OPERATION MANUAL

UV PRINTER

UJF-706

OPERATION MANUAL

MIMAKI ENGINEERING CO., LTD.

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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 a MIMAKI "UJF-706" model of UV printer.

UV printer UJF-706 uses ultraviolet ray curing ink (UV ink).

Read this Operation Manual carefully and make the most effective use of your printer.

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 UJF-706 UV 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 operation 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.
(lamp symbol)	The symbol indicates helpful information that will facilitate the use of the device.
(pointing hand symbol)	Indicates the reference page for related contents.
(electric shock symbol)	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.
(prohibited symbol)	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.
(forced instruction symbol)	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 or the head, be sure to wear the supplied goggles and gloves since you may get ink or cleaning solution 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.
• Warning labels are put on this machine.
  Fully understand the warnings on the labels. If the warning labels are unreadable by a dirt, or the labels have come off, purchase a new one from your local distributor or our office.

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.

⚠ WARNING

Power supply and voltage

- This unit contains parts applied high voltage.Carrying out electrical work by those unauthorized for that work is prohibited.

- 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 powerspecifications given. Refer to "Connecting the Power Distribution Board" in the Installation Guide.
- 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.

Power supply and voltage

- This device is equivalent to Class I laser device according to CDRHRegulation. LASER CAUTION Labelfor CDRH regulation shown below isprovided with the device.

Handling of UV irradiation device

- Do not use the UV irradiation device 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 irradiation device, or it may cause fire.or it may cause electrical shock.
- The UV lamp is made of glass andshould not be dropped, hit againstanything, given excessive force orscratched, or it may cause damage tothe UV lamp.
- Do not break a used UV lamp; put itin a container and discard likewiseordinary fluorescent lamps accordingto the local regulations. Breaking aUV lamp will cause glass fragments tobe scattered.
- Never look at the UV lamp 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.
- Be sure to use only the UV lamp recommended by Mimaki,or it may cause fire or damages to the unit.Never use UV lamps other than those recommended by Mimaki.We would take no responsibility for any troubles caused through the use of a UV lamp 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 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.2-14)	• 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

- There is some leaking of ultraviolet radiation around the UV irradiation device.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.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 lamp and the interior of the UV irradiation device will have a very high temperature.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 irradiation device with combustible materials may cause firing and/or smoking.
  Leaving combustible materials under the UV irradiation device 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 irradiation device

- When handling the UV lamp 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 lamp 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 lamp to the socket,or the lamp may be dropped or overheated.
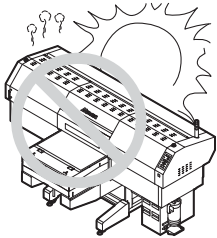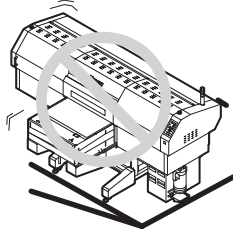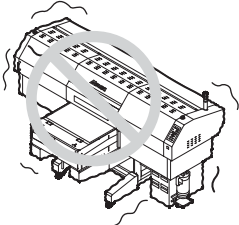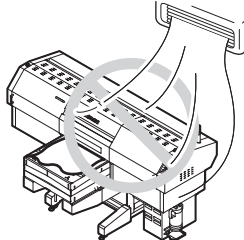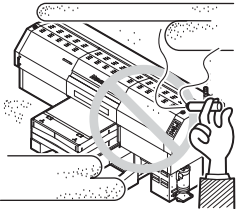
- The UV lamp performance and service life are significantly affected by the UV irradiation and UV power supply units used.Never use those UV devices other than those recommended by Mimaki.We would take no responsibility for any troubles caused through the use of a UV devices not recommended by Mimaki.

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 ℃ 35 ～ 65 % (Rh)
A place that vibrates	**A place exposed to direct air blow from air conditioner, etc.**	**A place where fire is present**
🚫	🚫	🚫

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)	

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

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

These are the number of operation procedures.

2 Press ▲ or ▼ key to select "NOZZLE CHK".
- Select "HARDEN CHK" to confirm that UV ink has not been cured. (☞ P.4-31)

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

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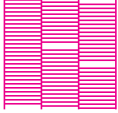
4 Test drawing ends
- Returned to the local mode.
- Execute operation of PXX, when evacuation of the Y-bar is required.

This shows the display panel.

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.

⬜ enclose shows the buttons in a sentence

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Basic Operal

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CHAPTER 1
Before Use

In this chapter, operations before using this machine including parts name and setting procedures are explained.

Installing this machine

Where to install

Before assembling this machine, secure a sufficient space to install.
Decide the place considering the machine size and a space required for drawing.

Width	Lengh	Height	Total Weight
2500 mm	1750 mm	1550 mm	Approx.500 kg

⚠ Caution
- If the place to install the machine is exposed to strong sunlight around the window, draw a curtain to prevent the machine from being exposed to strong sunlight.
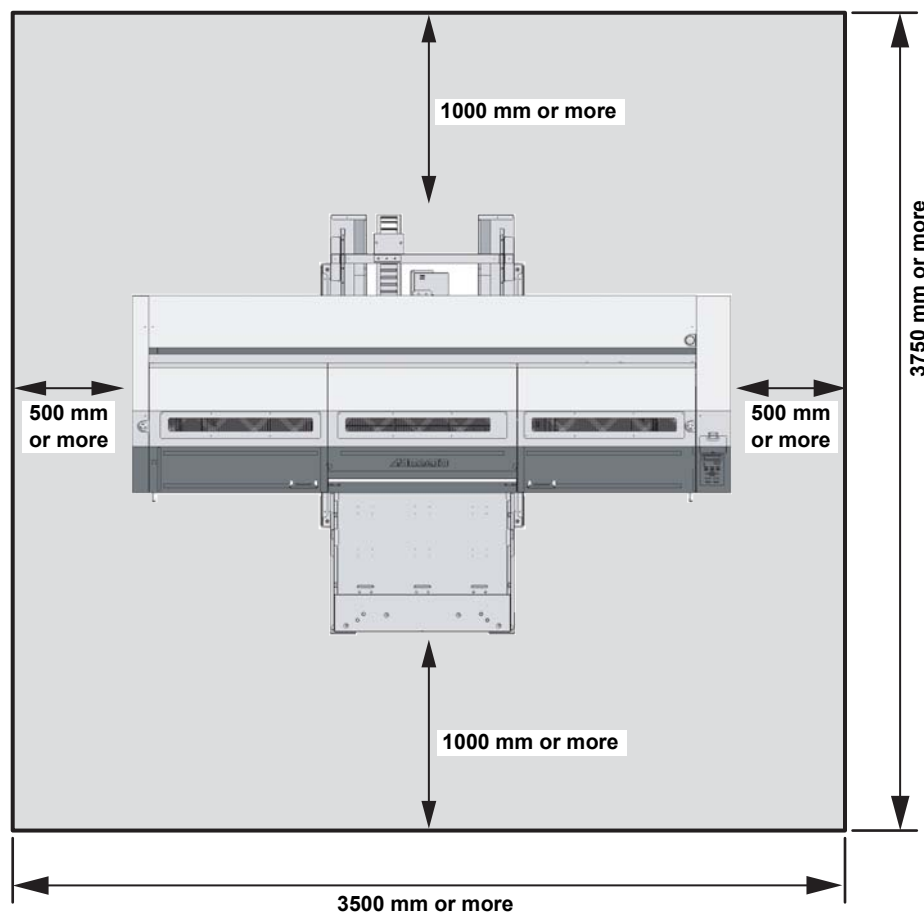
Working Environmental Temperature

Use this machine in an environment of 15 to 30°C to ensure reliable drawing.

1-3

Moving this machine

Move this machine according to the following steps when this machine is required to move on the step-free same floor.

⚠️ **Caution**
- When moving this machine, take care not to give a significant impact on it.
- After moving this machine, be sure to move the adjuster foot downwards.

1 **Lift the adjuster foot.**
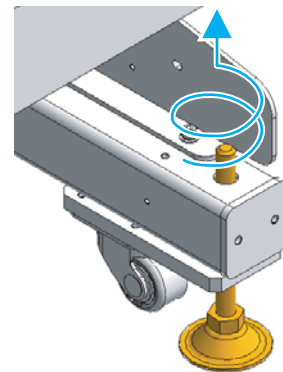
2 **Push the circled position shown on the right figure, and move this machine.**

- For safety, be sure to work it with more than 2 persons.
- Do not push the cover to move this machine since the cover may be deformed.
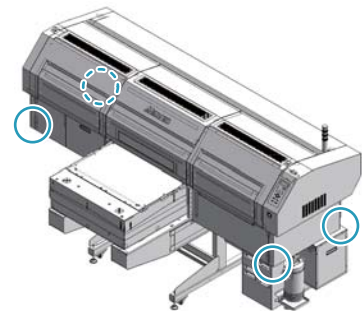
3 **Move the adjuster foot downwards.**
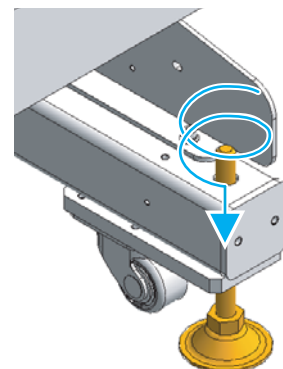
Configuration and Function

Front/ Side

Carriage

The head to print and the UV lamp are in it. Scans from side to side. (☞ P.1-7)

Emergency switch

Press in the event of an emergency. The power is forcibly cut to stop unit operation. (☞ P.1-8)

Indicator

Indicating a state of the machine. (☞ P.1-10)

Washing Cartridge

Set a dedicated washings cartridge. (☞ P.1-15)

Operation Panel

The operation keys to set this machine and the display are on it. (☞ P.1-6)

Power Switch

Turns on/off the power of this machine.

Waste Ink Tank

Waste ink gathers in this tank.

Table

Setting media on it. There are absorbing holes on the table so that media is absorbed when vacuum is ON.

Stand

Supports the main body. Casters to move are on it.

Ink Station

Each color of ink cartridge are in it.

Rear/ Side of the main power switch

USB Connector

USB2.0-compliant interface connector.

AC Inlet (Inlet 1)

Connects the power cable.

Main Power Switch 1

Turns on/off the power of this machine (except UVLamp).

Water Heating Device

Keeps the ink at a proper temperature.

UV power supply

Supplies power for the UV lamp. (P.1-8)
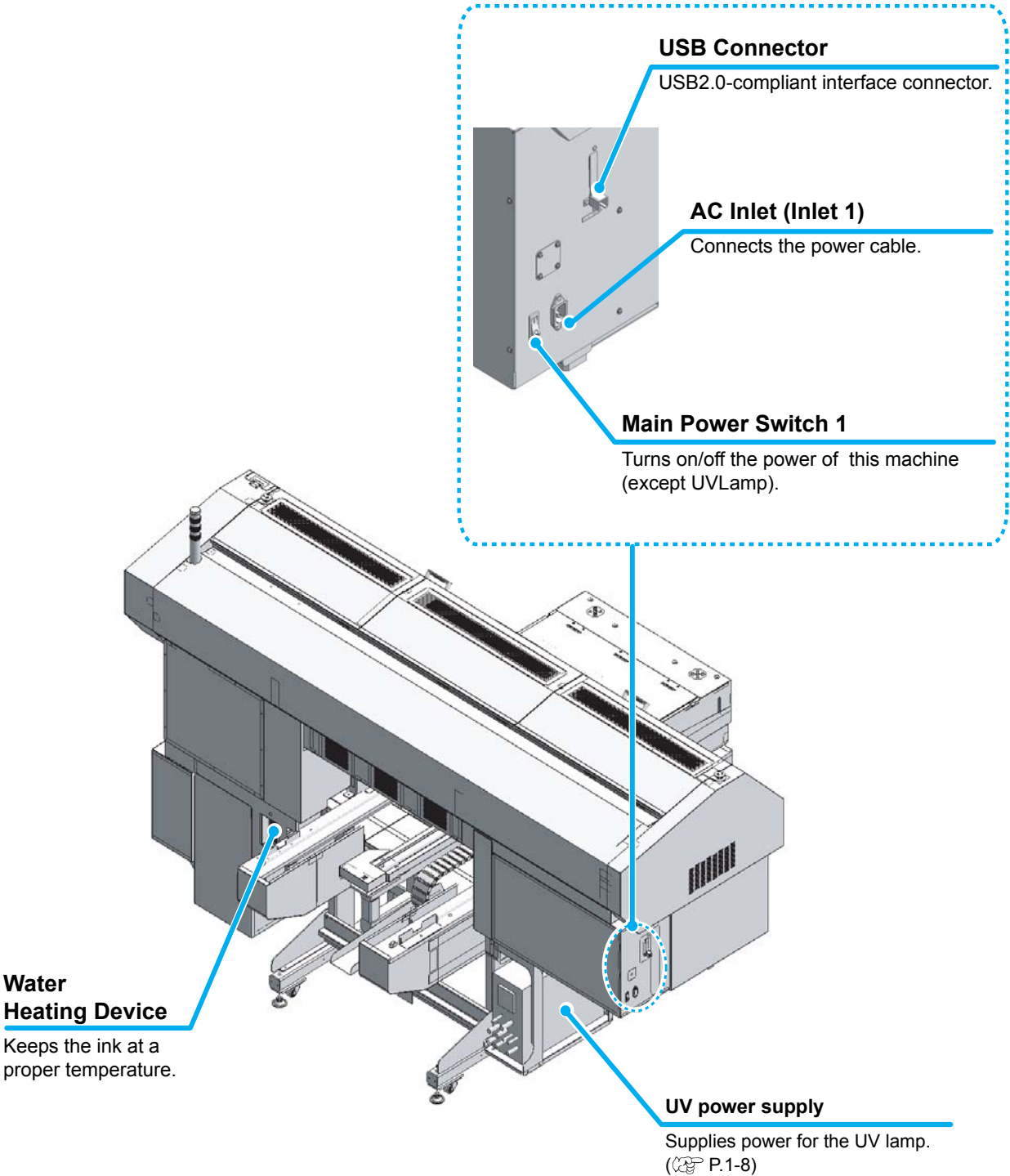
Operation Panel

The operation panel is used for each operation.

Display

Displays the status of this machine, set items and errors.

ACTIVE lamp

Blinks in receiving or drawing data.

TABLE key

When you wish to move the table up and down, after pressing the TABLE key, press the jog key.

CLEANING key

Executes Head cleaning at ink clogging.

DATA CLEAR key

Deletes the data that have been received.

Jog key ◀ ▶ ▲ ▼

Use these to move the head or the media, to move the table up and down and to select items of drawing conditions in <Local>.

COOLING lamp

Lights while the UV lamp is being cooled down.

UV READY lamp

Shows the irradiation condition of the UV LED on both sides. Lights in green when the UV LED is irradiating.

UV ERROR lamp

Shows the error status of the UV LED on both sides. Lights in red when an error has occured.

VACUUM key

Press to switch over ON/OFF of the vacuum.

TEST key

Draws test patterns to check if there are any drawing failures such as ink clogging.

UV key

Displays function UV menu.

FUNCTION key
Displays function setting menu.

END key
Cancels the last input value or returns to the last menu.

REMOTE key
Switches [REMOTE] and [LOCAL].

ENTER key
Moves to the next menu or sets the inputs.
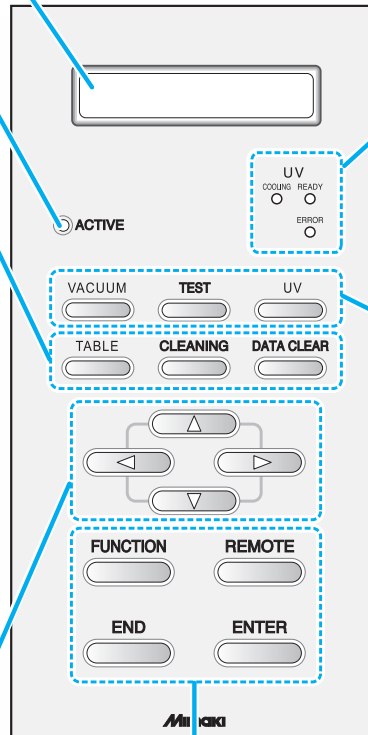
Jog Keys

The Jog key function differs from the timing as follows.

	When setting a drawing origin /area	When selecting the function	When selecting the setting
◀	Moves the carriage to the left		
▶	Moves the carriage to the right		
▲	Moves the media to back	Returns to the previous function	Selects the previous function
▼	Moves the media to front	Moves to the next function	Selects the next value

Carriage and UV irradiation device

A print head for drawing and two UV irradiation device are mounted on the carriage. Depending on the condition of this machine, the position of the carriage is different.
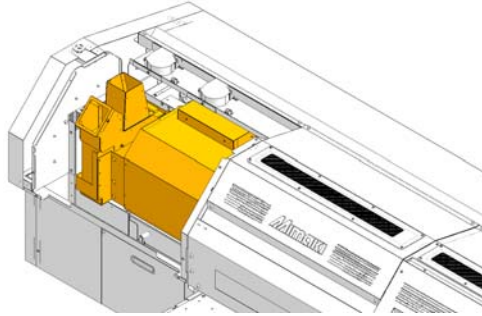
⚠ **Warning** • Do not expose your naked eyes directly to the light irradiated from the lighting UV Lamp.

Wiper

The wiper on the right front side of this machine removes the ink attached on the head at ink filling or cleaning.

Wiper
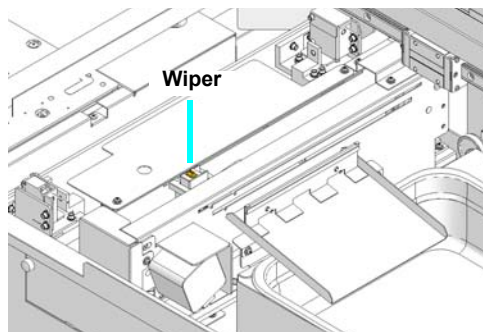
Flushing Box

A flushing box is placed in the left of this machine.
When the print head flushes, waste ink is absorbed by the flushing filter in the flushing box. Replace the flushing filter with a new one frequently. (☞ P.4-7)

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Before Use
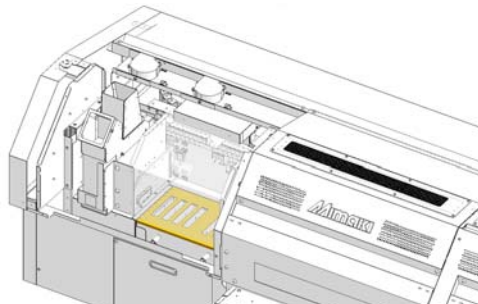
Emergency Switch

When stopping the machine for safety reason, press the switch.
Emergency stop switches are located on upper part of the machine (on two places).
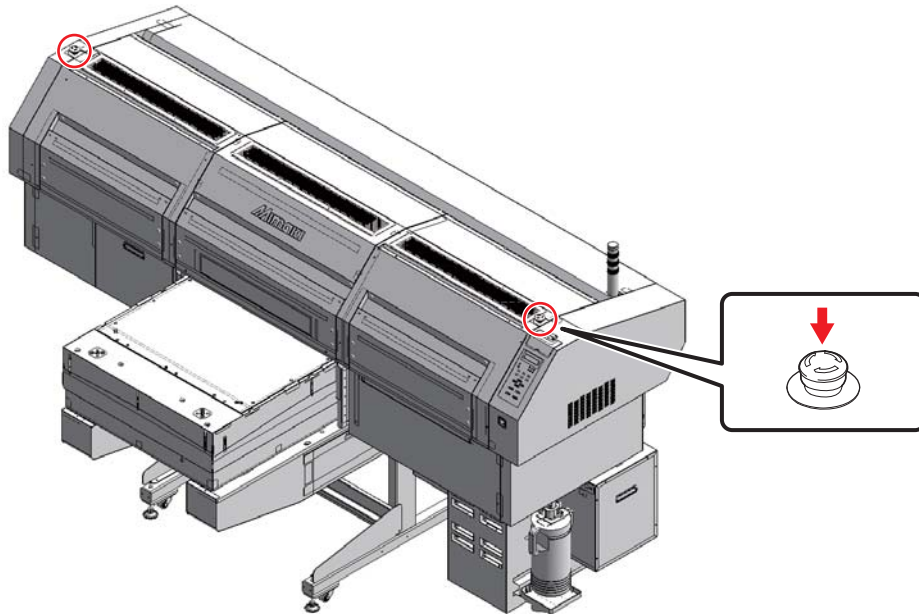
UV power supply

The UV power supply located at the lower left of this machine works with the UV irradiation device.

Connecting the cables

Connecting the USB2.0 interface cable

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

⚠ **Caution**
- Your RIP is required to support USB2.0 interface.
- If USB2.0 interface is not installed in your computer, ask a RIP vender near you or our branch office.

Connect USB cable
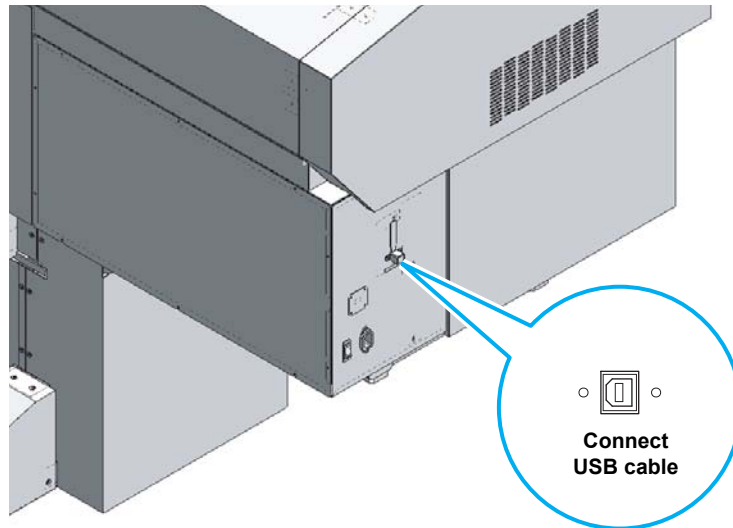
● **Notes on peripheral devices in USB high speed mode**

When a peripheral device (USB memory or USB HDD) to be operated in USB high speed mode is connected to the same personal computer that this machine is connected to, the USB device may not be recognized.
When this machine is connected to the personal computer to an externally installed USB hard disk drive , the data output speed to this machine may drop. That can cause the head unit to stop temporarily at the right or left end during printing.

Connecting the power cable

⚠ **Warning**
- Use only the supplied power cable.
- Be sure to connect the power cable plug to the grounded outlet, or it may cause fire or electric shock.
- Take care not to damage, break or work upon the power cable. Or if putting a heavy thing on, heating, or pulling the power cable, the power cable can break to cause fire or electric shocks.

UV Irradiation Device and Indicator

UV irradiation device

⚠️ **Warning**
- Do not expose your naked eyes directly to the light irradiated from the UV lamp when it lights.
- Do not touch the UV irradiation device 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

Red
Orange
Green
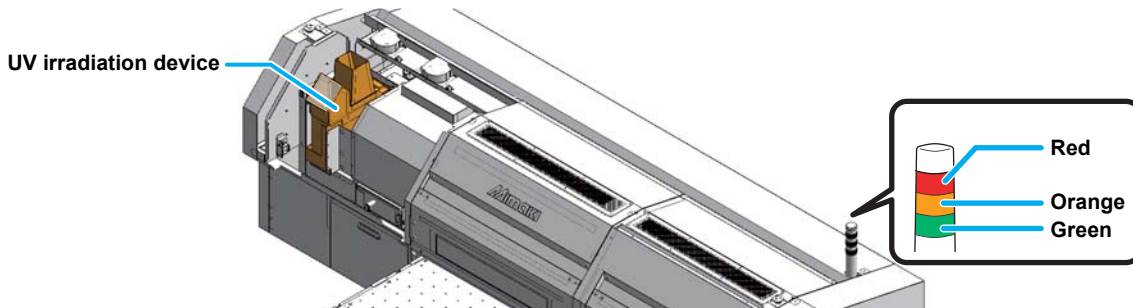
Function of indicator

Functions of the Indicator on the top left of this unit are described here.
The indicator represents 3 modes. A state of each mode is indicated by the indicator of this unit.

Mode	State of machine	Outline
Ready mode		
ON (green)	REMOTE MODE	
Blinking (green)	REMOTE MODE (at drawing)	
OFF	LOCAL MODE	
After cooling mode		
ON (orange)	[Drawing disabled] UV lamp being cooled (5 minutes)	The UV lamp goes OFF in the following cases: • When operation for setting the UV lamp OFF is executed. • When 30 minutes or more have elapsed after drawing. • When an error has occurred in this unit. After the UV lamp has been set OFF, it is cooled. The UV lamp cannot be set ON again and this unit cannot start drawing. Wait for going the light OFF for a while.
Blinking (orange)	[Drawing disabled] At preparation for lighting the UV lamp	
OFF	UV lamp has been lit or has been turned OFF	
Error mode		
ON (red)	[Drawing disabled] An error occurred (The UV lamp goes OFF.)	(1) Error in UV power unit (2) UV lamp overheated The UV lamp goes OFF. Drawing operation of this unit stops. (3) When the UV irradiation unit does not function normally. (4) Occurrence of an error on the unit.
OFF	Normal	

Setting the ink cartridge

Insert the ink cartridges into the ink station.

Available Ink Type

Ink Type	Color
SPC-0371 Ink	Magenta
	Cyan
	Yellow (SPC-0404HY included)
	Black
	White
	Light Magenta
	Light Cyan
	Clear
SPC-0516 Ink (K-200)	Magenta
	Cyan
	Yellow
	Black
	White
	Light Magenta
	Light Cyan
Cleaning solution [*1]	

*1: It is used for cleaning the head and the ink path.
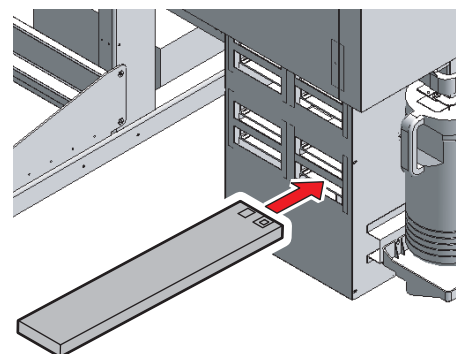
Colors are displayed as follows.

