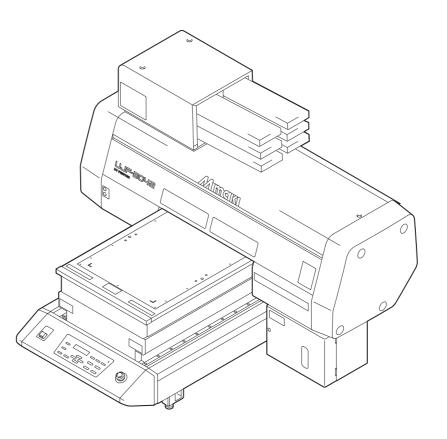




# UV PRINTER UJF-3042 OPERATION MANUAL



MIMAKI ENGINEERING CO., LTD.

URL: http://eng.mimaki.co.jp/

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# **DISCLAIMER OF WARRANTY**

THIS LIMITED WARRANTY OF MIMAKI SHALL BE THE SOLE AND EXCLUSIVE WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS, AND MIMAKI NEITHER ASSUMES NOR AUTHORIZES DEALER TO ASSUME FOR IT ANY OTHER OBLIGATION OR LIABILITY OR MAKE ANY OTHER WARRANTY OR MAKE ANY OTHER WARRANTY IN CONNECTION WITH ANY PRODUCT WITHOUT MIMAKI'S PRIOR WRITTEN CONSENT.

IN NO EVENT SHALL MIMAKI BE LIABLE FOR SPECIAL, INCIDNETAL OR CONSEQUENTIAL DAMAGES OR FOR LOSS OF PROFITS OF DEALER OR CUSTOMERS OF ANY PRODUCT.

# Requests

- This Operation Manual has been carefully prepared for your easy understanding, however, please do not hesitate to contact a distributor in your district or our office if you have any inquiry.
- Description contained in this Operation Manual are subject to change without notice for improvement.

# **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 cause 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 machine.

# Interference to televisions and radios

The product described in this manual generates low radio waves while it is in operation. The product can interfere with radios and televisions if set up or commissioned under improper conditions. The product is not guaranteed against any damage to specific-purpose radios and televisions.

The product's interference with your radio or television will be checked by turning on/off the power switch of the product.

In the event that the product is the cause of interference, try to eliminate it by taking one of the following corrective measures or taking some of them in combination.

- Change the direction of the receiving antenna or the feeder of your radio/television.
- Move the receiver away from the product.
- Plug the power cord of this machine into an outlet which is isolated from power circuits connected to the television set or radio.

# **CDRH REGULATION**

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

This product complies with 21 CFR chapter I and subchapter J



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

# **Foreword**

Congratulations on your purchase of a MIMAKI "UJF-3042" model of UV ink jet printer. UV Inkjet Printer UJF-3042 uses ultraviolet ray curing ink (UV ink). Read this Operation Manual carefully and make the most effective use of your printer.

# On this operation manual

- This Operation Manual describes the operation and maintenance of Model UJF-3042 Color Ink Jet Printer (hereinafter referred to as the machine).
- Please read and fully understand this Operation Manual before putting the machine into service. It is also necessary to keep this Operation Manual on hand.
- Make arrangements to deliver this Operation Manual to the person in charge of the operation of this machine.
- This Operation Manual has been carefully prepared for your easy understanding, however, please do not hesitate to contact a distributor in your district or our office if you have any inquiry.
- Description contained in this Operation Manual are subject to change without notice for improvement.
- In the case where this Operation Manual should be illegible due to destruction or lost by fire or breakage, purchase another copy of the Operation Manual from our office.
- You can also download the latest operation manual from our website.

# For safe operation

# **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**



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 "\(\sigma\)" 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 "\(\int\)" indicates that the action shown is prohibited. A sign representing a prohibited action (the sign shown at left prohibits disassembly) is shown in or around the circle.



The symbol "o" indicates that the action shown must be taken without fail or the instructions must be observed without fail. A sign representing a particular instruction (the sign shown at left instructs to unplug the cable from the wall outlet) is shown in the circle.

# **WARNING**



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

# Cautions for constructing exhaust outlet

Please observe the following cautions to avoid breakdown of this machine.

- (1) The opening area of the exhaust outlet requires more than half of the duct entrance area.
- (2) If mounting a valve on the exhaust outlet, be sure to open the valve when using the machine.



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



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



- If anyone swallows ink or cleaning solution in mistake, get the person to vomit and see a doctor immediately. Do not let him or her swallow the vomit. Then, refer MSDS about the inquiry.
- If you inhale a lot of vapor and feel bad, immediately move to a location of fresh air 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 that this machine is used.

# Never do the following

# **WARNING**

### Do not disassemble or remodel the machine



 Never disassemble or remodel this machine and the ink cartridge.

Disassembling or remodeling any of them will result in electric shocks or breakdown of this machine.

# Do not use this machine in damp places



 Avoid damp environment to use this machine.
 Do not splash water onto this machine. High humidity or water will give rise to fire, electric shocks or breakdown of this machine.

### **Abnormal event occurs**



- If the machine is used under an abnormal condition where the machine produces smoke or unpleasant smell, fire or electric shocks can result. Be sure to turn off the power switch immediately and detach the plug from the receptacle. Check first to be sure that the machine no longer produces smoke, and contact a distributor in your district for repair.
- Never repair your machine by yourself since it is very dangerous for you to do so.

# Handling of ink cartridges



- Some of the ingredients (UV Curing initiator) have toxic consequences to aquatic life. Avoid leak into water system or sewage containing water.
- Store ink cartridges and waste ink tank in a place that is out of the reach of children.
- If ink settles on the skin or clothes, immediately
  wash it off with detergent or water. If you get ink
  in your eyes, immediately wash your eyes with a
  lot of clean water, and then consult a doctor as
  soon as possible.

# **WARNING**

### Wearing protective devices



 When cleaning the suction nozzle, which may scatter ink, be sure to wear safety glasses and gloves, or ink and cleaning solution might enter your eyes or ink and cleaning solution put on your hands might make your hands rough.

### Power supply and voltage



Use this machine with indicated power specifications.
 Be sure to connect the power cable plug to the grounded outlet, or it may cause fire or electric 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.



- To prevent electrical shock, be sure to set OFF the main power circuit breaker and disconnect the power plug before carrying out maintenance. For some units, capacitors may take one minute for discharging; therefore, start maintenance work three minutes after setting OFF the main power circuit breaker and disconnecting the power plug.
- If LED UV has been damaged, you should replace the LED UV that has reached or has past its rating life.



- The main power circuit breaker should be set ON only by personnel with sufficient knowledge about operations
  of this machine
- Do not touch the lamp with bare hands while lighting or right after the lamp off to avoid from burn injury.

# Handling of the antifreeze liquid



- Use the exclusive antifreeze liquid, or the cooling device may be damaged.
- If the antifreeze liquid or mixed soft water with antifreeze liquid gets on the skin or clothes, immediately wash it off with soap.
  - If you get the antifreeze liquid in your eyes, immediately wash your eyes with a lot of clean water. Then, consult a doctor as soon as possible.
- Before using the antifreeze liquid, be sure to read the Material Safety Data Sheet (MSDS).
- If you swallowed the antifreeze liquid accidentally, try to get to vomit, and then consult a doctor as soon as possible.
- Discard the waste antifreeze liquid or used mixed soft water with antifreeze liquid as follows; Absorb in a sawdust or waste cloth, then incinerate it.
- Entrust to an industrial waste disposal contractor, clarifying their contents.
- · Avoid causing ignition with static electricity, impact spark and so on.



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

### Handling of the power cable



- Use a power cable attached to this machine.
- Take care not to damage, break or work on the power cable. If a heavy things are put on the power cable, heated or drawn, the power cable can break to cause fire or electric shocks.

### Handling of LED UV



• 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 LED UV, or it may cause fire, or it may cause electrical shock.

# **Precautions for use**

# $\triangle$

# **CAUTION**

### Protection against dust



 It is strongly recommended to use the machine in a room that is not dusty.

Set the Refresh level 2 or 3 when in bad environment.

- When leaving the work place after the working hours, be sure to remove media from the printer. If any media is left on the printer, dust can put on it.
- Store media not to put dust on it. Wiping dust off the media, dust will be put on the media due to static electricity.
- Due to the dust on the head, ink drops will fall down on the media during printing. If so, be sure to clean up the head. ( P.2-8)

### Periodic exchange parts



 There are some parts which must be periodically replaced. Contract with distributors or dealers for maintenance.

# Adjusting the level



· Keep this machine horizontal.

# Handling of cleaning solution



 Be sure to store the cleaning solution in a cold and dark place. Store the cleaning solution in a place that is out of the reach of children.

# Warning labels



 Warning labels are adhered on this machine.
 Be sure to fully understand 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.

# Handling the antifreeze liquid



- Be sure to store the antifreeze liquid in a cold and dark place.
- Store the antifreeze liquid in a place that is out of the reach of children.

### Ink cartridges



- If the ink cartridge is moved from a cold place to a warm place, leave it in a place of use for three hours or more and use it.
- Open the ink cartridge just before installing.
   Leaving it open for a long time will cause abnormal printing.
- Be sure to store ink cartridges in a cold and dark place.
- Once the ink opened, be sure to use ink up early. The ink passed for a long time after opening the cartridge will lower the printing quality.

# 7

- Using other than exclusive ink will break this machine. In this case, repairing of this machine is your responsibility.
- · Never refill the ink cartridge with ink.
- Do not pound the ink cartridge nor shake it violently. If so, ink may leak out of the cartridge.

# **UV** light



A little UV light spills around the LED UV unit.
 UV light applied to your skin might cause inflammation and/or skin cancer.

Even weak UV light causing no inflammation may lead to chronic disorders by repeated exposure. Avoid applying UV light to your skin and eyes.



 Impairment of eyes caused by UV light may be acute disorders, pain in eyes, tearing, chronic disorders, cataract, etc.

When using this machine, protect your body such as gloves, long-sleeve cloth, light-resistant mask, attached light-resistant glasses, etc.

# Hot parts



 The LED UV and the interior of the UV irradiation device will have a very high temperature. When carrying out maintenance, wait until the temperature has been sufficiently lowered after the lamp is turned OFF.



 When it is unavoidable to touch hot parts, be sure to wear heat-insulating gloves to protect your hands.

# **CAUTION**

### **Notes on LED UV**



 When handling the glass on the bottom of the LED UV unit, be sure to wear the gloves attached and never touch them with bare hands. Or the UV ink curing level may significantly lower. If the glass becomes dirty, wipe it with clean gauze moistened with alcohol. (Do not use alcohol for cleaning the exterior cover, or the paint will peel off.)



The LED UV performance and service life are significantly affected by the UV irradiation and UV power supply
units used. Never use those UV devices other than those recommended by Mimaki. We would take no
responsibility for any troubles caused through the use of a UV devices not recommended by Mimaki.

### Cleaning



- After using this machine 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 to vacuum off foreign
  materials and dust.
- Do not use the machine in a place where there is a possibility of being wet, or electricity may leak.
- Electrical leakage may lead to electrical shock of personnel or fire.
- To prevent accidents, be sure to carry out periodic inspections and replace periodic replacement parts.

### Firing and smoking



Touching hot parts such as the LED UV with combustible materials may cause firing and/or smoking.
 Leaving combustible materials under the LED UV unit for a couple of minutes may also cause firing and/or smoking.



- After this machine is used long time, foreign materials or dust gathered may cause electrical leakage, or insulation deterioration may cause firing and/or smoking. Periodically clean this machine and replace the deteriorated parts after the insulation resistance.
- After this machine is used long time, screws or others on the conductive parts may be loosened, causing firing and/or smoking. Periodically tighten the screws.
- If abnormalities such as a strange odor, a smoking or a spark burn occurred, turn the power off and call our office immediately.

# **Laser Module**



The printer incorporates a laser module.

The laser module is evaluates as Class 1 Laser Products.

 Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser Diode 655 - 660nm, max. 10mW

Maximum output: 0.12 mW

IEC60825-1: 2007

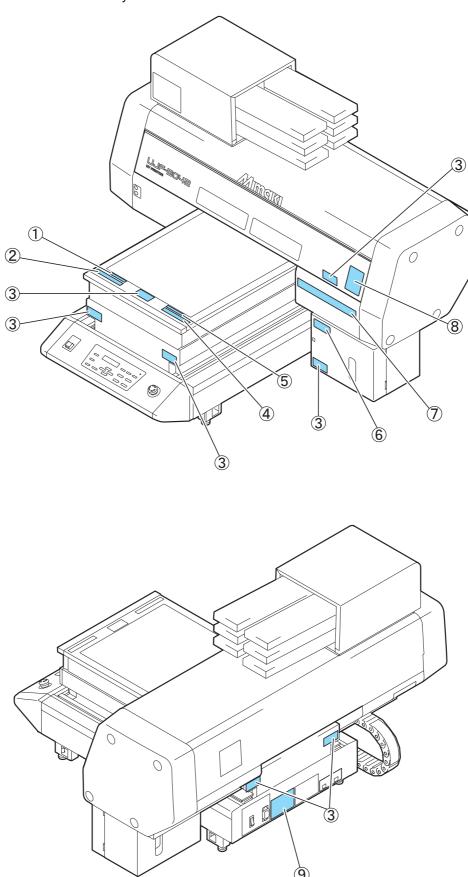
クラス1レーザ製品 CLASS 1 LASER PRODUCT

# **Precautions for installation**

| <b>CAUTION</b>                     |   |   |  |
|------------------------------------|---|---|--|
| A place exposed to direct sunlight | A place that is not horizontal                                | A place where temperature and humidity varies significantly   |  |
|                                    |   | •Use the machine under the following environment. Operating environment: 20 ~ 35 °C (68 to 95 °F) 35 ~ 65% (Rh) |  |
| A place that vibrates              | A place exposed to direct air blow from air conditioner, etc. | Around a place where fire is used   |  |
|                                    |   |   |  |

# Position of the warning label

Warning labels are adhered on this machine. Be sure to fully understand 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.

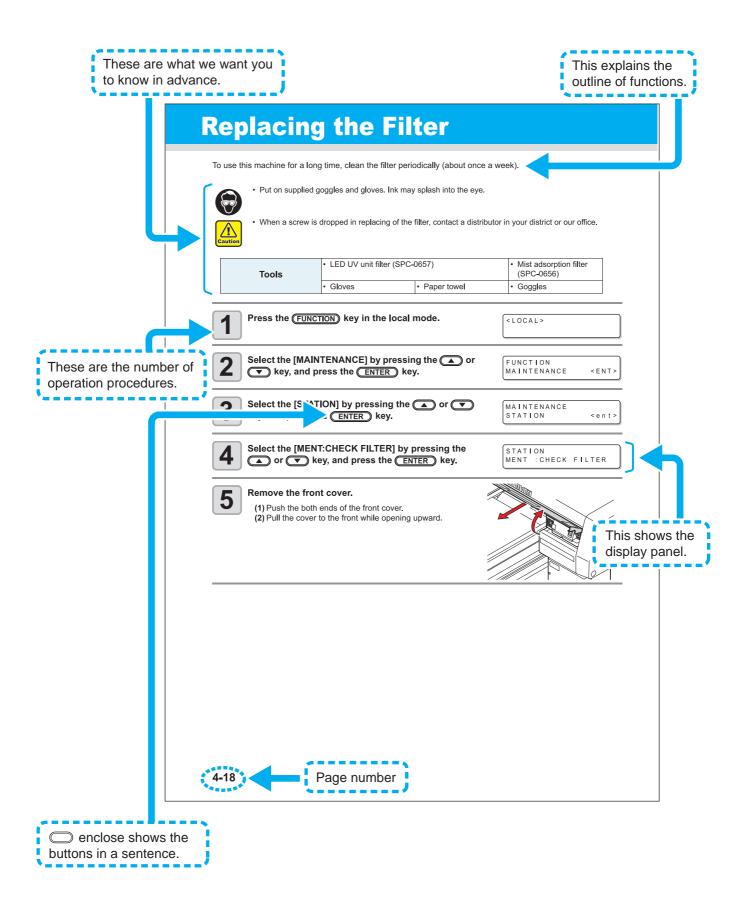


| Order No.   | Label   | Order No.   | Label  |
|-------------|---|-------------|--|
| (1) M907328 | DO NOT PUT<br>OVER 5KG ON THE TABLE   | (7) M901549 | ERIQUE de 19 924. **  ATENTION  ERIQUE de 19 924. **  ATENTION  ERIQUE de 19 924. **  ATENTION  COMMITTAGES.  COMM |
| (2) M904325 | . Do not sit or lean on the table. Do not put any pressure on one side.  These will deform the table and may cause damage and affects the printing. | (8) M905980 | Ultraviolet is radiated. If you touch UV, you may lose your sight and get burnt.  ULTRAVIOLET RADIATION  |
| (3) M904813 | 警告 WARNING  Fをはさまれる 恐れあり 適転に手を出すな Crush hazard Keep hands clear while operating. (エ)  |             | Les ultraviolets sont irradies. Par les ultraviolets, vous pouvez perdre votre et pouvez mé brûler.  ULTRAVIOLETS  WARNING   |
| (4) M903226 | このテーブルに関係けたり、着り掛かる等の保荷重をかけないで下さい。<br>テーブルが変形し、故障の原因や、画質に影響が出る可能性があります。  |             |  |
| (5) M907327 | テープ゛ル上に5kg以上のものを<br>載せないで下さい。   | (9) M902535 | この装置は、クラスA情報技術装置です。この装置を<br>家能環境で使用すると電波妨害を引き起こすことがあります。<br>この場合には使用者が適切な対象を護するよう要求される<br>ことがあります。<br>This device complies with Part 15 of the FCC Rules.<br>Operation is subject to the following two conditions:<br>(1) This device may not cause harmful interference, and  |
|             |   |             | (2) this device must accept any interference received, including interference that may cause undesired operation. 此为凡原产品, 在生活环境中, 该产品可能会造成天线电干扰。 Diseas Graft collegible der Klasse A für Verwendung in  |
| (6) M903330 |   |             | Industriellen Bereichen. Bei Verwendung in Wehnbereichen kann es zu Empfangsstörungen für Fernsehgeräte usw. kommen. Ceci est un appareil de classe A qui doit être utilisé dans une zone commerciale et industrielle. Urtilisation du dispositif dans une zone résidentielle ou dans des zones adjacentes à celle-ci pourrait causer des parasites nuisibles aux récepteurs radio ou de télévision.   |

# How to Read This Operation Manual

This manual provides the explanation about the displayed characters and used keys on the "Display Panel" in addition to the operation procedures.

