

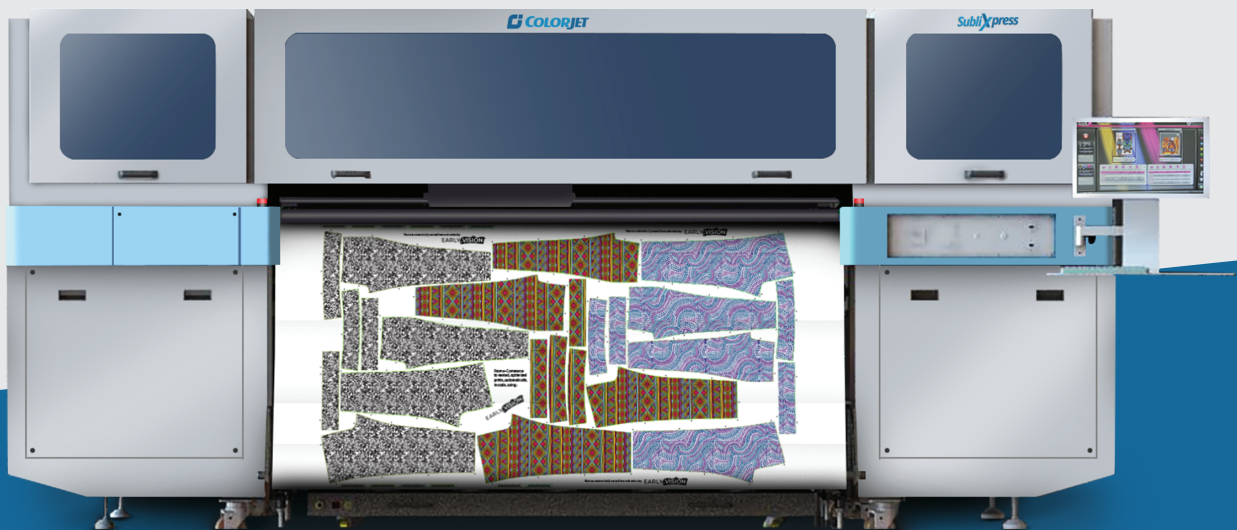


India's largest manufacturer of digital inkjet printers

# SubliXpress

1.6 MTR, HI-SPEED SUBLIMATION PRINTER

## USER MANUAL



## Foreword

This user manual is briefly describing the operational aspects of the **SubliXpress** machine. In this document, the step-wise instructions for handling various aspects of the machine with visual screens are provided for easy and better understanding. It also describes the error messages encountered while working with the machine with appropriate remedial actions required to be taken by the user.

This manual serves as the reference tool which guides their customers how to use or operate the **SubliXpress** machine without anyone else assistance. The information provided in this document ensures its uniqueness and language quality. For safe and proper use of the product, please read this manual carefully and follow all the instructions.

### Disclaimer

The information and instructions provided in this user manual have been checked for accuracy, uniqueness, and reliability. ColorJet group reserves all the rights to modify and revise this manual as per the company requirements without any prior notice.

**“No part of this document shall be reproduced or used by externals without prior permission of the ColorJet group”.**

The reference table is shown in the below table:

Doc Type	Doc Code	Version	Machine Name	Date of Issue
User Manual		1	SubliXpress	

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## 1. About Document

### Purpose

The purpose of this document is to guide and educate the targeted audience about the Printer and its Printer Manager software so that they can easily and effectively handle as well as use it as per their requirements. Additionally, this document also provides step-wise instructions for handling various aspects of the printer and its related software with the help of graphical screens for easy and better understanding. Moreover, the document also describes commonly encountered problems while working with the printer and Printer Manager software with appropriate remedial actions.

### Intended Audience

This document is meant for all the users who want to use the Printer for their printing business. Sometimes, the targeted audience has little knowledge about the printer but in most of the cases, targeted audience is much familiar with the terminologies of printer and printing business. Thus, this document is designed to facilitate both types of users.

## 2. Printer Specifications

Table 1: The System Specifications of the SubliXpress

SubliXpress		
Printing Technology		Drop-on-demand, Piezo Electric Inkjet
No of Print Heads		2 and 4
Print Heads	Types	Industrial Grade Jetting Assemblies
	Resolution	Upto 2400 dpi
	Height Adjustment	Upto 20mm
	Cleaning Method	Pressure Purge and Wiping
	Wetting Control	Piezoelectric actuations
Inks	Type	Dye Sublimation Aqueous based Inks
	No. of Color	4
	Supply	Refillable
Media	Max. Thickness	Upto 20 mm
	Max/Printing Width	Upto 1650 mm
	Roll Diameter	400 mm
Distance Accuracy		Error of less than ±0.3 % of distance traveled, or ±0.3 mm, whichever is greater
Media Drying System		Infrared Heaters
RIP Software		Onyx (ColorJet Edition)
Computer Requirements		<b>Operating System</b> : Windows 10 Professional (64 bits) <b>Processor</b> : i7 Processor Quad Core <b>RAM</b> : 16 GB or greater <b>Hard Disk Drive</b> : HDD/SDD <b>USB Port</b> : USB 3.0/3.1
File Format		JPEG/TIFF/BMP/PDF (RGB/CMYK)
Power Requirements (Print Engine)		AC 220 V, 21 A, 50/60 Hz
Power Requirements(Dryer)		AC 220 V, 15 A, 50/60 Hz
Dimension (Printer Only)		3672 x 1600 x 1828 MM (LxWxH)
Dimension (With Packing)		3875 x 1470 x 2100 MM (Printer), 4180 x 880 x 1340 MM (Feeder and Dryer)
Weight		N.W.1450 Kg, G.W.1600 Kg

### 3. Machine Overview

#### Front View

The **Front View** of the machine is shown as below:

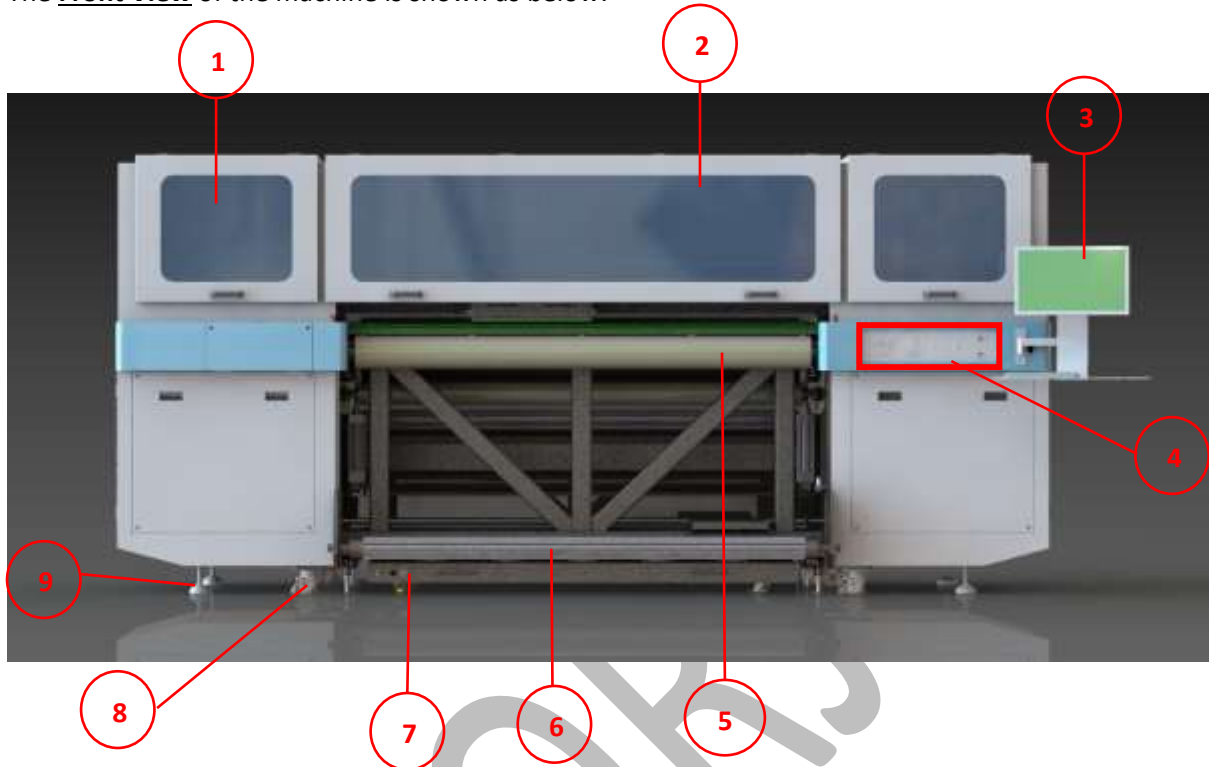


Fig 1: Displaying the Front View of the Machine

Table 2: Different Parts of the Machine

1. Carriage Unit	2. Front Glass Door
3. Console	4. Control Panel
5. Guiding Roller	6. Dancing Roller
7. Heater	8. Wheel
9. Leveler	

The **Control Panel** is shown in the image below:



Fig 2: Displaying the Control Panel

Table 3: Different Parts and their Description

<b>M/C Power</b>	Show whether the machine is ON or OFF
<b>Bed Vacuum</b>	Switch ON/OFF the bed vacuum
<b>Pre-Heater</b>	Set pre-heater temperature

## Back View

The **Back View** of the machine is shown in the image below:

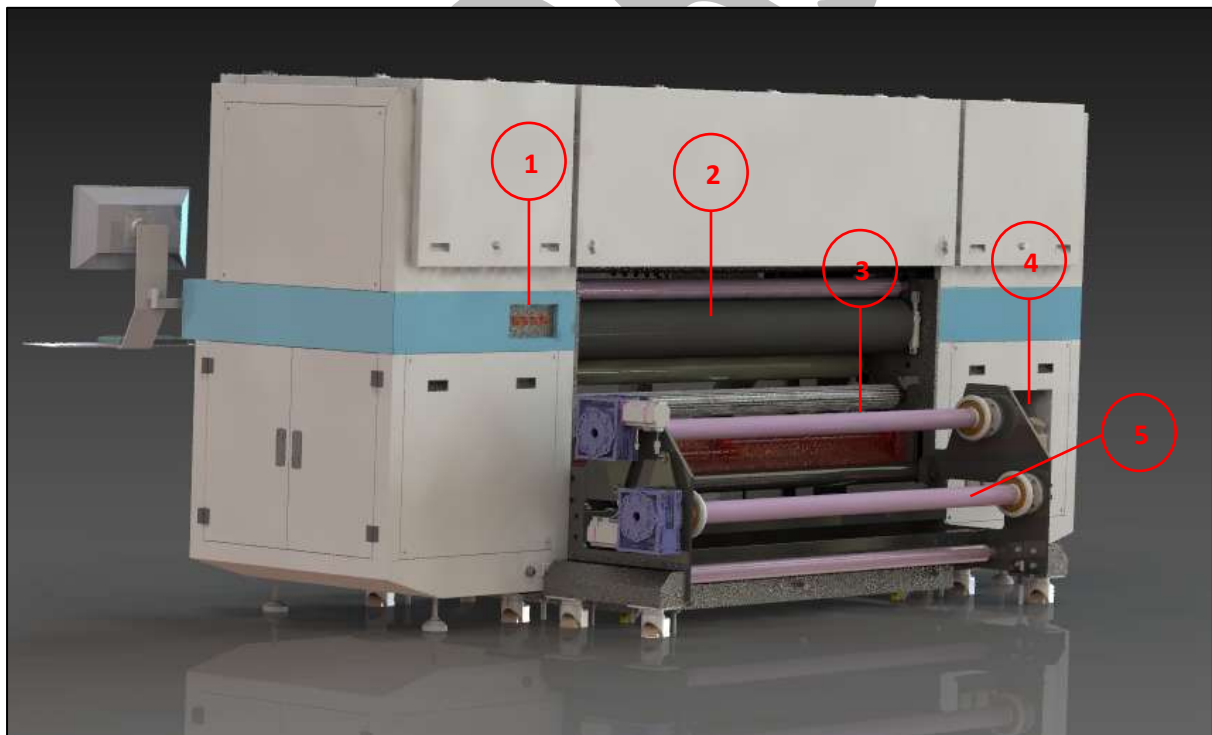


Fig 3: Displaying the Back View of the Machine

## Different Parts of the Machine

1. Supply/Take-up Control Panel	2. Guiding Roller
3. Supply Roller	4. Ink Tanks
5. Take-up Roller	

## 4. Getting Familiar with Printer Manager Interface

The User Interface of the Printer Manager software is shown as below:

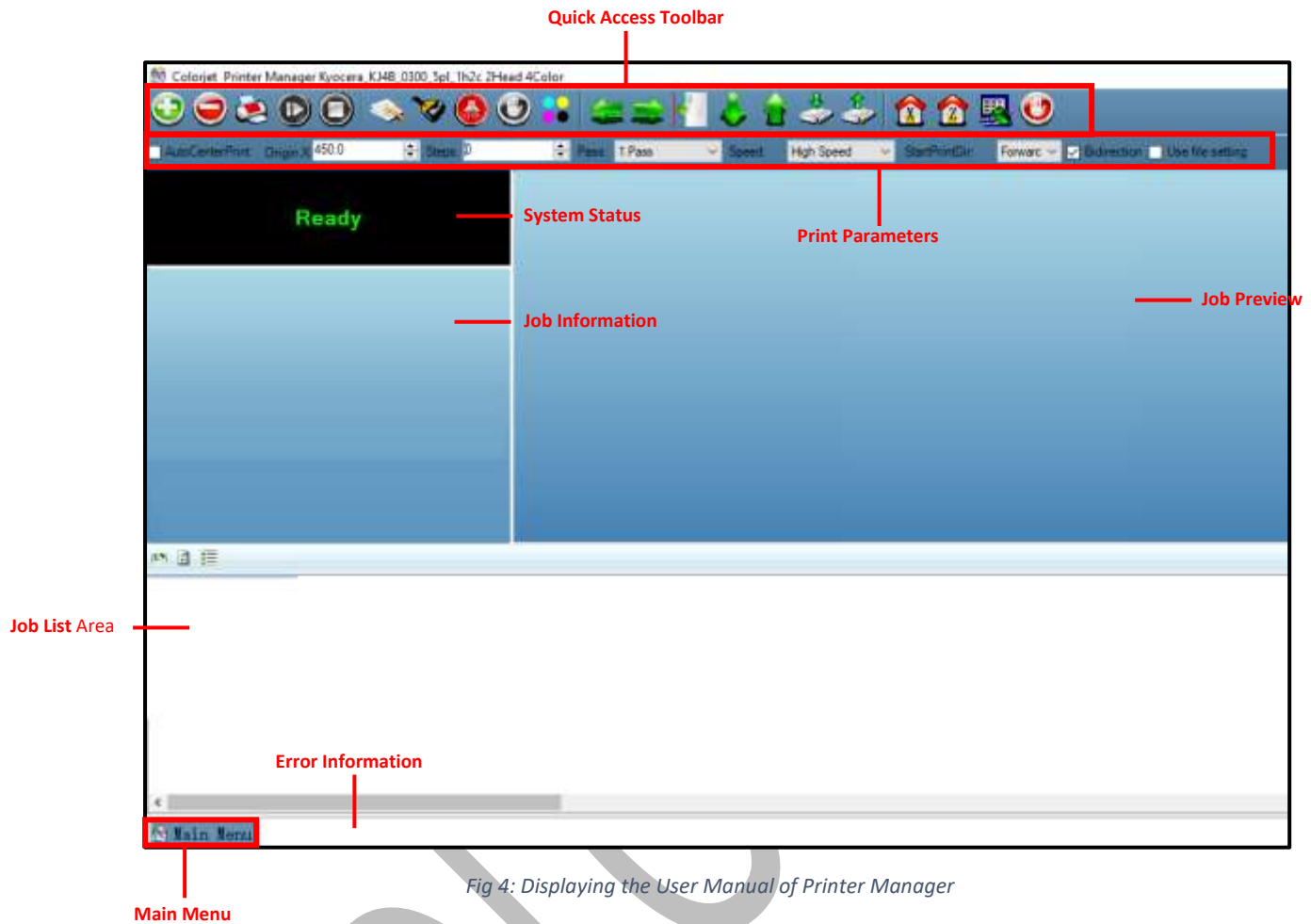


Fig 4: Displaying the User Manual of Printer Manager

The description of the Printer Manager window is given as below:

- **Main Menu:** Consist of several sub menu options viz. Settings, Tools and Help with variety of functions in well organize manner.
- **Quick Access Toolbar:** Display frequently used commands like Add Job, Delete Job, Print Job, Pause or resume, Abort job, Check nozzle, Auto clean, Move left, Move right, Set print origin, Move forward, Move backward, Move carriage to origin, and Edit job are available as buttons on the Quick access toolbar.
- **Job Information:** Display the properties of the selected job like file name and path, Status, Print Size, Print Area, DPI, Pass, and more.
- **Job Preview:** Show the job preview as well as print progress in this area.
- **Job List:** Displays the thumbnail preview of added jobs.
- **Error message:** Displays the system generated error messages.



## 5. Main Menu Options

The **Main Menu** options are shown in the image below:

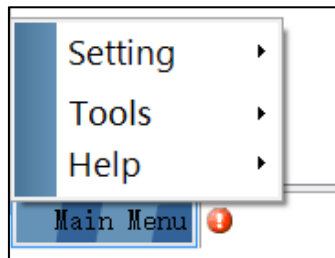


Fig 5: The Main Menu Options

### Setting Menu

The **Setting Menu** options are shown in the image below:

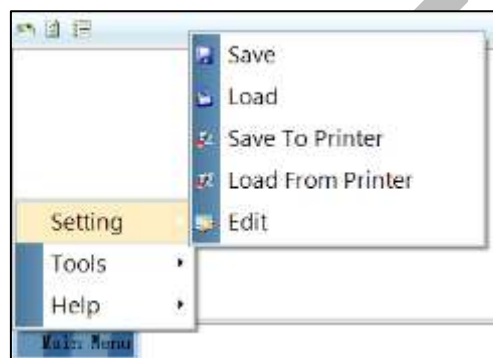
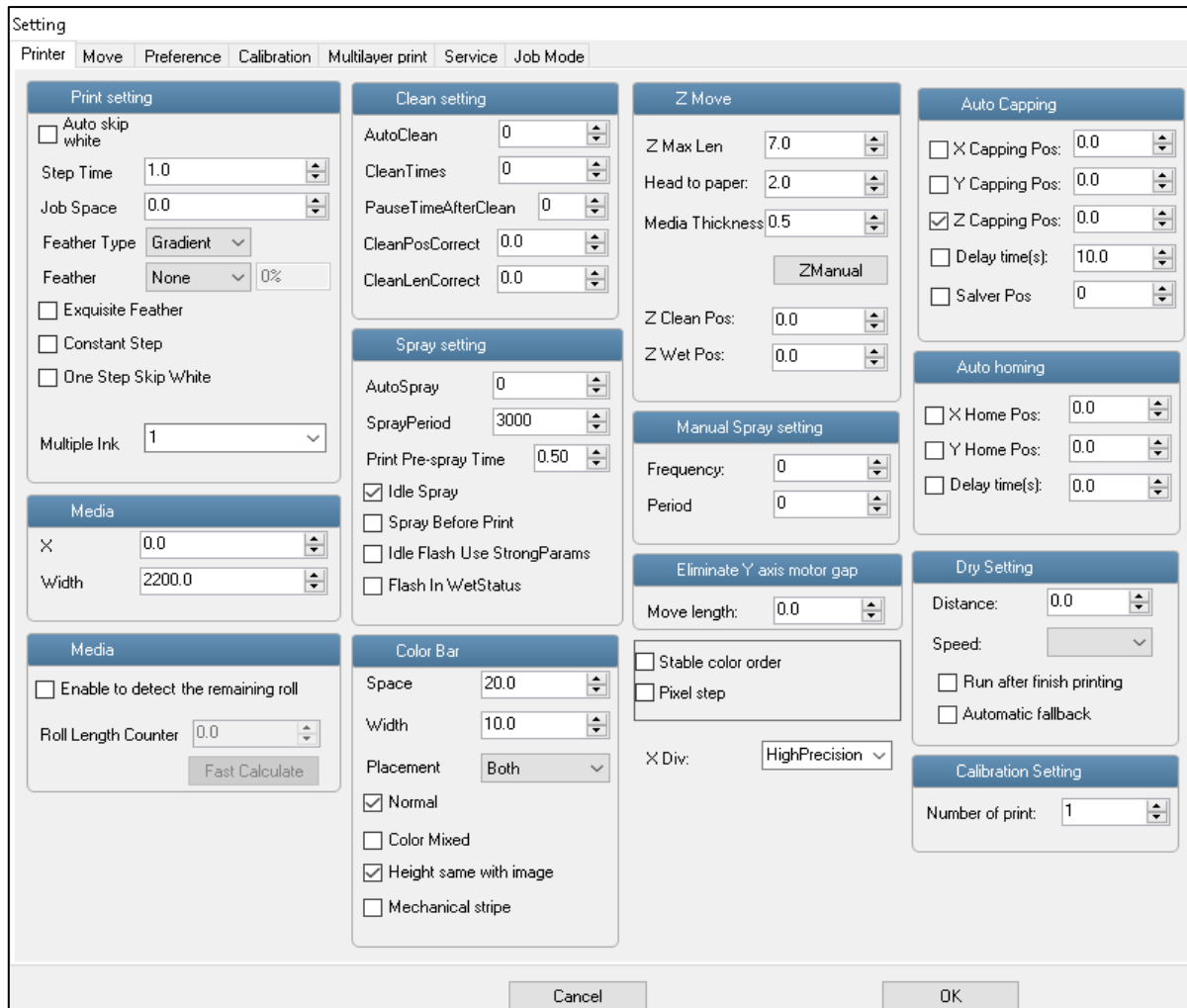


Fig 6: The Setting Menu Options

- **Save:** Using this option, you can save the default settings of the machine. When you save the settings, an .xml file will be created for further references.
- **Load:** Using this option, you can load the previous saved machine's settings.
- **Save To Printer:** When you clicked on this option, all the current settings get saved in the Main Board of the machine.
- **Load From Printer:** When you clicked on this option, the printer settings get saved from Main Board to Printer Manager software.
- **Edit:** Using this option, you can edit the previously made settings of Printer. On clicking the Edit option, the Setting window with Printer, Move, Preference, and Calibration tabs appears on the screen.

