



This reference manual is designed to supplement the M152/M153 Part 1 and Part 2 training programs.

This material is for training and subjected to change. It is not to be used exclusively as a product support document.

ALWAYS use the product's Service Manual, Detailed Descriptions Manual, Parts Catalogue, Operating Instructions , Service Bulletins , etc. when servicing the M152/M153 product.

Remember...

- ☐ This information is for training use ONLY.
- ☐ Always use a current version of the product's support documentation.
- ☐ This document is provided “As-Is.”
- ☐ All information presented is subject to change.



No additional notes

RICOH

M152/M153

User Performed Maintenance

No additional notes

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No additional notes

Overview

- The tasks expected of the user can be subdivided as follows:
 - ♦ Daily (start of each day): Make a test print to check the nozzles.
 - ♦ Daily (end of each day): The customer must clean the following parts at the end of every day.
 - » Head and surrounding area
 - » Wiper and capping station
 - At this time, check the C absorber (this is a consumable part); replace if dirty
 - » Wiper
 - » Media press
 - » Media sensors
 - » Platen
 - » Exterior surfaces
 - » Heater covers
 - » Waste ink bottle (check if the bottle is full)
 - ♦ Weekly
 - » Maintenance of the White Ink Circuit
 - » Ink discharge path
 - ♦ Consumable Replacement
 - ♦ Preparation for Storage

No additional notes

Maintenance by Users

Daily Care

No additional notes

Daily Care (Start of Each Day)

Nozzle Check - 1

- ☐ **Make a test print.**
 - ♦ This was explained in the Installation section of the course.
- ☐ **If defective nozzles are found in the printout, there is a recovery procedure.**
 - ♦ A summary is on the next slide.
 - ♦ Also, there is a more detailed explanation later in this course in the 'Head Cleaning and Troubleshooting > Procedures for Users' section.

No additional notes

Daily Care (Start of Each Day)

Nozzle Check - 2

□ Recovering from Defective Nozzles

- ♦ First, do the normal head cleaning.
 - » Press the CLEANING key and select NORMAL.
- ♦ If that does not improve the test print, do the hard head cleaning.
- ♦ If that does not improve the test print, clean the nozzles.
 - » Maintenance menu – NOZZLE WASH
 - » Set the cleaning liquid time for 1 minute.
- ♦ If that does not improve the test print, clean the nozzles again.
 - » Set the cleaning liquid time for 10 minutes.
- ♦ If the test print is still not good, do the nozzle recovery mode.
 - » Maintenance menu - NOZZLE RECOVERY
- ♦ Then make another test print, and if that is no good, replace the print head.

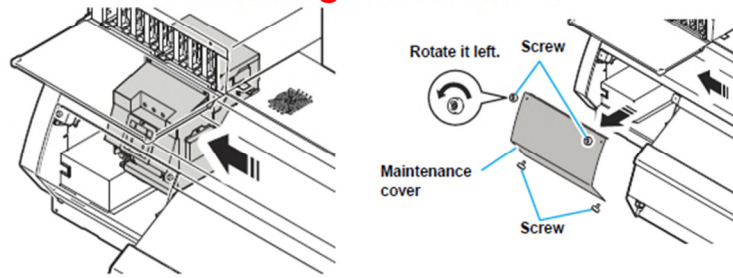
Operation Manual: Chapter 2 Basic Operations > Head Cleaning

Operation Manual, Chapter 4 Maintenance > When Nozzle Clogging Cannot Be Solved

Nozzle recovery: Service Manual > 4. Replacement and Adjustment > Adjustment Items > Nozzle Recovery

Also see this course: Head Cleaning and Troubleshooting > Procedures for Users

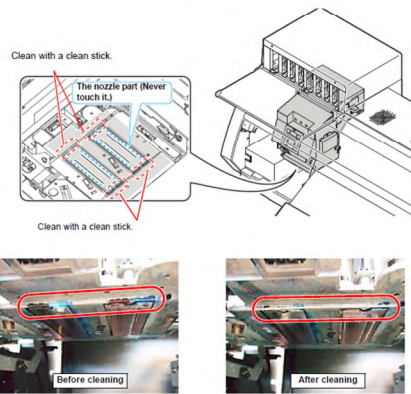
Daily Care (End of Each Day) Cleaning the Head - 1



