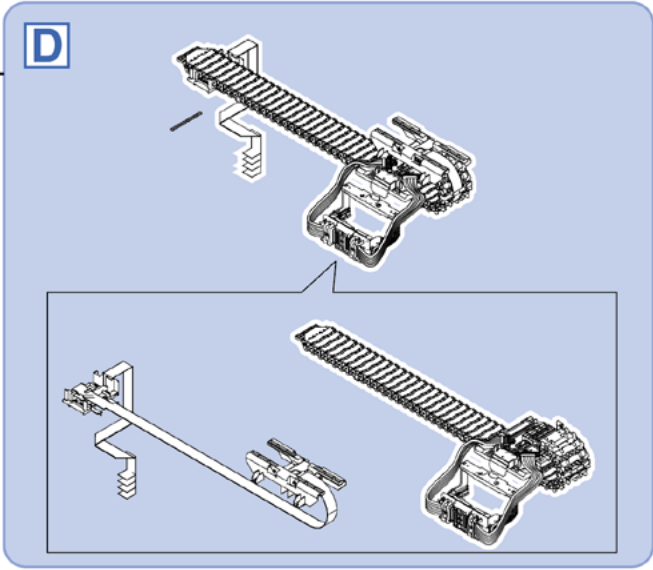
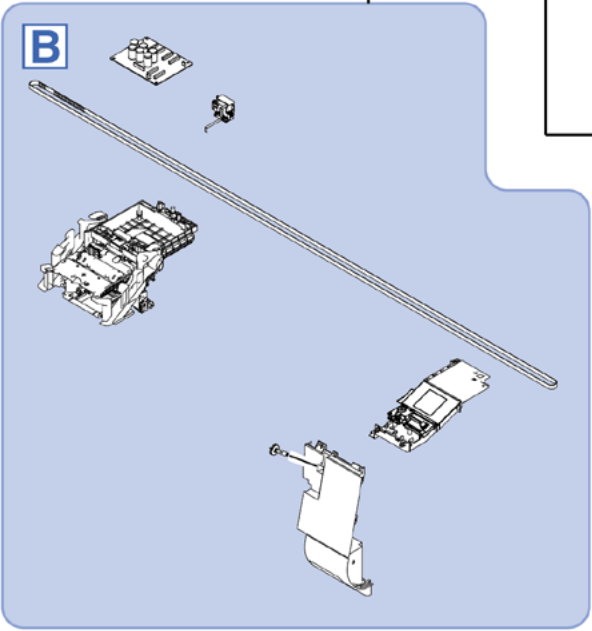
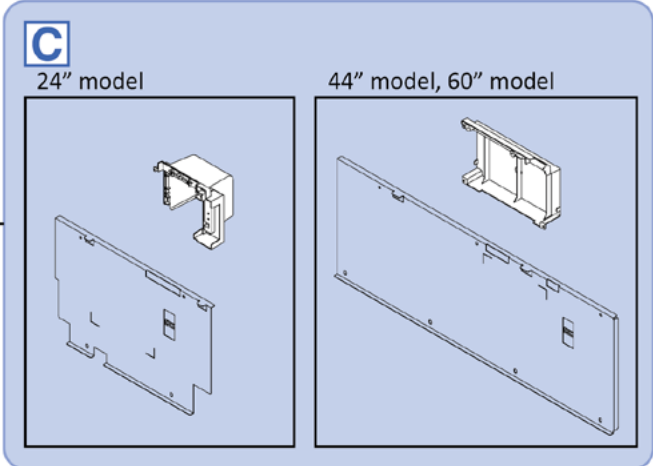
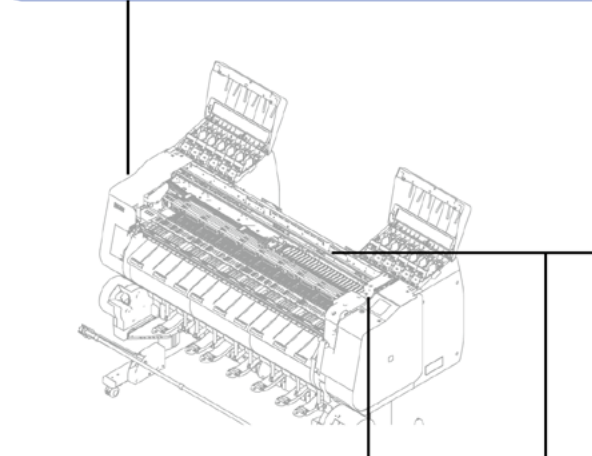
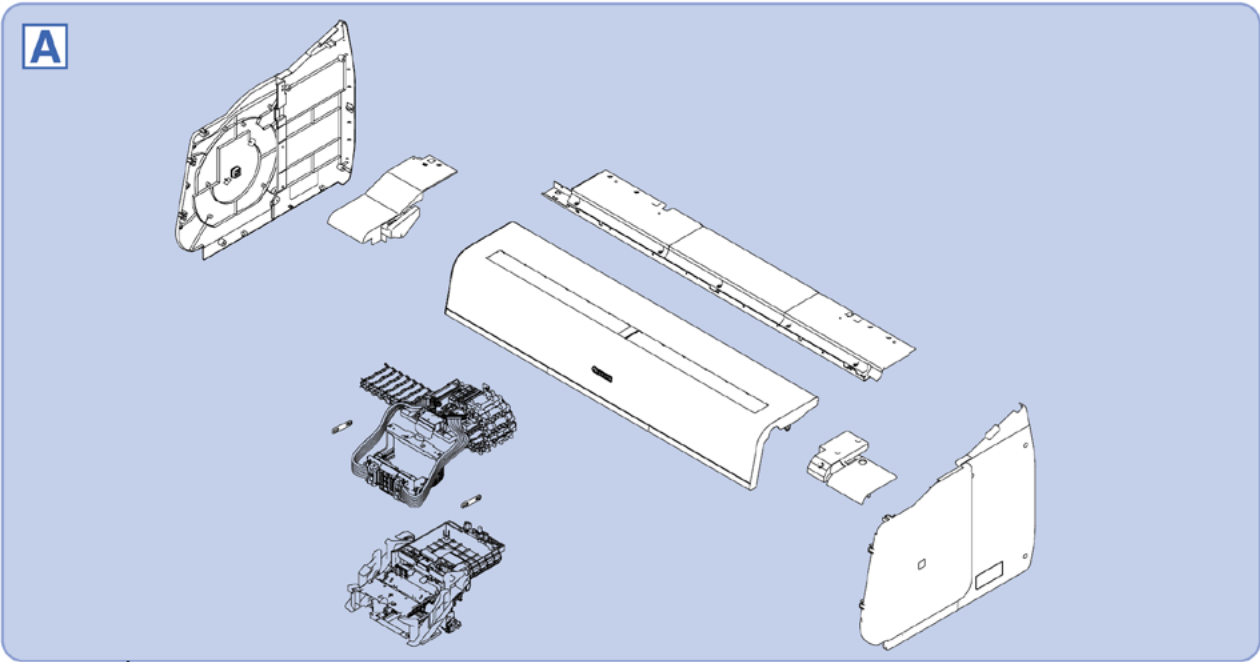
### Notes when attaching the bushing:

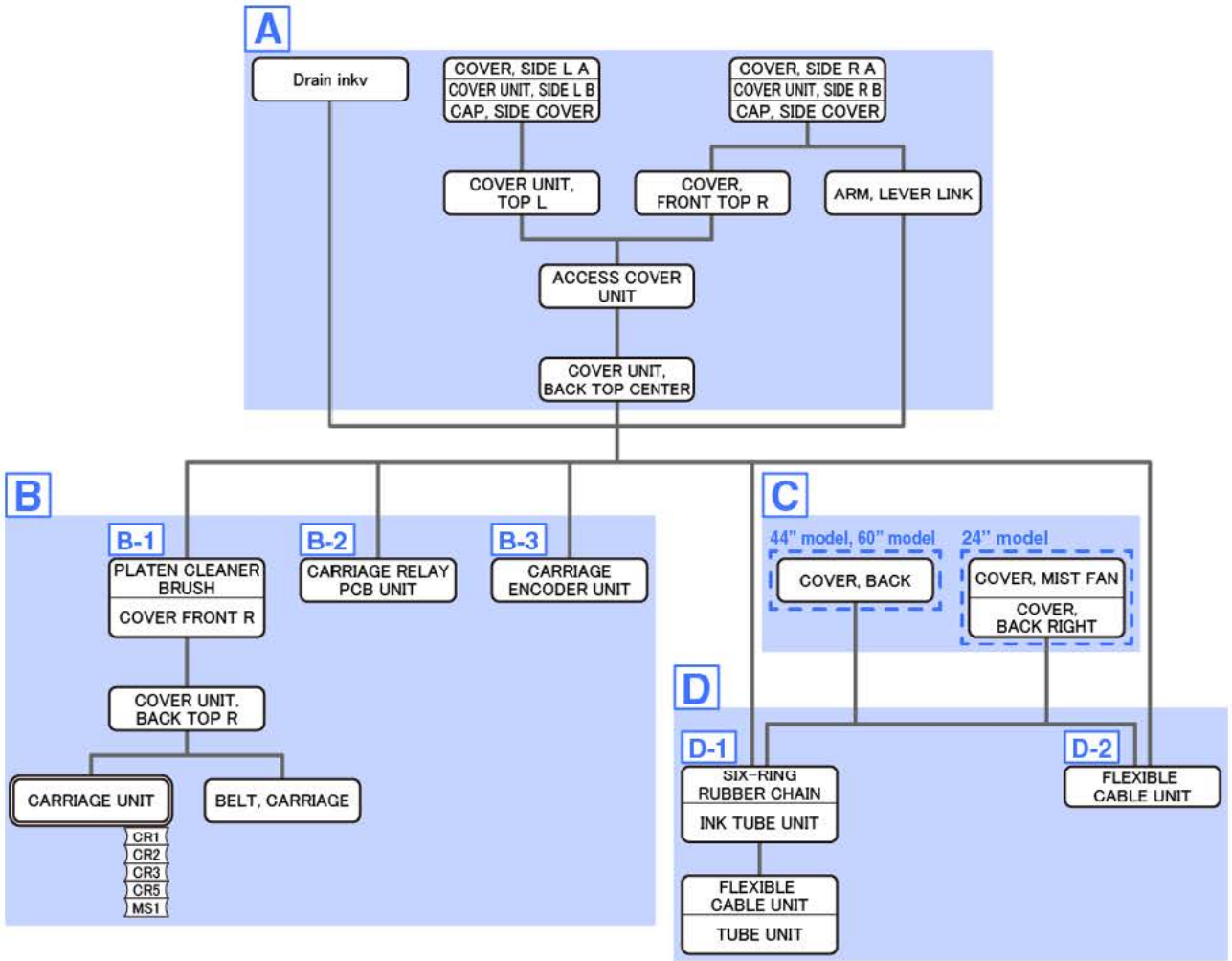
Attach the bushing so that its resin-coated side will contact the carriage shaft.





# 12. CARRIAGE UNIT (2)



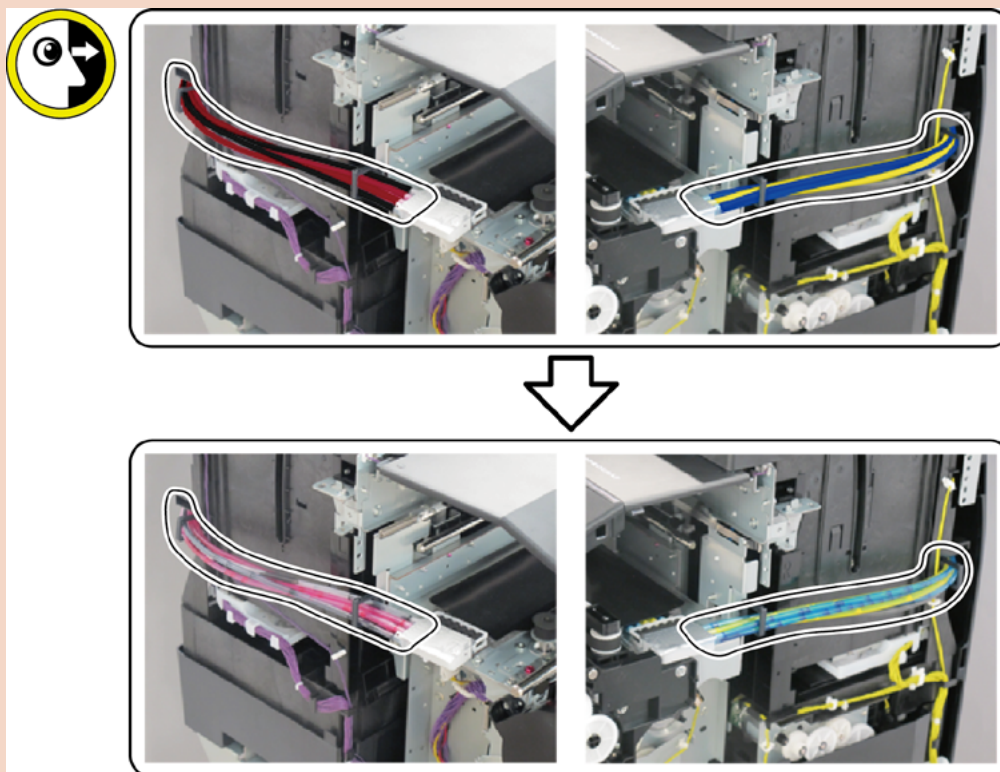


A

## 1. Drain ink into the sub tank.

### To do it in the Service Mode:

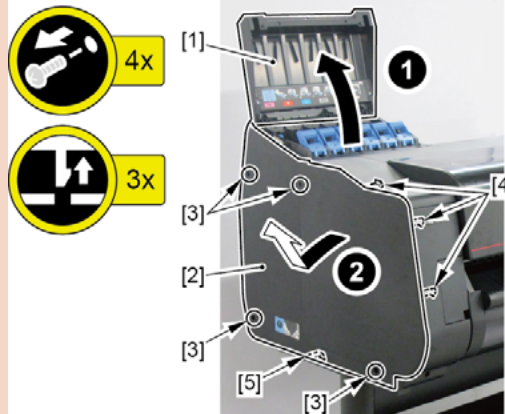
1. Unlock the carriage from [SERVICE MODE > FUNCTION > CR UNLOCK] in the operation panel, manually move the carriage unit to the position where the print head can be replaced, then remove the print head.
2. On the printer operation panel, select [SERVICE MODE > FUNCTION > INK SUPPLY VALVE OPEN > OPEN]. The supply valves (choke valves) of the right and left SUB INK TANK UNITS 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 is drained from the tubes.



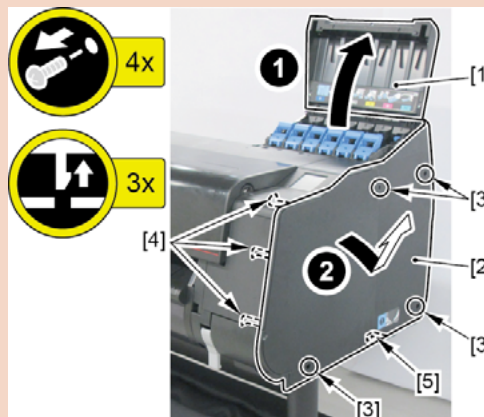
5. Power off the printer and unplug the power cord.

**To do it manually:**

1. Open [1] the left ink tank cover.
  2. Remove [2] a set of
    - COVER, SIDE L A
    - COVER UNIT, SIDE L B
    - CAP, SIDE COVER.
- [3]: 4 screws
  - [4]: 3 claws
  - [5]: 1 hook

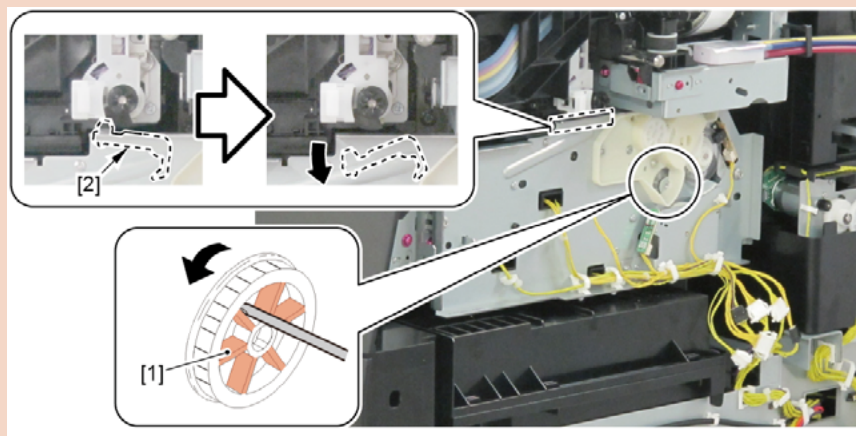


3. Open [1] the right ink tank cover.
  4. Remove [2] a set of
    - COVER, SIDE R A
    - COVER UNIT, SIDE R B
    - CAP, SIDE COVER.
- [3]: 4 screws
  - [4]: 3 claws
  - [5]: 1 hook



## 5. Unlock the carriage.

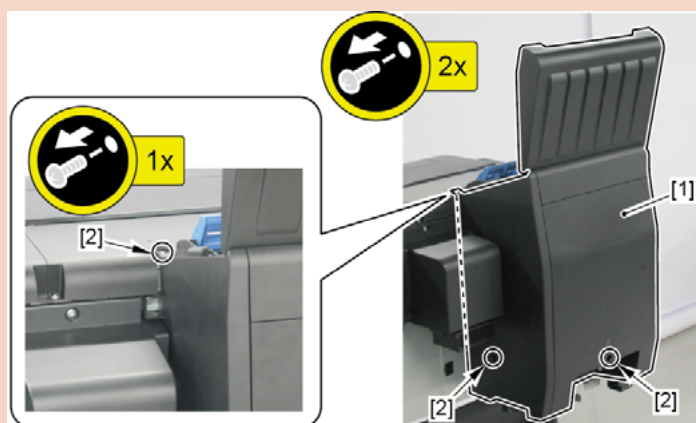
Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



## 6. Remove [1] a set of

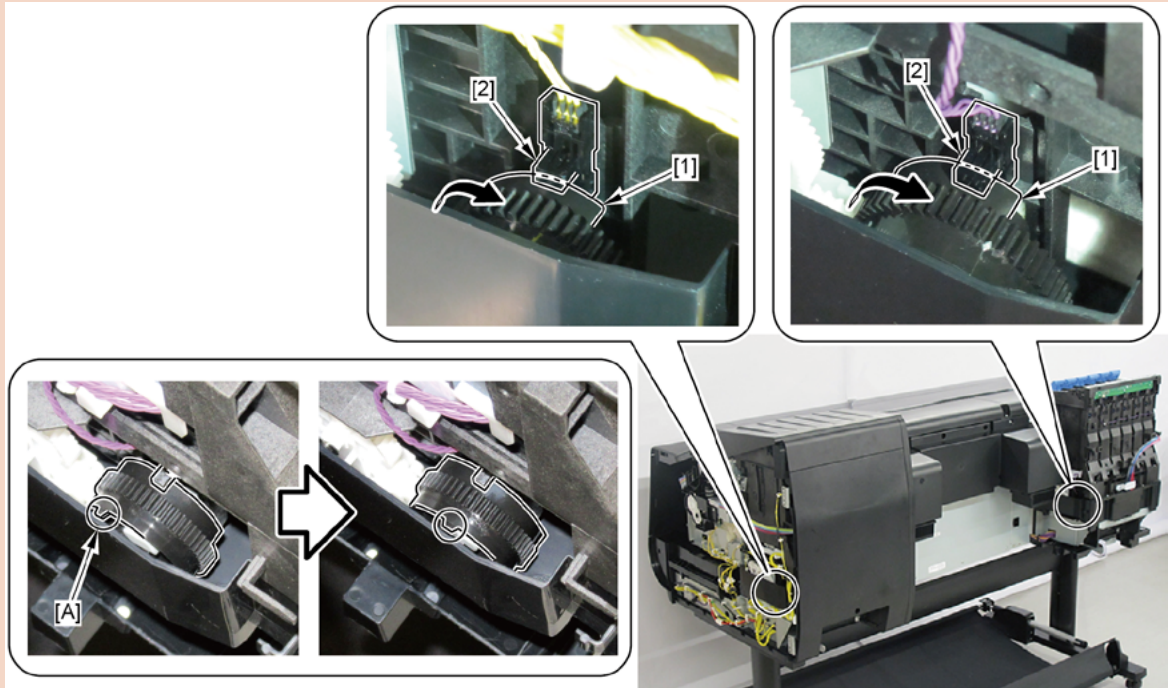
- COVER UNIT, INKTANK, TOP L
- COVER, INKTANK TOP BACK
- COVER, INKTANK BACK
- COVER, INKTANK L INSIDE.

- [2]: 3 screws

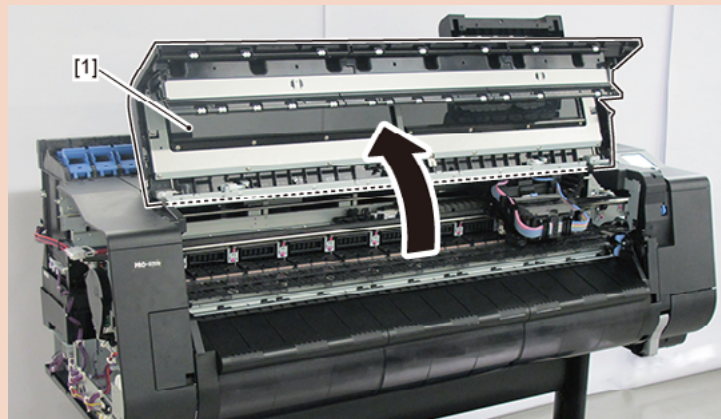




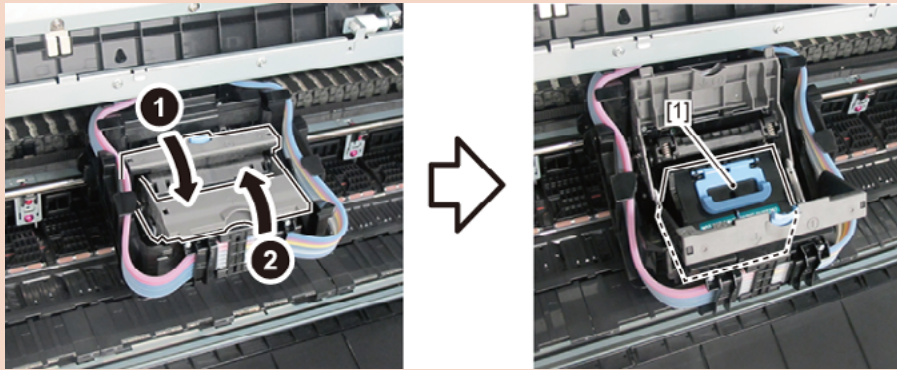
7. Turn the gear in the arrowed direction to open the right and left ink tank unit valves.  
When [1] the gear flag comes under [2] the sensor, the valves will open.  
When [A] the tab is at the top center, the valves are fully opened.



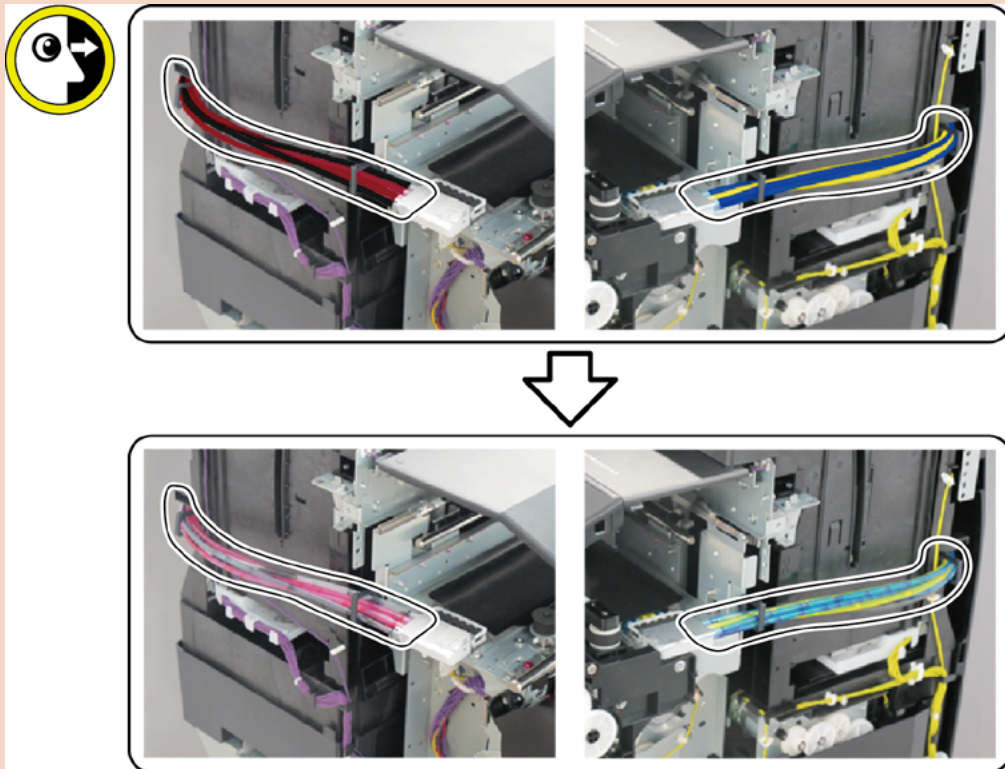
8. Open [1] the access cover.



9. Remove [1] PRINT HEAD.



10. Wait for five to ten minutes, then confirm that the ink is drained from the tubes.



**Notes when ink is drained from the tubes:**



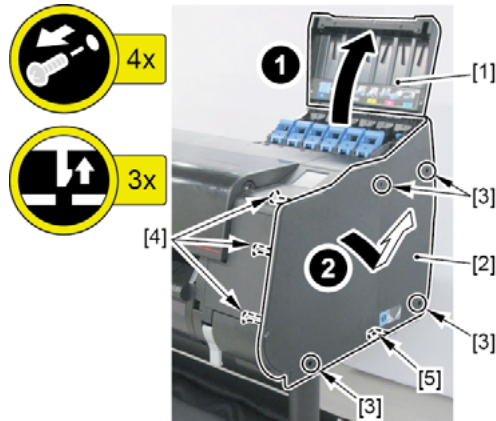
Be sure to perform Ink Filling at the end of reassembly.  
 [SERVICE MODE > FUNCTION > INK FILLING]

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

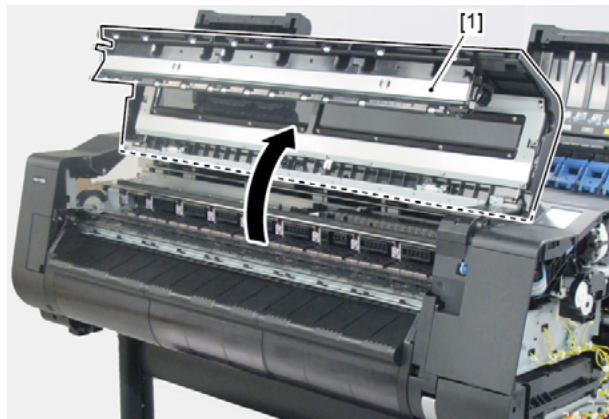
3. Remove [2] a set of

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

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



4. Open [1] the access cover.



5. Remove two pieces of [1] ARM, LEVER LINK.

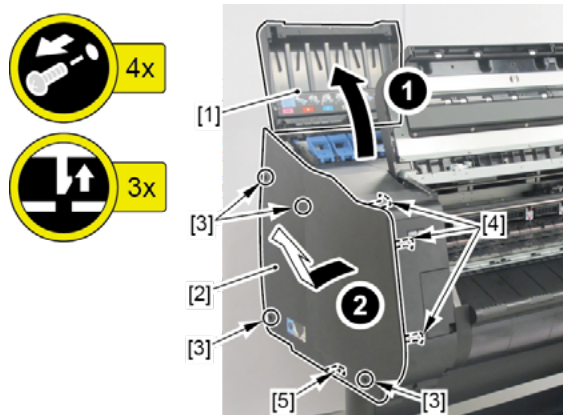


6. Open [1] the left ink tank cover.

7. Remove [2] a set of

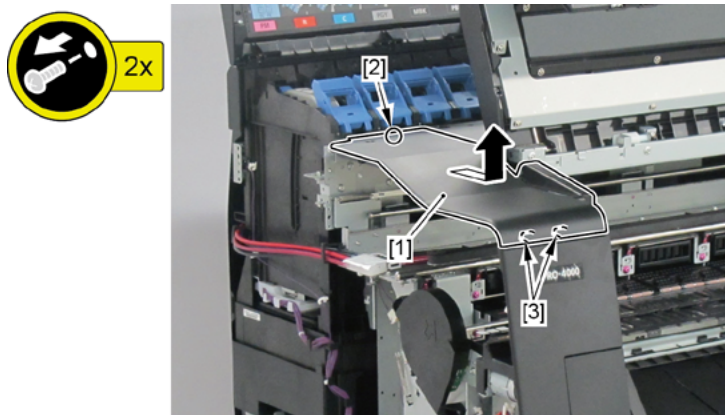
- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



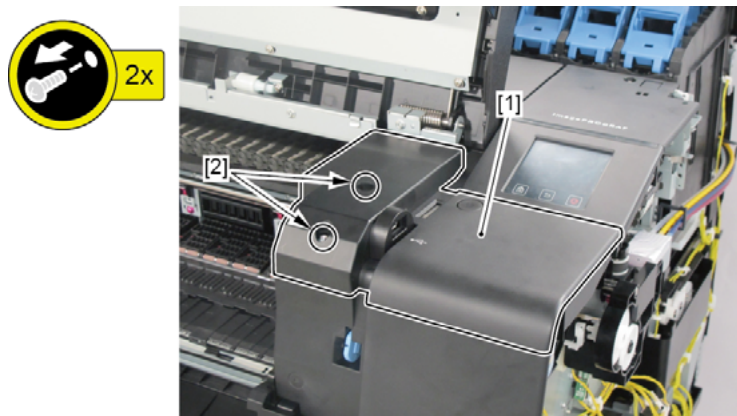
8. Remove [1] COVER UNIT, TOP L.

- [2]: 1 screw
- [3]: 2 hooks



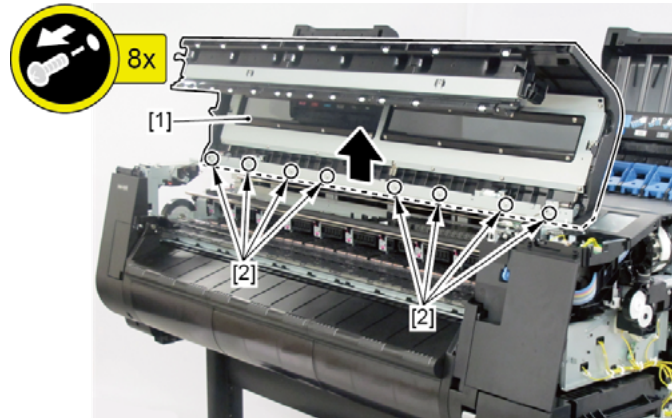
9. Remove [1] COVER FRONT TOP R.

- [2]: 2 screws



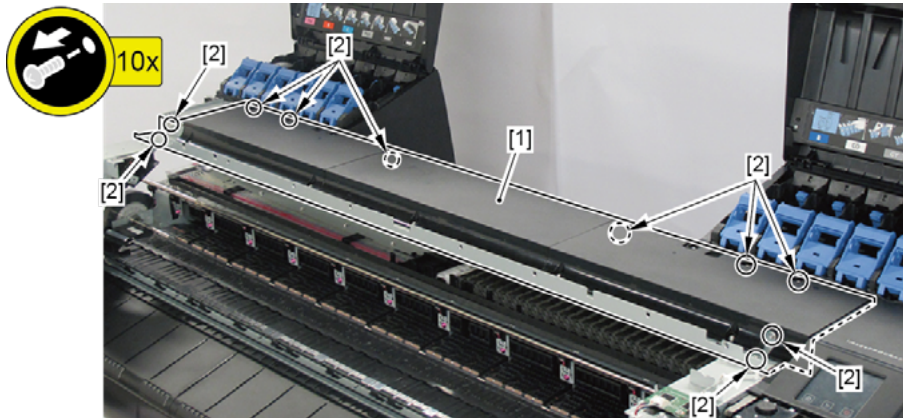
## 10. Remove [1] ACCESS COVER UNIT with holding the handles.

- [2]: 8 screws (5 screws in 24" model, 10 screws in 60" model)

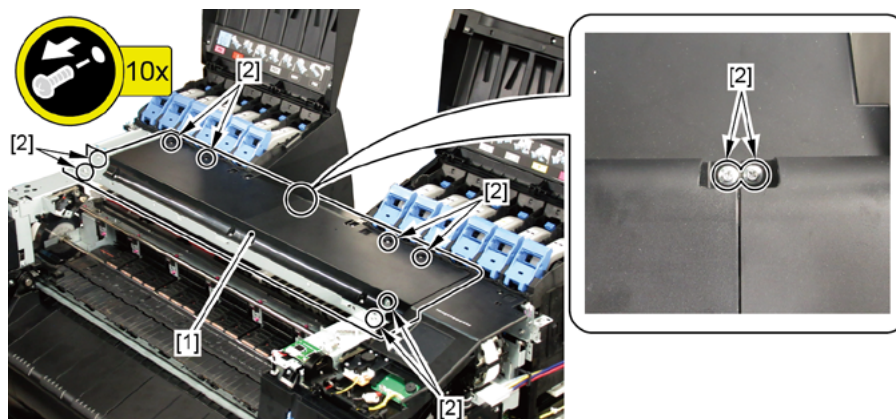


## 11. Remove [1] COVER UNIT, BACK TOP CENTER.

- [2]: 10 screws (11 screws in 60" model)  
(44" model)



(24" model)



## B



CARRIAGE UNIT removal (Steps 2 ,3, B-1-8, B-1-9)



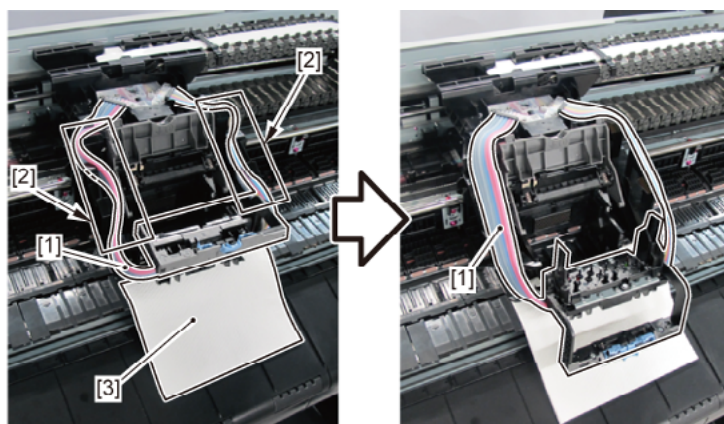
CARRIAGE UNIT attachment (Steps 2 ,3, B-1-8, B-1-9)

1. Remove all the parts of Group A.
2. Release [1] the tubes from [2] the guide.



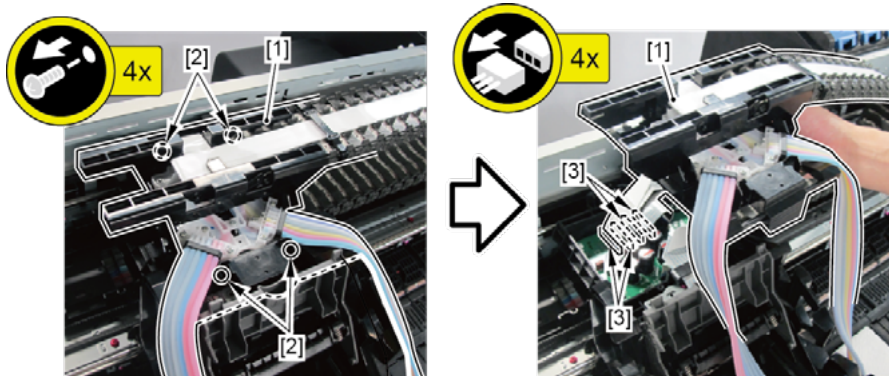
#### Notes when removing the unit:

Place the unit on [3] a paper towel, etc. as shown below.



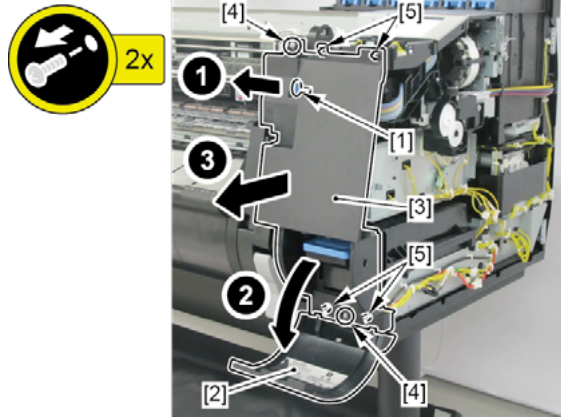
3. Remove [1] INK TUBE UNIT from the CARRIAGE UNIT.

- [2]: 4 screws (black)
- [3]: 4 connectors

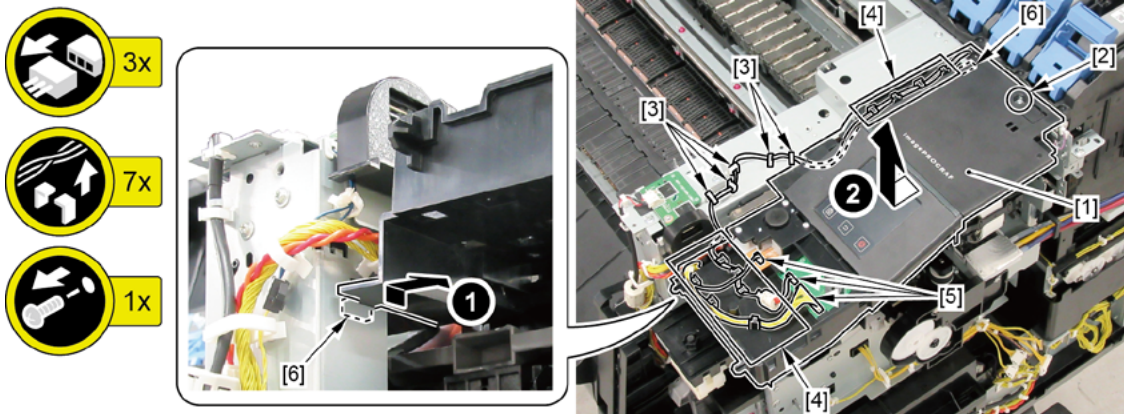


## B-1

4. Remove [1] PLATEN CLEANER BRUSH.
5. Open [2] COVER UNIT, MTC.
6. Remove [3] COVER, FRONT R.
  - [4]: 2 screws
  - [5]: 4 protrusions

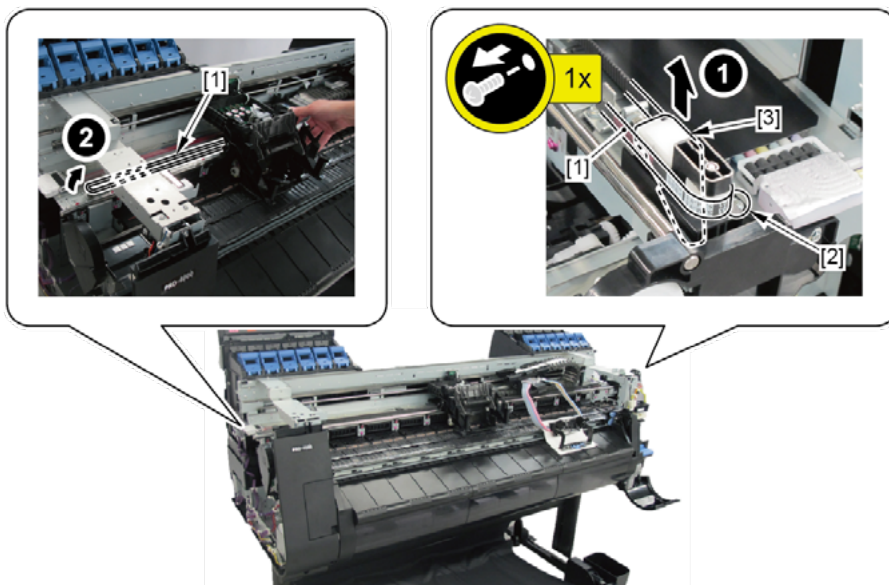


7. Remove [1] COVER UNIT, BACK TOP R.
  - [2]: 1 screw
  - [3]: 4 wire saddles
  - [4]: Cable guides in two areas
  - [5]: 3 connectors
  - [6]: 2 hooks

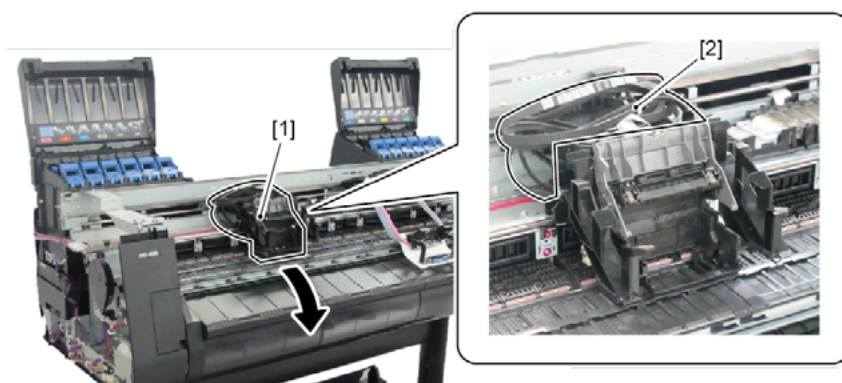


## 8. Loosen [1] BELT, CARRIAGE.

- [2]: 1 screw
- [3]: 1 wedge



## 9. Remove [1] CARRIAGE UNIT and [2] BELT, CARRIAGE together.



### Notes when assembling the unit:

Perform adjustment at the end of assembly.

[SERVICE MODE > FUNCTION > OPTICAL AXIS]

[SERVICE MODE > FUNCTION > GAP CALIB.]

[SERVICE MODE > FUNCTION > CR MOTOR COG]



### Notes when the unit is replaced:

Reset the applicable counter when the unit is replaced:

[SERVICE MODE > PARTS COUNTER > CR1]

[SERVICE MODE > PARTS COUNTER > CR2]

[SERVICE MODE > PARTS COUNTER > CR3]

[SERVICE MODE > PARTS COUNTER > CR5]

[SERVICE MODE > PARTS COUNTER > MS1]

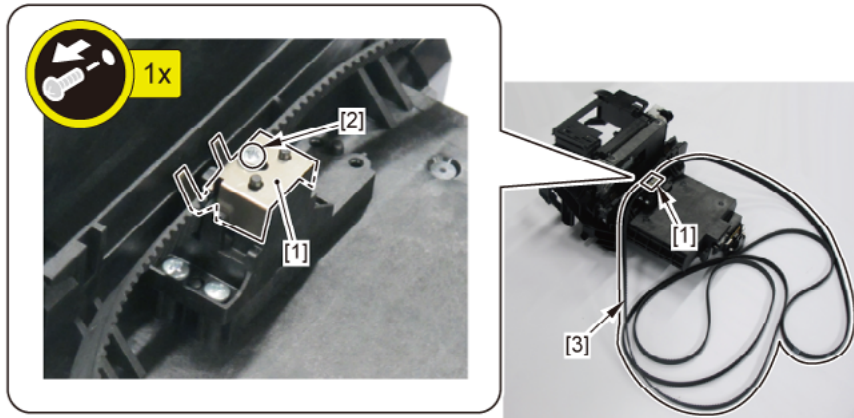




10. Remove [1] the plate.

- [2]: 1 screw

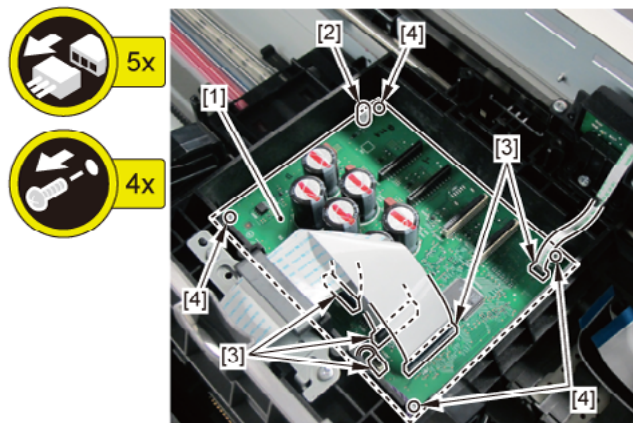
11. Remove [3] BELT, CARRIAGE.



## B-2

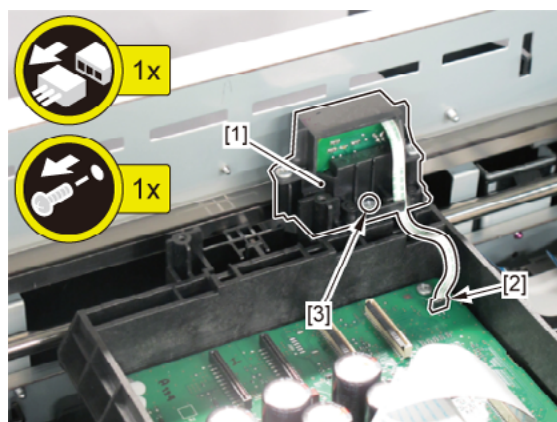
4. Hold [2] the tab and remove [1] CARRIAGE RELAY PCB UNIT.

- [3]: 5 connectors
- [4]: 4 screws



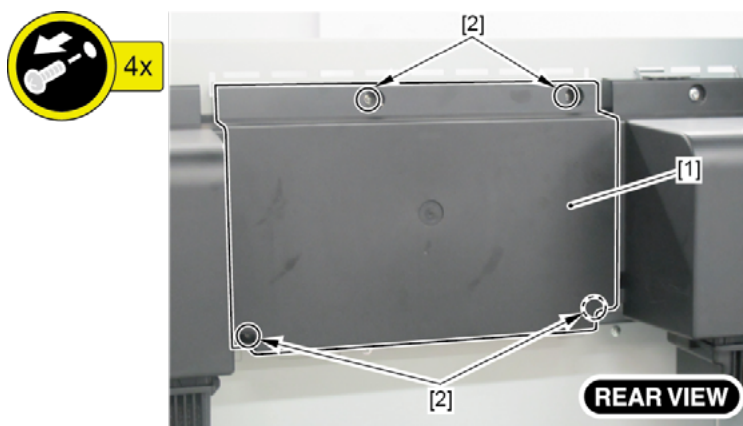
**B-3**

4. Remove [1] CARRIAGE ENCODER UNIT.
  - [2]: 1 connector
  - [3]: 1 screw

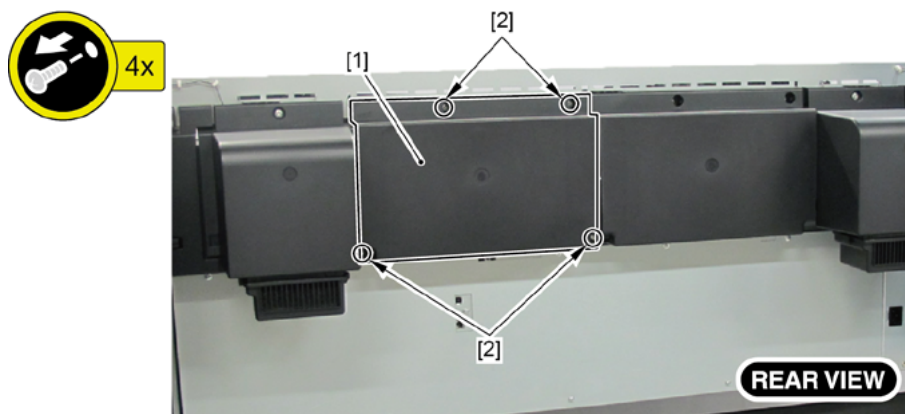
**C (44" model, 60" model)**

1. Remove all the parts of Group A.
2. Remove [1] COVER, BACK.
  - [2]: 4 screws

(44" model)



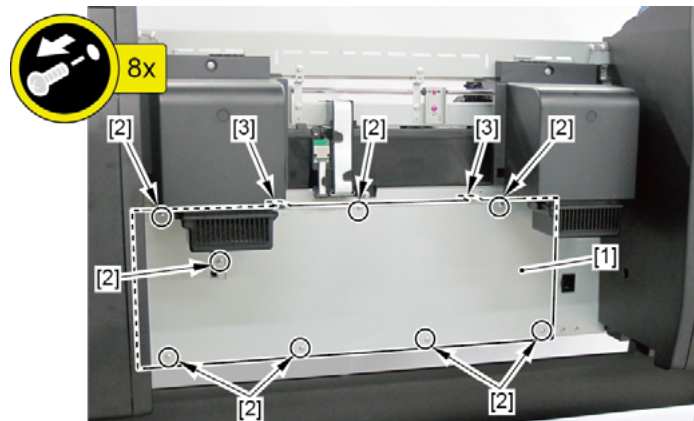
(60" model)



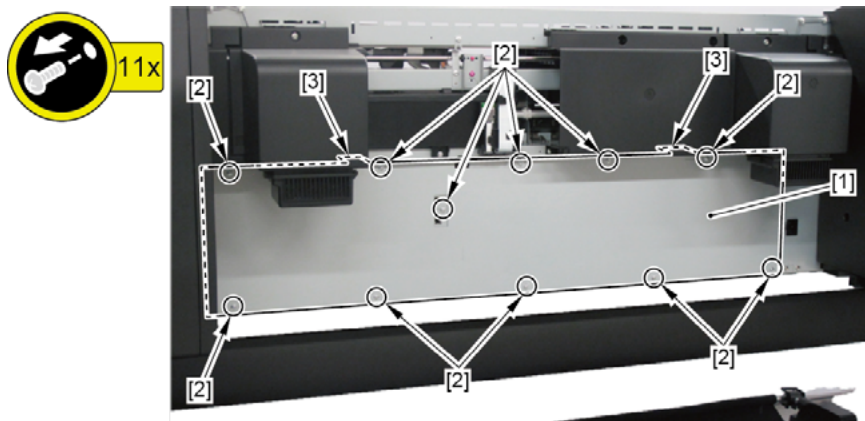
### 3. Remove [1] the plate.

- [2]: 8 screws (11 screws in 60" model)
- [3]: 2 protrusions

(44" model)



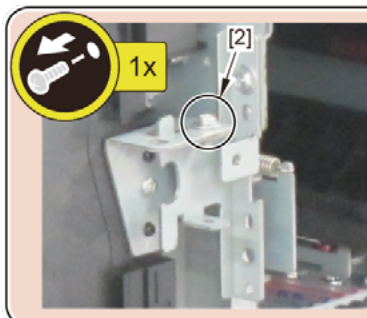
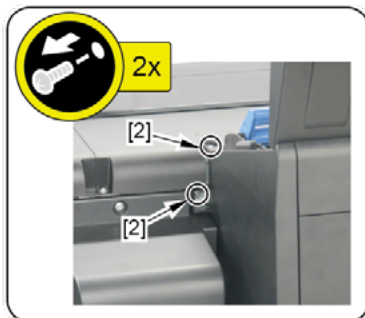
(60" model)



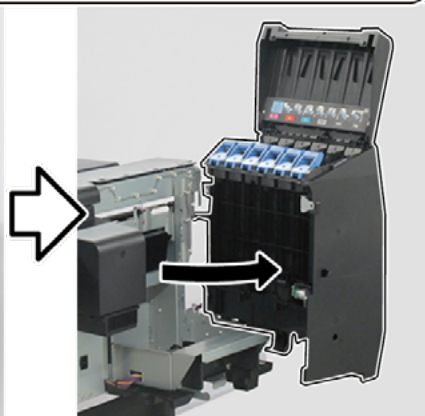
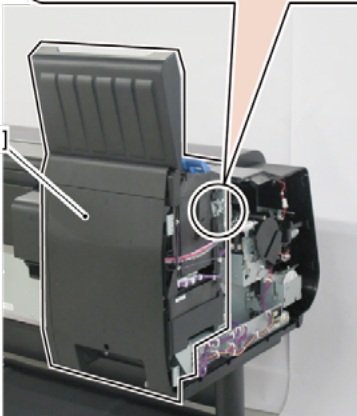
### C (24" model)

1. Remove all the parts of Group A.
2. Open [1] the left ink unit.

- [2]: 4 screws

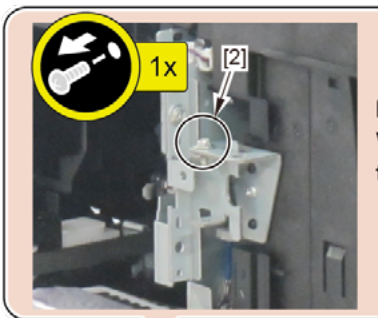


**Notes when assembling the unit :**  
While adjusting the screw hole,  
tighten this screw last.

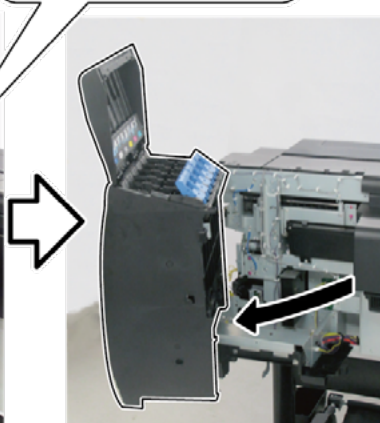
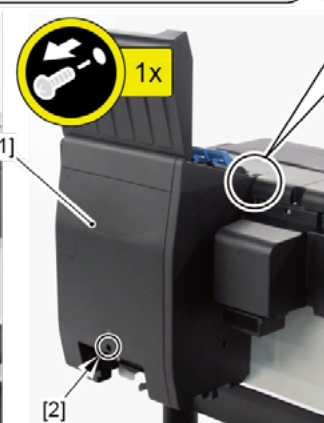
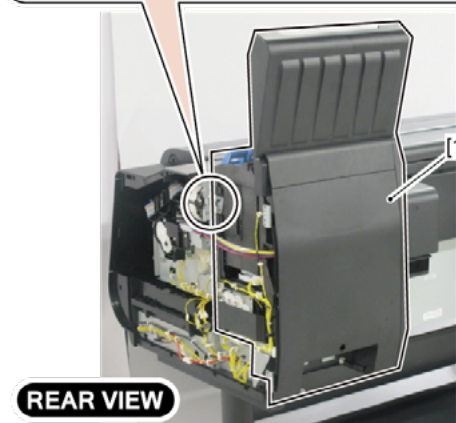
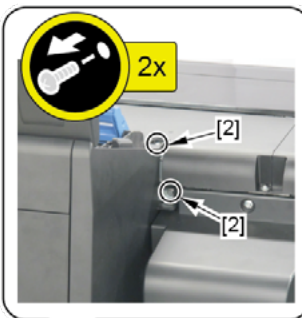


3. Open [1] the right ink unit.

- [2]: 4 screws

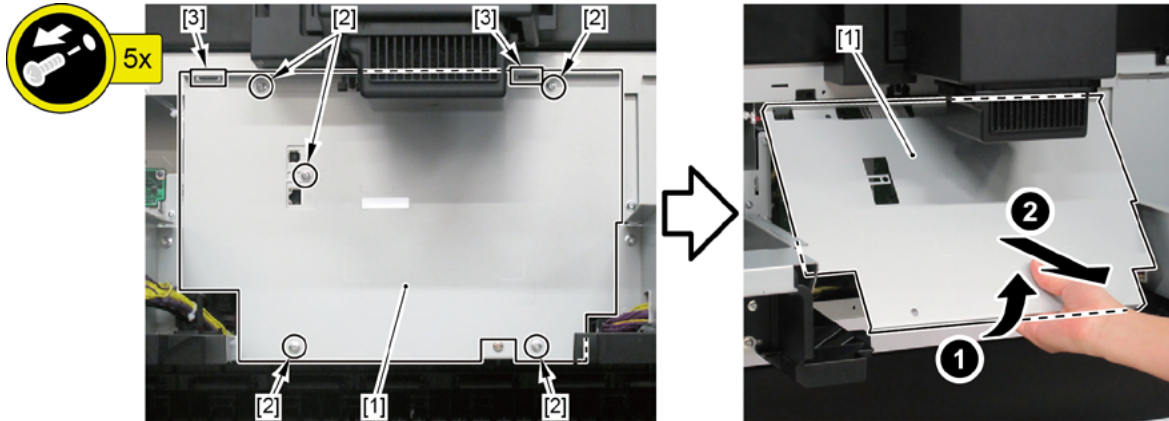


**Notes when assembling the unit :**  
While adjusting the screw hole,  
tighten this screw last.



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

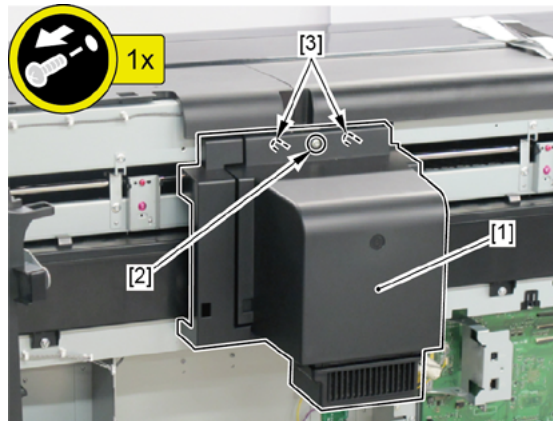
- [2]: 5 screws
- [3]: 2 protrusions



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

- COVER, MIST FAN
- COVER, BACK RIGHT.

- [2]: 1 screw
- [3]: 2 bosses



## D

1. Remove all the parts of Groups A, and C.

## D-1



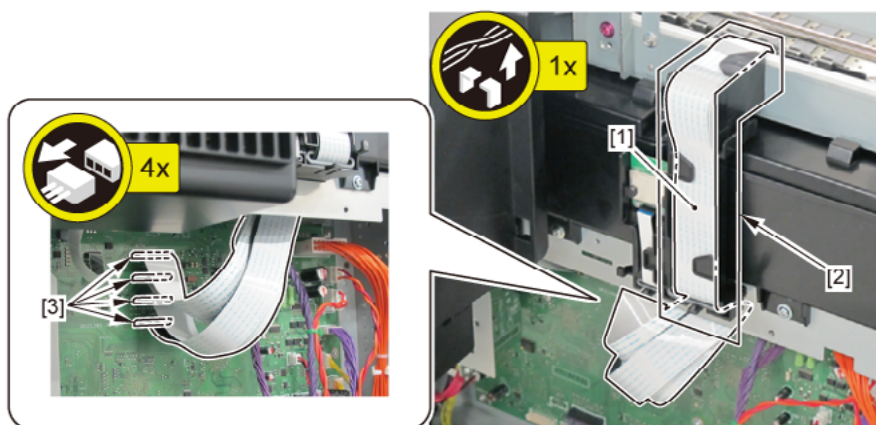
INK TUBE UNIT removal (Steps 2 and 3)



INK TUBE UNIT attachment (Steps 2 and 3)

2. Disconnect and release [1] the flexible cables from [2] the cable guide.

- [3]: 4 connectors



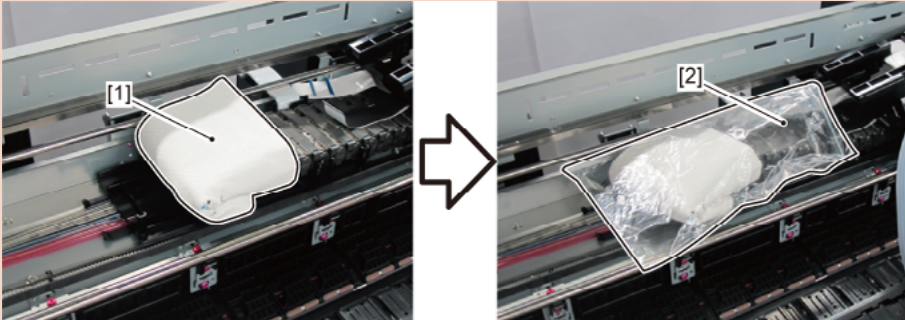
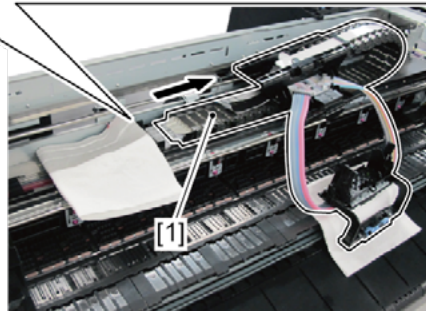
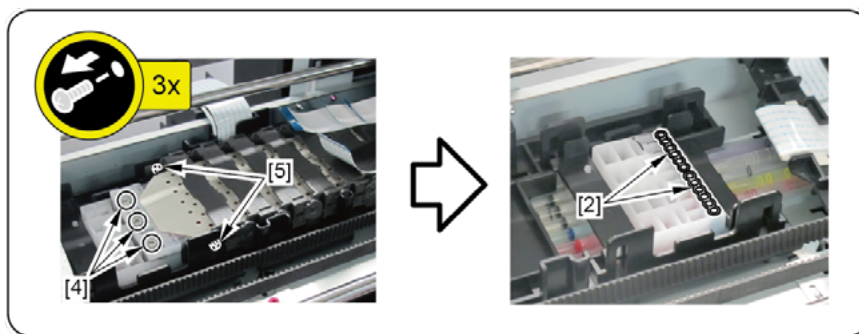
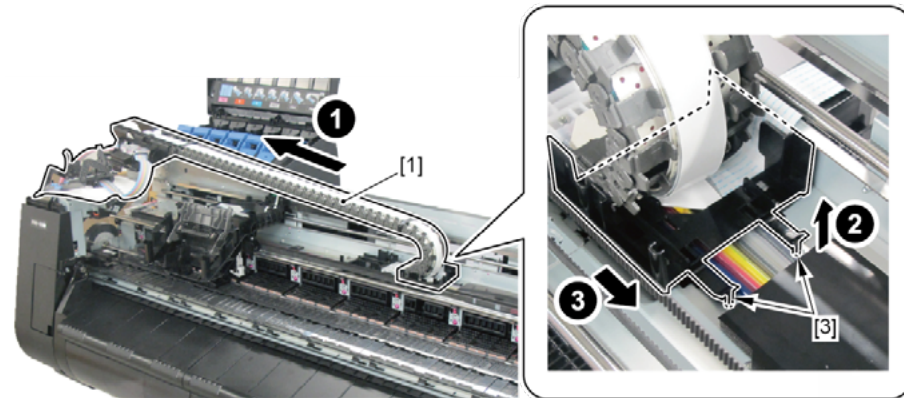
### 3. Remove [1] INK TUBE UNIT and [2] SIX-RING RUBBER CHAIN.

- [3]: 2 bosses
- [4]: 3 long screws
- [5]: 2 bosses

**Point**

**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.

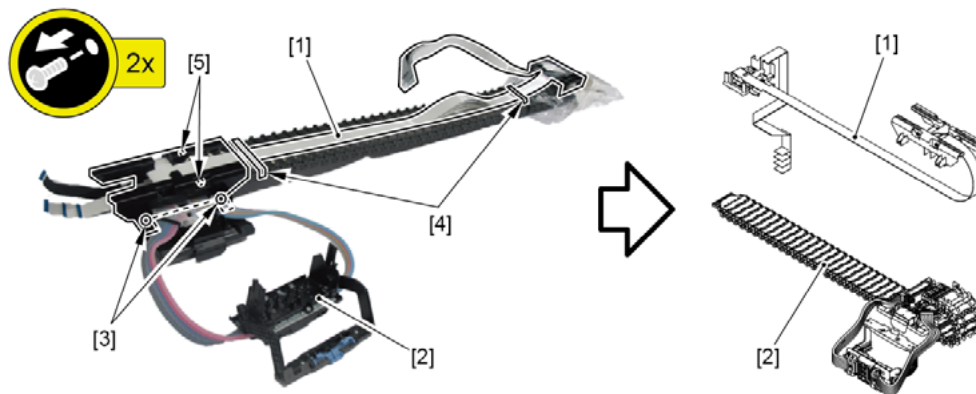
**Point**

**Notes when assembling the unit:**

Make sure that SIX-RING RUBBER CHAIN is attached at the proper position, and fix INK TUBE UNIT to bosses from the top of SIX-RING RUBBER CHAIN.

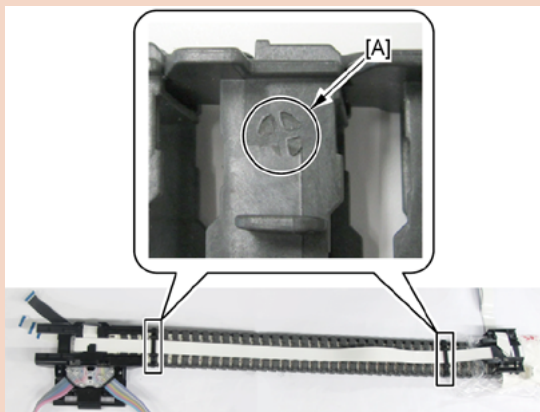
4. Separate the INK TUBE UNIT into two parts, [1] FLEXIBLE CABLE UNIT and [2] TUBE UNIT.

- [3]: 2 screws
- [4]: 2 cable holders
- [5]: 2 bosses



Notes when assembling the unit:

Fit the cable holders to the cable guide at the engraved marks ([A]).



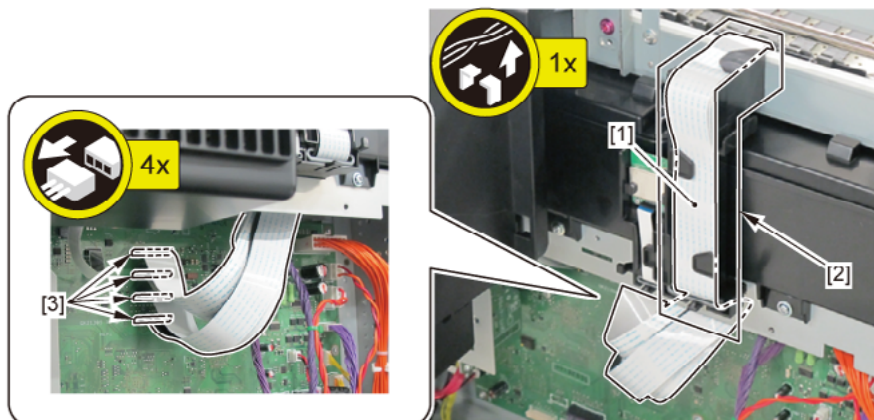
D-2



FLEXIBLE CABLE UNIT removal (Steps 3)

2. Disconnect and release [1] the flexible cables from [2] the cable guide.

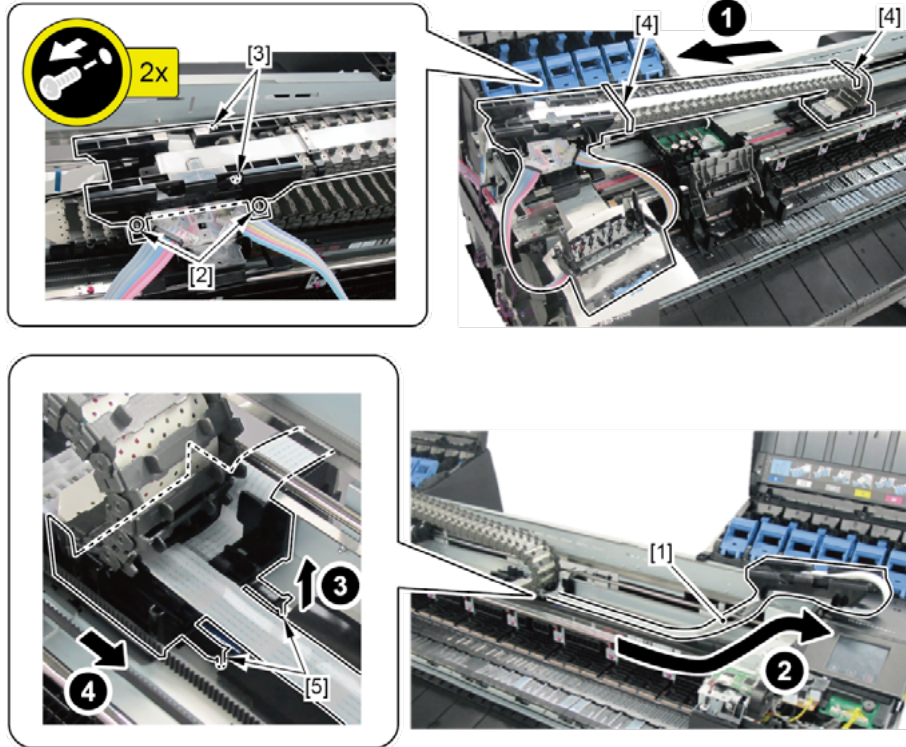
- [3]: 4 connectors





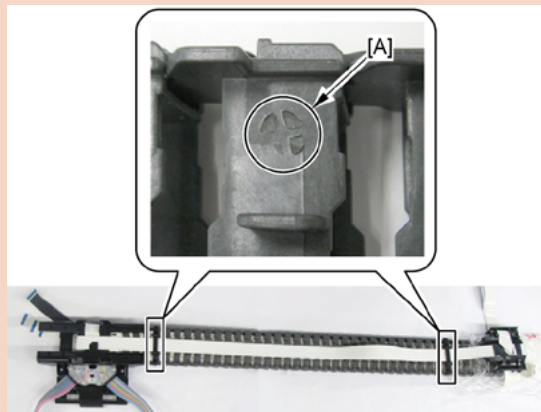
### 3. Remove [1] FLEXIBLE CABLE UNIT.

- [2]: 2 screws
- [3]: 2 bosses
- [4]: 2 cable holders
- [5]: 2 bosses



#### Notes when assembling the unit:

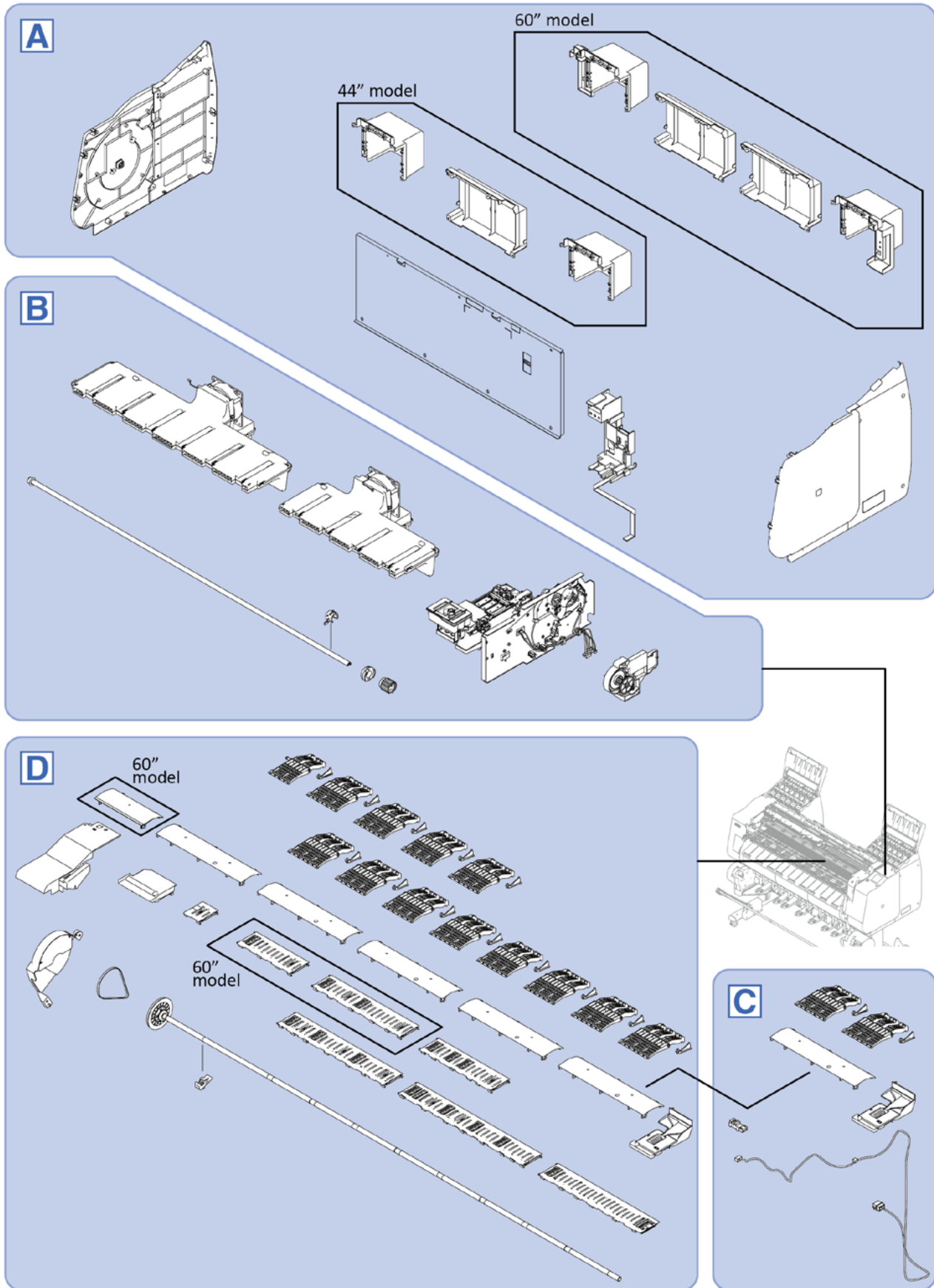
Fit the cable holders to the cable guide at the engraved marks ([A]).

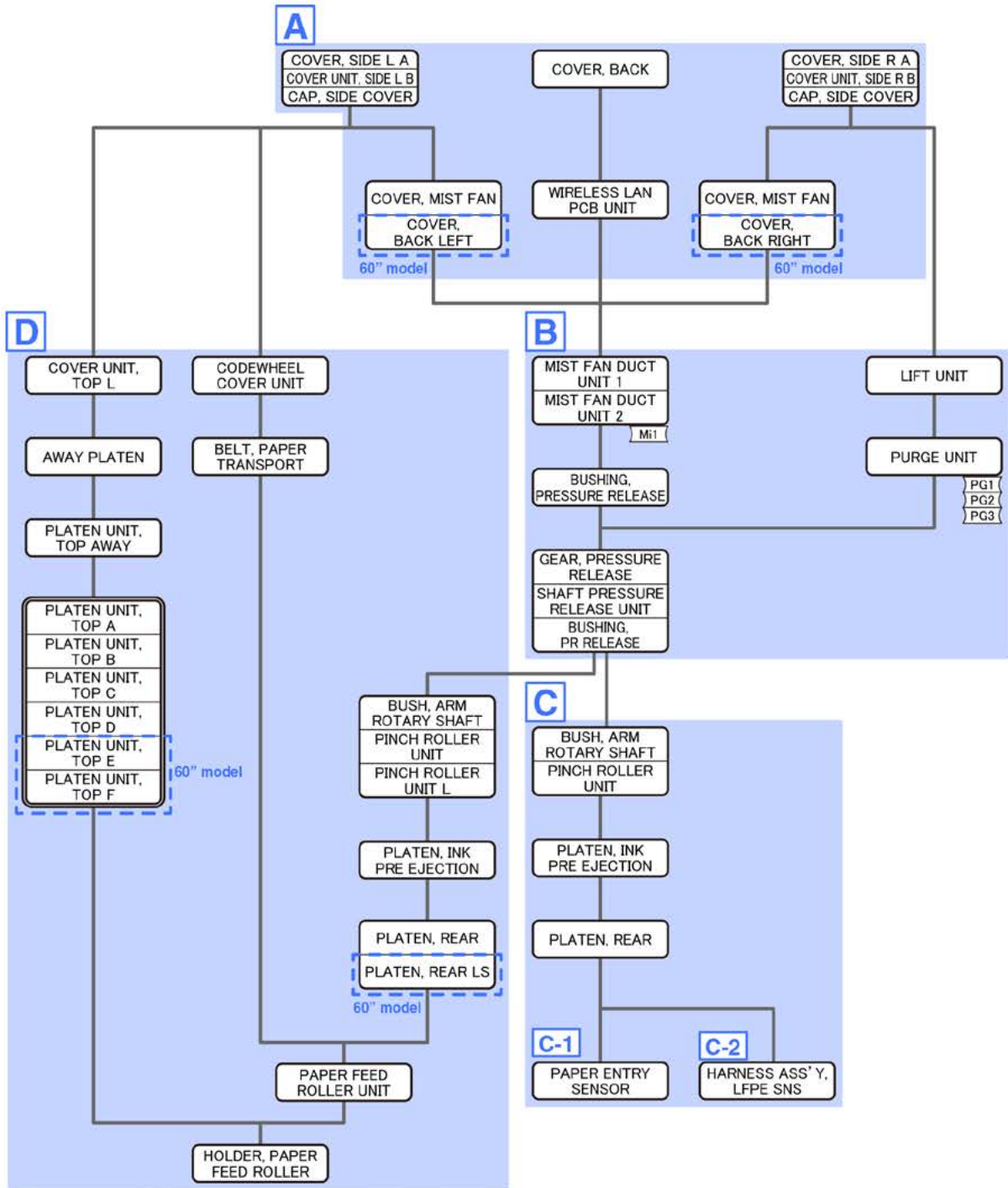


Point

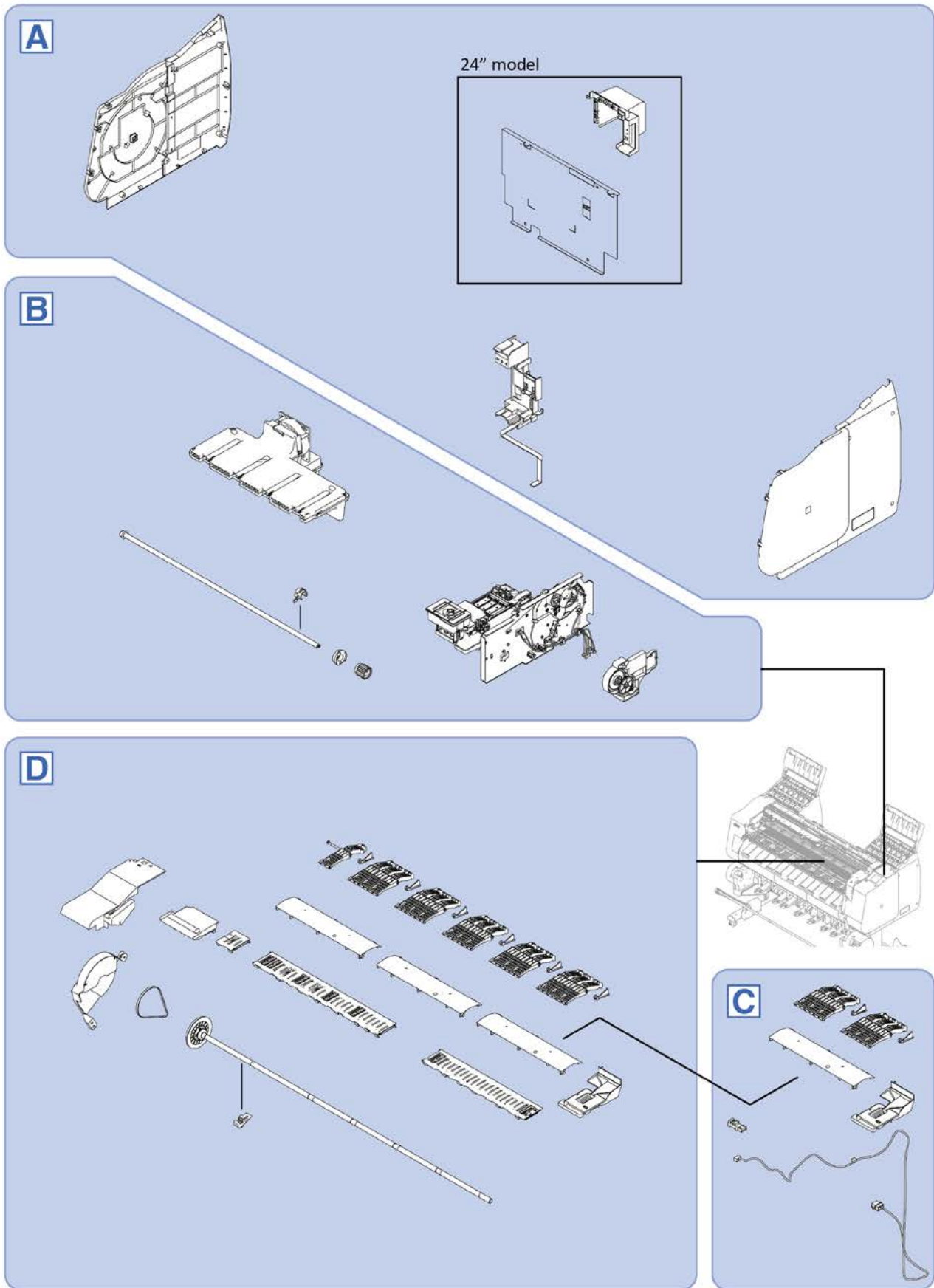
# 13. PAPER FEED ROLLER UNIT (PINCH ROLLER UNIT)

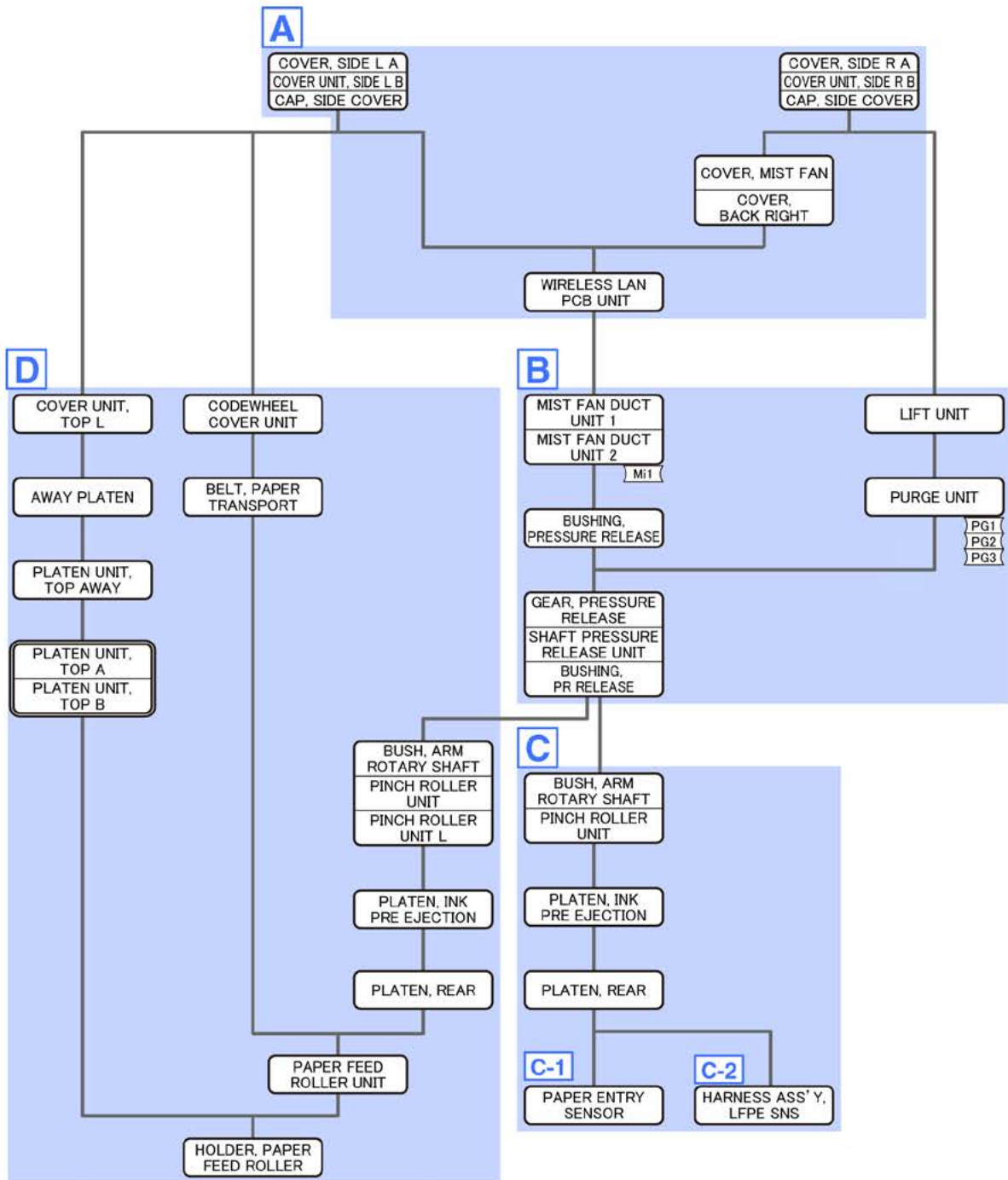
44" model, 60" model





24" model





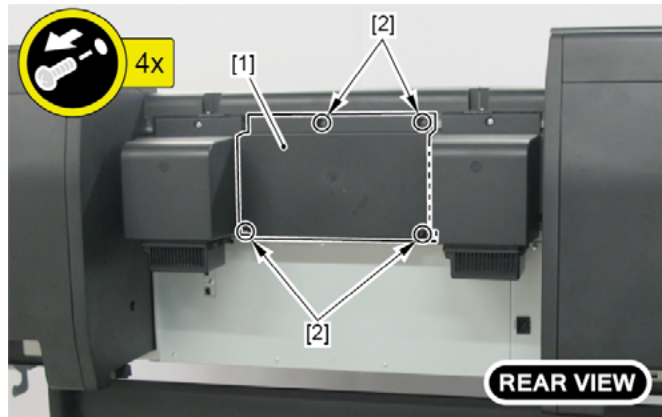
## A (44" model, 60" model)

### 1.

(44" model)

Remove [1] COVER, BACK.