Proceed operations confirming them while using.



# CHAPTER 1 Before Use



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

| Installing the machine                | 1-2  |
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| Kinds of ink that can be used         | 1-8  |
| About Media                           | 1-10 |
| The sizes of media that can be used   | 1-10 |
| Precautions in handling the media     | 1-10 |
| Menu mode                             |      |
|                                       |      |

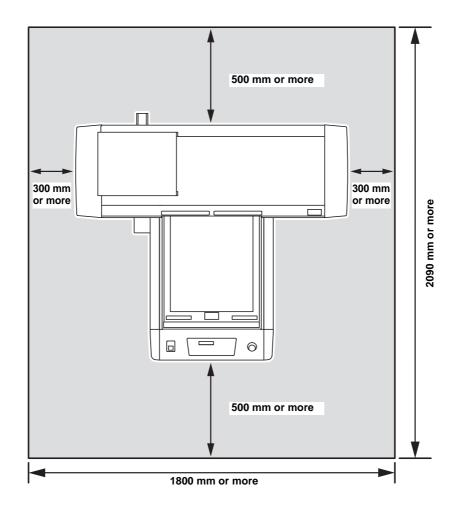
# Installing the machine

# Where to install the machine

Secure sufficient space for installation before assembling this machine.

Decide the place considering the size of the machine and a space required for drawing.

| Width   | Depth   | Height | Total Weight  |
|---------|---------|--------|---------------|
| 1200 mm | 1090 mm | 770mm  | Approx.113 kg |



# **Moving this machine**

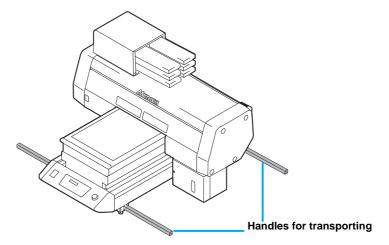
Move this machine as follows when this machine is required to move on the step-free same floor.



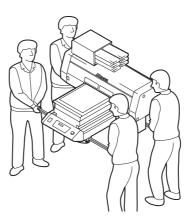
- When moving this machine, take care not to give a significant impact on it.
- When moving this machine, keep it as flatly as possible. Do not move it on its side. It may cause machine failure.



• Before moving this machine, install the handles for transporting. (two places) Insert the handles into this machine, and fix them tightening screws.

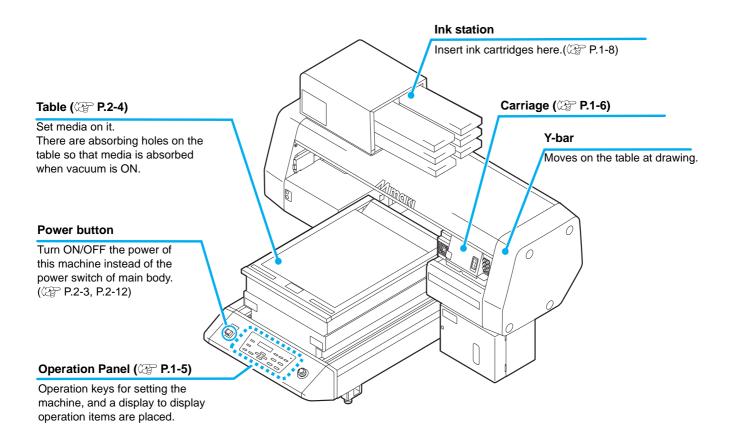


- For safety, be sure to work it with more than 4 people.
- Do not push the cover to move this machine since the cover may be deformed. Be sure to hold the handles for transporting when moving the machine.

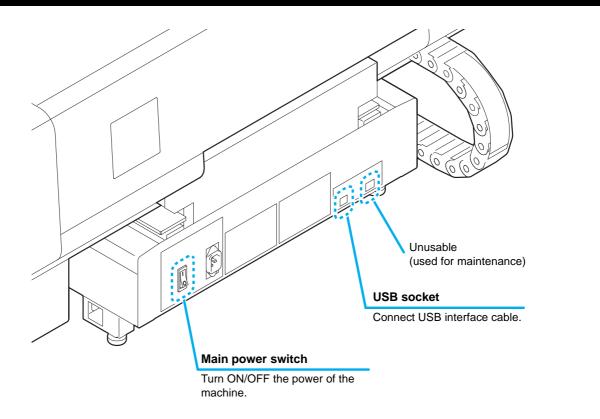


# Configuration and Function

# **Front**

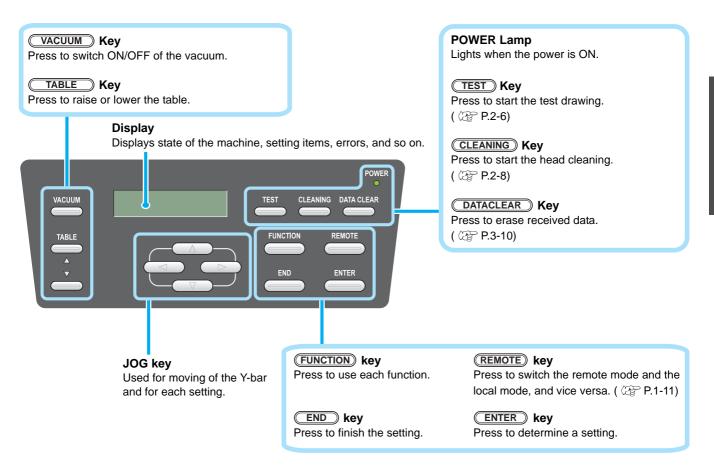


# Rear



# **Operation Panel**

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



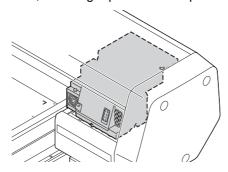
# **Function of Jog Keys**

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

| At drawing origin, area setting  | At function selection           | At setting selection         |
|----------------------------------|---------------------------------|------------------------------|
| Shifts the carriage to the left  |                                 |                              |
| Shifts the carriage to the right |                                 |                              |
| Shifts the carriage to the back  | Return to the previous function | Select the previous function |
| Shifts the carriage to the front | Move to the next function       | Select the next value        |

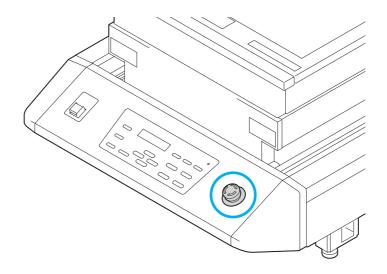
# Carriage

A print head for drawing, LED UV device, and a light pointer in the print head cover are mounted on the carriage.



# **EMERGENCY SWITCH**

When stopping the machine for safety reason, press the switch. One EMERGENCY switch is placed on the front face of the machine.



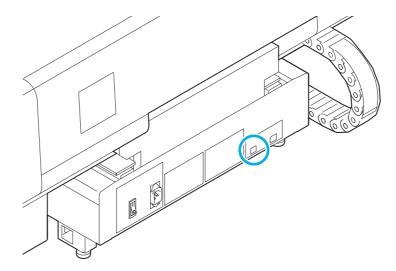
# Connecting the cables

# Connecting the USB2.0 interface cable

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



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



# Connecting the power cable



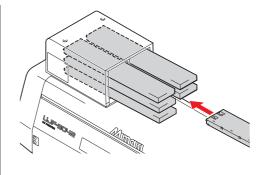
- Use only the supplied power cable.
- Be sure to connect the power cable plug to the grounded outlet, or it may cause fire or electric shock.
- Take care not to damage, break or work upon the power cable. Or if putting a heavy thing on, heating, or pulling the power cable, the power cable can break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

# Setting of ink cartridge

Use the ink cartridge inserting it into the ink station.

# Kinds of ink that can be used

| Ink Type              | Color   |  |  |
|-----------------------|---------|--|--|
| LH-100 Ink /          | Magenta |  |  |
| ELH-100 lnk           | Cyan    |  |  |
|                       | Yellow  |  |  |
|                       | Black   |  |  |
|                       | White   |  |  |
|                       | Clear   |  |  |
| Cleaning cartridge *1 |         |  |  |



Each color is displayed on the LCD as follows:

| Display | Color   | Display | Color  | Display | Color |
|---------|---------|---------|--------|---------|-------|
| М       | Magenta | Y       | Yellow | W       | White |
| С       | Cyan    | К       | Black  | CL      | Clear |

# Precautions at the time of setting the ink cartridge

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



• Confirm the ink slot number and insert the ink cartridge of the correct color.

|              | LH-100 lnk / ELH-100 lnk |    |  |
|--------------|--------------------------|----|--|
| Ink slot No. | 1                        | 2  |  |
| Ink color *1 | M                        | С  |  |
| Ink slot No. | 3                        | 4  |  |
| Ink color    | Y                        | К  |  |
| Ink slot No. | 5                        | 6  |  |
|              | W                        | W  |  |
| Ink color    | CL                       | CL |  |
|              | W                        | CL |  |
|              |                          |    |  |

<sup>\*1.</sup> M=Magenta, C=Cyan, Y=Yellow, K=Black, W=White, CL=Clear

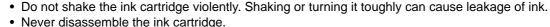
- Insert the ink cartridge securely all the way in the slot. Moreover, do not insert or pull out the cartridge roughly.
- Insert the cartridge making the IC chip side facing upward.
- For replacing the ink cartridge and the ink type, see the page below.
   P.4-4 "Ink cartridge")
- If the ink near end board comes out even when ink remains, shake the cartridge, check that the ink near end board returns and then set it.

<sup>\*1.</sup> To be used when the head is cleaned.

# Precautions in handling ink cartridge



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





 Never refill the ink cartridge with ink. Refilling the ink cartridge can cause a trouble. Remember that Mimaki assumes no responsibility for any damage caused by the use of the ink cartridge replenished with ink.

# About Media

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

# The sizes of media that can be used

| Maximum width       | 300 mm         |
|---------------------|----------------|
| Maximum length      | 420 mm         |
| Max. drawing width  | 300 mm         |
| Max. drawing length | 420 mm         |
| Thickness           | Less than 50mm |
| Weight *1           | Less than 5 kg |

<sup>\*1.</sup> A rough guide is 50 kg per 1 m<sup>2</sup>.

# Precautions in handling the media

Carefully observe the following when handling the media.



### Extension and shrinkage of the media

Do not use the media in the sheet form shortly after the package was opened. The media could extend or shrink depending on the temperature and humidity inside the room. For more than 30 minutes after opening of the package, the media has to be exposed to the ambient air of the location it is to be used.

### Warping of the media

As for the media of the sheet form, use the flat one, or the one warping downward (the one with floating central part when placed the drawing surface facing upward.) The media warping upward could not be absorbed in some cases onto the table. Store the media liable to be warped on the slightly smaller platform or palette so that it may warp downward.

### · Adsorption of the media

To maintain the adsorption 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
- **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.
- **d** The suction holes could affect the printed images depending on the thickness and elasticity of the media. Perform printing after confirming that there is no problem by making the test printing in advance.

# Menu mode

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

# **Local Mode**

Local mode is a mode in drawing preparation state.

All keys are available.

Receiving of data from the computer is allowed, however, drawing is not executed. The following operations are allowed in the local mode.

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

# **Function Mode**

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

# **Remote Mode**

Remote mode is a mode in drawing received data.

Pressing of the **REMOTE** key suspends the machine.

Press the REMOTE during the Local Mode to switch to the Remote Mode.

# CHAPTER 2 Basic Operations



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

| Operation flow                               | 2-2  |
|--|------|
| ·<br>Turning the power ON                    |      |
| Setting the media                            | 2-4  |
| Set the media in another method              | 2-5  |
| Test drawing                                 | 2-6  |
| Execution of head cleaning                   | 2-8  |
| Drawing an image from source data            | 2-9  |
| Starting the drawing operation               | 2-9  |
| Interruption of drawing                      | 2-10 |
| Checking drawing data that is being received |      |
| or has been received                         | 2-10 |
| When [! WORK High] is displayed              | 2-11 |
| If you open the cover during drawing         | 2-11 |
| Turning the power OFF                        | 2-12 |

# Operation flow

**Turning the power ON** See "Turning the power ON" (@P P.2-3) Setting the media See "Setting the media" ( P.2-4) Test drawing See "Test drawing" ( P.2-6) **Execution of head cleaning** See "Execution of head cleaning" (@PP.2-8) Drawing an image from source See "Drawing an image from source data" ( P.2data **Turning the power OFF** See "Turning the power OFF" (Æ P.2-12)

# Turning the power ON

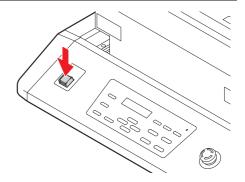


• When the power is turned ON, the Y-bar moves. To avoid injuries, keep your hands away from the table.



# Press the power button.

- Press the power button on the left side of the operation panel to light.
- When the main power switch is not set to ON, the power is not connected even if the power button is pressed. If the lamp does not light even if the button is pressed, check the main power switch on the rear of this machine.



• When the power is switched on, the LCD displays the firmware version.

UJF-3042 start-up ver.\*.\*\*



# Initial operation is started.

• Local Mode starts.

PLEASE WAIT SEARCHING ORIGIN

<LOCAL>



Turn the power of connected computer ON.

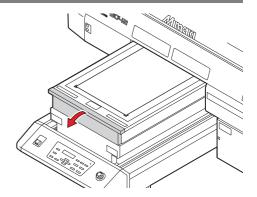
# Setting the media



- To avoid lifting of media, turn ON the adsorption fan after setting media.
- If, within the adsorption 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.



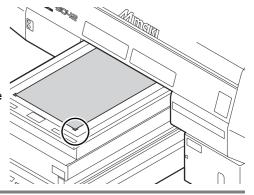
Open the table front cover.



2

# Set media along the L-shaped mark (drawing origin) on the right corner of the table.

- To change the drawing origin, see the following page. ( P.3-2 "Changing origin")
- To use tools, set into the shaves (8.0 mm-deep) on the corners of the table.



3

Close the table front cover, and press the ENTER key.

• The origin is detected. Please wait until the operation is finished.



Adjust the table to an appropriate height for drawing by pressing the TABLE keys, and press the ENTER key.



• Adjust the height of the table with the media to 50 mm or less.

# Set the media in another method

You can move the Y bar to the rear so that you may set the media easier.



Press the FUNCTION key in the local mode.

< L O C A L >



Press the ENTER key.

• The table is lowered.

FUNCTION WORK SET <ENT>



To check the height, press the FUNCTION key.

• The table height can be checked after the table lifts to the specified height, the obstacle sensor works, and the Y-bar moves to the front.

WORK SET COMPLETED : ent



# Press the ENTER key.

• The table is lifted to the specified height.

