

## Inkjet printer UJV500-160

# 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
Once a day (at the end of the daily work)	Surroundings of the heads	P.2
	Capping station	P.4
	Wiper	P.5
	Media press	P.6
	Media sensor	P.7
Once a week (at the end of the work on weekend)	Cleaning the Platen	P.8
	Exterior	P.8
	Waste ink tank	P.8
	Cleaning the postcure lamp	P.9
	Checking and adjusting the negative pressure	P.9
Once a month	Replacing the carriage filter	P.10
	Replacing the mist filter	P.12
	Replacing the air cleaning filter	P.13
Once a year	Replacing the ink filter of external ink supply unit	P.14
	Replacing the air pressure filter	P.15



- Tools required for maintenance
  - Cleaning stick (SPC-0527)
  - Washing liquid for maintenance (SPC-0568)
  - Cotton swab
  - Gloves
  - Soft fabric



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

## 2. Daily care



- When possible, use the cleaning stick (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.

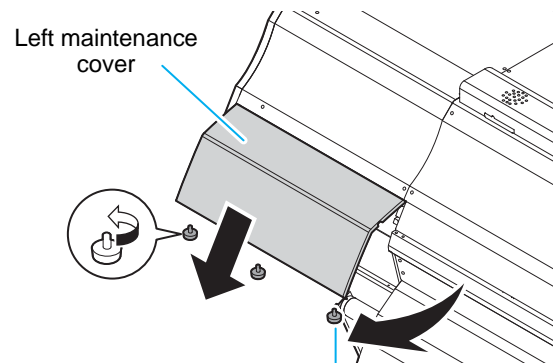
### (1) Surroundings of the heads ("Cleaning the Head and the Area around It" Chapter 4 of the Operation Manual)

**Important!**

- 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 left maintenance 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.

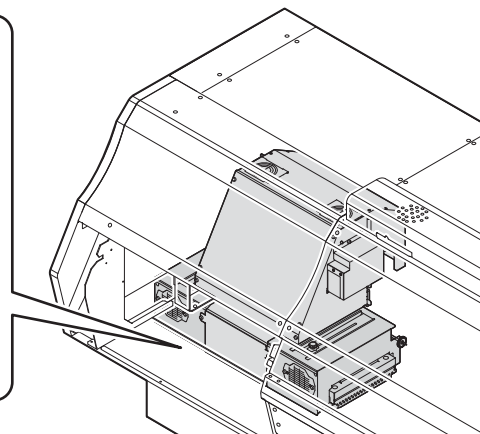
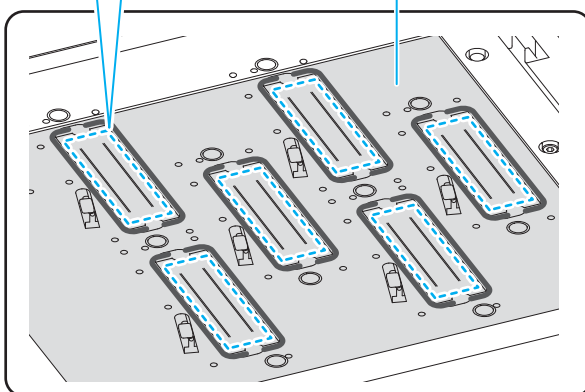


#### 2 Clean the head and the surrounding area.

- Gelled ink and dust could stick under the slider and the surroundings of the head.
- Scrape them off with clean stick etc. In this case, never rub the nozzle portion of the head.

When you clean, fully be careful not to touch the nozzle surface.

Side surface of the head (shown in deep gray)



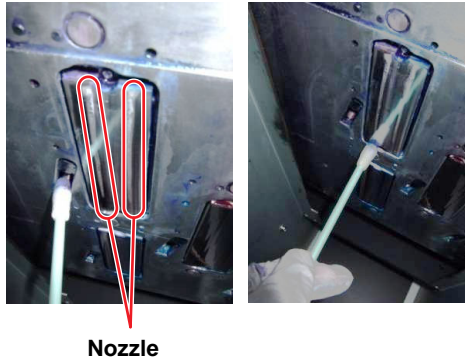
**Important!**

- Clean the side of the head and the bottom surface of the slider until it looks as shown in the photo below.
- When you clean , fully be careful not to touch the nozzle surface.
- When you leave during maintenance (or cleaning), please make sure to complete the cleaning by pressing **ENTER** key. Without completing the cleaning, the nozzle part is left uncovered and then outside light makes the ink cure, which causes nozzle clogging or the like.

