JF-240UV

User Manual

http://www.GCCworld.com

GCC GCC Club

V.7 2019 May.

Dear Sir / Madam,

Thank you for choosing GCC and the JF-240UV Flatbed Printer. You can be assured that this machine meets the highest safety standards while using technological innovations shared by no other UV printer. JF-240UV Flatbed Printer is backed by GCC, a truly international company that is dedicated to help your business grow.

We at GCC are proud to introduce the JF-240UV Flatbed Printer, our most technologically advanced UV printer to date. This easy to operate machine has been designed with quality, productivity, and safety in mind. With innovations like SmartMESH™, patented color varnish, and outstanding quality with high productivity, the JF-240UV is clearly on the cutting edge of all UV inkjet systems.
GCC understands that a creative technical background is the key to successful growth in the ever-changing information economy. We have a strong team of R&D experts who propel our company to new heights. From product development to manufacturing, our engineers are dedicated to innovation and quality.

Guiding our solid technical base is a world-class management team. At GCC, our leaders bring together marketing, technical support, research development and distribution experts to create an international network to meet your demands. Over the years, this network has been able to span throughout the globe. Our technical support staff is committed to provide you with impeccable service, and when your business is ready to grow, our team will be there!

Sincerely,
Leonard Shih
President of G.C.C.

Release Note

Version	Change
V.1 2016 Sep.	Add Release Note page Add 6.9 Reset Pressure Gauge with Atmospheric Pressure Delete Chapter 7 and Chapter 8 (Optional items)
V.1-1 2016 Nov.	Re-organise chapter structure
V.2 2017 Jan.	Add 4.2 Time Locker (page 36) Add 5.2.10 How To Create Custom Pattern for Varnish Printing Add 5.3.6 5.3.6 How To Set Arc mode for Dome Shaped Braille Characters/Patterns Printing
V.32017 Jun.	Add 5.3.7 How To Create Raised Printing Effect
V.4 2017 Aug.	Rename printing mode, change from production mode to high speed mode. Add 5.3.8 How to set UV lamp Curing mode for bright color printing.
V.5 2018 Jan.	Removed wiper and ink sponge, capping sponge Add Chapter 6.7 Lubrication and Chapter 7 Caldera setup
V.6 2018 May.	Add QR Code Add 5.2.4 The adjustment value of brightness is not 0, hence, the value has been set to 0 as default Add 6.8 How to replace alignment rule
V.7 2019 May	Update FlexiPRINT GCC Edition V12 Add 5.3.9 How to set CorelDraw for Spot White

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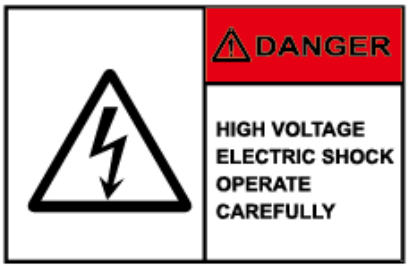
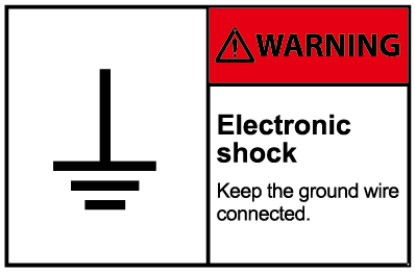
Chapter 1 Introduction

1.1 Warning

These symbols are applied in the user manual for the safety precaution and to prevent equipment from damage. These symbols are informational notice. Please do understand meanings for each of these symbols and its related safety precautions prior operate the equipment.

No.	Safety label	Graphic	Content
1	Warning		The symbol indicates that fire is prohibited. The ink and the fluid discharged out are highly flammable.
2	High Voltage		The symbol indicates high voltage. Remove the lid could lead to expose to high voltage or electric shock.
3	Warning		The symbol indicates that the ink is health hazardous. The ink and fluid discharged out is health hazardous, avoid body contact.
4	Ink Leaking		The symbol indicates to avoid the ink leaking. Turn off all valves of print heads before switching off the printer.
5	Ground Wire		The symbol indicates the machine should be grounded before conducting any maintenance or cleaning operation due to possible electrostatic discharge.

6	Printing Warning		The symbol indicates that during the printing process do not put your hands in the printing area to avoid injury.
7	Avoid Injury Warning		The symbol indicates that during the printing process do not put your hands in the area to avoid your hands being pinched by moving parts.
8	Keep Clear Warning		The symbol indicates that do not put objects in addition to print media on the print area at all times to prevent print head being crashed by obstacles.
9	Do Not Push Warning		The symbol indicates that do not push carriage axis while moving the machine.

1.2 Inks Safety Information

Health Effects of Exposure to Ink

Contact by	Effect
Inhalation	Can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, and headache.
Skin	Can cause dermatitis or irritation that may last for hours or days, but unlikely to result in permanent harm.
Eye	Can cause severe irritation, tearing, and burns that may eventually lead to permanent impairment, including blindness.
Swallow	Can cause severe irritation to mouth, throat, and stomach, may further inflict abdominal discomfort, nausea, vomiting and diarrhea.

Disposal Considerations

Waste ink contains hazardous substances. Do not dispose waste ink with household rubbish. Do not allow product to reach sewage system. Recommend to dispose waste ink according to official regulations.

1.3 First-Aid Measures

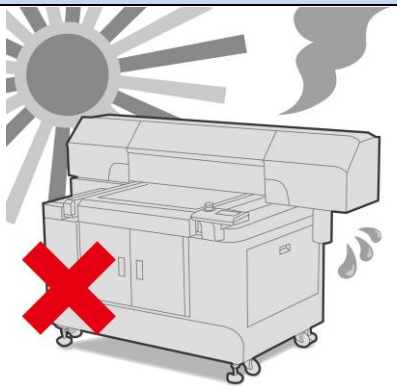
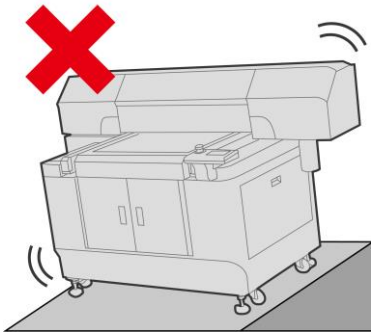
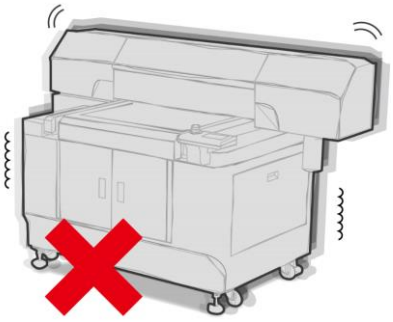
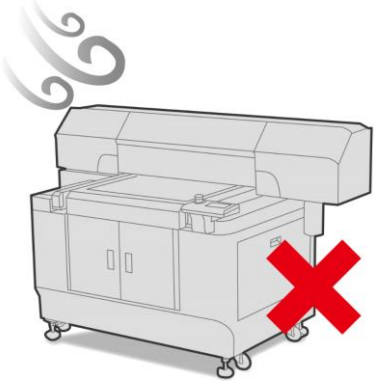
Contact by	Remedy
Inhalation	Breathe in fresh air and consult a doctor in case of complaints.
Skin	Immediately wash with soap and water then rinse thoroughly. If skin irritation continues, consult a doctor.
Eye	First and for most, flush your eyes with plenty of water. Then, tilt your head to prevent chemical from transferring to the uncontaminated eye. Finally, seek immediate medical attention and monitor the eye as advised by your physician. Inform your physician that your eye was exposed to chemical ink.
Swallow	Do not induce vomiting. Drink copious amount of water or milk to dilute and breathe in fresh air, then, seek medical attention immediately.

1.4 Personal Protection

Protection	Solution
Respiratory Protection	Ventilation may be required depending upon conditions of use.
Skin Protection	Avoid skin contact by wearing safety gloves. Clean protective equipment regularly. Then, wash hands and other exposed areas with soap and water before eating, drinking. When leaving work, drink a lot of water.
Eye Protection	Wear safety glasses with side shields when handling ink to avoid the possibility of eye contact by slashing or spraying liquid. Do not wear contact lenses.

1.5 Equipment Installation Precautions

GCC JF-240UV shall be installed in a relatively clean, free from dust environment and the surface for the equipment to be installed shall be stable and flat. We suggest that you install the equipment in an air-conditioned environment to control the appropriate temperature and humidity. To ensure the equipment and the materials reach to the room temperature 24 hours prior in operation. For the environment shall meet following conditions:

<table>
<tr><th colspan="3">WARNING</th></tr>
<tr><td>Prohibit on exposure under direct sun light</td><td>Prohibit on setting up on tilt surface</td><td>Temperature and humidity</td></tr>
<tr><td>  </td><td>  </td><td>The operation environment for this equipment:
22 to 30°C (71.6°F to 86°F)
40% to 60% (humidity)</td></tr>
<tr><td>Avoid locations with vibration</td><td>Avoid locations with strong air current</td><td>Avoid locations with flame</td></tr>
<tr><td>  </td><td>  </td><td> </td></tr>
</table>

1.6 Ink Operating and Storage Environment

Store the inks away from direct sunlight or other lighting sources, including fluorescent lighting. Store them away from acids, alkalis, and oxidizing material as well. Additionally, keep container tightly closed in a dry, cool, well ventilated place.

The recommended ink storage temperature as following:

* Temperature: 22°C to 30°C (71.6°F to 86°F). Humidity: 40% to 60%.

Please do ensure the ink storage temperature and humidity.

Chapter 2 Equipment Main Body Introduction

JF-240UV flatbed printer is designed for printing on rigid, cylinder and roll materials. Cylinder or roll materials are only available with the rotary attachment or roll to roll system optional items.

JF-240UV	Maximum material width: 610mm x 508mm (24" × 20")

2.1 Flatbed UV Printer

The innovative GCC Flatbed UV Printer can complete short runs and on-demand printing.

Following the high quality of GCC products, the new GCC Flatbed UV Printer comes with high throughput, reliable printing preference, user-friendly interface, touch screen control panel and creative features. GCC Flatbed UV Printer accommodates standard four colors CMYK, and optional Varnish and White color that offer you the outstanding printing quality.

In addition to the application for sign industry, like signage and signboard, GCC JF-240UV Flatbed Printer is dedicated to applications of custom items, including promotional items, décor, stickers, packages, personalized products and much more to fulfill all your needs.

With applicable to a maximum of 30cm tall object and supportive to pass through printing ability, GCC JF-240UV Flatbed Printer eliminates the limitation of printing. Along with the optional roll-to-roll system and rotary system, users are allowed to work on a wide variety of applications, including flexible media, such as vinyl, wall stickers and heat transfer film to rigid material, such as acrylic, PC and foam board; furthermore, users can print preferred patterns on personalized items, such as phone cases, bottles, etc. GCC JF-240UV Flatbed Printer is the most suitable equipment for custom items with stunning quality.

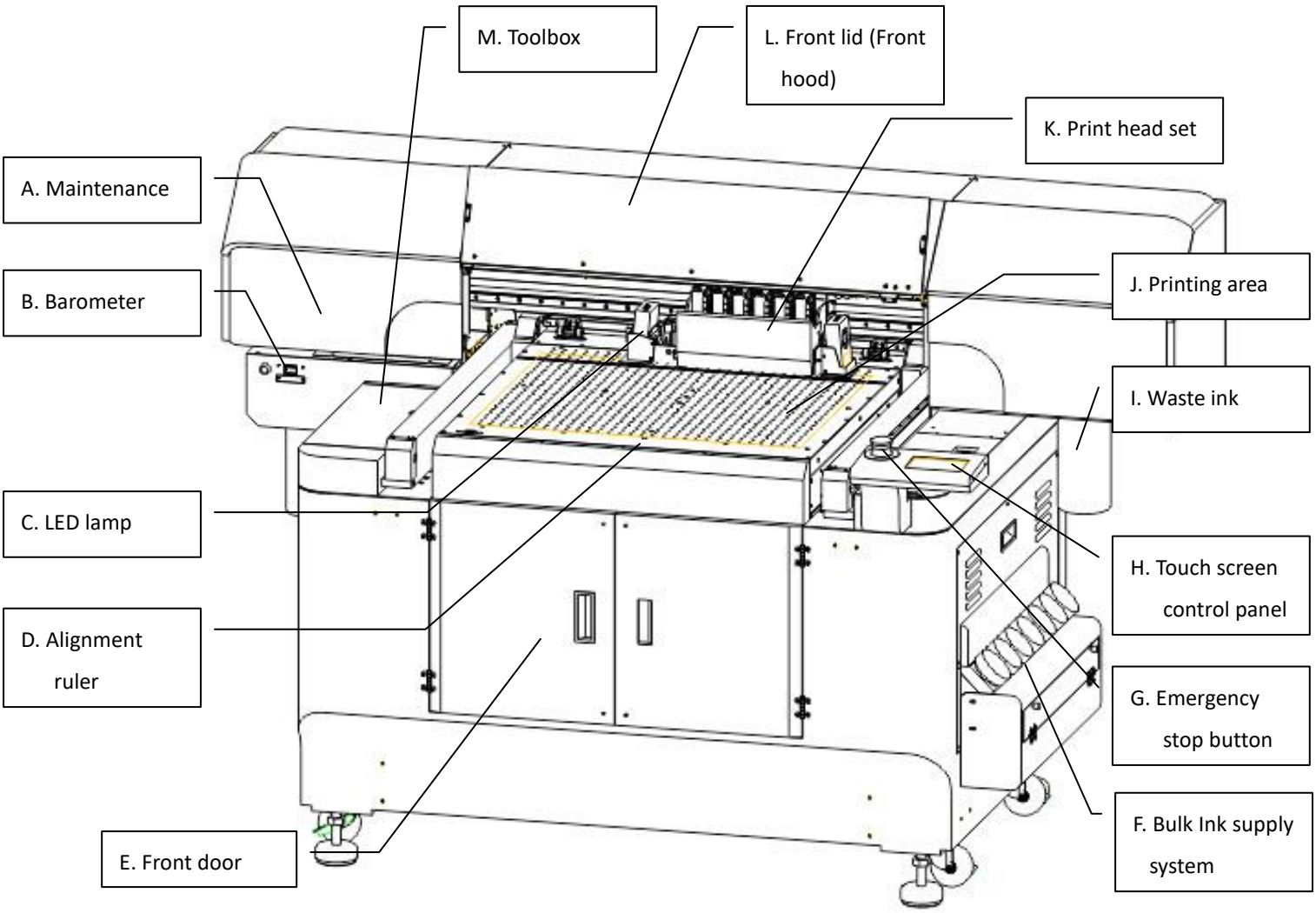
2.1.1 JF-240UV Flatbed Printer Key features

Features:

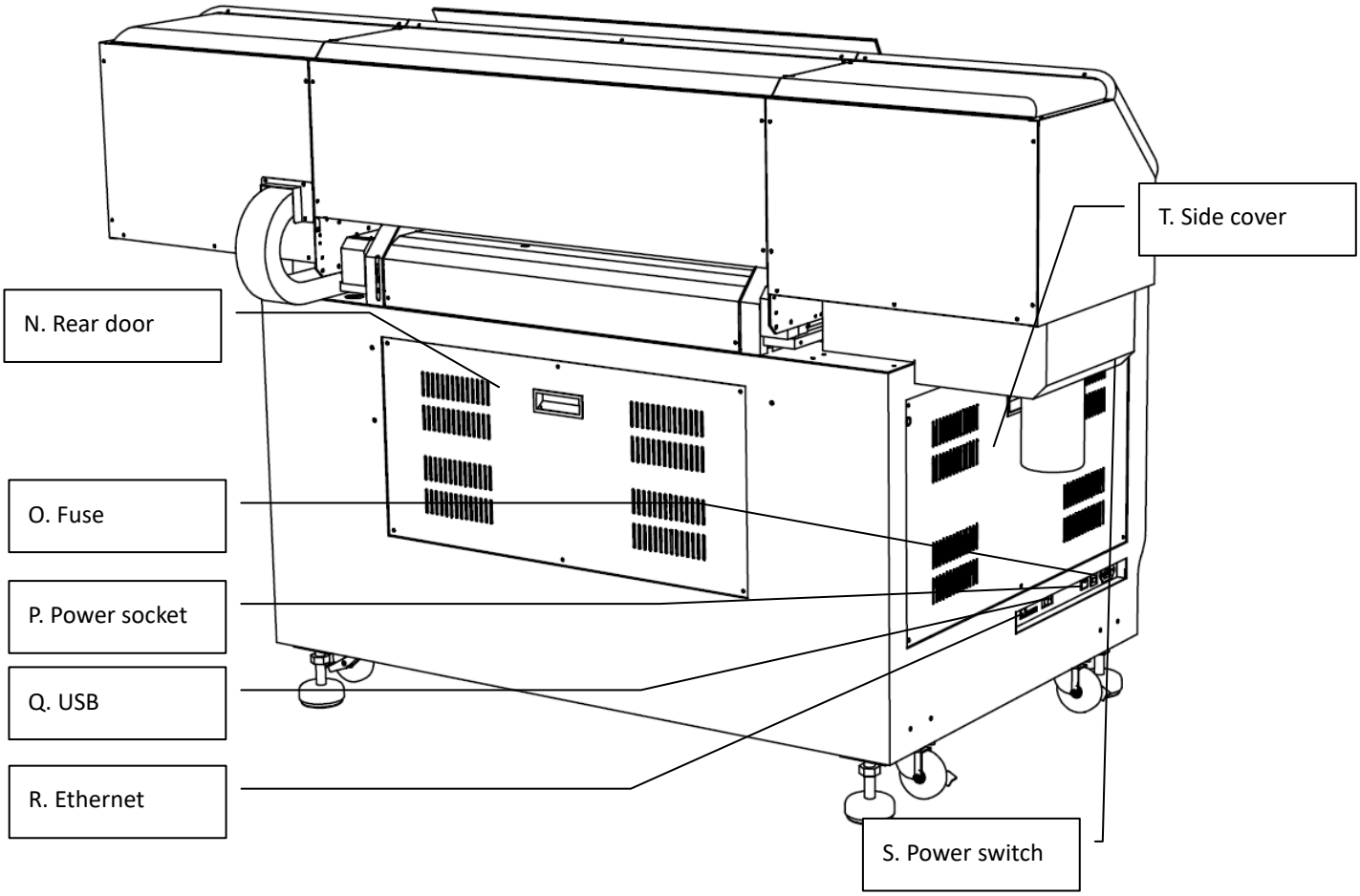
1. Maximum print area: 610x508mm (24”x20”)
2. Media thickness up to 300mm (11.8”)
3. Print resolution of up to 1,440dpi
4. Acceptable media weight up to 15Kg
5. Maximum Print Speed: 5.78 m^2/hr
6. Auto Media Calibration (AMC™)
7. Bundled FlexiPRINT GCC Edition RIP software
8. Touch screen control panel
9. Roll to Roll (Optional)
10. Rotary Attachment (Optional)
11. Dual LED lamp
12. Pass through doors to accommodate long working objects
13. Motorized Z axis adjustment
14. High printing speed model is available, which can uplift two times printing speed of the 512 print head model.

2.2 JF-240UV Appearance

2.2.1 JF-240UV Front View



2.2.2 JF-240UV Rear view



2.2.3 JF-240UV Parts Description

Parts Name	Description
A. Maintenance	Maintain print head cleanness
B. Barometer	Ink pressure adjustment and display.
C. LED Lamp	LED Lamp for curing after printing
D. Alignment Rulers	Media can be aligned with the guide line marks
E. Front Door	Keep closed. Unless in necessary to open it up for loading the material.
F. Bulk Ink supply system	Where the bulk ink bottle are installed
G. Emergency Stop Button	Stop the machine under emergent condition.
H. Touch Screen Control Panel	Set and display JF-240UV printing settings.
I. Waste Ink Bottle	Waste ink area. When waste ink is full, please take down the waste ink bottle and dispose it. (Please follow the local regulations to dispose the waste ink to prevent contaminating the environment)
J. Printing Area	The area where JF-240UV conducts the inkjet printing.
K. Print Head Set	Printing graphic image
L. Front Lid	Keep closed to prevent eyes from being damaged by LED UV light.
M.Toolbox	Store commonly used tools.
N. Rear Door	Keep closed. Unless in necessary to open it up for loading the material.
O. Fuse	3 Amp fuse to protect the circuits.
P. Power Socket	Hold the AC power cord.
Q. Ethernet	Provide network connection between JC-241UV and computer.
R. USB	USB connection.
S. Power Switch	Switch on / off the power supply
T. Side Cover	The side cover of JF-240UV

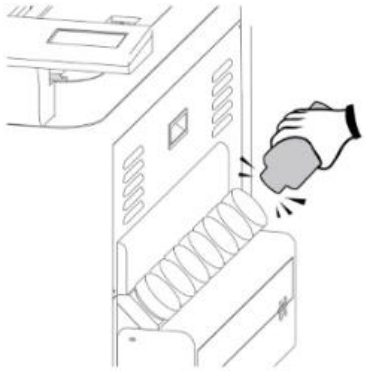
Chapter 3 Installation Procedure

3.1 Machine Setup

3.1.1 Turn On The Power

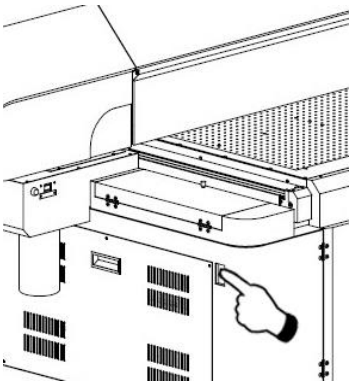
Step 1 Please check the ink chip is inserted properly into the corresponding slot.

Step 2 Fill each color of ink bottle with corresponding color of ink. It is suggested to horizontally shake the White ink 15 times before filling in the bottle or stir the White ink manually before printing.



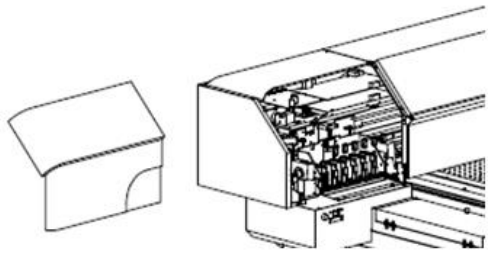
Step 3 Plug in the power plug and connect to the internet, then turn on the machine.

Note: Please wait for 5 seconds to turn on/turn off the power if you need to restart the machine.

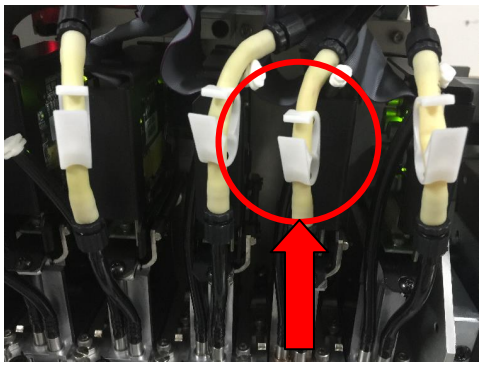


3.1.2 Set Ink Flow To Printer Heads

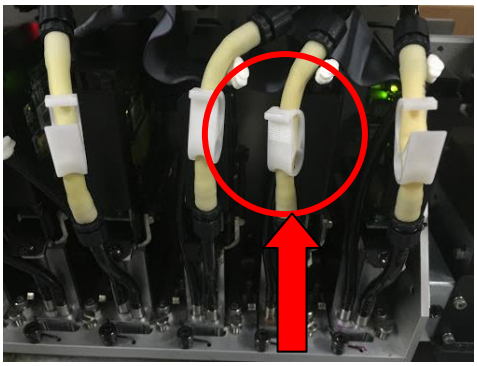
Step 1 Remove the thumbscrew and open the left cover.



Step 2 Open the ink valve.



Ink valve is opened



Ink valve is closed

Step 3 1. Entre FLATBED mode.

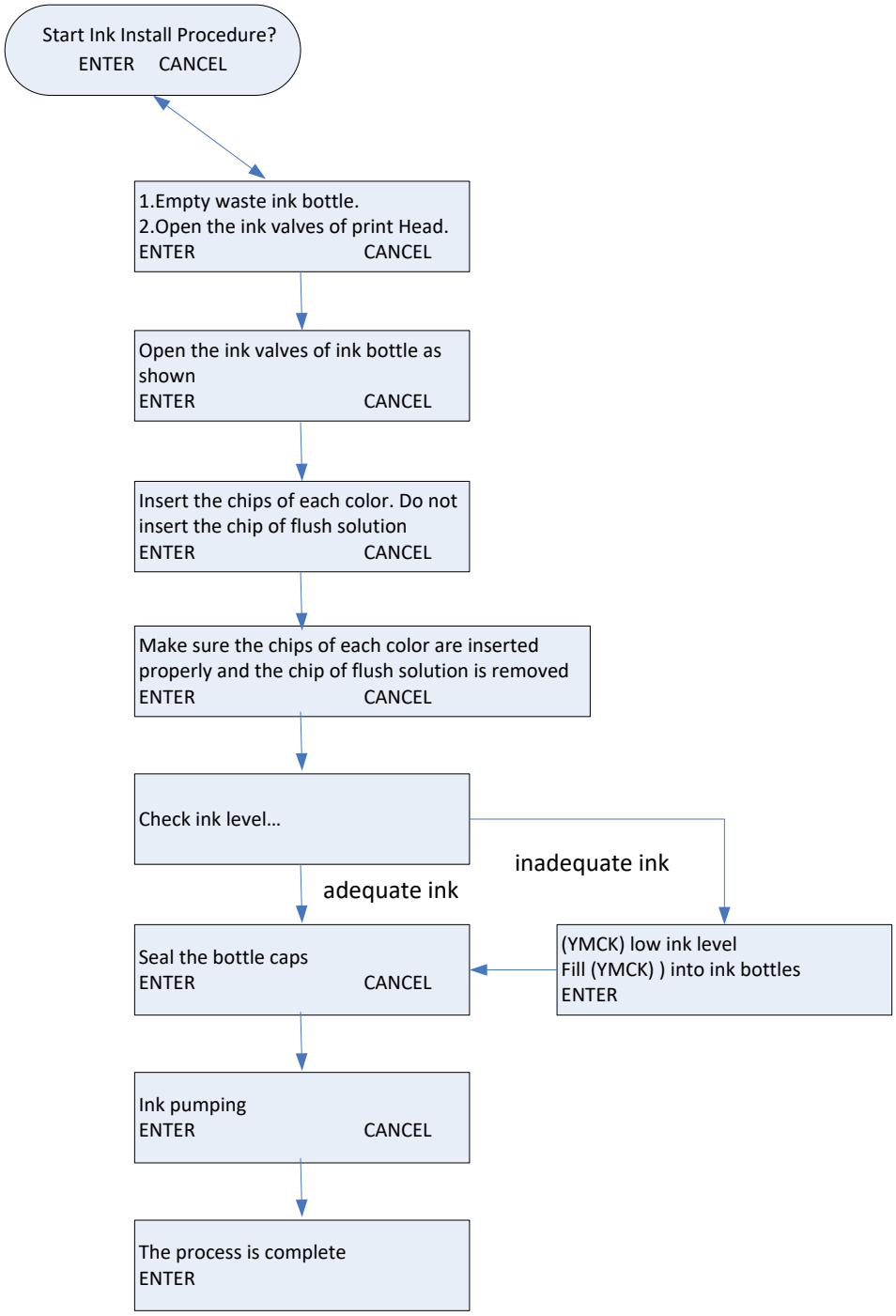
2. Select MENU

3. Select MAINTENANCE

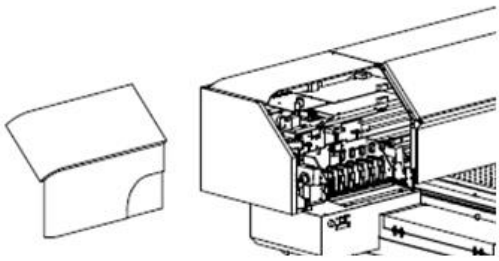
4. Select INK INSTALL/DRAIN

5. Select INK INSTALL FLOW

Step 4 Ink install flow:



Step 6 Close up the left cover and fix it with thumbscrews.

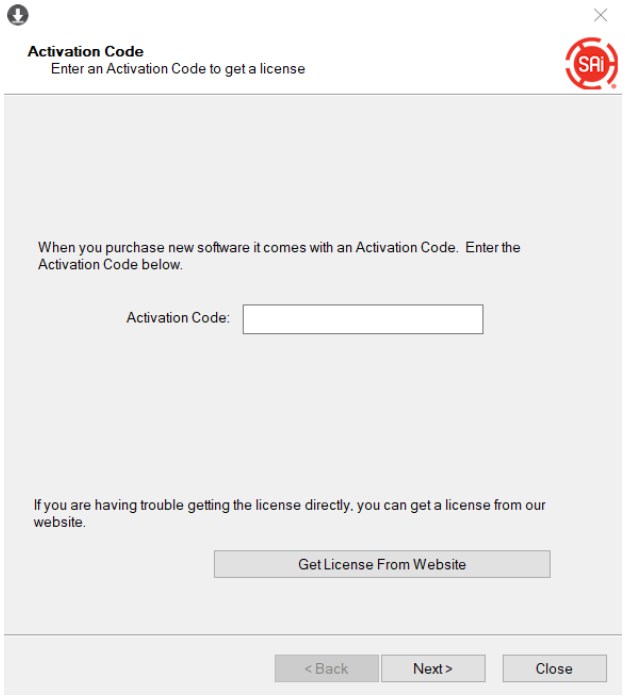


3.2 Software Setup

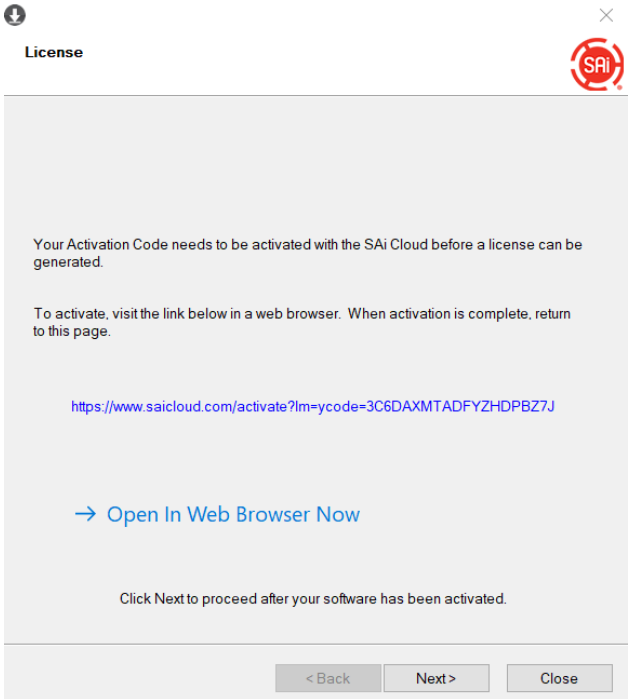
3.2.1 Softkey Installation Instructions

Insert the DVD and run the installation and follow the instructions. Disable your antivirus software before installing FlexiPRINT GCC Edition.

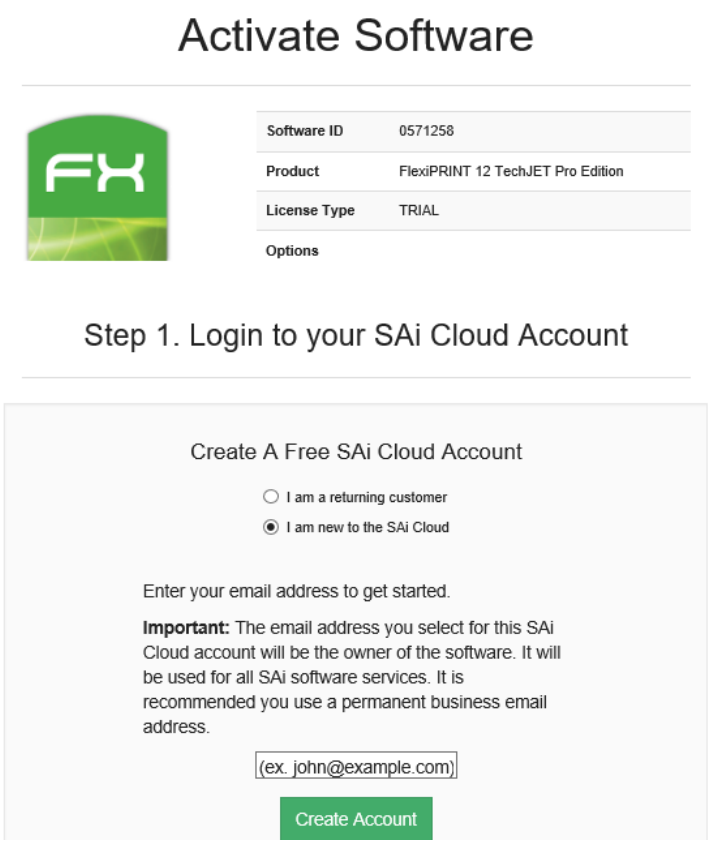
When the Install Manager dialog comes up, enter your password here:



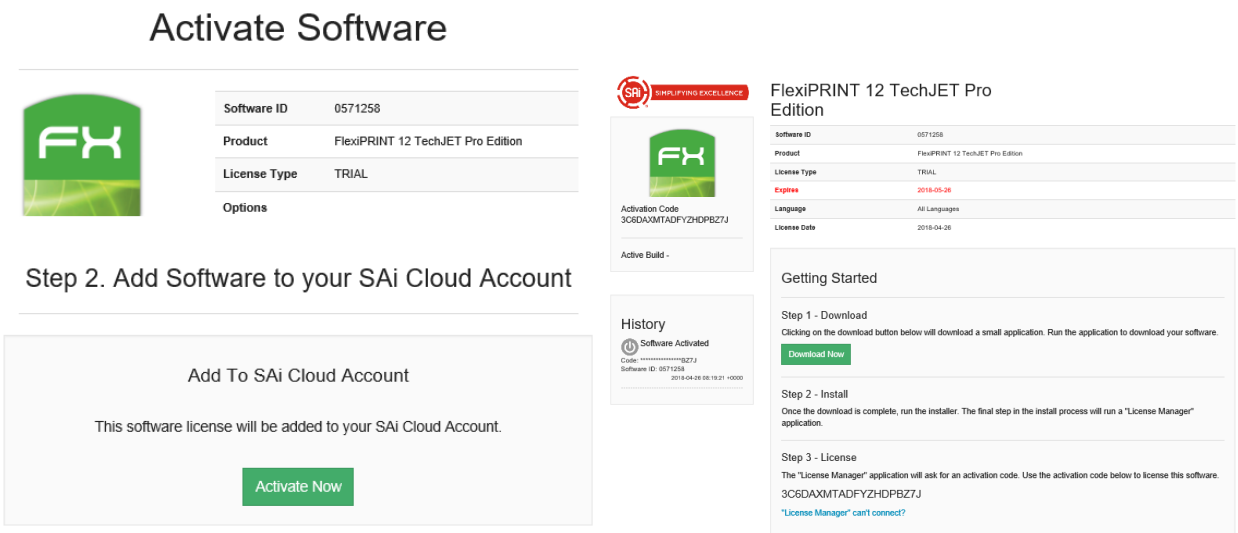
1. Select "Open In Web Browser Now."



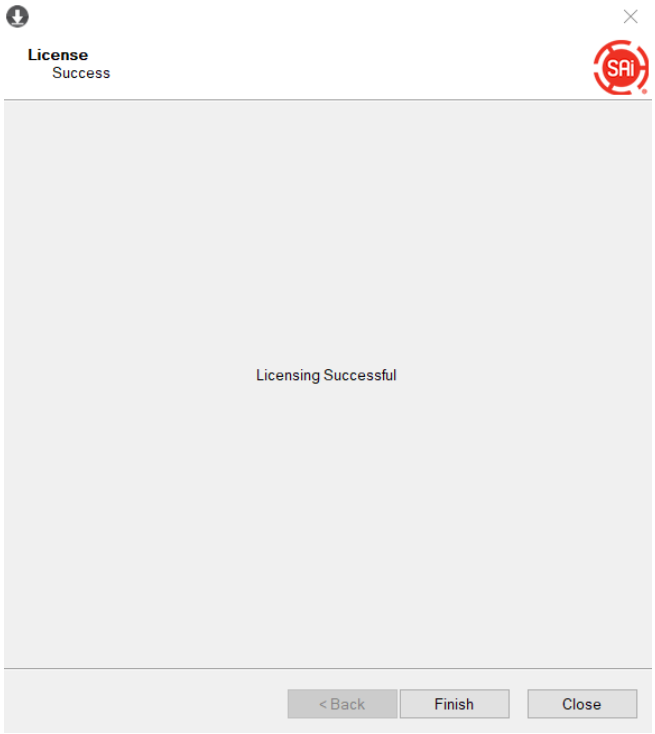
2. Select "I am new to the SAI Cloud", then select Create Account and click confirm



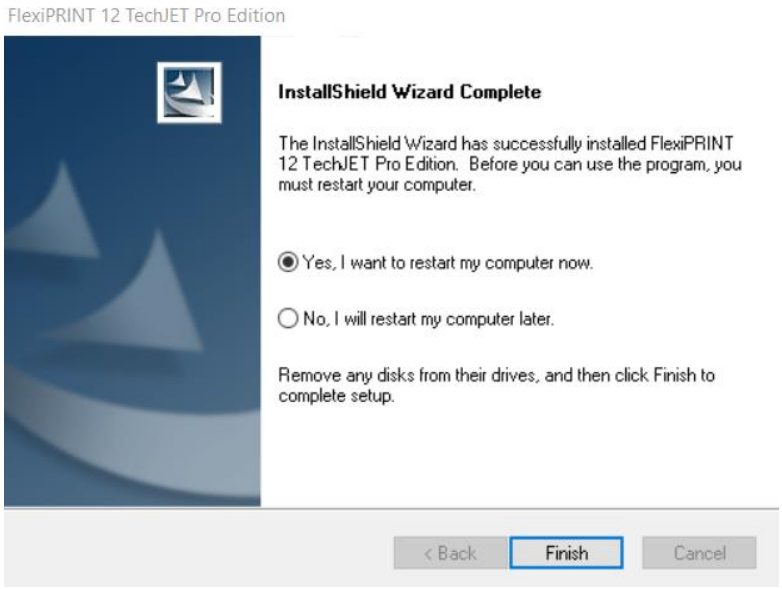
3. Select "Activate Now"



4. The FlexiPRINT GCC Edition is installed.



5. Select "Yes,I want to restart my computer now."

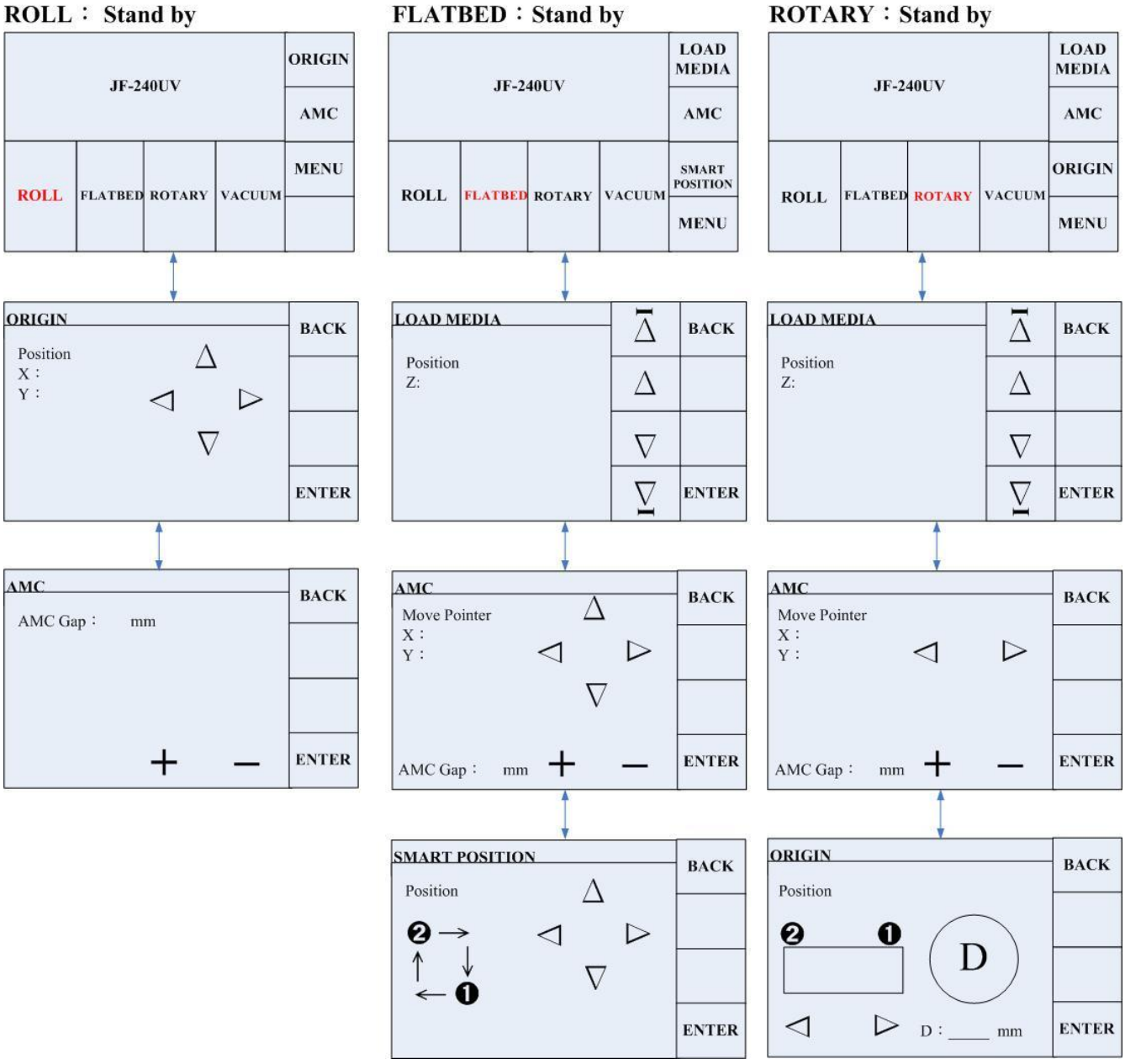


Chapter 4 Control Panel

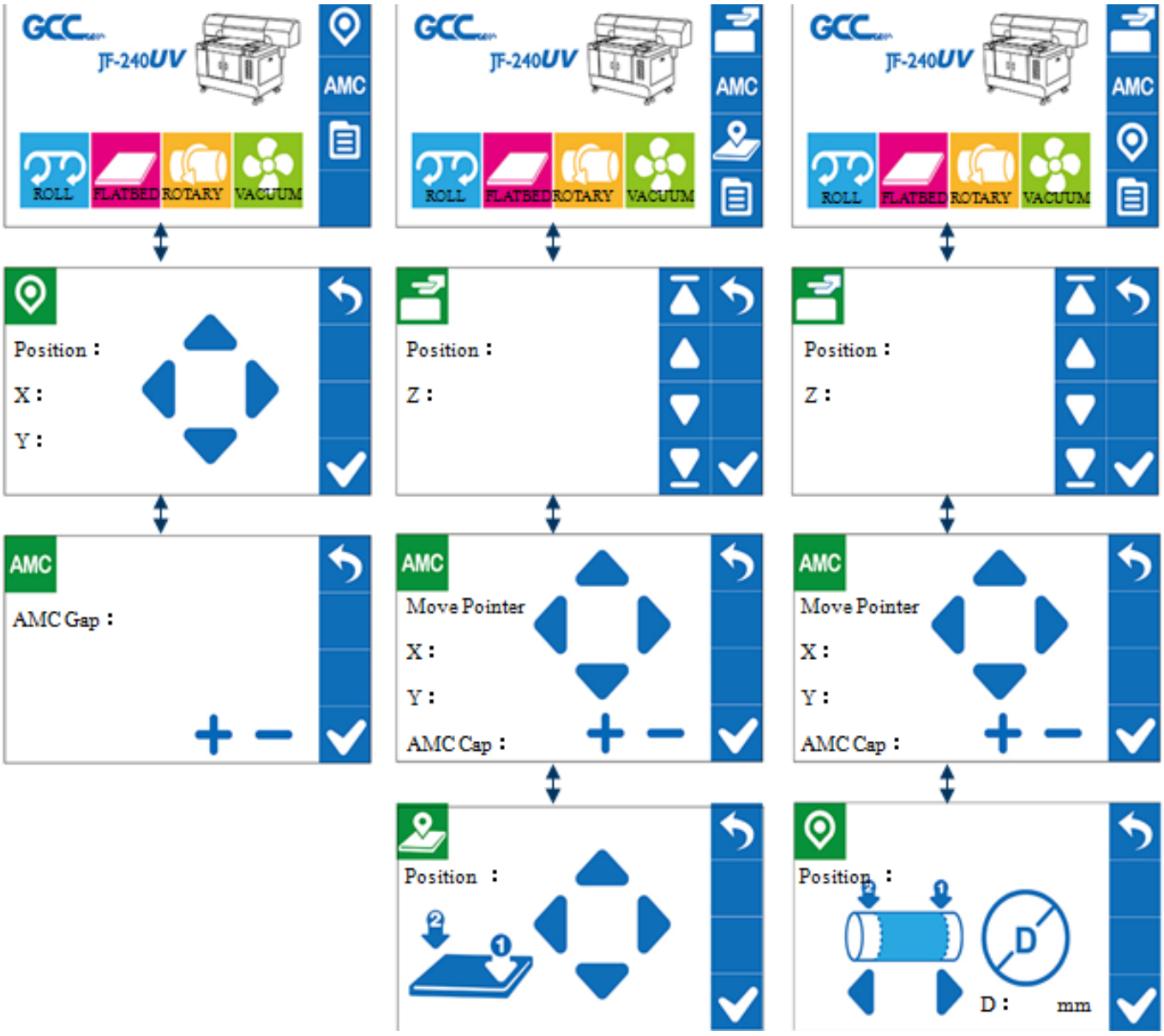
This section mainly describes JF-240UV Flatbed Printer's touch screen control panel, work flows and key operations.

