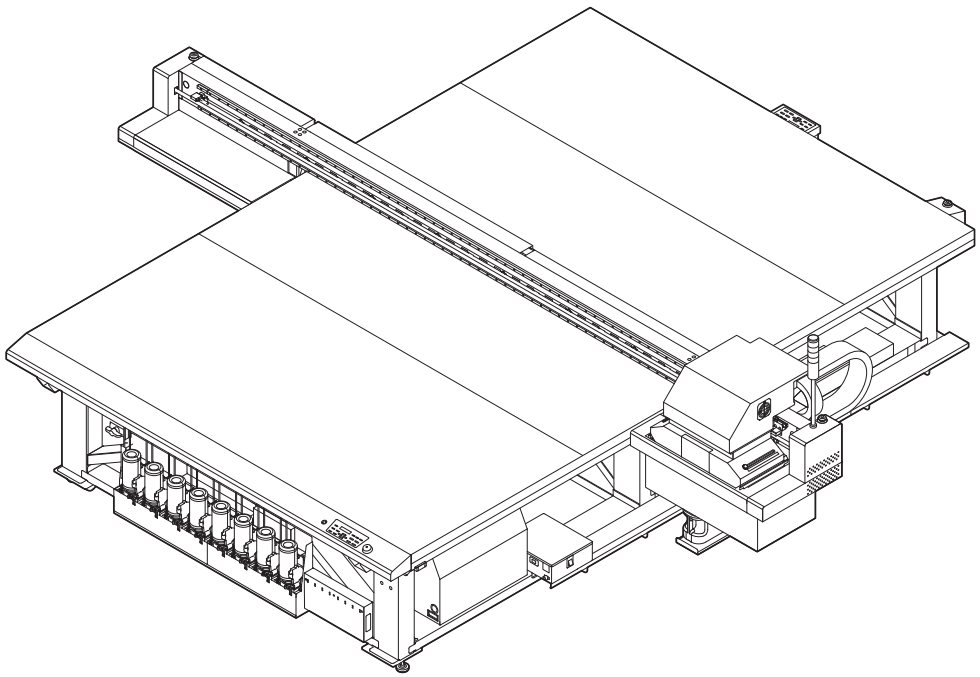
OPERATION MANUAL

Mimaki

## UV INKJET PRINTER

# JFX200-2531

# OPERATION MANUAL



**MIMAKI ENGINEERING CO., LTD.**

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D203111-20

Original instructions

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# CAUTION

## DISCLAIMER OF WARRANTY

MIMAKI ENGINEERING REJECTS ALL LIABILITY FOR DAMAGE ARISING DIRECTLY OR INDIRECTLY FROM THE USE OF THE JFX200-2531 ("THE MACHINE" HEREINAFTER), WHETHER OR NOT THE PRODUCT HAS A FAILURE.
MIMAKI ENGINEERING REJECTS ALL LIABILITY FOR DAMAGE, DIRECT OR INDIRECT, TO MATERIALS CREATED WHILE USING THE MACHINE.
USING THE MACHINE IN CONJUNCTION WITH DEVICES OTHER THAN THOSE RECOMMENDED BY MIMAKI ENGINEERING MAY RESULT IN FIRE OR ACCIDENTS. SUCH INCIDENTS ARE NOT COVERED BY THE PRODUCT WARRANTY. MIMAKI ENGINEERING REJECTS ALL LIABILITY FOR DAMAGE, DIRECT OR INDIRECT, ARISING FROM SUCH INCIDENTS.
USE ONLY GENUINE MIMAKI ENGINEERING INK AND MAINTENANCE LIQUID. USE OF OTHER PRODUCTS MAY REDUCE PRINT QUALITY OR RESULT IN THE MACHINE FAILURES. SUCH INCIDENTS ARE NOT COVERED BY THE PRODUCT WARRANTY. MIMAKI ENGINEERING REJECTS ALL LIABILITY FOR DAMAGE, DIRECT OR INDIRECT, ARISING FROM SUCH INCIDENTS.
DO NOT ATTEMPT TO REFILL THE INK BOTTLES. SUCH INCIDENTS ARE NOT COVERED BY THE PRODUCT WARRANTY. MIMAKI ENGINEERING REJECTS ALL LIABILITY FOR DAMAGE, DIRECT OR INDIRECT, ARISING FROM SUCH INCIDENTS.
USE ONLY GENUINE MIMAKI ENGINEERING ANTI FREEZING LIQUID. USE OF OTHER ANTI FREEZING LIQUID MAY CAUSE FAILURES IN THE COOLING DEVICE. SUCH INCIDENTS ARE NOT COVERED BY THE PRODUCT WARRANTY. MIMAKI ENGINEERING REJECTS ALL LIABILITY FOR DAMAGE, DIRECT OR INDIRECT, ARISING FROM SUCH INCIDENTS.
ABSOLUTELY DO NOT USE UV-LED UNITS OR UV POWER SUPPLY UNITS OTHER THAN GENUINE MIMAKI ENGINEERING DEVICES. USING DEVICES OTHER THAN GENUINE MIMAKI ENGINEERING DEVICES MAY RESULT IN FAILURE, ELECTRIC SHOCK, OR FIRE. SUCH INCIDENTS ARE NOT COVERED BY THE PRODUCT WARRANTY. MIMAKI ENGINEERING REJECTS ALL LIABILITY FOR DAMAGE, DIRECT OR INDIRECT, ARISING FROM SUCH INCIDENTS.

## 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.

## 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 Operation manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
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 printer.

# Interference to televisions and radios

The product described in this manual generates high frequency when operating.
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 specific-purpose radio and televisions.
The product's interference with your radio or television will be checked by turning on/off the power button 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 orientation of the antenna of the television set or radio to find a position without reception difficulty.
- Separate the television set or radio from this product.
- Plug the power cord of this product into an outlet which is isolated from power circuits connected to the television set or radio.

# Restriction in use

## Restriction in use

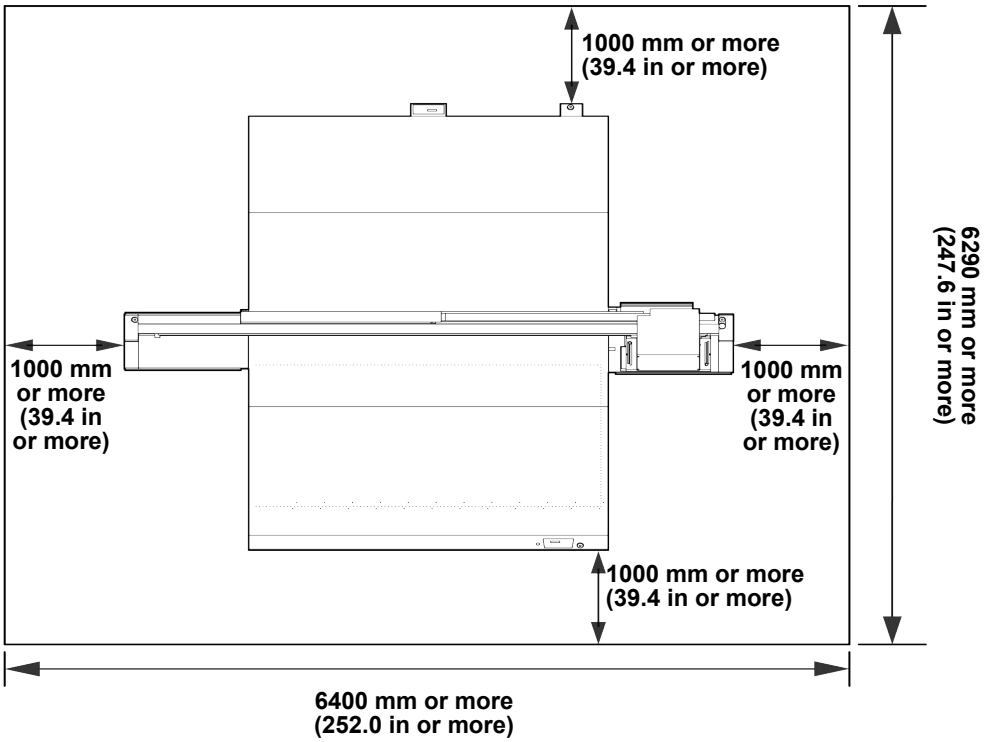
This machine is very dangerous as it has high-speed movable part, hot part and UV irradiating part. Use of this machine is limited to the user who understands this dangerousness completely.

## Restriction for user

The user of this machine shall get proper training. Limit to the user those who got proper training to operate this machine.

## Restriction area

- Coming closer to the machine is prohibited for the person other than the user who got proper training. Set up the restriction area within the range indicated below. You have to install this machine in the dedicated room, or, set up a fence and make the person recognize that it is a dangerous area.
- If restricting the area with safety fences, set up the safety fences in accordance with the EN ISO13857 standards.
- If installing this machine in a dedicated room, install a lock or interlock on the room's door, and perform risk assessment for the final installation place before using the machine.



# Foreword

Congratulations on your purchase of MIMAKI color ink jet printer "JFX200 Series" .
“JFX200 Series” is a UV inkjet printer that can print with UV ink realizing high speed and high image quality.

## About usable ink

Usable ink for this machine is LUS-150, LUS-200, LH100, LUS-120,LUS-350 (4-color/ 4-color+white ink / 4-color+white + clear ink model).

**4-colors version** : 2 each of Cyan, Magenta, Yellow and Black color ink bottle are use.

**4-colors + White version** : One bottle each of yellow and black, and two bottles of cyan, magenta, white are used.

**4-colors + White + Clear version (LUS150, LH100, LUS120)** : One bottle each of cyan, magenta, yellow and black, and two bottles of white, clear are used.

**4-colors + White + Clear + Primer version (LUS150, LH100)** : One bottle each of Cyan, Magenta, Yellow, Black, Clear and Primer, and two bottles of white are used.

**6-colors + White version (only LUS150)** : One bottle each of Cyan, Magenta, Yellow, Black, Light cyan and Light magenta, and two bottles of white are used.

Important! **Depending on the ink type, the available clear ink type differs.**

| Ink type | Ink type of clear ink |
|---|---|
| LUS150 | LH100 |
| LH100 | LH100 |
| LUS120 | LUS120 |

- Please note that other than above combination can not be used.

## On This Operation manual

- This Operation manual is describing the operations and maintenance of "UV inkjet printer JFX200 Series" (called as this machine hereafter)
- JFX200-2531 are identical with models IPPR671.
- Read this Operation manual carefully and understand them thoroughly to use.
- 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.
- Descriptions contained in this Operation manual are subject to change without any notice for improvement.
- You can also download the latest manual from our website.

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## Symbols

Symbols are used in this Operation Manual for safe operation and for prevention of damage to the machine.
The indicated sign is different depending on the content of caution.
Symbols and their meanings are given below. Please follow these instructions as you read this manual.

### Examples of symbols

| Meaning | |
|---|---|
| | Failure to observe the instructions given with this symbol can result in death or serious injuries to personnel. Be sure to read it carefully and use it properly. |
| | Failure to observe the instructions given with this symbol can result in injuries to personnel or damage to property. |
| | Important notes in use of this machine are given with this symbol. Understand the notes thoroughly to operate the machine properly. |
| | Useful information is given with this symbol. Refer to the information to operate the machine properly. |
| | Indicates the reference page for related contents. |
| | The symbol " △ " indicates that the instructions must be observed as strictly as the CAUTION instructions (including DANGER and WARNING instructions). A sign representing a precaution (the sign shown at left warns of hazardous voltage) is shown in the triangle. |
| | The symbol "⃠" indicates that it is the forbidden action. If there is a concrete instruction, it is indicated in or around the symbol "⃠". |
| | The symbol "●" indicates that the action is forced to be done or the instruction must be observed. If there is a concrete instruction, it is indicated in the symbol "●". |

## Warning for Use

### ⚠ 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.
- The ink used for this device falls into the category of UN No.3082 and UN Class 9. Since the ink is flammable, never use fire when using the device.
- When cleaning the ink station and head, be sure to wear the included safety glasses and gloves since you may get ink or maintenance liquid in your eyes.
- If anyone drinks ink or maintenance liquid in mistake, get the person to vomit and see a doctor immediately.Do not allow him or her drink vomit.Then, refer SDS about the inquiry.
- 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.
- Prevent any leaks into sewage or natural water systems.
- If the ink leakage occurs, unplug the power plug to turn off the main power switch, and contact our service office or distributor.

#### Do not disassemble or remodel the device

- 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.

#### 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

- 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 two plugs from the receptacle simultaneously.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.

#### Wearing protective devices

- When cleaning parts such as the head, wiper, or cap, which may scatter ink and maintenance liquid, be sure to wear safety glasses and gloves, or ink and maintenance liquid might enter your eyes or ink and maintenance liquid put on your hands might make your hands rough.

#### Handling of ink bottles

- Some of the ingredients (UV Curing initiator) have toxic consequences to aquatic life.Avoid leak into water system or sewage containing water.
- Store ink bottles 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.

#### Grounding work

- Grounding work is necessary to prevent electrocution accidents when installing an outlet.
- Carry out the grounding work.

#### Handling of the power cable

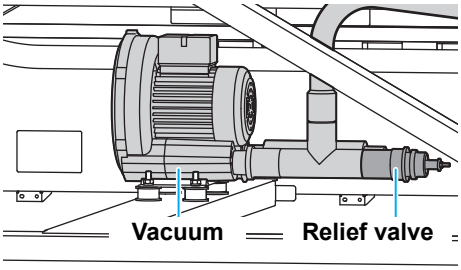
- Use a power cable attached to this unit.
- Take care not to damage, break or work on the power cable.If a heavy matter is placed on the power cable, heated or drawn, the power cable can break to cause fire or electric shocks.

#### Do not ride on the table

- There is a possibility that the board accuracy falls. Please never ride on top of the table.

#### Handling of vacuum

- Never disassemble or remodel the vacuum.
  Also, do not touch the relief valve (pressure regulating valve) or cover the vacuum outlet.
  Doing so will decrease the suction power and cause overheating or malfunction. (Vacuum is placed directly under the table.)
- High-pitched sounds may occasionally be heard from the vacuum when the machine is used in a low-temperature environment, but this is not a fault.



## ⚠ WARNING

### Power supply and voltage

- This unit contains parts applied high voltage.Carrying out electrical work by those unauthorized for that work is prohibited.
- Use it with the displayed power supply specifications. The power-supply voltage of this machine shall be single-phase 200 to 240 Vac 15A / AC 200 to 240 Vac 8A and less. (You cannot use this machine in the 100V system.)

- Be sure to always disconnect the two power plugs simultaneously when performing maintenance in order to prevent electrical shock. Depending on the device, one minute might be required for condenser discharging time. Be sure to always wait five minutes or more after disconnecting the power plug before performing any work.
- Be sure to carry out grounding work to prevent electrical shock.

- The main power circuit breaker should be set ON only by personnel with sufficient knowledge about operations of this unit.

### Handling the Anti-freezing liquid

- Use the exclusive Anti-freezing liquid by Mimaki ,or the machine may be damaged.
- If the Anti-freezing liquid or Cooling tank water gets on the skin or clothes, immediately wash it off with soap.
  If you get the Anti-freezing liquid or Cooling tank water 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 Cooling tank water 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 (SDS).
- 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 Cooling tank water 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 the included safety glasses and gloves for handling the Anti-freezing liquid.

### Handling of LED UV unit

- Do not use the LED UV 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 LEDUV, or it may cause fire.or it may cause electrical shock.
- Never look at the LED UV 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.
- Do not touch the LED UV unit on or right after the lamp off with bare hands to avoid from burn injury.
- It is recommended to replace the LED UV unit within the rated life.

### Disposition of this machine

- When discarding this machine, request the treatment of it for an industrial waste disposal contractor.
- Treat it properly in compliance with regulation in the local area.

### Keep children away

- Keep children away from this machine.

## Precautions in Use

### ⚠ CAUTION

#### Protection against dust

- It is strongly recommended to use the device in a room that is not dusty.
- 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.2-15)

#### Periodic exchange parts

- 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.

#### Keep the machine flatly

- Be sure to adjust the level foot to keep the machine flatly.

#### 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.

#### Warning labels

- 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.

#### Note on maintenance

- When cleaning parts such as the head, wiper, or cap, be sure to wear the included safety glasses and gloves.

#### Handling the Anti-freezing liquid

- 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.

#### Power supply

- Leave the breaker turned ON.
- Do not turn off the main power switch on the right side of this machine.

#### Handling of ink bottles

- Precautions regarding ink are indicated on the Ink bottle. Read these carefully and make sure you understand the contents before using the product.
- Use the JFX200 genuine ink. Remember that the user shall be filled for a repair to correct any damage resulting from the use of ink other than the exclusive type.
- The machine does not operate with any ink other than the JFX200 genuine ink.
- Do not use the JFX200 genuine ink with other printers, as doing so may cause damage to such machines.
- Do not refill ink other than the one specified by our company in the bottle. We are not responsible for any defects caused by your using such an ink.
- If the ink bottle 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 bottle just before installing it in the machine. If it is opened and left for an extended period of time, normal printing performance of the machine may not be ensured.
- Make sure to store ink bottles in a cool and dark place.
- Store ink bottles and waste ink tank in a place that is out of the reach of children.
- Be sure to thoroughly consume the ink in the ink bottle, once it is opened, within three months. If an extended period of time has passed away after opening the ink bottle, printing quality would be poor.
- Neither pound the ink bottle nor shake it violently, as doing so can cause leakage of ink.
- Do not touch or stain the contacts of the IC chip, as doing so may cause damage to the print circuit board.
- Waste ink is equivalent to waste oil of industrial waste. Request an industrial waste disposal company for disposal of waste ink.

#### Handling of media

- Use media recommended by MIMAKI to ensure reliable, high-quality printing.
- Pay attention to the expansion and contraction of the media.
  Do not use media immediately after unpacking. The media can be affected by the room temperature and humidity, and thus it may expand and contract. The media have to be left in the atmosphere in which they are to be used for 30 minutes or more after unpacked.
- Do not use curled media.
  The use of curled media can not only cause a media jam but also affect print quality. Straighten the sheet of media, if significantly curled, before using it for printing. If a regular-sized coated sheet of media is rolled and stored, the coated side has to face outside.

## CAUTION

### About UV light

- A little UV light leaks from the LED UV unit. UV light applied to your skin might cause inflammation and/or skin cancer.Though weak UV light might cause no inflammation, repeated exposure to it may lead to chronic disorders. Avoid applying UV light to your skin and eyes.
- Possible damage to your eyes due to ultraviolet is acute disorder (feeling like something is in your eye, pain and flow of tears) and chronic disorder (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 LED UV unit and the Post Cure Unit become very hot. When carrying out maintenance, wait until the temperature has been sufficiently lowered after the lamp is turned OFF.
- 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.

### Notes on LED UV unit

- When handling the LED UV 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 LED UV or silica glass is contaminated, wipe it with clean gauze moistened with alcohol.(Do not use alcohol for cleaning the exterior cover, or the paint will peel off.)
- 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.

### 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 timechange components.

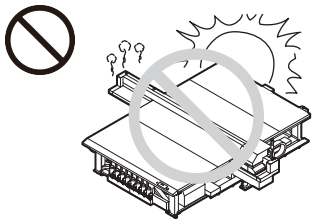
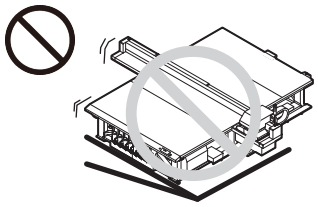
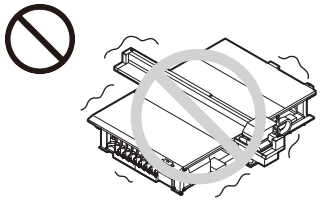
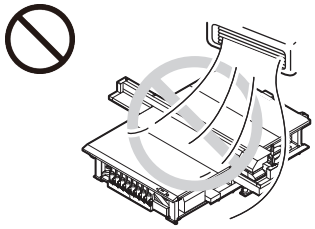
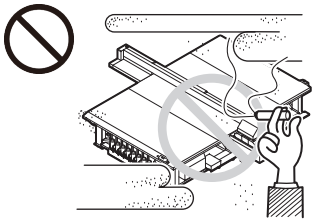
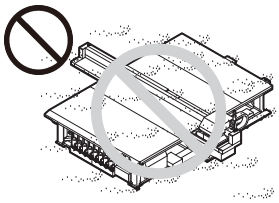
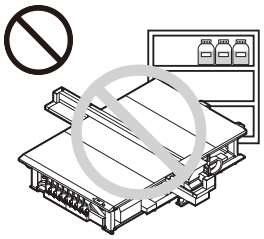
### About firing and smoking

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

### Handling of the power cable

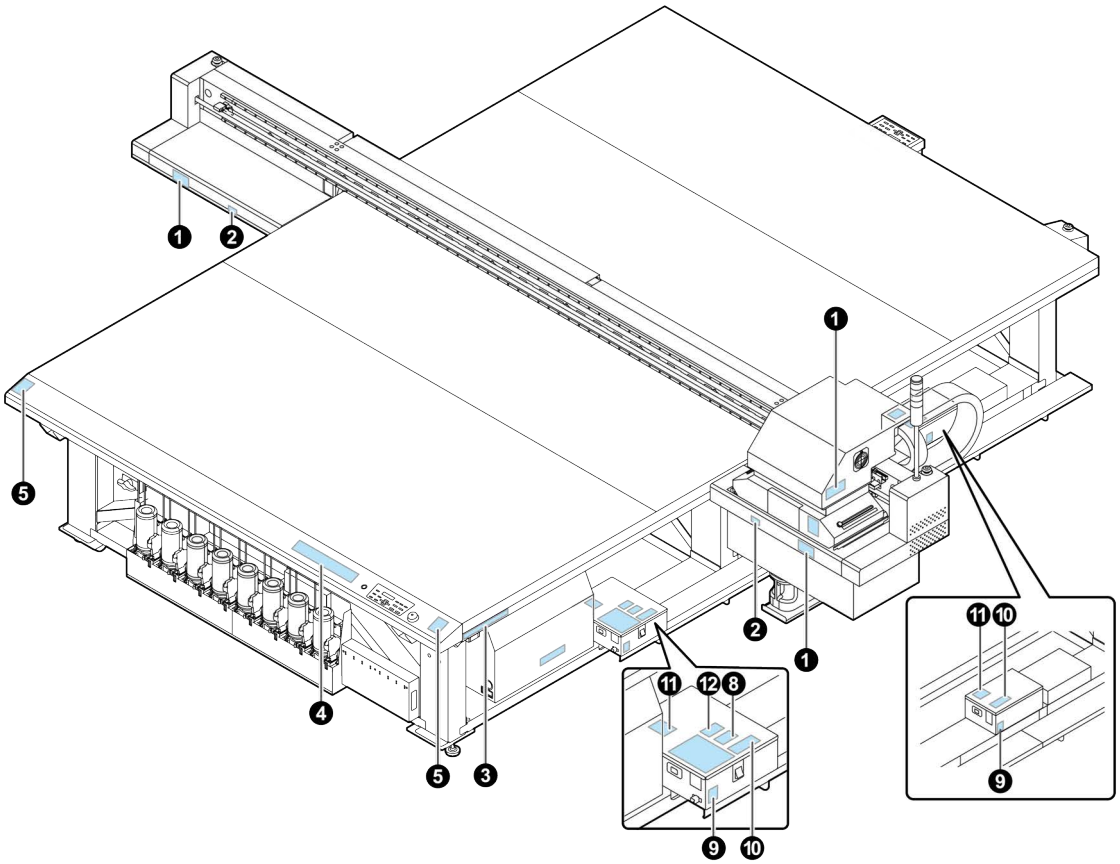
- Connect to a socket-outlet with determinate polarity.
- For Inlet, be sure to supply power from the outlet of the same voltage.
- For PLUGGABLE EQUIPMENT, the socket-outlet shall be installed near the equipment and shall be easily accessible.
- Unplug the cord from the wall outlet and remove dust from the power plug periodically, at least once a year. Failure to do so may result in fire or electric shocks.
- Do not use the machine unless it is connected to a power supply that satisfies the displayed voltage condition.
- Check the voltage of the wall outlet and the capacity of the circuit breaker before you plug the
- power cords. Plug each power cord to different outlet that has independent circuit breaker. If you
- plug more than one power cord to wall outlets that share the same circuit breaker, the power may be cut off by the breaker.

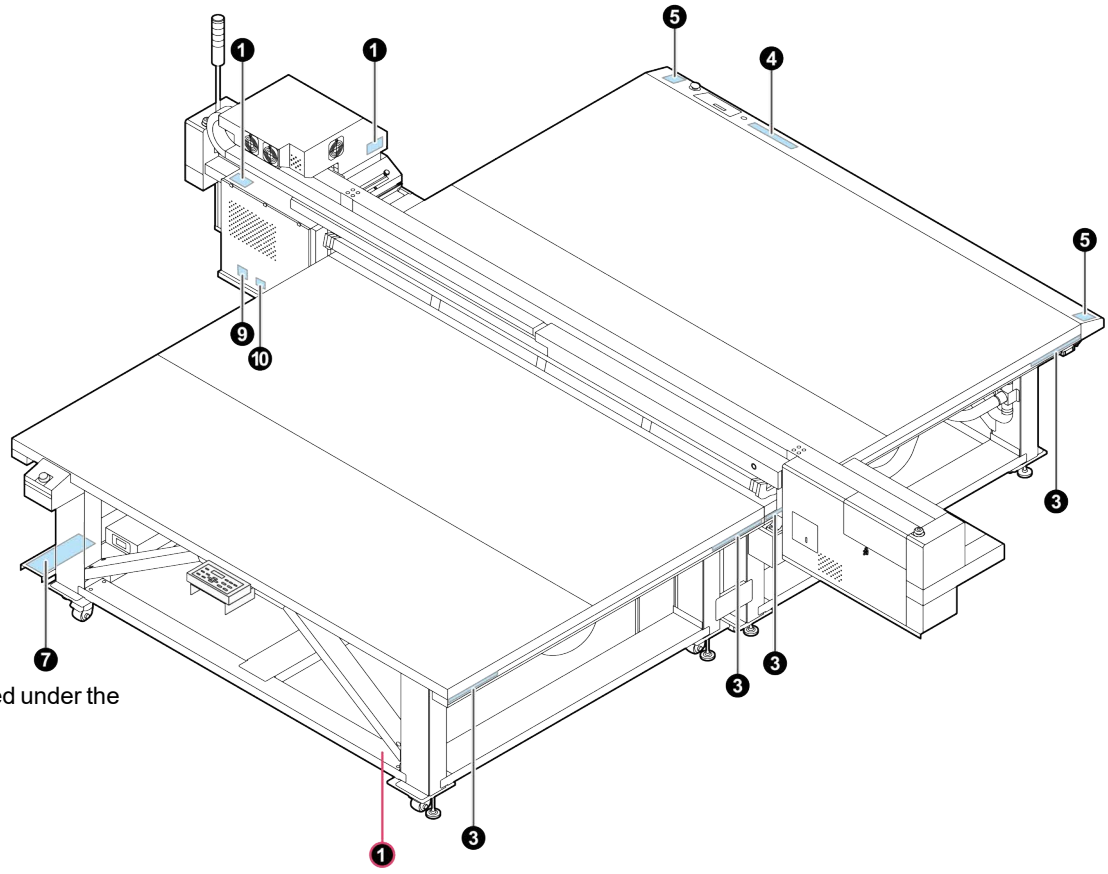
## Cautions on Installation

| CAUTION | | |
|---|---|---|
| **A place exposed to direct sunlight** | **On an inclined surface** | **A place where temperature or humidity varies significantly** |
|  |  | • Use the machine under the following environmental conditions:<br>• Operating environment:<br>15 to 30 °C (59 to 86 °F)<br>35 to 65 % (Rh) |
| **A place that vibrates** | **A place exposed to direct air flow from an air conditioner or the like.** | **Around a place where fire is used** |
|  |  |  |
| **A place with much dust** | **A place with chemicals around** | |
|  |  | |

# Warning labels

Warning labels are stuck on the machine. Be sure to fully understand the warning given on the labels.
If a warning label is illegible due to stains or has come off, purchase a new one from a distributor or our sales office.

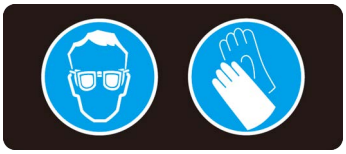



Affixed under the belt.

**1:Reorder .M909381**

**2:Reorder .M903330**



**3:Reorder .M906115**

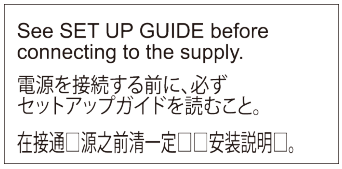
**6:Reorder .M902663**

**7:Reorder .M905980**

**8:Reorder .M913783**

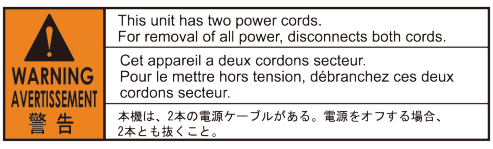
**8:Reorder .M906311**

**8:Reorder .M906311**

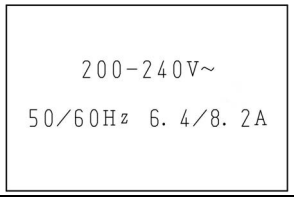



**9:Reorder .M907935**

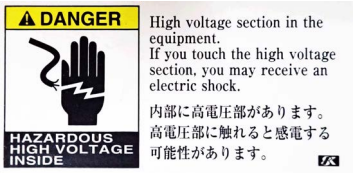
**10:Reorder .M906031**




**11:Reorder .M910571**




**12:Reorder .M903764**



# Chapter 1
# Before Use

**This chapter**

describes the items required to understand before use, such as the name of each part of the machine or the installation procedures.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- Where to Install This Machine ..... 1-2
- Working Environmental Temperature ..... 1-2
- About fixing machine ..... 1-3
- Moving This Machine ..... 1-3

Names of Parts and Functions ..... 1-4
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- Rear Side and Right Side of the Machine ... 1-4
- Operation Panel ..... 1-5
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# About installing this machine

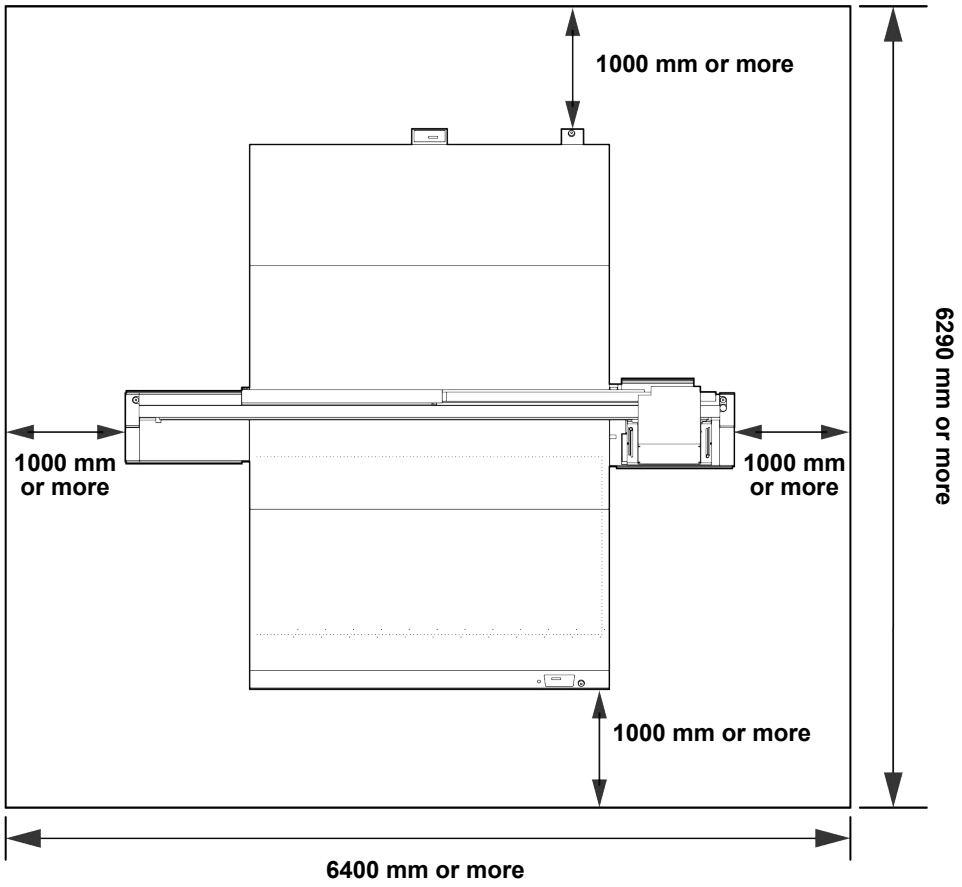
## Where to Install This Machine

This machine features high-speed parts, hot parts and UV irradiating parts which need very careful attention. Use of this machine is limited to the user who understands the risks of inappropriate use completely.

| Model | Width | Depth | Height | Gross weight |
|---|---|---|---|---|
| JFX200-2531 | 4400mm | 4290mm | 1250mm | 1000kg |

Important!

- A service engineer will perform installation work of this machine. At this time, he/ she will contact you and explain about the usage and the installation of this machine. After fully understanding that content, use this machine safely.




Caution

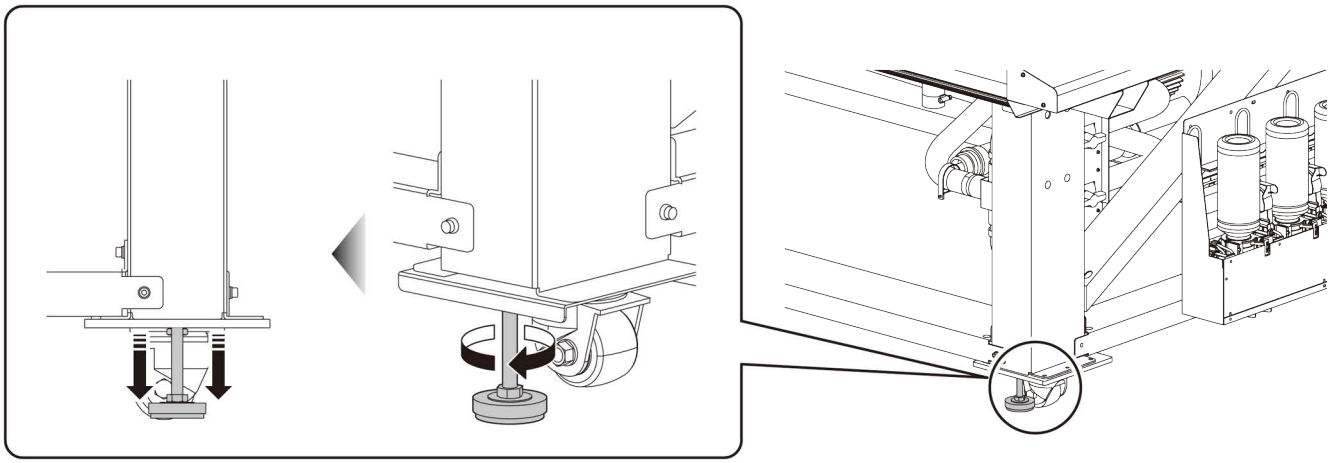
- When you usually use photographic fixer, do not install this machine in a room filled with vapor of photographic fixer. If you install this machine in such a room, ink adhering to the head hardens and it may cause image quality defect that cannot be improved even if you perform head cleaning many times and may cause nozzle clogging.
- Besides photographic fixer, if you leave this machine in an environment where acidic vapor (acetic acid, muriatic acid, etc.) is generated, the same phenomenon occurs.
- Do not use the machine in an environment full of metal cutting fluids or materials containing highly volatile substances (amines, amine-denatured alcohols). Also, isolate ink, maintenance kits and the machine from such an environment. This may cause nozzle clogging.

## Working Environmental Temperature

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

## About fixing machine

The leg of this machine has the level foot to fix the machine.
Before turning the power ON, make sure that the printer body is fixed with the leveling feet. The printer body may start moving during operation if it is not fixed with the leveling feet.



- Put the supplied base plate (gray) made of resin between each leveling foot and the floor. To hold the weight of the printer, using plate is recommended.

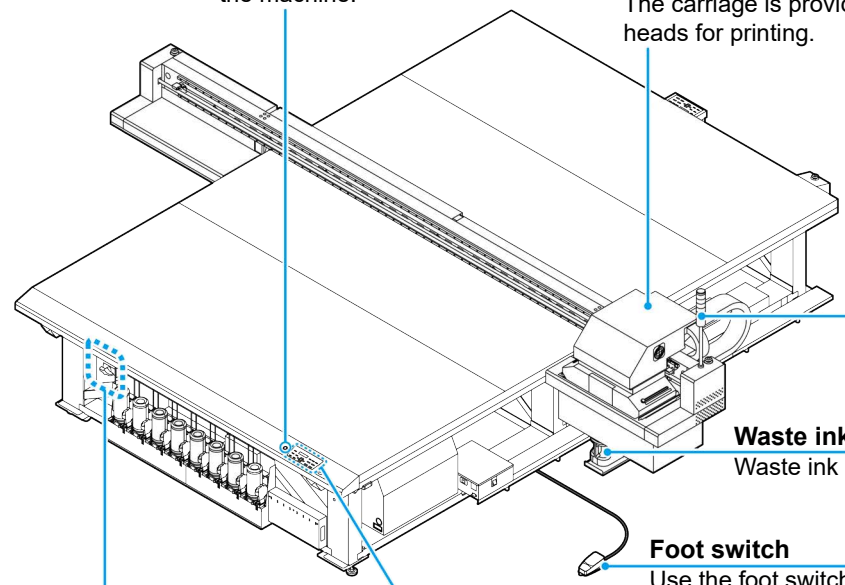
## Moving This Machine

Important!

- When the machine is moved to any place other than on the same step-free floor, contact your distributor or our service office.
  If you move it by yourself, failure or damage may occur.
  Be sure to request your distributor or our service office to move this machine.

# Names of Parts and Functions

## Front Side of the Machine



**Power button** *1
Turns on/off the power to the machine.

**Carriage**
The carriage is provided with the heads for printing.

**Signal tower light**
Indicates the machine status or absorption status.

**Waste ink tank**
Waste ink gathers in this tank.

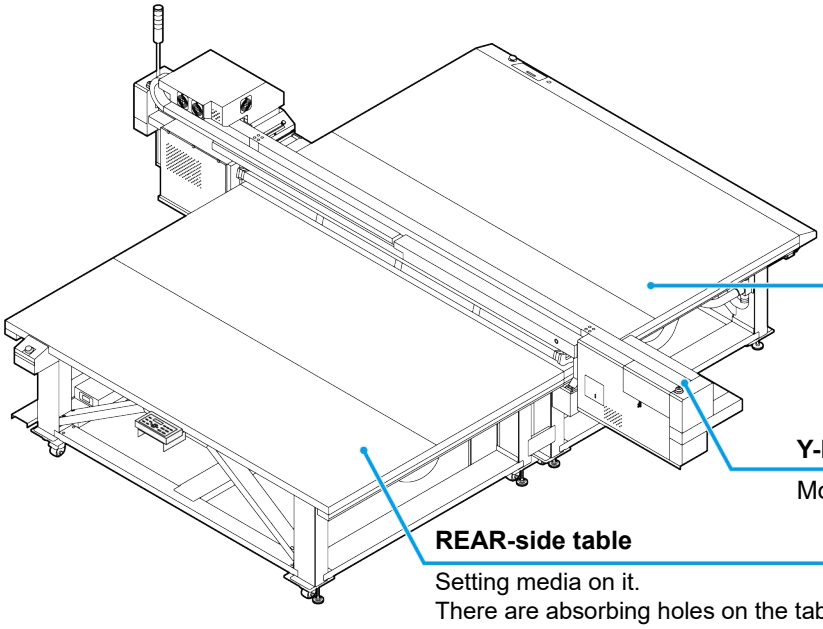
**Foot switch**
Use the foot switch when performing the absorption operation on the table unit.

**Operation panel**
This panel has the operation keys required for operating the machine and the LCDs for displaying setting items, etc.

**Suction valve**
Switch at setting media.

*1 : When the power supply button is turned ON, it lights in green, and when it is OFF, it goes out. The ink clogging prevention function is periodically operated even when the power button is OFF. (Auto maintenance function)

## Rear Side and Right Side of the Machine



**FRONT-side table**
Functions are same as Rear-side table.

**Y-bar**
Moved on the table at printing.

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

# Operation Panel

Use the operation panel to make settings for printing or operate this machine.
The panel is installed at two positions: On the front side and the rear side.

**VACUUM key**
Press to perform the absorption operation on the entire table.

**UP key**
Press to elevate the carriage.

**DOWN key**
Press to down the carriage.

**PRINT AREA key**
Toggles the printing area while the toggle print function is enabled.

**MAINT. key**
Performs the maintenance function such as station maintenance.

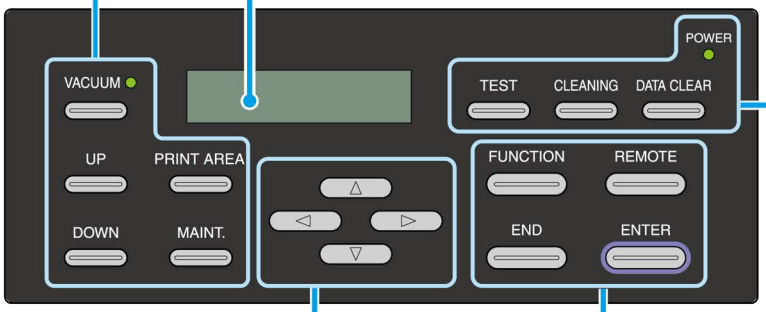
**POWER Lamp**
Lit when the power is ON.

**TEST key**
Prints test patterns to check if there are any printing failures such as ink clogging.

**CLEANING key**
Head cleaning at ink clogging.

**DATA CLEAR key**
Deletes the data that have been received.

**Display**
Displays the status of the machine, set items and errors.




**JOG key**
Use these keys to shift the carriage or the Y-bar in [LOCAL]. Also use them to select an item of printing conditions.

**FUNCTION key**
Press to use each function.

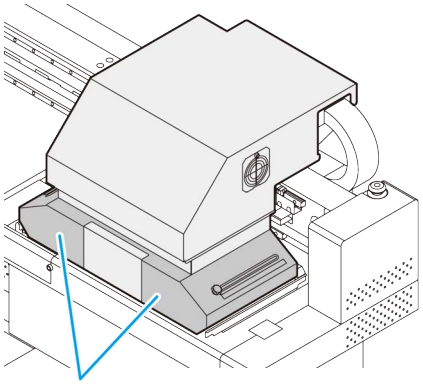
**REMOTE key**
Switching the Remote and the Local, and vice versa.

**END key**
Press to finish the setting or cancel te setting.

**ENTER key**
Press to determine a setting.

## Carriage

The carriage is provided with the heads for printing and LED UV unit.



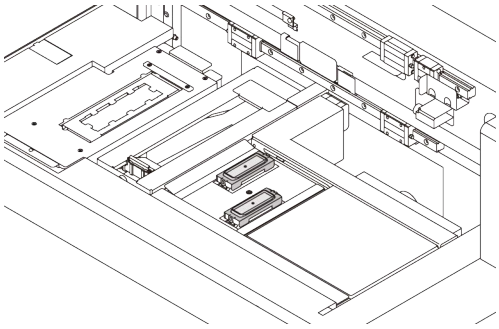
LED UV unit

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

## Capping station

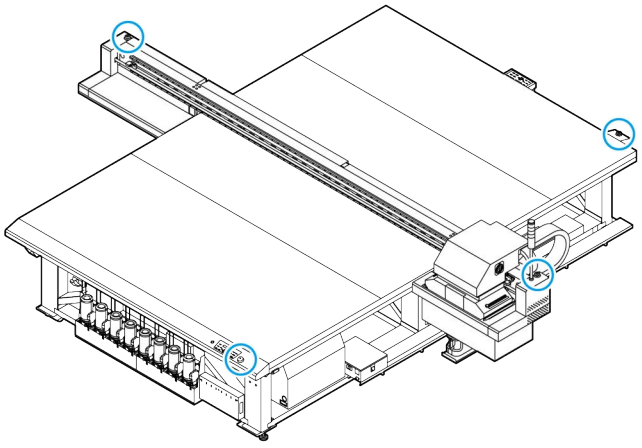
- Be sure to wear the attached goggles in cleaning within the capping station to protect your eyes against ink. Otherwise, you may get ink in your eyes.

The capping station consists of the ink caps, the wiper for cleaning the heads, etc.
The ink caps prevent the nozzles in the heads from drying up.
The wiper cleans the nozzles in the heads.
The wiper is consumable.If the wiper is deformed or the media is stained, replace the wiper with a new one. (☞ P.4-33)



## EMERGENCY SWITCH

One EMERGENCY switch is placed on the front face of the unit, two are on Y-bar, and one on the back.
When stopping the machine for safety reason, press the switch.



Important!

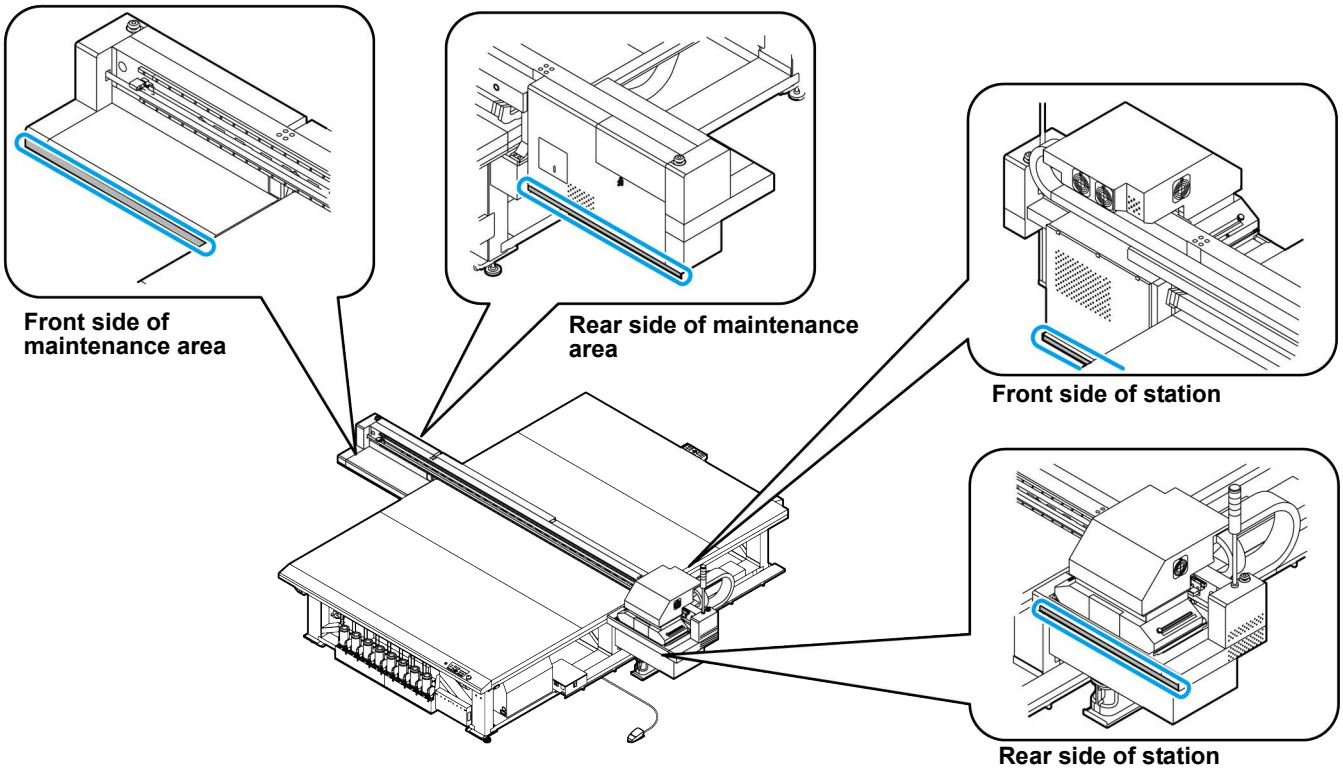
**When you press the emergency switch and the machine stops, be sure to follow the procedures below:**

**(1)** Disconnect from the outlet before resolving the fault.
**(2)** After checking the safety, pull the emergency switch upward (or rotate) to release.
**(3)** Connect to the outlet.