**[Before cleaning]**



**[During cleaning]**



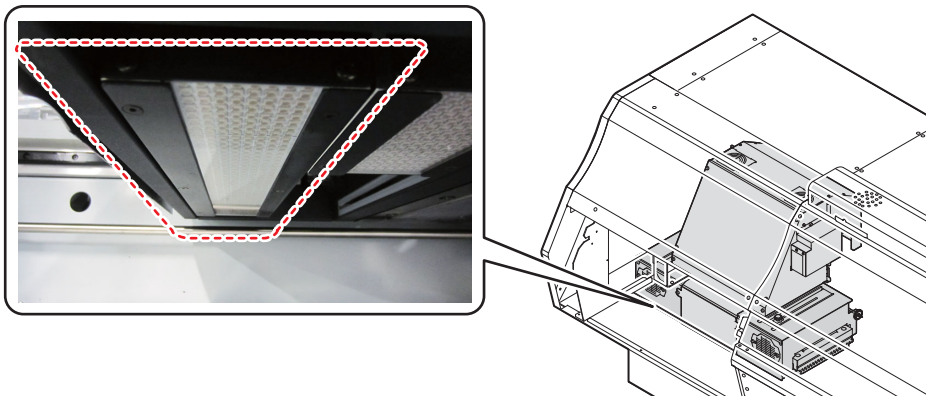
**Nozzle**

**[After cleaning]**



### **3 Clean the bottom surface of the UV lamp.**

- If there is any ink stuck on the rear side of the bottom surface of the UV lamp, apply the cleaning solution for maintenance to a clean stick and wipe the ink away. Wipe off so that cleaning solution for maintenance will not remain.



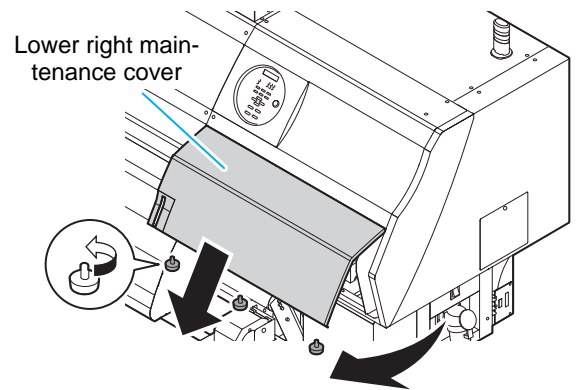
## (2) Capping Station ("Cleaning the Wiper and Cap" Chapter 4 of the Operation Manual)

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.

- Washing liquid for maintenance (SPC-0568)

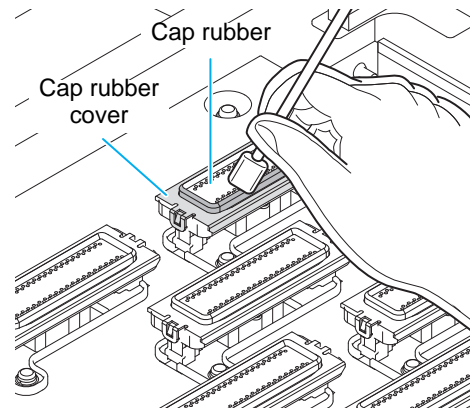
### 1 Move the carriage and open the lower right maintenance cover.

- Refer to the Step 1 to 5 of Chapter 4 "Cleaning the Wiper and Cap" of the user's manual to perform the operation.



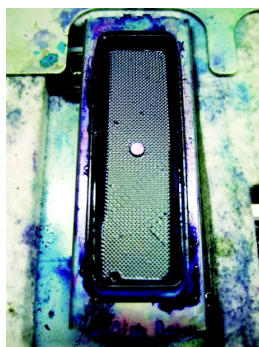
### 2 Clean the cap rubber and cap rubber cover.

- Wipe off the ink sticking to the cap rubber and cap rubber cover with a clean stick dipped in cleaning solution for maintenance. Wipe off so that cleaning solution for maintenance will not remain.

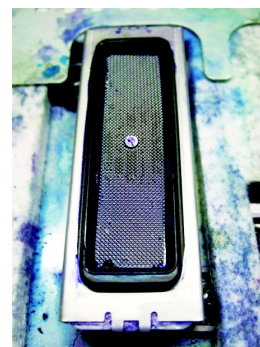


**Important!**

- Clean the cap rubber until it looks as shown in the photo below.
- After cleaning, make sure that the cap rubber and mesh in the cap are not removed.



[Before cleaning]



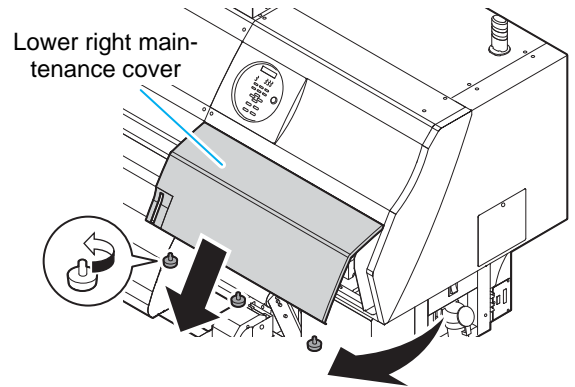
[After cleaning]

### (3) Wiper ("Cleaning the Wiper and Cap" Chapter 4 of the Operation Manual)

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.