Display	Color	Display	Color
M	Magenta (M)	Y	Yellow (Y)
C	Cyan (C)	K	Black (K)
W	White (W)	S	Clear (CL)
m	Light Magenta (Lm)	c	Light Cyan (Lm)

About handling of ink

Compared with other ink, white ink of SPC-0371/ SPC-0516 and color ink of SPC-0516 may settle down inside the cartridge if it is not used for a long time. To keep the ink in good condition, shake ink according to the procedures in the next page.
About white ink, refer to the Chapter 4 and perform the periodical maintenance work. (☞ P.4-21)

How to shake an ink cartridge

Shake ink inside the cartridge once or more a day.

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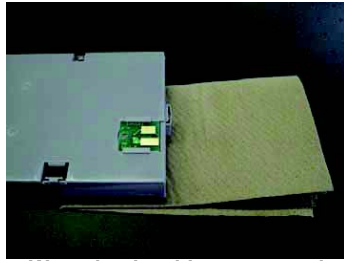
Wrap the tip with paper towel.

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
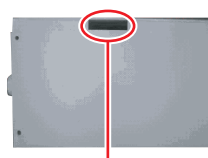
Cautions when setting ink cartridges

When setting ink cartridges, be careful of the followings.

Ink slot No.

- Check the ink set, then insert correct color ink cartridges.
- Insert the ink cartridges to the end of the slot. And do not insert/pull out the cartridges roughly.
- Insert the cartridge facing up the IC chip.
- You can also insert white ink in the S slot.
- For the ink cartridge replacement, see the following page.
  (☞ P.4-4 "Replacing with a new ink cartridge")

1

Before Use
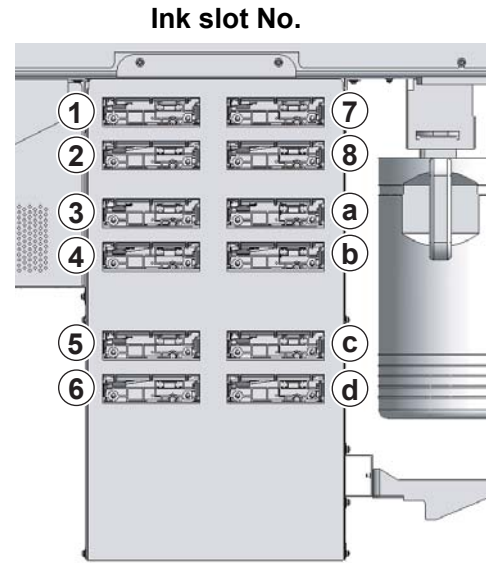
- Confirm the ink slot number and insert the ink cartridge of the correct color.

  4 colors ink set + white (W) + clear (S)

Ink slot No.	1	2	3	4	5	6	7	8	a	b	c	d
Ink color	M	M	C	C	Y	Y	K	K	W	W	S	S

  4 colors ink set + white (W)

Ink slot No.	1	2	3	4	5	6	7	8	a	b	c	d
Ink color	M	M	C	C	Y	Y	K	K	W	W	-	-

  6 colors ink set + white (W)

Ink slot No.	1	2	3	4	5	6	7	8	a	b	c	d
Ink color	K	C	M	Y	Lc	Lm	-	-	W	-	-	-

  6 colors ink set + white (W) + clear (S)

Ink slot No.	1	2	3	4	5	6	7	8	a	b	c	d
Ink color *1	K	C	M	Y	Lc	Lm	-	-	W	S	-	-

  *1: M=Magenta, C=Cyan, Y=Yellow, K=Black, W=White, S=Clear, Lc=Light Cyan, Lm=Light Magenta, -=Reserved

Cautions when handling ink cartridges

- Use the recommended ink cartridge by Mimaki.
- Do not touch the ink directly. When ink sticks on skins, wash it with soapy water immediately then rinse it off with water fully. If you get ink in your eyes, immediately wash your eyes with a lot of clean running water for at least 15 minutes. In doing so, also wash the eyes to rinse ink away completely. 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 a place of using this machine 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.
- Do not touch or stain the contacts of the ink cartridge. This may cause damages on printed circuit boards.
- Do not disassemble the ink cartridges.

About Washing Cartridge for Hard Cleaning

Set the dedicated washing cartridge into the mounting slot.

> ❗ • Use a genuine washing cartridge.
> • Use in the proper way in conjunction with the head maintenance method.
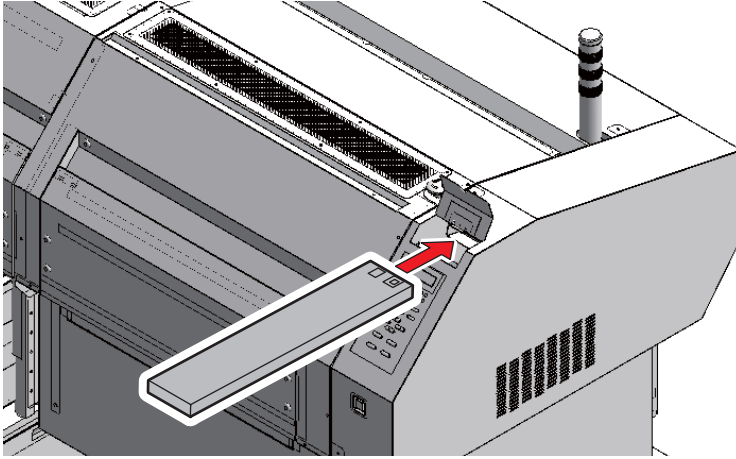
About Media

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

Usable media size

Maximum width		710 mm
Minimum width		210 mm
Maximum print length		700 mm
Thickness		0.2mm to 150 mm
Roll media[*1] (Option)[*2]	**Outside diameter**	φ250 mm or less
	Weight	25kg or less
	Caliber of the core	2 inches or 3 inches
	Print face	Outer surface of the roll media
	End of the roll media	Attach with a tape or a weak adhesive on the core

*1: For the roll media thickness, 0.025 mm thick or more can be used (use stretched media).

*2: For this machine, we provide an optional unit to use roll type media (roll media feeding/take-up machine). For details, contact a distributor in your district or out office.

Caution when handling the media

Carefully observe the followings to avoid a break of this machine or inferior printing.

- **Expansion and contraction of the media**
  Do not use sheet types of media immediately after unpacking.
  The media can expand and contract due to room temperature and humidity.
  The media have to e left in the atmosphere in which they are to be used for 30 minutes or more after unpacked.
- **Absorption of media**
  In order to fix the media, block the absorption holes on the table, which can not be covered with media, with other media thinner than those to be used.
- **Other notes**
  a Do not put anything on coated media. Some coated media may fox.
  b Curled media not wholly absorbed or those that go out of alignment during table movement cannot be used. They may be made available when they are fixed on the table with adhesive tape, etc.

<LOCAL>and<REMOTE>

<LOCAL> and <REMOTE> are shown on the display of this machine.

```
<LOCAL.1>
```

```
*REMOTE.1*
```

LOCAL

When <LOCAL> is diplayed, the followings can be set.
All keys are available.
It receives the data from the computer. However, drawing is not executed.

- Set the drawing origin or drawing area with the Jog keys.
- Execute "Test drawing" with the (TEST) key.
- Execute "Head cleaning" with the (CLEANING) key.
- Execute function settings with the (FUNCTION) key.
- Press the (UV) key to set each function of the UV lamp.
- Check the remaining amout of ink, the model name, the firmware version, and so on with the the (ENTER) key.
- Switch between [REMOTE] and [LOCAL] with the (REMOTE) key.
- Erase the drawing data that this machine has received with the (DATA CLEAR) key.
- Press the (VACUUM) key to switch ON/OFF of the vacuum.
- By pressing the (TABLE) key and then the jog key, you can move the table up and down.

REMOTE

When <REMOTE> is displayed, the received data is drawn.
Press the (REMOTE) key to suspend this machine and to return to [LOCAL].
Press the (REMOTE) to start <REMOTE>.

Before Use

CHAPTER 2
Basic Operations

In this chapter, the procedure from media preparation to drawing are explained.

Operation flow

1 **Turning the power on** | See "Turning the power ON/OFF" (☞ P.2-4)

2 **Setting media** | See "Setting media" (☞ P.2-11)

3 **Head cleaning** | See "Head cleaning" (☞ P.2-14)

4 **Head cleaning**

See "Head cleaning" (☞ P.2-14)

5 **Drawing an image from data**

See "Drawing an image from data" (☞ P.2-18)

6 **Turning the power off**

See "Turning the power ON/OFF" (☞ P.2-4)

2

Basic Operations

Turning the power ON/OFF

Turning the power ON

This machine has the following power switches.

UV power supply switch :They are on the side of this machine.
Main power switch :They are on the side of this machine.
Power switch :It is on the right front side of this machine. Normally, use this switch to turn the power ON/OFF.
When the power is ON, the power switch lights in green, and when it is OFF, the light is out.

1 **Turn the UV power supply switch ON on the side of this machine.**

- Press the switch to "I" side.

UV power supply switch

1 **Turn the main power switch 1 and 2 ON on the side of this machine.**

- Press the switch to "I" side.
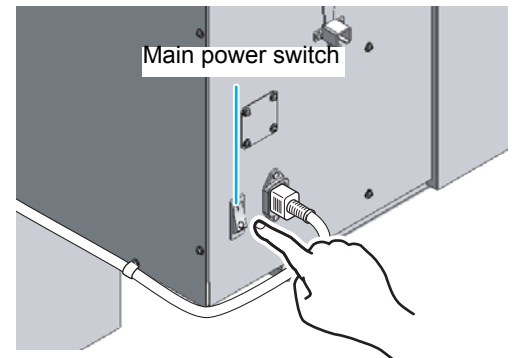
Main power switch

2 **Turn the power ON with the power switch.**

- Press the power switch on the front of this machine.
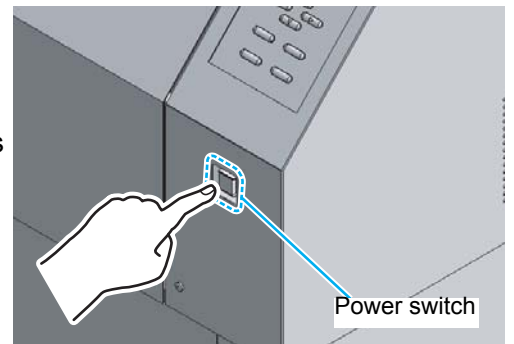
Power switch

- When the power is turned on, the firmware version is displayed.

```
UJF-706  start-up
ver.*.**
```

- This machine performs initial operation.

```
SEARCHING ORIGIN
    PLEASE WAIT
```

3	**<LOCAL> appears.**	<LOCAL.1>

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

2

Basic Operations

Maintenance operation at startup

When the power on maintenance is valid, the operation below is performed depending on the status at startup of this machine.
For the power on maintenance setting, refer to P.4-18 "Perform cleaning automatically when the power supply is turned on".

If hot water turned cool

1 **Preparation for hot water starts.**

- If you wish to cancel cleaning, press the (END) key.
  If you press the (ENTER) key, cleaning is cancelled and the screen becomes <LOCAL> display.

```
POWER ON MAINTENANCE
NOT READY WATER
```

```
POWER ON MAINTENANCE
CANCEL          :ent
```

2 **When water becomes hot enough, cleaning starts automatically.**

- When the cleaning is completed, <LOCAL> is displayed

```
   CLEANING ACTIVE
*****--------------
```

If "ERROR149" occurred at the previous startup

If "ERROR149 INK UPSTREAM GRD" occurred at the previous startup, perform the operation below.

1 **Perform wiping to remove ink drop on the nozzle surface.**

- When the wiping is completed, <LOCAL> is displayed

```
      WIPING
   PLEASE WAIT
```

If ink in subtank is not enough

1 **Fill ink into the subtank.**

• When the filling is completed, <LOCAL> is displayed.

```
SUPPLYING  INK
* * * * * - - - - - - - - - - - - - -
```

If hot water temperature in water heating system is difficult to rise

For a cold day or when antifreeze in the water heating system has decreased, the hot water temperature may be more difficult to rise than usual.
Even if a certain amount of time has passed, the hot water temperature does not reach a certain temperature, a message is displayed on the screen.
When you select "CONTINUE", the system will wait until the hot water temperature reaches a certain temperature.
When you select "END", the status becomes available for drawing.

```
WATER  TEMP  NOT  READY
CONTINUE<          >END
```

(Important!) • If you perform drawing with the hot water temperature not reaching a certain temperature, the image quality may be degraded.
• When the message above is displayed, it is possible that antifreeze becomes less. Refill it.
(☞ P.4-28)

2

Basic Operations

Turning the power OFF

When finishing the use of this machine, turn the power OFF with the power switch on the front side of this machine.
When turning the power off, check the followings.
- Data is not being receivied from the computer, or there is any undrawn data.
- The head has returned to the standby position on the left of this machine.
- Any error occurs. (☞ P.5-6 "Error message")

1 **Turn the power of the connected computer OFF.**

2 **Turn the power OFF with the power switch.**

- Do not turn the main power switch off on the side of this machine.
- When using this machine next time, light the green lamp with the power switch.
- When the power supply switch is pressed while the UV lamp is lighting, after the UV lamp goes off and the after cooling is performed, it will turn OFF automatically.
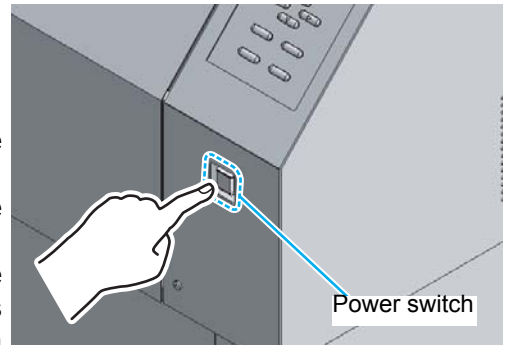
Power switch

Preventing nozzle dropout while power-off

Even while the power switch is off, the machine starts periodically and executes various functions to prevent nozzle dropout. (Supported from the firmware ver.1.70)

(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.
- 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.
- Perform the cleaning and the refreshing according to settings. (P.4-19)

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.

```
UJF-706  start-up
ver.*.**
```
⬇
```
PLEASE WAIT
```
⬇
```
POWER OFF
PLEASE WAIT
```
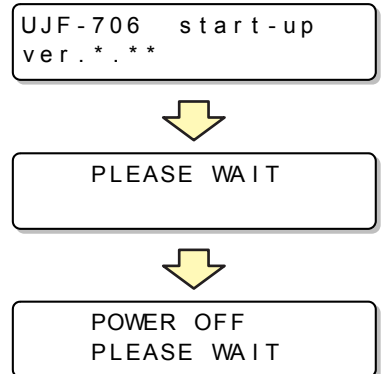
2

Perform the cleaning and the flushing when [SLEEP MAINTE.] (P.4-19) is selected.

- When finishing the maintenance, the power is turned off automatically.

```
UJF-706  start-up
ver.*.**
```
⬇
```
SLEEP MAINTE
PLEASE WAIT
```
⬇
```
POWER OFF
PLEASE WAIT
```

2
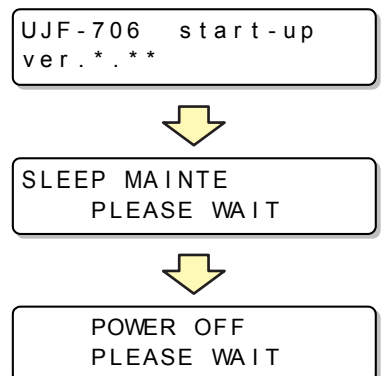
Basic Operations

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 dropout prevention function is operated.
If the main power switch is OFF, the sleep function does not work and this may cause nozzle dropout.

● **Turn the power OFF after confirming the head position.**

If the emergency stop switch is pressed or the main power supply switch is turned OFF, the head may stop at the position other than the waiting position.
Turning the power off when the head does not return to the position in readiness (the left side) may dry the head and may cause nozzle clogging.
In this case, turn the power ON again, confirm that the head has returned to the position in readiness (the left side), then turn the power OFF.

● **Do not turn the power OFF in drawing.**

The head may not return to the position in readiness (the left side).

● **Before turning the main power OFF, turn the front power switch OFF.**

When turning the main power switch off to move this machine or to solve an error, be sure to press the power switch on the front, confirm that the power is off, then turn the main power switch OFF.

2-10

Setting media

For this machine, you can use the media of 150 mm thickness or below.
For the media to be used, refer to P.1-16 "Usable media size".

(Important!)
- In the inkjet printer, ink drops tend to turn into mist when the gap between head and media is set wider than 2mm because of the insurmountable length. The more the gap get wider, the more likely it occurs. The mist of ink adheres to the head surface and the filter of the cooling fan. Also, the reflection from the UV light becomes higher. In case the adhered ink is cured or get sticky by the UV light reflection, it causes nozzle clogging and mismatched ink position. Sometimes it may be necessary to replace the head due to the failure.
- 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.

1 Set the media.
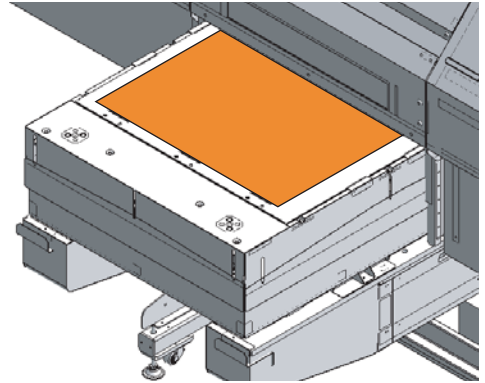
2 Pressing the (VACUUM) key, absorb the media to the table.

After setting the media, set the followings.
- Register the head gap. (P.3-16)
- Check the head gap. (P.3-5)

Basic Operations

2-11

Changing the height of the table

The table can be raised or lowered when setting media.

1   when **<LOCAL>** is displayed, press the (TABLE) **key.**

`<LOCAL.1>`

2   **Raise or lower the table with the** (▲)(▼) **key.**

```
TABLE  HEIGHT  SET
          H  =  150.0mm
```

- (▲) : Raises the table
  (▼) : Lowers the table
- Press the (TABLE) key to display the origin setup screen.

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

- Press the (ENTER) key to set the value on the origin setup screen as the origin position.

Test drawing

Make test drawing to check blur or missing caused by nozzle clogging.

⚠ **Caution**
- When the following message is displayed, it cannot print. Start drawing after the message has disappeared.
  "WATER NOT READY" ： The water temperature in the water heating device has not reached the predetermined value.

Check before starting test drawing	• Is media set ? (☞ P.2-11)	• Is the origin position set ? (☞ P.3-2)
	• Is the head gap value registered? (☞ P.3-16)	
	• Is the checking method of the gap adjustment set? (☞ P.3-4)	
	• Is the gap checked? (☞ P.3-5)	

1 When <LOCAL> is displayed, press the (TEST) key.

```
<LOCAL.1>
```

2 Select [NOZZLE CHECK] with the (▲) or (▼) key , and press the (ENTER) key.

```
TEST DRAW
NOZZLE CHECK    <ENT>
```

3 Test drawing starts.

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

4 Test drawing ends.
- <LOCAL> is displayed.

5 Check the drawing.
- When the drawing is normal, data can be printed.
- When the drawing is abnormal, execute head cleaning. (☞ P.2-14)
- When needed, adjust the origin position. (☞ P.3-2)
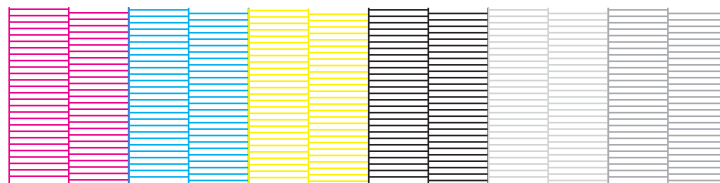
Normal pattern	Abnormal pattern		
	Many lines are missing	Some lines are missing in places	Space between lines is closed or doubled

Head cleaning

If test pattern is not normal, execute head cleaning. There are 3 types of head cleaning.

Normal	Select this when there is a dozen line missed on the test pattern.	☞ P.2-14
Wiping	Select this when there are several lines missed on the test pattern. The wiper wipes.	☞ P.2-16
Hard	At the end of daily work, clean the head with washing liquid not to cure the mist adhered to the nozzle, and then perform this. It is recommended to perform this at the end of daily work, before turning the power OFF.	☞ P.2-15
Hard2	When discharging ink with hard cleaning, flushing is executed at the same time. Select this when nozzle dropout is not solved.	☞ P.2-17

Cleaning by Normal

1 When <LOCAL> is dipslayed, press the CLEANING key.

```
<LOCAL.1>
```

2 Select [normal] with the ▲ ▼ key, and press the ENTER key.

```
CLEANING
TYPE         :normal
```

3 Select execution of cleaning for each head.

(1) Select the head with the ◄ ► key.
(2) Select execution of cleaning with the ▲ ▼ key.
  • Select execution of cleaning for the all heads.
    Execute cleaning : The ink cartridge color being set is displayed.
    Not execute cleaning : " * " is displayed

```
CLEANING
COLOR    :MMCCYYKKWWSS
```

```
CLEANING
COLOR    :MM*CYYKKWWSS
```

4 Press the ENTER key.

  • Cleaning starts.
  • When the cleaning is completed, <LOCAL> is displayed.

5 Execute the test drawing, and check the pattern. (☞ P.2-13)

  • Repeat cleaning and test drawing until the drawn pattern becomes normal.

Cleaning by Hard

1 When <LOCAL> is dipslayed, press the (CLEANING) key.

```
<LOCAL.1>
```

2 Select [hard] with the (▲) (▼) key, and press the (ENTER) key.

```
CLEANING
TYPE          :hard
```

3 Select execution of cleaning for each head.

(1) Select the head with the (◀) (▶) key.
(2) Select execution of cleaning with the (▲) (▼) key.
      • Select execution of cleaning for the all heads.
      Execute Cleaning : The ink cartridge color being set is displayed.
      Not Execute Cleaning ： " * " is displayed.

```
CLEANING
COLOR    :MMCCYYKKWWSS
```

```
CLEANING
COLOR    :MM*CYYKKWWSS
```

4 Press the (ENTER) key.

      • Cleaning starts.
      • When the cleaning is completed, <LOCAL> is displayed.

5 Execute the test drawing, and check the pattern. (P.2-13)

      • Repeat cleaning and test drawing until the drawn pattern becomes normal.

• Performing the "hard" cleaning at end of the day's work prevents the nozzle clogging.
• With one cartridge of washing liquid, "hard" or "hard2" cleaning can be performed once a day for about one month.
• If the washing liquid cartridge cannot be used because "NO CARTRDG" or "WRONG WASH CART." occurred, you cannot perform cleaning "hard".

2

Basic Operations

Cleaning by Wiping

1 When <LOCAL> is dipslayed, press the ⟨CLEANING⟩ key.

```
<LOCAL.1>
```

2 Select [wiping] with the ⟨▲⟩ ⟨▼⟩ key, and press the ⟨ENTER⟩ key.

```
CLEANING
TYPE        :wiping
```

3 Select execution of cleaning for each head.

(1) Select the head with the ⟨◀⟩ ⟨▶⟩ key.
(2) Select execution of cleaning with the ⟨▲⟩ ⟨▼⟩ key.
 • Select execution of cleaning for the all heads.
   Execute Cleaning : The ink cartridge color being set is displayed.
   Not Execute Cleaning : " * " is displayed.

```
CLEANING
COLOR   :MMCCYYKKWWSS
```

```
CLEANING
COLOR   :MM*CYYKKWWSS
```

4 Press the ⟨ENTER⟩ key.

5 Select the number of wiping (1 to 9) with the ⟨▲⟩ ⟨▼⟩ key.

```
CLEANING
Wipe NUM.   :1
```

6 Press the ⟨ENTER⟩ key.
 • Cleaning starts.
 • When the cleaning is completed, <LOCAL> is displayed.

7 Execute the test drawing, and check the pattern. (P.2-13)
 • Repeat cleaning and test drawing until the drawn pattern becomes normal.

 • When the print quality is not improved after repeating head cleaning, clean the wiper and the cap. See P.4-26 "Wiper cleaning".
 • If the print quality is not improved after cleaning the wiper and repeating the head cleaning, execute subtank maintenance. See P.4-25.

Cleaning by Hard2

1 When <LOCAL> is dipslayed, press the (CLEANING) key.

`<LOCAL.1>`

2 Select [hard2] with the (▲) (▼) key, and press the (ENTER) key.

```
CLEANING
TYPE        : hard2
```

3 Select execution of cleaning for each head.

(1) Select the head with the (◄) (►) key.
(2) Select execution of cleaning with the (▲) (▼) key.
- Select execution of cleaning for the all heads.
 Execute Cleaning : The ink cartridge color being set is displayed.
 Not Execute Cleaning : " * " is displayed.

```
CLEANING
COLOR   : MMCCYYKKWWSS
```

```
CLEANING
COLOR   : MM*CYYKKWWSS
```

4 Press the (ENTER) key.

- Cleaning starts.
- When the cleaning is completed, <LOCAL> is displayed.

5 Execute the test drawing, and check the pattern. (☞ P.2-13)

- Repeat cleaning and test drawing until the drawn pattern becomes normal.

- With one cartridge of washing liquid, "hard" or "hard2" cleaning can be performed once a day for about one month.
- If the washing liquid cartridge cannot be used because "NO CARTRDG" or "WRONG WASH CART." occurred, you cannot perform cleaning "hard".

2

Basic Operations

Drawing an image from data

> ⊘ • 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.

Starting the drawing

> ⚠ **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 can be sent even if both errors are displayed. Drawing starts after the errors are disappeared.

1 Set a media (☞ P.2-11).

2 When <Local> is displayed, press the (REMOTE) key.

```
* REMOTE . 1 *
```

• Remote will be displayed and then the machine can receive the data from the computer.

3 Send a drawing data from the computer.

• Drawing conditions are displayed.
• As for the sending way of data, see the operation manual of the software used.

