Mimaki™

UV INKJET PRINTER

JFX-1631I1615

JFX-1631I1615 plus

OPERATION MANUAL

OPERATION MANUAL

MIMAKI ENGINEERING CO., LTD.

D202017-20

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CAUTION

CAUTION

DISCLAIMER OF WARRANTY:
THIS LIMITED WARRANTY OF MIMAKI SHALL BE THE SOLE AND EXCLUSIVE WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING , BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF
MERCHANTABILITY OR FITNESS, AND MIMAKI NEITHER ASSUMES NOR AUTHORIZES DEALER TO ASSUME FOR IT ANY OTHER OBLIGATION OR LIABILITY OR MAKE ANY OTHER WARRANTY OR MAKE ANY OTHER WARRANTY IN CONNECTION WITH ANY PRODUCT WITHOUT MIMAKI'S PRIOR WRITTEN CONSENT. IN NO EVENT SHALL MIMAKI BE LIABLE FOR SPECIAL, INCIDNETAL OR CONSEQUENTIAL DAMAGES OR FOR LOSS OF PROFITS OF DEALER OR CUSTOMERS OF ANY PRODUCT.

Requests

- This Operation Manual has been carefully prepared for your easy understanding, however, please do not hesitate to contact a distributor in your district or our office if you have any inquiry.
- Description contained in this Operation Manual are subject to change without notice for improvement.
- Generally, names and designations referred to in this Operation Manual are trade marks or registered trade marks of the manufacturers or suppliers.

FCC Statement (USA)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which cause the user will be required to correct the interference at his own expense.

> ⚠️ **Caution**
> - In the case where MIMAKI-recommended cable is not used for connection of this device, limits provided by FCC rules can be exceeded. To prevent this, use of MIMAKI-recommended cable is essential for the connection of this device.

INTERFERENCE TO TELEVISIONS AND RADIOS

The product covered by this Instruction Manual produces low radio waves while it is in operation. The product can interfere with radios and televisions if set up or commissioned under improper conditions. The product is not guaranteed against any damage to specificpurpose radio and televisions.
The product's interference with your radio or television will be checked by turning on/off the power switch of the product.
In the event that the product is the cause of interference, try to eliminate it by taking one of the following corrective measures or taking some of them in combination.
- Change the direction of the receiving antenna or the feeder of your radio/television.
- Change the installing direction of the product.
- Move the receiver away from the product.
- Use a power line for the receiver that is not shared with the product.

CDRH REGULATION

The Center for Devices and Radiological Health for the U.S. Food and Drug Administration Implement regulations for laser products. The sentence of "This product complies with 21 CFR chapter I and subchapter J" indicates compliance with the CDRH regulations and is labeled on the product when marketed in the United States. This Model is equivalent to Class II laser device according to CDRH Regulation.

> This product complies with 21 CFR chapter I and subchapter J

⚠️ **Warning**
- Use of controls, adjustments or performance of procedures other than those specified in this manual may results in hazardous radiation exposure.

Foreword

Congratulations on your purchase of MIMAKI UV ink jet printer "JFX-1631/1615 , JFX-1631/1615plus".
UV Inkjet Printer JFX-1631/1615 , JFX-1631/1615plus uses ultraviolet ray curing ink (UV ink).
Read this Operation Manual carefully and make the most effective use of your printer.
In addition, JFX-1631/1615plus includes "Post Cure Unit" to dehydrate UV ink more rapidly at drawing as standard.
Before starting to operate the printer, be sure to read this Operation Manual carefully .

On this operation manual

- This Operation Manual describes the operation and maintenance of Model JFX-1631/1615 , JFX-1631/1615plus UV Ink Jet Printer (hereinafter referred to as the device).
- Please read and fully understand this Operation Manual before putting the machine into service. It is also necessary to keep this Operation Manual on hand.
- Make arrangements to deliver this Operation Manual to the person in charge of the operation of this device.
- This Operation Manual has been carefully prepared for your easy understanding, however, please do not hesitate to contact a distributor in your district or our office if you have any inquiry.
- Description contained in this Operation Manual are subject to change without notice for improvement.
- In the case where this Operation Manual should be illegible due to destruction or lost by fire or breakage, purchase another copy of the Operation Manual from our office.
- You can also download the latest manual from our website.

For safe operation

Pictorial signs

Pictorial signs are used in this Operation Manual for safe operation of and in prevention of damages to the device. Pictorial signs and their meanings are given below. Read and fully understand before reading the text.

Example of pictorial signs

Warning	Indicates the case where it is assumed that misuse of the machine, ignoring this sign, as this may cause fire or poisoning. Be sure to read this manual for proper operation.
Caution	Indicates the case where it is assumed that misuse of the machine, ignoring this sign, can cause damage only to property.
Important!	This symbol indicates that the information is helpful in proper operation of the plotter.
	The symbol indicates helpful information that will facilitate the use of the device.
	Indicates the reference page for related contents.
	The symbol "△" indicates the case where some phenomenon that requires a CAUTION sign (including "DANGER" and "WARNING" signs) exists. A concrete precaution (precaution against an electric shock in the case of the sketch given on the left) is shown in the illustration.
	The symbol "◯" indicates a prohibited behavior. A concrete illustration of prohibition (disassembly is prohibited in the sketch given on the left) is shown in or next to the illustration.
	The symbol "●" indicates a thing that is forced to be done and instruction that is forced to be followed. A concrete illustration of instruction (the removal of a plug from the receptacle is instructed in the sketch given on the left) is drawn in the illustration.

⚠ WARNING

- Be sure to setup the appropriate air-moving system in case of using the device in a closed room or a room with bad ventilation.

Cautions for constructing exhaust outlet

Please observe the following things to prevent the device.
  (1) The sharp of the exhaust outlet depends on your building enviroment. The exhouast outlet area is required more than half of the duct entrance area.
  (2) If mounting a valve on the exhaust outlet, be sure to open the valve when using the device.

- The ink used for this device falls into the category of UN No.3082 and UN Class 9. Since the ink is flammable, never use fire when using the device.

- When cleaning the ink station and head, be sure to wear the supplied goggle and gloves since you may get ink or washing liquid in your eyes.

- If anyone drinks ink or washing liquid in mistake, get the person to vomit and see a doctor immediately.Do not allow him or her drink vomit.Then, contact the Poison Control Center.
- If you absorb a lot of vapor and feel bad, immediately move to a location where fresh air is present and then keep yourself warm and quiet.Then, consult a doctor as soon as possible.
- Discard the waste ink according to the local regulations of the area this unit is used.

Never do the following

⚠ WARNING	
Do not disassemble or remodel the device	**Handling of ink cartridges**
• Never disassemble or remodel the main unit of the printer and the ink cartridge.Disassembling/ remodeling any of them will result in electric shocks or breakdown of the device.	• Some of the ingredients (UV Curing initiator) have toxic consequences to aquatic life.Avoid leak into water system or sewage containing water. • Store ink cartridges and waste ink tank in a place that is out of the reach of children. • If ink settles on the skin or clothes, immediately wash it off with detergent or water.If you get ink in your eyes, immediately wash your eyes with a lot of clean water for at least 15 minutes. In this case, also wash the backside of eyelids to rinse ink away completely. Then, consult a doctor as soon as possible.
Do not use the device in damp places	
• Avoid damp environments when putting the device into service. Do not splash water onto the device.Highhumidity or water will give rise to fire, electric shocks or breakdown of the device.	
Abnormal event occurs	**Grounding work**
• If the device is used under an abnormal condition where the device produces smoke or unpleasant smell, fire or electric shocks can result.Be sure to turn off the power switch immediately and detach the plug from the receptacle.Check first to be sure that the device no longer produces smoke, and contact a distributor in your district for repair. • Never repair your device by yourself since it is very dangerous for you to do so.	• This unit requires grounding work to prevent electrical shock. • Carry out the grounding work.
	Wearing protective devices
	• When cleaning the suction nozzle, which may scatter ink, be sure to wear safety glasses and gloves, or ink and washing liquid might enter your eyes or ink and washing liquid put on your hands might make your hands rough.
Handling of the power cable	**Opening / closing covers**
• Use a power cable attached to this unit. • Take care not to damage, break or work on the power cable.If a heavy matter is placed on the power cable, heated or drawn, the power cable can break to cause fire or electric shocks.	• This unit is equipped with covers.When opening or closing the covers, there is a possibility that your fingers or arms or a part of your body will be pinched.If it should occur, it may cause bruises or, in the worst case, crushing to death.When opening or closing the covers, take care so that your body or a part of it is never pinched.
Handling of UV LED	**Handling of maintenance cover**
• Do not use the UV LED in an ambience with a possibility of catching fire (gasoline, combustible gas spray, thinner, lacquer, powder dust, etc.). In addition, do not put paper or cloth near or on the UV LED, or it may cause fire.or it may cause electrical shock.	• Hold the maintenance cover and open it. If not, the cover will fall and cause injury.

⚠ WARNING

Power supply and voltage

- This unit contains parts applied high voltage.Carrying out electrical work by those unauthorized for that work is prohibited.
- Never look at the UV LED being lit with your naked eyes,or it may cause pain in your eyes or visual impairment.Be sure to wear safety glasses.
- Do not apply ultraviolet (UV) light directly to your skin,or it may cause irritation on your skin.

- To prevent electrical shock, be sure to set OFF the main power circuit breaker and disconnect the power plug before carrying out maintenance.For some units, capacitors may take one minute for discharging; therefore, start maintenance work three minutes after setting OFF the main power circuit breaker and disconnecting the power plug.
- Be sure to carry out grounding work to prevent electrical shock.
- Use the unit under the power specifications given.Be sure to connect the power cable plug to a convenient outlet grounded, or fire or electric shock might occur.or it may cause electrical shock.

- The main power circuit breaker should be set ON only by personnel with sufficient knowledge about operations of this unit.
- Be sure to use only the UV LED recommended by Mimaki,or it may cause fire or damages to the unit.Never use UV LEDs other than those recommended by Mimaki.We would take no responsibility for any troubles caused through the use of a UV LED not recommended by Mimaki.
- Do not touch the lamp on or right after the lamp off with bare hands to avoid from burn injury.Make sure to replace the lamp after it cools down completely.

Handling of UV LED

- Do not use the UV LED in an ambience with a possibility of catching fire (gasoline, combustible gas spray, thinner, lacquer, powder dust, etc.). In addition, do not put paper or cloth near or on the UV LED, or it may cause fire.or it may cause electrical shock.

Handling the Anti-freezing liquid

- Use the exclusive Anti-freezing liquid by Mimaki ,or the heater may be damaged.
- If the Anti-freezing liquid or mixed soft water with anti-freezing liquid gets on the skin or clothes, immediately wash it off with soap.
  If you get the Anti-freezing liquid or mixed soft water with anti-freezing liquid in your eyes, immediately wash your eyes with a lot of clean water.
  Then, consult a doctor as soon as possible.If high temperature Anti-freezing liquid or mixed soft water with anti-freezing liquid gets on the skin, immediately wash it off with soap and cool with iced water. Then, consult a doctor as soon as possible.
- Before using the Anti-freezing liquid, be sure to read the Material Safety Data Sheet (MSDS).
- If you swallowed the Anti-freezing liquid or mixed soft water with antifreezing liquid accidentally, try to get to vomit, and then consult a doctor as soon as possible.
- When unused the Anti-freezing liquid or used mixed soft water with anti-freezing liquid should discard as followings,
- Incinerating the fluid which is absorbed to the sawdust or waste cloth.
- Entrust them to an industrial waste disposal contractor, clarifying their contents.
- Avoid ignition such as static electricity and impact spark.

- Be sure to wear goggles and gloves for handling the Anti-freezing liquid.

Precautions for use

⚠ CAUTION	
Protection against dust	**Periodic exchange parts**
❗ • It is strongly recommended to use the device in a room that is not dusty. Set the Refresh level 2 or 3 when in bad environment. • When leaving the workshop after the working hours, be sure to take off any media from the roll hanger.If any media is left on the roll hanger, dust can put on it. • Store media in a bag.Wiping off dust accumulated on a media will adversely affect the media due to static electricity. • Dust in the head will also cause drops of ink to fall abruptly down on the media during printing.If this phenomenon takes place, be sure to clean up the head. (☞ P.2-8)	❗ • There are some parts which must be replaced by service men.You have to make a contract with distributors or dealers for after-sale service.
	Adjusting the level
	❗ • The level must be adjusted before printing can start.
	Handling of maintenance liquid
	❗ • Be sure to store the maintenance liquid in a cold and dark place.Store the maintenance liquid in a place that is out of the reach of children.
Ink cartridges	
❗ • If the ink cartridge is moved from a cold place to a warm place, leave it in the room temperature for three hours or more before using it. • Open the ink cartridge just before installing it in the printer.If it is opened and left for an extended period of time, normal printing performance of the printer may not be ensured. • Make sure to store ink cartridges in a cold and dark place. • Be sure to thoroughly consume the ink in the ink cartridge after opened.If an extended period of time has passed away after opening the cartridge tank, printing quality would be poor.	🚫 • You cannot use any other ink type than the exclusive one. If you use any other ink type, it may cause the damage for the device. To repair of the device is your responsibility as used instead the exclusive one. • Never refill the ink cartridge with ink. • Neither pound the ink cartridge nor shake it violently so as to prevent leakage of ink adhering locations.
Warning labels	**Handling the Anti-freezing liquid**
❗ • This device is adhered with a warning label.Be sure understand firmly the warnings given on the labels.In the case where any of the warning label has become so soiled that the warning message is illegible or has come off, purchase a new one from your local distributor or our office. Refer to Appendix for the label	❗ • Be sure to store the Anti-freezing liquid in a cold and dark place. • Store the Anti-freezing liquid in a place that is out of the reach of children.

⚠ CAUTION

About UV light

⚠	• A little UV light leaks from the UV LED unit or around the Post Cure Unit. UV light applied to your skin might cause inflammation and/or skin cancer.Though weak UV light might cause no inflammation, repeated exposure to it may lead to chronic disorders. (Measured value of this device: 0.1213933 mJ/cm^2 (accumulated for 8 hours)[*1]) Avoid applying UV light to your skin and eyes.
👓	• Impairment of eyes caused by UV light may be:Acute disorders ... Pain in eyes, tearing,etc.Chronic disorders ... Cataract, etc. When using this device, take protective measures such as gloves, long-sleeve cloth, light-resistant mask, attached light-resistant glasses, etc.

About hot parts

⚠	• The UV LED unit and the Post Cure Unit become very hot. When carrying out maintenance, wait until the temperature has been sufficiently lowered after the lamp is turned OFF. • Some parts outside the unit will have a very high temperature.A hightemperature caution label is placed on such parts.Do not touch the parts with the caution label placed and their vicinity, or burn injury may occur.
🧤	• When it is unavoidable to touch hot parts, be sure to wear heat-insulating gloves to protect your hands.

About cleaning

⚠	• After using the unit long time, foreign materials and dust may be gathered on the conductive and insulating parts, causing electric leakage.Periodically clean such parts. • For cleaning, do not use compressed air because it scatters foreign materials and dust, which may cause malfunctions when put inside the conductive parts.Be sure to use vacuum cleaner for cleaning of foreign materials and dust. • Do not use the unit in a place where there is a possibility of being wet, or electrical leakage may occur. • Electrical leakage, if it should occur, may lead to electrical shock of personnel or fire. • In order to prevent accidents from occurring, be sure to carry out periodic inspections and replacement of time-change components.

About firing and smoking

🔥	• Touching hot parts such as the UV LED unit and the Post Cure Unit with combustible materials may cause firing and/or smoking. Leaving combustible materials under the UV LED unit and the Post Cure Unit for a couple minutes may also cause firing and/or smoking.
⚠	• After the unit is used long time, foreign materials or dust gathered on the stabilizer or other parts may cause electrical leakage or insulation deterioration may cause firing and/or smoking.Periodically clean the parts and measure the insulation resistance, replacing deteriorated parts, if any. • After the unit is used long time, screws, etc. on the conductive parts may be loosened, causing firing and/or smoking.Periodically tighten such screws. • Because this unit is not of explosion proof type,do not use it in an ambience with hazardous materials, or a possibility of explosion may arise. • If abnormalities of the unit such as a strange odor, a smoking or a spark burn are found, turn the power off and call Mimaki immediately.

Notes on UV LED

⚠	• When handling the UV LED or the silica glass on the bottom of the irradiation device, be sure to wear the gloves attached and never touch them with bare hands, or the UV ink curing level is significantly lowered.If the UV LED or silica glass is contaminated,wipe it with clean gauze moistened with alcohol.(Do not use alcohol for cleaning the exteriorcover,or the paint will peel off.)) • Securely mount the UV LED to the socket,or the lamp may be dropped or overheated.
🚫	• The UV LED performance and service life are significantly affected by the UV irradiation and UV power supply units used.Never use those UV devices other than those recommended by Mimaki.We would take no responsibility for any troubles caused through the use of a UV devices not recommended by Mimaki.

*1. Maximum allowable value by ICNIRP: Wavelength 365nm/270000J/m^2

Notices for installation

⚠ CAUTION		
A place exposed to direct sunlight	**A place that is not horizontal**	**A place in which temperature and humidity vary by a great margin**
🚫	🚫	🛈 • Use the device under the following environment. Operating • environment : 15 ～ 30 °C 35 ～ 65 % (Rh)
A place that vibrates	**A place exposed to direct air blow from air conditioner, etc.**	**A place where fire is present**
🚫	🚫	🚫
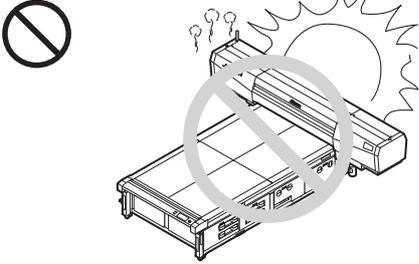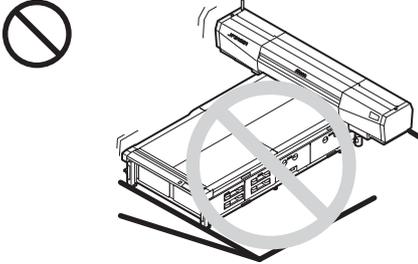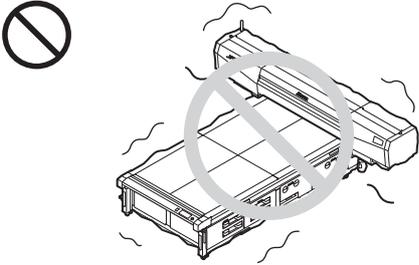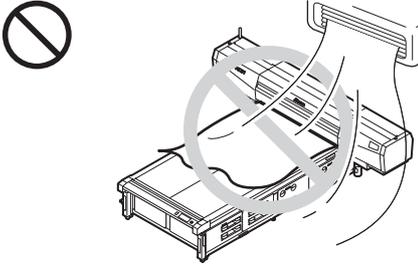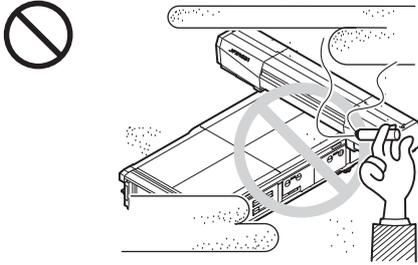
Position of the warning label

This device is adhered with the warning label. Be sure to fully understand the warning given on the labels.
In the case where any of the warning label has become so soiled that the warning message is illegible or has come off, purchase a new one from your local distributor or our office.
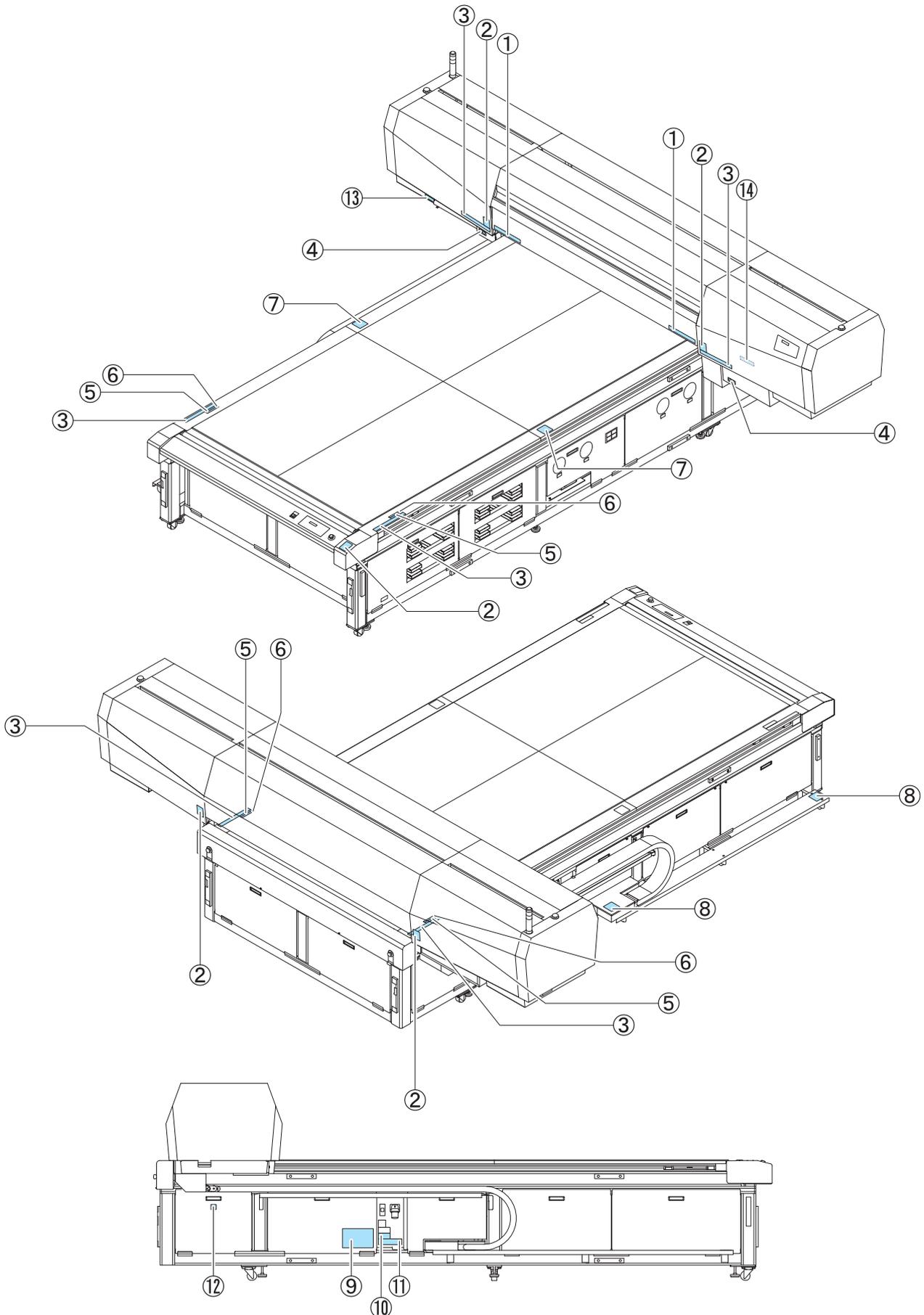
Order No.	Label	Order No.	Label
(1) M901549		(8) M906311	
(2) M905980		(9) M906318	
(3) M906115		(10) M903764	
(4) M903330		(11) M905624	
(5) M903226		(12) M903239	
(6) M904325		(13) M904121	
(7) M906310		(14) M907063	
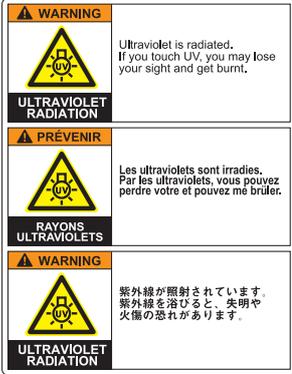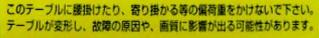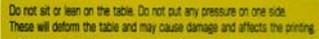
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How to Read This Operation Manual

This manual provides the explanation about the displayed characters and used keys on the "Display Panel" in addition to the operation procedures.
Proceed operations confirming them while using.

These are what we want you to know in advance.

This explains the outline of functions.

Test drawing

Make test drawing to check whether there is nozzle clogging or other drawing failures (such as wearing or missing).

Execution of test drawing

Caution
- Printing is disabled when the following messages are displayed. It is enabled when the message has disappeared.
  "WATER NOT READY" : The temperature of water in the hot water device has not reached the predetermined value.

Check before starting test drawing	• Is media set ? (☞ P.2-5)	• Is origin point set ? (☞ P.3-2)
	• Is head gap value registered ? (☞ P.3-6)	

These are the number of operation procedures.

1 Press the [TEST] key in the local mode.

```
TEST DRAW
NOZZLE CHK      <ENT>
```

2 Press [▲] or [▼] key to select "NOZZLE CHK".
- Select "HARDEN CHK" to confirm that UV ink has not been cured. (☞ P.4-38)

3 [ENTER] key.
- Test drawing is started.

```
** TEST DRAW **
```

4 Test drawing ends
- Returned to the local mode.
- Execute operation of PXX, when evacuation of the Y-bar is required.

5 Check result of drawing
- When the result is normal, finish the operation.
- When the result is abnormal, execute head cleaning. (☞ P.2-8)

Normal pattern	Abnormal patterns		
	Nozzle drop out	Nozzle missing	Deflection
	Many lines are missing.	The lines are missing as if the teeth are lost.	The distance between the lines is narrowing or double lines are formed.

2

Basic Operation

This shows the display panel.

2-7

[⬭] enclose shows the buttons in a sentence

Page number (Section 2, Page 7)

CHAPTER 1
Before Use

This chapter describes the parts name and setting procedures before use.

Installing the device

Where to install the device

Secure sufficient space for installation before assembling this unit.
Decide the place considering the size of the device and a space required for execution of drawing.

Machine Type	Width	Depth	Height	Total Weight
JFX-1631/JFX-1631plus	4200 mm	4300 mm	1600mm	Approx.1600 kg
JFX-1615/JFX-1615plus	4200 mm	2700 mm	1600mm	Approx.1300 kg
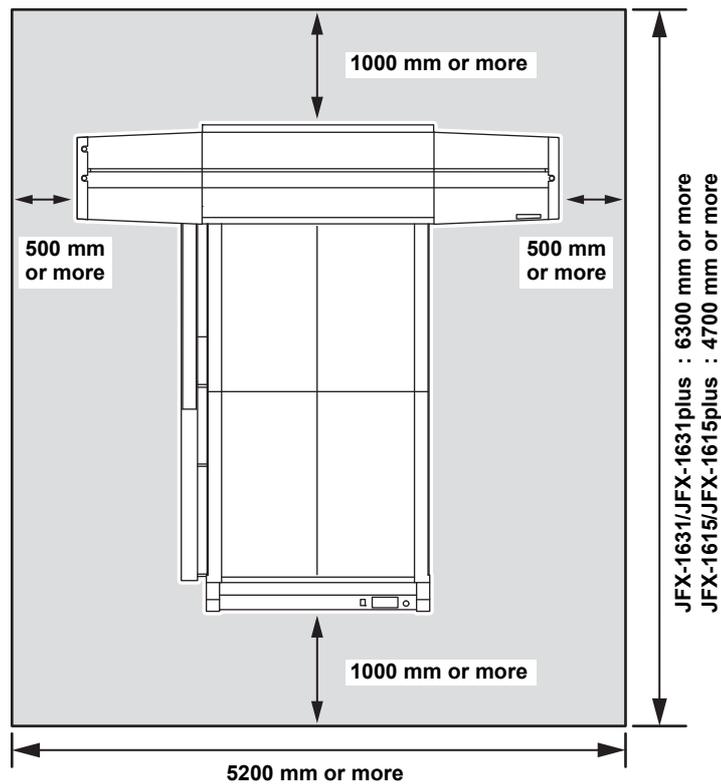
- This unit cannot be installed by the customer. Its installation should be entrusted to our service personnel or your electrical contractor.

- Be sure to carry out grounding work.

- In order to prevent electrical shock from occurring, carrying out electrical work by those unauthorized for that work is prohibited.

1-2

Configuration and Function

Front Side

Indicator
Indicating a state of the machine.
(☞ P.1-7)

Carriage
(☞ **P.1-5)**

Operation Panel (☞ P.1-4)
Operation keys for executing settings required for the machine, and a display to display operation items are placed. (The operation panel is also equipped on the front of this machine.)

Table
Setting media on it. (☞ P.2-5)
There are absorbing holes on the table so that media is absorbed when vacuum is ON.