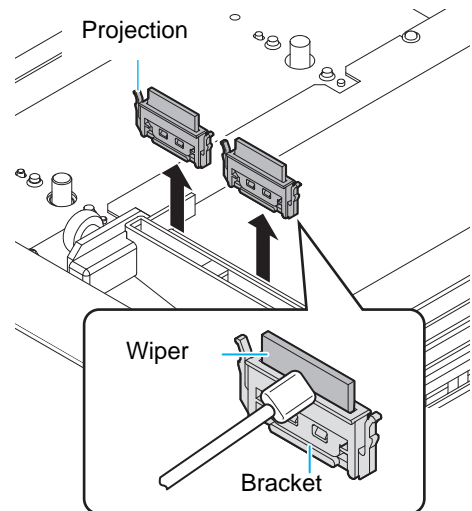
#### 1 Move the carriage and open the lower right maintenance cover.

- Refer to the Step 1 to 5 of Chapter 4 "Cleaning the Wiper and Cap" 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.



Further, in the cases as explained below, replace the wiper with the new one (SPA-0193) in accordance with "Replacing the wiper" on Chapter 4 of the Operation Manual.

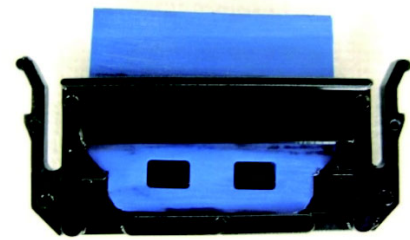
- When the wiper is deformed
- When the stuck ink can not be wiped off
- When the warning for wiper replacement is indicated

**Important!**

- Clean the wiper until it looks as shown in the photo below.
- After cleaning, make sure the edge of the wiper is horizontal.



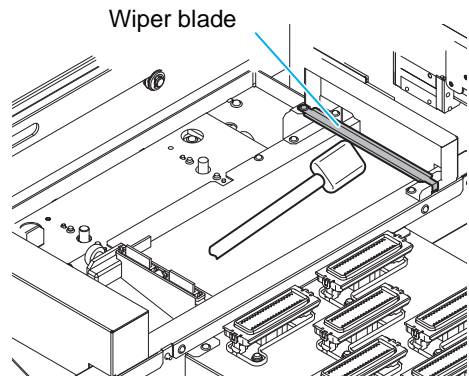
[Before cleaning]



[After cleaning]

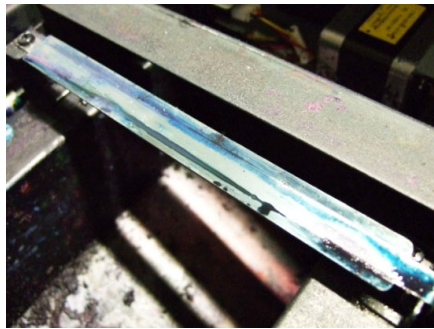
#### (4) Clean the wiperblade.

Wipe off the ink of the wiper blade with clean stick or waste cloth dipped in cleaning solution for maintenance.



**Important!**

- Clean the wiper until it looks as shown in the photo below.



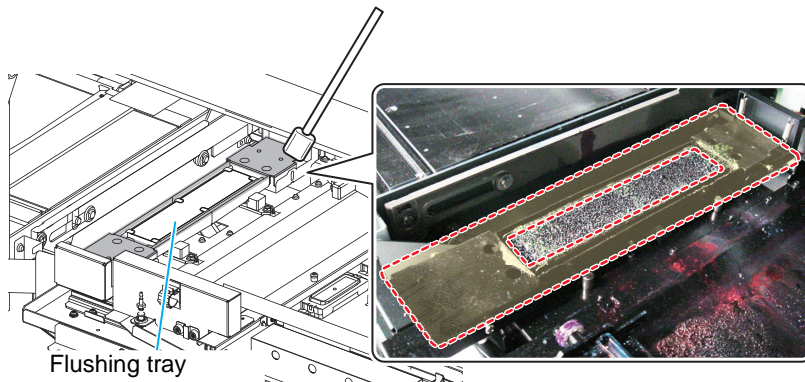
[Before cleaning]



[After cleaning]

#### (5) Flushing tray

Wipe off the ink of the cap rubber and cap cover with clean stick or waste cloth dipped in cleaning solution for maintenance.



Flushing tray



- The coating may peel, but this does not cause any functional problems. It may get stuck to the carriage, though, so peel and wipe away any coating that is peeling.

#### (6) Media press (“Cleaning the Media Press” Chapter 4 of the Operation Manual)

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.



- Turn off the main power and unplug the power cable before maintenance.
- Do not allow liquids to enter the machine. There is a risk of equipment failure, electric shock, or fire.

