

Inkjet printer UJF-7151 plus/UJF-7151 plusII/UJF-7151plusII e

Requests for Daily Care and Maintenance

This machine is a precision machine equipped with extremely fine mechanisms. Especially, the nozzle surface of the heads from which the ink is discharged is affected even by a slightest attachment of dust or paper powder and the proper printing results could not be obtained. With a view to using this machine in a better condition, we would like to recommend performing the following care and maintenance on daily basis.

1. When to care

When to care	What to care	Reference Page
Daily (1-3 times a day, depending on operating conditions)	Nozzle surface cleaning around the head (cleaning by using maintenance liquid 11)	P.5
Once a day (at the end of the daily work)	Surroundings of the heads	P.5
	Capping station	P.6
	Cleaning of Rubber type wiper	P.6
	Around the wiper	P.6
Once a week (at the end of the work on weekend)	Exterior	P.9
	Waste ink tank	P.9
	Ink discharge passage	P.10
Once a month	Cleaning the mist filter	P.11
	Refill and check the cooling water	P.11

Tools required for maintenance (The numbers in parentheses are the part numbers ordered.)	Remarks
UJ Cleaning swab (SPC-0568)	Included in Maintenance liquid 15 Kit (ML015-Z-K1).
Clean stick (SPC-0527)	Nozzle surface cleaning around the head (cleaning by using maintenance liquid 11) When performed
Maintenance liquid 11 (ML011-Z-B2)	Nozzle surface cleaning around the head (cleaning by using maintenance liquid 11) When performed
Maintenance liquid 15 (ML015-Z-B1)	Included in Maintenance liquid 15 Kit (ML015-Z-K1). Replacement can be used with F-200/LF-200 Maintenance Liquid (SPC-0568).
Gloves	Included in Maintenance liquid 15 Kit (ML015-Z-K1).
Soft fabric	Included in Maintenance liquid 15 Kit (ML015-Z-K1).
Dropper	Included in Maintenance liquid 15 Kit (ML015-Z-K1).

For more information on other consumable items, refer to our website.

<https://mimaki.com/supply/inkjet.html>



- This printer uses a ultraviolet curable ink (UV ink).
- When handling ink and cleaning solution, pay close attention to ventilation and be sure to wear the included safety glasses and gloves.

2. Safety Precautions

CAUTION



This printer uses a ultraviolet curable ink (UV ink).
Be sure to wear the included safety glasses and gloves.



To secure the stability of the ink discharge, when the printer is not used (output) for an extended period of time, it could become necessary to discharge periodically a small amount of ink (flushing), depending on the kinds of the ink.

When not using for an extended period of time, execute the [CUSTODY WASH] function of this equipment, ("When the Machine Is Not Used for a Long Time (CUSTODY WASH)" Chapter 5 of Operation Manual) and put off the power switch on the front, only. Leave the main power switch at the side of the equipment on and keep the cable socket inserted into the plug.



Make maintenance after the LED UV has been sufficiently cooled, or burn injury may occur.



Never disassemble this machine. It could cause electrical shock, fire and breakage.



Keep away the moisture from the inside of this machine. If the inside is moistened, it could cause electrical shock, fire and breakage.



Perform the maintenance and care after switching off the power and taking off the power cable. Otherwise, it could cause unexpected accidents.



Avoid using benzine, thinner, and chemicals containing abrasive compounds. The surface of the cover could be degenerated or deformed.



Do not supply lubricant oil etc. to the inside this machine.
It could cause the breakdown of this machine.



The ink, if mixed with water or alcohol, generates condensed substances. Pay attention not to deposit water or alcohol to the nozzle surface, surrounding area of the heads, caps and wipers.

3. Installation environment

- Use this printer as much as possible in a dust-free environment. Fans and air-blowers could cause the dustspewing.
- The using environment of this printer is from 15 to 30°C (59°F to 86°F) in temperature and from 35 to 65 % in relative humidity. Avoid the use of this printer at a temperature and humidity higher or lower than the indicated ranges.

4. Notes for working environment

Performing frequency of the print setting or maintenance is greatly influenced by the printing environment or the condition of the media used. Use this machine with a full understanding of the followings.