Resolution: 1200DPI

```
* REMOTE . 1 *  1200X1200
HOST  16  U  H
```

Scanninng speed
N:Standard
H:Double speed

Scan direction
U:Unidirectional
B:Bidirectional

Number of passes
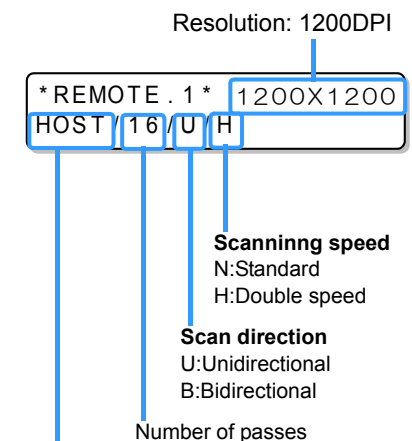
HOST is set on priority: "HOST" appears.
PLOT is set on priority:
Print quality (STD/FINE/FAST) appears.

4 Drawing starts.

• The print origin is not changed after drawing.

5 Take out the media after drawing.

> **Important!** • If you perform drawing with the hot water temperature not reaching a certain temperature, the right message is displayed on the screen. When you press the (ENTER) key, drawing starts, however, the image quality may be degraded.

```
WATER  TEMP  NOT  READY
PRINT  START        : e n t
```

Cancelling the drawing

To stop the drawing, stop the drawing operation and erase the received data from this machine.

---

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

- Drawing operation stops.
- When a data is being sent from the computer, stop sending data from the computer.

```
*REMOTE.1*
```

---

2 **Press the (DATA CLEAR) key.**

```
<LOCAL.1>
```

---

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

- Received data is cleared and <LOCAL> is displayed.

```
DATA CLEAR
              <ENT>
```

When drawing stops

If the following error or warning appears during drawing, the machine stops drawing and returns to the local mode.
Press the (REMOTE) key in the local mode to restart drawing.

Message	Cause	Solution
ERROR 54 MEDIA JAM	• The carriage detected an obstacle.	• Remove the obstacle on the table. *1
ERROR 36 HEAD GAP	• The area sensor detected an obstacle.	• When an obstacle was detected, the table automatically lowers to avoid it. Head gap is changed. Remove the obstacle and check head gap again. (☞ P.3-5)
!FRONT COVER OPEN	• The front cover is open.	• Close the front cover.

*1. For some detecting conditions, the machine finishes drawing and performs initial operation.

2

Basic Operations

Use the Copy Function

In case that you use copy function of this machine, RasterLinkPro5 is necessary. By setting the RasterLinkPro5, a message "Place another media", is displayed after drawing, and the drawing stops temporarily. While the drawing stops temporarily, if you replace media, and press the (REMOTE) key, you can print continuously. (Supported from the firmware ver.1.40)

```
<LOCAL.1>
Place another media
```

(Important!) • In case that you use this function, you need RasterLinkPro5 ver.2.30 or later version. In case that you are using RasterLinkPro5 which the version is prior to ver.2.30, you cannot use this function.

Subtank Maintenance

Execute following procedures when an error about subtank (☞ P.5-6 Error 148) occurs, or when the nozzle is not unclogged after cleaning.

1 When <LOCAL> is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

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

```
FUNCTION
MAINTENANCE    <ENT>
```

3 Select the [SUBTANK MAINTE] with the (▲) (▼) key, and press the (ENTER) key.

```
MAINTENANCE
SUBTANK MAINTE.<ent>
```

4 Set execution of subtank maintenance, and press the (ENTER) key.

```
SUBTANK MAINTENANCE
COLOR   :**C**Y******
```

(1) Select the head with the (◀) (▶) key.
(2) Select execution of subtank maintenance with the (▲) (▼) key.
• If Error 148 occurs, an appropriate head is selected. Press (ENTER) key.

5 Press the (ENTER) key.

```
SUBTANK MAINTENANCE
EXECUTE          :ent
```

• Subtank maintenance starts.

About covers

⚠ • Do not open the right and the left covers during drawing. If you open the cover during drawing, drawing will be stopped and you cannot continue it.
• Make sure to open and close the cover with holding the handles.

If you open the right and the left covers during drawing, the carriage stops for your safety and the drawing operation of this machine stops. In this case, restart this unit and computer in the procedures described below.

1 **If you open the right and the left covers during drawing, the message is displayed.**

```
CLOSE A COVER
```

• Stop the drawing.

2 **Stop the data transmission from the computer.**

3 **Close the cover.**

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

```
(COVER OPEN)
PRESS <ENT> KEY
```
⬇
```
PLEASE WAIT
```

5 **The carriage will start to move.**

• The same initial operation as that when the power supply is turned on is performed.

2

Basic Operations

CHAPTER 3
Useful Function

💡 In this chapter, the operation procedures for using the this machine more conveniently and each setting procedure are explained.

Changing origin

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

Changing with the JOG keys

Changing with the "ORIGIN" in the FUNCTION menu

Media

Table

New origin ● position

Default origin position

Origin position by JOG keys

New origin position

X

20mm

Y

10mm
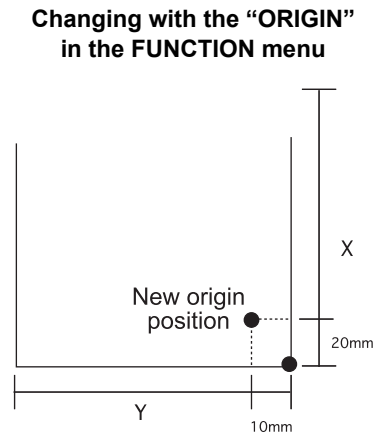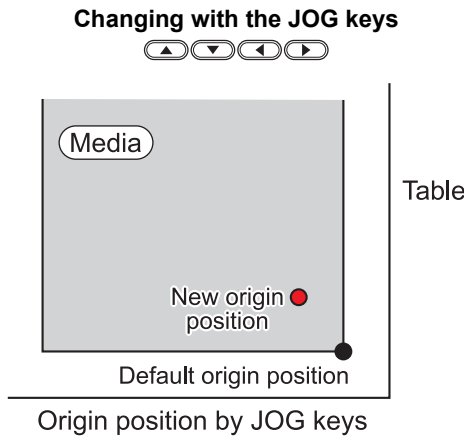
Changing origin with JOG keys

1

when <LOCAL> is displayed, press the ▲ ▼ ◀ ▶ keys.

• Origin setup screen is displayed.

```
<LOCAL.1>
```

2

Move the head and table with the ▲ ▼ ◀ ▶ keys.

• Move the head to the origin setting position to set the origin.
• Press the (TABLE) key to display the table height set screen.

```
ORIGIN SET UP
600.0    700.0
```

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

💡 • Set the origin in accordance with the ORIGIN marks on the machine.

3

Press the (ENTER) key when the drawing origin is determined.

• The origin is changed.

```
ORIGIN SET UP
** ORIGIN **
```

💡 • The origin set here is cleared by turning the power off.

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.**

```
<LOCAL>
```

2 **Select the [ORIGIN] by pressing the** ▲ **or** ▼ **key, and press the** ENTER **key twice.**

```
FUNCTION
ORIGIN        <ENT>
```

• X-axis offset value setting screen is displayed.

3 **Input value by pressing the** ▲ **or** ▼ **keys, and press the** ENTER **key.**

```
ORIGIN      ( 590mm)
X OFFSET    :    10mm
```

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

4 **Select the [Y OFFS] by pressing the** ▲ **or** ▼ **keys, and press the** ENTER **key.**

```
ORIGIN
Y OFFSET         <ent>
```

5 **Input value by pressing the** ▲ **or** ▼ **keys, and press the** ENTER **key.**

```
ORIGIN      ( 550mm)
Y OFFSET    :   150mm
```

• Setting the origin position of Y-axis.
• The value on the first line indicates the distance from the origin to the maximum effective range.

6 **Press the** END **key several times to end the setting.**

(Important!) • The set value remains even if turning off the power.

3

Useful Function

Adjusting head gap

Selecting for head gap adjustment

Select the check method for gap adjustment during printing based on the head gap valueentered. There are two check methods available. Select the check method to be usedaccording to the media to be used.

Sense mode : Select this mode when the thickness of media varies forprinting operations. The head gap is adjusted for data andcopy printing.

Continue mode : It is on the right front side of this machine. Normally, use this switch to turn the power ON/OFF.
When the power is ON, the power switch lights in green, and when it is OFF, the light is out.

---

1 When <LOCAL> is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

---

2 Select [GAP CHECK] with the ▲ ▼ key, and press the (ENTER) key.

```
FUNCTION
GAP CHECKC      <ENT>
```

---

3 Select [CHECK SELECT] with the ▲ ▼ key, and press the (ENTER) key.

```
GAP CHECK
CHECK SELECT    <ent>
```

---

4 Select mode with the ▲ ▼ key, and press the (ENTER) key.

• **Mode** ： continue, sense

```
CHECK SELEC
        :CONTINUE
```

---

5 Press the (END) key to finish.

3-4

Checking head gap

When continue mode has been selected, be sure to check the gap. The table can be ad-justed in height, according to thickness of a media used for printing.
The table height mustbe set according to the media thickness. If the table height is too low, it may affect theprinting quality and even damage the media or the device itself. Be sure that the tableheight is correct.

(Important!) • When continue mode has been selected, the head gap adjustment is performed once during printing after turning on the main power. Make sure to adjust the head gapfor the gap check is not performed when the media thickness has beenchanged.

---

1 **When <LOCAL> is displayed, press the** (FUNCTION) **key.**

```
<LOCAL.1>
```

---

2 **Select [GAP CHECK] with the** (▲) (▼) **key, and press the** (ENTER) **key.**

```
FUNCTION
GAP CHECKC      <ENT>
```

---

3 **Select [CHECK START] with the** (▲) (▼) **key, and press the** (ENTER) **key.**

```
GAP CHECK
CHECK START    <ent>
```

---

4 **When the message on the right is displayed, open the front cover.**

```
PLEASE OPEN
THE FRONT COVER
```

---

5 **After setting a media, press the** (ENTER) **key.**

• The head gap adjustment is performed automatically.
• The head gap is the value set in the screen of P.3-16.

```
GAP CHECK
SET MEDIA        :ent
```

```
** GAP CHECK **
   PLEASE WAIT
```

---

6 **When the message on the right is displayed, close the front cover.**

```
PLEASE CLOSE
THE FRONT COVER
```

• After the gap check, the table height set screen (☞ P.3-16) changes to the head gap setting screen.

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

3

Useful Function

3-5

When nozzles missing can not be improved

Alternative nozzles for printing, when nozzles missing can not be improved

NOZZLE RECOVERY: When nozzles missing can not be improved at specific points, other good nozzles can be used as alternatives for printing. (Supported from the firmware ver.1.90)

1 When **\<LOCAL\>** is displayed, press the (FUNCTION) key.

```
<LOCAL>
```

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

```
FUNCTION
MAINTENANCE      <ENT>
```

3 Select the **[NOZZLE RCVR]** by pressing the (▲) or (▼) key, and press the (ENTER) key.

```
MAINTENANCE
NOZZLE RCVR      <ENT>
```

4 Select the **[DRAW]** by pressing the (▶) key.

```
NOZZLE RCVR
INIT<          >DRAW
```
↓
```
      PRINTING
PLEASE WAIT
```

- (◀) : The set value can be cleared by selecting the Nozzle line and then pressing (ENTER) key.
- (▲)(▼) : Select the Nozzle line
  "Move to select of the Nozzle line (Step 5) without drawing a pattern"

Overhead view

Nozzle pattern

Nozzle1 Nozzle2 Nozzle3 Nozzle4 Nozzle5 Nozzle6 Nozzle7 Nozzle8 NozzleA NozzleB NozzleC NozzleD

H1 H2 H3 H4

Nozzle line 1 2 3 4 5 6 7 8

H5 H6

A B C D
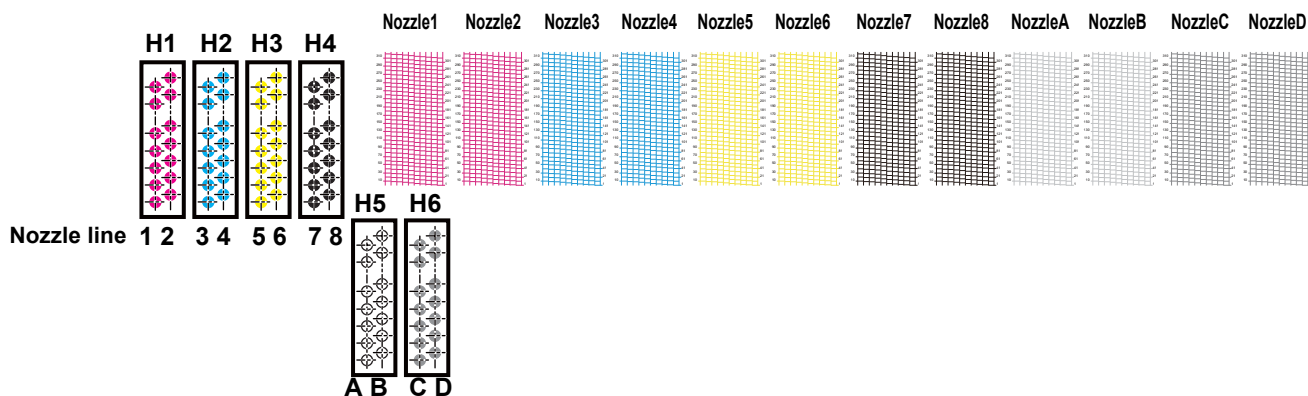
5 Select the Nozzle line that needs **NOZZLE RECOVERY** by pressing (▲) or (▼) key. Then press (ENTER) key.

```
NOZZLE RCVR
SELECT:NOZZLE  1 K)
```

Ink color:
M,C,Y,K,m,c,W,S

Nozzle Line: 1 to D

3-6

6 | **Register the Nozzle number that needs NOZZLE RECOVERY and then press (ENTER) key.**

```
NOZZLE RCVR
NOZZLE 1(K) No.1:OFF
```

Recovery nozzle No.:
OFF, 1 to 192

Registration number:
1 to 5

- (◄)(►) : Keys for selecting the registration number from 1 to 5.
- (▲)(▼) : Keys for registering the nozzle number that needs recovery from 1 to 318 or selecting "OFF"; no nozzle registration.

Example of nozzle to be recovered

Nozzle dropout No.184

Nozzle dropout No.128

Nozzle dropout No.16
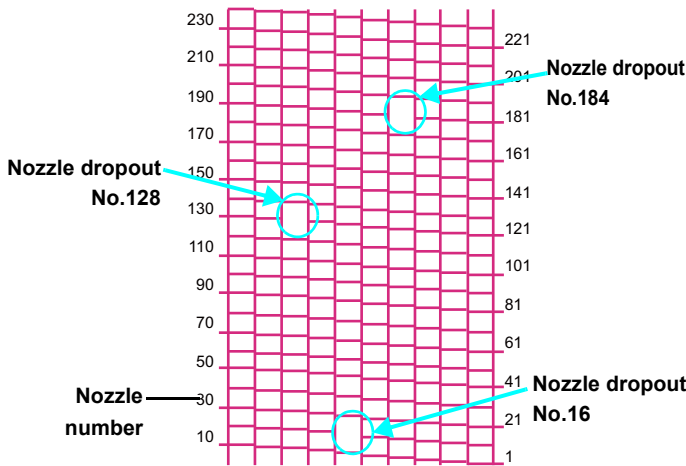
Nozzle number

Registration number	Recovery Nozzle No.	State
1	16	Target for nozzle recovery
2	128	Target for nozzle recovery
3	184	Target for nozzle recovery
4	OFF	No registration
5	OFF	No registration

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

Important!
- Up to 5 nozzles can be registered per 1 nozzle line.
- Even if you use this function, time required for drawing does not change.
- For the drawing mode below, the nozzle recovery function is invalid.
  - 4 color ink set: 600x600 2Pass Standard speed / 600x600 4Pass Double speed
    1200x1200 4Pass Standard speed / 1200x1200 8Pass Double speed
  - 6 color ink set: 600x600 4Pass Standard speed / 600x600 8Pass Double speed
    1200x1200 8Pass Standard speed / 1200x1200 16Pass Double speed

- When you use white ink and clear ink, print on the clear film to check.
- Nozzle recovery function is invalid when performing test drawing and printing media compensation pattern.

3

Useful Function

Reset the set value

Supported from the firmware ver.1.90.

1 **When <LOCAL> is displayed, press the (FUNCTION) key.**

```
<LOCAL>
```

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

```
FUNCTION
MAINTENANCE      <ENT>
```

3 **Select the [NOZZLE RCVR] by pressing the (▲) or (▼) key, and press the (ENTER) key.**

```
MAINTENANCE
NOZZLE RCVR      <ENT>
```

4 **Select the [INIT] by pressing the (◀) key.**

```
NOZZLE RCVR
INIT<         >DRAW
```

5 **Select the Nozzle line that needs clear the setting value by pressing (▲) or (▼) key.**

```
NOZZLE RCVR
CLEAR :NOZZLE 1(K)
```

• Press the (DATA CLEAR) key, the contents set for all nozzle lines are deleted.

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

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

Settings on printing.

1 | **When <LOCAL> is displayed, press the** FUNCTION **key.** | `<LOCAL.1>`

2 | **Press the** ENTER **key.** | `FUNCTION` `SET UP          <ENT>`

3 | **Select the type 1 to 4 with the** ▲ ▼ **key, and press the** ENTER **key.** | `SET UP` `SELECT    :TYPE1`

4 | **Select the item and set.**
  - As for setting items, see 3-11 "Setting list".

Setting the print condition

Change the settings according to the purpose.

1 When **<LOCAL>** is displayed, press the
(FUNCTION) **key.**

```
<LOCAL.1>
```

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

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

3 Select the type 1 to 4 with the ▲
▼ **key, and press the** (ENTER) **key.**

```
SET UP
SELECT      :TYPE1
```

4 Select the setting item with the ▲
▼ **key, and press the** (ENTER) **key.**

```
[1]
INK LAYERS      <ent>
```

• Select the item referring to the setting list.

5 Select an item with the ▲ ▼ **key,**
and press the (ENTER) **key.**

```
[1]INK LAYERS
SETUP            :1
```

• Select the item referring to the setting list.

6 Press the (END) **key to finish.**

💡 • Set items are not cleared even after turning the power off.

Setting list

The settings of the print condition are as follows. The underlined has been set as default.
These settings can be registered on the "Type".

Item		Setting	Outline
HEAD GAP(P.3-16)		0.9 to <u>1.2</u> to 2.0	Inputting the value of gap between the head and the media.
MEDIA COMP(P.3-12)		-255 to <u>0</u> to 255	Prints the pattern to adjust the media feed.
PRINT MODE (P.3-14)	QUALITY	<u>STANDARD</u>/ FINE/FAST	Sets the drawing quality.
MEDIA POS	ON / OFF (When it is ON, the media right and the left positions)	LEFT: 1 to 700 (mm) RIGHT: 0 to LEFT (mm)	Set the media position.
UV LEVEL(P.3-19)		<u>HIGH</u>/STANDARD/ LOW/NONE/ NO PRINT H/ NO PRINT N/ NO PRINT L	Sets the UV light intensity.
UV SCAN ADD (P.3-20)		<u>OFF</u>/1 to 9	Sets UV irradiation at starting/ ending of drawing.
INK LAYERS		<u>1</u> to 9	Prints with layers.
COOLONG TIME (P.3-22)		<u>0.0</u> to 2.0s	Sets the cooling time per scan.
REFRESH		LEVEL 0, <u>1</u>, 2, 3	Refreshes the ink head during drawing or in a standby.
VACUUM		OFF/LOW/<u>STANDARD</u>	Sets the adsorbing level for the media to the table.
PRIORITY(P.3-21)		PRINT MODE/INK LAYERS: <u>HOST</u>/PLOT COOLING TIME: HOST/<u>PLOT</u>	Sets the priority between PRINT MODE, INK LAYERS and COOLING TIME.
SETUP RESET(P.3-23)		-	Resets the settings.

3

Useful Function

Setting media compensation

When changing the type of media, adjust the media feeding.
If wrongly adjusted, it may not print clearly such as stripes on the print.

(Important!)
- When using roll media, the media returns to the print origin at the end of [MEDIA COMP.]. Then the roll media in the rear of this machine will slack.
  Before printing, take up the slack in the roll media by hand. A slack may cause an inferior image quality.
- When using the take-up device, set the media first, perform [MEDIA COMP.], and draw images.

Compensation pattern

Second band

Media advance direction

First band
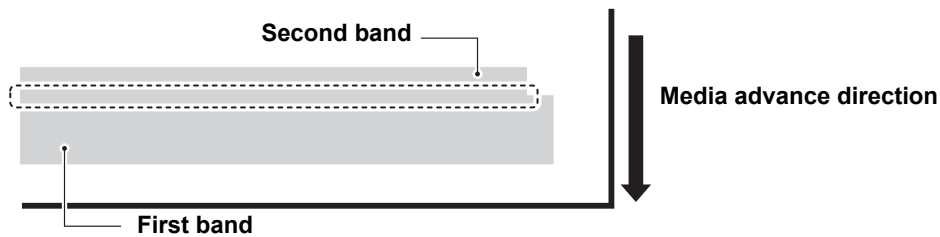
- Two bands are printed as the compensation pattern.
- Adjust so that the boundary between two bands becomes equal density.

1	Set a media. (☞ P.2-11)	
2	When **<LOCAL>** is displayed, press the **FUNCTION** key.	`<LOCAL.1>`
3	Press the **ENTER** key.	`FUNCTION` `SET UP        <ENT>`
4	Select the type 1 to 4 with the **▲** or **▼** key, and press the **ENTER** key.	`SET UP` `SELECT     :TYPE1`

5 | **Press the (ENTER) key twice to start print.** | [1]
MEDIA COMP. <ent>

6 | **Check the compensation pattern, then input the correction value with the (▲) or (▼) key.** | [1]MEDIA COMP.
ADJUST = 0

" + " : A space between two lines widens.
" - " : A spacing between two lines narrows.
   • The band moves by approx. 0.1mm each time changing the correction value by "10".

7 | **Press the (END) key to finish.**

3

Useful Function

Setting the print method

Set about printing.

1 When <LOCAL> is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

2 Press the (ENTER) key.

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

3 Select the type 1 to 4 with the (▲) (▼) key, and press the (ENTER) key.

```
SET UP
SELECT     :TYPE1
```

4 Select the [PRINT MODE] with the (▲) (▼) key, and press the (ENTER) key.

```
[1]
PRINT MODE      <ent>
```

5 Select a setting item with the (▲) (▼) key, and press the (ENTER) key.

- As for setting items, see the list on the next page.

```
[1]PRINT MODE
QUALITY         <ent>
```

6 Select an item with the (▲) (▼) key, and press the (ENTER) key.

- As for the items, see the list on the next page.

```
[1]PRINT MODE
QUALITY     :STANDARD
```

7 Press the (END) key to finish.

Item		Description
QUALITY	STANDARD	Standard drawing quality
	FINE	High quality drawing (drawing speed is slower)
	FAST	High speed drawing (image quality is slightly inferior)

3

Useful Function

Registering head gap value

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

1 When **<LOCAL> is displayed, press the** FUNCTION **key.**

```
<LOCAL.1>
```

2 Press the ENTER **key.**

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

3 Select the type 1 to 4 with the ▲ ▼ key, and press the ENTER **key.**

```
SET UP
SELECT      :TYPE1
```

4 Select the [HEAD GAP] with the ▲ ▼ **key, and press the** ENTER **key.**

```
[1]
HEAD GAP       <ent>
```

5 Input the head gap value with the ▲ ▼ **key, and press the** ENTER **key.**

• Setting Value: 0.9 to 2.0 mm

```
[1]HEAD GAP
            1.2mm
```
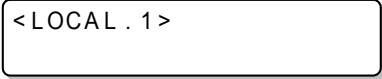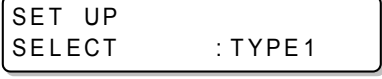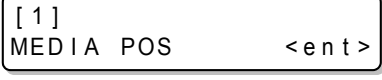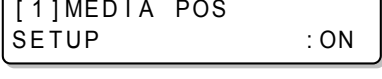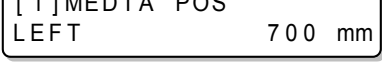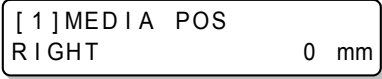
6 Press the END **key to finish.**

Important! • If a proper value was not set to the head gap value, it may have an influence on drawing quality due to ink falling in big drops etc. on the media during drawing.

Set the scan width of the head

By setting the scan width of the head, you can shorten the printing time.

1 When <LOCAL> is displayed, press the FUNCTION key.

```
<LOCAL.1>
```

2 Press the ENTER key.

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

3 Select the type 1 to 4 with the ▲ ▼ key, and press the ENTER key.

```
SET UP
SELECT     :TYPE1
```

4 Select the [MEDIA POS] with the ▲ ▼ key, and press the ENTER key.

```
[1]
MEDIA POS      <ent>
```

5 Select the [ON] with the ▲ ▼ key, and press the ENTER key.

```
[1]MEDIA POS
SETUP           :ON
```

6 Input the left media position with the ▲ ▼ key, and press the ENTER key.

- Setting Value: 1 to 700mm

```
[1]MEDIA POS
LEFT          700 mm
```

7 Input the right media position with the ▲ ▼ key, and press the ENTER key.

- 0 to the set value of "LEFT"

```
[1]MEDIA POS
RIGHT           0 mm
```

8 Press the END key to finish.

3

Useful Function

(Important!) • When the width of image data is wider than setup scan width of the head, the width of image data has a priority.
Therefore, the image data is printed beyond setup scan width.
Make sure the width of image data is narrower than the setup scan width before printing.
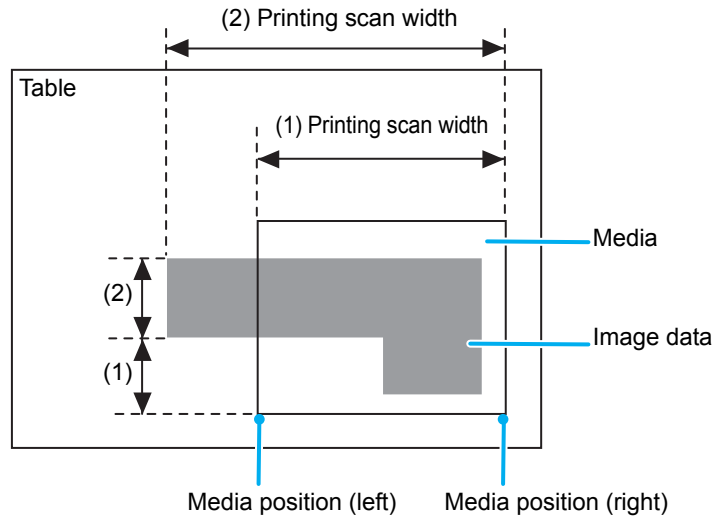
Changing the UV illumination intensity

1 When **<LOCAL>** is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

2 Press the (ENTER) key.

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

3 Select the type 1 to 4 with the (▲) (▼) key, and press the (ENTER) key.

```
SET UP
SELECT       :TYPE1
```

4 Select the [UV LEVEL] with the (▲) (▼) key, and press the (ENTER) key.

```
[1]
UV LEVEL        <ent>
```

5 Select the level with the (▲) (▼) key, and press the (ENTER) key.

```
[1]UV LEVEL
SETLUP    :HIGH
```

  • As for the options, see the table below.

