



JV-240UV

User Manual



<http://www.GCCworld.com>



GCC



GCC Club

V.2 2018 Sep.



Dear Sir / Madam,

Thank you for choosing GCC and the JV-240UV Varnish Printer. You can be assured that this machine meets the highest safety standards while using technological innovations shared by no other UV printer. JV-240UV Varnish 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 JV-240UV Varnish 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 and outstanding quality with high productivity, the JV-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.

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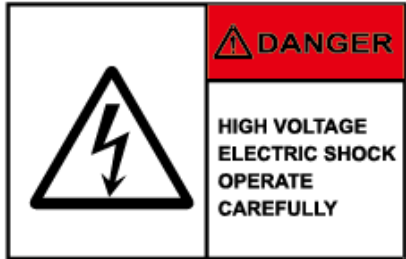


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Chapter 1 Introduction

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 |  <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <div style="background-color: red; color: white; padding: 2px;">⚠ WARNING</div> <p>Electronic shock Keep the ground wire connected.</p> </div> | The symbol indicates the machine should be grounded before conducting any maintenance or cleaning operation due to possible electrostatic discharge. |
| 6 | Printing Warning |   <div style="background-color: yellow; padding: 5px; width: fit-content;"> <p>CAUTION</p> </div> | The symbol indicates that during the printing process do not put your hands in the printing area to avoid injury. |
| 7 | Avoid Injury Warning | <div style="background-color: orange; color: white; padding: 5px; width: fit-content;"> <p>⚠ WARNING</p> </div>  <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Avoid injury keep hands away from moving parts</p> </div> | 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 | <div style="background-color: orange; color: white; padding: 5px; width: fit-content;"> <p>⚠ WARNING</p> </div> <div style="border: 1px solid black; padding: 10px; width: fit-content; text-align: center;"> <p>Keep this area clear at all times</p> </div> | 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 | <div style="background-color: orange; color: white; padding: 5px; width: fit-content;"> <p>⚠ WARNING</p> </div>  <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>DO NOT PUSH</p> </div> | 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 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.

1.6 Equipment Installation Precautions

GCC JV-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:

| WARNING | | |
|--|---|---------------------------------|
| Prohibit on exposure under direct sun light | Prohibit on setting up on tilt surface | Temperature and humidity |

| | | |
|--|---|--|
| | | <p>The operation environment for this equipment: 22 to 30°C (71.6°F to 86°F) 40% to 60% (humidity)</p> |
| <p>Avoid locations with vibration</p> | <p>Avoid locations with strong air current</p> | <p>Avoid locations with flame</p> |
| | | |

Chapter 2 Main body instruction

JV-240UV spot varnish printer can be used in the materials of coated art paper, Curious Metallic Paper and rigid material, which is in line with your application/design of customized spot varnish printer.

Note : It is recommended to use the paper more than 150lbs.

Note : Applicable material size is 610mm x 380mm (24" × 15").

2.1 Spot varnish printer

GCC JV-240UV spot varnish printer

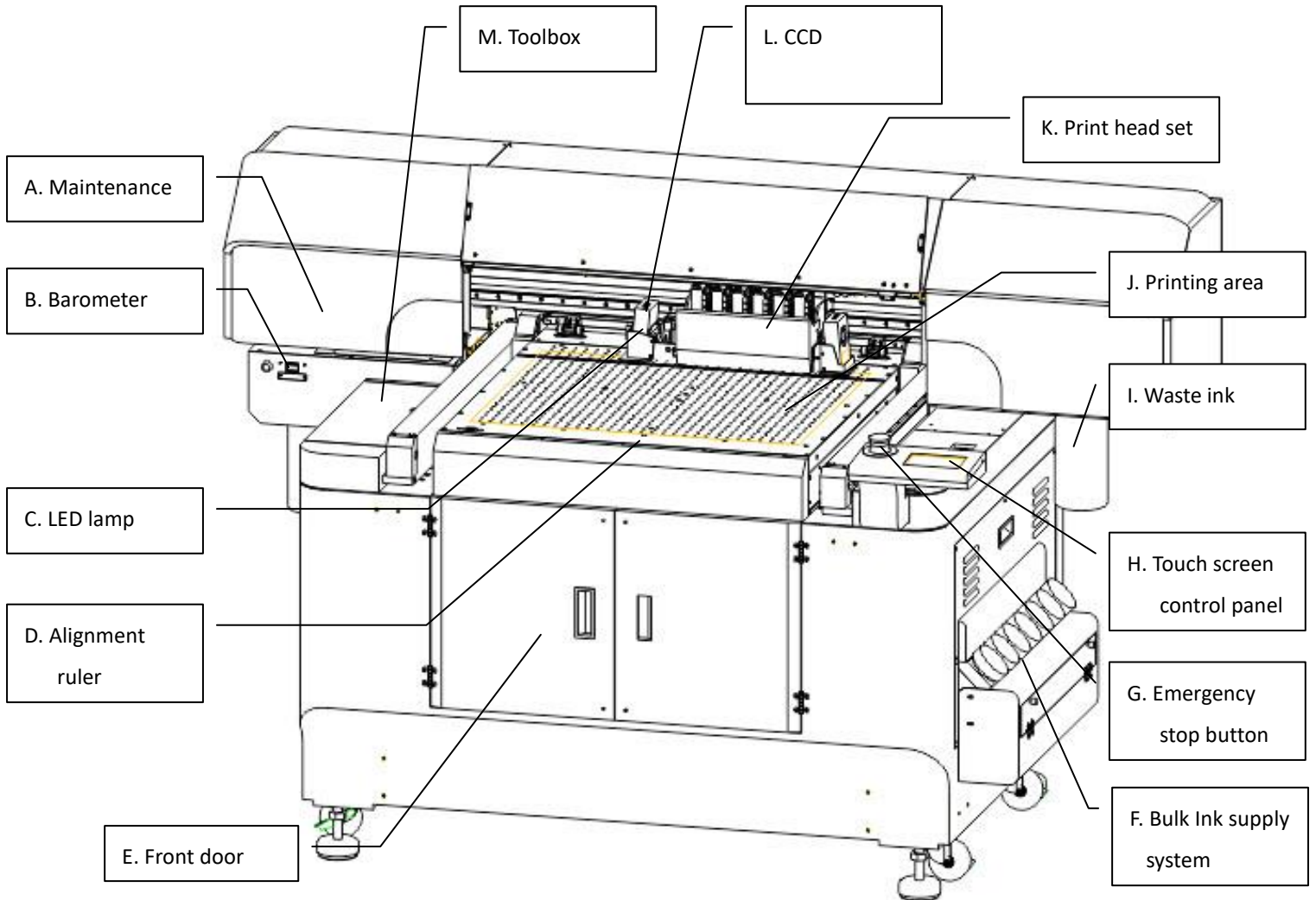
Innovative JV–240UV spot varnish printer inherits the characteristics of GCC high quality machine, which has high capacity, high quality, and stable performance, wherein the innovative vanishing technology and the collocation of color touch screen further increases operational convenience. In the market applications of GCC JV–240UV spot varnish printer, in addition to the advertisement, catalog, packaging printed matter, etc., the highlighted part needs to be implemented the local varnishing coating, and the glazing pattern compared with the surrounding one should show more bright and beautiful appearance and strong stereoscopic sensation, which can produce a unique artistic effect to meet your requirement in all sorts of use.

2.1.1 Main features of spot varnish printer

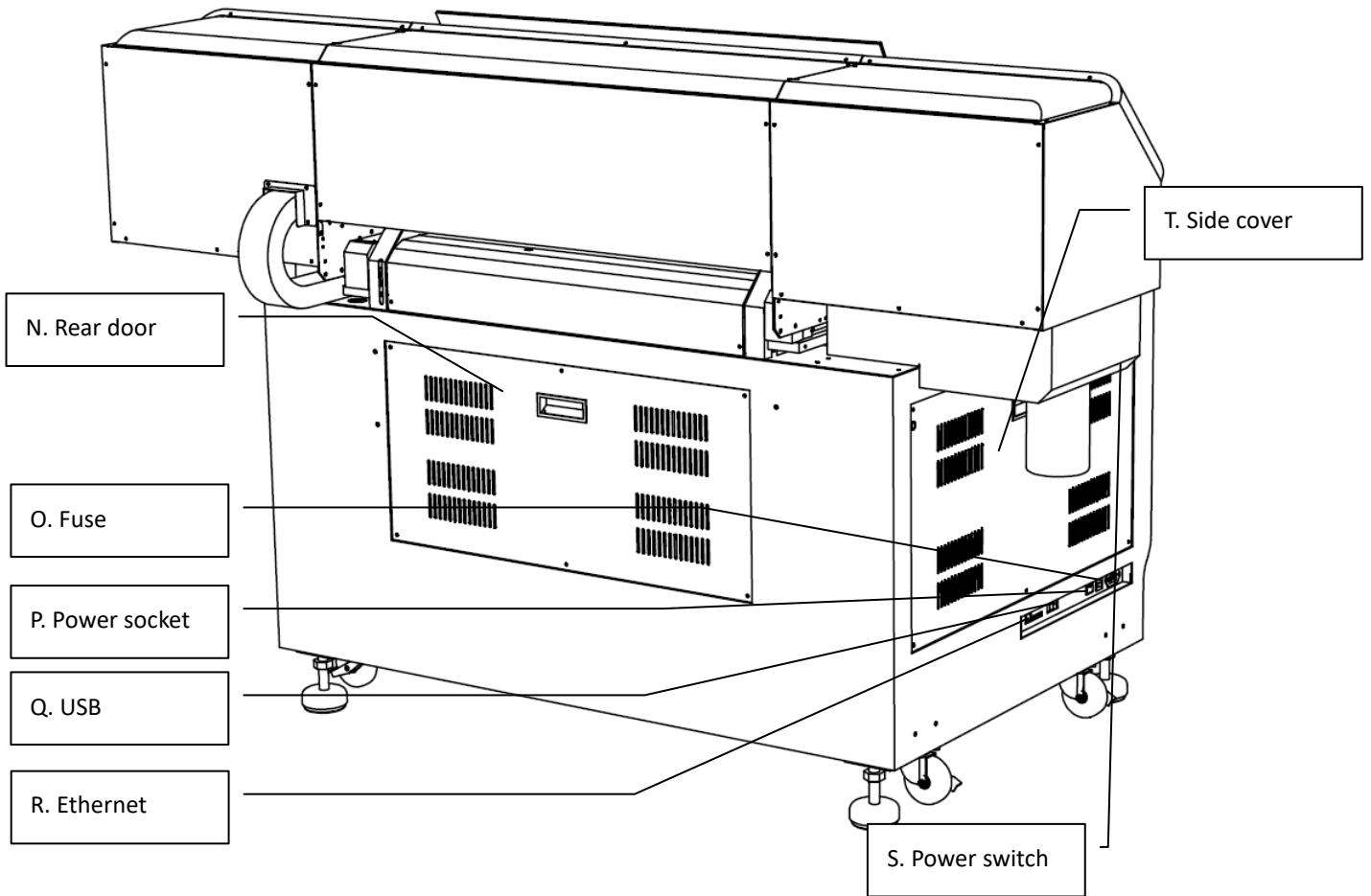
1. Maximum of 610x380mm (24 x15 in.) work area
2. Media Thickness up to 11.8 in. / 300 mm
3. CCD module for image scale and rotate and compensation
4. Up to 15Kg material weight
5. Up to 10 m²/hr print speed
6. AMC™ Auto Media Calibration
7. Touch control panel
8. Dual LED for fast curing
9. Motorized z-axis positioning table

2.1 JV-240UV Appearance

2.1.1 JV-240UV Front View



2.1.2 JV-240UV Rear view



2.1.3 JV-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 JV-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 JV-240UV conducts the inkjet printing. |
| K. Print Head Set | Printing graphic image |
| L. CCD | CCD. |
| 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 JV-240UV |

Chapter 3 Installation Procedure

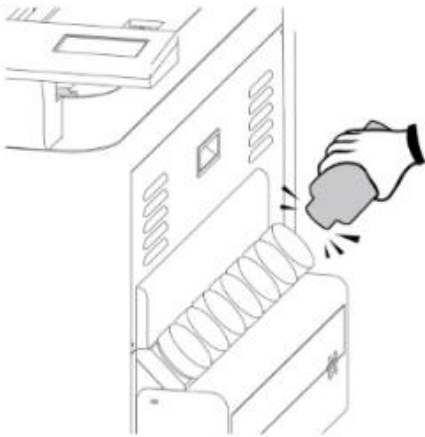
3.1 Machine Setup

3.1.1 Turn On The Power

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

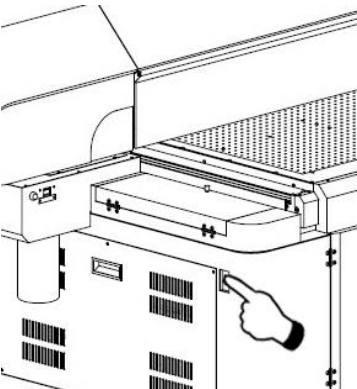


Step 2 Pour the Varnish into a large ink bottle labeled with a V label



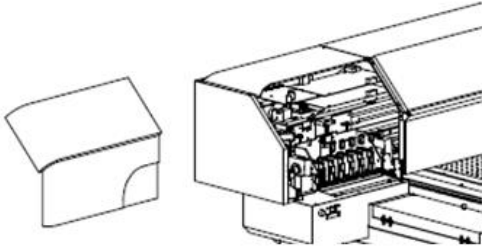
Step 3 Please plug in the power socket and turn on the power switch

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

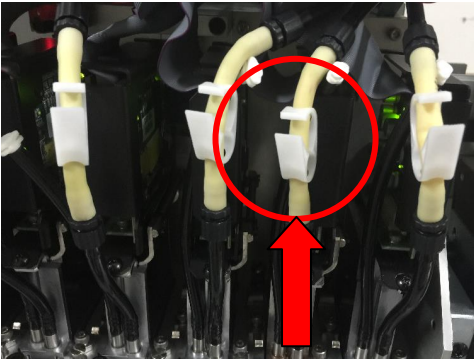


3.1.2 Set Ink Flow To Printer Heads

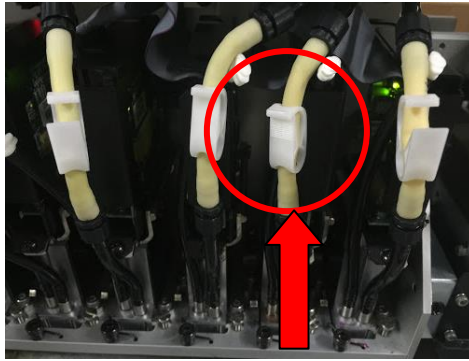
Step 1 Remove the thumbscrew and open the left cover.



Step 2 Open the ink valve.



Ink valve is opened



Ink valve is closed

Step 3



2. Select MENU



3. Select MAINTENANCE

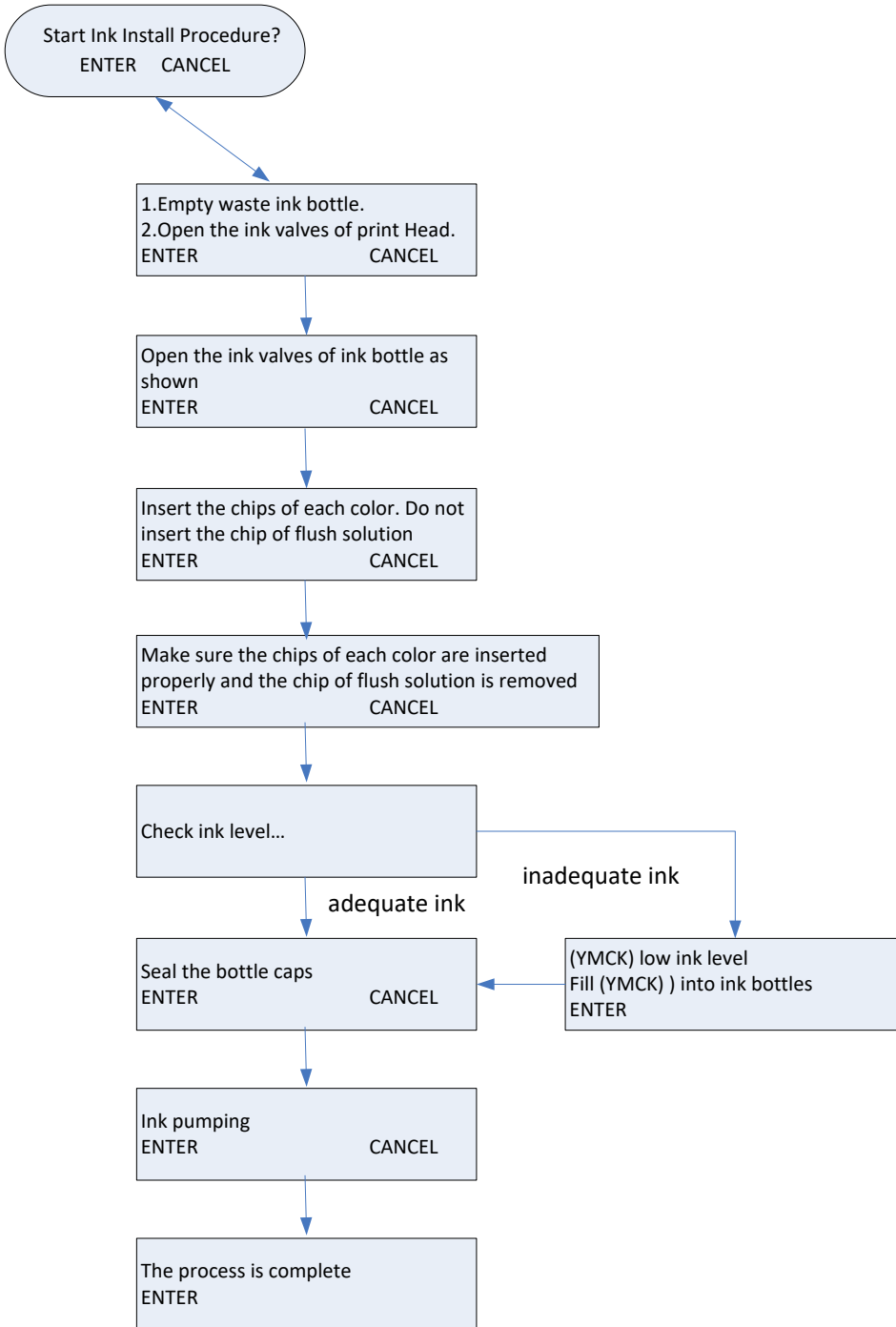


4. Select INK INSTALL/DRAIN

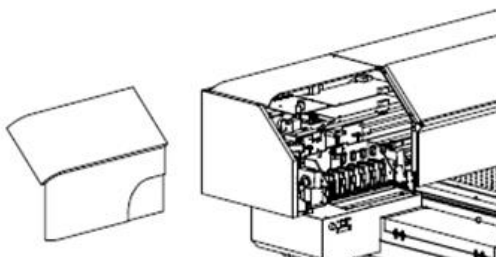


5. Select INK INSTALL FLOW

Step 4 Ink install flow:



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



3.2 Install JV-240UV VLCD

3.2.1 Install CCD driver

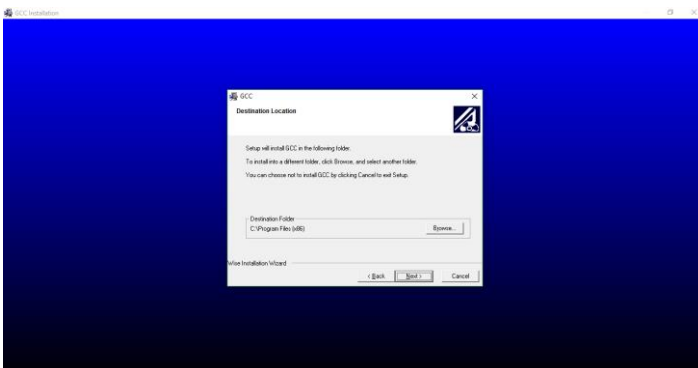
Step 1 Insert JV-240UV installation disk, select JV-240UV-CcdLibrary.exe and perform installation