Working environment	Consideration
In the gritty and dusty place	- Be sure to clean the sides of the head base before starting daily work. - To keep the nozzle face clean, set to wipe periodically. (Operation Manual Chapter 4 "Setting Interval wiping") - Change the setting of periodic wiping depending on the amount of dust.
When the head gap is set wide because fibers stick out of media	- UV light can expose the nozzle when there is a lot of scattered mist. Raise the refreshing level for drawing (Operation Manual Chapter 3 "Setting of REFRESH"), and set the periodic wiping (Operation Manual Chapter 4 "Setting Interval wiping"). - Increase performing frequency of every maintenance.
When the media that reflects UV light well is used such as glasses or glazed metal	
When there is an infrequentlyused ink (print head)	An infrequently-used print head can be unstable to discharge ink comparing with the other print heads. Raise the refreshing level for drawing (Operation Manual Chapter 3 " Setting of REFRESH") to raise the usage rate of the head.
When printing on the media on which static can be charged	- Put humidifiers on to avoid charge. Static may collect mist or dust around the printing area or the head. To print continuously for a long time, set the periodic wiping. (Operation Manual Chapter 4 "Setting Interval wiping") - For environmental information, please refer to P. 2 " Installation environment " in this manual.
When printing in a dry place (such as in winter)	
When printing on a markedly uneven media (or object)	- To keep the head gap the same, set extra media outside the suction area where a printing media is set. Leaving the head that has been degraded by reflected light may cause failure that needs replacing of the head. - For more information, refer to "For Customers Using UV Inkjet Printers,".

5. Storage of media

Media should be stored in the little dust area, and not in direct sunlight. Avoid storing the media in the area with high temperature and high humidity.

6. Storage of ink bottle

Be careful of the followings to store.

- Store the ink bottle in no direct sunlight, and no high humidity.
- As it's a delicate product, do not drop it.
- Ink IC should not be contaminated and discharged static electricity.
- Be sure to store the ink bottle and the ink IC together.



Ink bottle and Ink IC

7. Maintenance when needed



A proper maintenance schedule is determined by the operator who observes throughout a period of use of the printer.

- Some media need maintenance every time of printing.
- The maintenance schedule differs depending on the image to be printed. For example, when the image is almost filled, perform maintenance frequently.

(1) Cleaning of the LED UV unit

Remove ink or dust attached to the LED UV periodically.



- Clean the LED UV with care in order not to scratch an irradiation part on the bottom of the unit. If there is a certain amount of dirt or a light shielding object on the irradiation part, ink may not cure well and it may cause banding.

(2) Removal of ink attached to the table

If necessary, remove ink attached to the table with an alcohol-impregnated cloth. Be careful not to scratch the table face when removing cured ink.



- It is possible to remove ink that has hardened on the board surface using a spatula or similar tool, but be very careful not to scratch the board surface.
- If ink is adhering to it, wipe using a soft cloth soaked in diluted ethanol and thoroughly wrung out. Do not spray or spray ethanol directly onto table.

(3) Removal of the vacuum hole clogging on the table

The vacuum holes on the table can be clogged with ink. Remove the ink in the vacuum holes when needed. Be careful not to leave a part of cured ink on the table.

If the media suction seems insufficient, remove ink from the vacuum holes by using a thin item with a pointed tip, such as a paper clip.



- If ink is sticking to the media, wipe it off with a paper towel soaked in Maintenance Liquid 11.

(4) Cleaning of the print head nozzle face with a cleaning swab

When an image is printed on a special media, or when this machine is not used for a long time, the nozzle may not be cleaned only with a normal cleaning.

Soak a specified cleaning swab into the washing liquid, and wipe out things adhered on the nozzle face.

Perform this work under the direction of our service engineer.

(5) Maintenance of Optional Ionizer

For the maintenance, refer to Instruction Manual of Ionizer.

8. Daily care



- When possible, use the cleaning stick (SPC-0527) or nozzle swab (SPC-0421) for cleaning around the head/capping station/ wiper.
Using the other cotton bud may attach lint, then it may damage the machine.
- Be sure to perform maintenance for the ink cap and the wiper of capping station every day. If you leave it dirty, dirt may adhere to the nozzle surface, or, dust and dry ink may be rubbed against the nozzle. It may cause discharge defect.
- Clean the bottom of carriage every day so that it will not get dirt from inks or dusts. If you leave it dirty, dust and dry ink may be rubbed against the nozzle at wiping operation when performing head cleaning.
- When you clean the carriage bottom surface, fully be careful not touch the nozzle surface.