4.1 Control Panel Workflow

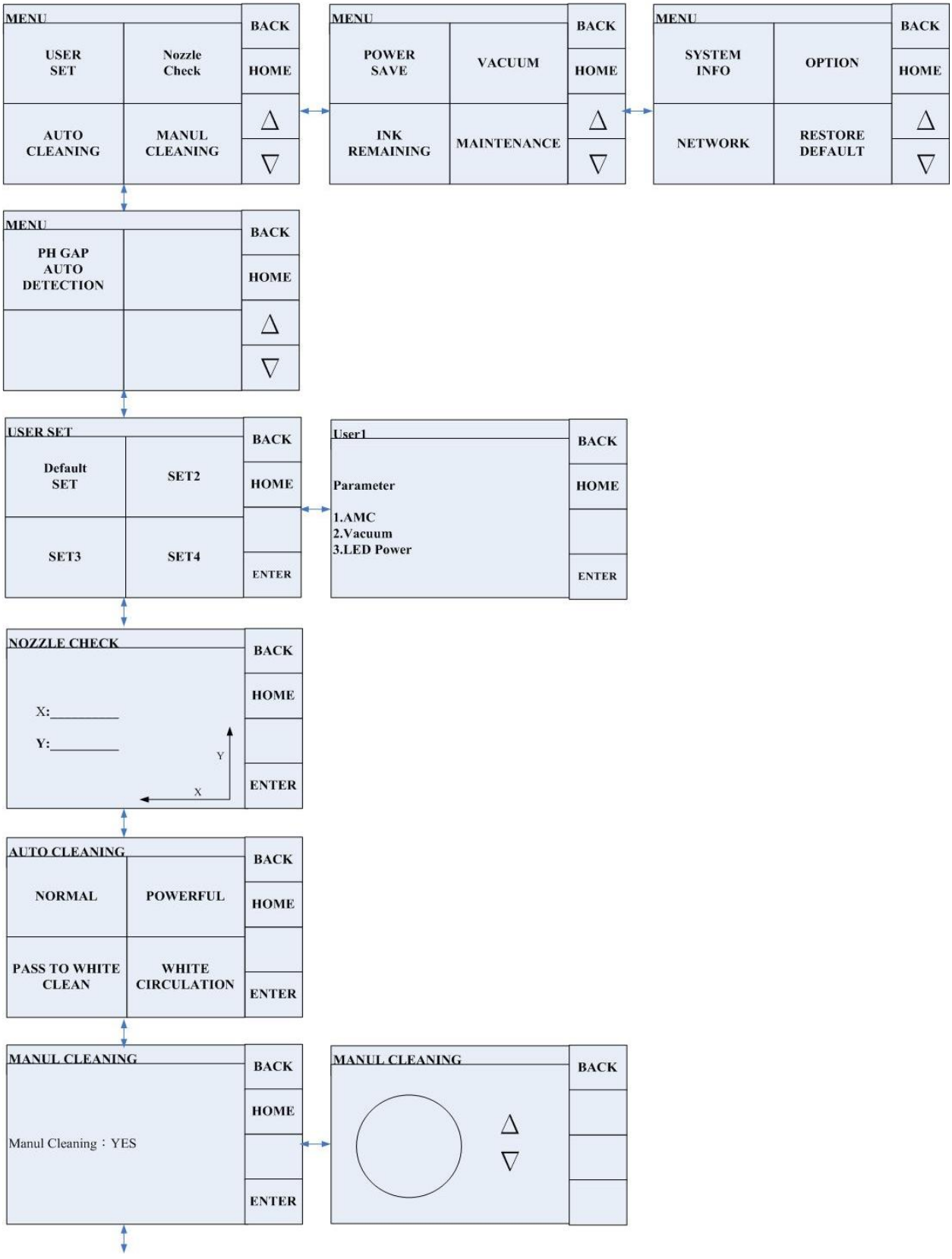
Operating work flow:



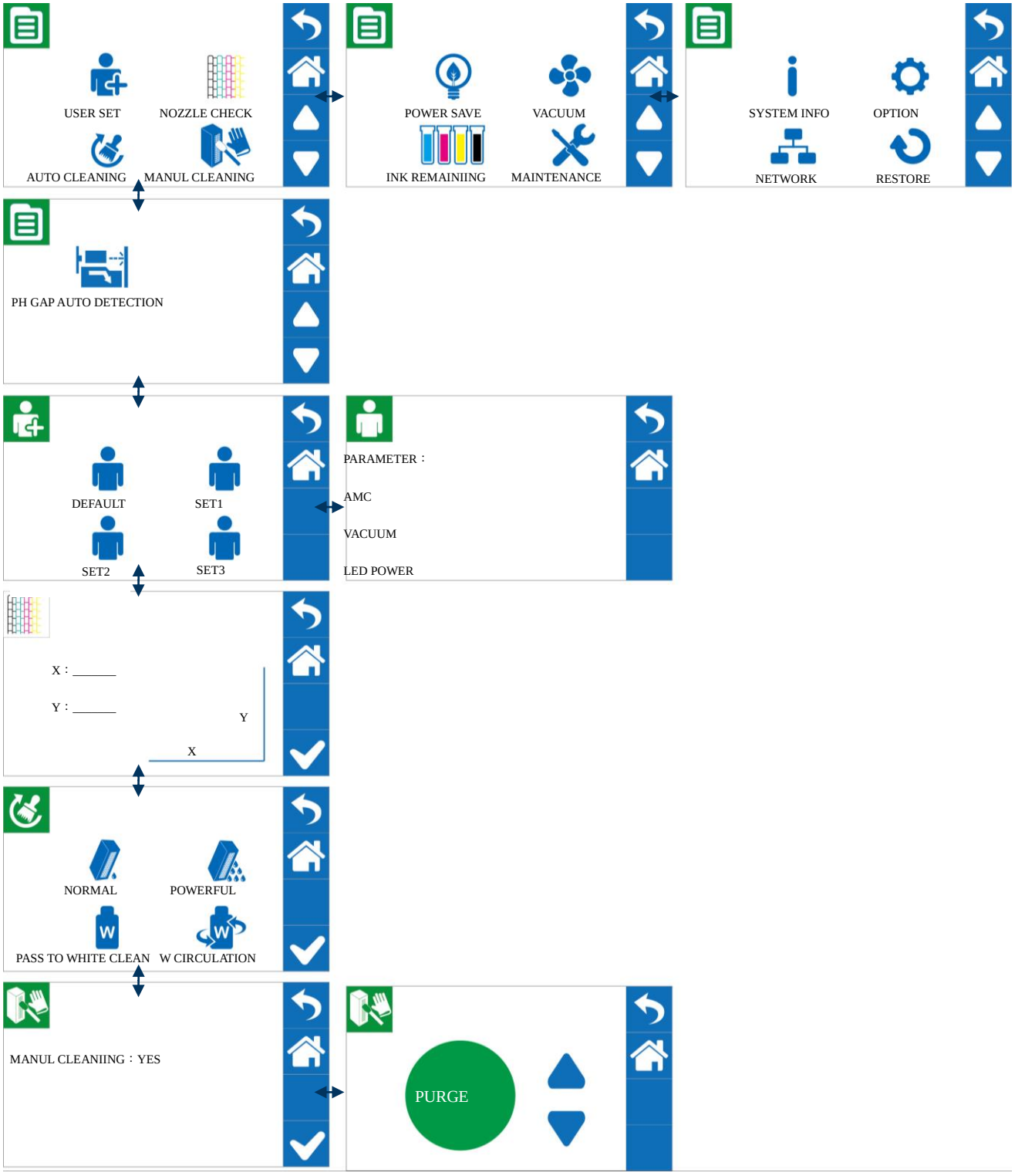
Control panel flow:



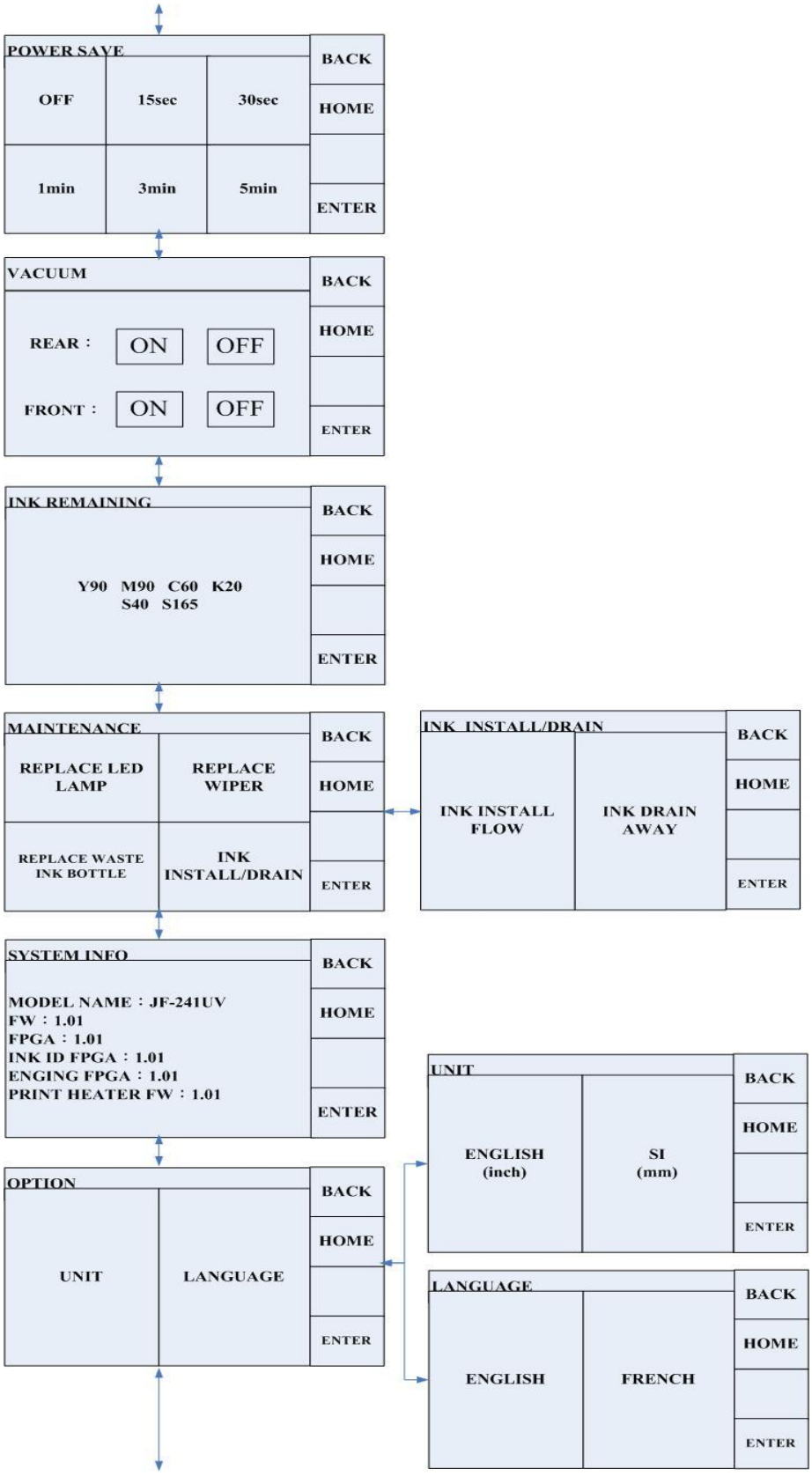
Operating work flow:



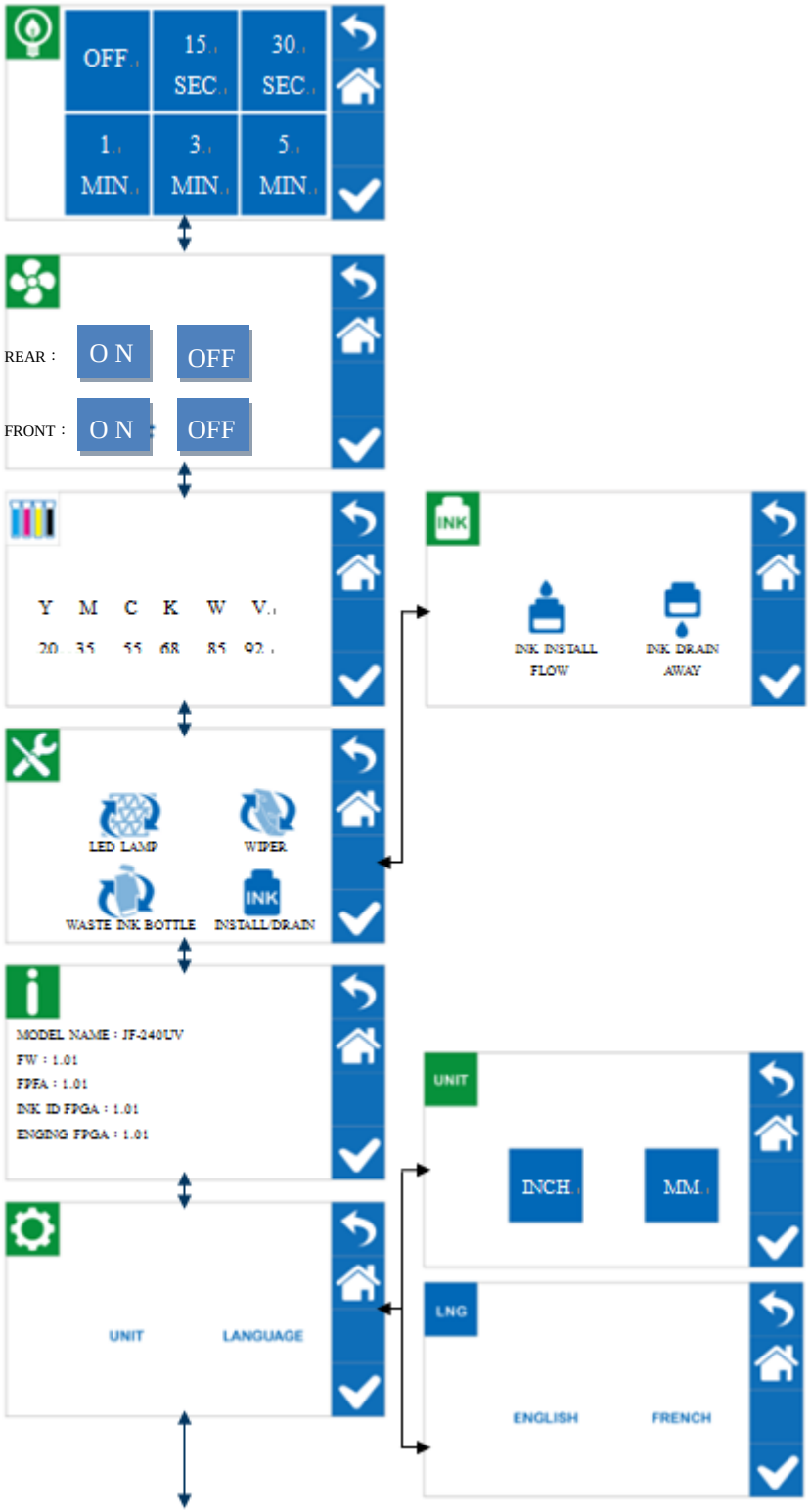
Control panel flow:



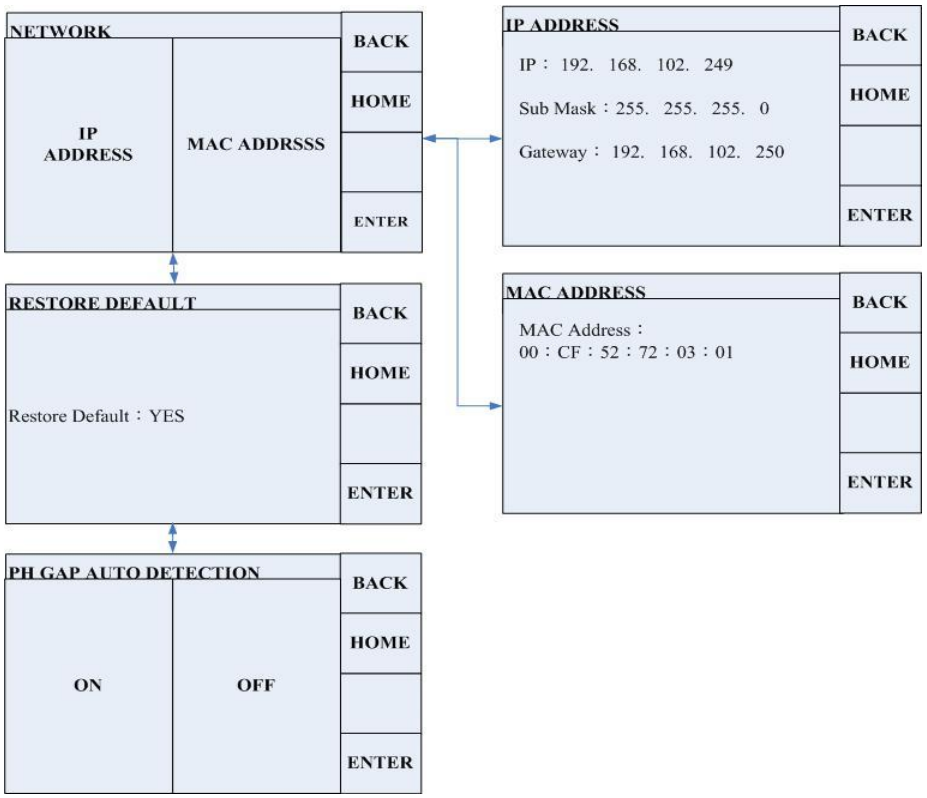
Operating work flow:



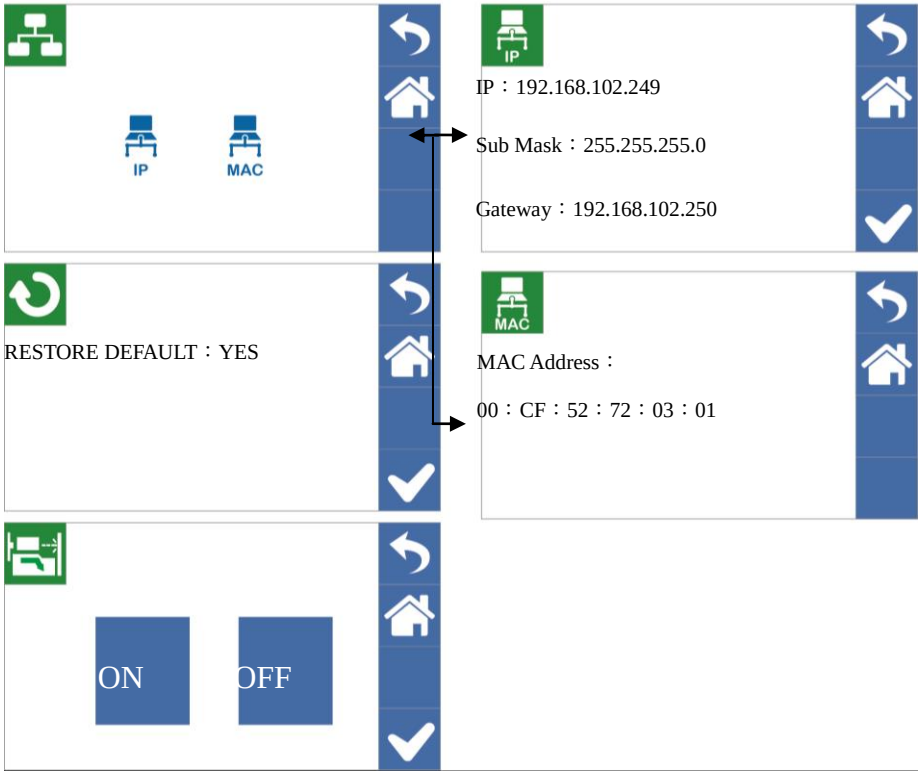
Control panel flow:



Operating work flow:

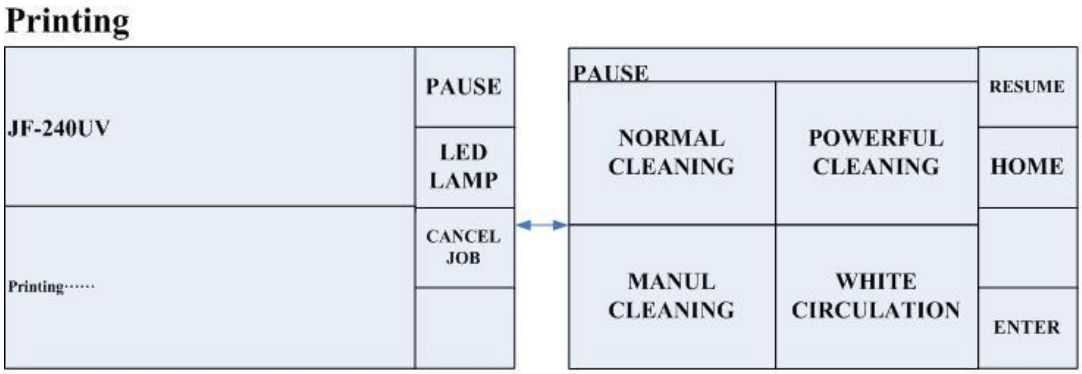


Control panel flow:

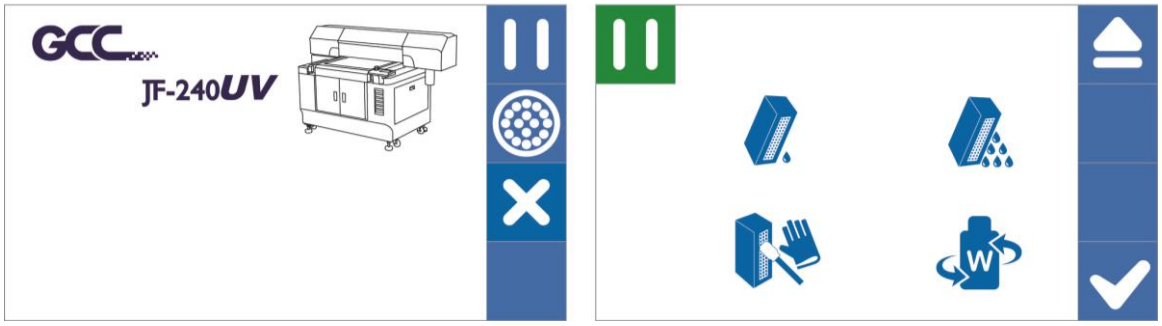


PAUSE while printing: Users can pause on the printing job by pressing the PAUSE button and proceed to cleaning procedure to improve printing quality.

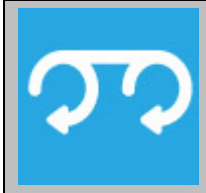
Operating work flow:

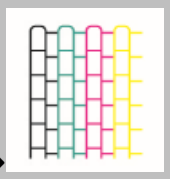
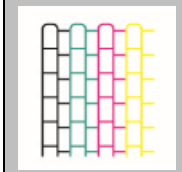


Control panel flow:



4.2 Control Panel Layout Description

Control Panel Layout Description			
Function	**Description**	**Setting**	**Default**
Media sizing			
 ROLL (Media Roll)	Adjustment menu setup key for roll media printing settings (work with roll to roll system)	Optional	
		(AMC) Automatically detect the media height	
FLATBED	Adjustment menu setup key for rigid media printing settings		
	(LOAD MADIA) Set/Place media height		
	(AMC) Automatically detect the media height		
	(SmartPOSITION) Set printing area		
ROTARY	Adjustment menu setup key for rotary attachment printing settings (work with rotary attachment)	Optional	

	(LOAD MADIA) Set/Place media height		
	(AMC) Automatically detect the media height		
	(ORIGIN) Set printing origin		
MENU→ **USER SET**			
 USER DEFAULT/ SET1/SET2/SET3	1) USER DEFAULT：Initial parameters settings 2) SET1~3 parameter settings (Adjust VACUUM/ BAND/AAS OFFSET/BI-UNI setting)	Can store up to 3 groups	User DEFAULT
MENU→  **NOZZLE CHECK**			
 NOZZLE CHECK	Perform print head nozzles checking		
MENU→ **CLEANING**			

NORMAL	Normal print head cleaning		
POWERFUL	Powerful print head cleaning		
PASS TO WHITE CLEAN	Purge white ink for print head cleaning after the defined printing passes are performed. Select PASS TO WHITE CLEAN can define the number of passes for white ink clean.		
WHITE CIRCULATION	White ink circulation		
MENU→ **MANUL CLEANING**			
MANUL CLEANING	When cleaning the print head manually, the cartridge will move to maintenance area on the left hand side automatically for cleaning.		
MENU→ **POWER SAVE**			
	Automatically switches off the display of control panel when the device hasn't been used for a set period of time, allowable setting are 15 sec., 30		3 MIN.

POWER SAVE	sec., 1 min., 3 min. and 5 min.		
MENU→ **VACUUM**			
VACUUM	Vacuum function is to ensure material's flatness. This setting can be enabled or disabled. Default is enabled. If choose disable, then there will be no vacuum sucking during the printing operation.	ON/OFF	OFF
MENU→INK REMAINING			
INK REMAINING	Check remaining ink volume * 99 means there is sufficient ink * 0 means short of ink, need to refill ink immediately.		
MENU→ **MAINTENANCE**			
REPLACE LED LAMP	Automatically move the cartridge to the maintenance area on the left hand side for LED lamp replacement.	YES	YES
REPLACE WIPER	Replace the wiper	YES	YES
REPLACE WASTE INK BOTTLE	Replace waste ink bottle	YES	YES

 INK INSTALL/DRAIN	Ink-install flow Ink-drain flow		
MENU→ **SYSTEM INFO**			
 SYSTEM INFO	MODEL：Display the equipment dimension and model based on factory version settings FW：Display Firmware version serial number based on factory version settings. FPGA：Display FPGA version serial number based on factory version settings. INK ID FPGA：Display Ink ID FPGA version serial number based on factory version settings. ENGINE FPGA：Display ENGINE FPGA version serial number based on factory version settings.		
MENU→ **OPTION**			
INCH	User can choose between Metric or Imperial measurement.	Metric (cm, g) Imperial unit (inches, oz)	Metric (cm, g)
LANGUAGE SET	LCM display language		

MENU→ NETWORK			
IP ADDRESS	IP address		
MCA ADDRESS	MAC address		
MENU→ RFACTORY DEFAULT			
FACTORY DEFAULT	Reset machine setting to factory default.		YES
MENU→ PH GAP AUTO DETECTION			
PH GAP AUTO DETECTION	Automatically detect the gap between print head and media.		ON
MENU→ TIME LOCKER			

TIME LOCKER	Set the period of time that the machine can be operated. The Time Locker function can be used for hire of a machine to schools or organizations to manage the rent duration of a hired machine.		OPTIONAL
PAUSE while printing Description			
PRINT LED LAMP→			
LED LAMP	Set LED Lamp Curing energy while printing	ON/OFF	ON
PRINT CANCEL JOB→			
CANCEL JOB	Delete current print job		ON
PRINT PAUSED→			
NORMAL CLEANING	Normal print head cleaning		ON
POWERFUL CLEANING	Powerful print head cleaning		ON
	When cleaning the print head manually, the cartridge will move to maintenance area on the left hand side automatically for cleaning.		ON

MANUL CLEANING			
 WHITE CIRCULATION	Circulation of white ink print head		ON

Chapter 5 Operating the JF-240UV

5.1 Hardware Operation

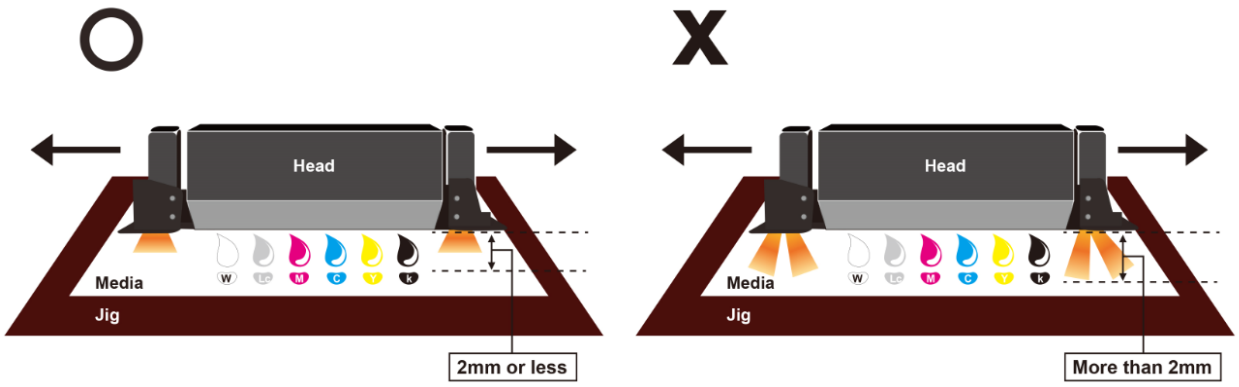
5.1.1 How to Set Flatbed Printing Mode

NOTICE:

The factory setting of the height between print media and print head is 1.5mm.

If the height between print media and print head is more than 2mm, it may cause ink droplet misting or splashing and lead to a grainy and uneven printing.

When the height between print media and print head is more than 2mm, the reflected light from UV curing lamp increases and it can cause the misting ink to be cured, increase the ink visocosity and nozzel clogging, and hence damage print heads.



5.1.2 How To Set PH Gap Auto Adjustment Mode

The PH Gap Auto Adjustment mode:

It is suggested to set the settings to be "**ON**" (the default setting). Turning on the PH Gap Auto Adjustment mode provides the fastest way for users to start printing on the media of which the surface may be not flat or even, and the definite highest position of the media for AMC cannot easily be found. Also, it protects print heads from being scratched by automatically adjusting the print heads to optimized position when obstacle is detected.

When the setting of PH Gap Auto Adjustment Mode is "ON":

If there is obstacle being detected, three steps can be applied,

1. **Cancel job:** cancel current job and redefine the highest position of the media for AMC to obtain the best printing quality.
2. **Continue to print by the mode set in FlexiPRINT:** The print quality may be decreased, because the print head gap is not the optimum value.

3. **Continue to print by uni-direction:** The throughput may be decreased and the quality may be slightly affected, because the print mode is forced to set to uni-direction and the print head gap is not the optimum value.

Under the following conditions, the PH Gap Auto Adjustment Mode can be set to **OFF** for advanced users,

1. **The media is flat or the highest position of the media for AMC is easily to be determined**.
2. **High print quality is high priority**:

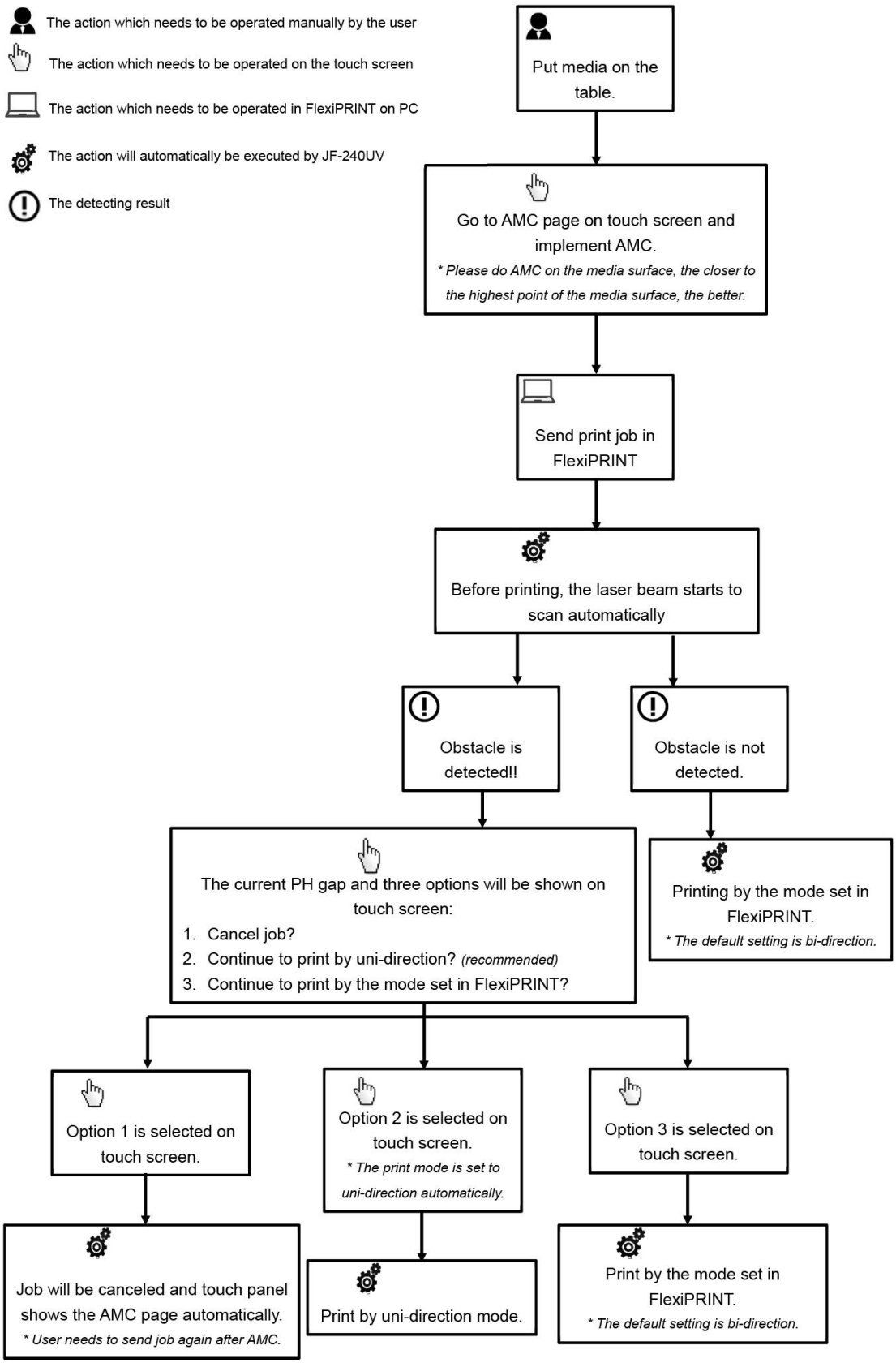
   The platen will not automatically be adjusted to optimized position and the print job will be canceled when obstacle is detected. The optimum print head gap defined by AMC is a critical element for printing quality especially when performing bi-direction printing.

3. **High throughput is high priority**:

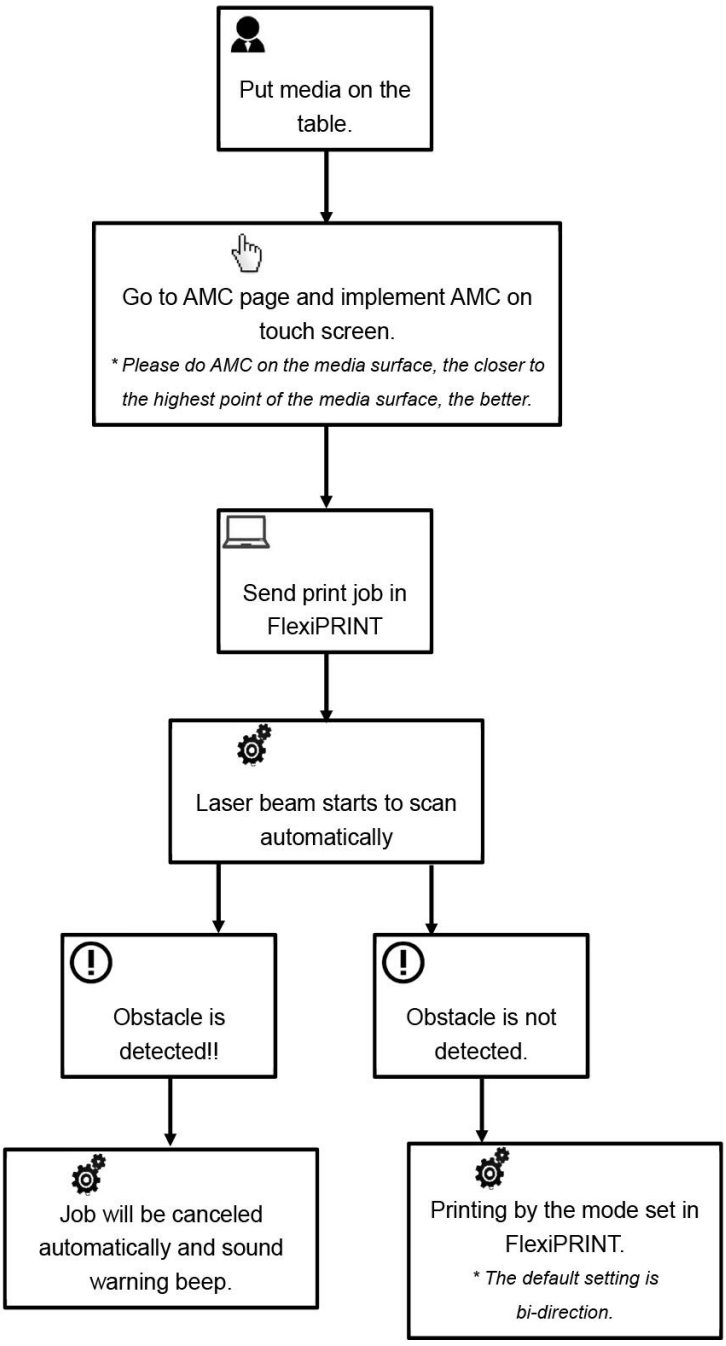
   The laser beam scanning speed is faster when the setting is OFF than it is ON, and the default print mode (bi-direction) will not be changed for higher printing speed.

Workflow

A. Set the "PH Gap Auto Adjustment" to be "ON" on control panel: *(The default setting)*



B. Set the "PH Gap Auto Adjustment" to be "OFF" on the control panel:



5.1.3 How To Print On Rigid Material

When the setting of PH Gap Auto Adjustment mode is "OFF", refer to the following two exsamples for the instructions of rigid material printing:

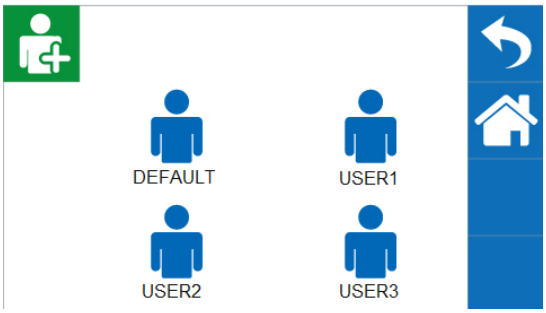
Example 1: Set parameter settings of full table print size

Please load the rigid material correctly according to following steps.

Step 1. Entre FLATBED mode.

Step 2. Select MENU.

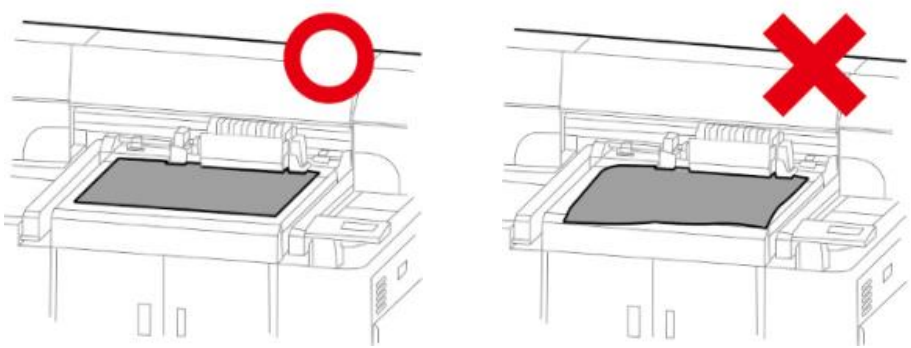
Step 3. Select USER SET.

Step 4. 

Select DEFAULT and select BACK icon .

Step 5. Place print media on the lower right corner of the platen of JF-240UV.

(CAUTION)



Step 6. Select **LOAD MADIA**, and then adjust the height of platen of JF-240 to proper position.

(Note: the printing side should always be adjusted BELOW the print head.)

Step 7.

Select AMC to autamatically detect the height between print media and print head.

(Note: It is suggested to apply AMC onto the highest position of the media.)

Step 8. Send the file from FlexiPRINT GCC Edition RIP software, and printing is complete.

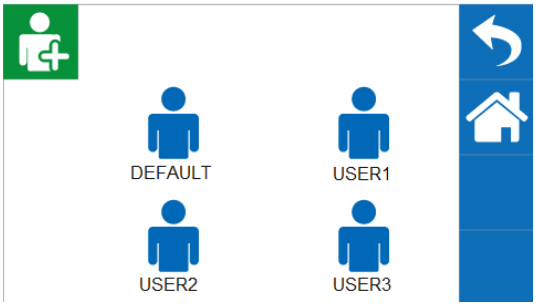
Example 2: Set parameter settings of SmartPOSITION (define a diagonal as print size)

Please load the rigid material correctly according to following steps.

Step 1. Entre FLATBED mode.

Step 2. Select MENU.

Step 3. Select USER SET.

Step 4. 

Select USER 1 and select BACK icon .

(Note: Choose USER1/USER2/USER3 to save the settings of SmartPOSITION, so user can print on the same area without repeatedly setting)

Step 5. Place print media on platen of JF-240UV.

Step 6. Select **LOAD MADIA**, and then adjust the height of platen of JF-240 to proper position.

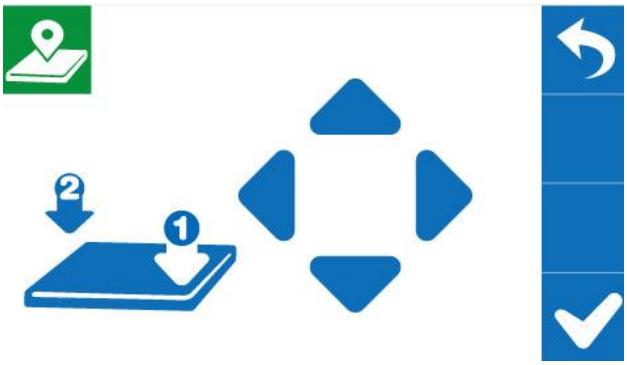
(Note: the printing side should always be adjusted **BELOW** the print head.)

Step 7.

Select AMC to autamatically detect the height between print media and print head.

(Note: It is suggested to apply AMC onto the highest position of the media.)

Step 8. Select SmartPOSITION.

Step 9. 

Press the **Arrow Keys** to move the cartridge to the lower right corner of the print material and then press **Position** 1 icon

; then move cartridge again to the upper left corner of the print material and press **Position 2** icon

Step 10. Send the file from FlexiPRINT GCC Edition RIP software, and printing is complete.

5.1.4 How To Set IP

Check the IP address of JF-240UV.

Step 1

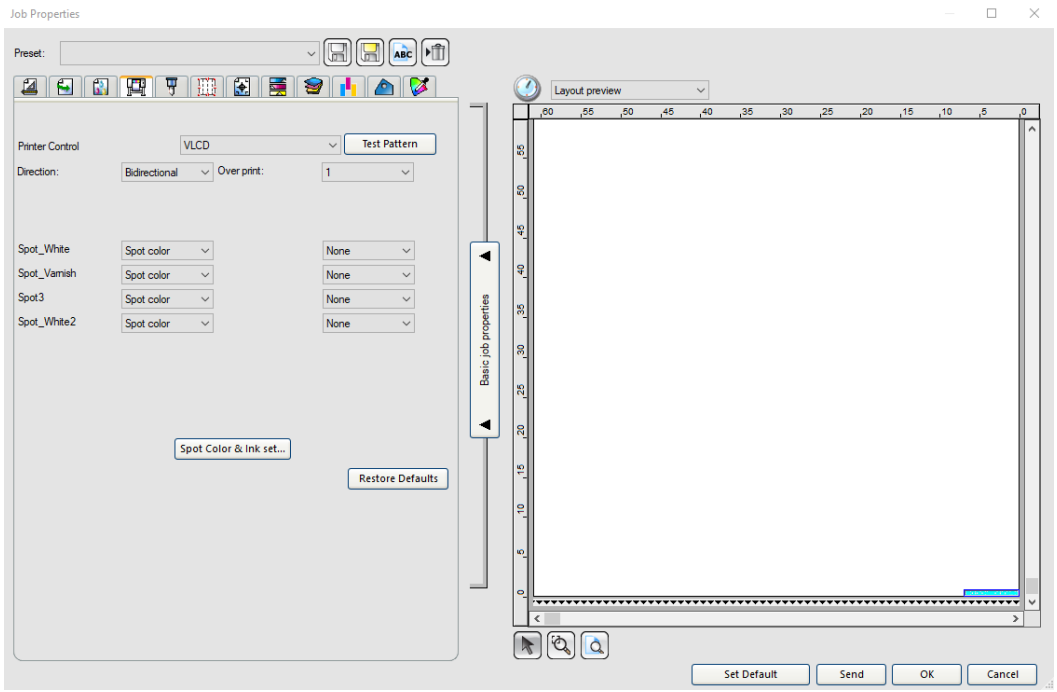
1. Select MENU on the control panel.

2. Select NETWORK

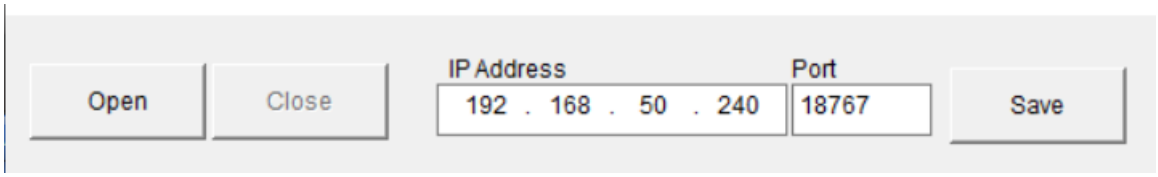
3. Select IP

Step 2 Go to IP, select IP/Sub Mask/Gateway and adjust the value and select ENTER.

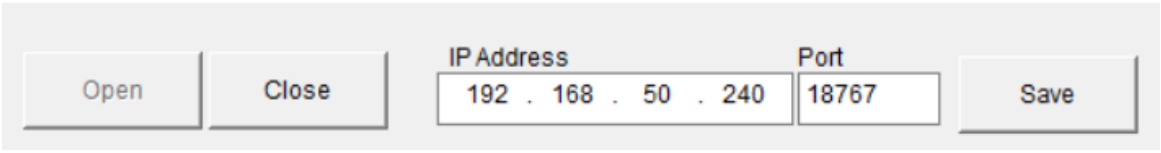
Step 3 Go to Job Properties in FlexiPRINT Select VLCD in Printer Control and click Test Pattern.



Step 4. Start JF-240UV (VLCD) and click Open.



Step 5. Enter the IP address acquired from the control panel in the “IP Address” column and click Save.



5.1.5 Simplified Output Procedure

Basic Output Message

Please make sure test tuning / printing / quality / LED lamp are ok.

Note: The tuning setting confirmation prior machine printing is very important; please double check to ensure they are correct.

	Print
Check Nozzle	v
Check Bi-directional	v
Check Calibrate	v
Check AMC	v

5.1.6 Reset Back To The Factory Settings

If messed up the parameter settings in the above operation, user can select from the control panel, follow the steps to reset back to the factory default.

Step 1.

1. Select MENU on the control panel.

2. Select RESTORE DEFAULT.

Enter RESTORE DEFAULT, select YES option then press ENTER to complete the restore to factory default settings.

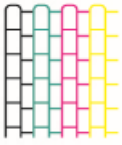
Note: YES to restore the factory default settings.

5.1.7 Check Print Head Condition

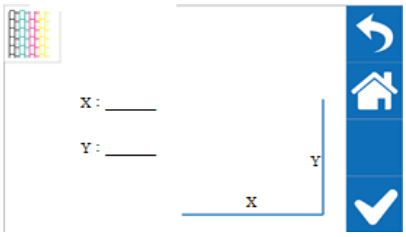
If the printing quality deteriorates during the process or daily operation, we recommend printing a print head test chart to make sure the print heads are defect or not. If there is defect in the print heads, recommend cleaning up the print heads.

Step 1 Perform NOZZLE CHECK

1. Select MENU on control panel

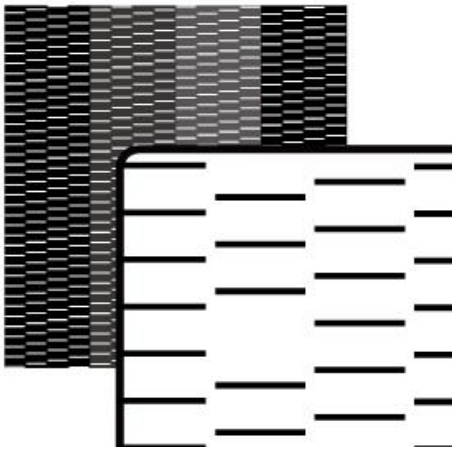


2. Select NOZZLE CHECK



3. Set X and Y coordinates of NOZZLE CHECK pattern on the material and select CONFIRM.

Step 2. JF-240UV will execute Nozzle Check automatically to ensure the print head quality.



(Please refer to Chapter 6.3.3 and Chapter 6.3.4 for detailed instructions)

If there is blocked pixel in print head, recommend to conduct following steps:

Step 3. Conduct normal cleaning (Suggest for first time cleaning). If the problem persisted, please repeat the cleaning process.

1. Select MENU on the control panel.

2. Select CLEANING

3. Select NORMAL and the machine will proceed to NORMAL Cleaning.

Step 4. Conduct POWERFUL cleaning (when NORMAL cleaning does not clean throughout, it is suggested to conduct POWERFUL to clean up).

1. Select MENU on the control panel.

2. Select CLEANING.

3. Select POWERFUL and the machine will proceed to POWERFUL cleaning.

Step 5. Conduct the printing test, to ensure the print head blocked problem has been solved. If the problem continues, please conduct the 2nd cleaning cycle. If the machine has been used for a long time, recommend to clean manually.

5.1.8 How To Pause/Clean/Delete The Job While Printing

When it is printing incorrectly or error occurs, it is suggested to use the PAUSE button on the control panel to stop printing.

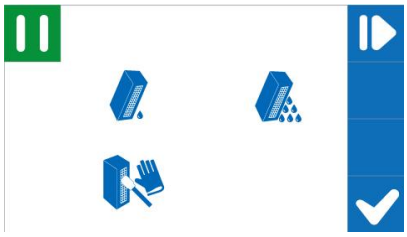
Pause while printing:

Step 1. Select PASUE on the control panel.

Step 2. To resume the job, press PAUSE button on the control panel again to continue the job.

Clean while printing: (when cleaning print heads is required while printing)

Step1: Select PAUSE button on the control panel.

Step 2. LCM shows 

Step 3. Select NORMAL CLEANING, and press ENTER for NORMAL mode.

Step 4. Select POWERFUL CLEANING, and press ENTER for POWERFUL mode.

Step 5. Complete cleaning, select RESUME to continue.

Canceling job while printing

Step1: Select PAUSE button on the control panel.

Step 2. Select CANCEL JOB on the control panel.

Step 3. Press ENTER again to cancel the job.

5.1.9 How To Set Pass To White Clean

When PASS TO WHITE CLEAN function is turned on, the purge of white ink will be automatically performed after the defined pass is printed in order to keep the print head cleaning.

Step 1 Select MENU on then control panel

Step 2 Select CLEANING

Step 3 Select PASS TO WHITE CLEAN

Step 4 Complete

5.2 FlexiPRINT GCC Edition Operation

Recommended System Requirements

Operating System： Windows 7, Windows 8, Windows 10

RAM：4GB

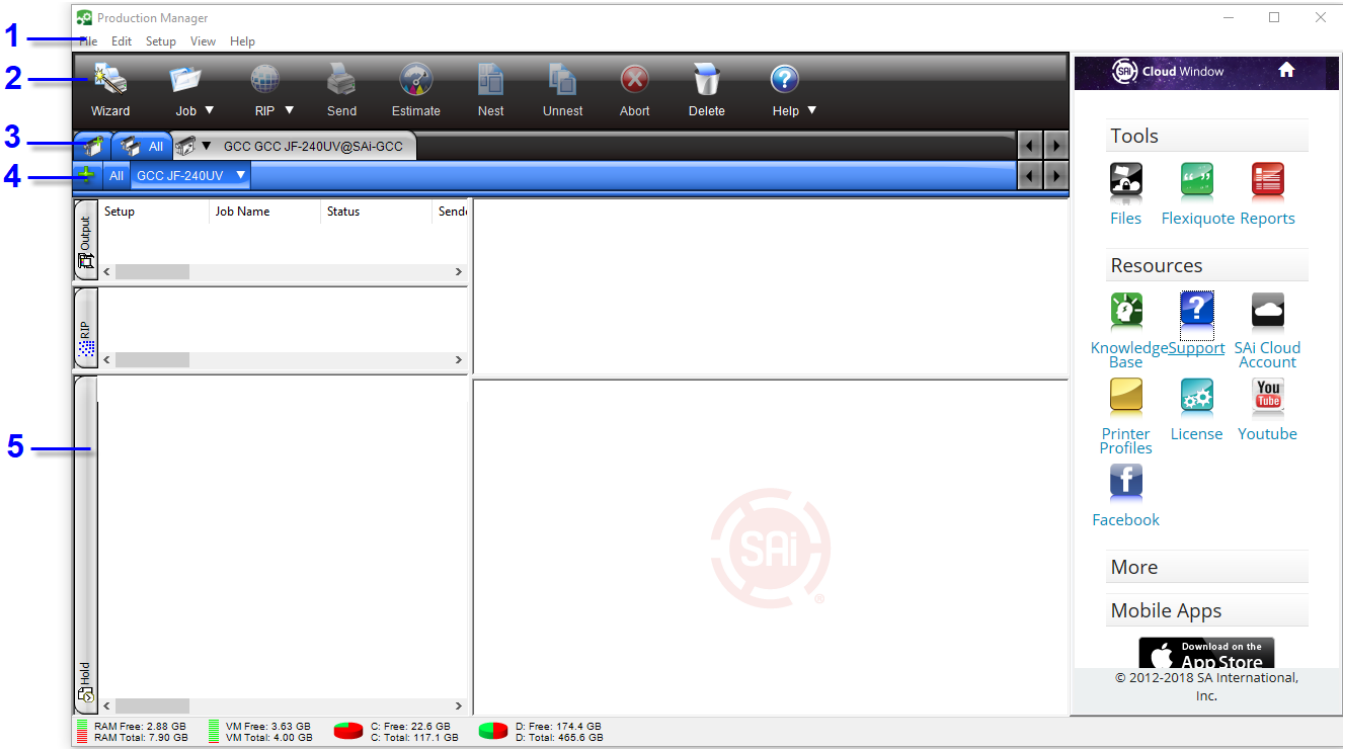
Install Space：700 MB for base program

Working Disk Space：4 GB

Other：Broadband Internet connection or Available port for hardware key and Available port for output device

5.2.1 Basic Elements for FlexiPRINT GCC Edition

Basic elements including:



1. Classic Menu
2. Toolbar
3. Device Section
4. Setting Section
5. Operation Section

Toolbar

Launch FlexiPRINT GCC Edition program. The toolbar is the fastest way to browse through it. Launch "Toolbar", right click on the blank section on the toolbar, then select the toolbar or content to be displayed.

If you want to view the layout for the main page, please refer to the software basic elements.

Wizard Launch "Wizard" dialog box

Job Click on "Job" button to add job.
Click on "Job" menu button to check on the quick menu.

RIP Click on "RIP" button to conduct RIP for the selected job.
Click on "RIP" menu button to check on the quick menu.

Send Send the selected job to output to the output device, if necessary conducts RIP for it.

Estimate Estimates the amount and cost of ink used in a job. Helps calculate the true cost of any print job. Can also prevent running out of ink in the middle of a job.

Nest Nests the selected jobs together to use the minimum amount of the output media.

Unnest Unnests the selected set of nested jobs.

Abort Abort the RIP process or output process for the selected document.

Delete Delete selected job or jobs.

