



Daily care manual

Request for daily care

Inkjet plotter 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 plotter in good condition, we recommend the following daily care.

Table of contents —

Routine Maintenance	2
Cleaning Inside Of The Cleaning Water Tank	3
In Case Spots Appear On The Fabric During Printing	5
When The Waste Ink Tank Becomes Full	8
Replacing The Mist Fan Filter	9
Cleaning The Station Interior	10
Open and close the station cover	. 11
Periodical cleaning of the wiper	. 11
When the message [Clean WiperShaft] is displayed [CarriageOut]	. 14
When the message [Replace Wiper] is displayed [WiperExchng]	. 16
Cleaning the bottom surface of the carriage	. 18
Cleaning the flushing box and blower filter	. 19
Cleaning The Y Main Guide [Main Guide]	22
Replacing ANRS Media [ANR Unit]	23
Cleaning The Belt [Belt Clean]	27

MIMAKI ENGINEERING CO., LTD.

TKB Gotenyama Building, 5-9-41, Kitashinagawa, Shinagawa-ku, Tokyo 141-0001, Japan Phone: +81-3-5420-8671 Fax: +81-3-5420-8687

Routine Maintenance

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

When the device is left unused for a long period of time

• Turn off the power to the device. (Refer to Operation manual Page 2.52)

• When performing belt cleaning with "Circulate", change dirty water in the cleaning tank with new water, clean the inside of the pipe, and turn the power OFF.

Notes on cleaning

CAUTION



- Prevent moisture from entering inside the device. If the inner part of the device becomes wet, electric shock hazards and breakage of the device can result.
- Conduct maintenance works after turning off the power switch and detaching the power cable. If not, unexpected troubles can arise.
- Do not use benzine, 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 device. Such materials can cause the plotter mechanism to fail.

Maintenance for frame components

If the frame components of the device have stained, dampen a piece of soft cloth with water or neutral detergent diluted with water, squeeze it and wipe the frame components clean.

Cleaning Inside Of The Cleaning Water Tank

Clean inside of the cleaning water tank regularly.

After a certain period of time using the cleaning water , it may fine away by natural evaporation, etc. The cleaning water volume may become less, the warning message shows on the LCD as below.



Replacing the water of the tank

It is necessary to change water every day when belt cleaning is being performed with water circulation. The dirty water is pumped up with attached hand pump and then pour clean water into the tank.



• When belt cleaning is being performed with water circulation, change cleaning water every day.

- Dispose of waste cleaning water according to the local regulations.
- 1. Pump up the dirty water from the tank to another polyethylene tank by hand pump.



2. Make sure to close the sewer valve.



3. Fill the tank with about 20 liters of water.



Replacing and cleaning the water cleaning filter

When the filter is clogged, make sure to replace or clean it. After a certain period of time, the message shows as below LCD.



1. Open the tank and then loosen the setscrew.

2. Replace the filter with a new one and then, tighten the setscrew.

3. Insert the hose in the tank without slacks.

4. In case "Replace Filter" messages has given, the counter resetting should be needed for the cleaning filter.

Refer to "Resetting the counters for each type" in operation manual (Page 5.18).







In Case Spots Appear On The Fabric During Printing

In case spots appear on the fabric during printing, it may cause remaining cleaning water. Replace the belt wiper unit with a new one or clean the water absorption roller.

• The irregular surface has occurred on the belt in case some following condition has appeared. Make sure to apply new adhesive immediately. (Refer to Operation Manual Page.5-4)

- * The adhesive was applied unevenly.
- * Dust, thread and tiny fleck are not able to remove from the belt even if Washing belt function has performed.



Replacement for the belt wiper unit

CAUTION

In case spots appear on the fabric during printing, it may cause remaining cleaning water. Replacement for the belt wiper unit is required.

• In case replacing the belt wiper unit, contact your distributor or Mimaki sales office to call for service.



Cleaning for the water absorption roller

After a certain period time with belt washing, the water absorption roller unable to absorb the water. Clean the water absorption roller to keep good printing condition.



 In case the indication period of cleaning the water absorption roller has set before printing, you can print without worrying about maintenance period. (Refer to Operation manual Page 4-12 [Setting the indication period for maintenance])

Water Absorption Check The Roller

1. Turn off the power to the device.



Before cleaning the water absorption roller, put a fabric like waste cloth, etc. on the floor to avoid being stained with washing water.

Make sure to wear rubber gloves for cleaning.



2. Loosen knobs at the both ends of the water absorption and then, open the shaft cover. Water absorption roller is locates in the inside of the rear.



