MUTOH

PJ-2508UF
&
G5 Led-UV Inks:

General Use &
Maintenance

Use & Maintenance of the PJ-2508UF in combination with Mutoh's G5 Led UV Inks

1. Advised settings for best jetting performance when using white ink

White ink is vulnerable to nozzle drop out when the printer is left idle or when printing CMYK data without using white ink. To keep all nozzles ready to fire your PJ printer is equipped with an automatic 'micro vibration feature', which will exercise the nozzles without consuming ink.

Additionally, the PJ printer features configurable Print Head Protection settings that take control over the printer's spitting functionality.

Please find below an overview of the recommended settings as a starting point.

1.1. Idle Spitting

- Set to **0.5 s** spitting every **60 seconds**. Spitting frequency: **1000 Hz**.

1.2. Spitting during printing (Settings for 'Auto Spitting Cycle' & 'Hi-Freq. spitting').

- Set 'Auto Spitting Cycle' to: **120 seconds**.
- Set Hi-Freq. spitting to: **1000 Hz**.
- Set Hi-Freq. spitting Time to   **2 seconds**.

Important:

- When printing onto objects with a thickness smaller than 10 mm, you can gain production time by leaving the 'Go Down To Spitting' box unticked. This will prevent the shuttle to move down and up while performing the spitting.

- Please note however, that performing spitting in combination with a high position of the print shuttle will cause uncured ink fly, which you need to avoid at any time.
  Therefore, **when printing onto objects thicker than 10 mm, always make sure that the 'Go Down To Spitting' box is ticked.**

- Alternatively, when printing on thicker objects, you can print the CMYK and white layers in split tables without spitting during printing and remember to perform a nozzle check/purging prior to launching the white data.

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2. Daily & General

Make sure that the printer is switched ON and that it has acclimatised for minimum 15 minutes.
This allows the inks to warm up (sub tanks and print heads).

2.1. Start-Up:

2.1.1. Purge the WHITE head(s) and wipe them using a lint free cloth.
DO NOT use cleaning liquid on the cloth.

2.1.2. Perform a nozzle check.

2.1.3. If needed, purge the CMYK & Clear heads and wipe them using a lint free cloth.
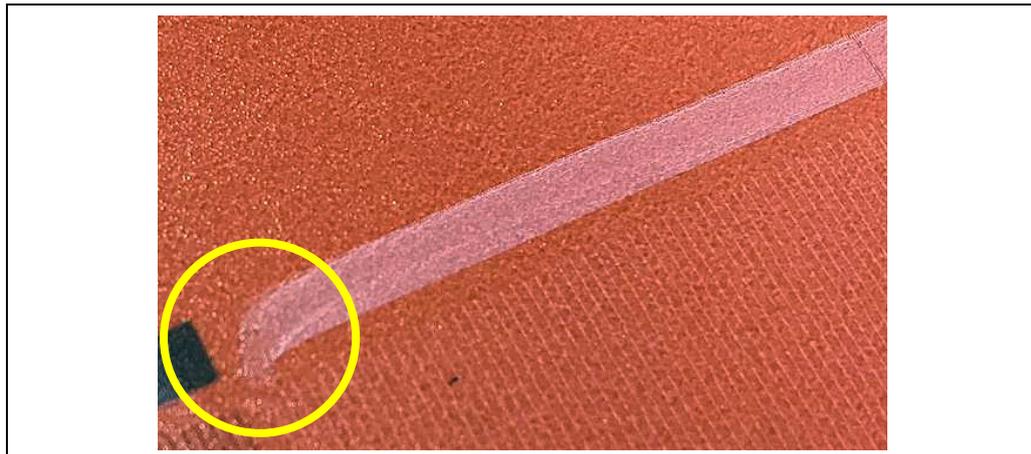**DO NOT** use cleaning liquid on the cloth.

2.2. Every 4 hours:

2.2.1. Purge the WHITE channel and wipe the white heads using a lint free cloth.
DO NOT use cleaning liquid on the cloth.
This action needs to be performed regardless if white is being printed or not.

2.2.2. Perform a nozzle check.

2.3. As required

2.3.1. Occasionally it will be required to perform venting of the ink system. Particularly the white channel may require venting.

Venting of the white is required when you see nozzles fanning out like in the picture below.