6 Press the (END) key to finish.

Item	Outline
HIGH	The UV lamp lights at high light intensity. (☞ P.3-26)
STANDARD	The UV lamp lights at normal light intensity. (☞ P.3-26)
LOW	The UV lamp lights at low light intensity. (☞ P.3-26)
NONE	The UV lamp does not light during drawing.
NO PRINT H	Only the UV lamp lights without drawing. Use when curing ink after drawing in case that the UV lamp did not light during drawing.
NO PRINT N	
NO PRINT L	

Sets UV irradiation at starting/ ending of drawing

Around the place where drawing has ended, UV ink may not cure due to lack of UV irradiation.
In addition, as the temperature of the board face becomes uneven around the place where drawing has started, UV ink fixing may not be stable.
In such a case, perform setting to scan while irradiating UV depending on the status around the place where drawing has started/ has ended. (Supported from the firmware ver.1.80)

1 When <LOCAL> is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

2 Press the (ENTER) key.

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

3 Select the type 1 to 4 with the (▲) (▼) key, and press the (ENTER) key.

```
SET UP
SELECT      :TYPE1
```

4 Select the [UV SCAN ADD] with the (▲) (▼) key, and press the (ENTER) key.

```
[1]
UV SCAN ADD    <ent>
```

5 Input the left media position with the (▲) (▼) key, and press the (ENTER) key.

```
[1]UV SCAN ADD
AFTER PRINT    :OFF
```

• Setting Value: OFF, 1 to 9

6 Input the right media position with the (▲) (▼) key, and press the (ENTER) key.

```
[1]UV SCAN ADD
BEFORE PRINT   :OFF
```

• Setting Value: OFF, 1 to 9

7 Press the (END) key to finish.

Setting the priority

For the items below, select the setting priority from this machine's setting or the computer's setting.
Items: Print mode/ Ink layers/ Cooling time

1 When **<LOCAL>** is displayed, press the (FUNCTION) **key.**

```
<LOCAL.1>
```

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

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

3 Select the type 1 to 4 with the (▲) (▼) **key, and press the** (ENTER) **key.**

```
SET UP
SELECT      :TYPE1
```

4 Select the **[PRIORITY]** with the (▲) (▼) **key, and press the** (ENTER) **key.**

```
[1]
PRIORITY        <ent>
```

5 Select the **"HOST"** or the **"PLOT"** with the (▲) (▼) **key, and press the** (ENTER) **key.**

```
[1]PRIORITY
PRINT MODE     :PLOT
```

- **HOST** : Setting of the computer has the priority.
  PLOT : Setting of this machine has the priority.

6 **Set other items with the same way.**

- Item: Print mode, Ink layers, Cooling time

7 Press the (END) **key to finish.**

Sets the cooling time per scan

When you print on the media that will be deformed by heat of the UV lamp, set the machine so that the media will be cooled per scan.

1 When **<LOCAL>** is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

2 Press the (ENTER) key.

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

3 Select the type 1 to 4 with the (▲) (▼) key, and press the (ENTER) key.

```
SET UP
SELECT        :TYPE1
```

4 Select the [COOLONG TIME] with the (▲) (▼) key, and press the (ENTER) key.

```
[1]
COOLING TIME    <ent>
```

5 Set the cooling time with the (▲) (▼) key, and press the (ENTER) key.

- Setting Value: 0.0 to 2.0s

```
[1]COOLING TIME
SET UP          :0.0s
```

6 Press the (END) key to finish.
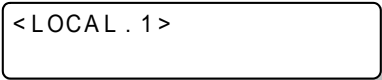
(Important!) • Please do not store combustible materials near the flushing BOX.

Initializing the settings

Initializes the print condition settings.

1 When <LOCAL> is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

2 Press the (ENTER) key.

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

3 Press the (ENTER) key.

```
SET UP
SELECT      :TYPE1
```

4 Select the [SETUP RESET] with the (▲) (▼) key, and press the (ENTER) key.

```
[1]
SETUP RESET      <ent>
```

5 Press the (ENTER) key.

• The settings are reset.

```
[1]SETUP RESET
INITIALIZE OK?   :ent
```

6 Press the (END) key to finish.

(Important!) • This initializes only the set items.

Turning OFF the UV lamp

Selecting for head gap adjustment

The UV irradiation device automatically goes OFF when no printing is carried out 30 min-utes or more. When printing is to be carried out with a long interval, the UV lamp can be setOFF to make the UV lamp service life longer. When printing restarts, the UV irradiationdevice automatically restarts and the UV lamp goes ON.

(Important!)
- You can set time until the UV lamp is turned OFF. (☞ P.3-25)
- No printing is to be carried out long time (30 minutes or more), set the UV lampOFF.
- Once the UV lamp is set OFF, it takes approximately 10 minutes to turn theUV lamp ON and make printing enabled.

| 1 | When <LOCAL> is displayed, press the ⬭UV⬭ key. | `<LOCAL.1>` |

| 2 | Select [LAMP OFF] with the ▲ ▼ key, and press the ⬭ENTER⬭ key. | `UV LAMP`
`LAMP OFF      <ent>` |

| 3 | Press the ⬭ENTER⬭ key.
• Turning OFF operation of the UV lamp starts. | `UV LAMP OFF`
`START        :ent` |

| 4 | After the lamp is turned OFF and when the screen on the right is displayed, press the ⬭END⬭ key to finish. | `UV LAMP OFF`
`CMPLETED` |

Setting the UV lamp OFF duration

Set time until the UV lamp is turned OFF.

1 When <LOCAL> is displayed, press the ⬭UV key.

```
<LOCAL.1>
```

2 Select [OFF TIMER] with the ⬭▲ ⬭▼ key, and press the ⬭ENTER key.

```
UV LAMP
OFF TIMER      <ENT>
```

3 Press the ⬭▲ ⬭▼ key to set time until the UV lamp is turned off, and press the ⬭ENTER key.

```
UV OFF TIMER
TIME:   00h 30m
```

4 Press the ⬭END key to finish.

Changing the UV illumination intensity

Intensity of the light at [HIGH], [NORMAL] and [LOW] may be changeable in 16 stepsbetween 50% and 100%.

1 When <LOCAL> is displayed, press the UV key.

```
<LOCAL.1>
```

2 Select [SET UV LEVEL] with the ▲ ▼ key, and press the ENTER key.

```
UV LAMP
SET UV LEVEL    <ent>
```

3 Press the ▲ ▼ key to set the intensity of light to [HIGH], and press the ENTER key.

```
SET UV LEVEL
HIGH          :Lv.16
```

• Setting Value: Lv.1 to Lv.16

4 Press the ▲ ▼ key to set the intensity of light to [NORMAL], and press the ENTER key.

```
SET UV LEVEL
NORMAL         :Lv.8
```

• Setting Value: Lv.1 to Lv.16

5 Press the ▲ ▼ key to set the intensity of light to [LOW], and press the ENTER key.

```
SET UV LEVEL
LOW            :Lv.1
```

• Setting Value: Lv.1 to Lv.16

6 Press the END key to finish.

MACHINE SETUP

It is each type of setting for using this machine more comfortably.

	Item	Set value [*1]	Outline
Machine Setup	MIST FAN	LOW / STANDARD / HIGH / OFF	Setting the strength of rear mist fan.
	TIME SET		Setting the present date and time.
	MACHINE NAME	01 ~ 99	Setting a machine name (machine No.) for recognizing each machine when plural machines are connected through USB2.0 interface.
	PRINT MODE	STANDARD / HIGH	Setting the print quality.
	INFORMATION	SerialNo. / VERSION / ERROR HISTORY / MAINTE.HISTORY	The machine information of the machine is confirmable.

*1. The setting at the time of purchase is indicated with the underline.

Setting the strength of mist fan

1 When <LOCAL> is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

2 Select the [MACHINE SETUP] with the (▲) (▼) key, and press the (ENTER) key.

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

3 Select the [MIST FAN] with the (▲) (▼) key, and press the (ENTER) key.

```
MACHINE SET UP
MIST FAN      <ent>
```

4 Press the (▲) (▼) keys to change the setting, and press the (ENTER) key.

• Setting Value:LOW, STANDARD, HIGH, OFF

```
MIST FAN
SETUP      :STANDARD
```

5 Press the (END) key several times to end.

Setting time

1 When <LOCAL> is displayed, press the (FUNCTION) key.

`<LOCAL.1>`

2 Select the [MACHINE SETUP] with the (▲) (▼) key, and press the (ENTER) key.

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

3 Select the [TIME SET] with the (▲) (▼) key, and press the (ENTER) key.

```
MACHINE SET UP
TIME SETUP      <ent>
```

4 The current time is displayed.

• Press the (ENTER) key to change the time.

```
TIME SET
2009.10.05   15:30:00
```

5 Input time by the pressing the (▲) (▼) (◀) (▶) keys.

• **Year/Month/Day/Time selecting** : by the (◀)(▶) keys.
• **Year/Month/Day/Time inputting** : by the (▲)(▼) keys.

```
TIME SET
2009.10.05   15:30:00
```

6 Press the (ENTER) key.

• The input time is indicated.

```
TIME SET
2009.10.05   15:30:00
```

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

Important!
• The time set in the past can be changed until only eight hours before the present displayed time.
• When a future time after the present one has been set by mistake, performing the following operations in Step 4 enables the already set future time to be restored to the previously set time.
  (1) Press the (FUNCTION) key in Step 4.
  (2) Press the (ENTER) key.
  If you have made several changes in time setting, only the last time to be set can be restored to the previously set time. In addition, the time before change is ahead by the time that has elapsed.

3

Useful Function

Setting Machine name

Set a machine name (machine No.) for recognizing each machine when plural machines are connected through USB2.0 interface.

1 When <LOCAL> is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

2 Select the [MACHINE SETUP] with the (▲) (▼) key, and press the (ENTER) key.

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

3 Select the [MACHINE NAME] with the (▲) (▼) key, and press the (ENTER) key.

```
MACHINE SET UP
MACHINE NAME    <ent>
```

4 Select the machine name (01 - 99) by pressing the (▲) (▼) key, and press the (ENTER) key.

```
MACHINE NAME
  UJF-706   - 01
```

5 Press the (END) key several times to end.

Change the print quality

1 When <LOCAL> is displayed, press the (FUNCTION) key.

`<LOCAL.1>`

2 Select the [MACHINE SETUP] with the (▲) (▼) key, and press the (ENTER) key.

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

3 Select the [PRINT MODE] with the (▲) (▼) key, and press the (ENTER) key.

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

4 Select the item by pressing the (▲) (▼) key, and press the (ENTER) key.

• As for the items, see the list on the below.

```
PRINT MODE
QUALITY    :STANDARD
```

5 Press the (END) key several times to end.

Item		Description
QUALITY	STANDARD	Draws with the standard speed and the image quality of UJF-706.
	HIGH	Draws slowly to ensure high image quality.

Confirming machine information

The machine information of the machine is confirmable.
Confirmable items of the machine information are as follows.

Item	Description
Serial No.	Displays serial No. of the machine.
VERSION	Displays version information of the machine.
ERROR HISTORY	This displays the history of errors and warnings to date. ◀ ▶ When you press , the date of occurrence (year/month/day/hour/minute) and the error/warning information are displayed alternately in the order of occurrence. (Supported from the firmware ver.1.80)
MAINTE.HISTORY	This displays the date and time when the maintenance function was used. The maintenance history mainly describes the manual and automatic (regular or sleep mode) cleaning functions. (Supported from the firmware ver.1.80)

1 When <LOCAL> is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

2 Select the [MACHINE SETUP] with the ▲ ▼ key, and press the (ENTER) key.

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

3 Select the [INFORMATION] with the ▲ ▼ key, and press the (ENTER) key.

```
MACHINE SET UP
INFORMATION    <ent>
```

4 Select the item to display with the ▲ ▼ key, and press the (ENTER) key.

```
INFORMATION
SerialNo.      <ent>
```

• Select the item referring the list below.

5 Press the (END) key to finish.

For the information displayed

This section describes the way to read the information displayed.

Serial No.		VERSION	
Displaying Serial No.	S/N * * * * * * * * D/N * * * * * * * *	Displaying the version information such as F/W or the like.	UJF-706 V1.00 MRL-III V1.50
ERROR HISTORY (Supported from the firmware ver.1.80)		**MAINTE. HISTORY** (Supported from the firmware ver.1.80)	
Displaying the occurrence date	ERROR HISTORY 00001>11.10.01 12:15 ◀ ⬭ ⬭ ▶	Displaying the contents of maintenance	MAINTE.HISTORY 00001>11.10.01 12:15 ◀ ⬭ ⬭ ▶
Displaying the contents of error	ERROR 41 MOTOR Y		CARRIAGE OUT

3

Useful Function

Other useful functions

Changing displayed language

Select the displayed language.

1 When <LOCAL> is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

2 Select the [DISPLAY] with the (▲) (▼) key, and press the (ENTER) key.

```
FUNCTION
DISPLAY          <ENT>
```

3 Select a language with the (▲) (▼) key, and press the (ENTER) key.

• Default is [English].

```
DISPLAY
English          <ent>
```

4 Press the (END) key to finish.

• Set item is not cleared even after turning the power off.

Data clear

Delete unneccessary data for this machine.

1 When <LOCAL> is displayed, press the (DATA CLEAR) key.

```
<LOCAL.1>
```

2 Press the (ENTER) key.

• The data is cleared.

```
DATA CLEAR
                 <ENT>
```

Displaying the information of this machine

1 When **<LOCAL>** is displayed, press the
(ENTER) **key.**

```
<LOCAL.1>
```

2 The information is displayed
sequentially with the (ENTER) **key.**

- The information shown on the right appear.
- 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
```
[SPC-0371]INK REMAIN
         9999 9999 9999
```

Version/ Command information
```
UJF-706      V1.00
MRL—III      V*.**
```

Lamp Timer
```
<LOCAL.1>
LAMP TIMER          0
```

Pressure information
```
<LOCAL.1>
NEGA.PRESS  2.30kpa
```

Sub Tank information
```
<LOCAL.1> SubTank
       MMMM LLLL FFFF
```

3 Press the (ENTER) **key to return to**
<LOCAL>.

```
<LOCAL.1>
```

3

Useful Function

CHAPTER 4
How to care

💡 In this chapter, maintenance of this machine including ink replacement and cleaning is explained.

Maintaining

To use this machine for a long time, be sure to perform maintenance of this machine periodically or whenever necessary.

When this machine is left unused for a long time

- Be sure to turn off the main power switch on the side of this machine. (☞ P.2-4)
- Remove the media being set.

Precautions in cleaning

- Never disassemble this machine. Disassembling this machine can result in electric shock hazards or damage to this machine.
- Prevent moisture from entering this machine. Moisture inside the machine can result in electric shock hazards or damage to this machine.
- Before starting maintenance work, be sure to turn off the main power switch and unplug the power cable; otherwise, an unexpected accident may occur.
- Do not use benzine, thinner, or any chemical agent containing abrasives. Such materials can deteriorate or deform the surface of the covers.
- Do not apply lubricating oil or the like inside to any part inside this machine. Such materials can cause this machine mechanism to fail.
- In case water or alcohol mixed into the UV curing ink (UV ink), flocculation would be occurred. Be sure not to adhere water or alcohol not only on the nozzle and also near the head.
- This machine uses UV curing ink (UV ink). When in daily care, be sure to put on the supplied goggles and gloves.

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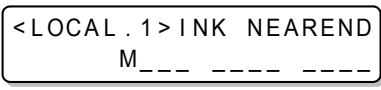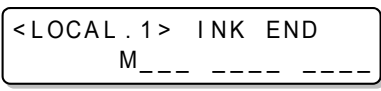
If the frame components of the device have stained, dampen a poece of soft cloth with water or neutral detergent diluted with water, squeeze it and wipe the frame components clean.

4

How to care
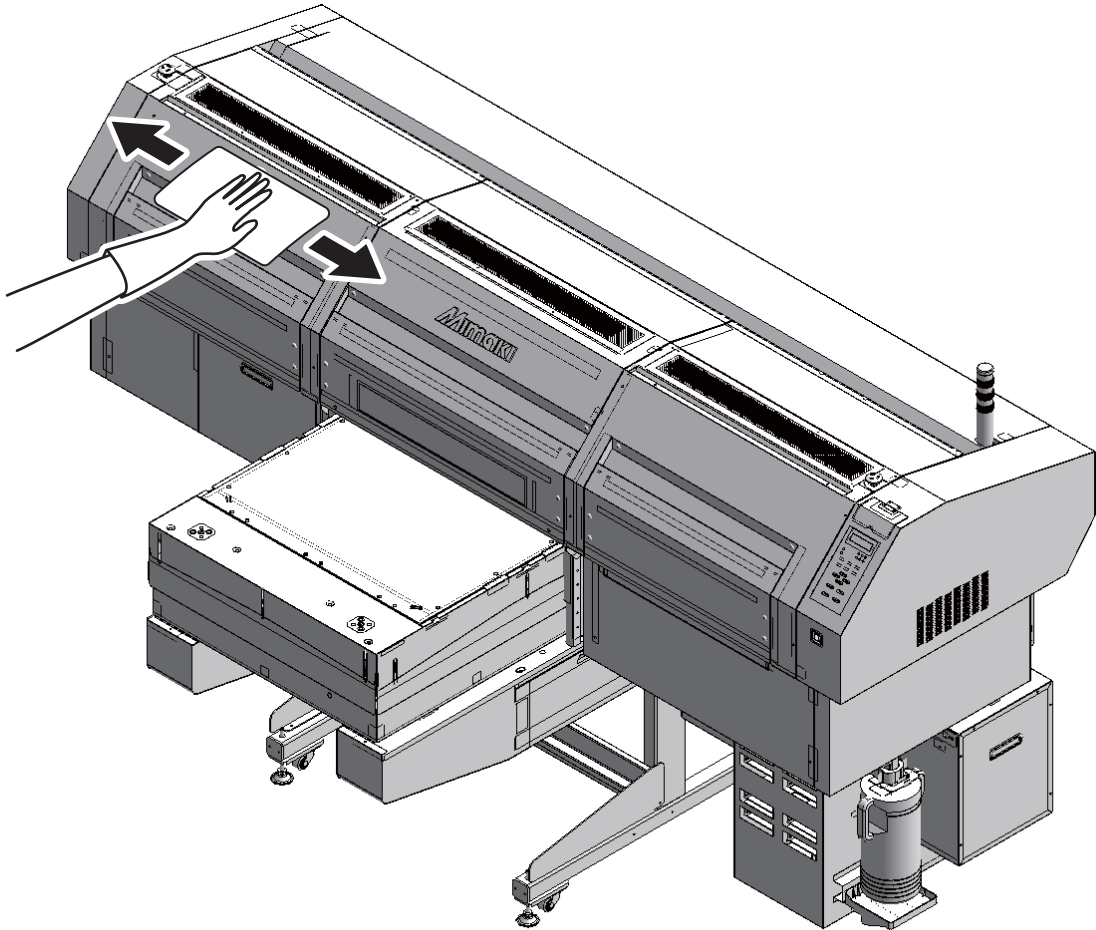
Ink cartridge

Replacing with a new ink cartridge

Replace of ink cartridges in the following cases.

Display	Outline
`<LOCAL.1>INK NEAREND` `M___ ____ ____`	**The ink in an ink cartridge is low.** • Drawing can be continued, but the ink may end during the drawing. Early replacement is recommended. • The display shown in the left indicates that magenta ink is low.
`<LOCAL.1> INK END` `M___ ____ ____`	**The ink in an ink cartridge ended.** • Unable to continue drawing. Replace with a new one immediately. • The display shown in the left indicates that magenta ink ended.

Before replacing ink cartridges, turn the display to <LOCAL> or turn the power off. (☞ P.2-4)

---

1   **Remove an ink cartridge to be replaced.**

---
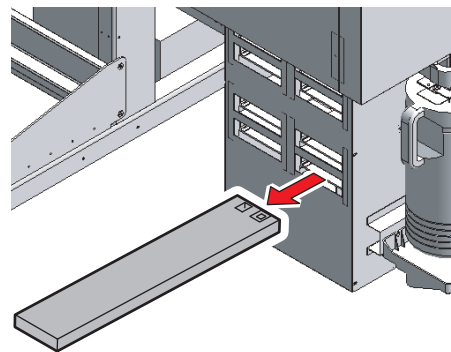
2   **Set a new ink cartridge.**

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

IC chip

4-4
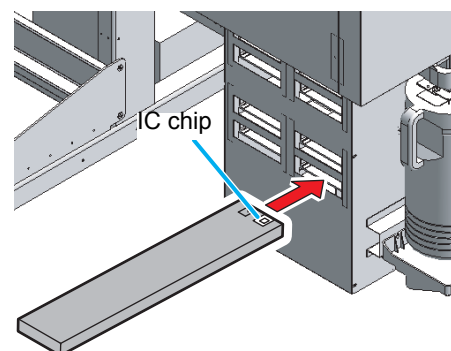
Ink cartridge trouble

When a trouble is detected on ink cartridges, a warning message appears.
Printing, cleaning and all other operations using ink becomes unusable.
In this case, immediately replace the ink cartridge with a new one.

⚠ **Caution**

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

---

1 **Check the trouble messages.**

- For the detail, see P.5-4 "Troubles displaying messages".

```
<LOCAL.1>ColorofINK
        MMCC YYKK WWSS
```

---

2 **Press the ENTER key.**

```
[SPC-0371]INK REMAIN
        9999 9999 9999
```

---

3 **Press the ENTER key again.**

- If there is no trouble, the menu returns to <LOCAL>.
- If there are two or more troubles, press the ENTER key again to display the next trouble.
- When all trouble of cartridges are displayed, the menu returns to <LOCAL>.

```
<LOCAL.1> NO CARTRDG
        MMCC YYKK WWSS
```

```
<LOCAL.1>INK NEAREND
        MMCC YYKK WWSS
```

```
<LOCAL.1> INK END
        MMCC YYKK WWSS
```

```
<LOCAL.1>Kind of INK
        MMCC YYKK WWSS
```

```
<LOCAL.1>ColorofINK
        MMCC YYKK WWSS
```

```
<LOCAL.1>WRNG INK IC
        MMCC YYKK WWSS
```

```
<LOCAL.1>NON-ORIGNAL
        MMCC YYKK WWSS
```

```
<LOCAL.1> Expiration
        MMCC YYKK WWSS
```

```
<LOCAL.1>InkPack Chk
        MMCC YYKK WWSS
```

4

How to care

Washing cartridge

If there is any abnormality in the washing cartridge, the message below is displayed.
If you perform cleaning "hard" with the status in which the message of "!WashLiquidCartr." or "!WRONG WASH CART." is displayed, "ERROR30 OPERATION" is displayed and you cannot perform cleaning.

Display	Outline
`<LOCAL.1>` `!WashLiquidCartr.NONE`	• **The washing cartridge has not been inserted.** Insert the washing cartridge.
`<LOCAL.1>` `!WRONG WASH CART.`	• **The cartridge that is not the washing cartridge has been inserted.** • **The ink IC has an abnormality.** Insert the correct washing cartridge.
`<LOCAL.1>` `!Wash Liquid END`	• **No washing liquid in the cartridge.** Insert a new washing cartridge.
`<REMOTE.1>            !WSH`	• **Either of problems above has occurred.** Return to the LOCAL and check the error contents.

Cleaning the flushing box

When you clean the flushing box, check the flushing filter, and replace this as needed. (about once a week)

Contents of the cleaning kit	• Gloves	• Paper towel	• Goggles

- When replacing, be sure to put on the supplied goggles and gloves, since you may get ink in your eyes.

(Important!)
- Replace the flushing filter: SPC-0655 (waste ink absorber) and the BEMCOT: A101437 about once a week. If it absorbed more than its capacity, ink may overflow.

---

1 | **Turn the power OFF with the power switch.**

Power switch

---
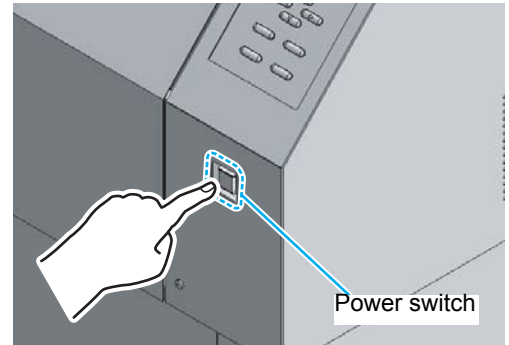
2 | **Open the front left cover.**

Front left cover

---
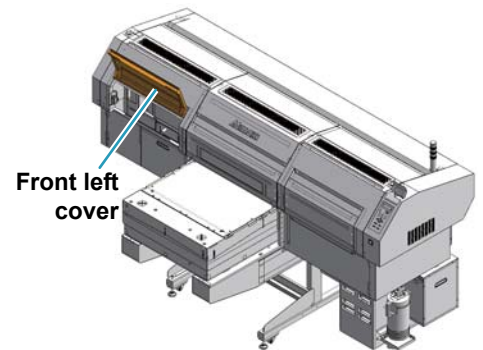
3 | **Move the carriage to the right side manually.**
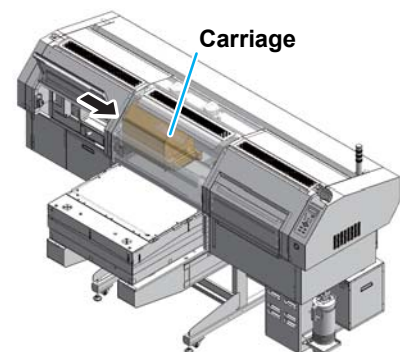
Carriage

4 Wipe out ink on the surface of the flushing box.

- Wipe out ink that has adhered by flushing on the flushing tray with cloth.
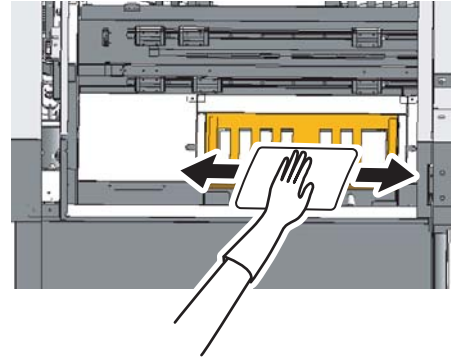
5 Remove the flushing box cover, filter and mesh.