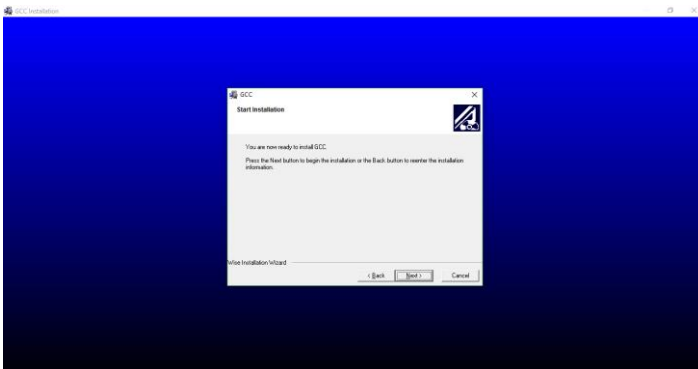
Step 2 Select Next



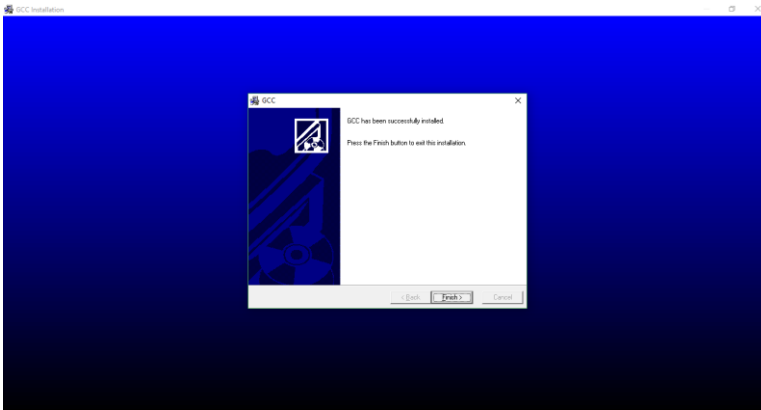
Step 3 Select installation path and then select Next



Step 4 Select Next

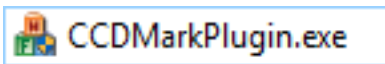


Step 5 Complete the JV-240UV-Ccd installation

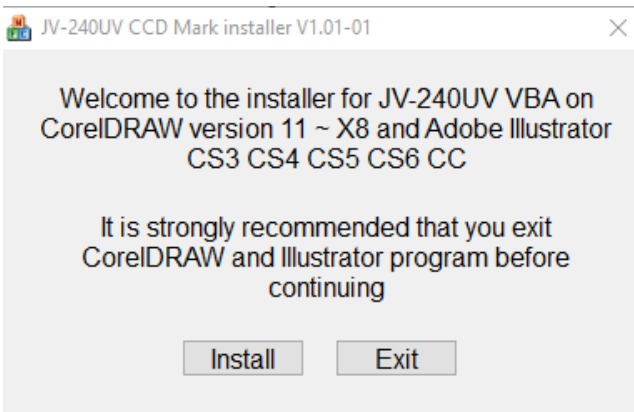


3.2.2 Install PlugInInstall driver

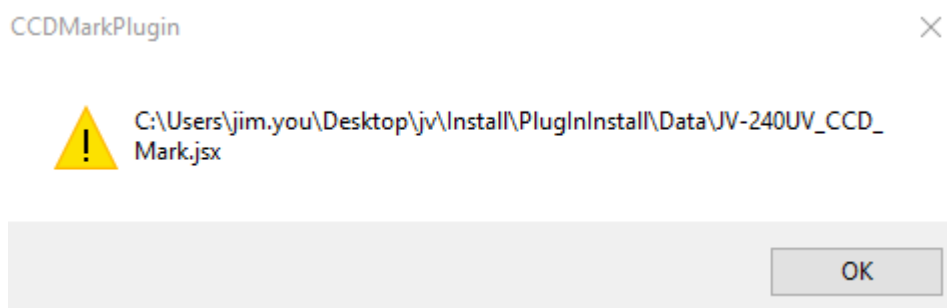
Step 1 Select CCDMarkPlugin.exe and perform installation



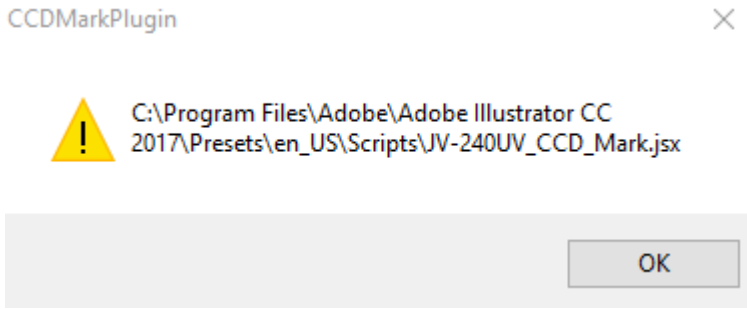
Step 2 Select Install (The computer must have installed Corel Draw/Illustrator)



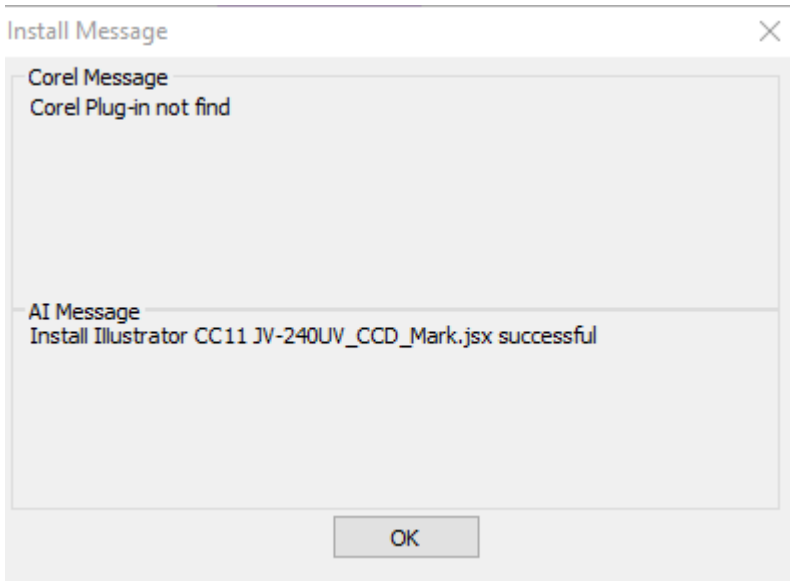
Step 3 Select OK



Step 4 Select OK



Step 5 Select OK, complete the CCDMarkPlugin installation



3.3 Set the IP Address of the spot varnish printer

3.3.1 How to IP Address

Note : Please confirm that Ethernet and USB cable have connected to your computer.

Note : Please use the Ethernet cable provided by GCC. If you buy it by yourself, please purchase Cat 5e Ethernet cable or above.

Step 1 Launch JV-240UV VLCD



Step 2 Confirm the IP address of the machine, and select the touch panel of the spot varnish printer

Step 3



1. Select MENU on the control panel.



2. Select NETWORK



3. Select IP

Step 4 Enter IP, select the value on IP/Sub Mask/Gateway, confirm/change the IP location required, and select the return key

Step 5 Start (VLCD) and Press Open option

VLCD (JV-240UV V1.01-01)

| | | | | |
|------|-------|------------------------------------|---------------|------|
| Open | Close | IP Address 192 . 168 . 50 . 240 | Port 18767 | Save |
|------|-------|------------------------------------|---------------|------|

Step 6 In the IP Address field of (VLCD), input the same values as those in the IP ADDRESS of the touch panel, and click Save.

VLCD (JV-240UV V1.01-01)

| | | | | |
|------|-------|------------------------------------|---------------|------|
| Open | Close | IP Address 192 . 168 . 50 . 240 | Port 18767 | Save |
|------|-------|------------------------------------|---------------|------|

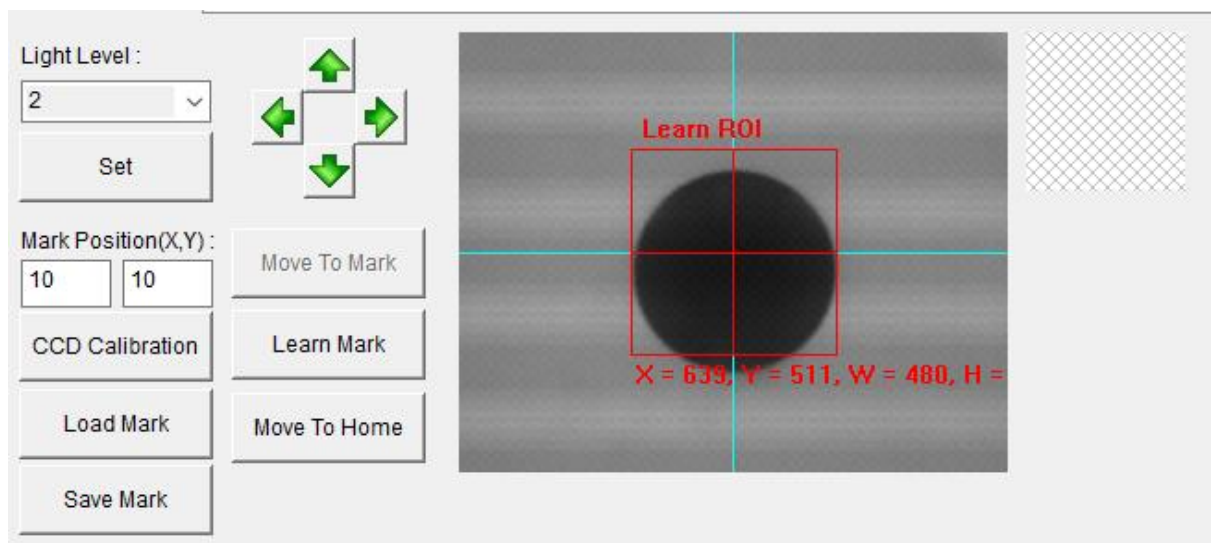
Step 7 Restart JV-240UV VLCD and the setting is complete.

3.4 How to calibrate CCD Mark detection

Step 1 Place the material printed with Mark dot on the origin of the XY coordinates of the spot varnish printer



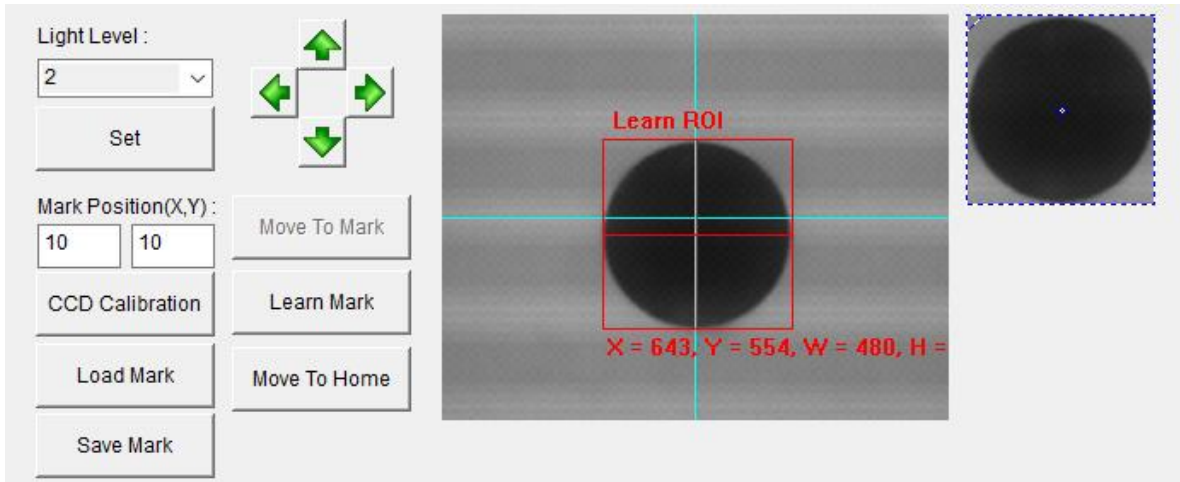
Step 2 Select Move To Mark, JV-240UV spot varnish printer will start CCD automatically and move to Mark point



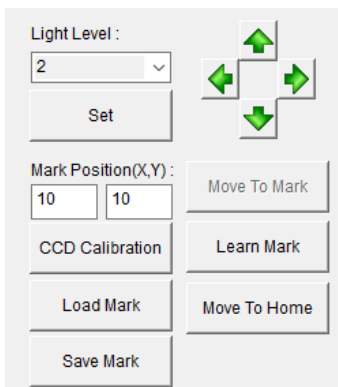
Step 3 At Learn ROI in CCD window, move the square frame to the average of the black Mark, and select Learn Mark

Note : In CCD window, user can fine tune the Learn ROI through arrow keys

Note : CCD brightness control can be implemented through Light Level pull-down menu, after the completion of the adjustment, press Set to confirm



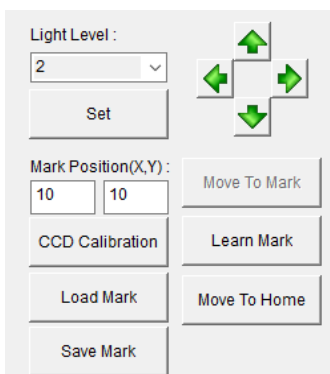
Step 4 Select Move To Home



Step 5 Select Save Mark

Note : Learn Save Mark for the first time, it is recommended to save the file, and then read it directly from Load Mark

Note : The surface of the material on the market is different, and it is recommended to relearn Mark



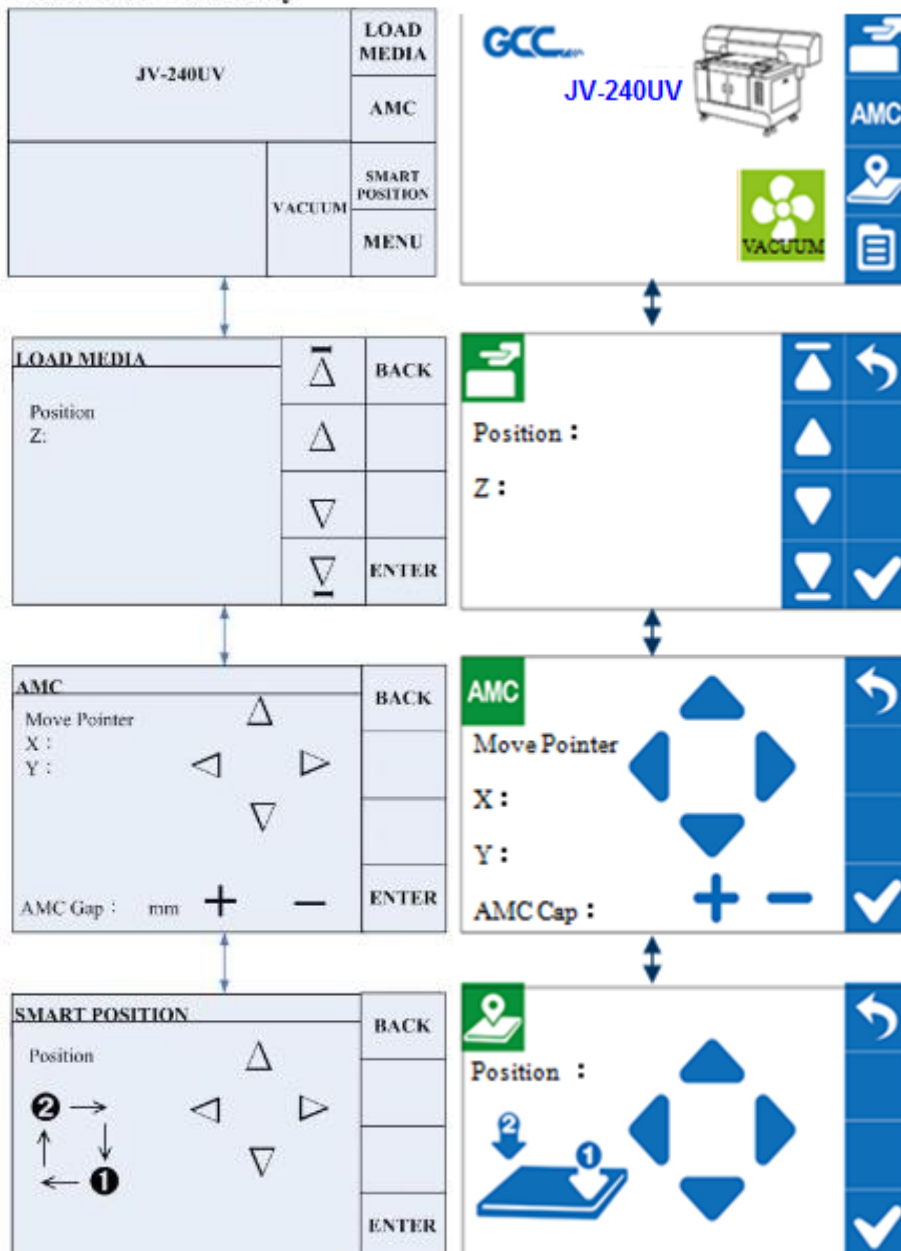
Chapter 4 Control Panel

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

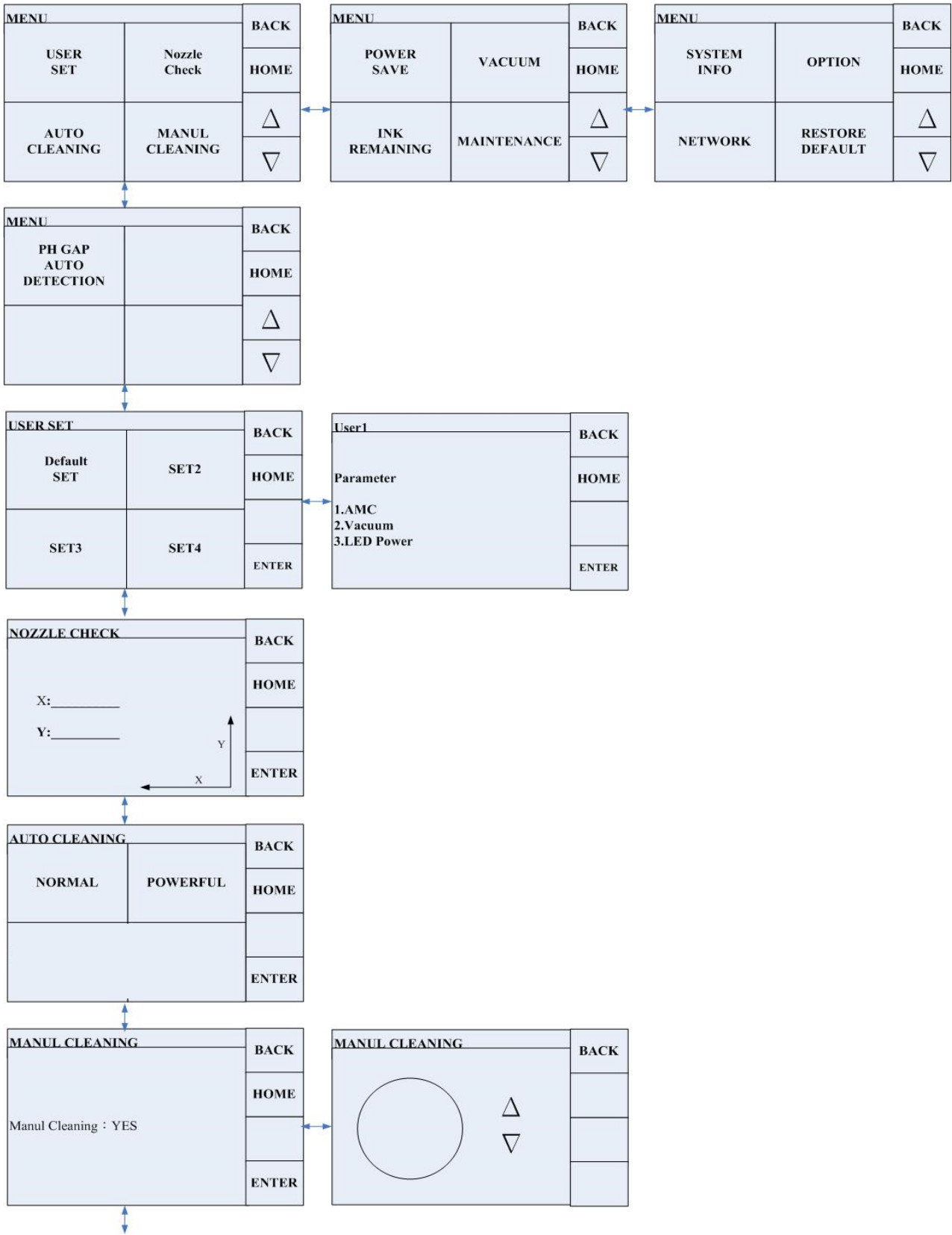
4.1 Control Panel Workflow

Operating work flow:

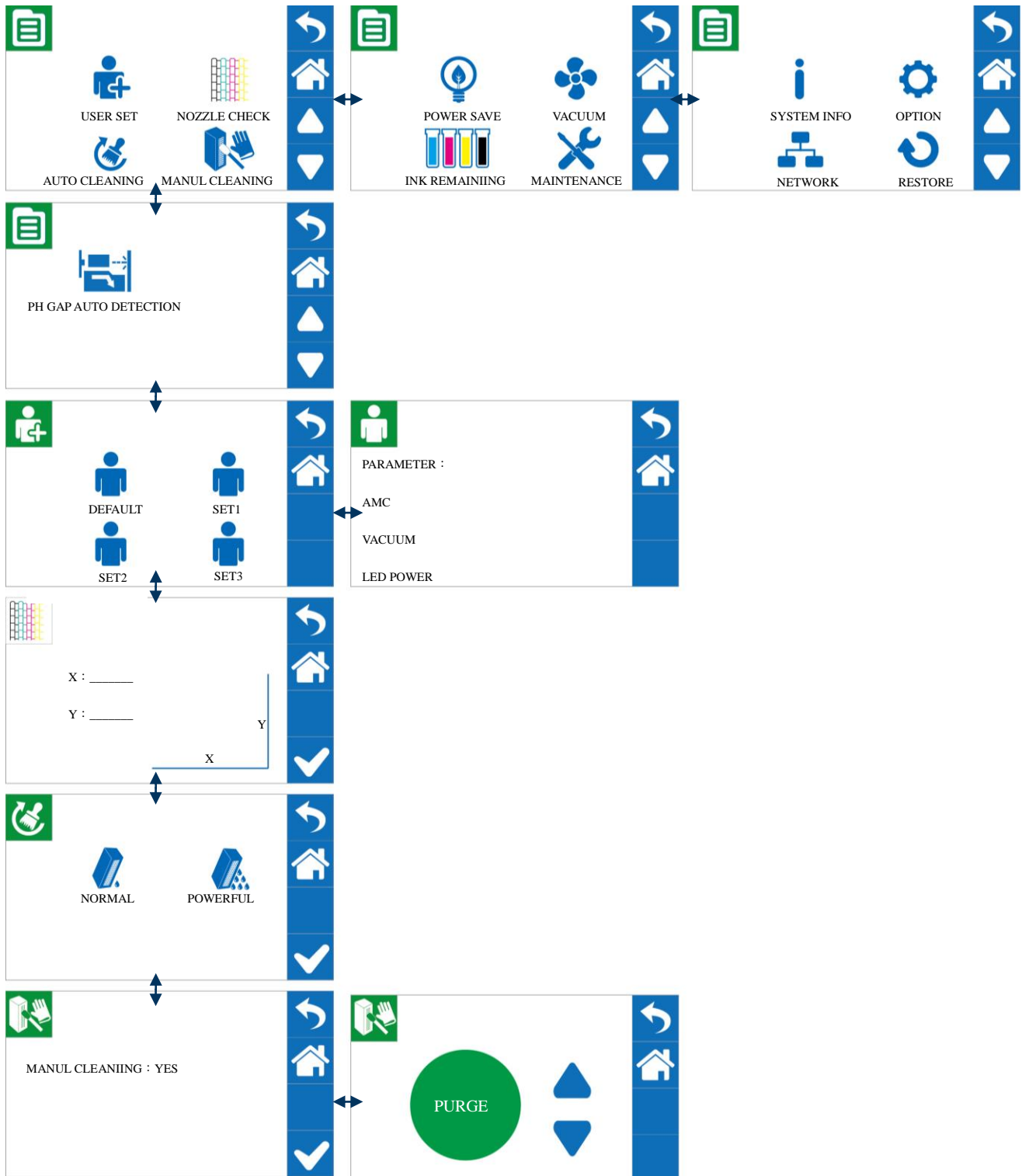
FLATBED : Stand by



Operating work flow:



Control panel flow:



Operating work flow:

| | | | |
|------------|-------|-------|-------|
| POWER SAVE | | | BACK |
| OFF | 15sec | 30sec | HOME |
| 1min | 3min | 5min | ENTER |

| | | |
|---------|--------|-------|
| VACUUM | | BACK |
| REAR : | ON OFF | HOME |
| FRONT : | ON OFF | ENTER |

| | | |
|-----------------------------|--|-------|
| INK REMAINING | | BACK |
| Y90 M90 C60 K20 S40 S165 | | HOME |
| | | ENTER |

| | | |
|--------------------------|-------------------|-------|
| MAINTENANCE | | BACK |
| REPLACE LED LAMP | | HOME |
| REPLACE WASTE INK BOTTLE | INK INSTALL/DRAIN | ENTER |

| | | |
|-------------------|----------------|-------|
| INK INSTALL/DRAIN | | BACK |
| INK INSTALL FLOW | INK DRAIN AWAY | HOME |
| | | ENTER |

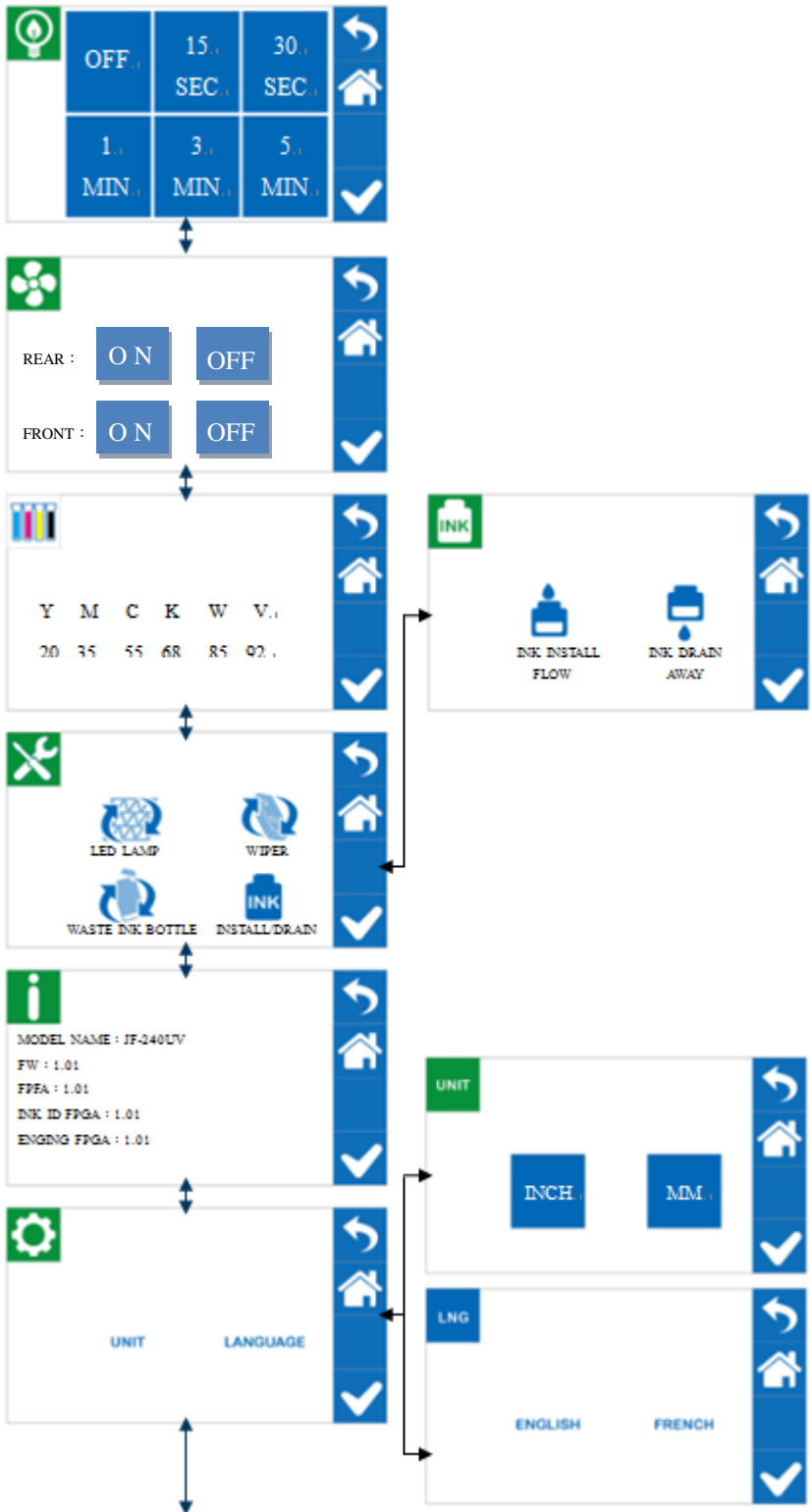
| | | |
|---|--|-------|
| SYSTEM INFO | | BACK |
| MODEL NAME : JF-241UV FW : 1.01 FPGA : 1.01 INK ID FPGA : 1.01 ENGING FPGA : 1.01 PRINT HEATER FW : 1.01 | | HOME |
| | | ENTER |

| | | |
|----------------|---------|-------|
| UNIT | | BACK |
| ENGLISH (inch) | SI (mm) | HOME |
| | | ENTER |

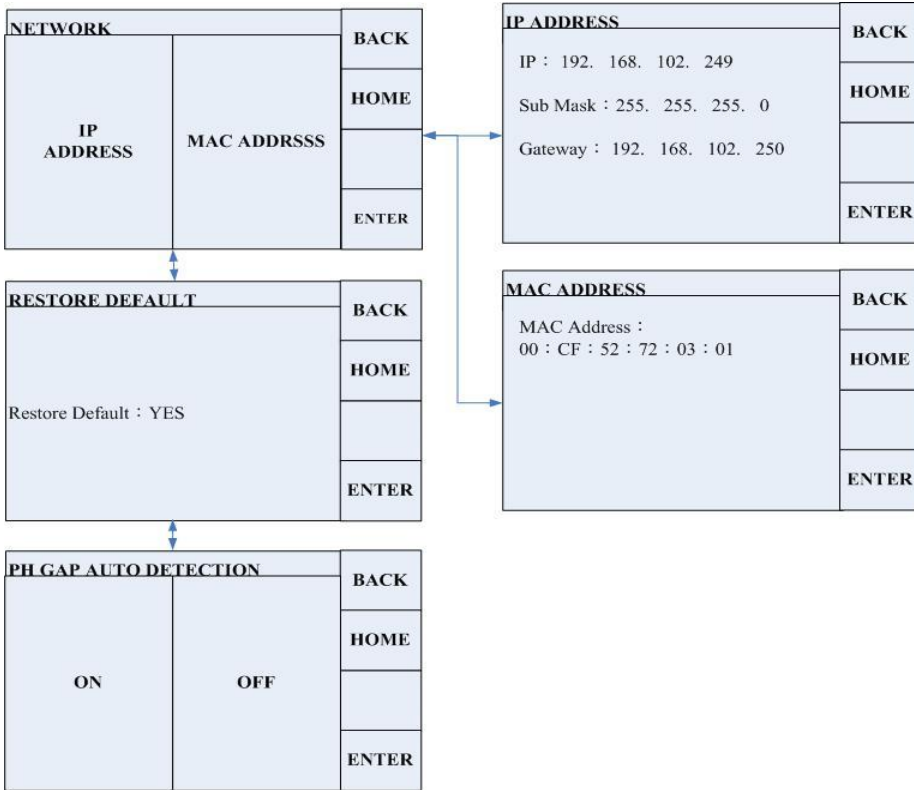
| | | |
|--------|----------|-------|
| OPTION | | BACK |
| UNIT | LANGUAGE | HOME |
| | | ENTER |

| | | |
|----------|--------|-------|
| LANGUAGE | | BACK |
| ENGLISH | FRENCH | HOME |
| | | ENTER |

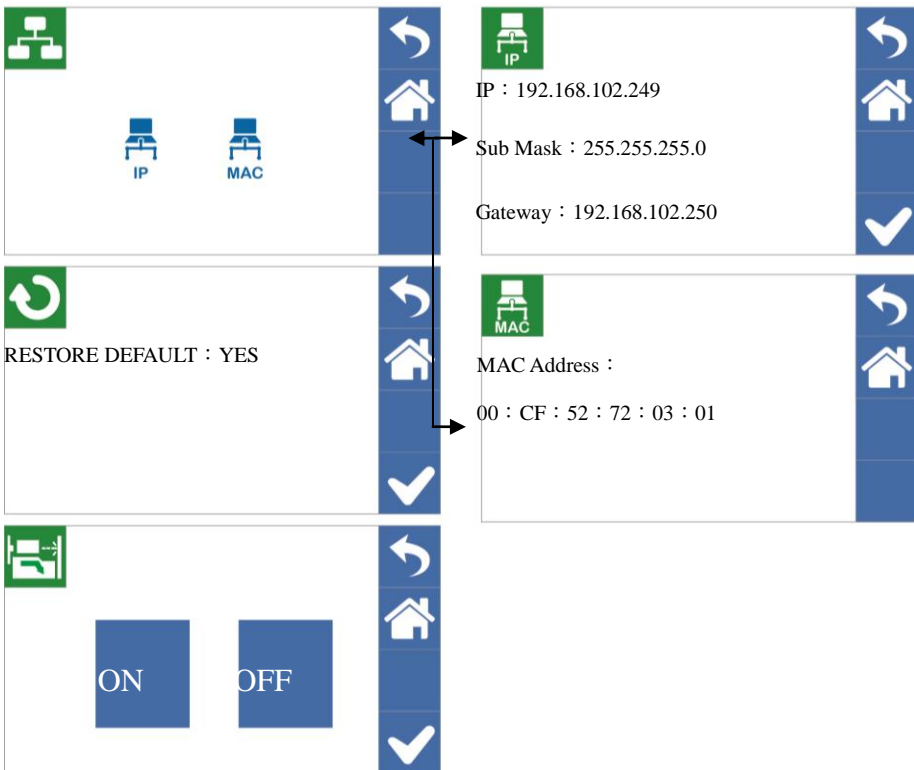
Control panel flow:



Operating work flow:

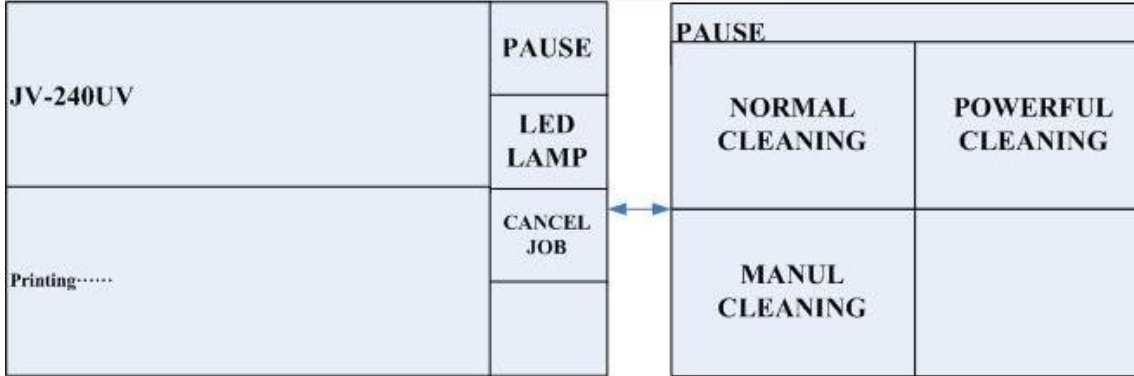


Control panel flow:

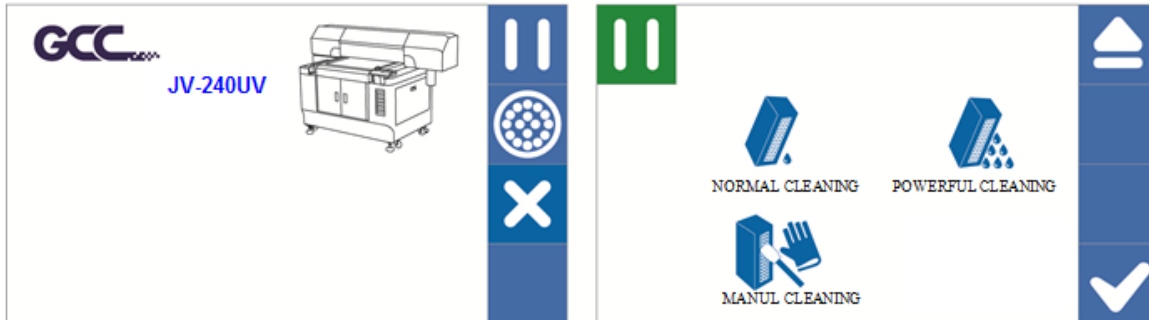


PAUSE while printing: Users can pause on the printing job by pressing the PAUSE button and proceed to cleaning procedure to improve printing quality.










Operating work flow:
























Control panel flow:






















4.1 Control Panel Layout Description








| Control Panel Layout Description | | | |
|---|---|--------------------------|--------------|
| Function | Description | Setting | Default |
| Media sizing | | | |
|  VACUUM | To hold the sheet media flat onto the work area by vacuum force; when the function is on, the vacuum will work when printing, while when it is off, the vacuum will not be carried out when printing. | ON/OFF | ON |
| |  (LOAD MEDIA) Set/Place media height | | |
| |  (AMC) Automatically detect the media height | | |
| |  (SmartPOSITION) Set printing area | | |
|   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 | | |
|  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 | | |
|  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 sec., 1 min., 3 min. and 5 min. | | 3 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 WASTE INK BOTTLE | Replace waste ink bottle | YES | YES |
|  INK INSTALL/DRAIN |  Ink-install flow | | |

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

| | | | |
|--|---|--|----------|
|  IP ADDRESS | IP address | | |
|  MCA ADDRESS | MAC address | | |
|  MENU→ |  RFACORY 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 |
|  MANUL CLEANING | When cleaning the print head manually, the cartridge will move to maintenance area on the left hand side automatically for cleaning. | | ON |

Chapter 5 Operating the JV-240UV

5.1 Hardware Operation

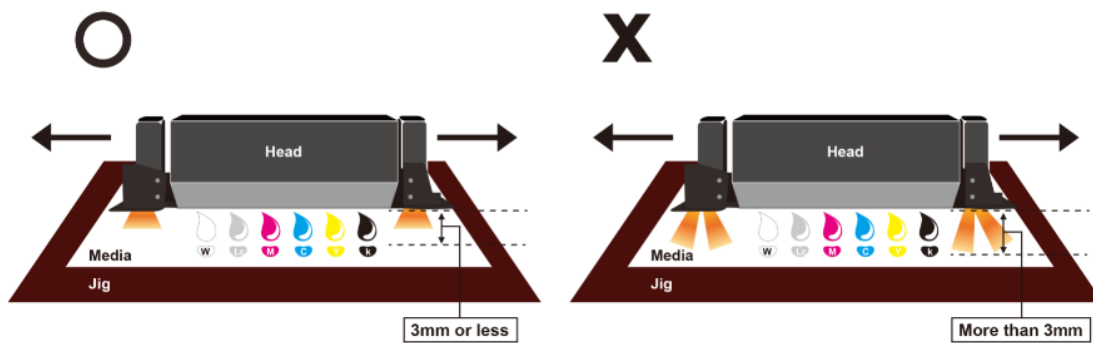
5.1.1 How to Set Flatbed Printing Mode

NOTICE:

The factory setting of the height between print media and print head is 3mm.

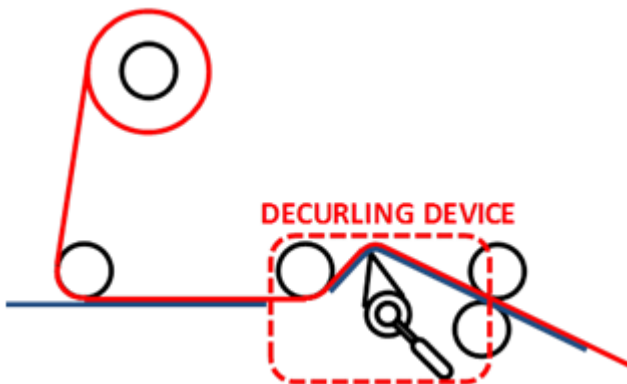
If the height between print media and print head is more than 3mm, it may cause ink droplet misting or splashing and lead to a grainy and uneven printing.

When the height between print media and print head is more than 3mm, the reflected light from UV curing lamp increases and it can cause the misting ink to be cured, increase the ink viscosity and nozzle clogging, and hence damage print heads.



NOTICE:

It is suggested to use the lamilator with decurling device to keep the sheet flat.



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.

