

ValueJet 1604X / 1624X

Regular maintenance using Mutoh UMS ink

Belangrijk, Important, Wichtig, Importante, Attenzione

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Dear customer,

Each ink has its own specific drying speed and drying characteristics, which has an influence on its periodical maintenance cycle. To maximise the life-time of all parts which are exposed to ink, it is crucial to carry out some easy but important maintenance.

The most important maintenance actions are:

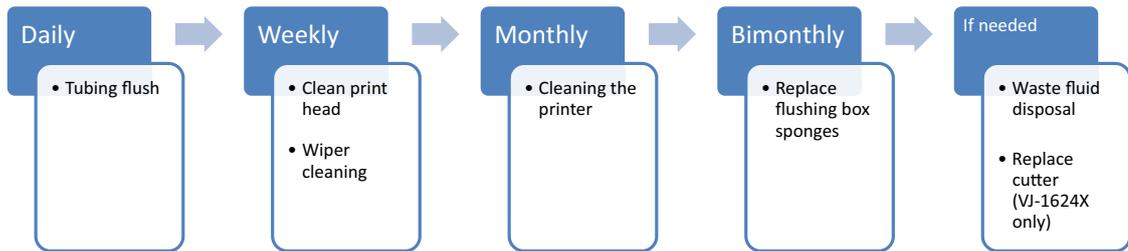
- Wash away ink remainders from parts which are not (easily) accessible, avoiding that the ink dries out, possibly causing blockage.
This phenomenon is a slow process which only happens at areas where soft tubing is used (capping, pumps, waste collection) and is linked to temperature and to successive periods of inactivity where ink remainders have time to dry out and eventually solidify.
- Regularly remove ink remainders from accessible parts.

Following items contain all necessary maintenance materials:

Classification	Description	Ordering code
Non-liquid maintenance materials	Good shape kit	KY-80228
Liquid maintenance materials	UMS cleaning liquid (bottle 1l)	RJ80UMS-100-CLN
Instruction sheet	This document	AP-76946
Consumable	Cutter	VJ-CB
	Flushing absorbent	VJ16-FB-SO3

Overview

When using the VJ-1604X / 1624X it is important to perform periodic maintenance. This will help you maintaining excellent output quality and avoid parts to wear untimely.



Important

- Please be aware that next to this periodical maintenance, a certified Mutoh Technician needs to perform yearly maintenance as well. Please contact your Authorised Mutoh Reseller for more information.

Good shape kit items

Part number	Description	Quantity
PJ-GLOV	Gloves (100 pcs.)	3x100
PP-10001	Cleaning stick (50 pcs)	3x50
PP-10010	Kit Pipette 10 ml (1 pc)	12x1
B1-CON-75	Polyknit wipes (75 pcs)	1x75

1 Performing a tubing flush

(1) Cleaning frequency

Daily

(2) Cleaning procedures

Step 1: If the printer is powered ON, make sure that printing or other operations are not in progress.

Step 2: Display the CR Maintenance menu.

- Press the [Menu] key.
 - “Menu1: Setup>” is displayed.
 - The operation panel shifts to the Setup menu display.
- Press [>].
 - “Set1: Media Type” is displayed.
- Press [+] or [-] to select “Set20: CR Maintenance”.
- Press [Enter]
- “CR Mainte.: Start” is displayed.
 - The display enters the CR Maintenance menu.

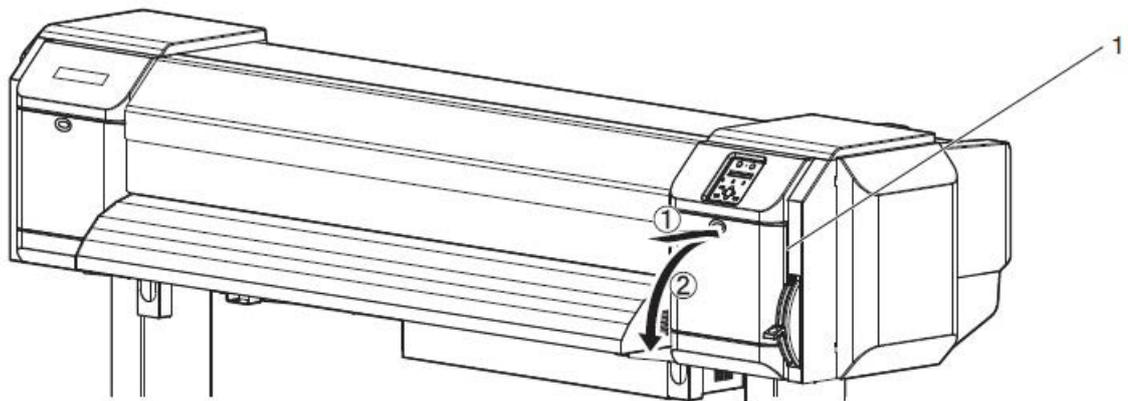
Step 3: Press the [Enter] key.

- Maintenance starts.
- The print head moves to the left.
- “CR Maintenance: End” is displayed.

Step 4: Press the [▼] key.

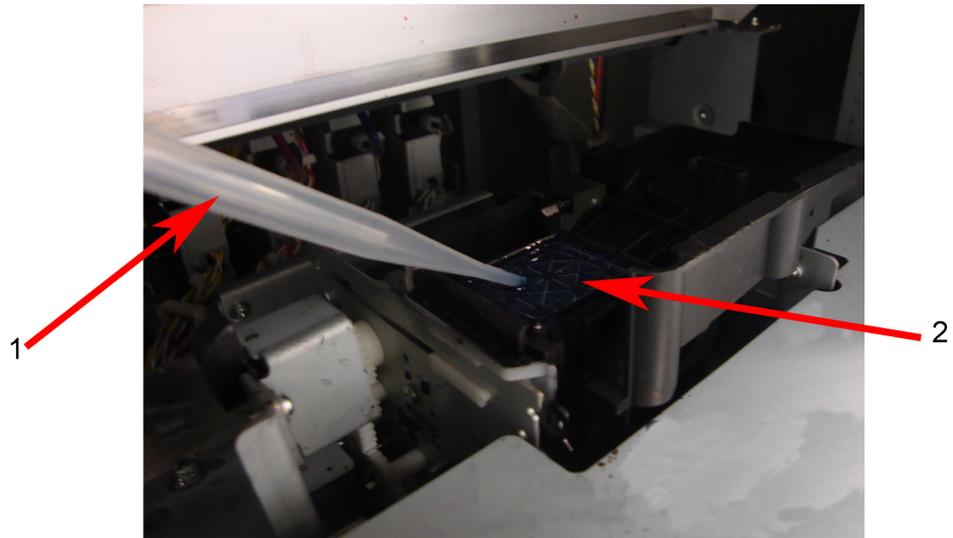
- The pumps start pumping

Step 5: Open the maintenance cover at the right side of the printer.



