

## Inkjet Printer TS30-1300

# Requests for Care and Maintenance

Inkjet printer 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 drawing results could not be obtained. With a view to using this inkjet printer in a better condition, we would like to recommend performing the following care and maintenance on daily basis.

## ⚠ CAUTION



When TS30 printer is used filling solvent ink, make sure to wear the attached **goggles and gloves**.



The solvent 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, ("In case of no use for long term" 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 equipment. It could cause electrical shock, fire and breakage.



Keep away the moisture from the inside of this equipment. 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 equipment. It could cause the break of the printing mechanisms.

## 1. Installation environment

- Use this printer as much as possible in a dust-free environment. Fans and air-blowers could cause the dust-spewing.
- When solvent inks are to be used, install the printer in a well-ventilated space.
- The using environment of this printer is from 20 to 35°C 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.

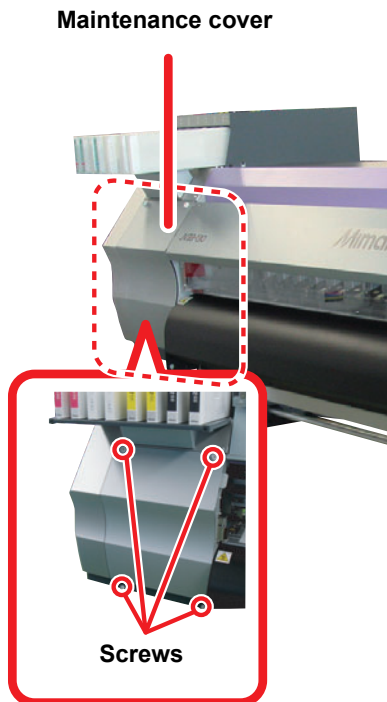
## 2. Daily care and maintenance

### ● Tools required for Maintenance

Item Name	Product No.
Clean Stick	SPC-0527
Maintenance cleaning liquid MS2/ES3/HS Kit (for solvent ink)	SPC-0369
Cleaning liquid bottle kit (for Aqueous inks)	SPC-0137
Wiper kit 33S	SPA-0134

### ● Surroundings of the heads ("Cleaning the heads and their surrounding parts" Chapter 4 of the Operation Manual)

The heads and their surroundings are the parts most liable to be tainted in this printer and if tainted, it could cause adverse effects to the functions of the equipment and the results of the drawings. 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.

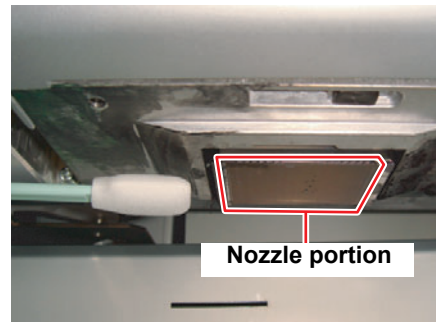
- Move the carriage referring to Step 1, Chapter 4 of the Operation Manual.

#### 2 Open the maintenance cover.

- Remove the 4 screws and open the maintenance cover.

#### 3 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. In this case, never rub the nozzle portion of the head.



Clean with the clean stick.

## ● Capping station ("Cleaning the wiper and ink caps" 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.

- When the solvent ink is used: Cleaning liquid for maintenance MS2/ES3/HS kit (Product No. SPC-0369)
- When aqueous ink is used: Cleaning liquid bottle kit A29 (Product No. SPC-0137)



Capping station

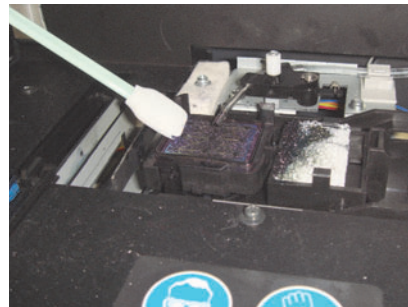
\* Front cover is opened at the picture above.