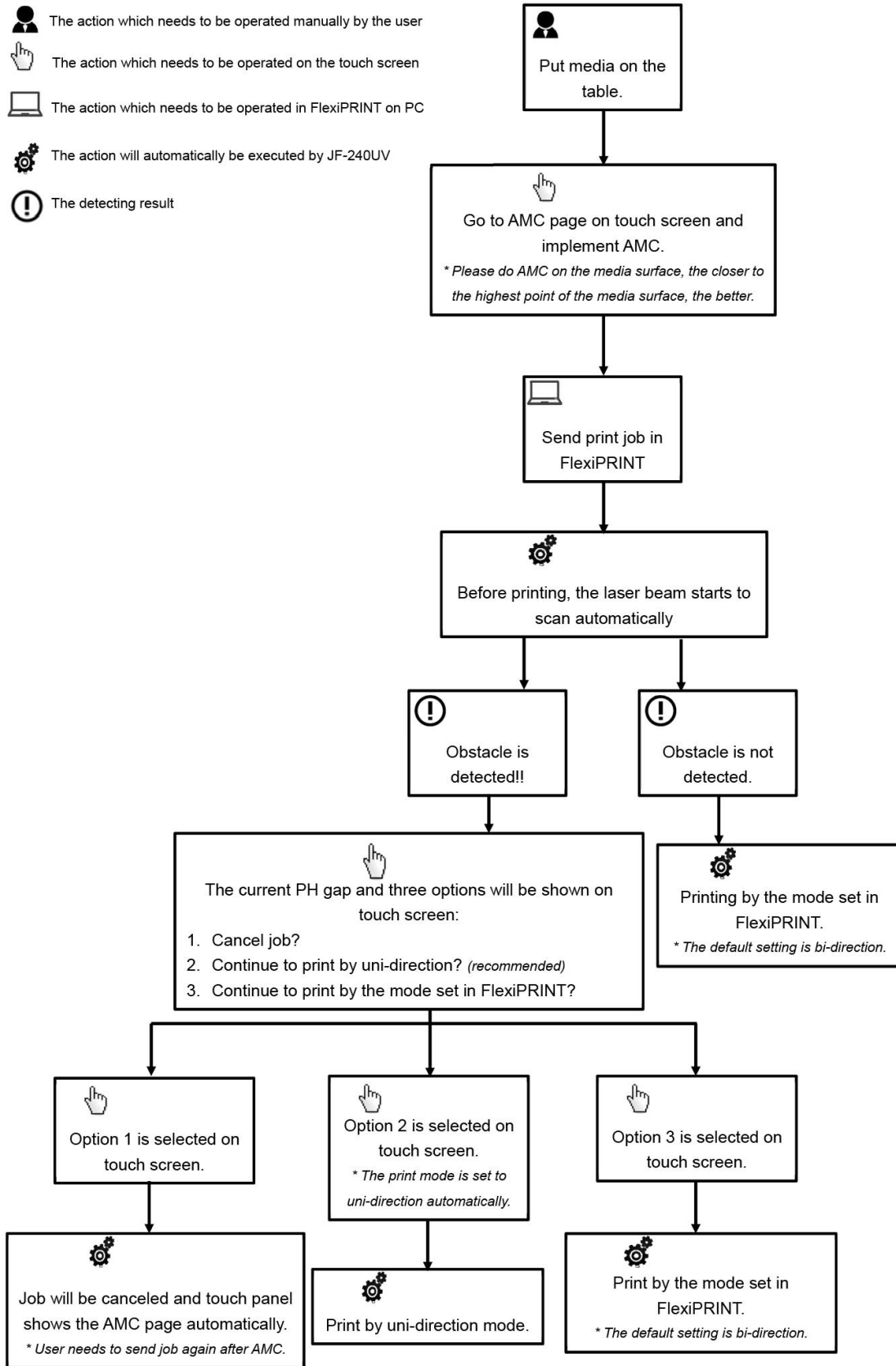
3. **High throughput is high priority:**

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.

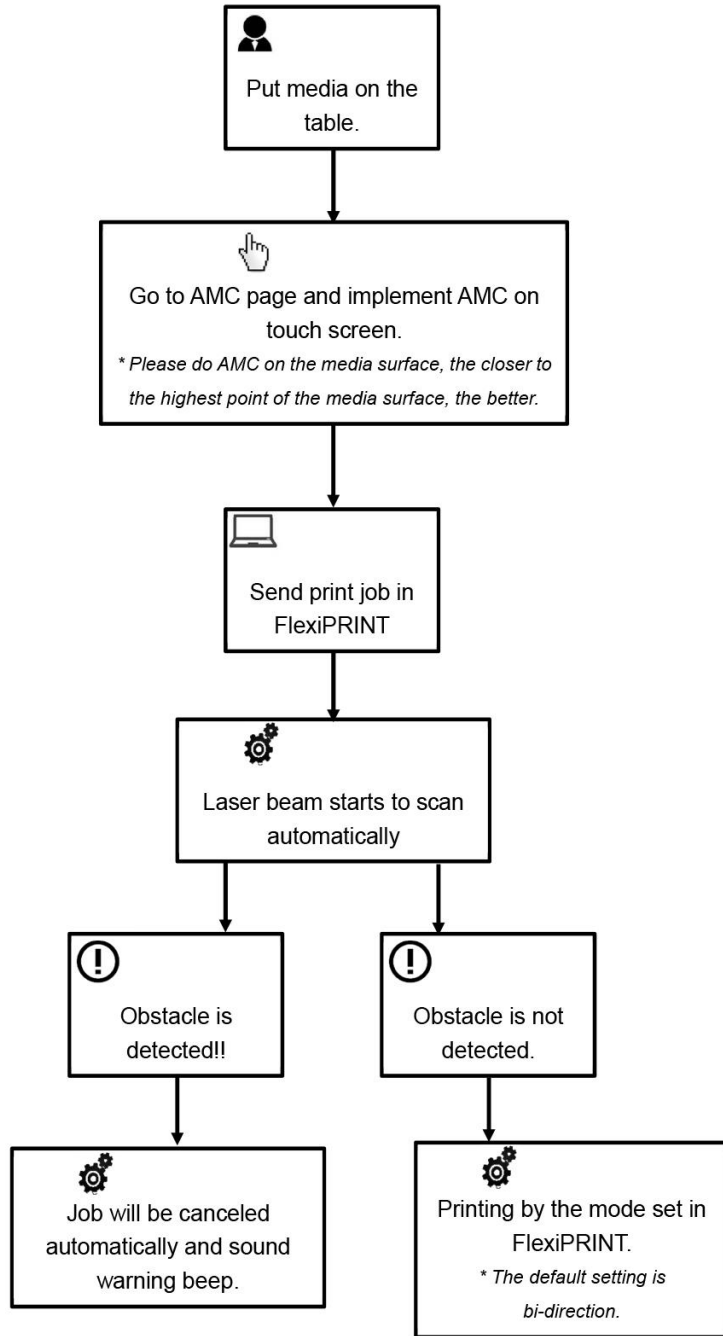
Workflow

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

-  The action which needs to be operated manually by the user
-  The action which needs to be operated on the touch screen
-  The action which needs to be operated in FlexiPRINT on PC
-  The action will automatically be executed by JF-240UV
-  The detecting result



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 examples 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.



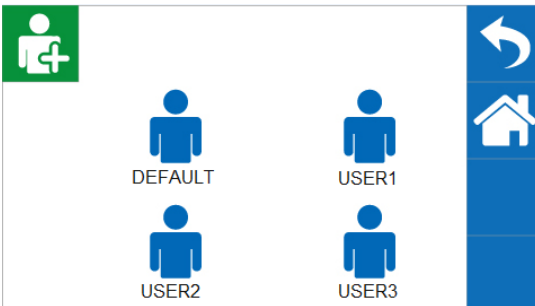
Step 1. Entre FLATBED mode.



Step 2. Select MENU.



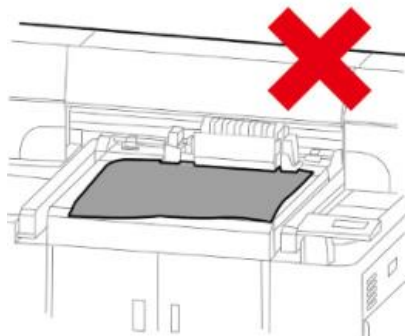
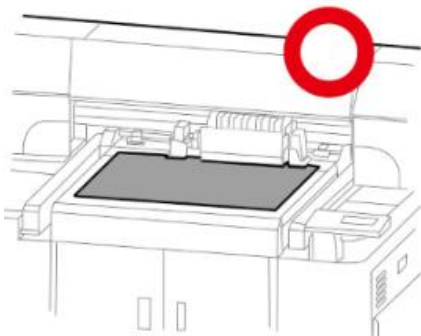
Step 3. Select USER SET.



Step 4. Select DEFAULT and select BACK icon .

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

(CAUTION)





Step 6. Select **LOAD MEDIA**, 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 automatically 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 The computer sends the file, complete.

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

Please load the rigid material correctly according to following steps.



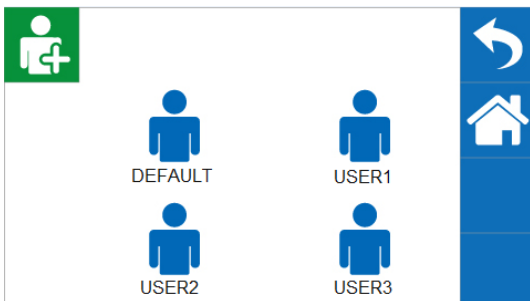
Step 1. Entre FLATBED mode.



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 JV-240UV.



Step 6. Select **LOAD MEDIA**, 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 automatically 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 The computer sends the file, complete



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 The computer sends the file, complete

5.1.4 How to make a Varnish file

Note : Varnish solution is to print a thin and uniform transparent layer on the surface of the printed matter, and then to be solidified by UV. The varnishing can protect the printing pattern and increase its scratch resistance. Different varnish modes provide different visual effects, not only offer high added value, but also save coating equipment and labor costs

Illustrator example :

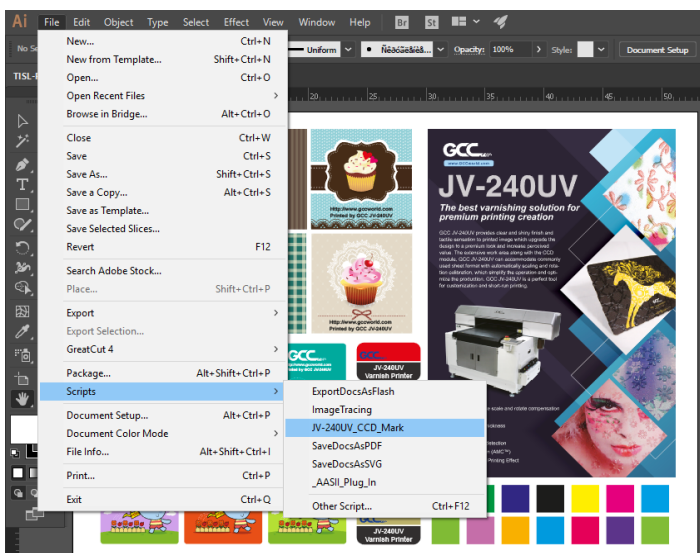
Using Illustrator software to create varnish file, please refer to the steps below.

Step 1 Create Varnish image

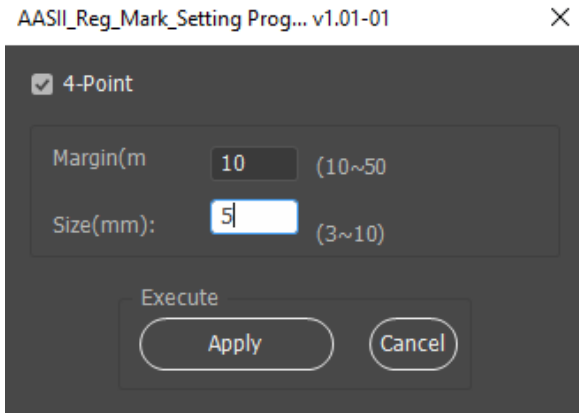
(It is suggested to create the Varnish image in monochrome)



Step 2 Select File→Scripts→JV-240UV_CCD_Mark



Step 3 Margin(10~50mm) setting : 10mm, Size(3~10mm) setting : 5mm

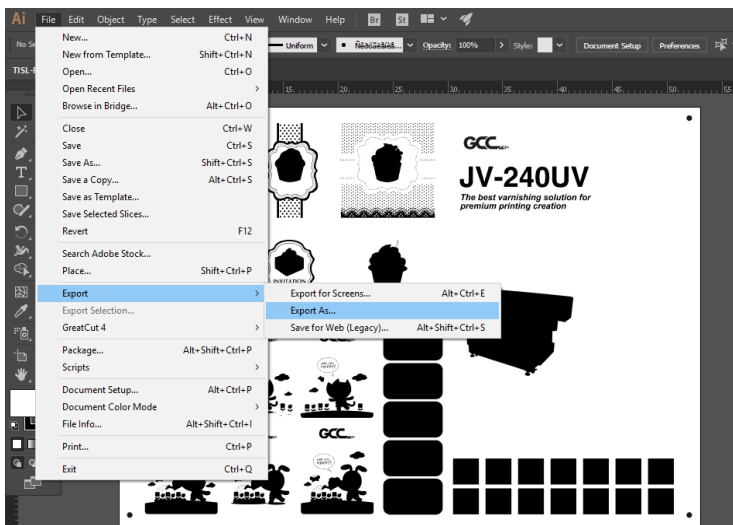


Step 4 Complete the 4 Mark points and open the finished Varnish layer

Note : Varnish layer is suggested to be filled with black



Step 5 Select File→Export→Export As.....



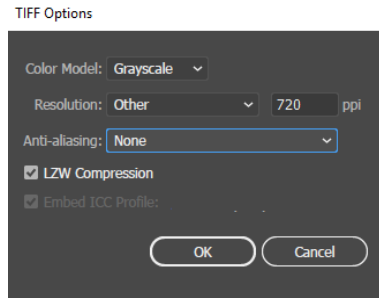
Step 6 Save as Tiff file, set the settings in TIFF Options window then click OK.

Color Model : Grayscale

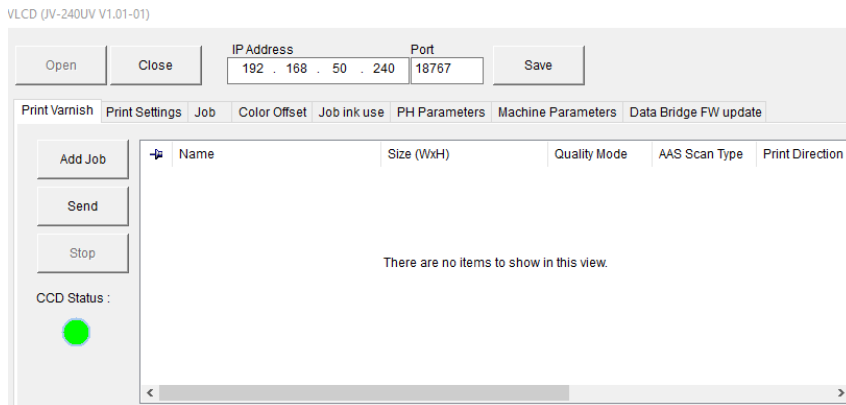
Resolution : Other 、 720ppi

Anti-aliasing : None

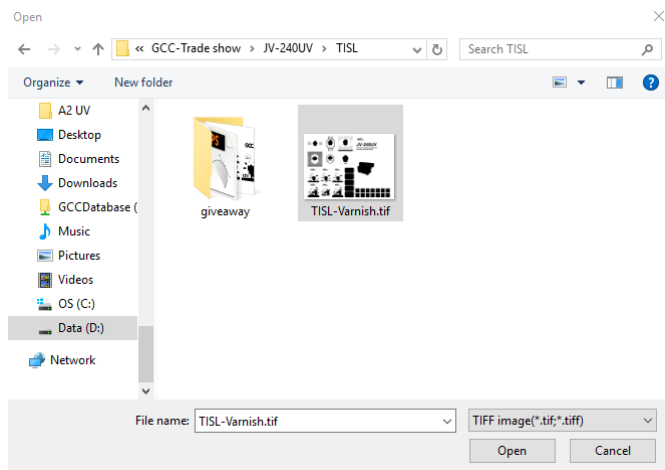
Check LZW Compression



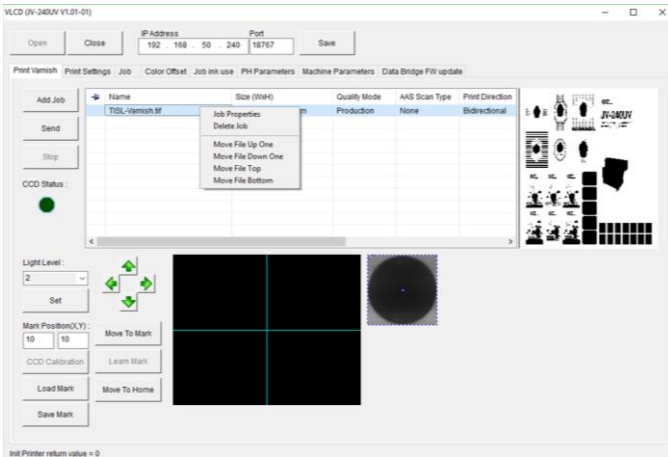
Step 7 Open JV-240UV VLCD and click Add job



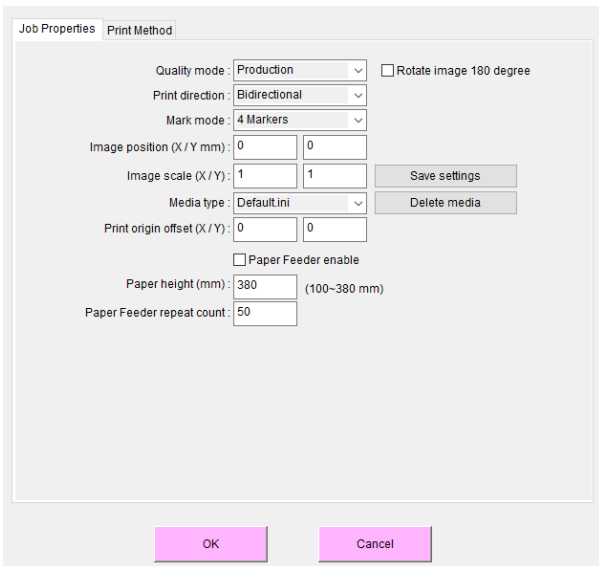
Step 8 Select the .tiff file that just created and click Open



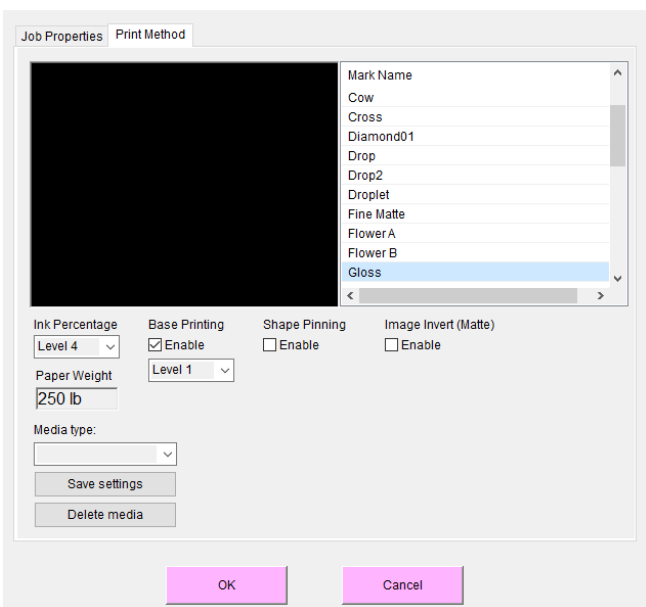
Step 9 Right click on the file and click Job Properties



Step 10 Select AAS Scan type: 4 Markers



Step 11 Select print mode parameters → OK



Varnish settings:

Ink Percentage: Level 1~Level 5 inked number of the ink

Print Mode:

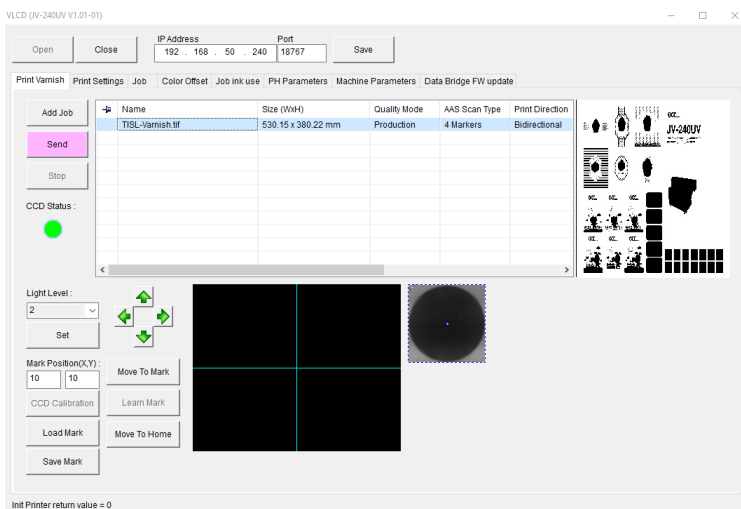
Gloss: The graphic surface is coated with a bright finish

Super glossy: Enhance the surface coating of the graphics

Base Printing: Check Enable, for bottoming before printing, Level 1~Level 4 bottoming thickness of the ink

Shape Pinning: It can improve some material printing Varnish easily overflowing, to effectively prevent the Varnish overflowing printing scope.