# Safety sensor

This machine is equipped with safety sensors on the front and rear sides of the station and maintenance area.
Any contact with the safety sensor will immediately stop the motor and cut off excitation.
When detecting any contact with the safety sensor, this machine displays a confirmation screen.
Check the condition around the machine and press the ENTER key.

**Safety sensor installation position**

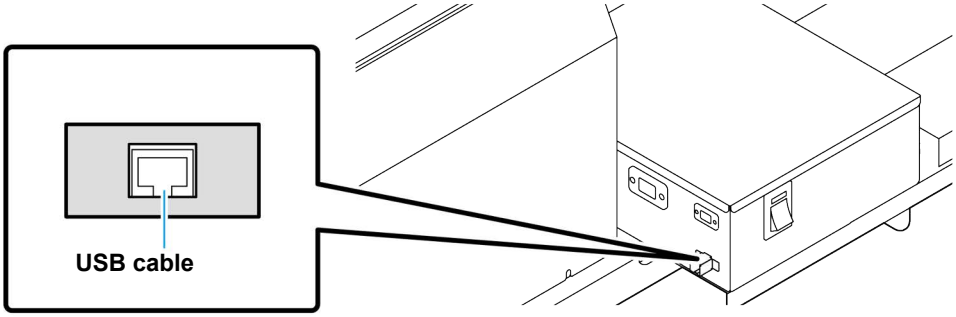


## Connecting USB2.0 Interface Cable

Connect the PC and this machine with the USB2.0 interface cable.

Caution

- Your RIP must be compatible with USB 2.0.
- Contact a RIP maker near your location or our office when the USB2.0 interface is not attached to the PC.



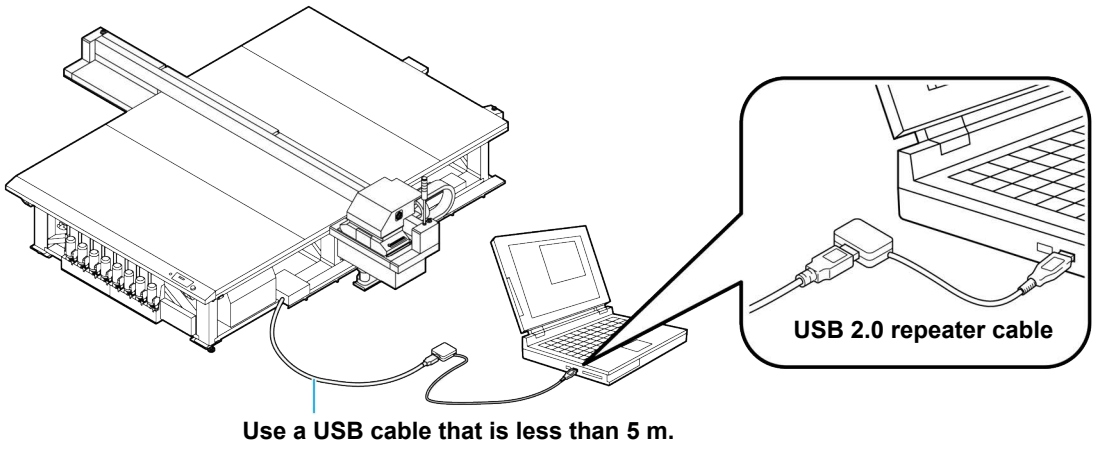

### Notes on USB 2.0 Interface

Important!

- Your RIP must be compatible with USB 2.0.

#### ● When two or more JFX200 machines are connected to one personal computer

When two or more JFX200 machines are connected to one personal computer, the personal computer may not recognize all the JFX200 machines normally.
Reconnect the unrecognized JFX200 machine to another USB port, if available, and check to see if it is recognized.If the JFX200 machine is not recognized by the newly connected USB port, use USB 2.0 repeater cables available on the market. (However, keep the distance between the JFX200 and the personal computer within 20 m.)

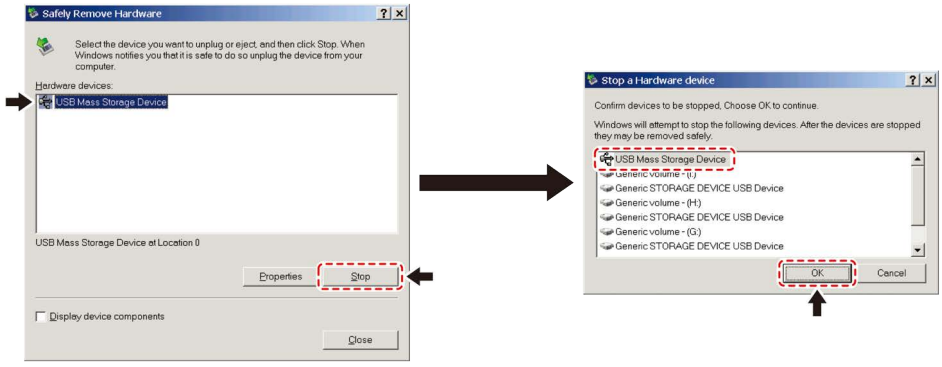



#### ● Notes on peripheral devices in USB high speed mode

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 a JFX200 machine is connected to, the USB device may not be recognized.
When JFX200 is connected to the personal computer to which an external HDD is connected via USB, the speed of data output to JFX200 may drop.That can cause the head unit to stop temporarily at the right or left end during printing.
Use a USB cable that is less than 5 m. If it is necessary to use one that is 5 m or longer, use a commercially available USB 2.0 repeater cable.

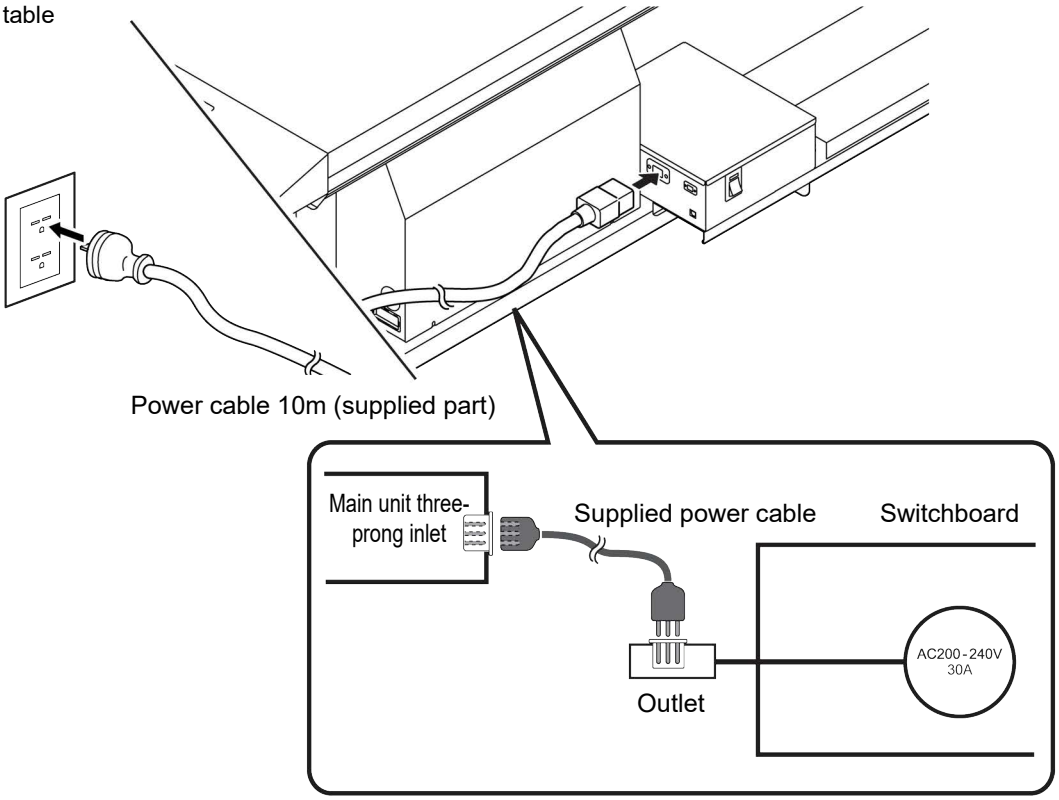
## ● Removing USB memory

If a USB memory module is inserted in the personal computer to which a JFX200 machine is connected, click "Stop" in the "Safely Remove Hardware" window by following the instructions given there first and then remove the module.
Leaving a USB memory module inserted can cause [ERROR 201 COMMAND ERROR].
Copy the data onto the hard disk before outputting it for printing.

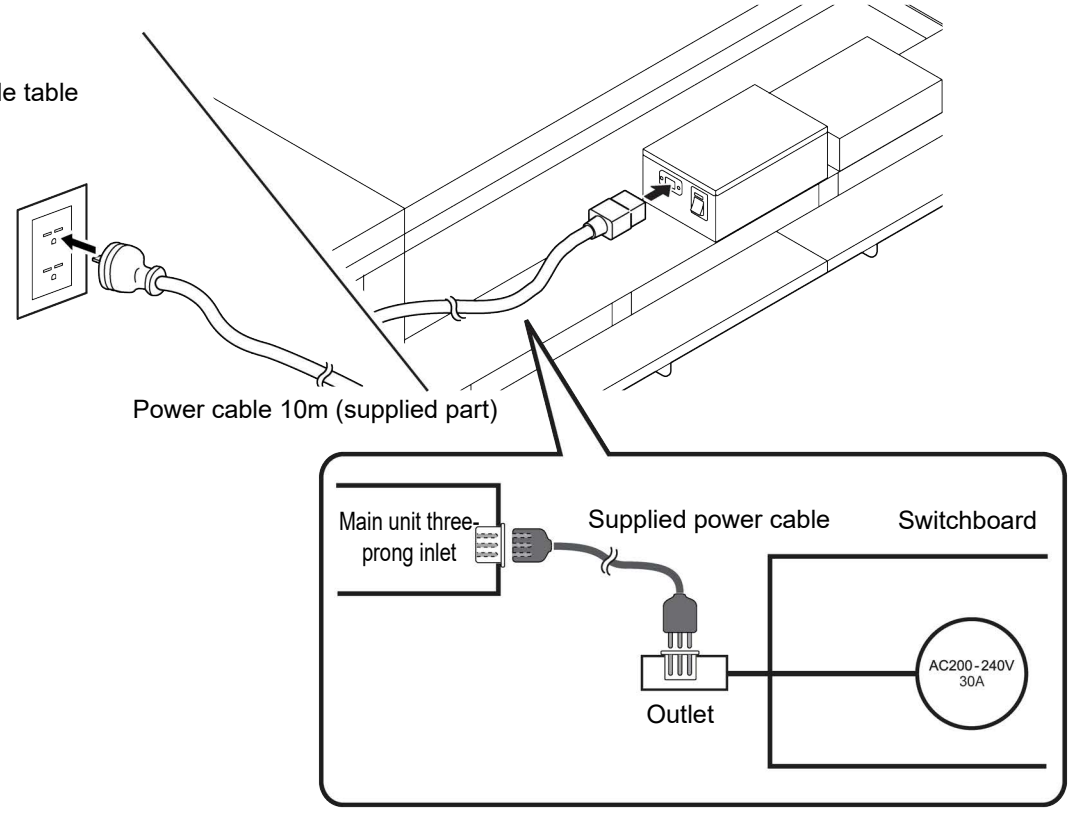


# Connecting Power Supply Cable

FRONT-side table




FRONT-side table



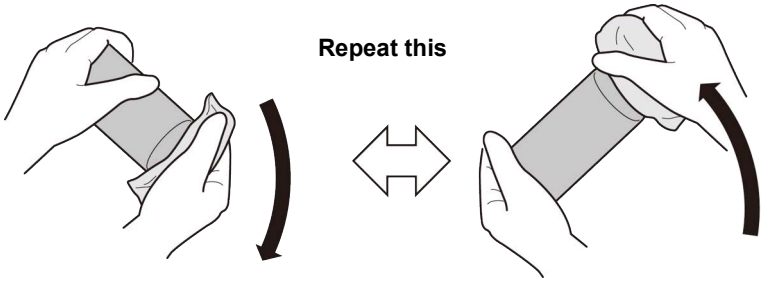
# Ink bottles

## Setting ink bottles

### 1 Take out the ink bottle, and slowly shake it twenty times and more.

• To prevent ink from leaking when you shake it, wear gloves and cover the ink bottle cap with a paper towel etc. Being in that status, slowly shake it twenty times and more by flowing ink.

- Before shaking it, check that the cap is firmly closed.
- If you shake it too strong, it may cause ink leakage. Therefore, perform this carefully.
- If the remaining amount of ink is less, ink in the bottle cannot be beaten enough. Tilt the ink bottle until it becomes vertical.



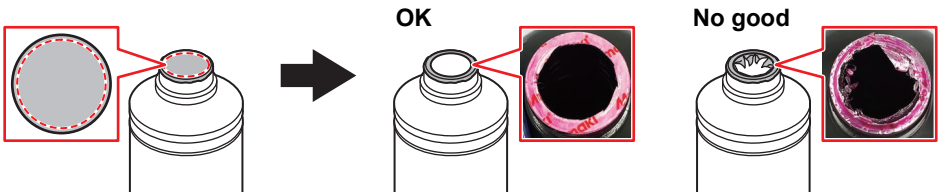

**Cover with paper towel firmly and shake ink slowly**

### 2 Remove the cap of the ink bottle.

Important!

• If the mouth of the ink bottle is fitted with a seal

**(1)** Use a craft knife tool to cut out a circle of seal. If there is any leftover cut, it may cause ink to leak.




**(2)** Do not scratch the mouth of the ink bottle. There is a risk of ink leaking from the scratched area.

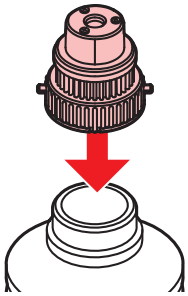
**(3)** Be careful not to drop pieces of the seal into the ink bottle. If you use the bottle with pieces of the seal inside, there is a risk that the special cap will get stuck and the ink supply will be interrupted.

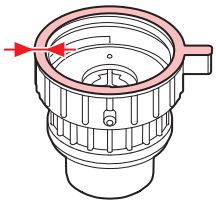
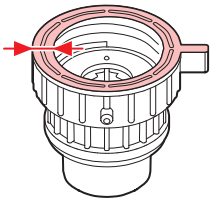
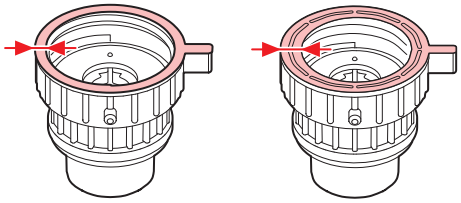
## 3 Attach the specialized cap to the ink bottle.

**(1)** Set the specialized cap on the bottle.

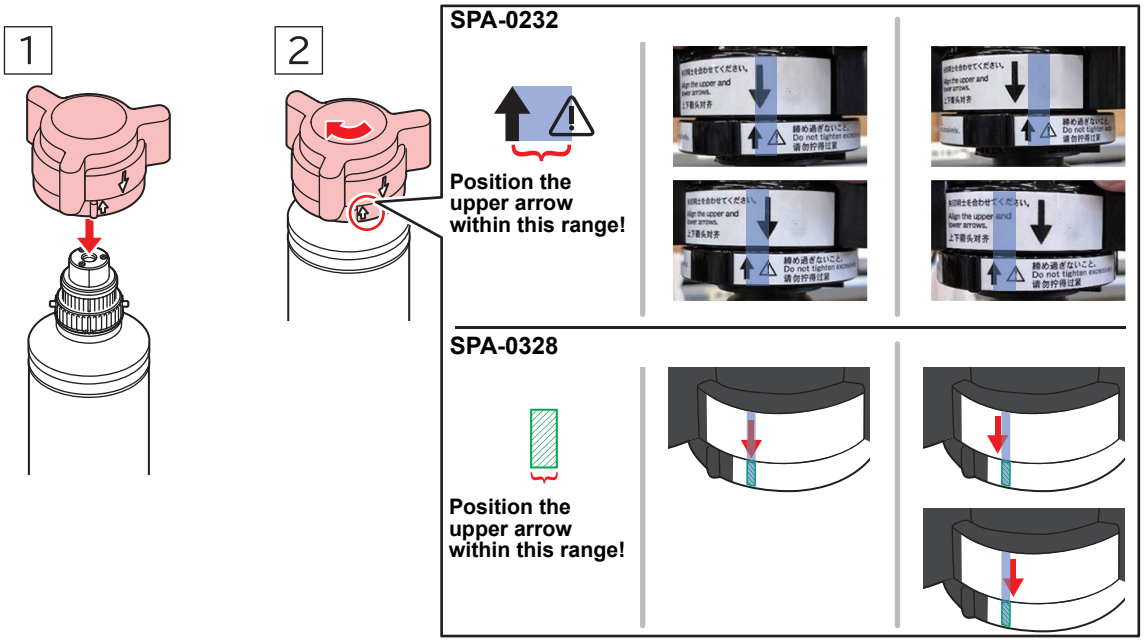
- The specialized cap that is used differs depending on the type of ink that is set.

**Specialized cap**



| Ink type | Cap type |
|---|---|
| LUS-150 ink | 【CAP A】<br>  |
| LUS-200 ink<br>Primer ink<br>LUS-120 ink<br>LH100 ink<br>LUS-350 ink | 【CAP B】<br>  |
| LUS-150 ink<br>LH100 ink<br>Primer ink | 【CAP C】<br>  |

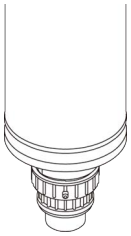
**(2)** Tighten the specialized cap using the tightening jig.




Caution

- Do not overtighten the special cap. Disregarding this precaution may result in damage, idling or ink leakage. If the arrow moves beyond the above range, loosen the special cap, and repeat the steps again.

**(3)** Turn the bottle upside-down and check that ink does not leak.



Important!

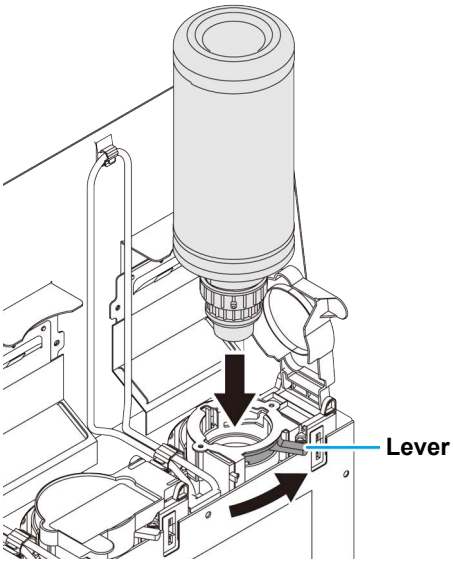
- Do not leave an ink bottle with the specialized cap attached in a location where it is exposed to light for a long period of time. Doing so can result in the ink in the bottle curing (hardening).

## 4 Set the ink bottle on the tank.

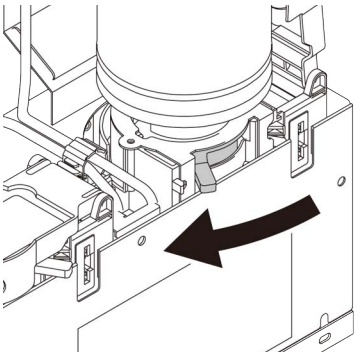
- Set the ink bottle while moving the lever on the tank completely to the right.

Important!

- Do not ever rotate the ink bottle at all after setting it into the tank.
  Doing so can result in ink leakage.

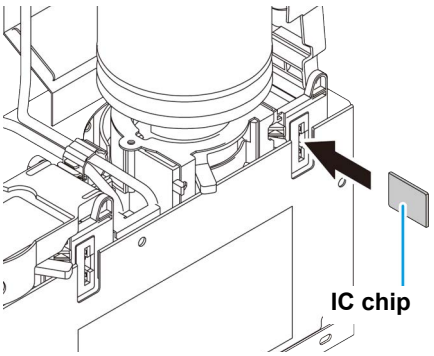



## 5 Move the lever on the tank completely from the right to the left side.



## 6 Insert the IC chip.

- Insert the IC chip with the left side with metal upward. If you insert the wrong side by accident, it causes faulty or damage of the IC chip.
- Do not touch the metal part of the IC chip. It may break the IC chip by static, or may cause read error by stain or flaw.
- For the setting orders of the ink bottles, refer to P.6-4.



Important!

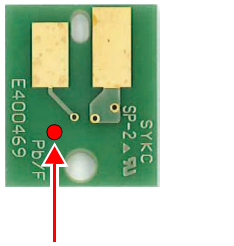
**About IC chip**

- The IC chip has information of ink color, remaining amount of ink, expiration data, etc. When setting the ink bottle, insert the IC chip packed with the ink bottle into the IC chip inserting port attached with the ink cover.
- If you set the IC chip not being the pair of the ink bottle, image quality defect etc. may occur.
- The mark indicating color information is pasted on the IC chip.

Ink color and indication mark

| Ink color | Indication mark |
|---|---|
| Black | (one black circle) |
| Cyan | (one blue circle) |
| Magenta | (one red circle) |
| Yellow | (one yellow circle) |
| Ligth cyan | (one blue circle) |
| Light magenta | (one red circle) |
| White | (one white circle) |
| Clear | (two white circles) |
| Primer | (three white circles) |

**IC chip**






## Replace the ink bottle

Perform as follows when [INK END] or [INK NEAR END] is displayed on the display.

Caution

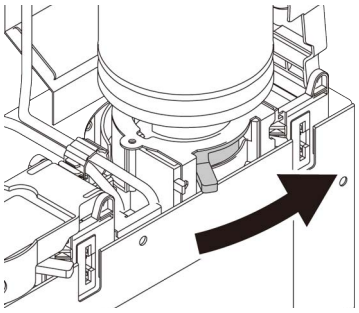
- Check for dust or debris on the cap before setting the bottle. If any paper or dust adheres to the cap, it may cause a clogged path defection.

### ● When [INK END] is displayed

**1** **Move the lever on the tank completely from the left to the right end.**

Important!

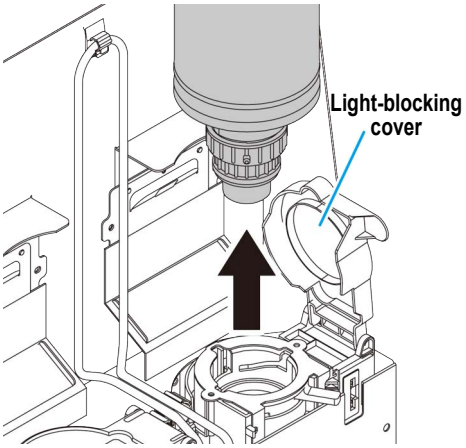
- Do not ever rotate the ink bottle at all after setting it into the tank. Doing so can result in ink leakage.



**2** **Lift out the ink bottle while keeping it completely straight.**

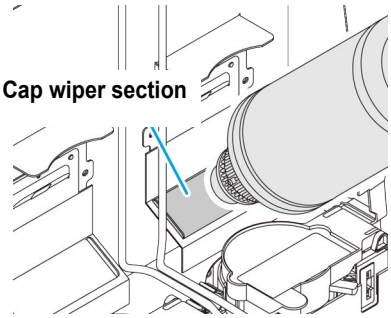
Important!

- Check that the light-blocking cover closes when removing the ink bottle from the tank. Close by hand if the cap does not close. Leaving the light-blocking cover open can result in the ink curing.



## 3 Wipe off any ink adhering to the cap.

**(1)** Wipe off any ink adhering to the undersurface of the cap using the cap wiper section on the rear of the tank.




**(2)** Set the bottle with cap upright and use a disposable wipe or similar item to wipe off any ink adhering to the cap.

## 4 Remove the cap from the used ink bottle.

• Use the tightening jig to remove the cap if it is difficult to remove.

## 5 Refer to P.1-11 “Ink bottles” to set the new ink bottle.

Important! • Do not leave an ink bottle with the specialized cap attached in a location where it is exposed to light for a long period of time. Doing so can result in the ink in the bottle curing.

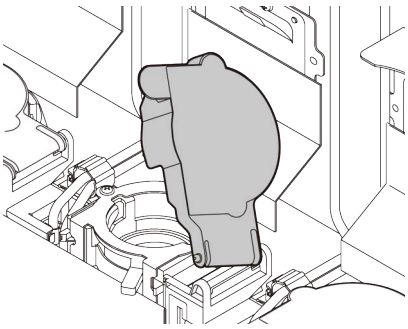
### ● When [INK NEAR END] is displayed

There is a little of ink left. It is recommended to replace the ink bottle soon since ink may become empty in printing while printing is continuously enabled.
When you press the ENTER key in LOCAL, you can check the bottle to be replaced in the local guidance. (☞ P.3-48)

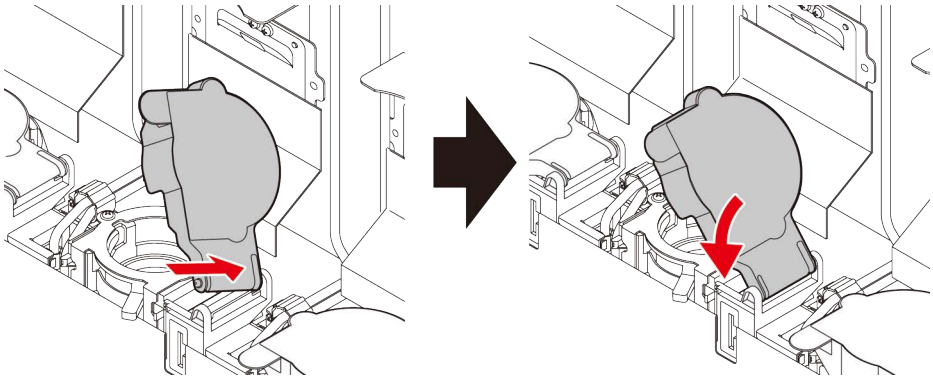
## If the light-blocking cover comes off

If the light-blocking cover comes off, light striking the inside of the tank can result in the ink curing.
Perform the following procedures if the light-blocking cover comes off.

**1** **Insert the nub (on one side) of the light-blocking cover into the hole on the tank.**

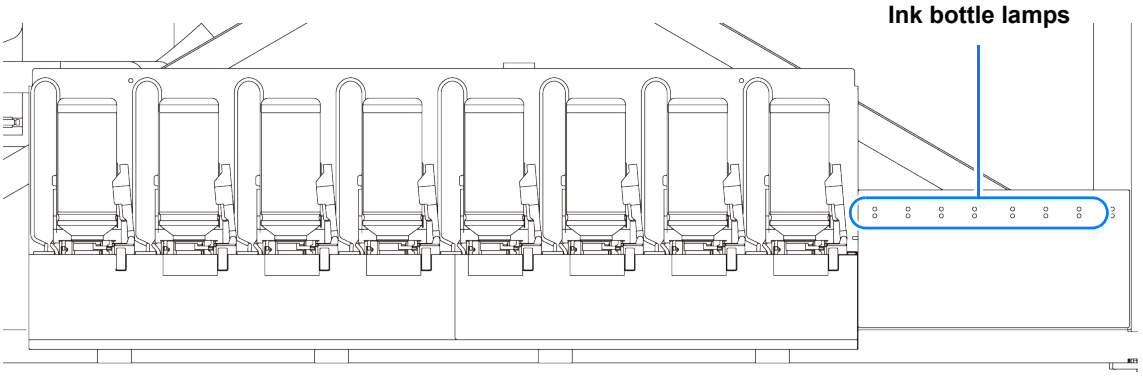


**2** **While pressing towards the side of the inserted hole of Step 1, insert the other nub into the other side.**



## For Ink bottle lamps

The condition of the ink bottles set in the machine is confirmable with lamps located over the ink bottles.




| Condition of Ink bottle lamp | Description |
|---|---|
| OFF | No error |
| Blinks in red. | There is less ink in the ink bottle (Near End). Or, one month has passed from the expiration date of ink. It will become unusable soon. |
| Lights in red. | There is no ink in the ink bottle, or the ink bottle cannot be used due to other ink error. (☞ P.5-4) |
| Blinks in red (fast). | As two months have passed from the expiration date of ink, you cannot use the ink bottle. |
| Lights in green. | Indicates that ink is supplied.<br>When you use 4-color ink set, this machine first supplies ink from the ink bottle whose ink expires soon. |
| Blinks in red and green alternately. | It blinks in red and lights in green alternately. |

## About ink expiration date

The ink expiration date is indicated on the Ink bottle. Expired ink may cause printing defects or alter the color tone. Printing is possible even if the ink has passed its expiration date. Nevertheless, we recommend replacing with new ink or use up as quickly as possible.

Ex.) The expiration date is April 2020
May : Replace with new ink or use up as quickly as possible. Printing is possible.
June : Replace with new ink or use up as quickly as possible. Printing is possible.
July : Printing is not possible.

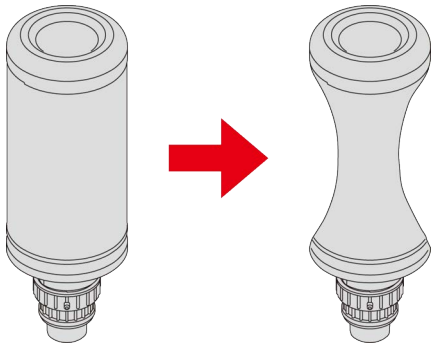
- The message appears on the display.

## About ink end and ink near end

When it becomes Ink near end (remaining amount of ink is less), the ink bottle lamp blinks in red to inform you of it. It is recommended to replace it with new one as soon as possible.
When it becomes Ink end (remaining amount of ink is none), the ink bottle lamp lights in red to inform you of it. Replace the ink bottle.

# Caution in handling of ink bottles

- 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 eyess to rinse ink away completely. Then, consult a doctor as soon as possible.
- Use genuine ink bottles for this machine. This machine functions by recognizing the genuine ink bottles. In case of troubles caused by modified ink bottles or the like, it shall be out of the warranty even within the warranty period.
- Store the ink bottle in a place not more than 1 m off the ground. If you store it in a place higher than 1 m, should the ink bottle fall, the cap may come off, spilling the ink.
- If the ink bottle is moved from a cold place to a warm place, leave it in the room temperature for three hours or more before using it.
- Make sure to store ink bottles in a cool and dark place.
- Store ink bottles and waste ink tank in a place that is out of the reach of children.
- Request an industrial waste processor for processing of empty ink bottles.
- Be sure to thoroughly consume the ink in the ink bottle, once it is opened, within three months. If an extended period of time has passed away after opening the ink bottle, printing quality would be poor.
- Do not shake ink bottles violently. This may result in ink leakage from the ink bottles.
- Never refill the ink bottles with ink. This may result in troubles.
  MIMAKI will not bear any responsibility for any damage caused by the use of the ink bottles refilled with ink.
- Do not touch or stain the contacts of the IC chip. This may cause damages on printed circuit boards.
- The shape of an ink bottle installed in the machine might collapse as shown in the figure on the right. This is normal, and does not affect the use or operation of the machine.



# Media

Usable media sizes and notes for handling are described.

## Usable sizes of media

| Model | JFX200-2531 |
|---|---|
| Maximum width | 2580mm |
| Maximum length | 3100mm*1 |
| Maximum printing width | 2500mm |
| Thickness | 50mm or less |
| Weight *2 | 325kg or less |

*1. 1300mm (FRONT/REAR) when the toggle print function is enabled.

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

## Caution in handling of medias

Pay attention to the followings for handling of medias.

Important!

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

# Chapter 2
# Basic Operations

**This chapter**

describes procedures and setting methods for ink and media preparation, and printing.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Turning the Power OFF ..... 2-4
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# Workflow

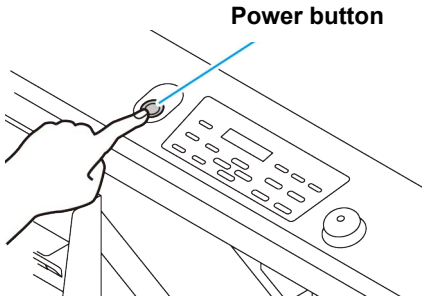
| | | |
|---|---|---|
| 1 | Turning the Power ON/OFF | Referring to “Turning the Power ON/OFF” (☞ P.2-3). |
| 2 | Setting a Media | Referring to “Setting a Media” (☞ P.2-5). |
| 3 | Move the irradiation position of the UV lamp | Referring to “Move the irradiation position of the UV lamp” (☞ P.2-8). |
| 4 | Test Printing | Referring to “Test Printing” (☞ P.2-13). |
| 5 | Head Cleaning | Referring to “Head Cleaning” (☞ P.2-15). |
| 6 | Printing Data | Referring to “Printing Data” (☞ P.2-16). |

# Turning the Power ON/OFF

## Turning the Power ON

**1** **Push the power button.**

- Push the power button located on the left side of the operation panel.




- The firmware version is displayed when the power is turned ON.
- The machine performs its initial operation.

```
JFX200      Start-up
Ver 1.0
```

**2** **The machine enters LOCAL.**

```
<LOCAL>
```

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

- You should normally leave the machine plugged into the power source outlet. Leaving the machine unplugged can result in clogging of the head nozzle. Depending on the symptoms, it might be difficult to remedy the fault.

# Turning the Power OFF

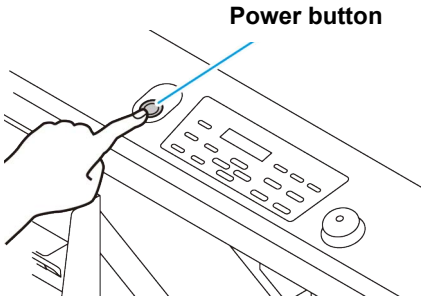
When having ended the operation of the machine, turn the power OFF by pressing the power button located on the front side.
Check the following items when turning the power OFF.

- If the machine is receiving data from the PC or if there is any data that has not been output yet
- If the head has returned to the capping station
- If any error has occurred （☞ P.5-12 “Error messages”）

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

**2** **Push the power button to turn the power OFF.**

- The power supply button goes out.
- To use this machine again, light the green lamp by pressing the power button.




## Cautions about Turning the Power OFF

### ● Do not unplug from the power outlet.

Leave plugged into the power outlet and periodically turn the power on so that the nozzle clogging prevention function (flushing function) and the pressure adjusting function operate.
If not plugged into the power outlet, the auto maintenance functions, such as flushing, do not operate, and this may cause nozzle clogging.

### ● Turn the power OFF after having checked the position of the head.

If the power is turned OFF in a state where the head has not returned to the capping station, the head dries, which may cause nozzle clogging.
In this case, turn the power ON again and check that the head has returned to the capping station, and then turn the power OFF.

### ● Do not turn the power OFF during printing.

The head may not return to the capping station.

### ● After having turned the power button OFF, remove the power cable from the outlet.

When turning off the main power switch to move the machine or for countermeasure against the error of the machine, be sure to push the power supply button on the operation panel. Check that the lamp went out, and remove the power cable from the outlet.

### ● Even if you press the emergency switch, the power supply is not turned off.

The emergency switch is to stop the machine when the situation requires emergency stop. Even if you press the emergency switch, you cannot turn off the power supply.

# Setting a Media

This machine can be used with a leaf media.
For usable medias, refer to P.1-20 “Usable sizes of media”.

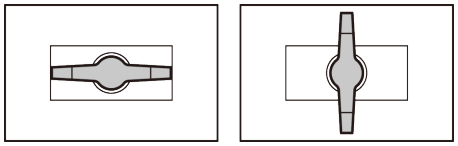
## Setting the Media

Important!

- 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.
- There are guide holes into which the attached positioning pin is inserted at the edge of the table (two sides of upper and lower of the table). Use them as the guides for setting the media straight.
  ( ☞P.2-7 )

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

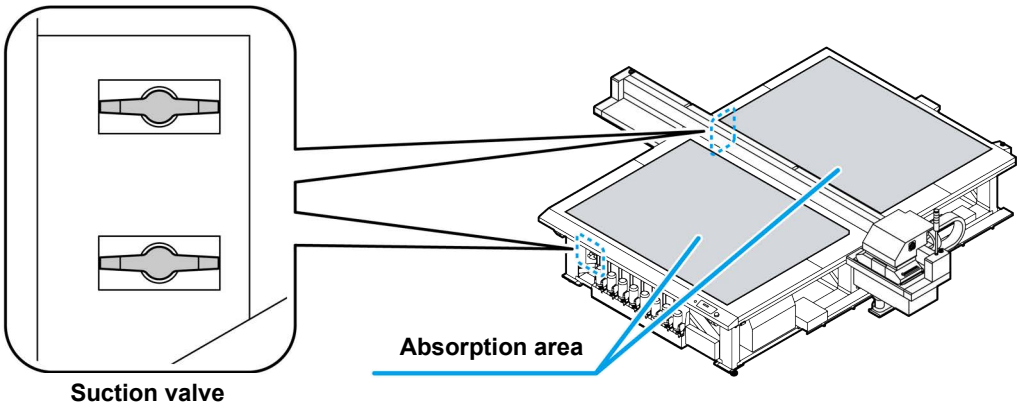
- The valve is opened when the knob is turned horizontally and closed when it is turned vertically.



Open Close

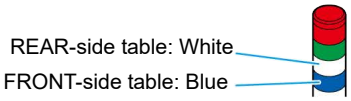
**2** **Press the VACUUM key to light the “VACUUM” lamp and vacuum the media.**

- As for the details of the absorption area, please refer to P.2-6.




Important!

- Press the [VACUUM] key to perform the absorption operation on the entire table.
  If you want to use only one table, use the foot switch to move to the table where you want to perform the absorption operation.
- You can see the absorption point on the table by the light status of the warning light.
  - White: REAR-side table
  - Blue: FRONT-side table




**After setting the media, set the followings.**

- Register the thickness of the set media. (☞ P.3-4)
- Register the head gap. (☞ P.3-6)

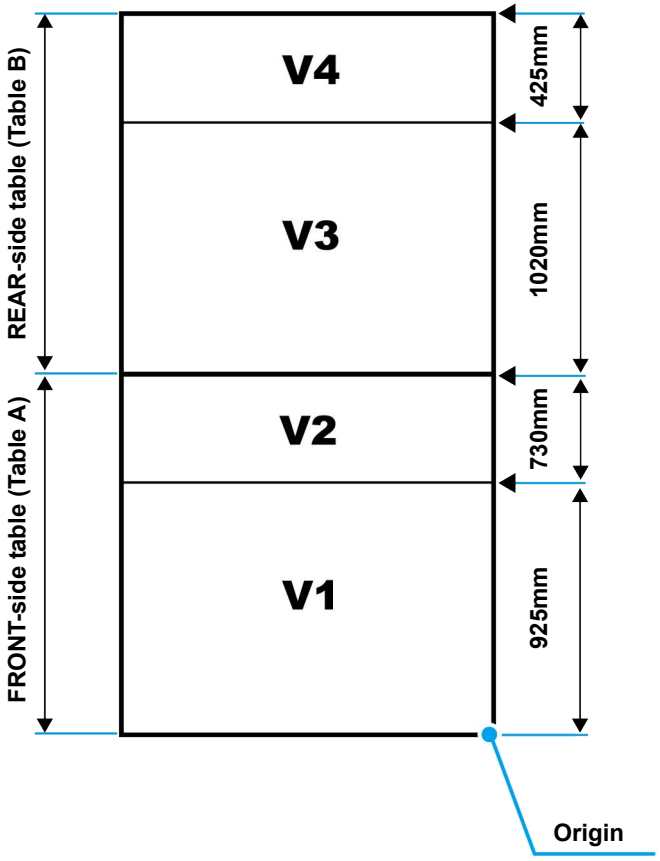
Caution

**Since the table may bend, please refer the following manner.**

- Do not drop the heavy media to the table.
- Do not concentrate the weight on one point (up to 50kg / m2). (☞ P.6-2)

## On the absorption area

The absorption area of JFX200-2531 is shown in the following figure.




- When changing the point of origin, please refer to P.3-2.
- The foot switch toggles ON/OFF for each table.

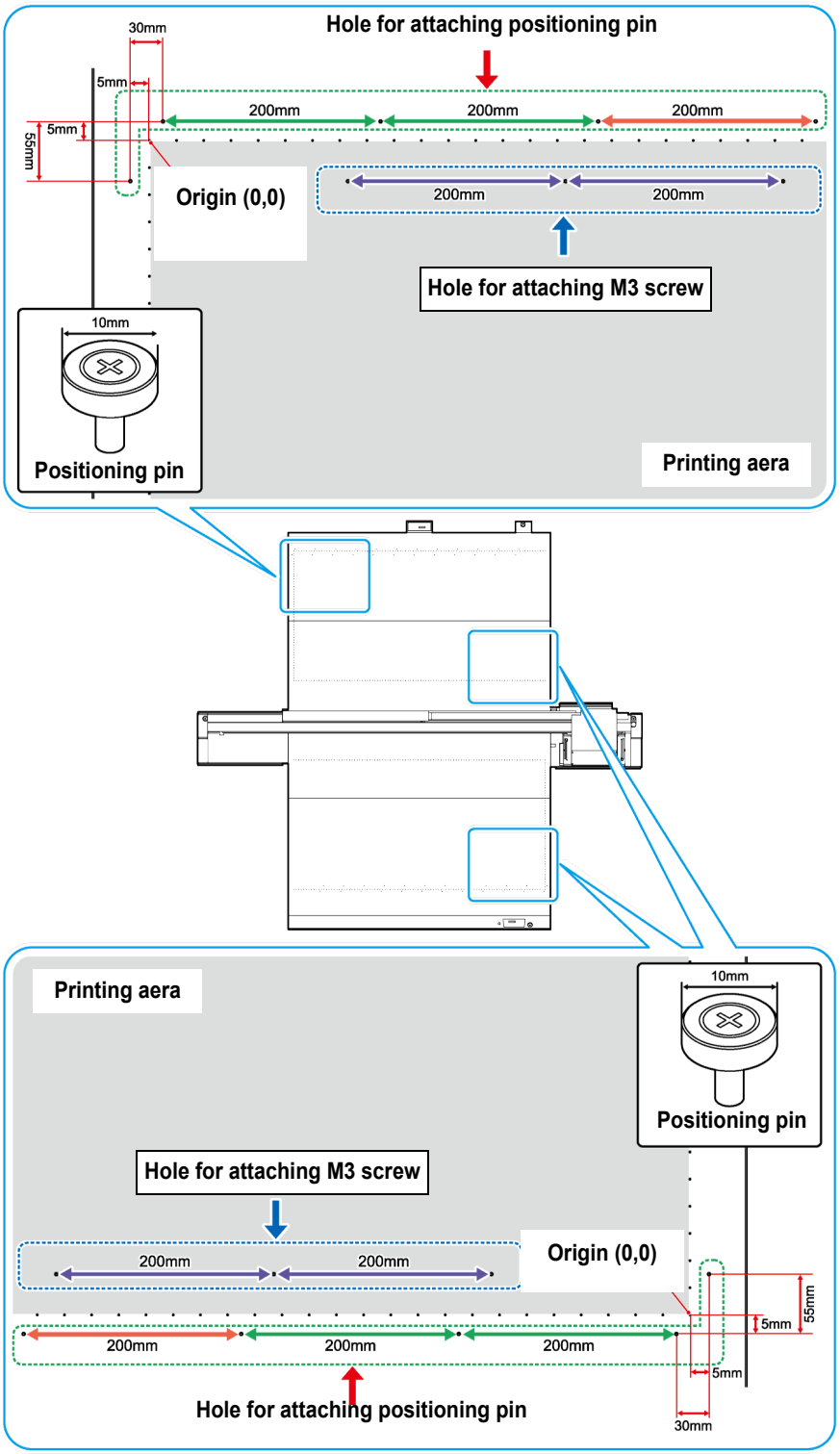
## About the media guide hole

There are guide holes into which the attached positioning pin is inserted at the position shown below. Use these as a guide to set the media straight.

- You can attach the M3 screw in the marketplace instead of the attached positioning pin. In this case, you can attach the screws in two locations at the left and front of the table.

Important!

- If you use the attached positioning pin, you cannot use the media of 5mm thickness and below.
- If you print onto media that is no more than 5 mm thick, make sure that the positioning pin has been removed from the table.



# Move the irradiation position of the UV lamp

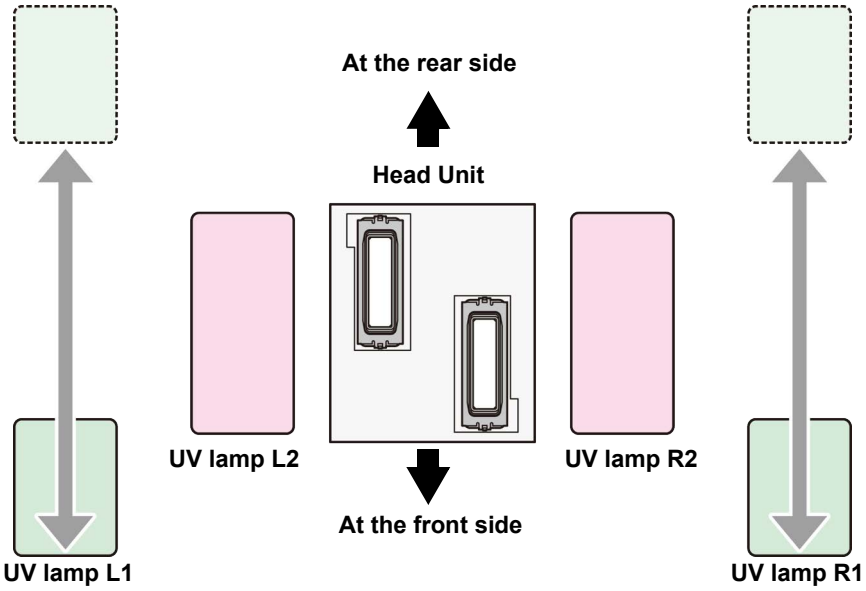
When printing with this machine, it is necessary to move the LED UV position according to ink to use (color ink/ white ink).

This machine provides three printing methods:

- **Single-layer printing: printing color ink layer on media**
- **Two-layers printing: printing white ink layer on color ink layer**
- **Two-layers printing: printing color ink layer on white ink layer**

## Best-suited position of UV lamp according to printing

This machine is equipped with four UV lamps around the head unit as below.
Depending on the printing method, move the UV lamp.