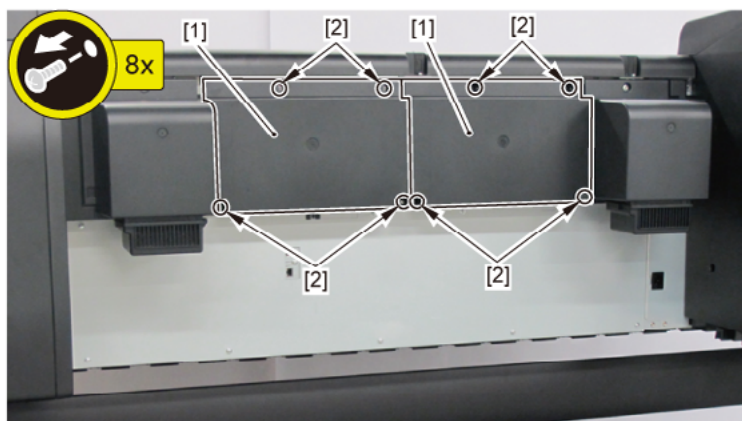
- [2]: 4 screws



(60" model)

Remove two pieces of [1] COVER, BACK.

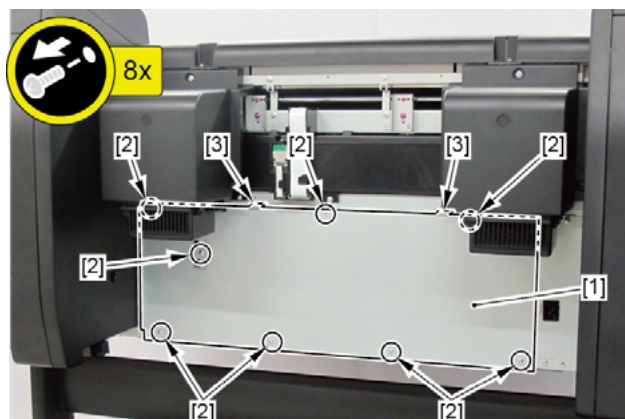
- [2]: 4 screws each



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

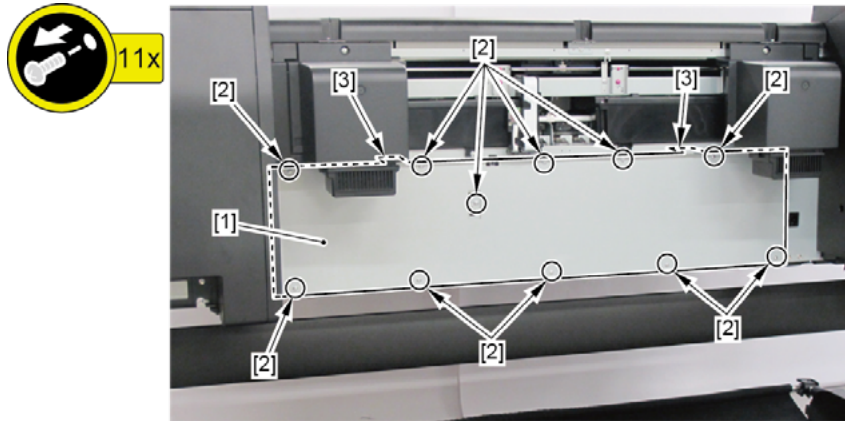
(44" model)

- [2]: 8 screws
- [3]: 2 protrusions



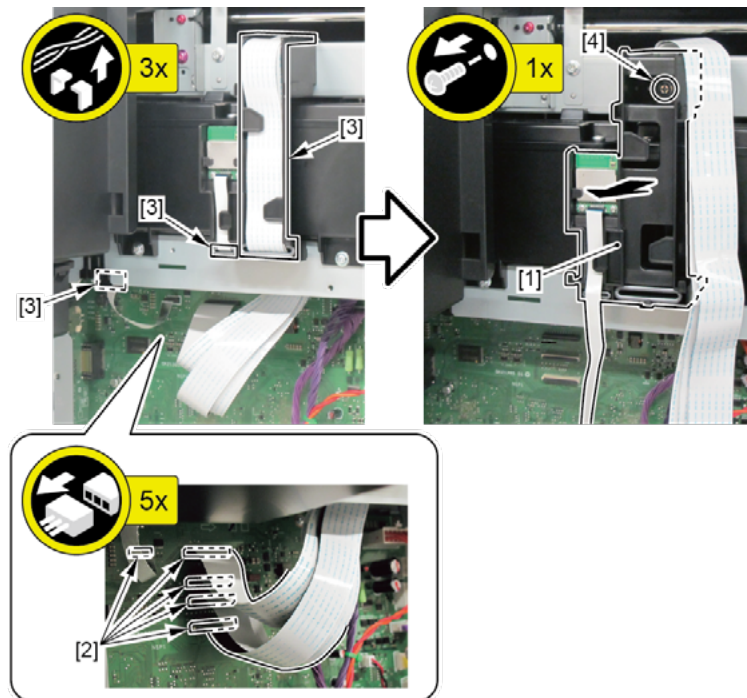
(60" model)

- [2]: 11 screws
- [3]: 2 protrusions



### 3. Remove [1] WIRELESS LAN PCB UNIT.

- [2]: 5 connectors
- [3]: Cable guides in three areas
- [4]: 1 screw

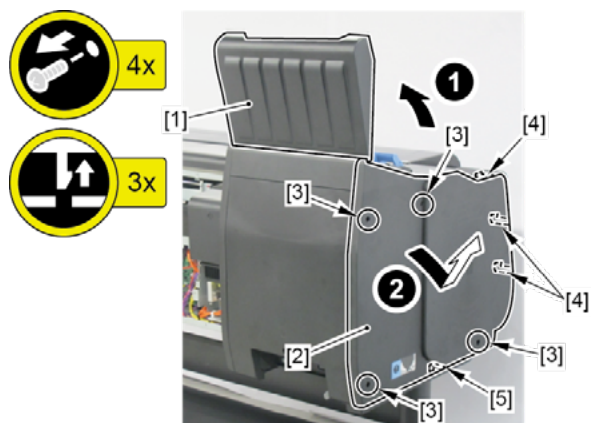


4. Open [1] the left ink tank cover.

5. Remove [2] a set of

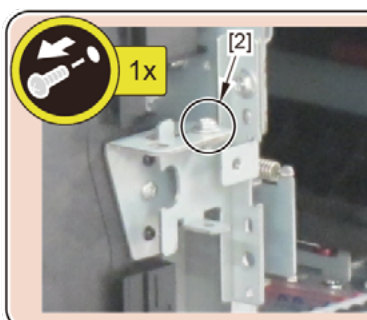
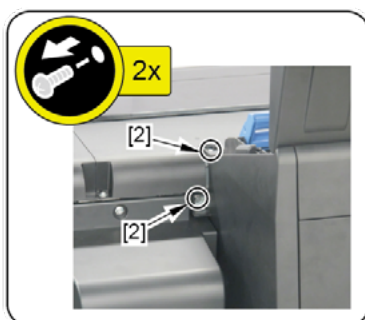
- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook

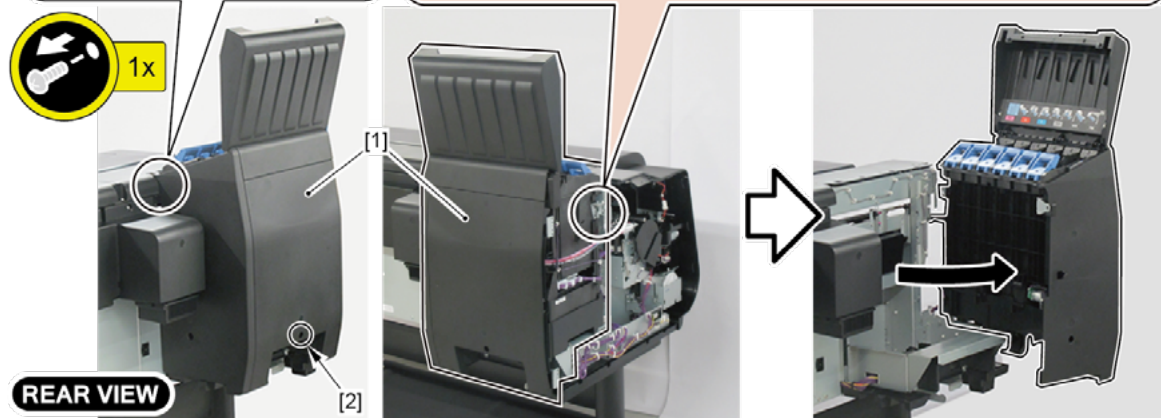


6. Open [2] the left ink unit.

- [2]: 4 screws



**Notes when assembling the unit :**  
While adjusting the screw hole,  
tighten this screw last.



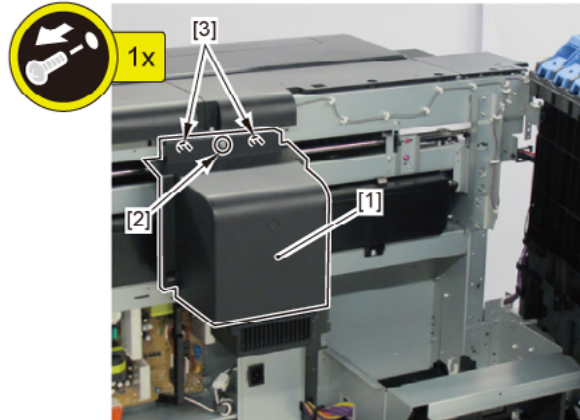


## 7.

(44" model)

Remove [1] COVER, MIST FAN.

- [2]: 1 screw
- [3]: 2 bosses

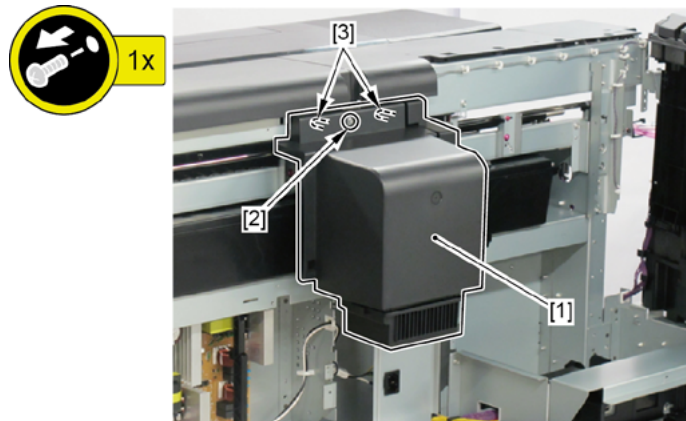


(60" model)

Remove [1] a set of

- COVER, MIST FAN
- COVER, BACK LEFT.

- [2]: 1 screw
- [3]: 2 bosses

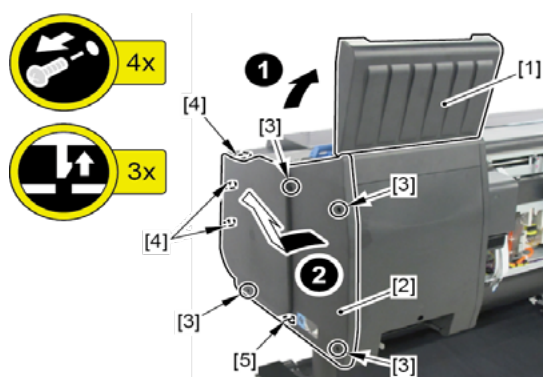


8. Open [1] the right ink tank cover.

9. Remove [2] a set of

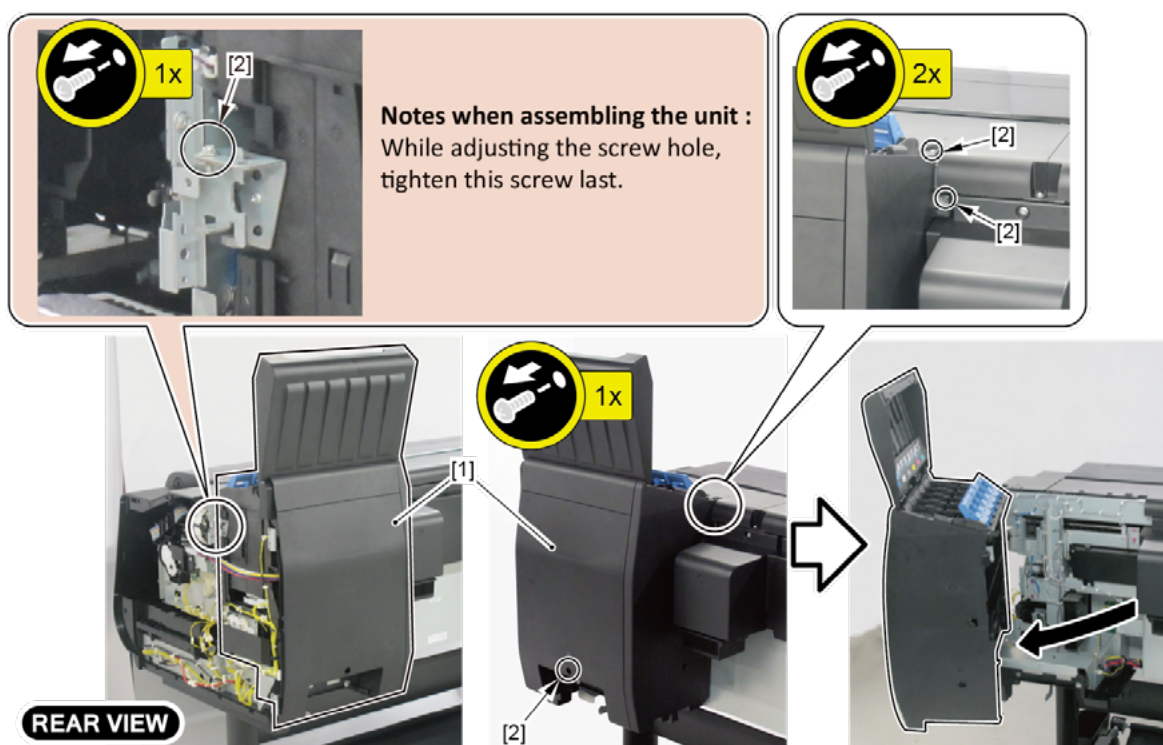
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



10. Open [1] the right ink unit.

- [2]: 4 screws

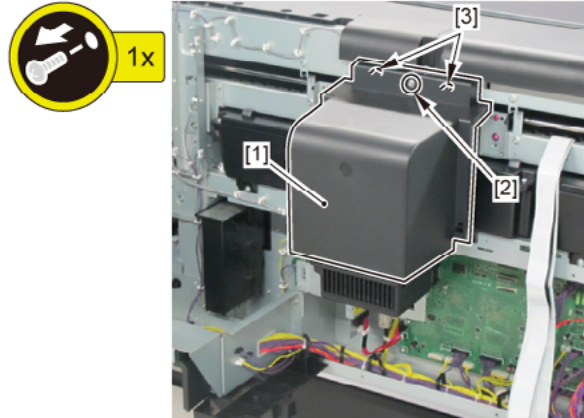


# 11.

(44" model)

Remove [1] COVER, MIST FAN.

- [2]: 1 screw
- [3]: 2 bosses

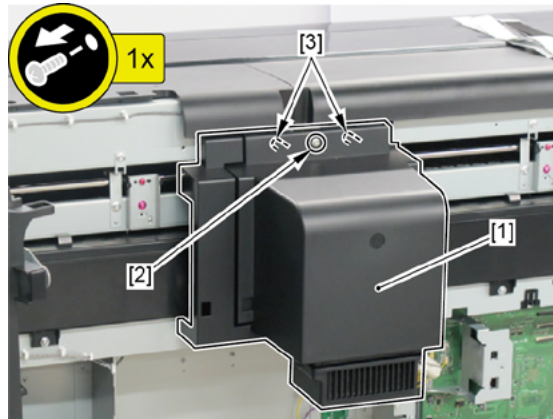


(60" model)

Remove [1] a set of

- COVER, MIST FAN
- COVER, BACK RIGHT.

- [2]: 1 screw
- [3]: 2 bosses

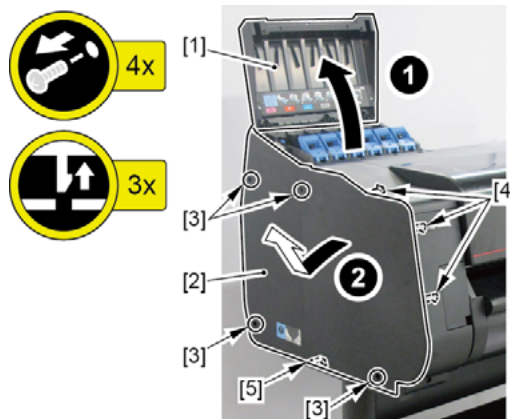


## A (24" model)

1. Open [1] the left ink tank cover.
2. Remove [2] a set of

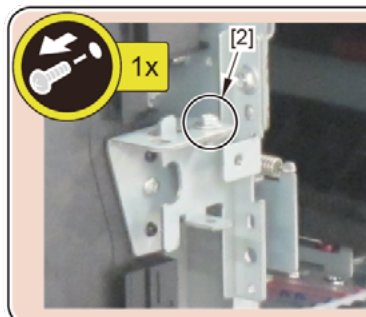
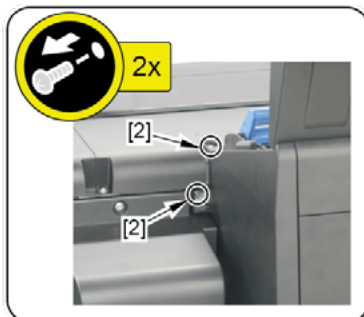
- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook

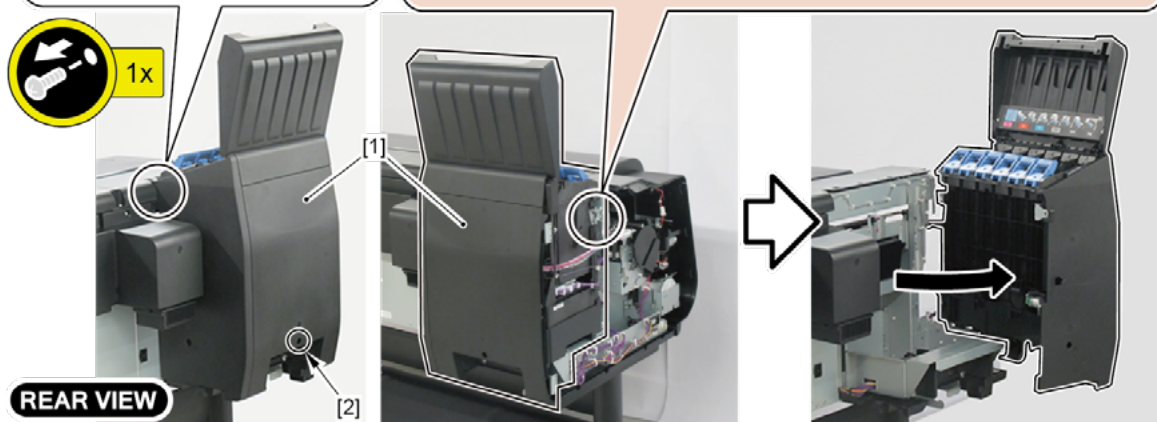


3. Open [1] the left ink unit.

- [2]: 4 screws



**Notes when assembling the unit :**  
While adjusting the screw hole,  
tighten this screw last.

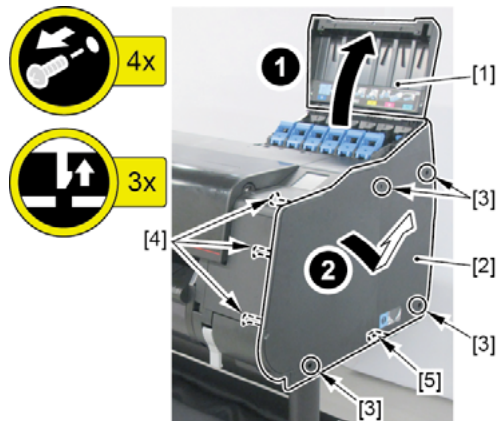


4. Open [1] the right ink tank cover.

5. Remove [2] a set of

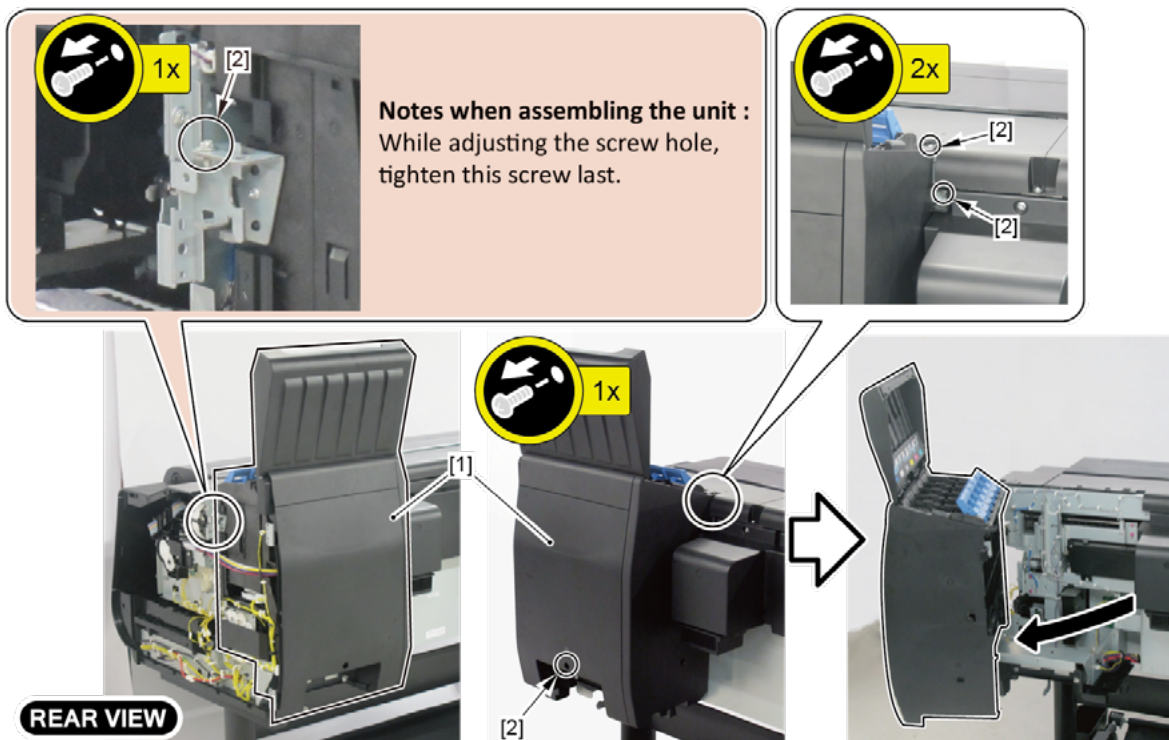
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



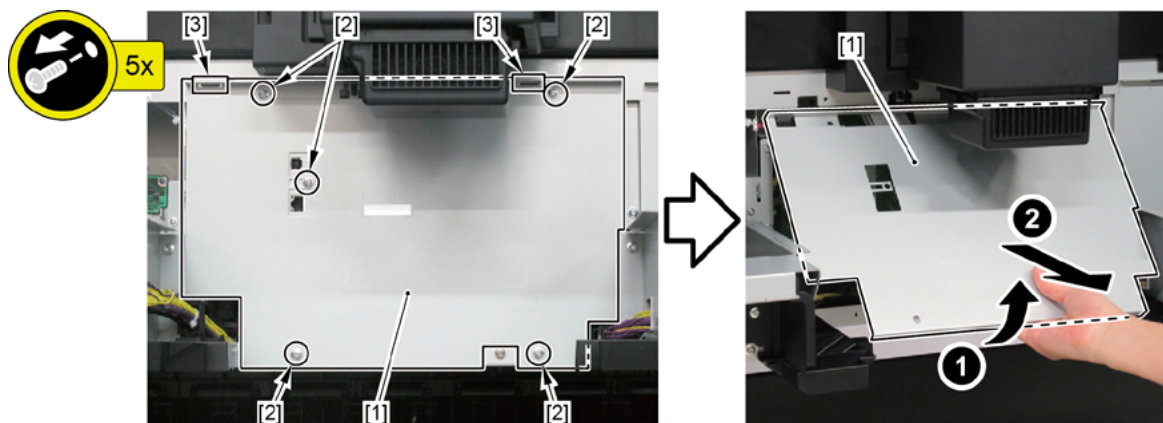
6. Open [1] the right ink unit.

- [2]: 4 screws



## 7. Remove [1] the plate.

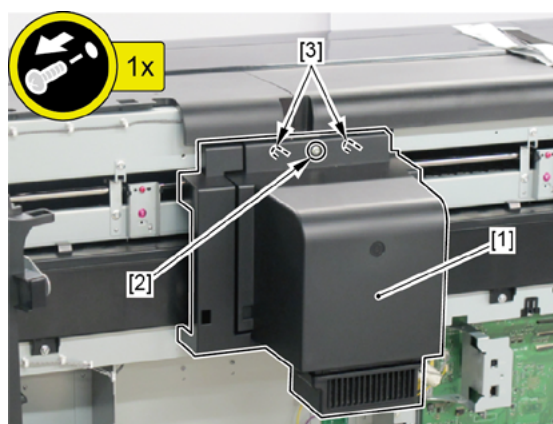
- [2]: 5 screws
- [3]: 2 protrusions



## 8. Remove [1] a set of

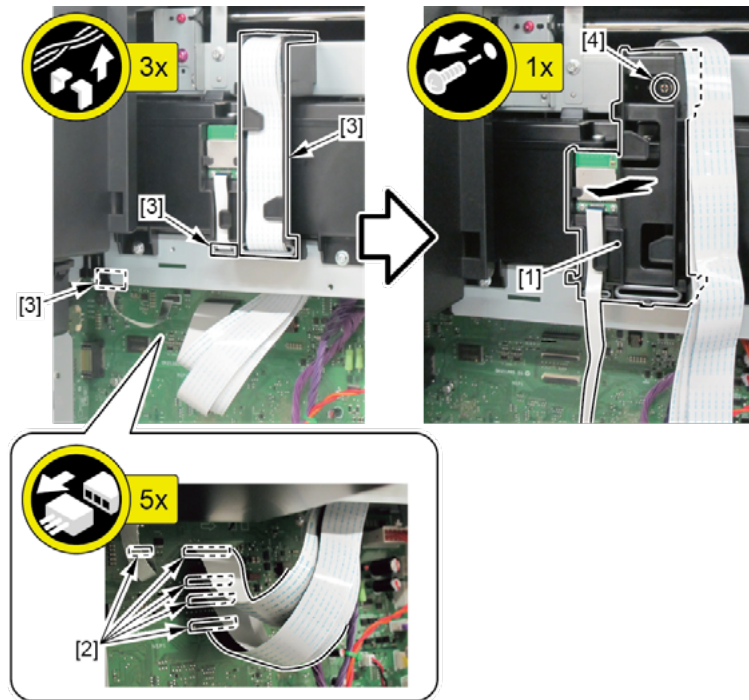
- COVER, MIST FAN
- COVER, BACK RIGHT.

- [2]: 1 screw
- [3]: 2 bosses



## 9. Remove [1] WIRELESS LAN PCB UNIT.

- [2]: 5 connectors
- [3]: Cable guides in three areas
- [4]: 1 screw

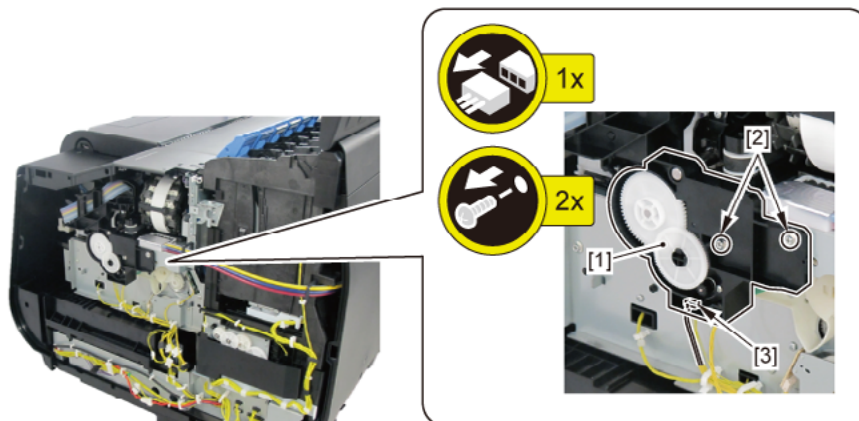


## B

1. Remove all the parts of Group A.

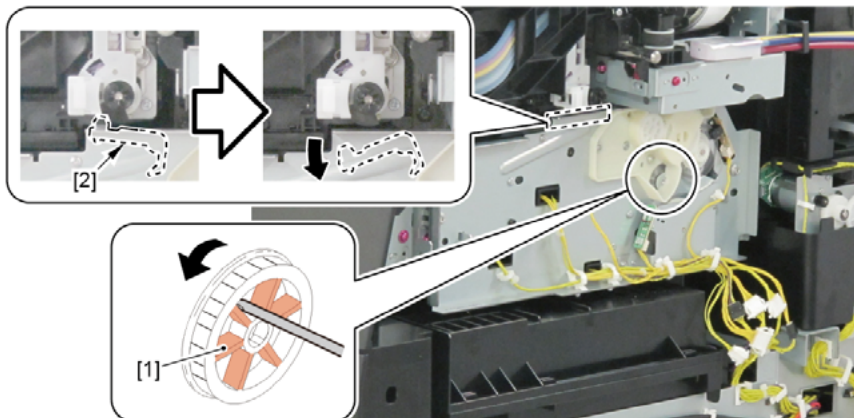
2. Remove [1] LIFT UNIT.

- [2]: 2 screws
- [3]: 1 connector



### 3. Unlock the carriage.

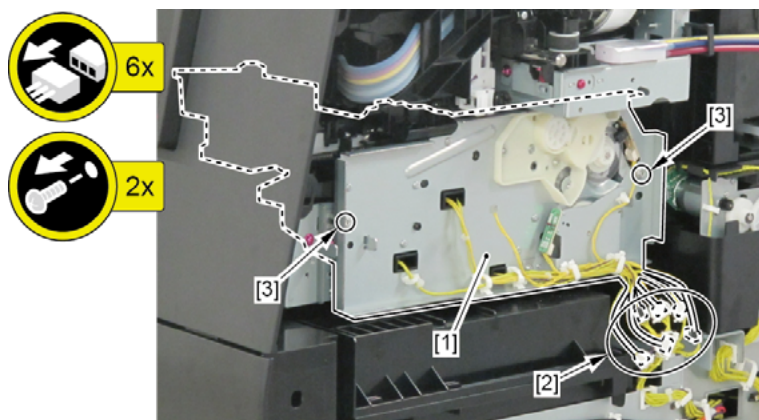
Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



### 4. Move the carriage unit to the left end (back position side).

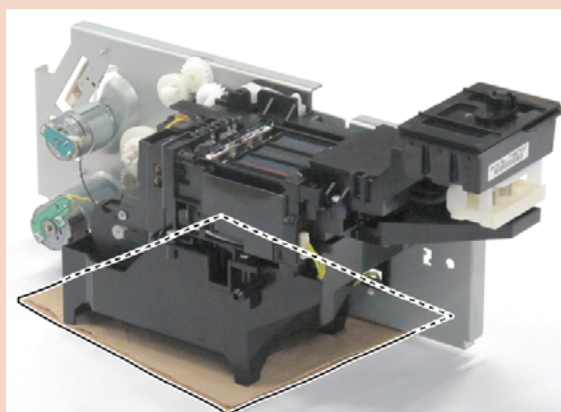
### 5. Remove [1] PURGE UNIT.

- [2]: 6 connectors
- [3]: 2 screws



#### 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]



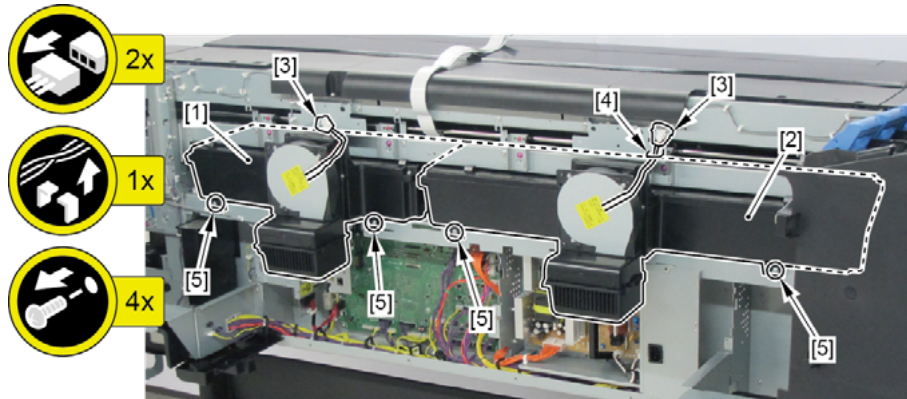


## 6.

(24" model, 44" model)

Remove [1] MIST FAN DUCT UNIT 1 and [2] MIST FAN DUCT UNIT 2.

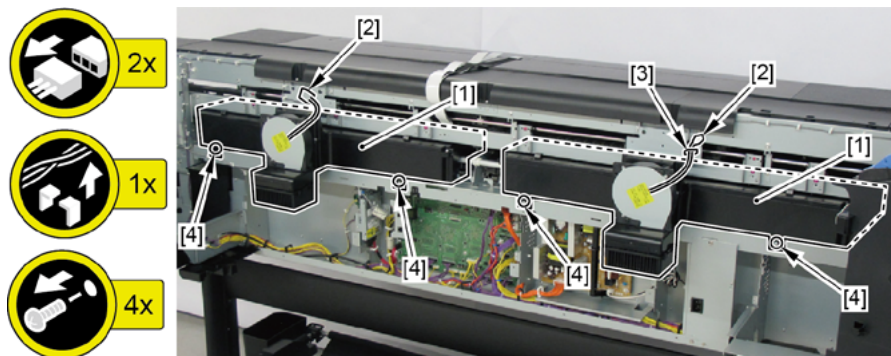
- [3]: 1 connector each
- [4]: 1 wire saddle
- [5]: 2 screws each



(60" model)

Remove two pieces of [1] MIST FAN DUCT UNIT 2.

- [2]: 1 connector each
- [3]: 1 wire saddle
- [4]: 2 screws each

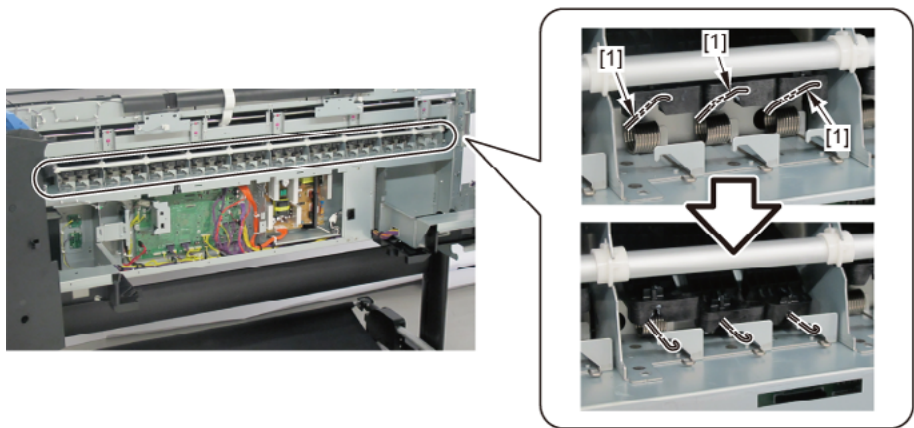


### Notes when replacing the mist fan duct unit

- Be sure to replace both the MIST FAN DUCT UNIT 1 and MIST FAN DUCT UNIT 2 at the same time.  
(In 60" model, replace two units of MIST FAN DUCT UNIT 2 at the same time.)
- Reset the counter when the units are replaced:  
[SERVICE MODE > PARTS COUNTER > Mi1]

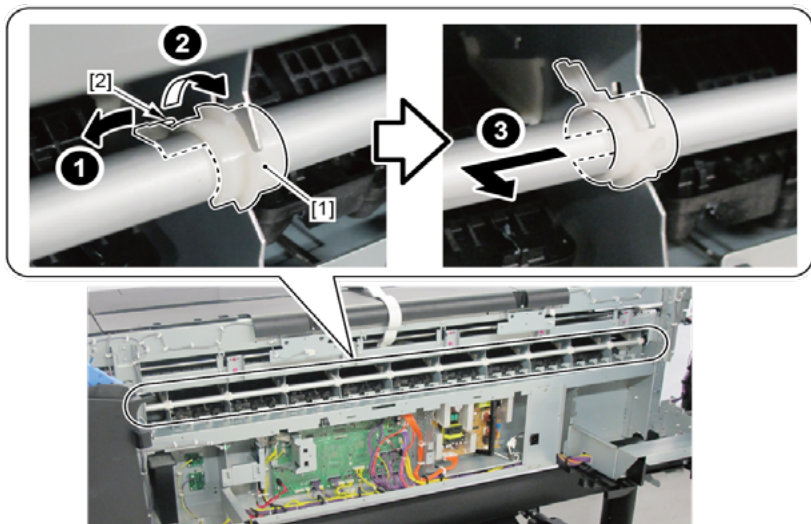


7. Release [1] the pinch roller springs.



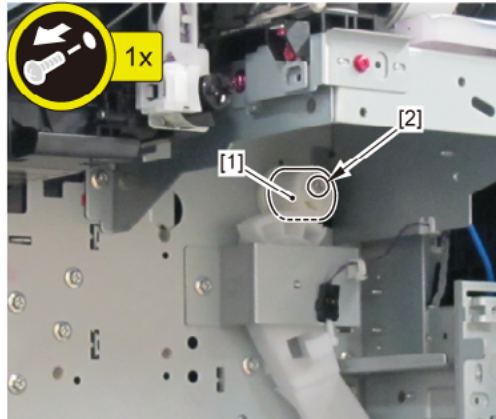
8. Remove 11 pieces of [1] BUSHING, PRESSURE RELEASE (7 pieces in 24" model, 14 pieces in 60" model).

- [2]: 1 boss



9. Remove [1] GEAR, PRESSURE RELEASE.

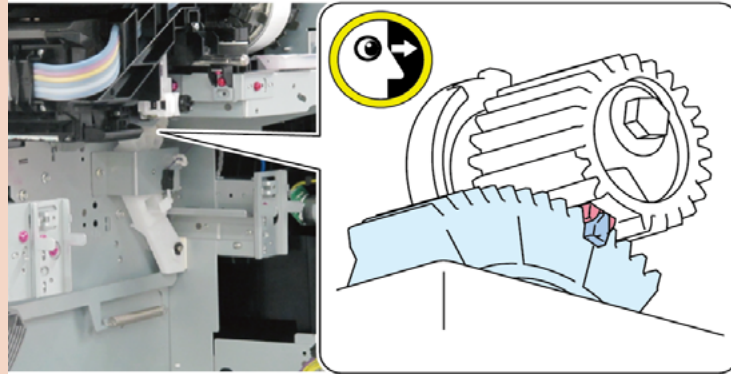
- [2]: 1 screw



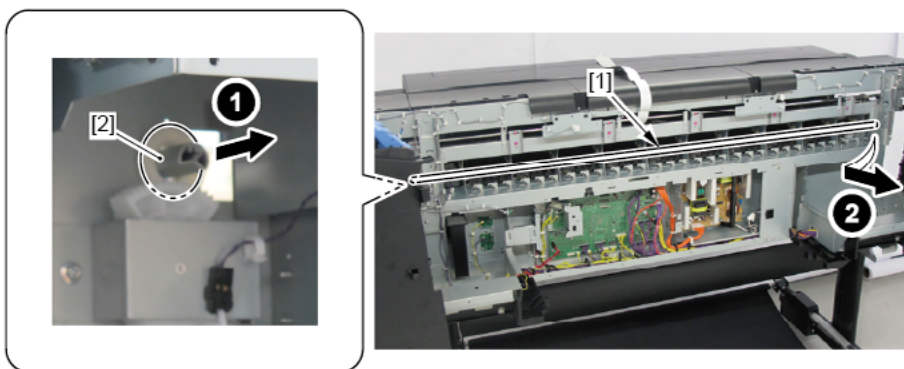
**Notes when assembling the unit:**

Adjust the phase of gears.

Point



10. Remove [1] SHAFT, PRESSURE RELEASE UNIT and [2] BUSHING, PR RELEASE.



Points of disassembly:

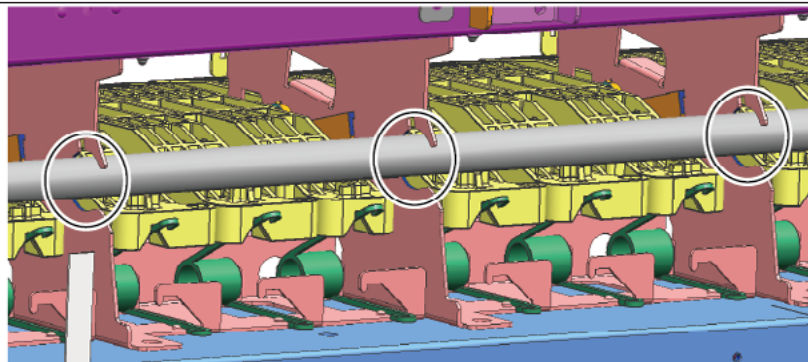
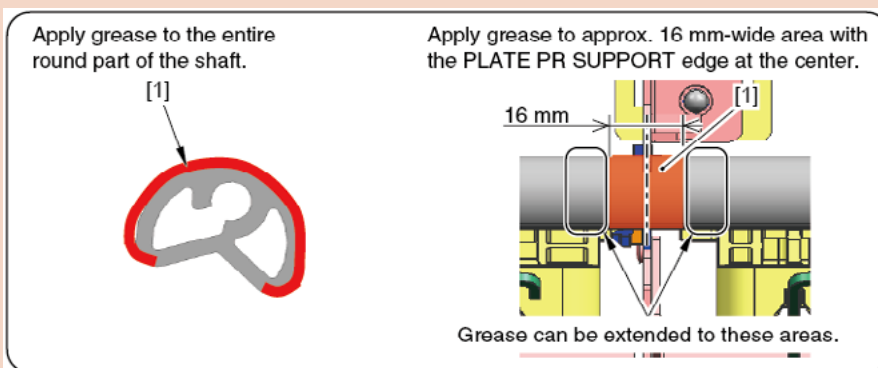
Pulling out SHAFT, PRESSURE RELEASE UNIT to the right side without removing GEAR, PRESSURE RELEASE is possible when there is enough room at the right side of the printer.



Notes when the SHAFT, PRESSURE RELEASE UNIT is replaced:

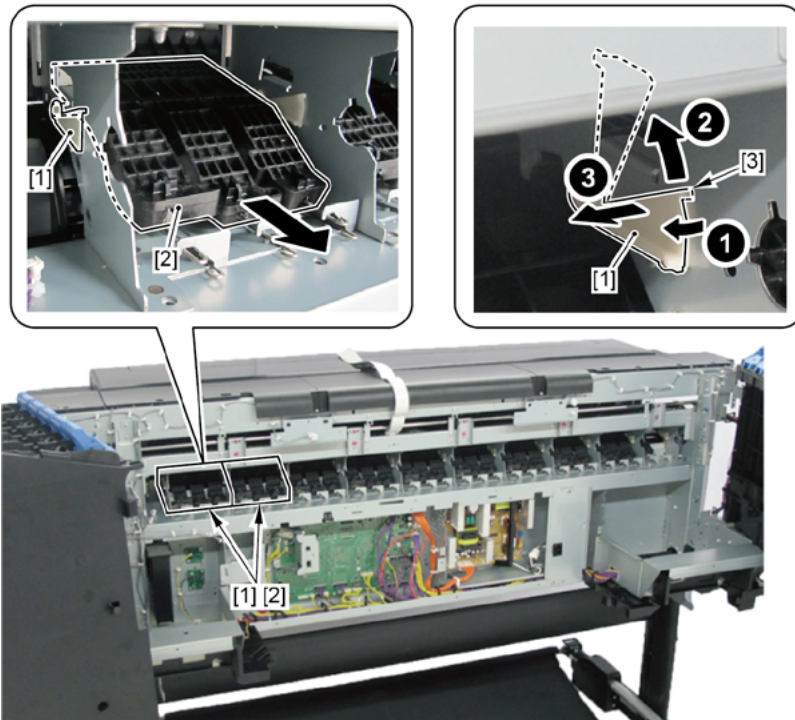
Apply grease to the portion specified below.

- [1]: FLOIL G-31KB, 18 to 36 mg



C

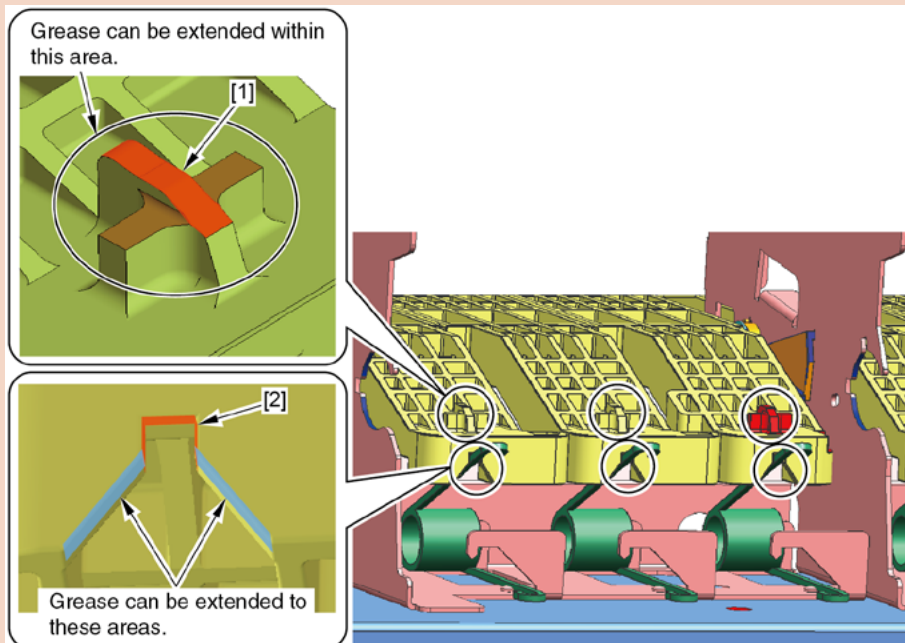
1. Remove all the parts of Groups A and B.
2. Remove two pieces each of [1] BUSH, ARM ROTARY SHAFT and [2] PINCH ROLLER UNIT.
  - [3]: Boss of the BUSH, ARM ROTARY SHAFT (1 boss each)



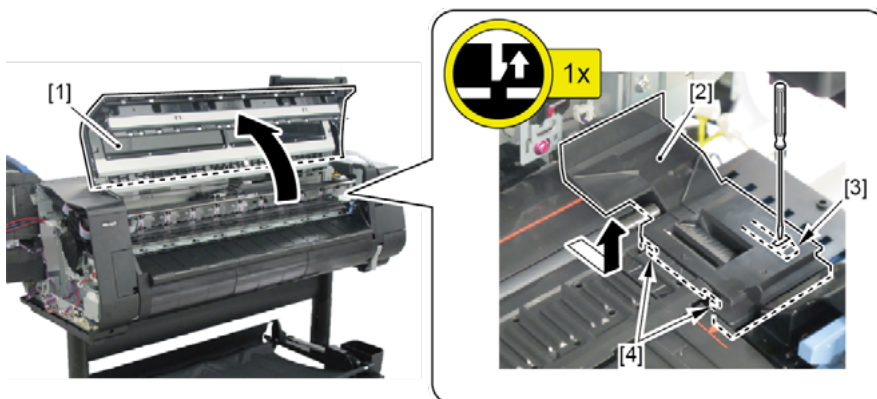
#### Notes when the PINCH ROLLER UNIT or PINCH ROLLER UNIT L is replaced:

Apply grease to the portions specified below.

- [1]: FLOIL G-31KB, 9 to 18 mg
- [2]: FLOIL G-31KB, 9 to 18 mg



3. Open [1] the access cover.
4. Remove [2] PLATEN, INK PRE EJECTION.
  - [3]: 1 claw
  - [4]: 2 hooks

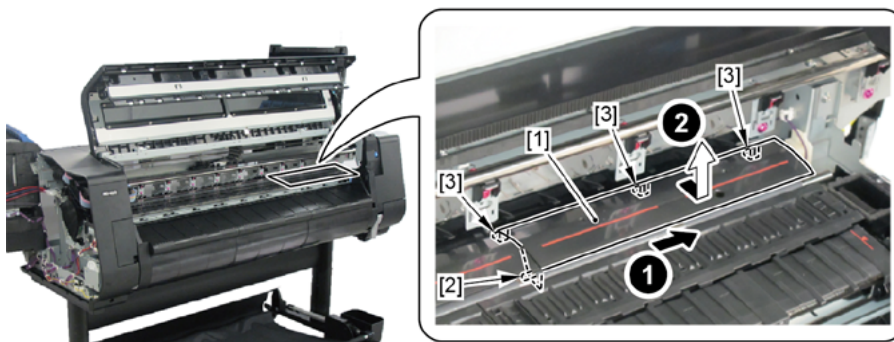


#### Notes when removing the unit:

Place the PLATEN, INK PRE EJECTION on paper towel, etc.



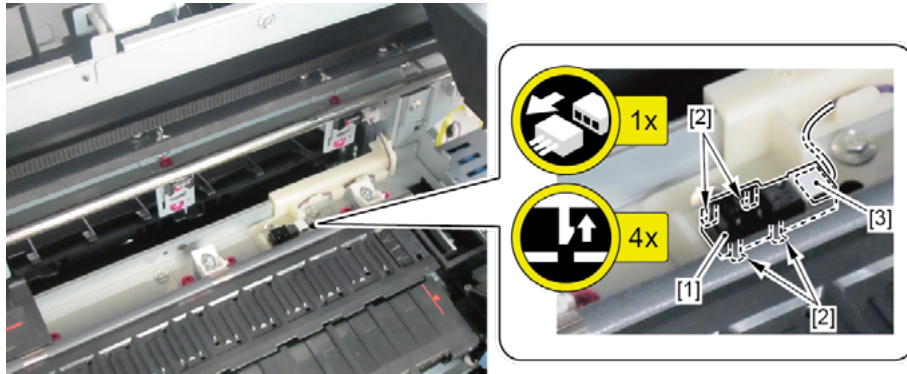
5. Remove [1] PLATEN REAR.
  - [2]: 1 boss
  - [3]: 3 hooks



## C-1

## 6. Remove [1] PAPER ENTRY SENSOR.

- [2]: 4 claws
- [3]: 1 connector

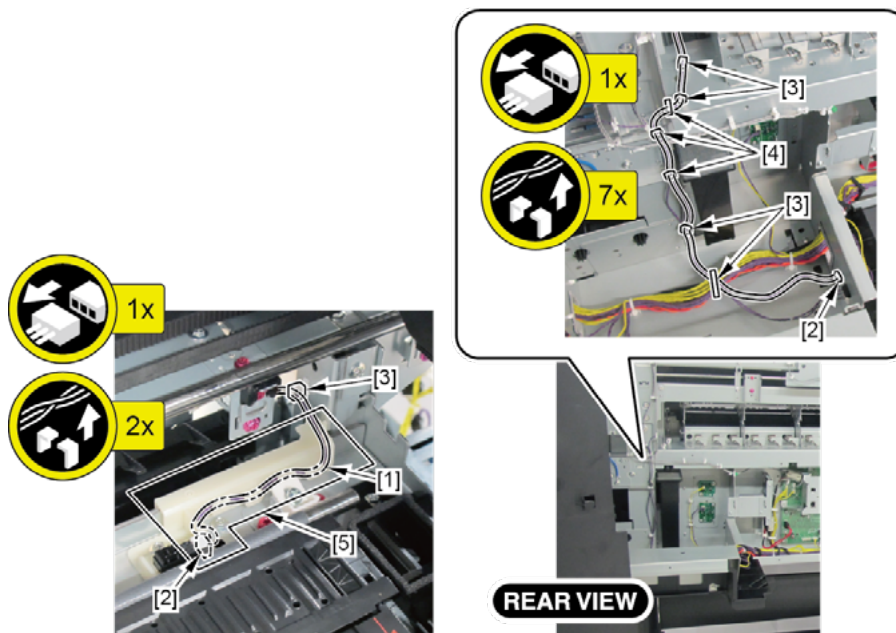
**Notes when removing the unit:**

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]: 2 connectors
- [3]: 5 wire saddles
- [4]: 3 edge saddles
- [5]: Cable guide in one area



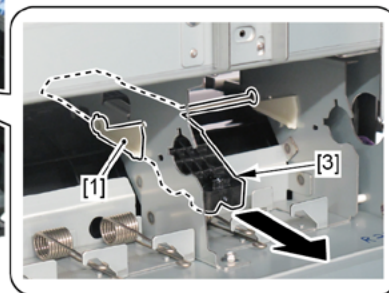
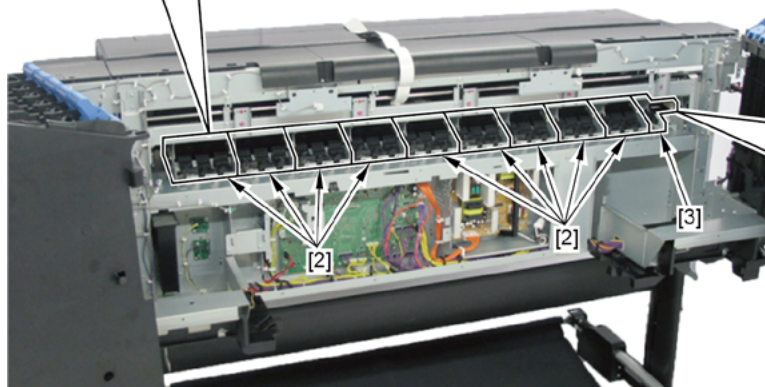
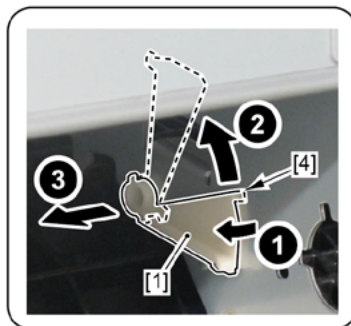
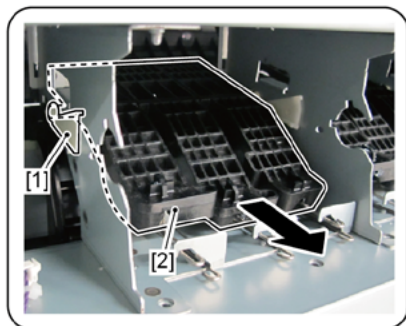
## D

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.

## The Number of the Parts to Remove by Each Model

	BUSH, ARM ROTARY SHAFT [1]	PINCH ROLLER UNIT [2]	PINCH ROLLER UNIT [3]
24" Model	6	5	1
44" Model	10	9	1
60" Model	13	12	1

- [4]: Boss of the BUSH, ARM ROTARY SHAFT (1 boss each)

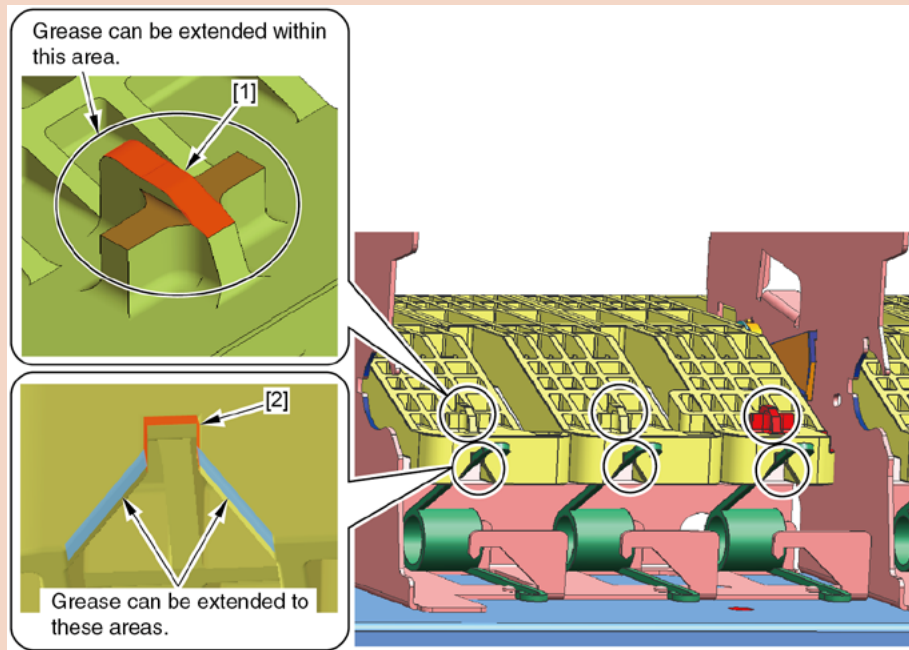




**Notes when the PINCH ROLLER UNIT or PINCH ROLLER UNIT L is replaced:**

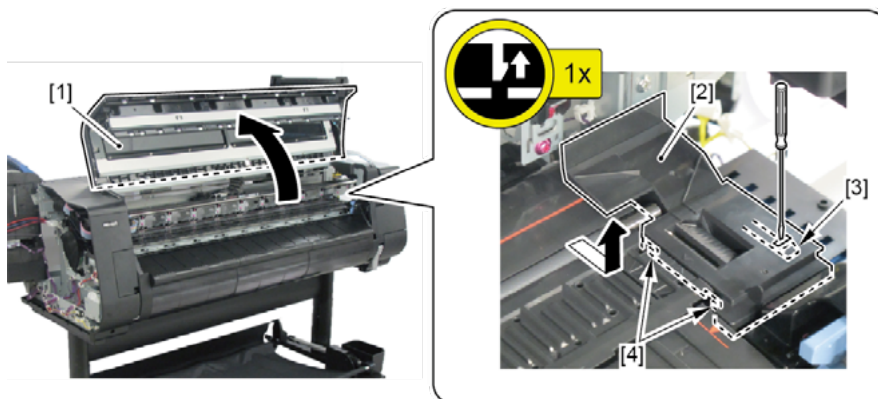
Apply grease to the portions specified below.

- [1]: FLOIL G-31KB, 9 to 18 mg
- [2]: FLOIL G-31KB, 9 to 18 mg



Point

3. Open [1] the access cover.
4. Remove [2] PLATEN, INK PRE EJECTION.
  - [3]: 1 claw
  - [4]: 2 hooks



#### Notes when removing the unit:

Place the PLATEN, INK PRE EJECTION on paper towel, etc.

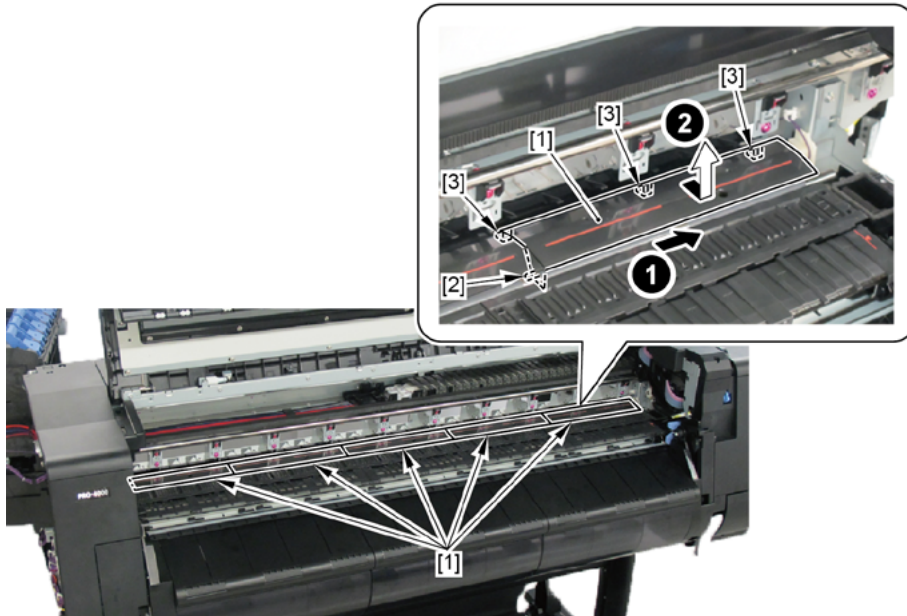


## 5.

(24" model, 44" model)

Remove five pieces of [1] PLATEN REAR (3 pieces in 24" model).

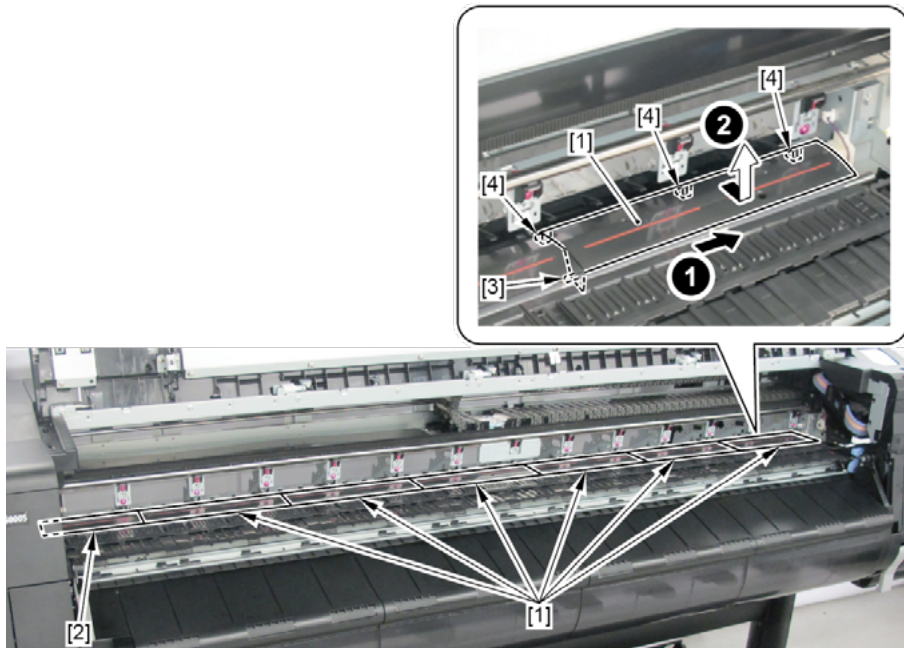
- [2]: 1 boss each
- [3]: 3 hooks each



(60" model)

Remove six pieces of [1] PLATEN REAR and [2] PLATEN REAR LS.

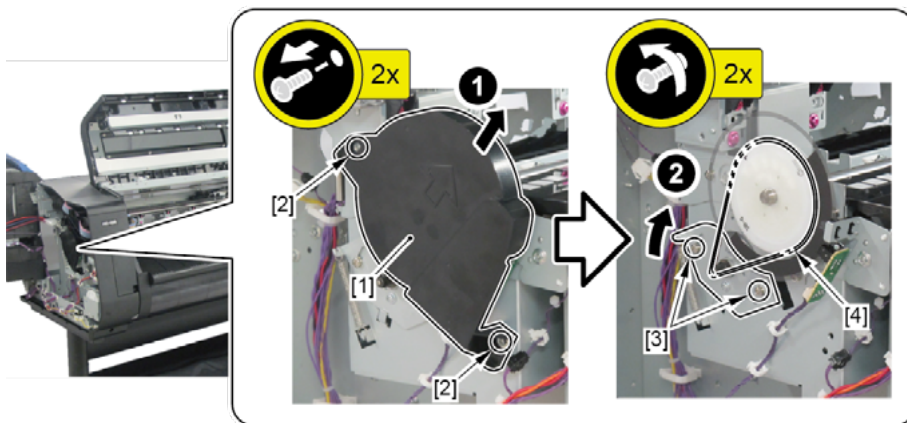
- [3]: 1 boss each (no bosses for the PLATEN REAR LS)
- [4]: 3 hooks each (2 hooks for the PLATEN REAR LS)



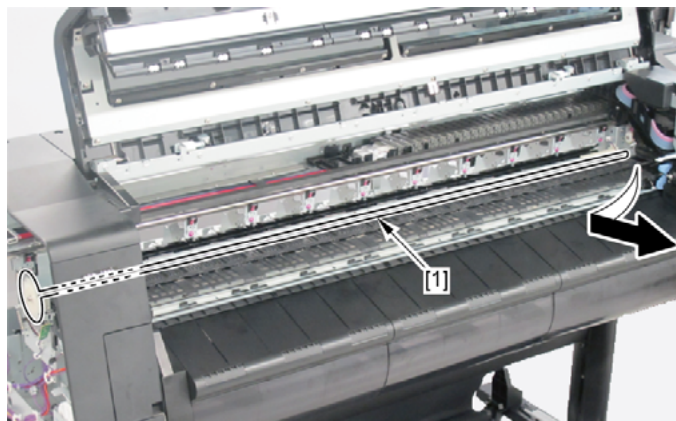
## 6. Remove [1] CODE WHEEL COVER UNIT.

- [2]: 2 screws

## 7. Loosen [2] two screws, and remove [4] BELT, PAPER TRANSPORT.

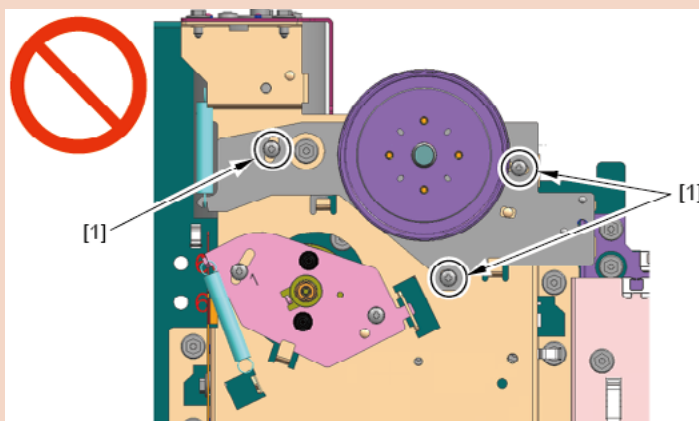


## 8. Remove [1] PAPER FEED ROLLER UNIT.



### Notes when removing the unit:

DO NOT remove [1] these screws.



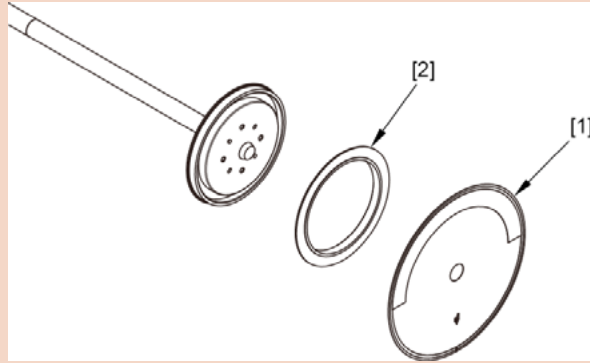
Point

**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.

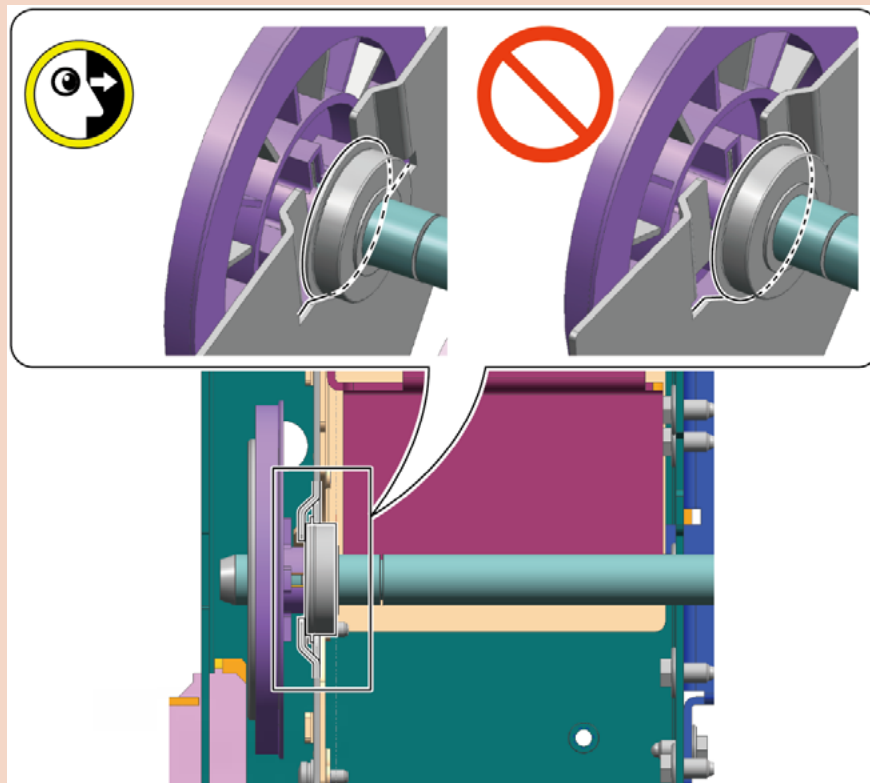
- Replace [1] FILM, TIMING SLIT DISK at the same time when the PAPER FEED ROLLER UNIT is replaced.
- Attach [2] FLANGE, PULLEY that is removed from the old PAPER FEED ROLLER UNIT to the new one.

Point

**Notes when assembling the unit:**

Confirm that the PAPER FEED ROLLER UNIT bearing securely fits in place.

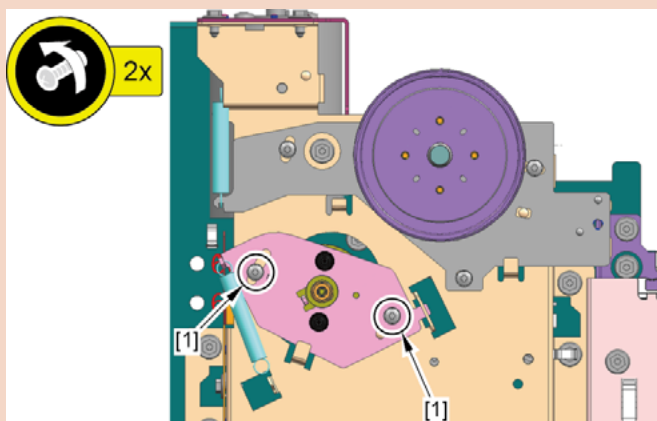
Point



The PAPER FEED ROLLER UNIT needs to be adjusted after it is attached.

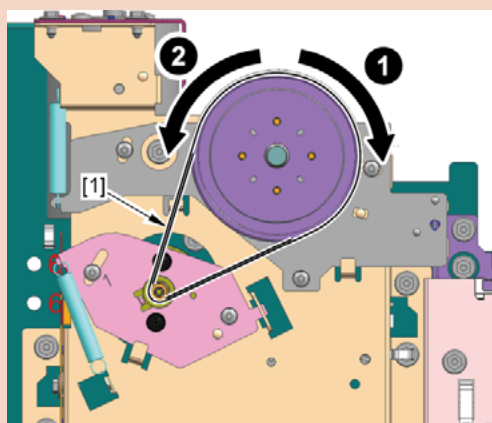
Perform the following when the unit is attached:

1. Confirm that the PINCH ROLLER UNIT applies pressure to the PAPER FEED ROLLER UNIT.
2. Loosen [1] two screws.



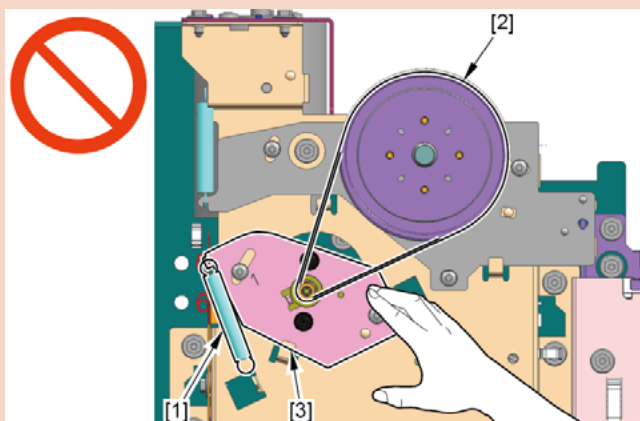
3. Attach [1] BELT, PAPER TRANSPORT.

Turn the pulley clockwise and counterclockwise one time each to confirm that the belt does not come off and it is flat and straight on the pulley.

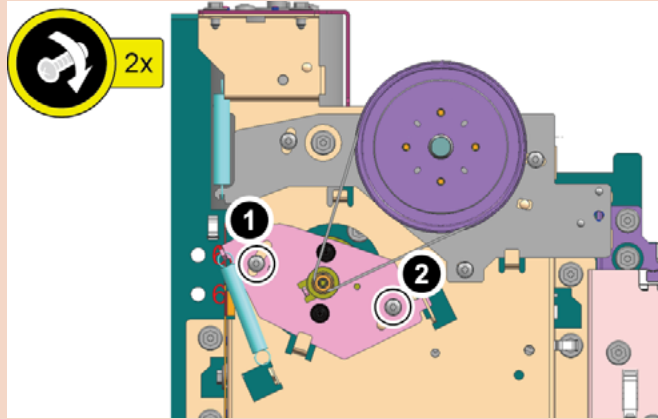


Caution:

DO NOT touch [1] SPRING, TENSION, [2] BELT, PAPER TRANSPORT, and [3] PAPER FEED MOTOR UNIT until after the screws are tightened.



4. Tighten [1] two screws in the order of numbers.

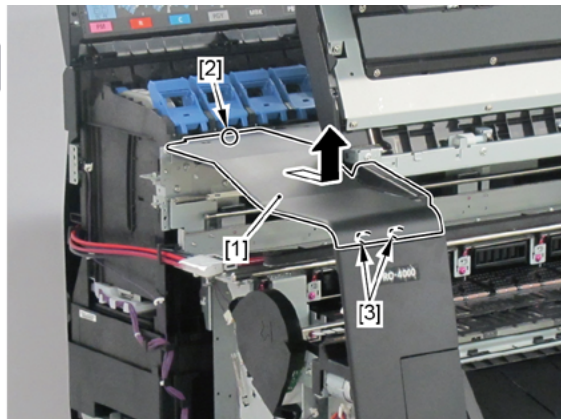


5. Attach the FLANGE, PULLEY.

6. Attach the FILM, TIMING SLIT DISK.

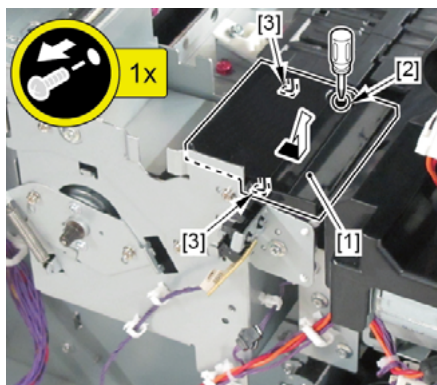
9. Remove [1] COVER UNIT, TOP L.

- [2]: 2 screws
- [3]: 2 protrusions



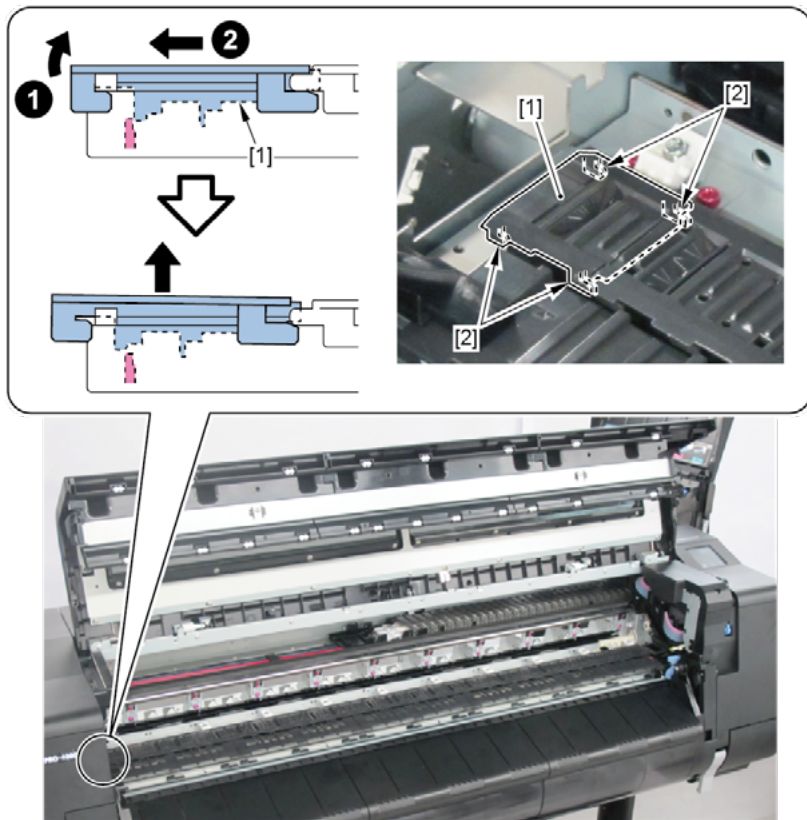
10. Remove [1] AWAY PLATEN.

- [2]: 1 screw (Use a stubby screwdriver.)
- [3]: 2 hooks



# 11. Remove [1] PLATEN UNIT, TOP AWAY.

- [2]: 4 hooks



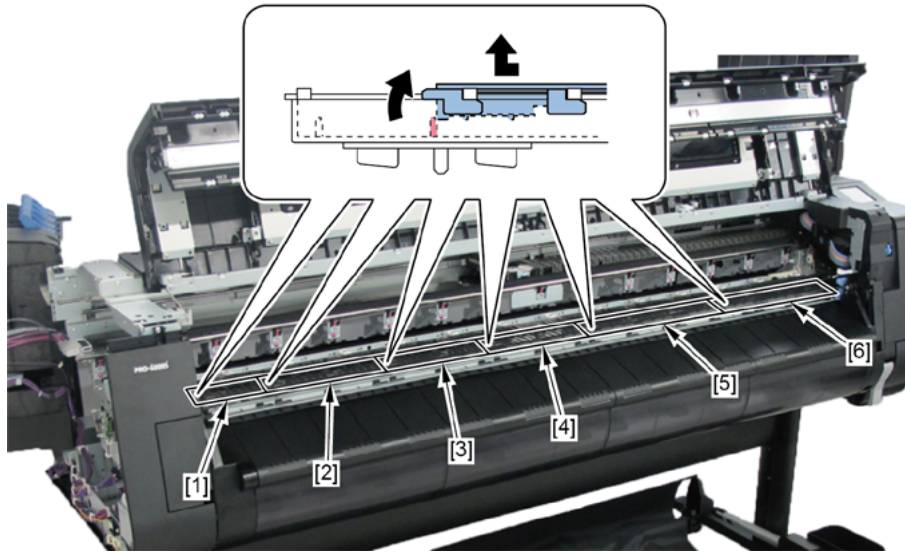
	<p><b>Notes when assembling the unit:</b>          Perform adjustment at the end of assembly.          [SERVICE MODE &gt; ADJUSTMENT &gt; CR REG]</p>
--	---



12. Remove [1]PLATEN UNIT, TOP F, [2]PLATEN UNIT, TOP E, [3]PLATEN UNIT, TOP D, [4]PLATEN UNIT, TOP C, [5]PLATEN UNIT, TOP B, and [6]PLATEN UNIT, TOP A.

The Number of Hooks by each PLATEN UNIT, TOP A to F

	PLATEN UNIT, TOP					
	A[6]	B[5]	C[4]	D[3]	E[2]	F[1]
The Number of Hooks	12	16	14	12	12	8
24" Model	Yes	Yes	-	-	-	-
44" Model	Yes	Yes	Yes	Yes	-	-
60" Model	Yes	Yes	Yes	Yes	Yes	Yes



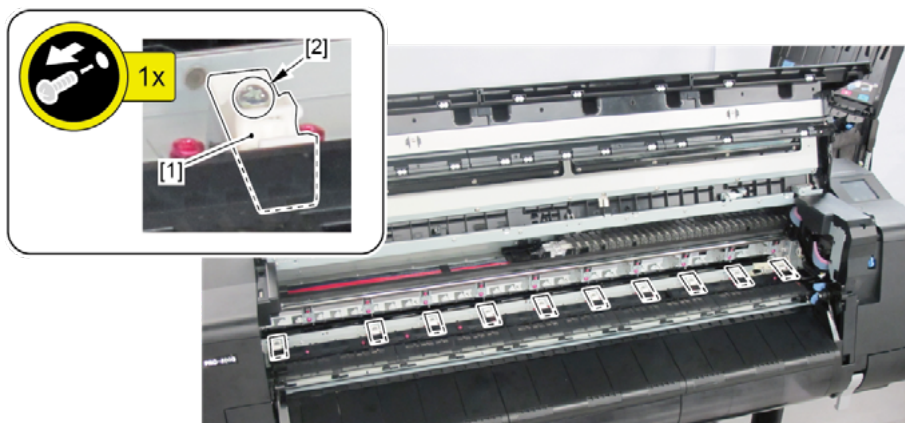
**Notes when assembling the unit:**

Perform adjustment at the end of assembly.