(1) Surroundings of the heads ("Cleaning the Head and the Area around It" Chapter 4 of the Operation Manual)



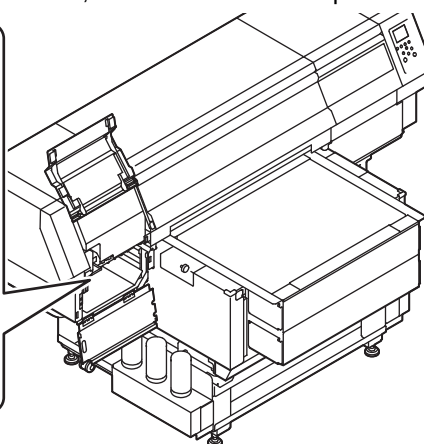
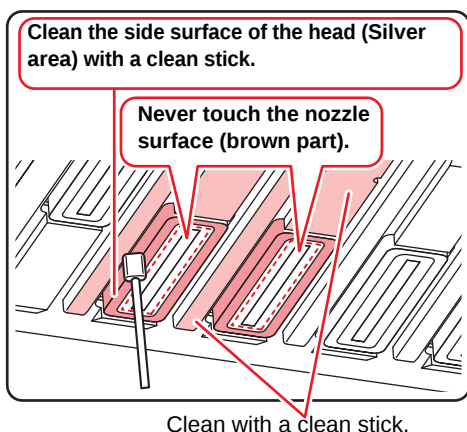
- The heads and their surroundings are the parts most liable to be tainted in this machine and if tainted, it could cause adverse effects to the functions of the machine and the results of the printings. Moreover, as the head itself uses very fine mechanisms, sufficient precautions are required for the care and maintenances.

1 Move the carriage and open the cover.

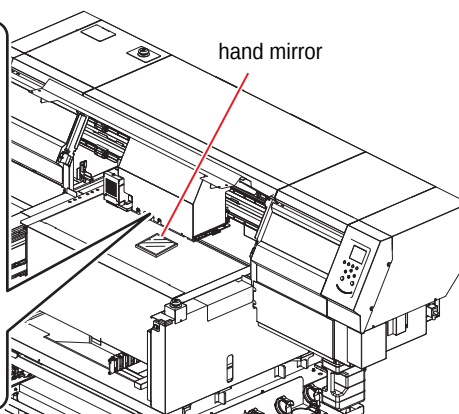
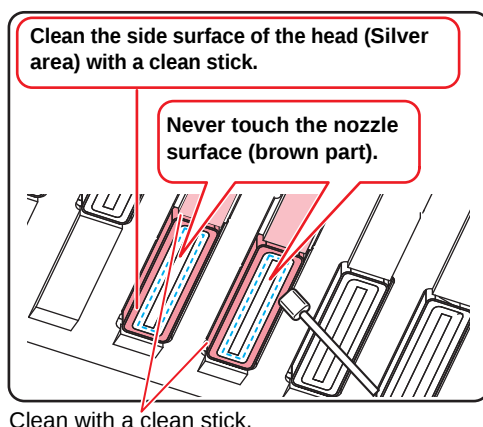
- Refer to the Step 1 to 5 of Chapter 4 "Cleaning the Head and the Area around It" of the user's manual to perform the operation.

2 Soak the cleaning stick in the maintenance cleaning liquid and wipe off an accumulated ink on the side of the head and on the bottom surface of the slider.

- Scrape them off with clean stick etc. In this case, never rub the nozzle portion of the head.



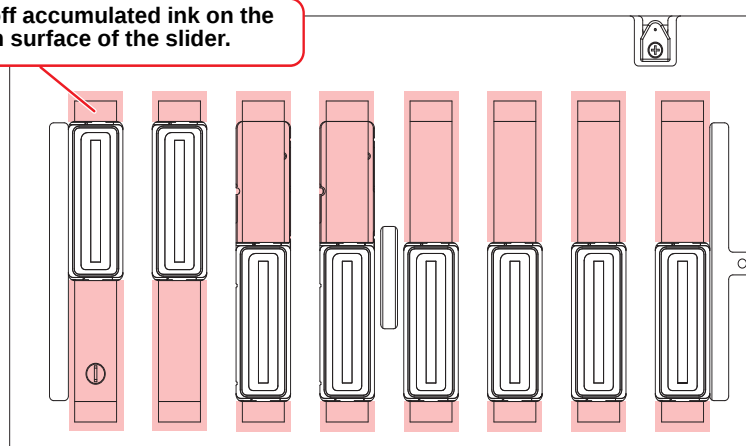
UJF-7151 Plus



UJF-7151 PlusII /
UJF-7151 PlusIIe

If the table position is in the center, put a hand mirror on the table and work while looking in the mirror.

Wipe off accumulated ink on the bottom surface of the slider.