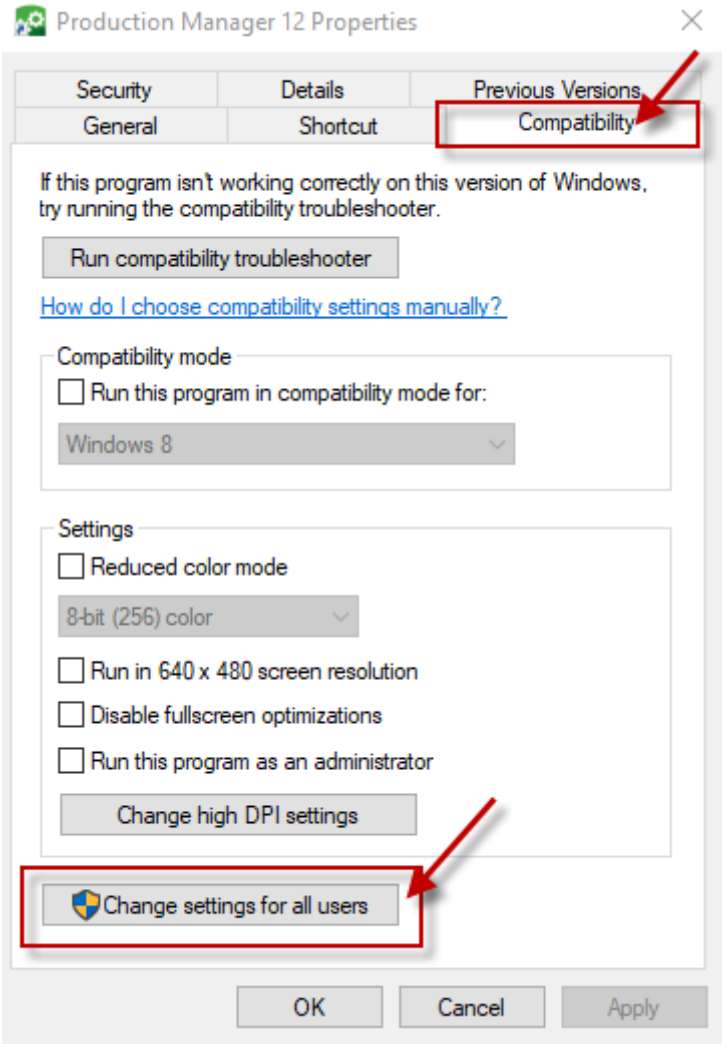
Help Click on "Help" button to open HTML help document.
Click on "Help" menu button to check on the quick menu.

5.2.2 How To Setup For Printing and Import File

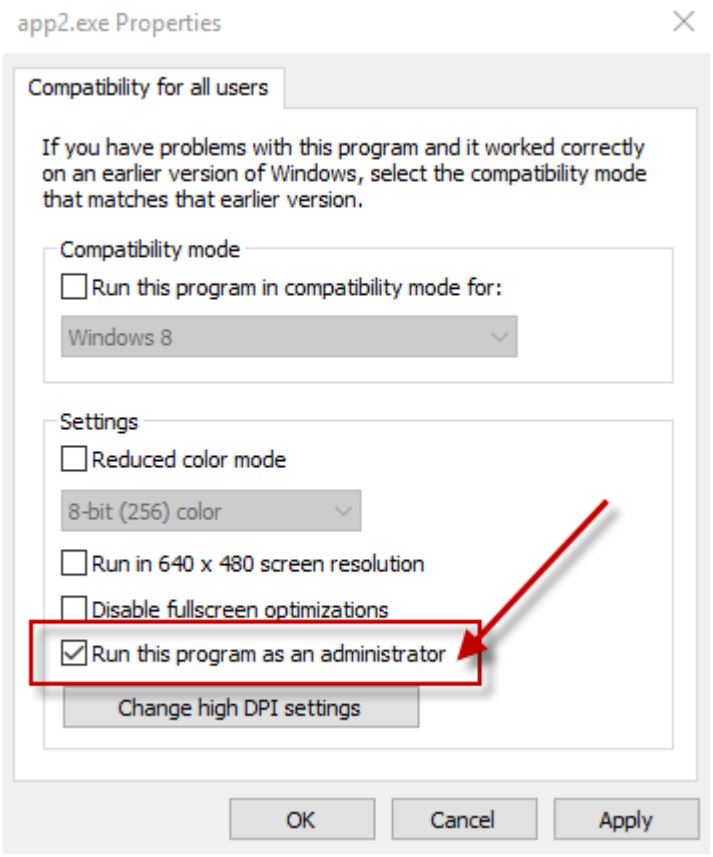
Before starting Setup process, make sure the Ethernet cable is connected to your computer. For the installation of FlexiPRINT GCC Edition software, refer to Chapter 3.2.

Step 1. Right-click on FlexiPRINT GCC Edition Icon and FlexiPRINT EDITOR Icon and select properties.

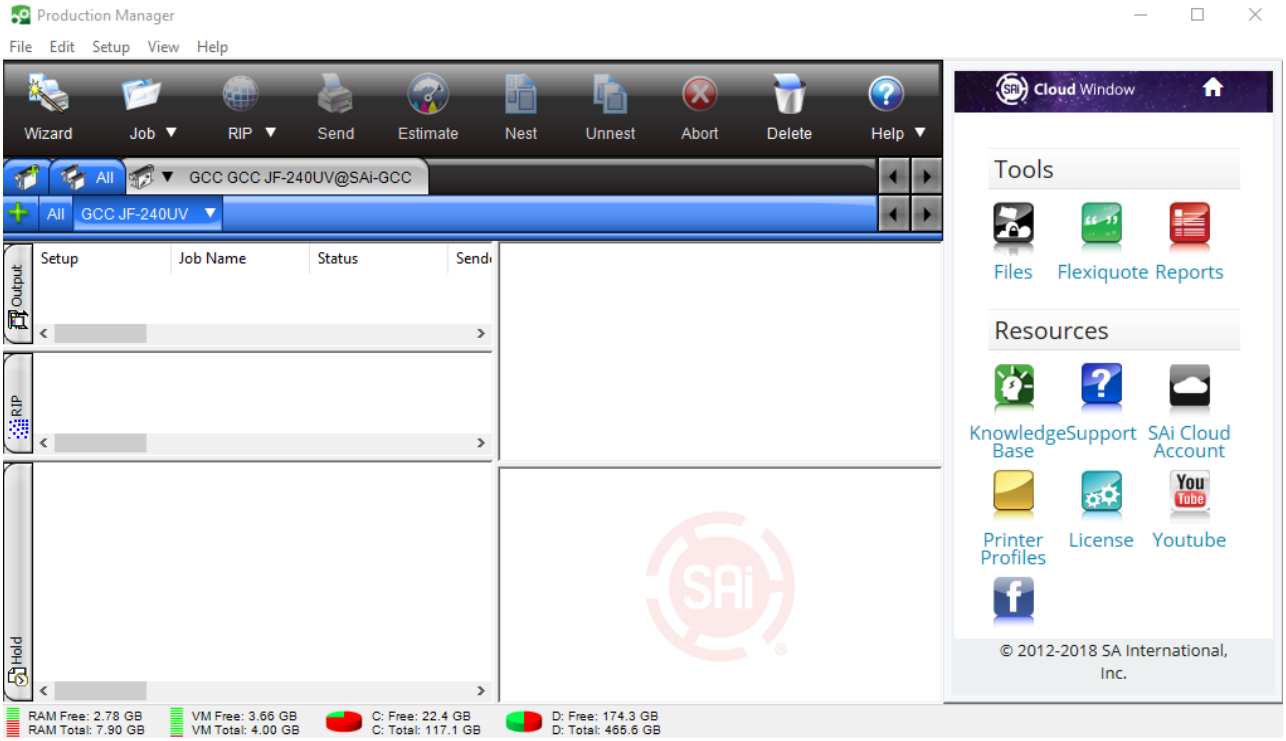
Step 2. Select Compatibility and “Change settings for all users”.



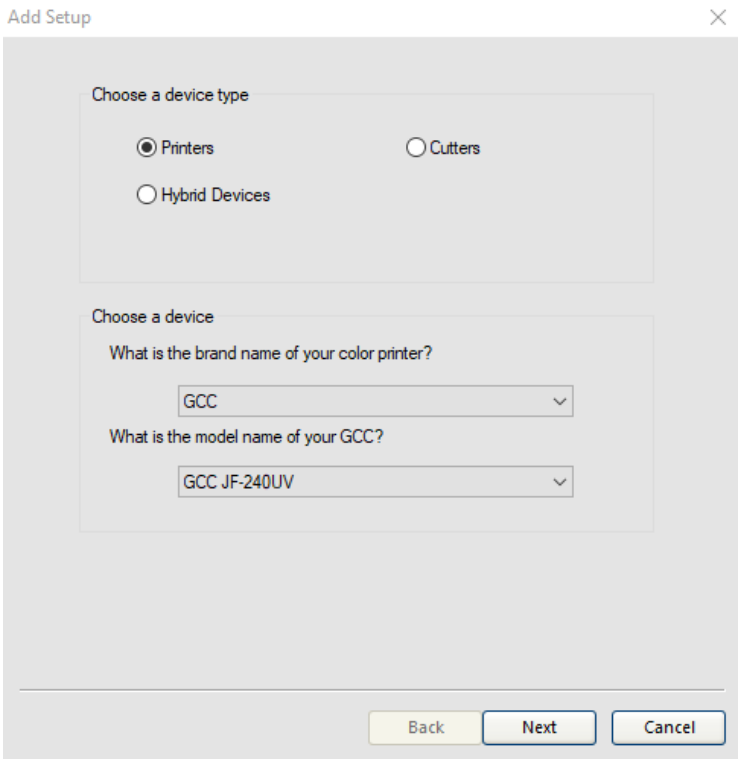
Step 3. Tick “Run this program as an administrator” and select “OK”.



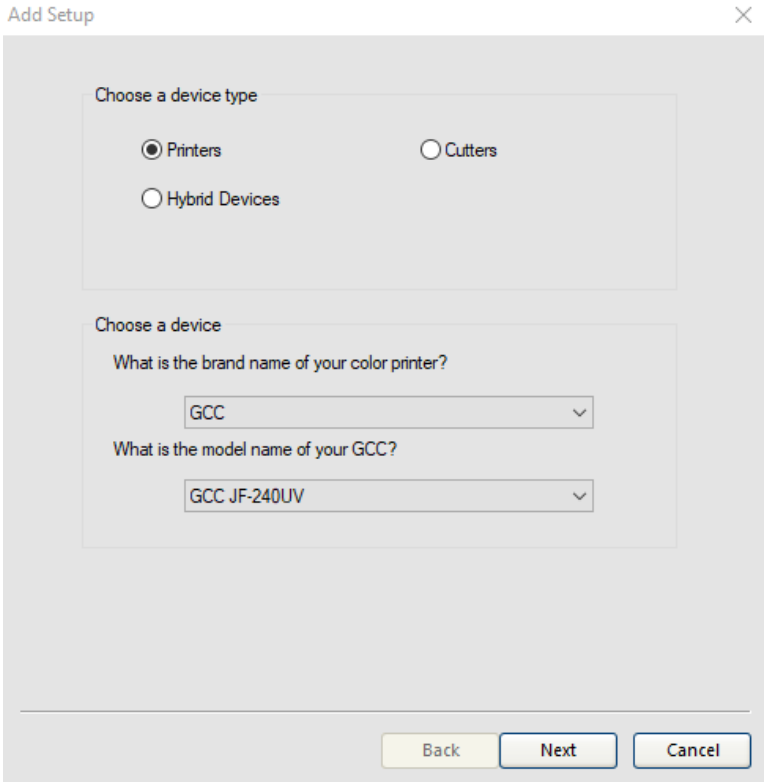
Step 4. The settings is completed and open FlexiPRINT GCC Edition.



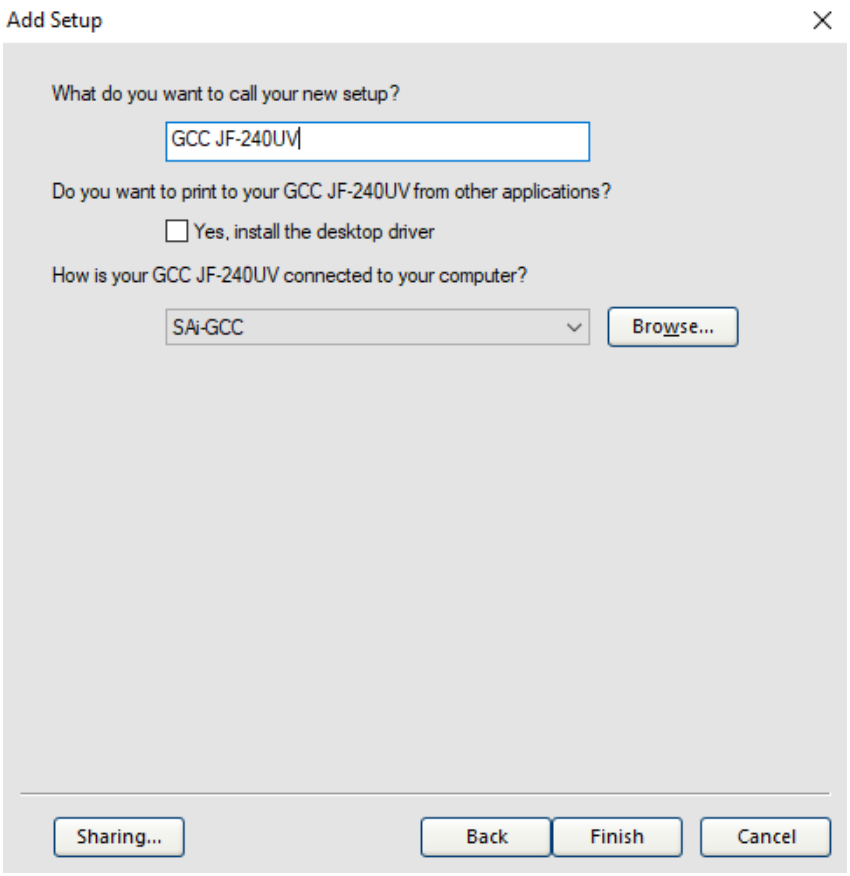
Step 5. From menu “Setup→Add Setup” setting to open up “Add Setup” dialog box (Short cut key Ctrl+N).



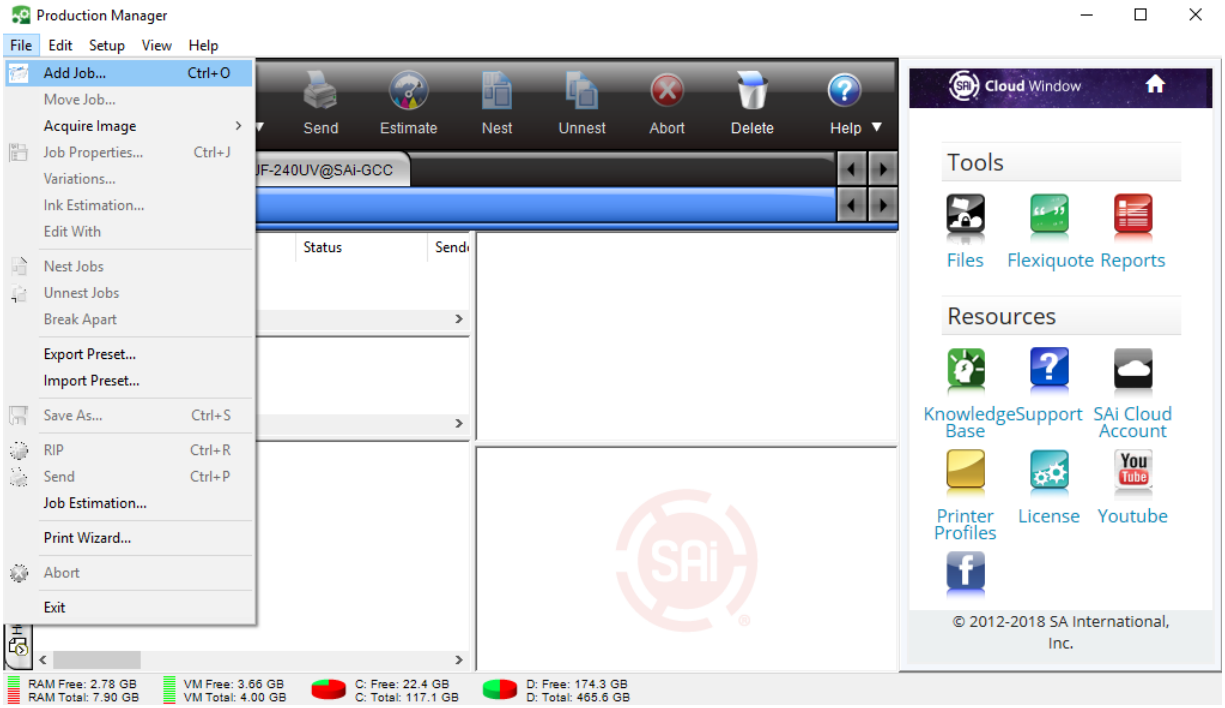
Step 6. Select the output device model from the menu, select Hybrid Devices and select JF-240UV.



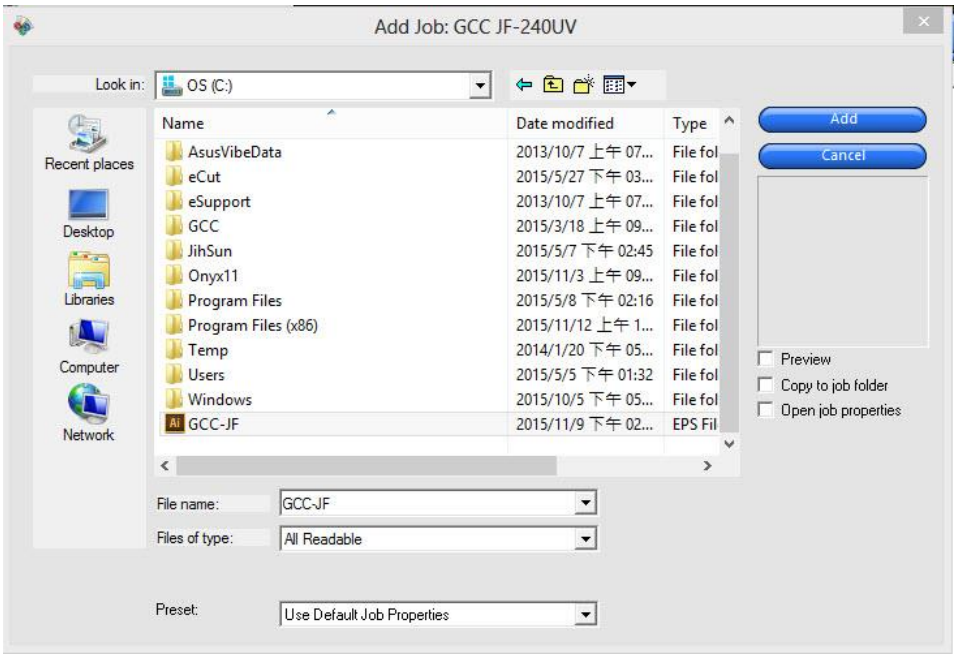
Step 7. After the new device is added, complete the operation.



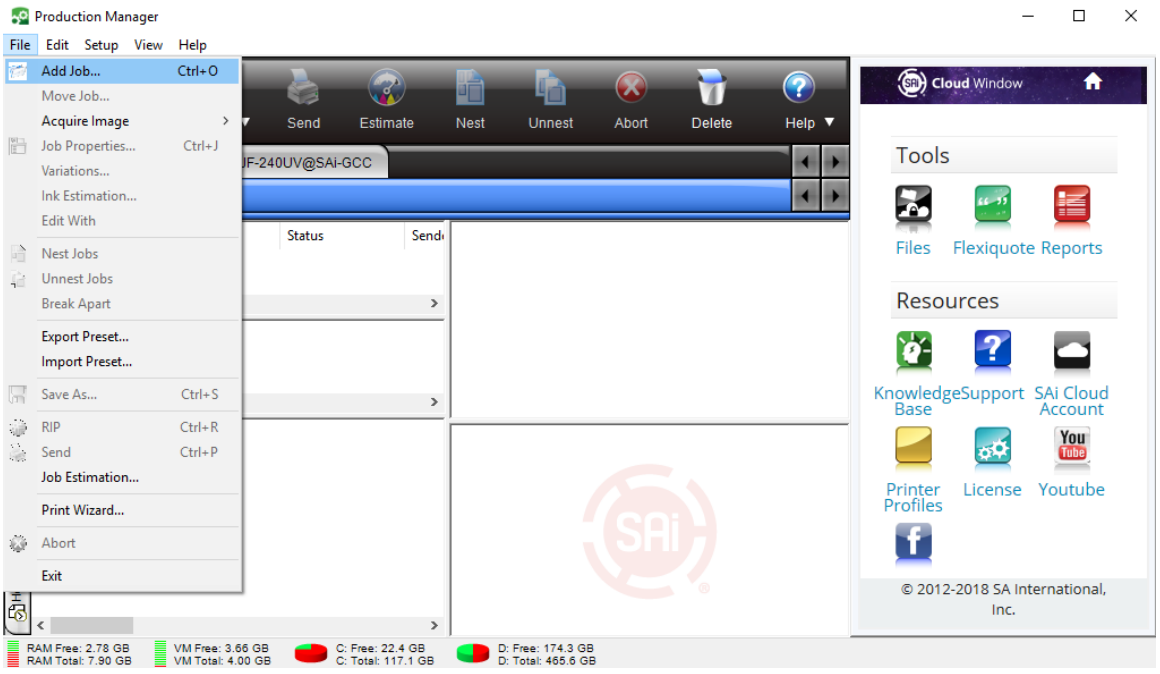
Step 8. Select “Add File→Add Job” (Short Cut Key Ctrl+O).



Step 9. At the “Add Job” window select the file name to be printed, and click Add to add the file.



Step 10. The open file operation is complete.



5.2.3 Add Image Setting

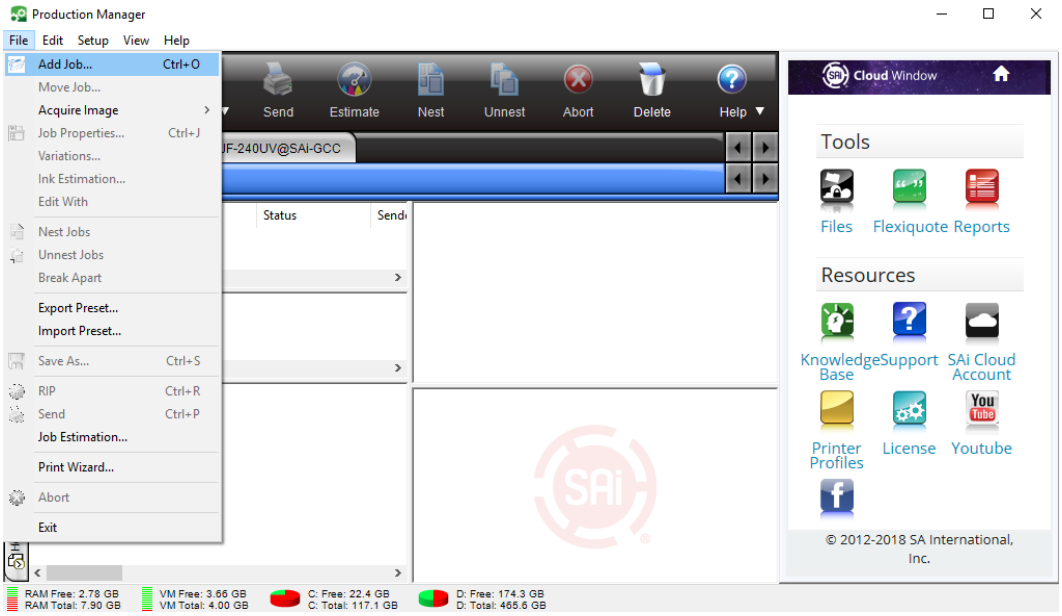
Add job (Short cut key Ctrl+O)

The jobs can be transferred to the software via several channels.

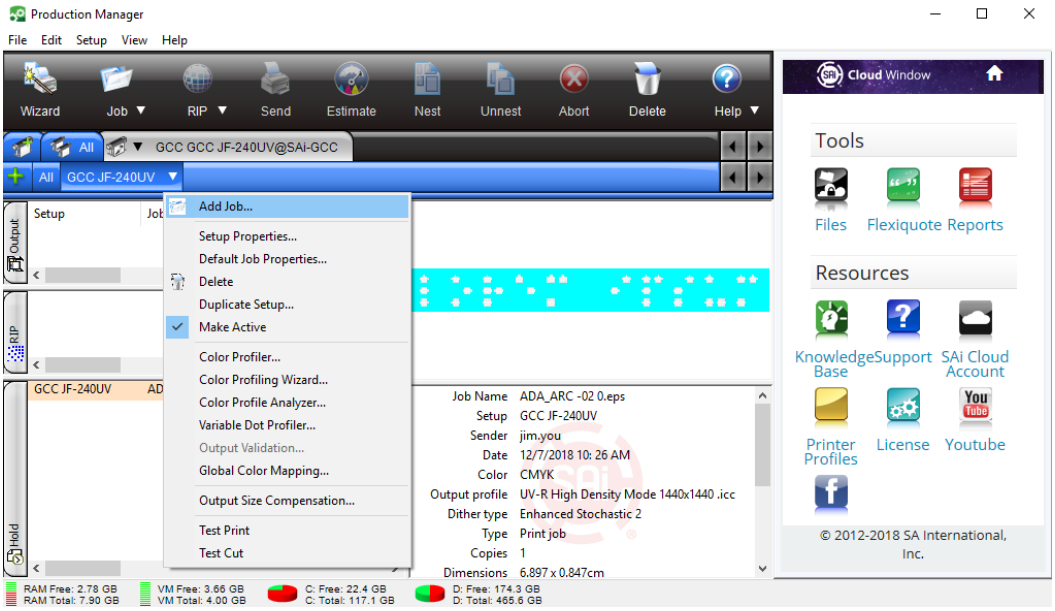
Add job through file

1. Proceed with following operations:

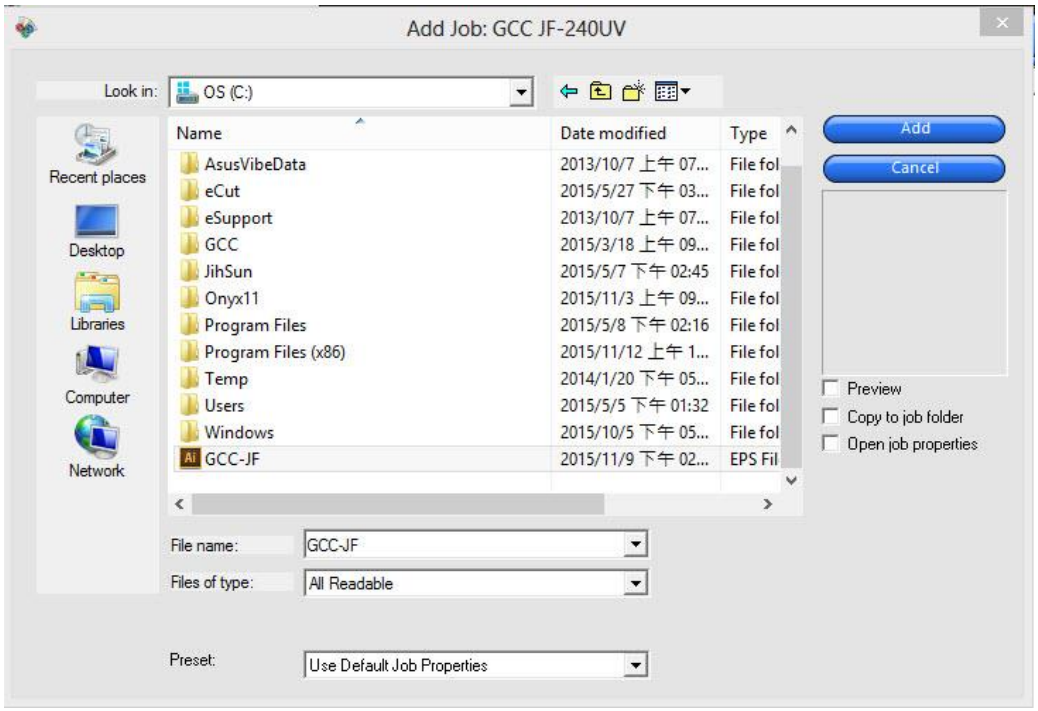
a. Select “Add Job” from the “File” drop menu.



b. Click on the job menu button, and select add job from the quick men.



2. Select the file to be added.



3. Select the options required:

a. Select “Preview” to view the thumbnail for the selected file.

b. Select “Copy to job folder” to copy the file to local working folder.

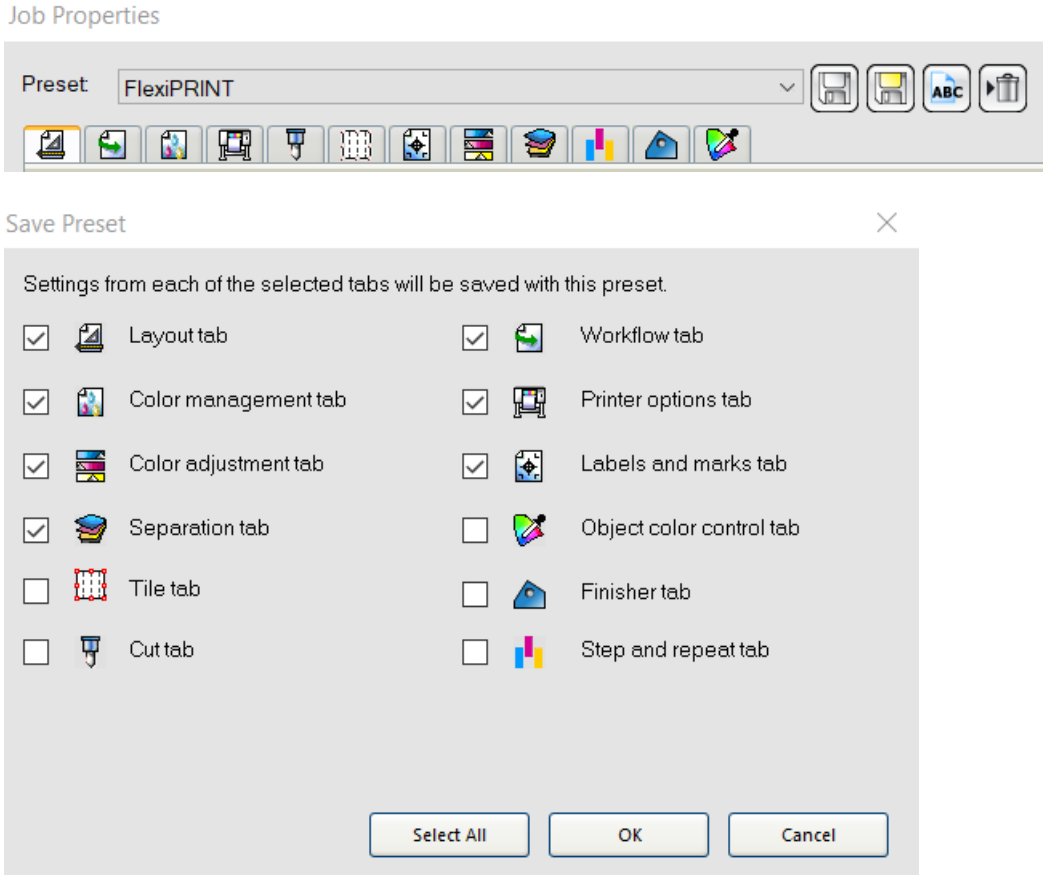
* If job is stored in removable disk or network drive, you need to copy it to the local working folder, to continue operation when the storage device is removed or network is disconnected.

c. Select “Open job properties” to automatically launch “job properties” dialog box once the job is added to the “retention queue”. ◦

4. From the settings list, select the settings that you want to apply to print the file.

5. From the preset list, select the preset settings that you want to apply to the job.

6. Click on the save, and name it as frequently used media parameters.



Select the preset options you want to save.

Save the default Layout tab value.

Save the default **Color management tab value.**

Save the default **Color adjustment tab value.**

Save the default **Separation tab value.**

Save the default **Tile tab value.**

Save the default **Cut tab value.**

Save the default **Workflow tab value.**

Save the default **Printer options tab value.**

Save the default **Labels and marks tab value.**

Save the default **Object color control tab value.**

Save the default **Finisher tab value.**

Save the default **Step and repeat tab value.**

7. Completion.

Selecting Setups

To select job, please click in the job list to select it.

Use standard Windows operation, combine CTRL and SHIFT key to select multiple jobs :

- Hold the CTRL key to select multiple independent jobs.
- Hold the SHIFT key to select the first job and the last job to select a range of jobs.

To select all jobs, please click the select all in the Edit menu.

Deleting Setups

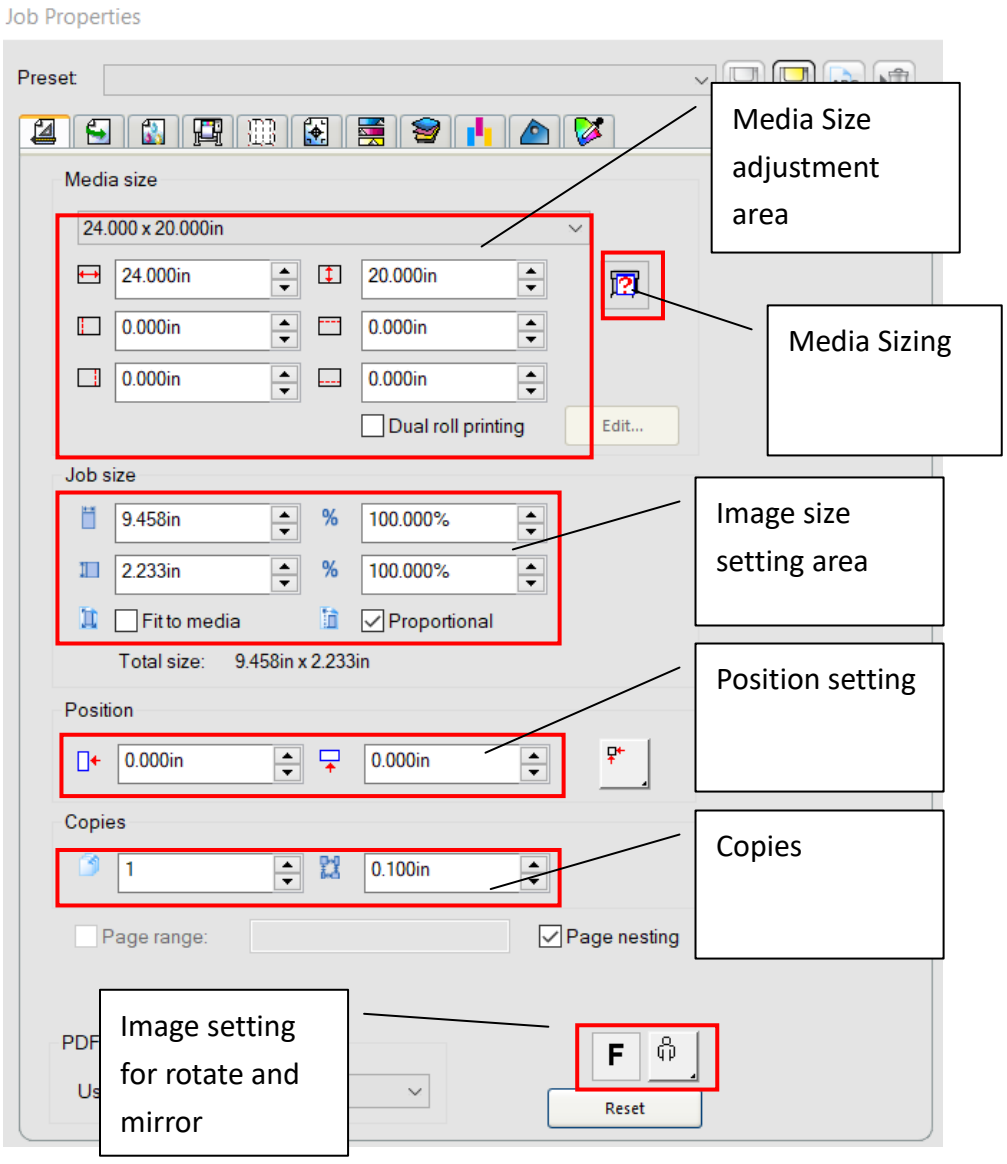
To delete jobs, please execute the following steps :

- Select the Delete or Backspace key in the keyboard.
- Select the job, and select the delete from the Edit menu.
- Select the job, and click the delete button in the toolbar.
- Right click on the job, and select the delete from the pop up menu.

5.2.4 Editor

Layout Tab

The Layout tab controls how the job is positioned on the output media, what size it is and the layout of the output.



Media Size The size of the media loaded into your output device. Select from one of the preset sizes, or specify unique dimensions below.

The width and height of the media.

The margins of the printable area.

Media sizing: When you specify a set of custom dimensions, it is automatically added to the list of preset sizes.

Job Size Editing these options allows you change the output size and orientation of the page.

The width and height of the job.

The width and height of the job as a percentage of the original.

Fit to Media Scales the job proportionally so that it is as large as possible while still fitting within the printable area of the output media.

Proportional Increases or decreases width and height together to keep the original proportions intact.

Position Changes the position of the job on the media.

The distance between the job and the right and bottom margins of the printable area.

Places the job at the specified distances from the lower and right edges of the printable area of the output media.

Centers the job along the width of the printable area.

Centers the job in the middle of the printable area. Only available for sheet material.

Places the job at the specified distances from the lower and left edges of the printable area of the output media.

The number of copies to be output.

The amount of space between the various tiles, copies and/or nested jobs that are output as part of the job.

Page Range Specifies the range of pages that are output for a multi-page job. Format is **x-y**. Also accepts "," to put in multiple ranges.

Ex: 5 Prints page 5.

2-5 Prints pages 2, 3, 4 and 5.

3, 5-10 Prints pages 3, 5, 6, 7, 8, 9 and 10.

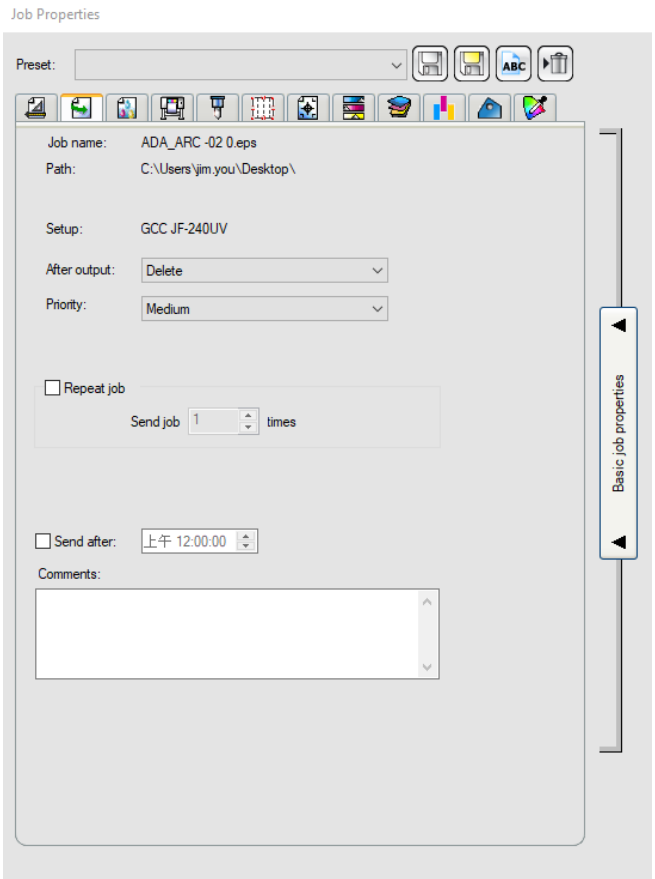
Page Nesting Check to automatically nest pages, tiles and separations of the job.

Flips the selected image on the vertical axis, so that the image is mirrored when printed.

Rotates image on the media in 90-degree increments. Click the button until you achieve the desired orientation. You can also rotate a job in 90° increments by selecting it in the Preview Area and clicking its center rotation handle.

Workflow Tab

The Workflow tab displays settings related to the time and order that the job is processed in.



After output Sets what to do with the job after output.

Delete Removes jobs from the queue after output.

Hold Places jobs in the Hold Queue after output or at the bottom of the queue.

Send Sets what part of a combination print and contour job will be output.

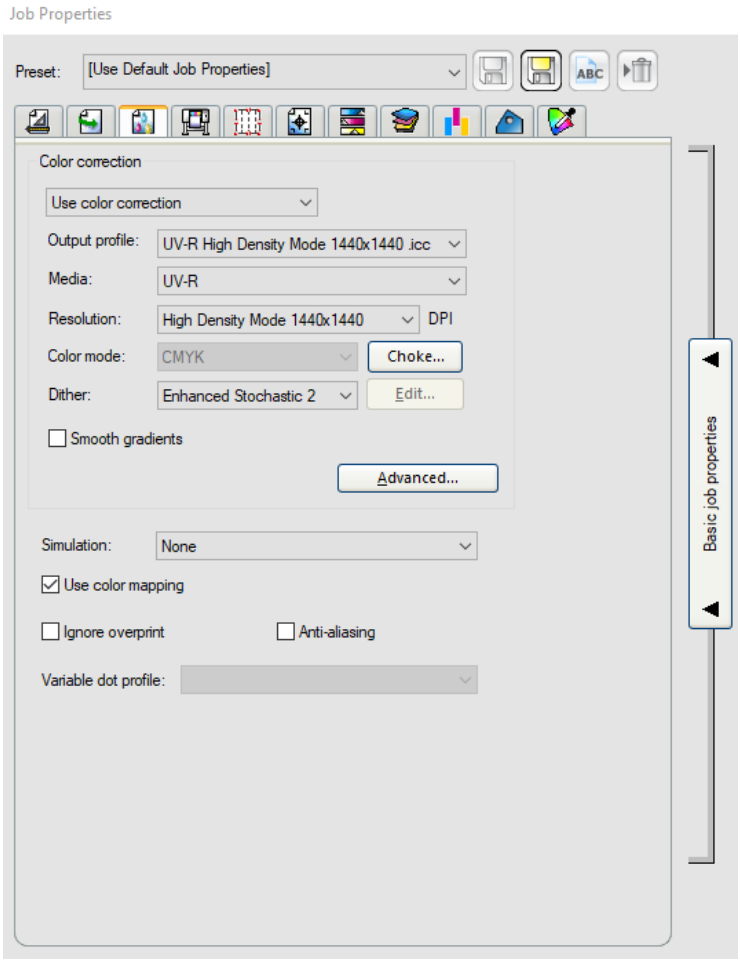
Print only Only the printed part of the job will be output.

Repeat Job Enter the number of times you would like the software to automatically re-send the job.

* This feature saves you from having to manually send the job each time you want to output it.

Color Management Tab

The Color Management tab displays the settings related to the printing device. The layout of this tab may differ depending on the output device.



Color Correction Select the desired type of color correction.

Use color correction	Activates the color correction settings from the selected ICC Profile
Use only linearization	Activates the linearization settings only from the selected ICC Profile.
No color correction	The software uses a generic CMYK profile, instead of a profile generated from actual color measurements of output from the device. Orange and green inks will not be used

Output profile Select a profile from the list or select **Add** to add an ICC profile.

Media Select the media type the output is printed on.

Resolution Select the output resolution. The setting may differ according to different output device used.

1. High Speed Mode: 720 x 1,440 dpi,
2. Quality Mode: 720 x 1,440 dpi,
3. High Density Mode: 1,440 x 1,440 dpi.

Outputting mode settings: The higher the value is the better the quality is, but the longer the outputting time will be.

Color Mode Select the color mode that matches the inks set in the printer.

CMYK	The image prints using a combination of cyan, magenta, yellow and black inks.

Dither Select the dithering for the output.

Dither Type is the pattern in which the individual dots that make an image are applied to the media. Each dither type has advantages in terms of quality and RIP speed. The default dither type is usually the best setting for your machine.

The software offers several dithering options to optimize your output. Usually, quality and speed are a tradeoff, with KF Diffusion offering the highest quality and the LX Diffusion or FMXPress offering the fastest processing times.

The available patterns (in descending order of quality) are:

1. SO Diffusion
2. Error Diffusion

3.Error Diffusion2

4.FMXPress

5.KF Diffusion

6.Random Diffusion

7.LX Diffusion

8.Angle Screen

Description：1. SO Diffusion

SO Diffusion is the default diffusion method for all newly created profiles. It eliminates banding and produces the smoothest gradients and most vibrant and accurate output of any other diffusion method. SpotON RIP speeds are slightly slower than FMXpress, but yield higher quality output.

2.Error Diffusion

Produces high-quality images. The enhanced image quality requires intensive processing (3-4 times more than FMXPress), and the time it takes to RIP a file using this method is the second longest of the available options.

3.Error Diffusion2

4.FMXPress

The default diffusion method. It's the fastest in terms of RIP time and is suitable for most prints.

5.KF Diffusion

An enhanced version of the error diffusion method. While it takes longer to RIP (5-6 times more than FMXPress), it provides the highest detail and contrast for most inkjet printers.

6.Random Diffusion

Provides a balance between image quality and RIP time. It takes 2-3 times longer than FMXPress.

7.LX Diffusion

A faster option, as far as RIP times are concerned. It is best used for large prints that are viewed from a considerable distance.

8.Angle Screen

Designed for use with thermal printers to produce vibrant, saturated colors. This is also produces screen print positives. Click **Edit** to set advanced options.

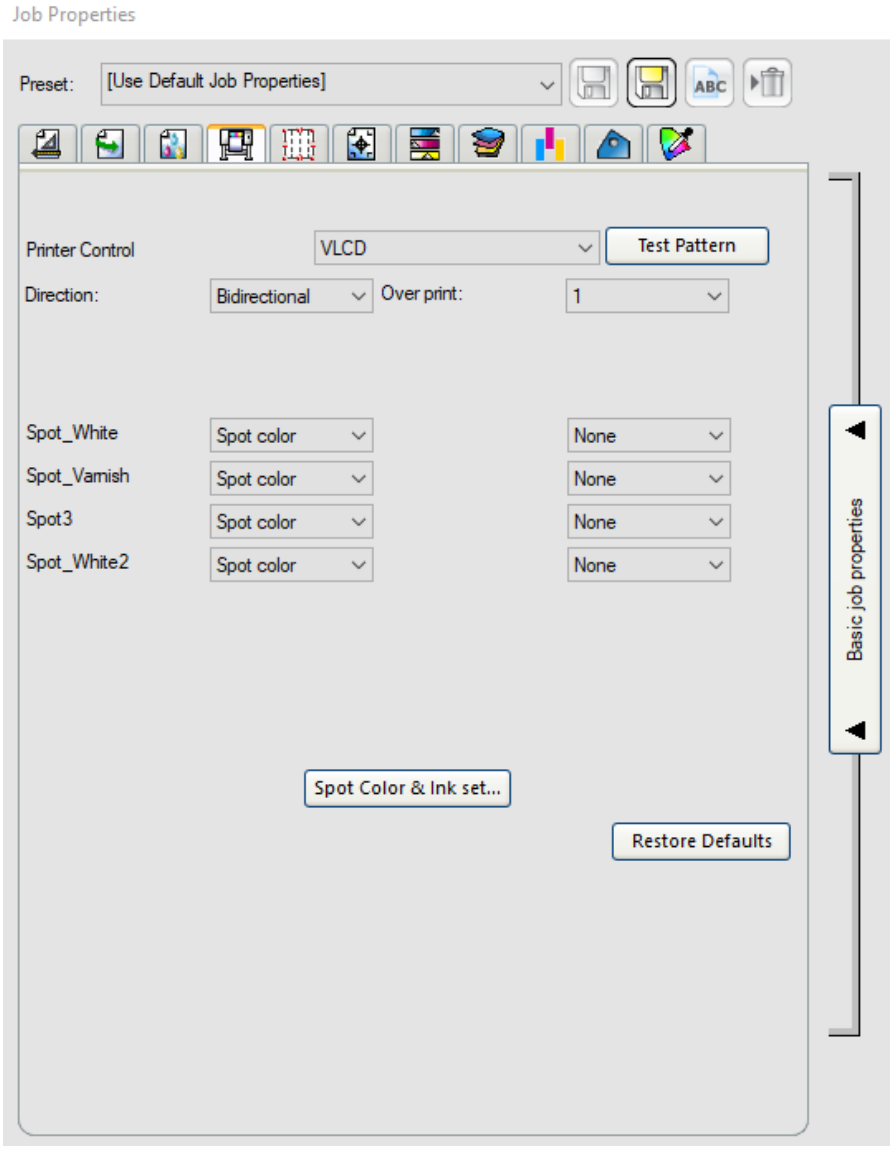
Gradient Smoothness Select **Normal**, **Enhanced** or **Super**. The higher settings cause the software to render gradients using more elaborate algorithms that produce smoother dithering.

Use color mapping Check to print spot colors based on settings in global and custom color mapping. Click **Color Mapping** to set custom color mapping options.

Ignore overprint Ignores any overprint settings that may exist in jobs it outputs.

Printer Options tab

The Printer Options tab displays driver settings related to the selected output device. Every output device supports different driver options.



Printer Control Print out the test pattern for VLCD,Nozzle Check, Head Angle, Color Offset, BiDirectional Offset, Band Offset, AAS Offset

Direction Select the type of print direction you want your output device to use.

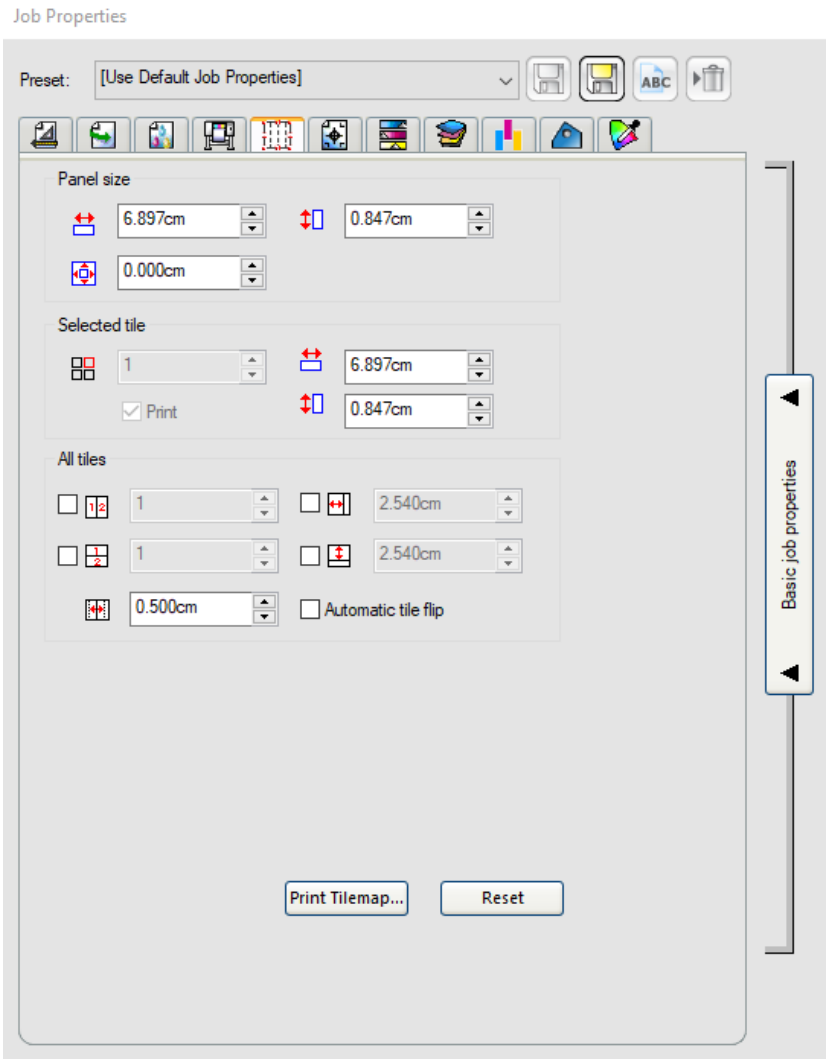
Unidirectional The print head prints in one direction to ensure precise

alignment.