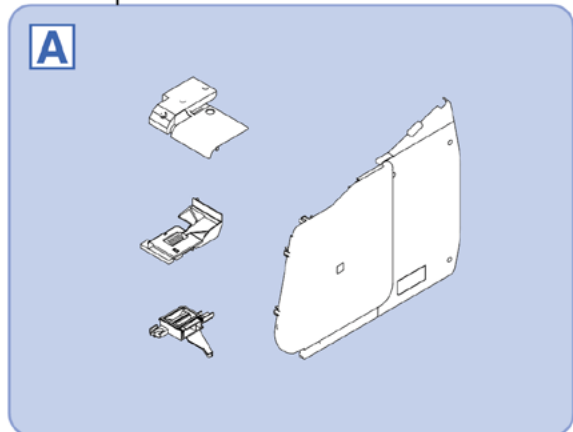
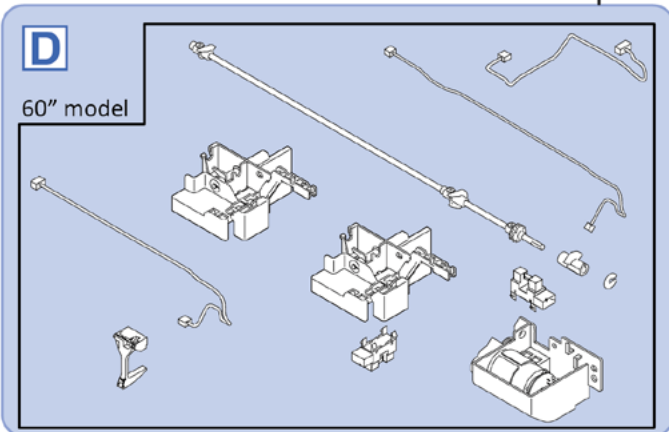
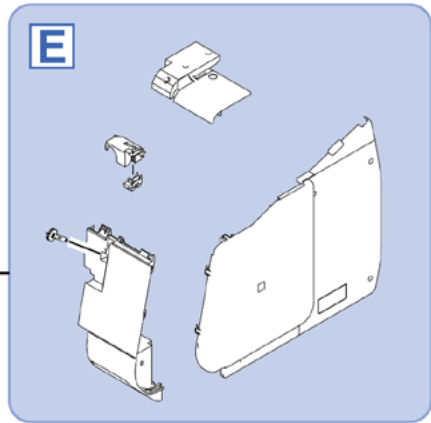
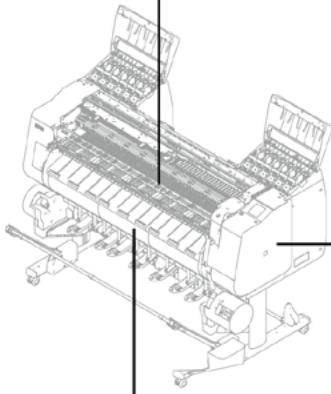
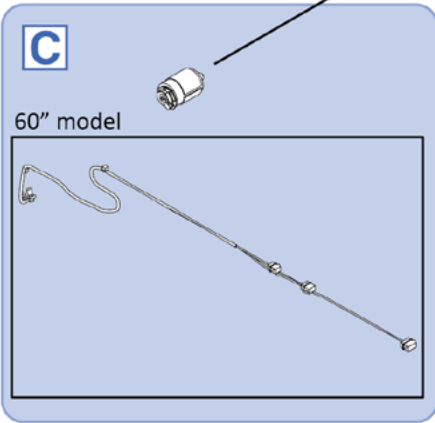
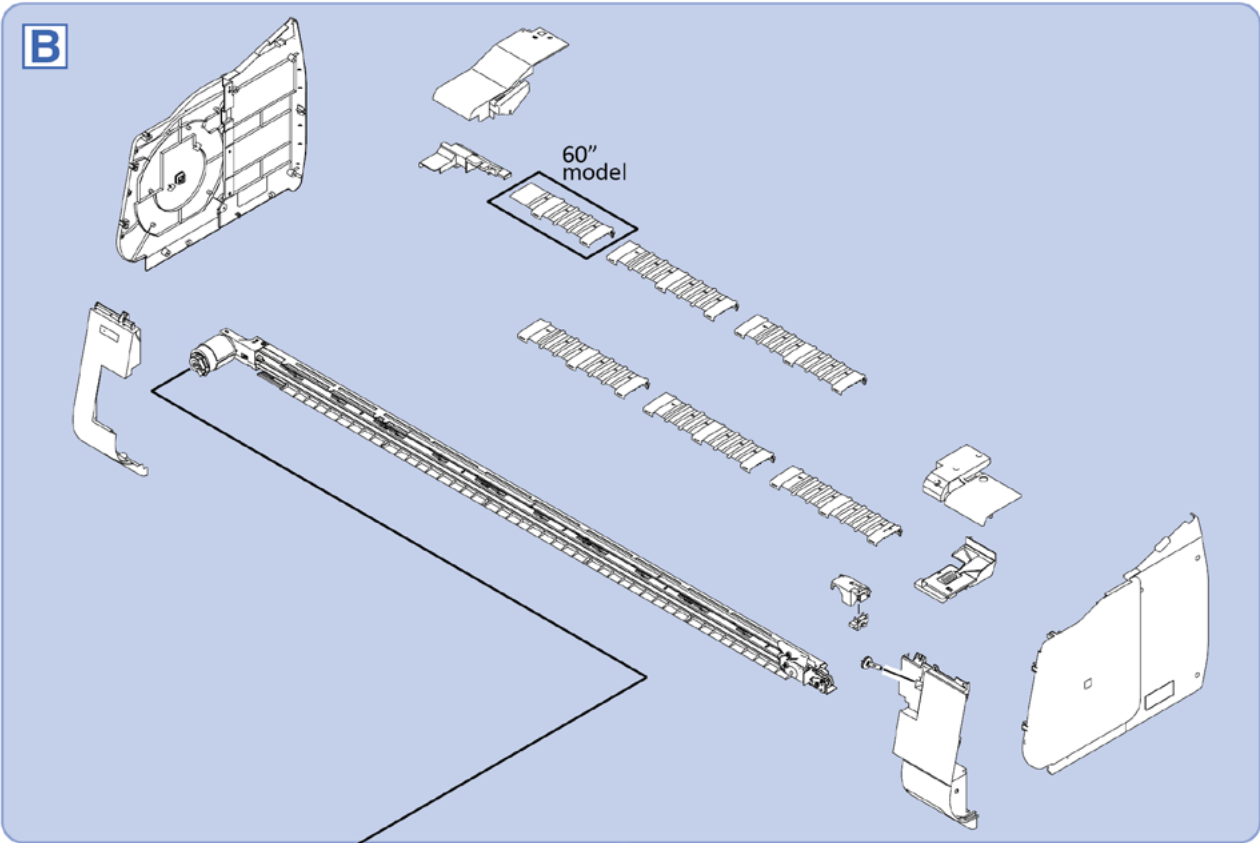
[SERVICE MODE > ADJUSTMENT > CR REG]

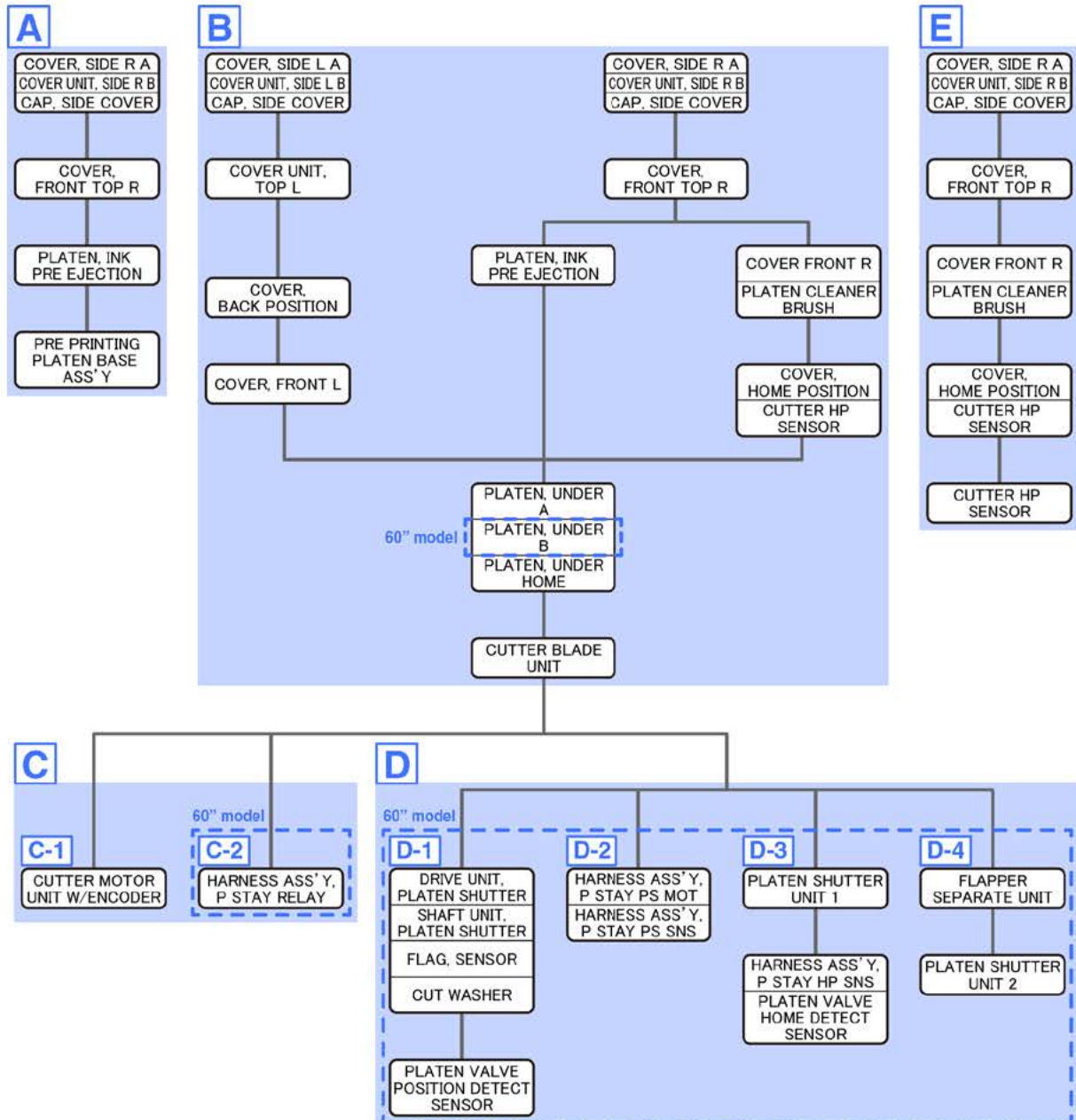
13. Remove ten pieces of [1] HOLDER, PAPER FEED ROLLER (6 pieces in 24" model, 14 pieces in 60" model).

· [2]: 1 screw each



# 14. CUTTER BLADE UNIT

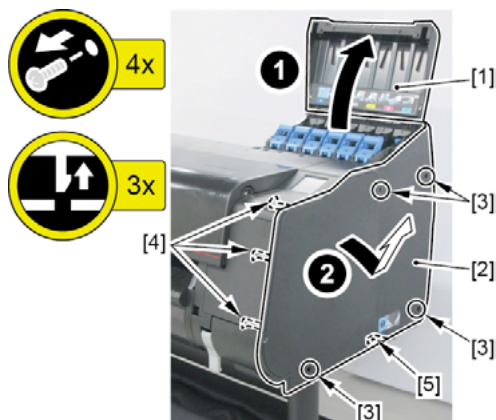




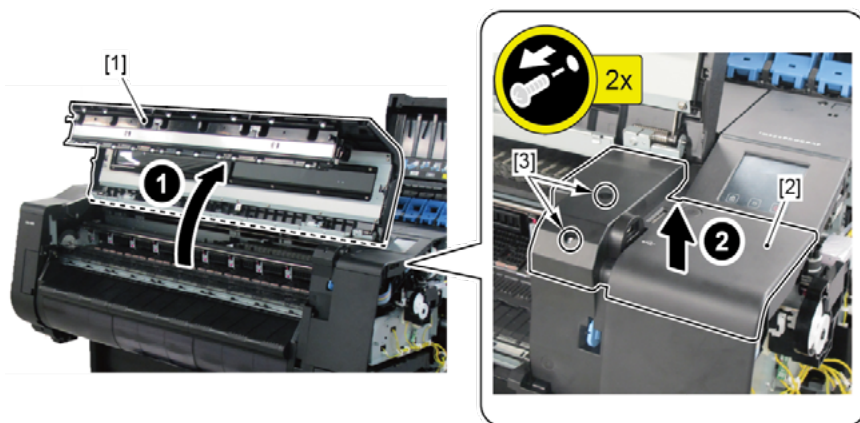
## A

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 screws
- [4]: 3 claws
- [5]: 1 hook

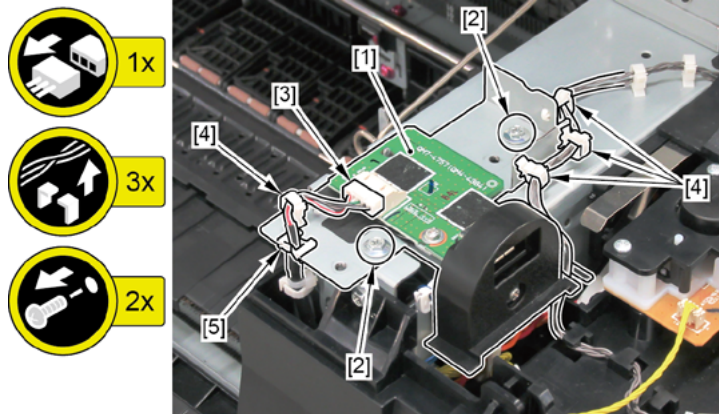


3. Open [1] the access cover.
4. Remove [2] COVER, FRONT TOP R.
  - [3]: 2 screws



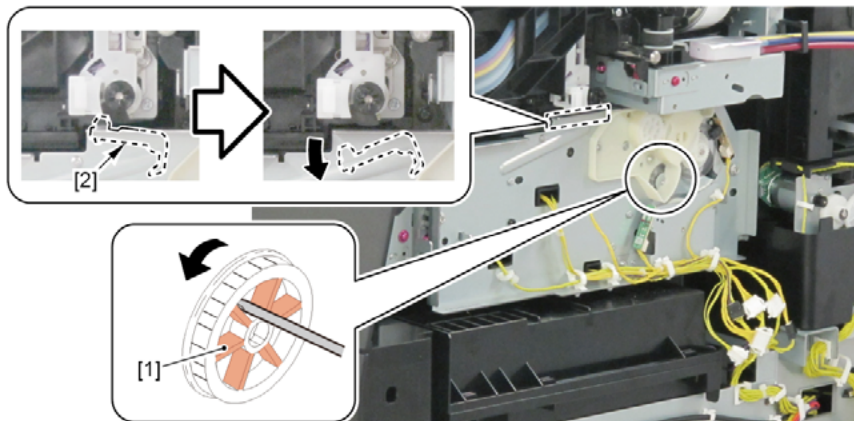
## 5. Remove [1] the plate (with the USB HOST PCB ASS'Y).

- [2]: 2 screws
- [3]: 1 connector
- [4]: 2 wire saddles
- [5]: 1 edge saddle



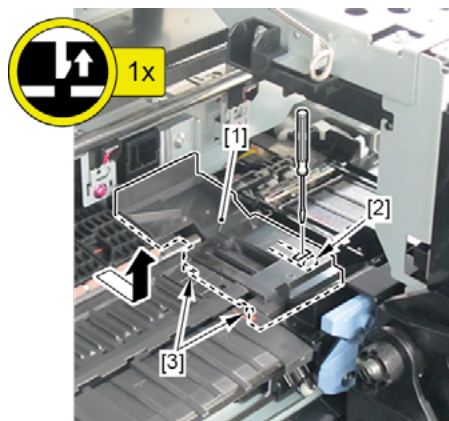
## 6. Unlock the carriage.

Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.



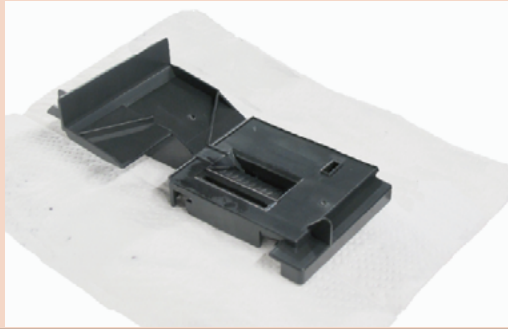
## 7. Remove [1] PLATEN, INK PRE EJECTION.

- [2]: 1 claw
- [3]: 2 hooks



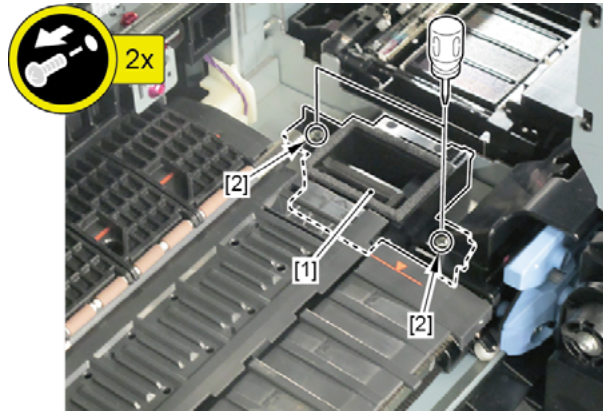
**Notes when removing the unit:**

Place the PLATEN, INK PRE EJECTION on paper towel, etc.



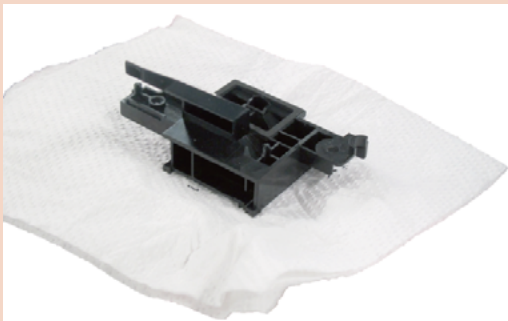
**8.** Remove [1] PRE PRINTING PLATEN BASE ASS'Y.

- [2]: 2 screws (Use a stubby screwdriver.)



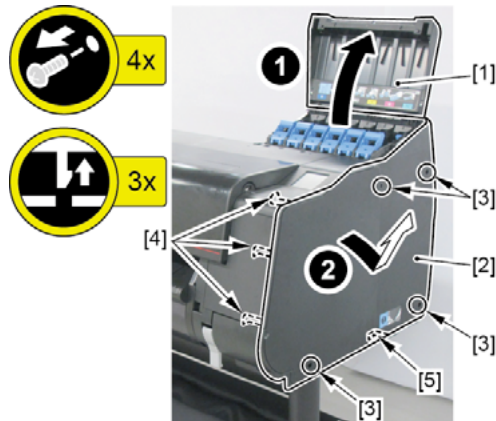
**Notes when removing the unit:**

Place the PRE PRINTING PLATEN BASE ASS'Y on paper towel, etc.

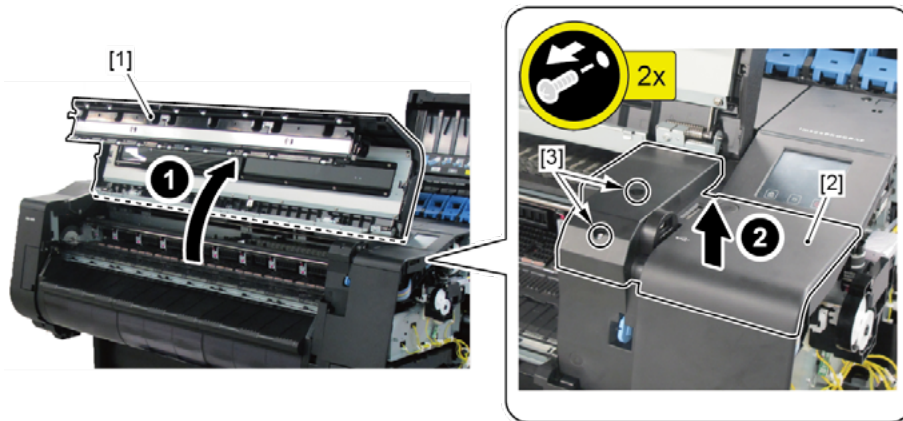


**B**

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 screws
  - [4]: 3 claws
  - [5]: 1 hook

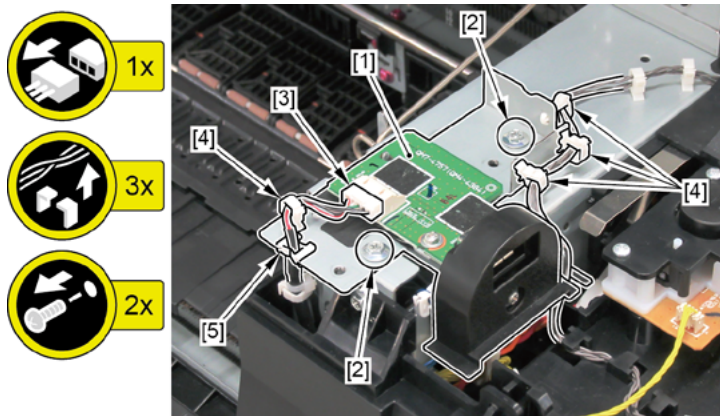


3. Open [1] the access cover.
4. Remove [2] COVER, FRONT TOP R.
  - [3]: 2 screws



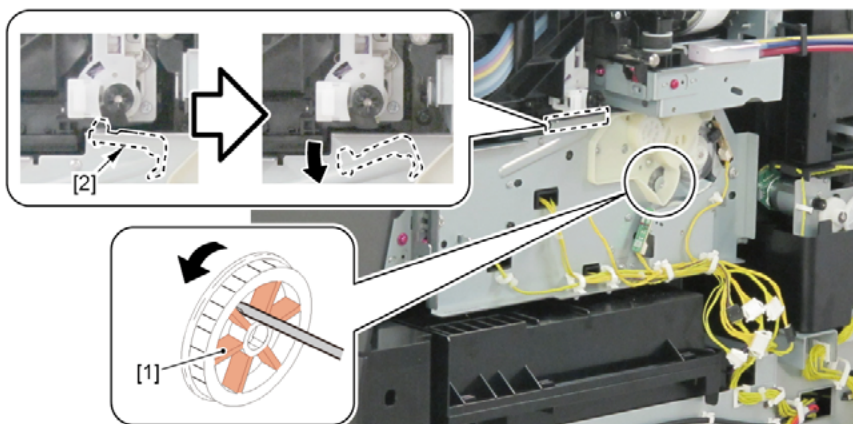
5. Remove [1] the plate (with the USB HOST PCB ASS'Y).

- [2]: 2 screws
- [3]: 1 connector
- [4]: 2 wire saddles
- [5]: 1 edge saddle



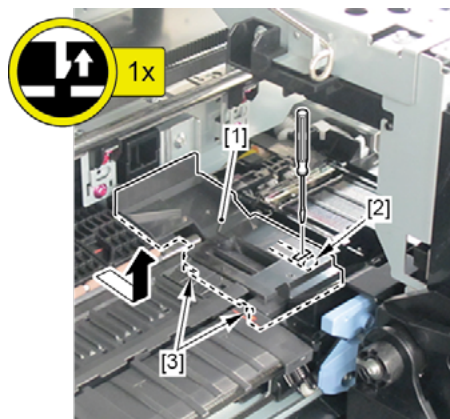
6. Unlock the carriage.

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]: 1 claw
- [3]: 2 hooks

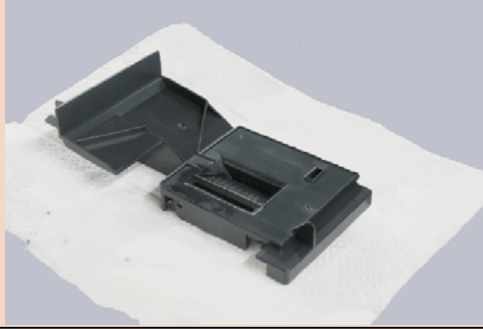




**Notes when removing the unit:**

Place the PLATEN, INK PRE EJECTION on paper towel, etc.

Point

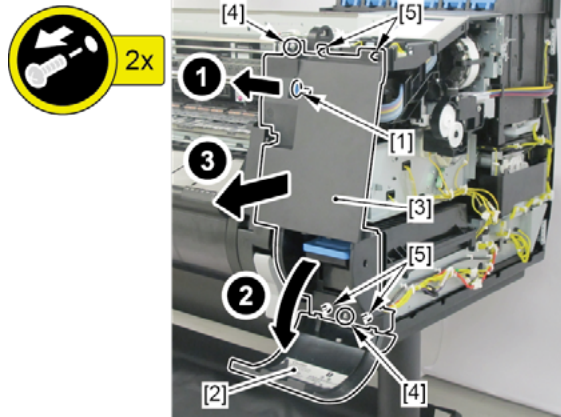


8. Remove [1] PLATEN CLEANER BRUSH.

9. Open [2] COVER UNIT, MTC.

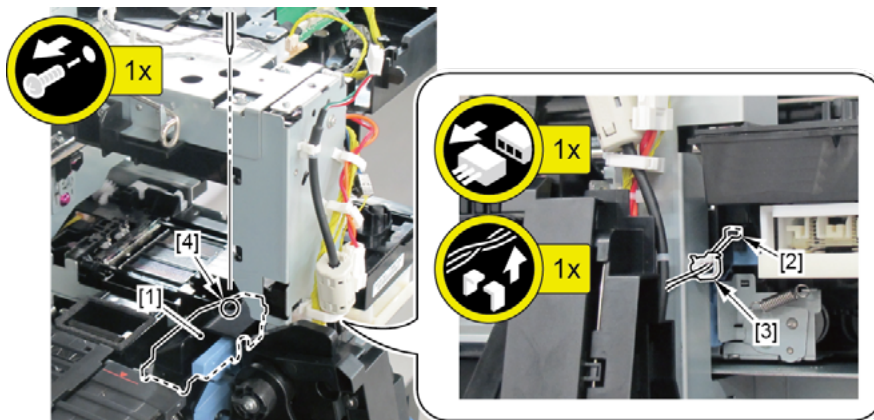
10. Remove [3] COVER, FRONT R.

- [4]: 2 screws
- [5]: 4 protrusions



11. Remove [1] COVER, HOME POSITION.

- [2]: 1 connector
- [3]: 1 wire saddle
- [4]: 1 screw

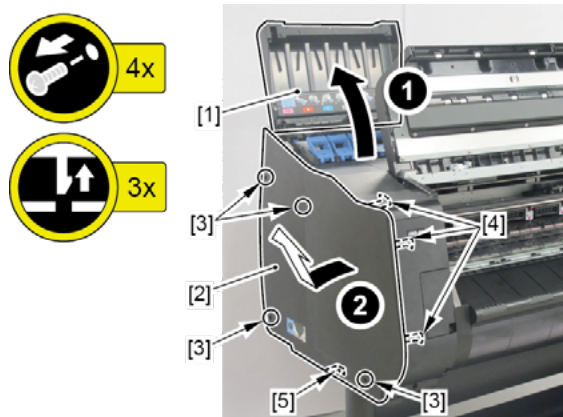


12. Open [1] the left ink tank cover.

13. Remove [2] a set of

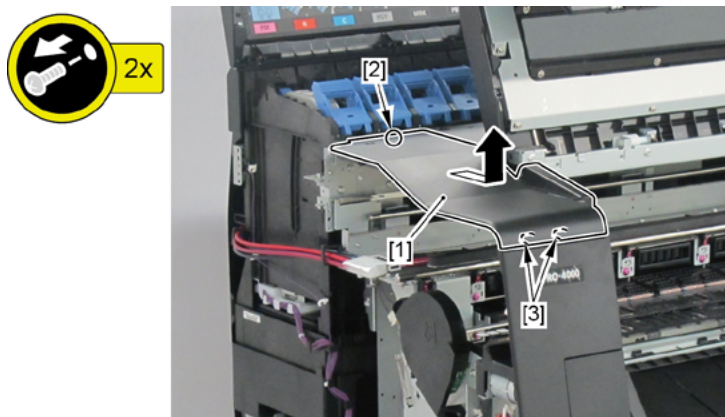
- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



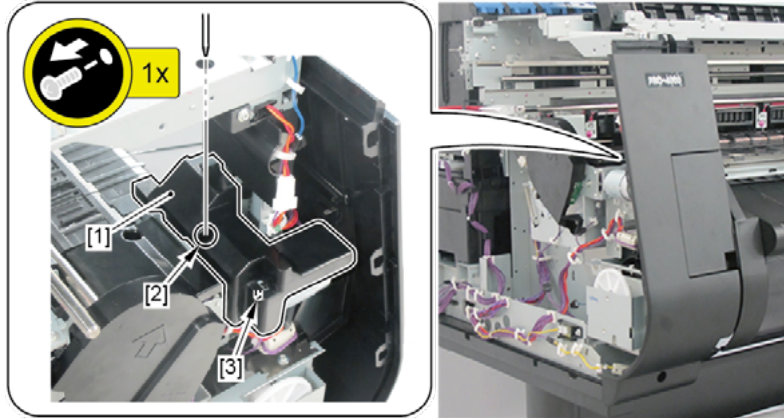
14. Remove [1] COVER UNIT, TOP L.

- [2]: 1 screws
- [3]: 2 hooks



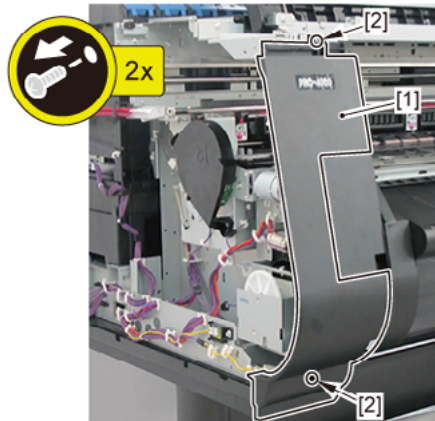
## 15. Remove [1] COVER, BACK POSITION.

- [2]: 1 screw
- [3]: 1 boss



## 16. Remove [1] COVER, FRONT L.

- [2]: 2 screws

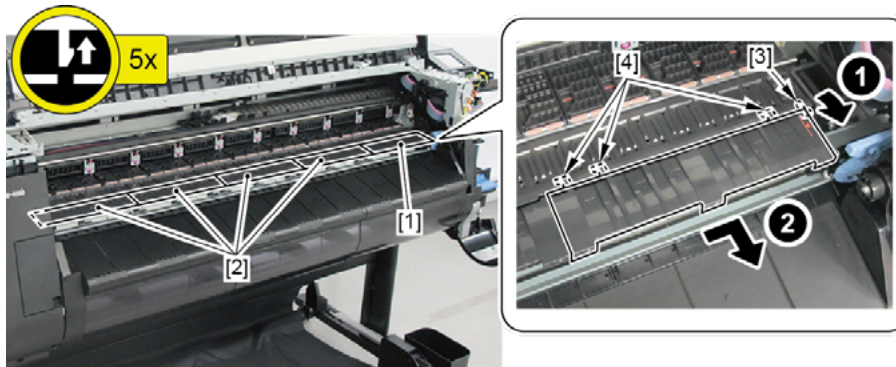


## 17.

(24" model, 44" model)

Remove [1] PLATEN, UNDER HOME and [2] four pieces of PLATEN, UNDER A (2 pieces in 24" model).

- [3]: 1 claw each
- [4]: 3 hooks each



(60" model)

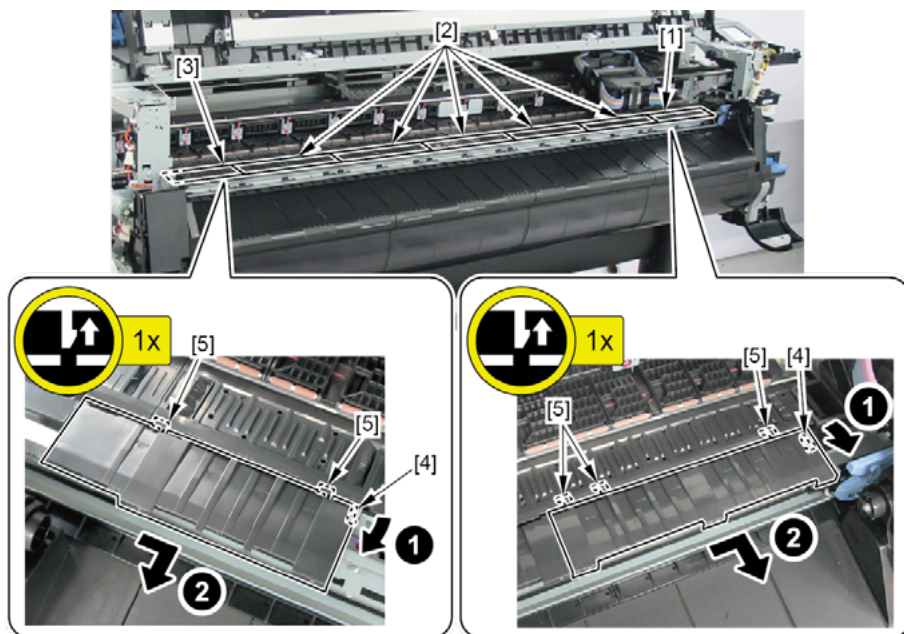
Remove

- [1] PLATEN, UNDER HOME
- [2] five pieces of PLATEN, UNDER A
- [3] PLATEN, UNDER B.
- [4]: 1 claw each
- [5]: Hooks

PLATEN, UNDER HOME: 3 hooks

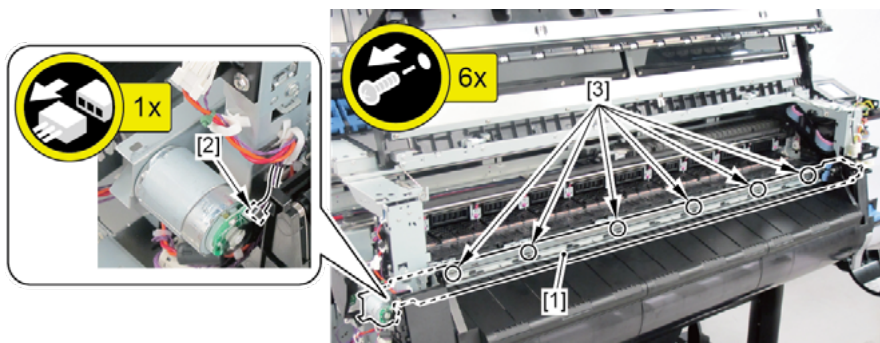
PLATEN, UNDER A: 3 hooks each

PLATEN, UNDER B: 2 hooks



**18.** Remove [1] CUTTER BLADE UNIT.

- [2]: 1 connector
- [3]: 6 screws (4 screws in 24" model, 8 screws in 60" model)



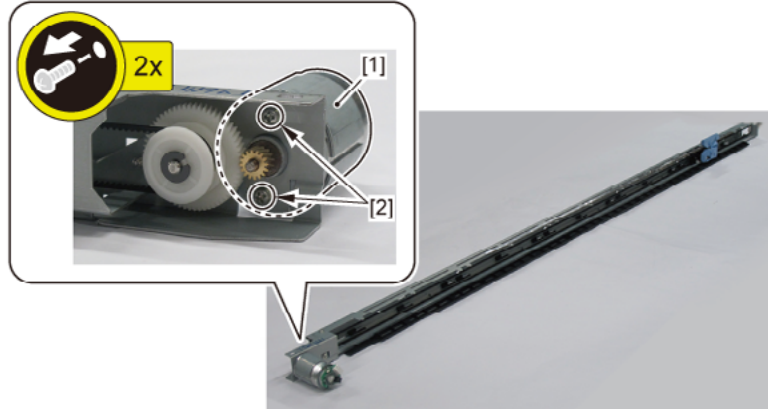
**C**

1. Remove all the parts of Group B.

**C-1**

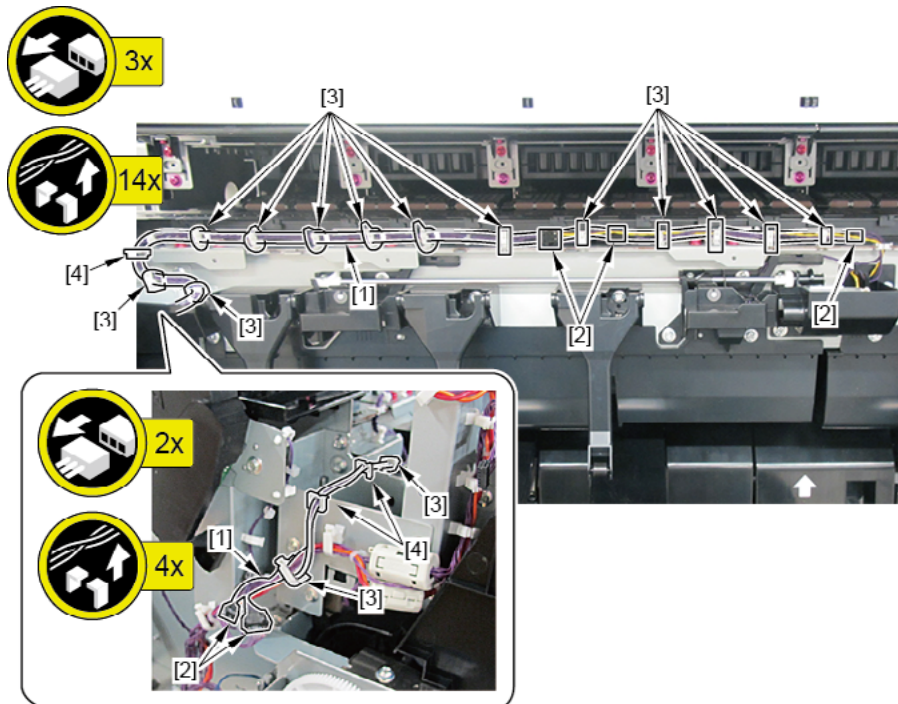
2. Remove [1] CUTTER MOTOR UNIT, W/ENCODER.

- [2]: 2 screws

**C-2 (60" model only)**

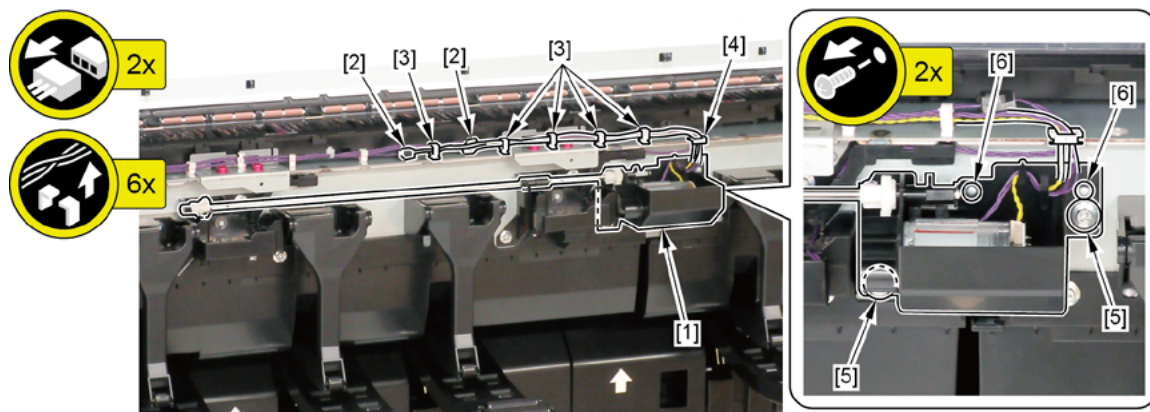
3. Disconnect [1] HARNESS ASS'Y, P STAY RELAY.

- [2]: 5 connectors
- [3]: 15 wire saddles
- [4]: 3 edge saddles



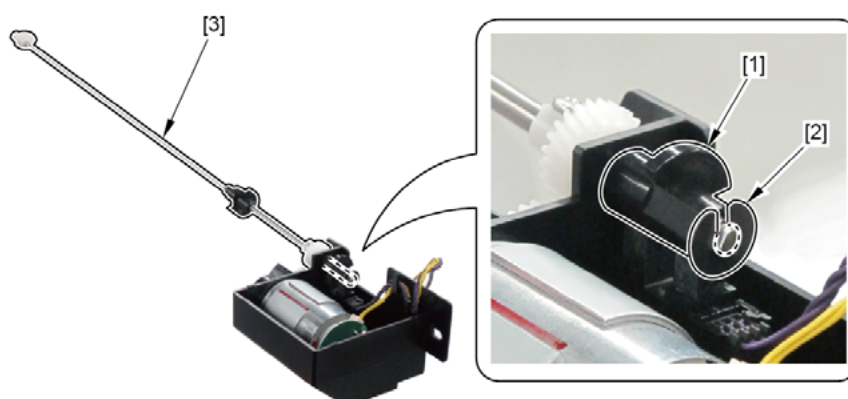
## D (60" model only)

1. Remove all the parts of Group B.
2. Remove [1] a set of
  - DRIVE UNIT, PLATEN SHUTTER
  - SHAFT UNIT, PLATEN SHUTTER.
- [2]: 2 connectors
- [3]: 5 wire saddles
- [4]: 1 edge saddle
- [5]: 2 screws
- [6]: 2 bosses



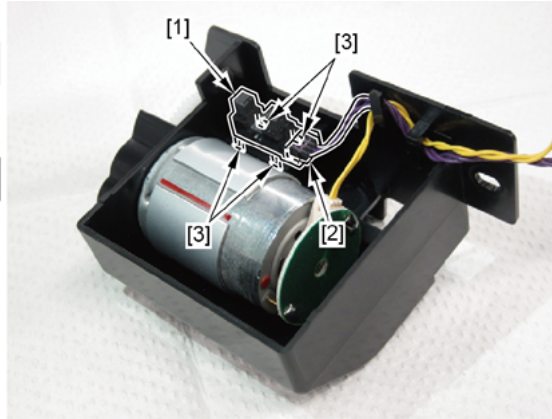
## D-1 (60" model only)

3. Remove [1] FLAG, SENSOR.
  - [2]: 1 CUT WASHER
4. Remove [3] SHAFT UNIT, PLATEN SHUTTER from the DRIVE UNIT, PLATEN SHUTTER.



## 5. Remove [1] PLATEN VALVE POSITION DETECT SENSOR.

- [2]: 1 connector
- [3]: 4 claws



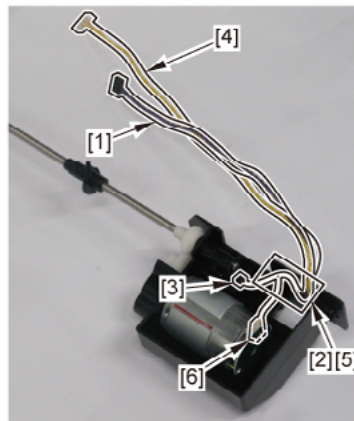
### D-2 (60" model only)

## 3. Disconnect [1] HARNESS ASS'Y, P STAY PS MOT.

- [2]: Cable guide in one area
- [3]: 1 connector

## 4. Disconnect [4] HARNESS ASS'Y, P STAY PS SNS.

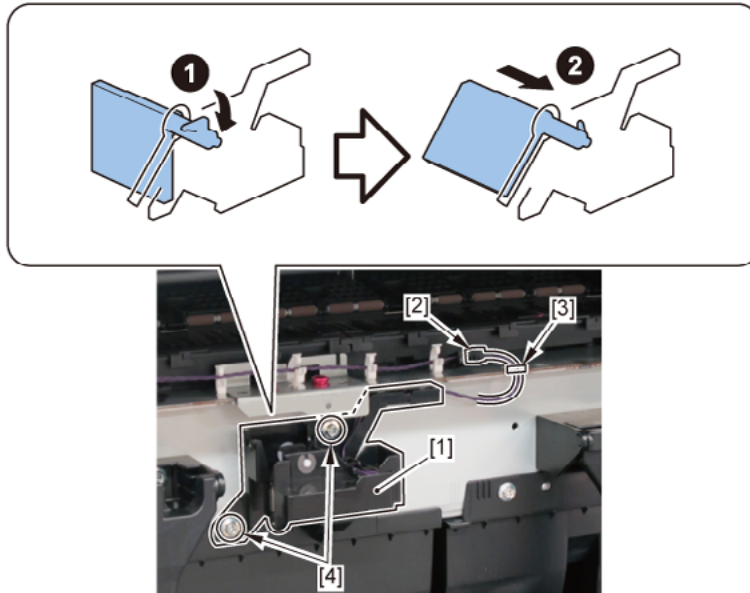
- [5]: Cable guide in one area
- [6]: 1 connector



## D-3 (60" model only)

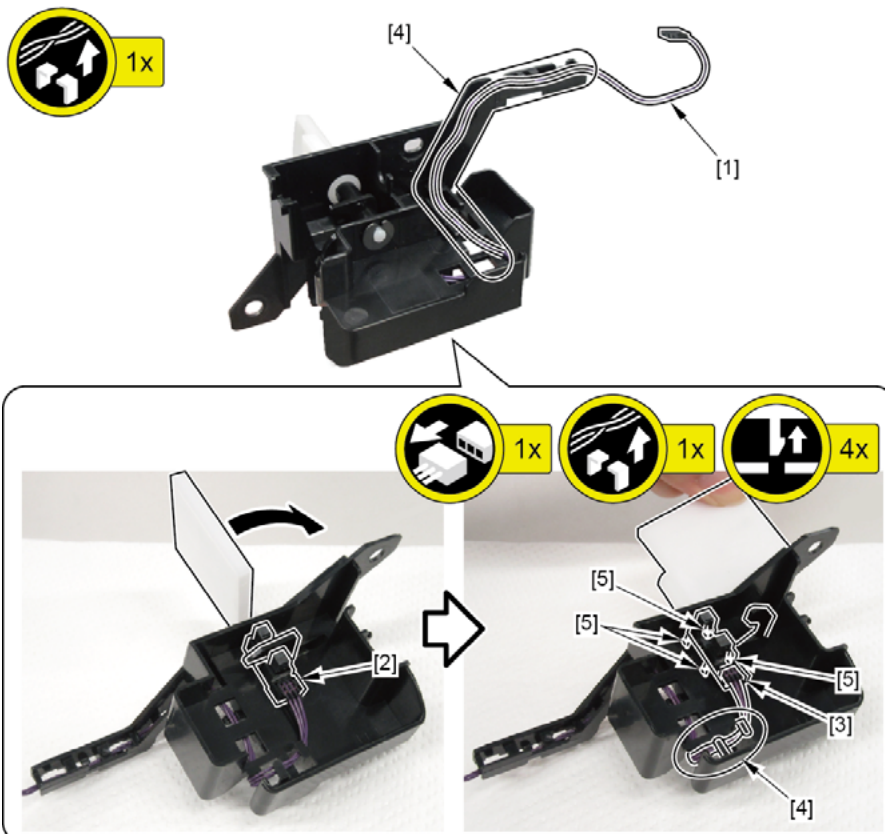
### 3. Remove [1] PLATEN SHUTTER UNIT1.

- [2]: 1 connector
- [3]: 1 edge saddle
- [4]: 2 screws



### 4. Remove [1] HARNESS ASS'Y, P STAY HP SNS and [2] PLATEN VALVE HOME DETECT SENSOR.

- [3]: 1 connector
- [4]: Cable guides in two areas
- [5]: 4 claws

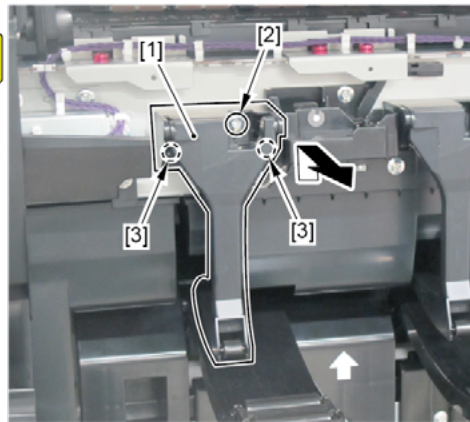




## D-4 (60" model only)

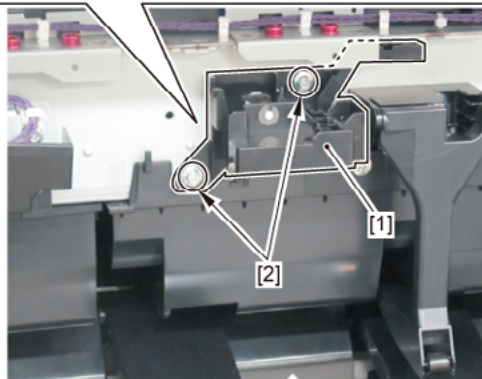
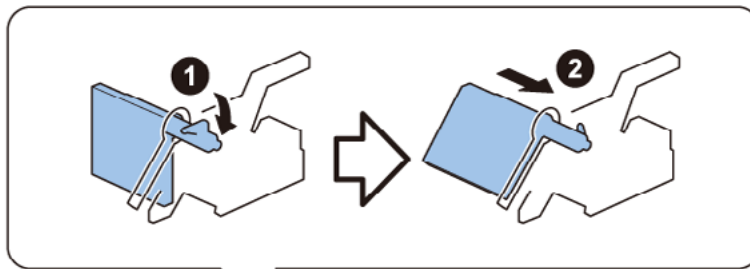
### 3. Remove [1] FLAPPER SEPARATE UNIT.

- [2]: 1 screw
- [3]: 2 bosses



### 4. Remove [1] PLATEN SHUTTER UNIT2.

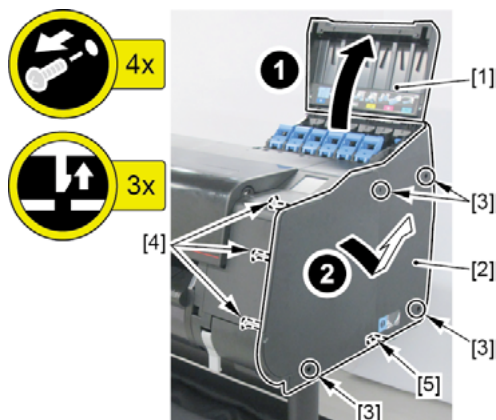
- [2]: 2 screws



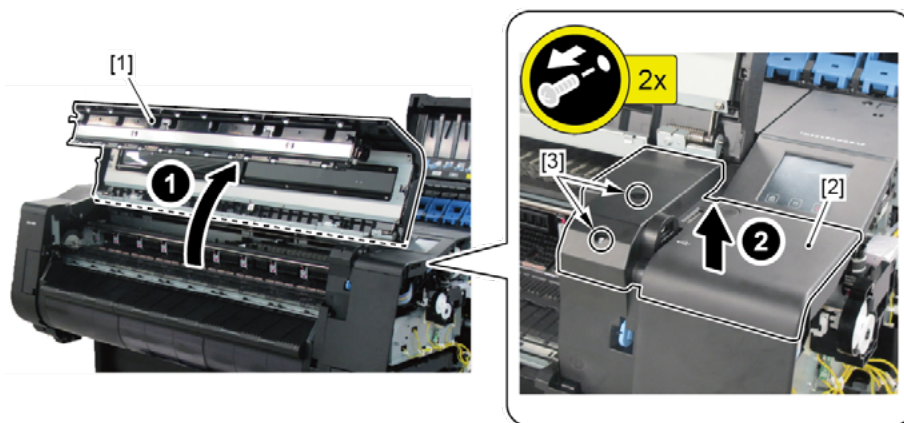
## E

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 screws
- [4]: 3 claws
- [5]: 1 hook

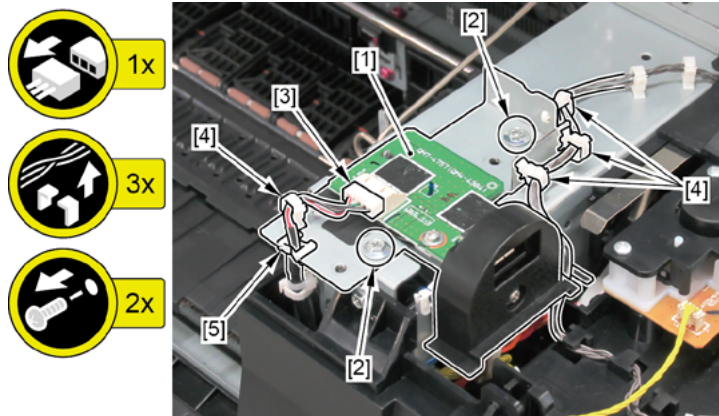


3. Open [1] the access cover.
4. Remove [2] COVER, FRONT TOP R.
  - [3]: 2 screws



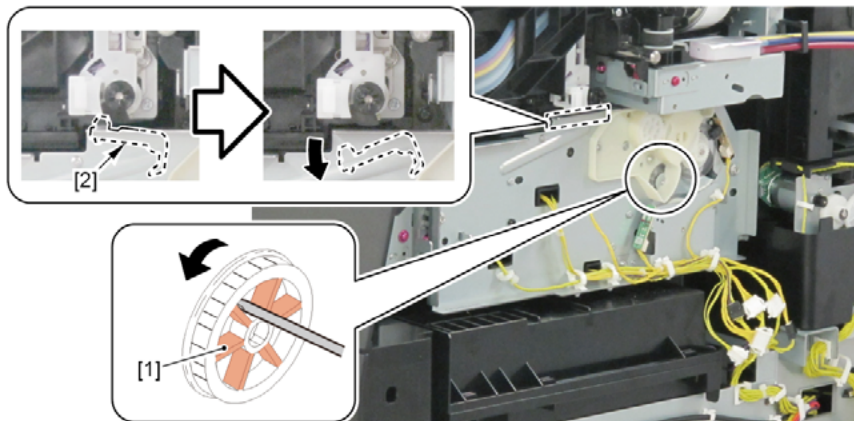
## 5. Remove [1] the plate (with the USB HOST PCB ASS'Y).

- [2]: 2 screws
- [3]: 1 connector
- [4]: 2 wire saddles
- [5]: 1 edge saddle



## 6. Unlock the carriage.

Turning [1] the gear in the arrowed direction will move [2] the lock pin up and down.

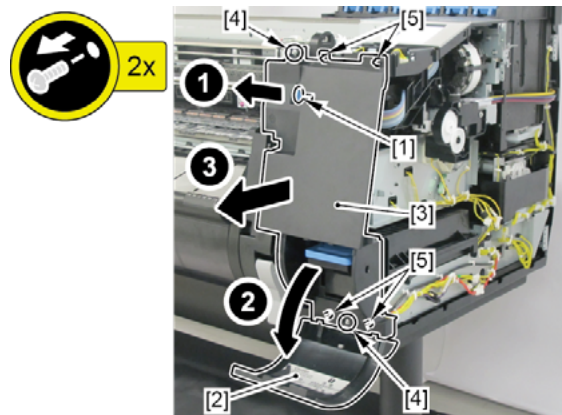


## 7. Remove [1] PLATEN CLEANER BRUSH.

## 8. Open [2] COVER UNIT, MTC.

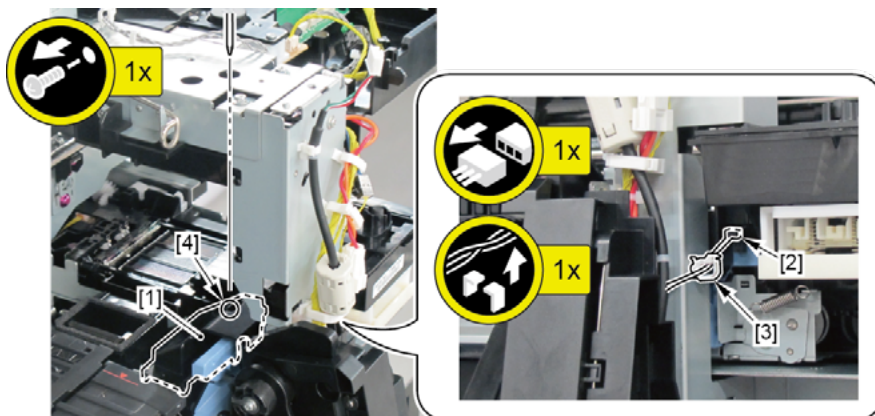
## 9. Remove [3] COVER, FRONT R.

- [4]: 2 screws
- [5]: 4 protrusions



## 10. Remove [1] COVER, HOME POSITION.

- [2]: 1 connector
- [3]: 1 wire saddle
- [4]: 1 screw

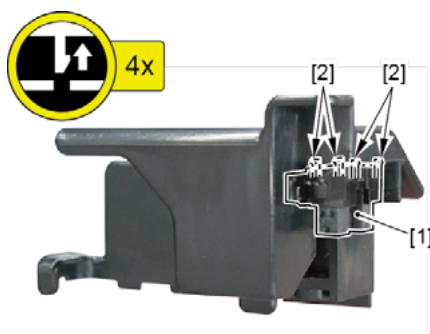


### Notes when attaching the COVER, HOME POSITION:

Move the cutter unit first, then attach the cover.

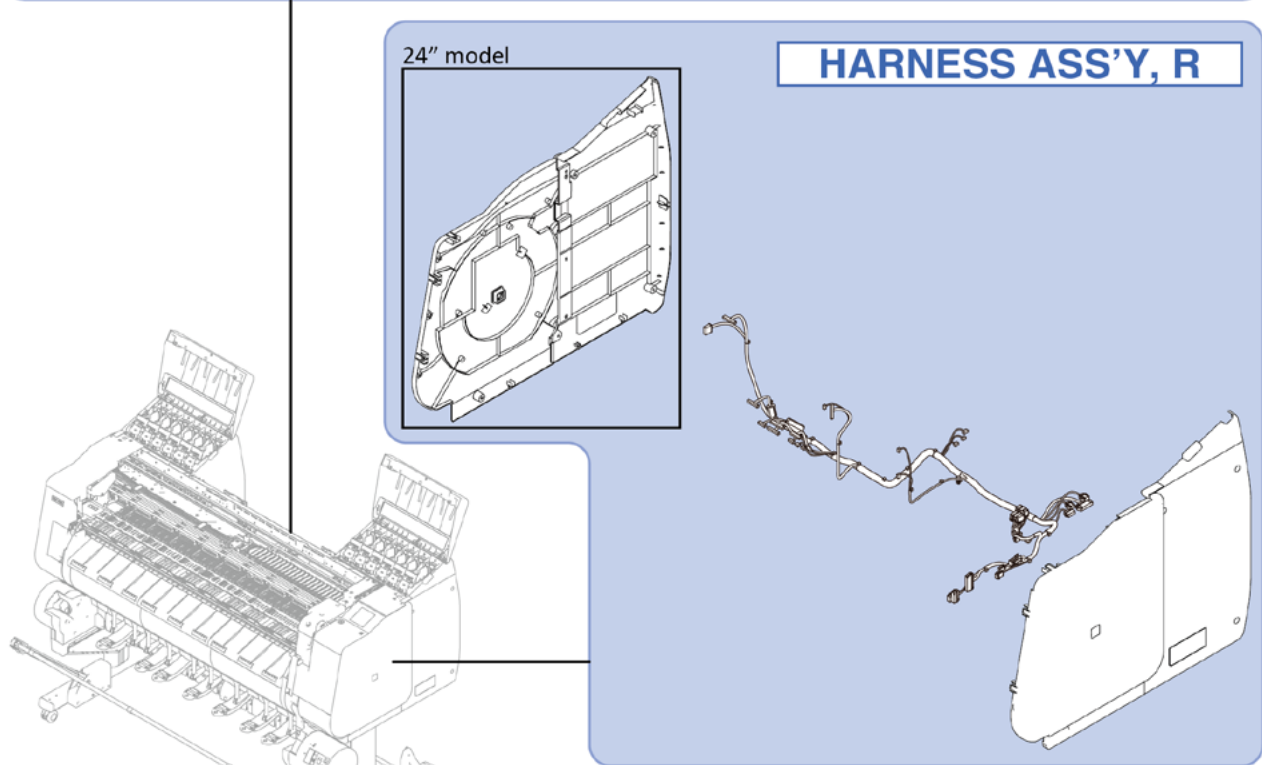
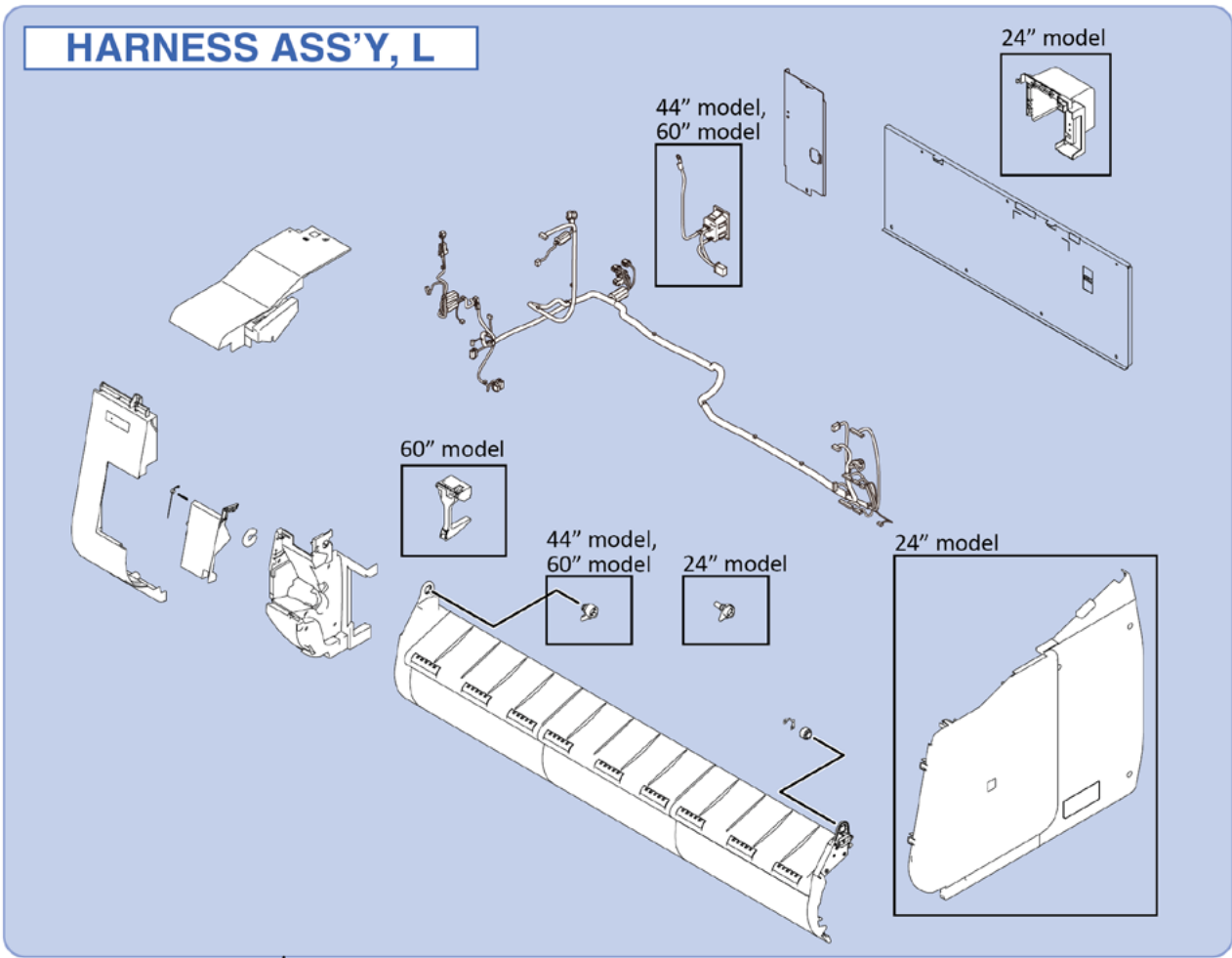
## 11. Remove [1] CUTTER HP SENSOR.

- [2]: 4 claws



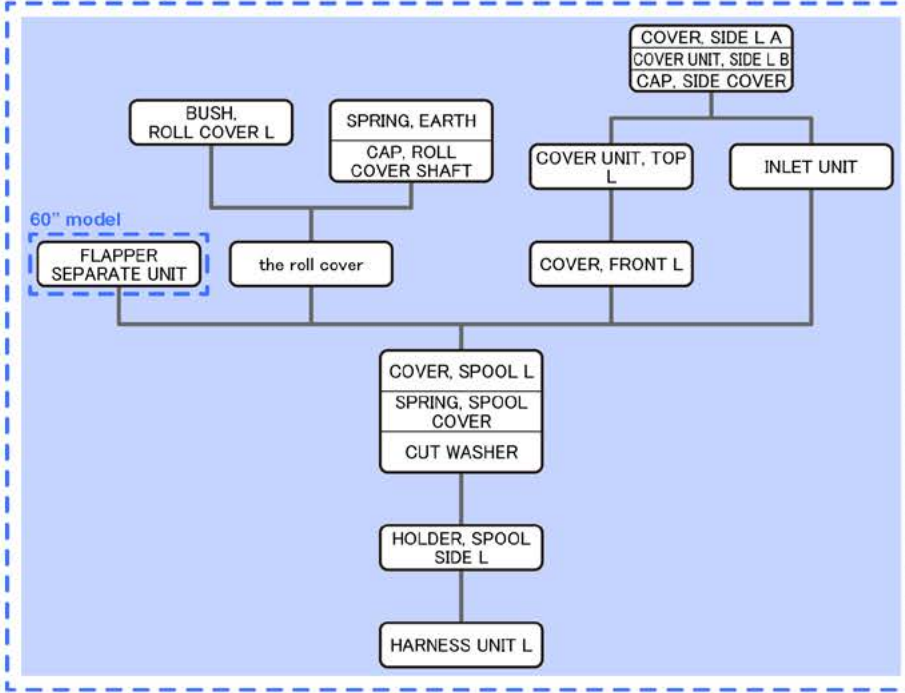


# 15. MAIN HARNESS

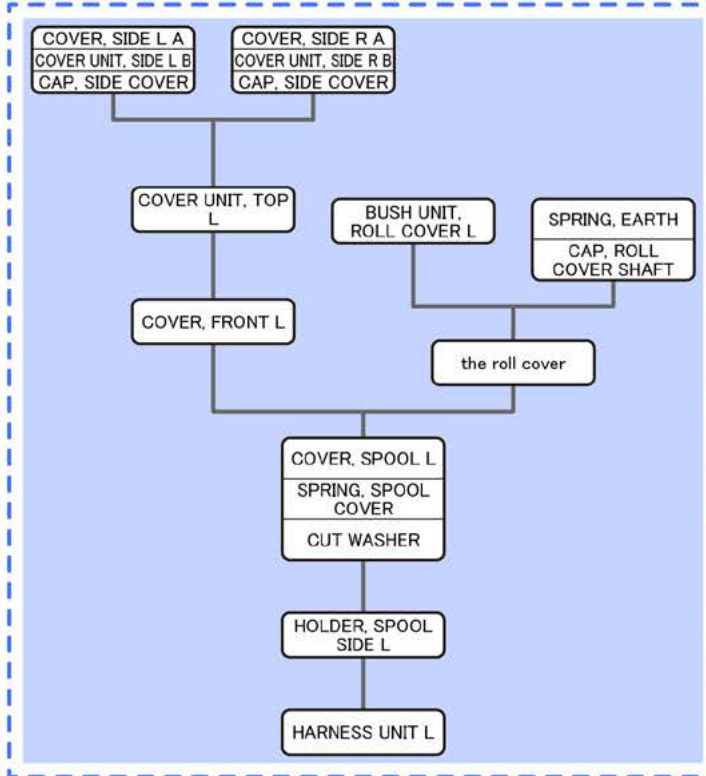


# HARNESS UNIT L

44" model, 60" model



24" model

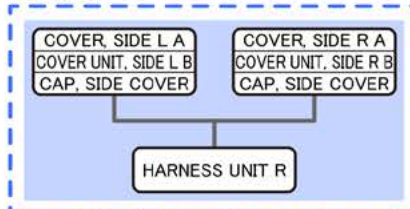


# HARNESS UNIT R

44" model, 60" model



24" model

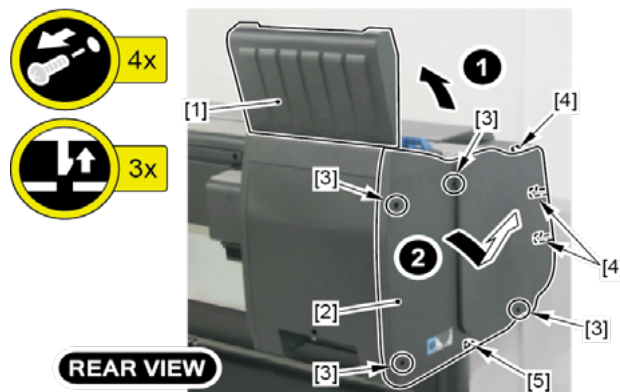


## HARNESS ASS'Y, L (44" model, 60" model)

1. Open [1] the left ink tank cover.
2. Remove [2] a set of

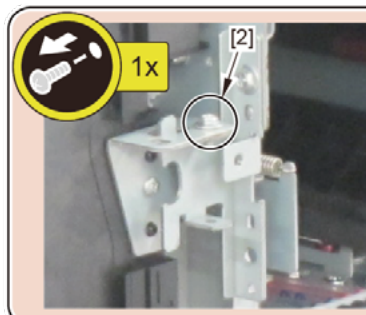
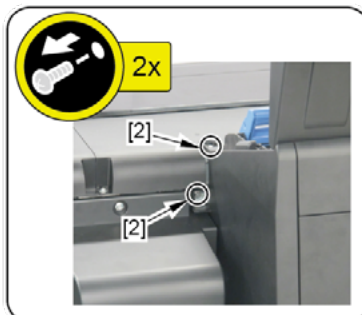
- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook

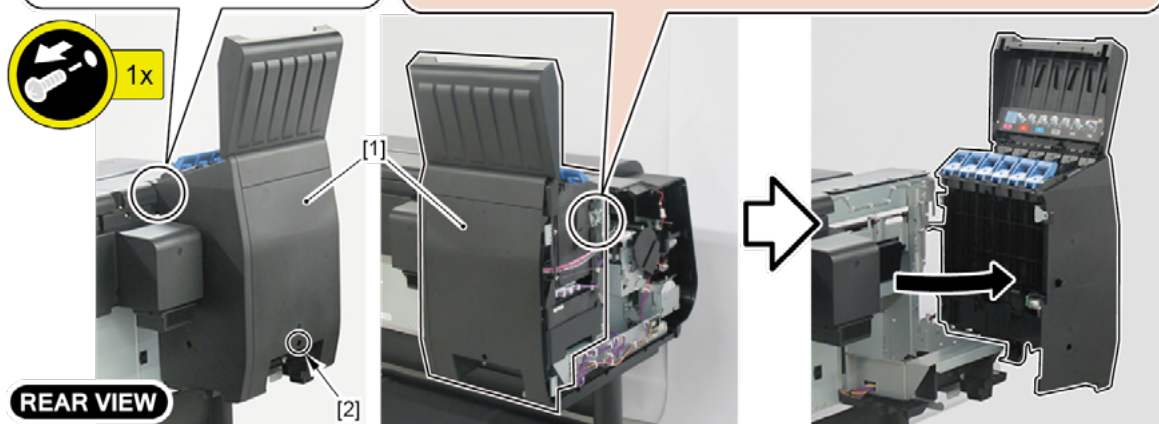


3. Open [1] the left ink unit.

- [2]: 4 screws



**Notes when assembling the unit :**  
While adjusting the screw hole,  
tighten this screw last.

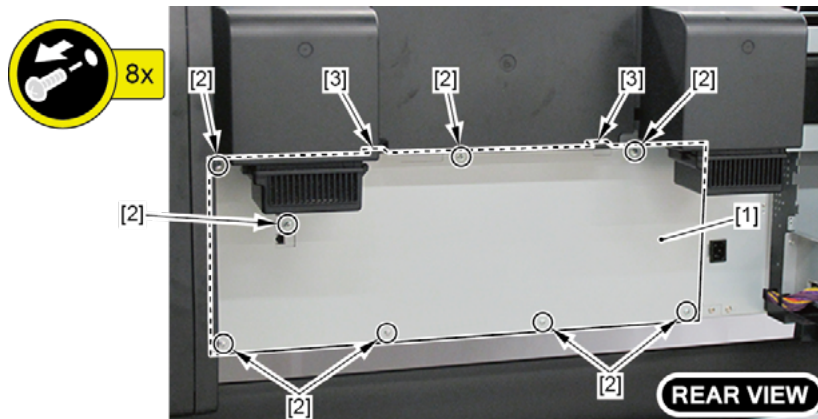




#### 4. Remove [1] the plate.

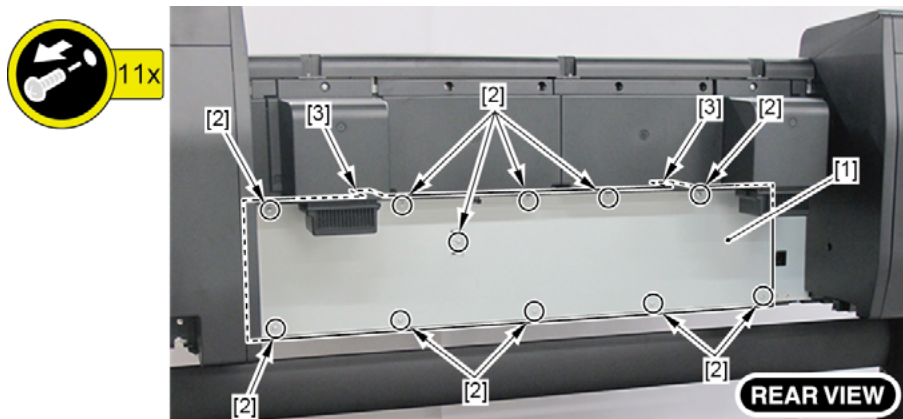
(44" model)

- [2]: 8 screws
- [3]: 2 protrusions



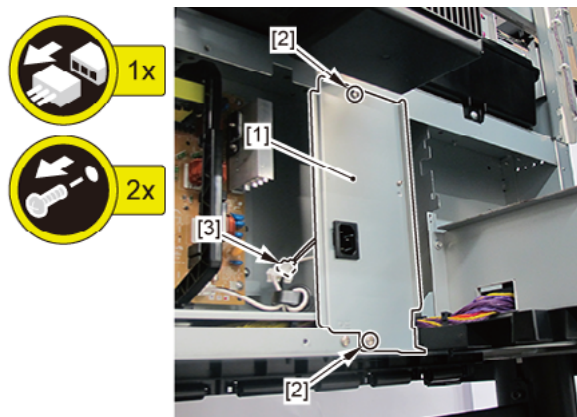
(60" model)

- [2]: 11 screws
- [3]: 2 protrusions



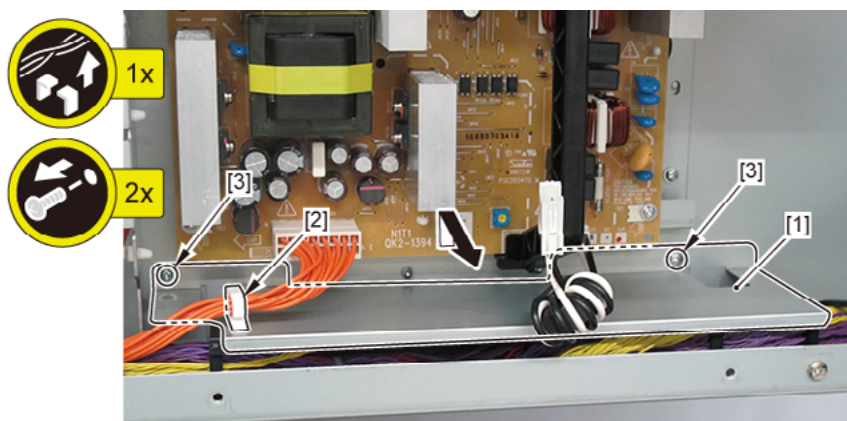
#### 5. Remove [1] the plate (with the INLET UNIT).

- [2]: 2 screws
- [3]: 1 connector



## 6. Remove [1] the plate.

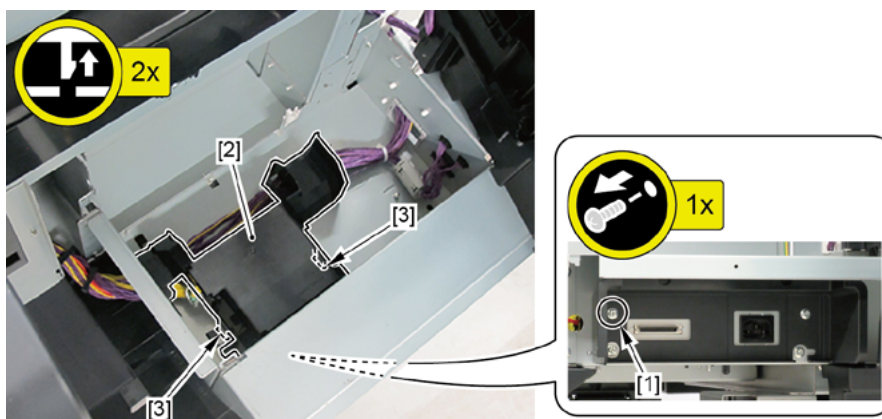
- [2]: 1 wire saddle
- [3]: 2 screws



## 7. Remove [1] the screw (to avoid the cover of the RELAY PCB from scratched when removed).

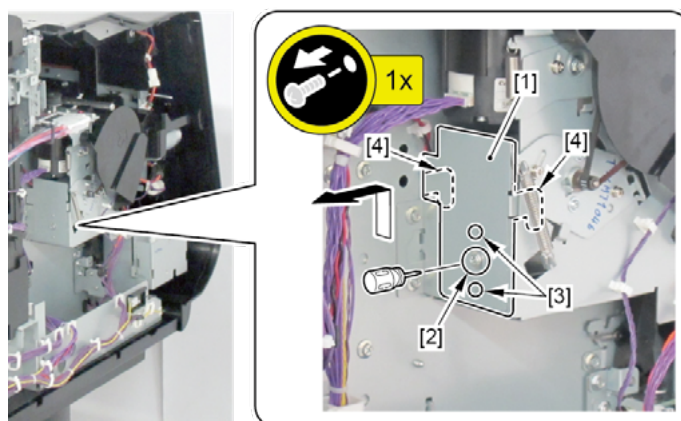
## 8. Remove [2] the cover of the RELAY PCB.

- [3] 2 claws



## 9. Remove [1] the plate.

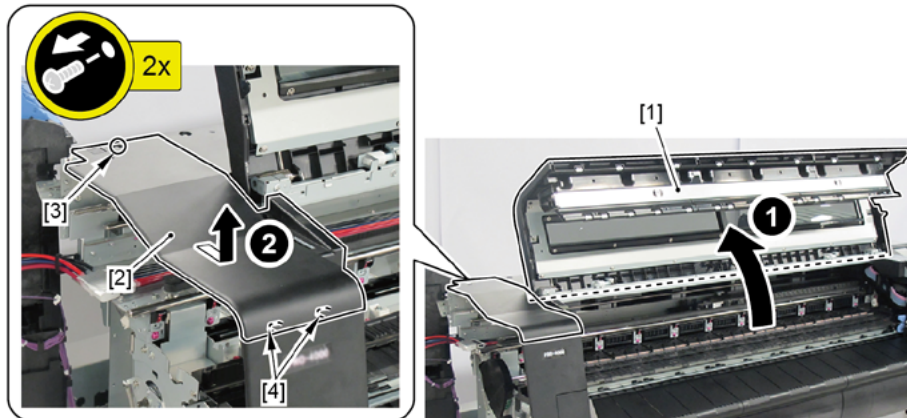
- [2]: 1 screw (Use a stubby screwdriver.)
- [3]: 2 bosses
- [4]: 2 hooks



10. Open [1] the access cover.

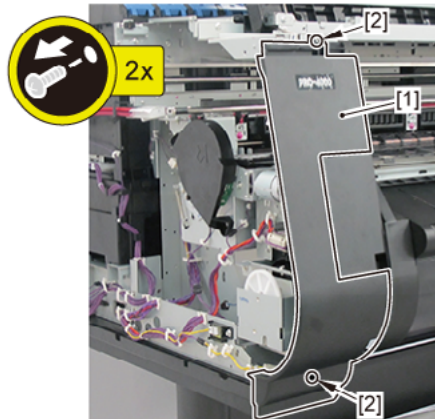
11. Remove [2] COVER UNIT, TOP L.

- [3]: 2 screws
- [4]: 2 bosses



12. Remove [1] COVER, FRONT L.

- [2]: 2 screws



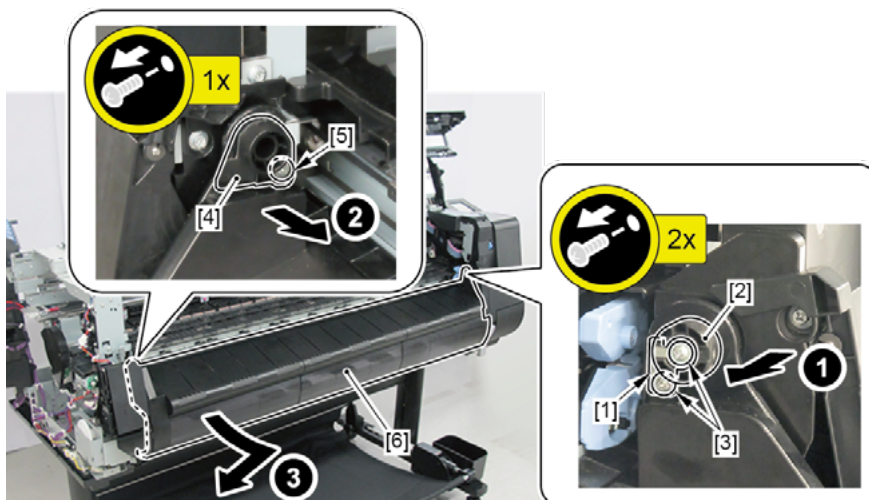
13. Remove [1] SPRING, EARTH and [2] CAP, ROLL COVER SHAFT.