WORK SET COMPLETED : ent

# Test drawing

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



• When you use white ink and clear ink, print on the clear film to check.

| Check before starting | • Is media set? ( @ P.2-4) | • Is origin point set? ( @ P.3-2) |
|-----------------------|----------------------------|-----------------------------------|
| test drawing          | ,                          |                                   |

1

Press the (TEST) key in the local mode.

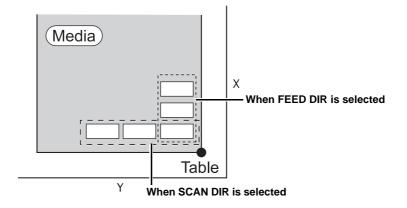
<LOCAL>

2

Select the drawing direction by pressing the or key, and press the ENTER key.

TEST DRAW (SCAN DIR) <ENT>

- When nozzle recovery is not set, test drawing is started in the selected direction.
- SCAN DIR: Draws in the scan (widthwise) direction of the media.
- FEED DIR: Draws in the feed (longwise) direction of the media.
- TEST DRAW
  (FEED DIR) <ENT>



3

When nozzle recovery is set, press the or key to set ON/ OFF and then press the ENTER key.

TEST DRAW NOZZLE RECOVERY:ON

- This is available for F/W Ver.3.30 and later.
- ON: Draws with nozzle recovery ON. OFF: Draws with nozzle recover OFF.

4

# Test drawing ends.

• Y-bar evacuates from the table, and then the mode returns to the local.

5

# Check result of drawing.

- When the result is normal, finish the operation. ( P.2-9)
- When the result is abnormal, execute head cleaning. ( P.2-8)

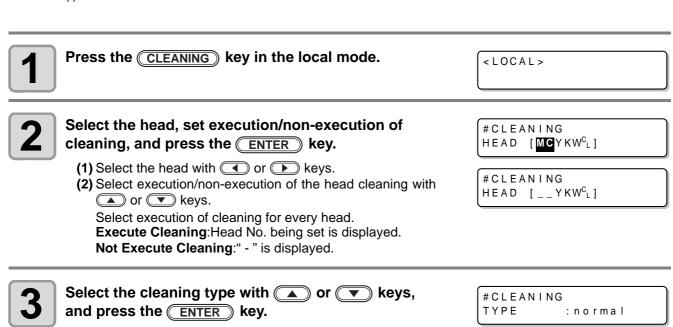
| Normal nattorn | Abnormal patterns       |   |   |
|----------------|-------------------------|---|---|
| Normal pattern | Nozzle drop out         | Nozzle missing                                  | Deflection  |
|                | Many lines are missing. | The lines are missing as if the teeth are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

### Execution of head cleaning

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

| normal      | To be used if ten odd numbers of the lines are missing when the test pattern is made. Suction and wiping will be performed. |  |
|-------------|---|--|
| hard        | To be used when the missing of the lines does not improve with the "normal" cleaning.                                       |  |
| soft        | To be used when the lines are curved.   |  |
| Flushing *1 | To be used when mixed colors (for example, black mixed in yellow) occur.  |  |

<sup>\*1.</sup> Supported from the firmware ver.3.80.





### Press the ENTER key.

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



### Execute test drawing and check the result of the test drawing.

Repeat cleaning and test drawing until normal result is obtained.

### Drawing an image from source data

### Starting the drawing operation



• If the temperature of the head has not reached the predetermined value, a message is displayed. Drawing is not allowed in such cases. When the display is disappeared, drawing can be started.



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



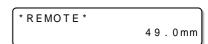
### Set the media. ( P.2-4)

(1) When you set the vacuum fan setting (P.3-19) to "MANUAL", press the VACUUM key depending on the use and vacuum the media.



### Press the REMOTE key in the local mode.

- The machine goes in the remote mode and data from the computer can be received.
- The table height is displayed.



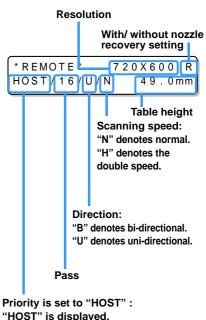
### 3

### Transmit data to be drawn from the computer.

- Drawing conditions are displayed.
- As for the data transmission method, see the instruction manual of the output software.



• This machine does not have "H" (double speed) and "B" (bi-directional).



"HOST" is displayed.
Priority is set to "PLOT":
Print quality (STD/FINE/FAST) is displayed.



### Start drawing.

• The drawing origin is not changed after completion of the drawing.



### Taking out the media after completion of drawing.

- (1) When you made vacuum ON, Press the VACUUM key to turn the adsorption OFF.
- (2) Remove the media.



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

### Interruption of drawing

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



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

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





• To restart drawing, press the REMOTE key again.



Press the **DATACLEAR** key.



3

### Press the ENTER key.

• Received data is erased and the machine returns to the local mode. Y-bar moves to the evacuation position.



### Checking drawing data that is being received or has been received

The next displayed if you cancel drawing or if you received the drawing data on the Local.

At this time, if you press the **REMOTE** key to migrate to the remote, drawing is started or restarted. (Supported from the firmware ver.4.10)

<LOCAL> DT DATA REMAIN



 Even if a separate warning or error is displayed in the second line of the display, if DT is displayed on the upper-right hand side, it means the device has undrawn data.

| 1 | < LO( | CAL> |     |   | DT |
|---|-------|------|-----|---|----|
| l | INK   | NEAR | END | K | W  |

### When [! WORK High] is displayed

When [! WORK High] is displayed on the screen and the drawing operation stops during drawing, restart drawing with the procedures below:

ERROR 505!WORK High



• During drawing, the sensor always monitors the media height. When the gap check function ( P.3-7) is set to "OFF", if the sensor detects the media, the drawing operation is interrupted automatically, and [! WORK High] is displayed on the screen.



Press the ENTER key.

• The screen returns to LOCAL.

<LOCAL>



### Check the media setting status, and press the (REMOTE) key.

- The machine restarts drawing.
- If you do not wish to restart drawing, press the **DATACLEAR** key to interrupt drawing. ( P.2-10 "Interruption of drawing")

### If you open the cover during drawing

f you open the cover or press the emergency stop switch during drawing, the warning message is displayed on the screen.

Reset a switch



Press the ENTER key.

PRINTING PAUSE
CONTINUE < > CANCEL



Press the or key to select "CONTINUE" or "CANCEL" of drawing.

- When you select "CANCEL", the machine starts initialization.
- When you select "CONTINUE", the right screen is displayed. When you continue drawing, press the **ENTER** key. When you stop drawing, press the **END** key.

Resume Print PRESS <ENT> KEY



When you continue drawing, image missing may occur depending on the timing of the cover opened.



 When you open the cover when the drawing operation is not performed, the right screen is displayed. In this case, press the ENTER key

( RESET SWITCH )
PRESS <ENT> KEY

### Turning the power OFF

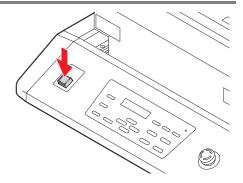
To turn off, check first whether or not there is data received and there remains data that has not yet been output in the machine.



Turn the power of the connected computer off.



Press the power button to cut the power.





When this machine is not used for a long time, execute the following:

- (1) Press the power button.
- (2) Confirm that the shutdown operation is completed.
- (3) Turn off the main power switch on the rear of this machine. ( P.1-4)

### CHAPTER 3 Useful Function



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

| Changing origin                                  | . 3-2  |
|--|--|
| Changing origin with JOG keys                    | 3-2  |
| Changing origin with FUNCTION menu.              | 3-3  |
| Setting the Head Height                          | . 3-4  |
| Setting the media thickness                      | 3-4  |
| Setting the head gap                             | 3-5  |
| Setting the table height                         | 3-6  |
| Gap check  | 3-7  |
| Perform setting to reduce stripes                |  |
| between passes                                   | . 3-8  |
|  |  |
| Other useful functions                           |  |
| Other useful functions  Data clear               | 3-10   |
|  | <b>3-10</b><br>.3-10                                 |
| Data clear                                       | <b>3-10</b><br>.3-10<br>.3-10                        |
| Data clearDisplaying information of this machine | <b>3-10</b><br>.3-10<br>.3-10                        |
| Data clear                                       | <b>3-10</b><br>.3-10<br>.3-10<br>3-11                |
| Data clear                                       | 3-10<br>.3-10<br>.3-10<br>.3-11                      |
| Data clear                                       | 3-10<br>3-10<br>3-10<br>3-11<br>3-12<br>3-14         |
| Data clear                                       | 3-10<br>3-10<br>3-11<br>3-12<br>3-14<br>3-15<br>3-15 |

| Increasing cumulative UV irradiation       |       |
|--|-------|
| when the number of passes is low           | .3-17 |
| Setting of priority                        | .3-18 |
| Setting the mode of the fan mode           | .3-19 |
| Setting the work change                    | .3-20 |
| Setting the ink weight                     | .3-21 |
| Changing language display on the screen    | .3-22 |
| Output the setting list                    | .3-23 |
| Displaying machine information             | .3-24 |
| Other useful settings                      | .3-26 |
| Initializing settings                      | .3-27 |
| Setting time                               | .3-28 |
| Setting mm/ inch                           |       |
| Setting weight of the empty cartridge      | .3-30 |
| Setting Key buzzer                         | .3-31 |
| Setting radiator pump                      | .3-32 |
| Setting the flushing level before printing |       |
|  |       |

### Changing origin

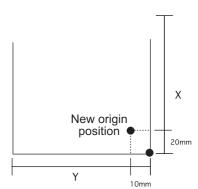
The default origin position can be changed. There are following 2 changing methods.

### Media Light pointer mark New origin position Default origin position

Changing with the JOG keys

Origin position by JOG keys

### Changing with the "ORIGIN" in the FUNCTION menu



### Changing origin with JOG keys



Press the keys in the local mode.

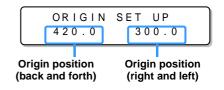
ORIGIN SET UP

- 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 the keys.

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



3

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



• The origin is changed.





- The setting value for the origin set with the JOG keys is cleared by cutting the power.
- The setting of the table height holds even if turning off the power.

### **Changing origin with FUNCTION menu**

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

1

Press the (FUNCTION) key in the local mode.

< L O C A L >

2

Select the [ORIGIN] by pressing the or key, and press the ENTER key twice.

FUNCTION
SET ORIGIN <ENT>

• X-axis offset value setting screen is displayed.

3

Input value by pressing the

or keys, and press the <u>ENTER</u> key.

ORIGIN 410mm X OFFS: 10mm

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



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

ORIGIN SELECT : Y OFFS

5

Input value by pressing the or keys, and press the key.

ORIGIN 290mm Y OFFS: 10mm

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



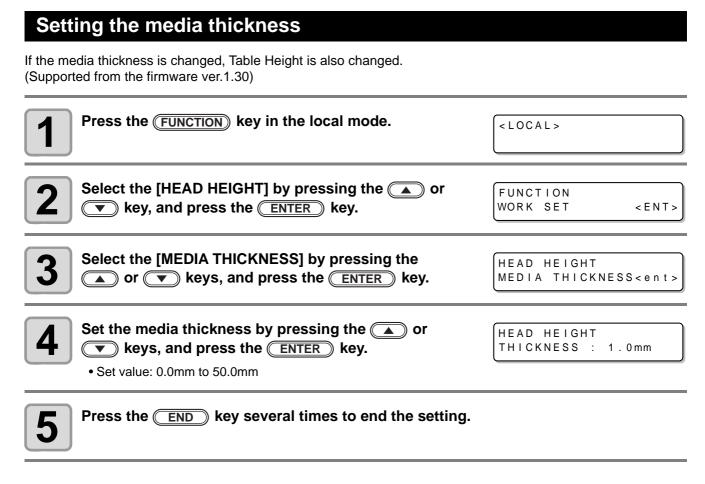
Press the END key several times to end the setting.



• The set value remains even if turning off the power.

### Setting the Head Height

Media thickness, Head gap, and Table height can be changed.



(Important!)

Adjust [MEDIA THICKNESS] or [TABLE HEIGHT] based on the head gap value so that [HEAD GAP] +
 [MEDIA THICKNESS] + [TABLE HEIGHT] = 51.5mm.
 If adjustment cannot be performed, an operation error is displayed.

### Setting the head gap If the head gap is changed, Table Height is also changed. (Supported from the firmware ver.1.30) Press the FUNCTION key in the local mode. <LOCAL> Select the [HEAD HEIGHT] by pressing the or FUNCTION key, and press the ENTER key. WORK SET < E N T > Select the [HEAD GAP] by pressing the or HEAD HEIGHT **▼** keys, and press the ENTER key. MEDIA THICKNESS < ent > Set the head gap by pressing the ▲ or ▼ HEAD HEIGHT 4 keys, and press the **ENTER** key. HEAD GAP : 1.5mm

**5** Press the <u>END</u> key several times to end the setting.

• Set value: 1.5mm to 5.0mm

### Setting the table height

If the table height is changed, Media Thickness is also changed. (Supported from the firmware ver.1.30)

keys, and press the **ENTER** key.

• Set value: 0.0mm to 50.0mm

Press the FUNCTION key in the local mode.

Select the [HEAD HEIGHT] by pressing the or key, and press the ENTER key.

Select the [TABLE HEIGHT] by pressing the or keys, and press the ENTER key.

HEAD HEIGHT MEDIA THICKNESS<ENT>

Set the table height by pressing the or HEAD HEIGHT



Press the END key several times to end the setting.



Adjust [MEDIA THICKNESS] or [TABLE HEIGHT] based on the head gap value so that [HEAD GAP] +
 [MEDIA THICKNESS] + [TABLE HEIGHT] = 51.5mm.
 If adjustment cannot be performed, an operation error is displayed.

TBL HEIGHT : 49.0mm

### Gap check

Select operation when obstacles are detected during drawing. (Supported from the firmware ver.1.30)



Press the (FUNCTION) key in the local mode.

< L O C A L >



Select the [HEAD HEIGHT] by pressing the ▲ or ▼ key, and press the ENTER key.

FUNCTION WORK SET <ENT>



Select the [GAP CHECK] by pressing the or keys, and press the ENTER key.

HEAD HEIGHT MEDIA THICKNESS<ent>



Select the mode by pressing the or keys, and press the key.

HEAD HEIGHT GAP CHECK :ON

- Set value: ON, OFF
- When ON is selected:

Before drawing, the work height is checked with the specified table height (media thickness). Before and during drawing, if the work sensor is shielded, the table is lowered until it is unshielded to change the table height.

If the work sensor is shielded when the table is lowered to the bottom (table height 0.0mm), a message of [WORK High] appears and the operation stops.

When OFF is selected:

Before drawing, the work height is checked with the specified table height (media thickness), and if the work sensor is shielded, a message of [WORK High] appears and the operation stops.



Press the END key several times to end the setting.



• The gap check function is not a function to avoid the head hit completely by detecting obstacles. Even when the GAP CHECK is "ON", be sure to check the work height visually before drawing.

### Perform setting to reduce stripes between passes

### What is the MAPS Function?

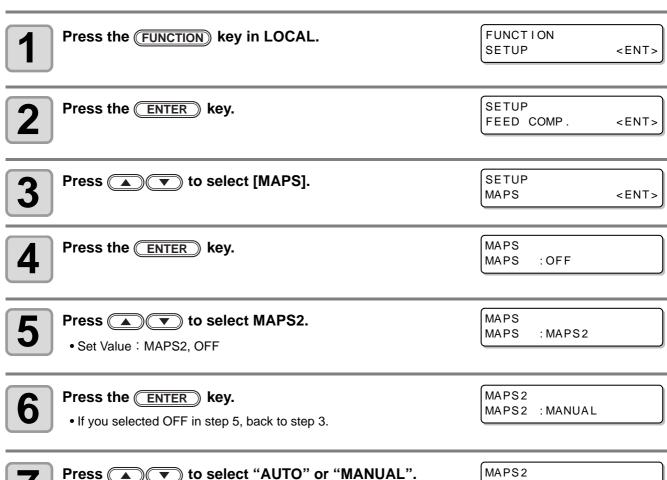
If performing media correction does not resolve feeding stripes, use the MAPS (Mimaki Advanced PassSystem) function to disperse the pass boundary to make the feeding stripes less visible.

With the UJF-3042, you can use the MAPS2 function<sup>\*1</sup>. (Supported from the firmware ver.4.10)



- 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 MAPS2 Function**





(Important!)

to select "AUTO" or "MANUAL".

: Set the print pattern and smoothing level to the AUTO

recommended value automatically depending on printing mode.

