

Inkjet Printer TS55-1800

Requests for 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.

When to care

| When to care | What to care | Reference Page |
|--|---------------------------|----------------|
| Once a day (at the end of the daily work) | Surroundings of the heads | P.3 |
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| | Capping station | P.5 |
| | Cap Absorber | P.6 |
| Once a week (at the end of the work on weekend) | Nozzle cleaning | P.7 |
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| When the Machine Is Not Used for a Long Time | Perform "Storage Wash" | P.11 |



Tools required for maintenance

- Cleaning Stick for Head Surrounding (PN:SPC-0527)
- Washing liquid 03 Maintenance kit (PN:ML003-Z-K1)
- Cleaning stick
- Safety glasses
- Gloves
- Soft fabric
- Paper towel

Safety Precautions

CAUTION



Make sure to wear the attached **safety glasses and gloves**.



If ink should come into your eyes, immediately rinse with plenty of clean water for more than 15 minutes and rinse thoroughly to the back of the eyelids. Also, please consult a doctor as soon as possible. If ink adheres to the skin, please rinse thoroughly with a large amount of water and soap or skin detergent.



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.



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 4 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.



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 benzene, 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.

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 20 to 30°C (68°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.

Auto maintenance function

- To get the best out of this machine, you can set various maintenance operations to be performed automatically. Refer to Chapter 4 "Auto maintenance function" of the user's manual to perform the operation.

Daily care



- When possible, use the cleaning stick (PN:SPC-0527) 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 to rub the nozzle surface.

Surroundings of the heads (Operation manual Chapter 4 "Cleaning the Ink Head and the Area Around It")

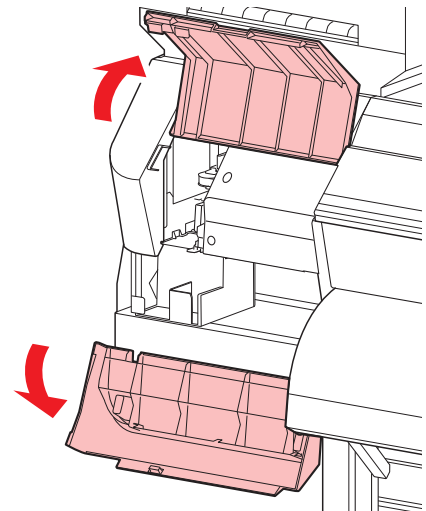
- Cleaning Liquid 03 MAINTENANCE KIT (PN:ML003-Z-K1)



- 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.

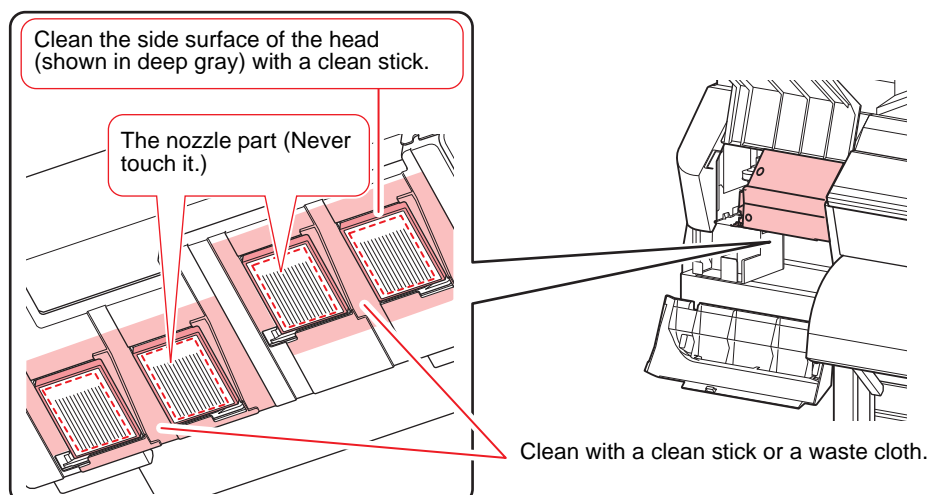
1 Move the carriage to the left and open the maintenance cover.

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



2 Soak the clean stick or the waste cloth in the maintenance cleaning liquid and wipe off an accumulated ink on the side of the head and on the bottom surface of the carriage.

