

# QL-300

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USER GUIDE



# QL-300 User Guide

Part Number 22834690-EN-E  
Revision 1.2  
4/2021

QuickLabel, An AstroNova® Division

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## **ICC Profile**

ICC Profile Powered by X-Rite Incorporated

## **Obtaining Service**

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

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## **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 A 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.

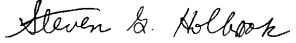
## **RoHS2 Compliance**

The QL-300 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.

## **California Proposition 65 Warning**

This Product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

<b>Declaration of Conformity</b> <b>Declaration de Conformité</b> <b>Übereinstimmungserklärung</b> <b>Dichiarazione di Conformità</b>	
ID	DoC-22834690
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. Modèle No. Model Nr. Modello No.	QL-300, QL-300s
Description of Products Description des produits Produktbeschreibungen Descrizione dei Prodotti	LED Color 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	EN 55032:2015 EN 61000-6-1:2007 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 EN 62311:2008 EN 50581:2012 FCC 47CFR Part 15 Subpart B CAN ICES-3(A)/NMB-3(A)
Application of Council Directives Application des Decisions du Conseil Anwendbar für die Richtlinien Applicazione delle Direttive del Comitato	2014/30/EU 2006/42/EC 2011/65/EU
<p>I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive and Standard.            Je, Soussigné, déclare que l'équipement 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.</p>	
Steven Holbrook Quality Assurance Manager AstroNova, Inc. CE Label First Affixed Date: 19	 Date of issue: <u>1/23/2019</u> Place of issue: <u>West Warwick, RI</u>
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# 1

## Installation

### Checking the Product

Open the packing box and confirm its contents.

#### Printer

- Printer



- Print cartridges (One each of yellow, magenta, cyan, black, and white\*<sup>1</sup>)



\*1: QL-300s only

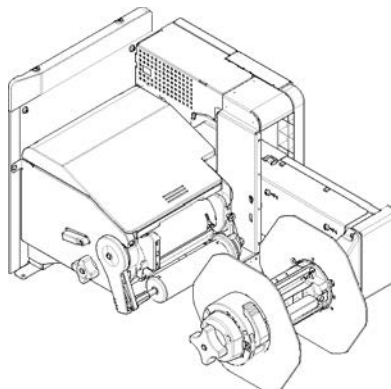
- Power cord

**Note:** The package does not include a LAN cable, USB cable, or hub. Procure them separately.

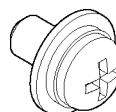
**Note:** The packing box and packing materials are needed to transport the machine. Keep them and do not throw them away.

## Unwinder

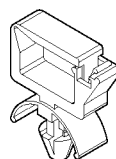
- Unwinder



- Mounting screws (x3)



- Cable clamps (x3)



## Choosing an Installation Location

For safe and comfortable operations, install the product in a location that satisfies the conditions in the following sections.

- “Precautions Related to Installation” on page 11
- “Choosing an Installation Location” on page 11
- “Installation Space” on page 13

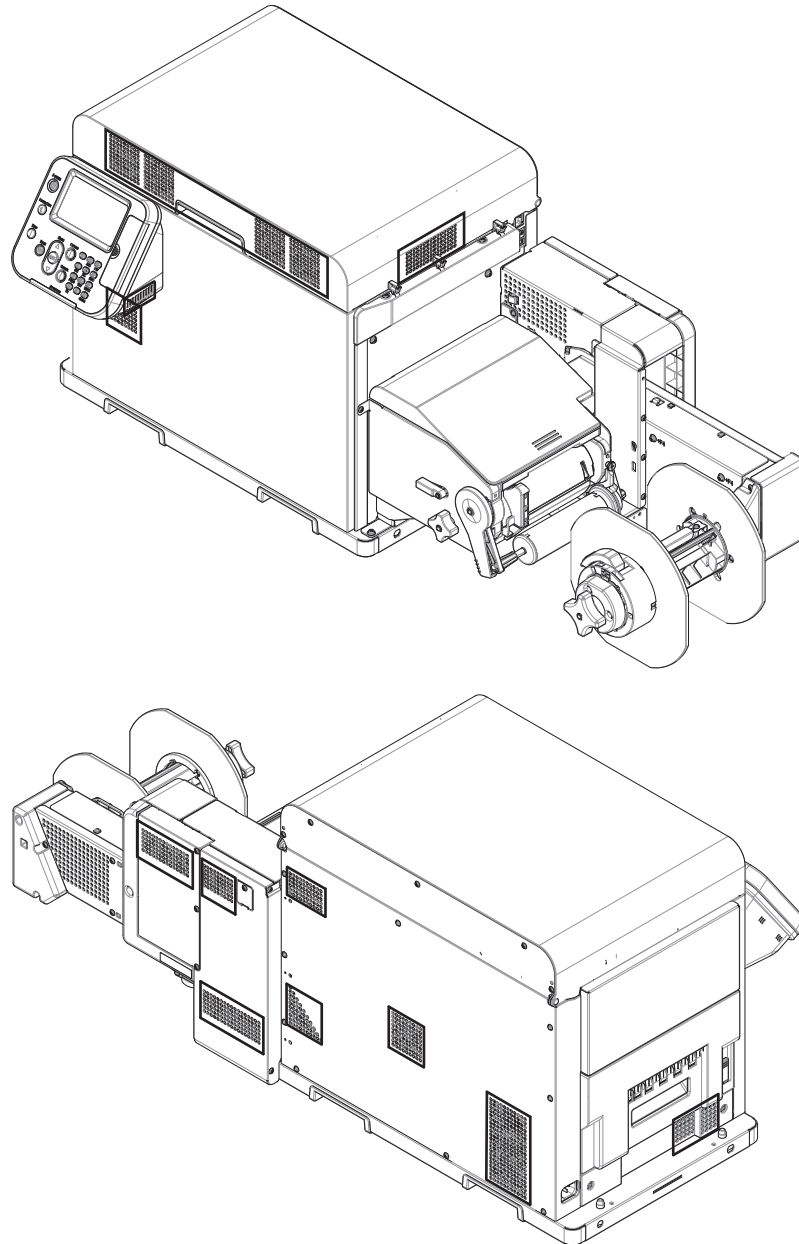
Be sure to read these sections before starting installation work.

## Precautions Related to Installation

### Warnings

- Do not install the equipment in a location that is near open flame or may become very hot.
- Do not install the equipment in a location prone to chemical reactions (laboratory, etc.).
- Do not install the equipment in a location that is near flammable liquids, such as alcohol or paint thinner.
- Do not install the equipment in a location that is accessible by small children.

- Do not install the equipment in a location that is unstable (on a wobbly table or inclined place).
- Do not install the equipment in direct sunlight or in a very dusty or humid location.
- Do not install the equipment in an environment subject to salt air, NOx, SOx or corrosive gases.
- Do not install the equipment in a location that is subject to excessive vibration.
- Do not install the equipment in a location where the machine's vents are blocked. Check the positions of the vents in the following illustrations.



### Cautions

- Do not install the equipment on a thick-piled carpet or rug.



- Do not install the equipment in a location that is poorly ventilated or stuffy.
- Pay attention to ventilation when operating the equipment continuously for a long period in a small room.
- Install the equipment away from sources of strong magnetic or electric noise.
- Install the equipment away from monitors or televisions.
- Remember to use ventilation when printing large volumes or operating the equipment continuously for a long period.

## Installation Environment

Consider the following environment conditions when you select the installation location.

Use a location that is within the following ranges for temperature and humidity.

Temperature and Humidity	Specification
Temperature range	10 to 30 ° C
Humidity range	20 to 70% RH (relative humidity)
Maximum wet-bulb temperature	25 ° C

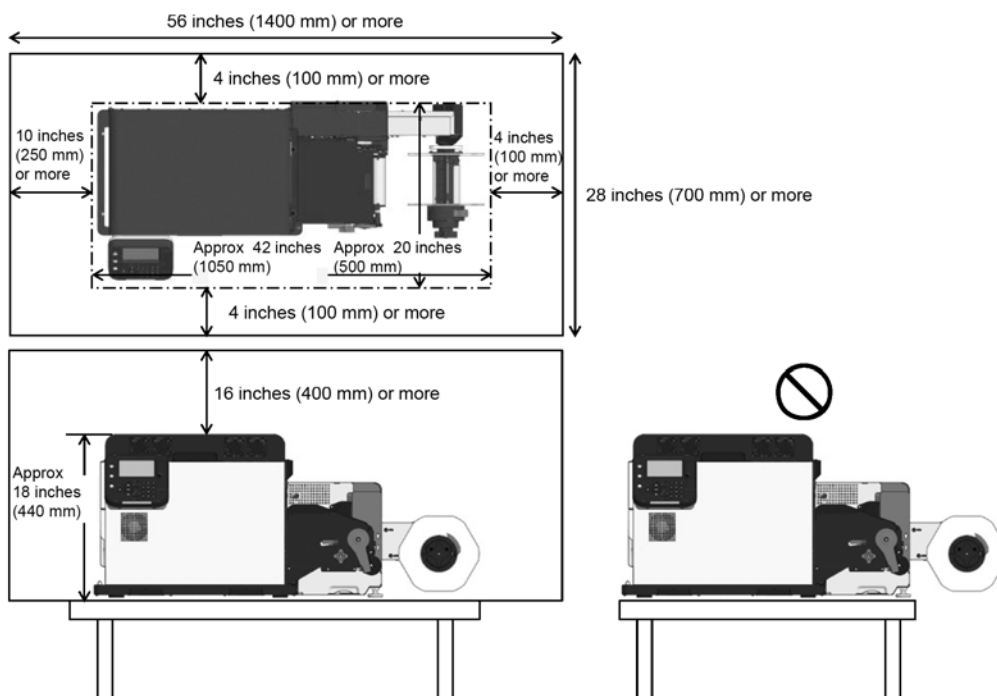
- Be careful that condensation does not form.
- If you install the equipment in a location where the humidity is in a range of less than 30%, use a humidifier or anti-static mat.
- The equipment satisfies the certification standards relevant to emissions for Eco-mark No. 155 printers in regard to dust, ozone, styrene, benzene, TVOC, and dispersion of ultrafine particles. (Testing has been done based on the testing methods in the Blue Angel RAL UZ-171: 2012 appendix S-M as regards to black and white and color printing by using toner in a genuine QuickLabel print cartridge.)

## Installation Space

- Select an installation location that is level and can support the weight of the machine (weight of equipment is about 95 lbs (43 kg)\* for the printer and about 42 lbs (19 kg) for the unwinder).
  - \* Including the print cartridge and other wear items.
- Install the machine near a power socket. Also, install the equipment so the power socket is within easy reach so the power plug can be pulled out in an emergency.
- Do not place things around the machine.

To install the printer and the unwinder on a stand, the stand must be at least 42 inches (1050 mm) wide and 20 inches (500 mm) deep. If you install the printer and the unwinder on a stand that is too small, they may fall off if they are hanging over the edge of the stand.

Install the equipment according to the equipment installation space shown in the diagrams.



## Unpacking

### Unpacking Precautions

#### Cautions

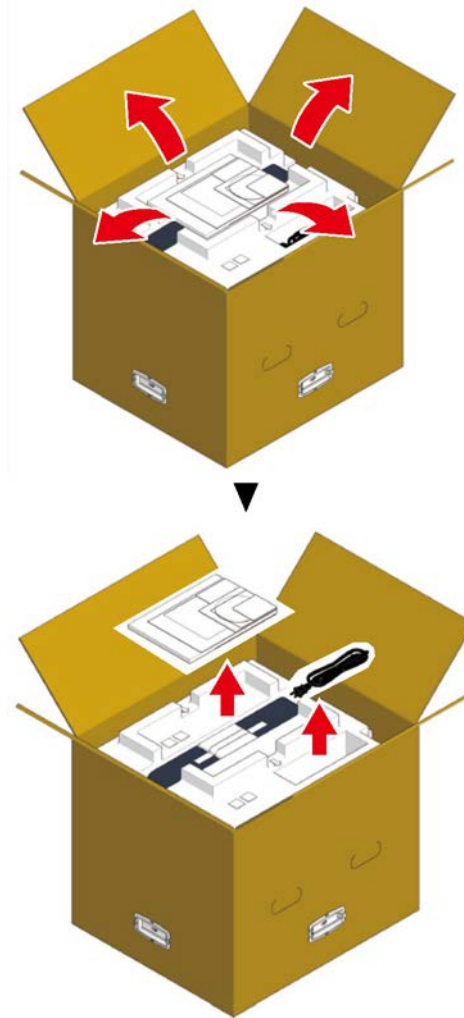
- Be sure to use two people to lift the equipment because it weighs about 95 lbs (43 kg).
- Hold the handles on the equipment when lifting it.
- Do not hold the control panel while lifting. There is a risk of injury if you hold the control panel, because the control panel may come off and you could drop the equipment.
- Place the equipment on the floor to remove the packing materials and the plastic bag.  
There is a risk of dropping the equipment and causing injury if you hold the equipment while working.
- Be careful about handling the plastic bag.
- Dispose of the desiccant appropriately.

## Unpacking the Printer

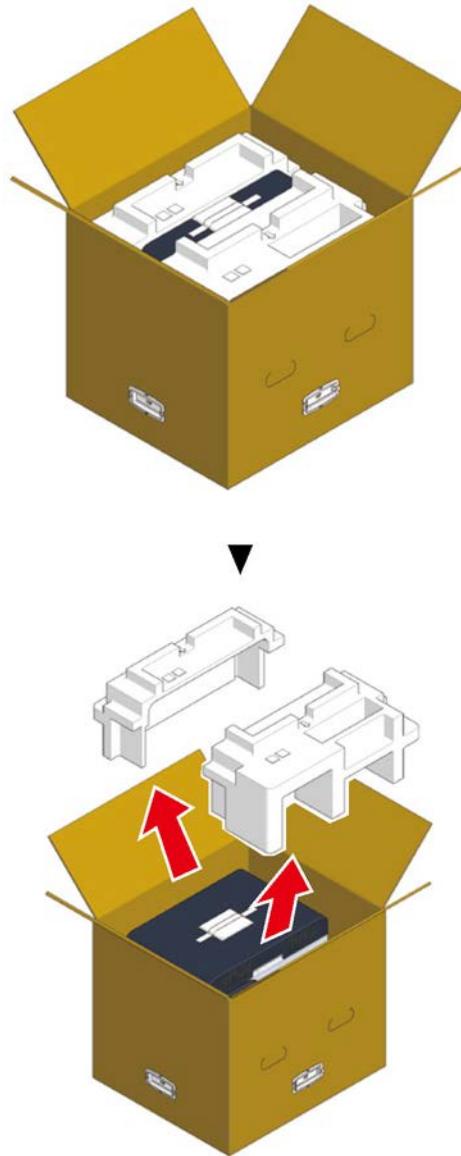
This section describes how to unpack the printer.

**Note:** The packing box and packing materials are needed to transport the machine. Keep them and do not throw them away.

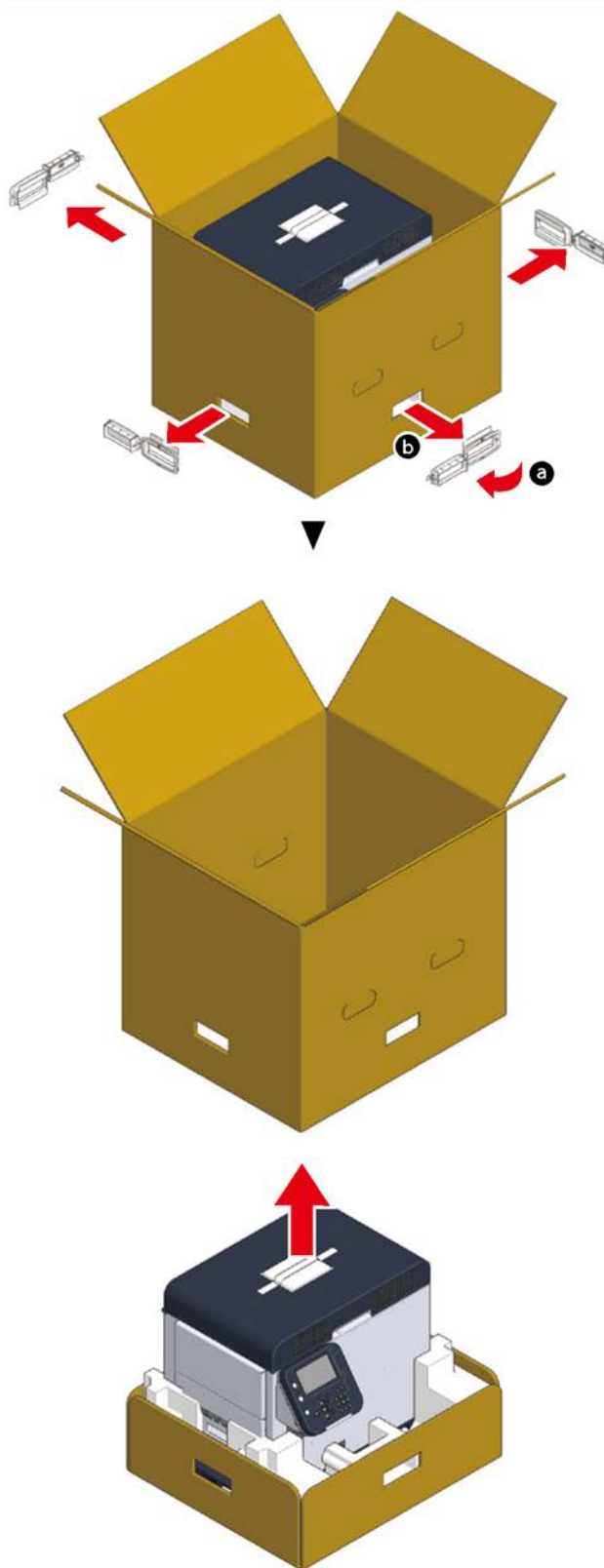
1. Open the top of the packing box and remove the machine's accessories.



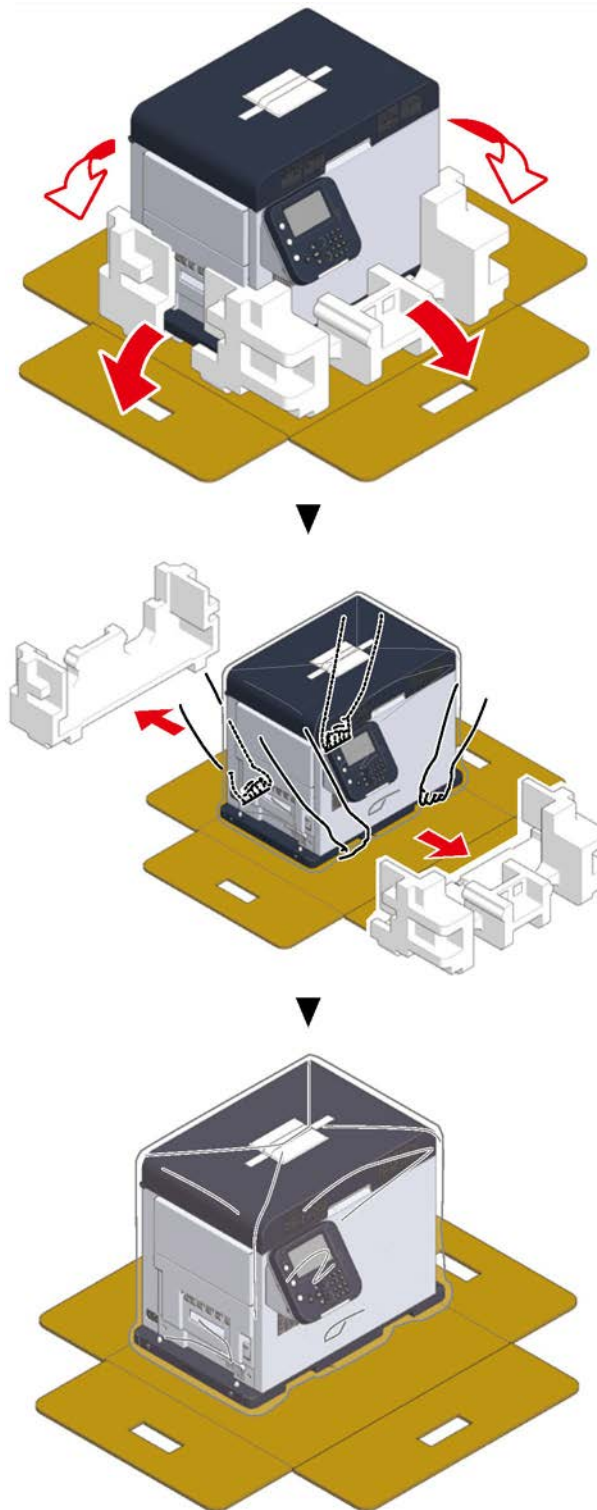
2. Remove the top layer of packing materials.



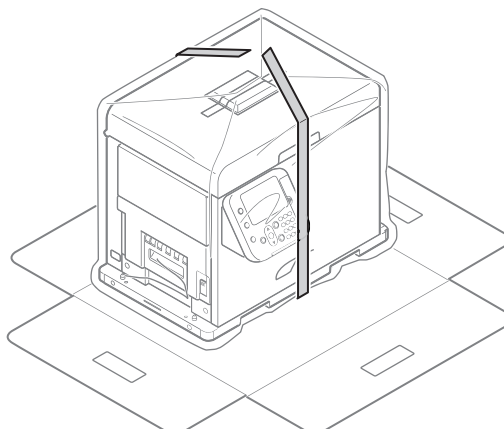
3. Remove the handles (4 pieces), and then remove the top of the packing box.



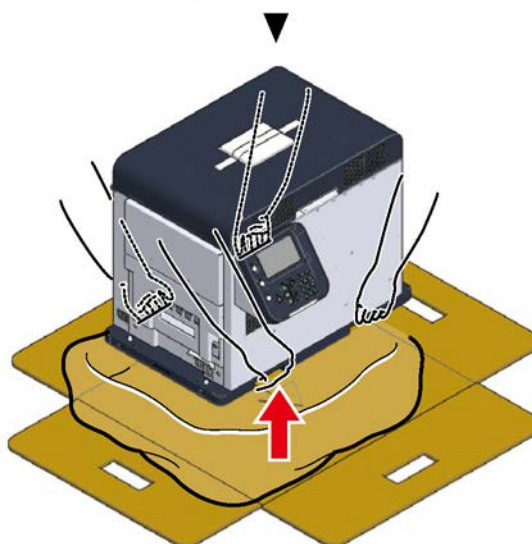
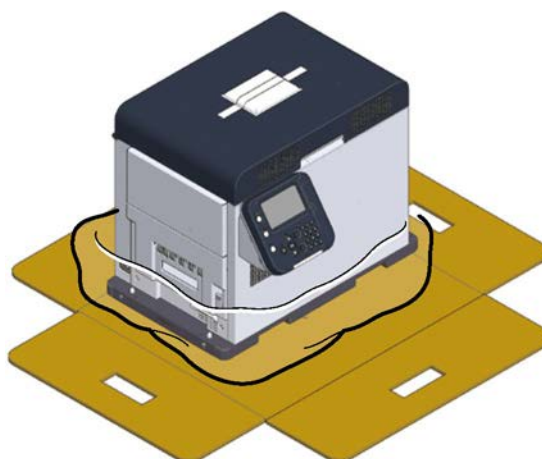
4. Open out the bottom part of the box, place your hands on the printer's handles (2 in front/2 in back) and support the printer as you remove the front and back packing materials on the bottom.



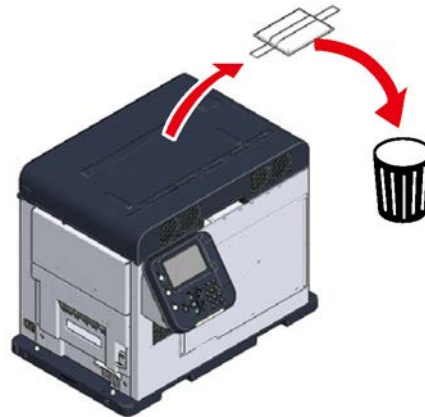
5. Cut and remove the bands that secure the printer.



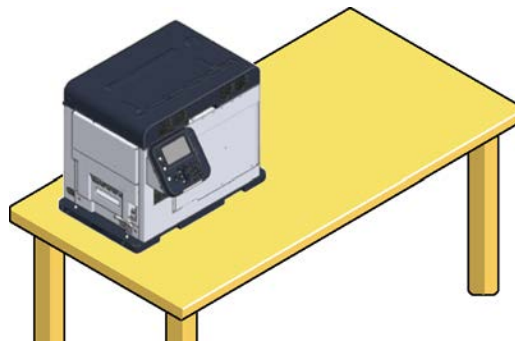
6. Remove the plastic bag.



7. Remove the desiccant.



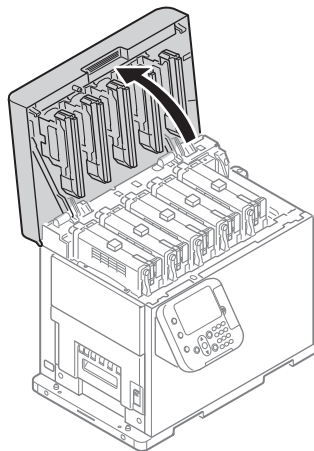
8. Place the printer in the installation space that you have confirmed in advance.



Allow enough space to work when installing the unwinder.

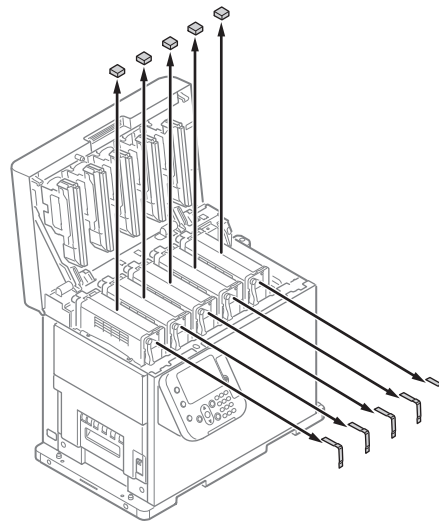
The weight of the equipment, including wear items, is about 95 lbs (43 kg). Install it on a stand that is strong enough.

9. Grasp the top cover open lever and open the top cover.

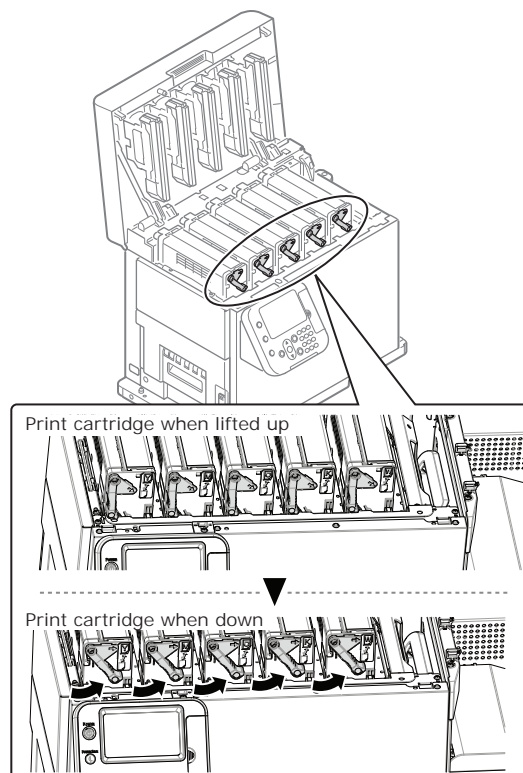




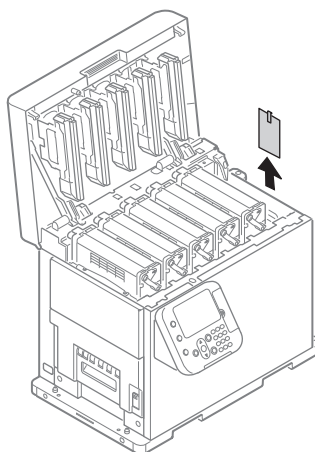
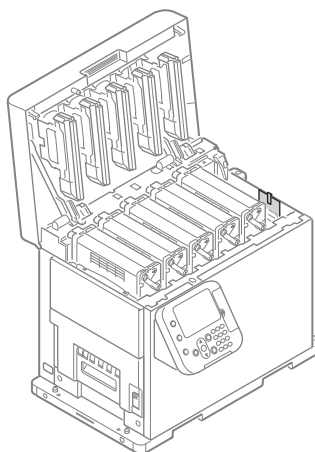
10. Remove the Pad-TC from the top of the print cartridge, and then remove the tape that is securing the lift up lever.



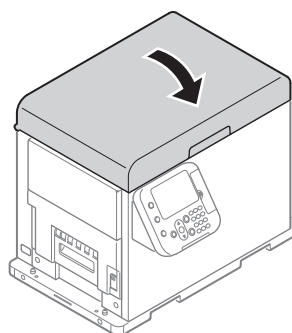
11. The print cartridges lift up, so turn the lift up lever to lower the print cartridges.



12. Pull out the sheet-protection.



13. Close the top cover.



**Caution:** When closing the top cover, there is a risk of pinching your fingers or hands in the top cover or the top cover's support. Press on the top of the top cover to close it.

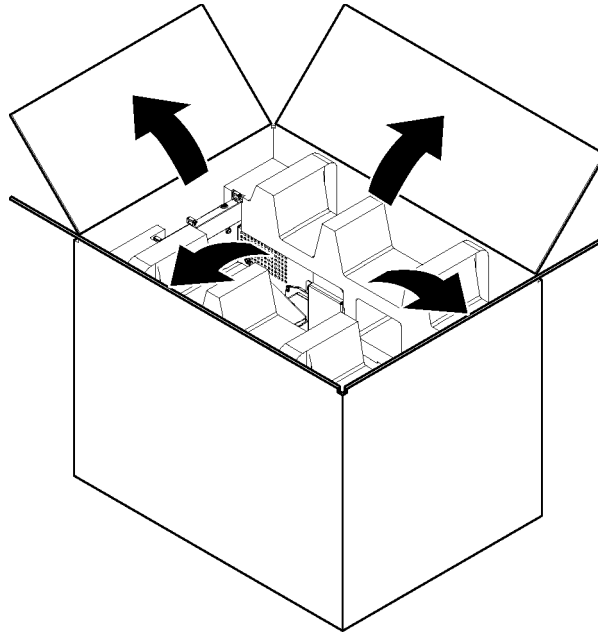
**Caution:** There is a risk of pinching your fingers or hands if you hold the LED head while closing the top cover. Press on the top of the top cover to close it.

## Unpacking the Unwinder

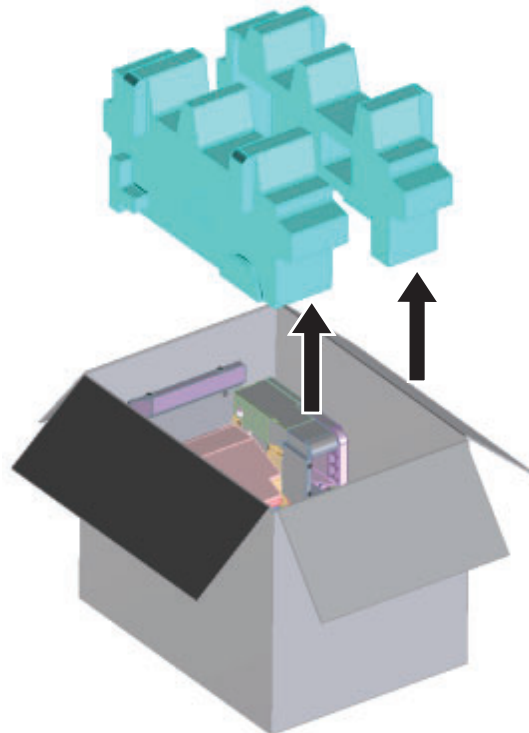
This section describes how to unpack the unwinder.

**Note:** The packing box and packing materials are needed to transport the unwinder. Keep them and do not throw them away.

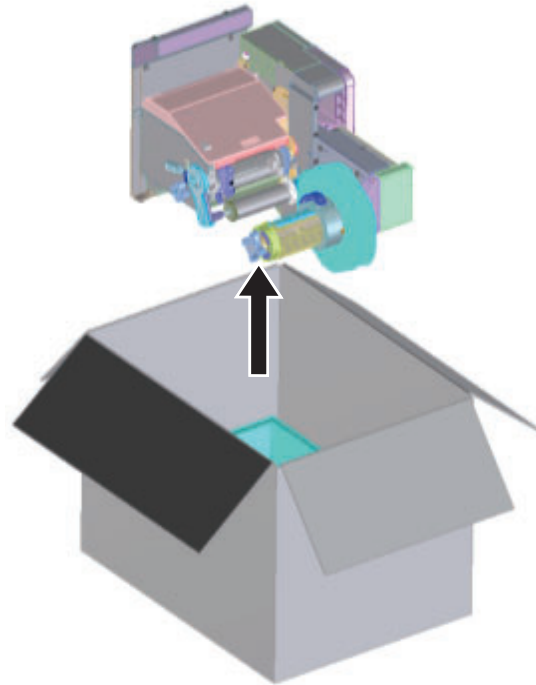
1. Open the top of the packing box.



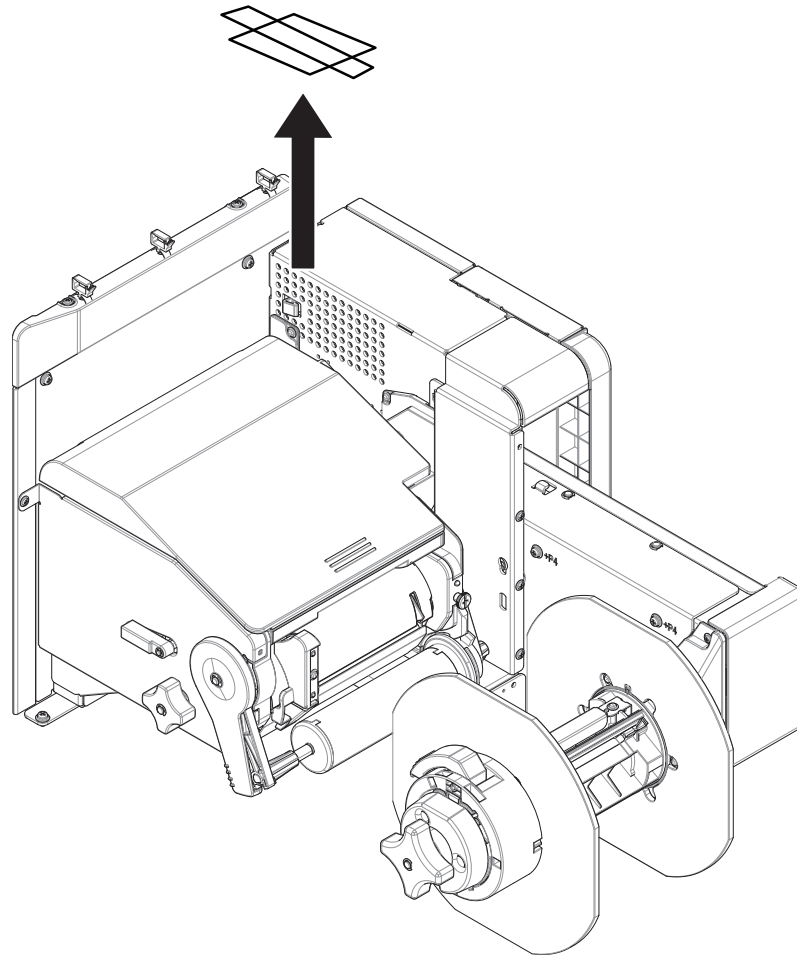
2. Remove the top layer of packing materials.



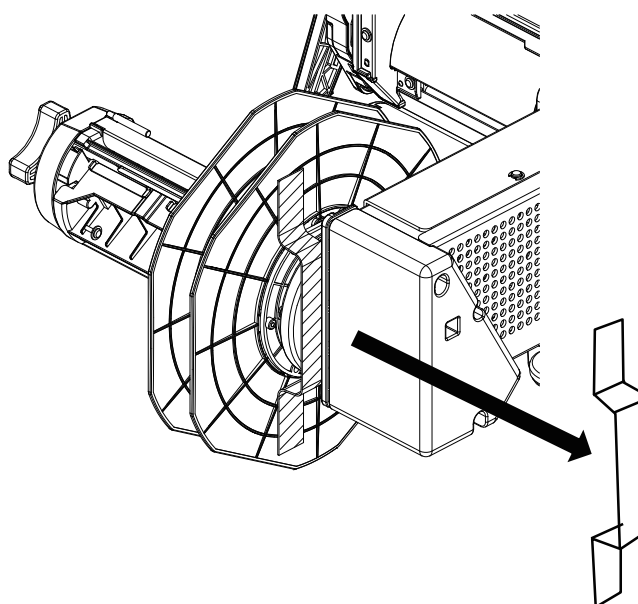
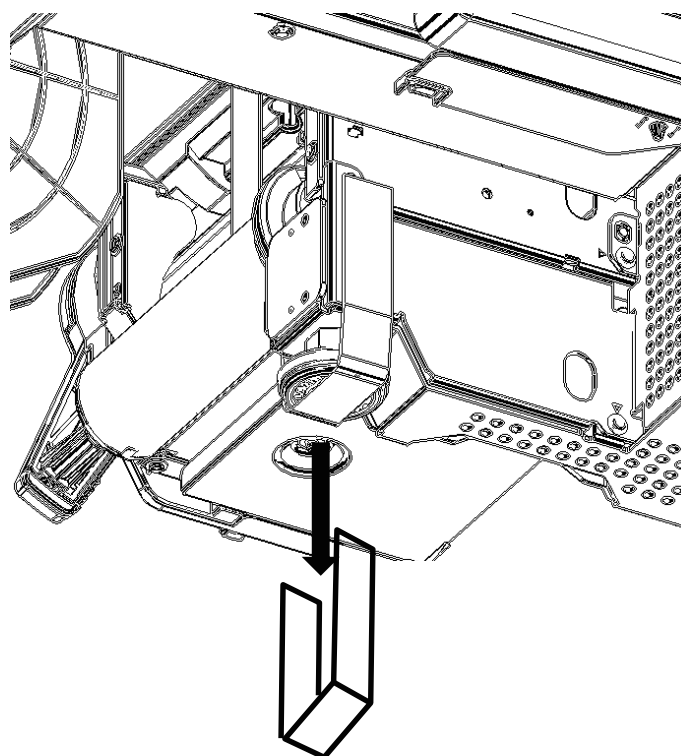
3. Remove the unwinder.



4. Remove the plastic bag from the unwinder, and then remove the accessories.



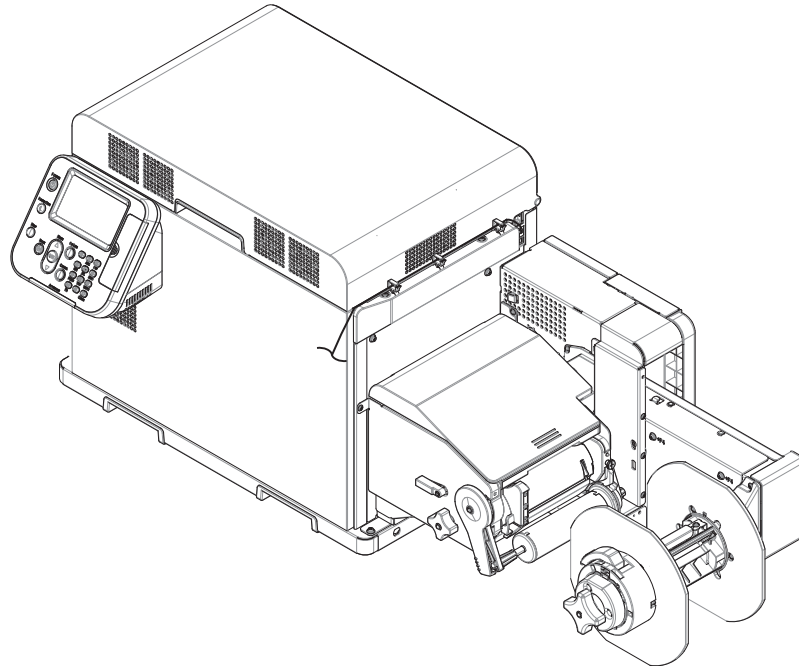
5. Peel off the tape from two locations.



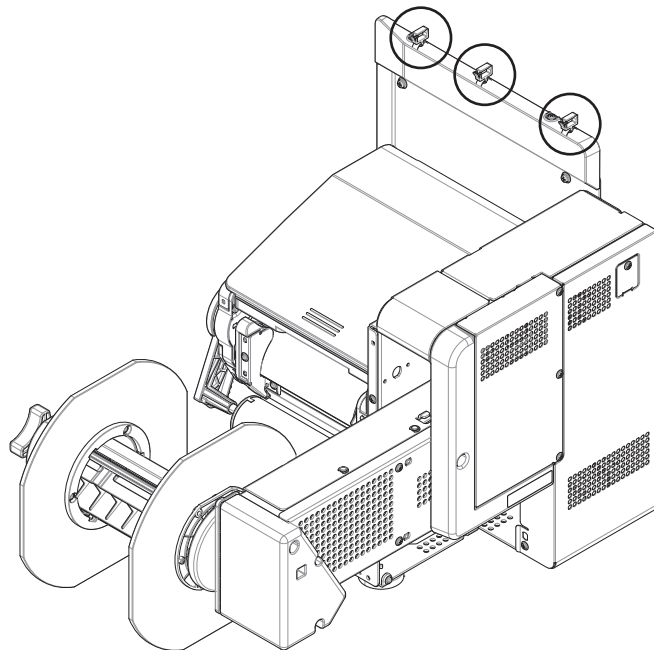
# Installation

## Installing Cable Clamps

Cable clamps are provided with the unwinder. Use them to run the cable connected to the printer's interface along the front.



1. Install cable clamps (x 3 pieces).



## Installing the Unwinder on the Printer

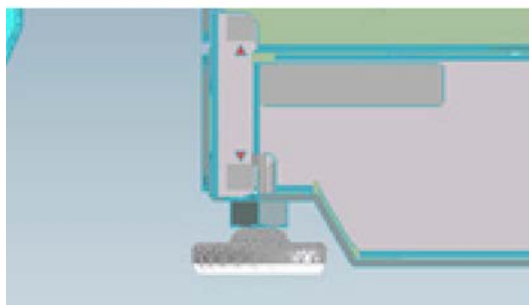
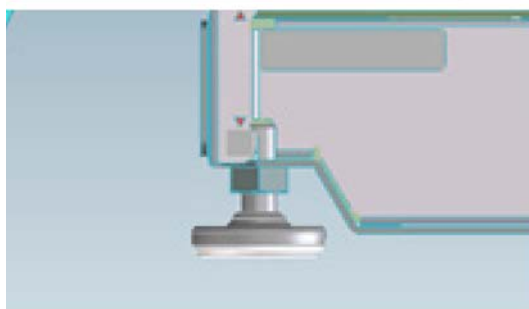
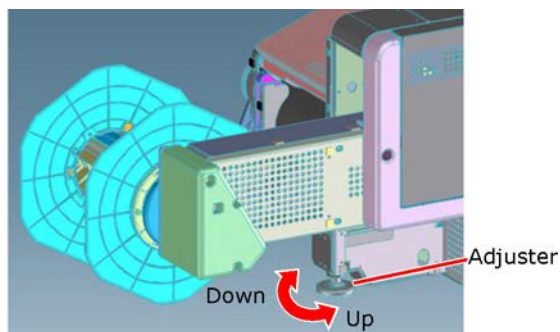
After unpacking the unwinder, install it to the printer.

**Caution:** Be careful that you do not drop the unwinder.

**Caution:** Be careful that you do not pinch your hands or fingers between the unwinder and the printer.

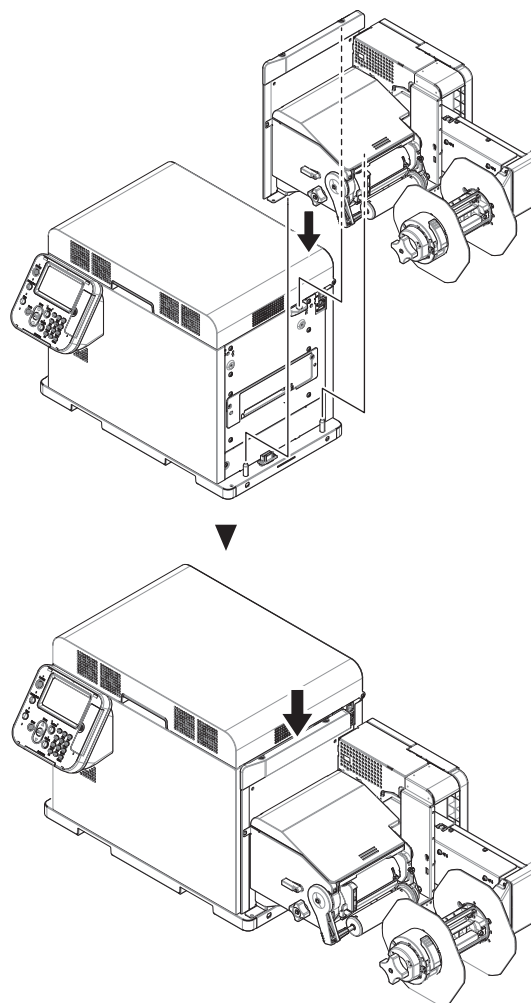
**Caution:** Securely tighten the three screws. If they are loose, there is a risk that the unwinder may fall off or the print quality may be degraded.

1. Check whether the adjuster on the unwinder is raised up. If the adjuster is not raised, before you mount it on the printer, rotate it to the up position.

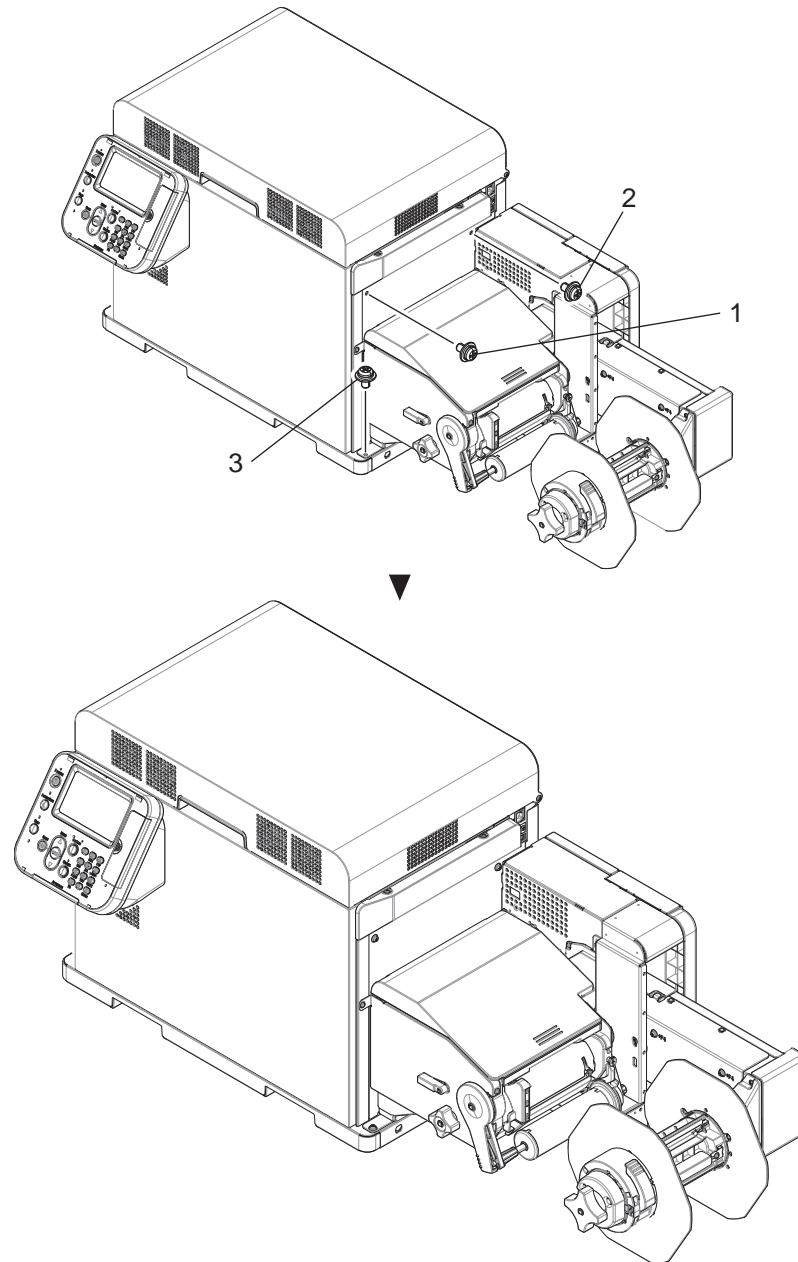




2. Hold the unwinder close to the mounting pins and mounting hole, and then press it against the right side of the printer and lower it.












3. Use three screws to secure the unwinder to the printer.  
Tighten the screws in order 1, 2, then 3, as shown in the following diagram.











4. Extend the adjuster so it contacts the stand. Be careful not to extend the adjuster too far.

## Power

### Precautions about the Electric Power

Symbol	Warning
	Be sure to turn off the power switch before attaching or removing the power cord or ground wire. Leaving the power turned on could result in a fire or electric shock.
	Be sure to connect the ground wire to a dedicated ground terminal. Using the equipment without a ground wire connected could result in a fire or electric shock. If you cannot connect to ground, contact the dealer where you bought the equipment.
	Never connect a ground wire to a water pipe, gas pipe, telephone wire ground, lightning rod, or anything similar. Fire, electric shock, or gas explosion could result.
	Always hold the power cord by the plug when you plug or unplug it. Pulling on the power cord could damage the power cord and result in a fire or electric shock.
	Plug the power plug securely all the way into the power socket. Not plugging it all the way in could result in a fire or electric shock.
	Do not plug or unplug the power plug if your hands are wet. Electric shock could result.
	Do not step on or place objects on the power cord. The cord could be damaged and result in a fire or electric shock.
	Do not use the power cord while it is tied or bundled up. The cord could overheat, be damaged and result in a fire or electric shock.
	Do not use a damaged power cord. Fire or electric shock could result.

Symbol	Warning
	Do not plug too many power cords into a single power socket. Fire or electric shock could result.
	Do not connect other electronic products to the same power socket as the machine. The machine may malfunction due to the electronic noise particularly if you connect an air conditioner, copier, shredder, or other device at the same time. If you must connect them to the same power socket, use a commercially available noise filter or noise cut transformer.
	Do not use extension cords. If you use an extension cord, the drop in AC voltage may cause the machine to not operate correctly. If you must use one, use one that is rated for at least 100 V at 15 A. Fire or electric shock could result if you use one that is outside the specified range.
	Do not turn off the power or unplug the power plug while printing. Damage or electric shock could result.
	If the equipment will not be used for a long period, such as during an extended holiday or vacation, unplug the power cord to be safe.
	Use the power cord provided with the machine. Do not use a power cord from a different product. Electric shock or fire could result.
	The power cord provided with the machine is for the machine only. Do not use it for a different product. Electric shock or fire could result.
	Operations are not guaranteed when using a UPS (uninterruptible power source) or inverter. Do not use an uninterruptible power source or inverter. There is a risk of fire.

The following conditions are required for the power source.

Voltage: 110 - 127 VAC (Range 99 - 140 VAC)  
220 - 240 VAC (Range 198 - 264 VAC)

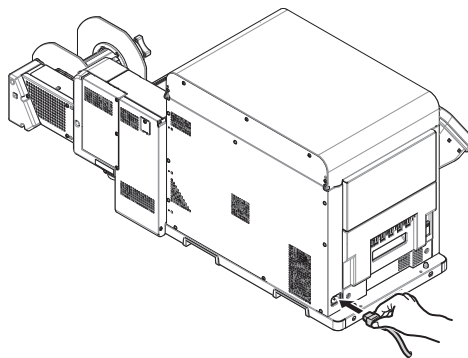
Frequency: 50/60 Hz ± 2%

- If the power source is unstable, use a voltage regulator.

- The machine's maximum power consumption is 1200 W. Be sure that the power source has sufficient capacity.
- Operations are not guaranteed when using a UPS (uninterruptible power source) or inverter. Do not use uninterruptible power source or inverters.

## Connecting a Power Cord

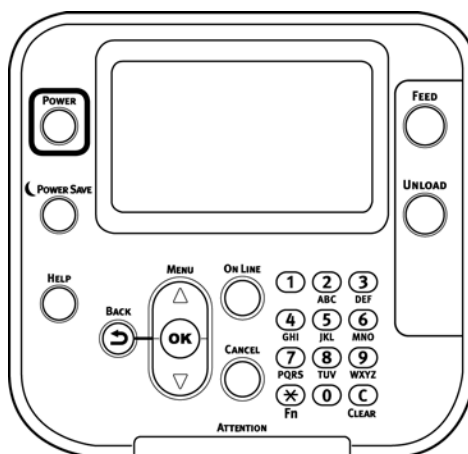
1. Securely insert the power cord provided into the power connector on the machine.



2. Plug the power plug into the power socket.

## Turning on the Power

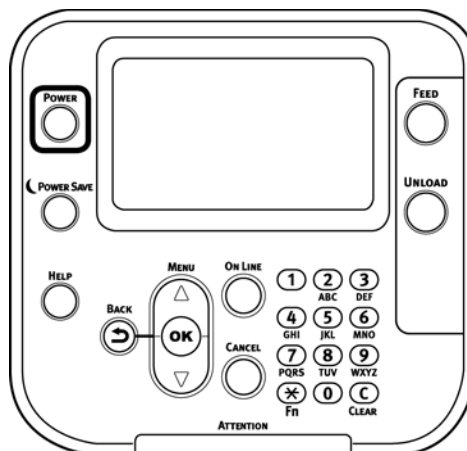
1. Press and hold the **POWER** button for approximately 1 second.  
When the power is turned on, the LED lamp on the **POWER** button turns on.



When the machine starts, the startup screen appears on the LCD on the control panel. After a short time, the idle display appears and printing is possible.

## Turning off the Power

1. Press and hold the **POWER** button for approximately 1 second.



The message “Shutting down. Please wait. Printer will turn off automatically.” appears on the control panel and the LED lamp on the **POWER** button flashes at one second intervals.

Wait a moment, and the machine's power automatically turns off and the LED lamp on the **POWER** button turns off.

Pressing the **POWER** button for five seconds or longer forces the power to turn off. Do this only if some trouble occurs. See “[Troubleshooting](#)” on page 268.

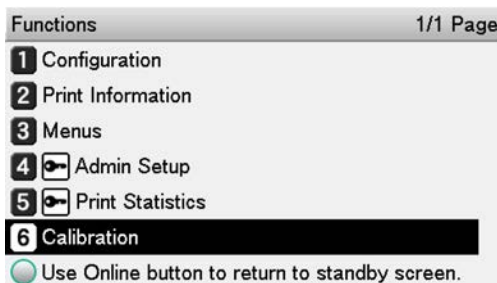
**Warning:** Do not touch the power plug or power socket if your hands are wet. There is a risk of electric shock.

**Warning:** Do not insert any metal objects, such as a screw driver, into the power socket. There is a risk of electric shock.

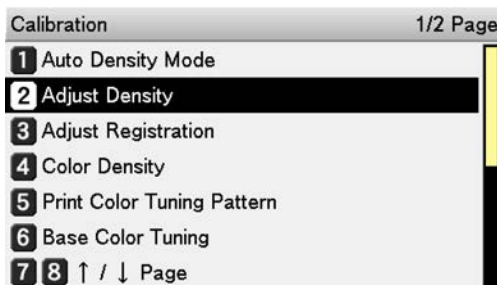
## Test Printing

### Adjusting Density and Test Printing

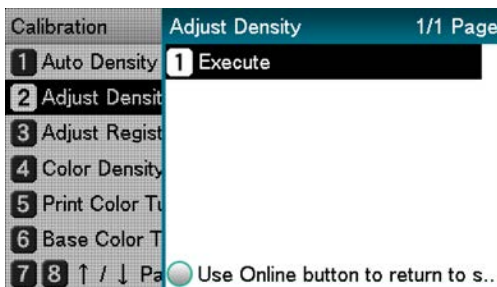
1. Set a roll of paper on the unwinder. Use continuous paper that is 5.12” (130mm) wide. See “[Loading Media](#)” on page 92.
2. Press the **POWER** button on the control panel to turn on the printer's power.
3. Press the scroll button ▼ several times to select **Calibration**, and then press the **OK** button.



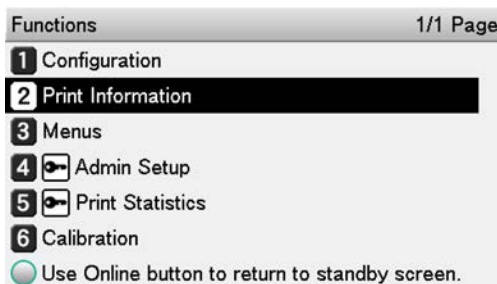
4. Press the scroll button ▼ several times to select **Adjust Density**, and then press the **OK** button.



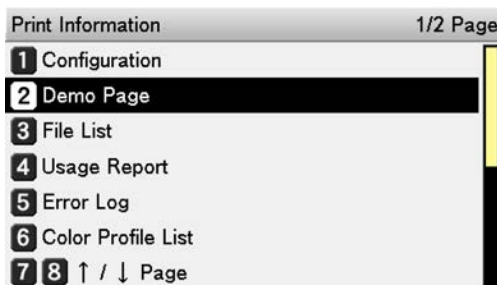
5. Check that **Execute** has been selected, and press the **OK** button.



6. Press the scroll button ▼ several times, and when **Print Information** appears, press the **OK** button.



7. Press the scroll button ▼ to select **DEMO Page**, and then press the **OK** button.



8. Check that **DEMO1** has been selected, and press the **OK** button.



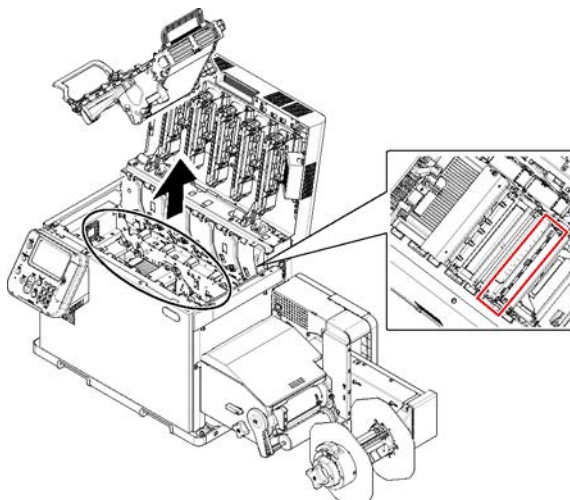
Paper feeds and a demo page is printed.

If the paper does not feed well or there are printing issues, confirm that the printer is installed correctly.

## Adjusting the Position of the Sensor

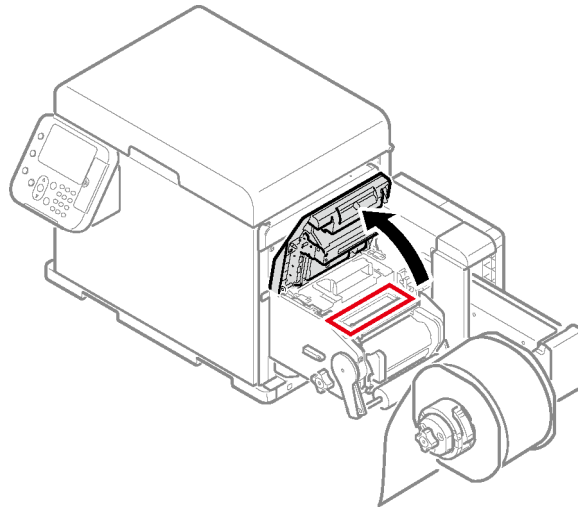
You need to adjust the positions of the unwinder's black mark/gap sensors and the printer, according to the media you are using. See *"Calibrating the Sensor" on page 104*.