Bidirectional The print head prints in both directions to increase the speed of printing while sacrificing precise alignment.

Tiling and Cropping Jobs

The Tiling and Cropping Jobs shows the settings that related to output device. The setting options may differ according to different output device.



The tiling feature of the software allows you to split a print job into a number of smaller tiles that are then output separately.

When you rotate or resize a job, all tiling is removed. If the job is larger than the output media after it rotates, it will automatically be retiled.

* If a job is larger than the output media, it automatically tiles into pieces small enough to output.

Panel size The panel splits the job into tiles and is output by the software. If the panel reduces in size so that it does not cover the entire job, only the parts covered by the panel are output.

Shows the width and height of the panel. To adjust, enter a number or use the spinner controls.

The size of the margin. The margin is the part of the panel that extends outside of the boundaries of the job.

Selected tile Selects which tile's width and height display in the fields below.

Selects a tile to edit. The selected tile highlights in the preview pane.

Shows the width and height of the selected tile. To adjust, enter a number or use the arrows.

Print Check to output the selected tile with the rest of the job.

Clear to prevent output by marking the tile with a mesh overlay in the preview pane

All tiles These settings apply to all tiles and help you quickly set up automatic tiles of equal size.

Selecting this option divides the job vertically into the number of columns specified. Each column is of equal width.

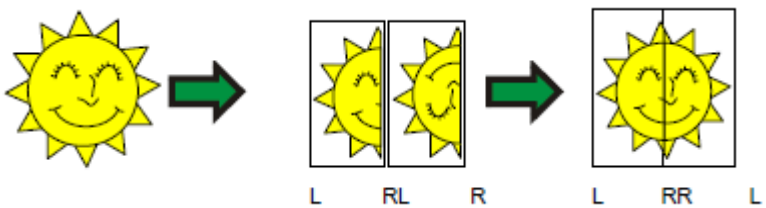
Selecting this option divides the job into the number of rows specified. Each row is of equal height.

Enter the values for the width and height of the tiles here. All tiles change to the specified size.

Set the amount of overlap between tiles. Enter a negative number to create an offset between tiles.

Reset Restores the default settings.

Automatic tile flip Check to rotate every other printed tile 180° so that adjacent vertical edges always print with the same side of the print head. This helps them match up cleanly.



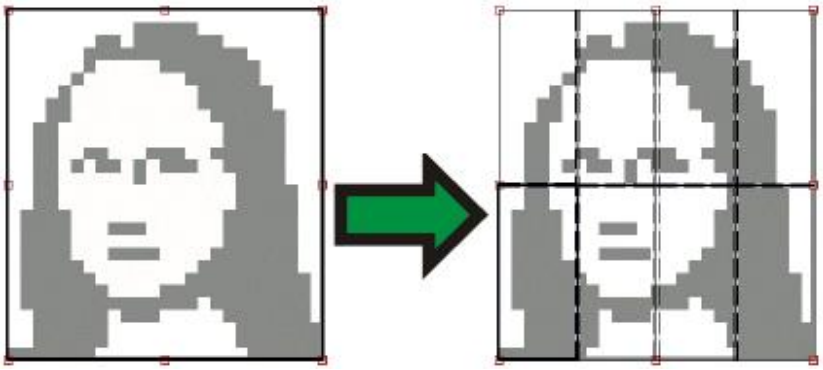
Dividing a Job into Uniform Rows and Columns of Tiles

1. Check the or fields to tile the job vertically or horizontally into evenly divided columns or rows

2. Set the fields to the desired width for the tiles.

3. Set the fields to the desired height for the tiles.

4. Set the amount of overlap between the tiles in the field

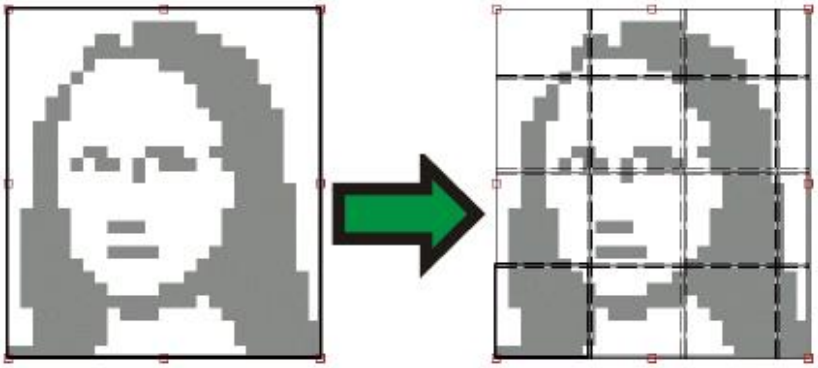


Dividing a Job into Uniform Tiles of a Specified Size

1. Check the and fields to set all tiles in the job to be of the specified size.

2. Set the and fields to the width and height desired for the tiles.

3. Set the amount of overlap between the tiles in the field.



* If the specified tiles do not cover the job evenly, the tiles at the top and right edges are made small enough to fit in the gap.

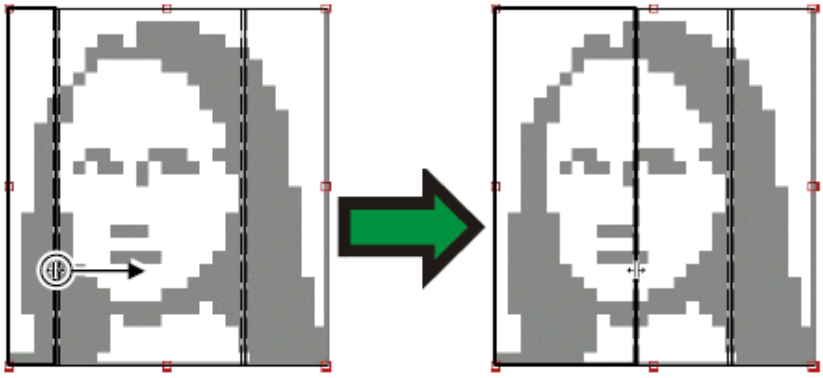
Selecting a Tile

To select a tile, either click the tile in the preview pane, or select the tile using the field in the **Selected tile** section of the Tile tab

Editing Tiles

To edit the size of the **selected** tile, change the values in the and fields.

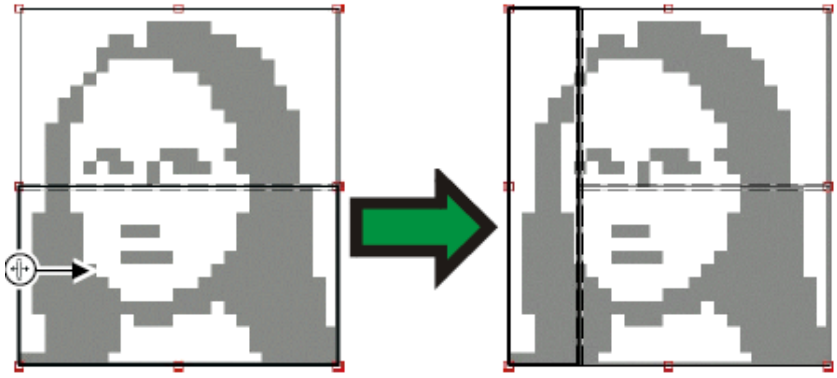
You can also resize tiles by dragging their edges in the Preview Pane.



Click and drag to resize.

If any of the **All Tiles** checkboxes are checked, the and fields may be disabled. In this case, the fields have been overridden in order to keep all tiles uniform. The tiles will not be editable using the Preview Pane either.

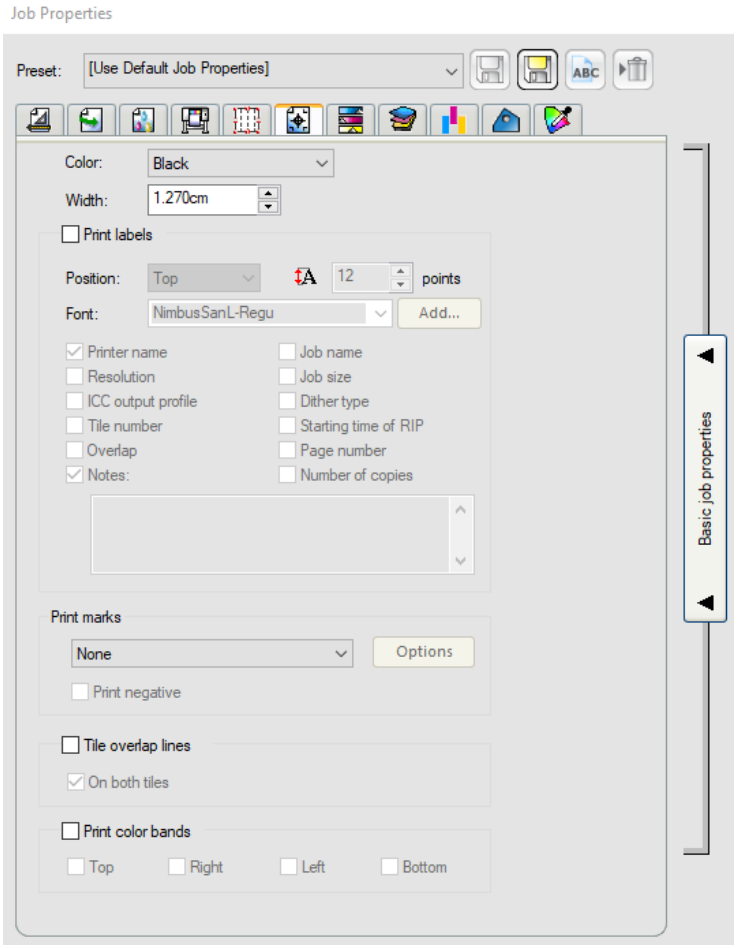
If you drag the edges of the panel over so that part of the job is exposed, a new tile will be created to cover the exposed area of the job. The exception to this is if you resize the panel using the cropping handles.



Click and drag the edge of the panel to add another tile.

Labels and Marks Tab

You may choose to print crop marks and information about the job along with any notes that you enter.



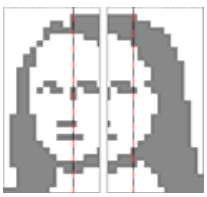
Color Select the ink that is used to print labels and marks.

Width Sets the width of the labels.

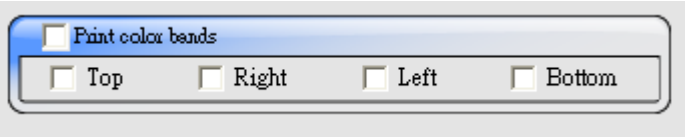
Print Marks Adds crop marks or color block on the corner of print job to define where the page should be trimmed or the job property.

Tile overlap lines Lines on tiles print to indicate where the edge of the overlap is. Use these to align the tiles.

If you check On both tiles, the overlap lines appear on both tiles. If not, the overlap line only appears on the second tile.



Print color bands: check this item allows you to print the color bar on the selected image.

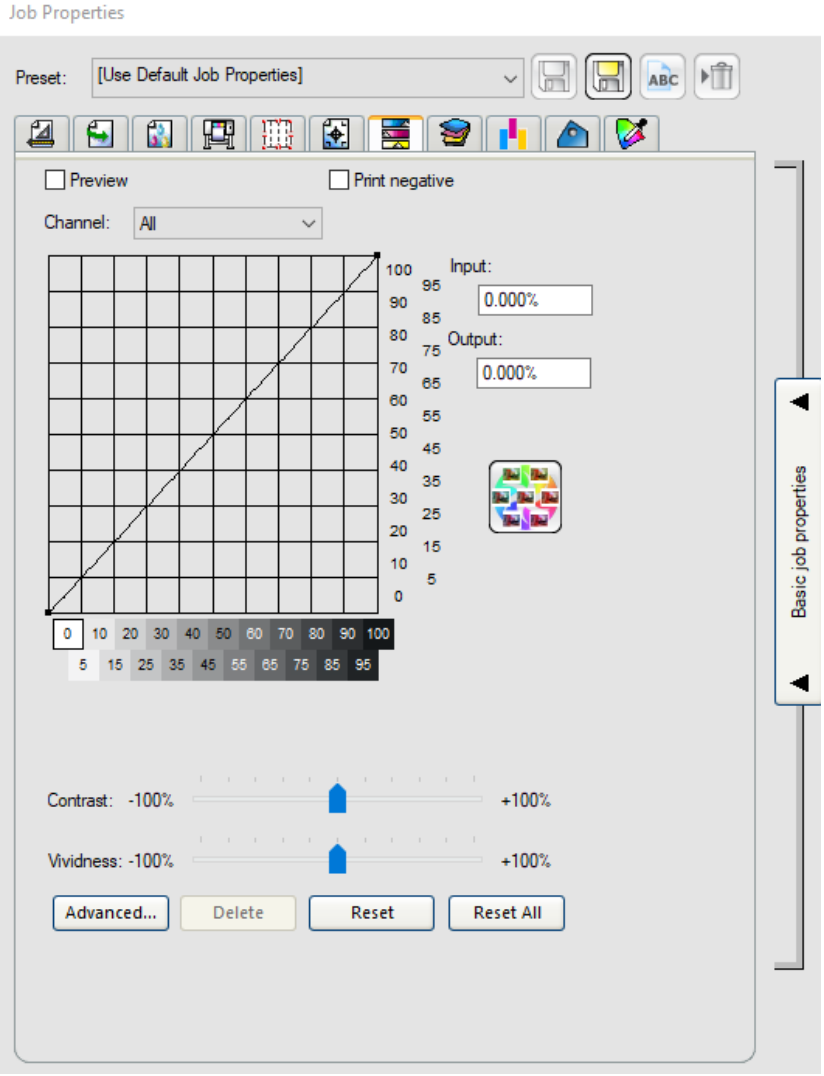


Color Adjustment Tab

Note：The adjustment value of brightness is not 0, hence, the value has been set to 0 as default

The Color Adjustment tab provides some basic tools to manually adjust the output color.

Each color channel is listed separately as a linearization curve that determines what percentage of coverage is used (output) for a specified percentage in the original image (input).



Preview Shows the changes in your color settings reflected in the preview pane.

Channel Select the color channel you want to edit.

Output The value for the point that is selected on the linearization curve.

- Click on the curve to select a different point to edit. You can also select a point by clicking on the input axis label.
- To change the value at a given point on the curve, edit the value in the **Output** field, or click and drag the point up or down.

Contrast Adjusts the amount of contrast in the image.
This setting is only available when **All** color channels are selected.

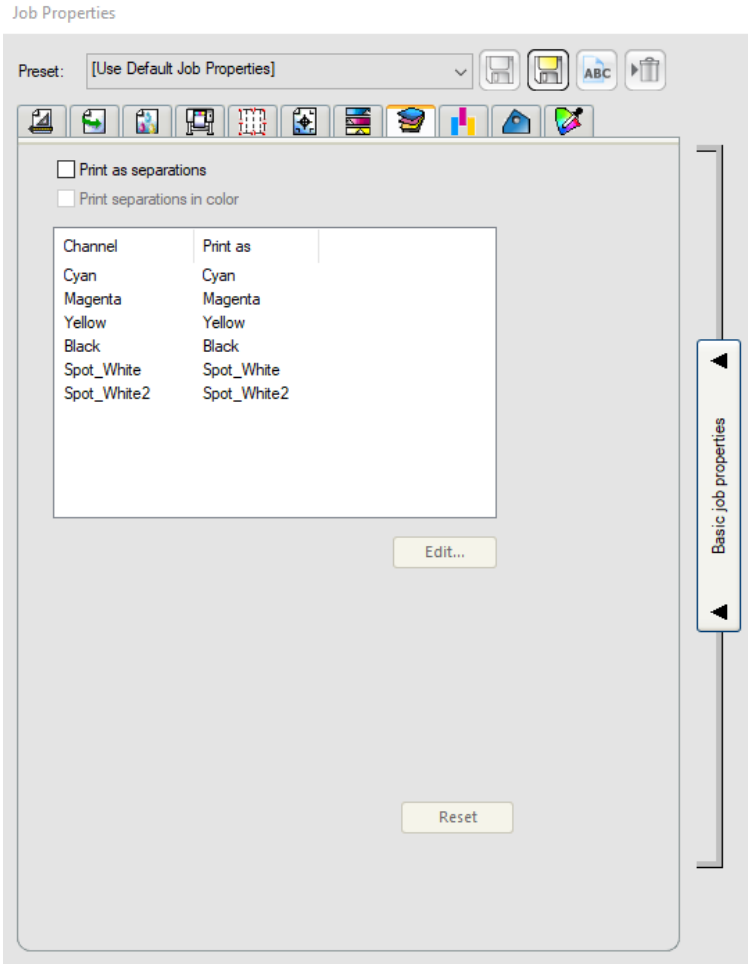
Vividness Adjusts the vividness of the image. Higher settings boost color saturation and brightness at the expense of color fidelity and detail. Lower settings decrease color saturation and brightness, but increase contrast.

This setting is only available when **All** color channels are selected. Also, you must have an ICC profile selected in the Color Management tab.

Click the Variations button to open the Variations dialog. See ***Working with Variations***

Separations Tab

The Separations tab contains a number of options related to printing color separations.



Print as separations Check to print each color plane separately.

To print separations for certain colors only, clear the checkboxes for the colors you do not want to print.

Print separations in color Makes each process color separation print in the appropriate color of ink. If you do not select this option, all process color separations will print in black.

* Separations for spot colors will always print in black.

Editing Color Channel Details Select Channel Details to edit the output setting for each color channel.

* If the **Print as Separations** box is checked, but **Print separations in color** is not checked, you can select how the separations for each color channel are output by selecting the desired color channel and clicking **Edit**.

Setting the Preview Pane View

"Preview Pane View" only shows the basic settings.

To set the "Preview Pane View", please single-click the "Preview Pane View" button in the window.

Basic settings are in the left hand side of the window whereas a preview window on the right hand side shows the printing quality of output materials.

Allows job selection or reposition in the preview window.

Doubles the size of the object. Single click points will become the view center.

- Pressing Ctrl and single-clicking this tool will diminish the object by half.

- Single click points will become the view center.
- Single click and drag any sections you would like to enlarge.

Scale the image to fit the view window.

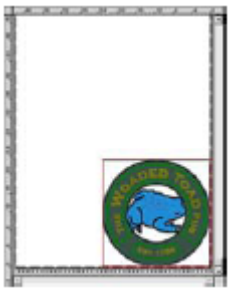
Set default preview pane

Select one of the three available views from the list at the top of the preview pane.

Page preview

Display each page of the job scaled to fill the preview area.
If there is more than one page in the job, a list of the page numbers will appear above the preview, allowing you to select the page to display.
* If you are using FlexiPRINT, only the first page is displayed in Page Preview.
** This option will be selected automatically when the **Workflow**, **Color Management**, **Printer Options** or **Color Adjustment** tab is selected

Layout preview



Display the job as it will appear on the output media. The preview is scaled so that the output media fills the preview area.

* This option will be selected automatically when the **Layout**, **Labels** or **Separations** tab is selected.

Tiling Preview

Display the job broken up into tiles to show how it will look when output.

* This option will be selected automatically when the **Tiling** tab is selected.

5.2.5 External Software Printing Setups

Adobe Illustrator Windows

Color printing

1. Select “Document Setup” from the Adobe Illustrator “File” pull down menu :

   a. Select “Artboard” from the pull down menu:

   i. Select a standard sheet size from the Size field.

   ii. To use customized sheet size:

   (1) Select “Custom” from the Size field.

   (2) Select the required “Units”.

   (3) Enter the “Width” and the “Length” for the customized sheet size.

   * To avoid from truncating image, please enter the accurate media size.

   (4) Click on OK.

2. Select “Print” from the “File” menu.

   a. Set the Name settings to the network printing queue corresponding to the required output device.

   b. Set the Copies as the required duplication.

   c. Click on the Properties button.

   d. Select Layout tab, and click on the Advanced button.

   i.For the Advanced Options :

   (1) To print the file automatically, please set the “After Spooling” as “Print”.

   (2) To verify the print mode and profile settings, please set the “After Spooling” as “Hold”.

   (3) To start the RIP but without carry out the printing, please set the “After Spooling” as “RIP”.

   (4) Click on OK.

   ii. Click on OK.

   iii. Click on OK to start the printing.

CorelDRAW

1. Select “Print Setup” from the “File” menu in CorelDRAW.

   a. Select printer from the “Name” field.

   b. Click on the “Properties” button.

      i. Select sheet size from the “Paper” field, or select “Custom Page” to use user defined sheet size.

         * According to the operating system and driver, it could be required to click on the “Advanced” button to select the sheet size.

      ii. To use customized sheet size:

         (1) Select “PostScript Custom Page Size” from the Size field.

         (2) Select the required Units.

         (3) Enter the Width and the Height for the customized sheet size.

         (4) Click on OK to leave the Advanced Option dialog box.

      iii. Click on OK to leave the Properties dialog box.

   c. Click on OK to leave the Print Setup dialog box.

2. Select “Print” from the File menu.

   a. Set the Name setting to the network printing queue for the required output device.

   b. For the General tab :

      i. Set the “Print Range” settings as to the page range to be printed.

      ii. Set the “Number of copies” settings to the duplication to be printed.

   c. On the PostScript tab :

      i. Select PostScript3 compatible.

   d. On the Miscellaneous tab :

      i. Select one of the following methods to output the bitmap as CMYK: uncheck the “Output Bitmaps in RGB”. Set the “Output Color Bitmaps as” settings as CMYK.
      * According to the actual operating system and driver version, the settings might show up in somewhere else.

      ii. Ensure uncheck the “Use Color Profile”.
      * According to the actual operating system and driver version, the settings might name as “Apply ICC profile”.

3. Click on the Print button.

Spot Colors Printing

1. To assign spot colors to be applied on the output design component:

2. Select “Palette Editor” from the Tool menu in CorelDRAW.

   a. Add spot colors definition:

      i. Select “User Defined Inks” from color palette drop down list on the top of the dialog box. In CorelDRAW X3 and X4, it is “Custom Spot Colors”.

      ii. Click on “Add Color”.

      iii. Select “Models” tab, and select the color to be used as the spot color on the screen.
      * At this moment, no need for entering the name for the color.

      iv. Click on “Add to Palette”.

      v. Repeat the process for all the other colors to be added as the spot colors.

      vi. Click on the “Close” button.

   b. Edit Spot Colors:

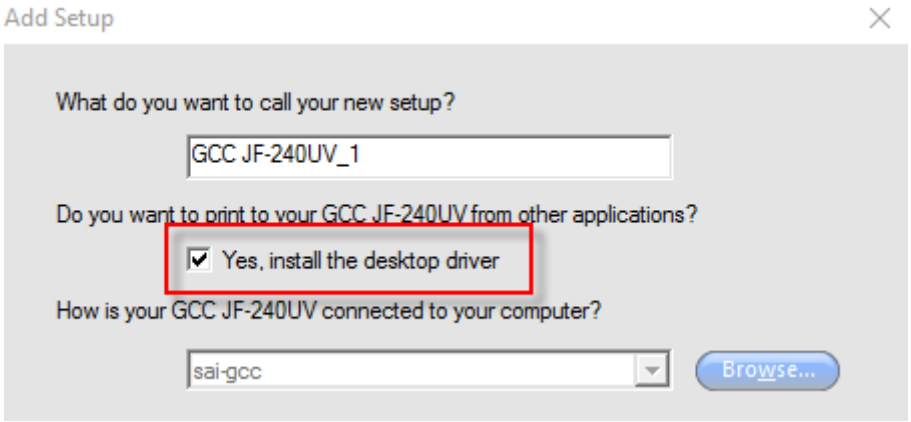
      i. Select the colors which are added to the Palette Editor.
      * They will use the default name, such as Ink (1).

      ii. Change the color name in the “Name” field in the “Selected Palette Color”.
      * To make it function normally, the name must be mapped to the name in the “Spot Colors List”.

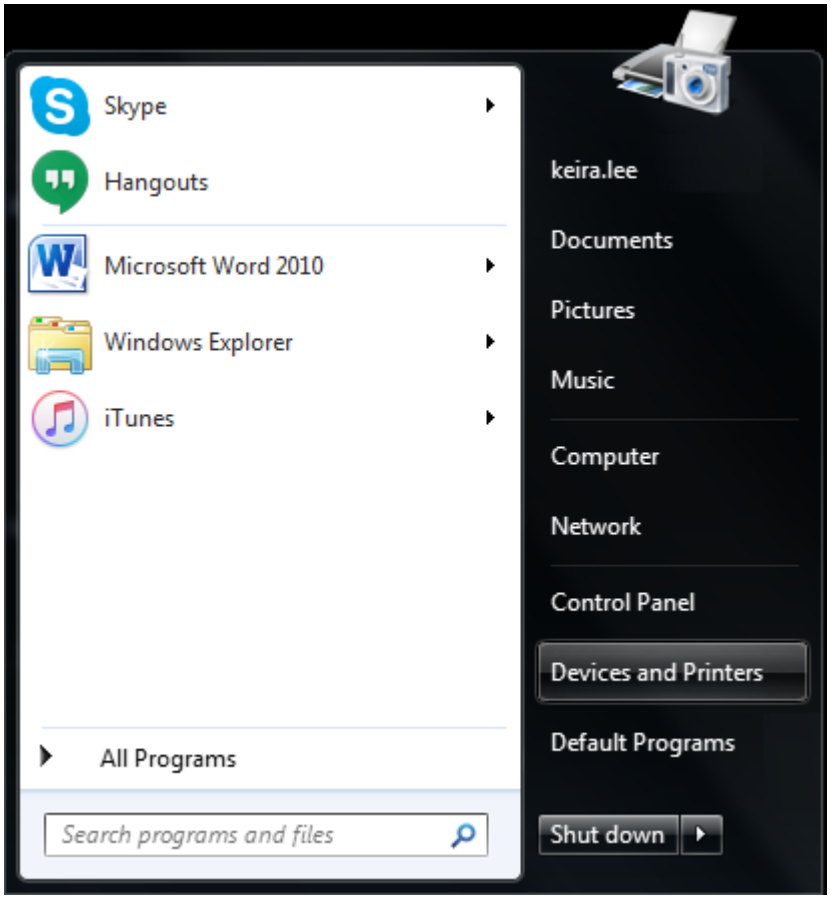
5.2.6 JOB Server Settings

JOB Server is a feature to configure a print server that allows several computers sharing the network to send and print documents utilizing the same printer.

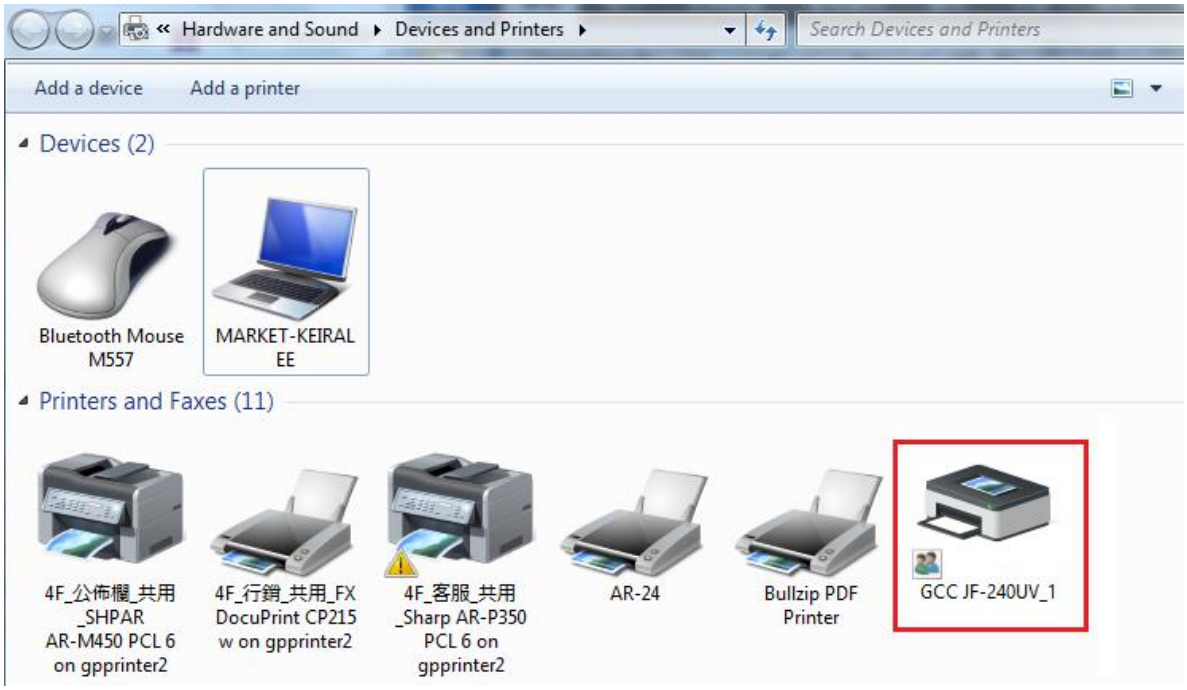
1. Add GCC JF-240UV printer driver and tick “Yes, install the desktop driver”.



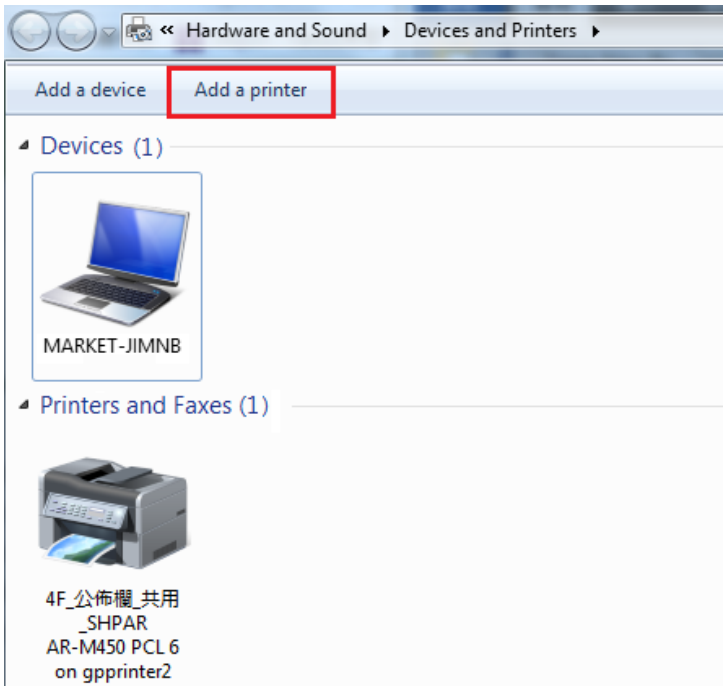
2. Go to Start from the taskbar and select Devices and Printers.



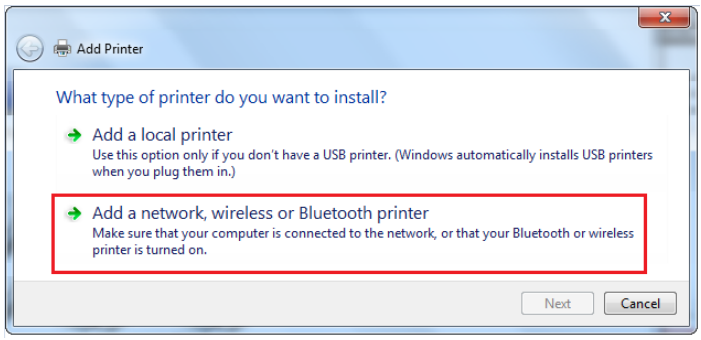
3. GCC JF-240UV_1 printer server is shared on the intranet.



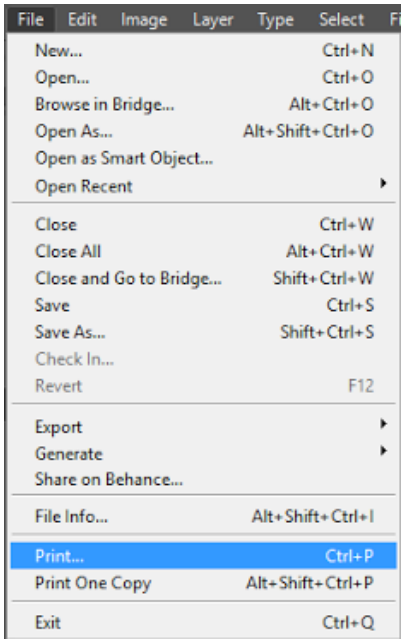
4. Then use anther computer to connect the shared printer.
   Go to Start menu from the taskbar and select Devices and Printers and click Add a printer.



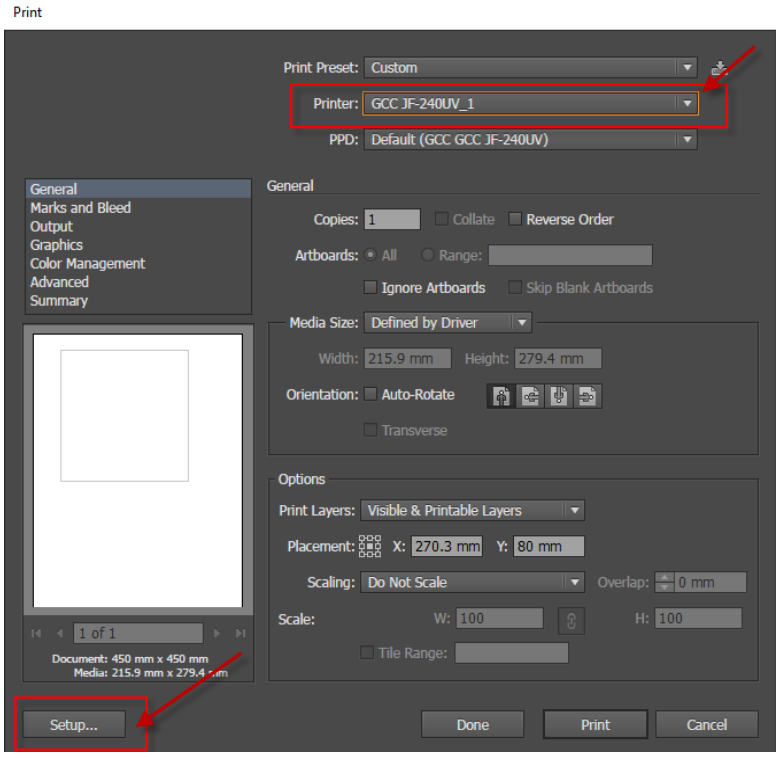
5. Select Add a Network, wireless or Bluetooth printer and choose JF-240UV from the printer list.
   The JF-240UV printer will be added.



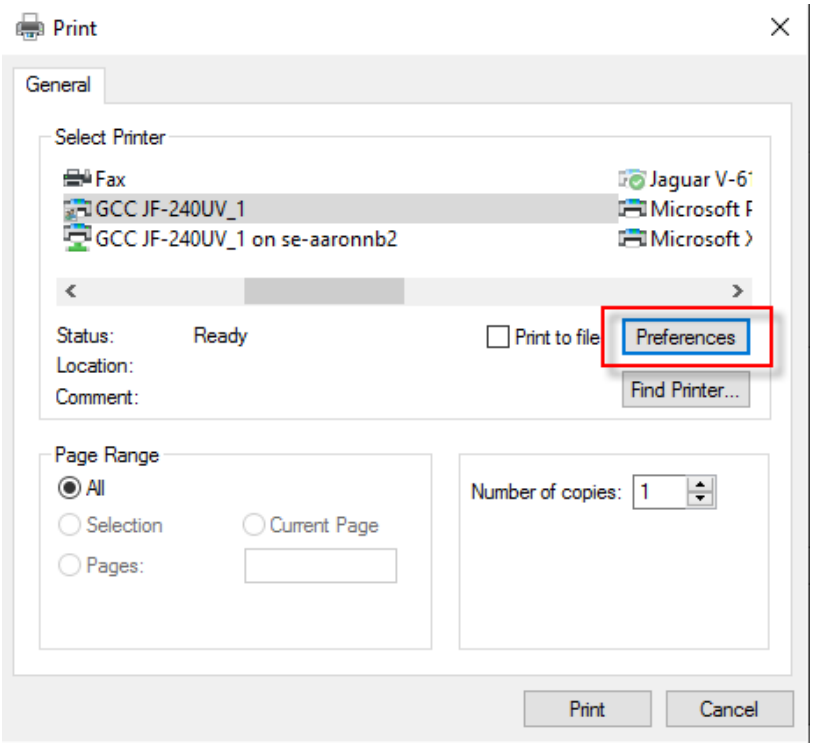
6. Open Illustrator, go to Print under File from the menu bar of Illustrator.



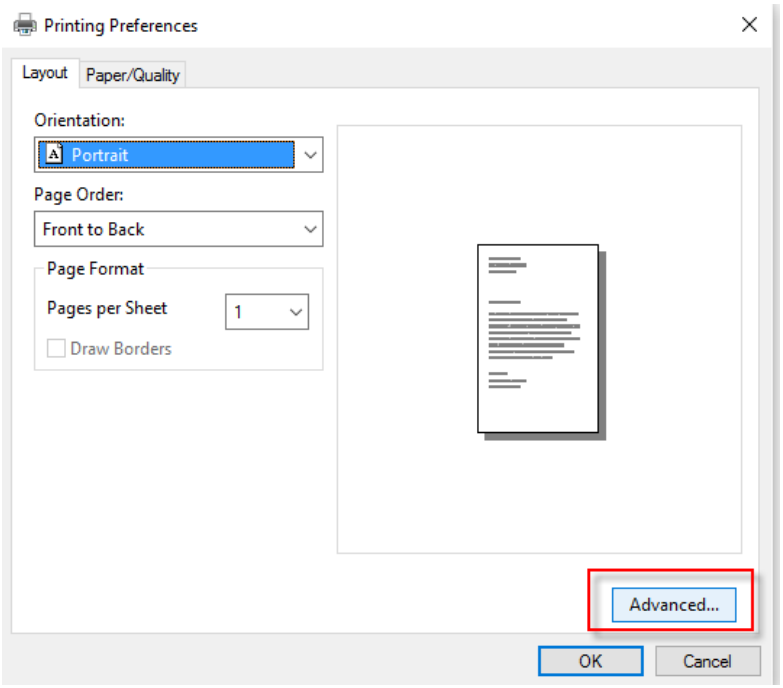
7. Select GCC JF-240UV_1 from the Printer drop down menu and click Setup.



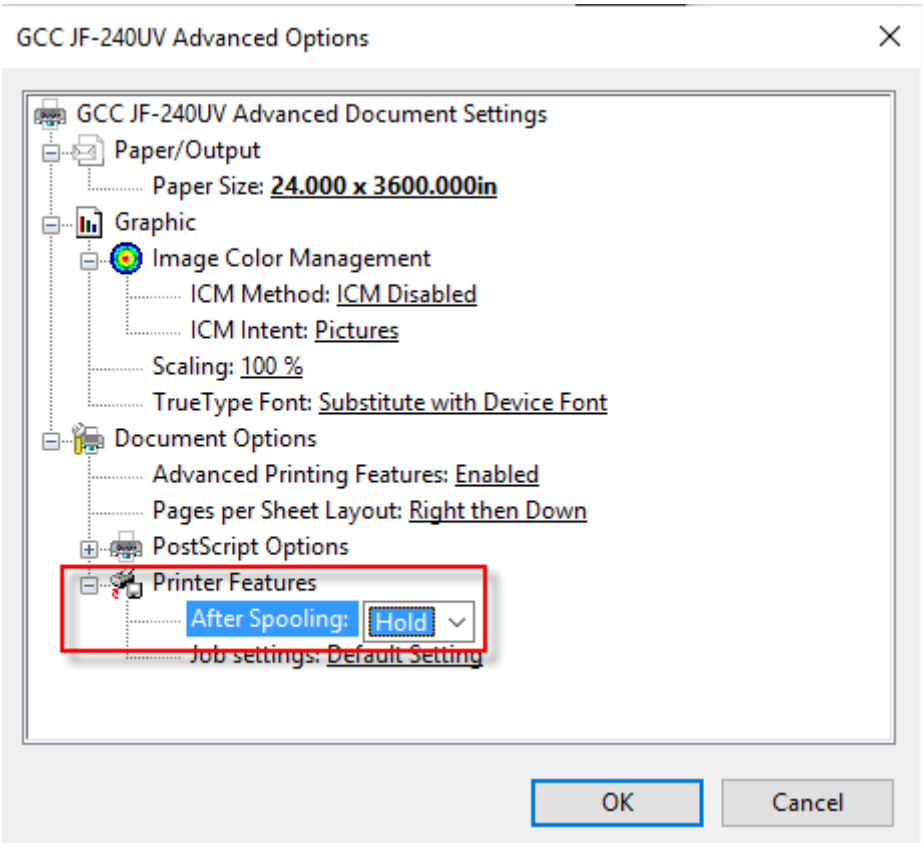
8. Click Preferences



9. Select Advanced…



10. Set After Spooling: Hold under Printer Features and click OK. The JOB Server setting is complete. The print mode and parameter setting can be set in FlexiPRINT.

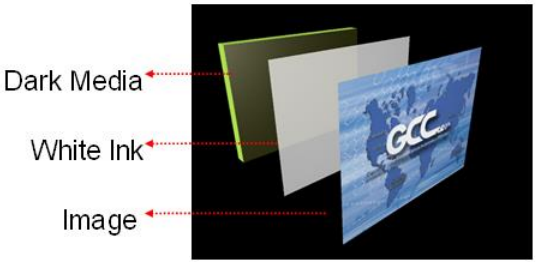


5.3 How To Set The color-white/white-color/color-white-color printing

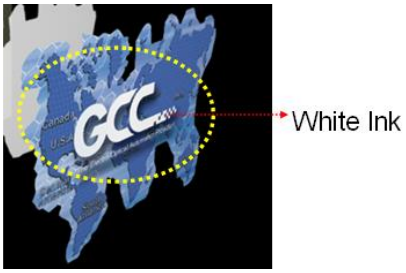
JF-240UV offers four major utilizing white ink applications to meet the demand in the marketplace, as a base, overcoat, spot color and three layer printing. With the White solution, it can be easily used to produce brilliant and rich color output on any transparent and dark media, offering excellent quality images to fulfill all needs of for Promotional item, Specialty, Sign, Labeling and Packaging industries.

Dedicated white ink can fulfill four major applications:

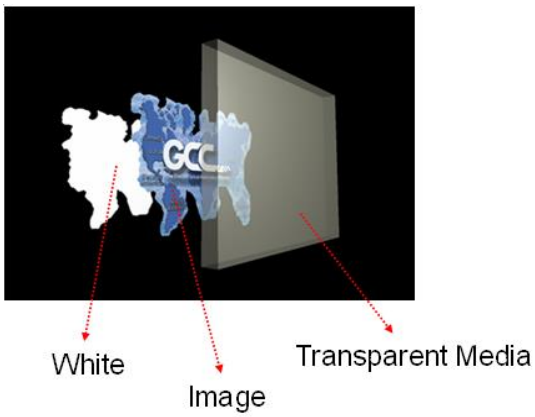
1) White as a Base (white-color)



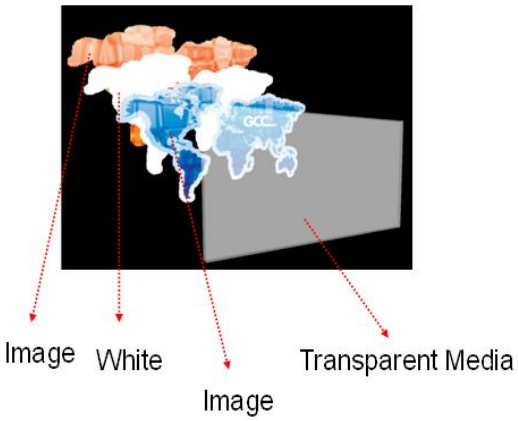
2) White as a Spot Color



3) White as an Overcoat (color-white)



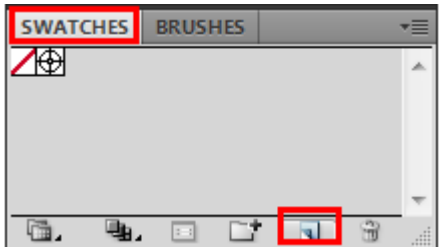
4) Three layers printing (Color-white-color)

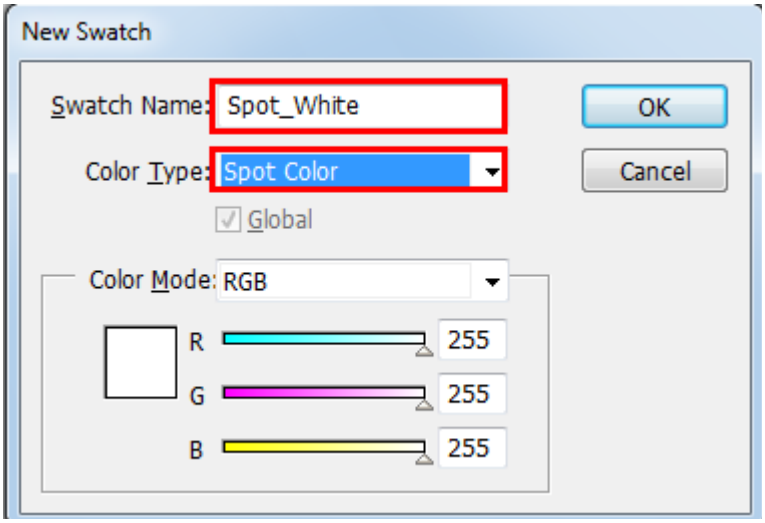


5.3.1 How To set Illustrator for color-white/white-color/color-white- color printing

1. Open the Illustrator and load the image

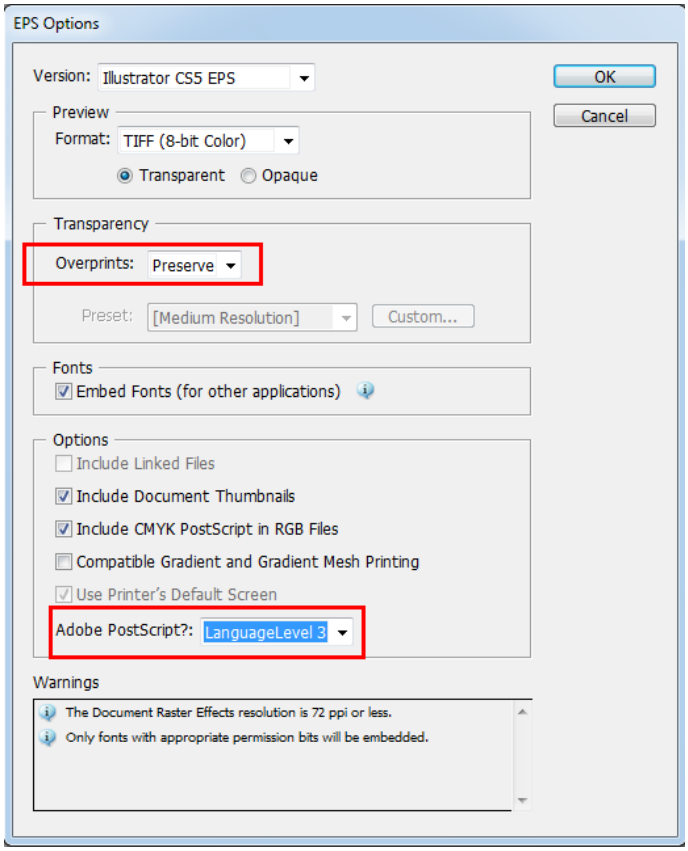
2. Add a new color swatch (Set the new color name to be Spot_White and the Color Type to be Spot Color)





3. Fill Objects with Spot White Swatch and overprint.

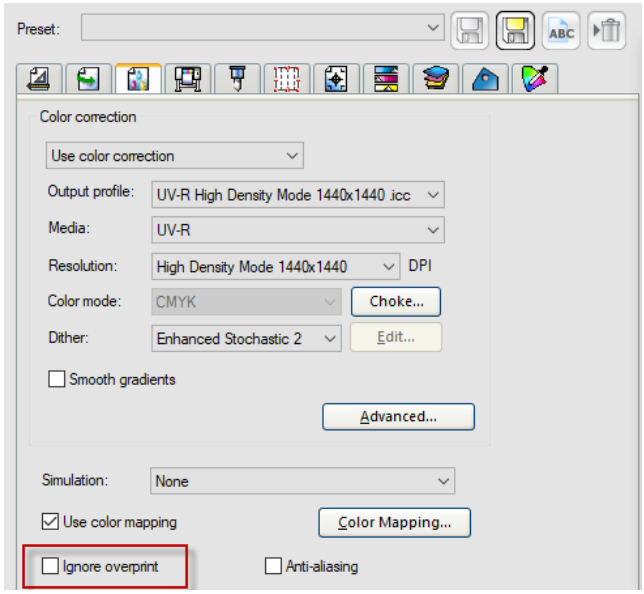
4. Save as EPS format



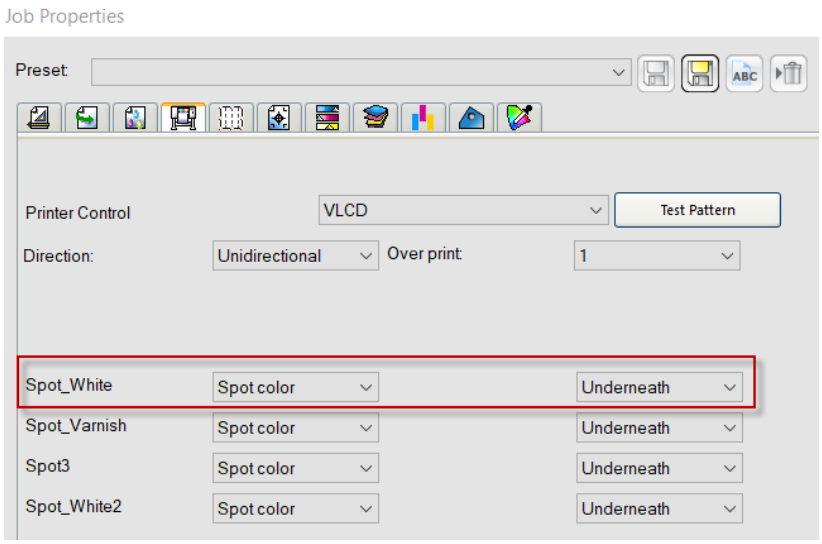
Tips: Preserve the overprints Select the PostScrip Level 3

5. Add the EPS file to FlexiPRINT GCC Edition.

6. Go to Color Management page under FlexiPRINT, and choose ICC under output profile and un-tick “Ignore overprint”

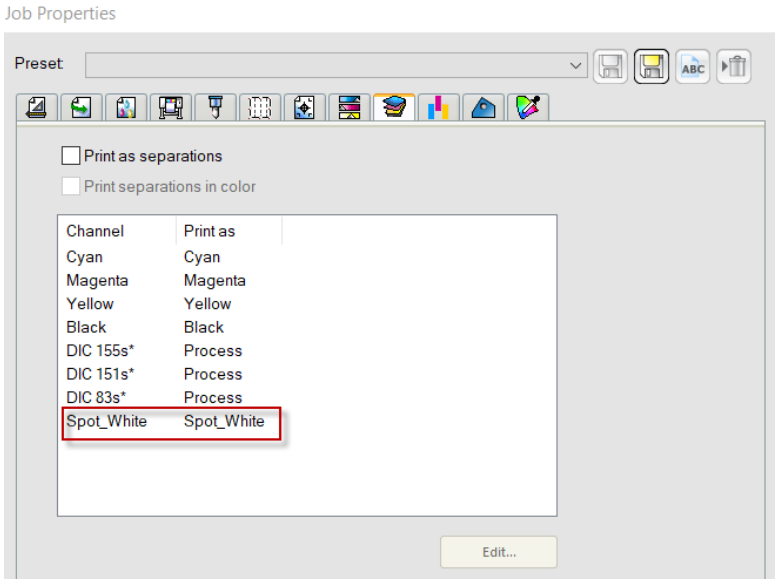


7. Go to Printer Options page, select “Spot color” and “Underneath” (white-color) or “Overlay” (color-white) in the drop-down menu in Spot_White section.