The **Setting** window with the **Printer** tab is shown in the below image:



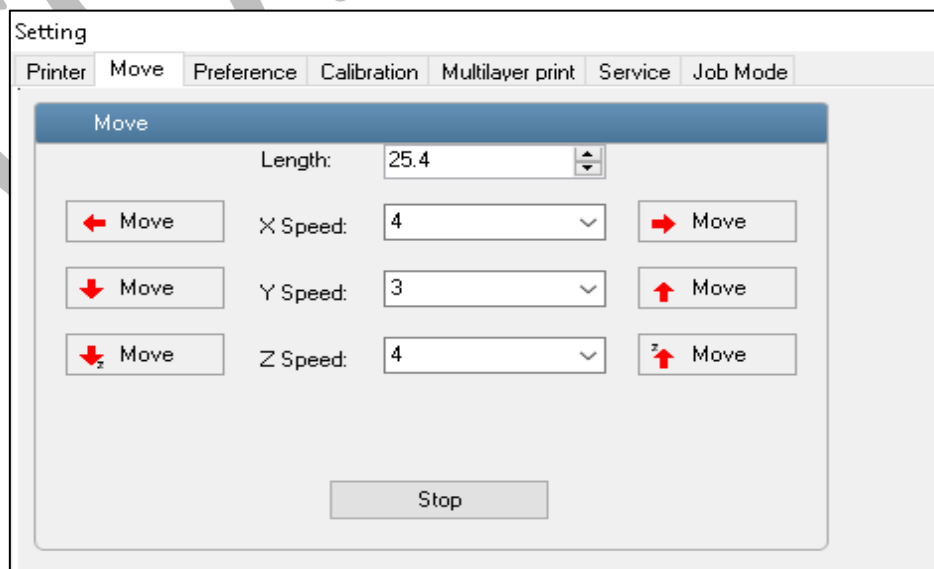
The **Setting** window displays the **Printer** tab. The settings are organized into several sections:

- Print setting:** Includes checkboxes for **Auto skip white**, **Exquisite Feather**, **Constant Step**, and **One Step Skip White**. It also has fields for **Step Time** (1.0), **Job Space** (0.0), **Feather Type** (Gradient), **Feather** (None), **Multiple Ink** (1), and **Media** (X: 0.0, Width: 2200.0).
- Clean setting:** Includes fields for **AutoClean** (0), **CleanTimes** (0), **PauseTimeAfterClean** (0), **CleanPosCorrect** (0.0), and **CleanLenCorrect** (0.0).
- Spray setting:** Includes fields for **AutoSpray** (0), **SprayPeriod** (3000), **Print Pre-spray Time** (0.50), and checkboxes for **Idle Spray**, **Spray Before Print**, **Idle Flash Use StrongParams**, and **Flash In WetStatus**.
- Z Move:** Includes fields for **Z Max Len** (7.0), **Head to paper** (2.0), **Media Thickness** (0.5), **Z Clean Pos** (0.0), and **Z Wet Pos** (0.0). It also has a **Z Manual** button.
- Auto Capping:** Includes checkboxes for **X Capping Pos**, **Y Capping Pos**, **Z Capping Pos**, **Delay time(s)** (10.0), and **Salver Pos** (0).
- Auto homing:** Includes checkboxes for **X Home Pos**, **Y Home Pos**, and **Delay time(s)** (0.0).
- Dry Setting:** Includes fields for **Distance** (0.0), **Speed**, and checkboxes for **Run after finish printing** and **Automatic fallback**.
- Calibration Setting:** Includes a field for **Number of print** (1).
- Manual Spray setting:** Includes fields for **Frequency** (0) and **Period** (0).
- Eliminate Y axis motor gap:** Includes a field for **Move length** (0.0) and checkboxes for **Stable color order** and **Pixel step**.
- Color Bar:** Includes fields for **Space** (20.0), **Width** (10.0), and **Placement** (Both). It also has checkboxes for **Normal**, **Color Mixed**, **Height same with image**, and **Mechanical stripe**.

At the bottom of the window are **Cancel** and **OK** buttons.

Fig 7: Displaying the Setting Window

The **Move** tab is shown in the image below:

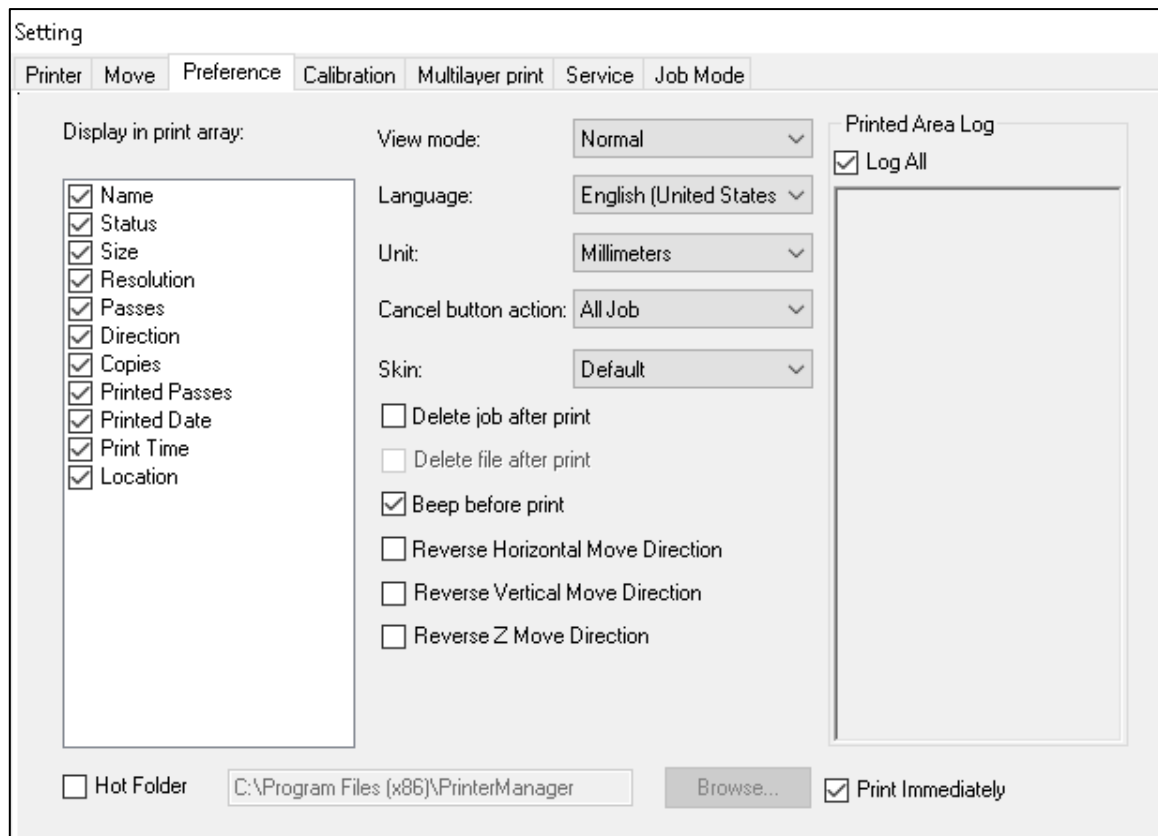


The **Setting** window displays the **Move** tab. The settings are organized into several sections:

- Length:** A field for **Length** (25.4).
- Speeds:** Fields for **X Speed** (4), **Y Speed** (3), and **Z Speed** (4).
- Directional Move Buttons:** A grid of buttons for moving in different directions: **← Move**, **→ Move**, **↓ Move**, **↑ Move**, **↙ Move**, and **↘ Move**.
- Stop Button:** A large **Stop** button at the bottom.

Fig 8: Displaying the Move Tab

The **Preference** Tab is shown in the image below:

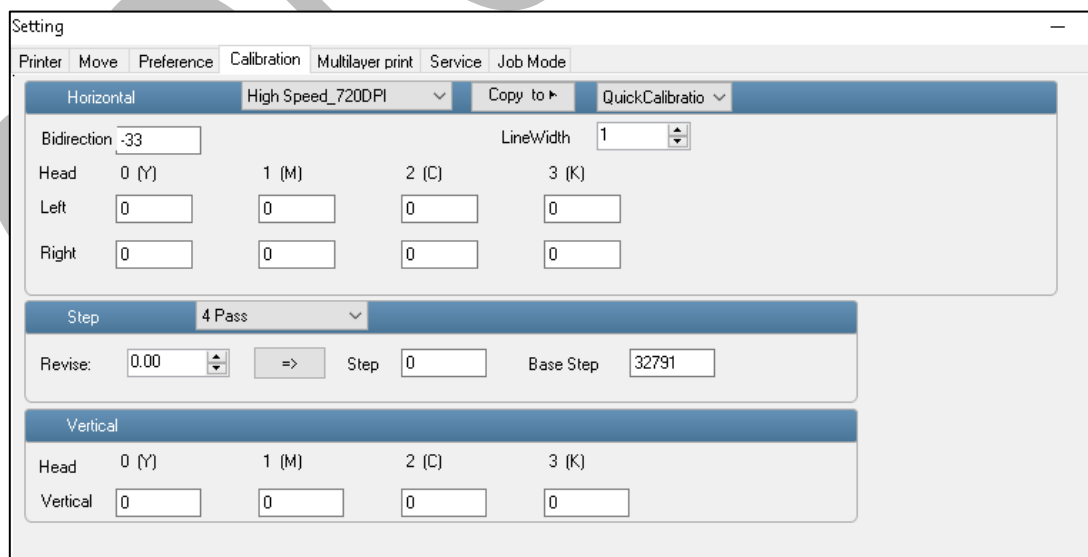


The screenshot shows the 'Preference' tab selected in the 'Setting' window. The tabs at the top are: Printer, Move, Preference, Calibration, Multilayer print, Service, and Job Mode. The 'Preference' tab contains the following settings:

- Display in print array:** A list of checkboxes for Name, Status, Size, Resolution, Passes, Direction, Copies, Printed Passes, Printed Date, Print Time, and Location, all of which are checked.
- View mode:** A dropdown menu set to 'Normal'.
- Language:** A dropdown menu set to 'English (United States)'.
- Unit:** A dropdown menu set to 'Millimeters'.
- Cancel button action:** A dropdown menu set to 'All Job'.
- Skin:** A dropdown menu set to 'Default'.
- Printed Area Log:** A checkbox labeled 'Log All' which is checked.
- Hot Folder:** A checkbox which is unchecked.
- Path:** A text field containing 'C:\Program Files (x86)\PrinterManager' with a 'Browse...' button next to it.
- Print Immediately:** A checkbox which is checked.
- Other options:** Checkboxes for 'Delete job after print', 'Delete file after print', 'Beep before print', 'Reverse Horizontal Move Direction', 'Reverse Vertical Move Direction', and 'Reverse Z Move Direction'.

Fig 9: Displaying the Preference Tab

The **Calibration** tab is shown in the image below:



The screenshot shows the 'Calibration' tab selected in the 'Setting' window. The tabs at the top are: Printer, Move, Preference, Calibration, Multilayer print, Service, and Job Mode. The 'Calibration' tab contains the following settings:

- Horizontal:** A section with a dropdown menu set to 'High Speed\_720DPI', a 'Copy to' button, and a 'QuickCalibration' dropdown menu.
- Bidirection:** A text field set to '-33'.
- LineWidth:** A text field set to '1'.
- Head:** A table with columns for '0 (Y)', '1 (M)', '2 (C)', and '3 (K)'. The 'Left' row has values 0, 0, 0, 0. The 'Right' row has values 0, 0, 0, 0.
- Step:** A dropdown menu set to '4 Pass'.
- Revise:** A text field set to '0.00' with a '=>' button next to it.
- Step:** A text field set to '0'.
- Base Step:** A text field set to '32791'.
- Vertical:** A section with a table similar to the 'Horizontal' section. The 'Vertical' row has values 0, 0, 0, 0.

Fig 10: Displaying the Calibration Wizard

The **Multilayer print** tab is shown in the image below:

The screenshot shows the 'Setting' window with the 'Multilayer print' tab selected. The window has a tabbed interface with 'Printer', 'Move', 'Preference', 'Calibration', 'Multilayer print', 'Service', and 'Job Mode'. The 'Multilayer print' tab contains the following settings:

- White-ink** section:
  - Layer Num: 1 (dropdown)
  - Layer 1: Color (dropdown)
- Print Direction** section:
  - ☒ Mirror Print
  - ☐ Reverse Print
- Multiple Ink: 1 (dropdown)
- ☐ Print one layer at a time

Fig 11: Displaying the Multilayer print

The **Service** tab is shown in the image below:

The screenshot shows the 'Setting' window with the 'Service' tab selected. The window has a tabbed interface with 'Printer', 'Move', 'Preference', 'Calibration', 'Multilayer print', 'Service', and 'Job Mode'. The 'Service' tab contains the following settings:

- Printing Color:**
  - ☒ Yellow
  - ☒ Magenta
  - ☒ Cyan
  - ☒ Black
- Base Color: Magenta (dropdown)
- 2BitMode: Large Dot (dropdown)

Fig 12: Displaying the Service Tab

## Tools Menu

The **Tools Menu** options are shown in the image below:

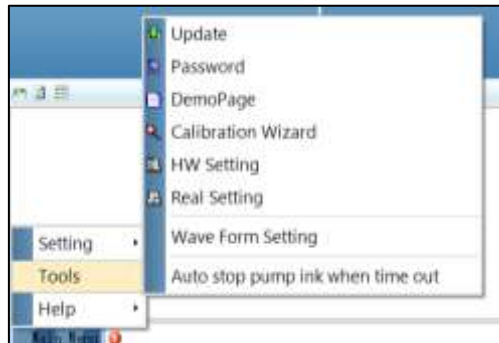


Fig 13: The Tools Menu Option

- **Update:** This option enables to apply latest changes and updates in the machine. This option supports .dat file format.
- **Password:** This option enables to feed the time and language passwords of the printer.
- **DemoPage:** This option displays the bi-direction check output to improve the bi-direction printing capability.
- **Calibration Wizard:** Using this option, you can perform different types of calibration viz. Angle Check, Vertical Check, Nozzle Check, and more. For more details, please read the “**Calibration Wizard**” section carefully.
- **HW Setting:** This option enables to select the encoder type of the printer as per the compatibility either linear or servo.
- **Real Setting:** This option enables to check and reset the temperature as well as voltage of each Print Head.
- **Wave Form Setting:** This option helps in controlling and setting the wave form of the printer with respect to ink, Print Head type, and speed.
- **Auto stop pump ink when time out:** Enable or disable the pump automatically when time out occurs.