- [3]: 2 screws

14. Remove [4] BUSH, ROLL COVER L.

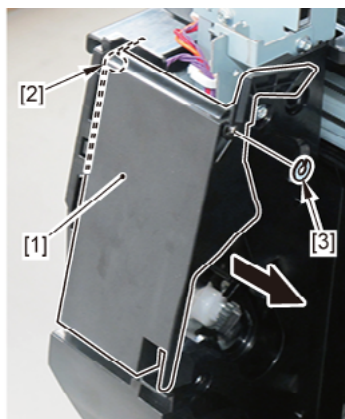
- [5]: 1 screw

15. Remove [6] the roll cover.



## 16. Remove [1] COVER, SPOOL L and [2] SPRING, SPOOL COVER.

- [3]: 1 CUT WASHER

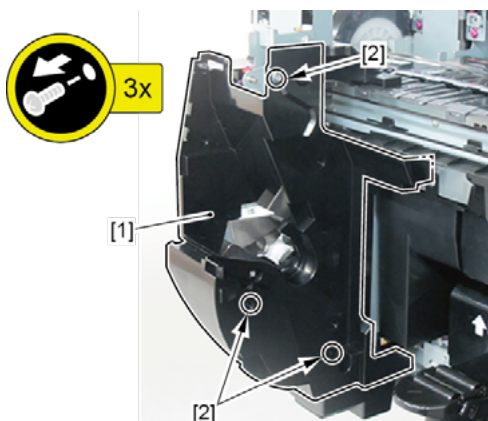


## 17.

(44" model)

Remove [1] HOLDER, SPOOL SIDE L.

- [2]: 3 screws



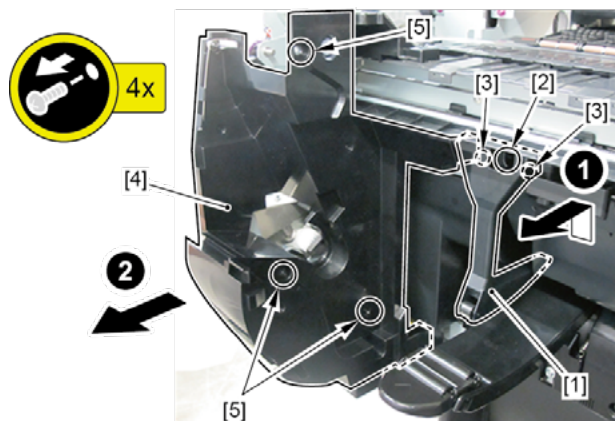
(60" model)

1. Remove [1] FLAPPER SEPARATE UNIT.

- [2]: 1 screw
- [3]: 2 bosses

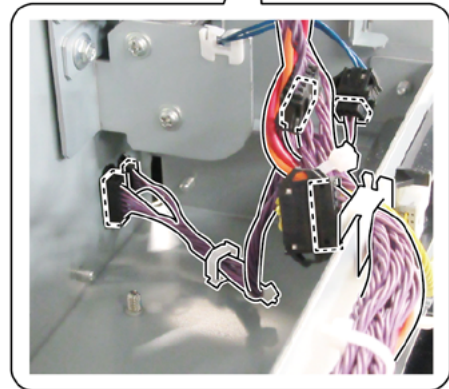
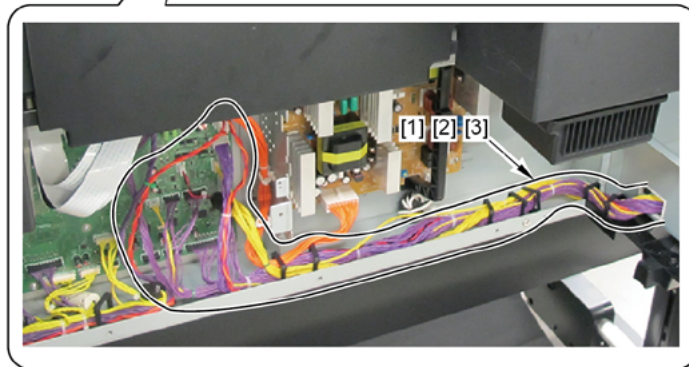
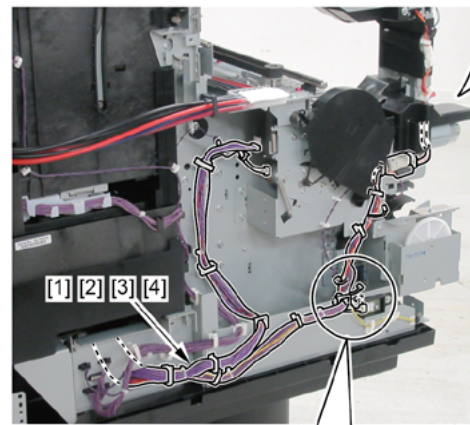
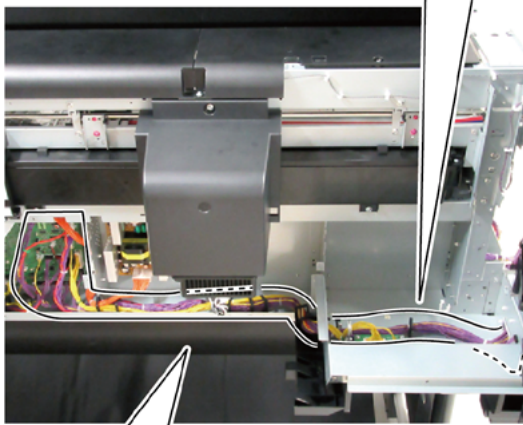
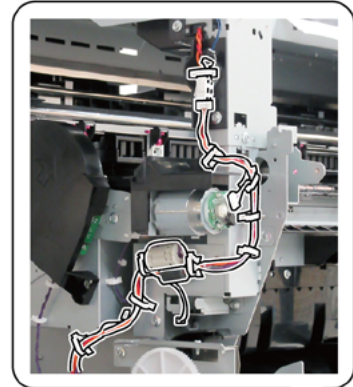
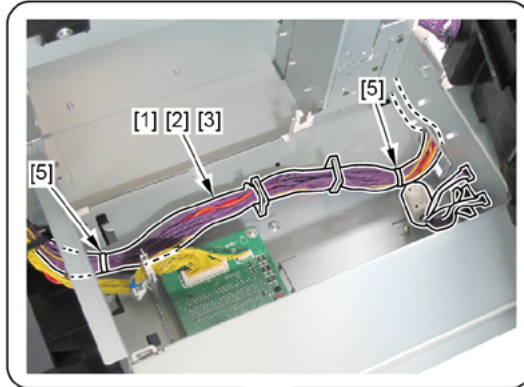
2. Remove [4] HOLDER, SPOOL SIDE L.

- [5]: 3 screws



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

- [2]: 30 connectors (33 connectors in 60" model)
- [3]: 24 wire saddles (28 saddles in 60" model)
- [4]: 2 edge saddles
- [5]: 2 reusable bands

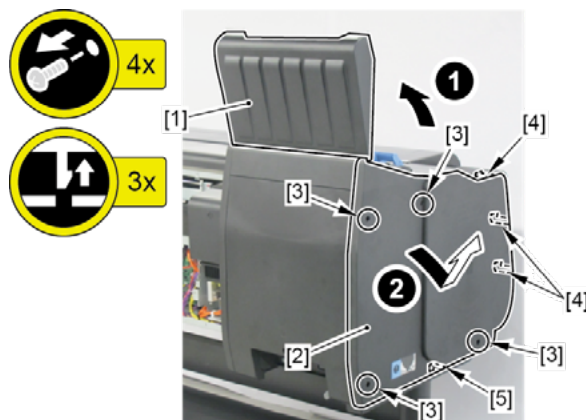


## HARNESS ASS'Y, L (24" model)

1. Open [1] the left ink tank cover.
2. Remove [2] a set of

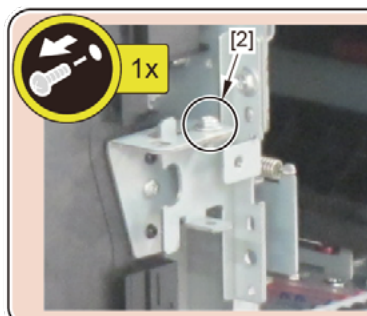
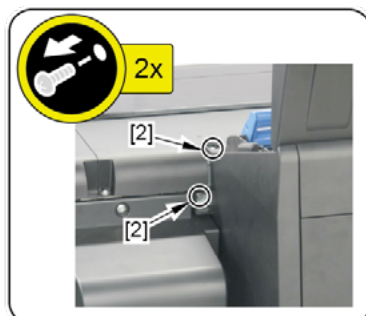
- COVER, SIDE L A
- COVER UNIT, SIDE L B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook

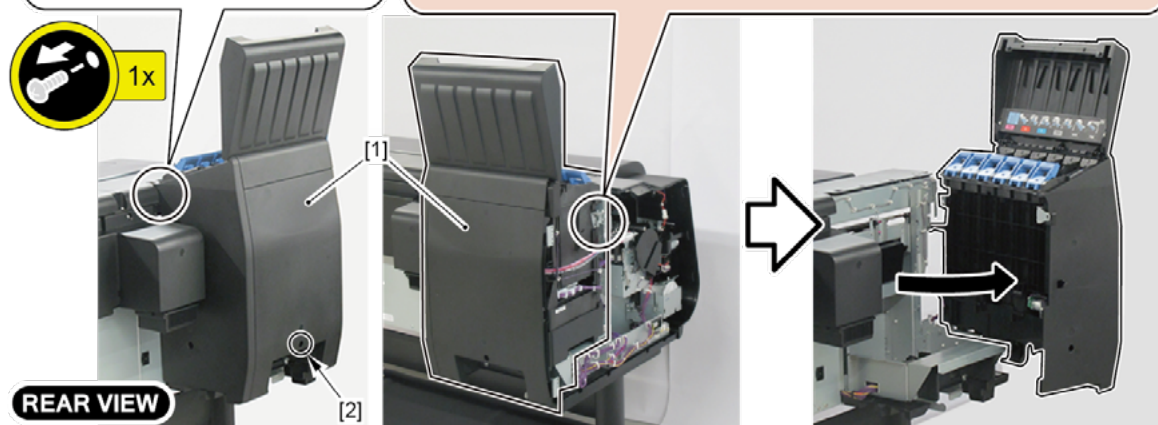


3. Open [1] the left ink unit.

- [2]: 4 screws



**Notes when assembling the unit :**  
While adjusting the screw hole,  
tighten this screw last.

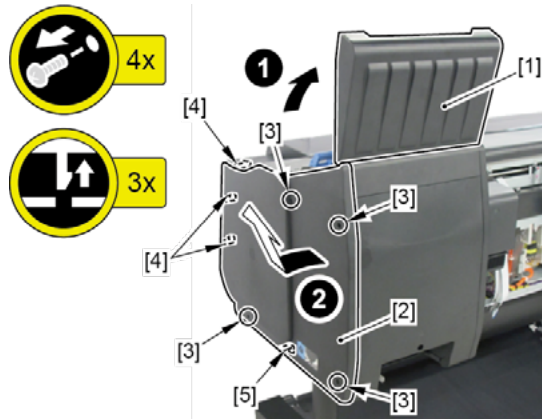


4. Open [1] the right ink tank cover.

5. Remove [2] a set of

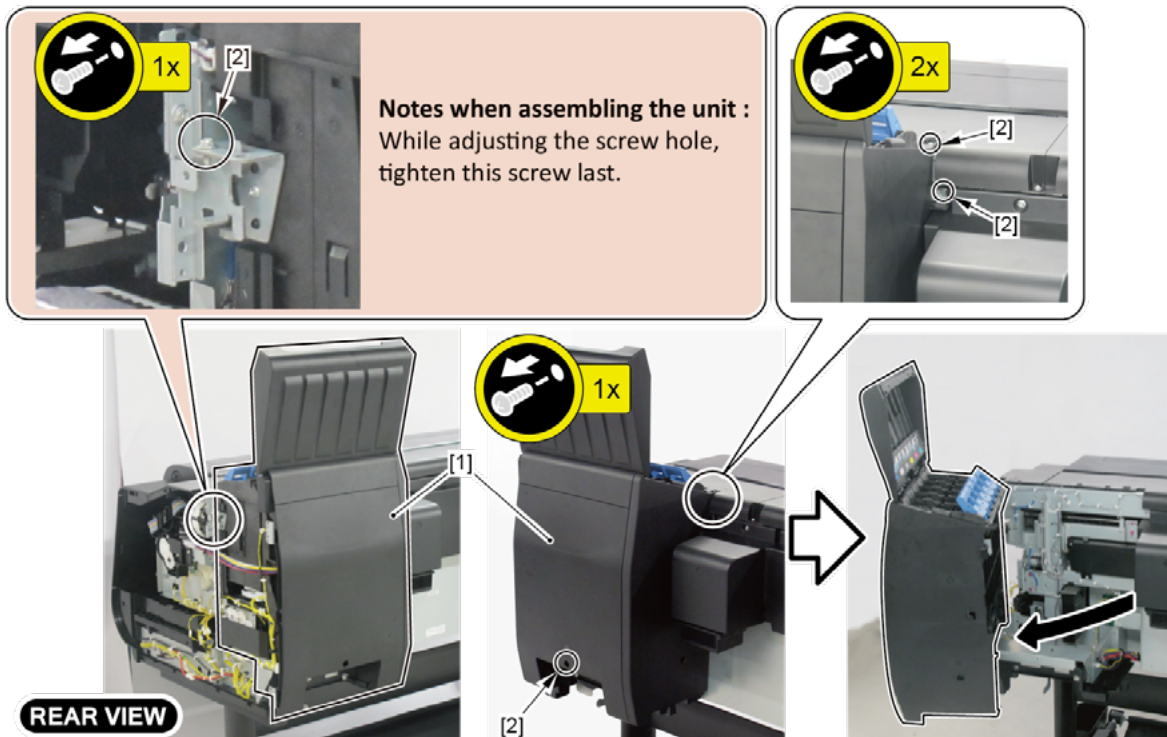
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



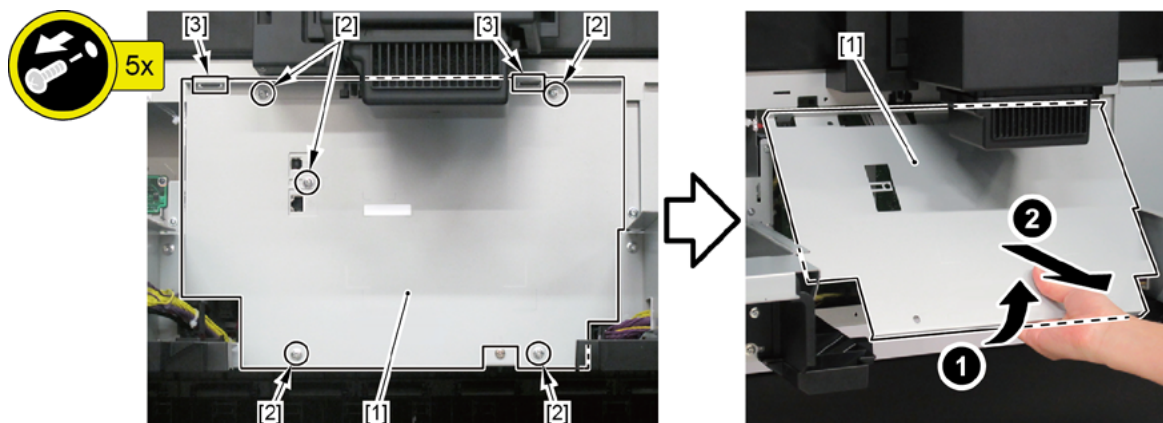
6. Open [1] the right ink unit.

- [2]: 4 screws



## 7. Remove [1] the plate.

- [2]: 5 screws
- [3]: 2 protrusions



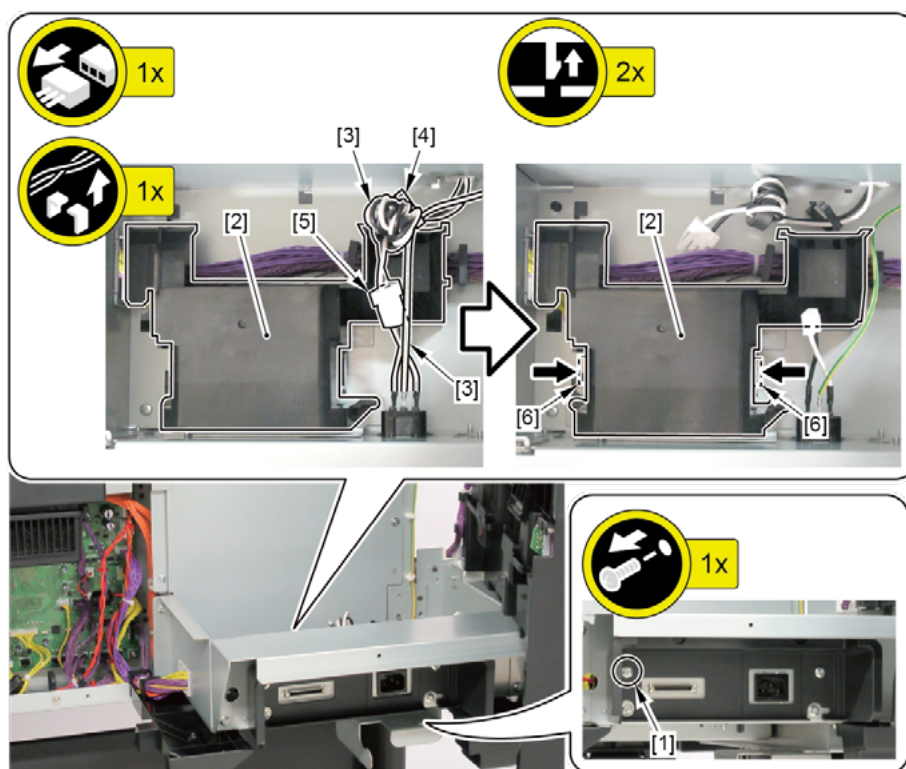
## 8. Remove [1] the screw (to avoid the cover of the RELAY PCB from scratched when removed).

## 9. From [2] the cover of the RELAY PCB, disconnect [3] the cable.

- [4]: 1 wire saddle
- [5]: 1 connector

## 10. Remove [2] the cover of the RELAY PCB.

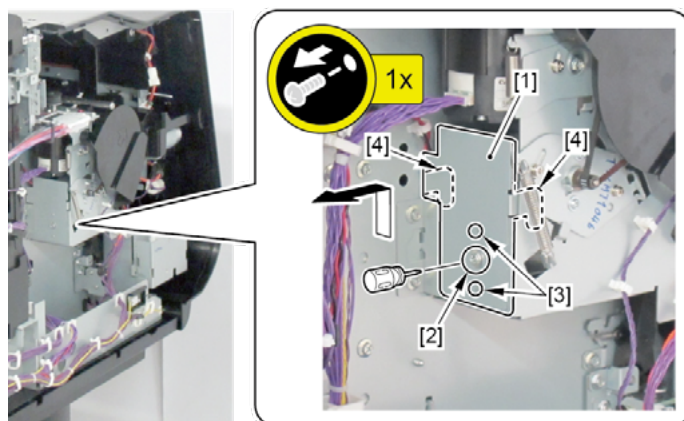
- [6]: 2 claws (Push them in the arrowed direction.)





**11.** Remove [1] the plate.

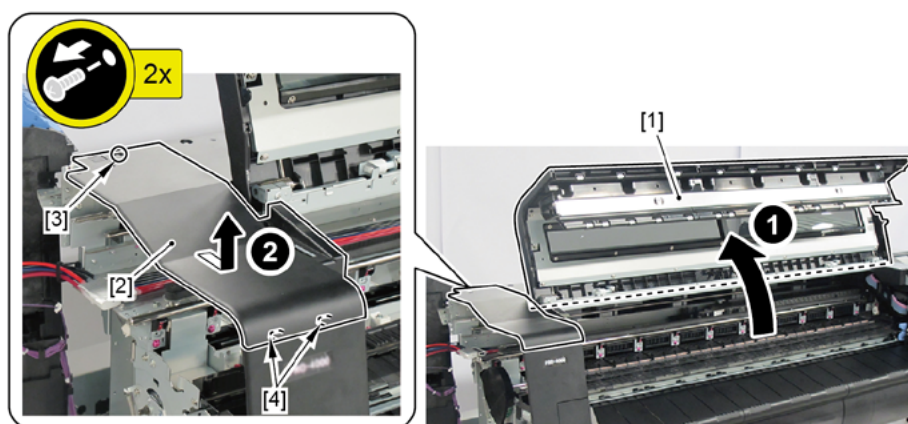
- [2]: 1 screw (Use a stubby screwdriver.)
- [3]: 2 bosses
- [4]: 2 hooks



**12.** Open [1] the access cover.

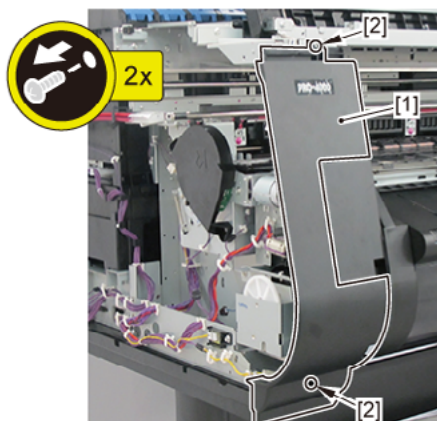
**13.** Remove [2] COVER UNIT, TOP L.

- [3]: 2 screws
- [4]: 2 bosses



**14.** Remove [1] COVER FRONT L.

- [2]: 2 screws



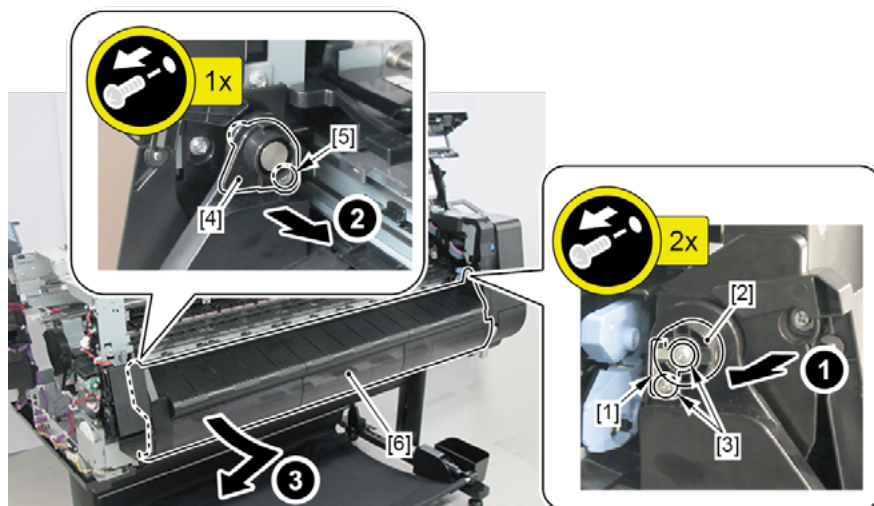
**15.** Remove [1] SPRING, EARTH and [2] CAP, ROLL COVER SHAFT.

- [3]: 2 screws

**16.** Remove [4] BUSH UNIT, ROLL COVER L.

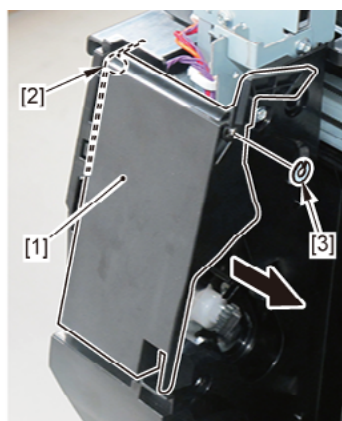
- [5]: 1 screw

**17.** Remove [6] the roll cover.



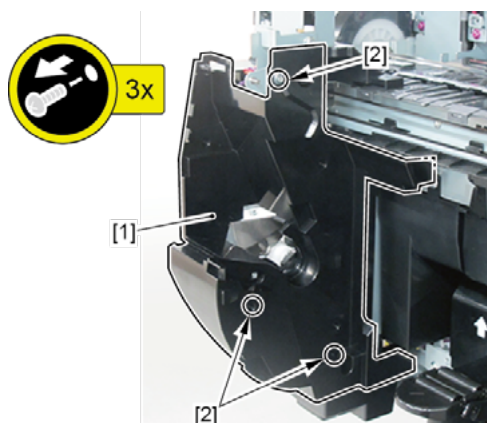
**18.** Remove [1] COVER, SPOOL L and [2] SPRING, SPOOL COVER.

- [3]: 1 CUT WASHER



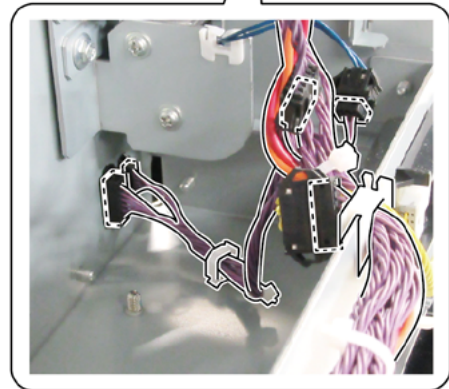
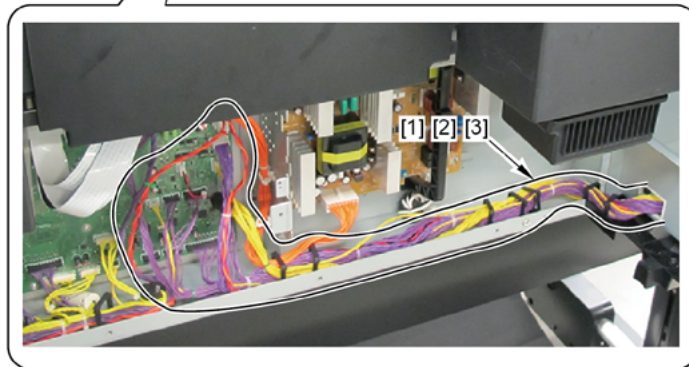
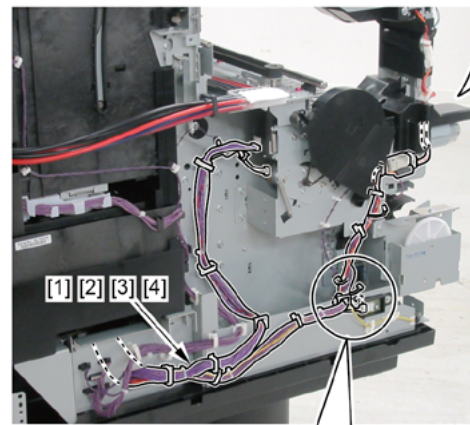
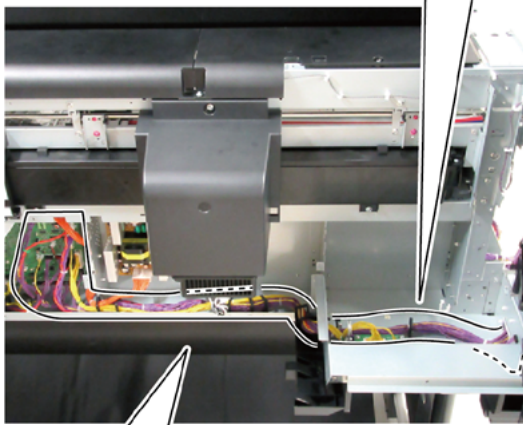
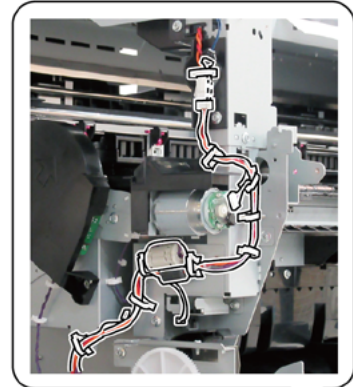
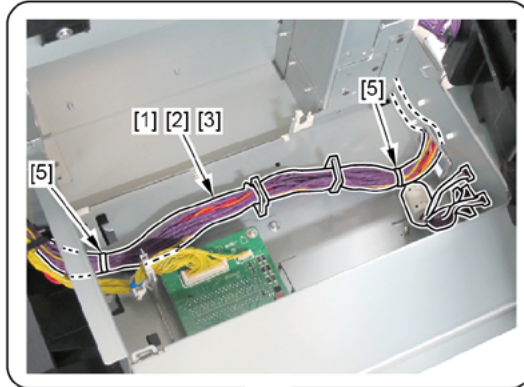
**19.** Remove [1] HOLDER, SPOOL SIDE L.

- [2]: 3 screws



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

- [2]: 28 connectors
- [3]: 21 wire saddles
- [4]: 2 edge saddles
- [5]: 2 reusable bands

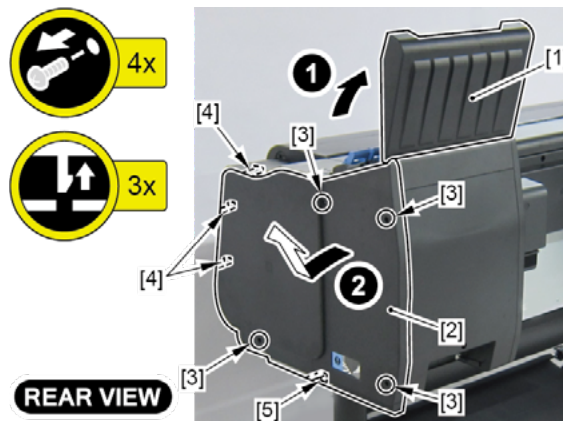


## HARNESS ASS'Y, R (44" model, 60" model)

1. Open [1] the right ink tank cover.
2. Remove [2] a set of

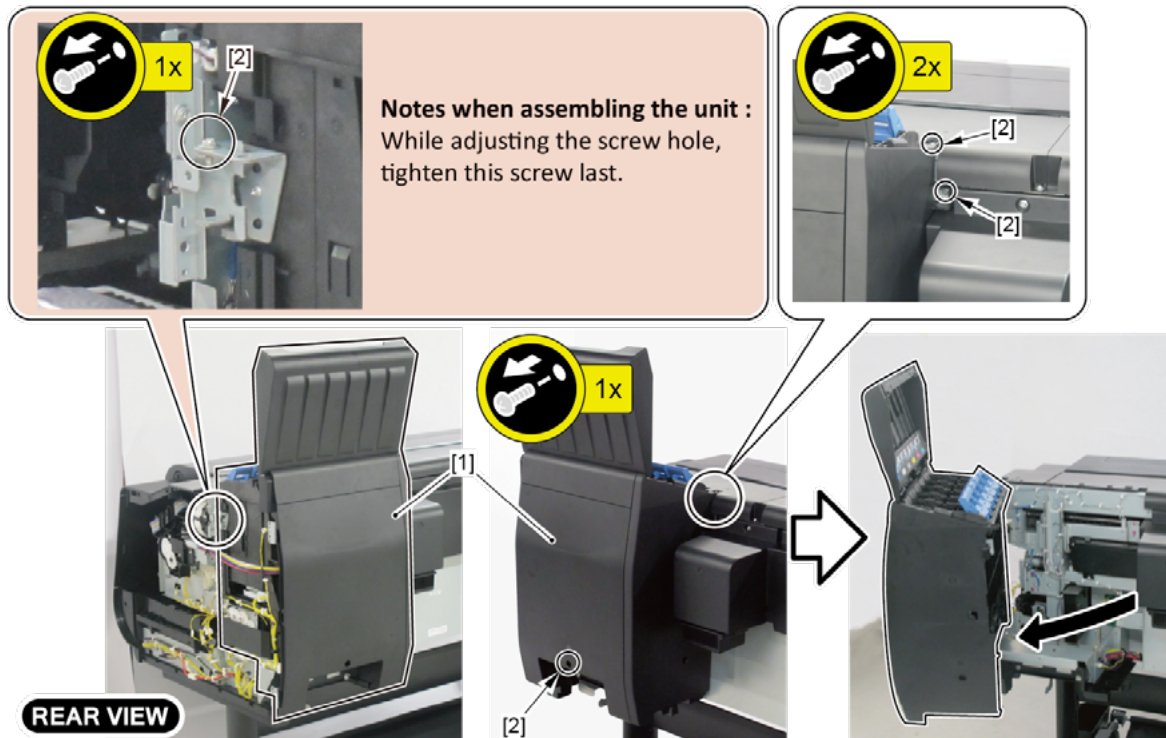
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



3. Open [1] the right ink unit.

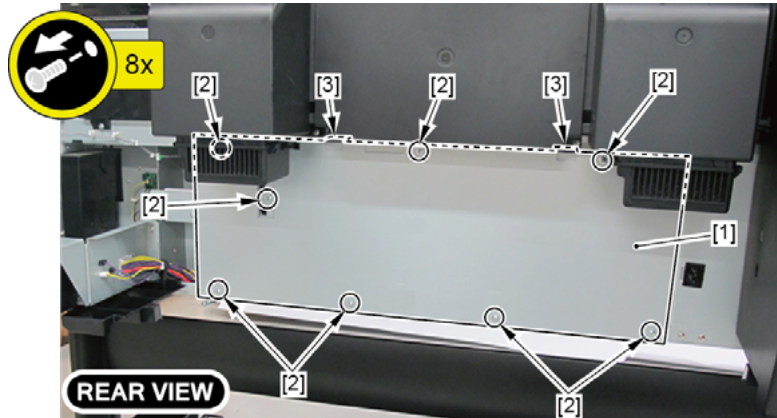
- [2]: 4 screws



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

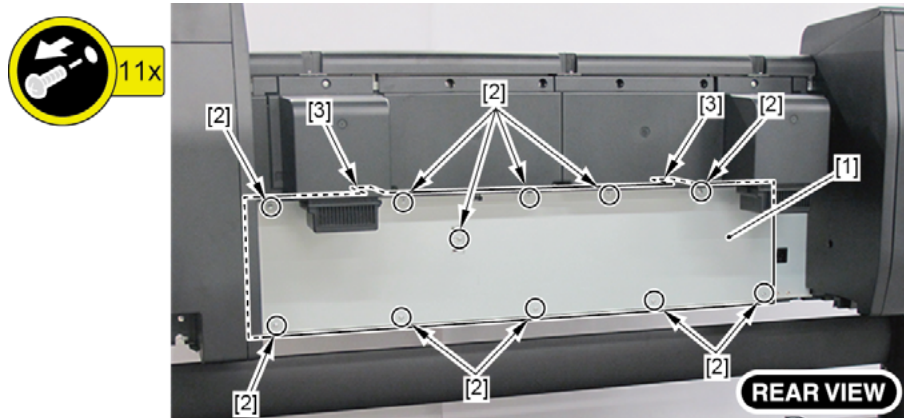
(44" model)

- [2]: 8 screws
- [3]: 2 protrusions



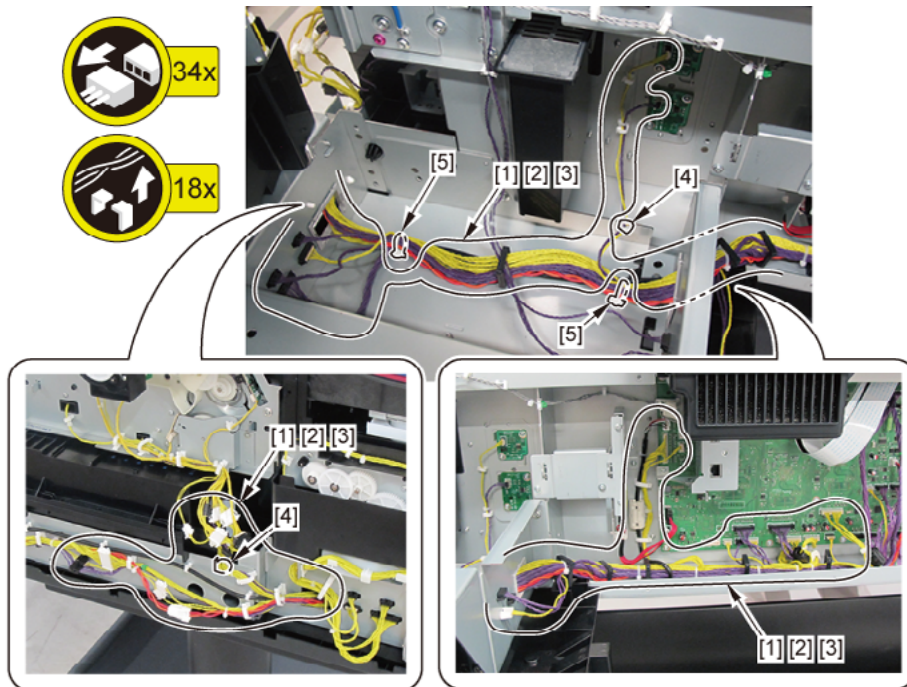
(60" model)

- [2]: 11 screws
- [3]: 2 protrusions



## 5. Disconnect [1] HARNESS ASS'Y, R.

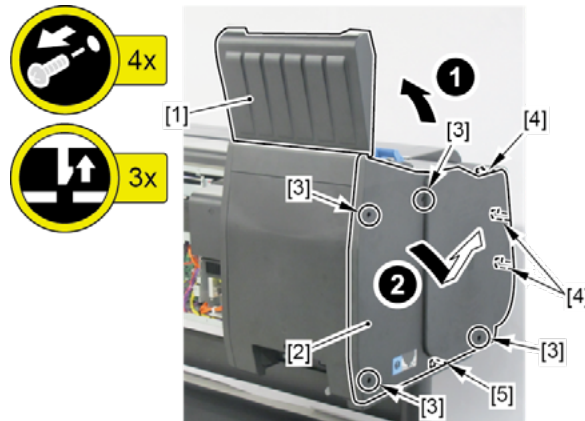
- [2]: 34 connectors
- [3]: 14 wire saddles
- [4]: 2 edge saddles
- [5]: 2 reusable bands



## HARNESS ASS', R (24" model)

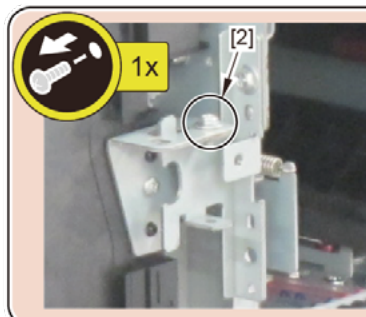
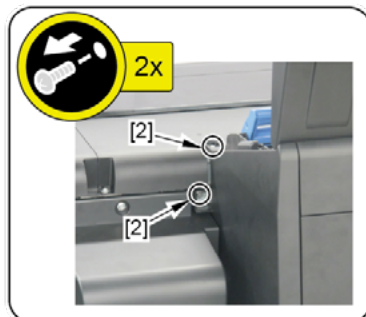
1. Open [1] the left ink tank cover.
2. Remove [2] a set of
  - COVER, SIDE L A
  - COVER UNIT, SIDE L B
  - CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook

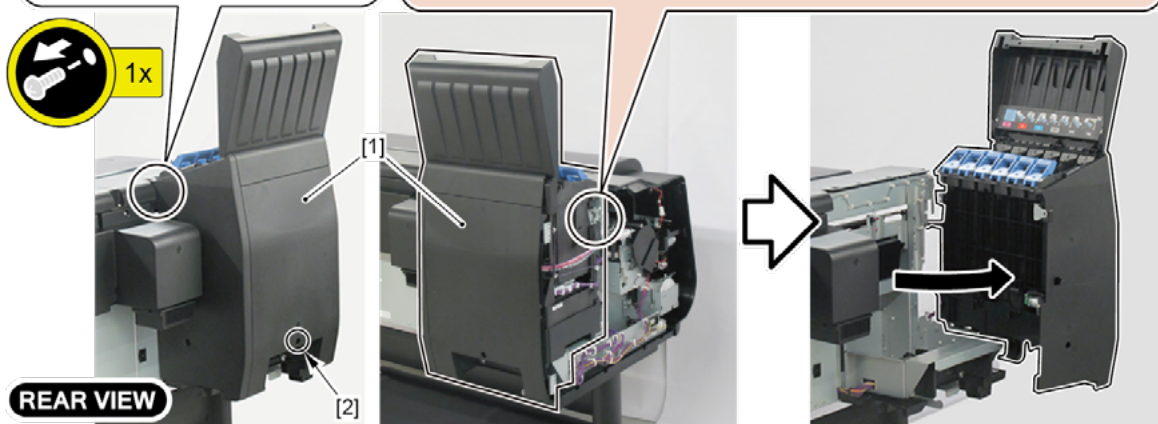


3. Open [1] the left ink unit.

- [2]: 4 screws



**Notes when assembling the unit :**  
While adjusting the screw hole,  
tighten this screw last.

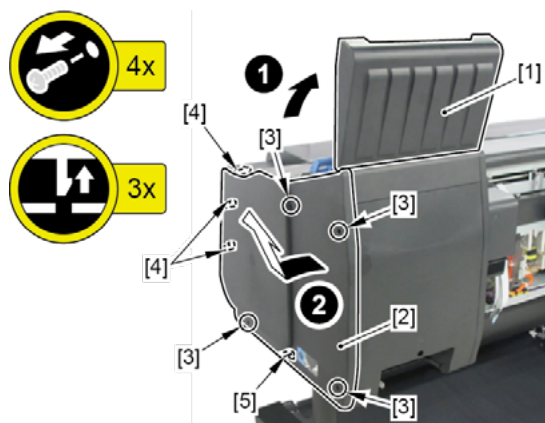


4. Open [1] the right ink tank cover.

5. Remove [2] a set of

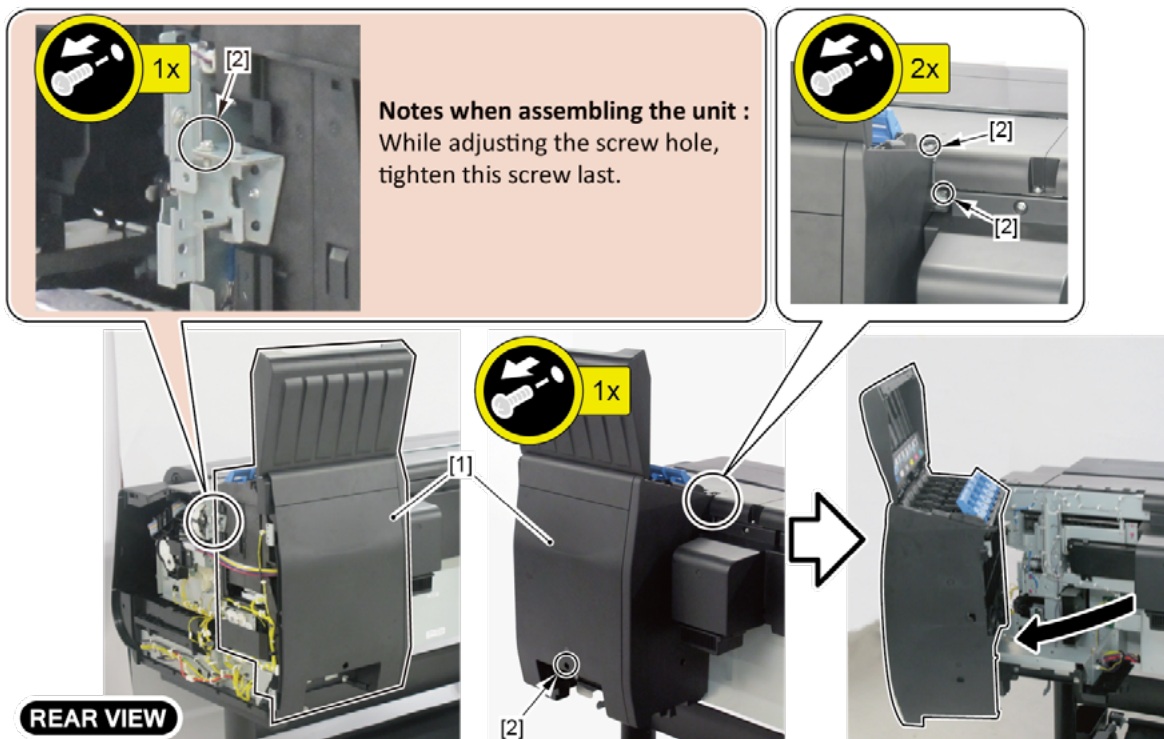
- COVER, SIDE R A
- COVER UNIT, SIDE R B
- CAP, SIDE COVER.

- [3]: 4 screws
- [4]: 3 claws
- [5]: 1 hook



6. Open [1] the right ink unit.

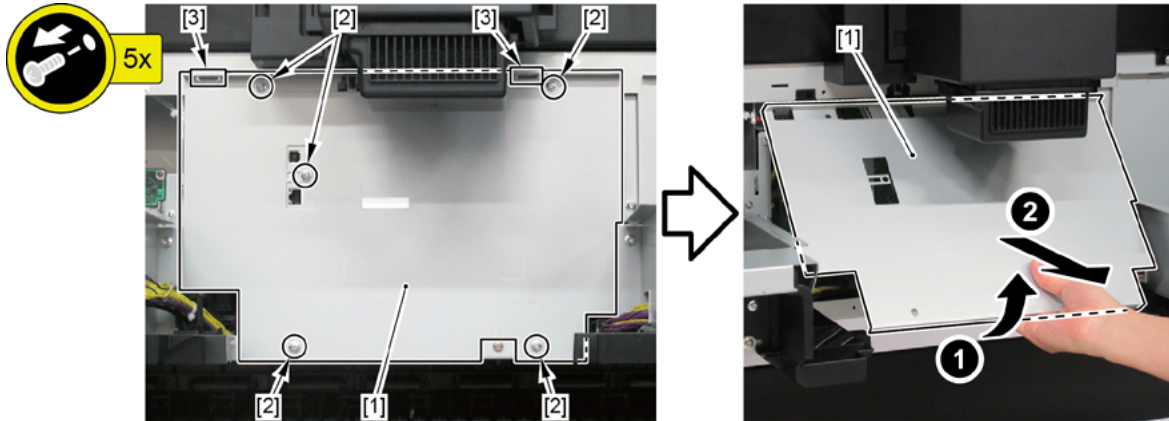
- [2]: 4 screws





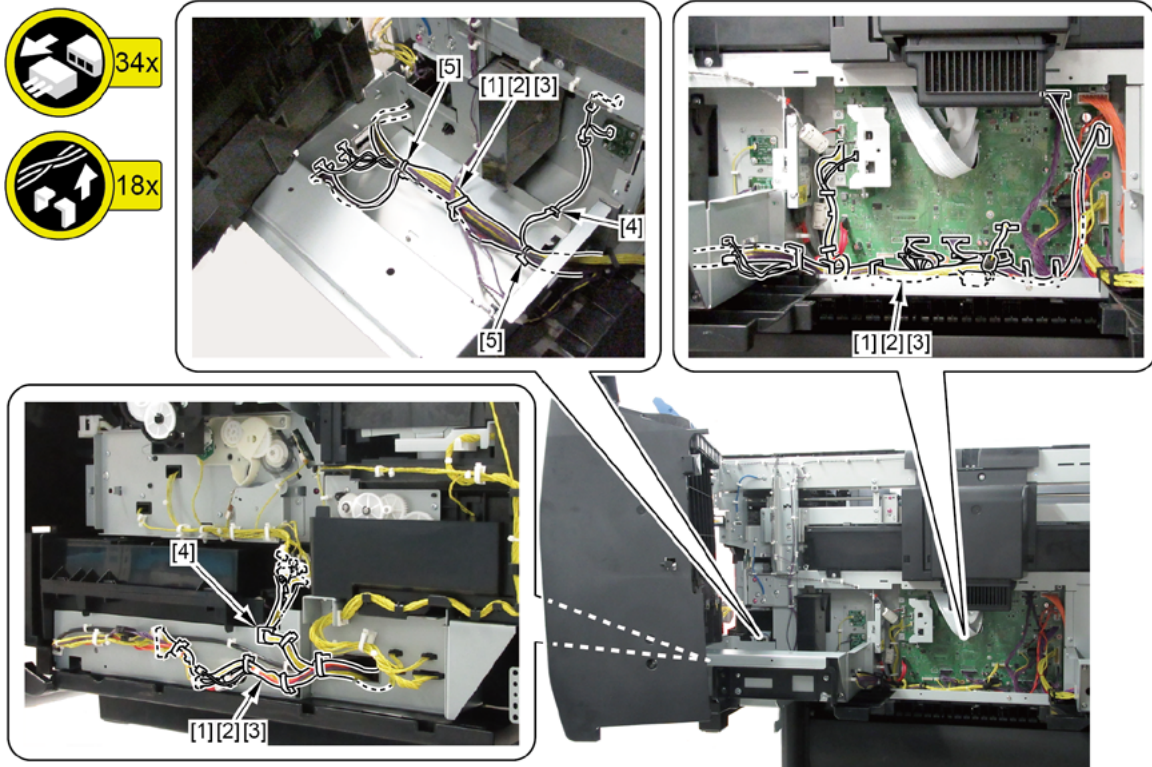
## 7. Remove [1] the plate.

- [2]: 5 screws
- [3]: 2 protrusions

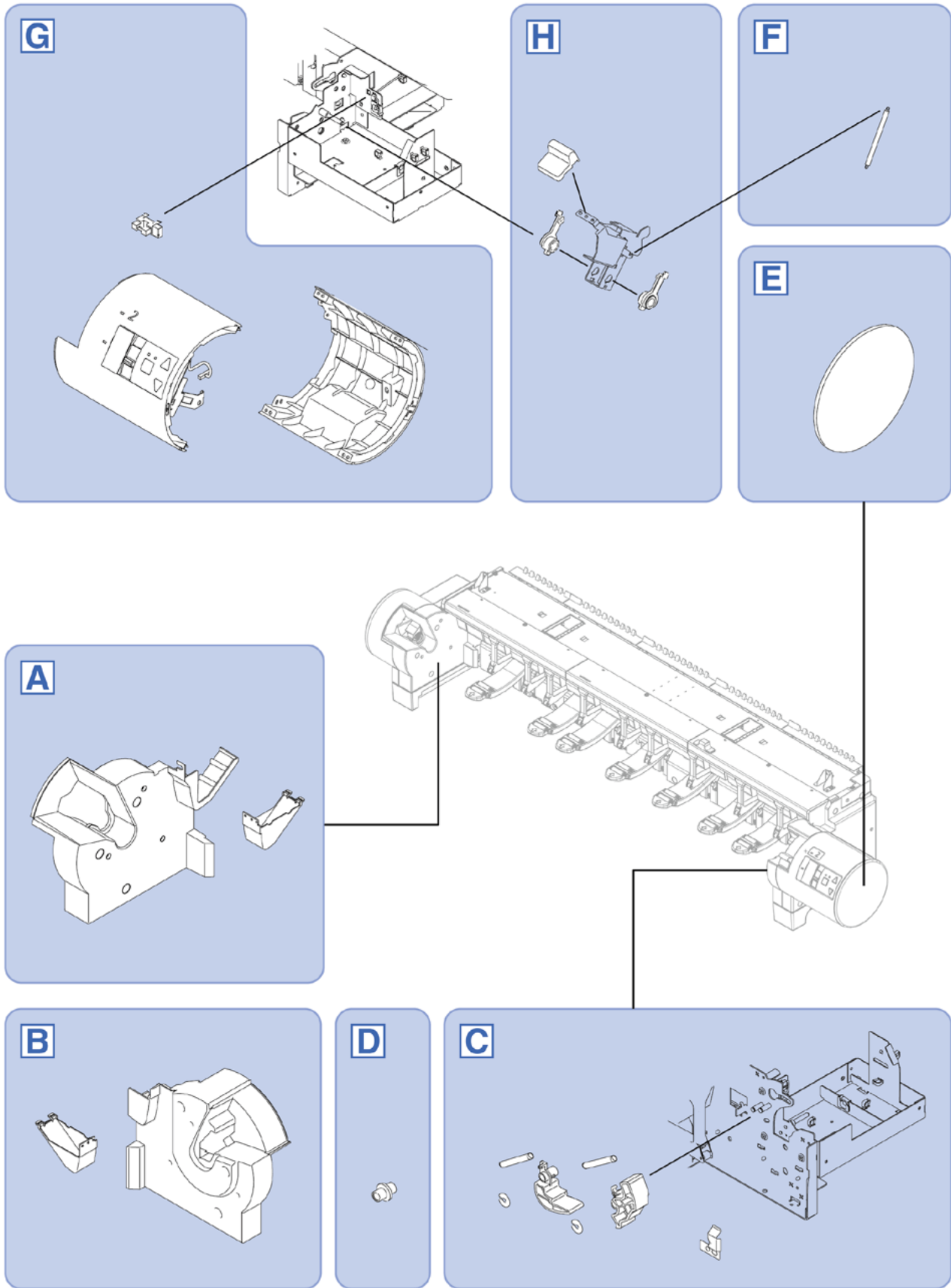


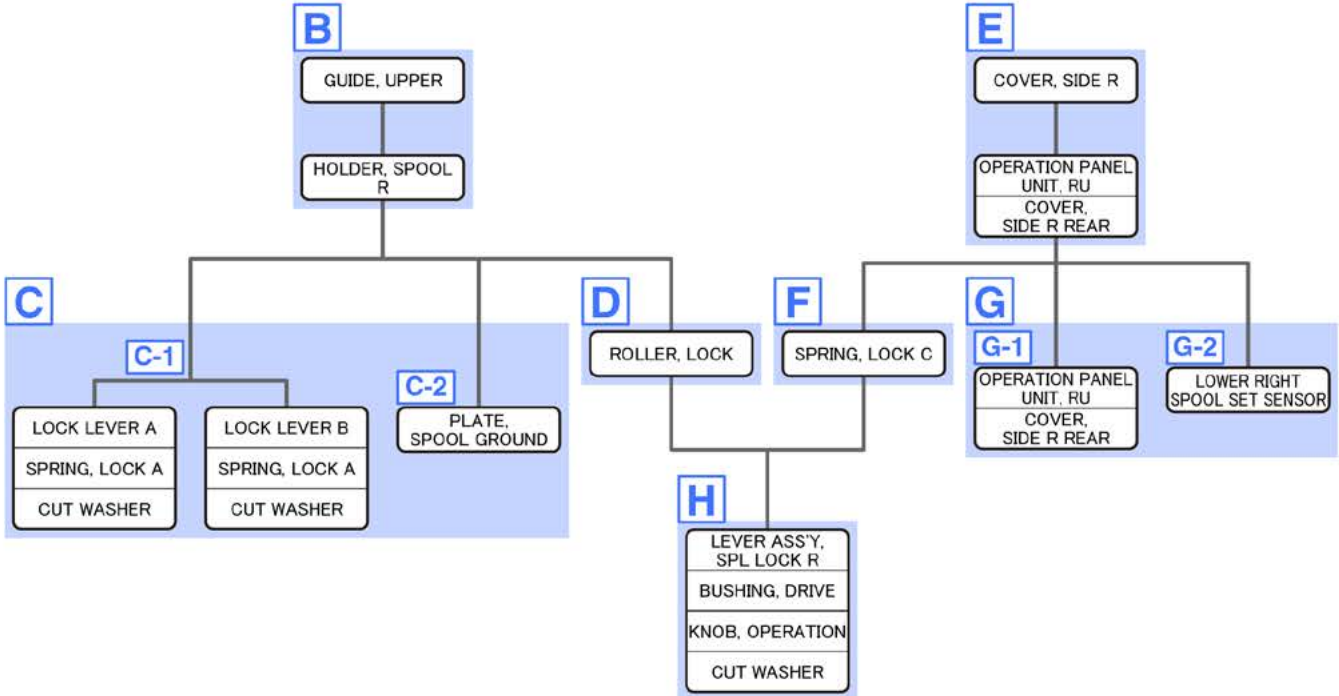
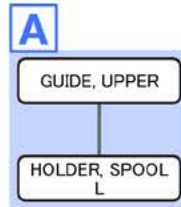
## 8. Disconnect [1] HARNESS ASS'Y, R.

- [2]: 34 connectors
- [3]: 14 wire saddles
- [4]: 2 edge saddles
- [5]: 2 reusable bands



# 16. LOWER ROLL UNIT (1)

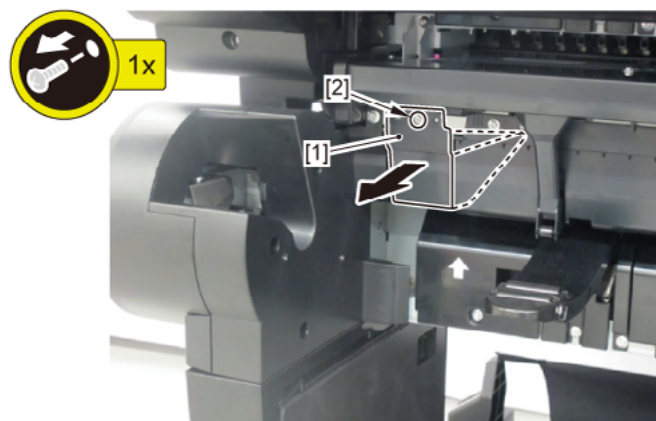




A

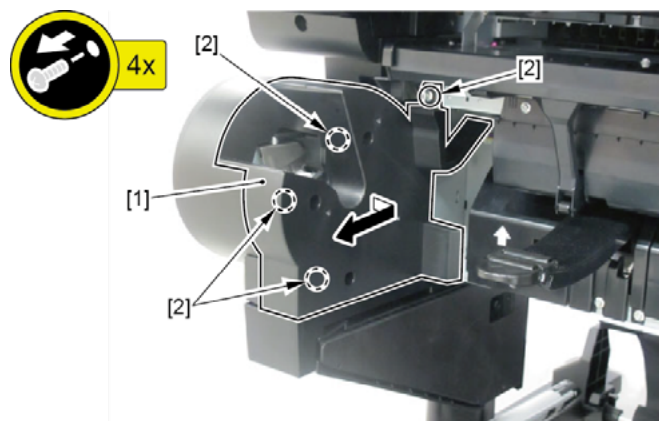
1. From the left side of the printer, remove [1] GUIDE, UPPER.

- [2]: 1 screw



2. Remove [1] HOLDER, SPOOL L.

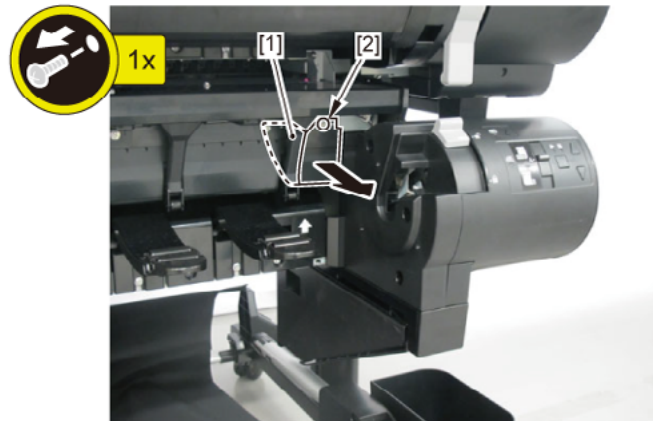
- [2]: 4 screws



**B**

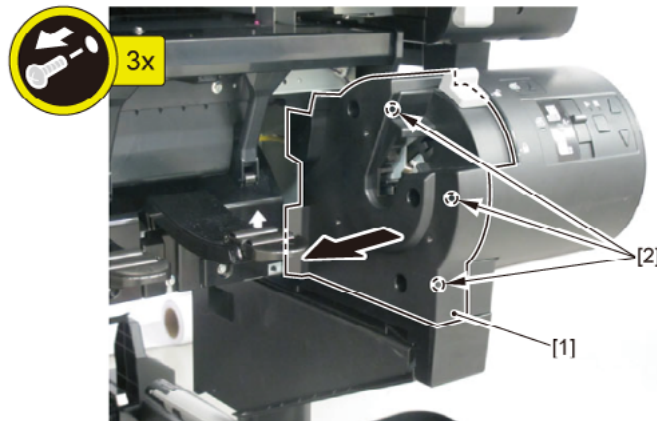
1. From the right side of the printer, remove [1] GUIDE, UPPER.

- [2]: 1 screw



2. Remove [1] HOLDER, SPOOL R.

- [2]: 3 screws



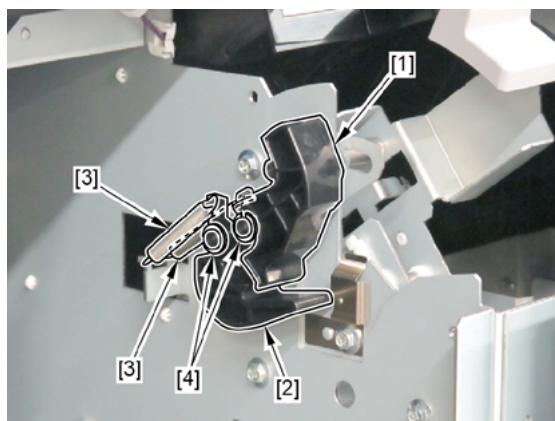
## C

1. Remove all the parts of Group B.

## C-1

2. Remove [1] LOCK LEVER A and [2] LOCK LEVER B.

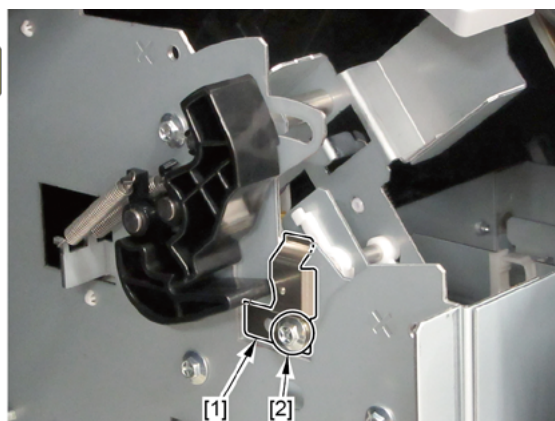
- [3]: 1 SPRING, LOCK A each
- [4]: 1 CUT WASHER each



## C-2

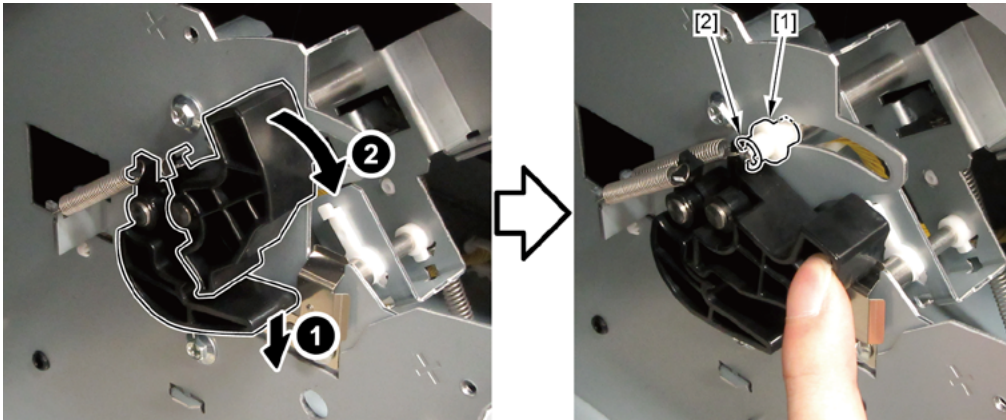
2. Remove [1] PLATE, SPOOL GROUND.

- [2]: 1 screw



**D**

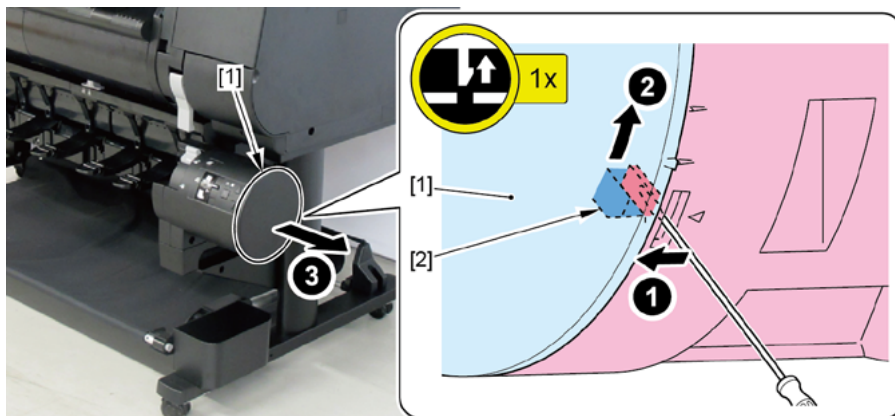
1. Remove all the parts of Group B.
2. Remove [1] ROLLER, LOCK.
  - [2]: 1 E-Ring



## E

## 1. Remove [1] COVER, SIDE R.

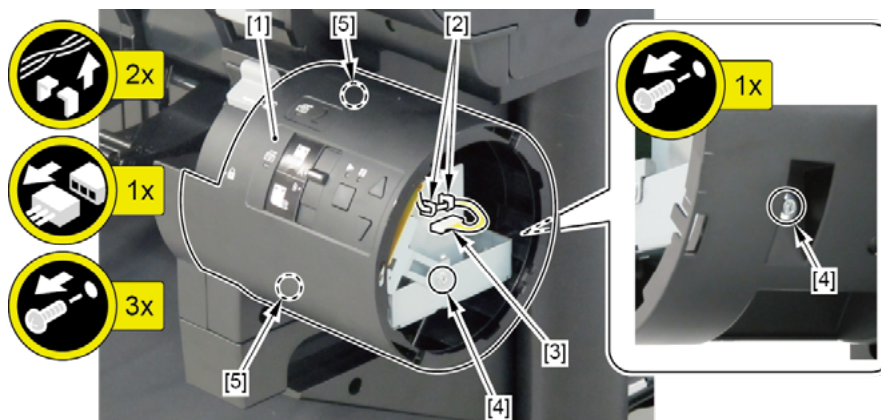
- [2]: 1 claw



## 2. Remove [1] a set of

- OPERATION PANEL UNIT, RU
- COVER, SIDE R REAR.

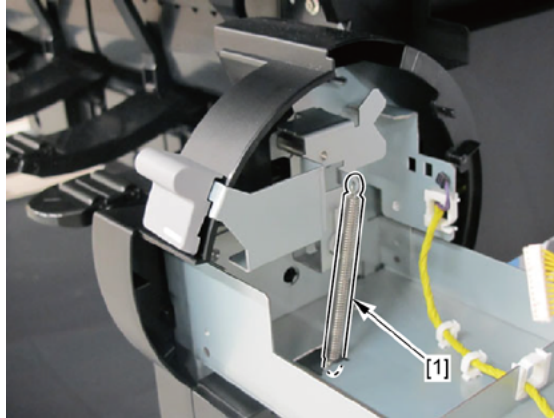
- [2]: 2 wire saddles
- [3]: 1 connector
- [4]: 2 screws
- [5]: 2 binding head screws





**F**

1. Remove all the parts of Group E.
2. Remove [1] SPRING, LOCK C.



**G**

1. Remove all the parts of Group E.

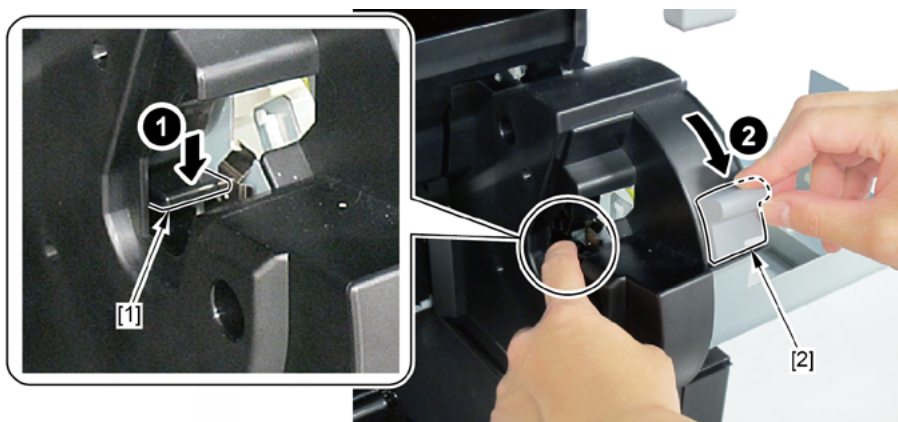
**G-1**

2. Remove [1] OPERATION PANEL UNIT, RU from the [2] COVER, SIDE R REAR.

- [3]: 4 binding head screws

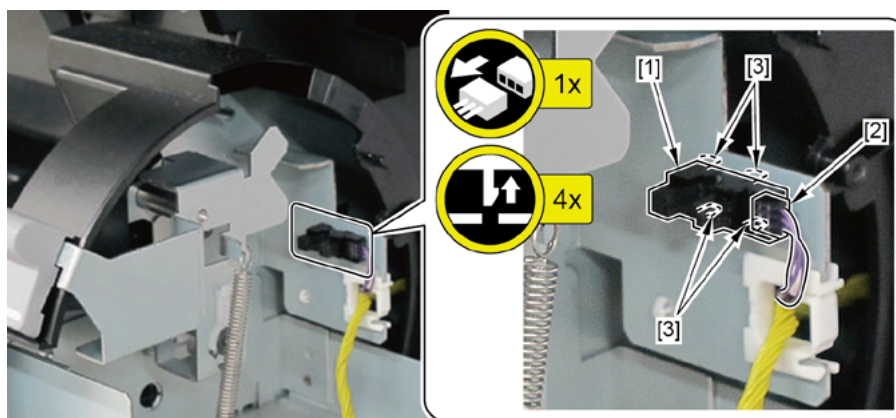
**G-2**

2. While pressing and holding [1] the spool lock lever downward, lower [2] KNOB, OPERATION.



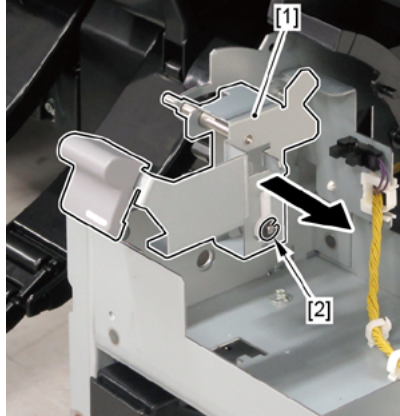
3. Remove [1] LOWER RIGHT SPOOL SET SENSOR.

- [2]: 1 connector
- [3]: 4 claws

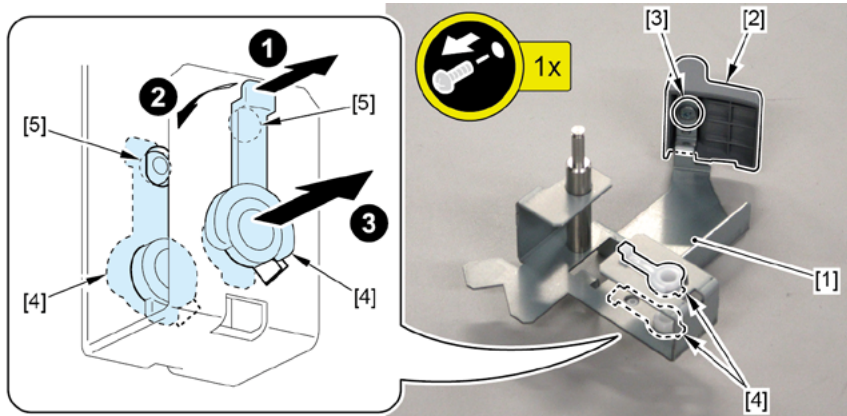


# H

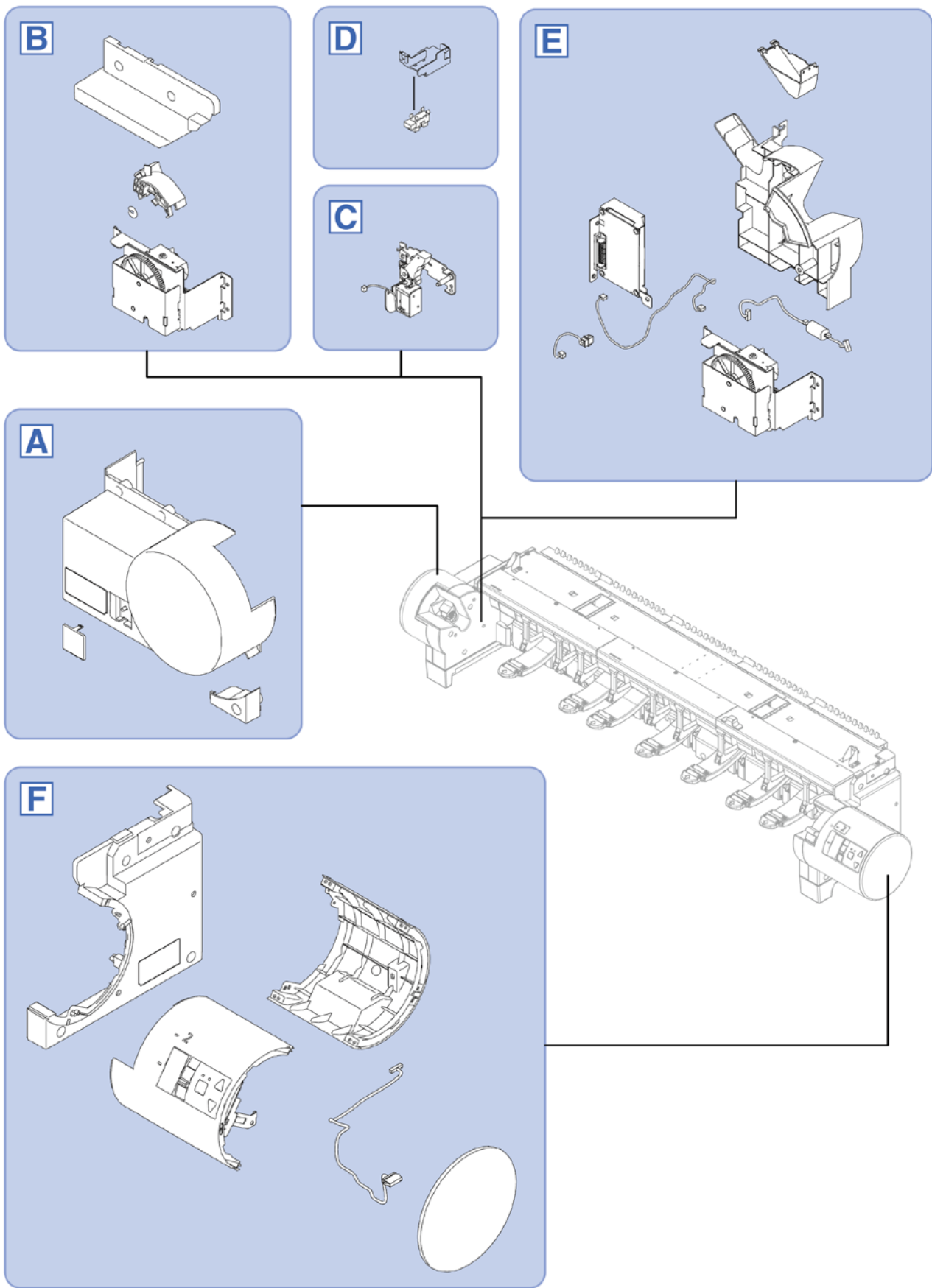
1. Remove all the parts of B, D, E, and F.
2. Remove [1] a set of
  - LEVER ASS'Y, SPL LOCK R
  - KNOB, OPERATION
  - BUSHING, DRIVE
- [2] 1 CUT WASHER

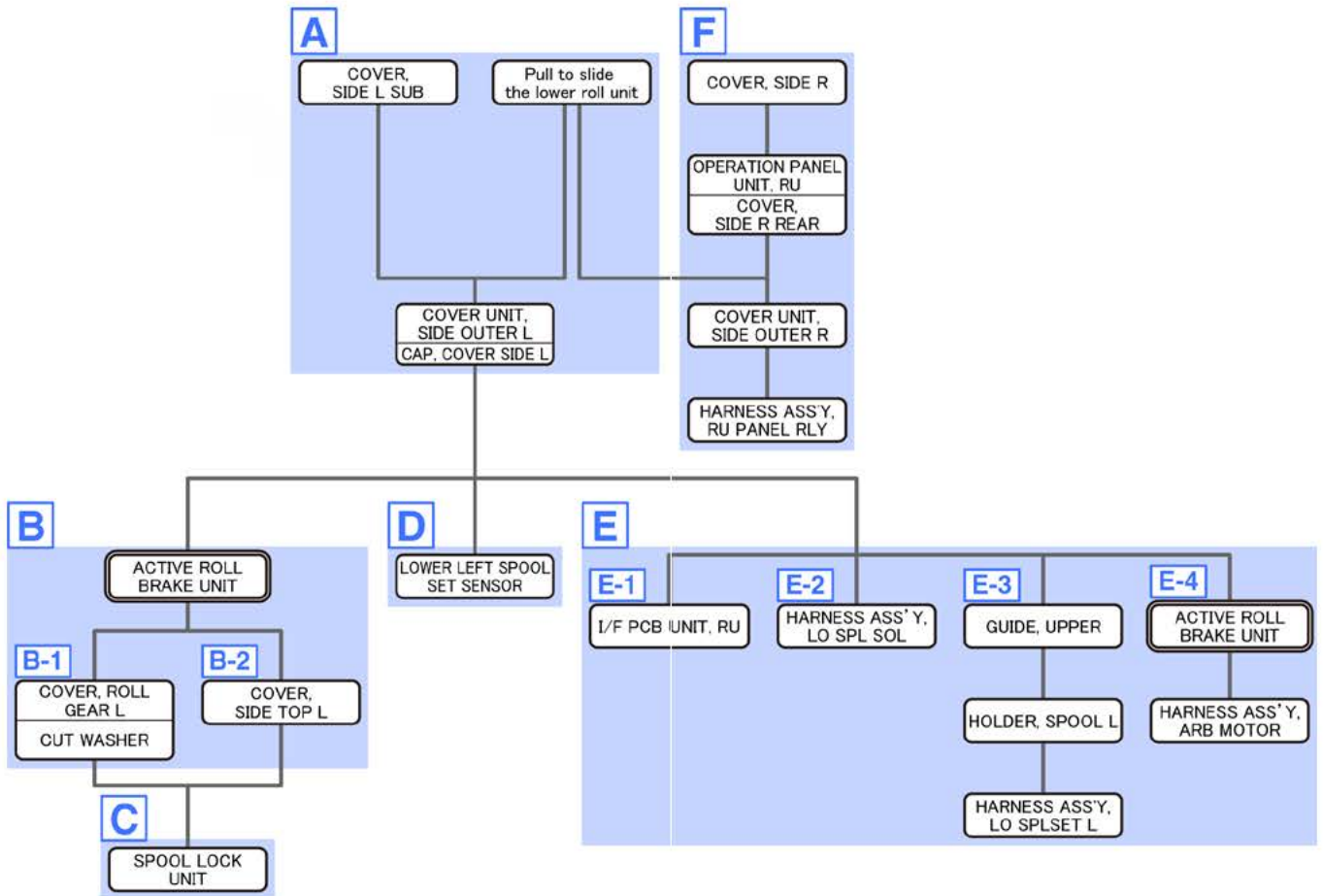


3. Remove [2] KNOB, OPERATION from LEVER ASS'Y, SPL LOCK R
  - [3] 1 Screw
4. Remove [4] BUSHING, DRIVE from [1] LEVER ASS'Y, SPL LOCK R
  - [5] 1 boss each



# 17. LOWER ROLL UNIT (2)

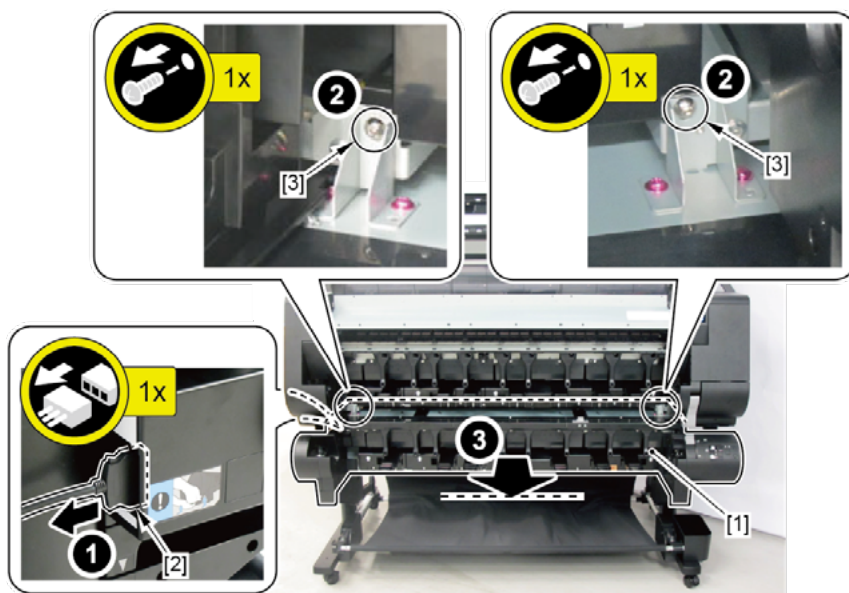




A

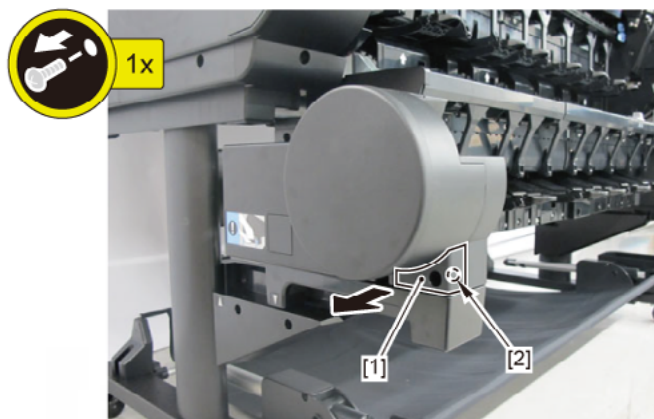
1. Pull to slide [1] the lower roll unit toward you.

- [2]: 1 connector
- [3]: 2 hexagon socket screws

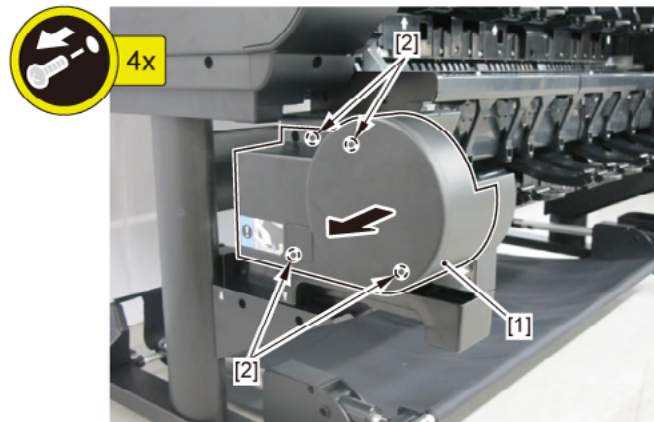


2. Remove [1] COVER, SIDE L SUB.

- [2]: 1 screw

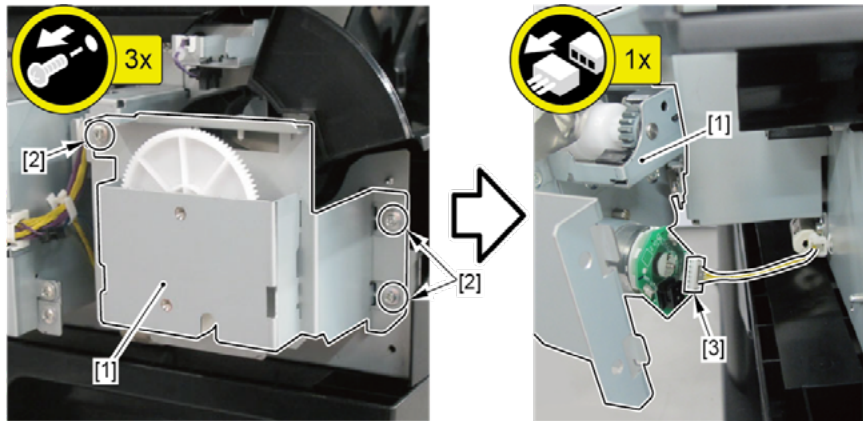


3. Remove [1] a set of
    - COVER UNIT, SIDE OUTER L
    - CAP, COVER SIDE L.
- [2]: 4 screws



## B

1. Remove all the parts of Group A.
2. Remove [1] ACTIVE ROLL BRAKE UNIT.
  - [2]: 3 screws
  - [3]: 1 connector



### Notes when assembling the unit:

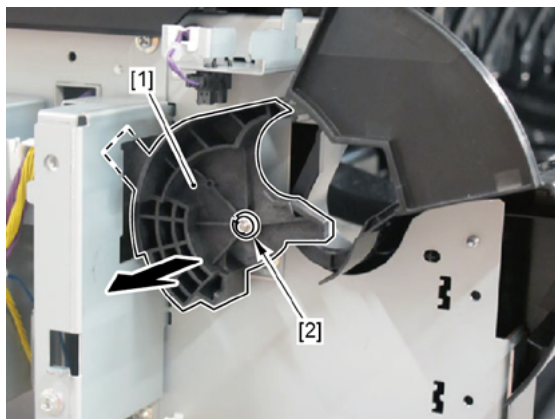
Perform adjustment at the end of assembly.