Printer Black mark/Gap sensor:





Unwinder Black mark/Gap sensor:



## Driver Installation Process Overview

This section describes how to connect the printer to a computer and how to install the printer driver.

### Connecting to a PC with a Network Connection

1. Turn on the printer.
2. Set the printer's IP address.
3. Connect the cable.
4. Turn on the computer.
5. On the computer, set the IP address and configure other settings.
6. Install the printer driver.

### Connecting to a PC with a USB Connection

1. Connect the cable.
2. Turn on the printer.
3. Turn on the computer.
4. Install the printer driver.

## Operating Environment

This printer supports the operating systems (OS) listed below.

- Windows 10/Windows 10 (64-bit version)
- Windows 8.1/Windows 8.1 (64-bit version)
- Windows 8/Windows 8 (64-bit version)
- Windows Server 2016
- Windows Server 2012 R2
- Windows Server 2012
- Windows 7/Windows 7 (64-bit version)
- Windows Server 2008 R2
- Windows Server 2008/Windows Server 2008 (x64 version)

With Windows 10, Windows 8.1 and Windows 8, only the desktop mode is supported.

# Connecting Cables

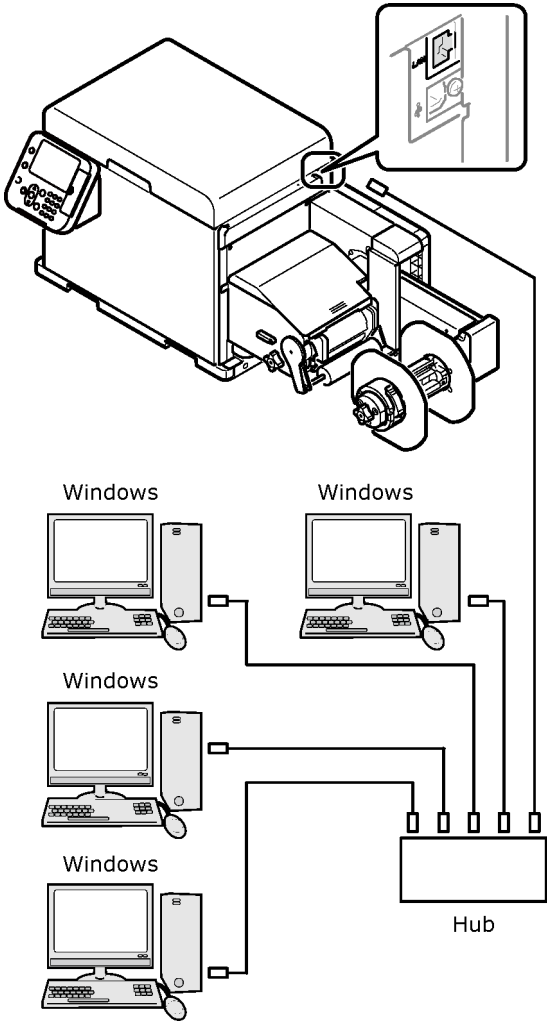
This printer can connect to a computer or a network.

It comes with a LAN (network) interface connector and a USB interface connector as standard. A LAN cable can be used to connect to a network, while a USB cable can be used to connect to a computer.

## Connecting a LAN Cable

When the printer is connected to a LAN (Ethernet) or other network, it can be shared by the computers on the network.

This printer is equipped with a network interface compatible with 10BASE-T/100BASE-TX/1000BASE-T as standard.



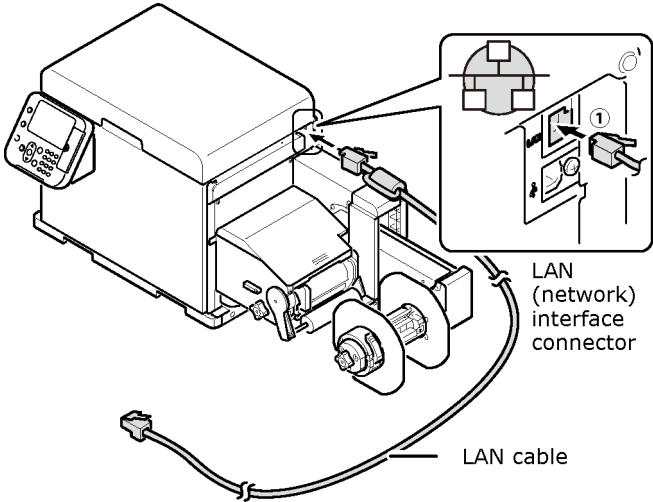
If the cable is routed in front of the device, use the cable clamps attached to the unwinder. Passing the cable through the clamps avoids problems with unwinder operation.

- 1. Prepare a LAN cable and hub.

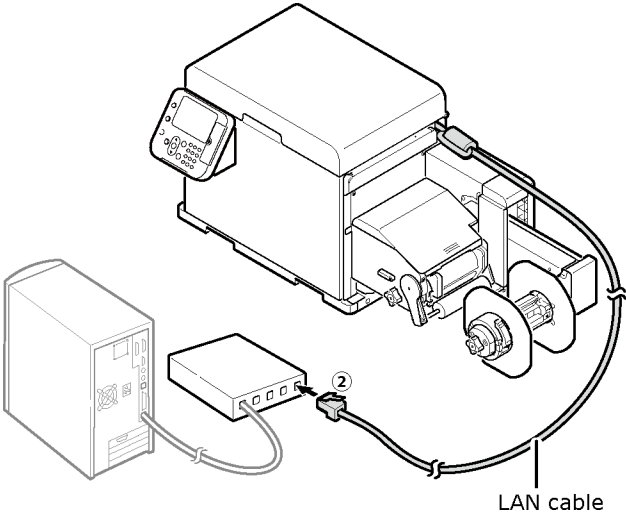
**Note:** The printer does not come with a LAN cable or hub. If you need a LAN cable (Category 5e or higher, twisted cable, straight) and hub, it is up to you to prepare them.

**Note:** The initial factory default setting of the Admin Setup is "Gigabit network: Disabled." This setting needs to be changed in order to use a 1000BASE-T connection. Setting Procedure: On the control panel, input your password in **Admin Setup**, and then select **Network Setup > Gigabit Network > Enable**.

- 2. Connect the LAN cable to the printer's LAN (network) interface connector (1).



- 3. Connect the other end of the LAN cable to a hub connector (2).



## Connecting a USB Cable

Use this connector when connecting the printer to a computer with a USB cable.

**Note:** Do not connect the USB cable until prompted during the installation process. See “Installing the Printer Driver (USB)” on page 53.

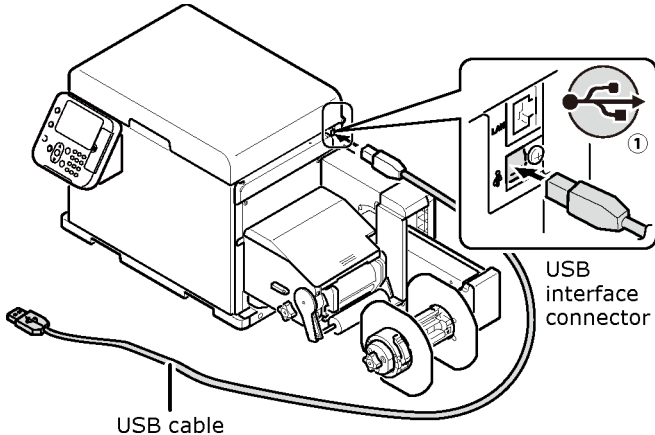
1. Prepare a USB cable.

**Note:** The printer does not come with a USB cable. You need to prepare a USB 2.0 cable that is no longer than two meters.

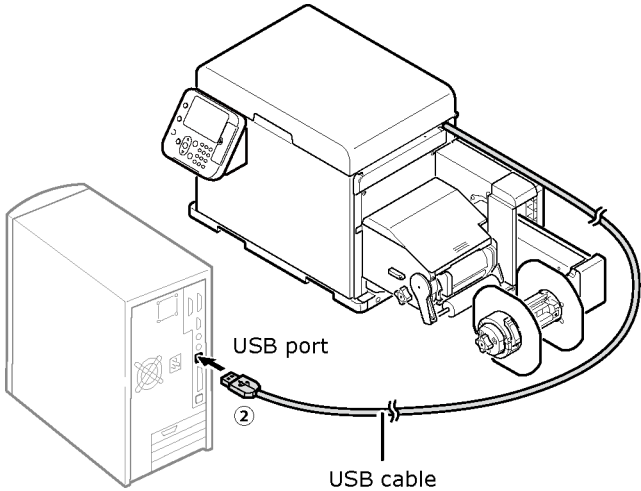
**Note:** If you are planning to connect using the USB 2.0 Hi-Speed mode, you need to prepare a Hi-Speed USB 2.0 cable.

**Note:** USB 3.0 is not supported.

2. Taking care to orient the connector correctly, connect the square end of the USB cable to the printer (1).



3. Connect the other (flat) end of the USB cable to the computer (2).



**Note:** Do not plug the USB cable into the printer's LAN (network) interface connector. Doing so can cause malfunction of the printer.

**Note:** Do not plug or unplug the USB cable while the computer or printer is turned on. Doing so can cause malfunction of the printer.

## Network Connection

To connect the printer to a computer over a network connection, you first need to set the printer's IP address. Next, install the printer driver on the computer.

If there is no DHCP server or BOOTP server on the network, you need to manually set IP addresses for the computer and printer.

Fixed IP address settings specified by enterprise network administrators, providers, or router manufacturers must also be set manually.

### Network Setup Flow

1. Turn on the printer.
2. Set the printer's IP address.
3. Turn on the computer.
4. On the computer, set the IP address and configure other settings.
5. Install the printer driver.

**Note:** A wrong IP address can cause a network to go down and make it impossible to connect to the internet. Check with your enterprise network administrator or internet service provider for the IP address you need to set on the printer, etc.

**Note:** Servers (DHCP, etc.) existing on a network depend on the network environment. For detailed information, check with your enterprise network administrator, internet service provider, or router manufacturer.

**Note:** PC administrator privileges are required for the setup.

### Setting the Printer's IP Address on the Control Panel

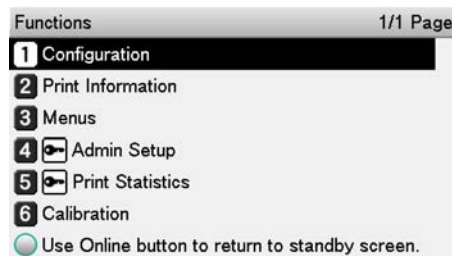
When configuring a small-scale network to connect the printer to a single computer, set an IP address as shown below (RFC1918 compliant).

- Computer
  - IP address: Any address from 192.168.0.1 to 254
  - Subnet mask: 255.255.255.0
  - Default gateway: Not used
  - DNS server: Not used
- Printer
  - IP address specification: Manual 192.168.0.1 to 254 (Use an address different from that of the computer.)
  - Subnet mask: 255.255.255.0
  - Default gateway: 0.0.0.0
  - Network scale: Small

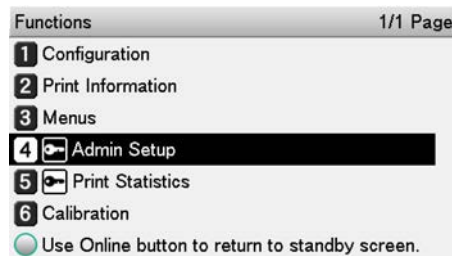
For this example, we show how to configure the settings below.

IP address:	192.168.0.3 (computer) 192.168.0.2 (printer)
Subnet mask:	255.255.255.0
Gateway address:	192.168.0.1

1. Press either the scroll button ▲ or ▼ on the control panel to display the **Functions** screen.

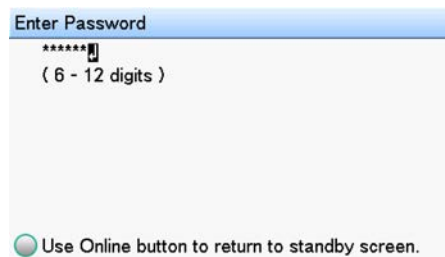


2. Press the scroll button ▼ several times to select **Admin Setup**, and then press the **OK** button.



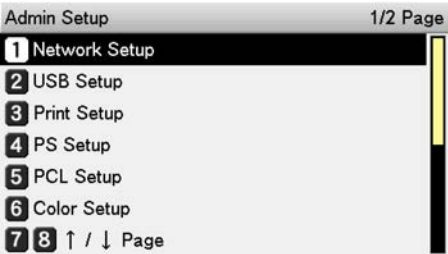
3. Use the numeric keypad to input the administrator password.

The factory default password is 999999. Press the **OK** button after inputting each character.

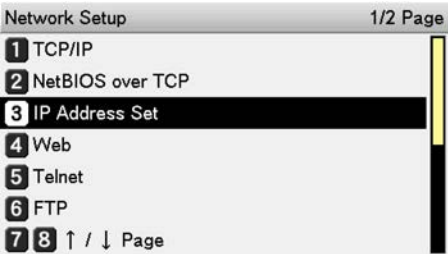


4. Press the **OK** button.

5. Check that **Network Setup** is selected, and then press the **OK** button.



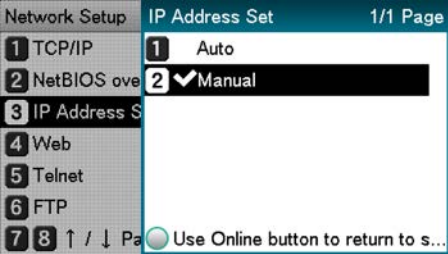
6. Press the scroll button ▼ several times to select **IP Address Set**, and then press the **OK** button.



7. Choose whether to set the IP address manually or obtain an IP address automatically.

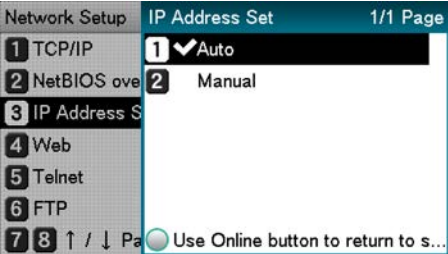
- To set the IP address manually, press the scroll button ▼ to select **Manual**, and then press the **OK** button.

Go to step 8.



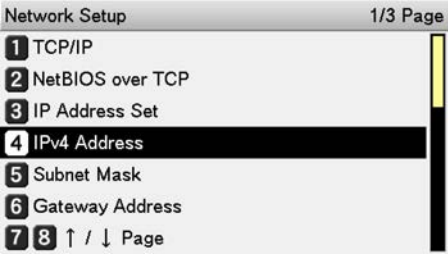
- When obtaining an IP address automatically, confirm that **Auto** is selected, and then press the **OK** button.

Go to step 14.





- 8. Press the scroll button ▼ several times to select **IPv4 Address**, and then press the **OK** button.



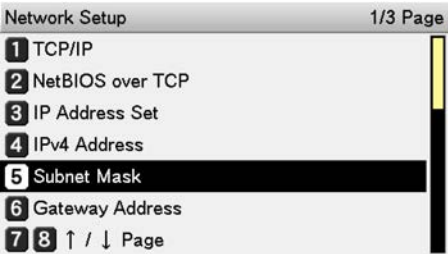
- 9. Press the scroll buttons ▲ and ▼ or the numeric keypad to input the first three digits of the IP address, and then press the **OK** button. Use the same operation to input the next three digits. After input is complete, press the **BACK** button.

To move to the next box, press the **OK** button.

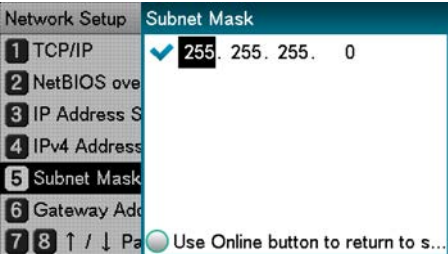


**Note:** The IP address in the screen is an example. Check with your enterprise network administrator for the value to actually input.

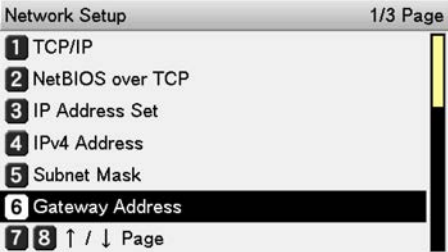
- 10. Press the scroll button ▼ to select **Subnet Mask**, and then press the **OK** button.



- 11. Input the subnet mask the same way as the IP address. After input is complete, press the **BACK** button.



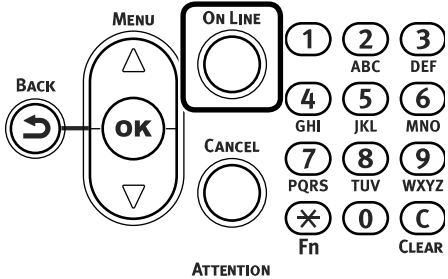
- 12. Press the scroll button ▼ to select **Gateway Address**, and then press the **OK** button.



- 13. Input the gateway address the same way as the IP address. After input is complete, press the **BACK** button.



- 14. Press the **ON LINE** button to exit the network setup.

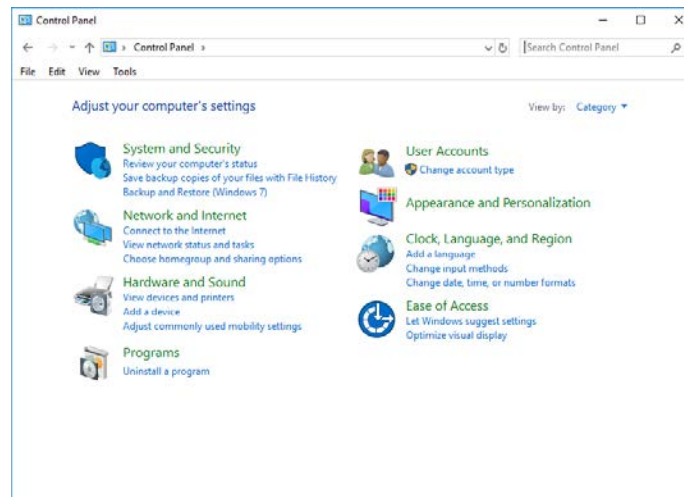


### Configuring the IP Address and Other Settings on the Computer

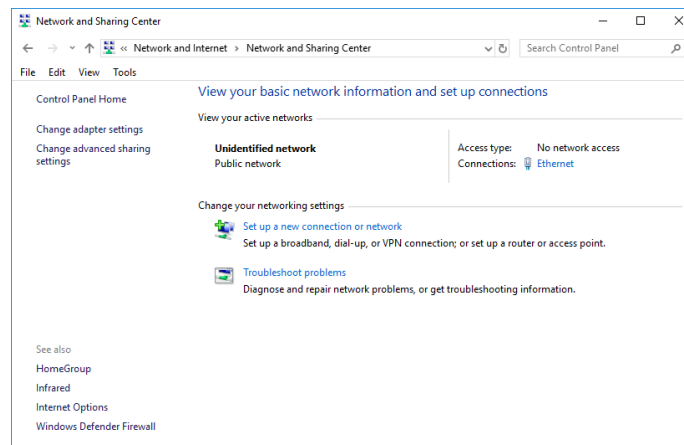
If your computer already has an IP address and other settings configured, or if an IP address is obtained automatically, advance to “Installing the Printer Driver (Network)” on page 49.

- 1. Turn on the computer.
- 2. Click **Start**, and then select **Control panel** in Windows.

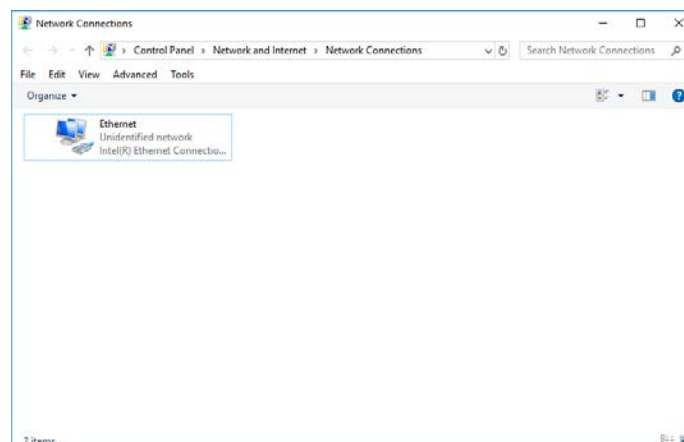
3. Click **View network status and tasks**.



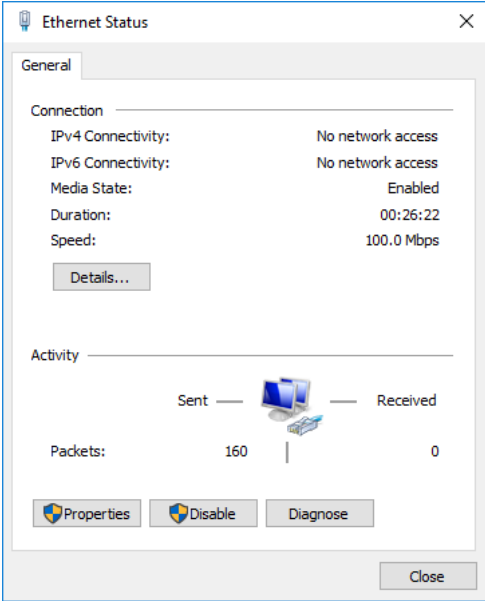
4. Click **Change adapter settings**.



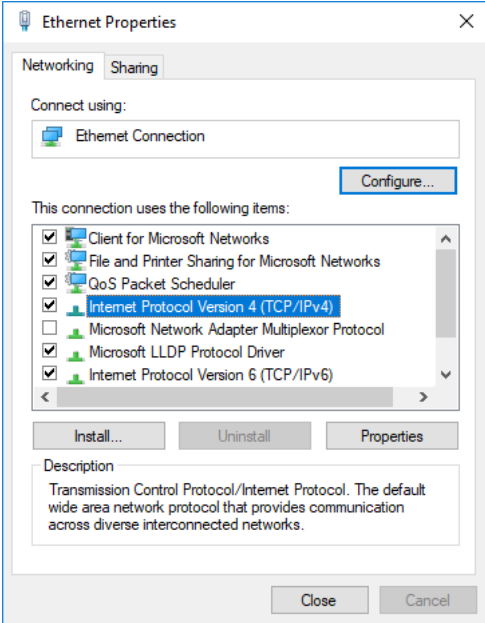
5. Click the icon showing the name of the Network adapter.



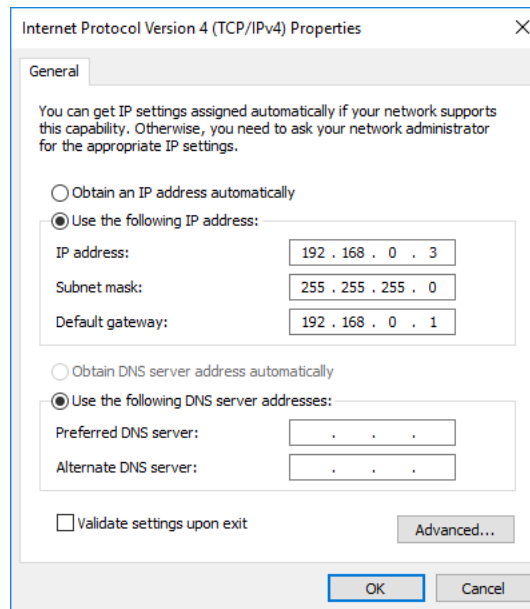
6. On the "Ethernet Status" screen, click **Properties**.



7. Select **Internet Protocol Version 4(TCP/IPv4)**, and then click **Properties**.



- Input the IP address, subnet mask, default gateway, and DNS server, and then click **OK**.



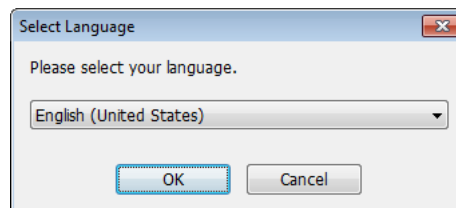
**Note:** When obtaining an IP address automatically from a DHCP server, select **Obtain an IP address automatically** without inputting an IP address.

**Note:** If a default gateway or DNS server is not to be used, do not input its address.

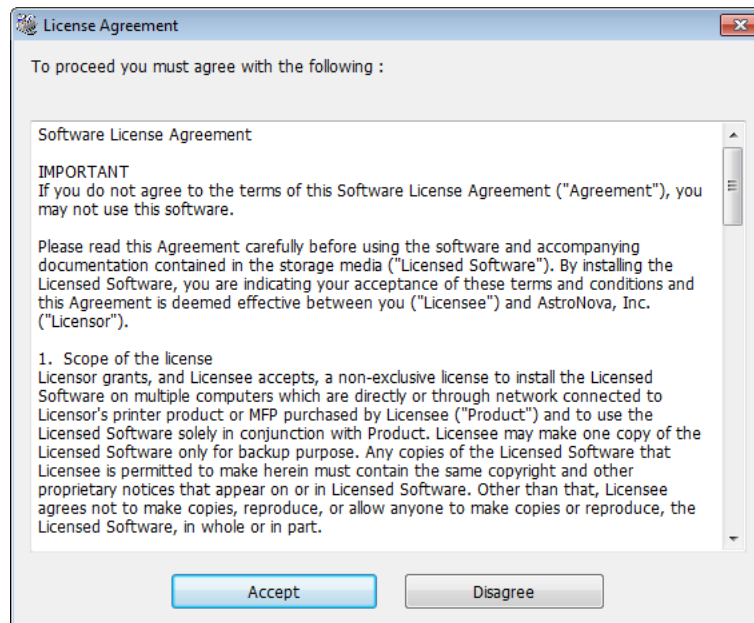
- Exit the “Ethernet Properties” screen.

## Installing the Printer Driver (Network)

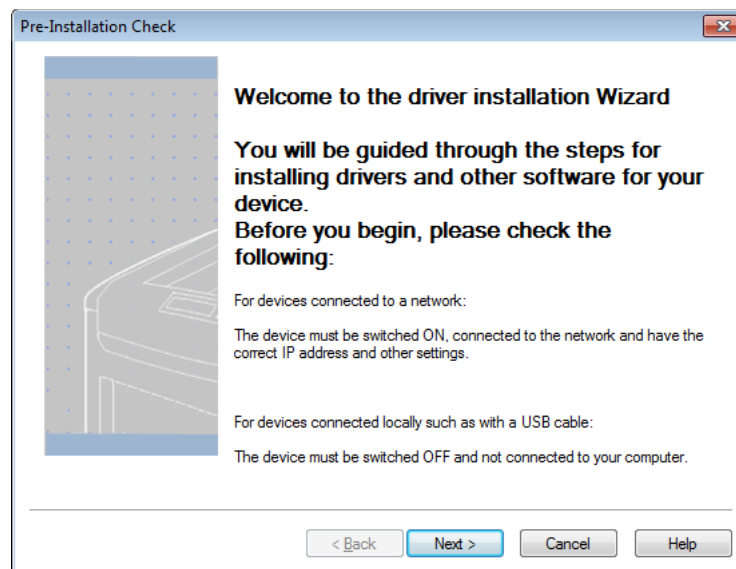
- Ensure the QL-300 is powered on and connected to the network via a LAN cable. See [“Connecting a LAN Cable” on page 39](#).
- Start the driver installation software. You can obtain the software from [www.QuickLabel.com/downloads](http://www.QuickLabel.com/downloads).
- When the language selection window is displayed, select a language. Then click **OK**.



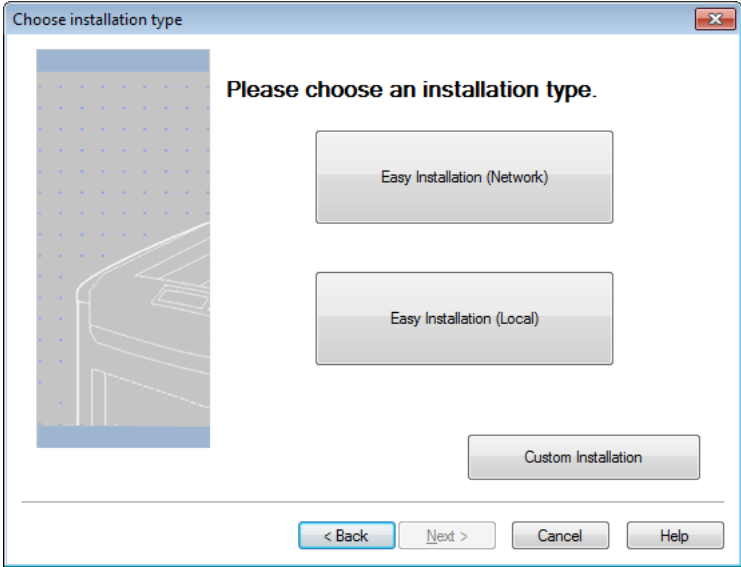
4. Read the Software License Agreement, and then click **Accept**.



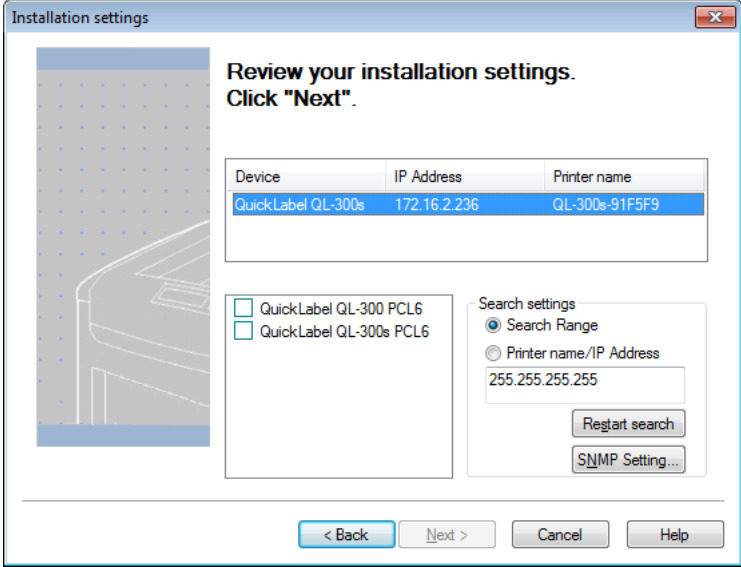
5. Verify the pre-installation check items, and then click **Next**.



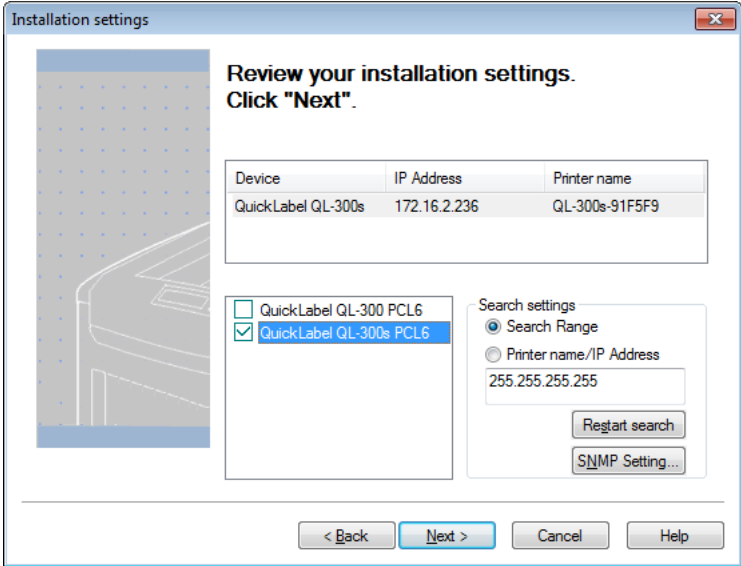
- 6. Click **Easy Installation (Network)**.



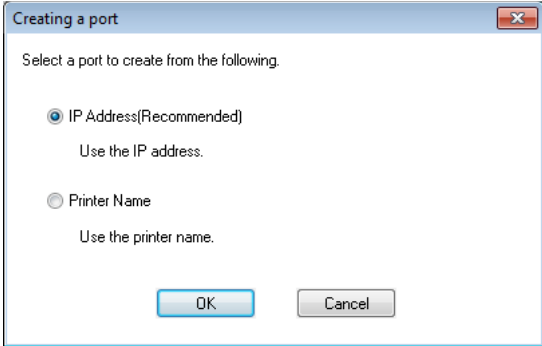
- 7. The driver searches for printers. After supported printers are detected, select the printer from the device list.



- 8. Select the driver version that matches your printer model. For example, select QuickLabel QL-300s if you are using a QL-300s printer. Then click **Next**.

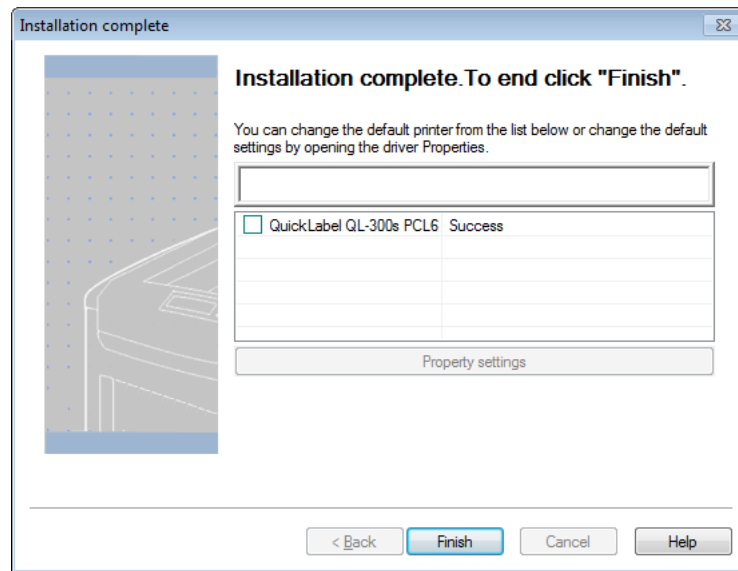


- 9. When you are prompted to create a port, select **IP Address (Recommended)**. Then click **OK**.





- The printer driver will be installed. After installation is complete, click **Finish**.



## USB Connection

### USB Setup Flow

**Note:** Confirm that the printer is turned off.

**Note:** PC administrator privileges are required for the setup.

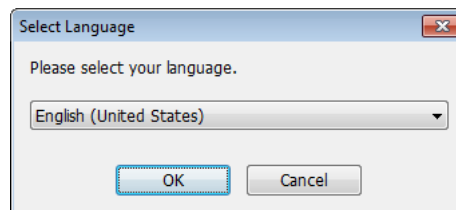
- Turn on the printer.
- Turn on the computer.
- Install the printer driver.

### Installing the Printer Driver (USB)

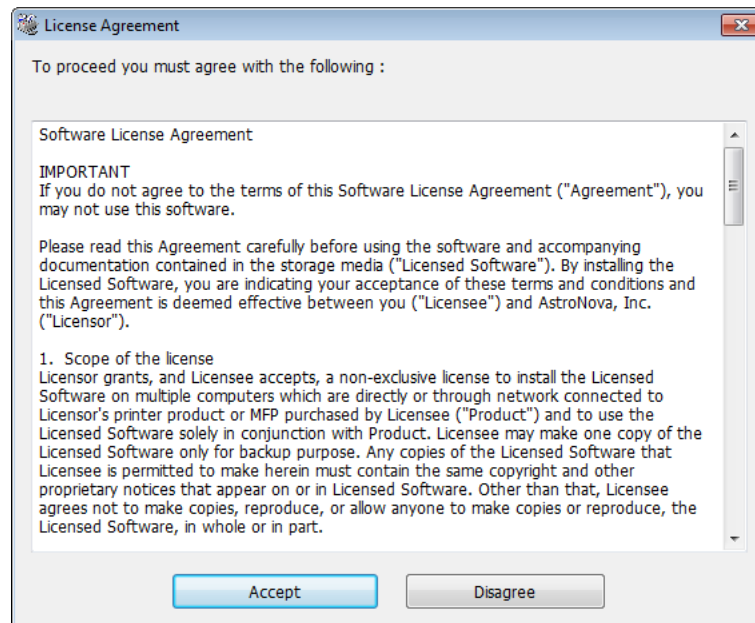
- Ensure the QL-300 is powered off and **not** connected to your PC via the USB cable.

**Note:** Do not connect the USB cable until prompted later in this procedure.

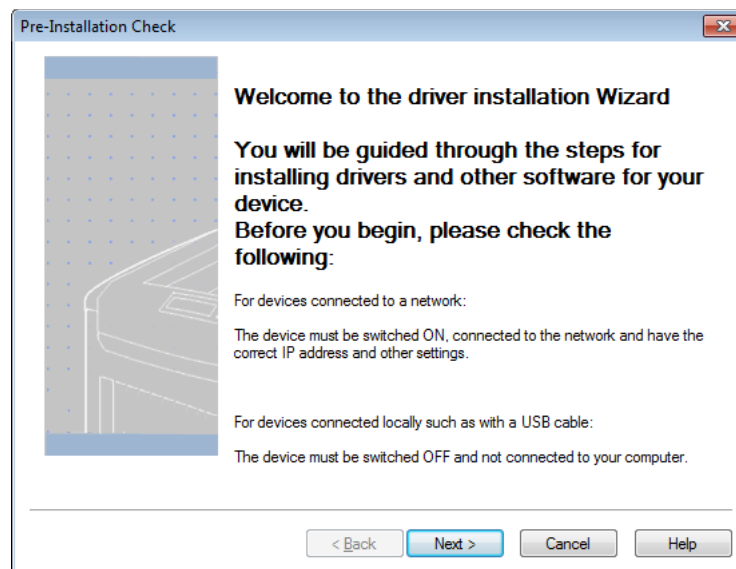
- Start the driver installation software. You can obtain the software from [www.QuickLabel.com/downloads](http://www.QuickLabel.com/downloads).
- When the language selection window is displayed, select a language. Then click **OK**.



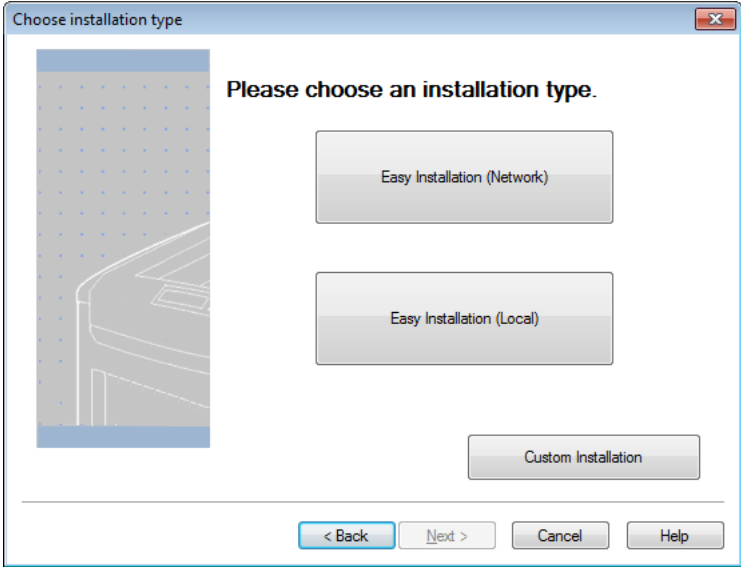
4. Read the Software License Agreement, and then click **Accept**.



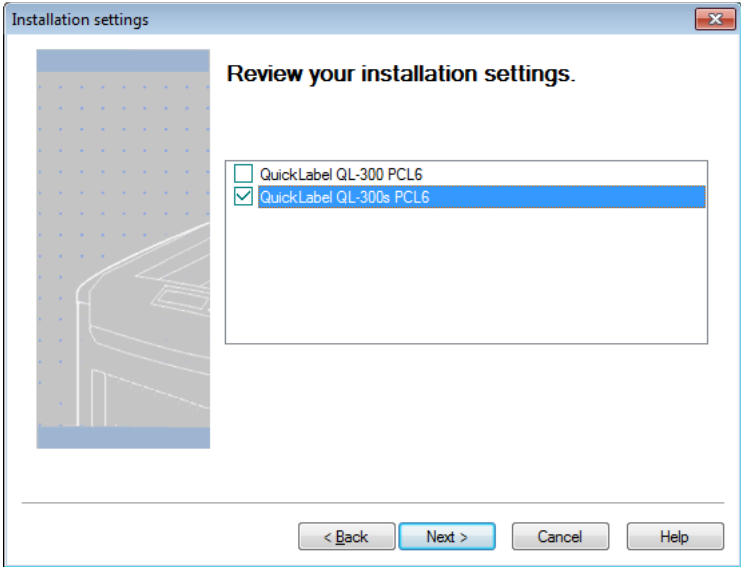
5. Verify the pre-installation check items, and then click **Next**.



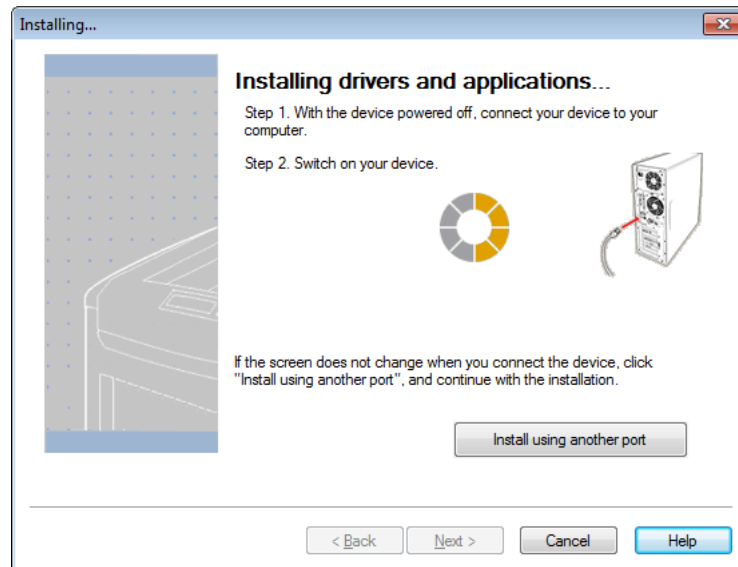
- 6. Click **Easy Installation (Local)**.



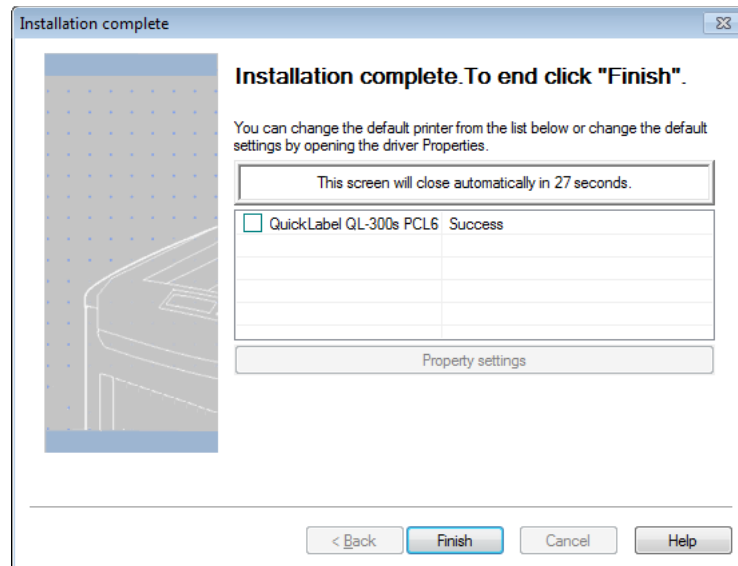
- 7. Select the driver version that matches your printer model. For example, select QuickLabel QL-300s if you are using a QL-300s printer. Then click **Next**.



8. When prompted, connect the QL-300 to your PC with a USB cable. Then power on the QL-300. The installation will continue.



9. The printer driver will be installed. After installation is complete, click **Finish**.



## Windows Printer Drivers

There are two printer drivers available for the QL-300. You can use either the Windows PCL Printer Driver or the Windows PS Printer Driver. The driver you select will depend on your preferences and intended printing environment.

Use the Windows PCL Printer Driver if:

- You will be printing from CQL Pro software.
- Your labels contain dynamic content that will change at print time (serial numbers, dates, etc.).

Use the Windows PS Printer Driver if:

- You will be printing from Adobe Illustrator, Adobe Photoshop, or other desktop publishing applications.
- Your labels contain only static artwork that will not change at print time.
- You want more control over the white toner application features on the QL-300s.

## Dealing with Setup Problems

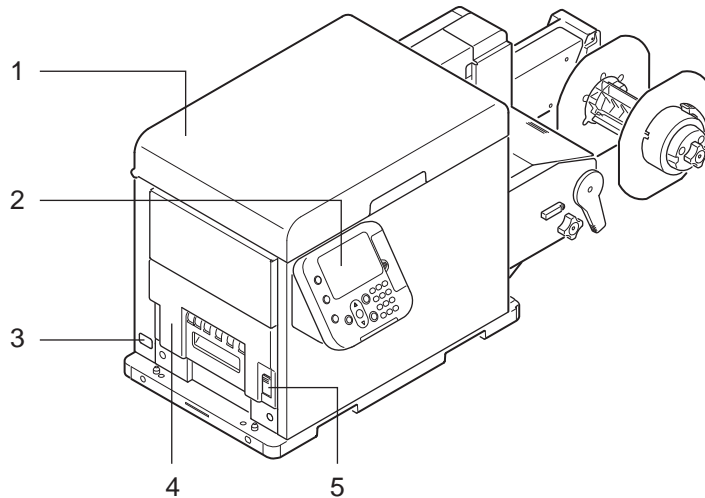
If you run into problems while setting up a network connection or USB connection, refer to “Troubleshooting” on page 268.

This section describes possible problems that may occur while operating the printer, and recommended steps to resolve them.

# 3

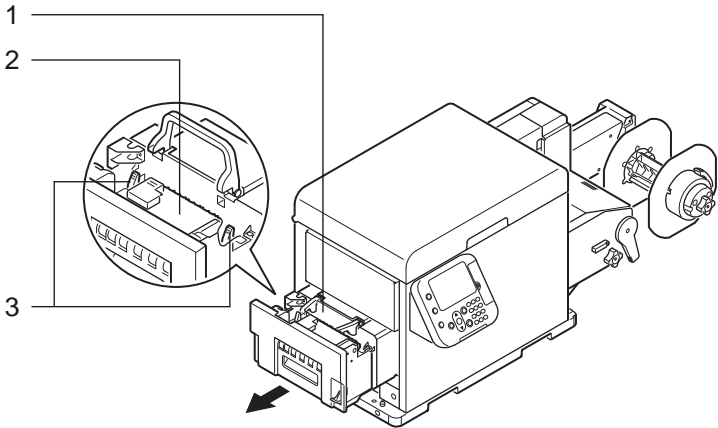
## Part Names and Functions

### Printer Front/Left Side



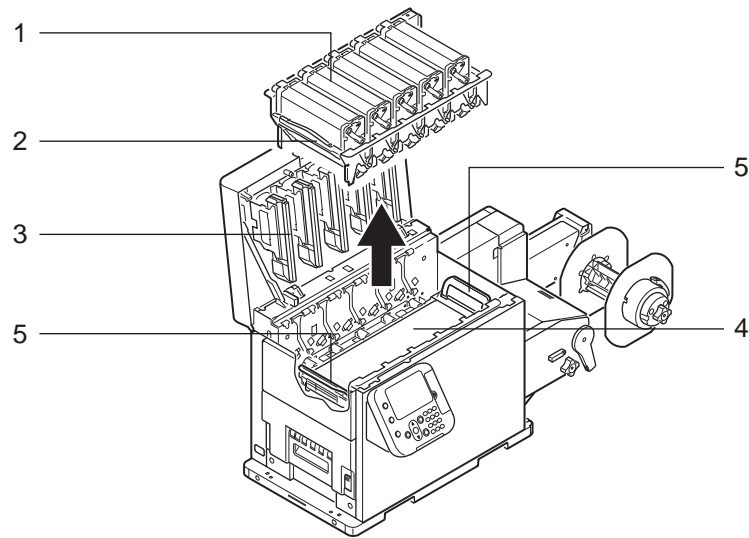
#	Part	Description
1	Top Cover	Open when replacing the print cartridge, belt unit, 2nd transfer roller, or waste toner box, or when clearing a paper jam.
2	Control Panel	Displays the printer status and menus, and is used when configuring function settings. <i>See "Control Panel" on page 65.</i>
3	Power Connector	Connect the supplied power cord here.
4	Fuser and Exit Unit	Remove when replacing the fuser and exit unit or when clearing a paper jam. The fuser and exit unit are wear items.
5	Fuser and Exit Unit Locking Lever	Use when removing or installing the fuser and exit unit.

# Printer Exit



#	Part	Description
1	Fuser and Exit Unit Handle	Pull upwards when removing the fuser and exit unit.
2	Exit Feed Cover	Open when clearing a paper jam.
3	Release Lever	Press downwards when opening the exit feed cover.

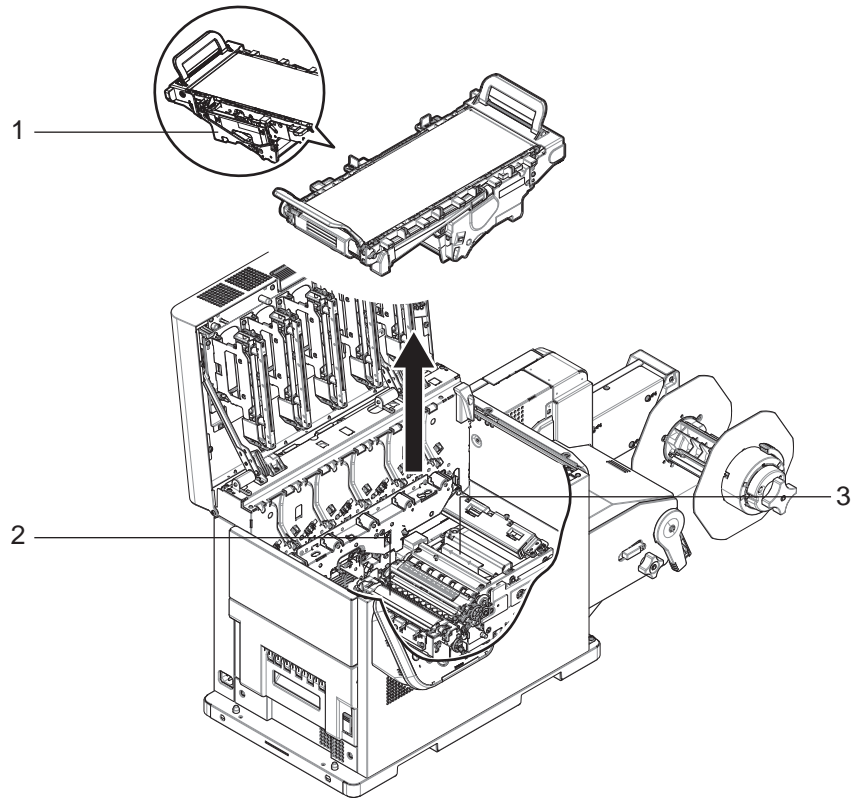
## Printer Interior 1



#	Part	Description
1	Print Cartridge	Develop the image with toner drawn by the LED head, and transfer the toner image onto the belt unit. The remaining life of the print cartridge is always displayed while the "Supplies Life" is specified for the standby screen of the control panel. The print cartridge is a wear item.
2	Print Cartridge Set	Remove when replacing the belt unit, 2nd transfer roller, or waste toner box, or when clearing a paper jam.
3	LED Head	Draws the image being printed onto the print cartridge.
4	Belt Unit	Transfers toner to the paper. The belt unit is a wear item.
5	Belt Unit Handle	Grasp when removing the belt unit.

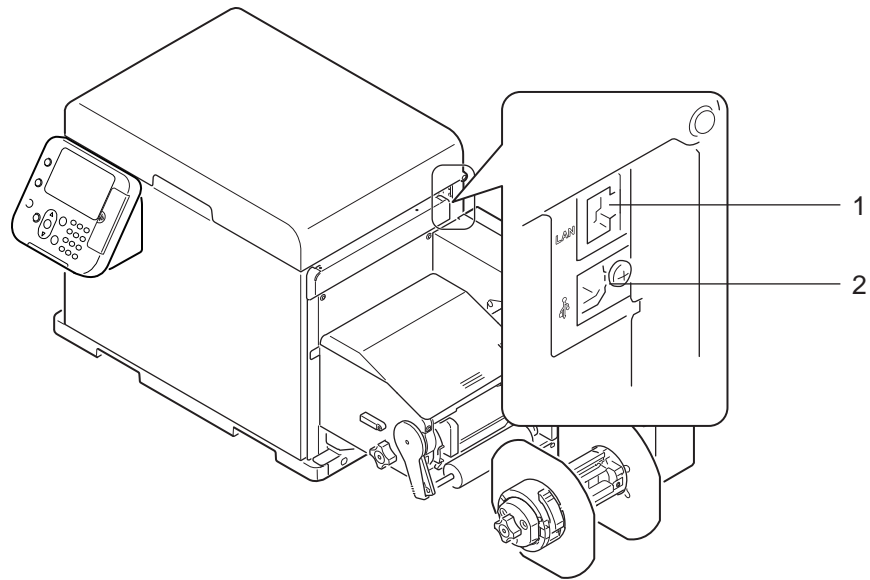


## Printer Interior 2



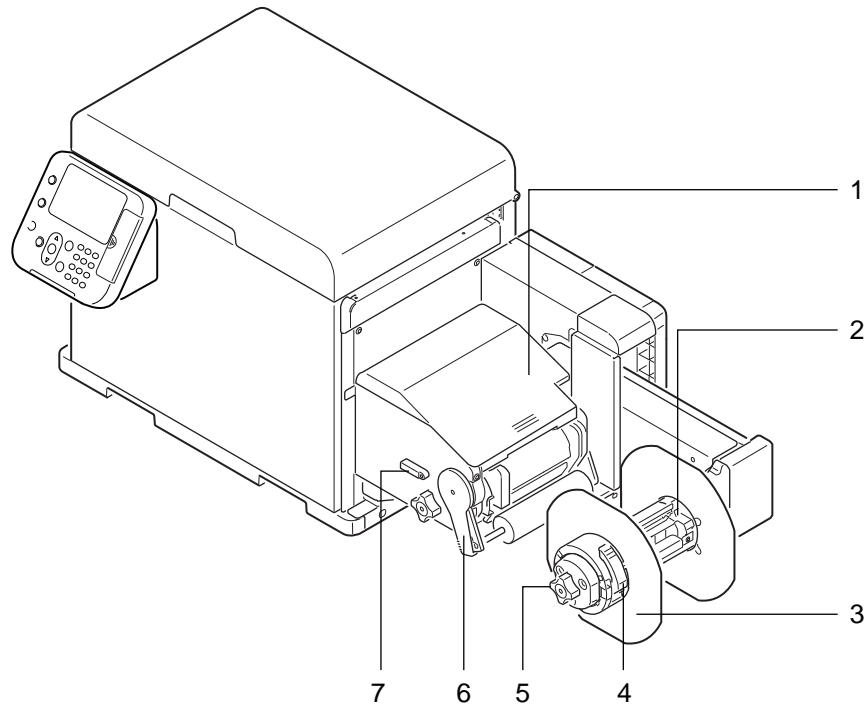
#	Part	Description
1	Waste Toner Box	Stores waste toner. A message appears on the control panel when the box is full of waste toner. The waste toner box is a wear item.
2	2nd Transfer Roller	Transfers toner to the paper. The 2nd transfer roller is a wear item. The 2nd transfer roller is included with the belt unit.
3	Paper Guide	Remove when a paper jam occurs in the paper transport path or when cleaning the paper transfer roller. The Paper Guide is a periodically replaced part.

## Interface Connectors



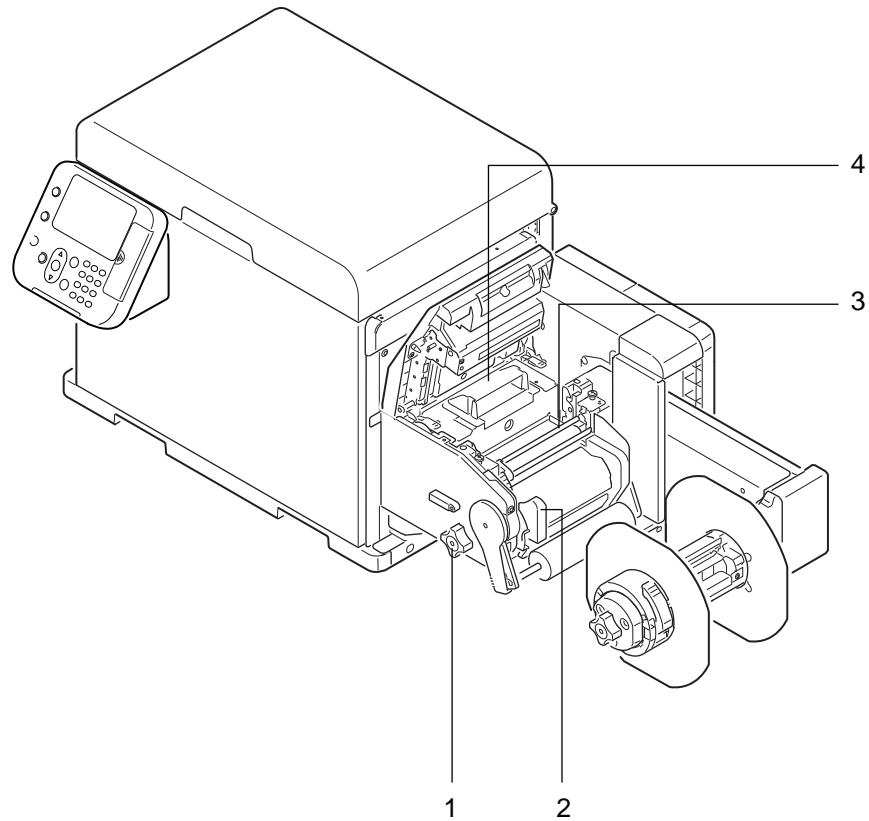
#	Part	Description
1	LAN (Network) Interface Connector	For connection of a LAN cable. Use this connector when connecting the printer on a network.
2	USB 2.0 Interface Connector	For connection of a USB 2.0 cable. Use this connector when using a USB cable to connect the printer directly to a computer.

## Unwinder



#	Part	Description
1	Unwinder Cover	Open this when setting paper or clearing paper jams.
2	Roll Paper Holder	Sets the paper to be printed.
3	Flange	Fixes roll paper to the roll paper holder so the roll paper set on the roll paper holder feeds straight.
4	Flange Locking Lever	Use when removing/mounting the flange.
5	Roll Paper Holder Knob	Use when securing the core of a roll paper that has been placed on the roll paper holder.
6	Tension Bar Open Lever	Keeps roll paper that has been set from sagging.
7	Unwinder Cover Open Lever	Lower to open the unwinder cover.

## Unwinder Interior



#	Part	Description
1	Roll Paper Guide Adjustment Knob	Rotate the knob to adjust the roll paper guide to the width of the paper to be printed.
2	Roll Paper Guide	Align the roll paper guide along the edge of paper to be printed.
3	F0 Roller Unit	The F0 roller unit is a roller for feeding roll paper. The F0 roller unit is a periodically replaced part.
4	Cutter Unit	Cuts the roll paper to a specified length. The cutter unit is a periodically replaced part.