## Help Menu

The **Help Menu** is shown in the image below:

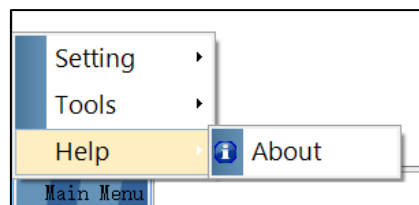


Fig 14: The Help Menu Option

- **About:** Enable to view the details about Printer Manager software viz. software version and copyrights.

## 6. Getting Ready for Printing

### Switch ON Procedure

Machine must be ON. In any emergency situation, machine needs to shut down, then operator has to follow the below mentioned steps to switch ON it:

**Step 1:** Check the Waste Bottle

**Step 2:** Check Ink Level

**Step 3:** Maintain the room temperature.

**Step 4:** Switch ON the printer from the main power or board.

**Step 5:** Load the media by following all the steps mentioned in the “Loading Media” section.

**Step 6:** Finally, perform purging and then, nozzle test.

Now, the printer is ready for printing.

### Loading Media

Follow these steps to load media:

**Step 1:** Unwind the media roll and insert into the supply roller.

**Step 2:** Pass the media through dancing roller and guiding rollers (Refer to Fig 15).

**Step 3:** Pull out enough media from the supply roller to the print bed (Roller no 5 in Fig 15).

**Step 4:** After this, pass the media through guiding rollers and dancing. Finally, paste it on the take up roller, as shown in the image below:

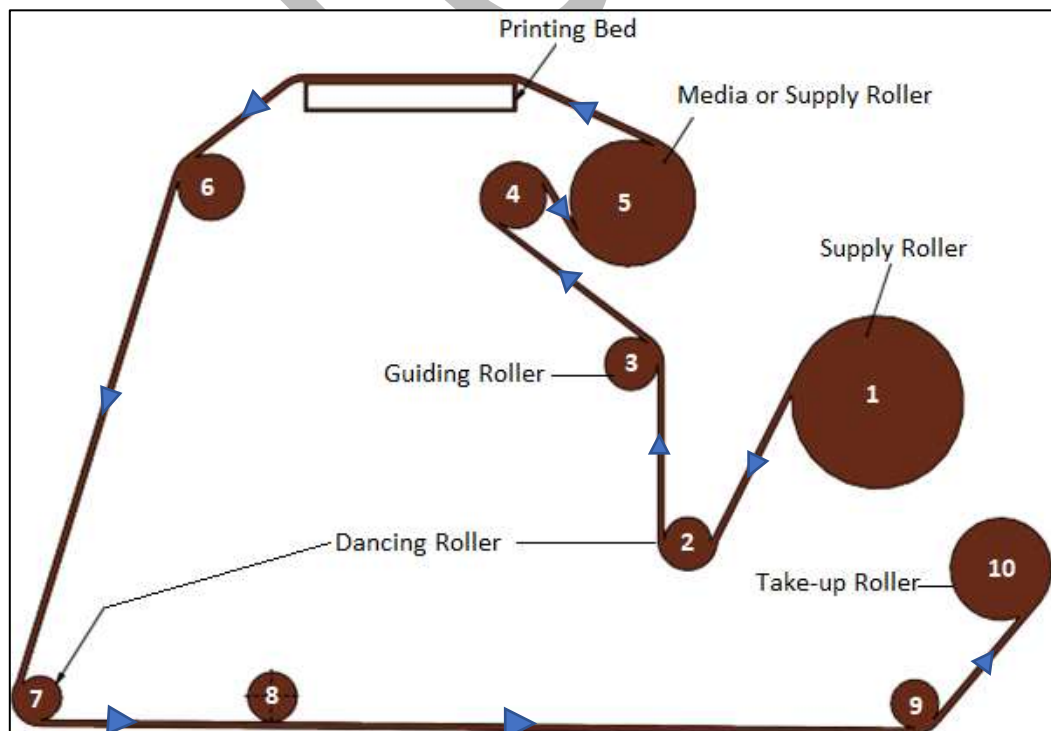
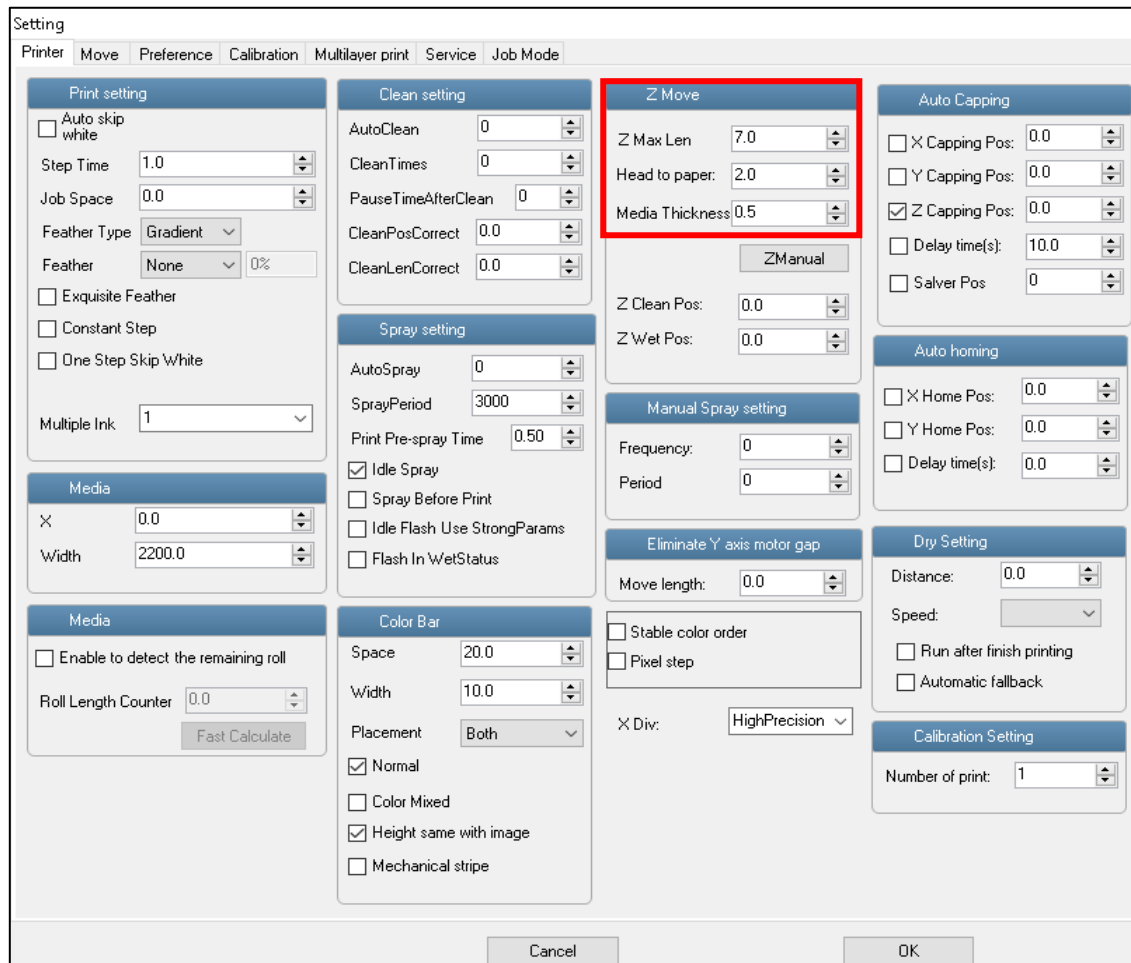


Fig 15: Showing the Media Path

## Setting Z Height

Using the setting window, user can set Z height using the Z Move section, as shown below:



The screenshot shows the 'Setting' window with the 'Z Move' section highlighted. The 'Z Move' section includes the following settings:

- Z Max Len: 7.0
- Head to paper: 2.0
- Media Thickness: 0.5
- Z Manual button
- Z Clean Pos: 0.0
- Z Wet Pos: 0.0

Other sections visible in the window include:

- Print setting:** Auto skip white, Step Time, Job Space, Feather Type, Feather, Exquisite Feather, Constant Step, One Step Skip White, Multiple Ink.
- Clean setting:** AutoClean, CleanTimes, PauseTimeAfterClean, CleanPosCorrect, CleanLenCorrect.
- Spray setting:** AutoSpray, SprayPeriod, Print Pre-spray Time, Idle Spray, Spray Before Print, Idle Flash Use StrongParams, Flash In WetStatus.
- Media:** X, Width, Roll Length Counter, Fast Calculate.
- Color Bar:** Space, Width, Placement, Normal, Color Mixed, Height same with image, Mechanical stripe.
- Auto Capping:** X Capping Pos, Y Capping Pos, Z Capping Pos, Delay time(s), Salver Pos.
- Auto homing:** X Home Pos, Y Home Pos, Delay time(s).
- Dry Setting:** Distance, Speed, Run after finish printing, Automatic fallback.
- Calibration Setting:** Number of print.

Fig 16: Setting the Z Height

Description of different options of the Z Move section:

- **Z Max Len:** Refers to the Z maximum height.
- **Head to Paper:** Refers to the height from media to head plate.
- **Media Thickness:** Refers to the media thickness.

## Ink Supply System and Ink Filling

The following are the features of Ink System:

- Main ink tanks are equipped with ink level sensor which beeps once the ink level goes down.
- Float sensors are equipped in the sub ink tanks to control the supply of inks in tanks.
- Overflow in sub ink tanks will pause the supply of inks and also software alerts the same.