- ☐ Do this every day.
- ☐ Press the MAINT button, then press ENTER.
- ☐ Select HEAD MAINT on the display with the up/down arrow keys, then press ENTER.
 - ♦ The carriage moves to the left side of the machine.
- ☐ Remove the left maintenance cover (4 screws).

- ☐ Operation manual: Chapter 4 Maintenance > Cleaning the Head and the Area around It (every day)

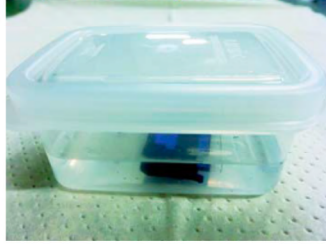
Daily Care (End of Each Day) Cleaning the Head - 2



- ❑ Remove ink and dust from the base of the head with a cleaning stick.
 - ◆ Clean around the head but never touch the nozzles.
- ❑ Press ENTER after cleaning.
- ❑ Close the left maintenance cover and press ENTER.
- ❑ The machine initializes itself.

No additional notes

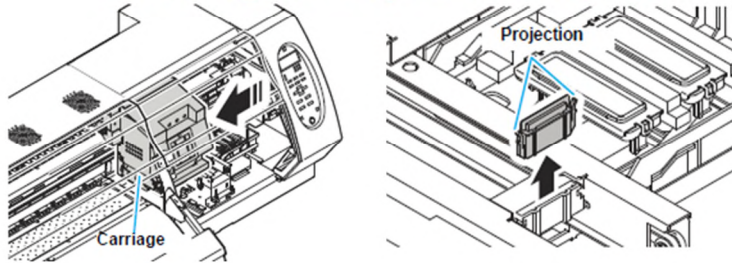
Daily Care (End of Each Day) Cleaning the Wiper and Cap - 1



- ❑ The customer should keep two wipers: one in the machine, and one being immersed in maintenance solution.
- ❑ Every day, the wipers should be exchanged and the caps cleaned.
- ❑ Required cleaning agents:
 - Kim Wipe® (SPA-0207) – do not use any other type of cloth or wipe, because fragments may adhere to the wiper
 - Cleaning liquid from the Pro Maintenance Kit Type A
- ❑ If a wiper is kept in the maintenance solution for longer than a day, it could become deformed.
- ❑ The maintenance solution should be changed once a week.

No additional notes

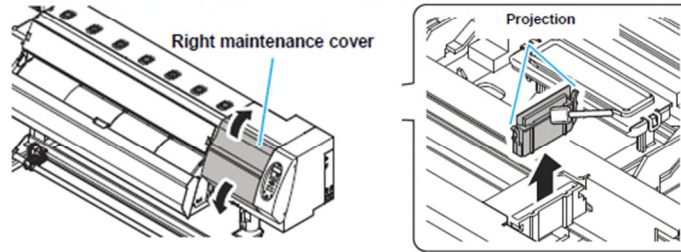
Daily Care (End of Each Day) Cleaning the Wiper and Cap - 2



- ❑ To take out the wiper, first move the carriage to the maintenance position.
 - ◆ Press the MAINT button, then press ENTER.
 - ◆ Select STATION MAINT on the display with the up/down arrow keys, then press ENTER.
 - » The carriage moves to the maintenance position.
 - » Don't move the carriage by hand.