Bottom surface of carriage

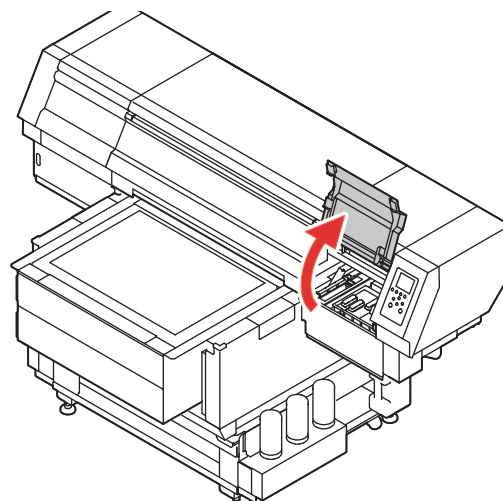
(2) Capping Station ("Cleaning the Wiper and Cap" Chapter 4 of the Operation Manual)

The surrounding area of the cap is also liable to be stained by the dust and ink. It is recommended to clean the head frequently using the cleaning liquid for maintenance suitable for the ink used to avoid the stains on the head.

- F-200 / LF-200 Washing Liquid (SPC-0568) or maintenance liquid 15(ML015-Z-B1)

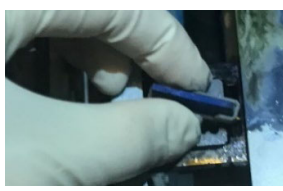
1 Move the carriage and open the right front cover.

- Refer to the Step 1 to 4 of Chapter 4 "Cleaning around the wiper" of the user's manual to perform the operation.



2 Open the right front cover and remove the wiper.

- Refer to Chapter 4 "Cleaning around the Wiper" Steps 1 to 4 in the operation manual.

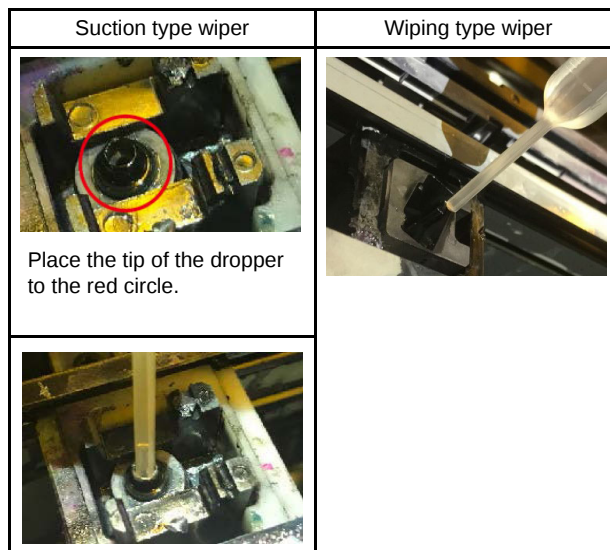
Suction type wiper	Wiping type wiper
	

3 Fill the maintenance cleaning solution.

- Take 3cc of the maintenance cleaning solution into the dropper and add the cleaning solution as shown in the picture.
- Refer to the dropper scale for the solution volume.
- Estimated speed of pouring: 1 cc / sec



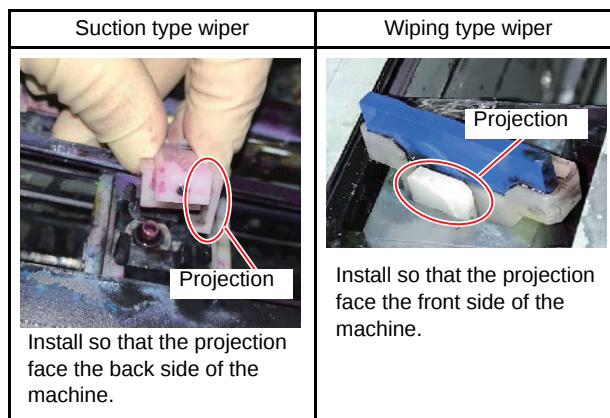
- Note for the splash of maintenance cleaning solution.



4 Attach the wiper.

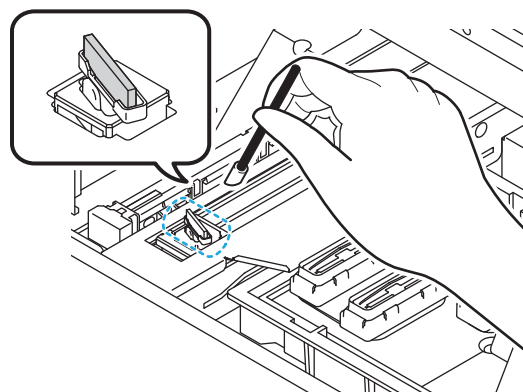


- Note for the installation position of the wiper.