The **Ink Supply System** is explained through the below image:

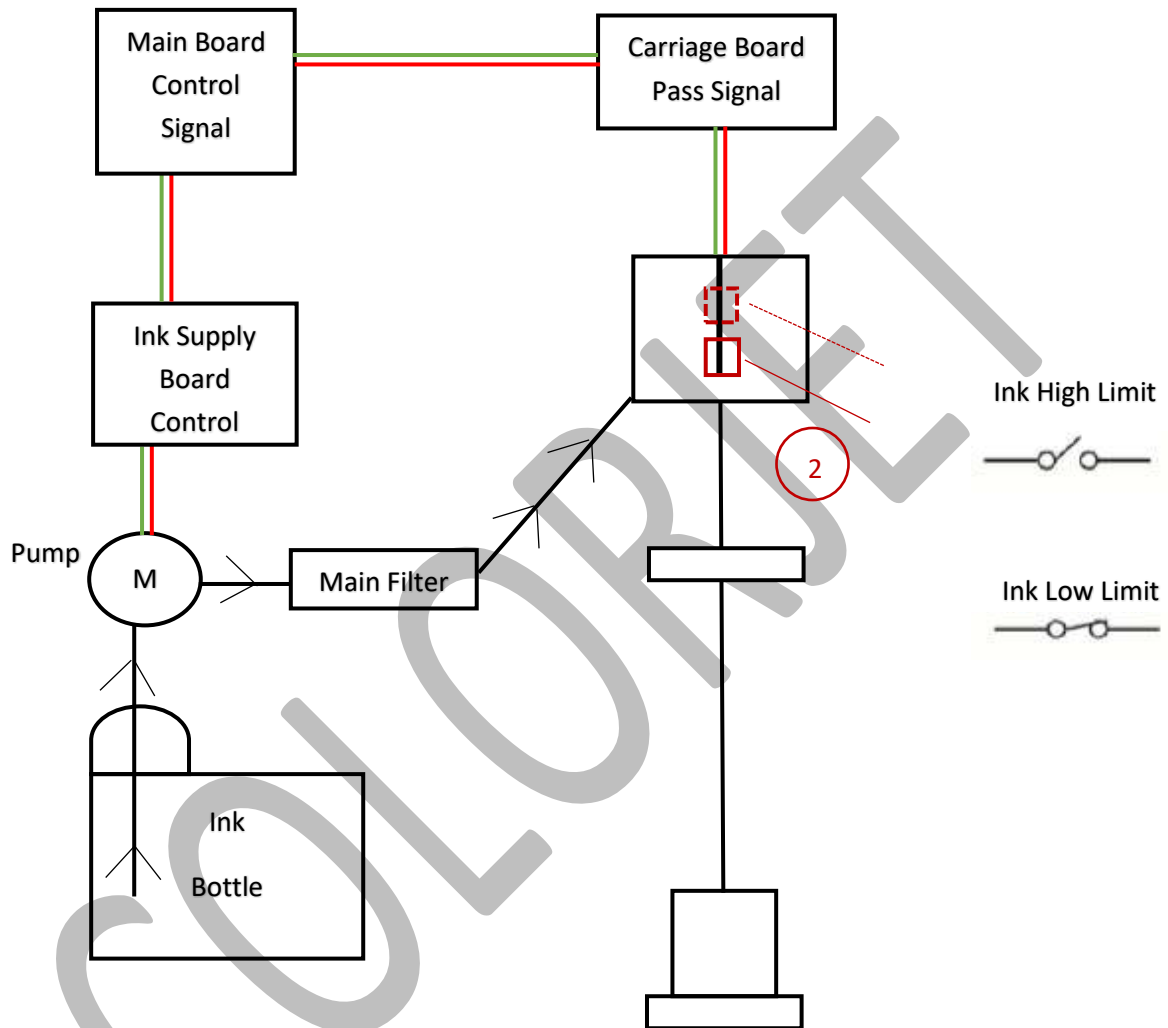


Fig 17: The Ink Supply System



### Ink Filling

Fill recommended ink in each main ink tank as per the color stickers, as shown below:



*Fig 18: The Main Ink Tanks*

**Note:** Main tanks are equipped with ink level sensor which beeps once the ink level goes down.

Now, pumps start working and ink start moving in the ink pipes. The ink sub tanks are shown in the below image:



*Fig 19: The Sub Ink Tanks with Heaters*

## 7. Printing

### Nozzle Testing

Before starting with calibration tests, the Print Heads should be checked for blockage. Each Print Head has multiple tiny nozzles through which ink drops emerge and get deposited onto the print medium. Any nozzle blockage can compromise the print quality by forming discolored horizontal streaks or bands.

The good and bad nozzle test results are shown in the image below:



Fig 20: Displaying the Good and Bad Nozzle Test Result

To check the nozzle, click on the **Check Nozzle** icon available on the **Quick Access Toolbar**, as shown below:



Fig 21: Selecting the Check Nozzle Button

In case of blockages, refer to the Head Cleaning section to perform head cleaning before proceeding to other calibration steps.

## Print Head Calibration

The Print Head calibration is categorized into the following types:

- **Mechanical Check:** Includes Vertical Check and Angle Check
- **Software Calibration:** Includes Horizontal Calibration and Step Calibration

Let's discuss the above-mentioned checks and calibration one by one in details.

**Note:** Mechanical checks are performed by service engineer, thus these checks and their description are not included in user manual.

### Opening the Calibration Wizard

Print Heads should be calibrated to ensure good printing quality. To open the **Calibration Wizard**, click on the **Main Menu**→**Tools**→**Calibration Wizard** path, as shown below:

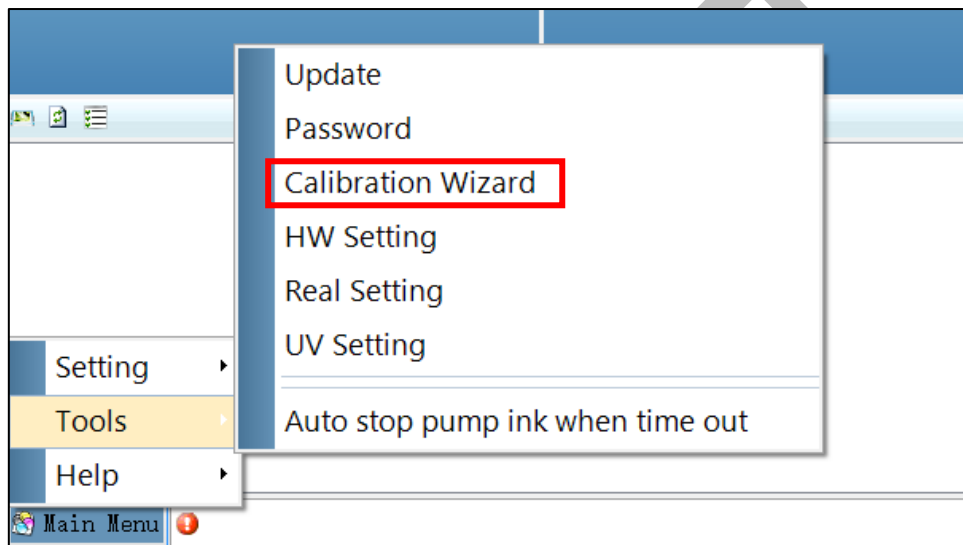


Fig 22: Selecting the Calibration Wizard Option

This should bring up the Calibration Wizard which is shown below:

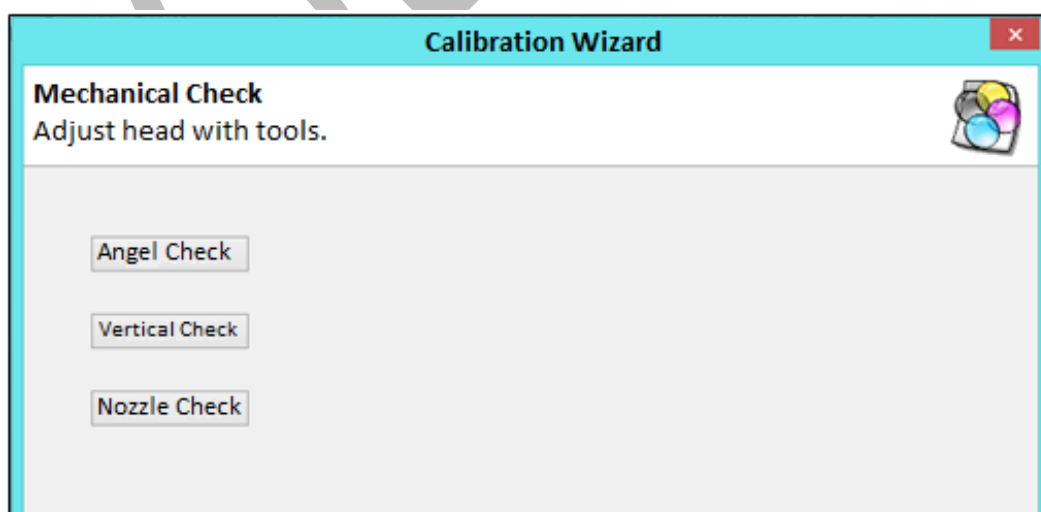


Fig 23: Displaying the Calibration Wizard

When you press the **Next** button, we redirect to the software calibration screen, as shown in the below images:

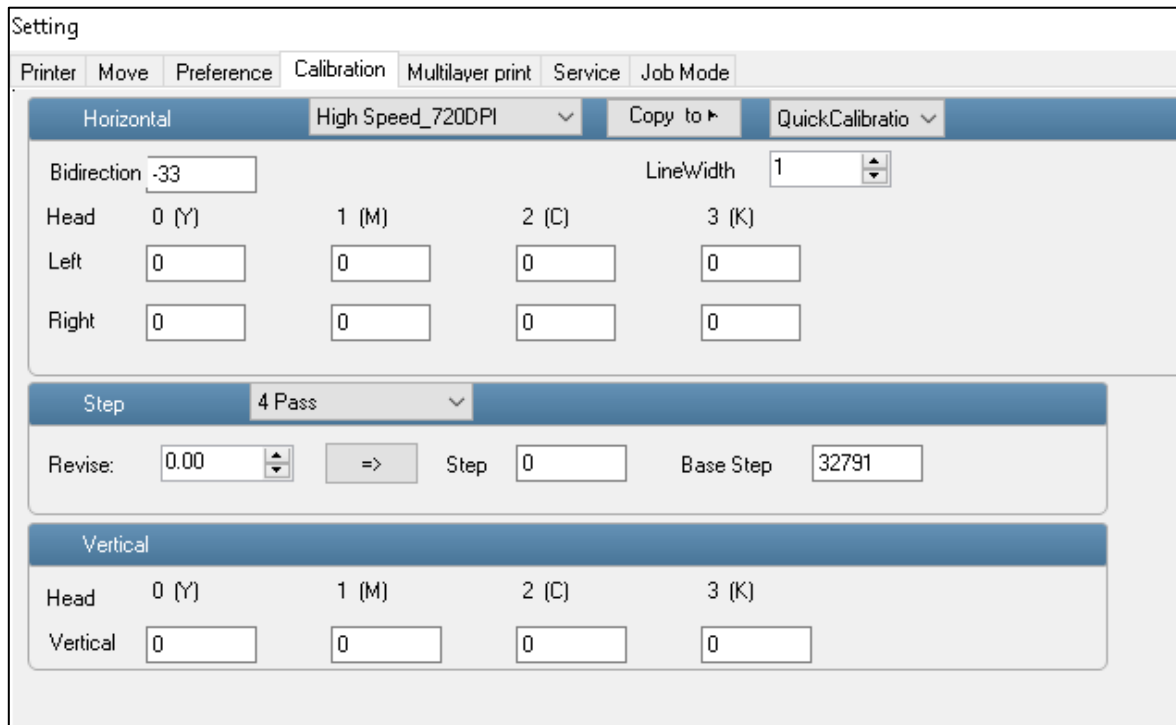


Fig 24: Displaying the Bidirectional Check in Calibration Wizard

Let's discuss each test and their result one by one in upcoming section. Mechanical checks are performed by Service Engineer; thus, these checks are not discussed in the user manual.

### Horizontal Calibration

Horizontal Calibration checks the bi-directional, left, and right alignment and corrects it by adding or subtracting the correction value from the default set value. It has to be performed for each print mode, whichever is required. Let's discuss each type of horizontal test one by one.

### Bi-direction Calibration

Bi-directional calibration is performed to achieve dot placement accuracy between the "Left to Right" and "Right to Left" print sweeps. If the bi-direction offset value is correct, the Left to Right test print would align accurately with the Right to Left test print at "0" position. In case of error in the Bi-Direction offset, the Left to Right and Right to Left print would align at some other point on the scale.