Power button
This button is placed in the left side of the operation panel to turn ON/OFF the power of this unit instead of the power switch of main body. (☞ P.2-4, P.2-14)

Suction valve
Switch at setting media. (☞ P.2-5)

Ink station
Insert ink cartridges here.(☞ P.1-8)
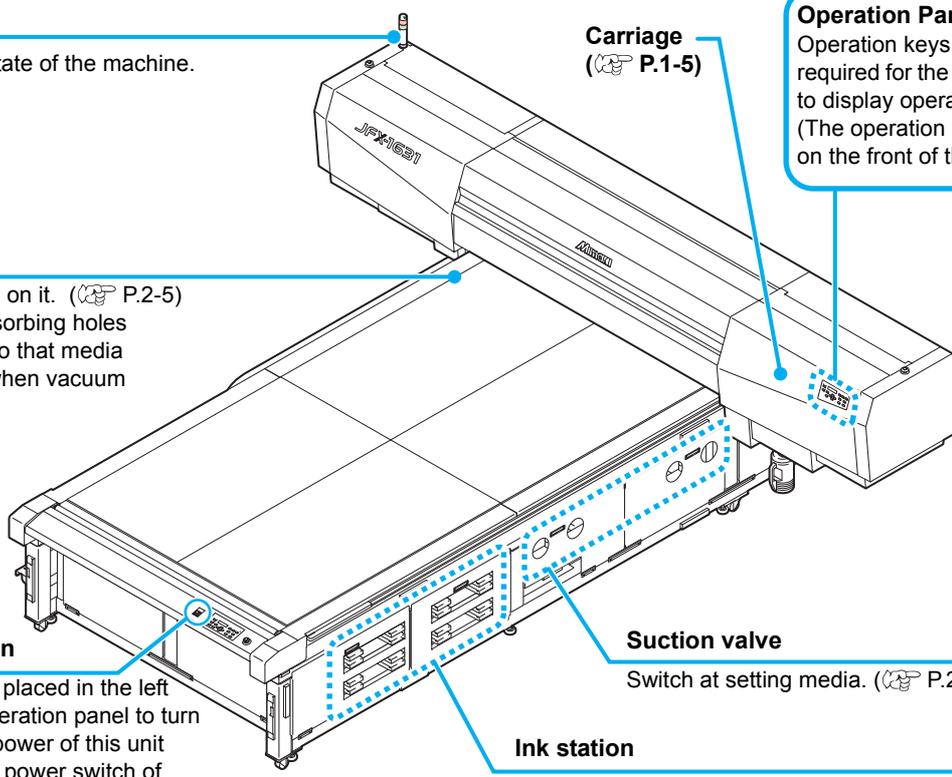
Rear Side

Y-bar
Moved on the table at drawing.

Main power switch
ON/OFF the power of the machine.
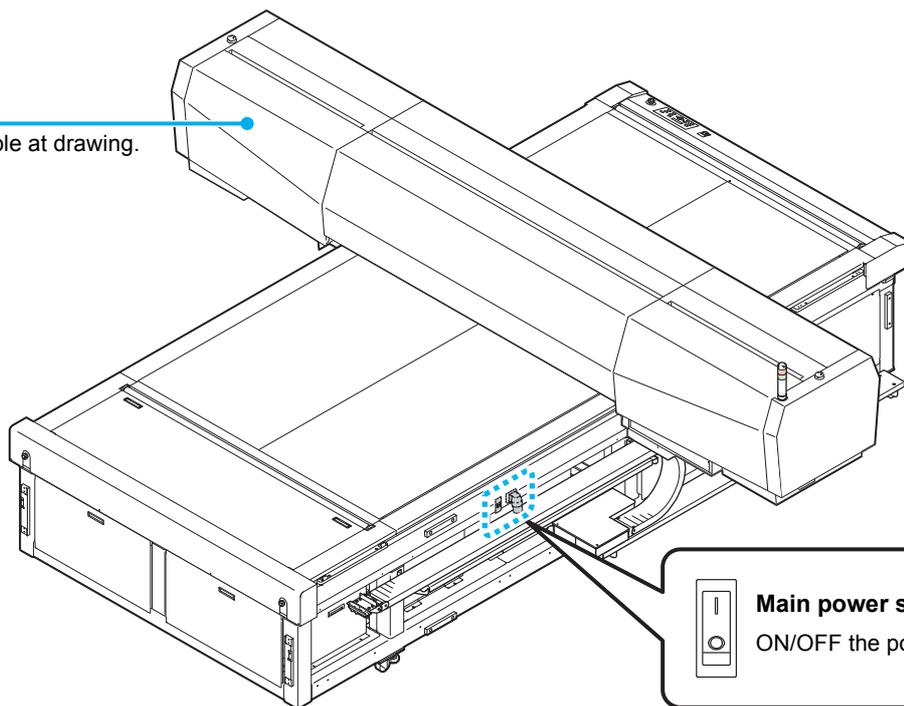
Operation Panel

The operation panel is used for setting of drawing method and each operation.

VACUUM/BLOW Key (☞ P.2-5)
Switching VACUUM to BLOW, and vice versa.

VACUUM Lamp (☞ P.2-5)
Lit when media is set.

BLOW Lamp (☞ P.2-11)
Lit when media is removed from the table.

Display
Displaying state of the unit, setting items, errors, and so on.

POWER Lamp
Lit when the power is ON.

TEST Key
Press to start the test drawing.
(☞ P.2-7)

CLEANING Key
Press to start the head cleaning.
(☞ P.2-8)

DATACLEAR Key
Press to erase received data.
(☞ P.3-7)

JOG key
Used for moving of the Y-bar and for each setting.

ON/OFF key
Press to switch over ON/OFF of the vacuum.

UP key
Press to elevate the carriage. (☞ P.3-4)

DOWN key
Press to down the carriage. (☞ P.3-4)

FUNCTION key
Press to use each function.

REMOTE key
Switching the remote mode and the local mode, and vice versa. (☞ P.1-12)

END key
Press to finish the setting.

ENTER key
Press to determine a setting.

Function of Jog Keys

A function of the Jog key is different by the timing to be used.

	At drawing origin, area setting	At function selection	At setting selection
◀	Shifts the carriage to the left		
▶	Shifts the carriage to the right		
▲	Shifts the carriage to back	Return to the previous function	Select the previous function
▼	Shifts the carriage to front	Move to the next function	Select the next value

Carriage

A print head for drawing, a UV irradiation appliance, and a light pointer in the print head cover are mounted on the carriage. Depending on UV LED condition, the carriage is positioned differently.
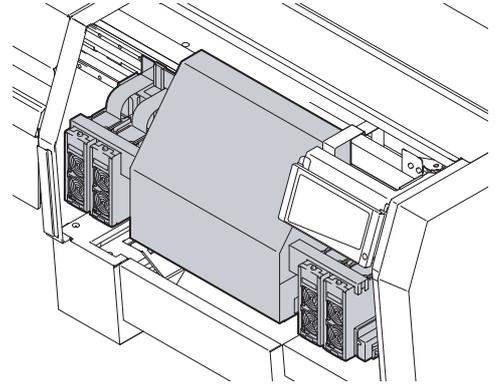
EMERGENCY SWITCH

One EMERGENCY switch is placed on the front face of the unit and 2 are placed on each of the buck surface and Y-bar respectively.
When stopping the machine for safety reason, press the switch.
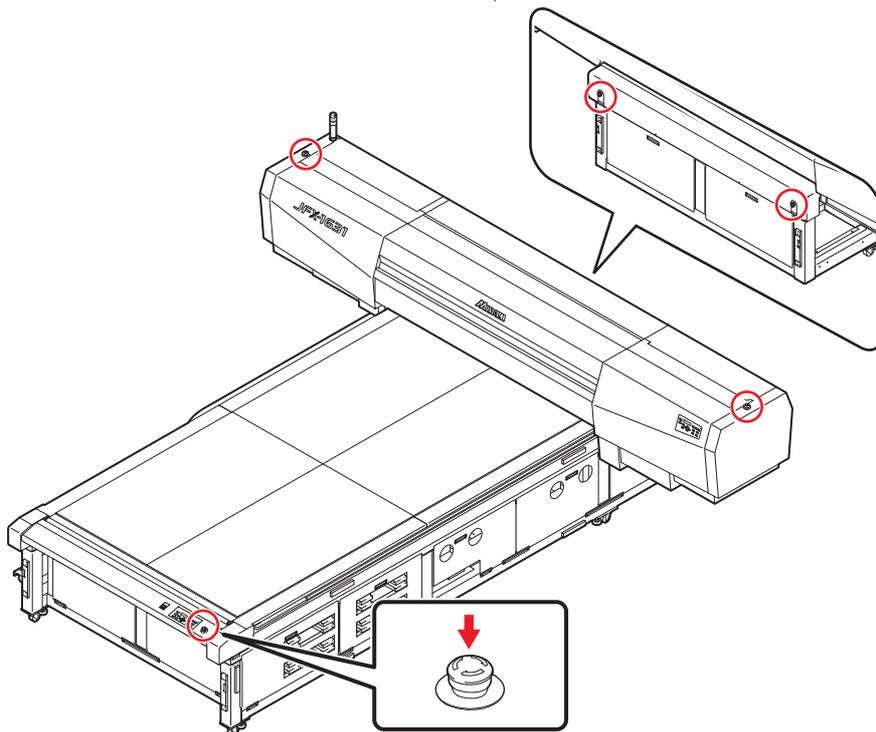
Connecting the cables

Connecting the USB2.0 interface cable

Connect a computer to this machine with the USB2.0 interface cable.

⚠️ **Caution**
- Prepare the USB2.0 interface cable. (USB2.0 interface cable is not supplied with this machine.)
- Your RIP is required to support USB2.0 interface.
- If USB2.0 interface is not installed in your computer, ask a RIP maker near you or our branch office.

USB cable
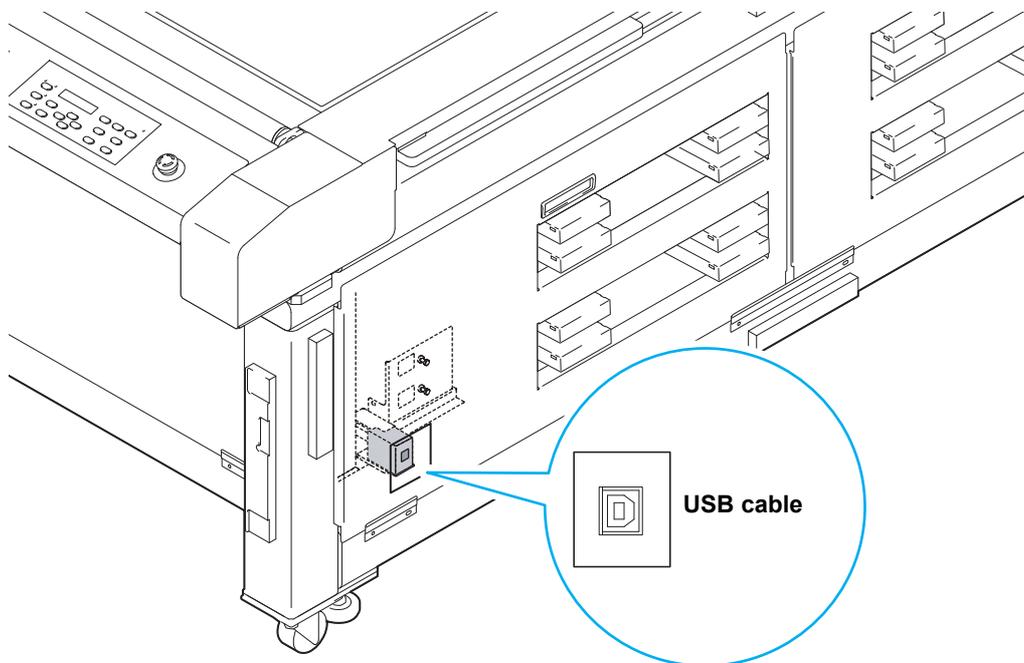
Connecting the power cable

⚠️ **Warning**
- For supplying power to the device, the power distribution board work is required.
- Connecting the power cable cannot be installed by the customer.
- Contact your local distributor or call for service to connect the power cable as well as moving installation of the device.
- We should take no responsibility for any troubles caused through the power cable connection by the customer without calling for service.

UV LED Unit and Indicator

UV LED Unit

⚠️ **Warning**
- Do not expose your naked eyes directly to the light irradiated from the UV LED when it lights.
- Do not touch the lamp when it is being lit or just after it is set OFF. It may cause a burn injury, as it is very hot.

UV irradiation device
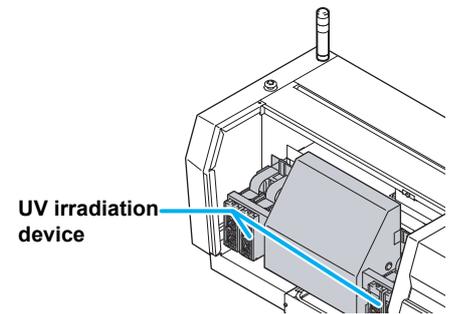
Function of indicator

Functions of the Indicator on the top left of this unit are described here. The indicator has a green and a red lamp.

Red

Green

Color of lamp	State of lamp	State of machine
Green	Lighting	REMOTE mode
	Blinking	REMOTE mode (drawing)
	Off	LOCAL mode
Red	Lighting	Error has occurred
	Off	Normal
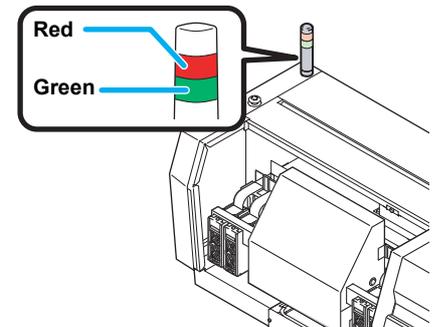
Setting of ink cartridge

Important!
- To use the ink cartridge, you must attach the ink pack on the dedicated eco cartridge (OPT-J0237).
- For the attaching/removing method of ink pack, refer to the label attached to the eco cartridge.

Kinds of ink that can be used

Kind of ink	Color
LF-200 Ink	Magenta
	Cyan
	Yellow
	Black
	White
LH-100 Ink	Magenta
	Cyan
	Yellow
	Black
	White
	Clear
LF-140 ink	Magenta
	Cyan
	Yellow
	Black
	Light magenta
	Light cyan
	White
Primer	Primer
Cleaning cartridge [1] (SPC-0606FS)	
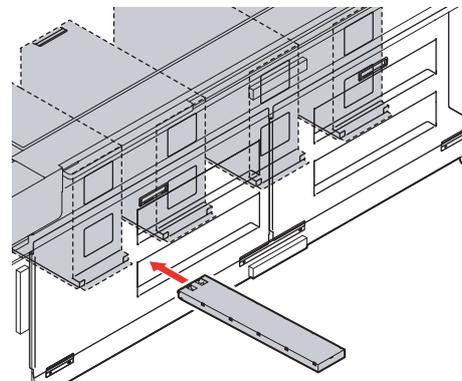
[1]. To be used when the head is cleaned.

Each color is displayed on the LCD as follows :

Display	Color	Display	Color	Display	Color
M	Magenta	K	Black	P	Primer
C	Cyan	m	Light magenta	W	White
Y	Yellow	c	Light cyan	CL	Clear

Precautions at the time of setting the ink cartridge

When setting the ink cartridge, pay attention to the followings:

- Check the ink slot number, and insert the proper color ink cartridge.
  Depending on the ink type you use, setting contents of ink cartridge differ. (Refer to the table below.)

Table of Usable inkset

Ink set *1																Ink type		
																LF-200	LF-140	LH-100
M	M	M	M	C	C	C	C	Y	Y	Y	Y	K	K	K	K	○	○	○
M	M	C	C	Y	Y	K	K	-	-	-	-	-	-	-	-	○	○	○
M	M	C	C	Y	Y	K	K	W	W	-	-	-	-	-	-	○	○	○
M	M	C	C	Y	Y	K	K	W	W	W	W	-	-	-	-	○	○	○
M	M	C	C	Y	Y	K	K	W	W	W	W	W	W	W	W	○	○	○
M	M	C	C	Y	Y	K	K	CL	CL	-	-	-	-	-	-	x	○	○
M	M	C	C	Y	Y	K	K	W	W	CL	CL	-	-	-	-	x	○	○
M	M	C	C	Y	Y	K	K	W	W	W	W	CL	CL	CL	CL	x	○	○
M	M	C	C	Y	Y	K	K	W	W	W	W	CL	CL	P	P	x	○	○
M	M	C	C	Y	Y	K	K	m	m	c	c	W	W	W	W	x	○	x
M	M	C	C	Y	Y	K	K	m	m	c	c	W	W	CL	CL	x	○	x
M	M	C	C	Y	Y	K	K	m	m	c	c	W	W	P	P	x	○	x
M	M	C	C	Y	Y	K	K	W	W	P	P	-	-	-	-	x	○	○
M	M	C	C	Y	Y	K	K	W	W	W	W	P	P	P	P	x	○	○

*1. M=Magenta, C=Cyan, Y=Yellow, K=Black, W=White, m=Light magenta, c=Light cyan, CL=Clear, P=Primer

- Insert the ink cartridge securely all the way in the slot. Moreover, do not insert or pull out the cartridge roughly.
- Insert the cartridge making the IC chip side facing upward.

1

Before Use

Precautions in handling ink cartridge

⚠ • Use the recommended ink cartridge by Mimaki.
 • Do not touch the ink directly. If the ink settles on the skin or clothes, immediately wash it off with soap and water. If you get ink in your eyes, immediately wash your eyes with a lot of clean water. Then, consult a doctor as soon as possible.
 • Store ink cartridge in a dark and cold place.
 • If the ink cartridge is moved from a cold place to a warm place, leave it in the room temperature for more than three hours before using it.
 • Be sure to thoroughly consume the ink in the ink cartridge, once it is opened, within six months. If an extended period of time has passed after opening the cartridge, drawing quality would be poor.
 • Store ink cartridges in a place that is out of the reach of children.
 • When discarding unused ink cartridges, entrust them to an industrial waste disposal contractor, clarifying their contents.
 • Some component (photoinitiator) of the ink is toxic against aquatic organisms. Avoid leakage of it to natural water system or domestic waste water.
 • Do not use ink cartridges expired the date noted on them.
 • Before using an ink cartridge, be sure to read the Material Safety Data Sheet (MSDS).

🚫 • Do not shake the ink cartridge violently. Shaking or turning it toughly can cause leakage of ink.
 • Never disassemble the ink cartridge.
 • Never refill the ink cartridge with ink. Refilling the ink cartridge can cause a trouble. Remember that Mimaki assumes no responsibility for any damage caused by the use of the ink cartridge replenished with ink.

Precautions in handling an unused slot

When there is an unused ink slot for the ink set, fill cleaning solution (SPC-0606FS) into the head, and execute maintenance regularly.
If maintenance with cleaning solution is not executed, the head may not discharge ink well.

1 **Execute Subtank Maintenance once a day.**

 • Execute maintenance referring to P.4-15 "Subtank Maintenance".
 • An unused head indicates "N". Select the head displaying "N" with
   ◀ ▶ keys, and execute maintenance.

```
FILL UP INK    HEAD
[MMCCYYKKWWNNNNNN]
```

Important! • When turning the power on, a message to promote subtank maintenance may be displayed. Press the ENTER key and then execute subtank maintenance.
 • This message is displayed when turning the power on again after two days or more since the message has been displayed once.

```
Blank head mainte
        OK:<ent>
```

About Media

The sizes of media that can be used and the method of handling are described here.

The sizes of media that can be used

	JFX-1631/JFX-1631plus	JFX-1615/JFX-1615plus
Maximum width	1644 mm	
Maximum length	3194 mm	1592 mm
Max. drawing width	1602 mm	
Max. drawing length	3100 mm	1500 mm
Thickness	Less than 50mm	
Weight [*1]	Less than 200 kg	Less than 100 kg

*1. A rough guide is 50 kg per 1 m^2.

Precautions in handling the media

Carefully observe the following when handling the media.

- **Extension and shrinkage of the media**
  Do not use the media in the sheet form shortly after the package was opened. The media could extend or shrink depending on the temperature and humidity inside the room. For more than 30 minutes after opening of the package, the media has to be exposed to the ambient air of the location it is to be used.
- **Warping of the media**
  As for the media of the sheet form, use the flat one, or the one warping downward (the one with floating central part when placed the drawing surface facing upward.) The media warping upward could not be absorbed in some cases onto the table. Store the media liable to be warped on the slightly smaller platform or palette so that it may warp downward.
  Be careful not to warp the media out of the absorption area.
- **Absorption of the media**
  To maintain the absorption effect, cover the suction holes not covered by the media with other media which is thinner than the media.
- **Other precautions**
  a Do not place any article on the surface of the coated paper. Some coated paper could change its color.
  b Curled media that cannot be absorbed or the media that misaligns when the Y-bar is moved may not be used. Before using, fix the media with adhesive tape, etc.
  c Do not use the media that will generate warping or deformation even if the logical seek is set "OFF".
  d As the bed surface is constructed of multiple boards, their joint lines could be reflected on the printed images depending on the thickness and elasticity of the media. Similarly, the suction holes could affect the printed images. Perform the printing after confirming that there is no problem by making the test printing in advance.

Menu mode

This device has three modes. Each mode is described below.

Local Mode

Local mode is a mode in drawing preparation state.
All keys are available.
Receiving of data from the computer is allowed, however, drawing is not executed.
The following operations are allowed in the local mode.

(1) Setting an origin and drawing area by pressing the JOG keys.
(2) Executing "Test drawing" by pressing the ⟨TEST⟩ key.
(3) Executing "head cleaning" by pressing the ⟨CLEANING⟩ key.
(4) Execute setting of each function by pressing the ⟨FUNCTION⟩ key.

Function Mode

Press the ⟨FUNCTION⟩ key during the Local Mode to call the Function Mode.
Function settings on drawing method can be set.

Remote Mode

Drawing is conducted according to received data.
Pressing of the ⟨REMOTE⟩ key causes the temporal stop of the device.
Press the ⟨REMOTE⟩ during the Local Mode to start the Remote Mode.
The UV LED is lit when it has not been ON.

CHAPTER 2
Basic Operations

The procedure from preparation of ink and media to the execution of drawing, and setting methods are explained.

How to use the opening/closing door

Close the door while performing the drawing to avoid the bad effect to be caused by UV LED.

When setting the media

1   **Set the media after opening the door.**

(Important!)

- When setting the media, avoid contact of the media to the door. The door could be closed by vibration.
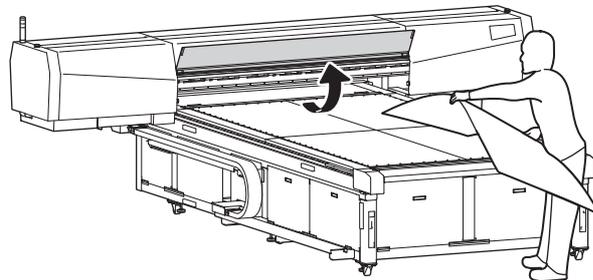
When drawing the image

1   **Close the door.**

(Important!)

- Close the door slowly so that the door may not be damaged.
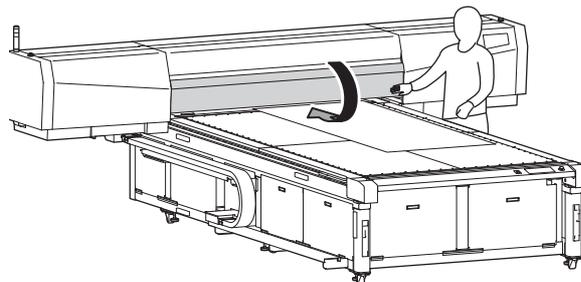
2   **Perform drawing while keeping the door closed.**
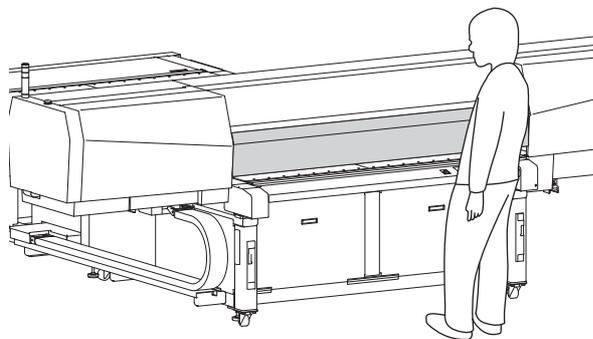
⚠ **Caution**
- Do not open the door while drawing. The UV light could damage your eyes or skin.
- Inserting your hand while drawing under the door could cause injury due to touching with the carriage.

2-2

Operation flow

1 Turning the power ON

See "Turning the power ON"
(☞ P.2-4)

2 Setting the media

See "Setting the media" (☞ P.2-5)

3 Test drawing

See "Test drawing" (☞ P.2-7)

4 Execution of head cleaning

See "Execution of head cleaning"
(☞ P.2-8)

5 Drawing an image from source data

See "Drawing an image from source data" (☞ P.2-11)

6 Turning the power OFF

See "Turning the power OFF"
(☞ P.2-14)

Turning the power ON

⚠️ **Caution**

- When the power is turned ON, the Y-bar moves. To avoid injuries, keep your hands away from the table.
- If the temperature in the hot water device has not reached the predetermined value, a message is indicated. In this case, drawing is disabled. It is enabled when the error indication has disappeared.
- When turning on / off with the main power switch on the left side of the machine, turn it off, wait more than five seconds, and then turn it on.

1 **Press the power button**

- Press the power button n the left side of the operation panel to light.
- When the main power switch is not set to ON, the power is not connected even if the power button is pressed. If the lamp does not light even if the button is pressed, check the main power switch on rear side of this unit.
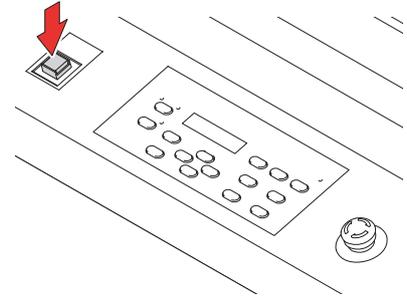
- When the power is switched on, the LCD displays the firmware version number.

- Initial operation is started.

```
JFX - 1631    s t a r t - u p
v e r . * . * *
```

```
      PLEASE  WAIT
```

2 **Press the** `ENTER` **key.**

- Local Mode starts.

```
< LOCAL >
                          2 . 5 mm
```

3 **Turn the power of connected computer ON.**

Setting the media

Important!
- To set the media, suction the media with the suction vacuum unit (option). Install the optional suction vacuum unit, and then set the media.
- If, within the absorption area, there are suction holes not closed by the media, close such suction holes placing thin sheet form material such as paper, film or tape.
- The peripheral parts of the media could roll up due to heat. Fix the media supplementarily using adhesive tapes, etc.
- Guide holes are provided at the edges (3 edges) of the table to insert the screw, etc. available in the market. Use them as the guides for setting the media straight. (☞ P.3-18)

Setting the media

1 **Switch over the suction valve at the right side of the table adjusting with the size of the media to be set.**

- The valve is opened when the knob is turned vertically and closed when it is turned horizontally.
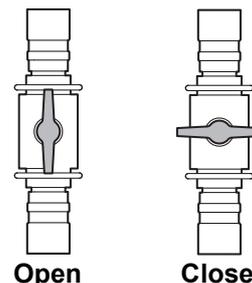
Open   **Close**

2 **Pressing the `VACUUM/BLOW` key, put on the "VACUUM" lamp.**

3 **Pressing the `ON/OFF` key, absorb the media to the table.**
- Turn ON/OFF the vacuum pressing the `ON/OFF` key.
- As for the details of the absorption area, please refer to P.2-6 .
- When you want to change the point of origin, please refer to P.3-2.

Absorption area

Suction valve
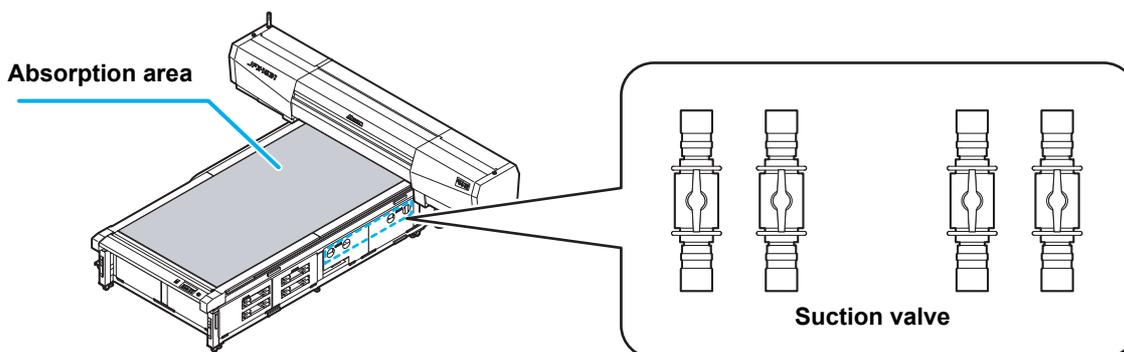
After setting the media, set the followings.
- Register the thickness of the set media. (☞ P.3-4)
- Register the head gap. (☞ P.3-6)

On the absorption area

The absorption area of JFX-1631/1615 is shown in the following figure. Pressing ON/OFF key, set the optimum absorption area for the media to be set.

JFX-1631/JFX-1631plus
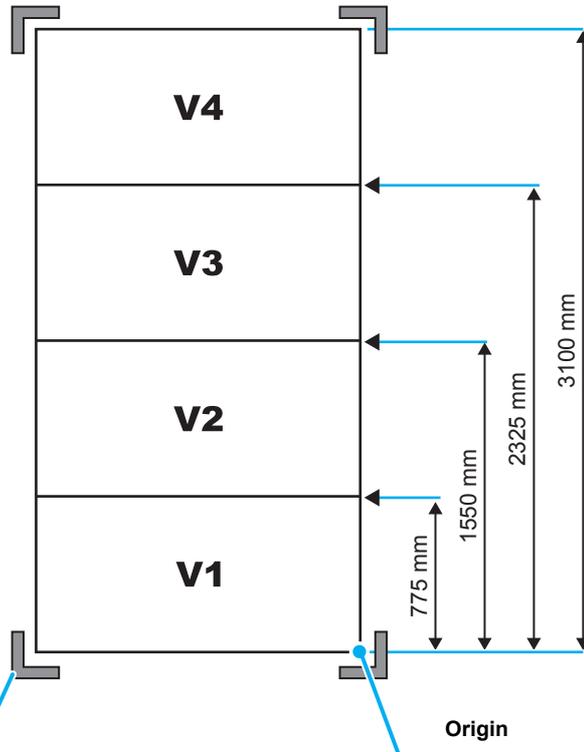
V4

V3

V2

V1

3100 mm

2325 mm

1550 mm

775 mm

Seal indicating the point of origin

Provided at the 4 corners of the table.