N°	Name
1	Maintenance cover

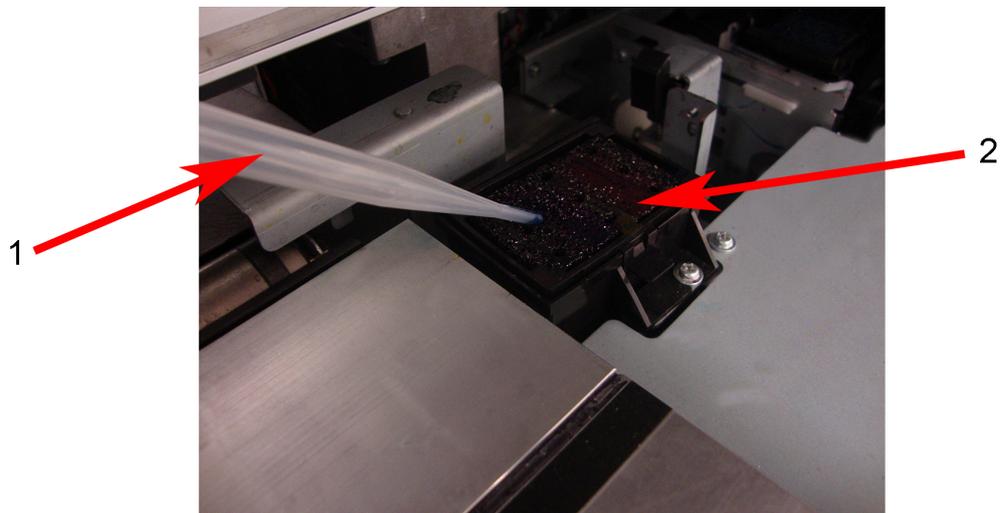
Step 6: Using a pipette filled with UMS cleaning liquid, drip about 5 ml of cleaning liquid onto the head cap unit as shown in the illustration. The cleaning liquid will be sucked into the capping unit and the connected tubing. It will remove ink remainders and prevent the blocking of the tubing. Also drip some cleaning liquid onto the right flushing-box sponge.



N°	Name
1	Pipette
2	Head cap unit

Important

- Repeat the 5 ml soaking of the cap unit 4 times, this results in a total tubing flush amount of $4 \times 5 \text{ml} = \text{approx. } 20 \text{ml}$.
- Also drip some cleaning liquid onto the flushing-box sponge.



N°	Name
1	Pipette
2	Flushing-box unit

Step 7: Press the [▼] key once again to stop the pumps.

Important

- **If you do not press [▼], pumping automatically stops after 60 seconds.**

Step 8: Press the [ENTER] key.

- The print head returns to the capping position.
- “CR Mainte.: Start” is displayed.

Step 9: Press the [Menu] key.

- The tube flush procedure is completed.

2 Cleaning around the print head

(1) Cleaning frequency

On a weekly basis, check if foreign substances (dust or ink clots that can cause missing dots or ink leakage) are attached around the print head. If it is the case, remove them as described.

(2) Cleaning procedures

Note

- Before cleaning around the print head, read this procedure thoroughly to fully understand it, and clean promptly and correctly.
- While cleaning around the print head, the print head cap is removed, therefore cleaning must be done before the print head dries. Leaving the print head at the replacement position for a long time, may result in clogging of the print head. Please limit to 15 minutes
Use the cleaning stick to clean around the print head.

Step 1: If the printer is powered ON, make sure that printing or other operations are not in progress.

Step 2: Display the CR Maintenance menu.

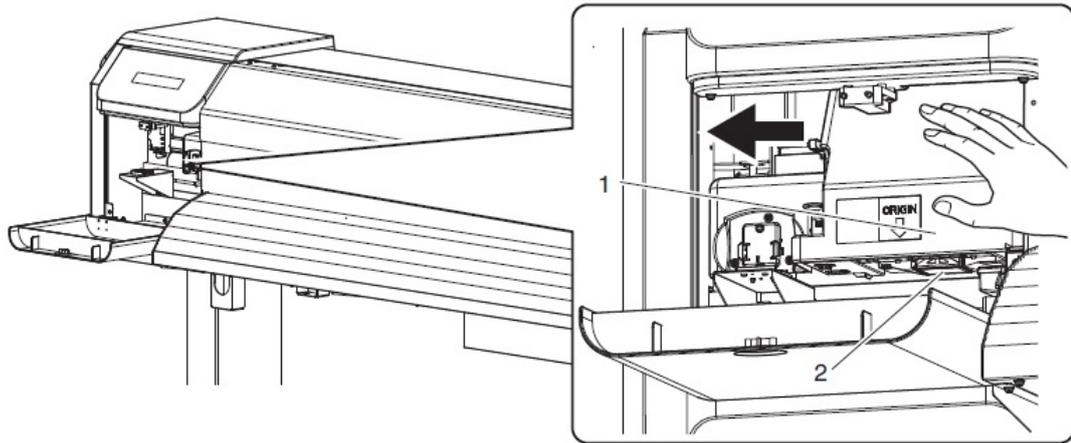
- Press the [Menu] key.
 - “Menu1: Setup>” is displayed.
 - The operation panel shifts to the Setup menu display.
- Press [>].
 - “Set1: Media Type” is displayed.
- Press [+] or [-] to select “Set20: CR Maintenance”.
- Press [Enter].
 - “CR Mainte.: Start” is displayed.
 - The display enters the CR Maintenance menu.

Step 3: Press the [Enter] key.

- Maintenance starts.
- The print head moves to the left.
- “CR Maintenance: End” is displayed.

