# Mimaki



# **Daily Care Manual**

Inkjet printer is the precision machine that has highly delicate mechanism. Especially, little dust and paper powder may have effect on a head nozzle firing ink, and may not get normal printing. To use the inkjet printer in good condition, we recommend the following daily care.

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Be sure to conduct maintenance works for the machine when necessary or periodically so as to use the device for a long time while keeping its plotting accuracy.

# When the machine is left unused for a long period of time



- Be sure to turn off the power of machine.
- Remove the work which setting on the table.

# **Precautions during cleaning**



- To prevent electric shock hazard and damage to the machine, do not allow moisture to get inside.
- Turn off power and detach power cable before doing any maintenance.
- Benzene, thinner and chemical agents containing abrasives. Such materials can deteriorate or deform the surface of the cover.
- Do not apply lubricating oil or the like inside the machine. Such materials can cause the printer mechanism to fail.

# Maintenance for frame components

If the frame components of the machine have become dirty, wipe off frame with soft cloth using water or neutral detergent diluted with water, squeeze it and wipe the frame components clean. Clean the table also as dust may cause ink fly-bend or dropping. Cleaning Tools :

- Neutral detergent
- Soft cloth (quantity)



# Washing ink from the slider surface

The ink may gel and collect under the slider after a long use. The ink droplets may grow in size and smear the work as a result. To prevent this problem, wet the supplied cotton swab in the cleaning liquid (A29) and use it to remove the ink from under the head in regular intervals.



• Do not use the cotton swab on the head nozzles. The brush may damage the nozzles and cause poor ink delivery.

Cleaning Tools :

- Cleaning liquid (A29)
- Cotton swabs



# Filling of discharge liquid at the time of starting works

If the discharge liquid in this machine has used in the long period, it may cause the decrease in the print head life. In order to prevent the shortening of the life of the head for discharge liquid, the discharge liquid contained is replaced by cleaning liquid when it is not used for an extended period of time. At the time of starting works, the cleaning liquid filled in the head for discharge liquid is to be drained and the discharge liquid is filled in.

# STEPS:



11. Filling of the discharge liquid is completed, menu returns to the LOCAL mode.

<< LOCAL >> X =1010 Y = 1860

• Every day at the time of starting works, the filling of the discharge liquid shall be performed.

 Every day at the time of finishing works, the filling of the cleaning liquid shall be performed for the protection of head for discharge liquid.
page 8

# Filling of the cleaning liquid at the end of the works

If you leave the head for discharge liquid with discharge liquid filled in for a long time, the life of the head for discharge liquid will be shortened because the discharge liquid melts the water-shedding part. To prevent the reduction of its life, when it is not used for an extended period of time, drain the discharge liquid and fill in the cleaning liquid.

### STEPS:



- 11. Filling of the cleaning liquid is completed, menu returns to the LOCAL mode.
- << LOCAL >> X =1010 Y = 1860

• Every day at the time of finishing works, the filling of the cleaning liquid shall be performed for the protection of head for the discharge liquid.

• Every day at the time of starting works, the filling of the discharge liquid shall be performed.

When the station interior is severely contaminated or defective printing is not fixed after cleaning the head cleaning function. (CP Operation Manual page 2.12) Clean the suction nozzle and cap using the cleaning kit as follows,

Cleaning liquid bottle kit (A29), Gloves, Cleaning swab, Goggles



· Do not use alcohol or water.

• Do not move the carriage out of the capping station by hand. Use the appropriate operation key to move the carriage.

# The examples of defective printing

CAUTION

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 print] in this machine.



#### Ink dropping









The wiper cap prevents clogging of the head nozzle caused by dried nozzle.

The wiper wipes out ink adhered to the head nozzle.

As the machine is used to plot images, the wipers and ink caps gradually become stained with ink and dust. Use the cotton swabs to clean the wiper.

Clean the wiper cap and the wiper cleaner periodically so as to keep the plotter in good operation condition.



# STEPS:

- 1. Press the [FUNCTION] key.
- Press the XY [▲] or [▼] keys to select [MAINTENANCE].
  Press the [ENTER] key.



4. Press the XY [▼] or [▼] keys to select [Station].

$\bigcirc$	List	< ent >
	MAINTENANCE	< ont >
	Station	< ent >

MAINTENANCE

Station Maint

: Carriage Out

Sel

ENTER

ENTER

List



6. Open the station cover and clean the both sides of the wiper.

Carriage Out	
Completed	: ent

Use a cotton swab soaked with the cleaning liquid (A29) to clean off ink blots on wiper.



· If dirt of curl is serious, replace the wiper with a new one. At the time of replacement, be sure to terminate the machine operation and follow the wiper replacement procedure.

# 7. Clean the wiper guide shaft using a cotton swab of cloth.

If dirt is hard to remove, use a cotton swab of cloth dampened with water.

CAUTION

• Extremely dirty wiper guide shaft may cause operational failure of the wiper, resulting in error display.