- Never rub the nozzles.



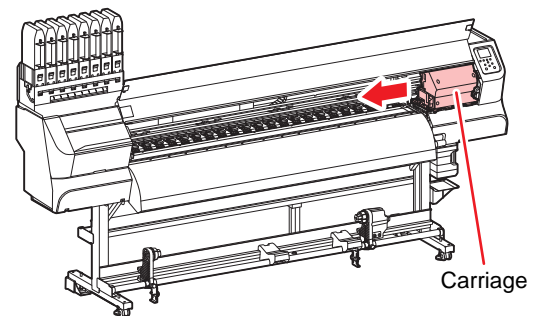
Wiper (Operation manual Chapter 4 "Cleaning the Wiper")

On the wiper, the ink, dust and paper powder are liable to accumulate. Check the state of the wiper and if it is stained, clean it.

- Cleaning Liquid 03 MAINTENANCE KIT (PIN:ML003-Z-K1)

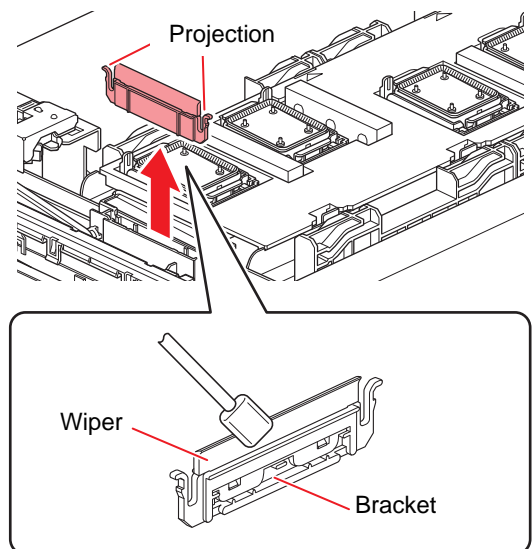
1 Move the carriage and open the right maintenance cover.

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



2 Clean the wiper.

- Remove the wiper by holding the protrusions at its both ends.
- Wipe off the ink sticking to the wiper and bracket with a clean stick dipped in cleaning solution for maintenance. Wipe off so that cleaning solution for maintenance will not remain.



Also, in the following cases, replace with the new Wiper kit according to Chapter 4 "Replacing the Wiper" in the operation manual.

- When the wiper is deformed
- When the stuck ink can not be wiped off
- When the warning for wiper replacement is indicated
- If nozzle missing or deflection is not fixed even after cleaning

The wiper used depends on the height of the head.

| Range | Wiper |
|-------|---------------------------|
| Low | Wiper (PN:SPC-0843) |
| Mid | |
| Hi | HiGap wiper (PN:SPC-0850) |



- Be sure to use a wiper that matches the height of the head. It may cause discharge failure such as nozzle clogging or color mixing.
- If you change the wiper, the number of times the wiper is used is reset.

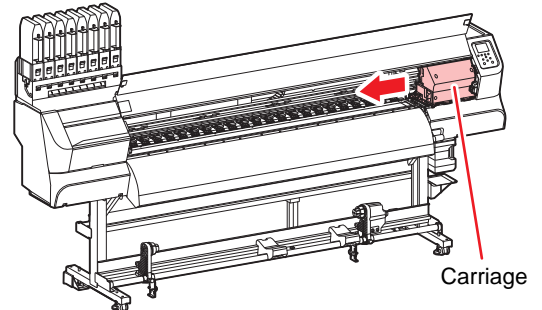
Capping Station (Operation manual Chapter 4 "Cleaning the Cap")

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.

- Cleaning Liquid 03 MAINTENANCE KIT (PN:ML003-Z-K1)

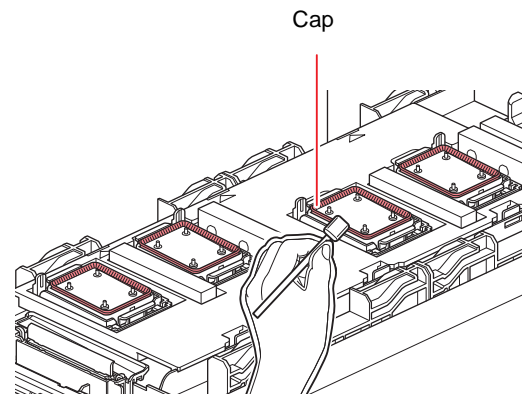
1 Move the carriage and open the maintenance cover.

