QuickLabel®

QL-120

USER GUIDE

AstroNova®

QL-120 User Guide

Obtaining Service

To obtain warranted service, please contact QuickLabel Technical Support through one of the Factory Sales and Service Centers.

Contact Information

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quicklabel.com

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A5 Westacott Business Centre
Westacott Way, Maidenhead
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1F, Bldg2#,
458 North Fu Te Road,
Shanghai Waigaoqiao F.T.Z., 200131
Tel: +86 21 5868 2809
quicklabel.cn

Ownership Information

Congratulations and thank you for your business. Your purchase of a QuickLabel digital label printer is an investment in production flexibility and packaging efficiency. Please record the model number and serial number of your product.

FCC Part 15 Compliance

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

•   Reorient or relocate the receiving antenna.

•   Increase the separation between the equipment and receiver.

•   Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

•   Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

RoHS2 Compliance

The QL-120 Label Printer does not contain the substances specified within ANNEX II of "Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)", that is, lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) exceeding their specified maximum concentration values tolerated by weight in homogeneous materials, except for the exemptions set in ANNEX III of the Directive and its amendments.

This information is offered in good faith to the best of our knowledge, but is subject to revision as new information becomes available.

WEEE Directive
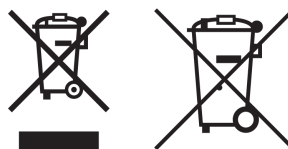
European Union (and EEA) only.

These symbols indicate that this product is not to be disposed of with your household waste, according to the WEEE Directive (2002/96/EC), the Battery Regulation ((EU) 2023/1542) and/or your national laws implementing those Directives and Regulation.

If a chemical symbol is printed beneath the symbol shown above, in accordance with the Battery Regulation, this indicates that a heavy metal (Hg = Mercury, Cd = Cadmium, Pb = Lead) is present in this battery or accumulator at a concentration above an applicable threshold specified in the Battery Regulation.
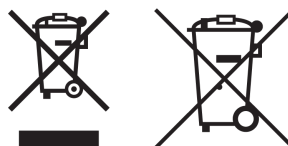
This product should be handed over to a designated collection point, e.g., on an authorized one-for-one basis when you buy a new similar product or to an authorized collection site for recycling waste electrical and electronic equipment (EEE) and batteries and accumulators. Improper handling of this type of waste could have a possible impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE.

Your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources.

For more information about the recycling of this product, please contact your local city office, waste authority, approved scheme or your household waste disposal service.

(EEA: Norway, Iceland and Liechtenstein)

WEEE Compliance - UK

These symbols indicate that this product is not to be disposed of with your household waste, according to the UK Waste Electrical and Electronic Equipment Regulations and the UK Batteries and Accumulators Regulations.

If a chemical symbol is printed beneath the symbol shown above, in accordance with the UK Batteries and Accumulators Regulations, this indicates that a heavy metal (Hg = Mercury, Cd = Cadmium, Pb = Lead) is present in this battery or accumulator at a concentration above an applicable threshold specified in the UK Batteries and Accumulators Regulations.

This product should be handed over to a designated collection point, e.g., on an authorized one-for-one basis when you buy a new similar product or to an authorized collection site for recycling waste electrical and electronic equipment (EEE) and batteries and accumulators. Improper handling of this type of waste could have a possible impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. Your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources.

For more information about the recycling of this product, please contact your local city office, waste authority, approved scheme or your household waste disposal service or visit www.astronovainc.com.

WEEE Compliance - India only

This product is not to be disposed of with your household waste, according to the e-waste (Management and Handling) Rules, 2011. This product should be handed over to a designated collection point, e.g., to an authorized collection site for recycling waste electrical and electronic equipment (EEE). Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources. For more information regarding return and recycling of WEEE products, please contact QuickLabel.

Also, this product complies with the "India E-waste Rule 2011" and prohibits use of lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers in concentrations exceeding 0.1 % by weight and 0.01 % by weight for Cadmium, except for the exemptions set in Schedule ll of the Rule.

Battery - For CA, USA only

Included battery contains Perchlorate Material ---- special handling may apply.

See http://www.dtsc.ca.gov/hazardouswaste/perchlorate for detail.

European Union (and EEA) only

Contains a preservative to control microbial deterioration.

Contains 1,2-benzisothiazol-3(2H)-one.

May produce an allergic reaction.

Contains less than 30% of components with unknown hazards to the aquatic environment.

Safety data sheet available on request.

Declaration of Conformity
Declaration de Conformité
Ubereinstimmungserklärung
Dichiarazione di Conformità

ID	DoC-22834682
Manufacturer's name and address Nom et adresse du fabricant Hersteller Nome del costruttore	AstroNova, Inc. 600 East Greenwich Avenue West Warwick, RI 02893 USA
Brand Name(s) Nom(s) de marque(s) Markenname(n) Nome/i dei marchi	QuickLabel ®
Model No. Modele No. Model Nr. Modello No.	QL-120, QL-120D, QL-120X
Description of Products Description des produits Produktbeschreibungen Descrizione dei Prodotti	Color Label Printer
Standards to which conformity is declared Standards auquel la conformité appartient Normen für welche Übereinstimmung erklärt wird Norme per le quali si dichiara la conformità	CAN/CSA-C22.2 No.60950-1-07 2nd Edition IEC-62368-1:2018 3rd edition EN 62368-1:2014+A11:2017 EN 55032:2015+A11:2020 Class B EN 55035:2017+A11:2020 EN 61000-3-2:2014 Class A EN 61000-3-3:2013 EN 55035:2017+A11:2020 EN 50564:2011 (Commission Regulation (EC) No 1275/2008) FCC Part 15B Class B ICES-003 Issue 6 Class B IEC63000:2018
Application of Council Directives Application des Decisions du Conseil Anwendbar fur die Richtlinien Applicazione delle Direttive del Comitato	2011/65/EU 2014/30/EU 2014/35/EU 2023/1542/EU 2023/826/EU

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive and Standard.
Je, Soussigné, déclare que l'équipment spécifié ci-dessus est en conformité avec la directive et le standard ci-dessus.
Ich, der unterzeichnende erkläre hiermit, daß das oben beschriebene Gerät den vorgenannten Richtlinien und Normen entspricht.
Il sottoscritto dichiara che l'apparecchio sopra specificato è conforme alle Direttive e Norme sopra specificate.

Phillip Soares
Quality Systems Manager
AstroNova, Inc.
CE Label First Affixed Date: 18

Date of issue: 5/13/2025
Place of issue: West Warwick, RI

Contents

1 Getting Started

QL-120 Series Printers

This user guide applies to the following QL-120 series printers.

- **QL-120** - The QL-120 is a fast color label printer, featuring industry-leading print quality, reliability, performance, and connectivity.

- **QL-120X** - The QL-120X is built on the QL-120 platform and features new second-generation printhead technology and extended printhead life.

- **QL-120D** - The QL-120D is built on the QL-120 platform and features pigment-based ink instead of dye-based ink.

Installation and Setup Overview

Refer to the installation and setup summary for an outline of the required steps.

1. Before installing the printer, select an appropriate location, review the installation precautions, and make sure that the system requirements are met.

2. Unpack the printer and make sure that all parts are included.

3. Install the printer. This process requires installing the printhead, installing ink cartridges, and filling the system with ink.

4. Load the media that will be used for printing.

5. Install the printer driver. You can install the printer with a USB or network connection.

Before Installing the Printer

Before installing the printer, select an appropriate location, review the installation precautions, and make sure that the system requirements are met.

Choosing an Installation Location

The installation environment must be as described in this section.

- The printer power cord must be able to connect to an outlet (100V - 240V AC +10%/-15%). This outlet must be easily accessible.

- Avoid installing the printer near a faucet, water heater, humidifier, or refrigerator.

- Ensure the environment temperature is within 59 to 86 degrees Fahrenheit (15 to 30 degrees Celsius).

- Ensure the environment humidity is within 10% to 80% relative humidity.

- Avoid placing the printer in areas exposed to high temperature and humidity, extremely low temperature, severe temperature changes, or direct sunlight. Especially, avoid placing the printer near fire, outdoors, in distribution warehouses, or in refrigerated areas.

- Avoid installing the printer in areas subject to dust.

- The room must be properly ventilated.

- No printer feet should float. The printer must be held level constantly.

- When placing the printer on a desk, table, or other similar surface, it must be sturdy and stable enough to support the weight of the printer.

- The minimum space required for installation and maintenance is shown below.
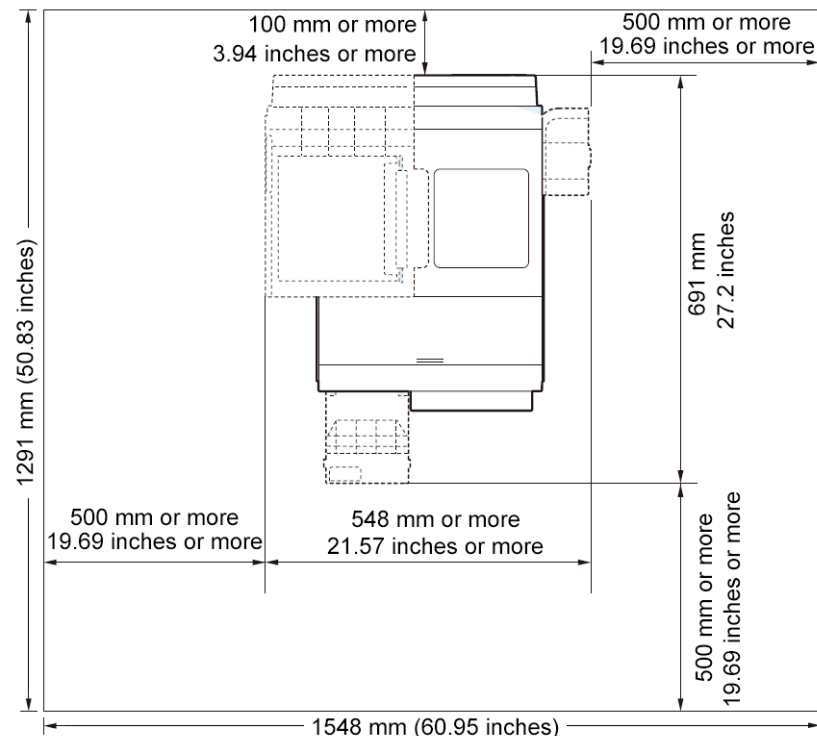
Installation Precautions

When installing the printer, observe the following precautions.

- Imaging faults can result from dew condensation that occurs when the printer is moved from a cold place to a warm place. Leave the unpacked printer as is for at least two hours before installing it.

- The printer weighs about 53 pounds (24 kilograms). Two persons are required to lift the printer. Two persons standing at the front and back of the printer respectively must lift the printer by holding it with their hands under the bottom handles (two at the front, one at the left, and one at the right). Attempting to lift the printer in an improper position can result in the printer falling or injury.
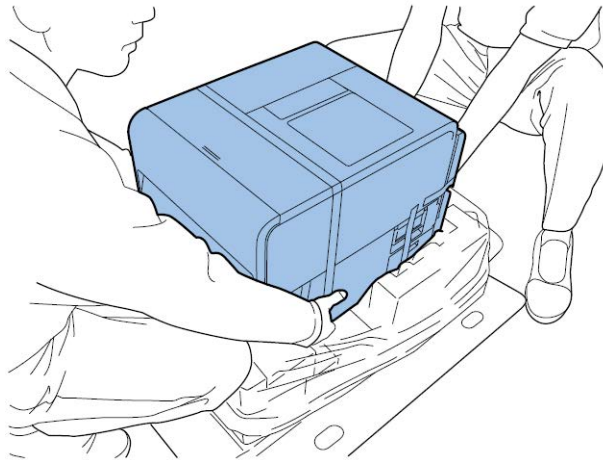
System Requirements

Before installing the printer, make sure your PC meets the following requirements.

- Windows® 11, 10 (32-bit or 64-bit), 8.1 (32-bit or 64-bit), Server 2022, 2019, 2016, 2012R2

- Microsoft .NET Framework 3.5 SP1

- 350 MB free hard drive space

- Internet access

- One available USB 2.0 port for USB installation *or* network connectivity for network installation

Unpacking the Printer

The printer is secured using packing tape and cushioning materials to protect it against vibrations and shock during transportation. Use the following procedure to unpack the printer. Keep the packing materials for future transportation.

1. Remove the four grips from the packing carton, and then remove the outer casing.
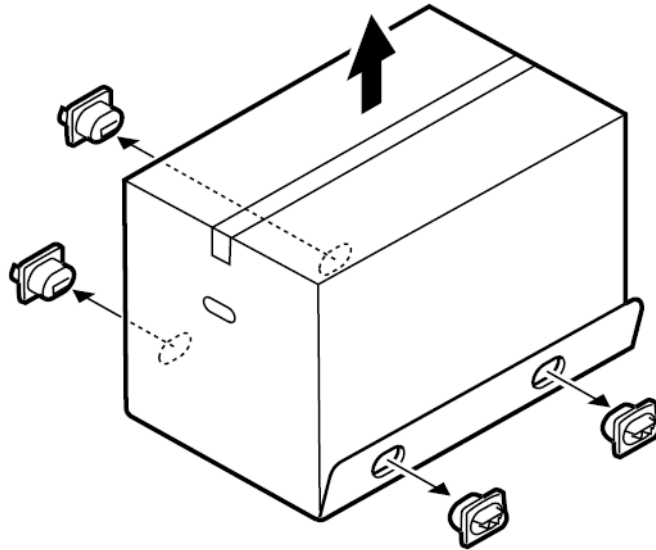
2. Remove the accessory box, and then remove the upper pads.
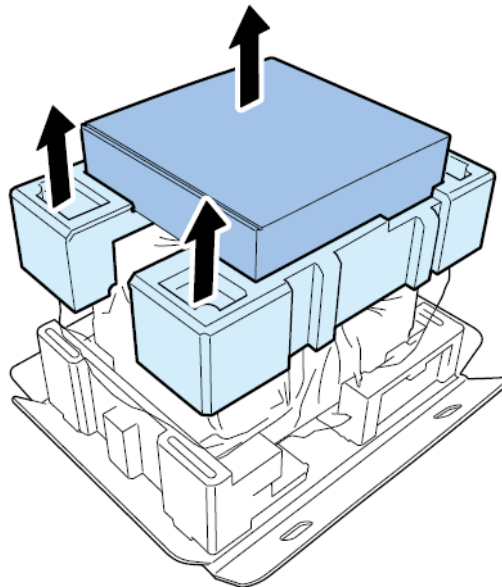
3.   Unwrap the plastic bag from top to bottom.
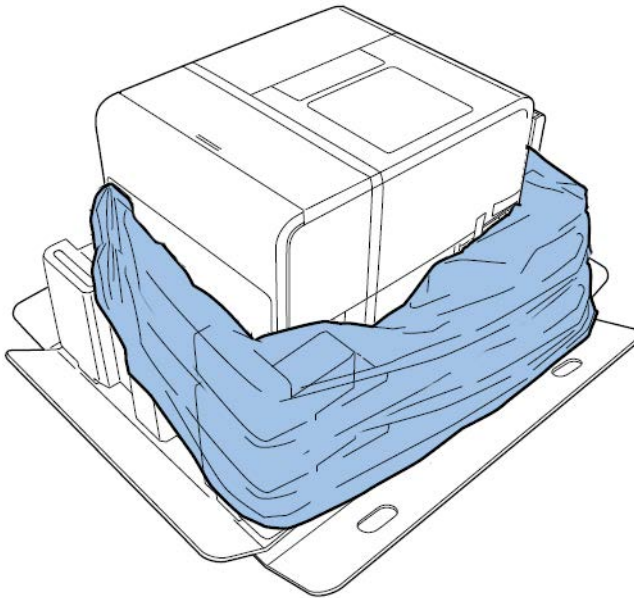
4.   Holding the handles at the bottom of the printer, lift the printer to take it out from the package base. Lift from the illustrated points. Do not hold the front side of the printer.
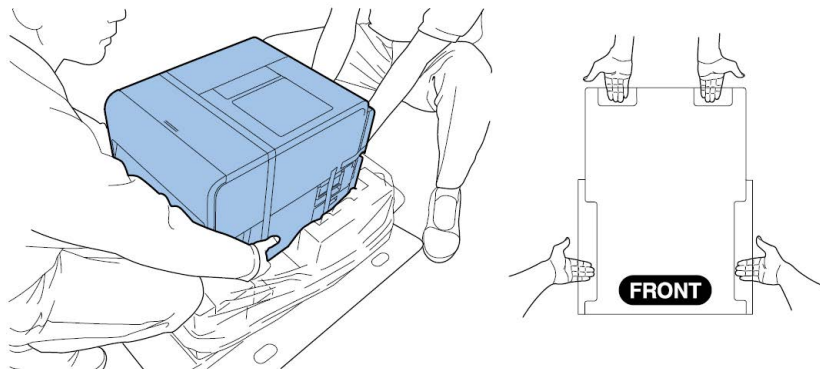
Note: *The printer weighs about 53 pounds (24 kilograms). Two persons are required to lift the printer. Two persons standing at the front and back of the printer respectively must lift the printer by holding it with their hands under the bottom handles (two at the front, one at the left, and one at the right). Attempting to lift the printer in an improper position can result in the printer falling or injury.*

5.   Place the printer on a horizontal table. Then remove all pieces of packing tape and cushioning materials visible on the exterior of the printer.

6.   Open the roll cover.
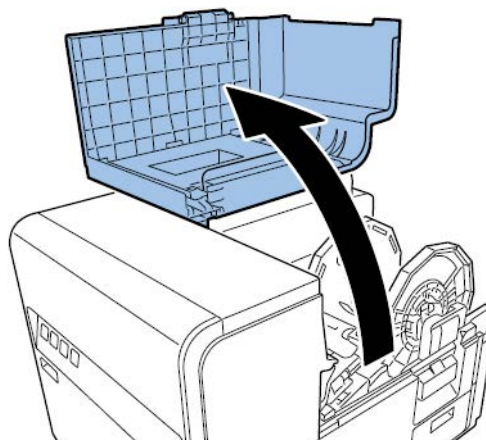
7.   Remove all pieces of tape securing the roll holder.

8.   Push down the upper unit release lever, and then open the upper unit.
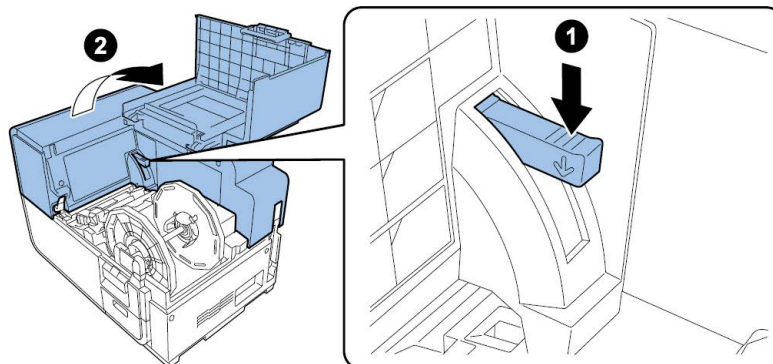
9.   Remove all pieces of tape, cushioning material, and red tags from inside the printer.
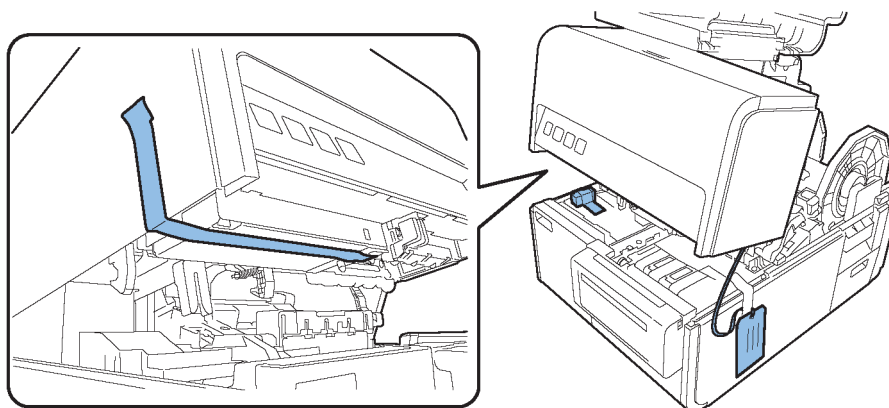
10. If necessary based on your printer model, remove the protective sheet located over the transport unit.

   • If you are unpacking a QL-120 or QL-120X printer, turn the pinch roller release lever, and then remove the protective sheet.
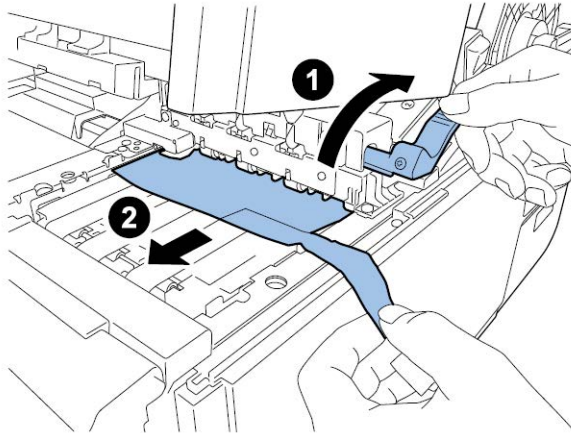
   • If you are unpacking a QL-120D printer, leave the protective sheet over the transport area. This sheet will be removed after initial ink filling.
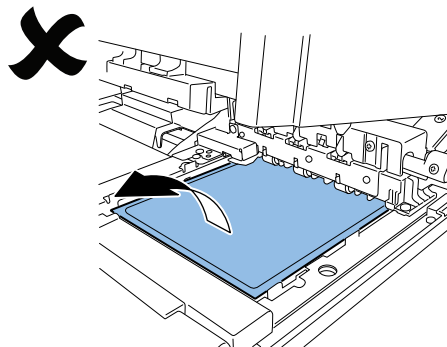
Checking the Included Parts

Check to make sure the following items are included with the printer.

   • Printhead unit
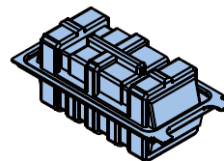
- Starter ink cartridges (one for each color)
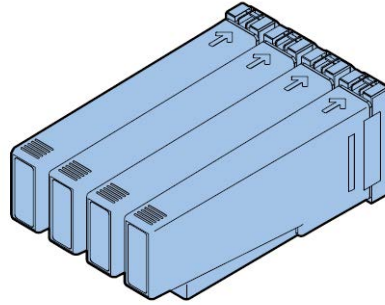
- Scraper (QL-120D only)
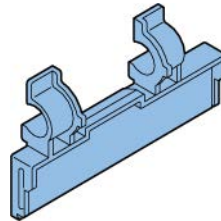
- AC power cables (North American and European)

- USB cable

- 4x5 inch media for test patterns

Caution: *Several power cables come with printer. Use the appropriate power cord for the power supply used at the installation site.*

Installing the Printer

The printer installation process requires installing the printhead, installing ink cartridges, and filling the system with ink.

Installing the Printhead

Use the following instructions to install the printhead.

Caution: *The printhead is a sensitive electronic component. Use extreme caution when installing it. Follow the provided instructions carefully to prevent damage to the printhead.*

1.   Open the roll cover.
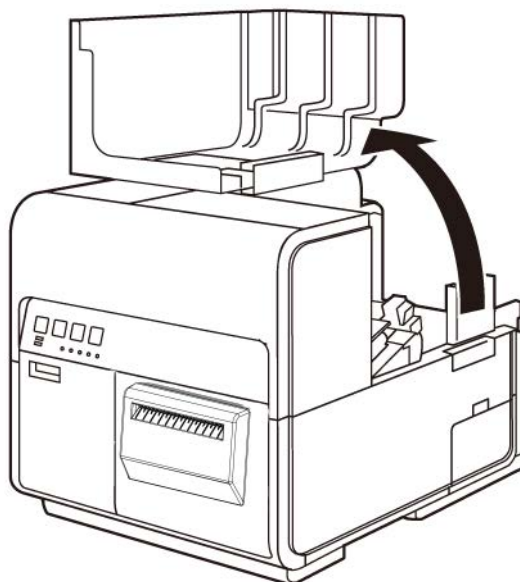
2.   Push down the upper unit release lever and then open the upper unit.
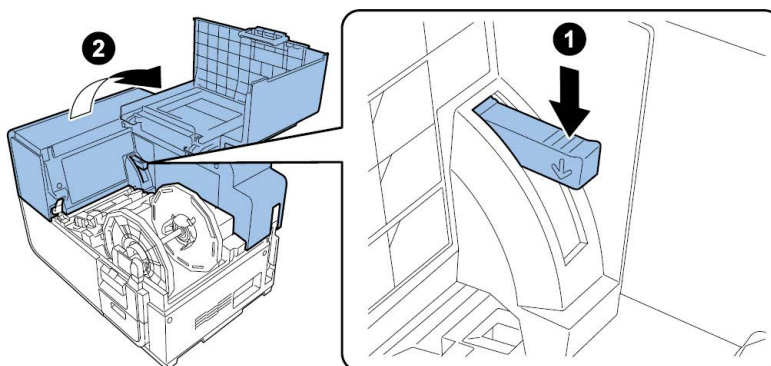
3.   Remove the two thumbscrews to remove the main maintenance cover from the upper unit.
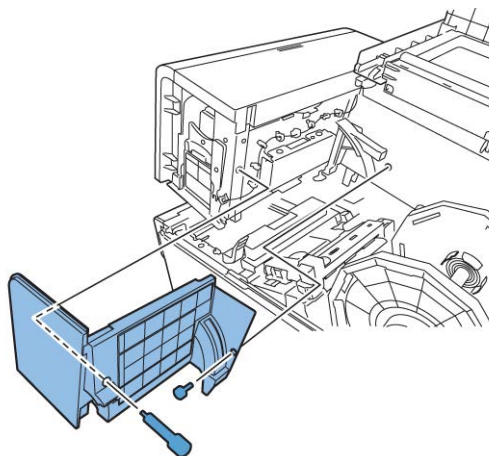
4.   Close the upper unit.
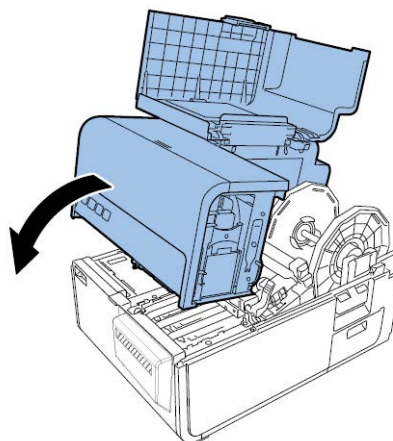
5.   Remove the print module cover. Then open the upper printhead release lever and lower printhead release lever.
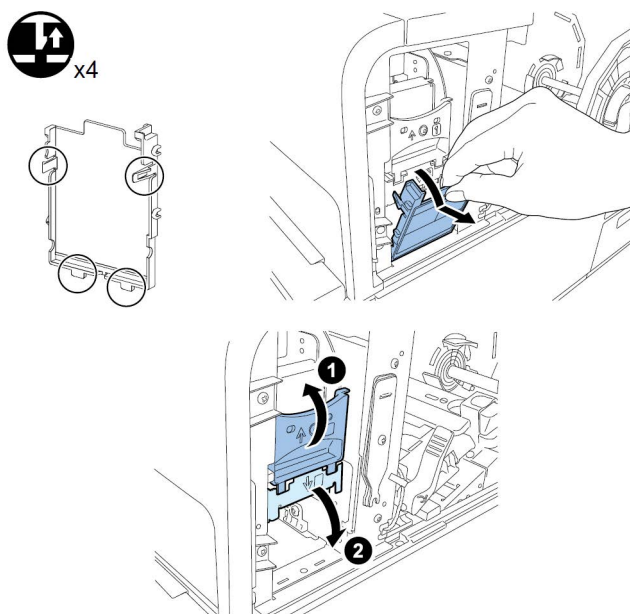
Remove the blade cleaner.
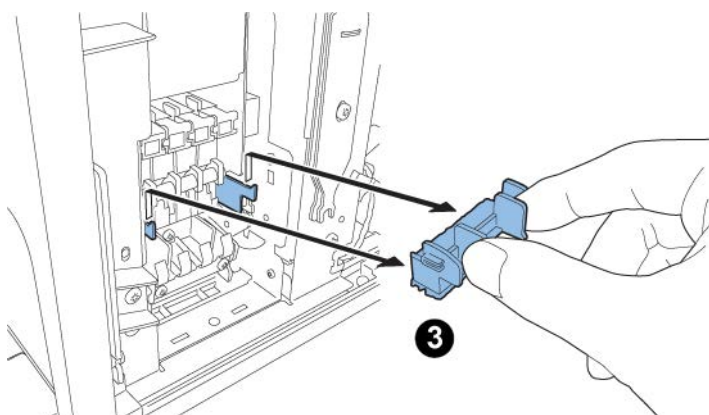
6.   Remove the printhead from the package.
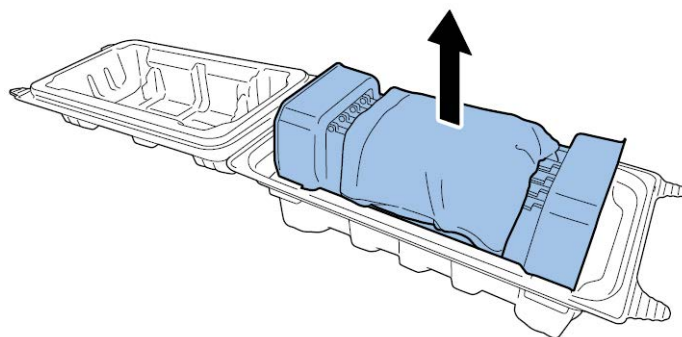
Caution: *Do not touch the printhead face. An ink injection problem can occur. Hold the printhead only by the end tab.*
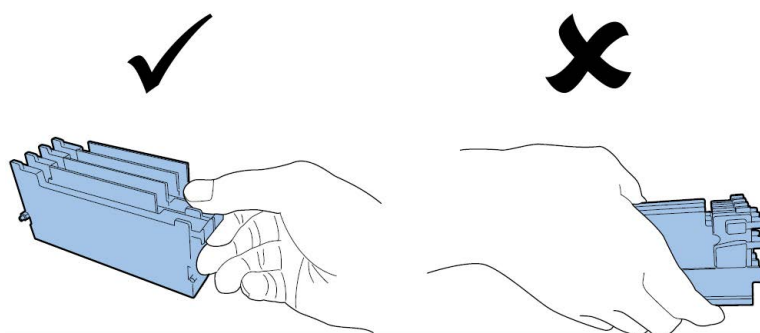
7.   Remove the cover protecting the terminals of the printhead PC boards. Remove the protective guides from the ends of the printhead.
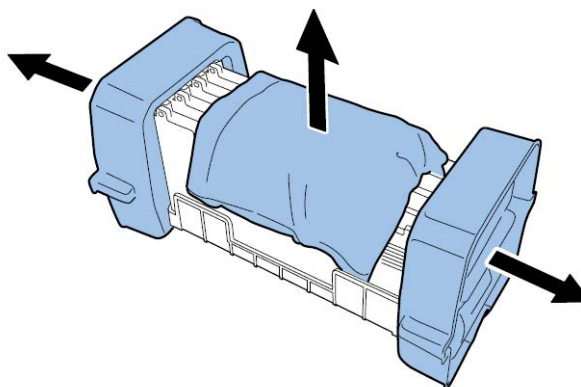
8.   Remove the caps from the printhead ink supply ports.
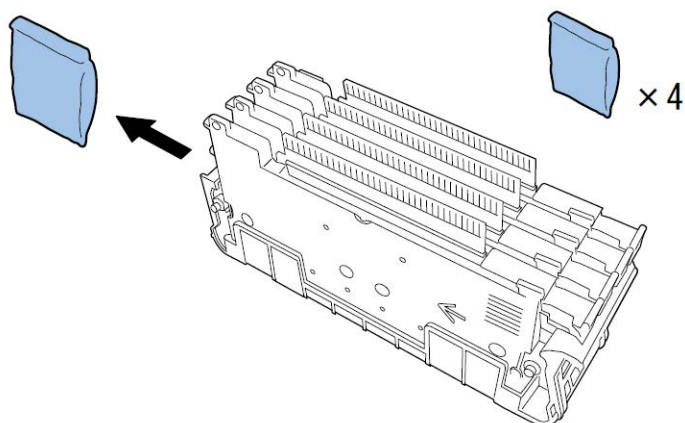
Note: *The serial number labels on QL-120 and QL-120X printheads are white. The labels are yellow on QL-120D printheads.*

9.   Remove the printhead from the head protector.
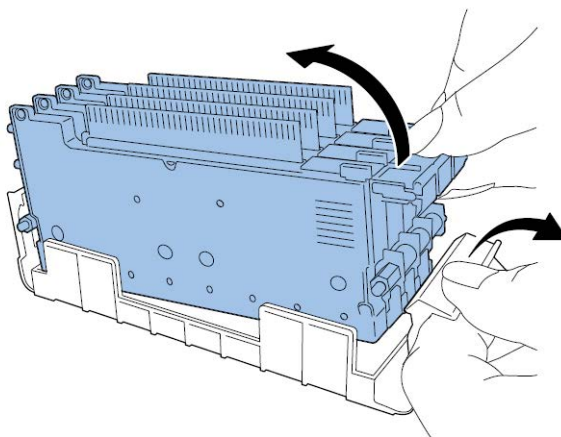
10. If you are using the QL-120D printer, peel the shipping film from the scraper and then install the scraper on the printhead.

