



VIPColor VP7xx Printer Series

User Guide

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Edition

VP750-80002 VP7xx Printer User Guide Edition 1.0 Dec 2017.

FCC

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Safety Precautions



Electrical Shock Hazard

Do not disassemble any part of your printer. There are no user-repairable parts inside the printer. Disassembly of any part of the printer will void all warranties.



Fire Hazard

Keep the printer well away from all heat sources and flammable substances.

Switch your printer off immediately and unplug the power cord from the wall socket if you notice any of the following:

- Smoke rising from the printer.
- An acrid smell coming from the printer.
- Sparks being emitted from printer.

Contact your supplier as soon as possible.



WARNING: Hazardous Moving Parts

Keep fingers and other body parts away from the printer.

Installation

- Install the printer on a flat, level surface.
The printer must remain level at all times. Tilting the printer may cause undue leakage of ink and affect performance and print quality.
- Avoid wide temperature variations.
Install the printer in a protected location away from direct sunlight, open windows or any other places subject to temperature extremes.

Power Supply

Input Rating	100–240 VAC, 50/60 Hz, 3.6 A
Operating Temperature	15°C to 35°C

- Always use the Power button on the control panel to turn the printer off.
Removing power to the printer in any other manner may damage the printer.
- Use only the supplied power cord.
Use of any other power supplies or cords may damage the printer and void your warranty.

Printer Usage

- Ensure adequate ventilation to the printer.
Blocking ventilation openings around the printer may cause it to overheat and become damaged.
- Keep liquids and heavy objects away from the printer.
Heavy objects may warp the outer shell, damaging the printer. Liquids may discolor or damage the skin and, if they penetrate it, may damage the printer beyond repair.
- Use only authorized consumables.
Use of any printhead other than authorized Memjet technology printheads will damage the printer and void your warranty. Use of unauthorized inks or ink cartridges may damage the printer and will void your warranty.
- Clear media jams promptly.
To avoid further problems, promptly attend to all media jams, as well as any other cause of printer failure.
- If you are moving the printer, allow sufficient time after installation for the temperature and humidity of the internals of the printer to arrive at equilibrium with the surroundings.

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Chapter 1

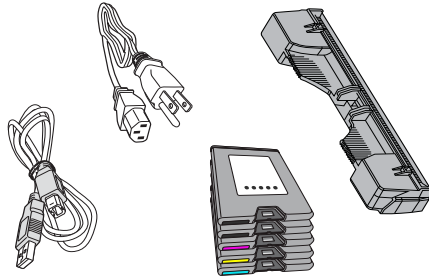
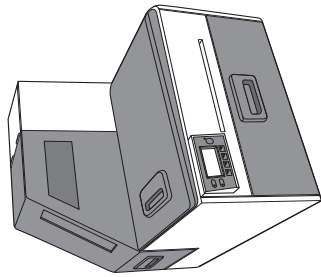
Setting Up the Printer

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Set up the printer on a flat, level surface away from direct sunlight (see [Safety Precautions](#) on page 3). Ensure that there is:

- A power outlet nearby.
- Sufficient space to work with the printer. The media cover and top cover open upwards, and media loading is from the left side of the printer.

Start

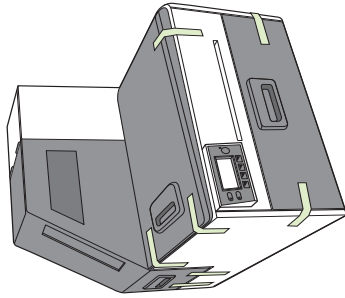


NOTE: Please ask your reseller for the printer driver software.

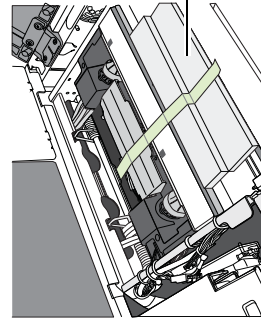


1 Remove tape and packing materials

a Remove tapes

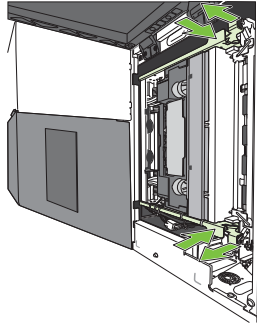


b Remove tapes and foam

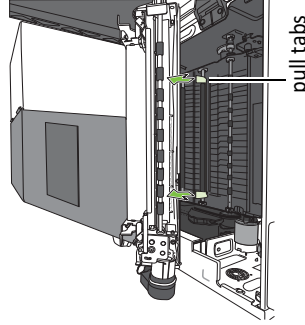


foam

c Remove cardboard

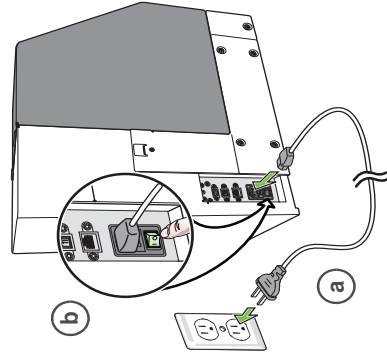


squeeze latches to open clamshell



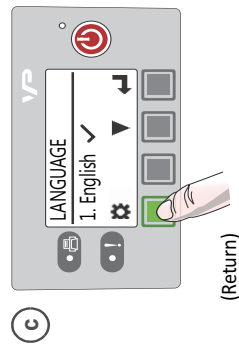
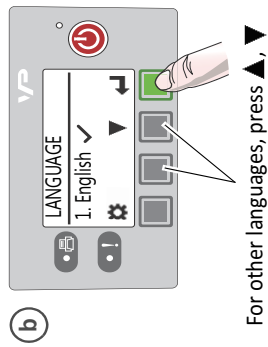
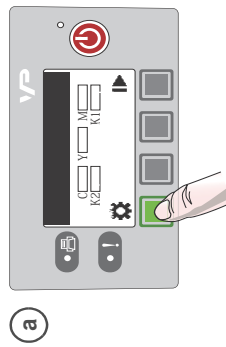
cardboard

2 Connect power

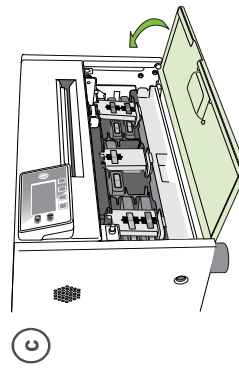
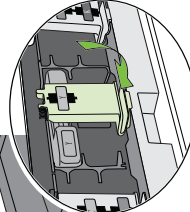
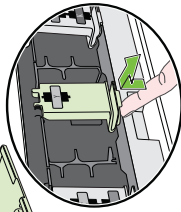
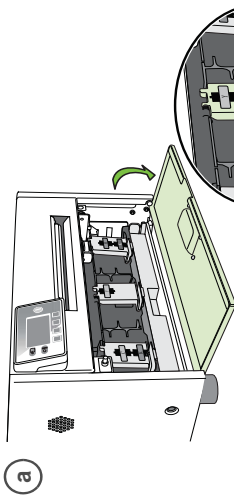


Choose display language

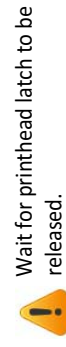
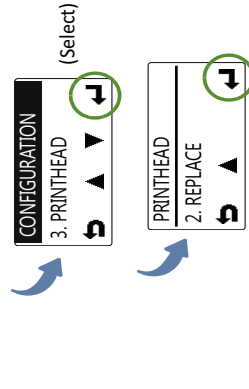
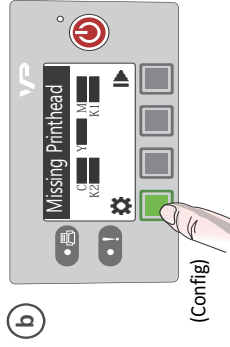
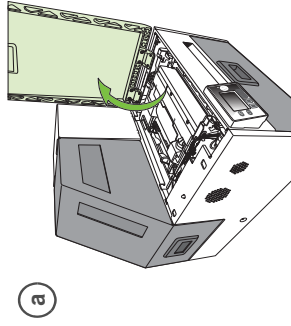
After connecting power for the first time, press Config to set the display language for the control panel.



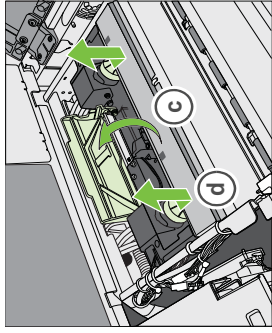
3 Install ink cartridges



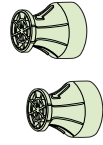
4 Install printhead



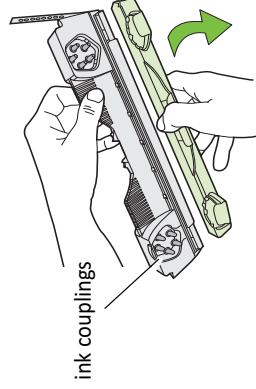
(c) Open printhead latch fully



(d) Remove caps



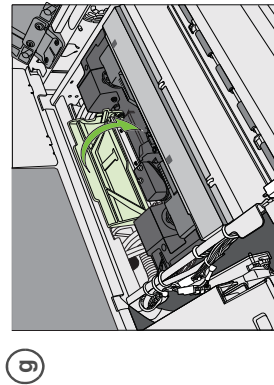
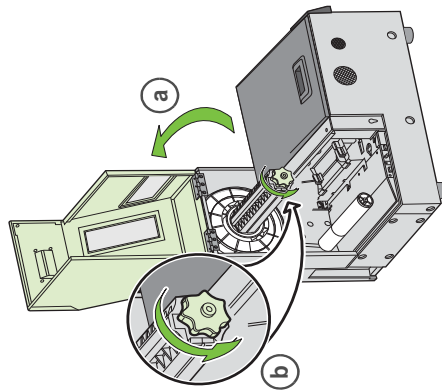
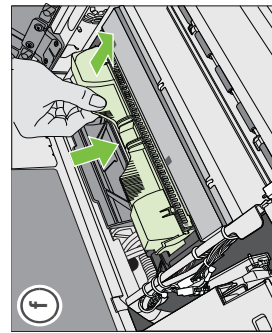
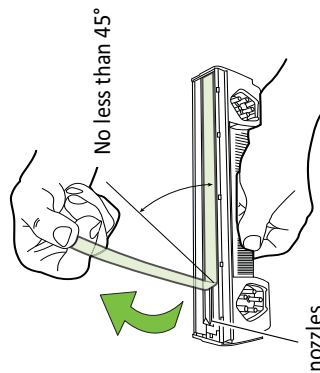
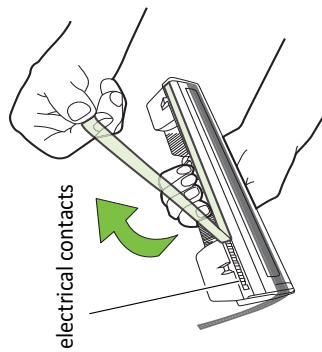
(e) Remove printhead from packaging



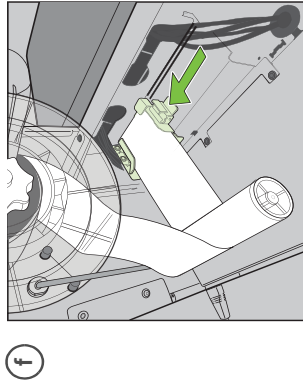
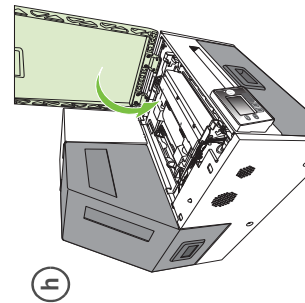
NOTE: Keep the orange cover. You will need it to cap the printhead if it is removed from the printer.

5 Load media

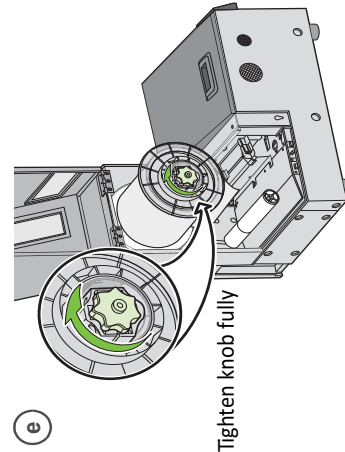
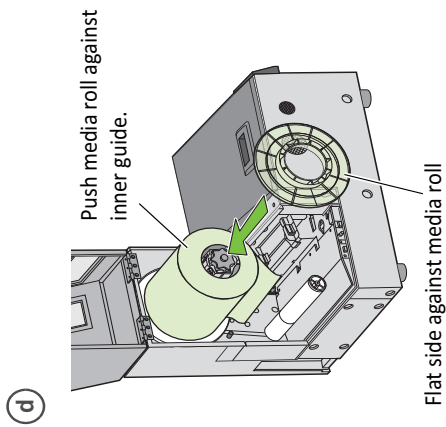
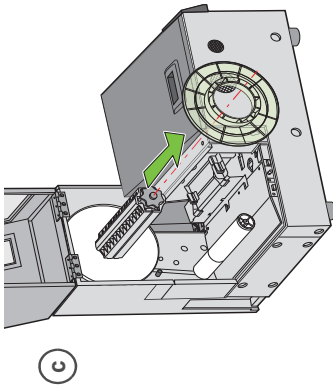
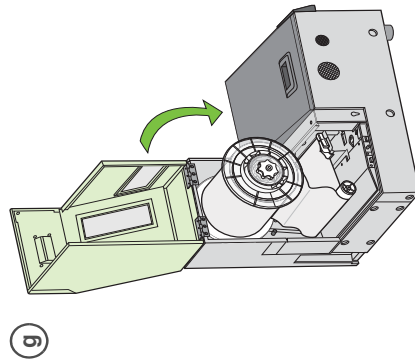
! Do not touch the ink couplings, electrical contacts, or nozzles.



Check that ink is flowing through the tubes on both sides of the printhead.

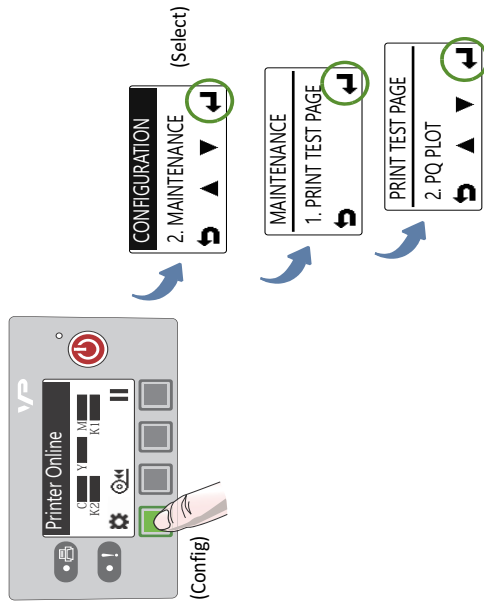


Insert media till it stops.
Wait for printer to load media.

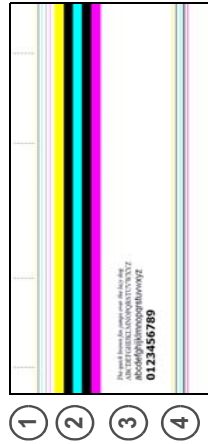


6 Print test label

Load 4" x 4" or larger labels (with inter-label gap or continuous). If using continuous stock, set Media Layout to Continuous in the EWS Diagnostics page.



Sample PQ plot



Verify the following on the PQ plot:

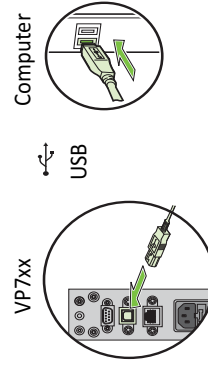
- 1
 - Lines are printed in the order yellow, black, cyan, black and magenta.
 - Lines are clearly defined with no white dots or streaks.
 - Vertical dashed lines are straight.
- 2
 - Bars are printed in the order yellow, black, cyan, black and magenta.
 - Bars are clearly defined with no white dots or streaks.
 - No color mixing in the bars.
- 3
 - Text is sharp, crisp, and legible.
- 4
 - Lines are printed in the order yellow, black, cyan, black and magenta.
 - Lines are clearly defined with no white dots or streaks.

7 Install printer driver

To connect printer to computer

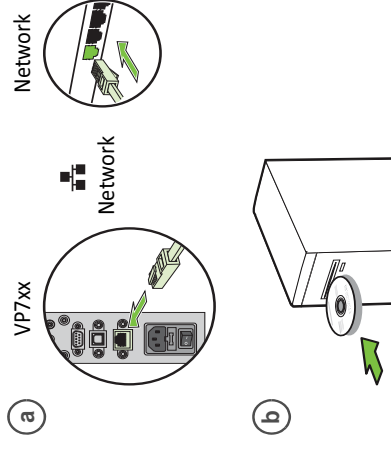


Connect USB cable when prompted



To connect printer to network

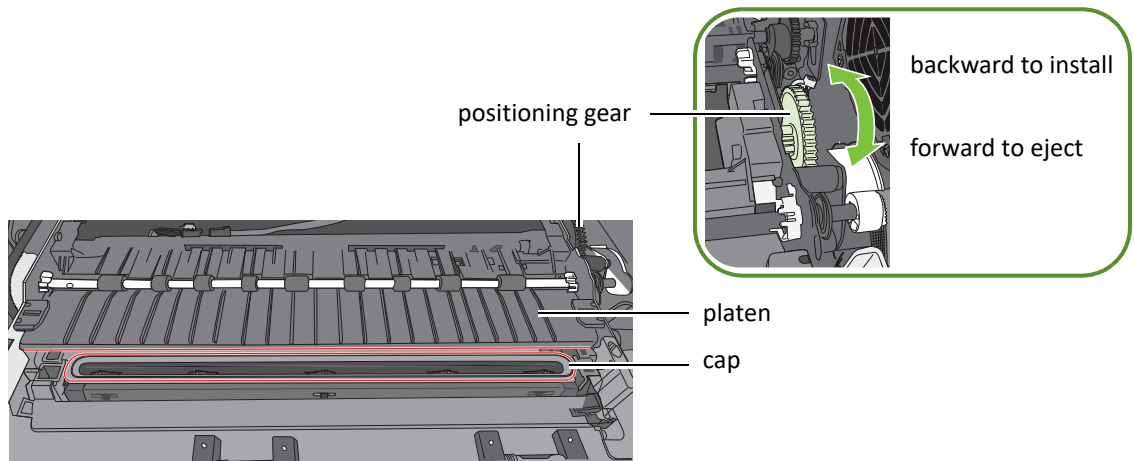
DHCP is enabled by default. If it is not available, see "Additional Networking Information".



Troubleshoot Printer Setup

If **Mech Error 2** or **Mech Error 3** appears on the control panel during installation, check the following:

Possible Cause	Solution
Service station is jammed.	Ensure that the cardboard is removed from inside the printer.
Service station was tilted during shipment.	1. Turn off the printer: Press the Power button on the control panel, then press  (Select) to confirm. When the LCD display turns off, turn off the Power switch at the back of the printer. 2. Open the clamshell to its highest position. 3. Rotate the positioning gear forward to eject the service station. 4. Push the service station back in, making sure it goes in straight. Check the alignment: the cap on the service station must be parallel with the edge of the platen. 5. Continue pushing the service station while you manually rotate the positioning gear backwards to move the service station all the way into the print engine. 6. Close the clamshell and turn on the printer.