## (7) Media sensor ("Cleaning the Media Sensor" Chapter 4 of the Operation Manual)

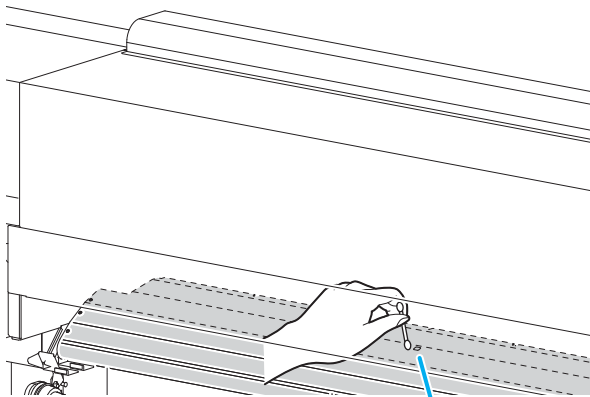
The media sensors are located on the platen (for two positions) in the backside and the bottom surface of the head.

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.



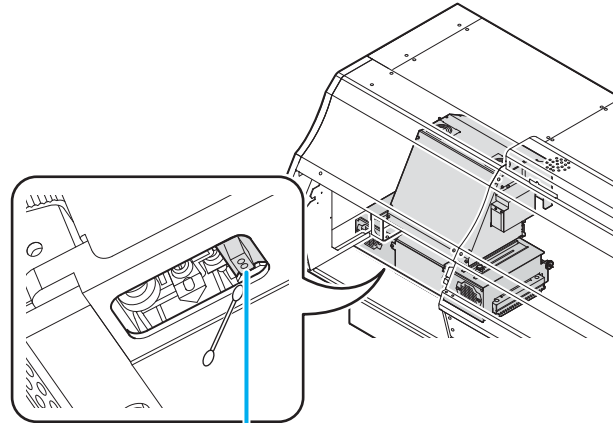
- For the cleaning of the media sensors, never use the solvent.
- When the sensor is heavily stained, wipe off with a cloth soaked in the waterdiluted neutral detergent.
- When cleaning the media sensor at the bottom of the head, be cautious of the cutter blade near the sensor to avoid injuries.

The backside of the machine



Media sensor

The lower surface of the head



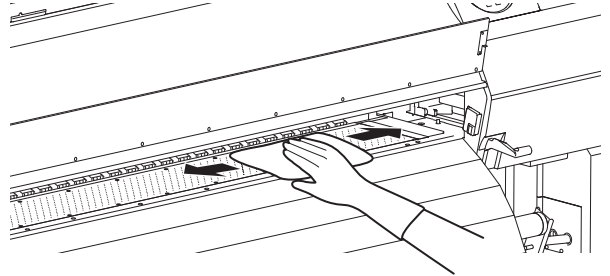
Media sensor

### 3. 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) Platen (“Cleaning the Platen” Chapter 4 of the Operation Manual)

Continuing to use the media while it is dirty may cause media to be fed incorrectly, or rubbing dirt or solid ink onto the head nozzle surface, resulting in discharge failure (nozzle clogging, deflection, etc.).



- Turn off the main power and unplug the power cable before maintenance.
- Do not allow liquids to enter the machine. There is a risk of equipment failure, electric shock, or fire.



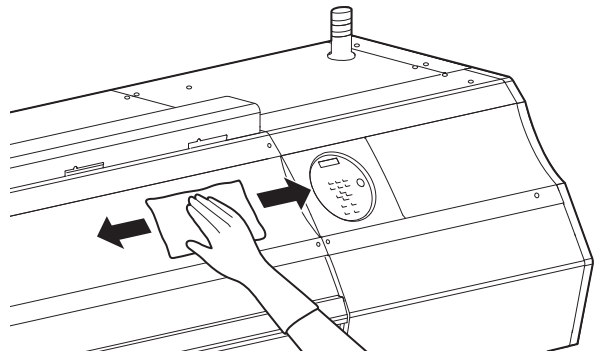
- When the platen is stained with ink, wipe it off with a paper towel containing a small amount of cleaning solution for maintenance.



- Before cleaning the platen, make sure that the platen has cooled adequately.

#### (2) Exterior (“Cleaning the Exterior Surfaces” Chapter 4, Operation Manual)

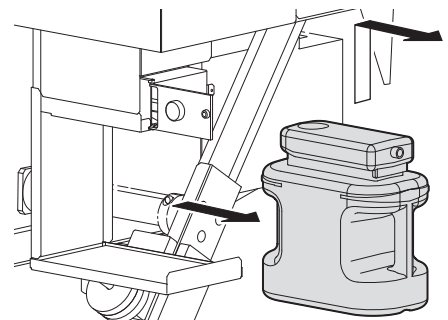
Depending on the using environment, the dusts or sand powder could stick to the exterior of the main unit. To avoid the entry of the dusts into the moving part of the head, wipe them off with soft cloth dipped into water and squeezed tightly.



- Do not allow liquids to enter the machine. There is a risk of equipment failure, electric shock, or fire.

#### (3) Waste ink tank (“Discarding waste ink” 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.





#### **(4) Cleaning the postcure lamp**

Make sure dusts and stains are not attached to the lamp.