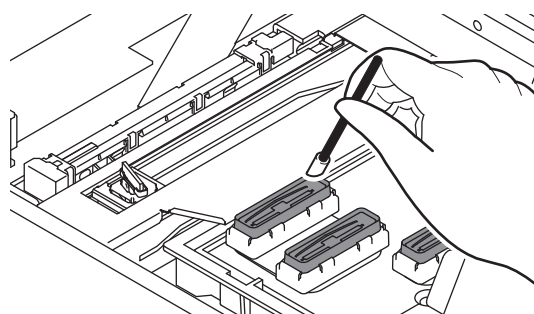
5 Clean the wiper.

- Dip the UJ Cleaning swab into the maintenance liquid 11 for wipe off the ink on the wiper rubber. Wipe off so that cleaning solution for maintenance will not remain.



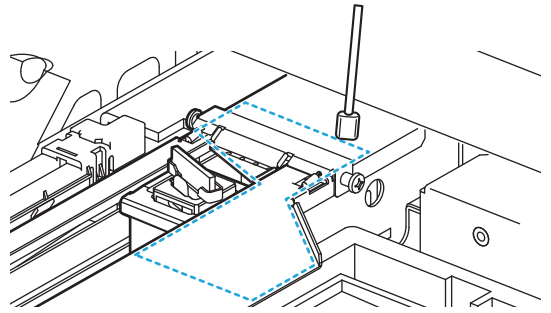
6 Clean the cap.

- Dip the UJ Cleaning swab into the cleaning liquid for maintenance and wipe off the cap. Wipe off so that cleaning solution for maintenance will not remain.



7 Clean the surroundings of the wiper

- Clean the ink around the wiper using the clean stick around the head.

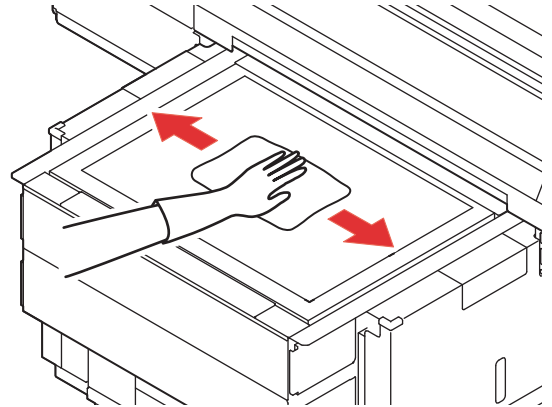
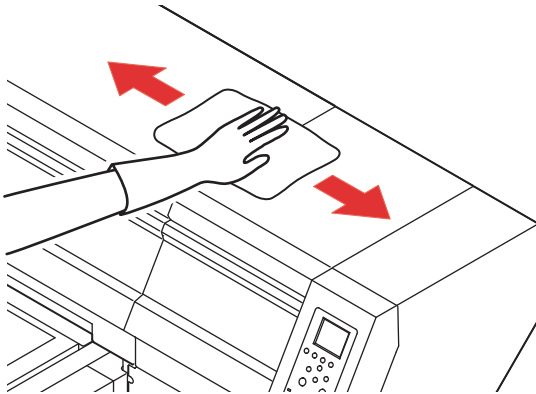


9. Periodically care (Once a week)

Users are advised to perform the maintenance works described below once a week so that the printer will keep its high performance and accuracy over an extended period of its life.

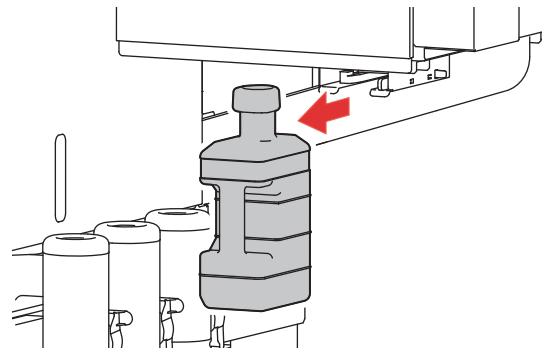
(1) Exterior (“Cleaning the Exterior Surfaces” “Cleaning the table” Chapter 4, Operation Manual)

Depending on the using environment, the dusts or sand powder could stick to the exterior of the main unit. To avoid the entry of the dusts into the moving part of the head, wipe them off with soft cloth dipped into water and squeezed tightly.