    Note: *This step applies only to the QL-120D. The serial number label is yellow on the QL-120D printhead. If you are using the QL-120 or QL-120X, skip this step.*

Yellow label
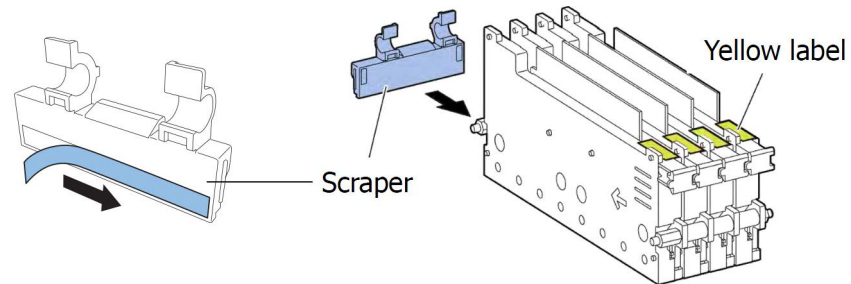
Scraper

Handle the scraper with care, and do not touch the blue area along the bottom of the scraper.
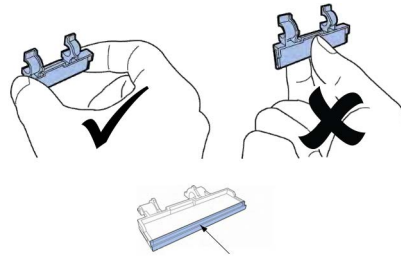
11. Mount the printhead in the printer. Ensure the metal alignment pins on the printhead insert into the corresponding alignment slots in the printer. Push the printhead in until it stops moving.
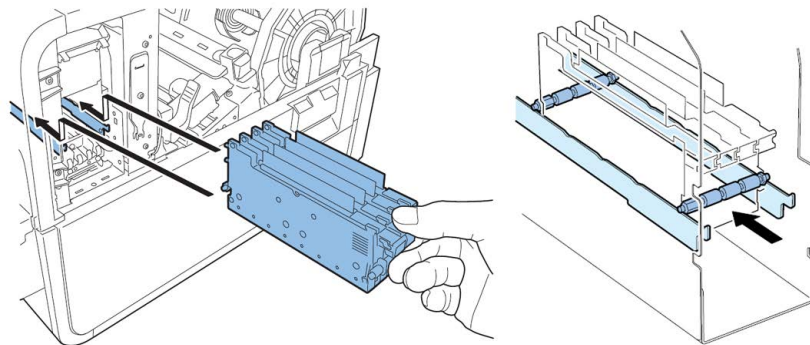
If printhead is insufficiently inserted, the lower printhead release lever cannot be closed. To confirm printhead is in the correct position, see if the end of printhead grip and the edge of the inner metal plate are in the same plane as shown in the figure.
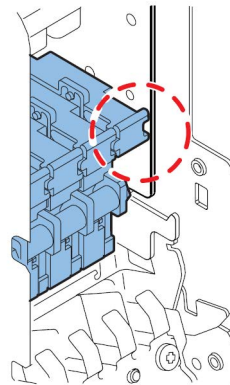
12. Mount the blade cleaner in the printer. The blade cleaner (B) rests on the alignment slots used by the printhead (A).
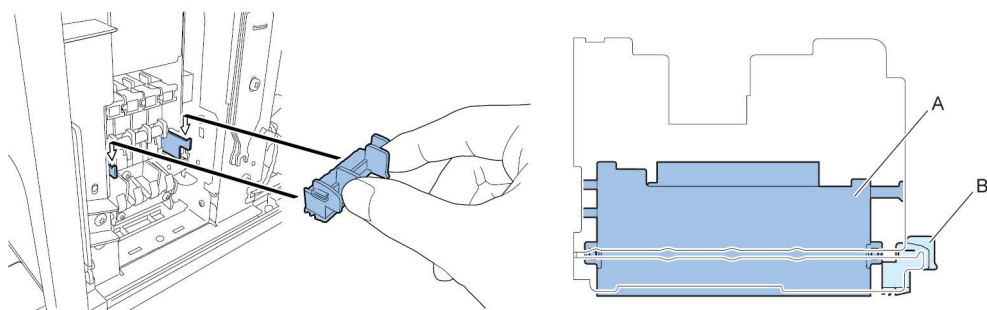
Note: *The QL-120/QL-120X and QL-120D blade cleaners differ slightly in appearance, but they are installed in the same manner.*

13. Close the lower printhead release lever and upper printhead release lever.
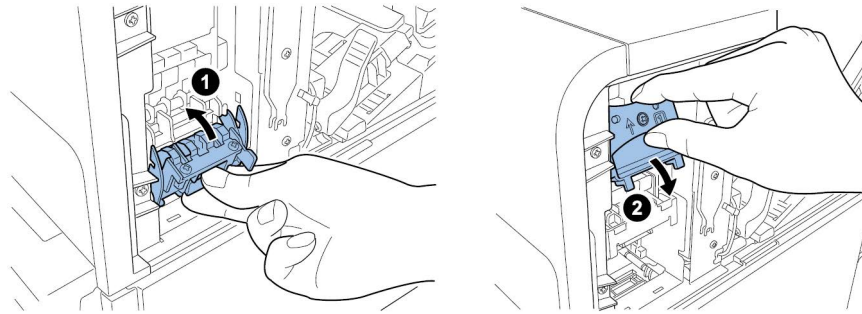
14. Check that numbers (1), (2), and (3) indicated on Print Module are visible.
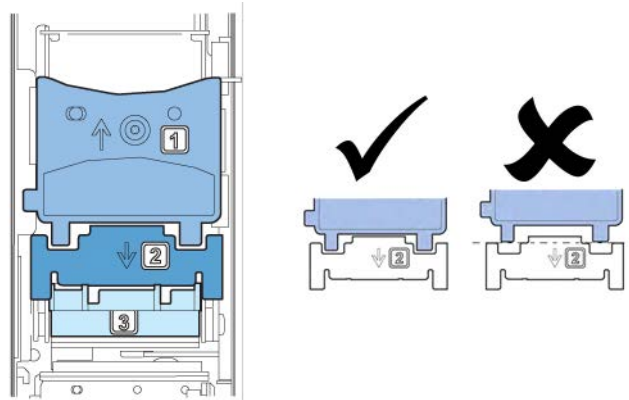
If any numbers (1), (2), or (3) are invisible, the printhead release lever (1, 2) has not been closed or the blade cleaner (3) has not been mounted. Review work procedure.

15. Attach the included print module cover to the print module.
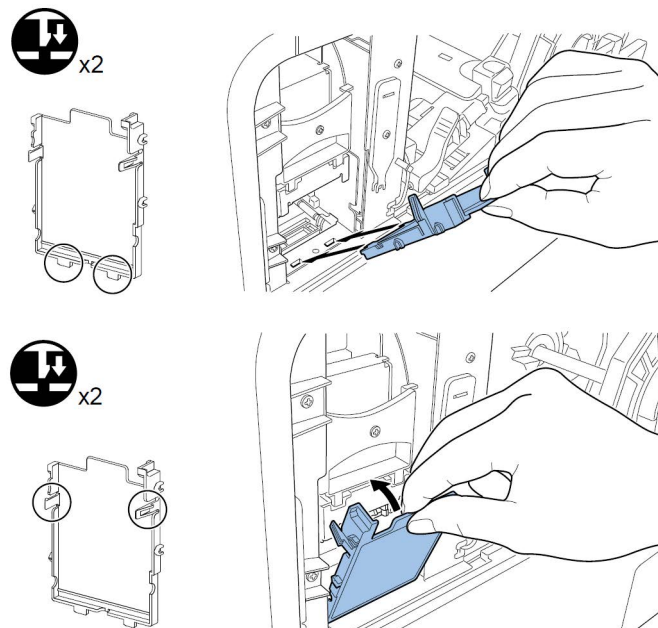
16. Push down the upper unit release lever and then open the upper unit.
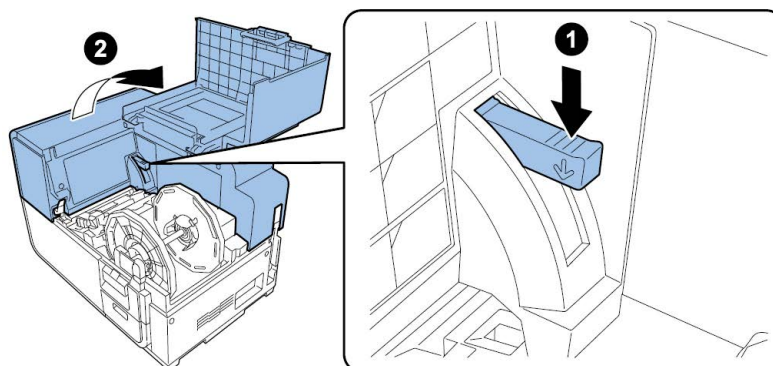
17. Install the main maintenance cover on the upper unit with the two thumbscrews.
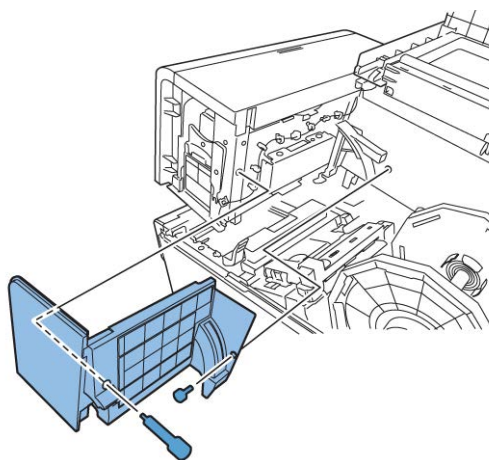
18. Close the upper unit and then close the roll cover.
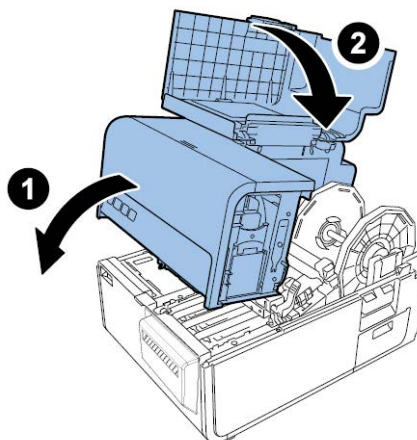
Loading Ink Cartridges

1. Open the ink cartridge door.
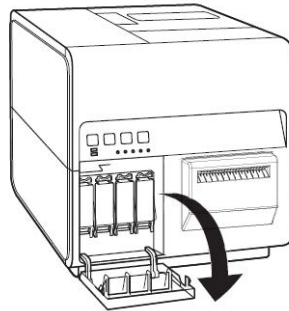
2. Open the ink cartridge lever for each color while pushing it downward.
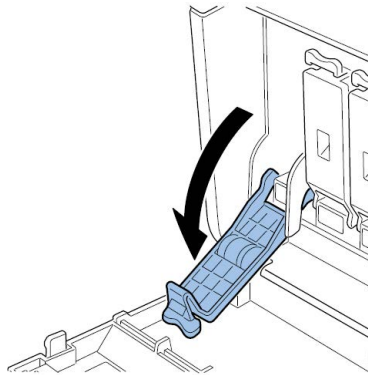
3. Take out the starter ink cartridges from the package. Then remove the packing materials.
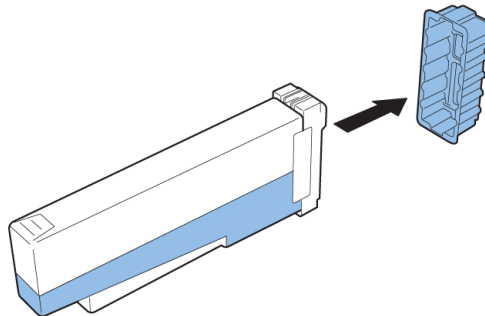
Do not touch the ink outlet and terminal to prevent soiling of the surrounding work area, damage to the ink cartridge, and poor printing. Never drop or apply excessive force to an ink cartridge.

4. If you are using the QL-120D printer, rotate the ink cartridge to stir the ink.

   Note: *This step applies only to the QL-120D ink. If you are using the QL-120 or QL-120X, skip this step.*
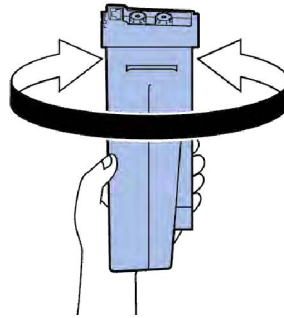
5. Slowly insert the ink cartridge as far as it will go, and then close the ink cartridge lever. Repeat this step for each color.
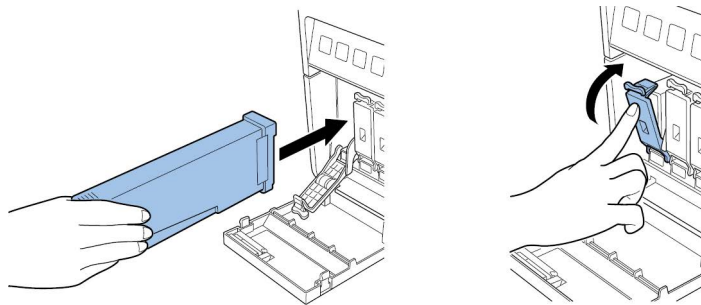
   Caution: *There are sharp pins in the ink cartridge slot. Never put your fingers in this area.*

   Note: *The printer is designed so that ink cartridges cannot be inserted in the wrong ink cartridge slots. Do not attempt to insert ink cartridges in the wrong ink cartridge slots forcibly.*

6. After loading all ink cartridges, close the ink cartridge door.
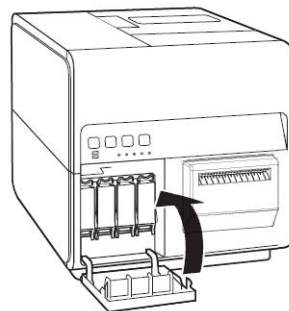
Initial Ink Filling

Caution: Do not turn the power off or open covers and doors such as the Roll Cover during ink loading.

Caution: If the power is turned off or covers and doors are opened during ink loading, the printer stops ink loading. In such a case, turn on the power to start ink loading again.

Caution: Restarting the ink loading causes extra ink waste.
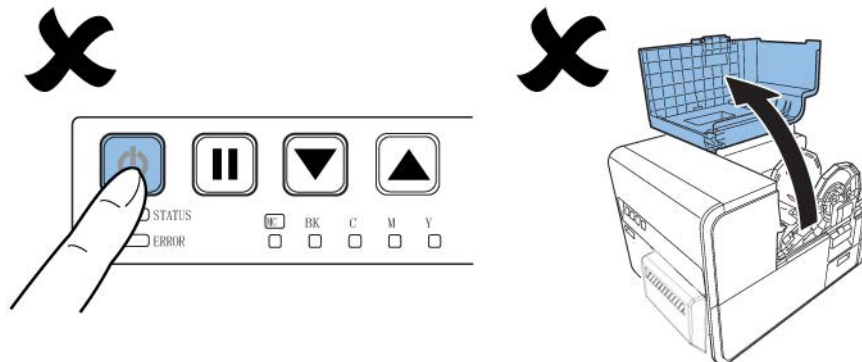
1.   Connect the power cord to the printer. Several power cords come with the printer. Use the power cord appropriate for the power supply used at the installation site.

      Caution: Never use a wrong power cord.
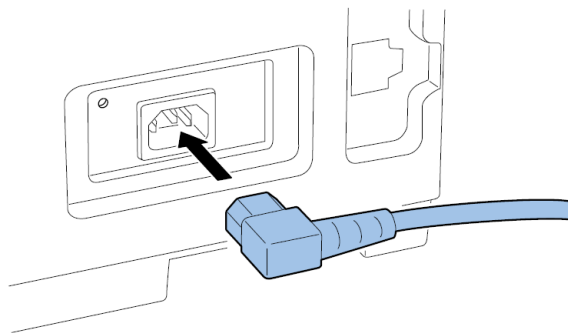
2.   Connect the power cord to the outlet.

3.   Press the POWER key for one second or more to turn on the power. Initial ink filling starts automatically when the power is turned on.

      When ink loading is complete, the STATUS LED changes from flashing to lit and a beep sounds.

      Note: Initial ink loading takes about 25 minutes.

4.   If you are using the QL-120D printer, wait until ink loading has finished. Then remove the protective sheet from the transport area.

   Note: This step applies only to the QL-120D. If you are using the QL-120 or QL120X, skip this step.
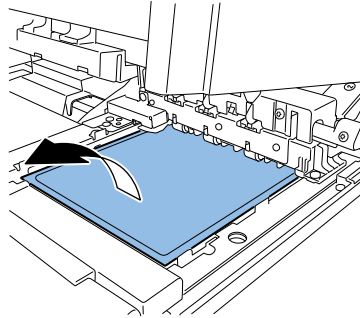
Loading Media

Loading Media on the Roll Holder

1.   Open the roll cover.
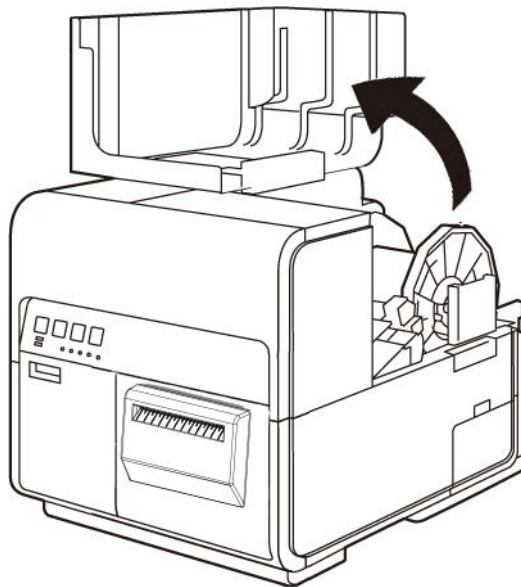
2.   Remove the roll holder.
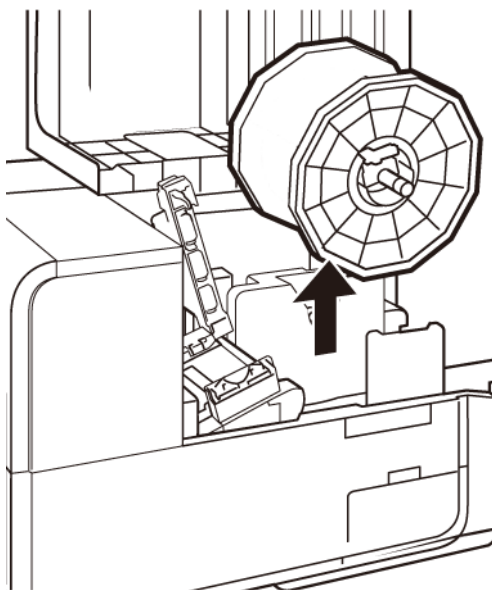
3.   Release the holder stopper screw, and remove the holder stopper from the roll holder.
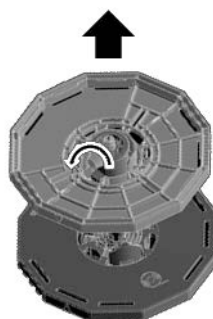
4.   Load roll media on the roll holder with it oriented as shown such that the bottom of the roll touches the roll holder surface with no clearance.

5.   Insert the holder stopper until it stops, and tighten the holder stopper screw.

Setting the Media in the Printer

1.   Make sure that the Power LED stays lit. If the Power LED does not stay lit or it is not blinking, press the power key to put the printer in the power-on state.

2.   Open the roll cover.

3.   Push the lever of the paper guide to open the guide.

4.   Open the transport guide (right), and slide it rightward until it stops.

5. Mount the roll holder in the printer.

The flanges and corresponding installation points in the printer are color coded. Orient the roll holder so the black flange matches the black installation point, and the gray flange matches the gray installation point.

6. If you are using gap or reflective mark media, cut the media edge that will be fed into the printer. If you are using continuous media, skip this step.

- Gap media has spaces between each label resulting from the removal of the matrix during the die cutting process.

  If you are using gap media, cut the media between labels as illustrated by the dashed red line below. The arrow indicates the direction of media feed into the printer.

- Reflective mark media has black cue marks printed on the back of the label liner. These marks are read by a sensor on the printer to determine the starting point of new labels.

  If you are using reflective mark media, cut the media between labels, but before the mark, as illustrated by the dashed red line below. The arrow indicates the direction of media feed into the printer.

7. Insert media along the left-side guide under the transport guide (left) until it stops at the roller in the feeder slot.

Media at the roller in the feeder slot is automatically pulled in slightly.

8. Slide the transport guide (right) in accordance with the width of the media.

Note: Do not press the transport guide (right) strongly against the media edge. A paper jam can result.

9. Slowly close the transport guide (right) to lock it.

10. Slowly push the paper guide down until it clicks (locks). When it locks, media is transported automatically.

11. Close the roll cover.

Installing the Printer Driver (USB)

Use the following instructions to install the printer via USB 2.0.

Note: *This procedure requires administrator rights in Windows.*

Note: *When the Windows publisher verification or digital signing warning messages appear, choose to continue the installation. The driver has been tested thoroughly by QuickLabel, and will not cause any of the problems listed in these messages.*

1. Ensure the printer is powered on but **not** connected to your computer via the USB cable.
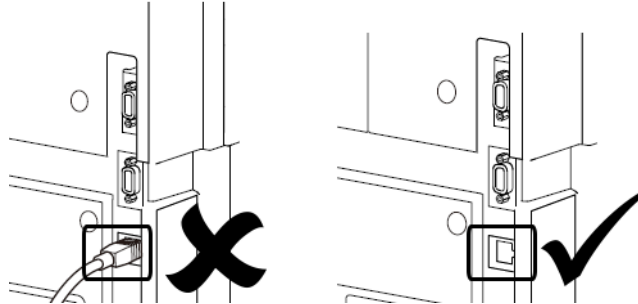
Important: *Do not connect the USB cable until prompted later in this procedure.*

2. Download the QL-120 driver from https://quicklabel.com/support/downloads/. Save the file to your desktop for convenience. This file is a self-extracting executable file with a .exe extension.

    Important: *Wait until the download has completed before continuing to the next step.*

3. Double-click the installer file. The archive window will open.

4. Select the **Extract** button. A new folder will be created on the desktop. This folder has the same name as the original installer file you downloaded.

5. Open the installer folder, and then open the *Drivers* sub-folder. Double-click the *setup.exe* file.

The QuickLabel QL-120 Installation Wizard window will open.

6. The first page shows the printer model and software version number.

Select the **Next** button.

7.   The next page shows connection options for the printer.

Select **USB**, and then select the **Next** button.

8.   The next page indicates that the driver is being installed.
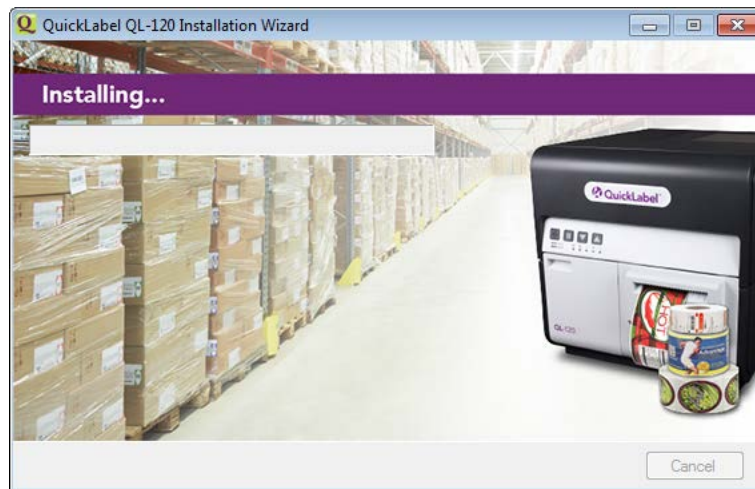
When the installation has completed, the next page indicates a successful installation.
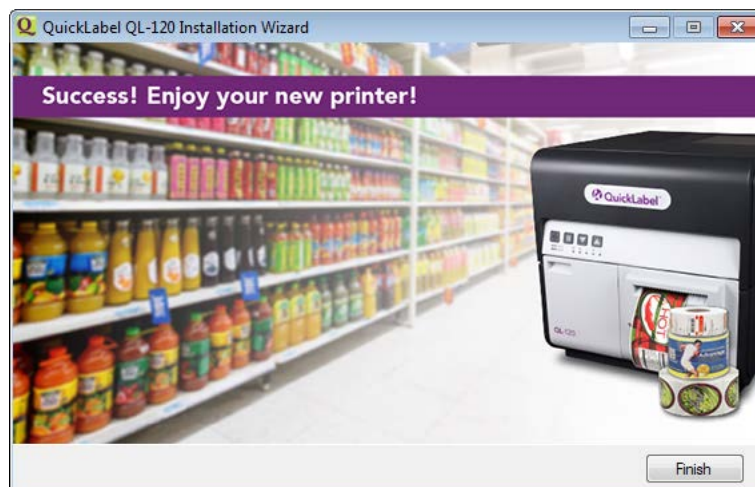
Select the **Finish** button.

9.   Connect the smaller end of the USB cable to the printer USB type B port. This port is located on the back of the printer.
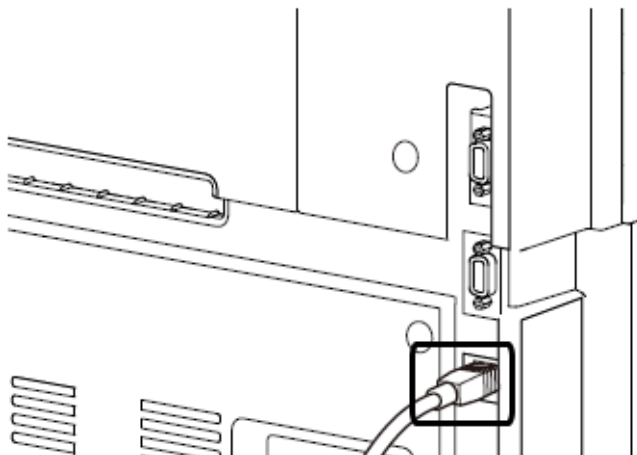
10. Connect the larger end of the USB cable to an available USB 2.0 port on your computer.

    Once the USB connection has been made, Windows will automatically install the device driver software. Alert messages will inform you of the progress and successful installation.
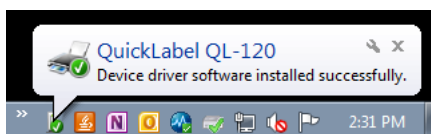
Installing the Printer Driver (Network)

Use the following instructions to install the printer via a network connection.

For detailed information about the topic of networking, refer to documentation applicable to your network environment and/or contact your network administrator.

The printer uses the following ports: TCP 50000,50001,9100, UDP 50001,50002. The printer cannot be used on a network where other devices on the network use the same ports.

Note: This procedure requires administrator rights in Windows.

Note: When the Windows publisher verification or digital signing warning messages appear, choose to continue the installation. The driver has been tested thoroughly by QuickLabel, and will not cause any of the problems listed in these messages.

1. Ensure the printer is powered on and connected to the network via a LAN cable.

2. Download the QL-120 driver from https://quicklabel.com/support/downloads/. Save the file to your desktop for convenience. This file is a self-extracting executable file with a .exe extension.

    Important: Wait until the download has completed before continuing to the next step.

3. Double-click the installer file. The archive window will open.

4.   Select the **Extract** button. A new folder will be created on the desktop. This folder has the same name as the original installer file you downloaded.

5.   Open the installer folder, and then open the *Drivers* sub-folder. Double-click the *setup.exe* file.

The QuickLabel QL-120 Installation Wizard window will open.

6.   The first page shows the printer model and software version number.

Select the **Next** button.

7. The next page shows connection options for the printer.

Select **Ethernet**, and then select the **Next** button. The next page shows options for locating the printer on your network.
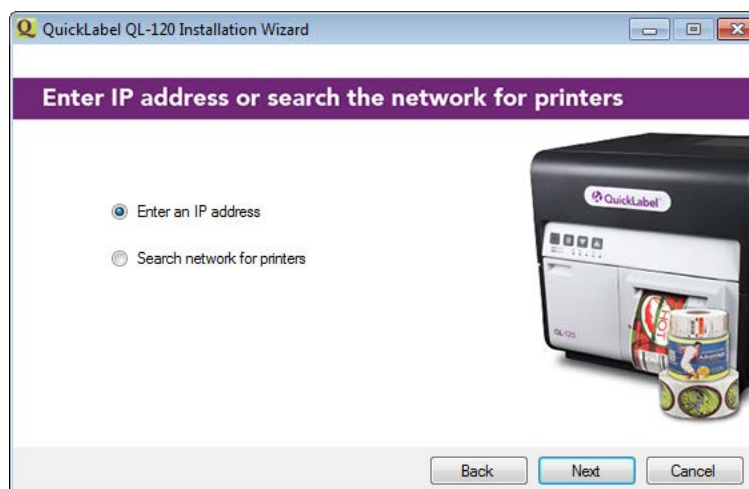
- • **Enter an IP address** - Select this option if you know the IP address of the QL-120 series printer and you would like to enter it manually.

  You can view and set the printer IP address if needed prior to network installation. *See "Viewing and Configuring IP Address Settings Before Network Installation" on page 50.*

- • **Search network for printers** - Select this option if you would like to search for QL-120 series printers connected to the network.

Select the **Next** button. The next step will vary based on your selection.

8. If you selected the **Enter an IP address** option, follow this step. Otherwise, proceed to the next step.
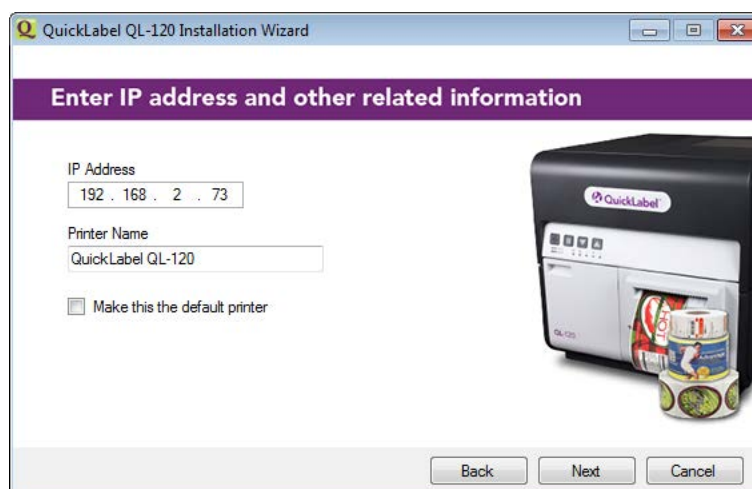
Enter the IP address of the printer. You can also provide a printer name and select whether to make it the default printer.

Select the **Next** button.

9. If you selected the **Search network for printers** option, follow this step. Otherwise, proceed to the next step.
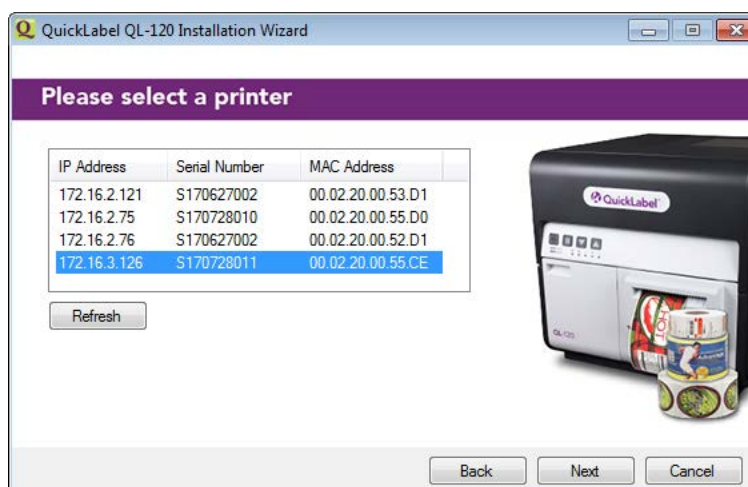
Select a printer from the list of QL-120 series printers found on the network. If needed, you can search the network again by selecting the **Refresh** button. Select the **Next** button.
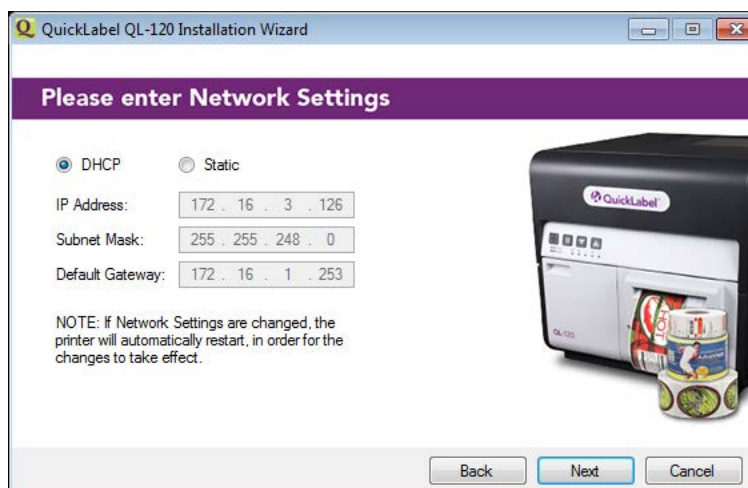
Select the networking options for the printer.

- **DHCP** - Select this option to configure the printer for Dynamic Host Configuration Protocol (DHCP).

- **Static** - Select this option to configure the printer with a static IP address. Enter an IP address, subnet mask, and default gateway.

Select the **Next** button.
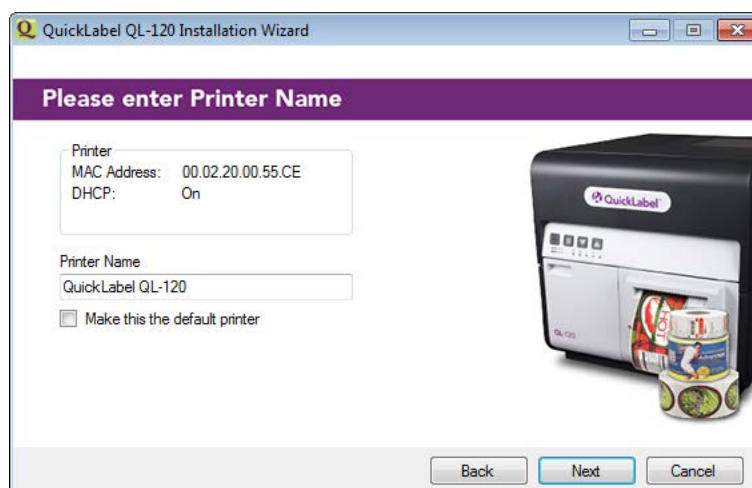
You can also provide a printer name and select whether to make it the default printer.

Select the **Next** button.

10. The next page indicates that the driver is being installed.
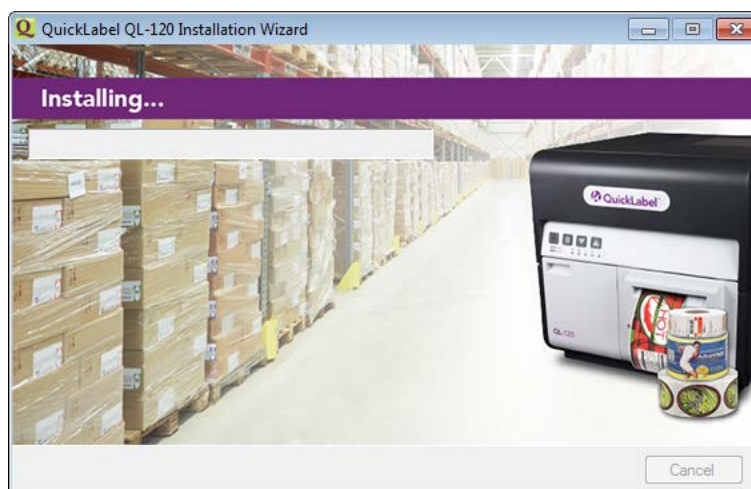
When the installation has completed, the next page indicates a successful installation.
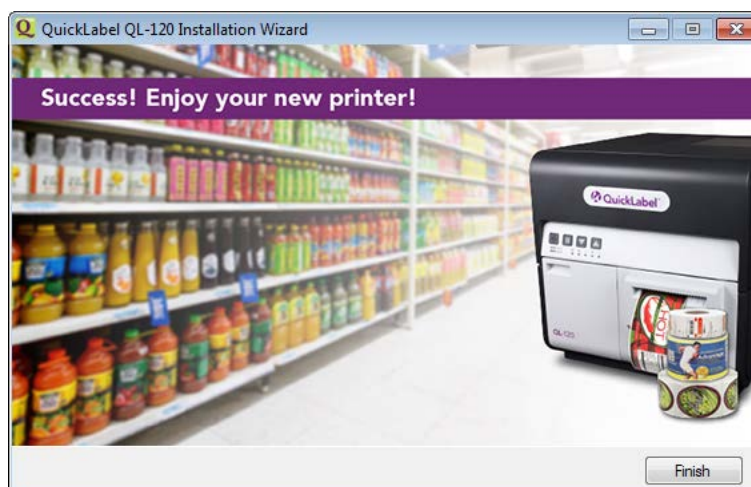
Select the **Finish** button.

Advanced Installation Topics

Viewing and Configuring IP Address Settings Before Network Installation

Knowing the IP address settings of the printer can be helpful when installing the printer via a network connection.

Before installing the printer via a network connection, you can first install it using a USB connection. This will allow you to access the QL-120 Maintenance Utility. You can use the QL-120 Maintenance Utility to view and modify networking information for the printer.

1.   Install the QL-120 driver and connect to the printer via USB. *See "Installing the Printer Driver (USB)" on page 39.*

2.   Launch the QL-120 Maintenance Utility.

      From the Windows Start Menu, choose **Start > QuickLabel QL-120 > QL-120 Maintenance Utility**. A language and printer prompt will open.

      Select a display language and the QL-120 series printer you want to connect to. Choose **OK**.