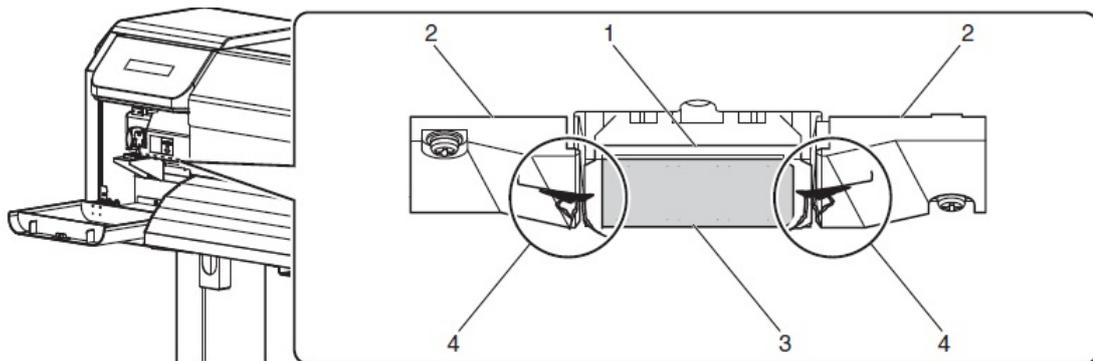
Step 4: Open the maintenance cover at the left side of the printer.

Step 5: Move the print head manually so that you have a clear view on the print head.



N°	Name
1	Print head section
2	Circumference of the print head

Step 6: Use a penlight, etc. to check if any foreign substances, such as dust or ink are attached to the following places.

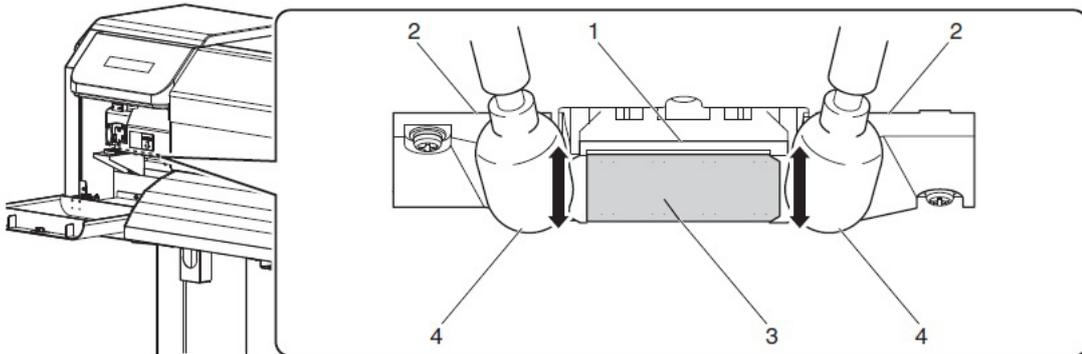


N°	Name
1	Around the print head
2	Head guide
3	Nozzle plate
4	Dust, ink clots, etc.

Caution

- **When cleaning around the print head,**
 - ◆ Do not touch the nozzle plate. Doing so may damage the print head.
 - ◆ Do not touch the tip of the cleaning stick. The print head may be damaged because of skin oil.
 - ◆ Never put water, etc. on the tip of the cleaning stick. Doing so may damage the print head.
 - ◆ Do not reuse the cleaning stick. The attached dust, etc may damage the print head.

Step 7: When some foreign substance such as dust or ink clot is attached, use the cleaning stick to remove it. To facilitate this action you can moisten the cleaning stick with suitable cleaning liquid.



N°	Name
1	Around the print head
2	Head guide
3	Nozzle plate
4	Cleaning stick

Step 8: Close the left maintenance cover firmly to make sure it is locked.

Step 9: Press the [Enter] key.

- The print head returns to its original position.
- “CR Mainte.: Start” is displayed.

Step 10: Press the [Menu] key.

- Cleaning around the print head is complete.

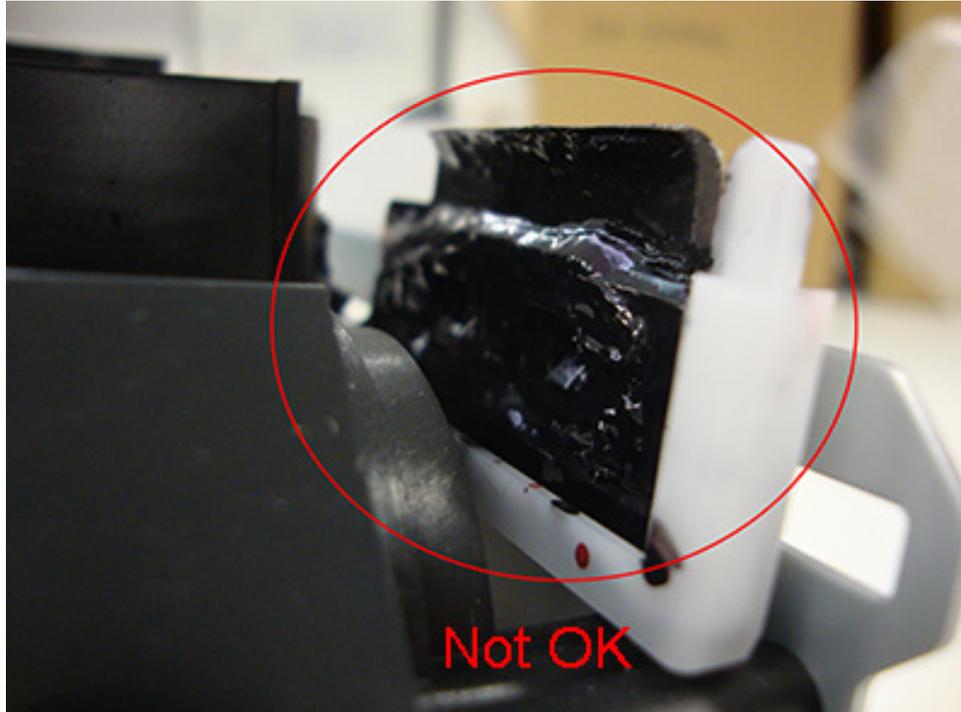
3 Cleaning the wiper

(1) Cleaning frequency

Once a week, or when blurs or lacking parts appear on printed media after head cleaning.

Important

- Please make sure the wiper is in optimal condition. If you do not clean the wiper regularly, ink residue will stick to the wiper (as shown below), which will lead to bad printing quality.