[SERVICE MODE > ADJUSTMENT > LOWER ARB CALIB]

**B-1**

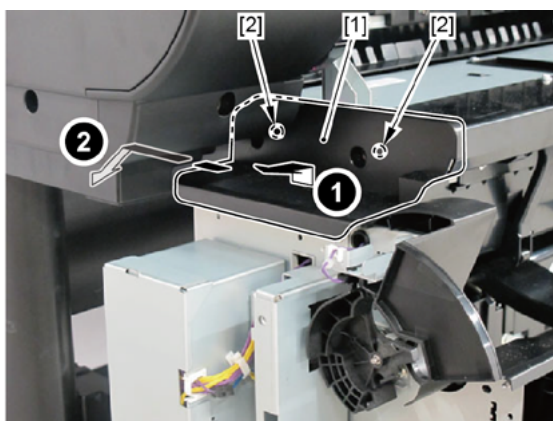
3. Remove [1] COVER, ROLL GEAR L.

- [2]: 1 CUT WASHER

**B-2**

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

- [2]: 2 screws

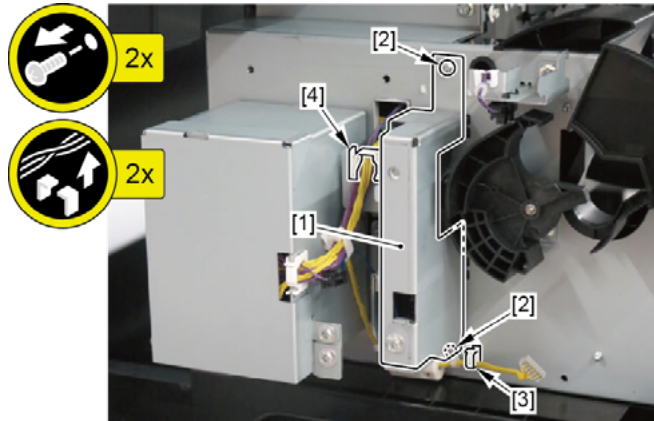




C

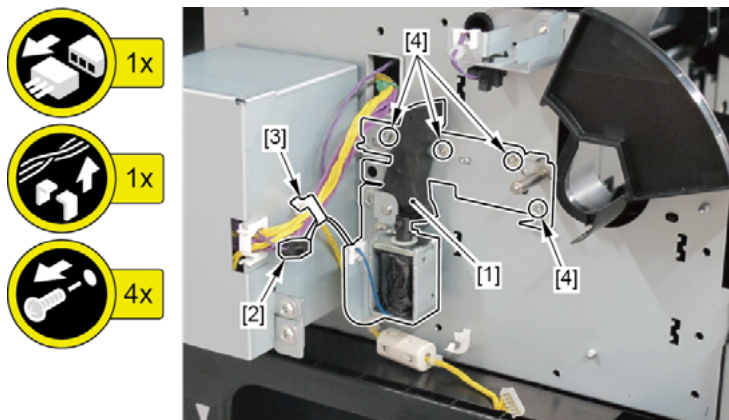
1. Remove all the parts of Groups A and B.
2. Remove [1] the plate.

- [2]: 2 screws
- [3]: 1 wire saddle
- [4]: 1 edge saddle



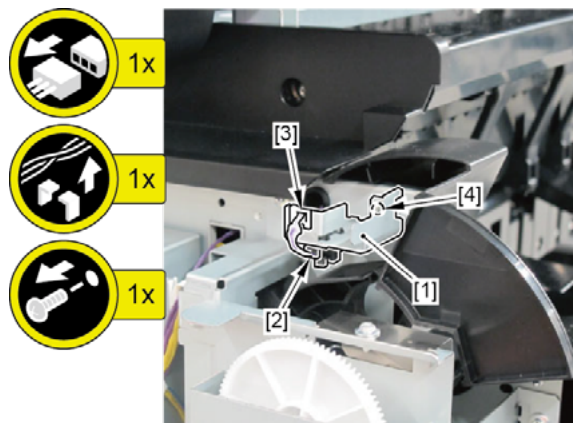
3. Remove [1] SPOOL LOCK UNIT.

- [2]: 1 connector
- [3]: 1 wire saddle
- [4]: 4 screws

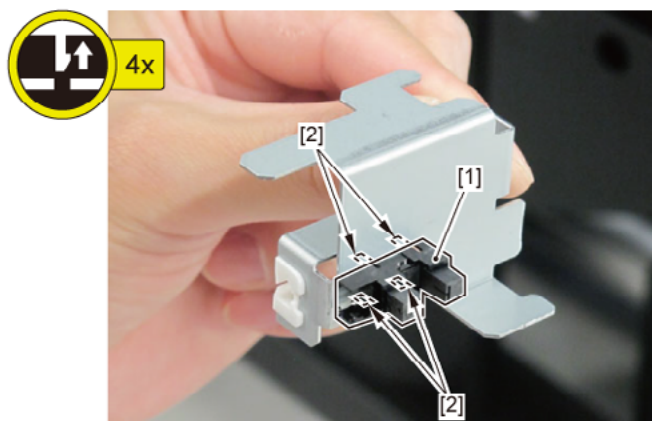


## D

1. Remove all the parts of Group A.
2. Remove [1] the plate (with the LOWER LEFT SPOOL SET SENSOR).
  - [2]: 1 connector
  - [3]: 1 edge saddle
  - [4]: 1 screw

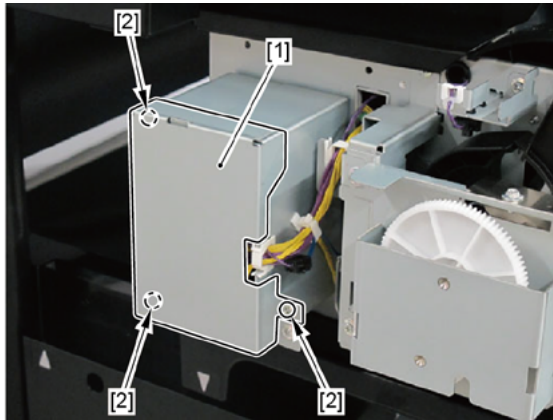


3. Remove [1] LOWER LEFT SPOOL SET SENSOR.
  - [2]: 4 claws

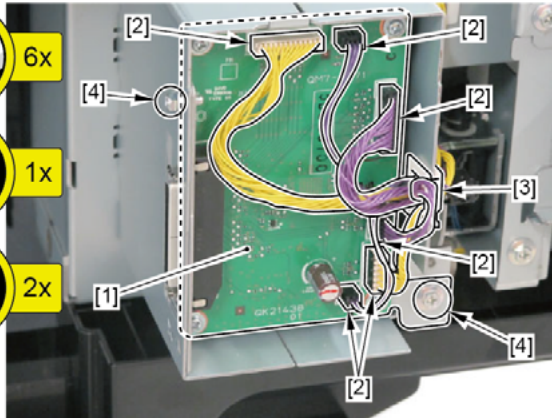


**E**

1. Remove all the parts of Group A.
2. Remove [1] the plate.
  - [2]: 3 screws

**E-1**

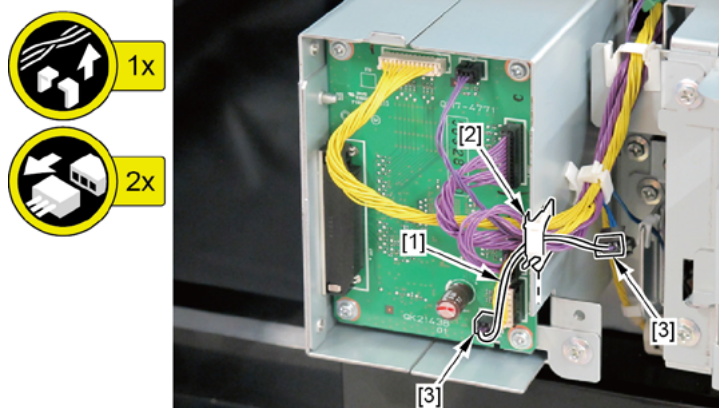
3. Remove [1] I/F PCB UNIT, RU.
  - [2]: 6 connectors
  - [3]: 1 edge saddle
  - [4]: 2 screws



## E-2

## 3. Disconnect [1] HARNESS ASS'Y, LO SPL SOL.

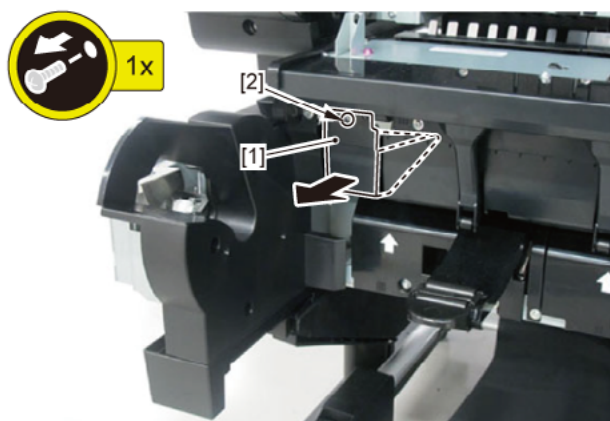
- [2]: 1 edge saddle
- [3]: 2 connectors



## E-3

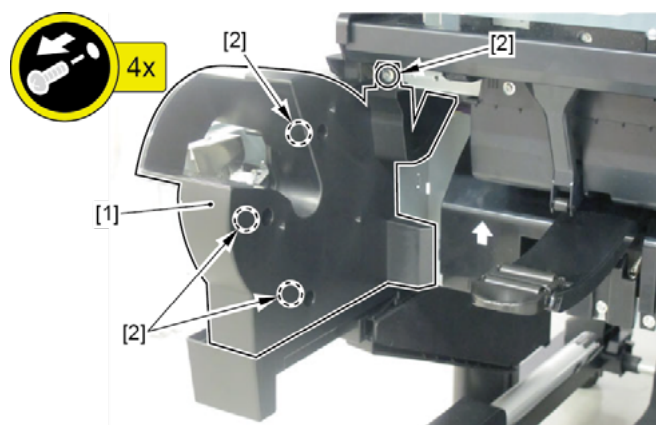
## 3. From the left side of the printer, remove [1] GUIDE, UPPER.

- [2]: 1 screw



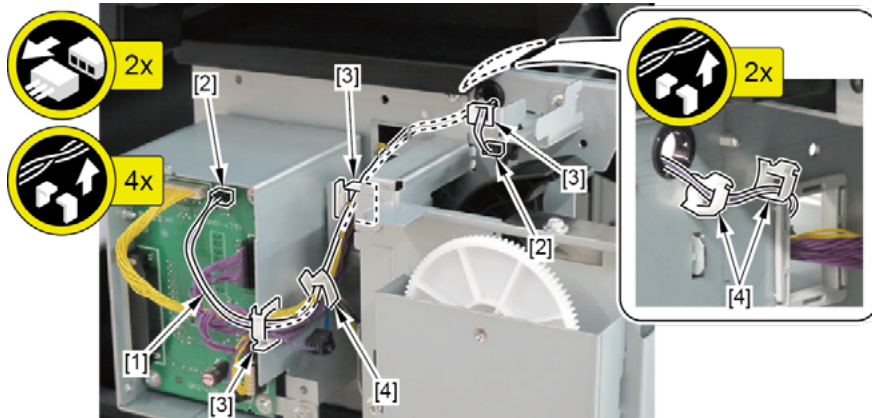
## 4. Remove [1] HOLDER, SPOOL L.

- [2]: 4 screws



## 5. Disconnect [1] HARNESS ASS'Y, LO SPLSET L.

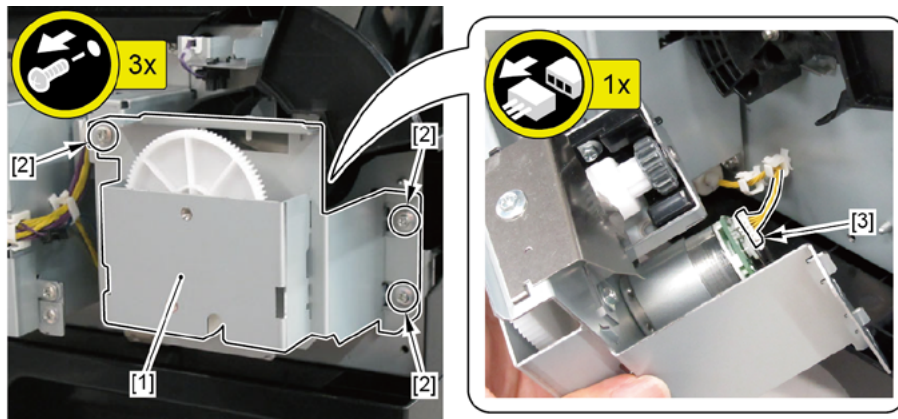
- [2]: 2 connectors
- [3]: 3 edge saddles
- [4]: 3 wire saddles



### E-4

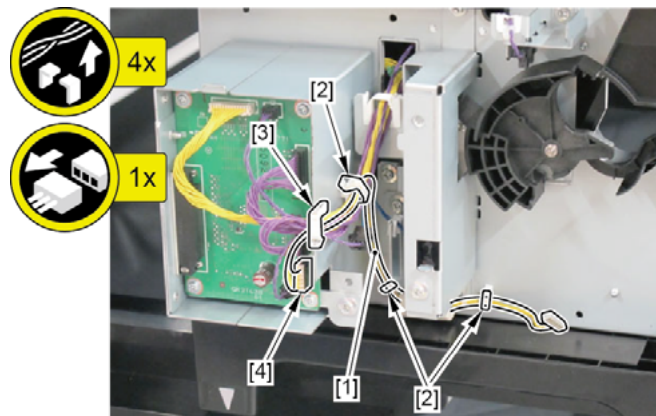
## 3. Remove [1] ACTIVE ROLL BRAKE UNIT.

- [2]: 3 screws
- [3]: 1 connector



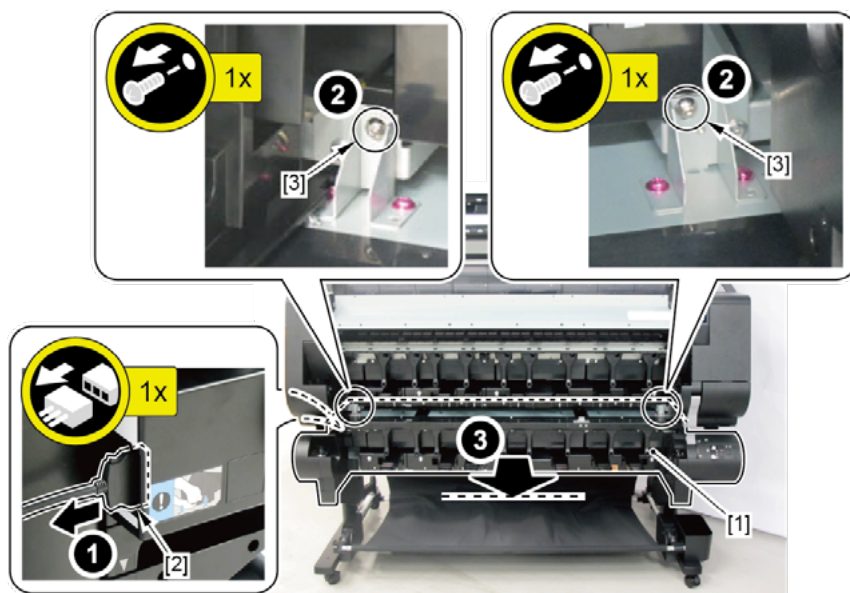
## 4. Disconnect [1] HARNESS ASS'Y, ARB MOTOR.

- [2]: 3 wire saddles
- [3]: 1 edge saddle
- [4]: 1 connector



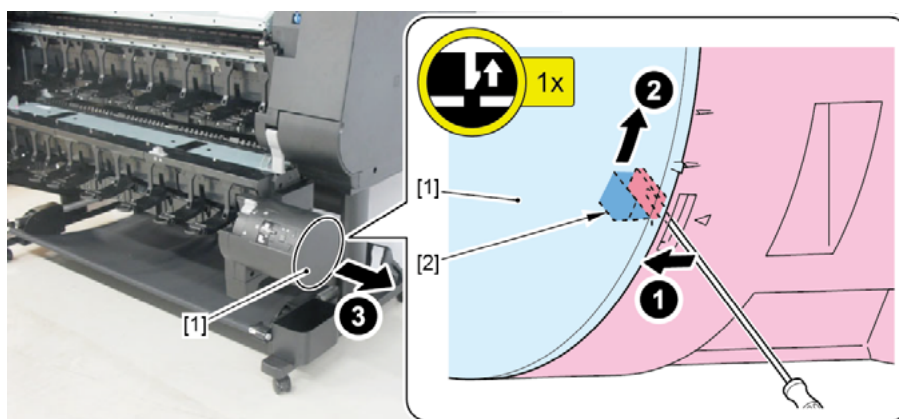
## F

1. Pull to slide [1] the lower roll unit toward you.
  - [2]: 1 connector
  - [3]: 2 screws



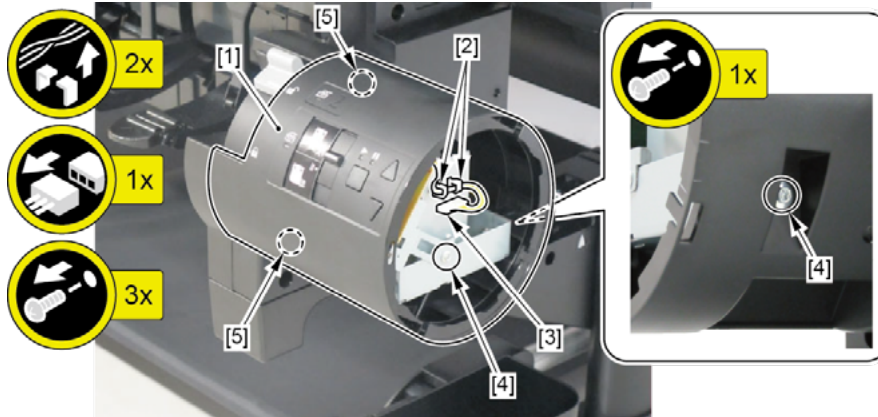
2. Remove [1] COVER, SIDE R.

- [2]: 1 claw



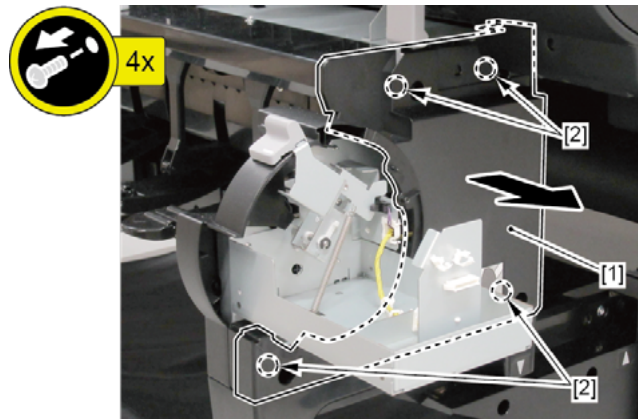
- 3.** Remove [1] a set of
- OPERATION PANEL UNIT, RU
  - COVER, SIDE R REAR.

- [2]: 2 wire saddles
- [3]: 1 connector
- [4]: 2 screws
- [5]: 2 binding head screws



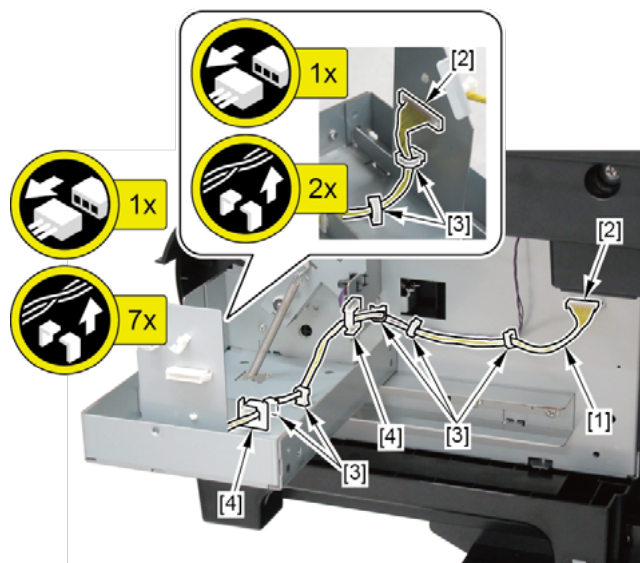
- 4.** Remove [1] COVER UNIT, SIDE OUTER R.

- [2]: 4 screws



## 5. Disconnect [1] HARNESS ASS'Y, RU PANEL RLY.

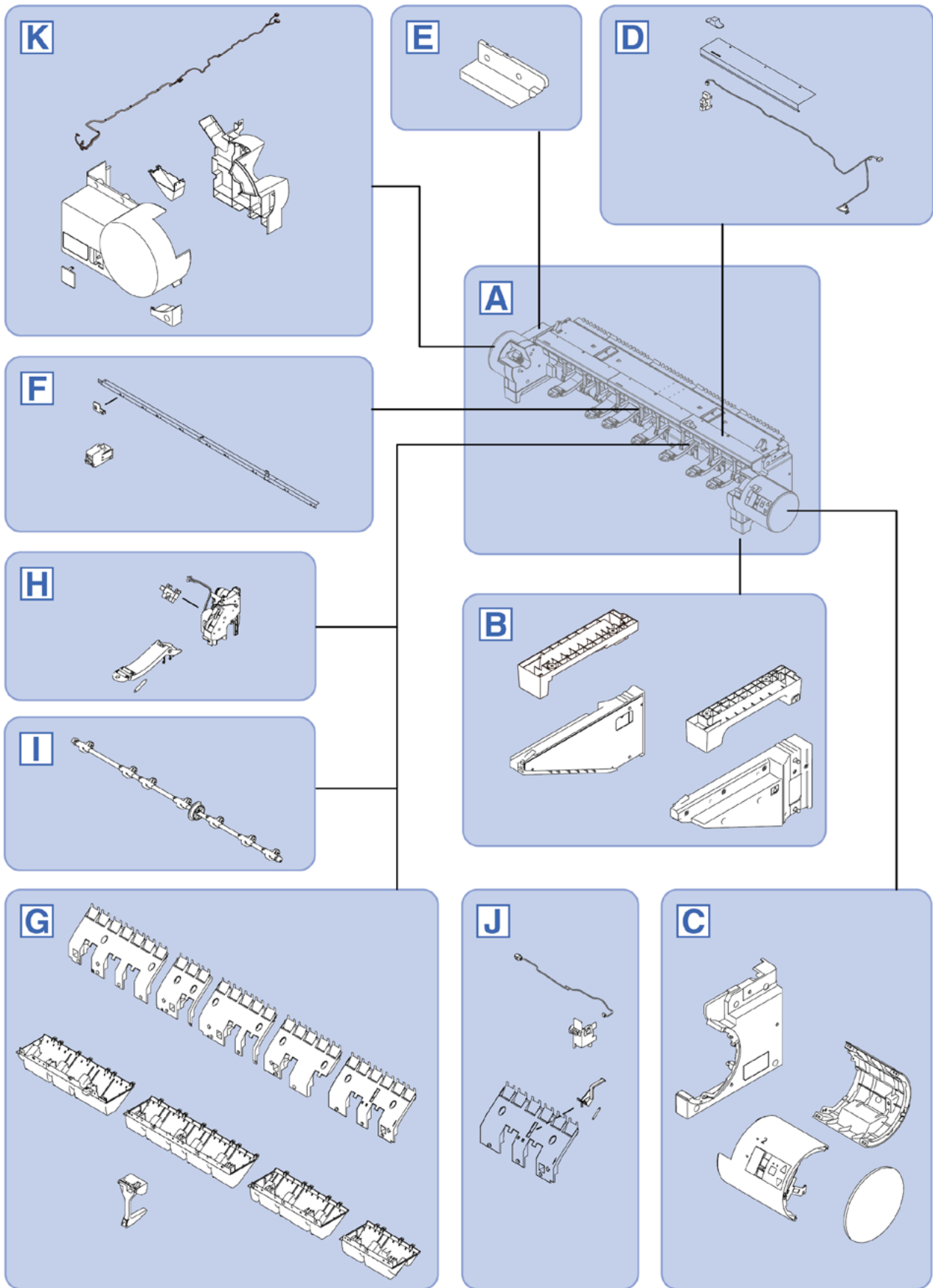
- [2]: 2 connectors
- [3]: 9 wire saddles

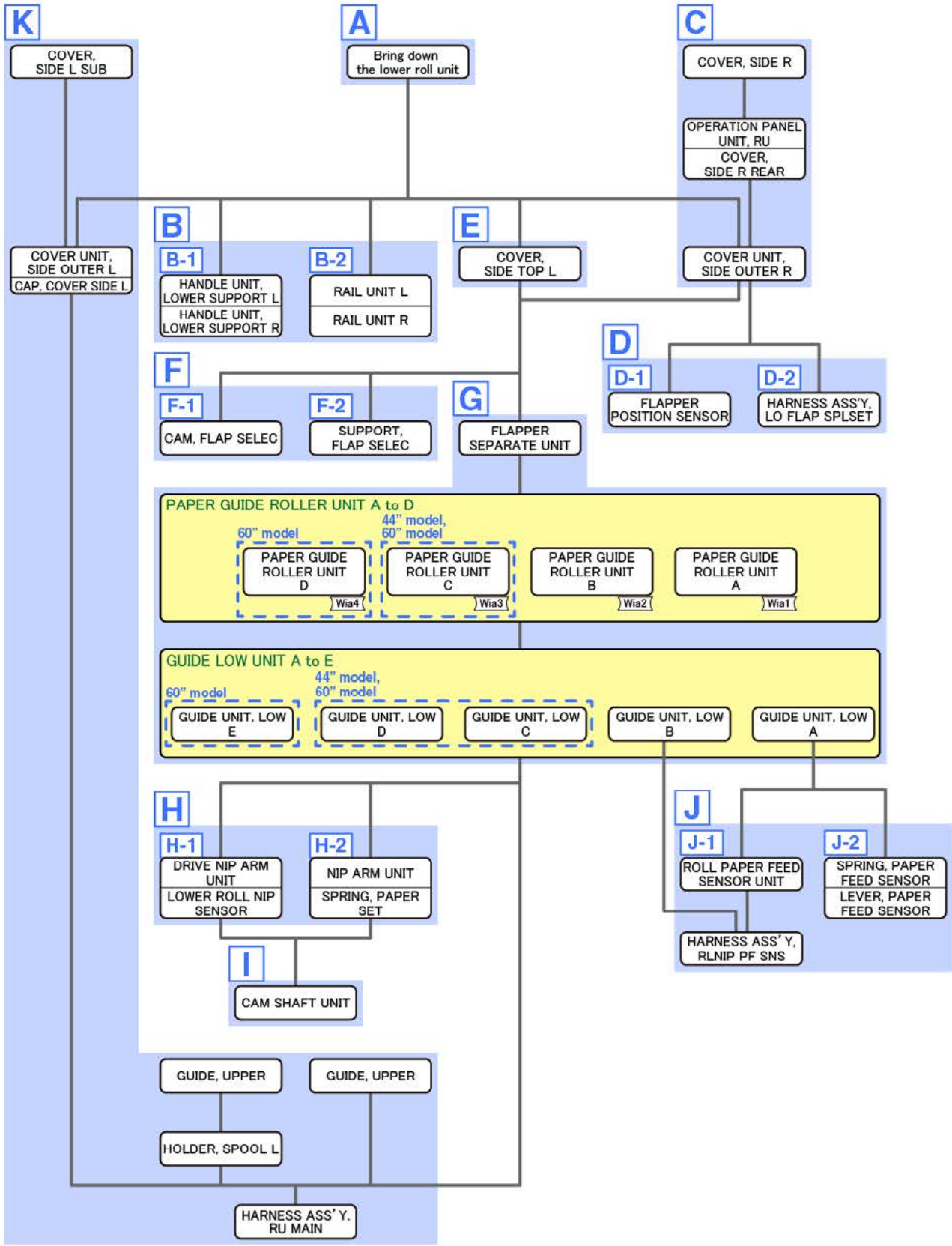






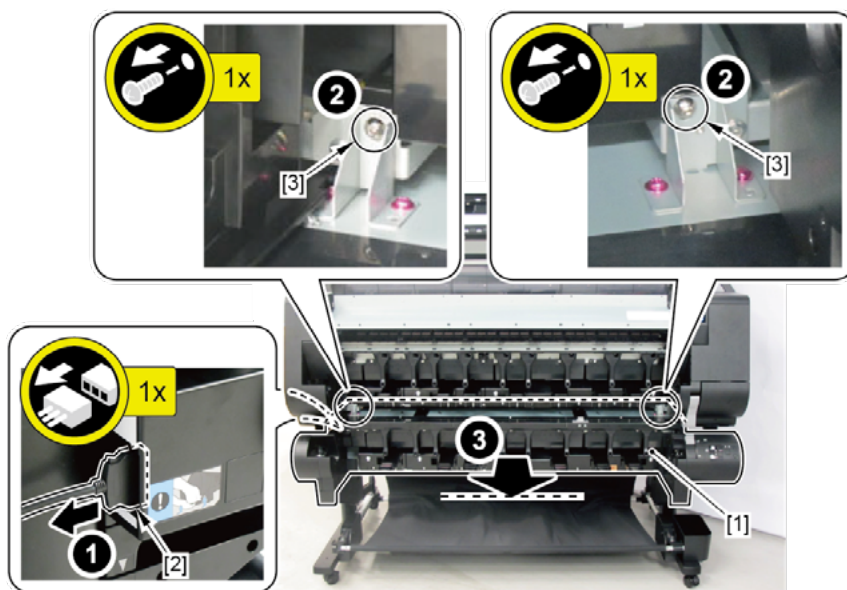
# 18. LOWER ROLL UNIT (3)



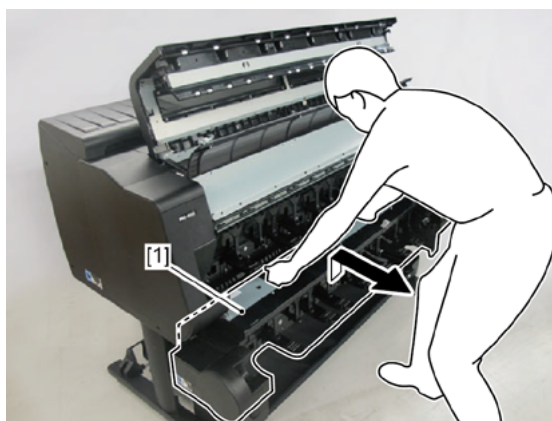


## A

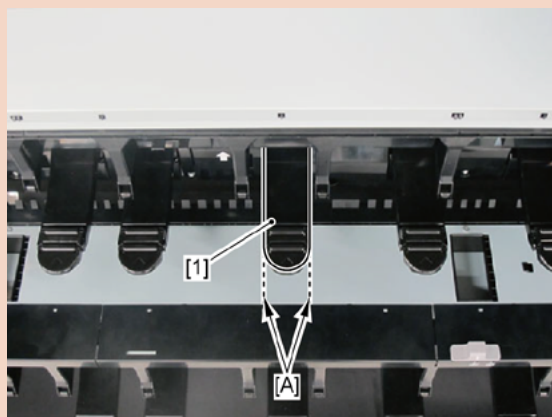
1. Pull to slide [1] the lower roll unit toward you.
  - [2]: 1 connector
  - [3]: 2 screws



2. Bring down [1] the lower roll unit on the floor.


**Notes when assembling the unit:**

Adjust the position of the lower roll unit so that the lines on the top of the unit ([A]) are aligned to the frame lines of [1] the center NIP ARM UNIT as shown below.


**Point**

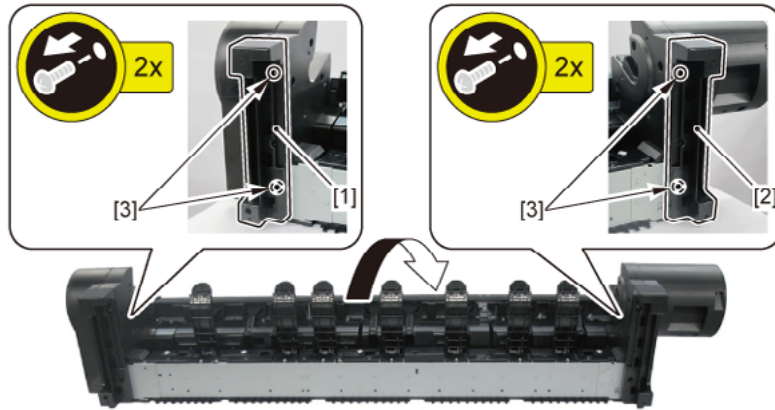
**B**

1. Remove all the parts of Group A.

**B-1**

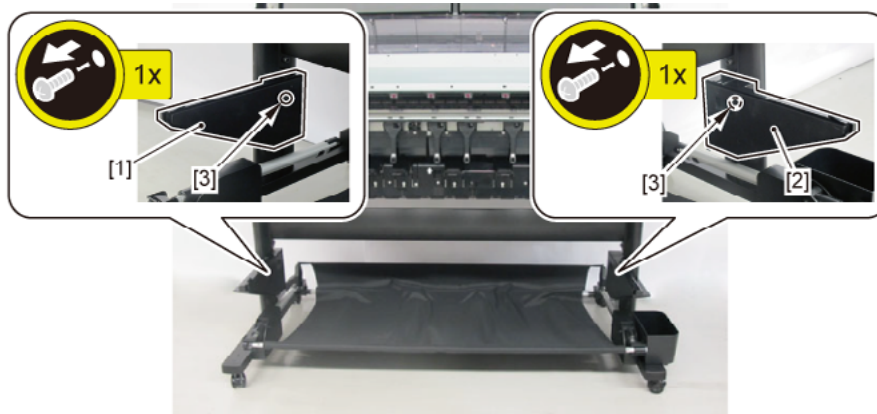
2. Remove [1] HANDLE UNIT, LOWER SUPPORT L and [2] HANDLE UNIT, LOWER SUPPORT R.

- [3]: 2 screws each

**B-2**

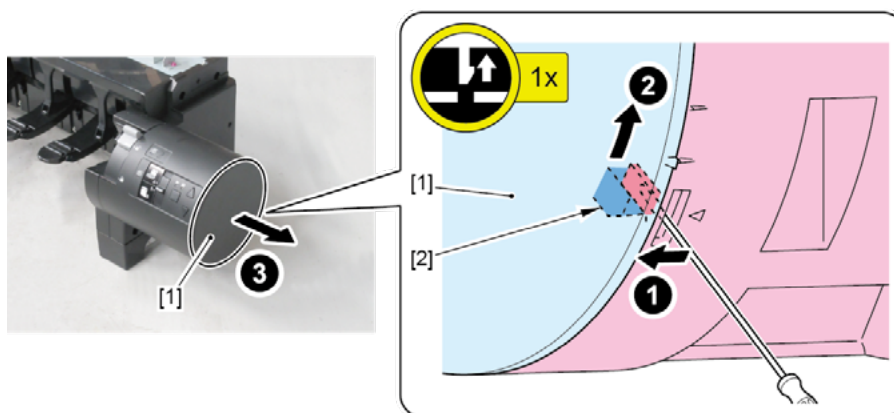
2. Remove [1] RAIL UNIT L and [2] RAIL UNIT R.

- [3]: 1 screw each (hexagon socket cap screw, M8)

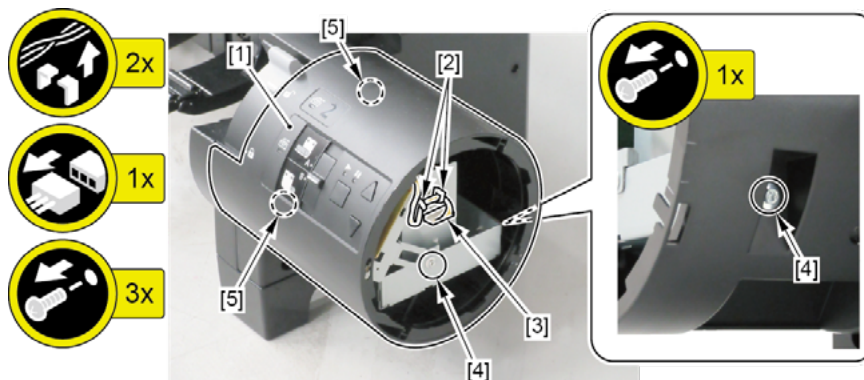


## C

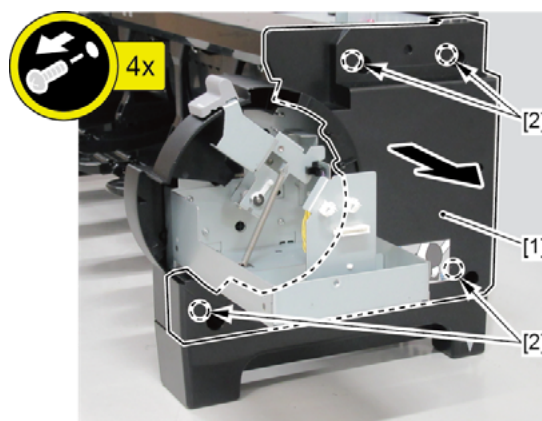
1. Remove all the parts of Group A.
2. Remove [1] COVER, SIDE R.
  - [2]: 1 claw



3. Remove [1] a set of
  - OPERATION PANEL UNIT, RU
  - COVER, SIDE R REAR.
  - [2]: 2 wire saddles
  - [3]: 1 connector
  - [4]: 2 screws
  - [5]: 2 binding head screws

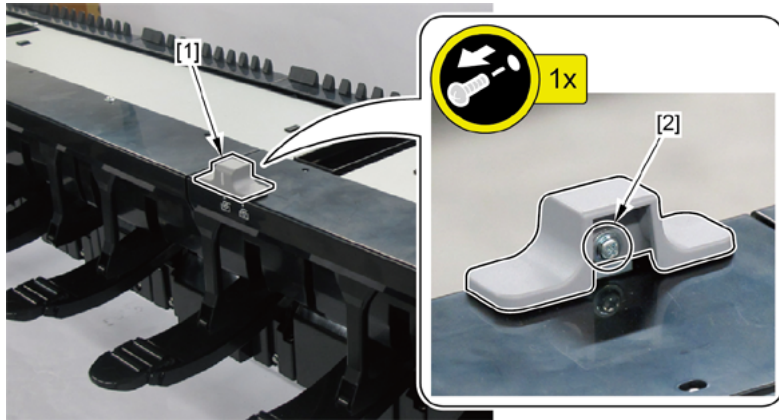


4. Remove [1] COVER UNIT, SIDE OUTER R.
  - [2]: 4 screws

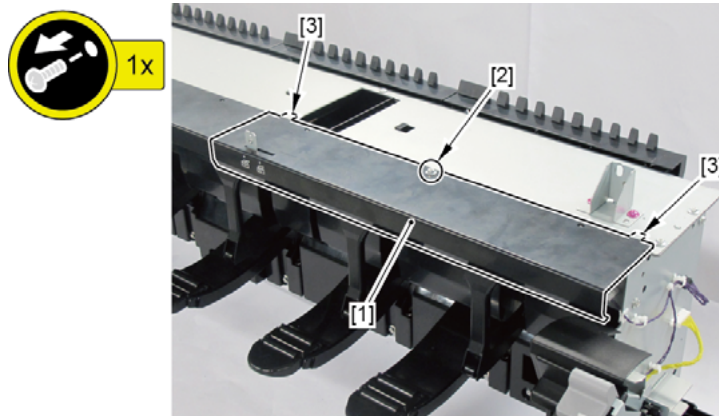


**D**

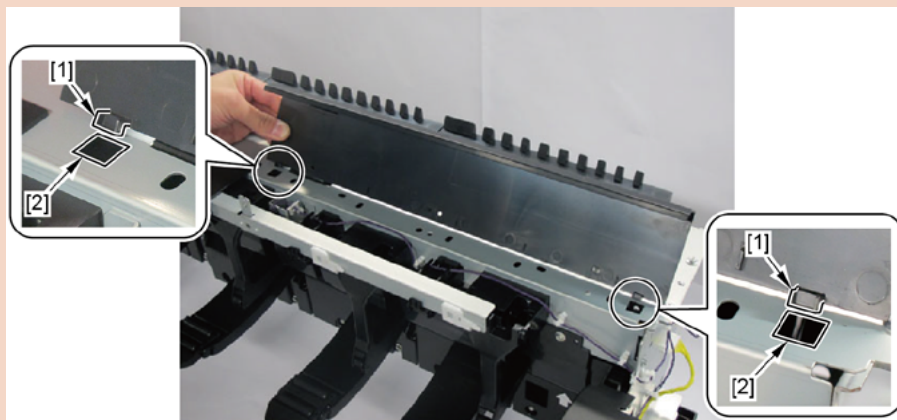
1. Remove all the parts of Groups A and C.
2. Remove [1] the cap.
  - [2]: 1 screw



3. Remove [1] the right top cover.
  - [2]: 1 screw
  - [3]: 2 hooks

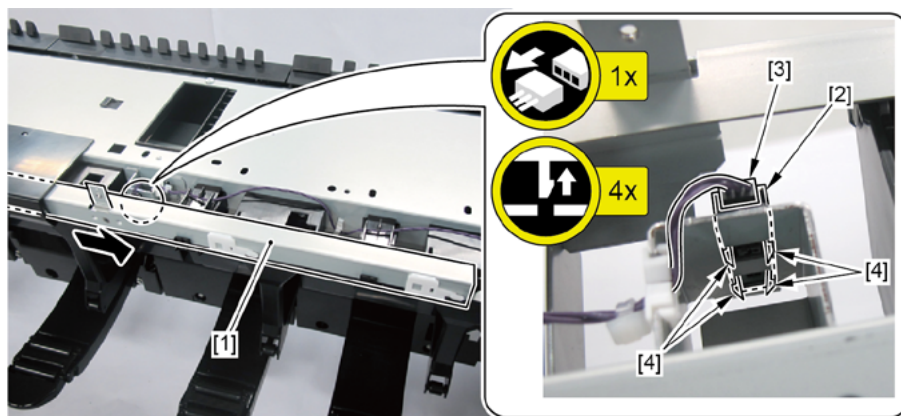
**Notes when assembling the unit:**

Securely fit [1] the hook into [2] the hole.

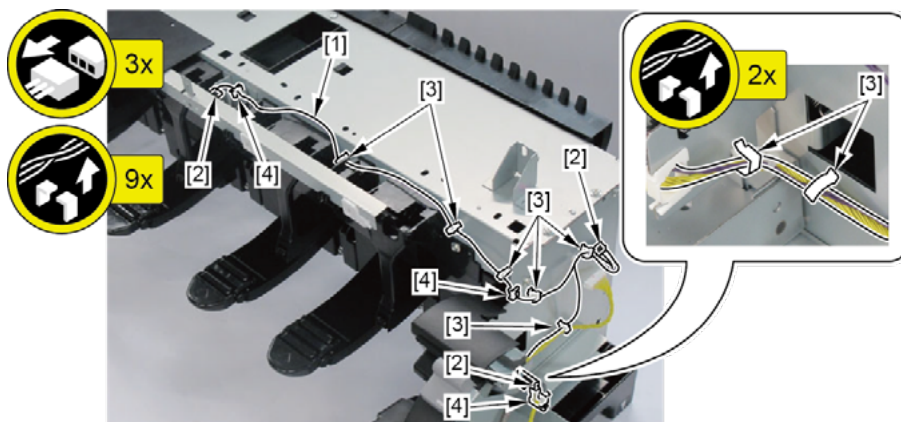


**D-1**

4. Slide [1] the plate to the right, and remove [2] FLAPPER POSITION SENSOR.
- [3]: 1 connector
  - [4]: 4 claws

**D-2**

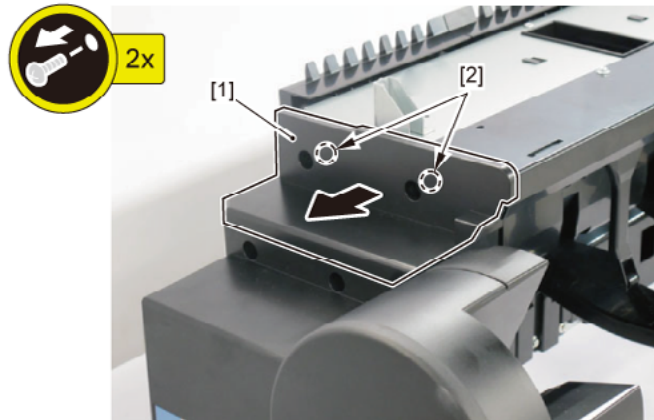
4. Remove [1] HARNESS ASS'Y, LO FLAP SPLSET.
- [2]: 3 connectors
  - [3]: 8 wire saddles
  - [4]: 3 edge saddles



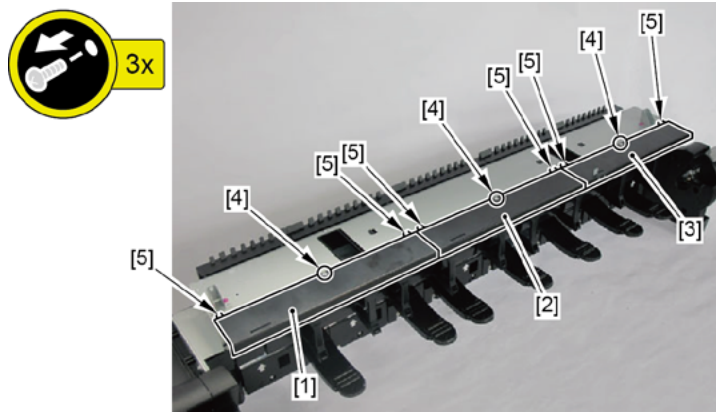


**E**

1. Remove all the parts of Group A.
2. Remove [1] COVER, SIDE TOP L.
  - [2]: 2 screws

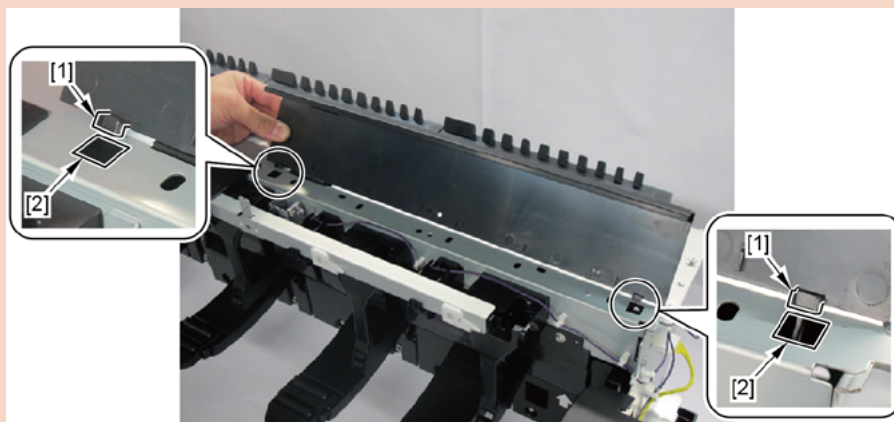


3. Remove the top covers [1] to [3].
  - [4]: 1 screw each
  - [5]: 2 hooks each

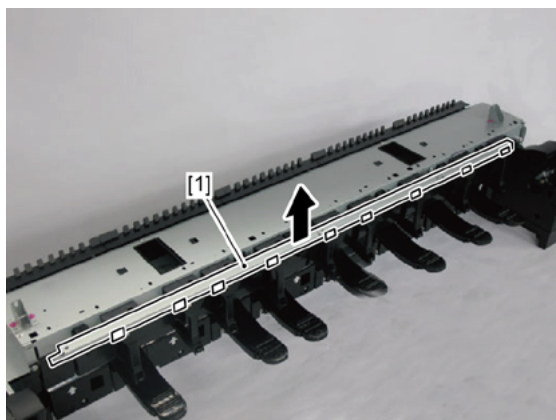


#### Notes when assembling the unit:

Securely fit [1] the hook into [2] the hole.



- Remove [1] the plate (with the CAM, FLAP SELEC).

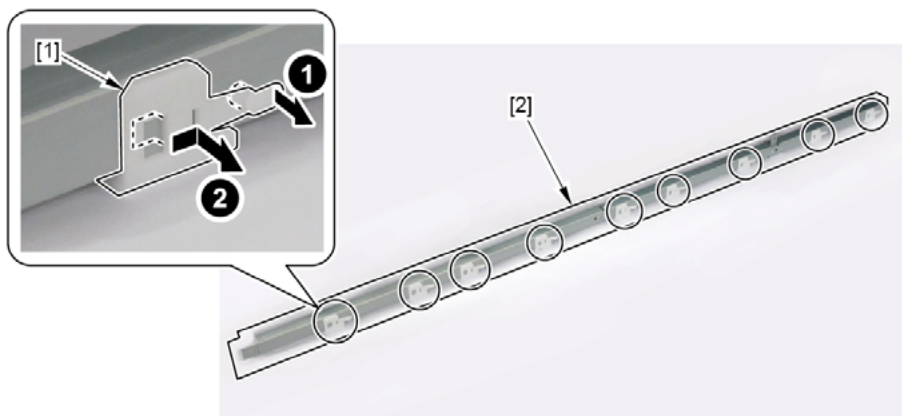


**F**

- Remove all the parts of Groups A, C, and E.

**F-1**

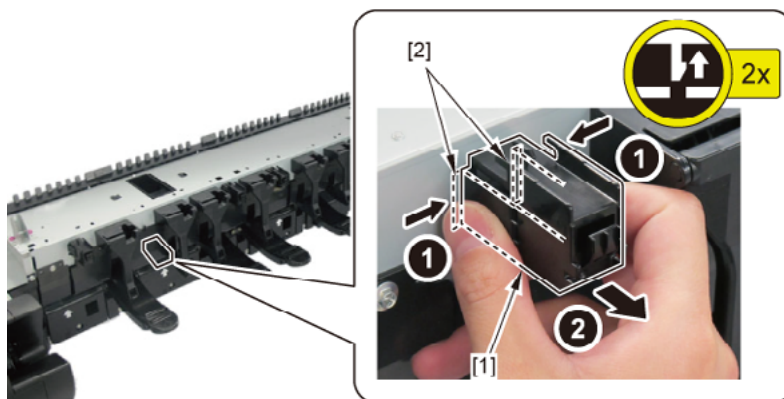
- Remove nine pieces of [1] CAM, FLAP SELEC from [2] the plate (five pieces in 24" model, twelve pieces in 60" model).



**F-2**

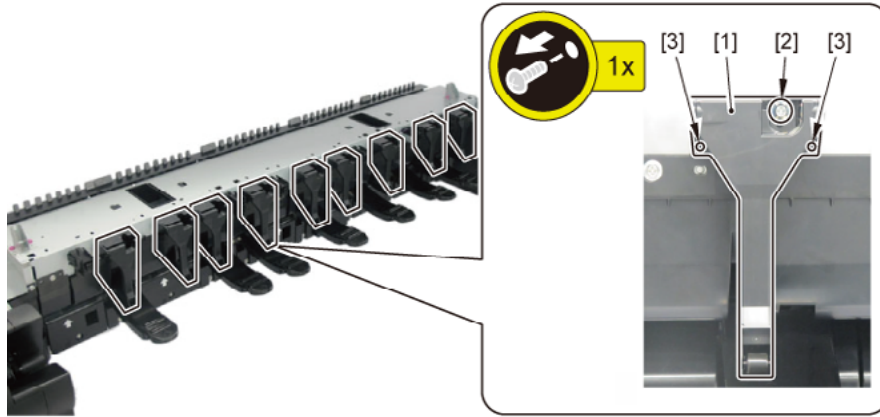
- Remove [1] SUPPORT, FLAP SELEC.

· [2]: 2 claws

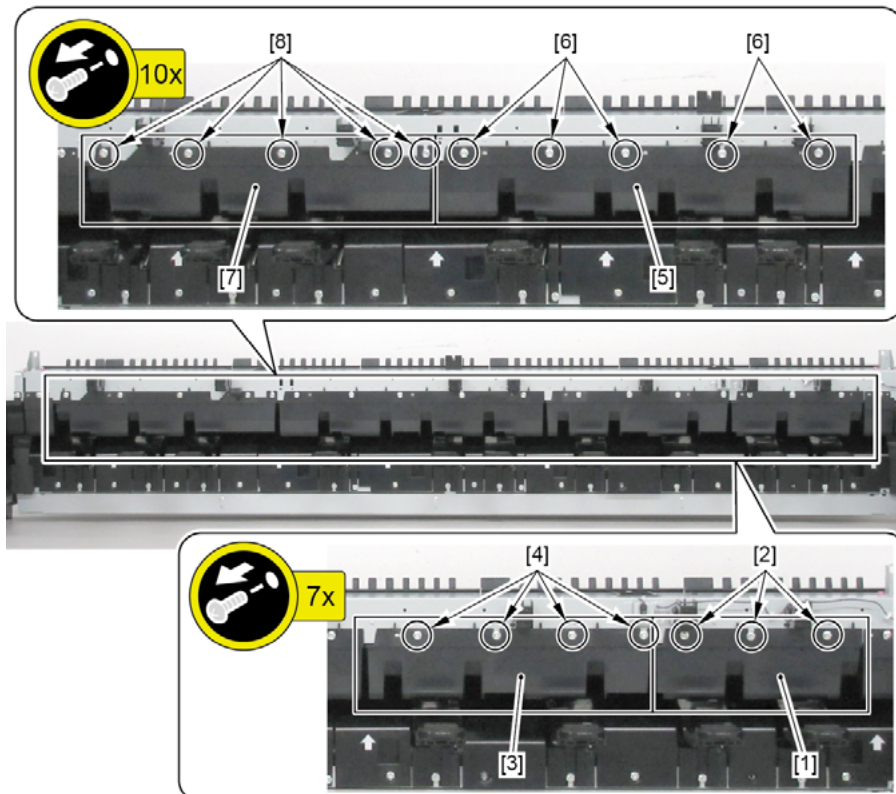


**G**

1. Remove all the parts of Groups A, C, and E.
2. Remove nine pieces of [1] FLAPPER SEPARATE UNIT (five pieces in 24" model, twelve pieces in 60" model).
  - [2]: 1 screw each
  - [3]: 2 bosses each

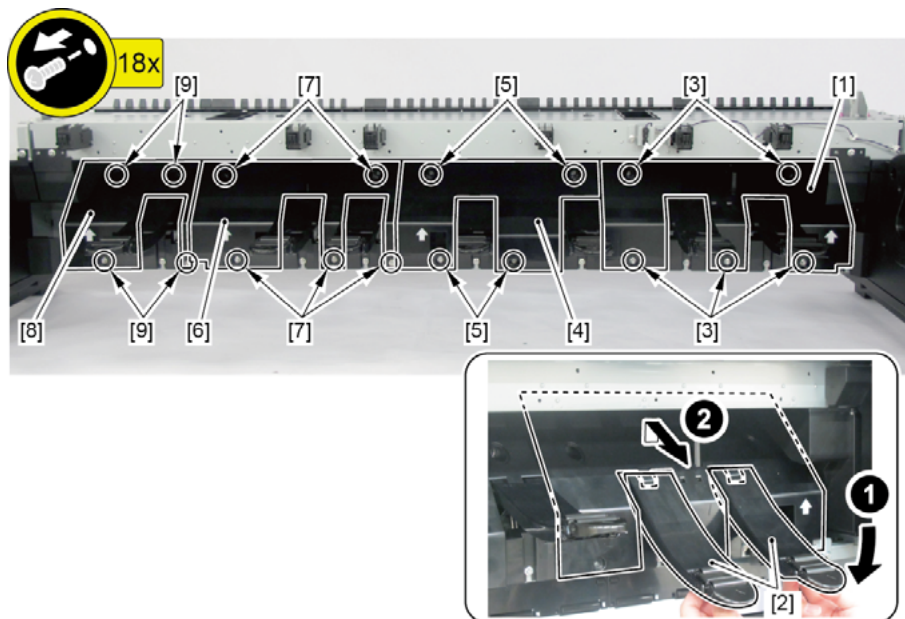


3. Remove [1] PAPER GUIDE ROLLER UNIT, RU A.
  - [2]: 3 screws
4. Remove [3] PAPER GUIDE ROLLER UNIT, RU B.
  - [4]: 5 screws
5. Remove [5] PAPER GUIDE ROLLER UNIT, RU C (not applicable to 24" model).
  - [6]: 5 screws
6. Remove [7] PAPER GUIDE ROLLER UNIT, RU D (not applicable to and 24" model, 44" model).
  - [8]: 5 screws

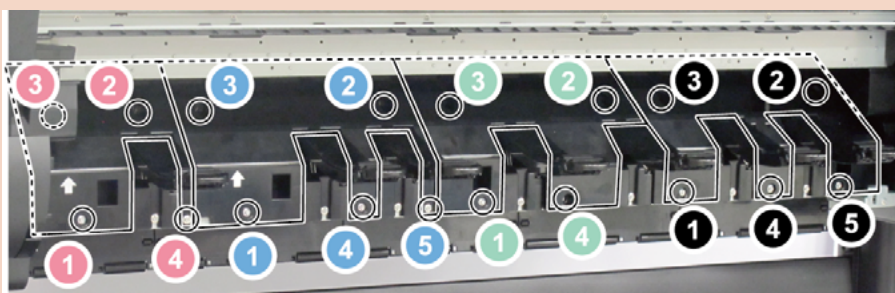


**(24" model, 44" model)**

7. Push down [2] NIP ARM UNIT and remove [1] GUIDE UNIT, LOW A.
  - [3]: 5 screws
8. Push down [2] NIP ARM UNIT and remove [4] GUIDE UNIT, LOW B.
  - [5]: 4 screws
9. Push down [2] NIP ARM UNIT and remove [6] GUIDE UNIT, LOW C (not applicable to 24" model).
  - [7]: 5 screws
10. Push down [2] NIP ARM UNIT and remove [8] GUIDE UNIT, LOW D (not applicable to 24" model).
  - [9]: 4 screws

**Notes when assembling the unit:**

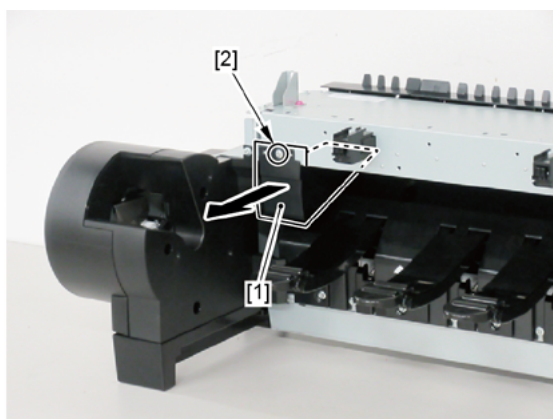
Tighten the screws in the order of numbers shown below.



(60" model)

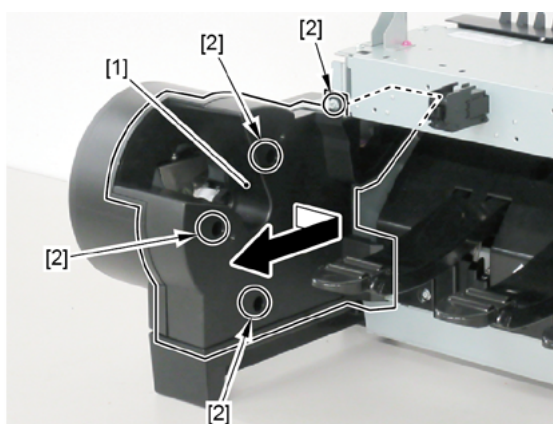
7. From the left side of the printer, remove [1] GUIDE, UPPER.

- [2]: 1 screw



8. Remove [1] HOLDER, SPOOL L.

- [2]: 4 screws



9. Push down [2] NIP ARM UNIT and remove [1] GUIDE UNIT, LOW A.

- [3]: 5 screws

10. Push down [2] NIP ARM UNIT and remove [4] GUIDE UNIT, LOW B.

- [5]: 4 screws

11. Push down [2] NIP ARM UNIT and remove [6] GUIDE UNIT, LOW C.

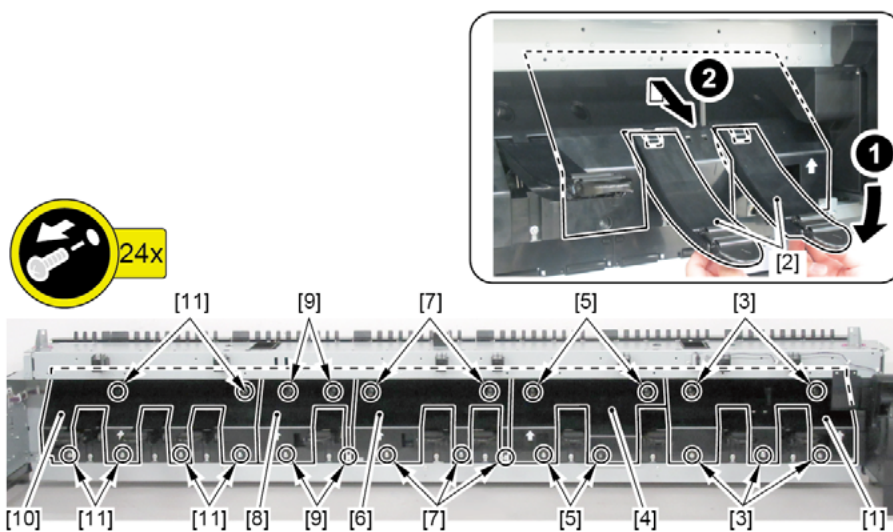
- [7]: 5 screws

12. Push down [2] NIP ARM UNIT and remove [8] GUIDE UNIT, LOW D.

- [9]: 4 screws

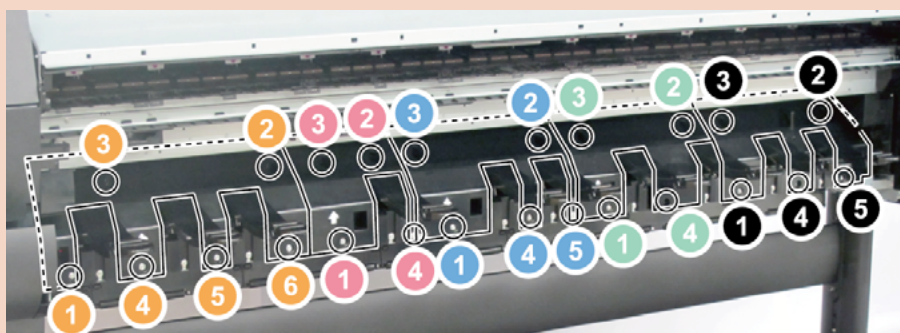
13. Push down [2] NIP ARM UNIT and remove [10] GUIDE UNIT, LOW E.

- [11]: 6 screws



#### Notes when assembling the unit:

Tighten the screws in the order of numbers shown below.



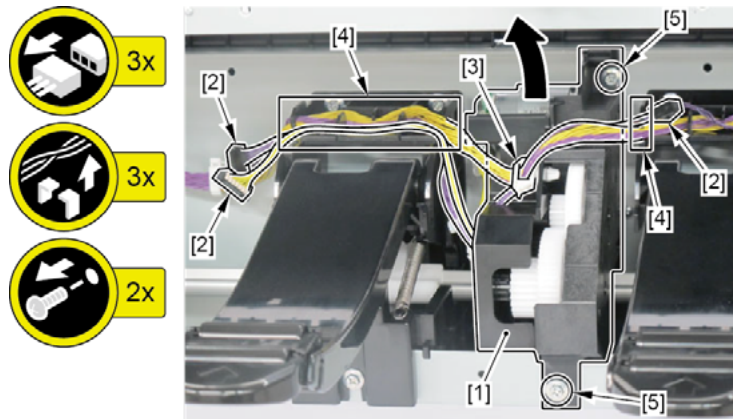
**H**

1. Remove all the parts of Groups A, C, E, and G.

**H-1**

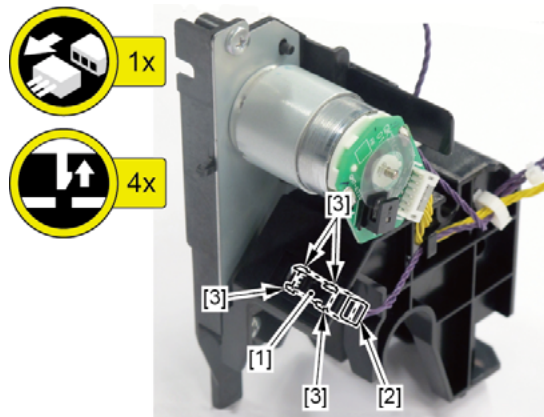
2. Remove [1] DRIVE NIP ARM UNIT.

- [2]: 3 connectors
- [3]: 1 wire saddle
- [4]: Cable guides in two areas
- [5]: 2 screws



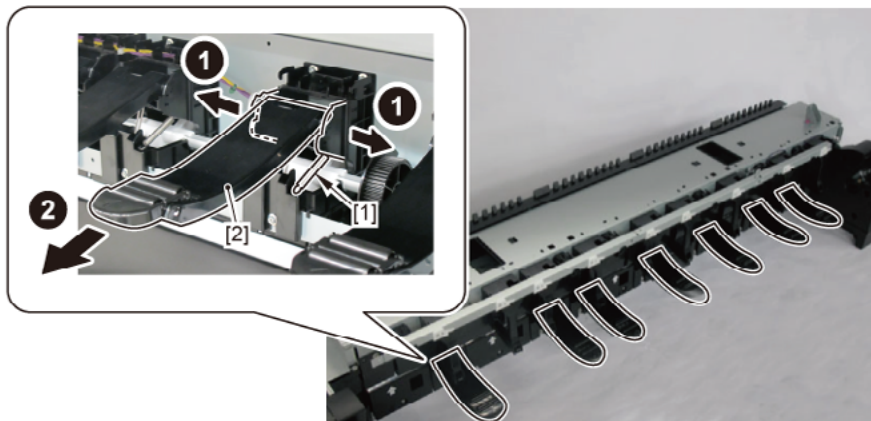
3. Remove [1] LOWER ROLL NIP SENSOR.

- [2]: 1 connector
- [3]: 4 claws



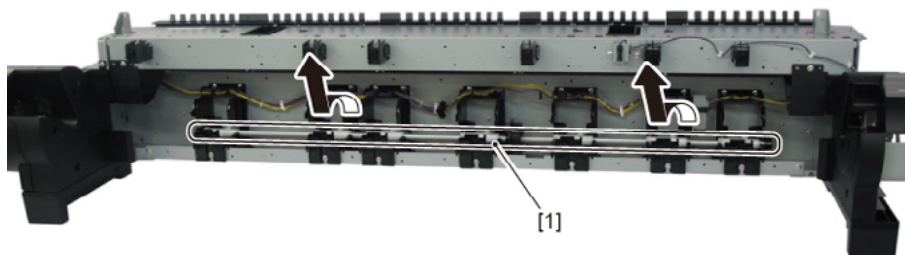
**H-2**

- 2. Remove seven pieces each of [1] SPRING, PAPER SET and [2] NIP ARM UNIT (4 pieces each in 24" model, 10 pieces each in 60" model).



**I**

- 1. Remove all the parts of Groups A, C, E, G, and H.
- 2. Remove [1] CAM SHAFT UNIT.





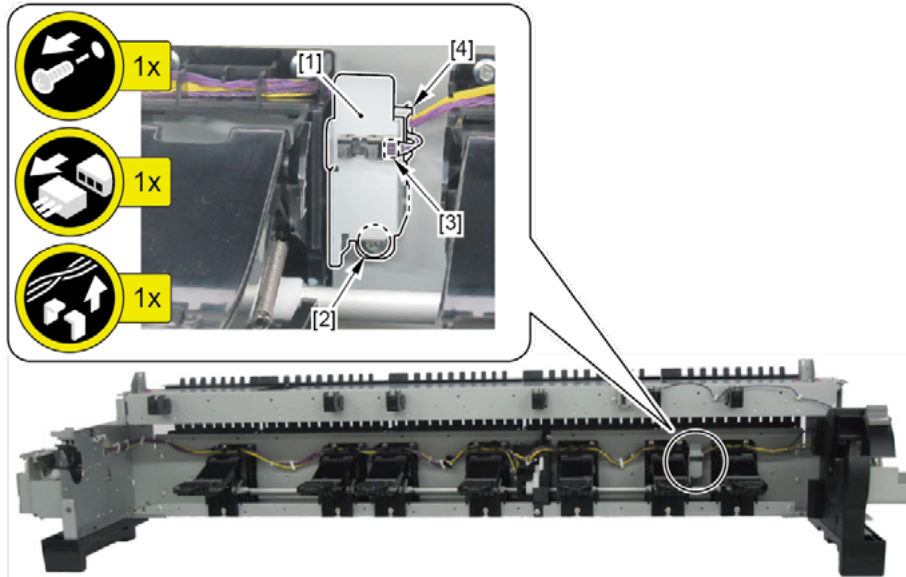
**J**

1. Remove all the parts of Groups A, C, E, and G.

**J-1**

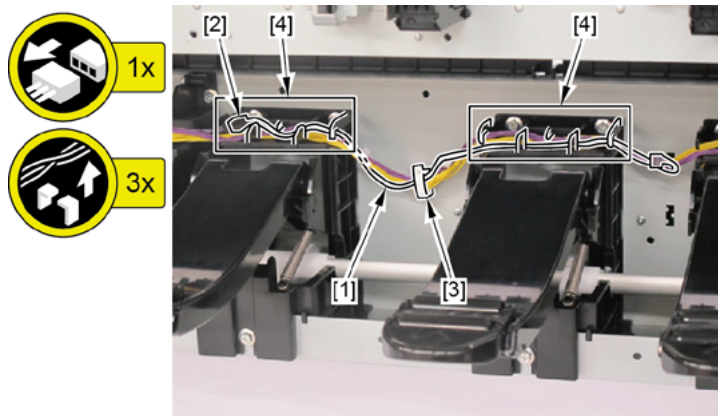
2. Remove [1] ROLL PAPER FEED SENSOR UNIT.

- [2]: 1 screw
- [3]: 1 connector
- [4]: 1 wire saddle



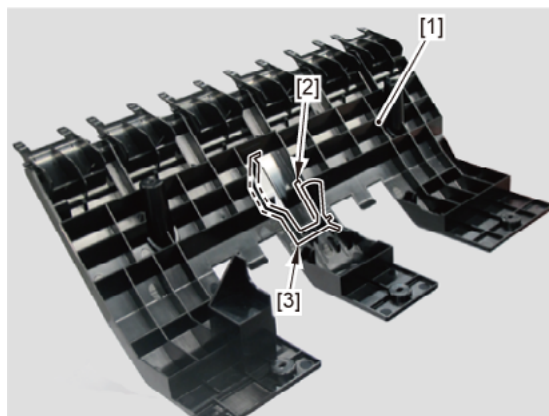
3. Disconnect [1] HARNESS ASS'Y, RLNIP PF SNS.

- [2]: 1 connector
- [3]: 1 wire saddle
- [4]: Cable guides in two areas



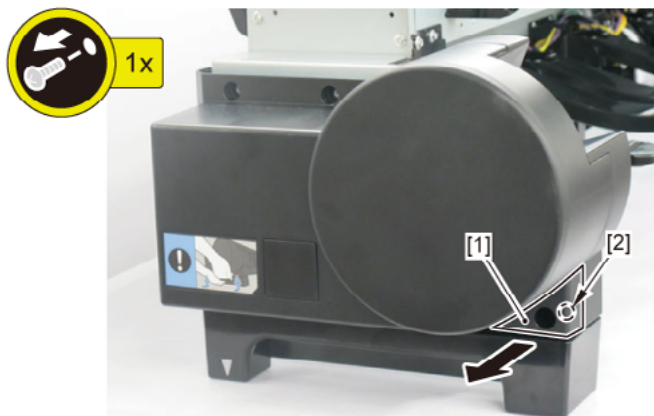
## J-2

- From [1] GUIDE UNIT, LOW A, remove [2] SPRING, PAPER FEED SENSOR and [3] LEVER, PAPER FEED SENSOR.

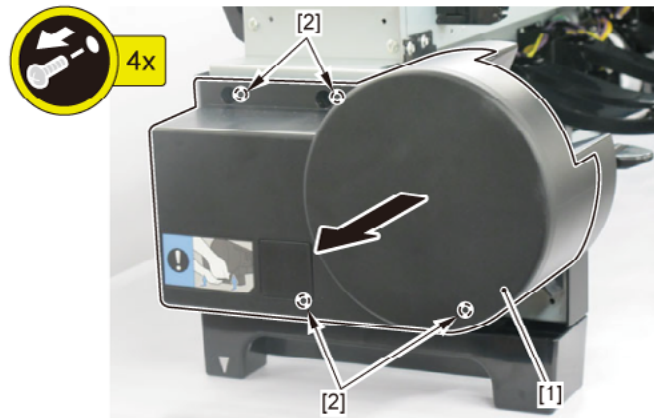


## K

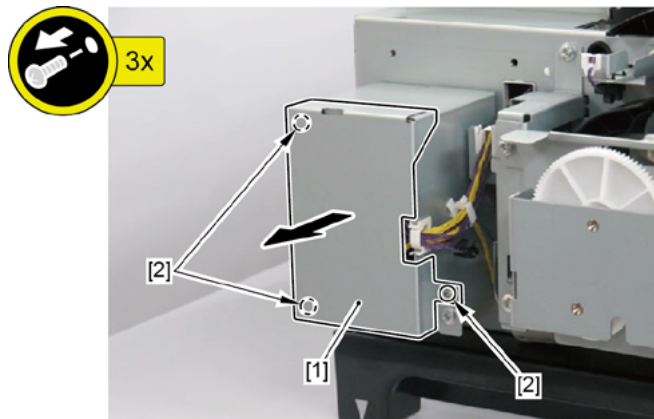
- Remove all the parts of Groups A, C, E, and G.
- Remove [1] COVER, SIDE L SUB.
  - [2]: 1 screw



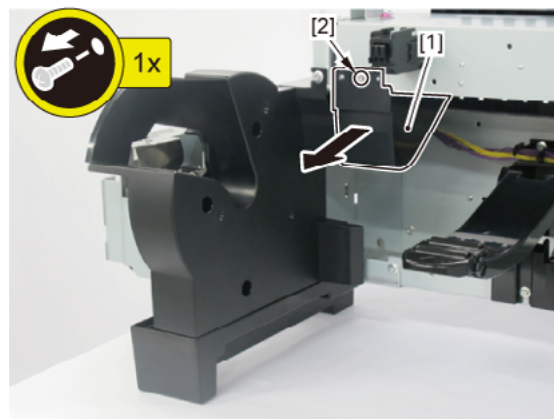
- 3.** Remove [1] a set of
- COVER UNIT, SIDE OUTER L
  - CAP, COVER SIDE L.
- [2]: 4 screws



- 4.** Remove [1] the plate.
- [2]: 3 screws

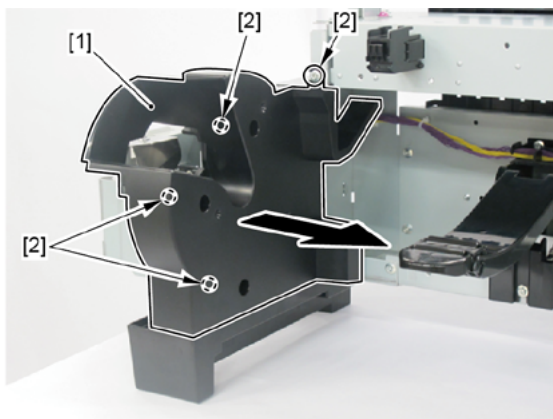


- 5.** From the left side of the printer, remove [1] GUIDE, UPPER.
- [2]: 1 screw



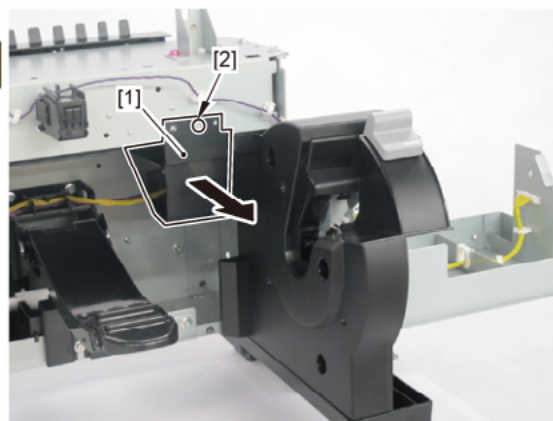
## 6. Remove [1] HOLDER, SPOOL L.

- [2]: 4 screws



## 7. From the right side of the printer, remove [1] GUIDE, UPPER.

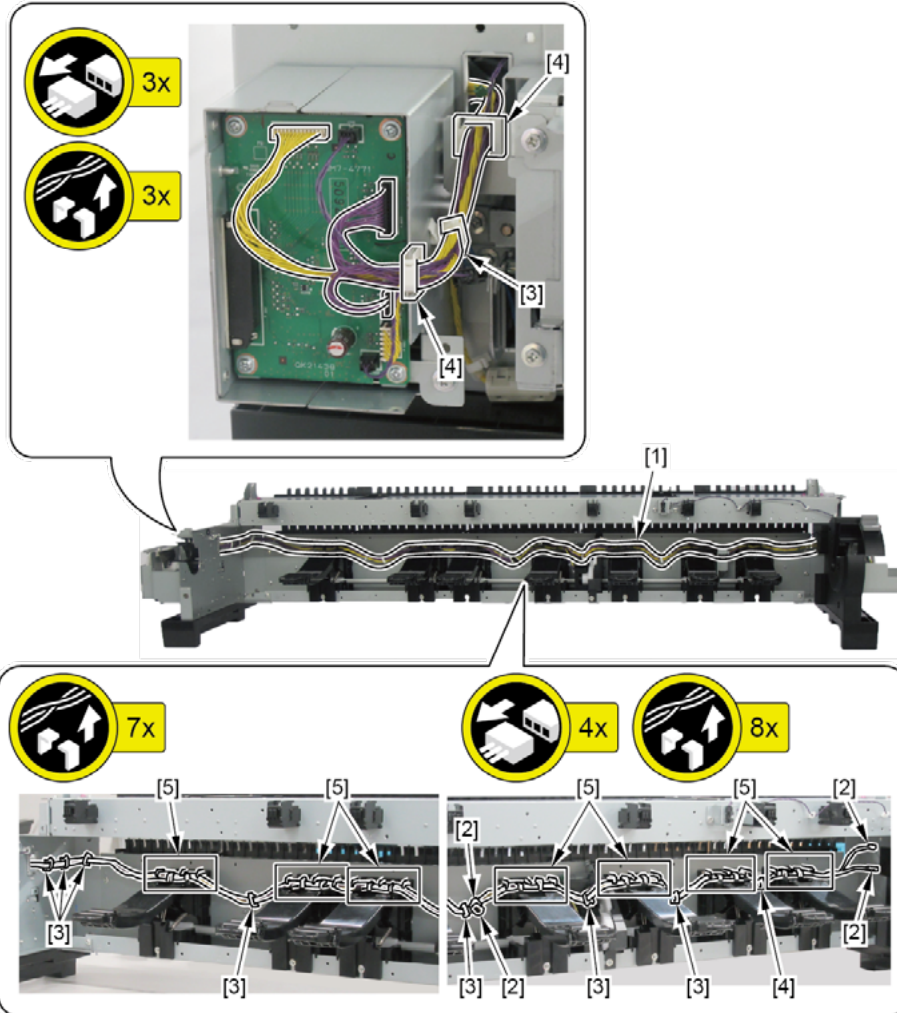
- [2]: 1 screw



## 8. Disconnect [1] HARNESS ASS'Y, RU MAIN.

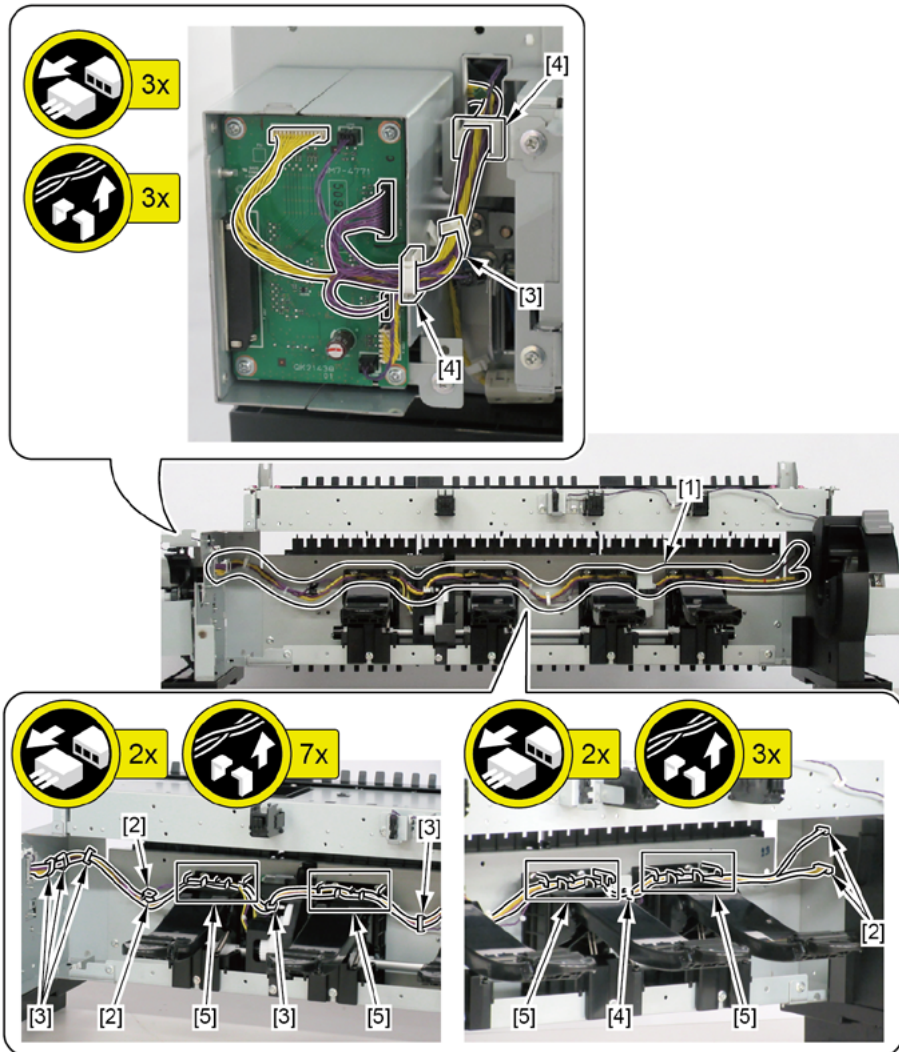
(44" model, 60" model)

- [2]: 7 connectors
- [3]: 8 wire saddles (9 saddles in 60" model)
- [4]: 3 edge saddles
- [5]: Cable guides in seven areas (ten areas in 60" model)



(24" model)

- [2]: 7 connectors
- [3]: 6 wire saddles
- [4]: 3 edge saddles
- [5]: Cable guides in four areas



# SERVICING FUNCTIONS AND TOOLS

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## 6-1. 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:

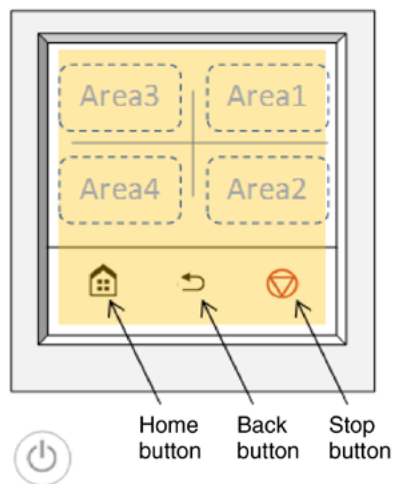
Service mode: Printer status check, adjustment, diagnosis, test printing, E-RDS setting, and etc.