Flushing box cover
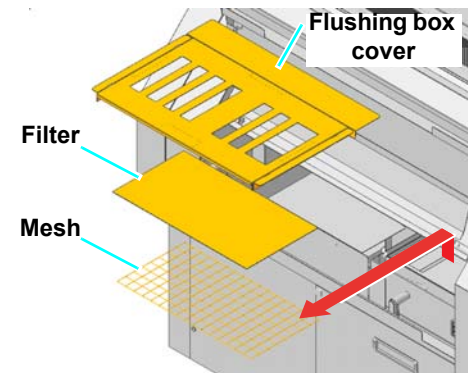
Filter

Mesh

6 Wipe ink adhering to the tray.

- Wipe ink adhering to the tray by flushing with a cloth.
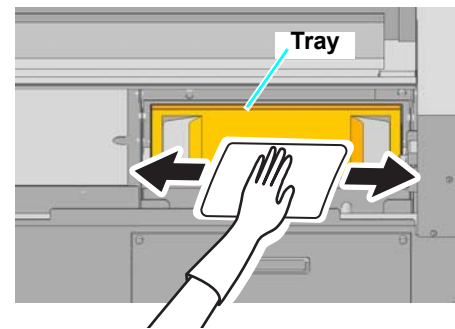
Tray

7 Remove the tray.
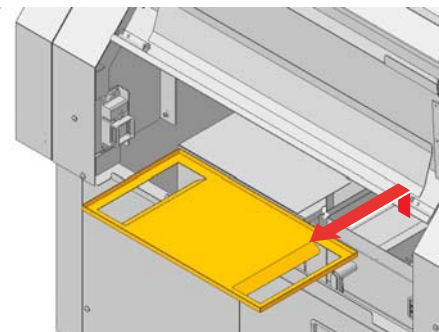
8 Replace Bemcot inside the flushing BOX.

• When ink adheres to the inner box, wipe it with a cloth.

Inner Box
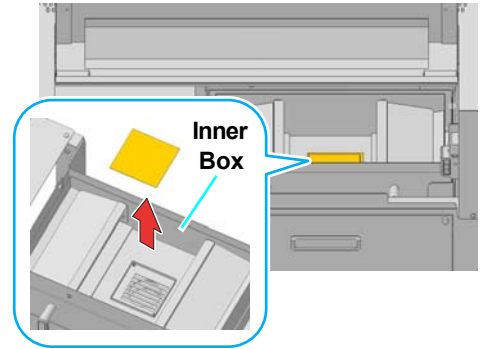
9 Set the tray, the mesh, new filter and the flushing BOX.
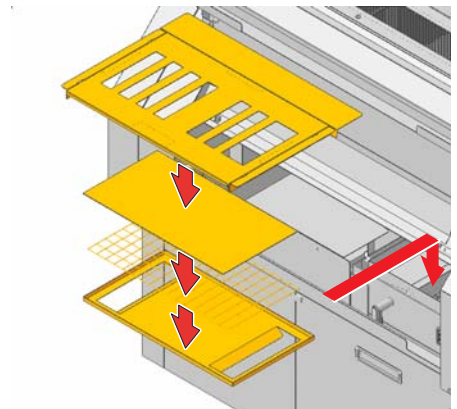
Avoiding ink dripping at printing

Ink droplets from the mist at drawing may arise on the bottom of the carriage. As the ink droplets may drip and stain the media or cause blur or dot missing, clean the bottom of the carriage periodically.

Tools	• UJ Cleaning swab (SPC-0386)	• Gloves	• Goggles
	• Paper towel		

1 **Put out the UV lamp and switch OFF the power.**

   • Press the power switch in the front of this machine.

2 **Turn the main power switch OFF on the side of this machine.**

Main power switch
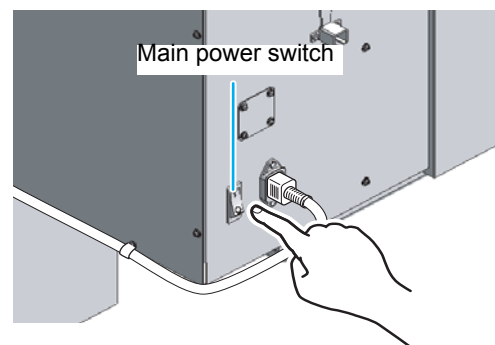
   • When discharging ink for the head cleaning, wait until the discharging is finished, and work.

3 **Open the front left cover and the front lower left cover.**

Front Lect cover

Front lower left cover
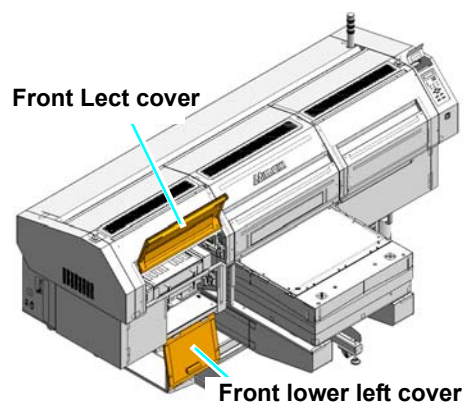
4 **Move the carriage to the right side manually.**

Carriage

4-10
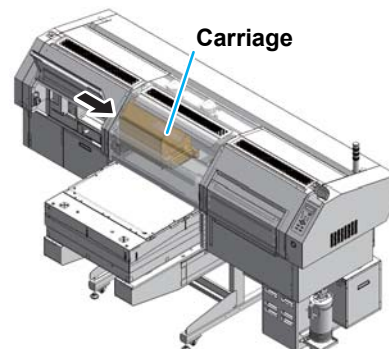
5 Remove the flushing box cover.

• Lift it up to remove.
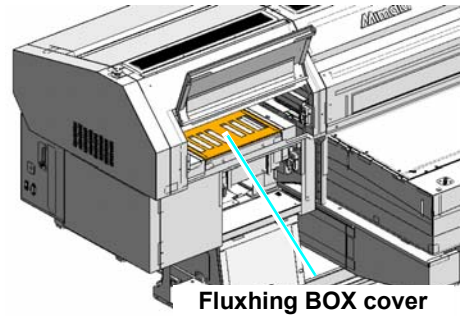
Fluxhing BOX cover

6 Bring down the flushing BOX.

(1) Lift it up slightly.
(2) Push it into the rear side.
(3) Bring it down.

(1)
(2)
(3)
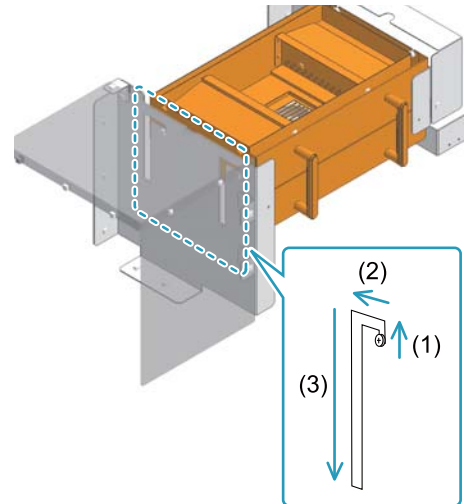
7 Move the carriage to the flushing position manually.

8 Dip the cleaning swab into the cleaning solution, and clean the side surface of the head.

• Do not wipe the nozzle face of the head. It may cause nozzle clogging.
• To buy special cleaning swabs, contact a distributor in your district or our office.
• If ink adheres to the bottom surface of the carriage, wipe it off completely.

Bottom of the carriage
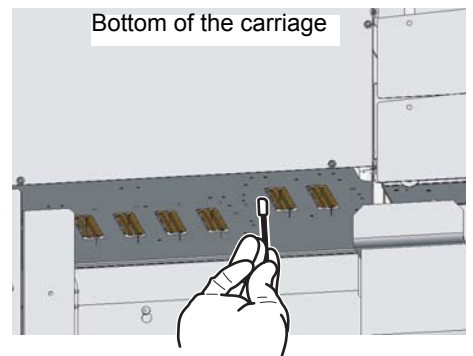
9 Set the covers and the tray removed at Step 3, 4 and 5.

10 Turn the power on.

4

How to care

When the waste ink tray is full

Waste ink used for head cleaning gathers in the waste ink tank and the wiper tank.
Periodically (every day) check the waste ink tank and when it is full, dispose of the ink.

- If you need a spare waste ink tray/tank, contact a distributor in your district or our office.
- Prepare a polyethylene tank to put in the waste ink.

- When ink is discharging such as for head cleaning, conduct the operation after the discharging is completed.
- Handle the waste ink tray/tank with care not to spill the waste ink.

Disposing of the ink in the waste ink tank

When the waste ink tank becomes full, the machine informs you of it by displaying the error message. If the error message is displayed, check the waste ink tank and discard ink of the waste ink tank according to the procedures below.

```
!WASTE  INKTANK
```

1 **Turn the power on.**

- After initializing, <LOCAL> is displayed.

2 **When <LOCAL> is displayed, press the (FUNCTION) key.**

```
<LOCAL.1>
```

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

```
FUNCTION
MAINTENANCE      <ENT>
```

4 **Select the [ST.MAINTENANCE] with the (▲) (▼) key, and press the (ENTER) key.**

```
MAINTENANCE
ST.MAINTENANCE <ent>
```

5 **Select the [CHNG WASTE TANK] with the (▲) (▼) key, and press the (ENTER) key.**

```
ST.MAINTENANCE
CHNG WASTE TANK<ent>
```

6 **Release the fixing attachment of the waste ink tank.**

- Open the fixing attachment to the direction indicated by an arrow in the figure.
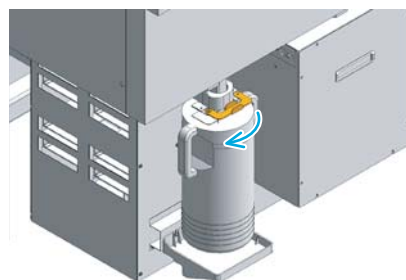
7 Lift up the duct inside the waste ink tank.
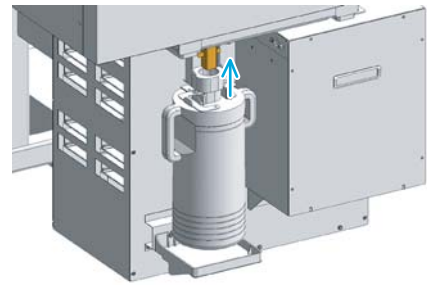
8 Pull out the waste ink tank.
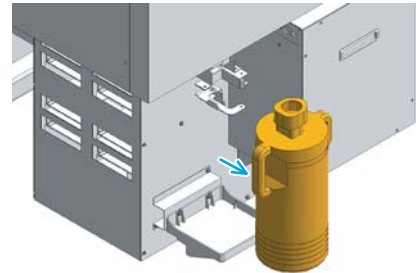
9 Pour the waste ink into the other polyethylene tank.

 • Discard the waste ink in compliance with the bylaw.

10 Set the emptied waste ink tank to this machine.
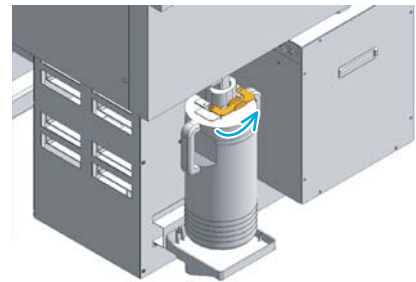
11 Press the ⬭ ENTER ⬭ key.

```
CHANGE WIP TANK
COMPLETED       :ent
```

12 Press the ⬭ END ⬭ key to finish.

(Important!) • If the error message on the right is displayed, you cannot perform cleaning, subtank maintenance, etc. Discard ink of the waste ink tank as soon as possible.

```
!WASTE INKTANK FULL
```

4

How to care

Disposing of the waste ink in the wiper tank

If the wiper tank is full, an error appears on the display.
When the error appears, dispose ink of the wiper tank immediately as follows.

```
WIPER TANK FULL
```

---

1 **Turn the power on.**

- After initializing, <LOCAL> is displayed.

---

2 **When <LOCAL> is displayed, press the** (FUNCTION) **key.**

```
<LOCAL.1>
```

---

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

```
FUNCTION
MAINTENANCE      <ENT>
```

---

4 **Select the [ST.MAINTENANCE] with the** (▲) (▼) **key, and press the** (ENTER) **key.**

```
MAINTENANCE
ST.MAINTENANCE <ent>
```

---

5 **Select the [CHANGE WIP TANK] with the** (▲) (▼) **key, and press the** (ENTER) **key.**

```
ST.MAINTENANCE
CHANGE WIP TANK<ent>
```

---

6 **Open the cover of the waste ink box. (Rear of this machine)**

(1) Remove the screws fixing the waste ink box cover.
(2) Open the cover.

Waste ink box cover
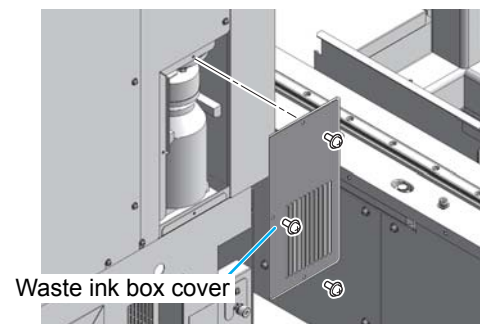
7 **Take the wiper tank out, and dispose of the waste ink.**

- Turn the tank holding the tank cover, take out the tank, and then dispose of the ink in the tank.
- Dispose of the waste ink pursuant to the regulations of your district.
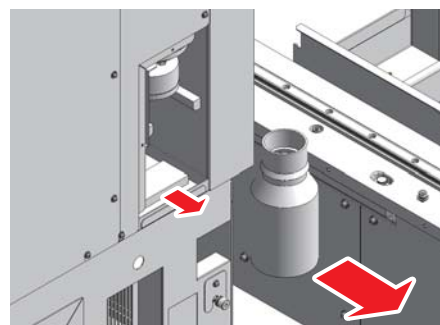
8 **Set the wiper tank.**

- Turn the tank holding the tank cover, and close the tank cover.
- Fit the waste ink box cover.

9 **Press the** ⬭ENTER⬭ **key.**

```
CHANGE  WIP  TANK
COMPLETED         :ent
```

10 **Press the** ⬭END⬭ **key to finish.**

4

How to care

Setting nozzle face cleaning time

When set times of drawing are completed, nozzle face of the head is cleaned automatically to remove ink droplets on the nozzle face.

1 **When <LOCAL> is displayed, press the** (FUNCTION) **key.**

```
<LOCAL.1>
```

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

```
FUNCTION
MAINTENANCE     <ENT>
```

3 **Select the [INT. MAINTENANCE] with the** (▲) (▼) **key, and press the** (ENTER) **key.**

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

4 **Select the [PRINT END] with the** (▲) (▼) **key, and press the** (ENTER) **key.**

```
INT.MAINTENANCE
PRINT END      <ent>
```

5 **Select maintenance interval with the** (▲) (▼) **key, and press the** (ENTER) **key.**

```
PRINT END
INTERVAL :SCAN CNT
```

- Setting value: SCAN CNT, PRINT CNT

6 **Set the number of times with the** (▲) (▼) **key, and press the** (ENTER) **key.**

```
PRINT END
SCAN COUNT  : 200
```

- Setting value
  SCAN CNT: 200 to 1000 (In 100 unit)
  PRINT CNT: 1 to 4

7 **Select wiping or not for each head, and press the** (ENTER) **key.**

```
PRINT END
SELECT :12345678abcd
```

(1) Select the head with the (◀) (▶) key.
(2) Select maintenance or not ("*" marked) with the (▲) (▼) key.

8 **Set the maintenance method with the** (▲) (▼) **key, and press the** (ENTER) **key.**

```
PRINT END
SELECT        :WIPING
```

- Setting value: WIPING, CLEANING

9 Press the ⬭END⬮ key to finish.

Item		Description
INTERVAL	SCAN COUNT	Cleans the nozzle surface at the end of printing when it exceeded the set number of scans (200 to 10,000 times).
	PRINT COUNT	Cleans the nozzle surface per the set number of printings (1 to 4 times).

4

How to care

Depending on the subtank status, the slider moves to the right and left continuously with the buzzer sound.

1 When <LOCAL> is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

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

```
FUNCTION
MAINTENANCE      <ENT>
```

3 Select the [INT. MAINTENANCE] with the (▲) (▼) key, and press the (ENTER) key.

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

4 Select the [POWER ON] with the (▲) (▼) key, and press the (ENTER) key.

```
INT.MAINTENANCE
POWER ON        <ent>
```

5 Select cleaning or not for each head, and press the (ENTER) key.

```
POWER ON
SELECT  :KCMYcm--WS--
```

(1) Select the head with the (◀) (▶) key.
(2) Select cleaning or not ("*" marked) with the (▲) (▼) key.
   • When not cleaning the all heads, select "*" for the all heads.

6 Press the (END) key to finish.

Preventing nozzle dropout while power-off

Even while the power switch is OFF, the machine starts periodically and executes maintenance operation to prevent nozzle dropout. (Supported from the firmware ver.1.70)
The settable maintenance operation is as below:

Item	Description
REFRESH	The interval between each refreshing operation is set.
CLEANING	The interval between each cleaning operation and the nozzle row on which cleaning is performed are set.

Important!
- To prevent nozzle dropout, the machine may start at the timing other than the set interval.
- When using SPC-0516 (F-200), the setting below is recommended:
  REFRESH: 1h
  CLEANING: 4h

Setting the Refreshing Interval in the Sleep Mode

To prevent nozzle dropout, set the interval to discharge a little ink from the nozzle.

1 When <LOCAL> is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

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

```
FUNCTION
MAINTENANCE     <ENT>
```

3 Select the [SLEEP MAINTE] with the (▲) (▼) key, and press the (ENTER) key.

```
MAINTENANCE
SLEEP MAINTE   <ent>
```

4 Select the [REFRESH] with the (▲) (▼) key, and press the (ENTER) key.

```
SLEEP MAINTE
REFRESH        <ent>
```

5 Set the refresh interval with the (▲) (▼) key, and press the (ENTER) key.

- Setting value: OFF, 1 to 168h

```
SLEEP REFRESH
INTERVAL       :  2h
```

6 Press the (END) key to finish.

4

How to care

Setting the Cleaning Interval in the Sleep Mode

To prevent nozzle dropout, set the interval to perform cleaning and the nozzle row on which cleaning is performed.

1 When **<LOCAL>** is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

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

```
FUNCTION
MAINTENANCE      <ENT>
```

3 Select the **[SLEEP MAINTE]** with the (▲) (▼) key, and press the (ENTER) key.

```
MAINTENANCE
SLEEP MAINTE    <ent>
```

4 Select the **[CLEANING]** with the (▲) (▼) key, and press the (ENTER) key.

```
SLEEP MAINTE
CLEANING        <ent>
```

5 Set the cleaning interval with the (▲) (▼) key, and press the (ENTER) key.

```
SLEEP CLEANING
INTERVAL        :   8h
```

• Setting value: OFF, 1 to 168h

6 Select cleaning or not for each nozzle, and press the (ENTER) key.

```
SLEEP CLEANING
SELECT :MMCCYYKKWWSS
```

(1) Select the nozzle with the (◀) (▶) key.
(2) Select maintenance or not ("-" marked) with the (▲) (▼) key.
 • When not cleaning the all nozzle, select "-" for the all nozzles.

7 Press the (END) key to finish.

Regular maintenance of white ink

White ink precipitates easier than other inks.
- If not printing more than two weeks, white ink may precipitate in the ink cartridge or inside of this machine.
- When an ink precipitates, the nozzle may be clogged and it can not print normally.
- Make sure to perform periodical maintenance to avoid precipitation and to keep white ink in good condition.

- Shake ink inside the cartridge by following the Step 7 in the next page once or more a day.
- Perform the maintenance below before working once a week.
- Use the specified ink cartridge.
- When you use SPC-0516 (F-200) ink, also shake color ink inside the cartridge once or more a day. Ink may settle down and print quality may be degraded.

---

1 When <LOCAL> is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

---

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

```
FUNCTION
MAINTENANCE      <ENT>
```

---

3 Select the [WHITE MAINTE] with the (▲) (▼) key, and press the (ENTER) key.

```
MAINTENANCE
WHITE MAINTE.   <ent>
```

---

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

```
WHITE MAINTENANCE
COLOR   :_____WW**
```

(1) Select the head with the (◄) (►) key.
(2) Select executing white maintenance or not ("*" marked) with the (▲) (▼) key.

---

5 Pull out the white ink cartridge from the ink station.

```
WHITE MAINTENANCE
REMOVE CARTRIDGE
```


---
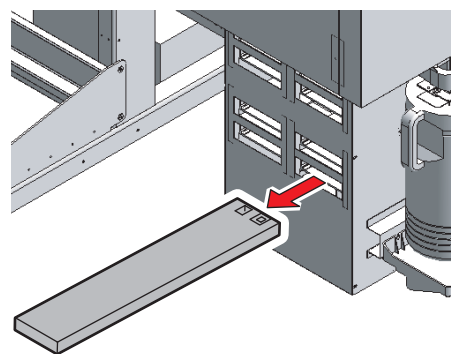
6 Press the (ENTER) key.
- White ink discharge starts.

```
EMISSION
PLEASE WAIT
```

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
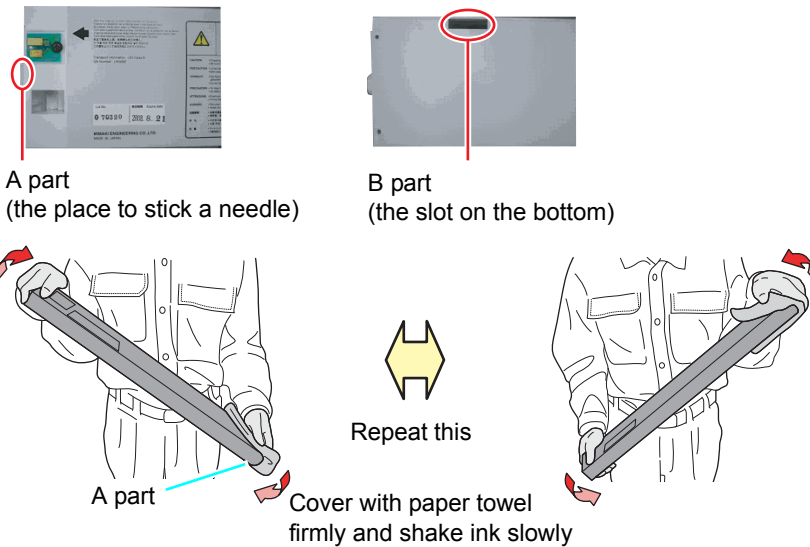
8

When the next screen is displayed, set the white ink cartridge to the ink station again.

WHITE MAINTENANCE
SET CARTRIDGE

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

IC chip
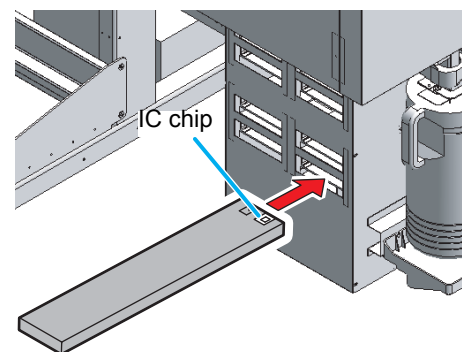
9 **Press the ⟨ENTER⟩ key.**

• Ink filling starts.

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

10 **When a message shown in the right is displayed after filling, press the ⟨END⟩ key to finish.**

```
MAINTENANCE
WHITE MAINTE.   <ent>
```

4

How to care

If blur or missing remains

When blur or dot missing does not improve after head cleaning, perform subtank maintenance or fill up ink.

Fill Up Ink

1 **Insert an ink cartridge into the ink station.**
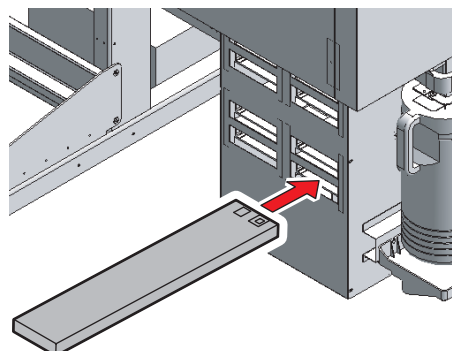
• Insert an ink cartridge firmly.

2 **When <LOCAL> is displayed, press the (FUNCTION) key.**

```
<LOCAL.1>
```

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

```
FUNCTION
MAINTENANCE      <ENT>
```

4 **Select the [FILL UP INK] with the (▲) (▼) key, and press the (ENTER) key.**

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

5 **Select execution of subtank maintenance for each head, and press the (ENTER) key.**

(1) Move the cursor with the (◀) (▶) key.
(2) Select filling ink or not with the (▲) (▼) key.
• Select for all the heads.
Execute fill up ink : Number of the set ink cartridge is displayed.
Not execute fill up ink : "*" is displayed.

```
FILL UP INK
COLOR   :MMCCYYKKWWSS
```

```
FILL UP IN
COLOR   :MM*CYYKKWWSS
```

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

• Fill up ink will starts.

```
FILL UP INK
FILL UP START    :ent
```

7 **When fill up ink is completed, press the (END) key to finish.**

Subtank Maintenance

1 | **Insert an ink cartridge into the ink station.**
• Insert an ink cartridge firmly.
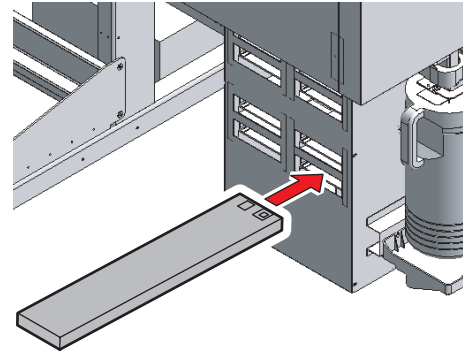
2 | **When <LOCAL> is displayed, press the (FUNCTION) key.**

```
<LOCAL.1>
```

3 | **Select the [MAINTENANCE] with the (▲) (▼) key, and press the (ENTER) key.**

```
FUNCTION
MAINTENANCE      <ENT>
```

4 | **Select the [SUBTANK MAINTENANCE] with the (▲) (▼) key, and press the (ENTER) key.**

```
MAINTENANCE
SUBTANK MAINTE.<ent>
```

5 | **Select execution of subtank maintenance for each head, and press the (ENTER) key.**

```
SUBTANK MAINTENANCE
COLOR   :MMCCYYKKWWSS
```

```
SUBTANK MAINTENANCE
COLOR   :MM*CYYKKWWSS
```

(1) Move the cursor with the (◀) (▶) key.
(2) Select filling ink or not with the (▲) (▼) key.
• Select for all the heads.
   Execute subtank maintenance ：Number of the set ink cartridge is displayed.
   Not execute subtank maintenance ："*" is displayed.