Origin

JFX-1615/JFX-1615plus

V2

V1

1550 mm

775 mm
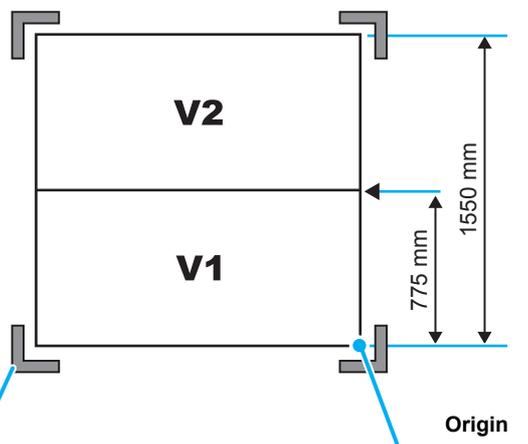
Seal indicating the point of origin

Provided at the 4 corners of the table.

Origin

• When changing the point of origin, please refer to P.3-2 .

Test drawing

Make test drawing to check whether there is nozzle clogging or other drawing failures (such as wearing or missing).

Execution of test drawing

⚠ Caution
- Printing is disabled when the following messages are displayed. It is enabled when the message has disappeared.
  "WATER NOT READY" : The temperature of water in the hot water device has not reached the predetermined value.

Check before starting test drawing	• Is media set ? (☞ P.2-5)	• Is origin point set ? (☞ P.3-2)
	• Is head gap value registered ? (☞ P.3-6)	

1 Press the ⟨ TEST ⟩ key in the local mode.

```
TEST DRAW
NOZZLE CHK    <ENT>
```

2 Press ⟨▲⟩ or ⟨▼⟩ key to select "NOZZLE CHK".

- Select "HARDEN CHK" to confirm that UV ink has not been cured. (☞ P.4-37)

3 Press the ⟨ ENTER ⟩ key.

- Test drawing is started.

```
** TEST DRAW **
```

4 Test drawing ends

- Returned to the local mode.
- Execute operation of PXX, when evacuation of the Y-bar is required.

5 Check result of drawing

- When the result is normal, finish the operation.
- When the result is abnormal, execute head cleaning. (☞ P.2-8)

Normal pattern	Abnormal patterns		
	Nozzle drop out	Nozzle missing	Deflection
	Many lines are missing.	The lines are missing as if the teeth are lost.	The distance between the lines is narrowing or double lines are formed.

Execution of head cleaning

When a correct pattern is not obtained in the test drawing, perform the head-cleaning. As for the head cleaning, the following 4 types are available.

normal	To be used if ten odd numbers of the lines are missing when the test pattern is made. Suction and wiping will be performed.	☞ P.2-8
wiping	To be used if several numbers of the lines are missing when the test pattern is made. Only the wiping with the wiper will be performed.	☞ P.2-9
hard	To be used when the missing of the lines is not improved with the "Normal" cleaning.	☞ P.2-8
SUBTANK MAINTE	To solve the ink path error that occurred during drawing, perform [Sub tank maintenance] cleaning.	☞ P.2-8
power on	To be used for cleaning automatically when turning the power on.	☞ P.2-10

When cleaning with "Normal" or "Hard" or "SUBTANK MAINTE"

1 **Press the** `CLEANING` **key in the local mode.**

```
CLEANING
TYPE           : n o r ma l
```

2 **Select the cleaning type with** `▲` **or** `▼` **keys, press the** `ENTER` **key.**

```
CLEANING
TYPE           : h a r d
```

3 **Select the head and set execution/non-execution of cleaning.**

(1) Select the head with `◀` or `▶` keys.
(2) Select execution/non-execution of the head cleaning with `▲` or `▼` keys.
  • Select execution of cleaning for every head.
    Execute Cleaning   : A color of an ink cartridge being set is displayed.
    Not Execute Cleaning : " - " is displayed

```
CLEANING
[ MMMMCCCCYYYYKKKK ]
```

```
CLEANING
[ MMMMCCCCYY - - KKKK ]
```

4 **Press the** `ENTER` **key.**

• Cleaning is started.
• When the cleaning is completed, a mode is returned to the local mode.

5 **Execute test drawing and check the result of the test drawing.**

• Repeat cleaning and test drawing until normal result is obtained.

When cleaning with "Wiping"

1 **Press the `CLEANING` key in the local mode.**

```
CLEANING
TYPE          : n o r ma l
```

2 **Select [wiping] with `▲` or `▼` keys and press `ENTER` key.**

```
CLEANING
TYPE          : w i p i n g
```

3 **Select the head and set the execution/non-execution of cleaning.**

(1) Select the head with `◄` or `►` keys.
(2) Select execution/non-execution of the head cleaning
   with `▲` or `▼` keys.
   • Select execution of the head cleaning for all the heads.
   Execute Cleaning   : A color of an ink cartridge being set is displayed.
   Not Execute Cleaning : " - " is displayed

```
CLEANING
[ MMMMCCCCYYYYKKKK ]
```

```
CLEANING
[ MMMMCCCCYY - - KKKK ]
```

4 **Press the `ENTER` key.**

5 **Select the number of time of wiping (1 to 10 times) with `▲` or `▼` keys.**

```
CLEANING
WI PE  NUM.  : 1
```

6 **Press the `ENTER` key.**

• The cleaning will be started.
• When the cleaning is completed, the system is turned to the local mode.

7 **Execute test drawing and check the result of the test drawing.**

• Repeat cleaning and test drawing until normal result is obtained.

• If the test drawing results have not been improved despite of the repeated head cleaning, it is necessary to perform the cleaning of wiper. Please refer to P.4-12 "Cleaning of wiper".
• If the test drawing results have not been improved even after the repeated head cleaning after performing the cleaning of wiper, please re-fill the ink. (☞ P.4-26)

2

Basic Operations

Cleaning automatically when turning the power on

Cleaning can be set to be executed automatically when turning the power on and the hot water is ready.

1 | **Press the** ⬭ CLEANING ⬭ **key in the local mode.** | ```
CLEANING
TYPE   : n o r m a l
```

**2** | **Select [power on] with** ⬭▲⬭ **or** ⬭▼⬭ **keys and press** ⬭ ENTER ⬭ **key.** | ```
CLEANING
TYPE        : p o w e r   o n
```

3 | **Select the head and execution / non-execution of the head cleaning when turning the power on.**

(1) Select the head with ⬭◀⬭ or ⬭▶⬭ keys.
(2) Select execution/non-execution of the head cleaning
　　with ⬭▲⬭ or ⬭▼⬭ keys.
　　• Select execution of cleaning for every head.
　　　Execute Cleaning　　 : A color of an ink cartridge being set is displayed.
　　　Not Execute Cleaning : " - " is displayed

```
CLEANING
[ MMMMCCCCYYYYKKKK ]
```

```
CLEANING
[ MMMMCCCCYY - - KKKK ]
```

4 | **Press the** ⬭ ENTER ⬭ **key.**
　• When the setting is completed, a mode is returned to the local mode.

Drawing an image from source data

Starting the drawing operation

⚠ **Caution**
- If the UV irradiation device is not ready or the temperature of the water heating system has not reached the predetermined value, a message is displayed. Drawing is not allowed in such cases. When the display is disappeared, drawing can be started.

💡
- Data transmission is allowed even if both errors are displayed. Drawing is started after the display is disappeared.

1 **Set the media (☞ P.2-5)**

(1) Open/Close the suction valve adjusting to the media size.
(2) Pressing the ⬭VACUUM/BLOW key, put on the VACUUM lamp.
(3) Pressing the ⬭ON/OFF key, absorb the media.

2 **Press the ⬭REMOTE key in the local mode.**
- The device goes in the remote mode and data from the computer can be received.

```
* REMOTE *
            2 . 5mm
```

3 **Transmit data to be drawn from the computer**
- Drawing conditions are displayed.
- As for the data transmission method, see the instruction manual of the output software.

Resolution: 600DPI

```
* REMOTE *        6 0 0 X 6 0 0
HOST  4 P  B  N      2 . 5mm
```

Scanning speed:
"N" denotes normal.
"x2" denotes the double speed.

Direction:
"B" denotes bi-directional.
"U" denotes uni-directional.

Pass

Priority is set to "HOST" :
"HOST" is displayed.
Priority is set to "PLOT" :
Print quality (STD/FINE/FASR) is displayed.
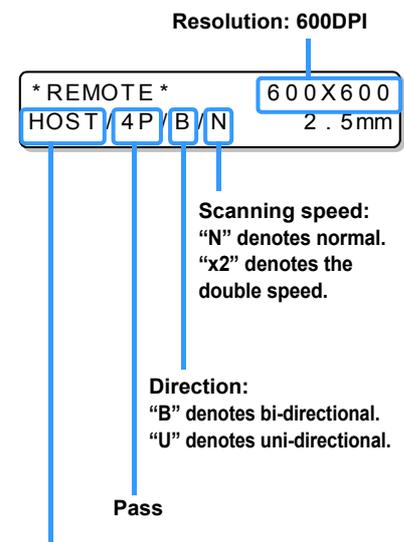
4 **Start drawing**
- The drawing origin is not changed after completion of the drawing.

5 **Taking out the media after completion of drawing**

(1) Follow the "Evacuation of Y-bar from the table" (☞ P.2-13) to evacuate the Y-bar from the table.
(2) Press the ON/OFF key to turn the suction OFF.
(3) Press the VACUUM/BLOW key to turn the BLOW lamp on.
(4) Press the ON/OFF key to turn the blowing ON.
(5) Remove the media.
(6) Press the ON/OFF key to turn the blowing OFF.

(Important!) • During printing, media may be heated by the UV LED and raised, causing drawing to be interrupted. In this case, set new media and restart drawing.

Interruption of drawing

To interrupt the drawing, stop the drawing operation and erase the received data from the device.

1 **Press the REMOTE key while drawing.**

• Drawing operation stops.
• When data is transmitted from the computer, the computer stops transmission of data.

```
*REMOTE*
               2.5mm
```

2 **Press the DATACLEAR key.**

```
DATA CLEAR
               <ENT>
```

3 **Press the ENTER key.**

• Received data is erased and the device returns to the local mode.

```
**  DATA CLEAR  **
```

Move the Y-bar

When you wish to check the drawing results etc., you can move the Y-bar.
Set the evacuation position (view position) of the Y-bar in advance.

Setting the view position

1 **Press the** (FUNCTION) **key in the local mode.**

```
FUNCTION
VIEW            <ENT>
```

2 **Press the** (ENTER) **key.**

```
VIEW
START          <ent>
```

3 **Press the** (▼) **key.**

```
VIEW
SET VIEW POS   <ent>
```

4 **Press the** (ENTER) **key.**

```
VIEW
POSITION    :**** MM
```

5 **Set the moving position by pressing the** (▲) **or** (▼) **keys.**

• If you press (▲) key, the Y-bar will move to the back of the table centering the origin of the drawing.
• If you press (▼) key, the Y-bar will move to the front of the table centering the origin of the drawing.

```
VIEW
POSITION    : 500 MM
```

6 **Press the** (ENTER) **key.**

• The value is set, and the screen returns to Step 2.

```
MOVING NOW
PLEASE WAIT
```

Evacuation of Y-bar from the table

Used for evacuating the Y-bar from the table for checking a drawing result and so on.

1 **Press the** (FUNCTION) **key in the local mode.**

```
FUNCTION
VIEW            <ENT>
```

2 **Press the** (ENTER) **key.**

```
VIEW
START          <ent>
```

3 **Press the** (ENTER) **key.**

• The Y-bar moves.

```
MOVING NOW
PLEASE WAIT
```

2

Basic Operations

Turning the power OFF

To turn off, check first whether or not there is data received and there remains data that has not yet been output in the device.

1 | **Turn the power of the connected computer off.**

2 | **Press the power button to cut the power.**
· Execute the cool down operation when UV LED is on.
· The power is cut automatically when the cool down operation is completed.
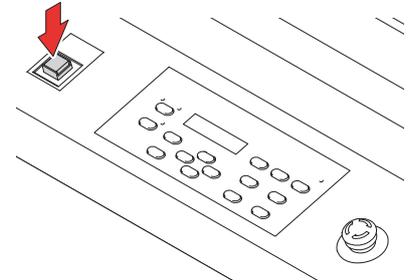
When this device is not used for a long time, execute the following:
(1) Press the power button to off the lamp.
(2) Confirm that the shutdown operation is completed.
(3) Turnoff the main power switch on the rear side of this device. (☞ P.1-3)

Preventing nozzle drop out while power-off

Even while the power switch is off, the machine starts periodically and executes various functions to prevent nozzle drop out. (Supported from the firmware ver.2.40)

(Important!)
· Do not turn off the power switch at startup from the sleep mode. When the sleep operation has been completed, the machine turns off the power switch automatically.
· Cleaning is not performed.
· Ink has not been consumed.
· Until two hours have passed after the power switch was turned off, the machine starts every 10 min. When two hours or more have passed after the power switch was turned off, the machine starts every one hour.

1 | **When you start up the machine from the sleep mode, the sleep operation is performed, and the power switch is turned off automatically.**

· The sleep operation is completed in about 30 min.
· After "POWER OFF PLEASE WAIT" was displayed, the power switch is turned off automatically.

```
UJV-160   start-up
ver.*.**
```
⬇
```
PLEASE WAIT
```
⬇
```
POWER OFF
PLEASE WAIT
```
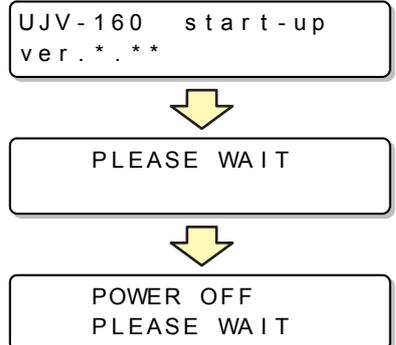
When turning the power OFF

● **Do not turn the main power switch OFF.**

If the main power switch is ON, the power periodically turns on and the nozzle drop out prevention function is operated.
If the main power switch is OFF, the sleep function does not work and this may cause nozzle drop out.

2-14

CHAPTER 3
Useful Function

This chapter describes the setting procedures of each functions, and how to operate the plotter usefully.

Changing origin

The default origin position can be changed.
There are following 2 changing methods.

Changing with the JOG keys
▲ ▼ ◄ ►

Media

Light pointer mark

New origin
position

Default origin position

Origin position by JOG keys

Table

**Changing with the ÅgORIGINÅh in
the FUNCTION menu**

New origin
position

Y

20mm

X

10mm
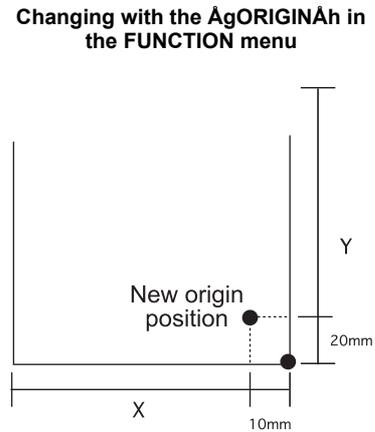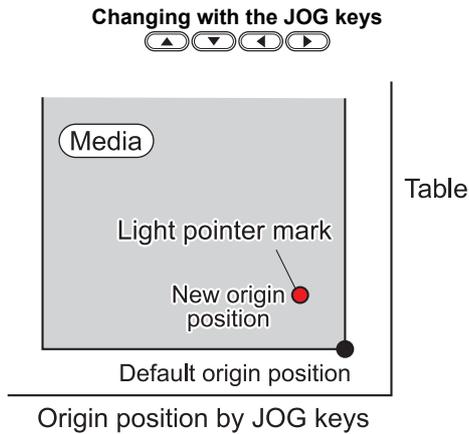
Changing origin with JOG keys

1

**Press the ▲▼◄► keys
in the local mode.**

• The origin setting mode starts
• A red light pointer mark [●] is projected on the table or the media.

```
ORIGIN  SET  UP
    0.0      ---
```

2

**Move the light pointer mark by pressing the
▲▼◄► keys.**

• Move the light pointer mark to the position to set a new origin.

```
ORIGIN  SET  UP
  500.0      600.0
```

**Origin position
(back and forth)**   **Origin position
(right and left)**

3

**Press the ENTER key when the drawing origin is
determined.**

• The origin is changed.

```
** ORIGIN **
```

Important!
• The setting value for the origin set with the JOG keys is cleared by cutting the power.

Changing origin with FUNCTION menu

To precisely set the origin of coordinates, set its X- and Y- coordinates from the FUNCTION menu. This setting value becomes the origin position (0, 0).

1 Press the (FUNCTION) key in the local mode.

```
FUNCTION
VIEW            <ENT>
```

2 Select the [ORIGIN] by pressing the (▲) or (▼) key.

```
FUNCTION
ORIGIN          <ENT>
```

3 Press the (ENTER) key twice.

• X-axis offset value setting screen is displayed.

```
ORIGIN    3100MM
X OFFS :     0MM
```

4 Input value by pressing the (▲) or (▼) keys.

• Setting the origin position of X-axis.
• The value in the parentheses indicates the distance from the origin to the maximum effective area.

```
ORIGIN    3090MM
X OFFS :    10MM
```

5 Press the (ENTER) key.

```
ORIGIN
SELCT:X OFFSE
```

6 Select the [Y OFFSET] by pressing the (▲) or (▼) keys.

```
ORIGIN
SELCT:Y OFFSE
```

7 Press the (ENTER) key.

```
ORIGIN    1602MM
Y OFFS :     0MM
```

8 Input value by pressing the (▲) or (▼) keys.

• Setting the origin position of Y-axis.

```
ORIGIN    1592MM
Y OFFS :    10MM
```

9 Press the (ENTER) key.

```
ORIGIN
SELCT:X OFFSE
```

10 Press the (END) key several times to end the setting.

(Important!) • The set value is not cleared by cutting the power.

3

Useful Function

3-3

Registering the thickness of the media

Register the thickness of loading media.
There are three types of registering; "Register the thickness of the media manually", "Adjust the gap with the UP or DOWN keys", and "Measuring the thickness of the media automatically".

Register the thickness of the media manually

1 Press the (FUNCTION) key in the local mode.

```
FUNCTION
VIEW            <ENT>
```

2 Select the [HEAD HEIGHT] by pressing the ▲ or ▼ key.

```
FUNCTION
HEAD HEIGHT     <ENT>
```

3 Press the (ENTER) key twice.

```
MEDIA THICKNESS
           2.5 mm
```

4 Press the ▲ or ▼ key to enter the thickness of loading media.

• Set value : 0.0 to 50.0mm

```
MEDIA THICKNESS
          10.5 mm
```

5 Press the (ENTER) key.

```
FUNCTION
HEAD HEIGHT     <ENT>
```

6 Press the (END) key to end the setting.

Adjust head gap with the UP or DOWN keys

1 Press the (UP) or (DOWN) key.

```
   ORIGIN SET UP
Z HEIGHT = 45.0
```

2 Adjust with pressing the (UP) or (DOWN) key.

```
   ORIGIN SET UP
  ** Z HEIGHT **
```

3 Press the (ENTER) key.

```
   ORIGIN SET UP
HEAD GAP = 1.2
```

Measuring the thickness of the media automatically

Thickness of media is automatically measured with the gap pin on the left of the carriage.

1 **Set a media.**

⚠ **Caution**   • Be sure to set a media on the drawing area. If measured automatically without media, the head can break.

2 **Press the (FUNCTION) key in the local mode.**

```
FUNCTION
VIEW            <ENT>
```

3 **Select the [HEAD HEIGHT] by pressing the (▲) or (▼) key.**

```
FUNCTION
HEAD HEIGHT     <ENT>
```

4 **Press the (ENTER) key.**

```
HEAD HEIGHT
MEDIA THICKNESS<ent>
```

5 **Select the [THICKNESS CHECK] by pressing the (▲) or (▼) key.**

```
HEAD HEIGHT
THICKNESS CHECK<ent>
```

6 **Press the (ENTER) key.**
  • In preparation for the measuring, the Y-bar will move up to the top position.
  • The carriage will move to the drawing area.

```
THICKNESS CHECK
MOVING NOW
```
↓
```
THICKNESS CHECK
CHECK START      :ent
```

7 **Press the (ENTER) key.**
  • The media thickness will be measured automatically.
  • The measured thickness will be displayed.
  • The carriage will move to the evacuation position and the screen returns to the one displayed in Step 4.

```
THICKNESS CHECK
** CHECKING **
```
↓
```
THICKNESS CHECK
          3.0mm :ent
```
↓
```
HEAD HEIGHT
MEDIA THICKNESS<ent>
```

8 **Press the (END) key several times to end the setting.**

3

Useful Function

3-5

Registering Head gap value

Inputting the value of gap between the head and the media The registered value is reflected on all media.

1 **Press the (FUNCTION) key in the local mode.**

```
FUNCTION
VIEW              <ENT>
```

2 **Select the [HEAD HEIGHT] by pressing the (▲) or (▼) key.**

```
FUNCTION
HEAD HEIGHT      <ENT>
```

3 **Press the (ENTER) key.**

```
HEAD HEIGHT
MEDIA THICKNESS<ent>
```

4 **Select the [HEAD GAP] by pressing the (▲) or (▼) key.**

```
HEAD HEIGHT
HEAD GAP         <ent>
```

5 **Press the (ENTER) key.**

```
HEAD GAP
                2.5mm
```

6 **Input the head gap value by pressing the (▲) or (▼) key.**

• Set value : 1.2 to 5.0mm

```
HEAD GAP
                4.0mm
```

7 **Press the (ENTER) key.**

```
FUNCTION
HEAD GAP         <ENT>
```

8 **Press the (END) key several times to end the setting.**

⚠️ **Caution**
• If a correct value is not set to the head gap value, the print quality may be deteriorated because of dropping of large ink droplets on the media at drawing

Other useful functions

Data clear

Erase the data not required for this device with the following operation.

1 **Press the** `DATACLEAR` **key in the local mode.**

```
DATA CLEAR
                  <ENT>
```

2 **Press the** `ENTER` **key.**
  • The data is erased.

```
** DATA CLEAR **
```

Displaying information of this device

1 **Make sure that the local mode is displayed.**

```
<LOCAL>
              2.5mm
```

2 **The information is displayed sequentially by pressing the** `ENTER` **key.**

  • The following information are displayed.
    Remaining amount of ink / Main FW version/ Command information / Sub FW version / UV LED irradiation time / Pressure value / Subtank condition
  • The left UV LED irradiation time is displayed on the left, and the right UV LED irradiation time is displayed on the right.

Remaining amount of ink	**Main FW version/ Command information**
`<LOCAL>      KCMYcmW-` `REMAIN      9999999-`	`JFX-16**        V1.00` `MRL-IIB         V1.20`
Main FW / Sub FW version	**UV LED irradiation time**
`JFX-16**        V1.00` `SUB FW          V1.00`	`<LOCAL>     USED TIME` `  120, 120, 120, 120`
Pressure value	**Subtank condition**
`<LOCAL>` `NEGA.PRESS    2.5kPa`	`<LOCAL>      Sub.Tank` `  FFFFFFFF FFFFFFFF`

3 **Press the** `ENTER` **key to return to the local mode**

```
<LOCAL>
              2.5mm
```

  • Information on your machine type can be confirmed in P.3-15"Displaying machine information of this device".
  • As for the details on irradiation time of the UV LED, see P.4-35"Displaying the irradiation time of the UV LED unit".

3

Useful Function

Each setting

Setting the print method

Settings on printing

1 **Press the** (FUNCTION) **key in the local mode.**

```
FUNCTION
VIEW           <ENT>
```

2 **Select the [SET UP] by pressing the** (▲) **or** (▼) **key.**

```
FUNCTION
SET UP         <ENT>
```

3 **Press the** (ENTER) **key.**

```
SET UP
FEED COMP.     <ent>
```

4 **Select the [PRINT MODE] by pressing the** (▲) **or** (▼) **key.**

```
SET UP
PRINT MODE     <ent>
```

5 **Press the** (ENTER) **key.**

```
SET UP
QUALITY        <ent>
```

6 **Select an item to be set by pressing the** (▲) **or** (▼) **key.**

• As for setting items, see the next page.

7 **Press the** (ENTER) **key.**

8 **Select a value by pressing the** (▲) **or** (▼) **key.**

• As for setting values, see the next page.

9 **Press the** (ENTER) **key.**

10 **Press the** (END) **key several times to end the setting.**

• Set value remains after cutting the power.

Item	Value	Outline
QUALITY	STANDARD	Standard drawing quality
	FINE	High quality drawing (drawing speed is slower)
	FAST	High speed drawing (quality is inferior)
SCAN DIR	BI-DIR	Drawing is conducted in both directions when the head moves on the media at drawing. (Quicker drawing compared to "UNI-DIRN")
	UNI-DIR	Drawing is conducted in one direction when the head moves on the media at drawing. (Higher quality drawing.)
	UNI-DIR CH2	When drawing is conducted, only the right-hand side UV LED is used.
LOGICAL Seek	ON	The head moves according to the data width to be drawn.
	MEDIA	The head moves over the set media width at drawing.
	OFF	The head moves whole table width at drawing.

(Important!) • When you draw using the RIP software "RasterLinkPro5" from the connected host PC, the value set here becomes valid only for "Logical seek". For other settings (QUALITY and SCAN DIR.), drawing is performed according to the setting value in the RasterLinkPro5.

3

Useful Function

Setting the light intensity of the UV LED

The light intensity of the UV LED may be set in 3 stages.
This setting is made when the media vulnerable to the heat is used or when the test drawing is made in which the lighting of the UV LEDs is not desired.

HIGH	The UV LED is lit with 100% of its light intensity.
STANDARD	The UV LED is lit with 75% of its light intensity.
LOW	The UV LED is lit with 50% of its light intensity.
NONE	The UV LED is not lit while drawing is being performed.
NOPRINT	The drawing is not performed and only the UV LED is lit. Use when drawing is performed without the UV LED is lit etc., and when you wish to make it cure afterward. (Normally, this setting will not be made.)

1 Press the (FUNCTION) key in the local mode.

```
FUNCTION
VIEW          <ENT>
```

2 Select the [SET UP] by pressing the (▲) or (▼) key.

```
FUNCTION
SET UP        <ENT>
```

3 Press the (ENTER) key.

```
SET UP
FEED COMP.    <ent>
```

4 Select the [UV LEVEL] by pressing the (▲) or (▼) key.

```
SET UP
UV LEVEL      <ent>
```

5 Press the (ENTER) key.

```
SET UP
UV LEVEL     :HIGH
```

6 Press (▲) or (▼) keys to select light intensity.

 • **Set values**: HIGH , STANDARD , LOW , NONE , NOPRINT

7 Press the (ENTER) key.

8 Press the (END) key several times to end the setting.

 • The light intensity of the UV LED may be set on the RIP side, when performing the remote drawing. For details, please refer to the Instruction Manual of your RIP.

Setting of priority

Priority of setting of this device or that of the computer on the following items respectively is selected.
Items to be selected : PRINT MODE/ INK LAYERS

1 Press the (FUNCTION) key in the local mode.

```
FUNCTION
VIEW          <ENT>
```

2 Select the [SET UP] by pressing the (▲) or (▼) key.

```
FUNCTION
SET UP        <ENT>
```

3 Press the (ENTER) key.

```
SET UP
FEED COMP.    <ent>
```

4 Select the [PRIORITY] by pressing the (▲) or (▼) key.

```
SET UP
PRIORITY .    <ent>
```

5 Press the (ENTER) key.
• Drawing type setting screen is displayed.

```
SET UP
PRINT MODE    :HOST
```

6 Select the "HOST" or the "PLOT" by pressing the (▲) or (▼) key.

```
SET UP
PRINT MODE    :PLOT
```

• **HOST :** Setting of the computer has the priority.
  PLOT : Setting of this device has the priority.

7 Press the (ENTER) key.

8 Set other items with the same manner as 6, 7.

9 Press the (END) key several times to end the setting.

💡
• Set value remains after cutting the power.
• When you use the RIP software "RasterLinkPro5", the priority becomes valid only for "INK LAYERS" setting. Even if you set "PLOT" to the priority of "PRINT MODE", drawing is performed according to the setting value in the RasterLinkPro5.

3

Useful Function

Setting the work change

Set whether to return to the local mode or keep the remote mode after online drawing.
(Supported from the firmware ver.2.70)

1 Press the (FUNCTION) key in the local mode.

```
FUNCTION
VIEW            <ENT>
```

2 Select the [SET UP] by pressing the (▲) or (▼) key.

```
FUNCTION
SET UP          <ENT>
```

3 Press the (ENTER) key.

```
SET UP
FEED COMP.      <ent>
```

4 Select the [WORK CHANGE] by pressing the (▲) or (▼) key.

```
SET UP
WORK CHANGE     <ent>
```

5 Press the (ENTER) key.

```
SET UP
WORK CHANGE      :OFF
```

6 Pressing (▲)(▼), select the work change setting (OFF or ON).

```
SET UP
WORK CHANGE      :ON
```

- OFF : Keeps the remote mode after online drawing.
  (draws next drawing data over a drawn face while receiving)
- ON : After online drawing, the Y bar moves to the view position set in advance (☞ P.2-13 "Evacuation of Y-bar from the table"). When the Y bar moving has been completed, the machine returns to LOCAL.

7 Press the (ENTER) key.

- When you set this to "OFF" in the Step 6, proceed to the Step 10.

```
SET UP
VACCUM           :ON
```

8 Pressing (▲)(▼), select the vacuum setting (OFF or ON).

```
SET UP
VACCUM           :OFF
```

- OFF : After online drawing, turns off the vacuum and then returns to LOCAL.
- ON : After online drawing, returns to LOCAL with the vacuum is ON.