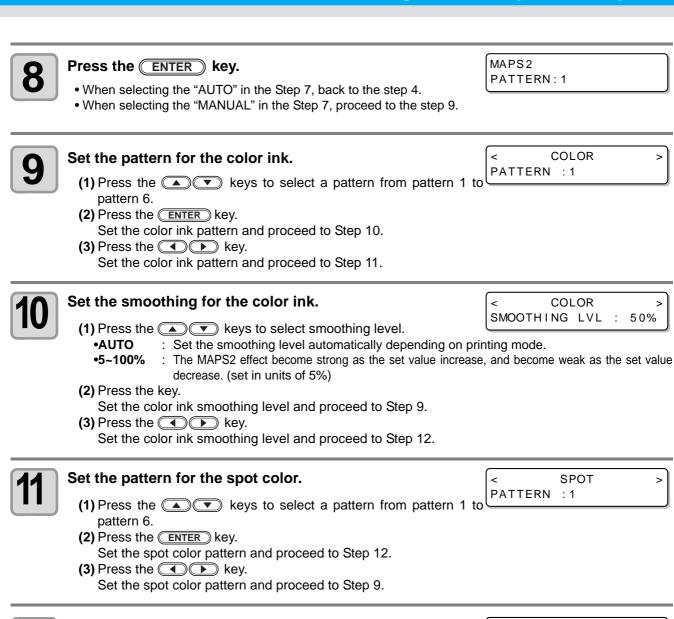
• MANUAL: You can adjust the set value.

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

MAPS2 : AUTO

<sup>\*1.</sup> This helps reduce feeding stripes and uneven color.

50%



### Set the smoothing level for the spot color ink. SPOT SMOOTHING LVL 50% (1) Press the keys to select smoothing level. Press the AUTO:Set the smoothing level automatically depending on printing mode.

•5~100% : The MAPS2 effect become strong as the set value increase, and become weak as the set value decrease. (set in units of 5%)

(2)Press the ENTER key. Set the spot color smoothing level and proceed to Step 11.

(3)Press the key. Set the spot color smoothing level and proceed to Step 10.

### Other useful functions

### Data clear

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



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

< L O C A L >



Press the ENTER key.

• The data is erased.

DATA CLEAR < ENT>

### Displaying information of this machine



The information is displayed sequentially by pressing the ENTER key in the local mode.

The following information are displayed.
 Remaining amount of ink / ERROR (If there is an error) / FW version/ Command information
 Remaining amount of ink
 FW version/ Command information

| <local></local> | MCYKW <sup>C</sup> L |
|-----------------|----------------------|
| REMAIN          | 999999               |

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- For the display of remaining amount of ink, the larger number indicates ink remains lot.
- Remaining amount of ink and the remaining number of printing have a margin of error. Refer the value displayed as a guide.



Press the ENTER key to return to the local mode.

<LOCAL>



• Information on your machine type can be confirmed in P.3-24 "Displaying machine information".

### Proceed with drawing that you suspended

When you open the cover during printing data, drawing is suspended. In such a case, you can proceed with it continuously by performing the procedures below. (Supported from the firmware ver.1.60)



- When you suspended test drawing, you cannot continue it.
- When you proceed with drawing that you suspended, the image quality and the precision may not be quaranteed.
- · When you suspended drawing because an error had occurred, you cannot proceed with it.



When you open the cover during drawing and close it again, the message is displayed.

PRINTING PAUSE
CONTINUE < > CANCEL

- Pressing the key displays the message to confirm you whether you proceed with drawing or not.
- When pressing the key, the machine stops drawing and returns to the local mode.



Press the **ENTER** key to proceed with drawing.

• When pressing the END key, the screen returns to the one in the Step 1.

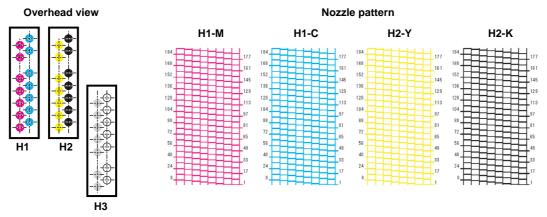
Resume Print PRESS <ENT> KEY

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

NOZZLE RECOVERY: When nozzles missing can not be improved at specific points, other good nozzles can be used as alternatives for printing. (Supported from the firmware ver.1.60)

Press the **FUNCTION** key in the local mode. <LOCAL> Select the [MAINTENANCE] by pressing the or FUNCTION key, and press the ENTER key. MAINTENANCE <ENT> Select the [NOZZLE RECOVERY] by pressing the 

or MAINTENANCE key, and press the ENTER key. NOZZLE RECOVERY<ENT> Select the [DRAW] by pressing the key. 4 NOZZLE RECOVERY CLEAR < >DRAW • : The set value can be cleared by selecting the Nozzle line and then pressing **ENTER** key. • ▲ ▼ : Select the Nozzle line PRINTING "Move to select of the Nozzle line (Step 5) without PLEASE WAIT drawing a patern"



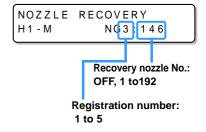




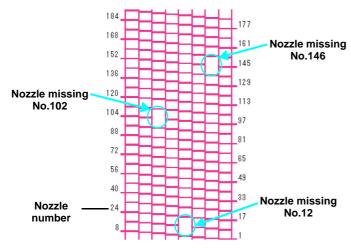
### Register the Nozzle number that needs NOZZLE RECOVERY and then press ENTER key.

• **A** :

Keys for registering the nozzle number that needs recovery from 1 to 192 or selecting "OFF"; no nozzle registration.



### Example of nozzle to be recovered



| Registration number | Recovery Nozzle No. | State                      |
|---------------------|---------------------|----------------------------|
| 1                   | 12                  | Target for nozzle recovery |
| 2                   | 102                 | Target for nozzle recovery |
| 3                   | 146                 | Target for nozzle recovery |
| 4                   | OFF                 | No registration            |
| 5                   | OFF                 | No registration            |



- Up to 5 nozzles can be registered per 1 nozzle line.
- Even if you use this function, time required for drawing does not change.
- For the lowest number of paths of the drawing mode, the NOZZLE RECOVERY function is invalid.



• When you use white ink and clear ink, print on the clear film to check.

PRINTING

### **Checking ink landing displacement**

• When plotting is completed, return to step 3.

You can check for ink landing displacement from causes such as the equipment table shaking. (Supported from the firmware ver.3.80)

Press the FUNCTION key in the local mode.

Select the [MAINTENANCE] by pressing the or key, and press the ENTER key.

Select the [DISPLACEMENT] by pressing the or key, and press the ENTER key.

MAINTENANCE CENT>

Print the pattern for evaluating ink landing on the whole



table.

Ink landing displacement will result in a striped pattern.
 Check that the table does not shake and that there is not a large head gap. If there is a large ink landing displacement, request service to readjust the device.

### Various settings

### Setting the print method

Set items for printing.

Press the (FUNCTION) key in the local mode.

<LOCAL>

Select the [SET UP] by pressing the ▲ or ▼ key, and press the **ENTER** key.

**FUNCTION** WORK SET < E N T >

Select the [PRINT MODE] by pressing the 

or key, and press the ENTER key.

SET UP PRINT MODE < e n t >

4

Press the ENTER key.

SET UP QUALITY < e n t >

Select an item to be set by pressing the 

or

key, and press the ENTER key.

SET UP QUALITY : STANDARD

• As for setting items, see the next page.



Select a value by pressing the ▲ or ▼ key, and press the **ENTER** key.

• As for setting values, see the next page.



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



• Set value remains even after turning off the power.

| Item    | Value    | Outline   |  |
|---------|----------|---|--|
| QUALITY | STANDARD | Standard drawing quality                                |  |
|         | FINE     | High quality drawing (drawing speed is slower)          |  |
|         | FAST     | High speed drawing (quality is inferior)                |  |
| LOGICAL | ON       | The head moves according to the data width to be drawn. |  |
| SEEK    | OFF      | The head moves whole table width at drawing.            |  |

### Setting the mode of the LED UV

The mode of the LED UV may be set in 3 stages.

This setting is made when the media vulnerable to the heat is used or when the test drawing is made in which the lighting of the LED UV is not desired.

| ON   | The LED UV is lit.   |                               |  |
|--|--|-------------------------------|--|
| OFF  | The LED UV is not lit.   |                               |  |
| NOPRINT  | The drawing is not performed and only the LED UV is lit. Use when drawing is performed without the LED UV is lit etc., and when you wish to make it cure afterward. (Normally, this setting will not be made.) |                               |  |
| 1 Pre mo   | ss the <u>FUNCTION</u> key in the local<br>de.   | < L O C A L >                 |  |
|  | ect the [SET UP] by pressing the  or  or, and press the ENTER key.   | FUNCTION WORK SET <ent></ent> |  |
|  | ect the [UV MODE] by pressing the  or  or and press the ENTER key.   | SET UP UV MODE <ent></ent>    |  |
| Press or keys to select the mode, and press the ENTER key.  • Set values :ON , OFF , NOPRINT |  |                               |  |
| Pre  | ss the END key several times to end the setting  | <b>]</b> .                    |  |

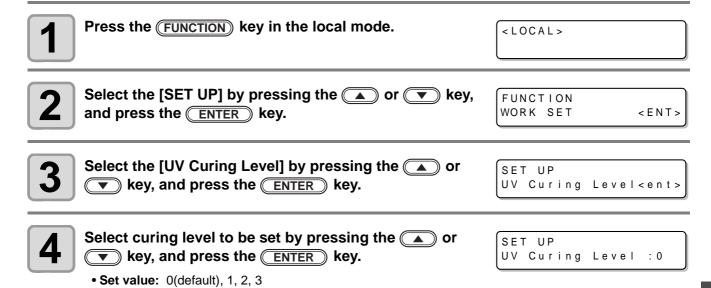


• The mode of the LED UV may be set on the RIP side, when performing the remote drawing. For details, please refer to the Instruction Manual of your RIP.

### Increasing cumulative UV irradiation when the number of passes is low

When the number of passes is low (720x600: 8 passes or less, 720x900: 12 passes or less, 720x1200: 8 passes or less), cumulative UV light quantity irradiated to the discharged ink is smaller, which may cause insufficient UV curing for some media type.

Setting [UV Curing Level] reduces the number of nozzles to be used when the number of passes is low. Increasing the scan count increases the cumulative UV light quantity. (Supported from the firmware ver.3.80)

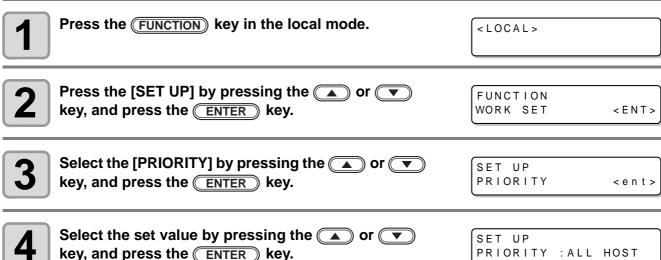




- This operation is available only when the number of passes is low (720x600: 8 passes or less, 720x900: 12 passes or less, 720x1200: 8 passes or less). In other drawing modes, the number of nozzles used normally are used for drawing.
- Due to a reduced number of nozzles used for drawing, the drawing time becomes longer.

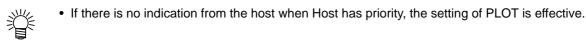
### **Setting of priority**

Select priority of setting of this machine or that of the computer on the following items respectively. **Items to be selected:** Print mode / Feed compensation / Ink layers / Logical seek / Refresh



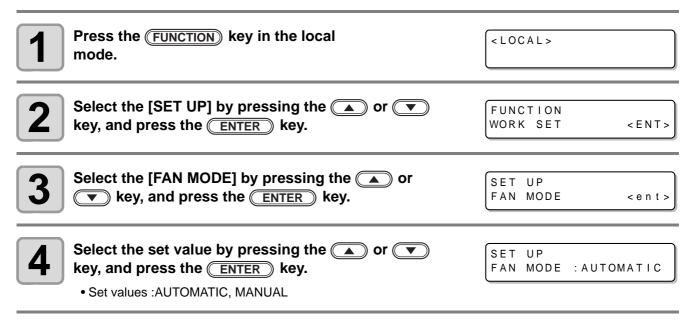
- Set value: ALL HOST / ALL PLOT / INDIVIDUAL
  - If you select [ INDIVIDUAL ], go to the Step 5, and if you select others, go to the Step 7.
- Select the "HOST" or the "PLOT" by pressing the
  or key, and press the ENTER key.

   Although the item can be selected by pressing the or key, be sure to press the ENTER key to save the setting.
- Set other items with the same manner as 4, 5.
- Press the END key several times to end the setting.



### Setting the mode of the fan mode

Set whether you perform vacuum automatically or with the user-specified operation. When you set it to "AUTO", vacuum is made to ON automatically before drawing. When you set it to "MANUAL", ON/OFF of vacuum follows the user setting. (Supported from the firmware ver.3.00)



### Setting the work change

Set whether to return to the local mode or keep the remote mode after online drawing. (Supported from the firmware ver.1.20)

Press the FUNCTION key in the local mode. <LOCAL> Press the [SET UP] by pressing the ▲ or ▼ FUNCTION key, and press the **ENTER** key. WORK SET < E N T > Select the [WORK CHANGE] by pressing the SET UP WORK CHANGE or ▼ key, and press the ENTER key. < e n t > Select "OFF" or "ON" by pressing the ▲ or ▼ SET UP WORK CHANGE : OFF key, and press the **ENTER** key.

- OFF: Keeps the remote mode after online drawing.

  (draws next drawing data over a drawn face while receiving)
- ON: Returns to the local mode after online drawing.

: ent

### Setting the ink weight



• 600ml ink cartridge can be used on firmware Ver.1.20 or later.

Enter the weight when after filling ink or INK LVL LOW or INK LVL END is detected. This machine recalculates remaining amount of ink and writes the value into the IC chip. (600ml ink only)

1

Press the (FUNCTION) key in the local mode.

< L O C A L >

2

Press the [SET UP] by pressing the or key, and press the ENTER key.

FUNCTION
WORK SET <ENT>

3

Select the [CART WEIGHT] by pressing the or key, and press the ENTER key.

SET UP CART WEIGHT <ent>

4

Select cartridges by pressing the or key.

SET UP CARTRIDGE :M

- ullet The ink colors of the cartridges displaying "INK LVL LOW" or "INK LVL END" are displayed as "MCYKW $^{\rm C}_{\rm I}$ ".
- When two cartridges of the same color are set as WW or  ${}^{C}{}_{L}{}^{C}{}_{L}$ , they are displayed as W1W2 or  ${}^{C}{}_{L}{}^{1}{}^{C}{}_{L}$ 2.



Enter weight of the cartridge by pressing the or key, and press the ENTER key.

SET UP WEIGHT = 850g

• The number changes by 1 g.



Fix or change the setting.

• Press the ENTER key to fix the setting.

SET UP 850g OK?

• Press the END key to change the weight (back to Step 5).

7

# Changing language display on the screen Display language can be selected between Japanese and English. Press the FUNCTION key in the local mode. Select the [DISPLAY] by pressing the or FUNCTION DISPLAY <ENT> Select a language by pressing the or FUNCTION DISPLAY <ENT> Select a language by pressing the or FUNCTION DISPLAY <ENT> DISPLAY English <ent>



4

• Set value remains even after turning off the power.

Press the END key to finish.

### **Output the setting list**

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

1 Set a larger media than the legal size. (© P.2-4)

Press the FUNCTION key in the local mode.

< L O C A L >

Select the [MAINTENANCE] by pressing the or key, and press the ENTER key.

FUNCTION MAINTENANCE <ENT>

Select the [LIST] by pressing the or key, and press the ENTER key.

MAINTENANCE LIST < ent>

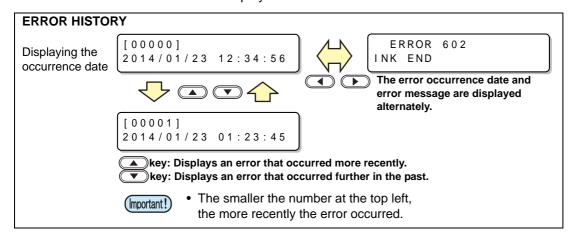
• Output of the setting list starts.

Press the END key to finish.