8. Wipe off the ink adhering to the wiper cleaner with cotton swab.

• Full attention should be paid to clean the wiper due to the sharp edges of the wiper cleaner.



9. Wipe off ink or dirt adhered to the rubber of the cap and the ceiling of the wiper cover using cotton swab.



CAUTION

Clean the area at the end of the day's operation.



10. Close the station cover, then press the [ENTER] key.

Execute the initial operation.

11. Return to the LOCAL mode.

ENTER	Carriage Out Completed	: ent
	Initialize Please Wa	it
	<pre>&lt;&lt; LOCAL = X =1010</pre>	>> Y = 1860

Clean up the nozzle as for nozzle clogging.

If nozzle clogging cannot be resolved even after cleaning several times, execute the [Ink Filling] function. ( ( page 5.11)

If this error cannot be resolved with these functions, contact the dealer.

• Two colors (two cartridges) per head are used. If the remaining amount of one ink is extremely greater than another ink's amount, it may flow into the cartridge which has lesser ink to make their ink-head even. Execute the [Ink Filling] function (P.5-11) if the inks are mixed.

• Operate it in the head only with the nozzle clogging.

Cleaning Tools :

- Cleaning liquid bottle kit A29 (SPC-0137 : Option)
- Syringe

## STEPS:

- 1. Press the [FUNCTION] key in the LOCAL mode.
- Press the XY [▲] or [▼] keys to select [MAINTENANCE].
- 3. Press the [ENTER] key. [Station] is displayed.
- Press the XY [▲] or [▼] keys to select [Nozzle Clean].
- Attention about the ink mixing is displayed.
  Press the [ENTER] key.

# 6. Press the [ENTER] key.

The table moves backward, the Y-bar moves to the top, the wiper moves forward, and the carriage moves on the table.

FUNCTION	FUNCTION	
	SETUP	< ENT >
	EUNCTION	
	MAINTENANCE	< FNT >
Ţ		S LINI A
•	MAINTENANCE	
	List	< ent >
ENTER	MAINTENANCE	
$\bigcirc$	Station	< ent >
	Station Maint	
Ļ	Sel	: Nozzle Clean
•		
ENTER	Color May Mix Up	
$\bigcirc$	Continue OK?	: ent

ENTER

7. Open the station cover and clean the both sides of the wiper.

Use a cotton swab soaked with the cleaning liquid (A29) to clean off ink blots on wiper.

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 If dirt of curl is serious, replace the wiper with a new one. At the time of replacement, be sure to terminate the machine operation and follow the wiper replacement procedure.

Clean the wiper and press the [ENTER] key.

8. Fill the cap with the cleaning liquid (A29) using a syringe.













Close the station cover, and press the [ENTER] key.

 Press the XY [▲] or [▼] keys, select the time to leave. (1-99 minutes: 1 min unit) Normally set 1 min.



 Cleaning is completed, the menu return the LOCAL mode.

<< LOCAL >>	
X =1010	Y = 1860

The ink discharge way may become clogged by coagulated ink. It must be cleaned at regular intervals to avoid clogging.

Ink discharge way: Tubing between the cap and the waste ink tank

• Do not move the carriage out of the capping station by hand. Use the appropriate operation key to move the carriage.

**Cleaning Tools :** 

CAUTION

- Cleaning liquid bottle kit A29 (SPC-0137 : Option)
- Syringe

# STEPS:

- 1. Press the [FUNCTION] key once.
- Press the XY [▲] or [▼] keys to select [MAINTENANCE].
- 3. Press the [ENTER] key. [Station] is displayed.
- 4. Press the [ENTER] key. [Carriage out] is displayed.
- Press the XY [▲] or [▼] keys to select [Drain Wash].
- Press the [ENTER] key. The table moves backward, the Y-bar moves to the top, the wiper moves forward, and the carriage moves on the table.

Dry suction starts in cycles consisting of 10 seconds of suction followed by 10 seconds of pause.



- 7. Open the station cover.
- Remove the cleaning liquid (A29) with a syringe. During the suction pause period, drop the cleaning liquid (A29) until just before it overflows from the cap.





10. Return to the LOCAL mode.

<< LOCAL >> X =1010 Y = 1860 When not in use the machine over a week, perform [Storage Wash] function to clean the head nozzle and ink discharge way.

After performing the function, store the machine.

Two colors (two cartridges) per head are used. If the remaining amount of one ink is extremely greater than another ink's amount, it may flow into the cartridge which has lesser ink to make their ink-head even. Execute the [Ink Filling] function if the inks are mixed.

## **Cleaning Tools :**

- Cleaning liquid bottle kit A29 (SPC-0137 : Option)
- Syringe

#### STEPS:

- 1. Press the [FUNCTION] key once.
- Press the XY [▲] or [▼] keys to select [MAINTENANCE].
- 3. Press the [ENTER] key. [Station] is displayed.
- Press the XY [▲] or [▼] keys to select [Storage Wash].
- Attention about the ink mixing is displayed.
  Press the [ENTER] key.
- 6. Press the [ENTER] key. The table moves backward, the Y-bar moves to the top, the wiper moves forward, and the carriage moves on the table.
- 7. Open the station cover.