The **Bi-direction Calibration** result is shown in the image below:

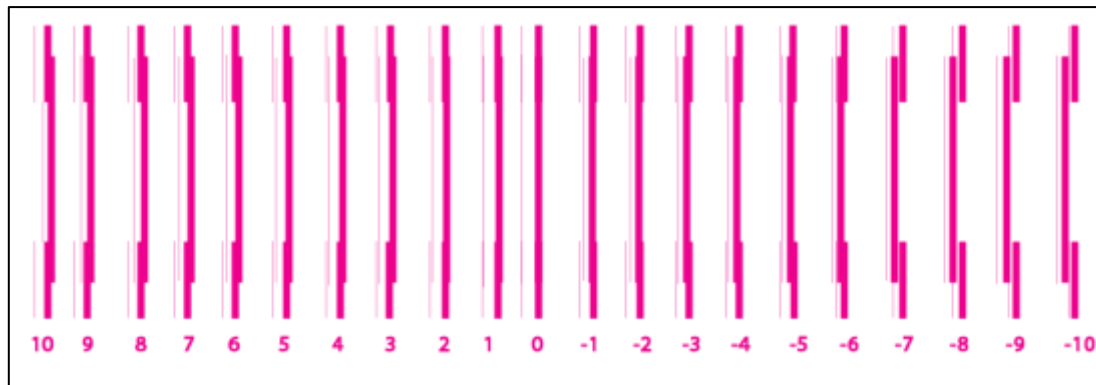


Fig 25: The Bi-Direction Calibration Output

Based on the above figure, you can notice that the Bi-direction Calibration is good at “0” position. The correction value is “0” which means you need not to correct the bi-direction value. Sometimes, the correction value can either positive or negative. If the correction value is positive, then you need to add it in the current bi-direction adjust value or subtract the same, if negative.

### **Left to Right and Right to Left Calibrations**

Left to Right Calibration is performed to achieve dot placement accuracy of all colors (Black, Cyan, and Yellow) with respect to Magenta during the carriage’s left to right print sweep. Similarly, Right to Left calibration is used to achieve dot placement accuracy during the carriage’s right to left sweep.

When the position of the test head is correct, then it would align perfectly with the reference color at “0” position, indicating that the error position is “0”. If the test Print Head’s position saved in the system is inaccurate then it would not align at “0” position, but at some other point on the calibration scale. The position at which the test head aligns perfectly with the reference head, indicates the error in position.

The **Left Calibration** Result is shown in the image below:

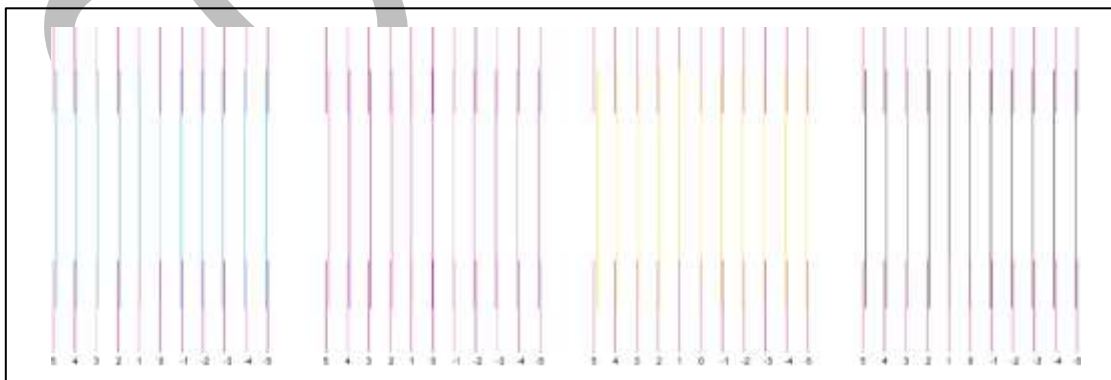


Fig 26: The Horizontal Left Check

The **Right Calibration** Result is shown in the image below:

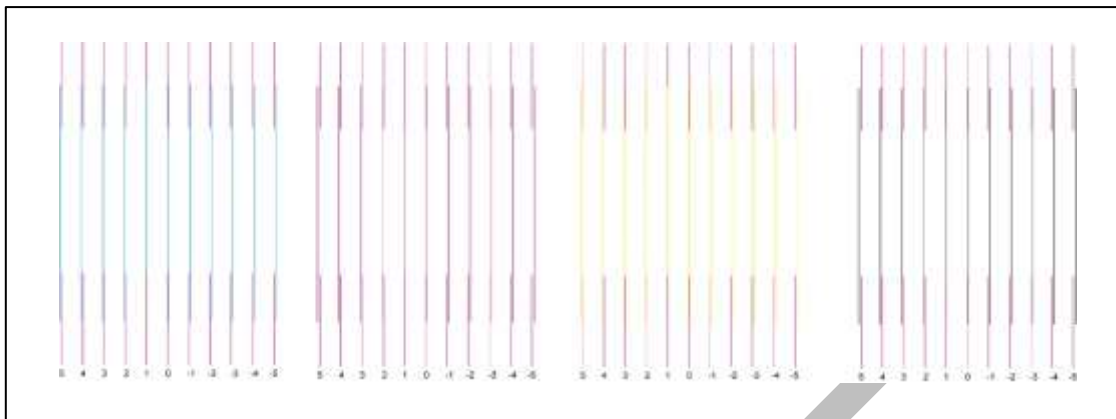


Fig 27: The Horizontal Right Check

### Step Calibration

The printer step calibration is performed to verify and correct media feeding. The printer prints a complete image pass by pass. A pass is the horizontal carriage sweep perpendicular to the media movement. After each pass the printer moves the media forward for the next pass. This movement of media is called a step. The distance by which the media is moved is called the step size and it has to be accurate. Step size errors cause horizontal white or dark bands to appear in the print output. Step size needs to be adjusted for multiple factors like thickness and roughness of the print media etc. Step calibration should be used to fine adjust the step size and has to be done for each desired pass.

The **Step Calibration** result image is shown as below:

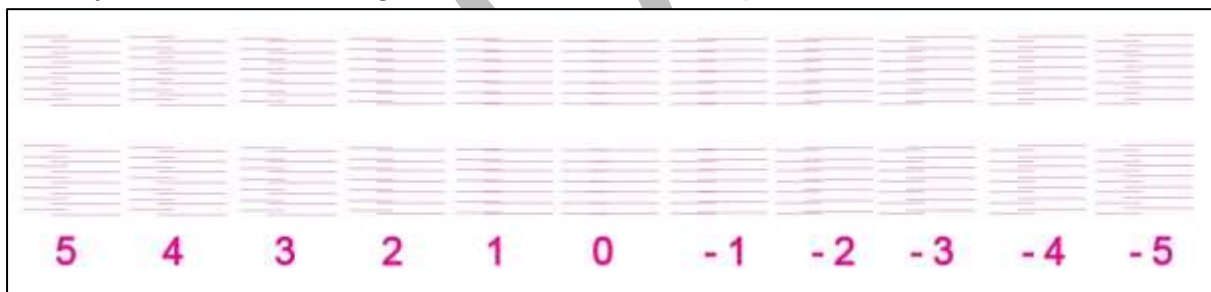


Fig 28: Displaying the Output of the Step Calibration

From the above figure, you get the accurate step adjust correction value. The correction value is either positive or negative. If the value is positive, then add it in the current step adjust value for the Print Head calibration. On the other hand, if the value is negative, then subtract the value from the current step adjust value. From the above, you can conclude that the pattern is corrected at "0" position.

The **Step Calibration** and its parameters are shown in the image below:

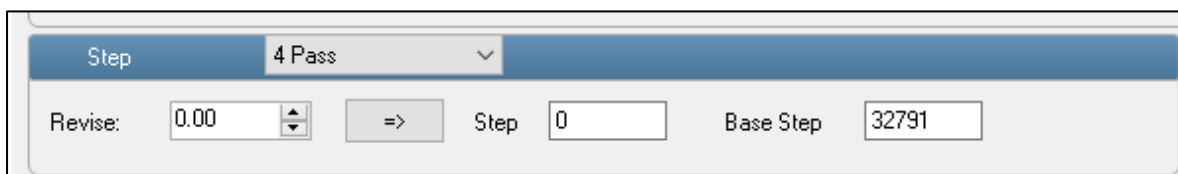


Fig 29: The Step Calibration Parameters

Follow these steps to perform step calibration:

**Step 1:** Select the desired pass from the list and click on the **Print** button (Refer to Fig 29).

**Step 2:** Feed the correction value in the **Revise** field (the correction value up to two decimal places) (Refer to Fig 29).

**Step 3:** Click on the => icon (Refer to Fig 29) on the Step Calibration window. The correction value result will be reflected in the **Step** field (Refer to Fig 29). The same step value will also be displayed in the **Steps** field on the **Quick Access Toolbar**.

## Setting Print Origin

Print origin sets the print starting point with the left limit switch as the reference point. It can be set by two ways; moving and positioning the carriage and typing the offset value directly in the given field.

Follow these steps to change the print origin:

**Step 1:** Move the carriage at the position from where you want to start the printing by clicking on the left and right buttons on the **Quick Access Toolbar**, as shown below:



Fig 30: Adjusting the Carriage Position

**Step 2:** After positioning the carriage, click on the **Set print origin** icon on the **Quick Access Toolbar**, as shown below:



Fig 31: Selecting the Set Print Origin Option

On clicking the **Set print origin** icon, the current position of the carriage gets updated in the **Origin X** text box, as shown below:



Fig 32: Displaying the Origin Value

Now, the printing origin gets set. Additionally, you can also enter the print origin value manually in the Origin X field under the Print Parameter section.

## Setting Print Parameters

Using the Printer Manager, you can manually change print preferences as per the printing requirements such as print origin, printing speed, no of steps, and more as shown below:



Fig 33: Setting Printing Parameters



The description of printing parameters is given as follows:

- **Origin X:** Directly enter the print origin value.
- **Steps:** Remove step size errors in the current print job by specifying number of steps.
- **Pass:** Choose the number of passes with which the print job should be printed. Increasing the number of passes improves the print quality but at the cost of printing time.
- **Speed:** Choose the printing speed like High Speed, Medium, and Low.
- **Medium Speed:** Set the Y printing speed viz. Standard Speed and Low.

### Adding Jobs

There are two ways to add jobs in the Job List area viz. the Add Job button and right click on the Job List area. Let's discuss both the ways one by one.

Follow these steps to add jobs in the Job List area:

**Step 1:** Click on the **Add Job** button on the **Quick Access Toolbar**, as shown below:



Fig 34: Clicking on the Add Job Button

The **Open** window appears on the screen.

**Step 2:** Navigate to the location where the image file with extension **".prt"** and **".prn"** is stored (Refer to Fig 35).

**Step 3:** Click on the **Open** button to add the file into the **Job List** area, as shown below:

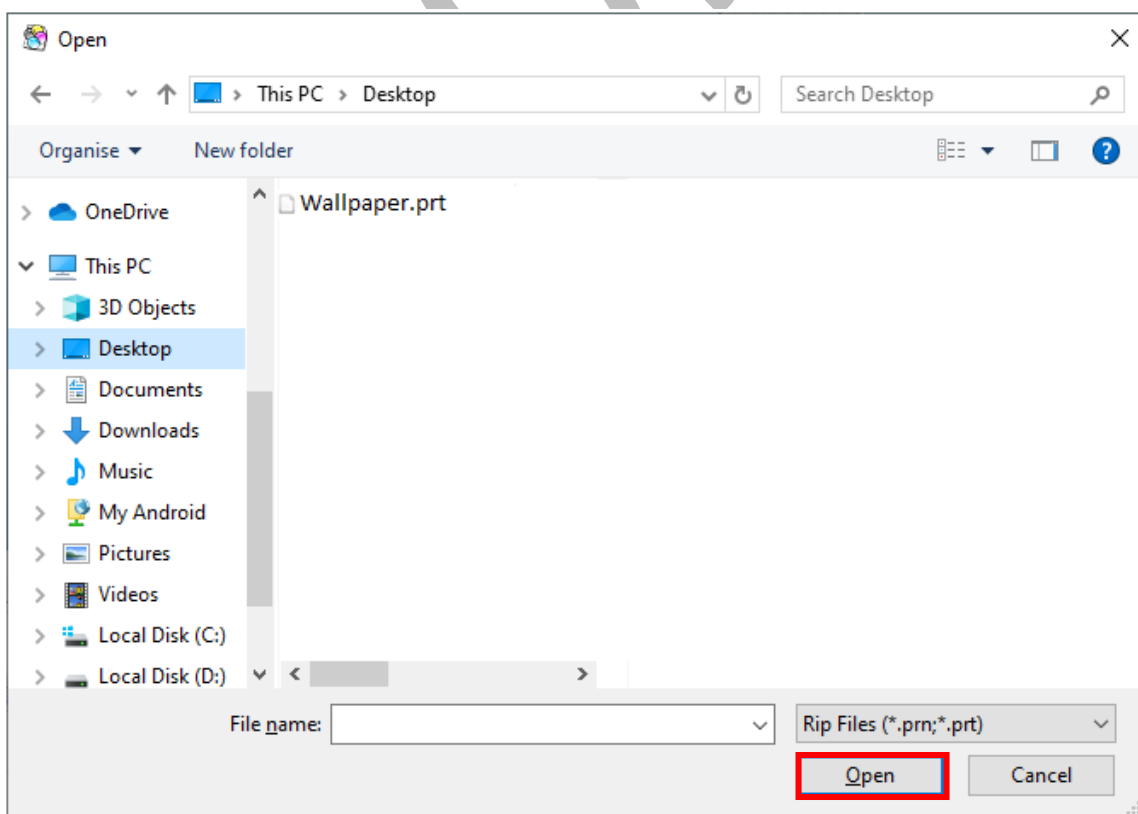


Fig 35: Adding the Job



Now, the selected image appears in the Job List area, as shown below:

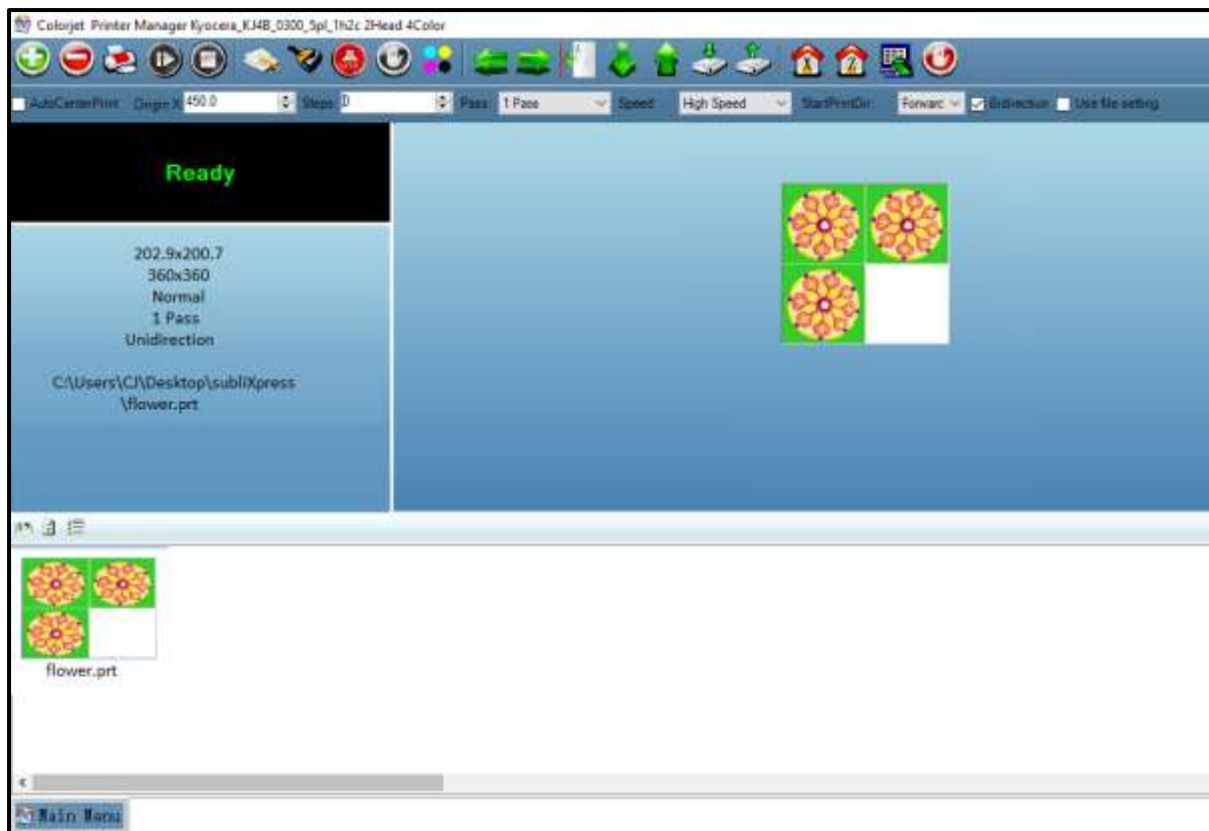


Fig 36: Displaying the Added Job and Their Details

Once a file has been added its information such as file path, size, resolution, and number of passes can be viewed in the Job Information area. User can also add a job simply by right clicking on the Job List area and selecting the **Add Job** option from the context menu, as shown below:

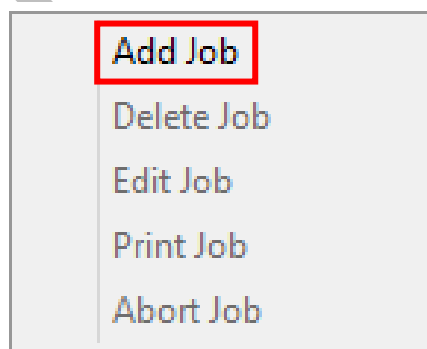


Fig 37: Displaying the Context Menu

On selecting the **Add Job** option, the **Open** window appears and follow the above-mentioned steps to add more jobs.

**Note:** To delete the selected job, click on the **Delete job** icon on the **Quick Access Toolbar**.

## Editing Job

Follow these steps to edit the selected job:

**Step 1:** Select the job for which details you want to edit from the **Job List** area.

**Step 2:** Right-click on the selected job. The context menu appears on the screen.

**Step 3:** Select on the **Edit** option from the context menu, as shown below:

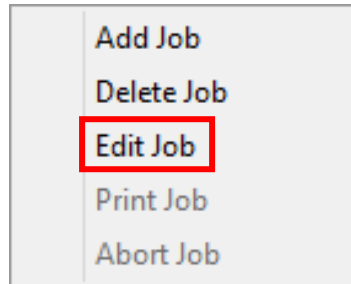


Fig 38: Selecting the Edit Job Option

The **Edit Job Form** appears with the list of options viz. Clip, Reverse Print, and Tile.

**Step 4:** Select the desired checkbox in front of the Clip, Reverse Print, and Tile options. On clicking to any option, its related parameters get appeared on the right pane and you can edit them as per the requirements. In our case, we have selected the **Clip** checkbox.

**Step 5:** After making the desired changes, click on the **OK** button to apply the settings, as shown below:

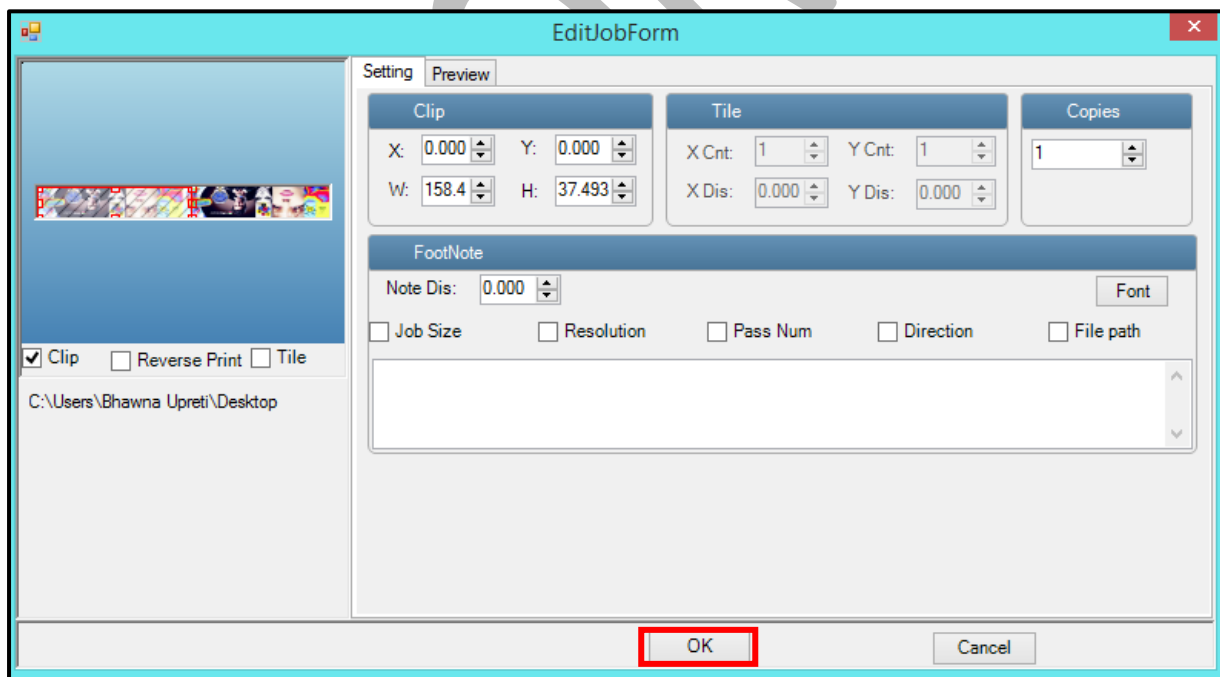


Fig 39: Displaying the Edit Job Form Window

Similarly, you can click on any other option and its related options get enabled in the right pane of the Edit Job form.

## Ripping and Printing

Ripping is an independent process which converts a raw image file into the machine-readable format and get the file ready for printing. The Rip software supports the tiff, jpeg, eps, psd, bmp file formats. After ripping the image file, the output file will be in **“.prt”** or **“.prn”** file format. Thus, you should first rip the image file before printing and then issue the Print command. While ripping, the color profiles are used to automatically perform the color corrections in the image. Now, you can print an image on the selected media simply by clicking on the **Print Job** button available on the **Quick Access Toolbar**, as shown below:



Fig 40: Issuing the Print Job Command

After issuing the Print command, the printing gets started and its progress details displays in the Job Information area, as shown below:

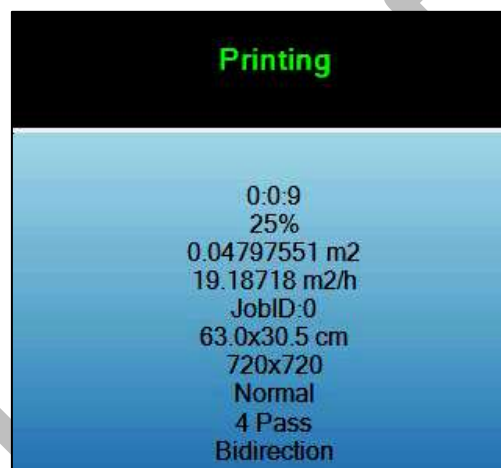


Fig 41: Displaying the Printing Details

## DPI and Passes

DPI	Passes
600x600	1
600x1200	2
600x1800	3
600x2400	4

## Pausing and Cancelling Printing

If you find any defect during the printing process, you can immediately pause or cancel the current printing job using the Pause or resume and Abort Job buttons available on the **Quick Access Toolbar** as shown below:



Fig 42: Issuing the Pause or resume Command

Similarly, you can abort the process by right clicking on the selected Job in the Job List area and select the **Abort Job** option from the context menu.

## Feeding Time and Language Passwords

The Password option enables operator to feed time and language passwords of the printer. On clicking **Password** option under the **Tools** menu, the **Password** window appears with two options viz. Time Password and Language Password. The Time Password helps in setting the running time of the printer. On the other hand, the Language Password helps in changing the operational language of the printer.