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.

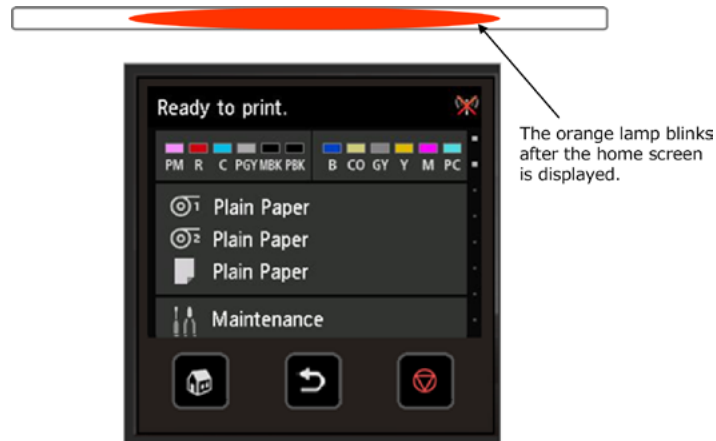
### 2) How to launch

#### < 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.



- Chapter 1
- Chapter 2
- Chapter 3
- Chapter 4
- Chapter 5
- Chapter 6
- Chapter 7
- When the service mode is successfully launched, the orange lamp blinks above the operation panel after the home screen 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.

**< PCB replacement mode >**

When the service mode is launched after replacing a MAIN PCB UNIT or a BACK UP PCB UNIT, the printer automatically enters the PCB replacement mode. For details, refer to [6-3 PCB replacement mode](#).

**3) How to terminate**

To terminate the service mode and PCB replacement mode, turn the printer power off.

## 6-2. 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.

#### A start-up error is bypassed.

Even if errors in user mode occur, the service mode is launched despite the error so that a service person can perform troubleshooting. Note that service call error and the following error codes are excluded:

Error codes (for details of error codes, see 4. ERROR CODE).

E codes	Detail code	E codes	Detail code	E codes	Detail code	E codes	Detail code
EC13	2F17	EC21	2F73	EC25	2F16	-	2800
EC21	282D	EC21	2F74	EC51	2FDD	-	2802
EC21	2F68	EC21	2F75	EC51	2FDE	-	2812
EC21	2F69	EC21	2F76	EC51	2FDF	-	1400 to 140D
EC21	2F6D	EC21	2F77			-	2500 to 250D
EC21	2F6F	EC21	2F78			-	2520 to 252D
EC21	2F70	EC21	2F79			-	2540 to 254D
EC21	2F71	EC21	2F7A			-	2700 to 270D
EC21	2F72	EC21	2F7B			-	2F6B

#### Releasing the error with detail code starting from four.

When the printer is started in the service mode, the message for releasing the error with detail code starting from four (4\*\*\*) 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 which install the same type of ink tank.

This enables the reduction of operating time for print-head-related troubleshooting, and minimizes the number of the print head for tool required for troubleshooting.

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 during troubleshooting.

**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		Description
First hierarchy	Second hierarchy	
PRINTER STATUS	SYSTEM INFO	Printer information (serial number/environmental temperature/cumulative PV, etc.)
	ERROR LOG	Error history (up to 10 cases for ERROR LOG, up to 5 cases for JAMLOG)
	PARTS COUNTER	Parts counter
	CLEANING LOG	Cumulative number of cleaning (past history: Up to three times)
	SERVICE LOG	Date of the latest adjustment
	HEAD USAGE LOG	Head information (serial number/dot count information, etc.)
	INK USAGE LOG	Ink information (cumulative ink usage / elapsed days after ink tank installation, etc.)
	OTHER CONSUMABLES USAGE LOG	Maintenance cartridge usage log / cutter usage log
	USER COMMAND LOG	head alignment history / color calibration history
DIAGNOSIS	CR SYSTEM CHECK	Carriage drive functional diagnosis
	PURGE CHECK	Purge unit functional diagnosis
	I/O DISPLAY	I/O DISPLAY (each sensor and switch functional diagnosis)
	OPT SENS CHECK	Multi sensor functional diagnosis
	NOZZLE CHECK	Head management sensor functional diagnosis
	HEAD CNT CHECK	Functional diagnosis of head contact detection
	ANALOG ENCODER CHECK	LF encoder sensor functional diagnosis
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 operation
	INK FILLING	Ink filling (after parts replacement)
ADJUSTMENT	OPTICAL AXIS	Multi sensor optical axis adjustment
	GAP CALIB	GAP calibration
	LF TUNING	LF correction and eccentricity correction
	LF TUNING2	LF eccentricity correction (Manual)
	NOZZLE CHK POS	Adjustment of the optical axis in the head management sensor
	CR REG	Dynamic head alignment
	CR MOTOR COG	Cogging torque control
	TOUCH PANEL CALIBRATION	Touch panel calibration
	MANUAL HEAD ADJ	Manual head alignment
	MARGIN ADJ	Margin adjustment
	LF ENC ADJ	LF encoder adjustment
	UPPER ARB CALIB	Upper paper feed unit calibration
	LOWER ARB CALIB	Lower paper feed unit calibration
TEST PRINT	SERVICE NOZZLE CHECK	Service nozzle check pattern printing
	PRINT INF	Service log printing
E-RDS	CA-CERTIFICATE	E-maintenance certificate / CA-certificate information display
	E-RDS SETUP	E-RDS setup
	E-RDS OTHERS	E-maintenance CA-certificate deletion
OTHERS	RTC SETTING	RTC setting
	PV AUTO JUDGE	waste ink reduction mode setting
	PRINT HEAD INFO SETTING	Availability of print head warranty information display
	HDD BOX PASS	HDD BOX password reset

## 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	Details
SYSTEM INFO	S/N: xxxxxxxx TMP [C] / TMP [F] RH [%] AFTER INSTLATION [days] PV TTL [m2] PV TTL [sq.f] PV TTL [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) 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%				
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 five 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>

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
PARTS COUNTER	Wia1 xx /yyyy/mm/dd/ xxx% Wia2 xx /yyyy/mm/dd/ xxx% Wia3 xx /yyyy/mm/dd/ xxx% Wia6 xx /yyyy/mm/dd/ xxx% Wia7 xx /yyyy/mm/dd/ xxx% WF1 xx /yyyy/mm/dd/ xxx% CR1 xx /yyyy/mm/dd/ xxx% CR2 xx /yyyy/mm/dd/ xxx% CR3 xx /yyyy/mm/dd/ xxx% CR4 xx /yyyy/mm/dd/ xxx% CR5 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% MS1 xx /yyyy/mm/dd/ xxx%	(1) Parts name (*2) (2) Status: xx (OK/W1/W2/E) W1: Warning 1 / W2: Warning 2 / E: Error (3) The date of resetting counter: yyyy/mm/dd (4) Usage rate: xxx% *2: <a href="#">Details of the parts to reset the counter (See the Appendix 2).</a>	DETAILS COUNTER NAME xxxxxx COUNTER VALUE xxxxxx PART LIFE xxxxxx ACCUMLATION xxxxxx THE NO. OF RESET xxxxxx  [Reset] Execute? YES / NO	Details of each parts counter (5) Parts name (6) Counter value (7) Parts life threshold (8) Accumulated counter value (9) The number of times of the counter value reset  [Parts counter reset] Select [YES], the counter value will be reset. (The cumulative counter value is not cleared).		
CLEANING LOG	A-ABC ***(***) A-A ***(***) A-B ***(***) A-C ***(***) R-ABC ***(***) R-A ***(***) R-B ***(***) R-C ***(***) S-ABC ***(***) S-A ***(***) S-B ***(***) S-C ***(***) EX ***(***) H ***(***) T1 ***(***) ...	(1) Cleaning name (*3) *3: <a href="#">Cleaning mode list (Figure 1: CAP-A / B / C layout)</a> A-ABC: Cleaning (All CAP) / A-A: Cleaning (CAP-A) / A-B: Cleaning (CAP-B) / A-C: Cleaning (CAP-C) / R-ABC: Deep cleaning (All CAP) / R-A: Deep cleaning (CAP-A) / R-B: Deep cleaning (CAP-B) / R-C: Deep cleaning (CAP-C) / S-ABC: System cleaning (All CAP) / S-A: System cleaning (CAP-A) / S-B: System cleaning (CAP-B) / S-C: System cleaning (CAP-C) / EX: Ink removal at the head replacement / H: Ink filling at the head replacement / T1: Ink removal (Transport outdoors) / T2: Ink removal (Move indoors to a different floor) / T3: Ink removal (Move indoors on the same floor) / FI: Ink filling at the installation after printer transportation / C: On arrival ink filling  (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 history of each cleaning (the last three cases)		
SERVICE LOG	SERVICE ADJUSTMENT LOG	(1) Service adjustment execution history	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 date of each service adjustment  Details of PCB replacement execution history (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.		
	PCB REPLACEMENT LOG	(2) PCB replacement execution history				

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
HEAD USAGE LOG	CURRENT HEAD	(1) The currently-installed print head information	CURRENT HEAD LOT DATE OF INSTALL DOT COUNT CRC *** [Details]	(5) The currently-installed print head · Lot number · Print head installation date · Total dot count · Number of CRC error [Details of the currently-installed print head]	DETAILS DOT COUNT PM:xxxxxx R:xxxxxx C:xxxxxx PGY:xxxxxx PBK:xxxxxx MBK:xxxxxx CO:xxxxxx GY:xxxxxx B:xxxxxx Y:xxxxxx M:xxxxxx PC:xxxxxx	(9) Head dot count (per color)
	PREVIOUS HEAD	(2) The previously-installed print head information	PREVIOUS HEAD LOT DATE OF INSTALL DOT COUNT CRC *** [Details]	(6) The previously-installed print head · Lot number · Print head installation date · Total dot count · Number of CRC error [Details of the previously-installed print head]	REFILL INKTANK USAGE HISTORY Aa:*** Ab:*** Ac:*** Ad:*** Ba:*** Bb:*** Bc:*** Bd:*** Ca:*** Cb:*** Cc:*** Cd:***	(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	DOT COUNT ACCUMULATED TTL:***** [Details]	(7) The accumulated currently-installed print head dot count (in total) [Details of print head dot count]	DETAILS PM:xxxxxx R:xxxxxx C:xxxxxx PGY:xxxxxx PBK:xxxxxx MBK:xxxxxx CO:xxxxxx GY:xxxxxx B:xxxxxx Y:xxxxxx M:xxxxxx PC:xxxxxx	(12) The accumulated currently-installed print head dot count (total per color)
	THE NO. OF REPLACEMENT	(4) The number of times of print head replacement	THE NO. OF REPLACEMENT 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)		(11) The number of the non-ejection nozzles (per chip:(4)
INK USAGE LOG	ACCUMULATED INK USAGE	(1) Accumulated ink usage	INK-USE1 INK-TTL [ml]	(3) Accumulated genuine ink usage (INK-USE1 INK-TTL)	INK-USE* INK DETAILS PM:xxxxxx R:xxxxxx C:xxxxxx PGY:xxxxxx PBK:xxxxxx MBK:xxxxxx CO:xxxxxx GY:xxxxxx B:xxxxxx Y:xxxxxx M:xxxxxx PC:xxxxxx INK-USE* NINK DETAILS PM:xxxxxx R:xxxxxx C:xxxxxx PGY:xxxxxx PBK:xxxxxx MBK:xxxxxx CO:xxxxxx GY:xxxxxx B:xxxxxx Y:xxxxxx M:xxxxxx PC:xxxxxx	(8) Accumulated genuine ink usage (per color) (INK-USE1 INK DETAILS)
			INK-USE1 NINK-TTL [ml]	(4) Accumulated refilled ink usage (INK-USE1 NINK-TTL)		(9) Accumulated refilled ink usage (per color) (INK-USE1 NINK DETAILS)
			INK-USE2 INK-TTL [ml]	(5) Genuine ink interval usage (INK-USE2 INK-TTL)		(10) Genuine ink (per color) interval usage (INK-USE2 INK DETAILS)
			INK-USE2 NINK-TTL [ml]	(6) Refilled ink interval usage (INK-USE2 NINK-TTL)		(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 for the most common media type - 2: The media name and the number of times of cuts for 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 for the most common media type - 2: The media name and the number of times of cuts for 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
	COLOR CALIBRATION	(2) Color calibration log	COLOR CALIBRATION LOG 01: YYYY/MM/DD hh x 02: YYYY/MM/DD hh x 03: 04: 05: ... ...	(4) Color calibration log (past ten cases) - Log number: 01 to 10 (the newest event has the smallest history number) - hh: Implementation time - x: Adjustment type (2 to 4) 1. common calibration 2. calibration for individual media 3. calibration value initialization along with print head replacement 4. calibration value initialization along with main PCB replacement 5. calibration value initialization (with operation panel)	Details DATE:***** MEDIA TYPE:***** TMP [C]:** TMP [F]:*** RH [%]:***	(6) Details of color calibration - DATE: Implementation date - MEDIA: Media type (Displayed only when adjustment type is 2 or 4) - TMP [C]: Environmental temperature (Celsius) - TMP [F]: Environmental temperature (Fahrenheit) - RH: Environmental humidity

## Appendix 1: Detailed information when a JAM error occurs

No.	Contents	Details
01	Paper width detection OFF mode	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 platen shutter	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, *: Unknown
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 printing, 2: Borderless printing, -: Unknown
07	Spur position	1: Top, 2: Down, -: Unknown
08	Print mode label No.	Internal information (not used in servicing)
09	Paper width	The size is displayed. (Unit: mm) *Only when paper width detection is ON -: 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 [SERVICE 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, 60" model
Wia4	WASTE INK ABSORBER UNIT D	60" model
Wia6	WASTE INK ABSORBER UNIT	24" model, 60" model
	WASTE INK ABSORBER UNIT & C S	44" model
Wia7	SUCTION FAN UNIT	All models
	SUCTION FAN DUCT UNIT	
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
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, 47.8W (CARRIAGE)	All models
PL1	ACTIVE ROLL BRAKE UNIT	All models
Mi1	MIST FAN DUCT UNIT 1	24" model, 44" model
	MIST FAN DUCT UNIT 2	44" model, 60" model
MS1	MULTI SENSOR UNIT	All models

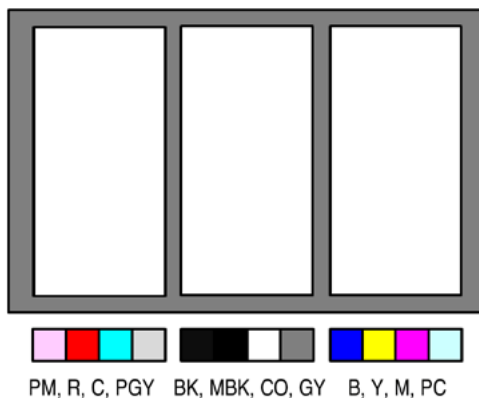
\* All models: 24" model, 44" models and 60" model

### Appendix 3: The correlation between chip positions and colors

24" model, 44" model and 60" model

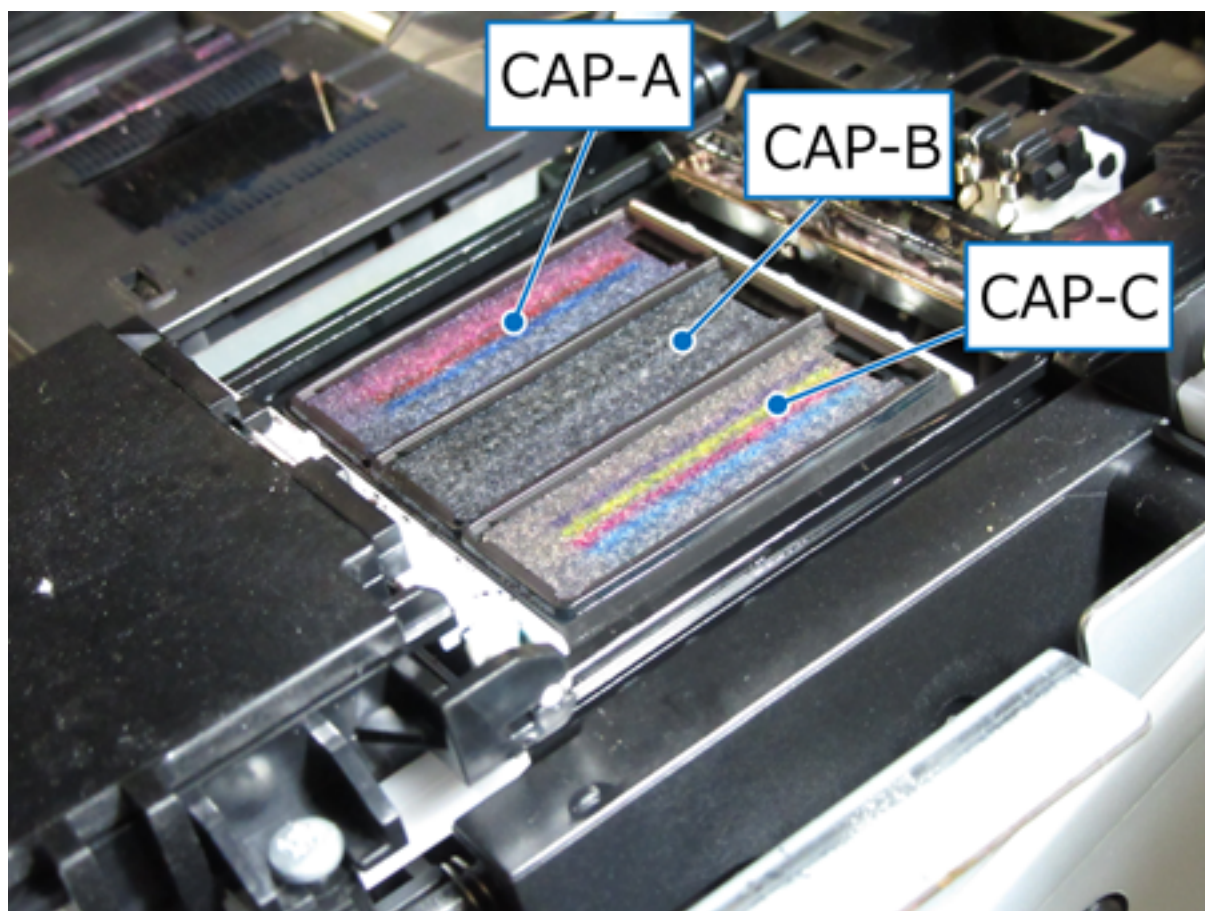
Chip position	Color	Chip position	Color	Chip position	Color	Chip position	Color
A-a	PM	A-b	R	A-c	C	A-d	PGY
B-a	PBK	B-b	MBK	B-c	CO	B-d	GY
C-a	B	C-b	Y	C-c	M	C-d	PC

< Color of ink purged in each cap >



\*Figure 1: PURGE UNIT CAP-A / CAP-B / CAP-C layout

There are three CAPs, one CAP per chip, "CAP-A," "CAP-B," and "CAP-C" 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

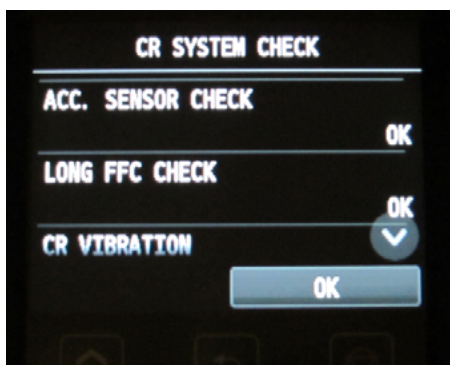
NOTE:

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.



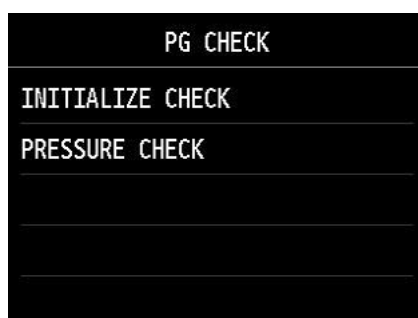
### How to handle NG items

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 >

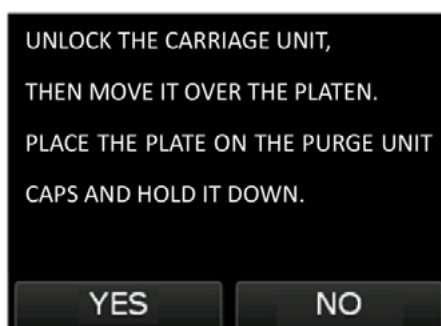
### INITIALIZE CHECK

- 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].
- 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 [4-3. Detail of Hardware](#) to handle the error.

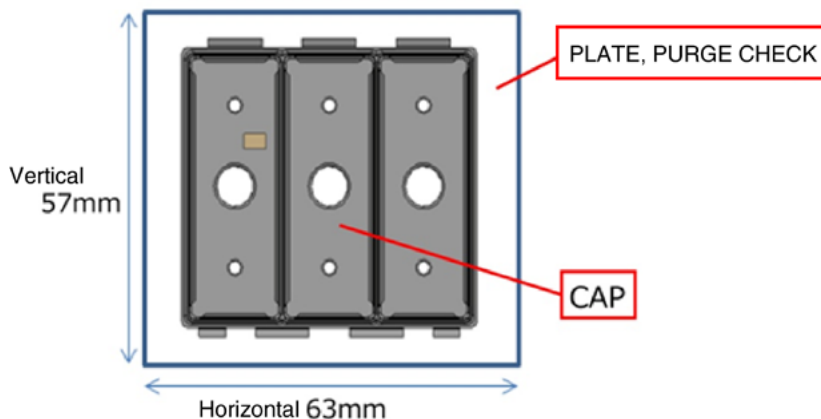


### PRESSURE CHECK

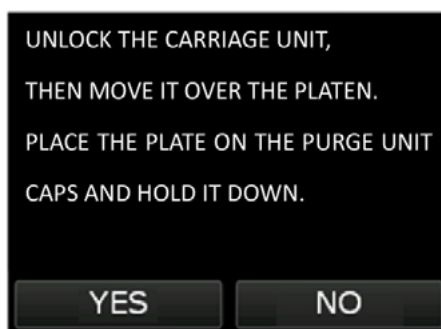
- Remove four screws for fixing right side cover, and remove the right side cover from the printer. Then, select [SERVICE MODE > FUNCTION > CR UNLOCK] from the operation panel to release the lock of the carriage.
- Return to the menu screen, and select [SERVICE MODE > DIAGNOSIS > PURGE CHECK > PRESSURE 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].
- 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.



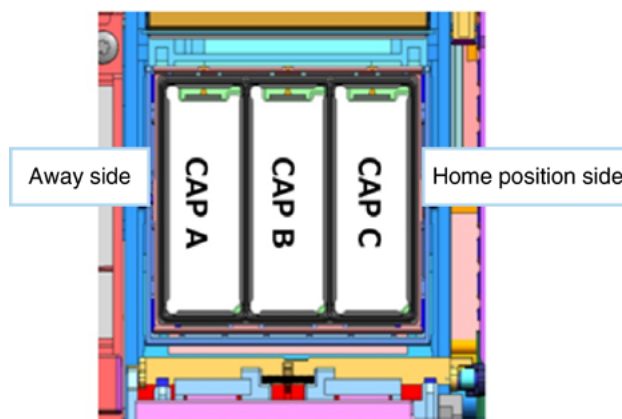
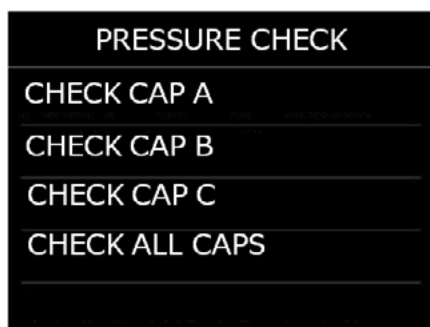
4. Wash the surface of the PLATE, PURGE CHECK, a service jig, with ethanol. Then, put it on the CAP of PURGE UNIT. Be sure to remove a thin vinyl sheet on the surface of a new PLATE, PURGE CHECK.



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.

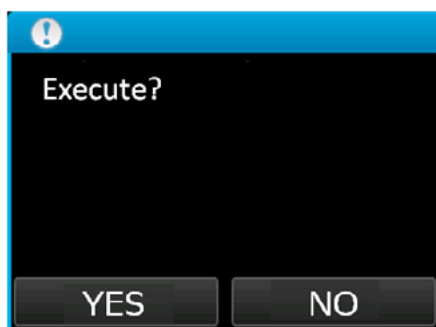


6. Select CAP for checking suctioning operation. Check the suctioning operation in the following order from the top (CAP A => CAP B => CAP C => ALL CAPS) (Execute four times in total).
- When [CHECK CAP A] is selected: The suctioning operation of CAP A is checked.
  - When [CHECK CAP B] is selected: The suctioning operation of CAP B is checked.
  - When [CHECK CAP C] is selected: The suctioning operation of CAP C is checked.
  - When [CHECK ALL CAPS] is selected: The suctioning operations of All CAPs are checked at the same time.

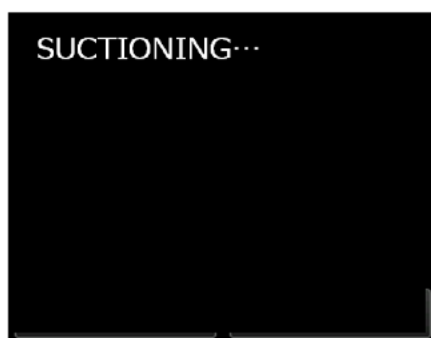




- After selecting CAP A, select [YES].

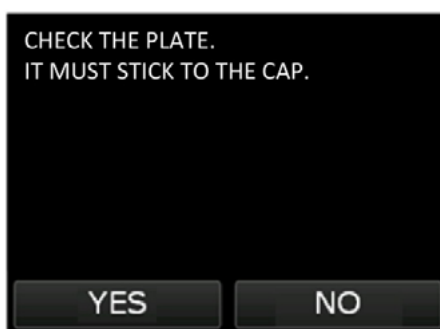


- Select [YES], and the following message will be displayed and suctioning operation will be executed. Here, manually apply the slight pressure to the PLATE, PURGE CHECK from above.

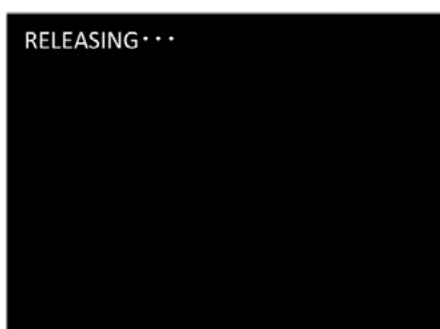


- After the suctioning operation is completed, the following message is displayed on the operation panel. Check the negative pressure of CAP.

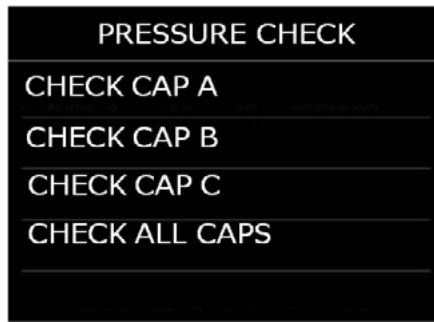
The PLATE, PURGE CHECK must not be peeled even by slightly pulling with one's hand. If the PLATE, PURGE CHECK is easily peeled, PURGE UNIT may be defective.



- Check the negative pressure, then select [OK].
- 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.

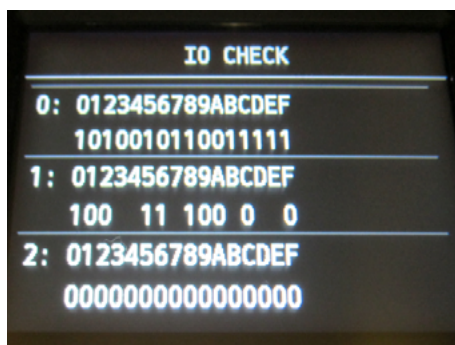


13. Check the remaining suctioning operation (CAP B => CAP C => ALL CAPS) in the same procedures.

Make sure to check the suctioning operation per CAP. If the suctioning operation is checked by selecting ALL CAPS only, even if CAP B has not suctioned ink, if the negative pressure of CAP A is left, the PLATE, PURGE CHECK is not removed, therefore, 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	LEFT CHOKE VALVE POSITION SENSOR
	9	RIGHT AGITATION VALVE POSITION SENSOR
	A	LEFT AGITATION VALVE POSITION SENSOR
	B	RIGHT TANK COVER SWITCH
	C	LEFT TANK COVER SWITCH
	D	PAPER WIND DIRECTION SENSOR
	E	PAPER WIND SWITCH
F	PAPER UNWIND SWITCH	

- For the positions of sensors and switches, refer to 7. 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	PLATEN VALVE POSITION DETECT SENSOR
Display		Sensor and switch names
2	0	PLATEN VALVE HOME DETECT SENSOR
	1	-
	2	-
	3	-
	4	-
	5	-
	6	-
	7	-
	8	-
	9	-
	A	-
	B	-
	C	-
	D	-
	E	-
	F	-

- For the positions of sensors and switches, refer to 7. 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 4-3. Detail of Hardware Error (E code: [EC23](#)).

**< NOZZLE CHECK >**

- 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.
- 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).

NOZZLE CHECK			
Aa	OK	Ab	OK
Ac	OK	Ad	OK
Ba	OK	Bb	OK
Bc	OK	Bd	OK
Ca	OK	Cb	OK
OK			

- The correlation between chip positions and colors

12-color models (24" model, 44" model and 60" model)

Chip position	Color	Chip position	Color	Chip position	Color	Chip position	Color
A-a	PM	A-b	R	A-c	C	A-d	PGY
B-a	PBK	B-b	MBK	B-c	CO	B-d	GY
C-a	B	C-b	Y	C-c	M	C-d	PC

8-color models (44" model and 60" model)

Chip position	Color	Chip position	Color	Chip position	Color	Chip position	Color
A-a	C	A-b	M	A-c	Y	A-d	PM
B-a	PBK	B-b	MBK	B-c	MBK	B-d	GY
C-a	PC	C-b	Y	C-c	M	C-d	C

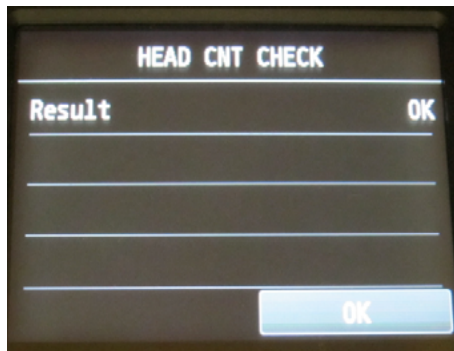
- Main factors of the NG items:

- 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 4-3. 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 4-3. 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 4-3. Detail of Hardware Error (E code: [EC11](#) / [EC12](#)).



## Details of FUNCTION

### 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	· When carriage failure-related troubleshooting finishes.
CR UNLOCK	Releasing the lock of the carriage without removing the outer cover	· To move CARRIAGE UNIT for servicing, and etc. · To make a functional diagnosis of PURGE UNIT. · To replace PURGE UNIT. · To manually confirm the movement CARRIAGE UNIT. · To check the condition of CARRIAGE UNIT visually. · To remove the print head when drawing off ink
HEAD REPLACEMENT	Removing and installing a print head again without withdrawing ink inside the print head	· To replace print head · To check the condition of the print head. · To check the condition of the contact portion. · To inspect or replace any of CARRIAGE UNIT (or INK TUBE UNIT) or ink supply-related unit.
INK SUPPLY VALVE OPEN	Opening and closing ink supply valve (choke valve) without removing the outer cover	· To drain ink before replacing CARRIAGE UNIT · To drain ink before replacing INK TUBE UNIT · To drain ink from the tube before replacing SUB INK TANK UNIT
INK FILLING	Ink filling	· To replace any of CARRIAGE UNIT (or INK TUBE UNIT) or ink supply-related unit.


### 2) How to use servicing functions

#### < CR LOCK >

1. Select [SERVICE MODE > FUNCTION > CR LOCK > YES] from the operation panel.
2. Move the carriage to the home position, and lock the cap and the carriage.

#### < CR UNLOCK >


1. Select [SERVICE MODE > FUNCTION > CR UNLOCK > YES] from the operation panel.
2. Close the ink supply valve, and release the lock of the carriage.
3. 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 both 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 [5-2. 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 both 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 [5-2. 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. If the print head should be installed using the commands of CR UNLOCK and CR LOCK, make sure to restart the printer in the service mode before executing INK FILLING.

	<p>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.</p>
---	---

## 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 / *3)
LF TUNING2	LF correction (Manual)	Manually corrects the feed amount of media when it has not been corrected properly in LF TUNING. Use the greatest width of Canon Glossy Photo Paper HG 170 that can be used for printing from the printer. (*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 by 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: To make each adjustment, use the paper whose maximum size can be used with the printer.

\*3: When selecting LF TUNING, if the paper whose maximum size can be used with the printer is not set, the message "Please set the specified size of paper." is displayed and the subsequent adjustment is not performed.

### 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 (CARRIAGE)	· CR MOTOR COG
CARRIAGE ENCODER UNIT	· CR MOTOR COG
- (*4)	· 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

\*4: 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 [YES].

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		
	LF TUNING2	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			

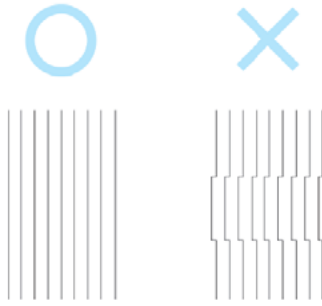
\*1: Reset all the dynamic head alignment values to zero.

\*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
  - Ink color: PBK
- \*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.

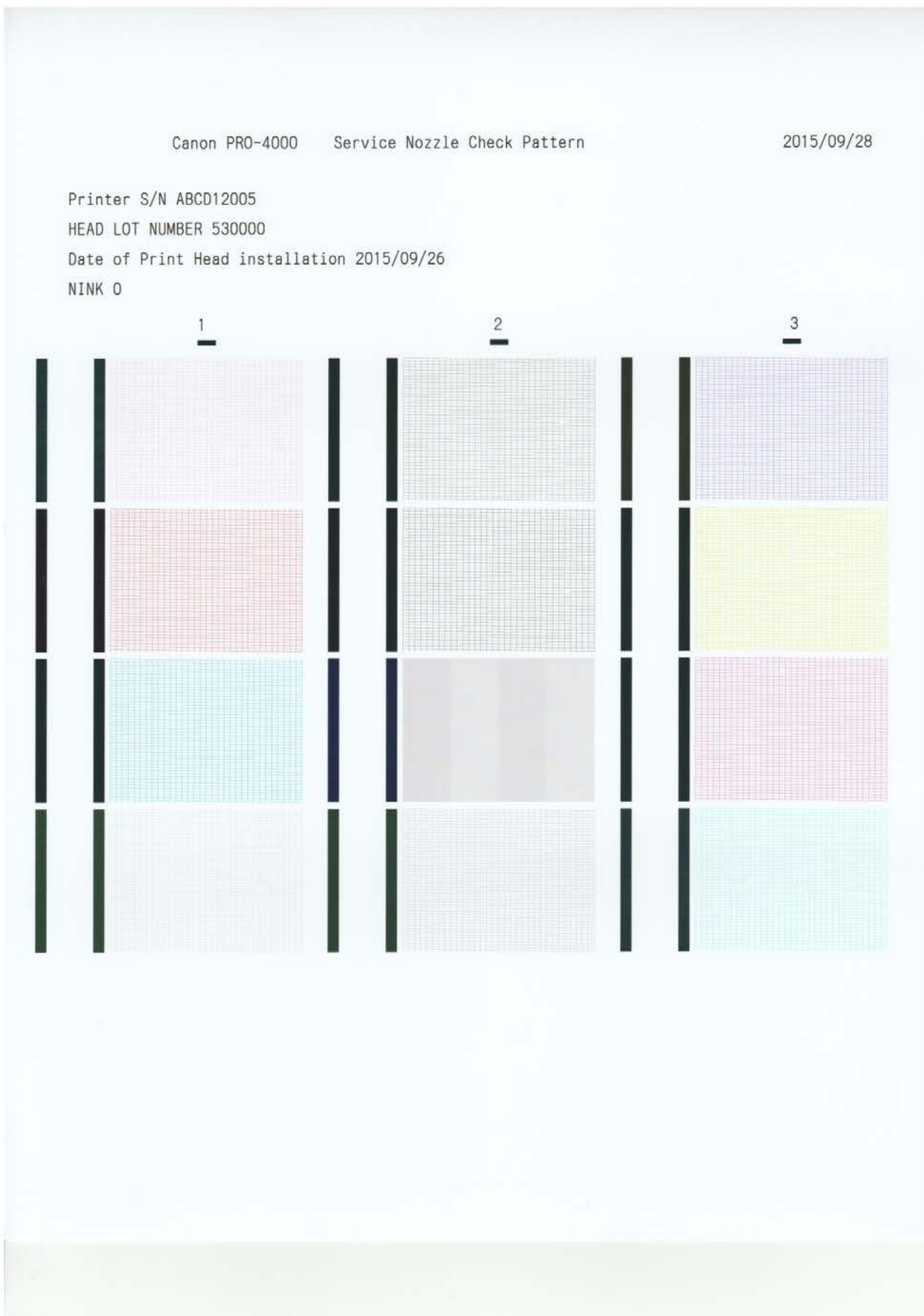
- User mode: Non-ejection of ink is interpolated when the nozzle check pattern is printed.
- Service mode: Non-ejection of ink is not interpolated when the nozzle check pattern is printed.

### 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



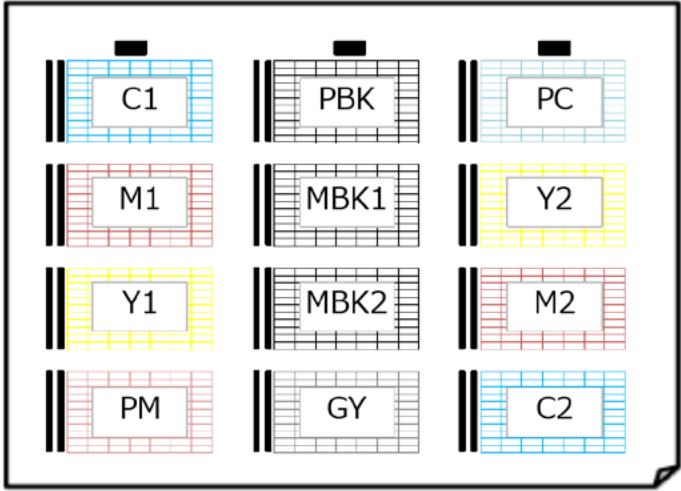
### 3) Service nozzle check pattern print (sample)



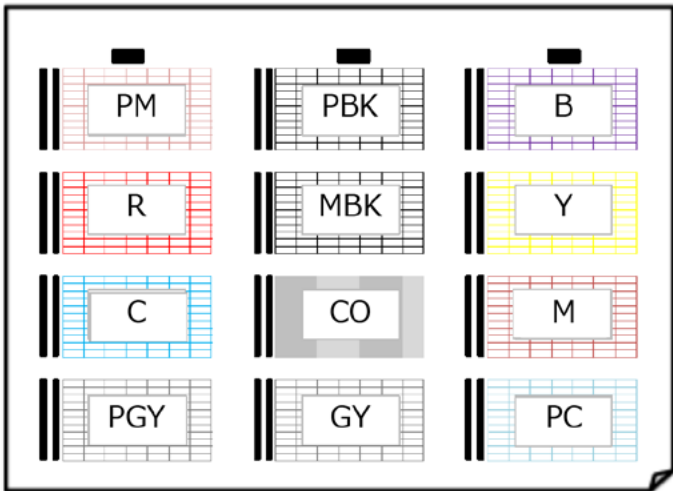
### 4) How to read nozzle check pattern & troubleshooting

How to read nozzle check pattern

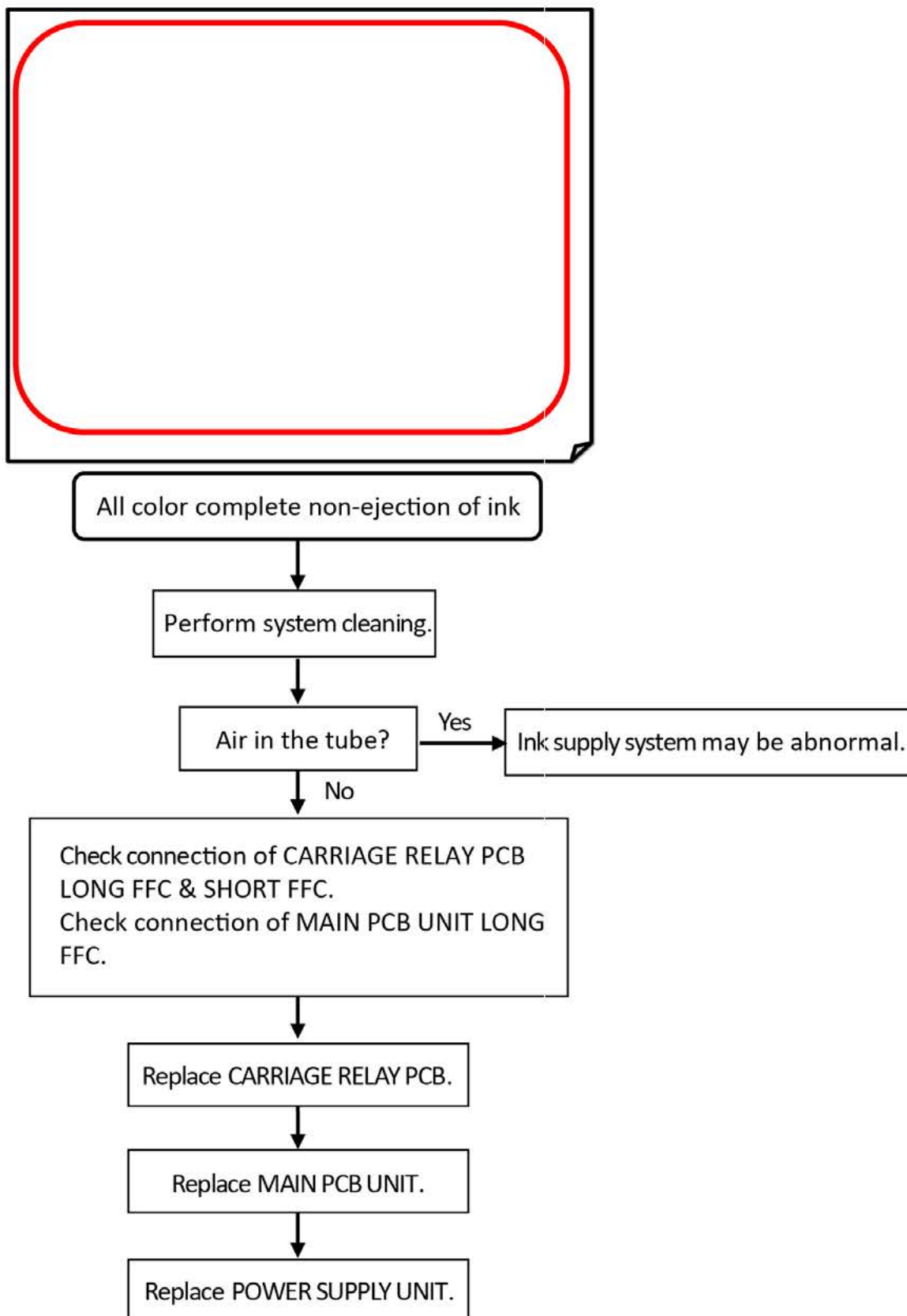
8-color models (44" model, 60" model)



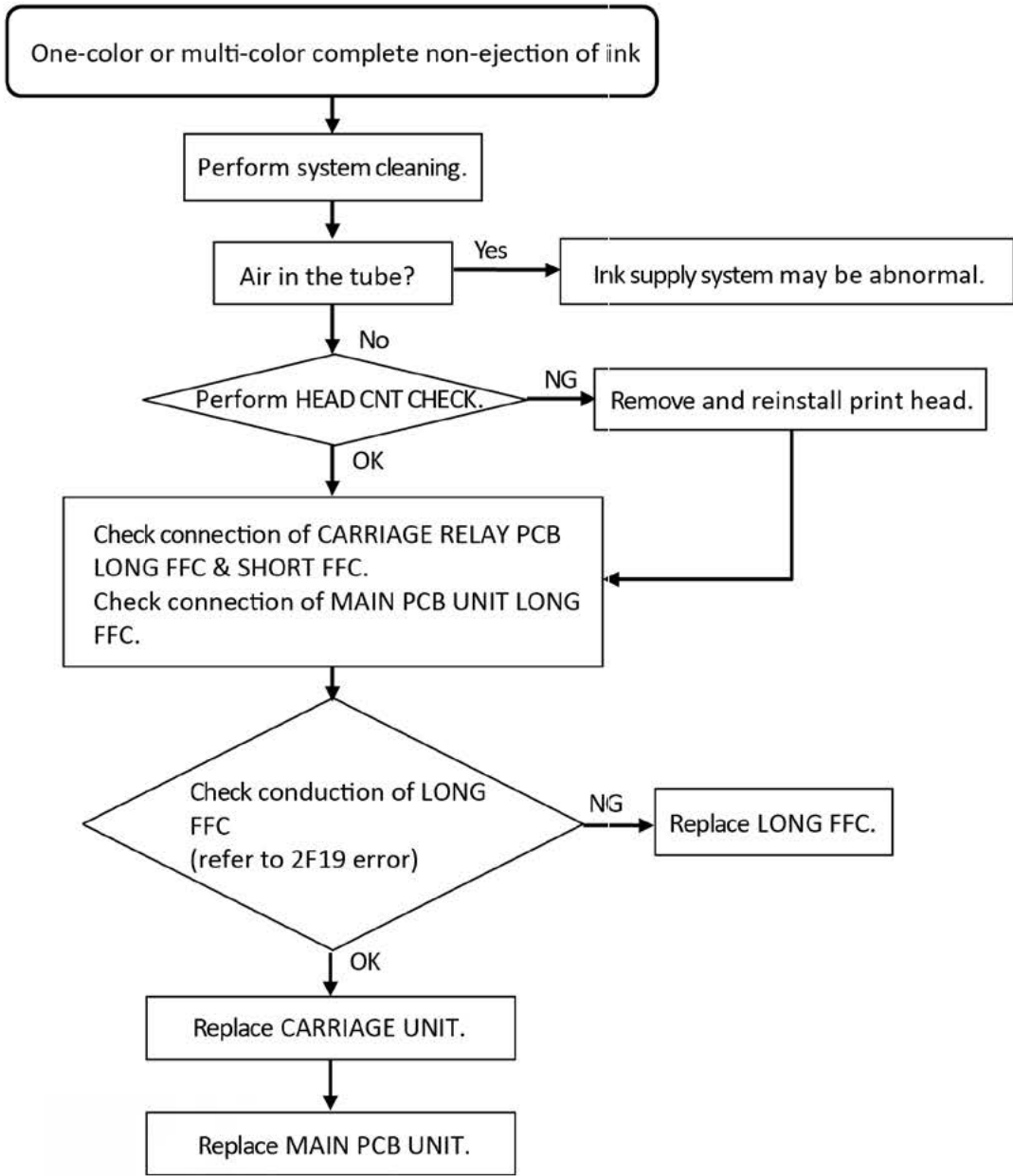
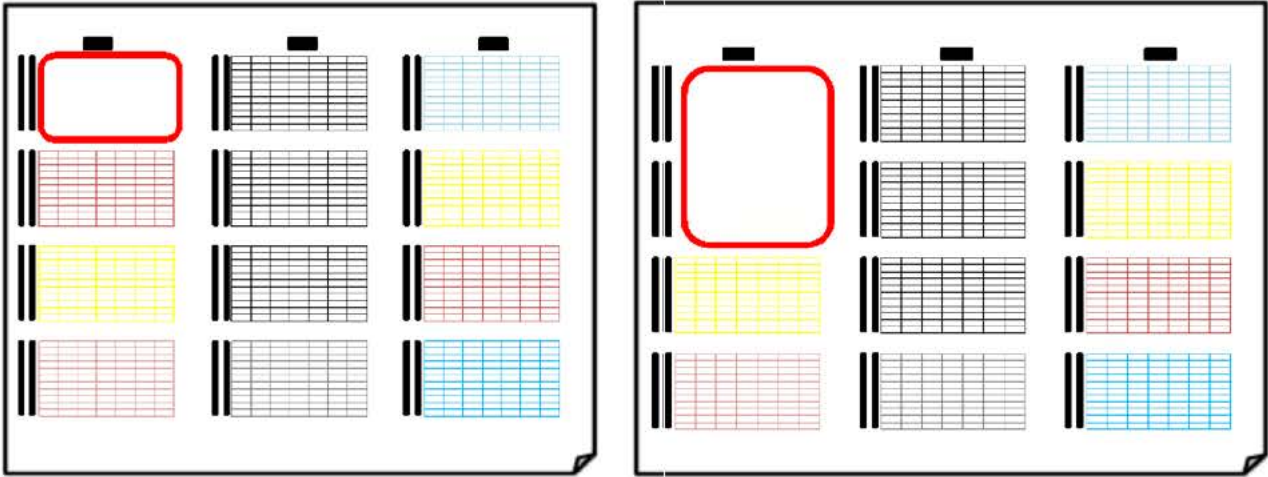
12-color models (24" model, 44" model, 60" model)



All color complete non-ejection of ink



One-color or multi-color complete non-ejection of ink



Chapter 1

Chapter 2

Chapter 3

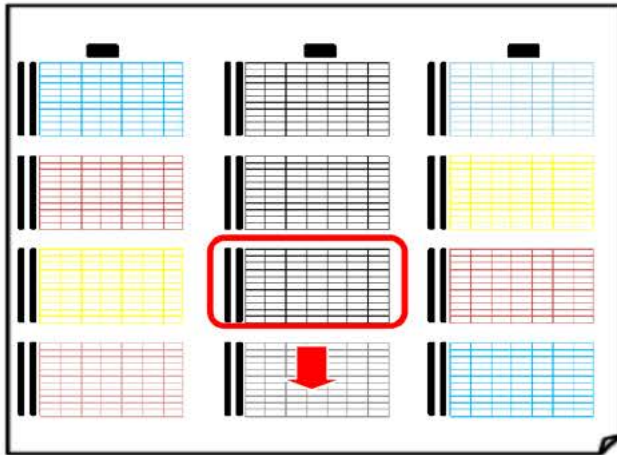
Chapter 4

Chapter 5

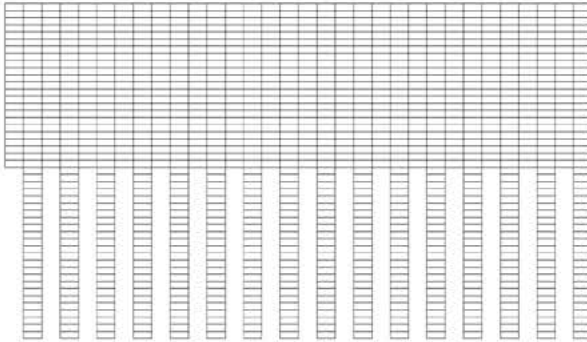
Chapter 6

Chapter 7

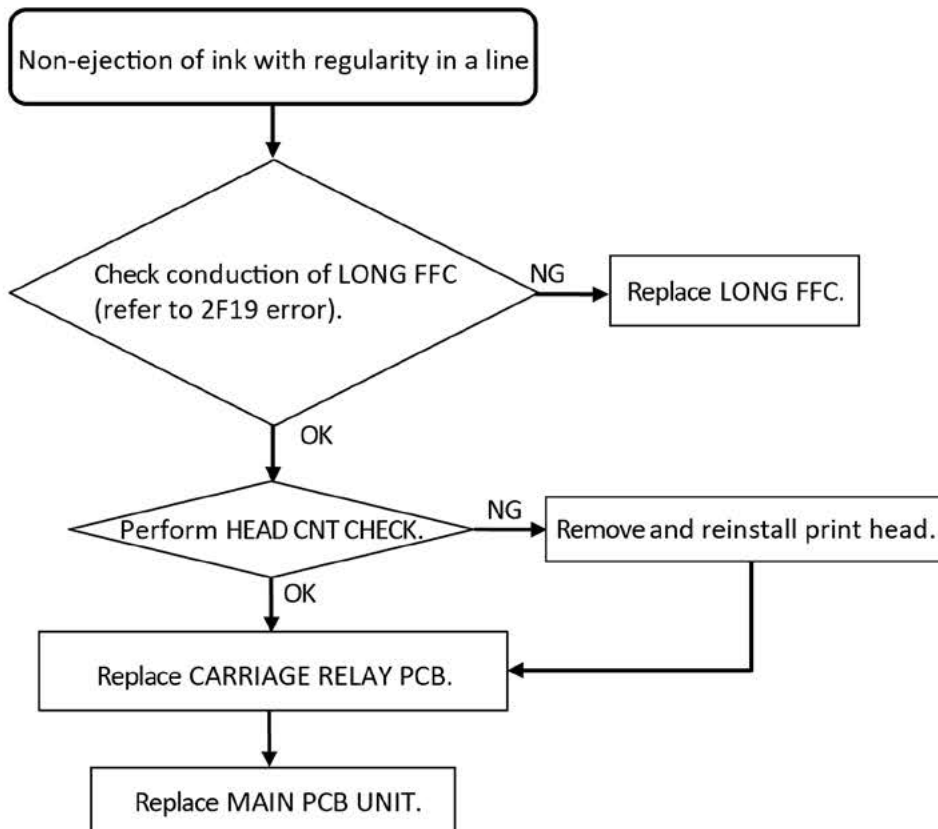
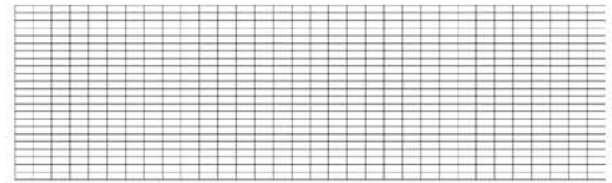
Non-ejection of ink with regularity in a line (1)

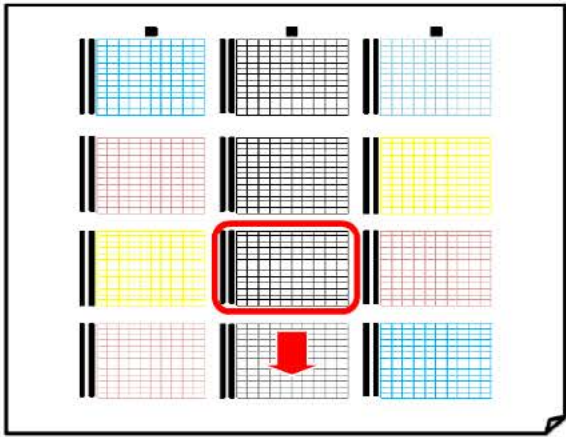


Non-ejection of ink in upper half of the line or lower half of the line

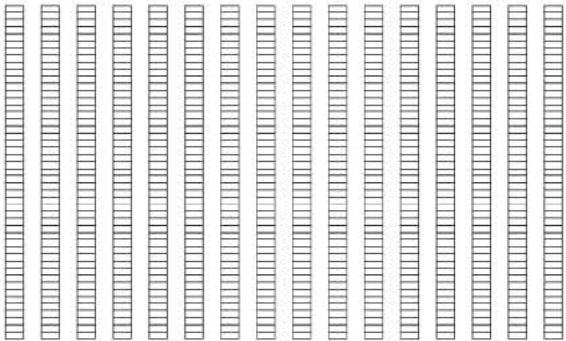


Non-ejection of ink in upper half of the line or lower half of the line

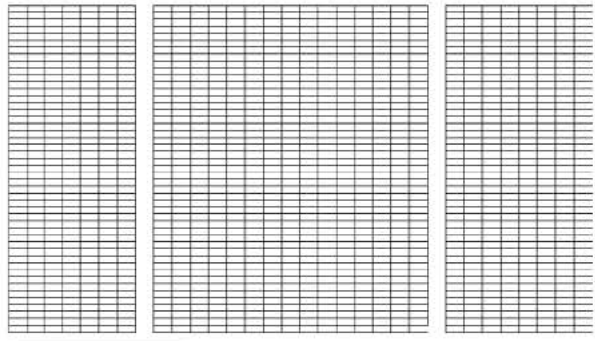




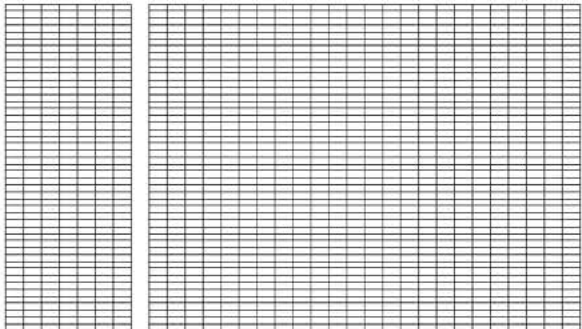
Per 2 nozzles



Per 16 nozzles



Per 32 nozzles



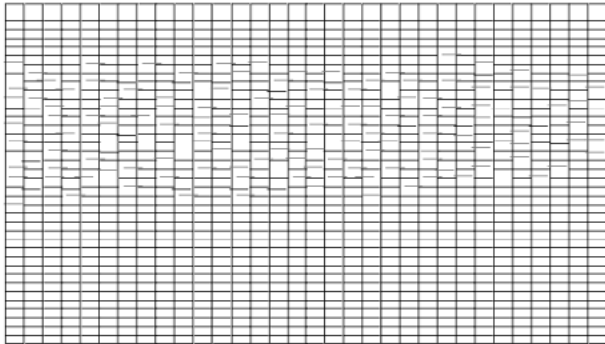
Non-ejection of ink with regularity in a line

Replace print head.

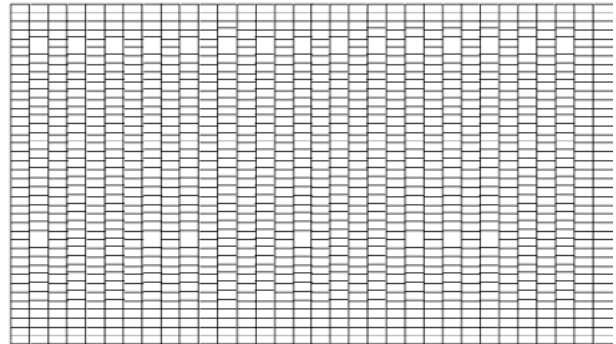
Non-ejection of ink with regularity in a line (2)

Dot mis-alignment

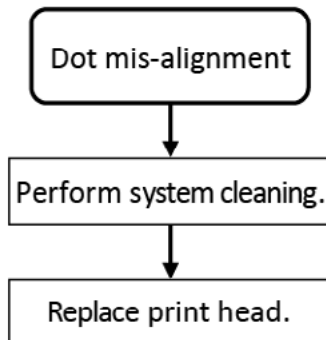
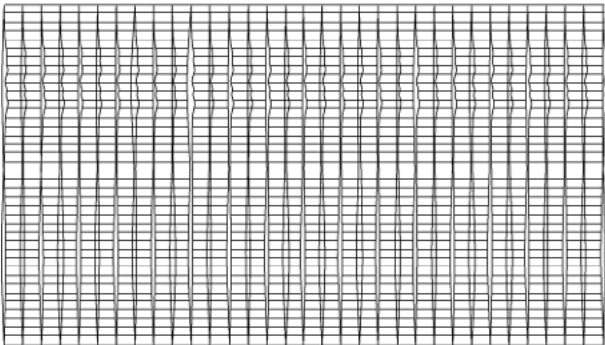
Dot mis-alignment and non-ejection of ink



Dot mis-alignment

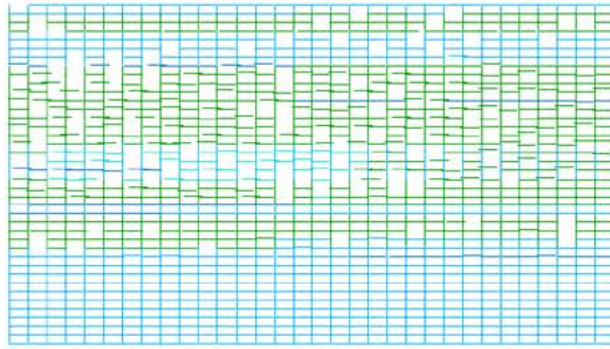


Double vertical line

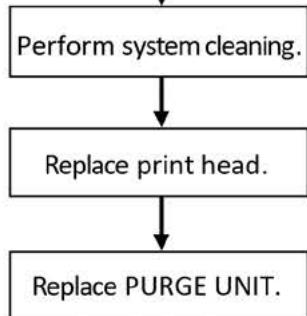


Mixed color (non-ejection of ink and dot mis-alignment)

Mixed color (non-ejection of ink and dot mis-alignment)

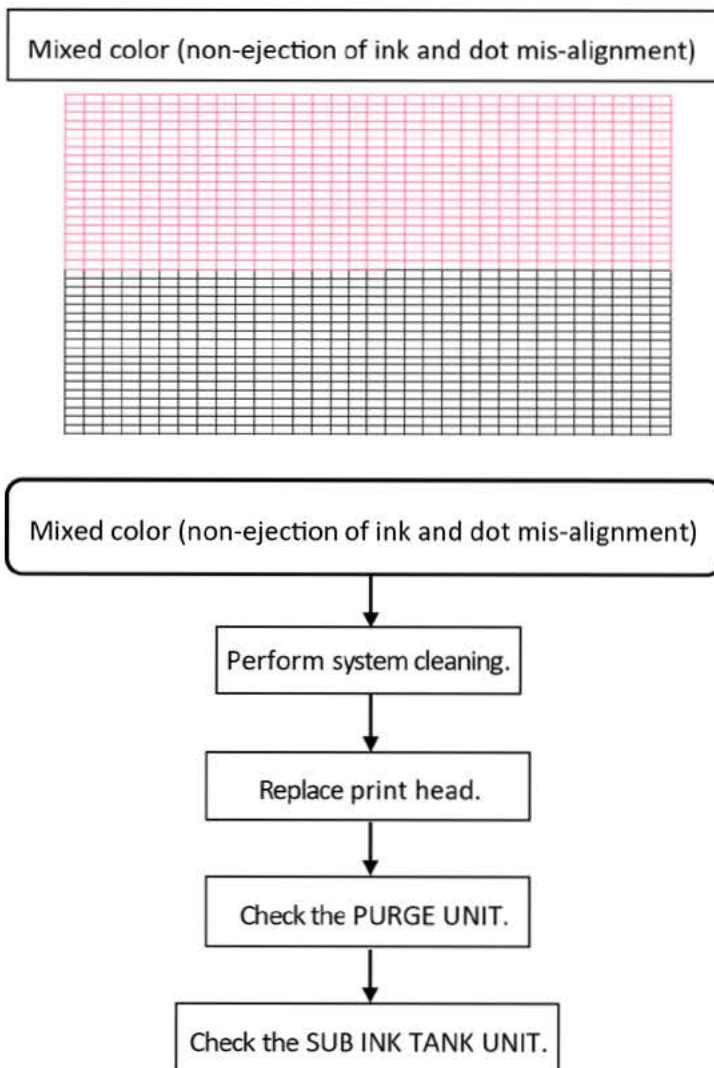


Mixed color (non-ejection of ink and dot mis-alignment)



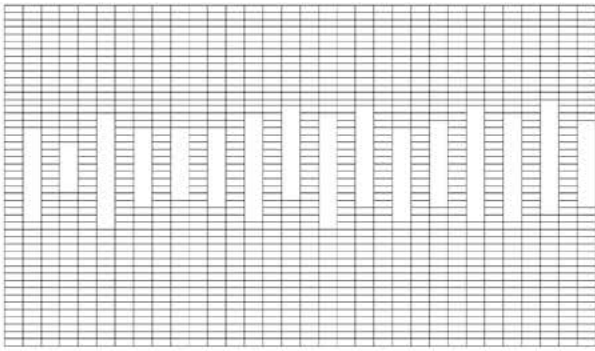


Mixed color (non-ejection of ink and dot mis-alignment)

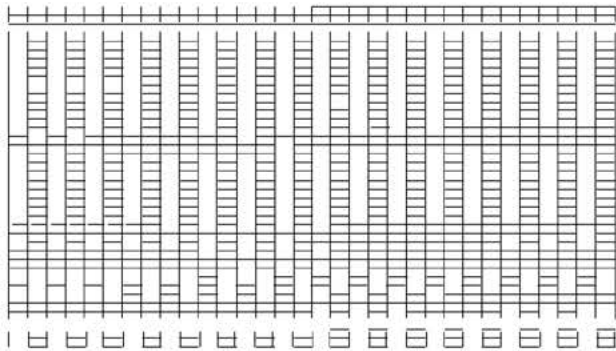


Non-ejection of ink without regularity of line

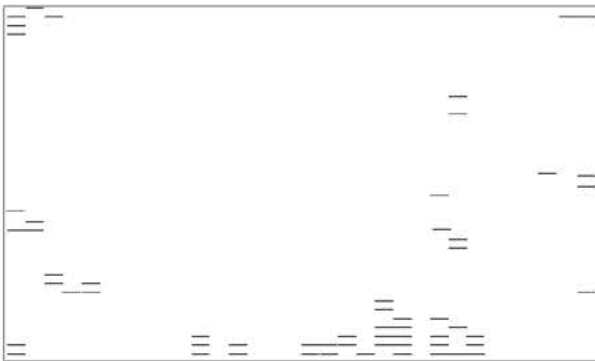
Non-ejection of ink without regularity in line



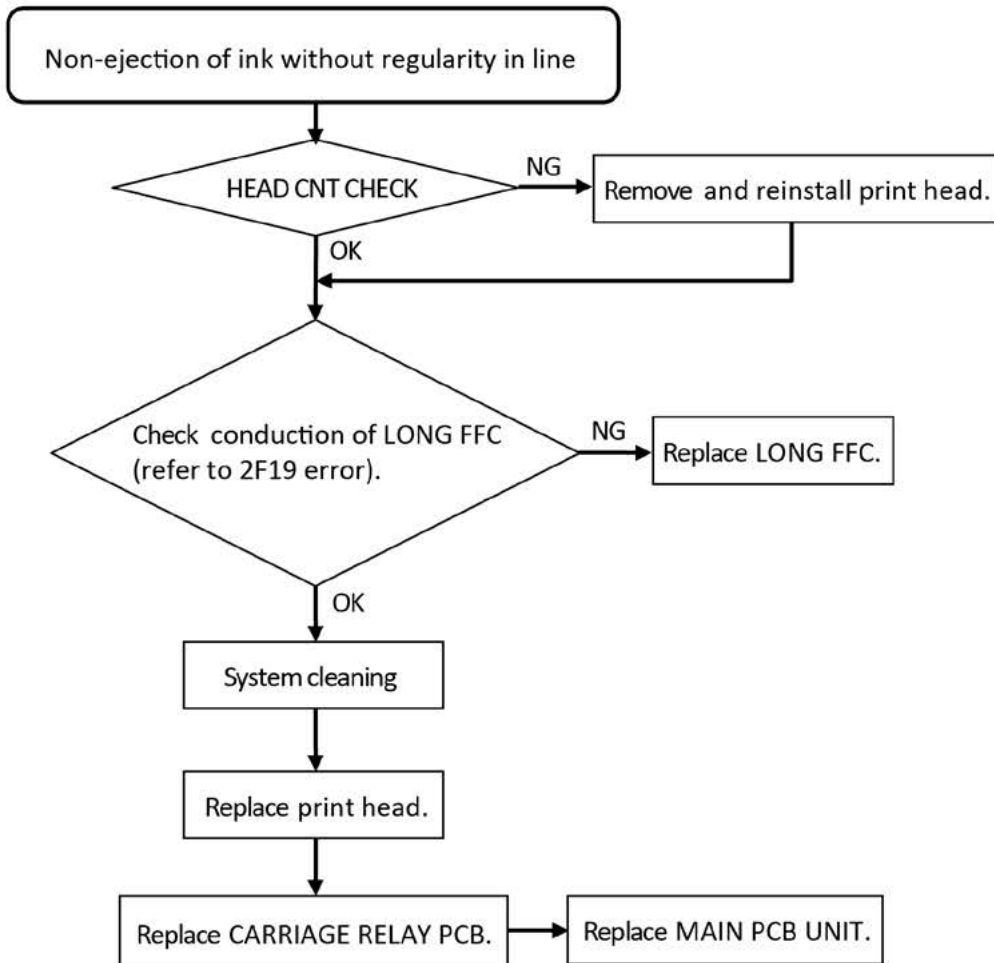
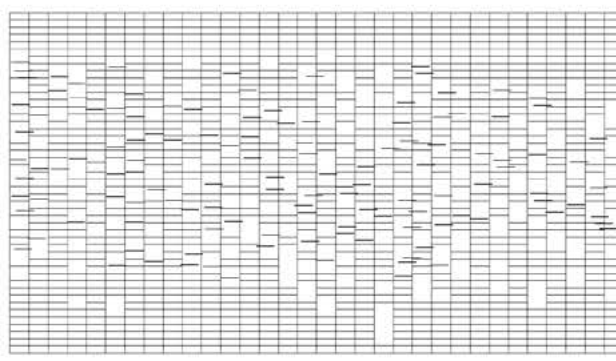
Non-ejection of ink without regularity in line



Blur (small amount of ink ejection)



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 LFP PRO Service Tool. This section explains the method using service mode. For how to obtain the service log using LFP PRO Service Tool, see [6-4. LFP 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 PRO-4000S PRINT INF S/N:***** Firm:00.47RC3 Boot:00.17 Date:2015/10/05 ]
SYSTEM INFO  TMP:26 RH:42 AFTER INST:0 DB Format Version:03
              PV TOTAL    322.3 m2 / 3470.1 sq.f / 5169(A4)
              ENV.  A:0 B:2171 C:2998 D:0 E:0 F:0
HARDWARE ERROR LOG
01:01/01 00:06 EC51-2F38(1214) 00000000 26 42 02:07/05 19:11 EC22-2F30(4801) 00000000 26 42
03:07/05 17:45 EC33-2601(4801) 00000000 26 43 04:07/05 17:30 EC24-404B(8200) 00000000 25 43
05:07/05 17:26 EC24-404B(8200) 00000000 0 5 06:07/01 17:38 EC51-2F38(1214) 00000000 26 45
07:06/30 22:23 EC33-4028(5a60) 00000000 25 43 08:06/30 22:23 EC33-4024(5a60) 00000000 25 43
09:06/30 22:23 EC33-4026(5a60) 00000000 25 43 10:06/30 20:45 EC33-4026(5a60) 00000000 25 42
ERROR LOG
01:07/05 21:38 2E3A(1300) 00000000 26 41 02:07/05 18:10 2F6B(1481) 00000000 26 43
03:07/02 21:39 2528(1660) 00000000 26 52 04:07/02 21:39 2524(1660) 00000000 26 52
05:07/02 21:39 2525(1660) 00000000 26 52 06:07/02 21:39 2526(1660) 00000000 26 52
07:07/02 21:39 2522(1660) 00000000 26 52 08:07/02 21:39 2523(1660) 00000000 26 52
09:07/02 21:39 2520(1660) 00000000 26 52 10:07/02 21:38 2528(1660) 00000000 26 52
WARNING LOG
01:07/02 21:31 27D1(1552) 00000000 26 53 02:07/02 21:23 27E1(1551) 00000000 26 53
03:07/02 20:48 27E1(1551) 00000000 26 53 04:07/01 22:14 1021(1051) 00000000 26 57
05:07/01 18:46 1021(1051) 00000000 26 48 06:07/01 17:48 1021(1051) 00000000 26 45
07:07/01 17:38 1021(1051) 00000000 26 45 08:07/01 17:34 1021(1051) 00000000 26 45
09:06/30 23:47 1402(1570) 00000000 25 42 10:06/30 23:43 281A(3250) 00000000 25 42
JAM LOG
**:**/** **:** *****(****) 01:* 02:* 03:* 04:* 05:* 06:* 07:* 08:*
09:* 10:*
**:**/** **:** *****(****) 01:* 02:* 03:* 04:* 05:* 06:* 07:* 08:*
09:* 10:*
**:**/** **:** *****(****) 01:* 02:* 03:* 04:* 05:* 06:* 07:* 08:*
09:* 10:*
**:**/** **:** *****(****) 01:* 02:* 03:* 04:* 05:* 06:* 07:* 08:*
09:* 10:*
**:**/** **:** *****(****) 01:* 02:* 03:* 04:* 05:* 06:* 07:* 08:*
09:* 10:*

```

See "SYSTEM INFO."

See "ERROR LOG."

PARTS COUNTER LOG

Wia1:	OK	2015/10/05	0.0	739.0	0%	0.0	0
Wia2:	OK	2015/10/05	0.0	1053.3	0%	0.0	0
Wia3:	OK	2015/10/05	0.7	1537.1	0%	0.7	0
Wia6:	OK	2015/10/05	0.2	927.6	0%	0.2	0
Wia7:	OK	2015/10/05	0.2	380.9	0%	0.2	0
WF1 :	OK	2015/10/05	0.0	190.4	0%	0.0	0
CR1 :	OK	2015/10/05	24862	30952380	0%	24862	0
CR2 :	OK	2015/10/05	61695	75000000	0%	61695	0
CR3 :	OK	2015/10/05	0	60000	0%	0	0
CR4 :	OK	2015/10/05	4386	7360000	0%	4386	0
CR5 :	OK	2015/10/05	61697	75000000	0%	61697	0
PG1 :	OK	2015/10/05	399	156000	0%	399	0
PG2 :	OK	2015/10/05	74	789000	0%	74	0
PG3 :	OK	2015/10/05	109	28000	0%	109	0
HMa1:	OK	2015/10/05	0.0	6.3	1%	0.0	0
MT1 :	OK	2015/10/05	2	3400	0%	2	0
PL1 :	OK	2015/10/05	0	1000	0%	0	0
MI1 :	OK	2015/10/05	0.1	1695.2	0%	0.1	0
MS1 :	W2	2015/10/05	-----	-----	0%	-----	0

See "PARTS COUNTER."

CLEANING LOG

A-ABC	3( 2)	2015/10/05,	2015/10/01,	2015/06/17	R-ABC	3	2015/06/17	R-A	0	****/**/**
A-A	0( 0)	****/**/**,	****/**/**,	****/**/**	R-B	0	****/**/**	R-C	0	****/**/**
A-B	1( 1)	2015/10/05,	****/**/**,	****/**/**	EX	3	2015/10/05	H	2	****/**/**
A-C	3( 3)	2015/10/05,	2015/10/05,	2015/09/30	T1	0	****/**/**	T2	1	****/**/**
S-ABC	6( 5)	2015/10/05,	2015/09/30,	2015/09/30	T3	0	****/**/**	F1	1	****/**/**
S-A	0( 0)	****/**/**,	****/**/**,	****/**/**	C	0	****/**/**	IR	0	****/**/**
S-B	0( 0)	****/**/**,	****/**/**,	****/**/**	Z-ABC	0	****/**/**	Z-A	0	****/**/**
S-C	0( 0)	****/**/**,	****/**/**,	****/**/**	Z-B	0	****/**/**	Z-C	0	****/**/**

See  
"CLEANING LOG."

SERVICE ADJUSTMENT LOG

GAP_CALIB	2015/07/01	OPTICAL_AXIS	2015/07/01	CR_MOTOR_COG	2015/07/01	CGC_REG	****/**/**
LF_TUNING	2015/10/05	CR_REG	2015/07/05	NOZZLE_CHECK_POS	2015/10/05		
TOUCH PANEL CALIBRATION	2015/07/02	UPPER_ARB_CALIB	2015/06/15	LOWER_ARB_CALIB	2015/06/15		
LF_ENC_ADJ	****/**/**						

See  
"SERVICE LOG."

PCB REPLACEMENT LOG

01:	1970/01/01	0	02:	1970/01/01	0	03:	1970/01/01	0	04:	1970/01/01	0	05:	1970/01/01	0
06:	1970/01/01	0	07:	1970/01/01	0	08:	1970/01/01	0	09:	1970/01/01	0	10:	1970/01/01	0

[ PV AUTO JUDGE : OFF , 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

Canon PRO-4000S PRINT INF S/N:\*\*\*\*\* Firm:00.47RC3 Boot:00.17 Date:2015/10/05

CONSUMABLES USAGE INFO

HEAD INF.1 LOT:005C18 0b DATE OF PRINT HEAD INSTALLATION: 2015/01/11

DOT COUNT TTL:1151230

C:12332 M:12177 Y:10723 PM:8018 BK:362761 MBK:224026  
MBK2:224016 GY:254507 PC:7359 Y2:10719 M2:12218 C2:12370

THE NUMBER OF N INK INSTALLED THE NUMBER OF NON-EJECTION NOZZLES

Aa:000 Ab:000 Ac:000 Ad:000 Aa: 0 Ab: 0 Ac: 0 Ad: 1  
Ba:000 Bb:000 Bc:000 Bd:000 Ba: 0 Bb: 1 Bc: 0 Bd: 1  
Ca:000 Cb:000 Cc:000 Cd:000 Ca: 1 Cb: 1 Cc: 0 Cd: 0

HEAD INF.2 LOT:005C18 0b DATE OF PRINT HEAD INSTALLATION: 2015/01/11

DOT COUNT TTL:1146489

C:12206 M:12025 Y:10601 PM:7896 BK:361550 MBK:224026  
MBK2:223197 GY:253682 PC:7234 Y2:10597 M2:12067 C2:12370

THE NUMBER OF N INK INSTALLED THE NUMBER OF NON-EJECTION NOZZLES

Aa:000 Ab:000 Ac:000 Ad:000 Aa: 0 Ab: 0 Ac: 0 Ad: 0  
Ba:000 Bb:000 Bc:000 Bd:000 Ba: 0 Bb: 1 Bc: 0 Bd: 1  
Ca:000 Cb:000 Cc:000 Cd:000 Ca: 0 Cb: 0 Cc: 0 Cd: 0

THE NUMBER OF HEAD REPLACEMENT:0 S: 1

THE ACCUMULATION OF DOT COUNT TTL:61682

C:1134 M:1137 Y:1036 PM:1238 BK:26238 MBK:6720  
MBK2:6680 GY:12844 PC:1263 Y2:1063 M2:1162 C2:1161

INK INFO

INK-USE1 INK-TTL: 2008.6ml NINK-TTL: 0.0ml  
INK GY: 180.4ml PM: 171.5ml M: 301.3ml MBK: 351.7ml BK: 188.2ml PC: 184.8ml  
Y: 302.2ml C: 328.5ml

NINK GY: 0.0ml PM: 0.0ml M: 0.0ml MBK: 0.0ml BK: 0.0ml  
Y: 0.0ml C: 0.0ml

INK-USE2 INK-TTL: 1756.8ml NINK-TTL: 0.0ml  
INK GY: 180.4ml PM: 171.5ml M: 301.3ml MBK: 351.7ml BK: 188.2ml  
Y: 50.4ml C: 328.5ml

NINK GY: 0.0ml PM: 0.0ml M: 0.0ml MBK: 0.0ml BK: 0.0ml PC: 0.0ml  
Y: 0.0ml C: 0.0ml

THE NUMBER OF INK-USE2 CLEAR:0

MAINTENANCE CARTRIDGE INFO

REMAINING CAPACITY:0% THE NUMBER OF REPLACEMENT:7 THE NUMBER OF RESET: 5

CUTTER INFO THE NUMBER OF REPLACEMENT:0

THE NUMBER OF CUTS

CURRENT TOTAL:23 1:GlossyPhotoHG170:12 2:Plain paper :11  
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 2015/07/01 ACC.SENSOR OK FFC OK CR Vib. OK  
PURGE CHECK 1970/01/01 NG  
NOZZLE CHECK 2015/10/01 OK  
HEAD CNT CHECK 2015/10/01 OK  
OPT SENS CHECK 2016/01/01 DENSITY OK EDGE OK GAP OK  
ANALOG ENCODER CHECK 1970/01/01 LED LEVEL NG OUTPUT LEVEL NG

The DIAGNOSIS information

USER COMMAND LOG

ADJUSTMENT

No:ADJ.	TYPE	HEAD	TEMP&HUM	MEDIA TYPE	DATE	TIME (GAP1 GAP2)
1:	-----	--(-,-)	---C--F--%	-----	-----	-----
2:	-----	--(-,-)	---C--F--%	-----	-----	-----
3:	-----	--(-,-)	---C--F--%	-----	-----	-----
4:	-----	--(-,-)	---C--F--%	-----	-----	-----
5:	-----	--(-,-)	---C--F--%	-----	-----	-----
D:	auto(d)	--(-,-)	---C--F--%	-----	-----	-----
E:	auto(e)	--(-,-)	---C--F--%	-----	-----	-----

Indicates carriage height.

COLOR CALIBRATION HISTORY (LAST 10 TIMES)

DATE	ACTION	MEDIA	TEMP/HUMID	R_C_R	H_S/N	M_S/N
1: 2015/06/29	23 3	-----	---/---	----	000007ab	002d
2: 2015/06/29	23 3	-----	---/---	----	000007ab	002d
3: 2015/06/29	23 3	-----	---/---	----	000007ab	002d
4: 2015/06/29	23 3	-----	---/---	----	000007ab	002d
5: *****	** *	*****	***/**	****	*****	****
6: *****	** *	*****	***/**	****	*****	****
7: *****	** *	*****	***/**	****	*****	****
8: *****	** *	*****	***/**	****	*****	****
9: *****	** *	*****	***/**	****	*****	****
10: *****	** *	*****	***/**	****	*****	****

- R\_C\_R: Internal information (note used in servicing)  
- H\_S/N: Head serial number  
- M\_S/N: Multi sensor serial number

See  
"USER COMMAND LOG."

Canon PRO-4000S PRINT INF S/N:\*\*\*\*\* Firm:00.47RC3 Boot:00.17 Date:2015/10/05

HEAD

HEAD INF.1 LOT:005C18 0

1:2015/07/05 2015/07/05 2015/01/11 2:\*\*\*\*/\*\*/\*\* \*\*\*\*/\*\*/\*\* \*\*\*\*/\*\*/\*\*  
 3:000000000 000000000 000000000  
 4: 16 5: 1 6: 2 7: 4 8: 3 9:\*\*\*\*\* 10:\*\*\*\*\* 11:\*\*\*\*\* 12: 9 13: 2  
 14: 8 15: 2 16: 3 17: 3 18:\*\*\* 19:\*\*\* 20:\*\*\* 21: 2 22:\*\*\* 23:\*\*\*  
 24:\*\*\* 25:\*\*\* 26:\*\*\* 27:\*\*\* 28:0  
 31:01:2015/07/05 \*\*\*\*-\*\*\*\*(\*\*\*\*) 02:2015/07/02 \*\*\*\*-\*\*\*\*(\*\*\*\*)  
 03:2015/07/02 \*\*\*\*-\*\*\*\*(\*\*\*\*) 04:2015/06/30 \*\*\*\*-\*\*\*\*(\*\*\*\*)  
 05:2015/06/30 \*\*\*\*-\*\*\*\*(\*\*\*\*) 06:2015/06/30 \*\*\*\*-\*\*\*\*(\*\*\*\*)  
 33:104.138 2015/07/03 142.125 2015/07/02 23.23 2015/06/29 34:A:191 B:191 C:191 35:3

HEAD INF.2 LOT:005C18 0

1:2015/06/30 2015/05/20 2015/01/11 2:\*\*\*\*/\*\*/\*\* \*\*\*\*/\*\*/\*\* \*\*\*\*/\*\*/\*\*  
 3:000000000 000000000 000000000  
 4: 15 5:\*\*\*\*\* 6:\*\*\*\*\* 7: 1 8: 3 9:\*\*\*\*\* 10:\*\*\*\*\* 11:\*\*\*\*\* 12: 9 13: 2  
 14: 8 15: 2 16: 2 17: 2 18:\*\*\* 19:\*\*\* 20:\*\*\* 21: 2 22:\*\*\* 23:\*\*\*  
 24:\*\*\* 25:\*\*\* 26:\*\*\* 27:\*\*\* 28:0  
 31:01:2015/07/05 \*\*\*\*-\*\*\*\*(\*\*\*\*) 02:2015/07/02 \*\*\*\*-\*\*\*\*(\*\*\*\*)  
 03:2015/07/02 \*\*\*\*-\*\*\*\*(\*\*\*\*) 04:2015/06/30 \*\*\*\*-\*\*\*\*(\*\*\*\*)  
 05:2015/06/30 \*\*\*\*-\*\*\*\*(\*\*\*\*) 06:2015/06/30 \*\*\*\*-\*\*\*\*(\*\*\*\*)  
 33:104.138 2015/07/03 142.125 2015/07/02 23.23 2015/06/29 34:A:191 B:191 C:191 35:3

INK

THE NUMBER OF REPLACEMENT INK-TTL:3 NINK-TTL:0  
 INK GY:0 PM:0 M:0 MBK:0 BK:0 PC:0 Y:3 C:0  
 NINK GY:0 PM:0 M:0 MBK:0 BK:0 PC:0 Y:0 C:0

DAYS AFTER INK CARTRIDGE INSTALLATION

CURRENT GY:16713 PM:16713 M:16713 MBK:16713 BK:16713 PC:16713 Y:16713 C:16713

PRINTER LOG

POWER-ON: 70:57 SLEEP-ON: 3:24  
 CARRIAGE PRINT: 0: 0 DRIVE: 2:42 CR-COUNT: 4384 CR-DIST.: 24856 CAPPING-COUNT: 399  
 WIPE: 3747889 HEAD POS OFFSET: 0 CGC-FLG: 0 CR\_LIFT: 0  
 IIF 1: 0 2: 0 3: 0 4: 0 5: 0 6: 0 0 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 1.

See Appendix 2.

NOTE: The above logs are reference information required for the analysis of the escalated printer troubles.