(2) Cleaning procedures

- Use the cleaning stick moistened with a suitable cleaning fluid to clean the cleaning wiper.

Step 1: If the printer is powered ON, make sure that printing or other operations are not in progress.

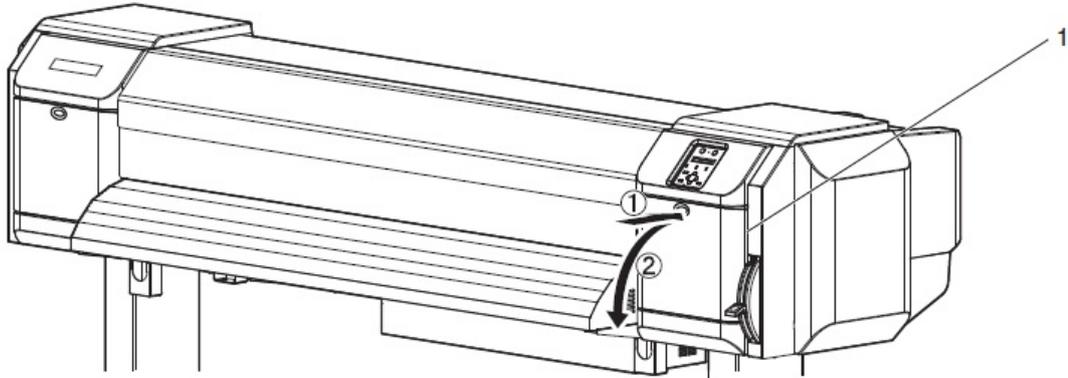
Step 2: Display the CR Maintenance menu.

- Press the [Menu] key.
 - “Menu1: Setup>” is displayed.
 - The operation panel shifts to the Setup menu display.
- Press [>].
 - “Set1: Media Type” is displayed.
- Press [+] or [-] to select “Set20: CR Maintenance”.
- Press [Enter].
 - “CR Mainte.: Start” is displayed.
 - The display enters the CR Maintenance menu.

Step 3: Press the [Enter] key.

- Maintenance starts.
- The print head moves to the left.
- The cleaning wiper shifts towards the front.
- “CR Maintenance: End” is displayed.

Step 4: Open the maintenance cover at the right side of the printer.



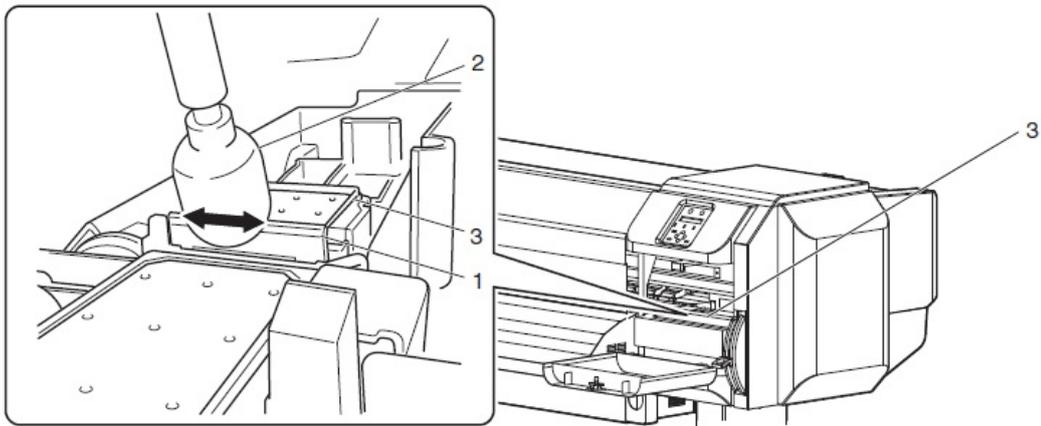
N°	Name
1	Maintenance cover

Caution

- **When cleaning the cleaning wiper**
 - ◆ Do not touch the cleaning wiper and head cap unit with your hands. Head cleaning may not be performed correctly because of skin oil.
 - ◆ Make sure to wipe the print head using the cleaning stick. A cleaning stick moistened with water may cause the print head to clog. When moistening, always use the cleaning liquid matching your ink type.
 - ◆ Do not reuse the cleaning stick. The attached dust, etc may damage the print head.

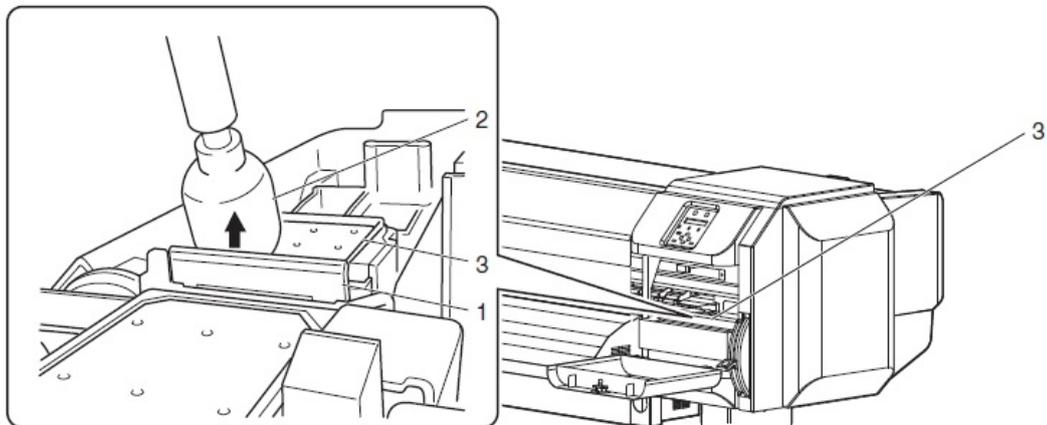
Step 5: Use a cleaning stick moistened with a suitable cleaning liquid to remove the ink and dust on the cleaning wiper.

- Front side of the cleaning wiper:
Remove the ink and dust in the horizontal direction.



N°	Name
1	Cleaning wiper
2	Cleaning stick
3	Head cap unit

- Cleaning wiper back side:
Remove the ink and dust in the upper direction.



N°	Name
1	Cleaning wiper
2	Cleaning stick
3	Head cap unit

Step 6: Close the right maintenance cover.