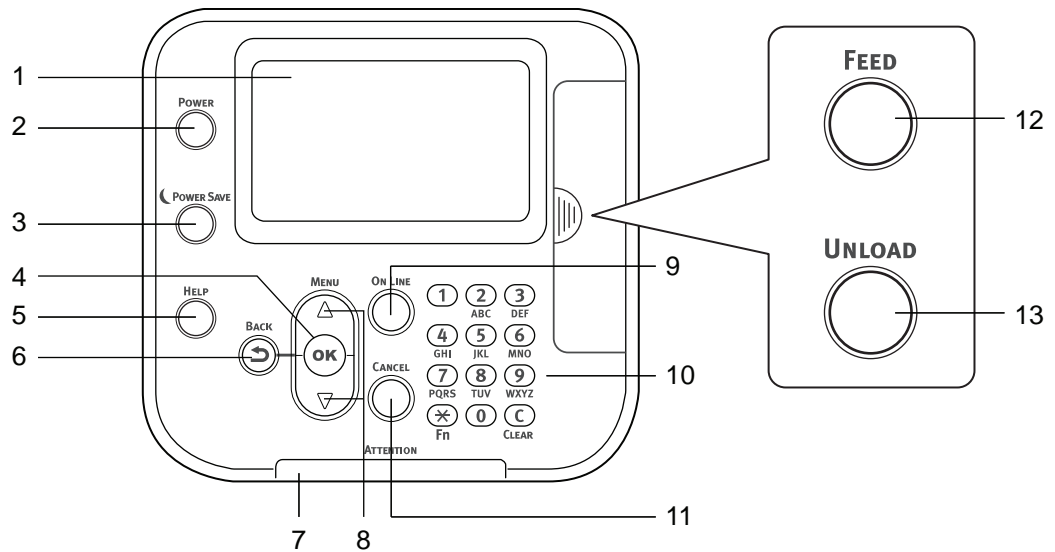
# 4

## Control Panel

### Control Panel Overview

The control panel can be used to check the current status of the printer and to access various functions available with the printer.

With this printer, print cartridges etc. can be replaced while monitoring the LCD on the control panel. If a paper jam or some other problem occurs on the printer, corrective action can be taken while monitoring messages that appear on the LCD.



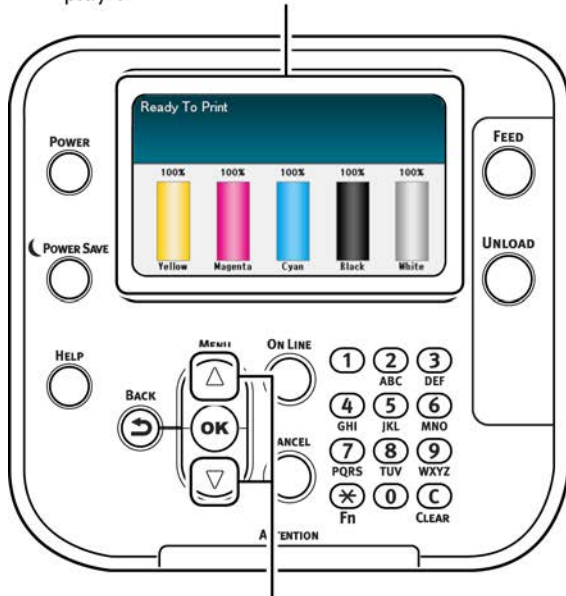
#	Part	Description
1	Display screen	<ul style="list-style-type: none"> <li>Shows the printer's status and menus.</li> <li>The standby screen shows either of two displays: "Supplies Life display" or "Unwinder Config display".</li> </ul>
2	<b>POWER</b> button	<ul style="list-style-type: none"> <li>Turns the main power supply of the printer on or off.</li> <li>Pressing this button while in the off mode turns on the main power supply.</li> </ul>
3	<b>POWER SAVE</b> button	<ul style="list-style-type: none"> <li>Enters or exits the Power Save Mode.</li> <li>This button is lit green in the Power Save Mode.</li> </ul>

#	Part	Description
4	<b>OK</b> button (menu button)	Executes the currently selected menu item or applies the setting being configured.
5	<b>HELP</b> button	<ul style="list-style-type: none"> <li>Displays the Help Screen.</li> <li>This button lights orange when you can refer to help messages describing the error that has occurred and providing information about how to clear the error.</li> </ul>
6	<b>BACK</b> button	Goes back to the previous screen.
7	<b>ATTENTION</b> lamp	Indicates the printer's status. This lamp is unlit when the status is normal. An error causes this lamp to light or flash orange.
8	Scroll buttons ▲ and ▼ (menu buttons)	<ul style="list-style-type: none"> <li>Use these buttons to select menu screen items, and to scroll menu pages forward or back.</li> <li>On a value input screen, these buttons are used when inputting values.</li> </ul>
9	<b>ON LINE</b> button	<ul style="list-style-type: none"> <li>Switches between online and offline.</li> <li>This button is lit green while the printer is online and unlit when offline.</li> </ul>
10	Numeric keypad (1 to 0, *, C)	<ul style="list-style-type: none"> <li>The numeric keypad is used when inputting numeric values or passwords.</li> <li>Pressing the * (Fn) key while the standby screen is displayed displays the "Function Number Input" screen for inputting a number that directly accesses menu items.</li> </ul>
11	<b>CANCEL</b> button	Cancels an ongoing print job or setting operation.
12	<b>FEED</b> button	Feeds paper.
13	<b>UNLOAD</b> button	Unloads paper.

## Using the Control Panel

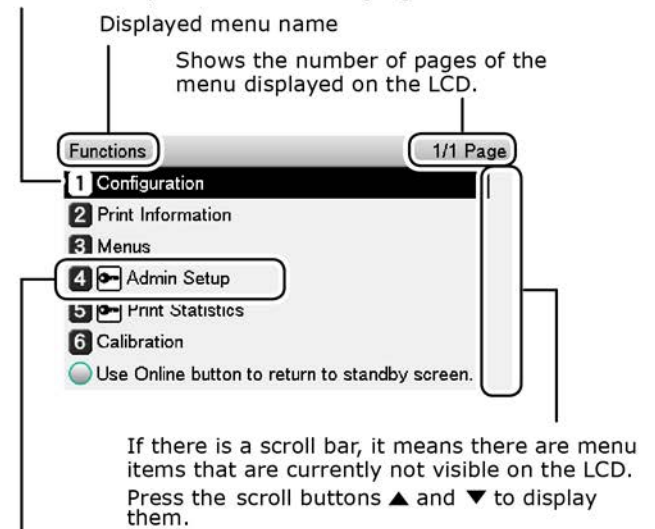
This section describes the main operations that can be performed using the control panel, and provides information about interpreting LCD contents.

The standby screen shows either of two displays: "Supplies Life display" or "Unwinder Config display".



Pressing the scroll button ▲ or ▼ displays the [Functions] menu screen shown to the right.

The currently selected item is highlighted.



A password must be input to access the [Admin Setup]. On the Password Input Screen, input the admin password (factory default: 999999).

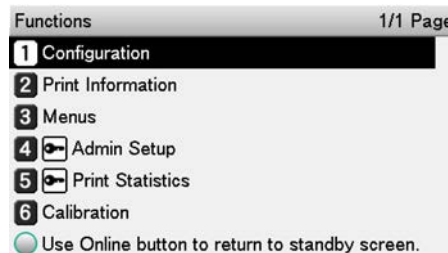
- When a menu item represents a next-level menu or a selection of setting options, selecting the item and then pressing the **OK** button displays the applicable screen.
- While a setting is displayed, pressing the **OK** button applies it. (A check mark appears to the left of the value.)

## Standby Screen

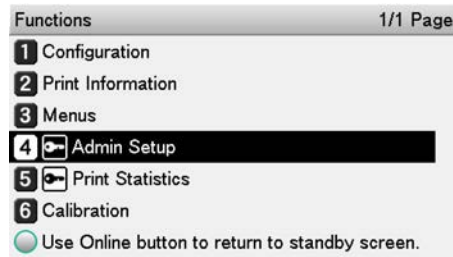
The standby screen shows either of two displays: "Supplies Life display" or "Unwinder Config display".

Use the procedure below to switch between the two standby screen displays.

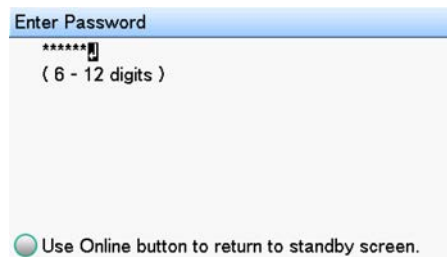
1. Press either the scroll button ▲ or ▼ to display the **Functions** screen.



- Press the scroll button ▼ several times to select **Admin Setup**, and then press the **OK** button.



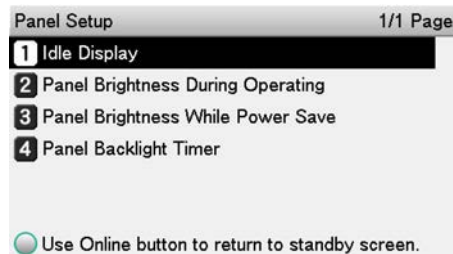
- Use the numeric keypad to input the administrator password.  
The factory default password is 999999. Press the **OK** button after inputting each character.



- Press the **OK** button.
- Press the scroll button ▼ several times to select **Panel Setup**, and then press the **OK** button.



- Press the scroll button ▼ several times to select **Idle Display**, and then press the **OK** button.

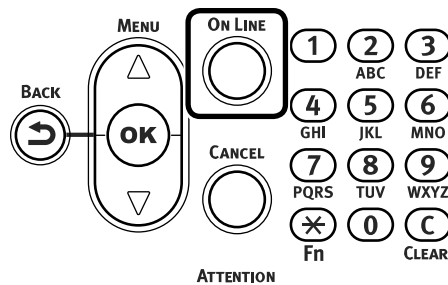




7. To show the Supplies Life display, select **Supplies Life**, and then press the **OK** button. If you want to display the Unwinder Config display, select **Unwinder Config**, and then press the **OK** button.



8. Press the **ON LINE** button to return to the standby screen.



## Error Screen

When a problem occurs on the printer, the ATTENTION lamp lights or flashes, and a message appears on the LCD.

Depending on the error, information about how to clear the error or an animation also appears in addition to the message.

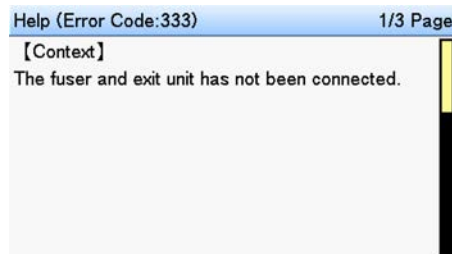
Pressing a control panel button while an error screen is displayed changes the status of the printer as described below.

Button	Action
<b>POWER SAVE</b>	Puts the printer into the Power Save Mode. Pressing the <b>POWER SAVE</b> button while the printer is in the Power Save mode returns to the standby screen.
<b>HELP</b>	If the <b>HELP</b> button is lit, pressing it displays help information about the displayed error.
<b>OK</b>	If the error message indicates a clearable error, pressing the <b>OK</b> button returns to the standby screen.
<b>ON LINE</b>	If the error message indicates a clearable error, pressing the <b>ON LINE</b> button returns to the standby screen.

Button	Action
<b>CANCEL</b>	<p>The errors listed below can be canceled with the <b>CANCEL</b> button.</p> <ul style="list-style-type: none"> <li>• Press the <b>UNLOAD</b> button and replace paper.</li> <li>• There is no paper on the unwinder.</li> <li>• Restart printing from the page below.</li> <li>• Cut the paper and start printing.</li> <li>• Insufficient memory. Print data is too large.</li> </ul>

## Help Screen

Press the **HELP** button to display the Help Screen. If the **HELP** button is lit, pressing it displays help information about the displayed error.

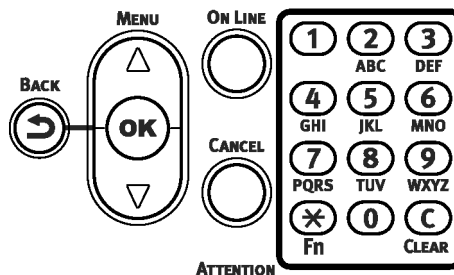


While a help screen is displayed, pressing the scroll button ▲ scrolls to the previous page. Pressing the scroll button ▼ scrolls to the next page. Long pressing the scroll button ▲ or ▼ scrolls the page for approximately 0.5 seconds.

To exit the help screen, press the **HELP** button again. The help screen can also be closed by pressing the **BACK** button, **ON LINE** button, or **CANCEL** button.

## Using the Numeric Keypad

The numeric keypad is used when inputting numeric values or alphabetic characters.



Each press of a key cycles through the characters assigned to it as shown below.

Key	Characters
1	1

Key	Characters
2	Cycles with each press (2 → a → b → c)
3	Cycles with each press (3 → d → e → f)
4	Cycles with each press (4 → g → h → i)
5	Cycles with each press (5 → j → k → l)
6	Cycles with each press (6 → m → n → o)
7	Cycles with each press (7 → p → q → r → s)
8	Cycles with each press (8 → t → u → v)
9	Cycles with each press (9 → w → x → y → z)
0	0

For example, to input “abc” press the following: 2 → 2 → OK → 2 → 2 → 2 → OK → 2 → 2 → 2 → 2 → OK.

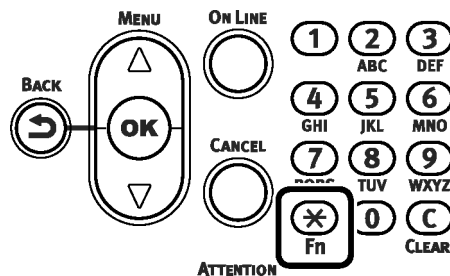
The numeric keypad also has two other keys, whose functions are described below.

Key	Description
<b>Fn</b>	Pressing this key displays a shortcut to the function number. (Enabled when standby screen is displayed.) When inputting a value, this key is used to cycle through symbols.
<b>CLEAR</b>	When inputting a password, pressing this key deletes a single character.

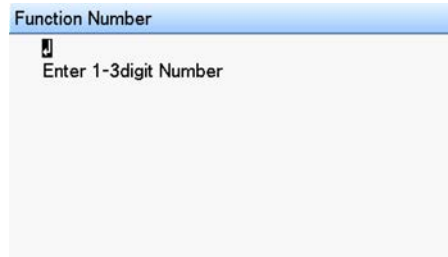
## Function Number Input Screen

While “Ready to print” is displayed on the standby screen, pressing the **Fn** key and then inputting a number displays the corresponding menu.

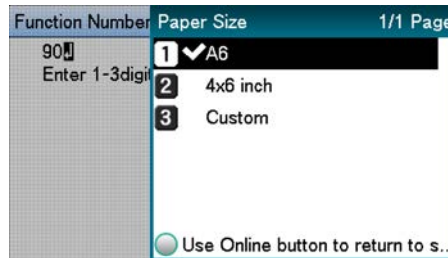
1. Press the **Fn** key.



- On the function number input screen that appears, use the numeric keypad to input a two- or three-digit number, and then press the **OK** button.



- On the menu that appears, you can check the current setting and change it, if you want.



## Function Number List

Function Number	Function Number Menu Item
90	Paper Size
91	X Dimension *1
92	Y Dimension *1
93	Media Type
94	Media Weight
100	Print Information (Configuration)
102	Print Information (Usage Report)
103	Print Information (Error Log)
200	Power Save Time
202	Auto Power Off Time
210	Error Report
220	Print Position Adjust

Function Number	Function Number Menu Item
230	Media Transfer Setting Black
231	Media Transfer Setting Color
234	SMR Setting
235	BG Setting
236	Drum Cleaning
237	Hex Dump
238	Transfer Roller Cleaning
300	Adjust Density
301	Adjust Registration
302	Print Color Tuning Pattern
310	Cyan Density
311	Magenta Density
312	Yellow Density
313	Black Density
314	White Density
890	Unwinder Config
891	Media Form
892	Adjust Cut Position
893	Sensor Calibration
894	Check Media Pitch
895	Cut Mode

\*1: Enabled only if the paper size is set to Custom.

---

# 5

## Paper Settings

### Usable Media Types

For high-quality printing it is necessary to use paper that satisfies conditions regarding quality, thickness, paper finish, etc. Only print on media recommended by QuickLabel.

If using a (paper) medium that is curled or wrinkled before printing, print quality and paper traveling performance cannot be assured.

## Paper Types, Size, and Thickness

### Roll Paper Specifications

Media Form	Description
Continuous Paper	Paper wound on a roll
Continuous Paper (Black Mark)	Paper wound in a roll with black marks printed on the back surface
Die-cut Label (Gap)	Paper that is die-cut into a label shape
Die-cut Label (Black Mark)	Paper that is die-cut into a label shape with black marks printed on the back surface
Continuous Label	Paper that is not die-cut into a label shape, with the entire surface covered with label paper
Continuous Label (Black Mark)	Paper that is not die-cut into a label shape, with the entire surface covered with label paper and black marks printed on the back surface

Media Type	Description
Plain	Wood-free Paper
Plain Labels	Label paper made of wood-free paper
Glossy Labels	Label paper made of glossy paper
Film Labels	Label media made of film
Film	Film

Roll Paper Size	Specification
Roll Outside Diameter	No greater than 203.2 mm (8 inches)
Paper Width	25.4 to 130 mm (1 to 5.12 inches)
Paper Thickness	0.07 mm to 0.25 mm (0.003 to 0.0098 inches) When there is backing paper, total thickness includes backing paper.
Roll Core Width	Same as roll paper
Roll Core Inner Diameter	76.2 mm

- Using metal foil paper or conductive paper creates the risk of defective printing due to electrical discharge, and device malfunction.  
Use of metal foil paper and conductive paper is prohibited.
- Using ink jet paper or label paper will cause device malfunction. Use of ink jet paper or label paper is prohibited.
- Use paper that has black marks printed on its back surface (non-printing surface). Black marks printed on the front surface cannot be detected.
- Use paper with black marks printed with carbon ink.
- Thermal paper will become discolored and deformed by heat used for fusing. Do not use it.
- Use film that can withstand heat up to 230°C. Use of film that is not heat resistant creates the risk of film deformation by heat used for fusing, paper jams, and device malfunction.
- Do not use a liner on which glue is smeared. It will not feed correctly in the equipment. In the worst case, it could damage the equipment.
- Cast-coated paper is not recommended. Printing quality cannot be guaranteed when it is used.
- If the paper length, label length, or black Mark Interval for a single sheet is less than 4 inches, blank sheets may be printed to satisfy the paper length that can be fed.
- Use of the types of paper below is not supported.  
Paper whose roll surfaces are not cut cleanly  
Paper that is connected part way through by tape, etc.  
Label paper without backing paper with paste on the front surface  
Paper whose labels are easy to peel or are peeling  
Paper with paste squeezing out onto the base paper area or affixed to the label surface  
Paper that is folded or bent  
Paper that has holes in it  
Paper that is notched  
Paper that has perforations  
Paper with different size labels on a single roll  
Paper with different paper widths on a single roll

### Setting the Paper Weight

Set the printer and printer driver paper weight according to the weight of the paper to be used.

Paper Weight (Total thickness including backing paper)	Setting Value of the Media Weight
76 to 95 μm	Light
96 to 140 μm	Medium Light



Paper Weight (Total thickness including backing paper)	Setting Value of the Media Weight
141 to 159 $\mu\text{m}$	Medium
160 to 180 $\mu\text{m}$	Medium Heavy
181 to 199 $\mu\text{m}$	Heavy
200 to 214 $\mu\text{m}$	Ultra Heavy1
215 to 229 $\mu\text{m}$	Ultra Heavy2
230 to 249 $\mu\text{m}$	Ultra Heavy3

## Storing Media

Improper paper storage can cause absorption of moisture, discoloration, and warping. Note that printing on such paper can adversely affect print quality, feeding, etc. Leave packages of media unopened until you are actually ready to use them.

### Store media in locations like the ones described below:

- On a flat shelf in a location that is dark and where there is little moisture
- On a flat table
- An environment with a temperature of 73°F  $\pm$ 1.8°F (23°C  $\pm$ 1°C) and humidity of 50%RH  $\pm$ 2%

### Avoid locations like the ones described below:

- Directly on the floor
- In direct sunlight
- Near the inside surface of an external wall
- On a surface that is uneven or curved
- In a location where electrostatic charge is generated
- In a location subjected to very high temperatures or sudden temperature changes
- Next to a photocopying machine, air conditioning equipment, heater, or duct

**Note:** Proper printing may not be possible on paper that has been stored for a long time.

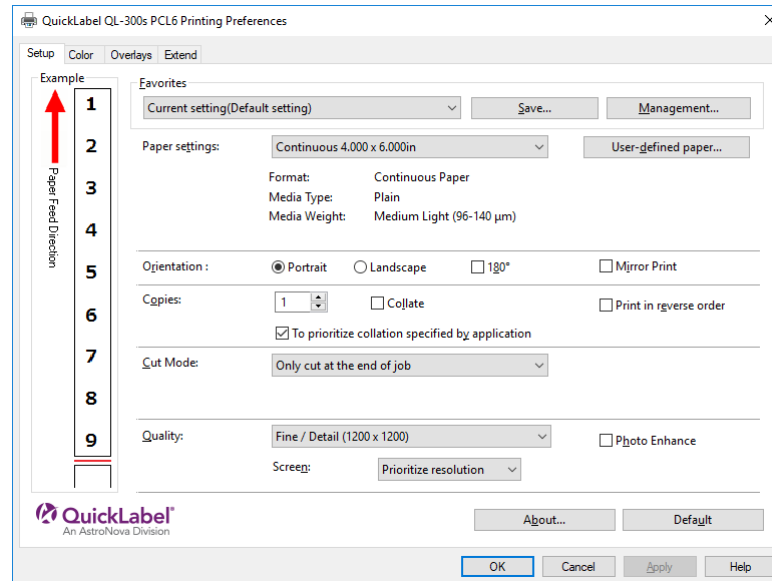
**Note:** Leaving roll paper in an environment where it is exposed to high temperatures and high humidity for long periods can cause it to become deformed. Do not use deformed roll paper. Store roll paper in an environment where the temperature and humidity are appropriate.

**Note:** We recommend putting partially used label paper back into the vinyl bag it was packaged in, to prevent the paper from absorbing moisture.

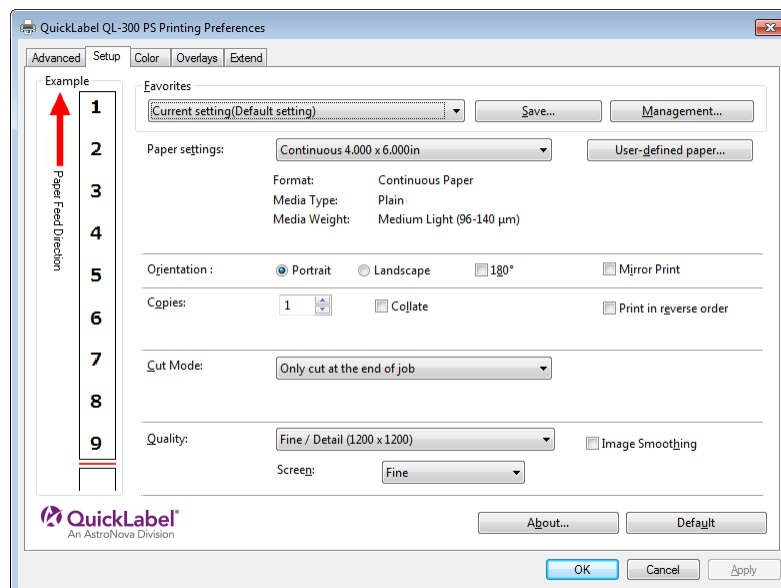
## Registering a Desired Paper Size with the Printer Driver

1. Click **Start** and select **Control Panel** in Windows.
2. Click **View devices and printers**.
3. Right-click the **QL-300** icon, and then select **Printing preferences**.

If you are using the Windows PCL printer driver, the following window will open.



If you are using the Window PS printer driver, the following window will open.



4. On the **Setup** tab, click **User-defined paper**.
5. Input information about the paper you want to register.
  - a. Use **Registered user-defined paper** to select **New Paper**.
  - b. In the **Paper Name** box, enter a paper name.

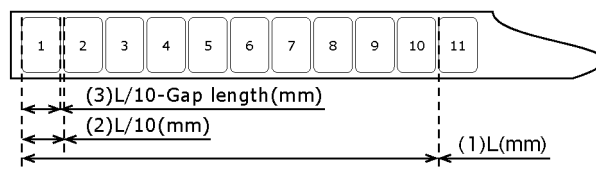
- c. Select a Media Form to match the paper.
- d. Select a Media Type to match the paper.
- e. Select a Media Weight to match the paper thickness.  
If you are unsure of the paper thickness, select **Medium Light**.

## f. Enter paper size information.

Input the label length and gap for media that has gaps and the black mark interval for black mark media.

Use a ruler to measure, as accurately as possible, the actual size of the media, and then input those values.

If the label length or the black mark interval is less than 4 inches, use the following method to measure the media, and then input values to the first decimal place to be accurate.



#### How to Measure the Actual Size of Paper

(1) Measure the length from the leading edge of the first label (or black mark leading edge) to the leading edge of the 11th label (or black mark leading edge). Use this as L (mm).

(2) Divide the length you measured in (1) by 10 to calculate the length from the leading edge of the first label (or black mark leading edge) to the leading edge of the 2nd label (or black mark leading edge) to the first decimal place.

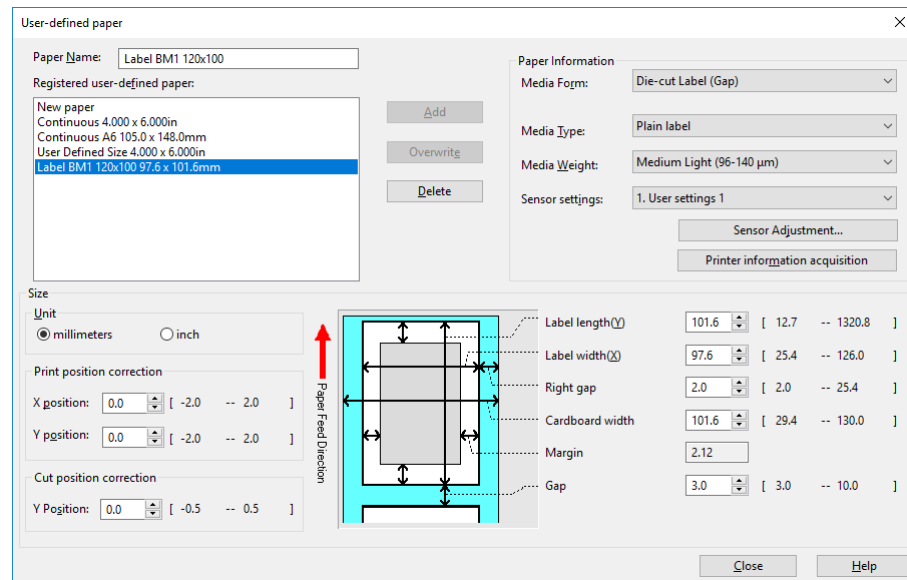
(3) Subtract the length of the gap from the length you calculated in (2) to calculate the length of one label to the first decimal place.

For media that has gaps, input the value calculated in (3) in **Label length** and input the gap length in **Gap**.

For media that has black marks, input the value calculated in (2) in **Black Mark Interval**.

**Note:** The minimum page length is 25.4 mm (1 inch) for the Windows PS printer driver, which is different from the Windows PCL printer driver.

6. Enter other information as required.
  - a. If you performed sensor adjustment, select the sensor setting that was registered to the device from **Sensor settings**.  
For information about adjusting the sensor, refer to “Calibrating the Sensor” on page 104.
  - b. If you want to fine-tune the image position, enter the position shift amount into **Print position correction**.
  - c. If you want to fine-tune the paper cut position, enter the position shift amount into **Cut position correction**.

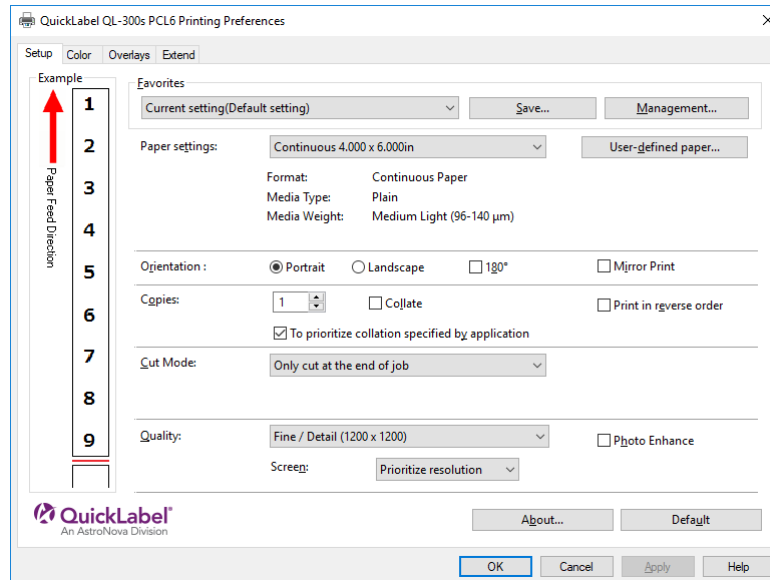


7. When all the input is complete, click **Add**.

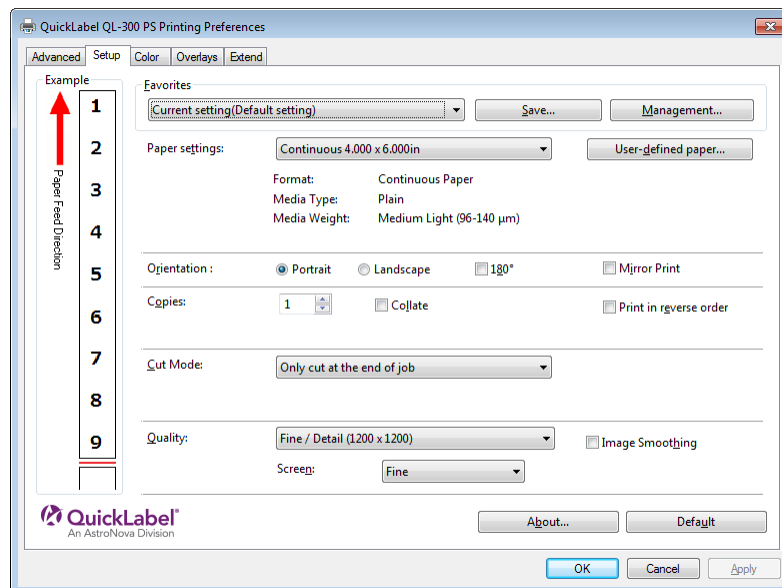
## Using the Printer Driver to Fine-tune the Print Position

1. Click **Start** and select **Control Panel** in Windows.
2. Click **View devices and printers**.

- Right-click the **QL-300** icon, and then select **Printing preferences**.  
If you are using the Windows PCL printer driver, the following window will open.



If you are using the Window PS printer driver, the following window will open.



- On the **Setup** tab, click **User-defined paper**.

- Use the **Registered user-defined paper** list to select the paper whose print position you want to correct.

If the paper you want to use is not in the list, select **New paper** and add it. See *“Registering a Desired Paper Size with the Printer Driver”* on page 78.

The screenshot shows the 'User-defined paper' dialog box. The 'Paper Name' is 'User Defined Size'. The 'Registered user-defined paper' list contains 'New paper', 'Continuous 4.000 x 6.000in', 'Continuous A6 105.0 x 148.0mm', and 'User Defined Size 4.000 x 6.000in' (selected). The 'Paper Information' section shows 'Media Form: Continuous Paper', 'Media Type: Plain', and 'Media Weight: Medium Light (96-140 µm)'. The 'Size' section shows 'Unit: inch' selected. The 'Print position correction' section shows 'X position: 0.000', 'Y position: 0.000', and 'Cut position correction: Y Position: 0.000'. A diagram of a paper sheet shows dimensions and margins.

- In **Print position correction**, set the values for the print start positions vertically and horizontally on the paper.
- Click **Overwrite**.

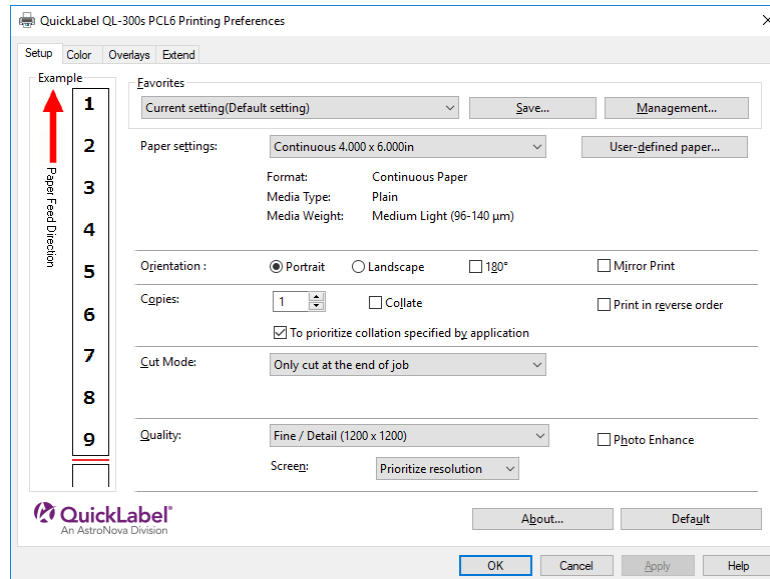
The screenshot shows the 'User-defined paper' dialog box. The 'Paper Name' is 'User Defined Size'. The 'Registered user-defined paper' list contains 'New paper', 'Continuous 4.000 x 6.000in', 'Continuous A6 105.0 x 148.0mm', and 'User Defined Size 4.000 x 6.000in' (selected). The 'Paper Information' section shows 'Media Form: Continuous Paper', 'Media Type: Plain', and 'Media Weight: Medium Light (96-140 µm)'. The 'Size' section shows 'Unit: inch' selected. The 'Print position correction' section shows 'X position: 0.000', 'Y position: 0.000', and 'Cut position correction: Y Position: 0.000'. A diagram of a paper sheet shows dimensions and margins.

- Click **OK** or **Close** as many times as necessary to exit the “Printing preferences” screen.
- Open the file to be printed.
- Specify the paper size, and then print.

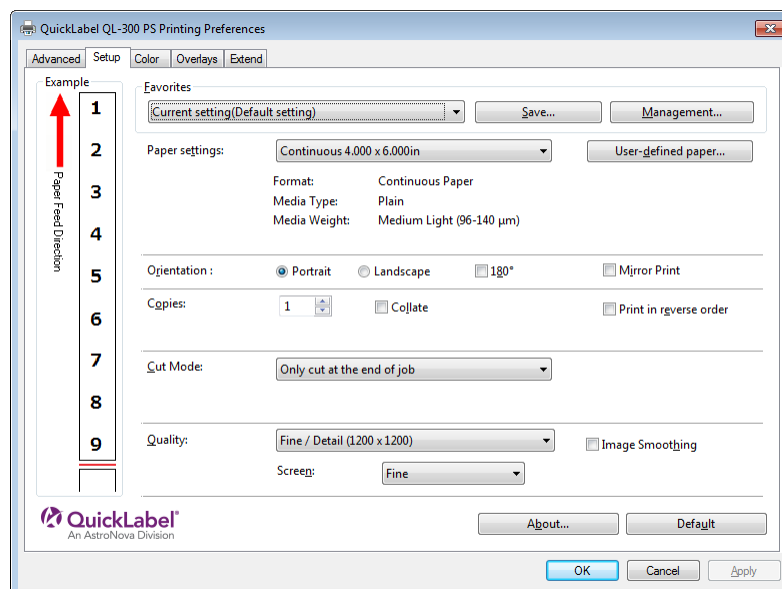
## Using the Printer Driver to Fine-tune the Cut Position

1. Click **Start** and select **Control Panel** in Windows.
2. Click **View devices and printers**.
3. Right-click the **QL-300** icon, and then select **Printing preferences**.

If you are using the Windows PCL printer driver, the following window will open.



If you are using the Window PS printer driver, the following window will open.



4. On the **Setup** tab, click **User-defined paper**.



- Use the **Registered user-defined paper** list to select the paper whose cut position you want to correct.

**Note:** If the paper you want to use is not in the list, select **New paper** and add it. See “Registering a Desired Paper Size with the Printer Driver” on page 78.

The screenshot shows the 'User-defined paper' dialog box. The 'Paper Name' is 'User Defined Size'. The 'Registered user-defined paper' list contains 'New paper', 'Continuous 4.000 x 6.000in', 'Continuous A6 105.0 x 148.0mm', and 'User Defined Size 4.000 x 6.000in' (selected). The 'Paper Information' section shows 'Media Form: Continuous Paper', 'Media Type: Plain', and 'Media Weight: Medium Light (96-140 µm)'. The 'Size' section shows 'Unit: inch' selected. The 'Print position correction' section shows 'X position: 0.000', 'Y position: 0.000', and 'Cut position correction' section shows 'Y Position: 0.000'. A diagram of a paper sheet shows dimensions and margins.

- Use **Cut position correction** to specify an adjustment value for distance from the print completion position to the cut position.
- Click **Overwrite**.

The screenshot shows the 'User-defined paper' dialog box. The 'Paper Name' is 'User Defined Size'. The 'Registered user-defined paper' list contains 'New paper', 'Continuous 4.000 x 6.000in', 'Continuous A6 105.0 x 148.0mm', and 'User Defined Size 4.000 x 6.000in' (selected). The 'Paper Information' section shows 'Media Form: Continuous Paper', 'Media Type: Plain', and 'Media Weight: Medium Light (96-140 µm)'. The 'Size' section shows 'Unit: inch' selected. The 'Print position correction' section shows 'X position: 0.000', 'Y position: 0.000', and 'Cut position correction' section shows 'Y Position: 0.000'. A diagram of a paper sheet shows dimensions and margins.

- Click **OK** as many times as necessary to exit the “Printing preferences” screen.
- Open the file to be printed.
- Specify the paper size, and then print.

## Full-Bleed Label Example

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.

You can print non-bleed labels on gap media. Full-bleed labels, however, must be created using die-cut label media with the matrix left intact.

This section provides general setup information and examples for printing full-bleed labels.

### Required Information

- **Media construction width** - Measurement including edge trim, matrix, and label
- **Media construction length** - Measured from the top of a mark to the top of the next mark
- **Printable width** - Media construction width minus the PCL driver left and right margins
- **Printable length** - Media construction length minus the PCL driver top and bottom margins
- **Non-printable margins set by the PCL driver for Continuous Paper (Black mark)**  
Top/Left/Right margin: 0.083" (2.12mm)  
Bottom margin: 0.126" (3.20mm)

### General PCL Driver Setup

- **Media Form:** Continuous Paper (Black mark)
- **Black mark interval (Y):** Media construction length
- **Paper width (X):** Media construction width
- **For over bleed on the trailing label edge:**  
**Print position correction:** Adjust as needed

### General CQL Pro/Label Design Setup

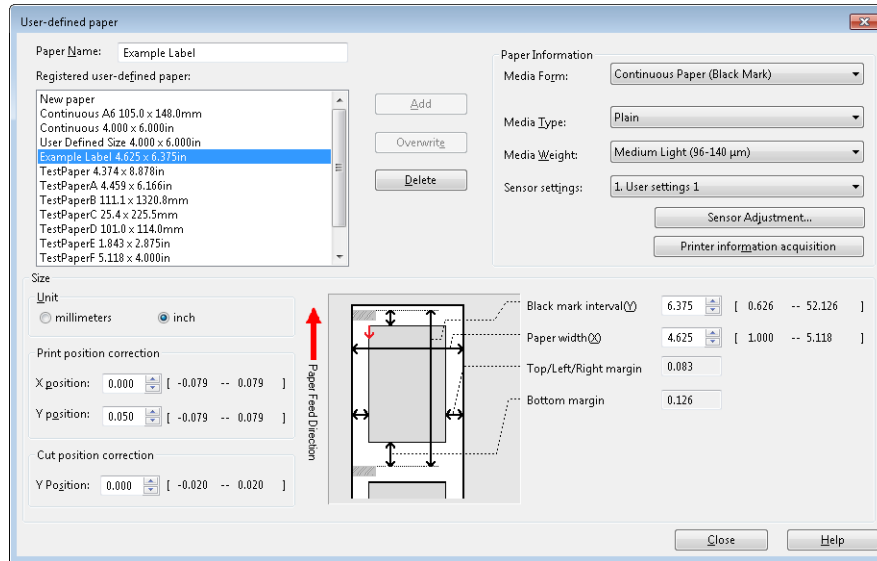
- **Printable Label Size:**  
Width: Printable width  
Length: Printable length
- **Create display margins to display die-cut location for over bleed:**  
Top margin: Top of leading mark to Die-cut (.25" (6.35mm)) minus top margin  
Bottom margin: Top of trailing mark to Die-cut (.25" (6.35mm)) minus bottom margin (This value is approximately zero)  
Left margin: (Edge trim plus bleed zone) - left margin  
Right margin: (Edge trim plus bleed zone) - right margin

### Example PCL Driver Setup

Example Setup For Mark Media with 4" x 6" (101.6mm x 152.4mm) Die-cut Label:

- **Media Form:** Continuous Paper (Black mark)

- **Black mark interval (Y):** 6.375" (161.9mm)
- **Paper width (X):** 4.625" (117.5mm)
- **For over bleed on the trailing label edge:**  
Y Position: 0.05" (1.3mm) (As Needed)



### Example QCL Pro/Label Design Setup

Example Setup For Mark Media with 4" x 6" (101.6mm x 152.4mm) Die-cut Label:

- **Printable Label Size:**  
Width: 4.459" (113.3mm)  
Length: 6.166" (156.6mm)
- **Create display margins to display die-cut location for over bleed:**  
Top margin: 0.167" (4.2418mm)  
Bottom margin: 0.0" (0.0mm)  
Left margin: 0.2295" (5.8293mm)  
Right margin: 0.2295" (5.8293mm)

## QL-300 Media Settings

Use the following table to select the recommended printer driver settings associated with your QL-300 media. These settings provide good print quality and durability. Your results may vary depending on label content, toner amounts, and environmental factors. Individual adjustments may improve results.

QL-300 Materials	Media Type Setting	Media Weight Setting
#61 Card Stock	Glossy	Heavy

QL-300 Materials	Media Type Setting	Media Weight Setting
#66 Matte Paper	Glossy	Ultra Heavy 1
#106 Matte White Vinyl	Film Label 1	Heavy
#117 Clear PET	Film Label 1	Ultra Heavy 3
#121 Textured Wine Label	Plain Label	Medium
#122 Matte White Vinyl	Film 1	Heavy
#128 Vellum Wine Label	Plain Label	Medium
#135 Semi Gloss Paper	Plain Label	Ultra Heavy 3
#154 Semi Gloss PET	Glossy	Ultra Heavy 2
#158 High Gloss Paper	Film 1	Ultra Heavy 1
#168 Matte Polyester	Film 1	Ultra Heavy 3
#172 Gloss Polypropylene	Film Label 1	Ultra Heavy 1
#198 Satin Polypropylene	Film Label 1	Heavy
#199 Clear Gloss Polyester	Glossy Label	Heavy
#223 Matte Vellum	Glossy Label	Ultra Heavy 3
#245 High Gloss PET	Film Label 1	Ultra Heavy 3
#253 Kraft Paper	Plain Label	Medium Light
#254 Black Paper	Film Label 1	Ultra Heavy 3
#255 Matte Gold Paper	Glossy	Medium-Heavy
#256 Bright Gloss Silver Paper	Glossy	Medium-Heavy
#257 Matte Silver Paper	Glossy	Medium-Heavy
#259 Gloss Silver Metallic PET	Film Label 1	Medium
#260 Bright Gloss Gold Paper	Glossy	Medium-Heavy
#261 Grasspaper	Glossy	Medium
#264 Hemp Paper	Plain Label	Medium

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<b>QL-300 Materials</b>	<b>Media Type Setting</b>	<b>Media Weight Setting</b>
#265 Grape Label	Plain Label	Medium
#273 White Polyolefin	Glossy Label	Medium-Heavy
#279 Matte clear PET	Glossy Label	Medium

## Preparing Paper

This section describes how to load paper onto the holder of the unwinder. For paper sizes and types that can be loaded onto the unwinder, see “Paper Types, Size, and Thickness” on page 75.

1. Remove the paper from the packaging.
2. Take care of the tape that is holding the leading edge of the paper.

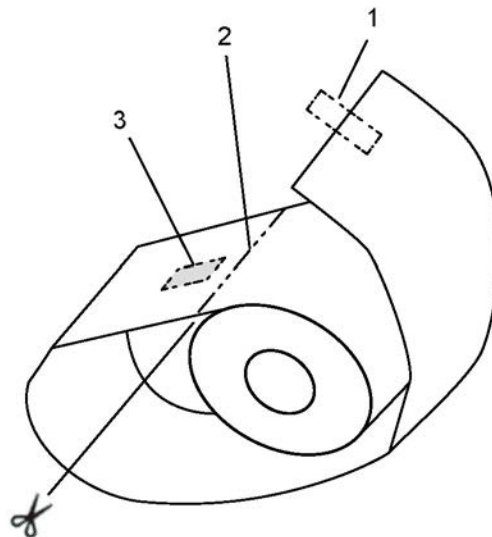
If there is no tape holding the leading edge of the paper, you can just load it as is.

- a. Remove the tape [1] that is holding the leading edge.

**Caution:** Remove the tape that is holding the leading edge of the paper before you use it. Do not load paper while the tape is still attached and feed it into the equipment. There is a risk of damaging the equipment.

- b. Cut off the part of the paper [2] on which there is leftover adhesive [3].

**Caution:** There is a risk of adhesive being left over after removing the tape. If paper that still has adhesive on it is fed into the equipment, the adhesive may stick to the feed path and damage the equipment.



3. Check the leading edge of the paper and cut it off straight.

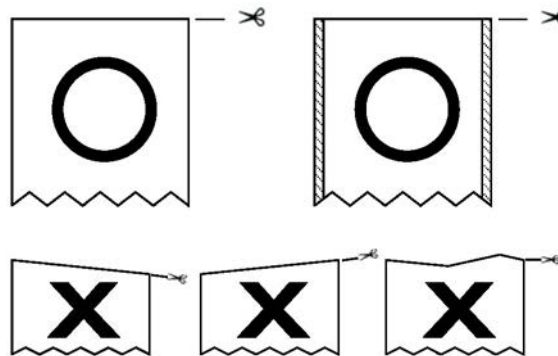
If the leading edge of the paper is cut straight, you can just load it as is.

Be particularly careful when replacing paper and after removing and reloading jammed paper.

When loading paper, cut the leading edge of the paper straight before loading it.

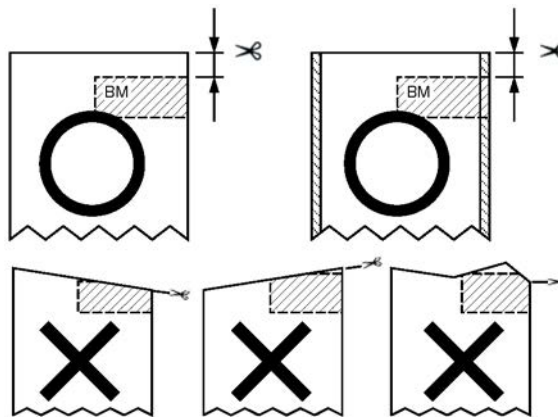
**Caution:** Do not cut at an angle, do not cut black marks, and do not cut labels. Depending on the size and shape of the leading edge, there is a risk of skewing the print position, not being able to print, or damaging the equipment.

- Standard media and continuous labels (dry edge)

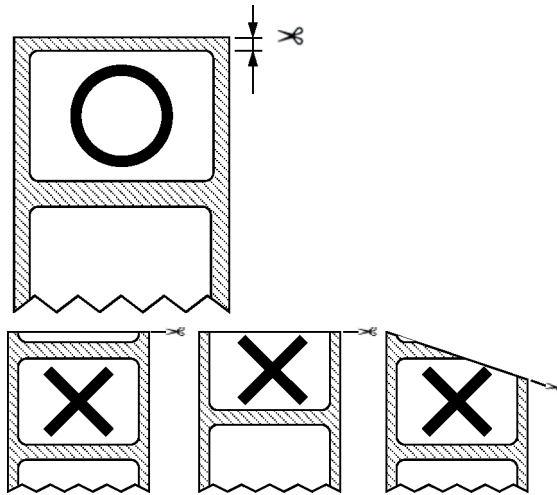


- Standard media (with black marks) and continuous labels (dry edge)

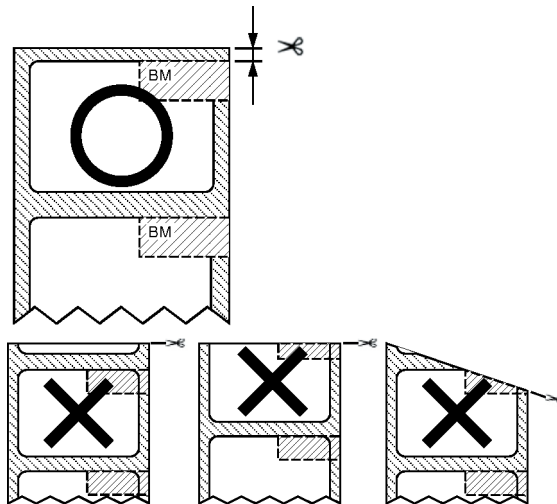
1.2 to 4.0 mm (0.0472 to 0.1575 inches) Length of leading margin when paper is loaded



- Die-cut label paper (no black marks)  
1.2 to 6.5 mm (0.0472 to 0.2559 inches) Length of leading liner when paper is loaded



- Die-cut label paper (with black marks)  
1.2 to 4.0 mm (0.0472 to 0.1575 inches) Length of leading margin when paper is loaded



## Loading Media

Load the paper onto the Unwinder. For paper sizes and types that can be loaded on the Unwinder, see “Paper Types, Size, and Thickness” on page 75.

**Note:** When setting roll paper, be careful not to drop it. As roll paper is heavy, when you drop it, there is a risk of injury.

**Note:** If you drop roll paper, it may roll on the floor and cause injury to the people around.

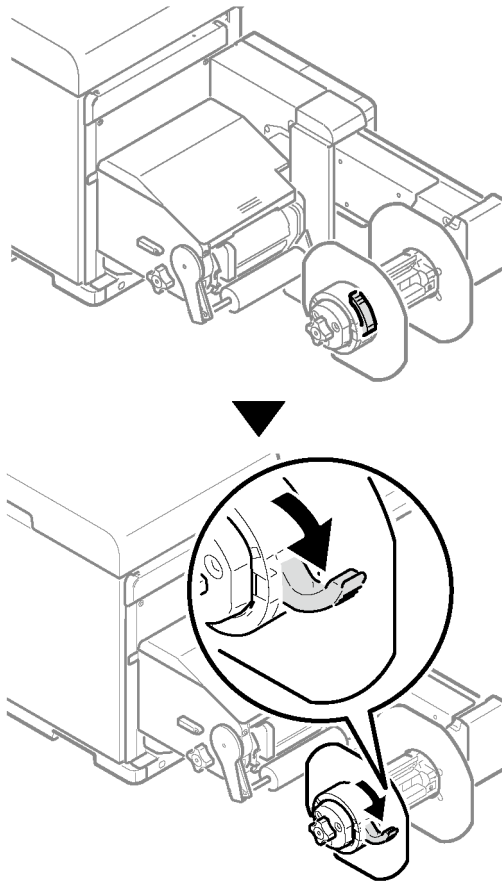
**Note:** To prevent roll paper from dropping, store it horizontally on a desk, etc.

**Note:** Do not use any roll paper that is not specified by the Roll Paper Specifications.

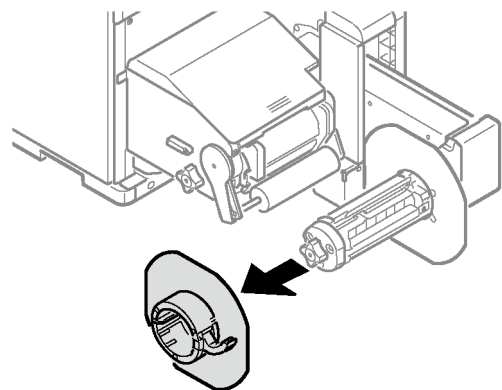


If the printer is turned OFF, press the **POWER** button to turn it on.

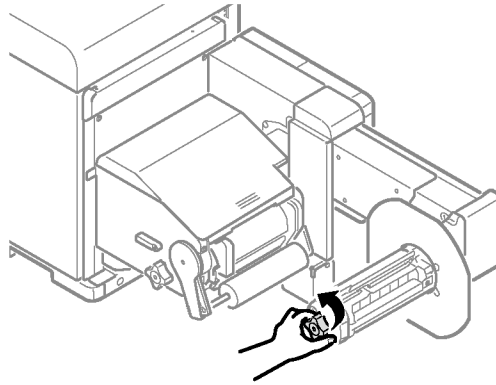
1. Open the Flange Locking Lever.



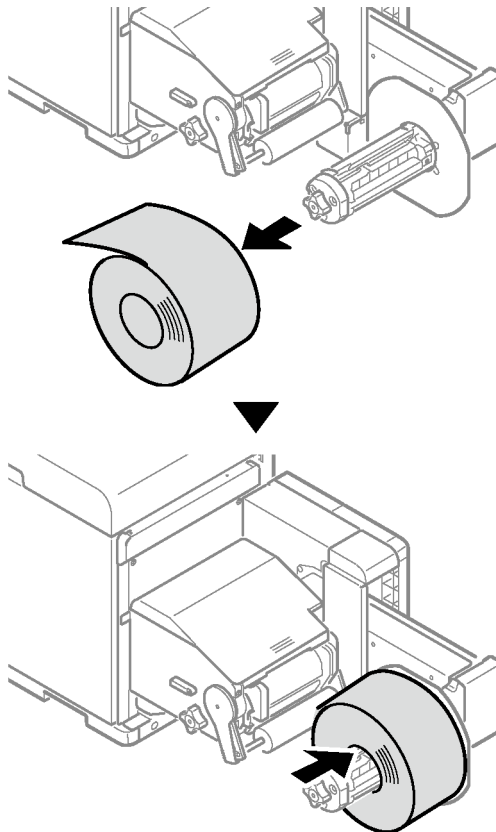
2. Remove the flange.



3. Rotate the Roll Paper Holder Knob to contract the Roll Paper Holder shaft.



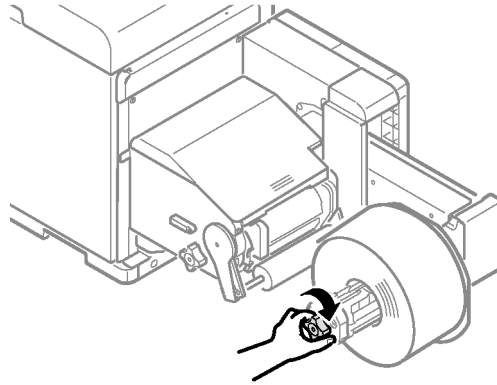
4. Slide roll paper onto the Roll Paper Holder shaft as far as it will go.



**Note:** Make sure to slide the roll paper as far as it will go. Insufficiently sliding the roll paper can adversely affect print position accuracy.

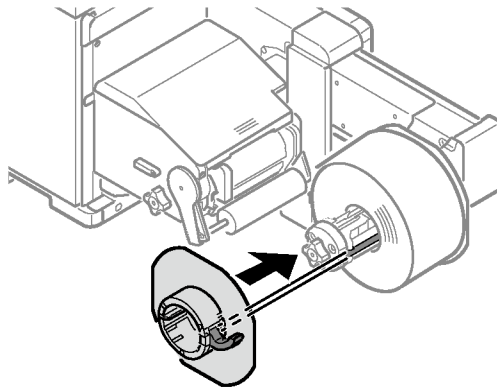
**Note:** Take care to avoid pinching your fingers or hands when sliding the roll paper.

5. Rotate the Roll Paper Holder Knob to fix the roll paper core in place.

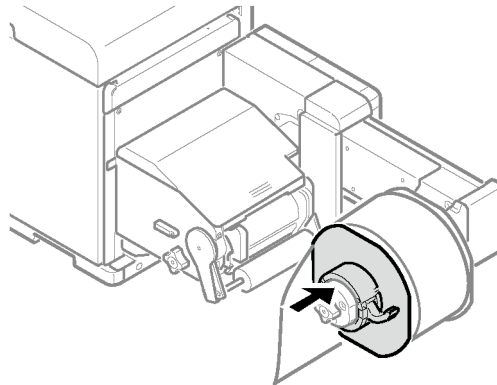


**Note:** Rotate the Roll Paper Holder Knob until it clicks.

6. Aligning the Flange with the Roll Paper Holder shaft as shown in the illustration, attach the Flange.



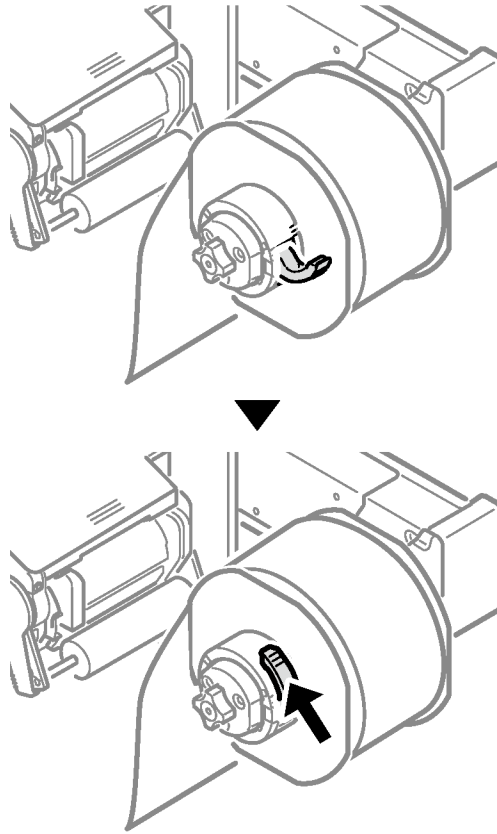
7. Slide the Flange as far as it will go in accordance with the roll paper width.



**Note:** Slide the Flange up to the side of the loaded roll paper.

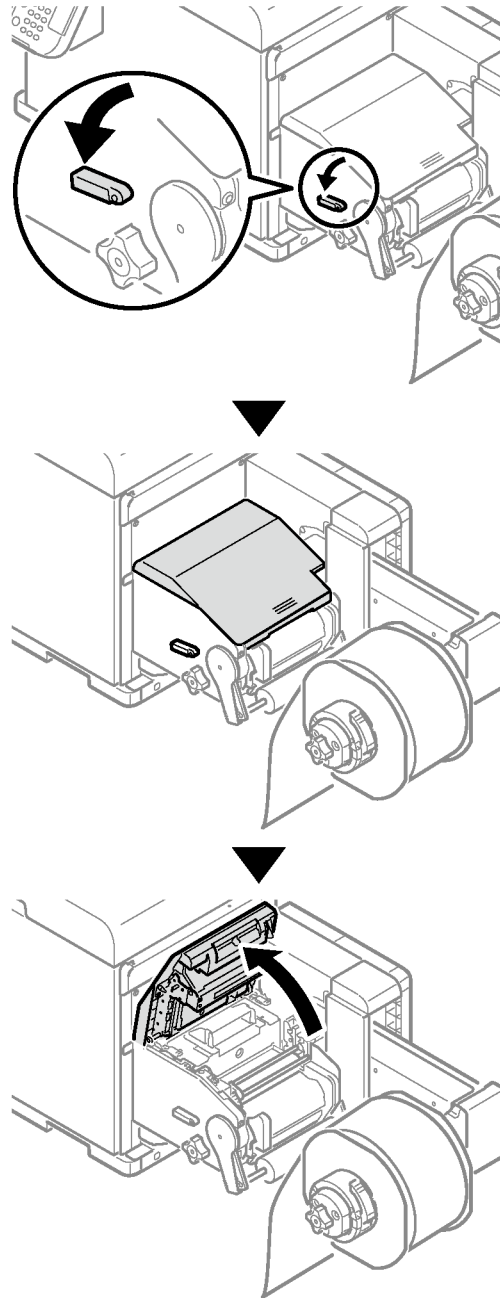
**Note:** Take care to avoid pinching your fingers or hands when attaching the Flange.