### **Displaying machine information** Press the (FUNCTION) key in the local mode. <LOCAL> Select the [MAINTENANCE] by pressing the ( ) or FUNCTION key, and press the ENTER key. MAINTENANCE < ENT > Select the [INFORMATION] by pressing the ( ) or MAINTENANCE key, and press the ENTER key. INFORMATION < e n t > Version information Select information to be displayed by pressing the MAINTENANCE ▲ or ▼ key, and press the ENTER key. MAIN Ver 1.00 • The following 2 information can be displayed. FW version of this machine Serial No. information Serial No. MAINTENANCE Head serial No. (Supported from the firmware ver.3.90.) $0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0$ S/N Error history (Supported from the firmware ver.4.00.) Head serial No. information MAINTENANCE Head 1111-11111J **Error history** [00000] 2014/01/23 12:34:56

### **About Displayed Information**

This section describes how to read displayed information.



### Other useful settings

Change settings according to need.



Press the FUNCTION key in the local mode.

< L O C A L >



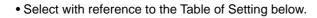
Select the [SET UP] by pressing the ▲ or ▼ key, and press the ENTER key.

FUNCTION WORK SET <ENT>



Select an item to be set by pressing the or key, and press the ENTER key.

SET UP INK LAYERS <ent>





Select a value to be set by pressing the  $\bigcirc$  or  $\bigcirc$  key , and press the  $\bigcirc$  ENTER key.

• Select with reference to the Table of Setting below.



Press the END key several times to end the setting.



• Set value remains even after turning off the power.

### **Table of Setting**

| Item          | Value                 | Outline   |  |
|---------------|-----------------------|---|--|
| INK LAYERS    | 1 to 9 times          | Set the number of times for over painting. Finer drawing can be obtained by over painting.  |  |
| REFRESH       | Level 0 to 3          | Set the refreshing revel for preventing the head from clogging in a dusty environment.  The larger level number indicates more frequent refreshing times.   |  |
| UV AddScan    | OFF,<br>1 to 15 times | Designates the number of times of additional scanning of UV to cure the edge parts of the image with UV irradiation after completion of the drawing.  |  |
| AUTO CLEANING | ON, OFF               | Set whether auto-head cleaning is executed or not at the following intervals before drawing.  • After the proper drawing for the refresh level after the previous cleaning and before drawing next data |  |

## Initializing settings 1 Press the FUNCTION key in the local mode. 2 Select the [SET UP] by pressing the or FUNCTION WORK SET <ENT> 3 Select the [SETUP RESET] by pressing the or key, and press the ENTER key. SET UP SETUP RESET <ENT>

Press the ENTER key.

• Resets the setup.

SET UP
INITIAL. OK? : ent

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

(Important!)

• In the [SETUP RESET], resetting is allowed only on contents changed in the settings.

### **Setting time** Press the (FUNCTION) key in the local mode. <LOCAL> Select the [MACHINE SET] by pressing the or FUNCTION key, and press the ENTER key. MACHINE SET < ENT > Press the **ENTER** key twice. MACHINE SET SET TIME < e n t > Set time by pressing the key. 4 SET TIME DATE = 2009.01.05 • Selecting date (year/month/date/hour/minute): use . • Entering date (year/month/date/hour/minute): use . SET TIME TIME= 10:20:00 Press the **ENTER** key. SET TIME DATE = 2009.01.05 • The entered date is displayed. • "0" is displayed on the field of second.



6

• For the past time, up to 8 hours before now is settable.

Press the END key several times to end the setting.

• For the future time, up to 24 hours from now is settable.

### Setting mm/ inch Set the unit to be used on this machine. Press the FUNCTION key in the local mode. <LOCAL> Select the [MACHINE SET] by pressing the or FUNCTION **▼** key, and press the **ENTER** key. MACHINE SET < E N T > Select the [MM/INCH] by pressing the ▲ or ▼ MACHINE SET key, and press the **ENTER** key. MM / INCH < e n t > Select the unit by pressing the ▲ or ▼ key, MACHINE SET 4 and press the **ENTER** key. MM/INCH : MM • Setting of the unit : use . Press the END key several times to end the setting.

### Setting weight of the empty cartridge

Enter weight of the empty cartridge. It is used for recalculating remaining amount of ink. (600ml ink only) (Supported from the firmware ver.1.20) Press the (FUNCTION) key in the local mode. <LOCAL> Press the [MACHINE SET] by pressing the 

or FUNCTION key, and press the ENTER key. < E N T > MACHINE SET Select the [600ml CARTRIDGE] by pressing the MACHINE SET ▲ or ▼ key, and press the ENTER key. 600ml CARTRIDGE<ent> Select cartridges by pressing the ▲ or ▼ key. MACHINE SET 4 CARTRIDGE : M  $\bullet$  The ink colors set in the cartridges are displayed as "MCYKW  $^{\!\! C}_{\! L}$  ". • When two cartridges of the same color are set as WW or  ${}^{C}_{L}{}^{C}_{L}$ , they are displayed as W1W2 or  ${}^{C}_{L}1{}^{C}_{L}2$ . Enter weight of the cartridge by pressing the MACHINE SET CASE WEIGHT = 300g or ▼ key, and press the ENTER key.

• The number changes by 1 g.

#### **Setting Key buzzer** Set the buzzer sound when keys are pressed. Press the FUNCTION key in the local mode. <LOCAL> Select the [MACHINE SET] by pressing the or FUNCTION ▼ key, and press the ENTER key. MACHINE SET < E N T > Select the [KEY BUZZER] by pressing the or MACHINE SET key, and press the ENTER key. KEY BUZZER < e n t > Select ON/OFF by pressing the ▲ or ▼ key, MACHINE SET KEY BUZZER : OFF and press the **ENTER** key.

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

(Important!)

• The sound of Error /Warning /Operation completed cannot be set off even if the setting above is "OFF".

### **Setting radiator pump**

On UJF-3042 and UJF-3042FX, if the noise of the cooling pump for LED UV unit become louder after updating the firmware to the version 3.10 or later, change the setting as follows. (Supported from the firmware ver.3.10)

| Press the FUNCTION key in the local mode.                                   | < LOCAL>                              |
|---|---------------------------------------|
| Press the [MACHINE SET] by pressing the  or key, and press the  ENTER key.  | FUNCTION MACHINE SET <ent></ent>      |
| Select the [RADIATOR PUMP] by pressing the or key, and press the ENTER key. | MACHINE SET RADIATOR PUMP <ent></ent> |
| The current pump type is displayed.   | MACHINE SET<br>PUMP : Type A          |
| Select the [Type B] by pressing the  or  key, and press the  ENTER key.     | MACHINE SET<br>PUMP : Type B          |
| 6 Press the END key several times to end the setting.                       |                                       |

#### Setting the flushing level before printing

When using a clear acrylic jig and so on, the ink may splash on the print result as the ink on the nozzles thickens due to stray light.

If this happens, increase the flushing amount before printing to prevent ink from splashing. (Supported from the firmware ver.4.00)

1

Press the FUNCTION key in the local mode.

< L O C A L >

2

Press the [SET UP] by pressing the or key, and press the ENTER key.

FUNCTION SET UP <ENT>

3

Select the [PRINT FLUSHING] by pressing the or key, and press the ENTER key.

SET UP PRINT FLUSHING <ENT>

4

Select print flushing level by pressing the or key, and press the ENTER key.

SET UP

MODE : Level0

5

Press the END key several times to end the setting.



- If you are using the printer in an environment subject to stray light, select level 2. Level 2 uses the same flushing amount as cleaning.
  - If the same error still occurs, change the setting to level 3.

If you can print without problem in level 2 and you are concerned about the amount of ink consumed, change the setting to level 1.

#### Setting list

For the amount of ink consumed for each level, see the following.

| Level | Amount of ink consumed (per color) |
|-------|------------------------------------|
| 0     | 0.03cc                             |
| 1     | 0.06cc                             |
| 2     | 0.12cc                             |
| 3     | 0.18cc                             |

# CHAPTER 4 Maintenance



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

| Routine maintenance 4-2                     |
|---|
| When this machine is left unused for a long |
| time4-2                                     |
| Precautions in cleaning4-2                  |
| Cleaning exterior surfaces4-3               |
| Cleaning the table4-3                       |
| Ink cartridge 4-4                           |
| Replacing with a new ink cartridge4-4       |
| Setting the ink set4-5                      |
| Ink cartridge trouble4-8                    |
| Shaking the white ink cartridge4-9          |
| 600ml Ink cartridge 4-10                    |
| Registering the case weight4-10             |
| Registering the cartridge weight4-11        |
| Registering the cartridge weight (After LVL |
| LOW / LVL END)4-12                          |
| Avoiding dripping of ink                    |
| droplet at printing 4-13                    |

| When the waste ink is full                  | 4-15  |
|---|-------|
| Disposing of the ink in the waste ink tank. | .4-15 |
| Disposing of the waste ink                  |       |
| in the wiper bottle                         | .4-17 |
| Replacing the Filter                        | 4-19  |
| Washing the Nozzle                          | 4-21  |
| Wash the ink discharge passage              |       |
| When the Machine Is Not Used for a L        | .ong  |
| Time (CUSTODY WASH)                         | _     |
| Washing the Head                            | 4-27  |
| Perform ink filling                         | 4-29  |
| Setting nozzle face cleaning time           |       |
| Regular maintenance for white ink           |       |
| Cleaning of wiper                           |       |
| Refilling antifreeze mixed water            |       |
| Refilling antifreeze mixed water            |       |

### Routine maintenance

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

#### When this machine is left unused for a long time



- Be sure to turn off the main power switch on the side of this machine. ( P.1-4)
- Remove the media being set.

#### **Precautions in cleaning**



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

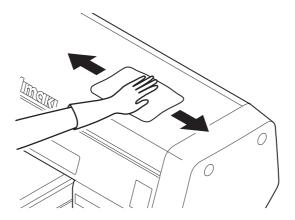


• This machine uses UV curing ink (UV ink). When in daily care, be sure to put on the supplied goggles and gloves.



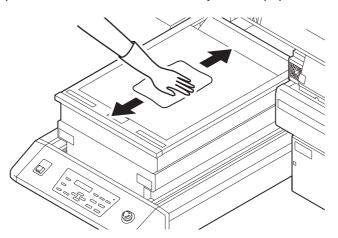
#### **Cleaning exterior surfaces**

If exterior surfaces of the machine is dirty, dampen a soft cloth with water or a neutral detergent diluted with water, squeeze it and wipe the surfaces.



#### Cleaning the table

The table is easy to become dirt with lint, paper dust or the like after cutting media. For a conspicuous stain, wipe it off with a soft-hair brush, a dry cloth, a paper towel or the like.





• Be sure to clean the slot on the frame of the table, the screw holes for holding tools or the like since dust and dirt are easily accumulated in these parts.



• If it is stained with ink, wipe it off with a paper towel containing a little amount of the cleaning solution.

#### Replacing with a new ink cartridge

Replacing of ink cartridges is required in the following cases.

| Display                               | Outline   |  |
|---------------------------------------|---|--|
| <pre><local> INK NEND M</local></pre> | The ink in the ink cartridge is low.  ?Drawing can be continued, but the ink may end during the drawing. Early replacement is recommended.  ?The display shown in the left indicates that magenta ink is low. |  |
| <pre>&lt; LOCAL&gt; INK END</pre>     | The ink in the ink cartridge ended.  ?Unable to continue drawing. Replace with a new one immediately. ?The display shown in the left indicates that magenta ink ended.  |  |



< L O C A L >

Select the [MAINTENANCE] by pressing the or key, and press the ENTER key.

FUNCTION
MAINTENANCE <ENT>

Select the [STATION] by pressing the or key, and press the ENTER key.

MAINTENANCE STATION <ent>

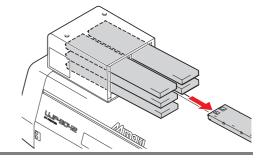
4 Se

Select the [EXCH CARTRIDGE] by pressing the or key, and press the ENTER key.

STATION MENT : EXCH CARTRIDGE

• Y-bar moves to the front.

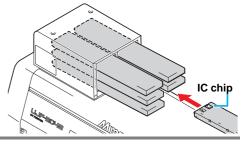
Remove an ink cartridge to be replaced.





#### Set a new ink cartridge

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



7

After replacing, press the **ENTER** key.

• Y-bar returns to the back.

STATION COMPLETED : ent

8

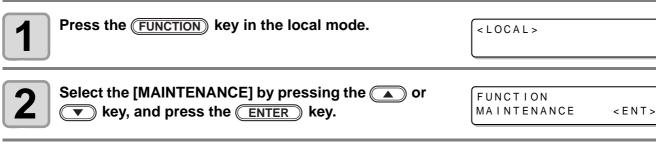
Press the END key to finish.

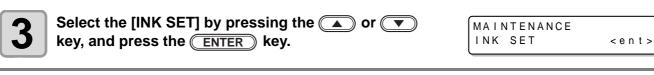
#### Setting the ink set

Set the ink set when ink type is changed. (Supported from the firmware ver.1.20)

As shown in the table, procedure (washing and filling) depends on the condition before or after changing the ink set.

| Ink set before replacement         | Ink set after replacement          | Procedure             |
|------------------------------------|------------------------------------|-----------------------|
| MCYKW <sup>C</sup> L               | MCYK                               | Washing only          |
| MCYKWW                             |                                    |                       |
| MCYK <sup>C</sup> L <sup>C</sup> L |                                    |                       |
| MCYKW <sup>C</sup> L               | MCYKWW                             | Fill up after washing |
|                                    | MCYK <sup>C</sup> L <sup>C</sup> L |                       |
| MCYKWW                             | MCYKW <sup>C</sup> L               |                       |
|                                    | MCYK <sup>C</sup> L <sup>C</sup> L |                       |
| MCYK <sup>C</sup> L <sup>C</sup> L | MCYKW <sup>C</sup> L               |                       |
|                                    | MCYKWW                             |                       |
| MCYK                               | MCYKW <sup>C</sup> L               | Filling only          |
|                                    | MCYKWW                             |                       |
|                                    | MCYK <sup>C</sup> L <sup>C</sup> L |                       |





INK SET

SELECT : MCYKW<sup>C</sup>L

- Select the ink set by pressing the or key, and press the ENTER key.
  - Select from the following sets of ink.
     MCYKW<sup>C</sup><sub>L</sub> / MCYKWW / MCYK<sup>C</sup><sub>L</sub> C<sub>L</sub> / MCYK\_\_
  - When the ink set is changed, go to the next step.

[LH-100]

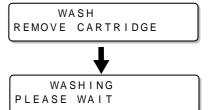


• The step 5 to 10 is displayed when washing is required.



#### Pull out the ink cartridges from the ink station.

 When the ink cartridges are pulled out, ink discharge operation starts.





Select washing the head or not for each head, and press the **ENTER** key.

WASHING HEAD [MCYKW<sup>C</sup>L]

- (1) Select the head with the key.
- (2) Select washing (displays the head No.) or not (displays "\_") with the 🔺 🔻 key.



When a color set on the head or the ink type is changed, be sure to perform Head Washing.



When a screen shown on the right is displayed, set the washing liquid cartridge (SPC-0516FS) to the ink station.

SET WASHING LIQUID

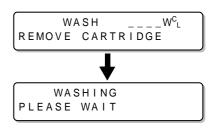
WASH

WASHING PLEASE WAIT

- Head washing starts.
- Repeat the Step 7 to 8 for each head to wash.

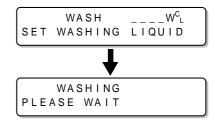


Remove the washing liquid cartridge.



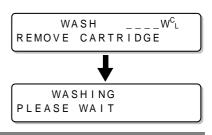


Set the washing liquid cartridge to the ink station again.





Remove the washing liquid cartridge.





When a screen shown on the right appears, put 5 cc of the washing liquid into the air vent tube to wash.

TUBE CLEANING COMPLETED

: ent



Press the ENTER key.

WASH COMPLETED : ent



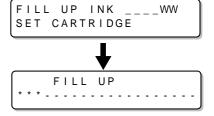
• The step 13 to 14 is displayed when filling is required.

• When washing is complete, press the **ENTER** key.



#### Set the ink cartridge to be filled.

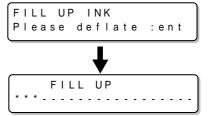
· When the proper cartridge is set, ink filling automatically starts.





#### Remove air from the ink port of the filled cartridge.

• Remove air with syringe until ink comes out of the ink port. When all air is removed, press the **ENTER** key.



#### Ink cartridge trouble

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



· Do not leave the ink cartridge without replacing for a long time as this will cause the nozzle clogging and the printer must be repaired by a service person.



#### Display the truble messages on the LCD.

• See P.5-4 "Troubles for which error messages are given on the LCD".