6 | **Press the (ENTER) key.**
• Subtank maintenance starts.
• Depending on the subtank status, the slider moves to the right and left continuously with the buzzer sound.

```
SUBTANK MAINTENANCE
EXECUTE          :ent
```

4

How to care

Wiper cleaning

The wiper sweeps ink stuck on the nozzle of the head.
The wiper becomes tainted with ink or dusts during the operation of this machine.
In order to keep the head in good condition, clean the wiper frequently.
If the message shown on the right appears, perform cleaning of the wiper immediately.

```
!CLEAN WIPER
```

• When cleaning, be sure to put on the supplied goggles and gloves since you may get ink in your eyes.

Tools	• Wiper Sponge set (SPC-0578)	• Pre wipe rubber (SPA-0172)	
	• UJ Cleaning swab (SPC-0386)	• Gloves	• Goggles

---

1 When <LOCAL> is displayed, press the (FUNCTION) key.

```
<LOCAL.1>
```

---

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

```
FUNCTION
MAINTENANCE      <ENT>
```

---

3 Select the [ST.MAINTENANCE] with the (▲) (▼) key, and press the (ENTER) key.

```
MAINTENANCE
ST.MAINTENANCE <ent>
```

---

4 Select the [WIPER CLEAN] with the (▲) (▼) key, and press the (ENTER) key.

```
ST.MAINTENANCE
WIPER CLEAN      <ent>
```

• The carriage moves to near the flushing tray on the left.
• The wiper moves to the front.

---

5 Open the front right cover.

Front right cover
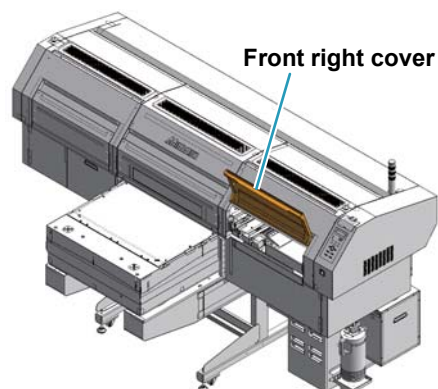
6 **Wipe out the dirt of the wiper with the cleaning swab.**

- Wipe the places shown in the right.
- If the dirt of the wiper is heavy, press the (FUNCTION) key to open the nozzle of the washing liquid. Press the (FUNCTION) key again to stop the washing liquid.
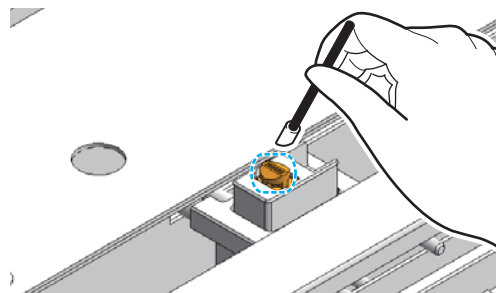
7 **Wipe out the dirt of the wiper shaft and sensor dog with the cleaning swab.**

- Wipe the places shown in the right.
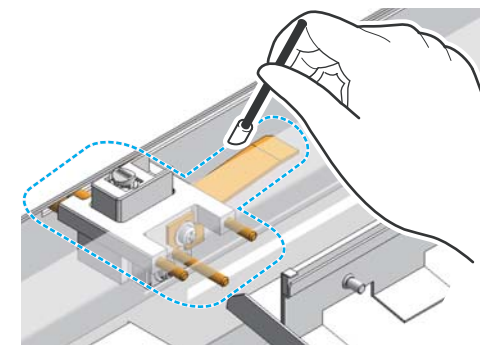
8 **If sponges are dirty, replace the sponge.**

- Remove the sponge with tweezers or the like, then set the new sponge.
- Replace the sponge about every six months.
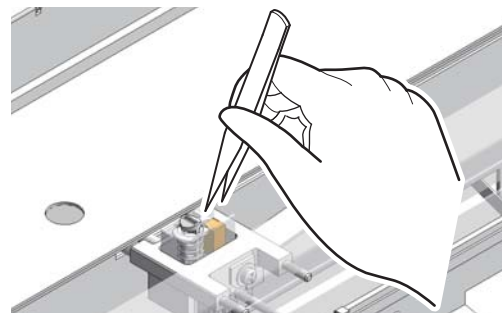
9 **Wipe the the dirt of the wiper rubber with the cleaning swab.**

- Wipe the places shown in the right.
- If the dirt is heavy, replace the rubber. (SPA-0168)
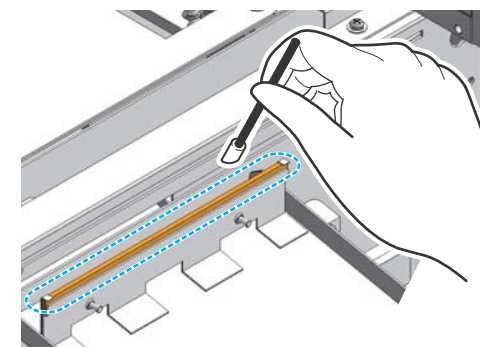
10 **After cleaning, press the (ENTER) key.**

- Initializing starts.

```
WIPER CLEAN
COMPLETED      :ent
```

11 **Press the (END) key to finish.**

4

How to care

Refill antifreeze liquid

Supply antifreeze liquid and water to the hot water tank in the water heating device that runs for keeping the ink at an appropriate temperature. Check the device every month.

Water heating device
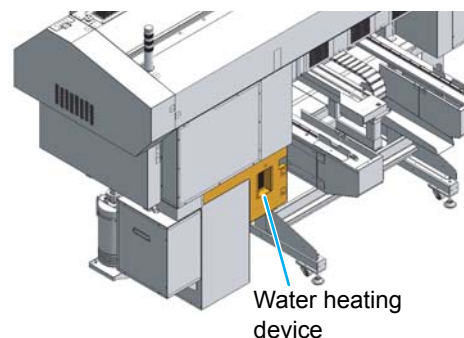
Precautions for refilling

- Water and antifreeze liquid compound ratio should be 2(water) to 1(Antifreeze liquid).
- When only water is supplied to the hot water tank without antifreeze liquid, it may damage the head.
- When only antifreeze liquid is supplied to the hot water tank without water, the liquid temperature does not increase, and may cause an error.
- Check the water is on the required level in the water heating device every month.
- If water in the water heating device frequently becomes insufficient, contact a distributor in your district or our office.
- Dispose of the waste water mixed with antifreeze liquid pursuant to the regulations of your district.

Precautions in handling the antifreeze liquid

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

- Use the recommended antifreeze liquid by Mimaki. If not, the water heating device may be broken. (Supplied antifreeze liquid : SPC-0394 [1000cc x 2 bottles])
- 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 spare hot water tank, contact a distributor in your district or our office.
- Prepare a tank with a cap to put in the waste water from hot water tank.
- When water in the hot water tank is low, an error message is displayed. In this case, replace water in the same way shown as the next page.

```
WATER LACK
```

Refilling antifreeze liquid

If a lack of water error is displayed, refill antifreeze liquid-mixed water.
To fill with the water, refill about 200cc.

1 **Mix antifreeze liquid with water.**

(1) Mix 1 part antifreeze liquid with 2 parts water.
(2) Put the mixed water into a provided syringe.

2 **Uncover the feed-water inlet and the air vent.**
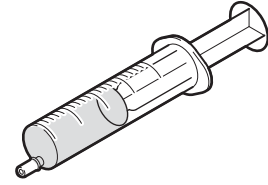
feed-water inlet
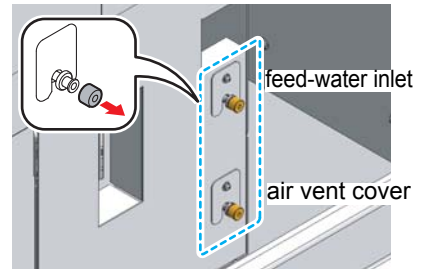
air vent cover

3 **Refill antifreeze liquid.**

• Fill the antifreeze liquid from the feed-water inlet.
• Fill it up seeing the water gauge on the back of this machine.
 Displaying red on the water gauge indicates full.

water gauge
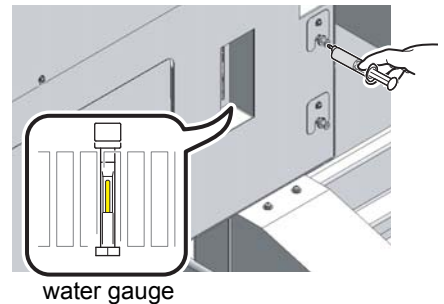
4 **Cover the feed-water inlet and the air vent.**

4

How to care
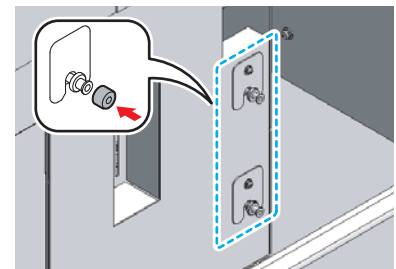
Cleaning of the UV lamp filter

To use this machine for a long time, clean the UV lamp filter at end of the day's work.

- Put on supplied goggles and gloves. Ink may splash into the eye.

Caution

- When a screw is dropped in replacing of the filter, contact a distributor in your district or our office.
- If the message on the right is displayed, clean the UV lamp filter as soon as possible.

```
MAINTENANCE WARNING
CLEAN UV LAMPFILTER
```

Tools	• Gloves	• Goggles	• Stainless tube brush

1 **Put out the UV lamp and switch OFF the power.**

- Press the power switch in the front of this machine.

2 **Turn the main power switch OFF on the side of this machine.**

Main power switch
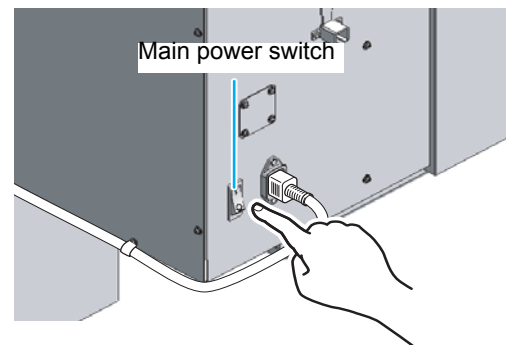
3 **Open the front left cover.**

Front left cover
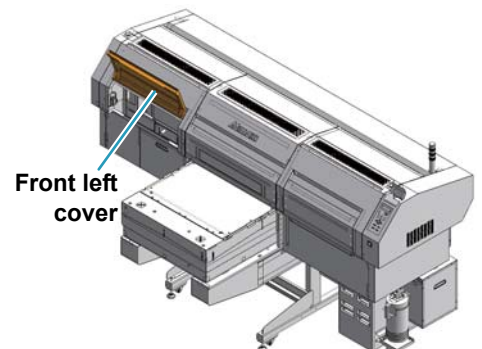
4 **Remove the UV lamp filter.**

- Remove the hand screw, and then remove the filter and the filter holder by moving them upward.
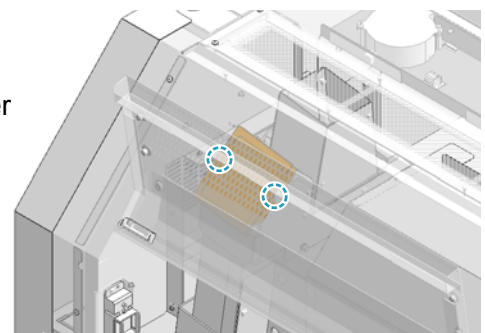
5 **Scoop and drop mist polled in the UV lamp filter with the attached metal brush.**

Metal brush
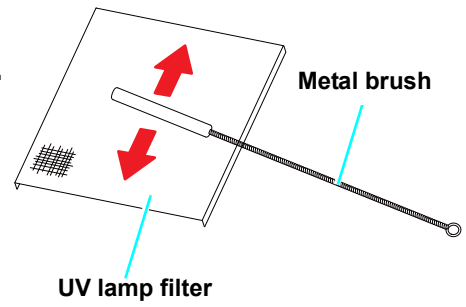
UV lamp filter

6 **Attach the UV lamp filter and close the front left cover.**

• Attach them in the reverse procedures of the Step 3 and 4.

4

How to care

Cleaning of the UV power supply filter

To use this machine for a long time, clean the UV power supply filter at start of the day's work.

Tools	• Waste cloth	• Vacuum cleaner	

1 **Put out the UV lamp and switch OFF the power.**

• Press the power switch in the front of this machine.

2 **Turn the main power switch OFF on the side of this machine.**

Main power switch
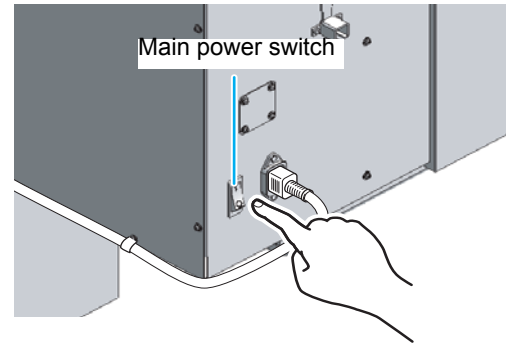
3 **Remove the front filter of the UV power supply.**

(1) Put your fingers into four corners of the filter holder, and pull the filter holder to the front.
(2) Remove the claws on four sides of the filter holder.

claw

Filter holder

corner
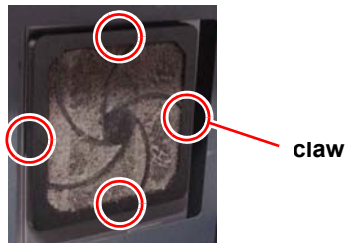
Filter

(3) Remove the filter.
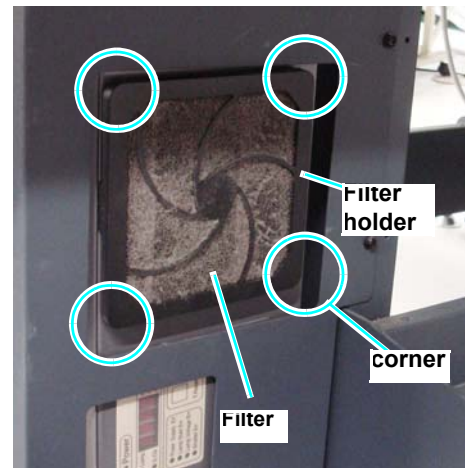
(Important!) • The claws on four sides of the filter holder are tightened firmly. Fully be careful not to break the claws.

4 Use a vacuum cleaner to suc dust amd dirt from the filter

• Wipe off the metal mesh at the UV power supply side with a waste cloth etc.

Wipe off.
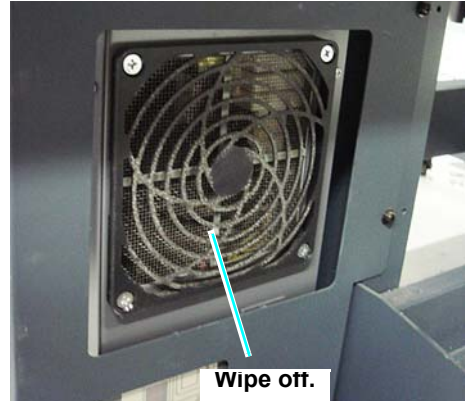
Important! • Clogging shall not be found.

It is clogged with dust.   **Status without clogging**

⚠ **Caution**

Do not wash the filter with water.
• Be careful not to make water or water drop go into the machine.
  If water adheres to the filter, dry enough before using it.

5 Put the filter back in its origin position.

4

How to care

Cleaning of the optional vacuum unit filter

When you use the optional vacuum unit (OPT-J0270), clean the filter of it (once in a week, or, when absorption becomes weak).

Tools	• waste cloth	• Vacuum cleaner	

1   **Turn OFF the power supply of the main body and the vacuum unit.**

2   **Remove the lid.**

     • Disengage the hooks and remove the lid.

Lid

3   **Remove the filter.**
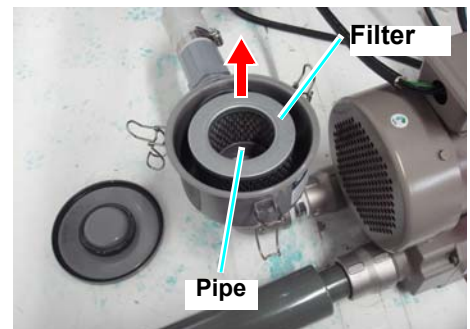
Filter

Pipe

(Important!)   • When removing the filter, be careful not to make dust and dirt go into the pipe.

4   **Use a vacuum cleaner to suc dust amd dirt from the filter**

5 **Wipe off dust adhering to the lid with a waster cloth etc.**

- If big dust adheres to the lid, absorption may become weak.

6 **Put the filter back in its origin position.**

(1) Put into the filter nd firmly close the lid. (The hooks will not engage unless the lid firmly closed.)

(2) Engage the hooks

(Important!) • If there is distortion or if it is not firmly closed, absorption may decline remarkably.

⚠ **Caution**

Do not wash the filter with water.
- Be careful not to make water or water drop go into the machine.
  If water adheres to the filter, dry enough before using it.

4

How to care

Replacing the mist fan filter

Replace the mist fan 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]. For purchase of the filter (upper mist fan filter: SPC-0650, rear mist fan filter: SPC-0651, absorption fan filter: SPC-0652), please get in touch with your sales agent or our branch office nearest you.

---

1 Put out the UV lamp and switch OFF the power.

- Press the power switch in the front of this machine.

---

2 Turn the main power switch OFF on the side of this machine.

Main power switch

---
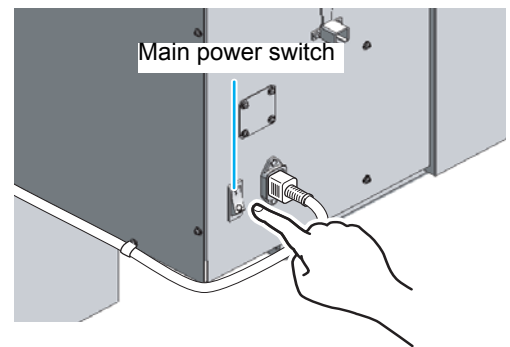
3 Open the front left cover, front right cover and front center cover.

Front center cover

Front right cover

Front left cover
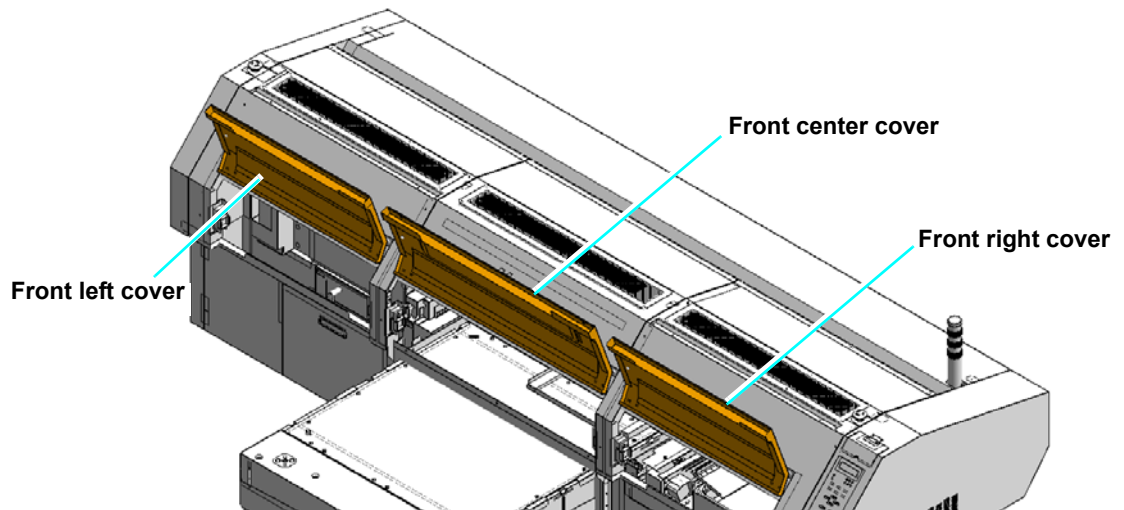
4 **Remove the filter holder.**

• Remove the hand screw, and then remove the filter and the filter holder by moving them upward.
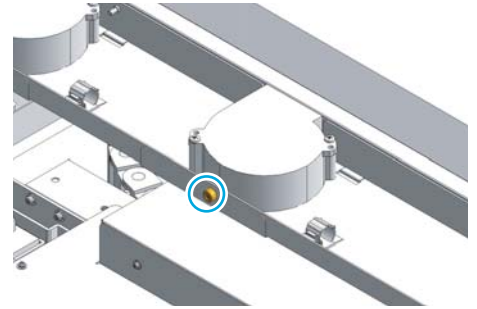
• The cooling fans are on the circled places (9 places) shown on the below.

Upper mist fan filter
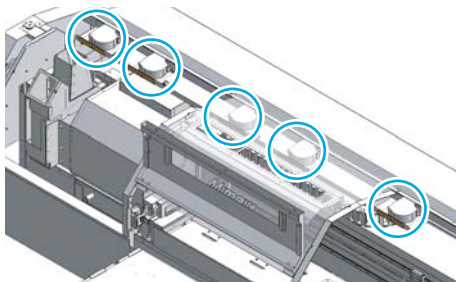
Rear mist fan filter
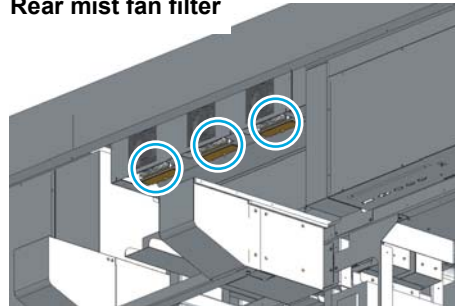
absorption fan filter
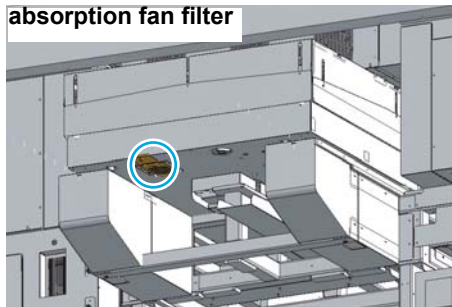
5 **Replace the filter.**

• Prepare the new filter and replace with it.

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

7 **Close the front cover, and the front cover on both sides.**

4

How to care

Replacing UV lamp

Setting the UV lamp OFF duration

The UV lamp is a consumable parts.
This units counts the duration of irradiation with the UV lamp to notify the replacing timing.

1 **Press the** ENTER **several times in the local mode.**

```
<LOCAL.1>
```

• Press the END key to return to the local mode.

About replacing UV lamp

When the irradiation duration has exceeded the predetermined period of time, a message to urge replacement of UV lamp is displayed.
If this message appears, contact a distributor in your district or our office to call for service.

```
!UV LAMP        :CH1
LAMP CHANGE     :ent
```

Resetting UV lamp irradiation duration

After replacing the UV lamp, reset the irradiation duration stored in this unit.

1 **When <LOCAL> is displayed, press the** `UV` **key.**

```
<LOCAL.1>
```

2 **Select [INITIAL TIMER] with the** `▲` `▼` **key, and press the** `ENTER` **key.**

```
UV LAMP
INITIAL TIMER  <ent>
```

3 **Press the** `ENTER` **key.**

• Performing [INITIAL TIMER] also initializes the UV LEVEL HISTORY.

```
UV INITIAL TIMER
INITIALIZE OK? :ent
```

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

• For details, refer to the following page:
  ☞ P.4-40 "Checking method of UV illumination intensity"

```
!UV LAMP
UV LEVEL CHK
```

5 **Press the** `END` **key to finish.**

```
UV LAMP
INITIAL TIMER  <ent>
```

4

How to care

Checking method of UV illumination intensity

UV lamp is a consumable. The more the irradiation time increases, the more the amount of light decreases and the ink will become hard to harden. When the cumulative irradiation time exceeds a certain value, a message prompting you for checking the illumination intensity is displayed on the operation panel.
Check the UV lamp illumination intensity following this operation manual and use it as a reference when replacing the UV lamp.

```
!UV  LAMP
LAMP  CHANGE
```

Notes when checking the illumination intensity

⚠ **Caution**
- Be sure to wear the attached goggle and the gloves.
- Wear long sleeves in order to protect your skin from the UV lamp.

Notes when checking the illumination intensity

The OPT-J0288 Illumination intensity measuring kit (with illumination meter), or the OPT-J0289 Illumination intensity measuring kit (without illumination meter) if you have the handy type illumination meter for the UJF-605C is required.