### (1) Adjustment on LUS-150 or LUS-200

**4-colors (M/M/K/K/C/C/Y/Y)**

| Printing method | UV lamp position |
|---|---|
| Single-layer printing: printing color ink layer on media. | • Move the right and left UV lamp to the position at 0mm. |

**4-colors + white (M/K/C/Y/M/C/W/W), 6-colors + white (M/K/C/Y/Lm/Lc/W/W)**

| Printing method | UV lamp position |
|---|---|
| Single-layer print that prints color ink layer on media. | • Move the right and left UV lamp to the position at 0mm. |
| Two layer print that overlap the white ink layer on the color ink layer. | • Move the right and left UV lamp to the position at 0mm. |
| Two layer print that overlap the color ink layer on the white ink layer. | • Move the right and left UV lamp to the position at 65mm. |

**4-colors + clear ink + white ink (M/K/C/Y/CL/CL/W/W)**

| Printing method | UV lamp position |
|---|---|
| Single-layer print that prints color ink layer on media. | • Move the right and left UV lamp to the position at 0mm. |
| Single-layer print that prints clear ink layer on media. | • Move the right and left UV lamp to the position at 0mm. |
| Three layers print that overlap the color ink layer on the white ink layer and then, overlap the clear ink layer. | • Move the right and left UV lamp to the position at 65mm *1 when printing with white + color and it move to the position at 0mm when printing with clear ink. |
| Thickness print that overlap the multilayer of clear ink on color ink layer. | • Move the right and left UV lamp to the position at 0mm. |
| Thickness print that overlap the color ink layer on the white ink layer and then, overlap the multilayer of clear ink. | • Move the right and left UV lamp to the position at 65mm *1 when printing with white + color and them move to the position at 0mm when printing with clear ink. |

**4-colors + clear ink + primer + white ink (M/K/C/Y/Cl/P/W/W)**

| Printing method | UV lamp position |
|---|---|
| Single-layer printing that prints color ink layer, white ink layer, primer layer, and clear ink layer. | • Move the right and left UV lamp to the position at 0mm. |
| Two layers print that overlap the color ink layer on the primer layer | • Move the right and left UV lamp to the position at 65mm. |
| Tow layers print that overlap white ink layer on the primer layer | • Move the right and left UV lamp to the position at 0mm. |
| Three layers print that overlap the color ink layer on the primer layer and then overlap the white ink layer | • Move the right and left UV lamp to the position at 0mm.<br>(Do not change the location at the middle of the print) |
| Three layers print that overlap the white ink layer on the primer layer and then overlap the color ink layer | • The left and right of the UV lamp at 0mm position at primer printing<br>Move to 65mm position at the white and color printing |
| Three layers printing that overlap the color ink layer on the primer layer and then overlap the clear ink layer | • The left and right UV lamp at 65mm position at primer + color printing<br>Move to 0mm position at clear printing |
| Three layers print that overlap the white ink layer on the primer layer and then overlap the clear ink layer | • Move the left and right UV lamp to 0mm position.<br>(Do not change the location at the middle of the print) |
| Four layers print that overlap the white ink layer on the primer layer, and then overlap the color ink layer and the clear ink layer (same for the case of thickness print of clear layer) | • The left and right UV lamp at 0mm position at the primer printing 65mm position at the white and color printing<br>Move to 0mm position at clear printing |

*1. The lamp position should be above setting when you priotize the image quarity, and the lamp position need to be changed. (The machine suspend before printing clear ink and the alarm will be shown on RasterLink.)
If you can not change the lamp position during the print, please set the lamp position at 0mm BEFORE printing.

### (2) Adjustment on LH-100

#### 4-colors (M/M/K/K/C/C/Y/Y)

| Printing method | UV lamp position |
|---|---|
| Single-layer printing: printing color ink layer on media. | • Move the right and left UV lamp to the position at 65mm. |

#### 4-colors + white ink (M/K/C/Y/M/C/W/W)

| Printing method | UV lamp position |
|---|---|
| Single-layer print that prints color ink layer on media. | • Move the right and left UV lamp to the position at 120mm. |
| Two layer print that overlap the white ink layer on the color ink layer. | • Move the right and left UV lamp to the position at 65mm. |
| Two layer print that overlap the color ink layer on the white ink layer. | • Move the right and left UV lamp to the position at 65mm. |

#### 4-colors + clear ink + white ink (M/K/C/Y/CL/CL/W/W)

| Printing method | UV lamp position |
|---|---|
| Single-layer print that prints color ink layer on media. | • Move the right and left UV lamp to the position at 120mm. |
| Single-layer print that prints clear ink layer on media (mat and gross). | • Move the right and left UV lamp to the position at 0mm. |
| Two layer print that overlap the clear ink layer on the color ink layer (mat and gross). | • Move the right and left UV lamp to the position at 0mm. |
| Three layers print that overlap the color ink layer on the white ink layer and then, overlap the clear ink layer. | • Move the right and left UV lamp to the position at 65mm*1 when printing with white + color and it move to the position at 0mm when printing with clear ink. |
| Thickness print that overlap the multilayer of clear ink on color ink layer. | • Move the right and left UV lamp to the position at 0mm. |
| Thickness print that overlap the color ink layer on the white ink layer and then, overlap the multilayer of clear ink. | • Move the right and left UV lamp to the position at 65mm*1 when printing with white + color and them move to the position at 0mm when printing with clear ink. |

#### 4-colors + clear ink + primer + white ink (M/K/C/Y/Cl/P/W/W)

| Printing method | UV lamp position |
|---|---|
| Single-layer print that prints a color ink layer on the media | • Move the right and left UV lamp to the position at 120mm. |
| Single-layer print that prints a white ink layer on the media | • Move the right and left UV lamp to the position at 65mm. |
| Single-layer print that print primer layer and clear ink layer on the media | • Move the right and left UV lamp to the position at 0mm. |
| Two layers print that overlap the color ink layer on the primer layer | • Move the right and left UV lamp to the position at 65mm. |
| Tow layers print that overlap white ink layer on the primer layer | • The left and right UV lamp at 0mm position at the primer printing<br>Move to 65mm position at white ink printing. |
| Three layers printing that overlap the color ink layer on the primer layer and then overlap the white ink layer | • The left and right UV lamp at 0mm position at the primer printing<br>Move to 65mm position at color + white printing |

| | |
|---|---|
| Three layers print that overlap the white ink layer on the primer layer and then overlap the color ink layer | • The left and right of the UV lamp at 0mm position at primer printing<br>Move to 65mm position at the white and color printing |
| Three layers printing that overlap the color ink layer on the primer layer and then overlap the clear ink layer | • The left and right UV lamp at 65mm position at primer + color printing<br>Move to 0mm position at clear printing |
| Three layers print that overlap the white ink layer on the primer layer and then overlap the clear ink layer | • Move the left and right UV lamp to 0mm position.<br>(Do not change the location at the middle of the print) |
| Four layers print that overlap the white ink layer on the primer layer, and then overlap the color ink layer and the clear ink layer (same for the case of thickness print of clear layer) | • The left and right UV lamp at 0mm position at the primer printing<br>65mm position at the white and color printing<br>Move to 0mm position at clear printing |

*1. The lamp position should be above setting when you priotize the image quarity, and the lamp position need to be changed. (The machine suspend before printing clear ink and the alarm will be shown on RasterLink.)
If you can not change the lamp position during the print, please set the lamp position at 0mm BEFORE printing.

### (3) Adjustment on LUS-120,LUS-350

#### 4-colors (M/M/K/K/C/C/Y/Y)

| Printing method | UV lamp position |
|---|---|
| Single-layer printing: printing color ink layer on media. | • Move the right and left UV lamp to the position at 0mm. |

#### 4-colors + white ink (M/K/C/Y/M/C/W/W)

| Printing method | UV lamp position |
|---|---|
| Single-layer print that prints color ink layer on media. | • Move the right and left UV lamp to the position at 0mm. |
| Two layer print that overlap the white ink layer on the color ink layer. | • Move the right and left UV lamp to the position at 0mm. |
| Two layer print that overlap the color ink layer on the white ink layer. | • Move the right and left UV lamp to the position at 190mm. |

#### 4-colors + clear ink + white ink (M/K/C/Y/CL/CL/W/W)

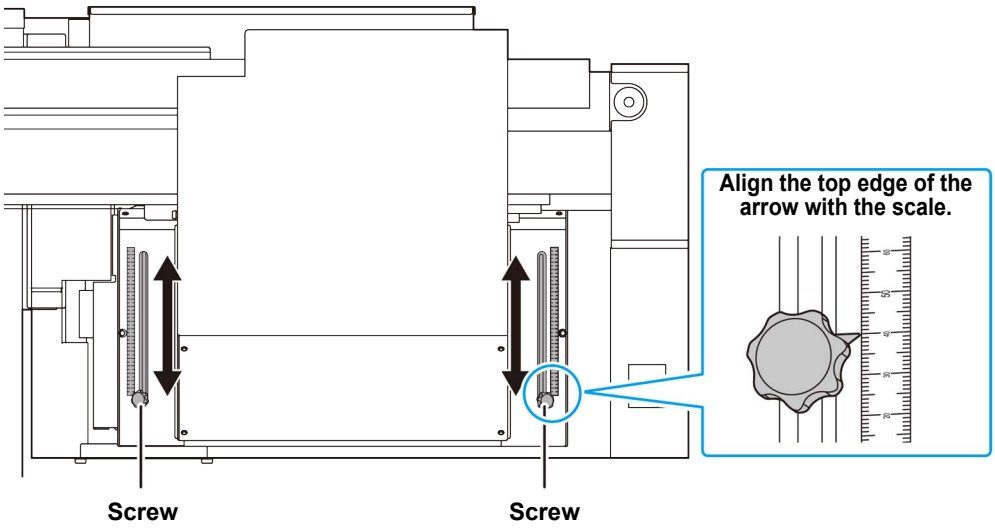
| Printing method | UV lamp position |
|---|---|
| Single-layer print that prints color ink layer on media. | • Move the right and left UV lamp to the position at 0mm. |
| Single-layer print that prints clear ink layer on media. | • Move the right and left UV lamp to the position at 0mm. |
| Three layers print that overlap the color ink layer on the white ink layer and then, overlap the clear ink layer. | • Move the right and left UV lamp to the position at 65mm *1 when printing with white + color and it move to the position at 0mm when printing with clear ink. |
| Thickness print that overlap the multilayer of clear ink on color ink layer. | • Move the right and left UV lamp to the position at 0mm. |
| Thickness print that overlap the color ink layer on the white ink layer and then, overlap the multilayer of clear ink. | • Move the right and left UV lamp to the position at 65mm *1 when printing with white + color and them move to the position at 0mm when printing with clear ink. |

*1. The lamp position should be above setting when you priotize the image quarity, and the lamp position need to be changed. (The machine suspend before printing clear ink and the alarm will be shown on RasterLink.)
If you can not change the lamp position during the print, please set the lamp position at 0mm BEFORE printing.

Important! • LUS-350 ink has only 4color and white combination.

## Positioning method of UV lamp

This part explains the method to move the UV lamp for right and left of the carriage.
Loosen the screw of the lamp you move, slide it.




Caution

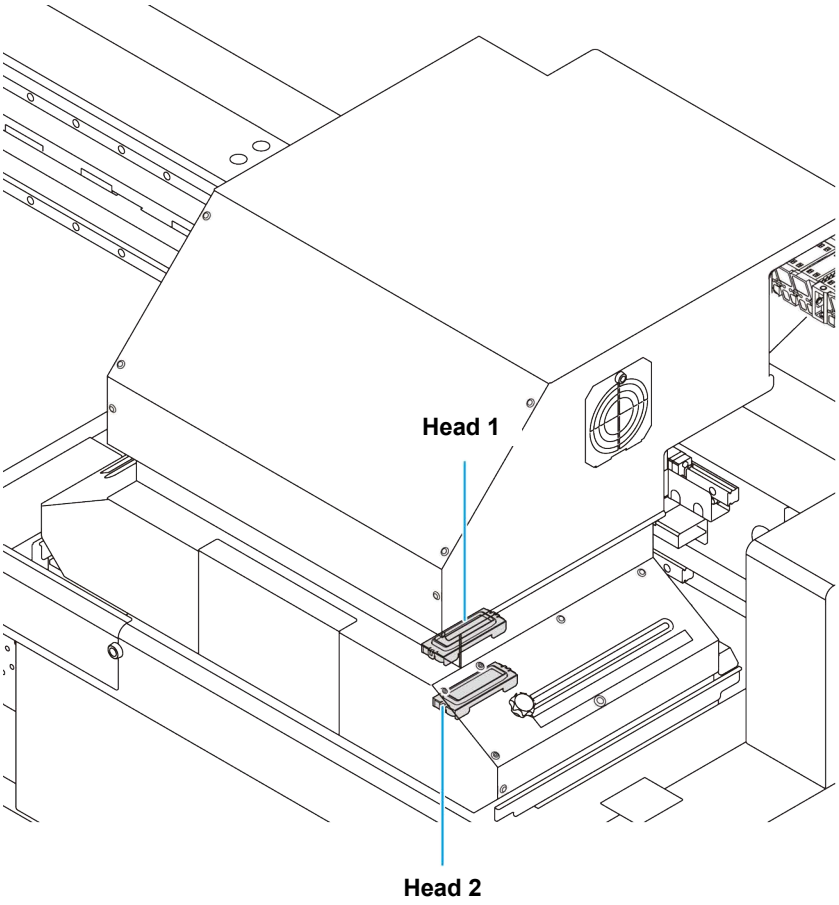
- Be careful not to drop foreign object into the groove for moving the UV lamp. If metal substance such as a screw may drop there, it may cause ignition.

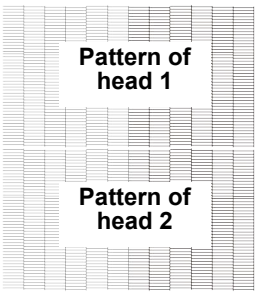
# Test Printing

Print a test pattern to check that there are no discharging defects such as nozzle clogging (slight touching of ink or nozzle missing).

## Relationship between head row and test pattern

The relations between head row and test pattern print position are as follow.



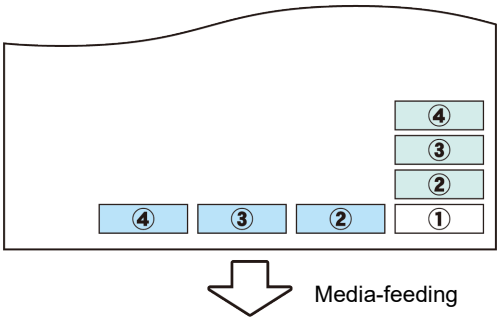




Media advance direction

# Test Printing

Print a test pattern to check that there are no discharging defects such as nozzle clogging (slight touching of ink or nozzle missing).

In addition, you can select the orientation of the test pattern to print from two types in order to perform test printing repeatedly. Select one depending on your use.




: When the set value is "FEED DIR."

: When the set value is "SCAN DIR."

Important!

- When the toggle print function is enabled, select the area to perform test printing. For the selecting procedure, refer to "Print functions with printing area selection" in P.xx-xx "Starting toggle printing"

| Check before test printing. | |
|---|---|
| • If a media has been set ☞ P.2-5 | • If the origin position has been set |
| • If the head height has been adjusted ☞ P.3-6 | |

## 1 Press the TEST key in LOCAL.

- Press ▲ ▼ to change the test pattern orientation.

```
TEST PRINT
(FEED DIR.)      [ENT]
```

## 2 Press the ENTER key.

## 3 Press ▲ ▼, to select NOZZLE RECOVERY function ON/OFF.

```
TEST PRINT
NOZZLE RECOVERY  :ON
```

Important!

- Operation of this procedure can not be set if the nozzle recovery of maintenance function is not registered or a “CONFIRM MENU” of nozzle recovery is OFF.

## 4 Press the ENTER key.

- Test printing starts.

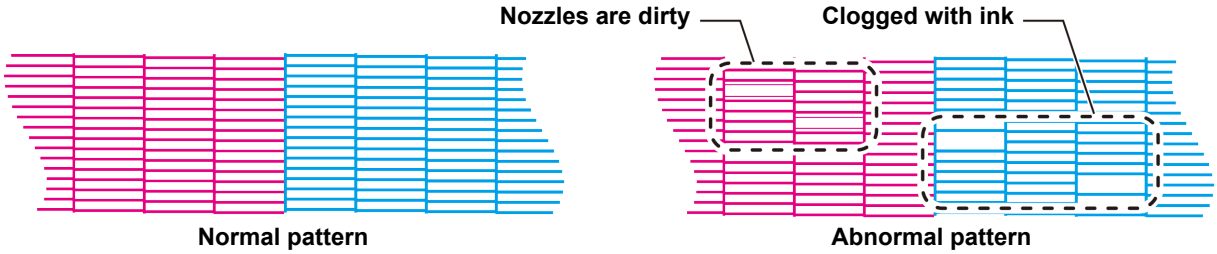
```
** PRINTING **
PLEASE WAIT
```

- When the printing has been completed, the screen returns to step1.

```
TEST PRINT
(FEED DIR.)      [ENT]
```

## 5 Check the printed test pattern.

- When the result is normal, end the operation.
- When the result is abnormal, perform head cleaning. (☞ P.2-15)



# Head Cleaning

## About head cleaning

Check the printed test pattern result and perform cleaning depending on the status.
Select one from the three types below:

**SOFT** : When lines are bent, when any line is missing
**NORMAL** : When any line is missing, when colors are mixed
**HARD** : When poor image quality cannot be improved even by NORMAL or SOFT cleaning

## Perform head cleaning depending on the test printing result

There are three types of head cleaning. Use one by checking the test pattern.

**1** **In Local, Press the CLEANING key.**

```
CLEANING
SOFT                [ENT]
```

**2** **Press ▲▼ to select the cleaning type.**

```
CLEANING
NORMAL              [ENT]
```

**SOFT** : When lines are bent, when any line is missing
**NORMAL** : When any line is missing, when colors are mixed
**HARD** : When poor image quality cannot be improved even by NORMAL or SOFT cleaning

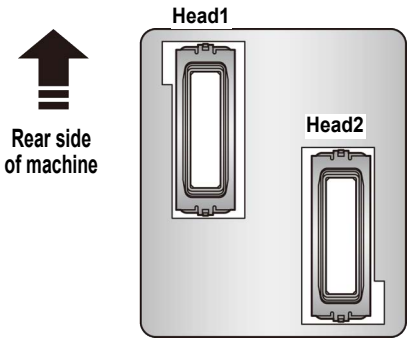
**3** **Press the ENTER key.**

```
SELECT HEAD
:12
```

**4** **Press ▲▼ to select a head to cleaning.**

```
SELECT HEAD
:1_
```

• Set Value : 12 (Cleaning all heads.)
1_ (Head 1)
_2 (Head 2)




**5** **Press the ENTER key.**

```
** CLEANING **
PLEASE:WAIT
```

**6** **Perform test printing again, and check the result.**

• Repeat the cleaning and the test printing until the printing result becomes in normal.

**When the image quality is not improved after the head cleaning.**

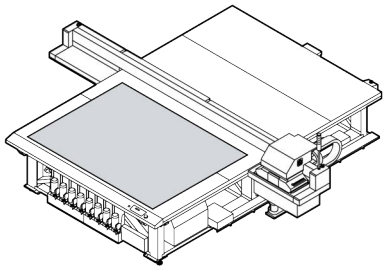
- Clean the wiper and ink cap. (☞ P.4-5)
- By referring to “NOZZLE RECOVERY: When nozzles missing can not be improved at specific points, other good nozzles can be used as alternatives for printing.”, set the nozzle recovery (☞ P.4-26).

## Starting a Printing Operation

Important! • To perform toggle printing, refer to P.3-22 "Starting toggle printing".

### 1 Setting a Media (☞ P.2-5)

**(1)** Open/Close the suction valve adjusting to the media size.
**(2)** Press the VACUUM key to light the VACUUM lamp and vacuum the media.

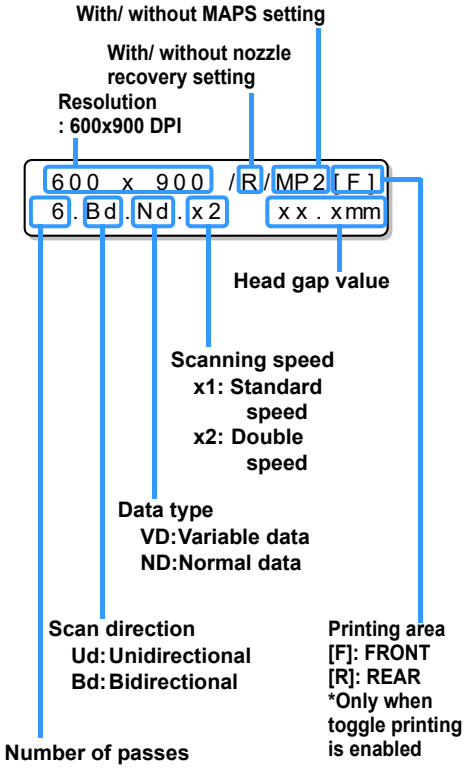


### 2 Press the REMOTE key in LOCAL.

• The screen changes to REMOTE, and data can be received from the PC.

### 3 Transmit data to be printed from the PC.

• The printing conditions are displayed.
• For the method of data transmission, see the instruction manual for the output software.




### 4 Start printing.

### 5 Taking out the media after completion of printing

**(1)** Follow the “Move the Y-bar” (☞P.2-18) to evacuate the Y-bar from the table.
**(2)** Press the VACUUM key to turn the suction OFF.
**(3)** Remove the media.

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

## Stopping a printing operation halfway

Perform the following operation when stopping a printing operation halfway.

**1** **Press the (REMOTE) key during printing.**

- The printing operation stops.
- Interrupt data sending at the PC side during the data is sent from the PC.
- Printing restarts from the interrupted data by repressing the (REMOTE) key.

## Deleting Received Data (Data Clear)

When you want to stop printing, delete the already received data.

**1** **Press the (DATA CLEAR) key in LOCAL.**

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

- The received data is erased then it returns to the Local.

# Move the Y-bar

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

## Setting the view position

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

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

```
VIEW
START               [ENT]
```

**3** **Press ▼.**

```
VIEW
SET VIEW POS        [ENT]
```

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

```
SET VIEW POS
=          ****  mm
```

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

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

```
SET VIEW POS
=           500  mm
```

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

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

```
  **MOVING NOW**
    PLEASE WAIT
```

## Evacuation of Y-bar from the table

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

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

```
VIEW
START               [ENT]
```

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

- The Y-bar moves.

```
  **MOVING NOW**
    PLEASE WAIT
```

# Chapter 3
# Extended Functions

**This chapter**

describes the operation procedures for using the machine more conveniently and each setting procedure.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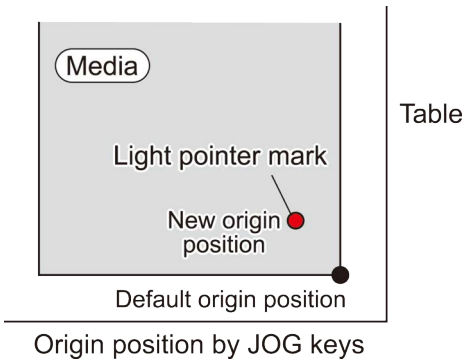
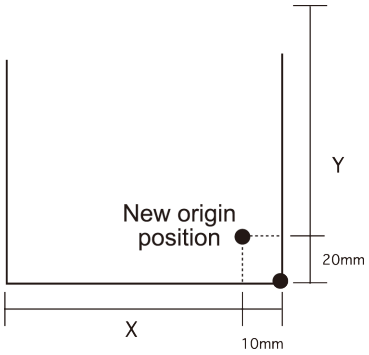
# Changing origin

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

**Changing with the JOG keys**




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




Important! • When the toggle print function is enabled, refer to "Changing printing origin" in P.3-22 "Starting toggle printing".

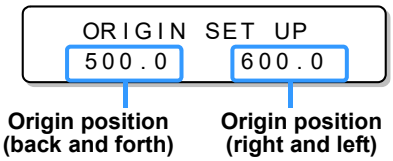
## Changing origin with JOG keys

**1** **Press ▲ ▼ ◀ ▶ in the local.**

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

**2** **Move the light pointer mark by pressing ▲ ▼ ◀ ▶.**

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




**3** **Press the ENTER key when the printing origin is determined.**

- The origin is changed.

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

## Changing origin with FUNCTION menu

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

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [ORIGIN] and press the ENTER key twice.**

• X-axis offset value setting screen is displayed.

```
ORIGIN    3100 mm
XOFFS  :  3100 mm
```

**3** **Press ▲ ▼ to input the X offset value.**

• Setting the origin position of X-axis.

```
ORIGIN    1300 mm
XOFFS  :  1290 mm
```

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

```
ORIGIN
SELCT:X OFFSET
```

**5** **Press ▲ ▼ to select [Y OFFSET] and press the ENTER key.**

```
ORIGIN
SELCT:Y OFFSET
```

**6** **Press ▲ ▼ to input the Y offset value.**

• Setting the origin position of Y-axis.

```
ORIGIN    2500 mm
YOFFS  :  2090 mm
```

**7** **Press the ENTER key.**

```
ORIGIN
SELCT:Y OFFSET
```

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

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

# Registering the thickness of the media

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

Important! • When the toggle print function is enabled, refer to "Changing printing origin" in P.3-22 "Starting toggle printing".

## Register the thickness of the media manually

**1** **Press the FUNCTION key in the local.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select the [HEAD HEIGHT].**

```
FUNCTION
HEAD HEIGHT         [ENT]
```

**3** **Press the ENTER key twice.**

```
MEDIA THICKNESS
=              2.5 mm
```

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

• Set value : 0.0 to 50.0mm

```
MEDIA THICKNESS
=             10.5 mm
```

**5** **Press the ENTER key.**

```
FUNCTION
HEAD HEIGHT         [ENT]
```

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

## Adjust head gap with the UP or DOWN keys

**1** **Press the UP or DOWN key.**

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

**2** **Adjust with pressing the UP or DOWN key.**

```
   ORIGIN SET UP
Z HEIGHT = 50.0
```

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

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

↓

```
   ORIGIN SET UP
MEDIA t = *.*mm
```

# Measuring the thickness of the media automatically

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

**1** **Set a media.**

Caution

- Be sure to set a media on the printing area. If measured automatically without media, the head can break.

**2** **Press the FUNCTION key in the local.**

```
FUNCTION
VIEW                [ENT]
```

**3** **Press ▲ ▼ to select the [HEAD HEIGHT].**

```
FUNCTION
HEAD HEIGHT         [ENT]
```

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

```
HEAD HEIGHT
MEDIA THICKNESS[ENT]
```

**5** **Press ▲ ▼ to select the [THICKNESS CHECK].**

```
HEAD HEIGHT
THICKNESS CHECK[ENT]
```

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

- In preparation for the measuring, the Y-bar will move up to the top position.
- The carriage will move to the printing area.

```
**MOVING NOE**
  PLEASE WAIT
        ↓
THICKNESS CHECK
CHECK START         [ENT]
```

**7** **Press the ENTER key.**

- The media thickness will be measured automatically.
- The measured thickness will be displayed.
- The carriage will move to the evacuation position and the screen returns to the one displayed in Step 5.

```
THICKNESS CHECK
    **CHECING**
        ↓
THICKNESS CHECK
          3.0mm
```

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

Important!

- Difference of automatic measure is ±0.1mm.

# Registering Head gap value

Set the head gap (height from the media to the nozzle plane of the heads).
When the carriage is to move above the platen for printing or maintenance, it moves while keeping the head gap at the preset value.
The upper limit of the head gap varies with media thickness.
Available setting values: [1.2 mm to 3.0 mm] (in units of 0.1 mm / Default : 1.5 mm)

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

**2** **Press (▲)(▼) to select the [HEAD HEIGHT].**

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

**4** **Press (▲)(▼) to select the [HEAD GAP].**

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

**6** **Press (▲)(▼) to set a value of the head gap.**

- **Set value** : 1.2 to 3.0mm

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

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

Caution

- If a correct value is not set to the head gap value, the print quality may be deteriorated because of dropping of large ink droplets on the media at printing

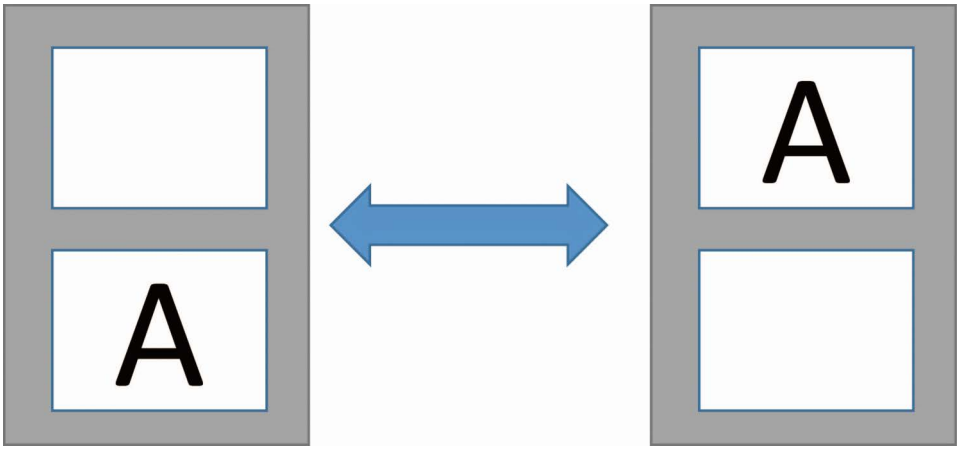
## How to check the value of the head gap

When you check the head gap value currently set, perform the following procedures:

**Press the (ENTER) key in Local.** → **Press the (ENTER) key several times to display [HEAD GAP].**
- The head gap value currently set is displayed.

# Toggle Print

You can divide the printing area into two areas and toggle the area for each printing.
While printing in one area, you can set a media for the other area to reduce the time required for media setting.



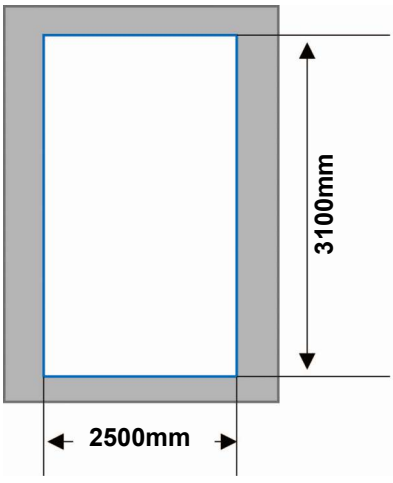

While printing the FRONT-side area, set the media for the REAR-side area.

While printing the REAR-side area, set the media for the FRONT-side area.

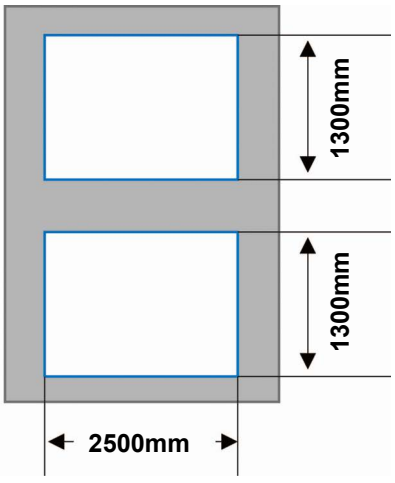
Important! • When the toggle print function is enabled, printable size changes.

| | Toggle print function | |
|---|---|---|
| | OFF | ON |
| Max. printing area | 2500mm X 3100mm | FRONT side : 2500mm X 1300mm<br>REAR side : 2500mm X 1300mm |

When the toggle print function is OFF




When the toggle print function is ON



There are two types of toggle printing methods.

| | |
|---|---|
| **FF ORIGINS** | This method is used to replace the media and check the printing results from the front side of the table for both FRONT/REAR.<br>Using this method increases efficiency in media setting when operated by one person. |
| **FR ORIGINS** | This method is used to replace the media and check the printing results from the rear side of the table for the REAR-side area.<br>Using this method increases efficiency in media setting when operated by two persons or when using a small-size media for printing. |

## About FF ORIGINS

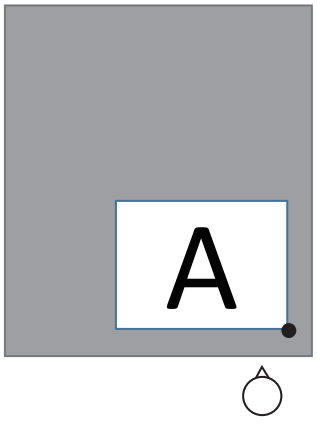
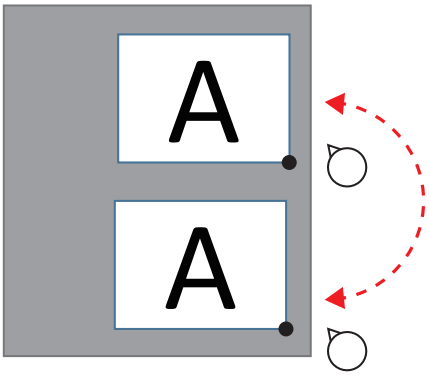
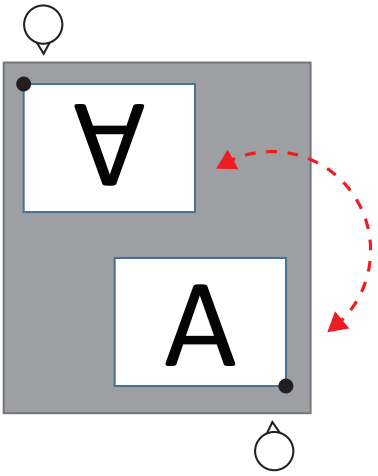
| | | |
|---|---|---|
| **Printing origin** | FRONT-side area | Right front side of the FRONT-side area |
| | REAR-side area | Right front side of the REAR-side area |
| **Media setting position** | FRONT-side area | Set a media using the media guide hole located in the right front side of the FRONT-side area. |
| | REAR-side area | Set a media using the media guide hole located in the right front side of the REAR-side area. |

* For details about the media guide hole, refer to P.2-7 "About the media guide hole".

## About FR ORIGINS

| | | |
|---|---|---|
| **Printing origin** | FRONT-side area | Right front side of the FRONT-side area |
| | REAR-side area | Left rear side of the REAR-side area |
| **Media setting position** | FRONT-side area | Set a media using the media guide hole located in the right front side of the FRONT-side area. |
| | REAR-side area | Set a media using the media guide hole located in the left rear side of the REAR-side area. |

** For details about the media guide hole, refer to P.2-7 "About the media guide hole".

| Toggle print function OFF | Toggle print function ON | |
|---|---|---|
| | FF ORIGINS | FR ORIGINS |
|  Table front side |  Table front side |  Table front side |

○:Operator
●:Printing origin

## Enabling the toggle print function

To enable the toggle print function, set the toggle print from the FUNCTION menu.
When the toggle print function is set to OFF, toggle printing is disabled.
When the toggle print function is set to ON, toggle printing is enabled.
When the toggle printing method is specified, toggle printing is enabled.

**1** **Press the (FUNCTION) key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press (▲)(▼) to select [TOGGLE PRINT].**

```
FUNCTION
TOGGLE PRINT        [ENT]
```

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

```
TOGGLE PRINT
TOGGLE PRINT        [ENT]
```

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

```
TOGGLE PRINT
OFF                 [ENT]
```

**5** **Press (▲)(▼) to select a set value.**

```
TOGGLE PRINT
ON                  [ENT]
```

- OFF : Disables the toggle print function.
- FF ORIGINS : Divides the area into two areas and enables the toggle print function. The toggle printing method is FF ORIGINS.
- FR ORIGINS : Divides the area into two areas and enables the toggle print function. The toggle printing method is FR ORIGINS.

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

- When the settings are not changed, proceed to step 9.

```
TOGGLE PRINT
ON                  [ENT]
```

- When any set value is changed, proceed to step 8.

```
CLEAR ORIGIN SETUP
 NO <             > YES
```

## 7 Press ◀ ▶ to select whether to clear the origin setup.

NO: The printing origin and thickness of the media are set as shown in the table below.

| Toggle print function | Printing origin | Media thickness |
|---|---|---|
| OFF | The value set for the FRONT side is set. | |
| ”FF ORIGINS”/”FR ORIGINS” | Both for the FRONT side and REAR side, the current values are set. | |

Caution

- Before starting printing, check the print position and media thickness both in the FRONT-side area/REAR-side area.

YES: The printing origin and thickness of the media are set as shown in the table below.

| Toggle print function | Printing origin | Media thickness |
|---|---|---|
| OFF | Cleared. | The value set for the FRONT side is set. |
| ”FF ORIGINS”/”FR ORIGINS” | The values set for the FRONT side and REAR side are both cleared. | Both for the FRONT side and REAR side, the current values are set. |

Caution

- Before starting printing, check the print position and media thickness both in the FRONT-side area/REAR-side area.

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

# Deciding the setting procedure for the settings related to FRONT/REAR printing area

Two types of setting procedures are available.

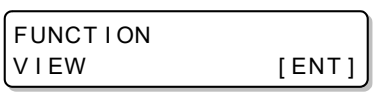
| | |
|---|---|
| **INDIVIDUAL** | The settings for each area are set individually. |
| **COMMON** | When the settings for one area are set, the same values are applied to the other area. |

- When the same data is printed using the same media for FRONT/REAR, setting to "COMMON" simplifies the setting procedure for the settings related to the printing area.
- Setting to "INDIVIDUAL" enables printing to different media for FRONT/REAR respectively.

If set to COMMON, both PEAR/FRONT values will be updated when the following settings are changed.

- Print origin
- Media thickness

## 1 Press the FUNCTION key in LOCAL.




## 2 Press ▲ ▼ to select [TOGGLE PRINT].

**3** Press the ENTER key.

```
TOGGLE PRINT
TOGGLE PRINT    [ENT]
```

**4** Press ▲ ▼ to select [[F]/[R] SETUP].

```
TOGGLE PRINT
[F]/[R] SETUP   [ENT]
```

**5** Press the ENTER key.

```
[F]/[R] SETUP
:INDIVIDUAL     [ENT]
```

**6** Press ▲ ▼ to select a set value.

```
[F]/[R] SETUP
:COMMON
```

**7** Press the ENTER key.

```
TOGGLE PRINT
[F]/[R] SETUP   [ENT]
```

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



**.

## Setting automatic area toggling for toggle printing

Set whether to toggle the printing area automatically after online drawing.
For details about setting Work Change while the toggle print function is set to OFF, refer to P.3-35 "Setting Work Change".

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [SETUP].**

```
FUNCTION
SETUP               [ENT]
```

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

```
SETUP
DROP.POScorrect [ENT]
```

**4** **Press ▲ ▼ to select [WORK CHANGE].**

```
SETUP
WORK CHANGE         [ENT]
```

**5** **Press the ENTER key.**

```
WORK CHANGE
:OFF                [ENT]
```

**6** **Press ▲ ▼ to select a set value.**

```
WORK CHANGE
:ON                 [ENT]
```

OFF: Does not toggle the printing area after online drawing. (When the next printing data has been received, it will be overprinted.)
ON: After online drawing, the Y-bar is retracted, and the printing area is toggled. After printing the FRONT-side area, the printing area is toggled to the REAR-side area. After printing the REAR-side area, the printing area is toggled to the FRONT-side area.
HOST: The printing area is toggled according to the set value specified in RIP software.
For the specifying method with the RIP software, refer to the operation manual of the RIP software.

- The Y-bar is retracted to the machine center.
- For both ON/HOST, if the area is specified in RIP, printing is performed for the specified area.

**7** **Press the ENTER key.**

- When set to "OFF", proceed to step 12.

```
SET UP
WORK CHANGE         [ENT]
```

- When set to "ON"/"HOST", proceed to step 8.

```
WORK CHANGE
VACUUM:OFF
```

**8** **Press ▲ ▼ to select a set value.**

```
WORK  CHANGE
VACUUM:OFF
```

- OFF: Turns OFF the vacuum for the area where printing has completed after automatic toggling of print area.
- ON: Vacuum for the area where printing has completed stays ON after automatic toggling of print area.

**9** **Press the ENTER key.**

```
WORK  CHANGE  (F<->R)
MODE  :AUTO
```

**10** **Press ▲ ▼ to select a set value.**

```
WORK  CHANGE  (F<->R)
MODE  :REMOTE
```

**REMOTE**: Stays in remote status after automatic toggling of print area.
(When the next printing data has been received, printing starts.)
**LOCAL**: Transfers to the local mode after automatic toggling of print area.
To start next printing, press the [REMOTE] key to transfer to the remote mode.
**AUTO**:

- Stays in remote status if vacuum for the next printing area is ON after automatic toggling of print area. (When the next printing data has been received, printing starts.)
- Determines that the media is not set and transfers to the local mode, if vacuum for the next printing area is OFF after automatic toggling of print area.
  To start next printing, press the [REMOTE] key to transfer to the remote mode.

**11** **Press the ENTER key.**

```
SETUP
WORK  CHANGE      [ENT]
```

-

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

## How to check printing area while toggle printing is enabled

When the toggle printing method is "FF ORIGINS", you can check the printing area from the local screen.
You can check the printing area from the local screen.
When [F] is displayed, printing is performed for the REAR-side area.
When [R] is displayed, printing is performed for the REAR-side area.

| Printing area | |
|---|---|
| **For FRONT side** | **For REAR side** |
| <LOCAL> R : 2.5mm<br>[F] : 2.5mm | <LOCAL> [R] : 2.5mm<br>F : 2.5mm |

Important!
- When the toggle printing method is "FR ORIGINS", you cannot set the printing area with the printer. Set the printing area with RIP software.
- When the toggle printing method is "FR ORIGINS", the printing area is not displayed.

| For FR ORIGINS |
|---|
| <LOCAL> R : 2.5mm<br>F : 2.5mm |

## Changing the printing area

Important!
- When the toggle printing method is "FR ORIGINS", you cannot set the printing area with the printer. Set the printing area with RIP software.

When the toggle printing method is "FF ORIGINS", you can change the printing area.

**1** **Display the local screen.**

<LOCAL> R : 2.5mm
[F] : 2.5mm

**2** **Press the PRINT AREA key.**

- The printing area changes.

<LOCAL> [R] : 2.5mm
F : 2.5mm

Important!
- When printing data has been received, the printing area cannot be changed.

## Changing the printing area without using [PRINT AREA]

You can change the printing area using the [FUNCTION] key in LOCAL in stead of using the [PRINT AREA] key.

**1** **Press the (FUNCTION) key in LOCAL.**

```
FUNCTION
VIEW              [ENT]
```

**2** **Press (▲)(▼) to select [TOGGLE PRINT].**

```
FUNCTION
TOGGLE PRINT      [ENT]
```

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

```
TOGGLE PRINT
TOGGLE PRINT      [ENT]
```

**4** **Press (▲)(▼) to select [PRINT AREA].**

```
TOGGLE PRINT
PRINT AREA        [ENT]
```

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

```
PRINT AREA
:FRONT
```

**6** **Press (▲)(▼) to select an area.**

```
PRINT AREA
:REAR
```

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

```
TOGGLE PRINT
PRINT AREA        [ENT]
```

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

# Registering the thickness of the media

## Register the thickness of the media manually

Important!

- For the setting procedure when the toggle print function is set to OFF, refer to P.3-4 "Register the thickness of the media manually".
- When [[F]/[R] SETUP] is set to "COMMON", the same setting procedure is used as with the case where the toggle print function is set to OFF.
  For details about the setting procedure, refer to P.3-4 "Register the thickness of the media manually".
  The set value is registered to both FRONT/REAR areas.

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [HEAD HEIGHT].**

```
FUNCTION
HEAD HEIGHT         [ENT]
```

**3** **Press the ENTER key twice.**

```
AREA
:FRONT
```

**4** **Press ▲ ▼ to select the area to set the value.**

```
AREA
:REAR
```

**5** **Press the ENTER key.**

```
MEDIA THICKNESS
REAR=          1.0 mm
```

**6** **Press ▲ ▼ to enter the thickness of loading media (0.0 to 50.0mm).**

```
MEDIA THICKNESS
REAR=          10.5 mm
```

**7** **Press the ENTER key.**

```
AREA
:REAR
```

- The screen returns to the area selection screen.
- To set the thickness of the media for the other area, repeat the procedure from step 4.

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

## Adjust head gap with the [UP] or [DOWN] keys

Important! • For the setting procedure when the toggle print function is set to OFF, refer to P.3-4 "Adjust head gap with the [UP] or [DOWN] keys".

**1** **Press the UP or DOWN key.**

```
AREA
:FRONT
```

**2** **Press ▲ ▼ to select the area to set the value.**

```
AREA
:REAR
```

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

```
<REAR>   ORIGIN SETUP
Z HEIGHT=     1.0mm
```

**4** **Adjust with pressing the UP or DOWN key.**

```
<REAR>   ORIGIN SETUP
Z HEIGHT=    10.5mm
```

**5** **Press the ENTER key.**

```
<REAR>   ORIGIN SETUP
HEAD GAP    =1.5mm
```

↓

```
<REAR>   ORIGIN SETUP
MEDIA t     =10.5mm
```

Important! • When [[F]/[R] SETUP] is set to "COMMON", the set value is registered to both FRONT/REAR areas.

## Measuring the thickness of the media automatically

Important! • For the setting procedure when the toggle print function is set to OFF, refer to P3-5 "Measuring the thickness of the media automatically".

**1** **Set a media.**

Caution • Be sure to set a media on the printing area for the area to measure the thickness. If measured automatically without media, the head can break.

**2** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**3** **Press ▲ ▼ to select [HEAD HEIGHT].**

```
FUNCTION
HEAD HEIGHT         [ENT]
```

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

```
HEAD HEIGHT
MEDIA THICKNESS[ENT]
```

**5** **Press ▲ ▼ to select [THICKNESS CHECK].**

```
HEAD HEIGHT
THICKNESS CHECK[ENT]
```

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

```
AREA
FRONT+REAR
```

**7** **Press ▲ ▼ to select the area to set the value.**

```
AREA
:FRONT
```

**FRONT** : Measures the thickness of the media set in the FRONT-side area.
**REAR** : Measures the thickness of the media set in the REAR-side area.
**FRONT +REAR** : After measuring the thickness of the media set in the FRONT-side area, measures the thickness of the media set in the REAR-side area.

**8** **Press the ENTER key.**

- In preparation for the measuring, the Y-bar will move up to the top position.
- The carriage will move to the printing area in the thickness measurement area.

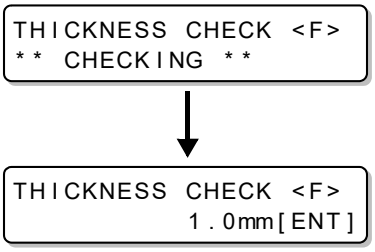
```
THICKNESS CHECK <F>
MOVING NOW
```

↓

```
THICKNESS CHECK <F>
CHECK START         [ENT]
```

**9** **Press the ENTER key.**

- The media thickness will be measured automatically.



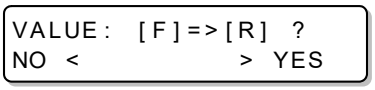

- The measured thickness will be displayed.

**10** **Press the ENTER key.**

- The carriage will return to the cap position.
- When "FRONT+REAR" is selected for the thickness measurement area, measure the FRONT side and then return to step 9 to measure the REAR side.

- When "FRONT+REAR" is selected for the thickness measurement area, measure the REAR side and then return to step 7.

- When "FRONT" or "REAR" is selected for the thickness measurement area, proceed to step 11.




**11** **Press ◀ ▶ to select whether to apply the measured value also to the other media.**

**NO** : Updates the value set only for the area where the thickness is measured.
**YES** : Updates the value set for both FRONT/REAR areas to the measured thickness.

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

Important! • Difference of automatic measure is ±0.1mm.

## Registering head gap value

Important! • The same head gap value is set for both the FRONT side and REAR side. The specified head gap value is applied to both FRONT-side and REAR-side areas.
• For details about the setting procedure, refer to P.3-6 "Registering Head gap value".

# Changing printing origin

## Changing printing origin with JOG keys

Important! • For the setting procedure when the toggle print function is set to OFF, refer to P.3-2 "Changing origin".

### 1 Press ▲ ▼ ◀ ▶ in LOCAL.

• The origin mode starts.

When ▲ ▼ is pressed, proceed to step 4.

<FRONT> ORIGIN SETUP
500.0 ----

When ◀ ▶ is pressed, proceed to step 2.

AREA
:FRONT

### 2 Press ▲ ▼ to select the area to set the origin.

AREA
:REAR

### 3 Press the ENTER key.

<REAR> ORIGIN SETUP
500.0

### 4 Move the light pointer mark by pressing ▲ ▼ ◀ ▶.

• A red light pointer mark [●] is projected on the table or the media.
• Move the light pointer mark to the position to set a new origin.

<REAR> ORIGIN SETUP
500.0 600.0

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

Caution • You cannot move the light pointer to the back of the table.
To set the origin position further back of the table beyond the moving range of the light pointer, set the printing origin using the [SET ORIGIN] function in the FUNCTION menu. For details about how to set the printing origin using the [SET ORIGIN] function, refer to P.3-21 “Changing printing origin with FUNCTION menu”.