3.   Choose the **Network Settings** tab.

4.   To read the network settings from the printer and set the controls accordingly, choose **Read From Printer**. The IP settings will be displayed.
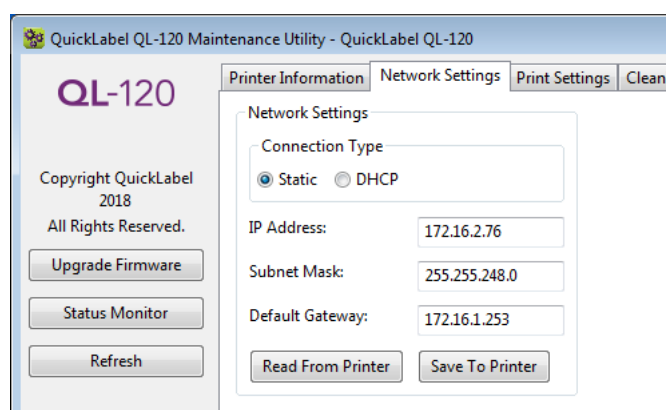
5.   To configure the printer with a static IP address, choose **Static**.

      Enter the **IP Address**, **Subnet Mask**, and **Default Gateway** for the printer.

6.   To configure the printer for Dynamic Host Configuration Protocol (DHCP), choose **DHCP**.

7.   To save the network settings, choose **Save to Printer**. A message will appear and you will be prompted to restart the printer.

      •   If you choose **Restart Printer**, the printer will be restarted and networking settings will take effect when the printer powers up.

      •   If you choose **Close**, you will return to the **Network Settings** tab and the printer will not be restarted. You will need to restart the printer later for networking settings to take effect.

Advanced Network Installation

The driver installation wizard provides the ability to install the printer via a network connection. Using the driver installation wizard is the easiest way to install the printer for most users.

Advanced users and system administrators may prefer to install the driver using standard Windows processes from the Devices and Printers window. In this situation, you must set up a Standard TCP/IP Port for the printer.

As part of the setup process, you will need to change the port number in the custom settings.

1. Ensure the printer is powered on and connected to the network via a LAN cable.
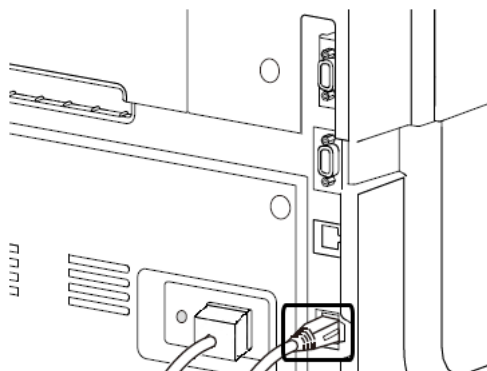
2. Download the QL-120 driver from https://quicklabel.com/support/downloads/. Save the file to your desktop for convenience. This file is a self-extracting executable file with a .exe extension.
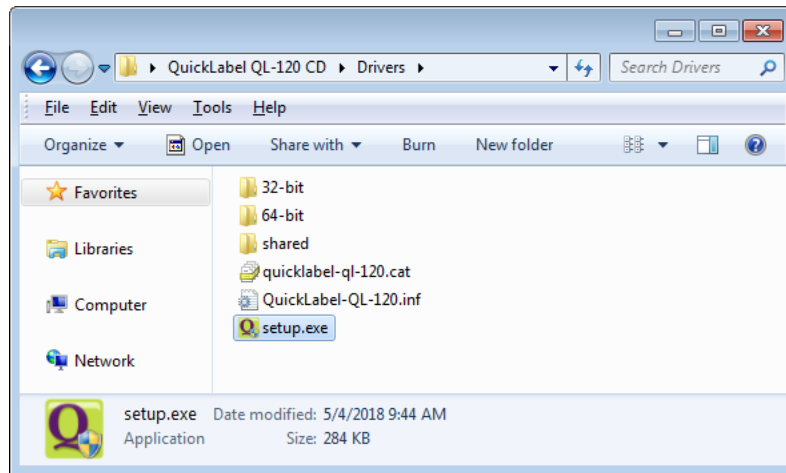
   Important: Wait until the download has completed before continuing to the next step.

3. Double-click the installer file. The archive window will open.
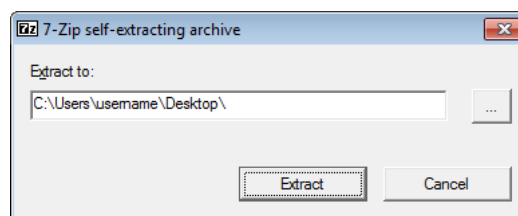
4. Select the **Extract** button. A new folder will be created on the desktop. This folder has the same name as the original installer file you downloaded.

5. Open the appropriate printer window based on your version of Windows.

   • In Windows 10 and later, choose the search box on the taskbar. Type "Control Panel", and then select the **Control Panel** icon. In the Control Panel window, click **View Devices and Printers**.

   • In Windows 8.1, access the **Search** option by pointing to the upper-right corner of the screen. Search for "Control Panel" and click the **Control Panel** icon. In the Control Panel window, click **View Devices and Printers**.

6. Select the **Add a Printer** option. The Add Printer window will open.
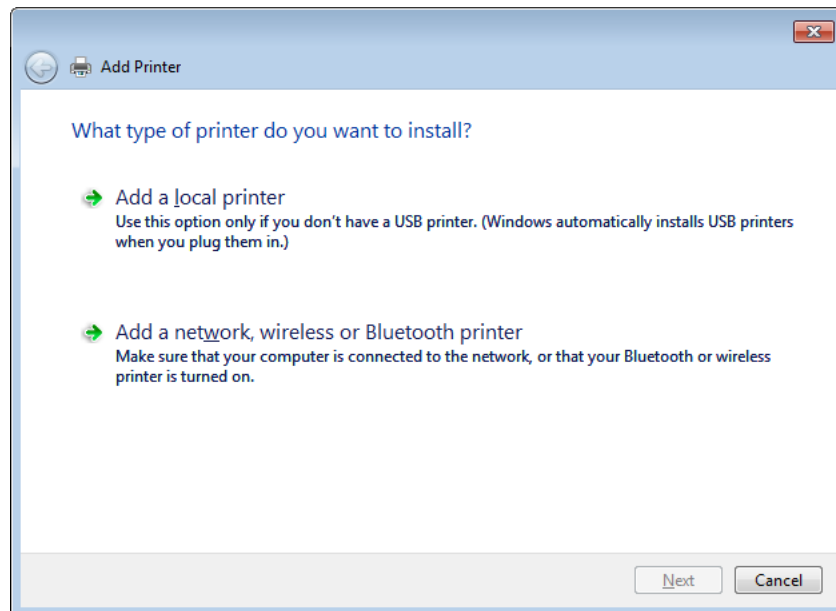
7. Select the **Add a network, wireless, or Bluetooth printer** option. Then select the **Next** button. Follow the instructions in the prompts to select the QL-120 series printer.

During the installation process, you will be prompted for additional port information.
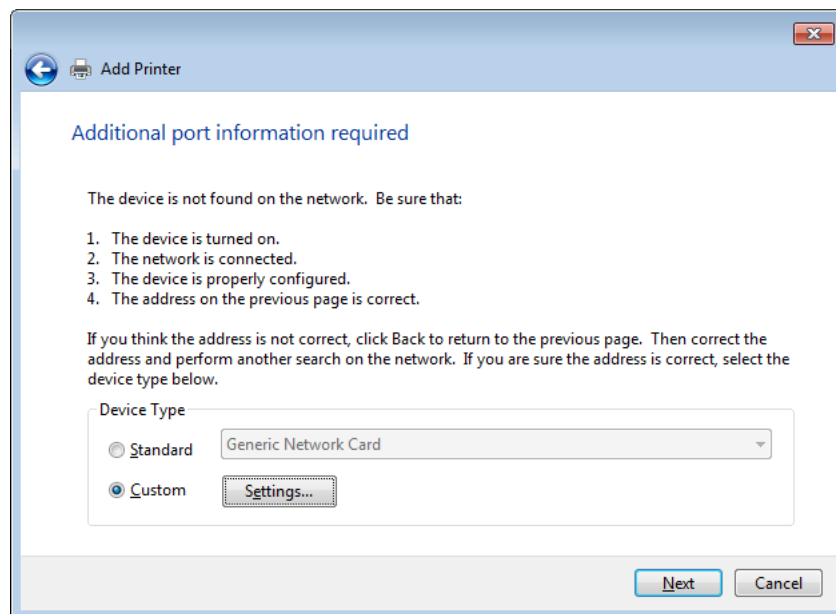
8. Select the **Custom** option, and then select the **Settings** button. The Configure Standard TCP/IP Port Monitor window will open.
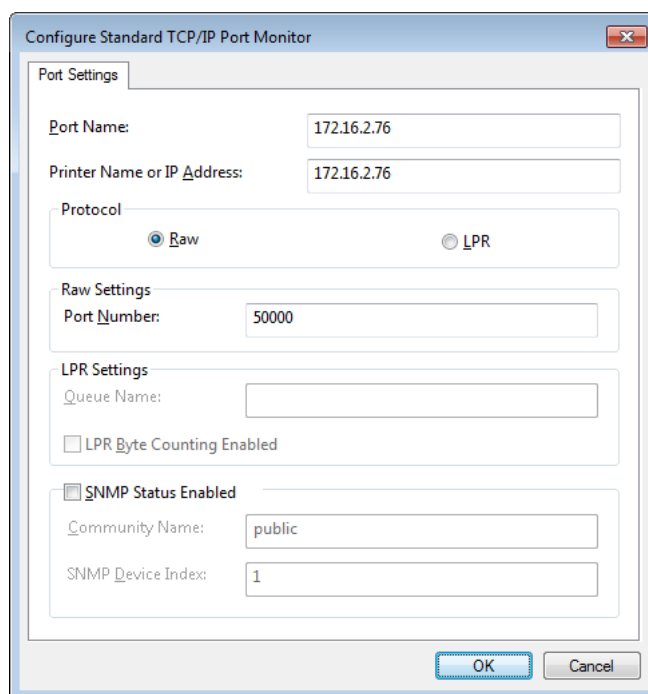
9. Enter a **Port Name** and **Printer Name or IP Address**.

10. Enter "50000" in the **Port Number** field. Then select the **OK** button.

11. Select the **Next** button in the Add Printer window. You will be prompted to select the printer driver.
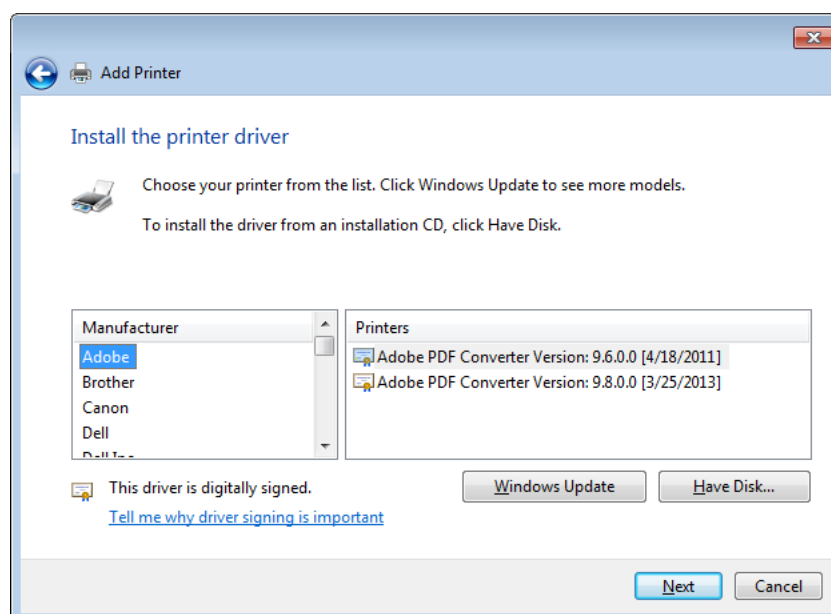
12. Select the **Have Disk** button. The Install from Disk window will open.
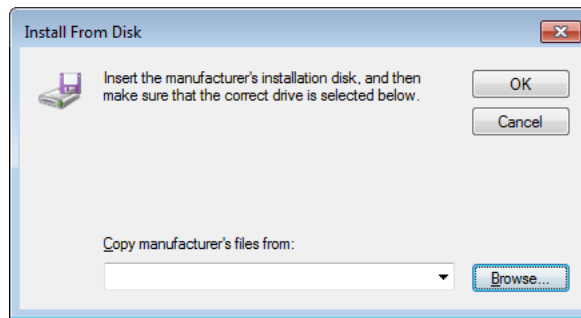
13. Select the **Browse** button. Browse to the installer folder, and then open the *Drivers* sub-folder. Select the *QuickLabel-QL-120.inf* file.
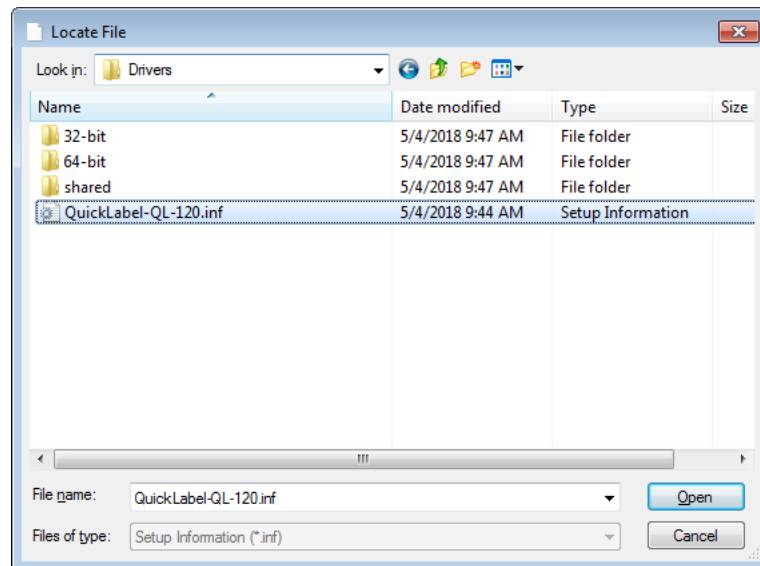
14.   Select the **Open** button. Then select the **OK** button in the Install from Disk window. The QuickLabel QL-120 series printer will appear in the printer list.
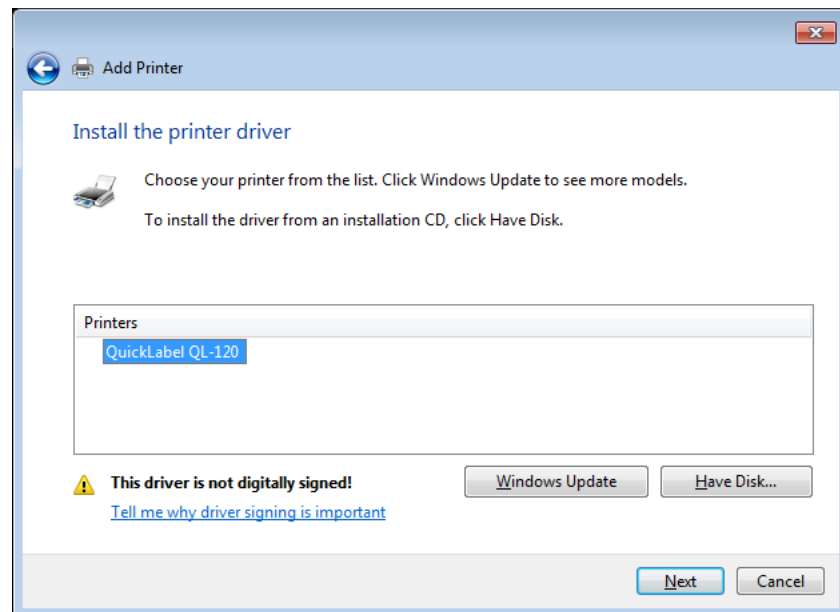
15.   Select the QuickLabel QL-120 series printer from the list. Then select the **Next** button in the Add Printer window. You will be prompted to enter a printer name.
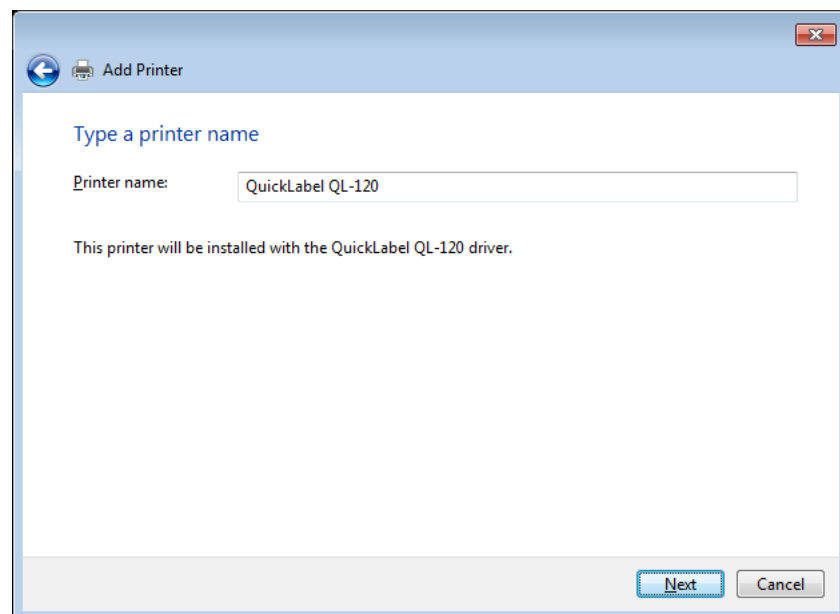
16. Enter a printer name. Then select the **Next** button in the Add Printer window. The printer driver installation will continue. After several moments, you will be prompted for printer sharing preferences.
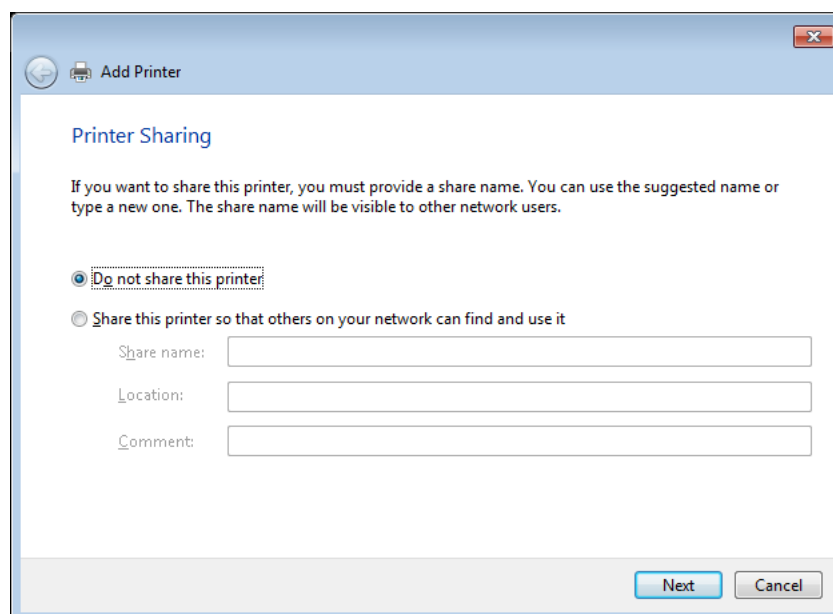
17. Define your printer sharing preferences. Then select the **Next** button in the Add Printer window. A success message will be displayed.
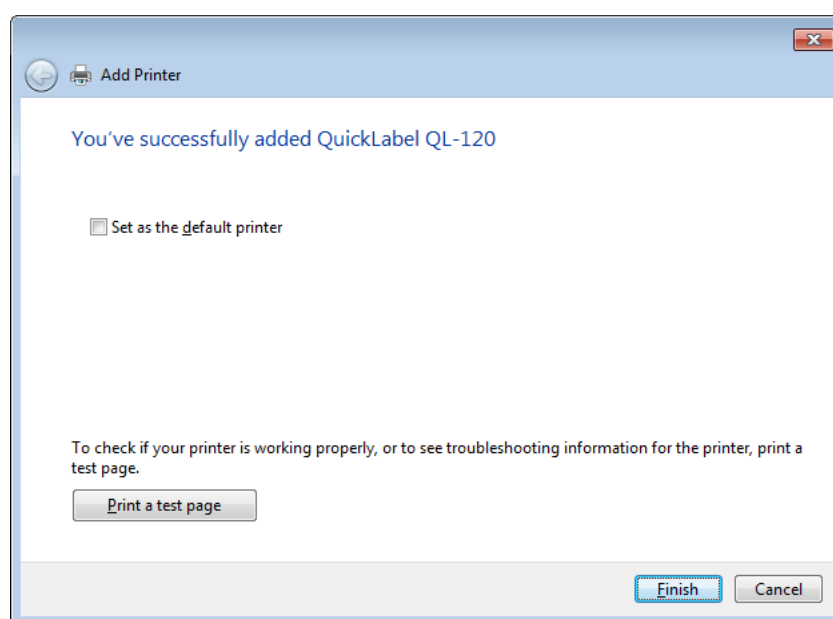
18. Choose whether to set the printer as the default printer. Then select the **Finish** button in the Add Printer window.

Sharing the Printer Over a Network

After installing the QL-120 printer driver on a PC with a network connection, you can make the printer available to other PCs on the same network.

Use the following instructions to prepare the PC for sharing the printer over the network. After completing this procedure, you will be able to find the printer from other PCs on the same network.

Note: *This procedure requires administrator rights in Windows.*

1. Open the appropriate printer window based on your version of Windows.

    •   In Windows 10 and later, choose the search box on the taskbar. Type "Control Panel", and then select the **Control Panel** icon. In the Control Panel window, click **View Devices and Printers**.

    •   In Windows 8.1, access the **Search** option by pointing to the upper-right corner of the screen. Search for "Control Panel" and click the **Control Panel** icon. In the Control Panel window, click **View Devices and Printers**.

    Right-click the printer icon and choose **Printer Properties**. The QuickLabel QL-120 Properties window will open.
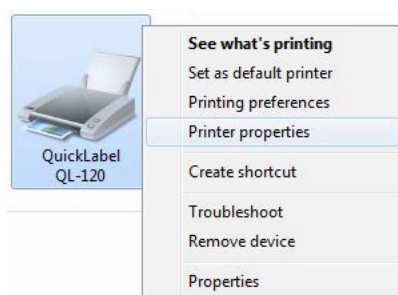
2. Choose the **Sharing** tab.
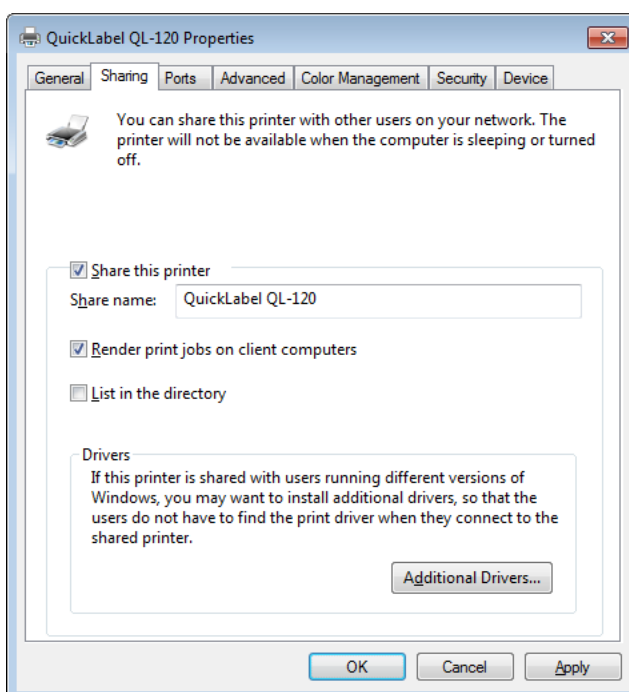
3.   Enable the **Share this printer** option. Make sure the **Render print jobs on client computers** option is also enabled. Then choose **OK**.

4.   From the Windows Control Panel, choose **Network and Internet > Network and Sharing Center > Change advanced sharing settings**.
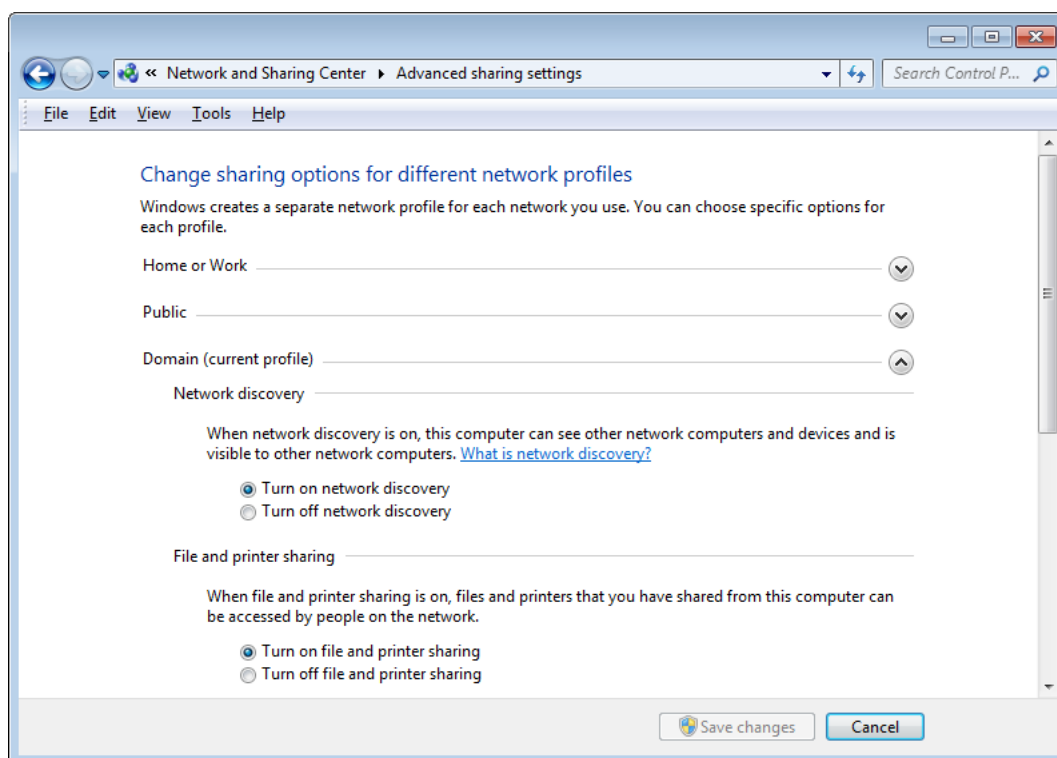
5.   In the current profile, make sure the **Turn on network discovery** and **Turn on file and printer sharing** options are enabled.

If necessary, enable these options and then choose **Save changes**.

2   Printer Overview

Printer Part Names and Functions

Front View
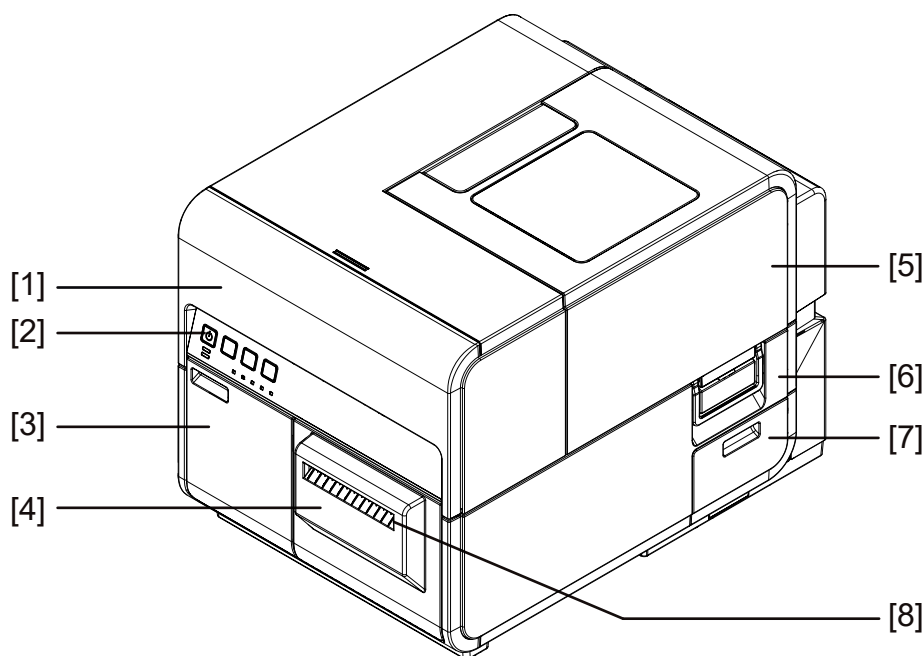
#	Part	Description
1	Upper Unit	Open this unit when loading media, removing media jams in the feed path, or cleaning inside the machine. This unit includes print modules, circuit boards, and other internal components.
2	Operation Panel	Keys necessary for operation and LEDs to indicate the state of the printer are provided on this panel.
3	Ink Cartridge Door	Open this door when replacing ink cartridges.
4	Cutter	Use this cutter to cut the ejected media automatically.
5	Roll Cover	This cover protects the roll media feeder.
6	Roll Cover Handle	Use this handle to open the roll cover.

#	Part	Description
7	Maintenance Cartridge Door	Open this door when replacing the maintenance cartridge.
8	Media Delivery Slot	Media is ejected through this slot.

Back View
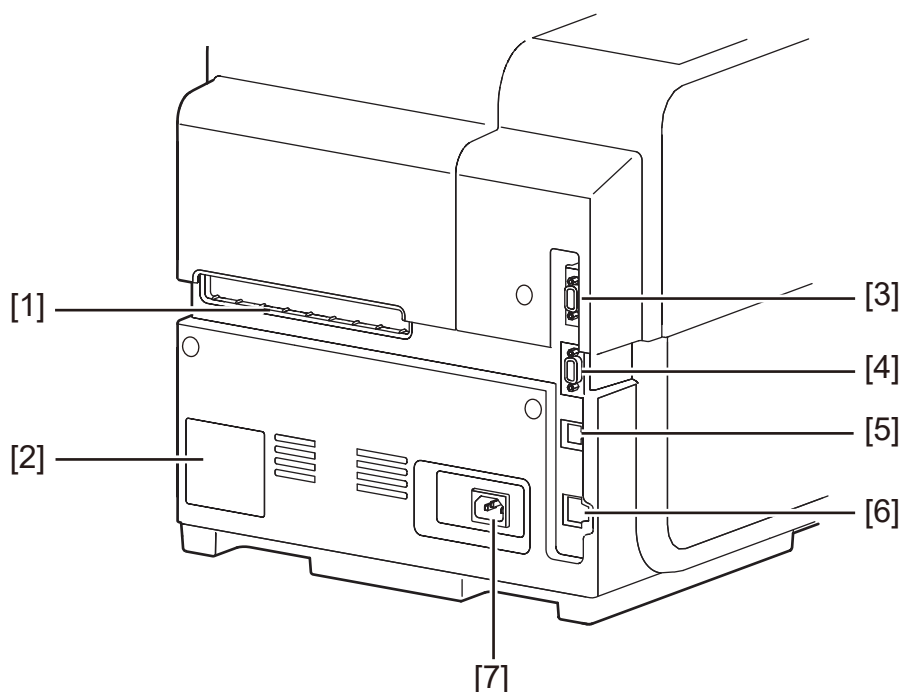
#	Part	Description
1	Rear Feeder Slot	This slot is used to feed fanfold paper.
2	Rating Plate	A serial number for identifying the printer is shown on this plate. The serial number is required when you ask for repair of the printer or to register yourself as a user.
3	RS232C Port	Reserved.
4	RS232C Port	This port is used for the external control interface. For more information, refer to the Command Interface Guide.
5	USB Port	Connect a USB cable here to connect to the computer.
6	LAN Port	Connect a LAN cable here to connect to the computer.

#	Part	Description
7	Power Socket	Connect the power cord here.

Inside the Printer
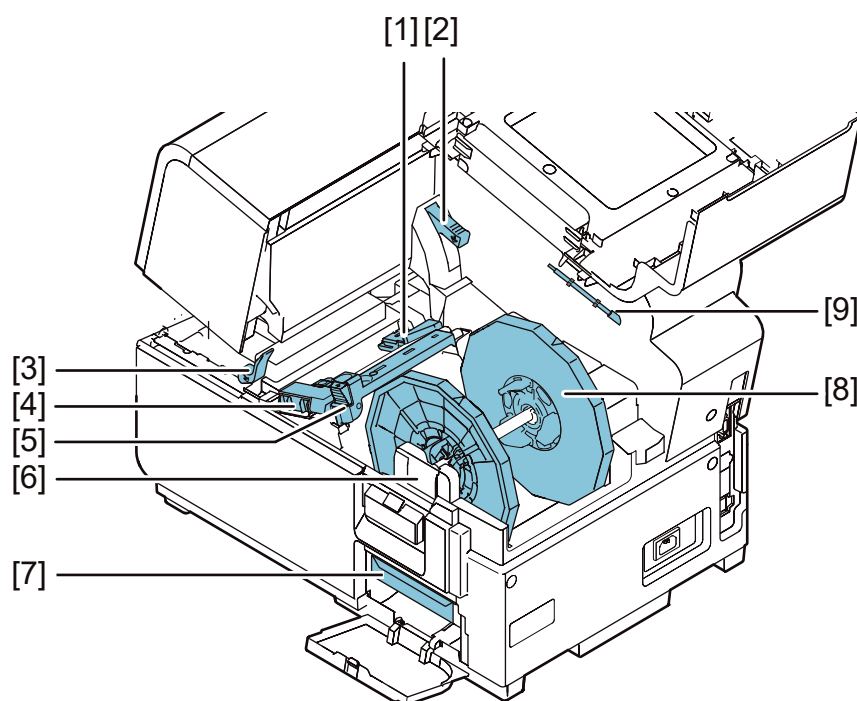
#	Part	Description
1	Transport Guide (Left)	This is a fixed guide for transporting media straight.
2	Upper Unit Release Lever	Push this lever up to release the upper unit.
3	Pinch Roller Release Lever	Pull down this lever when media is jammed.
4	Transport Guide (Right)	This guide is used to transport media straight and detect the width of the media.
5	Media Guide	This guide prevents media from floating.
6	Roll Holder Mounting Brackets	Set the roll holder here.
7	Maintenance Cartridge	Ink used to clean the print head is collected here.
8	Roll Holder	This holder is used to set media.
9	Cleaning Stick	Use this cleaning stick when cleaning the transport assembly.

Roll Holder
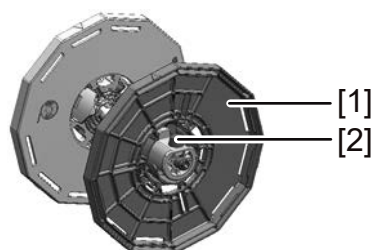
#	Part	Description
1	Holder Stopper	This stopper prevents media from being removed.
2	Holder Stopper Screw	This screw is used to release the holder stopper. Release this screw when attaching or detaching the holder stopper.

Operation Panel
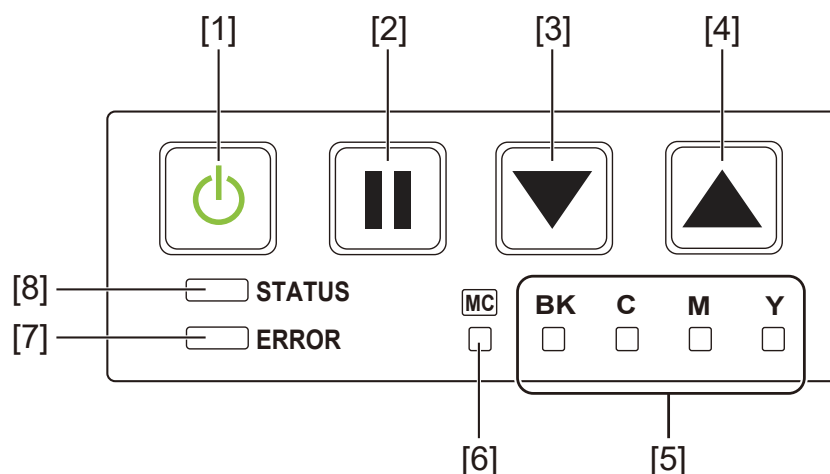
#	Part	Description
1	Power Key/LED	• *On* - Power is on. • *Blinking* - Sleep mode. • *Off* - Power is off.
2	PAUSE Key	• *Printing* - Pressing this key suspends printing. • *Paused* - Pressing this key restarts printing. • *After Printing* - Pressing and holding this key for at least two seconds performs a cut with the auto-cutter.
3	FEED Key	Pressing this key in the offline mode feeds media.