#### Press the ENTER key.

<LOCAL> MCYKW<sup>C</sup> REMAIN 999999

MCYKW<sup>C</sup>L

 $MCYKW^{C}_{L}$ 

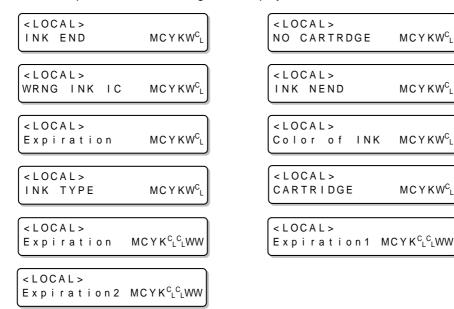
MCYKW<sup>C</sup>L

 $\mathsf{MCYKW}^\mathsf{C}_\mathsf{L}$ 



#### Press the ENTER key again.

- The menu will return to the LOCAL mode when there is no trouble.
- If two or more cartridges have a problem, press the **ENTER** key again to display the second cartridge.
- When the problems of all cartridges are displayed, the menu returns to the LOCAL mode automatically.



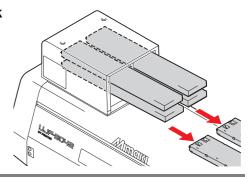
#### Shaking the white ink cartridge

Shake the white ink cartridge when starting the device or when the following screen is displayed. (Supported from the firmware ver.4.10)

Please shake W Crtrg PRESS <ENT> KEY



Pull out the white ink cartridges from the ink station.



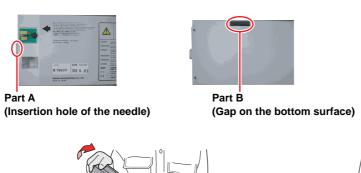
2

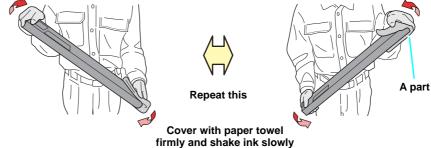
#### Slowly shake the white ink cartridge more than twenty times right and left.

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



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





3

Return the white ink cartridge to the ink station and press the **ENTER** key.

# 600ml Ink cartridge



• 600ml ink cartridge can be used on firmware Ver.1.20 or later.

To use the 600ml ink cartridges, register the case weight (this page) and the cartridge weight (next page). Please prepare your scale (which can weigh up to 1200g in 1g).

#### Registering the case weight

Firstly register the case weight in the following procedures.

For the 600ml cartridges, this machine recalculates remaining amount of ink from a registered case weight.



#### Weigh the case of an empty cartridge on the scale.

• Do not attach the IC chip and the ink pack when weighing.



#### Prepare the 600ml cartridge.

• Load the IC chip and the ink pack into an empty cartridge.



Set the 600ml cartridge in the local mode.

< L O C A L >



## Enter the weight checked at the Step 1 by pressing the or key, and press the ENTER key.

- CART.Slot M\_\_\_\_\_ CASE WEIGHT =325g
- If other 600ml cartridges are found, an entry screen is displayed. Repeat the Step 1 to 4.
- When all weights of the 600ml cartridge cases are entered, this machine returns to the local mode to enable drawing or cleaning.

<LOCAL>



 Press the END key to cancel the weight entry, but a screen shown on the right appears in the local mode, and the 600ml cartridge is invalid until the weight is entered.

<LOCAL>
Case Weight M\_\_\_\_\_

- If the weight entry is canceled, remove and reinsert the cartridge to display the weight entry screen again, and enter the weight.
- If the case is replaced, register the case weight again from [MACHINE SET]. (( P.3-30)

#### Registering the cartridge weight

After filling ink into the 600ml cartridge, register the cartridge weight.



After filling ink, press the **END** key several times.



Press the key.

• An entry screen of the weight is displayed.





Remove the target cartridge, and weigh it on the scale.



Set the 600ml cartridge, enter the weight by pressing the or key, and press the ENTER key.

UnkLevelSet M\_\_\_\_\_ WEIGHT = 789g



Press the ENTER key again.

• If other 600ml cartridges are found, the entry screen is displayed. Repeat the Step 2 to 5.

 When all weights of the 600ml cartridges are entered, this machine returns to the local mode to enable drawing or cleaning. InkLevelSet M\_\_\_\_\_ 789g OK? :ent

< L O C A L >



 Press the key to cancel the weight entry, but a screen shown on the right appears in the local mode, and the canceled cartridge is invalid until the weight is entered.

If the weight entry is canceled, remove and reinsert the cartridge to display the weight entry screen again, and enter the weight.



#### Registering the cartridge weight (After LVL LOW / LVL END)

The 600ml cartridge becomes level low when ink remains 60ml or less, and level end when ink remains 25ml or less.

In this case, register the cartridge weight on the entry screen that is displayed.

The level low or level end cartridge cannot be used until the weight is entered.



### When a screen shown on the right appears, press the ( ) key.

InkLevelSet M\_\_\_\_\_ Exec < > Cancel

 This screen appears when returning to the local after LVL LOW or LVL END is detected.



Remove the target cartridge, and weigh it on the scale.



Set the 600ml cartridge, enter the weight by pressing the or key, and press the ENTER key.

UnkLevelSet M\_\_\_\_\_ WEIGHT = 450g



Press the ENTER key again.

• If other 600ml cartridges are found, an entry screen is displayed. Repeat the Step 1 to 4.

InkLevelSet M\_\_\_\_\_ 450g OK? :ent



(Supported from the firmware ver.1.40)

 After LVL LOW and after you enter the cartridge weight, if ink remains 31ml and more, you can print as usual. Then, when ink is used and ink remains 30ml and less, the status becomes INK NEAR END.

<LOCAL>
INK NEAR ENDMC\_\_\_\_\_

- LAfter LVL LOW and after you enter the cartridge weight, if ink remains 30ml and less, the status becomes INK NEAR END.
- If the status becomes INK NEAR END, you can draw, however, you cannot perform cleaning nor ink filling of the relevant head.
- LAfter LVL LOW and after you enter the cartridge weight, if ink remains 26ml or more, the status becomes INK NEAR END.
- After LVL LOW and after you enter the cartridge weight, if ink remains 25ml and less, the status of LVL END is not eliminated. Set a new ink cartridge.



 Press the key to cancel the weight entry, but a screen shown on the right appears in the local mode, and the canceled cartridge is invalid until the weight is entered.

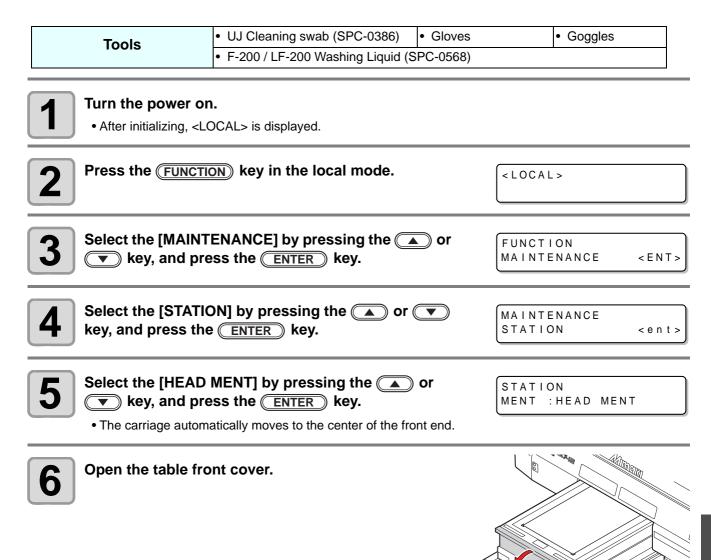
< LOCAL>
INK LVL LOW M\_\_\_\_\_

<LOCAL>
INK LVL END M\_\_\_\_\_

- If the weight entry is canceled, remove and reinsert the cartridge to display the weight entry screen again, and enter the weight.
- When total entered weight of ink exceeds 1000ml, "Save Failure" error occurs again and entry becomes invalid. (Supported from the firmware ver.1.40)

# Avoiding dripping of ink droplet at printing

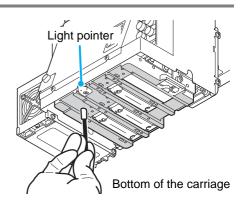
Ink droplets from the mist at drawing may arise on the bottom of the carriage. As the ink droplets may drip and stain the media or cause blur or dot missing, clean the bottom of the carriage periodically.





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

- Do not wipe the nozzle face of the head. It may cause nozzle clogging.
- To buy special cleaning swabs, contact a distributor in your district or our office.

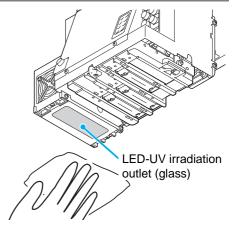




• Be careful not to put the cleaning solution on the light pointer.



Dip the TechnoWipe (attached) into alcohol, and clean the LED-UV irratiation outlet.





After cleaning, close the table front cover, and press the ENTER key.

• Initializing starts.

STATION COMPLETED : ent

< ENT >

### When the waste ink is full

Waste ink used for head cleaning gathers in the waste ink tank and the wiper bottle.

Periodically check the waste ink tank and the wiper bottle and when they are full, dispose of the ink.

If warning message such as "!WS INKTANK CHK" or "WIPER BOTTLE" appears, check the waste ink tank and the wiper bottle in the same way.



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



- When ink is discharging such as for head cleaning, conduct the operation after the discharging is completed.
- Handle the waste ink tank with care not to spill the waste ink.
- Dispose of the waste ink when it has gathered about half of the waste ink tank.

| Tools | Gloves | <ul> <li>Goggles</li> </ul> |
|-------|--------|-----------------------------|

#### Disposing of the ink in the waste ink tank

Turn the power on.

• After initializing, <LOCAL> is displayed.

Press the FUNCTION key in the local mode.

Select the [MAINTENANCE] by pressing the or key, and press the ENTER key.

FUNCTION MAINTENANCE

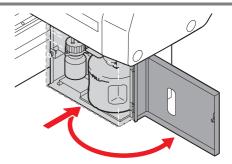
Select the [STATION] by pressing the or MAINTENANCE STATION <ent>

Select the [MENT:WASTE TANK] by pressing the or week, and press the ENTER key.



#### Open the waste ink box cover.

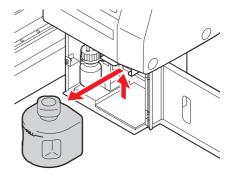
• By pressing the cover lightly, the cover opens to the front.





#### Remove the waste ink tank.

• Lifting the tank slightly up, pull it to the front.





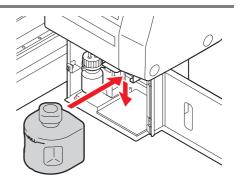
#### Put the waste ink into a tank with a cover.

- Before putting the ink into the tank, put paper on the floor. (Not to stain the floor with ink)
- Dispose of the waste ink pursuant to the regulations of your district.



#### Set the empty waste ink tank, and close the cover.

- (1) Set the waste ink tank in the reverse order of removing.
- (2) Close the waste ink box cover.





Press the **ENTER** key.

STATION COMPLETED : ent



Press the END key to finish.

#### Disposing of the waste ink in the wiper bottle

1

#### Turn the power on.

• After initializing, <LOCAL> is displayed.

2

Press the (FUNCTION) key in the local mode.

< L O C A L >

3

Select the [MAINTENANCE] by pressing the or key, and press the ENTER key.

FUNCTION MAINTENANCE

< E N T >

4

Select the [STATION] by pressing the or key, and press the ENTER key.

MAINTENANCE STATION <ent>

5

Select the [MENT:WIPER BOTTLE] by pressing the 

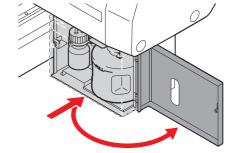
A or 
key, and press the ENTER key.

STATION MENT : WIPER BOTTLE



#### Open the waste ink box cover.

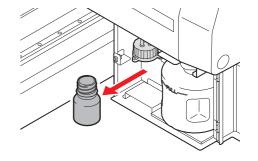
• By pressing the cover lightly, the cover opens to the front.





### Take the wiper bottle out, and dispose of the waste ink.

- Turn the bottle holding the cover, take out the bottle, and then dispose of the ink in the bottle.
- Dispose of the waste ink pursuant to the regulations of your district.





#### Set the wiper bottle.

- (1) Turn the bottle holding the cover, and close the cover.
- (2) Close the waste ink box cover.



Press the END key to finish.

# Replacing the Filter

To use this machine for a long time, clean the filter periodically (about once a week).

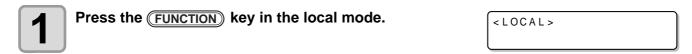


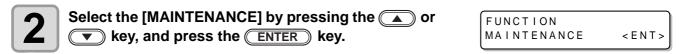
• Put on supplied goggles and gloves. Ink may splash into the eye.



• When a screw is dropped in replacing of the filter, contact a distributor in your district or our office.

| Tools | LED UV unit filter (SPC-0657) |             | Mist adsorption filter<br>(SPC-0656) |
|-------|-------------------------------|-------------|--------------------------------------|
|       | • Gloves                      | Paper towel | Goggles                              |



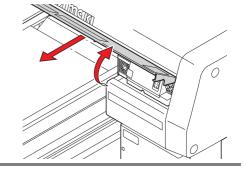






#### Remove the front cover.

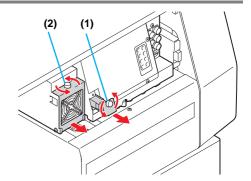
- (1) Push the both ends of the front cover.
- (2) Pull the cover to the front while opening upward.





#### Remove the filter retainer (2 places).

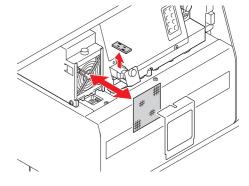
- (1) Turn and pull the right white knob.
- (2) Turn the left white knob and pull the frame of the filter.





#### Replace the filters (2 places).

• Replace two filters.





#### Attach the covers.

• Attach in reverse order of step 5, 6.



#### Press the **ENTER** key.

• Initializing starts.

STATION COMPLETED : ent

# Washing the Nozzle

To prevent nozzle clogging, execute nozzle washing at the end of the daily work.



· Put on supplied goggles and gloves.

| Tools           | UJ Cleaning swab (SPC-0386)                             | Gloves | Goggles                                    |
|-----------------|---|--------|--|
| 10015           | • F-200 / LF-200 Washing Liquid (SPC-0568)              |        |  |
| 1 Press the FUN | ICTION key in the local mode.                           | <      | LOCAL>                                     |
|                 | INTENANCE] by pressing the press the ENTER key.         |        | UNCTION<br>IAINTENANCE <ent< th=""></ent<> |
|                 | ATION] by pressing the  or the ENTER key.               |        | IAINTENANCE<br>TATION <ent< th=""></ent<>  |
| /I              | NT:NOZZLE WASH] by pressing key, and press the ENTER ke | ~      | TATION<br>IENT :NOZZLE WASH                |

5

Set all the heads to execute washing, and press the ENTER key.

• The carriage moves to the center, and the Y-bar moves to the

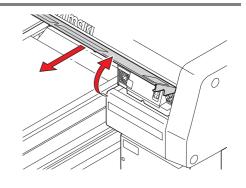
STATION HEAD [123]

- (1) Select the head with the key.
- (2) Select executing (displays the head No.) or not executing (displays "\_") of the nozzle washing with the 
  key.



#### Remove the front cover.

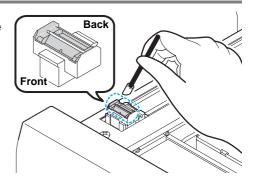
- (1) Push the both ends of the front cover.
- (2) Pull the cover to the front while opening upward.
- The wiper moves to the front.





Dip washing liquid into the cleaning swab, and wipe dirt of the wiper nozzle.

• Wipe the places shown in the right.





Put washing liquid into the dropper, and drop on the caps to fill them.

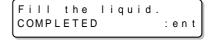
• Fill the washing liquid into the three caps.





Replace the front cover, and press the **ENTER** key.

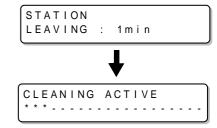
• Capping is performed.





Set leaving time by pressing the or key, and press the ENTER key.

- Usually set 10 min. (Set value: 1 to 99 min)
- After the leaving time, cleaning is performed.





• Adjust the leaving time depending on frequency of use or dirt of the nozzle.



Press the END key to finish.

# Wash the ink discharge passage

Wash the ink discharge passage regularly to prevent the head nozzles from clogging due to ink coagulation inside the passage.



Press the FUNCTION key in the local mode.

<LOCAL>



Select the [MAINTENANCE] by pressing the or wey.