### 5 Press the ENTER key when the printing origin is determined.

• The origin is updated.

Important! • When [[F]/[R] SETUP] is set to "COMMON", the set value is registered to both FRONT/REAR areas.
• When [[F]/[R] SETUP] is set to "INDIVIDUAL", the set value is registered only to the selected area.

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

## Changing printing origin with FUNCTION menu

Important!

- For the setting procedure when the toggle print function is set to OFF, refer to P.3-2 "Changing origin".
- When [[F]/[R] SETUP] is set to "COMMON", the same setting procedure is used as with the case where the toggle print function is set to OFF. For details about the setting procedure, refer to P.3-2 "Changing origin". The set value is registered to both FRONT/REAR areas.

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [SET ORIGIN].**

```
FUNCTION
SET ORIGIN          [ENT]
```

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

```
AREA
:FRONT
```

**4** **Press ▲ ▼ to select the area to set the origin.**

```
AREA
:REAR
```

**5** **Press the ENTER key.**

```
[R]ORIGIN          0mm
SELECT  :X OFFSET
```

**6** **Press ▲ ▼ to select [X OFFSET] or [Y OFFSET].**

X OFFSET: Setting the origin position of X-axis.
Y OFFSET: Setting the origin position of Y-axis.

```
[R]ORIGIN          0mm
SELECT  :Y OFFSET
```

**7** **Press the ENTER key.**

```
[R]ORIGIN       2500mm
Y OFFS:            0mm
```

**8** **Press ▲ ▼ to input a value.**

```
[R]ORIGIN       2000mm
Y OFFS:          500mm
```

**9** **Press the ENTER key.**

```
[R]ORIGIN        500mm
SELECT  :Y OFFSET
```

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

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

## Starting toggle printing

Important! • Before starting printing, check the settings.

| Item | | Check |
|---|---|---|
| TOGGLE PRINT | | Whether set to "FF ORIGINS" or "FR ORIGINS" |
| SETUP | WORK CHANGE | Whether set to "ON" or "AUTO" |
| | | Whether VACUUM is set properly |
| | | Whether MODE is set properly |
| HEAD HEIGHT | MEDIA THICKNESS | Whether set for both FRONT/REAR areas. |
| SET ORIGIN | | Whether set for both FRONT/REAR areas. |

**1** **Set a media.**

• To print continuously, set media for both FORNT/REAR areas.

**2** **Press the VACUUM key to turn the vacuum ON.**

**3** **Press the PRINT AREA key to set the printing area.**

**4** **Press the REMOTE key in LOCAL.**

• The screen changes to REMOTE, and data can be received from the PC.

**5** **Transmit data to be printed from the PC.**

**6** **Start printing.**

**7** **After completion of printing, transmit data to be printed to the other area.**

**8** **Start printing for the other area.**

**9** **Take out the media for the area where printing has completed.**

- When VACUUM in [WORK CHANGE] is set to OFF, the vacuum for the area where printing has completed is automatically turned to OFF.
- When VACUUM in [WORK CHANGE] is set to ON, vacuum stays ON. Press the foot switch for the area where printing has completed to turn OFF the vacuum.

- **Do not turn OFF the vacuum using the VACUUM key.**
  **Doing so turns OFF the vacuum for the area where printing is in progress.**

**10** **Set a media.**

**11** **Press the foot switch to turn ON the vacuum.**

- Press the foot switch for the area where the media is set to turn ON the vacuum.

- **Do not press the VACUUM key.**
  Doing so turns OFF the vacuum for the area where printing is in progress.

**12** **Repeat steps 7 to 11.**

# Print functions with printing area selection

When the toggle print function is set to ON, select a print area before starting the following prints:

- TEST PRINT (P.2-14)
- DROP.POScorrect (P.3-26)
- NOZZLE RECOVERY (P.4-26)
- LIST (P.3-49)
- Ink REPL.Report (P.3-49)

Important!

- Selectable printing areas are different depending on the specified toggle printing method. Check the area to print carefully before starting printing.

| | FF ORIGINS | | FR ORIGINS | |
|---|---|---|---|---|
| | FRONT | REAR | FRONT | REAR |
| TEST PRINT | ○ | ○ | ○ | ○ |
| DROP. POS CORRECT | ○ | ○ | ○ | × |
| NOZZLE RECOVERY | ○ | ○ | ○ | × |
| LIST | ○ | ○ | ○ | × |
| Ink REPL. Report | ○ | ○ | ○ | × |

○ : Selectable
× : Not selectable

**1** **Select a print function.**

**2** **Press ▲ ▼ to select the area to print.**

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

# List of Functions

This section describes the overview of each function to be set and set values that can be registered in user types.

Important!

- **About default "HOST" function**
  You can operate this by the setting value specified in RIP software.
  When you set to other than "HOST", it operates by that setting value, not by the instruction from RIP software.
  Depending on RIP software, there are some functions that cannot be instructed by software. In such a case, it operates by the setting value of "When no instruction from RIP exists".
- For the specifying method with the RIP software, refer to the operation manual of the RIP software.

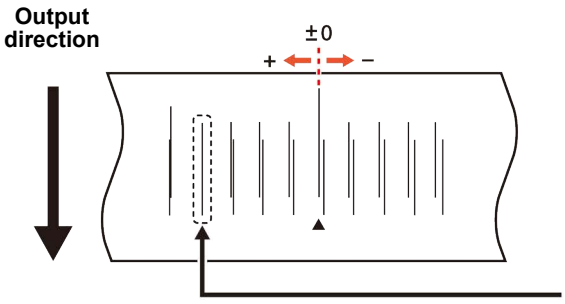
| Function name | | | Set value | Default | When no instruction from RIP exists *1 | Outline |
|---|---|---|---|---|---|---|
| DROP. POS CORRECT (☞ P.3-26) | | | -40.0 to 0 to 40.0 | 0.0 | ——— | Used to adjust the dot position in go and return printing. |
| LOGICAL SEEK(☞ P.3-28) | | | HOST/ ON/ OFF | HOST | ON | Sets the scan movable area during printing. |
| OVER PRINT (☞ P.3-40) | | | HOST /1 to 9 | HOST | 1 | Sets the number of layers in which ink is to be applied. |
| UV MODE (☞ P.3-29) | | | HOST/ MANUAL | HOST | MANUAL | Sets the UV irradiation pattern during printing. |
| REFRESH (☞ P.3-40) | | | HOST / Lv.0 (Refresh interval long) to 3 (Refresh interval short) | HOST | Lv.3 | Refreshes the print heads during printing. |
| MAPS (☞ P.3-30) | | | OFF/MAPS1/MAPS2 | MAPS2 | ——— | Perform setting to reduce stripes between passes. |
| | MAPS1 | PRINT SPEED ADJUST | -50 to +50% | 0% | ——— | |
| | MAPS2 | AUTO | | | | |
| | | MANUAL | PATTERN(1 to 5)/ Smoothing level (AUTO/ 5 to 100%) | | | |
| WORK CHANGE (☞ P.3-35) | | | ON/ OFF/ HOST | | ——— | Sets the operation when printing is completed. |
| IONIZER (☞ P.3-37) | | | ON/ OFF | | ——— | Sets the optional ionizer. |
| AUTO CLEANING (☞ P.3-38) | OFF, PAGE | | | PAGE | ——— | Sets the automatic cleaning operation for the head performed before printing or during printing. |
| | PAGE | INTERVAL | 1 to 1000 page | 3 page | ——— | |
| | | TYPE | NORMAL / SOFT / HARD | SOFT | ——— | |
| INTERVAL WIPING (☞ P.3-39) | | | ON / OFF | OFF | ——— | Sets the wiping operation during printing. |

*1. This is the setting value to be used for printing when setting value is not specified at the RIP software (host) side, or, you give priority to the setting value at the machine side, even if you set "Host" to the type registration of this machine.

# Correct the ink drop position for bidirectional printing

When the condition for printing (media thickness/head height/etc.) has been changed, perform the following operation to correct the ink drop position for bidirectional (Bi) printing and obtain the proper printing result.

## Example of a Drop Position correct Printed Pattern




**The dots at the fourth position counted from the zero position in the positive direction form a straight line. In this case, the dot position correction value is 4.0.**

Important!

- When the toggle print function is enabled, select the area to perform test printing. For the selecting procedure, refer to "Print functions with printing area selection" in P.3-22 "Starting toggle printing".

**1** **Set a media on the machine and set a printing origin. (☞ P.2-5)**

**2** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**3** **Press ▲ ▼ to select the setup.**

```
FUNCTION
SETUP               [ENT]
```

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

```
SETUP
DROP.POScorrect[ENT]
```

**5** **Press the ENTER key.**

```
DROP.POScorrect
:Y600dpi
```

**6** **Press ▲ ▼ to select the resolution.**

- Setting value: Y600dpi / Y900dpi / Y1200dpi
- Perform correction for all resolutions.

```
DROP.POScorrect
:Y600dpi
```

**7** **Press the ENTER key.**

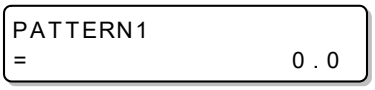
```
DROP.POScorrect
PRINT               [ENT]
```

**8** **Press the ENTER key to start pattern printing.**

- Test pattern is printed. (The printed patterns are called Pattern 1, Pattern 2, Pattern 3... in the order of printing.)

```
** PRINTING **
PLEASE WAIT
```

**9** **Press ▲ ▼ to correct the dot position of Pattern 1~.**




- Corrected feeding rate: -40.0 to 40.0
- Check the test patterns. The position where an outward feeding line and a return feeding line become one straight line is the correction value.
- When the correction value in not between -40.0 and 40.0, adjust the height of the printing heads and then perform the operations in Step 2 and later.

**10** **Press the ENTER key.**

- Displays the next pattern input.
- Repeat step7.

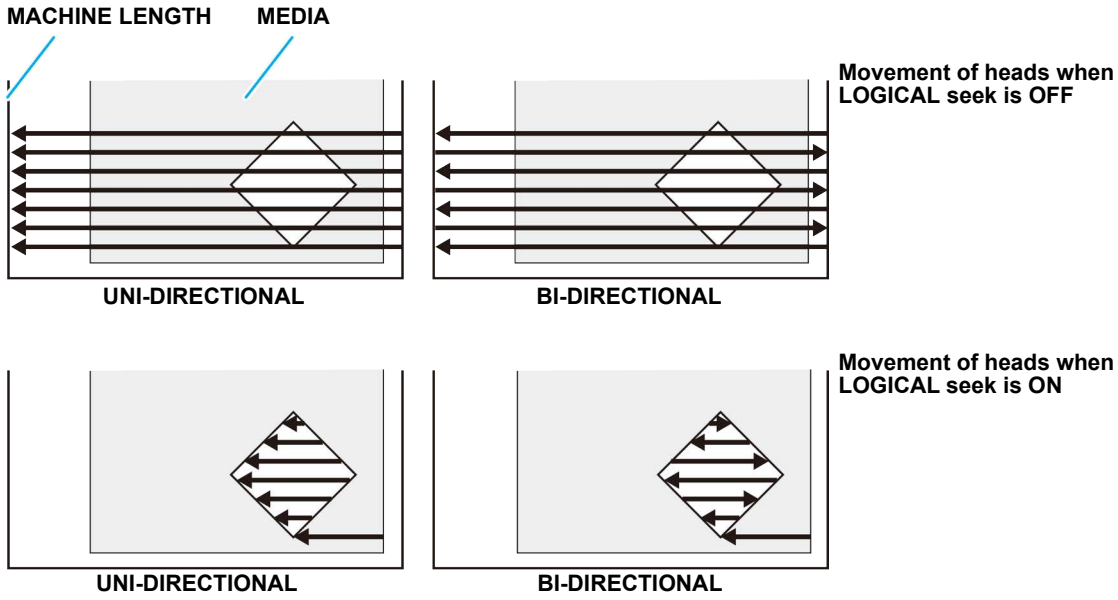
**11** **Press the END key several times to end the setting.**

# Setting Logical Seek

The motion of Head varies depending on the set of Logical-seek.

Important!

- You cannot specify the logical seek at the RasterLink side. When you set this machine to “Host”, printing will be performed in “LOGICAL SEEK=ON” status.




**1** Press the FUNCTION key in LOCAL.

```
FUNCTION
VIEW                [ENT]
```

**2** Press ▲ ▼ to select [SET UP].

```
FUNCTION
SETUP               [ENT]
```

**3** Press the ENTER key.

```
SETUP
DROP.POScorrect [ENT]
```

**4** Press ▲ ▼ to select [LOGICAL SEEK].

```
SETUP
LOGICAL SEEK        [ENT]
```

**5** Press the ENTER key.

```
LOGICAL SEEK
:HOST
```

**6** Press ▲ ▼ to select a set value.

- **Set value** : HOST / ON / OFF

```
LOGICAL SEEK
:ON
```

**7** Press the ENTER key.

```
SETUP
LOGICAL SEEK        [ENT]
```

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

# Setting UV mode

Set the emission pattern and illumination intensity for the UVLED.

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [SET UP], and the press the ENTER key.**

```
SETUP
FEED COMP.          [ENT]
```

**3** **Press ▲ ▼ to select [UV MODE].**

```
SETUP
UV MODE             [ENT]
```

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

```
UV MODE
:HOST
```

**5** **Press ▲ ▼ to select a set value.**

**HOST** : Applies UV with the emission pattern and illumination intensity set in the application.

**MANUAL** : Applies UV with the pattern and illumination intensity that you set.

```
UV MODE
:MANUAL
```

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

• When you selected “HOST” in step5, go to step 7. When you selected “MANUAL”, go to step 8.

**7** **Press ▲ ▼ to adjust the intensity (LIGHT), then press the ENTER key.**

```
UV MODE
LIGHT ADJUST :   0%
```

**8** **Press ▲ ▼ to select the ink type to be set, then press the ENTER key.**

• **Set value** : Color/ White/ Clear Ink

```
UV MODE
:Color
```

**9** **Press ▲ ▼ to select the scan direction, then press the ENTER key.**

• **Set value** : Bi / Uni

```
UV MODE
:Bi
```

**10** **Press ▲ ▼ to select the pattern to be printed, then press the ENTER key.**

• **Set value** : PATTERN 1, 2 ~ / NOPRINT

• If you select “NOPRINT”, no printing will be done when print data is sent - only UV lamp operation will be carried out.

```
UV MODE
:PATTERN 1
```

**11** **Press ▲ ▼ to select the emission level, then press the ENTER key.**

• **Set value** : LEVEL 0 to 15 (The higher this value is, the greater the intensity will be.)

```
UV MODE
LEVEL :10
```

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

# Perform setting to reduce stripes between passes

## What is the MAPS Function?

If performing media correction does not resolve feeding stripes, use the MAPS (Mimaki Advanced PassSystem) function to disperse the pass boundary to make the feeding stripes less visible.
With the JFX200, you can use both the MAPS1 function and the MAPS2 function.

- With MAPS1, the printing speed can be adjusted, but depending on the image to be printed, there may be color changes. With MAPS2, both feeding stripes and color changes can be reduced, but speed cannot be adjusted. Choose the function based on the image to be printed.
- MAPS1 effect differs depending on the set value of the printing speed. Use it after checking effect in advance.
- When you speed up the printing speed, it takes shorter time to print. However, MAPS1 effect becomes weak.
- When you slow down the printing speed, it takes longer time to print. However, MAPS1 effect becomes strong and feeding stripes become less visible.
- Enabling the MAPS function, slight color change may be found compared to when the MAPS function disable. Use it after checking effect in advance.
- MAPS may not be effective depending on image to be printed. Use it after checking effect in advance.

## Setting MAPS1 Function

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
SETUP                [ENT]
```

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

```
SETUP
DROP.POS correct [ENT]
```

**3** **Press ▲▼ to select [MAPS].**

```
SETUP
MAPS                 [ENT]
```

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

```
MAPS
:OFF
```

**5** **Press ▲▼ to select MAPS1.**

- Set Value：MAPS1, MAPS2, OFF

```
MAPS
:MAPS  1
```

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

- If you selected MAPS2 or OFF in step 5, proceed to step 8.

```
PRINT SPEED ADJUST
=                    0%
```

**7** **Press ▲▼ to change print speed.**

- Set Value:-50 to +50%

```
PRINT SPEED ADJUST
=                   10%
```

Important!

- When you change the speed, nozzle recovery effect cannot work in some cases. Use it after checking.

**8** **Press the ENTER key.**

```
SETUP
MAPS                [ENT]
```

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

## Setting MAPS2 Function (4 color)

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
SETUP               [ENT]
```

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

```
SETUP
DROP.POS correct [ENT]
```

**3** **Press ▲ ▼ to select [MAPS].**

```
SETUP
MAPS                [ENT]
```

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

```
MAPS
:OFF
```

**5** **Press ▲ ▼ to select MAPS2.**

- Set Value：MAPS1, MAPS2, OFF

```
MAPS
:MAPS 2
```

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

- If you selected OFF in step 5, proceed to step 12.

```
MAPS 2
:AUTO
```

**7** **Press ▲ ▼ to select “AUTO” or “MANUAL”.**

- **AUTO** : Set the print pattern and smoothing level to the recommended value automatically depending on printing mode.
- **MANUAL** : You can adjust the set value.

```
MAPS2
:AUTO
```

Important!

- If feeding stripes and color change is not improved by “AUTO” setting, please adjust the print pattern and smoothing level by “MANUAL” setting.

**8** **Press the ENTER key.**

- When selecting the “AUTO” in the Step 7, proceed to the step 12.
- When selecting the “MANUAL” in the Step 7, proceed to the step 9.

```
MAPS2
PATTERN:1
```

**9** **Press ▲ ▼ to select pattern to print.**

```
MAPS2
PATTERN:2
```

- AUTO : A pattern that matches the print mode will be set automatically.
- Pattern 1 to 5 : The pattern that you select will be printed.

Important! • MAPS2 effect differs depending on image to be printed. Change the printing pattern and use it after checking effect in advance.

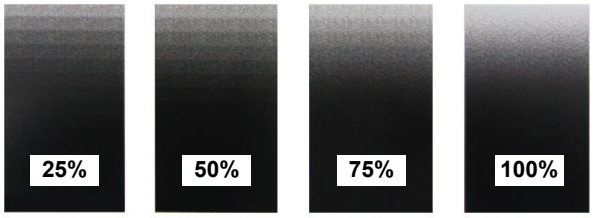
**10** **Press the ENTER key.**

```
MAPS2
SMOOTHING LV.:AUTO
```

**11** **Press ▲ ▼ to change the smoothing level.**

```
MAPS2
SMOOTHING LV.:100%
```

- If using media where the ink tends to run, you may be able to improve image quality by lowering the smoothing level.




- **Set Value** : AUTO, 5 to 100% (set in units of 5%)
- **AUTO** : Set the smoothing level automatically depending on printing mode.
- **5 to 100%** : The MAPS2 effect become strong as the set value increase, and become weak as the set value decrease.

**12** **Press the ENTER key.**

```
SETUP
MAPS                [ENT]
```

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

## Setting MAPS2 Function (4color + special color ink)

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
SETUP               [ENT]
```

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

```
SETUP
DROP.POScorrect[ENT]
```

**3** **Press ▲ ▼ to select [MAPS].**

```
SETUP
MAPS                [ENT]
```

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

```
MAPS
:OFF
```

**5** **Press ▲ ▼ to select “MAPS2” and press the ENTER key.**

```
MAPS2
:AUTO
```

- Set Value：MAPS1, MAPS2, OFF
- If you selected OFF, proceed to step 11.

**6** **Press ▲ ▼ to select “AUTO” or “MANUAL”.**

```
MAPS2
:MANUAL
```

- **AUTO** : Set the print pattern and smoothing level to the recommended value automatically depending on printing mode.
- **MANUAL** : You can adjust the set value.

Important! • If feeding stripes and color change is not improved by “AUTO” setting, please adjust the print pattern and smoothing level by “MANUAL” setting.

**7** **Press the ENTER key.**

```
          COLOR      >
PATTERN:1
```

- When selecting the “AUTO” in the Step 6, proceed to the step 11.
- When selecting the “MANUAL” in the Step 6, proceed to the step8.

**8** **Make the settings for the inks.**

**(1)** Press ▲ ▼ to set the COLOR.

```
          COLOR      >
PATTERN:AUTO
```

- AUTO : A pattern that matches the print mode will be set automatically.
- Pattern 1 to 5 : The pattern that you select will be printed.

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

```
          COLOR      >
SMOOTHING LV.  :AUTO
```

- A screen for setting SMOOTHING.LV will appear.

**(3)** Press ▲ ▼ to set the SMOOTHING LV..

```
          COLOR      >
SMOOTHING LV.  : 50%
```

- **AUTO** : A pattern that matches the smoothing level will be set automatically.
- **5 to 100%** : The MAPS2 effect become strong as the set value increase, and become weak as the set value decrease.

**(4)** Press the END key, and then press ▶ key.

```
<         SPOT       >
PATTERN:AUTO
```

- A screen for setting SPOT will appear.

**(5)** Press ▲ ▼ to set the SPOT.

```
<         SPOT       >
PATTERN:AUTO
```

- AUTO : A pattern that matches the print mode will be set automatically.
- Pattern 1 to 5 : The pattern that you select will be printed.

**(6)** Press the ENTER key.
- A screen for setting SMOOTHING.LV will appear.

**(7)** Press ▲ ▼ to set the SMOOTHING LV..

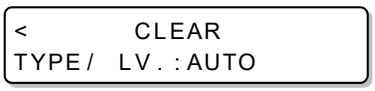
- **AUTO** : A pattern that matches the smoothing level will be set automatically.
- **5 to 100%** : The MAPS2 effect become strong as the set value increase, and become weak as the set value decrease.

**(8)** Press the END key, and then press ▶ key.
- A screen for setting CLEAR will appear.

**(9)** Press ▲ ▼ to set the CLEAR.

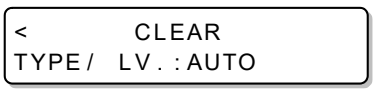
- **AUTO** : A pattern that matches the print mode will be set automatically.
- **Pattern 1 to 5** : The pattern that you select will be printed.

**(10)**Press the ENTER key.
- A screen for setting TYPE and LV. will appear.



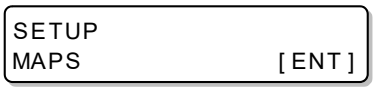

**(11)**Press ▲ ▼ to set the TYPE and LV..

- **TYPE1 10 to 100%** :
  Set a value that matches the print mode.
- **TYPE2 10 to 100%** :
  Set a value that matches the print mode.




Important!
- MAPS2 effect differs depending on image to be printed. Change the printing pattern and use it after checking effect in advance.

## 9 Press the ENTER key.




## 10 Press the END key several times to end the setting.

# Setting Work Change

Important! • When the toggle print function is enabled, refer to "Setting automatic area toggling for toggle printing" in P.3-22 "Starting toggle printing".

Set whether to return to the local mode or keep the remote mode after online drawing.

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [SET UP].**

```
FUNCTION
SETUP               [ENT]
```

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

```
SETUP
DROP.POScorrect [ENT]
```

**4** **Press ▲ ▼ to select [WORK CHANGE].**

```
SETUP
WORK CHANGE         [ENT]
```

**5** **Press the ENTER key.**

```
WORK CHANGE
:OFF
```

**6** **Press ▲ ▼ to select a set value.**

```
WORK CHANGE
:ON
```

**OFF** : Stays in remote status after online printing. (When the next printing data has been received, it will be overprinted.)
**ON** : After online drawing, the Y bar is retracted, and return to the local.
**HOST** : If you specify the "PRINT COUNT" to two or more in the RasterLink6 screen, Y bar is retracted for each print end and return to the local.

• Position Y bar is retracted will be the position that set in P.2-18 “Setting the view position”.

**7** **Press the ENTER key.**

```
WORK CHANGE
VACUUM:OFF          [ENT]
```

**8** **Press ▲ ▼ to select a set value.**

```
WORK CHANGE
VACUUM:ON           [ENT]
```

**OFF** : Turns OFF the vacuum automatically after online drawing.
**ON** : Vacuum stays ON after online drawing.

Important! • This setting is enabled while Work Change is ON.

**9** **Press the ENTER key.**

```
WORK CHANGE(F<->R)
MODE:AUTO           [ENT]
```

**10** **Press ▲ ▼ to select a set value.**

```
SETUP
WORK  CHANGE        [ENT]
```

Important!

- This setting is enabled only while the toggle print function is enabled.
- For the setting procedure, refer to "Setting automatic area toggling for toggle printing" in P.3-7 "Toggle printing".
- When the toggle print function is disabled, there is no need to change the setting.

**11** **Press the ENTER key.**

```
SETUP
WORK  CHANGE        [ENT]
```

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

# Setting Ionizer

Set the operation when the ionizer is installed.

Important!

- If you have installed the ionizer but these settings fail to appear, contact the distributor or a MIMAKI sales office or call center.

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [SET UP].**

```
FUNCTION
SETUP               [ENT]
```

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

```
SETUP
DROP.POScorrect [ENT]
```

**4** **Press ▲ ▼ to select [IONIZER].**

```
SETUP
IONIZER             [ENT]
```

**5** **Press the ENTER key.**

```
IONIZER
:ON
```

**6** **Press ▲ ▼ to select a set value.**

```
IONIZER
:OFF
```

**ON** : For normal printing, turn on ionizer before and during printing to remove electricity. For reverse printing, remove electricity before printing. Turn on ionizer while shifting to [View].

**OFF** : Static electricity is not removed.

**7** **Press the ENTER key.**

```
SETUP
IONIZER             [ENT]
```

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

# Setting Auto Cleaning

You can set the machine so that it counts the number of printed files or the length after printing has been completed, and performs cleaning automatically if required.
The machine can perform a stable printing operation with its heads always kept clean.

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [SET UP].**

```
FUNCTION
SETUP               [ENT]
```

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

```
SETUP
DROP.POS correct [ENT]
```

**4** **Press ▲ ▼ to select [AUTO CLEANING].**

```
SETUP
AUTO CLEANING    [ENT]
```

**5** **Press the ENTER key.**

```
AUTO CLEANING
:OFF
```

**6** **Press ▲ ▼ to select the type of auto cleaning.**

- When you select auto cleaning “PAGE”, after set number of printings has been completed, head cleaning will be performed automatically.
- If you do not set auto cleaning, first select “OFF” and then proceed to the Step 11.

```
AUTO CLEANING
:PAGE
```

**7** **Press the ENTER key.**

**8** **Press ▲ ▼ to set the cleaning interval.**

- Setting value : 1 to 1000 page

```
INTERVAL
=                  10page
```

**9** **Press the ENTER key.**

```
TYPE
:SOFT
```

**10** **Press ▲ ▼ to set the cleaning type.**

Set Value : NORMAL/ SOFT/HARD

```
TYPE
:NORMAL
```

**11** **Press the ENTER key.**

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

Important!

- Depending on the state of the heads, etc., the image quality deterioration may not be improved even with this function performed.In this case, contact our service office or the distributor in your region.

# Setting nozzle face cleaning time

Cleaning of the head nozzle face is performed automatically before printing begins in order to remove any ink adhering to the nozzle face.

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [SET UP].**

```
FUNCTION
SETUP               [ENT]
```

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

```
SETUP
DROP.POScorrect[ENT]
```

**4** **Press ▲ ▼ to select [INTERVAL WIPING].**

```
SETUP
INTERVAL WIPING[ENT]
```

**5** **Press the ENTER key.**

```
INTERVAL WIPING
:OFF
```

**6** **Press ▲ ▼ to set intervals.**

- When you select "PAGE" in [INTERVAL WIPING], once the set number of prints is complete, the head nozzle is cleaned automatically before the next print starts.
- When you select "TIME" in [INTERVAL WIPING], the head nozzle is cleaned automatically once the print time exceeds the set time.
- If you do not want to set [INTERVAL WIPING], select "OFF" and proceed to Step 9.

```
INTERVAL WIPING
:PAGE
```

**7** **Press the ENTER key.**

```
SETUP
INTERVAL WIPING[ENT]
```

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

Set value (Page): 1 to 100 pages
Set value (Time): 3 to 50 minutes

```
INTERVAL
=                   1page
```

**9** **Press the ENTER key.**

# Other Settings

Change the settings according to the types of use.

**1** **Press the FUNCTION key in LOCAL.**

**2** **Press ▲ ▼ to select [SET UP].**

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

**4** **Press ▲ ▼ to select an item for setting.**

• Select it, referring to P.3-25 “List of Functions”.

**5** **Press the ENTER key.**

**6** **Press ▲ ▼ to select the setting value.**

• Select it, referring to P.3-25 “List of Functions”.

**7** **Press the ENTER key.**

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

Important! • The set value is retained even when the power is turned "OFF".

# Machine Settings

Machine settings are functions for using this machine easily.
The following items can be set in Machine settings.

| Item | | Set value | Default | Meaning |
|---|---|---|---|---|
| AUTO Power-off (☞ P.3-41) | | NONE/<br>10 ~ 600min | 30min | When no operation has been performed for the set time, the power supply is automatically turned “OFF”. |
| TIME SET (☞ P.3-42) | | +4h ~ -20h | Japan time | Time difference is corrected. |
| UNIT (☞ P.3-43) | TEMP. | °C (Centigrade)<br>/°F (Fahrenheit) | °C | A unit for displaying temperature is set. |
| | LENGTH | mm / inch | mm | A unit for displaying length and area is set. |
| KEY BUZZER (☞ P.3-44) | | OFF / ON | ON | A buzzer sound when keys are pressed is set. |
| LANGUAGE (☞ P.3-45) | | English<br>ニホンゴ<br>Deutsch<br>Français<br>Español<br>Italiano<br>Português | English | Displayed language is changed. |
| PRINT MODE (☞ P.3-46) | | Quality / Speed | Quality | Use this setting when you want to prioritize the printing speed or when an error occurred on the linear encoder. |
| RESET(☞ P.3-47) | | ———— | ———— | All setting values are returned to the status default. |

## Setting a AUTO Power-off

When no operation has been performed for the set time, the power supply is automatically turned “OFF”.

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [MACHINE SETUP].**

```
FUNCTION
MACHINE SETUP       [ENT]
```

**3** **Press the ENTER key twice.**

```
AUTO Power-off
=                    30min
```

**4** **Press ▲ ▼ to set time to turn OFF the power supply.**

• Set Value : none, 10 to 600min

```
AUTO Power-off
=                    60min
```

**5** **Press the ENTER key.**

```
MACHINE SETUP
AUTO Power-off      [ENT]
```

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

Important! • If it has received data from the PC in the auto-power-off status, the power supply is turned on, however, the printing operation does not start automatically.

## Setting Time

You can set time of your country (time difference).

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [MACHINE SETUP].**

```
FUNCTION
MACHINE SETUP   [ENT]
```

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

```
MACHINE SETUP
AUTO Power-off [ENT]
```

**4** **Press ▲ ▼ to select [TIME SET].**

```
MACHINE SETUP
TIME SET        [ENT]
```

**5** **Press the ENTER key.**

```
TIME SET
2012.10.05  21:30:00
```

**6** **Press ▲ ▼ ◀ ▶ to enter time.**

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

**7** **Press the ENTER key.**

• The entered date is displayed.

```
TIME SET
2012.10.05  15:30:00
```

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

• -20 hours to +4 hours can be set.

## Setting Units

Units used by this machine are set.

**1** **Press the (FUNCTION) key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press (▲)(▼) to select [MACHINE SETUP].**

```
FUNCTION
MACHINE SETUP       [ENT]
```

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

```
MACHINE SETUP
AUTO Power-off      [ENT]
```

**4** **Press (▲)(▼) to select [UNIT].**

```
MACHINE SETUP
UNIT                [ENT]
```

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

```
TEMP.
:°C
```

**6** **Press (▲)(▼) to select a unit of the temperature.**

- **Set value** : °C / °F

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

```
LENGTH
:mm
```

**8** **Press (▲)(▼) to select a unit of the length.**

- **Set value** : mm / inch

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

```
MACHINE SETUP
UNIT                [ENT]
```

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

## Setting a KEY BUZZER

You can turn off the buzzer sound when pressing the key.

**1** **Press the (FUNCTION) key in LOCAL.**

```
FUNCTION
VIEW              [ENT]
```

**2** **Press (▲)(▼) to select [MACHINE SETUP].**

```
FUNCTION
MACHINE SETUP     [ENT]
```

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

```
MACHINE SETUP
AUTO Power-off    [ENT]
```

**4** **Press (▲)(▼) to select [KEY BUZZER].**

```
MACHINE SETUP
KEY BUZZER        [ENT]
```

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

```
KEY BUZZER
:ON
```

**6** **Press (▲)(▼) to select ON/OFF.**

```
KEY BUZZER
:OFF
```

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

```
MACHINE SETUP
KEY BUZZER        [ENT]
```

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

- When the key buzzer is set to "OFF", the buzzer sound for errors, warnings, operation completion, etc. cannot be shut off.

## Setting a LANGUAGE

You can change the displayed language.

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [MACHINE SETUP].**

```
FUNCTION
MACHINE SETUP       [ENT]
```

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

```
MACHINE SETUP
AUTO Power-off      [ENT]
```

**4** **Press ▲ ▼ to select [LANGUAGE].**

```
MACHINE SETUP
LANGUAGE            [ENT]
```

**5** **Press the ENTER key.**

```
LANGUAGE
:English
```

**6** **Press ▲ ▼ to select language.**

- **Set Value**：ニホンゴ / English / Deutsch / Français / Español / Italiano / Português

```
MEDIA SIDUAL
:ﾆﾎﾝｺﾞ
```

**7** **Press the ENTER key.**

```
MACHINE SETUP
LANGUAGE            [ENT]
```

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

## Setting Print Mode

Use this setting when you want to prioritize the printing speed or when an error occurred on the linear encoder.

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [MACHINE SETUP].**

```
FUNCTION
MACHINE SETUP       [ENT]
```

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

```
MACHINE SETUP
AUTO Power-off      [ENT]
```

**4** **Press ▲ ▼ to select [PRINT MODE].**

```
MACHINE SETUP
PRINT MODE          [ENT]
```

**5** **Press the ENTER key.**

```
PRINT MODE
PRIORITY:QUALITY
```

**6** **Press ▲ ▼ to select [QUALITY]/[SPEED].**

```
PRINT MODE
PRIORITY:SPEED
```

**7** **Press the ENTER key.**

```
PRINT MODE
CHANGE.OK?          [ENT]
```

**8** **Press the END key.**
**Origin searching operation is performed.**

```
   PLEASE WAIT
SEARCHING ORIGIN
```

- This setting is not initialized by the "RESET" function.

# Initializing the Settings

You can return the setting of “SETUP”, “MAINTENANCE” and “MACHINE SETUP” to the status before shipment.

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [MACHINE SETUP].**

```
FUNCTION
MACHINE SETUP       [ENT]
```

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

```
MACHINE SETUP
AUTO Power-off      [ENT]
```

**4** **Press ▲ ▼ to select [RESET].**

```
MACHINE SETUP
RESET               [ENT]
```

**5** **Press the ENTER key.**

```
RSET ALL SETTING
OK?                 [ENT]
```

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

- The already configured settings are initialized.

```
RESET
EXECUTE             [ENT]
```

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

# Confirming Machine Information

The information of this machine can be confirmed.
The following items can be confirmed as machine information.

| Item | | Description |
|---|---|---|
| USAGE | WIPING | The information of this machine can be confirmed. |
| | PRINT LENGTH | |
| | PRINT AREA | |
| | USE TIME | |
| | WASTE INK TANK | |
| | UV LAMP | |
| VERSION | | This displays the firmware version of the machine. |

## Check the using status of the machine

You can check machine information such as wiping information and length printed by this machine.

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [INFORMATION].**

```
FUNCTION
INFORMATION         [ENT]
```

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

```
INFORMATION
USAGE               [ENT]
```

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

```
WIPING
=                   0
```

- The wiping Information is displayed.
- Every time you press the ENTER key, machine information below are displayed in series.

**WIPING**

Displays wiping information.

```
WIPING
=                   0
```

**PRINT LENGTH**

Displays printed length up to now.

```
PRINT LENGTH
=                   0m
```

**PRINT AREA**

Displays printed area up to now.

```
PRINT AREA
=                   0m²
```

**WASTE INK TANK**

Displays how full the waste ink tank is

```
WASTE INK TANK
=                   0%
```

**UV LAMP**

Displays the hours UV lamp 1 or 2 has been used.

```
UV LAMP1 :LED A
=                   0h
```

## Check the machine version information

**1** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
VIEW                [ENT]
```

**2** **Press ▲ ▼ to select [INFORMATION].**

```
FUNCTION
INFORMATION         [ENT]
```

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

```
INFORMATION
USAGE               [ENT]
```

**4** **Press ▲ ▼ to select [VERSION].**

```
INFORMATION
VERSION             [ENT]
```

**5** **Press the ENTER key.**

```
JFX200-2531    V1.00
MRL-III        V1.90
```

- When [ERROR HISTORY] is selected, the error history Information is displayed.
- When [VERSION] is selected, the version Information is displayed.
- When [List] is selected, the setting contents of the machine are printed.
- When [Ink REPL. Report] is selected, ink history of this machine are printed.

## About Displayed Information

This section describes how to read displayed information.

**ERROR HISTORY*1**

Displaying the occurrence date

```
[00000]
2015/07/19 22:13:00
```

◀ ▶

Displaying the contents of error

```
ERROR 12a
HDC SPEED
```

**VERSION**

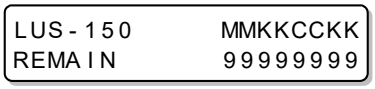
Displaying the version information such as F/W or the like.

```
JFX200-2531    V1.00
MRL-III        V1.80
```

*1. Supported from the firmware ver.1.50

# Displaying the Information of this machine

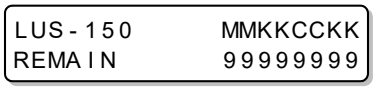
**1** **Press the ENTER key in LOCAL.**




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

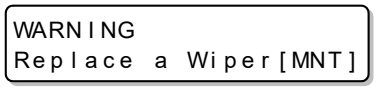
• The information shown on the below appear.

**Remaining amount of ink**




**Error (when ink error occurs)**

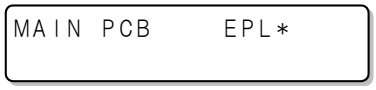
**Warning (when warning occurs)**




**Serial No.**

**Version**

**Main PCB information**




＊: EPL or EPL2

**RECOVERY NOZZLE**

Press the MAINT. key and confim the description

**3** **Press the ENTER key to return to LOCAL.**

## To stop the circulation operation and stirring operation during power is OFF

When white ink installed, even if the power supply of the device is turned OFF, this machine starts in a regular basis and performs the circulation operation and stirring operation to prevent sedimentation of ink. ( During operation display the remaining time on the display screen.)

During circulation operation

When you want to discontinue the circulation or stirring operation and this machine to a usable state, please press the END key. (Correspondence with firmware version 1.50 or later)

During circulation operation

Press the END key to display the selection screen of continuity / interruption of operations.

**To continue the circulation and stirring action**:
Press ◀ (return to the display of operation)

**To interrupt the circulation and stirring action:**
Press ▶ (after the initial operation, display the local screen)

During circulation operation

During circulation operation

# Chapter 4
# Maintenance

**This chapter**

describes the items required to use this machine more comfortably, which are the methods for the daily care, the maintenance of the ink unit etc.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# Maintenance

Maintain the machine regularly or as necessary so that its accuracy will be maintained and it can continue to be used for a long time.

## Precautions for Maintenance

Pay attention to the following items when maintaining this machine.

- When using cleaning solution for maintenance, be sure to wear the supplied protective glasses.

- Never disassemble the machine.Disassembling it can result in electric shock hazards or damage to the machine.
  Before maintenance, be sure to turn off the power button, and unplug the power cable; otherwise, an unexpected accident may occur.

- Prevent moisture from entering the machine. Moisture inside the machine can cause electric shock hazards or damage to the machine.

- To ensure stable ink jetting, it is necessary for the machine to eject a small amount of ink (flushing) regularly when a printing (outputting) operation has not been performed for a long time.
- In case you do not use this machine for a long time, be sure unplug the power cable and remove the set media.
- Make maintenance after the LED UV has been sufficiently cooled, or burn injury may occur.

- Do not use benzene, thinner, or any chemical agent containing an abrasive.Such materials can deteriorate or deform the surface of the cover.
- Do not apply a lubricant, etc. to any parts inside the machine. Doing so can cause printing failure.
- Be careful that the cleaning solution, ink, etc. not to stick to the cover because this may cause the surface of the cover to deteriorate or deform.

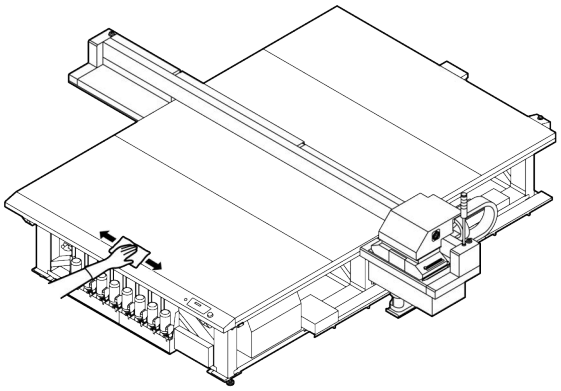
## About Cleaning liquid

Use the cleaning liquid dedicated for the ink being used.

| Type of Ink | Applicable maintenance washings |
|---|---|
| UV ink | Maintenance liquid (SPC-0568)<br>Maintenance liquid kit (SPC-0569) |

## Maintenance of frame component

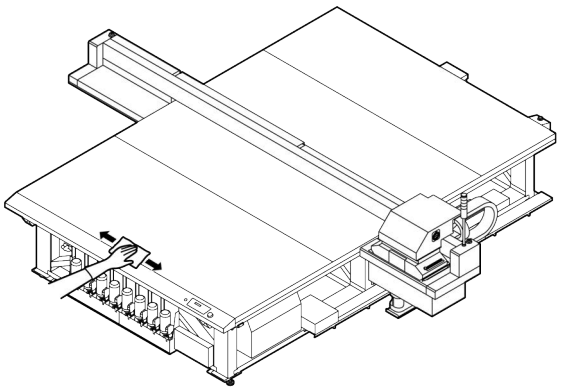
When the exterior surfaces of the machine are stained, dampen a soft cloth with water or a neutral detergent diluted with water, squeeze it, and wipe the surfaces with the cloth.



## Cleaning the Table

- Turn off the main power supply and unplug the power cable before carrying out maintenance.

Continuing to use the dirty table will cause dried ink and attached dust to rub against the head nozzle surface, leading to ejection failures (e.g., nozzle clogging, deflection).



- Do not use organic solvents such as acetone and IPA to clean the table. These may damage the table. If the table becomes damaged, it cannot be repaired on-site.

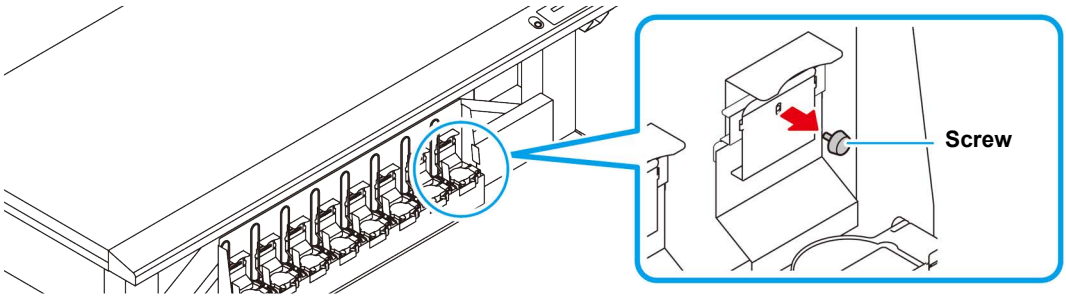
- Be careful to prevent liquids from getting inside the machine. Otherwise there is a risk of failure, electric shock, or fire.

- Remove dust or any solid materials frequently, using soft brush, dry cloth, or paper towel.
- For heavy soiling, wipe using a soft cloth soaked in diluted neutral detergent and thoroughly wrung out.
- Be sure to clean the slot on the frame of the table or the screw holes since dust and dirt are easily accumulated in these parts.
- It is possible to remove ink that has hardened on the board surface using a spatula or similar tool, but be very careful not to scratch the board surface.

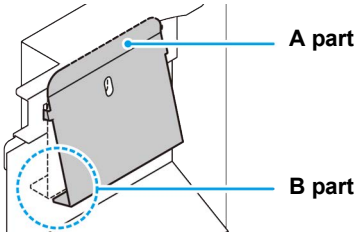
## MBIS Maintenance

There is a cotton pad attached to the cap wiper section on the rear of the tank that is used to wipe off any ink adhering to the underside of the cap when replacing ink bottles of the MBIS. Periodically replace the cotton pad. (Recommended replacement period: Once every two weeks or once every fifth time bottles are replaced.)

**1** **Loosen the screw.**

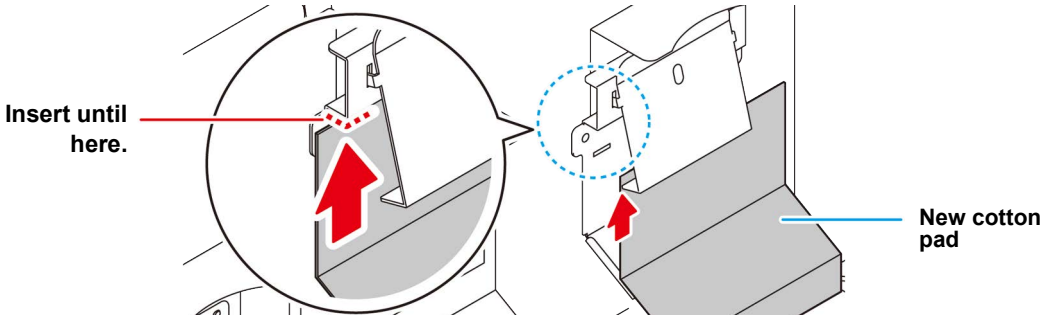



**2** **While pressing A part, lift up B part as shown in the figure on the right.**




**3** **Replace the Cotton pad.**

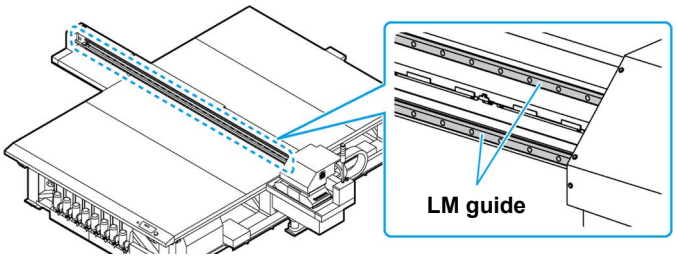
• Insert the cotton pad until the section indicated by the dotted line in the figure below.




**4** **Fixing the screw.**

## Cleaning the LM guide

When the LM guide gets dirty, wipe the LM guide with soft cloth.



# Maintaining the Capping Station

Maintain the ink cap, wiper, etc. located in the capping station. (SATION MAINT.)

The ink cap and wiper function as follows.

- **Wiper** : It wipes off ink sticking to the head nozzles.
- **Ink cap** : It prevents the head nozzles from clogging due to dryness.

As the machine is used repeatedly, the wiper and ink cap gradually become dirty with ink, dust, etc.
If nozzle missing cannot be corrected even after head cleaning (☞P.2-15) has been performed, use a Cleaning liquid 03 maintenance kit and clean stick.

| | | | |
|---|---|---|---|
| **Tools required for Maintenance** | • Maintenance liquid (SPC-0568) | | |
| | • Clean stick (SPC-0527) | • Gloves | • Goggles |

Caution

- Be sure to wear the supplied goggles and gloves when maintaining the capping station.Otherwise, you may get ink in your eyes.
- Do not move the carriage out of the capping station by hand.When it is desirable to move the carriage, press the MAINT. key to execute the carriage-out. (☞P.4-5Steps 1 to 2)
- Be sure to perform maintenance for the ink cap and the wiper of capping station every day.
  If you leave it dirty, dirt may adhere to the nozzle surface, or, dust and dry ink may be rubbed against the nozzle. It may cause discharge defect.