Warranty Registration

1. On the Windows **Start** menu, select **All Programs > VIPColor > VIPColor VP700 Label Printer > Warranty Registration**.

You will be redirected to the warranty website.

2. Follow the instructions to register.

Change Security Passwords (Administrator)

Once the printer has been set up, an administrator should change the security passwords using the Embedded Web Server (EWS).

1. On the Windows **Start** menu, select **All Programs > VIPColor > VIPColor VP7xx Label Printer > Toolbox**.
2. Click **VIPColor VP7xx Label Printer** to launch the default web browser and open the EWS for your printer.
3. Click **Login** and log in with the default password **123**.
4. Click **Security Setup** to change the password for the EWS as well as the passwords for the control panel (default password **123**).

See [Managing Printer Security \(Administrator\)](#) on page 31 for more information about security on this printer and [Embedded Web Server \(EWS\)](#) on page 33 on the EWS.

Set Date and Time

From the EWS, also set the date and time on the printer by synchronizing with the host computer. This option can be found in **Advanced Settings**.

Additional Networking Information

If the Printer Has a Static IP Address

DHCP is enabled by default. If DHCP is not available and the printer is assigned a static IP address, set the static IP address from the control panel before installing the printer driver.

1. Press  (Config) on the control panel to access the configuration menus.
2. Level 2 security is required to change network settings (see [Selecting the Security Level](#) on page 19).
3. Scroll to the NETWORK menu to make the changes:

DHCP Setting	Set to Manual.
IP Settings	Enter the static IP settings for the printer. • Static IP • Subnet Mask • Gateway • WINS Server a. Press  and  to set each digit (0 to 9). b. Press  to move to the next digit.
4. Connect the printer to the network.
5. Insert the printer setup disc into the computer's disc drive to continue with the printer driver installation for a network printer.

If the Connection to the Printer Has Changed

If the printer has been set up using a USB connection and is later connected via the network (or vice versa), reinstall the printer driver.

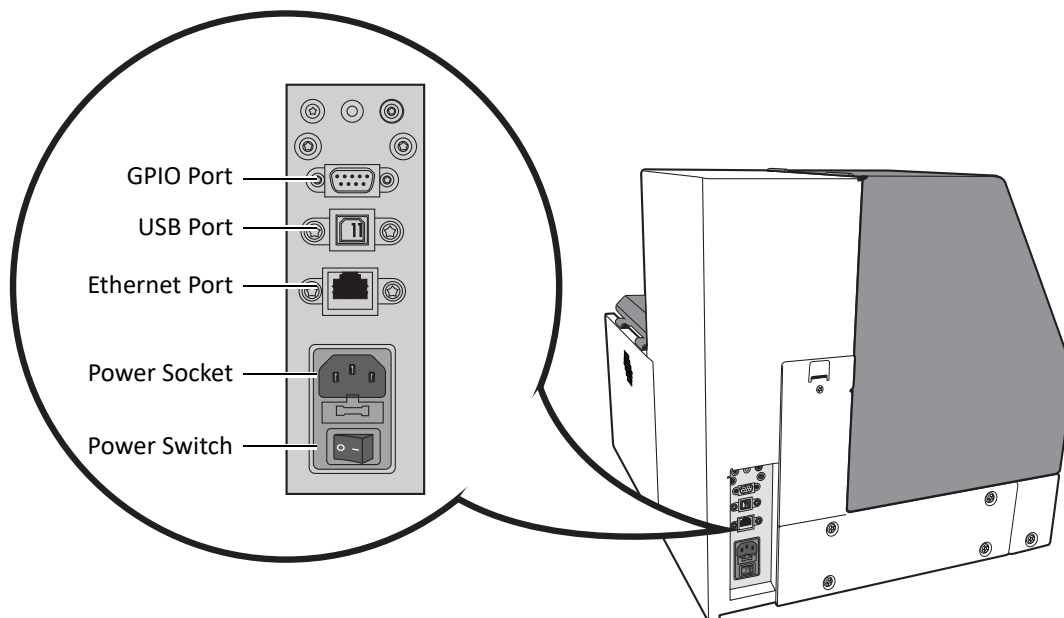
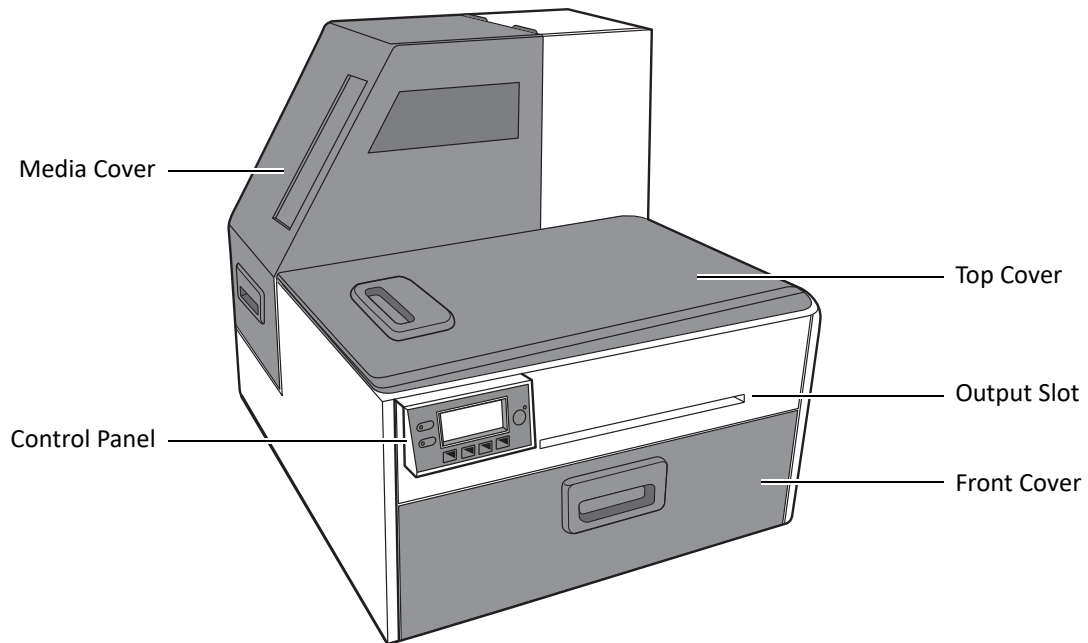
1. Network – Connect the printer to the network.
USB – Do not connect the printer at this point. You will be prompted to do so during the driver setup.
2. Insert the printer setup disc into the computer's disc drive. Select the option **Add another printer**.
3. Follow the instructions to complete the installation.

Chapter 2

Using the Printer

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Parts of the Printer



Using the Control Panel

The printer is ready to print when the control panel displays **Printer Online**. The Data and Status LEDs together with messages indicate the printer status and any potential problems ([Table 1](#)).

The control panel also shows the estimated levels of the ink cartridges. In the example below, the yellow ink cartridge level is between 25 to 50%.

The icons above the printer buttons indicate their functions, which change depending on the current operation (see [Table 2](#)).

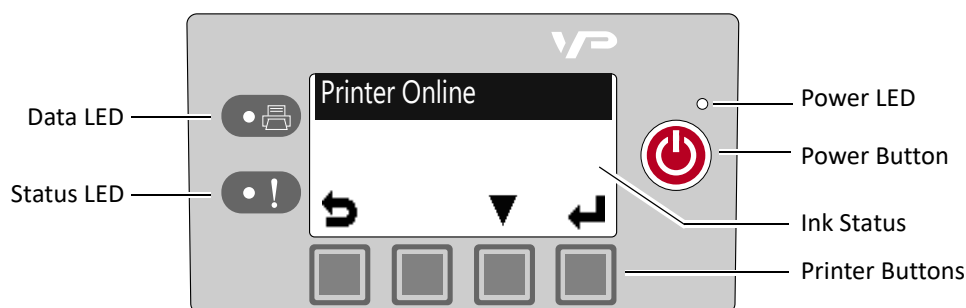


Table 1 Printer LEDs

LED	Description
Data LED	
Blinking	Printer is receiving data from the computer.
On	There are print jobs in the printer memory.
Status LED	
Blinking	- Printhead is being serviced, or - Attention needed; a message will be displayed. (See If Error Messages Appear on page 66.)
On	An error has occurred; a message will be displayed. (See If Error Messages Appear on page 66.)

The icons above the printer buttons indicate their functions ([Table 2](#)).

- When the printer is online, press  (Config) to access the configuration menus. The options are described in [Config Options on the Control Panel](#) on page 80.
- Press  and  to scroll through the menus.
- Press  (Select) to select an option or setting.

- Press  (Return) to return to the previous menu.

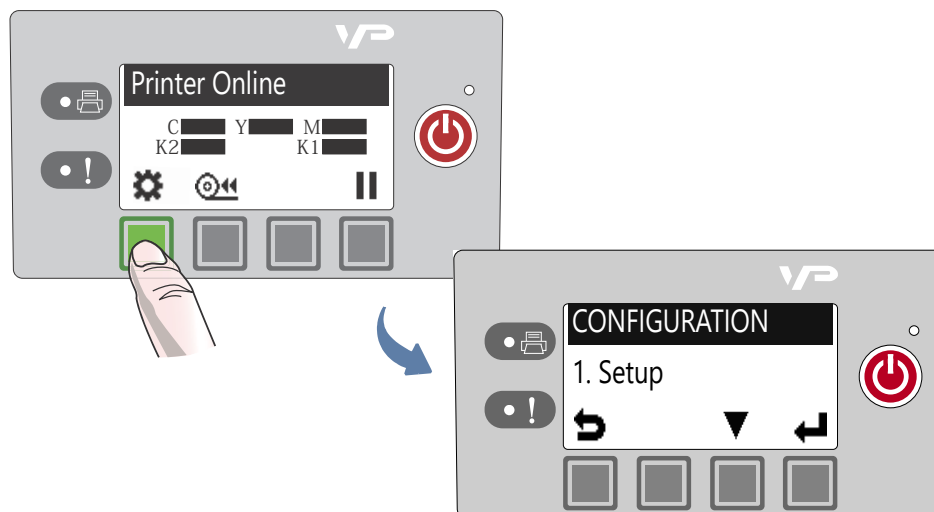


Table 2 Printer Buttons

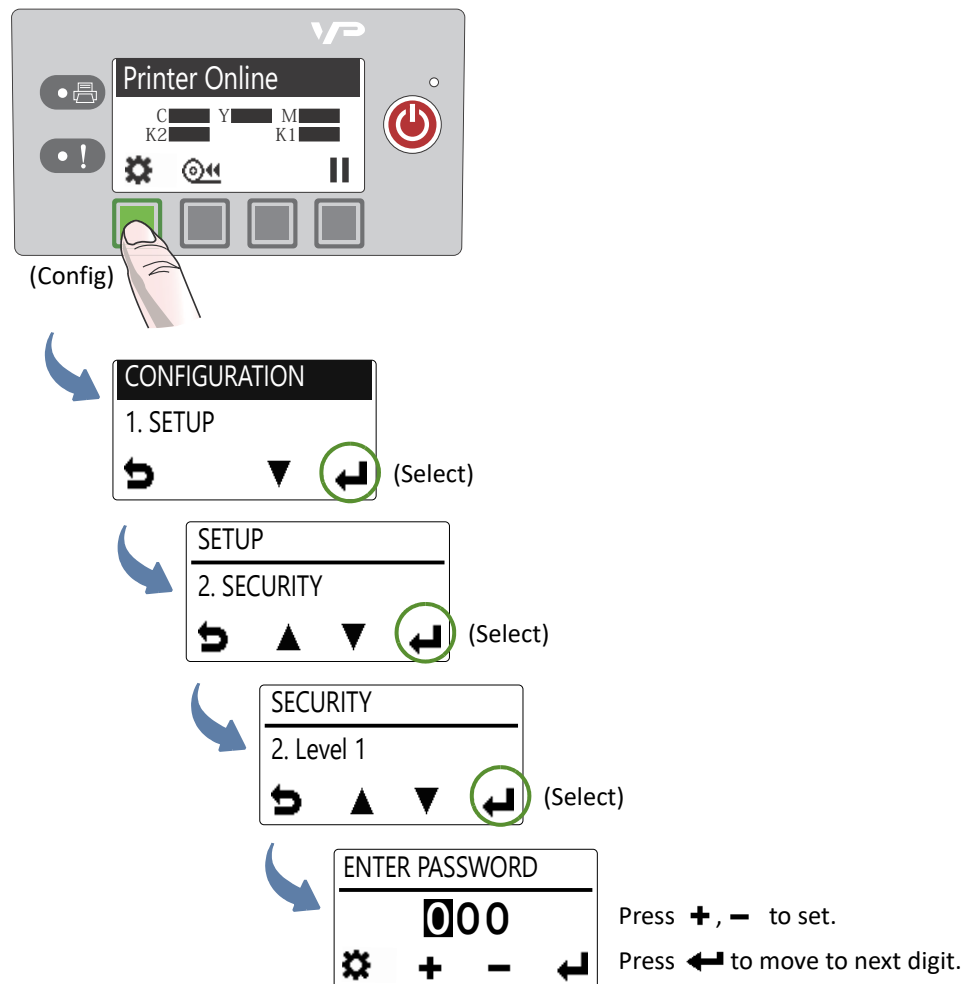
Function	Description
 Config	Access the Configuration menus.
 Up,  Down	Move through the menu options.
 Select	Select a menu option or confirm a setting.
 Return	Return to previous menu.
 Unload Media	Unload the labels.
 Pause,  Resume	Pause or resume printing. If printing Roll to Roll, the printer pauses for 10 seconds, then prints the next page and pauses again. It will continue to print and pause.
 Cancel	Cancel printing.

Selecting the Security Level

By default, the printer powers up in security Level 0 (operator), which does not allow changes to some printer parameters. To make changes, select security Level 1 (supervisor) and enter the password provided by your administrator.

Security Level 2 gives administrator access to all functions.

1. On the control panel, select  (Config) → SETUP → SECURITY → Level 1 or Level 2.
2. Enter the 3-digit password.



3. Press  to return to the main menu.

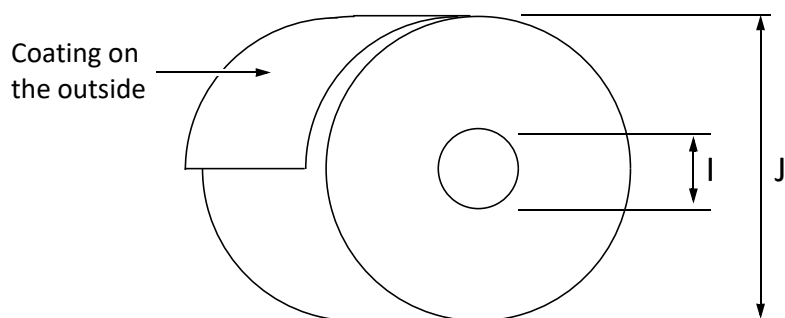
Choosing Label Media

Ensure that the label media meets the requirements for the printer (see [Table 3](#) and the following illustrations). Always test the media first to see if it meets your expectations. To check the compatibility of label media, print the barcodes test page.

Table 3 Media specifications

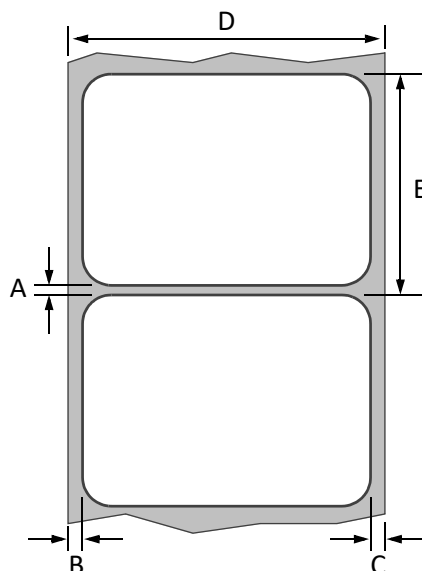
Media Type and Dimensions	
Media type	Gloss, semi-gloss, and matte.
Label width	2.0" to 8.5" (50.8 mm to 215.9 mm)
Label length	Continuous/Roll to Roll: Maximum 40" (1.016 m) Roll to Cut/Print and Present: Maximum 8" (203.2mm)
Label thickness	Maximum 0.01" (0.3 mm) (including liner, if any) Minimum 0.005" (0.13 mm)
Core size	3" (76.2 mm)
Roll diameter	Maximum 8" (203.2 mm)
Media Handling	
Print mode	• Roll to Cut • Print and Present (non-peel) • Roll to Roll
Detection	• Gap • Continuous • Black mark

Figure 1 Media Roll



	Minimum	Maximum
I	3.0" (76.0 mm) cardboard core	3.0" (76.0 mm) cardboard core
J	N/A	Up to 8.0" (203.0 mm)

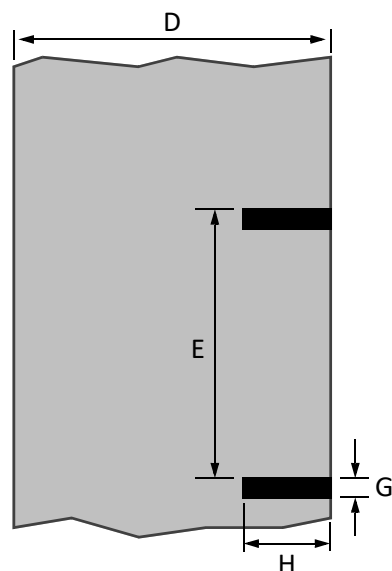
Figure 2 Gap (Transmissive) Media



	Minimum	Maximum
A	0.125" (3.0 mm)	0.3" (8.0 mm)
B	0.0	2.0" (50.8 mm)
C	0.0	0.4" (10mm)
D	2.0" (50.8 mm)	8.5" (216.0 mm)
E	2.0" (50.8 mm)	40.0" (1016.0 mm)

Figure 3 Black Mark (Reflective) Media

Reverse side of tag stock

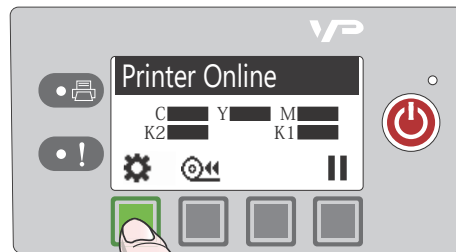


	Minimum	Maximum
D	2.0" (50.8 mm)	8.5" (216.0 mm)
E	2.0" (50.8 mm)	40.0" (1016.0 mm)
H	1.0" (25.4 mm)	8.5" (216.0 mm)
G	0.125" (3.0 mm)	0.3" (8.0 mm)

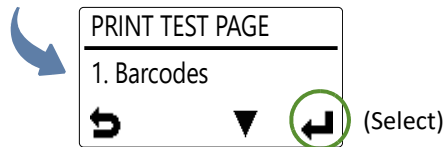
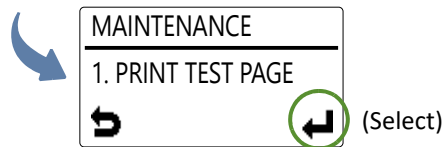
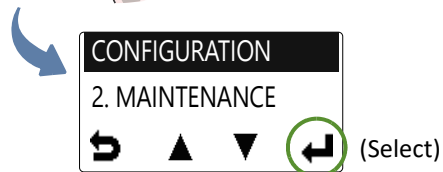
Print Test Page

Load 4" x 4" or larger labels (with inter-label gap or continuous).

