

PJ-2508UF

PJUVG5 Ink

Handling and Maintenance Guide

(When using white ink)

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Printer Installation

No changes in the printer installation procedure. Follow the PJ-2508UF Startup Guide.

Installation location requirements

- No changes.

Unpacking procedure

- No changes.

Assembly procedure

- No changes.

Disc filter

- In addition to existing white type, black disc filter (less than 10um) can be used in the carriage.



Initial flushing procedure

- No changes.

Cleaning liquid

- Cleaning liquid for PJUV11 or PJUVG5 can be used.

Printer Controller setup

- Change the settings marked in red as shown here from default.

Spitting

PrintHead Protection		
Idle Spitting Freq.:	1000	HZ
Idle Spitting Interval:	60	Sec
Idle Spitting Time:	0.5	Sec
Auto Spitting Cycle:	120	Sec
Hi-Freq. SpittingFreq.:	1000	HZ
Hi-Freq. Spitting Time:	2	Sec
<input checked="" type="checkbox"/> Spitting During Pause <input checked="" type="checkbox"/> High Spitting Before Print		
<input checked="" type="checkbox"/> Go Down to Spitting		



Note

The Auto Spitting Cycle setting differs from PJUV11.

To use media over 10 mm thick, make sure to check the checkbox "Go Down to Spitting".

White stirring

Other Setting

Carriage Motion Buffer: 360 mm

White Stirring Time: 30 Sec

White Stirring Interval: 60 Sec

UV lamp

UV Lamp Setting

Lamp1 Distance: 400 mm

Lamp2 Distance: 270 mm

UV Lamp Buffer Distance: 10 mm

Curing Compensation Length: 0 mm

Varnish Curing Height: 0 mm

Note

You need Maintenance Password to change the settings.

This change is not specific to PJUVG5 ink. It reduces the risk of UV light reflection to the nozzle plates.

Print head waveform file

- Use "PJ2508UF_WF_V200" for PJUVG5 ink.

PrintHead Waveform: PJ2508_WF_V200

PrintHead Voltage: Manufacture Voltage

Buttons: Upload, Apply, Voltage Correction

Print head voltage

- Enter the voltage written on the flexible cables of each print head.

PrintHead Voltage: Manufacture Voltage

Buttons: Apply, Voltage Correction

PH Parameters	PH1	PH2	PH3	PH4	PH5	PH6
A	19.9V	18.0V	19.4V	19.4V	19.6V	18.7V
B	19.4V	18.0V	19.8V	19.6V	19.5V	18.7V
C	19.1V	17.9V	19.6V	19.9V	19.1V	18.7V
D	19.2V	18.2V	19.3V	19.9V	19.4V	18.6V
Temp	38.0C	38.0C	38.0C	38.0C	38.0C	38.0C

Print head temperature

- Set to 38.0°C.

C	19.1V	17.9V	19.6V	19.9V	19.1V	18.7V
D	19.2V	18.2V	19.3V	19.9V	19.4V	18.6V
Temp	38.0C	38.0C	38.0C	38.0C	38.0C	38.0C

Offset voltage

- Enter -4V.

PrintHead Wavetform:

PrintHead Voltage:

PH Parameters	PH1	PH2	PH3	PH4	PH5	PH6
A	-4.0V	-4.0V	-4.0V	-4.0V	-4.0V	-4.0V
B	-4.0V	-4.0V	-4.0V	-4.0V	-4.0V	-4.0V
C	-4.0V	-4.0V	-4.0V	-4.0V	-4.0V	-4.0V
D	-4.0V	-4.0V	-4.0V	-4.0V	-4.0V	-4.0V
Temp	38.0C	38.0C	38.0C	38.0C	38.0C	38.0C



Note

You will need to adjust offset voltage depending on ink firing condition.