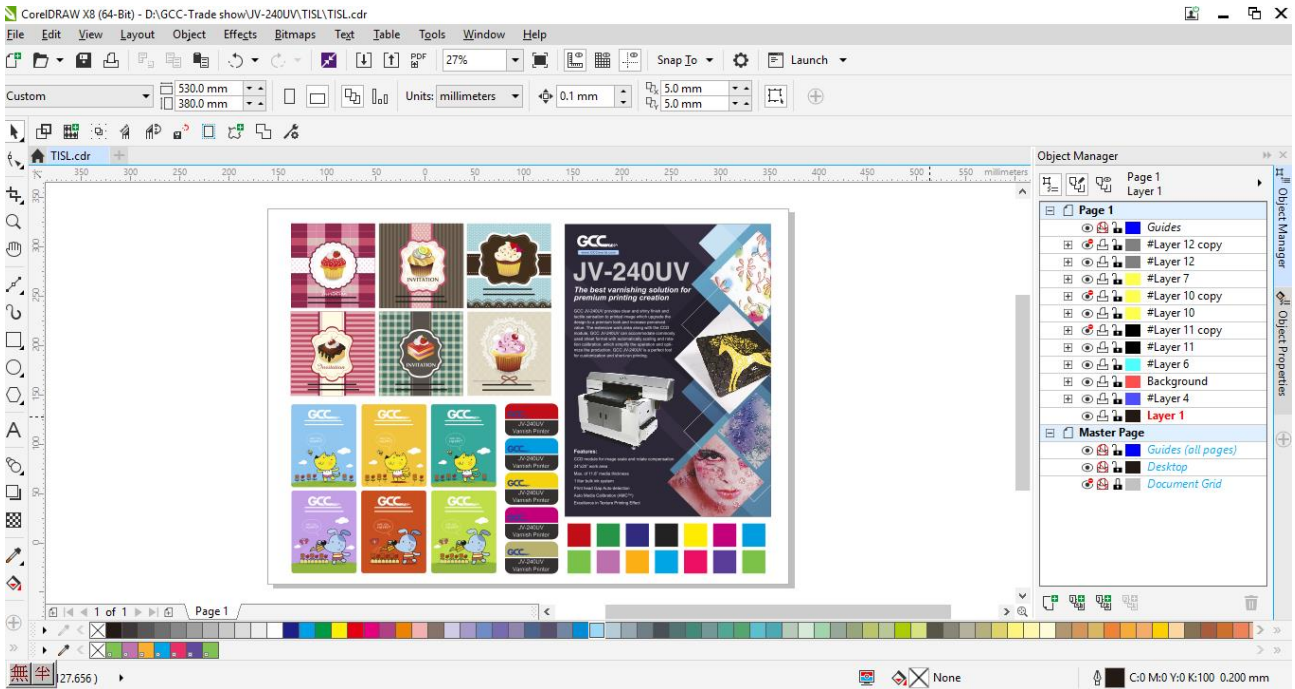
Step 12 Select the file, and then select Send



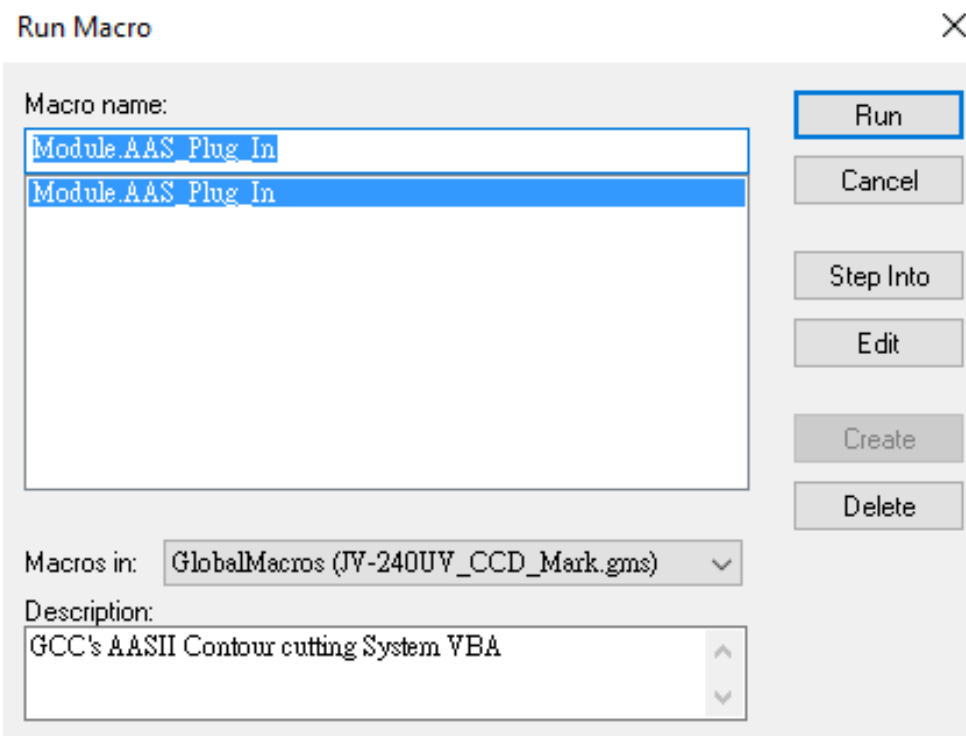
Step 13 Complete the setting of JV-240UV spot varnish printer and start printing

CorelDraw Example :

Step 1 Build Varnish images

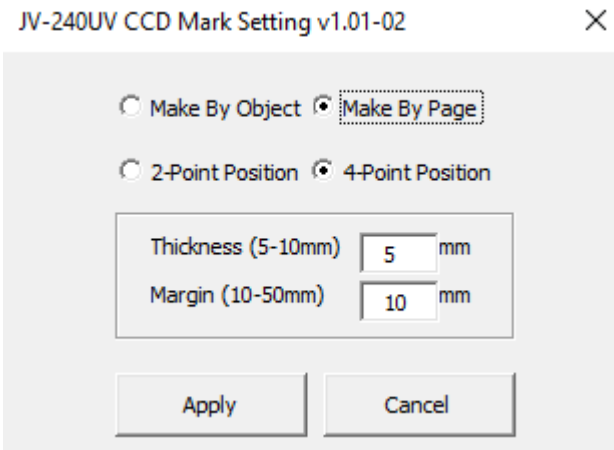


Step 2 Select Tools→ Macro→ Run Macro..., select GlobalMacros (JV-240UV_CCD_Mark.gms), and then select→ Run



Step 3 Thickness(5~10mm) setting : 5mm, Margin(10~50mm) setting : 10mm
 Explanation : Make By Object : Select the locating point at the edge of the object

Make By Page : Select the locating point at the page

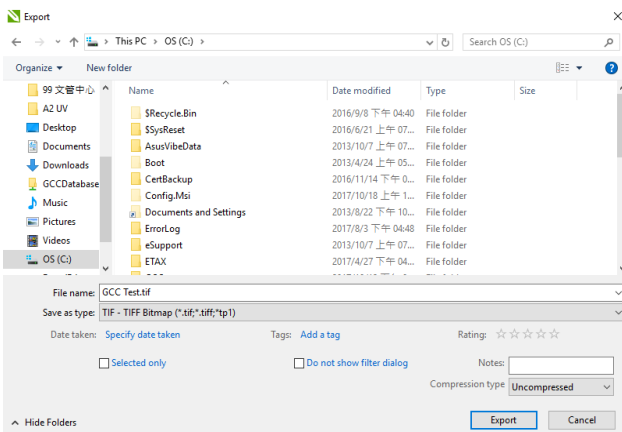


Step 4 Complete the 4 Mark points and open the finished Varnish layer

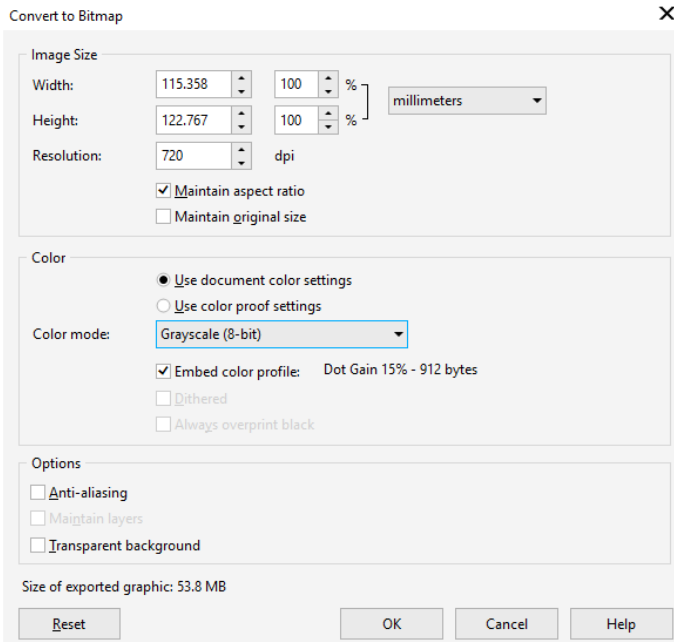
Note : Varnish layer is suggested to be filled with black



Step 5 After the Varnish layer is opened, select **File→Export→select Save as type : Tiff**



Step 6 Set Resolution in Convert to Bitmap window : 720dpi, Color mode : Grayscale(8bit), select OK, and then complete

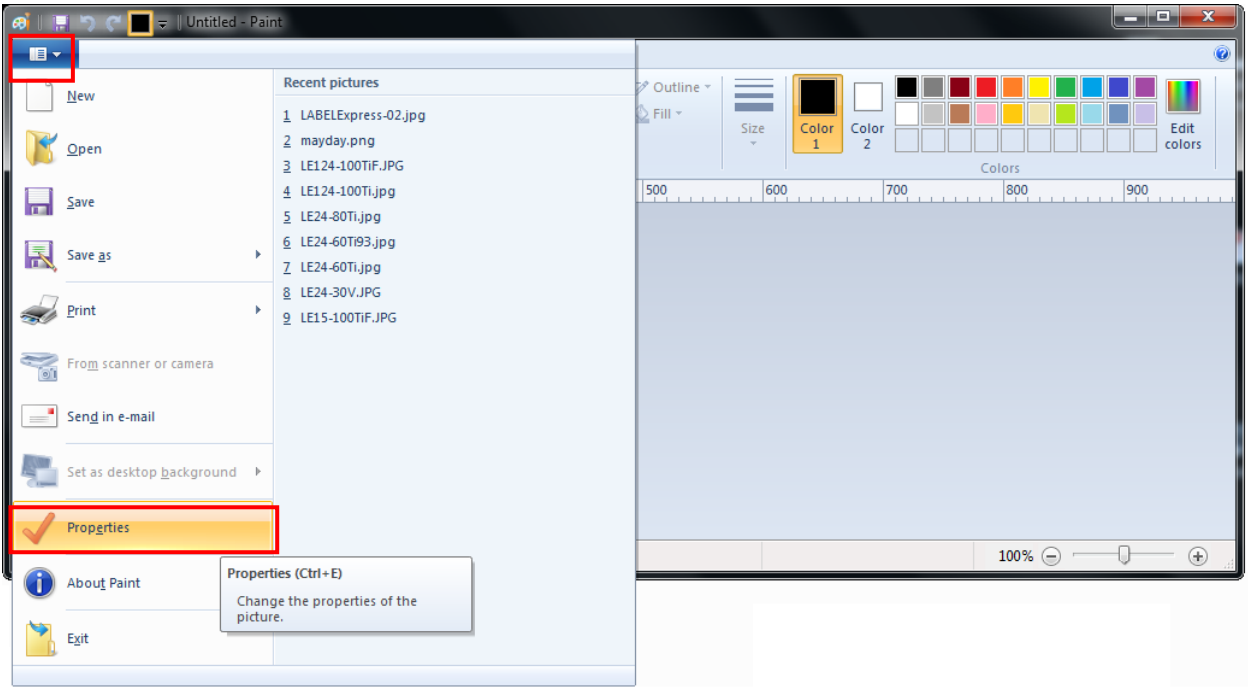


Step 7 Please refer to 5.1.4 “How to make the glazing printing file”, Step 8~13 How to build Add job in JV-240UV VLCD

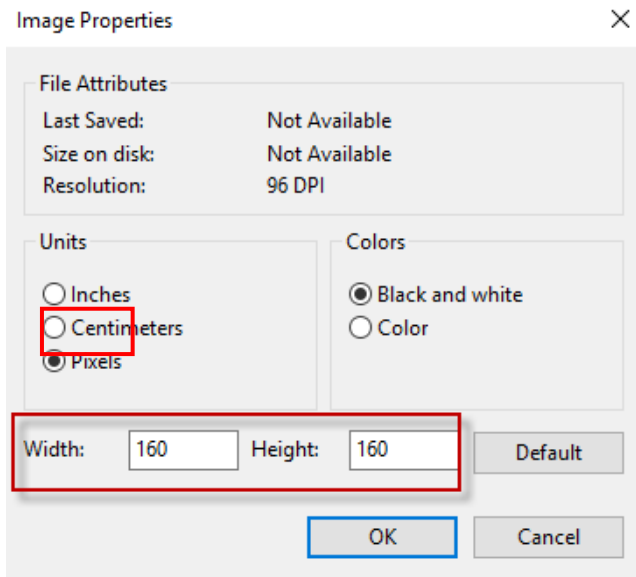
5.1.5 How To Create Custom Pattern for Varnish Printing

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.

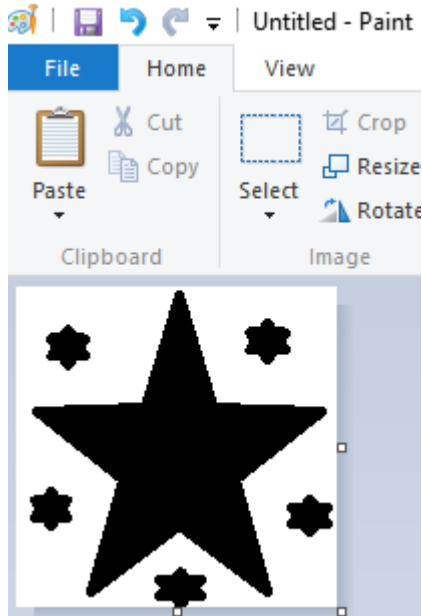
1. Open Paint, go to File under Properties.



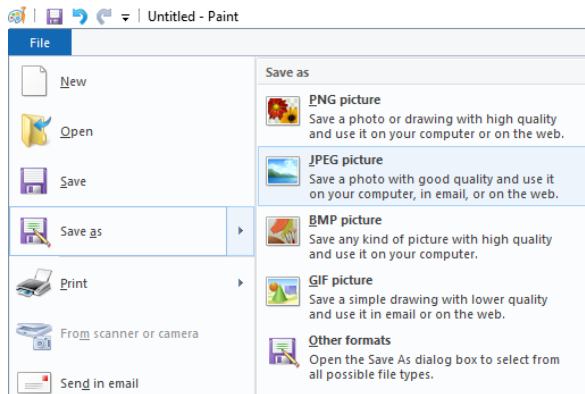
2. Select Pixels in Units column and set Width/Length value. The Width/Length value must be a multiple of 8, i.e. 8 x 8 or 160 x 160 pixels



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.

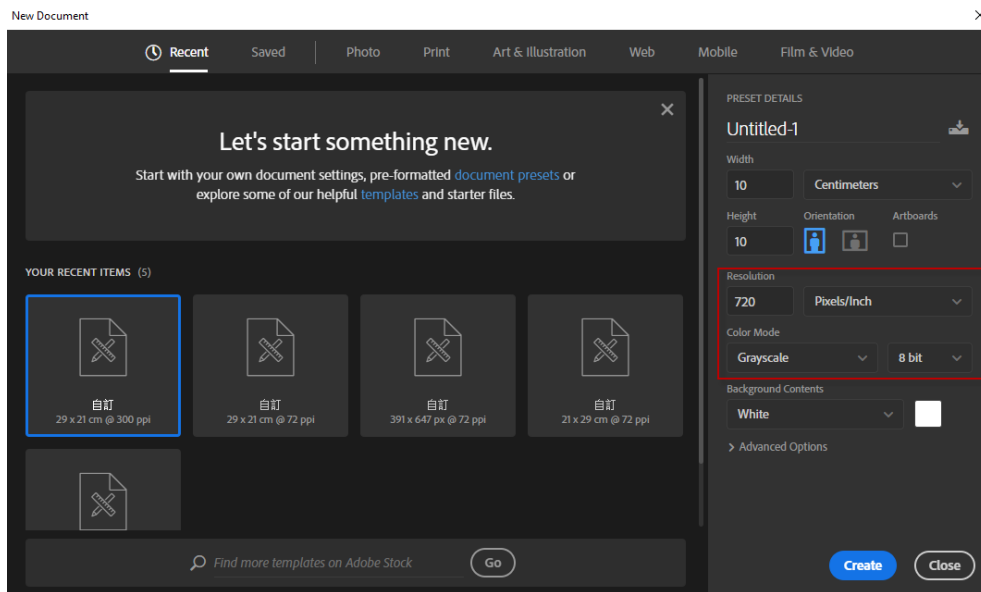
5.1.6 How To Make Varnish Grayscale

Step 1 Open Photoshop

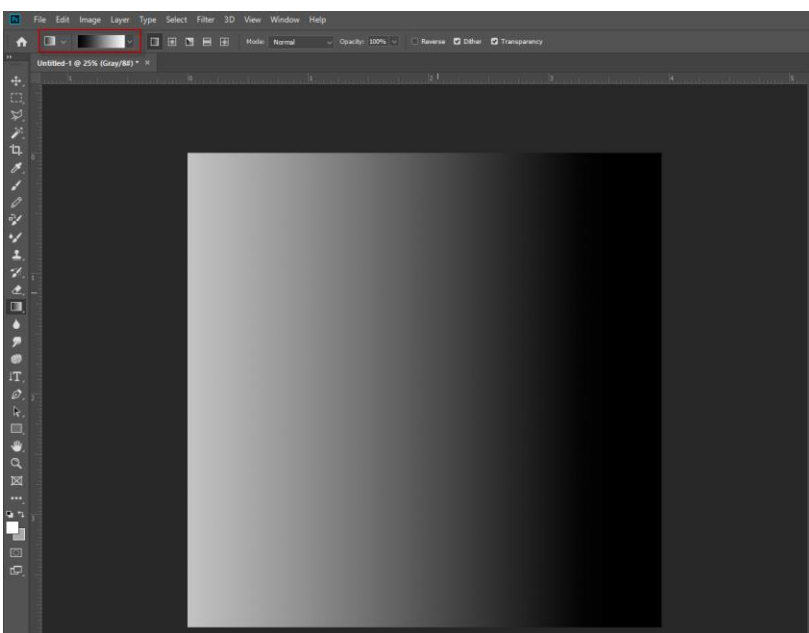


Step 2 Create a new file and set the parameter.

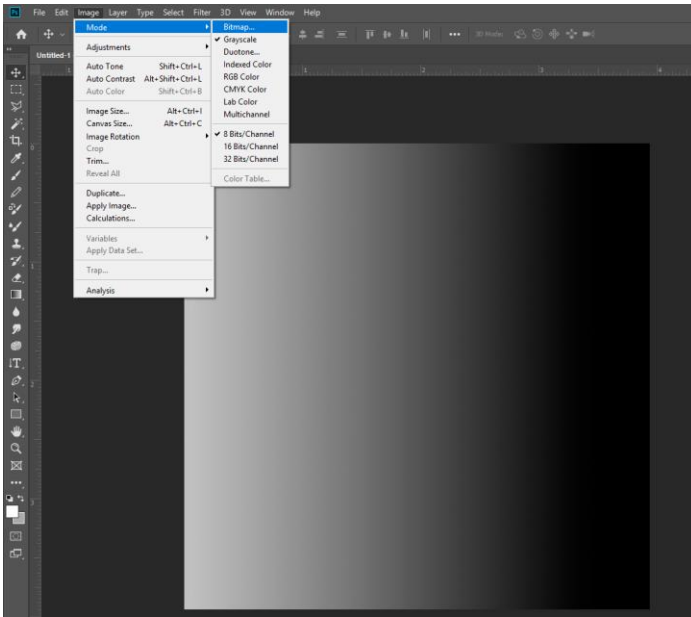
Note : Resolution 720dpi 、 Color Mode : Grayscale



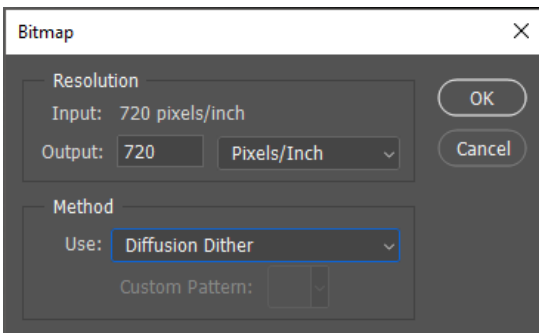
Step 3 Use Gradient Tool to fill the color



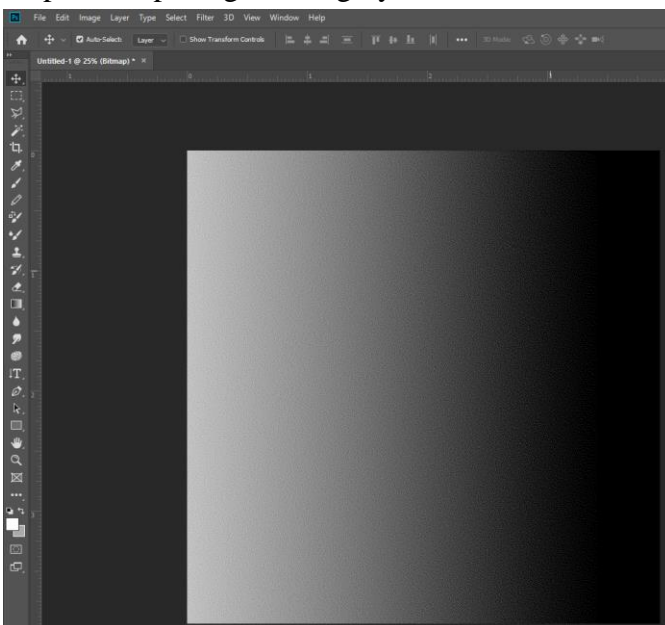
Step 4 Go to Image → Mode → Bitmap...