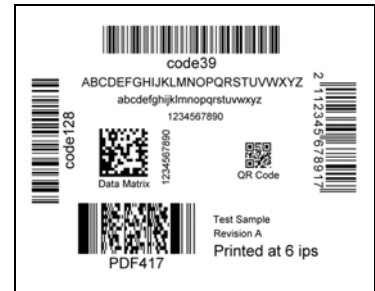
1. On the control panel, select  (Config) → MAINTENANCE → PRINT TEST PAGE → Barcodes.



(Config)



Sample Barcodes Test Page



2. Verify the following on the test page:
 - Label is printed in black with no other color visible.
 - The text is legible.
 - The barcodes are readable.
 - No ink smear, color mix or streaks.

Printing Labels

The printer is ready to print when the control panel displays Printer Online.

1. Select the **Print** command from your application.
2. Select the printer and click the **Setup, Properties** or similar button.

The print settings displayed are the defaults that were set in the printer driver.

3. Change the print settings if needed.

NOTE: Ensure the media settings (e.g. label size) match the media loaded in the printer.

4. Print the document.

Any changes to the settings only apply to the current print job. Once you exit the application, the changes may be lost. Make the changes in the printer driver if you wish to keep the settings as the default for all print jobs.

Change Default Settings in Printer Driver

To select the default print settings that will be used for all print jobs:

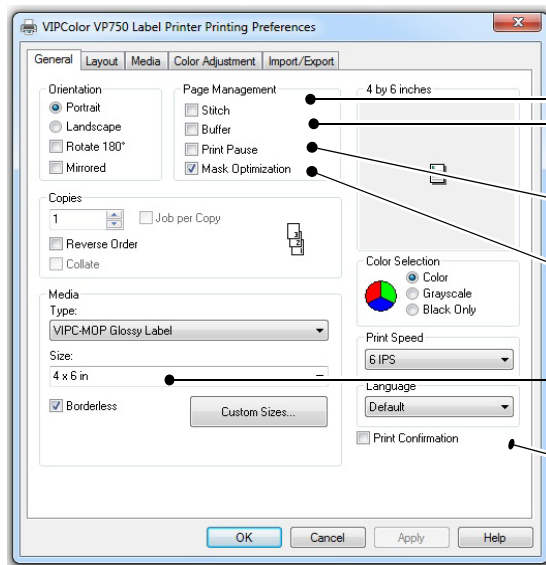
1. From the Windows **Start** menu, select **Devices and Printers**¹.
2. Right-click the printer, and select **Printing preferences**.

The printing preferences contain three tabs as shown in [Figure 4](#).

3. Make the changes and click **OK** to save.

1. For Windows 7. The steps will differ for other Windows versions.

Figure 4 Printing Preferences



Print pages without any gap (continuous media only)

Render entire document to disk before sending to the printer. Select this option if labels are skipped when printing large files.

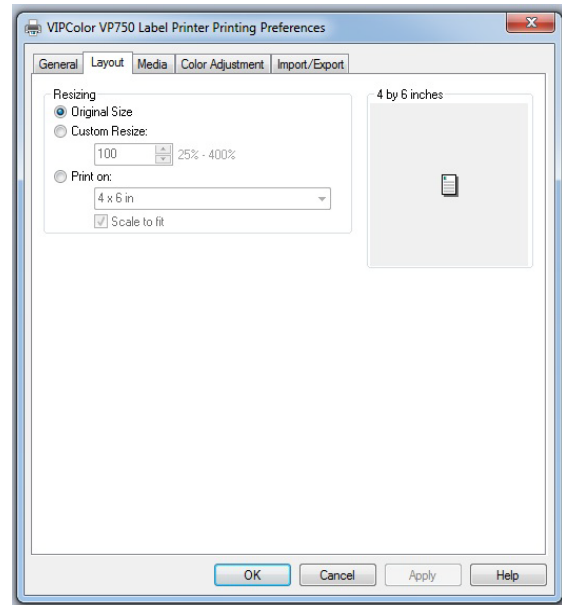
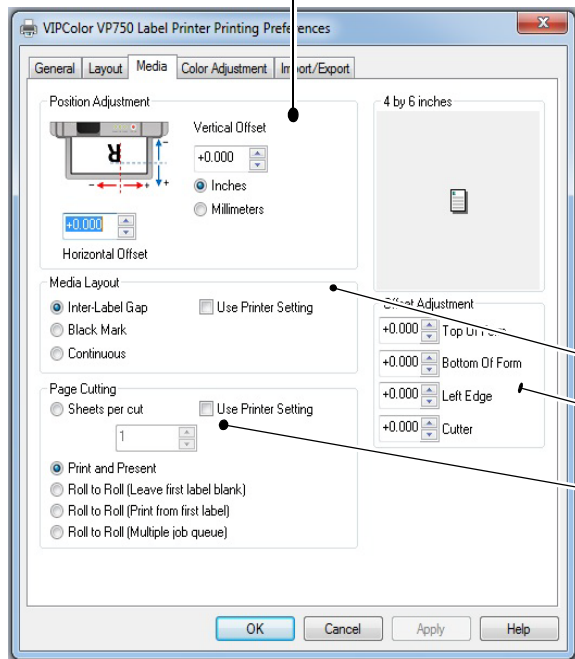
Select this option if labels are skipped when printing small labels.

Select this option to remove print artifacts with image file with multiple layers.

Select the **Media Type** that matches the media loaded in the printer.

Display a print confirmation message prior to printing.

Adjust horizontal and vertical print position. See [Adjust Alignment for Printing](#).



Use the settings on the printer control panel.

Adjust the various offsets

Sheets per cut – Cut after printing the specified number of labels.

Print and Present – Print, cut, and present label. Remove the label to continue printing.

Roll to Roll – Select Roll to Roll if a rewinder is used. Choose whether to print the first label or print multiple jobs without cuts in-between.

Select the Media Type

Selecting the media type that matches the media you are printing on will usually give the best print results.

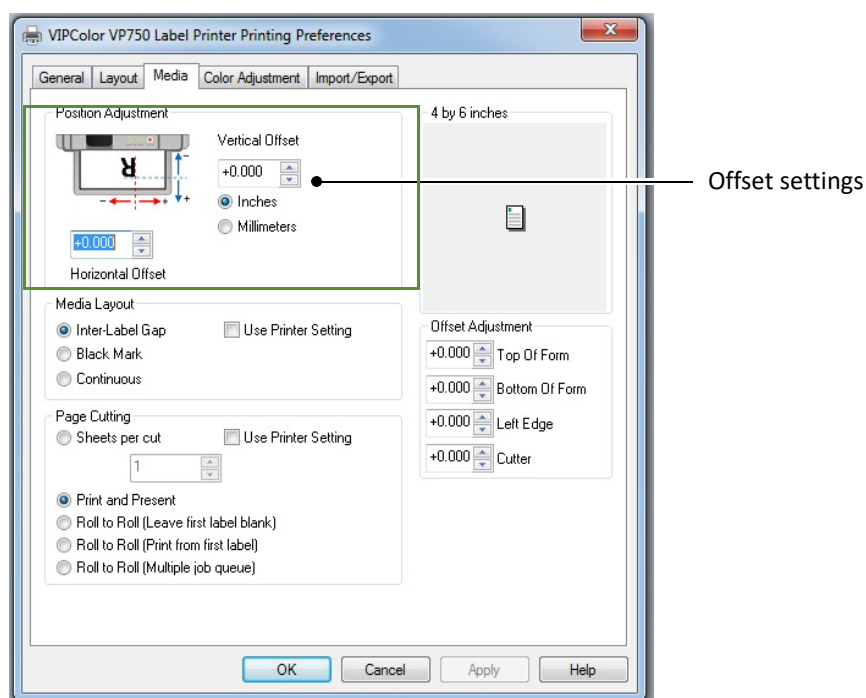
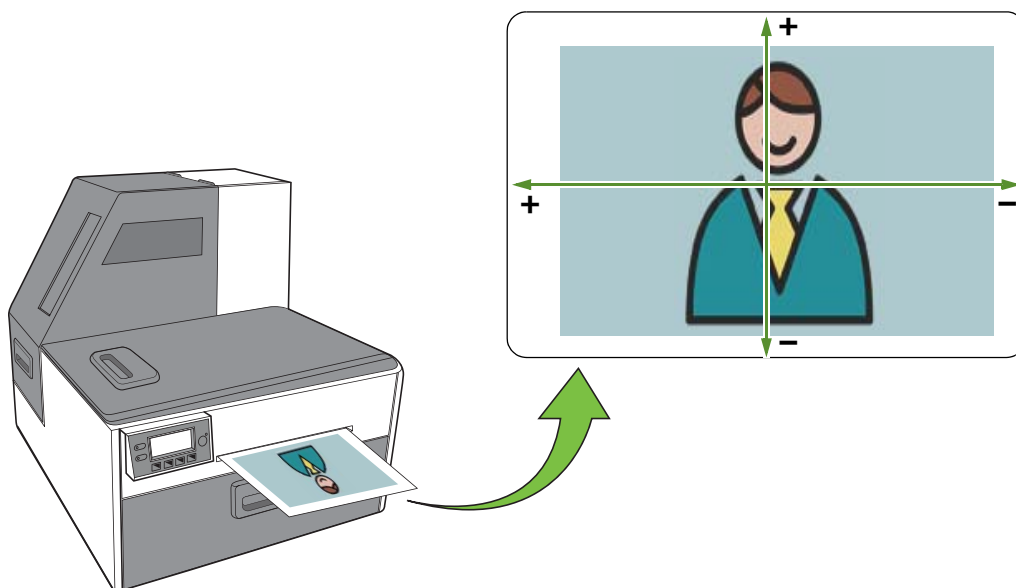
Select this Media Type:	When you are printing on:
	Plain (uncoated) paper and labels.
Matte Coated Label	Matte coated labels.
Premium Matte Coated Label	Matte coated labels. This option uses more ink for better color.
Glossy Label	Glossy labels. This option optimizes print quality and dry time.
Premium Gloss Label	Glossy labels. This option uses more ink for better color.

Adjust Alignment for Printing

Always print a few test labels to check the alignment of the image. If the image is not centered, adjust the top of form and/or left edge offsets on the Media tab of the printer driver.

A positive value for **Top of Form** adjusts the image towards the top of the label.

A positive value for **Left Edge** adjusts the image towards the left of the label.



Printing Borderless (Full-Bleed) Labels

The usual approach to borderless printing is to prepare an image slightly larger than the label size, then center the larger image over the label so that it prints over the edges. The following procedure describes where to make the adjustments on the VP700 printer.

Note the following:

- This method requires fine-tuning of the printing position, which will be difficult if the label gap is very small e.g. 0.1" (3 mm).
- As the maximum label width is 8.5" (215.9 mm), it is also difficult to print borderless labels of this size. This method works best when the label width plus bleed allowance does not exceed 8.5" (215.9 mm).
- Print at 6 IPS only.
- You may need to fine-tune the Top of Form/Bottom of Form/Left Edge offset on the control panel for each label size. For example, the offsets for a 6" x 4" label may be different from a 2" x 2.5" label. Hence, you need to record the offsets used for each label size.

Adjustments for Borderless Printing

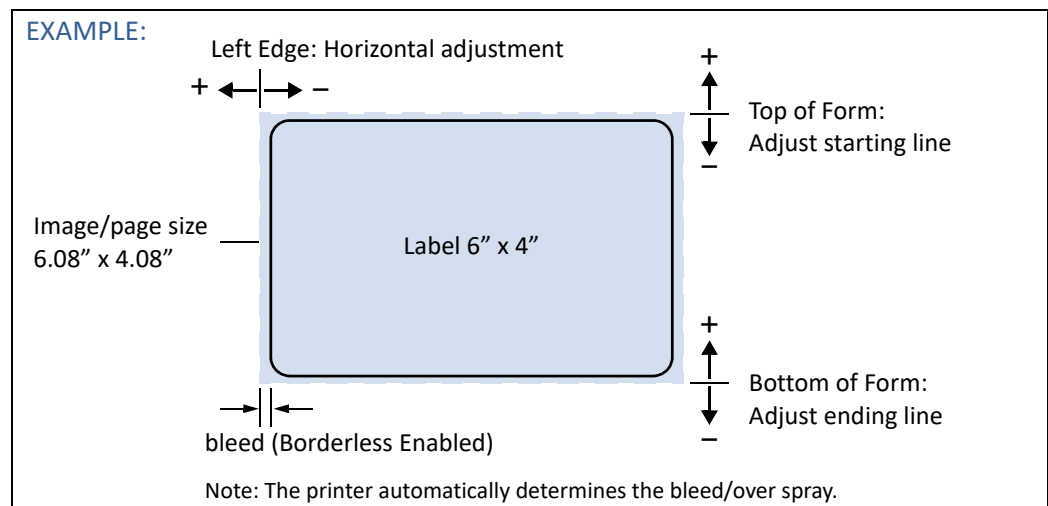
1. On the **General** tab of the printer driver ([Figure 4](#)), click **Custom Sizes** to set the page size slightly smaller than the label (about 0.01" or 0.2 mm in both direction).

Select **Print Speed** of **6 IPS** and enable **Borderless**.

2. On the **Media** tab, adjust the **Left Edge** to center the image on the label.
3. Print a few labels to check the print position.

Fine-tune using the printer control panel:

⚙️ (Config) → [ADJUST OFFSET](#) → Top of Form/Bottom of Form/Left Edge



Export/Import Custom media size settings

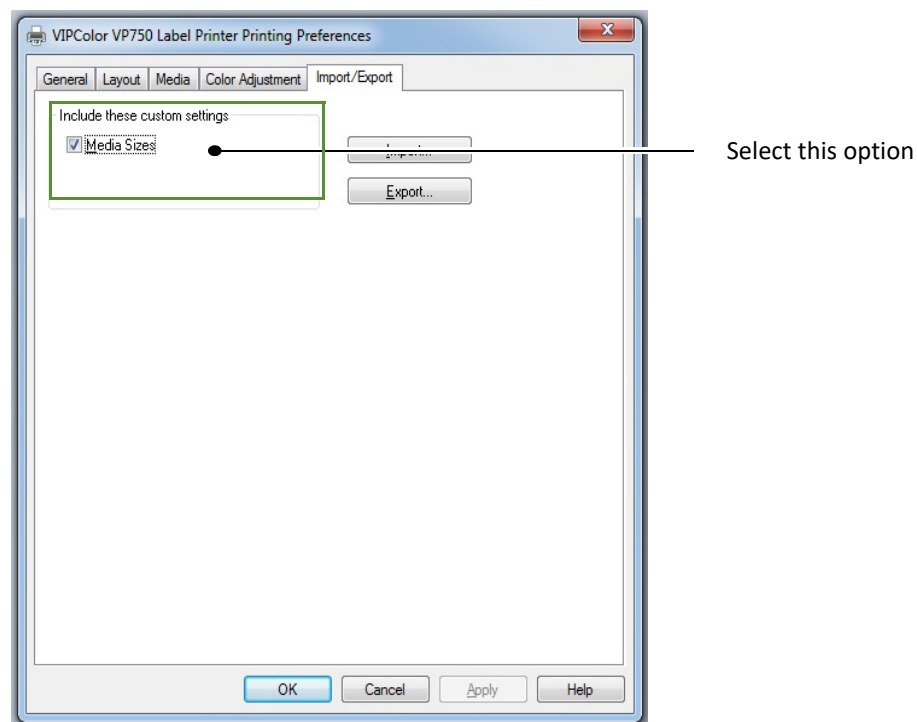
Any custom media size settings will be lost if the printer driver is updated. Make a backup copy of these settings by saving them to a file. At any time when you update the printer driver, you may re-import these settings from the backup file.

Export Custom media size settings

1. On the **Import/Export** tab of the printer driver, select **Media Sizes**.
2. Click **Export**.
3. Enter a filename and click **Save**.

Import Custom media size settings

1. On the **Import/Export** tab of the printer driver, select **Media Sizes**.
2. Click **Import**.
3. Select the file that you wish to import your settings and click **Open**.



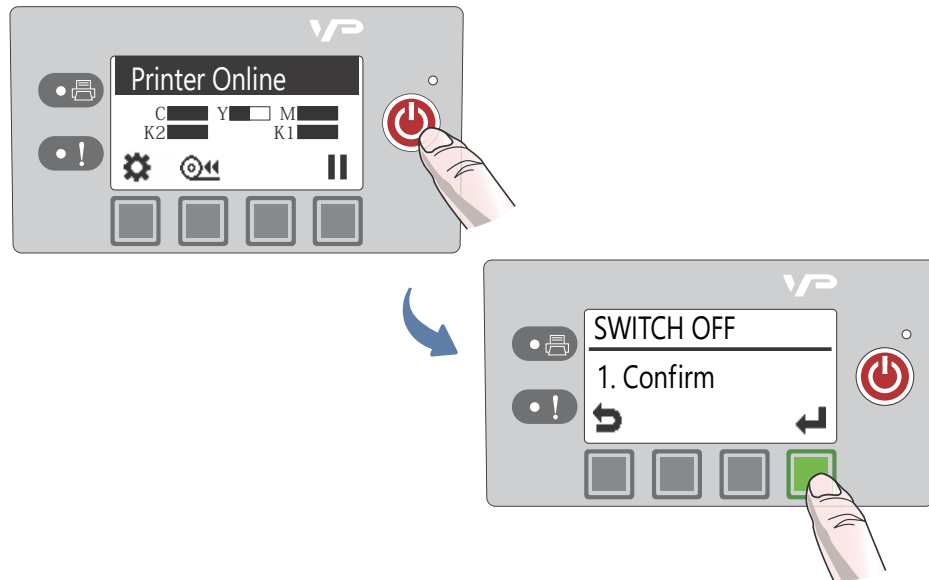
Turning Off the Printer

Always use the Power button to turn off the printer.

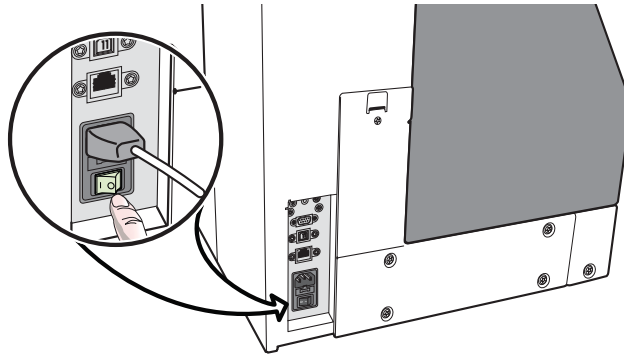


Removing power to the printer in any other manner may damage the printer.

1. Press the Power button on the control panel, then press  (Select) to confirm.



2. Wait for the LCD display on the control panel to turn off, then turn off the Power switch at the back of the printer.



During a normal shutdown, the printer will service the printhead and save data to the memory before turning off.

If the Printer Will Not Switch Off

If the printer does not respond when you press the Power button, press and hold the power button for 5 seconds. The printer should switch off. However, it will not be able to perform the normal shutdown processes. Do not use this option unless it is absolutely necessary.