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



2 Clean the cap.

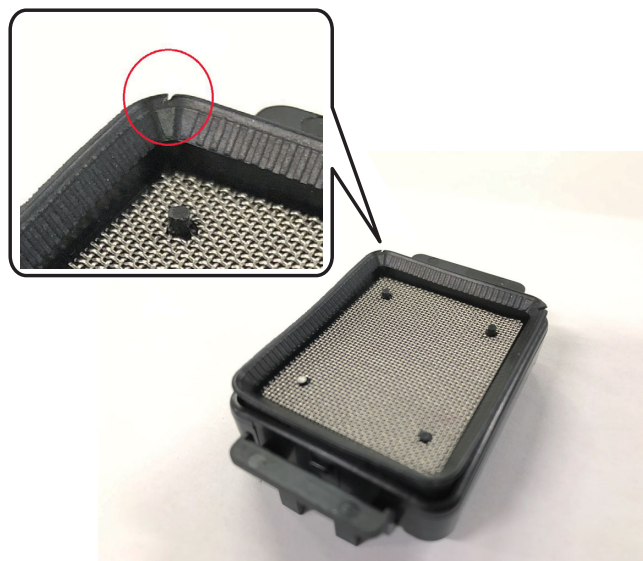
- Dip the clean stick into the cleaning liquid for maintenance and wipe off the cap. Wipe off so that cleaning solution for maintenance will not remain.



If the cap becomes dirty or gets scratches, or nozzle drop outs do not change even after cleaning (suction failure), replace the new cap (PN:SPC-0842) according to the Operation Manual Chapter 4 "Replacing the Cap".



- Be sure to replace the cap edge if it is scratched or damaged as shown below.

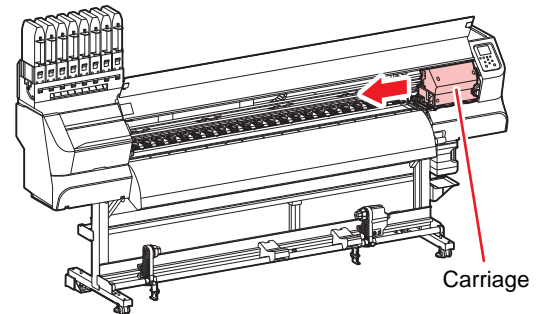


Clean the Cap Absorber (Operation Manual Chapter 4 "Cleaning the Cap Absorber")

Ink will adhere to the Cap Absorber. Check the condition of the Cap Absorber and clean it if it is dirty.

1 Move the carriage

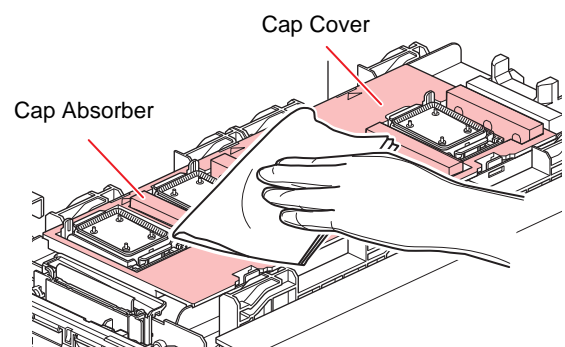
- Refer to Chapter 4 "Cleaning the Cap Absorber" in step 4 of the instruction manual and follow steps 1 to 4 for operation.



2 Wipe ink adhering to the cap absorbent material so as to press with a paper towel or the like.

- Clean the cap cover if it is dirty.

If the Cap Absorber is very dirty, replace it with a brand new Cap Absorber (PN:SPC-0845) According to Chapter 4 "Replacing the Cap Absorber" in the operation manual.



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.