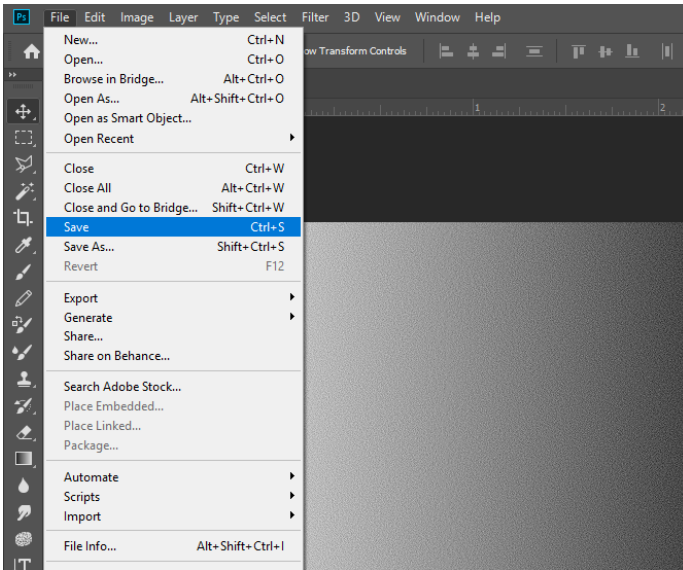
Step 5 Set the Output: 720, Method: select Diffusion Dither, and then click ok.



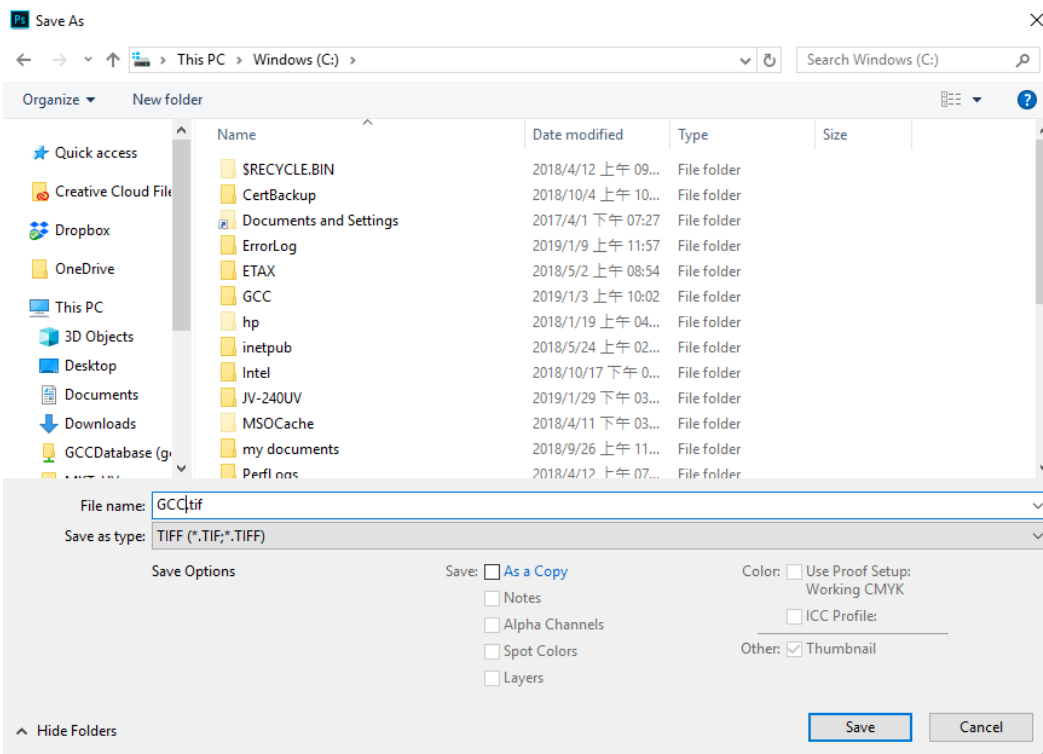
Step 6 Complete gradient grayscale



Step 7 Go to file → Save



Step 8 Define the file name and select file type as TIFF and click Save.



Step 9 The process is complete.

5.1.7 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 Color Offser | v |
| Check AMC | v |

5.1.8 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.

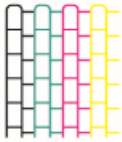
5.1.9 Check Print Head Condition

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.

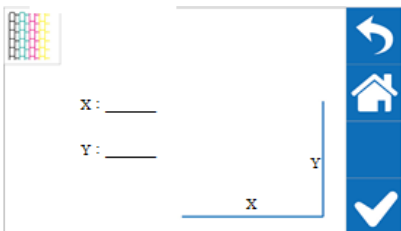
Step 1 Perform NOZZLE CHECK



1. Select MENU on control panel

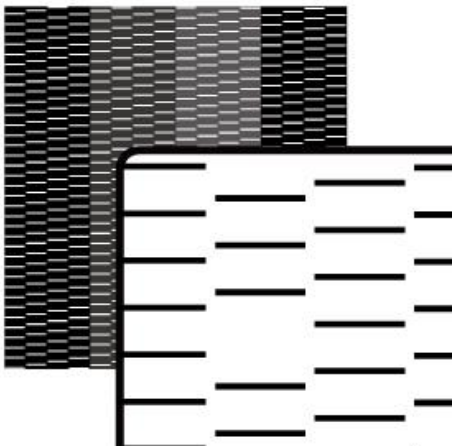


2. Select NOZZLE CHECK



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

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



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.

5.1.10 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.

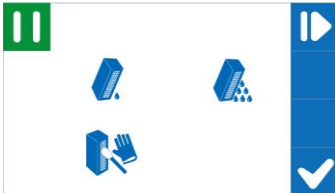
Pause while printing:


Step 1.  Select PAUSE 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)

Step 1: 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

Step 1: 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.

5.2 Tuning and Testing Procedure

Note : When the buzzer sounds, please check the message displayed on the control panel and solve the problem.

Note : When the machine does not function normally, please press the emergency stop switch and restart the spot varnish printer, and solve the problem

5.2.1 Read machine parameter values

Follow the steps below to read the parameters from the machine when operating the machine for the first time.

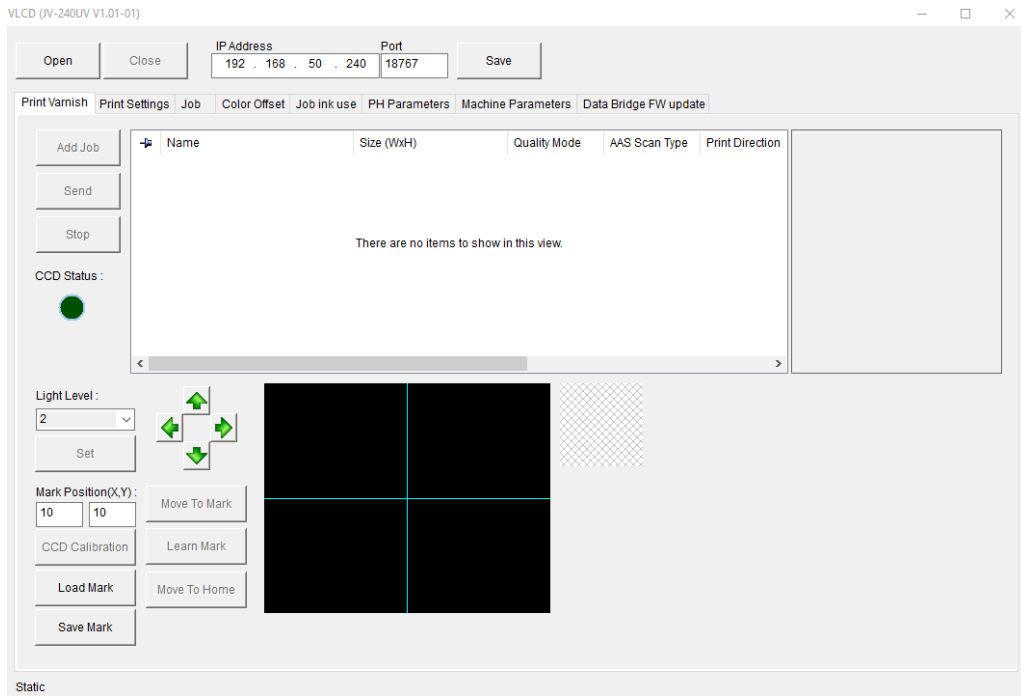
Step 1 Start JV-240UV VLCD, press Open option and select “Parameters backup from machine”, and then JV-240UV VLCD will automatically read the parameters from the machine.

Note : The detected parameter settings include Color Offset, Bi direction Offset, and PH Parameters, etc.

VLCD (JV-240UV V1.01-01)

The screenshot shows the VLCD interface for JV-240UV V1.01-01. At the top, there are buttons for 'Open', 'Close', and 'Save'. The 'IP Address' field is set to '192 . 168 . 50 . 240' and the 'Port' field is set to '18767'. Below these fields is a navigation bar with tabs: 'Print Varnish', 'Print Settings', 'Color Offset', 'Job ink use', 'PH Parameters', 'Machine Parameters', and 'Data Bridge FW update'. The 'Machine Parameters' tab is selected. In the main area, there are two buttons: 'Write parameters to machine' and 'Parameters backup from machine'. The 'Parameters backup from machine' button is highlighted with a red rectangular border. At the bottom, there is a progress bar showing '0%'.

5.2.2 Introduction of JV-240UV VLCD



GCC JV-240UV Spot varnish printer VLCD Introduction

| Job Properties | | |
|----------------|---------------------------|--|
| | Quality Mode | Production Quality Light Density |
| | Print Direction | Uni directional: Uni directional printing mode Bi directional: Bi-directional printing mode |
| | AAS Scan Type | None: No AAS detection before printing 4 Markers: Read 4 AAS marks before printing |
| | Image Position(X,Y mm) | Image XY coordinates setting (Default value is 0,0) |
| | Image scale(X/Y) | Adjust the image scale of media length and width |
| | Media type | Save settings : Save the parameters Delete media : Delete the parameter |
| | Print origin offset (X/Y) | Set a new origin |
| | Paper Feeder enable | |
| | Paper height(mm) | Media length |
| | Paper feeder repeat | Copies |

| | | |
|--------------------------------|----------------------------|--|
| | count | |
| Print Varnish | | |
| | OPEN | Activate the spot varnish printer connection |
| | CLOSE | Deactivate the spot varnish printer connection |
| | IP ADDRESS | IP address |
| | SAVE | Store the IP address |
| | Add job | Add job menu |
| | Send | Send job menu |
| | Stop | Stop job menu |
| | Light Level | Adjust the LED brightness |
| | Mark Position(X,Y) | X/Y location |
| | CCD Calibration | CCD calibration |
| | Load Mark | Read AAS mark |
| | Save Mark | Store AAS mark |
| | Move To Mark | Move CCD to read the AAS marks for calibration |
| | Learn Mark | Learn AAS mark |
| | Move To Home | Move the carriage back to the origin |
| Print Settings | | |
| Set the print menu | | |
| | Color to print | Ink-jet number |
| | UV lamp curing mode | Normal Curing: Regular curing mode Delay Curing: Delay curing mode |
| | UV Power | UV light energy |
| | Enable job repeat function | Enable repeat function |
| | Enhance UV Curing | Preform curing automatically after printing |
| | Save | Store the parameters under Print Settings menu |
| Color Offset | | |
| Set the print direction | | |
| | Pattern | Nozzle Check(Check the nozzle condition) Head Angle(Check the vertical angle of the nozzle) Color Offset(Check the one way quality of the nozzle) Bidirection Offset(Check the two way quality of the nozzle) |

| | | |
|--|-----------------------------|---|
| | | Over Print : a number of layers will be printed |
| | Color Offset | The parameter adjustment of the inkjet head one way alignment correction, to select one way is to print the image from right to left, so as to confirm the accuracy of one-way set. |
| | Bidirection Offset | The parameter adjustment of the inkjet head two way alignment correction, to select two way is to print the image from right to left and return back, so as to confirm the accuracy of two-way set. |
| | Start ZeroPoint | X coordinates initial position |
| | Print Head To Edge Distance | Y coordinates initial position |
| | Print Scale | Image scale |
| | Read | Read |
| | Save | Save |
| Paper Feeder Y Position Calibration | | |
| | Offset(mm) | Calibrate the position of paper feeding |
| | Paper Height(mm) | Calibrate the media length |
| | Feeder Paper | Paper feeding test |
| | Take Paper | Paper ejecting test |
| | Adjust Vacuum Position | Feeder arm stretch (Adjust the suction cup position) |
| | Adjust Vacuum Back | Feeder arm withdrawal |
| Job ink use | | |
| Job ink consumption | | |
| | V 0.0000CC | Ink usage |
| | Read | Read the previous ink usage |
| PH PARAMETERS | | |
| Adjust the parameters of inkjet head parameters | | |
| | Read | Read the inkjet head parameters |
| | Write | Write the inkjet head parameters |
| | Channel | V1, V2, V3 and V4 inkjet heads color names |
| | Drop/Speed m/s | Adjust the spray speed of the inkjet head |
| | Default Voltage | Adjust the voltage of the inkjet head |
| MACHINE PARAMETERS | | |
| | Write Parameters to machine | Write parameters to the machine end |
| | Parameters backup from | Read the backup parameter values from |

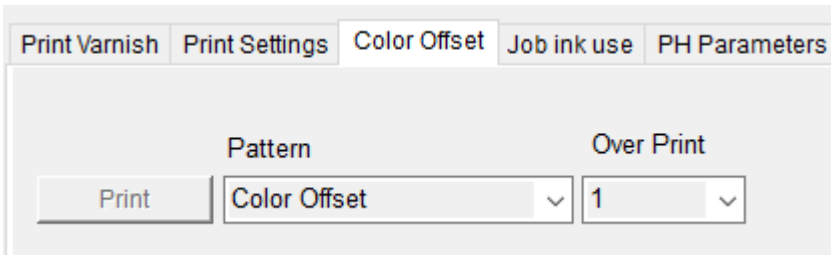
| | | |
|------------------------------|------------------|------------------|
| | machine | the machine |
| Data Bridge FW Update | | |
| | Boot to Loader | Boot to Loader |
| | Boot to Firmware | Boot to Firmware |
| | Add Firmware | Add Firmware |
| | Update | Update |
| | Add Test Pattern | Add Test Pattern |
| | Update | Update |

5.2.3 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 JV-240UV VLCD, select Color Offset→Color Offset and press Print

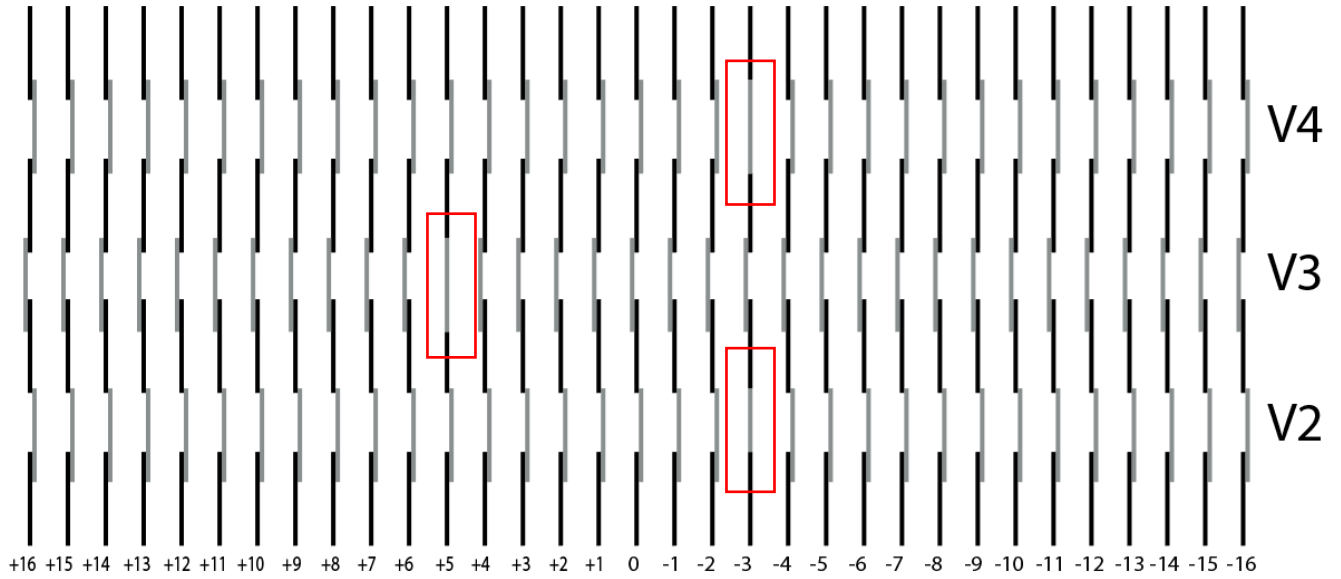


2. JV-240UV will automatically start Color Offset Test Pattern printing

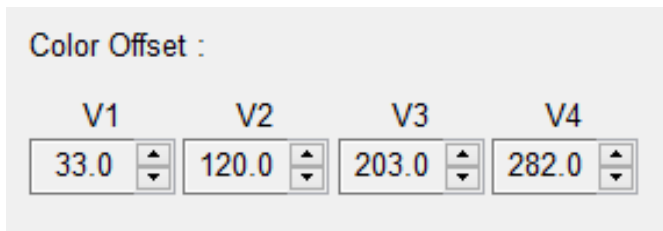
Following are horizontal alignment calibration examples:

3. Use black to correct other colors.
4. A total of 32 correction lines will be displayed on the horizontal calibration pattern, and the numbers are showed from left to right with the 16th line (0) showing the initial number.
5. These figures will show the error values caused by the spots of various inkjet heads.

Example 1: The horizontal correction of V2, V3, and V4 inkjet heads.



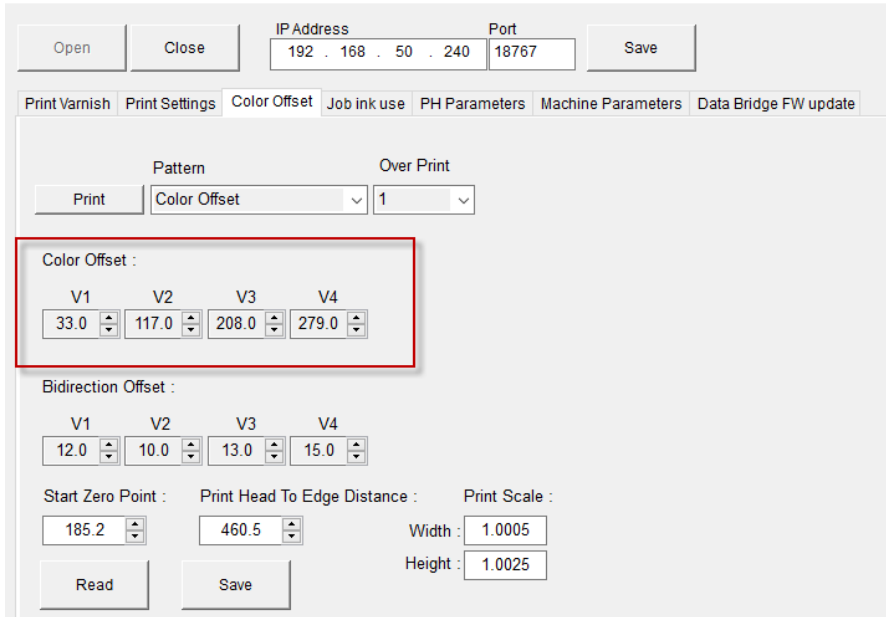
- Step 1 Use a magnifying glass to observe that the V2 color and black lines are aligned to the "-3" line. Please record this number.
- Step 2 Use a magnifying glass to observe that the V3 color and black lines are aligned to the "+5" line. Please record this number.
- Step 3 Use a magnifying glass to observe that the V4 color and black lines are aligned to the "-3" line. Please record this number.
- Step 4 After recording all the Numbers, please go to the Color Offset "V2, V3, V4" under the control interface of (VLCD) software to perform the horizontal fine tuning.



Example : $V2=120-3=117$ (VLCD) input 117
 $V3=203+5=208$ (VLCD) input 208
 $V4=282-3=279$ (VLCD) input 279

- Step 5 Enter all inkjet heads that need to be corrected and then store to update the settings.