Managing Printer Security (Administrator)

The VP700 printer has three levels of security.

Security Level	Description
Level 0 (operator)	The printer powers up in level 0 by default, which allows users to access all the functions needed to print, but not to change printer parameters via the control panel.
Level 1 (supervisor)	The user can access certain printer parameters. A password is required to access this level.
Level 2 (administrator)	All parameters are enabled. A password is required to access this level.

The administrator can change the passwords through the Embedded Web Server (EWS). It is recommended that the administrator change the passwords once the printer has been set up. The default password is **123** for the EWS and the printer control panel.

Change Passwords

1. Log in to the EWS.
 - a On the Windows **Start** menu, select **All Programs > VIPColor > VIPColor VP7xx Label Printer > Toolbox**.
 - b Click **VIPColor VP7xx Label Printer** to launch the default web browser and open the EWS for your printer.
 - c Click **Login** to log in with your admin password.
2. Select **Security Setup**, then select **Printer Password**.

The screenshot shows the VIPColor Embedded Web Server (EWS) interface. At the top, there's a header with the 'memjet' logo and the 'VIP COLOR' logo. Below the header is a navigation bar with tabs: LOGIN, PRINTER STATUS, SECURITY SETUP, NETWORK SETUP, DIAGNOSTICS, and ADVANCED SETTINGS. The 'SECURITY SETUP' tab is selected. On the left side, there's a sidebar with 'PRINTER PASSWORD' and 'PRINTER SECURITY' options. The main content area is titled 'Change EWS Security Password.' and contains two sections. The first section is for changing the EWS security password, with fields for 'User' (set to 'Admin'), 'New password', and 'Confirm password', followed by a 'Submit' button. The second section is for changing the front panel security password, with a 'Security level' dropdown menu (set to 'Level 2 - Admin'), 'New password', 'Confirm password', and a 'Submit' button.

3. Set the password and click **Submit**.
 - The EWS password can have 3 to 12 alphanumeric characters. Special characters are not allowed.
 - The control panel password must contain 3 digits.

Change Security Level for Printer Settings

The administrator can change the security level for the following protected printer settings, which are enabled at Level 1 by default.

1. Log in to the EWS.
2. Select **Security Setup** followed by **Printer Security**.



The screenshot shows the Memjet VIP COLOR web interface. At the top, there's a header with the Memjet logo and the VIP COLOR logo. Below the header is a navigation bar with tabs: LOGIN, PRINTER STATUS, SECURITY SETUP (selected), NETWORK SETUP, DIAGNOSTICS, and ADVANCED SETTINGS. Under the SECURITY SETUP tab, there are two sub-tabs: PRINTER PASSWORD and PRINTER SECURITY (selected). The main content area shows the 'Printer Features' section with a table of settings and their minimum security levels.

Feature	Minimum security level to configure
Language setting:	Level 1 - Supervisor
LCD brightness/contrast:	Level 0 - Operator
Sensor sensitivity:	Level 2 - Admin

At the bottom of the table is a **Submit** button.

3. From the dropdown list, select the minimum security level allowed to access each setting.
 For example, if you set **Language** to **Level 0 - Operator**, then all security levels will have access to this setting.
4. Click **Submit**.

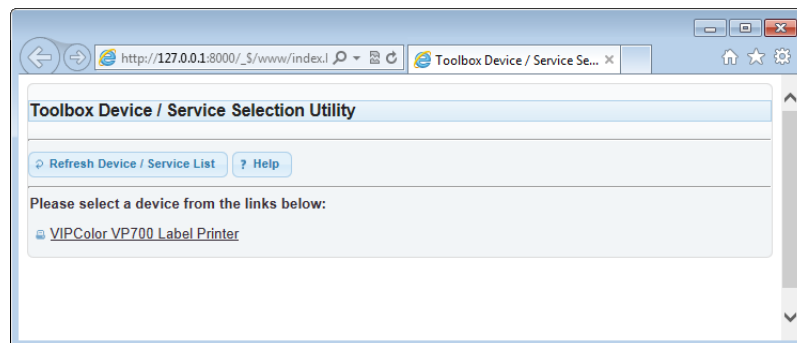
Software Tools

- [Embedded Web Server \(EWS\)](#)
- [Interpreting the Gap/Mark Sensor Readings](#)

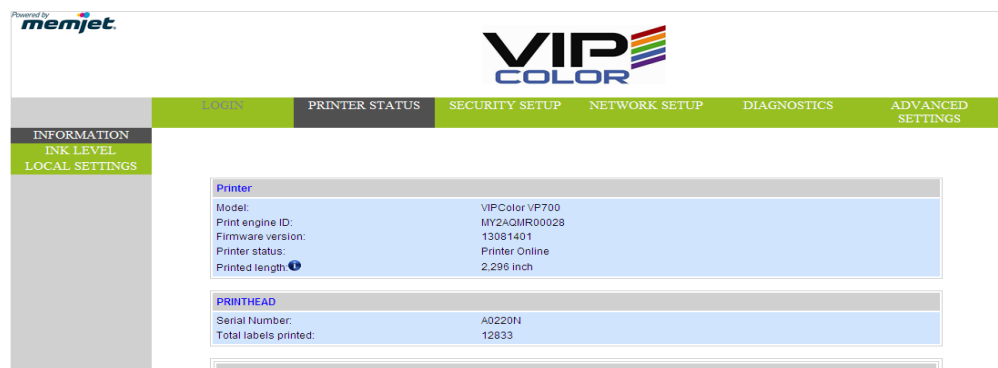
Embedded Web Server (EWS)

The Embedded Web Server (EWS) provides remote access to the printer. You can monitor the printer status and check usage metrics. The administrator can also log in to view additional information and change various settings.

1. On the Windows **Start** menu, select **All Programs > VIPColor > VIPColor VP7xx Label Printer > Toolbox**.



2. Click **VIPColor VP7xx Label Printer** to launch the default web browser¹ and open the EWS for your printer.



The EWS displays printer information and usage metrics on the **Printer Status** page. Click **Login** to log in for full access to all the EWS pages (described in [Table 4](#)).

1. Recommended: Internet Explorer 8/Firefox 15 or later, at 1280 x 700 or higher resolution.

Table 4 EWS pages

EWS Page	Description
Printer Status	Shows printer and printhead information, ink levels, usage metrics. Also shows the current printer settings. Launch the Remote Control Panel. This will display the user interface with the same menu accessible features on the printer itself. Ink usage metrics can be exported. Right-click the EXPORT link and select Save Target As to save the data in a file.
Security Setup	(See Managing Printer Security (Administrator) on page 31.)
Change Password	Set the passwords for accessing the following: • Embedded Web Server (EWS). The EWS password can have 3 to 12 alphanumeric characters. Special characters are not allowed. • Level 1 (Supervisor) security on control panel. • Level 2 (Administrator) security on control panel. The control panel password must contain 3 digits.
Printer Settings	Set the minimum security level allowed to access the following protected settings: • Language • LCD Brightness/Contrast • Sensor Sensitivity
Network Configuration	Network settings for the printer.
Diagnostics	Perform diagnostics & print a PQ test plot
Labels	Select the media type - Continuous, Gap or Black Mark for printing all the internal pages generated by the printer (i.e. Configuration Page, Network Settings Page and diagnostic test plots).

Table 4 EWS pages

EWS Page	Description
Sensor Threshold Values	You can run a length of labels (about 1m or 40") to record the readings of the Gap/Mark sensor without actually printing. The printer will output a Comma Delimited Text (.csv) file containing the measurements. You can then plot these readings and analyze if there is sufficient contrast for the printer to reliably detect the inter-gap/black mark. You may then adjust the sensitivity of the sensor to improve the detection. Follow the sequence below to run the test, 1. Select the Test media type. 2. Specify the length of the label (min. 1") and click Submit to apply the value. 3. Load the media. 4. Click TEST for run the test. 5. Save the resulting .csv file and import into MS Excel or any spreadsheet to plot the reading chart. Alternatively, you may also click on GRAPH to plot the readings over the length of the media. 6. See Interpreting the Gap/Mark Sensor Readings on page 40
Override Auto Sensor Threshold	Set a threshold value for the Gap or Black mark sensor, usually with non-rectangular label stock. Click Submit to send the new value to the printer. Use this in conjunction with the <Sensor Threshold Values> test in the Diagnostics EWS page to find the appropriate threshold value to apply.
Print test pages	1. Load media. The minimum format supported is 4" x 4". 2. Check that the loaded media matches the <Labels> format (Continuous, Gap or Black Mark) expected by the printer for internal page printing. 3. Click on the respective Test Page icon to generate the plot

Table 4 EWS pages

EWS Page	Description
Advanced Settings	
Remote commands	• Restart printer Turn the printer off and back on. • Reset to factory default settings Reset settings to the factory defaults. • Zero the tilt sensor Reset the tilt sensor. • Synchronize printer date and time with host PC Set the printer date and time by synchronizing with the host PC. Click Submit to send the selected command to the printer.
Mid Job Servicing Interval	This applies for roll-to-roll print mode only. Select the specified interval and click Submit. The printer performs a servicing routine at the time interval specified before it resumes printing.
Keep Unused Printhead Nozzles Wet Setting	Disable or select the firing frequency of unused printhead nozzles to keep them hydrated. By default, Automatic mode is selected, which algorithmically assigns a fixed frequency suitable for each print mode
Printer Pause Settings	• Pause Mode: The duration between prints When the printer is in Pause mode, the printer prints a label at the specified time interval. • Cap printhead time: The duration between end of Print and the time when the printhead is moved to the capped position When the printer is in Print and Present mode or at the End of the job, the printhead will move to the capped position at the specified time after the last print. • Multiple Job Queue: Allowable timeout between jobs When the printer is set up to print multiple jobs (with no cut between jobs), this value specifies the max. allowable time for queuing consecutive jobs before the printer cut the web. This prevents damaging the printhead resulting from prolonged uncapped time. • Out of Ink: Allowable timeout before the printer cut the media and cap the printhead should the printer runs out of ink in the middle of a print job.

Table 4 EWS pages

EWS Page	Description
Unwinder Settings	• Disable Unwinder Enable this option when using an external unwinder. • Invert rotation of Unwinder Enable this option when using Face-in label stock. • Disable label length check when loading a new label stock. When this option is disabled, the printer skips the step of checking the label length of a newly loaded label stock. • Minimize TOF offset for 1st Label Enable this option only if you find that the TOF offset (that happens with the first label of the roll) needs to be minimized as much as possible.
Media Gap Setting	• Specify the inter label gap when using continuous media. Click Submit to apply the new value. • Specify the maximum gap for your gap label. 3mm (0.125") is standard for Gap labels. If you are not using non-standard Gap label, enter the new value here and click Submit to apply.
Fine-tune linefeed calibration	Enter media correction factor Fine adjustment for linefeed. Enter a compensating (stretch) factor calculated as follows, $\text{Factor} = (\text{Printed Length} \div \text{Image Length}) * 1,000,000$
Wiper Maintenance Schedule	Specify the time interval for the wiper to clean itself. Use this option if the printer is operating in a dry environment (10% RH or less) where the wiper roller may becomes too dry for it to properly wipe and clean the printhead.
Cut After Print Setting	Set the delay before the printer cuts the label after it has printed a label.
Printer Shutdown Schedule	Shutdown the printer daily at a specific time. Click Submit to save the new settings.

Table 4 EWS pages

EWS Page	Description
Other settings	• Retract media when printer is idle for 10 or 30 minutes When the media remains in the printer for some time, it may become deformed and affects the print quality. To avoid this, select this option. • Enable virtual printing Simulate printing to estimate ink usage. a) Select Enable virtual printing. b) Print in the usual way. The printer will not actually print, but will estimate ink usage for the print job. c) On the Printer Status page, select Ink Status to view the estimates. The control panel will display Simulation when the printer is in this mode. • Disable cut at the start of a print job Do not cut the media at the start of a print job. Enable this option if the printer is used in a clean room to reduce unwanted paper dust/debris. • Use fixed USB ID When enabled, the Host PC uses a fixed internal USB ID instead of assigning a different USB ID to each printer in the Plug-N-Play setup process. Enable this option if you need to hot-swap printers on a PC. • Enable Enhanced Fast-Time-To-First Label (ETTFL) Trade off some printhead cleaning routines before the start of a print job to reduce the time of the first printout in the Print and Hold mode. • Enable Extended Printhead Clean Cycle at the End-of-Job This option adds a Normal printhead clean cycle to the standard cleaning sequence at the End-of-Job. • Enable Ink spit every 10 min in standby mode Enable this option when the printer is used in a dry environment, characterized by low humidity (~20% RH) and low temperature. (~15°C or 59°F) • Enable SMART nozzle health extender algorithm When enabled, the printer prints repetitive (image) labels using a group of adjacent nozzles in the printhead instead of using the same each time. This helps extend the printhead life. However, this causes a gradual shift of the image up to 1mm to the left (viewing from the printer output). Disable this feature if image shifting between labels is not desirable. This feature is ignored if Borderless is enabled in the driver.

Table 4 EWS pages

EWS Page	Description
Other settings	• Cut the first label (for Length > 8") at media load When enabled, the printer automatically cuts the first label (if > 8" long) when loading a new label roll. This eliminates potential media skewing when the media is retracting. • Enable support for translucent synthetic media in continuous print mode. This prevents the printer from flagging a false <No Media> error with semi-opaque continuous media. For this mode to work, the reflective sensor readings (a2d_refl) must be below 140 when measured using the option <Run Sensor Threshold Test> on the Diagnostics EWS page. • Enable print over label gap and black mark When this option is enabled, the printer will continue to print the image even when it detects that the image is longer than the distance between 2 consecutive black marks on a continuous media or gap (useful with wine labels where the front and back labels are printed as a single page). By default, this option is disabled. • Enable Memjet TPS algorithm for printhead When this option is enabled, the printer will reduce the thermal energy for the printhead during power up. This helps prolong the printhead life. This may result in more discrete transition between color tones (or gradient). Do not enable this option if your label design has solid color blocks or tone gradient. • Do not unload media on power off When enabled, the printer will not unload the media when the printer powers down. Please note that leaving the media at the input for a long period of time may cause the media to curl and result in a jam during printing. • Improve gap detection for thick liners Typical label stock liner is about 0.06mm or 0.0015". For label stock with thick liner, the default threshold/sensitivity of the gap sensor may need to be adjusted for the printer to detect the gap between labels reliably by turning this option on. However, if the printer is still unable to detect the gap with this option turned on, we advise that you switch to another media that is compatible with the printer.

Table 4 EWS pages

EWS Page	Description
Other settings	• Display last job page count when printer is idle When enabled, the number of labels printed will continue to display on the front panel until the next print job starts. • Disable COM port When enabled, the printer will ignore or not transmit signals through the COM port, which is used mainly for debugging. • Disable Input sensor detection while printing When enabled, the printer will ignore the input sensor. This feature is useful to prevent the printer from falsely recognizing the End of the roll where the label stock has thick liner that makes gap or black mark detection difficult. • Print blank page after every job in Multiple Job Queue When enabled, the printer will not print on the first label of the job in the multiple job queue mode. • Enable advanced end of roll handling When the printer encounters End-of-Roll while printing Roll-Roll with a label in the cutter module, enabling this feature will pause the printer to allow the user to release the media from the core first, print the last label before ejecting the remaining media from the printer. Please note that the user will need to press the eject button on the control panel to eject the media.
Import/Export Settings	• Import Settings Import the <Advanced Settings> from another printer. • Export Settings Export the <Advanced Settings> to another printer.

Interpreting the Gap/Mark Sensor Readings

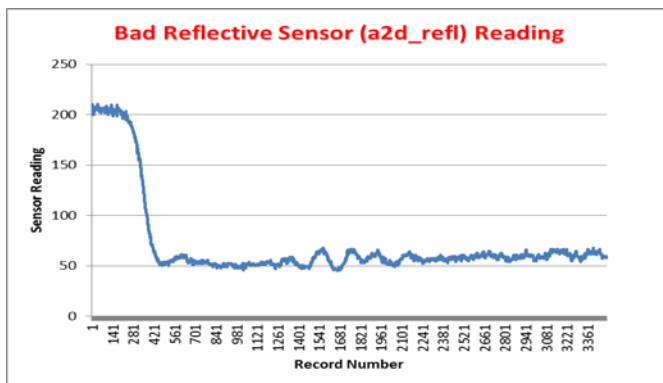
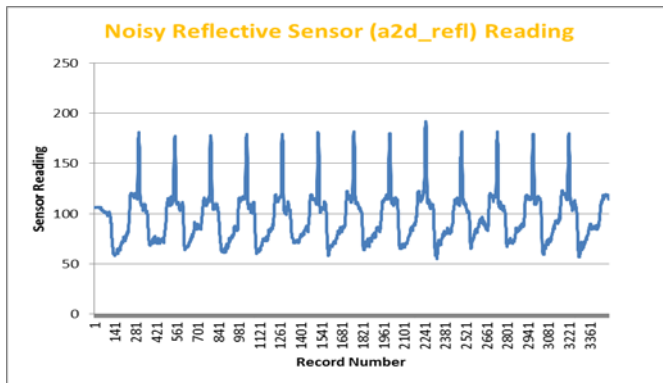
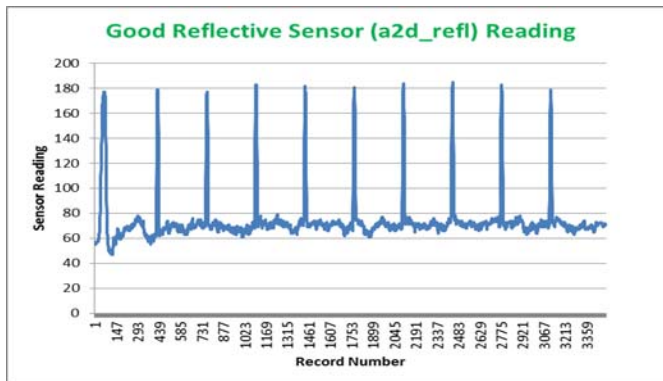
Import the test result .csv file into MS Excel (or any spreadsheet) using comma as the delimiter. Column “a2d_refl” and “a2d_st” reflects the gap (transmissive) and mark (reflective) sensor readings respectively.

Next, create a line graph using the appropriate column of data.

There are 3 possible types of plot -

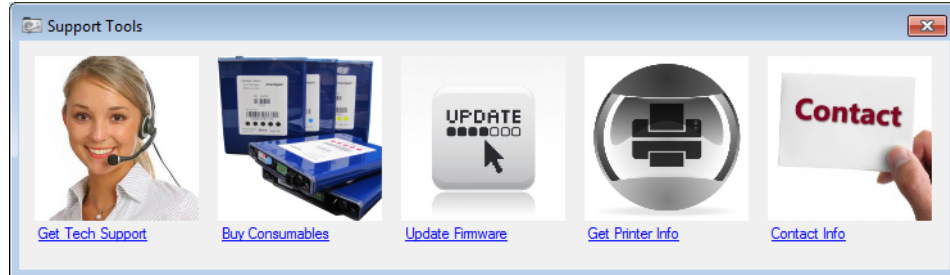
1. **Normal** - Sharp spikes at regular interval indicating that the sensor can clearly detect a gap (or mark) on the media.