#	Part	Description
4	BACK FEED Key	Pressing this key feeds media one page backward. Pressing and holding this key feeds media backward continuously.
5	Ink Warning LEDs	• *On* - No ink or ink cartridge missing. • *Blinking* - Low ink. • *Off* - Sufficient ink.
6	Maintenance Cartridge Warning LED	• *On* - Full • *Blinking* - Nearly full. • *Off* - Sufficient room to collect ink.
7	ERROR LED	• *On* - Operator-call error (can be recovered by user operation). • *Blinking* - Fatal error. • *Off* - Normal.
8	STATUS LED	• *On* - Online mode. • *Blinking* - Data being received (printing, cleaning, initializing, shut-down). • *Off* - Offline mode (during cleaning, etc.).

Switching the Printer On and Off

Switching the Printer On

Make sure that the power cable is connected properly, and then turn on the printer.

1. Press the power key for at least one second.

Cleaning is performed and the printer becomes ready for printing. When the printer is in the Online mode, the STATUS LED stays lit.

Note: When the printer is in sleep mode, press the power key to return the printer to online mode. The printer will also wake up from the sleep mode automatically as soon as it starts receiving a print job.

Switching the Printer Off

1.   Press the power key for at least one second.

The Power LED blinks at long intervals, and then the printer is turned off.

When the printer is not used for a long period of time:

•   To prevent media from discoloring, remove it from the roll holder. Store the removed media in a plastic bag or box such that it is not exposed to high temperature, high humidity, and direct sunlight.

•   If the printer is to remain operational, it should be powered on to prime/clean the printheads every 2 weeks. If the printer will be powered off for 2 or more weeks, it should be powered on every 2 weeks for cleaning or printing. This schedule will keep the printhead hydrated and operating properly.

QL-120 Status Monitor

The QL-120 Status Monitor software is installed when you install the printer driver. It displays information related to your printer's current status. It also provides information about your print job status.
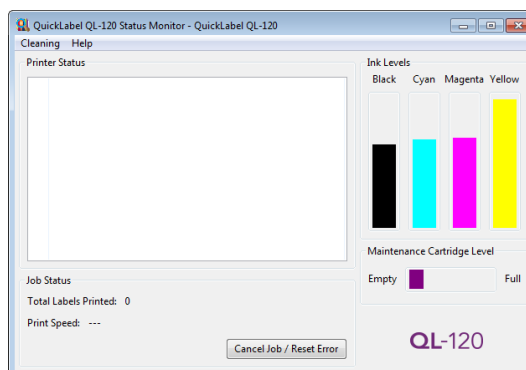
You can access the QL-120 Status Monitor by choosing **Start > QuickLabel QL-120 > QL-120 Status Monitor**.

You can view help topics for the QL-120 Status Monitor by choosing **Help > Help Topics**.

QL-120 Maintenance Utility

The QL-120 Maintenance Utility software is installed when you install the printer driver. The utility allows you to view printer information and perform a variety of maintenance functions.
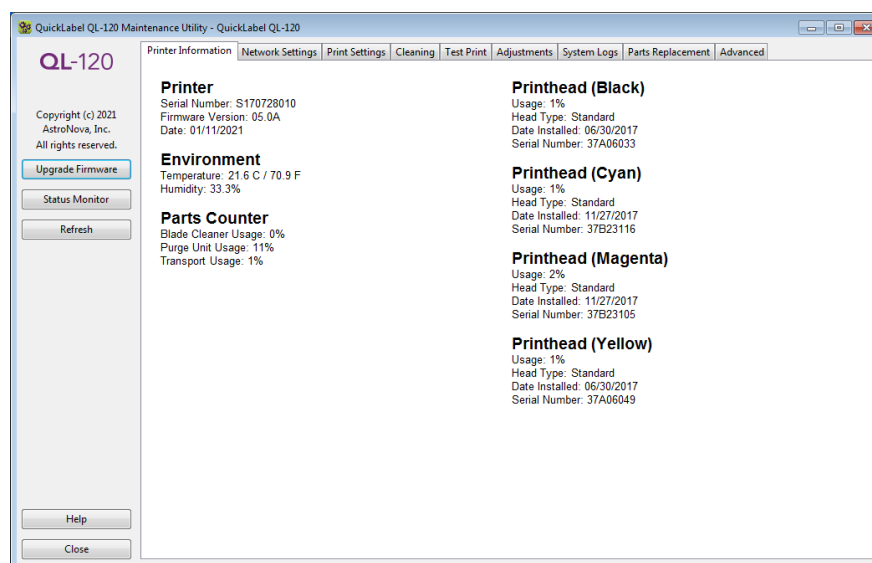
You can access the QL-120 Maintenance Utility by choosing **Start > QuickLabel QL-120 > QL-120 Maintenance Utility**.

You can view help topics for the QL-120 Maintenance Utility by choosing **Help**.

3 Designing and Printing Labels

Designing Labels

This section describes several factors you should consider before you start designing labels.

Label Media Type Overview

This section describes the types of label media you can use with the QL-120 series printer.

Reflective Mark Media

Reflective mark media has black cue marks printed on the back of the label liner. These marks are read by a sensor on the printer to determine the starting point of new labels. During the die cutting process for this type of label, the matrix can be removed and called "matrix out" or left intact and called "matrix in" material. Labels with matrix in allow you to print colors over the label edge.
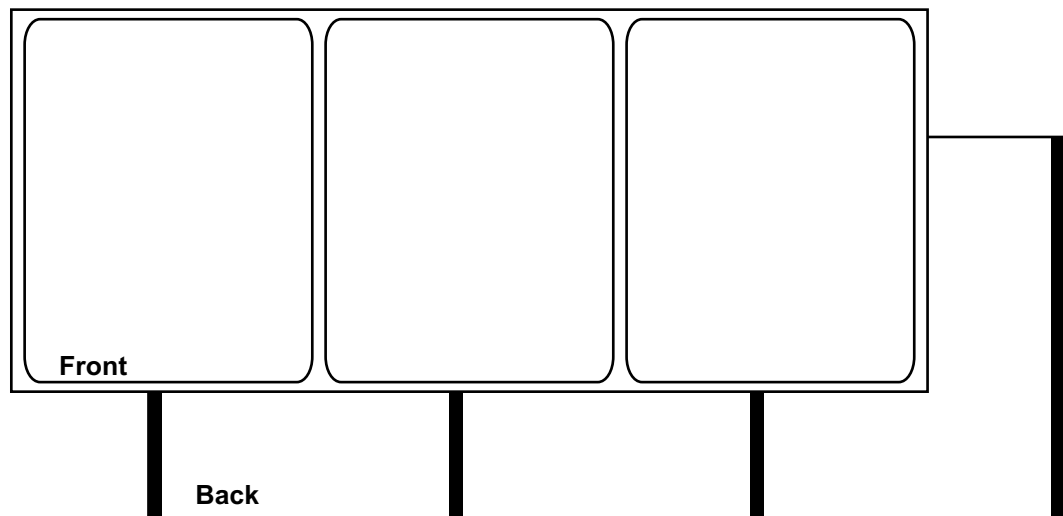
Gap Media

Gap media has spaces between each label resulting from the removal of the matrix during the die cutting process. When the matrix material is removed and the liner exposed, the die cut labels are separated by gaps. These gaps are read by a sensor on the printer to determine the starting point of new labels.

Front

Back
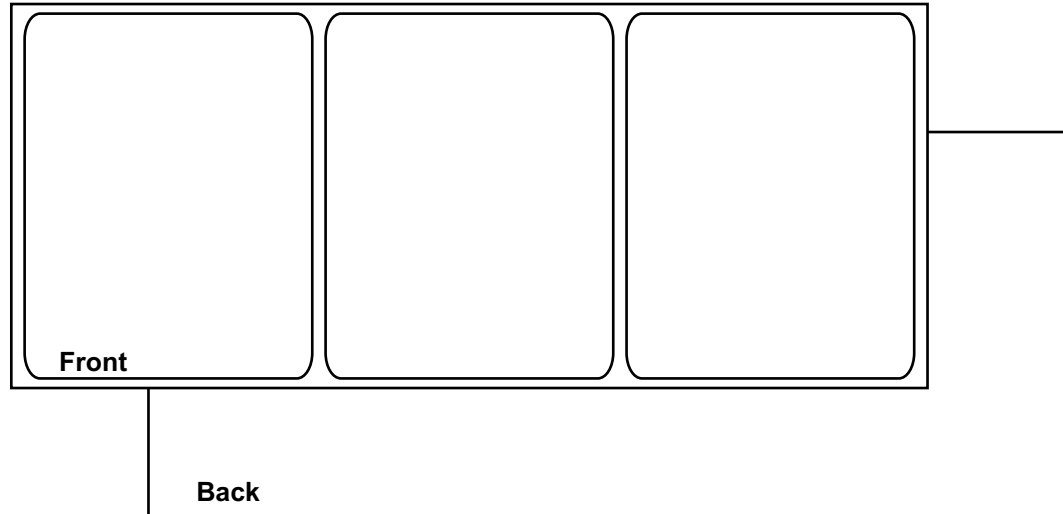
Continuous Media

Continuous media does not have reflective marks. It also does not have die cuts, and therefore contains no gaps. It is a continuous sheet of label material affixed to a liner.

Front

Back

Choosing Design Software

You can print using any design software with printing functionality. There are many graphic design software applications available, and the programs you choose will depend on your desired workflow and design requirements.

Design software is available from QuickLabel and other software vendors.

- **CQL Pro from QuickLabel** - This software product, developed by QuickLabel, makes it easy to create barcodes and position text and graphics on a label.

- **Third Party Applications** - There are a variety of graphic design programs available from other software companies such as Adobe and Corel. Adobe Photoshop, Illustrator, and similar professional image editing programs provide advanced tools for creating your artwork.

A common scenario is to use a mixed approach to designing labels. For example, you may want to edit a photographic element in Photoshop, create a logo in Illustrator, and then place both into a CQL Pro file for final layout and printing.

Disabling Anti-aliasing

Most graphic design software applications provide anti-aliasing features that result in the appearance of smooth color transitions. The following illustration shows text with anti-aliasing disabled (top) and enabled (bottom). Note the smooth color transitions when anti-aliasing is enabled.
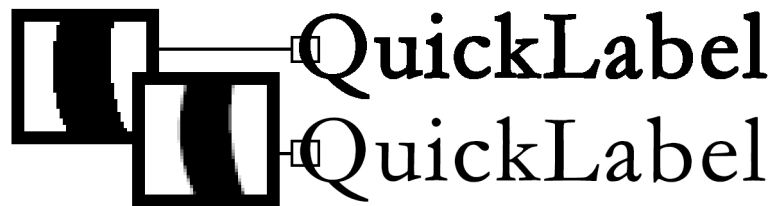
When designing labels that will be printed on QL-120 series printers, do not use anti-aliasing. This is especially important if you are printing text or barcodes. For example, an anti-aliased barcode may not scan correctly due to the color transitions between lines.

The process for enabling/disabling anti-aliasing varies based on the graphic design application. Refer to the documentation for your application for details.

Planning Full-Bleed and Non-Bleed Labels

In full-bleed labels, color prints up to the edge of the label. With non-bleed labels, color stops at a margin before the edge of the label.

Use the following guidelines when setting up a file for a **full-bleed label**.

- If you are using matrix-in media, the height and width of the label file "canvas" should be 0.25" (.63 cm) larger than the height and width of the physical label. This size will allow a bleed on all sides of the label (onto the matrix) while accommodating the printer's minimal label wander.

- If you are using media with the matrix removed, you can print all the way to the edge of die-cut labels, but doing so may cause a small amount of ink to deposit onto the liner. In the event excess ink deposits on the liner, it will not dry and may smear onto other

surfaces, including hands and other printed labels. As a guideline, no more than 0.02" (0.5 mm) of ink should be printed onto the liner.

- Design elements that will run to the edge of the label are the parts of the design that will "bleed" across the edge. Your bleed will most commonly be a solid color, pattern, or gradient background running off the edge of the label.

Use the following guidelines when setting up a file for a **non-bleed label**.

- The height and width of the label file "canvas" should be the same as the height and width of the physical label.

- All design elements should be placed inside a .0625" (1.5 mm) border of the canvas. This will ensure such design elements never run to or over the edge of the label.

Printing Black

There are two ways to print black with QL-120 series printers. The printing method will vary based on the RGB values of the black color being printed.

- **True Black** - This method uses only black ink when printing black. The RGB color values must all be between 0 and 1 to print in true black. For example, images with RGB values of 0,0,0 or 0,1,0 or 1,1,1 will print using only black ink.

- **Process Black** - This method uses a mixture of inks when printing black. If RGB color values are not between 0 and 1, process black will be used. For example, images with RGB values of 2,2,2 or 1,1,2 or 0,0,30 will print using a mixture of inks in a process black.

Setting up the Label Design Software

This section describes how to set up your label design software to print on QL-120 series printers.

Setting up Labels in CQL Pro

CQL Pro is a software application developed by QuickLabel to access special features in our printers and allow customers to easily design and print labels.

For detailed label setup and printing instructions, please refer to the CQL Pro Help.

Setting up Labels in Third-Party Design Applications

You can design and print label files exclusively within a third-party application such as Adobe Photoshop or Illustrator. In this situation, use the following guidelines to ensure best results.

Note: You can also use third-party applications to design components of a label to be imported into CQL Pro. In this situation, save or export graphic files in a .BMP, .PCX, uncompressed .JPG, uncompressed .TIF, .GIF, .PNG, or .PDF format.

- **Select a resolution of 600 pixels per inch** - For raster-based design applications such as Adobe Photoshop, choose a resolution of 600 pixels per inch. This will provide sufficient image resolution to produce superior 1200 pixel per inch output quality. This setting is not used in vector-based design applications such as Adobe Illustrator.

- **If the application supports color management, enable it** - Professional design applications support color management. This option is typically found in the application's print window.

  Ensure the Color Adjustment in the QL-120 printer driver is set to "Application Managed". Color management should be enabled in either the design application or printer driver, but not both.

Printing Labels

1. Ensure the label media has been loaded.

2. If you are printing from a third-party design application, ensure the printer driver preferences are configured. Refer to the QL-120 Driver Help for details.

3. Open the label file using the appropriate software. Then choose to print the label, and enter the number of copies you would like to print.

    Note: If your software has a collate option, disable it before printing.

4. Print the labels.

5. If necessary, use the Status Monitor to view information about printer and job status. There are two ways to open the Status Monitor.

    -   You can open the Status Monitor manually as needed. Choose **Start > Quick-Label QL-120 > QL-120 Status Monitor**.

    -   You can automatically open the Status Monitor when a print job is started. Refer to the QL-120 Driver Help for details.

    The job progress will be displayed in the Status Monitor.
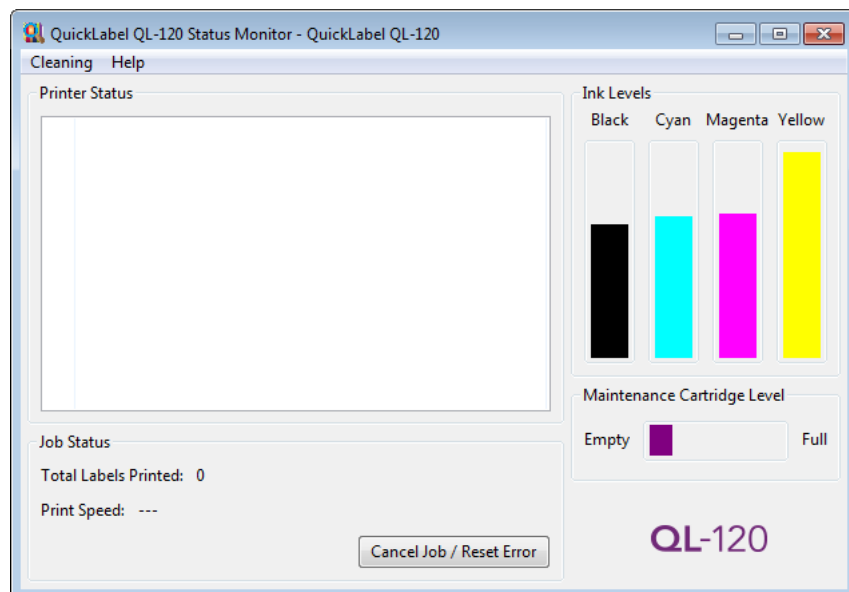
If necessary, you can cancel the print job by choosing **Cancel Job/Reset Error** in the Status Monitor.

6.   Receive the printed labels.

Note: *Do not pull the printed labels in any direction as they exit the printer. Pulling the labels may result in a media jam.*

Managing Media Out with QL-120 Series Printers

On media out, the printer will reprint labels to ensure all labels have been printed. This action produces duplicate labels and the user will need a manual procedure to remove the duplicates, especially if the labels contain information such as barcodes, serial numbers, etc.

When the printer runs out of media before completing the print job, it will print all remaining labels including the unfinished, in-progress label when a new roll of labels is loaded in the printer.

For example, during a print job of 10 labels, the printer runs out of media while printing the 6th label and the 4th label does not reach the stop position. When media is loaded and printing resumes, printing will start with the 4th label and continue to the 10th label in the job.

A label is considered printed if it exited the printer and passed the stop position. All labels that did not pass the stop position prior to the media out condition will be reprinted.

Changing or Replacing Media

Removing a Media Roll

When changing media before completion of printing, use media of the same size as the media used so far. Using media of a different size can result in an error.

1.   Open the roll cover.
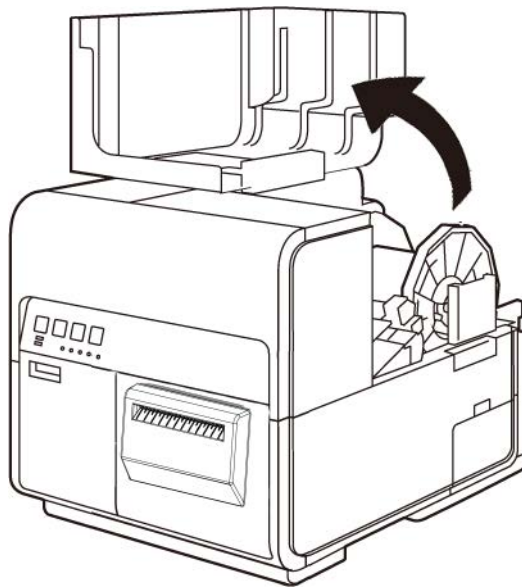
2.   Push the lever of the paper guide to open the guide.
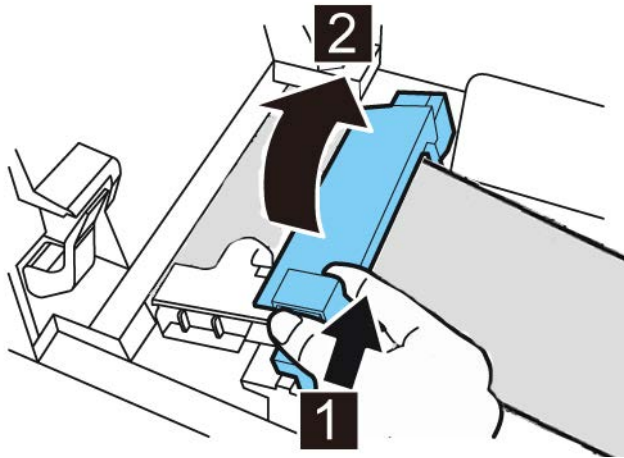
3.   Open the transport guide (right), and slide it rightward until it stops.
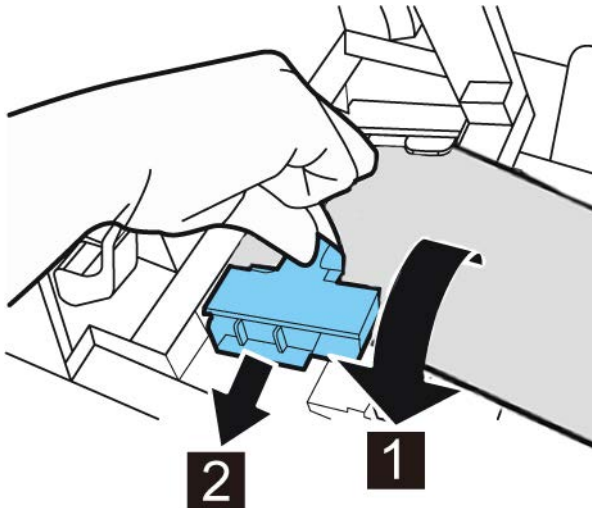
4.   While pressing the pinch roller release lever, pull out the media.
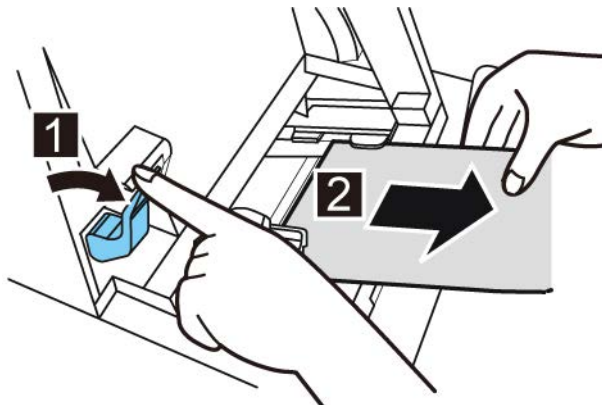
5.   Remove the roll holder.
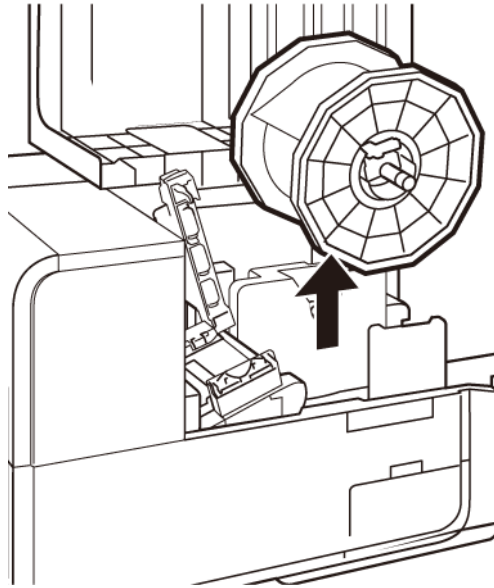
6.   Release the holder stopper screw, and remove the holder stopper from the roll holder.
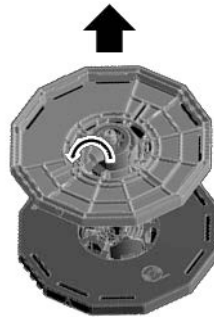
7.   Remove the media roll from the roll holder.
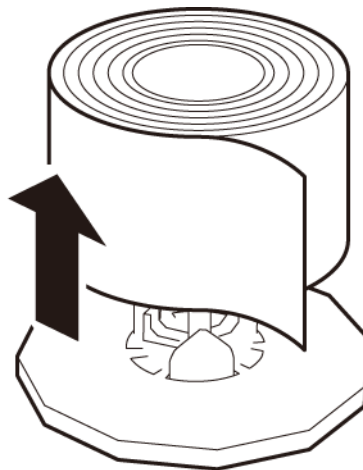
Removing an Empty Media Roll

When the media has been used up, a message will be displayed on the Status Monitor and the printer will stop.

1.   Open the roll cover.
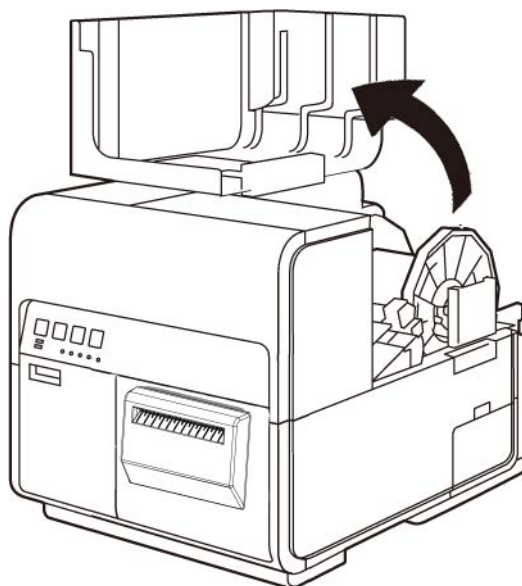
2.   Locate the tape adhered at the trailing edge of the media.
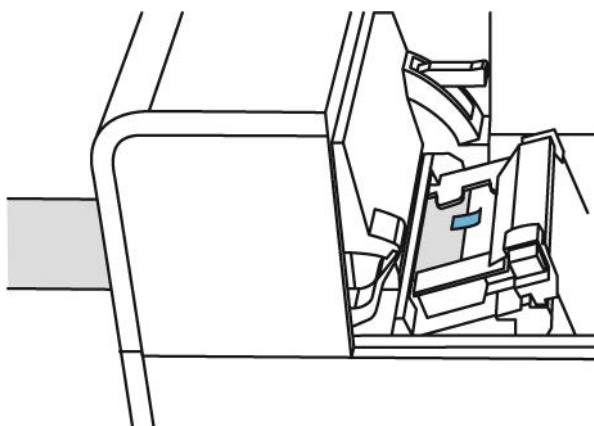
3. Push the lever of the paper guide to open the guide.
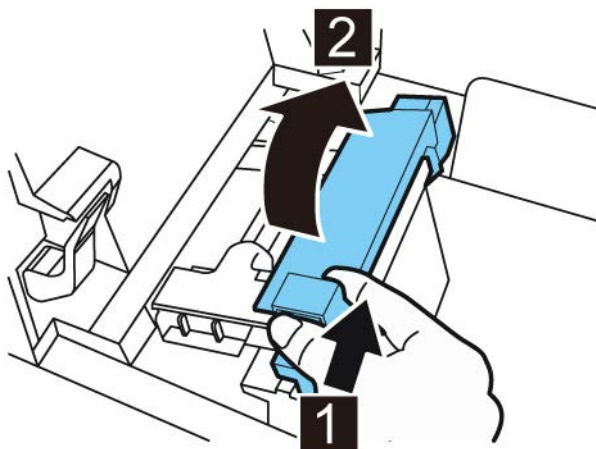
4. Remove the tape.
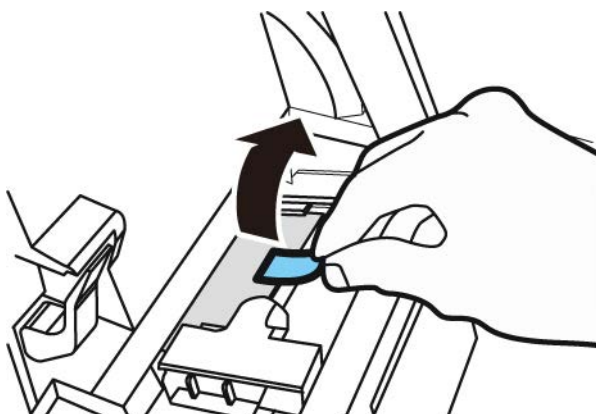
5. While pushing the pinch roller release lever, pull out media through the delivery slot.
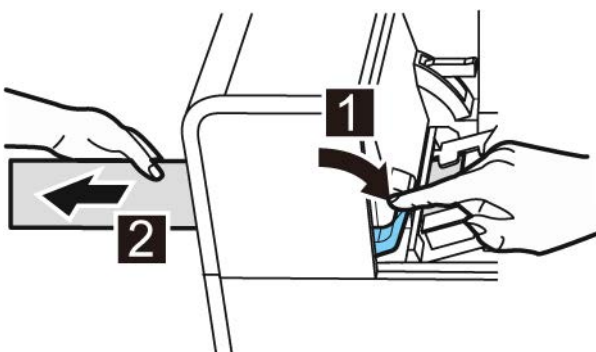
6. Remove the empty roll holder. Remove the empty roll core from the roll holder.

Loading Media on the Roll Holder

1. Release the holder stopper screw, and remove the holder stopper from the roll holder.
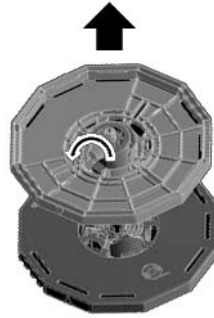
2. Load roll media on the roll holder with it oriented as shown such that the bottom of the roll touches the roll holder surface with no clearance.

3. Insert the holder stopper until it stops, and tighten the holder stopper screw.

Setting the Media in the Printer

1. Make sure that the Power LED stays lit. If the Power LED does not stay lit or it is not blinking, press the power key to put the printer in the power-on state.

2. Open the roll cover.

3. Push the lever of the paper guide to open the guide.

4.   Open the transport guide (right), and slide it rightward until it stops.

5.   Mount the roll holder in the printer.

The flanges and corresponding installation points in the printer are color coded. Orient the roll holder so the black flange matches the black installation point, and the gray flange matches the gray installation point.

6.   If you are using gap or reflective mark media, cut the media edge that will be fed into the printer. If you are using continuous media, skip this step.

  •   Gap media has spaces between each label resulting from the removal of the matrix during the die cutting process.

       If you are using gap media, cut the media between labels as illustrated by the dashed red line below. The arrow indicates the direction of media feed into the printer.

  •   Reflective mark media has black cue marks printed on the back of the label liner. These marks are read by a sensor on the printer to determine the starting point of new labels.

       If you are using reflective mark media, cut the media between labels, but before the mark, as illustrated by the dashed red line below. The arrow indicates the direction of media feed into the printer.

7. Insert media along the left-side guide under the transport guide (left) until it stops at the roller in the feeder slot.

Media at the roller in the feeder slot is automatically pulled in slightly.

8. Slide the transport guide (right) in accordance with the width of the media.

Note: *Do not press the transport guide (right) strongly against the media edge. A paper jam can result.*

9. Slowly close the transport guide (right) to lock it.

10. Slowly push the paper guide down until it clicks (locks). When it locks, media is transported automatically.

11. Close the roll cover.

4 Printer Maintenance

Operating Schedule and Recovering an Inactive Printer

Use the printer regularly to maintain the health of the printhead. At least once per week, print a job or perform a cleaning routine with the Maintenance Utility. Following this schedule will help keep the printhead nozzles hydrated and functioning properly.

If the printer is not used for a period of two weeks or longer, the printhead nozzles may become dry and clogged. If this occurs, you can recover the printer by performing the following cleaning steps.

1. Open the Cleaning tab of the Maintenance Utility and perform cleaning.

2. Manually clean the printhead face with cleaning sticks. *See "Cleaning the Printhead Face" on page 86.*

3. Manually clean the inside edge of the printhead with cleaning sticks. *See "Cleaning the Inside Edge of the Printhead" on page 89.*

Recovering the printer may require that you repeat this process or individual steps multiple times.

Replacing Ink Cartridges

When the remaining ink level becomes low, a low ink message will be displayed on the Status Monitor to notify you that the corresponding ink cartridge will soon be out of ink. When an ink cartridge is out of ink, an out of ink message will be displayed and printing will stop.

The printer has four ink cartridges: black (Bk), cyan (C), magenta (M), and yellow (Y). Confirm the message displayed on the Status Monitor and replace the appropriate ink cartridge.

Warning: For safety, keep ink cartridges out of the reach of children. If ink is accidentally ingested, contact a physician immediately.

- To maintain printhead quality, the printer stops operating before it is completely out of ink. Therefore, a small amount of ink remains in the ink cartridge to be replaced.

- To get good printing results, use up each ink cartridge within six months of opening the package.

- Do not remove an ink cartridge unless you must replace it. This could shorten the life of the consumables. Ink cartridges are only guaranteed for five re-punctures.

- Complete the ink cartridge replacement procedure as quickly as possible. Do not leave the printer with ink cartridges removed.

- An ink cartridge left in a high-temperature place can deform. However, there is nothing wrong with its functions. It is recommended that ink cartridges be stored where temperature does not rise extremely.

- Be careful not to stain your clothes or the surrounding area by the used ink cartridge.

1.   Open the ink cartridge door.
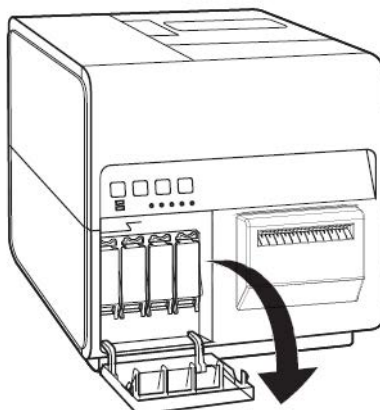
2.   Open the ink cartridge lever while pushing it downward.
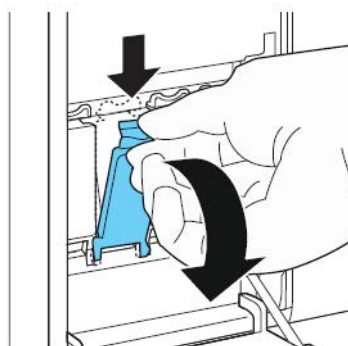
3.   Remove the empty ink cartridge.
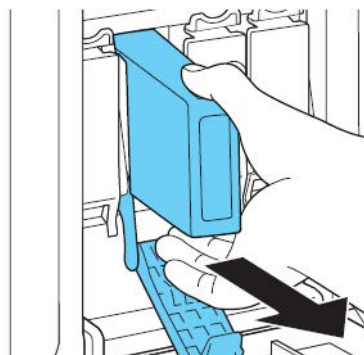
4.   Take out the ink cartridges from the package. Then remove the packing materials.
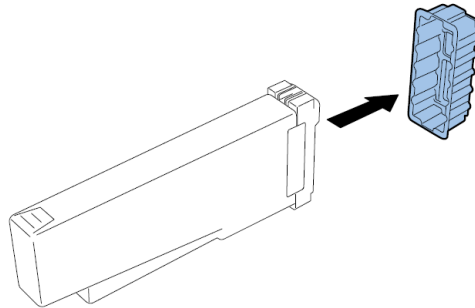
Do not touch the ink outlet and terminal to prevent soiling of the surrounding work area, damage to the ink cartridge, and poor printing. Never drop or apply excessive force to an ink cartridge.

5.   If you are using the QL-120D printer, rotate the ink cartridge to stir the ink.

Note: This step applies only to the QL-120D ink. If you are using the QL-120 or QL-120X, skip this step.
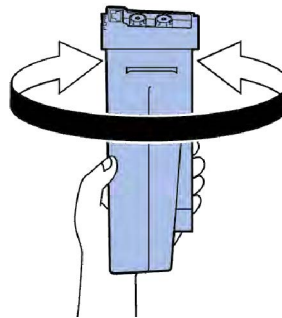
6.   Slowly insert the ink cartridge as far as it will go, and then close the ink cartridge lever.
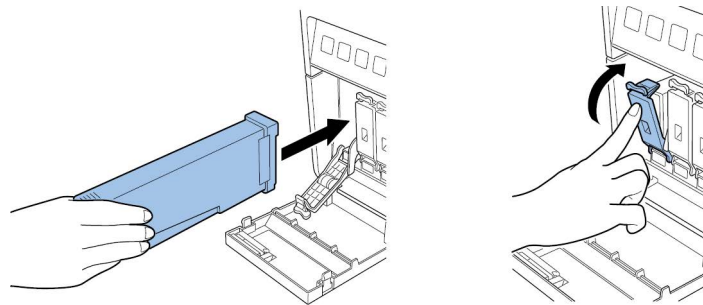
Caution: There are sharp pins in the ink cartridge slot. Never put your fingers in this area.

Note: The printer is designed so that ink cartridges cannot be inserted in wrong ink cartridge slots. Do not attempt to insert ink cartridges in wrong ink cartridge slots forcibly.