8. Close the Flange Locking Lever.



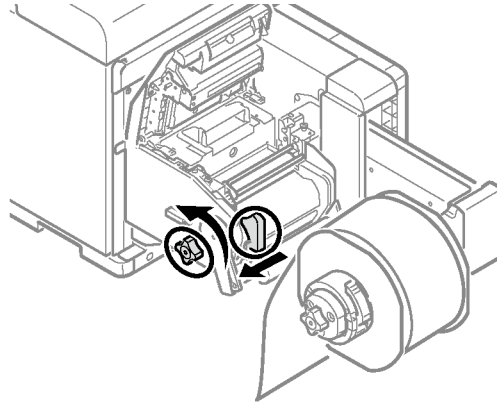
**Caution:** After loading roll paper, take care not to rest your body weight on the top of the Roll Paper Holder shaft. Doing so risks causing injury due to the device falling.

9. Lower the Unwinder Cover Open Lever to open the Unwinder Cover.  
Open the Unwinder Cover manually in the direction indicated by the arrow until it locks.



**Note:** Open the Unwinder Cover until it locks securely.

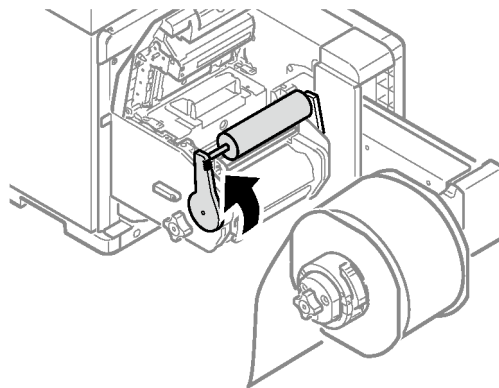
10. Before loading the paper, rotate the Roll Paper Guide Adjustment Knob counterclockwise and move the Roll Paper Guide towards you.



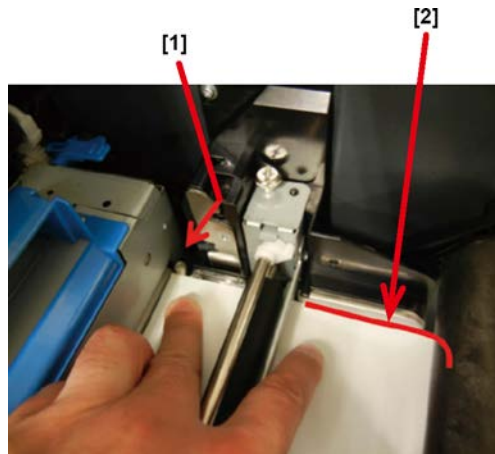
11. Pull up the F0 Roller Release Lever.



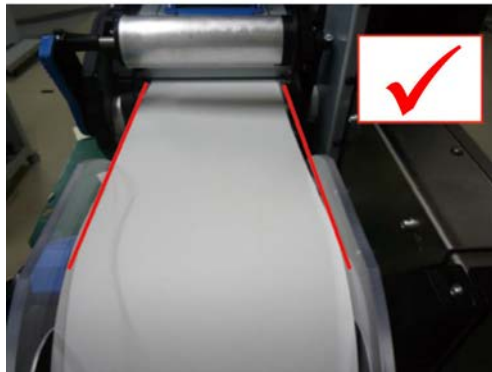
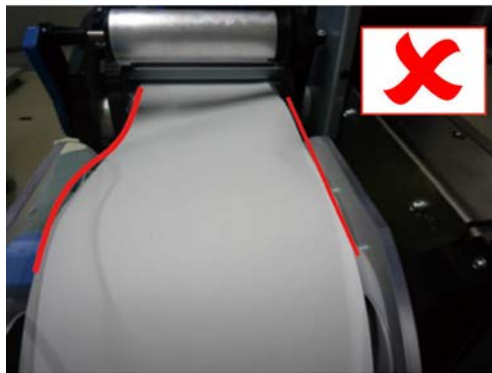
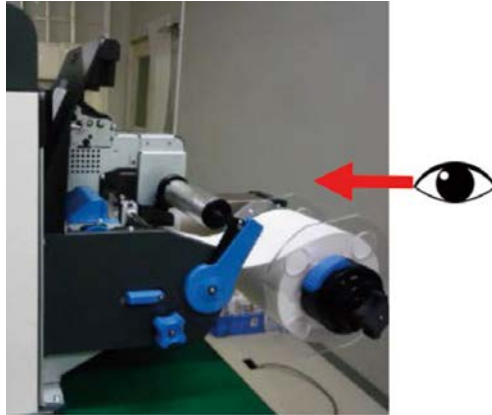
12. Press the Tension Bar Open Lever upwards until it clicks.



13. Pass paper below the Tension Bar and F0 Roller, and align the leading edge of the paper with the Roll Paper Guide [1] and Paper Guide [2].

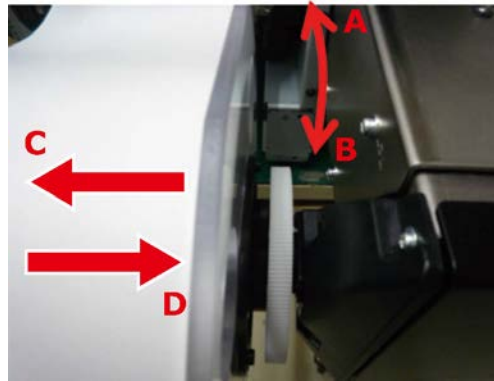


14. Check the paper status from the direction indicated by the arrow.





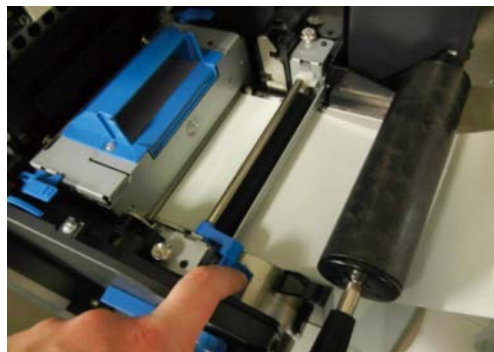
15. Rotate the Roll Paper Guide Adjustment Knob to adjust the paper until it is straight.



If you rotate the Roll Paper Guide Adjustment Knob in:

- Direction A - the roll paper moves in the direction C
- Direction B - the roll paper moves in the direction D

16. Lower the F0 Roller Release Lever to fix the roller in place.



17. Press down on the Tension Bar Open Lever until it clicks.

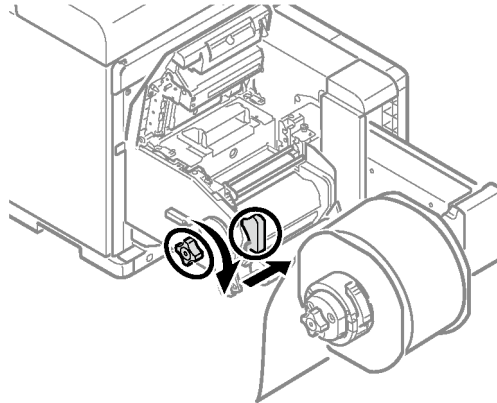


18. After loading the paper, rotate the Roll Paper Guide Adjustment Knob clockwise and align the Roll Paper Guide to the width of the paper.

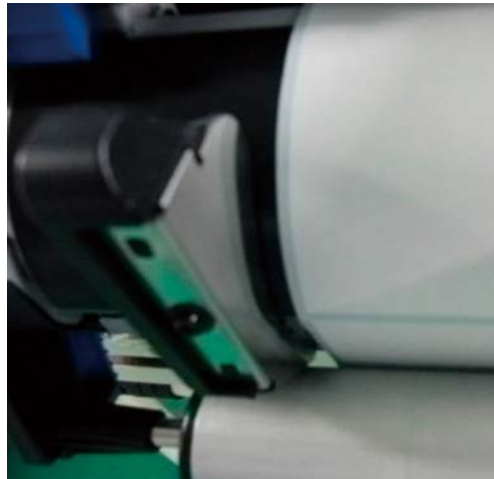
**Note:** Set the Paper Guide correctly. If the Paper Guide is not set correctly, the width of the paper cannot be detected correctly.

**Note:** Be careful that the Roll Paper Guide does not press too strongly on the paper. Doing so could damage the paper.

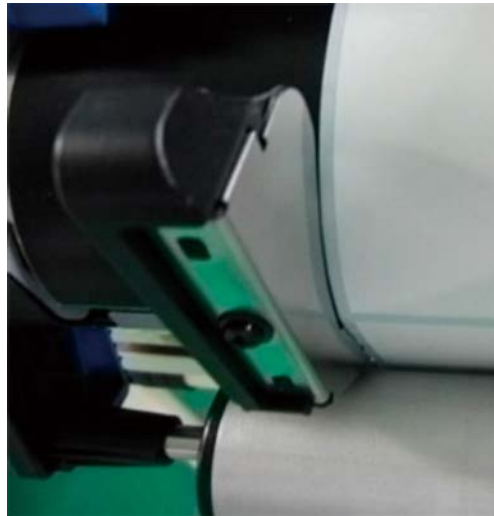
**Note:** Do not allow too much of a gap between the paper and the Roll Paper Guide. Doing so could allow the paper to twist and the print position to shift.



- In the following example, the gap is too large.



- In the following example, the Roll Paper Guide is aligned to the width of the paper.

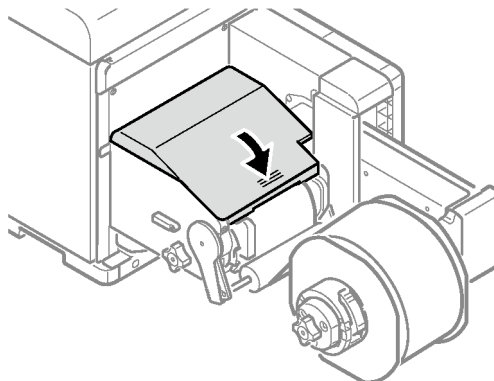


- In the following example, the Paper Guide is too tight.



19. Close the Unwinder Cover.

**Caution:** When closing the Unwinder Cover, there is a risk of pinching your fingers or hands. Press the top of the Unwinder Cover to close it.



## Calibrating the Sensor

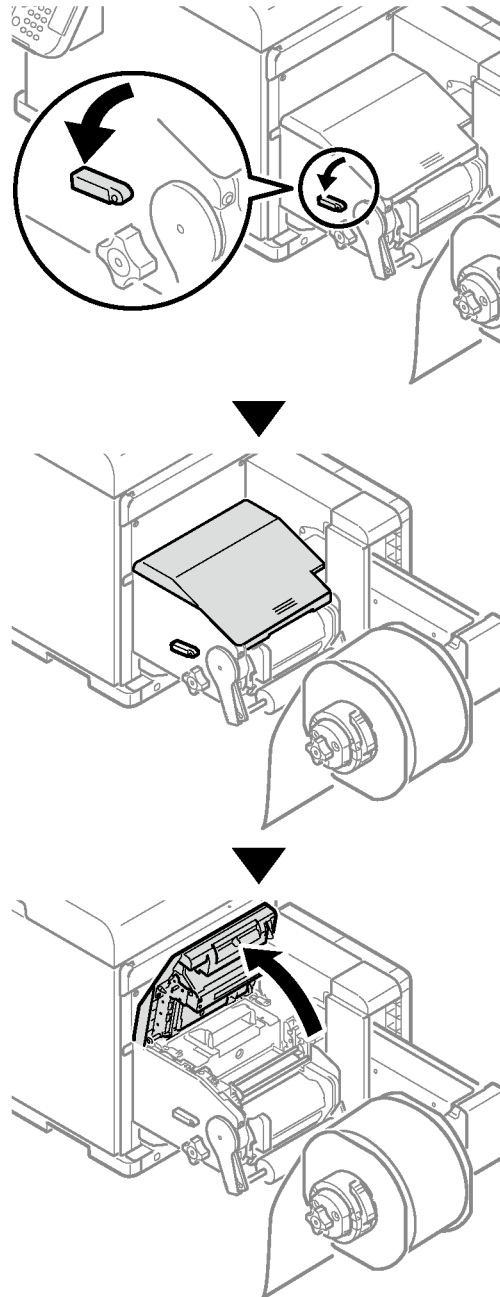
Check the position of the sensor each time you load paper. Check the position of the sensor in the following cases especially.

- When you load a different type of paper
- When you switch the type of sensor from black mark sensor to gap sensor
- When you switch the type of sensor from gap sensor to black mark sensor

If the sensor position settings do not match, paper feed jams may occur, you cannot adjust the black mark sensor or the gap sensor, and the skew in the adjusted values may cause the print position to skew.

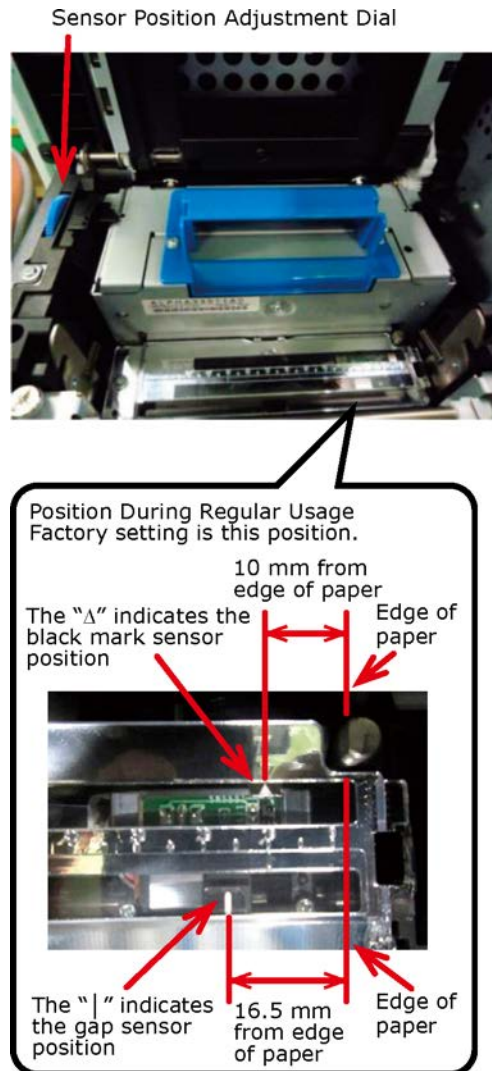
## Confirming the Unwinder Sensor Position

1. Lower the Unwinder Cover Open Lever to open the Unwinder Cover.  
Open the Unwinder Cover manually in the direction indicated by the arrow until it locks.

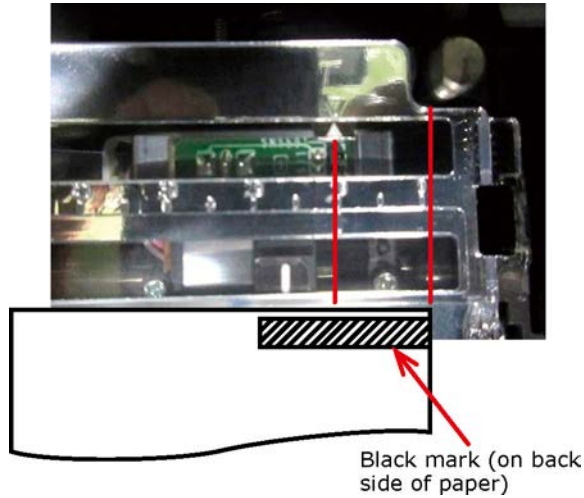


**Note:** Open the Unwinder Cover until it locks securely.

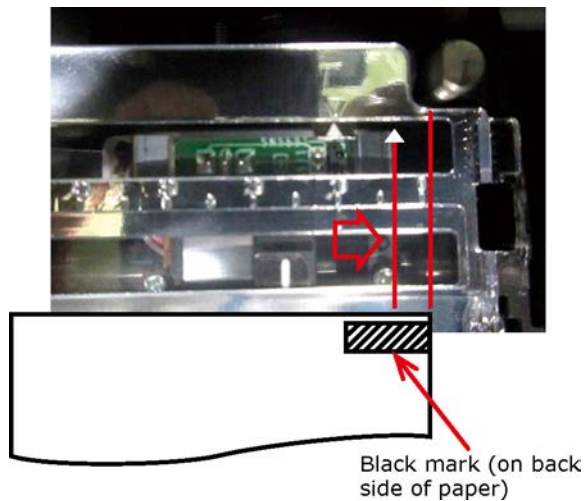
2. Confirm the sensor position.



- a. Check the black mark sensor position  
Align the paper, and check the actual position of the black mark and the black mark sensor position.



If the position of the black mark and the black mark sensor position do not align, rotate the Sensor Position Adjustment Dial to adjust the position (go to step 3).



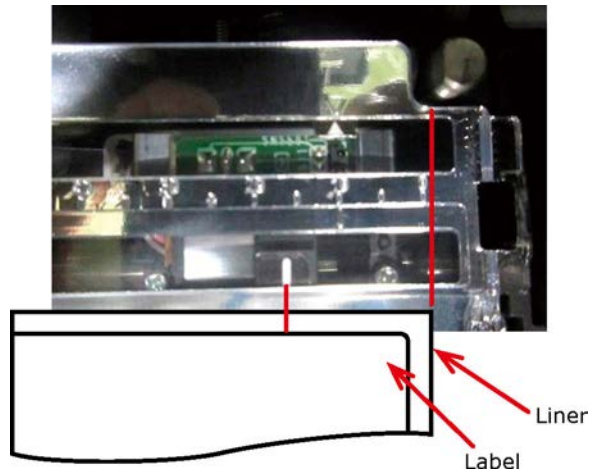
The black mark sensor position is set 10 mm from the edge of the paper.

If the black mark is about 15 mm from the edge of the paper, you do not need to adjust it.

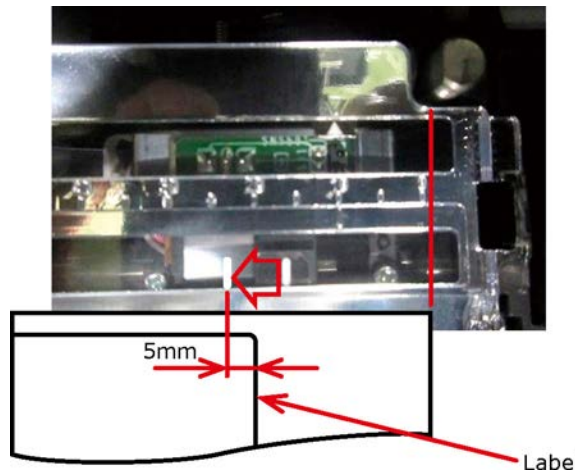
If the black mark is 15 mm or less from the edge of the paper, adjust the position of the  $\Delta$  so it is in the center of the black mark.

- b. Check the gap sensor position

Align the paper, and check the actual position of the label and the gap sensor position.



If the position of the label and the gap sensor position do not align in relation to the regular usage position, rotate the Sensor Position Adjustment Dial to adjust the position (go to step 3).



The gap sensor position is set 16.5 mm from the edge of the paper.

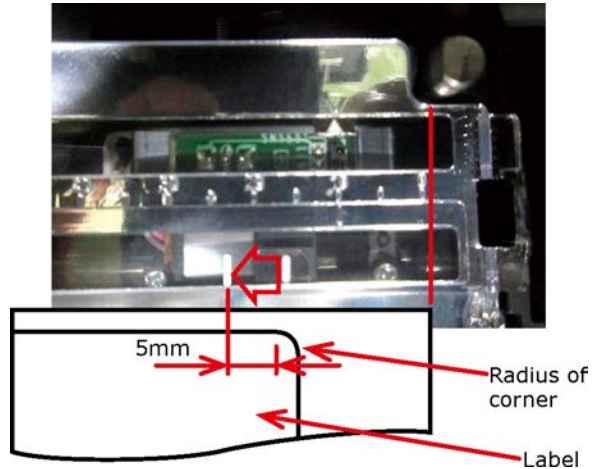
If there is 10 mm or less on the right and left edges of the liner, then adjustments are not necessary.

If there is 10 mm or more on the right and left edges of the liner, then adjust the gap sensor using the above positions as a rough estimate.

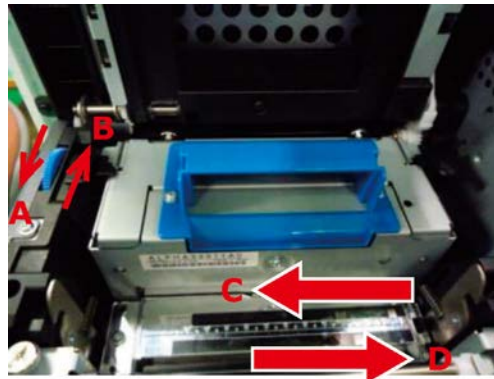
If the corners of the label are rounded, then consider the position of the radius of the corner.

Refer to the following example of adjusting the position.





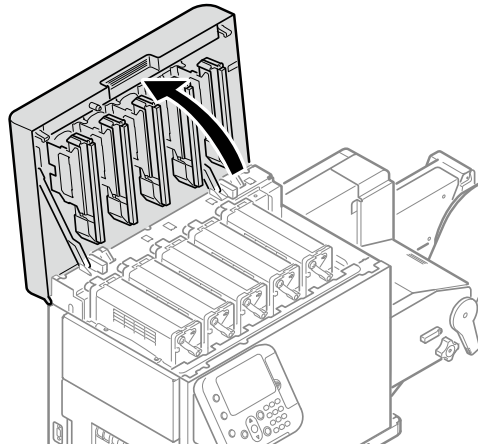
3. Rotate the Sensor Position Adjustment Dial to adjust the sensor position.



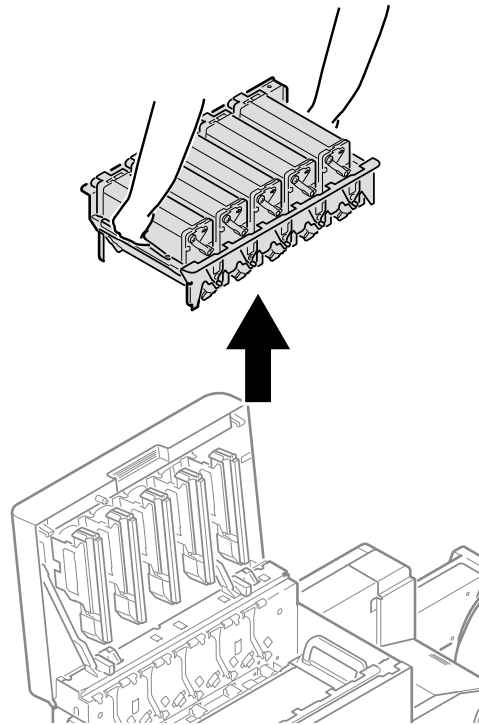
- If you rotate the Sensor Position Adjustment Dial in direction A, the sensor position moves in the direction C.
- If you rotate the Sensor Position Adjustment Dial in direction B, the sensor position moves in the direction D.

## Confirming the Printer Sensor Position

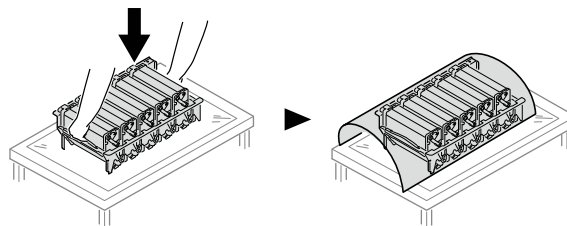
1. Grasp the top cover open lever and open the top cover.



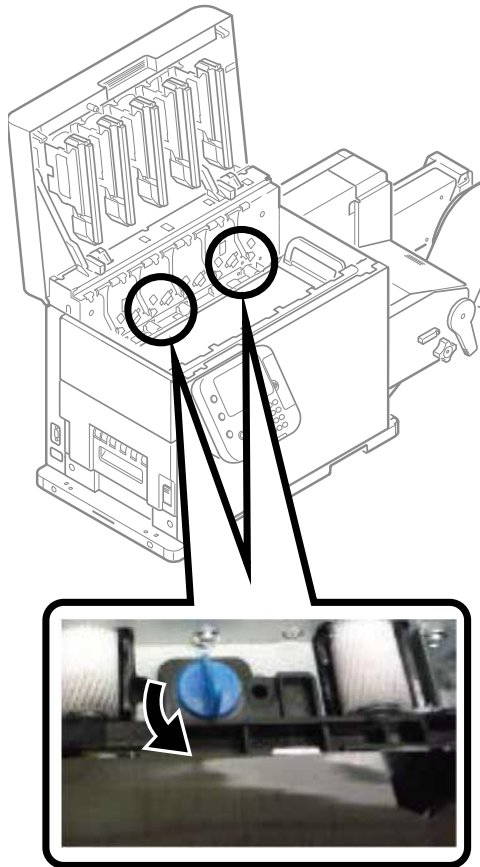
2. Remove the print cartridge set.



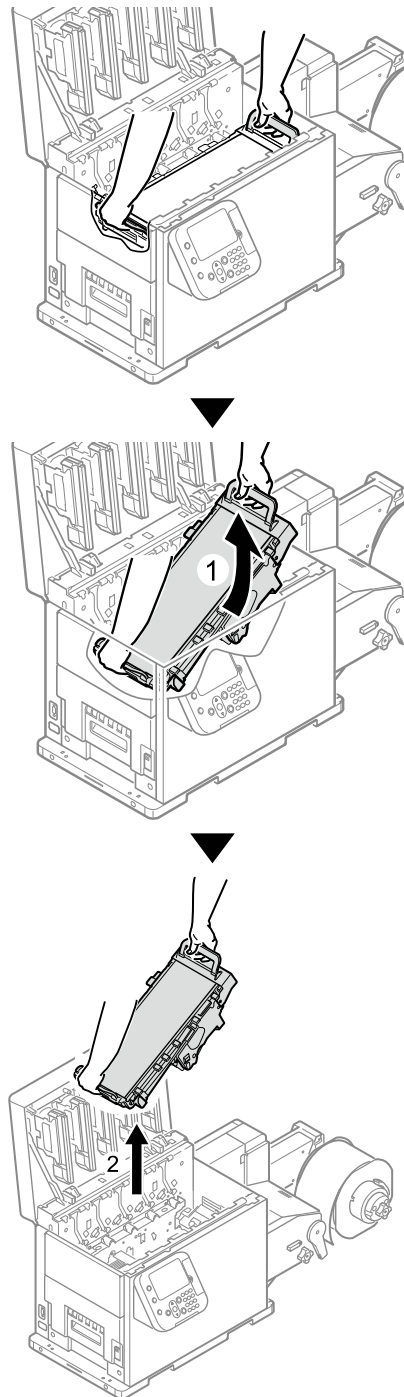
3. Place the removed print cartridge set on a flat surface covered with newspaper or something similar, and cover it with paper so it is not exposed to direct light.



4. Turn the two belt locking keys counterclockwise to release the lock.



5. Hold the belt unit handles (blue) on the left and right, and remove the belt unit at an angle.

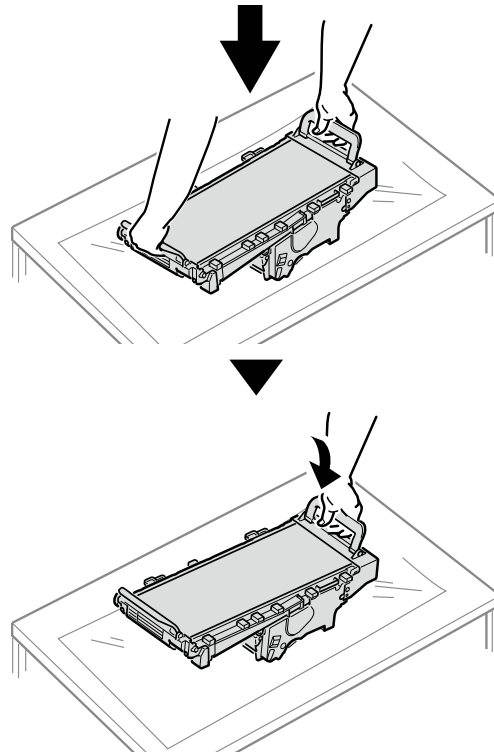


**Caution:** Be careful not to spill waste toner while removing the belt unit.

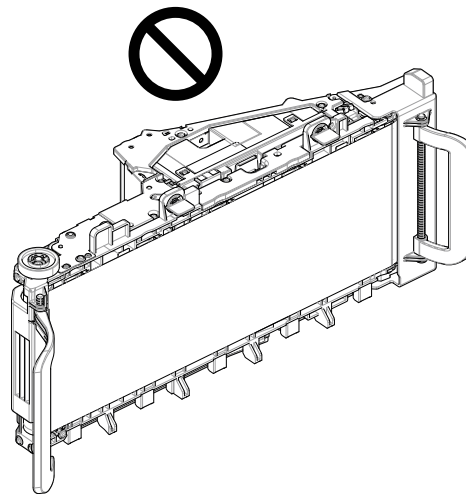
**Caution:** Be careful to not pinch your hands or fingers between the handle and the machine while removing the belt unit.

**Caution:** When removing the belt unit, do not tilt it further than is needed to remove it.

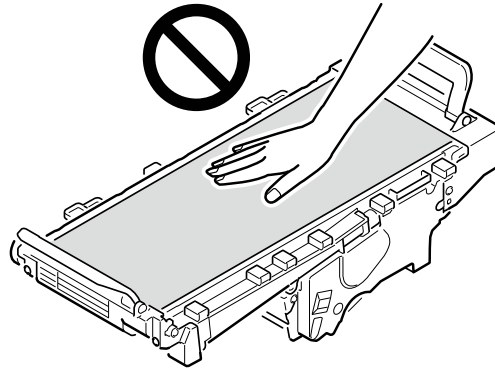
6. Place the belt unit with the right side down on a flat surface covered with paper.



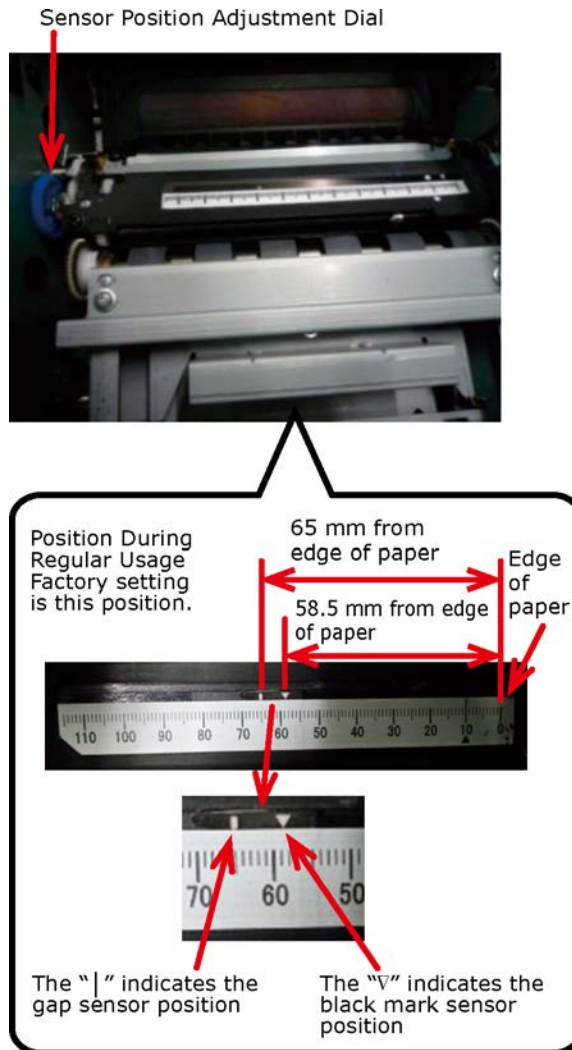
**Caution:** Place the belt unit on a flat surface, as shown in the diagram above. Do not stand it on its side.



**Caution:** Do not touch the belt surface or damage the belt.



7. Confirm the sensor position.



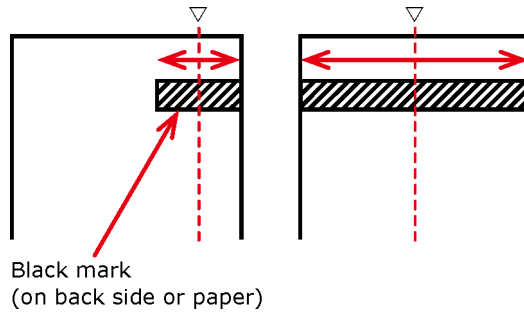
a. Check the black mark sensor position

Align the paper, and check the actual position of the black mark and the black mark sensor position.

If the position of the black mark and the black mark sensor position do not align, rotate the Sensor Position Adjustment Dial to adjust the position (go to step 8).

The black mark sensor position is set, at the factory, to 58.5 mm from the right edge of the label liner.

Adjust the position of the arrow so it is in the center of the black mark of the media you are using.



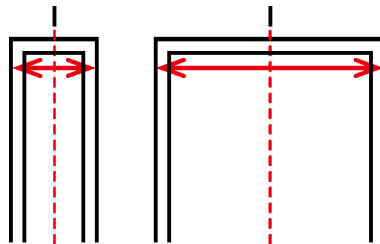
b. Check the gap sensor position

Align the paper, and check the actual position of the label and the gap sensor position.

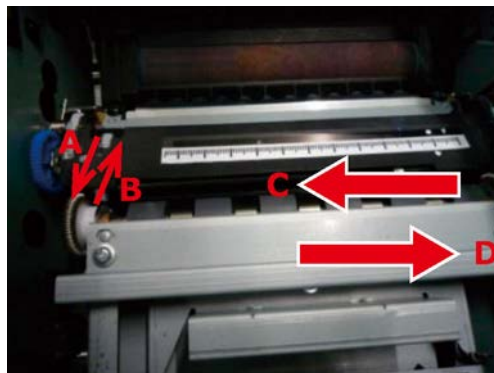
If the position of the label and the gap sensor position do not align, rotate the Sensor Position Adjustment Dial to adjust the position (go to step 8).

The gap sensor position is set, at the factory, to 65 mm from the right edge of the label liner.

Adjust the position of the arrow so it is in the center of the labels of the media you are using.



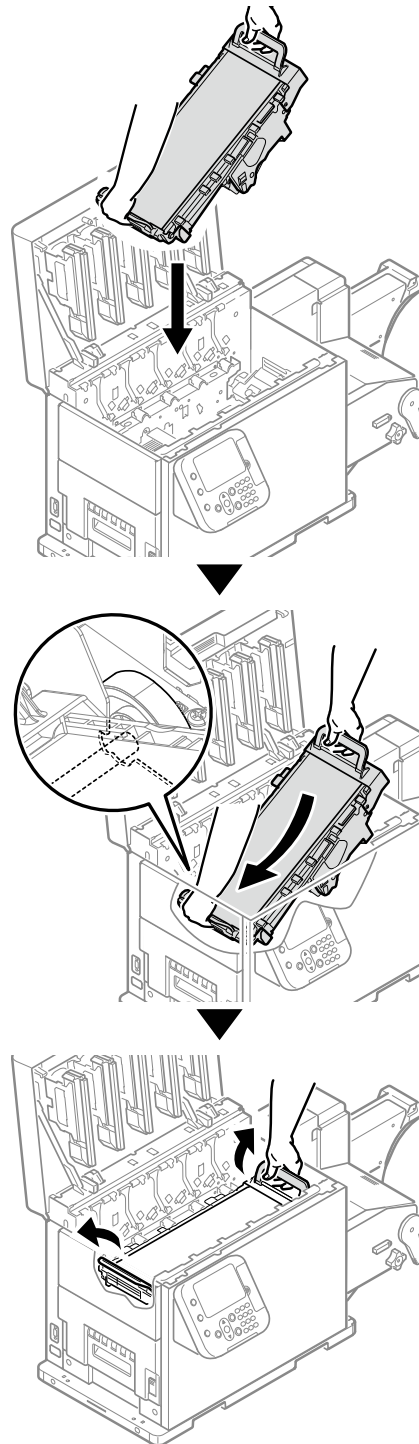
8. Rotate the Sensor Position Adjustment Dial to adjust the sensor position.



- If you rotate the Sensor Position Adjustment Dial in direction A, the sensor position moves in the direction C.
- If you rotate the Sensor Position Adjustment Dial in direction B, the sensor position moves in the direction D.

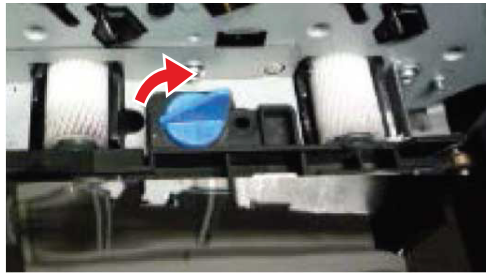


9. Tilt the belt unit and align the arrow labels (red) on the belt unit and printer to position it, and then open the belt unit handles (blue) on the left and right.

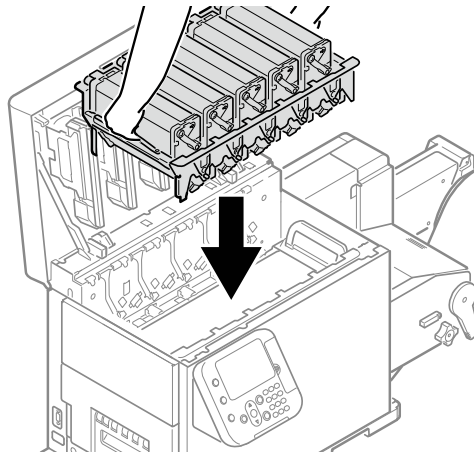


**Caution:** Be careful to not pinch your hands or fingers between the handle and the machine while installing the belt unit.

10. Turn the two belt unit locking keys clockwise to lock it.

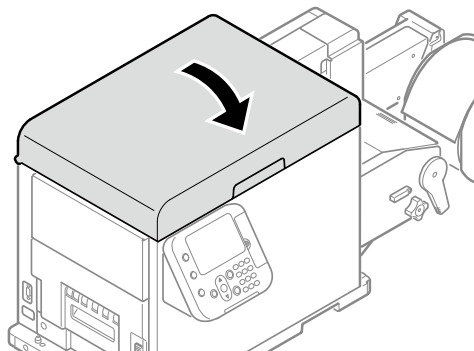


11. Put the print cartridge set back into the printer.



**Caution:** There is a risk of pinching your fingers or hands when repositioning the print cartridge set. Hold the handle parts of the basket for this operation.

12. Close the top cover.



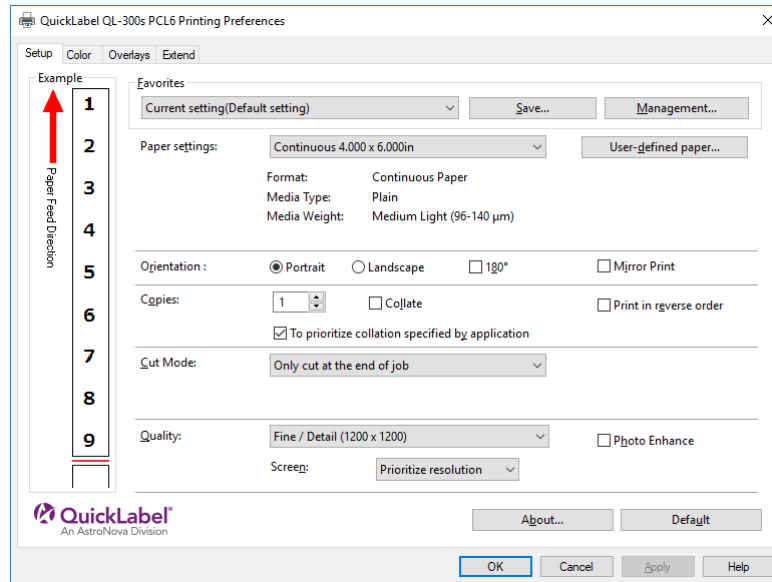
**Caution:** When closing the top cover, there is a risk of pinching your fingers or hands in the top cover or the top cover's support. Press on the top of the top cover to close it.

**Caution:** There is a risk of pinching your fingers or hands if you hold the LED head while closing the top cover. Press on the top of the top cover to close it.

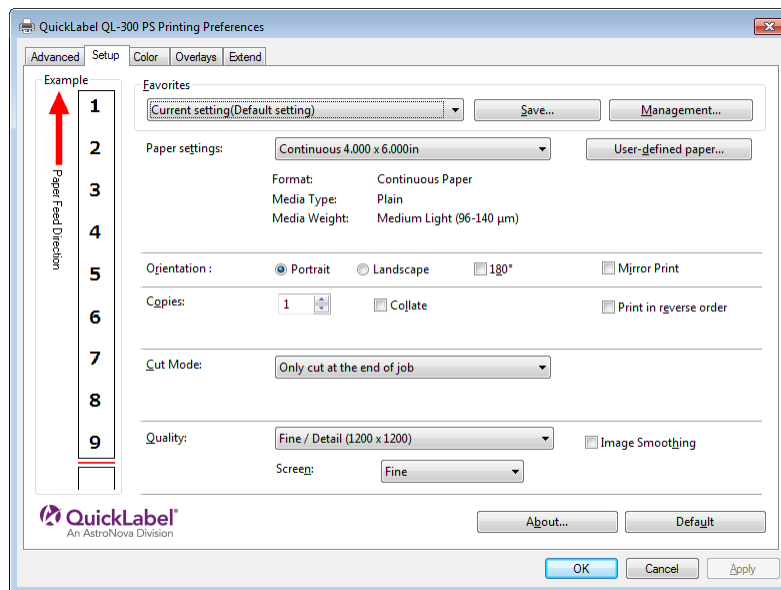
## Sensor Calibration

1. Click **Start** and select **Control Panel** in Windows.
2. Click **View devices and printers**.

- Right-click the **QL-300** icon, and then select **Printing preferences**.  
If you are using the Windows PCL printer driver, the following window will open.

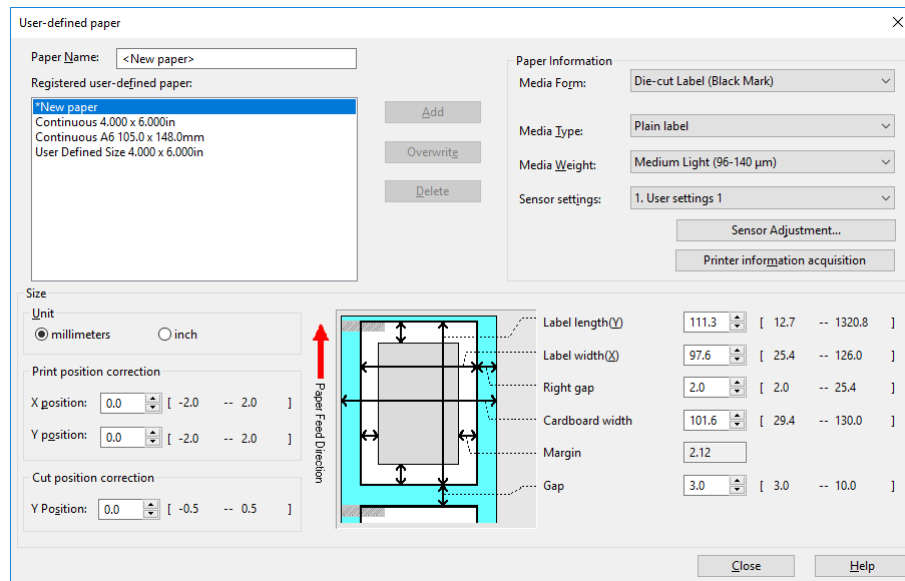


If you are using the Window PS printer driver, the following window will open.



- Input information about the paper you want to register. To adjust settings that are already registered, select the names of the paper from the list in **Registered user-defined paper**.

5. Click **Sensor Adjustment**.

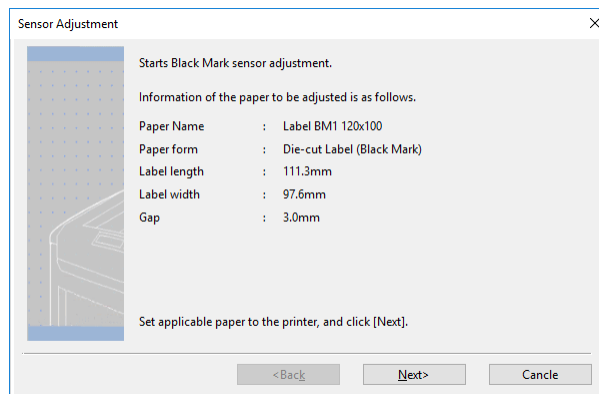


**Sensor Adjustment** appears if the following conditions are met.

- The Media Form is one of the following: Continuous Paper (Black Mark), Die-cut Label (Gap), Die-cut Label (Black Mark), Continuous Label (Black Mark)
- The **Ports** of the printer driver is USB or standard TCP/IP port

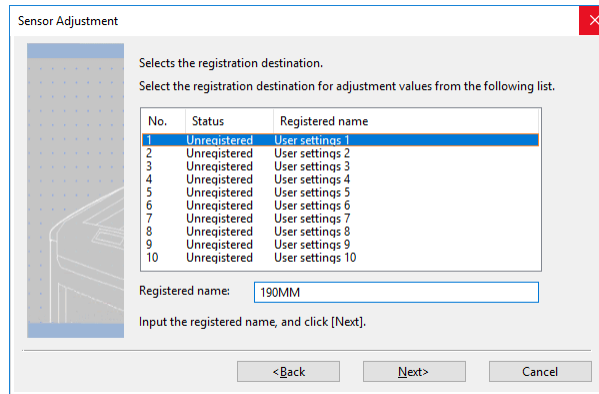
Before performing **Sensor Adjustment**, make sure that the printer is “online”.

6. Click **Next**.



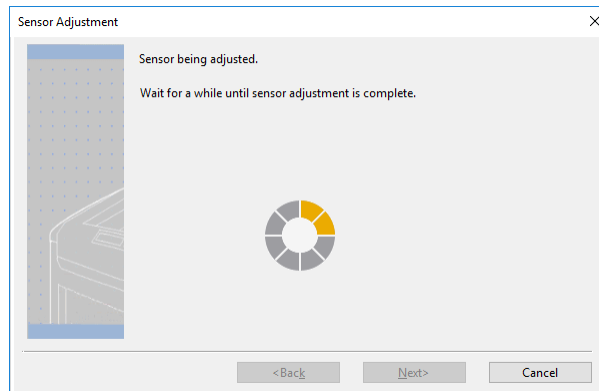
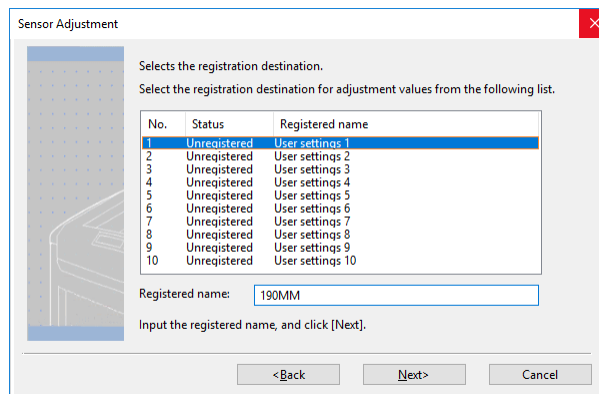
- Before performing the next steps of this procedure, make sure that paper is loaded.
- If there are no paper size settings configured on the control panel, it may cause a paper size mismatch on the device. Pressing the **OK** button on the control panel overwrites the device paper size setting with the paper size setting in the printer driver.

7. Select a registration location for the adjustment, and then enter a registration name.

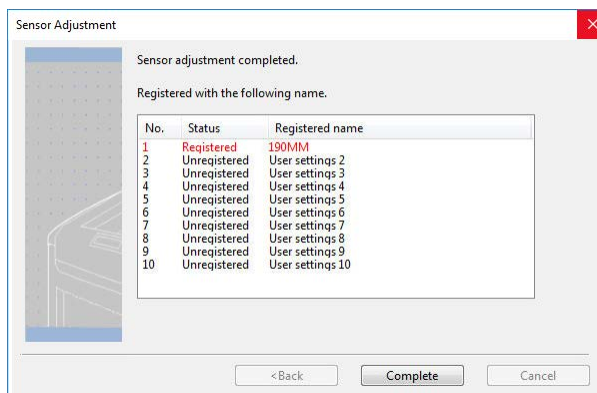


You can enter up to eight alphanumeric English characters for the registration name.

8. Click **Next**. This starts the sensor adjustment and displays a wait message.



- When the completion screen appears, click **Complete**.



The results of adjusting the sensor are registered on the printer. In **Sensor settings** in **User-defined paper** in the printer driver, you can specify the number registered in the printer for the adjustment results and whether to apply it when printing. By standardizing the registration numbers of the sensor adjustment results, you can get the same print results by specifying the same number in **Sensor settings** in the printer driver for any printer. This is useful when printing on the same media on multiple printers.

- To register new settings, click **Add** or click **Overwrite** to select paper that is already registered.
- Click **OK** as many times as necessary to exit the “Printing preferences” screen.
- Open the file to be printed.
- Specify a registered paper size, and then print.

## If You Cannot Set the Sensors from the Printer Driver

If you cannot set the sensors from the printer driver, then set them from the control panel.

### Black mark sensor

- Confirm the sensor position
- Configure the sensor type  
Media form = Continuous Paper (Black Mark), Die-cut Label (Black Mark), or Continuous Label (Black Mark)
- Configure the paper size  
Paper Size = Custom  
X Dimension = Input the “label width”  
For die-cut labels (black marks):
  - Paper length = Input the “label length”
  - Gap Length = Input the “gap length”
 Otherwise:
  - Black mark interval = Input the “length between black marks”

4. Execute sensor calibration  
Sensor calibration → Execute

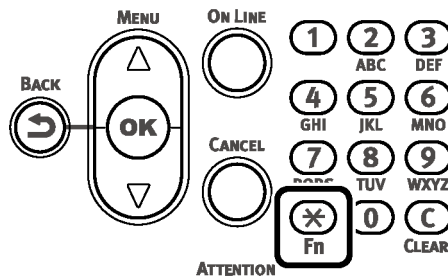
### Gap sensor

1. Confirm the sensor position
2. Configure the sensor type  
Media form = Die-cut Label (Gap)
3. Configure the paper size  
Paper Size = Custom  
X Dimension = Input the "label width"  
Y Dimension = Input the "label length"  
Gap Length = Input the "gap length"
4. Execute sensor calibration  
Sensor calibration → Execute

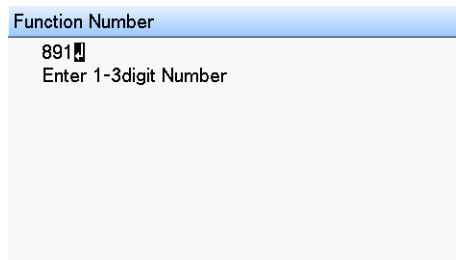
## Calibrating the Black Mark Sensor

You can adjust the black marks on roll paper using the black mark sensor. Here, we will show the method when Continuous Label (Black Mark) are used.

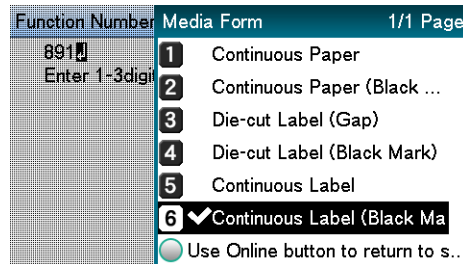
1. Press the **Fn** key.  
The numerical values input screen will be displayed.



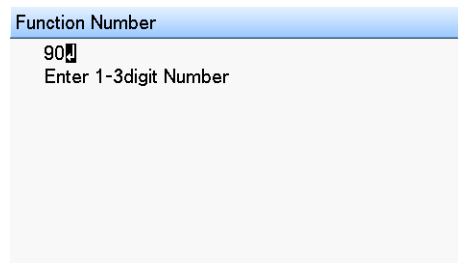
2. Press **8, 9, 1** (function numbers), and then press the **OK** button.



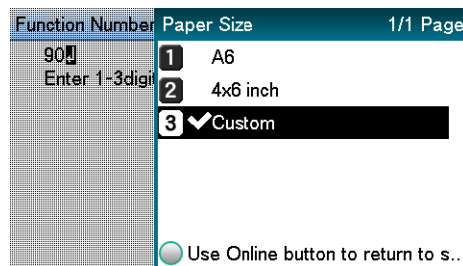
3. Select **6. Continuous Label (Black Mark)**, and then press the **OK** button.



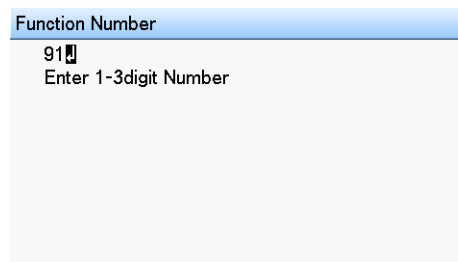
4. Press the **ON LINE** button to return to the standby screen.
5. Press the **Fn** key, and then press the following buttons: **9, 0, OK**.



6. On the Paper Size menu, select **Custom**, press the **OK** button, and then press the **ON LINE** button. The display will return to the standby screen.

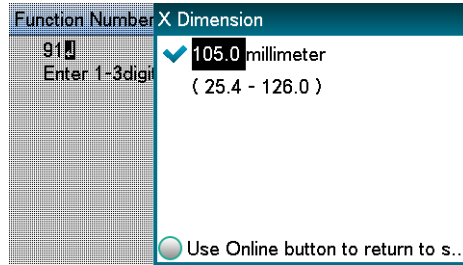


7. Press the **Fn** key, and then press the following buttons: **9, 1, OK**.

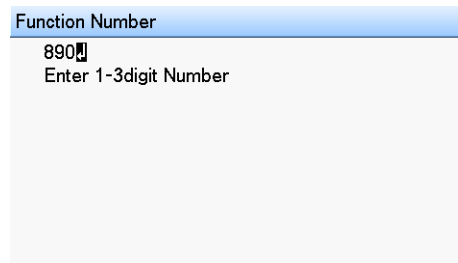




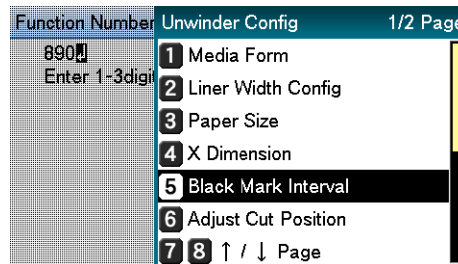
- Use the numeric keypad to enter the label width, press the **OK** button, and then press the **ON LINE** button. The display will return to the standby screen.



- Press the **Fn** key, and then press the following buttons: **8, 9, 0, OK**.

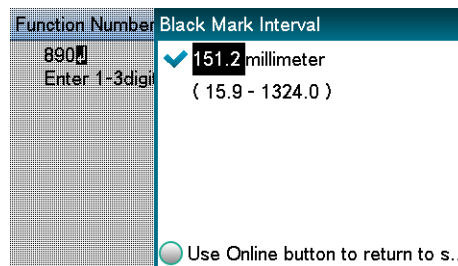


- Select **Black Mark Interval** from **Unwinder Config**, and then press the **OK** button.

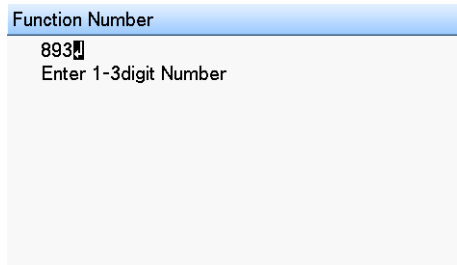


- Use the numeric keypad to enter the Black Mark Interval, press the **OK** button, and then press the **ON LINE** button.

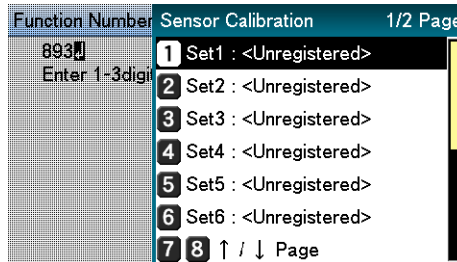
The display will return to the standby screen.



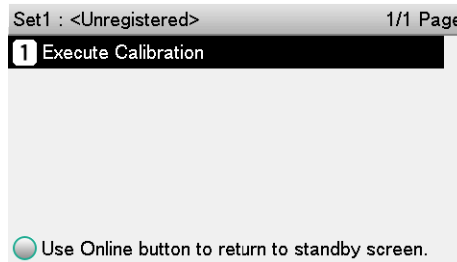
- Press the **Fn** key, and then press the following buttons: **8, 9, 3, OK**.



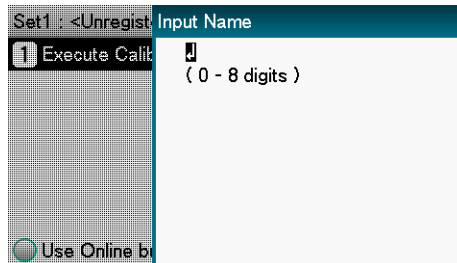
- Select the setting number of the sensor to be configured, and then press the **OK** button.



- Select **Execute Calibration**, and then press the **OK** button.

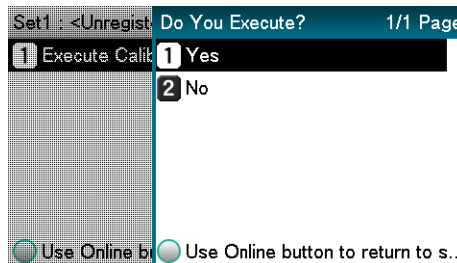


- Enter the sensor calibration name, and then press the **OK** button.

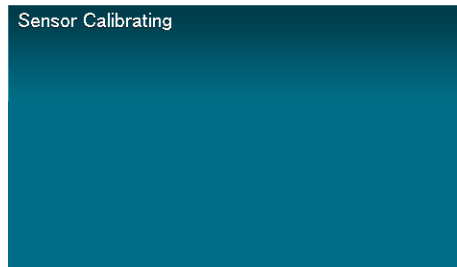


You can leave the name blank, if you want.

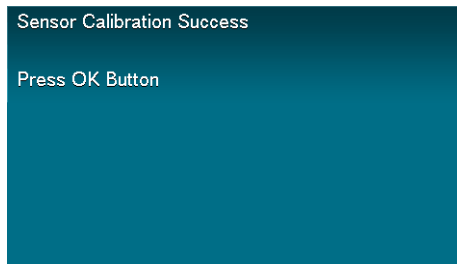
- If an execution confirmation screen appears, select **Yes**.



- This executes sensor calibration.



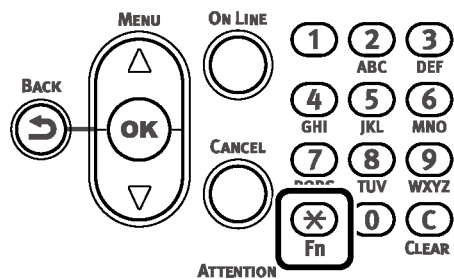
- After sensor calibration is complete, press the **OK** button.



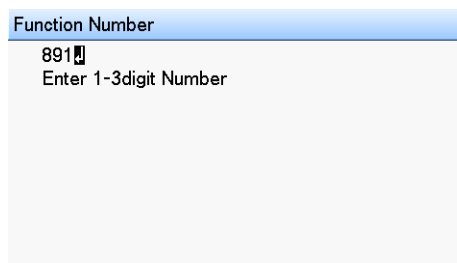
## Calibrating the Gap Sensor

You can adjust the distance between die cut labels using the gap sensor.

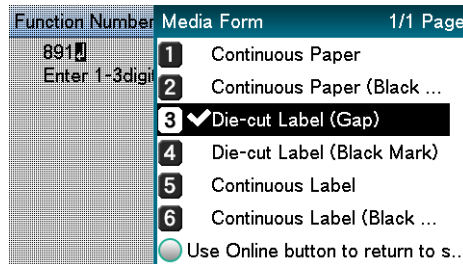
- Press the **Fn** key.  
The numerical values input screen will be displayed.