Check the UV illumination intensity

1   **Turn ON the power supply. (☞ P.2-4)**

---

2   **When <LOCAL> is displayed, press the ⬭UV⬭ key.**

```
<LOCAL.1>
```

---

3   **Select [LEVEL CHECK] with the ⬭▲⬭ ⬭▼⬭ key, and press the ⬭ENTER⬭ key.**

```
UV LAMP
LEVEL CHECK      <ent>
```

---

4   **Press the ⬭ENTER⬭ key.**

• The carriage will move automatically from the waiting position (left side) to the right side.

```
UV LEVEL CHECK
HEAD MOVE        :ent
```

---

5   **Remove the screws (on two places) and the front left cover.**

```
PLEASE OPEN
THE LEFT COVER
```

Front left cover

---
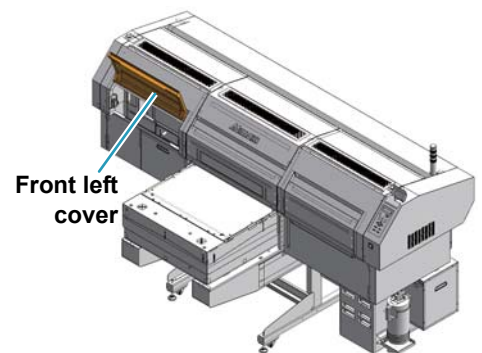
6   **Remove the illumination meter bracket and insert the sensor part into the square hole on the rear surface.**

Illumination meter bracket

4

How to care

7 Close the front left cover.

```
PLEASE CLOSE
THE LEFT COVER
```

8 Press the (FUNCTION) key to select the UV illumination intensity and press the (ENTER) key.

- Every time you press the [FUNCTION] key, the UV illumination intensity will change (HIGH, NORMAL, LOW).

```
UV LEVEL CHECK:HIGH
CHECK START     :ent
```

```
UV LEVEL CHECK:NORML
CHECK START     :ent
```

```
UV LEVEL CHECK:LOW
CHECK START     :ent
```

9 Measure the amount.

```
** CHECKING **
PLEASE WAIT
```

⚠ Caution
- Do not touch the illumination meter bracket during the check of illumination intensity because it is heated by the UV lamp. You may suffer burns.

10 The measured result is displayed.

```
UV LEVEL CHECK
HIGH         : **** mW
```

11 Press the (ENTER) key to record the measured UV illumination intensity.

```
** RECORD UV LEVEL**
HIGH         : **** mW
```

12 **Press the ▶ key to terminate the measurement.**

```
UV LEVEL CHECK
CHECK <      > FINISH
```

- If you press the ◀ key, the screen returns to the Step 9 and measurement is performed again.
- If you wish to measure it again, be sure to leave as it is for a while and then perform the measurement. Due to the heat of the UV lamp, you cannot gain the proper measurement value.

13 **When the message on the right is displayed, open the front left cover.**

```
PLEASE OPEN
THE LEFT COVER
```

14 **Wait until the illumination meter bracket is cooled down.**

```
UV LEVEL CHECK
AWAIT COOLING  01:30
```

- The time until it is cooled down is displayed.
- When the countdown is completed, the screen changes to the next screen.

⚠ **Caution**
- The illumination meter bracket is heated by the UV lamp immediately after checking the illumination intensity and if you touch it, you may suffer burns. Remove the illumination meter bracket after being cooled fully.

15 **Return the flushing L cover A to the original status and press the ENTER key.**

```
UV LEVEL CHECK
REMOVE A SENSOR :ent
```

(1) Remove the sensor from the rear surface of the bracket and fix it with the cable clamp.
(2) Return the illumination meter bracket to the original status.
(3) Press the ENTER key.

16 **Close the front left cover.**

```
PLEASE CLOSE
THE LEFT COVER
```

4

How to care

Reference value of the measurement

The lamp illumination intensity before shipping and the theoretical value when the cumulative irradiation time exceeds 1000 hours are indicated on the label located inside of the machine.

- When the cumulative irradiation time exceeds 1000 hours, the illumination intensity will decrease by 30%.
- After 1000 hours have passed, the illumination intensity will not decrease rapidly.
- Even if the cumulative irradiation time does not exceed 1000 hours, when the illumination intensity decreases rapidly, the UV lamp unit may be broken. Contact a nearby sales agency or our business office.
- Even if the illumination intensity decreases, it is possible that the ink will harden sufficiently by changing the setting of the amount of UV light. Please refer to "Changing the UV illumination intensity" (☞ P.3-19).

Cleaning of the Ionizer

In order to maintain the performance of the system and not to have an adverse impact on the life of the charge eliminating electrode, perform cleaning periodically.
Deposits will occur in all corona discharge type charge eliminating devices as time go on.
Electric field, temperature, vapor, etc. around the charge eliminating electrode have an influence on the deposit occurrence and the required maintenance cycle differs depending on the environment to use it.

⚠ Caution

- Charge eliminating electrode is needle-like and has keen-edged shape in order to maintain a good performance of charge eliminating. Therefore, as it may stick in your skin etc. easily, enough care should be taken when handling it.
- When performing cleaning work, wear goggles and vinyl gloves.

Tools	• Gloves	• Goggles	• Stainless tube brush

---

1 | **Perform while the power supply is OFF.**

---

2 | **Open the front right cover.**

Front right cover

---
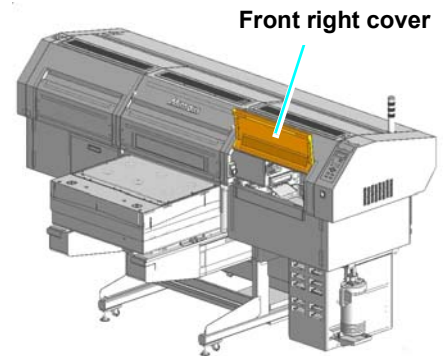
3 | **Move the carriage to the wiper side manually.**

---

4 | **Remove the ionizer FAN.**

- Pull out the connector from the ionizer to remove the ionizer FAN.

Ionizer FAN

---
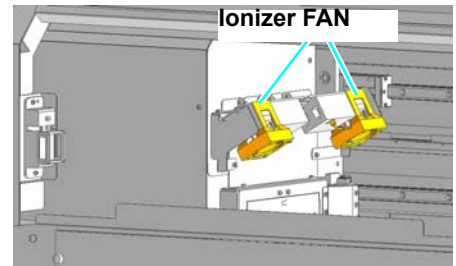
5 Clean the electrode needle and around it by the cleaner.

• Hold both edges and break the glass.
• Enough care should be taken not to bend and break the edge of the electrode needle.

> • You can procure the cleaner in unit of 20 pieces. (Cleaner for electrode needle: SPC-0611)
> • When the electrode needle deteriorates, the charge eliminating performance will be degraded. If abrasion, break, bending, etc. occurs on the edge, it is recommended to replace with a new one.
> • You can procure the electrode needle in unit of 4 pieces. (Electrode needle for replacing: SPC-0612)

6 Attach the ionizer FAN.

> (Important!) • Be careful not to mess up the position to insert the code at attaching.
> • Insert the connector with the Δ mark facing outside of the ionizer.

Front   **Rear**
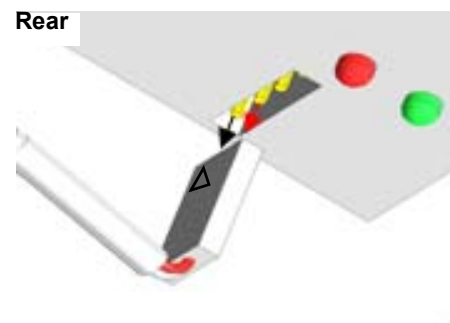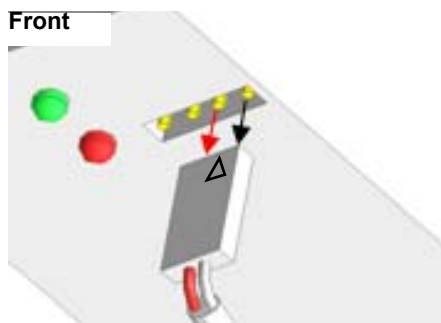
7 Close the front right cover.

Prevent the nozzle clogging of spot 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 When <LOCAL> is displayed, press the (FUNCTION) key.

```
<LOCAL>
```

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

```
FUNCTION
MAINTENANCE      <ENT>
```

3 Select the [SPECIAL REFRESH] with the (▲) (▼) key, and press the (ENTER) key.

```
MAINTENANCE
SPECIAL REFRESH<ent>
```

4 Select either of with or without special refresh for each head and press the (ENTER) key.

```
SPECIAL  REFRESH
CLOR    :--------WW--
```

(1) Select the head with the (◄) (►) key.
(2) Press the (▲) (▼) key to select either of with or without special refresh.

5 Press the (END) key to finish.

CHAPTER 5
In Case of Trouble

In this chapter, the solutions for troubles of this machine or error messages are explained.

Check first when a trouble occurred

When a trouble occurred, check the followings. If the trouble is not solved after checking, contact a distributor in your district or our office.

The power is not turned on

It causes for improper connection of the power cable or the computer cable. Check that the cables are properly connected.

| Is the power cable connected to this machine and to the outlet? | **No** → | Securely connect the power cable to them. |

↓ **Yes**

| Is the emergency stop switch pressed? | **Yes** → | Release the emergency stop switch. |
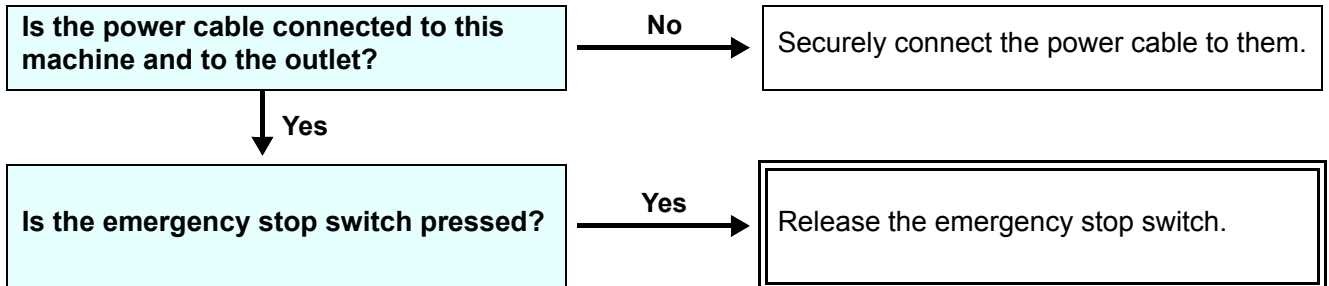
Data is not drawn

It occurs when the data is not sent to this machine properly.

| Is the correct interface cable used? | **No** → | Use the cable exclusive for this machine. |

| Is the interface cable securely connected in position? | **No** → | Securely connect the interface cable in position. |

↓ **Yes**

| Is the message of the ink run-out shown on the display? | **Yes** → | Replace the ink cartridge with a new one. ☞ P.4-4 |
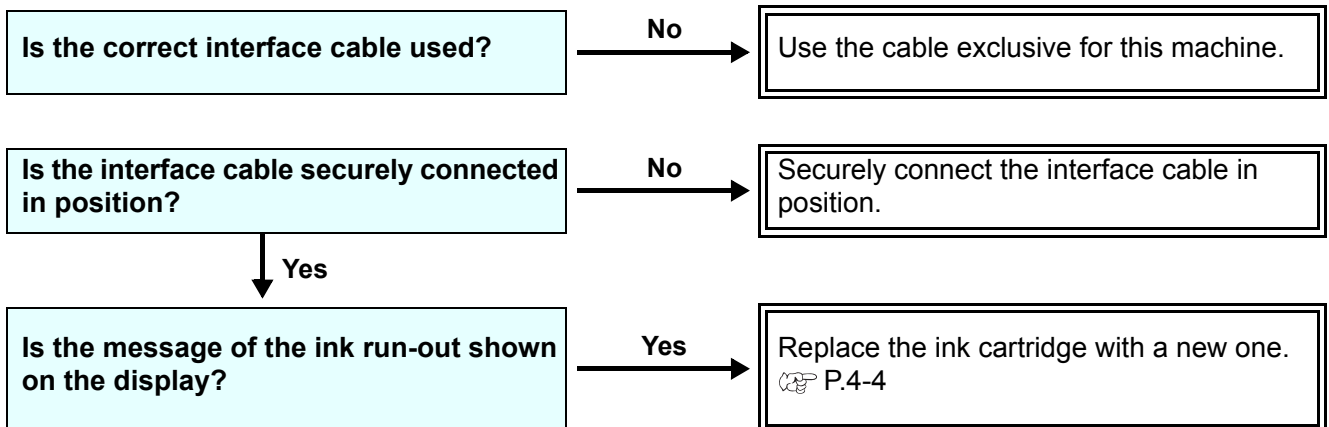
Message appears

When [WATER NOT READY] appears on the display, the water temperature in the water heater has notreached the predetermined value. If [UV NOT READY] is displayed, as the UV lamp has not been ready, theUV lamp can not be used, therefore drawing can not be started.

| 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 disappears and drawing becomes available. |

5-2
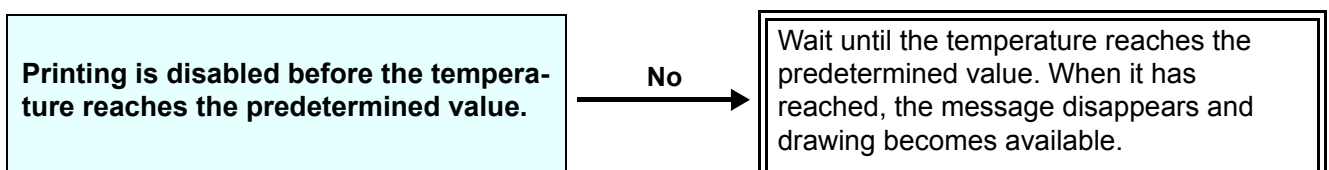
Problems of drawing result

If the drawing result has a problem, follow the table below. If the problem does not improve after that, contact a distributor in your district or our office.

Problem	Solution
Lines / blur	(1) Execute the head cleaning. (☞ P.2-14) (2) If there is slips of paper in the head path, remove them.
Large ink droplet on media	(1) Execute the head cleaning. (☞ P.2-14) (2) Remove the dust of the media. (3) Clean dust on the platen. (4) Clean the bottom of the carriage. (☞ P.4-10)
Media is raised during drawing and the drawing stops.	(1) Set new media and start printing.
Ink cannot harden.	(1) Check that the head gap is not too wide. ☞ P.3-16 (2) Check the UV lamp illumination intensity. ☞ P.4-40 (3) Check the UV light intensity. ☞ P.3-19

Nozzle clogging

If nozzle clogging is not solved after the head cleaning of P.2-14, check the following 3 items.

Execute cleaning by hard with the operation of P.2-15.

Execute subtank maintenance with the operation of P.4-24.

Replace ink with the operation of P.4-4.

5

In Case of Trouble

Troubles displaying messages

When a problem occurs with this machine, the lamp lights in red, a buzzer sounds, and a corresponding error message is displayed. Follow the table below and solve the problem.

Warning Message

Message	Solution
`<LOCAL.1> Not FILLUP` `MMCC YYKK WWSS`	• Fill ink.
`<LOCAL.1>INK NEAREND` `MMCC YYKK WWSS`	• Replace the ink cartridge shown on the display as soon as possible. (☞ P.4-4)
`<LOCAL.1> INK END` `MMCC YYKK WWSS`	• Replace the ink cartridge shown on the display. (☞ P.4-4)
`<LOCAL.1> NO CARTRDG` `MMCC YYKK WWSS`	• Attach the ink cartridge(s) shown on the display. (☞ P.4-4)
`<LOCAL.1>WRNG INK IC` `MMCC YYKK WWSS`	• Insert the ink cartridge shown on the display again. If the error is still displayed after this, call a distributor in your district or our office.
`<LOCAL.1>Kind of INK` `MMCC YYKK WWSS`	• Check the type of the loaded ink cartridge is correct.
`<LOCAL.1>ColorofINK` `MMCC YYKK WWSS`	• Check the color shown on the display and the color of the loaded ink cartridge are the same.
`<LOCAL.1>CARabnormal` `MMCC YYKK WWSS`	• Check the displayed ink cartridge, and then reinsert it. (Supported from the firmware ver.1.80)
`<LOCAL.1>INK LIMIT` `MMCC YYKK WWSS`	• Replace the displayed ink cartridge early. (Supported from the firmware ver.1.80)
`<LOCAL.1>LIMIT(IM)` `MMCC YYKK WWSS`	• The ink cartridge expiration date has passed. (One month has passed since the expiration date.) Replace the displayed ink cartridge early. (Supported from the firmware ver.1.80)
`<LOCAL.1> Expiration` `MMCC YYKK WWSS`	• The ink has expired. Replace the ink cartridge shown on the display with a new one. (☞ P.4-4)
`<LOCAL.1>NON-ORIGNAL` `MMCC YYKK WWSS`	• Use the MIMAKI ink.
`!INK UPSTREAM` `GUARD      :MMCCYYKK`	• Wait until the protection process finishes and "ERROR 149" is displayed.
`CARTRIDGE ON/OFF`	• Check insertion of the cartridge.
`!MEDIA HEIGHT` ` TABLE DOWN`	• An obstacle was detected. Remove it on the table or press the ⊂▼⊃ key to lower the table.

Message	Solution
`<LOCAL.1>` `DATA REMAIN`	• Draw the all received data or clear the data. Then, change the settings. (☞ P.2-18 , P.3-34)
`BATTERY EXCHANGE`	• Call a distributor in your district or our office.
`WATER LACK`	• Check the amount of water in the hot water tank, and fill as needed. (☞ P.4-29)
`NO HEAD SELCT`	• Head is not selected. Select a head to be cleaned or to be filled.
`!FRONT COVER OPEN`	• Close the front cover.
`HD DATA SEQ`	• Call a distributor in your district or our office.
`!PRINT ERROR` `  PRESS <ENT> KEY`	• An error occurred during drawing. Pressing the (ENTER) key returns to the local mode. Perform printing again.

`RANGE OVER XY`
 	
`RANGE OVER X`
 	
`RANGE OVER Y`
	• Position a data in the drawing area.

`!CLEAN WIPER`	• Clean the wiper. (☞ P.4-26)
`WIPER TANK FULL`	• Wiper tank is full. Excute dispose of ink in the wiper tank. (☞ P.4-14)
`<LOCAL.1>` `!WashLiquidCartr.NONE`	• Attach the washing cartridge.
`<LOCAL.1>` `!Wash Liquid END`	• Replace the washing cartridge.
`<LOCAL.1>` `!WRONG WASH CART.`	• Insert the washing cartridge again.
`!WASTE INKTANK`	• Waste ink tank is near full. Excute dispose of ink in the waste ink tank. (☞ P.4-12)
`!WASTE INKTANK FULL`	• Waste ink tank is full. Excute dispose of ink in the waste ink tank. (☞ P.4-12)
`MAINTENANCE WARNING` `CLEAN UV LAMPFILTER`	• Clean the UV lamp filter. (☞ P.4-12)
`MAINTENANCE WARNING` `Shake a Cartridge`	• Shake the cartridge to beat ink.(☞ P.4-22) (At the time of SPC-0516 ink cartridge use)
`MAINTENANCE WARNING` `W Route Discharge`	• Perform white maintenance. (☞ P.4-21) (At the time of SPC-0516 ink cartridge use)

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In Case of Trouble

Error message

When an error message is displayed, follow the table below and solve the problem.
If the same error message is displayed again, contact a distributor in your district or our office.

Message	Solution
ERROR 03 POWER OFF	• Turn the power of this machine off and turn it on after a while. • If the same error message appears again, contact a distributor in your district or our office to call for service.
ERROR 03 +35V RECVER	
ERROR 03 SCAN MAIN PCB HUSE	
ERROR 03 PCB MAIN-F1	
ERROR 03 PCB MAIN-F2	
ERROR 03 PCB MAIN-F3	
ERROR 03 PCB MAIN-F4	
ERROR 03 PCB SLRLY-F1	
ERROR 03 PCB SLRLY-F2	
ERROR 03 PCB SLRLY2-F1	
ERROR 03 PCB SLRLY2-F2	
ERROR 03 PCB STATION-F1	
ERROR 03 PCB STATION-F2	
ERROR 03 PCB STATION-F3	
ERROR 03 PCB FEED IF-F1	
ERROR 03 PCB FEED IF-F2	
ERROR 03 PCB FEED IF-F3	
ERROR 03 PCB FEED IF-F4	

Message	Solution
ERROR 03 PCB SLDJ F1	• Turn the power of this machine off and turn it on after a while. • If the same error message appears again, contact a distributor in your district or our office to call for service.
ERROR 03 PCB SLDJ F2	
ERROR 03 PCB SLDJ F3	
ERROR 03 PCB FPC L	
ERROR 03 PCB FPC H	
ERROR 04 EEPROM READ	
ERROR 04 EEPROM WR	
ERROR 04 PARM ROM	
ERROR 04 PARM EPRM	
ERROR 04 PARM FROM	
ERROR 05 FWC INIT	
ERROR 05 STC INIT	
ERROR 05 HPC1 INIT	
ERROR 05 HPC2 INIT	
ERROR 05 HDC INIT	
ERROR 07 HD CONNECT[FFF]	
ERROR 07 HD THERMIS[FFF]	
ERROR 07 HEAD TIMING	
ERROR 07 P-HEAD INIT[FFF]	

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In Case of Trouble

Message	Solution

`ERROR 08`
`L-SCALE BLACK`
 	
`ERROR 09`
`HDC POSCNT`
 	
`ERROR 09`
`HDC FIFO OVER`
 	
`ERROR 09`
`HDC FIFO UNDER`
 	
`ERROR 09`
`HDC SPEED`
 	
`ERROR 10`
`COMMAND`
 	
`ERROR 11`
`PARAMETER`
 	
`ERROR 12`
`Ment Command`
	• Turn the power of this machine off and turn it on after a while.
	• If the same error message appears again, contact a distributor in your district or our office to call for service.

`ERROR 16` `MRL COMMAND`	• Check the setting of RIP.

`ERROR 25`
`USB INIT ERR`
 	
`ERROR 25`
`USB TIME OUT`
	• Turn the power of this machine off and turn it on after a while.
	• If the same error message appears again, contact a distributor in your district or our office to call for service.

`ERROR 30` `OPERATION`	• Operate this machine correctly.
`ERROR 34` `DATA REMAIN`	• Draw the all received data or clear the data. Then, change the settings. (☞ P.2-18 , P.3-34)
`ERROR 36` `HEAD GAP`	• Remove an obstacle and check head gap. (☞ P.3-5)

`ERROR 40`
`MOTOR X`
 	
`ERROR 41`
`MOTOR Y`
 	
`ERROR 42`
`X CURRENT`
 	
`ERROR 43`
`Y CURRENT`
	• Turn the power of this machine off and turn it on after a while.
	• If the same error message appears again, contact a distributor in your district or our office to call for service.

Message	Solution
ERROR 50 WIDTH	• Turn the power of this machine off and turn it on after a while. • If the same error message appears again, contact a distributor in your district or our office to call for service.
ERROR 51 Y ORIGIN	
ERROR 53 WIPER ORG	
ERROR 53 WP UNIT ORG	
ERROR 54 MEDIA JAM	• Remove an obstacle on the table.
ERROR 71 WATER TNK THERMISTOR	• Turn the power of this machine off and turn it on after a while. • If the same error message appears again, contact a distributor in your district or our office to call for service.
ERROR 71 WATER HTR THERMISTOR	
ERROR 71 WATER HEATER TEMP	
ERROR 71 ABNORMAL WATER ROUTE	
ERROR 73 WATER HEAD TEMP	
ERROR 73 SCAN HEAD TEMP	
ERROR 73 HEAD TEMP [FFF]	
ERROR 74 UV POWER OFF	• Check the switch of UV power is turned on.
ERROR 74 UV POWER NG	• Turn the power of this machine off and turn it on after a while. • If the same error message appears again, contact a distributor in your district or our office to call for service.
ERROR 75 UV LAMP NG	
ERROR 75 UV SHTTER NG	
ERROR 90 FROM CLEAR	
ERROR 92 FROM WRITE	
ERROR 96 CHECK:SDRAM	

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In Case of Trouble

Message	Solution
ERROR 148 INK RT.:MMCCYYKKWWSS	• Execute the subtank maintenance to release the error.
ERROR148 FLOAT :MMCCYYKKWWSS	
ERROR148 TNK RMN:MMCCYYKKWWSS	
ERROR149 INK UPSTREAM GRD	• Turn the power of this machine off and turn it on after a while. • If the same error message appears again, contact a distributor in your district or our office to call for service.
ERROR150 NEGA.PRS.SENSOR NG	
ERROR150 POSI.PRS.SENSOR NG	
ERROR151 NEGA.PRESS CTRL	
ERROR151 POSI.PRESS CTRL	
ERROR151 NEGA.PRS KEEP LOW	
ERROR151 NEGA.PRS KEEP OVER	
ERROR151 POSI.PRS KEEP LOW	
ERROR151 POSI.PRS KEEP OVER	
ERROR 200 HEAD ROM WR	
ERROR 202 MAIN CN6,9 CHK	
ERROR 202 MAIN CN5 CHK	
ERROR 202 PCB FEED IF	
ERROR 202 PCB STC	
ERROR 202 PCB CARTRIG	
ERROR 202 PCB PUMP	
ERROR 202 PCB EXIO1	

Message	Solution
ERROR 202 PCB KEY	• Turn the power of this machine off and turn it on after a while. • If the same error message appears again, contact a distributor in your district or our office to call for service.
ERROR 202 PCB SLRY1	
ERROR 202 PCB SLRY2	
ERROR 202 PCB EXIO2	
ERROR 202 PCB SLIDER	
ERROR 202 PCB EXPAPER	
ERROR 202 FLT CONNECT[FFF]	
ERROR 203 PARAM NONE	
ERROR 203 PARAM DATA	
ERROR 203 PARAM DATA ADDR	
ERROR 206 LCD THERM.	
ERROR 206 PCB MAIN ET	
ERROR 206 PCB MAIN SC	
ERROR 206 DS-IC BUSY	
ERROR 206 IOC1/ADC	
ERROR 206 IOC2/ADC	
ERROR 206 HDC/ADC	
ERROR 251 (C)OPCODE	
ERROR 251 (C)SLOT	

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In Case of Trouble

Message	Solution
ERROR 251 (C)CPU ADDR	• Turn the power of this machine off and turn it on after a while. • If the same error message appears again, contact a distributor in your district or our office to call for service.
ERROR 251 (C) DMA ADDR	
ERROR 251 (C)ZERO DIV	
ERROR 255 FW/SIO bit	
ERROR 255 FW/SIO wbsy	
ERROR 255 FW/STP-MTR	
ERROR 255 FW/XY param	
ERROR 255 FW/Y RANGE	
ERROR 255 FW/ctrltsk	
ERROR 255 FW/PUMP W	
ERROR 255 FW/PSERVO IT	
ERROR 255 FW/FROM prm	
ERROR 255 FW/SIO vch	
ERROR 255 FW/KEY RDI	
ERROR 255 FW/SIO read	
ERROR 255 FW/CRTRG NO	
ERROR 255 FW/WIPER RN	
ERROR 255 FW/drivinfm	
ERROR 255 FW/SIO rsrc	

Message	Solution
ERROR 255 FW/FROM WRC	• Turn the power of this machine off and turn it on after a while. • If the same error message appears again, contact a distributor in your district or our office to call for service.
ERROR 255 FW/SaveArea	
ERROR 255 FW/EEP SIZE	
ERROR 255 FW/HROM SIZ	
ERROR 255 FW/STACK OV	
ERROR 255 FW/WATER Intv	

CHAPTER 6
Appendix

In this chapter, specifications and functions of this machine are explained.