7.   Close the ink cartridge door.
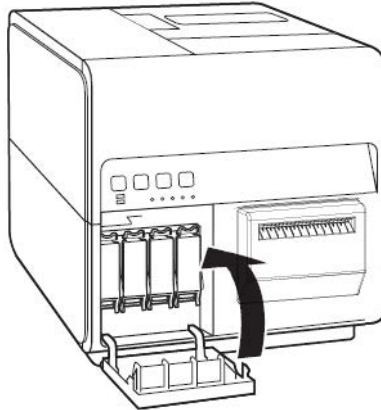
8.   Dispose of the old ink cartridge according to federal, state, and local laws after packing it in a plastic bag and placing the bag in the box.

Replacing the Maintenance Cartridge

When the maintenance cartridge is filled with the collected ink, the message "Maintenance cartridge full error" is displayed in the Status Monitor and the printer stops.

Note: For safety, keep the maintenance cartridge out of the reach of children. If ink is accidentally ingested, contact a physician immediately.

•   To prevent ink from leaking from a used maintenance cartridge, avoid dropping the cartridge or storing it at an angle. Otherwise, ink may leak and cause stains.

•   Ink adheres to the top of the maintenance cartridge after it has been used. Handle the maintenance cartridge carefully during replacement. The ink may stain clothing.

1.   Open the maintenance cartridge door.
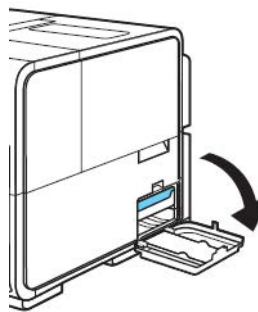
2.   Draw out the maintenance cartridge slowly.
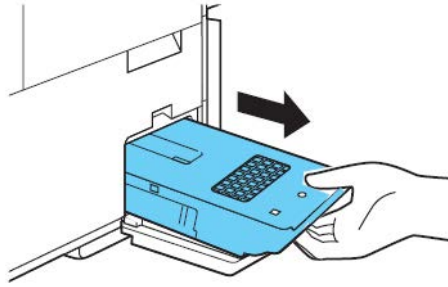
When removing the maintenance cartridge full of ink, take care not to incline or drop it. The spilled or scattered ink may stain the floor or clothing.

3.   Insert a new maintenance cartridge.
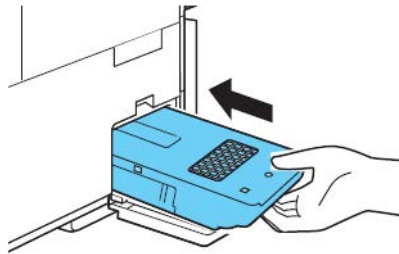
The error message on the Status Monitor will disappear, and printing will start.

4.   Dispose of the old maintenance cartridge according to federal, state, and local laws after packing it in a plastic bag and placing the bag in the box.

Printhead and Purge Unit Cleaning

Cleaning the Printhead Face

If a void appears on the label and persists after multiple heavy cleanings, or if debris/adhesive has attached to the printheads, use the following procedure to clean the printhead face.

Note: Ensure the printer power remains on during this procedure.

1.   Print a Check Nozzle Pattern using the Test Print tab in the QL-120 Maintenance Utility. Determine the position of voiding.

2.   Open the roll cover. Remove the labels from transportation area (rewind the roll). Then close the roll cover.

3.   Launch the QL-120 Maintenance Utility.

From the Windows Start Menu, choose **Start > QuickLabel QL-120 > QL-120 Maintenance Utility**. A language and printer prompt will open.

Select a display language and the QL-120 series printer you want to connect to. Choose **OK**.

4.   Choose the **Cleaning** tab. Then choose the **Expose Printhead** button.

The printer head will move to the print position for cleaning. This process requires five seconds.

Note: Do not keep the printhead in the print position for longer than two minutes.

5.   Open the upper unit.

6.   Set the Nozzle Check Pattern label face-up in the transport assembly, aligned to the transport unit's rib A as indicated in the image below.
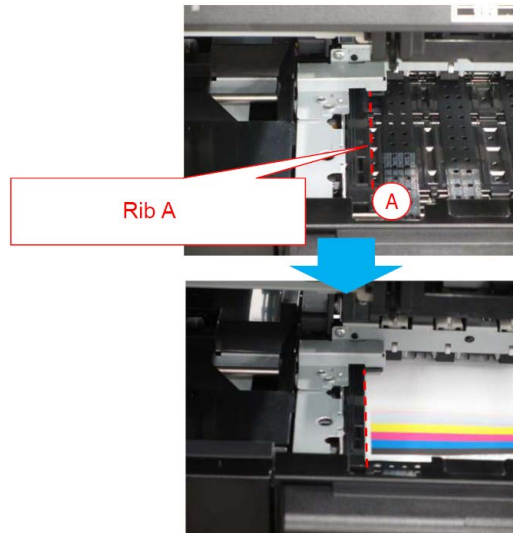
7.   Find the void on the printed label and take note of where and which printheads are affected by non-discharging nozzles.
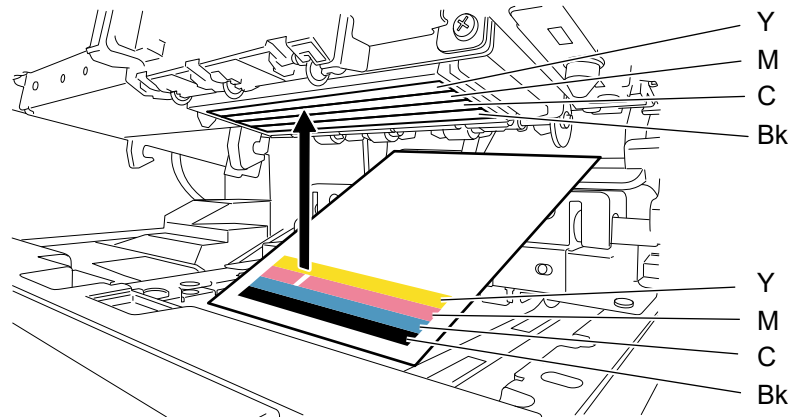
8.   Touch the tip of cleaning stick on nozzles that have non discharge, and then hold for five seconds to absorb ink.
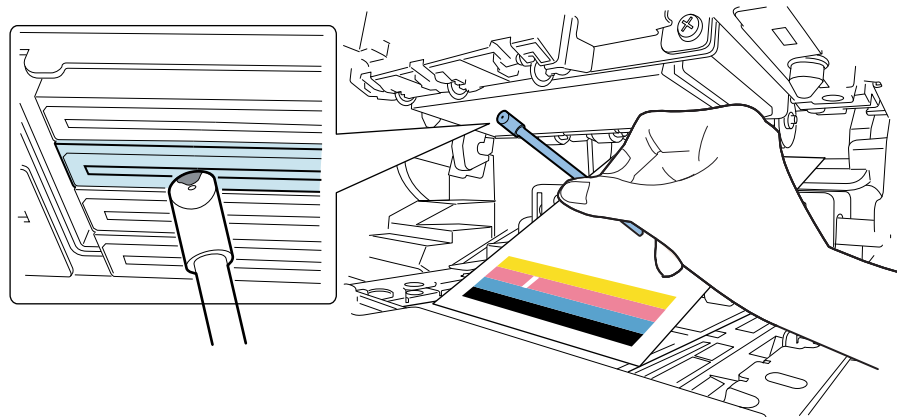
Caution: *Do not touch cut section of cleaning stick on face of Printhead. Do not touch Printhead surface with your hand.*
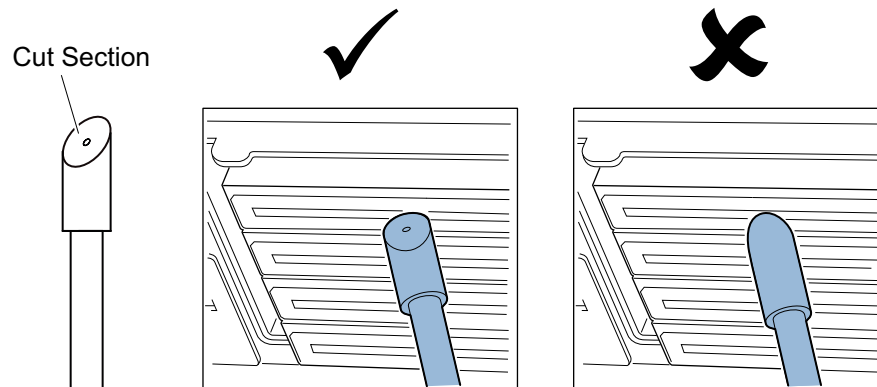
Note: *It is possible to clean Printheads of all 4 colors with 1 cleaning stick.*

9.   Confirm ink is absorbed in tip of cleaning stick, and then wipe Printhead from front side to rear side two or three times. Wiping direction is opposite direction of paper feeding.
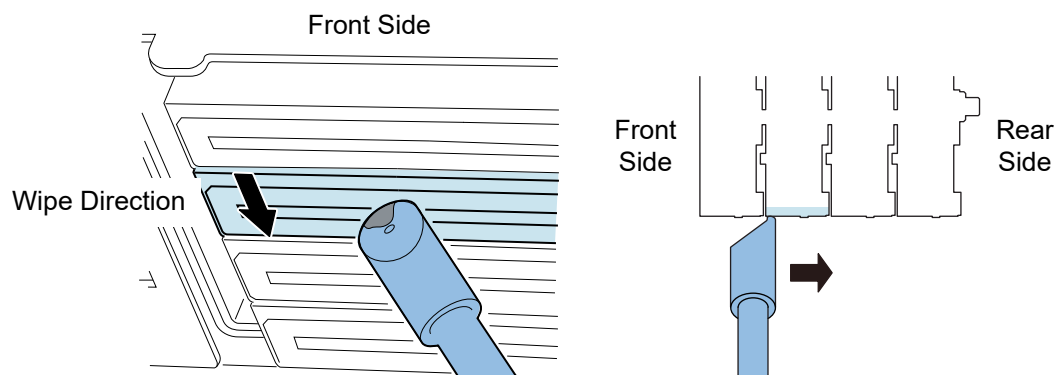
Caution: *Touch cleaning stick to the face of Printhead so tip of cleaning stick bends lightly.*

10. Remove printed label used for finding non-discharge nozzles.

11. Close the upper unit. After closing the upper unit, the printer head goes back to normal position (capped position).

12. Open the roll cover. Reinstall the label roll. Then close the roll cover.

13. Print the Check Nozzle Pattern again to confirm whether the voiding is resolved or not.

    Note: If the printhead is in the print position for an extended period of time, the printhead surface may dry and voiding may occur in other areas. If voiding occurs, use the Light cleaning procedure in the Cleaning tab.

Cleaning the Inside Edge of the Printhead

If label adhesive has adhered to the inside (upstream) edge of the printhead, print quality issues may result. Use this procedure to clean the inside edge.

Note: Ensure the printer power remains on during this procedure.

1. Open the roll cover. Remove the labels from transportation area (rewind the roll). Then close the roll cover.

2. Launch the QL-120 Maintenance Utility.

    From the Windows Start Menu, choose **Start > QuickLabel QL-120 > QL-120 Maintenance Utility**. A language and printer prompt will open.

    Select a display language and the QL-120 series printer you want to connect to. Choose **OK**.

3. Choose the **Cleaning** tab. Then choose the **Expose Printhead** button.

    The printer head will move to the print position for cleaning. This process requires five seconds.

    Note: Do not keep the printhead in the print position for longer than two minutes.

4. Open the upper unit.

5. Use the tip of the cleaning stick to clean the inside edge of the printhead as indicated. Wipe the edge in the upward direction only. Do not wipe in the downward direction. Do not wipe in the left/right direction.
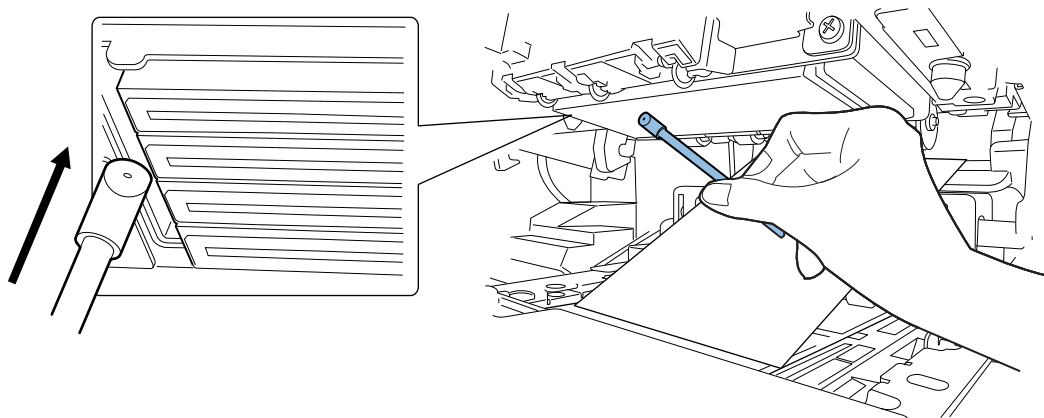
6. Close the upper unit. After closing the upper unit, the printer head goes back to normal position (capped position).

7. Open the roll cover. Reinstall the label roll. Then close the roll cover.

Cleaning the Purge Unit Blade

If debris has adhered to the blade in the purge unit, print quality issues may result. Use this procedure to clean the purge unit blade.

Note: Wear protective gloves to prevent ink from staining your hands during this procedure.

Note: Use only a new cleaning stick for this procedure. Do not reuse cleaning sticks when cleaning the purge unit blade.

1. Launch the QL-120 Maintenance Utility.

    From the Windows Start Menu, choose **Start > QuickLabel QL-120 > QL-120 Maintenance Utility**. A language and printer prompt will open.

    Select a display language and the QL-120 series printer you want to connect to. Choose **OK**.

2. Choose the **Cleaning** tab. Then choose the **Clean Purge Unit** button. Use the maintenance wizard to remove the purge unit for manual cleaning.

3. Refer to the illustration during the cleaning process. Use a new cleaning stick to wipe the top surface of the blade (A, B, C, and D) in the directions indicated by the arrows.
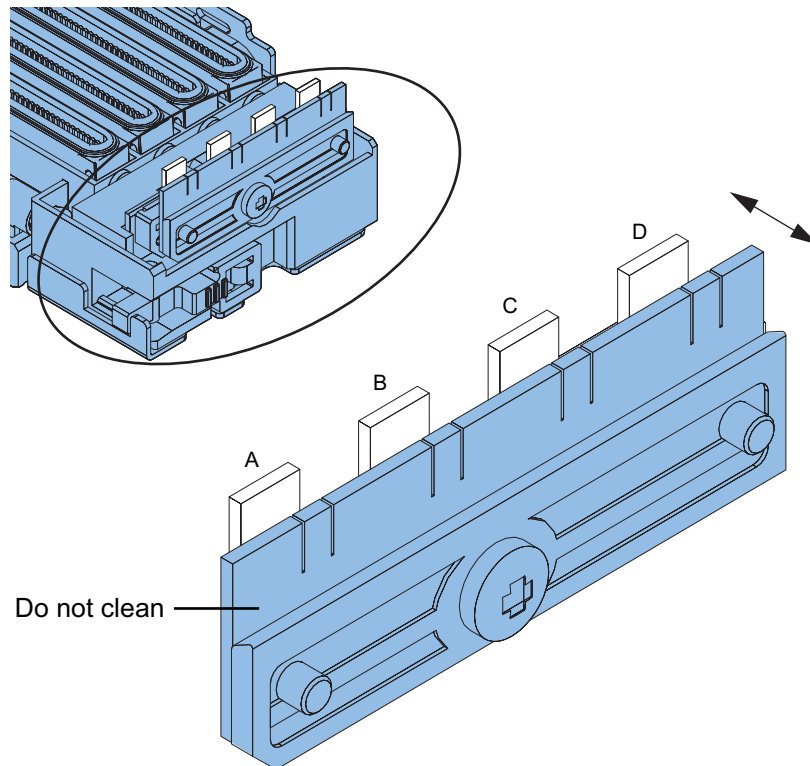
4. After wiping the top surface, wipe the face surface of the blade (A, B, C, and D). Then wipe the back surface of this blade.

5. Reinstall the purge unit and complete the maintenance wizard.

5

Troubleshooting

Error Codes

Error Code Overview

Error codes are classified into 3 groups.

Code Type	Description	See
Fatal Error	If Printer fails, Operation Panel [ERROR] Lamp flashes to signal the error state. Further, an error code consisting of 4 alphanumeric characters appears in Printer Driver Status Monitor or in QL-120 Maintenance Utility.	*See "Fatal Error" on page 91.*
Error	If an Error occurs, Operation Panel [ERROR] Lamp lights and a message displays in Printer Driver Status Monitor. If QL-120 Maintenance Utility is active, an error code consisting of 4 alphanumeric characters appears in Printer Status window, along with a description of the operator call.	*See "Error" on page 110.*
Warning	If Printer enters a warning state, a message appears in Printer Driver Status Monitor. If QL-120 Maintenance Utility is active, an error code consisting of 4 alphanumeric characters appears in Printer Status window, along with a description of the warning.	*See "Warnings" on page 121.*

Fatal Error

Code & Detail Code	Item	Description
01: Printer Controller PCB Failure		
0101	Title	Flash ROM failure
	Remedy	Contact Technical Support.

Code & Detail Code		Item	Description
0102		Title	SDRAM failure
		Remedy	Contact Technical Support.
0103		Title	VRAM failure
		Remedy	Contact Technical Support.
0104		Title	AD failure
		Remedy	Contact Technical Support.
0105		Title	Sensor 3.3V was not turned OFF correctly.
		Remedy	Contact Technical Support.
0106		Title	Sensor 5.0V was not turned OFF correctly.
		Remedy	Contact Technical Support.
0107		Title	Motor 24V was not turned OFF correctly
		Remedy	Contact Technical Support.
0108		Title	Printhead 5V was not turned OFF correctly.
		Remedy	Contact Technical Support.
0109		Title	Printhead 24V was not turned OFF correctly.
		Remedy	Contact Technical Support.
010A		Title	VHTM of the fuse is blown.
		Remedy	Contact Technical Support.
010B		Title	Cutter brake malfunction
		Remedy	Contact Technical Support.
01	Remarks		• Even when the cause of the error (detail code: 0105 to 0109) is removed, the same error code is displayed when Printer is restarted as long as the retained error has not been cleared. • When replacing parts, be sure to use the appropriate part replacement function in the QL-120 Maintenance Utility. Part replacement functions in the utility will clear any applicable errors and prepare the printer for using the new parts.
02: Power Failure			

Code & Detail Code		Item	Description
0211		Title	Printer Controller PCB 3.3V was not turned ON correctly.
		Remedy	Contact Technical Support.
0212		Title	Printer Controller PCB 5.0V was not turned ON correctly.
		Remedy	Contact Technical Support.
0213		Title	Motor 24V was not turned ON correctly.
		Remedy	Contact Technical Support.
0214		Title	Printhead 5V was not turned ON correctly.
		Remedy	Contact Technical Support.
0215		Title	Printhead 24V was not turned ON correctly.
		Remedy	Contact Technical Support.
02	Remarks		• Even when the cause of the error (detail code: 0211 to 0215) is removed, the same error code is displayed when Printer is restarted as long as the retained error has not been cleared. • When replacing parts, be sure to use the appropriate part replacement function in the QL-120 Maintenance Utility. Part replacement functions in the utility will clear any applicable errors and prepare the printer for using the new parts.
05: Printhead Position Error			
0520		Title	Printhead position error
		Remedy	Contact Technical Support.
0521		Title	Printhead position error
		Remedy	Contact Technical Support.
0522 052A 052B 052C 052D		Title	Printhead position error
		Remedy	Contact Technical Support.
052E		Title	Printhead position error
		Remedy	Contact Technical Support.

Code & Detail Code	Item	Description
052F 0530	Title	Printhead position error
	Remedy	Contact Technical Support.
053D	Title	Printhead position error
	Remedy	Contact Technical Support.
053E	Title	Printhead position error
	Remedy	Contact Technical Support.
0540	Title	Printhead position error
	Remedy	Contact Technical Support.
0541	Title	Printhead position error
	Remedy	Contact Technical Support.
0542	Title	Printhead position error
	Remedy	Contact Technical Support.
0543	Title	Printhead position error
	Remedy	Contact Technical Support.
0545	Title	Printhead position error
	Remedy	Contact Technical Support.
0546 0547 0548 0549 054A 054B 054C 054D	Title	Printhead position error
	Remedy	Contact Technical Support.
054E	Title	Printhead position error
	Remedy	Contact Technical Support.
054F 0550	Title	Printhead position error
	Remedy	Contact Technical Support.

Code & Detail Code	Item	Description
055E	Title	Printhead position error
	Remedy	Contact Technical Support.
0562	Title	Printhead position error
	Remedy	Contact Technical Support.
0563	Title	Printhead position error
	Remedy	Contact Technical Support.
0565	Title	Printhead position error
	Remedy	Contact Technical Support.
0566 0567 0568 0569 0570	Title	Printhead position error
	Remedy	Contact Technical Support.
06: Purge Unit Position Error		
0620	Title	Purge Unit position error
	Remedy	Contact Technical Support.
0621	Title	Purge Unit position error
	Remedy	Contact Technical Support.
0623	Title	Purge Unit position error
	Remedy	Contact Technical Support.
0624 0625 0626 0627 0628 0629 062A	Title	Purge Unit position error
	Remedy	Contact Technical Support.
063D	Title	Purge Unit position error
	Remedy	Contact Technical Support.
063E	Title	Purge Unit position error
	Remedy	Contact Technical Support.

Code & Detail Code	Item	Description
0640	Title	Purge Unit was not installed correctly.
	Remedy	Contact Technical Support.
0641	Title	Purge Unit position error
	Remedy	Contact Technical Support.
0643	Title	Purge Unit position error
	Remedy	Contact Technical Support.
0644 0645 0646 0647 0648 0649	Title	Purge Unit position error
	Remedy	Contact Technical Support.
065E	Title	Purge Unit position error
	Remedy	Contact Technical Support.
0663	Title	Purge Unit position error
	Remedy	Contact Technical Support.
0664 0665 0666 0667 0668 0669	Title	Purge Unit position error
	Remedy	Contact Technical Support.
07: Supply Valve Error		
0720	Title	Supply Valve error
	Remedy	Contact Technical Support.
0721	Title	Supply Valve error
	Remedy	Contact Technical Support.
0722	Title	Supply Valve error
	Remedy	Contact Technical Support.
0723	Title	Supply Valve error
	Remedy	Contact Technical Support.

Code & Detail Code	Item	Description
0724	Title	Supply Valve error
	Remedy	Contact Technical Support.
0725	Title	Supply Valve error
	Remedy	Contact Technical Support.
0726	Title	Supply Valve error
	Remedy	Contact Technical Support.
0727	Title	Supply Valve error
	Remedy	Contact Technical Support.
0729	Title	Supply Valve error
	Remedy	Contact Technical Support.
0731	Title	Supply Valve error
	Remedy	Contact Technical Support.
0732	Title	Supply Valve error
	Remedy	Contact Technical Support.
0733	Title	Supply Valve error
	Remedy	Contact Technical Support.
0734	Title	Supply Valve error
	Remedy	Contact Technical Support.
0735	Title	Supply Valve error
	Remedy	Contact Technical Support.
0736	Title	Supply Valve error
	Remedy	Contact Technical Support.
0771	Title	Supply Valve error
	Remedy	Contact Technical Support.
0772	Title	Supply Valve error
	Remedy	Contact Technical Support.

Code & Detail Code	Item	Description
0773	Title	Supply Valve error
	Remedy	Contact Technical Support.
0774	Title	Supply Valve error
	Remedy	Contact Technical Support.
0775	Title	Supply Valve error
	Remedy	Contact Technical Support.
0776	Title	Supply Valve error
	Remedy	Contact Technical Support.
0777	Title	Supply Valve error
	Remedy	Contact Technical Support.
0779	Title	Supply Valve error
	Remedy	Contact Technical Support.
08: Bubble Removing Valve Error		
0820	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0821	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0823	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0824	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0825	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0826	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.

Code & Detail Code	Item	Description
0827	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0828	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0831	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0833	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0834	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0835	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0837	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0838	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0871	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0873	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0874	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0875	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0876	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.

Code & Detail Code	Item	Description
0877	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
0878	Title	Bubble Removing Valve error
	Remedy	Contact Technical Support.
09: Suction Pump Error		
0912 0913 0914 0915 *1	Title	Ink Level Sensor does not detect ink.
	Remedy	Contact Technical Support.
0916 0917 0918 0919 *2	Title	Ink Level Sensor does not detect air.
	Remedy	Contact Technical Support.
091A	Title	Pressure does not become lower.
	Remedy	Contact Technical Support.
0922 0923 0924 0925 *1	Title	Pressure does not change.
	Remedy	Contact Technical Support.
0926 0927 0928 0929 *2	Title	Pressure does not change.
	Remedy	Contact Technical Support.
092A	Title	Pressure does not become lower.
	Remedy	Contact Technical Support.
092B	Title	Pressure does not become higher.
	Remedy	Contact Technical Support.
0932 0933 0934 0935 *1	Title	Pressure becomes lower too fast.
	Remedy	Contact Technical Support.

Code & Detail Code	Item	Description
0936 0937 0938 0939 *2	Title	Pressure becomes higher too fast.
	Remedy	Contact Technical Support.
0941 0942 0943 0944 0945 0946 0947 0948 0949 094A 094B *3	Title	Supply Valve status error when driving Pump (dragging)
	Remedy	Contact Technical Support.
0951 0952 0953 0954 0955 0956 0957 0958 0959 095A 095B *3	Title	Supply Valve status error when driving Pump (dragging)
	Remedy	Contact Technical Support.
0961 0962 0963 0964 0965 0966 0967 0968 0969 096A 096B *3	Title	Bubble Removing Valve status error when driving Pump (dragging)
	Remedy	Contact Technical Support.

Code & Detail Code		Item	Description
0971 0972 0973 0974 0975 0976 0977 0978 0979 097A 097B *3		Title	Bubble Removing Valve status error when driving Pump (dragging)
		Remedy	Contact Technical Support.
09	Remarks		*1: The low-order 4 bits are 2: BK, 3: C, 4: M, 5:Y. *2: The low-order 4 bits are 6: BK, 7: C, 8: M, 9:Y. *3: The low-order 4 bits represent the Pump drive type. 1: Driven without sensor detection 2: Driven on Ink Level Sensor detection (BK) 3: Driven on Ink Level Sensor detection (C) 4: Driven on Ink Level Sensor detection (M) 5: Driven on Ink Level Sensor detection (Y) 6: Driven on Ink Level Sensor detection (BK) 7: Driven on Ink Level Sensor detection (C) 8: Driven on Ink Level Sensor detection (M) 9: Driven on Ink Level Sensor detection (Y) A: Pressure Sensor under detection B: Pressure Sensor excess detection
0F: Printhead Overheat			
0F01 0F02 0F03 0F04 0F05 0F06 0F07 0F08 0F09 0F0A 0F0B 0F0C 0F0D 0F0E 0F0F *4		Title	Printheads are overheated. If used further, Printheads will be damaged.
		Remedy	Contact Technical Support.
10: Printhead Ink Level Sensor Error			

Code & Detail Code	Item	Description
1001 1002 1003 1004 1005 1006 1007 1008 1009 100A 100B 100C 100D 100E 100F *4	Title	Ink Upper Limit Sensor detected while Ink Lower Limit Sensor did not.
	Remedy	Contact Technical Support.
11: Printhead Subheater Error		
1101 1102 1103 1104 1105 1106 1107 1108 1109 110A 110B 110C 110D 110E 110F *4	Title	Specified temperature is not reached even though Subheater is running
	Remedy	Contact Technical Support.
12: Printhead Connection Error		

Code & Detail Code	Item	Description
1201 1202 1203 1204 1205 1206 1207 1208 1209 120A 120B 120C 120D 120E 120F *4	Title	Printhead connection error
	Remedy	Contact Technical Support.
13: Printhead Data Error		
1301 1302 1303 1304 1305 1306 1307 1308 1309 130A 130B 130C 130D 130E 130F *4	Title	Printhead EEPROM data error
	Remedy	Contact Technical Support.
14: Printhead ID Error		

Code & Detail Code	Item	Description
1401 1402 1403 1404 1405 1406 1407 1408 1409 140A 140B 140C 140D 140E 140F *4	Title	Correct Printhead is not installed.
	Remedy	Contact Technical Support.
15: Ink Leakage		
1501	Title	Ink is leaking.
	Remedy	Contact Technical Support.
17: Purge Unit life		
1701	Title	Purge Unit life
	Remedy	Replace Purge Unit.
18: Blade Cleaner Life		
1801	Title	Blade Cleaner life
	Remedy	Replace Blade Cleaner.
19: Printhead Temperature Sensor Error		

Code & Detail Code	Item	Description
1901 1902 1903 1904 1905 1906 1907 1908 1909 190A 190B 190C 190D 190E 190F *4	Title	Printhead Temperature Sensor is damaged.
	Remedy	Contact Technical Support.
1B: Printhead Flexible Cable Connection Error		
1B01 1B02 1B03 1B04 1B05 1B06 1B07 1B08 1B09 1B0A 1B0B 1B0C 1B0D 1B0E 180F *4	Title	Printhead Flexible Cable is not connected correctly.
	Remedy	Contact Technical Support.
1E: Printhead ID Error 2		

Code & Detail Code	Item	Description
1E01 1E02 1E03 1E04 1E05 1E06 1E07 1E08 1E09 1E0A 1E0B 1E0C 1E0D 1E0E 1E0F *4	Title	Correct Printhead is not installed.
	Remedy	Contact Technical Support.
24: Climate Sensor not Connected		
2401	Title	Climate Sensor is not connected.
	Remedy	Contact Technical Support.
25: Paper Suction Fan Error		
2501	Title	Paper Suction Fan is faulty or not connected.
	Remedy	Contact Technical Support.
26: Power Supply Fan Error		
2601	Title	Power Supply Fan is faulty or not connected.
	Remedy	Contact Technical Support.
2602	Title	Power Supply Fan is faulty or not connected.
	Remedy	Contact Technical Support.
28: Printhead ID Error 3		

Code & Detail Code	Item	Description
2801 2802 2803 2804 2805 2806 2807 2808 2809 280A 280B 280C 280D 280E 280F *4	Title	Type (dye/pigment) of ink in Printhead is different.
	Remedy	Replace Printhead.
29: Wipe Valve Error		
2920	Title	Wipe Valve position error
	Remedy	Contact Technical Support.
2921	Title	Wipe Valve position error
	Remedy	Contact Technical Support.
2922	Title	Wipe Valve position error
	Remedy	Contact Technical Support.
2923	Title	Wipe Valve position error
	Remedy	Contact Technical Support.
297F	Title	Wipe Valve position error
	Remedy	Contact Technical Support.
2A: Transport Unit Life		
2A01	Title	Lifetime of Transport Unit has expired. (Printer stops)
	Remedy	Contact Technical Support.
2C: Printhead of the Fuse to Be Blown		

Code & Detail Code	Item	Description
2C01 2C02 2C03 2C04 2C05 2C06 2C07 2C08 2C09 2C0A 2C0B 2C0C 2C0D 2C0E 2C0F *4	Title	Printhead of the fuse to be blown
	Remedy	Contact Technical Support.
2F: Cutter		
2F01	Title	Cutter unit malfunction
	Remedy	Contact Technical Support.
2F02	Title	Cutter unit malfunction
	Remedy	Contact Technical Support.
F0: System Error		
F001 F002 F003 F004 F005 F006 F007 F008 F009 F00A F00B F00C F00D F00E F00F F010 F011 F012 F013 F014	Title	System Error
	Remedy	Turn off and then on Printer.

*4: For example, error code 2C03 means black and cyan Printhead of the fuse to be blown. See the following list.

01: Bk

02: C

03: Bk,C

04: M

05: Bk,M

06: C,M

07: Bk,C,M

08: Y

09: Bk,Y

0A: C,Y

0B: Bk,C,Y

0C: M,Y

0D: Bk,M,Y

0E: C,M,Y

0F: Bk,C,M,Y

Error

Code & Detail Code	Item	Description
01: Upper Unit Open		
0101	Title	Upper Unit is opened.
	Remedy	Close Upper Unit.
02: Ink Cartridge Door Open		
0201	Title	Ink Cartridge Door is opened
	Remedy	Close Ink Cartridge Door.
03: Maintenance Cartridge Door Open		
0301	Title	Maintenance Cartridge Door is opened.
	Remedy	Close Maintenance Cartridge Door.
05: Paper Guides Open		

Code & Detail Code	Item	Description
0501	Title	Paper Guide is not set on the paper.
	Remedy	Set Paper Guide properly on the paper.
09: Roll Cover Open		
0901	Title	Roll Cover is opened.
	Remedy	Close Roll Cover.
10: Paper out Error		
1001	Title	Paper out
	Remedy	1 Load paper and close Paper Guides (error cleared). 2 Reset the print data and cancel the job.
1002	Title	Paper not fed
	Remedy	Load paper and close Paper Guides (error cleared).
11: Paper Vertical Size Error		
1102	Title	Paper of a size smaller than print data is loaded.
	Remedy	1 Load paper with correct size and close Paper Guides (error cleared). 2 Cancel the job in the QL-120 Status Monitor.
1103	Title	Paper of a size smaller than print data is loaded.
	Remedy	1 Load paper with correct size and close Paper Guides (error cleared). 2 Cancel the job in the QL-120 Status Monitor.
1104	Title	Shorter paper size than print data is loaded.
	Remedy	1 Load paper with correct size and close Paper Guides (error cleared). 2 Cancel the job in the QL-120 Status Monitor.
12: Paper Width Size Error		
1201	Title	Paper of correct width is not loaded.
	Remedy	1 Load paper with correct size and close Paper Guides (error cleared). 2 Cancel the job in the QL-120 Status Monitor.

Code & Detail Code	Item	Description
13: Paper Jam Error		
1301	Title	TOF Sensor could not detect the next TOF mark or label gap
	Remedy	1 Remove jammed paper around TOF Sensor. 2 Load paper with correct size. 3 Close Paper Guide (error cleared).
1302	Title	TOF Sensor could not detect the next TOF mark or label gap.
	Remedy	1 Remove jammed paper around TOF Sensor. 2 Load paper with correct size. 3 Close Paper Guide (error cleared).
1304	Title	Paper detected by TOF Sensor cannot be detected by Cutter TOF Sensor.
	Remedy	Close Paper Guide (error cleared).
1305	Title	Cutter TOF Sensor could not detect the next TOF mark or label gap.
	Remedy	1 Remove jammed paper around Cutter TOF Sensor. 2 Load paper with correct size. 3 Close Paper Guide (error cleared).
1306	Title	Cutter TOF Sensor could not detect the leading edge of each page.
	Remedy	1 Remove jammed paper around Cutter TOF Sensor. 2 Load paper with correct gap and mark lengths. 3 Close Paper Guide (error cleared).
1309	Title	Transport Sensor 1 did not respond.
	Remedy	Remove jammed paper from Transport Unit or Roll Drive Unit, set paper and close Paper Guide (error cleared).
130B	Title	Paper is folded around Delivery Port.
	Remedy	Remove jammed paper around Delivery Port, set paper and Close Paper Guide (error cleared).

Code & Detail Code	Item	Description
130C	Title	Paper is ready for printing too early.
	Remedy	1 Clean Transport Belt. 2 Close Paper Guides (error cleared).
13E1	Title	Encoder signal is not received correctly.
	Remedy	Remove jammed paper from transport area.
13E2	Title	Encoder signal is not received correctly.
	Remedy	Remove jammed paper from transport area.
14: Gap Mark Length Error		
1402	Title	Paper with too narrow gap or mark is loaded.
	Remedy	1 Load paper with correct gap and mark and close Paper Guides (error cleared). 2 Cancel the job in the QL-120 Status Monitor.
1403	Title	TOF Sensor could not detect the leading edge of paper.
	Remedy	1 Load paper with correct gap and mark lengths and close Paper Guides (error cleared). 2 Cancel the job in the QL-120 Status Monitor.
19: Paper Loading Error		
1901	Title	Paper is not fed.
	Remedy	Load paper correctly and close Paper Guide (error cleared).
1902	Title	Automatic adjustment of TOF is failed.
	Remedy	Load paper correctly and close Paper Guide (error cleared).
1903	Title	Automatic adjustment of Cutter TOF Sensor is failed.
	Remedy	Load paper correctly and close Paper Guide (error cleared).
1904	Title	Paper Guide opens during paper setting.
	Remedy	Close Paper Guide (error cleared).