When there are stains, wet soft cloths with water and wipe after squeezing the cloths firmly.



- After cleaning the postcure lamp, make sure it is completely dry before starting to use. If used while it is wet, it can cause the luminance of the lamp to decrease.

#### **(5) Checking and adjusting the negative pressure (“If negative pressure abnormality occurs” Chapter 4 of the Operation Manual)**

By the environment or aging, the pressure controlled in this machine may exceed the control range.

Even if an error does not occur, check for negative pressure once per week, and adjust as necessary.

## 4. Periodically care (once a month)

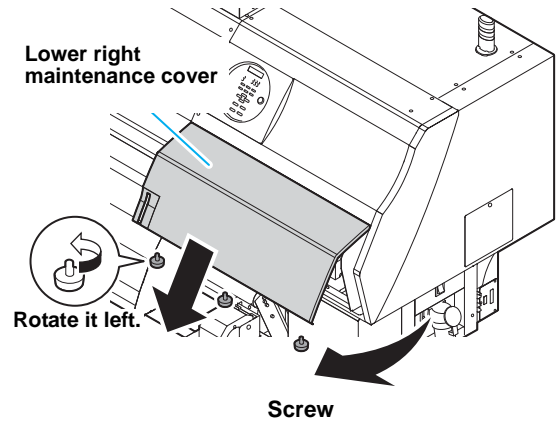
### (1) Replacing the carriage filter

Replace it once a month.

- 1 Turn the main power switch OFF.
- 2 Open the lower right maintenance cover.

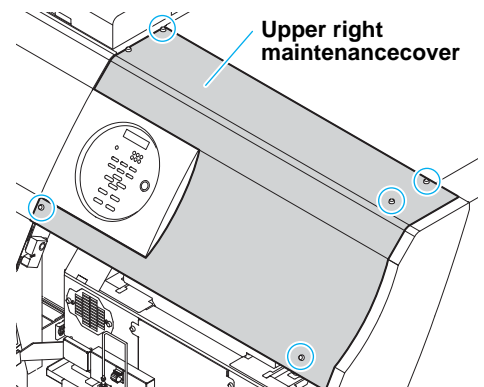
- (1) Rotate the screws under the lower right maintenance cover (for three positions) to the left and remove them.
- (2) Hold the bottom of the lower right maintenance cover and pull it to the front.
- (3) While pulling the lower right maintenance cover downward, remove it.

- If the lower right maintenance cover is hard to remove, use the supplied screwdriver.



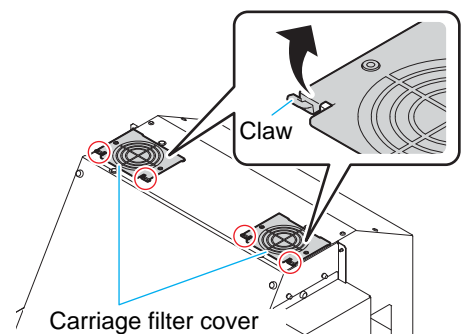
- 3 Open the upper right maintenance cover.

- Remove the screw indicated with circles in the figure and remove the cover.

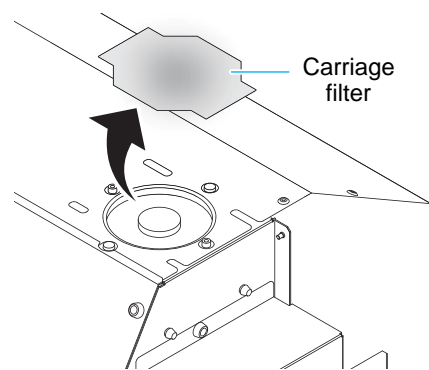


- 4 Remove the carriage filter cover at the upper of the carriage.

- Pinch the click of the carriage filter cover and raise the cover.



**5 Remove the used carriage filter cover.**

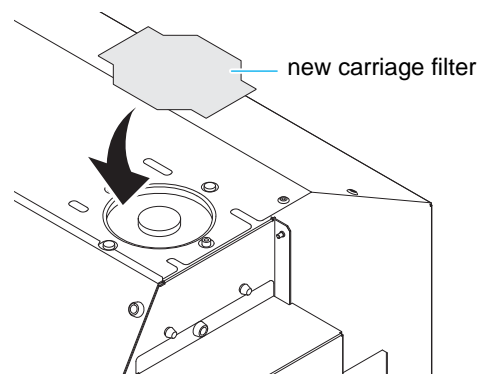


**6 Mount a new carriage filter (SPA-0189).**

- Insert the holes of right and left of the carriage filter into the convex part of the carriage.

**Important!**

- The carriage filters are at two positions of upper part of the carriage. When replacing, replace both filters at the same time.