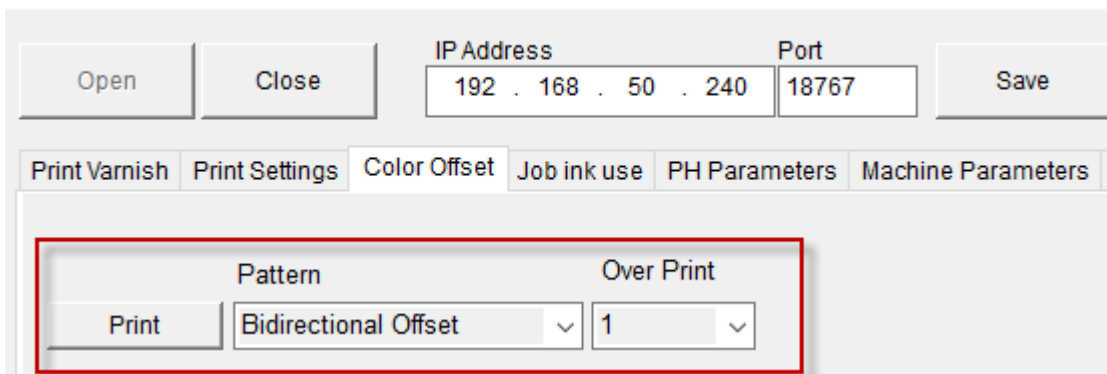
VLCD (JV-240UV V1.01-01)



Bi-Directional Calibration:

1. Start JV-240UV VLCD, select Color Offset→Bidirectional offset and press Print

VLCD (JV-240UV V1.01-01)



2. JV-240UV will automatically start Color Offset Test Pattern printing
3. Select Color Offset Offset→ Bidirectional offset option

VLCD (JV-240UV V1.01-01)

Open
Close

IP Address
192 . 168 . 50 . 240

Port
18767

Save

Print Varnish
Print Settings
Color Offset
Job ink use
PH Parameters
Machine Parameters
Data Bridge FW update

Pattern
Print

Over Print
Bidirectional Offset

Color Offset :

| | | | |
|------|-------|-------|-------|
| V1 | V2 | V3 | V4 |
| 33.0 | 117.0 | 208.0 | 279.0 |

Bidirection Offset :

| | | | |
|------|------|------|------|
| V1 | V2 | V3 | V4 |
| 12.0 | 10.0 | 13.0 | 15.0 |

| | | |
|--------------------|-------------------------------|-----------------|
| Start Zero Point : | Print Head To Edge Distance : | Print Scale : |
| 185.2 | 460.5 | Width : 1.0005 |
| | | Height : 1.0025 |

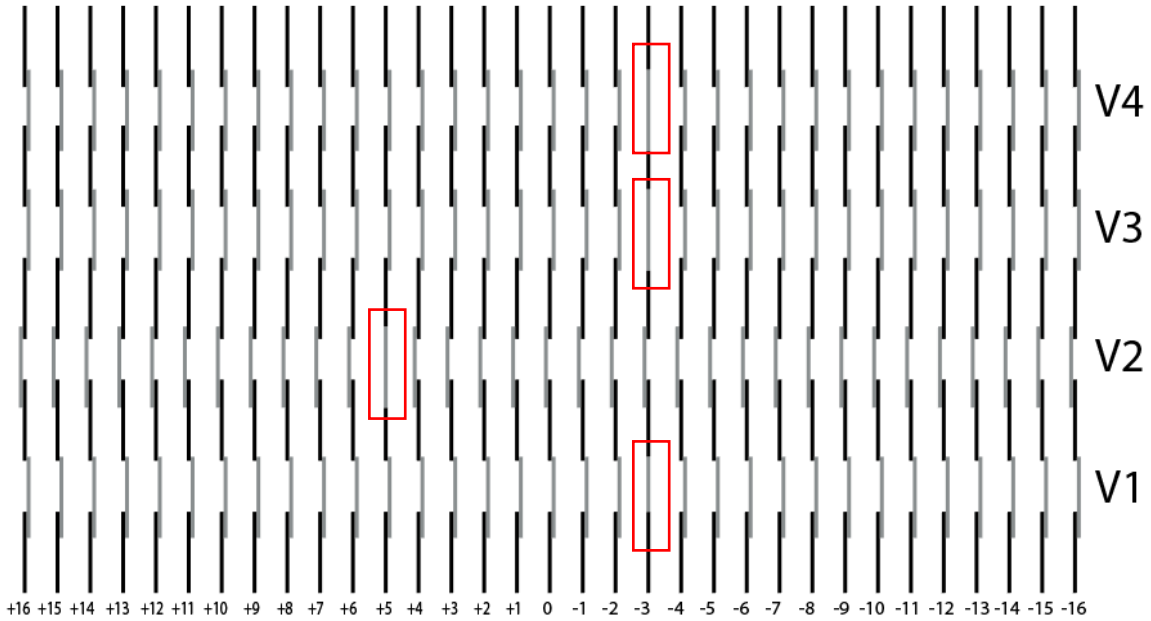
Read
Save

Static

Following are horizontal alignment calibration examples:

4. Use black to correct other colors.
5. A total of 32 correction lines will be displayed on the horizontal calibration pattern, and the numbers are showed from left to right with the 16th line (0) showing the initial number.
6. These figures will show the error values caused by the spots of various inkjet heads.

Example 1: The horizontal correction of V1, V2, V3, and V4 inkjet heads.



- Step 1 Use a magnifying glass to observe that the V1 color and black lines are aligned to the "-3" line. Please record this number.
- Step 2 Use a magnifying glass to observe that the V2 color and black lines are aligned to the "+5" line. Please record this number.
- Step 3 Use a magnifying glass to observe that the V3 color and black lines are aligned to the "-3" line. Please record this number.
- Step 4 Use a magnifying glass to observe that the V4 color and black lines are aligned to the "-3" line. Please record this number.
- Step 5 After recording all the Numbers, please go to the Bidirectional Offset "V1, V2, V3, V4" under the control interface of (VLCD) software to perform the horizontal fine tuning.



Example : $V1=12-3=9$ (VLCD) input 9
 $V2=10+5=15$ (VLCD) input 15
 $V3=13-3=10$ (VLCD) input 10
 $V4=15-3=12$ (VLCD) input 12

- Step 6 Enter all inkjet heads that need to be corrected and then store to update the settings.

√LCD (JV-240UV V1.01-01)

| | | | | | | |
|-----------------------------|--|--|---------------|---------------|--------------------|-----------------------|
| Open | Close | IP Address 192 . 168 . 50 . 240 | Port 18767 | Save | | |
| Print Varnish | Print Settings | Color Offset | Job ink use | PH Parameters | Machine Parameters | Data Bridge FW update |
| Print | Pattern Bidirectional Offset | Over Print 1 | | | | |
| Color Offset : | | | | | | |
| V1 33.0 | V2 117.0 | V3 208.0 | V4 279.0 | | | |
| Bidirection Offset : | | | | | | |
| V1 9.0 | V2 15.0 | V3 10.0 | V4 12.0 | | | |
| Start Zero Point : 185.2 | Print Head To Edge Distance : 460.5 | Print Scale : Width : 1.0005 Height : 1.0025 | | | | |
| Read | Save | | | | | |
| Static | | | | | | |

Chapter 6 Maintenance And Basic Service

This chapter provides the basic maintenance information for the JV-240UV Varnish 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



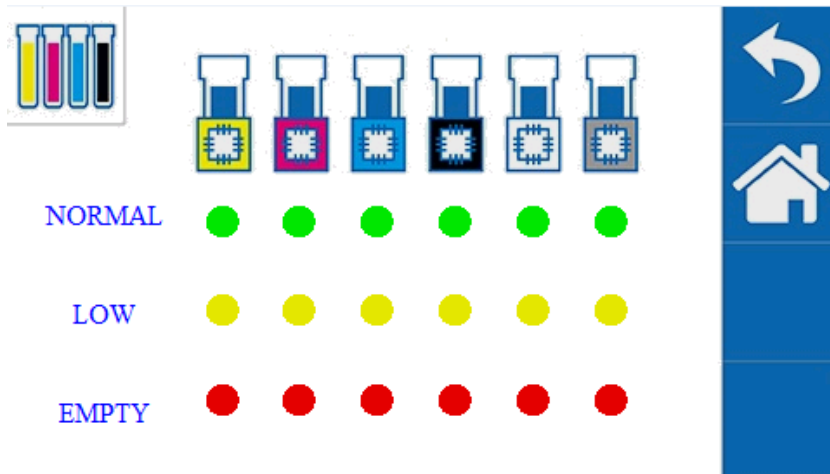
1. Select MENU on the control panel.



2. Select INK REMAINING



3. Check remaining ink



Description:

*Green light indicates high ink level.

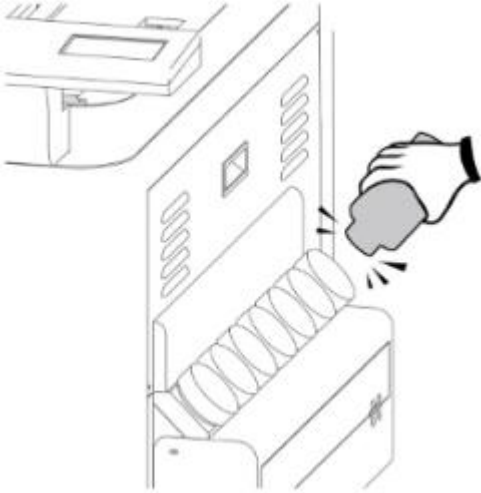
* Yellow light indicates medium ink level.

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

6.1.2 How To Replace Bulk Ink

When the Ink runs out, the touch panel appears the indicate “Ink run out”. Please immediately pour in a new ink.

(Make sure that the ink bottle is marked in the same color as the poured ink before pouring in)



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.

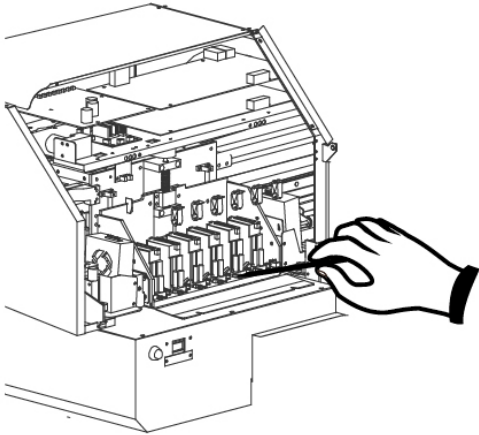
Area might be exposed to high temperature.

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



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 and print head area 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



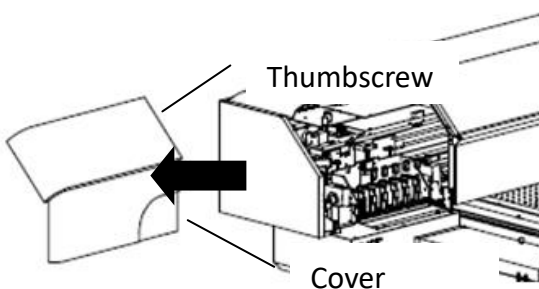
2. Select MANUL CLEANING



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



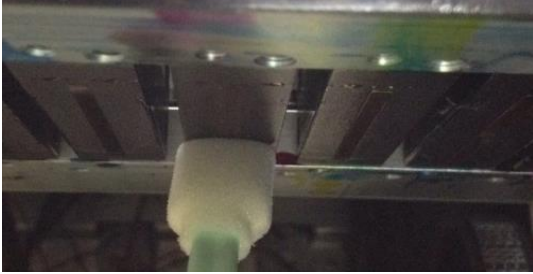
4. Remove thumbscrews and open the left cover and close ink valve.



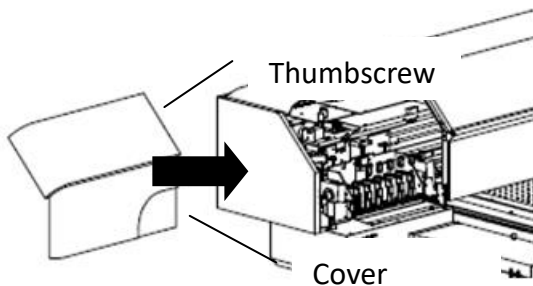
5. Use sponge swabs with cleaner to clean the area underneath the print heads, and wipe residues from back to front.

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, JV-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

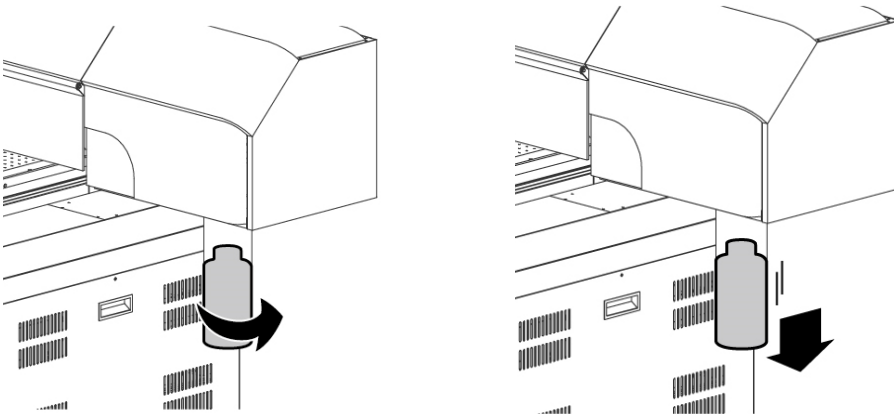


2. Select MAINTENANCE



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.

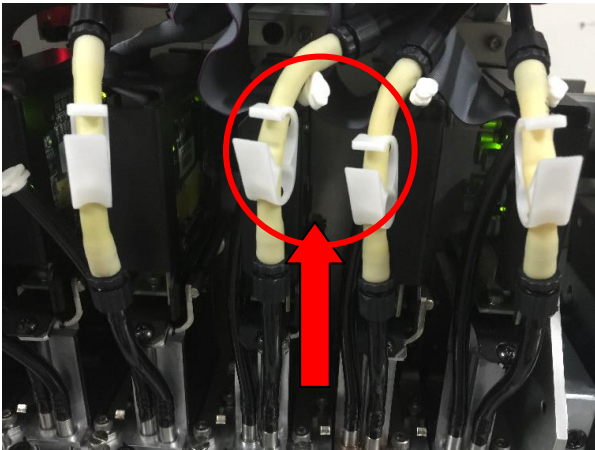
Please follow the local regulations to dispose the waste ink to prevent contaminating the environment.

6.2.4 Cleaning

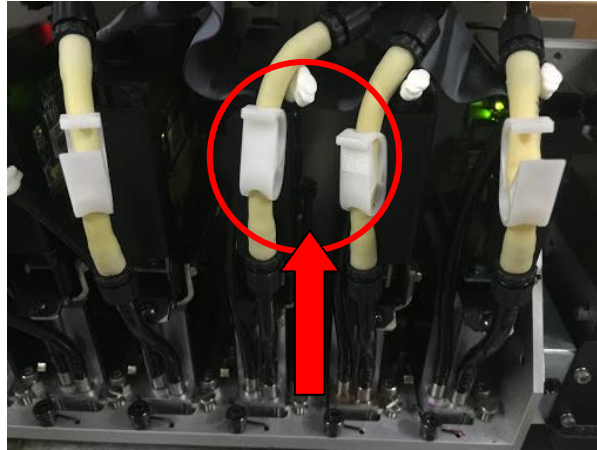
Warning: Do not use gasoline, alcohol, or solvent ... etc. flammable materials, as they are abrasive and hazardous, and could damage the equipment.

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

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



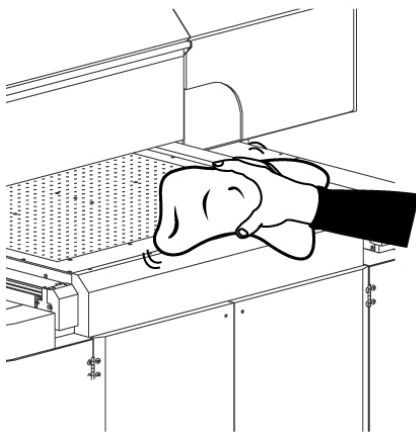
Ink valve is **opened**



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.



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.

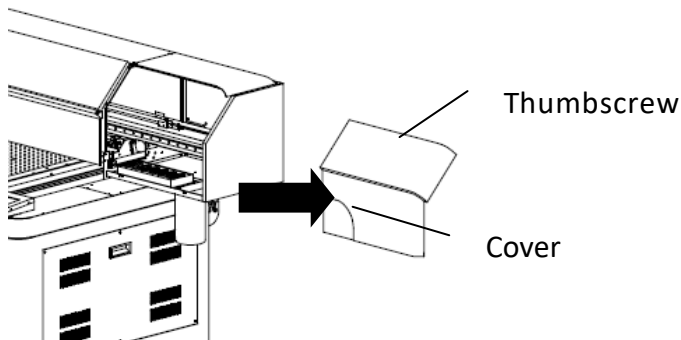
Required monthly maintenance: Apply automatic advanced cleaning up maintenance, and wipe the print head with cleaning swabs.

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

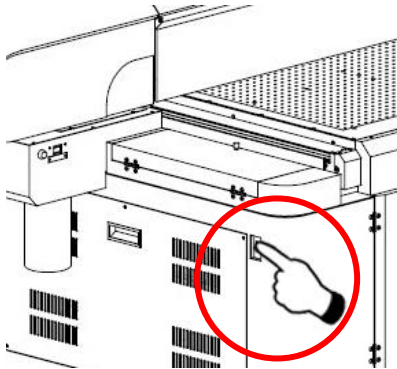
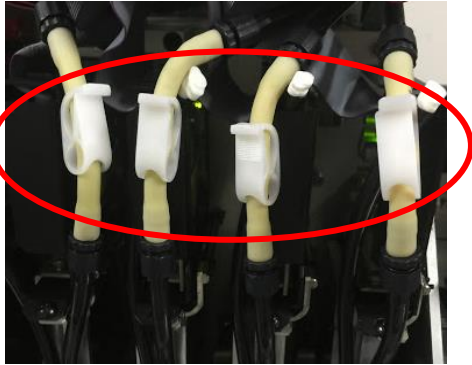
Step 1 Remove thumbscrews and open up the right cover.



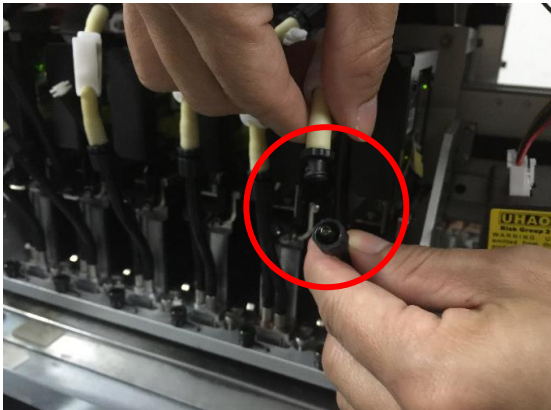
Step 2 Remove the tool carriage cover.



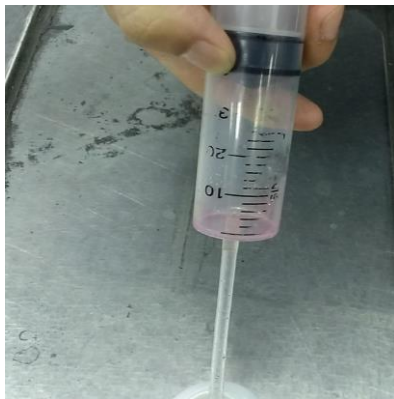
Step3 Press the clip of ink valve to close it and turn off the machine.