No additional notes

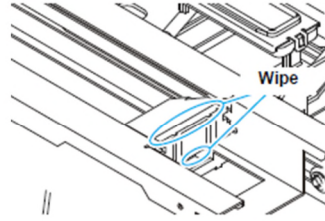
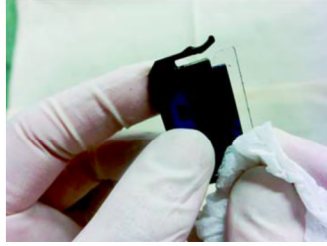
Daily Care (End of Each Day) Cleaning the Wiper and Cap - 3



- Open the right maintenance cover then remove the wiper by holding the protrusions at its both ends.

No additional notes

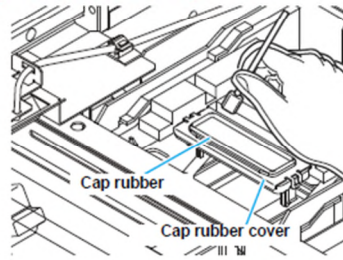
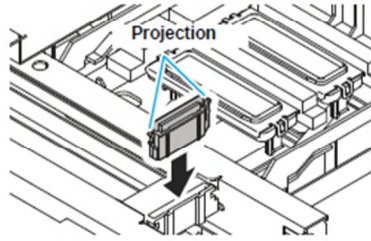
Daily Care (End of Each Day) Cleaning the Wiper and Cap - 4



- ☐ Take the other wiper out from the maintenance solution, and wipe it. Make sure that no fragments of media or cloth etc remain on the wiper surface.
- ☐ Clean the wiper slider with the cleaning liquid. Remove all solution after cleaning.

No additional notes

Daily Care (End of Each Day) Cleaning the Wiper and Cap - 5

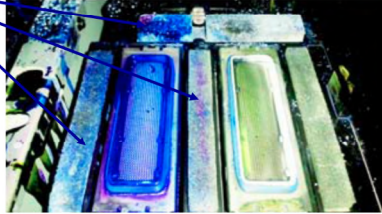


- ☐ Put back the wiper.
- ☐ Clean the caps (rubbers and covers) with cleaning liquid.
Wipe off all solution after cleaning.
- ☐ After cleaning is finished, press ENTER, then close the maintenance cover and press ENTER again.
- ☐ The machine initializes itself.

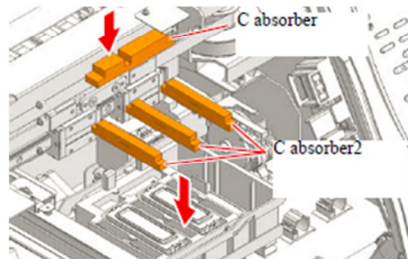
- ☐ Replace the wiper if it is deformed, if you cannot remove the ink that is stuck to it, or if the machine asks you to replace it. The user replaces the wiper at a set time, and the machine displays when it is time to replace the wiper.

Daily Care (End of Each Day) Check the C Absorbers

Dirty C
Absorbers

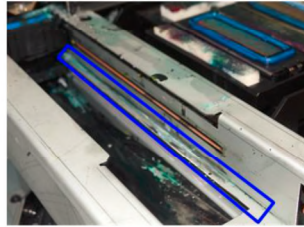


□ Replace if dirty

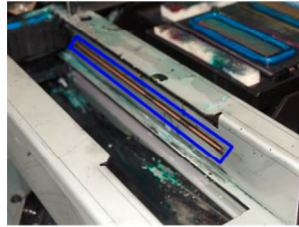


No additional notes

Daily Care (End of Each Day) Clean the Wiper Slide Rail



Correct

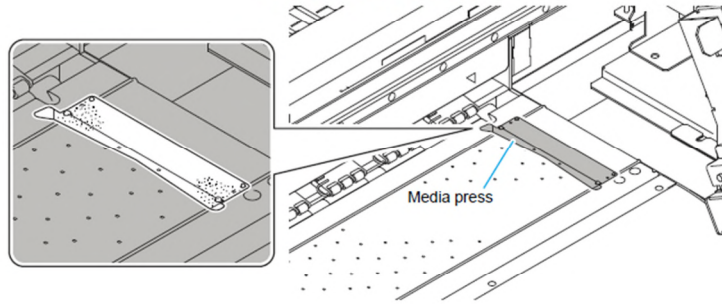


Incorrect

- ☐ Remove ink with a cleaning stick dipped in maintenance solution.
- ☐ Clean the area shown in the diagram on the left.
- ☐ Do not clean the area shown in the diagram on the right.