9 Press the (ENTER) key.

```
セッテイ
ワーク チェンシ゛       :ON
```

10 Press the (END) key several times to end the setting.

Changing language display on the screen

Display language can be selected between Japanese and English.

1	Press the (FUNCTION) key in the local mode.	FUNCTION VIEW <ENT>
2	Select the [DISPLAY] by pressing the ▲ or ▼ key.	FUNCTION DISPLAY <ENT>
3	Press the (ENTER) key.	DISPLAY Japanese <ent>
4	Select a language by pressing the ▲ or ▼ key. • Default is "English."	DISPLAY English <ent>
5	Press the (ENTER) key.	
6	Press the (END) key to finish.	

• Set value remains after cutting the power.

3

Useful Function

3-13

Output the setting list

Keep the list for customer's record or send it by the fax at inquiry on the maintenance.

1 **Set a larger media than the legal size. (☞ P.2-5)**

2 **Press the ⟨FUNCTION⟩ key in the local mode.**

```
FUNCT I ON
V I EW            <ENT>
```

3 **Select the [MAINTENANCE] by pressing the ⟨▲⟩ or ⟨▼⟩ key.**

```
FUNCT I ON
MA I NTENANCE      <ENT>
```

4 **Press the ⟨ENTER⟩ key.**

```
MA I NTENANCE
STAT I ON          <en t>
```

5 **Select the [LIST] by pressing the ⟨▲⟩ or ⟨▼⟩ key.**

```
MA I NTENANCE
L I ST             <en t>
```

6 **Press the ⟨ENTER⟩ key.**
• Output of the setting list starts.

```
MA I NTENANCE
     PR I NT I NG
```

7 **Press the ⟨END⟩ key to finish.**

• Set value remains after cutting the power.

Displaying machine information of this device

1 Press the (FUNCTION) key in the local mode.

```
FUNCTION
VIEW          <ENT>
```

2 Select the [MAINTENANCE] by pressing the ▲ or ▼ key.

```
FUNCTION
MAINTENANCE   <ENT>
```

3 Press the (ENTER) key.

```
MAINTENANCE
STATION       <ent>
```

4 Select the [INFORMATION] by pressing the ▲ or ▼ key.

```
MAINTENANCE
 INFORMATION  <ent>
```

5 Press the (ENTER) key.

```
MAINTENANCE
VERSION       <ent>
```

6 Select information to be displayed by pressing the ▲ or ▼ key, and press the (ENTER) key.

• The following 2 information can be displayed.
  FW version of this device Serial No.

Version information
```
MAINTENANCE
MAIN Ver    1.00
```

Serial No. information
```
MAINTENANCE
  S/N  00000000
```

7 Press the (END) key several times to end the setting.

3

Useful Function

Other useful settings

Change settings according to need.

1 Press the (FUNCTION) key in the local mode.

```
FUNCTION
VIEW          <ENT>
```

2 Select the [SET UP] by pressing the (▲) or (▼) key.

```
FUNCTION
SET UP        <ENT>
```

3 Press the (ENTER) key.

```
SET UP
FEED COMP.    <ent>
```

4 Select an item to be set by pressing the (▲) or (▼) key , and press the (ENTER) key.

• Select with reference to the Table of Setting below.

5 Select a value to be set by pressing the (▲) or (▼) key , and press the (ENTER) key.

• Select with reference to the Table of Setting below.

6 Press the (END) key several times to end the setting.

• Set value remains after cutting the power.

Table of Setting

Item	Value	Outline
INK LAYERS	1 to 9 times	Set the number of times for over painting. Finer drawing can be obtained by conducting the over painting.
REFRESH	Level 0 to 3	Set the refreshing revel for preventing the head from clogging in a dusty environment. The larger level number indicates more frequent refreshing times. Refreshing is not conducted at level=0.
MM/INCH	Millimeter	A unit of set value indicated on the screen is displayed with Millimeter.
	Inch	A unit of set value indicated on the screen is displayed with Inch.
UV SCAN ADD	1 to 9 times	Designates the number of times of additional scanning of UV to cure the edge parts of the image with UV irradiation after completion of the drawing.

Initializing set contents

1 Press the (FUNCTION) key in the local mode.

```
FUNCTION
VIEW          <ENT>
```

2 Select the [SET UP] by pressing the (▲) or (▼) key.

```
FUNCTION
SET UP        <ENT>
```

3 Press the (ENTER) key.

```
SET UP
FEED COMP.    <ent>
```

4 Select the [SETUP RESET] by pressing the (▲) or (▼) key.

```
SET UP
SETUP RESET   <ent>
```

5 Press the (ENTER) key.

```
SET UP
INITIALIZE OK?  :ent
```

6 Press the (ENTER) key.
 • Resetting the setup.

7 Press the (END) key several times to end the setting.

(Important!) • In the [SETUP RESET], resetting is allowed only on contents changed in the SETTING ITEM.

3

Useful Function

3-17

For setting media correctly

Guide holes for inserting commercial screws are placed on each end (3 sides) of the table.

- Fix a guide for placing the media on the correct position using those holes.
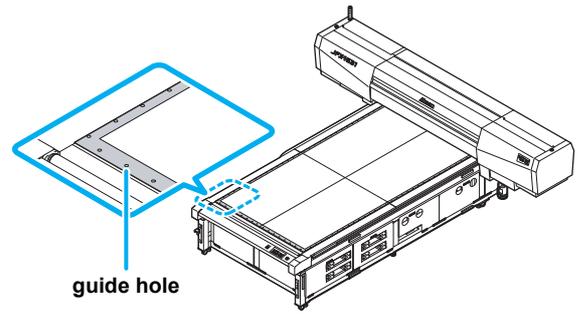
guide hole

Important!
- Select a material for the guide which is not thicker than the media.

Arrangement of guide holes

When you prepare the guide for setting the media, please use the following sizes as reference.

Origin

100
25
22
15
7
65
100
72
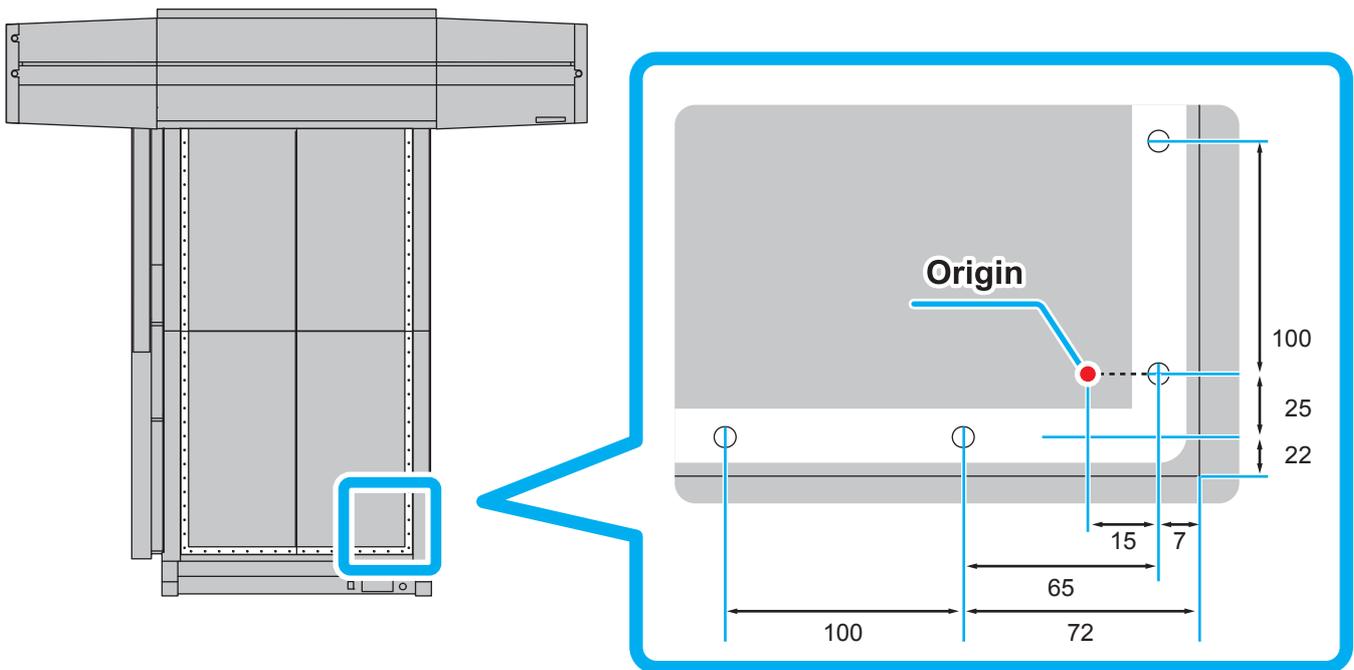
(Unit of numerical value: mm)

- To the guide hole, you can insert a screw of M5.

Adjust the height of the Post Cure Unit

Adjust the height of the Post Cure Unit depending on the media.

💡 • When you use JFX-1631/1615, the Post Cure Unit is an option.

⚠️ **Caution**
• Be sure to adjust the height of the Post Cure Unit before drawing.
When the position of the Post Cure Unit is too high
UV light may leak and it may have a damaging effect on your body or the machine.
When the position of the Post Cure Unit is too low
It may cause media jam.

(Important!)
• To adjust the height of the Post Cure Unit, be sure to use the dedicated jig.
• When adjusting the height, do not peer down the bottom surface of the Post Cure Unit. If you peer down when the lamp lights, it may have a damaging effect on your eyes.

---

1 **Spread the media to be drawn on the table.**

💡 • When you adjust the height, it is recommended to use the media that you do not care if it may be stained such as offcut of the media to be used etc.

---
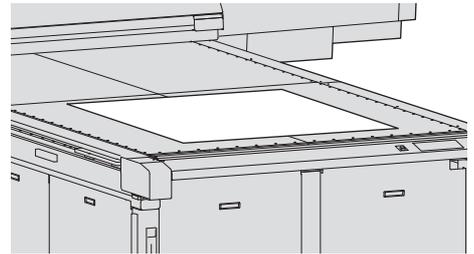
2 **Set the height adjusting jigs on the right and the left edges of the media.**
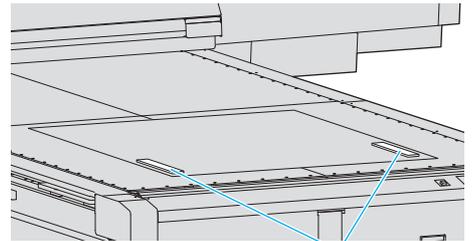
Height adjusting jigs

---

3 **Open the open/ close door of the Y bar front surface, and loosen the screws on both sides of the Post Cure Unit.**

---
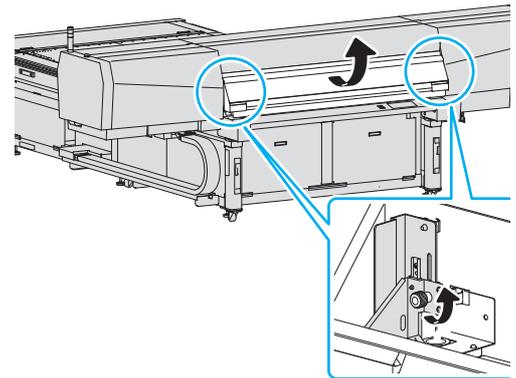
4 **Adjust the height of the Post Cure Unit.**
• Put the Post Cure Unit on the height adjusting jigs softly.
• If the Post Cure Unit position is not proper, it may have a damaging effect on your body or the machine, or cause media jam. Be careful about it.
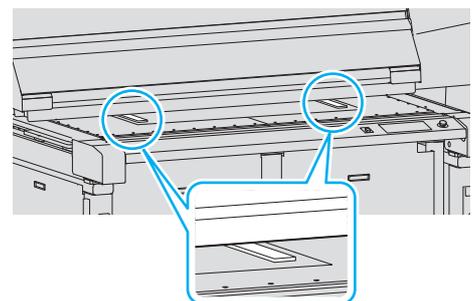
5 **Be sure to tighten the screws on both sides of the Post Cure Unit.**

• Fully tighten them so that they may not be loosened while drawing.

⚠️ **Caution**

• If used with the screw loosened, the Post Cure Unit may fall during drawing and damage the media or the suction table surface.
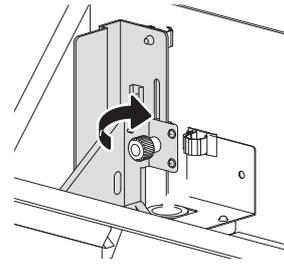
6 **Take out the height adjusting jigs.**

• Be sure to take them out slowly in order not to damage the media or the suction table surface.

Use the Post Cure Unit

💡 • When you use JFX-1631/1615, the Post Cure Unit is an option.

Note when using Post Cure Unit 3-21

When the Post Cure Unit is used, as the depth of the Y bar increases by the Post Cure Unit, the movable area of the Y bar narrows compared to that of the JFX-1631/1615, and therefore, the drawing range also narrows.

JFX-1631plus

250mm

2700mm

3100 mm

150mm

JFX-1615plus

250mm

1100mm

1500 mm

150mm
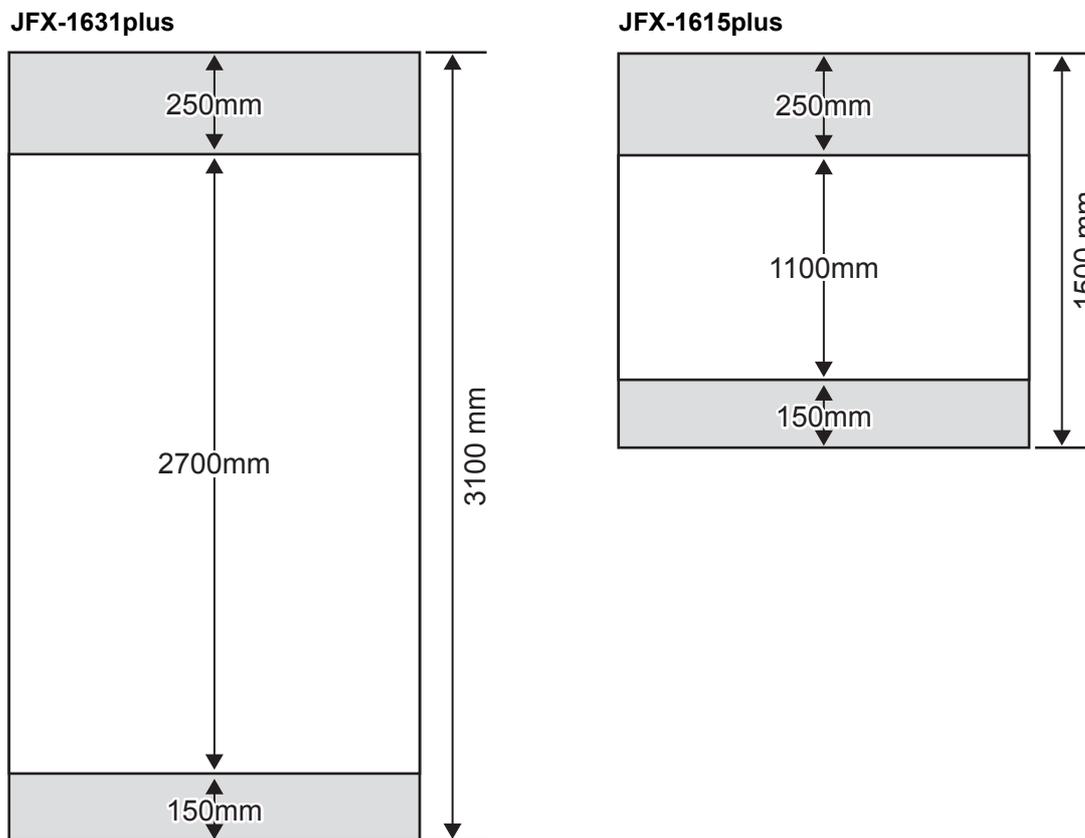
Important! • Compared with JFX-1631/ 1615, the Y bar cannot move in the gray part of the figure above.
• Set the media on the white part of the figure above.

💡 • You can enlarge the drawing range and the UV irradiation area up to 3100mm (for JFX-1615plus, up to 1500mm).
• To enlarge the drawing range and the UV irradiation area, setting and the work are required. Refer to P.3-28 "Enlarge the irradiation area of the post cure".

3

Useful Function

Note when drawing on thick media

When you draw on the thick media, UV light irradiated from the Post Cure Unit may leak and it may have a damaging effect on your body or the machine.
When you draw on the thick media, attach the provided UV shade curtain on the Post Cure Unit.

Attach the UV shade curtain

1 **Check that the power supply for the Post Cure Unit located on the Y bar is turned off.**

Power supply for the Post Cure Unit
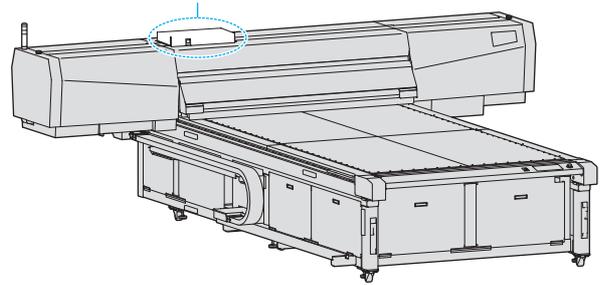
2 **Adjust the height of the Post Cure Unit depending on the media. (☞ P.3-19)**

3 **Attach the UV shade curtain.**
- Using the magnets provided with the UV shade curtain, attach them inside and outside the Post Cure Unit.
- When you attach the UV shade curtain inside the Post Cure Unit, open the open/ close door of the Y bar front surface.
- For this machine, four UV shade curtains are provided as attachment. Attach the UV shade curtain depending on the media width.

UV shade curtain

Post Cure Unit

Thick media
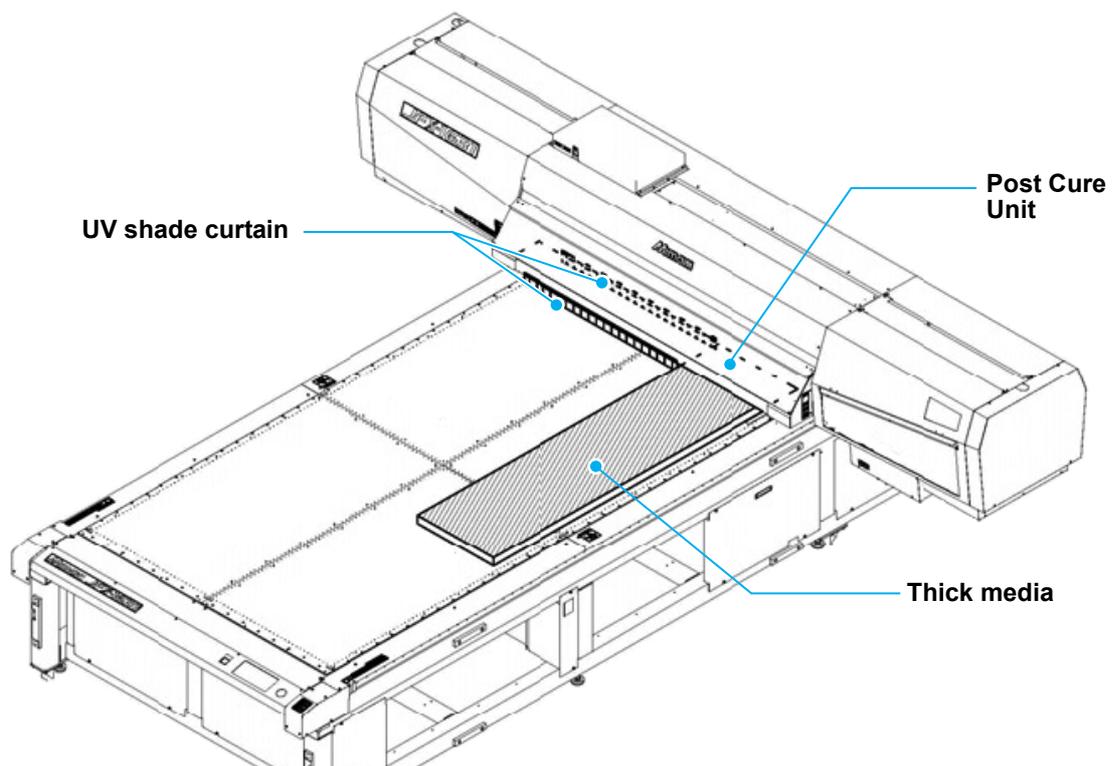
Turn on the power supply of the Post Cure Unit

1   **Turn on the power supply for the Post Cure Unit located on the Y bar.**

Power supply for the Post Cure Unit
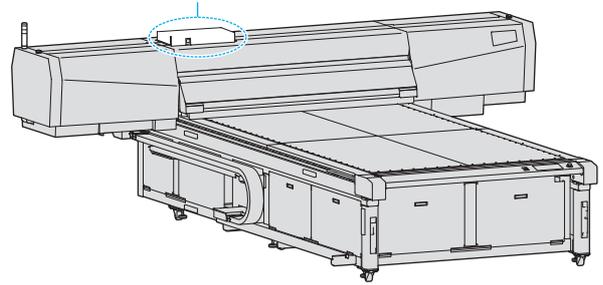
Switch the drawing range when using the post cure function

When the Post Cure Unit is used, as the depth of the Y bar increases by the Post Cure Unit, the movable area of the Y bar narrows compared to that of the JFX-1631/1615, and therefore, the drawing range also narrows.
By setting as below to perform UV irradiation with the post cure after drawing is completed, you can draw in the same manner as JFX-1631/1615.

Value	Outline
Cure Print	UV irradiation with the post cure is performed at the same time of drawing. In such a case, the drawing range narrows compared to that when not performing UV irradiation with the post cure. For details, refer to P.3-21 "Note when using Post Cure Unit".
after print	After drawing is completed, UV irradiation with the post cure is performed. When it is set to "after print", you can draw in the equivalent area of JFX-1631/1615. In such a case, to perform UV irradiation, the work by the customer is required. Refer to P.3-28 "Enlarge the irradiation area of the post cure".

Important!
• When the setting value is "after print", the Y bar comes to front by 150mm compared to when it is set to "Cure Print". Do not place your hand or an object in front of the Y bar.

1 Press the (FUNCTION) key in the local mode.

```
FUNCTION
VIEW            <ENT>
```

2 Select the [MAINTENANCE] by pressing the (▲) or (▼) key and press the (ENTER) key.

```
MAINTENANCE
STATION         <ent>
```

3 Select the [DRAWING RANGE] by pressing the (▲) or (▼) key.

```
MAINTENANCE
DRAWING RANGE   <ent>
```

4 Press the (ENTER) key.

```
POST CURE    :Cure
Print
```

5 Press the (▲) or (▼) key to select a value and press the (ENTER) key.

Cure Print : Perform UV irradiation with the post cure at the same time of drawing.
after print : Perform UV irradiation with the post cure after drawing is completed.

• When you do not change the current setting value, press the (ENTER) key and then proceed to the Step 7.

```
POST CURE    :after
print
```
(ENTER)
```
CHANGE DRAWING RANGE
Start           :ent
```

6 Press the (ENTER) key.
• Performs the origin detection operation.

```
SEARCHING ORIGIN
PLEASE WAIT
```

7 Press the (END) key several times to end the setting.

Select the use method of the Post Cure Unit (setting secondary curing)

Set the use method of the Post Cure Unit.
Depending on the setting value of "DRAWING RANGE" of the maintenance function, the setting contents differ.

When [DRAWING RANGE] is "Cure Print"

Set the use method of the post cure and the feed method When [DRAWING RANGE] of the maintenance function is "Cure Print".

Value	Outline
NONE	The Post Cure Unit is not used. (Only the UV LED unit attached on the left side of the carriage evaporates ink.)
REMOTE	After REMOTE is set and when first drawing starts, the lamp of the post cure unit lights. (While the machine is in the REMOTE status, the lamp lights continuously.) When you draw multiple data continuously etc., as ON/OFF of the lamp is not switched depending on the machine status, lamp consumption becomes less. In addition, the lamp remains turned off at test drawing.
PRINT	The lamp of the Post Cure Unit lights at drawing.

Important!
- If you make the secondary cure setting to "REMOTE", even if drawing is completed, the lamp remains lit while the machine is in the remote status. This may wear the lamp, therefore, it is recommended to switch the machine to the local mode quickly if you do not draw for a long time.
- If there remains data not being drawn in the machine, even if you switch the machine to the local mode, the lamp is not turned off. Draw such data, or delete them.
- During test drawing, the lamp remains turned off.
- After ink curing, the Post Cure Unit becomes hot. Do not touch it after curing preferably.

1 Press the (FUNCTION) key in the local mode.

```
FUNCTION
VIEW            <ENT>
```

2 Select the [SET UP] by pressing the ▲ or ▼ key and press the (ENTER) key.

```
SET UP
FEED COMP.      <ent>
```

3 Select the [POST CURE] by pressing the ▲ or ▼ key and press the (ENTER) key.
- When [DRAWING RANGE] of the maintenance function is "Cure Print", the right screen is displayed.

```
SET UP
POST CURE    :PRINT
```

4 Select a value by pressing the ▲ or ▼ key.
  Set values : NONE, REMOTE, PRINT

```
SET UP
POST CURE    :REMOTE
```

5 Press the (ENTER) key.
- If you select "NONE" in the Step 4, proceed to the Step 8.

3

Useful Function

6 Press the ⬆ or ⬇ key to select the feed interval after drawing is completed.

```
Print end
interval feed:NOMAL
```

    NOMAL : Feed interval after drawing is completed is the same as during drawing.

    0 to 60 sec. : Feed operation is performed with the set interval. (If the set value is longer than the scan operation interval, feed is performed with the scan operation interval.)

7 Press the ENTER key.

8 Press the END key several times to end the setting.

Important!
- After ink curing, the Post Cure Unit becomes hot. Do not touch it after curing preferably.
- When you set the printing method other than "Panel Setting" in [Print Condition] - [UV mode] submenu of RasterLinkPro5, the contents set here become invalid, and UV irradiation is performed with the method set in RasterLinkPro5.

When [DRAWING RANGE] is "after print"

Register the number of UV irradiations to be performed after drawing and the drawn image length.

1 Press the FUNCTION key in the local mode.

```
FUNCTION
VIEW            <ENT>
```

2 Select the [SET UP] by pressing the ⬆ or ⬇ key and press the ENTER key.

```
SET UP
FEED COMP.     <ent>
```

3 Select the [POST CURE] by pressing the ⬆ or ⬇ key and press the ENTER key.

```
SET UP
after print      OFF
```

    • When [DRAWING RANGE] of the maintenance function is "after print", the right screen is displayed.

4 Select ON/OFF by pressing the ⬆ or ⬇ key and press the ENTER key.

```
POST CURE
COUNT            : 1
```

    • If you select "OFF", proceed to the Step 8.

5 Select the number of post cure irradiations (1 to 50) by pressing the ⬆ or ⬇ key and press the ENTER key.

```
POST CURE
COUNT            : 3
```

6 Set the length of the image to be drawn by pressing the ⬆ or ⬇ key.

```
POST CURE
Media LEN        : 1
```

7 Press the (ENTER) key.

8 Press the (END) key several times to end the setting.

(Important!)
- After ink curing, the Post Cure Unit becomes hot. Do not touch it after curing preferably.
- When you set the printing method other than "Panel Setting" in [Print Condition] - [UV mode] submenu of RasterLinkPro5, the contents set here become invalid, and UV irradiation is performed with the method set in RasterLinkPro5.

3

Useful Function

Enlarge the irradiation area of the post cure

When performing UV curing on the image drawn by using the Post Cure Unit, the drawing range and the UV irradiation area with the Post Cure Unit narrow compared to those when not using the Post Cure Unit. (☞ P.3-21 "Note when using Post Cure Unit")
By performing the work below, you can enlarge the irradiation area of the post cure and the drawing range.

To enlarge the UV irradiation area with the Post Cure Unit, the setting below is required:

- **Set [DRAWING RANGE] of the maintenance function to "after print". (☞ P.3-24)**

- **Set irradiation after drawing with "POST CURE" of the setting items. (☞ P.3-26)**

Important!
- If you do not set [DRAWING RANGE] of the maintenance function to "after print", you cannot enlarge the UV irradiation area of the post cure.
- Register the number of post cure irradiations and the image size (length) with [POST CURE-after print] of the setting items depending on the image to be drawn. If the image size does not match, UV irradiation with the post cure cannot be performed on the drawn position, or, UV irradiation may be performed on the place without the media.

---

1 **Set [DRAWING RANGE] of the maintenance function to "after print". (☞ P.3-24)**

- If you set it to "Cure Print", you cannot enlarge the printing area and the UV irradiation area.

---

2 **Set irradiation after drawing with [POST CURE] of the setting items. (☞ P.3-26)**

- Register the number of post cure irradiations and the size (length) of the image to be drawn with [POST CURE-after print] of the setting items.

---

3 **Perform drawing.**

- When drawing is completed, the screen on the right is displayed.

```
move media behind
OK?             :ent
```

---

4 **Align the top edge of the image with the post cure irradiation position (front edge).**

- The front edge of the post cure irradiation position is the position of 150mm from the origin.