**7 Return the carriage filter cover to the original status.**

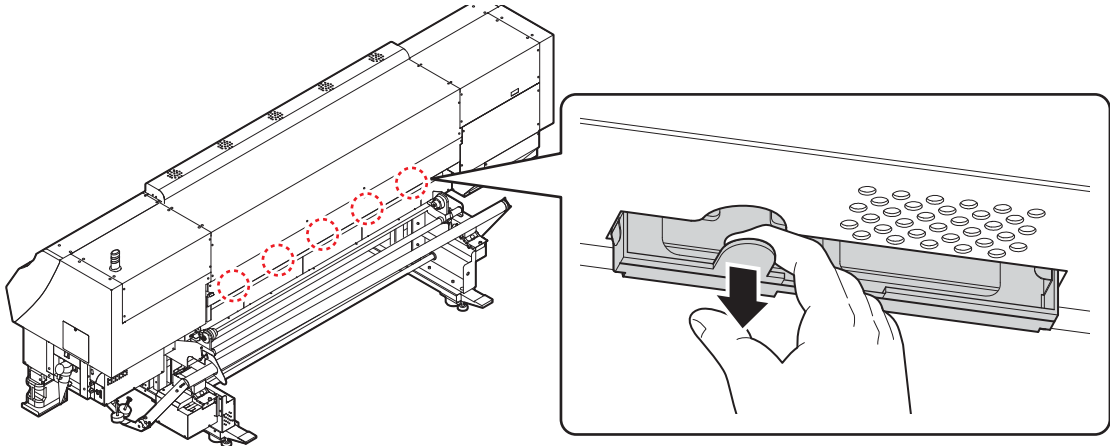
**8 Close the upper right maintenance cover and lower right maintenance cover.**

## (2) Replacing the mist filter

Replace it once a month.

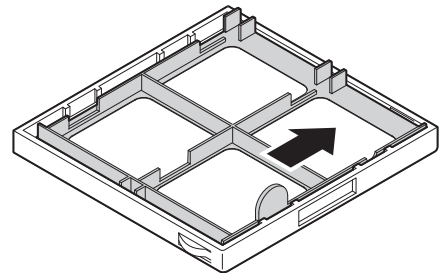
### 1 Pull out the mist filter ASSY located at the rear surface of the main body.

- There are 5 mist filter ASSY at the rear surface of the main body (parts indicated with circles in the figure).
- Put your finger on the hole of the bottom surface, and pull out the mist filter ASSY downward.



### 2 Removed the used filter.

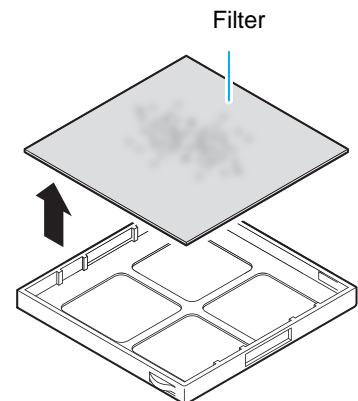
(1) Slide the filter holder a little, and remove it.



(2) Removed the used filter.

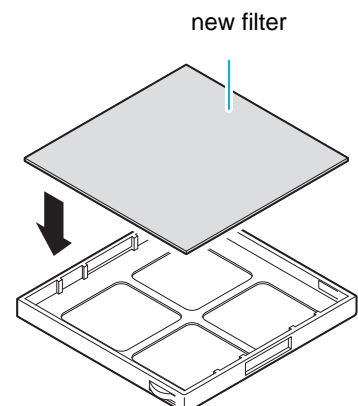
**Important!**

- Ink at printing adheres to the mist filter ASSY. When replacing the filter, it is recommended to perform the work with a sheet of paper placed.



### 3 Attach new mist filter (SPA-0190) and the filter holder.

### 4 Attach the mist filter ASSY to the original position.

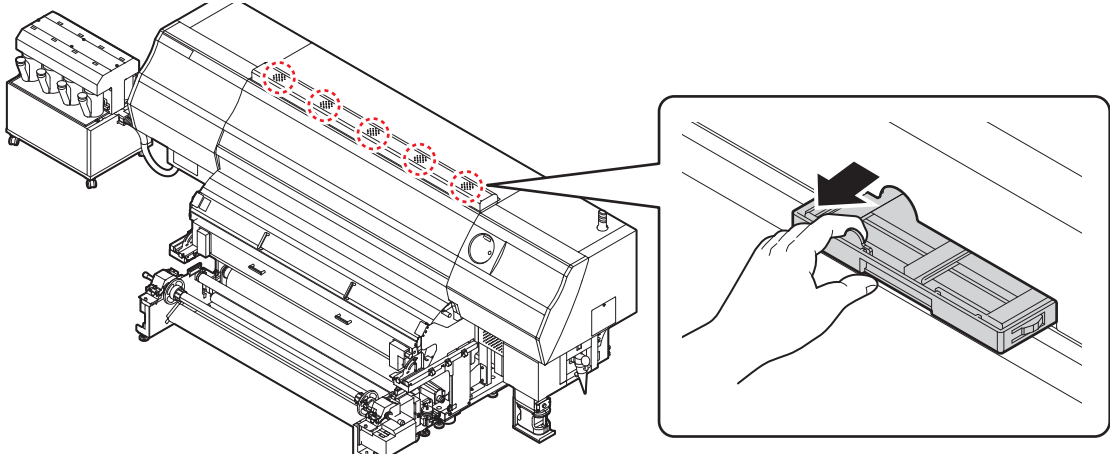


### (3) Replacing the air cleaning filter

Replace it once a month.