(2) Waste ink tank (“If a Waste Ink Tank Confirmation Message Appears” Chapter 4 of the Operation Manual)

Check whether the waste ink tank is full or not. Take care so that the waste ink never overflows the tank.



(3) Ink Discharge Passage (“Washing the Ink Discharge Passage” Chapter 4 of the Operation Manual)

Wash the ink discharge passage (DISWAY WASH) regularly (about once a week) to prevent the head nozzles from clogging due to ink coagulation inside the passage.

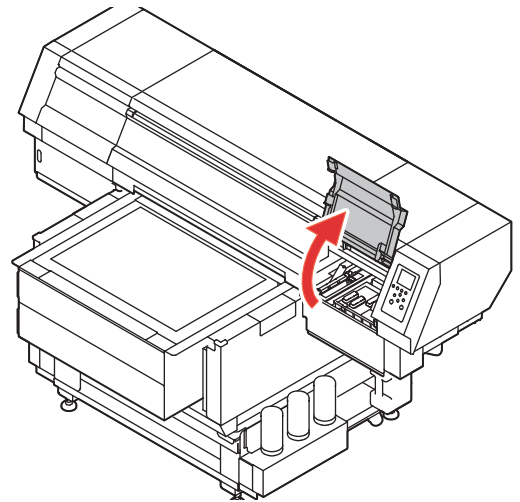
1 Select “MAINTENANCE” menu → “STATION” → “DISWAY WASH”.

- Refer to the Step 1 to 3 of Chapter 4 “Washing the Ink Discharge Passage” of the user’s manual to perform the operation.
- The carriage will move onto the platen.

2 Press **ENTER** key.

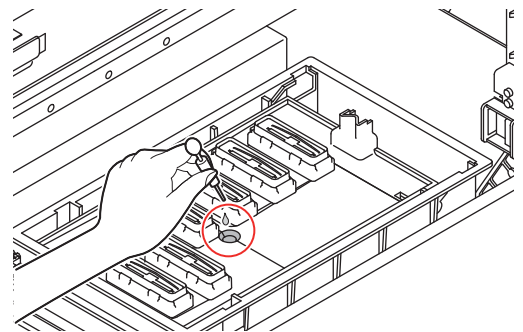
- Dry suction operation is performed repeatedly until the washing work is completed.

3 Open the right front cover.



4 Put the maintenance cleaning solution in the ink discharge path.

- Take 20 cc of maintenance liquid 11 to the dropper and insert through the hole in the center of the cap slider.



5 Press the **ENTER** key.

10. Periodically care (once a month)

(1) Cleaning the mist filter (“Cleaning the mist filter” Chapter 4 of the Operation Manual)

It is recommended that the mist filter be cleaned about once a month to keep the machine itself in good working order.



- If the stain strongly attached to the filter, such as the liquefaction of the ink attached to the filter, please replace the filter.

(2) Refill and check the antifreeze mixed water (“Refilling antifreeze mixed water” Chapter 4 of the Operation Manual)

It is recommended that check the amount of cooling water about once a month to keep the machine itself in good working order.

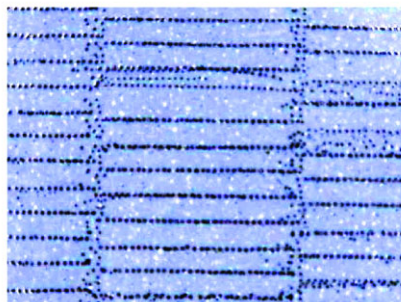
When cooling water is a little, refill the cooling water.

11. The examples of defective printing

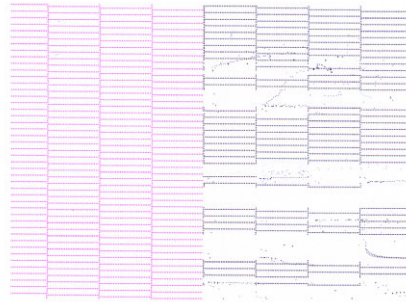
These following examples indicate improper head (nozzle) firing by dust, which effect printing.

Confirm the nozzle condition periodically before or during outputting not to use in such as this condition.