Post cure irradiation position (front edge)

150mm

Image area

Origin
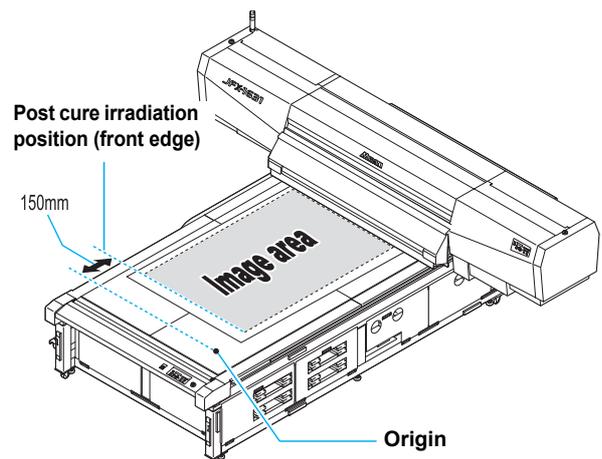
5 Press the ⟨ENTER⟩ key.

- The Y bar moves and UV irradiation with the post cure is performed.
- Here, irradiation from the post cure irradiation position at the front side up to 2700mm (for JFX-1615plus, 1100mm) is performed.
- If the image size registered in the Step 2 is 2700mm (for JFX-1615plus, 1100mm) and below, irradiation is performed only on the registered area.
- If you do not perform UV irradiation with the post cure, enter the ⟨END⟩ key.

- When irradiation with the post cure is completed, the screen on the right is displayed.

```
move media forward
OK?            :ent
```

6 Align the back edge of the image with the post cure irradiation position (back edge).

- The back edge of the post cure irradiation position is the position of 2850mm (for JFX-1615plus, 1250mm) from the origin.

Post cure irradiation position (back edge)

2850mm

Image area

Origin
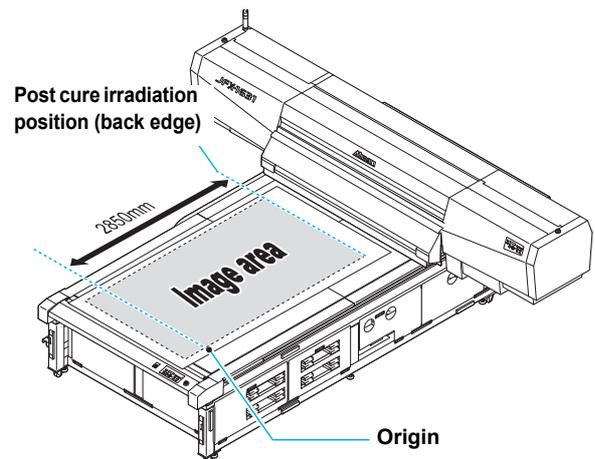
7 Press the ⟨ENTER⟩ key.

- Post cure irradiation is performed on the area of 500mm from the back edge of the image.
- When post cure irradiation is completed, the machine returns to the local mode.
- If the image size registered in the Step 2 is 2700mm (for JFX-1615plus, 1100mm) and below, even if you press the ⟨ENTER⟩ key, post cure irradiation is not performed.

3

Useful Function

Re-irradiate lamp light on the drawn media

By re-irradiating lamp light on the drawn media, you can cure ink more surely.

Setting method of area for irradiating lamp light

Set the start position and the end position of the lamp light irradiation as below:

Distance from end position of image on which you irradiate lamp light to the drawing origin (A)

Depth of Post Cure Unit located in front of Y bar (190mm)

Image area

Distance from front side of image on which you irradiate lamp light to the drawing origin

Drawing origin
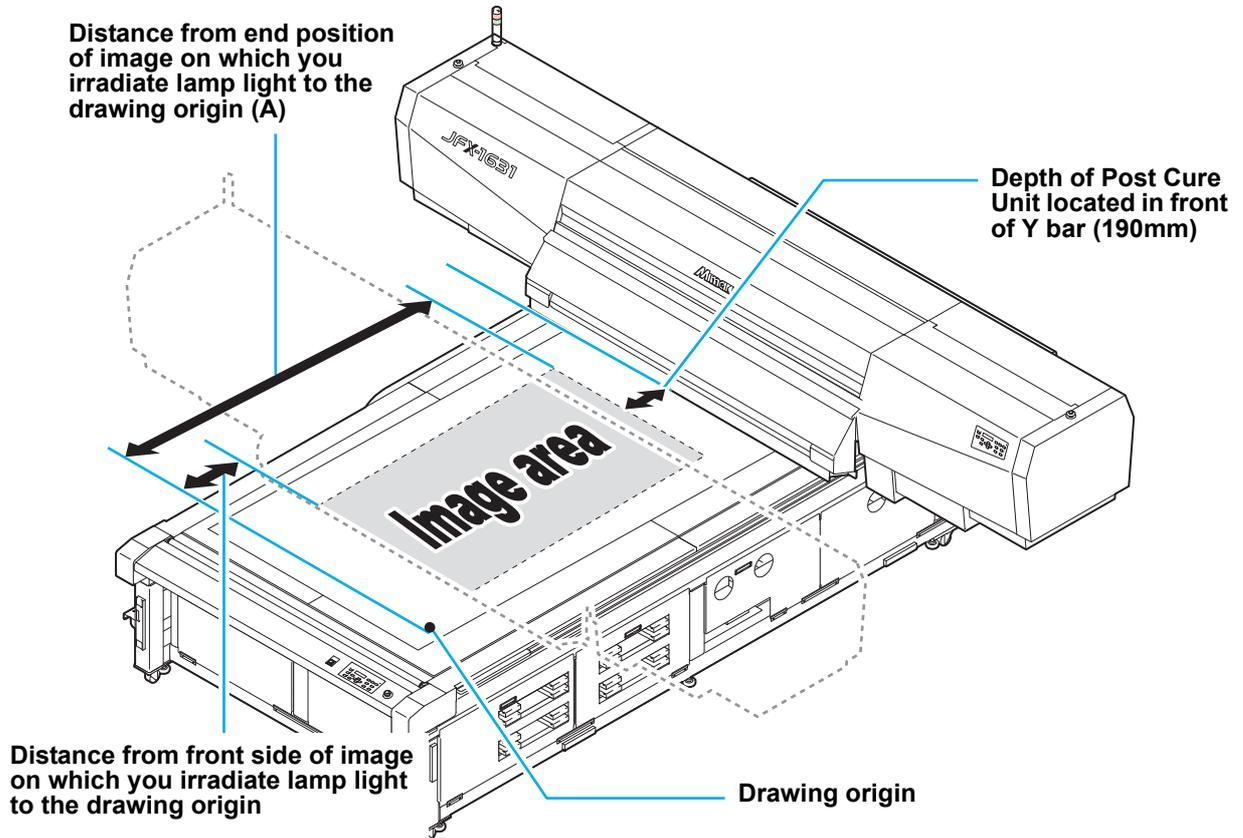
- End position of lamp light irradiation is calculated by adding the depth of the Post Cure Unit (190mm) to the above (A).
- By setting the end position backward by the depth of the Post Cure Unit, you can irradiate lamp light from the front edge of the image.

1 **Adjust the height of the Post Cure Unit depending on the media. (☞ P.3-19)**

- When adjusting height, set the same type media as the one on which you re-irradiate lamp light on the table.
- If you use the drawn media to adjust the height, there is the danger that the height adjusting jig may damage the drawing surface.

2 **Set the drawn media on which you re-irradiate lamp light on the table.**
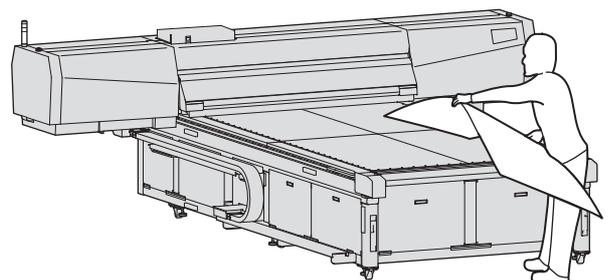
3　Press the (FUNCTION) key in the local mode.

```
FUNCTION
VIEW            <ENT>
```

4　Select the [POST CURE] by pressing the (▲) or (▼) key.

```
FUNCTION
POST CURE       <ENT>
```

5　Press the (ENTER) key.

```
POST CURE
START POS  :    0mm
```

6　By pressing the (▲) or (▼) key, determine the start position of re-irradiating lamp light.

```
POST CURE
START POS  :  100mm
```

• Enter the distance from the front edge of the table to the start position of irradiation.
• Set values： 0 to 2890mm (for JFX-1615plus, 0 to 1290mm.)

(Important!)　• When [DRAWING RANGE] of the maintenance function is set to "after print", the setting value differs.
for JFX-1631plus : 150 to 3040mm
for JFX-1615plus : 150 to 1440mm

7　Press the (ENTER) key.

```
POST CURE
END POS    :    0mm
```

8　By pressing the (▲) or (▼) key, determine the end position of re-irradiating lamp light.

```
POST CURE
END POS    :  1000mm
```

• Enter the distance from the front edge of the table to the end position of irradiation.
• Set this in consideration of the depth of the Post Cure Unit.
• Set values： 0 to 2890mm (for JFX-1615plus, 0 to 1290mm.)

(Important!)　• When [DRAWING RANGE] of the maintenance function is set to "after print", the setting value differs.
for JFX-1631plus : 150 to 3040mm
for JFX-1615plus : 150 to 1440mm

9　Press the (ENTER) key.
• The setting screen of the number of irradiations is displayed.

```
POST CURE
COUNT :  2
```

10　By pressing the (▲) or (▼) key, set the number of irradiations.

```
POST CURE
COUNT :  3
```

• Set values： 1 to 50 times
• By the set number of times, the Y bar goes and returns with irradiating lamp light.

11　Press the (ENTER) key twice.
• Re-irradiating UV lamp light starts by the Post Cure Unit.
• After the set number of irradiations is completed, the machine returns to the local mode.

```
POST CURE
 PLEASE WAIT
```

(Important!)　• After ink curing, the Post Cure Unit becomes hot. Do not touch it after curing preferably.

3

Useful Function

About time to replace lamp

When time to replace the lamp has come, the machine informs you of it when you turn on the power supply of JFX-1631/ 1615plus, by displaying the message on the light on the screen alternately.
When this message is displayed, replace the lamp by operating procedures below:

```
Maintenance Warning
Replace P.Cure lump
```

‡

```
Maintenance Warning
OK            :<ent>
```

- When you use JFX-1631/1615, the Post Cure Unit is an option.

Caution
- The lamp is hot immediately after it is turned off. Wait until the lamp cools down and replace it.
- Handle the lamp with care when replacing it. If not, the lamp may hit the main unit and cause a break or an injury.

Important!
- Even after the message is displayed, the lamp of the Post Cure Unit lights for a while.
  However, as the amount of light becomes less, UV ink curing is poorer compared with that before displaying the message.

1 Select the "REPLACE P.CURE MODE" of the maintenance menu.

(1) Press the (FUNCTION) key in the local mode.
(2) Select the [MAINTENANCE] by pressing the (▲) or (▼) key, and press the (ENTER) key.
(3) Select the [REPLACE P.CURE] by pressing the (▲) or (▼) key.
(4) Press the (ENTER) key twice.
   - The Y bar moves to the front.

2 Turn off the power supply for the Post Cure Unit located on the Y bar.

Power supply for the Post Cure Unit
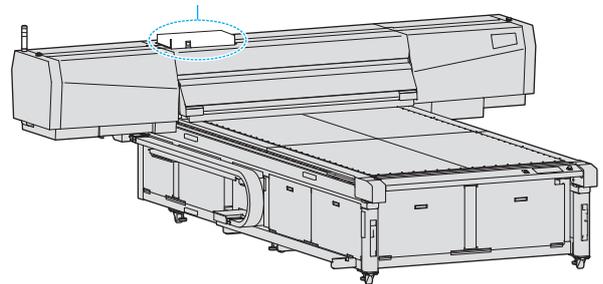
3 Press the (ENTER) key.

- After a while, the message on the right will be displayed.

```
REPLACE POST CURE
PUSH Y-BAR FRONT:ent
```

4 Press the Y bar to move it to the front.

- Move it until the Y bar cannot move any more.
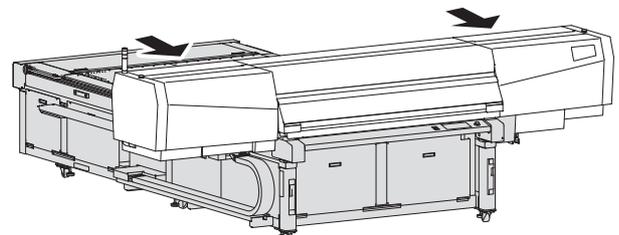
5 Press the (ENTER) key.

6 Open the open/ close door of the Y bar front surface, and loosen the screws on both sides of the Post Cure Unit.
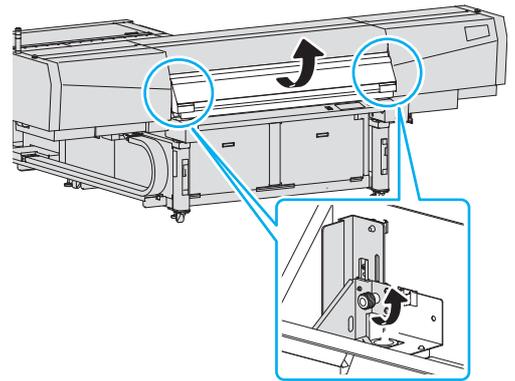
7 Move the Post Cure Unit to the top, and tighten the screw.

⚠ **Caution**
- Tighten the screw securely. If replacing the lamp with the screw loosened, the Post Cure Unit may fall during replacing and get your hand stuck or break the lamp.

8 Remove the lamp side cover (L/R).

Lamp side cover (L/R)
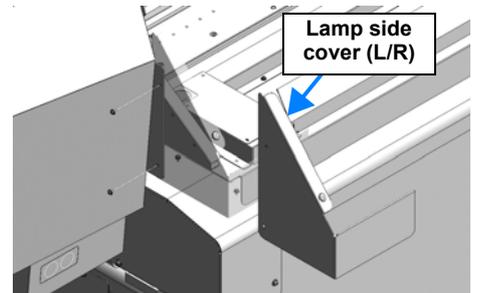
9 Remove the socket cover of both sides of the lamp.

Socket Cover L/R

10 Slide the protection cover.

Protection cover

11 **Pull the protection cover out.**
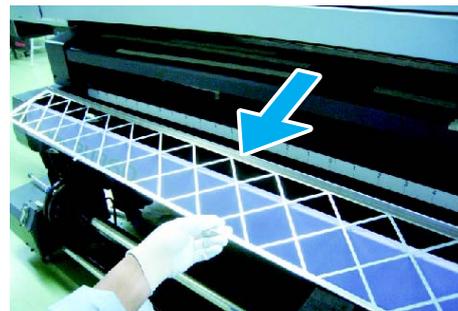
12 **Replace the lamp.**

⚠ **Caution**
- When attaching the lamp, be sure to check that electrodes on both edges are surely inserted in the sockets.
- When attaching the lamp, attach it so that the manufacturer printing surface faces down.
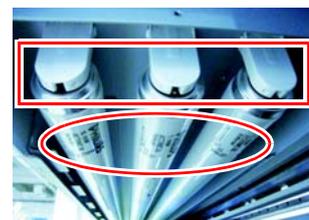
13 **Attach the left socket cover.**

14 **Attach the protection cover.**

(1) Insert the protection cover in the direction of the arrow in the picture.
(2) Lift the near side.

(2)   (1)

15 **Slide the protection cover to the left and fix it.**

• Hook the claw from the right side in order.
(1) → (2) → (3) → (4)
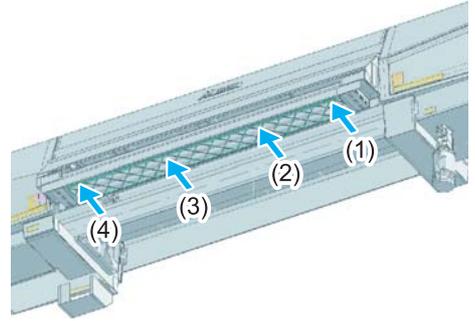
16 **Insert the claw at the right edge of the protection cover into the gap of (B).**

(B)

(A)
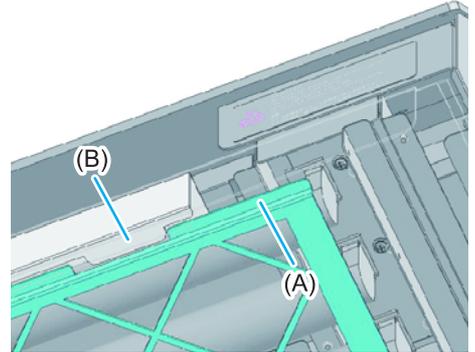
17 **Slide the protection cover to the left (by about 5mm).**
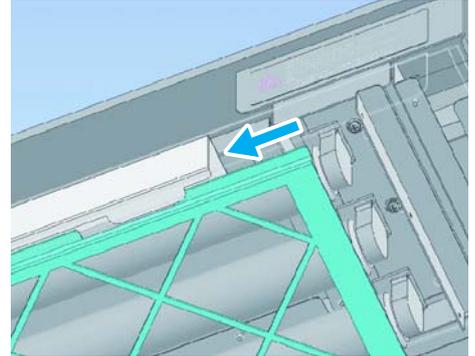
18 **Hook the claw of the left side in the same manner of the Step 16 and 17.**

19 **When you hook the claws for four positions, hit it onto the left socket cover.**

3

Useful Function
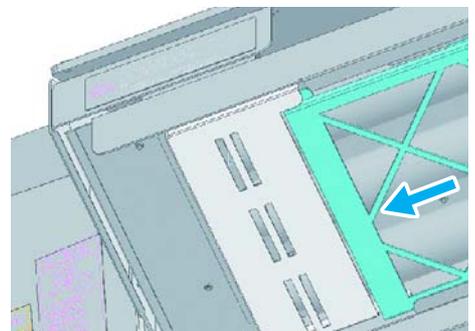
20 **Attach the right socket cover and the lamp side cover, and return the Post Cure Unit to the original status.**

⚠ Caution

• The part shall not come off below the bottom surface of the lamp cover of the Post Cure Unit.

Lamp cover
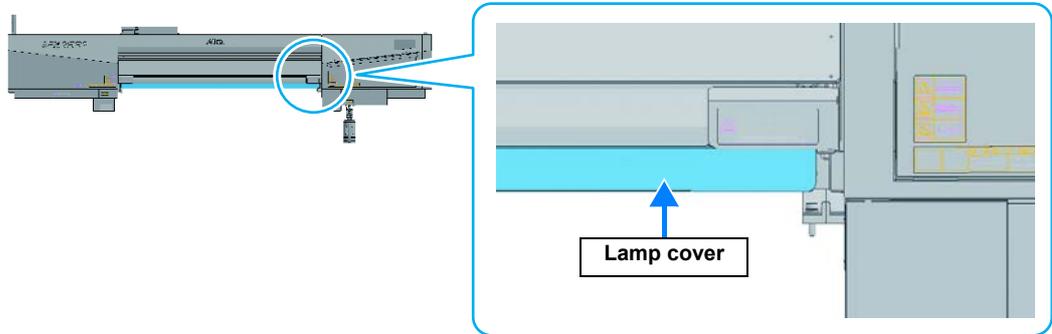
21 **Turn on the power supply of the Post Cure Unit and press the (ENTER) key.**

💡 • When you use JFX-1631/1615, the Post Cure Unit is an option.

If you cannot keep the head gap properly/evenly

When you use the thick media etc., you cannot keep the head gap properly/evenly in some cases.
In such a case, perform the following procedures:

(1) By using the media for discard etc., bridge the gap as much as possible.

(2) Set the periodical wiping. (Chapter 4 "Cleaning nozzle face automatically" of the JFX operation manual.

   • To remove ink that became thick due to mist adhesion/exposure, set the periodical wiping.
   • Set the periodical wiping to perform it every 3100mm length printing.
   • Even if you perform the periodical wiping, ink is not used.
   • In addition, perform cleaning or replacement of the wiper periodically.

(3) Raise the refresh level during drawing. (Chapter 3 "Other useful settings" of the JFX operation manual.

   • You can discharge ink that became thick due to exposure.
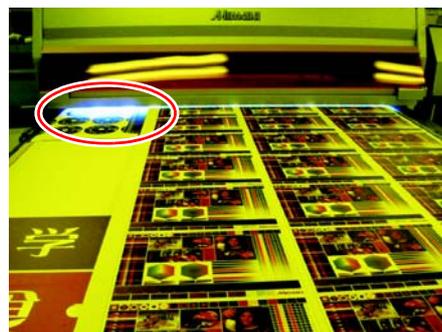
When performing long hours of continuous printing

(1) Use the machine by setting the head gap value to the lowest one as much as possible in the proper range.

(2) After printing is completed, perform head cleaning (Chapter 2 of the JFX operation manual) and cleaning of the carriage bottom surface (Chapter 4 "Cleaning of the head guard plate" of the JFX operation manual).

   • After printing is completed, ink that became thick may adhere to the carriage bottom surface in some cases.

3

Useful Function

CHAPTER 4
Maintenance

Items required for using this unit conveniently, such as an ink replacing method or a cleaning manner, are described.

Routine maintenance

Be sure to conduct maintenance works for the device depending on operation frequency or periodically so as to use the device for a long time while keeping its drawing accuracy.

When the device is left unused for a long period of time

Caution
- Be sure to turn off the main power switch on left side of the device. (P.2-14)
- Remove the media being set.

● **Recovery for when the device is left unused for a long period of time**

If unused for 3 to 4 days (Using white ink)	Perform sub-tank maintenance.
If unused for about 1 week	Remove ink from the ink path.
If unused for about 2 weeks	Clean the ink path.

Notes on cleaning

- Never disassemble the device. Disassembling the device can result in electric shock hazards and breakage of the device.
- Prevent moisture from entering inside device. If the inner part of the device becomes wet, electric shock hazards and breakage of the device can result.
- Conduct maintenance works after turning off the main power switch and detaching the power cable. If not, unexpected troubles can arise.
- Make maintenance after the UV LED has been sufficiently cooled, or burn injury may occur.
- Do not use benzine, thinner or chemical agents containing abrasives. Such materials can deteriorate or deform the surface of the cover.
- Do not apply lubricating oil or the like inside the device. Such materials can cause the printer mechanism to fail.

Maintenance of frame component

If the frame components of the device have stained, dampen a poece of soft cloth with water or neutral detergent diluted with water, squeeze it and wipe the frame components clean.
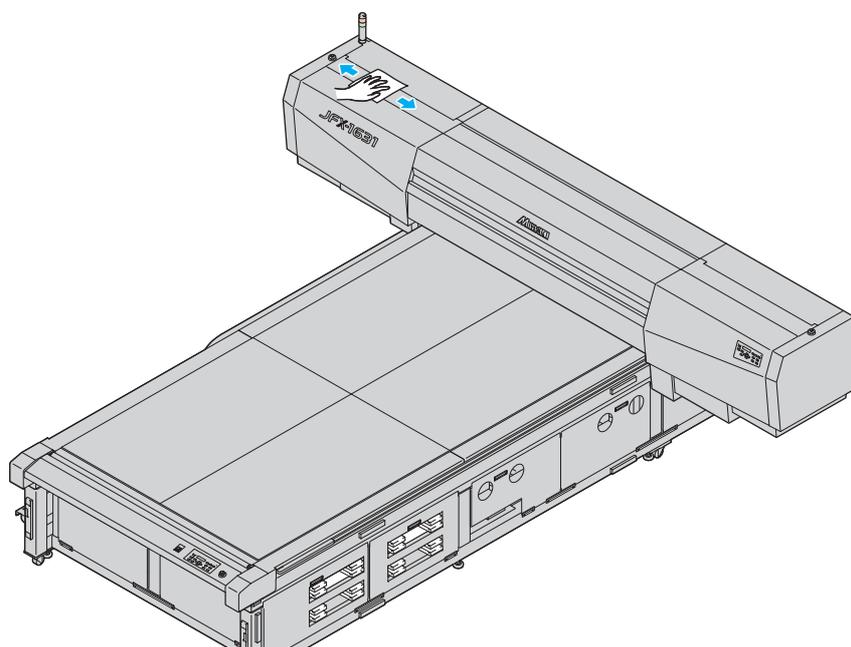
Ink cartridge

16 ink cartridges are mounted on this printer in all by mounting two cartridges per one supply system (two nozzle rows) each.
Set only one supply cartridge per one supply system. The cartridges are alternately used by toggle mechanism.

Replacing with a new ink pack

When the remaining amount of ink becomes less or none, the display and the cartridge lamp located on the left side of the ink slot inform you of it. At this time, replace the ink pack inside the ink cartridge.

Display on the screen	State of lamp[*1]	Outline
[INK NEAREND]	Lights in green / red in turns or Blinks in red	**Remaining amount of ink in an ink cartridge is few.** • Drawing can be continued, but running out of ink may occur during the drawing. Earlier replacement is recommended.
[INK END]	Lights in red	**Ink in an ink cartridge is run out.** • Replace with new one immediately.

*1. For details of the state of the lamp, see "State of Lamp" on the next page.

Replacement of ink packs

When replacing an ink pack, set the ink pack weight plate together. If you set the ink pack weight plate, you can use ink inside the ink pack to the end.

(Important!)
• When replacing an ink pack, do not drop the ink pack weight plate. If it drops and hits on your body, it may cause injury.
• Do not discard the used ink pack weight plate. You can use it repeatedly when replacing ink pack.

1 **Remove an ink cartridge to be replaced.**
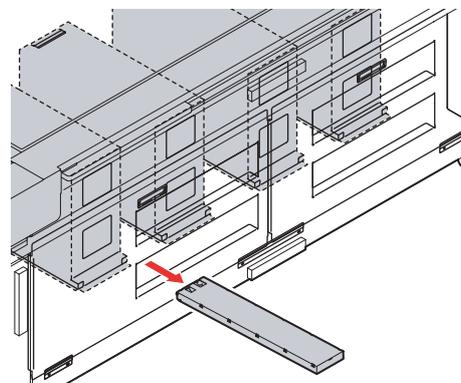
2 **Referring to the label attaching to the cartridge, remove the used ink pack.**

3 **Set a new ink pack.**
• Referring to the label attaching to inside the cartridge top lid, set it.

4

Set the ink pack weight plate.

(1) Hold the A part and hit the ink pack weight plate against the cartridge rear side (opposite side of the ink pack stopper).

(2) Move it downward slowly.

Hit

A part

Ink pack stopper
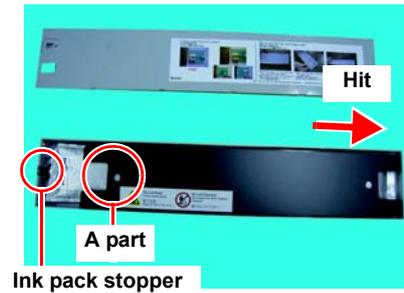
5

Shut the lid of the cartridge.

• Insert all claws.

(Important!) • Some parts of the lid may float, however, it functions well.

6

Set a new ink cartridge

• As shown in the drawing, set an ink cartridge turning up a side containing the IC chip.

• Ink fill up starts.

IC chip
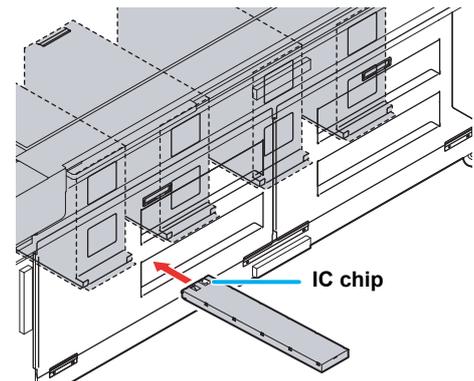
State of Lamp

Check the state of the ink with the cartridge lamp on the left of the ink slot.

Lamp	Outline
Lights in green	Ink remains in the cartridge that is currently in use.
Lights in red	One of the following states; The cartridge is not set / Ink has run out / Other error has occurred.
Blinks in red	Ink remains low in the cartridge that is not currently being used.
Lights in green/red in turns	Ink remains low in the cartridge that is currently in use.
Off	Ink remains in the cartridge that is not currently being used.
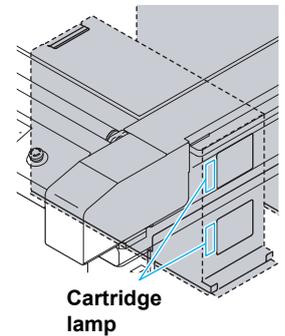
Cartridge lamp

Cartridges that cannot be used (Lights in red)

The cartridge displaying the following errors cannot be used.

NON-ORIGINAL	WRNG INK IC	INK TYPE
Ink Color	Expiration	InkPack Chk

(Important!) **About [InkPack Chk]**
- [InkPack Chk] message appears when this printer fails ink supply in Ink Near-end condition. In this case, follow the procedures below. The cartridges cannot be used until followings are executed.
  - **(1)** Check the ink pack contains ink.
  - **(2)** If there is ink in the pack, shake the cartridge. (☞ P.4-6)
  - **(3)** Reinsert the cartridge.
  - **(4)** Press the (ENTER) key.

Conditions for cartridge switching

The supply cartridge switches in the following conditions.

● **During drawing, after cleaning, or after filling ink**

- When [INK END] appears
- When [InkPack Chk] appears
- When ink is reduced after appearing [INK NEAREND]

● **When the cartridge is removed or inserted**

(Important!)
- A cartridge to be used is determined comparing those conditions in the following order.
  - **(1)** A cartridge with an older expire date
  - **(2)** A cartridge with less ink
- If there is "a cartridge in which ink is consumed 30 cc or more after INK NEAREND" when switching during drawing, a cartridge with more ink is selected.

4

Maintenance

How to shake an ink cartridge

1
Wrap the tip of an ink cartridge with paper towel.
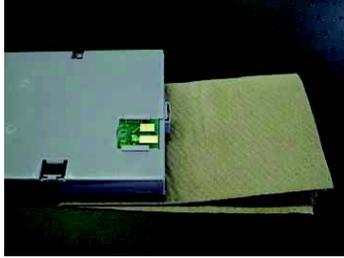
Wrap the tip with paper towel.