2. **Noisy** - Imperfect spikes at regular interval. The printer may erroneously detect the Top-of-Form. For more reliable detection, reduce the sensitivity the sensor to achieve a plot that is close to Normal.
3. **Bad** - Readings are not distinctive. Increase the sensitivity to achieve as close to a Normal plot. If the readings remains the same at maximum sensitivity, this would indicate that there is insufficient contrast between the gap (or mark) and the liner. In such a case, the media is incompatible with the printer.



Support Tools

On the Windows **Start** menu, select **All Programs > VIPColor > VIPColor VP7xx Label Printer > Support Tools**.



The Support Tools consist of the following:

- **Get Tech Support:** Opens the Technical Support web page.
- **Buy Consumables:** Opens the consumables web page for you to purchase ink supplies online.
- **Update Firmware:** Helps you to update the printer firmware.
- **Get Printer Info:** Displays a log of printer activity and errors. This may be required when you contact Technical Support.
- **Contact Info:** Allows you to save your contact information, which will be included in the Printer Info log.

Chapter 3

Printer Maintenance

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Guidelines for Preventive Maintenance

Recommended maintenance depends on the print mode that is most frequently used. If you mostly print Roll to Roll ($\geq 80\%$), refer to [Table 5](#). Otherwise, see [Table 6](#). **Inspect** means to check the condition and replace if necessary.

Note that these are general guidelines for preventive maintenance. As operating conditions for your printer may differ, adjust your maintenance schedule accordingly.

Table 5 Maintenance Schedule: For $\geq 80\%$ Roll to Roll Operation

Part		Every 1M inches (25,400 m)	Every 2.5M inches (63,500 m)	Every 5M inches (122,500 m)
Sensors		Clean	–	–
Cutter Assembly	MM007-64506	–	Inspect	Replace
Output Module	VMAG1-60008A	–	Inspect	Replace
Service Station	MM007-65502	Inspect	Replace	–
Transfer Wiper Assembly ¹	MM007-65505	Inspect	Replace	–
Aerosol Fan Guard	VMAG1-70150A	–	Replace	–
Waste Ink Absorber	MM007-10005	–	–	Inspect

Table 6 Maintenance Schedule: For $\geq 80\%$ Roll to Cut/Print and Present Operation

Part		Every 1M inches (25,400 m)	Every 2.5M inches (63,500 m)	Every 5M inches (122,500 m)
Sensors		Clean	–	–
Cutter Assembly	MM007-64506	Inspect	–	–
Output Module	VMAG1-60008A	Inspect	–	–
Service Station	MM007-65502	Replace	–	–
Transfer Wiper Assembly ¹	MM007-65505	Replace	–	–
Aerosol Fan Guard	VMAG1-70150A	–	Replace	–
Waste Ink Absorber	MM007-10005	–	–	Inspect

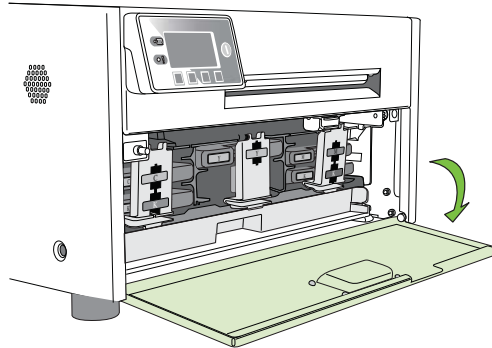
1. The transfer wiper assembly is part of the service station and may not be available as a separate replacement for your printer. If it is not available, follow the maintenance schedule for the service station.

Replacing an Ink Cartridge

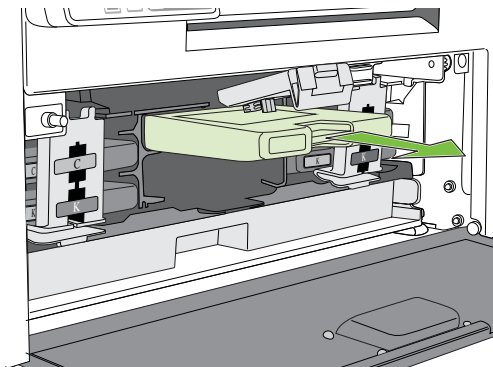
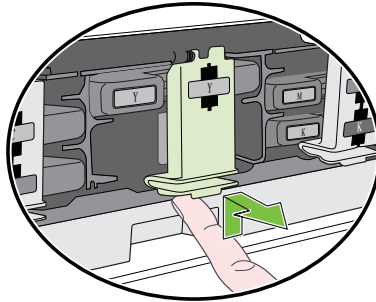


Do not open the front cover if the control panel shows Servicing Printhead. Wait for the servicing to be completed first.

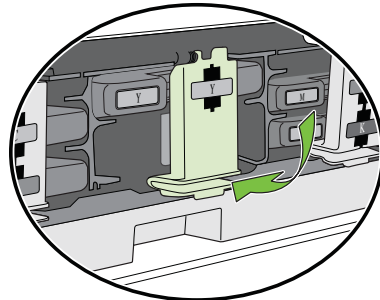
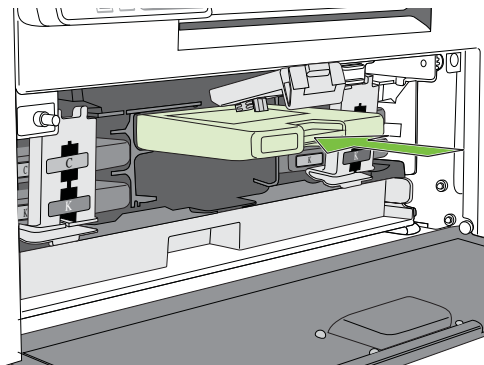
1. Open the front cover of the printer.



2. Open the latch and remove the empty ink cartridge.



3. Insert the new cartridge and close the latch.



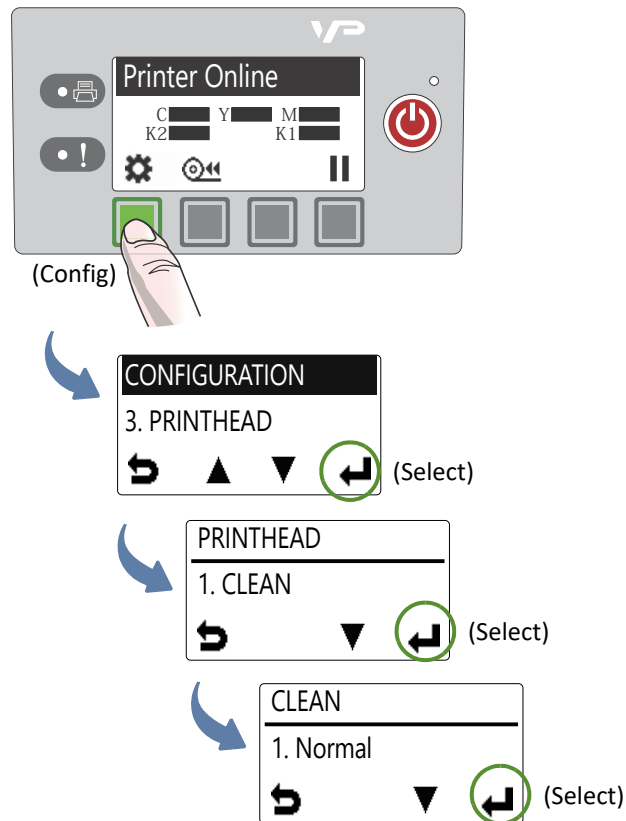
4. Close the front cover.

NOTE: Dispose of the empty ink cartridge according to local regulations.

Cleaning the Printhead

The printer provides three automated cleaning cycles for the printhead: Normal, Extended, and Extreme. Always start with the Normal cleaning cycle and proceed to the next level only if print quality does not improve.

1. On the control panel, select  (Config) → PRINTHEAD → CLEAN → Normal.

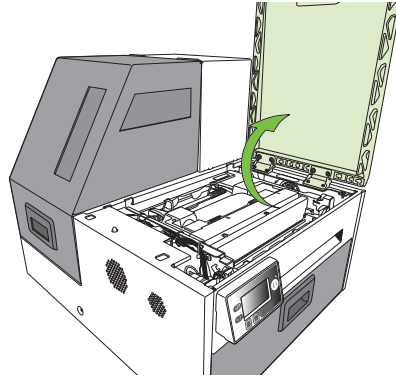


2. After the cleaning is completed, try printing again.

Replacing the Printhead

Make sure all the ink cartridges are installed before replacing the printhead.

1. Open the printer top cover.

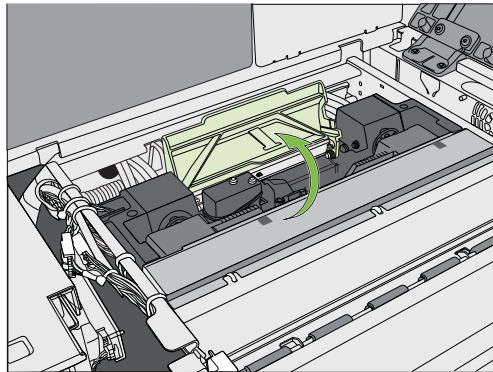


2. On the control panel, select  (Config) → PRINTHEAD → Replace.

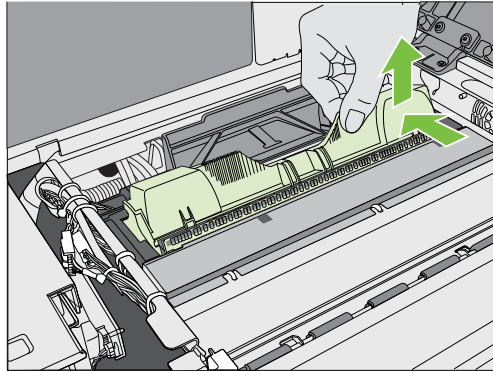


Wait for the printhead latch to be released.

3. When the printhead latch is released, open the latch fully.



4. Hold the printhead by the handle and push it toward the printhead latch. Once the printhead is released, lift it out of the printer.

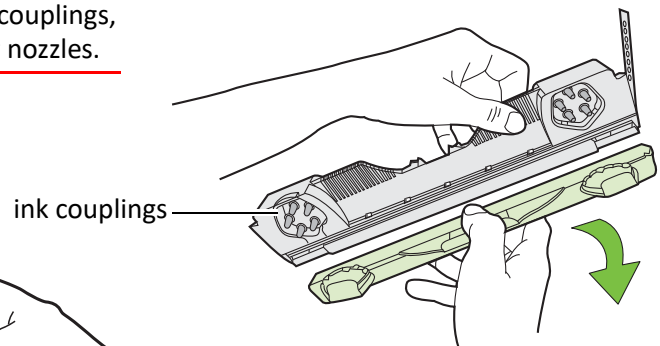
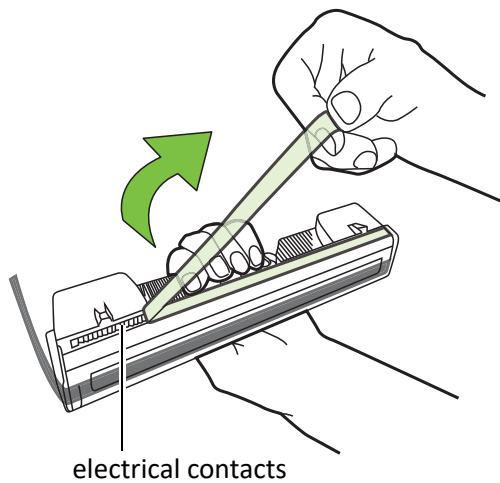


NOTE: Dispose of the old printhead according to local regulations.

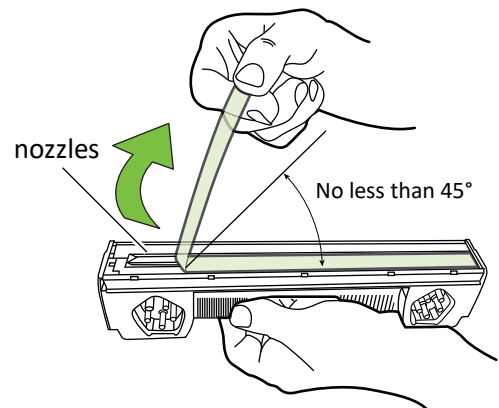
5. Remove the new printhead from its packaging.



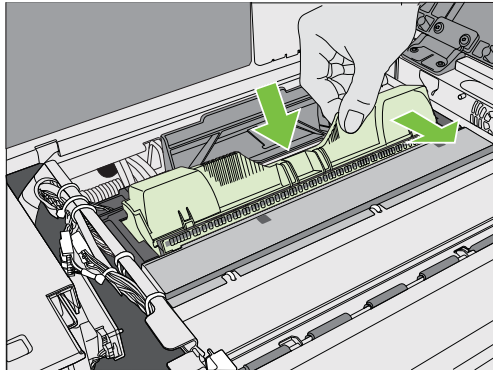
Do not touch the ink couplings, electrical contacts, or nozzles.



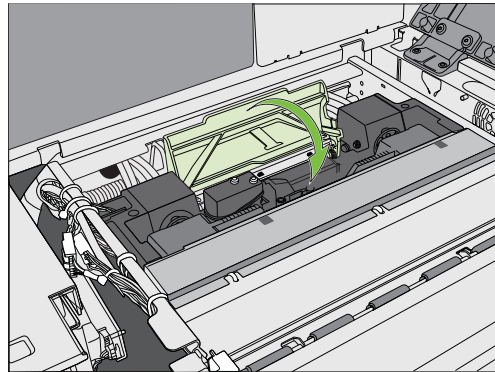
NOTE: Keep the orange cover. You will need it to cap the printhead if it is removed from the printer.



6. Slide the printhead into the slot. Push it toward the front of the printer. It should snap into place.



7. Close the printhead latch.



Check that ink is flowing through the tubes on both sides of the printhead.

8. Close the top cover.

Opening/Closing the Clamshell

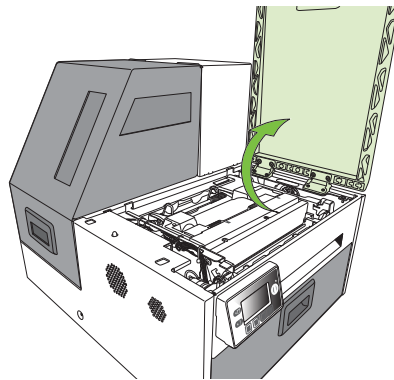
In the following procedures you may need to open the clamshell in order to access the areas inside the printer.

Opening the Clamshell



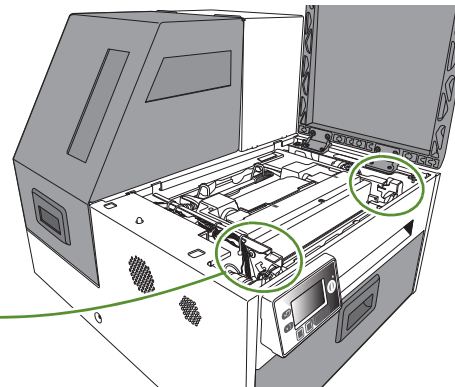
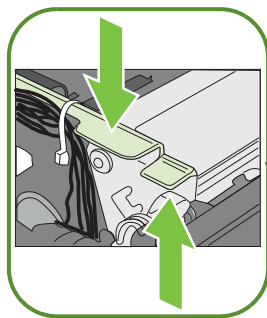
Do not open the top cover if the control panel shows Servicing Printhead.
Wait for the servicing to be completed first.

1. Open the top cover.

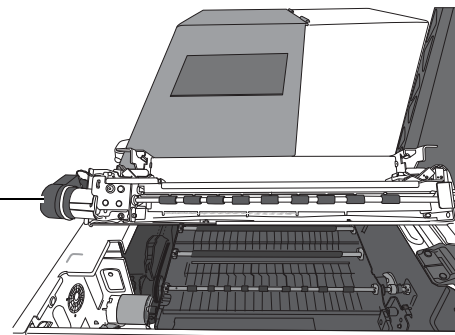


2. Squeeze the latches on either side of the clamshell and open the clamshell to its highest position.

squeeze clamshell latches



Clamshell open



Closing the Clamshell

Squeeze and hold the clamshell latches while you gently lower the clamshell back into place.

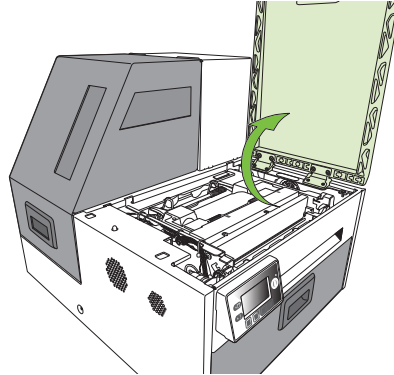


Do not allow the clamshell to drop when closing it.

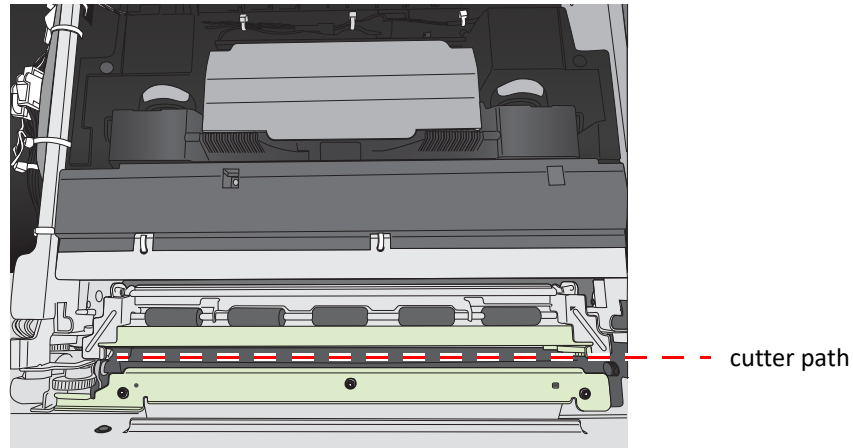
Cleaning Debris from the Cutting Zone

Clear all debris from the cutting zone to avoid contaminating the print zone, especially fine dust particles.

1. Open the top cover.



2. Vacuum any debris from the cutting zone (shown in green).



3. [Open the clamshell](#) and also check below the cutting zone, at the bottom of the printer and in front of the ink cartridges.