## Cleaning the Wiper and Cap

It is recommended that the wiper and cap be cleaned frequently in order to maintain the high image quality of the machine and keep the machine itself in good working order.

Important!

- Clean the wiper and the area around it about twice a week (it varies, depending on frequency in the use of the machine).
- Replace the wiper with a new one when it is extremely dirty or bent.(☞P.4-33)
- When cleaning the wiper, be careful that lint from the clean stick does not get left on the wiper.Remaining lint may cause image quality to deteriorate.

**1** **Press the MAINT. key in LOCAL.**

```
CARRIAGE OUT
                [ENT]
```

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

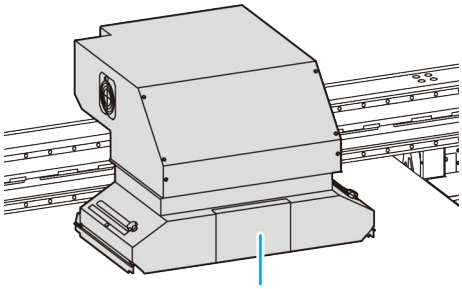
```
MOVE POSITION
:STATION MAINT.
```

**3** **Press ▲ ▼ to select [STATION MAINT.].**

```
MOVE POSITION
:STATION MAINT.
```

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

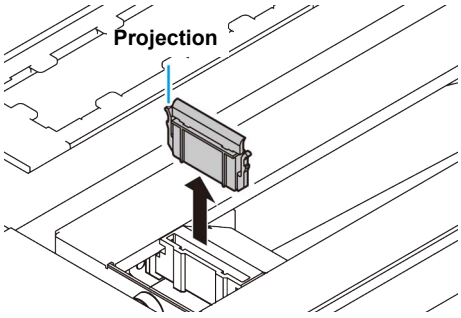
- The carriage moves onto the table.



Carriage

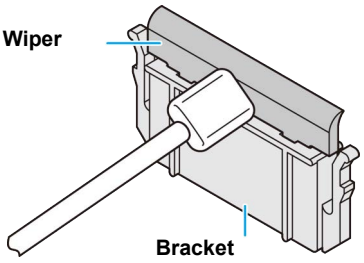
## 5 Remove the wiper.

• Pull out the wiper by holding the protrusions at its both ends.



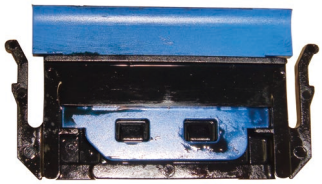

## 6 Clean the wiper and bracket.

• Wipe off the ink sticking to the wiper and bracket with a clean stick dipped in maintenance liquid.
Wipe off so that cleaning solution for maintenance will not remain.



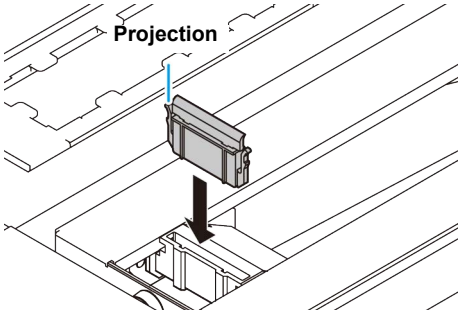

Important!

- Clean the wiper and bracket until it looks as shown in the photo on the right.
- After cleaning, make sure that the bracket and wiper are aligned horizontally.



## 7 Set the wiper at the original position.

• Insert the wiper by holding both ends of the wiper.

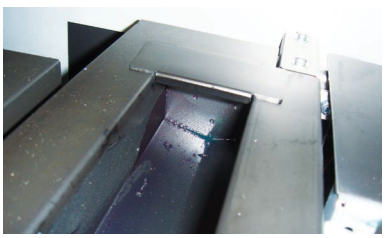



## 8 Clean the wiper blade.

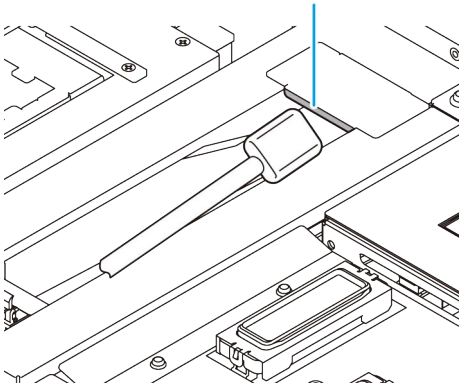
• Soak the clean stick in the maintenance cleaning liquid, and then remove the ink that has adhered to the wiper blade.

Important!

- Make sure to be careful with the edge of the wiper blade, and thoroughly clean the side (back side) where the wiper touches.
- Clean the wiper blade until it looks as shown in the photo below.

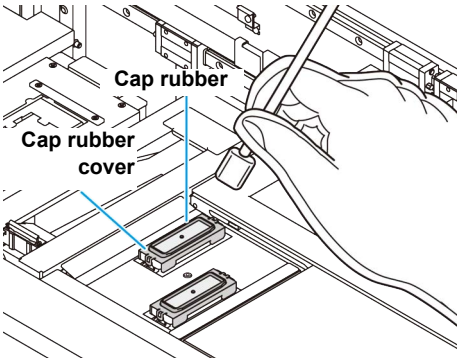


Wiper blade



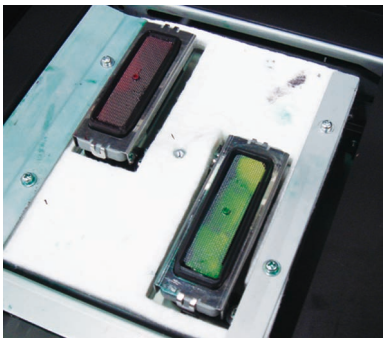
## 9 Clean the cap rubber and cap rubber cover.

- Wipe off the ink sticking to the cap rubber and cap rubber cover with a clean stick dipped in maintenance liquid. Wipe off so that cleaning solution for maintenance will not remain.




Important!

- Clean the cap rubber and cap rubber cover until they look like the picture.
- Make sure that the cap rubber and mesh inside the cap have not come off after cleaning.



## 10 Press the ENTER key after the cleaning.

- After its initial operation, the machine returns to step1.

## Performing the station maintenance without MAINT. key

You can select station maintenance by using the FUNCTION key in the Local without pressing the MAINT. key.

**Press the FUNCTION key in Local.** → **Press ▲ ▼ to select [MAINTENANCE].** → **Press the ENTER key twice.**
- It becomes the same condition as the MAINT. key is pressed from Local.

# Cleaning the around station

It is recommended that the wiper and cap be cleaned frequently in order to maintain the high image quality of the machine and keep the machine itself in good working order.

Important!
- Clean the station and the area around it about twice a week (it varies, depending on frequency in the use of the machine).
- If ink remaining in the waste ink tray gets cured due to UV light, ink discharged at flushing cannot be moved into the waste ink bottle. It is recommended to clean the waste ink tray frequently.

**1** **Press the MAINT. key in LOCAL.**

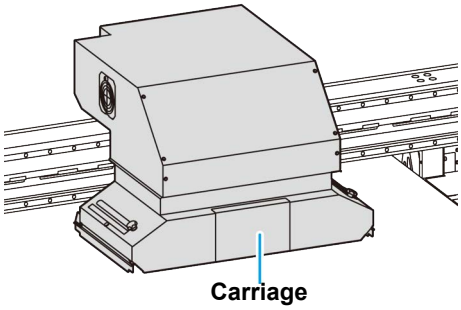
CARRIAGE OUT
[ENT]

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

MOVE POSITION
:STATION MAINT.

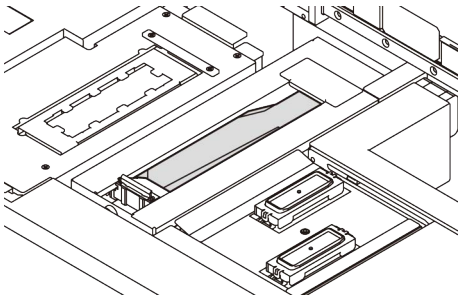
**3** **Press ▲ ▼ to select [STATION MAINT.], and then press the ENTER key.**

- The carriage moves onto the table.
- Cleaning the waste ink tray.




**4** **Using a waste cloth etc., wipe off ink adhering to the waste ink tray.**

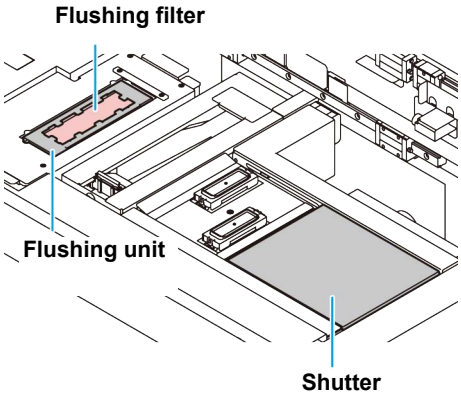
- Clean the grey-colored area in the figure on the right.
- When you cannot wipe off ink because it is firmly fixed, scrape it with a spatula etc.



**5** **Wipe off ink adhering to the flushing unit and/or shutter portions.**

- Soak the clean stick in the maintenance cleaning liquid, and then remove the ink that has adhered . Wipe off so that cleaning solution for maintenance will not remain.

Important!
- If the surface of the flushing filter is fluffy, use a clean stick soaked in the maintenance cleaning liquid to wipe it clean.
- If it is particularly dirty or the ink has hardened, replace the flushing filter.(☞ P.4-42)




**6** **Press the ENTER key after the cleaning.**

- After its initial operation, the machine returns to step1.

# Cleaning the Head and the Area around It

Because the head employs a very precise mechanism, due care needs to be taken when it is cleaned.
Using a clean stick, etc., rub off gelatinous ink or dust that may stick to the lower part of the slider and the area around the head.In doing so, never rub the nozzles of the head.

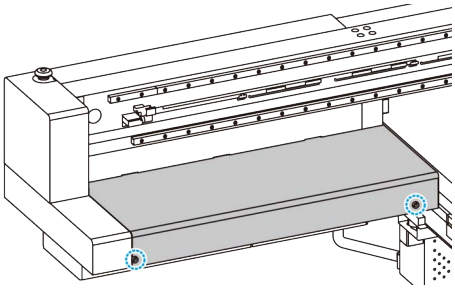
| Tools required for cleaning | • Clean stick (SPC-0527) | • Gloves | • Goggles |
|---|---|---|---|

Caution

- Be sure to wear the attached goggles and gloves when cleaning the area around the head.Otherwise, you may get in your eyes.
- If you get the ink on your skin or in your eyes, wash it away with plenty of water immediately.
- Clean the bottom of carriage every day so that it will not get dirt from inks or dusts. If you leave it dirty, dust and dry ink may be rubbed against the nozzle at wiping operation when performing head cleaning.
- When you clean the carriage bottom surface, fully be careful not to rub the nozzle surface.

**1** **Remove the cover of left side of the Y-bar.**

• Remove the screws (for two positions) and remove the cover.



**2** **Press the MAINT. key in LOCAL.**

```
CARRIAGE OUT
                [ENT]
```

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

```
MOVE POSITION
:STATION MAINT.
```

**4** **Press ▲ ▼ to select [HEAD MAINT.].**

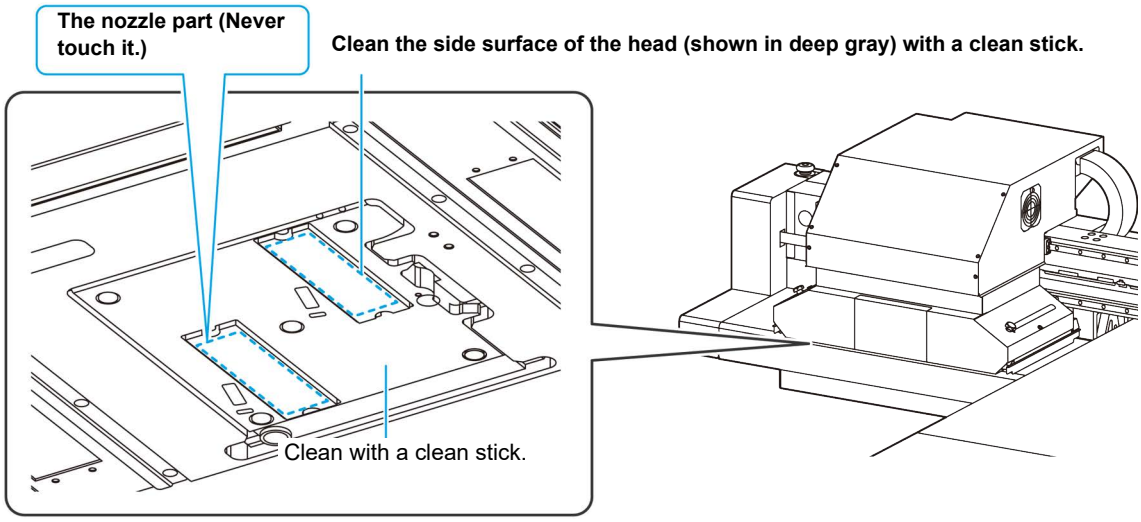
```
MOVE POSITION
:HEAD MAINT.
```

**5** **Press the ENTER key.**

• Carriage will move to the left end of this device.

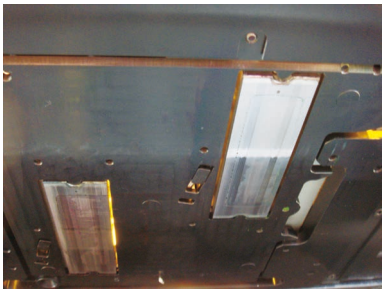
## 6 Wipe ink sticking to the side of the head off with a clean stick.

• Never rub the nozzles.




Important!

- Clean the side of the head and the carriage bottom until they look like the picture.
- If the nozzles have the streaks from the cap rubber, clean the nozzles as well.
- When you leave during maintenance (or cleaning), please make sure to complete the cleaning by pressing ENTER key. Without completing the cleaning, the nozzle part is left uncovered and then outside light makes the ink cure, which causes nozzle clogging or the like.



## 7 Press the ENTER key after the cleaning.

HEAD MAINTENANCE
COMPLETED [ENT]

# Washing the Ink Discharge Passage (DISWAY WASH)

Wash the ink discharge passage regularly to prevent the head nozzles from clogging due to ink coagulation inside the passage.

**1** **Press the MAINT. key in LOCAL.**

```
CARRIAGE OUT
                [ENT]
```

**2** **Press ▲ ▼ to select [DISWAY WASH].**

```
DISWAY WASH
                [ENT]
```

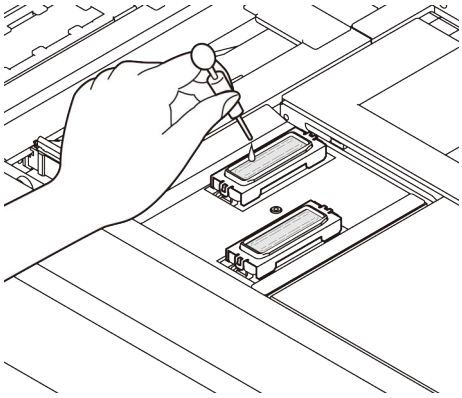
**3** **Press the ENTER key.**

- The carriage moves onto the platen.
- Dry suction operation is performed repeatedly until the washing work is completed.

```
DISWAY WASH
COMPLETED(NEXT) [ENT]
```

**4** **Fill up the cap with cleaning solution for maintenance, using a dropper.**

- Fill the cap with the cleaning solution just before the solution overflows from the cap.



**5** **Press the ENTER key.**

- After the idle absorbing operation has been performed for 30 seconds, the screen returns to step2.

```
DISWAY WASH
PLEASE WAIT
```

# When the Machine Is Not Used for a Long Time (CUSTODY WASH)

When the machine is not going to be used for a week or more, use the cleaning function for custody to clean the head nozzles and ink discharge passage.After this, keep the machine in custody.

| | |
|---|---|
| **Check the items on the right beforehand.** | **Is [INK END] displayed?**<br>• The ink is absorbed when the nozzles are washed.<br>At this time, if the state of "INK END" is detected, the nozzle washing operation cannot start.<br>• Replace the ink bottle with another from which the state of "INK END" is not detected. |

**1** **Press the (MAINT.) key in LOCAL.**

```
CARRIAGE OUT
                [ENT]
```

**2** **Press (▲)(▼) to select [CUSTODY WASH].**

```
CUSTODY WASH
                [ENT]
```

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

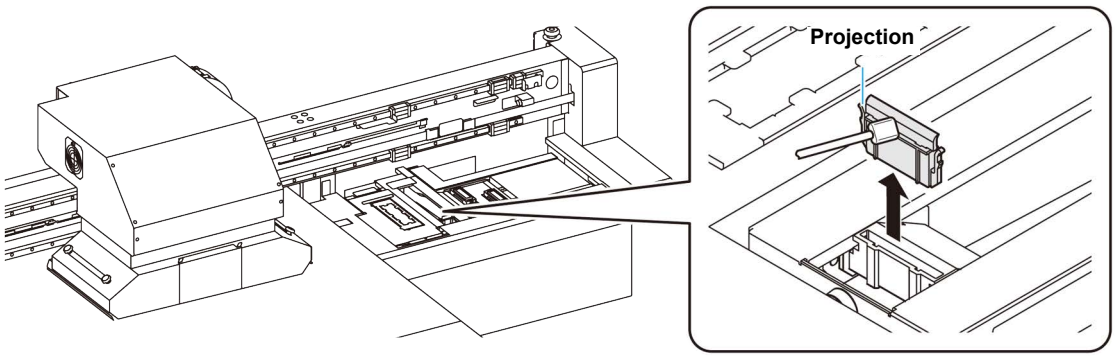
• The carriage moves onto the platen.

```
WIPER CLEANING
COMPLETED(NEXT) [ENT]
```

Important! • Until wiper/ bracket cleaning is competed, [COMPLETED (NEXT): ENT] is displayed on the screen. After the work up to the step 4 is completed, press the (ENTER) key. If you press the (ENTER) key before cleaning is completed, the machine moves to the next washing procedure.

**4** **Clean the wiper and the bracket.**

**(1)** Pull out it by holding projections at both ends of the wiper.
**(2)** Clean the wiper and bracket with a clean stick dipped in cleaning solution for maintenance . Wipe off so that cleaning solution for maintenance will not remain.
**(3)** Insert it in the original position by holding the projections at both ends of the wiper.



## 5 Press the ENTER key.

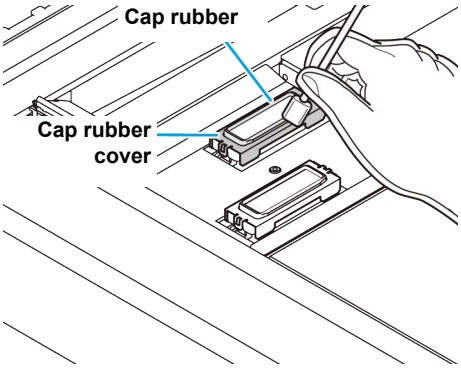
CAP CLEANING
COMPLETED(NEXT)[ENT]

Important!

- Until wiper cleaning is competed, [COMPLETED (NEXT): ENT] is displayed on the screen. After the work up to the step 6 is completed, press the ENTER key. If you press the ENTER key before cleaning is completed, the machine moves to the next washing procedure.

## 6 Clean the cap rubber and cap rubber cover.

- Wipe off the ink sticking to the cap rubber and cap rubber cover with a clean stick dipped in cleaning solution for maintenance. Wipe off so that cleaning solution for maintenance will not remain.
- At this time, the discharge passage is cleaned automatically.




## 7 Press the ENTER key.

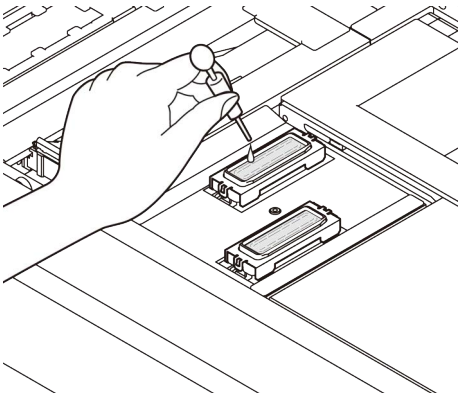
Fill the liquid.
COMPLETED(NEXT)[ENT]

Important!

- Until maintenance liquid is filled, [COMPLETED (NEXT): ENT] is displayed on the screen. After the work up to the Step 8 is completed, press the ENTER key. If you press the ENTER key before maintenance liquid is filled, the carriage returns to the original position.

## 8 Fill up the cap with cleaning solution for maintenance, using a dropper.

- Fill the cap with the cleaning solution just before the solution overflows from the cap.



## 9 Press the ENTER key.

- The nozzles are washed.
- When the nozzles have been completely washed, the head moves.

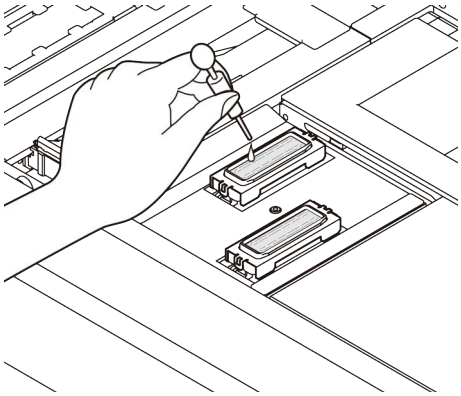
PLEASE WAIT
00:00

↓

** CLEAMING **
PLEASE WAIT

**10** **Fill up the cap with cleaning solution for maintenance, using a dropper.**

- Fill the cap with the cleaning solution just before the solution overflows from the cap.



**11** **Press the ENTER key.**

- After its initial operation, the machine returns to step2.

```
CUSTODY WASH
PLEASE WAIT
```

# Cleaning the Print Head Nozzle Surface

Clean the print head nozzle surface with maintenance liquid 11 or 15 to prevent ejection failure or deflection.

- Do not use anything other than maintenance liquid 11 or 15 to clean the print head nozzle surface. This will increase the risk of machine failure or ejection failures.

Caution

- The print head uses an extremely delicate mechanism. Take great care when handling it.

| | | |
|---|---|---|
| **Tools required for cleaning** | • Clean stick (SPC-0527) | • Maintenance liquid 11<br>• Maintenance liquid 15 |

Caution

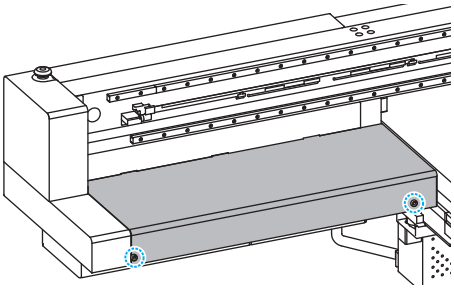
- Be sure to wear the attached safety glasses and gloves when cleaning the area around the head.Otherwise, you may get ink in your eyes.
- If you get the ink on your skin or in your eyes, wash it away with plenty of water immediately.

## 1 Execute head cleaning[NORMAL].

- Perform cleaning before maintenance so that no ink adheres to the nozzle surface.
- Refer to P.2-15

## 2 Remove the cover of left side of the Y-bar.

- Remove the screws (for two positions) and remove the cover.



## 3 Press the MAINT. key in LOCAL.

```
CARRIAGE OUT
                [ENT]
```

## 4 Press the ENTER key.

```
MOVE POSITION
:STATION MAINT.
```

## 5 Press ▲ ▼ to select [HEAD MAINT.].

```
MOVE POSITION
:HEAD MAINT.
```

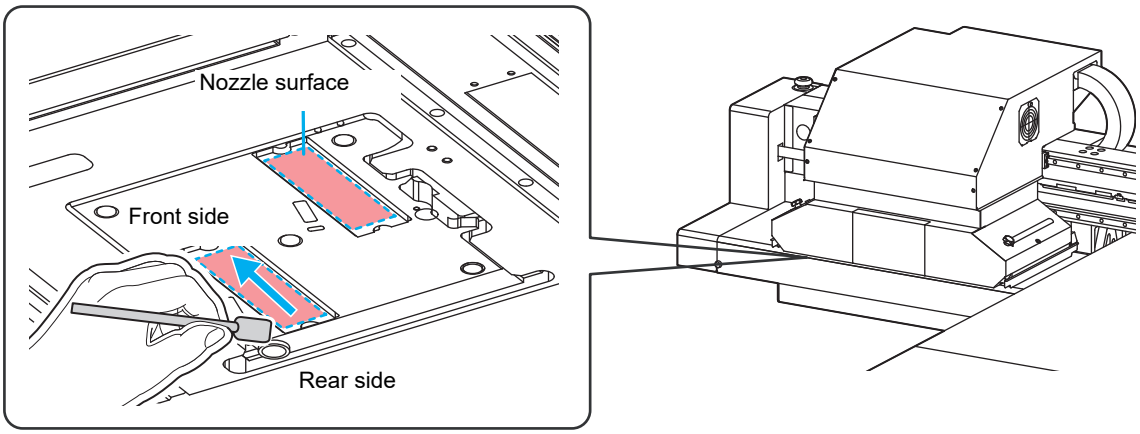
## 6 Press the ENTER key.

- Carriage will move to the left end of this device.

## 7 Use a clean stick soaked in the maintenance liquid.

## 8 Clean the print head nozzles surface.

• Clean the head nozzle surface toward the front from the rear of the head using a cleaning stick.




Caution

- Be sure to clean using a cleaning stick.
- Do not rub or press firmly on the sponge part with your fingers against the nozzle surface. This may damage the nozzle surface and result in ejection failure.
- Do not reuse cleaning sticks once used. This may cause nozzle clogging.

## 9 Press the ENTER key after the cleaning.

```
HEAD MAINTENANCE
COMPLETED        [ENT]
```

## 10 Execute head cleaning[NORMAL].

• Refer to P.2-15

# When Nozzle Clogging Cannot Be Solved

When nozzle clogging cannot be solved even after the head cleaning (☞P.2-15) has been done, perform the following two functions:

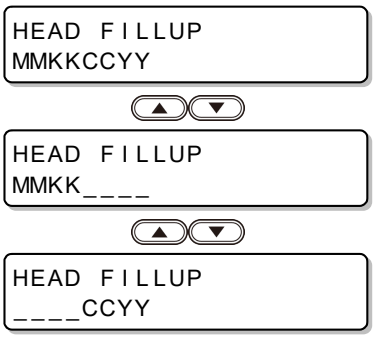
| | |
|---|---|
| **HEAD FILLUP** | • Fill the head with ink. (☞P.4-17) |
| **NOZZLE WASH** | • Wash the head nozzle. (☞P.4-18) |
| **NOZZLE RECOVERY** | • Alternative nozzles for printing, when nozzles missing can not be improved. (☞P.4-26) |

## Filling with ink from the sub tank to the head

### 1 Select [HEAD FILLUP] of the maintenance menu.

**(1)** Press the FUNCTION key in LOCAL.
**(2)** Press ▲ ▼ to select [MAINTENANCE] and press the ENTER key.
**(3)** Press ▲ ▼ to select [HEAD FILLUP].
**(4)** Press the ENTER key.

### 2 Press ▲ ▼ ◀ ▶ to select the head to be filled.

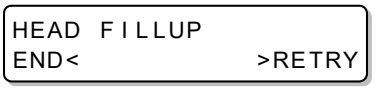



- **Head selection**:by the ◀ ▶ keys.
- **Select to fill or not to fill**:by the ▲ ▼ keys.

### 3 Press the ENTER key.

- Ink filling of the head starts.

- When ink filling is completed, the screen on the right is displayed.




### 4 Press ◀ to select "END".

- If you want to perform filling again, press ▶ and perform procedures from Step 2.

### 5 Press the END key several times to end the setting.

# Washing of Head nozzle

Perform cleaning of the nozzles in the heads to prevent them being clogged with coagulated ink.

| | |
|---|---|
| **Check the items on the right beforehand.** | **Is [INK END] displayed?**<br>• The ink is absorbed when the nozzles are washed. At this time, if the state of "INK END" is detected, the nozzle washing operation cannot start.<br>• Replace the ink bottle with new one for which ink end has not been detected. |

**1** **Press the MAINT. key in LOCAL.**

```
CARRIAGE OUT
                [ENT]
```

**2** **Press ▲ ▼ to select [NOZZLE WASH].**

```
NOZZLE WASH
                [ENT]
```

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

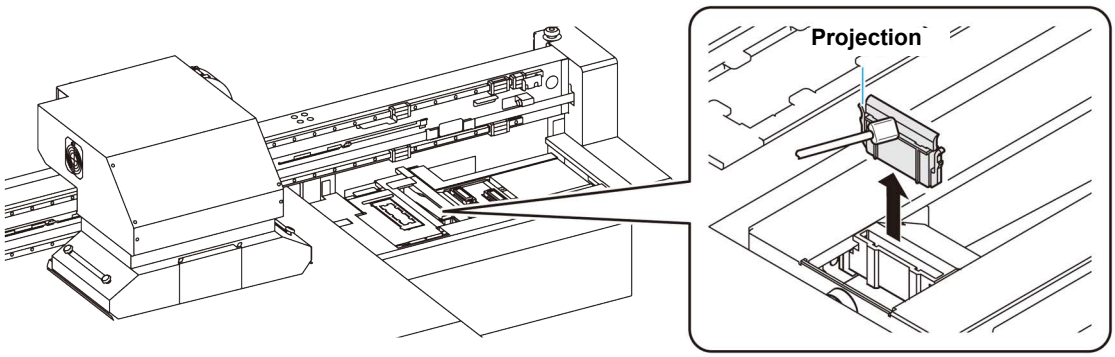
• The carriage moves.

```
WIPER CLEANING
COMPLETED(NEXT) [ENT]
```

Important! • Until wiper cleaning is competed, [COMPLETED (NEXT): ENT] is displayed on the screen. After the work up to the step 4 is completed, press the ENTER key. If you press the ENTER key before cleaning is completed, the machine moves to the next washing procedure.

**4** **Clean the wiper and the bracket.**

**(1)** Open the right maintenance cover then pull out it by holding projections at both ends of the wiper.
**(2)** Clean the wiper and bracket with a clean stick dipped in cleaning solution for maintenance. (ML003-Z-K1) Wipe off so that cleaning solution for maintenance will not remain.
**(3)** Insert it in the original position by holding the projections at both ends of the wiper.



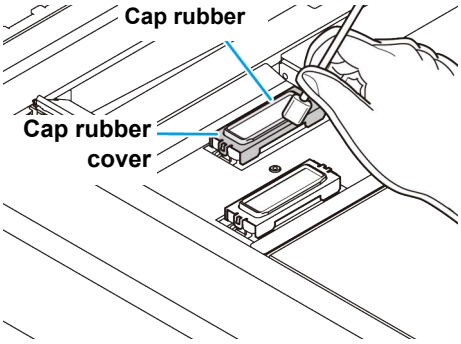

**5** **Press the ENTER key.**

```
CAP CLEANING
COMPLETED(NEXT) [ENT]
```

Important! • Until wiper cleaning is competed, [COMPLETED (NEXT): ENT] is displayed on the screen. After the work up to the step 6 is completed, press the ENTER key. If you press the ENTER key before cleaning is completed, the machine moves to the next washing procedure.

## 6 Clean the cap rubber and cap rubber cover.

- Wipe off the ink sticking to the cap rubber and cap rubber cover with a clean stick dipped in cleaning solution for maintenance. Wipe off so that cleaning solution for maintenance will not remain.
- At this time, the discharge passage is cleaned automatically.




## 7 Press the ENTER key.

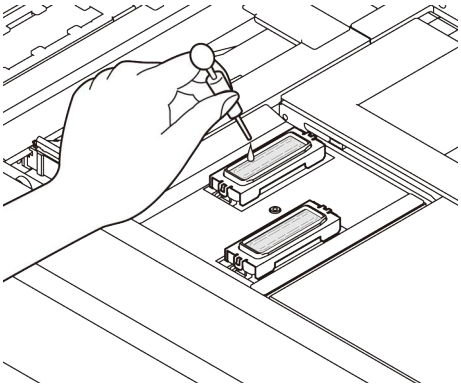
```
Fill the liquid.
COMPLETED(NEXT)[ENT]
```

Important!

- Until maintenance liquid is filled, [COMPLETED (NEXT): ENT] is displayed on the screen. After the work up to the Step 8 is completed, press the ENTER key. If you press the ENTER key before maintenance liquid is filled, the carriage returns to the original position.

## 8 Fill up the cap with cleaning solution for maintenance, using a dropper.

- Fill the cap with the cleaning solution just before the solution overflows from the cap.



## 9 Press the ENTER key.

- The cleaning solution filled in the cap is absorbed.
- The screen on the right is displayed while the cap is left in a cleaning solution
- It returns to the step2 after the duration.

```
PLEASE WAIT
00:00
```

↓

```
** CLEAMING **
PLEASE WAIT
```

Important!

- When nozzle missing is not cleared even after this washing is carried out several times, contact the distributor in your region or our service office.

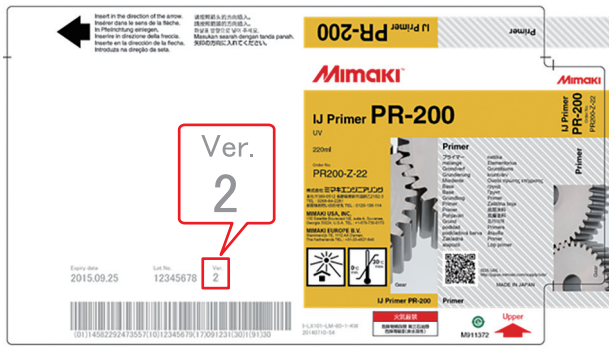
# Washing of Head nozzle (When Using the PR-200 ink)

On models equipped with the PR-200, ink may clog the nozzle.
Please check the version on the label of the PR-200 ink cartridge, pack, or bottle, and clean the nozzle.
Please clean the nozzle twice a week for Ver.2 and once a month for Ver.3.

| | | |
|---|---|---|
| **Maintenance liquid required** | • F-200 / LF-200 maintenance liquid (SPC-0568) | • PR-200 cleaning solution (C-ML013-Z-B2-1-KW) |

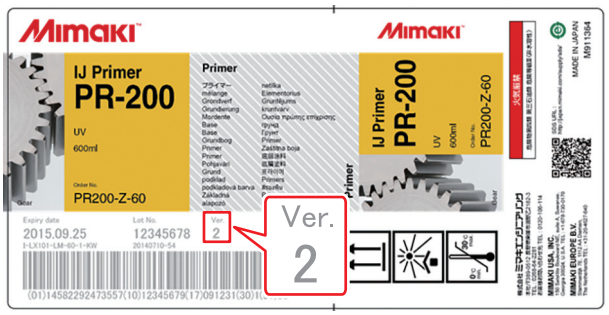
**Label Ver. notation position**

**220ml Cartridge**




**250ml Bottle**

**600ml Pack**




**1L Bottle**

**1** **Press the MAINT. key in LOCAL.**

```
CARRIAGE OUT
                [ENT]
```

**2** **Press ▲ ▼ to select [NOZZLE WASH].**

```
NOZZLE WASH
                [ENT]
```

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

• The carriage moves.

```
WIPER CLEANING
COMPLETED(NEXT) [ENT]
```

Important!

• Until wiper cleaning is competed, [COMPLETED (NEXT): ENT] is displayed on the screen. After the work up to the step 4 is completed, press the ENTER key. If you press the ENTER key before cleaning is completed, the machine moves to the next washing procedure.

## 4 Clean the wiper and the bracket.

**(1)** Open the right maintenance cover, hold the protrusions at both the ends of the wiper and pull it out.

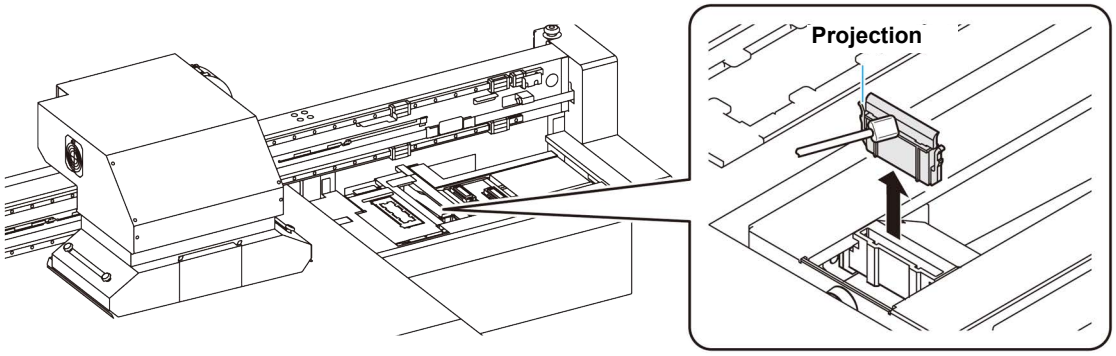
**(2)** Use a clean stick soaked in the F-200/LF-200 maintenance liquid (SPC-0568).

- Wipe it off properly so that there is no residual F-200/LF-200 maintenance liquid.

**(3)** Hold the wiper by the protrusions at both the ends and push it back to the original position.

Important!

- When cleaning the wiper, bracket, cap rubber, and cap rubber cover, be sure to use the F-200/LF-200 maintenance liquid, and do not use the PR-200 maintenance liquid (C-ML013-Z-B2-1-KW).




## 5 Press the ENTER key.

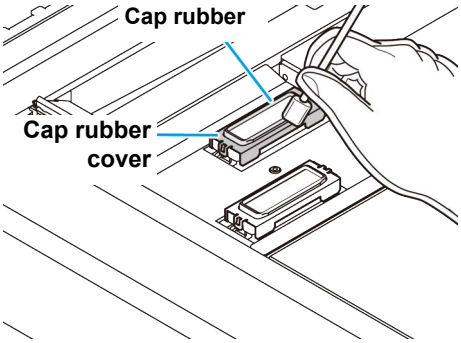
```
CAP CLEANING
COMPLETED(NEXT)[ENT]
```

Important!

- Until wiper cleaning is competed, [COMPLETED (NEXT): ENT] is displayed on the screen. After the work up to the step 6 is completed, press the ENTER key. If you press the ENTER key before cleaning is completed, the machine moves to the next washing procedure.

## 6 Clean the cap rubber and cap rubber cover.

- Wipe off any ink on the cap rubber and the cap rubber cover using a clean stick soaked in the F-200/LF-200 maintenance liquid. Wipe it off properly so that there is no residual F-200/LF-200 maintenance liquid.
- At this time, the discharge passage is cleaned automatically.



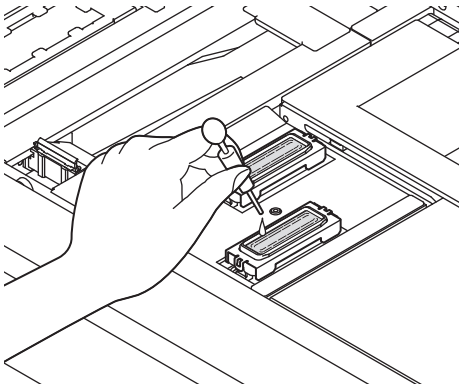

## 7 Press the ENTER key.

```
Fill the liquid.
COMPLETED(NEXT)[ENT]
```

Important!

- Until maintenance liquid is filled, [COMPLETED (NEXT): ENT] is displayed on the screen. After the work up to the Step 8 is completed, press the ENTER key. If you press the ENTER key before maintenance liquid is filled, the carriage returns to the original position.

## 8 Take the PR-200 maintenance liquid (C-ML013-Z-B2-1-KW) in a dropper and fill only the cap of the head equipped with PR-200 with it until it is full.



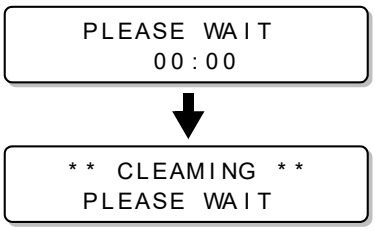
- Fill the cap with the cleaning solution just before the solution overflows from the cap.

Important!

- Do not use the PR-200 maintenance cleaning liquid on anything other than the PR-200 mounting head cap, as this may cause nozzle clogging.

## 9 Press the ENTER key.

- The cleaning solution filled in the cap is absorbed.
- The screen on the right is displayed while the cap is left in a cleaning solution
- It returns to the step2 after the duration.




## 10 Execute head cleaning (HARD) once for the head equipped with PR-200.

**(1)** Press the [END] key to display the LOCAL screen.
**(2)** Press the [CLEANING] key, then press ▲ ▼ to select CLEANING: HARD, and press the [ENTER] key.
**(3)** In SELECT HEAD, press ▲ ▼ to select only Head 3, and press the [ENTER] key.

## 11 Check the nozzle status by performing a test print.

- When the nozzle clogging occurs, execute nozzle cleaning (HARD) again then check the nozzle status.

Important!

- If the nozzle clogging is not resolved even after repeating this cleaning 3 times, contact your local distributor, or our sales office or call center.

# If nozzle missing due to color mixture of ink or aeration

If nozzle missing occurs due to color mixture of ink in the head or aeration, push ink or air in the head out from the port.

- In order to prevent missing dots beforehand and to use it comfortably, it is recommended to perform the air purge once a month.

## 1 Select [AIR PG] of the maintenance menu.

**(1)** Press the FUNCTION key in LOCAL.
**(2)** Press ▲ ▼ to select [MAINTENANCE] and press the ENTER key.
**(3)** Press ▲ ▼ to select [AIR PG].

## 2 Press the ENTER key.

```
SELECT AIR PG
1 <                    > 2
```

## 3 Press ◀ ▶ and select the ink port for which you perform air purge.

- ◀ : Selects left side port
- ▶ : Selects right side port

- Move the Y bar as far forwards as possible and move the carriage to above the wiper.
- Press the ENTER key to stop it in that position.

```
MOVING NOW
   PLEASE WAIT
```

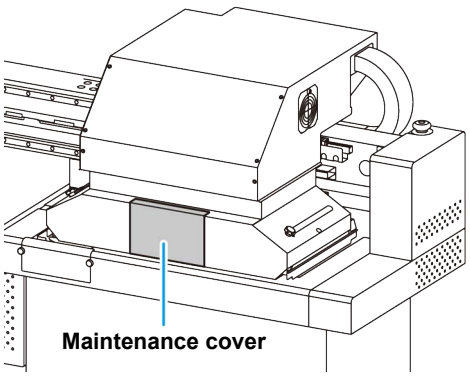
▼

```
SET TOOL
START              [ENT]
```

## 4 Open the maintenance cover.

Important!

- After the work has been completed, attach the removed cover as soon as possible. If you leave it for a long time, UV light may affect ink.



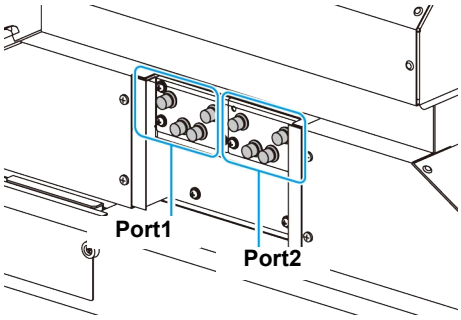

## 5 Press the ENTER key.

```
SET TOOL
COMPLETED          [ENT]
```

Important!

- Until the air purge jig setting is completed, [COMPLETED [ENT]] is displayed on the screen. After the work up to the Step 8 is completed, press the ENTER key.

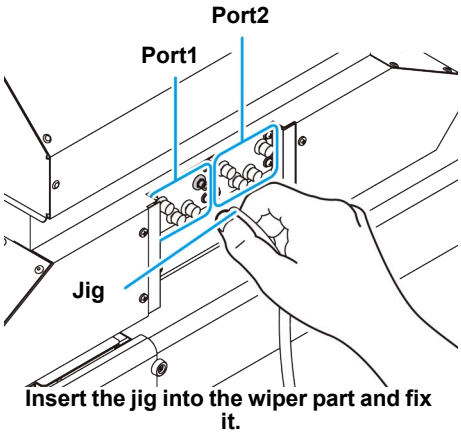
## 6 Open, one at a time, the ink port caps on the side you selected in step 3.




Important!

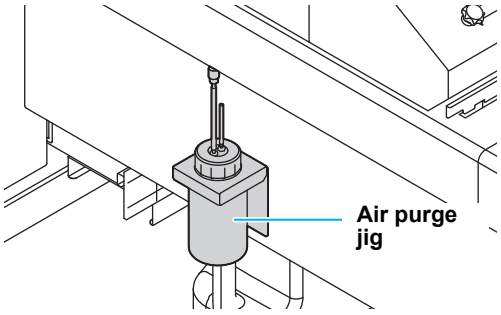
- Be sure to carry out air purging on only one port at a time.
- Do not open the port cap at the side you did not select in the Step 3. If you open the cap, air is mixed from here.
- When the valve is hard to open, use the attached longnose pliers and open.

## 7 Set the air purge jig to the ink port valve.




Important!

- There is a magnet attached to the air purge jig's bottle. When attaching the bottle to the unit, attach the bottle to a lower position if possible.




## 8 Press the ENTER key.

```
AIR PG
START              [ENT]
```

## 9 Discharge ink or purge air.

```
AIR PG             [PURGE]
COMPLETED          [ENT]
```

- Press the ENTER key to release air from the machine, and completely discharge the ink and other fluids.
- Discharge mixed ink or air completely. When it is discharged completely, clear ink (not mixed) is discharged.
- The buzzer will keep sounding at a fixed interval while ink is being discharged.
- After about 15 seconds, ink discharging will stop automatically and the buzzer will stop sounding.

## 10 Press the FUNCTION key to weaken ink discharge.

- Press the FUNCTION key to enable ink discharge using minute negative pressure in the machine so that ink cannot easily leak. Be sure to always press the FUNCTION key so that minute negative pressure is applied in the machine before attaching or removing the jig.

**11** **Perform the procedures from 9 to 10 on all ports which have to be purged the air.**

- Attach the jig to the port from which you want to purge air and press the FUNCTION key to release air from the machine.

Caution

- The carriage might move rapidly. Be careful not to place hands, your head or other body parts near the carriage.
- Be sure to always press the FUNCTION key so that minute negative pressure is applied in the machine before attaching or removing the jig.

**12** **Press the ENTER key.**

```
AIR PG
COMPLETED          [ENT]
```

**13** **Press the ENTER key.**

```
REMOVE TOOL
START              [ENT]
```

**14** **Remove the jig and attach the cap.**

- When you have removed the jig, quickly attach the cap.

**15** **After attaching the cap, press the ENTER key.**

- Negative pressure control restarts and wiping begins.

```
REMOVE TOOL
COMPLETED          [ENT]
```

```
    PLEASE WAIT
```

**16** **Press ◀ ▶ and select "END" or "RETRY".**

- If "END" is selected, cleaning is performed.
  When cleaning is completed, continue to Step 18.
- If "RETRY" is selected, the display returns to the screen of Step 2.
  Select the other port and perform air purging.

```
AIR PG
END <            > RETRY
```

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

**18** **Close the maintenance cover.**

Important!

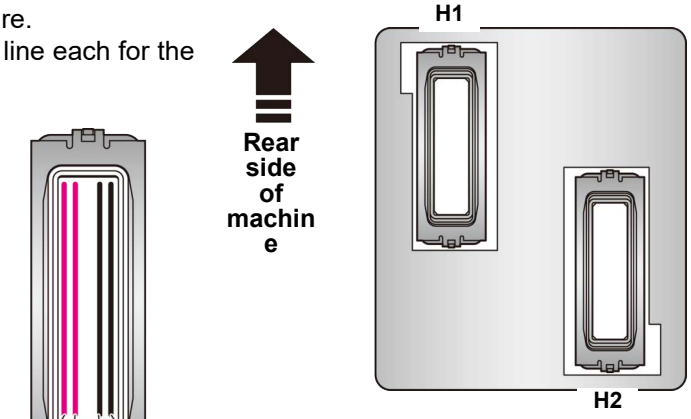
- After the work has been completed, attach the removed cover as soon as possible. If you leave it for a long time, UV light may affect ink.