- Close the cover firmly until it is locked.

Step 7: Press the [Enter] key.

- The print head returns to its original position.
- The cleaning wiper returns to the original position.
- "CR Mainte.: Start" is displayed.

Step 8: Press the [Menu] key.

- Cleaning the cleaning wiper is complete.

4 Cleaning the printer

Periodic (every month) cleaning is necessary to keep the printer in good condition.

Important

- Do not insert or drop metal or flammable objects into the printer through openings such as a vent.
It could lead to an electric shock or fire.
- If foreign substances or liquids such as water entered the printer, do not use the printer as it is.
It could lead to an electric shock or fire.
Immediately switch OFF the printer, disconnect the power plug from the electric socket, and contact your local MUTOH dealer.
- When cleaning the printer, be sure to turn OFF the power and disconnect the power plug.
- Do not use volatile solvents such as thinner, benzene, or alcohol.
These solvents could damage the paint.
- Be careful that no moisture enters the printer.
There is a possibility that the electric circuit inside the printer is short circuited.
- Do not open covers attached using screws under any circumstances.
This may cause an electric shock or a malfunction.

Cleaning the outer case

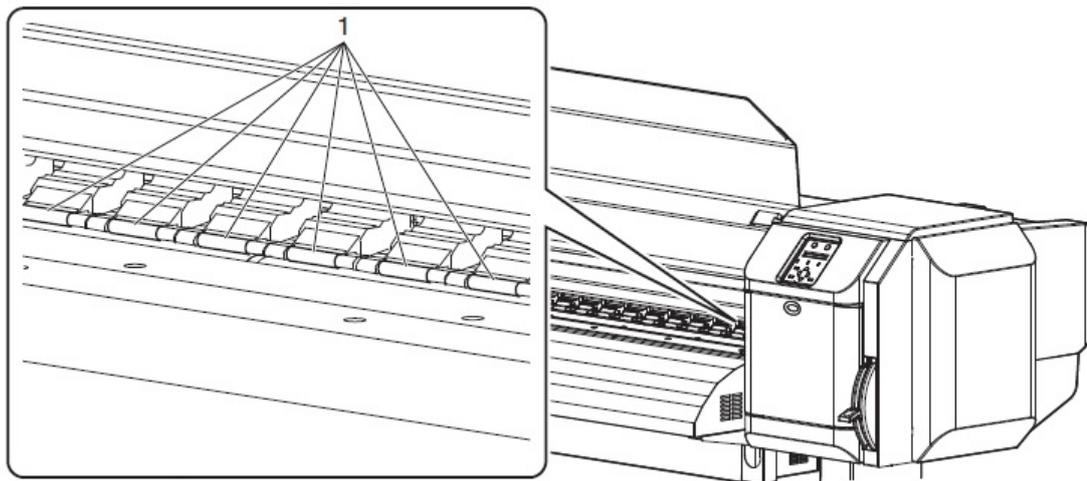
Wipe out dust and dirt attached to the outer case by using a soft cloth.

Cleaning the inside of the printer

Step 1: Open the front cover.

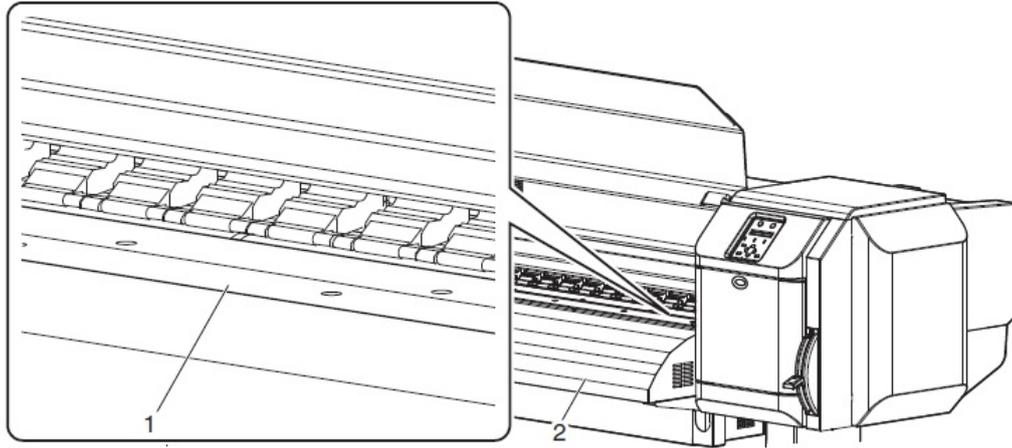
Step 2: Remove paper powder and dust attached to the pressure rollers using a soft brush.

- Do not blow paper powder inside the printer using tools such as an air duster.
It may cause an abnormal noise from the inside of the printer.



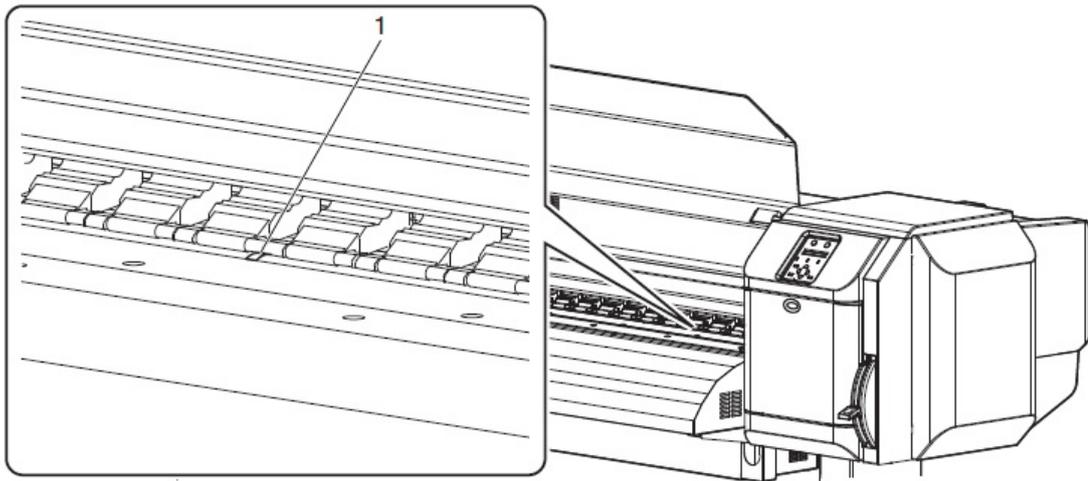
N°	Name
1	Pressure rollers

Step 3: Apply a damp and tightly squeezed soft cloth to wipe out paper powder and ink attached to the platen and media guide.