3. Remove the water absorption roller from the device.



• Remove the roller with more than one person.



• In case the feeding tension bar is hooked to the stopper, remove it from the stopper.



4. Remove water from the water absorption roller.

a. This roller is available to divide one by one to remove water.

b. Dip the roller into the running water to wash the dirt away from it.



Do not twist the roller to avoid break the sponge.

c. Sponge the water off from the roller with Bemcot after cleaning.



• Do not twist the roller to avoid break the sponge.



d. Dry the roller out well.

- 5. Fix the water absorption roller into the device.
- 6. In case "Check the roller" messages has given, the counter resetting should be needed for the water absorption roller.

Refer to "Resetting the counters for each type" in Operation manual Page 5-18.

When The Waste Ink Tank Becomes Full

Ink used for cleaning of the head is collected in the waste ink tank. If the waste ink tank becomes full, dispose of it promptly.



- For purchase of a spare waste ink tank, contact your distributor or Mimaki sales office to call for service.
- Prepare a polyethylene tank to which waste ink is to be transferred.



- If ink is dripping, wait until it stops dripping.
- Make sure to wear rubber gloves for replacement.

STEP

1. Pull out the hose from the waste ink tank.



2. Transfer waste ink to another polyethylene tank.



• Discard the waste ink according to the local regulations of the area this unit is used.

3. Set the emptied waste ink tank again.



Replacing The Mist Fan Filter

This device is provided with two mist fan filter units on the rear top side. In case the filter is clogged by ink or dust adhesion, replace the mist fan filter. Wash the replaced filter, then reuse the filter.



• The mist fan filter is sold separately. When changing the filter, contact your dealer or Mimaki sales office.

STEP

1. Pull the mist fan filter holder out of the mist fan filter units which located at the both sides on the main unit.



2. Replace a mist fan filter with a new one. Cover the all circumference with filter to fix it.





Cleaning The Station Interior

Carriage moves two kinds of way for maintenance of the ink station.

Use the functions according to your applications.

The interior of the station needs maintenance when a blurred test pattern is not corrected even after the cleaning function (Refer to Operation manual Page 2.42) is executed or when a consumable part is to be replaced.



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



Types of	Types of carriage cleaning					
Station	Carriage Out	Cleaning around the wiper, wiper shaft and ink caps.				
	WiperExchange	Exchange the wiper. This device notifies the period of wiper exchange. Exchange the wiper when display this message.				
	Flushing Box exchange	Discard the waste ink. Wash the flushing box and filter.				
Carriage		 Check dirt of the head. Clean the nozzle face. Clean under the carriage using a brush. 				

Open and close the station cover



Periodical cleaning of the wiper

Cleaning the wiper

CAUTION

The wipers are provided for cleaning the heads. As the device is used to plot images, the wipers gradually become stained with ink and dust. Clean stained wipers.

The wiper is separately available from your local distributor or our office.

Notes on handling the wipers

- Don't touch the rubber part of the new wiper. It will result in clogged nozzle.
- Clean the two wipers at a time.
- The front side of each wiper is made of felt, and the rear side is made of rubber.
 Do not rub the felt side with a such instead proce the such against the

Do not rub the felt side with a swab. Instead, press the swab against the felt side surface to remove dirt. Rubbing the felt side surface will make it fluffy and result in clogged nozzle. Wipe ink off the rubber side surface with a swab.

• When executing this function, the carriage will come out of the capping station. If the carriage is left in the aforementioned state for an extended period of time, the nozzles can be clogged. Once the replacement of the wiper and the cleaning of the caps have been completed, immediately press [ENTER] key to allow the carriage to return to the capping station.





• Prepare two sets of wipers. When printing for one day is completed, exchange the wiper on a daily basis. This stabilizes the printing quality and ensures a long operating life of wipers.

• When you remove the wiper, soak it in water and then press it lightly to extract soaked ink. After cleaning, leave the wiper for air-drying. It can be used on the following day.

STEP

- 1. Confirm the device the LOCAL mode.
- 2. Press [FUNCTION] key.
- 3. Press [▲] and [▼] key until the display gives the indication [MAINTENANCE].
- 4. Press [ENTER] key.
- 5. Press [ENTER] key to select [Station].
- 6. Press [ENTER] key to select [CarriageOut]. The carriage come out to the belt.