# 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.

The head of this machine consists as the right figure.
You can set the recovery by specifying the nozzle line each for the H1-2 (Head 1-2).

- About nozzle line
- This machine is equipped with four nozzle lines (Line A, Line B, Line C and Line D) for one head.




## 1 Select [NOZZLE RECOVERY] of the maintenance menu.

**(1)** Press the FUNCTION key in LOCAL.
**(2)** Press ▲ ▼ to select [MAINTENANCE] and press the ENTER key.
**(3)** Press ▲ ▼ to select [NOZZLE RECOVERY].
**(4)** Press the ENTER key.

## 2 Press ▲ ▼ to select [PRINT] and press the ENTER key.

```
NOZZLE RECOVERY
:PRINT
```

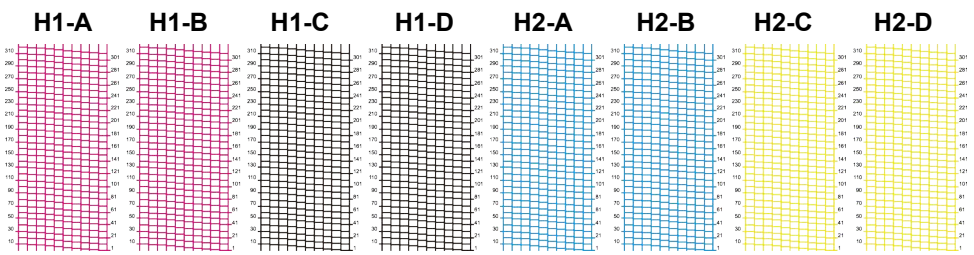
```
NOZZLE RECOVERY
:PRINT          [ENT]
```

## 3 Press the ENTER key to start printing.

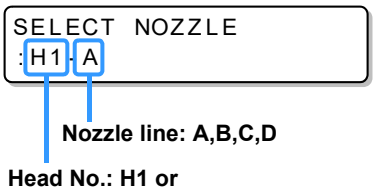
```
** PRINTING **
PLEASE WAIT
```

- The nozzle pattern is printed.
- When you select “ENTRY” in the Step 2, the machine moves to the nozzle line selection procedures (Step 5) without printing a nozzle pattern.

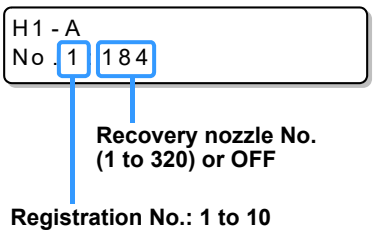
**Nozzle pattern**



## 4 Press ▲ ▼ to select the Nozzle line that needs NOZZLE RECOVERY and press the ENTER key.




## 5 Register the Nozzle number that needs NOZZLE RECOVERY and press the ENTER key.

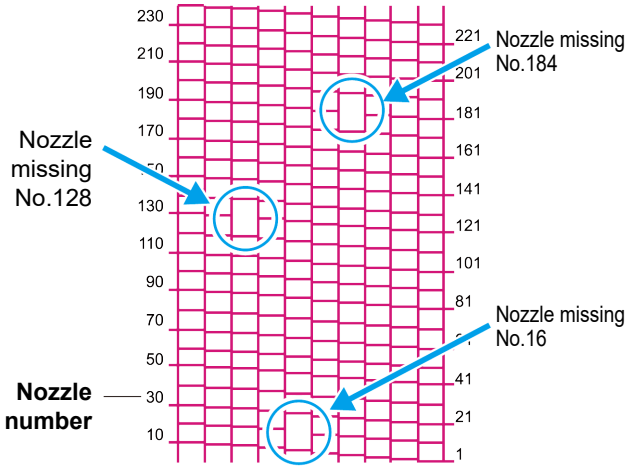



**(1)**

Select the registration number from 1 to 10 by pressing ▲ ▼ and press the ENTER key.

**(2)** Register the nozzle number that needs recovery by pressing ▲ ▼ and press the ENTER key.

**Example of nozzle to be recovered**




| 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 |

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

Important!

- Up to 10 nozzles can be registered per 1 nozzle line.
- Even if you use this function, time required for printing does not change.
- For the lowest number of paths of the printing mode, the NOZZLE RECOVERY function is invalid.
- Even if you register the NOZZLE RECOVERY, the pattern of test print etc. is not recovered.

- When you use white ink, print on the clear film to check.

## Check if the registered nozzle is recovered

You can check whether registered nozzle has been successfully recovered.
With the following settings “ON”, you can print a test pattern using a recovered nozzle when test print (☞ P.2-14).

**1** **Select [NOZZLE RECOVERY] of the maintenance menu.**

**(1)** Press the FUNCTION key in LOCAL.
**(2)** Press ▲ ▼ to select [MAINTENANCE] and press the ENTER key.
**(3)** Press ▲ ▼ to select [NOZZLE RECOVERY].
**(4)** Press the ENTER key.

**2** **Press ▲ ▼ to select [CONFIRM MENU] and press the ENTER key.**

**3** **Press ▲ ▼ to select “ON” and press the ENTER key.**

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

- When test print with the recovered nozzle that was registered in the nozzle recovery, please select “ON” in step 3 of P.2-14 “Test Printing”.

## At the time of the start of printing, check whether or not there is a nozzle that can not be recovered

Depending on the print conditions that have been set, there are times when it can not be recovered even register the nozzle recovery.
With this setting, whether recoverable or not can be checked and the operation for non recoverable case can be selected.

### 1 Select [NOZZLE RECOVERY] of the maintenance menu.

**(1)** Press the FUNCTION key in LOCAL.
**(2)** Press ▲ ▼ to select [MAINTENANCE] and press the ENTER key.
**(3)** Press ▲ ▼ to select [NOZZLE RECOVERY].
**(4)** Press the ENTER key.

### 2 Press ▲ ▼ to select [CHECK BEFORE PRINT] and press the ENTER key.

```
NOZZLE RECOVERY
:CHECK BEFORE PRINT
```

### 3 Press ▲ ▼ to select a set value and press the ENTER key.

```
CONFIRM MENU
:ON
```

- **Set value**:OFF, CONTINUE, STOP
- OFF :Does not check at the start of printing.
- CONTINUE :Check at the time of the start of printing. If not recovered, display the right of screen for 3 seconds, and then start printing.

```
1200x1200 32P Hi Bi
UNRECOVERABLE
```

- STOP : Check at the time of the start of printing. If not recovered, display the print confirmation screen. When print, press ENTER.

```
1200x1200 32P Hi Bi
UNRECOVERABLE   [ENT]
```

### 4 Press the END key several times to end the setting.

## Clear the set value

**1** **Select [NOZZLE RECOVERY] of the maintenance menu.**

**(1)** Press the FUNCTION key in LOCAL.
**(2)** Press ▲ ▼ to select [MAINTENANCE] and press the ENTER key.
**(3)** Press ▲ ▼ to select [NOZZLE RECOVERY].
**(4)** Press the ENTER key.

**2** **Press ▲ ▼ to select [CLEAR] and press the ENTER key.**

```
NOZZLE RECOVERY
:CLEAR
```

**3** **Press ▲ ▼ to select the Nozzle line that needs reset the setting value and press the ENTER key.**

```
SELECT CLEAR NOZZLE
:H1-A
```

```
H1-A CLEAR?
EXECUTE          [ENT]
```

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

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

# Automatic Maintenance Function

To use this machine comfortably, you can set various maintenances to be performed automatically.
Here, set performing intervals of various automatic maintenances.
You can prevent troubles such as ink clogging by performing automatic maintenance periodically (automatic maintenance function).
For the auto maintenance functions, the following items can be set:

Important!
- When you perform maintenance manually, after manual maintenance is completed and when time set with the automatic maintenance function has passed, maintenance starts automatically.

| Function name | Descriptions |
|---|---|
| REFRESH | The interval between each refreshing operation is set. |
| CLEANING | The interval between each cleaning operation is set. |

Important!
- During the right message is displayed, the operation set in the auto maintenance function is not carried out. Perform the operations of P.4-35 if required.
- When the power button on the front of the machine is turned off, check the waste ink tank.

<LOCAL>
Check waste ink[MNT]

## Setting the Refreshing Intervals

The interval between each operation of ejecting a small amount of ink from the nozzles to prevent nozzle clogging is set.

**1** **Select [AUTO MAINT.] of the maintenance menu.**

**(1)** Press the FUNCTION key in LOCAL.
**(2)** Press ▲ ▼ to select [MAINTENANCE] and press the ENTER key.
**(3)** Press ▲ ▼ to select [AUTO MAINT.].

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

AUTO MAINT.
REFRESH [ENT]

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

REFRESH
:Lv.1

**4** **Press ▲ ▼ to set the refreshing interval.**

- Set value : OFF, Lv.1, Lv.2, Lv.3
- As the LEVEL increases, the interval between each operation gets shorter.

REFRESH .
:Lv.1

**5** **Press the ENTER key.**

AUTO MAINT.
REFRESH [ENT]

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

# Setting the Cleaning Intervals

The cleaning type and the interval between each cleaning operation are set.

**1** **Select [AUTO MAINT.] of the maintenance menu.**

**(1)** Press the FUNCTION key in LOCAL.
**(2)** Press ▲ ▼ to select [MAINTENANCE] and press the ENTER key.
**(3)** Press ▲ ▼ to select [AUTO MAINT.].
**(4)** Press the ENTER key.

**2** **Press ▲ ▼ to select [CLEANING].**

```
AUTO MAINT.
CLEANING          [ENT]
```

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

```
CLEANING
:Lv.1
```

**4** **Press ▲ ▼ to set the interval between each cleaning operation.**

- Set value : OFF, Lv.1, Lv.2, Lv.3
- As the LEVEL increases, the interval between each operation gets shorter.

```
CLEANING
:Lv.1
```

**5** **Press the ENTER key.**

- When you set other than “OFF” in the Step 4, the cleaning type selection screen is displayed.

```
TYPE
:NORMAL
```

**6** **Press ▲ ▼ to select a cleaning type.**

- **Set value** : NORMAL, SOFT, HARD

```
TYPE
:SOFT
```

**7** **Press the ENTER key.**

```
AUTO MAINT.
CLEANING          [ENT]
```

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

## Replacing the wiper

The wiper is consumable.When the display indicates that it is necessary to replace the wiper, immediately replace the wiper with a new one.
Also, wipe ink sticking to the lower surface of the slider off.

```
<LOCAL>
Replace a WIPER[MNT]
```

Important! • A cleaning wiper is an option.Buy one through the dealer in your region or at our service office.

**1** **When the message is displayed, press the MAINT. key.**

```
REPLACE WIPER
EXECUTE          [ENT]
```

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

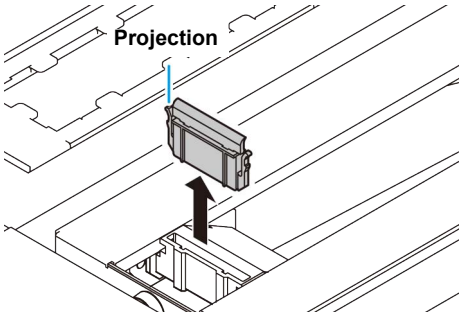
• The carriage moves on the table.

```
REPLACE WIPER
COMPLETED        [ENT]
```

Important! • Until the replacement work is completed, [COMPLETED [ENT]] is displayed on the screen. After the work up to the Step 4 is completed, press the ENTER key.

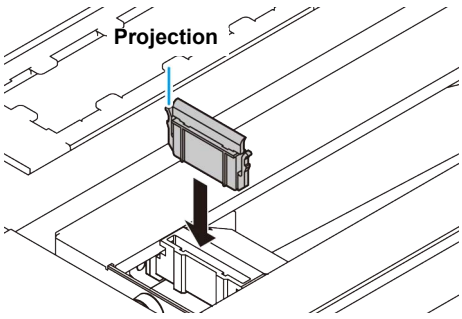
**3** **Remove the wiper.**

• Pull out the wiper by holding the protrusions at its both ends.




**4** **Insert a new wiper.**

• Insert a new wiper by holding its both ends.




**5** **Press the ENTER key.**

• After its initial operation, the machine returns to LOCAL.

```
*Being Initialized*
PLEASE WAIT
```

# If a Waste Ink Tank Confirmation Message Appears

Ink used in head cleaning, etc. is stored in the waste ink tank on the lower right side of the machine. This machine counts the accumulated amount of discharged ink. When that reaches a specified amount, the machine displays a confirmation message.(When this message is displayed, consider the replacement of the waste ink tank.)

- The message is displayed when it reaches 80% (2.1L ) of the 2.6L tank.

## Confirmation Message in LOCAL

**1** **The message on the right is displayed.**

```
<LOCAL>
Check waste ink[MNT]
```

**2** **Check the state of the waste ink tank.**

- When it is different from the actual amount, press ▲ ▼ and correct.
- When you correct (80%), press the ENTER key to return to LOCAL.
- When you replace (disposal) and clear the count, perform the procedures in “Disposing of waste ink”. (☞ P.4-35)

```
<LOCAL>
Level: 80%(1.6L)
```

Important!

- Discard waste ink frequently. If you simply delete the message by pressing the ENTER key, and go on using the printer without disposing of the waste ink, then the waste ink could overflow from the waste ink tank.

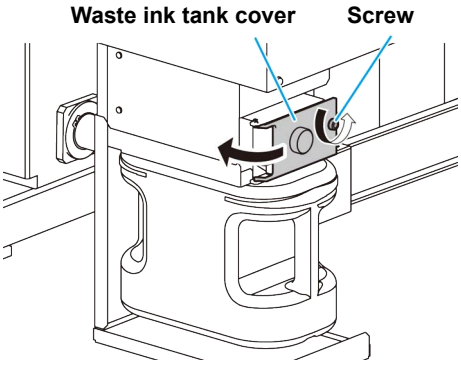
## Disposing of waste ink

Important!

- Be sure to wear the supplied goggles and gloves when disposing the waste ink tank. Otherwise, you may get ink in your eyes.
- Do not replace the waste ink tank while this machine operates (during printing or cleaning).
- When waste ink may spill out during the work, wipe it off with a waste cloth etc.

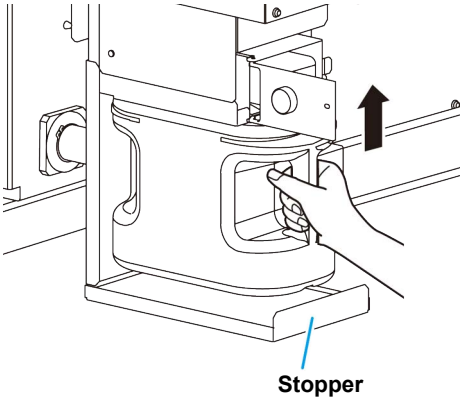
### 1 Open the waste ink tank cover.

- Remove the screw attaching to the waste ink tank cover and open the cover to the front.



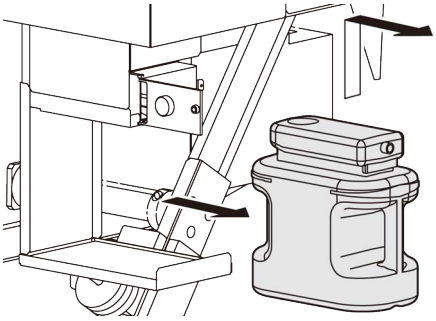

### 2 Lift the waste ink tank a little.

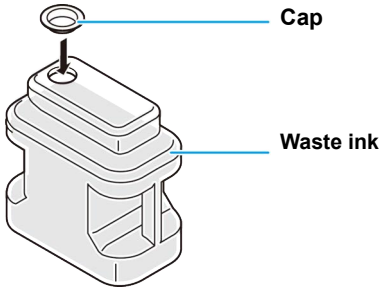
- Lift the waste ink tank up to the position where it does not hit the stopper.




### 3 Take out the waste ink tank.

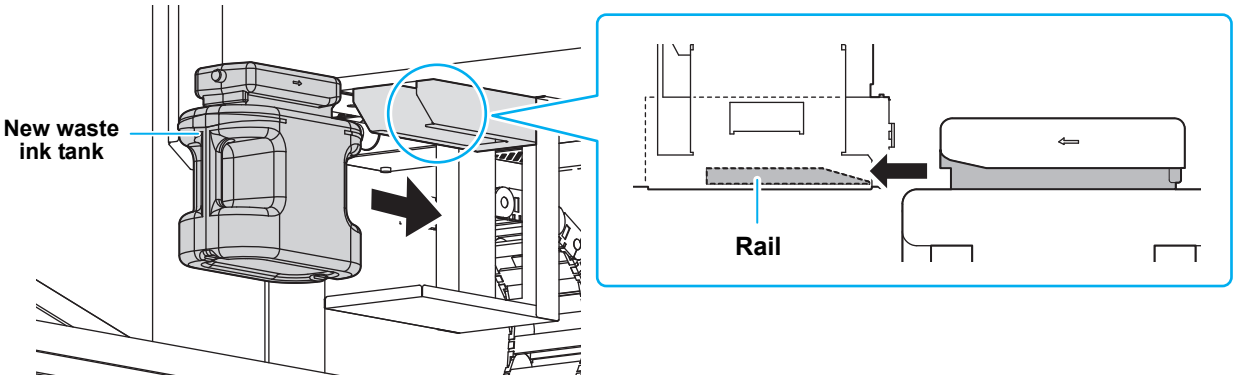
**(1)** Hold the handle of the waste ink tank and pull it out to the front.
**(2)** Put a cap on the waste ink tank removed.





## 4 Replace the waste ink tank.

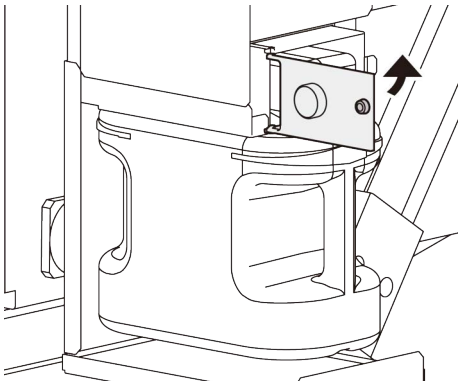
**(1)** Prepare a new waste ink tank (SPA-0197).
**(2)** Hold the handle of the waste ink tank and insert it along the rail.
**(3)** Raise the waste ink tank, and check that it is set just below the waste ink discharging spout.




- Request the treatment of waste ink for an industrial waste disposal contractor.
- A part of the ingredients (photo polymerization initiator) has toxicity against aquatic organisms. Please prevent leakage flow to natural water systems (river, etc.) and domestic sewages (toilet, road, etc.)

## 5 Close the waste ink tank cover.

- When the machine recognizes the waste ink tank, the warning message is released.



## Replacing the waste ink tank before the waste ink tank confirmation message is displayed

if you replace the waste ink tank before the waste ink tank confirmation message is displayed (before the 2L tank is 80% (1.6L) full), set the waste ink information to 0% in the Information menu.

**1** **Perform steps 3 through 6 in "Disposing of waste ink" (☞ P.4-35) to empty the waste ink tank.**

**2** **Press the (FUNCTION) key in LOCAL.**

```
FUNCTION
SETUP                [ENT]
```

**3** **Press (▲)(▼) to select [INFORMATION].**

- For the firmware version 1.90 or later, you can also run from the maintenance menu. For the performance from the maintenance, please refer to P4-32.

```
FUNCTION
INFORMATION          [ENT]
```

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

```
INFORMATION
USAGE                [ENT]
```

**5** **Press (▲)(▼) to select [USAGE].**

**6** **Press the (ENTER) key several times until the waste ink tank information is displayed.**

```
WASTE INK TANK
=                    60%
```

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

```
Confirm a waste tank
Level: 60%(1.2L)
```

**8** **Press (▲)(▼) to set the level "0%".**

```
Confirm a waste tank
Level:  0%(0.0L)
```

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

## Replacing the waste ink tank before the waste ink tank confirmation message is displayed

Set the waste ink information to 0% in the maintenance menu.

**1** **Perform steps 3 through 6 in "Disposing of waste ink" (☞ P.4-35) to empty the waste ink tank.**

**2** **Press the FUNCTION key in LOCAL.**

```
FUNCTION
SETUP              [ENT]
```

**3** **Press ▲ ▼ to select [MAINTENANCE].**

```
FUNCTION
MAINTENANCE        [ENT]
```

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

```
MAINTENANCE
STATION            [ENT]
```

**5** **Press ▲ ▼ to select [InkTankExchange].**

```
MAINTENANCE
InkTankExchange    [ENT]
```

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

- When you press the ENTER key, the waste ink information will be 0%.

```
WASTE INK TANK
=                   60%
```

When you run this menu, it will be the same state as that from the usage to 0% on the previous page.

## Ink bottle cap replacement

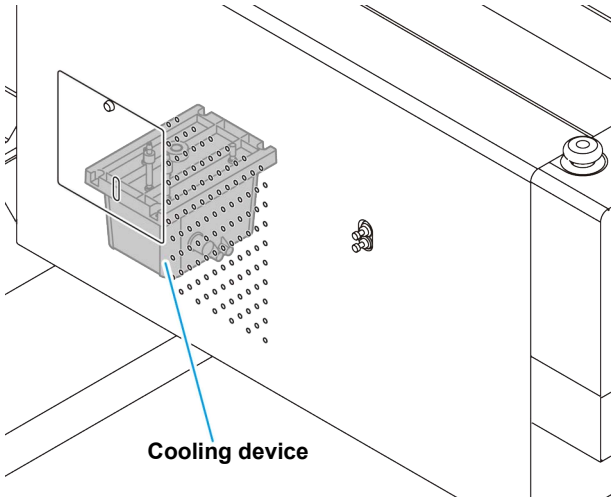
Replace the ink after about one year. For the replacement method, refer to ☞P.1-15「Replace the ink bottle」

- Pay close attention to ventilation and be sure to wear safety glasses, gloves, and a mask when handling ink, maintenance liquid, waste ink, or other solutions used with the machine. Leaking ink may adhere to the skin or get into the eyes or mouth.

.

# Refilling antifreeze mixed water

To cool the LED UV unit, put antifreeze mixed water into the cooling water tank in the cooling device.




## Note on refill

- Water and antifreeze liquid compound ratio should be 2(water) to 1(Antifreeze liquid).
- When only water is supplied to the cooling water tank without antifreeze liquid, it may damage the UV unit by freeze.
- When only antifreeze liquid is supplied to the cooling water tank without water, the machine does not work properly, and may cause an error.
- If water in the cooling water tank 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.
- Antifreeze mixture precautions

  (1)Be sure to use water that satisfies the following conditions.
  - •Calcium content: Not exceeding 10 mg/L (1 mg/100 ml).
  - •Hardness: Not exceeding 60 mg/L.
  - •Distilled or purified water.

  (2)Do not use antifreeze mixture that has been prepared far in advance.

  (3)Any excess antifreeze mixture must be used within one week. Filling the machine with antifreeze mixture that has been prepared more than one week in advance may lead to a malfunction.

## Precautions in handling the antifreeze liquid

- Be sure to wear goggle and gloves for handling the antifreeze liquid.
- Use the recommended antifreeze liquid by Mimaki. If not, the cooling device may be broken. (Supplied antifreeze liquid :1000cc x 2 bottles)
- Do not touch the antifreeze liquid directly. If the antifreeze liquid settles on your 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 (SDS).
- Prepare a tank with a cap to put in the waste water from cooling water tank.
- When water in the cooling water tank is low, an error message is displayed. In this case, replace water in the same way shown as the next page.

```
<LOCAL>
WATER  LACK
```

# Refill cooling water

If an error of lack of water, refill cooling water. To fill up its capacity, about 500cc refill is required.

Important!

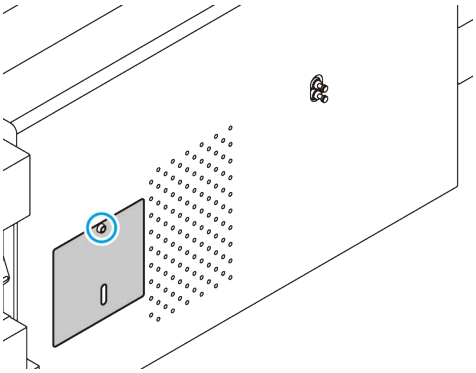
- If leave the error message of lack of water without refilling cooling water after one week, the error display on the display switches to "REFIL WATER". While this error is on the display, you can not switch to <Remote>. Immediately, replenish the cooling water.

<LOCAL>
REFILL WATER

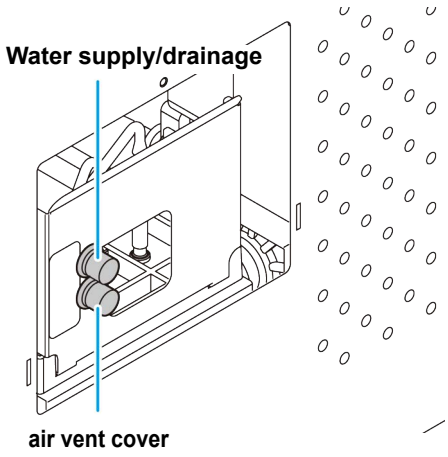
- When continue to use with the error of lack of water and the temperature error/warning of the LED-UV occurs, the display shows “REFIL WATER” and can not switch to <Remote>.

## 1 Remove the cover of the left rear surface of the Y bar.

- Remove the screws (for one position) indicated with circles in the figure and remove the cover.



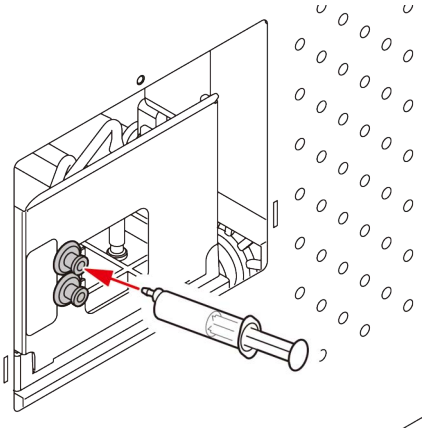
## 2 Uncover the water supply/drainage and air vent cover.




## 3 Made mixed water (antifreeze liquid: 1, water: 2) in the attached reservoir and move it to the attached syringe.

## 4 Refill antifreeze liquid.

- Fill the antifreeze liquid from the feed-water inlet.
- Fill the syringe with mixed water and inject while checking the level indicator. Stop injecting when the red part is visible.



Important!

- Be sure to check the level indicator as you inject the mixed water. If you fail to check the indicator and inject too much mixed water, the mixed water will leak from the tank.

## 5 Close the feed-water inlet and the air purge cover, and attach the cover of the left rear surface of the Y bar.

# Exchange the flushing filter

| Tools required for Exchabge | • Maintenance liquid (SPC-0568) | | |
|---|---|---|---|
| | • Waste cloth | • Gloves | • Goggles |

Caution

- Be sure to wear the supplied goggles and gloves when exchanging theflushing filter. Since the ink is absorbed in the Flushing filter, you may get ink in your eyes.

## If a Flushing Filter Exchange Message Appears

The flushing filter needs to be replaced periodically.
Replace the flushing filter when a replacement message such as shown below appears.

**1** **When it is time to replace the flushing filter, the message on the right will appear.**

```
FLUSHING FILTER
PLEASE          [ENT]
```

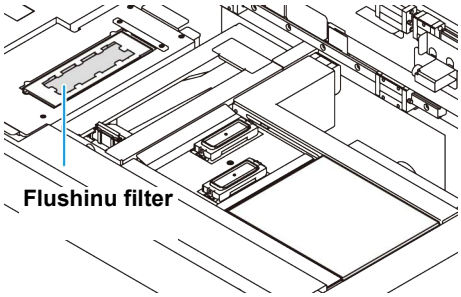
**2** **Press the ENTER key.**

- The carriage will move, then the message on the right will appear.

```
EXCANGE
COMPLETED
```

**3** **Excahange the flushing filter, and then press the ENTER key.**

- The carriage will return to the station, and the mode will return to LOCAL.



# Replacing the flushing filter before the replacement message is displayed

## 1 Select [STATION] of the maintenance menu.

**(1)** Press the FUNCTION key in LOCAL.
**(2)** Press ▲ ▼ to select [MAINTENANCE] and press the ENTER key.
**(3)** Press ▲ ▼ to select [STATION].
**(4)** Press the ENTER key.

## 2 Press ▲ ▼ to select [FLUSHING FILTER].

```
STATION
FLUSHING FILTER[ENT]
```

## 3 Press the ENTER key.

```
CARRIAGE OUT
START          [ENT]
```

## 4 Press the ENTER key.

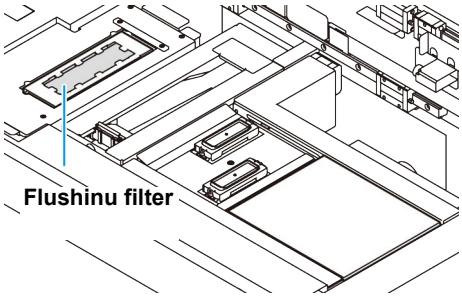
```
EXCANGE
COMPLETED      [ENT]
```

Important!

- Until filter exchange is competed, [COMPLETED [ENT]] is displayed on the screen. After the work up to the step 5 is completed, press the ENTER key. If you press the ENTER key before exchange is completed, the machine moves to the next procedure.

## 5 Excahange the flushing filter, and then press the ENTER key.

- The carriage will return to the station, and the mode will return to LOCAL.



# Ionizer maintenance

- Before taking care of it, be sure to turn off the main power switch of the main body. You may get an electric shock. Also, you may get injured collaterally.
- Do not touch the electrode probe directly. You may get injured. Be careful to work.
- After cleaning, fully dry it and then attach it to the ionizer to use.
- When maintenance liquid remains on the electrode probe, it may cause an accident or failure of the machine.The cleaning alcohol may touch your skin or get in your eyes.
- Do not touch the electrode probe with a hard thing such as a tool. It may cause an accident or failure of the machine.

| | | | |
|---|---|---|---|
| **Tools required for maintenance** | • Maintenance liquid (SPC-0568) | | |
| | • Alcohol | • Gloves | • Goggles |

## Cleaning the Electrode Probe Appears

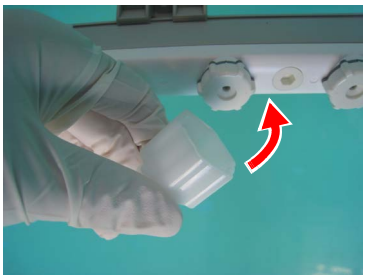
Check the electrode probe before the work and clean it if it is dirty.

- Do not touch the electrode probe directly. You may get injured. Be careful to work.
- Do not touch the electrode probe with a hard thing such as a tool. It may cause an accident or failure of the machine

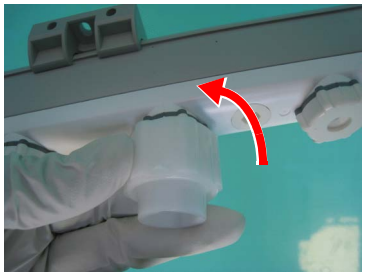
**1** **Remove the electrode probe from the ion the flushing filter, the message on the right will appear.**

• By using the attached electrode probe replacement kit, you can remove it easily.

**(1)** Put the replacement kit to the electrode probe.



**(2)** Remove the electrode probe.



**2** **Wipe off the electrode probe and around it with a cotton swab immersed in alcohol.**

• Recommended: ethyl alcohol, isopropyl alcohol

**When it is very dirty**

• Use an ultrasonic bath.
Also, you can use alcohol as maintenance liquid.

Caution

• After cleaning, fully dry it and then attach it to the ionizer to use.
If cleaning liquid remains on the electrode probe, it may cause an accident or failure of the machine.

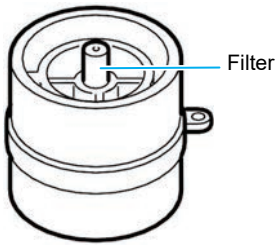
# Clean with Electrode Probe Cleaning Kit (SPA-0237)

Explain the filter exchange method of Electrode Probe Cleaning Kit (SPA-0237).

Caution

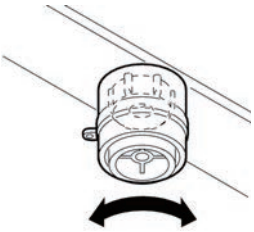
- Do not touch the electrode probe directly. You may get injured. Be careful to work.
- Do not touch the electrode probe with a hard thing such as a tool. It may cause an accident or failure of the machine.

## 1 Soak the filter of electrode probe cleaning kit for the cleaning unit in alcohol.



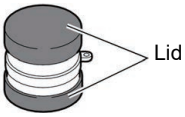

## 2 Vover the electrode probe cleaning kit, and gently turn two or three times.

- The filter of electrode probe cleaning kit wipes away stains on the electrode probe.
- If it is very dirty, replace the filter and clean it again.



**Soak the Cleaning Kit**

- Lids are included with the cleaning kit to prevent dust from entering the cleaning kit during storage. Always put the lids on when storing.
- Also, a cord can be passed through the strap hole so that the kit can be hung on a wall. Be sure to put on the lids during this storage method as well. (Please prepare a strap on your own.)




**Cleaning Kit Replacement Filter**

- After the filter is used to clean multiple electrode probes, dust becomes attached to the filter and the cleaning abilities are reduced.
- When grime becomes attached to the filter, replacement it with an electrode probe cleaning kit replacement filter （SPC-0238）. (sold separately)

## Installing the Filter

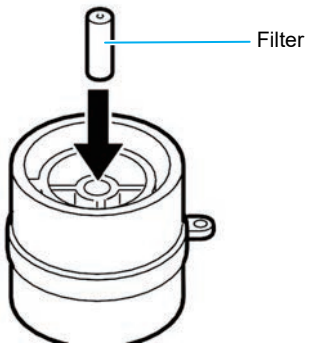
Explain the filter exchange method of Electrode Probe Cleaning Kit (SPA-0237).

**Cleaning Kit Replacement Filter**

- After the filter is used to clean multiple electrode probes, dust becomes attached to the filter and the cleaning abilities are reduced.
- If the filter is dirty, replace with Electrode Probe Cleaning Kit included instead filter or exchange for optional cleaning kit of filters, (SPC-0238).

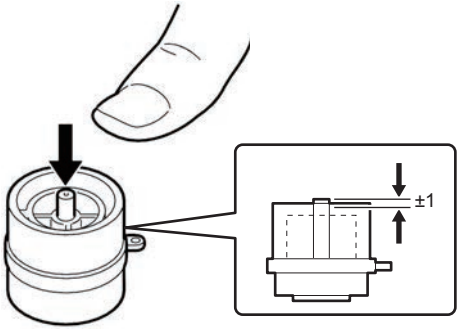
**1** **Remove the used filter and insert the new filter into the hole at the center of the electrode probe cleaning kit.**

- Be careful of the way the filter is facing. Install the filter with the hole side up.




**2** **Push the filter all the way into the cleaning kit.**

- Mounting position of the filter to be set in ±1mm to the end faces.
- Push the filter completely inside to prevent it from bending.



# Clean the electrode inner wall

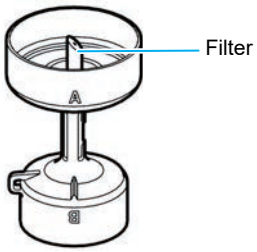
Electrode Probe Cleaning Kit 2 (SPA-0239) is used to clean the inner wall of the electrode probe cap.
When clean the tip of the electrode Probe, please use Electrode Cleaning Kit (SPA-0237).

| | | | |
|---|---|---|---|
| **Tools required for maintenance** | • Electrode Probe Cleaning Kit 2 (SPA-0239) | | |
| | • Alcohol | • Gloves | • Goggles |

Caution

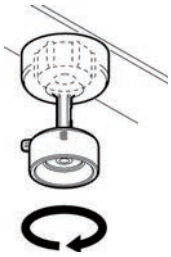
- Do not touch the electrode probe directly. You may get injured. Be careful to work.
- Do not touch the electrode probe with a hard thing such as a tool. It may cause an accident or failure of the machine.

**1** **Soak the filter of electrode probe cleaning kit 2 for the cleaning unit in alcohol.**




**2** **Cover the electrode probe cleaning kit 2, and gently turn two or three times.**

- The filter of electrode probe cleaning kit 2 wipes away stains on the electrode probe.
- If it is very dirty, replace the filter and clean it again.



## Installing the Filter

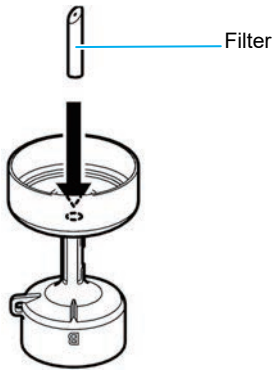
Explain how to replace the filter of Electrode Probe Cleaning Kit 2(SPA-0239).

**Cleaning Kit 2 Replacement Filter**

- After the filter is used to clean multiple electrode probes, dust becomes attached to the filter and the cleaning abilities are reduced.
- If the filter is dirty, replace with Electrode Probe Cleaning Kit 2 included instead filter or exchange for optional cleaning kit of filters, (SPC-0240).

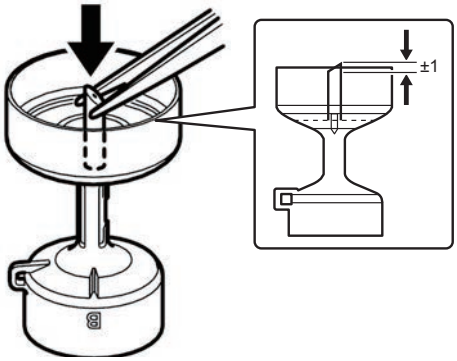
**1** **Remove the used filter and insert the new filter into the hole at the center of the electrode probe cleaning kit 2.**

- Be careful of the way the filter is facing. Install the filter with the diagonally tip side up.



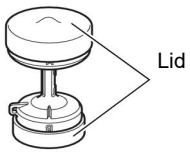

**2** **Push the filter using tweezers all the way into the electrode probe cleaning kit 2.**

- Mounting position of the filter to be set between 0 to 2mm to the end faces.
- Push the filter completely inside to prevent it from bending.



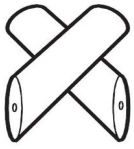

**Soak the Cleaning Kit**

- Lids are included with the cleaning kit 2 to prevent dust from entering the cleaning kit 2 during storage. Always put the lids on when storing.
- Also, a cord can be passed through the strap hole so that the kit can be hung on a wall. Be sure to put on the lids during this storage method as well.
  Purchase a strap separately.




**Cleaning Kit Replacement Filter**

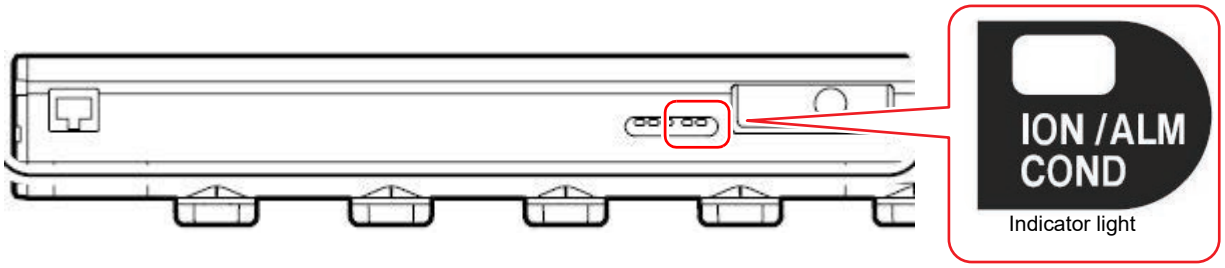
- After the filter is used to clean multiple electrode probes, dust becomes attached to the filter and the cleaning abilities are reduced.
- When grime becomes attached to the filter, replacement it with an electrode probe cleaning kit replacement filter （SPC-0238）. (sold separately)



# Alarm output function

This ionizer has the function to output alarms.

## ● Alarm output part




## ● Alarm function

| Item | Alarm (ALM) | Ion level (ION) | Condition (COND) |
|---|---|---|---|
| **Indication** | Indicator light blinks three times about every second. | Indicator light blinks twice about every second. | Indicator light blinks. once about every second |
| **Status etc.** | Internal circuit has been broken. Abnormal discharge occurs. | Due to blot on the electrode probe and wear of it, ion production has decreased. Use this as a guide for time to take care of the electrode probe. | The installed environment (temperature, humidity, peripheral metals, etc.) have affected the performance to remove electricity. |
| **Removing electricity** | Removing electricity stops. | Removing electricity continues. | Removing electricity continues. |
| **Countermeasure** | Contact a distributor in your district or our office. | Take care of the electrode probe.*1 If the status cannot be improved, replace the relevant electrode probe. | Check the environment and peripheral metals. |
| **Replacement part** | ——————— | SPA-0208 Tungsten electrode probes for ionizer (including 4) | ——————— |

*1. Before taking care of the electrode probe, turn off the main power of the main body, and be careful to perform the work.

# Chapter 5
# Troubleshooting

**This chapter**

describes the corrective measures to be taken for a phenomenon suspected to be trouble and the procedures to clear the error number displayed on the LCD.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# Troubleshooting

Check again before deciding the trouble as malfunction. If there is no improvement even after troubleshooting, contact your local distributor, or our sales office or call center.

## Power does not turn on

In most cases, this is due to improper connection of the power cable for the machine or computer. Check that the power cable is connected properly.

| | | |
|---|---|---|
| **Has the power cable been connected between the machine and a power plug socket ?** | **No** → | Securely connect the power cable. |
| **Is the power button located on the front of machine "ON" ?** | **No** → | Turn on the power button on the front of the machine. (☞ P.2-3) |
| **Is the emergency switch pressed?** | **Yes** → | Pull the emergency switch upward (or rotate), release it. Then, turn on the main power switch. (☞ P.2-3) |

## The machine does not start printing

This occurs when the data is not being transmitted to the machine properly.
It can also occur when the printing function does not work properly or the media is not set correctly.

| | | |
|---|---|---|
| **Is the correct interface cable used ?** | **No** → | Use the cable exclusive for the device. |
| **Is the interface cable properly connected ?** | **No** → | Securely connect the interface cable. |
| ↓ **Yes** | | |
| **Is the message on the display indicating that ink has run out ?** | **Yes** → | Replace the ink bottle with a new one. |

# Image quality is poor

This section describes the corrective actions to be taken in case the image quality is not satisfactory.
Take remedy for particular problems with image quality. If the remedy does not work, contact your dealer or an office of MIMAKI.

| Phenomenon | Measures |
|---|---|
| **White lines / blur / dark stripes (in the direction of travel of the heads)** | **(1)** Execute the head cleaning. (☞ P.2-15)<br>**(2)** Perform maintenance of the inside of the station. (☞ P.4-5) |
| **Disagreement in print positions between outward trip and homeward trip** | **(1)** Execute the [DROP POSITION] function. (☞ P.3-26) |
| **Ink drops falling on media during printing** | **(1)** Execute the wiper cleaning. (☞ P.4-5)<br>**(2)** Execute the ink cap cleaning. (☞ P.4-5)<br>**(3)** Clean around the head. (☞ P.4-9)<br>**(4)** Execute the head cleaning [NORMAL]. (☞ P.2-15)<br>**(5)** Set a shorter interval of INTERVAL WIPING operation. (☞ P.3-39) |

# Nozzle is clogged

Important!

- When nozzle clogging is not dissolved even after the head cleaning referring to P.2-15, make sure the recovery the nozzle by the operations of P.4-17.

## Ink bottle warning appears

If an ink bottle trouble is detected, the bottle LED “red” is lit, and a warning message appears.
None of printing, cleaning and all the other operations that use ink is available.
If an abnormality occurs, perform the following procedures:

- Check that the IC chip in the ink cover is correctly set.
- Replace the ink bottle in question immediately.

Important!

- Once ink bottle trouble is displayed, do not leave the ink bottle without replacing it for a long time; otherwise, the machine will lose the nozzle clogging prevention function.
  If nozzles are clogged, the machine must be repaired by MIMAKI's service engineer.

## When the ink leakage occurs

If the ink leakage occurs, unplug the power plug to turn off the main power switch, and contact our service office or distributor.

### Displaying the description of ink bottle trouble

The contents of ink bottle error are confirmable by the following operations.

**1** **Press the ENTER key in LOCAL.**

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

- When multiple bottle defects occur and if you press the ENTER key or ◀ ▶, they are displayed by turns.

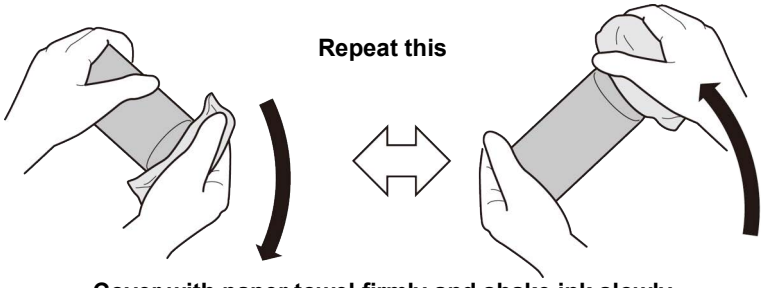
# If a Message “SHAKE WHITE INK BOTTLES” Appears

White ink tends to settle, so you must periodically shake the ink bottles.
If using white ink, a message will be displayed periodically instructing you to shake the white ink bottle. Follow the procedure below to shake the white ink bottle.

## 1 Take out the white ink bottle, and slowly shake it twenty times and more.

- To prevent ink from leaking when you shake it, wear gloves and cover the ink bottle cap with a paper towel etc. Being in that status, slowly shake it twenty times and more by flowing ink.

- Before shaking it, check that the cap is firmly closed.
- If you shake it too strong, it may cause ink leakage. Therefore, perform this carefully.
- If the remaining amount of ink is less, ink in the bottle cannot be beaten enough. Tilt the ink bottle until it becomes vertical.



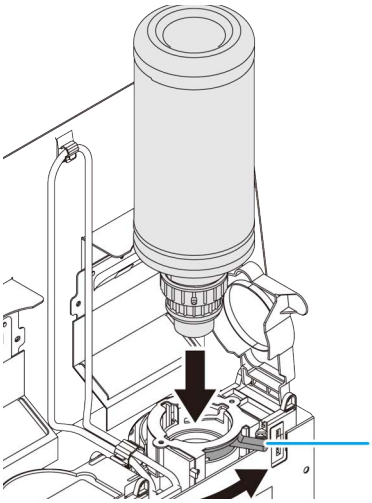

**Cover with paper towel firmly and shake ink slowly**

## 2 Set the white ink bottle on the tank, and move the lever on the tank completely from the right to the left side.

- Set the ink bottle while moving the lever on the tank completely to the right.

Important!

- Do not ever rotate the ink bottle at all after setting it into the tank.
  Doing so can result in ink leakage.




## 3 Press the ENTER key.

## If an error related to the sub tank occurs (Error 618 to 61b)

The Error 618 to 61b are related to the sub tank.
Execute following procedures when an error about sub tank occurs, or when the nozzle is not unclogged after cleaning.

**1** **Select [SUB TANK] of the maintenance menu.**

**(1)** Press the FUNCTION key in LOCAL.
**(2)** Press ▲ ▼ to select [MAINTENANCE] and press the ENTER key.
**(3)** Press ▲ ▼ to select [SUB TANK].

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

```
SELECT SUBTANK
:MMKKCCYY
```

**3** **Press ▲ ▼ ◀ ▶ and select a sub tank to be maintained.**

```
SELECT SUBTANK
:MMCC____
```

- ◀ ▶ : Select a sub tank.
- ▲ ▼ : Select whether you perform maintenance or not.
- If Error 61b occurs, an appropriate head is selected. Press ENTER key.