Tape both ends of the paper towel on the cartridge.

2
Slowly shake the ink cartridge more than twenty times right and left.

• To prevent ink from leaking when you shake the cartridge, wear gloves and firmly cover the A part of the upper surface of the cartridge and the B part of the bottom surface of the cartridge with paper towels. Then, shake it more than twenty times right and left so that ink flows inside the cartridge.

• If you shake it too strong, the pack inside may be damaged and it may cause ink leakage. Therefore, perform this carefully.
• If the remaining amount of ink is less, ink in the cartridge cannot be beaten enough. Tilt the cartridge until it becomes vertical.

A part
(the place to stick a needle)

B part
(the slot on the bottom)

Repeat this

A part

Cover with paper towel firmly and shake ink slowly

Ink cartridge trouble

When an ink cartridge trouble is detected, a warning message appears and printing, cleaning and all other activities that use ink are deactivated. In this case, replace the ink cartridge in question immediately.

⚠ **Caution**
- Do not leave the ink cartridge unreplaced for a long time as this will cause the nozzle clogging and the printer must be repaired by a service person.

1 **Display the truble messages on the LCD.**
- Contents of the ink cartridge trouble can be displayed.
  See P.5-6 "Troubles for which error messages are given on the LCD".

```
<LOCAL>    ColorofINK
MMMMCCCCYYYYKKKK
```

2 **Press the (ENTER) key in the local mode.**

```
<LOCAL>      INK TYPE
MMMMCCCCYYYYKKKK
```

3 **Press the (ENTER) key again.**
- The menu will return to the LOCAL mode auto-matically when no trouble exists.
- If two or more cartridges have a problem, press the (ENTER) key again to display the second cartridge.
- When all problem cartridges are displayed, the menu returns to the LOCAL mode automatically.

```
<LOCAL>    NO CARTRDG
MMMMCCCCYYYYKKKK
```

```
<LOCAL>   INK NEAREND
MMMMCCCCYYYYKKKK
```

```
<LOCAL>       INK END
MMMMCCCCYYYYKKKK
```

```
<LOCAL>    Expiration
MMMMCCCCYYYYKKKK
```

Warnings and operations

When the cartridge cannot be switched in one supply system, a warning for the supply cartridge appears.

Warning in the LOCAL/ REMOTE mode (appears for each cartridge)	Cleaning	Filling	Drawing
INK NEAR END	Available	Available	Available
INK END	Not available	Not available	Not available
NO CARTRDG			
NON-ORIGINAL			
WRNG INK IC			
INK TYPE			
Ink Color			
Expiration			

4

Maintenance

4-7

Avoiding dripping of ink droplet at printing

Cleaning of the head guard plate

Ink droplets caused by drawing may appear on a head guard plate on a bottom face of the carriage. As they can cause stain on media by dripping of ink droplets or drawing trouble, conduct cleaning of the bottom face of the carriage periodically.

Articles required for cleaning	• Maintenance cleaning liquid (SPC-0568)		
	• Cleaning Swab (SPC-0384)	• Gloves	• Goggles

⚠ **Caution**   • Do not remove the unspecified parts.

---

1 **Turn on the power.**

• After the initial movement, the system turns to the local mode.

---

2 **Press the (FUNCTION) key in the local mode.**

```
FUNCTION
VIEW            <ENT>
```

---

3 **Select the [MAINTENANCE] with pressing the (▲) or (▼) key.**

```
FUNCTION
MAINTENANCE     <ENT>
```

---

4 **Press the (ENTER) key.**

```
MAINTENANCE
STATION         <ent>
```

---

5 **Press the (ENTER) key.**

• The carriage automatically moves from the standby position to the left front cover on the left.

```
STATION
MENT:CARRIAGEout
```

---

6 **Press the (ENTER) key.**

• The carriage is lifted down to the cleaning position.
• When the movement is completed, you may now move the carriage manually.

---

7 **Open the maintenance cover.**

• The maintenance cover is under the left front cover.
• Remove the finger screws (2 pcs) on the maintenance cover and then open the cover.

⚠ **Caution**   • Hold the maintenance cover and open it. If not, the cover will fall and cause injury.

---

8 **Instill the cleaning liquid to the swab and clean the side of the head.**

Underside of the carriage

• Avoid wiping the nozzle surface of the head. It would cause the nozzle clogging.
• In case you want to buy special cleaning swab, please contact your sales agent or our branch office.
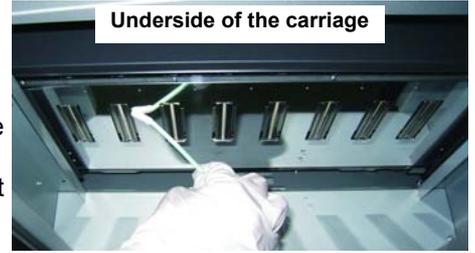
9 **Press the (ENTER) key after completing the cleaning**

• Initial operation is executed.

10 **Press the (END) key several times to turn the system to the local mode.**

Cleaning nozzle face automatically

Setting of Interval Wiping

When predetermined times of printing is completed, nozzle face of the head is cleaned automatically to remove ink droplets stuck to the nozzle face.

1 **Select the "PERIODIC MAINTENANCE MODE" of the maintenance menu.**

(1) Press the (FUNCTION) key in the local mode.
(2) Select the [MAINTENANCE] by pressing the (▲) or (▼) key, and press the (ENTER) key.
(3) Select the [PERIODIC MAINTE] by pressing the (▲) or (▼) key.
(4) Press the (ENTER) key.

2 **Select the [WIPING] by pressing the (▲) or (▼) key.**

```
PERIODIC MAINTE
WIPING        <ent>
```

3 **Press the (ENTER) key**

```
INT.WIPING
PRINT COUNT = 10
```

4 **Set the number of printing times (OFF, 1~100) by pressing the (▲) or (▼) key.**

• If it is set to "OFF", the periodical cleaning is not performed.

```
INT.WIPING
PRINT COUNT = 15
```

5 **Press the (ENTER) key**

```
INT.WIPING
[MMMMCCCCYYYYKKKK]
```

6 **Select the head and set execution/non-execution of wiping.**

(1) Select the head with (◄) or (►) keys.
(2) Select execution/non-execution of the wiping with (▲) or (▼) keys.

```
INT.WIPING
[MMMMCCCCYYYYKKKK]
```

```
INT.WIPING
[MMMMCCCCYY--KKKK]
```

Execute Wiping : A color of an ink cartridge being set is displayed.
Not Execute Wiping : " - " is displayed

7 **Press the (ENTER) key.**

```
PERIODIC MAINTE
WIPING        <ent>
```

8 **Press the (END) key several times to end the setting.**

Setting of Interval Cleaning

When the set number of printing times is completed, head cleaning is performed automatically.

1 **Select the "PERIODIC MAINTENANCE MODE" of the maintenance menu.**

(1) Press the (FUNCTION) key in the local mode.
(2) Select the [MAINTENANCE] by pressing the (▲) or (▼) key, and press the (ENTER) key.
(3) Select the [PERIODIC MAINTE] by pressing the (▲) or (▼) key.
(4) Press the (ENTER) key.

2 **Select the [CLEANING] by pressing the (▲) or (▼) key.**

```
PERIODIC MAINTE
CLEANING        <ent>
```

3 **Press the (ENTER) key**

```
INT.CLEANING
TYPE           :normal
```

4 **Select the cleaning type by pressing the (▲) or (▼) key.**

• **Setting value** : normal, hard

```
INT.CLEANING
TYPE           :hard
```

5 **Press the (ENTER) key**

```
INT.CLEANING
PRINT COUNT = 10
```

6 **Set the number of printing times (OFF, 1~100) by pressing the (▲) or (▼) key.**

• If it is set to "OFF", the periodical cleaning is not performed.

```
INT.CLEANING
PRINT COUNT = 15
```

7 **Press the (ENTER) key**

```
MAINTENANCE
INT.CLEANING   <ent>
```

8 **Select the head and set execution/non-execution of cleaning.**

(1) Select the head with (◄) or (►) keys.
(2) Select execution/non-execution of the cleaning with (▲) or (▼) keys.

Execute Cleaning : A color of an ink cartridge being set is displayed.
Not Execute Cleaning : " - " is displayed

```
INT.WIPING
[MMMMCCCCYYYYKKKK]
```

```
INT.WIPING
[MMMMCCCCYY--KKKK]
```

9 **Press the (ENTER) key.**

10 **Press the (END) key several times to end the setting.**

4

Maintenance

4-11

Cleaning of wiper

A wiper sweep ink stuck to a nozzle of the head.
The wiper becomes tainted with ink or dusts during the operation of the device.
In order to maintain good condition of the heads, clean the wipers frequently.

Important!
- The wiper is a consumable material. If the drawing images are not improved by repeated head cleaning after cleaning the wiper, replace the wiper with the supplied wiper for replacement. (Wiper for replacement: SPC-0515 [30 pieces])

⚠ Caution
- When conducting the cleaning, be sure to wear the supplied goggle and gloves since you may get ink in your eyes.
- Do not remove the unspecified parts.

1 Turn ON the power.

2 Open the right maintenance cover.
- Remove the screws (2 pcs) and open the right maintenance cover.

3 Select the "STATION" in the maintenance menu.
(1) Press the (FUNCTION) key in the local mode.
(2) Select the [MAINTENANCE] by pressing the (▲) or (▼) key, and press the (ENTER) key.
(3) Press the (ENTER) key again.

4 Select the [MENT:WIPER EXCHG] by pressing the (▲) or (▼) key.

```
STATIONN
MENT:WIPER EVCHG
```

5 Press the (ENTER) key.
- The carriage automatically moves from the standby position to the left front cover on the left.
- The wiper will move toward you.

6 Remove suction nozzle Assy.
(1) Hold down the rear part of the suction nozzle Assy.
(2) Push the protrusion in front to back
(3) Pull up the suction nozzle Assy.

Hold down the rear part
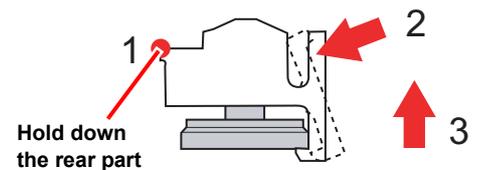
7 Remove the wiper M with tweezers.
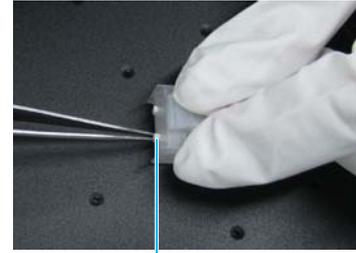
Wiper M

8 Drip wiper M with several drops of cleaning liquid and clean it with nonwoven cloth.

• Avoid using the material that will leave dust or fiber after use such as paper towel.
• When remarkable deformation or wear is seen on the wiper M, replace it with the new one.

9 Check the inside of the suction nozzle and clean them if they are dirty.

(1) Remove hardened ink or the attached dirt using a stick with fine tip.
(2) Using the dropper, drip several drops of cleaning liquid inside the suction nozzle and clean with nonwoven cloth.

10 Check around the O ring under the suction nozzle, and clean it if it is stained.

• Around the O ring, uncured ink is sticking. Wipe it out with nonwoven cloth.

11 Remove the O ring with tweezers, and clean it.

12 Attach the wiper M to the suction nozzle.

• Adjust the wiper M and the suction nozzle so that they are on the same height.

Wiper M

4

Maintenance

4-13

13 **Attach the suction nozzle Assy pressing it firmly under the suction nozzle.**

• The wiper M will stick out by around 0.5 mm after being attached.
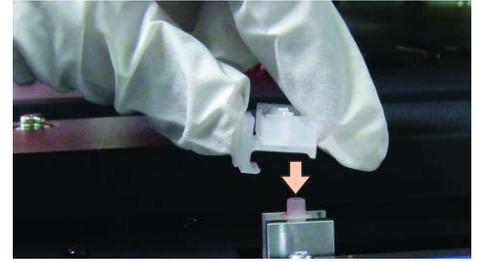
14 **When the cleaning is completed, press the ⏘ENTER⏘ key.**

• The initial movement will be performed.

15 **Press the ⏘END⏘ key several times to finish.**

Subtank Maintenance

Perform the followings if subtank error occurs (☞ P.5-7 "Error message") or if nozzle is not unclogged after cleaning.

1 **Select the "SUBTANK MAINTE MODE" of the maintenance menu.**

(1) Press the (FUNCTION) key in the local mode.
(2) Select the [MAINTENANCE] by pressing (▲) or (▼) key, and press the (ENTER) key.
(3) Select the [SUBTANK MAINTE] by pressing (▲) or (▼) key.

2 **Press the (ENTER) key.**

```
SUBTANK  MAINTENANCE
[YYMMCCKK  KKCCMMYY]
```

3 **Set execution of subtank maintenance with the**
(▲)(▼)(◀)(▶) key.

```
SUBTANK  MAINTENANCE
[YYMMCCKK  KKCCMMYY]
```

(1) Select the head with the (◀)(▶) key.
(2) Select execution of subtank maintenance with (▲)(▼) key.
  • Select the ink filling for all the heads.
  • Fill   : Displays the set ink cartridge.
  • Not fill   : Displays " * ".

```
SUBTANK  MAINTENANCE
[YYMMC*KK  KKCCMMYY]
```

4 **Press the (ENTER) key.**

```
SUBTANK  MAINTENANCE
EXECUTE            :ent
```

5 **Press the (ENTER) key.**
  • Subtank maintenance starts.

```
executing
PLEASE  WAIT
```

💡 • To solve the error related to the sub tank that occurred during drawing, press the (CLEANING) key and select "SUBTANK MAINTE". You can gain the equivalent result of the sub tank maintenance performed here.

4

Maintenance

Prevent the nozzle clogging of special color

To prevent the head nozzle clog, this unit performs refresh while printer is turned on. However the characteristic of white ink is different from other inks, therefore nozzle out occurs even performing the refresh.
Change the head refresh operation, where white ink is installed, so as to suitable for the white ink. This will prevent the nozzle out.

1 **Press the** (FUNCTION) **key in the local mode.**

```
FUNCTION
VIEW            <ENT>
```

2 **Select the [MAINTENANCE] by pressing the** (▲) **or** (▼) **key.**

```
FUNCTION
MAINTENANCE     <ENT>
```

3 **Press the** (ENTER) **key.**

```
MAINTENANCE
STATION         <ent>
```

4 **Select the [SP.REFRESH] by pressing the** (▲) **or** (▼) **key.**

```
MAINTENANCE
SP.REFRESH      <ent>
```

5 **Press the** (ENTER) **key.**

```
SPECIAL REFRESH
[YYMMCCKK KKCCMMYY]
```

6 **Set the special refresh by pressing the** (▲),(▼),(◀) **or** (▶) **key.**

   (1) Select the head with the (◀)(▶) key.
   (2) Select execution of special refresh with (▲)(▼) key.
      • Select the ink filling for all the heads.
      • Fill   : Displays the set ink cartridge.
      • Not fill : Displays " * ".

```
SPECIAL REFRESH
[YYMMCCKK KKCCMMYY]
```

```
SPECIAL REFRESH
[YYMMC*KK KKCCMMYY]
```

7 **Press the** (ENTER) **key.**

8 **Press the** (END) **key several times to end the setting.**

• For the head on which special refresh was performed in the Step 6, refresh operation is performed with the condition set here, not with the refreshing operation set in "REFRESH-WITING".

When the waste ink is pooled up

The ink used for head cleaning or flushing is gathered in the waste ink tray.
When the waste ink tray is full, an error is displayed. When an error appears, dispose of the waste ink into the waste ink tank as follows.

When the tank is filled with waste ink, the following error message is displayed.

```
ERROR 604
WASTE INK FULL
```

Disposing of the ink in the waste ink tank

1 **Attach the waste ink tank.**

2 **Turn on a cock.**
   • The waste ink in the waste ink tray is transferred into the waste ink tank.

3 **When the error disappears, remove the waste ink tank.**

4 **Dispose waste ink into the prepared polyethylene tank.**
   • Before replacing ink, put paper on the floor. (To prevent the floor from being stained with ink)
   • Dispose the waste ink pursuant to the regulations of your district.

💡 • Contact the local dealer or call our branch if you need a spare waste ink tank.
   • Prepare a polyethylene tank for emptying waste tank.

⚠ • If ink is at discharging, such as at head cleaning, conduct the operation after the discharging is completed.
   • Take measures for avoiding spattering of waste ink, such as covering an opening of a tank with tissue paper, at handling the waste ink tank.

Disposing of the ink in the wiper tank

1 **Open the wiper tank cover.**

(1) Remove the finger screw fixing the wiper tank cover.
(2) Remove the cover.

Finger screw
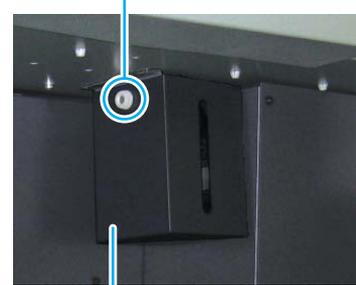
Cover

2 **Remove the wiper tank and discard the waste ink.**

• Discard the waste ink pursuant to your local regulations.

3 **Return the wiper tank to the original position and place the waste ink box cover.**

⚠ **Caution**   • Do not remove the unspecified parts.

Regular maintenance for white ink

White ink is easier precipitate than other inks.
- In case without printing more than one week, white ink may cause precipitate in ink cartridge or inside of the device.
- When the ink is precipitated, nozzle clogging occurs and normal drawing can not be obtained.
- Make sure to perform periodical maintenance to avoid precipitation and to keep white ink good condition.

- Be sure to perform the following operation at least once a week.
- Use the specified ink cartridge.

1 **Press the** (FUNCTION) **key in the local mode.**

```
FUNCTION
VIEW            <ENT>
```

2 **Select the [MAINTENANCE] with pressing the** (▲) **or** (▼) **key, and press the** (ENTER) **key.**

```
MAINTENANCE
STATION        <ent>
```

3 **Select the [WHITE MANT] with pressing the** (▲) **or** (▼) **key ,and press the** (ENTER) **key.**

```
WHITE MANT
[ - - - - - - - - -  WWWW- - - - ]
```

4 **Select executing white maintenance or not for each head, and press the** (ENTER) **key.**

```
WHITE MANT
[ - - - - - - - - -  WW* * - - - - ]
```

   (1) Select the head with (◀) or (▶) key.
   (2) Select executing white maintenance or not with (▲) or (▼) key.
      • When "not executing maintenance" is selected, " * " is displayed.

5 **Pull out the white ink cartridge form the ink station.**

```
WHITE MAIN
REMOVE  CARTRIDGE
```
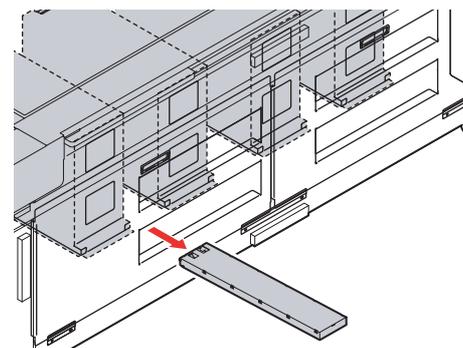

6 **Press the** (ENTER) **key.**
   • White ink discharge operation starts.

```
        EMISSION
PLEASE  WAIT
```

4

Maintenance

7 Slowly shake the white ink cartridge more than twenty times right and left.

• To prevent ink from leaking when you shake the cartridge, wear gloves and firmly cover the A part of the upper surface of the cartridge and the B part of the bottom surface of the cartridge with paper towels. Then, shake it more than twenty times right and left so that ink flows inside the cartridge.

• If you shake it too strong, the pack inside may be damaged and it may cause ink leakage. Therefore, perform this carefully.
• If the remaining amount of ink is less, ink in the cartridge cannot be beaten enough. Tilt the cartridge until it becomes vertical.

A part
(the place to stick a needle)

B part
(the slot on the bottom)

Repeat this

A part

Cover with paper towel firmly and shake ink slowly
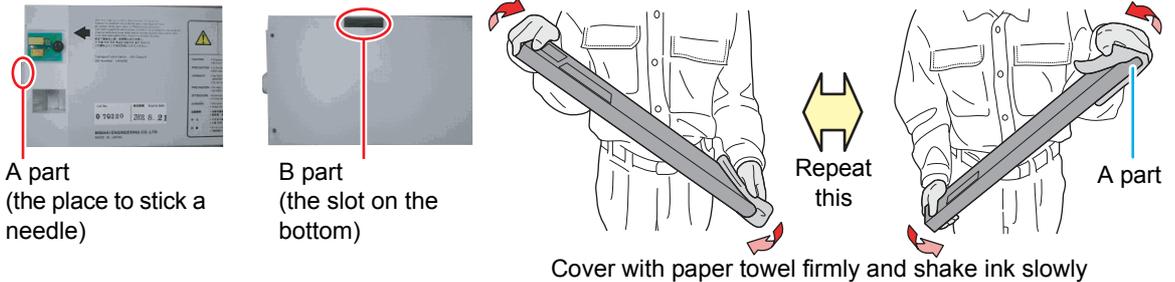
8 When a screen shown in the right is displayed,Return the white cartridge to the ink station.

```
WHITE MANT
SET CARTRIDGE
```

• As shown in the drawing, set an ink cartridge turning up a side containing the IC chip.

IC chip
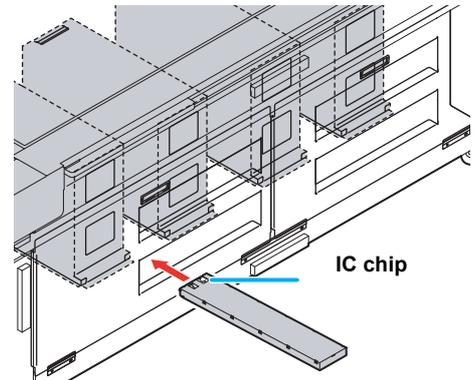
9 Press the (ENTER) key.

• Ink filling starts.
• A message shown in the right is displayed after completion of white ink filling.

```
        FILL UP
PLEASE WAIT
```

```
MAINTENANCE
WHITE MANT      <ent>
```

10 Press the (END) key several times to finish.

Replacing the filter of the cooling fan

Replace the filter of the cooling fan periodically. (Once around a month)

[goggles/gloves icon] • When replacing, be sure to wear the supplied goggles and gloves since you may get ink in your eyes.

Articles required for replacement works	• Gloves	• Goggles	• Phillips screwdriver	• Filter [*1]

*1. The supplied filter contains 24 sheets.
For purchase of the filter (Product No.: SPC-0528), please get in touch with your sales agent or our branch office nearest you.

---

1 **Press the ⬇ to move the Y-bar to the front.**

---

2 **Turn the main power switch located on the left of the main unit off.**

---

3 **Remove the front covers on both sides of the Y-bar, and open the front covers.**

• Remove the screws (4 pcs each) on the front covers, and remove the covers.
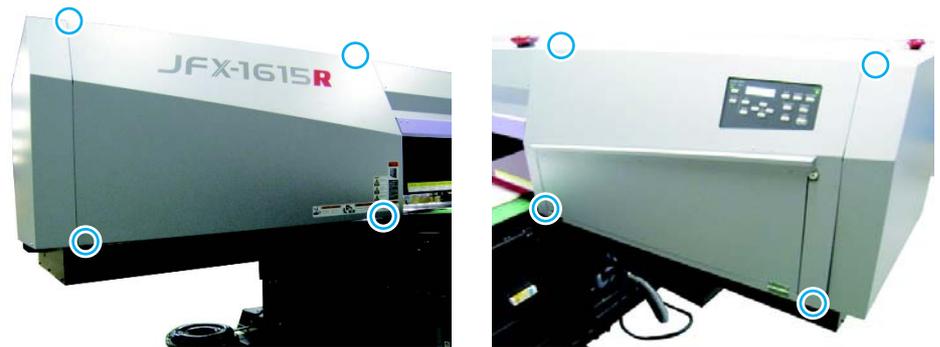
• The cooling fans are on the circled places (6 places) shown on the below. When replacing the cooling fan filter, replace all the filters.

Finger screw

4 **Remove the filter holder.**

• Remove the finger screw to remove the filter holder.
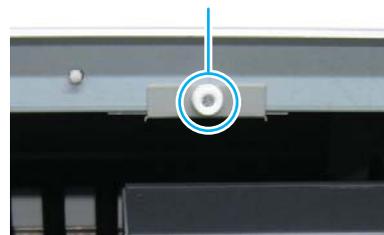
5 **Replace the filter.**

• Prepare the new filter and replace with it.

6 **Return the filter holder to the original state.**

• Follow from Step 4 to 6 for all the cooling fans.

7 **Close the front cover, and attach the front cover on both sides of the Y-bar.**

Replacing the mist suction filter

Replace the mist suction filter periodically. (Once around a month)

⚠ **Caution**
- When replacing, be sure to wear the supplied goggles and gloves since you may get ink in your eyes.
- Do not remove the unspecified parts.

Articles required for replacement works	• Gloves	• Goggles	• Phillips screwdriver	• Filter [*1]

*1. The supplied filter contains 40 sheets.
    For purchase of the filter (Product No.: SPC-0595), please get in touch with your sales agent or our branch office nearest you.

---

1 **Select the "ST. MAINTENANCE" in the maintenance menu.**

(1) Press the (FUNCTION) key in the local mode.
(2) Select the [MAINTENANCE] by pressing the (▲) or (▼) key, and press the (ENTER) key.
(3) Select the [ST. MAINTENANCE] by pressing the (▲) or (▼) key.
(4) Press the (ENTER) key twice.

---

2 **Open the right maintenance cover.**

- Remove the screws (2 pcs) and open the right maintenance cover.

---

3 **Remove the cover.**

- Remove the screws (4 pcs) and open the cover.

---
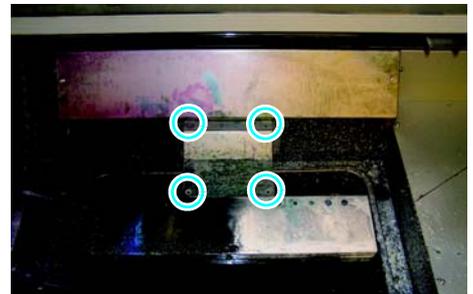
4 **Remove the filter holder.**

- Remove the screw and remove the filter holder.

---

5 **Replace the filter.**

- After replacement, attach the filter holder and the cover, and then close the maintenance cover.

Maintenance

If the dot position is misaligned

When the thickness of media to use, the head height or the dot size of data to be drawn has been changed, perform the next operation to correct the ink drop position at bidirectional drawing (Bi) to gain the proper drawing result.

Samples of pattern drawn

```
+0↵        +100↵       +200↵       +300↵       +400↵

|||||||||| | | | | | | | | | | | | | | | | | | | | | |
```

---
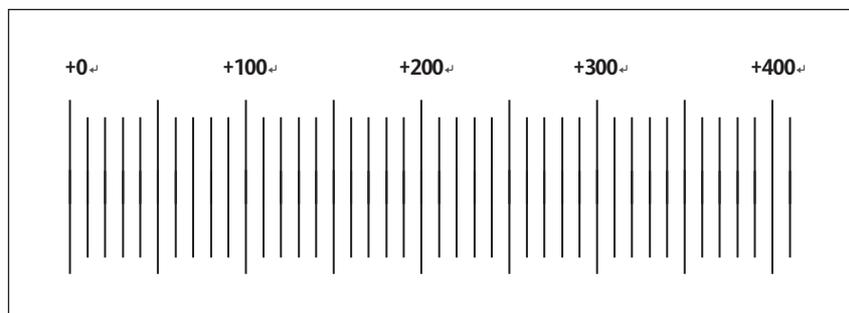
1 | **Set a media and the home position for drawing.**
• A media of 100 x 300mm large at least is required for drawing patterns.

---

2 | **Select the "PRN.adjust MODE" of the maintenance menu.**
(1) Press the `FUNCTION` key in the local mode.
(2) Select the [MAINTENANCE] by pressing `▲` or `▼` key, and press the `ENTER` key.
(3) Select the [PRN.adjust] by pressing `▲` or `▼` key.
(4) Press the `ENTER` key twice.

---

3 | **Select the drawing resolution by pressing `▲` or `▼` key.**

```
PRN.adjust
DPI: 300
```

• **Setting value** : 300,600,1200 DPI

---

4 | **Press the `ENTER` key.**

```
PRN.adjust
MODE:normal
```

---

5 | **Select the pattern drawing speed by pressing `▲` or `▼` key.**

```
PRN.adjust
MODE:high
```

• **Setting value** : normal , high

---

6 | **Press the `ENTER` key.**

```
PRN.adjust
DOT SIZE Large:   1
```

---

7 | **Select the dot size by pressing `▲` or `▼` key.**
• Set the DOT SIZE Large of data to be drawn in online printing.
• **Setting value** : Large 1 to 12

```
PRN.adjust
DOT SIZE Large:   4
```

---

8 | **Press the `ENTER` key.**
• Start pattern drawing.

---

9 **Check the position where the drawn pattern is in one straight line.**

- In the case of the figure in the right, you will notice that a straight line is formed at the point +140.