7. Open the station cover R.



Chain the station cover.
 (Refer to Page 11)

	<< LOCAL >>					
	wic	dth : 1620mm				
FUNCTION	FUNCTION					
\bigcirc	SETUP	< ENT >				
\bigcirc	FUNCTION					
$\overline{}$	MAINTENANCE	< ENT >				
•						
ENTER	MAINTENANCE					
\bigcirc	Station	< ent >				
ENTER	Station Maint					
\bigcirc	Sel	: CarriageOut				
ENTER	Station Maint					
\bigcirc	Sel	: CarriageOut				

8. Clean up the wiper as described below.

Felt surface :





Rubber surface :

9. Remove stains with a swab from the rubber mounted around the cap.

- 10. Press [ENTER] key after taking the chain off from the cover and closing the station cover R.
- 11. The device enters the fabric width detection.



ENTER Station Maint Completed : ent Initialize * * * _ _ _ * MEDIA SET ROLL< >LEAF

When the message [Clean WiperShaft] is displayed [CarriageOut]

[Clean Wiper Shaft] message is displayed after several numbers of wiping. Please clean the wiper shaft at once if this message is displayed.



Extremely dirty wiper shaft may cause wiper malfunction and resulting an error display. The wiper is functioning only during the head cleaning, and the number of wiping vary according to the cleaning type.



STEP

- 1. Put the device into the MAINTENANCE mode. (Refer to Page 12)
- 2. Press [ENTER] key.
- 3. Press [ENTER] key to select [Station].
- 4. Press [ENTER] key to select [CarriageOut]. The carriage come out to the belt.
- 5. Open the station cover R.



Chain the station cover.
(Refer to Page 11)

6. Clean the wiper guide shaft using a swab or cloth.

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



 Extremely dirty wiper guide shaft may cause wiper malfunction, resulting an error display.

	FUNCTION	
	MAINTENANCE	< ENT >
ENTER	MAINTENANCE	
\bigcirc	Station	< ent >
ENTER	Station Maint	
\bigcirc	Sel	: CarriageOut
ENTER	Station Maint	
\bigcirc	Sel	: CarriageOut



7.	Take the chain off from the cover and close the	ENTER	Station Maint	
	station cover R. then press [ENTER] key.	\bigcirc	Completed	: ent
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-		

						lr	nit	ial	ize	Э					
*	*	*	*	*	*	*	*	_	-	-	-	-	-	-	_

8. The device enters the fabric width detection.

	MEDIA SET	
ROLL<		>LEAF

When the message [Replace Wiper] is displayed [WiperExchng]

The wipers are consumable parts. As the wiper continues cleaning the head, it gets stained with ink and dust. When the message [Replace Wiper] is displayed, replace the wiper with a new one without delay. When replacing the wiper, remove ink adhered at the bottom surface of the slider.



• The wiper is separately available from your local distributor or our office.

The message [Replace Wiper]

The device counts the number of times the wipers are cleaned and tells when to replace them. When the message [Replace Wiper] is displayed on the LCD, replace the wipers with new ones.



STEP

- 1. Put the device into the MAINTENANCE mode. (Refer to Page 12)
- 2. Press [ENTER] key.
- 3. Press [ENTER] key to select [Station].
- 4. Press [▲] and [▼] key until the display gives the indication [WiperExchng].
- 5. Press [ENTER] key. The carriage come out on the belt.

FUNCTION	
MAINTENANCE	< ENT >

ENTER	MAINTENANCE	
\bigcirc	Station	< ent >





-	1	6	-
---	---	---	---

6. Open the station cover R, then changing the wiper.



7. Holding the projections at both ends, draw out the wiper.

Use the gloves that are supplied with the cleaning wiper kit to protect your hands from stains.

8. Holding the projections at both ends, insert a new wiper into place.



• Do not touch the rubber parts of a new wiper. It can cause the nozzle clogged. CAUTION • Insert the wiper so that its felt side surface is placed on the left as viewed from your position.



9. Clean the wiper guide shaft using a swab or cloth.

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



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

10. Take the chain off from the cover and close the station cover R, then press [ENTER] key.

11. The device enters the fabric width detection.



ENTER	Station Maint	: ent
	Completed	. ent
	Initialize	
	* * * * * * * *	
	MEDIA SET	
	ROLL<	>LEAF

Cleaning the bottom surface of the carriage

Check the head condition. Clean the bottom surface of the carriage using the supplied swab.

STEP

- 1. Put the device into the MAINTENANCE mode. (Refer to Page 12)
- 2. Press [ENTER] key.
- 3. Press [▲] and [▼] key until the display gives the indication [Carriage].
- 4. Press [ENTER] key.
- 5. Press [ENTER] key. The carriage move toward left of the device.
- 6. Open the station cover L.

 Using the supplied swab with water, remove ink adhered at the bottom surface of the carriage around the head.