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

```
SUB TANK
EXECUTE          [ENT]
```

**5** **Press the ENTER key.**

- The automatic discharging operation and the filling operation are performed.

```
** FILL UP **
 PLEASE WAIT
```

- Then, cleaning is performed.

```
** CLEANING **
 PLEASE WAIT
```

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

# If negative pressure abnormality occurs

By the environment or aging, the pressure controlled in this machine may exceed the control range.
If an error related to pressure abnormality occurs, perform the procedures below:

Important!

- If pressure abnormality occurs, immediately adjust the pressure with the following procedures and return it to the normal value.

## 1 Select [PRESSURE ADJUST] of the maintenance menu.

**(1)** Press the FUNCTION key in LOCAL.
**(2)** Press ▲ ▼ to select [MAINTENANCE] and press the ENTER key.
**(3)** Press ▲ ▼ to select [PRESSURE ADJUST].

## 2 Press ▲ ▼ to select POSITIVE or NEGATIVE.

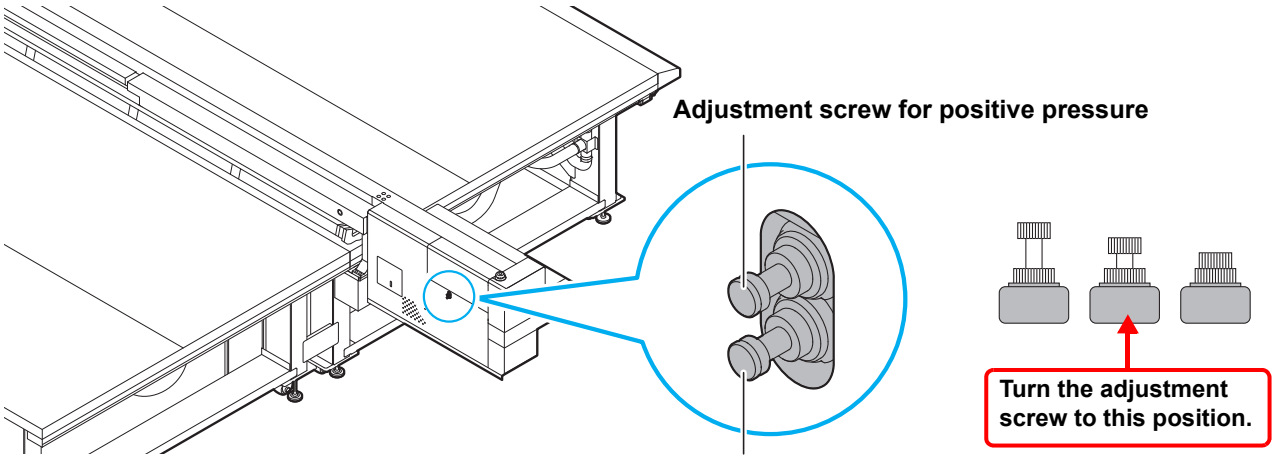
```
PRESSURE ADJUST
:NEGATIVE
```

## 3 Press the ENTER key.

```
Open Throttle Valve
COMPLETED        [ENT]
```

## 4 Rotate the adjustment screw of the throttle valve to release it so that air can flow.

- Rotate it until the adjustment screw of the throttle valve comes to the middle position.




## 5 Press the ENTER key.

- Sensor adjustment starts.

```
** ADJUSTING **
PLEASE WAIT
```

## 6 Rotate the adjustment screw of the throttle valve to adjust the pressure so that it becomes the proper value.

```
PRESSURE
=              -2.70kPa
```

- Proper value of negative pressure: -2.70kPa
  Proper value of positive pressure: 15.00kPa
- As the negative pressure changes between ±0.1 and 0.2kPa, adjust so that the intermediate value may become the target pressure.
- Adjust the throttle valve in order of “negative pressure” → “positive pressure” → “negative pressure”.

**7** **Press the ENTER key.**

• The error is released and the negative pressure control starts.

Important!

• When an error occurs even after you adjusted the pressure, contact your local distributor to call for service.

## If PL ENC SNS(L)/(R) occurs

PL ENC SNS(L)/(R) error indicates poor sensitivity of the encoder used to correct travel distance in the feeding direction.
When this error occurs, restart the printer.
If this error occurs again after restart, contact your local distributor to call for service.

The image quality may lower before the service engineer arrives. In this case, you can perform printing by setting [MACHINE SETUP]/[PRINT MODE] to [PRIORITY:SPEED].
For the setting procedure, refer to P.3-46 "Setting Print Mode".

## If a message "EXECUTE <AIR PG>" appears

To discharge ink remaining in the head, the "EXECUTE <AIR PG>" screen appears periodically.

Press the ENTER key and execute [MAINTENANCE] - [AIR PG].
If you do not execute [MAINTENANCE] - [AIR PG], the screen appears in the next day again.

If the process is executed, the screen does not appear for a certain period of time.

# Warning / Error Messages

If some trouble occurs, the buzzer sounds and the display shows a corresponding error message.
Take an appropriate remedy for the displayed error.

## Warning messages

### Errors when performing operations

| Message | Cause | Solution |
|---|---|---|
| CAN'T OPERATE<br>INK ERROR | An ink error occurred. | • Check the ink bottle for the supply path corresponding to the indicated color. |
| CAN'T OPERATE<br>DATA REMAIN | Data was received. | • Perform data clear. (☞ P.2-17) |

### Message displayed in LOCAL

| Message | Cause | Solution |
|---|---|---|
| <LOCAL><br>Can'tPRINT/CART.[ENT] | Ink errors (unusable ink) occur in multiple ink bottles.<br>Ink supply (print, cleaning, etc.) cannot be performed. | • Press the ENTER key to check the ink bottle generating the warning.<br>Replace them with usable ink bottles. |
| <LOCAL><br>Check waste ink[MNT] | The waste ink tank is nearly full. | • Check the waste ink tank. |
| <LOCAL><br>Replace a WIPER[MNT] | Time to replace the wiper in the capping station with a new one has come. (The wiping count has reached the specified value.) | • Press the MAINT. key and replace the wiper with a new one. (☞ P.4-33) |
| <LOCAL><br>DATA REMAIN | The data has been received. | • Press the  key to perform printing. Or, perform data clear. |
| <LOCAL><br>WATER LACK | Water in the cooling water tank becomes less. | • Refill cooling water according to P.4-39 “Refilling antifreeze mixed water”. |
| <LOCAL><br>REFILL WATER | It has been 7 days or more since water of cooling water tank is running low. | • Refill cooling water according to P.4-39 “Refilling antifreeze mixed water”.<br>• While this warning is displayed, on-line printing can not be done. |
| <LOCAL><br>UV LAMP TEMP. HIGH | The LED lamp temperature is high. | • Wait for a while until the temperature lowers and the message disappears. |

| Message | Cause | Solution |
|---|---|---|
| <LOCAL><br>NEGATIVE PRESSURE | The value of the negative pressure sensor is abnormal. | • Perform “PRESSURE ADJUST” (☞ P.5-7) of the maintenance. If you cannot adjust it to the normal value, or, even if you perform, it may be displayed, contact your local distributor to call for service. |
| <LOCAL><br>POSITIVE PRESSURE | The value of the positive pressure sensor is abnormal. | |
| <LOCAL><br>INK NEAR END [ENT] | The ink of the ink bottle has been nearly used up.<br>There is little ink in the supply unit. | • Press the ENTER key to check the relevant ink bottle. Be careful because it may be INK NEAR END soon. |
| <LOCAL><br>SUPPLY INK :MMCCYYKK | Ink could not be supplied to the sub tank. | • Perform “SUB TANK” (☞ P.5-6) of the maintenance. Also check the remaining amount of ink in the ink bottle. Even if you performed this, when the message is displayed, contact your local distributor to call for service. |
| <LOCAL><br>SubtankSens:MMCCYYKK | The liquid level sensor abnormality of the sub tank has been detected. | • Turn off the power to the machine and turn it on after a while.<br>• If the same error message appears again, contact your local distributor to call for service. |
| <LOCAL><br>InkOverflow:MMCCYYKK | Overflow from the sub tank has been detected. | • Perform “SUB TANK” (☞ P.5-11) of the maintenance. Even if you performed this, when the message is displayed, contact your local distributor to call for service. |
| <LOCAL><br>TANKlevrlH :MMCCYYKK | Though a certain amount was consumed, there is no change in the sub tank sensor High. | |
| <LOCAL><br>TANKlevrlL :MMCCYYKK | Though a certain amount was consumed, there is no change in the sub tank sensor Low. | |
| <LOCAL><br>MachineTEMP/Hi ***°C | The machine temperature is high. | Adjust the ambient temperature of the installation place. |
| <LOCAL><br>MachineTEMP/Lo ***°C | The machine temperature is low. | |
| <LOCAL><br>Replace SupplyPUMP | The supply pump in the ink path shall be replaced soon. | • The supply pump shall be replaced. Contact a distributor in your district, our office, or our call center. |
| <LOCAL><br>Replace SuctionPUMP | The suction pump in the ink path shall be replaced soon. | • The suction pump shall be replaced. Contact a distributor in your district, our office, or our call center. |
| <LOCAL><br>Replace Ymotor Brush | Time to replace the brush of Y motor has come. | • The brush of Y motor shall be replaced. Contact a distributor in your district, our office, or our call center. |
| SHAKE WHITE INK<br>BOTTLES [ENT] | Time to shake the white ink bottle has come. | • Shake the bottle according to "If a Message “SHAKE WHITE INK BOTTLES” Appears" (☞ P.5-5) of the maintenance. |
| EXECUTE <AIR PG><br>[ENT] | Time to execute air purge has come. | • Perform "If a message "EXECUTE <AIR PG>" appears" (☞ P.5-8) of the maintenance. |

## Ink Error

Ink error is displayed also in the local guidance. (☞ P.3-48)

| Message | Cause | Solution |
|---|---|---|
| NON INK IC<br>:---- YYKK | The IC chip of the ink bottle cannot be read normally. | • Remove the ink bottle generating the warning once and install it again.<br>• If the same warning message still appears, contact your local distributor to call for service. |
| WRONG INK IC<br>:---- YYKK | | |
| KIND OF INK<br>:---- YYKK | The ink of the ink bottle is different in type from the ink currently supplied. | • Check the ink type of the ink bottle generating the warning. |
| COLOR OF INK<br>:---- YYKK | The ink of the ink bottle is different in color from the ink currently supplied. | • Check the ink color of the ink bottle generating the warning. |
| WRONG INK BOTTLE<br>:---- YYKK | An error occurred in the IC chip information of the ink bottle. | • Check the ink bottle generating the warning. |
| NO INK BOTTLE<br>:---- YYKK | The ink bottle is not set on the external ink supply unit. | • Set the ink bottle on the bottle holder with the warning. |
| EXPIRATION<br>:---- YYKK | The ink has expired. | • Replace with new ink or use up as quickly as possible. Printing is possible.<br>☞ P.1-15 "Replace the ink bottle" |
| EXPIRATION(1MONTH)<br>:---- YYKK | The ink is one month past its expiration date and cannot be used. | • Replace with new ink or use up as quickly as possible. Printing is possible.<br>☞ P.1-15 "Replace the ink bottle" |
| EXPIRATION(2MONTH)<br>:---- YYKK | The ink is two months past its expiration date and cannot be used. | • Replace with new ink. Printing is not possible.<br>☞ P.1-15 "Replace the ink bottle" |

# Error messages

When an error message is displayed, eliminate the error according to the chart below.
If the same error message appears again, contact your dealer or an office of MIMAKI to call for service.

| Message | Cause | Solution |
|---|---|---|
| ERROR 04<br>PARAM ROM | There is an abnormality in the parameters. | • Turn off the power to the machine and turn it on after a while.<br>If the same error message appears again, contact your local distributor to call for service. |
| ERROR 108<br>HD CONNECT[12345678] | Head connection can not be confirmed. | |
| ERROR 108<br>HD THERMIS[12345678] | Head temperature can not be read. | |
| ERROR 12a<br>HDC SPEED | An abnormality occurred in the ink discharge waveform. | |
| ERROR 12e<br>Head Failed[xxxx] | Abnormality of the Driver of the Print head. | |
| ERROR 122<br>CHECK:SDRAM | There is no PRAM. | |
| ERROR 128<br>HDC FIFO OVER | Data transmission speed is too fast.<br>Control circuit board is defective. | |
| ERROR 128<br>HDC FIFO UNDER | Data transmission speed is too slow.<br>Control circuit board is defective. | |
| ERROR 129<br>BATTERY EXCHANGE | The battery life end of the internal clock is detected. | • Contact your local distributor to call for service. |
| ERROR 130<br>HD DATA SEQ | Head data transferring sequence error occurred. | • Turn off the power to the machine and turn it on after a while.<br>If the same error message appears again, contact your local distributor to call for service. |
| ERROR 148<br>E-LOG SEQ | Sequential number abnormality of the event log occurred. | |
| ERROR 151<br>Main PCB V12R | An error occurred in the main PCB 1.2V power supply. | |
| ERROR 152<br>Main PCB V2R5 | An error occurred in the main PCB 2.5V power supply. | |
| ERROR 153<br>Main PCB V3R3 | An error occurred in the main PCB 3.3V power supply. | |
| ERROR 154<br>Main PCB V05 | An error occurred in the main PCB 5V power supply. | |
| ERROR 155<br>Main PCB V35-1 | An error occurred in the main PCB 35-1 power supply. | |
| ERROR 156<br>Main PCB V5B | An error occurred in the main PCB 5VB power supply. | |
| ERROR 157<br>Main PCB VTT | An error occurred in the main PCB VTT power supply. | |

| Message | Cause | Solution |
|---|---|---|
| ERROR 158<br>Main PCB V352 | An error occurred in the main PCB 35-2V power supply. | • Turn off the power to the machine and turn it on after a while.<br>If the same error message appears again, contact your local distributor to call for service. |
| ERROR15f<br>HEAD DRIVE HOT | COM driver becomes the high temperature. | |
| ERROR 16e<br>Main PCB V3R3B | An error occurred in the main PCB 3.3VB power supply. | |
| ERROR 171<br>NEW HEAD CONNECT | New Print Head was recognized. | |
| ERROR 172<br>Main PCB Q6 Check K | The main PCB Q6 is disabled (short mode). | |
| ERROR 186<br>HDC OVERFLOW | An error is detected on the waveform printed on. | |
| ERROR 186<br>HDC UNDERFLOW | | |
| ERROR 187<br>HDC SLEW RATE | | |
| ERROR 188<br>HDC MEMORY | | |
| ERROR 18a<br>Main PCB V_CORE | An error occurred in the main PCB power supply. | |
| ERROR 18b<br>Main PCB V1R5B | An error occurred in the main PCB 1.5V power supply. | |
| ERROR 18b<br>Main PCB V12 | An error occurred in the main PCB 12V power supply. | |
| ERROR 18e<br>FLS NOT COMP [12__] | An error occurred in the flushing control. | |
| ERROR 18f<br>OFFSET START [12__] | An error occurred in the head voltage control. | |
| ERROR 18f<br>OFFSET END [12__] | | |
| ERROR 19d<br>HDC V36 [12__] | An error occurred in the HDC PCB voltage control. | |
| ERROR 19f<br>LED CONNCT ERR:***** | The LED UV is not connected. | |
| ERROR 201<br>COMMAND | The machine received some data other than command data. | • Securely connect the interface cable in position.<br>• Use an interface cable conforming to the specifications. |
| ERROR 202<br>PARAMETER | Any parameter outside the range of acceptable numeric values was received. | |
| ERROR 203<br>Ment Command | A maintenance command error occurred. | |

| Message | Cause | Solution |
|---|---|---|
| ERROR 207<br>VERSION(RipSoftware) | Though the toggle printing method is set to FR ORIGINS, the RIP software does not support FR ORIGINS. | • Upgrade the RIP software to the latest version.<br>• Change the toggle printing method to "OFF" or "FF ORIGINS". |
| ERROR 208<br>CHECK(RipSoftware) | Data with an improper printing area specified is received. | • Check the RIP software settings and perform RIP process again.<br>• If the same error message appears again, restart the RIP software. |
| ERROR 304<br>USB INIT ERR | USB device initialization failure. | • Turn off the main power to the machine and turn it on after a while. If the same error message appears again, contact your local distributor to call for service. |
| ERROR 305<br>USB TIME OUT | Occurrence of a time out error on a USB device. | |
| ERROR 401<br>MOTOR X | An excessive load was applied to the X motor. | |
| ERROR 402<br>MOTOR Y | An excessive load was applied to the Y motor. | |
| ERROR 403<br>X CURRENT | An error due to an excessive current of the X motor was detected. | |
| ERROR 404<br>Y CURRENT | An error due to an excessive current of the Y motor was detected. | |
| ERROR 444<br>Y MOTOR BRUSH | Time to replace the brush of Y motor has come. | • The brush of Y motor shall be replaced. Contact a distributor in your district, our office, or our call center. |
| ERROR 505<br>MEDIA JAM | The media jam occurs. | • Remove the media and reset it. |
| ERROR 509<br>HDC POSCNT | A HDC position counter error occurred. | • Turn off the main power to the machine and turn it on after a while. If the same error message appears again, contact your local distributor to call for service. |
| ERROR 50a<br>Y ORIGIN | Y-origin could not be detected. | |
| ERROR 50f<br>L-SCALE BLACK | Abnormal linear scale. | |
| ERROR 510<br>X ORIGIN | X-origin could not be detected. | |
| ERROR 519<br>NEGATIVE P.SENSOR | The value of the negative pressure sensor is abnormal. | • Perform “PRESSURE ADJUST” (☞ P.5-7) of the maintenance. If you cannot adjust it to the normal value, or, even if you perform, it may be displayed, contact your local distributor to call for service. |
| ERROR 51a<br>POSITIVE P.SENSOR | The value of the positive pressure sensor is abnormal. | |
| ERROR 51e<br>PL ENC SNS(L) | X left-side linear scale poor sensitivity | • Turn off the power to the machine and turn it on after a while. If the same error message appears again, contact your local distributor to call for service. |
| ERROR 51e<br>PL ENC SNS(R) | X right-side linear scale poor sensitivity | |
| ERROR 617<br>SUBTANK SNN:12345678 | The liquid level sensor abnormality of the sub tank has been detected. | • Turn off the main power to the machine and turn it on after a while. If the same error message appears again, contact your local distributor to call for service. |

| Message | Cause | Solution |
|---|---|---|
| ERROR 618<br>TANKlevelH :12345678 | Though a certain amount was consumed, there is no change in the sub tank sensor High. | • Perform “SUB TANK” (☞P.5-6) of the maintenance. Even if you performed this, when the message is displayed, contact your local distributor to call for service. |
| ERROR 619<br>TANKlevelL :12345678 | Though a certain amount was consumed, there is no change in the sub tank sensor Low. | |
| ERROR 61a<br>OVER FLOW :12345678 | Overflow from the sub tank has been detected. | |
| ERROR 61b<br>SUPPLY INK :12345678 | Ink could not be supplied to the sub tank. | • Perform “SUB TANK” (☞P.5-6) of the maintenance. Also check the remaining amount of ink in the ink bottle. Even if you performed this, when the message is displayed, contact your local distributor to call for service. |
| ERROR 61c<br>NEGATIVE P.CONTROL | Starting of the negative pressure control has an abnormality. | • Perform “PRESSURE ADJUST” (☞P.5-7) of the maintenance. If you cannot adjust it to the normal value, or, even if you perform, it may be displayed, contact your local distributor to call for service. |
| ERROR 61d<br>NEGATIVE P.NotEnough | The negative pressure cannot be kept properly | |
| ERROR 61e<br>NEGATIVE P. OVER | | |
| ERROR 61f<br>POSITIVE P.CONTROL | Starting of the positive pressure control has an abnormality. | |
| ERROR 620<br>POSITIVE P.NotEnough | The positive pressure cannot be kept properly. | |
| ERROR 621<br>POSITIVE P. OVER | | |
| ERROR 702<br>THERMISTOR | The thermistor of a heater is defective. | • Turn off the main power to the machine and turn it on after a while.<br>If the same error message appears again, contact your local distributor to call for service. |
| ERROR 706<br>DRV OVHT 0**0** | UVLED Driver circuit board is very hot. | |
| ERROR 707<br>!H1 HEATER BREAK | A head heater is disconnected. | |
| ERROR 714<br>INK HEATER COM ERR | Communication error of ink heater circuit board. | |
| ERROR 715<br>InkHeaterRThr:12 | Abnormal Ink heater thermistor. | |
| ERROR 715<br>InkHeaterFThr:12 | | |

| Message | Cause | Solution |
|---|---|---|
| ERROR 716<br>InkHeaterLTmp:12 | Anomaly temperature of ink heater. | • Turn OFF the power of the machine and turn it ON again after a while.<br>When the power is ON, the screen for selecting whether to control the ink heater is displayed.<br>• Press the [>] (START) key and start the control of ink heater. If still display, please call for our service or our dealer |
| ERROR 716<br>InkHeaterRTmp:12 | | |
| ERROR 717<br>InkHeaterRBrk:12 | Ink heater is disconnected. | • Turn off the main power to the machine and turn it on after a while.<br>If the same error message appears again, contact your local distributor to call for service. |
| ERROR 717<br>InkHeaterLBrk:12 | | |
| ERROR 718<br>InkHeaterPCB Thr:12 | Abnormal thermistor of the ink heater PCB. | |
| ERROR 719<br>InkHeaterPCB Fuse:12 | Ink heater PCB fuse is out. | • Turn off the main power to the machine and turn it on after a while.<br>If the same error message appears again, contact your local distributor to call for service. |
| ERROR 71A<br>UV-DRV Fuse :****** | UVLED diver circuit board fuse has blown. | |
| ERROR 711<br>LED OVHT 0**0** | UVLED circuit board is very hot. | |
| ERROR 902<br>DATA REMAIN | There remains received data that has not yet been printed. | • Execute the data clear function.<br>(☞ P.2-17) |
| ERROR 90d<br>NO HEAD SELECT | The number of mounted heads is 0 (zero). | • Turn off the main power to the machine and turn it on after a while.<br>• If the same error message appears again, contact your local distributor to call for service. |
| ERROR 910<br>ENVIRONMENT TEMP(LO) | The ambient temperature is out of the usable temperature range (too low). | • Adjust the ambient temperature of the installation place. |
| ERROR 911<br>ENVIRONMENT TEMP(HI) | The ambient temperature is out of the usable temperature range (too high). | |

## SYSTEM HALT

| Message | Solution |
|---|---|
| SYSTEM HALT<br>000: MESSAGE | Turn off the main power to the machine and turn it on after a while.<br>Check the number and contact your local distributor to call for service. (“000” is the error No.) |

# Chapter 6
# Appendix

**This chapter**

contains the lists of the specifications and functions of this machine.


Specifications .....6-2
Machine specifications .....6-2
Ink specifications .....6-3
Setting orders depending on ink type .....6-4
Setting orders of ink bottles .....6-4
Sheet for inquiry .....6-6
Function Flowchart .....6-8

# Specifications

## Machine specifications

| | | |
|---|---|---|
| Print head | Method | Drop-on-demand piezoelectric print heads |
| | Specification | 2 heads: 2-layered staggered arrangement in 1-line |
| Printing mode (scan x feed) | 4-colors | 300x450HQ : Bi/Uni 6/12 pass<br>600x600 : Bi/Uni 8/16 pass<br>600x900 : Bi/Uni 12/24 pass<br>1200x1200 : Bi/Uni 16/32 pass |
| | 4-colors + White | 300x450HQ : Bi/Uni 12/24 pass<br>600x600 : Bi/Uni 16/32 pass<br>600x900 : Bi/Uni 24/48 pass<br>1200x1200 : Bi/Uni 32/64 pass |
| Usable inks | | Dedicated UV curable in (Y, M, C, K, W, CL,P) |
| Ink supply | | Supplying 1L x 8 bottles (For 4-color, UISS switching is available. Also, UISS switching is available for M and C with 4-color + W) |
| Capacity of ink bottle | 4-colors | 1L-bottle x 2 for each color |
| | 4-colors + White | Y and K: 1 bottle each. M, C and W: 2 bottles each. |
| | 4-colors + White + Clear | M, C, Y and K: 1 bottle each. W and CL: 2 bottles each. |
| | 4-colors + White + Clear + Primer | M, C, Y, K, Cl and P: 1 bottle each. W: 2 bottles. |
| | 6 colors + White | M, C, Y, K, Lc and Lm: 1 bottle each. W: 2 bottles. |
| Usable media | Size | 2580mmx3210mm (101.6inx126.4in) |
| | Thickness | 50mm or less (2.0in or less) |
| | Weight | Up to 50kg / m2. Prohibit concentrated load.<br>(Up to 10.2lb / ft2. Prohibit concentrated load.) |
| Max. printing width | | 2500x3100mm (98.4x122.0in) |
| Distance accuracy | Absolute accuracy | Whichever the larger one of ± 0.3 mm or ± 0.3 % of the designated<br>(Whichever the larger one of ± 0.01 in or ± 0.3 % of the designated) |
| | Reproducibility | Whichever the larger one of ± 0.2 mm or ± 0.1 % of the designated<br>(Whichever the larger one of ± 0.08 in or ± 0.1 % of the designated) |
| Head height adjustment | | 1.2mm to 3mm (media thickness automatic recognition)<br>(0.05in to 0.1in (media thickness automatic recognition)) |
| Media absorption | | Absorption fixing with vacuum unit |
| UV unit | | UV LED lamp fitting (mounted on carriage)<br>UV power is mounted in the main body. |
| Waste ink tank | | Bottle type (3,200 cc)/ Detected by software counter |
| Interface | | USB 2.0 |
| Command | | MRL- III |
| Noise | during standby | 55 dB or less |
| | At operation *1 | 74 dB or less |
| Safety Standard | | VCCI-Class A, FCC-Class A, UL 60950, CE Marking (EMC,Low Voltage Directive,Machinery Directive, RoHS Directive), CB Report |
| Power | Inlet1 | AC200 - 240 ± 10% , 50/60Hz ± 1Hz , 12A or less<br>(recommended circuit breaker is 30A) |
| | Inlet2 | AC200 - 240 ± 10% , 50/60Hz ± 1Hz , 8A or less<br>(recommended circuit breaker is 30A) |
| Power consumption | Inlet1 | 2880W or less |
| | Inlet2 | 1920W or less |
| Recomended Environment | Available temp. | 15 °C to 30 °C (59°F to 86°F) |
| | Humidity | 35 to 65% Rh (No condensation) |
| | Guaranteed temp. | 20 °C to 25 °C (68°F to 77°F) |
| | Temperature change | ± 10 °C / h or less (± 50 °F / h or less) |
| | Dust | 0.15mg/m$^3$ (Equivalent to normal office level) |
| Weight | | 1000 kg (2204.6 lb) |
| Outside dimensions | | 4370 mm(W) x 4320 mm(D) x 1680 mm(H) (Including projection)<br>(172.0 in(W) x 170.1 in(D) x 66.1in(H) (Including projection)) |

*1. 73.5db(A), Operation condition: High-speed scanning, Blower is ON
Method: According to clause 1.7.4.2 of Machinery Directive 2006/42/EC

# Ink specifications

| Item | | Specifications |
|---|---|---|
| Supply | | 1L Ink bottle |
| Color | | Black ink<br>Cyan ink<br>Magenta ink<br>Yellow ink<br>White ink<br>Light cyan (only LUS150 ink)<br>Light magenta (only LUS150 ink)<br>Clear ink (LH100 ink, LUS120 ink, LUS350 ink)<br>Primer ink (PR-100, PR-200) |
| Ink capacity | | 1 liter |
| Shelf life | | The period is printed on the ink bottle.<br>Within three months after opening the package even in the available period. |
| Storage temperature | Storage | 5 to 30˚C (Storage at temperature of 30˚C is permitted within a month.)<br>(41 to 86˚F (Storage at temperature of 86˚F is permitted within a month.)) |
| | Transportation | 1 to 60˚C (Storage at temperature of 60˚C is only permitted within 120 hours, and at temperature of 40˚C is permitted within a month.)<br>(1 to 140˚F (Storage at temperature of 140˚F is only permitted within 120 hours, and at temperature of 104˚F is permitted within a month.)) |

Important!

- **Do not use any ink other than MIMAKI designated ink.**
  **Also, do not disassemble the ink bottles or refill or replenish their ink.**
- **Ink could freeze if kept in a cold place for an extended period.**
  - If the ink freezes, thaw it at room temperature (25°C) spending more than three hours before use.However, when you use the frozen ink, the printing quality becomes degraded due to altered ink. Store ink in the environment where ink may not freeze.

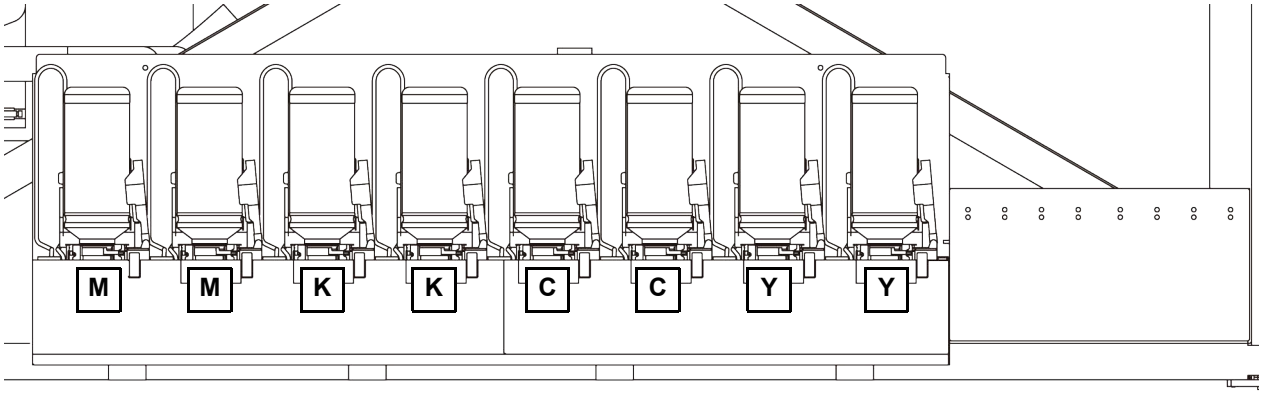
# Setting orders depending on ink type

The setting value and the setting orders of the ink bottles differ depending on the ink type you use.

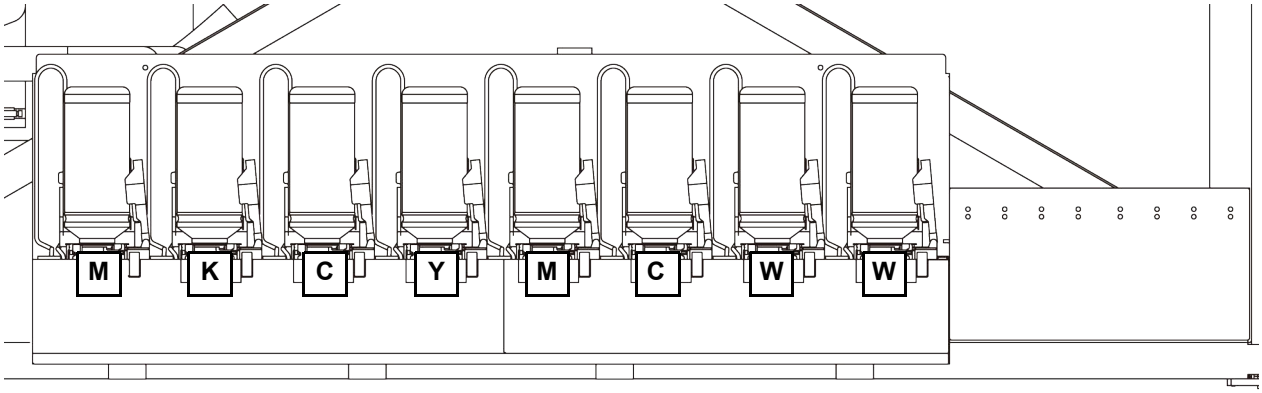
## Setting orders of ink bottles

The order of the ink bottles that are set differs depending on the ink set that is used.

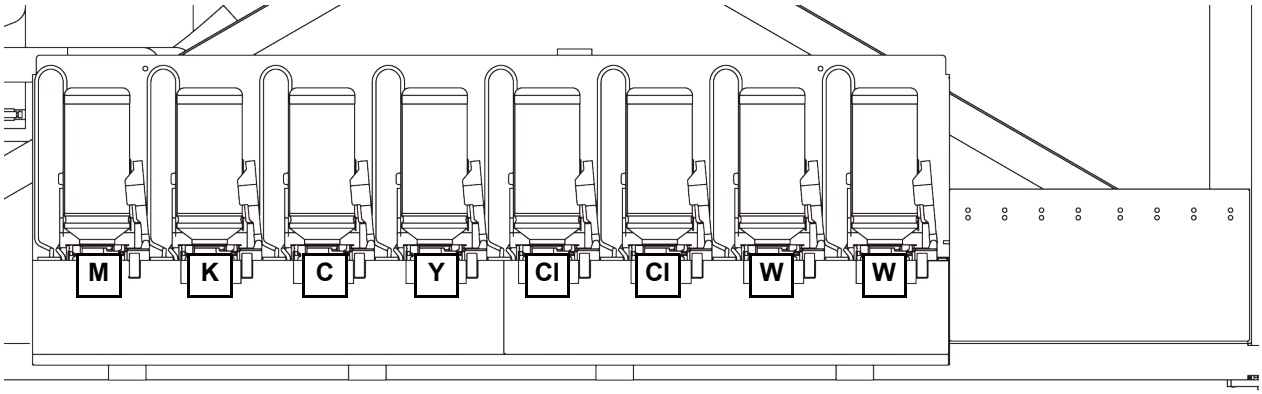
**4-colors ink set**



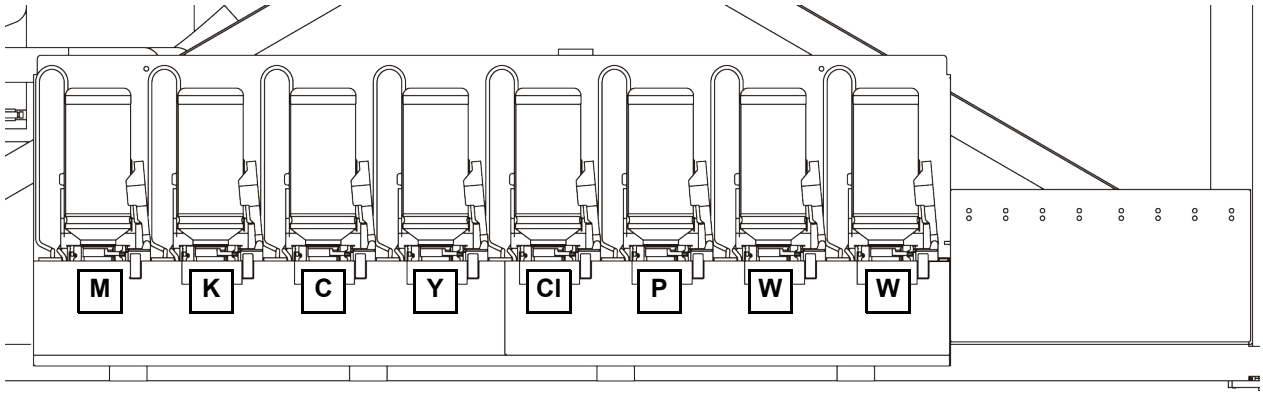

**4-colors + white ink set**



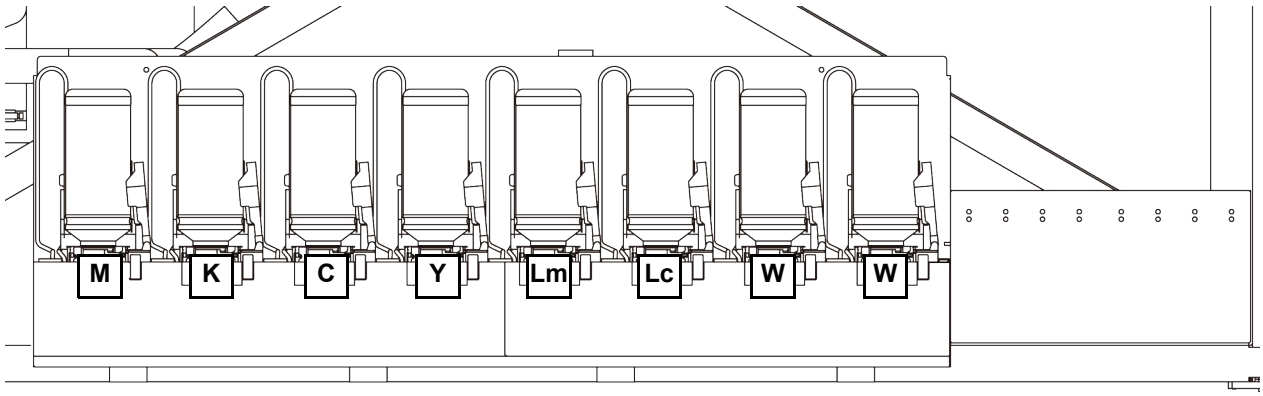

**4-colors + clear + white ink set**



**4-colors + clear + primer + white ink set**




**6-colors + white ink set**



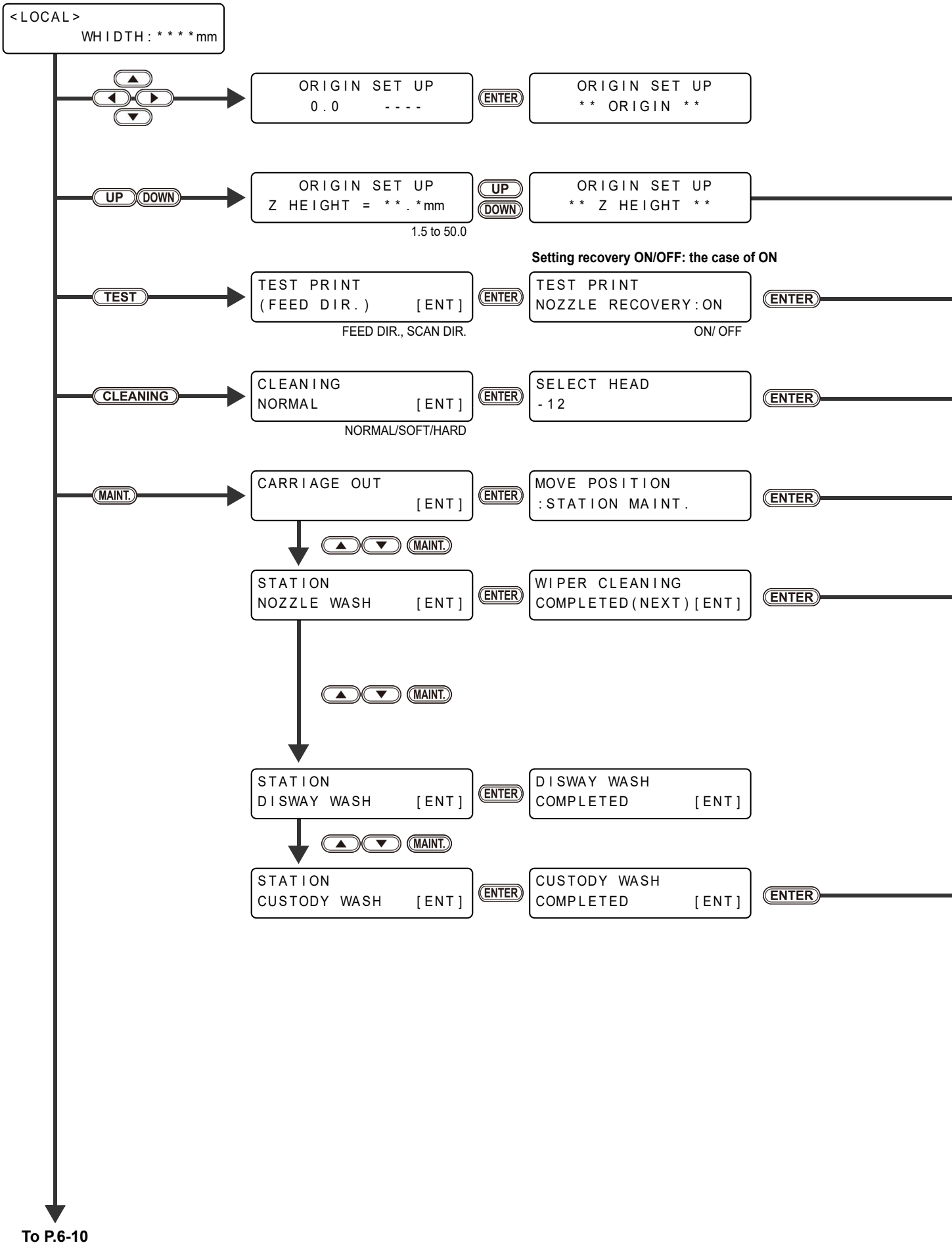
# Sheet for inquiry

Use this sheet for troubles and abnormal functions of the machine.
Fill in the following necessary items, and then fax the sheet to our sales office.