Code & Detail Code	Item	Description
1905	Title	Automatic adjustment of Cutter TOF Sensor cannot be performed because paper does not reach Cutter TOF Sensor.
	Remedy	Remove jammed paper from transport area.
1B: Cutter Error		
1B01	Title	Condition Detected
	Remedy	In the case paper is jammed around cutter unit, remove jammed paper.
1B02	Title	Condition Detected
	Remedy	In the case paper is jammed around cutter unit, remove jammed paper.
1D: Paper Jam Error 2		
1D09	Title	Transport Sensor 1 does not respond.
	Remedy	Remove jammed paper from Transport Unit or Roll Drive Unit, set paper and close Paper Guide (error cleared).
1D0B	Title	Paper is folded around Delivery Port.
	Remedy	Remove jammed paper around Delivery Port.
1D11	Title	TOF Sensor could not detect marks during initialization of the paper position.
	Remedy	Remove jammed paper.
1D12	Title	TOF Sensor could not detect marks during initialization of the paper position.
	Remedy	Remove jammed paper.
1DE1	Title	Encoder signal is not detected correctly.
	Remedy	Remove jammed paper from transport area.
1DE2	Title	Encoder signal is not detected correctly.
	Remedy	Remove jammed paper from transport area.
20: Ink Empty		

Code & Detail Code	Item	Description
2001 2002 2003 2004 2005 2006 2007 2008 2009 200A 200B 200C 200D 200E 200F *1	Title	Ink Cartridge is empty.
	Remedy	1 Replace with a new Ink Cartridge. 2 Close Ink Door (error cleared).
21: Ink Cartridge Installation Error		
2101 2102 2103 2104 2105 2106 2107 2108 2109 210A 210B 210C 210D 210E 210F *1	Title	Ink Cartridge is not installed correctly.
	Remedy	1 Install Ink Cartridge again, or replace with a new Ink Cartridge. 2 Close all doors (error cleared).
22: Ink Cartridge Data Error		

Code & Detail Code	Item	Description
2201 2202 2203 2204 2205 2206 2207 2208 2209 220A 220B 220C 220D 220E 220F *1	Title	Ink Cartridge data error
	Remedy	1 Install a new Ink Cartridge. 2 Close all doors (error cleared).

23: Maintenance Cartridge Full		

2301	Title	Maintenance Cartridge is full.
	Remedy	1 Replace with a new Maintenance Cartridge. 2 Close all doors (error cleared).

24: Maintenance Cartridge Installation Error		

2401	Title	Maintenance Cartridge is not installed correctly.
	Remedy	1 Install Maintenance Cartridge again or replace with a new Maintenance Cartridge. 2 Close all doors (error cleared).

25: Maintenance Cartridge Data Error		

2501	Title	Maintenance Cartridge data error
	Remedy	1 Replace with a new Maintenance Cartridge. 2 Close all doors (error cleared).

26: Ink Cartridge ID Error		

Code & Detail Code	Item	Description
2601 2602 2603 2604 2605 2606 2607 2608 2609 260A 260B 260C 260D 260E 260F *1	Title	Correct Ink Cartridge is not installed.
	Remedy	1 Replace with a correct Ink Cartridge. 2 Close all doors (error cleared).
27: Ink Cartridge Type Error		
2701 2702 2703 2704 2705 2706 2707 2708 2709 270A 270B 270C 270D 270E 270F *1	Title	Correct Ink Cartridge is not installed.
	Remedy	1 Replace with a correct Ink Cartridge. 2 Close all doors (error cleared).
2B: Maintenance Cartridge Full (2)		
2B01	Title	Maintenance Cartridge is full.
	Remedy	1 Replace with a new Maintenance Cartridge. 2 Close all doors (error cleared).
2D: Ink Cartridge Type Error		

Code & Detail Code	Item	Description
2D01 2D02 2D03 2D04 2D05 2D06 2D07 2D08 2D09 2D0A 2D0B 2D0C 2D0D 2D0E 2D0F *1	Title	Correct Ink Cartridge is not installed.
	Remedy	1 Replace with a correct Ink Cartridge. 2 Close all doors (error cleared).
2E: Ink Cartridge Destination Error		
2E01 2E02 2E03 2E04 2E05 2E06 2E07 2E08 2E09 2E0A 2E0B 2E0C 2E0D 2E0E 2E0F *1	Title	Correct Ink Cartridge is not installed.
	Remedy	1 Replace with a correct Ink Cartridge. 2 Close all doors (error cleared).
2F: Maintenance Cartridge Type Error		
2F01	Title	Correct Maintenance Cartridge is not installed.
	Remedy	1 Replace with a correct Maintenance Cartridge. 2 Close all doors (error cleared).
30: Update Error		
3001	Title	Firmware update failure.
	Remedy	Contact Technical Support.

Code & Detail Code	Item	Description
3002	Title	Firmware update failure.
	Remedy	Send proper update file.
3003	Title	Updater started upon detecting the firmware error.
	Remedy	Retry the firmware update.
3004	Title	Media parameter version not updated to the latest.
	Remedy	Update to the latest version of media parameter information.
31: Data Error		
3101	Title	Invalid data received from host computer.
	Remedy	Cancel the job in the QL-120 Status Monitor.
3102	Title	Invalid data received from host computer.
	Remedy	Cancel the job in the QL-120 Status Monitor. • Ensure vertical and horizontal baseline settings are correct. • Ensure vertical and horizontal offset settings are correct. • Ensure bleed control settings are correct.
3103	Title	Form data that cannot be saved was received.
	Remedy	Cancel the job in the QL-120 Status Monitor.
3104	Title	Data different from the paper shape that had been set from host computer was received.
	Remedy	Cancel the job in the QL-120 Status Monitor.
32: Memory Full		
3201	Title	Form data is not saved.
	Remedy	Cancel the job in the QL-120 Status Monitor.
34 Overlay ID Error		
3401	Title	Invalid form ID is specified.
	Remedy	Cancel the job in the QL-120 Status Monitor.

Code & Detail Code	Item	Description
37 Remaining Ink Detection Error		
3701 3702 3703 3704 3705 3706 3707 3708 3709 370A 370B 370C 370D 370E 370F *1	Title	Proper Ink Cartridge is not installed.
	Remedy	1 Set proper Ink Cartridge. 2 Close all doors (error cleared).

*1: See the following list.

01: Bk

02: C

03: Bk,C

04: M

05: Bk,M

06: C,M

07: Bk,C,M

08: Y

09: Bk,Y

0A: C,Y

0B: Bk,C,Y

0C: M,Y

0D: Bk,M,Y

0E: C,M,Y

0F: Bk,C,M,Y

Warnings

| Code & Detail Code	Item	Description
01: Remaining Ink Warning		
0101 0102 0103 0104 0105 0106 0107 0108 0109 010A 010B 010C 010D 010E 010F *1	Title	Ink running out soon.
	Remedy	1 Replace with a new Ink Cartridge. 2 Close all doors (warning cleared).
04: Maintenance Cartridge Warning		
0401	Title	Maintenance Cartridge soon full.
	Remedy	1 Replace with a new Maintenance Cartridge. 2 Close all doors (warning cleared).
05: Replace Printhead		
0501 0502 0503 0504 0505 0506 0507 0508 0509 050A 050B 050C 050D 050E 050F *1	Title	Lifetime of Printhead has expired.
	Remedy	1 Replace Printheads. 2 Restart Printer after replacing Printhead (warning cleared).
06: Purge Unit Replacement (*Remarks)		

| Code & Detail Code	Item	Description
0601	Title	Lifetime of Purge Unit has expired.
	Remedy	1 Replace Purge Unit. 2 Restart Printer after replacing Purge Unit (warning cleared).
Remarks		"Purge Unit Replacement" is issued in advance, if "Purge Unit Replacement" is expected within 1 month when "Blade Cleaner Replacement" is issued.
07: Blade Cleaner Replacement (*Remarks)		
0701	Title	Lifetime of Blade Cleaner has expired.
	Remedy	1 Replace Blade Cleaner. 2 Restart Printer after replacing Blade Cleaner (warning cleared).
Remarks		"Blade Cleaner Replacement" is issued in advance, if "Blade Cleaner Replacement" is expected within 1 month when "Purge Unit Replacement" is issued.
0A: Inappropriate Current Printing Speed		
0A01	Title	"Printer cool down" is performed in the Fixed Print Speed mode.
	Remedy	Warning is cleared automatically at the end of the job.
0A02	Title	Printing data delay in fixed printing speed mode
	Remedy	Warning is cleared automatically at the end of the job.
0C: Transport Unit Replacement		
0C01	Title	Lifetime of Transport Unit has expired. (Printing can be continued)
	Remedy	Contact Technical Support.
0D: RTC Battery Error		
0D01	Title	RTC battery has run out.
	Remedy	Contact Technical Support.

Removing a Paper Jam

If a paper jam occurs during printing, an error message will be displayed and printing will be suspended.
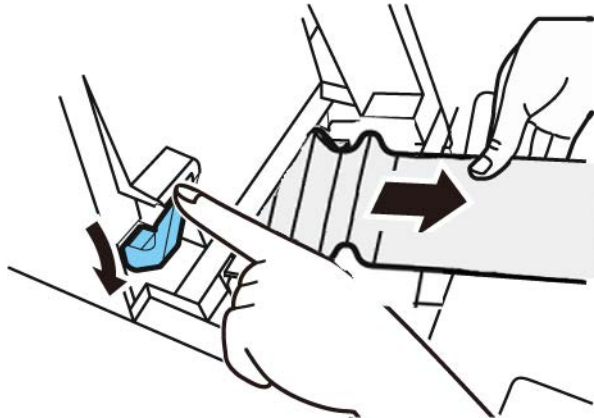
1. Power off the printer.
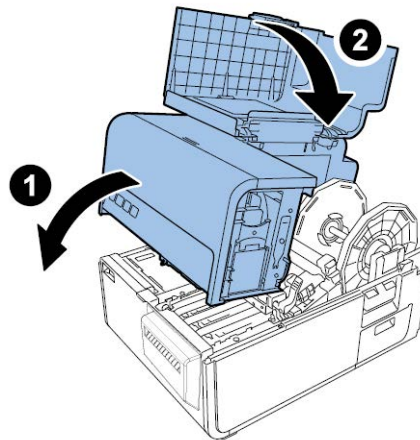
2. Open the roll cover.
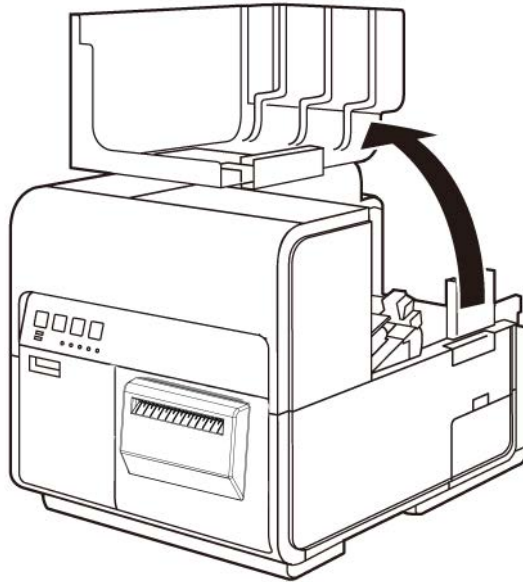
3. Press down the upper unit open lever (at the back of the feeder) to open the upper unit.
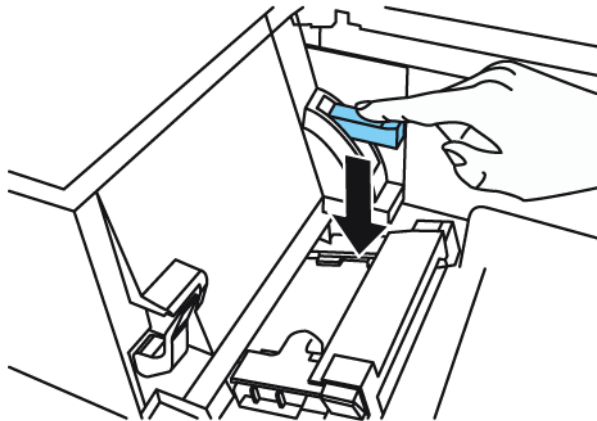
4.   While pushing the pinch roller release lever, pull out paper in the direction opposite to the transport direction.

5.   Close the upper unit and then close the roll cover.

Note: *When closing the upper unit, take care not to touch the interface at the back with your finger. Your finger can be caught in the interface, resulting in injury.*

6.   Reload media.

Printer Not Operating Correctly

Power Off

Check Point	Solution
Main power switch is at the off position.	Press main power switch to the on position.
Printer power cord unplugged.	Make sure that the power cord is plugged in completely.
Power supply not providing power.	Connect another device to the power supply to confirm that the outlet is providing power. If you cannot restore the printer to normal operation, contact QuickLabel Support.

Printer Does Not Start or Printer Stops During Print Jobs

Check Point	Solution
Upper unit, ink cartridge door, or maintenance cartridge door open.	Close the upper unit, ink cartridge door, or maintenance cartridge door and ensure it is closed tightly.
Printer is not connected to the computer.	Check the USB cable and make sure that it is connected to the printer and the computer.
The USB cable is too long.	Avoid using USB cables longer than 16.4 feet (5 meters).
Media is not loaded correctly.	Load media correctly.
The ink cartridges are not installed correctly.	Check the ink cartridges and make sure that they are installed correctly.
The printer driver is not selected on the computer.	Make sure that the QL-120 series printer is selected when you start the print job.
Print data contains an image with a large capacity.	If you see the STATUS LED flashing, this means data is processing. Wait for the processing to finish.
The printer has been printing for a long period.	If the printer prints for a long period the printhead may overheat. To protect the printhead, the Status Monitor will display a printhead overheated message and stop the print job. Just wait for the printhead to cool down.

Check Point	Solution
The print destination port setting is wrong.	Open the printer driver Properties and make sure that the port setting is correct. If the port setting is not correct, shut down Windows, switch off the computer, then reconnect to the selected port. Follow the procedure below to check the port setting. Open the printer driver Properties window and then click the Ports tab. If you are using a USB connection, make sure that USBnnn (nnn represents numbers) is selected for the port setting.
Check whether a test pattern is printed. Note that 4" x 5" label stock is required.	Try printing a test pattern from the Test Print tab in the Maintenance Utility. If the test pattern is printed, check the application software settings, operation method, and print data content. If the test pattern is not printed, contact QuickLabel Support.
The problem is occurring on the computer.	Shut down the computer and switch it on again. Then try to print. Be sure to cancel the print job if it remains after the computer is restarted.
Check whether an option other than "None" is selected for the system standby setting or sleep mode setting of Windows running on the computer.	When printing data, select "None" for the system standby setting or the setting of the time before entering the sleep mode of Windows running on the computer. Note that data sent from the computer is discarded when the computer is recovered from the standby mode. To configure the system standby setting or sleep mode setting in Windows, select Control Panel from the Start menu. Then select Power Options.

Paper is Not Feeding Correctly

Check Point	Solution
Check whether non QuickLabel media is used.	Use only QuickLabel media for the printer. Otherwise, a media jam or failure may result.
The edge of the paper is folded or curled.	If the leading edge of the paper is folded or curled, it will not feed correctly. This could also cause a media jam.

Check Point	Solution
Check whether the label is likely to come off due to deteriorated adhesive.	Never use media having labels which are likely to come off. Printer failures can result.
Check whether the paper guide is set in accordance with the media width.	Set the transport guide in accordance with the paper width, and then set the paper guide such that it clicks.

Status Monitor Does Not Start

Check Point	Solution
The Status Monitor setting is incorrect.	With some Status Monitor settings, printer errors will not be displayed and the Status Monitor will not start. Open the printer driver Status tab and then click Launch Monitor. Set the details after the Status Monitor starts.
Check whether the printer and computer can communicate interactively.	If the printer and computer cannot communicate interactively, the Status Monitor does not start even if printing starts. Open the Properties of the printer driver, and then click the Port tab. Check that the Enable Bidirectional Support checkbox is checked. If the problem persists after taking the above action, uninstall the printer driver, and then reinstall the printer driver.

Print Results are Unsatisfactory

Random Characters are Printed

Check Point	Solution
An interface cable is disconnected.	Check the interface cable and make sure that it is connected to the printer and the computer.
The printer driver is not selected on the computer.	Make sure that the QL-120 series printer is selected when you start the print job.

Check Point	Solution
Check whether a test pattern is printed. Note that 4" x 5" label stock is required.	Try printing a test pattern from the Test Print tab in the Maintenance Utility. If the test pattern is printed, check the application software settings, operation method, and print data content. If the test pattern is not printed, contact QuickLabel Support.

Slow to Print

Check Point	Solution
Check whether the number of copies is specified on the application side.	If the number of copies is specified on the application side, new print data is sent each time printing of a copy is completed, requiring a long time to finish printing the specified number of copies. In such a case, specify the number of copies on the printer driver side.
Print speed is set to a lower speed.	Set the print speed in the Layout tab of the printer driver or in CQL Pro. Auto print speed is recommended.

Print Quality is Poor

| Check Point	Solution
White spots due to missing colors.	Open the Cleaning tab of the Maintenance Utility and perform cleaning. If the problem persists after performing cleaning, contact QuickLabel Support.
Printout is faint.	Open the Cleaning tab of the Maintenance Utility and perform cleaning. If the problem persists after performing cleaning, contact QuickLabel Support.
Misalignment of colors appears.	Open the Adjustment tab of the printer and perform registration.
The overall print quality is poor.	Use only QuickLabel media for the printer. Otherwise, a media jam or failure may result.

Printed Colors Appear Incorrect

Check Point	Solution
Wrong colors are printed.	Check the image in your design application. If necessary, make adjustments in the Advanced Color Settings window. Open the Control Panel of your computer, and then check whether the settings in the Display Properties and Screen Properties are correct. When the setting for the display type or gamma coefficients is wrong, correct colors are not displayed on the display.
The overall print quality is poor.	Use only QuickLabel media for the printer. Otherwise, a media jam or failure may result.
Image is too bright or too dark.	Check the image in your design application. If necessary, make adjustments in the Advanced Color Settings window.
The image contrast is too strong or weak.	Check the image in your design application. If necessary, make adjustments in the Advanced Color Settings window.
Image is faint.	Check the image in your design application. If necessary, make adjustments in the Advanced Color Settings window.

Printing in One Color

Check Point	Solution
The software application is set up for single color printing.	Some software applications may allow you to print in one color. Check the print settings in the software application on the computer.

Print Samples and Solutions

Spur Gear Mark
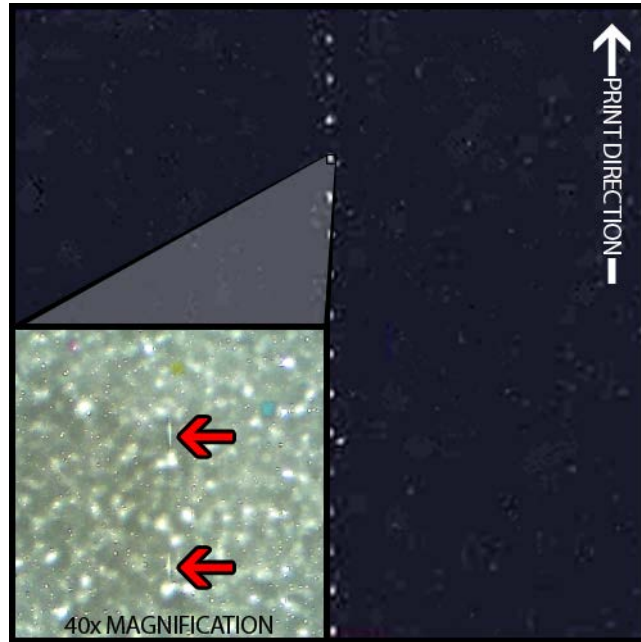
Description

Spur gears are located in several locations throughout the transport assembly. They help keep the media flat to avoid jamming during printing and ensure the media receives the ink correctly.
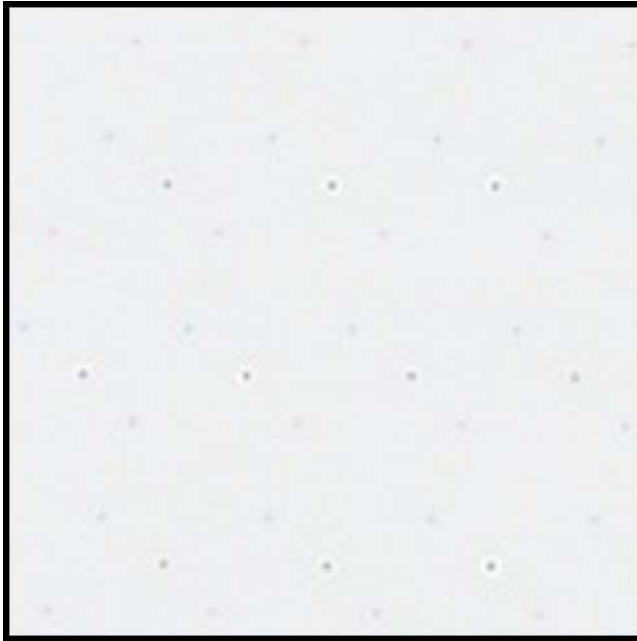
Causes

As media passes through the transport assembly, these gears come into contact with the surface of the label material.

Possible Solutions

Clean the spur gears with a slightly damp lint-free cloth and let air-dry before use.

Background Pattern

Description

Often called "Keep Alive Dots", this ink is sprayed in the background to prevent nozzles from clogging when not in constant use.

Cause

As media passes through the transport assembly, nozzles that are not firing based on the position and the label content being printed will fire the smallest amount of ink possible based on a built-in algorithm.

Possible Solutions

A solution is not applicable because the pattern is normal.

Printhead Not in Correct Position

Description

Printed output does not resemble specified label content, but rather abstract patterns of ink with varying ink dispersion.

Cause

The print module is obstructed and did not fully lower into a printing position. The distance between the media and the printheads will produce abstract printed output.

Possible Solutions

Contact Technical Support.

Media Contacting Printheads
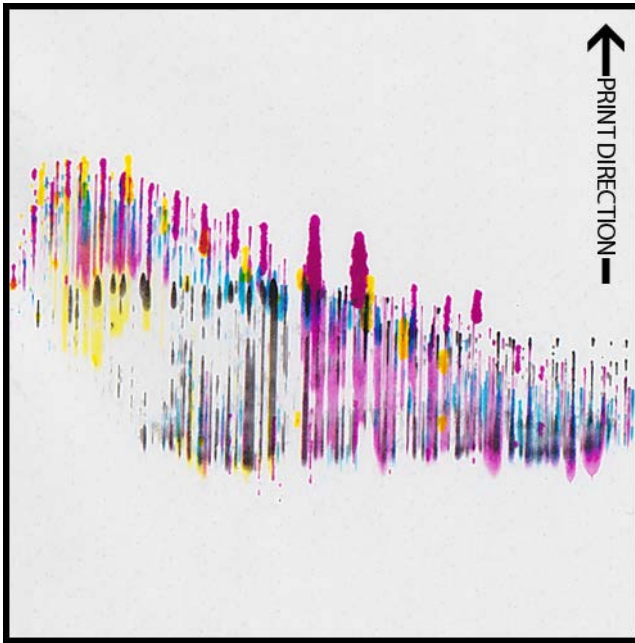
Description

Streaks of CMYK appear down-web, bleeding at various points, indicating a smearing.

Cause

Media is physically coming into contact with the printhead surfaces as it passes through the transport assembly.

Possible Solutions

Reload the media, ensuring it is perfectly centered and the media guides are not causing wrinkling.

Inspect the roll of media for defects.

Poor Print Quality
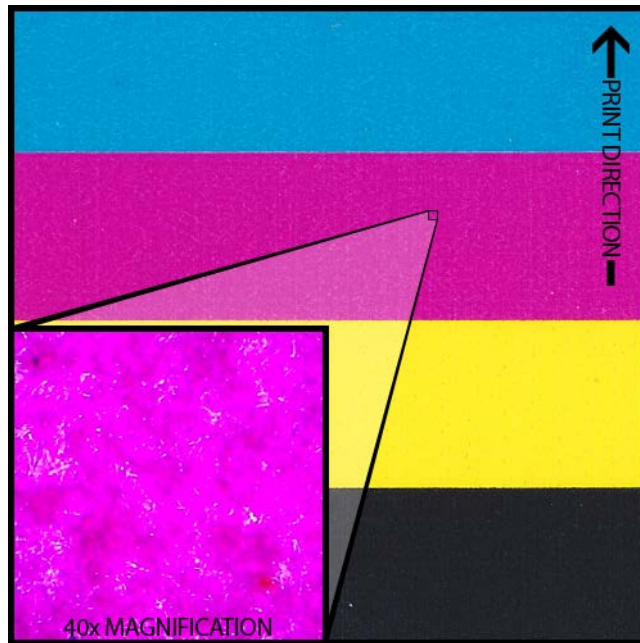
Description

Severe mottled look across the printable web. Ink unable to be absorbed further. Ink may exhibit signs of cracking across the top of the media.

Cause

Using unapproved media type or using wrong media profile.

Possible Solutions

Use approved media or the correct media profile.

Media Surface Contamination
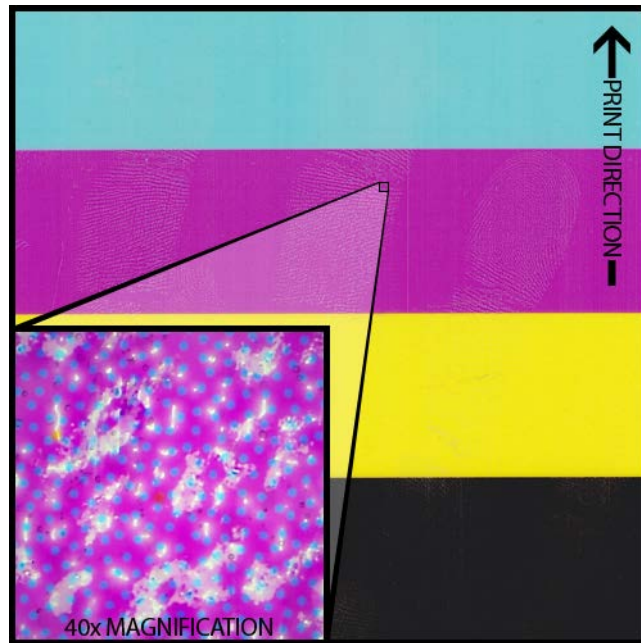
Description

Fingerprints or other marks related to handling the media before printing are visible after the label has been printed.

Cause

Contaminants on the label surface can cause undesirable defects or anomalies because it interferes with the absorption of ink into the media.

Possible Solutions

Handle the media with care.

Scuffing of Surface Material

Description

Light reflecting off the surface of the printed labels highlights the various scuff marks, scratches, dull and/or mottled area of the label material.

Cause

Inherent flaws in the surface of a media can become more visible after printing solid color fills.

Possible Solutions

Try using a rewinder with a dancer-arm, as this helps ensure the media is as flat and moves as smoothly as possible.

Non-Functioning Nozzle
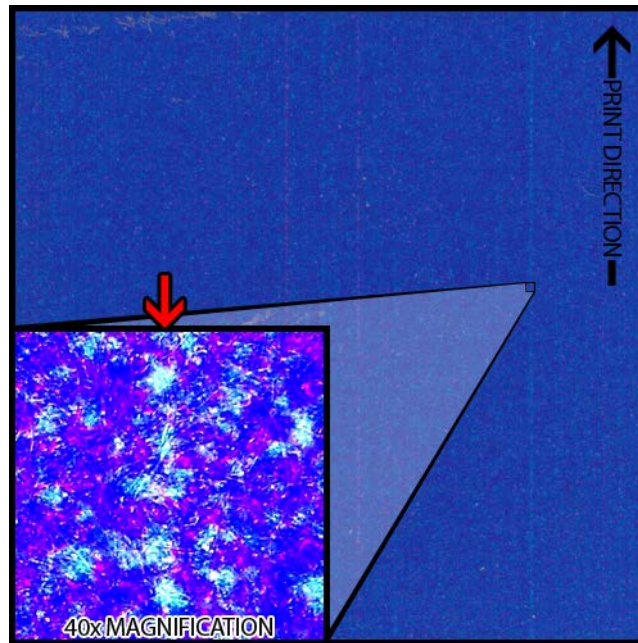
Description

A very thin vertical line in the printed output appears in the print direction, but is only lighter overall than it is supposed to be, not completely absent of color.

Cause

A nozzle is no longer functioning in the printhead. This is fundamentally different from a nozzle that could work but doesn't. This typically will only occur in printheads being used beyond their life expectancy.

Possible Solutions

Running a printhead cleaning routine from the maintenance utility will attempt to resolve the clog, if that is possibly the cause.

Running a missing nozzle adjustment routine in the maintenance utility and adjusting based on which number has broken lines around it will help compensate by firing the adjacent nozzles more.

Clogged Nozzle
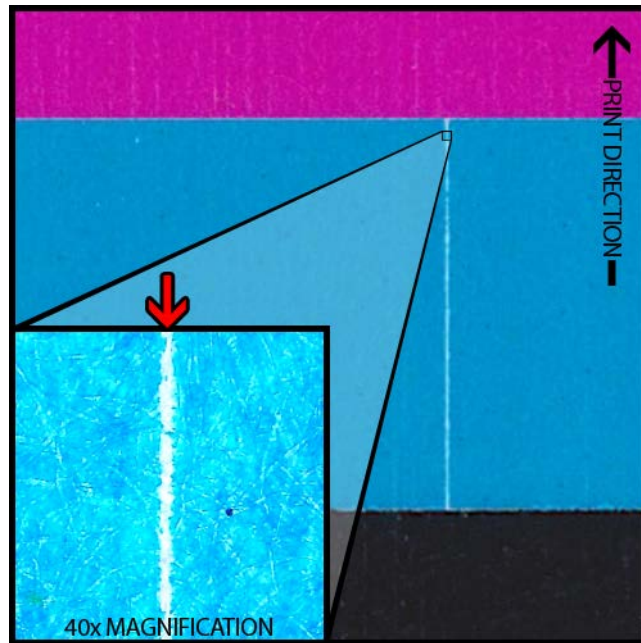
Description

A thin vertical line appears in the print direction as a complete absence of color.

Cause

A nozzle in the printhead is clogged by debris, dried ink, or an air bubble.

Possible Solutions

Running a printhead cleaning routine from the maintenance utility will attempt to resolve the clog.

Running a printhead priming routine from the maintenance utility will drain and refill the printheads with ink.

If the problem persists, please contact Technical Support.

Debris on Printhead
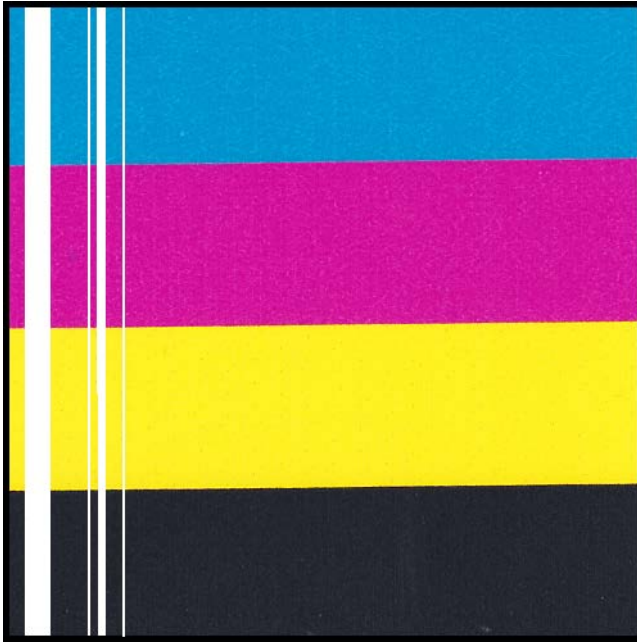
Description

A thicker vertical line appears through the printed output in the print direction as a complete absence of color.

Cause

Multiple contiguous nozzles in the printhead are clogged by debris.

Possible Solutions

Running a heavy printhead cleaning routine from the maintenance utility will attempt to resolve the clog.

Running a printhead priming routine from the maintenance utility will drain and refill the printheads with ink.

If the problem persists, please contact Technical Support.

Wide Voids in Print
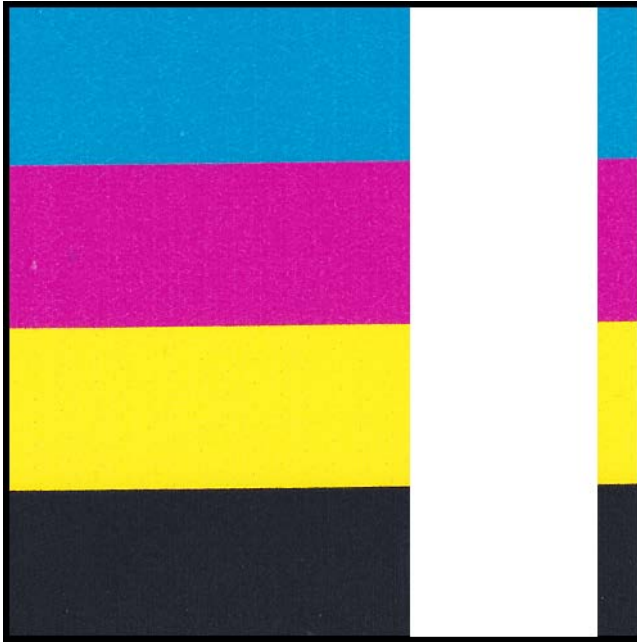
Description

Wide areas across one or more printheads are not printing.

Cause

The printheads are not correctly seated in the print module and data is being lost as a result.

Possible Solutions

Please contact Technical Support.

Changes in Density Due to Torque
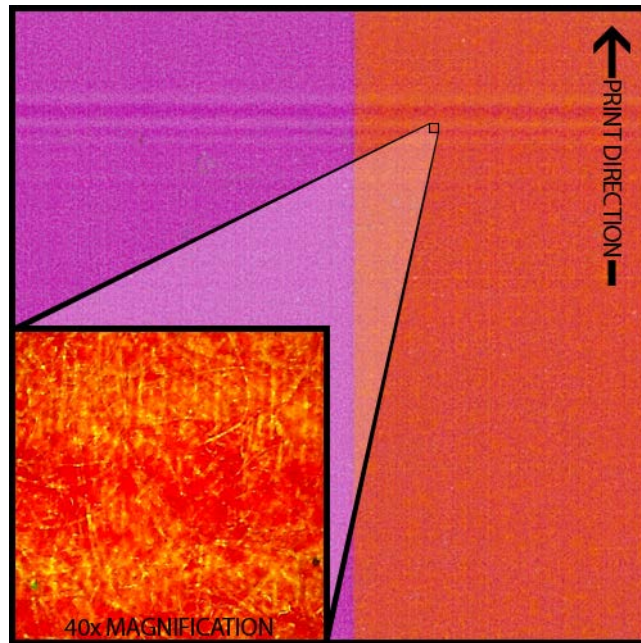
Description

Horizontal lines of density change across the web.

Cause

Too much torque is causing the label roll to get pulled during printing.

Possible Solutions

Lower rewinder torque.

Move the rewinder closer/further from the label exit.

Ensure the rewinder is at the proper elevation.

Ensure the rewinder is properly centered to the media.