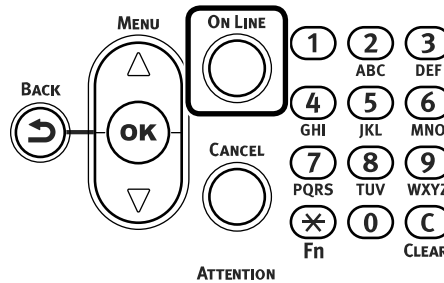
- Press **8, 9, 1** (function numbers), and then press the **OK** button.



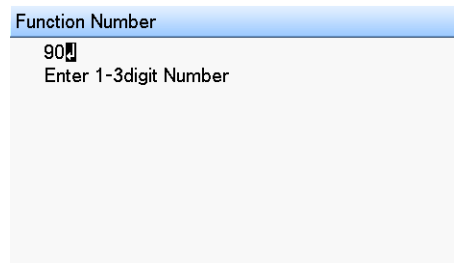
3. Select **3. Die-cut Label (Gap)**, and then press the **OK** button.



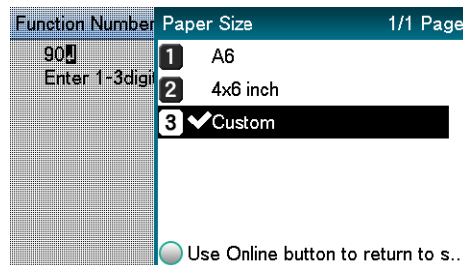
4. Press the **ON LINE** button to return to the standby screen.



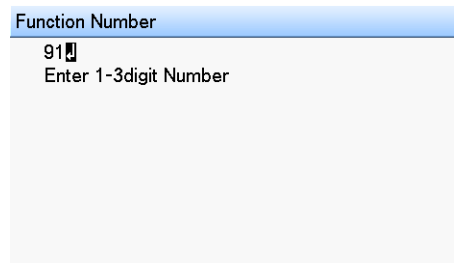
5. Press the **Fn** key, and then press the following buttons: **9, 0, OK**.



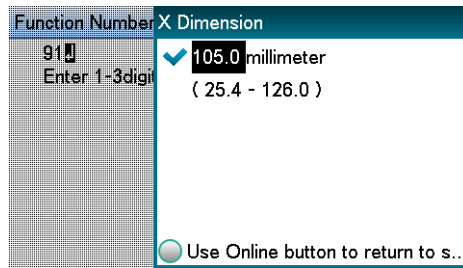
6. On the Paper Size menu, select **Custom**, press the **OK** button, and then press the **ON LINE** button. The display will return to the standby screen.



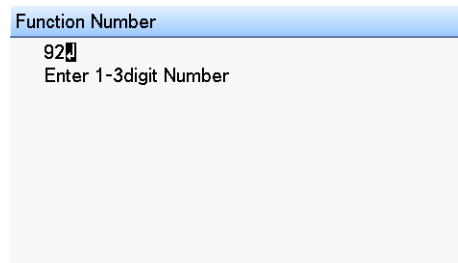
7. Press the **Fn** key, and then press the following buttons: **9, 1, OK**.



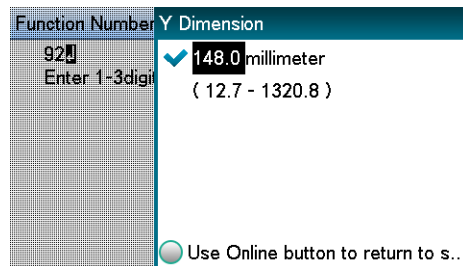
- Use the numeric keypad to enter the label width, press the **OK** button, and then press the **ON LINE** button. The display will return to the standby screen.



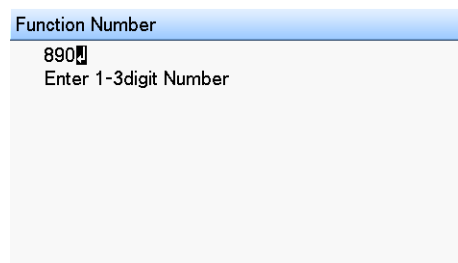
- Press the **Fn** key, and then press the following buttons: **9, 2, OK**.



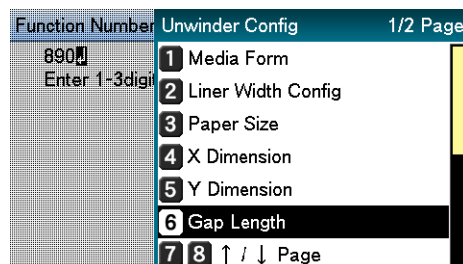
- Use the numeric keypad to enter the label length, press the **OK** button, and then press the **ON LINE** button. The display will return to the standby screen.



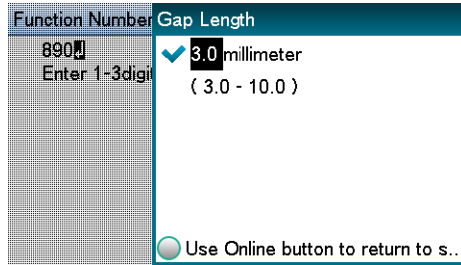
- Press **8, 9, 0** (function numbers), and then press the **OK** button.



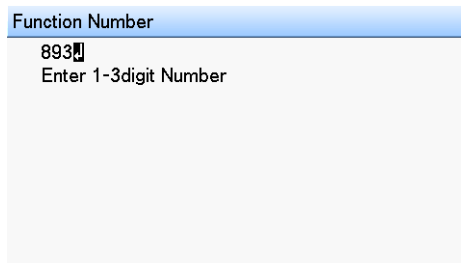
- Select **Gap Length** from **Unwinder Config**, and then press the **OK** button.



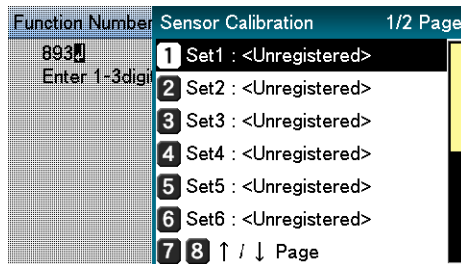
- Use the numeric keypad to enter the gap length, press the **OK** button, and then press the **ON LINE** button. The display will return to the standby screen.



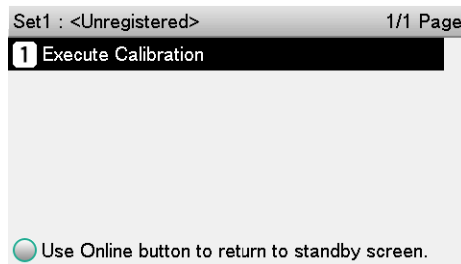
- Press the **Fn** key, and then press the following buttons: **8, 9, 3, OK**.



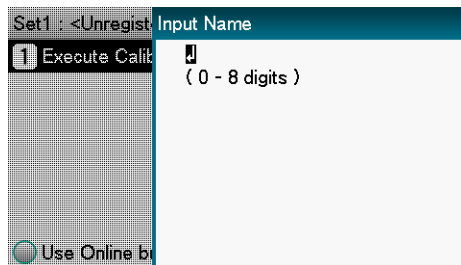
- Select the setting number of the sensor to be configured, and then press the **OK** button.



- Select **Execute Calibration**, and then press the **OK** button.

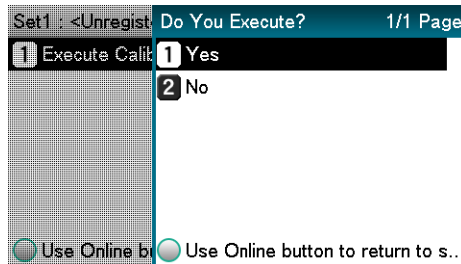


- Enter the sensor calibration name, and then press the **OK** button.

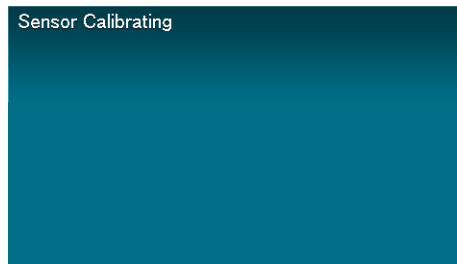


You can leave the name blank, if you want.

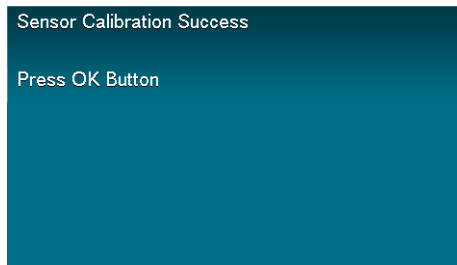
18. If an execution confirmation screen appears, select **Yes**.



19. This executes sensor calibration.



20. After sensor calibration is complete, press the **OK** button.



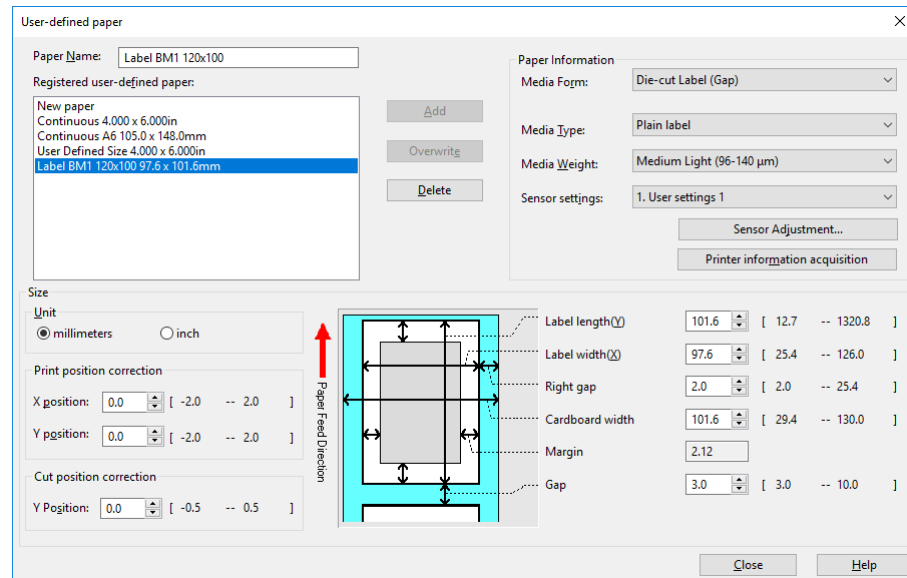
## Detecting the Interval between Pages

### Detecting the Interval between Pages with the Printer Driver

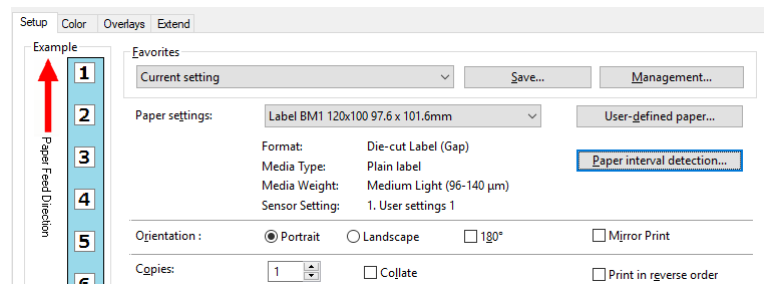
You can use the following procedure, from the printer driver, to register the paper gap and black mark interval on the device. Registering these settings improves your printing results. However, it does waste approximately 10 sheets of paper.

1. Click **Start** and select **Control Panel** in Windows.
2. Click **View devices and printers**.
3. Right-click the **QL-300** icon, and then select **Printing preferences**.
4. On the **Setup** tab, click **User-defined paper**.

- After confirming that the paper name you entered in the “Paper Name” box is shown under **Registered user-defined paper**, click **Close**.



- For **Paper settings**, select the paper settings you registered, and then click **Paper interval detection**.



**Paper interval detection** is displayed if the following conditions are met.

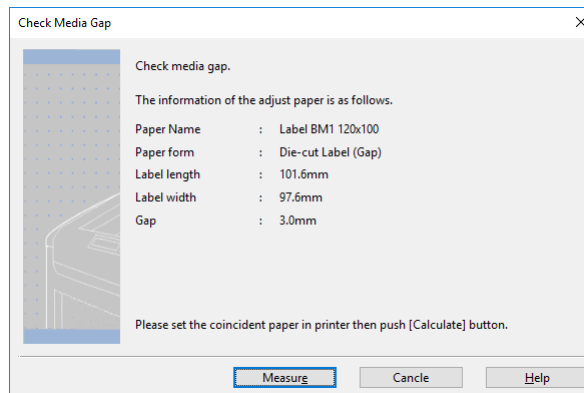
The Media Form is one of the following:

- Continuous Paper (Black Mark)
- Die-cut Label (Gap)
- Die-cut Label (Black Mark)
- Continuous Label (Black Mark)

If **Paper interval detection** does not appear, return to step 4 of this procedure.



7. Confirm the displayed paper information, and then click **Measure**.



This starts checking the media pitch and closes the dialog box.

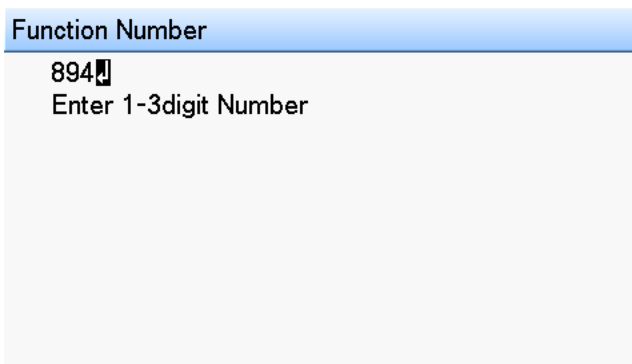
**Note:** If you change to another type of paper or restart the printer, you should configure this setting again.

8. Click **OK** as many times as necessary to exit the **Printing preferences** screen.
9. Open the file to be printed.
10. Specify a registered paper size, and then print.

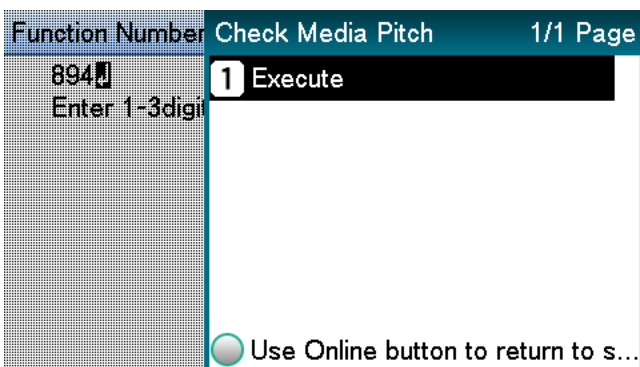
## Detecting the Interval between Pages with the Control Panel

Detect the paper gap and black mark interval from the control panel.

1. For black mark media, execute steps 1 to 11 in “Calibrating the Black Mark Sensor” on page 123.  
For gap media, execute steps 1 to 13 in “Calibrating the Gap Sensor” on page 127.
2. Press the **Fn** key.
3. Press **8, 9, 4** (function numbers) and then press the **OK** button.



4. Select **Execute**, and then press the **OK** button to start paper interval detection and close the dialog box.



## Printing

After loading the paper, use the computer to open the file you want to print. Next, use the printer driver to select the **Paper Size** and **Paper Weight**, and then print.

**Note:** When printing on label paper for the first time, execute **Sensor Adjustment** before printing.

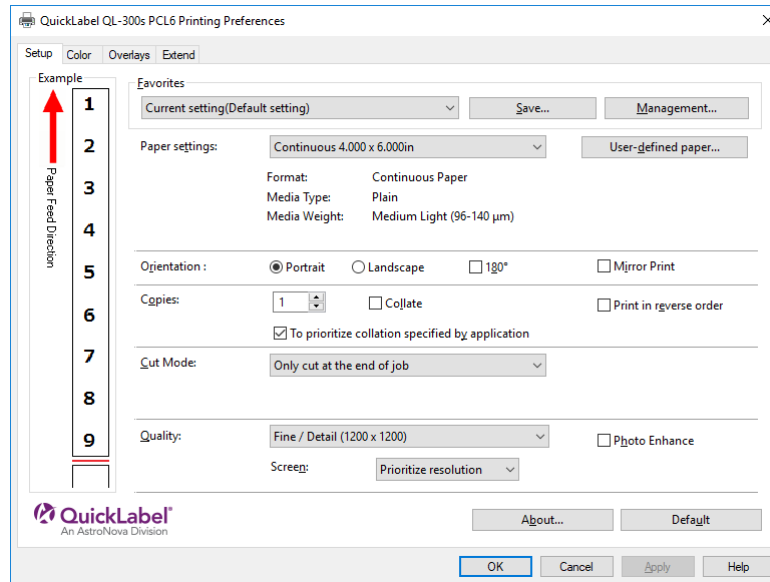
### Printing from the Windows Printer Driver

Here, we will show how to print an open WordPad file as an example.

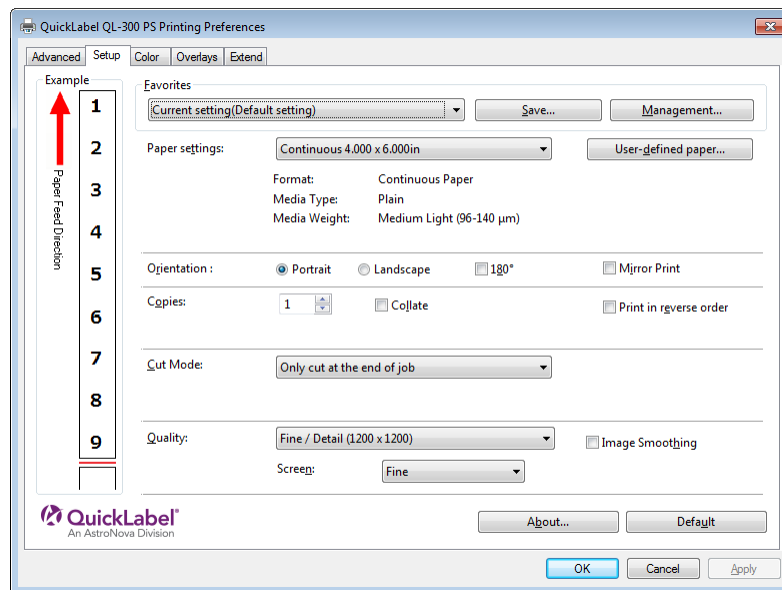
1. Select **Page Setup** in the **File** menu.
2. Select the paper size and print orientation, and then click **OK**.
3. On the **File** menu, click **Print > Print**.

- Click **Preferences**.

If you are using the Windows PCL printer driver, the following window will open.



If you are using the Window PS printer driver, the following window will open.

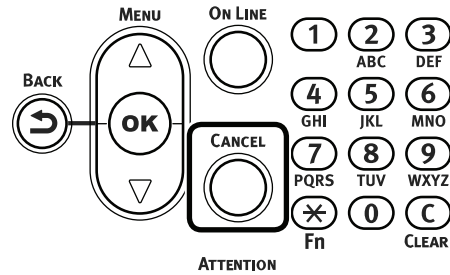


- On the **Setup** tab, configure **Paper settings**.  
Configure the **Cut Mode** setting on the **Setup** tab as required.
- When the settings are complete, click **OK** in the “Setup” screen.
- Click **Print** in the “Print” screen to print.

## Canceling a Print Job

Use the procedure below to cancel a print job from the printer's control panel.

1. On the control panel, press the **CANCEL** button.



2. If a verification message appears, select **Yes**, and then press the **OK** button.

# 7

## Print Function Settings

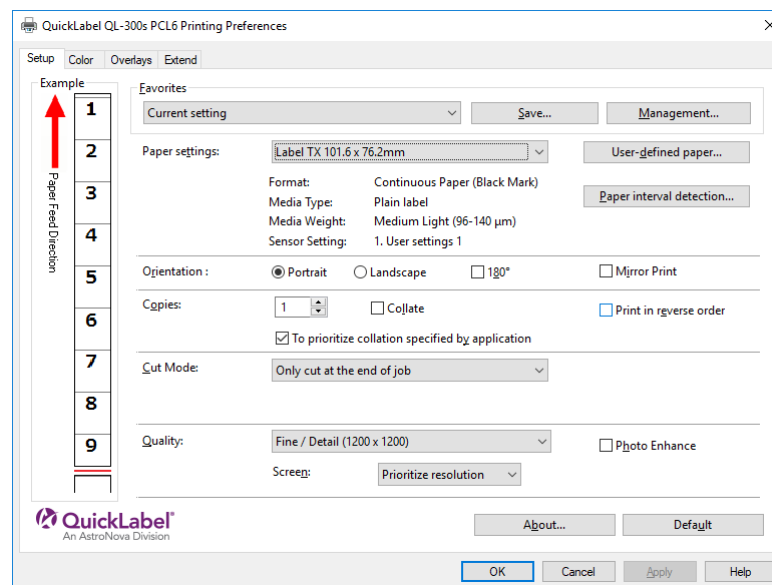
### Printer Driver Functions Table

This section explains the convenient functions when printing from a PC.

### Explanation of Functions

#### Windows PCL Printer Driver Functions

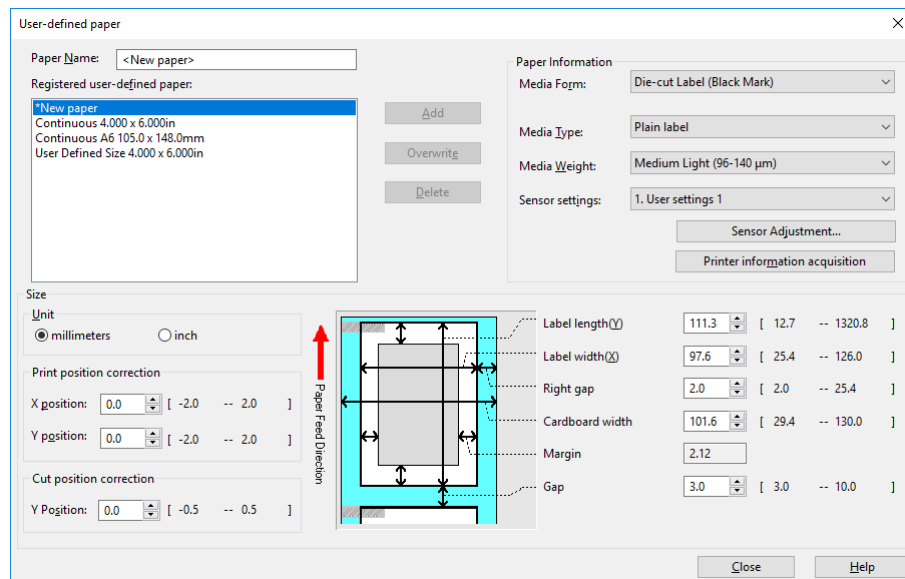
##### Setup Tab



Item	Description
Example	Shows what printing results will be based on current settings. This example is just an approximation and does not indicate the exact actual number of print pages and cut positions.
Paper settings	Specifies, from among registered paper settings, which one should be applied for printing.
Orientation	Specifies the print orientation.
Copies	Specifies the quantity to be printed.
Cut Mode	Specifies the timing to cut roll paper when cutting and printing on it.

Item	Description
Quality	Specifies the resolution during printing.
Screen	Specifies the halftoning available with the device.
User-defined paper	Click when using the driver to register paper settings to be used for printing.
Paper interval detection	Before printing to black mark or die-cut labels, click to execute learning on the device to improve the print position before starting. Note that executing this function will cause some paper to be used.
About	Displays the printer driver version information.
Default	Restores default settings.

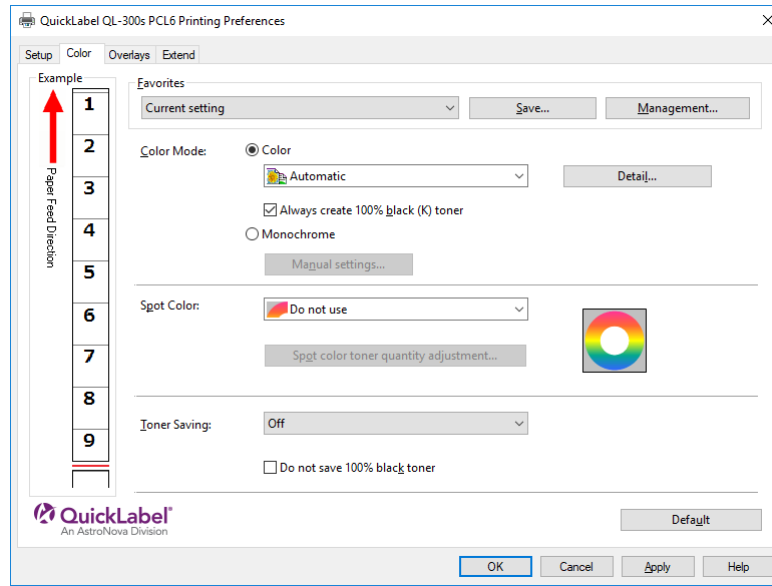
### User-defined paper



Item	Description
Paper Name	Enter the name of the paper settings you want to register.
Registered user-defined paper	Shows a list of paper settings that have been registered

Item	Description
Size	Specifies either millimeters or inches as the unit for input values.
Print position correction	Adjusts the print start position on the paper edge.
Cut position correction	Adjusts the cut position when cutting and printing roll paper
Media Form	Specifies the paper setting type to be registered. Size input items change in accordance with this setting.
Media Type	Specifies the paper type.
Media Weight	Specifies the paper thickness.
Sensor settings	Specifies the settings, from among those registered on the device, to be used for printing.
Sensor Adjustment	Click to calibrate the gap of black mark or die-cut labels, and register the results as device sensor settings. This button is not displayed for media forms that do not require calibration.
Printer information acquisition	Obtains, from devices, the names of settings registered as sensor settings and the names of user types registered as paper types, and reflects them in the sensor settings and paper type list on the printer driver.

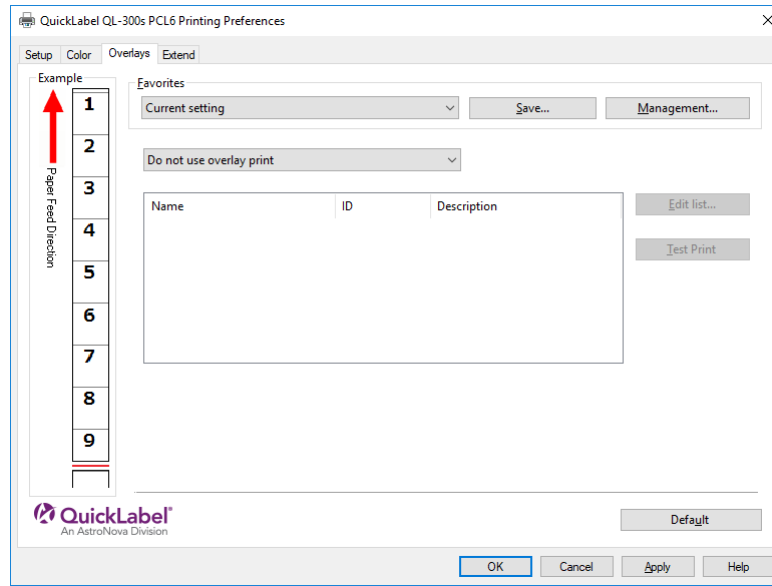
## Color Tab



Item	Description
Color Mode	Selects either color printing or monochrome printing. When color is selected, clicking <b>Detail</b> displays the “Detail” dialog box, which can be used to configure detailed color printing settings.
Spot Color	Specifies how white toner should be used for printing. This item available only on the QL-300s.
Toner Saving	Specifies the print density when economizing on toner.

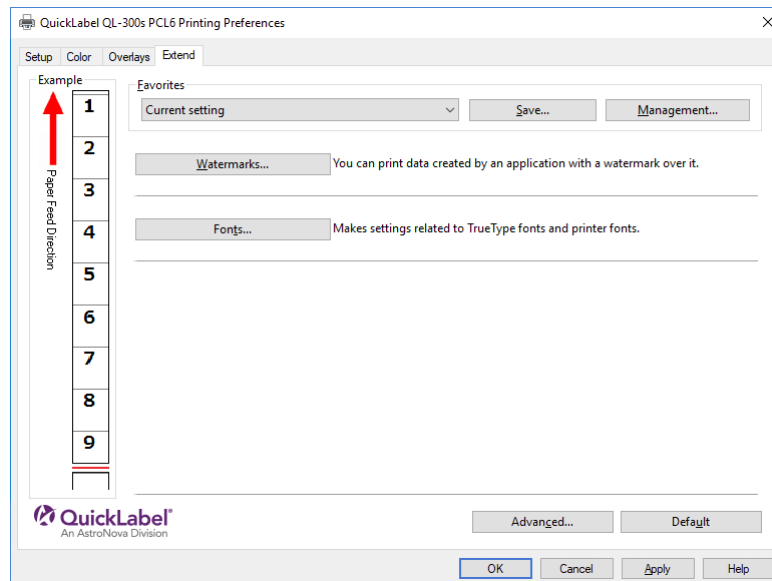


### Overlays Tab



Item	Description
Overlays	Specifies whether or not a form should be overlaid on the document to be printed, or whether the document should be registered as a new form in the device.

### Extend Tab

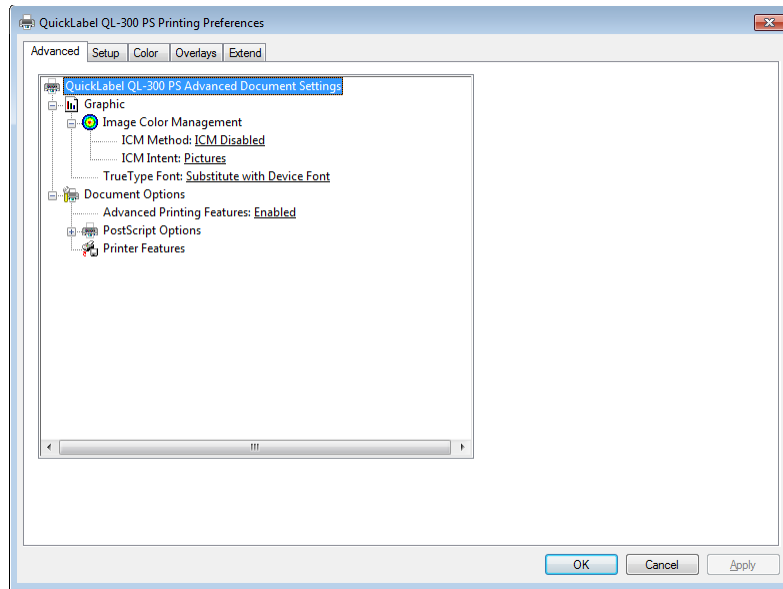


Item	Description
Watermarks	Sets when implementing stamp printing.

Item	Description
Fonts	Configures TrueType and printer font settings.

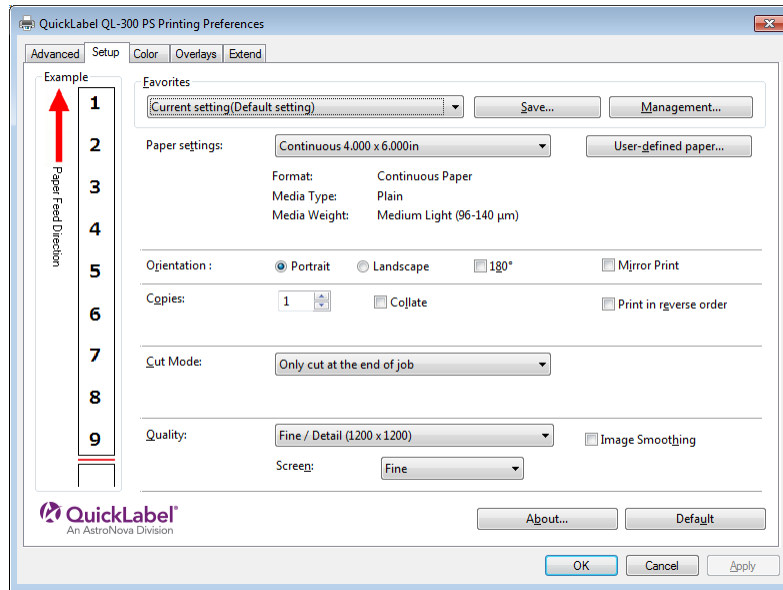
## Windows PS Printer Driver Functions

### Advanced Tab



Item	Description
ICM Method	Specifies the ICM process.
ICM Intent	Specifies the intent of the ICM. Converts printer colors to be appropriate for the specified intent.
TrueType Font	Specifies whether to use the device fonts, if available, or to download fonts included in the print data as software fonts.
PostScript Options	Specifies the various settings for creating PostScript data.

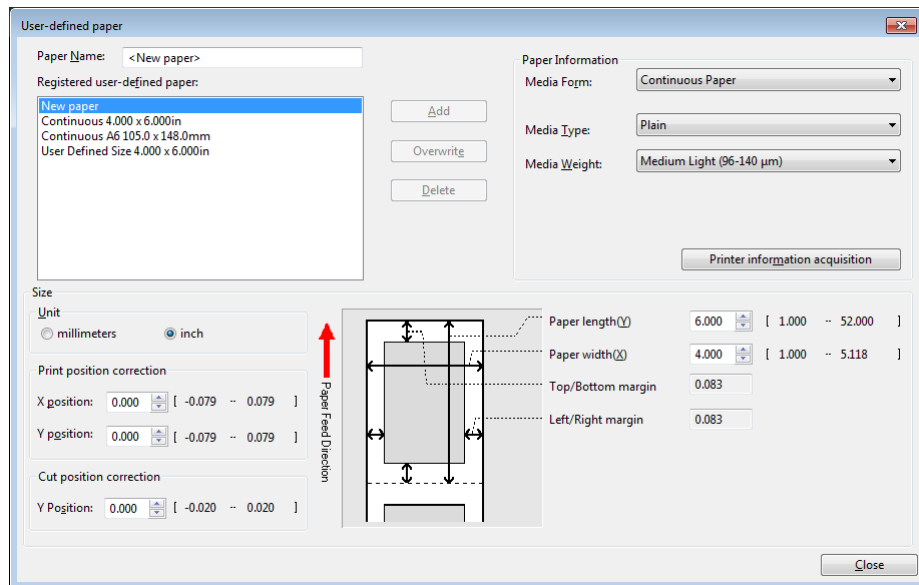
Setup Tab



Item	Description
Example	Shows what printing results will be based on current settings. This example is just an approximation and does not indicate the exact actual number of print pages and cut positions.
Paper settings	Specifies, from among registered paper settings, which one should be applied for printing.
Orientation	Specifies the print orientation.
Copies	Specifies the quantity to be printed.
Cut Mode	Specifies the timing to cut roll paper when cutting and printing on it.
Quality	Specifies the resolution during printing.
Screen	Specifies the halftoning available with the device.
User-defined paper	Click when using the driver to register paper settings to be used for printing.

Item	Description
Paper interval detection	Before printing to black mark or die-cut labels, click to execute learning on the device to improve the print position before starting. Note that executing this function will cause some paper to be used.
About	Displays the printer driver version information.
Default	Restores default settings.

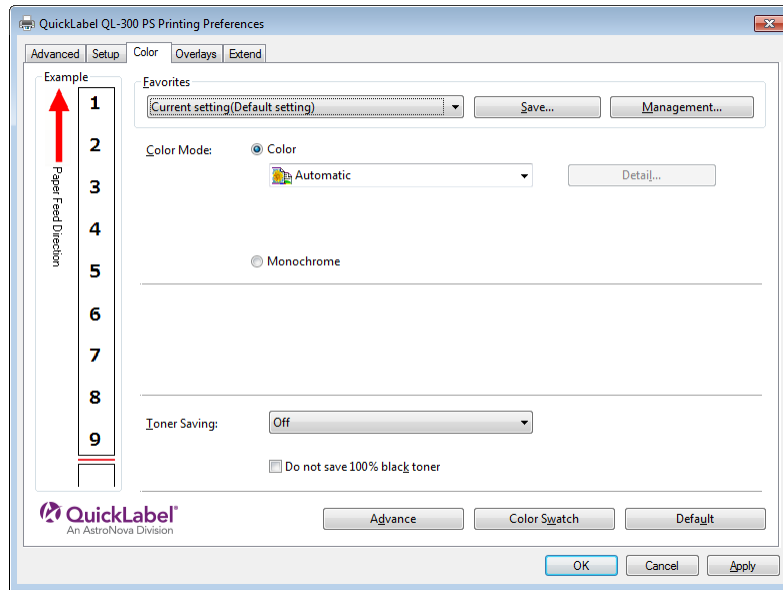
**User-defined paper**



Item	Description
Paper Name	Enter the name of the paper settings you want to register.
Registered user-defined paper	Shows a list of paper settings that have been registered
Size	Specifies either millimeters or inches as the unit for input values.
Print position correction	Adjusts the print start position on the paper edge.
Cut position correction	Adjusts the cut position when cutting and printing roll paper

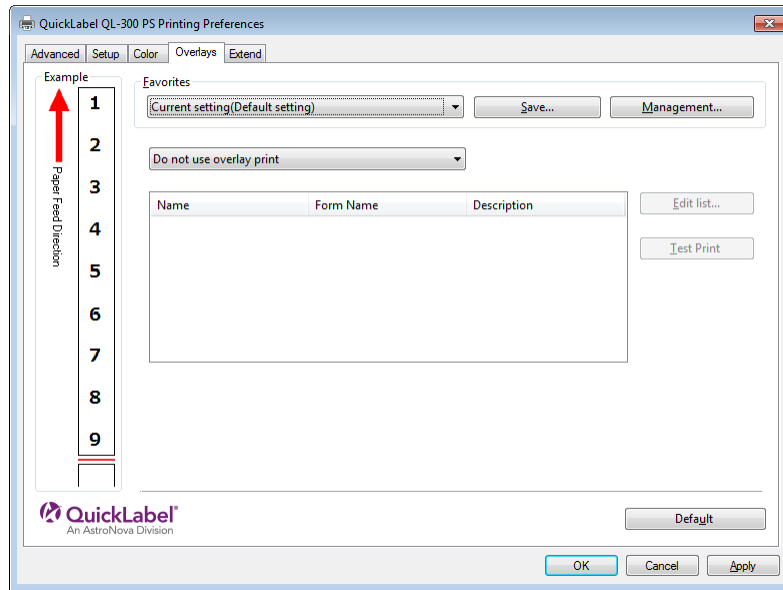
Item	Description
Media Form	Specifies the paper setting type to be registered. Size input items change in accordance with this setting.
Media Type	Specifies the paper type.
Media Weight	Specifies the paper thickness.
Sensor settings	Specifies the settings, from among those registered on the device, to be used for printing.
Sensor Adjustment	Click to calibrate the gap of black mark or die-cut labels, and register the results as device sensor settings. This button is not displayed for media forms that do not require calibration.
Printer information acquisition	Obtains, from devices, the names of settings registered as sensor settings and the names of user types registered as paper types, and reflects them in the sensor settings and paper type list on the printer driver.

### Color Tab



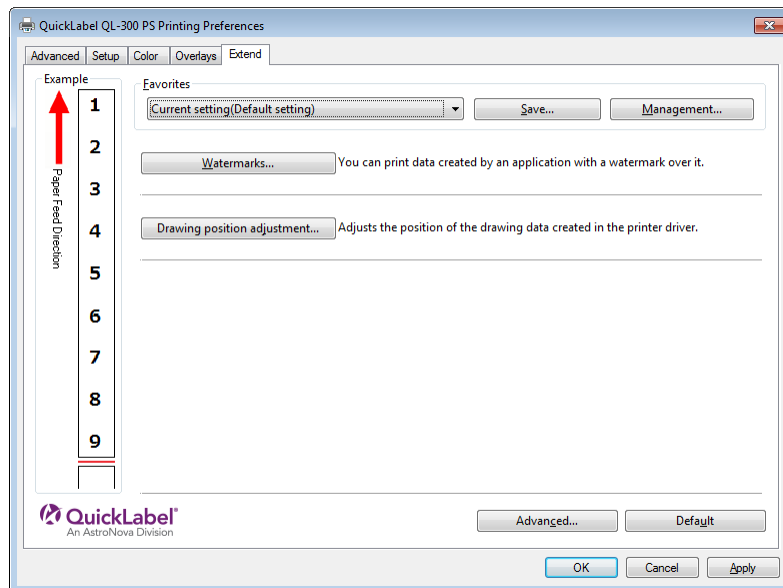
Item	Description
Color Mode	Selects either color printing or monochrome printing. When you select <b>Color</b> , and then select <b>Simple Adjustment</b> or <b>Graphic Pro</b> , clicking <b>Detail</b> displays the <b>Simple Adjustment Details</b> dialog box, which can be used to configure detailed color printing settings.
Spot Color	Specifies how white toner should be used for printing. This item available only on the QL-300s.
Toner Saving	Specifies the print density when economizing on toner.

### Overlays Tab



Item	Description
Overlays	Specifies whether or not a form should be overlaid on the document to be printed, or whether the document should be registered as a new form in the device.

### Extend Tab



Item	Description
Watermarks	Sets when implementing stamp printing.

Item	Description
Drawing position adjustment	Specify if you want to adjust the position of image data before printing.

## Control Panel Menu Functions Table

### Device Setup Screen

Item	Description
Configuration	View device information (total number of sheets, remaining wear item quantity, system information, etc.)
Print Information	Print the settings, usage report, error log, color profile list, and user media lists for this machine.
Menus	Used to configure system settings, print position adjustment, color, and other settings.
Admin Setup	Administrator sets the network settings, changes passwords, etc.
Print Statistics	Check the print use status of the user.
Calibration	Used to adjust the color densities and shades, color misalignment, etc.
Boot Menu	Set whether or not to restart the printer when a malfunction occurs in the HDD or file system, etc.

### Configuration

Item			Description
Feeder Count	Unwinder	nnnnn	Displays the total print quantity for the unwinder. (This is the number of sheets converted into the A6 size paper from the length of paper fed from the unwinder.)



Item			Description
Supplies Life	Cyan Print Cartridge	Remaining nnn%	Shows the remaining service life (%) of each color's print cartridge. White is displayed with QL-300s only.
	Magenta Print Cartridge	Remaining nnn%	
	Yellow Print Cartridge	Remaining nnn%	
	Black Print Cartridge	Remaining nnn%	
	White Print Cartridge	Remaining nnn%	
	Waste Toner Box	Remaining nnn%	Shows the remaining service life (%) of the waste toner box.
	Belt	Remaining nnn%	Shows the remaining service life (%) of the belt unit.
	Fuser	Remaining nnn%	Shows the remaining service life (%) of the fuser unit.

Item		Description	
Network	Printer Name	***** ***** *****	Shows the printer name used by the DNS and Network PnP.
	Short Printer Name	***** *****	Displays the short printer name.
	IPv4 Address	xxx.xxx.xxx.xxx	Shows the IP address. When TCP/IP is enabled, shows the setup of the following control panel setting <b>Admin Setup &gt; Network Setup &gt; IPv4 Address</b> .
	Subnet Mask	xxx.xxx.xxx.xxx	Displays the subnet mask. When TCP/IP is enabled, shows the setup of the following control panel setting <b>Admin Setup &gt; Network Setup &gt; Subnet Mask</b> .
	Gateway Address	xxx.xxx.xxx.xxx	Displays the gateway address. When TCP/IP is enabled, shows the setup of the following control panel setting <b>Admin Setup &gt; Network Setup &gt; Gateway Address</b> .
	MAC Address	xx:xx:xx: xx:xx:xx	Shows the MAC address.
	Network FW Version	xx.xx	Shows the network firmware version.
	Web Remote Version	xx.xx	Shows the web page version.
	IPv6 Address (Local)	xxxx:xxxx:xxxx:xxxx: xxxx:xxxx:xxxx:xxxx	Shows the (local) IPv6 address. This menu is not displayed when TCP/IP is disabled or when the IP version is IPv4.
	IPv6 Address (Global)	xxxx:xxxx:xxxx:xxxx: xxxx:xxxx:xxxx:xxxx	Shows the (global) IPv6 address. This menu is not displayed when TCP/IP is disabled or when the IP version is IPv4.

Item		Description	
System	Serial Number	xxxxxxxxxx xxxxxxxxxx xxxxxx	Displays the serial number.
	Asset Number	xxxxxxxxxx xxxxxxxxxx xxxxxxxxxxxx	Displays the asset number of the printer manager.
	Lot Number	xxxxxxxxxxxx xxxxxxxxxxxx xx	Displays the lot number.
	Firmware Version	xxx.xx_x_x	Shows the version number of FirmSuite.
	CU Version	xx.xx	Displays the control unit firmware version.
	PU Version	xx.xx.xx	Displays the printer unit firmware version.
	RAM	xxMB	Shows the total availability of all mounted RAM.
	Flash Memory	xxMB[Fxx]	Displays the total availability of all flash memory and flash system versions installed.
	HDD	xx.xxGB [Fxx]	Displays the HDD size and file system version installed.
	Date and Time	mm/dd/yyyy or dd/mm/yyyy	Displays the current date and time.

## Print Information

Item		Description
Configuration	Execute	Prints the device setup details.
Demo Page	DEMO1 Execute	Prints the demo pages.
File List	Execute	Prints the file list.
Usage Report	Execute	Prints the total print results. Not displayed if <b>Disable</b> is set for the control panel <b>Print Statistics &gt; Usage Report</b> item.

Item		Description
Error Log	Execute	Prints the error log.
Color Profile List	Execute	Prints the color profile list.
User Media List	Execute	Prints the user media list. Displayed when the user media is registered.
Test Print-1	Execute	Prints the patterns for analyzing the print quality.
Test Print-2	Execute	Prints the patterns for analyzing the CMYK print quality.
Test Print-3	Execute	Prints the patterns for analyzing the status of the print cartridges.
Test Print-4	Execute	Prints the patterns for analyzing print quality of the spot colors. Displayed with QL-300s only.
Cleaning Page	Execute	Prints the toner-free white sheet to remove dirt from the surface of the fuser belt in the fuser unit.

## Menus

### Unwinder Config

Item	Value	Description
Media Form	<b>Continuous Paper</b> Continuous Paper (Black Mark) Die-cut Label (Gap) Die-cut Label (Black Mark) Continuous Label Continuous Label (Black Mark)	Specifies the shape of the roll paper.

Item	Value	Description	
Liner Width Config	Liner Width Mode	<p><b>Auto</b> Custom</p>	<p>Specifies the mode for setting the width of the label's liner.</p> <p>Auto: The width of the liner is set given that the label is in the center of the liner.</p> <p>Custom: The width of the liner is input and the left gap is calculated given that the left and right gaps are different.</p>
	Liner Width	<p>29.4 millimeter (1.16 inch)   <b>105.6 millimeter (4.16 inch)</b> <b>109.0 millimeter (4.29 inch)</b>   130.0 millimeter (5.12 inch)</p>	<p>Inputs the width of the liner. Appears when the Liner Width Mode is "Custom". The initial values vary depending on your operating environment.</p>
	Right Gap	<p><b>2.0 millimeter (0.08 inch)</b>   25.4 millimeter (1.00 inch)</p>	<p>Specifies the distance from the right edge of the label to the right edge of the liner.</p>
Paper Size	<p><b>A6</b> <b>4x6 inch</b> Custom</p>	<p>Sets the size of the paper for the unwinder. The initial values vary depending on your operating environment.</p>	
X Dimension	<p>25.4 millimeter (1.00 inch)   <b>101.6 millimeter (4.00 inch)</b> <b>105.0 millimeter (4.13 inch)</b>   126.0 millimeter (4.96 inch)*</p>	<p>Sets the width of the custom paper sizes for the unwinder.</p> <p>Sets the dimension perpendicular to the paper feed direction.</p> <p>* 130.0 mm (5.12 inch) if the Media Form is Continuous Paper or Continuous Paper (Black Mark)</p> <p>The initial values vary depending on your operating environment.</p>	

Item	Value	Description
Y Dimension	12.7 millimeter (0.50 inch)   101.6 millimeter (4.00 inch)   <b>148.0 millimeter (5.83 inch)</b> <b>152.4 millimeter (6.00 inch)</b>   1320.8 millimeter (52.00 inch)	Sets the length of the custom paper sizes for the unwinder. Sets the same direction as for the dimension in the paper feed direction. If the setting is 101.6 mm (4.00 inch) or lower, then the set page length is handled as a whole-number multiple of the actual length of the page such that it exceeds 101.6 mm (4.00 inch). The initial values vary depending on your operating environment.
Black Mark Interval	15.9 millimeter (0.63 inch)   101.6 millimeter (4.00 inch)   <b>151.2 millimeter (5.95 inch)</b> <b>155.6 millimeter (6.13 inch)</b>   1324.0 millimeter (52.13 inch)	Sets the interval of the marks on custom paper for the unwinder. Sets the same direction as for the dimension in the paper feed direction. If the setting is 104.8 mm (4.13 inch) or lower, then the set page length is handled as a whole-number multiple of the actual length of the page such that it exceeds 101.6 mm (4.00 inch). The initial values vary depending on your operating environment.
Gap Length	<b>3.0 millimeter (0.12 inch)</b>   10.0 millimeter (0.39 inch)	Sets the interval for labels. Sets the same direction as for the dimension in the paper feed direction.

Item	Value	Description
Adjust Cut Position	-0.5 millimeter (-0.02 inch)  <b>0.0 millimeter</b> <b>(0.00 inch)</b>  +0.5 millimeter (+0.02 inch)	Specifies the compensation value for the distance from the print completion position to the cut position (beginning of next label). (Specifies margin on following edge). If you specify a negative value, cutting is done at a short position.
Media Type	<b>Plain</b> Plain Labels Glossy Labels Film Labels1 Film Labels2 Film1 Film2 USERTYPE1 USERTYPE2 USERTYPE3 USERTYPE4 USERTYPE5 USERTYPE6 USERTYPE7 USERTYPE8 USERTYPE9 USERTYPE10 USERTYPE11 USERTYPE12 USERTYPE13 USERTYPE14 USERTYPE15 USERTYPE16 USERTYPE17 USERTYPE18 USERTYPE19 USERTYPE20	Sets the type of the paper for the unwinder. USERTYPE 1 to 20 are displayed when they are registered.
Media Weight	Light <b>Medium Light</b> Medium Medium Heavy Heavy Ultra Heavy1 Ultra Heavy2 Ultra Heavy3	Sets the thickness of the paper for the unwinder.

Item			Value	Description	
Sensor Setting			<b>Set1 :</b> <b>Set2 :</b> <b>Set3 :</b> <b>Set4 :</b> <b>Set5 :</b> <b>Set6 :</b> <b>Set7 :</b> <b>Set8 :</b> <b>Set9 :</b> <b>Set10 :</b>	Sets the sensitivity of the gap sensor or black mark sensor. Only the adjusted sensor setting is displayed. Appears when the Media Form is something other than Continuous Paper or Continuous Label.	
Sensor Calibration	Set1 : Set2 : Set3 : Set4 : Set5 : Set6 : Set7 : Set8 : Set9 : Set10 :	Execute Calibration	Execute	Executes calibration of the gap sensor or black mark sensor.	
Sensor Calibration	Set1 : Set2 : Set3 : Set4 : Set5 : Set6 : Set7 : Set8 : Set9 : Set10 :	Adjust Slice Level	Reflective Sensor in Unwinder	0 - 1023	Fine tunes the sensitivity of the reflective sensor in the unwinder that was measured during Sensor Calibration. The default value fluctuates according to the results of the calibration. Appears when the black mark sensor is used.
Sensor Calibration	Set1 : Set2 : Set3 : Set4 : Set5 : Set6 : Set7 : Set8 : Set9 : Set10 :	Adjust Slice Level	Reflective Sensor in Printer	0 - 1023	Fine tunes the sensitivity of the reflective sensor in the device that was measured during Sensor Calibration. The default value fluctuates according to the results of the calibration. Appears when the black mark sensor is used.



Item				Value	Description
Sensor Calibration	Set1 : Set2 : Set3 : Set4 : Set5 : Set6 : Set7 : Set8 : Set9 : Set10 :	Adjust Slice Level	Transmission Sensor in Unwinder	0 - 1023	Fine tunes the sensitivity of the transmission sensor in the unwinder that was measured during Sensor Calibration. The default value fluctuates according to the results of the calibration. Appears when the gap sensor is used.
Sensor Calibration	Set1 : Set2 : Set3 : Set4 : Set5 : Set6 : Set7 : Set8 : Set9 : Set10 :	Adjust Slice Level	Transmission Sensor in Printer	0 - 1023	Fine tunes the sensitivity of the transmission sensor in the device that was measured during Sensor Calibration. The default value fluctuates according to the results of the calibration. Appears when the gap sensor is used.
Sensor Calibration	Set1 : Set2 : Set3 : Set4 : Set5 : Set6 : Set7 : Set8 : Set9 : Set10 :	Change Name		Execute	You can change the name of the specified setting numbers. You can use up to eight characters of single-byte upper case English and numbers.
Sensor Calibration	Set1 : Set2 : Set3 : Set4 : Set5 : Set6 : Set7 : Set8 : Set9 : Set10 :	Reset Setting		Execute	Initializes the content of the specified setting numbers.
Check Media Pitch				Execute	Measures the intervals on the paper. Appears when the Media Form is something other than Continuous Paper or Continuous Label.

**Bold** indicates factory-set values.

### Cutter Setup

Item	Value	Description
Cut Mode	Job Collation <b>Specified Interval</b>	Specifies the cutting operation. Job: Cuts at the end of a job. Collation: Cuts at the end of the job and at the end of the job collation. Specified Interval: Cuts in units of the specified number of pages. Cuts at the end of the collation/job.
Cut Interval	<b>1</b>   9999	Sets how many pages are cut each time. Appears when the Cut Mode is "Specified Interval".

**Bold** indicates factory-set values.

### System Adjust

Item	Value	Description
Power Save Time	<b>1 minute</b> 2 minutes 3 minutes 4 minutes 5 minutes 10 minutes 15 minutes 30 minutes 60 minutes	Sets the time until the printer enters power save mode.
Auto Power Off Time	1 hour 2 hours 3 hours <b>4 hours</b> 8 hours 12 hours 18 hours 24 hours	Sets the time until the printer enters OFF mode from stand-by status.
Clearable Warning	<b>ONLINE</b> Job	Sets the timing until clearable warning display turns OFF.

Item	Value	Description
Timeout InJob	Off 5 seconds 10 seconds 20 seconds 30 seconds <b>40 seconds</b> 50 seconds 60 seconds 90 seconds 120 seconds 150 seconds 180 seconds 210 seconds 240 seconds 270 seconds 300 seconds	Sets the time from loss of the receipt of data until force-printing. With PS, the job is canceled without printing.
Timeout Local	<b>0 seconds</b> 5 seconds   90 seconds   290 seconds 295 seconds 300 seconds	Sets the time for each port to be kept opened after printing. (Excludes network)
Timeout Network	0 seconds 5 seconds   <b>90 seconds</b>   290 seconds 295 seconds 300 seconds	Sets the time for the network port to be kept opened after printing.
Error Report	On <b>Off</b>	Specifies whether to print error reports when an internal PCL or PS error occurs.
Hex Dump	Execute	Prints received data in hexadecimal dump. Turn off the power to stop printing the hex dump.

**Bold** indicates factory-set values.

## Print Adjust

Item		Value	Description
Print Position Adjust	X Adjust	<b>0.00 millimeters</b> +0.1 millimeters   +2.00 millimeters -2.00 millimeters   -0.1 millimeters	Adjusts the overall image print position perpendicularly (horizontally) in the direction of paper feed (0.1 mm intervals).
	Y Adjust	<b>0.00 millimeters</b> +0.1 millimeters   +2.00 millimeters -2.00 millimeters   -0.1 millimeters	Adjusts the overall image print position in the direction of paper feed (vertically) (0.1 mm intervals).
Paper Edge Detect Mode		<b>Mode1</b> Mode2 Off	Set the action of the controls for the leading edge of the media to avoid image skew and detection position skew of the leading edge of labels. Mode1: For long leading edges, this setting automatically cuts/outputs and then starts printing. For short leading edges, printing just starts. (Applicable for the gap/black mark setting) Mode2: For short or long leading edges, this setting automatically cuts/outputs and then starts printing for both situations. (Applicable for the gap/black mark setting if the leading edge is long. If the leading edge is short, then only the gap setting is applicable.) Off: With this mode, the user straightens the leading edge so paper is not wasted. (Applicable for the gap/black mark setting)

Item	Value	Description
Roll Paper End Detect Mode	<b>Auto</b> Stop Forced Cut	Sets the control for ejecting the trailing edge of the paper to auto, stop feeding, or forced cut. Auto: With this mode, the trailing edge is processed appropriately according to the media. Stop: With this mode, feed is forced to stop when the trailing edge of the paper is detected, regardless of the length or type of media. Forced Cut: With this mode, the system is forced to cut and eject the paper when the trailing edge of the paper is detected, regardless of the length or type of media.
Media Transfer Setting Black	<b>0</b> +1 +2 +3 -3 -2 -1	Performs fine adjustment if black is faded or tiny white spots appear when printing with the black (K) print cartridge only (when printing with the YMCW print cartridges are raised). Lower the setting value if there are only fewer white spots, or raise the setting value if the high-density portion is thinner.
Media Transfer Setting Color	<b>0</b> +1 +2 +3 -3 -2 -1	Performs fine adjustment if colors are faded or tiny white spots appear when printing with two or more print cartridges or just the white (W) print cartridge. Lower the setting value if there are only fewer white spots, or raise the setting value if the high-density portion is thinner.

Item		Value	Description
SMR Setting	Cyan	0	<p>Compensates for uneven print density due to temperature and humidity, and printing quantity, using indicated color. Raise the setting value if it is blurred. Lower the setting value if the density darkens partially.</p> <ul style="list-style-type: none"> <li>Continued use with the setting value raised has a risk of printing stains.</li> <li>Continued use with the setting value lowered has a risk of blurring.</li> </ul> <p>White is displayed with QL-300s only.</p>
	Magenta	+3	
	Yellow	-6	
	Black	-1	
	White		
BG Setting	Cyan	0	<p>Compensates for print results variation due to differences in the temperature and humidity, using indicated color. Lower the setting value if the underlay is dark.</p> <ul style="list-style-type: none"> <li>Continued use with the setting value lowered has a risk of printing stains.</li> </ul> <p>White is displayed with QL-300s only.</p>
	Magenta	+1	
	Yellow	+2	
	Black	+3	
	White	-3	
Drum Cleaning		On Off	Sets whether to implement drum cleaning before printing. The image quality may be improved.
Transfer Roller Cleaning		Execute	Implements cleaning of the 2nd transfer roller unit.
Transfer Setting	Cyan Transfer Setting	0 +1 +2 +3 -3 -2 -1	Lower the setting value if lateral-stripe white dots and dark streaks appear for cyan, green and blue toner. Raise the setting value if the high-density portion of cyan, green and blue is thinner.

Item		Value	Description
Transfer Setting	Magenta Transfer Setting	<b>0</b> +1 +2 +3 -3 -2 -1	Lower the setting value if lateral-stripe white dots and dark streaks appear for magenta and/or red toner. Raise the setting value if the high-density portion of magenta and/or red is thinner.
Transfer Setting	Yellow Transfer Setting	<b>0</b> +1 +2 +3 -3 -2 -1	Lower the setting value if lateral-stripe white dots and dark streaks appear for yellow toner. Raise the setting value if the high-density portion of yellow is thinner.
Transfer Setting	Black Transfer Setting	<b>0</b> +1 +2 +3 -3 -2 -1	Lower the setting value if lateral-stripe white dots and dark streaks appear for black toner. Raise the setting value if the high-density portion of black is thinner.
Transfer Setting	White Transfer Setting	<b>0</b> +1 +2 +3 -3 -2 -1	Lower the setting value if lateral-stripe white dots and dark streaks appear for white toner. Raise the setting value if the high-density portion of white is thinner. White is displayed with QL-300s only.
DV Roller Cleaning 1		<b>On</b> Off	Adjust the toner disposal threshold. On: Image quality priority Off: Toner life priority
DV Roller Cleaning 2		<b>Mode 1</b> Mode 2 Off	May be effective against lateral striping caused by variations in ambient temperature and/or humidity. Try mode 2 if desired results are not produced by mode 1.