The nozzle condition can be confirmed with [test printing] in this plotter. (Operation manual Chapter 2 “Test Printing”)



Deflection



Nozzle out



Ink dropping



Satellite

12. Recovery method of defective nozzle discharge

When this printer has not been used for an extended period of time, or depending on the environmental temperature, the discharge at the nozzles could become unstable. In such a case, the following methods may be taken to recover the status of the nozzles.

1. Daily maintenance and care

- Perform the cleaning of the parts described in this document.

2. Performing Head Cleaning (normal). Refer to Chapter 2 of Operation Manual.

- After having performed the care and maintenance stated in step 1, perform the cleaning of the heads in accordance with the procedures stated in Operation Manual.



Perform test printing and check
(Chapter 2 of Operation Manual)



In the event nozzle missing etc. have not been improved

3. Performing Head Cleaning (hard). Refer to Chapter 2 of Operation Manual.

- If the nozzle missing does not disappear even after repeating the head cleaning (normal) several times, reset the cleaning mode to "hard" and perform the cleaning again.



Perform test printing and check
(Chapter 2 of Operation Manual)



In the event nozzle missing etc. have not been improved

4. Clean the nozzle surface of the head. Refer to Chapter 4 of Operation Manual.

- Clean the head nozzle surface by following the procedure described in Chapter 4 "If does not resolve the nozzle clogging" of Operation Manual.



Perform test printing and check
(Chapter 2 of Operation Manual)



In the event nozzle missing etc. have not been improved

5. Set the nozzle recovery function. Refer to Chapter 4 of Operation Manual.

- Set the nozzle recovery function.



Perform test printing and check
(Chapter 2 of Operation Manual)

If the nozzle missing has not been improved even with the above operations, please contact your local distributor, our sales office, or service center.

11



Maintenance Liquid 11
(ML011-Z-K2/ML011-Z-B2)

For Head Nozzle Surface

- Clean Head nozzle surface

Available ink type:
LH-100 LUS-120 ELH-100 ELS-120

15



Maintenance Liquid 15
(ML015-Z-K2/ML015-Z-B1)

For Daily Maintenance

- Clean Wiper
- Clean Cap
- Clean the area around Heads
- Perform Nozzle Wash (except PR-200 Head)

Available ink type:
LH-100 LUS-120 LUS-350 PR-200
ELH-100 ELS-120 MUH-100-Si

16



Maintenance Liquid 16
(ML016-Z-K2/ML016-Z-B2)

For Nozzle Defect

- Use when the nozzle missing/deflection occurs

USE WITH CAUTION
(Instructions for use on the back)

Available ink type:
LH-100 LUS-120 LUS-350 PR-200
ELH-100 ELS-120

To get Details



How to Choose Maintenance Liquid

MAINTENANCE LIST			
Items	When	Note	
Before Work			
Test Print	Every day	Check Test Print with Head Gap of 1.5 mm	
Shake White Ink Bottle (If white ink is loading)		Take out the ink bottle > Cover with a maintenance cloth firmly and shake it slowly twenty times or more.	
During Work			
Head nozzle surface	11	Every day (1 to 2 times)	Clean the head nozzle surface with Maintenance Liquid 11.
After Work			
Head nozzle surface	11	Every day	Clean the head nozzle surface with Maintenance Liquid 11.
The area around Heads Cap Wiper Wiper tube	15		Clean the area around Heads, Cap, Wiper and Wiper tube with Maintenance Liquid 15.
Table			Clean off any ink stains or dirt.
Periodically Care (After Work)			
Glass of LED lamp			Clean off any ink stains or dirt with Alcohol
Ink discharge passage	15	Once a week	MAINTENANCE > STATION > DISWAY WASH Fill up the cap with Maintenance liquid 15 > ENTER
Waste ink tank			MAINTENANCE > STATION > WASTE INK TANK *The amount of waste volume is counted, and a warning is displayed when it reaches 80%.
Mist filter		Once a month	CHECK FILTER Clean the filter and filter case. (Or replace the filter)
Antifreeze liquid			Check and refill the antifreeze liquid.
Ink bottle cap		Once a year	Replace SPA-0319/Cap Bv2 Assy (Set of 8)

The most frequent accident



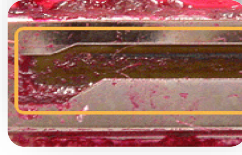
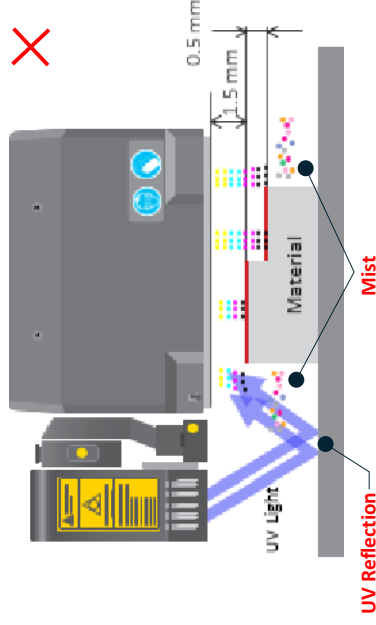
Nozzle missing

Nozzle deflection

Cause

If the gap between the media and the head is 2mm or more, the ink droplets turn into mist before they reach the media.