N°	Name
1	Platen
2	Media guide

Step 4: Apply a damp and tightly squeezed soft cloth to wipe off the dirt of the unpainted (silver colour) area in the centre of the grid roller



N°	Name
1	Grid roller

5 Replacing the flushing box sponges

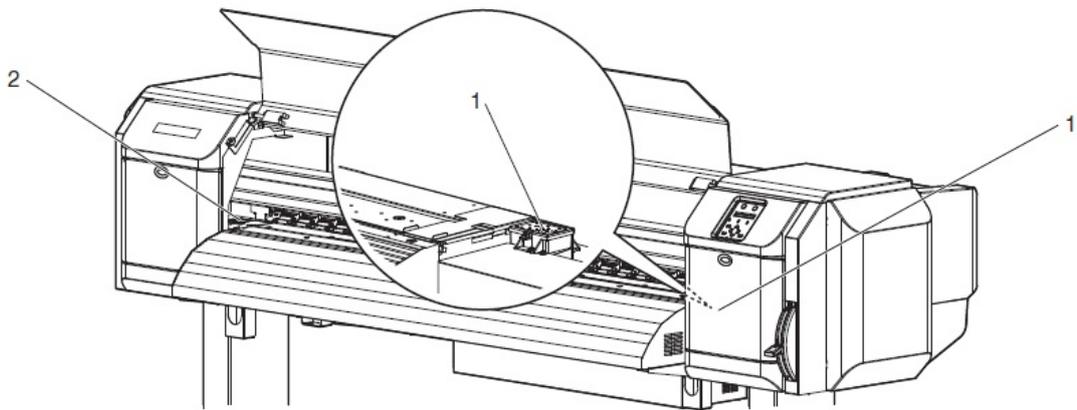
(1) Replacement frequency

Replace the flushing-box sponges in the following situations:

- When the flushing-box sponge is deformed or saturated
- When ink is spattered on the media.
- When more than two months have passed since the last replacement.

(2) Replacing steps

You need to inspect 2 flushing-box sponges, 1 on the left side and 1 on the right side of the printer. Please be aware the flushing-box sponge on the left side is less frequently used. Due to this you do not need to replace the 2 flushing-box sponges at the same time.



N°	Name
1	Flushing-box sponge on the right side
2	Flushing-box sponge on the left side

(2-a) Replacement procedure (on the right side)

Step 1: If the printer is powered ON, make sure that printing or other operations are not in progress.

Step 2: Display the CR Maintenance Menu.

- Press the [Menu] key.
 - “Menu1: Setup>” is displayed.
 - The operation panel shifts to the Setup menu display.
- Press the [>] key.
 - “Set 1: Media Type” is displayed.
- Press the [+] key or [-] key to select “Set20: CR Maintenance”.
- Press the [Enter] key.
 - “CR Mainte.: Start” is displayed.
 - The display enters the CR Maintenance menu.

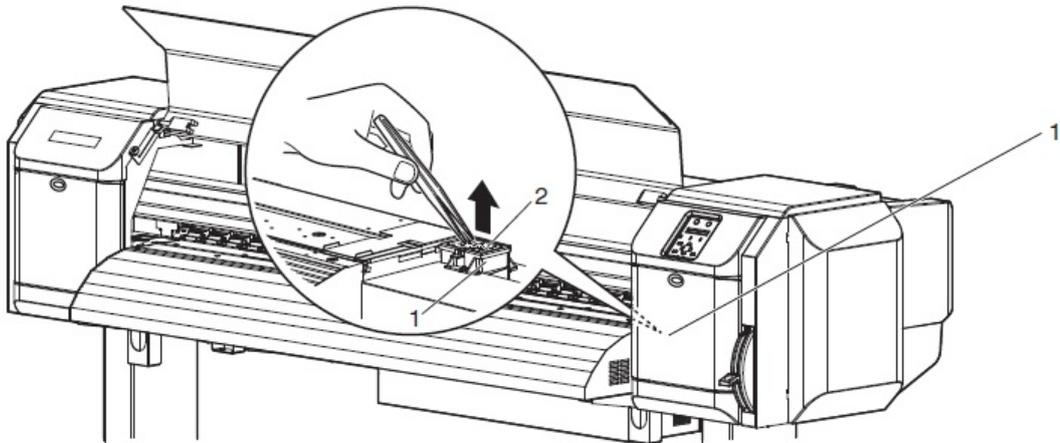
Step 3: Press the [Enter] key.

- Maintenance process starts.
- The print head moves to the left.
- “CR Maintenance: End” is displayed.

Step 4: Open the front cover.

- Replace the flushing-box sponge in a short time.
Leaving the print head at the replacement position for a long time, may result in clogging of the print head. Please limit to 15 minutes (Refer to topic 2 (2)).

Step 5: Use tweezers to remove the flushing-box sponge.



N°	Name
1	Flushing box
2	Flushing-box sponge

Caution

- **Do not drop waste fluid when replacing the flushing-box sponges. If waste fluid comes into contact with the grid roller, the surface of the grid roller will be damaged, and the media feed function may be affected.**

Step 6: Install the new flushing-box sponge.

Step 7: Close the front cover.

Step 8: Press the [Enter] key.