```

Canon PRO-4000S PRINT INF S/N:***** Firm:00.47RC3 Boot:00.17 Date:2015/10/05

AENC 1:0000 2:0000 3:0000 4:0000 5: 0000 0000 0000

HDD_SMART
ID Current Worst Threshold Data
01 06f 063 006 0000022756f0
03 063 063 000 000000000000
04 064 064 014 00000000031f
05 064 064 024 000000000000
07 03e 03c 01e 0000001bc00d
09 063 063 000 000000000386
0a 064 064 061 000000000000
0c 064 064 014 00000000017f
b8 064 064 063 000000000000
bb 064 064 000 000000000000
bc 064 064 000 000000000000
bd 064 064 000 000000000000
be 044 03a 02d 000020200020
bf 064 064 000 000000000001

MULTI SENSOR 00 55 20 15 02 23 20 19 01 03 26 26 2d 00 00 00
                20 81 dc 01 02 81 a8 01 02 81 7c 01 02 00 00 00

DETAILS          MEADIA          LEDOFF          PLATEN          GAIN          CURRENT
                SPEC  ACTUAL  SPEC  ACTUAL  SPEC  ACTUAL  SPEC  ACTUAL  SPEC  ACTUAL
DENSITY RED    OK   0-1023 804   0-1023 66   0-1023 119   6-224 28   1- 61 9
                GREEN OK   0-1023 784   0-1023 66   0-1023 120   6-224 18   1- 61 9
                BLUE OK   0-1023 780   0-1023 66   0-1023 105   6-224 17   1- 61 9
EDGE          S    OK   0-1023 806   0-1023 94   0-1023 115   6-224 65   1- 61 9
                D    OK   0-1023 806   0-1023 74   0-1023 223   6-224 17   1- 61 9
GAP          FAR   OK   0-1023 629   0-1023 81   0-1023 96   6-224 20   1- 61 9
                NEAR OK   0-1023 632   0-1023 80   0-1023 85   6-224 27   1- 61 9

```

See Appendix 3.

See Appendix 2.

NOTE: The above logs are reference information required for the analysis of the escalated printer troubles.

Canon PRO-4000S PRINT INF S/N:\*\*\*\*\* Firm:00.47RC3 Boot:00.17 Date:2015/10/05

PV INFO DETAILS

MEDIA 1

NAME : Plain paper  
 TTL : 2691.0 m2 28955.2 sq.f  
 ROLL : 2691.0 m2 28955.2 sq.f  
 ROLL2 : 0.0 m2 0.0 sq.f  
 CUTSHEET : 0.0 m2 0.0 sq.f

MEDIA 2

NAME : Bannr Vinyl  
 TTL : 1427.0 m2 15354.5 sq.f  
 ROLL : 1427.0 m2 15354.5 sq.f  
 ROLL2 : 0.0 m2 0.0 sq.f  
 CUTSHEET : 0.0 m2 0.0 sq.f

MEDIA 3

NAME : Backlit Film HG  
 TTL : 523.0 m2 5627.5 sq.f  
 ROLL : 523.0 m2 5627.5 sq.f  
 ROLL2 : 0.0 m2 0.0 sq.f  
 CUTSHEET : 0.0 m2 0.0 sq.f

MEDIA 4

NAME : Syn. Paper  
 TTL : 523.0 m2 5627.5 sq.f  
 ROLL : 523.0 m2 5627.5 sq.f  
 ROLL2 : 0.0 m2 0.0 sq.f  
 CUTSHEET : 0.0 m2 0.0 sq.f

MEDIA 5

NAME : FineArt Txtr  
 TTL : 0.0 m2 0.0 sq.f  
 ROLL : 0.0 m2 0.0 sq.f  
 ROLL2 : 0.0 m2 0.0 sq.f  
 CUTSHEET : 0.0 m2 0.0 sq.f

MEDIA 6

NAME :  
 TTL : 0.0 m2 0.0 sq.f  
 ROLL : 0.0 m2 0.0 sq.f  
 ROLL2 : 0.0 m2 0.0 sq.f  
 CUTSHEET : 0.0 m2 0.0 sq.f

MEDIA 7

NAME :  
 TTL : 0.0 m2 0.0 sq.f  
 ROLL : 0.0 m2 0.0 sq.f  
 ROLL2 : 0.0 m2 0.0 sq.f  
 CUTSHEET : 0.0 m2 0.0 sq.f

MEDIA OTHER

NAME : OTHER  
 TTL : 0.0 m2 0.0 sq.f  
 ROLL : 0.0 m2 0.0 sq.f  
 ROLL2 : 0.0 m2 0.0 sq.f  
 CUTSHEET : 0.0 m2 0.0 sq.f

MEDIA SIZE1 ROLL P-SQ/P-CNT

0-17:	0.0 m2	0.0 sq.f	0	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				

MEDIA SIZE1 CUT P-SQ/P-CNT

0-17:	0.0 m2	0.0 sq.f	0	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 HEAD 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 (ABC cap)	
		5	Number of cleaning A-II (A cap)	
		6	Number of cleaning A-III (B cap)	
		7	Number of cleaning A-IV (C cap)	
		8	Number of cleaning R-I (ABC cap)	
		9	Number of cleaning R-II (A cap)	
		10	Number of cleaning R-III (B cap)	
		11	Number of cleaning R-IV (C cap)	
		12	Number of cleaning S-I (ABC cap)	
		13	Number of cleaning S-II (A cap)	
		14	Number of cleaning S-III (B cap)	
		15	Number of cleaning S-IV (C cap)	
		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)	
		20	Number of cleaning T3-I(Move indoors on the same floor)	
		21	Number of cleaning FI-I(ink filling at the installation after printer transportation)	
		22	Number of cleaning C-I (on arrival)	
		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	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: *** C: ***)	
	35	CRC value		
	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 offset value NOTE: Number of criterial-height offset pulse
		CGC-FLG		Setting flag NOTE: To check whether adjustment is executed or not.
		CR_LIFT		Number of CR lift
		IIF	1	
	2			Initial ink filling flag information
	3			The time until the detection of remaining amount of the initially-filled ink is ON
	4			Number of filling the tube with ink
	5			Initial ink filling time
	6			Temperature and humidity at initial setting (at power-on)
	7			Flag split and display at initial ink filling
	MV_LV1	1		[[Transportation log moving indoors (carrying)]] Number of recovery purging
		2		Initial ink filling flag information
		3		The time until the detection of remaining amount of the initially-filled ink is ON
		4		Number of filling the tube with ink
		5		Initial ink filling time
		6		Temperature and humidity at initial setting (at power-on)
		7		Flag split and display at initial ink filling
	MV_LV2	1		[[ Transportation log moving indoors (steps / elevator) ]] Number of recovery purging
		2		Initial ink filling flag information
		3		The time until the detection of remaining amount of the initially-filled ink is ON
		4		Number of filling the tube with ink
		5		Initial ink filling time
		6		Temperature and humidity at initial setting (at power-on)
		7		Flag split and display at initial ink filling
	MV_LV3	1		[[Transportation log Transporting outdoors]] Number of recovery purging
		2		Initial ink filling flag information
		3		The time until the detection of remaining amount of the initially-filled ink is ON
		4		Number of filling the tube with ink
		5		Initial ink filling time
		6		Temperature and humidity at initial setting (at power-on)
		7		Flag split and display at initial ink filling

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
		Data	Data
	MULTI SENSOR		Address dump value and PT_SENS_CHECK detailed information of multi sensor EEPROM is displayed. < 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  The output value indicates the following information (results of the last light quantity adjustment): - Media output (MEADIA) - Outside light output (LEDOFF) - Platen output (PLATEN) - Gain (GAIN) - Current value (CURRENT)

### 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 Cord)
C4	Reallocation Event Count	Number of alternative action for sectors
C5	Current Pending Sector Count	Number of sectors that is currently abnormal and waits for alternative action.
C6	Off-Line Scan Uncorrectable Sector Count	Total number of uncorrectable sectors discovered in off-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 PV INFO DETAILS (reference information)

Items		Print number or print name	Print contents
PV INFO DETAILS	MEDIA 1~7	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-
	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: m2 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 [2-2. Connection settings for 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 <ul style="list-style-type: none"> <li>· When the certificate is valid: The validated date is displayed.</li> <li>· When the certificate is deleted: NOT INSTALLED is displayed.</li> </ul>
E-RDS SETUP	E-RDS setup	<ul style="list-style-type: none"> <li>· E-RDS ON / OFF setting</li> <li>· URL of UGW is displayed.</li> <li>· UGW port number display</li> <li>· E-RDS communication test</li> <li>· Communication log display (30 cases)</li> <li>· DISPLAY setting</li> </ul>
E-RDS OTHERS	Other settings	<ul style="list-style-type: none"> <li>· Deletion of CA-certificate information for E-RDS</li> <li>· E-RDS data initialization</li> </ul>

### 2) Setting procedures

For the setting procedures and communication check, see 2) Settings procedures in [2-2. Connection settings for remote service.](#)



### 3) E-RDS menu level

The following table indicates [E-RDS] menu level. Execute [E-RDS] command after selecting [YES].

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)		
OFF						
INK CONSUMED			ON (default)			Setting of decimal point display (amount of consumed ink)
		OFF				
UNIT	TTL PRINT AREA	ON (default)			Unit setting (total print area)	
		OFF				
		DUTY CNT	LENGTH UNIT (default) A4 LETTER			
UNIT	DUTY CNT	ON (default)			Unit setting (DUTY counter)	
		OFF				
		LENGTH UNIT (default) A4 (default) 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 views as a failure, and the message to that effect is displayed.

## \*2: COM-LOG communication specifications

- 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 five settings in the following table if needed:

OTHERS menu	Items to be set	Setting details
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.

### 2) OTHERS menu level

The following table indicates [OTHERS] menu level. Execute [HDD BOX PW INIT] command after selecting [YES].

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

\*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,” “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.

## 6-3. 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 date 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 [2-2. Connection settings for remote service](#).

## 6-4. iPF PRO Service Tool

### 1) Purpose

iPF PRO Service Tool is the software for servicing aims at realizing the following functions:

Functions	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 collecting	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.

## 6-5. 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.

The recovery mode is not started only when the firmware supporting recovery mode (\*) has been installed in the printer. Therefore, it is recommended that the printers including the ones in operation should be updated as much as possible.

\*: See “Firmware version supporting the recovery mode” on the next page.

### 2) The items necessary for recovery

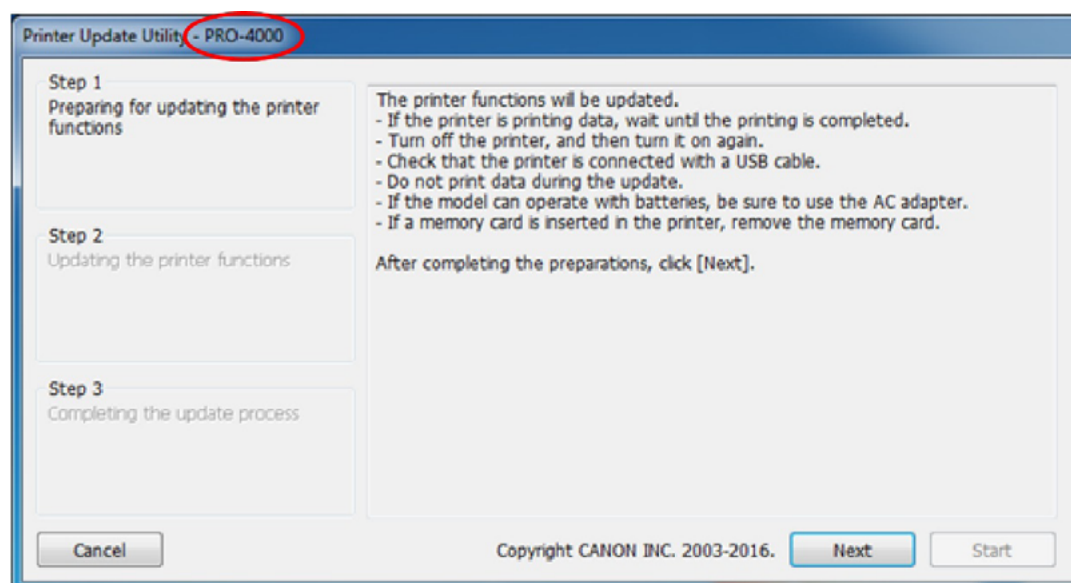
- Computer where the printer driver has been installed
- Printer Update Utility (Save to the computer.)