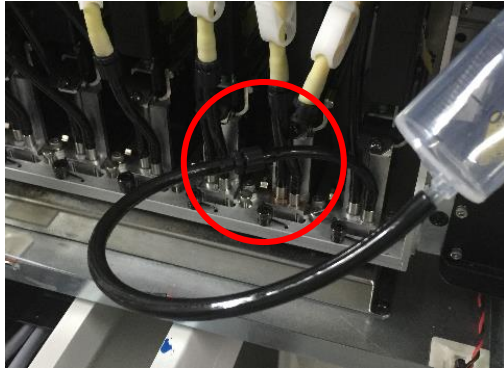
Step4 Switch on the ink tube



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

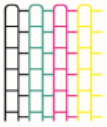
6.3.2 Automatic Basic Cleaning Up Maintenance

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

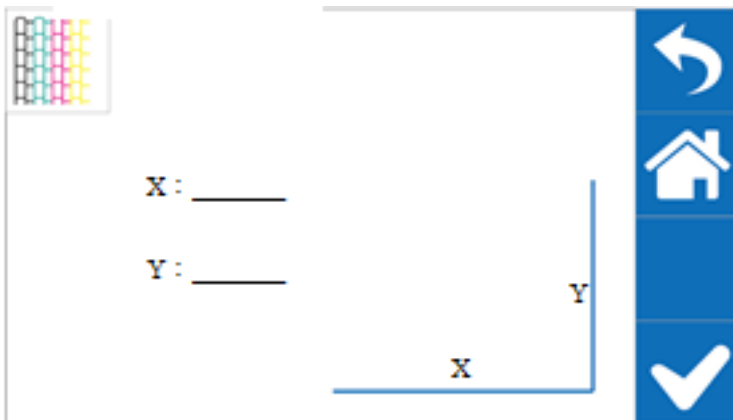


1. Select MENU on the control panel

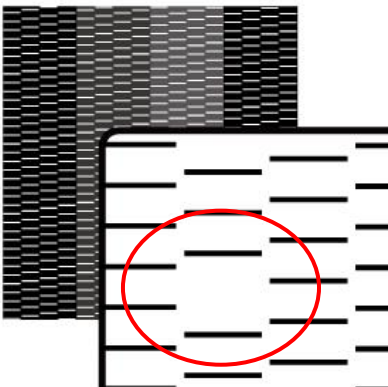


2. Select NOZZLE CHECK

3. Enter X, Y value and press ENTER



Step 2 JV-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

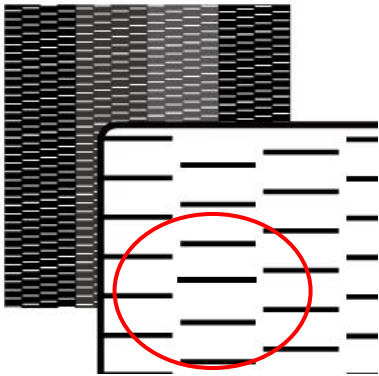


2. Select CLEANING



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

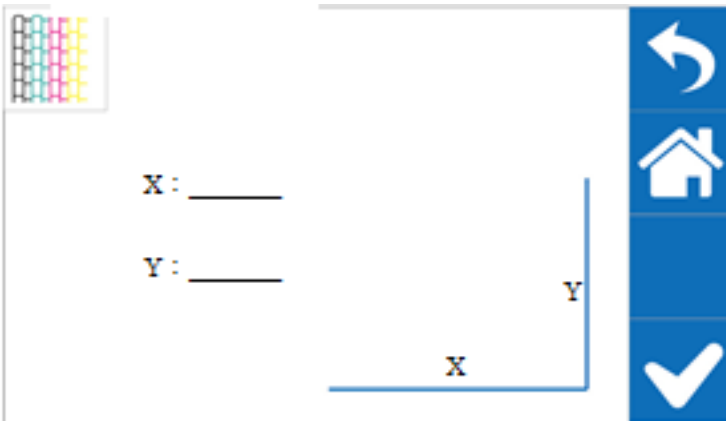


1. Select MENU on the control panel

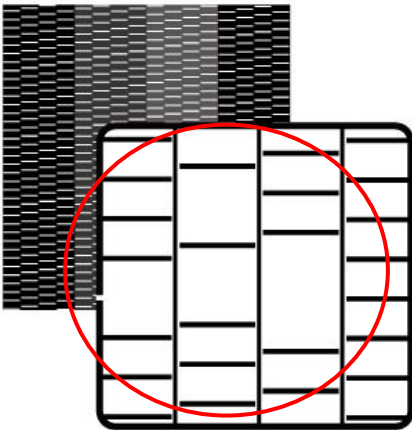


2. Select NOZZLE CHECK

3. Enter X, Y value and press ENTER



Step 2 JV-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



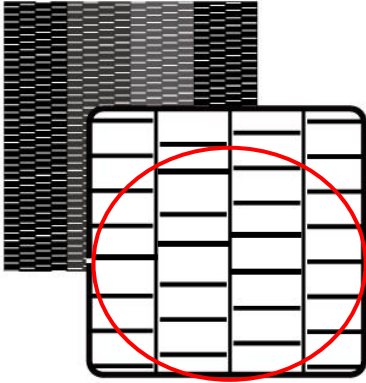
2. Select CLEANING



3. Select POWERFUL, and JV-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.



6.3.4 Manual Maintenance

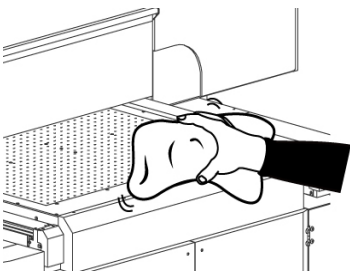
Manually clean up the print head, based on your usage frequency, conduct manual clean up periodically.

Note: Some reminders for manual clean up procedures:

- 1) Before the manual clean up, please remove any media on the JV-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

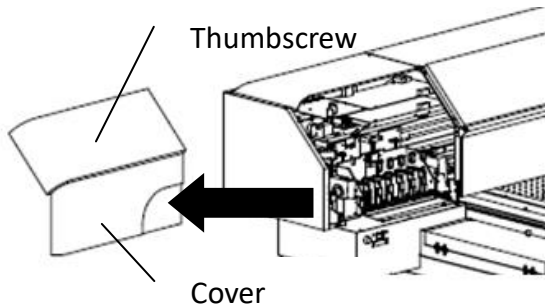



2. Select MANUL CLEANING



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

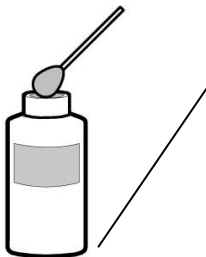
Step 3 Remove thumbscrews and open up the left cover



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.

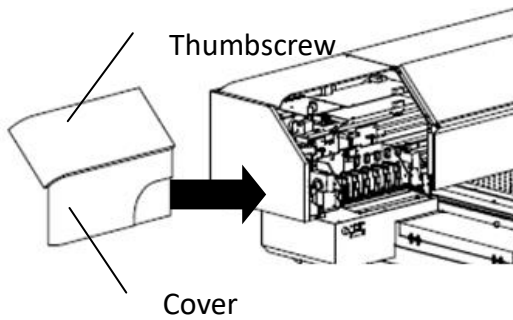
Step 6 Check carefully if there are any residues of ink left on the area underneath the print heads.



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 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

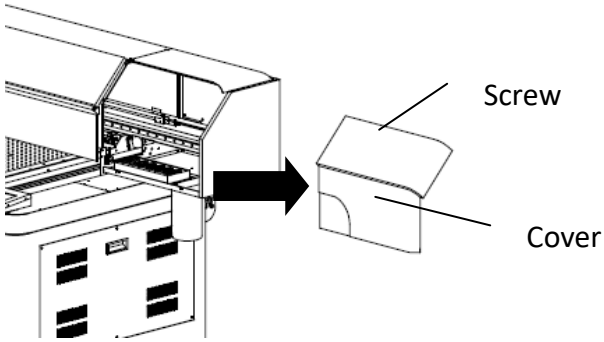


2. Select MAINTENANCE



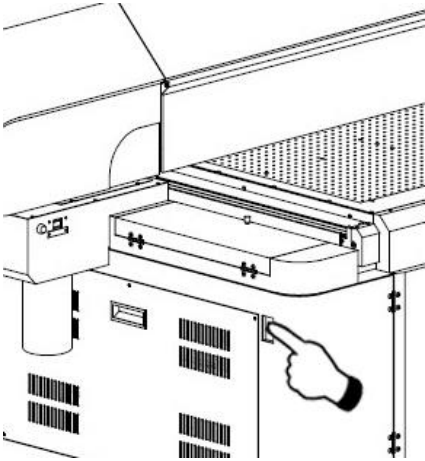
3. Select REPLACE LED LAMP.

Step 2 Remove the thumbscrews and open the right cover.



Step 2 Turn off all ink valves.

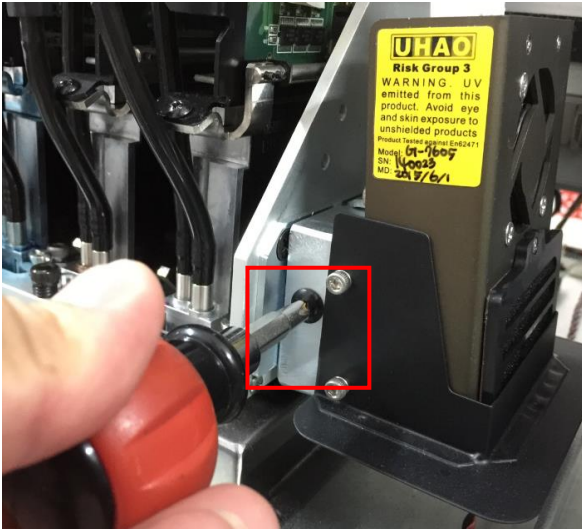
Step 3 Turn off the power and unplug the power cord.



Step 4 Disconnect the Led Lamp wire.



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



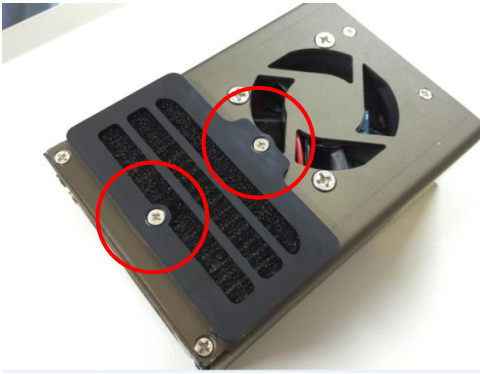
Step 6 Take apart the screws at the side position which is connected with Led lamp set.



Step 7 Take apart the screws (2 pieces).

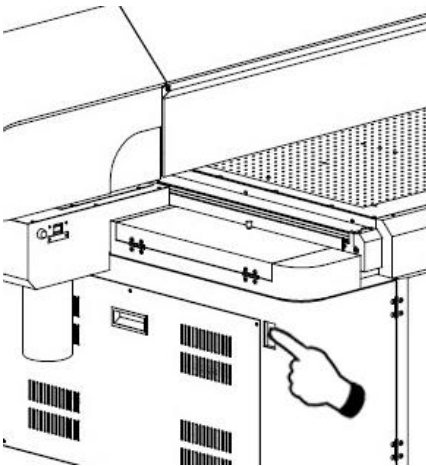


Step 8 Replace a new led lamp filter and fasten the screws.



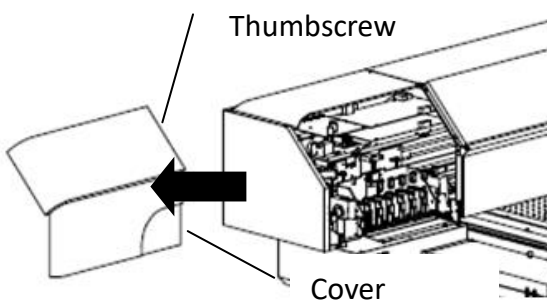
Step 9 Follow the procedures in reverse order from step 8 to step 5 to assemble the Led lamp.

Step 10 Plug in the power cord and restart JV-240UV. The process is done.

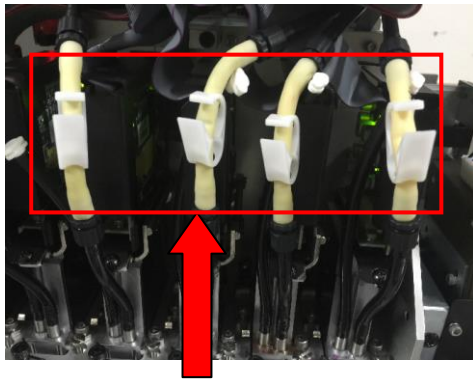


6.5 Ink Drain Away

Step 1 Remove thumbscrews and open the left cover.



Step 2 Turn on all ink valves.



Step 3



1 Select MENU



2 Select MAINTENANC



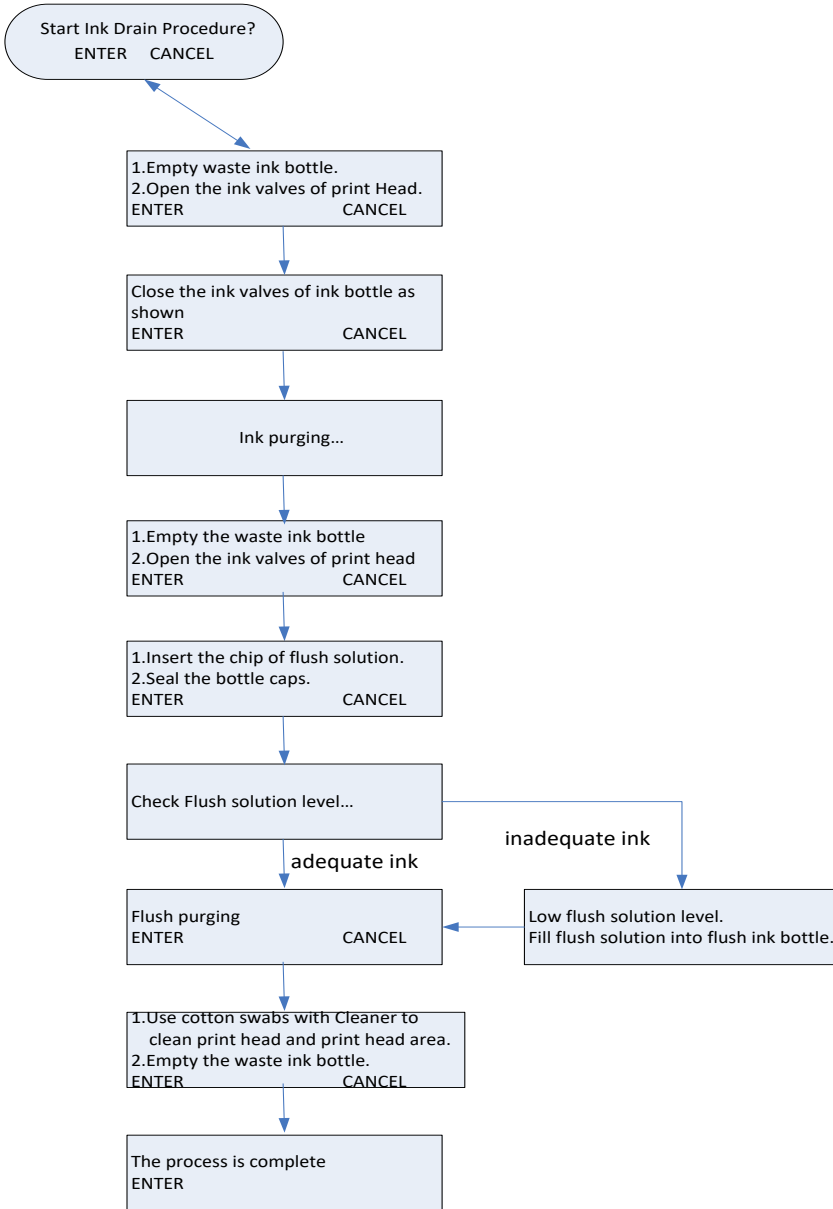
3 Select INK INSTALL/DRAIN



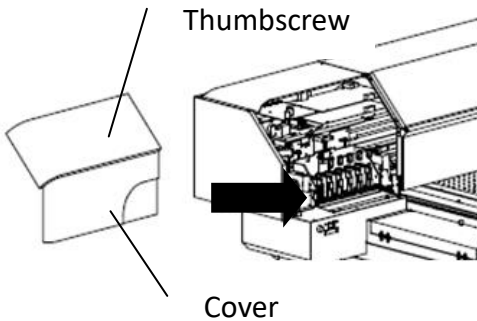
4 Select INK DRAIN AWAY

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.



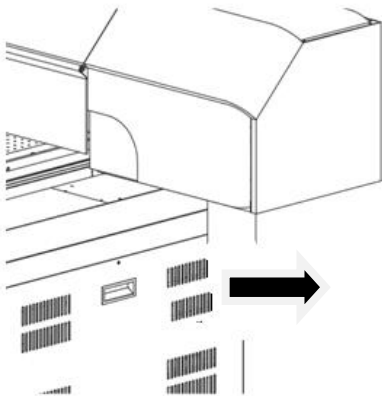
6.6 Reset Pressure Gauge with Atmospheric Pressure

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

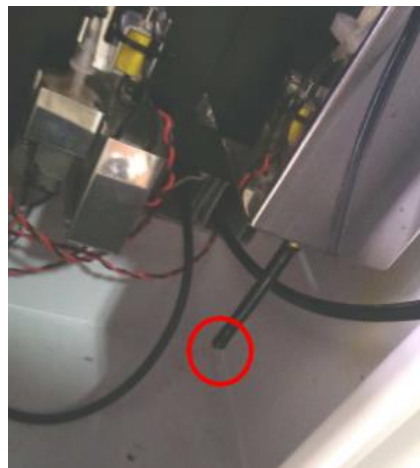
Step 1 Close all tube clip above print heads



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.



(Figure 6-72)

Step 4 Open the cover of pressure gauge.



Step 5 Press ↓ and ↑ buttons at the same and hold for 2 seconds. Release after “ORd” 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 10ml 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

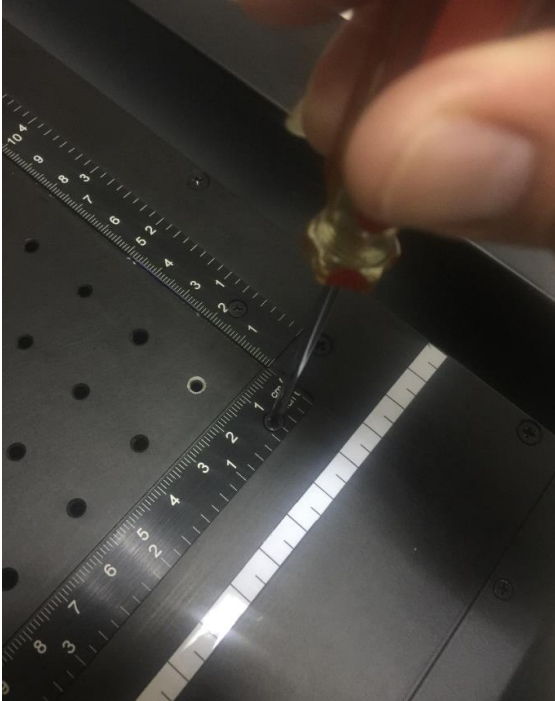
1. Slides and rails must be lubricated before use for the first time and avoid contact with any liquid or solid contaminants.
2. The carriage must move back and forth on one side, while injecting the grease.
3. Users can apply manual lubrication or automatic lubrication to the Miniature linear rail for regular maintenance.
4. There should always be lubricant coated on the surface of the rail.
5. 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 Reference Parameter Settings

The following reference parameter is used on GCC verified materials.

| GCC JV-240UV material parameter table | | | | | | |
|--|-----------------------|-------------------|--------------------|--------------------|------------------|--|
| NO | Material | Print Mode | Print Color | Directional | LED Power | |
| 1 | Chrome paper | Production mode | V | Bi-Directional | 100% | |
| 2 | Matt finish paper | Production mode | V | Bi-Directional | 100% | |
| 3 | Metallic finish paper | Production mode | V | Bi-Directional | 100% | |

Appendix A: JV-240UV Specification

| | | |
|------------------------------------|-----------|--|
| Model | | JV-240UV |
| Printing method | | On-demand Piezo head |
| Printing area (W x L) | | 24 x 15 in. (609 x 380 mm) |
| Max. media size (W x L x H) | Sheet | 24 x 15 in. (609 x 380 mm) |
| | Thickness | Flatbed mode: 11.8 in. (300mm)(standard)/ 6.7in. (170mm)(blower version)With auto feeder: 0.79in. (20mm) |
| | Weight | Less than 15 kg in flatbed mode |
| Media Type | | Acrylic, plastic, laminated, coated substrates, etc. |
| Print head adjustment | | Auto Media Calibration (AMC™) |
| Mark detection | | CCD module |
| Print Speed | | 45 B3 sheet / hr ⁽¹⁾ |
| Varnish Thickness | | 0.04 mm to 0.32 mm ⁽²⁾ |
| Print accuracy | | +/- 0.4mm |
| Ink cartridges | Type | UV curable ink |
| | Capacity | 1 Liter |
| | Colors | Varnish |
| Ink curing unit | | UV LED Lamp |
| Control Panel | | Touch Screen (480 x 272 resolution) |
| Interface | | Ethernet |
| 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°C-30 °C (71.6°F- 86 °F) / (40%-60% humidity) |
| Dimension (W x L x H) | Net | 1,760 x 1,160 x 1,140 mm |

| | | |
|----------|-------|------------------------------|
| | | 69.3 x 46.7 x 44.9 in. |
| | Gross | 2,000 x 1,3000 x 1,360 mm |
| | | 78.7 x 51.2 x 53.5 in. |
| Weight | Net | 262 kg |
| | Gross | 366 kg |
| Optional | | Auto feeder, anti-static bar |

⁽¹⁾ Based on 4 print heads with draft mode. Higher varnish thickness will reduce print speed. Media load time is not included.

⁽²⁾ JV-240UV can achieve up to 320 microns in one print job with GCC recommended media. Repeat the same print job can accumulate the varnish thickness to higher level.

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