FUNCTION
MAINTENANCE <ENT>



Press the ENTER key.



Select the [STATION] by pressing the ▲ or ▼

MAINTENANCE STATION <ent>



Press the ENTER key.



Select the [MENT:DISWAY WASH] by pressing the 
a or 
key.

STATION MENT : DISWAY WASH

 The carriage moves to the center, and the Y-bar moves to the front.

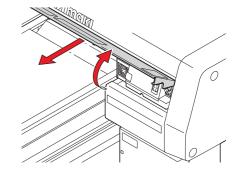


Press the ENTER key.



Remove the front cover.

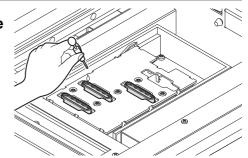
- (1) Push the both ends of the front cover.
- (2) Pull the cover to the front while opening upward.





Put washing liquid into the dropper, and drop on the caps to fill them.

• Fill the washing liquid into the three caps.





Replace the front cover, and press the **ENTER** key.

Fill the liquid.
COMPLETED : ent

• Capping is performed.

### 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.



• Put on supplied goggles and gloves.

| Tools | UJ Cleaning swab (SPC-0386)        | Gloves   | Goggles |
|-------|------------------------------------|----------|---------|
|       | • F-200 / LF-200 Washing Liquid (S | PC-0568) |         |

Press the FUNCTION key in the local mode.

< L O C A L >

Select the [MAINTENANCE] by pressing the or wey, and press the ENTER key.

FUNCTION
MAINTENANCE <ENT>

Select the [STATION] by pressing the or key, and press the ENTER key.

MAINTENANCE STATION <ent>

4

Select the [MENT:CUSTODY WASH] by pressing the or key, and press the ENTER key.

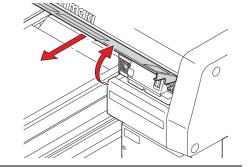
STATION MENT : CUSTODY WASH

- The carriage moves to the center, and the Y-bar moves to the front
- The wiper moves to the front.

# 5

#### Remove the front cover.

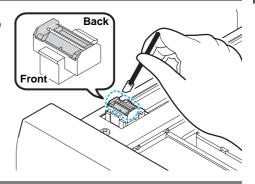
- (1) Push the both ends of the front cover.
- (2) Pull the cover to the front while opening upward.





## Dip washing liquid into the cleaning swab, and wipe dirt of the wiper nozzle.

• Wipe the places shown in the right.





### Put washing liquid into the dropper, and drop on the caps to fill them.

• Fill the washing liquid into the three caps.





Replace the front cover, and press the <u>ENTER</u> key.

Fill the liquid.
COMPLETED : ent

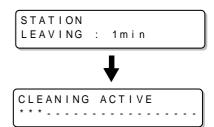
• Capping is performed.



Set leaving time by pressing the ▲ or ▼ key, and press the ENTER key.

Usually set 10 min.
 (Set value: 1 to 99 min)

• After the leaving time, cleaning is performed.





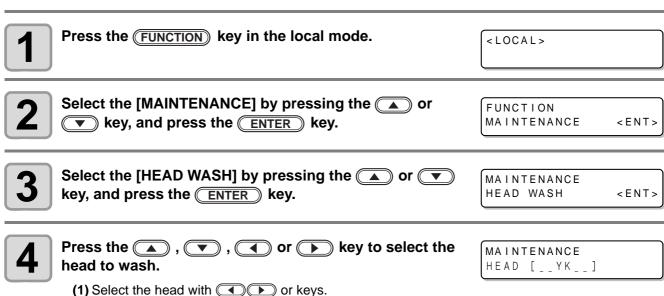
Press the END key to finish.

# Washing the Head

When you move the machine or you do not use the machine for a long time (for one month and more), wash the head and the ink discharge passage by the procedures below:



- This machine is equipped with three heads.
- To wash one head, two washing liquid cartridges (SPC-0516FS) are required at the minimum. Before performing the work, prepare new washing liquid cartridge.
- When you wash all heads at the same time, prepare six washing liquid cartridges with third part of them
- To restart drawing after washing the head, ink filling is required. ( P.4-29)



- (1) Select the head with or keys.
- (2) Select execution/non-execution of the head cleaning with or keys.
  - Select execution of cleaning for every head.
  - : :Head No. being set is displayed.
  - Do not wash : ì \_ î is displayed.
- When you wash all heads, display all head numbers.
- When you wash the head one by one, display one head number (two).



WASH REMOVE CARTRIDGE

WASHING PLEASE WAIT



#### Remove the ink cartridge.

- Remove all ink cartridges corresponding to the head selected in the Step 4.
- When the ink cartridge is removed, ink discharge starts.
- When ink discharge has been completed, the right screen is displayed.

WASH SET WASHING LIQUID



#### Set the washing liquid cartridge to the ink station.

- Set the washing liquid cartridge in the cartridge slot corresponding to the head to wash. The machine starts absorption of washing liquid.
- When absorption of washing liquid has been completed, the right screen is displayed.

WASH REMOVE CARTRIDGE



#### Remove the washing liquid cartridge.

- Remove all set washing liquid cartridges.
- When removing the washing liquid cartridge, the machine starts discharge of washing liquid.
- When discharge of washing liquid has been completed, the right screen is displayed.

WASH SET WASHING LIQUID



#### Repeat the procedures in the Step 7 and 8.

- Again, set/remove the washing liquid cartridge, and wash ink remaining in the ink discharge passage.
- When discharge of washing liquid has been completed, the right screen is displayed.

TUBE CLEANING
COMPLETED : ent



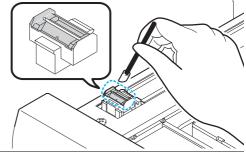
#### Press the **ENTER** key.

 Here, tube cleaning work is not required. Do nothing and press the ENTER key. Then, perform the works from the Step 12. TUBE CLEANING COMPLETED : ent



#### Clean the wiper.

• Dip the washing liquid into the cleaning swab, and wipe dirt of the wiper nozzle.





### When cleaning of the wiper has been completed, press the ENTER key.

MAINTENANCE HEAD WASH <ENT>

- When you wash another head continuously, press the ENTER key and perform the works from the Step 4.
- When you terminate the operation, press the **END** key several times.

# Perform ink filling

When head washing has been completed, "NOT FILLUP" is displayed on the screen and drawing cannot be performed as it is.

Perform ink filling so that you may restart drawing after head washing.



• Ink filling consumes much ink than that for the head cleaning ( P.2-8). Before performing ink filling, check that ink remains enough in the cartridge.



Press the (FUNCTION) key in the local mode.

<LOCAL>



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

FUNCTION
MAINTENANCE <ENT>



Select the [FILL UP INK] by pressing the ▲ or ▼ key, and press the ENTER key.





Select the [TYPE:fillup] by pressing the or key, and press the ENTER key.

FILL UP INK TYPE: fillup

5

Press the , , , or key to select the head to fill up ink.

FILL UP INK HEAD [\_\_YK\_\_]

- (1) Select the head with  $\bigcirc$  or  $\bigcirc$  keys.
- (2) Select execution/non-execution of the ink filling with or keys.
  - Select execution of ink filling for every head.
  - Fill up :: Head No. being set is displayed.
  - Not fill up: "\_" is displayed.
- When you fill up all heads, display all head numbers.



Press the ENTER key.

• The machine starts ink filling.

FILL UP INK
\*\*\*\*-----



Press the ENTER key.

• The screen returns to LOCAL.



When ink filling has been completed, perform test drawing ( P.2-6) to check the drawing result.

• If there is nozzle missing, perform head cleaning ( P.2-8) and test drawing repeatedly.



• When you perform ink filling with 600ml cartridge set, it is necessary to enter the cartridge weight after ink filling. ( P.4-11)

# Setting nozzle face cleaning time

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

| Press the FUNCTION key in the local mode.  | <local></local>                    |
|--|------------------------------------|
| Select the [MAINTENANCE] by pressing the or key, and press the ENTER key.  | FUNCTION MAINTENANCE <ent></ent>   |
| Select the [INT.WIPING] by pressing the  or key, and press the  ENTER key.   | MAINTENANCE INT.WIPING <ent></ent> |
| Set the number of scanning times (OFF / 1 to 255) by pressing the  or  key, and press the  ENTER key.  • When [OFF] is set, periodical wiping is not executed. | INT.WIPING<br>SCAN COUNT = OFF     |
| Press the END key to finish.   |                                    |

# Regular maintenance for white ink

White ink is easier precipitate than other inks.

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



- Shake ink inside the cartridge by following the Step 7 in the next page once or more a day.
- Perform the maintenance below before working once a week.
- Use the specified ink cartridge.



Press the (FUNCTION) key in the local mode.

< L O C A L >



Select the [MAINTENANCE] by pressing the or key, and press the ENTER key.

FUNCTION
MAINTENANCE <ENT>



Select the [WHITE MAINTE] by pressing the or wey, and press the enter key.

MAINTENANCE WHITE MAINTAIN <ent>



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

WHITE MAINTAIN HEAD [MCYKW<sup>C</sup>L]

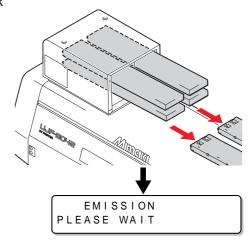
- (1) Select the head with the key.
- (2) Select executing (displays the head No.) or not executing (displays "\_") of white maintenance with the key.



Pull out the two white ink cartridges from the ink station.

• When the two white ink cartridges are pulled out, white ink discharge operation starts.

WHITE MAINTAIN REMOVE CARTRIDGE





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

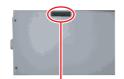
• To prevent ink from leaking when you shake the cartridge, wear gloves and firmly cover the A part of the upper surface of the cartridge and the B part of the bottom surface of the cartridge with paper towels. Then, shake it more than twenty times right and left so that ink flows inside the cartridge.



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



(Insertion hole of the needle)



Part B
(Gap on the bottom surface)

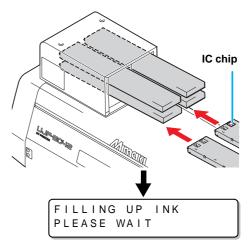




When a screen shown in the right is displayed, return the two white ink cartridges to the ink station.

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

 When the two white ink cartridges are set, white ink filling starts. WHITE MAINTAIN SET CARTRIDGE





When a message shown in the right is displayed after completion of white ink filling, press the END key to finish.

MAINTENANCE WHITE MAINTAIN <ent>

# Cleaning of wiper

The wiper sweeps ink stuck on the nozzle of the head.

The wiper becomes tainted with ink or dusts during the operation of this machine.

In order to keep the head in good condition, clean the wiper frequently.



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



Even if you cleaned the wiper, when Nozzle out or Ink dropping cannot be solved, try to replace the

| Tools | UJ Cleaning swab (SPC-0386)                | Gloves | Goggles |
|-------|--|--------|---------|
|       | • F-200 / LF-200 Washing Liquid (SPC-0568) |        |         |

Press the (FUNCTION) key in the local mode.

<LOCAL>

Select the [MAINTENANCE] by pressing the or key, and press the ENTER key.



FUNCTION MAINTENANCE < ENT >

Select the [STATION] by pressing the ▲ or ▼ key, and press the ENTER key.

MAINTENANCE STATION < e n t >

Δ

Select the [MENT:WIPER EXCHG] or [MENT:WIPER CLEANING] by pressing the **▲** or **▼** key, and

- Select [MENT: WIPER EXCHG] for the Firmware Ver.1.7 and earlier, and select [MENT: WIPER CLEANING] for the Firmware Ver.1.8 and later.
- The carriage moves to the center.
- The wiper moves to the front.

STATION MENT : WIPER EXCHG

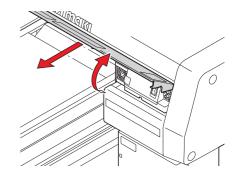
#### Firmware Ver.1.7 and earlier

STATION MENT : WIPER CLEANING

Firmware Ver.1.8 and later

#### Remove the front cover.

- (1) Push the both ends of the front cover.
- (2) Pull the cover to the front while opening upward.

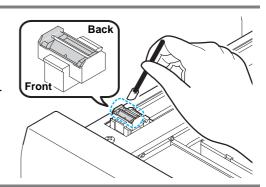




## Dip the washing liquid into the cleaning swab, and wipe dirt of the wiper nozzle.

- Wipe the places shown in the right.
- If the dirt of the wiper is heavy, replace the nozzle (SPA-174).

When fitting the nozzle, be careful not to put back to front.





# After cleaning, replace the front cover, and press the **ENTER** key.

STATION COMPLETED

: ent

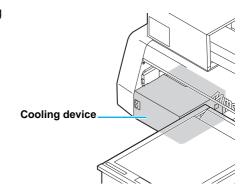
• Initializing starts.



Press the END key to finish.

# Refilling antifreeze mixed water

To cool the LED UV unit, put antifreeze mixed water into the cooling water tank in the cooling device.



#### Precautions for refilling



- Water and antifreeze liquid compound ratio should be 2(water) to 1(Antifreeze liquid).
- When only water is supplied to the 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.

#### 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: SPC-0394 [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 (MSDS).



- When purchasing a spare cooling water tank, contact a distributor in your district or our office.
- 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.

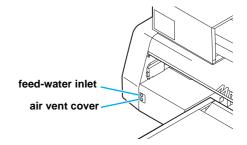
ERROR 705 WATER LACK

### Refilling antifreeze mixed water

If water lack error is displayed, refill antifreeze mixed water.



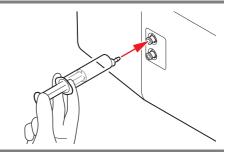
#### Uncover the feed-water inlet and the air vent.





#### Remove all remaining water in the tank.

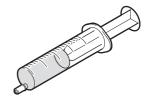
- (1) Remove all water in the tank with a provided syringe from the feed-water inlet.
- (2) Put the removed water into the tank with a cap, and discard it.





### Mix antifreeze liquid with water.

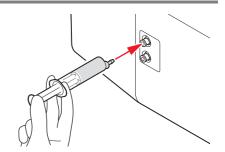
- (1) Mix 1 part antifreeze liquid with 2 parts water.
- (2) Put the mixed water into a provided syringe.





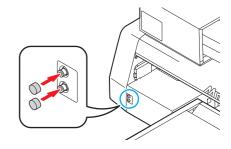
#### Refill antifreeze liquid.

- Fill the antifreeze liquid from the feed-water inlet.
- Put the liquid of 50ml into the syringe, and put it into the device. Repeat this 9 times to fill up (450ml).





#### Cover the feed-water inlet and the air vent.



# CHAPTER 5 In Case of Trouble



This chapter describes the actions to be taken when this machine develops any trouble or displays an error message.

| Before taking a phenomenon as a trouble | 5-2 |
|---|-----|
| The machine cannot be energized         | 5-2 |
| The machine cannot perform printing     | 5-2 |
| If image quality declines               | 5-3 |
| Resolving nozzle clogging               |     |
| Troubles for which error messages are   |     |
| given on the LCD                        | 5-4 |
| Warning Message                         |     |
| Error message                           |     |

# Before taking a phenomenon as a trouble

If something is wrong with the machine, the buzzer sounds and a corresponding error message is given on the LCD. Take an appropriate corrective measure in accordance with the message.

### The machine cannot be energized

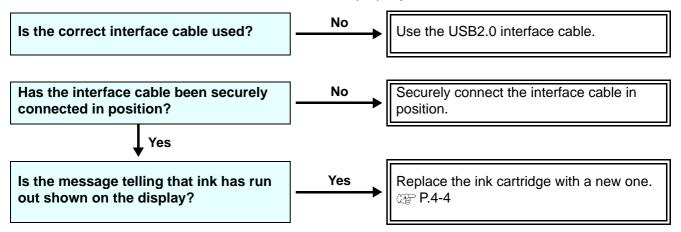
More often than not, this is due to improper connection of the power cable. Check that the power cable has been properly connected to the power outlet and the computer.

Has the power cable been connected to the machine and the receptacle?

No
Securely connect the power cable to them.

### The machine cannot perform printing

This occurs when the data is not being transmitted to the machine properly. It can also occur when any of the machine functions fails or the media has been set improperly.



### If image quality declines

Take measures as follows in accordance with the problem.