**Bold** indicates factory-set values.

## Admin Setup

To enter this menu, it is necessary to enter the password. The factory default setting of the administrator password is 999999.

### Network Setup

Item	Value	Description
TCP/IP	<b>Enable</b> Disable	Enables/disables TCP/IP protocols.
NetBIOS over TCP	<b>Enable</b> Disable	Enables/disables NetBIOS over TCP/IP. Appears when Enable is set on the control panel for TCP/IP.
IP Address Set	<b>Auto</b> Manual	Specifies whether to request the IP address from the DHCP server. Appears when Enable is set on the control panel for TCP/IP.
IPv4 Address	xxx.xxx.xxx.xxx	Sets the IP address. Appears when Enable is set on the control panel for TCP/IP. Appears when Manual is set on the control panel for IP Address Set.
Subnet Mask	xxx.xxx.xxx.xxx	Sets the subnet mask. Appears when Enable is set on the control panel for TCP/IP. Appears when Manual is set on the control panel for IP Address Set.
Gateway Address	xxx.xxx.xxx.xxx	Sets the gateway address. Appears when Enable is set on the control panel for TCP/IP. Appears when Manual is set on the control panel for IP Address Set.



Item	Value	Description
Web	<b>Enable</b> Disable	Enables/disables access using web browsers. Appears when Enable is set on the control panel for TCP/IP.
Telnet	Enable <b>Disable</b>	Enables/disables access using Telnet. Appears when Enable is set on the control panel for TCP/IP.
FTP	Enable <b>Disable</b>	Enables/disables access using FTP. Appears when Enable is set on the control panel for TCP/IP.
IPSec	Enable <b>Disable</b>	Enables/disables access using IPsec. Appears when Enable is set on the control panel for TCP/IP.
SNMP	<b>Enable</b> Disable	Enables/disables access using SNMP. Appears when Enable is set on the control panel for TCP/IP.
Network Scale	<b>Normal</b> Small	Normal: Printer operates effectively even if connected to a hub with spanning tree functions. However, printer startup time becomes longer when two or three computers are connected to a small-scale LAN. Small: Covers small scale LANs with 2 or 3 PCs to large scale LANs are covered, but if connected to a hub with spanning tree functions, operations may not be effective.
Gigabit Network	Enable <b>Disable</b>	Sets whether to support a Gigabit network.

Item	Value	Description
Hub Link Setting	Auto Negotiate 100Base-TX Full 100Base-TX Half 10Base-T Full 10Base-T Half	Sets the connection mode to the hub.
Network Factory Defaults	Execute	Restores the settings, such as network, mail server, LDAP server, and secure protocol server, etc., to their default values.

**Bold** indicates factory-set values.

### USB Setup

Item	Value	Description
USB	<b>Enable</b> Disable	Enables/disables access using a USB interface.
Speed	<b>480Mbps</b> 12Mbps	Sets the maximum baud rate using a USB interface.
Soft Reset	Enable <b>Disable</b>	Enables/disables the software reset command.
Serial Number	<b>Enable</b> Disable	Enables/disables the USB serial number. The USB serial number is used to identify USB devices connected to a PC.
Offline Receive	Enable <b>Disable</b>	Sets whether to receive data even if offline or a recoverable error occurs.

**Bold** indicates factory-set values.

### Print Setup

Item	Value	Description
Personality	<b>Auto</b> PCL PostScript	Select the print language. Print language switching is automatic when set to Auto.

Item		Value	Description
Copies		1   9999	Sets the copy quantity. This setting is ignored in case of local print. This setting is disabled unless the <b>Job Copy</b> setting is 1.
Job Copy		1   999	Sets the print quantity. This setting is ignored in case of local print. The settings in the printer driver always overwrite these settings. * This setting is enabled only if <b>Collate</b> is checked and <b>1</b> is specified as the number of copies in the PCL printer driver.
Edge to Edge		On Off	Sets the print margin.
Resolution		600dpi <b>1200dpi</b>	Sets the resolution.
Toner Save	Toner Save Level	Off Low Middle High	Set the toner save quantity. Specifies <b>Off</b> when toner save mode is disabled.
	Color	All Except 100% Black	All: All colors, including 100% black, comprise all the target colors for toner saving. Except 100% Black: All colors, excluding 100% black, comprise all the target colors for toner saving.

Item	Value	Description
Check Unnecessary Print Cartridge	On <b>Off</b>	Set whether to generate an error or continue printing when a print cartridge is detected to be down even though it is not being used as a specified color for the print data. On: An error is displayed and the print job is cancelled, to give priority to the service life of the print cartridge. Off: A warning screen is displayed, but printing continues because priority is given to productivity.
Default Orientation	<b>Portrait</b> Landscape	Sets the print orientation.
Trapping	<b>Off</b> Narrow Narrow / Choke White Wide Wide / Choke White Choke White	Sets trapping. Narrow/Choke White, Wide/Choke White, and Choke White are displayed for the QL-300s only.

**Bold** indicates factory-set values.

### PS Setup

Item	Value	Description
Network Protocol	ASCII <b>RAW</b>	Specifies the PS communication protocol mode for data from the network.
USB Protocol	ASCII <b>RAW</b>	Specifies the PS communication protocol mode for data from USB.

**Bold** indicates factory-set values.

## PCL Setup

Item	Value	Description
Font Source	<b>Resident</b> Resident2 Downloaded	Sets the location of the fonts to be used.
Font Number	<b>IO</b> C1 S1	Sets the numbers of the fonts to be used.
Font Pitch	0.44 CPI   <b>10.00 CPI</b>   99.99 CPI	Sets the font width. Increases and reduces in 0.01 CPI units. Displayed when the font selected using <b>Font Number</b> is an outline font with fixed spacing.
Font Height	4.00 points   <b>12.00 points</b>   999.75 points	Sets the font height. Increases and reduces in 0.25 point units. Displayed when the font selected using <b>Font Number</b> is an outline font with variable spacing.
Symbol Set	<b>PC-8</b> PC-8 Dan/Nor PC-8 Grk PC-8 TK PC-775   PC Ext D/N PC Ext US PC Set1 PC Set2 D/N PC Set2 US	Select the symbol set.
CR Function	<b>CR</b> CR+LF	Specifies the operation when a CR code is received.
LF Function	<b>LF</b> LF+CR	Specifies the operation when an LF code is received.
Print Margin	Normal 1/5 inch 1/6 inch 1/8 inch <b>1/12.5 inch</b>	Sets the area of the paper where printing is not possible.

Item	Value	Description
True Black	On <b>Off</b>	Specifies whether to use mixed CMYK or black toner only for printing black of image data.
Pen Width Adjust	<b>On</b> Off	Compensates so that thin lines are visible.

**Bold** indicates factory-set values.

### Color Setup

Item	Value	Description
Ink Simulation	<b>Off</b> SWOP ISO Coated Japan	Sets the ink simulation. This setting is enabled only for PS language jobs.
UCR	<b>Low</b> Normal High	You can select the black plate (black) amount during color printing. Setting more black plate economizes on the toner of the other three colors.
CMY 100% Density	Enable <b>Disable</b>	Enables/disables 100% output for CMY 100% shade values.
CMYK Conversion	<b>On</b> Off	You can select the method of total toner quantity control for CMYK data. Select <b>Off</b> to disable GCR (Gray Component Replacement). Furthermore, this menu setting is disabled if using the ink simulation function.

**Bold** indicates factory-set values.

### Panel Setup

Item	Value	Description
Idle Display	<b>Supplies Life</b> Unwinder Config	Sets the information displayed in the standby screen.

Item	Value	Description
Panel Brightness During Operation	5   <b>31</b>	Adjusts the brightness (backlight luminosity) of the control panel LCD. The set brightness is applied during control panel operations.
Panel Brightness While Power Save	0   <b>1</b>   31	Adjusts the brightness (backlight luminosity) of the control panel LCD. The set brightness is applied after the panel backlight timer time has elapsed from the last operation.
Panel Backlight Timer	10   <b>30</b>   300	Adjusts the time (in seconds) from the last operation until <b>Panel Brightness While Power Save</b> is applied.

**Bold** indicates factory-set values.

### Time Setup

Item	Value	Description
Date Format	yyyy/mm/dd <b>mm/dd/yyyy</b> <b>dd/mm/yyyy</b>	Sets the date display mode. The initial values vary depending on your operating environment.
Time Zone	-12:00   <b>+0:00</b>   +13:00	Sets the time difference from GMT in 15-minute units. If the time zone setting is changed, the time differences before and after the change are reflected in the current time.
Daylight Saving	On <b>Off</b>	Sets whether to display daylight saving time. On: Sets the current time 1 hour forward. Off: Sets the current time 1 hour back.

Item	Value	Description
Time Setting	<b>2000/01/01 00 :00</b>   2091/12/31 23 :59	Sets the time.

**Bold** indicates factory-set values.

### Power Setup

Item	Value	Description
Power Save	<b>Enable</b> Disable	Enables/disables power save mode.
Auto Power Off	Enable Auto Config <b>Disable</b>	Sets auto power off mode.

**Bold** indicates factory-set values.

### Others Setup

Item	Value	Description	
RAM Setup	Receive Buffer Size	<b>Auto</b> 0.5 MB 1 MB 2 MB 4 MB 8 MB 16 MB 32 MB	Sets the incoming buffer size that is assured by the local interface.
	Resource Save	Auto <b>Off</b> 0.5 MB 1 MB 2 MB 4 MB 8 MB 16 MB 32 MB	Sets the resource saving area size.



Item		Value	Description
Storage Common Setup	Check File System	Execute	Implements management data (FAT information) recovery, and resolves mismatches between the actual (free) space in the file system and the free space displayed.
	Check All Sectors	Execute	Recovers defective sector information on the HDD and file system non-conformances.
	Enable Initialization	<b>No</b> Yes	Specifies whether or not to authorize setup changes associated with HDD and flash memory initialization.
Language Setup	Select Language	Chinese <b>English</b> French German Italian Japanese Russian Spanish	Specifies the control panel display language.
	Language Initialize	Execute	Deletes the message files that have been downloaded. Also, the <b>Select Language</b> setting returns to the factory default setting.

Item		Value	Description
Job Cancel Setup	Cancel Key Behavior	<b>Short</b> Long Off	Sets the operations when the device <b>CANCEL</b> button is pressed. Short: Hold down no longer than two seconds to cancel the print job. Long: Hold down for 2 to 5 seconds to cancel a print job. Off: Disables the <b>CANCEL</b> button.
	Inquiry Display	<b>On</b> Off	Sets whether to display the inquiry screen when a job is canceled.
	Focus Position	<b>Yes</b> No	Sets whether to apply <b>Yes</b> or <b>No</b> focus for selection in the job cancellation inquiry screen.
	Display Timeout	60   <b>180</b>   300	Sets the display timeout value for the inquiry screen when a job is canceled.

Item		Value	Description
Media Operation Setup	Inquiry Display	On Off	Specifies the operation when the <b>FEED</b> button or the <b>UNLOAD</b> button is pressed. On: In the cases below, a confirmation screen is displayed before the operation is executed. <ul style="list-style-type: none"> <li>• FEED: When the paper changes from a stand-by state to a through paper state</li> <li>• UNLOAD/CUT: When cut is executed</li> </ul> Off: Operation is performed without displaying a confirmation message.
	Rewinder Distance	600 millimeter (24 inch) <b>900 millimeter (36 inch)</b> 1200 millimeter (48 inch)	Specifies the amount to be fed when the <b>FEED</b> button is pressed in the stand-by state, using the output slot as the reference point.
	Feed Distance	150 millimeter (6 inch) <b>300 millimeter (12 inch)</b> 450 millimeter (18 inch)	Specifies the amount to be fed when the <b>FEED</b> button is pressed in the through paper state, using the current position as the reference point.

**Bold** indicates factory-set values.

### Settings

Item	Value	Description
Reset Settings	Execute	Restores the user menu settings to the factory settings.
Save Settings	Execute	Saves the current menu settings.
Restore Settings	Execute	Changes the saved menu settings. Displayed when <b>Save Settings</b> is executed on the control panel.

**Bold** indicates factory-set values.

### Change Password

Item	Value	Description
New Password	*****	Sets a new password to be entered in the <b>Admin menu</b> and <b>Boot Menu</b> .
Verify Password	*****	Sets a new password to be entered in the <b>Admin menu</b> and <b>Boot Menu</b> for which New Password has been set.

**Bold** indicates factory-set values.

### Print Statistics

To enter this menu, it is necessary to enter the password. The factory default setting of the administrator password is 0000.

Item	Value	Description
Usage Report	<b>Enable</b> Disable	Enables/disables the Usage Report function.
Supplies Report	Enable <b>Disable</b>	Sets whether or not to display the number of wear item replacements. Not displayed if <b>Disable</b> is set for the control panel <b>Print Statistics &gt; Usage Report</b> item.
Reset Main Counter	Execute	Resets the main counter aggregate value. Not displayed if <b>Disable</b> is set for the control panel <b>Print Statistics &gt; Usage Report</b> item.
Reset Supplies Counter*2	Execute	Resets the number of wear item replacements. Not displayed if <b>Disable</b> is set for the control panel <b>Supplies Report</b> item.

Item		Value	Description
Change Password*1	New Password	****	Sets the new password to be entered in <b>Print Statistics</b> . Not displayed if <b>Disable</b> is set for the control panel <b>Print Statistics &gt; Usage Report</b> item.
	Verify Password	****	Sets a new password to be entered in the <b>Print Statistics</b> for which <b>New Password</b> has been set. Not displayed if <b>Disable</b> is set for the control panel <b>Print Statistics &gt; Usage Report</b> item.

**Bold** indicates factory-set values.

## Calibration

Item		Value	Description
Auto Density Mode		<b>On</b> Off	Sets whether to automatically compensate density and shade.
Adjust Density		Execute	Implements density compensation. Implement when the device is in stand-by status.
Adjust Registration		Execute	Implements auto color misalignment compensation operations. Implement when the device is in stand-by status.
Color Density	Cyan Density	-3   <b>0</b>   +3	Adjusts the cyan density. This setting is enabled from printing after the density compensation has been implemented.
Color Density	Magenta Density	-3   <b>0</b>   +3	Adjusts magenta density. This setting is enabled from printing after the density compensation has been implemented.

Item		Value	Description
Color Density	Yellow Density	-3   <b>0</b>   +3	Adjusts yellow density. This setting is enabled from printing after the density compensation has been implemented.
Color Density	Black Density	-3   <b>0</b>   +3	Adjusts black density. This setting is enabled from printing after the density compensation has been implemented.
Color Density	White Density	-3   <b>0</b>   +3	Adjusts white density. This setting is enabled from printing after the density compensation has been implemented. Displayed with QL-300s only.
Print Color Tuning Pattern		Execute	Prints patterns to match the shading characteristics.
Base Color Tuning	Highlight	<b>A-1</b> A-2 B-1 B-2   O-1 O-2	Matches the color balance for the parts displayed as most clear in the highlight area of the printed color tuning pattern. The matching results are reflected in the highlight matching values for cyan, magenta, and yellow matching.
Base Color Tuning	Mid-Tone	<b>A-1</b> A-2 B-1 B-2   O-1 O-2	Matches the color balance for the parts displayed as most clear in the mid-tone area of the printed color tuning pattern. The matching results are reflected in the mid-tone matching values for cyan, magenta, and yellow matching.

Item		Value	Description
Base Color Tuning	Dark	A-1 A-2 B-1 B-2   O-1 O-2	Matches the color balance for the parts displayed as most clear in the dark area of the printed color tuning pattern. The matching results are reflected in the dark matching values for cyan, magenta, and yellow matching.
Fine Color Tuning	Cyan Tuning	Highlight -4   <b>0</b>   +4	Matches the highlights (light areas) of the cyan shade characteristics.
		Mid-Tone -4   <b>0</b>   +4	Matches the intermediate areas of the cyan shading characteristics.
		Dark -4   <b>0</b>   +4	Matches the dark (dark areas) of the cyan shade characteristics.
Fine Color Tuning	Magenta Tuning	Highlight -4   <b>0</b>   +4	Matches the highlights (light areas) of the magenta shading characteristics.
		Mid-Tone -4   <b>0</b>   +4	Matches the intermediate areas of the magenta shading characteristics.
		Dark -4   <b>0</b>   +4	Matches the dark (dark areas) of the magenta shading characteristics.

Item			Value	Description
Fine Color Tuning	Yellow Tuning	Highlight	-4   <b>0</b>   +4	Matches the highlights (light areas) of the yellow shading characteristics.
		Mid-Tone	-4   <b>0</b>   +4	Matches the intermediate areas of the yellow shading characteristics.
		Dark	-4   <b>0</b>   +4	Matches the dark (dark areas) of the yellow shading characteristics.
Fine Color Tuning	Black Tuning	Highlight	-3   <b>0</b>   +3	Matches the highlights (light areas) of the black shading characteristics.
		Mid-Tone	-3   <b>0</b>   +3	Matches the intermediate areas of the black shading characteristics.
		Dark	-3   <b>0</b>   +3	Matches the dark (dark areas) of the black shading characteristics.
Reset Color Tuning			Execute	Resets CMYK color matching.



Item		Value	Description
White Tuning*1	Highlight	-3   <b>0</b>   +3	Matches the highlights (light areas) of the white shading characteristics. Displayed with QL-300s only.
	Mid-Tone	-3   <b>0</b>   +3	Matches the intermediate areas of the white shading characteristics. Displayed with QL-300s only.
	Dark	-3   <b>0</b>   +3	Matches the dark (dark areas) of the white shading characteristics. Displayed with QL-300s only.
Density Adjustment Media		<b>Standard Media</b> Narrow/Thick Media	Specifies the operation speed during a density adjustment operation. Standard Media: Density adjustment operation performed at normal speed. Narrow/Thick Media: Density adjustment operation performed at low speed.

**Bold** indicates factory-set values.

## Boot Menu

This menu is displayed in English only.

### Boot Menu

To enter this menu, press and hold the **OK** button while turning ON the power supply. Confirm that **Boot Menu** is selected and then press the **OK** button.

To enter this menu, it is necessary to enter the password. The factory default setting of the administrator password is 999999.

Item		Value	Description
Storage Common Setup	Check File System	Execute	Executes management data (FAT information) recovery, and resolves mismatches between the actual (free) space in the file system and the displayed free space.
	Check All Sectors	Execute	Recovers defective sector information on the HDD and file system non-conformances.
Menu Lockout		On <b>Off</b>	Specifies whether or not to display menus on the control panel.
Panel Lockout		Mode1 Mode2 <b>Off</b>	Sets whether to disable the operations buttons on the control panel.

**Bold** indicates factory-set values.

### Troubleshooting

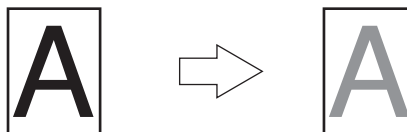
To enter this menu, press and hold the **OK** button while turning ON the power supply. Select **Troubleshooting** and then press the **OK** button.

Item	Value	Description
Sensor Calibration Reset	Execute	This resets all sensor calibration results to initial values.

## Saving Toner When Printing

### Saving Toner When Printing (Toner Save Mode)

You can print by economizing the toner consumption amount by reducing the page print density. Separately enable or disable the toner economy mode for 100% black.



You can suppress the quantity of toner used by selecting one of the following five patterns as necessary to reduce toner density.

- Printer setting: Follows the printer's setup.
- Off: Prints using regular density without economizing the toner.
- Save Level Low: Prints using medium light toner.
- Save Level Middle: Prints using light toner.
- Save Level High: Prints using considerably light toner.

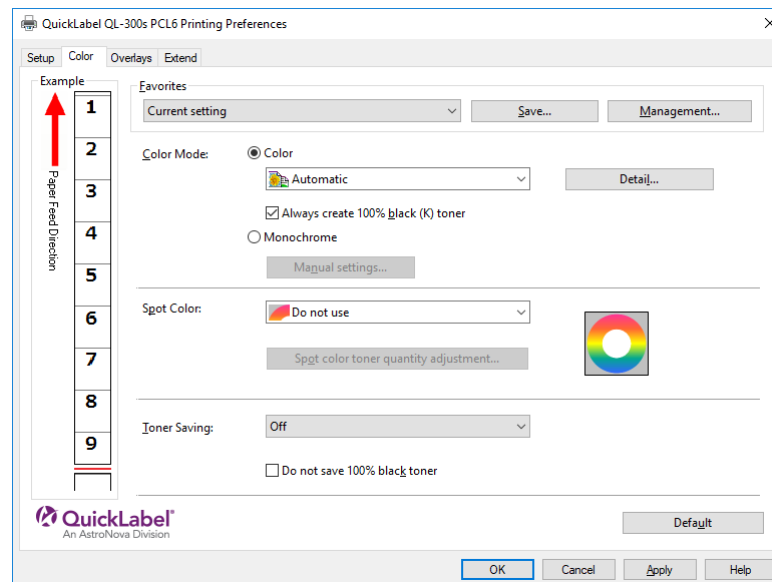
**Toner Saving** is enabled only if the print quality is specified as **Normal** or **Draft**.

The settings on the printer can be changed from **Admin Setup > Print Setup > Toner Save**. However, the printer driver settings are given priority.

**Note:** Toner save mode is not compatible with Spot Color printing.

## Windows PCL Printer Driver

1. Open the file to be printed.
2. Select **Print** in the **File** menu.
3. Click **Preferences** (or **Properties**).
4. On the **Color** tab, use **Toner Saving** to select a toner save quantity.

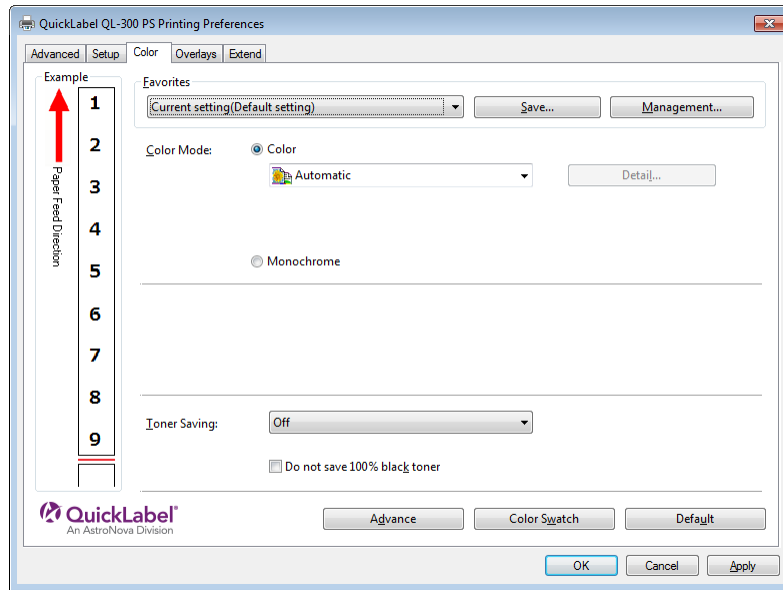


5. Print.

## Windows PS Printer Driver

1. Open the file to be printed.
2. Select **Print** in the **File** menu.
3. Click **Preferences** (or **Properties**).

- On the **Color** tab, use **Toner Saving** to select a toner save quantity.



- Print.

## Printing Using the Specified Print Cartridge Only (Lift Up)

The lifespan of an unused print cartridge can be prolonged by separating it from the belt unit. Setting combinations are shown in the table below.

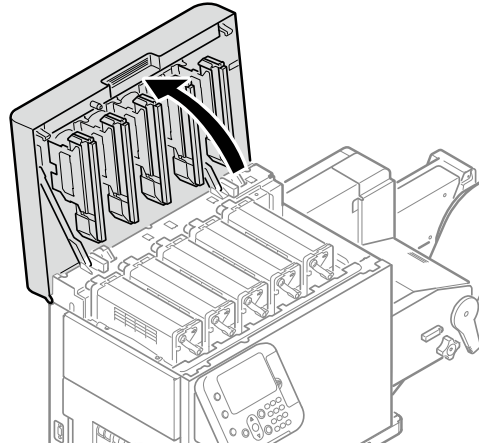
Print Color	Print Cartridge to be Lifted Up
Black (K) only	Cyan, magenta, yellow, white*
White* (W) only	Black, cyan, magenta, yellow
Black + white*	Cyan, magenta, yellow
Black, cyan, magenta, yellow	White*

Example: Printing using the CMYK Print Cartridge only

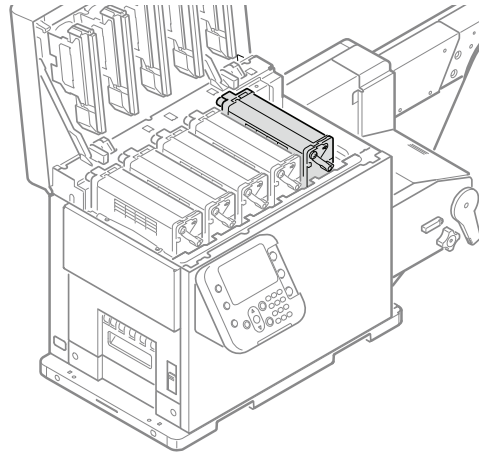
In this example, the White\* (W) Print Cartridge is lifted up.

\*: Supported by QL-300s only.

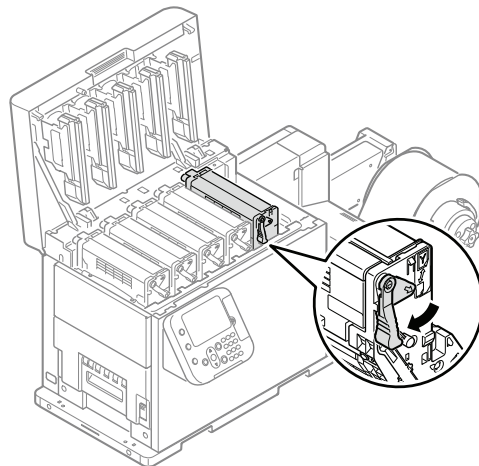
1. Grasp the top cover open lever and open the top cover.



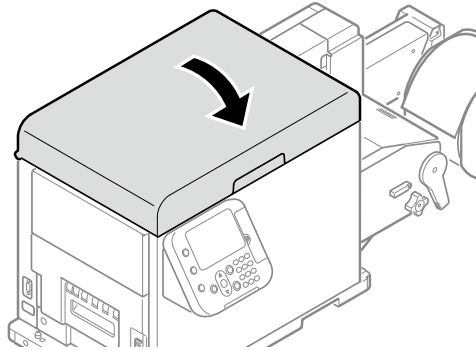
2. Check the position of the unused print cartridge via the label letters and color.



3. Turn the lift up lever on the print cartridge that is not being used clockwise to raise the print cartridge.



4. Close the top cover.



**Caution:** When closing the top cover, there is a risk of pinching your fingers or hands in the top cover or the top cover's support. Press on the top of the top cover to close it.

**Caution:** There is a risk of pinching your fingers or hands if you hold the LED head while closing the top cover. Press on the top of the top cover to close it.

## Fine Quality Printing

### Changing Print Quality (Resolution)

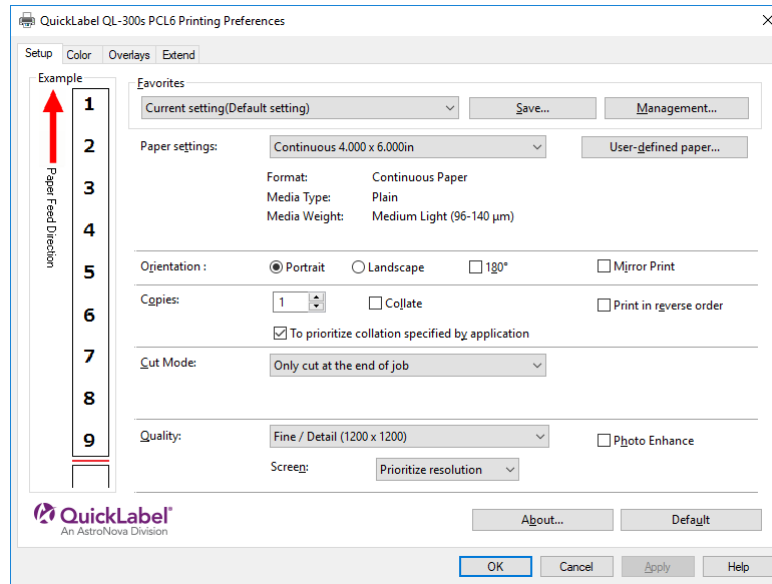
Set **Quality** by aligning to the environment in which it is used.

Selecting **Fine/Detail (1200x1200 dpi)** prints at the highest quality available with the printer.

#### Windows PCL Printer Driver

1. Open the file to be printed.
2. Select **Print** in the **File** menu.
3. Click **Preferences** (or **Properties**).

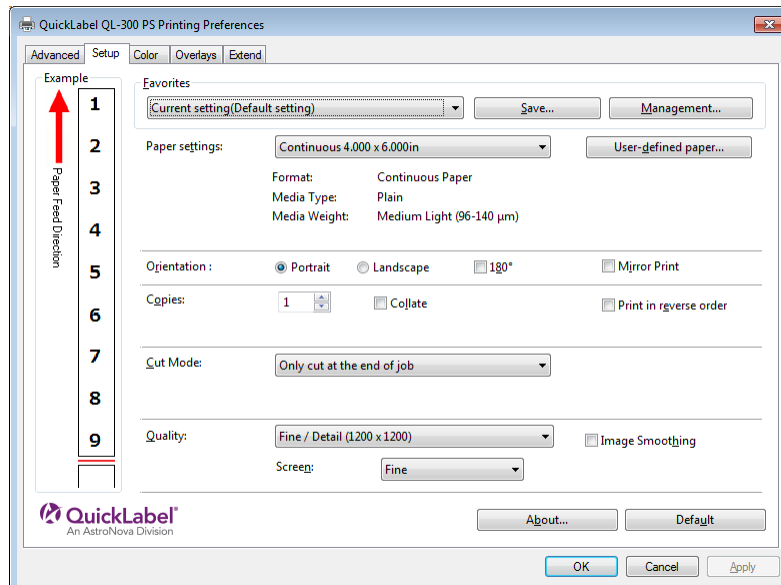
- On the **Setup** tab, change the **Quality** setting.



- Print.

### Windows PS Printer Driver

- Open the file to be printed.
- Select **Print** in the **File** menu.
- Click **Preferences** (or **Properties**).
- On the **Setup** tab, change the **Quality** setting.



- Print.

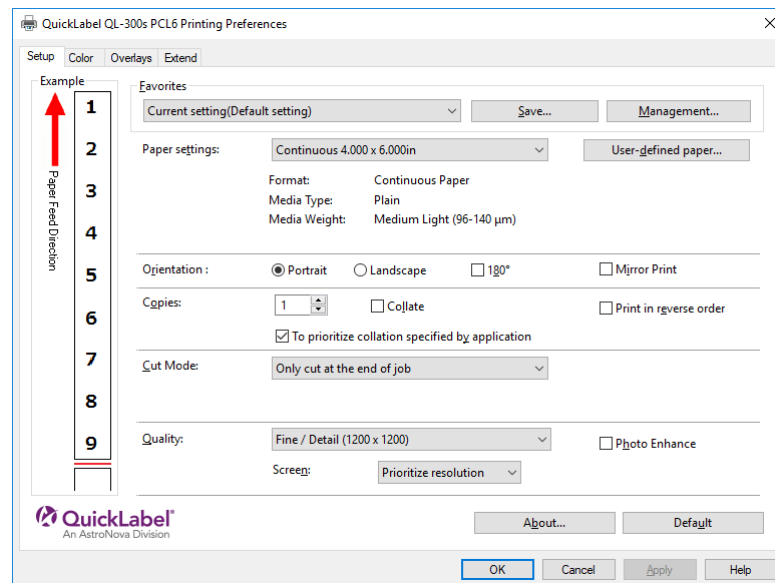
## Making Photograph Printing More Vivid (Photo Enhance)

You can print more natural and vivid images, such as photos, etc.

**Note:** This function can be used with Windows PCL printer drivers only.

### Windows PCL Printer Driver

1. Open the file to be printed.
2. Select **Print** in the **File** menu.
3. Click **Preferences** (or **Properties**).
4. On the **Setup** tab, select **Photo Enhance** in the Quality section, and then click **OK**.



5. Print.

## Printing Sharper Photos (Image Smoothing)

You can reduce “jaggies” and “banding” (uneven gradation).

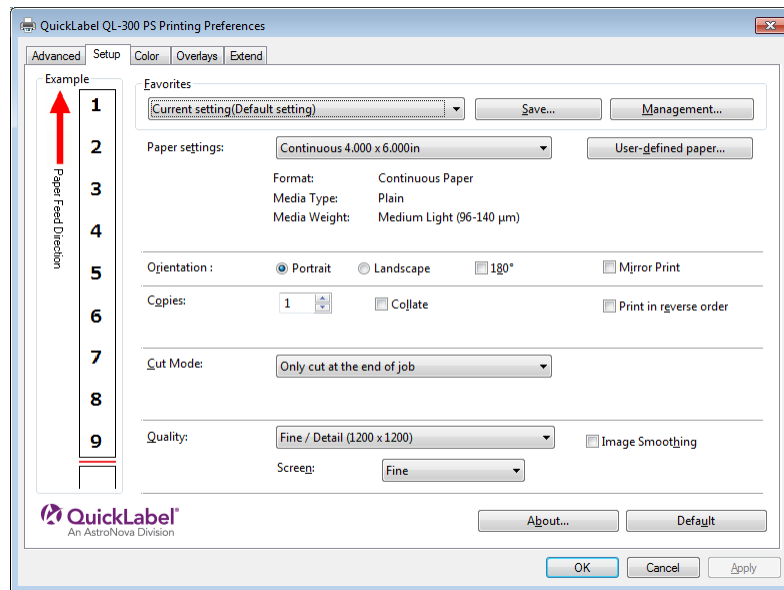
**Note:** This function can be used with Windows PS printer drivers only.

### Windows PS Printer Driver

1. Open the file to be printed.
2. Select **Print** in the **File** menu.
3. Click **Preferences** (or **Properties**).



- On the **Setup** tab, select **Image Smoothing** in the **Quality** section, and then click **OK**.



- Print.

## Adjusting Fine Lines

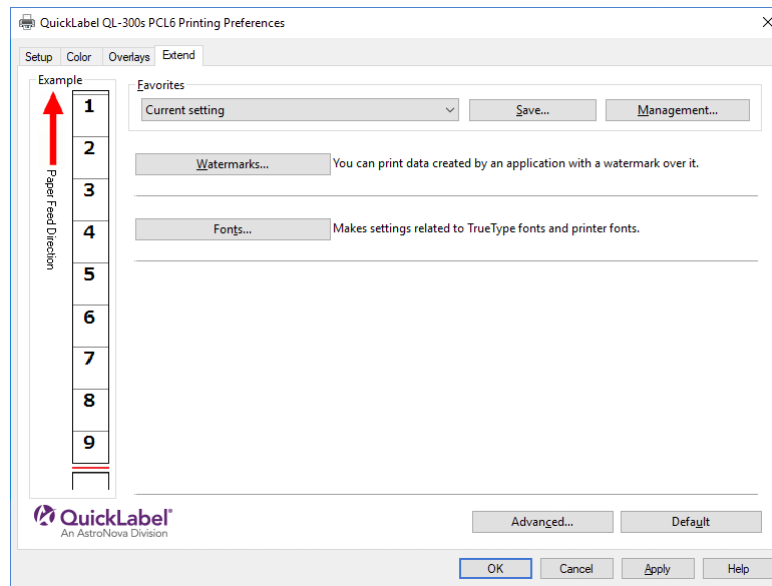
You can prevent misaligned lines being printed when ultra-fine lines are specified from the application. This function is normally ON.

Depending on the application, bar code and other intervals will narrow. In this case, turn OFF the function.

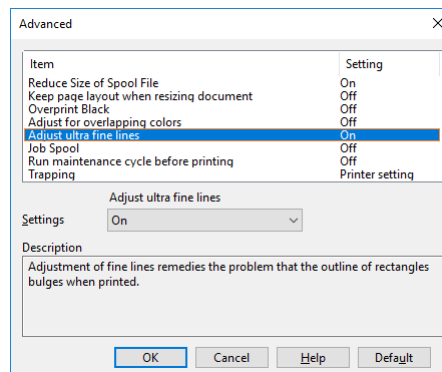
## Windows PCL Printer Driver

- Open the file to be printed.
- Select **Print** in the **File** menu.
- Click **Preferences** (or **Properties**).

- On the **Extend** tab, click **Advanced**.



- Select **Adjust ultra fine lines**. Next, select **Off** for **Settings**, and then click **OK**.

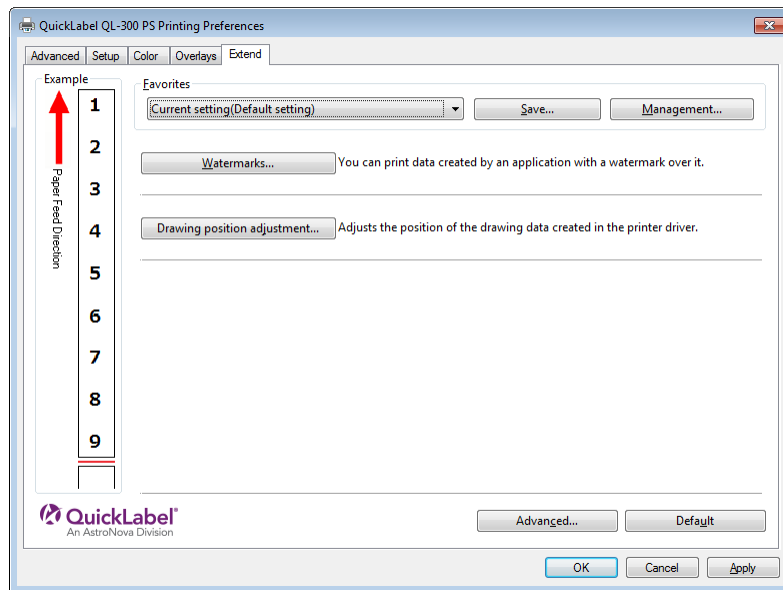


- Print.

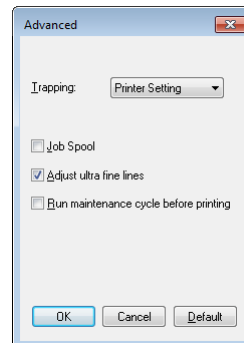
## Windows PS Printer Driver

- Open the file to be printed.
- Select **Print** in the **File** menu.
- Click **Preferences** (or **Properties**).

- On the **Extend** tab, click **Advanced**.



- Select the **Adjust ultra fine lines** check box, and then click **OK**.



- Print.

## Using Printer Fonts

You can print by replacing TrueType fonts with printer built-in fonts.

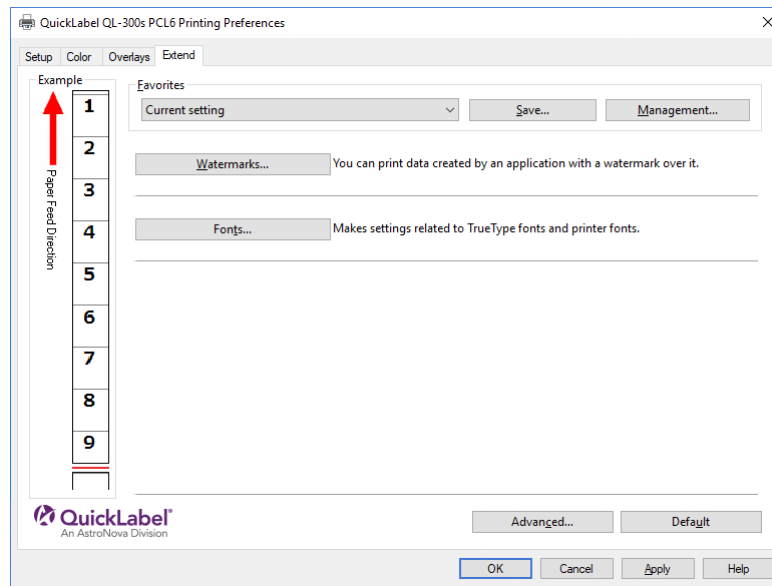
- The font replacement function stores the document fonts, but font designs cannot be reproduced. If it is necessary to print font designs accurately, disable the font replacement function.
- In some applications, the font replacement function may not work properly.

**Note:** This function can be used with Windows PCL printer drivers only.

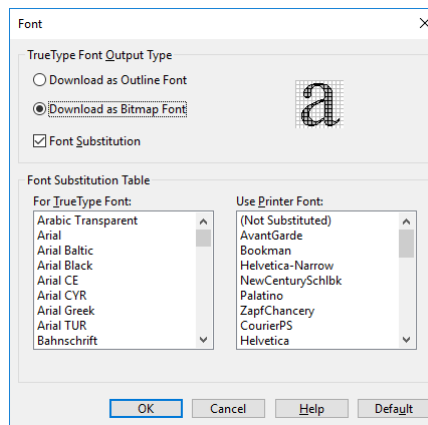
### Windows PCL Printer Driver

- Open the file to be printed.
- Select **Print** in the **File** menu.
- Click **Preferences** (or **Properties**).

- Click the **Extend** tab, and then select **Fonts**.



- On the “Font” screen, select the **Font Substitution** check box. For this printer, this check box is selected as the default setting.



- Use the **Font Substitution Table** to specify which printer fonts should replace the TrueType fonts.
- Print.

## Using Computer Fonts

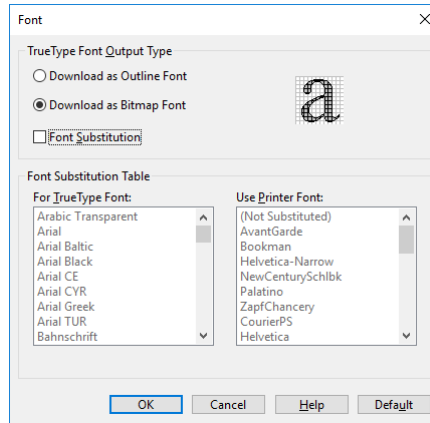
You can output TrueType fonts as they appear on the screen.

**Note:** *Print time may be longer.*

## Windows PCL Printer Driver

- Open the file to be printed.
- Select **Print** in the **File** menu.
- Click **Preferences** (or **Properties**).

4. On the **Extend** tab, click **Fonts**.
5. On the "Font" screen, clear the **Font Substitution** check box.
  - **Download as Outline Font** - The font image is created by the printer.
  - **Download as Bitmap Font** - The font information is created by the printer driver.



6. Print.

## Windows PS Printer Driver

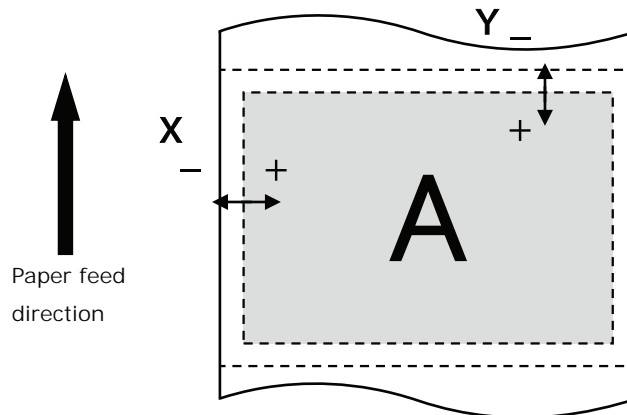
1. Open the file to be printed.
2. Select **Print** in the **File** menu.
3. Click **Preferences** (or **Properties**).
4. On the **Advanced** tab, click **TrueType Font**, and then select **Download as Softfont**.
5. Print.

## Adjusting the Print Position on the Paper

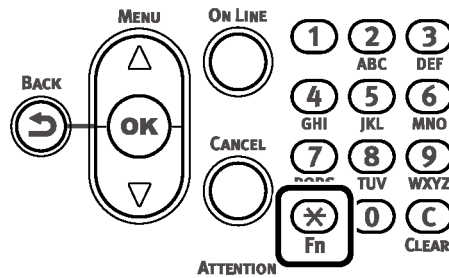
You can correct the print start position vertically and horizontally on the paper by the printer settings.

Please refer to the following procedure.

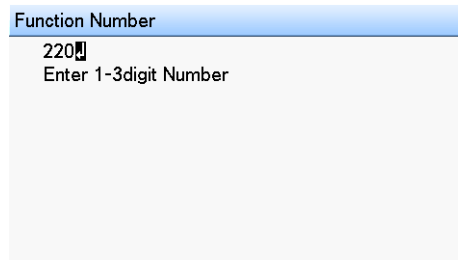
## Using the Roll Paper



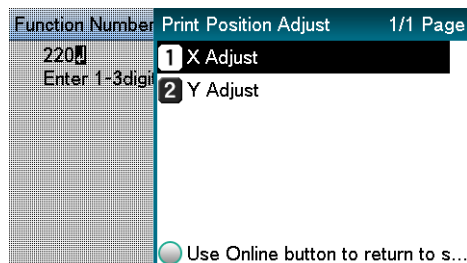
1. Press the **Fn** key.  
The numerical values input screen will be displayed.



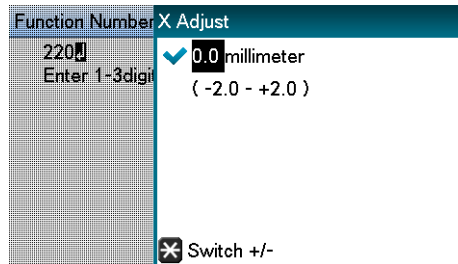
2. Press **2, 2, 0** (function numbers), and then press the **OK** button.



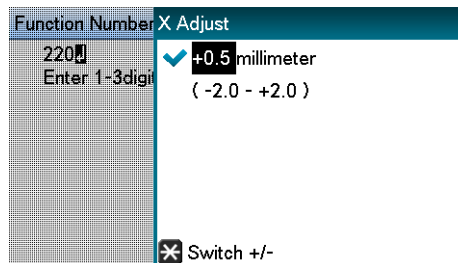
3. Press the scroll button **▲** or **▼** to select the item you want to adjust.



4. Press the **OK** button.



5. Press the scroll button **▲** or **▼** to select the amount of the adjustment, and then press the **OK** button. Confirm there is a check mark to the left of the selected value.



- Y represents the paper feed direction and X represents the orthogonal position relative to the paper feed direction.
- Set positive [+] numbers to widen the blank space in the X direction, and also set positive [+] numbers to widen the blank space in the Y direction.
- Readjustment might be necessary depending on the usage conditions (temperature, humidity, media type).
- By eliminating the differences between printers and using the same settings on all the printers with this procedure, you can use one computer when you want to get the same print results on multiple printers. *See "Using the Printer Driver to Fine-tune the Print Position" on page 81.*

## Adjusting the Print Start Position

This section explains how to better align the position at which printing starts for die-cut label paper (with black mark), continuous label (with black mark), and die-cut label paper.

This adjustment is unnecessary if your print jobs do not require accurate positioning of where printing starts.

1. Adjust the position that printing starts on the first page.
  - a. After setting the size of the media, calibrate the sensor and execute Paper interval detection.
  - b. In the driver's print settings, set **To specify the number of pages per cut** in **Cut Mode** and set **1** in **Cut by collation**.
 

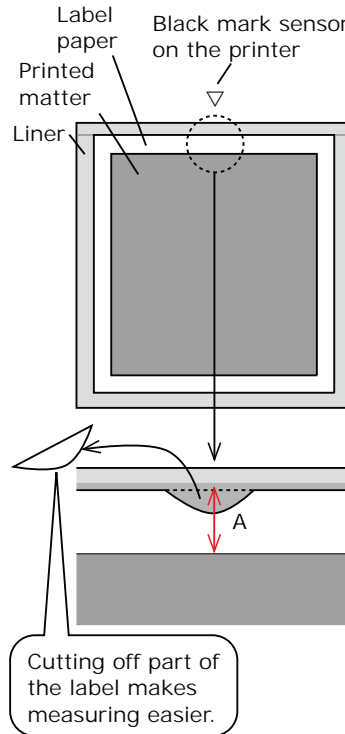
**Note:** You may not be able to set **1** in **Cut by collation** if the paper on which you are printing is shorter than 101.6 mm. If this is the case, set the smallest value that you can select.
  - c. Print five pieces of the media on which you are actually printing.

- d. Measure the distance at A or B, as shown in the diagram, for all five sheets and then calculate the average of these values.
- e. Calculate the difference in the position you want to print and the average value from the previous step.

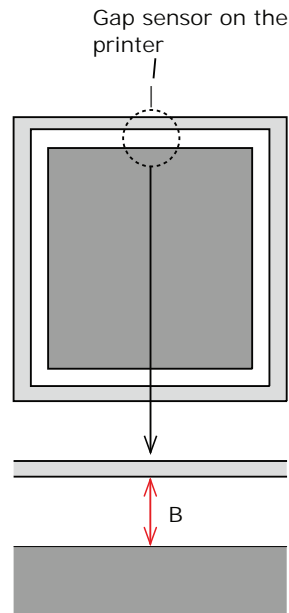


- f. Adjust the position using **Y Adjust** in **Menus > Print Adjust > Print Position Adjust**.

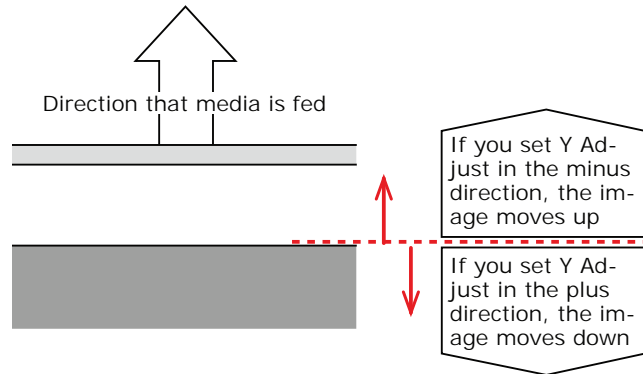
**When using a black mark sensor** - At the point that the black mark intersects the position of the black mark sensor on the printer, measure the distance at A from the leading edge of the black mark to the printed matter on five sheets.



**When using a gap sensor** - At the point that the label intersects the position of the gap sensor on the printer, measure the distance at B from the leading edge of the label to the printed matter on five sheets.



The plus and minus directions for print adjustment are illustrated below.



2. If you are actually printing more than two sheets consecutively, then next, do the following adjustment.  
(Improve the accuracy of the function for learning the position that printing starts)
  - a. In the driver's print settings, set **To specify the number of pages per cut in Cut Mode** and set 20 in **Cut by collation**.
  - b. Print 20 pieces as a test print.  
These printouts are test prints for adjusting positions, so throw them away when you are done.
3. The adjustments are complete when printing is done in the position you want.  
Reset the cutter settings, and then start printing.

## Other Print Functions

### Specifying the Page Order

Extracts by page order when printing documents with multiple pages.

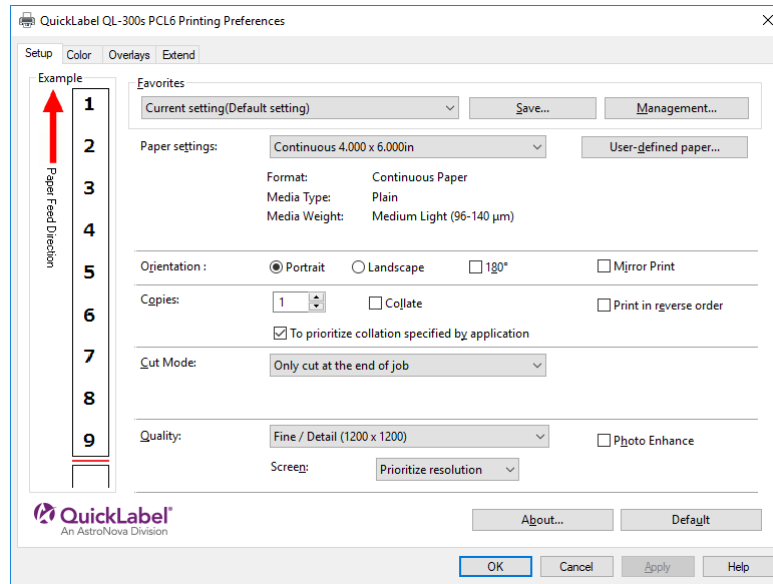
There are two methods.

- Printing documents in page order.
- Printing documents in reverse page order.

### Windows PCL Printer Driver

1. Open the file to be printed.
2. Select **Print** in the **File** menu.
3. Click **Preferences** (or **Properties**).

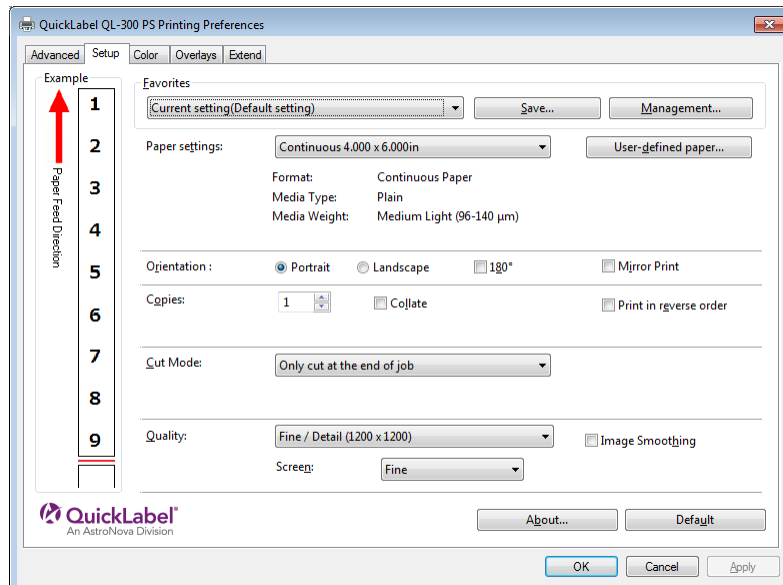
- On the **Setup** tab, select the **Print in reverse order** check box in the **Copies** area.



- Print.

## Windows PS Printer Driver

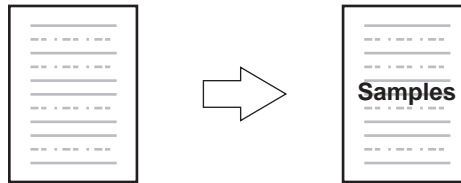
- Open the file to be printed.
- Select **Print** in the **File** menu.
- Click **Preferences** (or **Properties**).
- On the **Setup** tab, select the **Print in reverse order** check box in the **Copies** area.



- Print.

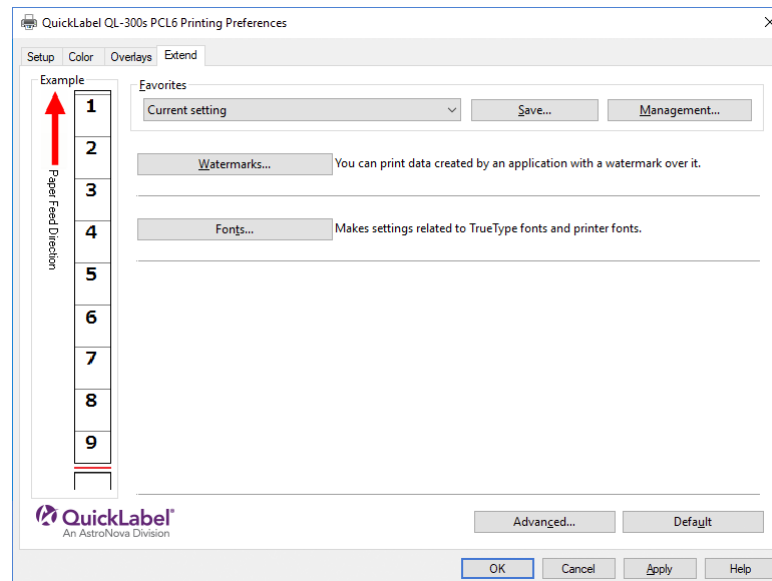
## Overlaying Stamps for Printing (Watermarks)

The details to be printed from the application can be independently printed overlaying Samples, Confidential, etc.

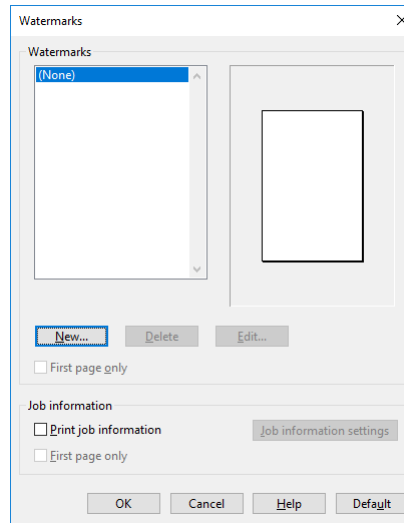


### Windows PCL Printer Driver

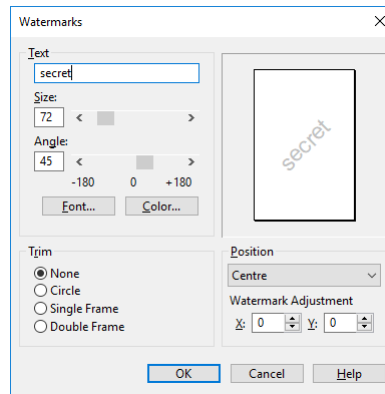
1. Open the file to be printed.
2. Select **Print** in the **File** menu.
3. Click **Preferences** (or **Properties**).
4. On the **Extend** tab, click **Watermarks**.



5. Click **New**.



6. On the Watermarks screen, enter text into **Text**, and configure **Size** and other settings.

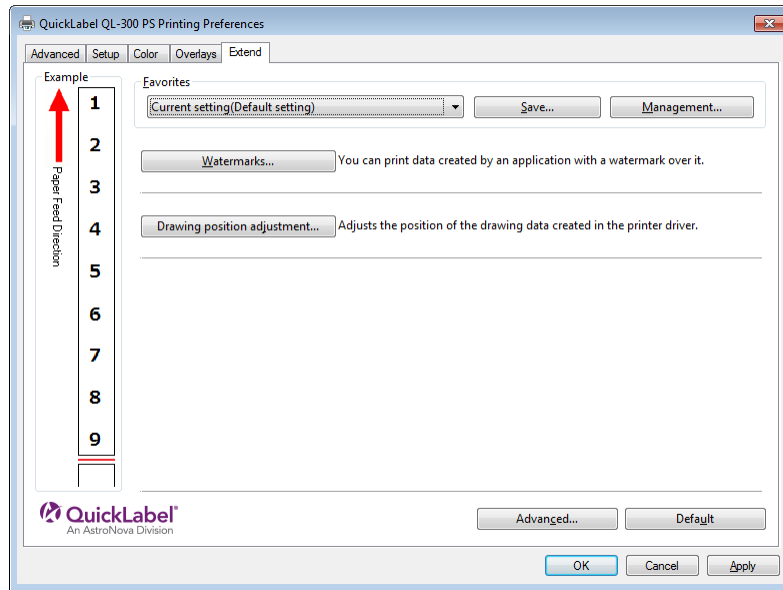


7. Click the **OK** button.
8. Print.

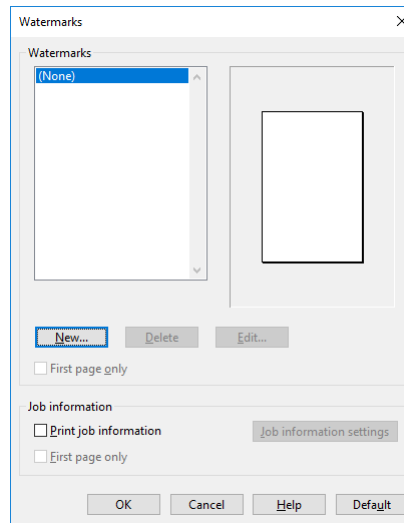
### Windows PS Printer Driver

1. Open the file to be printed.
2. Select **Print** in the **File** menu.
3. Click **Preferences** (or **Properties**).

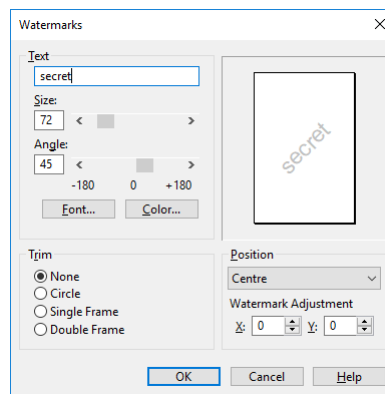
- On the **Extend** tab, click **Watermarks**.