### 1 Move the carriage.

- Close the front cover, and press in order of the **ST.MAINT** and **ENTER** key to move the carriage. (Station maintenance/ Carriage out)

### 2 Open the front cover and clean the cap.

- Dip the clean stick into the cleaning liquid for maintenance and wipe off the cap.



Cap

## ● Wiper ("Cleaning the wiper and ink caps" 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.

- Wiper kit 33S: Product No. SPA-0134



Wiper

\* Front cover is opened at the picture above.

### 1 Move the carriage.

- Close the front cover, and press in order of the **ST.MAINT** and **ENTER** key to move the carriage. (Station maintenance/ Carriage out)

### 2 Open the front cover and clean the wiper.

- Dip the clean stick into the cleaning liquid for maintenance and wipe off the wiper.



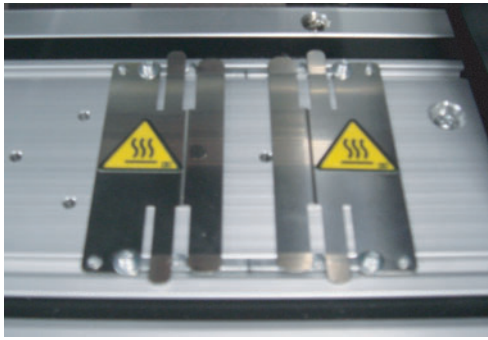
Stained wiper

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

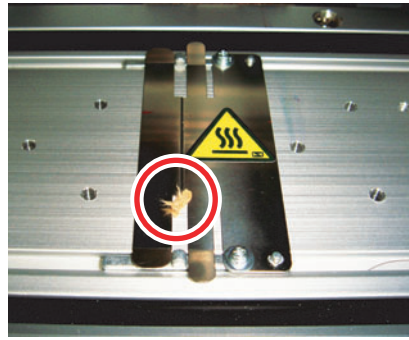
- When the wiper is deformed
- When the stuck ink can not be wiped off
- When the warning for wiper replacement is indicated (When the number of wiping exceeds the set level. Refer to Chapter 4 "Changing the warning time of wiper replacement" of the Operation Manual)

## ● 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 drawings. You are recommended to clean it frequently.



Media press



Media press with dust

## ● Media sensor ("Cleaning the media sensor" Chapter 4 of the Operation Manual)

Two media sensors are provided: one above the platen on the rear surface of the equipment and another on the bottom surface of the head. If the dusts and ink accumulate on the media sensor, it could cause false detection of the media. Wipe off the sensors with soft cloth or clean stick.



- 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 water-diluted neutral detergent.



### Cleaning the media sensor at the bottom surface of the heads.

#### 1 Move the carriage to the left.

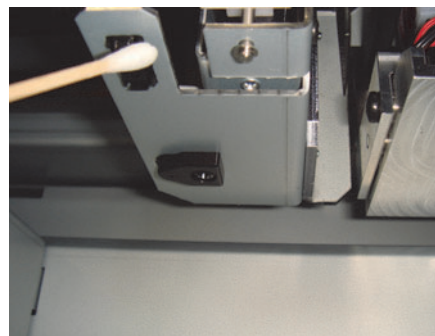
- Move it with reference to Step 1, Chapter 4 of the Operation Manual.

#### 2 Open the maintenance cover.

- Remove the 4 screws and open the maintenance cover.

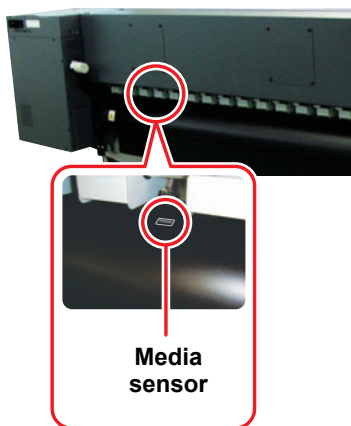
#### 3 Clean the media sensor.

- Wipe off the dusts and stuck ink with soft cloth or cotton rods.