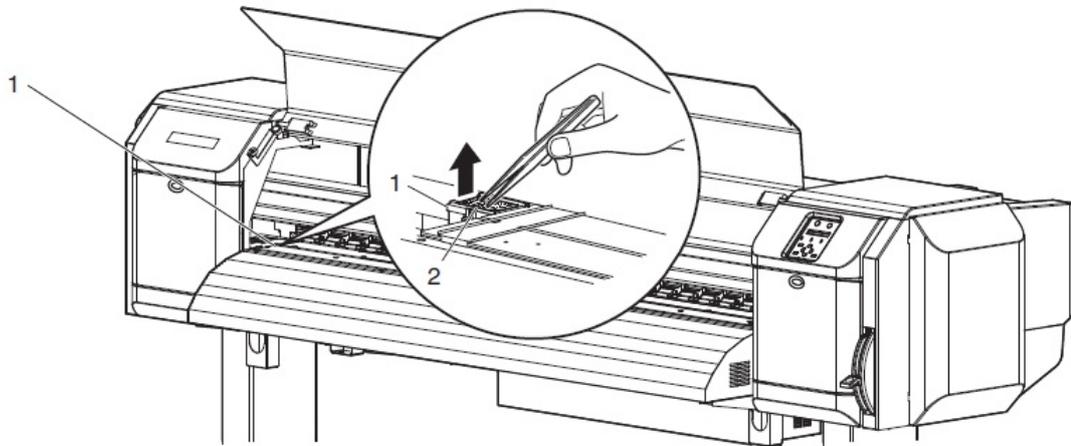
- The print head returns to its original position.
- “CR Mainte.: Start” is displayed.

Step 9: Press the [Menu] key.

- Flushing-box sponge replacement is complete.

(2-b) Replacement procedure (on the left side)

- Step 1:** If the printer is powered ON, make sure that printing or other operations are not in progress.
- Step 2:** Open the front cover.
- Step 3:** Use tweezers to remove the flushing-box sponge.



N°	Name
1	Flushing box
2	Flushing-box sponge

Caution

- **Do not drop waste fluid when replacing the flushing-box sponges. If waste fluid comes into contact with the grid roller, the surface of the grid roller will be damaged, and the media feed function may be affected.**

- Step 4:** Install the new flushing-box sponge.
- Step 5:** Close the front cover.
- Flushing-box sponge replacement is complete.

6 Disposal of waste fluids

(1) Disposal timing

Dispose of waste fluids in the following cases:

- When the waste fluid tank is more than half full.
- When “Waste Ink Tank Full” is displayed on the operation panel.

(2) Disposal method

Important

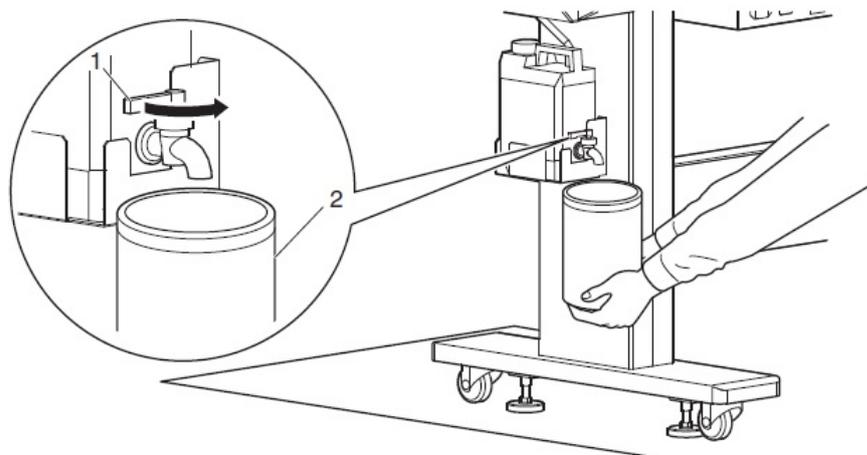
- **Please dispose according to local rules and regulations. For details, please verify the corresponding safety data sheet MSDS on the Mutoh website. Disposal can be found in section 13 of the SDS.**

Step 1: Please have an empty container such as a supply waste fluid bottle, to contain the waste fluid.

Step 2: Put some protective material on the floor under the waste fluid tank.

Step 3: Open the waste fluid tap, and transfer the waste fluid to the container.

- When transferring the waste fluid to the empty container, the waste fluid may spatter.
Make sure to put the container close to the waste fluid tap.



No.	Name
1	Waste fluid tap
2	Empty container

Step 4: After pouring the waste fluid to the empty container, close the waste fluid tap securely.

Step 5: Wipe the opening of the waste fluid tap with a cloth, etc.

Step 6: Dispose of the waste fluid as an industrial waste product.

Step 7: Disposal of waste fluids is completed.

7 Replacing the cutter (VJ-1624X only)

(1) Replacement frequency

Replace the cutter when the following situation occurs:

- When the media is not cut smoothly
- When the cut surface is feathered, etc.

(2) Replacing steps

Step 1: If the printer is powered ON, make sure that printing or other operations are not in progress.

Step 2: Display the CR Maintenance menu.

- Press the [Menu] key.
 - “Menu1: Setup>” is displayed.
 - The operation panel shifts to the Setup menu display.
- Press [>].
 - “Set1: Media Type” is displayed.
- Press [+] or [-] to select “Set20: CR Maintenance”.
- Press [Enter].
 - “CR Mainte.: Start” is displayed.
 - The display enters the CR Maintenance menu.

Step 3: Press [Enter].

- Maintenance starts.
- The print head moves to the left of the printer (cutter replacement position).
- “CR Maintenance: End” is displayed.

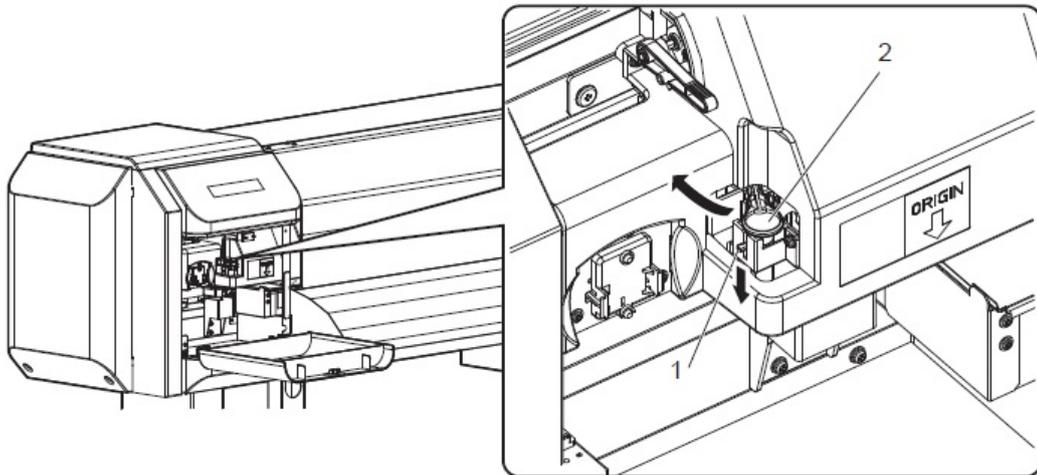
Step 4: Open the maintenance cover at the left side of the printer.