No additional notes

Daily Care (End of Each Day) Media Press

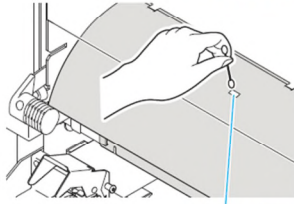


❑ Remove dust from the media press

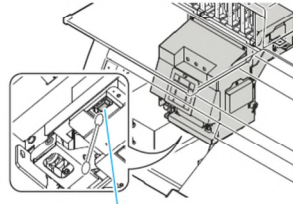
- ◆ Such dust can interfere with media feed or block the nozzles
- ◆ Use the cleaning liquid from the Pro Maintenance Kit Type A

No additional notes

Daily Care (End of Each Day) Media Sensors



Media sensor

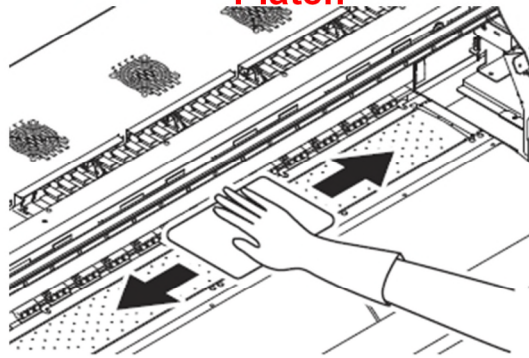


Media sensor

- ☐ The media sensors are located on the platen in the backside and the bottom surface of the head. When the sensor is covered with dust, etc., it may cause false detection of media.
- ☐ Using a cotton swab, remove the dust, etc. accumulated on the surface of the sensor.
- ☐ To clean the sensor on the lower surface of the head, move the carriage to the left end (procedure is explained earlier) and then clean it.
- ☐ Do not use a solvent. If a liquid must be used, use a dilute solution of a neutral detergent in water.

No additional notes

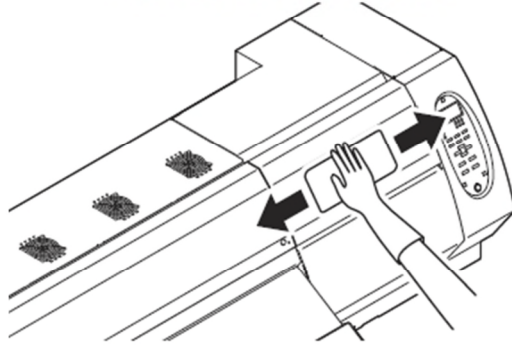
Daily Care (End of Each Day) Platen



- ❑ Remove dust with a soft brush or dry cloth.
- ❑ If ink is present, wipe with a paper cloth and a small amount of cleaning liquid.
 - ◆ Use the cleaning liquid from the Pro Maintenance Kit Type A

No additional notes

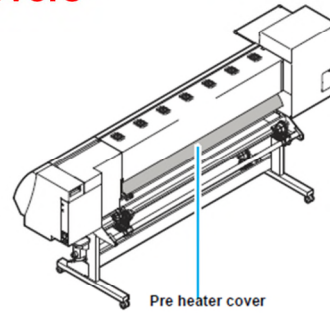
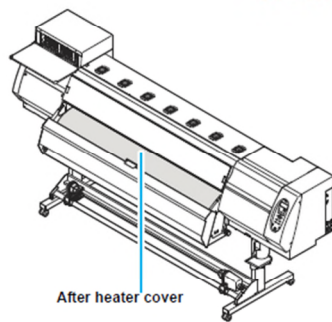
Daily Care (End of Each Day) Exterior Surfaces



- ☐ Soft cloth and water
- ☐ Clean daily to prevent dust from entering sensitive parts of the machine

No additional notes

Daily Care (End of Each Day) Heater Covers



□ Soft damp cloth

No additional notes

Daily Care (End of Each Day)

Waste Ink Bottle

- ☐ Check the bottle and empty if it is full.