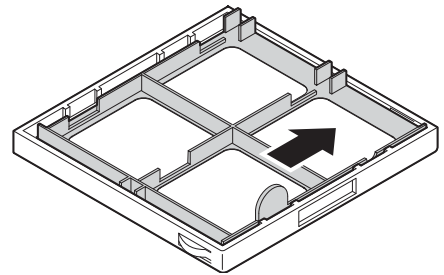
#### 1 Pull out the air cleaning filter ASSY located at the upper part of the main body

- There are 5 air cleaning filter ASSY at the rear surface of the main body (parts indicated with circles in the figure).
- Hook your finger on the hole in front and pull the air cleaning filter ASSY down to remove.



#### 2 Removed the used filter.

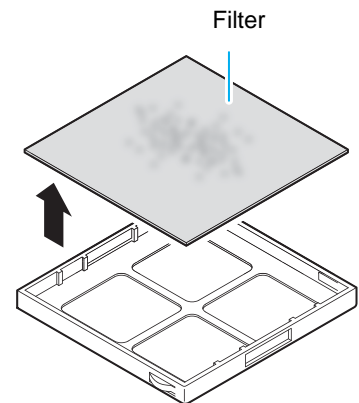
(1) Slide the filter holder a little, and remove it.



(2) Removed the used filter.

**Important!**

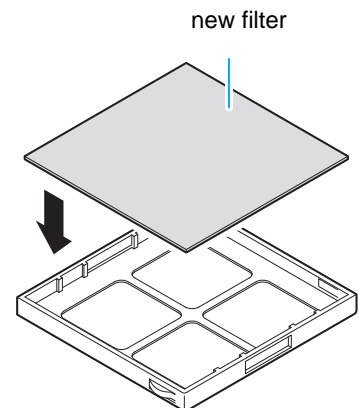
- Ink at printing adheres to the air cleaning filter ASSY. When replacing the filter, it is recommended to perform the work with a sheet of paper placed.



#### 3 Attach new mist filter (SPA-0190) and the filter holder.



- For the filter used when replacing the air cleaning filter, the same filter (SPA-0190) with P.12 "Replacing the mist filter" is used.



#### 4 Attach the air cleaning filter ASSY to the original position.

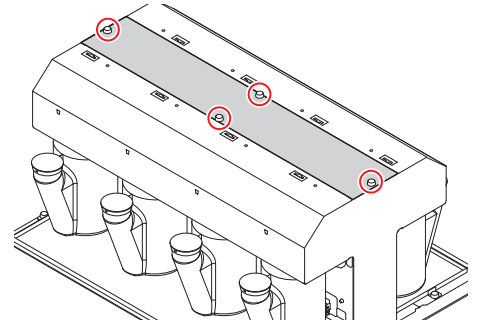
## 5. Periodically care (Once a year)

### (1) Replacing the ink filter of external ink supply unit

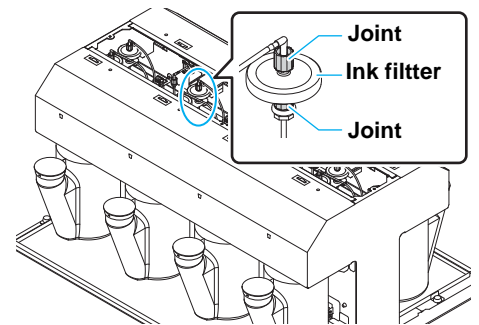
Replace it once a year.

- 1 Turn off the main power switch, and then remove the maintenance cover of the external ink supply unit.

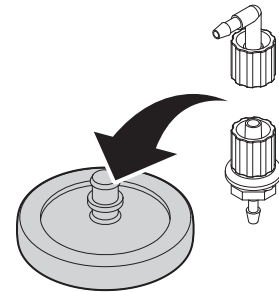
- Remove the screws (for 4 positions) of the maintenance cover, and remove the cover.



- 2 Loosen the joints of upper/ lower of the ink filter.

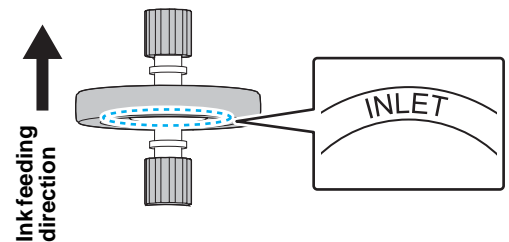


- 3 Replacing the used ink filter.



- 4 Attach new ink filter (SPA-0196), and tighten the joint.