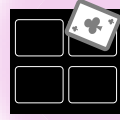
Also, the reflected UV light from UV LED will increase. That is caused the ink mist to harden due to the reflected UV light^{*1}, and the increased viscosity can cause the ink to land misaligned, missing nozzles, nozzle deflections, and blurry color.



*1 Ink mist to harden on the nozzle surface

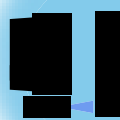
To prevent the problems...

STEP 1



Use JIG

STEP 2



Use Head gap within 2.0 mm

STEP 3

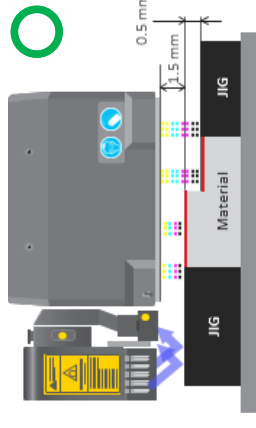


Daily Maintenance

Countermeasure

STEP 1 JIG

To prevent mist scattering and increased reflected light, please create and use a jig to ensure that there is no height difference between the edge of the print and the table.



STEP 2

HEAD GAP within 2.0 mm

Before printing or change the material, make sure the Media thickness on the machine setting.

STEP 3

DAILY MAINTENANCE

Perform daily maintenance follow per the maintenance list (page 1).

Especially, clean the nozzle surface with Maintenance Liquid 11. (LH-100, LUS-120, ELH-100, ELS-120 only)

If nozzle missing / nozzle deflection still occurs

If performing maintenance with Maintenance Liquid 15 does not restore the nozzle, use Maintenance Liquid 16.

* In some cases, nozzle problems caused by factors other than foreign matter on the nozzle surface cannot be resolved. (e.g., Scratches on the nozzle surface, ink hardening on the nozzle surface or inside the head, head damage, etc.)

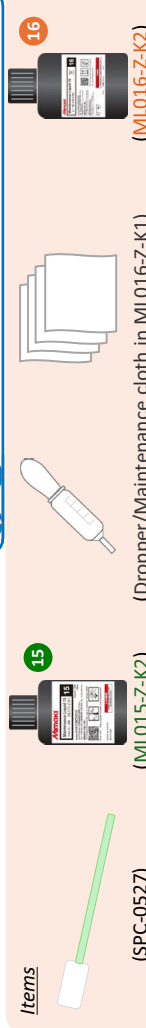
Warning

✓ Maintenance liquid 16 is stronger than other maintenance liquids and melts rubber, plastic, etc.
Do not use other than Nozzle Wash.

✓ Before performing this maintenance for the first time, be sure to contact our engineers in advance. Also, be sure to read the operation manual before use.

Procedure

Items

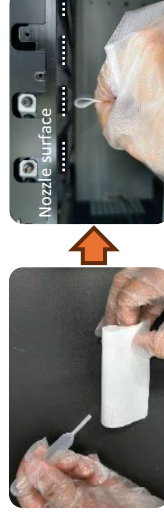


Be sure to wear the included safety glasses and gloves.

- 1 Normal maintenance using Maintenance Liquid 15
- Clean wiper, cap, around head
- Head Cleaning, Nozzle Wash
- 2 Maintenance > STATION > CARRIAGE OUT > Left End
- 3 Fold the included maintenance cloth and drip Maintenance liquid 16 using the included dropper.
- Amount to drip: 6 cc (approximately 3 times)
- 4 Lightly apply the maintenance cloth (step 3) to the nozzle surface of the head.
- Estimated time: 2 to 5 minutes
- 5 Once complete, perform head cleaning (hard) immediately.
- 6 Check Test Print

- 7 If the problem is not resolved:
- Repeat steps 2 to 6 up to three times
* Be sure to use a new maintenance cloth each time.

If it doesn't recover, please contact us.



The procedure video



You can also download the latest manual from our website.

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