No additional notes

Maintenance by Users

Weekly Care

No additional notes

Weekly Care Maintenance for White Ink

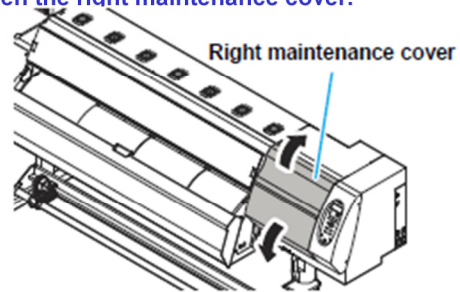
- ☐ Do this procedure once a week.
- ☐ If not printing for more than two weeks, white ink may precipitate in the ink cartridge or inside the machine.
- ☐ When ink precipitates, the nozzle may be clogged.
- ☐ Press the FUNCTION key, select the MAINTENANCE menu, and select WHITE MAINT.
- ☐ Automatic discharge and filling for the white ink is done.

No additional notes

Weekly Care

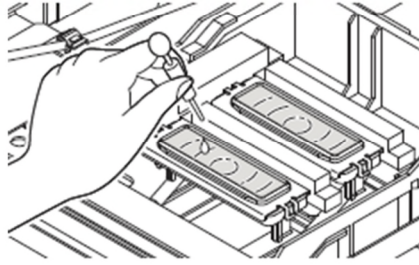
Washing the Ink Discharge Path - 1

- ☐ Do this procedure at the end of every week (before the weekend) to prevent the ink nozzles from clogging.
- ☐ Press the MAINT button, then press ENTER.
- ☐ Select DISWAY WASH on the display with the up/down arrow keys, then press ENTER.
- ☐ Then, open the right maintenance cover.



No additional notes

Weekly Care Washing the Ink Discharge Path - 2



- ☐ Fill the cap with maintenance solution. Fill it up until it is almost overflowing.
- ☐ Close the maintenance cover and press ENTER.
- ☐ The machine cleans the ink discharge path. It takes about 30 seconds.

No additional notes

Maintenance by Users

Preparation for Storage

No additional notes

Preparation for Short-term Storage

- ❑ Do this procedure every week if the machine will not be used for a week or longer, but with the main power kept on. It cleans the head nozzles and ink discharge path.
- ❑ Press the MAINT button, then press ENTER.
- ❑ Select CUSTODY WASH on the display with the up/down arrow keys, then press ENTER.
 - ♦ The carriage moves to the maintenance position.
- ❑ Details of the procedure are in this section of the operation manual:
 - ♦ Chapter 4 Maintenance > Maintaining the Capping Station > When the Machine Is Not Used for a Long Time (CUSTODY WASH)

- ❑ Operation Manual: Chapter 4 Maintenance > Maintaining the Capping Station > When the Machine Is Not Used for a Long Time (CUSTODY WASH)

Preparation for Storage with Power Off

- If the machine will be stored with power off, there could be nozzle errors when you start the machine again. So, the technician has to prepare the machine.
 - ◆ This is explained in the 'Maintenance for Technicians' section of the course.
 - ◆ With this procedure, the ink supply tubes are also cleaned.