Physical Smearing of Wet Ink
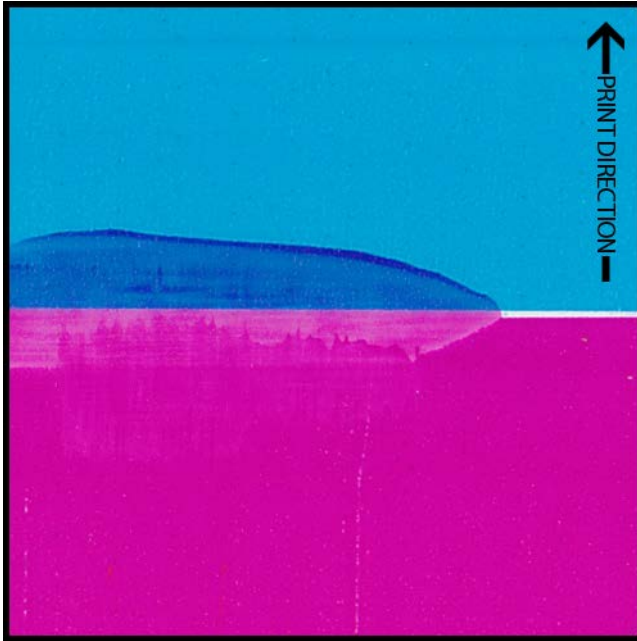
Description

Smear marks on media surface after printing.

Cause

Media is physically coming into contact with surfaces before ink is dried.

Possible Solutions

Handle media with care post-printing.

Ensure media is loaded correctly and is flat while passing through the transport assembly.

Media Being Pulled at Label Exit
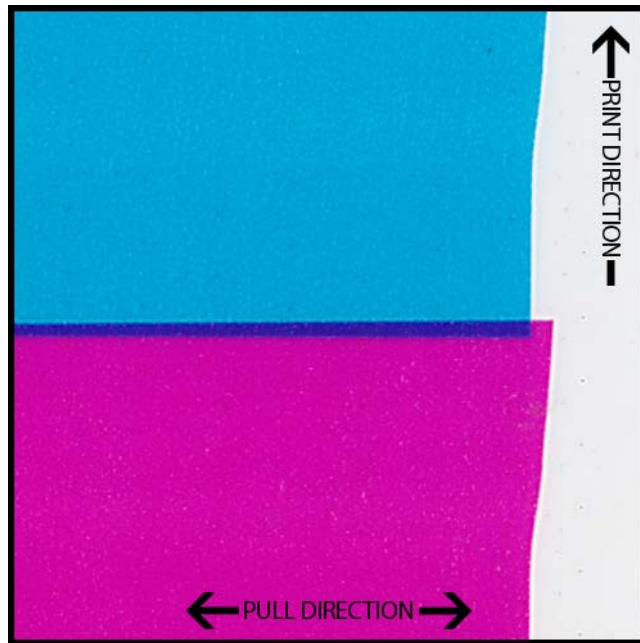
Description

Overlapping label content/shifting label content.

Cause

As the ink is being sprayed in the printer, the media moves faster or slower than intended and a print defect results.

Possible Solutions

If a rewinder is in use, ensure the rewinder is perfectly centered with the exiting media.

Ensure the label exit is uninhibited.

Lower rewinder torque.

Printhead Contamination
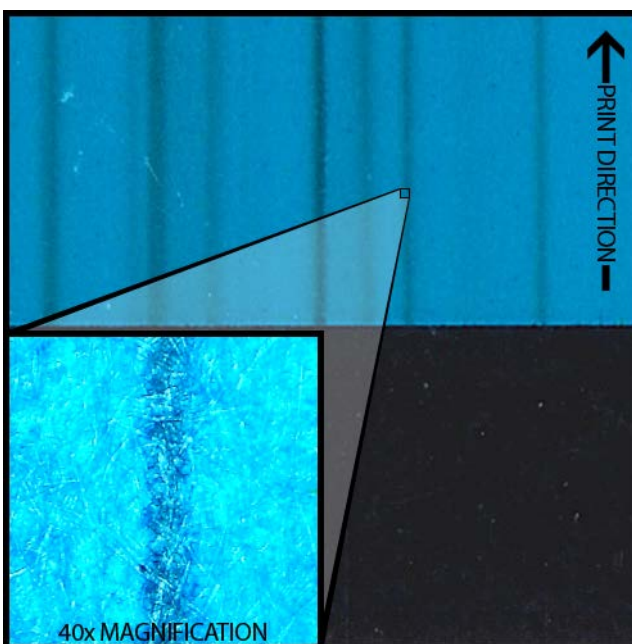
Description

Color-smearing occurring even in pure CMYK printed output after performing a physical cleaning.

Cause

Introduction of ink from one printhead into a different printhead with use of a cleaning stick has contaminated the printhead in question.

Possible Solutions

Perform a printhead priming and then immediately one or more heavy cleanings via the maintenance utility to flush the ink out.

Manually Uninstalling the Printer Driver

You can use the installer wizard to uninstall the printer driver. However, in some situations, the wizard may not remove all driver components. As an alternative, use the following instructions to uninstall the printer driver manually.

Note: *This procedure requires administrator rights in Windows.*

1. If the printer is connected to the PC with a USB cable, unplug the USB cable from the PC.

2. Open the appropriate printer window based on your version of Windows.

    •   In Windows 10 and later, choose the search box on the taskbar. Type "Control Panel", and then select the **Control Panel** icon. In the Control Panel window, click **View Devices and Printers**.

    •   In Windows 8.1, access the **Search** option by pointing to the upper-right corner of the screen. Search for "Control Panel" and click the **Control Panel** icon. In the Control Panel window, click **View Devices and Printers**.

3. Right-click the QL-120 printer you want to remove, then select **Remove Device**. Repeat this step for all QL-120 printers that use the driver.

4. Select any remaining printer. The **Print server properties** option will appear in the toolbar. Choose the **Print server properties** option. The Print Server Properties window will open.

    Select the **Drivers** tab in the Print Server Properties window.
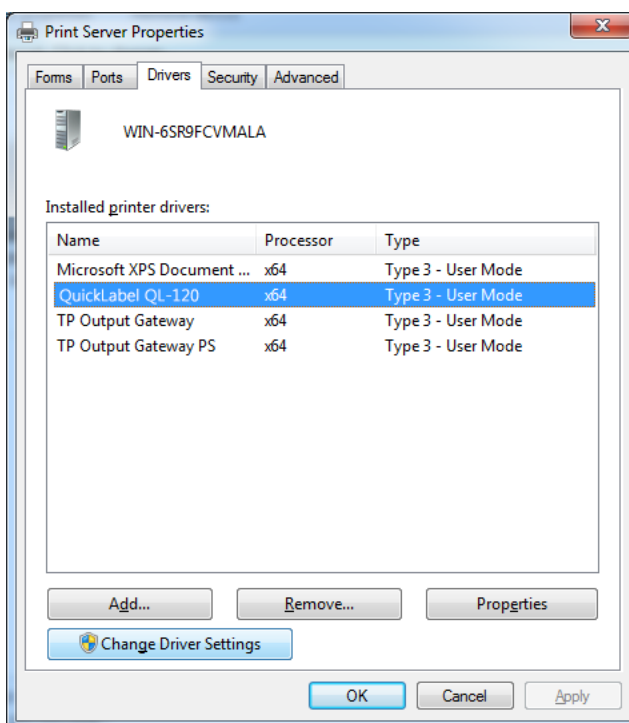
5. Choose **Change Driver Settings**. The drivers will become available for removal.
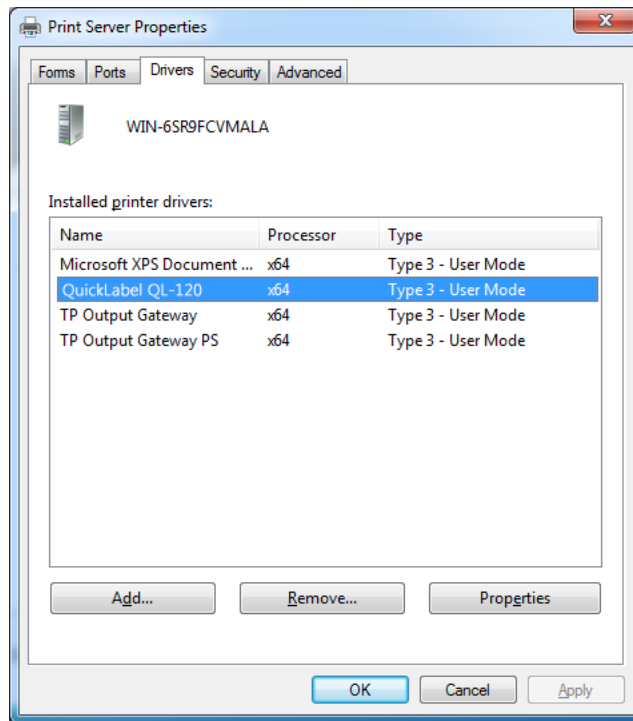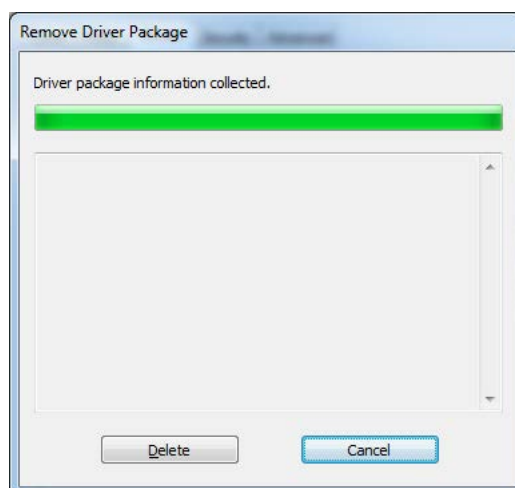
6.   Select a QL-120 driver. Then choose Remove. You will be prompted to select the removal method.


Select **Remove driver and driver package**. Then choose **OK**.

A confirmation message will appear. Choose **Yes** to continue. The Remove Driver Package window will open.
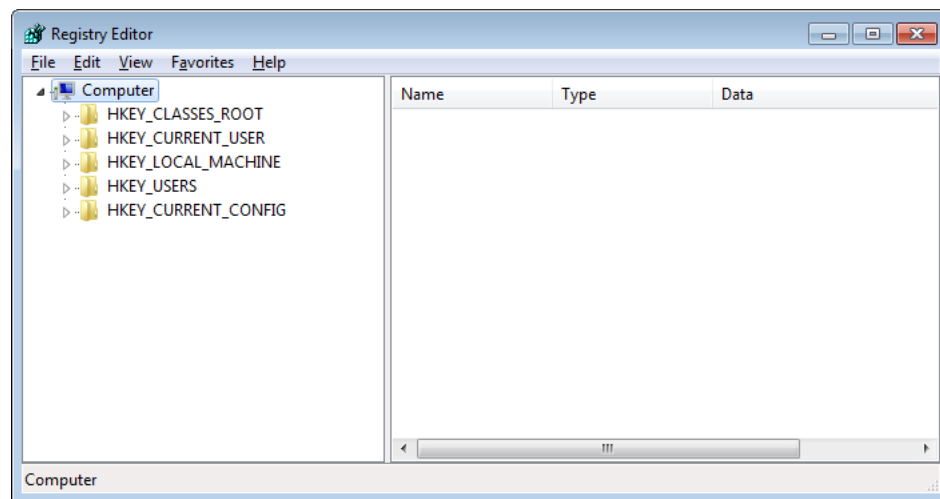

7.   Choose **Delete**.

8.   Delete all other QL-120 drivers displayed in the **Drivers** tab.

9.   Choose **Start > Accessories**. Right-click the **Command Prompt** option, and then choose **Run as administrator**. The command prompt window will open.

10. Type `regedit` at the prompt.
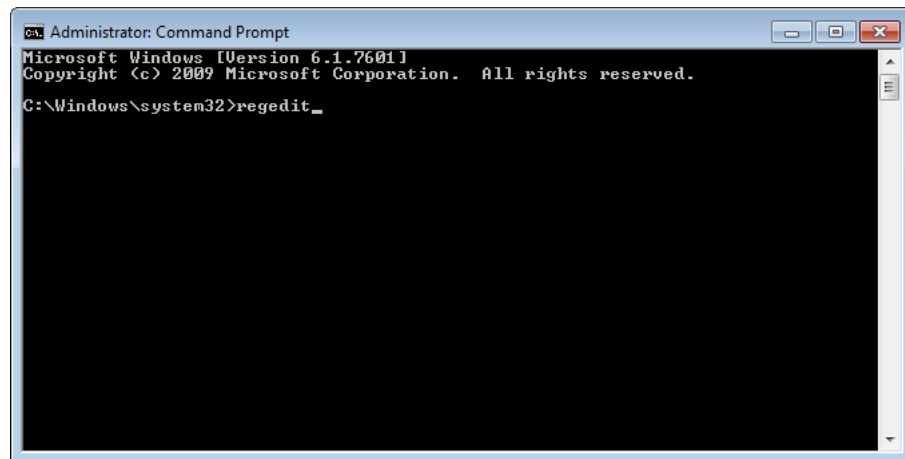
Press Enter. The Registry Editor window will open.

11. In the Registry Editor window, browse to the following location:

    HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Print\Monitors

12. Right-click the key named **QuickLabel QL-120 Language Monitor**, and then choose **Delete**.
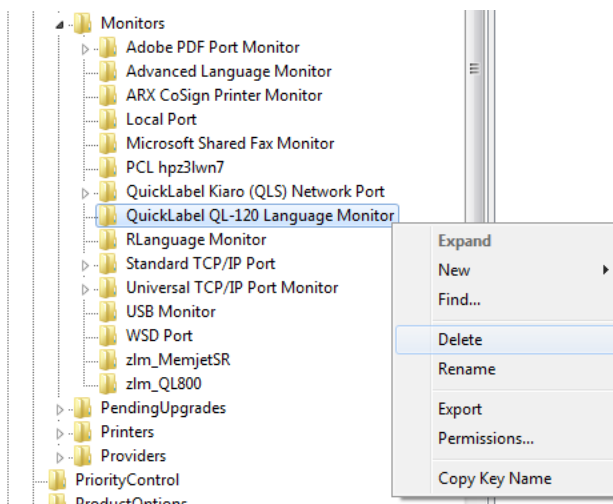
A confirmation message will appear. Choose **Yes** to continue. The selected registry key will be deleted.

13. Return to the command prompt window. Type `net stop spooler` at the prompt.
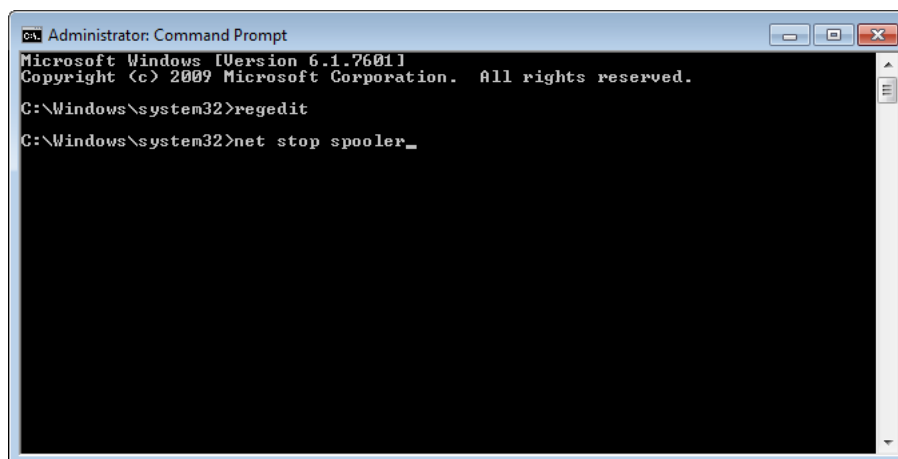
Press Enter. The print spooler service will be stopped.

14. Open Windows Explorer and browse to the following folder:

C:\Windows\System32

Delete the file named *ql-120mon.dll*.

15. Return to the command prompt window. Type `net start spooler` at the prompt.
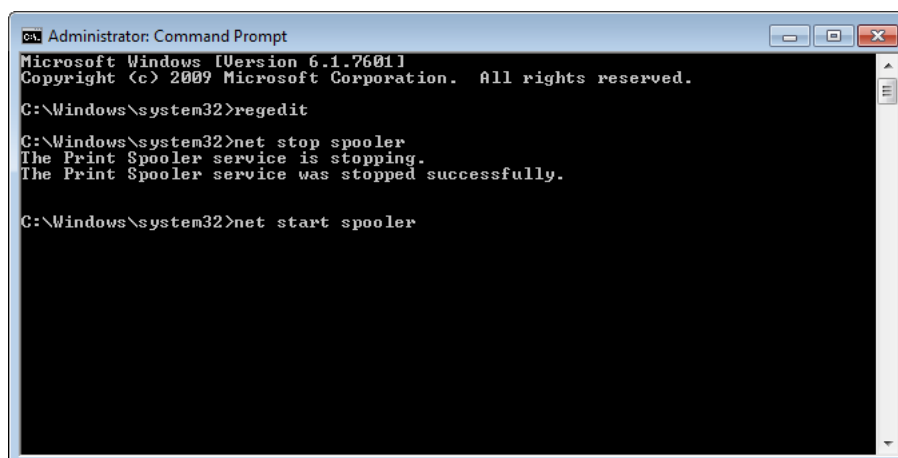
Press Enter. The print spooler will be started.

16. Restart the PC.

Resolving USB Installation Issues

When you install the printer driver via USB, you first run the installation wizard and then connect the printer to your PC via the USB cable.

If you connected the USB cable before running the installation wizard, Windows will not recognize the printer correctly. In this case, the QL-120 will be listed as an Unspecified item in the Devices and Printers window.

Use the following procedure to correct this issue. This procedure assumes you have already installed the printer driver.

*Note: This procedure requires administrator level access in Windows.*

1. Open the Devices and Printers window.
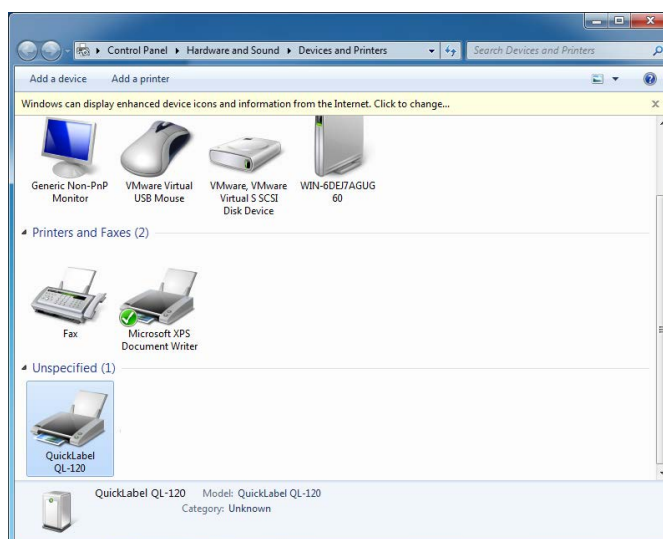
2. Right-click the QuickLabel QL-120 in the Unspecified list. Then choose **Properties**. The QuickLabel QL-120 Properties window will open. Choose the **Hardware** tab.
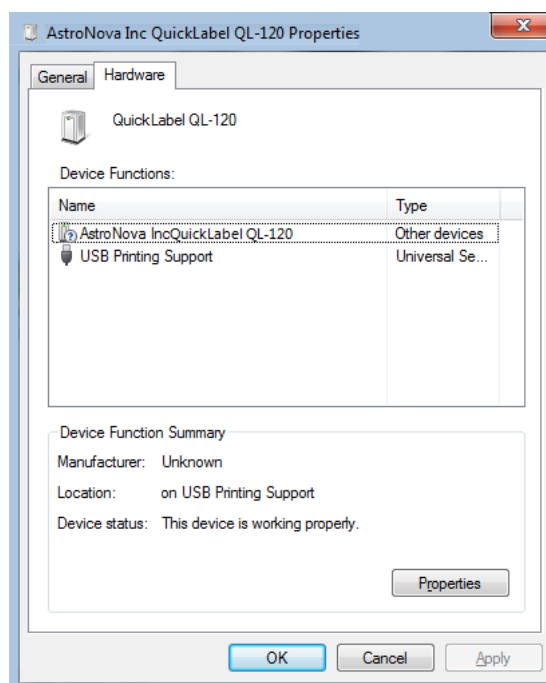
3. Select AstroNova IncQuickLabel QL-120 and choose **Properties**. The Properties window will open. Choose the **General** tab.
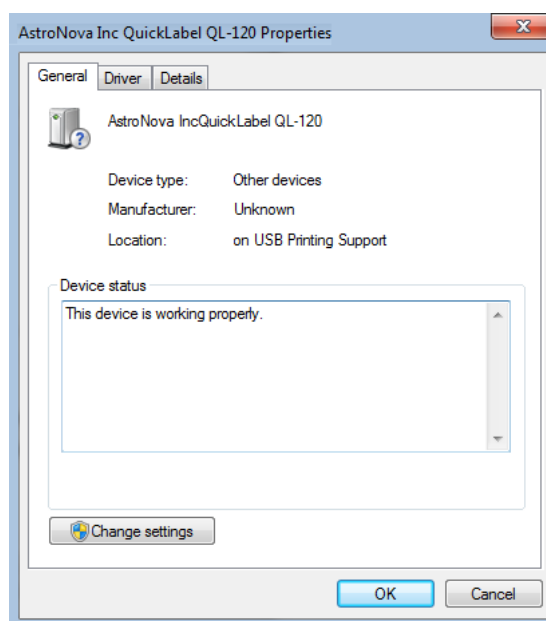
4.   Choose **Change Settings**. Then choose the **Driver** tab.
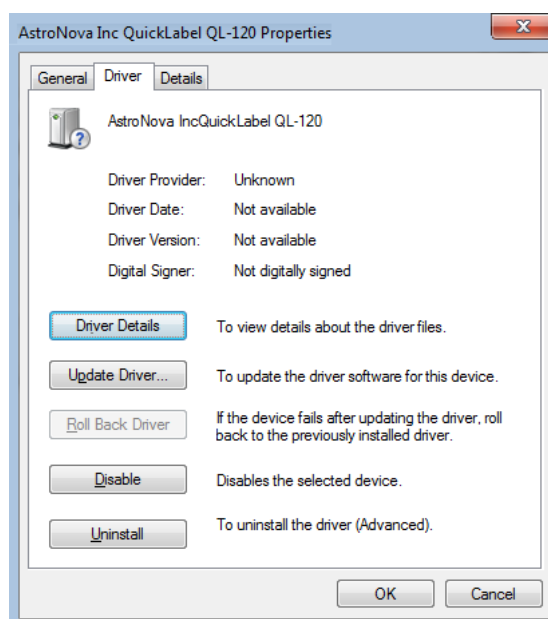
5.   Choose **Update Driver**. When you are prompted, select the **Search automatically for updated driver software** option. Windows will locate the driver on your system and create a printer item.

6

RW-5.1 Rewinder

Before Installing the Rewinder

Before installing the rewinder, observe the following precautions.

*   No rewinder feet should float. The rewinder must be held level constantly.

*   The rewinder must be installed on the same plane as the printer.

*   When placing the rewinder on a desk, table, or other similar surface, it must be sturdy and stable enough to support the weight of the printer and the rewinder.

*   Do not turn the rewinder mandrel by hand to rewind the media. Turning the mandrel by hand can result in rewinder damage.

Rewinder and Unwinder Installation Space

A bracket system is used to position the printer in relation to the rewinder and unwinder. This system ensures correct spacing between the components. Verify that your installation surface will fit the required components.

The following drawings show dimensions of the printer with the rewinder and unwinder installed. Use these drawings to determine the required installation space for your configuration.
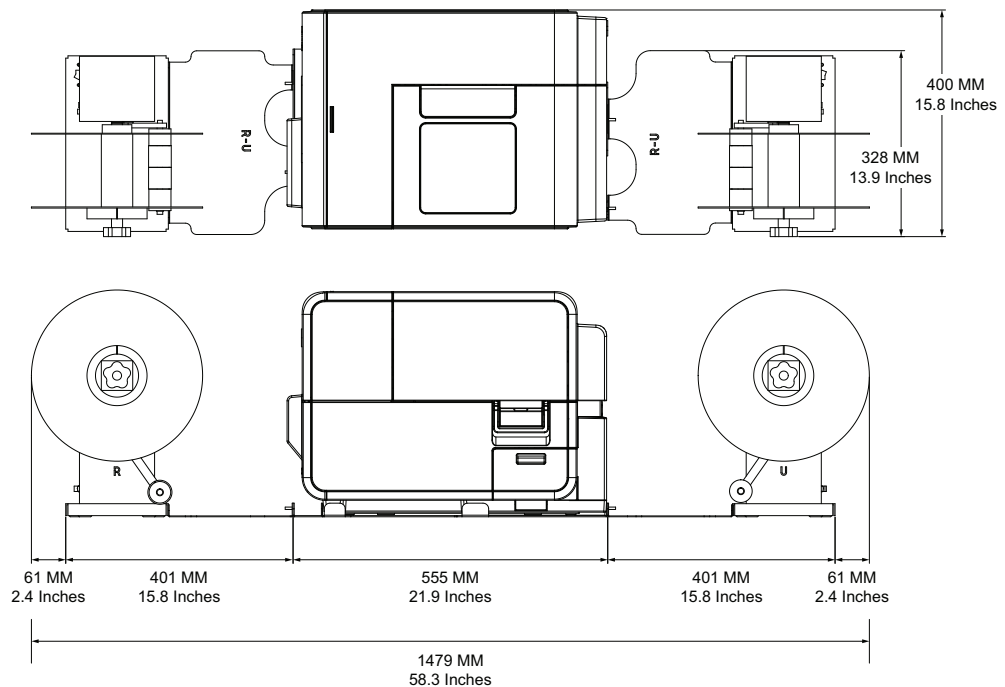
Installing the Rewinder

1. Ensure the power switch on the rewinder is in the off position.

2. Arrange the rewinder and brackets as illustrated below. Refer to this illustration through the installation process.
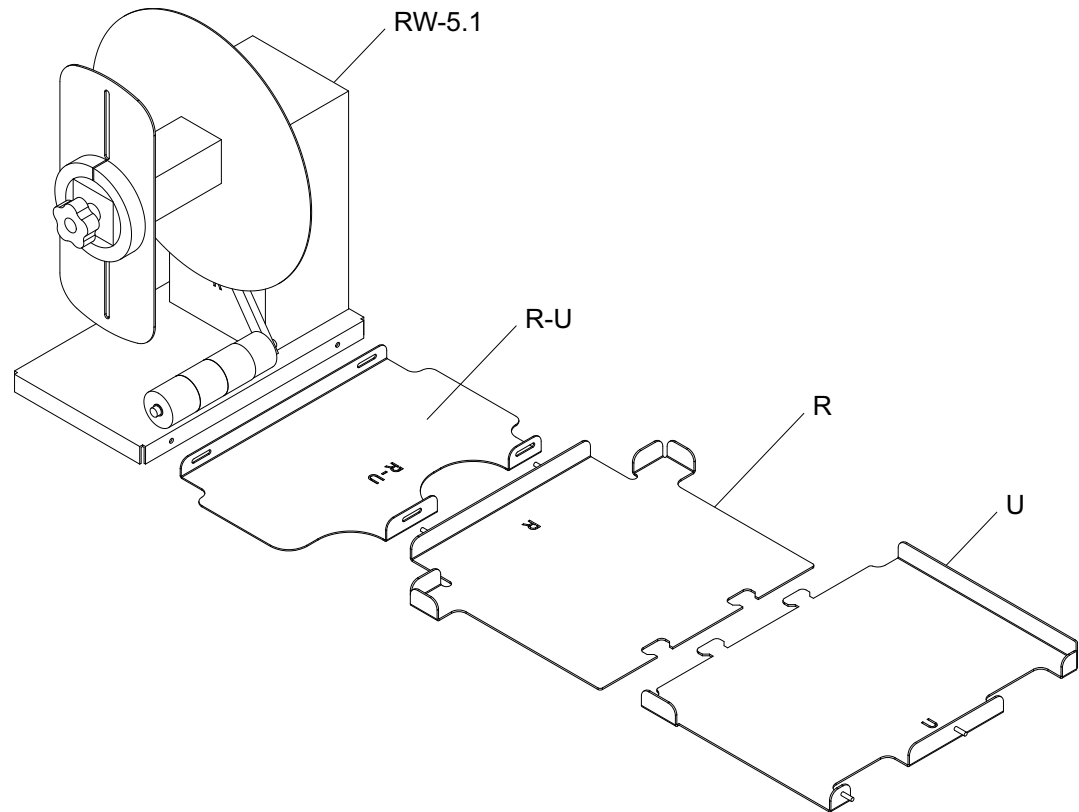
3. Insert the tabs from bracket U into the slots on bracket R. These two brackets will later be used to position the printer.

4. Fasten the R-U bracket to the R bracket using the supplied thumb nuts. Ensure the threaded pin is centered in the adjustment slot.

    Note: These thumb nuts may need to be loosened at a later time when aligning labels during rewinding.

5. Fasten the RW-5.1 rewinder to the R-U bracket using the supplied thumb screws.

    Note: These thumb screws may need to be loosened at a later time when aligning labels during rewinding.
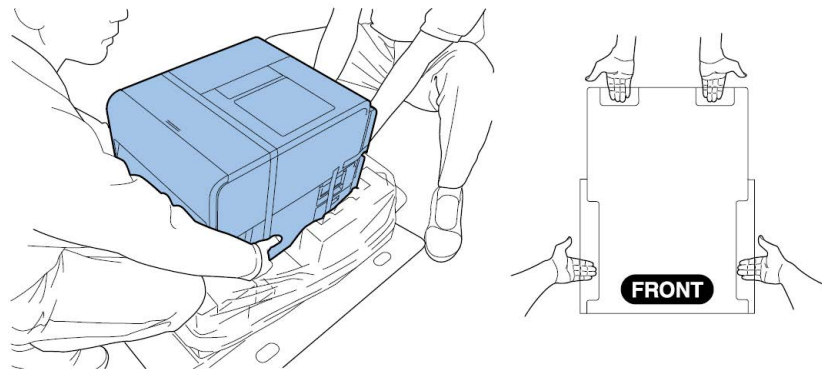
6. Launch the QL-120 Maintenance Utility.

    From the Windows Start Menu, choose **Start > QuickLabel QL-120 > QL-120 Maintenance Utility**. A language and printer prompt will open.

    Select a display language and the QL-120 series printer you want to connect to. Choose **OK**.
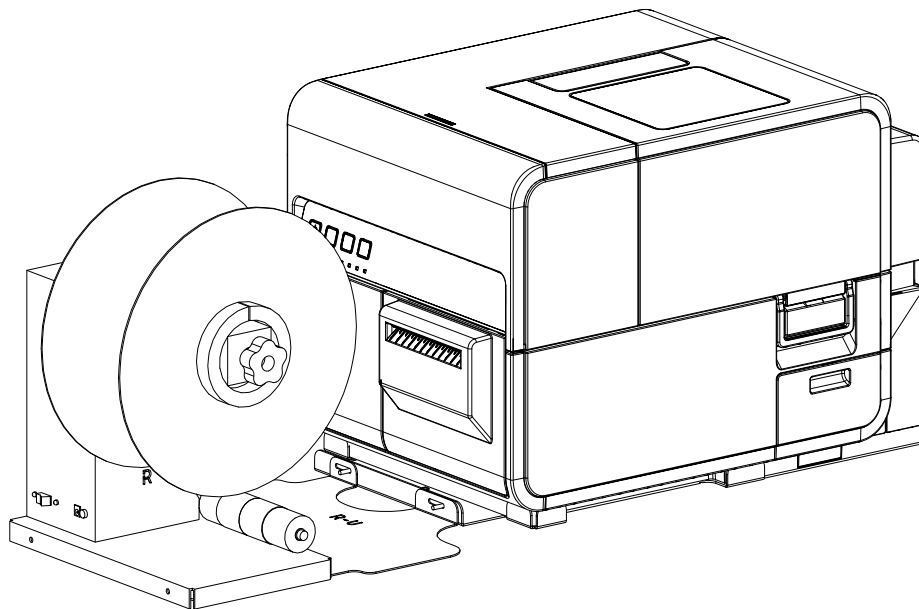
7. Choose the **Cleaning** tab. Then choose the **Moving** button. This utility will prepare the printer for lifting and moving onto the brackets.

8. Holding the handles at the bottom of the printer, lift the printer and then place it on the connected R and U brackets. Lift from the illustrated points. Do not hold the front side of the printer. Ensure the printer remains level as you move it.

Note: *The printer weighs about 53 pounds (24 kilograms). Two persons are required to lift the printer. Two persons standing at the front and back of the printer respectively must lift the printer by holding it with their hands under the bottom handles (two at the front, one at the left, and one at the right). Attempting to lift the printer in an improper position can result in the printer falling or injury.*

9. Ensure the printer sits level on the alignment brackets as illustrated below.

10. Plug the power jack into the power slot on the rewinder. Insert the power plug into an AC power receptacle.

Rewinding Labels

The rewinder automatically winds printed media exiting the printer onto rolls. The setup process for rewinding labels requires an empty label core and tape.

Note: Do not turn the rewinder mandrel by hand to rewind the media. Turning the mandrel by hand can result in rewinder damage.

1. Ensure the power switch [3] on the rewinder is in the off position.
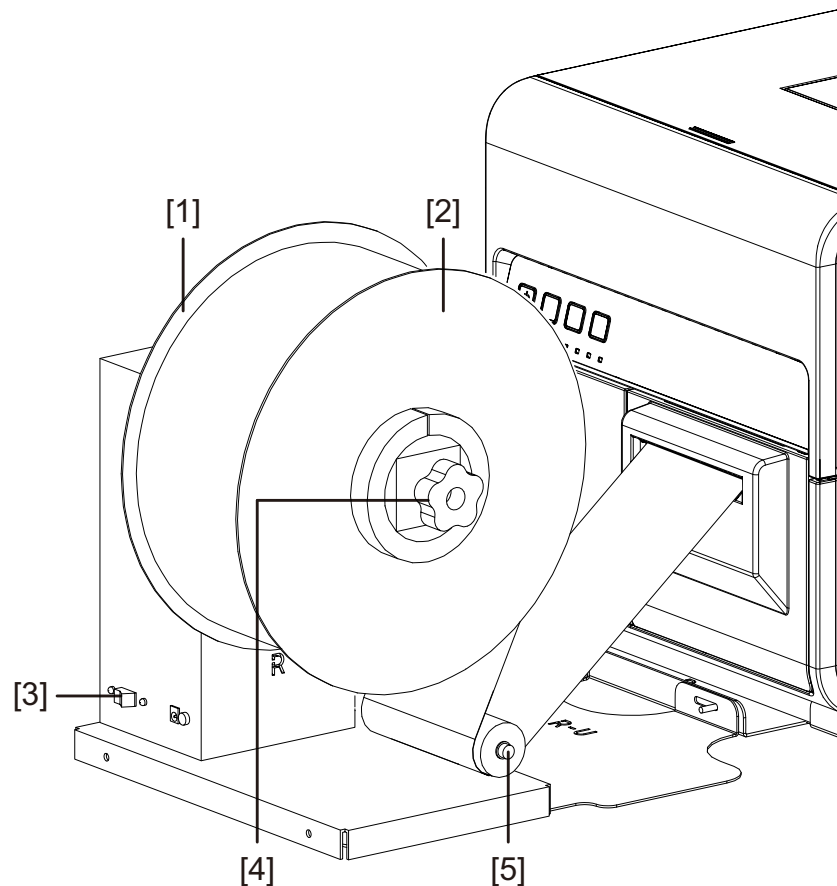
2. Turn the rewinder mandrel adjustment knob [4] counterclockwise to loosen the mandrel.

3. Remove the outer flange [2] from the mandrel.

4. Load an empty label core on the mandrel.

    Use an empty label core of the same width as the label media you will be using. Install the roll core on the rewinder, sliding it until it contacts the inner flange [1]. The outer flange [2] will be installed after you fasten the label media to the roll core.

5. Start a print job. Pause the job when the printed media advances slightly past the rewinder.

6. Feed the media under the rewinder dancer arm [5] and up around the empty label core. The inside edge of the media should be aligned squarely with the inner flange [1].

   If the media is not squarely aligned with the inner flange, adjust the position of the rewinder as needed.

   • Loosen the thumb screws that fasten the RW-5.1 rewinder to the R-U bracket. Slide the rewinder left/right as allowed by the adjustment slots until the media is squarely aligned with the inner flange. Then tighten the thumb screws.