Carriage speed

X Axis (Carriage)		Y Axis (Gantry)	
Min Speed:	<input type="text" value="200"/> mm/s	Min Speed:	<input type="text" value="30"/> mm/s
Low Speed:	<input type="text" value="400"/> mm/s	Low Speed:	<input type="text" value="30"/> mm/s
Normal Speed:	<input type="text" value="800"/> mm/s	Normal Speed:	<input type="text" value="40"/> mm/s
High Speed:	<input type="text" value="1200"/> mm/s	High Speed:	<input type="text" value="50"/> mm/s
Max Speed:	<input type="text" value="1200"/> mm/s	Manual Speed:	<input type="text" value="50"/> mm/s
Acceleration:	<input type="text" value="4152"/> mm/s ²	Acceleration:	<input type="text" value="676"/> mm/s ²
Motion Factor:	<input type="text" value="0.141157"/> <input type="button" value="Calculate"/>	Motion Factor:	<input type="text" value="1.37663"/> <input type="button" value="Calculate"/>
Move Length:	<input type="text" value="1000"/> mm	Move Length:	<input type="text" value="100"/> mm

Motion factor

- Click **Calculate** in both X Axis (Carriage) and Y Axis (Gantry) options.

X Axis (Carriage)		Y Axis (Gantry)	
Min Speed:	<input type="text" value="200"/> mm/s	Min Speed:	<input type="text" value="30"/> mm/s
Low Speed:	<input type="text" value="400"/> mm/s	Low Speed:	<input type="text" value="30"/> mm/s
Normal Speed:	<input type="text" value="800"/> mm/s	Normal Speed:	<input type="text" value="40"/> mm/s
High Speed:	<input type="text" value="1200"/> mm/s	High Speed:	<input type="text" value="50"/> mm/s
Max Speed:	<input type="text" value="1200"/> mm/s	Manual Speed:	<input type="text" value="50"/> mm/s
Acceleration:	<input type="text" value="4152"/> mm/s ²	Acceleration:	<input type="text" value="676"/> mm/s ²
Motion Factor:	<input type="text" value="0.141157"/> <input type="button" value="Calculate"/>	Motion Factor:	<input type="text" value="1.37663"/> <input type="button" value="Calculate"/>
Move Length:	<input type="text" value="1000"/> mm	Move Length:	<input type="text" value="100"/> mm

Calibration

- No changes in the calibration procedure.

Bi-Direction Offset
 Low Speed: Normal Speed: High Speed:

Grayscale Calibration
 Quick Calibration

Vertical Calibration

Horizontal Calibration

Step Size

X-Dir Color Offset

Y-Dir Color Offset

Bi-Dir Offset

Reset

Apply

Step Size	Standard	2PASS	3PASS	4PASS	6PASS	8PASS	9PASS	12PASS	16PASS
Revise Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Speed Mode: Offset Direction:

Color Offset		C	M	Y	K	W	V
Group1	Y Offset	0.0	0.5	0.0	0.5	0.0	0.5
	R1	0	0	0	0	0	0
	R2	0	0	0	0	0	0
Group2	Overlap	3.0	3.0	3.0	3.0	3.0	3.0
	R1	0	0	0	0	0	0
	R2	0	0	0	0	0	0

Note

“X-Dir Color Offset” and “Bi-D Offset” calibration should be performed with the checkbox “Grayscale Calibration” enabled and disabled.

Quick Calibration should be performed only with the checkbox enabled.

Printer Settings

Negative pressure

1. Reset the negative pressure.
2. Set the negative pressure to the value below:
 - CMYK recommended value: -4.0 kpa
 - WV recommended value: -4.3 to -4.4 kpa
3. If print quality is not consistent, determine the limit value of negative pressure that you see ink drop slowly coming out from the nozzles. Then subtract -0.3 kpa to -0.4 kpa from the limit value to set the negative pressure. To check the limit value, turn the trim pot on the negative pressure control board.

Ink Handling

This product uses following chemicals:

- UV curable ink
- Cleaning liquid

Before using PJUVG5 ink, read the Safety Data Sheet (SDS) to make sure you use it safely. Post the SDS in the workplace in accordance with the regulations. SDS should be provided at the time of purchase.

When handling ink, wear Nitrile gloves (white) over Polyethylene gloves (pink).



Please wear a protective apron and safety goggles with side shields as well.

Avoid skin contact with uncured ink.