+100 +200
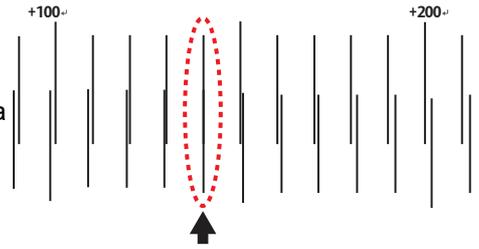
10 **Adjust it by pressing ⬆ or ⬇ key.**

- **Setting value** : 0 to 400
- **When there is no pattern forming a straight line between 0 and 400**
  (1) Once again, perform the checking of the head gap (☞ P.3-6).
  (2) Perform the procedures from the Step 1.

```
PRN.adjust
 300dpi/nrml/4 :   0
```

11 **Press the ⸨ ENTER ⸩ key.**

```
PRN.adjust
DPI: 300
```

12 **Press the ⸨ END ⸩ key several times to end the setting.**

4

Maintenance

In case defective printing is not resolved

When the image quality is not improved after repeated head cleanings, perform the filling of the ink.

Filling the ink

1 **Insert the ink cartridge in the ink station.**

• Set the ink cartridge securely.
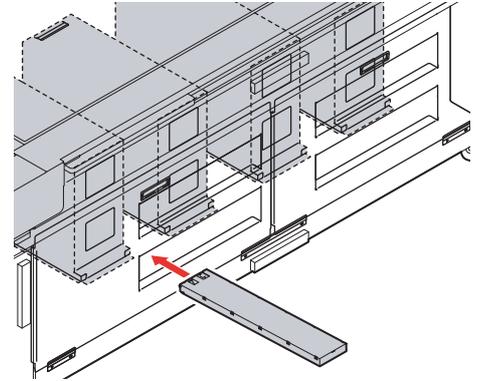
2 **Press the (FUNCTION) key in the local mode.**

```
FUNCTION
VIEW          <ENT>
```

3 **Select the [MAINTENANCE] with pressing the (▲) or (▼) key.**

```
FUNCTION
MAINTENANCE    <ENT>
```

4 **Press the (ENTER) key.**

```
MAINTENANCE
STATION        <ent>
```

5 **Select the [FILL UP INK] with pressing the (▲) or (▼) key.**

```
MAINTENANCE
FILL UP INK    <ent>
```

6 **Press the (ENTER) key.**

```
FILL UP INK
SUBTANK FILLUP <ent>
```

7 **Press the (ENTER) key.**

```
SUBTANK FILLUP
 MMMMCCCCYYYYKKKK
```

8 **Select the ink filling for each head.**

(1) Move the cursor with (◀) or (▶) keys.
(2) Select ink filling with (▲) or (▼) keys.

• Select ink filling for all the heads.
Fill : The ink cartridge that is set will be indicated.
Not fill : Displays "*".

```
SUBTANK FILLUP
 MMMMCCCCYYYKKKKK
```

```
SUBTANK FILLUP
 MMMMCCCCYYY*KKKK
```

9 **Press the (ENTER) key.**

```
SUBTANK FILLUP
FILLUP START    :ent
```

10 Press the (ENTER) key.

• Filling of the ink will start.

```
        FILL  UP
* - - - - - - - - - - - - - - - - - -
```

• When the ink filling is completed, the screen as shown in the right will be displayed. If you press the (END) key several times, the system will return to the local mode.

```
MAINTENANCE
FILL  UP  INK      <ent>
```

• When replacing the ink, please refer to ☞ P.4-3.

4

Maintenance

Replacing water in water heater tank

In order to keep the ink at an appropriate temperature, operate the water heating system. Supply antifreeze liquid and water to the hot water tank in the system. Make sure without fail to check once every month.
Replace it once a year.
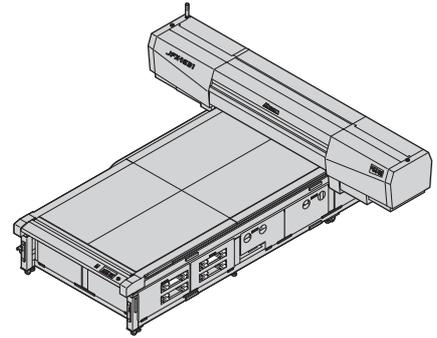
Precautions for replacing

⚠ **Caution**

- Water cannot be added.
- Water and antifreeze liquid compound ratio should be 2(water) to 1(Antifreeze liquid).
- If only water is filled into the water heater tank without antifreeze liquid, the heads could be damaged due to freezing etc.
- If only antifreeze liquid is filled into the water heater tank without water, the temperature of the liquid may not be elevated, causing error.
- In order to check the water quantity necessary for water heater device and the stains inside the water heater tank, make sure to perform checking of the water heater device once every month.
- If water in the hot water tank frequently becomes insufficient, contact the dealer or our branch.
- Dispose the waste water mixed with antifreeze liquid pursuant to the regulations of your district.

Precautions in handling the antifreeze liquid

- Be sure to wear goggle and gloves for handling the antifreeze liquid.

- Use the recommended antifreeze liquid by Mimaki. (Antifreeze liquid for replacement: SPC-0394 [1000cc X 2 pieces])
- Do not touch the antifreeze liquid directly. If the antifreeze liquid settles on the skin or clothes, immediately wash it off with soap and water. If you get antifreeze liquid in your eyes, immediately wash your eyes with a lot of clean water. Then, consult a doctor as soon as possible.
- Store antifreeze liquid in a dark and cold place.
- Store antifreeze liquid in a place that is out of the reach of children.
- When discarding antifreeze liquid which is no longer needed, entrust them to an industrial waste disposal contractor, clarifying their contents.
- Before using antifreeze liquid, be sure to read the Material Safety Data Sheet (MSDS).

- When purchasing a hot water tank for spare, contact the dealer or our branch.
- Prepare a polyethylene tank for moving waste the water from hot water tank.
- When water in the hot water tank is insufficient, the error message shown below is displayed. In this case, replace water with the same manner as shown below.

```
ERROR 705
WATER LACK
```

4-28

Replacement method of antifreeze liquid water

There are following two methods for changing the antifreeze liquid mixed water:

Make replacement using hot water exchange mode on the maintenance menu. (☞ Refer to the bottom of this page).	The antifreeze liquid mixed water inside the piping can also be discharged completely. Further, this work is performed safely, as it may be done after the water heater device has been cooled down completely. However, 20 to 30 minutes will be required for the cooling of the water heater device.
Make replacement turning the power OFF, and after removing the blue colored socket. (☞ P.4-32)	As there is no need for the time for cooling down of the hot water, the replacement works can be performed within a short time, but the antifreeze liquid mixed water inside the piping cannot be replaced. Further, when the power has been put on this device for a while, the temperature of the water heater tank does not go down soon even if the power is turned OFF. When the water heater tank is at an elevated temperature, there exists possibility of burn injury.

⚠️ **Caution**
• Do not remove the unspecified parts.

Replacing using water heater exchange mode

1 **Select the "WATER CHNG" in the maintenance menu.**

(1)Press the [FUNCTION] key in the local mode.
(2)Select the [MAINTENANCE] by pressing the [▲] or [▼] key, and press the [ENTER] key.
(3)Select the [WATER CHNG] by pressing the [▲] or [▼] key.
(4)Press the [ENTER] key.

2 **Press the [ENTER] key.**

• Cooling of antifreeze liquid remaining in the system starts.
• 20 to 30 minutes will be required for the cooling of the water heater device.

```
WATER CHNG
COOLING
```

3 **Press the [ENTER] key when the [WASTE AF] is displayed.**

```
WATER CHNG
WASTE AF        :ent
```

4 **Remove the cover on the left back side of the main unit.**

5 Release the catch clip.
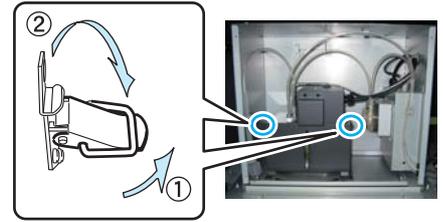
6 Lift the water heating system and engage the hanger with the hook.

Hook

Hanger
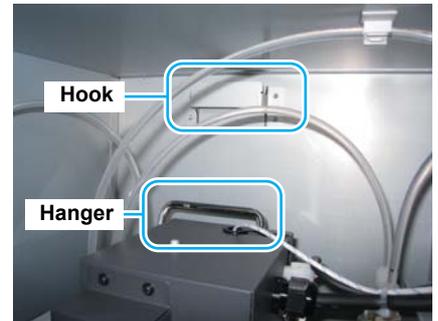
7 Remove the hot water tank.

- Move the remaining antifreeze liquid into a polyethylene tank.
- Take care not to spill the antifreeze fluid. If spilled, be sure to wipe it off immediately.

8 Set the empty hot water tank into the water heating system and return the water heating system and the catch clip to the state of starting the operation.

9 Press the (ENTER) key.

- Discharging of antifreeze liquid remaining in the system starts.
- When discharging is completed, a message shown in the right is displayed.

```
WATER  CHNG
SET  TANK          : e n t
```

```
WATER  CHNG
WASTE  AF          : e n t
```

10 Take out the hot water tank again.

- Take out with referring to the step 5~6.

11 Move antifreeze liquid in the tank into the polyethylene tank used in step 3, and wash the hot water tank.

- If neutral detergent is used for washing the tank, sufficiently rinse the tank with water.

12 **Supply new water and antifreeze liquid in the hot water tank.**

1500cc —
Water 1000cc
1000cc —

500cc —
Antifreeze liquid
500cc
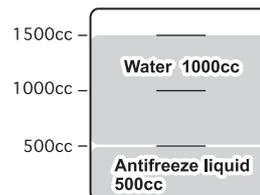
13 **Return the hot water tank to its original position.**

(1) Set the hot water tank to the system.
(2) Place the water heating system cover.
(3) Set the clip.
(4) Attach the cover on the left back side of the main unit.

14 **Press the** ⟨ ENTER ⟩ **key.**

```
WATER CHNG
SET AF          :ent
```

15 **Press the** ⟨ END ⟩ **key several times to finish.**

⚠ Caution

• **Precautions for antifreeze liquid**
Water and antifreeze liquid compound ratio should be 2 (water) to 1 (antifreeze liquid).
If the ratio of antifreeze liquid is high, hot water pump may be damaged or it may cause an error for hot water control.

4

Maintenance

Replacing when the power is turned OFF

1   **Make sure that the power supply is turned OFF and remove the blue colored socket.**

2   **Remove the cover on the left back side of the main unit.**

3   **Remove the catch clips.**
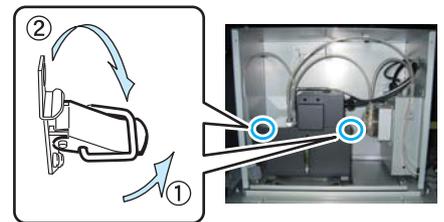
4   **Holing up the water heater device and hang the hanger to the hook.**

Hook

Hanger
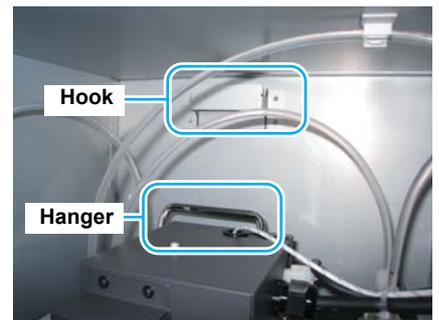
5   **Take out the water heater tank.**
- Transfer the remaining antifreeze liquid to the separate polyethylene tank.
- Pay attention not to spill the antifreeze liquid. When it is spilled, wipe it off quickly.

6   **Set an empty tank to the device, and return the water heater device and the catch clip to the original condition.**

Replacing the UV LED Unit filter

To use for a long time, clean the UV LED Unit filter periodically (once around two weeks).

⚠ **Caution**
- When cleaning, be sure to wear the supplied goggles and gloves since you may get ink in your eyes.
- Contact a shop or a sales office when a screw is dropped in cleaning of the filter.
- Do not remove the unspecified parts.

Articles required for cleaning	• Alcohol	• Gloves	• Paper towel
	• Goggles	• Filter[*1]	

*1. The attached filter is 40 pieces.
Please contact your dealer or our office to purchase the filter (part number: SPC-0575)

---

1 **Turn the power off.**

---

2 **Turn the main power switch located on the left of the main unit off.**

---

3 **Open the right maintenance cover.**
- Remove the screws (2 pcs) and open the right maintenance cover.

---

4 **Remove the filter holder.**

- Remove the finger screw to remove the filter holder.

Filter holder   Filter holder

- On the picture above, covers are removed for illustrative purposes.

5 Replace the film

Filter   Filter holder

6 Attach the filter holder.

7 Close the right maintenance cover.

Irradiation Time of UV LED Unit

The UV LED is a consumable parts.
This units counts the duration of irradiation with the UV LED to notify the replacing timing.

Displaying the irradiation time of the UV LED unit   4-35

1 **Press the `ENTER` key several times in the local mode.**

• The irradiation time of the left side UV LED is shown on the left and that of the right side is shown on the right.
• Press the `ENTER` key to return to the local mode.

```
<LOCAL>
USED TIME    600, 600
```

Resetting the irradiation time of the UV LED unit

After replacing the UV LED Unit, reset the irradiation duration stored in this unit.

1 **Select the "UV LED MODE" of the maintenance menu.**

(1) Press the `FUNCTION` key in the local mode.
(2) Select the [MAINTENANCE] by pressing the ▲ or ▼ key, and press the `ENTER` key.
(3) Select the [UV LED] by pressing the ▲ or ▼ key.
(4) Press the `ENTER` key.

2 **Select [LAMP TIMER] by pressing the ▲ or ▼ key.**

```
UV LED
LAMP TIMER    <ent>
```

3 **Press the `ENTER` key.**

```
UV LED
CHANNEL        :CH1
```

4 **Select a UV LED to be reset by pressing the ▲ or ▼ key.**

• CH1, CH2, CH3, CH4, ALL(Reset irradiation duration of both UV leds)

```
UV LED
CHANNEL        :ALL
```

5 **Press the `ENTER` key twice.**

• Reset irradiation duration.
• A message shown in the right is displayed when resetting is completed.

```
UV LED
LAMP TIMER    <ent>
```

6 **Press the `END` key several times to end the setting.**

Checking UV ink curing level

As the UV LED is deteriorated, the ink curing level may be lowered.
Check the UV ink curing level and adjust the UV LED light intensity, if necessary.

1 **Set media for drawing patterning on the table.**
   • Turn the vacuum switch ON. After that, set the drawing origin.

2 **Make sure that the local mode is displayed.**

3 **Press the** (TEST) **key.**

```
TEST DRAW
NOZZLE CHK      <ENT>
```

4 **Select [HARDEN CHK] by pressing the** (▲) **or** (▼) **keys.**

```
TEST DRAW
HARDEN CHK      <ENT>
```

5 **Press the** (ENTER) **key.**

```
HARDEN CHECK
DPI: 300X300
```

6 **Select resolution by pressing the** (▲) **or** (▼) **keys.**
   • Setting value: 600x300 dpi,600x600 dpi,600x1200 dpi,
                     1200x300 dpi,1200x600 dpi,1200x1200 dpi

```
HARDEN CHECK
DPI:1200X1200
```

7 **Press the** (ENTER) **key.**

```
HARDEN CHECK
QALITY:STANDRD
```

8 **Select drawing quality by pressing the** (▲) **or** (▼) **keys.**
   • Setting value : STANDRD, FINE, FAST

```
HARDEN CHECK
QALITY:FINE
```

9 **Press the** (ENTER) **key.**

```
HARDEN CHECK
SCAN DIR: BI-D
```

10 **Select the scanning direction pressing** (▲) **or** (▼) **keys.**
   • Setting value : BI-D , UNI-D

```
HARDEN CHECK
SCAN DIR: UNI-D
```

11 Press the (ENTER) key.

• Test drawing starts.

```
* *  T E S T  D R A W  * *
```

12 Check the drawing pattern after completion of the drawing.

• If the UV light intensity goes lower, good drawing pattern cannot be obtained. In this case execute the operation of "Adjusting UV light level".

(Important!) • When the head or the water heating device has not reached the predetermined temperature on step 9, a message is displayed. Drawing is not allowed in such cases. When the display is disappeared, drawing can be started.

Adjusting UV light level

1 Select the "UV LEVEL MODE" of the set up menu.

(1) Press the (FUNCTION) key in the local mode.
(2) Select the [SET UP] by pressing the (▲) or (▼) key, and press the (ENTER) key.
(3) Select the [UV LEVEL] by pressing the (▲) or (▼) key
(4) Press the (ENTER) key.

2 Select a light level by pressing the (▲) or (▼) keys.

• Setting value : Strong, Weak, Standard, No, No Draw
(Light intensity becomes stronger)

```
S E T  U P
U V  L E V E L    : H I G H
```

3 Press the (ENTER) key.

```
S E T  U P
U V  L E V E L      < e n t >
```
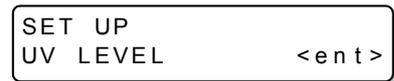
4 Press the (END) key several times to end the setting.

5 Check UV curing again

• Set media and create the drawing pattern of the UV light intensity. (☞ P.4-36)

(Important!) **If the UV ink curing level is not changed by adjusting the UV light intensity, the UV LED is deteriorated.**

• Check the UV LED irradiation duration (☞ P.4-35)

4

Maintenance

Setting vacuuming / blowing level of the vacuum unit

Set the vacuuming / blowing level of the option vacuum unit.

1 **Select the "INVERTER MODE" of the maintenance menu.**

(1) Press the (FUNCTION) key in the local mode.
(2) Select the [MAINTENANCE] by pressing (▲) or (▼) key, and press the (ENTER) key.
(3) Select the [INVERTER] by pressing (▲) or (▼) key.
(4) Press the (ENTER) key.

2 **Press the (▲)(▼) to set the vacuuming volume.**

• **Setting value** : 0 ~ 10

```
VACUUM
VOLUME  :     10
```

3 **Press the (ENTER) key.**

4 **Press the (▲)(▼) to set the blowing volume.**

• **Setting value** : 0 ~ 10

```
BLOW
VOLUME  :     10
```

5 **Press the (ENTER) key.**

6 **Press the (END) key several times to end the setting.**

Drawing the Drop Pattern

Draw a test pattern to determine the optimal drop number for the media in use.

1 **Select the "Drop Pattern MODE" of the maintenance menu.**

(1) Press the (FUNCTION) key in the local mode.
(2) Select the [MAINTENANCE] by pressing ▲ or ▼ key, and press the (ENTER) key.
(3) Select the [Drop Pattern] by pressing ▲ or ▼ key.

2 **Press the (ENTER) key.**

```
Drop Pattern
  COLOR [KCMY]
```

3 **Press the (ENTER) key.**

```
Drop Pattern
  PRINT START    :ent
```

4 **Press the (ENTER) key.**

• The drop pattern drawing starts.
• Check the pattern and determine the optimal drop number for the media you're using.
• When setting the drop number for drawing with the RIP software RasterLink, use the drop number checked here as a measure.

Examples of drop pattern drawings

← 12 Drop

← 11 Drop

← 2 Drop

← 1 Drop
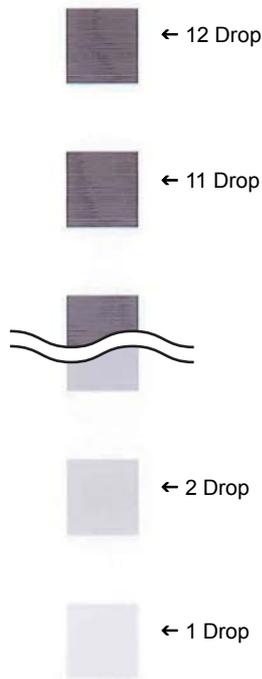
CHAPTER 5
In Case of Trouble

This chapter describes the actions to be taken when the plotter develops any trouble or displays an error message.

Before taking a phenomenon as a trouble

If something is wrong with the device, the buzzer sounds and a corresponding error message is given on the LCD. Take an appropriate corrective measure in accordance with the message.

The device cannot be energized

More often than not, this is due to improper connection of the power cable. Check that the power cable has been properly connected to the power outlet and the computer.

| Has the power cable been connected to the device and the receptacle? | **No** → | Securely connect the power cable to them. |
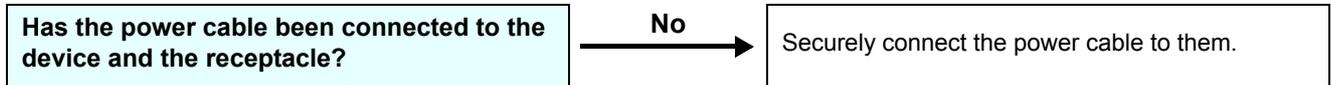
The device cannot perform printing

This occurs when the data is not being transmitted to the device properly. It can also occur when any of the device functions fails or the media has been set improperly.

| Is the correct interface cable used? | **No** → | Use the USB2.0 interface cable. |

| Has the interface cable been securely connected in position? | **No** → | Securely connect the interface cable in position. |

↓ **Yes**

| Is the message telling that ink has run out shown on the display? | **Yes** → | Replace the ink cartridge with a new one. ☞ P.4-3 |
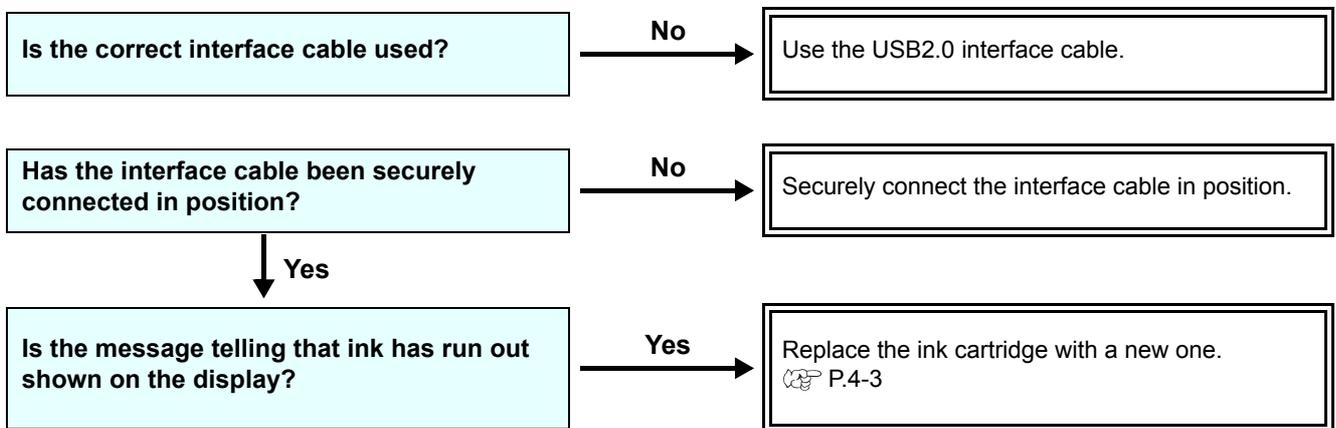
Display [WATER NOT READY]

When [WATER NOT READY] appears on the display, the water temperature in the water heater has not reached the predetermined value.

| Printing is disabled before the temperature reaches the predetermined value. | **No** → | Wait until the temperature reaches the predetermined value. When it has reached, the message on the display disappears and printing is enabled. |

5-2
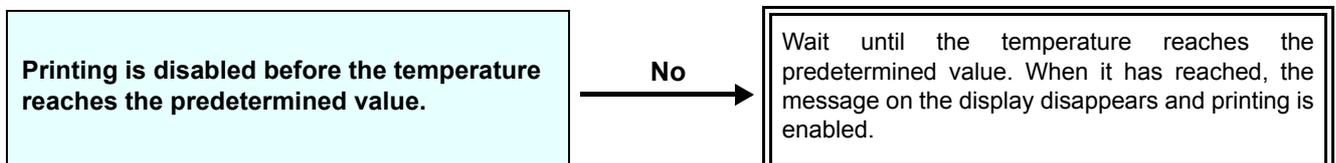
If image quality declines

Corrective measures against troubles in the case where satisfactory image quality is not provided are described in this station.
Take measures in accordance with actual state of the picture.
If the measures fail restore the device to the normal state, contact your local MIMAKI distributor or MIMAKI office call for service.

Development	Corrective measure
Lines/thin spots are obvious occur	**(1)** Execute the head cleaning. (☞ P.2-8) **(2)** Clean the wiper. (☞ P.4-12) **(3)** If slip of paper is present in the head path, for example, above the work plate, remove it.
Large ink drop on media	**(1)** Execute the head cleaning [normal]. (☞ P.2-8) **(2)** Dust the media. **(3)** Dust the table. **(4)** Execute the cleaning for the undersurface of the carriage. (☞ P.4-8) **(5)** Set a correct value to the head gap value. (☞ P.3-6)
Media is raised during printing and printing stops.[*1]	**(1)** Set new media and start printing.
A great deal of nozzle missing occurs.	**(1)** Perform head cleaning. (☞ P.2-8) **(2)** Perform sub tank maintenance. (☞ P.4-15)

*1. During printing, media may be raised due to the heat from the UV LED, causing printing to be stopped.

Resolving nozzle clogging

If nozzle clogging is not resolved even the head cleaning operation of P.2-8 has been executed, check the following 2 items.

Fill ink with the operation of P.4-26.

Replace ink with the operation of P.4-3.

Stopping the unit during the operation

Press the EMERGENCY SWITCH for stopping the unit urgently for the safety reason.
One EMERGENCY switch is placed on the front face of the unit and 2 are placed on each of the buck surface and Y-bar respectively.
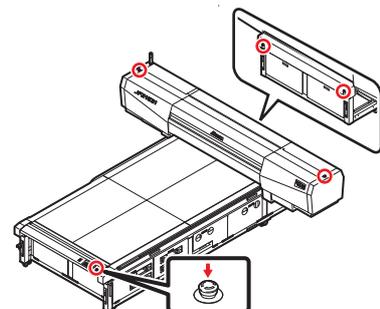
Even when ink remains, [INK NEAR END] is displayed

If [INK NEAR END] is displayed even when ink remains in the ink cartridge, correct the ink remaining amount value by operating the procedures below:

⚠ **Caution**
- If [INK NEAR END] is displayed on the screen, even when ink remains, the relevant ink cartridge cannot be used. The actual remaining amount of ink does not match the remaining amount of ink displayed, such as [INK NEAR END] is displayed even when ink remains, correct the remaining amount of ink by performing the procedures below:

---

1 **Select the "Ink Level Set MODE" of the maintenance menu.**

(1) Press the (FUNCTION) key in the local mode.
(2) Select the [MAINTENANCE] by pressing ▲ or ▼ key, and press the (ENTER) key.
(3) Select the [Ink Level Set] by pressing ▲ or ▼ key.

---

2 **Press the (ENTER) key.**

```
InkLevel Set
Use WeightPlate?:NO
```

---

3 **Select to use the ink pack weight plate by pressing the ▲ or ▼ key.**

• When you put the ink pack weight plate inside the ink cartridge, select "YES".

```
InkLevel Set
Use WeightPlate?:YES
```

---

4 **Press the (ENTER) key.**

```
InkLevel Set
Slot: 1    Color M
```

---

5 **Select the cartridge whose ink remaining amount value you wish to correct by pressing the ▲ or ▼ key.**

```
InkLevel Set
Slot: 3    Color C
```

---

6 **Press the (ENTER) key.**

```
InkLevelSet Slot 3 C
InkPack Chk     :ent
```

---

7 **Pull out the cartridge selected in the Step 3 and measure it by weight.**

---

8 **After shaking the ink cartridge enough, return the cartridge to the original status.**

• Shake the ink cartridge by referring to P.4-6 "How to shake an ink cartridge".

---

9 **Press the (ENTER) key.**

• The cartridge weight currently saved in the ink IC is displayed.

```
InkLevelSet Slot 3 C
WEIGHT =      325 g
```

---

10 **Enter the cartridge weight by pressing the ▲ or ▼ key.**

```
InkLevelSet Slot 3 C
WEIGHT =      410 g
```

11 **Press the** (ENTER) **key.**

• The weight checking screen is displayed. If you entered a wrong weight, press the (END) key and perform the procedures from the Step 8 again.

```
InkLevelSet  Slot 3 C
       410 g OK ?
```

12 **Register the weight by pressing the** (ENTER) **key.**

13 **Press the** (END) **key several times to end the setting.**

(Important!) • You can correct the ink remaining amount value up to 15 times per cartridge. If you try to correct 16 times and more, "Preservation Failure" is displayed and you cannot save it.

5

In Case of Trouble

Troubles for which error messages are given on the LCD

If something is wrong with the device, the buzzer sounds and a corresponding error message is given on the LCD. Take an appropriate corrective measure in accordance with the message.

Errors accompanied by warnings

Warning message	Cause	Corrective measure
`<LOCAL>    NO CARTRDG` `MMMMCCCCYYYYKKKK`	The ink cartridge is not attached to the ink station.	• Attach the ink cartridge(s) corresponding with the color shown on the display. (☞ P.2-4)
`<LOCAL>   INK NEAREND` `MMMMCCCCYYYYKKKK`	The amount of ink remaining in the ink cartridge is insufficient.	• Replace an ink cartridge of the displayed head with new one ahead of time. (☞ P.4-3)
`<LOCAL>      INK END` `MMMMCCCCYYYYKKKK`	The ink cartridge has run out of ink.	• Replace the ink cartridge of which color is shown on the LCD with a new one. (☞ P.4-3)
`<LOCAL>     CARTRIGE` `MMMMCCCCYYYYKKKK`	An error on an inserted ink cartridge	• Remove an ink cartridge of the displayed head and insert it again. If the error is still displayed after this operation, call the dealer or our branch for the service.
`<LOCAL>       Limit` `MMMMCCCCYYYYKKKK`	The specified expiration date of an ink cartridge has passed.	• Replace the cartridge generating the warning with a new one. The cartridge may be used until two months passes after the specified expiration date.
`<LOCAL>    Limit(1M)` `MMMMCCCCYYYYKKKK`	One months and more have passed since ink cartridge expired.	• Replace an ink cartridge of the displayed head with new one ahead of time. (☞ P.4-3)
`<LOCAL>    Expiration` `MMMMCCCCYYYYKKKK`	Two months and more have passed since ink cartridge expired.	• Replace the ink cartridge of which color is shown on the LCD with a new one. (☞ P.4-3)
`<LOCAL>     INK TYPE` `MMMMCCCCYYYYKKKK`	The type of the loaded ink cartridge is different from the previous one.	• Check the type of the loaded ink cartridge.
`<LOCAL>    ColorofINK` `MMMMCCCCYYYYKKKK`	The color of the loaded ink cartridge is different from the previous one.	• Check the color of the loaded ink cartridge.
`<LOCAL>    NON-ORIGNL` `MMMMCCCCYYYYKKKK`	The loaded ink cartridge is not MIMAKI genuine.	• Use the ink specified by MIMAKI.
`<LOCAL>   WRNG INK IC` `MMMMCCCCYYYYKKKK`	The IC chip of the ink cartridge cannot be read normally.	• Remove an ink cartridge of the displayed head and insert it again. If the error is still displayed after this operation, call the dealer or our branch for the service.