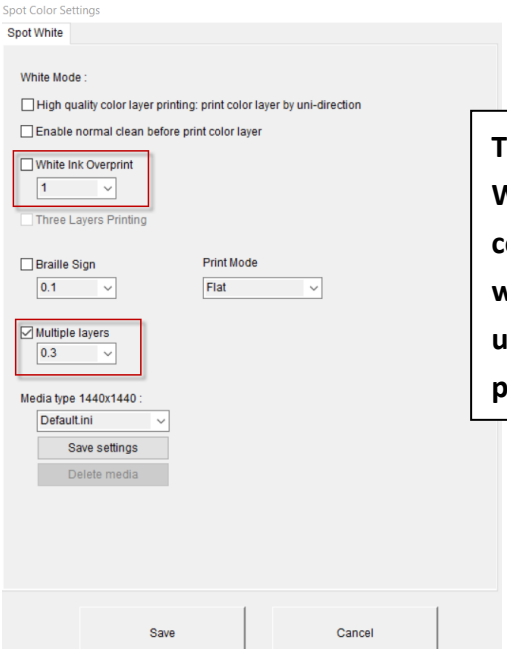


The definition of the options of Spot_White/Spot_Varnish drop-down menu:
Spot: fill the user defined area with white/varnish color
Substrate: fill the entire file with white/varnish color
Under Color: fill colored area with white/varnish color
Fill color: fill the entire file except colored area with white/varnish color

8. Go to Separation page, select Spot_White and press send.



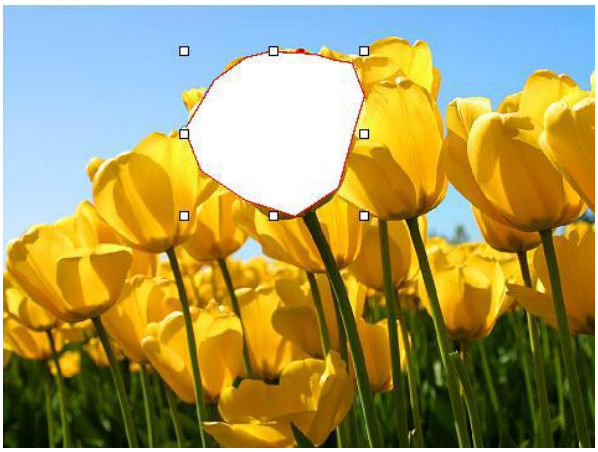
9. Flexi PRINT will open Spot Colors Settings window, tick “White Ink Percentage” or “Multiple Layers” and set white ink volume, and then press Save. The settings is complete.



Tips: it is suggested to use White Ink Percentage for the coverage of a large print area while Multiple Layers can be used for raised patterns printing.

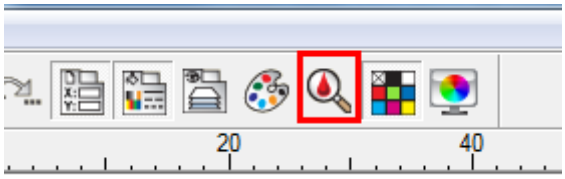
5.3.2 How To Set FlexiPRINT Editor for color-white/white-color/ color-white-color Printing

1. Open the PhotoPRINT Editor and load the image.

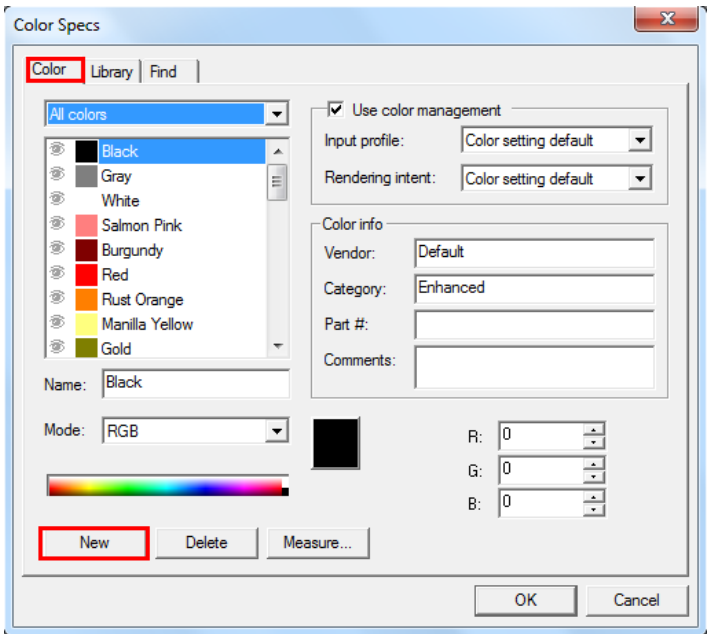


2. Create a spot white in Editor

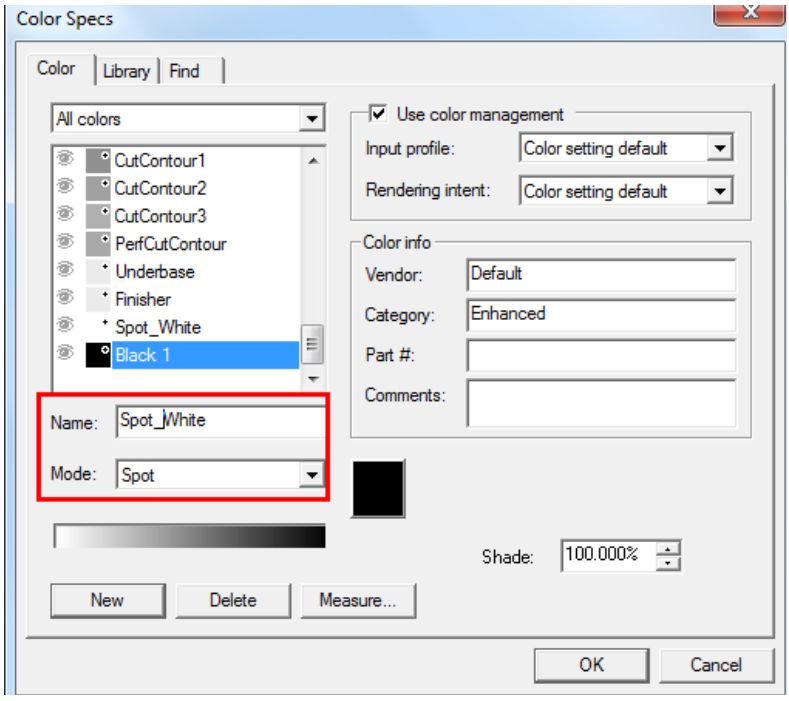
Open the color specs:



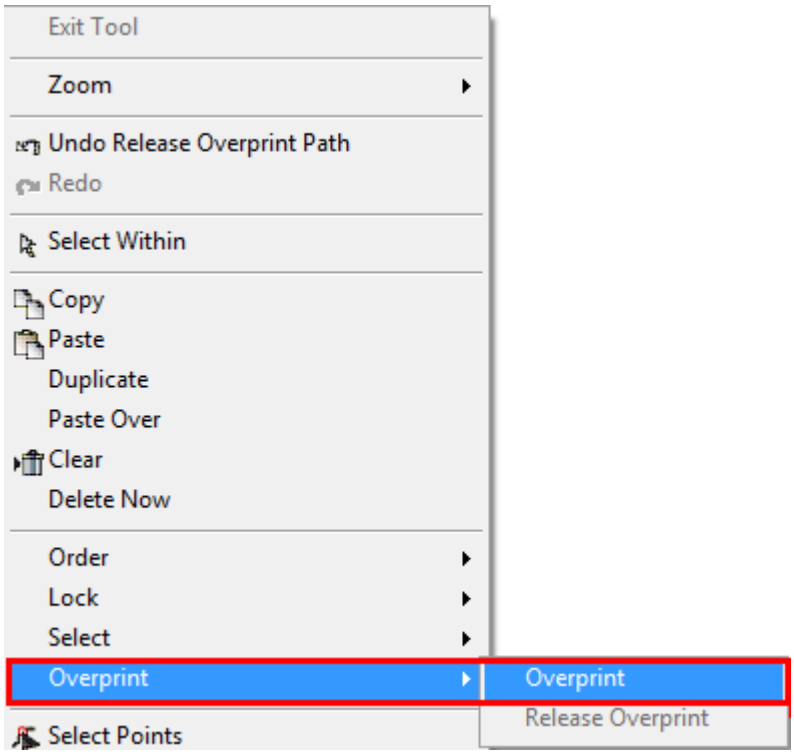
Create a New color



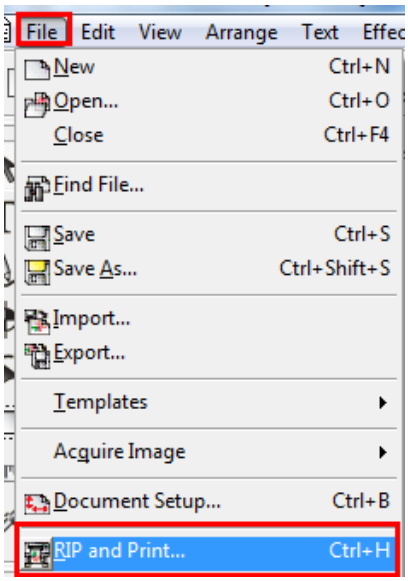
Set the name to be Spot_White and the mode to be Spot.



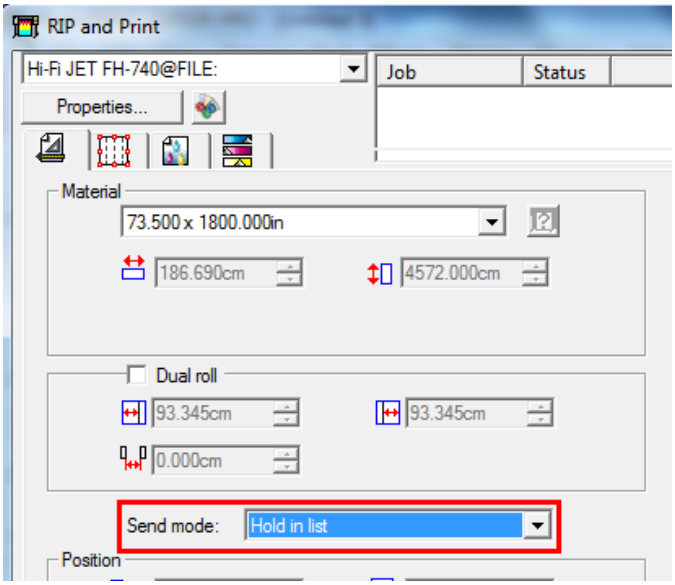
3. Fill Objects with Spot White Swatch and overprint.



4. Select Rip and print



5. Set the send mode is Hold list and send it



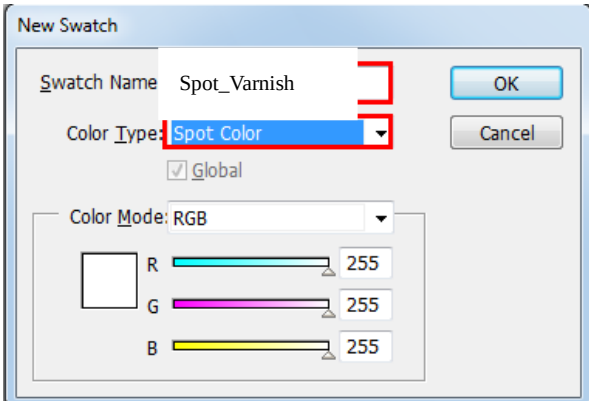
6. Refer to step 6 ~ step 9 in "**How to set FlexiPRINT GCC Editor for color-white/white-color/color-white-color"** to complete the settings.

5.3.3 How To Set Varnish Printing

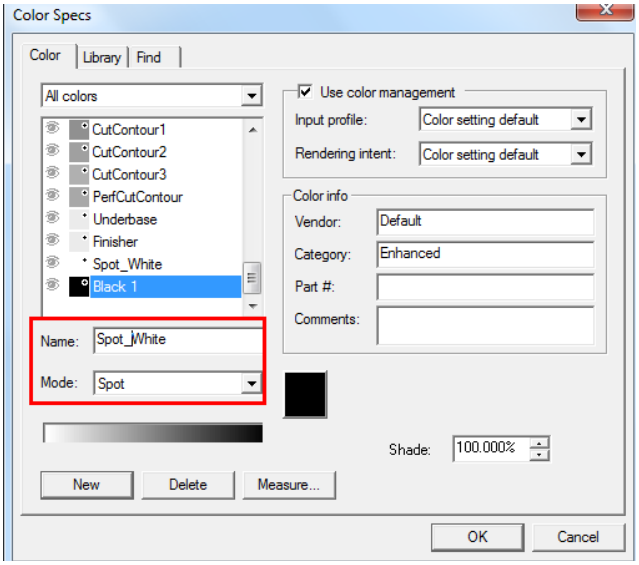
Varnish is a transparent spread on the surfaces of printed matters (images) that forms a thin and even transparent gloss layer after its leveling and UV curing for drying process. Varnish protects printed content, enhances durability and raises the value-added of products as it creates a gloss effect on specific parts of printed matters.

Note: When setting varnish printing, please make sure the pinch rollers of machine above the material are released.

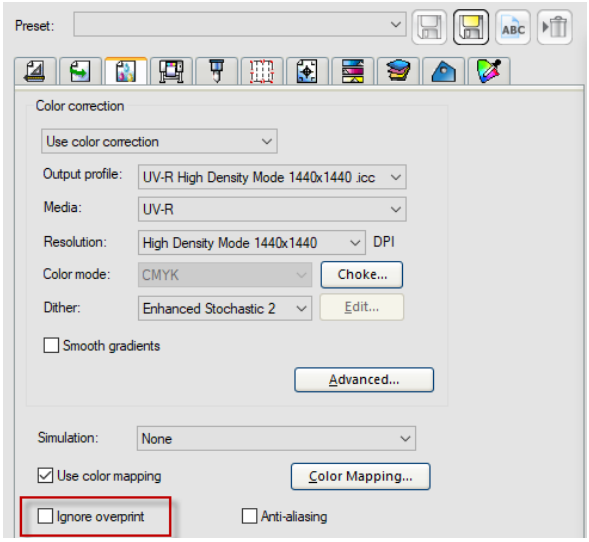
Create a file in **Illustrator:** refer to **"How to set FlexiPRINT GCC Editor for color-white/white-color/color-white-color"** and set the name Spot_Varnish.



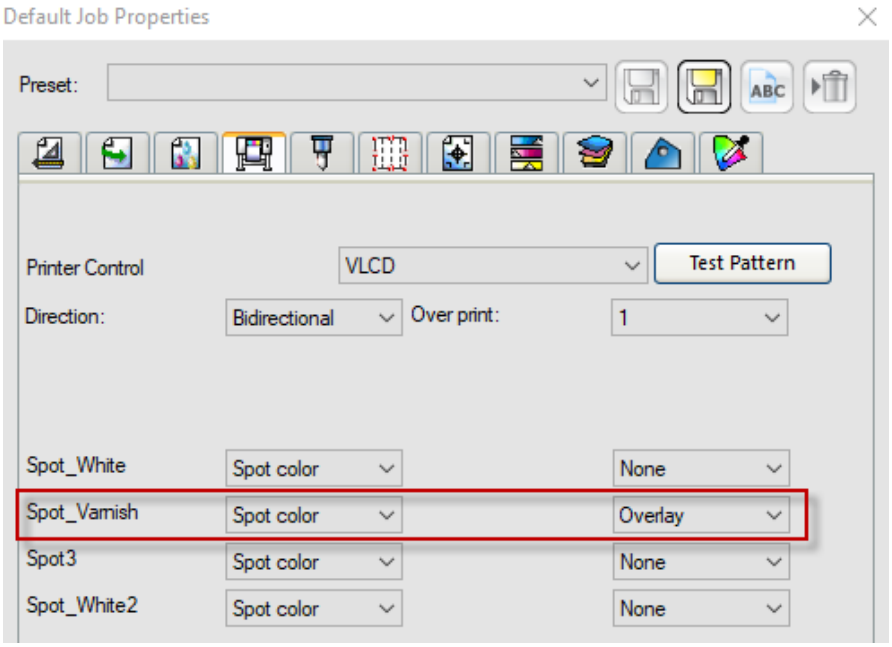
Create a file in **FlexiPrint GCC Editor:** refer to **"How to set FlexiPRINT DX Editor for color-white/white-color/color-white-color"** and set the name Spot_Varnish.



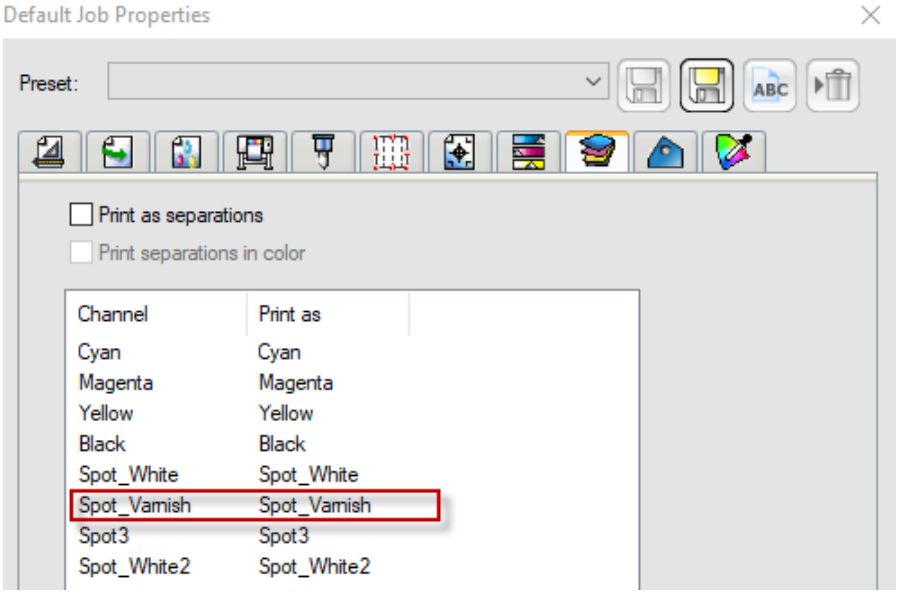
1) Go to Color Management page under FlexiPRINT GCC, choose ICC under output profile and un-tick "Ignore overprint"



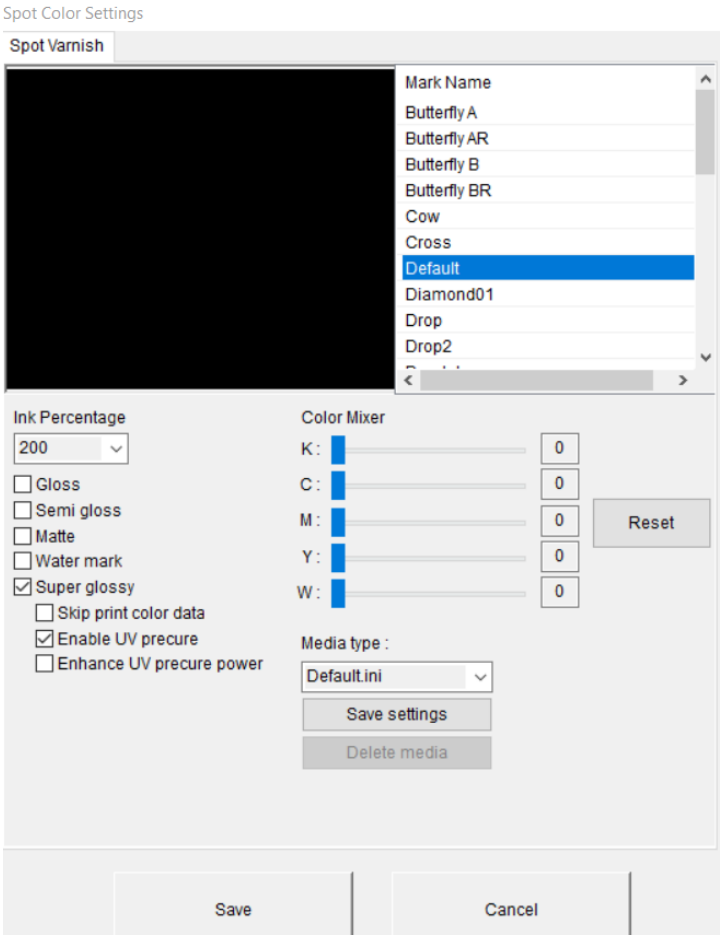
2) Go to Printer Options page, select “Spot_Varnish” and “Overlay” (varnish coating over color) in the drop-down menu in Spot_ Varnish section.



3) Go to Separation page, select Spot_Varnish and send it to Flexi PRINT.



4) Flexi PRINT will open Spot Colors Settings dialog box
   1. Set ink volume in the drop-down menu in Ink Percentage
   2. Select the pattern listed in Mark Name column you want to print with varnish and press save to complete.



Five gloss effects

Gloss: The graphic is made to be glossy

Semi gloss: The graphic is made to be semi glossy

Matte: The graphic is made to have a matte surface

Water mark: The graphic is made to be glossy with watermarks

Super glossy: The enhanced glossy effect on graphics

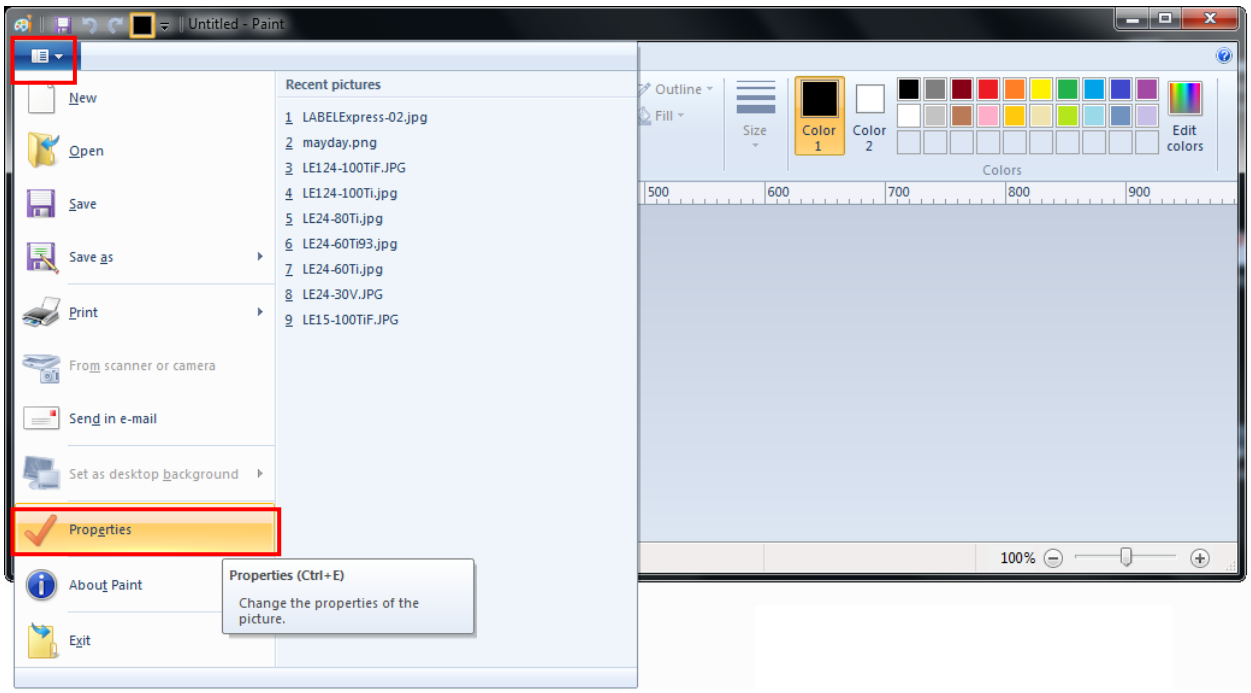
Color Mixer:

By adjusting the spray printing control of color inks and varnish inks, JF-240UV is able to apply color varnish to printed matters. This advanced technology is an excellent helper of color customization and fully exhibits the promoting effects and practical value of the combination of varnish and patterns on printed matters (images) protection and enhancement.

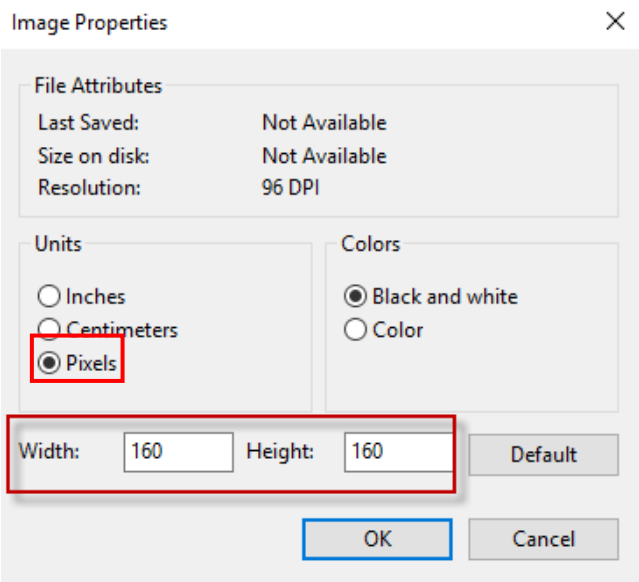
5.3.4 How To Create Custom Pattern for Varnish Printing

Users are allowed to use graphic design software to create a preferred pattern and apply it for varnish printing to produce unique effect on the print media. Follow the steps to create a custom pattern for varnish printing. Microsoft Paint is used as an example here.

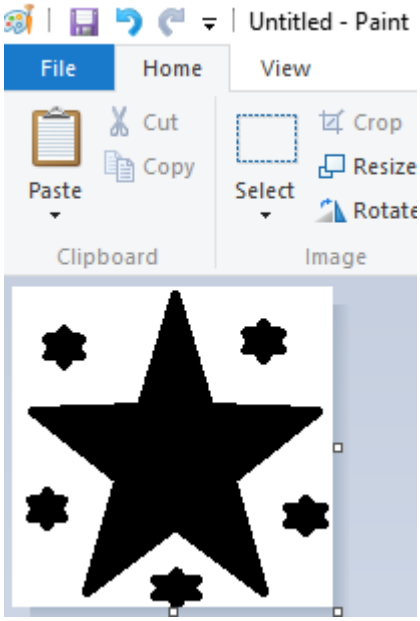
1. Open Paint, go to File under Properties.



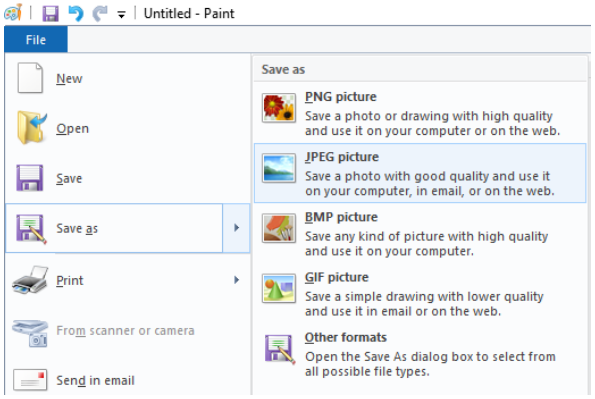
2. Select Pixels in Units column and set Width/Length value. The Width/Length value must be a multiple of 8, i.e. 8 x 8 or 160 x 160 pixels



3. Create a desired pattern.



4. Save the file as .tiff format and .jpeg format.



5. Save the .tiff file to the location C:\Program Files (x86)\FlexiPRINT 10.5.1 GCC Edition\Program\GCCJF240UV\TestPattern\Varnish\Mark

6. Save the .jpeg file to the location C:\Program Files (x86)\FlexiPRINT 10.5.1 GCC Edition\Program\GCCJF240UV\TestPattern\Varnish\Preview

7. The custom pattern for varnish printing is complete.

5.3.5 How To Set ADA Sign (Braille Sign) Printing

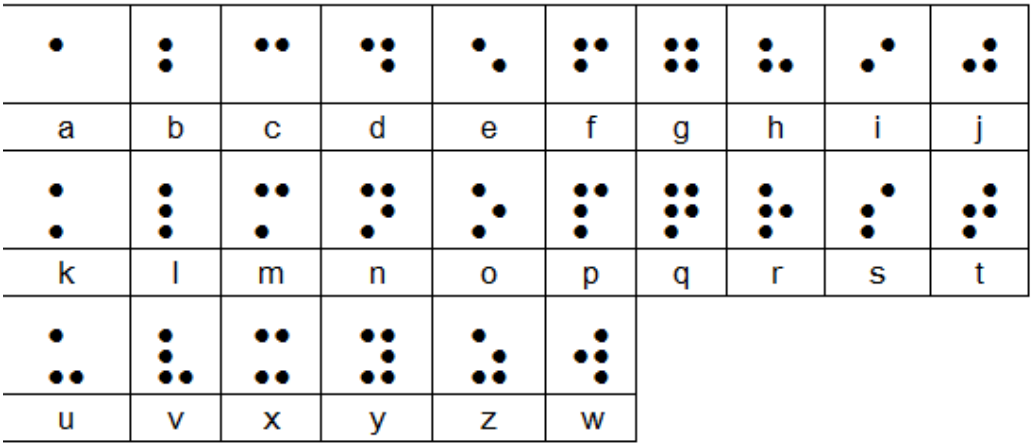
Multi-layer printing technology is the best tool for ADA sign (Braille sign) applications.
The thickness of a layer printing in white is around 0.5mm and can reach a maximum of 0.8mm thick by multi-layer printing. The required thickness of ADA sign (Braille sign) varies according to the regulation in different countries. Apply proper ink percentage to perform multilayer printing to reach the wanted thickness and produce ADA compliant signage.

1. ADA Sign (Braille Sign)

ADA sign (Braille sign) is a system printed as raised dot that can be read with the fingers by visually impaired people. Braille is not a language, but a code by which many languages—such as English, Spanish, Arabic, Chinese, and dozens of others—may be written and read. Braille is used by thousands of people all over the world in their native languages, and provides a means of literacy for all.

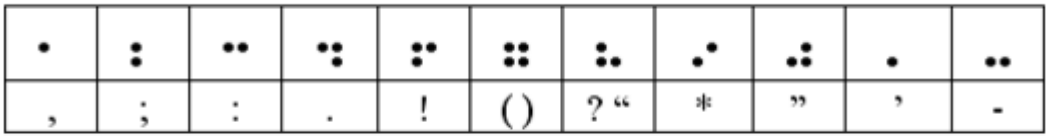
Derivation (colored dots) of the 26 letters of the alphabet from the 10 numeric digits (black dots)

Uncontracted (Grade 1) Braille



a	b	c	d	e	f	g	h	i	j
k	l	m	n	o	p	q	r	s	t
u	v	x	y	z	w				

Punctuation



,	;	:	.	!	( )	? “	*	”	’	-

Numerals

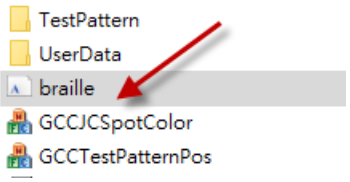
1	2	3	4	5	6	7	8	9	0

2. ADA (Braille sign) Dimension

Measurement Range	Minimum in Inches Maximum in Inches
Dot Base Diameter	0.059 (1.5mm) to 0.063 (1.6mm)
Distance between two dots in the same cell	0.090 (2.3mm) to 0.100 (2.5mm)
Distance between corresponding dots in adjacent cells	0.241 (6.1mm) to 0.300 (7.6mm)
Dot height	0.025 (0.6mm) to 0.037 (0.9mm)
Distance between corresponding dots from one cell directly below	0.395 (10.0mm) to 0.400 (10.2mm)

3. Insatll Braille Font for Printing

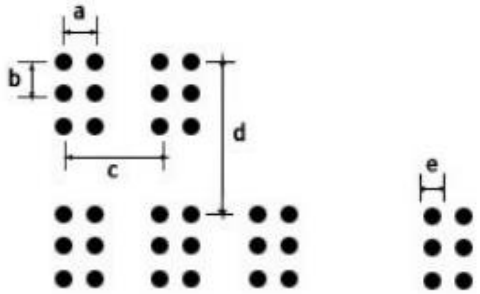
Step 1 Insert the installation disc and go to :\Program Files (x86)\FlexiPRINT 10.5.1 GCC Edition E14-29 Usb\Program\GCCJF240UV



Step 2 Double click the "braille" icon to install the font.

4. How to Set ADA/Braille Printing

If creating Braille sign in Illustrator or CorelDraw, set the font type to Braille at 24pt to meet the requirements set by the ADA (Americans with Disabilities Act); if using FlexiPRINT EDITOR or other software to create Braille sign, apply the following steps,



	Horiz dot to dot mm	Vertical dot to dot mm	Cell to cell mm	Line to line mm	Dot base diam mm	Dot height mm
	a	b	c	d	e	
American Library of Congress [1]	2.5	2.5	6.25	10.0		0.5
American National Library for the Blind [2]	2.28	2.28	6.09	10.16		0.5
American Standard Sign [3]	2.3 - 2.5	2.3 - 2.5	6.1 - 7.6	10.0 - 10.1	1.5 - 1.6	0.6 - 0.9

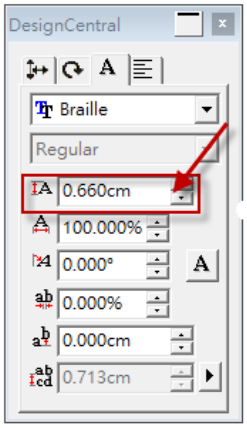
The required dimension of braille sign differs according to the regulations in different countries. To meet various requirements, users can manually define the height of a cell to create the sign that complies with local regulation.

The formula for the calculation of the height of a cell is *(b x 2) + e*, where **b** means “Vertical dot to dot (mm)” and **e** means “Dot base diam. (mm)”, as shown in the table above.

Take an example of how to calculate the height of a cell based on American Standard Sign: According to “American Standard Sign”, the value of b is between 2.3mm to 2.5mm, defines a value of b as 2.5mm; the value of e is between 1.5mm to 1.6mm and defines a value of e as 1.6mm, then applies the values of b and e to the formula to get the result:

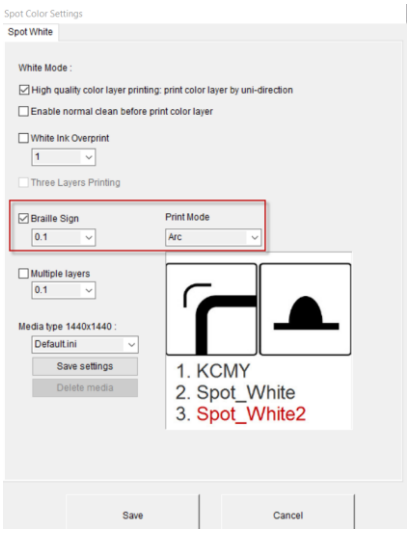
b = 2.5 mm, e = 1.6mm; formula (b x 2) + e = (2.5 x 2) + 1.6 = 6.6 (mm)

Step 1 Set cell height to 6.6mm in DesignCentral window in FlexiPRINT GCC EDITOR.



Step 2 Refer to Chapter 4.7.2 “**How to set FlexiPRINT GCC Editor for color-white/white-color/ color-white-color**” to complete the settings.

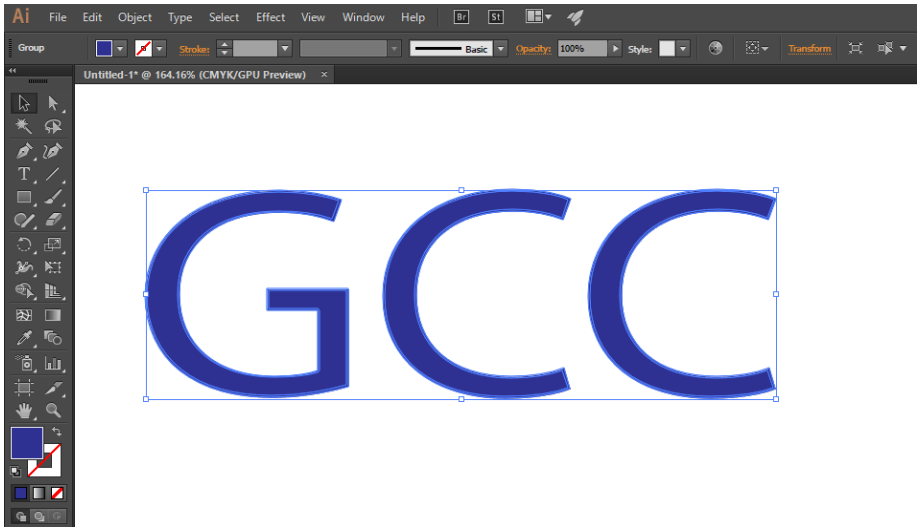
Step 3 Under Spot Colors Settings window, tick “Braille Sign” and select the dot height from the drop down menu and press Save. The setting is complete.



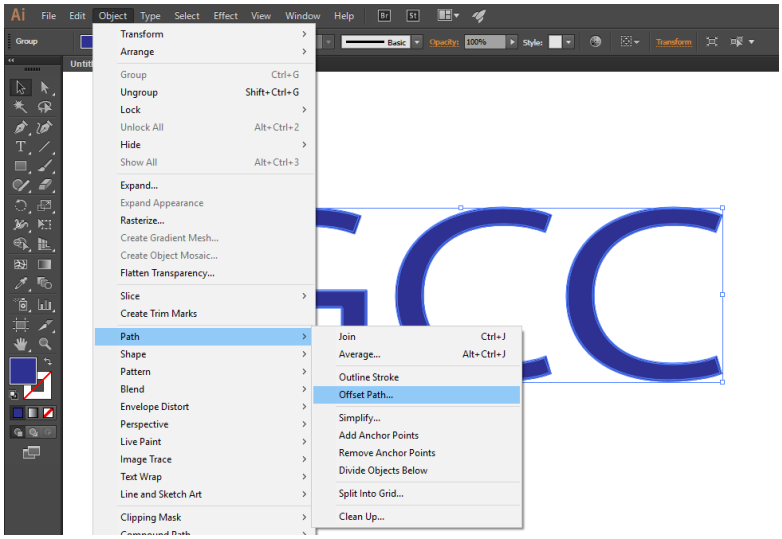
5.3.6 How To Set Arc mode for Dome Shaped Braille Characters/Patterns Printing

Braille is a coded system of tactile raised dots organized into cells consisting of one to six dots, which must have a domed or rounded surface. To produce a smooth and rounded surface on Braille dots or raised patterns, please use ACR mode to achieve the desired effect. The following paragraph illustrates a step by step instruction of how to set the ARC mode and produce dome shaped Braille dots/patterns. The instruction will use Illustrator as an example.

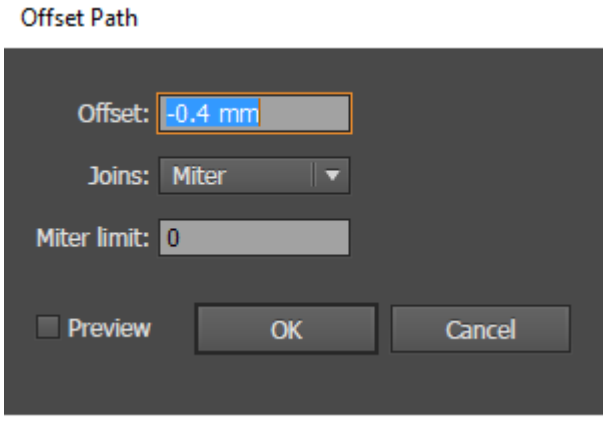
1. Add Sopt_White swatch and Spot_White2 swatch; refer to 5.3.1 for the detailed instruction to add new color swatch. The setting is used for vector graphics.
2. Select the characters/Patterns and create contour lines. Move the contour lines to a new layer.



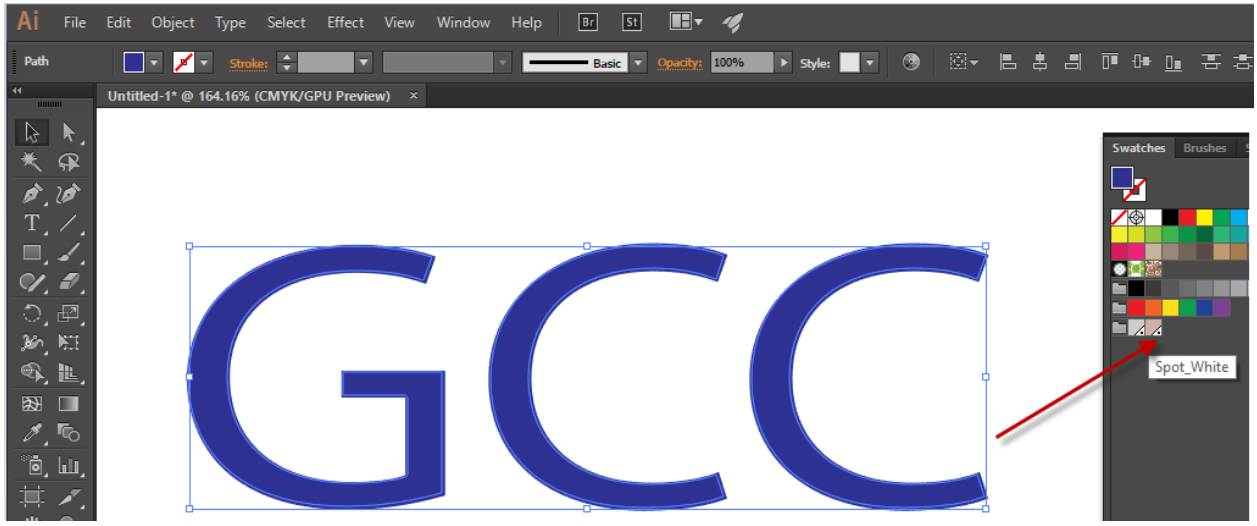
3. Step 2 Select Object→Path→Offset Path…..

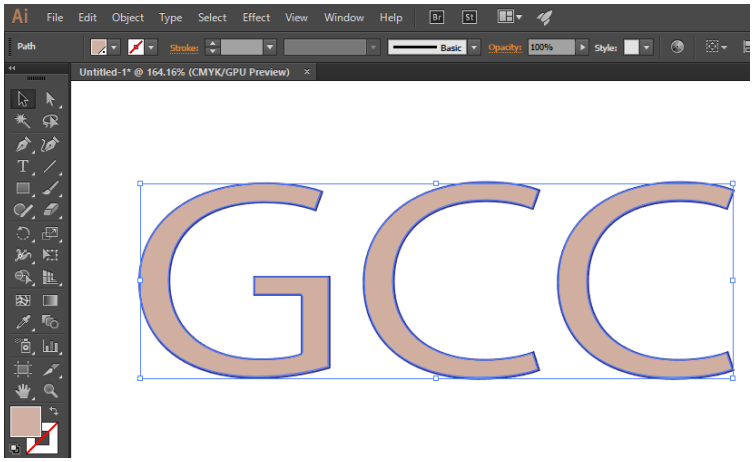


4. Step 3 Set Offset to -0.4mm and click OK.

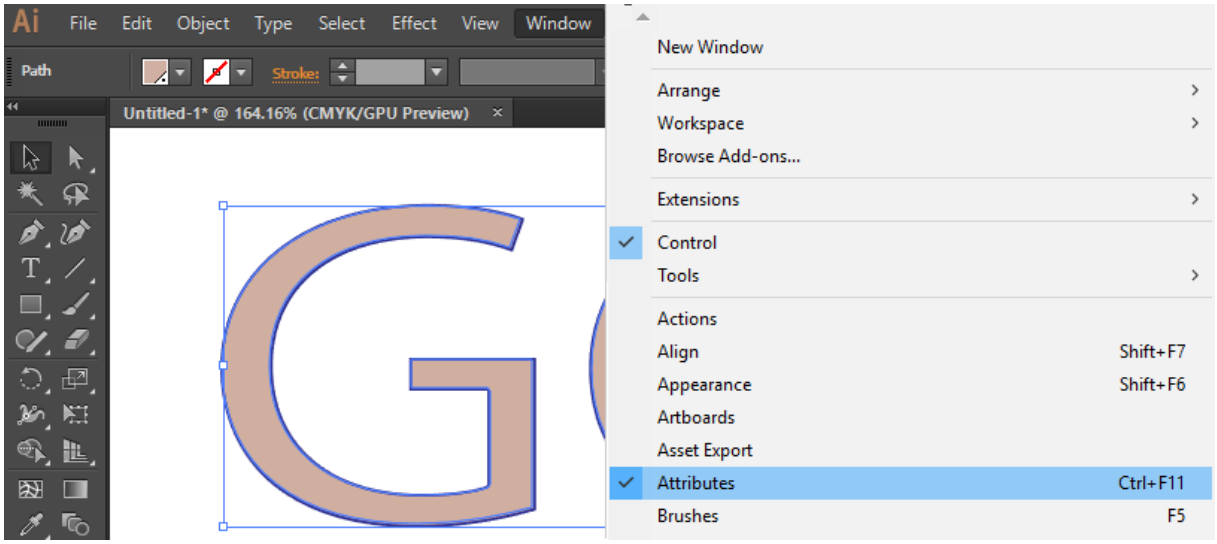


5. Apply the Spot_White swatch to the layer which contains the 0.4mm shrink contour lines.

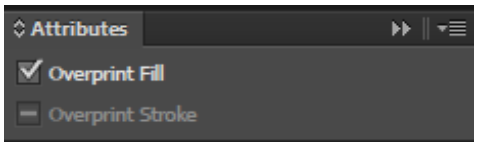




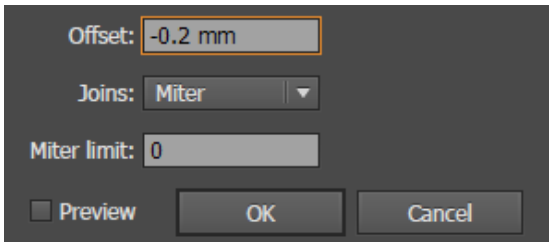
6. Select Windows→Attributes



7. Tick Overprint Fill in Attributes dialog box

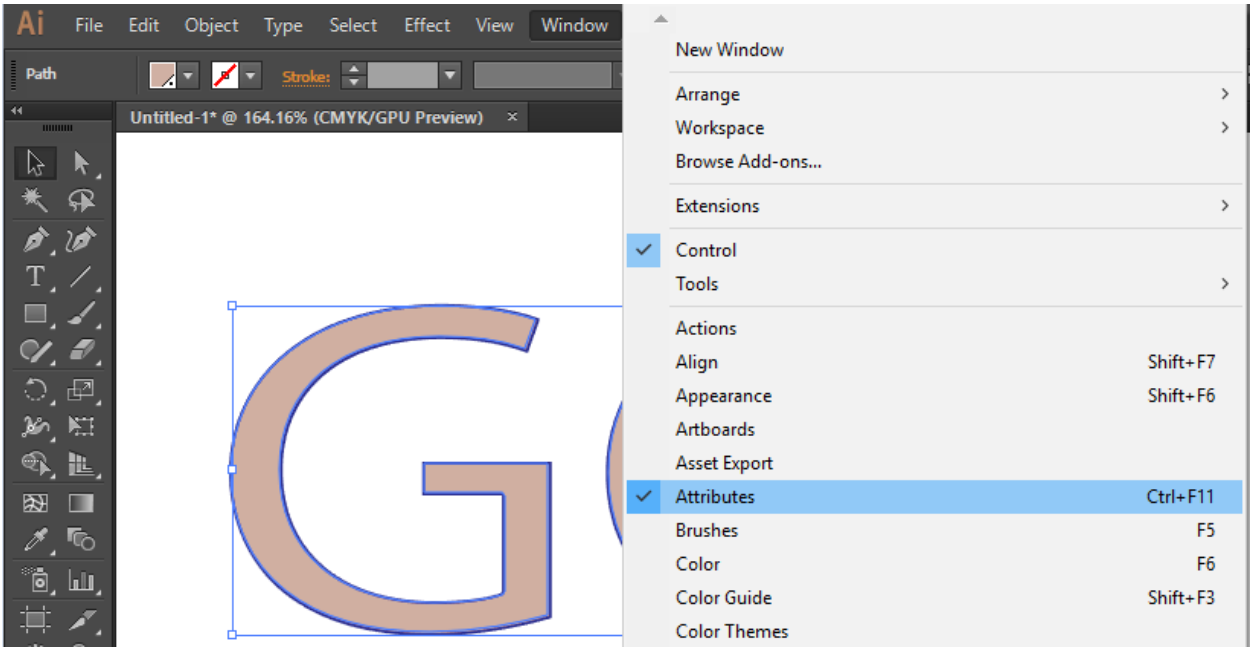


8. Repeat step 2~4 to create another layer with the contour lines shrink inwards by 0.2mm.

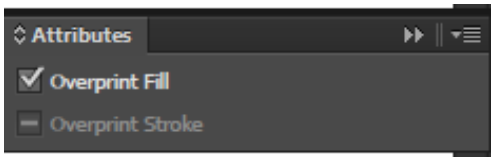


9. Apply the Spot_White2 swatch to the layer which contains the 0.2mm shrink contour lines.

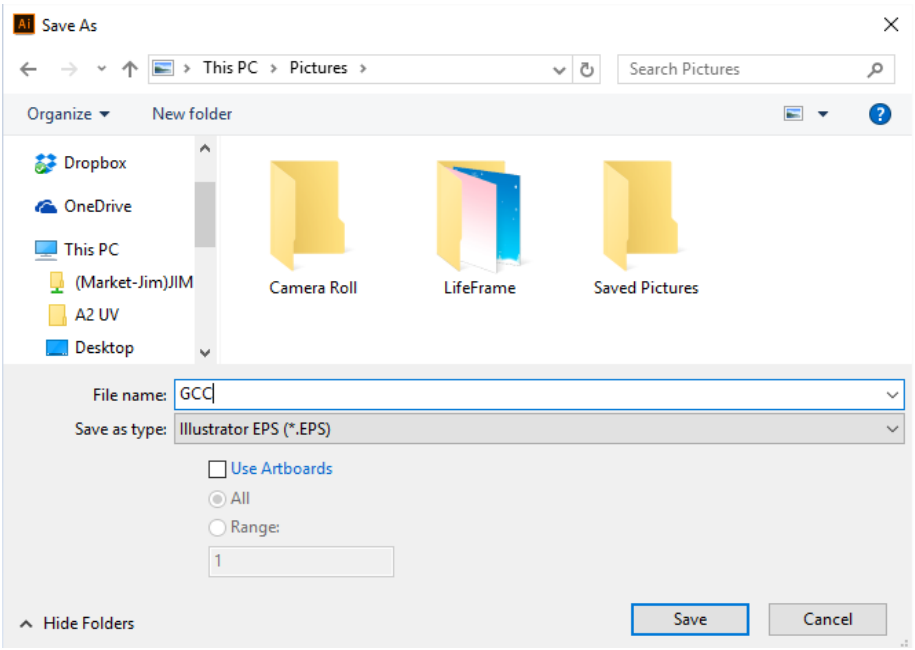
10. Select Windows→Attributes



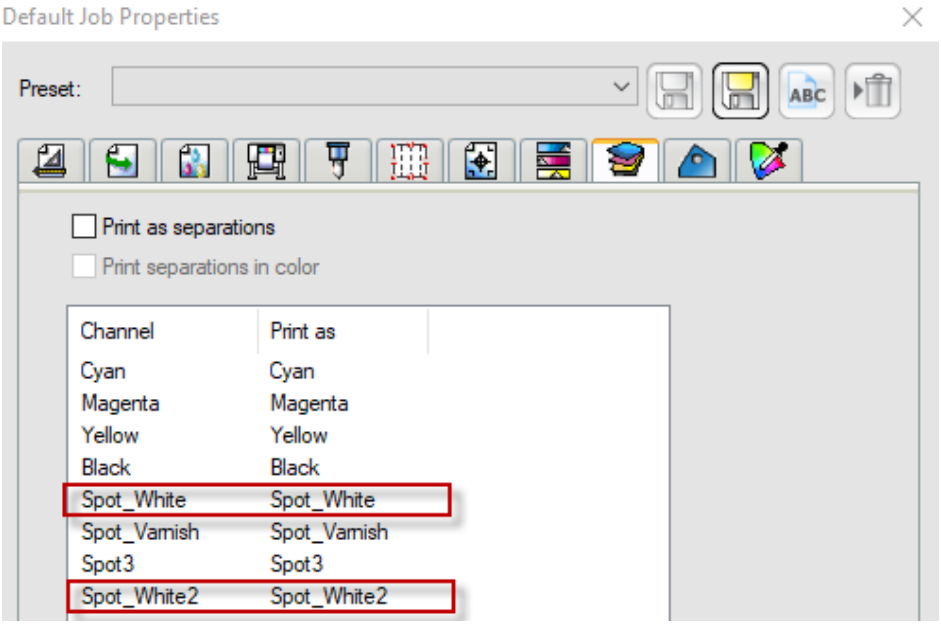
11. Tick Overprint Fill in Attributes dialog box



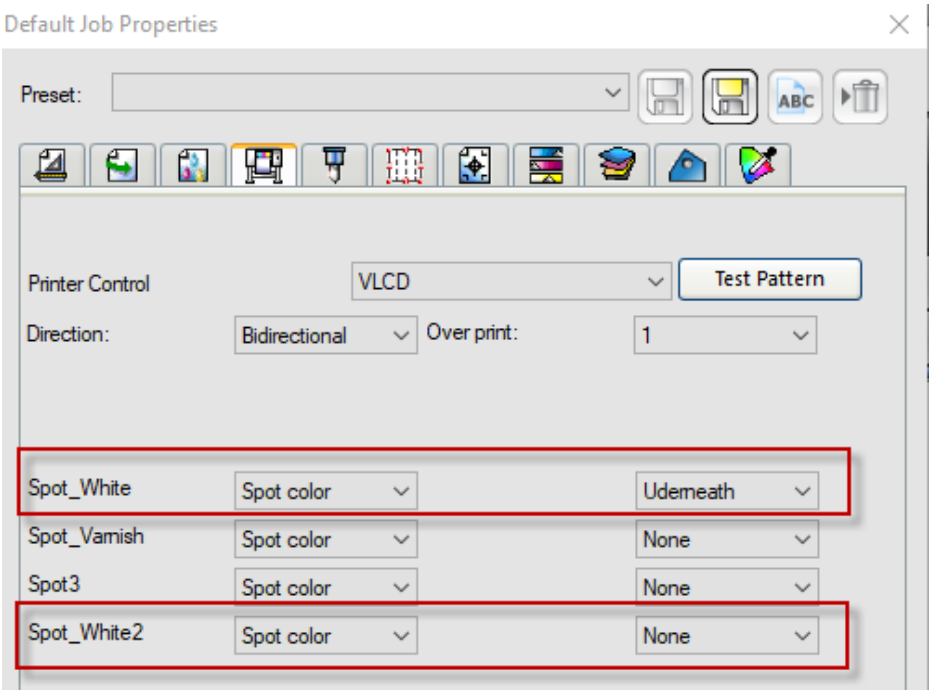
12. Save the file as EPS



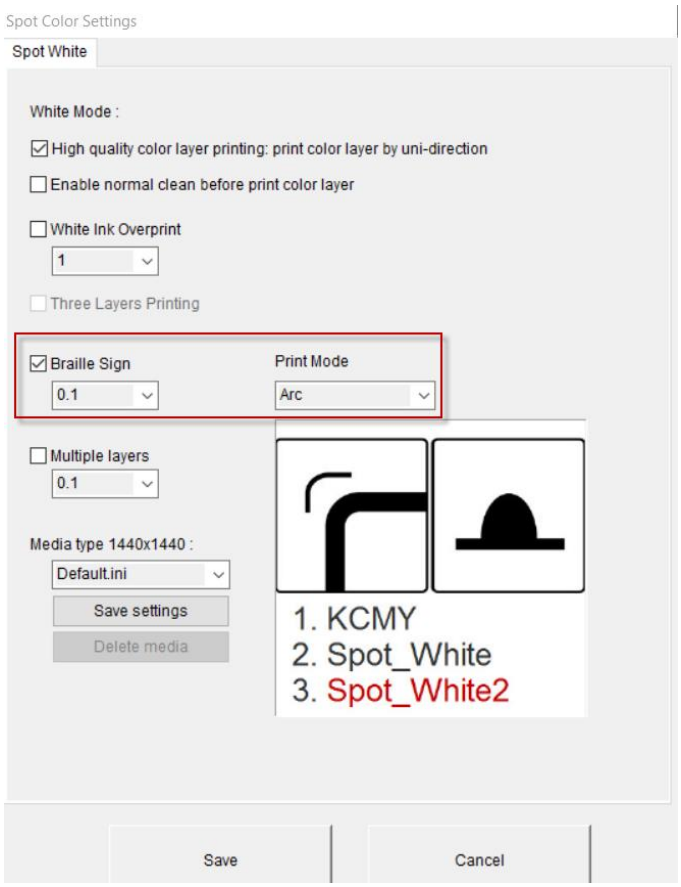
13. Open FlexiPRINT GCC Edition, select Separation and check if the Spot_White and Spot_White2 channel are created. If not, please check if the two layers with shrink contour lines are created in Illustrator.