Nozzle cleaning (Operation manual Chapter 4 "Nozzle cleaning")

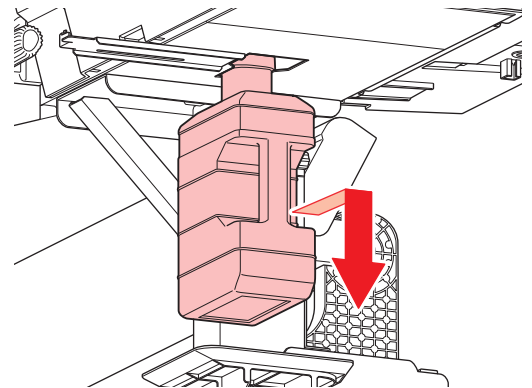
Periodically clean the nozzles so that printing defects do not occur.



- When regular maintenance is required, set the leave time of cleaning solution to "60 min".

Waste ink tank (Operation manual Chapter 4 "If a Waste Ink Tank Confirmation Message Appears")

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



Ink pack (Operation manual Chapter 4 "Maintenance of ink pack")

Shake the ink pack and stir the ink in the pack once a week.

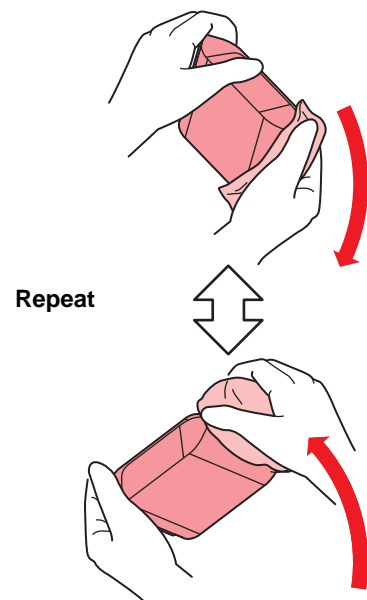
Otherwise, there may be a difference in color tone due to settling of the ink in the pack.

(A screen prompting to run once a week on the main screen is displayed.)



- The MBIS (optional) must be attached and removed no more than 10 times in total.

Hold firmly with a paper towel and shake it slowly



- If the Ink pack is partially used, shake the Ink pack slowly from left to right at least 20 times, holding the ink pack lid with a paper towel.
- If the cartridge is roughly tilted, this may cause an ink leak. Please tilt the cartridge gently.
- When the level of ink remaining is low, tilt the cartridge vertically, otherwise ink cannot be fully circulated.

When it becomes dirty

Media press (Operation manual Chapter 4 "Cleaning the Media Press")

When the cut dust of the media and other dusts accumulate between the media holder and the platen, it could cause the risks that the transfer of the media could not be performed properly or such dusts stick to the nozzles and this could interfere the proper printings. You are recommended to clean it frequently.

If the Media Press is dirty, replace it with a new Media Press (PN:SPC-0789) according to Chapter 4 "Replacing the Media Press" in the instruction manual.



- If ink adheres to the end face of the media and becomes dirty, be sure to clean it.
- If ink adheres frequently, we recommended to set the vacuum fan to "weak" or "standard".

Media sensor (Operation manual Chapter 4 "Cleaning the Media Sensor")

The media sensors are located on the platen in the backside and the bottom surface of the head.

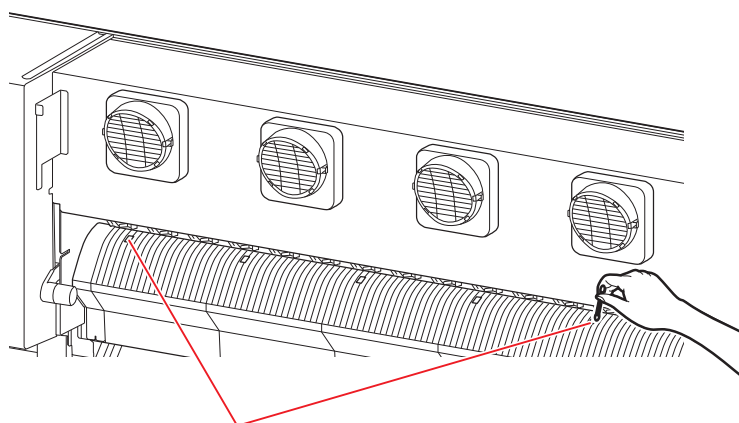
If the dusts and ink accumulate on the sensor, it could cause false detection of the media or the register mark. Wipe off the sensors with soft cloth or clean sticks.