   • If a greater adjustment range is needed, loosen the thumb nuts that fasten the R-U bracket to the R bracket. Slide the rewinder left/right as allowed by the adjustment slots until the media is squarely aligned with the inner flange. Then tighten the thumb nuts.

7. Fasten the end of the media to the core with tape. Ensure the printed side faces out.

8. Adjust the spring collar on the dancer arm. Slide the collar just before it contacts the media. Label media should be able to move smoothly without being hindered by the collar.

9. Reinstall the outer flange [2] and then turn the mandrel adjustment knob [4] clockwise to tighten the mandrel.

10. Turn the power switch [3] on the rewinder to the on position.

    When the dancer arm is in a lowered position, the rewinder mandrel will rewind media as needed. Do not turn the mandrel by hand to rewind the media. The media rewind path is illustrated below.
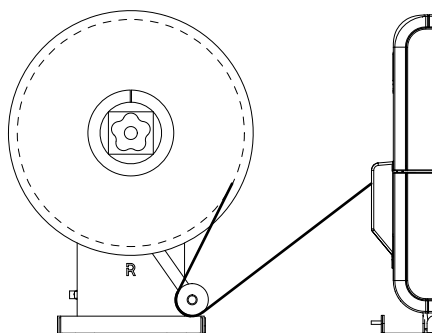
11. Resume the print job on the printer. The rewinder will rewind media automatically as needed. The rewinder will stop when the printer stops advancing media or when the printer is out of media.

7   UW-5.1 Unwinder

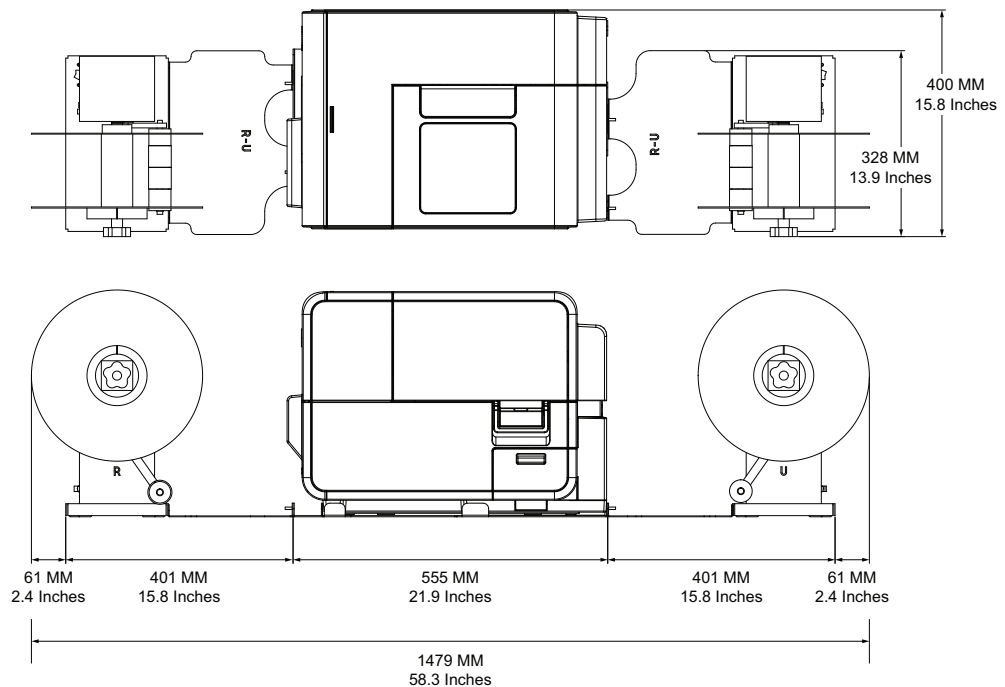## Before Installing the Unwinder

Before installing the unwinder, observe the following precautions.

- No unwinder feet should float. The unwinder must be held level constantly.

- The unwinder must be installed on the same plane as the printer.

- When placing the unwinder on a desk, table, or other similar surface, it must be sturdy and stable enough to support the weight of the printer and the unwinder.

- Do not turn the unwinder mandrel by hand to unwind the media. Turning the mandrel by hand can result in unwinder damage.

Rewinder and Unwinder Installation Space

A bracket system is used to position the printer in relation to the rewinder and unwinder. This system ensures correct spacing between the components. Verify that your installation surface will fit the required components.

The following drawings show dimensions of the printer with the rewinder and unwinder installed. Use these drawings to determine the required installation space for your configuration.

Installing the Unwinder

1. Ensure the power switch on the unwinder is in the off position.

2. Arrange the unwinder and brackets as illustrated below. Refer to this illustration through the installation process.
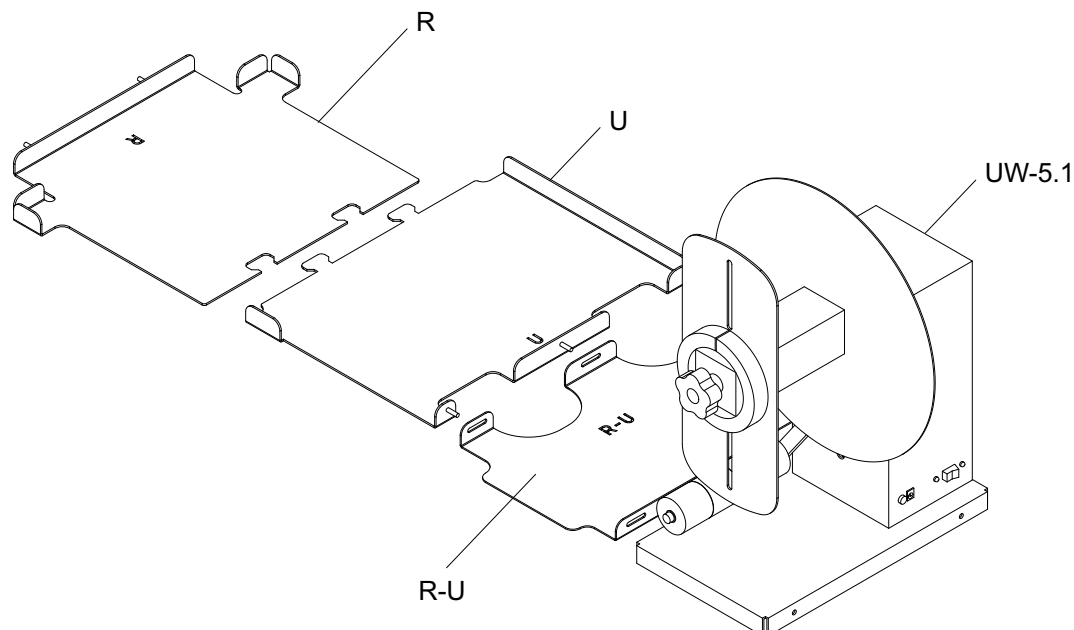
3. Insert the tabs from bracket U into the slots on bracket R. These two brackets will later be used to position the printer.

4. Fasten the R-U bracket to the U bracket using the supplied thumb nuts. Ensure the threaded pin is centered in the adjustment slot.

    Note: These thumb nuts may need to be loosened at a later time when aligning labels during unwinding.

5. Fasten the UW-5.1 unwinder to the R-U bracket using the supplied thumb screws.

    Note: These thumb screws may need to be loosened at a later time when aligning labels during unwinding.

6. Launch the QL-120 Maintenance Utility.

    From the Windows Start Menu, choose **Start > QuickLabel QL-120 > QL-120 Maintenance Utility**. A language and printer prompt will open.

    Select a display language and the QL-120 series printer you want to connect to. Choose **OK**.
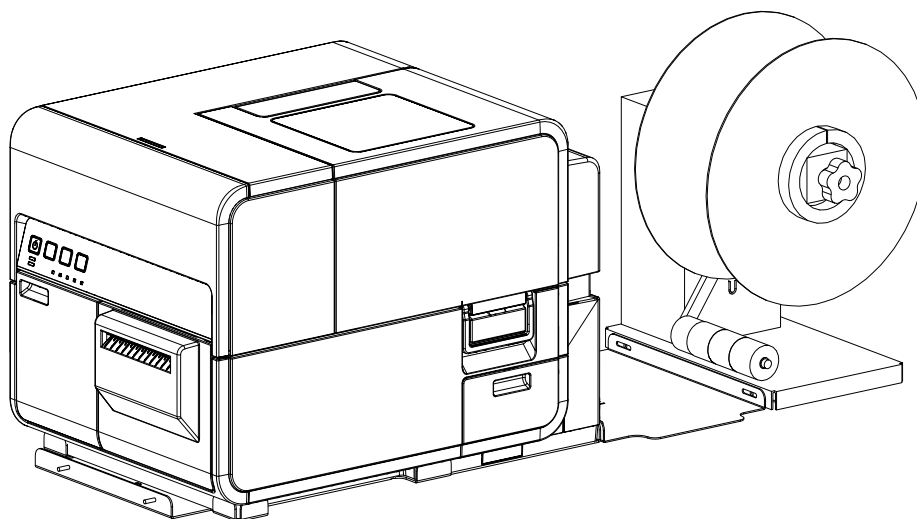
7. Choose the **Cleaning** tab. Then choose the **Moving** button. This utility will prepare the printer for lifting and moving onto the brackets.

8. Holding the handles at the bottom of the printer, lift the printer and then place it on the connected R and U brackets. Lift from the illustrated points. Do not hold the front side of the printer. Ensure the printer remains level as you move it.

Note: *The printer weighs about 53 pounds (24 kilograms). Two persons are required to lift the printer. Two persons standing at the front and back of the printer respectively must lift the printer by holding it with their hands under the bottom handles (two at the front, one at the left, and one at the right). Attempting to lift the printer in an improper position can result in the printer falling or injury.*

9. Ensure the printer sits level on the alignment brackets as illustrated below.

10. Plug the power jack into the power slot on the unwinder. Insert the power plug into an AC power receptacle.

Unwinding Labels

The unwinder automatically unwinds media into the printer for printing. This allows for larger diameter rolls to be used as an alternative to the standard roll holder.

Note: *Do not turn the unwinder mandrel by hand to unwind the media. Turning the mandrel by hand can result in unwinder damage.*

1. Ensure the power switch [3] on the unwinder is in the off position.
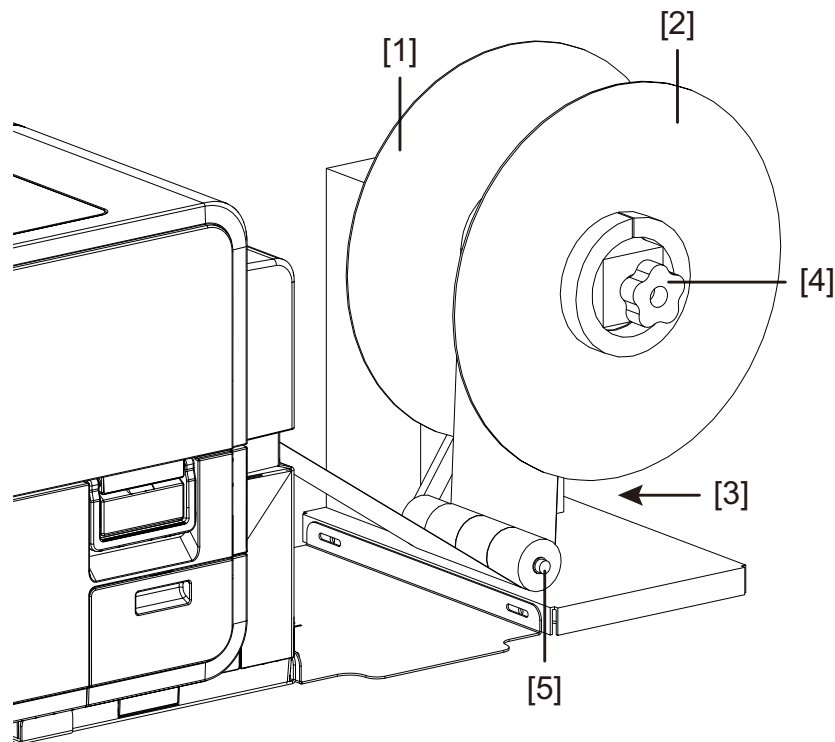
2. Turn the unwinder mandrel adjustment knob [4] counterclockwise to loosen the mandrel.

3. Remove the outer flange [2] from the mandrel.

4. Orient a roll of label media and seat it on the mandrel. The media should unwind over the top of the roll toward the printer. Ensure the side of the roll contacts the inner flange [1].

5. Reinstall the outer flange [2] and then turn the mandrel adjustment knob [4] clockwise to tighten the mandrel.
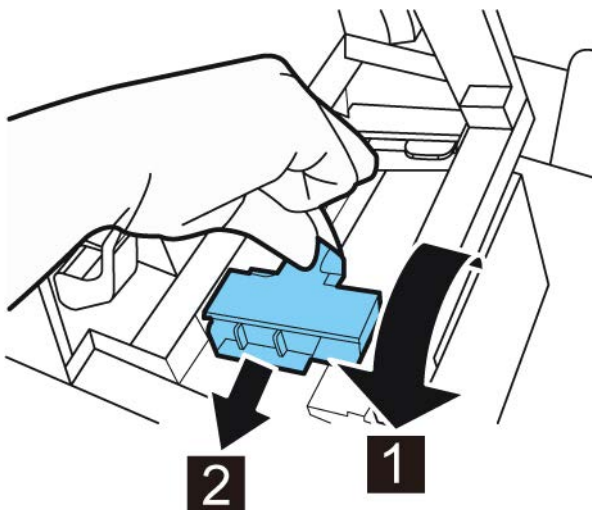
6.   Open the roll cover.
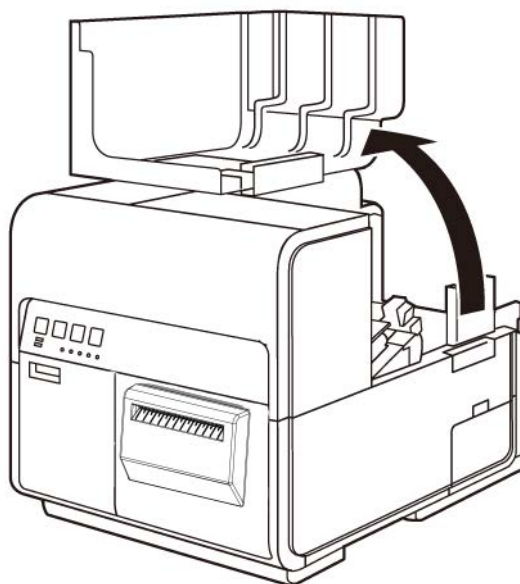
7.   Remove the roll holder from the printer. The roll holder is unnecessary when using the unwinder.

8.   Push the lever of the paper guide to open the guide.
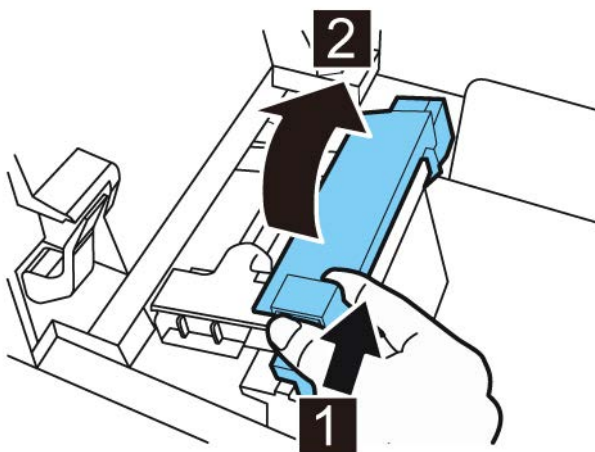
9. Open the transport guide (right), and slide it rightward until it stops.

10. If you are using gap or reflective mark media, cut the media edge that will be fed into the printer. If you are using continuous media, skip this step.

    • If you are using gap media, cut the media between labels as illustrated by the dashed red line below. The arrow indicates the direction of media feed into the printer.
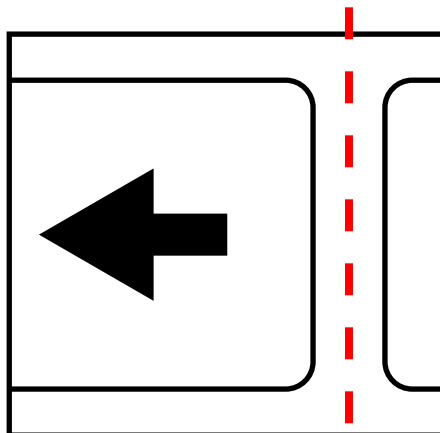
    • If you are using reflective mark media, cut the media between labels, but before the mark, as illustrated by the dashed red line below. The arrow indicates the direction of media feed into the printer.
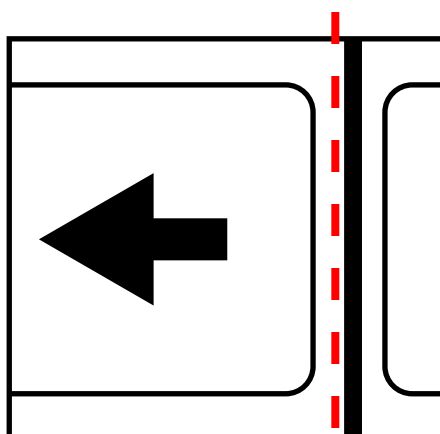
11. Turn the power switch [3] on the unwinder to the on position.

12. Feed the media under the dancer arm and up into the entry slot on the rear of the printer. The media path is illustrated below.
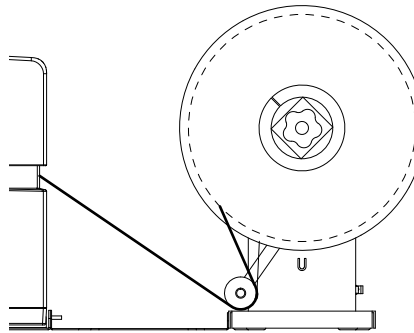
As the dancer arm is lifted, the mandrel will unwind and feed media as needed. Do not turn the unwinder mandrel by hand to advance the media. If you need to advance the media, lift the dancer arm slightly.

13. Insert media along the left-side guide under the transport guide (left) until it stops at the roller in the feeder slot.
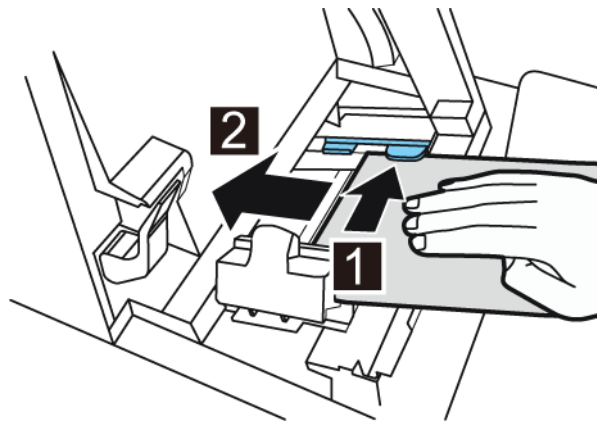
Media at the roller in the feeder slot is automatically pulled in slightly.

14. If the media is not squarely aligned in the feeder slot, adjust the position of the unwinder as needed.

• Loosen the thumb screws that fasten the UW-5.1 unwinder to the R-U bracket. Slide the unwinder left/right as allowed by the adjustment slots until the media is squarely aligned in the feeder slot. Then tighten the thumb screws.

• If a greater adjustment range is needed, loosen the thumb nuts that fasten the R-U bracket to the U bracket. Slide the unwinder left/right as allowed by the adjustment slots until the media is squarely aligned in the feeder slot. Then tighten the thumb nuts.

15.   Slide the transport guide (right) in accordance with the width of the media.
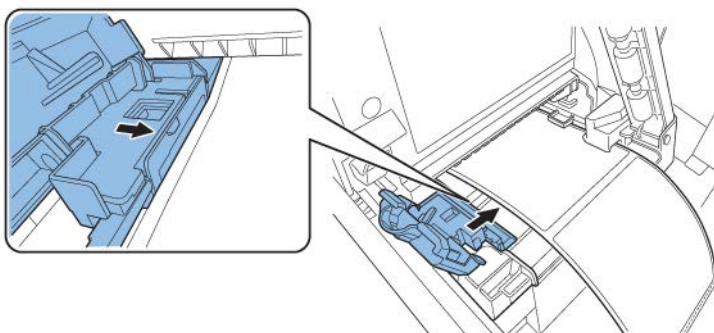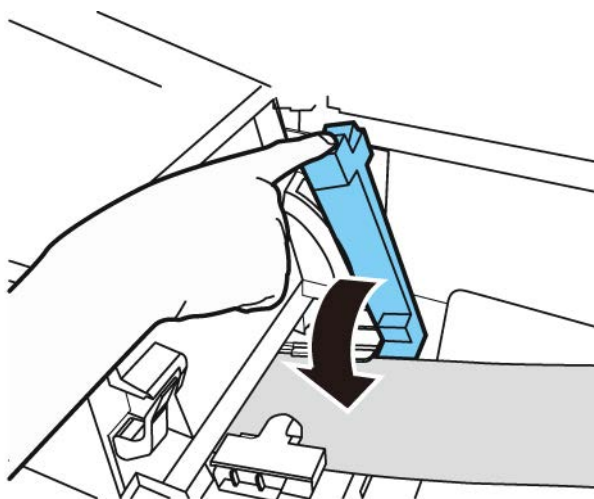

Note: *Do not press the transport guide (right) strongly against the media edge. A paper jam can result.*

16.   Slowly close the transport guide (right) to lock it.
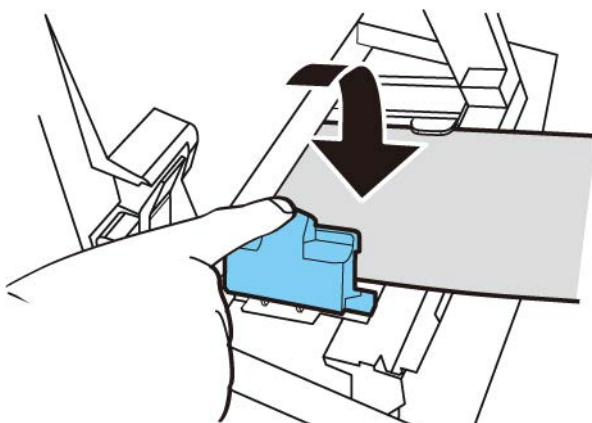
17.   Slowly push the paper guide down until it clicks (locks). When it locks, media is transported automatically.

18.   Close the roll cover.

8 Safety Warnings and Precautions

Before using this printer, please read this section thoroughly. Warnings to heed and important matters are described here to prevent damage to the user and other persons.

Do not attempt to operate this printer in any way other than those mentioned in the User Guide.

Location

Make sure there is sufficient space around the printer.

Warning

- Never place items on the printer such as a flower vase, potted plant, cosmetics, any liquid filled container, or metal fasteners. If such items were to fall on the printer, this could cause a fire, electrical shock, or damage to the printer.

- The electrical contacts inside the printer become extremely hot during normal operation. To avoid causing a fire, never store flammable substances like alcohol, thinner, etc. near the printer.

Caution

Avoid using the printer in the following types of locations.

- Where the printer is exposed to open air or high humidity. This could cause a fire, serious electrical shock, or damage to the printer. Also, if the printer is carried into a warm room on a cold day, this could cause condensation inside the printer. If this happens, allow the printer to sit for at least 1 hour at room temperature to adapt to the ambient temperature and humidity.

- Never place the printer on a slanted or unstable stand or table. If the printer is dropped or slides off, this could cause personal injury. Also, never place a heavy object on top of the printer. If the object is dropped or falls, this could cause injury.

- Never expose the printer to open air or dust. This could cause a fire, serious electrical shock, or damage to the printer. Also, never locate the printer near a water faucet or in any other location where it will be exposed to water. This could cause serious electrical shock.

- Never set up the printer in a location that is exposed to high humidity or large amounts of dust, or exposed to direct sunlight, high temperature, or open flame. This could cause a fire or electrical shock.

- Use the printer in an environment where temperature and humidity are within the ranges of 59°F to 86°F (15°C to 30°C) and 10 to 80% RH (with no condensation).

- To ensure normal operation of the printer and avoid possible damage, never install the printer near large office equipment or any other type of electrical device that emits a strong magnetic field.

- Never block the ventilation ports on the printer. A blocked ventilation port could cause heat to build up inside the printer and cause a fire. Also, place the printer in an area where you can disconnect the power cord immediately; keep the area around the power cord connection free of obstacles. This allows you to unplug the power cord quickly in an emergency.

Power Supply and Power Cord

Warning

- To avoid causing a fire or serious electrical shock, always use the power cord provided with this printer. To avoid a fire or electrical shock, do not use an extension cord.

- To avoid a fire or serious electrical shock, connect the printer power cord to an independent power source that is not shared by other equipment or appliances.

- To avoid causing a fire or serious electrical shock, make sure that the power plug is securely and completely inserted into the power source.

- Do not cut, damage, or otherwise alter the power cord. To avoid the dangers of fire and electrical shock, never place a heavy object on the power cord, never expose it to heat, and never pull on the cord to disconnect it. If the power cord is damaged in any way (condensation on exposed wires, broken wires, etc.) contact the dealer where you purchased the printer or the nearest service center for a replacement.

- To avoid personal injury from an electrical shock, never handle the power cord or plug when your hands are wet.

- To avoid a fire or serious electrical shock, never knot the power cord or wrap it around itself.

- Disconnect the printer power cord during severe electrical storms. Lightning could cause a fire or severe electrical shock or damage to the printer.

- To avoid a fire hazard, occasionally disconnect the power cord from the printer and the power supply and use a soft dry cloth to clean the cord connectors and the connection points. Leaving the cord plugged in and not cleaned for a long period, especially in an area subject to dust, oil, and high humidity, could cause the insulation material to deteriorate.

Caution

- Be sure to turn off the printer before removing the power plug from the outlet.

- Check the power plug and cord for any problem (abnormal heat, rust, bend, cracks, scratches, etc.) at least once a month.

- If any problem with the power plug or cord is found, replace it. Using it without replacement can result in a fire or electrical shock hazard.

- To avoid damaging the power plug, which could cause a short circuit and cause a fire or electrical shock, never pull on the power cord to unplug the cord from the power supply. Always grip the plug to remove it from the power supply.

- If the printer will not be used for a long period, for your safety disconnect the power cord from the power source.

- Always keep the area around the power plug free of obstacles so you can unplug it easily. This allows you to unplug the power cord quickly in an emergency.

- Never use any power source other than the one rated for the printer. This printer is designed to be used in the region where purchased. Also, make sure the power source can supply sufficient power for the printer. This could cause a fire or serious electrical shock, or damage the printer.

  Supply voltage: AC 220 - 240 V or AC 100 - 120 V, 50/60 Hz

  Power consumption: 440W (max), sleep mode 10W

• The printer must be connected to a socket-outlet with grounding connection by the provided power cord.

General Safety

Warning

• If you find a large ink leak, switch the printer off immediately, disconnect the power plug from the power source, and call for service. If you continue to use the printer, this could cause a fire or serious electrical shock.

• Never clean the printer with water or any flammable liquid (alcohol, benzene, thinner, etc.) either applied directly or with a cloth. If you accidentally spill liquid on the printer, switch the printer off immediately, disconnect the power plug from the power source, and call for service. If you continue to use the printer, this could cause a fire or serious electrical shock.

• If the printer emits smoke, unusual odors, or makes noises, leaving it could cause a fire or serious electrical shock or damage to the printer. Switch the printer off immediately, disconnect the power plug from the power source, make sure that the printer has stopped smoking, and call for service. Do not attempt to repair the printer by yourself. This could cause a fire or serious electrical shock.

• Use only a slightly damp cloth, thoroughly wrung out, to clean the printer surfaces. Never use alcohol, thinner or any other flammable liquids. If such materials come into contact with electrical components inside the printer, this could cause a fire or serious electrical shock.

Caution

• There are high voltage points inside the printer. To avoid a fire or electrical shock, never attempt to disassemble or repair the printer.

• Never insert or drop any metal objects into the printer when it is open. This could cause a fire or serious electrical shock, or damage the printer. If something falls into the printer accidentally, switch the printer off immediately, disconnect the power plug from the power source, and call for service. If you continue to use the printer, this could cause a fire or serious electrical shock.

• If the printer is dropped and damaged, switch the printer off immediately, disconnect the power plug from the power source, and call for service. If you continue to use the printer, this could cause a fire or serious electrical shock.

• To avoid a fire or electrical shock, never use flammable sprays around the printer.

• Never remove the cover from the printer. This could cause a serious electrical shock.

• It is dangerous to put your fingers deep inside the ink cartridge boxes. There are pin-sharp parts which may hurt you or alternatively you may cause damage that will lead to breakdown.

• Keep children from touching the power cord, internal parts of the printer when it is open, and moving parts inside the printer (gears, belts, rollers, and electrical components). This could cause personal injury or damage the printer.

• Labels printed with this printer should not directly be stuck on food such as fruits and vegetables. They should be stuck on the plastic wrap over the food.

Important

- To prevent machine failures, do not open the ink cartridge door or maintenance cartridge exchange door, do not turn off the printer, and do not remove the power plug from the outlet while the printer is printing. If you do so, the print head protection function is not performed properly, resulting in a machine failure or ink leakage which can soil your clothes and the surrounding area.

- Do not apply excessive force or strong shock to the upper unit. Doing so can result in a machine failure or impair printer quality. Be sure to open/close the upper unit slowly.

- Do not place the printer close to TV, radio receiver or loudspeakers, etc. The magnetic field produced may cause the printer to malfunction, or the printer may interfere with TV/radio reception.

- Printed labels and ink can discolor due to ultraviolet rays and ozone.

Moving the Printer

Warning

- Call the dealer for advice before you ship the printer a long distance or move the printer by car or truck where it may be subjected to shock and vibration. Moving the printer without the proper preparation could subject it to shocks and vibrations which could damage the printer and cause a fire.

Caution

- Before moving the printer, use the appropriate procedures to drain ink from the printhead or entire print system (Moving or Shipping functions in the QL-120 Maintenance Utility).

- Before you move the printer to another location in the same building, disconnect the power cord and make sure that all other cables are disconnected.

- The printer weighs about 53 pounds (24 kilograms). Two persons are required to lift the printer. Two persons standing at the front and back of the printer respectively must lift the printer by holding it with their hands under the bottom handles (two at the front, one at

the left, and one at the right). Attempting to lift the printer in an improper position can result in the printer falling or injury.
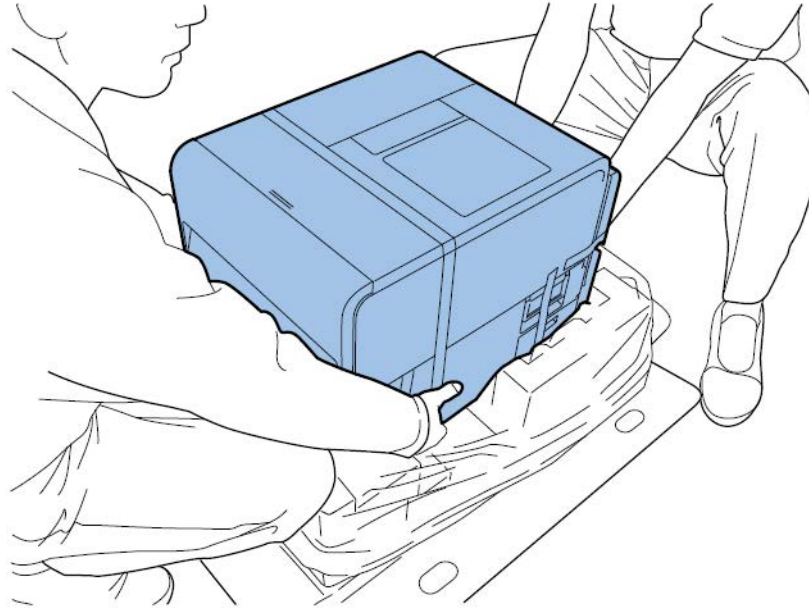
- Always hold the printer level and carry it slowly. If ink is spilled inside the printer while moving it, this could cause a fire or serious electrical shock or damage the printer.

Important

- To prevent machine failures, do not relocate or transport this printer with the upper unit open.

Ink Cartridge and the Maintenance Cartridge

Caution

- Always store these items out of the reach of small children. This prevents accidents. If a child accidentally swallows ink, seek medical attention immediately.

- If ink gets into your eyes, wash it out with flowing water immediately. If irritation persists, consult a physician.

- If ink comes into contact with your skin, rinse it off with flowing water immediately. If irritation persists, consult a physician.

- Never drop or apply excessive force to an ink cartridge or the maintenance cartridge. Ink can stain clothing and the work area.

- Never attempt to disassemble or modify the ink cartridges. They contain ink, which may leak out and smear your clothes or things around you.

Important

- Do not install or remove the ink cartridge or maintenance cartridge unless it needs to be replaced. Doing so can accelerate wear of the printer components.

Safety-Related Symbols

Symbol	Description
		Power switch: "ON" position
○	Power switch: "OFF" position
⏻	Power switch: "STANDBY" position
⏼	Push-push switch "ON" "OFF"
⏚	Protective earthing terminal
⚡	Dangerous voltage inside. Do not open covers other than instructed.
♨	CAUTION: Hot surface. Do not touch.
▣	Class II equipment
⚙	Moving parts: Keep body parts away from moving parts

Note: Some symbols shown above may not be affixed depending on the product.

9 **Specifications**

Printer	
Printing method	Inkjet
Print colors	Full color
Output resolution	1200 x 1200 dpi 1200 x 600 dpi 600 x 600 dpi
Printing speed	300/200/160/120/100/90/80/70/60/50 mm/s Auto
Maximum Printable area	Width: 19mm to 105.9mm Length: 6mm to 762mm
Minimum Margin	Top/Bottom: 1.5mm Left/Right: 2.7mm (Including Liner)
Printhead	5,124 nozzles (number of effective nozzles)
Media	Gloss Paper, Matte Paper, Synthetic Pressure-Sensitive, Paper Tag Stock
Media size	Width: 25.4 - 115.0mm Length: 6mm - 762mm
Media thickness	145 ~ 255 µm
Media capacity	Max 200 mm / Paper core 76.2 mm
Ink used	Aqueous dye-based ink Yellow (Y), Magenta (M), Cyan (C), and Black (Bk)
Interface	USB: Hi-Speed USB Ethernet: 1000BASE-T/100BASE-TX/10BASE-T
Extension interface	RS-232C X 2
Operating noise	About 70 dB or less
Installation environment (temperature)	59 to 86 degrees Fahrenheit 15 to 30 degrees Celsius

Printer	
Installation environment (humidity)	10% to 80% relative humidity (no condensation)
Power supply	AC100-240V 50/60Hz
Maximum power consumption	233W (Printer) / (Reference value: 268W with cutter unit)
Average power consumption	When printer is switched ON:22Wh When printer is in sleep mode:8.5Wh When the software switch is turned OFF: 0.4Wh
Dimensions	15.2 in (W) × 22.2 in (D) × 15.5 in (H) 386 mm (W) × 564 mm (D) × 394 mm (H)
Weight	Approx. 52.9lbs Approx. 24kg Including Maintenance Cartridge (Excluding Print head and Ink cartridge)

RW-5.1 Rewinder & UW-5.1 Unwinder	
Maximum Wind Diameter	11.81" (30cm)
Minimum Label Width	1.0" (25mm)
Maximum Label Width	4.72" (120mm)
Core Size	3" ID (76mm)
Rewind Direction	Fixed with backfeeding function
Torque	Self-regulating for QL-120
Power	Universal, 100 - 240V, 1.8A, 50-60Hz
Accessories	Includes adjustable printer and winder alignment plates
Dimensions	15.8" (402mm) H x 12.6" (320mm) W x 11.9" (302mm) D
Weight	16 lbs. (7 kg)
Shipping Weight	24 lbs. (14 kg)

Auto Cutter	
Method	Guillotine
Cutting Type	Full cut
Cutting Availability	1,500,000 cuts Liner part only (cutting adhesive part is out of assurance)

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