- USB cable

#### < 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 Ver. 1.17. 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\*\*\*\*\*V0117.exe.” (\*\*\*\*\* shows a product name.)
- Check the product name in the red circle at the top of the window of the tool below (e.g.: For PRO-4000 series)





## < Printer Update Utility operation environment >

### Supported OS:

- Windows 10 (32bit, 64bit), Windows 8.1 (32bit, 64bit), Windows 8 (32bit, 64bit), Windows 7 (32bit, 64bit), Windows Vista (32bit, 64bit) SP2 or higher
- Mac OS X v10.12, v10.11, v10.10, Mac OS X v10.9, Mac OS X v10.8, Mac OS X v10.7.5

### 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 >

- The recovery mode launches only when the firmware supporting a recovery mode has been installed in the printer. If the firmware supporting a recovery mode is installed in the printer, even if the printer is disconnected from the power source during updating the firmware by any of Firm update tool, LFP PRO Service Tool, or FIRMWARE UPDATE(USB) in the service mode, the recovery mode is launched.

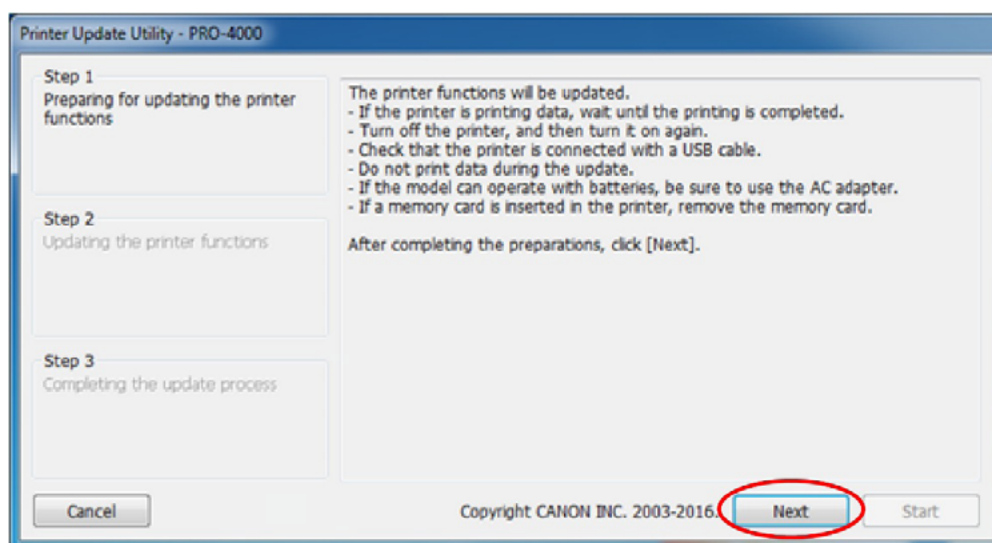
### < Firmware version supporting the recovery mode >

Product names	Supported versions
PRO-2000, PRO-520, PRO-4000, PRO-540, PRO-4000S, PRO-540S, PRO-6000S, PRO-560S	Ver. 1.17 or later
Other than the products above	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\*\*\*\*\*V0117.exe. Confirm the messages in Step 1 displayed on the Printer Update Utility, then click [Next].



Printer Update Utility is different by model. Use Printer Update Utility for the product with the recovery mode installed.

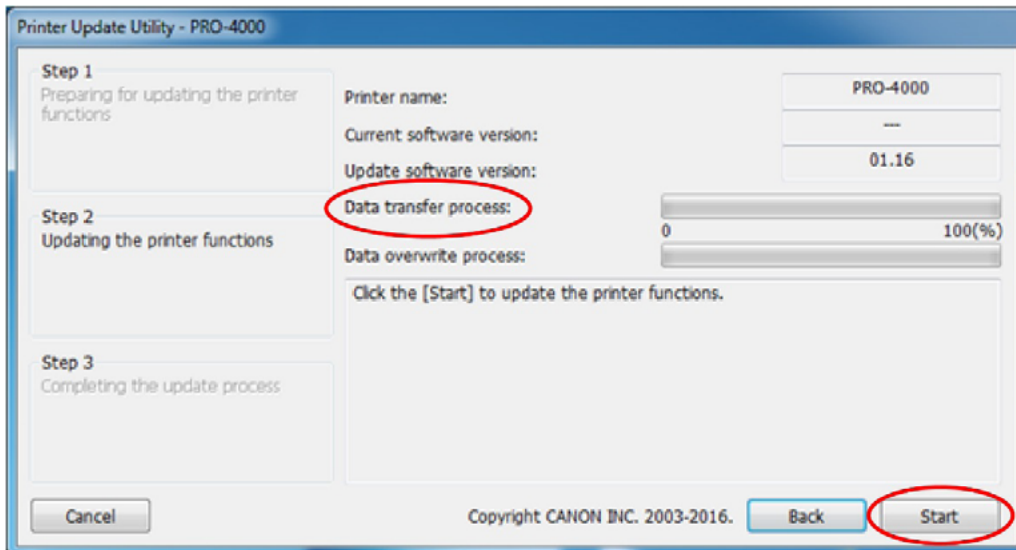


In order to communicate between the printer and Printer Update Utility, the printer driver is required to be installed in the computer you want to use. And confirm that [Enable bi-directional support] is selected in the [Port] tab of the Properties window of the printer driver.

If the communication is unsuccessful, click [Next], and the dialog "The printer could not be detected." will be displayed. Confirm the following:

- The printer must be connected with the computer with a USB cable.
- The printer must be launched in the recovery mode.
- The printer driver for the product with the recovery mode installed must be installed in the computer you want to use.


- Click [Start] on Printer Update Utility, and data transfer processing will be started.



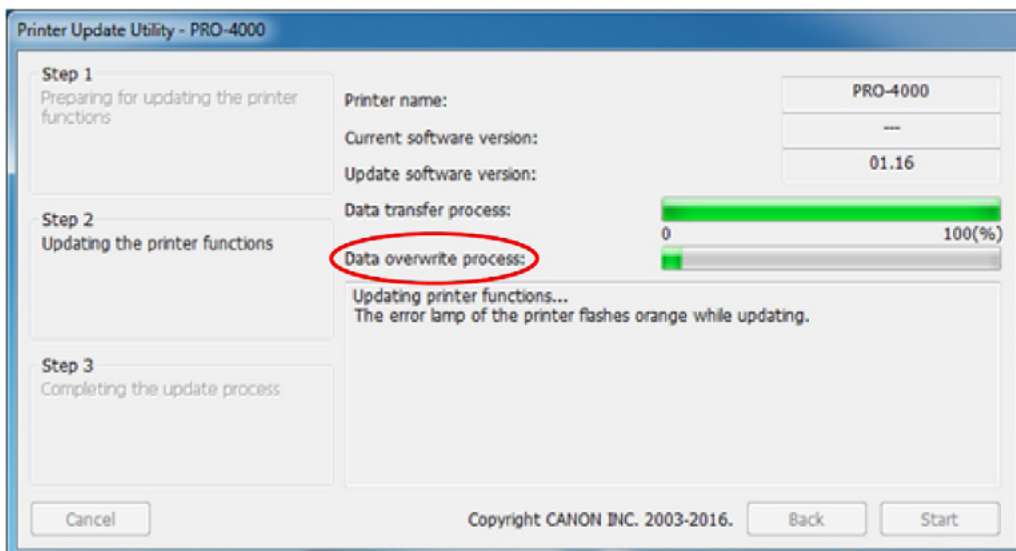
[Printer name]: The name of the printer connected to the computer

[Current software version]: The firmware version of the printer connected to the computer  
(This function is unavailable. "-" is displayed on the window.)

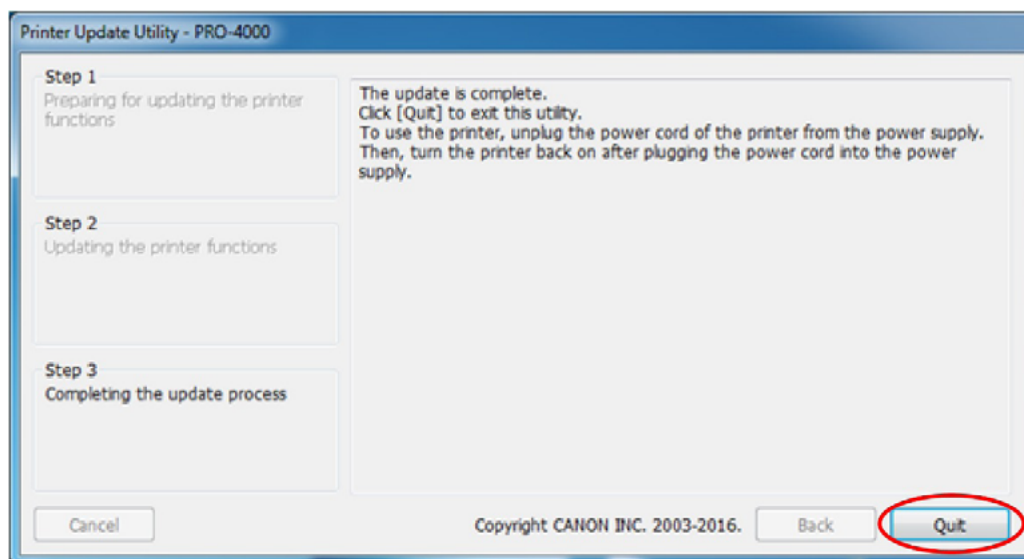
[Update software version]: The version of the firmware to be written this time

	<p>Do not turn off the printer or disconnect the USB cable until the firmware rewrite process is finished.</p>
---	--

- 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].

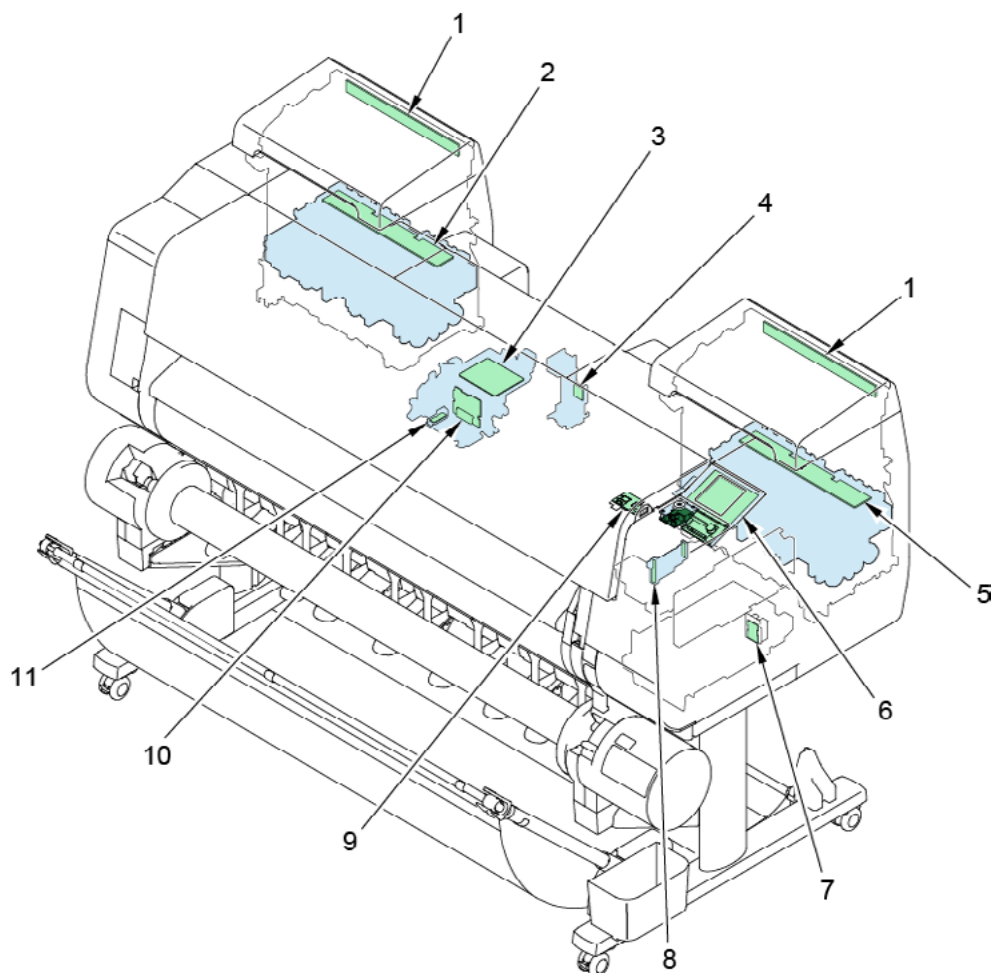


- Before using the printer, disconnect the plug of the printer from an outlet. Then, plug the printer into the outlet to turn on the printer.
- If the firmware is rewritten using Printer Update Utility, recovery process is performed using the firmware Ver. 1.17. Confirm the version of the latest firmware, and perform the firmware update usually (using such as Firm update tool, LFP PRO Service Tool, or Firmware Update (USB) in the service mode, etc.) if necessary.

# UNIT CONFIGURATION

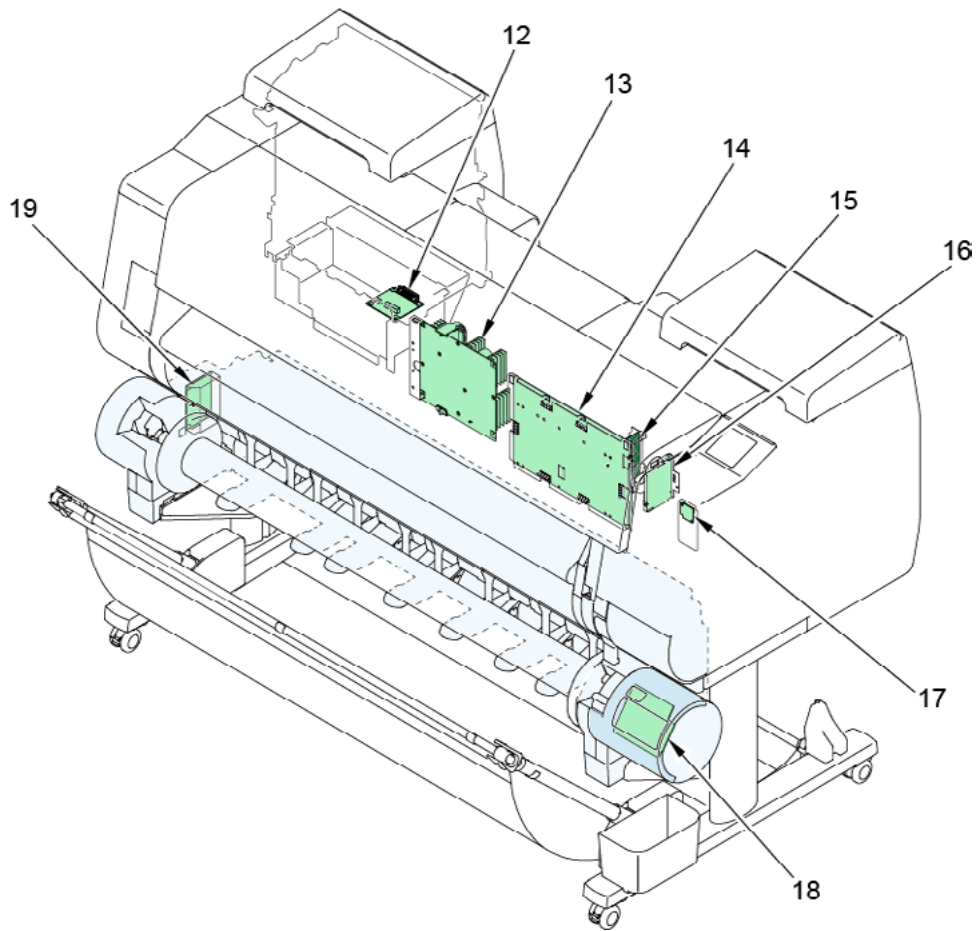
- 7-1. PCB ..... 652
- 7-2. Sensors ..... 655
- 7-3. Motors and Solenoids ..... 657
- 7-4. Fans ..... 658
- 7-5. Block Diagram..... 660
- 7-6. Main Controller PCB Connectors ..... 693

## 7-1. PCB



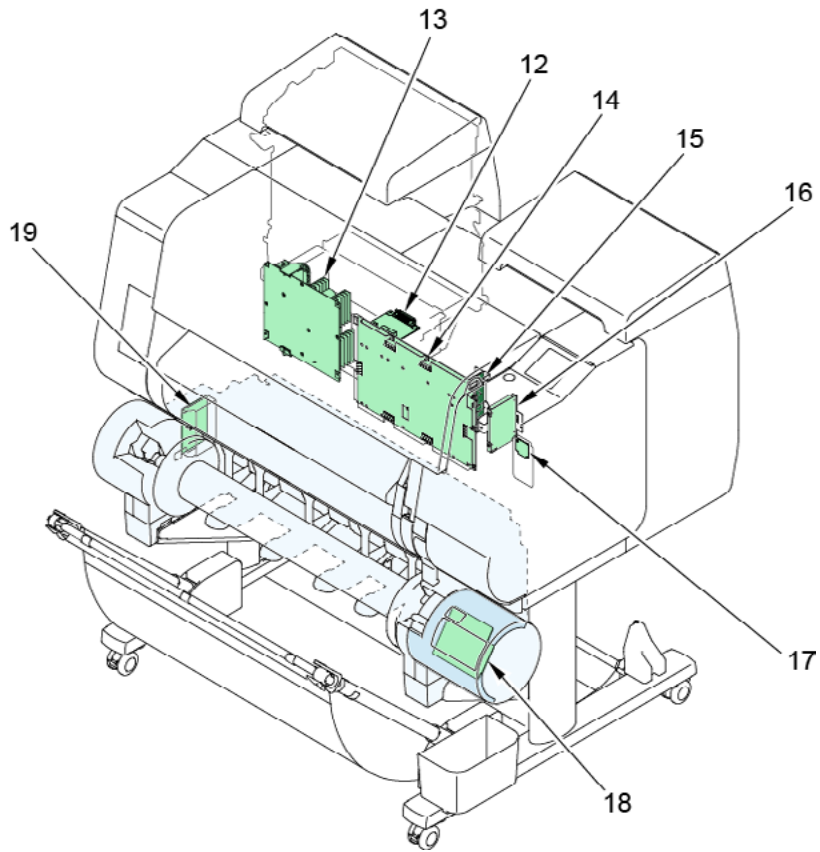
No.	Name	Remarks
1	TANK LED PCB UNIT	TANK LED PCB UNIT
2	LEFT TANK BOARD(*1)	included in SUB INK TANK UNIT L
3	CARRIAGE RELAY PCB UNIT	CARRIAGE RELAY PCB UNIT
4	WIRELESS LAN PCB(*1)	included in WIRELESS LAN PCB UNIT
5	RIGHT TANK BOARD(*1)	included in SUB INK TANK UNIT R
6	PANEL BOARD / POWER SWITCH BOARD(*1)	included in OPERATION PANEL UNIT
7	ROM BOARD(*1)	included in ROM BOARD UNIT
8	HEAD MANAGEMENT SENSOR BOARD(*1)	included in HEAD MANAGEMENT SENSOR UNIT
9	USB HOST PCB(*1)	included in USB HOST PCB ASS'Y
10	CARRIAGE BOARD(*1)	included in CARRIAGE UNIT
11	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
12	RELAY BORAD, RU(*1)	included in RELAY PCB UNIT, RU
13	POWER SUPPLY UNIT	included in POWER SUPPLY UNIT
14	MAIN BOARD(*1)	included in MAIN PCB UNIT
15	I/F BOARD(*1)	included in I/F PCB UNIT
16	HDD	HDD, ST320LT012
17	BACKUP ROM BORAD(*1)	included in BACKUP PCB UNIT
18	UR PANEL BOARD(*1)	included in OPERATION PANEL UNIT, RU
19	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.

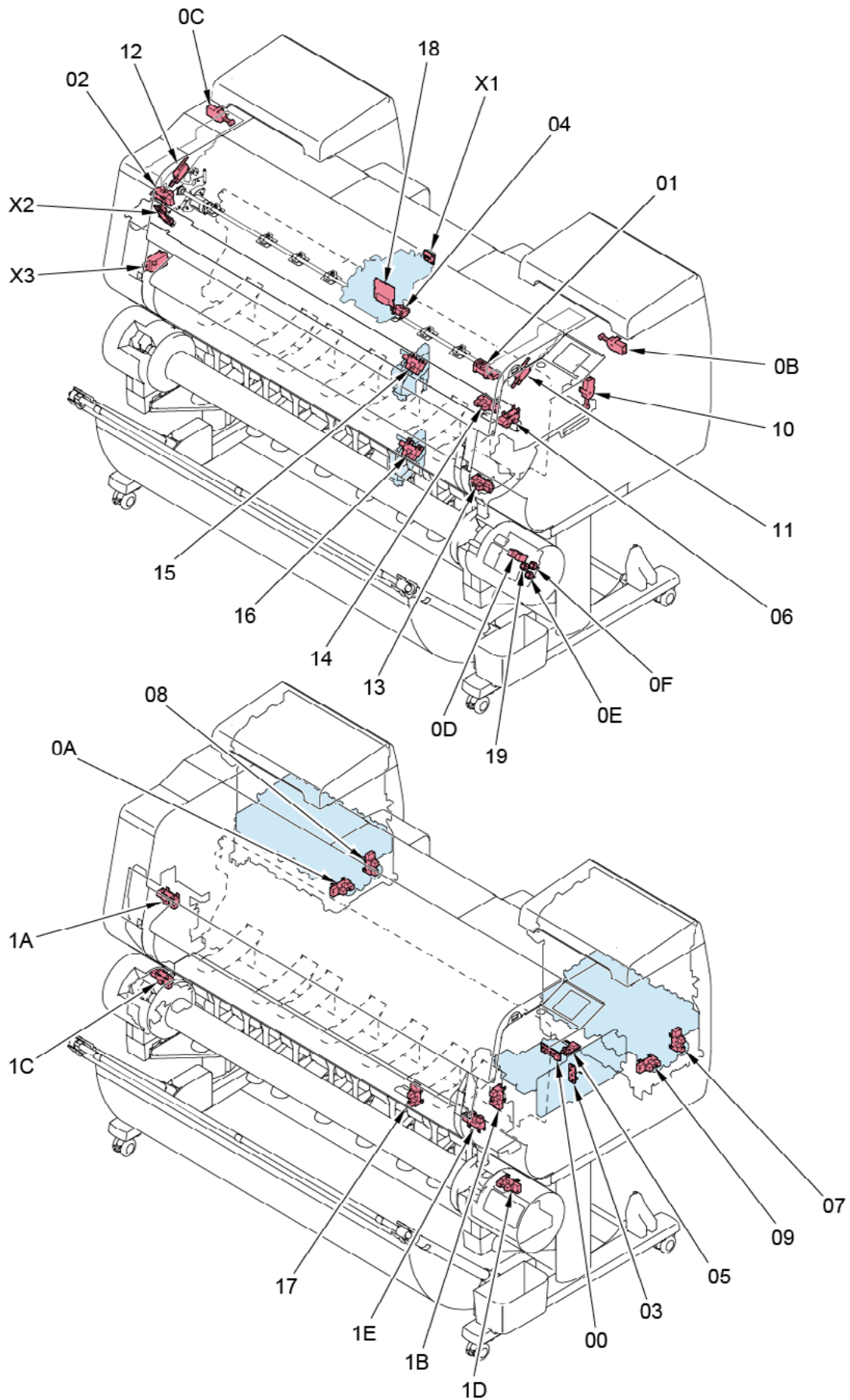


No.	Name	Remarks
12	RELAY BORAD, RU(*1)	included in RELAY PCB UNIT, RU
13	POWER SUPPLY UNIT	included in POWER SUPPLY UNIT
14	MAIN BOARD(*1)	included in MAIN PCB UNIT
15	I/F BOARD(*1)	included in I/F PCB UNIT
16	HDD	HDD, ST320LT012
17	BACKUP ROM BORAD(*1)	included in BACKUP PCB UNIT
18	UR PANEL BOARD(*1)	included in OPERATION PANEL UNIT, RU
19	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.



## 7-2. Sensors

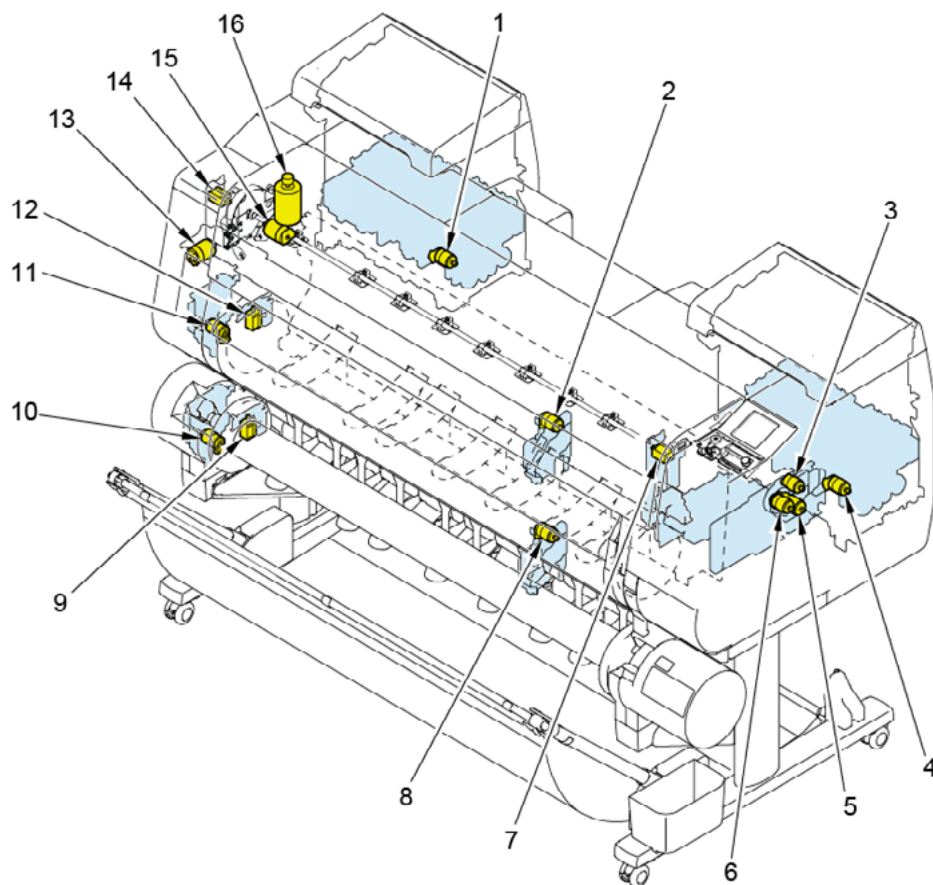


Operation panel Display	Name	Remarks	
0	0	PURGE MAIN CAM SENSOR(*1)	included in PURGE UNIT
	1	PAPER ENTRY SENSOR	PHOTO INTERRUPTER
	2	PAPER FEED HOME POSITION SENSOR(*1)	included in PAPER FEED ENCODER UNIT
	3	PUMP ROLLER SENSOR(*1)	included in PURGE UNIT
	4	CARRIAGE LIFT SENSOR(*1)	included in CARRIAGE UNIT
	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	LEFT CHOKE VALVE POSITION SENSOR(*1)	included in SUB INK TANK UNIT L
	9	RIGHT AGITATION VALVE POSITION SENSOR (*1)	included in SUB INK TANK UNIT R
	A	LEFT AGITATION VALVE POSITION SENSOR(*1)	included in SUB INK TANK UNIT L
	B	RIGHT TANK COVER SWITCH	DETECT MICRO SWITCH
	C	LEFT TANK COVER SWITCH	DETECT MICRO SWITCH
	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(*1)	included in CARRIAGE UNIT
	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

NO	Name	Remarks
X1	CARRIAGE ENCODER SENSOR(*1)	CARRIAGE ENCODER UNIT
X2	PAPER FEED ENCODER SENSOR(*1)	PAPER FEED ENCODER UNIT
X3	TEMPERATURE HUMIDITY SENSOR(*1)	SENSOR, HUMIDITY

\*1: It should be replaced by the unit mentioned in the Remarks, because it is unable to replace with the single parts.

## 7-3. Motors and Solenoids

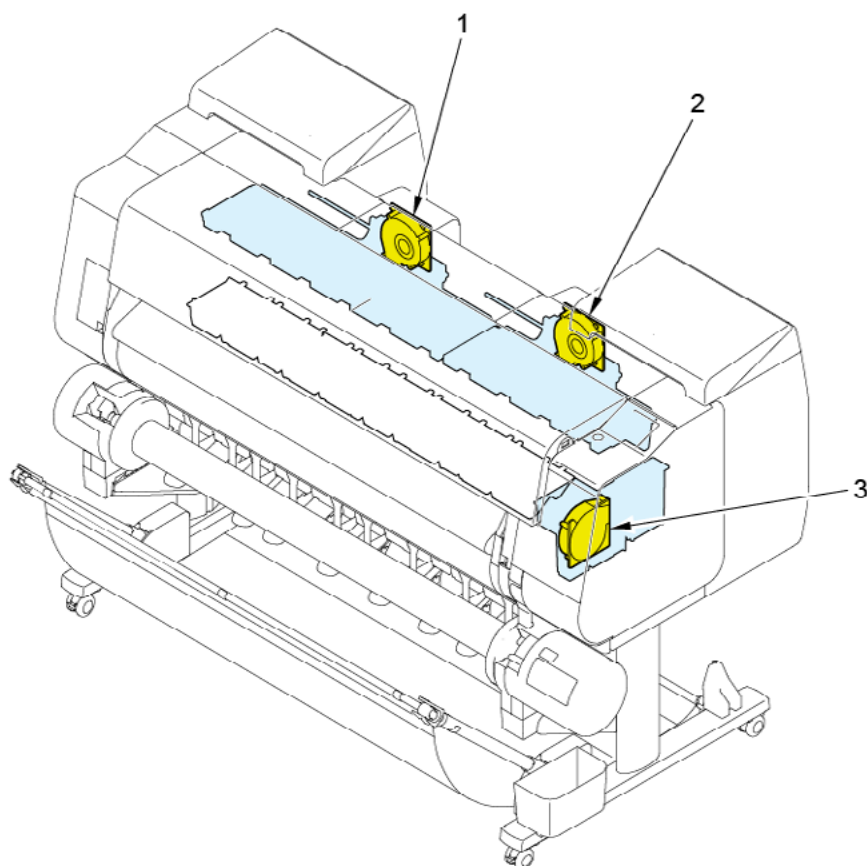


No.	Name	Remarks
1	LEFT INK VALVE MOTOR(*1)	included in SUB INK TANK UNIT L
2	UPPER ROLL NIP MOTOR(*1)	included in DRIVE NIP ARM UNIT
3	WIPER BLADE MOTOR(*1)	included in PURGE UNIT
4	RIGHT INK VALVE MOTOR(*1)	included in SUB INK TANK UNIT R
5	PURGE MOTOR(*1)	included in PURGE UNIT
6	LIFT MOTOR(*1)	included in LIFT UNIT
7	RIGHT TOP COVER LOCK SOLENOID(*1)	included in ACCESS COVER LOCK UNIT R
8	LOWER ROLL NIP MOTOR(*1)	included in DRIVE NIP ARM UNIT
9	LOWER SPOOL LOCK SOLENOID(*1)	included in SPOOL LOCK UNIT
10	LOWER ACTIVE ROLL BRAKE MOTOR (OPTION) (*1)	included in ACTIVE ROLL BRAKE UNIT
11	UPPER ACTIVE ROLL BRAKE MOTOR(*1)	included in ACTIVE ROLL BRAKE UNIT
12	UPPER SPOOL LOCK SOLENOID(*1)	included in SPOOL LOCK UNIT
13	CUTTER MOTOR(*1)	included in CUTTER MOTOR UNIT, W/ENCODER
14	LEFT TOP COVER LOCK SOLENOID	SOLENOID
15	PAPER FEED MOTOR(*1)	included in PAPER FEED MOTOR UNIT
16	CARRIAGE MOTOR	MOTOR, DC, 47.8W

\*1: It should be replaced by the unit mentioned in the Remarks, because it is unable to replace with the single parts.

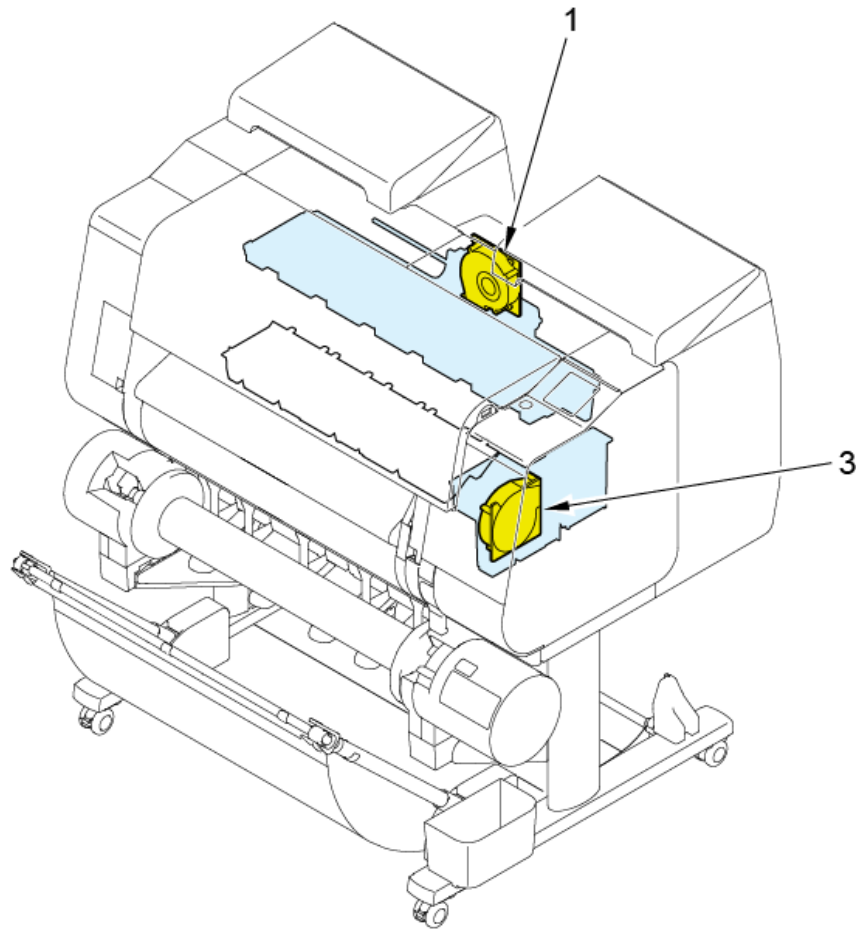
## 7-4. Fans

44" model



No.	Name	Remarks
1	LEFT MIST FAN(*1)	included in MIST FAN DUCT UNIT 2
2	RIGHT MIST FAN(*1)	(44" model) included in MIST FAN DUCT UNIT 1 (60" model) 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.



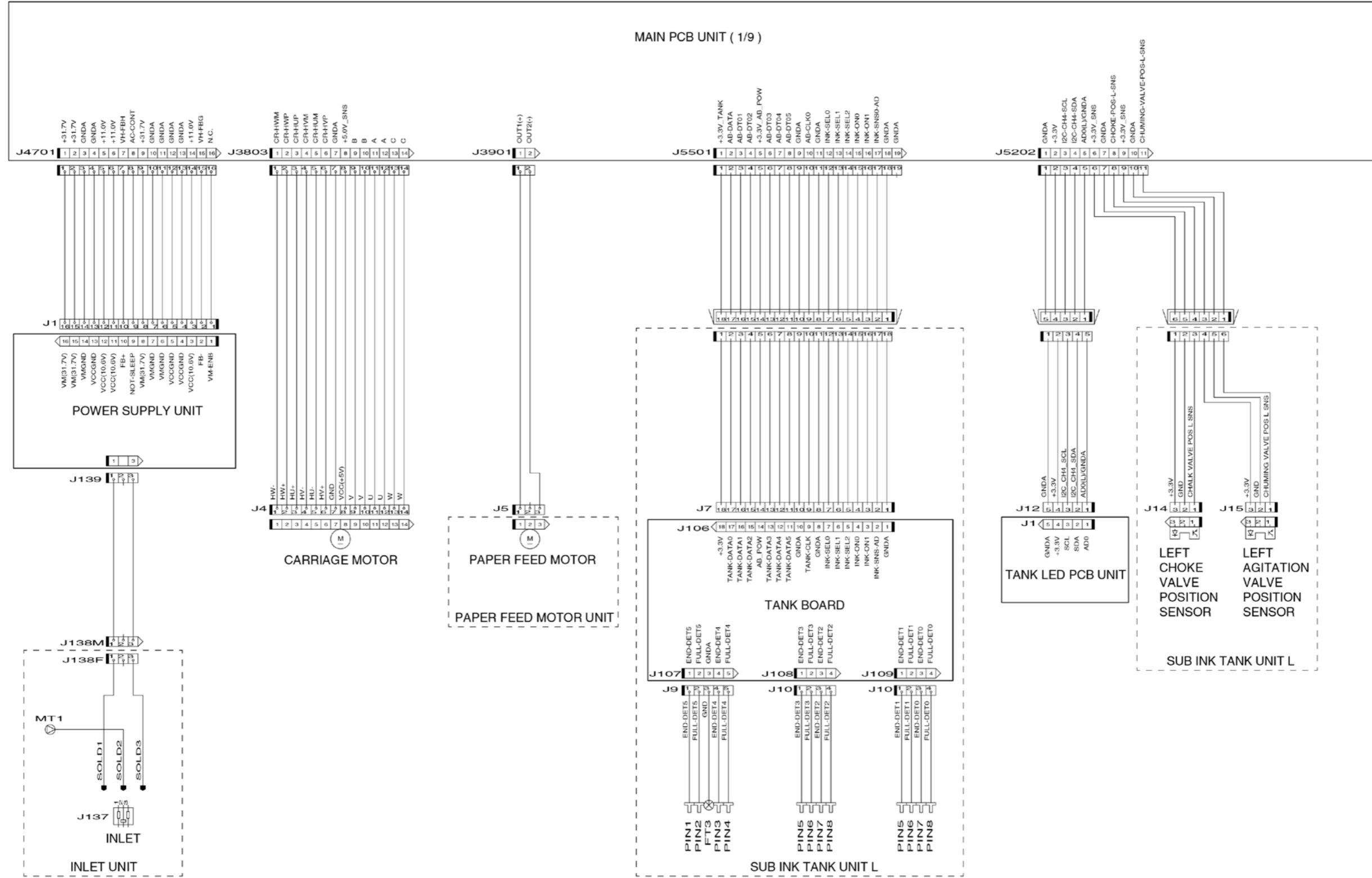
No.	Name	Remarks
1	LEFT MIST FAN(*1)	included in MIST FAN DUCT UNIT 2
3	SUCTION FAN(*1)	included in SUCTION FAN UNIT

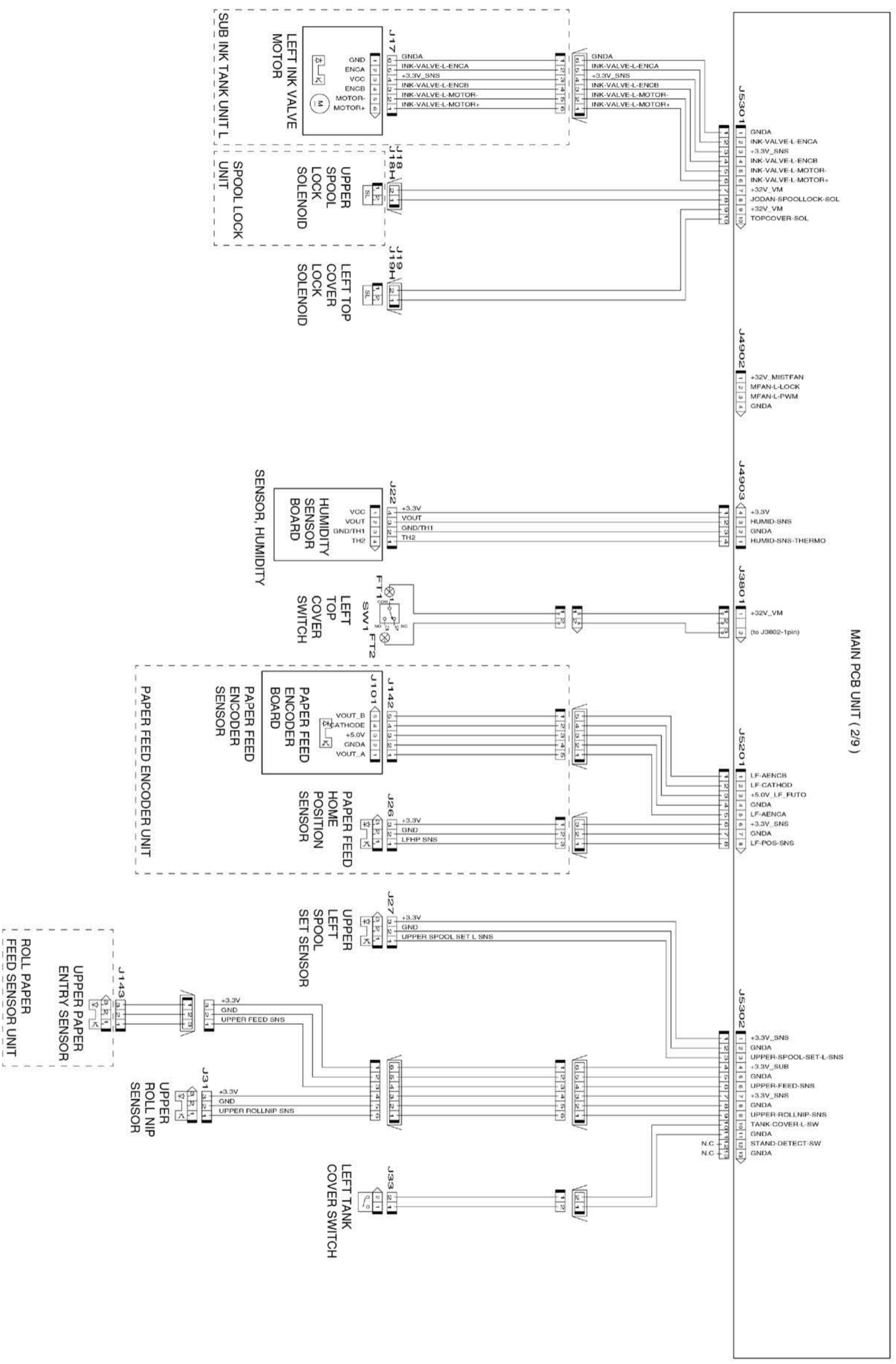
\*1: It should be replaced by the unit mentioned in the Remarks, because it is unable to replace with the single parts.

# 7-5. Block Diagram

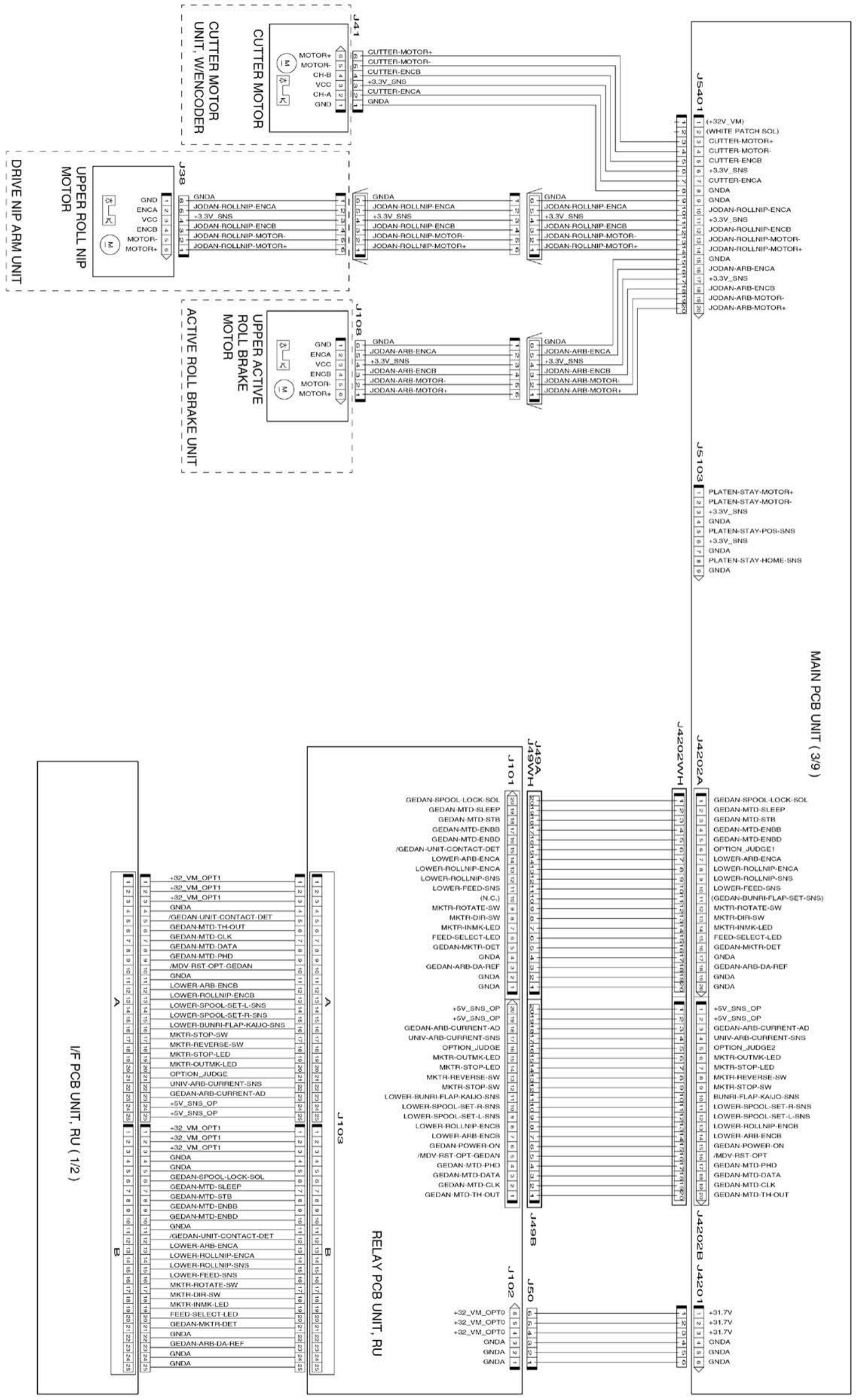
24" model

General Block Diagram (1/11)

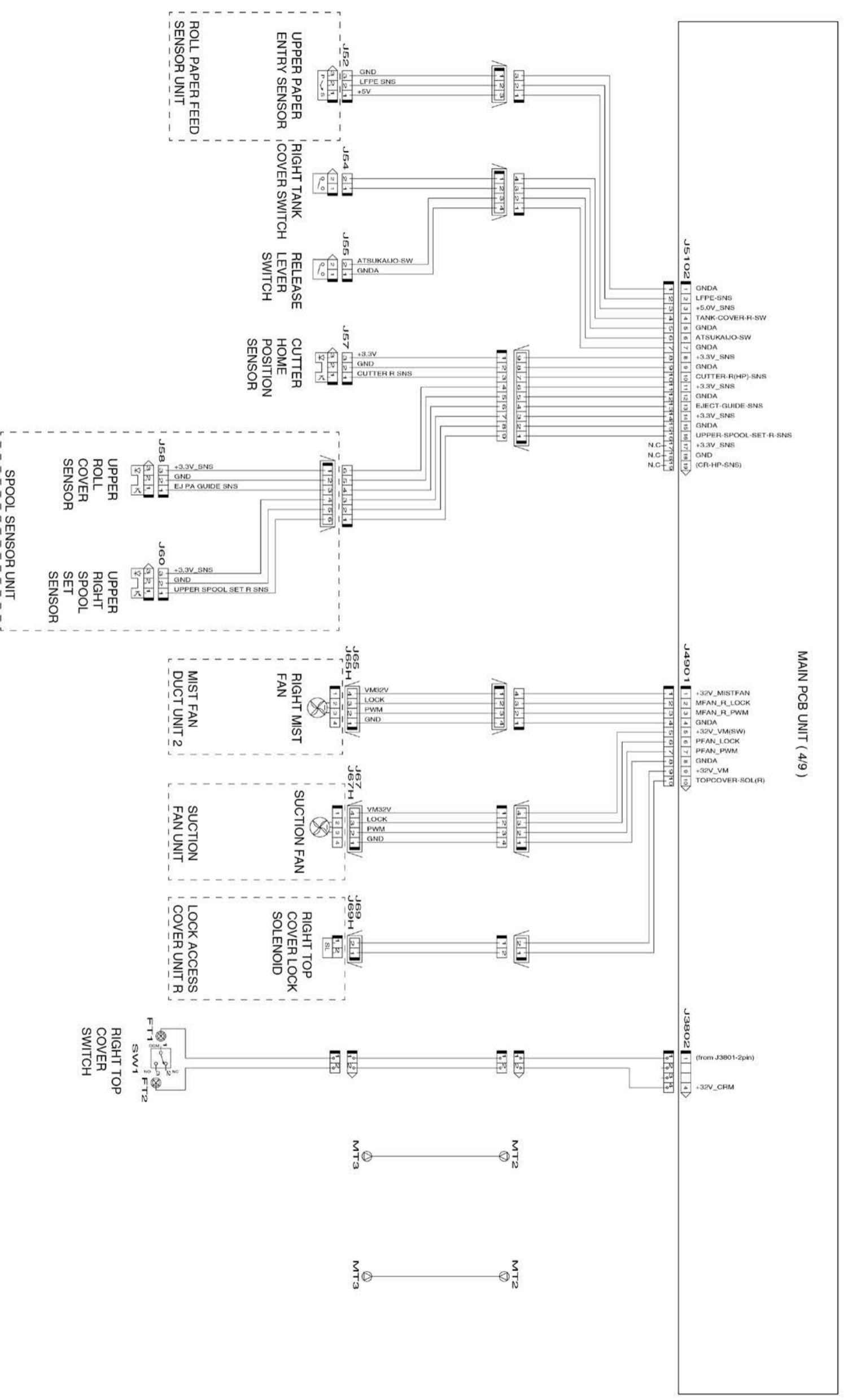


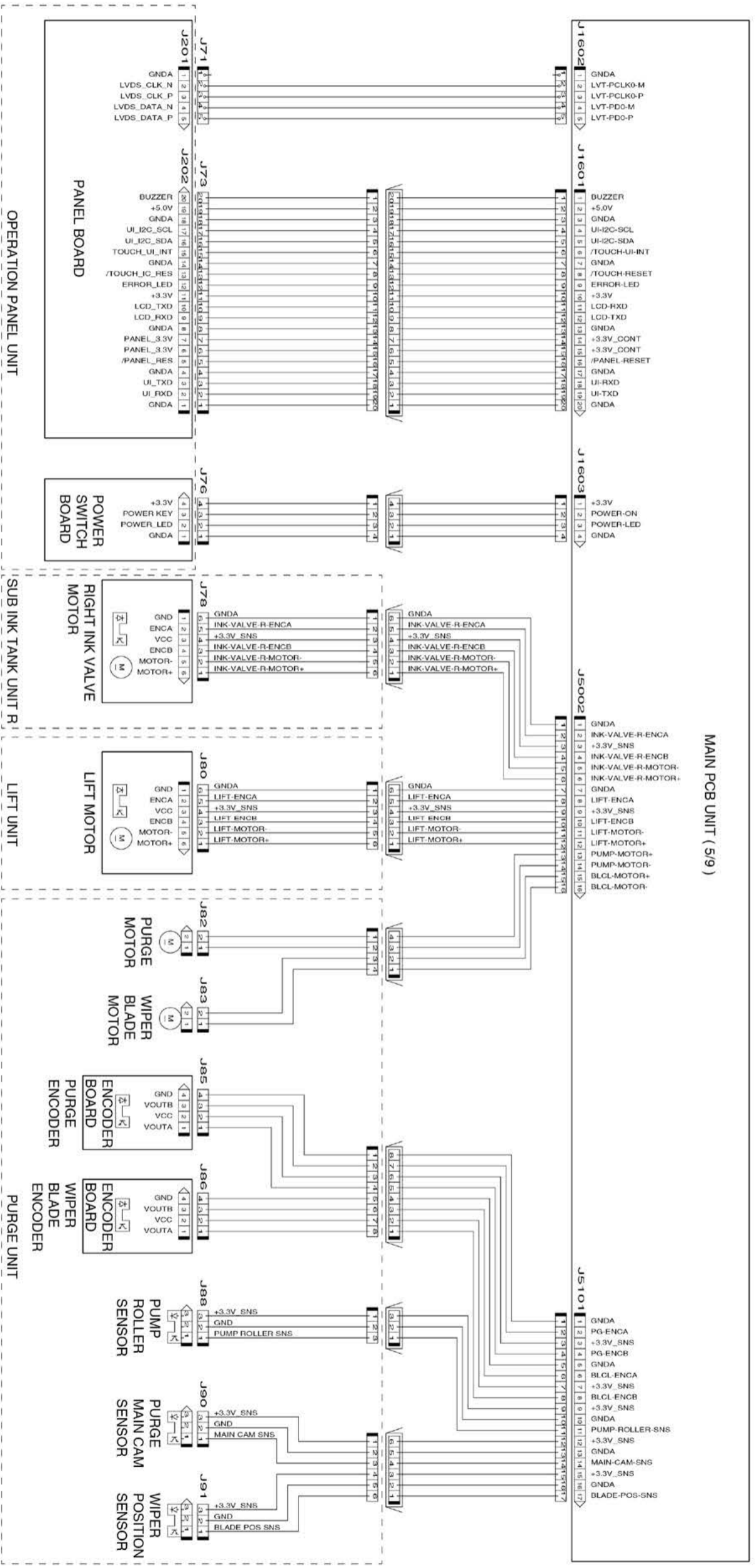


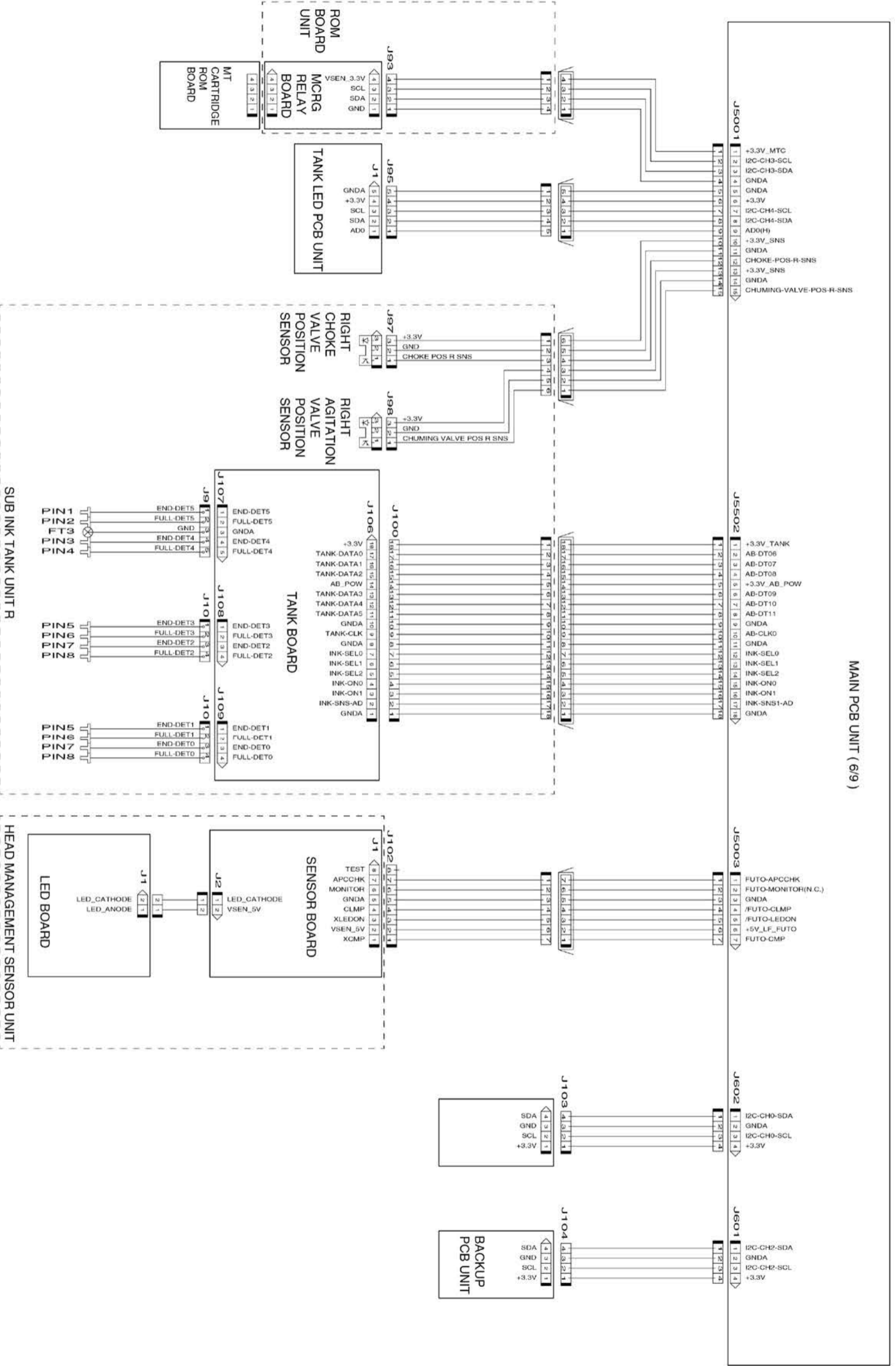
General Block Diagram (3/11)



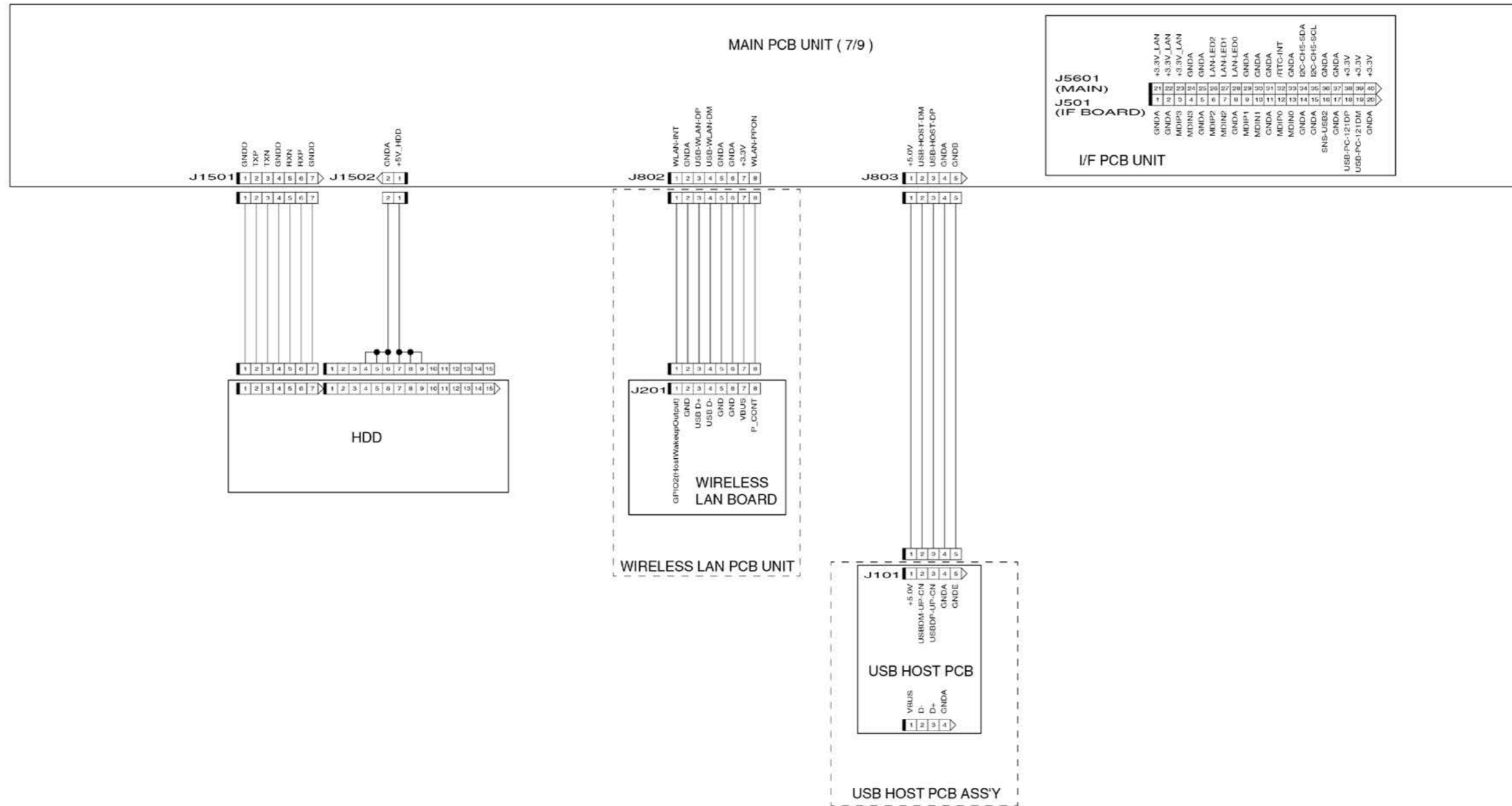


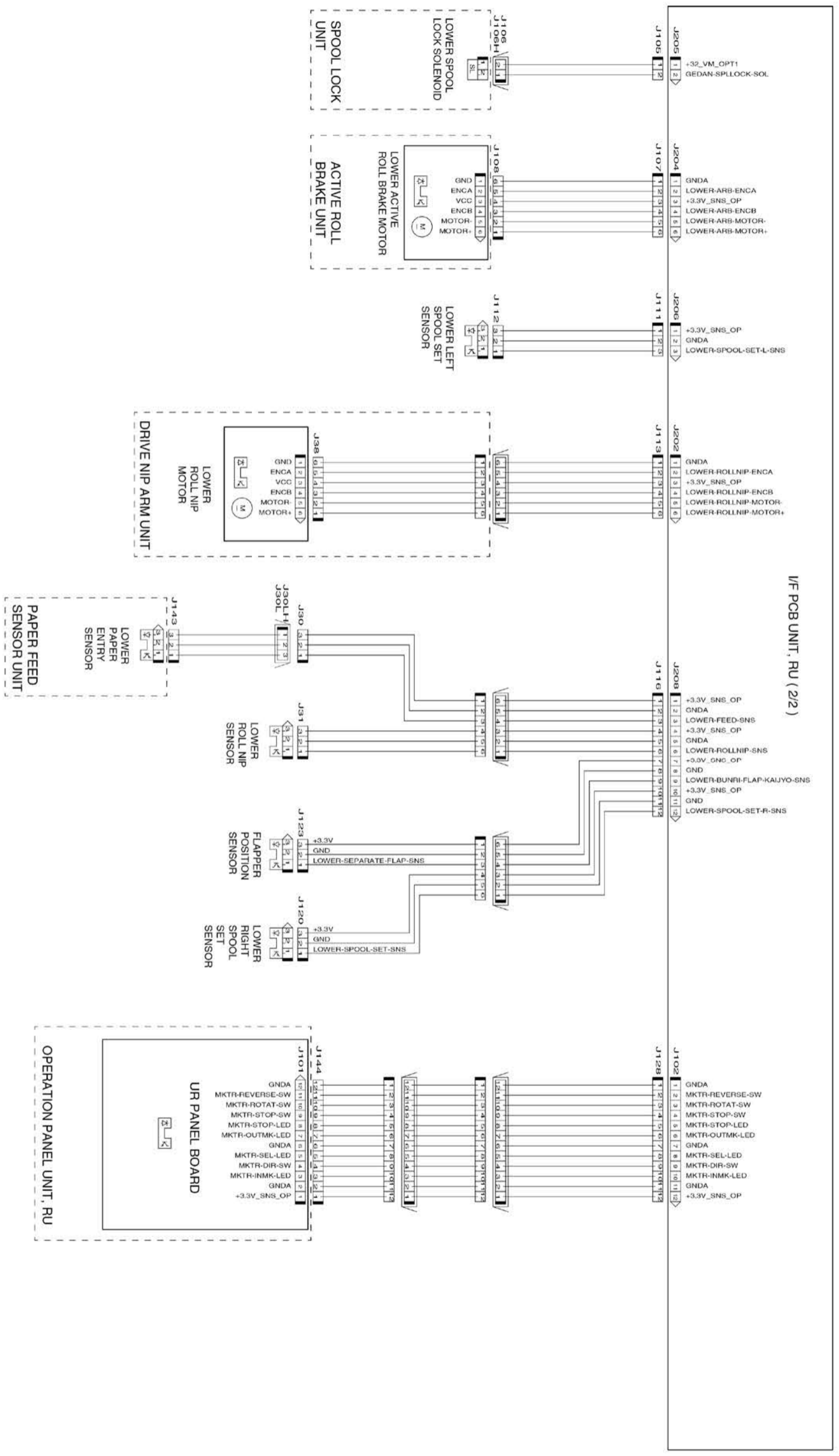


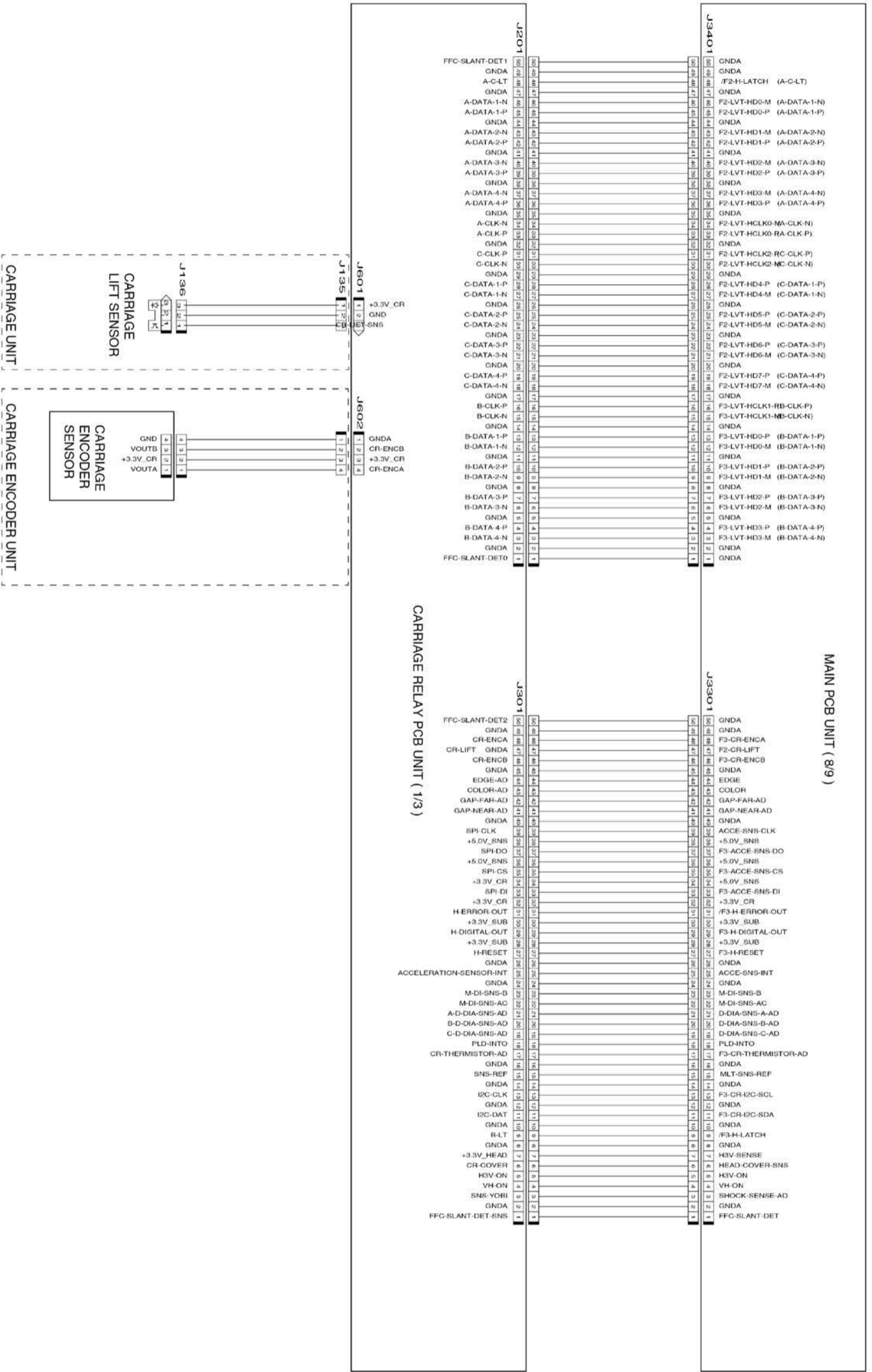




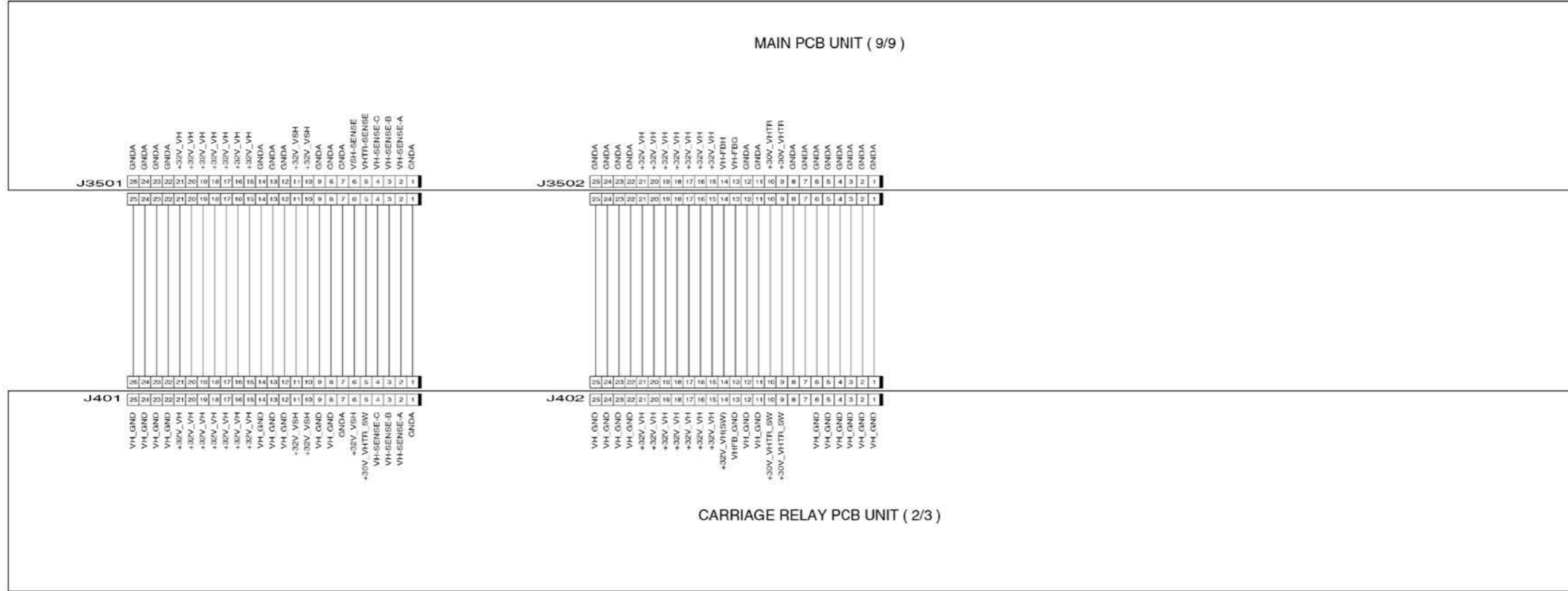
General Block Diagram (7/11)

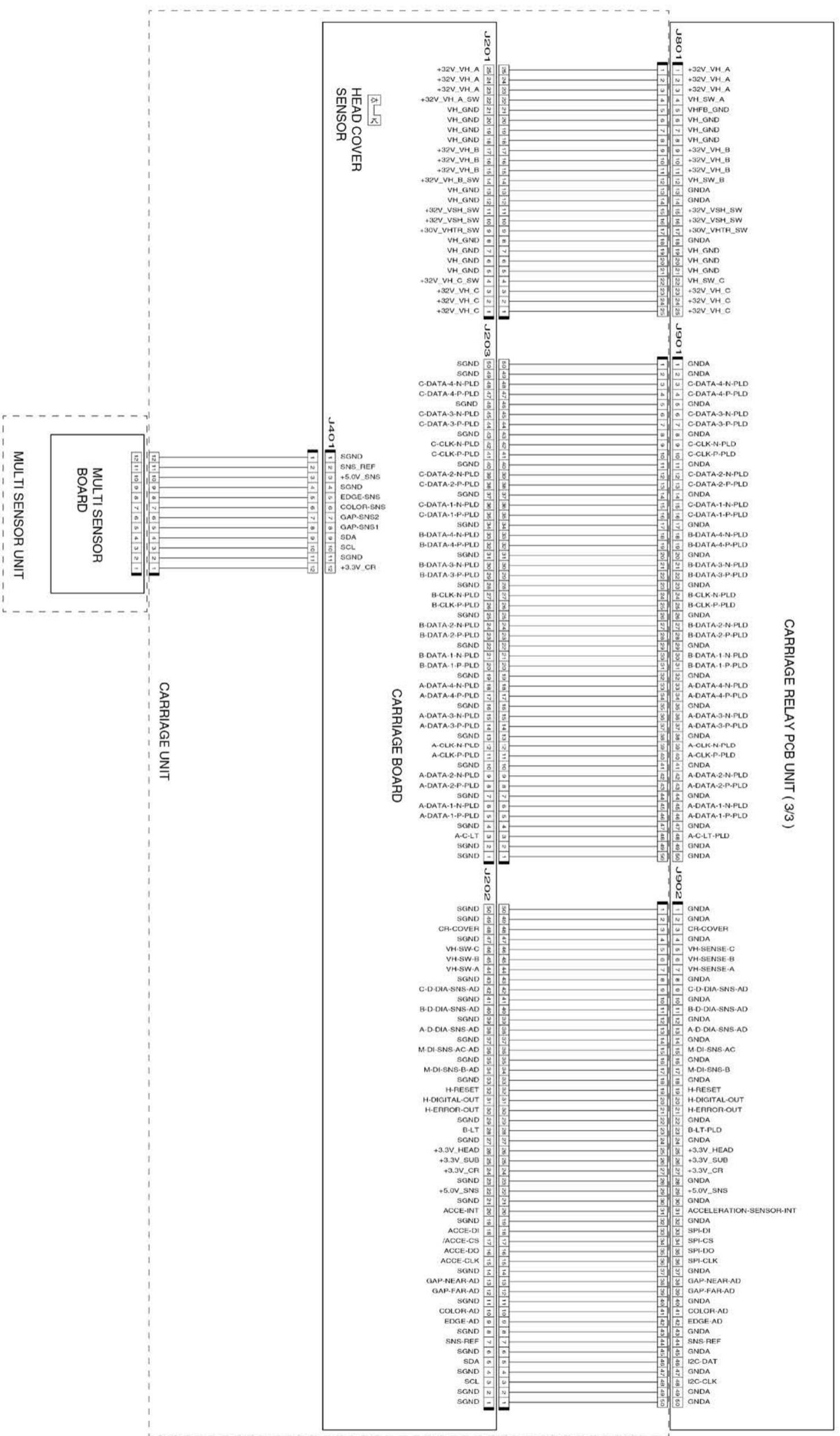






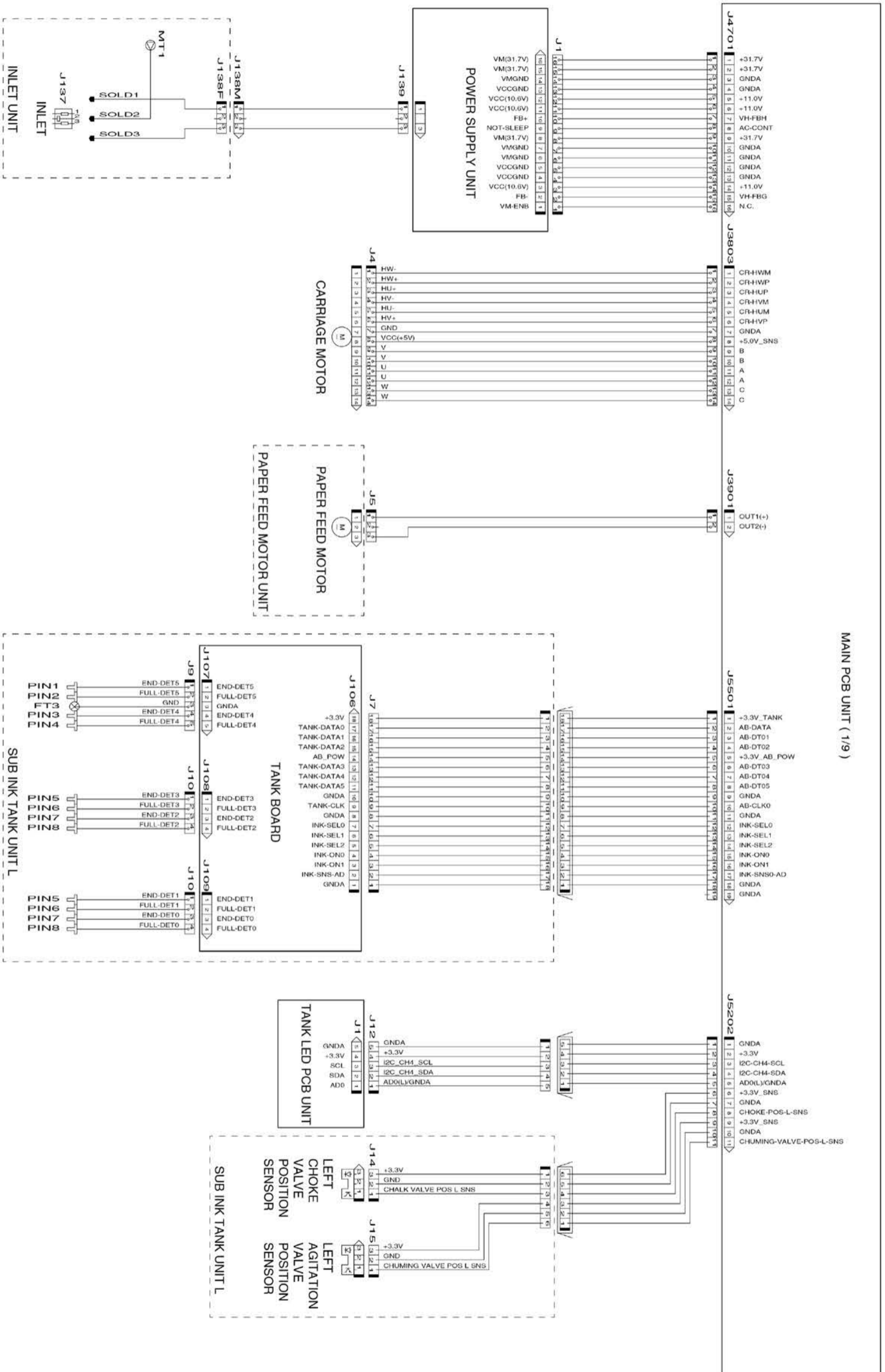
General Block Diagram (10/11)



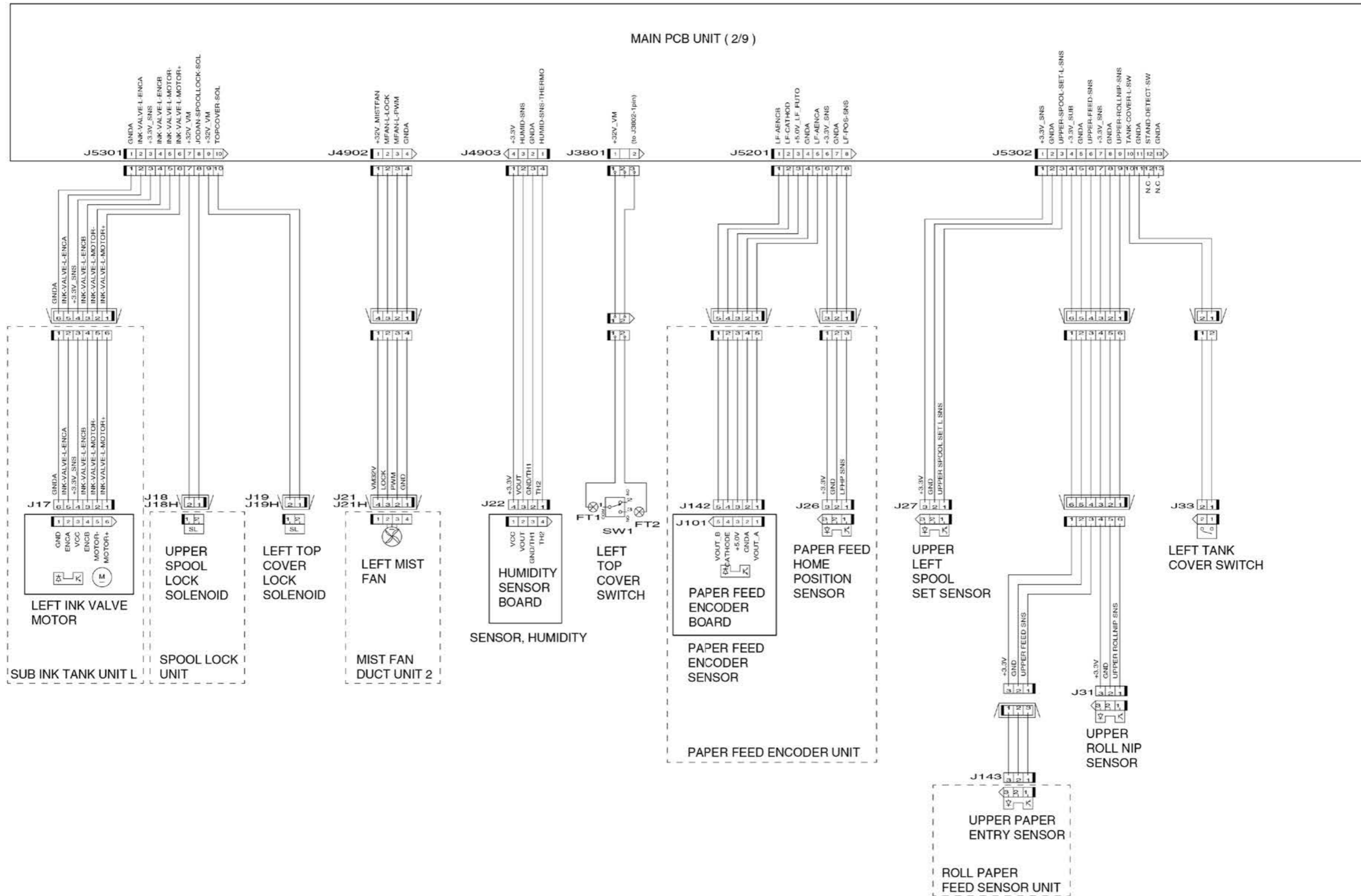


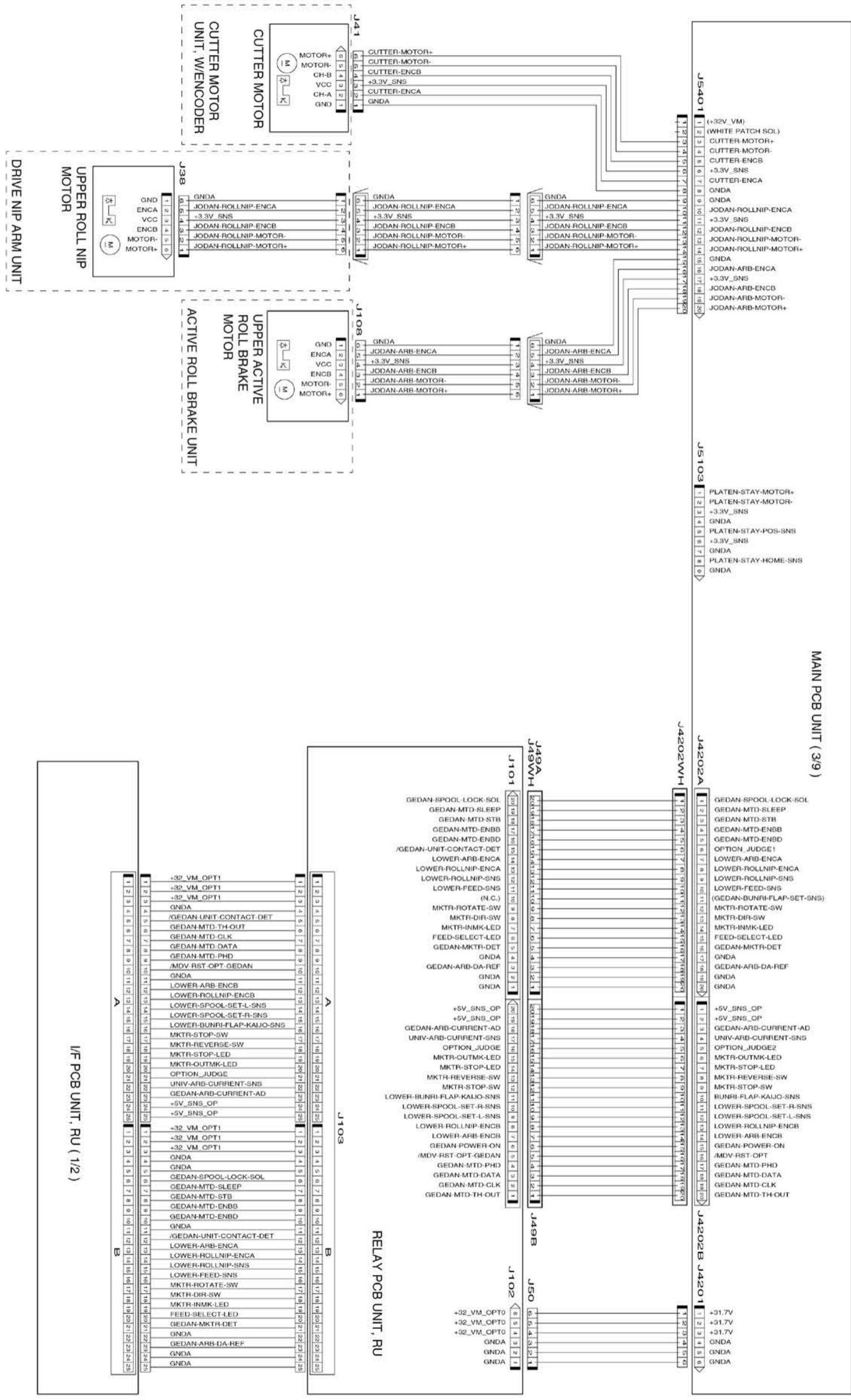


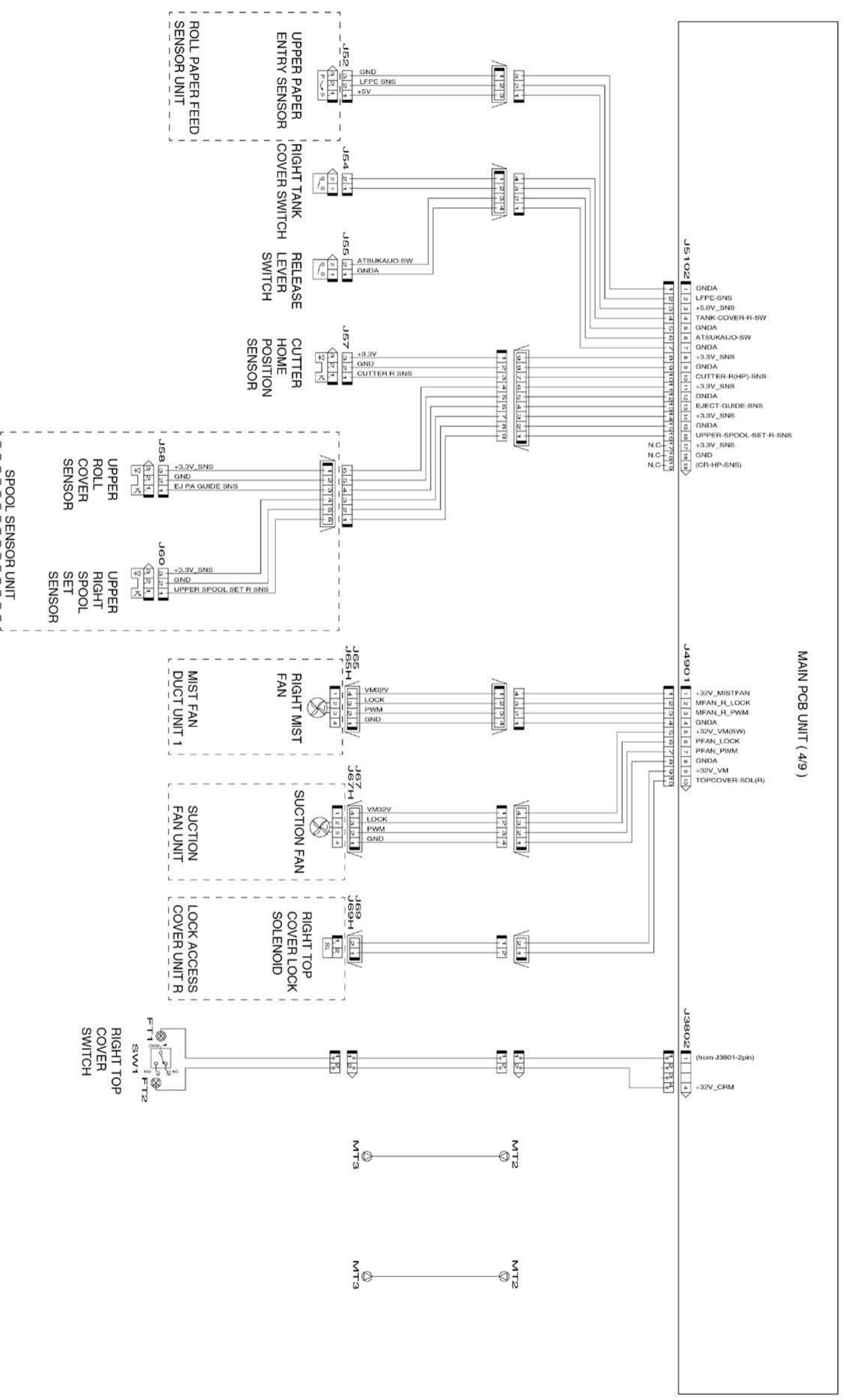
General Block Diagram (1/11)

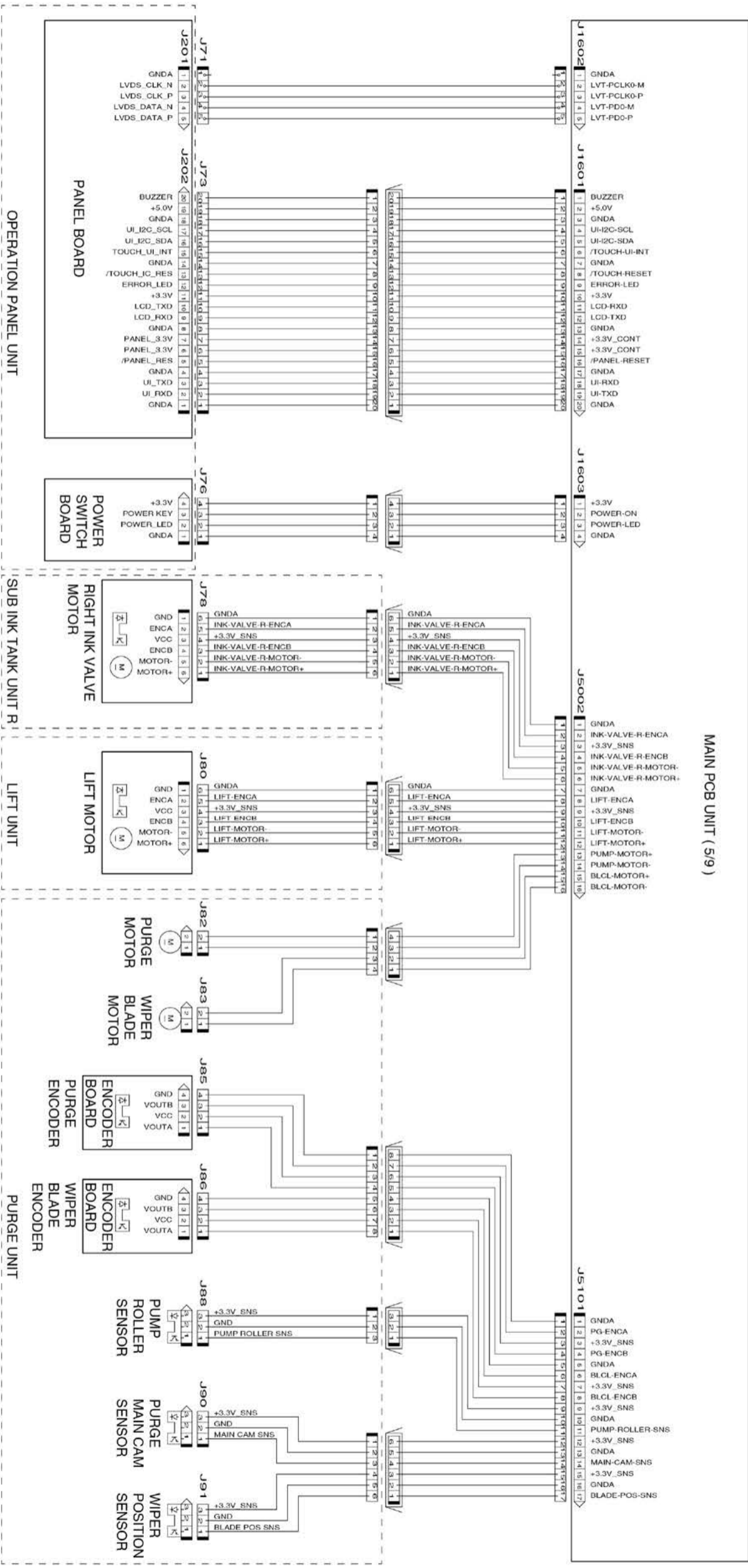


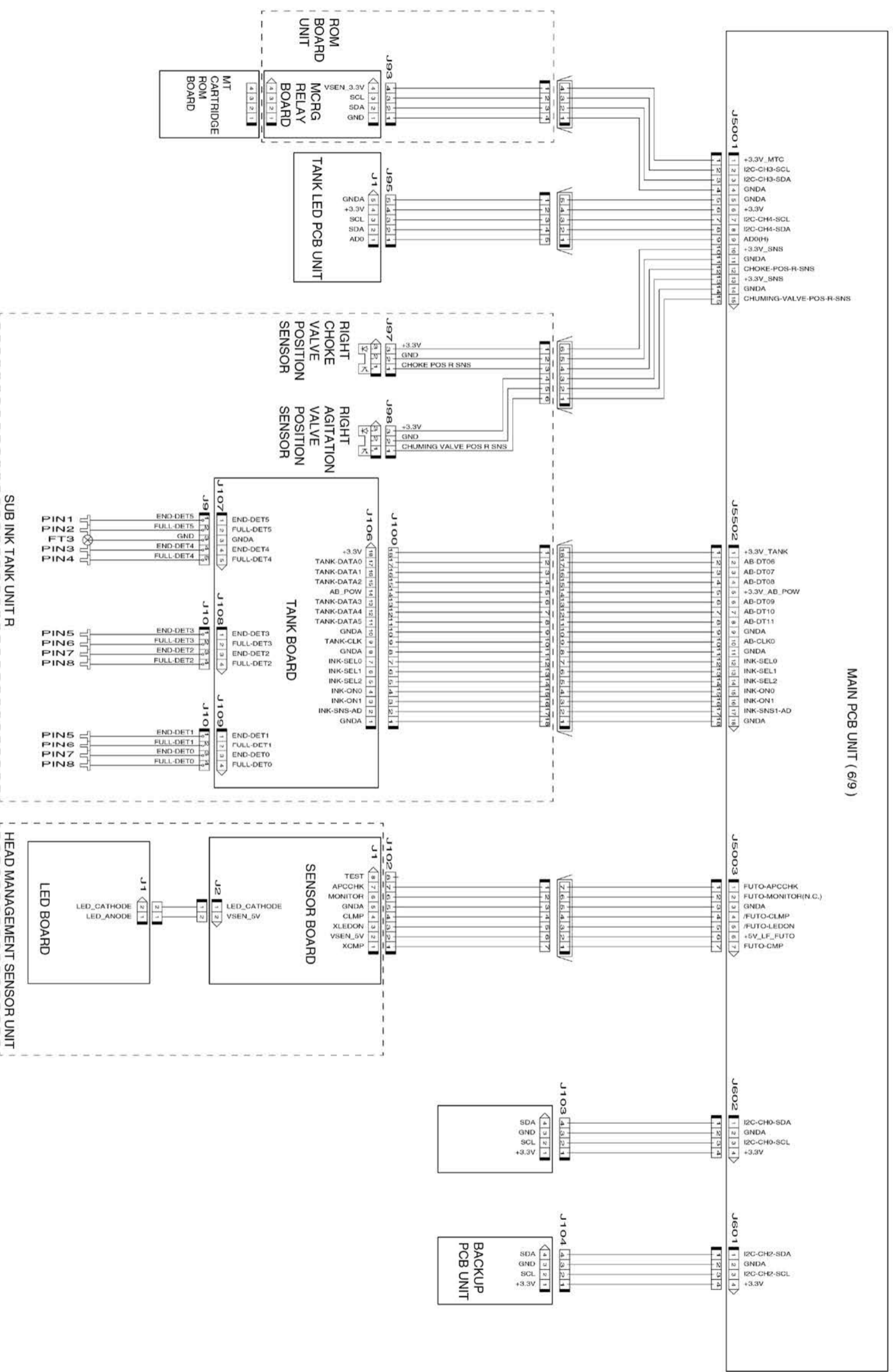
General Block Diagram (2/11)





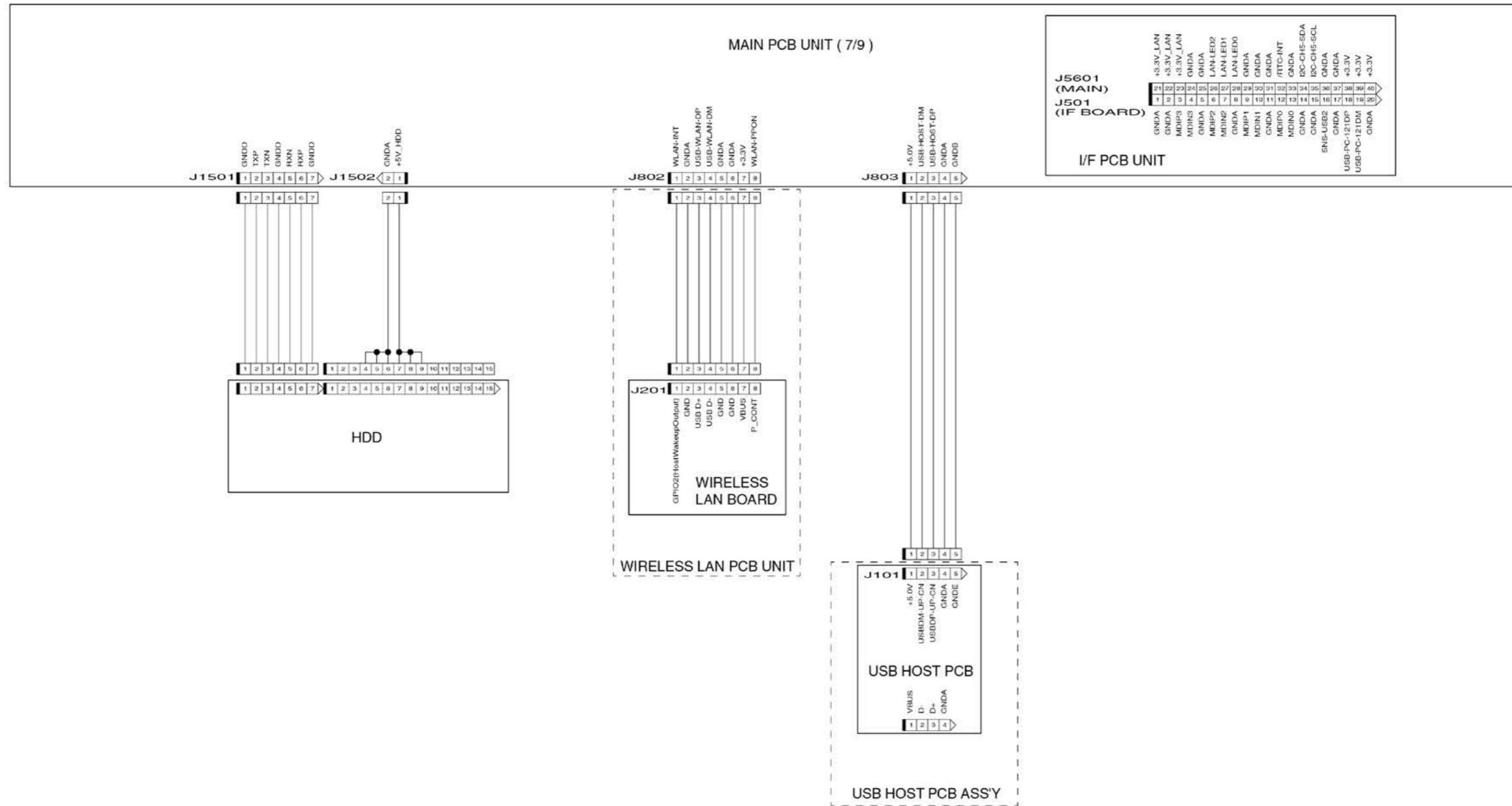


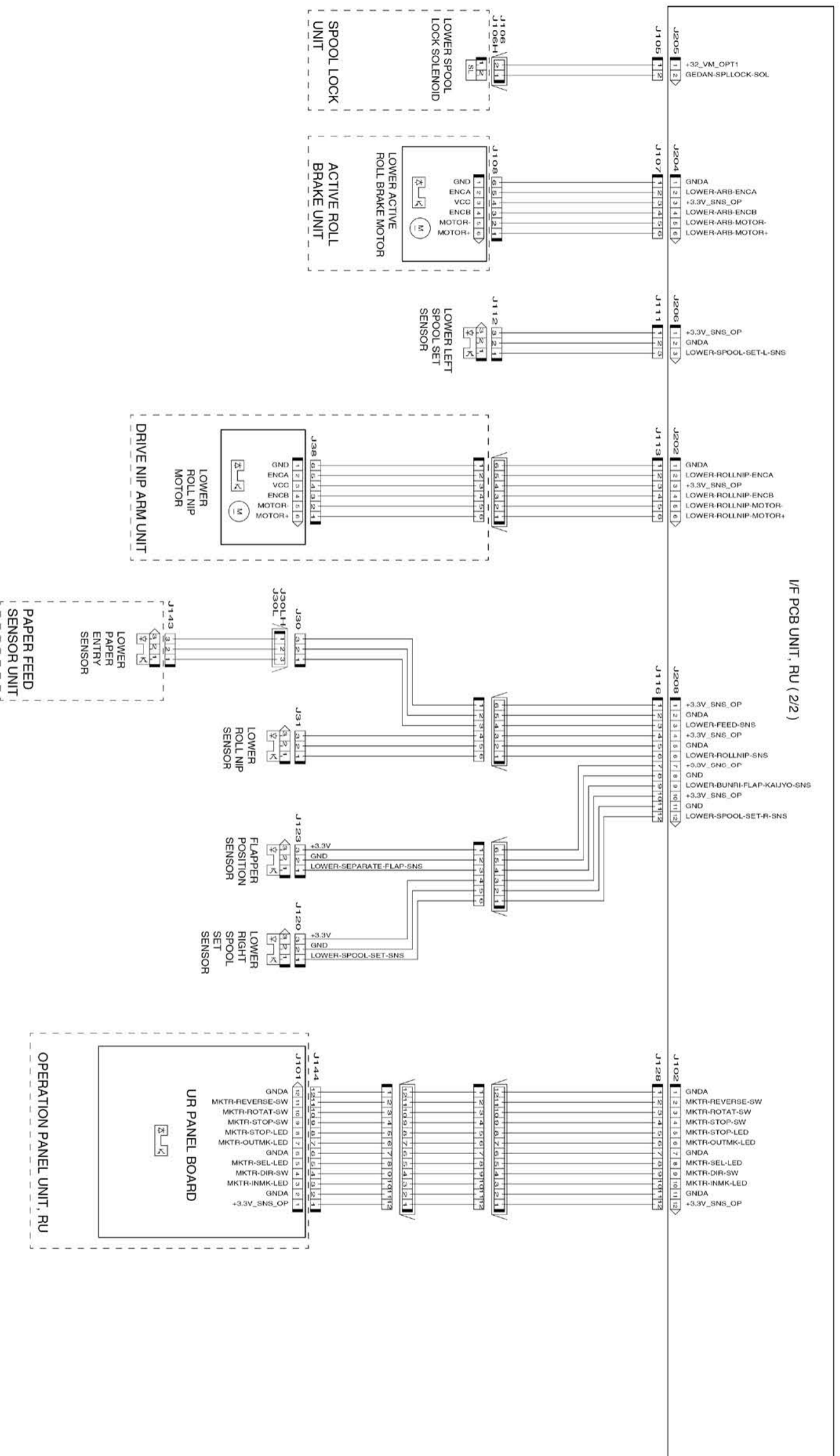




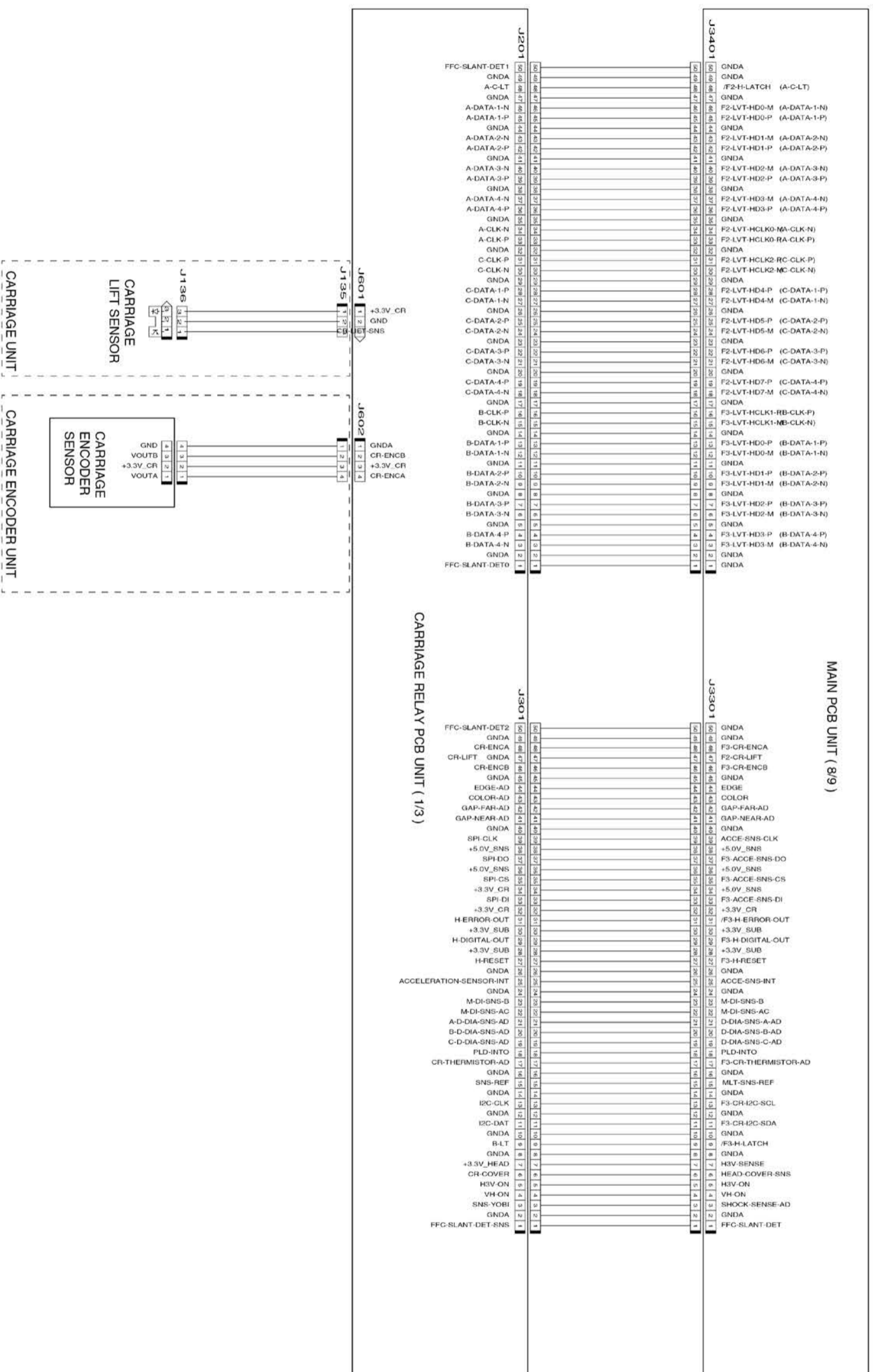
MAIN PCB UNIT (6/9)

General Block Diagram (7/11)

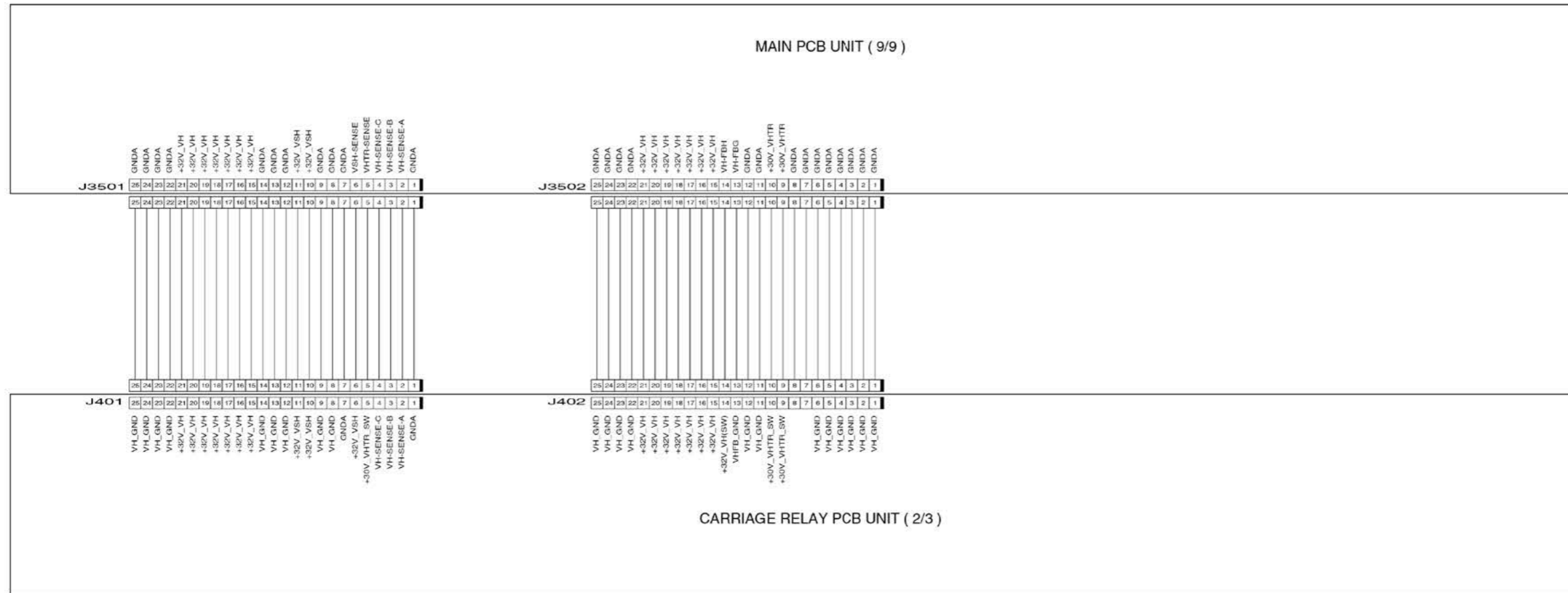


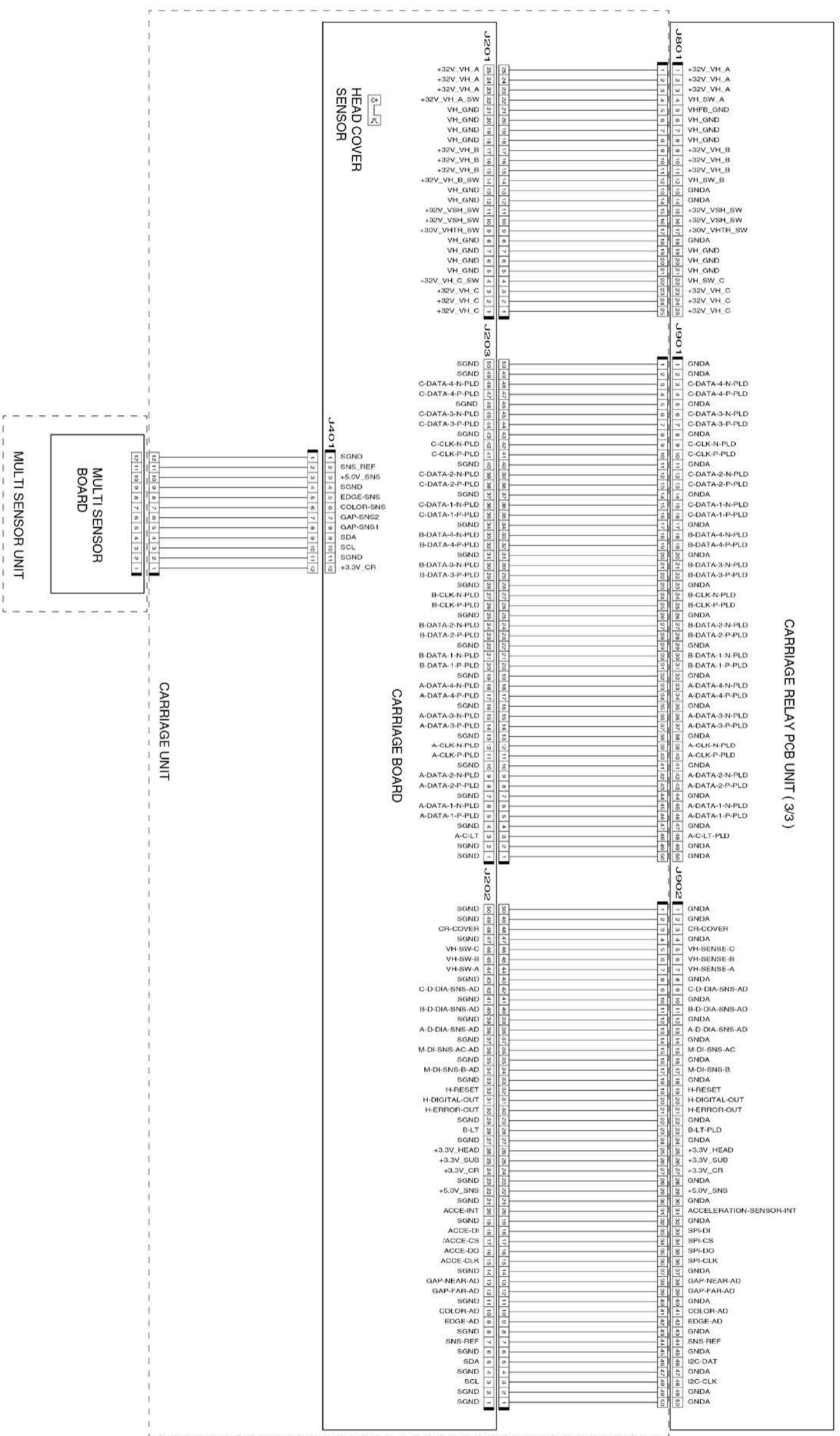




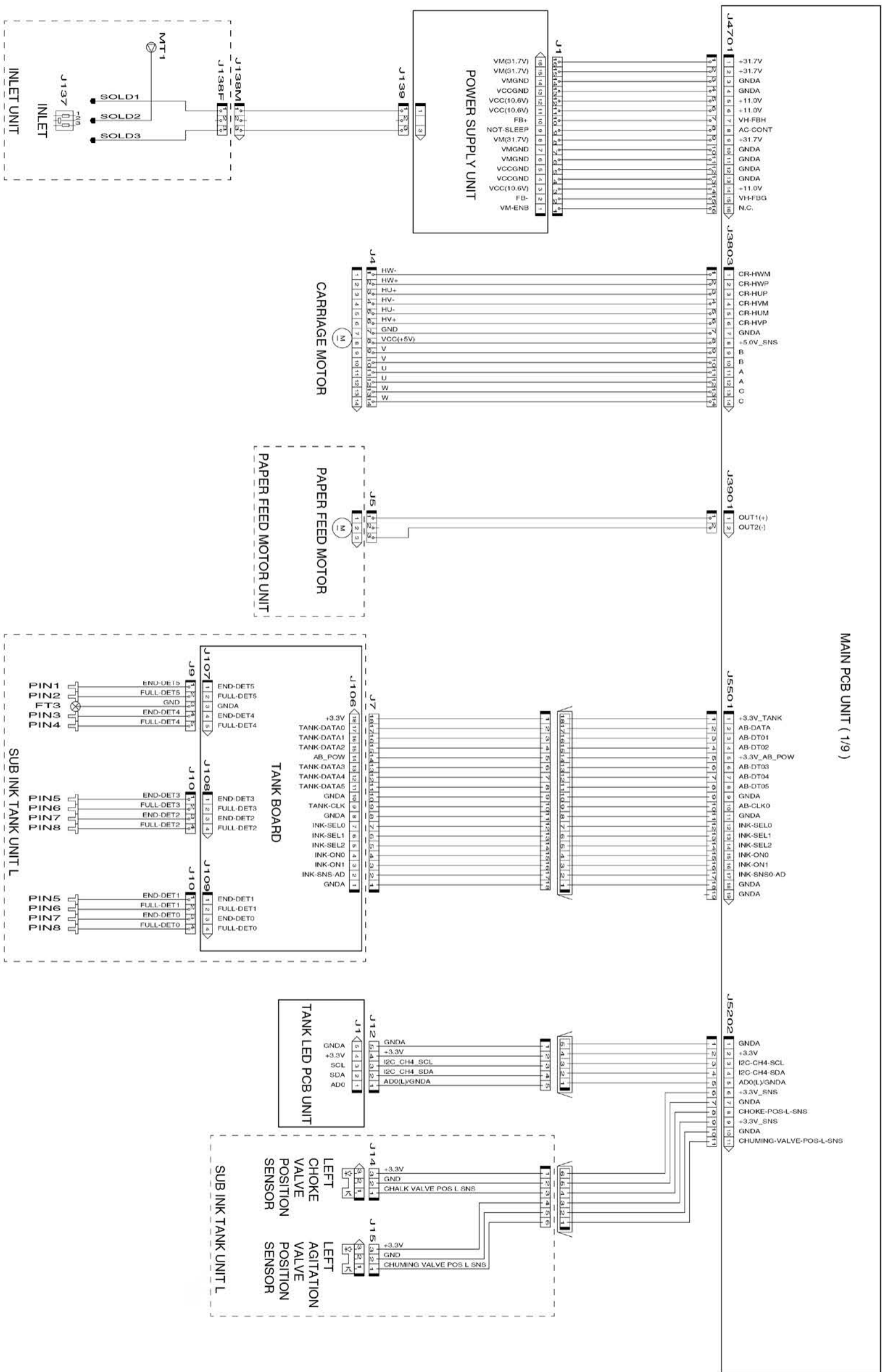


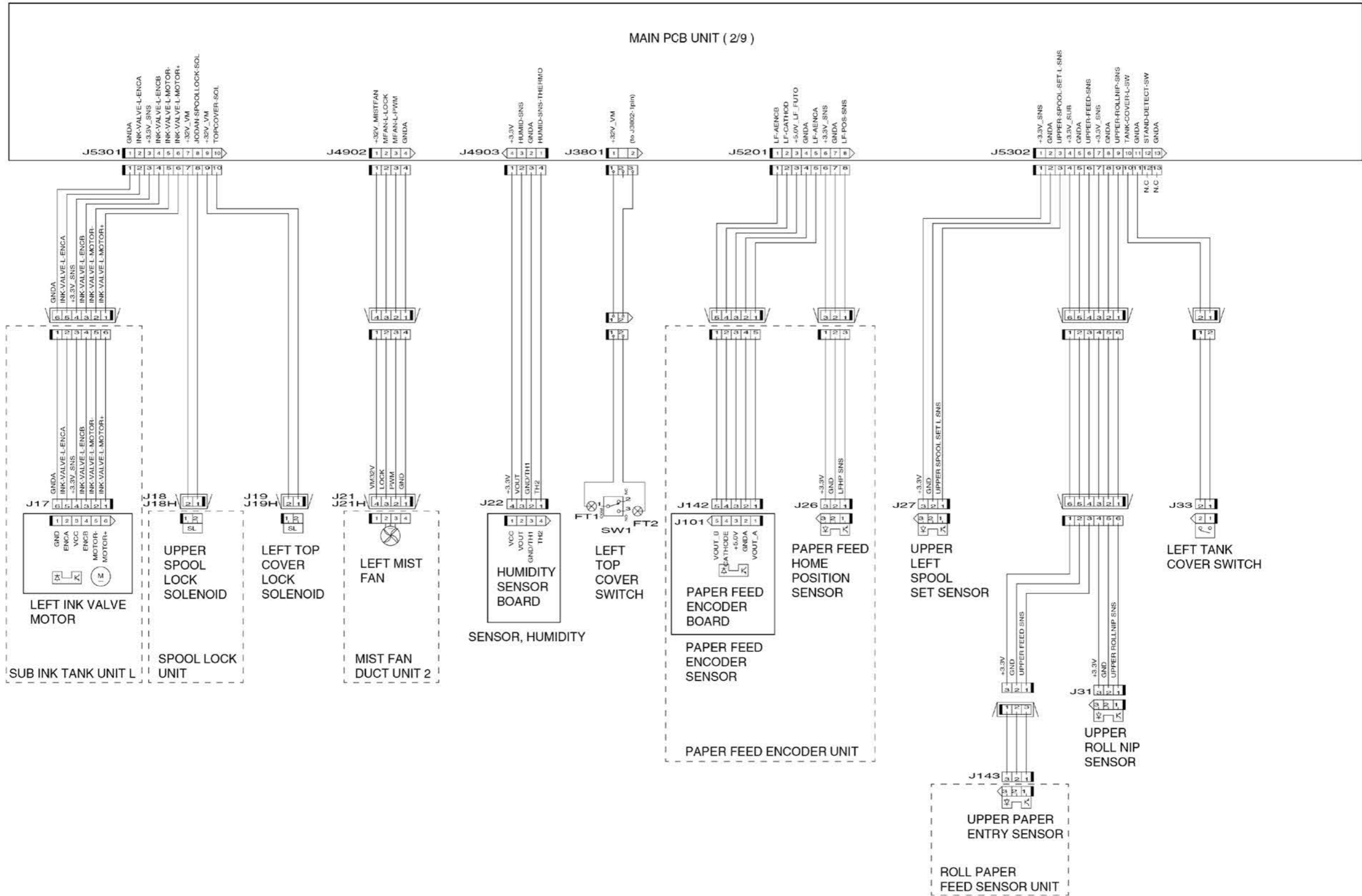
General Block Diagram (10/11)

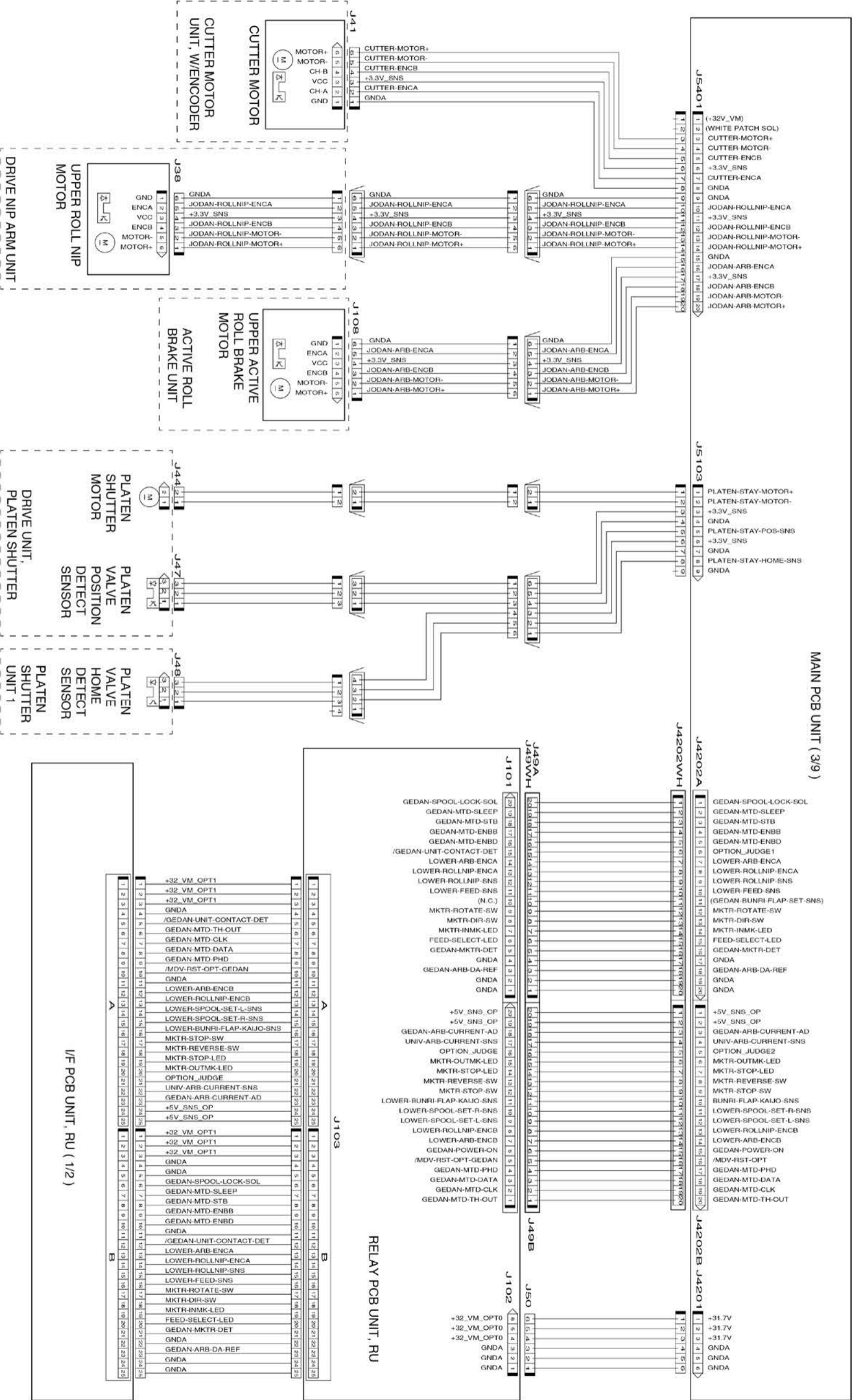




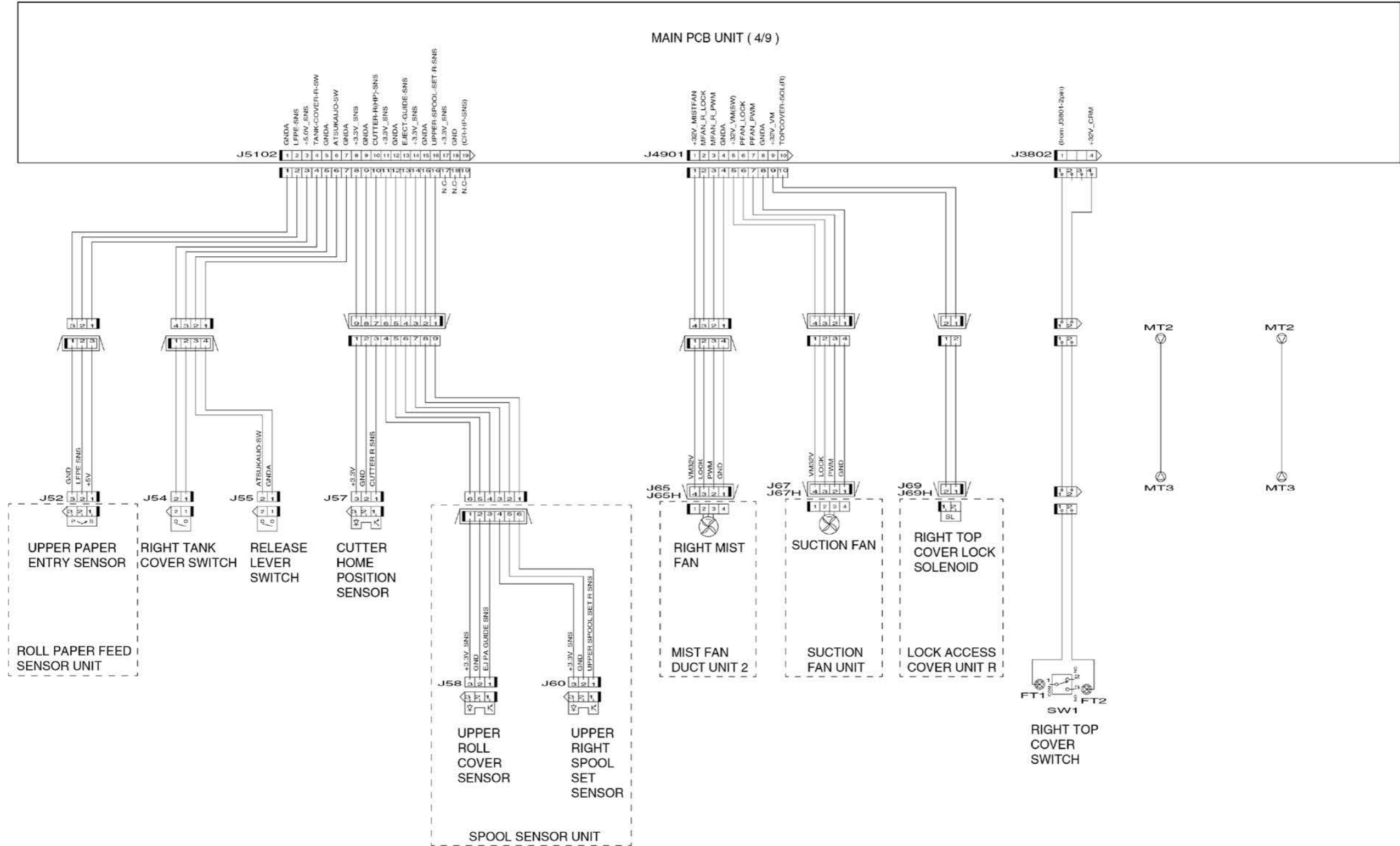
General Block Diagram (1/11)

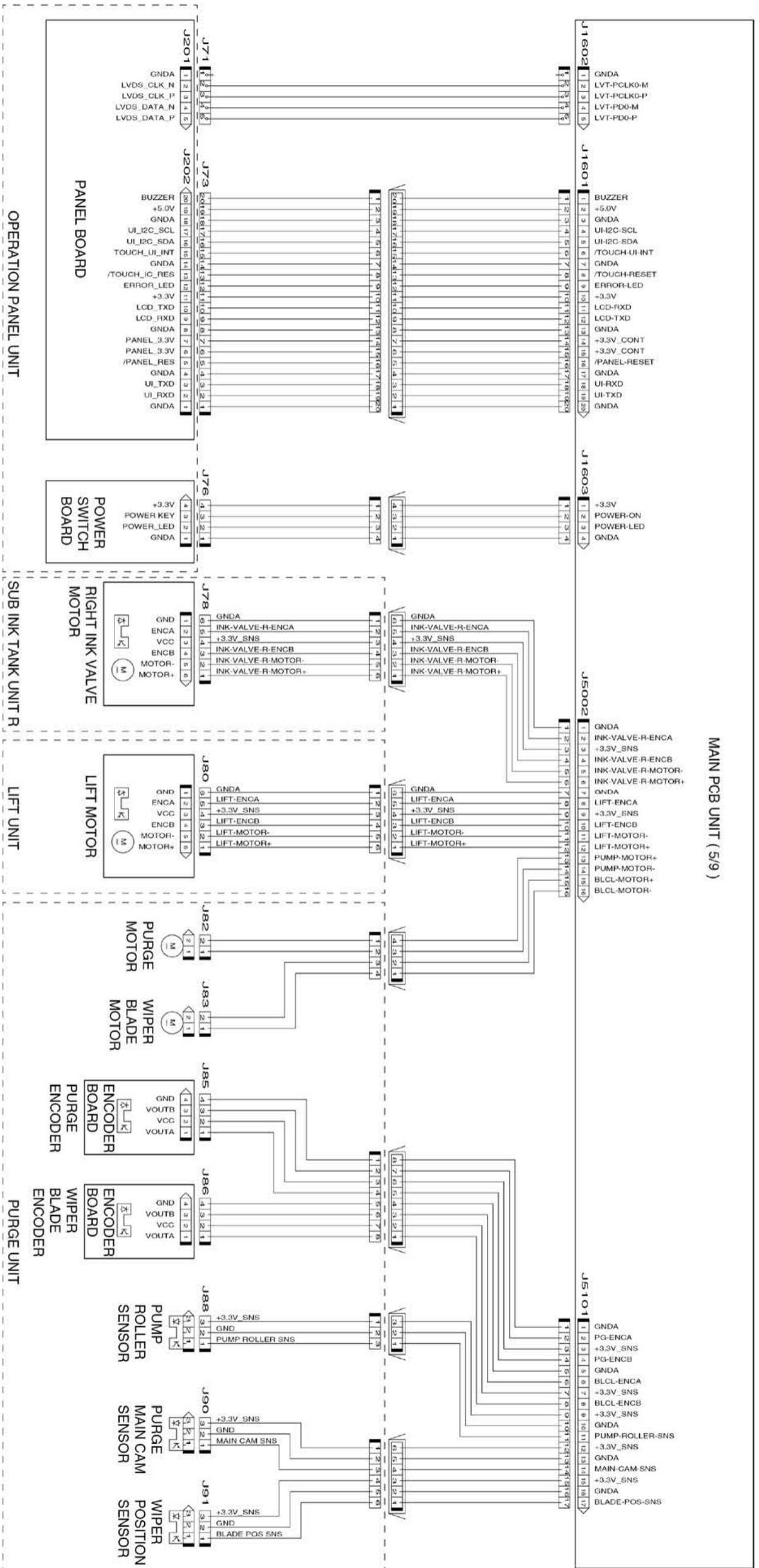






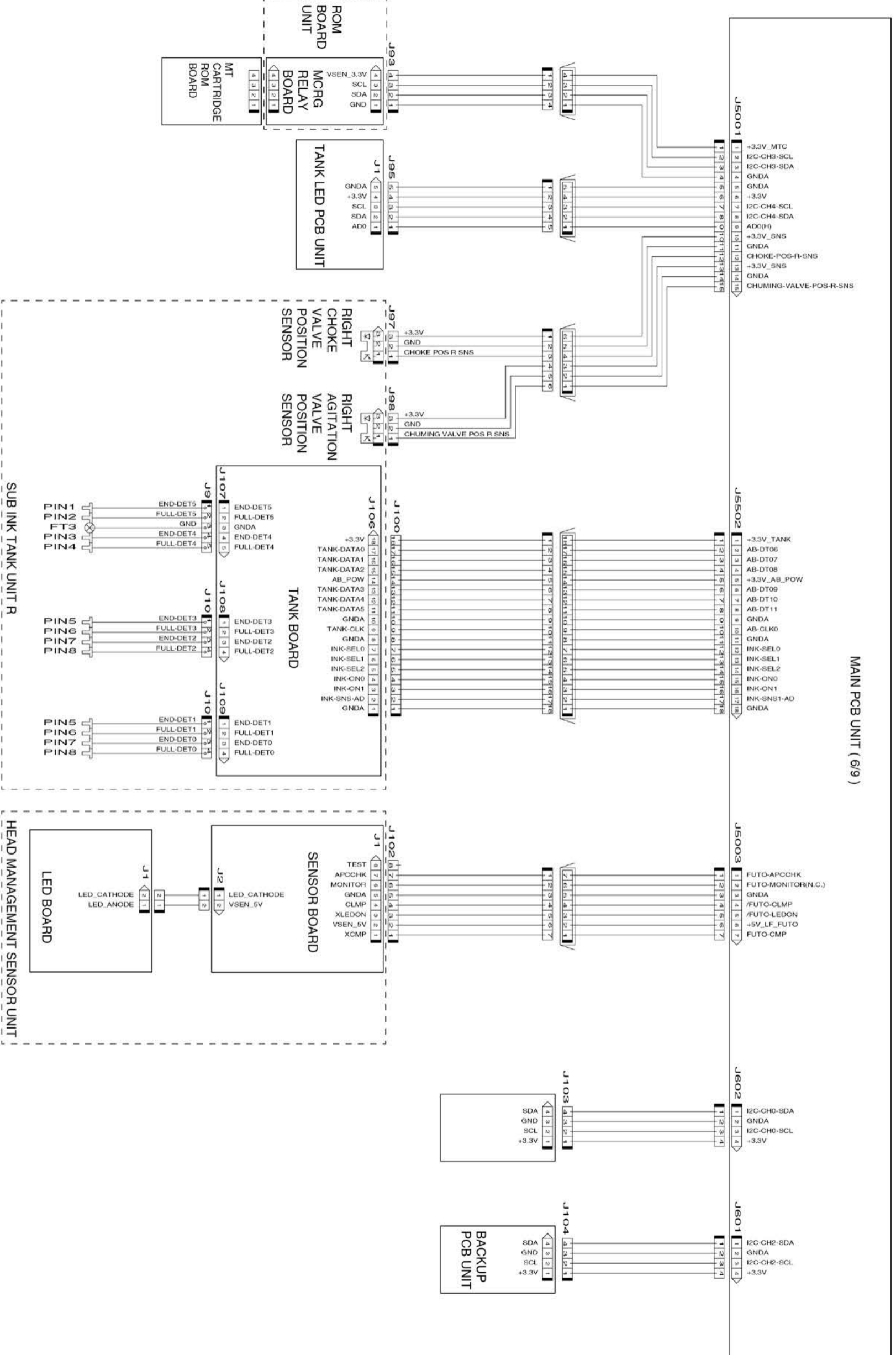
General Block Diagram (4/11)



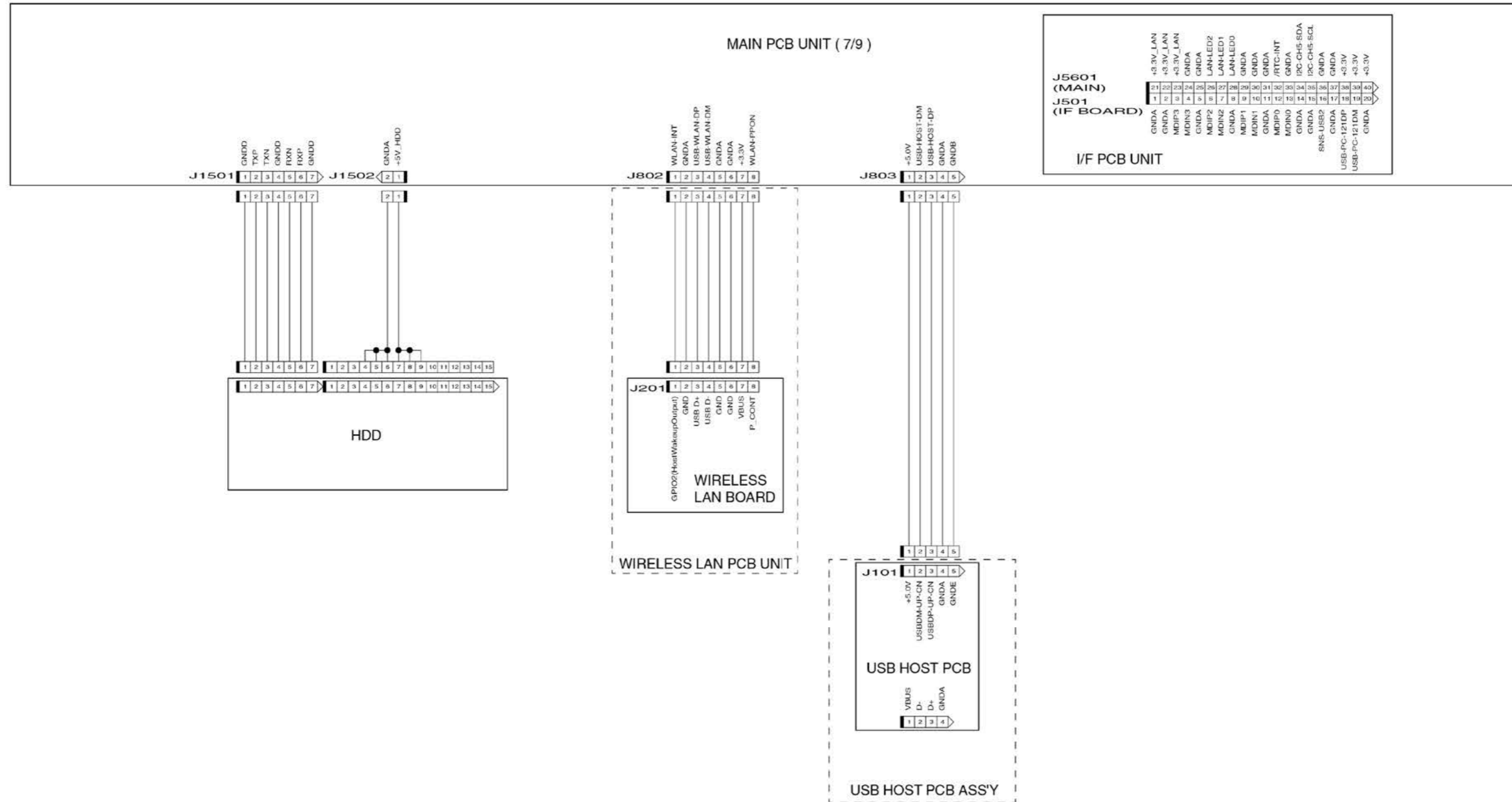


MAIN PCB UNIT (5/9)

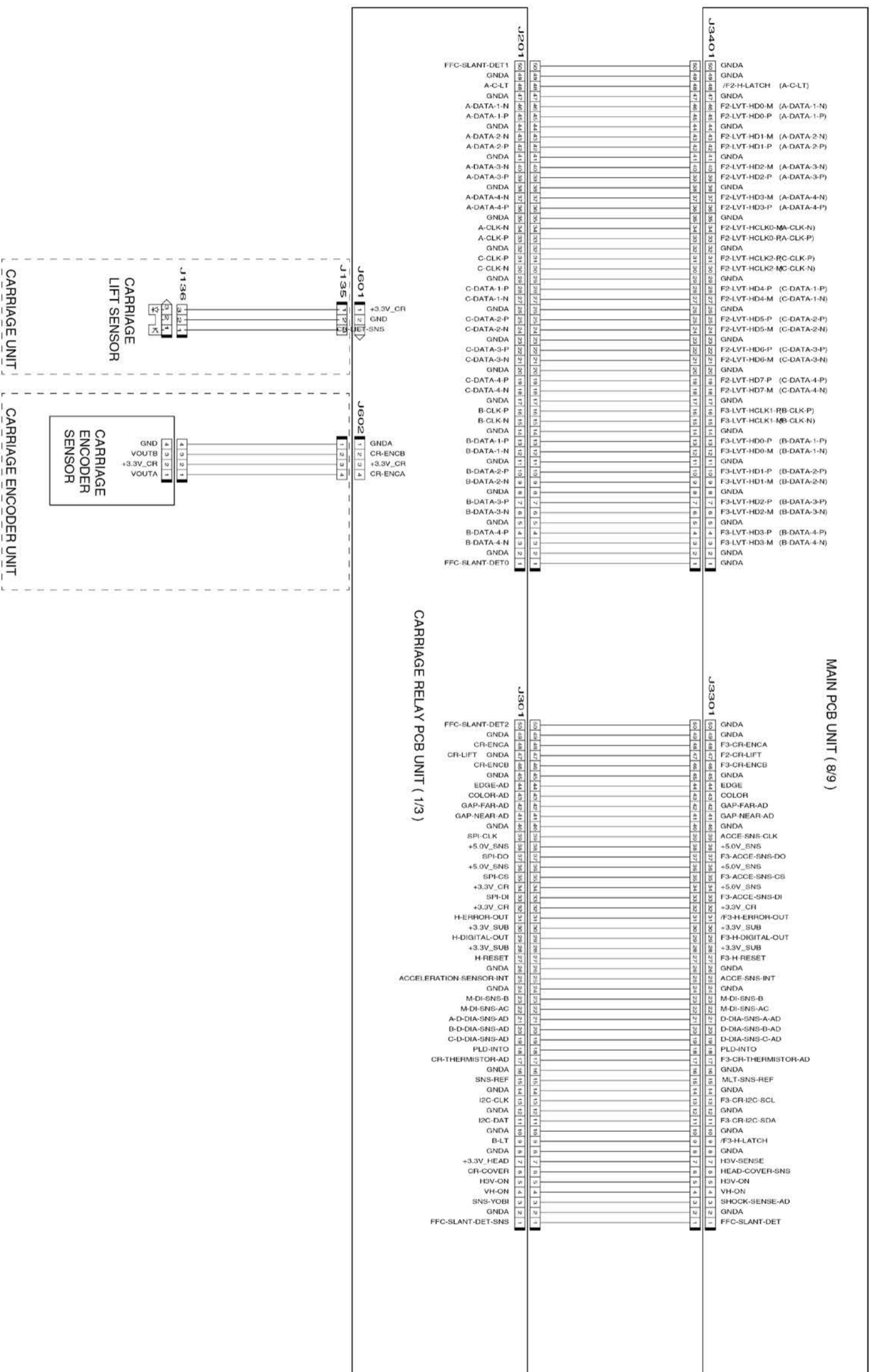




General Block Diagram (7/11)

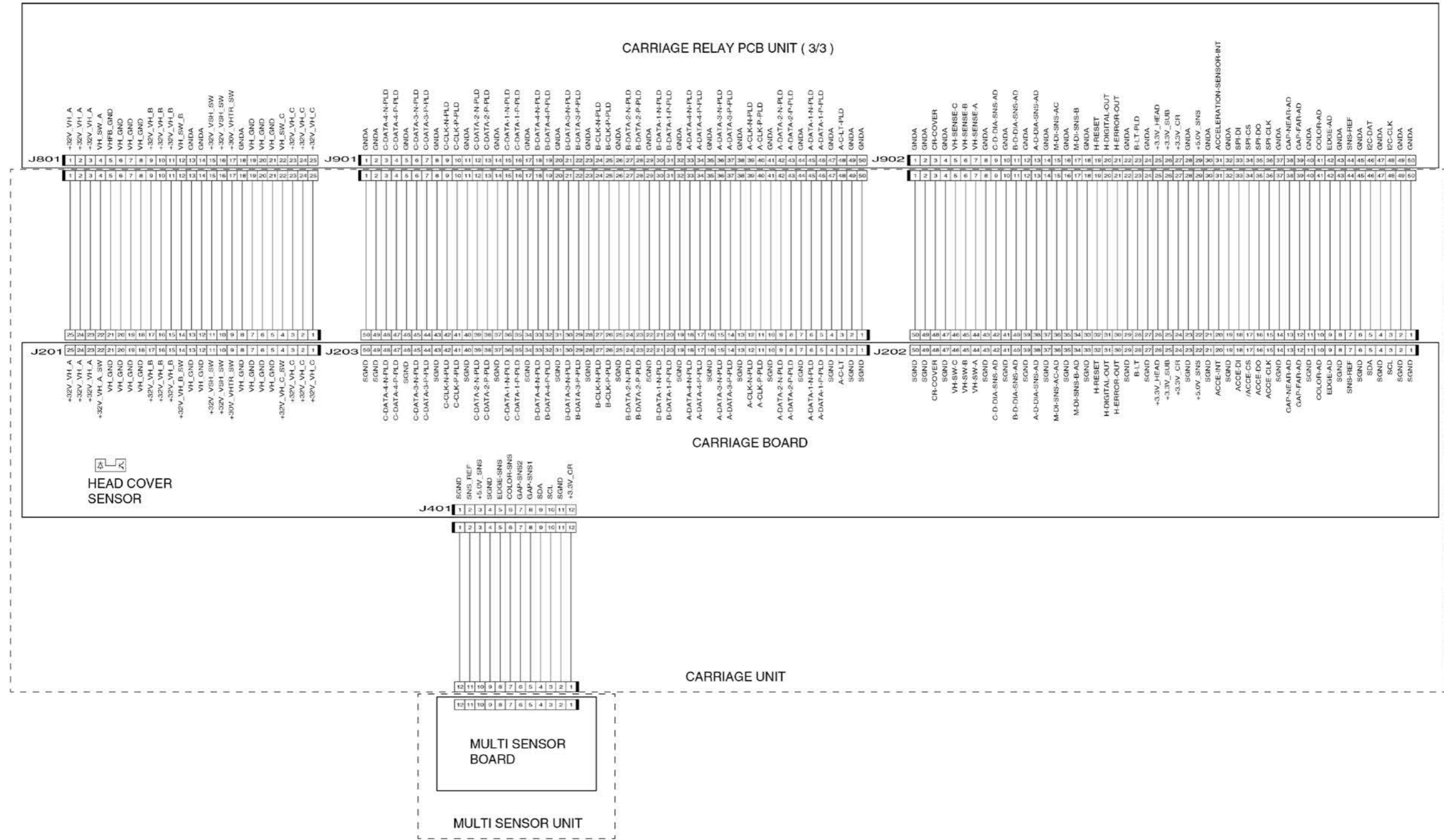








General Block Diagram (11/11)



## 7-6. Main Controller PCB Connectors