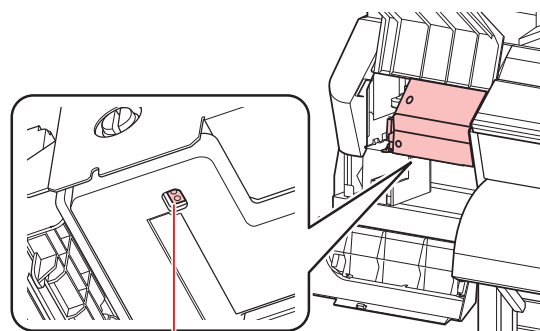
- For the cleaning of the media sensors, never use the solvent.
- When the sensor is heavily stained, wipe off with a cloth soaked in the waterdiluted neutral detergent.

The backside of the machine

The lower surface of the head



Media sensor



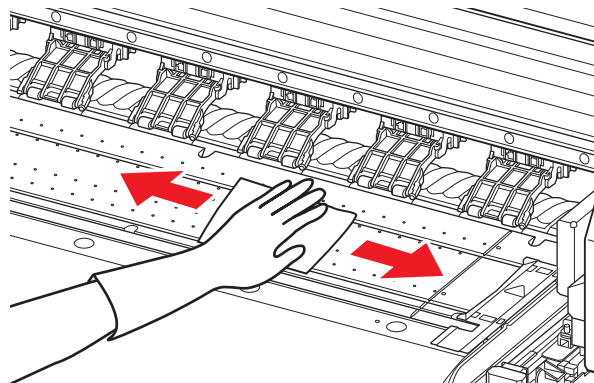
Media width sensor

Platen (Operation manual Chapter 4 "Cleaning the Platen")

Platen is a place where dusts, paper powder, and ink are liable to accumulate. It is therefore suggested to clean it frequently. Wipe out the platen surface and the platen cover with a soft brush or cloth. The grooves for media holder and for cutting the paper (cutter line) are the place where the dusts are especially liable to accumulate. Clean them thoroughly.



- If ink adheres to the end face of the media and becomes dirty, be sure to clean it.
- If ink adheres frequently, we recommended to set the vacuum fan to "weak" or "standard".



Carriage filter (Operation manual Chapter 4 "Replacing the Carriage filter")

If the carriage filter becomes dirty, replace it with a new carriage fan filter (PN:SPC-0844) according to Chapter 4 "Replacing the Carriage Fan Filter" in the Operation Manual.

Blow down fan filter (Operation manual Chapter 4 "Replacing the Blow down fan filter")

If the blow down fan filter becomes dirty, wash it, or replace with a new blow down fan filter (PN:SPC-0856) according to Chapter 4 "Replacing the blow down fan filter" in the Operation Manual.



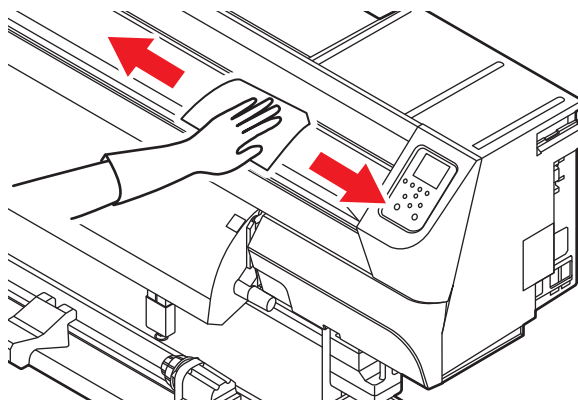
- After washing the blow down fan filter, be sure to dry it before installing it in this machine.

▪ When to care of the filter

| | |
|----------------|--|
| Every 2 weeks | If the blow down fan filter becomes dirty, wash it (wash it with water). |
| Every 3 months | Replace with a new blow down fan filter. |

Exterior (Operation manual Chapter 4 "Cleaning the Exterior Surfaces")

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.



The Ink Discharge Passage (Operation manual Chapter 4 "Cleaning the Ink Discharge Passage")

In order to prevent ink clogging due to coagulation inside the ink discharge passage, clean the ink discharge passage periodically.



- Before cleaning the ink discharge path, be sure to check that the cleaning cartridge is set. If the cleaning cartridge is not set, it is necessary to fill the cleaning solution manually.