- **When using your printer**, wear gloves, safety goggles or glasses, and protective clothes.
- To perform a task that your skin will get in contact with ink (such as handling ink or waste ink, print head cleaning), be sure to wear supplied gloves or solvent resistant gloves for protection.
- Change the gloves if contaminated with ink.
- If on skin, immediately wash with soap and plenty of water for 15 minutes. Seek medical attention if irritation persists.
- If in eyes, wash with plenty of water for 15 minutes and seek medical attention immediately.
- If swallowed, immediately rinse mouth with water and seek medical attention. Do not induce vomiting.

Powering on the printer - Printing

Powering on

- Once your printer is powered on, wait at least 15 minutes until ink in the sub tanks and print heads warms up. The warming-up time varies depending on the workplace environment.
- Perform purging in the white ink channel.
In case other color suffers from nozzle clogging, perform purging.

Before printing

- Run a nozzle check to make sure all nozzles are working properly.
In case of nozzle clogging, perform purging.
If the problem still persists, perform head flushing.

Every 4 hours

- Perform purging in the white ink channel for nozzle protection.
Even if you do not print with white ink, you must perform purging.

When unable to achieve consistent print quality

- If purging does not help to clear nozzle clogging or you are unable to achieve consistent print quality, perform bleeding.
- If nozzle clogging still persists, perform head flushing.

Purging

- To clean ink on the nozzle plate, use a lint-free polyester cloth to wipe off.
Do not moisten the cloth with cleaning liquid or any other liquid.

Shutting down the printer

The shutdown procedure varies depending on the period your printer is not in use.

Before powering off, you should always run a nozzle check to make sure all nozzles are working and lower the carriage to the bottom for the print head protection.

Overnight protection

If you are not using your printer for three days, follow these steps.

1. Before powering off, run a nozzle check to make sure all nozzles are working properly.
2. If needed, perform purging to clear nozzle clogging.
3. Move the carriage to HOME position.
4. Exit Printer Controller.
5. Shut down your printer.
6. Keep the Main Power on.

Mid-term protection

If you are not using your printer for over three days but less than two weeks, or when power supply may be interrupted, follow these steps.

1. Before powering off, run a nozzle check to make sure all nozzles are working properly.
2. Rotate both air valve and ink valve to CLOSE position.
3. Exit Printer Controller.
4. Shut down your printer.
5. Shut down the Main Power.

Long-term protection

If you are not using your printer for over two weeks, follow these steps.

1. Before powering off, run a nozzle check to make sure all nozzles are working properly.
2. Empty the remaining ink from the ink tank into the original ink bottle or a waste bottle. Pour the cleaning liquid into the tank to clean inside.
3. Fill the ink tank with cleaning liquid.
4. Perform purging until clear cleaning liquid comes out from the outlet of the sub tank.
5. Perform head flushing.
6. Continue flushing until clear cleaning liquid comes out from the nozzles.
7. Rotate both air valve and ink valve to CLOSE position.
8. Exit Printer Controller.
9. Shut down your printer.
10. Shut down the Main Power.

Recovery from long-term protection

- 1.** Remove the remaining cleaning liquid from the ink tank.
- 2.** Perform purging until no more cleaning liquid comes out from the outlet of the sub tanks.
- 3.** Perform bleeding to drain cleaning liquid from the print head.
- 4.** Fill the ink tank with PJUVG5 ink.
- 5.** Perform purging until ink drop comes out from the print head.
- 6.** Perform bleeding until no more air comes out from the bleeding tube.
- 7.** Run a nozzle check to make sure all nozzles are working properly.
- 8.** If needed, perform purging or bleeding.

Regular Maintenance

Daily & As needed

- Clean the table surface.
- Refill ink.
- Empty the waste ink tray.
- Fill cooling liquid.
- Perform purging, bleeding, or head flushing.

Monthly

- Check the negative pressure value.
- Clean the UV lamp.
- Apply grease to the x rail and z-axis screw.

Every 6 months

- Replace all disc filters.
- Replace all capsule filters.
- Replace all check valves.

Once a year (qualified service personnel only)

- Replace all ink pumps.
- Replace all air pumps.
- Replace slide bearing.
- Dispose of ink remaining in the ink tank (to refresh ink).

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