14. Select Printer Options→Spot_White: Underneath, Spot_White2: None, and select Send



15. Open Spot Color Settings dialog box→tick Braille Sign and set the print height→Print Mode：ARC



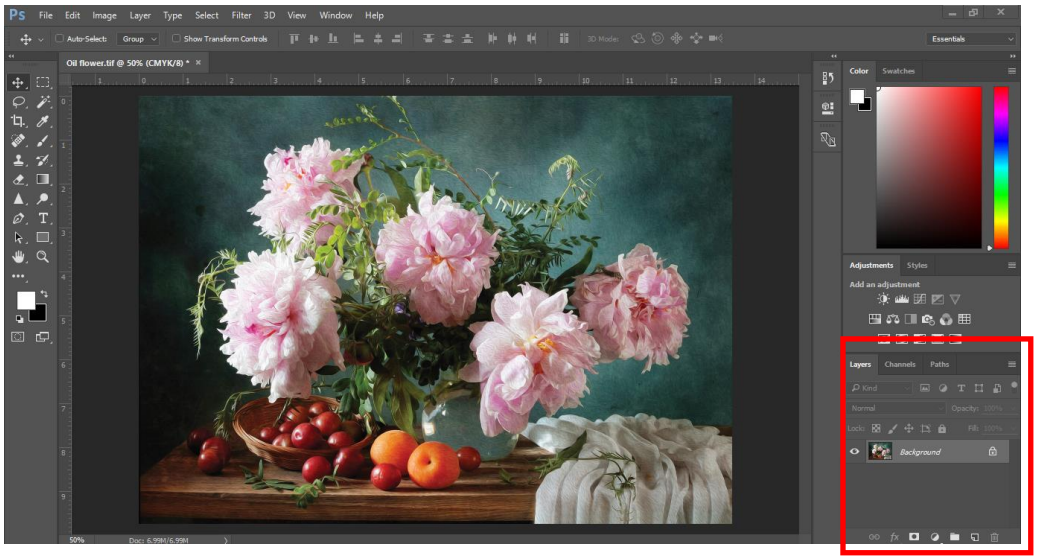
16. The setting is complete

Note: Printing process and throughput would be affected if using Multiple layers mode. Choose a proper printing mode that is appropriate.

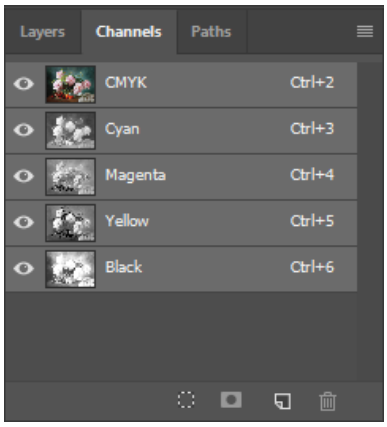
Note：When the outermost layer of the Braille sign is printed in white (using white color but not any other colors as a cover to print on Braille sign), it is suggested to set the Spot_White shrink inward by 0.4mm (Spot_White : -0.2) and set Spot_White as standard (Spot_White2: 0), then select Print Mode: ARC and tick Full coverage white base printing.

5.3.7 How To Create Raised Printing Effect

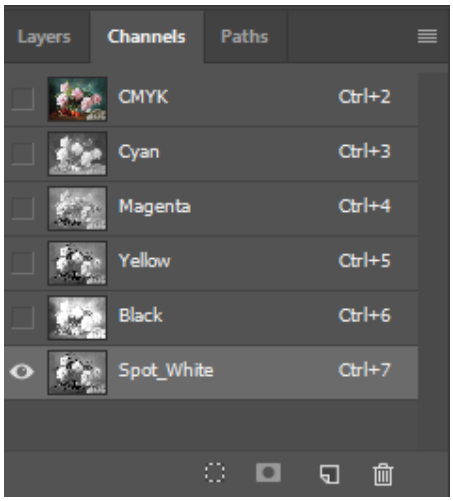
1. Open a bitmap file in Photoshop.

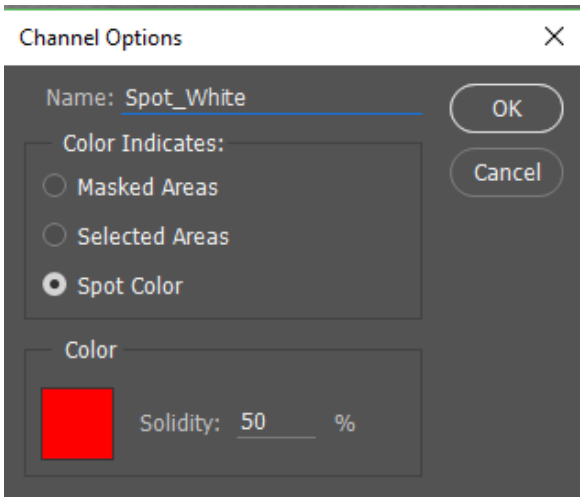


2. Select “Channels” tag in the panel



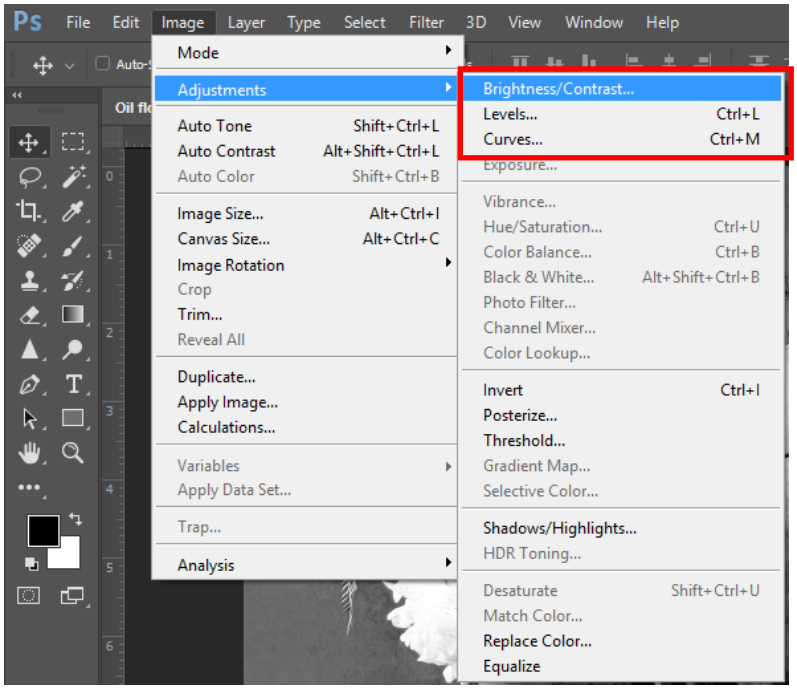
3. Create a new Channel and name it to be “Spot_White”, then click OK.





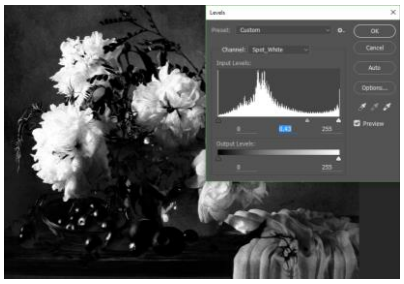
4. Go to Image→Adjustments

Note: The Brightness/Contrast, Levels, Curves value determines the raised printing effect. Adjust the value according to what printing result you want to create.

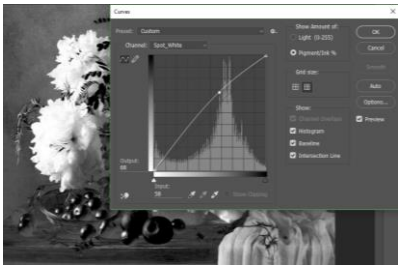


Brightness/Contrast

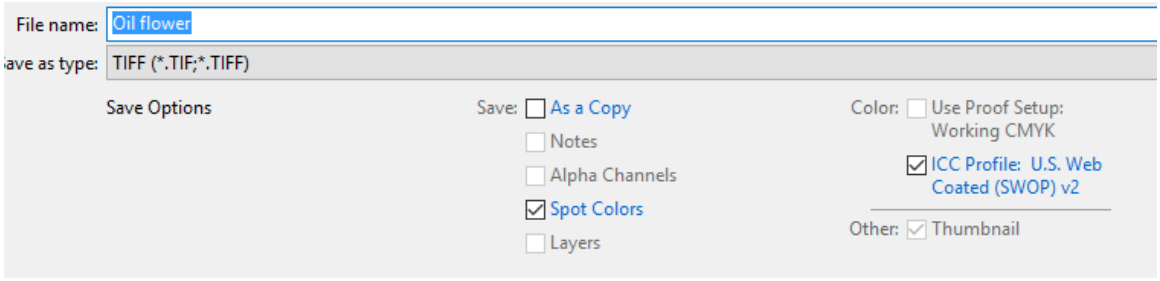
Levels



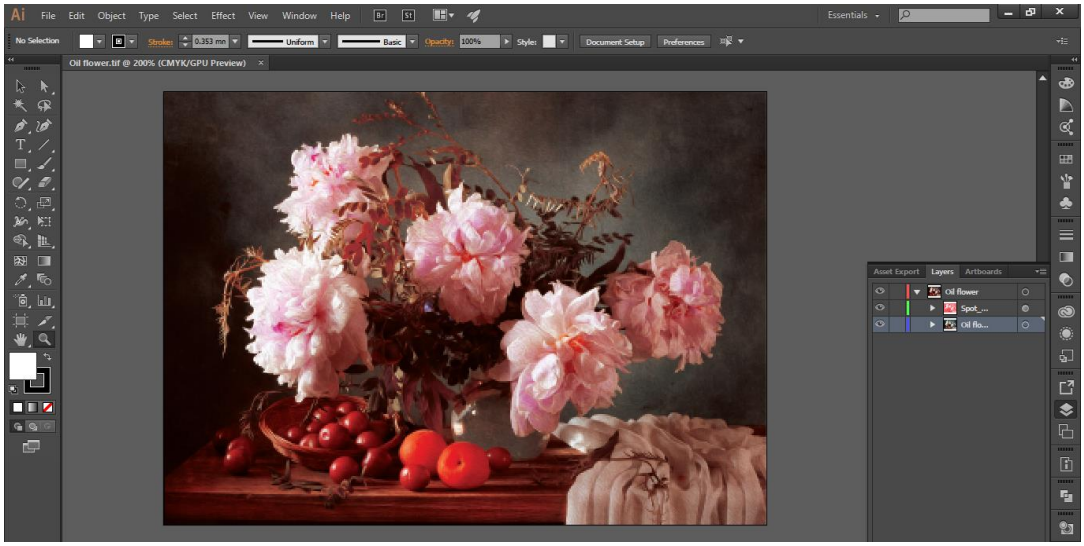
Curves



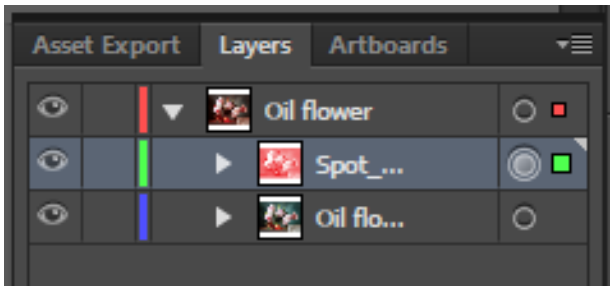
5. Save the file as Tiff format (MUST tick Spot Colors)



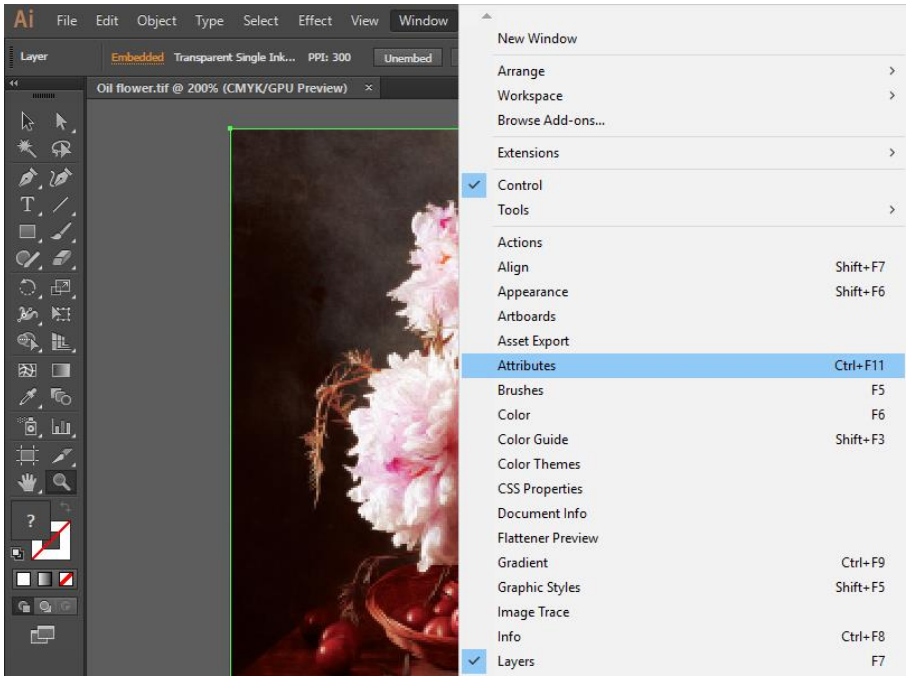
6. Launch Illustrator and open the Tiff format file that just saved.



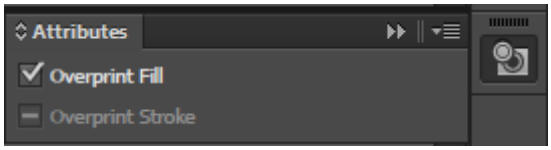
7. Select “Spot White” layer in Layers tag



8. Go to Windows→Attributes

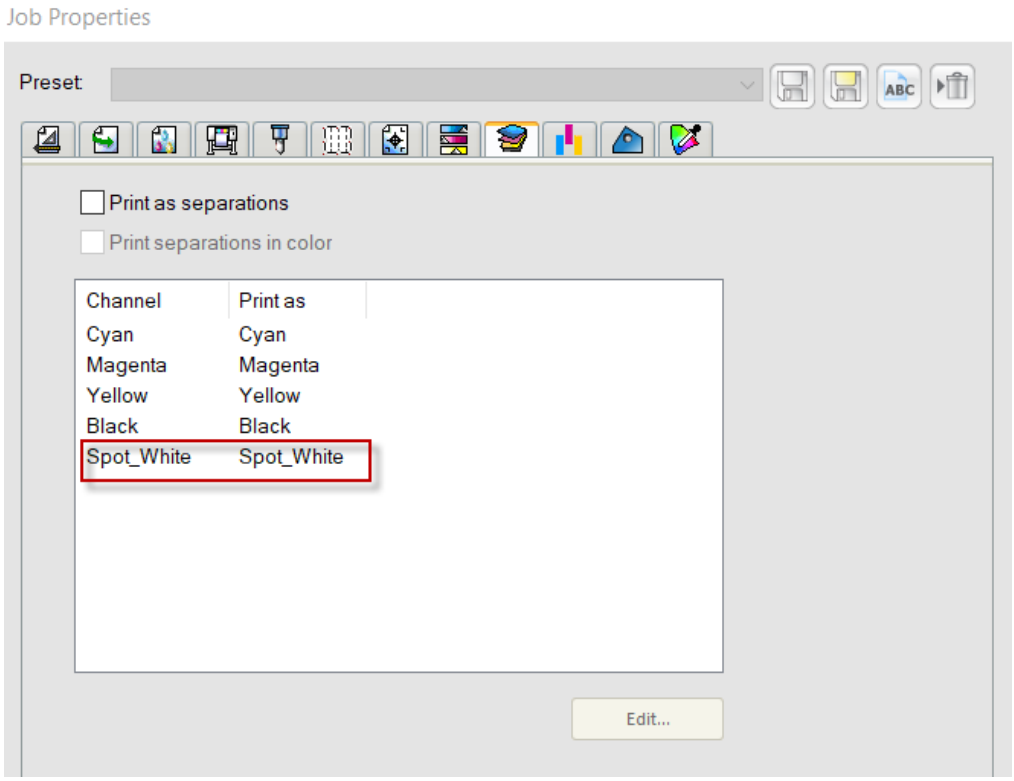


9. Tick Overprint Fill



10. Save the file as EPS format.

11. Launch FlexiPRINT and select Separation tag. Make sure “Spot_White” channel is on the channel list, and then click Send.



12. Step 12 The process is complete.

5.3.8 How to set UV Lamp Curing mode for bright color printing

Apply “Delay Curing” in UV lamp Curing mode can enhance color brightness, and therefore create vivid color gamut and glossy effect to the printed images.

There are five options under UV lamp curing mode, including Normal Curing (Default), Delay Curing, Delay Curing 2, Delay Curing 3 and Delay Curing 4. The larger the number, the brighter the color can be created under Delay curing mode, i.e. Delay Curing 4 creates greater color brightness than Delay Curing 3; Delay Curing 2 creates greater color brightness than Delay Curing, and so on.

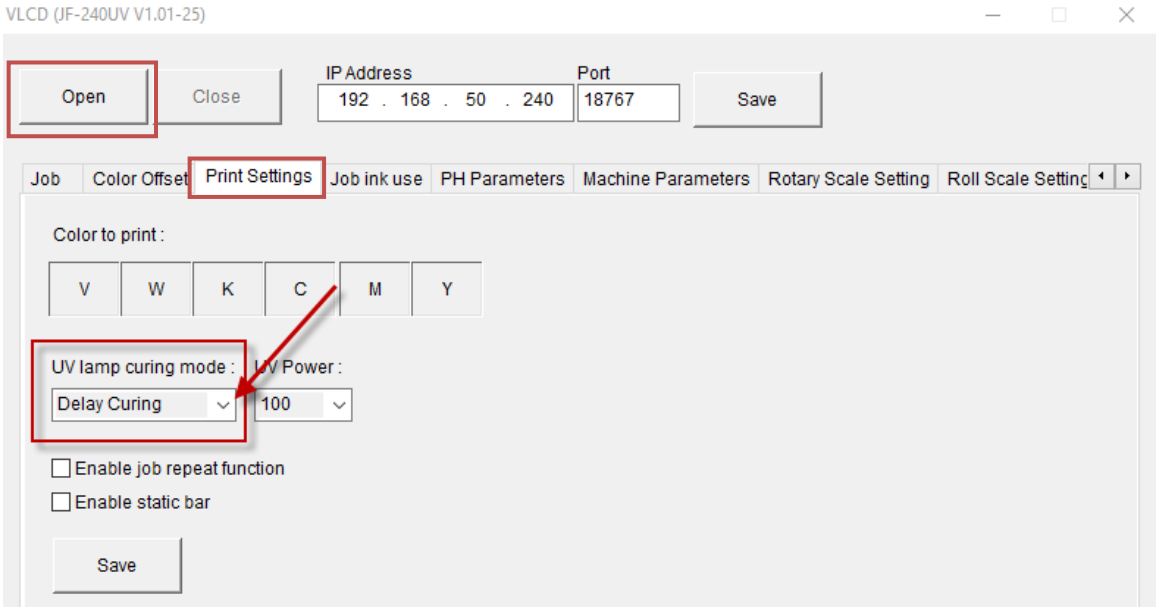
Note：Applying the Delay Curing option will reduce the print sharpness and ink adhesion, please use Delay Curing function according to the printing effect that wants to achieve.

How to set UV Lamp Curing mode?

If your JF-240UV is not equipped with Varnish ink, please apply the following steps.

Step 1 Launch FlexiPRINT GCC Edition and open VLCD

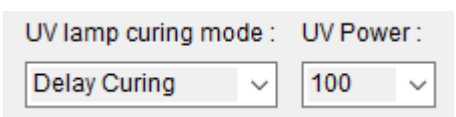
Step 2 Select Open → Print Settings → UV lamp Curing mode, select “Delay Curing” and click Save.



If your JF-240UV is equipped with Varnish ink, please apply the following steps.

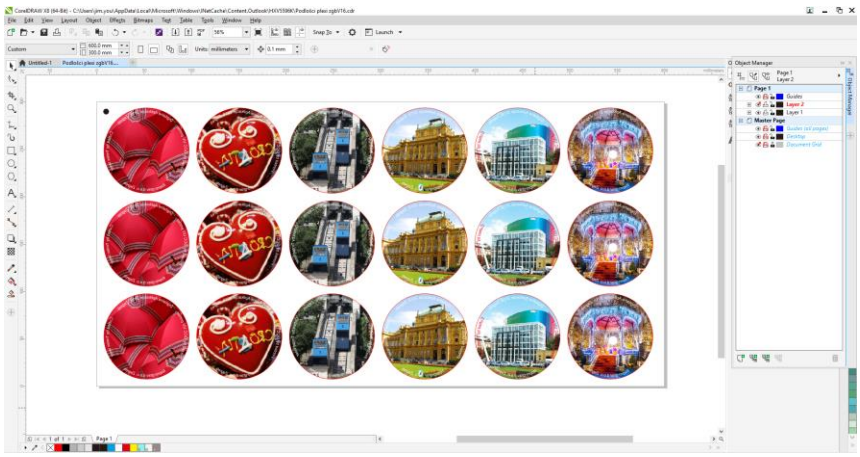
Step 1 Spot_Varnish→Under color、None

Step 2 UV lamp Curing mode → Delay Curing → Save

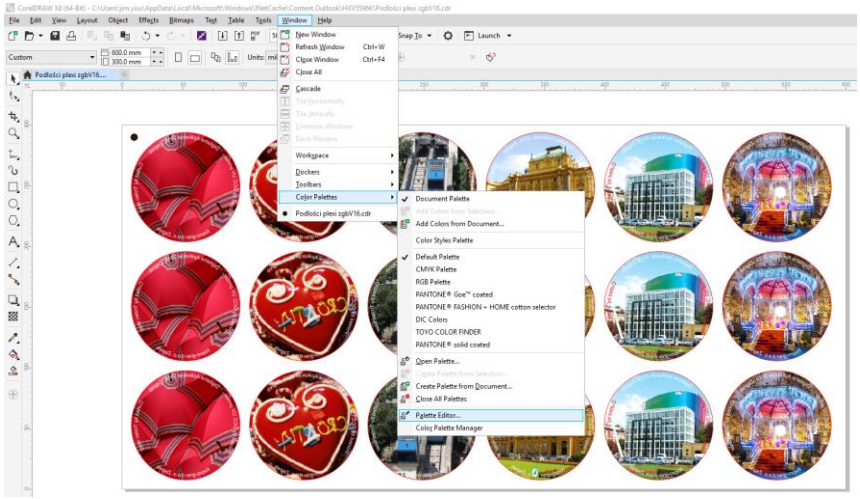


5.3.9 How to set CorelDraw for Spot White

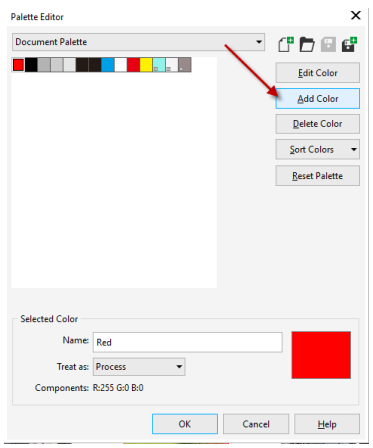
Step 1 Open the file



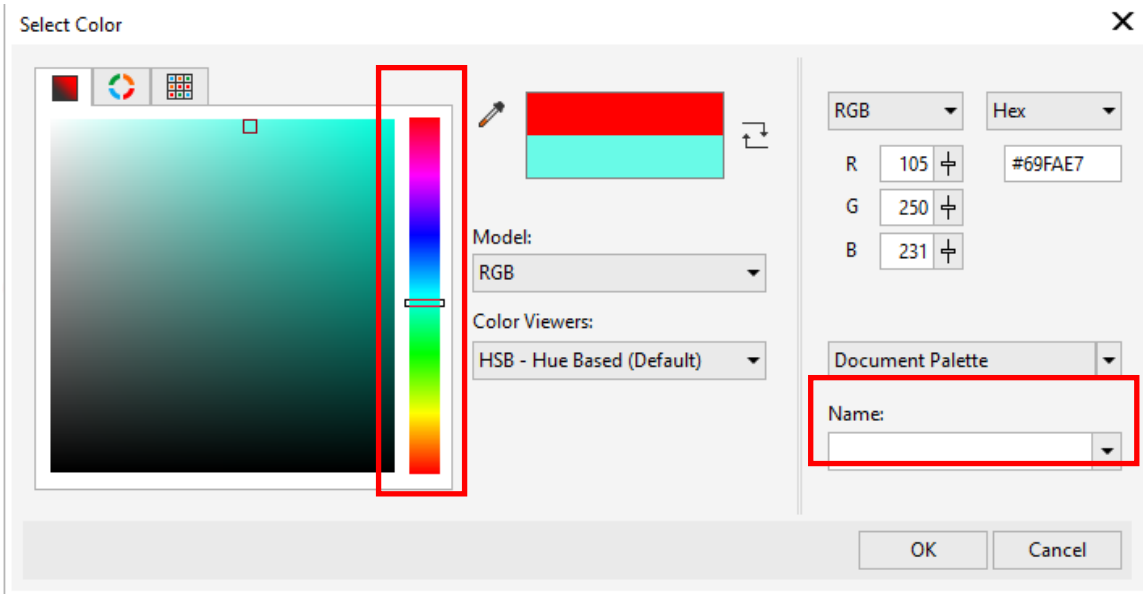
Step 2 Windows→ Color Palettes→ Palette Editor….



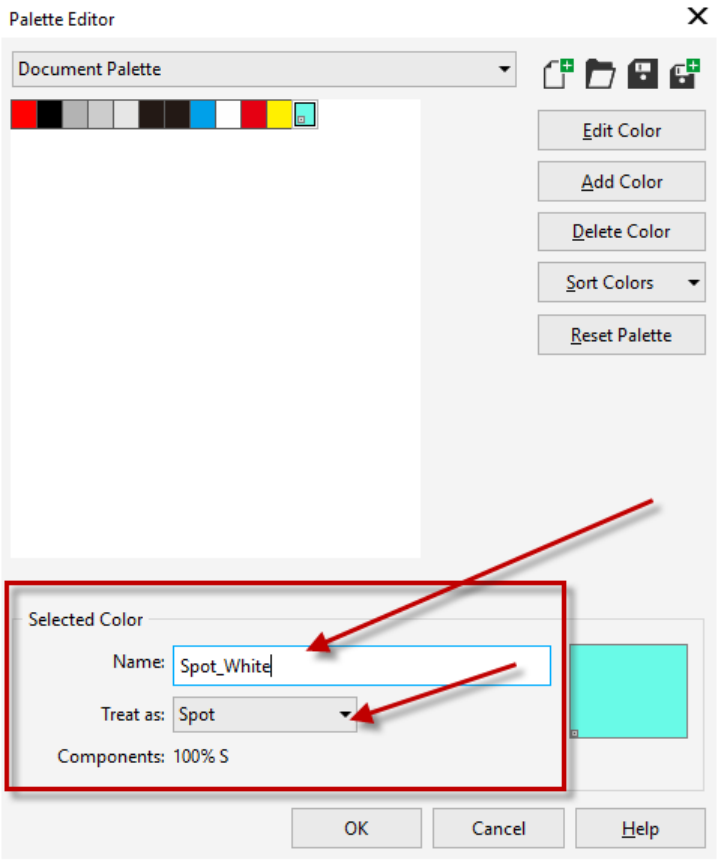
Step 3 Select Add Color



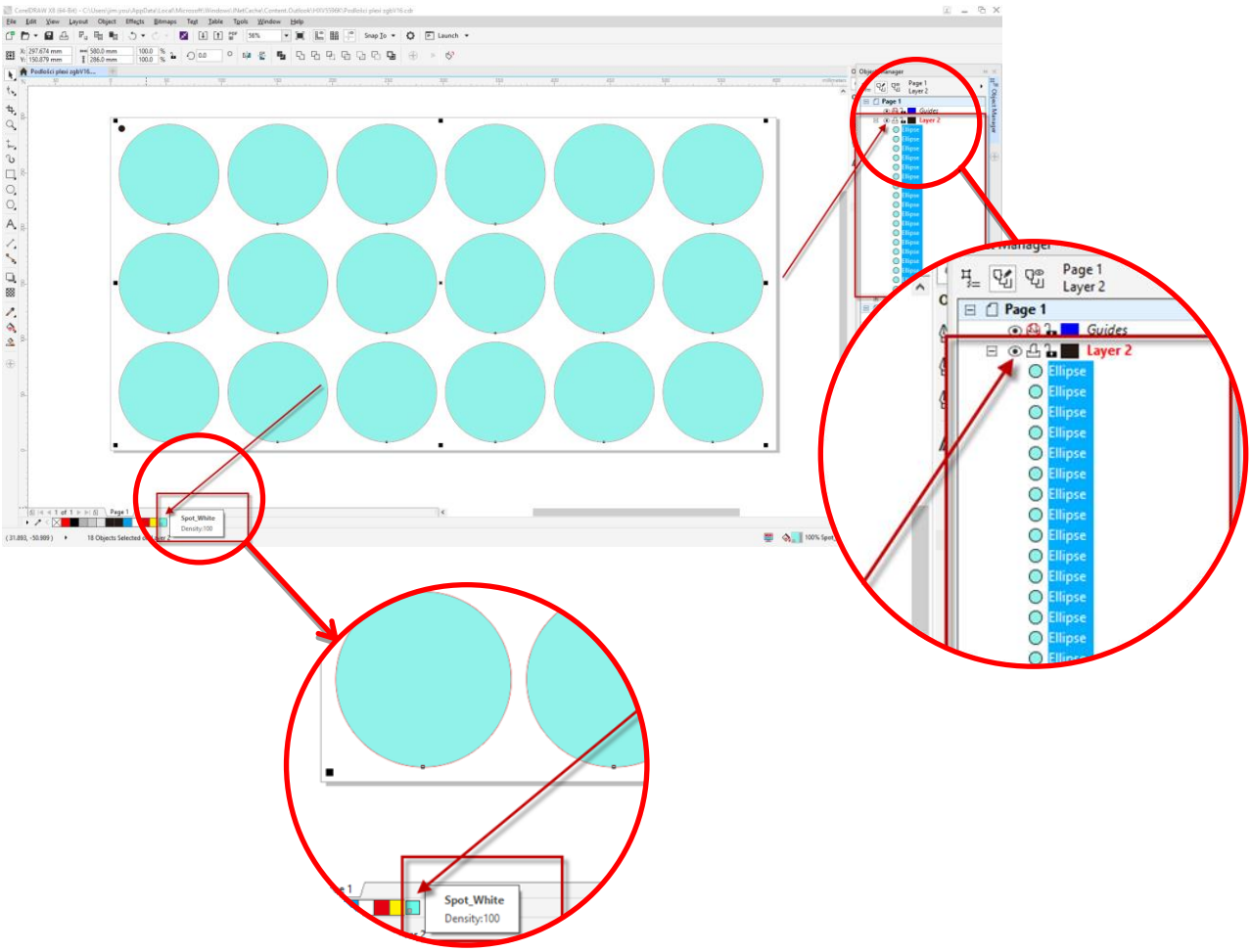
Step 4 Select any color from the color bar and create a new palette from the Name dropdown menu.



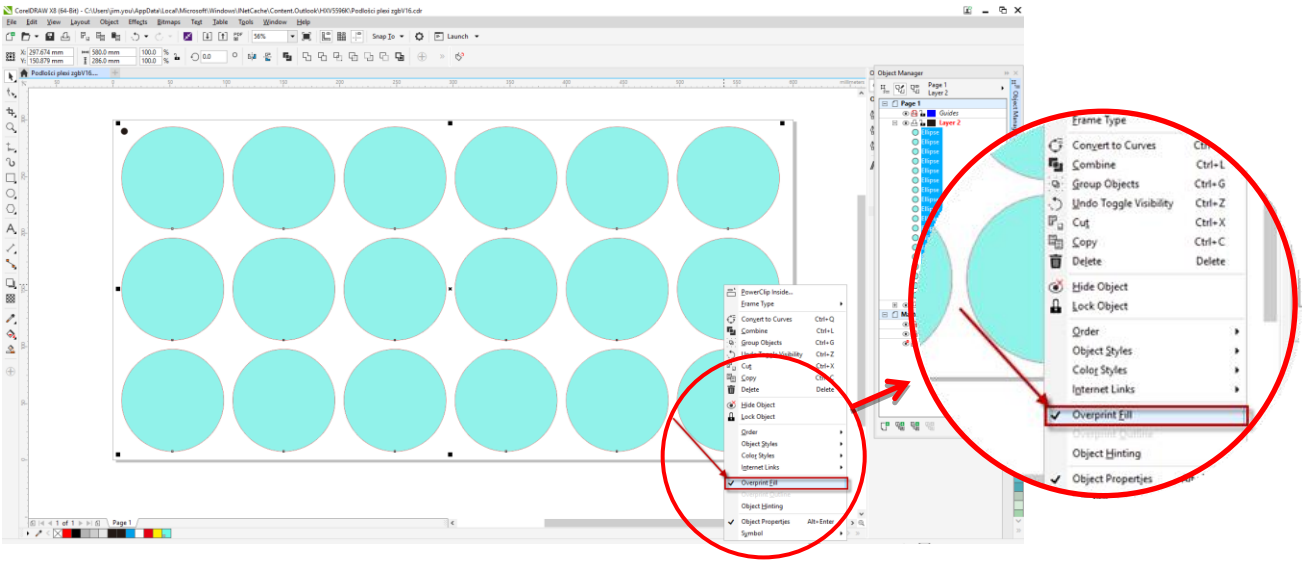
Step 5 Name the new palette to be **Spot_White** and select **Spot** from the Treat as. dropdown menu.



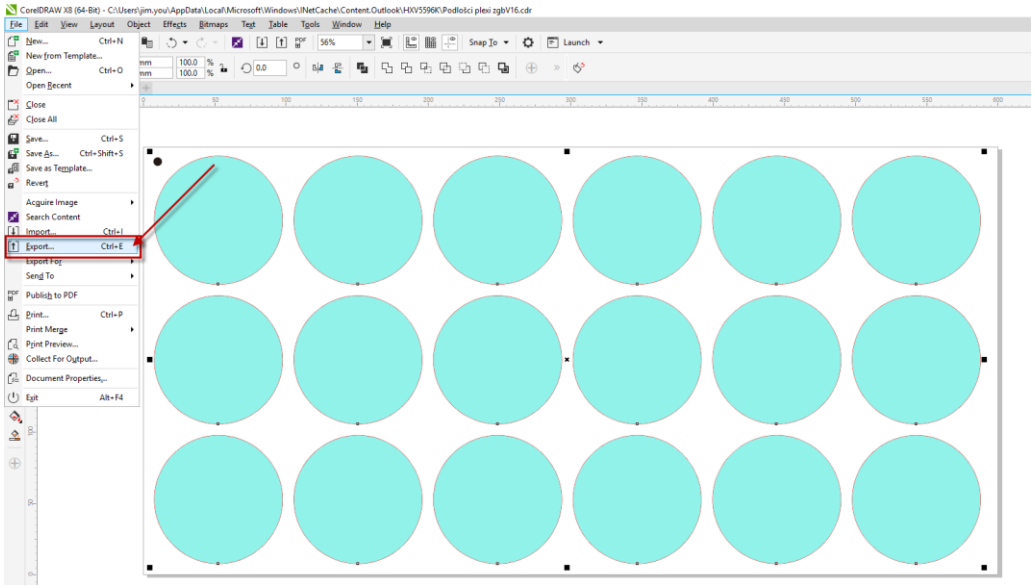
Step 6 Add a layer2 and fill it with Spot_White



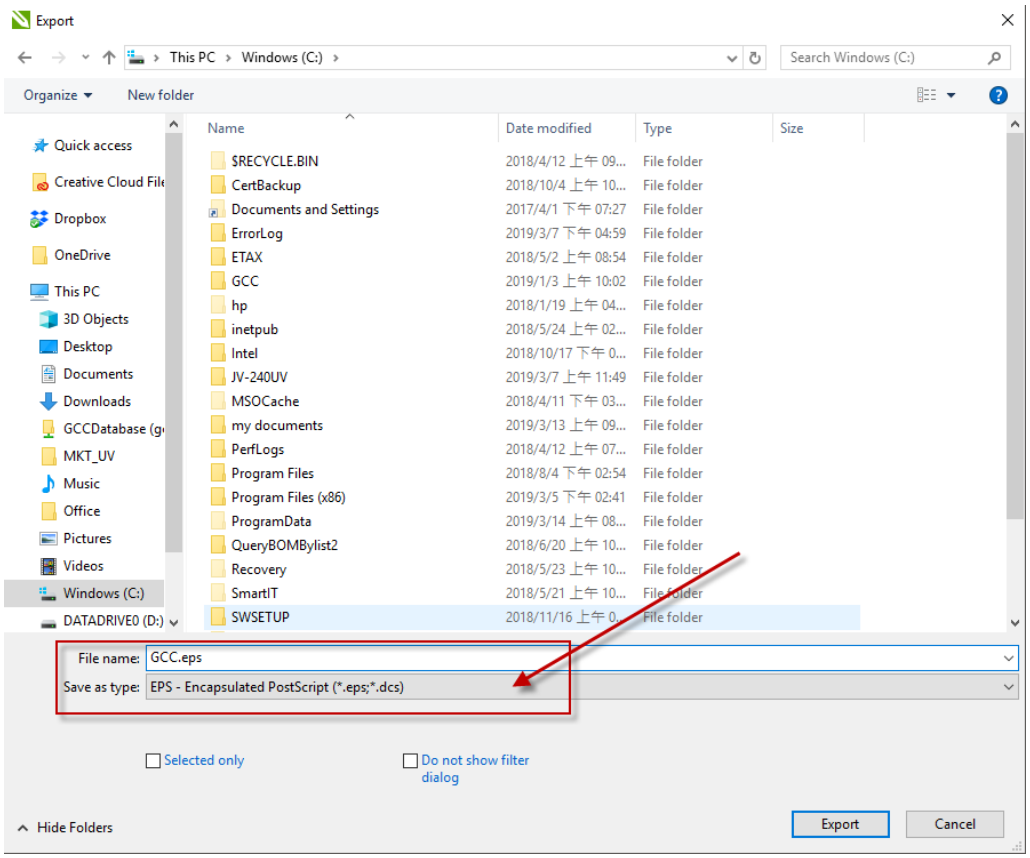
Step 7 Right click on blank space of layer2 and tick Overprint fill



Step 8 File→Export….



Step 9 Save the file as .eps format.



Step 10 The process is completed.

5.4 Tuning And Testing Procedure

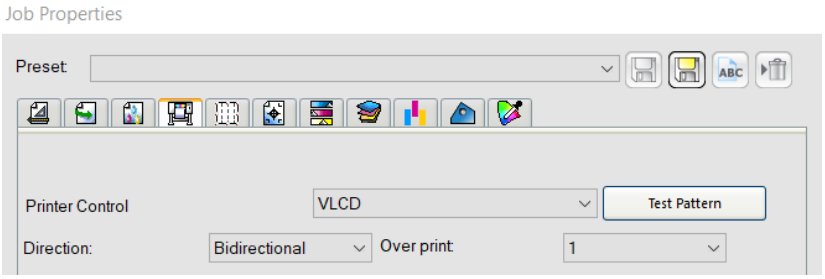
Note: When the buzzer sounds, please check the message on control panel to see how to settle the problem.

Note: if there is an emergency situation that you push the emergency stop button to shut off the machine, make sure the problem is eliminated and restart the machine.

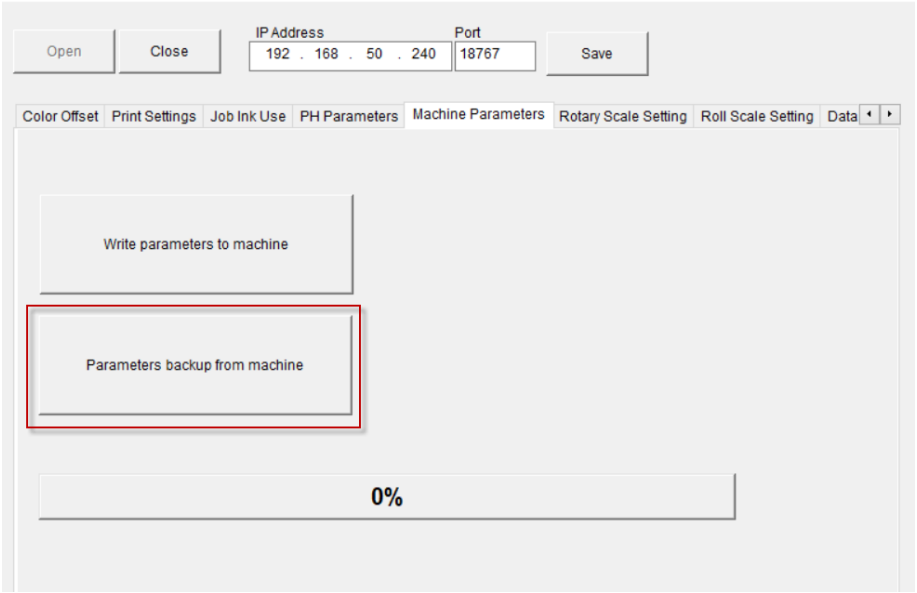
5.4.1 Read Factory Settings

Please obey the following steps to read the parameter settings for first-time use.

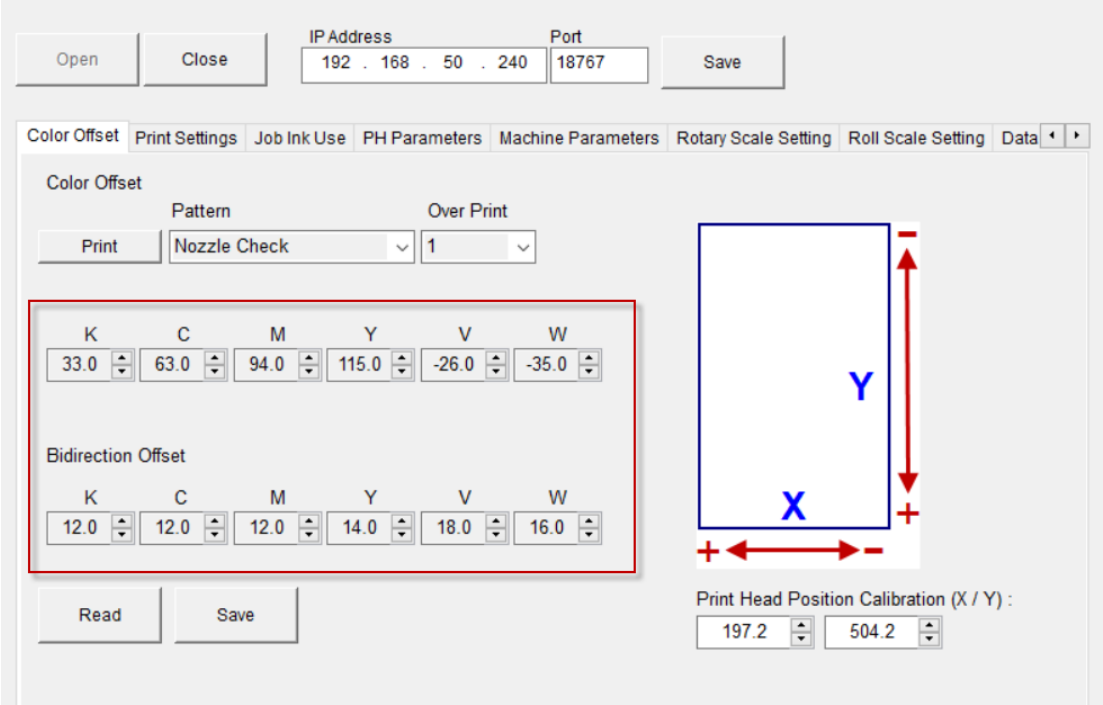
1. Open FlexiPRINT GCC Edition, select Printer Control→VLCD and click Test Pattern



2. Activate JF-240UV (VLCD) and click Open, select Parameters backup from machine, then JF-240UV (VLCD) will automatically read the parameter backup saved in the machine, including the parameter of Band Offset, Uni-Bi-Offset-PH Parameters and so on.