Pinch roller (Operation manual Chapter 4 "Replacing the Pinch roller")

If the pinch roller becomes dirty, replace it with a new one (PN:SPA-0247) according to Chapter 4 "Replacing the pinch roller" in the Operation Manual.

Wiper cleaner (Operation manual Chapter 4 "Replacing the Wiper cleaner")

If the wiper cleaner becomes dirty, replace it with a new one (PN:SPA-0243) according to Chapter 4 "Replacing the wiper cleaner" in the Operation Manual. Exchange about once a year.

Cutter Blade (Operation manual Chapter 4 "Replacing the Cutter Blade")

When the cutter blade gets dull, replace it with a new one (PN:SPA-0107) according to Chapter 4 "Replacing the cutter blade" in the Operation Manual.

2L eco case spout rubber (Operation manual Chapter 4 "Replacing the Spout Rubber")

The replacing timing sign of the spout rubber will be shown about once every half-year. Replace it with a new one (PN:SPA-0250) according to Chapter 4 "Replacing the spout rubber " in the Operation Manual.

MBIS male connector absorbent (Operation manual Chapter 4 "MBIS male connector absorbent")

If the MBIS male connector absorbent becomes dirty, replace it with a new one (PN:SPA-0625) according to Chapter 4 "Replacing the MBIS male connector absorbent " in the Operation Manual. The replacement guideline is about 5 to 10 times for 2L ink pack replacement.

Media edge guide film (Operation manual Chapter 4 "Media edge guide film replacement")

If the media edge guide film is creased or worn, replace it with a new one (PN:SPC-0854) according to Chapter 4 "Media edge guide film replacement" in the Operation Manual.

The examples of defective printing

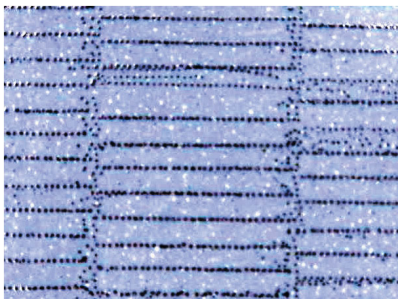
- Use this printer as much as possible in a dust-free environment. Fans and air-blowers could cause the dustspewing.

The using environment of this printer is fro

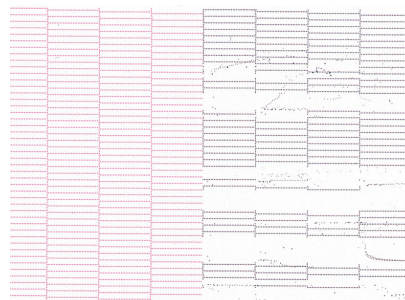
These following examples indicate improper head (nozzle) firing by dust, which effect printing.

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")