- Click **New**.



- On the Watermarks screen, enter text into **Text**, and configure **Size** and other settings.

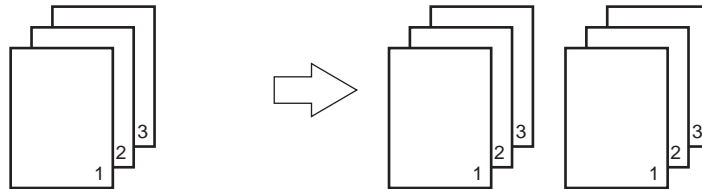


7. Click the **OK** button.
8. Print.

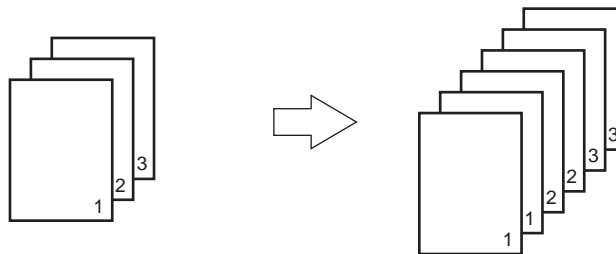
## Collating Printed Output (Sorted Printing)

You can store print jobs in the device memory and collate the printing.

- Printing by specifying batches (x2 sets)



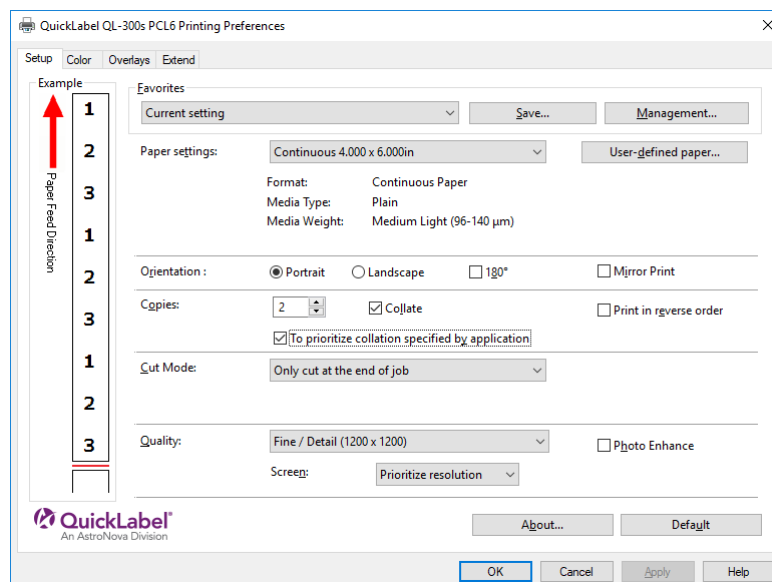
- Printing without specifying batches (x2 sets)



**Note:** This feature is not usable with some applications.

## Windows PCL Printer Driver

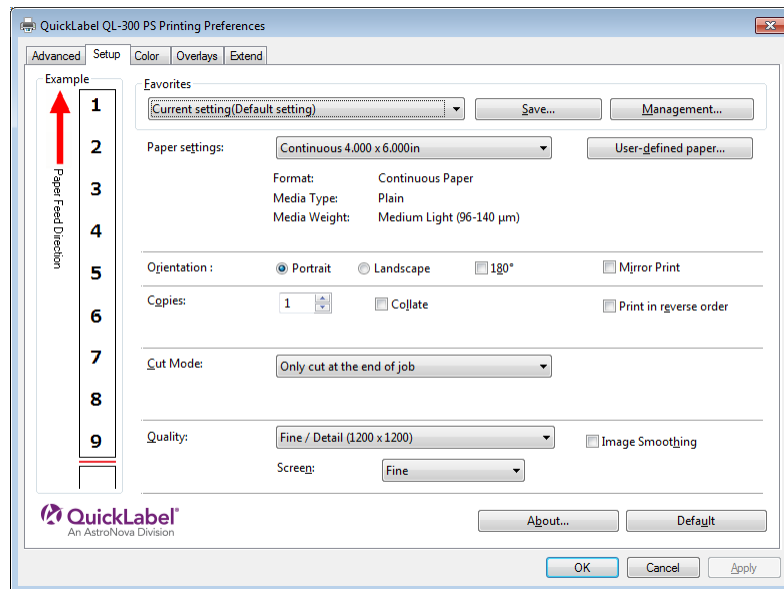
1. Open the file to be printed.
2. Select **Print** in the **File** menu.
3. Click **Preferences** (or **Properties**).
4. On the **Setup** tab, enter a value for **Copies**, and then select the **Collate** check box.



5. Print.

### Windows PS Printer Driver

1. Open the file to be printed.
2. Select **Print** in the **File** menu.
3. Click **Preferences** (or **Properties**).
4. On the **Setup** tab, enter a value for **Copies**, and then select the **Collate** check box.



5. Print.

### Printing a Mirror Image

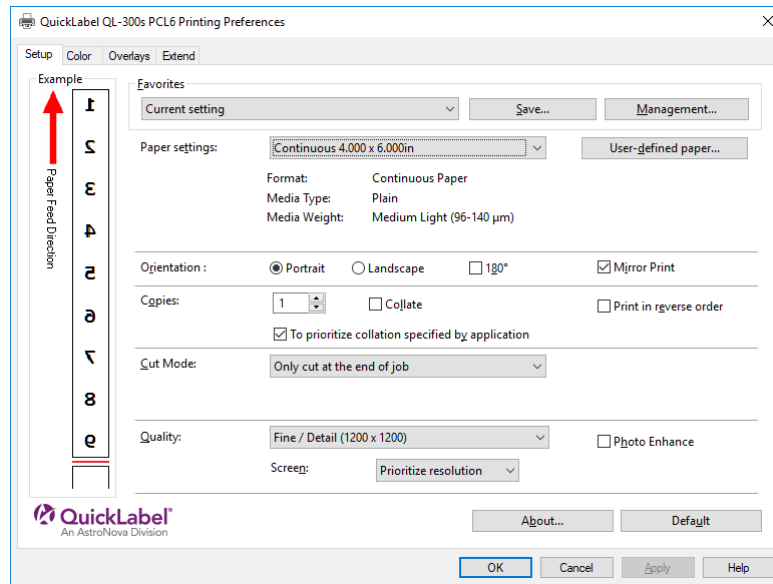
Print using mirror print when you want to print image to appear normal when the page is viewed from the back.

### Windows PCL Printer Driver

1. Open the file to be printed.
2. Select **Print** in the **File** menu.
3. Click **Preferences** (or **Properties**).



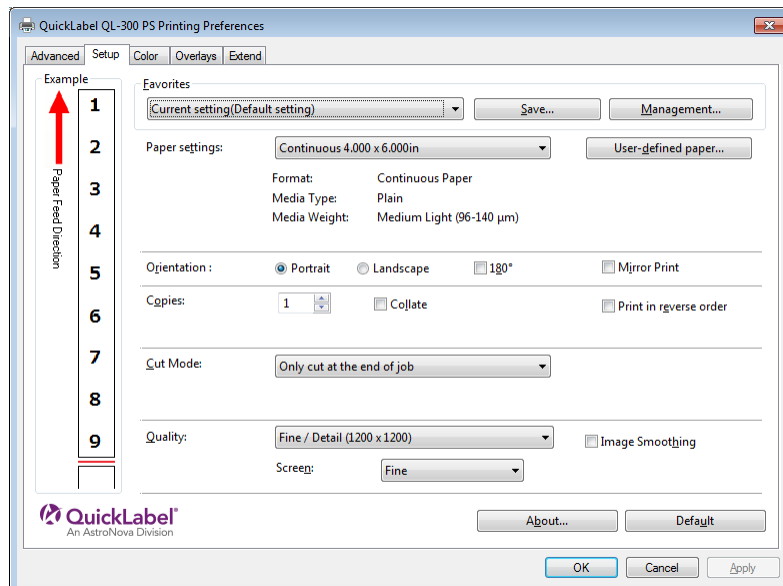
- On the **Setup** tab, select the **Mirror Print** check box in the **Orientation** section, and then click **OK**.



- Print.

## Windows PS Printer Driver

- Open the file to be printed.
- Select **Print** in the **File** menu.
- Click **Preferences** (or **Properties**).
- On the **Setup** tab, select the **Mirror Print** check box in the **Orientation** section, and then click **OK**.



- Print.

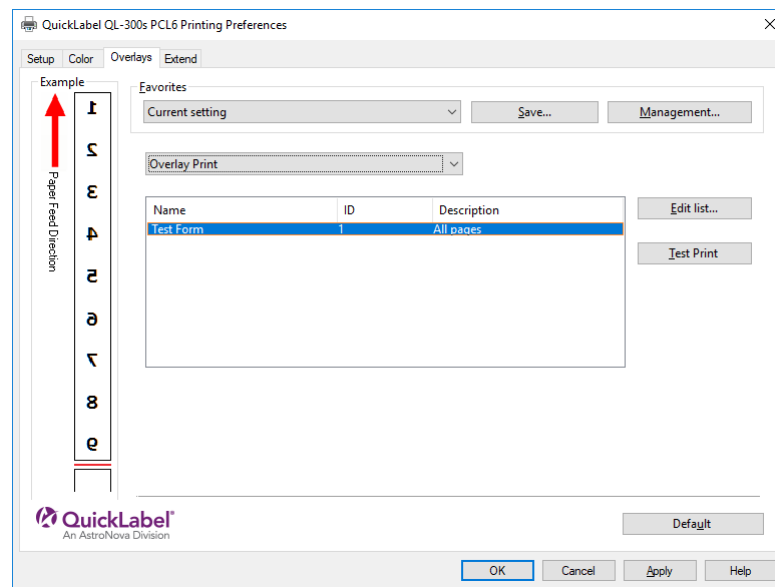
## Printing Registered Forms (Print Overlay)

You can register forms, logos, etc., as forms to the device, and overlay for printing.

To print an overlay, you need to create a form and register it in advance. It is possible to specify a maximum of four forms in one group. Forms are overlaid and printed in the order they are registered. That is to say, the last form you register is printed on top.

### Windows PCL Printer Driver

1. Click **Start** and select **Control Panel** in Windows.
2. Click **View devices and printers**.
3. Right-click the QL-300 icon, and then select **Printing Preferences**.
4. On the **Overlays** tab, select **Overlay Print**.

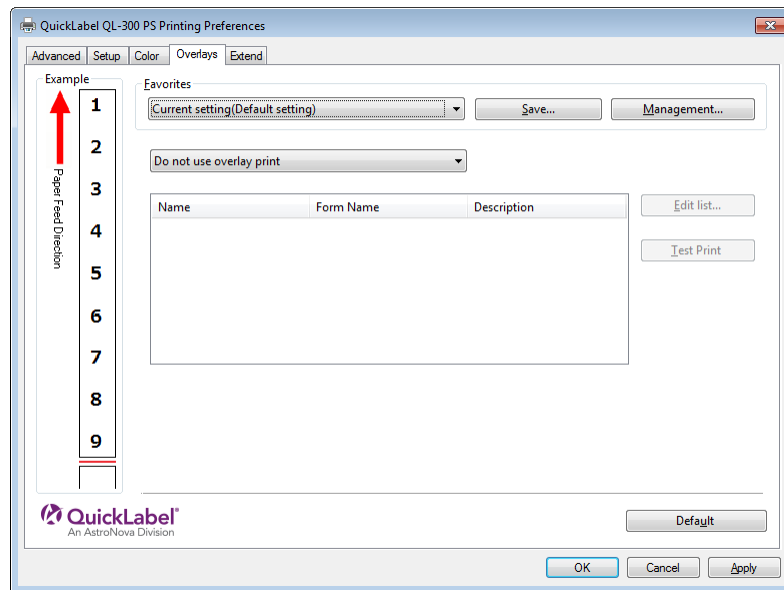


5. To register a form to the printer, select **Register print document as a new form** and click **Apply > OK**. From the application, print the image you want to register as a form, and when the **New Form** screen appears input the various information and click **OK**.
6. To apply an overlay, select **Overlay Print**. Select the forms you want to use for overlay printing and click **Apply > OK**. Print from the application.

### Windows PS Printer Driver

1. Click **Start** and select **Control Panel** in Windows.
2. Click **View devices and printers**.
3. Right-click the QL-300 icon, and then select **Printing Preferences**.

- On the **Overlays** tab, select **Overlay Print**.



- To register a form to the printer, select **Register print document as a new form** and click **Apply > OK**. From the application, print the image you want to register as a form, and when the **New Form** screen appears input the various information and click **OK**.
- To apply an overlay, select **Overlay Print**. Select the forms you want to use for overlay printing and click **Apply > OK**. Print from the application.

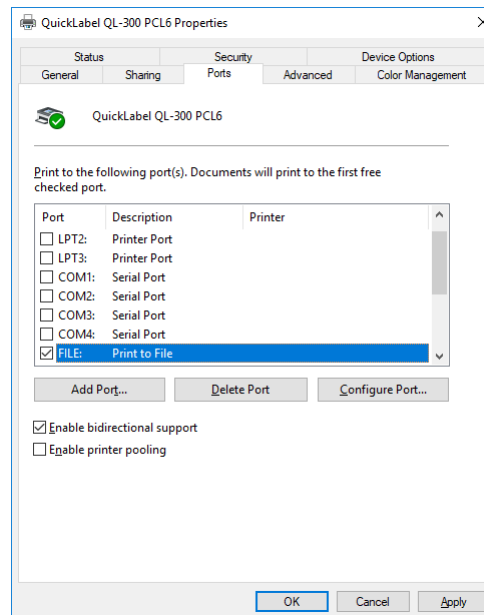
## Outputting to a File Without Printing

You can write and save to a file without printing the print data.

### Windows PCL Printer Driver

- Click **Start** and select **Control Panel** in Windows.
- Click **View devices and printers**.
- Right-click the QL-300 icon, and then select **Printer Properties**.
- Select the **Ports** tab.

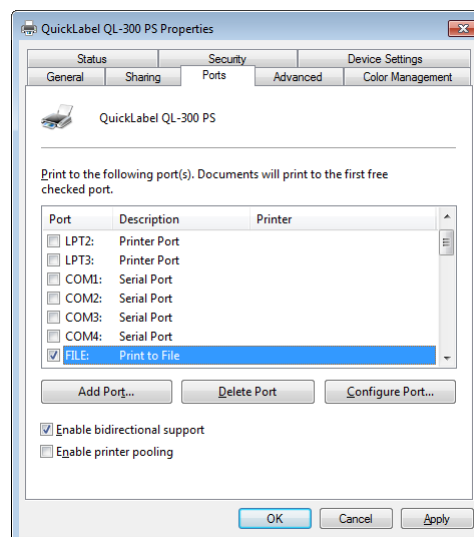
- In the ports list, select **FILE:**, and then click **OK**.



- Print.
- Enter the file name, and then click **OK**.

## Windows PS Printer Driver

- Click **Start** and select **Control Panel** in Windows.
- Click **View devices and printers**.
- Right-click the QL-300 icon, and then select **Printer Properties**.
- Select the **Ports** tab.
- In the ports list, select **FILE:**, and then click **OK**.



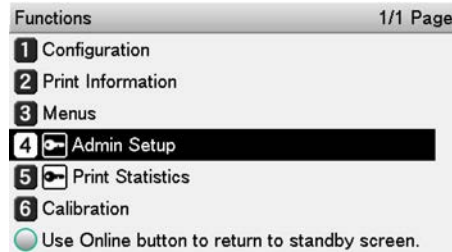
- Print.

7. Enter the file name, and then click **OK**.

## Changing the Check Unnecessary Print Cartridge Setting

You can have an error displayed and cancel the print job to prioritize the service life of a print cartridge that is detected to be down even though it is not being used as a specified color for the print data.

1. Press the scroll button ▼ several times to select **Admin Setup**, and then press the **OK** button.

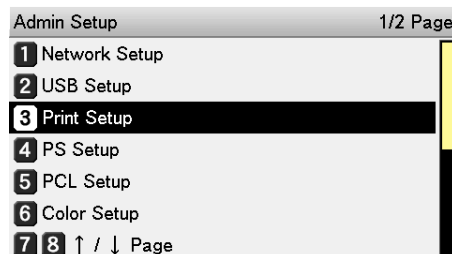


2. Use the numeric keypad to input the administrator password.

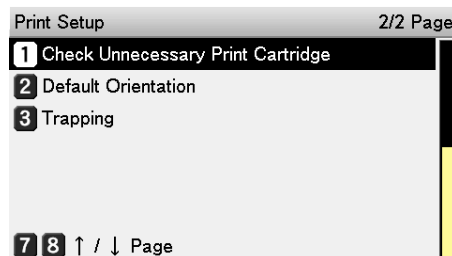
The factory default password is 999999. Press the **OK** button after inputting each character.



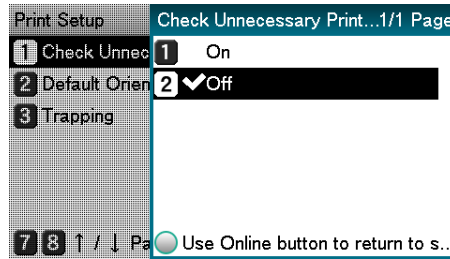
3. Select **Print Setup**, and then press the **OK** button.



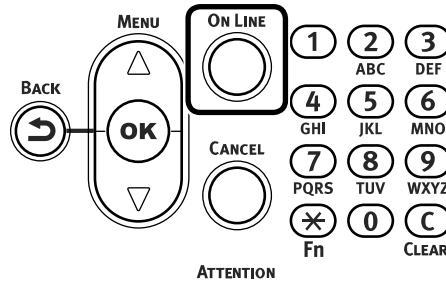
4. Select **Check Unnecessary Print Cartridge**, and then press the **OK** button.



- If you want an error to be generated when a print cartridge is detected to be down even though it is not being used as a specified color for the print data, select **On**. Select **Off** if you want printing to continue. Then, press the **OK** button.



- Press the **ON LINE** button to return to the standby screen.



## Saving Printer Driver Setups

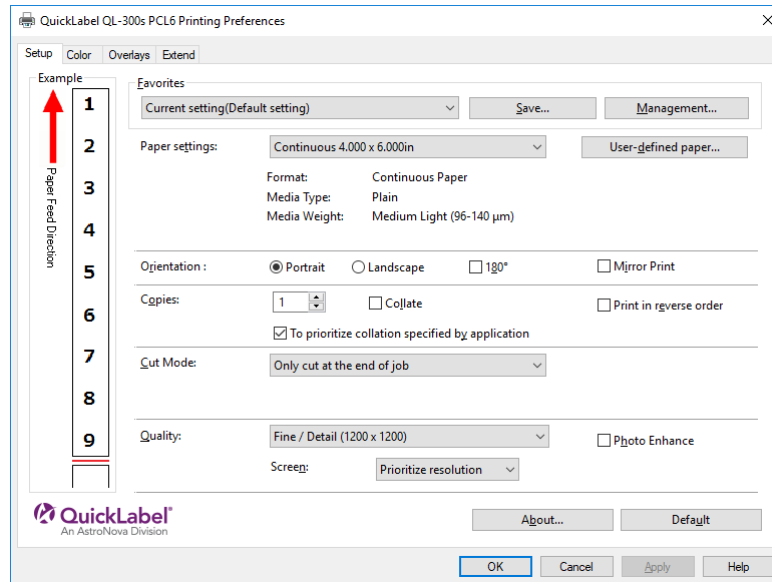
You can save the details set using the printer drivers.

If you save the changes to the settings for multiple locations, then the next and following times you change the settings, all you have to do is specify the driver settings so that those settings in the multiple locations are automatically changed to the settings that you saved.

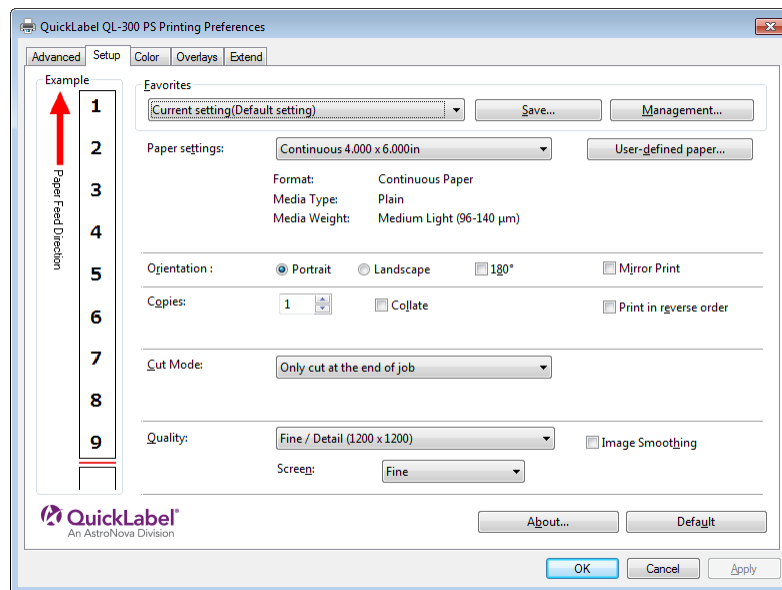
### Save a Setup

- Click **Start** and select **Control Panel** in Windows.
- Click **View devices and printers**.

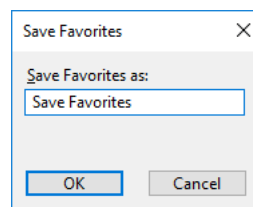
- Right-click the **QL-300** icon, and then select **Printing preferences**.  
If you are using the Windows PCL printer driver, the following window will open.



If you are using the Window PS printer driver, the following window will open.



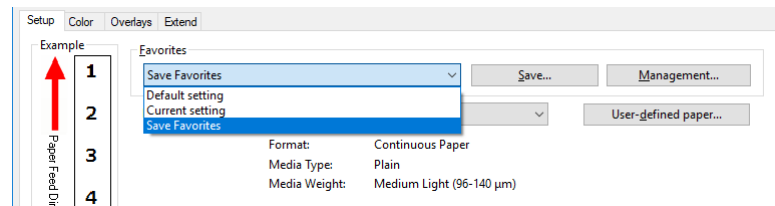
- Change the settings to create the setup you want to save.
- On the **Setup** tab, click **Save**.
- Enter the setting name into **Save Favorites as**, and then click **OK**.



- Click **OK** to close the Print Setup dialog box.

## Recall a Saved Setup

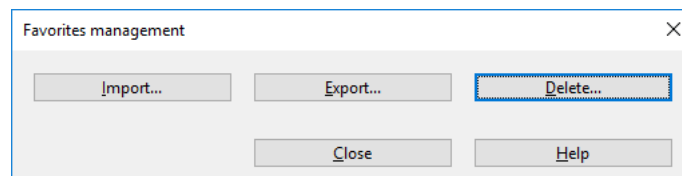
- Open the file to be printed.
- On the **File** menu, select **Print**.
- Click **Preferences** (or **Properties**).
- On the **Setup** tab, configure **Favorites**.



- Print.

## Delete a Saved Setup

- Click **Start** and select **Control Panel** in Windows.
- Click **View devices and printers**.
- Right-click the QL-300 icon, and then select **Printing Preferences**.
- On the **Setup** tab, click **Management**.
- Click **Delete**.



- Select the setup you want to delete, and then click **Delete**.
- Click **Yes**.

## Importing/Exporting a Printer Driver Print Setup

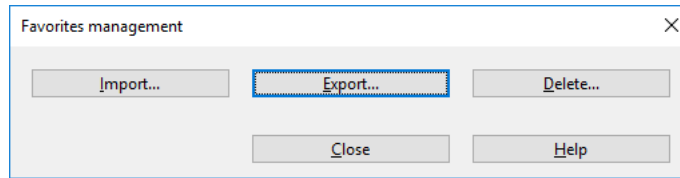
You can convert printer driver print setup information to a file, and then export/import the file. The file extension for exporting/importing is “.xmn”.

### Export a Setup

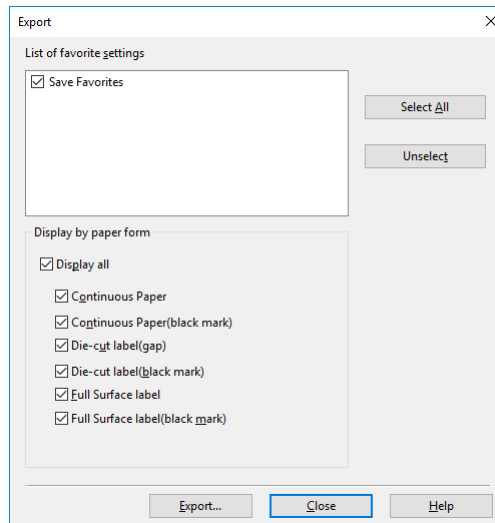
- Click **Start** and select **Control Panel** in Windows.
- Click **View devices and printers**.
- Right-click the QL-300 icon, and then select **Printing Preferences**.
- On the **Setup** tab, click **Management**.



- Click **Export**.



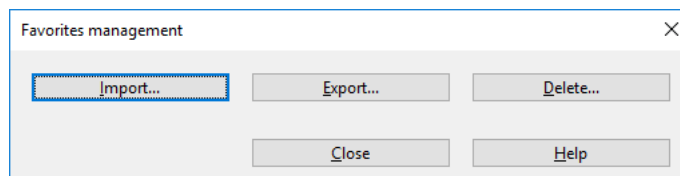
- In the **List of favorite settings** on the “Export” screen, select the checkbox next to the setup you want to export, and then click **Export**.



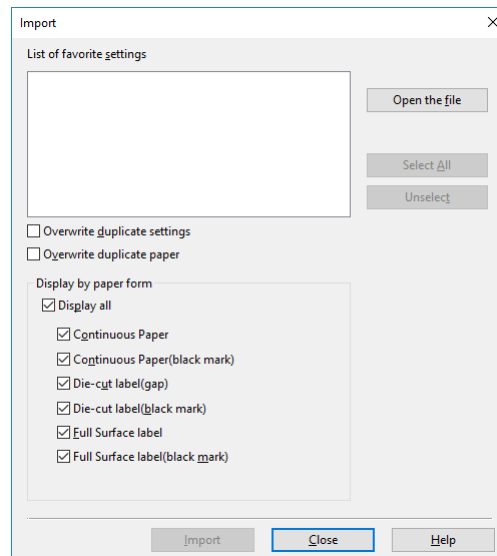
- Enter a file name, specify where to save it, and then click **Save**.

### Import a Setup

- Click **Start** and select **Control Panel** in Windows.
- Click **View devices and printers**.
- Right-click the QL-300 icon, and then select **Printing Preferences**.
- On the **Setup** tab, click **Management**.
- Click **Import**.



- On the “Import” screen, click **Open the file**.



- Specify the file you want to import, and then click **Open**.
- Check the names of the settings in the **List of favorite settings**, and then click **Import**.
- When the message “Imported successfully.” appears, click **OK**.

## Changing Default Printer Driver Settings

It is convenient to set frequently used settings as the default settings.

### Windows PCL Printer Driver

- Click **Start** and select **Control Panel** in Windows.
- Click **View devices and printers**.
- Right-click the QL-300 icon, and then select **Printing Preferences**.
- Change the various settings, and then click **OK**.

## Deleting or Updating a Printer Driver

### Deleting a Printer Driver

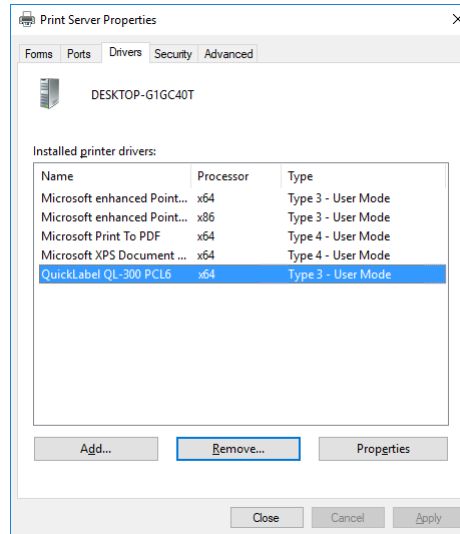
PC administrator privileges are required.

Restart the computer, and then delete the driver.

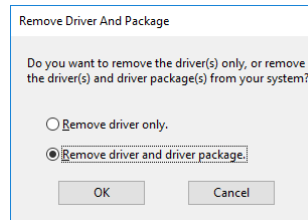
- Click **Start** and select **Control Panel** in Windows.
- Click **View devices and printers**.
- Right-click the **QL-300** icon, and then select **Remove device**.
- If a verification message is displayed, click **Yes**.

**Note:** If a message appears while the device is in use, restart the PC, and then perform steps 1 and 2 of this procedure again.

5. Select one of the icons in **Devices and Printers**, and click **Print server properties** in the top bar.
6. Select the **Drivers** tab.
7. Click **Change Driver Settings**.
8. Select the driver to be deleted, and click **Remove**.



9. If a message asking whether to delete the drivers only, or the drivers and packages from the system, select to delete drivers and packages, and click **OK**.



10. If a verification message is displayed, click **Yes**.
11. If the **Remove Driver Package** dialog box is displayed, click **Delete > OK**.  
*Note: If you cannot cancel, restart the PC, and then perform steps 4 to 10 of this procedure again.*
12. Click **OK** in the **Print server properties** dialog box.
13. Restart the PC.

## Updating a Printer Driver

PC administrator privileges are required.

1. Obtain the printer driver from QuickLabel.
2. Double-click the file you downloaded.
3. Select the desired language, and then click **OK**.  
*Note: When the "User Account Control" window is displayed, click Yes.*
4. Read the "Software License Agreement", and click **Accept**.

5. Follow the instructions that appear on the screen to finish driver installation.
  - Attempting to install an old version driver will cause an update screen to appear. Follow the instructions that appear on the screen.
  - Updating a driver may require restarting of the computer.
6. When the Program Compatibility Assistant dialog appears, click **This program installed correctly**.

# 8

## Adjusting the Color

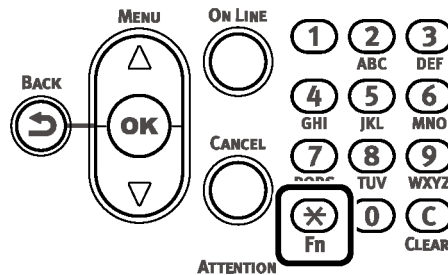
### Adjusting Color with the Control Panel

#### Correcting Color Drift Manually

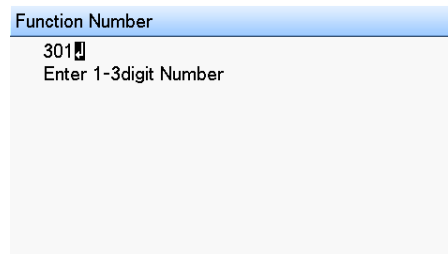
The printer compensates color drift automatically according to the conditions of use. If the color drift is noticeable, you can also implement compensation manually.

1. Press the **Fn** key.

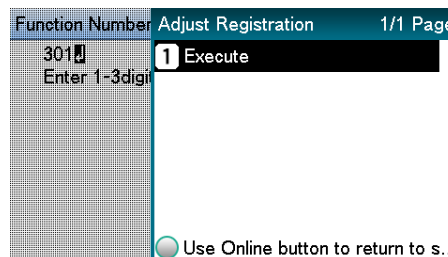
The numerical values input screen will be displayed.



2. Press **3, 0, 1** (function numbers) and press the **OK** button.



3. Check that **Execute** has been selected, and press the **OK** button.



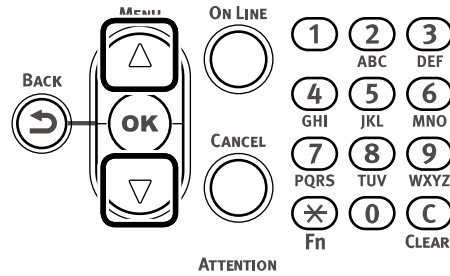
4. The display will return to the standby screen.

#### Configuring Settings for Auto Adjustment of Density and Gradation

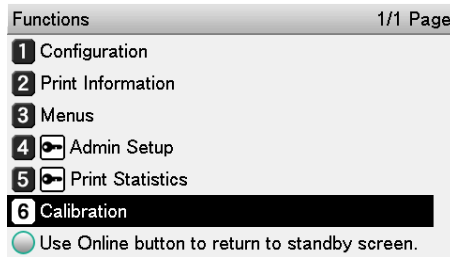
The printer compensates density automatically according to the conditions of use. To compensate automatically, turn **On** the density compensation matching setting.

In the default factory settings, density compensation matching is implemented automatically.

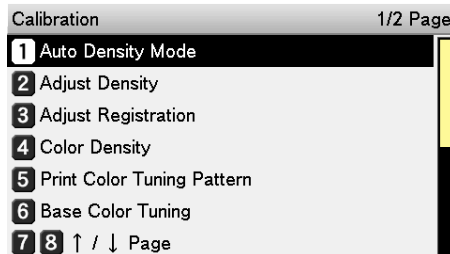
1. Press the scroll button ▲ or ▼.



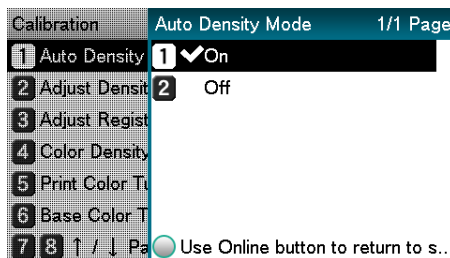
2. Select **Calibration**, and press the **OK** button.



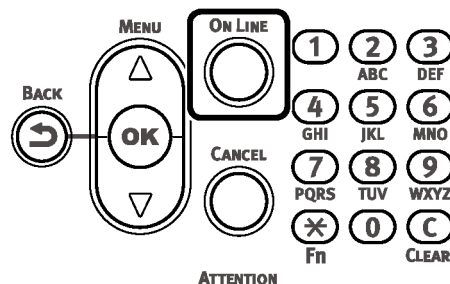
3. Select **Auto Density Mode**, and then press the **OK** button.



4. Select **On**, and then press the **OK** button. Confirm there is a check mark to the left of **On**.



5. Press the **ON LINE** button to return to the standby screen.



## Adjusting Density Manually

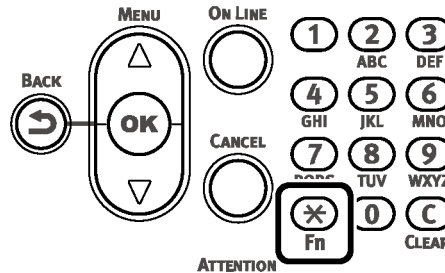
The printer can implement compensation periodically using auto density compensation mode, but if the print density is noticeable, it can also be compensated manually.

Density adjustment values are set by specifying Cyan Density, Magenta Density, Yellow Density, Black Density, and White Density\* values with the control panel.

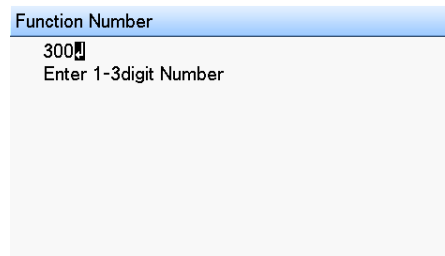
\*: This item available only on the QL-300

1. Press the **Fn** key.

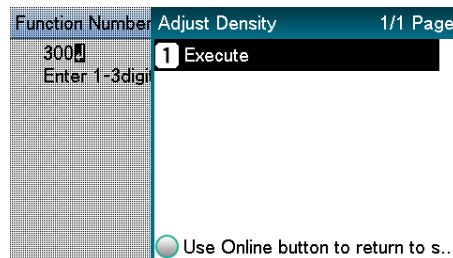
The numerical values input screen will be displayed.



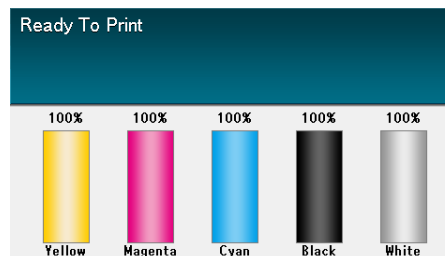
2. Press **3, 0, 0** (function numbers) and press the **OK** button.



3. Check that **Execute** has been selected, and press the **OK** button.



4. Execute density adjustment.
5. The display will return to the standby screen after density adjustment is complete.



## Fine Tuning Density Adjustments

You can finely adjust the densities of colors that are used as the references for density compensation.

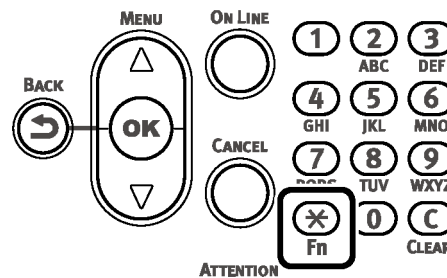
Adjust each color separately for the parts where the density is noticeable from the print results.

This section describes the procedure for adjusting the reference density for cyan. Use the same adjustment procedure also for other colors that you wish to adjust.

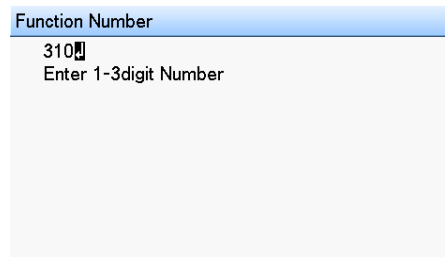
### Increasing cyan after checking the print results

1. Press the **Fn** key.

The numerical values input screen will be displayed.



2. Press **3, 1, 0** (function numbers) and press the **OK** button.



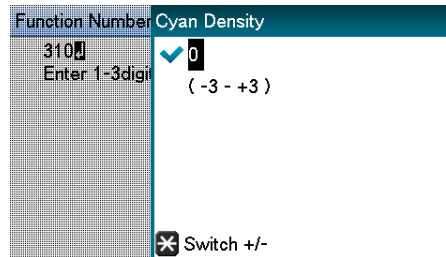
For other colors, use the operations below.

- To tune magenta, press the **Fn** key, and then press the following buttons: **3, 1, 1, OK**.
- To tune yellow, press the **Fn** key, and then press the following buttons: **3, 1, 2, OK**.
- To tune black, press the **Fn** key, and then press the following buttons: **3, 1, 3, OK**.
- To tune white, press the **Fn** key, and then press the following buttons: **3, 1, 4, OK**. This option is only available on the QL-300s.



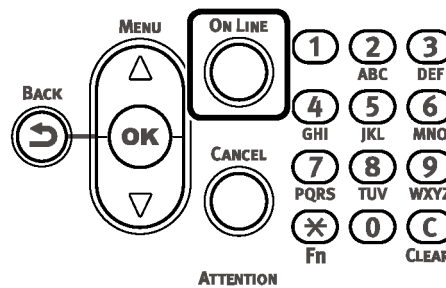
- Press the scroll button ▲ or ▼ to specify a value that is larger than the current value, and then press the **OK** button.

Confirm there is a check mark to the left of the selected value.

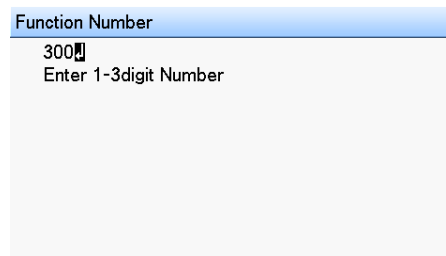


Select +1 to +3 to make density darker, or -1 to -3 to make it lighter.

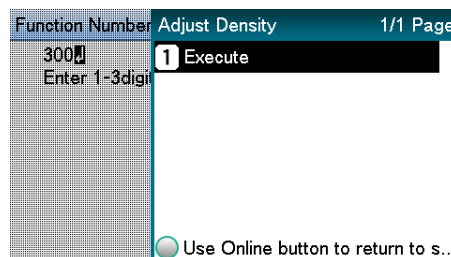
- Press the **ON LINE** button to return to the standby screen.



- Press the **Fn** key, and then press **3, 0, 0, OK**.



- Check that **Execute** has been selected, and press the **OK** button.



- The display will return to the standby screen.
- Print.

If you are not satisfied with the density, repeat steps 1 to 6 of this procedure.

## Adjusting Color Balance (Density)

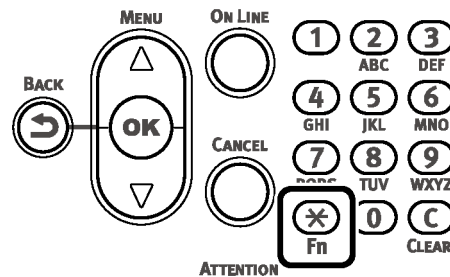
The printer can implement compensation periodically using auto density compensation mode. However, you can implement this adjustment when you want to adjust the gray balance of the halftones, which is not sufficiently adjusted by the auto density compensation.

- The densities of the colors are mutually dependent on each other, so you will need to repeat adjustment several times until the desired color balance is achieved.
- The results of the basic **Base Color Tuning** are reflected in the settings in **Fine Color Tuning**. Consequently, if the **Fine Color Tuning** are adjusted manually, these settings will be reset, so be careful. However, the **Black Tuning** settings are not reset.

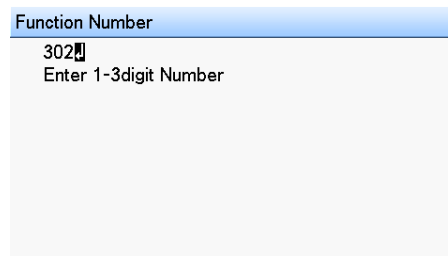
1. Print a color tuning pattern.

a. Press the **Fn** key.

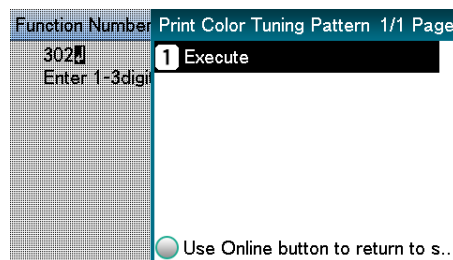
The numerical values input screen will be displayed.



b. Press **3, 0, 2** (function numbers) and press the **OK** button.

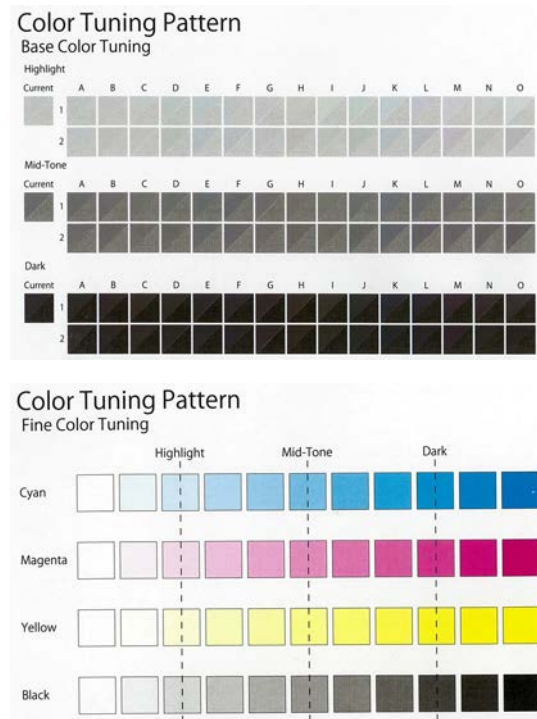


c. Check that **Execute** has been selected, and press the **OK** button.



d. The color tuning pattern will be printed.

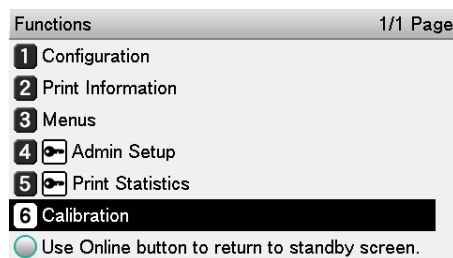
2. Use the print results for the color tuning pattern to check the current color balance.



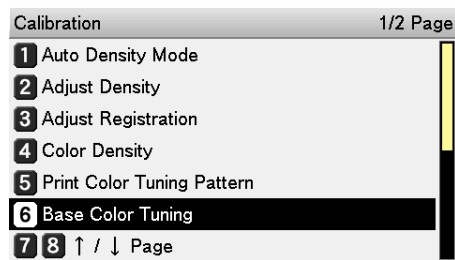
Check the area to be referenced using “Base Color Tuning”. Check the “Highlight”, “Mid-Tone”, and “Dark” areas of the color tuning pattern and note the number (A-1 and 2 to O-1 and 2) of the block whose pattern of mixed CMY part (upper left) is most similar to its single color K part (lower right).

**Note:** If the pattern that seems most similar to the adjacent CMY mixed colors part and single color K part in the “Highlight”, “Mid-Tone”, or “Dark” areas matches the “Current” on the left of the color tuning pattern, the color balance is normal and does not require adjustment.

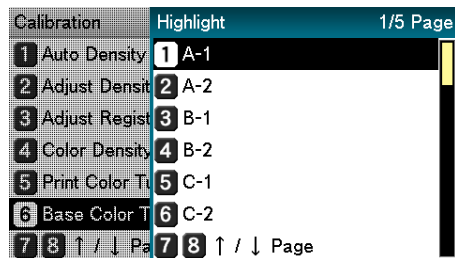
3. Use the print results for the color tuning pattern to adjust the color balance.
  - a. Press the scroll button ▲ or ▼.
  - b. Select **Calibration**, and press the **OK** button.



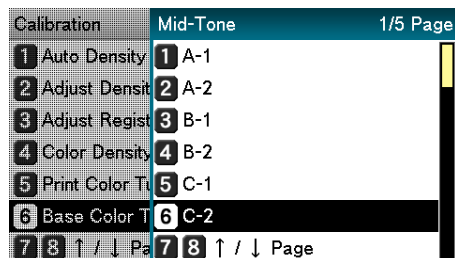
- c. Select **Base Color Tuning**, and press the **OK** button.



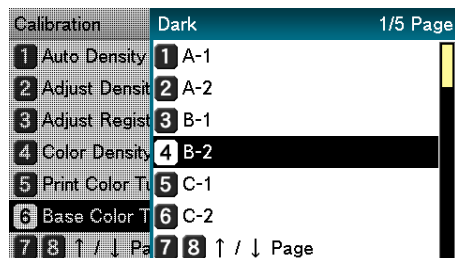
- d. Specify the number of the desired square in the “Highlight” area of the pattern, and then press the **OK** button.



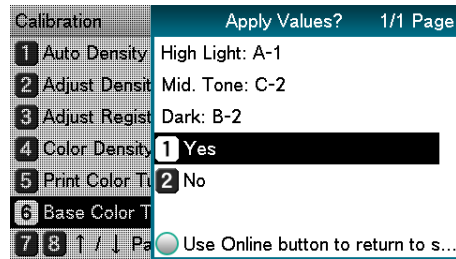
- e. Specify the number of the desired square in the “Mid-Tone” area of the pattern, and then press the **OK** button.



- f. Specify the number of the desired square in the “Dark” area of the pattern, and then press the **OK** button.

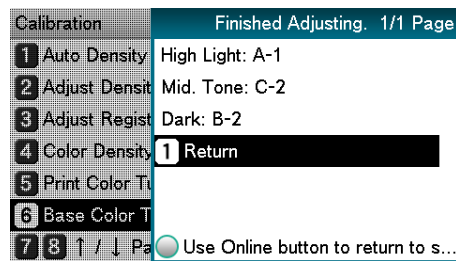


- g. The pattern number specified in each area will be displayed.  
If the pattern number is correct, select **Yes**, and press the **OK** button.



To respecify the pattern number select No to return to the “Calibration” screen.

- h. Select **Return**, and press the **OK** button to return to the standby screen.



If the desired color balance is not obtained even after **Base Color Tuning**, adjust the CMY color balance watermarks manually using the procedure under **Adjusting the color balance**. For color balance fine tuning, see “Fine-tuning Color Balance” on page 225.

If the overall tone is still too bright or too dark even after implementing **Base Color Tuning**, adjust the black tone manually using **Fine Color Tuning**, and then implement **Basic color Tuning** again. To brighten the overall tone, adjust the black tone in **Fine Color Tuning** in the - direction, and to darken the overall tone, adjust the black tone in **Fine Color Tuning** in the + direction.

4. Check the color balance adjustment results.
  - a. Print the color tuning pattern.
  - b. Use the print results for the color tuning pattern to check the adjusted results.

If the pattern that seems most similar to the adjacent CMY mixed colors part and single color K part in the “Highlight”, “Mid-Tone”, or “Dark” areas matches the “Current” on the left of the color tuning pattern, the color balance adjustment is complete.

Repeat steps 1 through 3 of this procedure in accordance with the results of your pattern check.

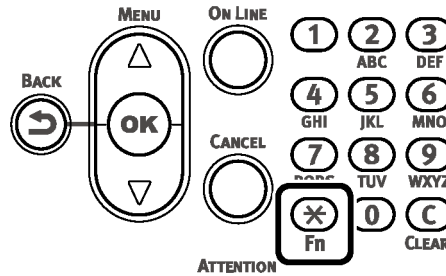
## Fine-tuning Color Balance

The printer can implement compensation periodically using auto density compensation mode. However, you can implement this adjustment when you want to finely adjust the gray balance of the halftones, which is not sufficiently adjusted by the auto density compensation.

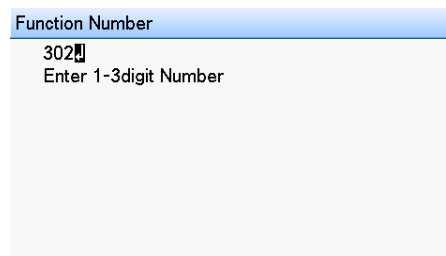
- The densities of the colors are mutually dependent on each other, so you will need to repeat adjustment several times until the desired color balance is achieved.
- Print a color tuning pattern.

- Press the **Fn** key.

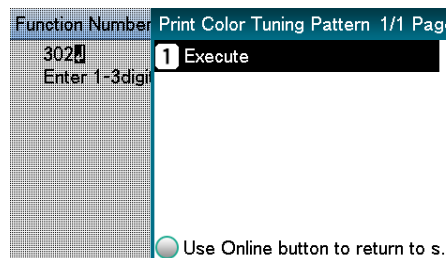
The numerical values input screen will be displayed.



- Press **3, 0, 2** (function numbers) and press the **OK** button.

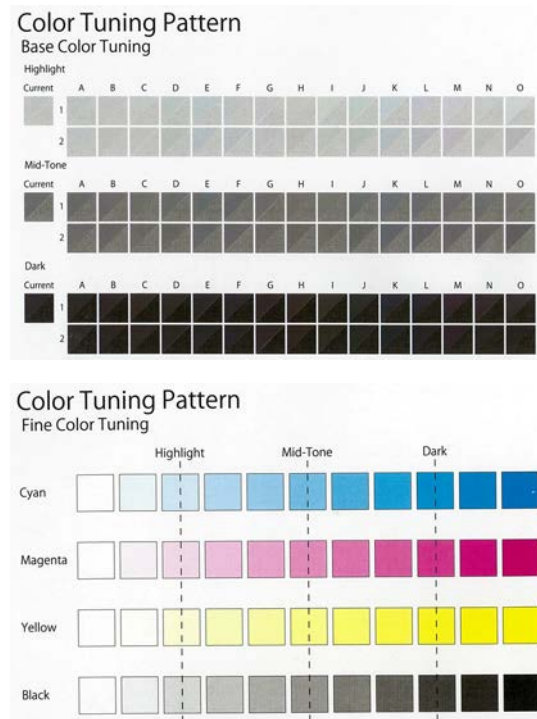


- Check that **Execute** has been selected, and press the **OK** button.



- The color tuning pattern will be printed.

2. Use the print results for the color tuning pattern to check the current color balance.



Check the area to be referenced using “Fine Color Tuning”.

The color tuning pattern blocks are arranged in four rows of 11 columns. The four rows are printed with the following colors, from top to bottom: Cyan, Magenta, Yellow and Black.

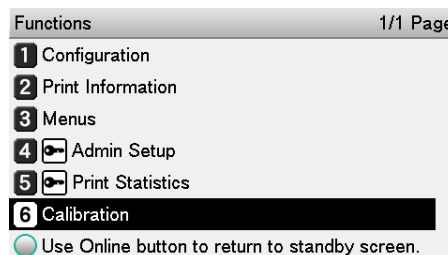
The 11 columns represent color tone, and vertical broken lines are labeled as Highlight, Mid-Tone, and Dark.

3. Use the print results for the color tuning pattern to adjust the color balance watermarks.

If you are adjusting the color balance, use the control panel to specify the shade (Highlight, Dark, and Mid-Tone) of each color.

This section explains the procedure for slightly darkening the cyan highlights. Adjust the watermarks for colors other than cyan in the same way.

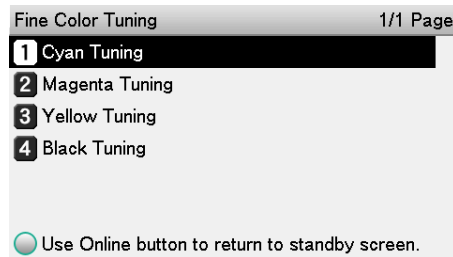
- a. Press the scroll button ▲ or ▼.
- b. Select **Calibration**, and press the **OK** button.



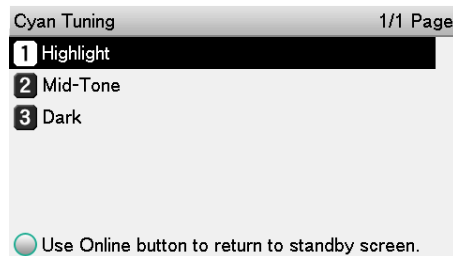
- c. Select **Fine Color Tuning**, and press the **OK** button.



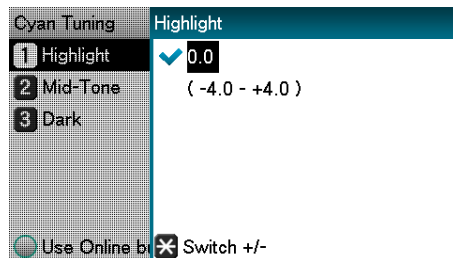
- d. Select **Cyan Tuning**, and press the **OK** button.



- e. Select **Highlight**, and press the **OK** button.



- f. Specify a larger value than the current set value, and press the **OK** button. Confirm there is a check mark to the left of the specified value.



Select +0.1 to +4.0 to make density slightly darker, or -0.1 to -4.0 to make it slightly lighter. Note, however, that the black adjustment ranges are +0.1 to +3.0 and -0.1 to -3.0.

- g. Press the **ON LINE** button to return to the standby screen.
4. Check the color balance adjustment results.
- a. Print the color tuning pattern.

- b. Use the print results for the color tuning pattern to check the adjusted results.

Repeat steps 1 through 3 of this procedure in accordance with the results of your pattern check.



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## Adjusting Color with a Printer Driver

### About Color Matching

It is important to manage the work processes from data creation to output based on methods with color consistency. For example, scanners, digital cameras, and monitors, and other devices express the blending ratio to which the light of red, blue, and green (three colors) have been added to black as values over the RGB color space (additive mixture of colors).

Meanwhile, printers express the blending ratio of the four toner colors cyan, magenta, yellow, and black relative to white (white light), with the three reflected colors red, blue, and green excluded as values in the CMYK color space (subtractive mixture of colors).

The RGB color space and CMYK color space are color spaces dependent on the machine used, and so when converting color spaces, the colors will be different from the reproduced colors unless individual machine characteristics are taken into consideration.

To maintain color consistency from data creation to output, it is necessary to consider the color differences by device when converting colors. This process is called “color matching”. The program that implements the color matching is called the “color management system” (CMS).

The printer can use either printer driver color matching or application color matching.

**Note:** *Even if you are using color matching, the printed colors may appear dark compared to the colors on the monitor. This is because the range of colors that can be reproduced by the device is narrower than the range of colors that can be reproduced by the monitor, so even if color matching is used, the vivid colors on the monitor cannot be reproduced.*

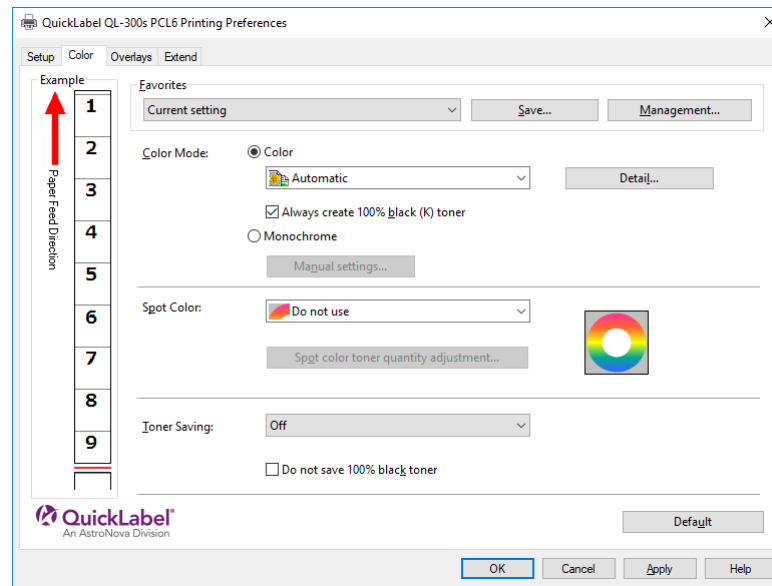
### Color Matching (Automatic)

The procedure below performs recommended color matching for general documents. Generally use the settings shown here.

#### Windows PCL Printer Driver

1. Open the file to be printed.
2. On the **File** menu, select **Print**.
3. Click **Preferences** (or **Properties**).

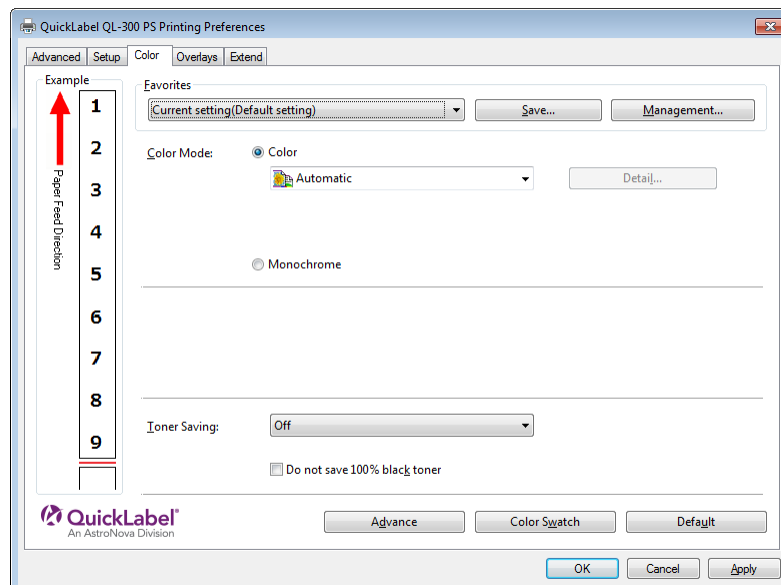
- In “Color” on the **Color** tab, select **Automatic**, and then click **OK**.



- Print.

## Windows PS Printer Driver

- Open the file to be printed.
- On the **File** menu, select **Print**.
- Click **Preferences** (or **Properties**).
- In “Color” on the **Color** tab, select **Automatic**, and then click **OK**.