Follow these steps to change the time and language password of the printer:

**Step 1:** Click on the **Main Menu**→**Tools**→**Password** path, as shown below:

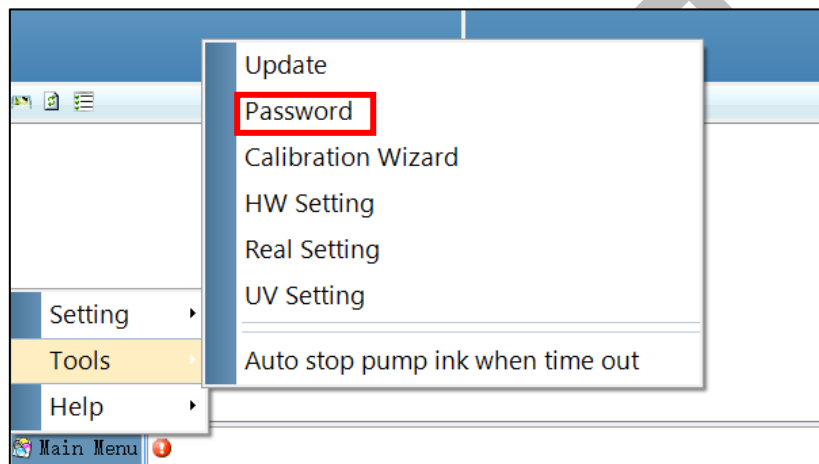


Fig 43: Selecting the Password Option

The **Password** window appears on the screen as shown below:

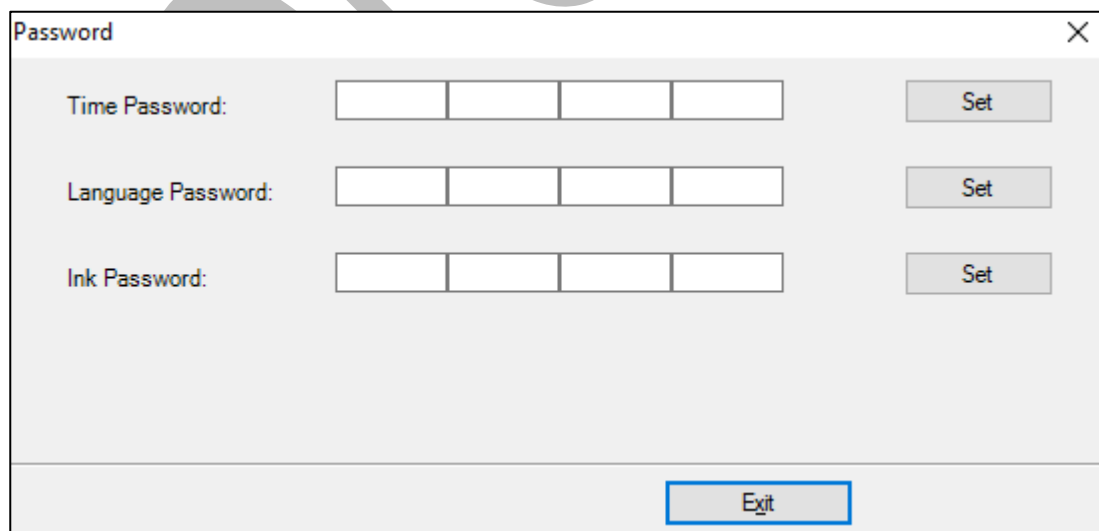


Fig 44: The Password Window

**Step 2:** Set values in the **Time Password** and **Language Password** fields as per the requirements (Refer to Fig 44).

**Step 3:** After feeding the passwords, *click* on the **Set** button in front of both the options (Refer to Fig 44).

**Step 4:** *Click* on the **Exit** button to close the **Password** window (Refer to Fig 44).

**Note:** The length of the password field must be of 16 digits.

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## 8. Switch OFF Procedure

The machine must be ON. In any emergency situation, machine needs to shut down, then operator has to follow the below mentioned steps:

**Step 1:** Perform the Nozzle Test to check Print Head nozzles status.

**Step 2:** Clean the Print Heads, if required.

**Step 3:** Remove the media from the machine.

**Step 4:** Clean the Capping Station area and check the water in the Capping tray.

**Step 5:** Click on the **Auto Capping** icon to engage capping station with the head plate using the Printer Manager, as shown below:



*Fig 45: Displaying the Auto Capping Option*

**Note:** Never move the carriage manually over elevated capping station.

**Step 6:** Close the Printer Manager software.

**Step 7:** Turn OFF the printer using the Power button.

**Step 8:** Switch OFF the main power.

**Step 9:** Cover all the printer.

Now, the printer is switch off.

## 9. Head Cleaning

Print Head is a delicate part which needs to be cleaned as per the recommended methods to have long life and to ensure consistent print quality. Below sections give recommended steps to clean the Print Heads.

### Head Blotting

Head blotting refers to the process in which the head surface area is cleaned for better printing result and quality. In SubliXpress, auto wiping option is available to clean the head surface area.

The Auto Wiping option is shown in the image below:



Fig 46: Displaying the Auto Wiping Option

On clicking the **Auto Wiping** icon, the Manual Clean Form window appears on the screen, as shown below:

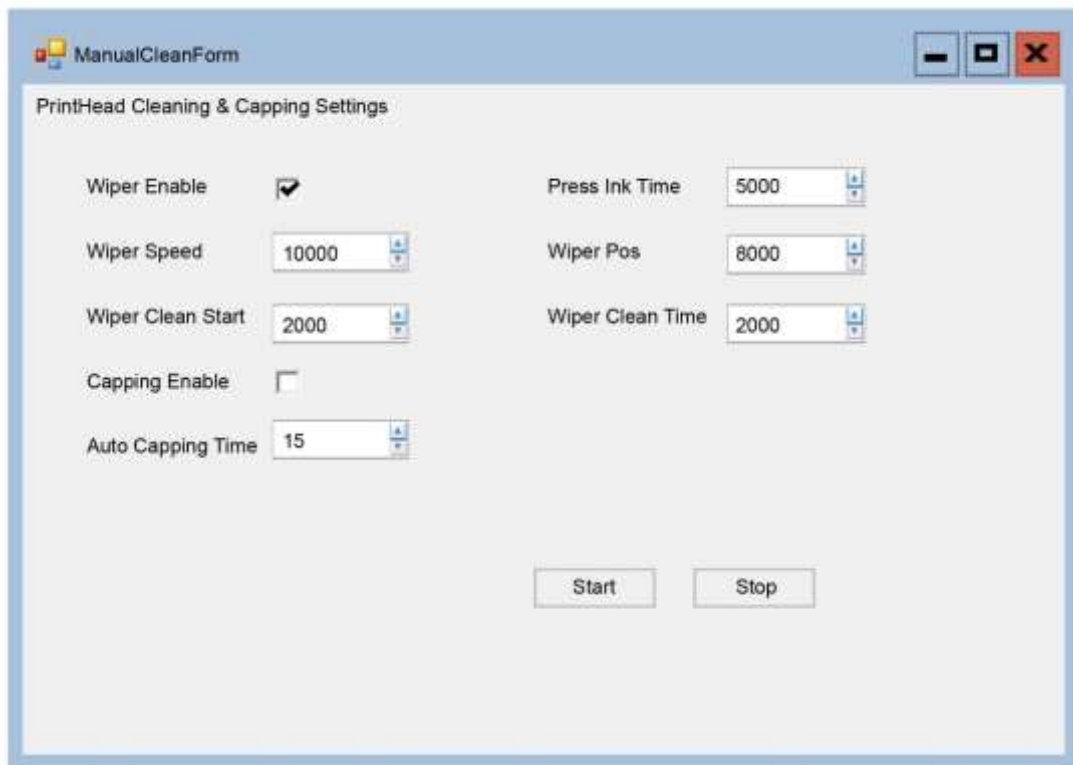


Fig 47: Displaying Auto Wiping and Auto Capping Settings

The list of Auto Wiping and Auto Capping options is defined as follow:

- **Wiper Enable:** Enable the auto wiper functionality.
- **Wiper Speed:** Help in defining the wiper speed.
- **Wiper Clean Start:** Define the wiper cleaning position.
- **Wiper Pos:** Define the wiper position.
- **Capping Enable:** Enable the auto capping functionality.

- **Auto Capping Time:** Define the auto capping time. When the printer is ideal for the define time then auto capping process gets started and capped the capping station with the head plate.

### Setting Wiping and Capping Height

Using the Setting window, user can set the wiping and capping height by updating values in the Z Clean Pos and Z Wet Pos list boxes, as shown below:

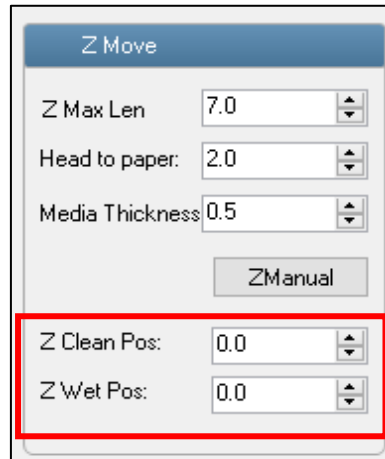


Fig 48: Setting Wiping and Capping Height

### Head Purging

Head purging refers to the method in which heads are cleaned by forcing pressurized ink through the nozzles. The Head Purging button of each color is shown in the image below:



Fig 49: Purging Inks

**Note:** Machine must be ON always.

### Head Spraying

Head spraying should be performed only when small percentage of nozzles are blocked. This method is used to avoid mixing of colors. When heads are sprayed all the nozzles are actuated at a high rate which helps in opening up dry nozzles of the printer. To perform head spraying, click on the **Spray** button available under the **Quick Access Toolbar**, as shown below:



Fig 50: Displaying the Spray Button



## 10. Maintenance

### Environmental Maintenance

- Room temperature should be maintained in 18-28 Degree Celsius range with humidity 35-80%RH
- Closed dirt-free room exclusive for Printer
- Proper cool with white lightings

### Print Head Maintenance

Print Head is an important and delicate part of the printer. Thus, it must be handled with care to ensure the long life of the Print Heads. For Print Head maintenance, the following instructions should be taken care:

- Perform the nozzle test daily 2-3 times before printing to monitor the blockage in the head nozzles
- Avoid head damage due to media and Print Head confliction
- Color Bar should be ON
- Avoid ink spilling on the Print Head and head cables
- Don't use expiry ink and store the ink at favourable environment
- Clean heads using head cleaning techniques viz. head wiping, purging, and spraying

### Head Plate Maintenance

- Check the Waste Tray regularly and it must be cleaned before start working on the machine

### Waste Bottle Maintenance

- Check the Waste Bottle regularly and empty it, if full

### Print Bed Maintenance

- Clean dust particles and ink stains, if any

### Ink Filter Maintenance

- Replace the Ink Filter after six months

## 11. Troubleshooting Guide

### Printer Not Initializing

- Encoder scale is having ink stains (print shows vertical color bands)
- Encoder sensor is not cleaned

### Printer Manager Not Showing "READY"

- USB cable is not connected to the computer or loose
- USB cable is faulty
- Printer is OFF

### Print Stops in Between Printing

- USB cable is loose or faulty
- Open heavy file that can slow down the data transfer
- Ground wire is disconnected
- Encoder scale is having ink stains
- Pulley or belt is slipping
- Ripped file is having error
- Media is finished

### Print Margin is Shifting or Junk Printing

- Encoder scale is having ink stains
- Encoder sensor is not clean
- Pulley or belt is slipping
- Data cable is faulty

### Print is Blur (Not Sharp)

- Improper printer calibration - bidirectional and step
- Improper head mounting and calibration
- Selection of incorrect resolution
- Wrong speed selection instead of high precision

### Lines in Print

- Head nozzles are blocked
- Incorrect feed steps

### Print Not Dry

- Check UV lamp settings
- Check intensity of UV lamps

### Heaters Not Working

- Check if inlet power cord and supply power are connected
- Check the set temperature in the controller

### Head Not Firing

- Perform nozzle test and clean heads, if required
- Check if any air lock or no ink in the head pipes
- Check the ink and air pipe for any cuts or loose connection

### Ink Not Supply

- Damaged float sensitivity
- Power board fault
- Float power line failure
- Ink sheet failure
- Ink path have disclosure
- No ink in the main or sub ink tanks

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