If the problem does not improve, contact your local MIMAKI distributor or MIMAKI office to call for service.

| Development   | Corrective measure   |
|---|--|
| Lines/blur  | <ul><li>(1) Execute the head cleaning. ( P.2-8)</li><li>(2) If slip of paper is attached in the head path, remove it.</li></ul>  |
| Large ink drop on media                             | <ul> <li>(1) Execute the head cleaning. ( P.2-8)</li> <li>(2) Remove the dust of the media.</li> <li>(3) Clean the dust on the table.</li> <li>(4) Clean the bottom surface of the carriage.</li> <li>( P.4-13)</li> </ul> |
| Media is raised during printing and printing stops. | <ul><li>(1) Set new media and start printing.</li><li>(2) Check ON/OFF of the vacuum.</li><li>(3) Fix the media with adhesive tape.</li></ul>  |

### Resolving nozzle clogging

If nozzle clogging is not resolved even the head cleaning operation of P.2-8 has been executed, check the following.

Replace ink with the operation of P.4-4.

# Troubles for which error messages are given on the LCD

If something is wrong with the machine, the buzzer sounds and a corresponding error message is given on the LCD. Take an appropriate corrective measure in accordance with the message.

### **Warning Message**

| Message                                   | Solution   |  |
|---|--|--|
| <local><br/>NO CARTRIDGE</local>          | • Attach the ink cartridge(s) shown on the display. ( ② P.4-4)   |  |
| <local> INK NEAR END</local>              | • Replace the ink cartridge shown on the display as soon as possible. ( **\approx** P.4-4)   |  |
| <local><br/>INK END</local>               | • Replace the ink cartridge shown on the display. ( 🖙 P.4-4)   |  |
| <local><br/>Expiration</local>            | • The ink has expired. Replace the ink cartridge shown on the display with a new one. ( P.4-4) (Before the end of the month of the expiration)   |  |
| <local><br/>Expiration</local>            | • The ink has expired. Replace the ink cartridge shown on the display with a new one. ( P.4-4) (From the first day to the end of the month following the expiration)                     |  |
| <pre><local> Expiration(1M)</local></pre> | • The ink has expired. Replace the ink cartridge shown on the display with a new one. ( P.4-4) (From the first day to the end of the month following the month following the expiration) |  |
| <local><br/>Expiration(2M)</local>        | • The ink has expired. Replace the ink cartridge shown on the display with a new one. (  P.4-4) (3 months or more after expiration)  |  |
| <local><br/>INK TYPE</local>              | Check the type of the loaded ink cartridge is correct.   |  |
| <local><br/>Color of INK</local>          | Check the color shown on the display and the color of the loaded ink cartridge are the same.   |  |
| <local><br/>NON-ORIGINAL</local>          | Use the MIMAKI ink.  |  |
| <local><br/>WRONG INK IC</local>          | • Insert the ink cartridge shown on the display again. If the error is still displayed after this, call a distributor in your district or our office.                                    |  |
| <local><br/>!WORK High</local>            | •An obstacle was detected. Lower the table so that this warning disappears. ( P.3-4)   |  |
| <local><br/>WATER LACK</local>            | Check the amount of water in the cooling water tank, and fill as needed.     ( ** P.4-35)  |  |
| <local> !WS INKTANK CHK</local>           | • Execute the station maintenance and dispose of the ink in the waste ink tank. (  P.4-15)   |  |
| <local><br/>WIPER BOTTLE</local>          | • Execute the station maintenance and dispose of the ink in the wiper bottle. (  P.4-17)   |  |
| <local> !CLEANING WIPER</local>           | • Execute the station maintenance and clean the wiper. (  P.4-33)  |  |
| <local><br/>!CHECK FILTER</local>         | • Execute the station maintenance and replace the filter. (  P.4-19)   |  |

| Message   | Solution   |  |
|---|--|--|
| <local> CAP CLEANING</local>  | Execute the carriage out of the station maintenance, and clean the cap.  |  |
| <local><br/>Case Weight</local>   | A case weight of 600 ml cartridge is not set. Set the case weight on "600 ml CARTRIDGE" of "MACHINE SET".  |  |
| <local> INK LVL LOW</local>   | • Enter weight of the cartridge on "CART WEIGHT" of "SET UP".  |  |
| <local> INK LVL END</local>   | <ul> <li>If ink remains, enter weight of the cartridge on "CART WEIGHT" of "SET UP".</li> <li>If ink does not remain, replace with a new cartridge.</li> </ul>               |  |
| <pre><local> !CHECK LED UV LEVEL</local></pre>  | Check illuminance of the LED UV lamp.  If it is lower than the set value, replace the lamp.  |  |
| <pre><local> Preservation Failure</local></pre>   | Writing of the setting of remaining amount of ink has failed.  Remove and set the cartridge again to rewrite. If the error does not disappear, replace with a new cartridge. |  |
| <pre><local> Cartridge Weight</local></pre>   | The cartridge weight is not entered.     Enter the weight of the cartridge.  |  |
| <local><br/>NOT FILLUP</local>  | • Fill up ink of the displayed color. (© P.4-29) (Supported from the firmware ver.3.80.)   |  |
| • The drawing data is being received or has been received.  Set the Remote mode and draw all the received data( P.2-9), of the data ( P.3-10).  The "DT" on the upper-right hand corner means "DATA REMAIN".  The display priority is low, and if another warning or error is display second line displays another message. In that case, you can chewhether the data has been received by the DT display in the upper hand corner.  (Supported from the firmware ver.4.10) |  |  |

### **Error message**

When an error message is displayed, follow the table below and solve the problem. If the same error message is displayed again, contact a distributor in your district or our office.

| Message                           | Solution   |
|-----------------------------------|--|
| ERROR 108<br>HD CONNECT[12345678] | <ul> <li>Turn the power of this machine off and turn it on after a while.</li> <li>If the same error message appears again, contact a distributor in your district or our office to call for service.</li> </ul> |
| ERROR 108<br>HD THERMIS[12345678] |  |
| ERROR 12e<br>Head Failed[xxxx]    |  |
| ERROR 122<br>CHECK: SDRAM         |  |
| ERROR 128<br>HDC FIFO OVER        |  |
| ERROR 128<br>HDC FIFO UNDER       |  |
| ERROR 129<br>BATTERY EXCHANGE     | Call a distributor in your district or our office.   |
| ERROR 130<br>HD DATA SEQ          |  |
| ERROR 201<br>COMMAND              | <ul> <li>Securely connect the interface cable in position.</li> <li>Use an interface cable in conformance with the standard.</li> </ul>  |
| ERROR 202<br>PARAMETER            | <ul> <li>Turn the power of this machine off and turn it on after a while.</li> <li>If the same error message appears again, contact a distributor in your district or our office to call for service.</li> </ul> |
| ERROR 203<br>Ment Command         | alouist of our office to our for sorvice.  |
| ERROR 304<br>USB INIT ERR         |  |
| ERROR 305<br>USB TIME OUT         |  |

| Message   | Solution   |
|---|--|
| ERROR 401<br>MOTOR X                                  | <ul> <li>Turn the power of this machine off and turn it on after a while.</li> <li>If the same error message appears again, contact a distributor in your district or our office to call for service.</li> </ul> |
| ERROR 403<br>X CURRENT                                |  |
| ERROR 402<br>MOTOR Y                                  |  |
| ERROR 404<br>Y CURRENT                                |  |
| ERROR 420<br>Z POSITION                               | <ul> <li>Check the weight of media (tools included) on the table is 5kg or less.</li> <li>Turn the power of this machine off and turn it on after a while.</li> </ul>  |
| ERROR 421<br>!CHECK FILTER                            | • Execute the station maintenance and replace the filter. (  P.4-19)   |
| ERROR 505<br>!WORK High                               | • An obstacle is detected. Lower the table so that this warning disappears. ( P.3-4)   |
| ERROR 509<br>HDC POSCNT                               | <ul> <li>Turn the power of this machine off and turn it on after a while.</li> <li>If the same error message appears again, contact a distributor in your district or our office to call for service.</li> </ul> |
| ERROR 50a<br>Y ORIGIN                                 | district of our office to can for service.   |
| ERROR 50 f<br>L-SCALE BLACK                           |  |
| ERROR 510<br>X ORIGIN                                 |  |
| ERROR 511<br>Z ORIGIN                                 |  |
| ERROR 601<br>INK NEAR END                             | • Replace the ink cartridge shown on the display as soon as possible. (  P.4-4)  |
| ERROR 602<br>INK END                                  | • Replace the ink cartridge shown on the display. (  P.4-4)  |
| ERROR 603<br>NO CARTRIDGE                             | • Attach the ink cartridge(s) shown on the display. (  P.4-4)  |
| Firmware Ver.1.7 and earlier                          | • Execute the station maintenance and clean or replace the wiper.  |
| PERROR 605 ! REPLACE WIPER Firmware Ver.1.8 and later | <ul> <li>( ⊕ P.4-33)</li> <li>Even if you cleaned the wiper, when Nozzle out or Ink dropping cannot be solved, try to replace the wiper.</li> </ul>  |
| ERROR 605<br>!CLEANING WIPER                          |  |
| ERROR 606<br>WRONG CARTRIDGE                          | • Insert the ink cartridge shown on the display again. If the error is still displayed after this, call a distributor in your district or our office.  |

| Message                           | Solution   |
|-----------------------------------|--|
| ERROR 607<br>CAP CLEANING         | • Execute the carriage out of the station maintenance, and clean the cap.  |
| ERROR 60b<br>WIPER BOTTLE         | • Execute the station maintenance and dispose of the ink in the wiper bottle. ( P.4-17)  |
| ERROR 60 c<br>INK TYPE            | Check the type of the loaded ink cartridge is correct.   |
| ERROR 60d<br>REMAIN INK           | • The remaining ink is low. Load a new ink cartridge. ( @ P.4-4)   |
| ERROR 60e<br>NOT COMPLETE FUP     | • Fill ink.  |
| ERROR 60 f<br>Expiration          | •The ink has expired. Replace the ink cartridge shown on the display with a new one. (  P.4-4)   |
| ERROR 610<br>NOT FILLUP           | • Fill ink into all the heads.   |
| ERROR 611<br>Case Weight          | A case weight of 600 ml cartridge is not set. Set the case weight on "600 ml CARTRIDGE" of "MACHINE SET".  |
| ERROR 612<br>INK LVL LOW          | Enter weight of the cartridge on "CART WEIGHT" of "SET UP".  |
| ERROR 613<br>INK LVL END          | <ul> <li>If ink remains, enter weight of the cartridge on "CART WEIGHT" of "SET UP".</li> <li>If ink does not remain, replace with a new cartridge.</li> </ul>   |
| ERROR 614<br>Preservation Failure | Writing of the setting of remaining amount of ink has failed.  Remove and set the cartridge again to rewrite. If the error does not disappear, replace with a new cartridge.                                     |
| ERROR 615<br>Cartridge Weight     | The cartridge weight is not entered.     Enter the weight of the cartridge.  |
| ERROR 701<br>THERMISTOR           | <ul> <li>Turn the power of this machine off and turn it on after a while.</li> <li>If the same error message appears again, contact a distributor in your district or our office to call for service.</li> </ul> |
| ERROR 705<br>WATER LACK           | • Check the amount of water in the cooling water tank, and fill as needed. ( * P.4-35)   |
| ERROR 706<br>UV UNIT OVER HEAT    | <ul> <li>Turn the power of this machine off and turn it on after a while.</li> <li>If the same error message appears again, contact a distributor in your district or our office to call for service.</li> </ul> |
| ERROR 707<br>!HD HEATER BRK       |  |
| ERROR 708<br>UV THERMISTOR BRK    |  |
| ERROR 709<br>!CHECK LED UV LEVEL  | Check illuminance of the LED UV lamp.  If it is lower than the set value, replace the lamp.  |

| Message                     | Solution  |  |
|-----------------------------|---|--|
| ERROR 901<br>OPERATION      | Operate this machine correctly.   |  |
| ERROR 902<br>DATA REMAIN    | Draw the all received data or clear the data. Then, change the settings.     (     P.2-9, P.3-10) |  |
| ERROR 90d<br>NO HEAD SELECT | Head is not selected.     Select a head to be cleaned or to be filled.                            |  |

# CHAPTER 6 Appendix



Tables of specifications and functions of this unit are described.

| Specifications            | 6-2 |
|---------------------------|-----|
| Basic unit specifications | 6-2 |
| Specifications for ink    |     |
| Function Flowchart        | 6-5 |

# Specifications

## Basic unit specifications

|                    | Item                       | Specification   |
|--------------------|----------------------------|---|
| Drawing            | Method                     | On demand piezo-head  |
| head               | Specification              | 3-heads (6 nozzles row)   |
| Decelostics.       |                            | x-dpi: 300, 600, 900, 1200  |
| Resolution         |                            | y-dpi: 360, 540, 720, 1080, 1440                                    |
|                    | x-dpi: 300                 | 2, 4, 6, 8, 12, 16 pass   |
| Drawing            | x-dpi: 600                 | 4, 8, 12, 16, 24, 32 pass   |
| mode               | x-dpi: 900                 | 6, 12, 18, 24 pass  |
|                    | x-dpi: 1200                | 8, 16, 24, 32 pass  |
|                    | •                          | Exclusive UV curing ink (Genuine ink) LH-100,ELH-100                |
| Ink                |                            | Bk, C, M, Y + W, CL   |
|                    |                            | Supplies ink through a tube from ink cartridge                      |
| Ink supply         |                            | Remaining ink display function                                      |
|                    |                            | Ink end detection function (220 cc cartridge only)                  |
| Ink capacity       |                            | 220 cc or 600 cc (1 for each color)                                 |
|                    | Size                       | 300 x 420 mm  |
| Media              | Thickness                  | Less than 50mm  |
|                    | Weight                     | Less than 5 kg  |
| Media adsorpti     | on                         | Blower vacuum adsorption  |
| Maximum draw       | ring area                  | W 300 x L 420 mm  |
| Distance           | Absolute accuracy          | $\pm$ 0.3 mm or $\pm$ 0.3 % of the designated, whichever is larger  |
| accuracy           | Reproducibility            | $\pm$ 0.2 mm or $\pm$ 0.1 % of the designated, whichever is larger  |
| Squareness         |                            | ± 0.3 mm/400mm  |
| Print gap adjus    | stment                     | Table up/down mechanism by key                                      |
| Head anticollis    | ion device                 | Head anticollision by obstacle sensor                               |
| UV unit            |                            | Water-cooling LED UV device x 1 (equipped with the head slider)     |
| Waste ink tank     |                            | Genuine waste ink tank (1600cc/ no tank full sensor)                |
| Interface          |                            | USB2.0 compliant  |
| Command            |                            | MRL-III (variable dot-compliant)                                    |
| Command            |                            | <mimaki bitmap="" command,="" original="" type="" ymck=""></mimaki> |
|                    | Stand-by                   | Less than 55dB  |
|                    |                            | (FAST-A, 1m in all direction)                                       |
| Noise              | In continuous              | Less than 65 dB   |
|                    | operation                  |   |
|                    | In discontinuous operation | Less than 75dB  |
| Safety standard    | •                          | FCC-Class A, CE Marking, CB Report, UL60950-1                       |
| Ink safety         |                            | MSDS  |
| Power requirements |                            | Single phase AC 100 to 240V ± 10%                                   |
|                    |                            | 50 / 60 Hz ± 1Hz  |
| Power consumption  |                            | Less than 350 VA  |
|                    | Temperature                | 20 to 35 °C (68 to 95 °F)   |
|                    | Humidity                   | 35 to 65%Rh (No condensation)                                       |
| Environment        | Guaranteed                 | ,   |
|                    | temperature                | 20 to 25 °C (68 to 77 °F)   |
| [                  | Temperature gradient       | ± 10 °C (50 °F) or less   |
| <u> </u>           | Dust                       | Equivalent to normal office level                                   |
| Weight             |                            | Approx. 113 kg  |
| External dimen     | sions                      | 1200 (W) x 1090 (D) x 770 (H) mm                                    |

### **Specifications for ink**

As for the detail, ask the dealer or our branch.

| Item                      |                 | Parts No./ Specification                               |
|---------------------------|-----------------|--|
| Feature                   |                 | Exclusive UV ink cartridge                             |
| Ink type                  |                 | Black, magenta, cyan, yellow, white, clear coat        |
| Capacity of ink cartridge |                 | 220 cc or 600 cc                                       |
| Shelf life                |                 | One year from the date of manufacture                  |
| Storage                   | During storage  | 15 °C to 35 °C (59 to 95 °F)                           |
| temperature               | During shipping | 0 °C to 60 °C (32 to 140 °F) within 2 weeks permitted. |



- The ink freezes up if it is left in an environment of under -4 °C (24.8 °F) for a long time. If the ink has frozen up, use it after unfreezing it with leaving in the room temperature (25 °C (77 °F)) for more than 3 hours.
- Do not disassemble an ink cartridge or refill ink in it. That can cause a trouble.

# **Function Flowchart**