Chain the station cover.
 (Refer to Page 11)

CAUTION · Neve CAUTION

CAUTION

• Never rub the surface of the nozzle, as this may cause discharge failure.

8. Take the chain off from the cover and close the station cover L, then press [ENTER] key.

9. The device enters the fabric width detection.



< ENT >

FUNCTION

MAINTENANCE



ENTER



ENTER	Carriage Maint	
\bigcirc	Completed	: ent
	Initialize	
	* * * * * * * *	
	MEDIA SET	
	ROLL<	>LEAF

Cleaning the flushing box and blower filter

When the message [Flushing Box] is displayed, clean the flushing box and blower filter immediately or replace it with a new one. This message appears on the regular basis. Make sure to clean the blower filter along with clearing flushing box.





• The flushing box is designated as supply parts. In case it is necessary, call your local distributor or Mimaki sales office.



• Do not select [Flushing Box] unless the flushing box is to be really changed. The number of operations that is counted in the Device will be reset.

Cleaning the flushing box

- 1. Put the device into the MAINTENANCE mode. (Refer to Page 12)
- 2. Press [ENTER] key.
- 3. Press [ENTER] key to select [Station].
- 4. Press [▲] and [▼] key until the display gives the indication [Flushing Box].
- 5. Press [ENTER] key.
- 6. Open the station cover R, remove the hand screw and then pull out the ANR unit.



Chain the station cover.
 (Refer to Page 11)

	FUNCTION	
	MAINTENANCE	< ENT >
ENTER	MAINTENANCE	
\bigcirc	Station	< ent >
ENTER	Station Maint	
\bigcirc	Sel	: CarriageOut
\subseteq	Station Maint	
\bigcirc	Sei	
•		

ENTER



7. Open the flushing box cover, remove the flushing box.



8. Dump the waste ink in the flushing box into the waste ink tank.

Get the plug out of the flushing box and then, discard the waste ink tank.



 Wash the flushing box with water after discarding the waste ink. In case using the box after washing shortly, dry the box out well.



 If the device is not used more than one day, discard waste ink in the flushing box and wash the flushing box and filter.



 When the lnk blot of sponge is heavy, the flushing box get weaker of absorption. In case when you find the waste ink on the belt retainer, make sure to confirm the flushing box and then wash the sponge.
 When the lnk blot of sponge is heavy

- a. Pull the sponge out from the flushing box and then wash it with water.
- b. Dry the washed filter out.
- c. Set the supplied filter.
- d. Keep the dried filter for the next changing.
- 9. Set flushing box.

- 10. Put the ANR unit back, take the chain off from the cover and close the station cover R, then press [ENTER] key.
- 11. The device enters the fabric width.





Station Maint Completed	: ent
Initialize ******	
MEDIA SET	
ROLLS	>LEAF

Cleaning the blower filter

This device is provided with a blower unit. Check dirt or ink adhesion by clogging of the filter, make sure to clean the blower filter or replace it with a new one after cleaning the flushing box.



- In case using the box after washing shortly, dry the box out well.
- The filter is an option. When changing the filter, contact your dealer or Mimaki sales office.



cover.

• Make sure to wear rubber gloves for replacement.

STEP

1. Turn OFF the power switch of the blower unit.

2. Remove the snap lock on both sides of the





3. Replace the filter with a new one.

4. Close the cover.



• Make sure to put the filter back before using the device. It may cause the main unit to malfunction.

Cleaning The Y Main Guide [Main Guide]

The cleaning message of the Y main guide appears when the head slider has performed scanning a certain number of times. If the main guide is extremely dirty, malfunction may occur during printing, a stop of printing. If a message appears, clean the Y main guide immediately.





- Use the supplied special oil to clean the guide. If the oil runs out, get it from your local distributor.
- Clean the Y main guide once a week or every other week.



• Do not select [Main Guide] unless the wiper is to be really changed. The number of wiper operations that is counted in the Device will be reset.

STEP

- 1. Put the device into the MAINTENANCE mode. (Refer to Page 12)
- 2. Press [ENTER] key.
- 3. Press [▲] and [▼] key until the display gives the indication [Main Guide].
- 4. Press [ENTER] key.
- 5. Press [ENTER] key. The carriage come out of the station.
- 6. Open the front cover, station cover R and L then cleaning the Y main guide.
- 7. Close covers, then press [ENTER] key. The device enters the fabric width detection.