2.3.2. The correct procedure to perform venting ('Purging' with 'Bleeding') is explained in the PerformanceJet Operation Manual – Chapter 3 How to Operate the printer – How to do purging? How to do ink bleeding?

Important:

- The WHITE channel needs to be purged **every day at start-up.**
- Do not close white ink line valves and do not de-activate spitting nor other automated standby or maintenance functions.
- It is important to maintain a good nozzle status. If nozzles are missing, make sure to address this immediately, otherwise nozzles may become permanently blocked.
- Do not use foreign liquids nor cleaning agents from other UV printers to solve nozzle issues. They may be incompatible with the G5 inks and cause permanent damage.

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3. Proper shut down

3.1. For 1 night - CMYK, WHITE & VARNISH:

3.1.1. Perform a nozzle check.
3.1.2. If required, purge the heads to recover missing nozzles
and wipe the heads with a clean lint free cloth.
DO NOT use cleaning liquid on cloth.
3.1.3. Ensure that the nozzle status is good before switching off the printer.
3.1.4. Move the carriage to the HOME position
3.1.5. Quit the printer controller.
3.1.6. Shut down the printer [*].

[*] In case the operator performs a full shut down, the negative pressure is interrupted. This may lead to ink leakage. In that case, make sure to put the pressure and ink valves in closed position.

3.2. For 2 days up to 1 week – CMYK, White & Varnish:

3.2.1. Perform a nozzle check.
3.2.2. If required, purge the heads to recover missing nozzles
and wipe the heads with a clean lint free cloth.
DO NOT use cleaning liquid on cloth.
3.2.3. Ensure that the nozzle status is good before switching off the printer.
3.2.4. Move the carriage to the HOME position
3.2.5. Quit the printer controller
3.2.6. Put air pressure and ink valves in the closed position.
This avoids air/ink leaks during shut down.
3.2.7. Shut down the printer [*].

3.3. For more than 1 week – CMYK, WHITE and VARNISH:

3.3.1. Perform a nozzle check.
3.3.2. If required, purge the heads to recover missing nozzles
and wipe the heads with a clean lint free cloth.
DO NOT use cleaning liquid on cloth.
3.3.3. Remove the CMYK inks, the White ink and the varnish from the main ink tanks.
3.3.4. Rinse the ink tanks using Mutoh G5 **C**leaning & **M**aintenance **F**luid (CMF) Flush.
Order code of the correct cleaning solution: PJUVG5-CL3000E.
3.3.5. Fill all tanks with Mutoh G5 CMF Flush.
3.3.6. Purge the ink lines with Mutoh G5 CMF Flush until the cleaning liquid reaches the sub tank
outlets. Continue until the fluid exiting the sub tank outlets is transparent.
3.3.7. Let the inks and varnish bleed out of the head.
3.3.8. Perform a manual flush using Mutoh G5 CMF Flush.
3.3.9. Put air and ink valves in the closed position.
3.3.10. Move the carriage to the HOME position.
3.3.11. Quit the printer controller.
3.3.12. Shut down the printer.

Important:

Removing the cleaning liquid:

- Remove the Mutoh G5 CMF Flush from the ink tanks and replace it with inks/varnish.
- Purge the ink lines with inks/varnish until the inks/varnish reach the sub tank outlets.
Continue until the fluids exiting the sub tank outlets are coloured solid.
- Use the bleeding procedure to remove remaining cleaning liquid out of the heads.
Continue until the fluids exiting the head outlets are coloured solid.
- Execute purging until the inks/varnish exit from the nozzle rows.
- Perform a nozzle check and, if required, purge again as mentioned in the daily start-up.

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4. Daily or as required/when the buzzer sounds

- As required, clean the print table.
- Refill the ink tanks when the buzzer sounds.
- Drain the waste ink when the buzzer sounds.
- Refill the cooling liquid when the buzzer sounds.

5. Every Month

- Verify if the negative pressure values are still set correctly. Adjust them if needed.
- Clean the UV lamps.
- Apply grease at all areas requiring lubrication.

6. Every 6 Months

- Replace all disc filters.
- Replace all capsule filters.
- Replace the check valve.

7. Every 12 Months – To be carried out by trained service technician

- Replace all ink pumps.
- Replace air pumps (Negative Pressure & Positive Pressure).
- Replace slide bearing.

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