Cleaning the Sensors

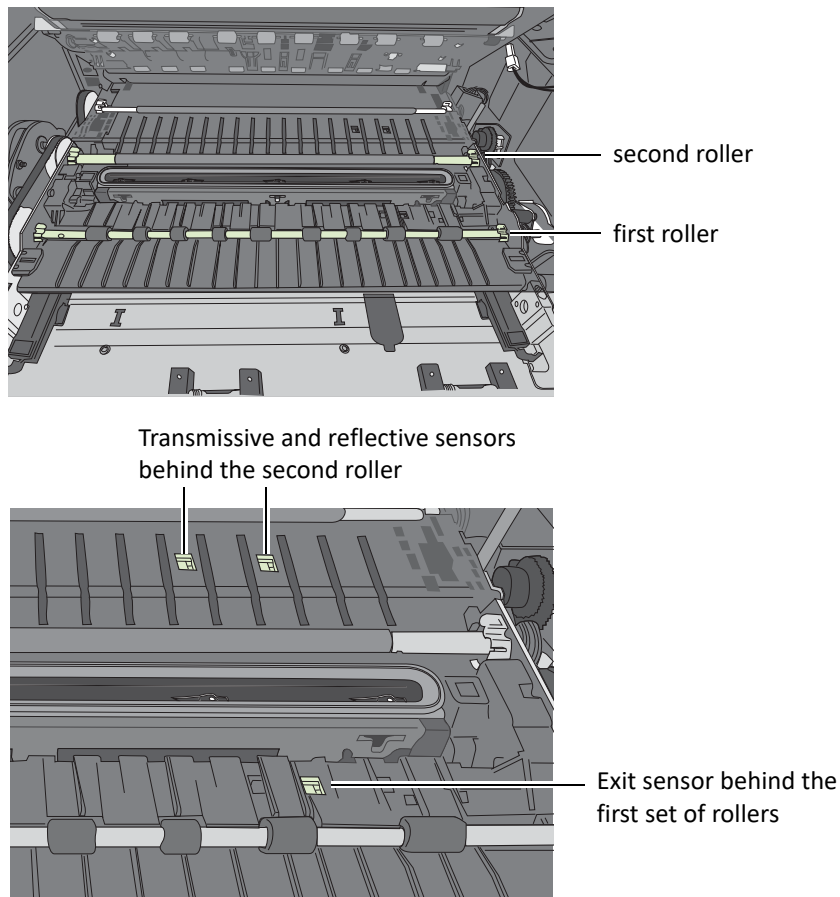
Always keep the media path clean as accumulated dust can affect printing.

1. [Open the clamshell](#) to its highest position.
2. Vacuum any dust or debris from the sensors.
Use the rollers to help you locate the sensors as shown in [Figure 5](#).
3. Clean ink from the exit sensor if it looks dull:
 - a Fold a lint-free cloth to form a tip and lightly moisten with de-ionized water. Insert it in the opening to clean the exit sensor.
 - b Repeat with a clean part of the cloth if necessary.
 - c Let the sensor dry before continuing.
4. [Close the clamshell](#) and top cover.



Do not vacuum the printhead.

Figure 5 Location of sensors

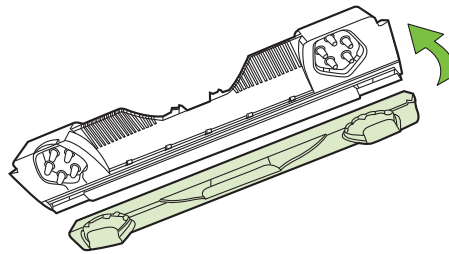


Replacing the Output Module/Cutter Assembly

- Tools**
- Nitrile powder-free gloves
 - Small flat-head screwdriver
 - T10 Torx driver
 - Scissors or cutter (for cable ties)
 - Cable ties

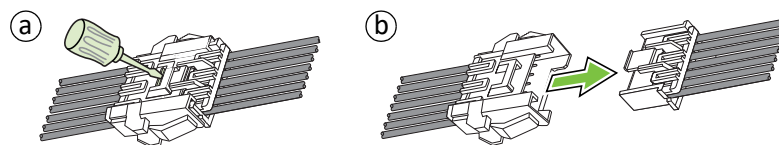
Keep the cutting zone free from debris. Check cut labels to ensure that the cuts have clean edges and replace the cutter assembly when necessary.

NOTE: Before you begin, remove the printhead and cap it with the orange protective cover.



Removal

1. Press the Power button on the control panel to turn off the printer. Also turn off the Power switch at the back of the printer.
2. [Open the clamshell](#) to its highest position.
3. Locate the wire harness connector (labeled P107) for the output module ([Figure 6](#)). Use a small flat-head screwdriver to release the connector and separate it.

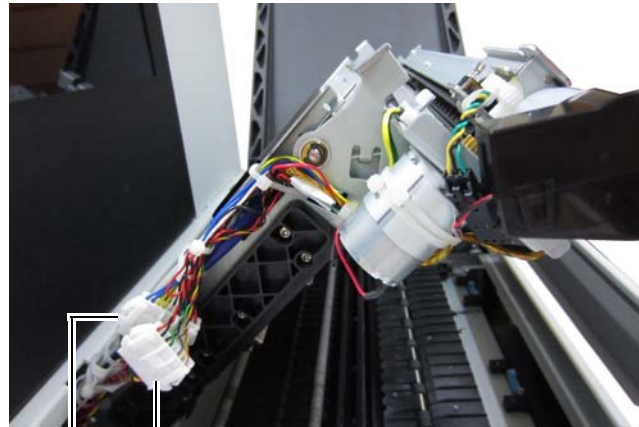


4. Carefully cut the cable ties securing the cables to the left side of the clamshell.



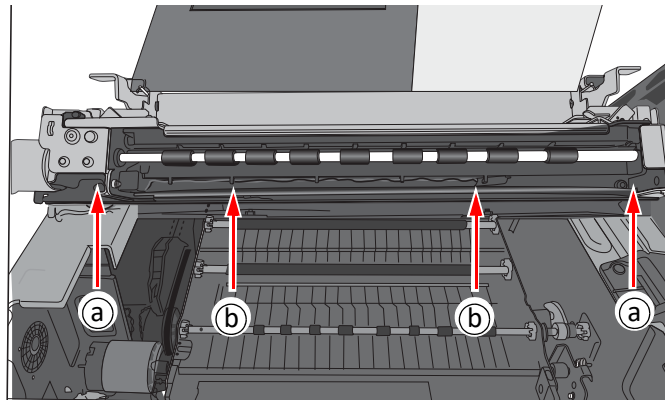
Be careful not to cut any of the cables.

Figure 6 Connectors and cables on left side of clamshell



connector for output module
connector for cutter assembly

5. Use a T10 Torx driver to remove the four screws securing the output module. Remove the outer screws (a) first.



6. Carefully remove the output module from the clamshell. There is a black cable looped across the bottom of the output module. Gently pull the cable away from the bottom corners of the output module and ease the output module out.

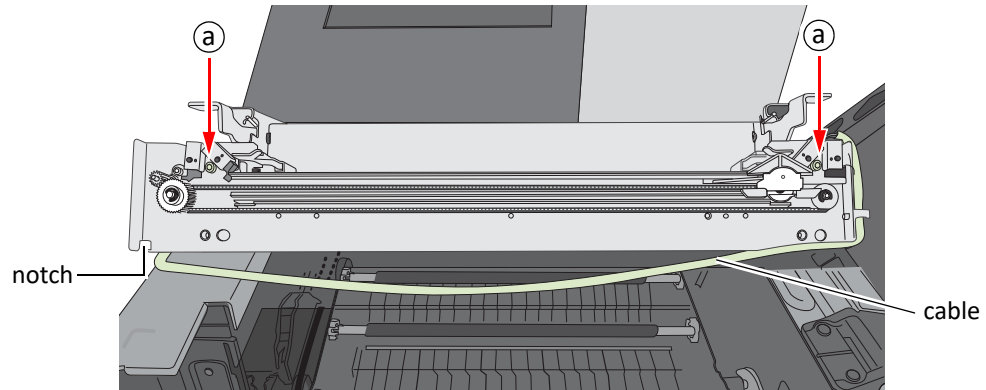
The cutter assembly is now visible ([Figure 7](#)).

Replace Cutter Assembly

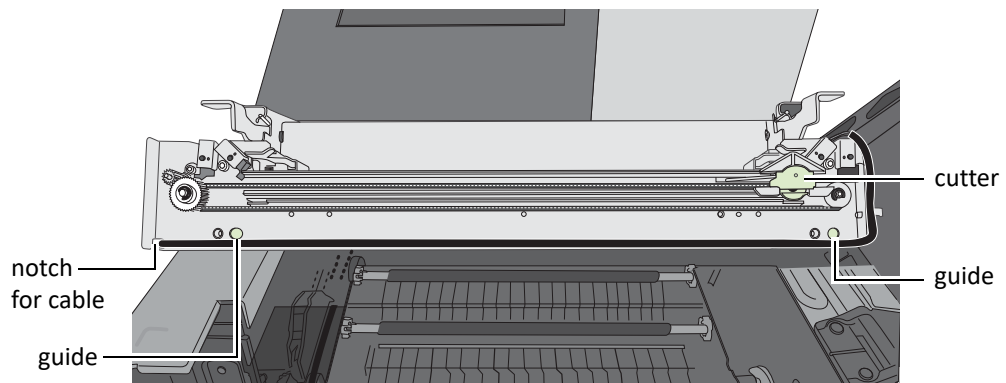
If replacing the cutter assembly, continue with the following steps.

1. Use a small flat-head screwdriver to release the wire harness connector for the cutter assembly (labeled CUTTER MODULE) and separate it (Figure 6).
2. Remove the two screws (a) securing the cutter assembly and remove the assembly (Figure 7).

Figure 7 Cutter assembly on clamshell



3. Line up the mounting holes and guides on the new cutter assembly and the front of the clamshell. Insert and tighten the screws to secure the assembly.
4. Make sure the cutter is at the side of the cutter assembly.



5. Reattach the wire harness connector (labeled CUTTER MODULE) for the cutter assembly at the side of the clamshell (Figure 6).

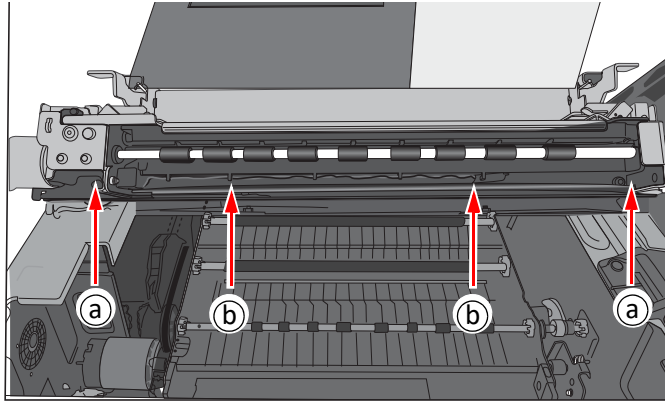


Be sure to reattach the correct connector for the cutter assembly.

6. Gently pull the black cable out of the notches at the bottom corners of the cutter assembly so that the output module can be installed.

Installation

1. Seat the output module on the cutter assembly, aligning the mounting holes for the screws.
2. Loop the black cable over the bottom of the output module, pushing it back into the notches at the corners of the cutter assembly.
3. Replace the four screws securing the output module. Replace the two screws in the center (b) before replacing the outer ones.



4. Reattach the wire harness connector (labeled P107) for the output module at the side of the clamshell (Figure 6).

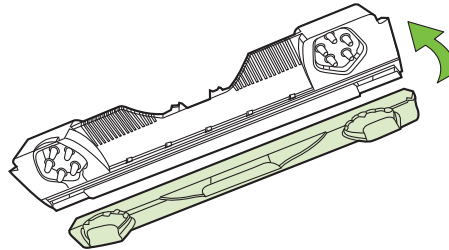


Be sure to reattach the correct connector for the output module.

5. Tidy the cables at the side of the clamshell and secure with cable ties (Figure 6).
6. Carefully **close the clamshell** while checking that none of the cables will get caught or pinched.
7. Close the top cover.

Replacing the Service Station

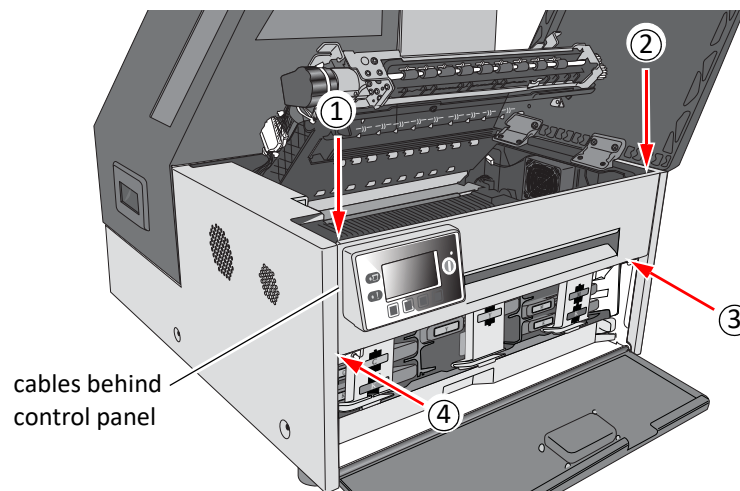
NOTE: Before you begin, remove the printhead and cap it with the orange protective cover.



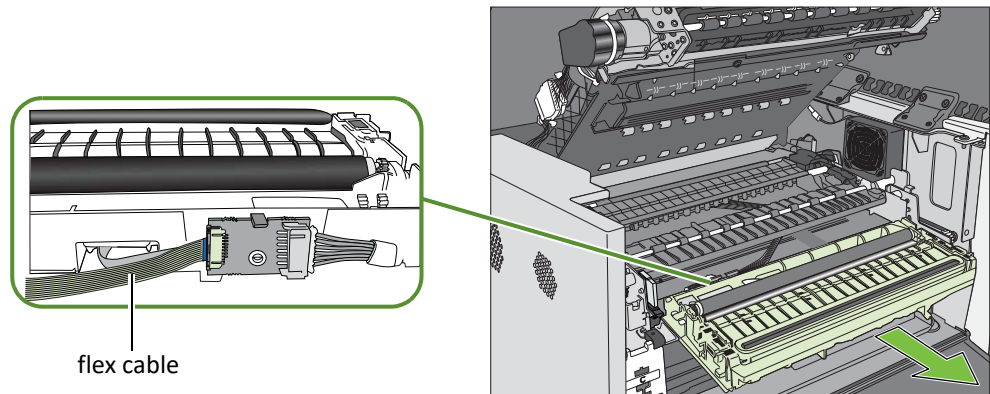
- Tools**
- Nitrile powder-free gloves
 - T20 Torx driver
 - Disposable towels

Removal

1. [Open the clamshell](#) to its highest position.
2. On the control panel, select  (Config) → SERVICE STATION → Eject.
Wait for the printer to eject the service station.
3. Press the Power button on the control panel to turn off the printer. Also turn off the Power switch at the back of the printer.
4. Remove the front panel:
 - a Use a T20 Torx driver to remove the four screws (labeled 1 to 4) securing the front panel.
 - b Release the front panel and disconnect the two cables behind the control panel.



5. Pull the service station forward until you can disconnect the flex cable to the wiper motor. Loosen the clip on the connector (Figure 8) to release the flex cable.



Ensure that the flex cable does not come into contact with any metallic surface. If it is touching metal and the printer is accidentally turned on, it will short the controller circuit and damage the printer.



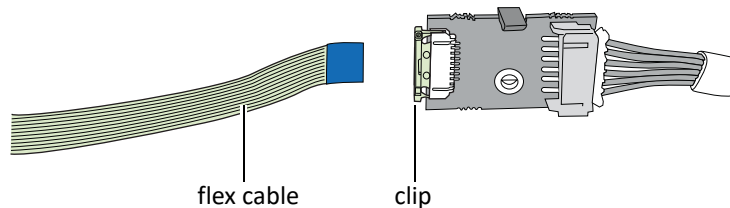
Take care when handling the service station. Ink may spill when you tilt the service station.

NOTE: Dispose of the old service station according to local regulations.

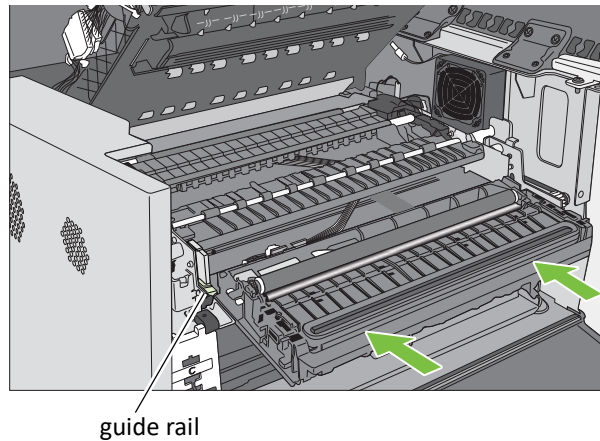
Installation

6. Insert the flex cable into the connector on the new service station and push in the clip to secure it.

Figure 8 Flex cable to connector on service station

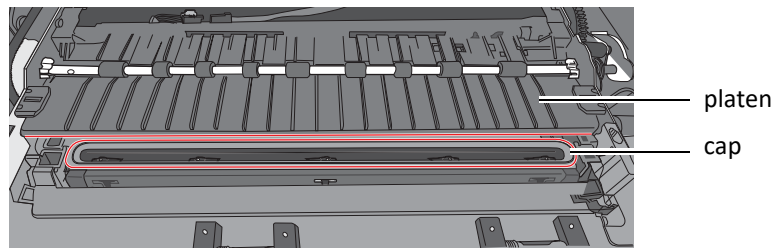


7. Carefully align the service station with the guide rails and slide it into the print engine. Push it in by applying even pressure near the edges, to ensure that the it goes in straight.

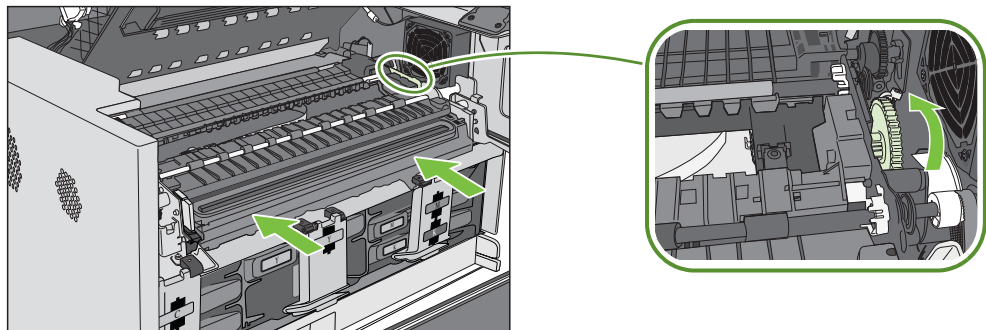


Check the alignment: the cap on the service station must be parallel with the edge of the platen as shown below.

If the service station is skewed sideways, pull it out and reinsert.



8. Continue pushing the service station while you manually rotate the positioning gear backwards to move the service station all the way into the print engine.

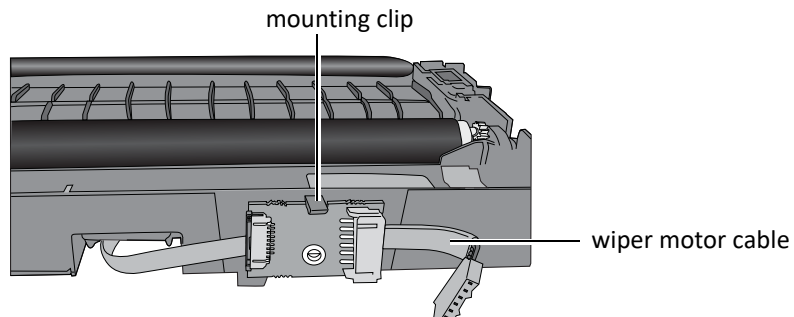


9. Reinstall the front panel: Reconnect the two cables to the front panel and replace the screws.
10. [Close the clamshell](#) and the covers.
11. Turn the printer on.