Media sensor on the head

## Cleaning of the media sensor at the rear surface of the equipment



### ● Platen ("Cleaning the platen" Chapter 4 of the Operation Manual)

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.

### ● Exterior ("Cleaning exterior surfaces" Chapter 4 of the 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

### ● Waste ink tank ("If Waste ink tank confirming message is displayed" 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.

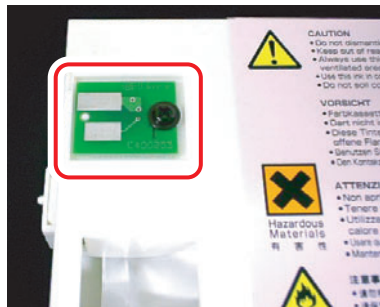


### 3. Storing of the media

Store the media in the location where the dusts are not liable to accumulate and away from direct sunlight. Avoid storing the media in a place subjected to high temperature and high humidity, as the media abhors humidity, too.

### 4. Storing of the cartridges

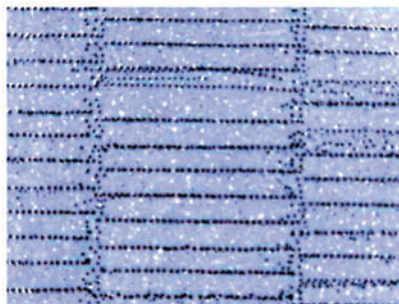
Store the cartridges in a place avoiding direct sunlight and high humidity. As the cartridges are fine and precise articles, avoid dropping or crushing them. Do not make dirty touching or discharge static electricity to the board mounted on the ink cartridges.



The board mounted on the ink cartridge

### 5. Examples of defective drawing

Typical examples of the defects created on the drawings by the defective discharge at the head (nozzle) caused by the dusts etc. Check the status of the nozzles periodically before and during the outputting so that the printer is not used under such conditions. The state of the nozzles can be checked by way of "Test drawing" of this printer. ("Head cleaning" Chapter 2 of the Operation Manual)



Deflection



Nozzle out



Ink dropping



Satellite

## 6. 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. Perform 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**

(Chapter2 of Operation Manual)

In the event nozzle missing etc. have not been improved

### 3. Perform 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**

(Chapter2 of Operation Manual)

In the event nozzle missing etc. have not been improved

### 4. Perform the cleaning of the head nozzles. Refer to Chapter 4 of Operation Manual.

- Perform the cleaning of the head nozzles. In this case, leaving time of the cleaning liquid for maintenance shall be made [1 minute].

**Perform test printing and check**

(Chapter2 of Operation Manual)

In the event nozzle missing etc. have not been improved

### 5. Perform the cleaning of the head nozzles again. Refer to Chapter 4 of Operation Manual

- Reset the leaving time of the cleaning liquid for maintenance to [10 minutes], and perform the cleaning of the head nozzles again.

**Perform test printing and check**

(Chapter2 of Operation Manual)

In the event nozzle missing etc. have not been improved

### 6. Perform cleaning of the ink discharging route.. Refer to Chapter 4 of Operation Manual

- Perform the cleaning of the ink discharging route 3 to 5 times.

**Perform test printing and check**

(Chapter2 of Operation Manual)

In the event nozzle missing etc. have not been improved

### 7. Perform the ink filling.. Refer to Chapter 4 of Operation Manual

- Perform the ink filling once or twice.

**Perform test printing and check**

(Chapter2 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.**

## 7. When the printer is not used for a long period (Chapter 4, Operation Manual)

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.

## 8. Supplies

- Wiper kit 33S (Product No. SPA-0134)
- Clean Stick (Product No. SPC-0527)
- When the solvent ink is used: Cleaning liquid for maintenance MS2/ES3/HS kit (Product No.: SPC-0369)
- When aqueous ink is used: Cleaning liquid bottle kit A29 (Product No.: SPC-0137)
- Waste ink tank 2 liters (Product No.: SPA-0117)
- Cutter blades (Product No.: SPA-0107)