	FUNCTION MAINTENANCE	< ENT >
ENTER	MAINTENANCE Station	< ent >
	MAINTENANCE Main Guide	< ent >
ENTER	Main Guide Maint CarriageOut	: ent
ENTER	Front cover	
		Y main guide
ENTER	Main Guide Maint Completed	: ent
	Initialize	;

MEDIA SET

>LEAF

ROLL<

Replacing ANRS Media [ANR Unit]

Attachment of the ANRS media enables automatic nozzle recovery. If the media runs out, replace it with a new media.

STEP

- 1. Put the device into the MAINTENANCE mode. (Refer to Page 12)
- 2. Press [ENTER] key.
- 3. Press [▲] and [▼] key until the display gives the indication [ANR Unit].
- 4. Press [ENTER] key.
- 5. Press [ENTER] key to select the [Media Set].

6. Replace the media.

a. Open the right station cover and then remove the knob screw of the ANR unit.



 Chain the station cover. (Refer to Page 11)

• If using the non-Mimaki genuine ANRS check media, we can not guarantee the normal operation. Be sure to use the genuine ANRS check media.





b. Pull out the ANR unit.

c. Loosen the hand screw, remove the Roll guide plate and then remove used media.

- d. Loosen the knob screw and then remove the rear roll guide cover.
- e. Loosen the hand screw, remove the Roll guide plate and then remove empty fabric core.

f. Set a new ANRS check media.



- Outside is the printing side of the ANRS checkmedia.
- g. Attach the roll guide plate again and then fix the knob screw. Close the roll guide cover, then fix the knob screw.







Used check media

h. Attach the suppled empty fabric core for the front as well.

i. Attach the roll guide plate again and then fix the knob screw.

j. Pull out the leading edge of the media, lead it through the media guide, pinch roller, and drive roller, then fix it to the empty fabric core using an adhesive tape.

Set the media flatly without slack or wrinkle on the print side of the media.



1. If there is a slack or wrinkle, set it again. It may cause check media jam and broken the head.

- 2. Feed the check media by rotating the drive roller in anti clockwise direction in case surface of media is not flat.
- k. Replace the ANR unit, attach the knob screw, and close the station cover after taking the chain off.











- 7. Press [ENTER] key.
- 8. Press $[\blacktriangle]$ and $[\triangledown]$ key to enter the length of the attached media.



 ANRS check media length is 100 meter (SPC-0383).

9. Press [ENTER] key and the device enters the fabric width detection.

	ANR Unit Maint. Completed	: ent
	ANR Unit Maint. Remains	= 10 <mark>0</mark> m
ENTER	Initialize * * * * * * * *	
	MEDIA SET	>LEAF

Cleaning The Belt [Belt Clean]

This function cleans and dries the belt.



STEP

FUNCTION 1. Put the device into the MAINTENANCE mode. MAINTENANCE < ENT > (Refer to Page 12) MAINTENANCE ENTER 2. Press [ENTER] key. Station < ent > MAINTENANCE 3. Press [▲] and [▼] key until the display gives Belt Clean < ent > the indication [Belt Clean]. ENTER Lower The Feed 4. Press [ENTER] key. **Tension Bar** 5. Remove fabric in case its on the belt. 6. Make sure to be the tension bar at the lowest **Remove Media** ENTER Press [ENT] Key position and press the [ENTER] key. ENTER 7. Make sure that there is no fabric on the belt Belt Clean Туре : Drying and then press the [ENTER] key Belt Clean 8. Press [▲] and [▼] key, and select the cleaning : Cleaning Туре type. [Cleaning] or [Drying]. Select [Cleaning] here. ENTER Belt Clean 9. Press [ENTER] key. = 1 BeltRotation 10. Enter the number of the belt rotation by press-Belt Clean BeltRotation = 3 ing jog keys [▲] and [▼].

11.	Press [ENTER] key. Cleaning of the belt starts.	ENTER	Belt Cleaning RotationCnt 0.9
	The remaining number of rotations is displayed.		
12.	After cleaning is completed, dry the belt. After cleaning, "Drying" is displayed on the LCD.		Belt Clean Type : Drying
13.	Press [ENTER] key.	ENTER	Belt Clean BeltRotation = 1
14.	Enter the number of the belt rotation by press- ing jog keys [▲] and [▼].		Belt Clean BeltRotation = 3
15.	Press [ENTER] key. Drying of the belt starts.	ENTER	Belt Cleaning RotationCnt 0.9
	The remaining number of rotations is displayed.		
16.	Press [END] key twice and the device enters the LOCAL mode.	END	MAINTENANCE Belt Clean < ent > << LOCAL >> width : 1620mm

Мітакі

D201101-1.10-11122004 Printed in Japan © MIMAKI ENGINEERING Co., Ltd. 2004