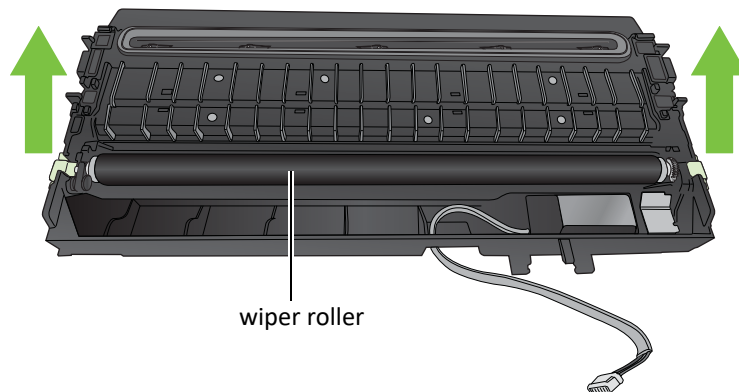
Replacing the Transfer Wiper Assembly

Removal

1. Follow the instructions to [remove the service station](#).
2. Disconnect the wiper motor cable from the PCB.
3. Release the PCB from the mounting clip.



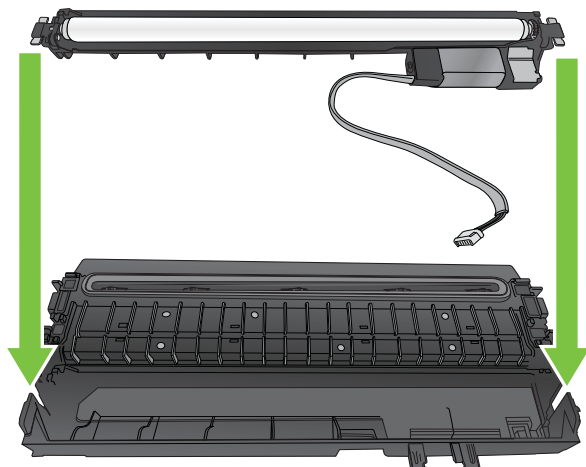
4. Route the cable through the housing as you remove the transfer wiper assembly.



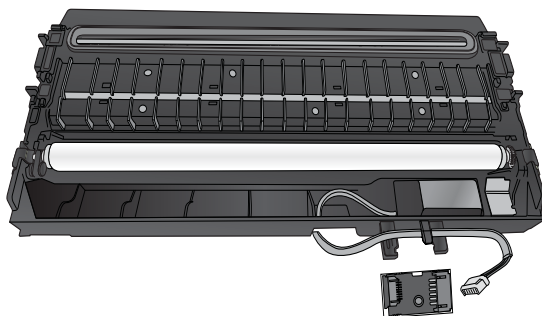
NOTE: Dispose of the old transfer wiper assembly according to local regulations.

Installation

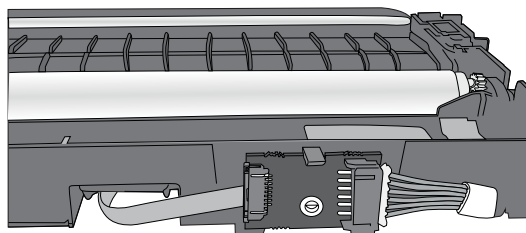
5. Route the wiper motor cable through the housing as you insert the new transfer wiper assembly into the service station.



6. Push the cable between the clips. Align the PCB with the mounting clip and push gently into place.



7. Connect the wiper motor cable to the PCB.



8. [Install the service station](#) in the printer.

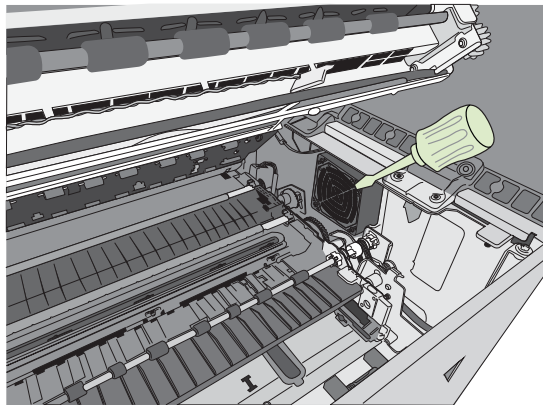
Replacing the Aerosol Fan Filter

You can replace the aerosol fan guard or just replace the fan filter.

- Tools**
- Nitrile powder-free gloves
 - Flat-head screwdriver

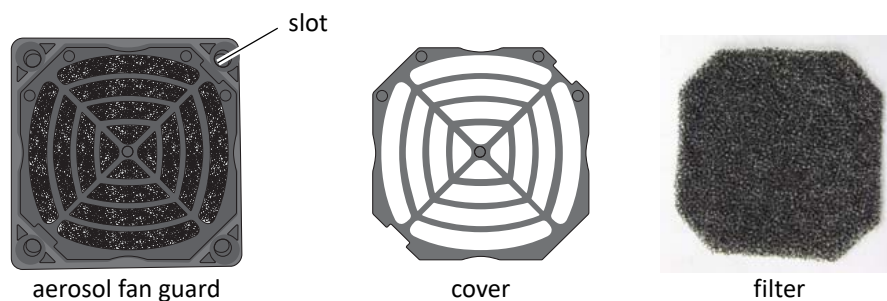
To replace the fan filter:

1. [Open the clamshell](#) to its highest position.
2. Insert the tip of a flat-head screwdriver into the slot at the corner of the aerosol fan guard, and pry the cover off.



3. Do the same with the new aerosol fan guard, and remove the filter ([Figure 9](#)).
4. Remove the old filter from the printer and insert the new filter.
5. Snap the cover back into place on the aerosol fan guard.
6. [Close the clamshell](#) and top cover.

Figure 9 Aerosol fan guard

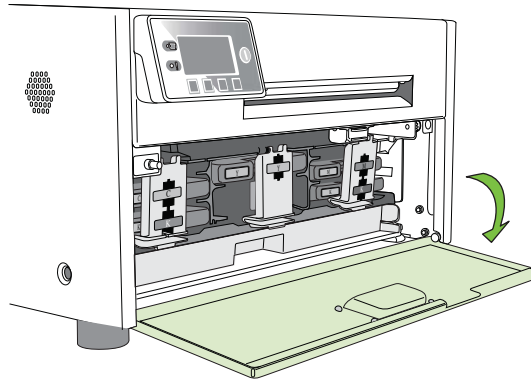


To replace the entire aerosol fan guard, carefully remove the four screws at the corners of the fan guard. Align the new fan guard with the mounting holes and replace the screws.

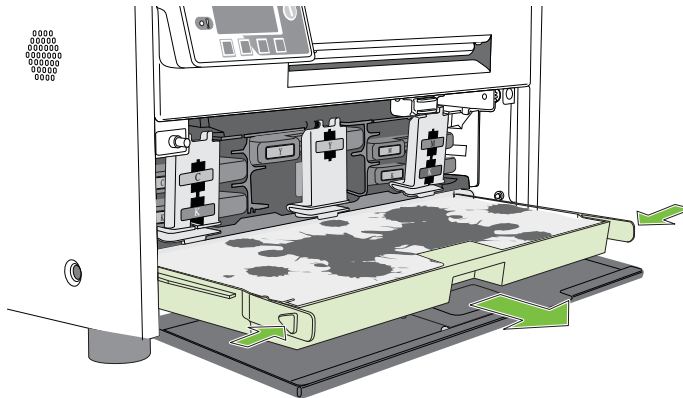
Replacing the Waste Ink Absorber

Tools • Nitrile powder-free gloves

1. Open the front cover of the printer.



2. Squeeze the latches on both sides of the waste ink tray and pull it out.



3. Remove the waste ink absorber and replace it with a new one.
4. Slide the waste ink tray into the printer. Push it in till it clicks into place.
5. Close the front cover.

NOTE: Take care when replacing the waste ink absorber to avoid staining hands and clothing. Dispose of the used waste ink absorber according to local regulations.

Chapter 4

Troubleshooting

If Error Messages Appear	66
Poor Print Quality or Incorrect Printout	69
Other Printing Problems	72
Clearing a Media Jam	73
Clearing Clogged Ink Nozzles	73
Adjusting Sensor Sensitivity	75

If Error Messages Appear

If error messages are displayed on the printer control panel, check the following table for the solution.

Error Message	Possible Cause	Solution
Clamshell Open	The clamshell is open.	Close the clamshell.
	The clamshell sensor is damaged	Contact Technical Support for part replacement.
End of media	End of media is detected.	Load a new roll or stack of labels.
Front Cover Open	The front cover is open.	Close the front cover.
	The front cover sensor is damaged.	Contact Technical Support for part replacement.
Jammed Cutter	Debris in the cutting zone.	1. Turn off the printer and unplug the power cable. 2. Clean any debris from the cutting zone. See Cleaning Debris from the Cutting Zone on page 52 for details.
	The cutter has reached the end-of-life or the blade is blunt.	Contact Technical Support for part replacement.
Jammed Media	The labels are jammed or cannot feed into the printer.	Clear the jam and reload the media. See Clearing a Media Jam on page 73.
	Media used exceeds the maximum thickness of 0.01" (0.3 mm).	Clear the jam and replace the media. See Choosing Label Media on page 20.
	The transmissive (gap) or reflective (black mark) sensor is dirty or faulty.	Clean the sensor with a lint free cloth and re-try. If the error persists, contact Technical Support for part replacement.
Low Ink	An ink cartridge is low.	Replace the ink cartridge. Check the ink status icons for the color that is running out.
Mech Error [01]	The printer is not receiving the correct data.	1. Check that the label & image size matches. Increase or decrease the image size slightly. 2. Cancel the job print (and clear the printer spooler, if needed) and re-try. 3. If the error persists, contact Technical Support.

Error Message	Possible Cause	Solution
Mech Error [code] where [code] <> 01	Printer mechanical fault.	Note the error code and contact Technical Support. If Mech Error 2 or Mech Error 3 appears during installation, see Troubleshoot Printer Setup on page 12. Do not attempt to restart the printer more than 3 times if the same Mech Error appears. Contact Technical Support.
Media Cover Open	The media cover is open.	Close media cover.
	The cover sensor is damaged	Contact Technical Support for part replacement.
Missing Ink Tank	The ink cartridge is not installed or not a genuine ink cartridge from the manufacturer (OEM).	Install a genuine ink cartridge. If the problem persists, contact Technical Support.
	The Ink cartridge is not properly installed.	1. Remove and re-insert the ink cartridge. 2. Wait 10-15s for detection. If the ink tank remains undetected, repeat the process. 3. If the ink tank remains undetected after the third attempt. Restart the printer and repeat step (1) & (2). 4. If the problem persists, contact Technical Support.
	The ink cartridge is faulty.	Replace the ink cartridge.
	The electrical contact is obstructed or dirty.	Clean contact with a lint free cloth and re-insert.
	The ink cartridge latch is damaged or cannot be closed properly.	Contact Technical Support for part replacement.
Missing Printhead	The printhead is not installed or not a genuine printhead from the manufacturer (OEM).	Install a genuine printhead. If the problem persists, contact Technical Support.
	The printhead is faulty.	1. Insert another printhead (or a known good printhead) and check if the printer is able to detect the printhead. If the problem persists, contact Technical Support.
	The electrical contact is obstructed or dirty	1. Clean the contact with a lint-free cloth. 2. Re-insert the printhead. If the problem persists, contact Technical Support.

Error Message	Possible Cause	Solution
No Media	No media is detected.	Load a new roll of labels.
	The media is not properly inserted into the input guide.	Re-load the media.
Wrong Media	Problems with the media.	See Printer feeds media without printing on page 72.
Top Cover Open	The top cover is opened.	Close the top cover.
	The top cover sensor is damaged.	Contact Technical Support for part replacement.
Out of Ink	An ink cartridge is out of ink.	Replace the ink cartridge. Check the ink status icons for the color that is empty.

Poor Print Quality or Incorrect Printout

Problem	Possible Cause	Solution
Long stripes of missing print or vertical light streaks on several labels	Ink nozzles are clogged.	See Clearing Clogged Ink Nozzles on page 73.
Printed barcode cannot be scanned	The media is not suitable for use in this printer.	Replace the media. See Choosing Label Media on page 20.
	The barcode is too small.	Adjust the size of the barcode.
	Ink nozzles are clogged and the barcode did not print properly.	See Clearing Clogged Ink Nozzles on page 73.
Ink is smudged on the labels	The media is not suitable for use in this printer.	Replace the media. See Choosing Label Media on page 20.
	Accumulated ink in the print zone.	1. Open the clamshell and inspect the print zone (Figure 10). 2. Lightly moisten a lint-free cloth with de-ionized water and gently clean off any ink from the print zone and printhead. 3. Close the clamshell.
	The media is curled and touching the printhead.	1. Replace the media. See Choosing Label Media on page 20. 2. If the problem persists, contact Technical Support.
	The media is curled by the unwinder when the printer is idle for a period of time.	1. On the EWS Advanced Settings page, set the printer to retract the media when it is idle for more than 10 minutes. 2. If the problem persists, contact Technical Support.
	The service station needs to be replaced.	See Replacing the Service Station on page 58.

Problem	Possible Cause	Solution
Mixed or muddy colors	The printhead is dirty.	1. Run Extended cleaning cycle from the control panel (⚙️ (Config) → MAINTENANCE → CLEAN → Extended). If print quality shows some improvement, repeat Extended cleaning until the print quality is satisfactory. 2. If print quality does not improve, open the clamshell and check for patches of wet ink on the printhead. 3. Use a lint-free cloth to absorb the ink. Avoid touching the neighboring nozzles. 4. Check the print quality. Run Extended cleaning cycle if necessary.
	Color ink cartridges are dirty.	1. Remove the yellow (Y) ink cartridge from the printer. 2. Check the color of the ink through the ink level prism. If the ink color is very dark (black) instead of yellow or iodine, replace all three color ink cartridges.
Position of printed image drifts vertically	Top of Form position needs adjustment.	Adjust the Top of Form offset from the printer driver. See Adjust Alignment for Printing on page 26.
	The media is not loaded properly.	Reload the media. See Loading Media on page 10.
	The media is not suitable for use in this printer.	Replace the media. See Choosing Label Media on page 20.
	The printer is unable to correctly detect the inter-label gap or black mark.	Adjust the sensitivity of the sensors. See Adjusting Sensor Sensitivity on page 75.

Problem	Possible Cause	Solution
Mis-registration or labels are skipped	Media settings do not match the media loaded in the printer.	Make sure the settings are correct for the media (e.g. media size and orientation).
	The media does not meet the specifications.	See Choosing Label Media on page 20 for the media specifications.
	The printer is unable to correctly detect the inter-label gap or black mark.	1. Clean the sensors. See Cleaning the Sensors on page 53. 2. If the problem persists, adjust the sensitivity of the sensors. See Adjusting Sensor Sensitivity on page 75.
Labels are skipped when printing Roll to Roll on media with black mark	The printer is unable to correctly detect the inter-label black mark.	Adjust the media size in the printer driver: reduce the height by 0.1" (3 mm).

Other Printing Problems

Problem	Possible Cause	Solution
Printer feeds media without printing and then displays Wrong media on the LCD.	Media settings do not match the media loaded in the printer.	Make sure the Media Layout setting (gap, black mark, or continuous) in the printer driver matches the media used.
	The media does not meet the specifications.	See Choosing Label Media on page 20 for the media specifications.
	The printer is unable to correctly detect the inter-label gap or black mark.	1. Clean the sensors. See Cleaning the Sensors on page 53. 2. If the problem persists, adjust the sensitivity of the sensors. See Adjusting Sensor Sensitivity on page 75.
Labels are not cut.	The exit sensor needs cleaning.	Clean the exit sensor. See Cleaning the Sensors on page 53.
Changes made using the control panel did not take effect.	The changes were not saved properly due to user or hardware error.	1. Try changing the parameter again. 2. If the problem persists, reset the printer.¹ Try changing the parameter again. 3. If the problem persists, contact Technical Support.
The LCD is missing characters or parts of characters	The LCD may be damaged.	The LCD may need to be replaced. Contact Technical Support.
Nothing is displayed on the LCD and the printer freezes.	Internal electronic or firmware failure.	Contact Technical Support.
A white band appears at the TOF when printing in Sheet Per Cut and Print and Present mode with continuous media	The continuous media gap is set to a non-zero value	Make sure the continuous media gap in the EWS is set to zero.

1. Requires security Level 2 (administrator).

Clearing a Media Jam

1. Open the media cover.
2. Cut off the jammed media from the media roll.
3. [Open the clamshell](#) to its highest position.
4. Remove the jammed media from inside the printer.
5. [Close the clamshell](#) and top cover.
6. Reload the media.

Clearing Clogged Ink Nozzles

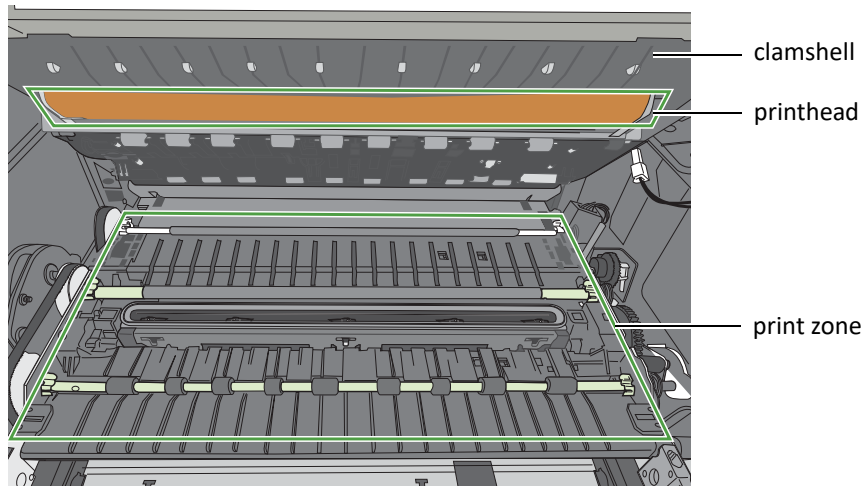
Long stripes of missing print or vertical light streaks on several labels may be an indication of clogged ink nozzles. Follow the procedure below to clear the ink nozzles.

After each step, print and check the print quality. Proceed to the next step only if the problem persists.

1. [Open the clamshell](#) and inspect the print zone (the area below the clamshell as shown in [Figure 10](#)). Vacuum any dust or debris from the area.

NOTE: Do **NOT** clean the printhead at this point.

Figure 10 Print zone



2. From the control panel, run Normal printhead cleaning.
( (Config) → MAINTENANCE → CLEAN → Normal)
 - If print quality shows some improvement, repeat Normal cleaning until the print quality is satisfactory.
 - If print quality does not improve, continue with [step 3](#).
3. Run the Extended cleaning cycle from the control panel.
 - If print quality shows some improvement, repeat Extended cleaning until the print quality is satisfactory.
 - If print quality does not improve, continue with [step 4](#).
4. Run the Extreme cleaning cycle from the control panel.
 - If print quality shows some improvement, repeat Extended cleaning until the print quality is satisfactory.
 - If print quality does not improve, continue with [step 5](#).
5. [Open the clamshell](#) and inspect the printhead. Lightly moisten a lint-free cloth with de-ionized water and gently clean off any ink. If no ink is visible, gently wipe the ink nozzles from one side to the other.
6. Change the printhead.
7. Contact Technical Support.