5.4.2 Introduction of VLCD



VLCD Description

GCC JF-240UV Flatbed (VLCD) Description			
OPEN	**Enable JF-240UV calibration online connection**		
CLOSE	**Disable JF-240UV calibration online connection**		
IP ADDRESS	**IP address**		
SAVE	**Save IP address settings**		
Color Offset	**Configure print direction, unidirectional indicates printing image from right to left, bidirectional indicates image will be printed from right to left, then left to right. This setting is to establish the unidirectional / bidirectional precision.**		
Unidirection Offset	Print the unidirectional alignment calibration pattern chart for print head parameter tuning.		
Bidirection Offset	Print the bidirectional alignment calibration pattern chart for print head parameter tuning.		
PH PARAMETERS	**Ink jet print head parameter settings**		
Channel	K、C、M、Y、V、W ink jet head color name		
Drop/Speed m/s	Ink jet head drop speed adjustment		
Default Voltage	Ink jet head voltage adjustment		

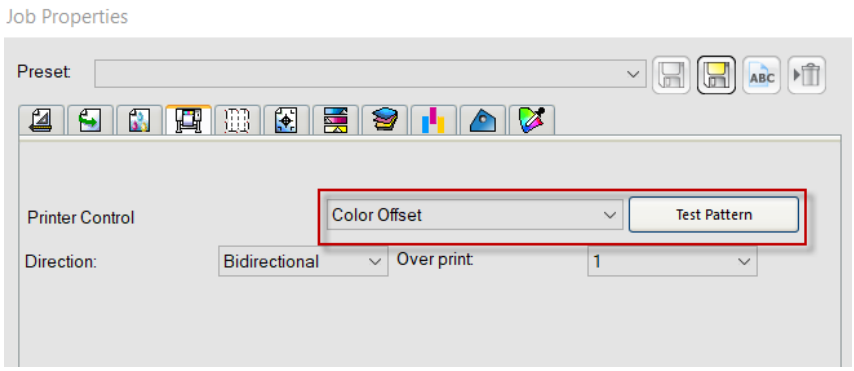
MACHINE PARAMETERS			
Write Parameters to machine	Send the parameter settings to machine		
Parameters backup from machine	Retrieve parameters backup from machine		
MB VERSION			
Read	Read M/B version info.: Motion Firmware Version Motion FPGA Version Ink ID Board Version Engine Board Version		

5.4.3 Preliminary Calibration Parameters

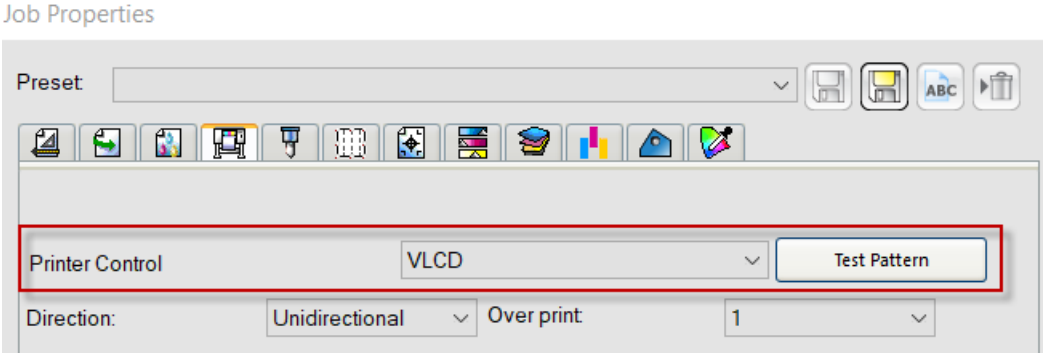
Set the printing direction. When Uni-Directional is selected, the image will be printed only from right to the left; when Bi-directional is selected, the image will first printed from right to left, then from left to right. This calibration is primarily used to ensure the uni-directional / bi-directional printing precision.

Uni-Directional Calibration:

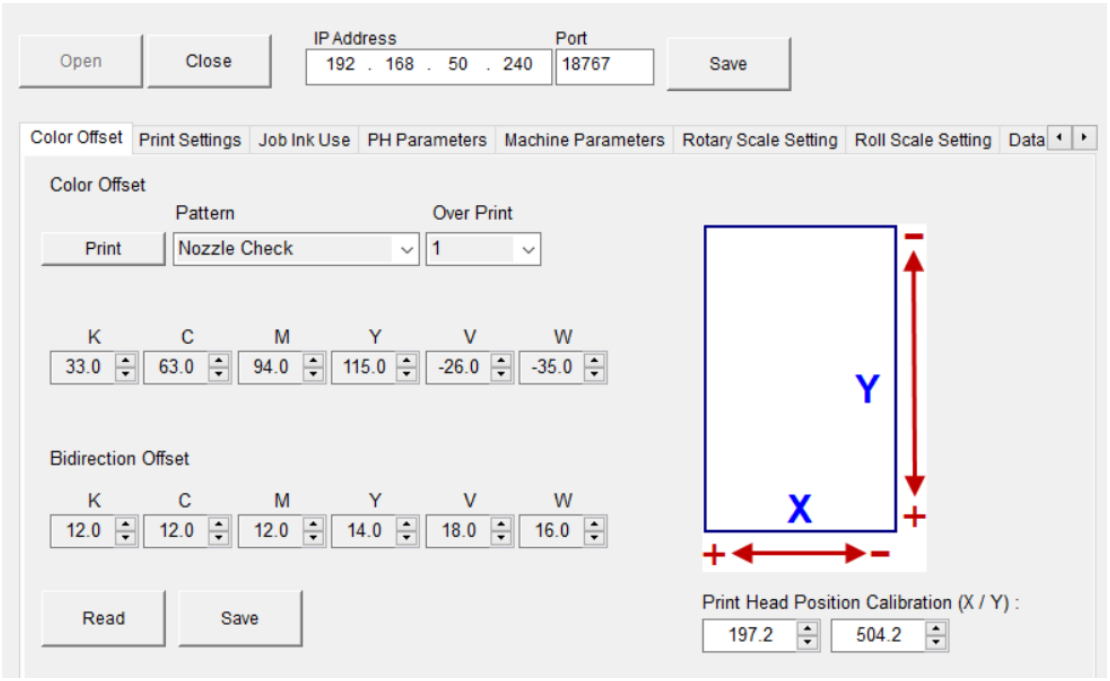
1. Start FlexiPRINT GCC Edition, select Color Offset in Printer Control and click Test Pattern.



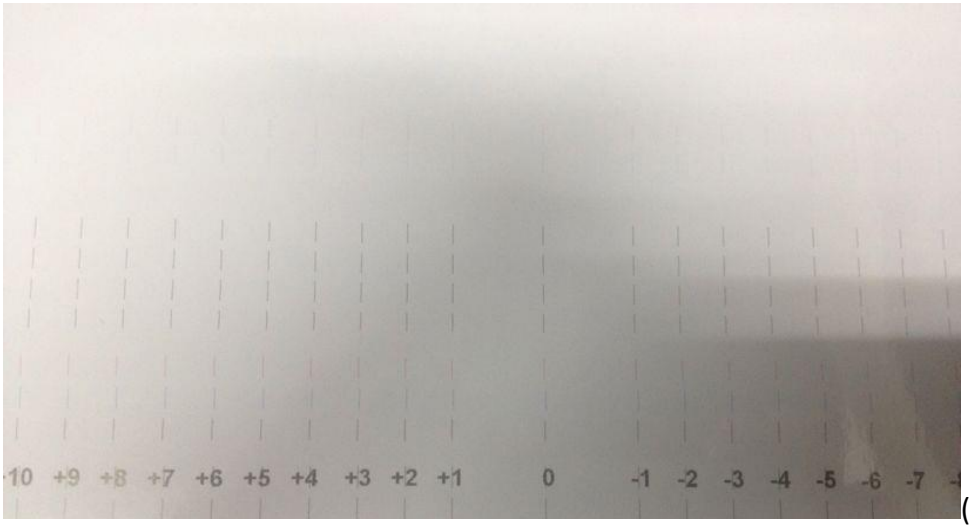
2. JF-240UV will automatically start Color Offset Test Pattern
3. Select VLCD in Printer Control and press Test Pattern



4. Start VLCD and click Open.



5. Confirm Color Offset and adjust parameters as shown in the figure below.



(Figure 4-62)

Following are horizontal alignment calibration examples (please refer to **Example 1** and **Example 2**):

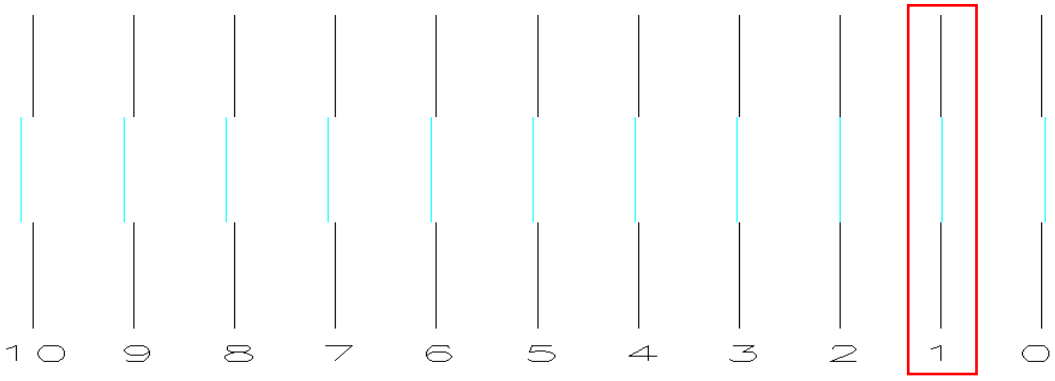
***Note**: Please read the following information thoroughly prior you proceed to the inkjet head horizontal alignment calibration.*

6. Please use K (black) color to calibrate other colors.

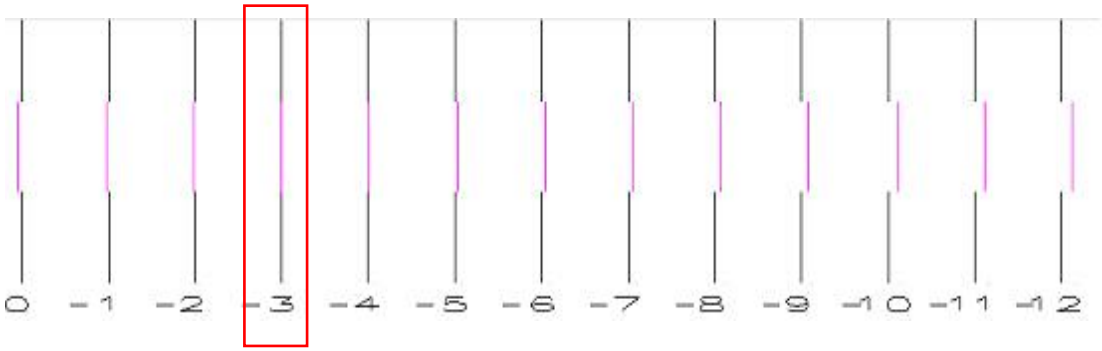
7. There are 31 calibration lines on the horizontal calibration pattern chart. Numbers are layout from left to right. Please refer to Figure 4-70, the 16th line (0) is the initial number.

8. These numbers will indicate the offset (bias) value for each inkjet head

Example 1: Horizontal alignment calibration for the inkjet head of Cyan color.



Example 2: Horizontal alignment calibration for the inkjet head of Magenta color

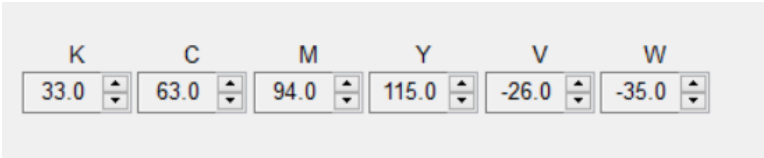


Step 1. Enlarge the Cyan calibration test pattern chart to **Example 1**. Use a magnify lens to observe that Cyan line and Black line are aligned at number “1” line. Keep a record on the number where two lines are aligned.

Step 2. Use a magnify lens to observe that Magenta line and the Black line are aligned at number “-3” line (as **Example 2**), please keep a record on the number where two lines are aligned.

Step 3. Use the same method to observe and record each color line aligned with Black color line.

Step 4. After record all the numbers, go to the control interface of “Unidirection Offset「K、C、M、Y、LC、LM、W、V」” for JF-240UV VCLD software (as shown below) to conduct horizontal fine tuning.

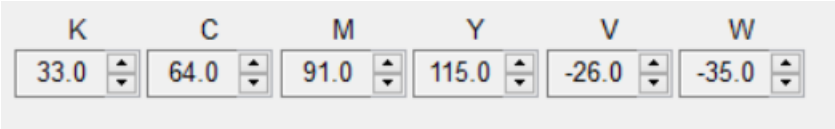


In the Example 1: “1” indicates that the horizontal offset for the color Cyan need to be increased 1. In the Example 2: “-3” stands for that the horizontal offset for the color Magenta need to be decreased 3.

For example:

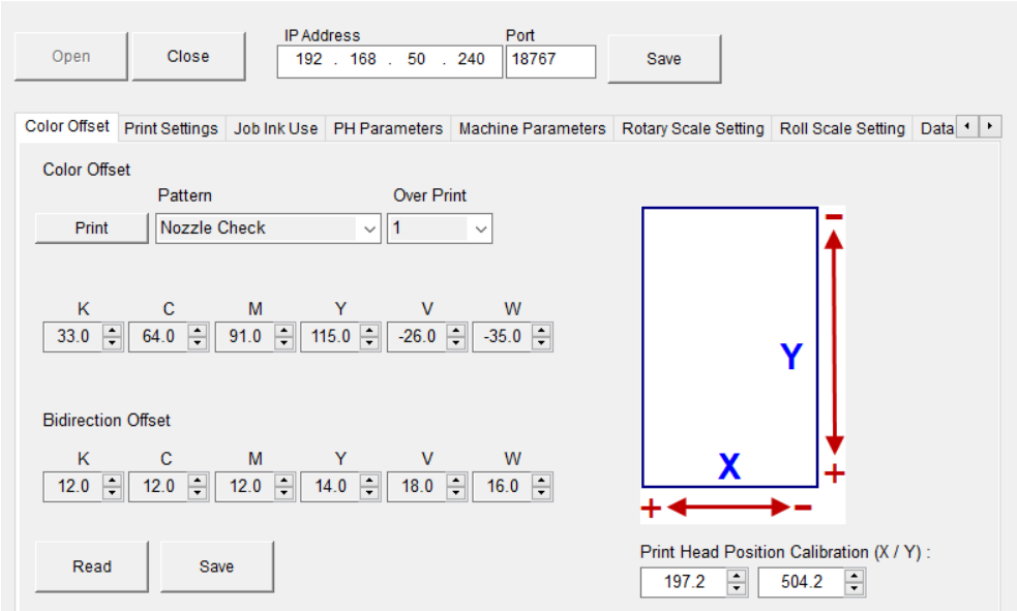
M=94-3=91 (Enter 91 in JF-240UV (VLCD)

C=63+1=64 (Enter 64 in JF-240UV (VLCD)



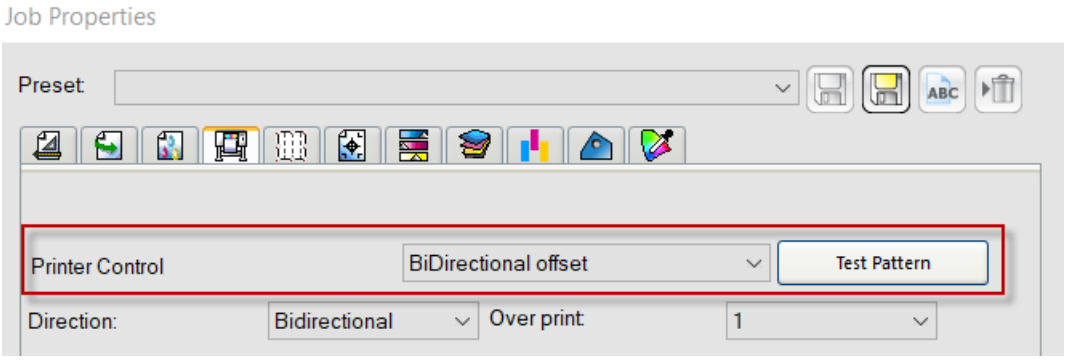
Step 5. Use the same approach to calibrate other inkjet heads.

Step 6. Use this method to enter the offset values for all the inkjet heads (as shown below), then press Save to update the settings.

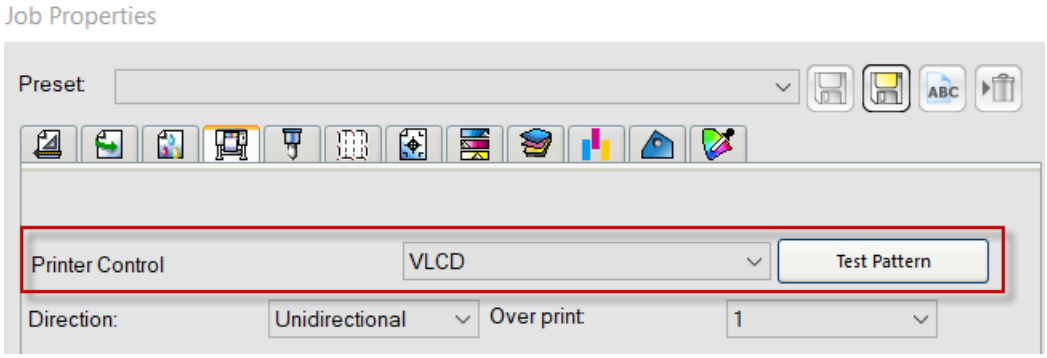


Bi-Directional Calibration:

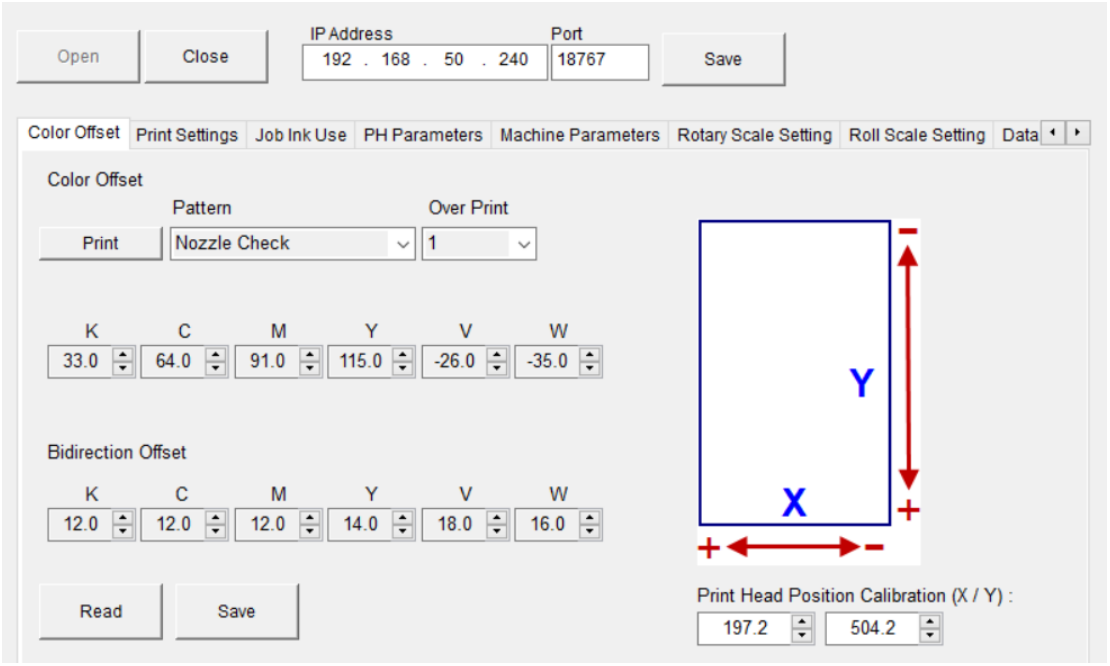
1. Start FlexiPRINT GCC Edition, select Bidirection Offset in Printer Control and click Test Pattern.



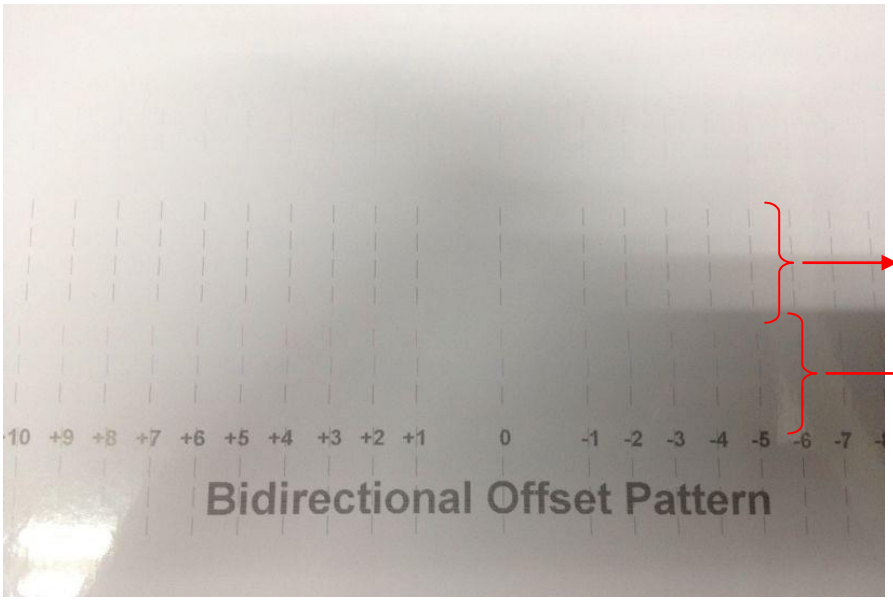
2. JF-240UV will automatically start Bidirection Offset Test Pattern
3. Select VLCD in Printer Control and press Test Pattern.



4. Start VLCD and click Open.



5. Confirm Bidirection Offset and adjust parameters as shown in the figure below.



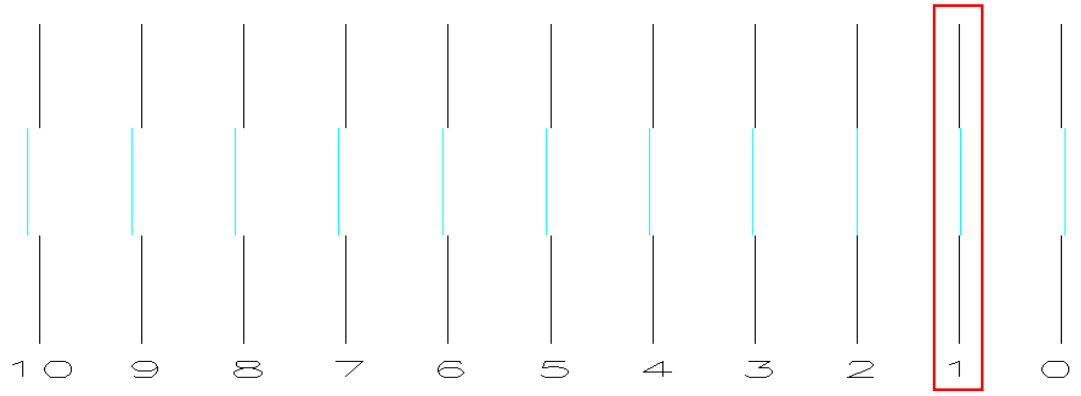
Second pass: printing from left to right.

First pass: printing from right to left.

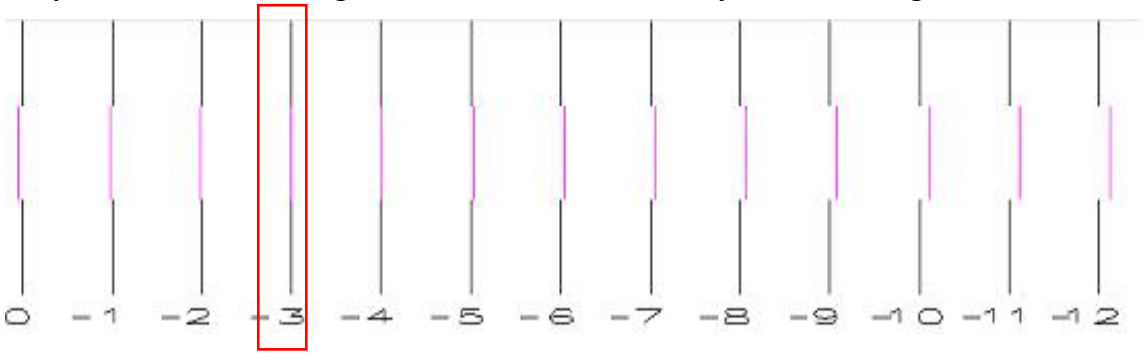
***Note** : Please read the following information thoroughly prior you proceed the inkjet head bi-directional alignment calibration.*

- Offset unit : 1 line = 0.0705mm (1 inch / 360 DPI = 0.0705)

Example 1: Bidirectional alignment calibration for the inkjet head of Cyan color.



Example 2: Bidirectional alignment calibration for the inkjet head of Magenta color.

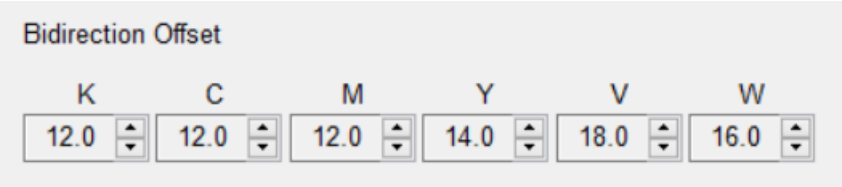


Step 1. Enlarge the Cyan calibration test pattern chart to **Example 1**. Use a magnify lens to

observe that Cyan line and Black line are aligned at number “1” line. Keep a record on the number where two lines are aligned.

Step 2. Use a magnify lens to observe that Magenta line and the Black line are aligned at number “-3” line (as **Example 2**), please keep a record on the number where two lines are aligned.

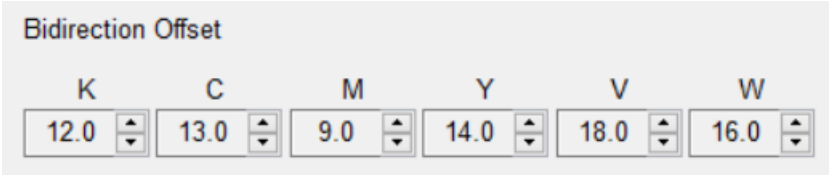
Step 3. After record all the offsets for all the colors, go to the control interface of “Bidirection Offset 「K、C、M、Y、W、V」” for JF-240UV VCLD software to conduct bidirectional calibration.



In the Example 1: Cyan line shift 1 line to the left indicates that the bidirectional offset for the color Cyan need to be increased 1. In the Example 2 : Magenta line shift 3 line to the right stands for that the horizontal offset for the color Magenta need to be decreased 3.

For example: M=12-3=9 (Enter 9 in JF-240UV (VLCD)

C=12+1=13 (Enter 13 in JF-240UV (VLCD)



Step 4. Use the same approach to calibrate other inkjet heads.

Step 5. Use this method to enter the offset values for all the inkjet heads, then press Save to update the settings.

Chapter 6 Maintenance And Basic Service

This chapter provides the basic maintenance information for the JF-240UV flatbed printer (i.e. clean up operations for the flatbed printer). Other than the operations described here, the rest of the service must be carried out by trained maintenance professionals.

To keep the flatbed printer in the best performance and the best printing quality, it is necessary to periodically clean / maintain this equipment with appropriate procedures.

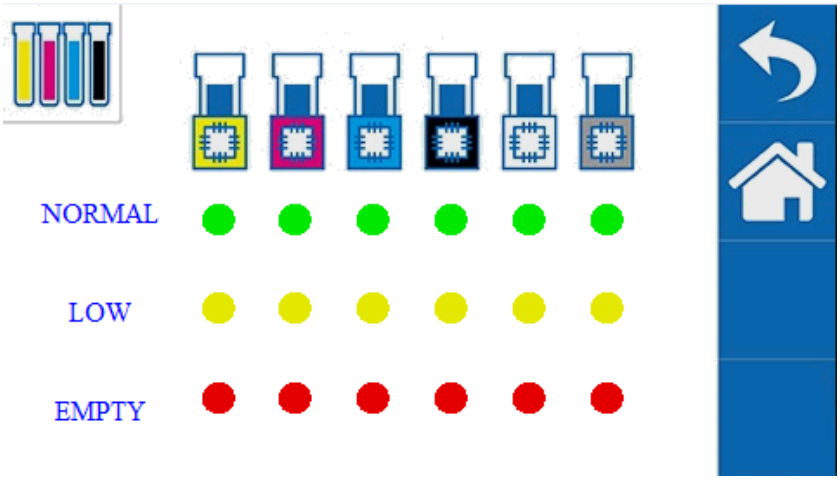
6.1 Check Remaining Ink and Refill Ink

6.1.1 Check Remaining Ink

1. Select MENU on the control panel.

2. Select INK REMAININNG

3. Check remaining ink



Description:

*Green light indicates high ink level.

* Yellow light indicates medium ink level.

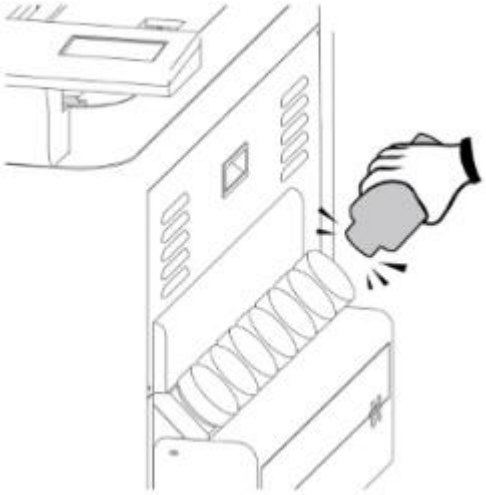
* Red light indicates low ink level, ink should be refilled immediately.

6.1.2 How To Replace Bulk Ink

When running out of ink, control panel will show “Ink run out” to remind users to refill the ink.

Please make sure the color of the ink bottle label matches the ink color you want to refill.

It is suggested to horizontally shake the White ink 15 times before filling in the bottle or stir the White ink manually before printing.



Note : Be caution when replace the ink bottle:

1) Please install the ink bottle to the position according to the color label.
2) Please fill the ink slowly to prevent the ink from overflowing.
3) Must be replaced with ink bottle of the same type.
4) Do not use the uncertified ink bottle.
5) Do not pull out the ink bottle while the equipment is printing.
6) Please do not remove the empty ink bottle until a new one is inserted

Warning: Do not store ink, flush cleaning solutions or liquid drained out at any following locations.

Area might be exposed to flame, to avoid fire hazard.

Area might be exposed to high temperature.

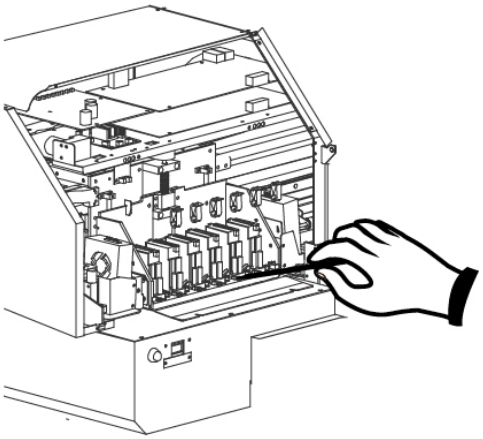
Area exposed to bleach, any oxidant or explosive materials.

Area might be reached by children to prevent health hazard.

6.2 Daily / Weekly / Monthly Maintenance

6.2.1 Ink Print Head Cleaning

Note：Do not use the printhead cleaner to clean the waste ink area



Required daily cleaning:

Check whether the print head in good condition. It is required to use sponge swabs with Cleaner (26501007G) to clean print head, print head area and wiper everyday.

Note：Switch the ink valve off while cleaning, and switch the ink valves on after the process is complete.

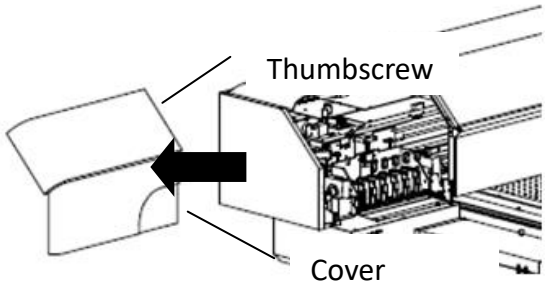
Print Head Cleaning

1. Select MENU on the control panel

2. Select MANUL CLEANING

3. Select ENTER, press PURGE button and wait for 20 seconds, then press

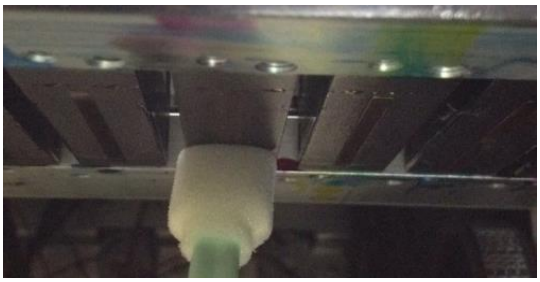
4. Remove thumbscrews and open the left cover and close ink valve.



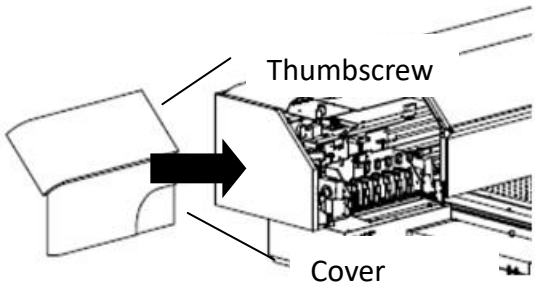
5. Use sponge swabs with cleaner to clean the area underneath the print heads, and wipe residues from back to front.

Note: Do not reuse the sponge swabs.

Note: The change of color of sponge swab does not affect its function.



6. Open ink valve, close up the left cover and fix it with thumbscrews, and press



Required weekly maintenance:

Check whether the print head is in good condition. It is required to use sponge swabs with Cleaner (26501007G) to clean print head and print head area every week, and make sure that ink bottle is not empty and dispose waste ink bottle.

6.2.2 How To Turn On/Off POWER SAVE Function

The function of POWER SAVE is to save energy. When the device idles longer than a set period of time, JF-240UV will automatically enter POWER SAVE mode.
Select POWER SAVE on the control panel to activate POWER SAVE and press it again to deactivate it. There are five time interval setting, 15 sec., 30 sec., 1 min., 3 min. and 5 min, user may choose whichever is suitable.

6.2.3 How To Dispose Waste Ink Bottle

When the waste ink bottle is full, control panel will display “Waste ink bottle is full” message. It is recommended that remove the waste ink bottle and dispose the waste ink to a waste ink collecting area.

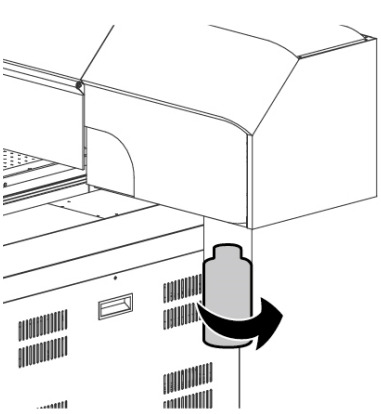
Dispose the waste ink according to the following steps:

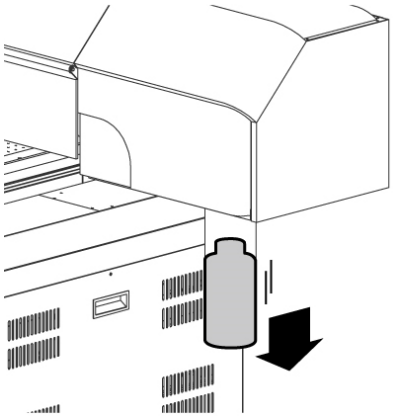
1. Select MENU on control panel

2. Select MAINTENANCE

3. Select REPLACE WASTE INK BOTTLE

4. Remove the waste ink bottle





5. Install the empty waste ink bottle

NOTE:

Waste ink bottle contains hazardous substances. Please DO NOT dispose the waste ink bottle with general garbage or discard it into sewage treatment system.

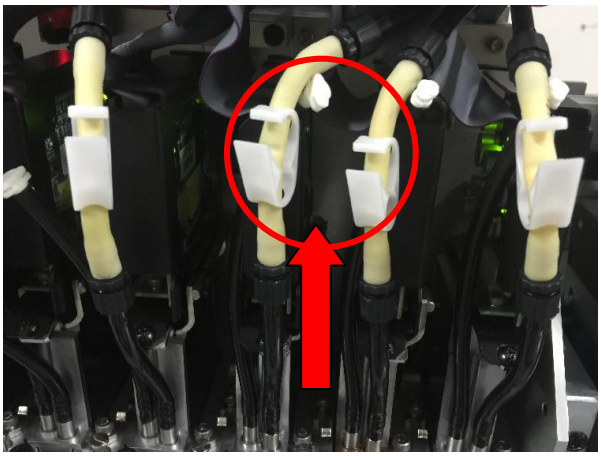
Please follow the local regulations to dispose the waste ink to prevent contaminating the environment.

6.2.4 Cleaning

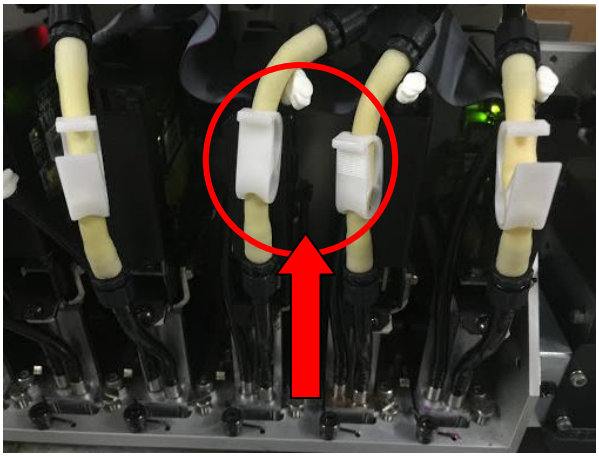
Warning: Do not use gasoline, alcohol, or solvent … etc. flammable materials, as they are abrasive and hazardous, and could damage the equipment.

Note: Please make sure power and ink valve are turned off and JF-240UV is done the printing job before cleaning process starts.

Press the clip of ink valve to switch the ink valve off.



Ink valve is **opened**



Ink valve is **closed**

Note: When the machine is in printing, the moving parts might cause injury or high temperature components might cause burns.

While in cleaning up process, please clean up ink residue or printing media on the platform and other area to avoid deposition. Use cloth moistened with diluted mild cleaning solution or water to wipe it out.

Note: it is advised to clean the capping area with cleaning cloths every week

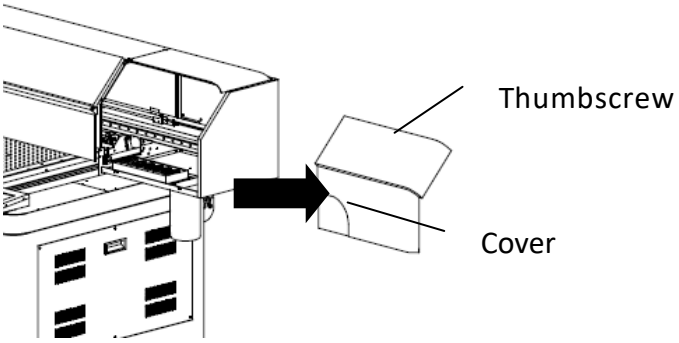
6.3 Print Head Maintenance And Clean Up

Print head maintenance and clean up are important to ensure machine printing quality. Generally it can be divided into daily maintenance and periodically maintenance.
Required daily maintenance: Apply automatic basic cleaning up maintenance.
Required weekly maintenance: Apply automatic advanced cleaning up maintenance.
Required monthly maintenance: Apply automatic advanced cleaning up maintenance, and wipe the print head with cleaning swabs.

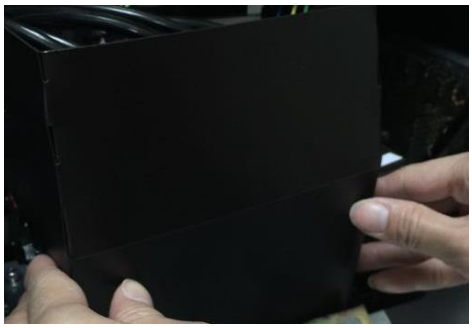
Note: When the machine idle 2~3day and the print head nozzle clog, please click Powerful Clean to flush it (each Powerful Clean process will take 8 min to complete the cycle).
Note: When the machine is power-down longer than 7 days, please fill flushing solution into print head and drain the ink out, leaving the flushing solution in print head only.

6.3.1 Maintenance And Clean Up

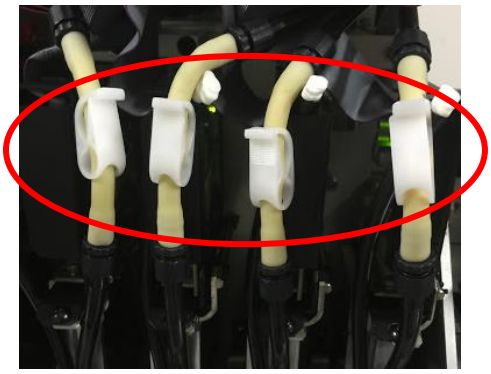
Step 1 Remove thumbscrews and open up the right cover.

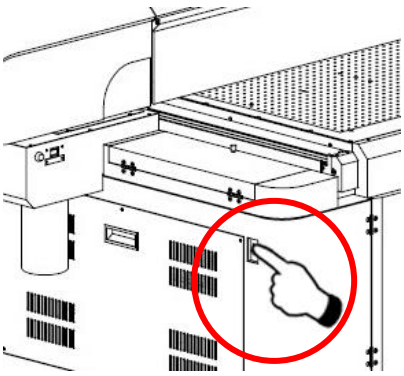


Step 2 Remove the tool carriage cover.

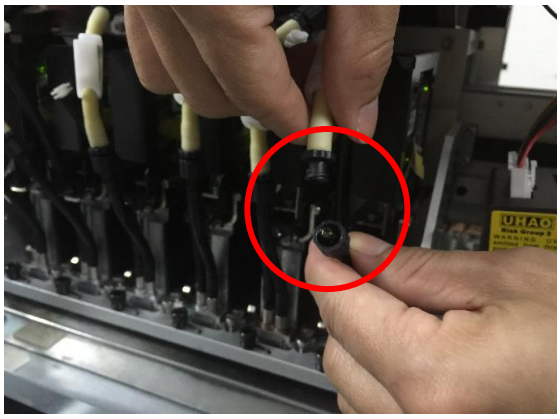


Step3 Press the clip of ink valve to close it and turn off the machine.



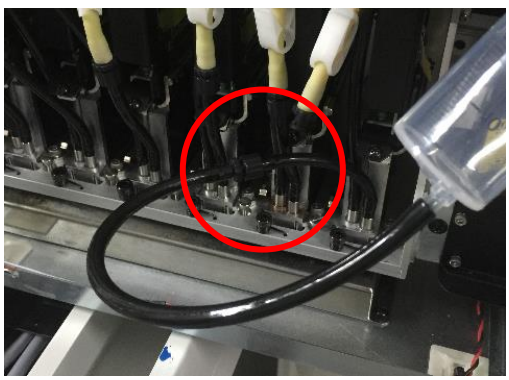


Step4 Switch on the ink tube

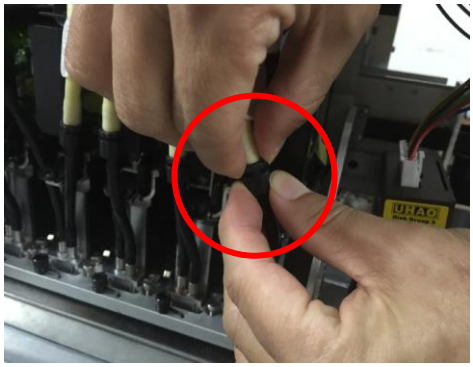


Step5 Take in cleaner (26501007G) in syringe.

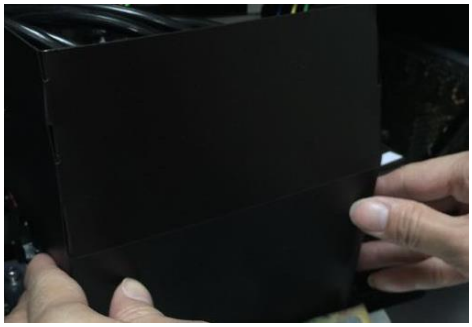
Step6 Inject cleaner (26501007G) into ink tube of print head



Step 7 Switch off the ink tube



Step 8 Close the tool carriage cover.

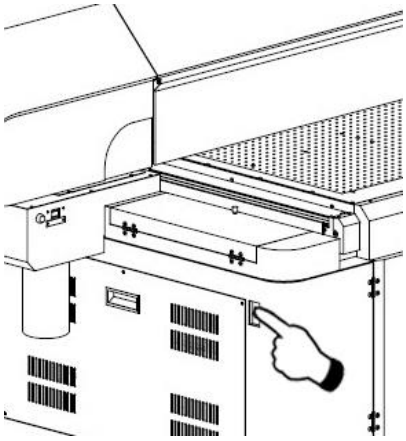


Step 9 Complete

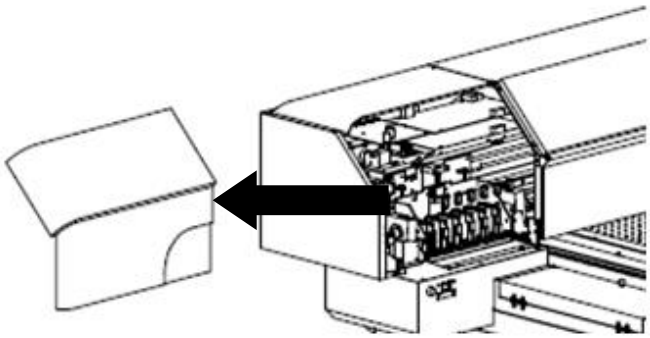
6.3.2 Maintenance And Clean Up For Print Head of White Ink

When the machine is power-down longer than 7 days or print head nozzle of white ink clogged, conduct the following steps before printing.

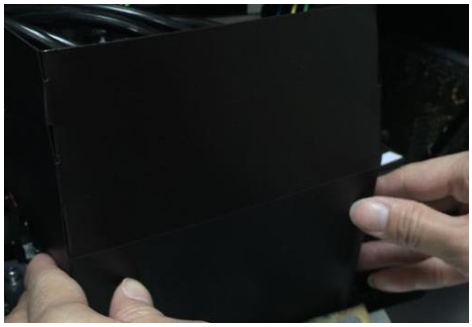
Step 1 Turn on the power.



Step 2 Remove thumbscrews and open up the left cover.



Step 3 Remove the tool carriage cover.



Step 4 Press the clip of ink valve to open it

Step 5

1. Select MENU on the control panel.

2. Select CLEANING

3. Select WHITE CIRCULATION, then JF-240UV starts WHITE CIRCULATION.

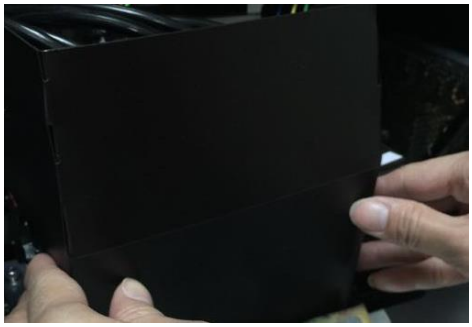
Step 6 After WHITE CIRCULATION is done, continue to CLEANING process according to following steps

1. Select MENU on the control panel

2. Select CLEANING

3. Select POWERFUL

Step 7 Close the tool carriage cover.



Step 8 Close left cover and fasten it with thumbscrews.

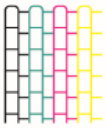
Step 9 Complete

6.3.3 Automatic Basic Cleaning Up Maintenance

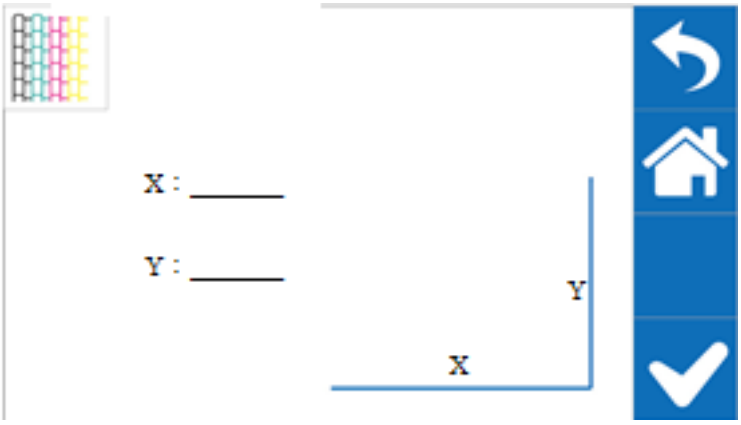
For the daily cleaning up and maintenance, if the print head is clogged, it is recommended to apply basic cleaning up instruction procedure to clean up print head prior the print job.

Step 1 Perform NOZZLE CHECK

1. Select MENU on the control panel

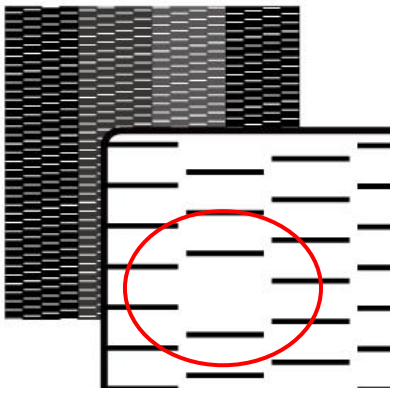
 2. Select NOZZLE CHECK

3. Enter X, Y value and press ENTER



Step 2 JF-240UV will print out Nozzle Check test pattern, if the printing quality is similar to the

figure below, please clean it up according to the following steps.



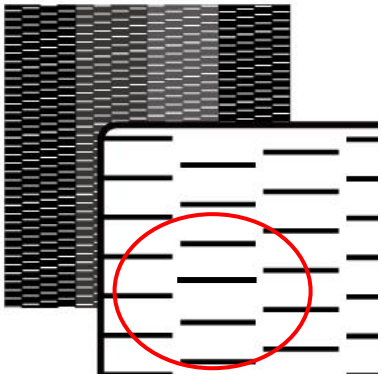
Step 3

1. Select MENU on the control panel

2. Select CLEANING

3. Select NORMAL, and the machine will carry out automatic basic cleaning up procedure.

Step 4 Repeat step 1~2 to confirm whether the basic cleaning can meet the required printing quality.
If blocked area are filled, then the basic clean up is completed.