Specifications

Basic unit specifications

Item			UJF-706
Drawing head	Method		On demand piezo-head
	Specification		6-heads (12 nozzle rows)
Resolution			600 dpi, 1200 dpi
Drawing mode	4 Color	600 x 600 dpi	2 pass Unidirection / 4 pass / 8pass Unidirection (H.S.)
		1200 x 1200 dpi	4 pass Unidirection / 8 pass / 16pass Unidirection (H.S.)
	8 Color	600 x 600 dpi	4 pass Unidirection / 8 pass / 16pass Unidirection (H.S.)
		1200 x 1200 dpi	8 pass Unidirection / 16 pass / 32pass Unidirection (H.S.)
Usable ink			Genuine UV curing ink Total 7 color: Bk, C, M, Y, Lv, Lm, 6 color and white, Clear
Ink supply			Supplies ink through a tube from ink cartridge Remaining ink display function Ink end detection function
Ink capacity			440cc (1 for each color)
Usable media	Size		710 x 605 mm or less
	Thickness		0.2 to 150mm
Max. drawing range			W 700 x L 600 mm or less
Distance accuracy	Absolute accuracy		The large of the two; ± 0.3 mm or ±0.3% of a specified distance.
	Reproducibility		The large of the two; ± 0.2 mm or ±0.1% of a specified distance.
Perpendicularity			± 0.5 mm/500mm
Head gap adjustment			Automatic head gap adjustment enabled. The media surface is sensed with the area sensor, moving up or down the table.
Media absorption			Absorption fixing by absorption fan [*1]
UV unit			UV irradiation device embedded UV power supply
Waste ink tray			Tray type (400cc)
Interface			USB2.0 compliance (The cable is optional)
Command			MRL-III
Noise	Stand-by		Less than 58dB (FAST-A, 1m in all direction)
	Operation continuous noise		Less than 65 dB
	Operation discontinuity noise		Less than 70dB
Safety standards			CE Marking (Low Voltage Directive, EMC Directive), CB Report, UL60950-1, VCCI classA, FCC classA, and RoHS Directive
Ink safety			MSDS
Power specification			Single phase AC 200 to 240V x2
Power consumption			Less than 4.0kVA (Main unit:1kVA, UV device:3kVA)
Environment	Available temperature		15 to 30 ℃
	Humidity		35 to 65%Rh (No condensation)
	Guaranteed temperature		18 to 25 ℃
	Temperature change		±10 ℃ or less
	Dust		Equivalent to normal office level
Weight	Main unit		Approx. 500 kg
	UV power supply		14kg
Outside dimensions			2500 (W) x 1750 (D) x 1550 (H) mm

*1. The blower is an option.

Specifications for ink

As for the detail, ask the dealer or our branch.

Item		Parts No./ Specification
Feature		Exclusive UV ink cartridge
Ink type		Black, magenta, cyan, yellow
Capacity of ink cartridge		440CC
Shelf life		One year from the date of manufacture
Storage temperature	**During storage**	15 ℃ to 35 ℃
	During shipping	0 ℃ to 60 ℃ within 2 weeks permitted.
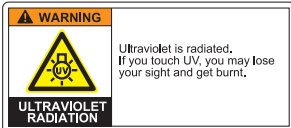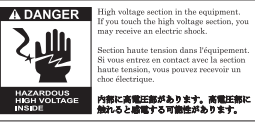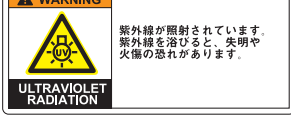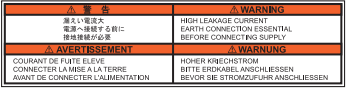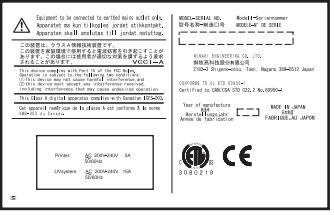
- The ink freezes up if it is left in an environment of under -4 ℃ for a long time. If the ink has frozen up, use it after unfreezing it with leaving in the room temperature (25 ℃) for more than 3 hours.
- Do not disassemble an ink cartridge or refill ink in it. That can cause a trouble.

Appendix

6

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.
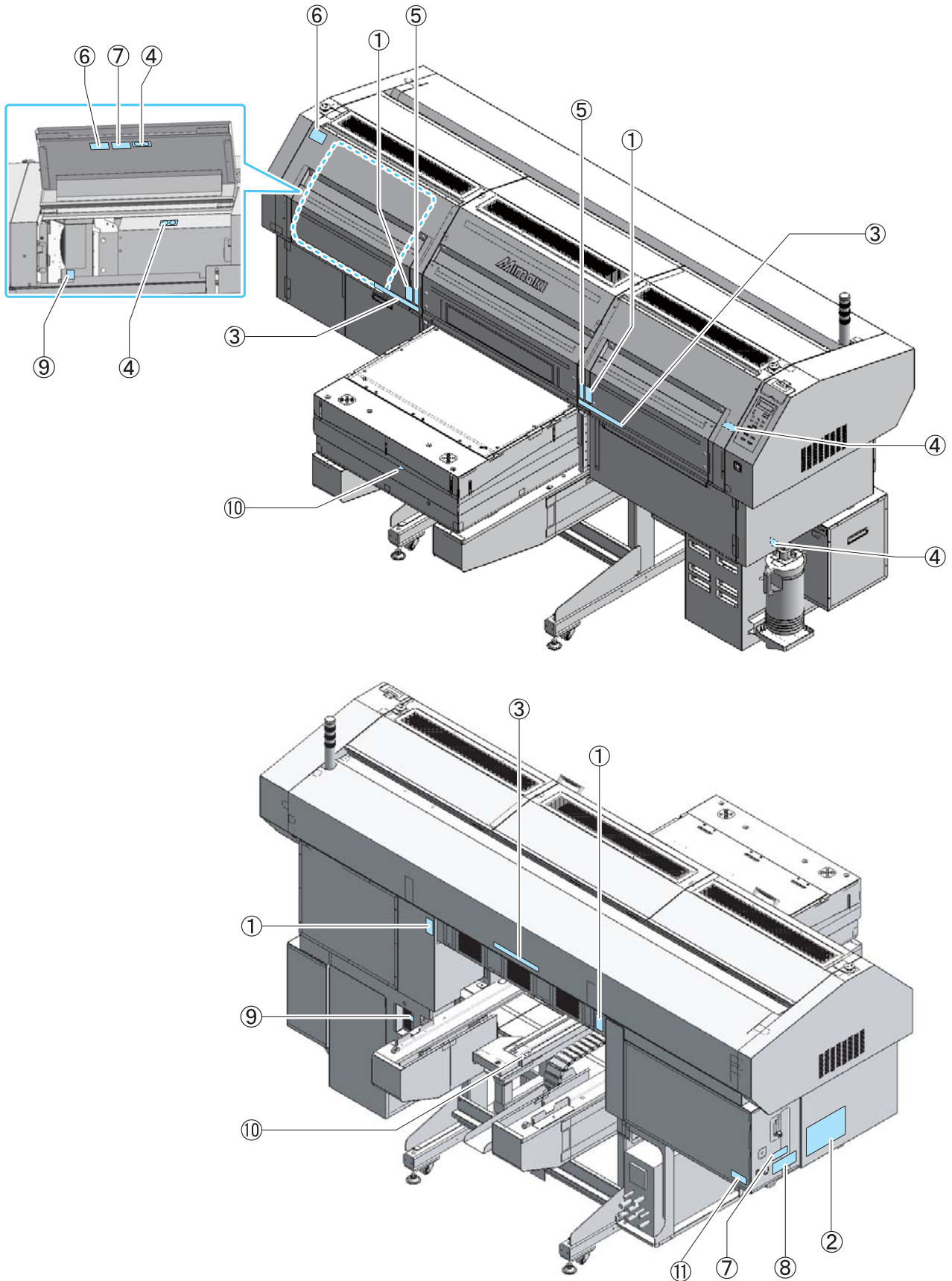
Order No.	Label	Order No.	Label
(1) M905980		(6) M907071	
		(7) M907072	
(2) M907151		(8) M905624	
		(9) M903239	
		(10) M904389	
(3) M906115		(11) M906031	
(4) M903330			
(5) M907073			

Function Flowchart

<LOCAL.1>

```
          ORIGIN SETUP          ENTER        ORIGIN SETUP
            0.0       ----                  ** ORIGIN **
```

DATA CLEAR
```
DATA CLEAR                       ENTER    ** DATA CLEAR **
                      <ENT>
```
END

TEST
```
TEST DRAW                        ENTER
NOZZLE CHECK      <ent>
```
END

CLEANING
```
CLEANING                         ENTER   CLEANING                 ENTER
TYPE              :normal                COLOR    :MMCCYYKKWWSS
```
END
```
        ▲▼ :normal/hard/                      ▲▼ :ON/ OFF
           hard2/wiping                       ◀▶ :Select head
```

ENTER
```
[SPC-0371]INK REMAIN             ENTER   UJF-706      V*.**       ENTER
     9999 9999 9999                      MRL-III      V*.**
```
END

REMOTE
```
WATER NOT READY                  The set temperature reached
PLEASE WAIT                              or
                                        ENTER
```

```
UV NOT READY
PLEASE WAIT
```

UV
```
        UV LAMP                          To P.6-20
```

6-6

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

```
 CLEANING ACTIVE
*****-------- ------
```

When [WIPING] is "ON"

```
CLEANING
Wipe NUM.   : 1
                ▲▼ : 1 to 9 :
```

```
<LOCAL.1>
LAMP TIMER        0
```
ENTER
```
<LOCAL.1>
NEGA.PRESS   2.30 kpa
```
ENTER
```
<LOCAL.1> SubTank
         MMMM LLLL FFFF
```

```
*REMOTE.1*
```

Received
```
*REMOTE.1* 1200x1200
16.Ud.Vd.x1
```

near end
```
*REMOTE.1* 1200x1200
16.Ud.Vd.x1
```

```
*REMOTE.1*
```

```
*REMOTE.1*INKNEAREND
        MMCC YYKK WWSS
```

REMOTE

```
<LOCAL.1>        [#01]   FUNCTION              FUNCTION           ENTER
                         GAP CHECK      <ENT>                     GAP CHECK

                              ▲  ▼   or  FUNCTION

                         FUNCTION              ENTER
                         SET UP         <ENT>                     SETUP

                              ▲  ▼   or  FUNCTION

                         FUNCTION              ENTER
                         MAINTENANCE    <ENT>                     MAINTENANCE

                              ▲  ▼   or  FUNCTION

                         FUNCTION              ENTER
                         MACHINE SET UP <ENT>                     MACHINE SETUP

                              ▲  ▼   or  FUNCTION

                         FUNCTION              ENTER
                         ORIGIN         <ENT>

                              ▲  ▼   or  FUNCTION

                         FUNCTION              ENTER   DISPLAY
                         DISPLAY        <ENT>          Japanese        <ent>

                                                        ▲ ▼ :English/Japanese
```

To P.6-14

To P.6-16

To P.6-20

To P.6-24

```
ORIGIN                          ENTER    ORIGIN          (  600mm)
X  OFFSET           <ent>                 X  OFFSET          :     0mm
                                                                    :0 ~ 599
```

```
ORIGIN                          ENTER    ORIGIN          (  700mm)
Y  OFFSET           <ent>                 Y  OFFSET          :     0mm
                                                                    :0 ~ 699
```

```
┌─────────────────────┐
│      UV LAMP        │
└─────────────────────┘
```

```
UV  LAMP                      ENTER    UV  LAMP  OFF                 ENTER    UV lamp turn off       ENTER
LAMP  OFF           <ent>               START                :ent
```
▲ ▼ or FUNCTION

```
UV  LAMP                      ENTER    UV  LEVEL  CHECK              ENTER    **  MOVING  **         ENTER
LEVEL  CHECK        <ent>               HEAD  MOVE           :ent               PLEASE  WAIT
```
▲ ▼ or FUNCTION

```
UV  LAMP                      ENTER    SET  UV  LEVEL                ENTER    SET  UV  LEVEL         ENTER
SET  UV  LEVEL      <ent>               HIGH                :Lv.16             NORMAL              :Lv.8
```
▲ ▼ or FUNCTION
        ▲▼ :Lv.1 to Lv.16   ▲▼ :Lv.1 to Lv.16

```
UV  LAMP                      ENTER    UV  OFF  TIMER                ENTER
OFF  TIMER          <ent>               TIME:     00h  30m
```
▲ ▼ or FUNCTION
        ▲▼ :00h01m to 99h99m

To P6-12

6-10

```
UV LAMP OFF
COMPLETED
```

```
UV LEVEL CHECK
REMOVE A SENSOR :ent
```
ENTER
```
PLEASE CLOSE
THE LEFT COVER
```
Searching Origin

END

```
PLEASE OPEN
THE LEFT COVER
```
```
UV LEVEL CHECK
SET THE SENSOR  :ent
```
ENTER
```
PLEASE CLOSE
THE LEFT COVER
```

```
UV LEVEL CHECK:HIGH
CHECK START     :ent
```
FUNCTION : HIGH, NORMAL, LOW
ENTER
```
  ** CHECKING **
   PLEASE WAIT
```
```
UV LEVEL CHECK
HIGH       :  **** mW
```
END

ENTER

◀

▶

```
** RECORD UV LEVEL**
HIGH       : ****:mW
```
time
```
UV LEVEL CHECK
CHECK <     > FINISH
```
▶
```
PLEASE OPEN
THE LEFT COVER
```

```
UV LEVEL CHECK
REMOVE A SENSOR :ent
```
ENTER
```
PLEASE CLOSE
THE LEFT COVER
```
Searching Origin

```
SET UV LEVEL
LOW             :Lv.1
```
▲▼ :Lv.1 to Lv.16

Appendix

6

```
UV LAMP              ENTER   UV INITIAL TIMER      ENTER   !UV LAMP
INITIAL TIMER  <ent>          INITIALIZE OK? :ent           UV LEVEL CHECK  :ent
```

▲ ▼ or **FUNCTION**

```
UV LAMP              ENTER   UV INITIAL SHUTTER
INITIAL SHUTTER<ent>          INITIALIZE OK? :ent
```

Appendix

6

GAP CHECK

GAP CHECK
CHECK START <ent>   **ENTER**   PLEASE OPEN
THE FRONT COVER   **ENTER**   GAP CHECK
SET MEDIA :ent   **ENTER**

▲ ▼ or **FUNCTION**

GAP CHECK
CHECK SELECT <ent>   **ENTER**   CHECK SELECT
:CONTINUE   **ENTER**   ST.MAINTENANCE
COMPLETED :ent

▲▼ :CONTINUE/ SENSE

```
  * *  GAP  CHECK  * *              PLEASE  CLOSE
    PLEASE  WAIT          ENTER     THE  FRONT  COVER
```

→ **GAP CHECK completed**

SETUP

SETUP
SELECT   : TYPE . 1

ENTER

▲ ▼ : TYPE.2
TYPE.3
TYPE.4

[1]
HEAD GAP   < e n t >

ENTER

▲ ▼ or FUNCTION

[1] HEAD GAP
1 . 2mm

ENTER

▲ ▼ : 0.9 mm to 2.0mm

[1]
MED I A COMP .   < e n t >

ENTER

▲ ▼ or FUNCTION

[1] MED I A COMP .
PR I NT START   : e n t

▶

ENTER

[1]
PR I NT MODE   < e n t >

ENTER

▲ ▼ or FUNCTION

[1] PR I NT MODE
QUAL I TY   < e n t >

ENTER

[1]
MED I A POS   < e n t >

ENTER

▲ ▼ or FUNCTION

[1] MED I A POS
SETUP   : OFF

ENTER

[1]
UV LEVEL   < e n t >

ENTER

▲ ▼ or FUNCTION

[1] UV LEVEL
SETUO   : H I GH

▲ ▼ : HIGH/STANDARD/ LOW/
NONE/ NO PRINT H/ NO PRINT N/
NO PRINT L

[1]
UV SCAN ADD   < e n t >

ENTER

▲ ▼ or FUNCTION

[1] UV SCAN ADD
AFTER PR I NT   : OFF

ENTER

▲ ▼ : OFF/1 to 9

[1]
I NK LAYERS   < e n t >

ENTER

▲ ▼ or FUNCTION

[1] I NK LAYERS
SETUP   : 1

▲ ▼ : 1 to 9

PLEASE WAIT
PRINTING

Print end
or
END

[1]MEDIA COMP.
ADJUST   = 0
⬆⬇ :-9999 ~ 9999

[1]PRINT MODE
QUALITY   :STANDARD
⬆⬇ :STANDARD/ FINE/ FAST

When it is ON
MEDIA POS
LEFT   700 mm
⬆⬇ :1 to 700 (mm)

MEDIA POS
RIGHT   0 mm
⬆⬇ :0 to LEFT (mm)

[1]UV SCAN ADD
BEFORE PRINT   :OFF
⬆⬇ : OFF/1 to 9

From P6-16

```
[1]                        ENTER    [1]COOLING TIME
COOLING TIME    <ent>     ◯        SETUP           :0.0s

              ▲  ▼  or  FUNCTION              ▲ ▼ :0.0 to 2.0s
                        ◯
```

```
[1]                        ENTER    [1]REFRESH              ENTER
REFRESH         <ent>     ◯        WAITING         <ent>    ◯

              ▲  ▼  or  FUNCTION                  ▲ ▼
                        ◯

                                   [1]REFRESH              ENTER
                                   DRAWING         <ent>    ◯
```

```
[1]                        ENTER    [1]VACUUM
VACUUM          <ent>     ◯        SETUP        :STANDARD

              ▲  ▼  or  FUNCTION            ▲ ▼ :OFF / LOW / STANDARD
                        ◯
```

```
[1]                        ENTER    [1]PRIORITY             ENTER
PRIORITY        <ent>     ◯        PRINT MODE      :HOST    ◯

              ▲  ▼  or  FUNCTION              ▲ ▼ :HOST / PLOT
                        ◯
```

```
[1]                        ENTER    [1]SETUP RESET          ENTER
SETUP RESET     <ent>     ◯        INITIALIZE OK?   :ent   ◯
```

```
┌─────────────────────────┐
│ [ 1 ] REFRESH           │
│ WA I T I NG     : LEVEL 1 │
└─────────────────────────┘
```
⬛⬛ :LEVEL 0 to 3

```
┌─────────────────────────┐
│ [ 1 ] REFRESH           │
│ DRAWING       : LEVEL 1  │
└─────────────────────────┘
```
⬛⬛ :LEVEL 0 to 3

```
┌─────────────────────────┐          ENTER  ┌──────────────────────────────┐
│ [ 1 ] PR I OR I TY      │          ◯      │ [ 1 ] PR I OR I TY           │
│ INK  LAYERS     : HOST  │                 │ COOL I NG  T I ME    : PLOT  │
└─────────────────────────┘                 └──────────────────────────────┘
```
⬛⬛ :HOST / PLOT   ⬛⬛ :HOST / PLOT

```
┌───────────────────────────────┐
│ **Initialize the setup parameter** │
│     **of selected user type**      │
└───────────────────────────────┘
```

MAINTENANCE

MAINTENANCE
ST.MAINTENANCE <ent> **ENTER**

or **FUNCTION**

ST.MAINTENANCE
CARRIAGE OUT   <ent> **ENTER**

ST.MAINTENANCE
COMPLETED   :ent **ENTER**

ST.MAINTENANCE
WIPER CLEAN   <ent> **ENTER**

WIPER CLEAN
COMPLETED   :ent **ENTER**

ST.MAINTENANCE
CHANGE WIP TANK<ent> **ENTER**

CHANGE WIP TANK
COMPLETED   :ent

ST.MAINTENANCE
CHNG WASTE TANK<ent> **ENTER**

CHNG WASTE TANK
COMPLETED   :ent

MAINTENANCE
NOZZLE RCVR   <ENT> **ENTER**

or **FUNCTION**

NOZZLE RCVR
CLEAR<   >DRAW

      PRINTING
PLEASE WAIT **ENTER**

NOZZLE RCVR
CLEAR :NOZZLE 1(K)

NOZZLE 1 to NOZZLE D

MAINTENANCE
FILL UP INK   <ent> **ENTER**

or **FUNCTION**

FILL UP INK
HEAD   :MMCCYYKK **ENTER**

:ON / OFF
:Select the head

FILL UP INK
FILL UP START   :ent **ENTER**

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RESTART

RESTART

```
NOZZLE RCVR
SELECT:NOZZLE 1(K)
```
NOZZLE 1 to NOZZLE D

ENTER

```
NOZZLE RCVR
NOZZLE 1(K) NG1:OFF
```
△▽ :Select the nozzle number
◁▷ :Select the registration number

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

Ink filling completed

```
MAINTENANCE          ENTER   WHITE  MAINTENANCE     ENTER   WHITE  MAINTENANCE      ENTER
WHITE MAINTE.  <ent>          COLOR   :_____WWSS          REMOVE  CARTRIDGE
                                      ▲▼ :ON / OFF
         ▲ ▼  or  FUNCTION            ◄► :Select the head


MAINTENANCE          ENTER   SUBTANK  MAINTENANCE            SUBTANK  MAINTENANCE
SUBTANK MAINTE <ent>          COLOR   :MMCCYYKKWWSS          EXECUTE          :ent
                                      ▲▼ :ON / OFF
         ▲ ▼  or  FUNCTION            ◄► :Select the head


MAINTENANCE          ENTER   SPECIAL  REFRSH
SPECIAL REFRSH <ent>          COLOR   :--------WW--
                                      ▲▼ :ON / OFF
         ▲ ▼  or  FUNCTION            ◄► :Select the head


MAINTENANCE          ENTER   INT.MAINTENANCE       ENTER   PRINT  END             ENTER
INT.MAINTENANCE<ent>          PRINT  END      <ent>         INTERVA   :SCAN CNT
                                                            ▲▼ :SCAN CNT / PRINT CNT
         ▲ ▼  or  FUNCTION      ▲ ▼
                             INT.MAINTENANCE       ENTER   POWER  ON
                              POWER  ON      <ent>          SELEC   :KCMYcm--WS--


MAINTENANCE          ENTER   SLEEP  MAINTE         ENTER   SLEEP  REFRESH
SLEP MAINTE    <ent>          REFRESH       <ent>           INTERVA        :  2h
                                                            ▲▼ :OFF, 1 to 168h
                                ▲ ▼
                             SLEEP  MAINTE         ENTER   SLEEP  CLEANING        ENTER
                              CLEANING      <ent>           INTERVAL       :  8h
                                                            ▲▼ :OFF, 1 to 168h
```

```
      EMISSION              WHITE MAINTENANCE                        FILL UP
   PLEASE WAIT      ENTER    SET CARTRIDGE      ENTER   *-------------------
```

Ink filling completed

```
PRINT END                   PRINT END                    PRINT END
SCAN COUNT      :200  ENTER  SELECT  :12345678abcd ENTER  SELECT        :WIPING
```

▲▼ :200 to 1000 (SCAN COUNT)   ▲▼ :ON / OFF   ▲▼ :WIPING / CLEANING
      1 to 4 (PRINT COUNT)   ◀▶ :Select the nozzle

```
SLEEP CLEANING
SELECT  :MMCCYYKKWWSS
```

▲▼ :ON / OFF
◀▶ :Select the nozzle

MACHINE SETUP

```
MACHINE  SET  UP                ENTER     MIST  FAN
MIST  FAN          <ent>         ◯         SETUP        :STANDARD
                                           ▲▼ :LOW / STANDARD / HIGH
                                                              / OFF
      ▲▼  or   FUNCTION
              ◯
```

```
MAINTENANCE                     ENTER     TIME  SET                   ENTER    TIME  SET                ENTER
TIME  SET         <ent>         ◯         2009.10.30   15:30:00       ◯        DoYou  change  it?:ent    ◯
      ▲▼  or   FUNCTION                              ▲▼
              ◯
                                          TIME  SET
                                          DoYou  return  it?:ent
```

```
MACHINE  SET  UP                ENTER     MACHINE  NAME
MACHINE  NAME     <ent>         ◯            UJF-706    - 01
      ▲▼  or   FUNCTION
              ◯
```

```
MACHINE  SET  UP                ENTER     PRINTE  MODE
PRINTE  MODE      <ent>         ◯         QUALITY      :STANDARD
                                           ▲▼ :STANDARD / HIGH
      ▲▼  or   FUNCTION
              ◯
```

```
MACHINE  SET  UP                ENTER     INFOMATION                  ENTER    ERROR  HISTORY           ENTER
 INFORMATION      <ent>         ◯         ERROR  HISTORY    <ent>     ◯        ALL              <ent>    ◯
                                                    ▲▼                          ▲▼ :ALL / ONLY ERROR
                                                                                       ONLY WARNING
                                          INFOMATION                  ENTER    MAINTE.HISTORY
                                          MAINTE.HISTORY  <ent>       ◯        00001>11.10.01  12:15    ▲▼
                                                    ▲▼
                                          INFOMATION                  ENTER     S/N     ********
                                          SerialNo.         <ent>     ◯         D/N     ********
                                                    ▲▼
                                          INFOMATION                  ENTER    UJF-706   V*.**
                                          VERSION           <ent>     ◯        MRL-III   V*.**
```

6-24

Time set completed

```
ERROR HISTORY
00001>11.10.01 12:15
```
▲ ▼
```
    ERROR 41
MOTOR Y
```

```
CARRIAGE OUT
```

IT

FW : 2.2