Note

- **Replace the cutter in a short time.**
Leaving the print head at the cutter replacement position for a long time may result in clogging of the print head. Please limit to 15 minutes.

Step 5: Press the tab of the cutter gently, turn the cutter holder in the direction as illustrated below.

- Do not press the tab of the cutter strongly or suddenly let it go. There is a spring in the cutter holder and it may pop out.
- Do not push the cutter all the way in. The cutter blade may damage the inside of the printer.



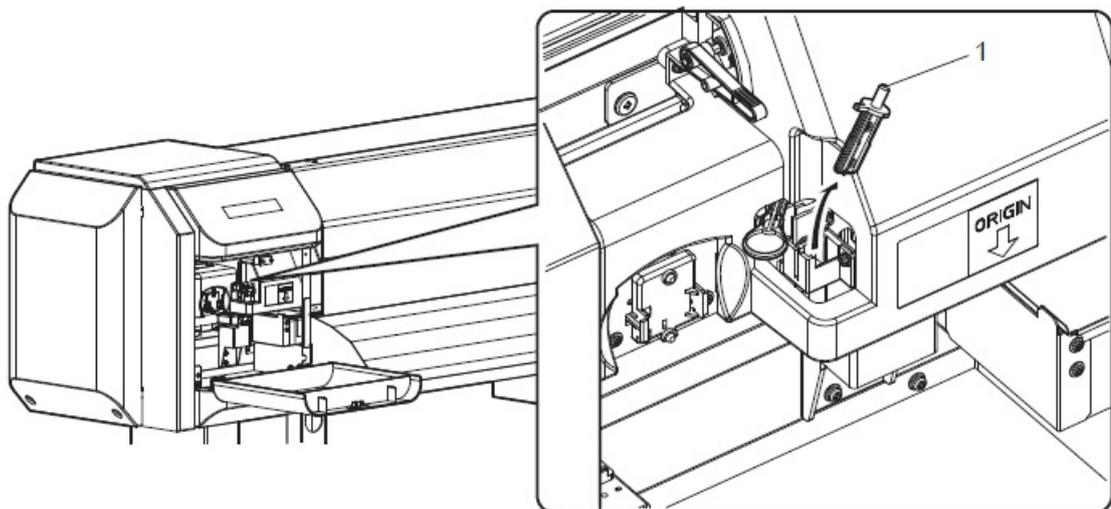
N°	Name
1	Cutter holder
2	Cutter holder lever

Step 6: Remove the cutter.

Caution

- Do not touch the blade edge. It may cause an injury.
- Do not touch the cutter blade edge with a hard substance or drop the cutter. The cutter blade may be damaged or chipped.

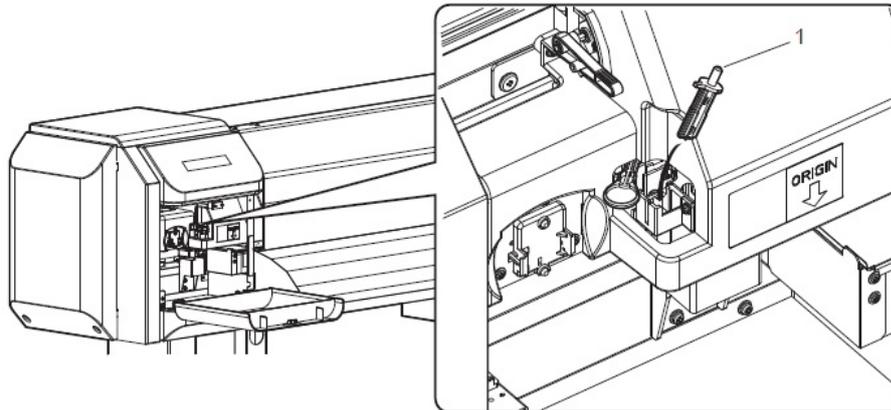
- Used cutter should be put in a plastic bag, etc, and disposed of in compliance with local ordinance and instructions of local authorities.



N°	Name
1	Cutting blade

Step 7: Install a new cutter.

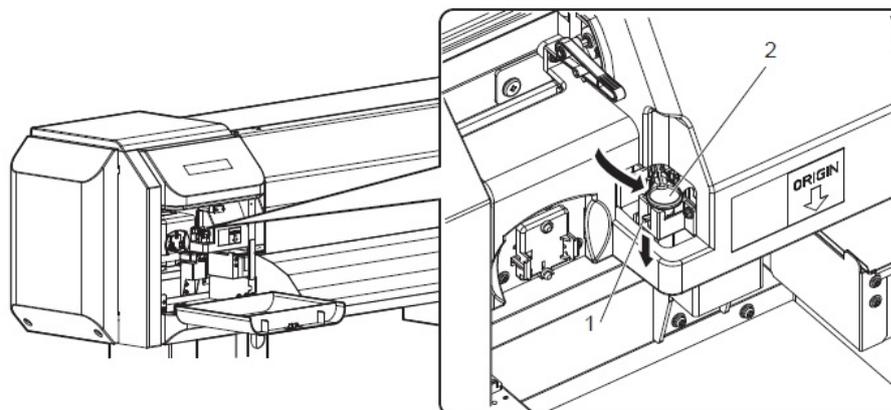
- Make sure that the spring in the cutter holder does not fly out while installing.



N°	Name
1	Cutting blade

Step 8: Press the tab of the cutter gently, return the cutter holder to its initial position.

- Do not press the tab of the cutter strongly or suddenly let it go. There is a spring in the cutter holder and it may pop out.
- Do not push the cutter all the way in. The cutter blade may damage the inside of the printer.
- Refer to the illustrations below and install the cutter holder correctly. If it is not installed correctly, it may cause an error. If an error occurs, check if the cutter holder is installed correctly.



N°	Name
1	Cutter holder
2	Cutter holder lever

Step 9: Close the maintenance cover.

Step 10: Press the [Enter] key.

- The print head returns to its original position.
- “CR Mainte.: Start” is displayed.

Step 11: Press the [Menu] key.

- Cutter replacement is complete.

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