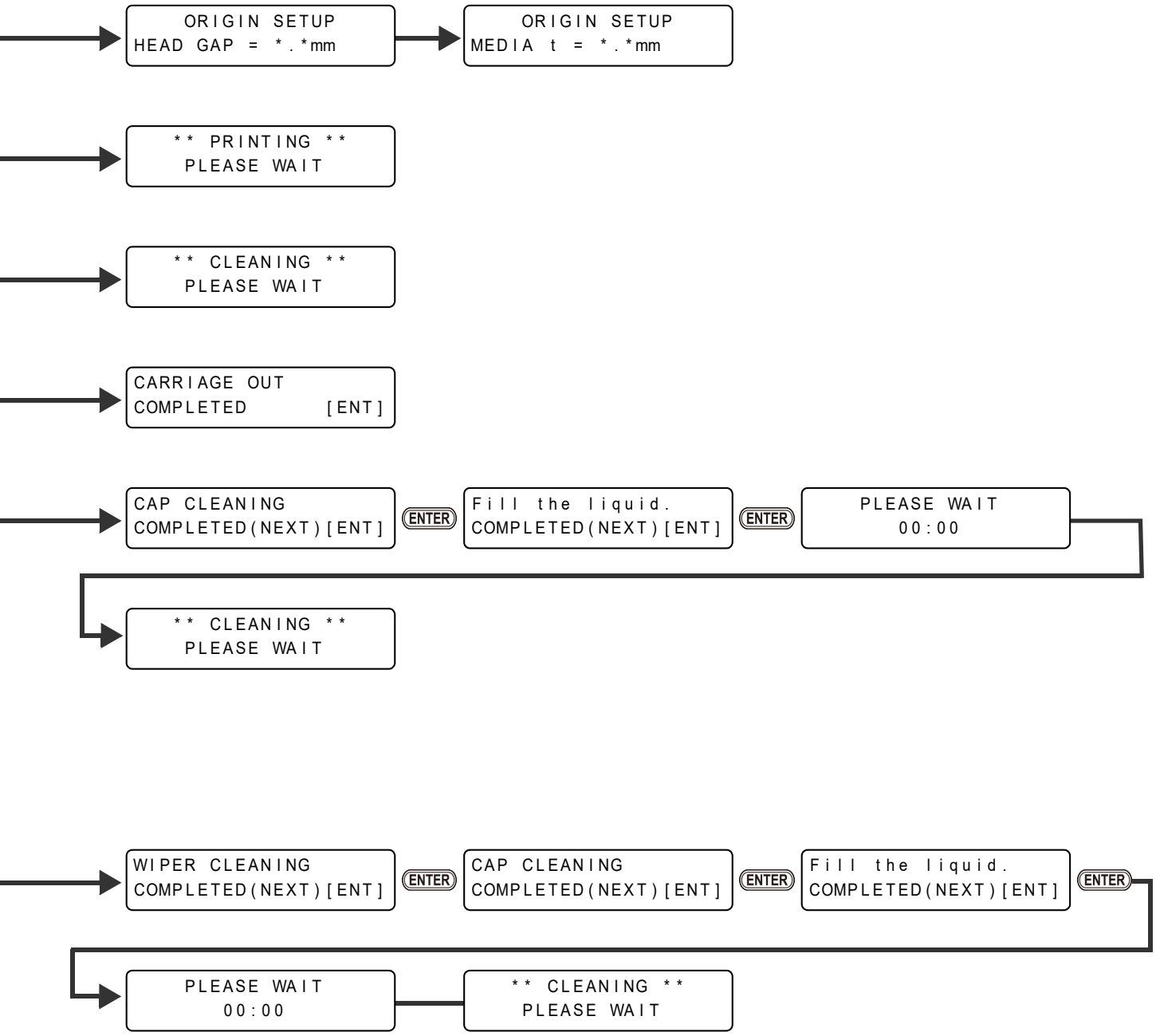
| | |
|---|---|
| **Company name** | |
| **Person in charge** | |
| **Telephone number** | |
| **machine model** | |
| **Operating OS** | |
| **Machine information** *1 | |
| **Error message** | |
| **Contents of inquiry** | |

*1. Refer to "**Confirming Machine Information**" of "Convenient using" then fill in necessary information. (☞ P.3-48)

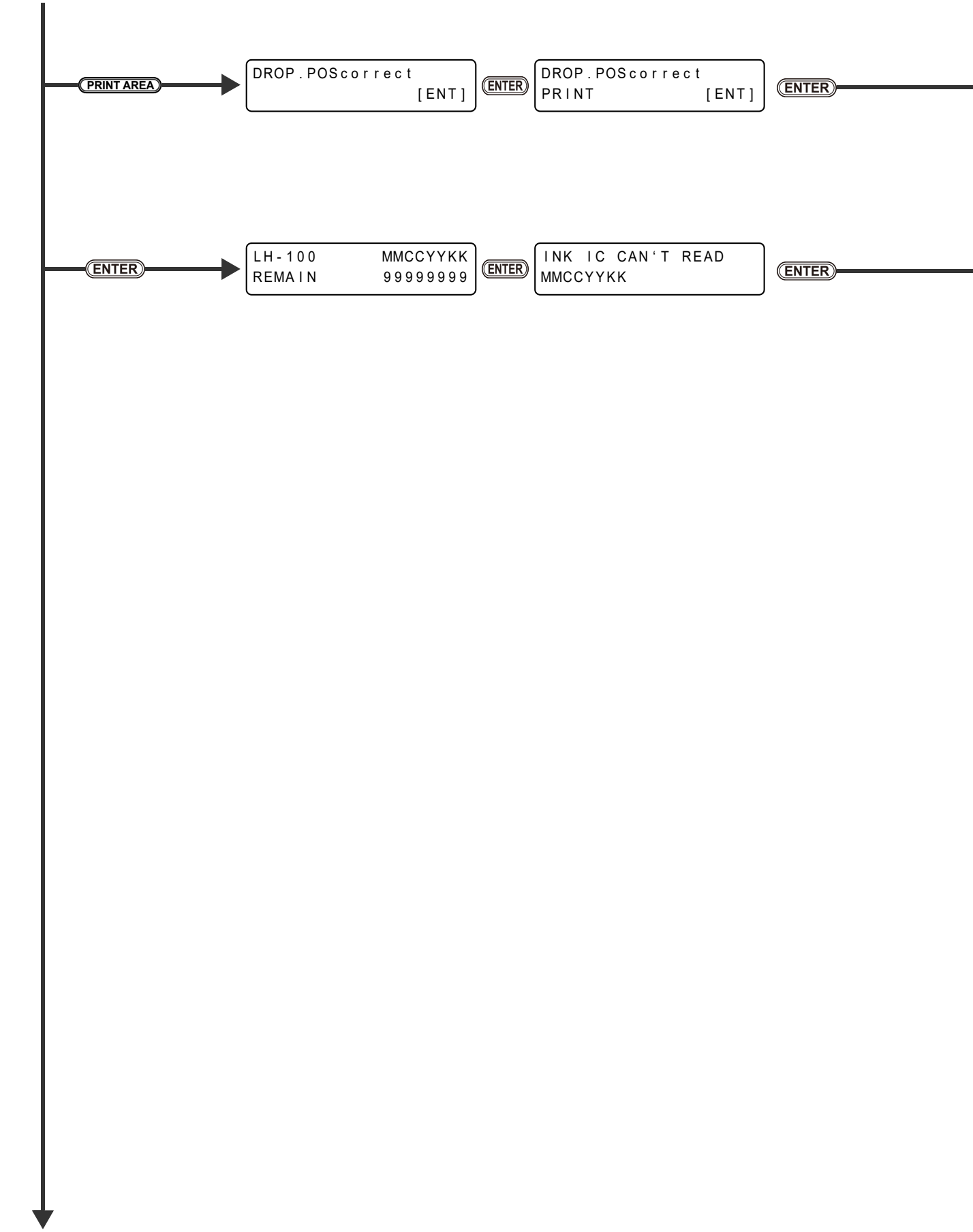
# Function Flowchart



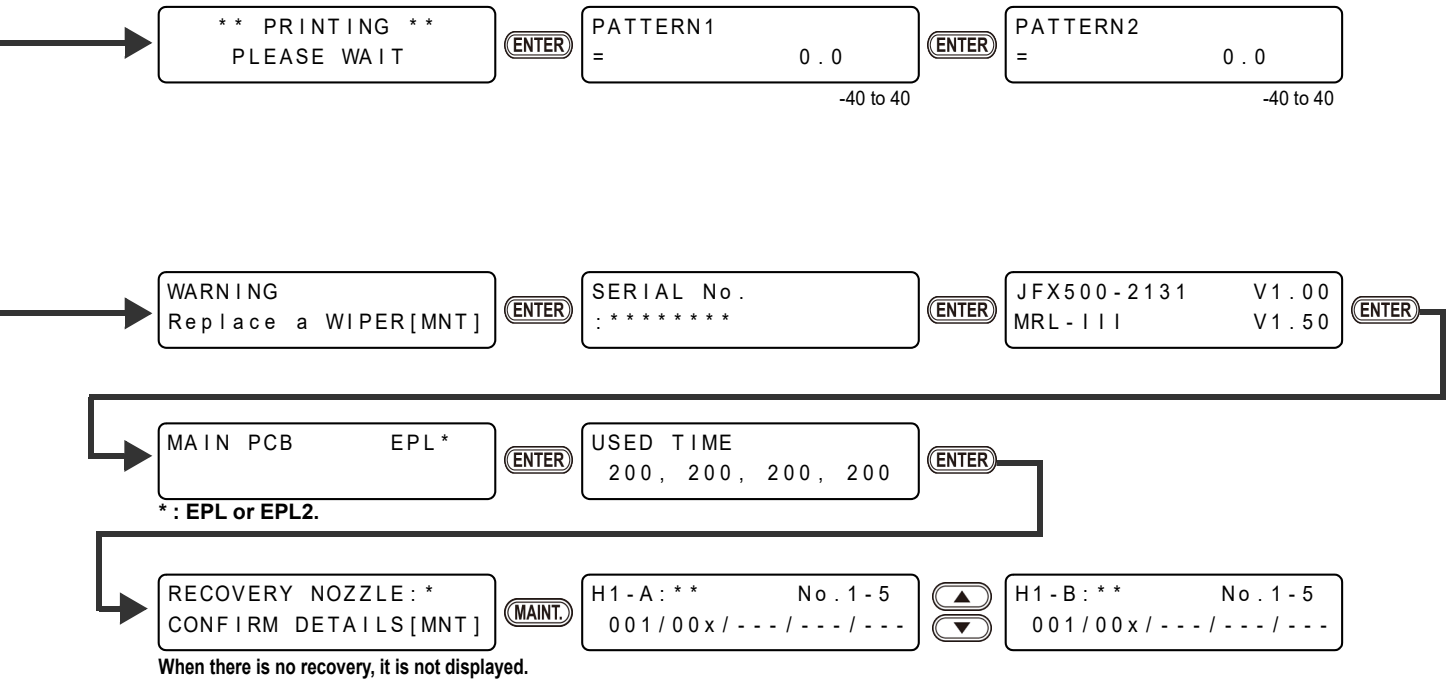

To P.6-10


ORIGIN SETUP
HEAD GAP = *.*mm
ORIGIN SETUP
MEDIA t = *.*mm
** PRINTING **
PLEASE WAIT
** CLEANING **
PLEASE WAIT
CARRIAGE OUT
COMPLETED [ENT]
CAP CLEANING
COMPLETED(NEXT)[ENT]
ENTER
Fill the liquid.
COMPLETED(NEXT)[ENT]
ENTER
PLEASE WAIT
00:00
** CLEANING **
PLEASE WAIT
WIPER CLEANING
COMPLETED(NEXT)[ENT]
ENTER
CAP CLEANING
COMPLETED(NEXT)[ENT]
ENTER
Fill the liquid.
COMPLETED(NEXT)[ENT]
ENTER
PLEASE WAIT
00:00
** CLEANING **
PLEASE WAIT

From P.6-8



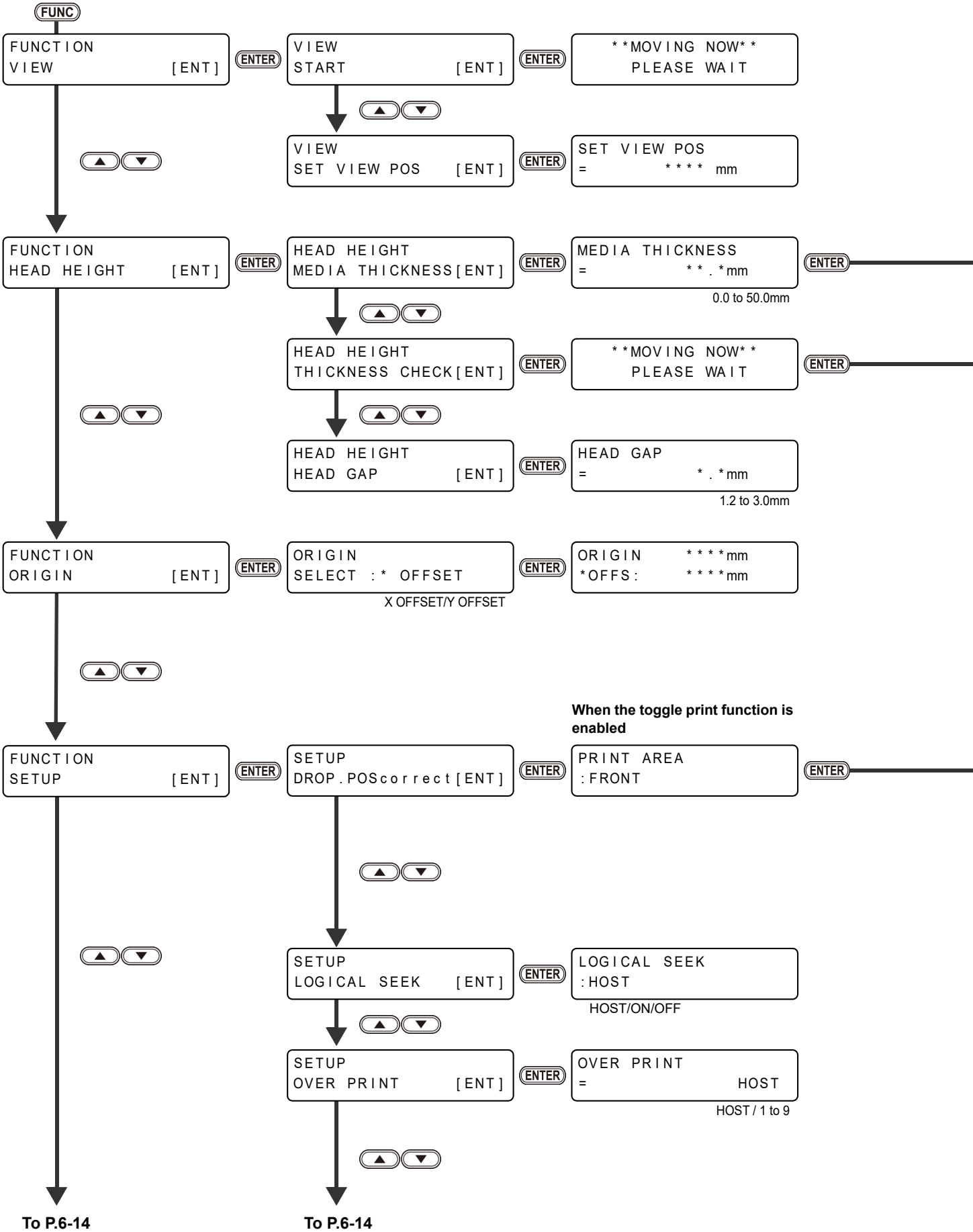

To P.6-12



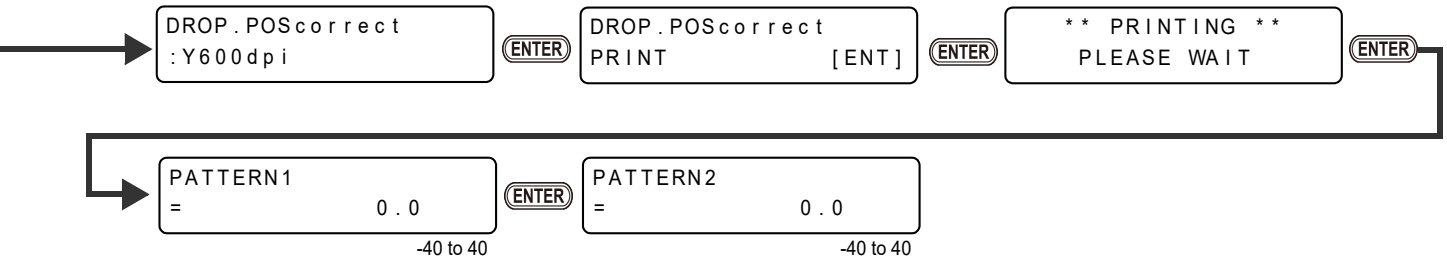

*** : EPL or EPL2.**

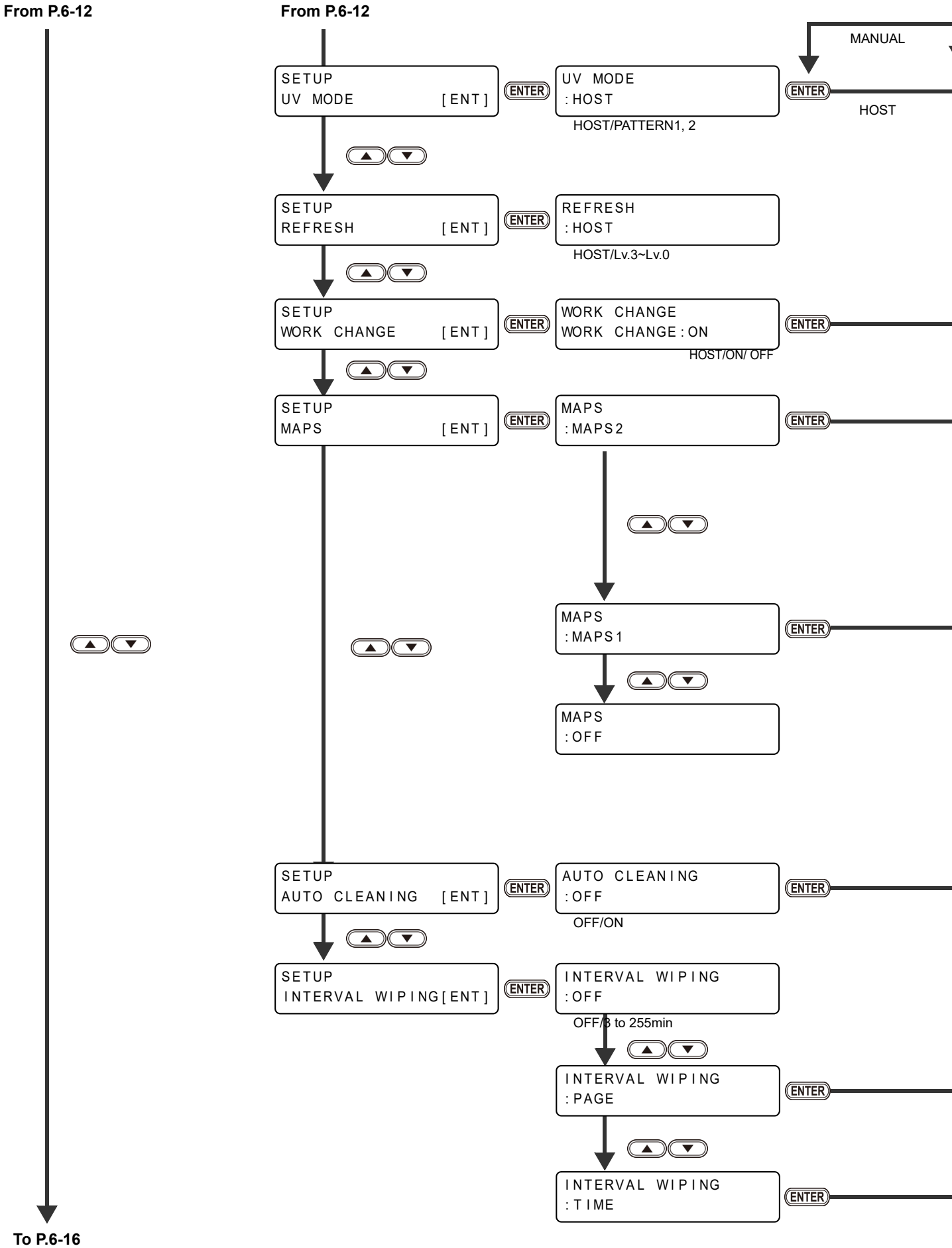
**When there is no recovery, it is not displayed.**

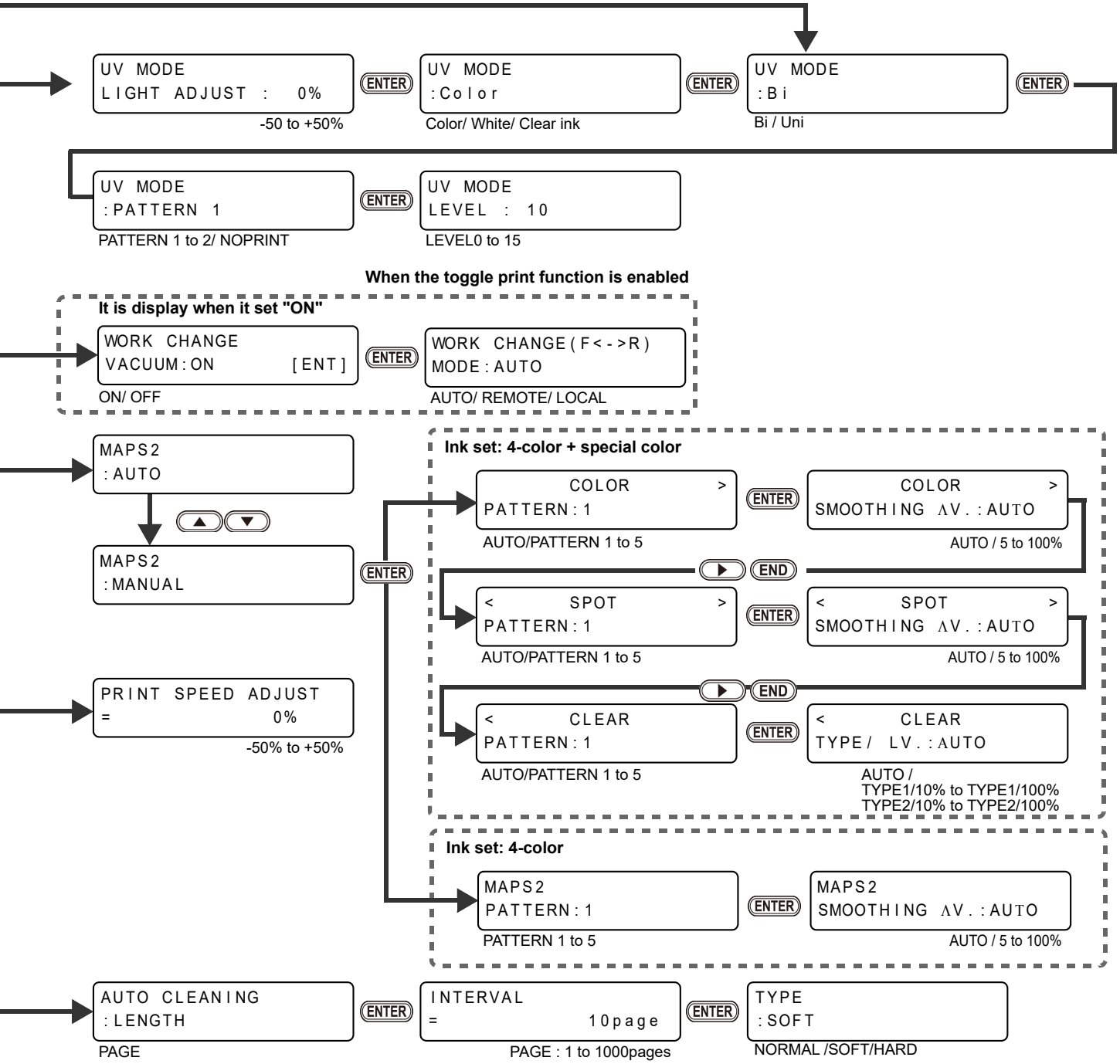
From P.6-10


FUNC
FUNCTION
VIEW [ENT]
ENTER
VIEW
START [ENT]
ENTER
**MOVING NOW**
PLEASE WAIT
VIEW
SET VIEW POS [ENT]
ENTER
SET VIEW POS
= **** mm
FUNCTION
HEAD HEIGHT [ENT]
ENTER
HEAD HEIGHT
MEDIA THICKNESS[ENT]
ENTER
MEDIA THICKNESS
= **.*mm
ENTER
0.0 to 50.0mm
HEAD HEIGHT
THICKNESS CHECK[ENT]
ENTER
**MOVING NOW**
PLEASE WAIT
ENTER
HEAD HEIGHT
HEAD GAP [ENT]
ENTER
HEAD GAP
= *.*mm
1.2 to 3.0mm
FUNCTION
ORIGIN [ENT]
ENTER
ORIGIN
SELECT :* OFFSET
ENTER
ORIGIN ****mm
*OFFS: ****mm
X OFFSET/Y OFFSET
When the toggle print function is enabled
FUNCTION
SETUP [ENT]
ENTER
SETUP
DROP.POScorrect[ENT]
ENTER
PRINT AREA
:FRONT
ENTER
SETUP
LOGICAL SEEK [ENT]
ENTER
LOGICAL SEEK
:HOST
HOST/ON/OFF
SETUP
OVER PRINT [ENT]
ENTER
OVER PRINT
= HOST
HOST / 1 to 9
To P.6-14
To P.6-14

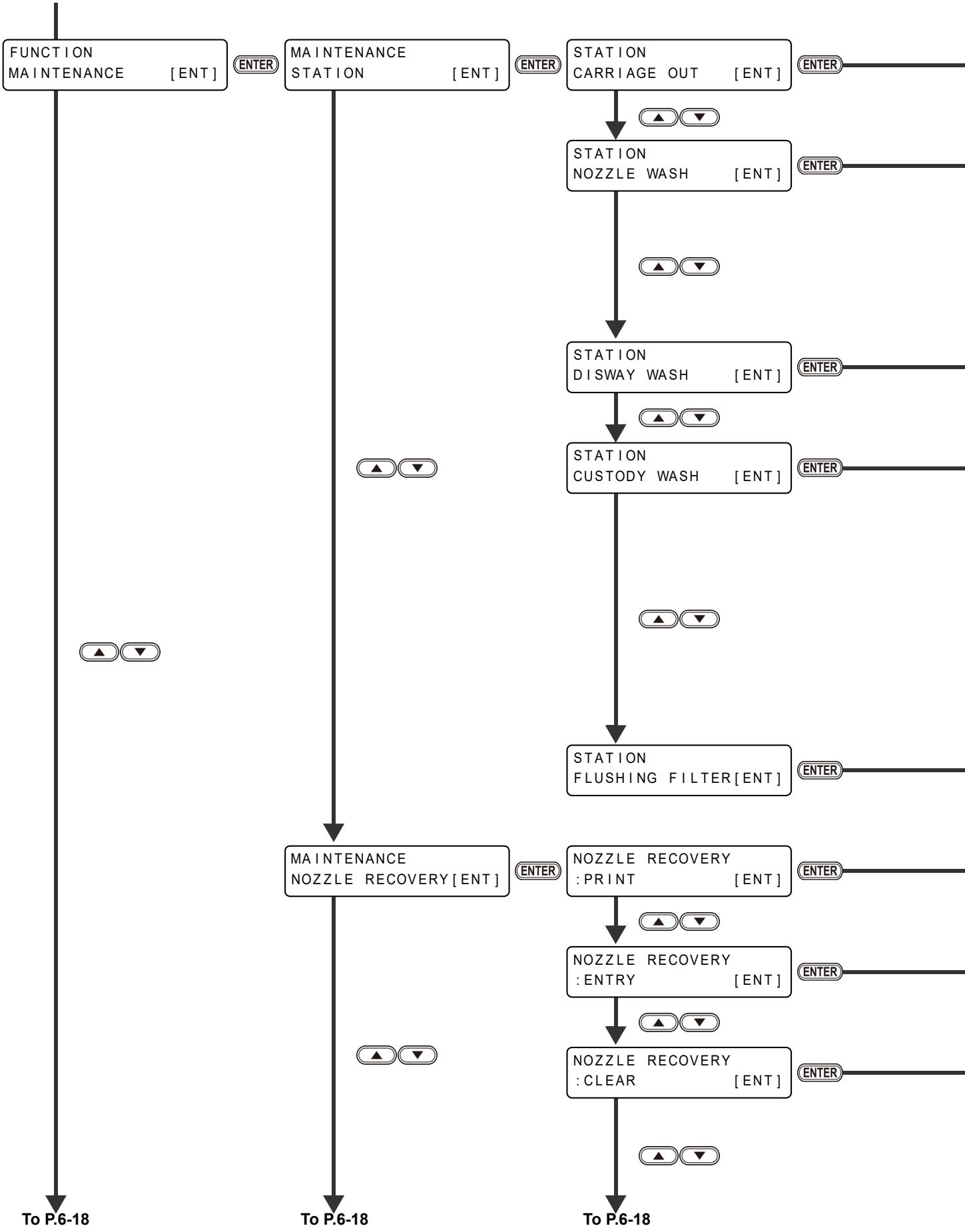
**When the toggle print function is enabled**



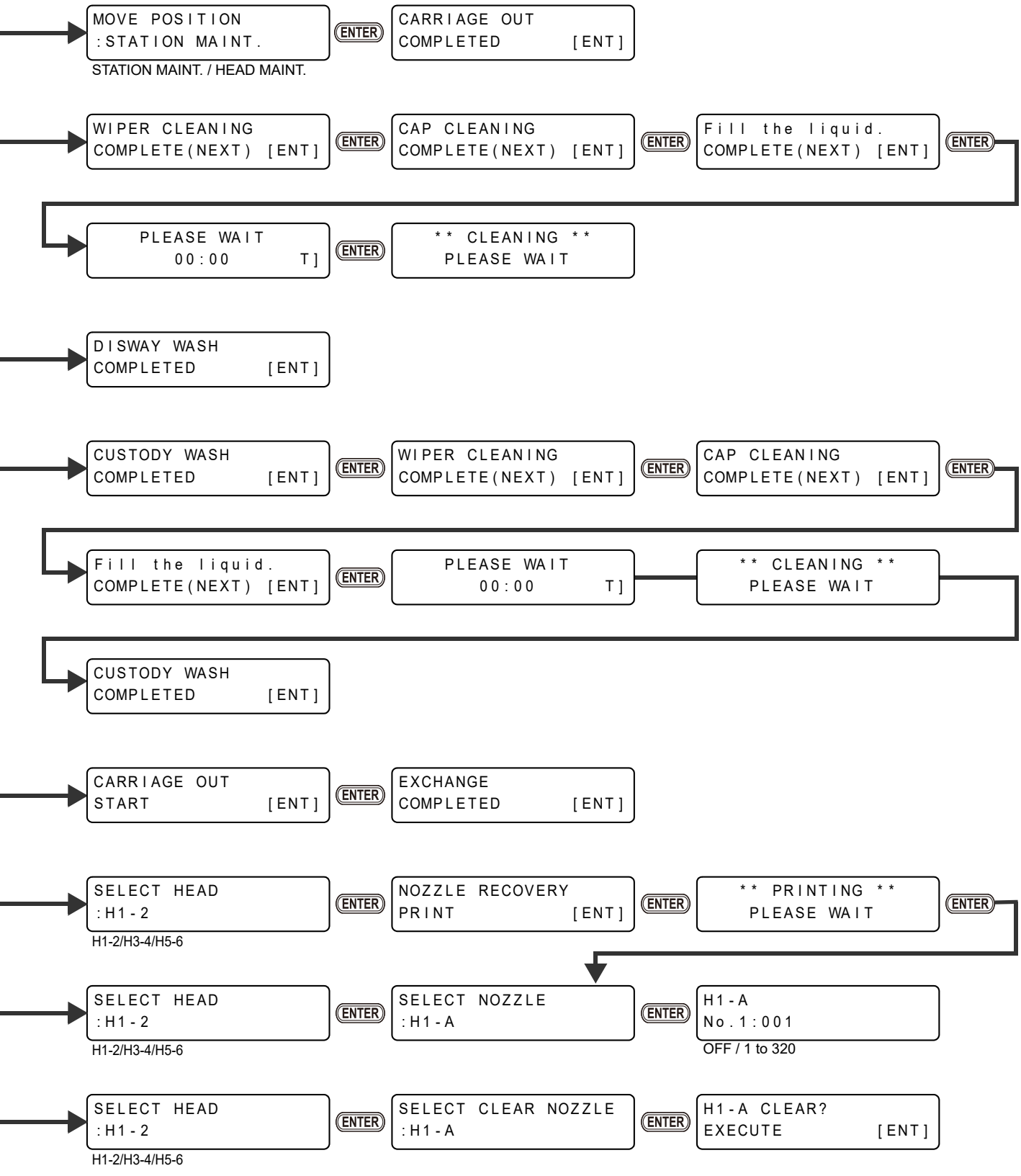

From P.6-12
From P.6-12
SETUP
UV MODE [ENT]
ENTER
UV MODE
:HOST
HOST/PATTERN1, 2
ENTER
MANUAL
HOST
SETUP
REFRESH [ENT]
ENTER
REFRESH
:HOST
HOST/Lv.3~Lv.0
SETUP
WORK CHANGE [ENT]
ENTER
WORK CHANGE
WORK CHANGE:ON
HOST/ON/ OFF
ENTER
SETUP
MAPS [ENT]
ENTER
MAPS
:MAPS2
ENTER
MAPS
:MAPS1
ENTER
MAPS
:OFF
SETUP
AUTO CLEANING [ENT]
ENTER
AUTO CLEANING
:OFF
OFF/ON
ENTER
SETUP
INTERVAL WIPING[ENT]
ENTER
INTERVAL WIPING
:OFF
OFF/3 to 255min
INTERVAL WIPING
:PAGE
ENTER
INTERVAL WIPING
:TIME
ENTER
To P.6-16

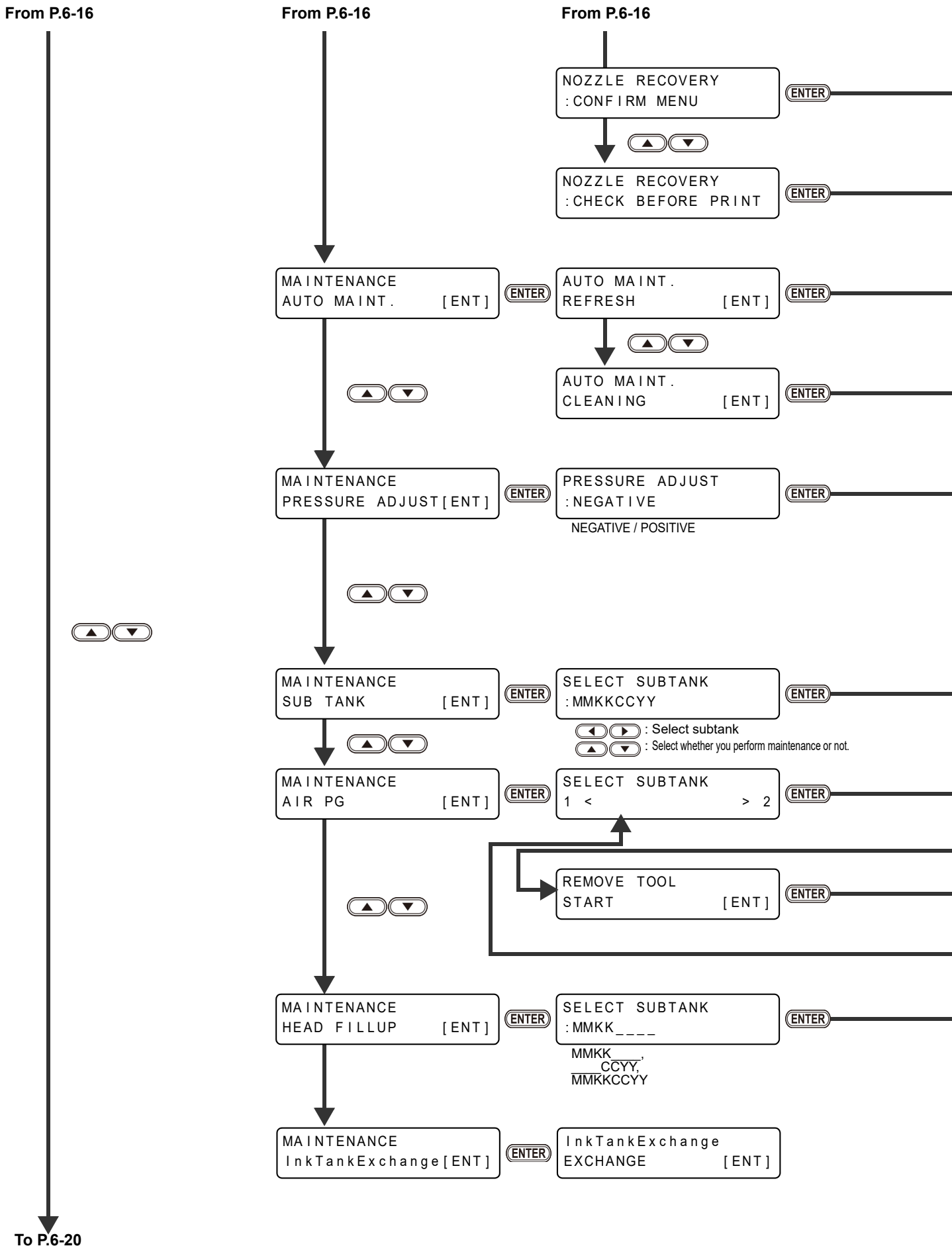

UV MODE
LIGHT ADJUST : 0%
-50 to +50%
ENTER
UV MODE
:Color
Color/ White/ Clear ink
ENTER
UV MODE
:Bi
Bi / Uni
ENTER
UV MODE
:PATTERN 1
PATTERN 1 to 2/ NOPRINT
ENTER
UV MODE
LEVEL : 10
LEVEL0 to 15
When the toggle print function is enabled
It is display when it set "ON"
WORK CHANGE
VACUUM:ON [ENT]
ON/ OFF
ENTER
WORK CHANGE(F<->R)
MODE:AUTO
AUTO/ REMOTE/ LOCAL
MAPS2
:AUTO
MAPS2
:MANUAL
ENTER
Ink set: 4-color + special color
COLOR >
PATTERN:1
AUTO/PATTERN 1 to 5
ENTER
COLOR >
SMOOTHING AV.:AUTO
AUTO / 5 to 100%
END
< SPOT >
PATTERN:1
AUTO/PATTERN 1 to 5
ENTER
< SPOT >
SMOOTHING AV.:AUTO
AUTO / 5 to 100%
END
< CLEAR
PATTERN:1
AUTO/PATTERN 1 to 5
ENTER
< CLEAR
TYPE/ LV.:AUTO
AUTO /
TYPE1/10% to TYPE1/100%
TYPE2/10% to TYPE2/100%
Ink set: 4-color
MAPS2
PATTERN:1
PATTERN 1 to 5
ENTER
MAPS2
SMOOTHING AV.:AUTO
AUTO / 5 to 100%
PRINT SPEED ADJUST
= 0%
-50% to +50%
AUTO CLEANING
:LENGTH
PAGE
ENTER
INTERVAL
= 10page
PAGE : 1 to 1000pages
ENTER
TYPE
:SOFT
NORMAL /SOFT/HARD
INTERVAL
= 1page
1 to 100 pages
INTERVAL
= 3min
3 to 50 min

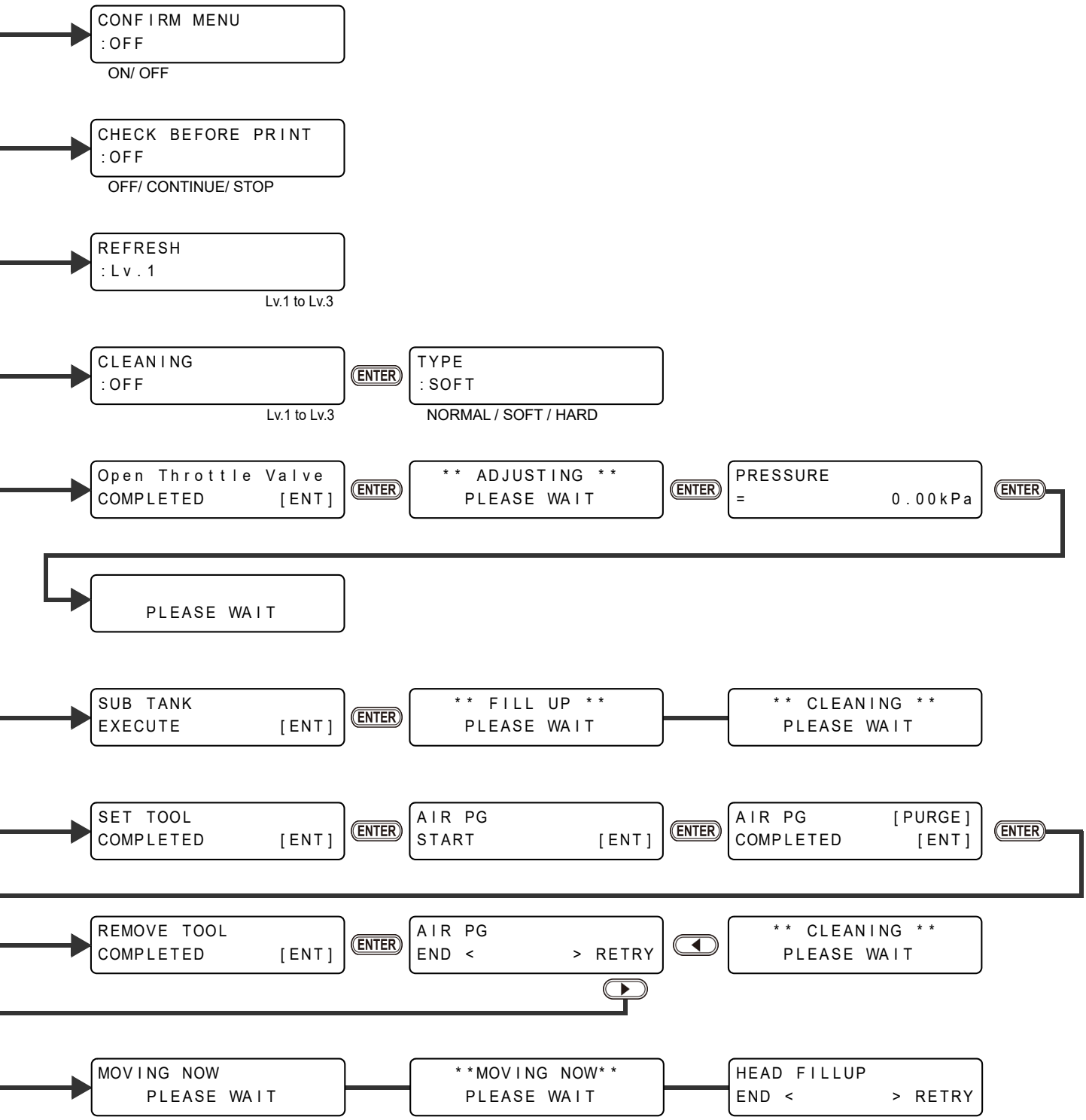
From P.6-14



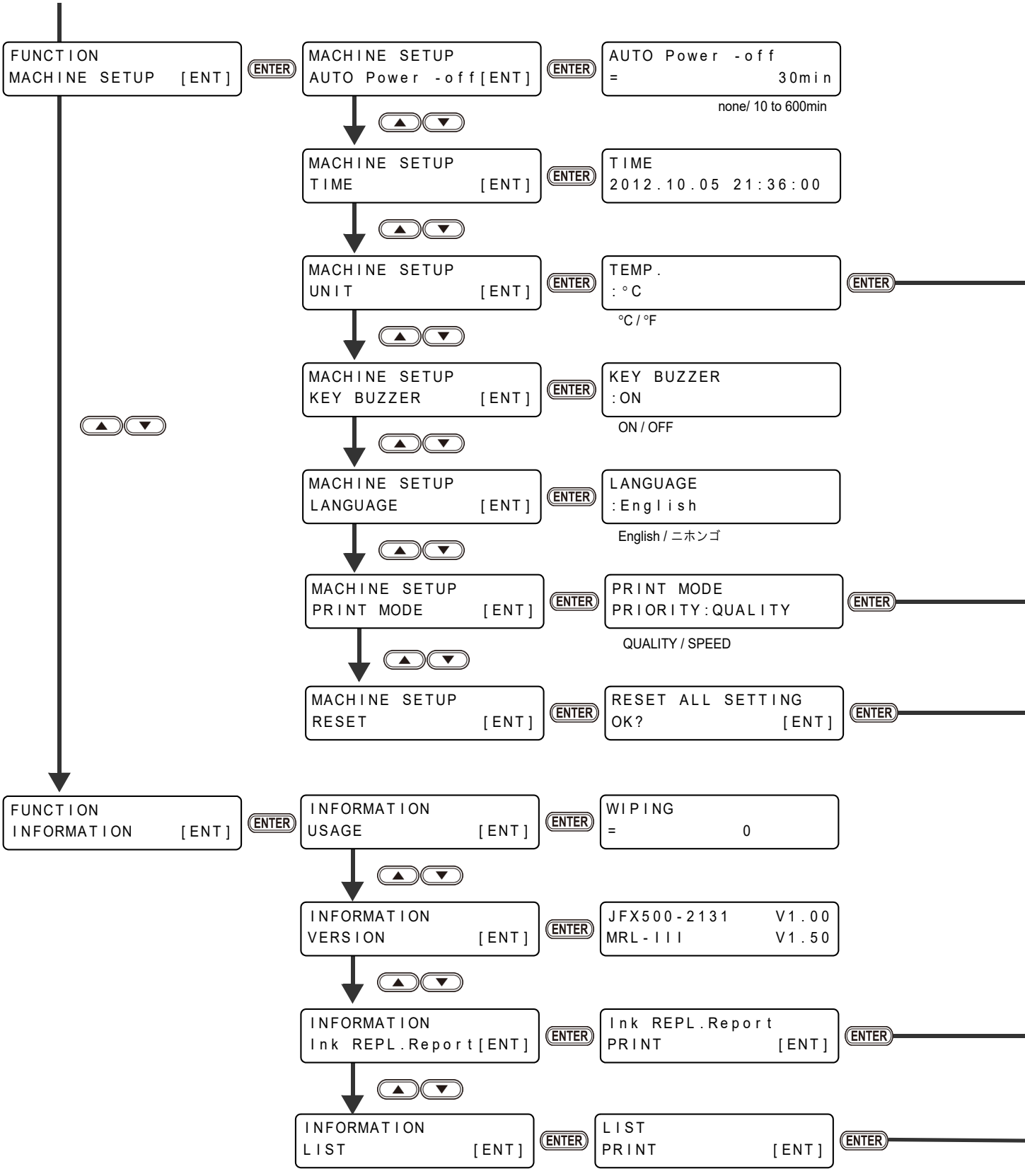

To P.6-18
To P.6-18
To P.6-18

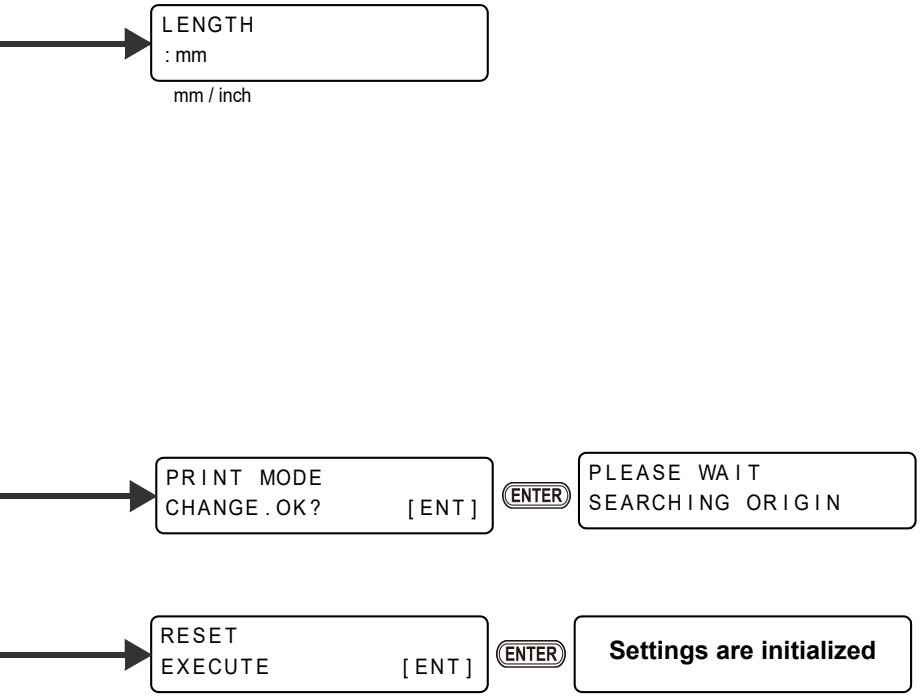

MOVE POSITION
:STATION MAINT.
ENTER
CARRIAGE OUT
COMPLETED [ENT]
STATION MAINT. / HEAD MAINT.
WIPER CLEANING
COMPLETE(NEXT) [ENT]
ENTER
CAP CLEANING
COMPLETE(NEXT) [ENT]
ENTER
Fill the liquid.
COMPLETE(NEXT) [ENT]
ENTER
PLEASE WAIT
00:00 T]
ENTER
** CLEANING **
PLEASE WAIT
DISWAY WASH
COMPLETED [ENT]
CUSTODY WASH
COMPLETED [ENT]
ENTER
WIPER CLEANING
COMPLETE(NEXT) [ENT]
ENTER
CAP CLEANING
COMPLETE(NEXT) [ENT]
ENTER
Fill the liquid.
COMPLETE(NEXT) [ENT]
ENTER
PLEASE WAIT
00:00 T]
** CLEANING **
PLEASE WAIT
CUSTODY WASH
COMPLETED [ENT]
CARRIAGE OUT
START [ENT]
ENTER
EXCHANGE
COMPLETED [ENT]
SELECT HEAD
:H1-2
ENTER
NOZZLE RECOVERY
PRINT [ENT]
ENTER
** PRINTING **
PLEASE WAIT
ENTER
H1-2/H3-4/H5-6
SELECT HEAD
:H1-2
ENTER
SELECT NOZZLE
:H1-A
ENTER
H1-A
No.1:001
OFF / 1 to 320
H1-2/H3-4/H5-6
SELECT HEAD
:H1-2
ENTER
SELECT CLEAR NOZZLE
:H1-A
ENTER
H1-A CLEAR?
EXECUTE [ENT]
H1-2/H3-4/H5-6


From P.6-16
From P.6-16
From P.6-16
NOZZLE RECOVERY
:CONFIRM MENU
ENTER
NOZZLE RECOVERY
:CHECK BEFORE PRINT
ENTER
MAINTENANCE
AUTO MAINT. [ENT]
ENTER
AUTO MAINT.
REFRESH [ENT]
ENTER
AUTO MAINT.
CLEANING [ENT]
ENTER
MAINTENANCE
PRESSURE ADJUST[ENT]
ENTER
PRESSURE ADJUST
:NEGATIVE
ENTER
NEGATIVE / POSITIVE
MAINTENANCE
SUB TANK [ENT]
ENTER
SELECT SUBTANK
:MMKKCCYY
ENTER
: Select subtank
: Select whether you perform maintenance or not.
MAINTENANCE
AIR PG [ENT]
ENTER
SELECT SUBTANK
1 < > 2
ENTER
REMOVE TOOL
START [ENT]
ENTER
MAINTENANCE
HEAD FILLUP [ENT]
ENTER
SELECT SUBTANK
:MMKK____
ENTER
MMKK____,
____CCYY,
MMKKCCYY
MAINTENANCE
InkTankExchange[ENT]
ENTER
InkTankExchange
EXCHANGE [ENT]
To P.6-20


CONFIRM MENU
:OFF
ON/ OFF
CHECK BEFORE PRINT
:OFF
OFF/ CONTINUE/ STOP
REFRESH
:Lv.1
Lv.1 to Lv.3
CLEANING
:OFF
Lv.1 to Lv.3
ENTER
TYPE
:SOFT
NORMAL / SOFT / HARD
Open Throttle Valve
COMPLETED [ENT]
** ADJUSTING **
PLEASE WAIT
PRESSURE
= 0.00kPa
PLEASE WAIT
SUB TANK
EXECUTE [ENT]
** FILL UP **
PLEASE WAIT
** CLEANING **
PLEASE WAIT
SET TOOL
COMPLETED [ENT]
AIR PG
START [ENT]
AIR PG [PURGE]
COMPLETED [ENT]
REMOVE TOOL
COMPLETED [ENT]
AIR PG
END < > RETRY
** CLEANING **
PLEASE WAIT
MOVING NOW
PLEASE WAIT
**MOVING NOW**
PLEASE WAIT
HEAD FILLUP
END < > RETRY

From P.6-18


FUNCTION
MACHINE SETUP [ENT]
ENTER
MACHINE SETUP
AUTO Power -off[ENT]
ENTER
AUTO Power -off
= 30min
none/ 10 to 600min
MACHINE SETUP
TIME [ENT]
ENTER
TIME
2012.10.05 21:36:00
MACHINE SETUP
UNIT [ENT]
ENTER
TEMP.
:°C
°C / °F
ENTER
MACHINE SETUP
KEY BUZZER [ENT]
ENTER
KEY BUZZER
:ON
ON / OFF
MACHINE SETUP
LANGUAGE [ENT]
ENTER
LANGUAGE
:English
English / ニホンゴ
MACHINE SETUP
PRINT MODE [ENT]
ENTER
PRINT MODE
PRIORITY:QUALITY
QUALITY / SPEED
ENTER
MACHINE SETUP
RESET [ENT]
ENTER
RESET ALL SETTING
OK? [ENT]
ENTER
FUNCTION
INFORMATION [ENT]
ENTER
INFORMATION
USAGE [ENT]
ENTER
WIPING
= 0
INFORMATION
VERSION [ENT]
ENTER
JFX500-2131 V1.00
MRL-III V1.50
INFORMATION
Ink REPL.Report[ENT]
ENTER
Ink REPL.Report
PRINT [ENT]
ENTER
INFORMATION
LIST [ENT]
ENTER
LIST
PRINT [ENT]
ENTER


LENGTH
: mm
mm / inch
PRINT MODE
CHANGE.OK? [ENT]
ENTER
PLEASE WAIT
SEARCHING ORIGIN
RESET
EXECUTE [ENT]
ENTER
Settings are initialized
PLEASE WAIT
** PRINTING **
PLEASE WAIT
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# JFX200-2531 Operation Manual

July, 2025

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D203111-20-31072025

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