1.Deflection



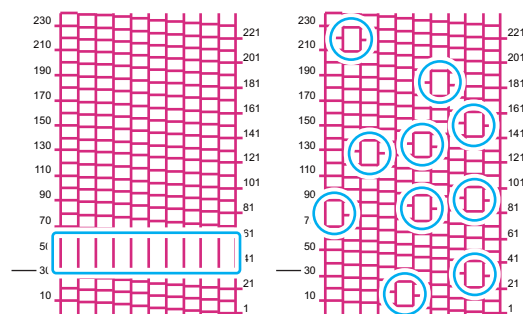
2.Nozzle out



3.Ink dropping



4.Satellite

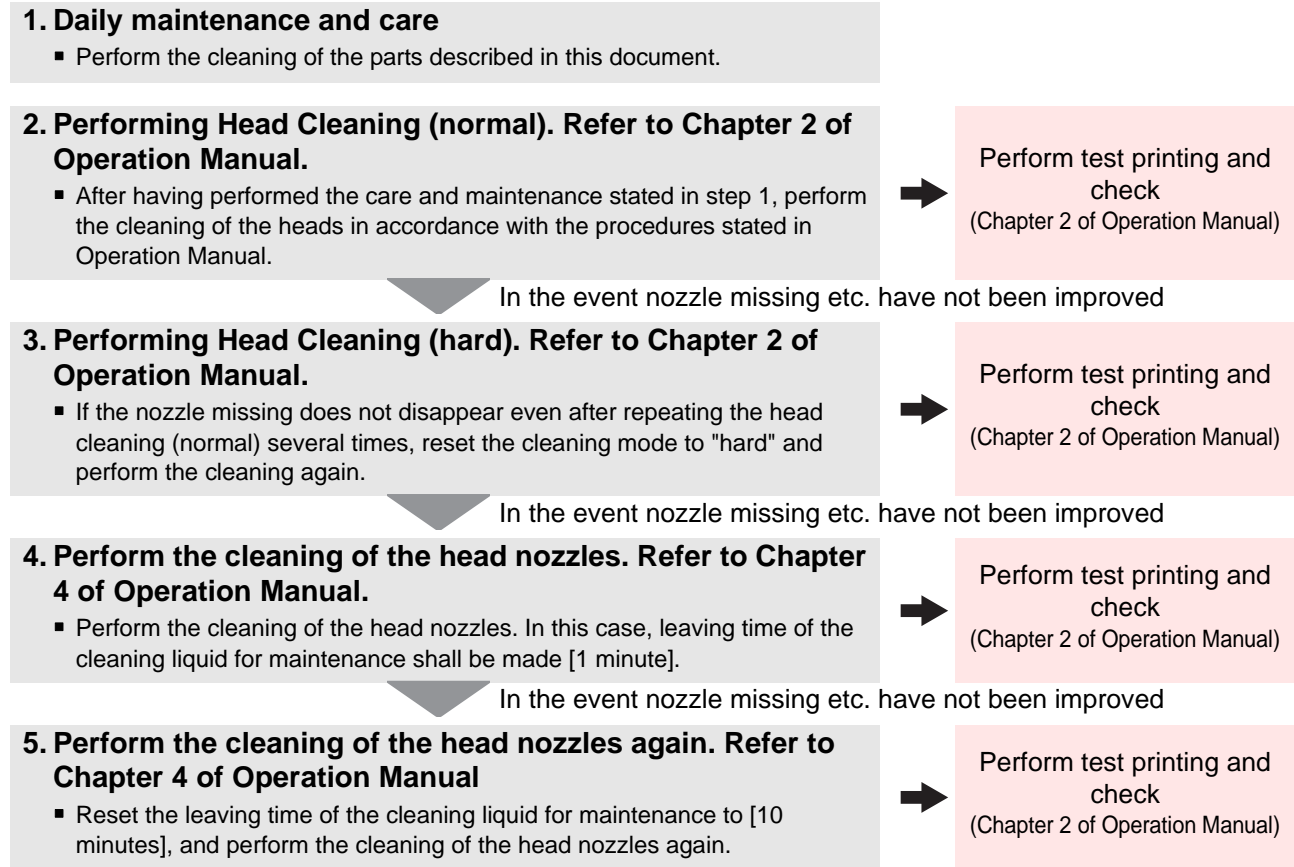


5.Mixing in air

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.

For symptoms 1 to 4 in P.10 “The examples of defective printing”



• If the nozzle missing has not been improved ,recover for missing nozzle according to Chapter 4 "Nozzle recovery function" in the Operation Manual.



• If the nozzle missing has not been improved even with the above operations, please call us or your sales agent from whom you purchased this printer.

When the printer is not used for a long period

When the printer is not to be used for a period of one week or above, perform the cleaning of the heads and nozzles and the ink discharging channel before storing this printer.

Supplies

| Product Name | Product No. | Product Name | Product No. |
|-------------------------------------|-------------|---------------------|-------------|
| Washing liquid 03 Maintenance kit | ML003-Z-K1 | 300 FAN FILTER | SPC-0856 |
| MEDIA CUTTER BLADE | SPA-0107 | MEDIA HOLDER | SPC-0789 |
| Wiper cleaner | SPA-0243 | 3 INCHES PAPER TUBE | SPC-0827 |
| SQUARE WASTE INK TANK 2L | SPA-0246 | Cap ASSY | SPC-0842 |
| PR10 | SPA-0247 | Wiper kit | SPC-0843 |
| Rubber stopper for 2L case | SPA-0250 | Carriage Filter | SPC-0844 |
| Waste ink extend kit | SPA-0311 | Cap Absorber | SPC-0845 |
| MALE CONNECTOR ABSORBENT FOR MBIS | SPA-0625 | HiGap wiper kit | SPC-0850 |
| Cleaning Stick for Head Surrounding | SPC-0527 | | |



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