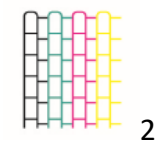
6.3.4 Automatic Advanced Cleaning Up Maintenance

For the periodically cleaning up and maintenance, if there is serious blockage in the print head, it is

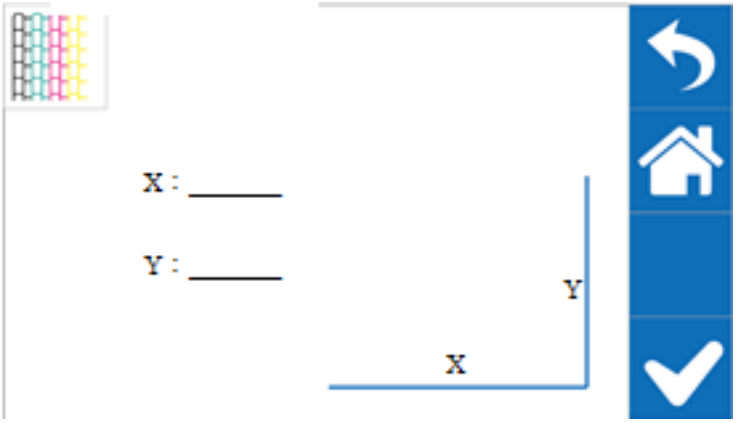
recommended to apply advanced cleaning up instruction procedure to clean up print head prior the print job.

Step 1 Perform NOZZLE CHECK

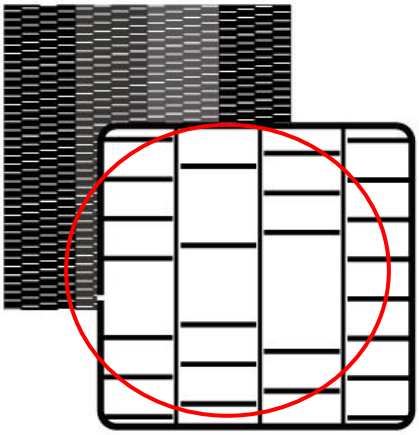
1. Select MENU on the control panel

 2. Select NOZZLE CHECK

3. Enter X, Y value and press ENTER



Step 2 JF-240UV will print out Nozzle Check test pattern, if the printing quality is similar to the figure below, please clean it up according to the following steps.



Step 3

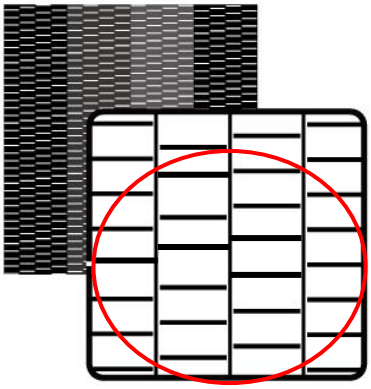
1. Select MENU on the control panel

2. Select CLEANING

3. Select POWERFUL, and JF-240UV will carry out automatic advanced cleaning up procedure.

4. Reconfirm whether the advanced cleaning can meet the required printing quality.

Step 4 Repeat step 1~2 to confirm whether the advanced cleaning can meet the required printing quality. If the blocked area is filled, then the advanced cleaning is completed.



6.3.5 Manual Maintenance

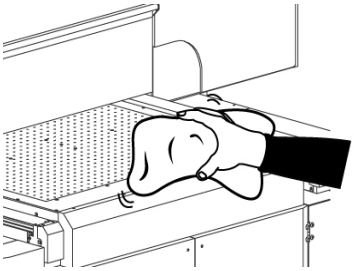
Manually clean up the print head, based on your usage frequency, conduct manual clean up periodically.

Note: Some reminders for manual clean up procedures:

1) Before the manual clean up, please remove any media on the JF-240UV printing platform.
2) Don't use any tool other than the cleaning swab, as it might damage the print head.
3) Don't use the cleaning solution which used to soak the print head or cleaning solution which already has been used to clean up the print head. It could lower the cleaning efficiency.
4) For the manual cleaning, please move very slowly and use the minimal force, don't rub, wipe, scratch, or crash the print head.

* If the print head is damaged, please replace with a new one to ensure printing quality. For the wiper purchasing, please contact the GCC authorized distributors.

Step 1 Use cloth to clean up the area with ink residue



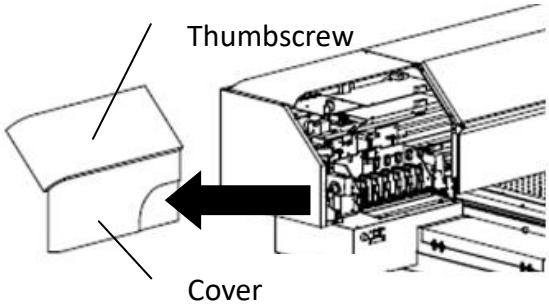
Step 2

1. Select MENU

2. Select MANUL CLEANING

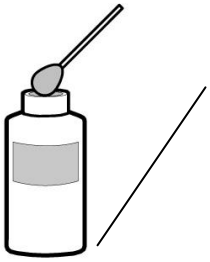
3. Select ENTER (The cartridge will move to maintenance area on the left side)

Step 3 Remove thumbscrews and open up the left cover



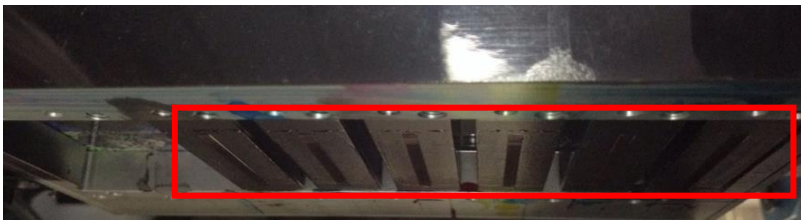
Step 4 Press Purge switch for 3 seconds and wait for 20 seconds, then press and close ink valve.

Step 5 Dip the cleaning swab into the cleaning solution bottle to moisten it.



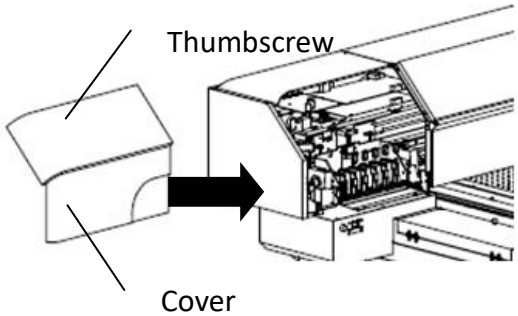
Be sure to clean using
One of the included
Cleaning sticks.

Step 6 Check carefully if there are any residues of ink left on the area underneath the print heads.



Step 7 Use sponge swabs to clean the area and wipe residues from back to front.

Step 8 Open ink valve, close up the left cover and fix it with thumbscrews and select .



6.4 How To Replace The Filter and Glass Surface Of LED Lamp

Note: It is suggested to change the filter of LED lamp every six months.

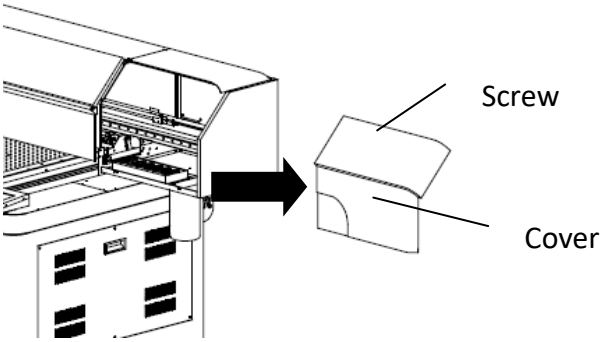
Step 1

1. Select MENU on the control panel

2. Select MAINTENANCE

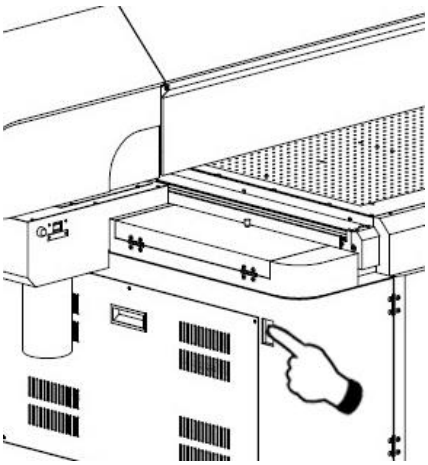
3. Select REPLACE LED LAMP.

Step 2 Remove the thumbscrews and open the right cover.



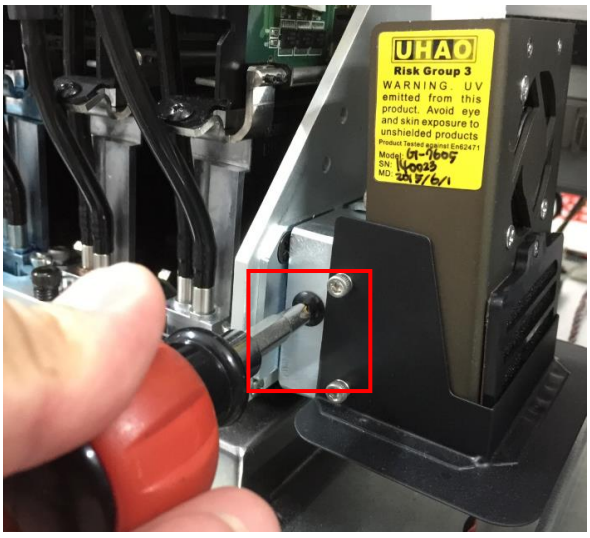
Step 2 Turn off all ink valves.

Step 3 Turn off the power and unplug the power cord.

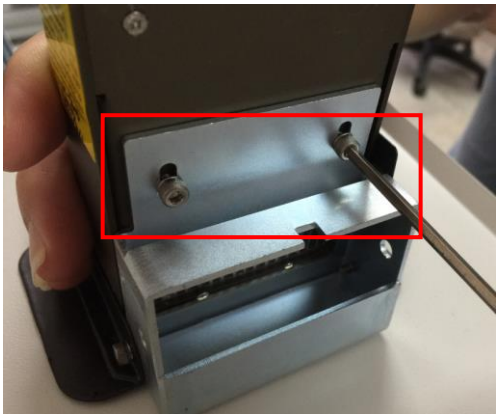


Step 4 Disconnect the Led Lamp wire.

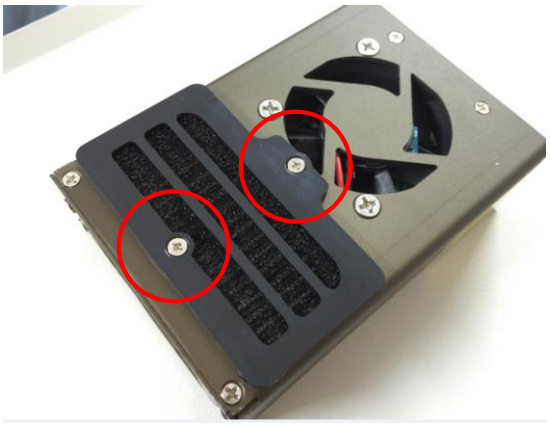
Step 5 Take apart the screw at the upper position which is connected with Led lamp set.



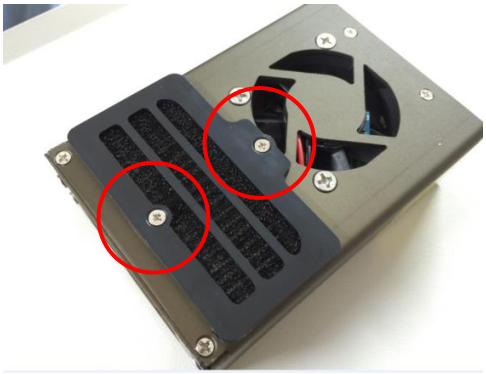
Step 6 Take apart the screws at the side position which is connected with Led lamp set.



Step 7 Take apart the screws (2 pieces).



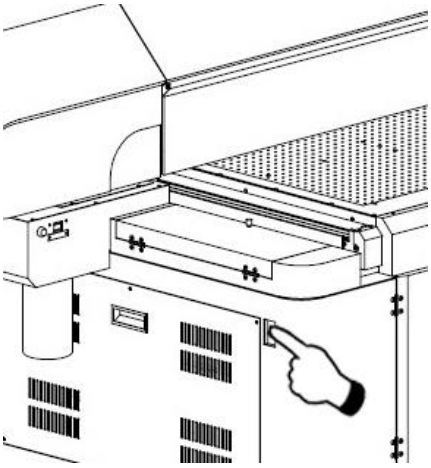
Step 8 Replace a new led lamp filter and fasten the screws.



Step 9 Please use a sponge swabs moistened with alcohol to clean the glass surface of the LED lamp.

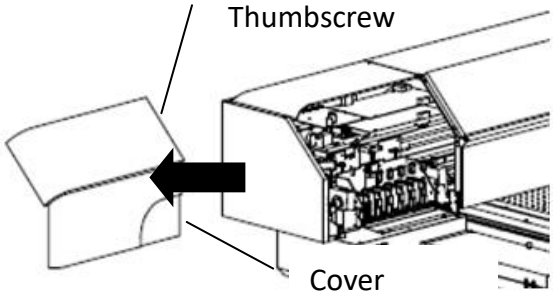
Step 10 Follow the procedures in reverse order from step 8 to step 5 to assemble the Led lamp.

Step 11 Plug in the power cord and restart JF-240UV. The process is done.

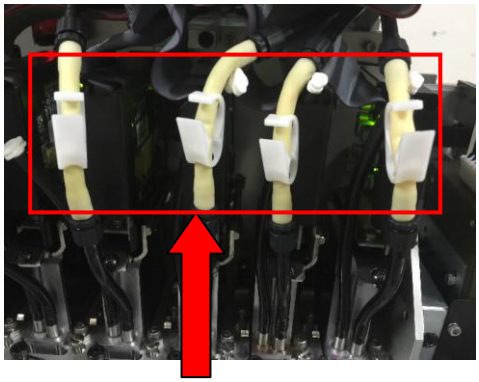


6.5 Ink Drain Away

Step 1 Remove thumbscrews and open the left cover.



Step 2 Turn on all ink valves.



Step 3

1 Select MENU

2 Select MAINTENANC

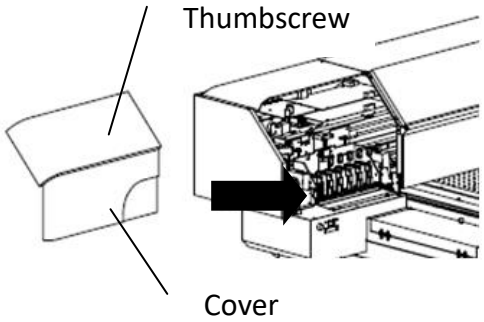
3 Select INK INSTALL/DRAIN

4 Select INK DRAIN AWAY

Step 4 Fill flush into flush channel by order of the instruction on control panel to complete the workflow of ink drain.

Step 5 Ink drain flow:

Step 6 Assemble the left cover with thumbscrew. The process is complete.



6.6 Reset Pressure Gauge with Atmospheric Pressure

Manually adjust the barometer underneath the machine on the left side to reset the pressure gauge with atmospheric pressure.

Step 1 Close all tube clip above print heads

Step 2 Open the right side cover (above main ink tank bottles)

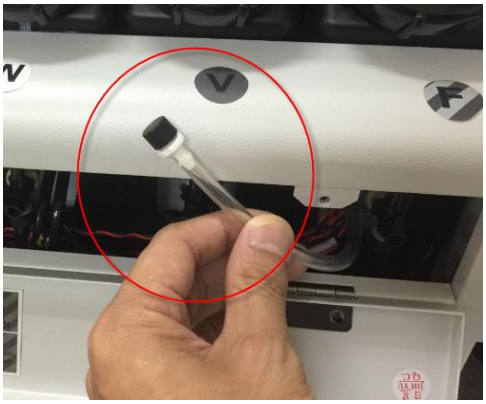
Step 3 Remove the plugs at the bottom of air pressure buffer tank, as soon as removed the plug, the pump will keep pumping.

Step 4 Open the cover of pressure gauge.

Step 5 Press⇩and ⇧buttons at the same and hold for 2 seconds. Release after “0Ad” is shown on the display and adjust the pressure gauge with ⇧and⇩buttons.

Note: the default setting for pressure gauge is between 3~4 kpa according to local environment. Adjust the pressure gauge to optimized value base on the weather condition to prevent ink from dripping.

Step 6 Put back the plug of air buffer tube.



Step 7 Install back the gauge cover and right side cover.

Step 8 Open the ink tube clip and complete the procedure.

6.7 Lubrication of the X Rails

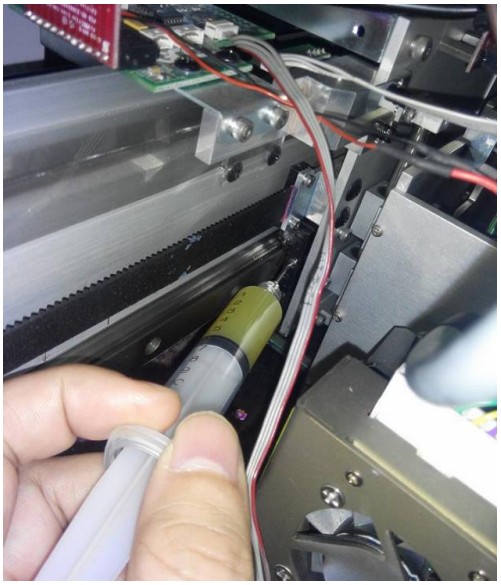
The procedure of Lubrication:

Step 1 Power off the machine

Step 2 Move the carriage rightwards or leftwards to allow the grease being injected.

Step 3 Inject 1ml of grease to the injection opening inside the linear bearing on both side.

Note: Lubrication regularly depending on the job loading, recommend on a quarterly basis.



Lubrication Notes

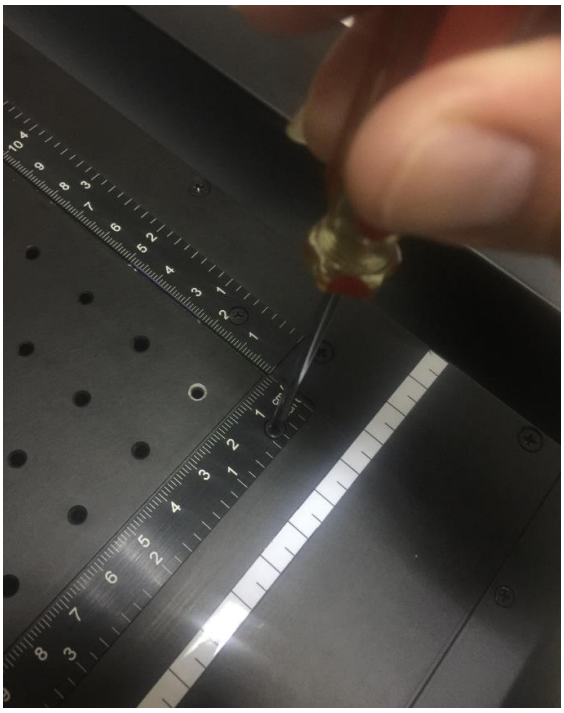
1. The carriage must move back and forth on one side, while injecting the grease.
2. Users can apply manual lubrication or automatic lubrication to the Miniature linear rail for regular maintenance.
3. There should always be lubricant coated on the surface of the rail.
4. Apply the lubrication again before the oil changes color due to corrosion.

Lubrication Intervals

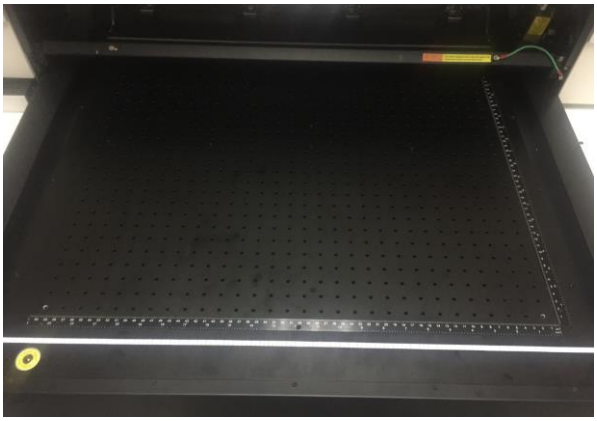
1. The length of lubrication interval depends on the working environment, loading and pressure bearing condition. The length of the lubrication interval varies, and the safe lubrication intervals can only be known after careful observation.
2. Lubrication interval should not exceed one year.

6.8 How to replace alignment rule

Step 1 Use cross screwdriver to remove the screws on the alignment rules on X and Y axis. Replace the thin alignment rule by the thick one and fix it.



Step 2 the replacement of the alignment rules is complete.



Chapter 7 Caldera Installation

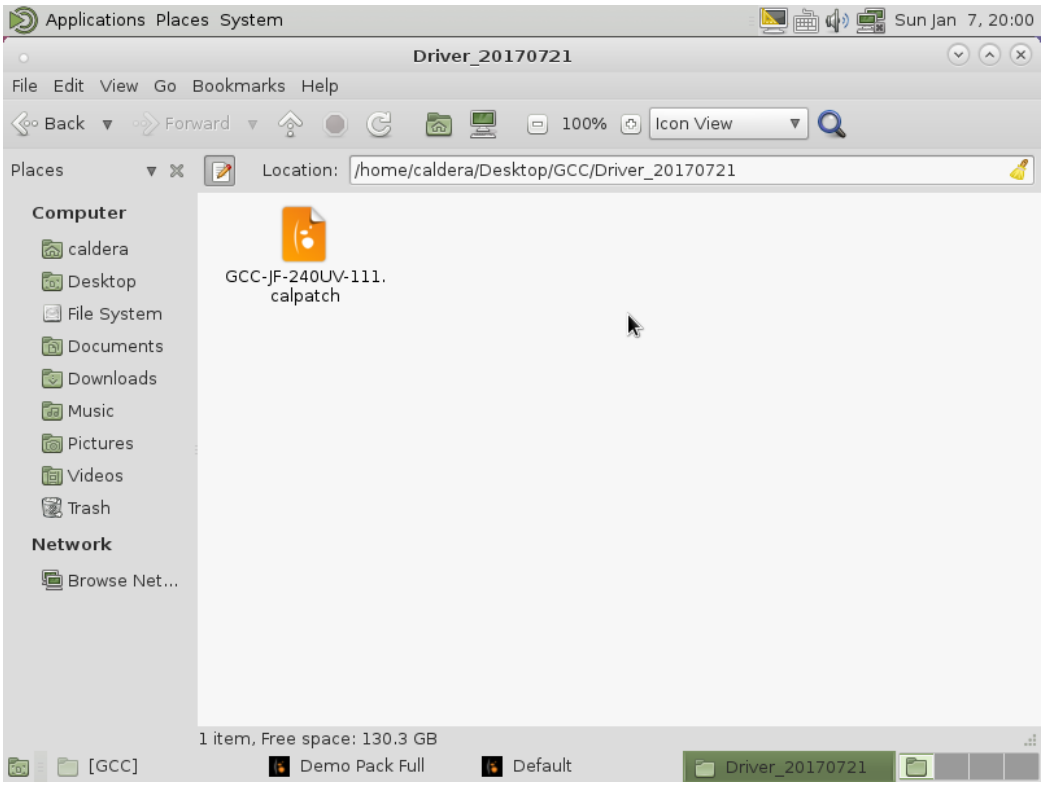
7.1 Caldera Installation

Recommended System Requirements

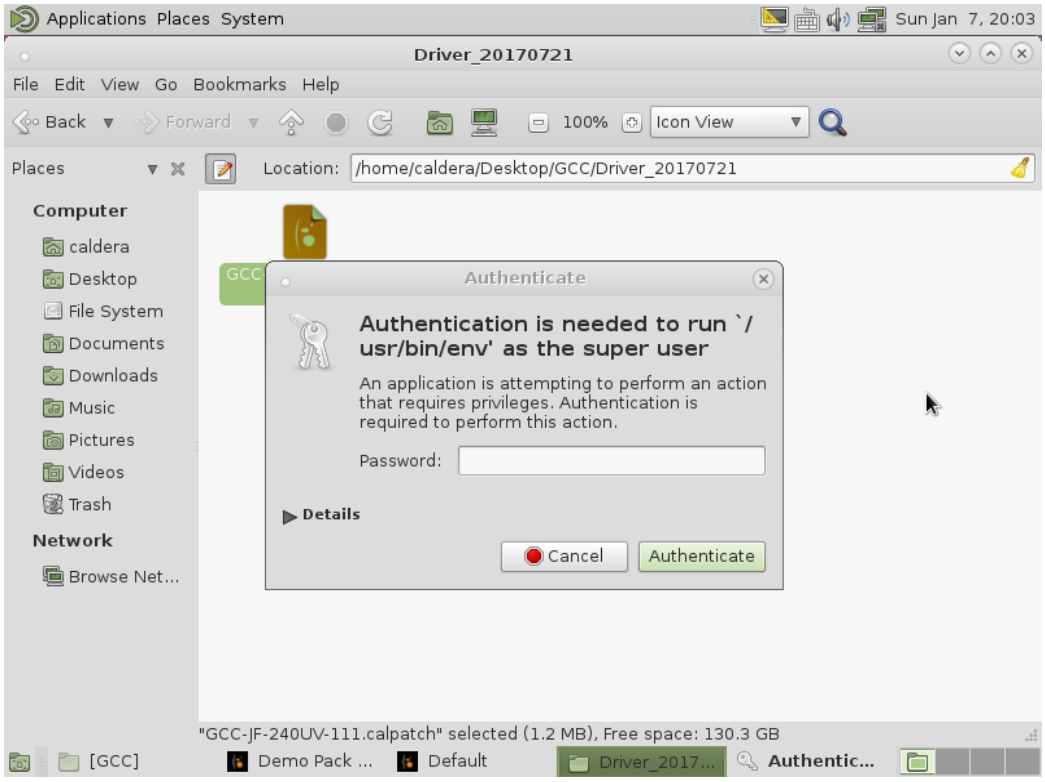
Linux OS : Official Debian 8.6 Jessie (Mate desktop)
CALDERA Debian 2 (however APPE3 – no APPE4)
Processor : Intel Core i3, i5 or i7.
RAM : 4GB or 8GB (recommended), minimum 1GB per core, recommended at least 2 GB per core
HDD : 250GB
Monitor / Videocard : 1280×1024 minimum resolution

7.1.1 How to set GCC JF-240UV Driver

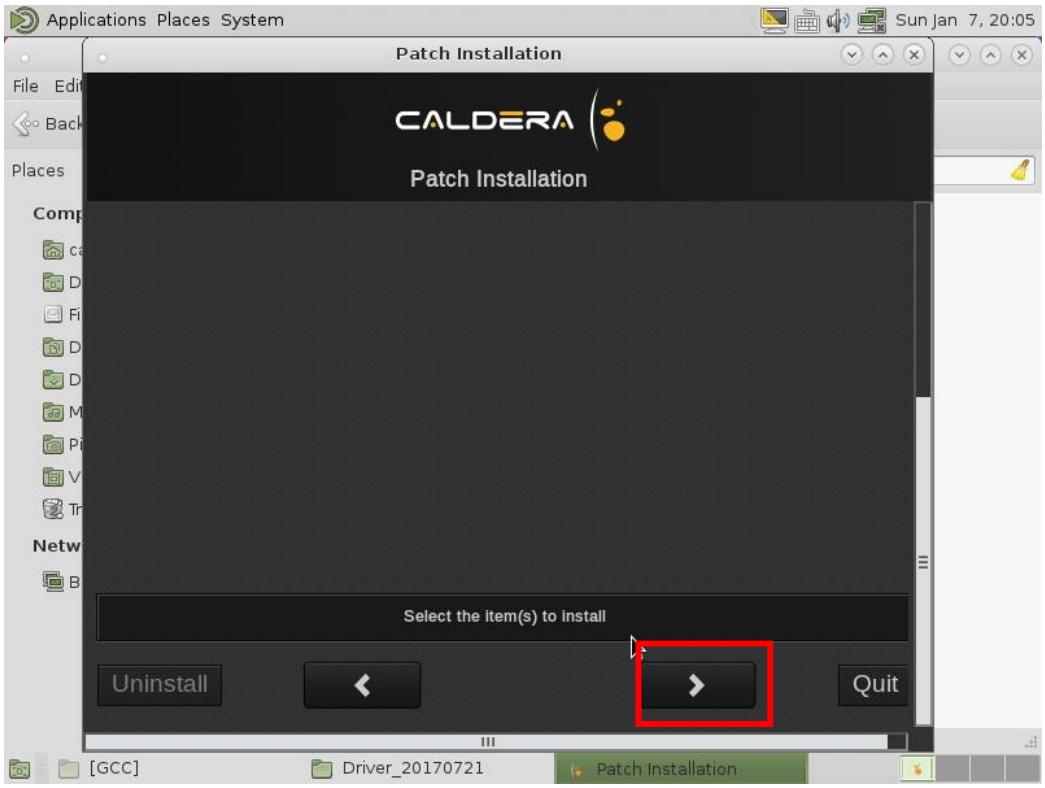
Step 1 Install GCC-JF-240UV calpatch



Step 2 Enter the password: caldera



Step 3 Click Next


Applications Places System
Sun Jan 7, 20:05
Patch Installation
CALDERA
Patch Installation
Select the item(s) to install
Uninstall
Quit
[GCC]
Driver_20170721
Patch Installation

Applications Places System
Sun Jan 7, 20:05
Patch Installation
CALDERA
Patch Installation
VERSION 11
Anniversary Edition
Click the hand to finish installation
Uninstall
Quit
[GCC]
Driver_20170721
Patch Installation

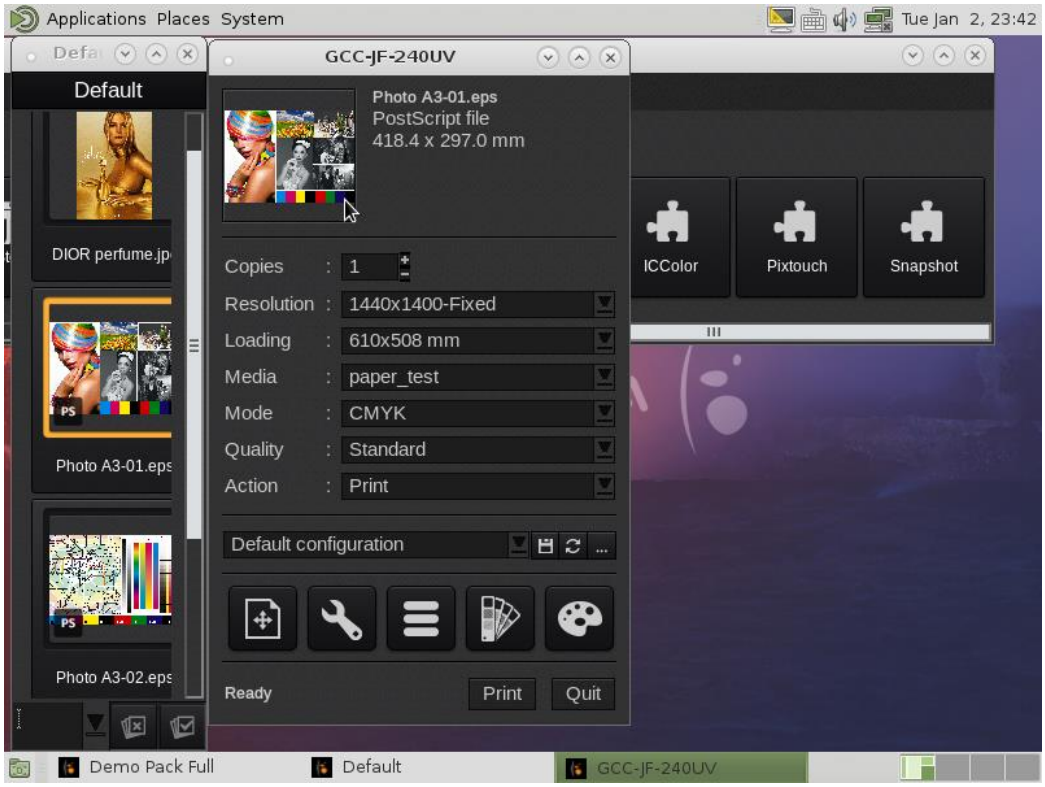
Step 4 Click OK and the installation is complete.

7.1.2 Launch Caldera RIP

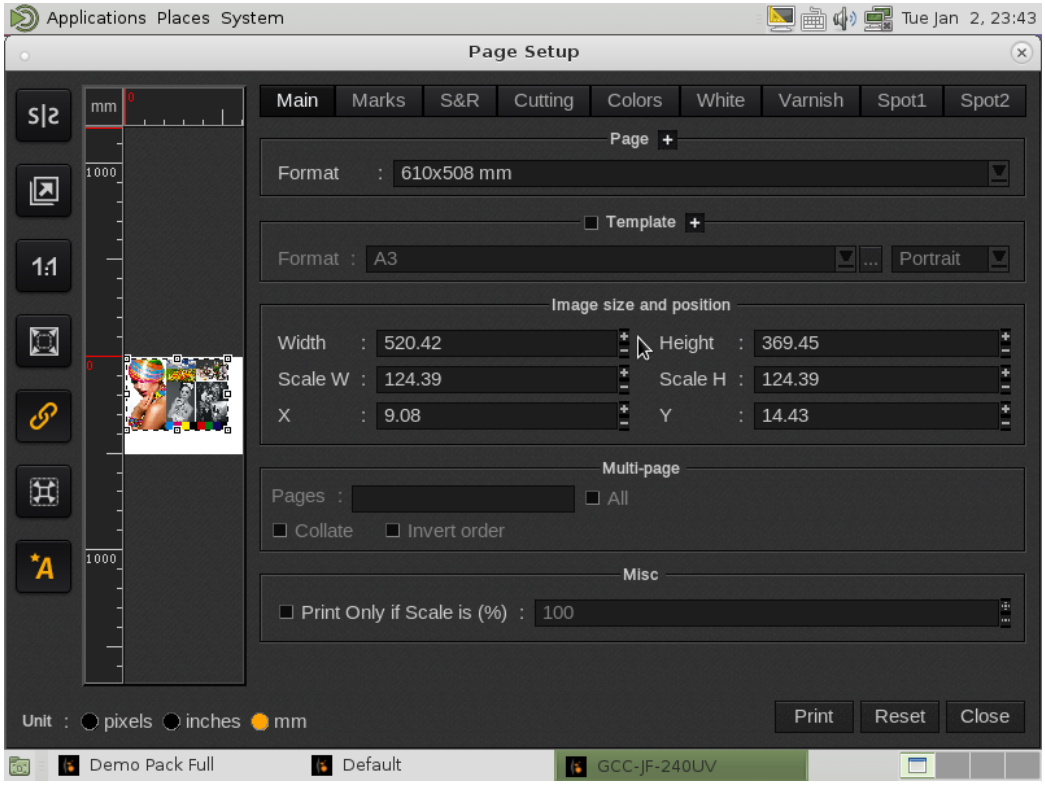
Step 1 Click Caldera RIP Icon

Step 2 Select the file you want to use.

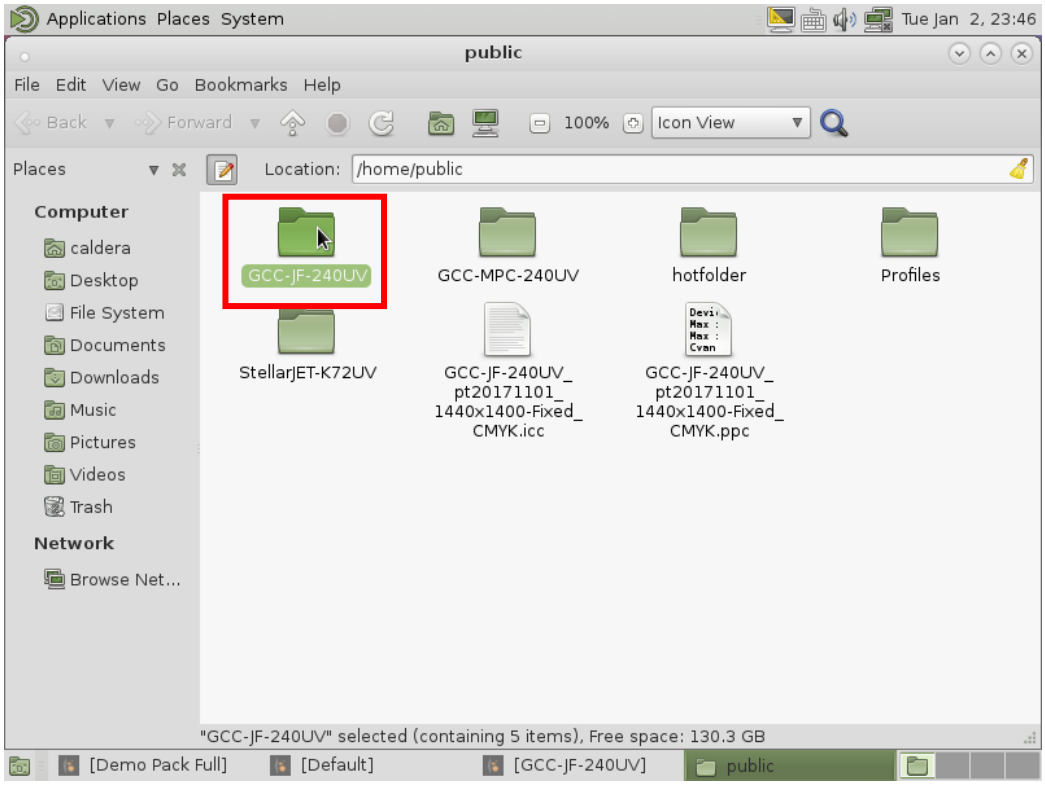
Step 3 Move the selected file to the GCC-JF-240UV window.



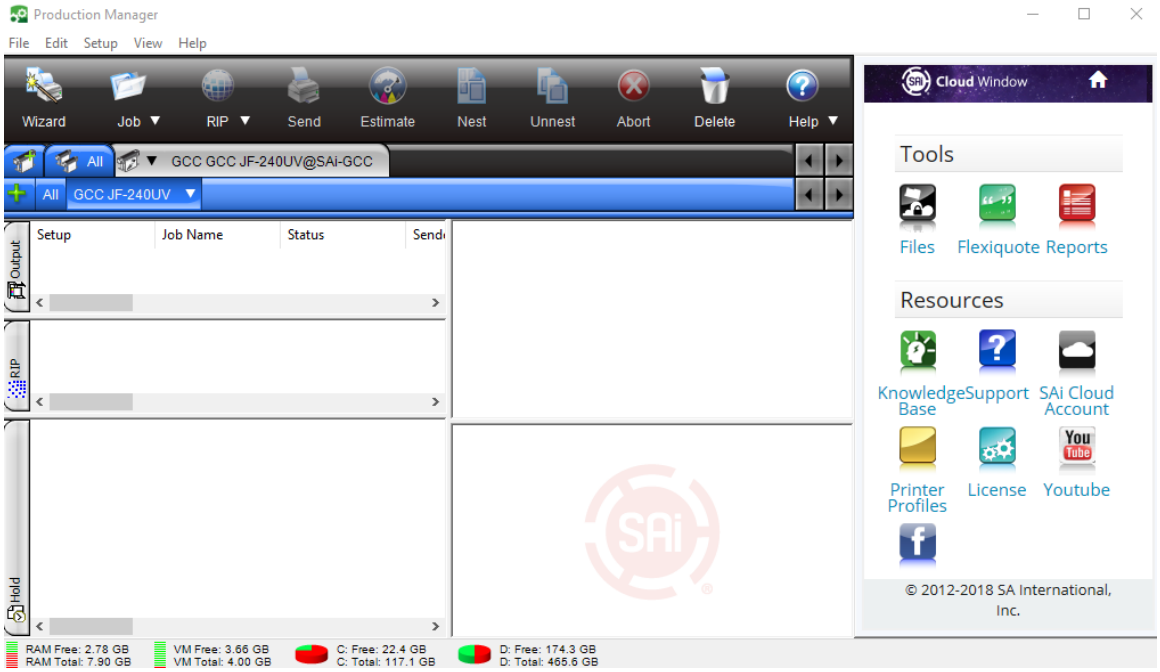
Step 4 Edit the file in Main window and then click Print.



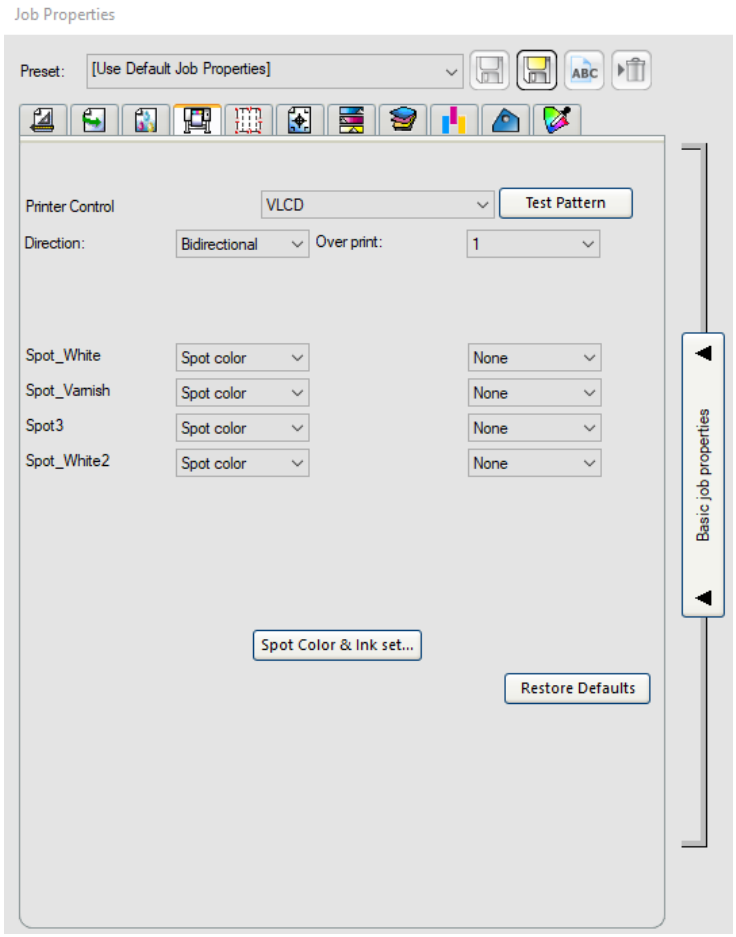
Step 5 Caldera will automatically create a file folder named “GCC JF-240UV” under /home/public and save the RIP file in the folder. Go to /home/public/GCC-JF-240UV and copy all RIP files to USB flash drive.



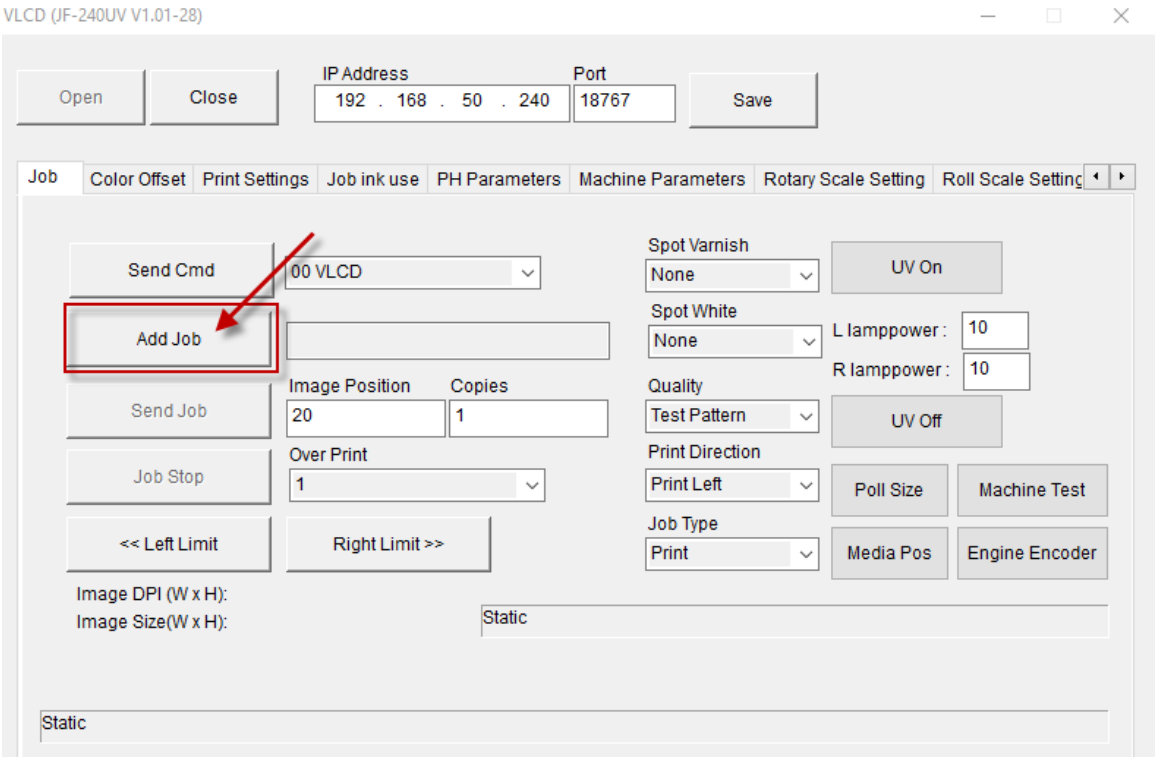
Step 6 Launch FlexiPRINT on your computer/laptop.



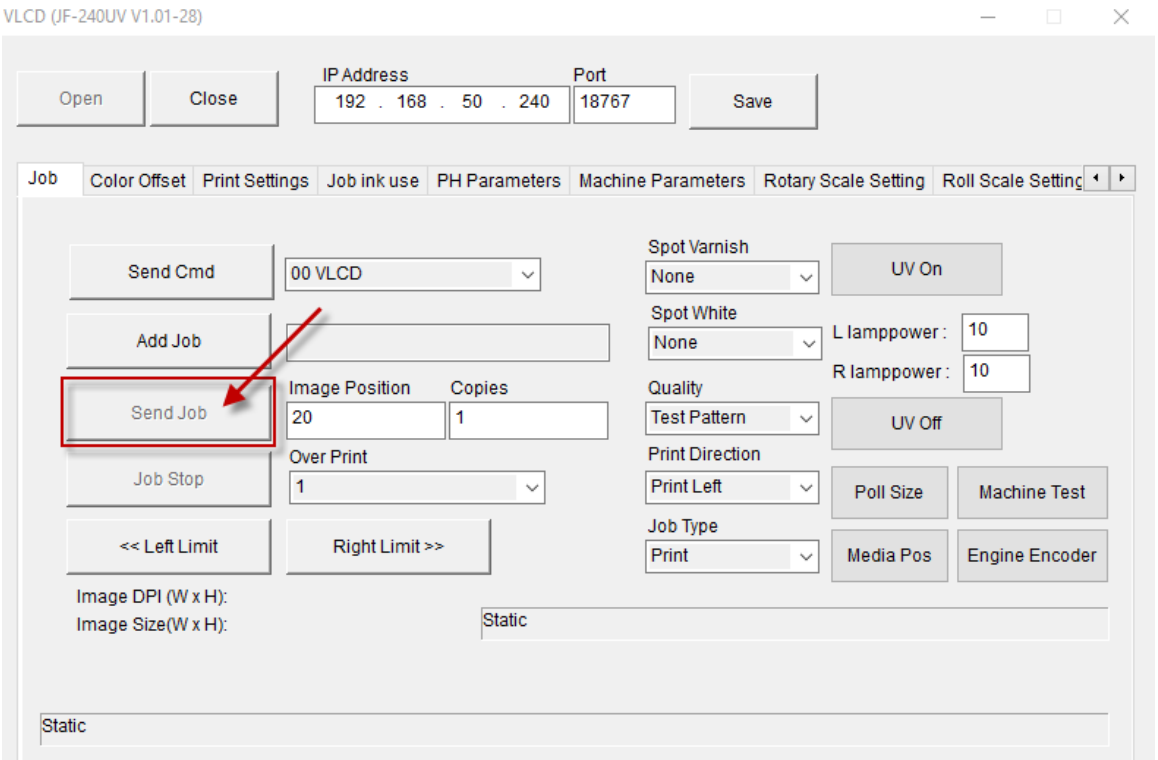
Step 7 Go to Job Property→Printer Control, select VLCD from dropdown menu and click Test Pattern.



Step 8 Click Add job



Step 9 Click Send job and the process is complete.



Chapter 8 Reference Parameter Settings

The following reference parameter is used on GCC verified materials.

GCC JF-240UV Reference Parameter						
NO	**Material**	**Print Mode**	**Print Color**	**Directional**	**LED Power**	**Primer**
1	PVC Foam board (3mm)	Quality	YMCK	Bi-Directional	100%	No
2	Acrylicd (3mm)	High Density	YMCKW	Bi-Directional	100%	Yes
3	ABS/PC (10mm)	Quality	YMCKWV	Bi-Directional	100%	No
4	Wood (70mm) pencil, pen container, wooden product	Quality	YMCKW	Bi-Directional	100%	No
5	Plywood (50mm)	Quality	YMCK	Bi-Directional	100%	No
6	Gold foil paper (0.8mm) packaging	High Density	YMCKWV	Bi-Directional	100%	No
7	Aluminium Composite Material (3mm)	Quality	YMCK	Bi-Directional	100%	Yes
8	Corrugated sheet, PP (3mm~5mm)	High Speed	YMCK	Bi-Directional	100%	Yes
9	Aluminium-magnesium alloy (10mm)	Quality	YMCK	Bi-Directional	100%	Yes
10	PET (0.2mm)	High Density	YMCKW	Bi-Directional	100%	Yes
11	Aluminum foil (OPP) (0.25mm)	Quality	YMCKV	Bi-Directional	100%	Yes

Appendix A: JF-240UV Specification

Model		JF-240UV
Printing method		On-demand Piezo head
Print head (Drop size)		Konica KM512 (4pl)
Printing area (W x L)		24 x 20 in. (609.6 x 508 mm)
Max. media size (W x L x H)	Sheet	25.6 x 21.7 x 11.8 in. (650 x 550 x 300 mm)
	Weight	Less than 15 kg
Print head adjustment		Auto Media Calibration (AMC™)
Speed		High Speed: 5.78 m2/hr (720 x 1,440 dpi) Quality: 3.9 m2/hr (720 x 1,440 dpi) High Density: 1.91 m2/hr (1,440 x 1,440 dpi)
Ink cartridges	Type	UV curable ink
	Capacity	1 Liter
	Colors	C/M/Y/K (W/V Optional)
Ink curing unit		Dual UV LED Lamp
Printing resolutions		1440 x 720dpi、1440 x 1440dpi
Z movement		Motorized
Control Panel		Touch Screen (480 x 272 resolution)
Interface		Ethernet 1000BASE-T
Distance Accuracy – When printing		Error of less than +-0.3% of distance traveled, or+-0.3mm (0.01 inch), whichever is greater
Voltage requirement		115/220VAC 50/60HZ
Power consumption-Operating		115V AC (60HZ) (Max. 270W) 220V AC (50HZ) (Max. 260W)
Power consumption-Stand by		115V AC (60HZ) (Max. 160W) 220V AC (50HZ) (Max. 200W)
Environment (Temperature/Humidity)		22℃-30 ℃ (71.6℉- 86 ℉) / 40%-60% humidity
Dimension (W x L x H)		1,760 x 1,160 x 1,140 mm
		69.3 x 45.7 x 44.9 in.

Weight	200kg
Optional	Rotary attachment
	Roll to Roll system
	Fume Extraction Unit

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