- When attaching the ink filter, be careful of the ink feeding direction.
- Face the side of the filter with "INLET" written on it downwards and attach the filter.



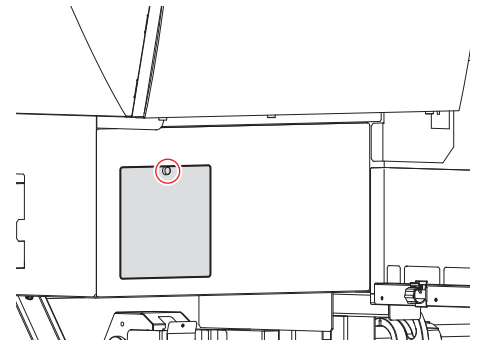
- 5 Return the ink cover to the original position, and turn on the main power switch.

## (2) Replacing the air pressure filter

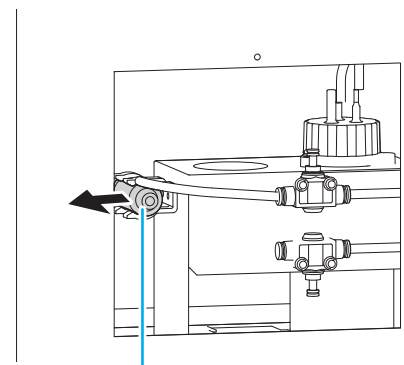
Replace it once a year.

### 1 Turn off the main power switch, and remove the cover under the left maintenance cover.

- Remove the screw in the part indicated with circles in the figure.



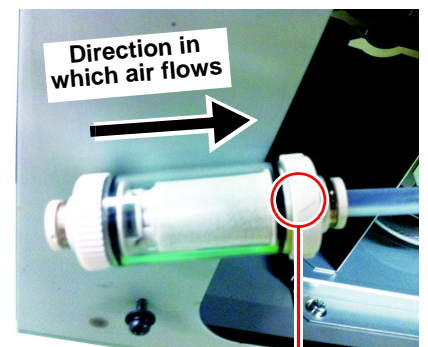
### 2 Pull out the air pressure filter to the direction with an arrow.



Air pressure filter

### 3 Attach new air pressure filter (SPA-0195) and the front surface cover (left), and turn on the main power switch.

- When attaching the air pressure filter, be careful of the direction in which air flows.



Air flows in the direction of the triangle.

## 6. 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.

## 7. 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.



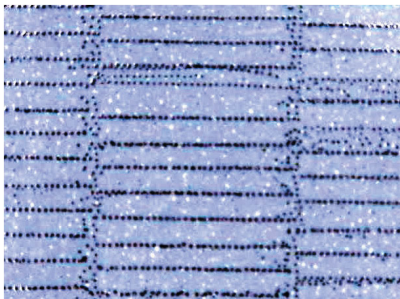
Ink bottle and Ink IC

## 8. The examples of defective printing

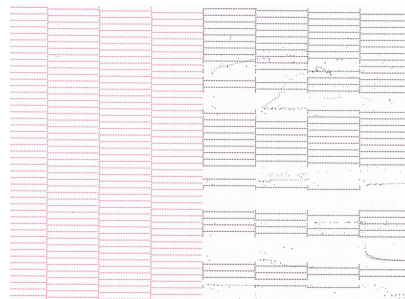
These following examples indicate improper head (nozzle) firing by dust, which effect printing.

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”)



1.Deflection



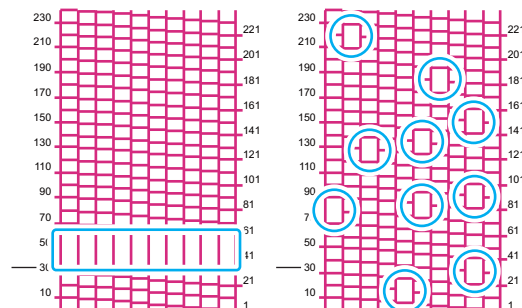
2.Nozzle out



3.Ink dropping



4.Satellite



5.Mixing in air



## 9. 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.16 “The examples of defective printing”

#### 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. 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)

### For symptoms 5 in P.16 “The examples of defective printing”

#### 1. Daily maintenance and care

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

#### 2. If nozzle missing due to color mixture of ink or aeration Refer to Chapter 5 of Operation Manual.

- Perform air removal according to the procedure in the Operation Manual.

**Perform test printing and check**  
(Chapter 2 of 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.

## 10. Supplies

Product Name	Product No.	Product Name	Product No.
Washing liquid for maintenance	SPC-0568	Air pressure filter	SPA-0195
Waste ink tank	SPA-0197	Carriage filter	SPA-0189
Cutter blades	SPA-0192	Mist filter	SPA-0190
Clean stick for the surroundings of the head 50pcs	SPC-0527	Wiper kit	SPA-0193
Ink filter	SPA-0196		

## 11. Safety Precautions

### CAUTION



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



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, 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 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.**

## 12. 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.

**Memo**



**You can also download the latest manual from our website.**

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