No additional notes

Maintenance by Users

Replacing Consumables

No additional notes

Replacing Consumables Overview

- The customer can replace the following consumables
 - ◆ Wiper (removal was explained previously)
 - ◆ Waste ink bottle
 - ◆ Cutter blade
 - ◆ White ink filter
 - ◆ C absorbers

No additional notes

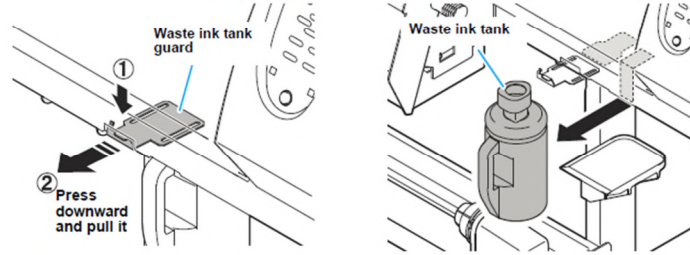
Replacing Consumables

Waste Ink Bottle - 1

- ☐ Waste ink from head cleaning etc goes into the waste ink bottle.
- ☐ The machine estimates how much is in the bottle. When the bottle reaches 80% full, the display shows 'Check waste ink'.
- ☐ The user should look at the level in the bottle, and if it is not 80%, press the **MAINTENANCE** key, then adjust the amount with the arrow buttons on the operation panel.

- ☐ Operation manual: Chapter 4 Maintenance > Replacing consumables > If a Waste Ink Bottle Confirmation Message Appears

Replacing Consumables Waste Ink Bottle - 2

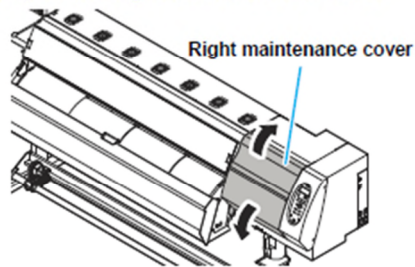


- ❑ **To remove the waste ink bottle:**
 - ◆ Press the waste ink bottle guard down and pull it towards the front.
 - ◆ Pull out the waste ink bottle. Put a cap on it and dispose of it in the correct manner.
- ❑ **After installing a new bottle, close the cover and press ENTER (this resets the counter).**

No additional notes

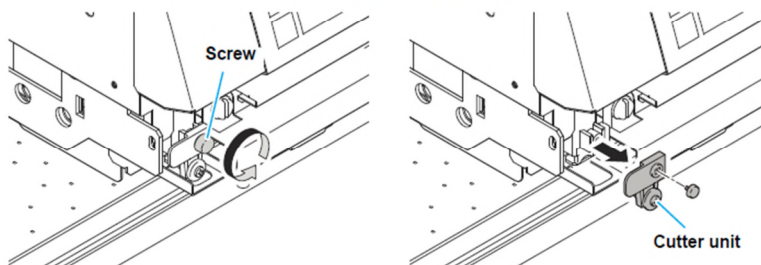
Replacing Consumables Cutter Blade - 1

- ❑ The customer can replace this at any time.
- ❑ When replacing the cutter blade, place a sheet of paper under the cutter blade. This will help pick up the cutter blade if it drops.
- ❑ Move the carriage to the maintenance position.
 - ♦ Press MAINT, then select STATION MAINT
- ❑ Then open the right maintenance cover.



No additional notes

Replacing Consumables Cutter Blade - 2



- ☐ Replace the cutter.
- ☐ Close the cover and press ENTER.

No additional notes

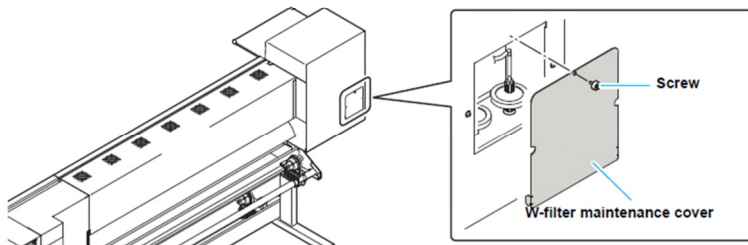
Replacing Consumables

White Ink Filter - 1

- ❑ **The user must replace this at the following times:**
 - ◆ When 'Replace Filter (White)' is displayed
 - ◆ When the machine detects an error when checking the ink pack or supplying ink
 - ◆ Missing nozzles for white ink cannot be recovered
- ❑ **After replacing the white ink filter, the user must:**
 - ◆ Fill up the white ink
 - ◆ Clear the life counter for the filter