Adjusting Sensor Sensitivity

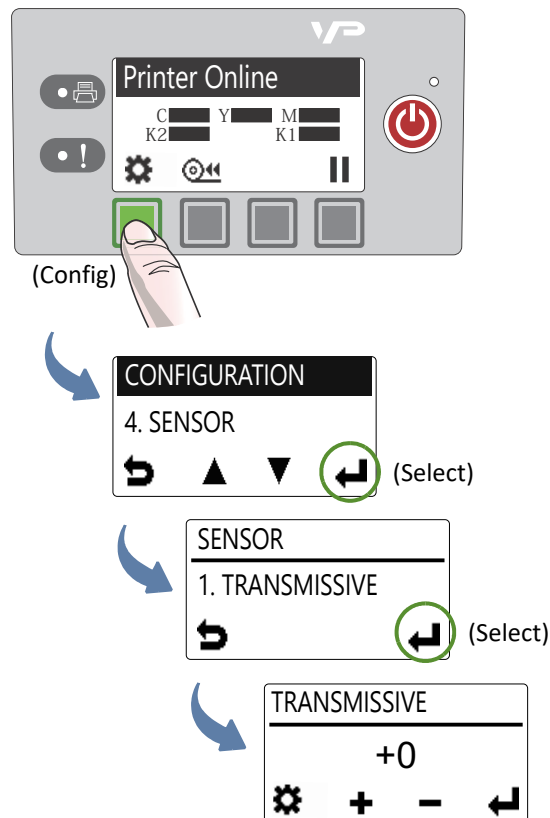
Adjust the sensor sensitivity if you encounter the following problems:

- The printer keeps feeding media and does not print. This may be because the printer is unable to detect the gap or black mark between labels and the sensor sensitivity needs to be increased.
- The printer does not position the media correctly for printing because it detects a “false” gap or mark. In this case the sensor sensitivity needs to be decreased.

Generally sensor sensitivity may need to be increased when the liner is thicker and decreased when the liner is thinner.

The sensor settings require security Level 1 (supervisor) or higher. Select the security level before you proceed (see [Selecting the Security Level](#) on page 19).

1. On the control panel, select  (Config) → SENSOR → TRANSMISSIVE (for inter-label gap) or REFLECTIVE (for black mark).
2. Set the sensitivity level.



3. Press  to return to the main menu.

Try printing again. If the problem persists after repeated adjustments, the media is not compatible with the printer.

Appendix

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System Requirements

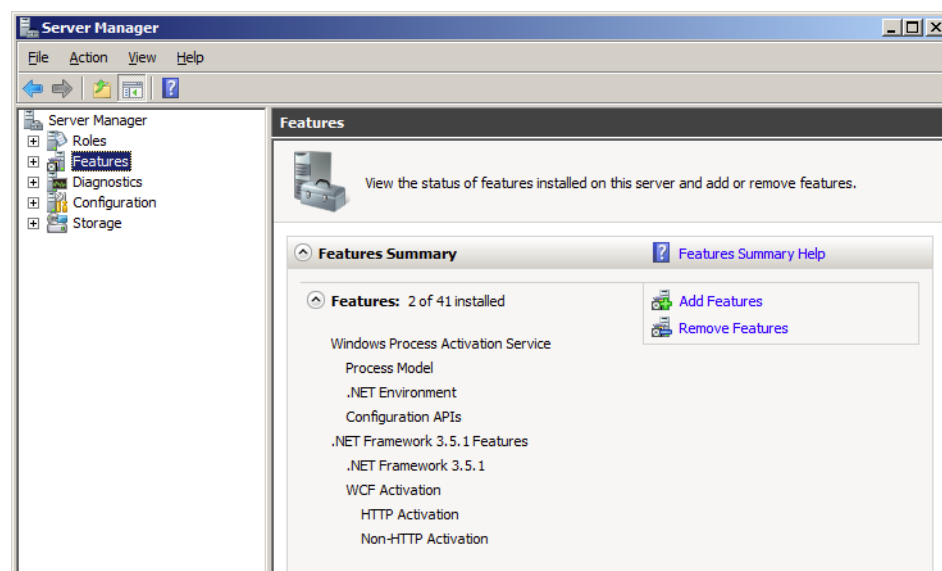
The computer used to print must meet the minimum requirements listed below.

Specifications	
Processor	Intel® Core™2 and above
Operating system	Supported operating systems with the latest updates: • Windows 10 (32- and 64-bit) • Windows 8 (32- and 64-bit) • Windows 7 (32- and 64-bit) with Service Pack 1 • Windows Server 2008 R2 (32- and 64-bit) with Service Pack 1 • Windows Server 2003 R2 (32- and 64-bit) with Service Pack 2
Software	• .NET Framework 3.5
	• Minimum: 1 GB for Windows 7 and later operating systems • Recommended: 2 GB or more
Available disk space	Minimum: 1 GB
Web browser	• Internet Explorer • Google Chrome • Mozilla Firefox

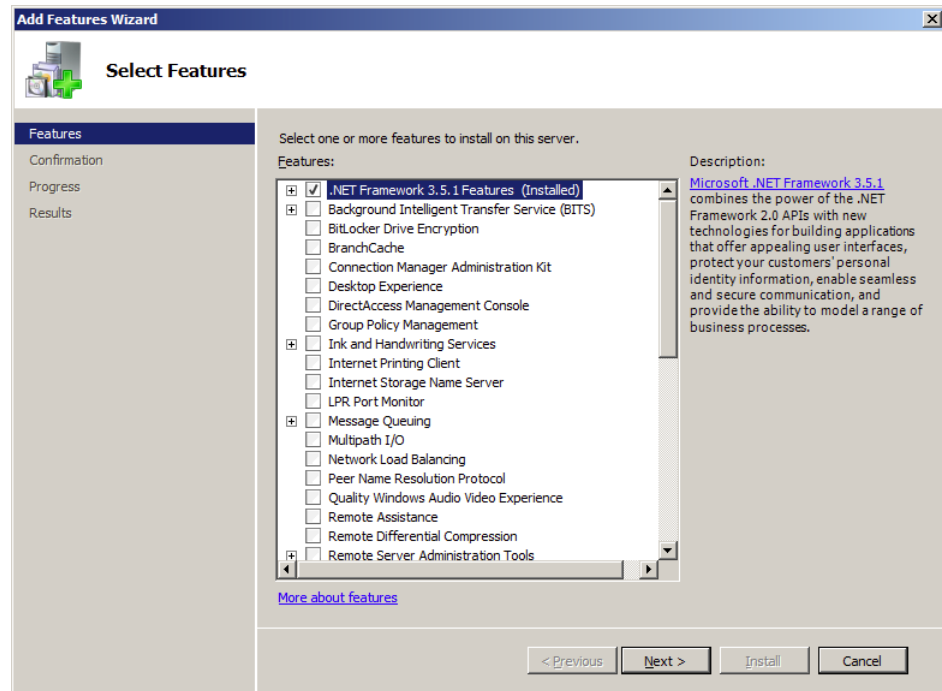
.NET Framework Installation on Windows Server 2008 R2

After the .NET Framework is installed on Windows Server 2008 R2, follow the steps below to activate the features.

1. On the Windows **Start** menu, select **Administrative Tools > Server Manager**.
2. Click **Features** to view the status of installed features. Click **Add Features**.



3. Select the **.NET Framework 3.5.1** entry and click **Next**.



4. Confirm the installation by clicking **Install**.
5. When installation is complete, click **Close**. You may be prompted to restart the computer.

Config Options on the Control Panel

On the control panel, press  (Config) to access the following menus and options. Some settings require security Level 1 or Level 2 (see [Selecting the Security Level](#) on page 19).

Menu/Option	Description
SETUP	
Language ¹	Select the display language for the printer control panel. Supported languages are: English, French, German, Spanish, Italian, Traditional Chinese, Simplified Chinese, and Japanese.
Reset ²	Restore the default factory settings.
List Setup	Print the key parameters of the printer which will fit neatly on a 4" x 4" label (with inter-label gap or continuous as specified in the EWS Diagnostics page).
Security	Display the current security level: • Level 0 (operator) – The user can access all the functions needed to print, but cannot change printer parameters via the control panel. • Level 1 (supervisor) – The user can access certain printer parameters. A password is required to access this level. • Level 2 (administrator) – All parameters are enabled. A password is required to access this level. Passwords are set using the EWS (see Embedded Web Server (EWS) on page 33).
LCD Contrast ¹	Adjust the contrast of the text against the background (–3 to 3). Use + and – to increase or decrease the value.
LCD Brightness ¹	Adjust the brightness of the back light (–3 to 3). Use + and – to increase or decrease the value.
Date/Time ²	Set the printer clock (YYYY/MM/DD HH:MM:SS). 1. Press + and – to set each digit (0 to 9). 2. Press ⬅ to move to the next digit.
Unit ¹	Unit used for Adjust Offset, either inch or mm.
Label	Select either continuous, black mark or gap label stock for printing the PQ plot and configuration pages from the control panel.

Menu/Option	Description
Page Cutting	Select the printer default print mode. The available modes are • Sheet per cut • Print and Present • Roll to Roll (Leave first label blank) • Roll to Roll (Print from first label) • Roll to Roll (Multiple job queue) When the use printer setting is selected in the driver, the printer will use this mode.
MAINTENANCE	
Print Test Page	Print a test page. Load 4" x 4" or larger labels (with inter-label gap or continuous as specified in the EWS Diagnostics page). • Barcodes: Print barcode test page. • PQ Plot: Print diagnostics test page.
PRINTHEAD	
Clean	Clean the printhead. Always start with the Normal cleaning cycle and proceed to the next level only when print quality does not improve. • Normal • Extended • Extreme
Replace	Depriple the printhead and release the printhead latch, allowing the user to change the printhead.
SERVICE STATION²	
Cap Printhead	Cap the printhead.
Eject	Eject the service station.
SENSOR¹	
Transmissive	Adjust the sensitivity of the transmissive gap sensor (–5 to 5). This sensor detects the inter-label gap or notch.
Reflective	Adjust the sensitivity of the reflective gap sensor (–5 to 5). This sensor detects the inter-label black mark.
Level	Detect and display the tilt angle of the printer. The print engine needs to be kept within two degrees from the horizontal plane in both the X and Y axes, otherwise ink flow to the printhead will be disrupted. Use this option to help you adjust the printer's tilt angle within ±2 degrees from horizontal.

Menu/Option	Description
EXT SIGNAL PRINT¹	
By I/O	When this option is selected, the printer receives the print job but will not print until it receives a signal from an external device. See Printer Interface (GPIO) Specifications on page 84.

Menu/Option	Description
ADJUST OFFSET¹	Offset range: ±0.5" or ±12.7 mm.
	Use these options for borderless printing only.
	Left Edge + ← → - + ↑ ↓ - Top of Form: + ↑ ↓ - Bottom of Form:
Top of Form	Adjust the starting line of the image.
Bottom of Form	Adjust the ending line of the image.
Left Edge	Adjust the print position horizontally.
Cutter Offset	Adjust the position of the cutter. A positive value adjusts the cut away from the top of the label while a negative value moves it nearer.
	↑ + ↓ - Label exits printer in this direction 

Menu/Option	Description
NETWORK	
List Network	Print the network setup parameters which will fit neatly on a 4" x 4" label (with inter-label gap or continuous as specified in the EWS Diagnostics page).
DHCP Setting ²	Set the IP settings on the printer. • Automatic: Set DHCP server to automatic. • Manual: Disable DHCP server or allow user to set a static IP.
IP Settings ²	Enter the static IP settings for the printer. • Static IP • Subnet Mask • Gateway • WINS Server 1. Press + and - to set each digit (0 to 9). 2. Press ← to move to the next digit.

1. Requires security Level 1 (supervisor) or higher.
2. Requires security Level 2 (administrator).

Printer Interface (GPIO) Specifications

The Printer Electrical Signal Interface and Protocol is developed to coordinate the printing of labels with an external process in a production workflow. Using this protocol, the printer (Device A) receives a print job but will not print until it receives a signal from an external device (Device B).

The following scenario illustrates how this could be used:

1. A box on a conveyor arrives at a workstation. A barcode is read and triggers a message to a computer.
2. The computer sends a print job (probably with some variable data) to the printer.
3. The box reaches the next station on the conveyor and triggers a signal (e.g. by a footswitch or automatically by a sensor). The printer starts printing when the signal is received.

The electrical signal to initiate printing is received at the printer's GPIO port. The handshaking protocol is as follows:

- The printer signals it is ready to print by pulling up the Print Job Ready signal from low to high.

- Device B signals it is ready by pulling up the Ready signal. This must remain high for at least 50 ms. When the Ready signal is pulled down while the printer is printing, the printer will pause and behave exactly the same way as if the user presses the Pause button on the control panel. The printer remains in Pause mode until the Ready signal is pulled up again for at least 50ms.
- The printer prints and pulls down the signal when printing is completed.
- No printing occurs whenever the Printer Error signal is pulled low.

Figure 11 Timing Diagram

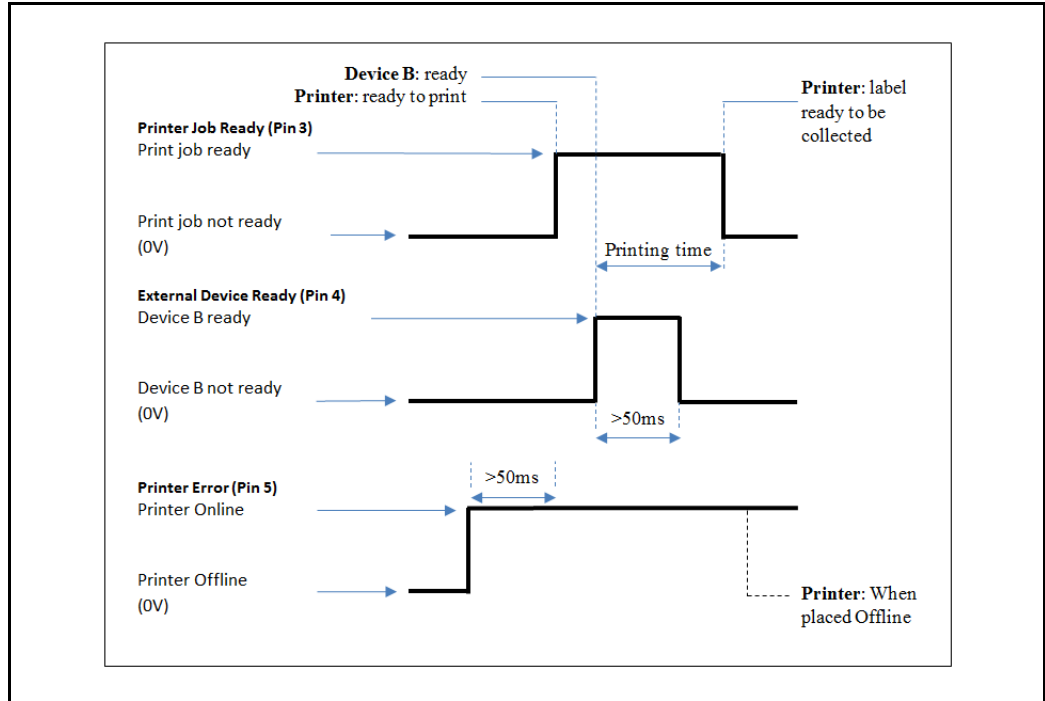


Table 7 GPIO Pin Assignment (D-sub 9-pin Connector)

Pin	Signal Description
1	HIGH (3.3 V)
2	ADC 5
3	Print job ready (output) (GPIO A25)
4	External device ready (input) (GPIO D04)
5	Printer error (output) (GPIO D08)
6	LOW (0 V)
7	NC

Table 7 GPIO Pin Assignment (D-sub 9-pin Connector)

Pin	Signal Description
8	NC
9	NC

Regulatory Information

FCC Statement

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

NOTE: Any changes or modifications to this equipment which are not expressly approved by the manufacturer could void the user's authority to operate this equipment.

CE Conformity

For customers in Europe



The CE mark indicates that this product complies with the European requirements for safety, health, environment and customer protection.

This product complies with following European directives: Low Voltage Directive 2006/95/EC, EMC Directive 2004/108/EC, WEEE Directive 2002/96/EC and RoHS Directive 2011/65/EU.

Waste Electrical and Electronic Equipment Directive



This symbol on the product or on its packaging indicates that this product should be separately disposed of, and not together with other unsorted municipal household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment.

The separate collection and recycling of waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment, through controlled treatment of possible hazardous substances that may exist. For more information about where you can drop off equipment for recycling, please contact your local city office, your household waste disposal service or the dealer where you purchased the product.



声明

此为 A 级产品，在生活环境中该产品可能会造成无线电干扰。在这种情况下，可能需要用户对其干扰采取切实可行的措施。



警告使用者

這是甲類的資訊產品，在居住的環境中使用時可能會造成射頻干擾：在這種情況下，使用者會被要求採取某些適當的對策。



A 급 기기 (업무용 방송통신기기) / 이 기기는 업무용(A급)으로 전자파 적합등록을 한 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정 외의 지역에서 사용하는 것을 목적으로 합니다

VP7xx 产品：有毒和危险物品表

按照电子信息产品中国污染控制管理方法的要求（依据 SJ/T11363-2006 标准）

部件名称	有毒和危险品					
	铅 (Pb)	水银 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴化苯 (PBB)	多溴化二苯醚 (PBDE)
外部表面·隔板以及底盘	O	O	O	O	O	O
PCAs 以及电气元件	X	O	O	O	O	O
电缆线材	X	O	O	O	O	O
光学系统	O	O	O	O	O	O
转辊和滚筒	O	O	O	O	O	O
液压 / 气压系统	O	O	O	O	O	O
纸处理系统	X	O	O	O	O	O
耗材	O	O	O	O	O	O

备注

O：表示该项目中涉及的所有物料，其包含的有害物质的含量低于 SJ/T11363-2006 标准的限制要求。

X：表示该项目中涉及的所有物料中至少有一中，其包含的有害物质的含量高于 SJ/T11363-2006 标准的限制要求。

注意：供参考的环境保护数据是在产品要求的正常使用环境中测试获得，例如温度和湿度等。

VP7xx 限用物質含有情況標示聲明書

單元 Unit	限用物質及其化學符號 Restricted substances and its chemical symbols					
	鉛 Lead (Pb)	汞 Mercury (Hg)	鎘 Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr (VI))	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenylethers (PBDE)
外殼・隔板 以及底盤	O	O	O	O	O	O
PCAs 以及 電氣元件	-	O	O	O	O	O
電纜線材	-	O	O	O	O	O
光學系統	O	O	O	O	O	O
轉輥和滾筒	O	O	O	O	O	O
液壓 / 氣壓 系統	O	O	O	O	O	O
紙處理系統	-	O	O	O	O	O
耗材	O	O	O	O	O	O

備考 1: “超出 0.1wt%” 及 “超出 0.01 wt%” 係指限用物質之百分比含量超出百分比含量基準值。

備考 2: “O” 係指該項限用物質之百分比含量未超出百分比含量基準值。

備考 3: “-” 係指該項限用物質為排除項目。

Note 1: “Exceeding 0.1 wt%” and “exceeding 0.01 wt%” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

Note 2: “O” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

Note: 3: The “-” indicates that the restricted substance corresponds to the exemption.

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