	FUNCTION SET UP	< ENT >
	FUNCTION MAINTENANCE	< ENT >
ENTER	MAINTENANCE Station	< ent >
ENTER	Station Sel	: Storage Wash
ENTER	Color May Mix Up Continue OK?	: ent
ENTER	Wiper Cleaning Completed	: ent

8. Take off the wiper with holding projections at the tips of wiper.

- 9. Use a cotton swab soaked with the cleaning liquid (A29) to clean off ink blots on wiper and bracket.
  - 掌
- If dirt of curl is serious, replace the wiper with a new one. At the time of replacement, be sure to terminate the machine operation and follow the wiper replacement procedure.
- 10. Insert the clean wiper with holding both projections at the tips of wiper.







: ent

# Press the [ENTER] key.

11. Fill the cap with the cleaning liquid (A29) using a syringe.



Wiper Cleaning

Completed

ENTER



- 12. Close the front cover, and press the [EN-TER] key.
- Press the JOG keys [▲] or [▲], select the time to leave. (1-99 minutes: 1 min unit) Normally set 1 min.
- **14. Press the [ENTER] key.** The initial operation is performed.

Remaining time is displayed.

After remaining time is over, execute cleaning. Remaining cleaning time is displayed.

After cleaning the nozzles, the Y-bar moves to the top. The wiper moves toward you and the carriage moves away from the station.

15. Open the station cover and clean the both sides of the wiper.

Use a cotton swab soaked with the cleaning liquid (A29) to clean off ink blots on wiper.

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- If dirt of curl is serious, replace the wiper with a new one. At the time of replacement, be sure to terminate the machine operation and follow the wiper replacement procedure.

Clean the wiper and press the [ENTER] key.



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# 16. Fill the cap with the cleaning liquid (A29) using a syringe.

Dry suction starts in cycles consisting of 10 seconds of suction followed by 10 seconds of pause.

Repeat the performance of the air aspiration several times to clean up the ink discharge way. Perform the operation for the each cap.



# 17. Close the front cover, and press the [EN-TER] key.

Carriage returns the station to the initial operation performed.

18. Return to the LOCAL mode.

# Drain Wash Completed : ent

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Waste ink used for cleaning the heads will gather in the waste ink tank.

When the message "Near Full" or "Full" appears, immediately replace the tank with a new waste ink tank.



Waste Ink Tank Ink Tank Is Full

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 Contact your local MIMAKI distributor or call a local MIMAKI office if you need a spare waste ink tank.

• Prepare a polyethylene tank for emptying waste ink.



- If ink is dripping, wait until it stops dripping.
- Dispose a long-term unused waste ink regardless of its amount.

## STEPS:

1. Pull out the tank toward you.

 When pulling out the waste ink tank, hold the opening of the waste ink tank with paper and then slowly pull it out to prevent waste ink from spattering.

• Before replacing ink, put paper on the floor to prevent it from being stained with ink.



2. Dump waste ink into a separate polyethylene tank.



 Request an industrial waste processor for processing of empty cartridges.

3. Put the empty waste ink tank back in the machine.

Replace the ink absorber in the flushing tray if it appears to be clogged. Clogged ink absorber may cause ink mists and smeared head nozzles.

• Check the ink absorber for clogging at the end the day's operation.

**Cleaning Tools :** 

• Ink absorber (Item No. M-3)

STEPS:

- 1. Press the [FUNCTION] key.
- Press the XY [▲] or [▼] keys to select [MAINTENANCE].
  Press the [ENTER] key.

FUNCTION SETUP	< ENT >
FUNCTION MAINTENANCE	< ENT >
MAINTENANCE List	< ent >
MAINTENANCE	

< ent >

: CarriageOut

Station

Sel

ENTER

Station Maint

- Press the XY [▲] or [▼] keys to select [Station].
- 4. Press the [ENTER] key.
- 5. Press the [ENTER] key.

The table moves away from you and the Y-bar moves upward. The wiper moves toward you and the carriage moves away from the station.

6. Open the station cover.

- 7. Remove the F-cover upward from the flushing tray.
- 8. Remove the ink absober.
- 9. Place a new ink absorber (supplied) on the tray.

Place the ink absorber (as folded) at the center.



 Make certain the ink absorber is placed flat and touching the tray. Otherwise, it may interfere with the head nozzles.





#### 10. Place the F-cover from above.



• Place the F-cover all the way down. A floating cover may cause trouble.

11. Close the station cover, then press the [ENTER] key.

The initial operation is performed.

12. Return to the LOCAL mode.



	<< LOCAL >>
X =1010	Y = 1860

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