Error message

Error messages indicates error numbers.
If any error message is given on the LCD, turn off the power to the device and turn it on after a while.
If the same error message appears again on the LCD, contact your local MIMAKI distributor or MIMAKI office to call for service.

Error message	Cause	Corrective measure
ERROR108　HD CONNECT [12345678　12345678]	Head connection can not be confirmed.	• Turn off the power to the device an turn it on after a while. • If the same error message appears again on the LCD, contact your local distributor to call for service.
ERROR108　HD THERMIS [12345678　12345678]	Head temperature can not be read.	
ERROR122 CHECK:SDRAM	There is no PRAM.	
ERROR128 HDC FIFO OVER	Data transmission speed is too fast.	
	Control circuit board is defective.	
ERROR128 HDC FIFO UNDER	Data transmission speed is too slow.	
	Control circuit board is defective.	
ERROR129 BATTERY EXCHANGE	Battery shutoff is detected.	• Contact your local distributor to call for service.
ERROR12a HDS SPEED	Ink discharge is too late.	• Turn off the power to the device an turn it on after a while. • If the same error message appears again on the LCD, contact your local distributor to call for service.
ERROR12b HEAD ROM WR	Failed to write onto IC.	
ERROR12e P-HEAD INIT	Head setting failure.	
ERROR12e HEAD TIMING		
ERROR130 HEAD ROM WR	Head data transmission error	
ERROR161 HDPL OVERFLOW	The set value to HDC HDPL register has exceeded H'fff and overflowed.	
ERROR201 COMMAND	The device has received data other than command data.	• Securely connect the interface cable in position. • Use an interface cable in conformance with the standard.
ERROR202 PARAMETER	A parameter outside the range of acceptable numeric values is received.	• Check the host computer output setting.

Error message	Cause	Corrective measure
ERROR304 USB INIT ERR	USB device initialization failure.	• Turn off the power to the device an turn it on after a while. • If the same error message appears again on the LCD, contact your local distributor to call for service.
ERROR305 USB TIME OUT	Occurrence of a timeout error on a USB device.	
ERROR401 MOTOR X	The X motor has been overload.	
ERROR402 MOTOR Y	The Y motor has been overload.	
ERROR403 X CURRENT	Overcurrent error on the X motor has been detected.	
ERROR404 Y CURRENT	Overcurrent error on the Y motor has been detected.	
ERROR417 SCAN MAIN PCB HUSE	Blowout of the fuse of the main PCB occurs.	• Contact your local distributor to call for service.
ERROR419 SCAN HEAD TEMP	Abnormal head temperature	• Turn off the power to the device an turn it on after a while. • If the same error message appears again on the LCD, contact your local distributor to call for service.
ERROR41a Z JOG CTRL	An error has been detected during Z axis control.	
ERROR41b Z MTR BUSY	Wait for Z axis stop has failed.	• Turn off the power to the device an turn it on after a while. • If the same error message appears again on the LCD, contact your local distributor to call for service. • Expand the range of the correction parameter threshold.
ERROR41c X MOVE NOT YET	After performing the feed correction, it did not fall within the range of the threshold.	
ERROR422 IN POSITION NG(RL)	Both the left axis and the right axis are not terminated within the range of in position even if a certain period of time has been passed.	• Turn off the power to the device an turn it on after a while. • If the same error message appears again on the LCD, contact your local distributor to call for service.
ERROR423 IN POSITION NG(R)	The right axis is not terminated within the range of in position even if a certain period of time has been passed.	
ERROR424 IN POSITION NG(L)	The left axis is not terminated within the range of in position even if a certain period of time has been passed.	
ERROR50A Y ORIGIN	Y origin could not be detected.	• Turn off the power to the device an turn it on after a while. • If the same error message appears again on the LCD, contact your local distributor to call for service.
ERROR50e HEAD TEMP [12345678 12345678]	Head temperature is abnormal condition.	
ERROR50f HEAD TEMP L-SCALE BLACK	Abnormal linear scale	

Error message	Cause	Corrective measure
ERROR510 X ORIGIN	X origin could not be detected.	• Turn off the power to the device an turn it on after a while. • If the same error message appears again on the LCD, contact your local distributor to call for service.
ERROR511 Z ORIGIN	Z origin could not be detected.	
ERROR514 MEDIA JAM	The media jam occurs.	• Raise the head using the jog keys.
ERROR515 DETECTION ERROR	The media is too thick.	• Set a thinner media.
	The gap pin unit has been broken down.	• Contact your local distributor to call for service.
ERROR601 INK NEAREND MMMMCCCCYYYYKKKK	The amount of ink remaining in the ink cartridge is insufficient.	• Replace an ink cartridge of the displayed head ahead of time. (☞ P.4-3)
ERROR602 INK END MMMMCCCCYYYYKKKK	The ink cartridge has run out of ink.	• Replace the ink cartridge of which color is shown on the LCD with a new one. (☞ P.4-3)
ERROR603 NO CARTRIDG MMMMCCCCYYYYKKKK	The ink cartridge is not attached to the ink station.	• Attach the ink cartridge(s) corresponding with the color shown on the display. (☞ P.4-26)
ERROR604 !WS INKTANK FULL	Waste ink tank is full.	• Remove the waste ink tank and set an empty waste ink tank. (☞ P.4-19)
ERROR605 !REPLACE WIPER	Wiping times exceeds the predetermined value.	• Contact your local distributor to call for service.
ERROR606 WRNG INK IC	The IC chip of the ink cartridge cannot be read normally.	• Remove an ink cartridge of the displayed head and insert it again. If the error is still displayed after this operation, call the dealer or our branch for the service.
ERROR609 Expiration MMMMCCCCYYYYKKKK	Two months and more have passed since ink cartridge expired.	• Replace the displayed ink cartridge with a new one.
ERROR60a NON-ORIGNL MMMMCCCCYYYYKKKK	The ink cartridge is not a Mimaki's genuine goods.	• Replace the cartridge with a Mimaki's genuine goods.
ERROR60b WIPER TANK FULL	Wiper tank is full.	• Discard waste ink pooled in the tank with reference to P.4-17 .
ERROR613 NEGA.PRESS CTRL	Starting of the negative pressure control has an abnormality.	• Turn off the power to the device an turn it on after a while. • If the same error message appears again on the LCD, contact your local distributor to call for service.
ERROR614 POSI.PRESS CTRL	Starting of the positive pressure control has an abnormality.	
ERROR615 NEGA.PRS.KEEP LOW	The negative pressure cannot be kept properly.	
ERROR616 NEGA.PRS.KEEP OVER		

Error message	Cause	Corrective measure
ERROR617 POSI.PRS.KEEP LOW	The positive pressure cannot be kept properly.	• Turn off the power to the device an turn it on after a while. • If the same error message appears again on the LCD, contact your local distributor to call for service.
ERROR618 POSI.PRS.KEEP OVER		
ERROR619 NEGA.PRS.SENSOR NG	The value of the negative pressure sensor is abnormal.	
ERROR619 POSI.PRS.SENSOR NG	The value of the positive pressure sensor is abnormal.	
ERROR61a FLT CONNECT MMMMCCCCYYYYKKKK	The fluid level monitoring board is not connected.	
ERROR61b INK ROUTE MMMMCCCCYYYYKKKK	Ink remains too low to route the ink for ink filling or the head cleaning.	• Replace with the cartridge that has not yet become "ink near end" and then perform Subtank maintenance. (☞ P.4-15)
ERROR61c INK SUPPLY MMMMCCCCYYYYKKKK	Runs out of ink during drawing.	• Replace with the cartridge that has not yet become "ink near end".
ERROR61c FLT MOTION MMMMCCCCYYYYKKKK	The float has been attached to the upper surface of the Subtank during discharging.	• Perform Subtank maintenance (☞ P.4-15) or discharge again.
ERROR61c TNK REMAIN MMMMCCCCYYYYKKKK	An error of the ink remaining control in the tank has occurred during drawing.	• Perform Subtank maintenance. (☞ P.4-15)
ERROR61e TANK Hi-Lo MMMMCCCCYYYYKKKK	Ink in the subtank is not even.	• Wait until the ink becomes even.
ERROR61f Catridge Valve Close	Tried to turn the supply pump while the cartridge valve is closed.	• Insert the usable cartridge.
ERROR705 WATER LACK	Water volume is shortage.	• Make sure to check the water volume. (☞ P.4-29)
ERROR705 WATER TANK TEMP LOW	Abnormal water tank temperature.	• Turn off the power to the device an turn it on after a while. • If the same error message appears again on the LCD, contact your local distributor to call for service.
ERROR705 WATER TANK ROUTE	Water pump timeout.	
ERROR705 WATER HEAD TEMP	Head temperature is abnormal condition.	
ERROR706 UV NOT READY	The irradiation has been tried while UV LED was in preparation.	
ERROR901 OPERATION	An error occurs on the interface between the I/F board and the control board.	• Perform a proper operation.
ERROR901 NO HEAD SELECT	Head is not selected.	• Select a head to be cleaned or filled.

Error message	Cause	Corrective measure
ERROR901 Ink Type :MCYKKYCM	The type of the loaded ink cartridge is different from the previous one.	• Check the type of the loaded ink cartridge.
ERROR901 REMAIN INK :MCYKKYCM	Remaining ink in the ink cartridge is short.	• Replace the ink cartridge with new one. (☞ P.4-3)
ERROR902 DATA REMAIN	Settings for functions have been tried to be changed though there remains received data that has not yet been printed.	• Print all pieces of received data or execute the data clear function. Then, change the settings. (☞ P.2-11 , P.3-7)
ERROR906 NOT FILLUP	Ink is not filled up.	• Execute ink filling. (☞ P.2-4)
ERROR90b OTHER INKSET SELECT	Ink set has not been changed.	• Select the ink set other than the current one.
ERROR90c InkColor :MCYKKYCM	The cartridge that matches the ink set is not inserted into the proper position.	• Insert it into the proper position.

SYSTEM HALT

Error message	Corrective measure
SYSTEM HALT 000: MESSAGE	Turn off the main power to the machine and turn it on after a while. If the same error message appears again, check the number and contact your local distributor to call for service. ("000" is the error No.)

- • If SYSTEM HALT507 is displayed, check the gap pin on the left side of the carriage. If there is ink there, the device may recover if the ink stain is removed.

CHAPTER 6
Appendix

Tables of specifications and functions of this unit are described.

Specifications

Basic unit specifications

Item		JFX-1631/JFX-1631plus	JFX-1615/JFX-1615plus
Drawing head	Method	On demand piezo-head	
	Specification	8-heads	
Resolution		300 x 300 dpi, 600 x 600 dpi, 1200 x 1200 dpi	
Drawing mode	600 x 600 dpi	4 pass (standard)/8pass single/bi (H.S.)	
	1200 x 1200 dpi	4 pass single/bi-direction (standard)/ 8 pass/16 pass single/bi (H.S.)	
Usable ink		Genuine UV curing ink Total 4 color: Bk, C, M, Y	
Ink supply		Supplies ink through a tube from ink cartridge Remaining ink display function Ink end detection function	
Ink capacity		600cc (When four colors are set: four for each color, when six colors are set: two for each color)	
Usable media	Size	1694 x 3194 mm	1694 x 1592 mm
	Thickness	Less than 50mm	
Max. drawing range		W 1602 x L 3100 mm	W 1602 x L 1500 mm
Distance accuracy	Absolute accuracy	± 0.1 mm	
	Reproducibility	± 0.2 mm	
Perpendicularity		± 0.5 mm/500mm	
Head gap adjustment		Automatic head adjustment enabled.	
Media absorption		Adsorptive immobilization by the vacuum unit [*1]	
UV unit		UV LED device x 4 (equipped with the carriage) UV power supply built in the main unit	
Waste ink tray		Tray type (800cc/, with tank full sensor)	
Interface		USB2.0 compliance	
Command		MRL-II B <ESC/P Level 2 base, MIMAKI original command>	
Noise	Stand-by	Less than 55dB (FAST-A, 1m in all direction)	
	Operation continuous noise	Less than 65 dB	
	Operation discontinuity noise	Less than 75dB	
Safety standard		UL, FCC-Class A, CE Marking, CB Report	
Ink safety		MSDS	
Power specification		Single phase AC 200 to 240V 8A	
Power consumption		Less than 2.0kVA	
Environment	Available temperature	15 to 30 °C	
	Humidity	35 to 65%Rh (No condensation)	
	Guaranteed temperature	18 to 25 °C	
	Temperature change	± 10 °C or less	
	Dust	Equivalent to normal office level	
Weight		Approx. 1600 kg	Approx. 1300 kg
Outside dimensions		4300 (W) x 4200 (D) x 1600 (H) mm	4300 (W) x 2700 (D) x 1600 (H) mm

*1. The vacuum unit is an option.

Specifications for ink

As for the detail, ask the dealer or our branch.

Item		Parts No./ Specification
Ink type		LH-100 ink, LF-200 onk, LF-140 ink, Primer
Ink color		Black, magenta, cyan, yellow, White, Clear (Clear ink is LH-100 ink only.)?Light magenta (LF-140 ink only), Light cyan (LF-140 ink only), Primer (Primer only)
Capacity of ink cartridge		600 cc
Shelf life		One year from the date of manufacture
Storage temperature	**During storage**	15 °C to 35 °C
	During shipping	0 °C to 60 °C within 2 weeks permitted.

- The ink freezes up if it is left in an environment of under -4 ℃ for a long time. If the ink has frozen up, use it after unfreezing it with leaving in the room temperature (25 °C) for more than 3 hours.
- Do not disassemble an ink cartridge or refill ink in it. That can cause a trouble.

Appendix

6

Function Flowchart

TEST TEST key

`<LOCAL>` `          2.5mm`	**TEST**

TEST → `TEST DRAW`
`NOZZLE CHK      <ENT>`

▲ ▼

`TEST DRAW`
`HARDEN CHK      <ENT>`

ENTER → `** TEST DRAW **`

CLEANING CLEANING key

`<LOCAL>`
`          2.5mm`

CLEANING → `CLEANING`
`TYPE      :normal`

        hard
        wiping
        power on

ENTER → `CLEANING`
`[MMMMCCCC YYYYKKKK]`

▲ ▼ : ON/OFF
◄ ► : COLOR SELECT

ENTER

`CLEANING`
`*------------------`   Returns to LOCAL when power on is selected.

DATA CLEAR DATA CLEAR key

`<LOCAL>`
`          2.5mm`

TEST → `DATA CLEAR`
`              <ENT>`

ENTER → `** DATA CLEAR **`

Displaying the guidance information

`<LOCAL>`
`          2.5mm`

ENTER → `<LOCAL>    REMAIN INK`
` 9999999-  9999999-`

ENTER → `JFX-1631       V1.00`
`MRL-IIB        V1.20`

ENTER

`JFX-1631       V1.00`
`SUB FWB        V0.50`

ENTER → `<LOCAL>`
`USED TIME   600, 600`

ENTER

`<LOCAL>`
`NEGA.PRESS 2.30 kpa`

ENTER → `<LOCAL>   Sub.Tank`
`   MMMMLLLL LLLLMMMM`

ENTER

`<LOCAL>`
`          2.5mm`

```
<LOCAL>              FUNCTION   FUNCTION              ENTER   VIEW                 ENTER
           2.5mm                VIEW         <ENT>            START        <ent>

                                                                    ▲  ▼

                                                              VIEW                 ENTER
                                      ▲  ▼                    SET VIEW POS  <ent>


                                FUNCTION              ENTER   HEAD HEIGHT          ENTER
                                HEAD HEIGHT  <ENT>            MEDIA THICKNESS<ent>

                                                                    ▲  ▼

                                                              HEAD HEIGHT          ENTER
                                                              THICKNESS CHECK<ent>


                                      ▲  ▼                          ▲  ▼



                                                              HEAD HEIGHT          ENTER
                                                              HEAD GAP      <ent>


                                FUNCTION              ENTER   ORIGIN               ENTER
                                ORIGIN       <ENT>            SELECT:X OFFSET
                                                                    X OFFSET , Y OFFSET

                                FUNCTION              ENTER   SET UP               ENTER
                                SET UP       <ENT>            FEED COMP.    <ent>

                                                                    ▲  ▼

                                                              SET UP               ENTER
                                                              PRINT MODE    <ent>




                                                                    ▲  ▼




              To be followed                   To be followed
```

6-6

```
MOVING NOW
PLEASE WAIT
```

```
VIEW
POSITION    :**** MM
```

```
MEDIA THICKNESS
         2.5 mm
```
0 to 50.0
ENTER
```
MEDIA THICKNESS
PLEASE WAIT
```

```
THICKNESS CHECK
MOVING NOW
```
ENTER
```
THICKNESS CHECK
CHECK START     :ent
```
ENTER
```
THICKNESS CHECK
** CHECKING **
```

ENTER

```
THICKNESS CHECK
         3.0mm :ent
```
ENTER
```
THICKNESS CHECK
MOVING NOW
```

```
HEAD GAP
          2.5 mm
```
1.0 to 5.0
ENTER
```
HEAD GAP
PLEASE WAIT
```

```
ORIGIN  **** MM
* OFFS: **** MM
```

```
SET UP
PRINT START    :ent
```
ENTER
```
SET UP
        PRINTING
```
ENTER
```
SET UP
ADJAST       =       0
```
-9999 to 9999

```
SET UP
QUALITY        <ent>
```
ENTER
```
SET UP
QUALITY     :STANDRD
```
STANDARD , FINE , FAST

```
SET UP
SCAN DIR       <ent>
```
ENTER
```
SET UP
SCAN DIR     :BI-D
```
BI-D , UNI-D , UNI-D CH2

```
SET UP
LOGICAL seek    <ent>
```
ENTER
```
SET UP
LOGICAL seek:PICTURE
```
PICTURE , MEDIA ,OFF
ENTER
When MEDIA is sellected
```
MEDIA EDGE
LEFT           1602 mm
```
0 to 1602mm

```
MEDIA EDGE
RIGHT           0 mm
```
0 to LEFT

Followed

Followed

```
SET  UP
 INK  LAYERS       <ent>
```
ENTER

↓ ▲▼

```
SET  UP
 UV  LEVEL         <ent>
```
ENTER

▲▼

```
SET  UP
 POST  CURE        <ent>
```
ENTER

▲▼

```
SET  UP
 PRIORITY          <ent>
```
ENTER

▲▼

```
SET  UP
 REFRESH           <ent>
```
ENTER

▲▼

```
SET  UP
 MM/INCH           <ent>
```
ENTER

▲▼

```
SET  UP
 UV  SCAN  ADD     <ent>
```
ENTER

▲▼

```
SET  UP
 WORK  CHANGE      <ent>
```
ENTER

▲▼

```
SET  UP
 SETUP  RESET      <ent>
```
ENTER

▲▼

▲▼

To be followed

To be followed

6-8

```
SET UP
INK LAYERS        :  1
```
1 to 9

```
SET UP
UV LEVEL        :HIGH
```
HIGH , STANDRD , LOW,
NONE , NOPRINT

When [DRAWING RANGE] is "Cure Print"

```
SET UP
POST CURE    :PRINT
```
PRINT, REMOTE, NONE

ENTER

```
Print End
interval feed:normal
```
normal, 0 to 60 sec

When [DRAWING RANGE] is "after print"

```
POST CURE
after print      :ON
```
ON, OFF

ENTER

```
POST CURE
COUNT             :1
```
1 to 50

ENTER

```
POST CURE
Media LEN     :3100mm
```
1 to 3100 mm

```
SET UP
PRINT MODE      :HOST
```
HOST, PLOT

ENTER

```
SET UP
INK LAYERS      :HOST
```
HOST, PLOT

```
SET UP
WAITING         <ent>
```

ENTER

```
SET UP
WAITING      :LEVEL1
```
LEVEL 0 to LEVEL 3

▲ ▼

```
SET UP
DRAWING         <ent>
```

ENTER

```
SET UP
DRAWING      :LEVEL1
```
LEVEL 0 to LEVEL 3

```
SET UP
MM/INCH         :MM
```
MM, INCH

```
SET UP
UV SCAN ADD     :   0
```
0 to 9

When [WORK CHANGE] is "ON"

```
SET UP
WORK CHANGE     :ON
```
ON, OFF

ENTER

```
SET UP
VACCUM            :ON
```
ON, OFF

```
SET UP
INITIALIZE OK?   :ent
```

Followed

```
FUNCTION
MAINTENANCE    <ENT>
```
ENTER

Followed

```
MAINTENANCE
STATION        <ent>
```
ENTER

▲ ▼

```
MAINTENANCE
PERIODIC MAINTE<ent>
```
ENTER

▲ ▼

▲ ▼

```
MAINTENANCE
PRN.adjust     <ent>
```
ENTER

▲ ▼

```
MAINTENANCE
FILL UP INK    <ent>
```
ENTER

▲ ▼

```
MAINTENANCE
INKSET         <ent>
```
ENTER

▲ ▼

To be followed   **To be followed**

```
STATION              ENTER   STATION
MENT:CARRIAGEout             COMPLETED        :ent
```

▲▼

```
STATION              ENTER   STATION
MENT:WIPER EXCHG             COMPLETED        :ent
```

▲▼

```
STATION              ENTER   STATION
MENT:WIPER TANK              COMPLETED        :ent
```

```
PERIODIC MAINTE      ENTER   INT.WIPING        ENTER   INT.WIPING
WIPING        <ent>          PRINT COUNT = 10          [MMMMCCCC YYYYKKKK]
                                       OFF, 1 to 100
```

▲▼

```
PERIODIC MAINTE      ENTER   INT.CLEANING      ENTER   INT.CLEANING
CLEANING      <ent>          TYPE      :normal          PRINT COUNT = 10
          ENTER                        normal, hard                OFF, 1 to 100
```

```
INT.CLEANING
[MMMMCCCC YYYYKKKK]
```

```
PRN.adjust           ENTER   PRN.adjust        ENTER   PRN.adjust
DPI: 300                     MODE:normal               DOT SIZE Large  : 1
                                ENTER                              1 to 12
```

```
PRN.adjust           ENTER   TEMP. CONTROL     ENTER           PRINTING
PRINT START    :ent          PLEASE WAIT               PLEASE WAIT
                                ENTER
```

```
PRN.adjust
 300dpi/nrml/4  :   0
             0 to 400
```

```
FILL UP INK          ENTER   SUBTANK FILLUP    ENTER   SUBTANK FILLUP
SUBTANK FILLUP <ent>          MMMMCCCC YYYYKKKK         FILLUP START    :ent
                                ENTER
```

```
     FILL UP
*------------------
```

```
INKSET               ENTER   INKSET     [LF-200]  ENTER   INKSET
UV INK TYPE  :LF-140          MMMMCCCC YYYYKKKK          SET UP OK?       :ent
```

Followed

Followed

```
MAINTENANCE
 INK  CHANGE     .<ent>
```
ENTER

▲ ▼

```
MAINTENANCE
 SUBTANK MAINTE.<ent>
```
ENTER

▲ ▼

```
MAINTENANCE
 WHITE  MANT     <ent>
```
ENTER

▲ ▼

```
MAINTENANCE
 SP.REFRESH      <ent>
```
ENTER

▲ ▼

```
MAINTENANCE
 InkLevelSet     <ent>
```
ENTER

▲ ▼

```
MAINTENANCE
 UV  LED         <ent>
```
ENTER

▲ ▼

To be followed

To be followed

```
INK CHANGE              ENTER   REMOVE CARTRIDGE        ENTER            WASHING
[MMMMCCCC YYYYKKKK]     ( )     [MMMMCCCC YYYYKKKK]     ( )     PLEASE WAIT
```
ENTER ( )
```
SET CLEAN TOLL          ENTER           WASHING         ENTER   SET CLEAN TOOL
[*M*M*C*C *Y*Y*K*K]     ( )     PLEASE WAIT             ( )     [M*M*C*C* Y*Y*K*K*]
```
ENTER ( )
```
        WASHING         ENTER   REMOVE TOOL             ENTER           WASHING
PLEASE WAIT             ( )     [M*M*C*C* Y*Y*K*K*]     ( )     PLEASE WAIT
```
ENTER ( )
```
INK CHANGE              ENTER   SET CARTRIDGE           ENTER          FILL UP
WASH <      > FILLUP    ( )     [M*M*C*C* Y*Y*K*K*]     ( )     PLEASE WAIT
```

```
SUBTANK MAINTENANCE     ENTER   SUBTANK MAINTENANCE     ENTER   executing
[MMMMCCCC YYYYKKKK]     ( )     EXECUTE          :ent   ( )     PLEASE WAIT
```
ENTER ( )
```
       FILL UP
*------------------
```

```
WHITE MANT                      WHITE MANT                              EMISSION
[-------- WWWW----]             REMOVE CARTRIDGE                PLEASE WAIT
```

```
WHITE MANT                             FILL UP
SET CARTRIDGE                   *------------------
```

```
SPECIAL REFRESH
[MMMMCCCC YYYYKKKK]
```

```
InkLevelSet             ENTER   InkLevelSet             ENTER   InkLevelSet Slot 3 C
Use WeightPlate?:YES    ( )     Slot: 1   Color M       ( )     InkPack Chk     :ent
```
ENTER ( )
```
InkLevelSet Slot 3 C    ENTER   InkLevelSet Slot 3 C
WEIGHT =     325 g      ( )         410 g OK ?
```

```
UV LED                  ENTER   LED TIMER               ENTER   LED TIMER
LED TIMER       <ent>   ( )     CHANNEL         :CH1    ( )     INITIALIZE OK?   :ent
                                  CH1,CH2,CH3,CH4,ALL
```

Followed

Followed

```
MAINTENANCE
DRAWING RANGE   <ent>
```
ENTER

↑↓

```
MAINTENANCE
REPLACE P.CURE  <ent>
```
ENTER

↑↓

```
MAINTENANCE
WATER CHNG      <ent>
```
ENTER

↑↓

```
MAINTENANCE
LIST            <ent>
```
ENTER

↑↓

```
MAINTENANCE
INFOMATION      <ent>
```
ENTER

↑↓

```
MAINTENANCE
INVERTER        <ent>
```
ENTER

↑↓

```
MAINTENANCE
Drop Pattern    <ent>
```
ENTER

To be followed

```
POST CURE    :Cure              CHANGE  DRAWING  RANGE           SEARCHING ORIGIN
Print              <ent>        Start               :ent        PLEASE WAIT
```
`ENTER`   `ENTER`

```
REPLASE  POST  CURE             MOVING  NOW                      REPLASE  POST  CURE
START              <ent>        PLEASE  WAIT                     P.CURE  POWER  OFF:ent
```
`ENTER`   `ENTER`

`ENTER`

```
REPLASE  POST  CURE             REPLASE  POST  CURE              REPLASE  POST  CURE
PUSH  Y-BAR  FRONT:ent          END                :ent         P.CURE  POWER  ON  :ent
```
`ENTER`

`ENTER`

```
SEARCHING  ORIGIN
PLEASE  WAIT
```

```
WATER  CHNG                     WATER  CHNG                      WATER  CHNG
COOLING            :ent         COOLING                         WASTE  AF            :ent
```
`ENTER`   `ENTER`

`ENTER`

```
WATER  CHNG                     WATER  CHNG                      WATER  CHNG
SET  TANK          :ent         EMISSION                        WASTE  AF            :ent
```
`ENTER`

`ENTER`

```
WATER  CHNG
SET  AF            :ent
```

```
MAINTENANCE
       PRINTING
```

```
MAINTENANCE                     MAINTENANCE                      MAINTENANCE
VERSION            <ent>        MAIN  Ver   1.00                SUB  FW  Ver    0.50
```
`ENTER`   `ENTER`

`▲` `▼`

```
MAINTENANCE                     MAINTENANCE
SELIAL  No.        <ent>          S/N   00000000
```
`ENTER`

```
VACUUM                          BLOW
VOLUME:            5            VOLUME:            5
              1 to 10                         1 to 10
```
`ENTER`

```
Drop  Pattern                   Drop  Pattern
   COLOR  [KCMY]                   PRINT  START    :ent
```
`ENTER`

Followed

```
FUNCTION
POST  CURE      <ENT>
```
ENTER
```
POST  CURE
START  POS  :     0 mm
```
ENTER

0 to 3100mm

▲ ▼

▲ ▼

```
FUNCTION
DISPLAY         <ENT>
```
ENTER
```
DISPLAY
English          <ent>
```

Japanese , English

```
POST CURE            ENTER   POST CURE            ENTER   POST CURE
END POS   :    0mm           COUNT        : 2            START          : e n t
        0 to 3100mm                    1 to 50
```

```
POST CURE
PLEASE WAIT
```

Mimaki™