- ❑ Operation manual: Chapter 4 Maintenance > Replacing consumables > When white ink filter becomes required to be replaced

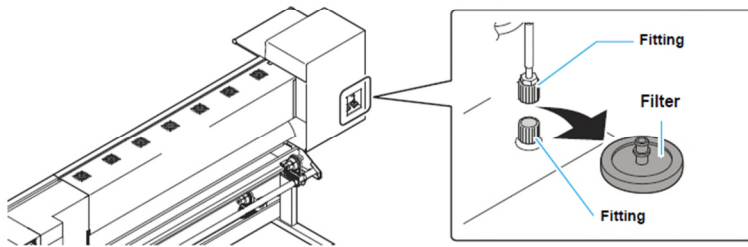
Replacing Consumables White Ink Filter - 2



- ☐ Turn the power off (both switches must be off).
- ☐ Remove the maintenance cover for the white ink filter.

No additional notes

Replacing Consumables White Ink Filter - 3

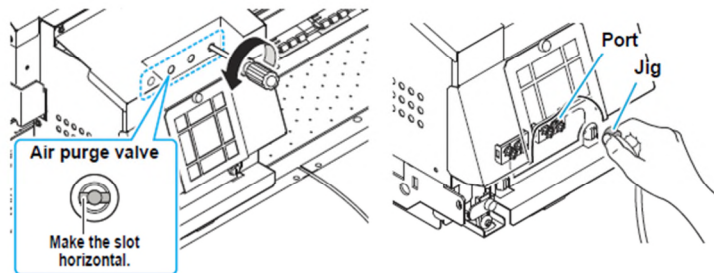


- ☐ Install a new filter.
- ☐ Make sure that the fitting is secure, or ink may leak.

No additional notes

Replacing Consumables White Ink Filter - 4

- ❑ After replacing the cover, turn the power on.
- ❑ Fill up the white ink path, then purge air from the white ink path.
 - ♦ Follow the procedure in the operation manual.
 - ♦ You will need to open the air purge valve and use the ink filling jig, as explained already in Ink Filling (Installation section).
 - » Wrap a paper towel around the port so that any leaks of ink do not get on the floor.



No additional notes

Replacing Consumables

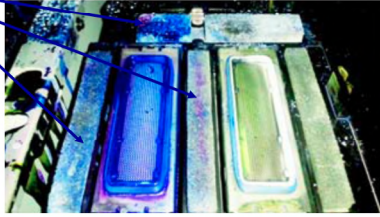
White Ink Filter - 5

- To clear the counter, do the following:
 - ◆ Press the FUNCTION key, select the INFORMATION menu, and select USAGE.
 - ◆ Press ENTER until Filter (White) appears.
 - ◆ Press the MAINT key, then press ENTER to reset the counter.

No additional notes

Replacing Consumables C Absorbers - 1

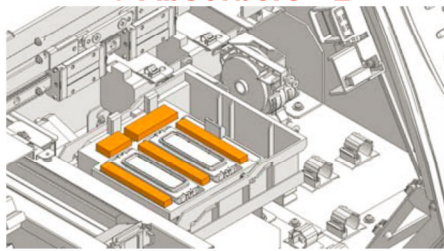
Dirty C
Absorbers



- ❑ Press the MAINT button, then press ENTER.
- ❑ Select STATION MAINT on the display with the up/down arrow keys, then press ENTER.
 - ♦ The carriage moves to the maintenance position.
 - ♦ Don't move the carriage by hand.

No additional notes

Replacing Consumables C Absorbers - 2



- ☐ Open the right maintenance cover then remove the C absorbers.
- ☐ Press ENTER, then close the maintenance cover and press ENTER again.
- ☐ The machine initializes itself.

No additional notes