- Print.

## Simple Color Matching (Simple Adjustment)

Color matching is used on a printer for reproduction of the RGB colors required to print from word processor, spreadsheet, presentation, and other similar software.

Color matching is implemented using a special accelerator (ASIC) that is built into the printer. When converting RGB color space print data to the printer CMYK color space, color matching processing is applied.

- In the case of a Windows PCL printer driver, color matching is not applied even if **Automatic** or **Simple Adjustment** is selected for the CMYK color space print data. In this case, select "Graphic Pro".

### Setup Items

RGB Color Setting - Specifies the method for expressing the colors processed using color matching.

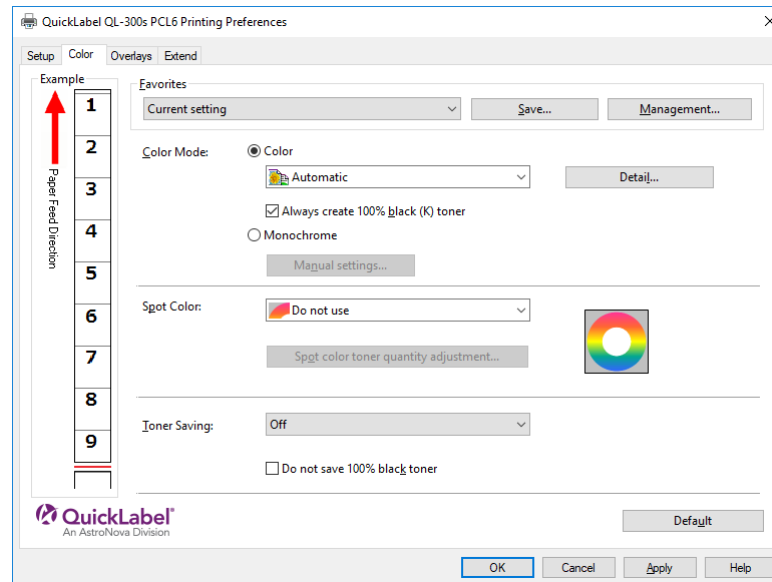
- **Monitor - Auto**  
During color matching, represents color by the most ideal method suited to the document to be printed, emphasizing compatibility with the monitor (color temperature 6500 K). Normally use this setting.
- **Monitor - Perceptual**  
During color matching, represents the color by the method emphasizing the gradation suiting the natural image of the photograph and compatibility with the monitor (color temperature 6500K).
- **Monitor - Vivid**  
During color matching, represents the color by the method emphasizing the vividness suiting the images and text, and compatibility with the monitor (color temperature 6500K).
- **Monitor - light**  
During color matching, represents the color by the method emphasizing the gradation suiting the natural image of the photograph and compatibility with the monitor (color temperature 9300K).
- **Adobe RGB**  
Specify if you are using an input device with AdobeRGB color characteristics.
- **sRGB**  
The sRGB colors within the printer's color gamut are printed without any modification. Only colors that fall outside the printer's color gamut are matched with the outer shell. Suitable for matching specific colors.

Black Finish - Sets the black finish when printing in color. Normally use Auto as is.

### Windows PCL Printer Driver

1. Open the file to be printed.
2. On the **File** menu, select **Print**.
3. Click **Preferences** (or **Properties**).

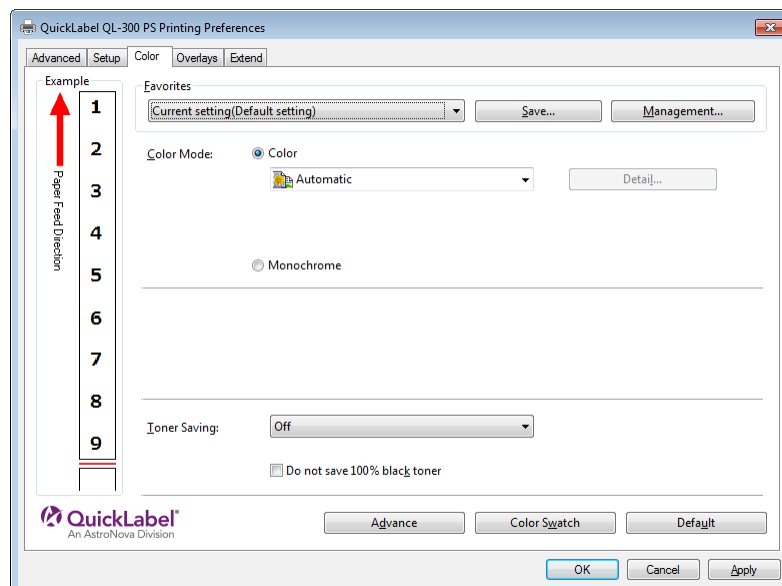
- On the **Color** tab, click **Color**, select **Automatic** or **Simple Adjustment**, and then click **OK**.



- Print.

## Windows PS Printer Driver

- Open the file to be printed.
- On the **File** menu, select **Print**.
- Click **Preferences** (or **Properties**).
- On the **Color** tab, click **Color**, select **Automatic** or **Simple Adjustment**, and then click **OK**.



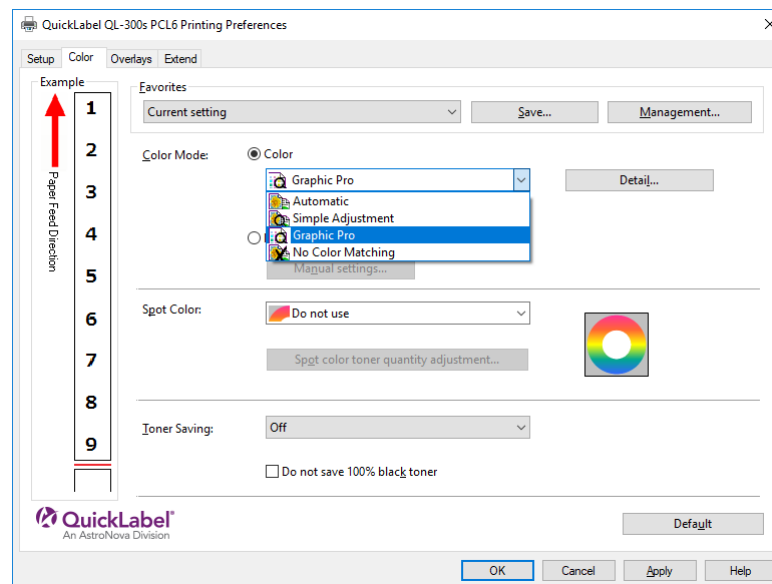
- Print.

## Color Matching (Graphic Pro)

Graphic Pro is the optimal choice for use with DTP software. It lets you specify simulation printing for any CMYK output device.

### Windows PCL Printer Driver

1. Open the file to be printed.
2. On the **File** menu, select **Print**.
3. Click **Preferences** (or **Properties**).
4. On the **Color** tab, click **Color**, then select **Graphic Pro**, and then click **OK**.

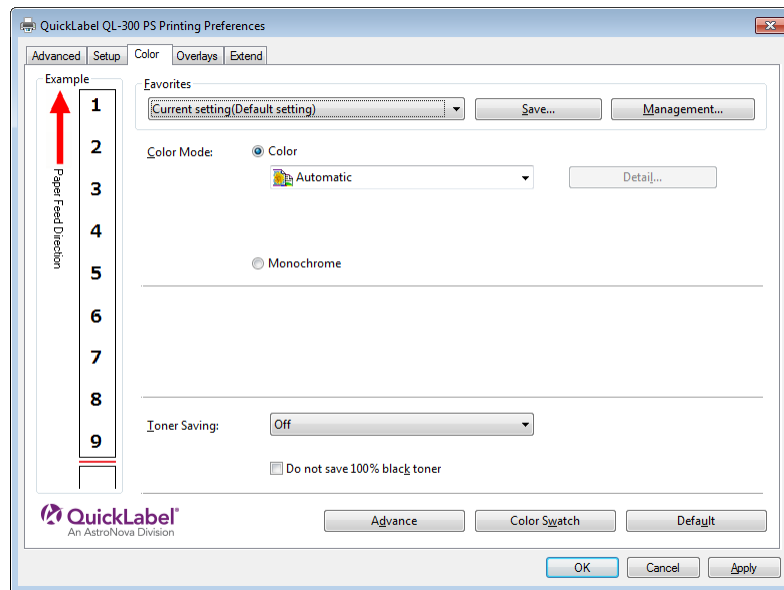


5. Print.

### Windows PS Printer Driver

1. Open the file to be printed.
2. On the **File** menu, select **Print**.
3. Click **Preferences** (or **Properties**).

- On the **Color** tab, click **Color**, then select **Graphic Pro**, and then click **OK**.



- Print.

## Color Matching (No Color Matching)

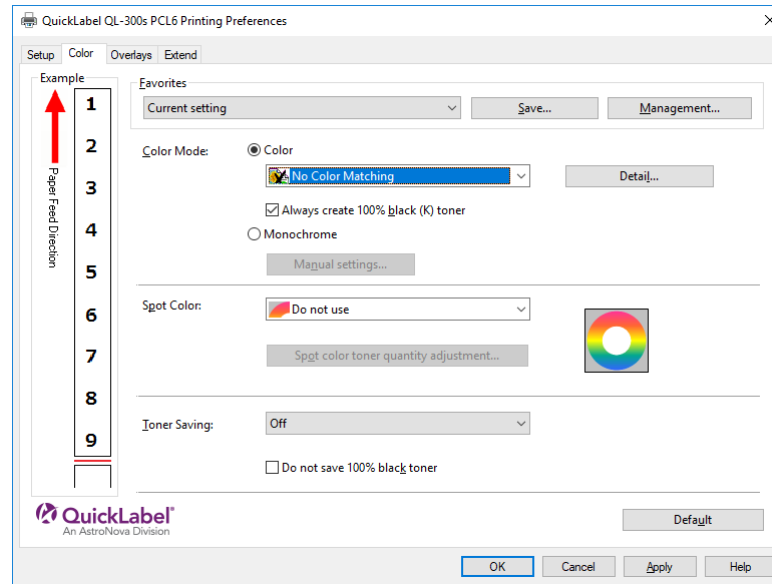
Prints using the specified colors as is, without implementing color matching using the printer drivers or device.

Select if implementing color matching using an application.

## Windows PCL Printer Driver

- Open the file to be printed.
- On the **File** menu, select **Print**.
- Click **Preferences** (or **Properties**).

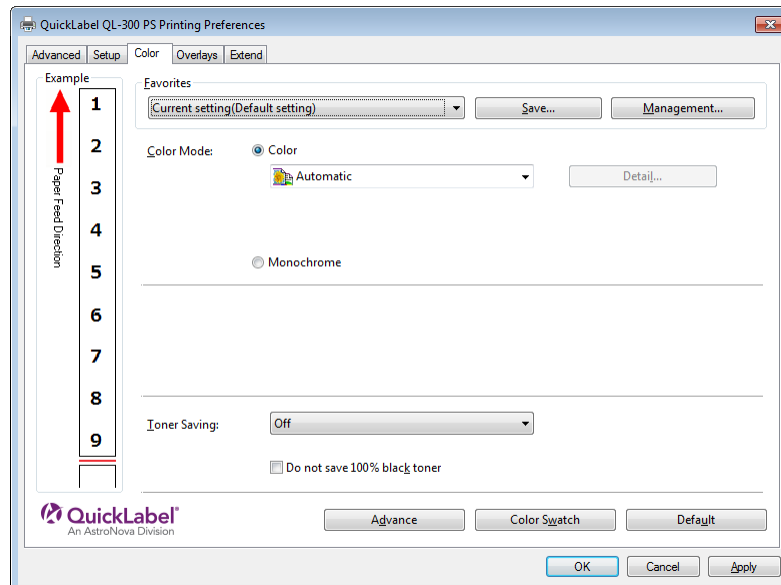
- On the **Color** tab, click **Color**, then select **No Color Matching**, and then click **OK**.



- Print.

## Windows PS Printer Driver

- Open the file to be printed.
- On the **File** menu, select **Print**.
- Click **Preferences** (or **Properties**).
- On the **Color** tab, click **Color**, then select **No Color Matching**, and then click **OK**.



- Print.

---

## Changing the Black Finish

The finish for the black parts will be changed when printing in color. This can be used when the printer driver's color mode setting is **Simple Adjustment** or **Graphic Pro**.

### Setup Items

#### Black Finish

- **Auto**  
Creates black using the optimum methods according to the document to be printed. This setting can be selected only when the color mode is set to **Simple Adjustment**. This setting cannot be configured on the Graphic Pro.
- **Composite Black (CMYK)**  
Synthesizes black using cyan, magenta, yellow, and black toner. The black is close to brown. Ideal for photos.
- **True Black (K)**  
Prints black using black toner only. Ideal for diagrams and documents. When printing photos, the dark parts are blackish.

Pure Black Text/Graphics (Graphic Pro Only) - If black defined using the RGB color space for text and graphics (R=0, G=0, B=0) or black defined using the CMYK color space (C=0, M=0, Y=0, K=100%) is specified, this setting specifies whether printing should use black (K) toner only.

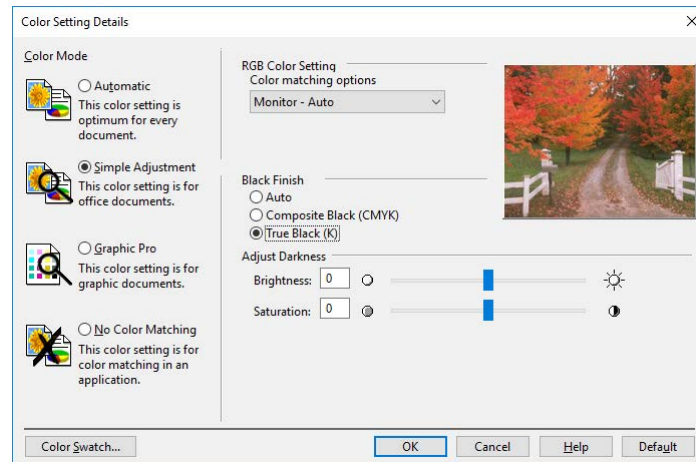
- **ON**  
Prints the text and graphics specified as black using black (K) toner only.
- **OFF**  
Text and graphics specified as black are synthesized using either black (K) toner only or CMYK depending on the profile specified by color matching.

### Windows PCL Printer Driver

1. Open the file to be printed.
2. On the **File** menu, select **Print**.
3. Click **Preferences** (or **Properties**).
4. On the **Color** tab, select **Simple Adjustment** or **Graphic Pro**.



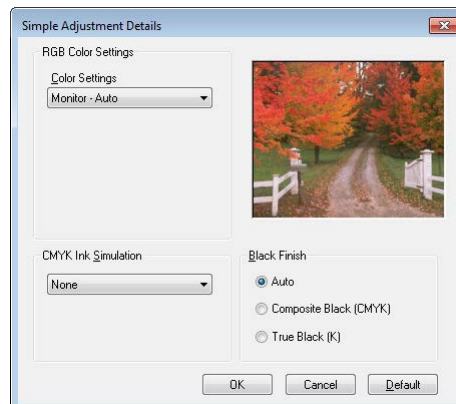
- In the **Black Finish** section, select the black finishing method. In the **Graphic Pro** mode, also select ON or OFF for **Pure Black Text/Graphics**, and then click **OK**.



- Print.

## Windows PS Printer Driver

- Open the file to be printed.
- On the **File** menu, select **Print**.
- Click **Preferences** (or **Properties**).
- On the **Color** tab, select **Simple Adjustment** or **Graphic Pro**, and then click **Detail**.
- In the **Black Finish** section, select the black finishing method. In the **Graphic Pro** mode, also select ON or OFF for **Pure Black Text/Graphics**, and then click **OK**.



- Print.

## Monochrome (Black and White) Printing

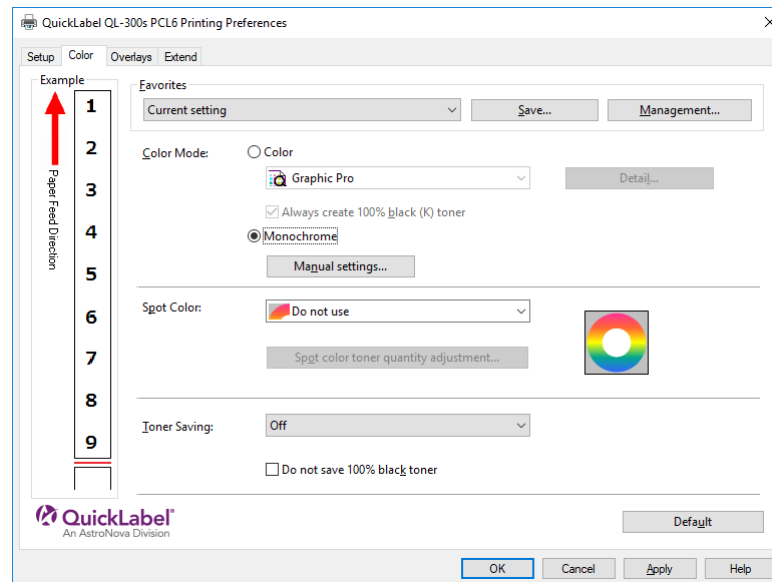
The color data is printed using grayscale (shades of black and white) without touching the print data.

**Note:** If implementing color printing after printing by specifying “Monochrome”, a delay may occur depending on the temperature adjustment of the fuser unit.

- Even if the cyan (blue), magenta (red), or yellow print cartridge life has been reached, monochrome printing using only black can be done by specifying “Monochrome”.
- Refer to “Printing Using the Specified Print Cartridge Only (Lift Up)” on page 184 regarding printing with black only.

## Windows PCL Printer Driver

1. Open the file to be printed.
2. On the **File** menu, select **Print**.
3. Click **Preferences** (or **Properties**).
4. On the **Color** tab, select **Monochrome**. Adjust lightness and darkness as required.

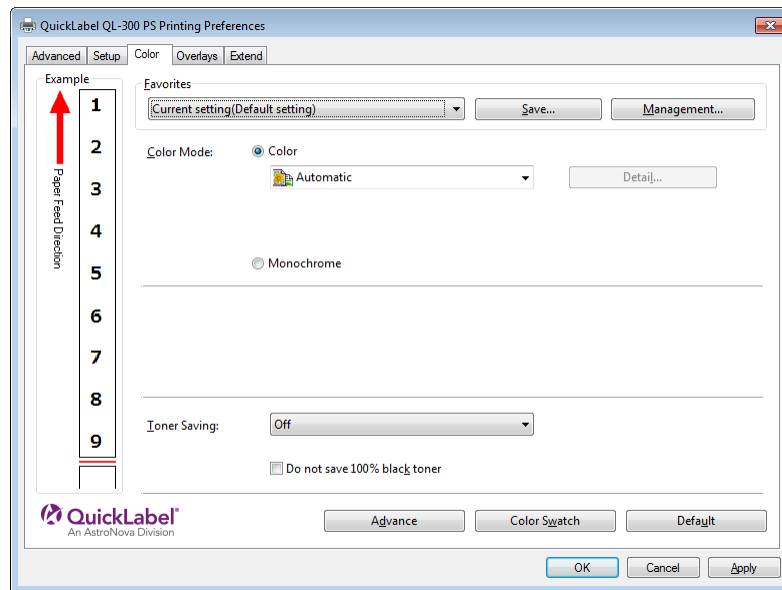


5. Print.

## Windows PS Printer Driver

1. Open the file to be printed.
2. On the **File** menu, select **Print**.
3. Click **Preferences** (or **Properties**).

- On the **Color** tab, select **Monochrome**. Adjust lightness and darkness as required.



- Print.

## Suppressing White Lines Between Text and the Background (Black Overprint)

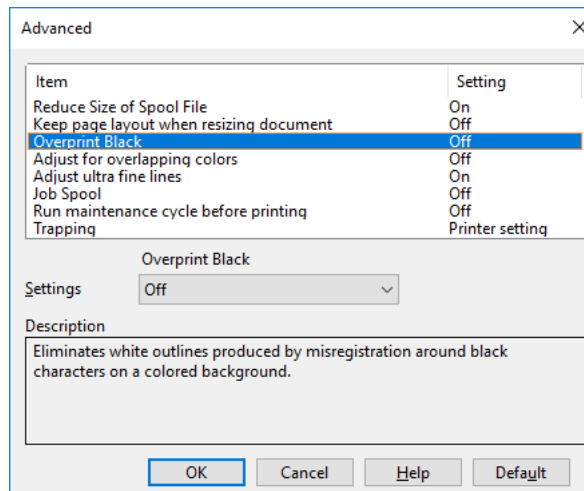
If you are imaging 100% black text on a colored background, you can print (overprint) by overlaying the text and background parts. Set if there are gaps such as white lines, etc., in the borders between the text and background.

- Not usable with some applications.
- Black overprint cannot be used if the text is not 100% black, the text has been rendered as graphics by extracting the outlines, or if the text is an image.
- If the background color is dark (toner layer thickness exceeds 240%), toner may not be fixed completely. For example, if printing 100% black text on backgrounds of 50% cyan, 50% magenta, and 50% yellow, the toner layer thickness is  $50+50+50+100=250\%$ , which exceeds 240%.

## Windows PCL Printer Driver

- Open the file to be printed.
- On the **File** menu, select **Print**.
- Click **Preferences** (or **Properties**).
- On the **Extend** tab, click **Advanced**.

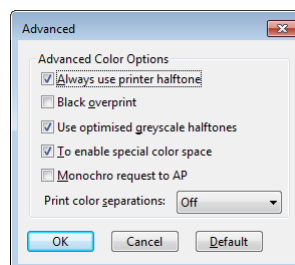
5. Select **Overprint Black**. Next, for **Settings**, select **On**, and then click **OK**.



6. Print.

## Windows PS Printer Driver

1. Open the file to be printed.
2. On the **File** menu, select **Print**.
3. Click **Preferences** (or **Properties**).
4. On the **Color** tab, click **Advanced**.
5. Select the **Black overprint** check box, and then click **OK**.



6. Print.

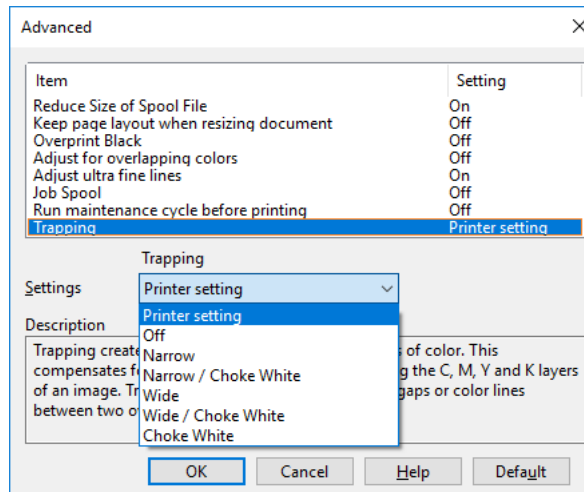
## Correcting for Print Misalignment (Trapping)

Use if there are white or colored lines between two overlapping objects due to print misalignment.

### Windows PCL Printer Driver

1. Open the file to be printed.
2. On the **File** menu, select **Print**.
3. Click **Preferences** (or **Properties**).
4. On the **Extend** tab, click **Advanced**.

5. Select **Trapping**. Next, select the misalignment correction method with **Settings**, and then click **OK**.

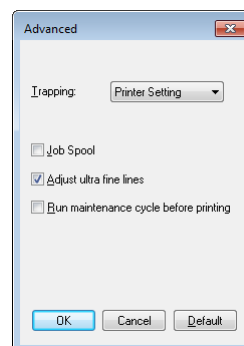


Selections that include **Choke White** are only shown for the QL-300s.

6. Print.

## Windows PS Printer Driver

1. Open the file to be printed.
2. On the **File** menu, select **Print**.
3. Click **Preferences** (or **Properties**).
4. On the **Extend** tab, click **Advanced**.
5. Select the misalignment correction method in **Trapping**, and then click **OK**.



Selections that include **Choke White** are only shown for the QL-300s.

6. Print.

## Simulating Print Results

The printer adjusts CMYK color data to simulate the characteristics of ink, such as that used in offset printing.

The ICC profiles registered as standard are described below.

RGB Profiles

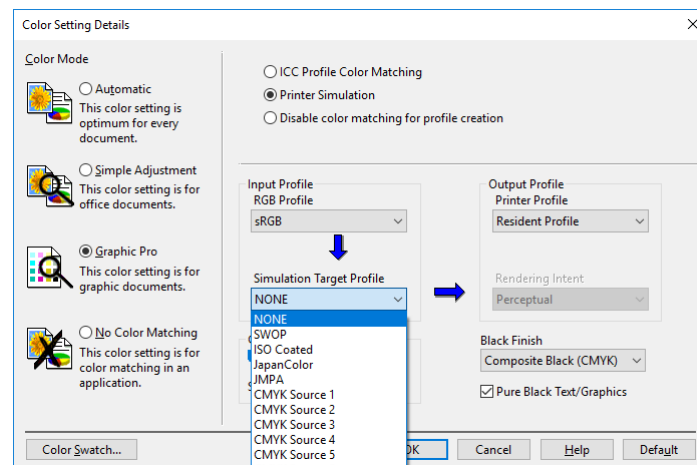
- sRGB
  - AdobeRGB
- CMYK Input Profiles

- SWOP
- ISO Coated
- Japan Color
- JMPA

**Note:** Enabled when **Color Mode** is set to either **Simple Adjustment** or **Graphic Pro**.

## Windows PCL Printer Driver

1. Open the file to be printed.
2. On the **File** menu, select **Print**.
3. Click **Preferences** (or **Properties**).
4. On the **Color** tab, click **Detail**, and then select **Graphic Pro**.
5. Select **Printer Simulation**, and then use the list under **Simulation Target Profile** to select the ink characteristics you want to simulate.

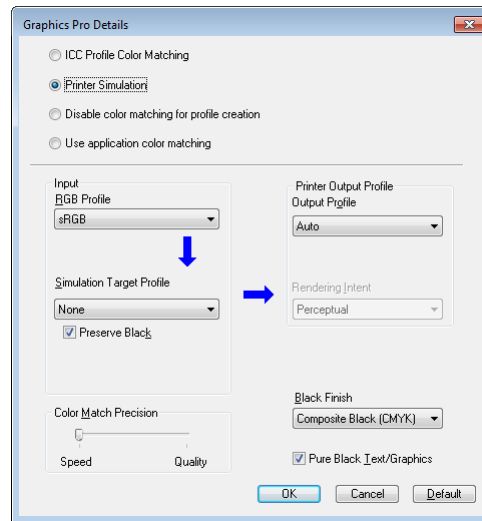


6. Click **OK**.
7. Print.

## Windows PS Printer Driver

1. Open the file to be printed.
2. On the **File** menu, select **Print**.
3. Click **Preferences** (or **Properties**).
4. On the **Color** tab, select **Graphic Pro**, and then click **Detail**.

5. Select **Printer Simulation**, and then use the list under **Simulation Target Profile** to select the ink characteristics you want to simulate.



6. Click **OK**.
7. Print.

---

# 9

## Spot Color Printing Setup (QL-300s Only)

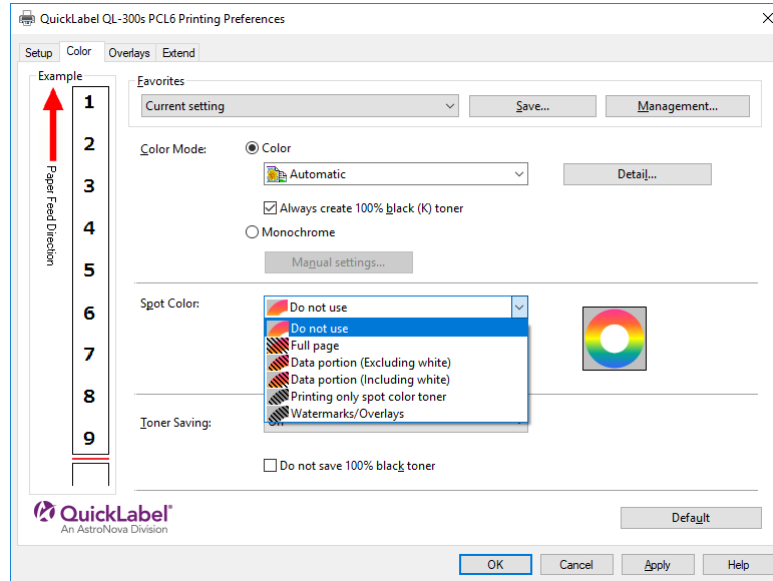
### Printer Driver Spot Color Function List

This section explains the Spot Color toner functions in the printer drivers.



## Windows PCL Printer Driver

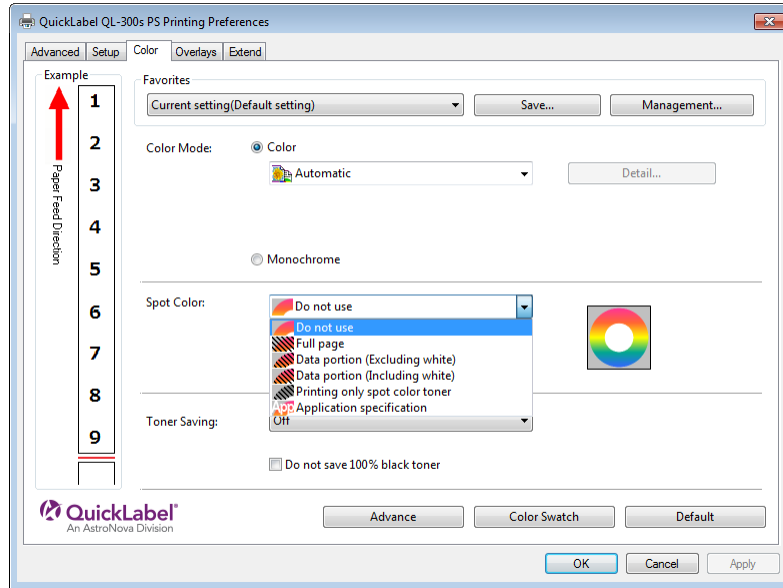
Click the **Color** tab to display the screen for setting the spot color toner.



	Item	Description
Usage Method	Do not use	Prints without using white toner.
	Full page	Uses white toner for the entire page being printed.
	Data portion (Excluding white)	Uses white toner for all data parts that do not include white parts.
	Data portion (Including white)	Uses white toner for all data parts that include white parts.
	Printing only spot color toner	Prints with white toner only.
	Watermarks/Overlays	Prints the selected watermark and overlay with white toner.
Spot color toner quantity adjustment	0 to 100	Adjusts the amount of white toner used while printing.

## Windows PS Printer Driver

Click the **Color** tab to display the screen for setting the spot color toner.



	Item	Description
Spot Color	Do not use	Prints without using white toner.
	Full page	Uses white toner for the entire page being printed.
	Data portion (Excluding white)	Uses white toner for all data parts that do not include white parts.
	Data portion (Including white)	Uses white toner for all data parts that include white parts.
	Printing only spot color toner	Prints with white toner only.
	Application specification	Allows you to specify white toner from the application.
Spot color toner quantity adjustment	0 to 100	Adjusts the amount of white toner used while printing.
	Don't layer white toner for 100% black	Select whether to do overlaying on white toner when printing text or lines at 100% black.

## Printing on Color Media

### Usable Color Media

Use color media that satisfies the following conditions.

- Pigment or ink used to color the media heat-resistant to 230°C
- E-photo printer media with the same characteristics as plain media

### Printing Using White Toner Only

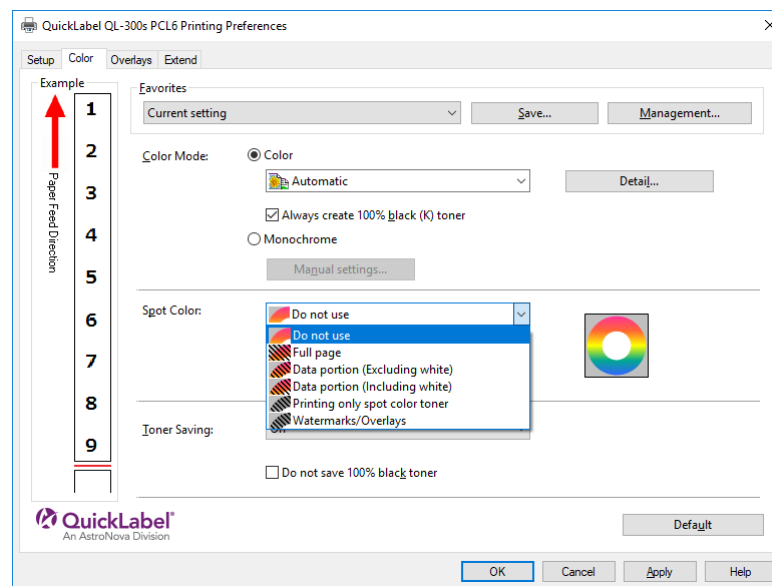
Printing text and illustrations using only white toner on color paper.

Before printing, check that the white print cartridge has been installed in the device, and that white toner has been selected using the printer drivers.

**Note:** If you specify “Print Only with Spot Color” and lift up all the other colors of cartridges, you can print with only spot colors, even if one of the black, cyan, magenta, or yellow print cartridges has reached the end of its service life.

### Windows PCL Printer Driver

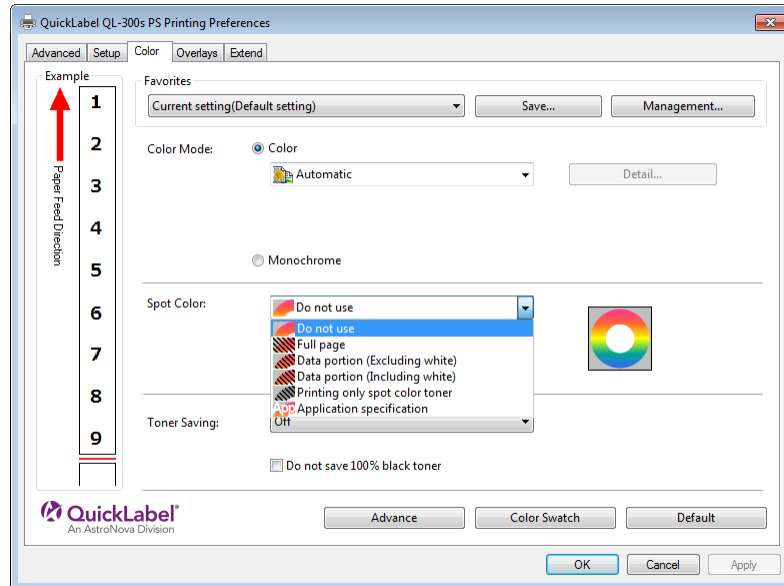
1. Open the file to be printed.
2. Select **Page Setup** in the **File** menu.
3. Select the paper size and print orientation, and then click **OK**.
4. Select **Print** in the **File** menu.
5. Click **Preferences** (or **Properties**).
6. Use **Media Type** to select the paper type.
7. Use **Media Weight** to select an appropriate value.
8. Click the **Color** tab.



9. For **Usage Methods**, select **Printing only spot color toner**, and then click **OK**.
10. Click **Print** in the “Print” screen to print.

## Windows PS Printer Driver

1. Open the file to be printed.
2. Select **Print** in the **File** menu.
3. Click **Preferences** (or **Properties**).
4. Click the **Color** tab.



5. For **Spot Color**, select **Printing only spot color toner**, and then click **OK**.
6. Click **Print** in the “Print” screen to print.

## Printing White Below a Color (Spot Color Overprint)

When printing on color paper, print a base with white toner, and then print in color on top of that.

## Windows PCL Printer Driver

1. Open the file to be printed.
2. Select **Page Setup** in the **File** menu.
3. Select the paper size and print orientation, and then click **OK**.
4. Select **Print** in the **File** menu.
5. Click **Preferences** (or **Properties**).
6. Use **Paper settings** to select the paper type.
7. Click the **Color** tab.
8. For the **Spot Color** setting, select one of the following: **Full page**, **Data portion (Excluding white)**, **Data portion (Including white)**, or **Watermarks/Overlays**.

9. Click **OK**.
10. Click **Print** in the “Print” screen to print.

### Windows PS Printer Driver

1. Open the file to be printed.
2. Select **Print** in the **File** menu.
3. Click **Preferences** (or **Properties**).
4. Click the **Color** tab.
5. For the **Spot Color** setting, select one of the following: **Full page**, **Data portion (Excluding white)**, **Data portion (Including white)**.
6. Click **OK**.
7. Click **Print** in the “Print” screen to print.

## Adjusting the White Image from the Application

By adjusting the file from the application, the registration misalignment may not be noticeable. If the misalignment is not fixed after adjusting the position and size, adjust the white image with the application. Adobe Illustrator will be used as an example for the adjustment method.

1. Open the data with white misalignment.
2. Create a new layer. Name the layer “SpotColor”, and create this at the top.
3. Open the swatch window, and click the “New Swatch” button.  
Enter **SpotColor\_White** as its name, and select **Spot Color** for the color type.  
*Note: Please enter the name as given above. White toner will not be recognized if you make a mistake in the entries.*
4. Copy the object to be filled with spot color white to the “SpotColor” layer.
5. Select the copied object, and set the fill to “SpotColor\_White:100%” and the border to “SpotColor\_White:0%”. For outlines, select **Object > Path > Path Outline**, and set the fill and border after it been changed to Object.
6. Open the attribute window, and select **Overprint Fill** and **Overprint Stroke**.
7. Select **File > Print**. Select the QL-300 printer.
8. Go to **Advanced > Overprints**, and select **Simulate**.
9. Click **Setup**.
10. Click **Preferences**.
11. On the **Color** tab, select **Application specification** in **Spot Color**.
12. Print.

# Printing by Using Applications to Specify Spot Color Toner (PS Printer Drivers Only)

## Using Illustrator

This explanation uses Illustrator CC as an example.

### Adding Swatches

If using Spot Color (white), specify the swatches added for the objects to be Spot Color printed.

1. Open the swatch panel, and select new swatch.
2. Enter **SpotColor\_White** in **Swatch Name**.
3. Select **Spot Color** in **Color Type**.

### Printing

If printing Spot Color, make the settings using the application print dialog box.

1. Click **Advanced** from the menu on the left of the print dialog box.
2. Select **Simulate** in **Overprints**.
3. Click **Print**.

### Windows PS Printer Driver

1. Select Windows PS printer drivers, and click **Preferences**.
2. On the **Color** tab, select **Application specification** in **Spot Color**, and then click **OK**.
3. Print.

## Using Photoshop

This explanation uses Photoshop CC as an example.

### Adding Spot Color Channels

If using Spot Color (white), specify the Spot Color channels added for the objects to be Spot Color printed.

1. Open the channel panel, and select a new Spot Color channel.
2. Enter **SpotColor\_White** in **Name**.

### Saving in PDF Format

Spot Color printing directly from Photoshop is not possible, so initially save the file in PDF format.

## Printing

1. Open the file that has been saved in PDF format using Acrobat or Adobe Reader.
2. Select **File > Print** to open the print dialog box.
3. Click **Advanced**.
4. Select **Color** from the menu on the left of the **Preferences** dialog box, and select **Simulate overprint**. (If using Adobe Reader, click **Advanced**, and then select **Simulate overprint**.)
5. Click **OK** to return to the print dialog box.

## Windows PS Printer Driver

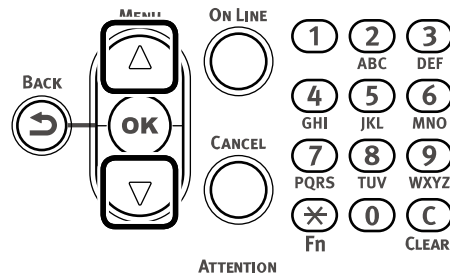
1. Select Windows PS printer drivers, and click **Preferences**.
2. On the **Color** tab, select **Application specification** in **Spot Color**.
3. Print.

## Fine-Tuning White Shading

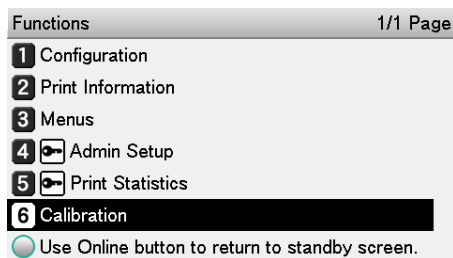
Finely adjust the shade for each white highlight, dark, mid-tone gradation using the printer control panel.

Here, we will show the procedure for slightly darkening white highlights.

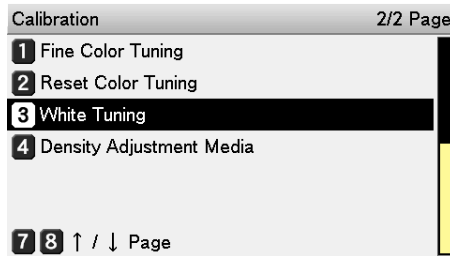
1. Press the scroll button ▲ or ▼.



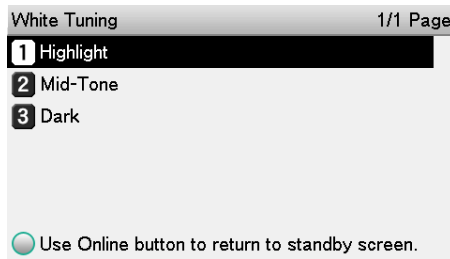
2. Select **Calibration**, and press the **OK** button.



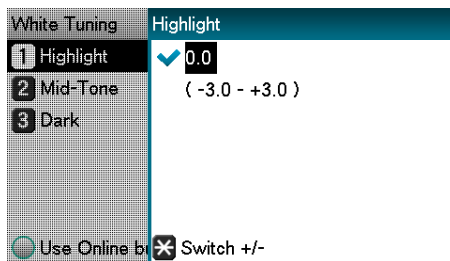
3. Select **White Tuning**, and then press the **OK** button.



4. Select **Highlight**, and press the **OK** button.

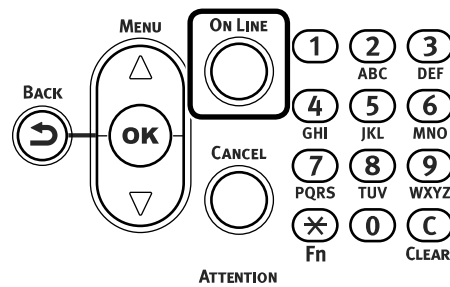


5. Specify a value that is larger than the current set value, and then press the **OK** button. Confirm there is a check mark to the left of the specified value.



A larger value represents darkening, while a smaller value represents lightening.

6. Press the **ON LINE** button to return to the standby screen.





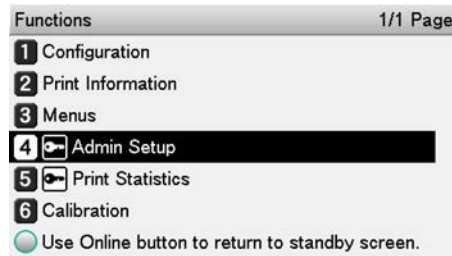
# 10

## Network Settings

### Initializing Network Settings

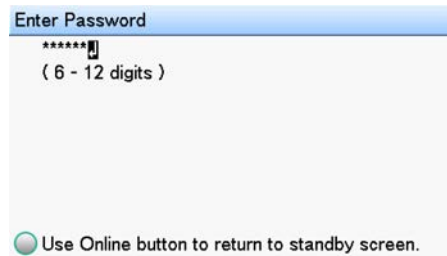
Implementing this operation will initialize all network settings.

1. Press the scroll button ▼ several times to select **Admin Setup**, and then press the **OK** button.

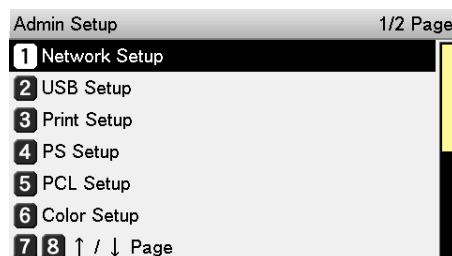


2. Use the numeric keypad to input the administrator password.

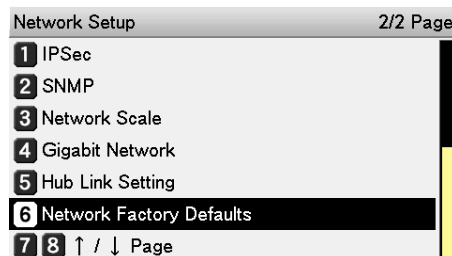
The factory default password is 999999. Press the **OK** button after inputting each character.



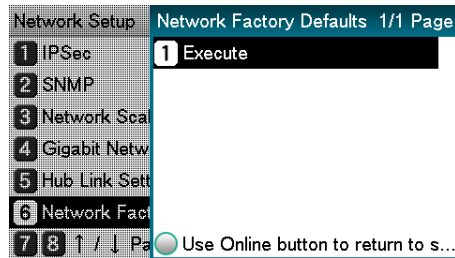
3. Select **Network Setup**, and then press the **OK** button.



4. Select **Network Factory Defaults**, and then press the **OK** button.



- When **Execute** appears, press the **OK** button.



- Initialization is executed, and the display returns to the standby screen.

## Using DHCP

IP addresses can be acquired from a DHCP server.

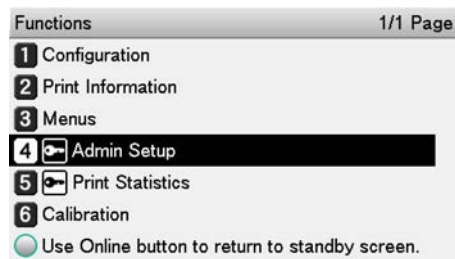
PC administrator privileges are required for the setup.

**Caution:** *Incorrectly allocating the IP address may cause major malfunctions such as crashing of the network. Thoroughly consult the network administrator before making the settings.*

To use the device in a DHCP environment, select **Auto** as the IP address setting method.

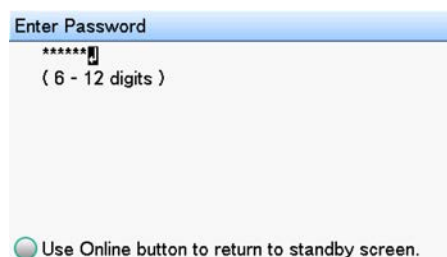
Also note that **Auto** is the IP address setting method under factory default settings, so performing this procedure is normally not necessary.

- Press the scroll button ▼ several times to select **Admin Setup**, and then press the **OK** button.

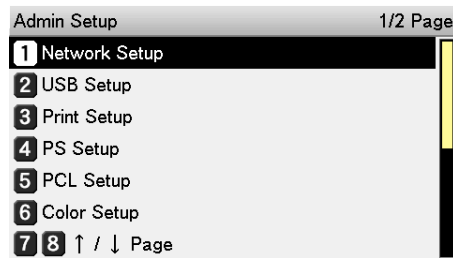


- Use the numeric keypad to input the administrator password.

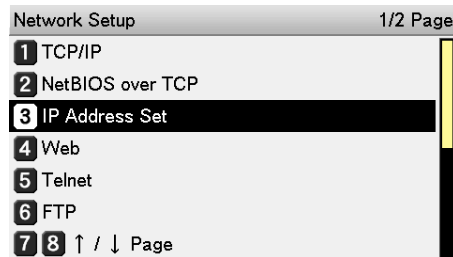
The factory default password is 999999. Press the **OK** button after inputting each character.



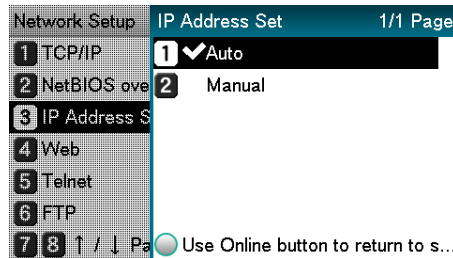
3. Select **Network Setup**, and then press the **OK** button.



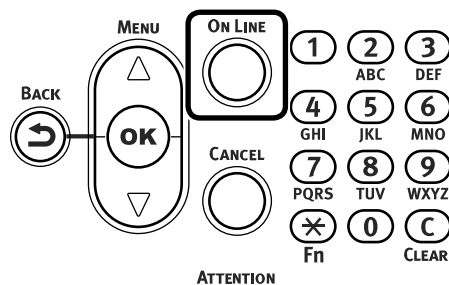
4. Select **IP Address Set**, and then press the **OK** button.



5. Select **Auto**, and then press the **OK** button.



6. Press the **ON LINE** button to return to the standby screen.



## Using BOOTP

To use the printer in a BOOTP environment, select **BOOTP** as the IP address setting method.

1. Access the printer web page and log in as an administrator.  
*See "Web Utility" on page 414.*
2. Select **Admin Setup**.
3. Select **Network Setup > TCP/IP > Change Settings > Get IP address automatically (BOOTP)**.

4. Click **Submit**.

## IPv6

This printer is compatible with IPv6, and the IPv6 address is acquired automatically. IPv6 addresses cannot be set manually.

The device is compatible with the following protocols.

Printing:

- LPR
- IPP
- RAW (Port9100)
- FTP

Setup:

- HTTP
- SNMPv1/v3
- Telnet

## Checking the IPv6 Address

IPv6 addresses are allocated automatically.

1. Access the printer web page and select **Device information**.

**Note:** Refer to “Web Utility” on page 414 regarding the printer web page.

2. Select **Network > TCP/IP**.

If all the global addresses are displayed as “0”, it is possible an error has occurred in the router being used.

Press the scroll buttons to select **Print Information > Configuration** to check the IPv6 address using the configuration report. For reports and information about how to print them, see “Printing Configuration Information” on page 257.

# 11

## Viewing Machine Information

### Printing Configuration Information

#### Printable Report List

List Name	Description
Configuration	Prints the table of all menu category items and the current settings. Further, the advanced printer settings are also printed in the page header.
Demo Page	Prints the demo print data stored in the printer.
File List	Prints the file list.
Usage Report	Prints the total print results.
Error Log	Prints the errors detected and saved by the printer.
Color Profile List	Prints the color profile list.
Color Adjustment Pattern	Prints the patterns to match the shading characteristics.
User Media List	Prints the user media list.
Test Print-1	Prints the patterns for analyzing the print quality.
Test Print-2	Prints the patterns for analyzing CYMK print quality.
Test Print-3	Prints the patterns for analyzing the status of the print cartridges.
Test Print-4	Prints the patterns for analyzing print quality of the spot colors. Displayed with QL-300 only.
Cleaning Page	Prints the toner-free white sheet to remove dirt from the surface of the fuser belt in the fuser unit.

- Paper is cut at a fixed length when printing a report, so do not use die-cut label paper.

- To attain the full benefit of the report printing function, load paper that is 130 mm wide.
- Printing is canceled if a print cartridge for a color that is required for report printing is not lifted down.

## Printing Printer Setup Lists

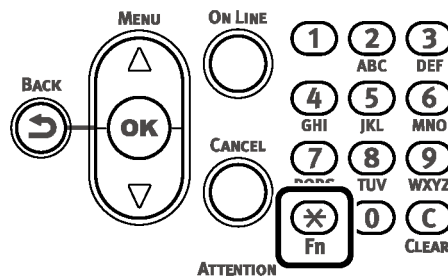
### Configuration

Print the device information.

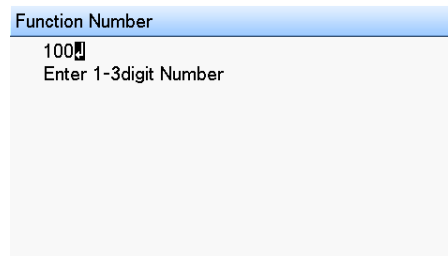
Print to see the remaining quantity of wear items and other set values such as IP addresses and MAC addresses, and to check whether the printer is operating correctly, etc.

1. Press the **Fn** key.

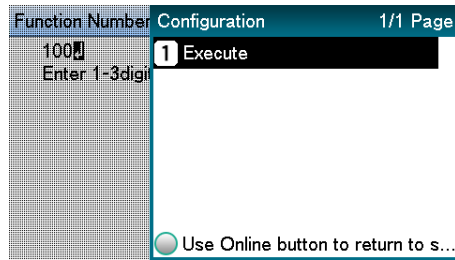
The numerical values input screen will be displayed.



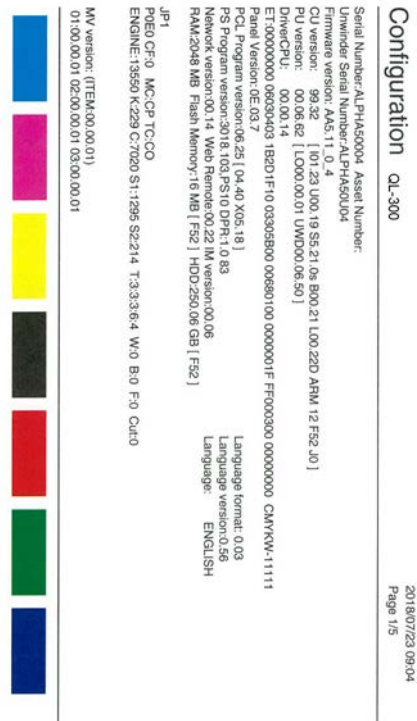
2. Press **1, 0, 0** (function numbers), and then press the **OK** button.



- Confirm that **Execute** is selected, and then press the **OK** button.



Printing result sample:

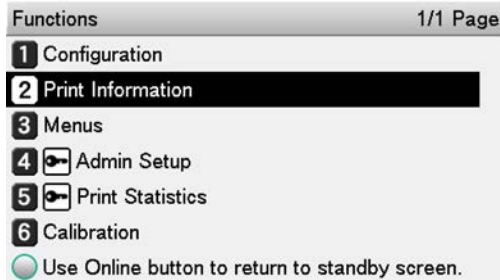


## Printing Printer Information Lists

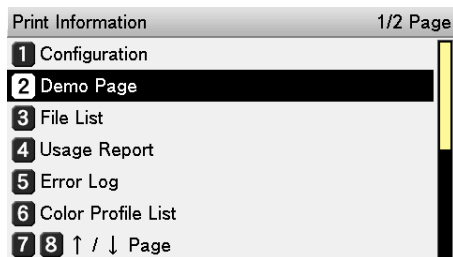
### Demo Page

Prints demonstration pages.

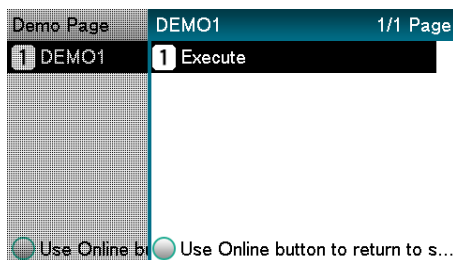
1. Press the scroll button ▼ several times, and when **Print Information** appears, press the **OK** button.



2. Select **Demo Page**, and then press the **OK** button.



3. When **DEMO1** appears, select one of the items to be printed, and then press the **OK** button.
4. Confirm that **Execute** is selected, and then press the **OK** button.



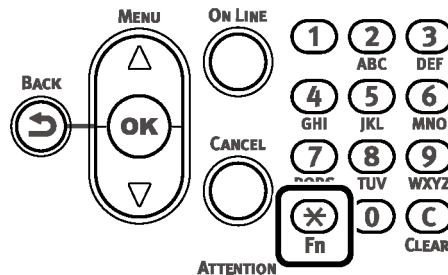


## Error Log

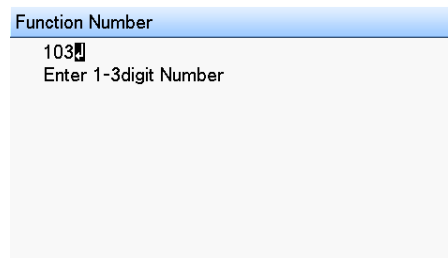
Prints the history of the errors that have occurred in the device.

1. Press the **Fn** key.

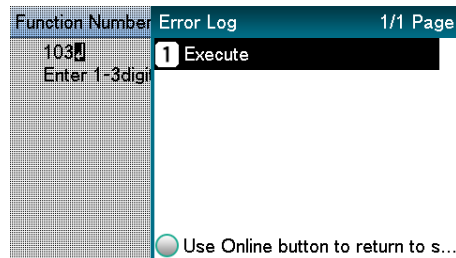
The numerical values input screen will be displayed.



2. Press **1, 0, 3** (function numbers), and then press the **OK** button.



3. Confirm that **Execute** is selected, and then press the **OK** button.



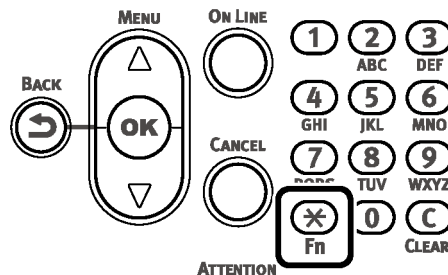
## Usage Report

Prints the total print results.

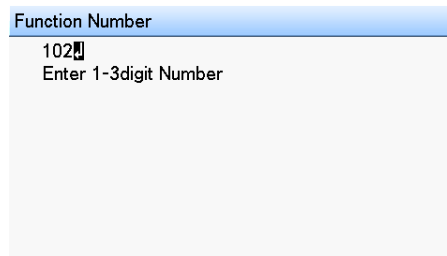
**Note:** Not displayed if **Usage Report** of **Print Statistics** is set to **Disable**.

1. Press the **Fn** key.

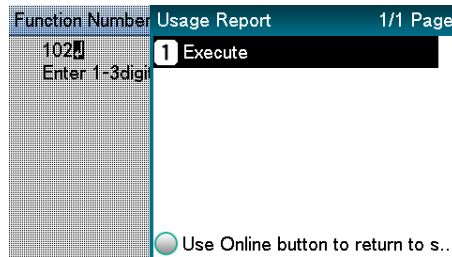
The numerical values input screen will be displayed.



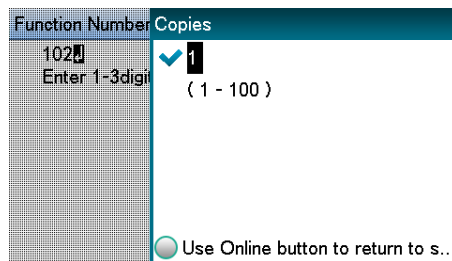
- Press **1, 0, 2** (function numbers), and then press the **OK** button.



- Confirm that **Execute** is selected, and then press the **OK** button.



- Use the numeric keypad or the scroll buttons to specify the number of copies, and then press the **OK** button.

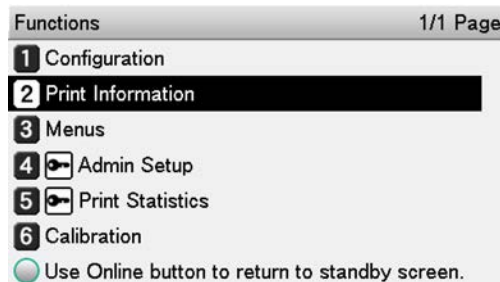


## Printing Print Lists

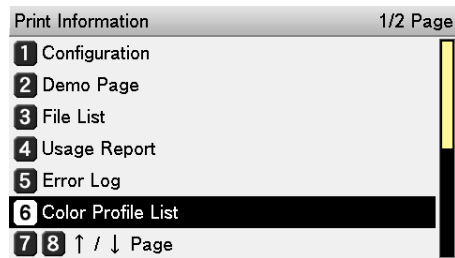
### Color Profile List

Prints the table of the ICC profiles registered on the printer.

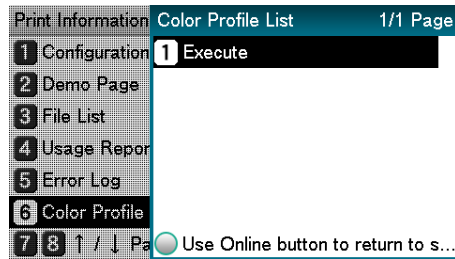
- Press the scroll button **▼** several times, and when **Print Information** appears, press the **OK** button.



2. Select **Color Profile List**, and then press the **OK** button.



3. Confirm that **Execute** is selected, and then press the **OK** button.

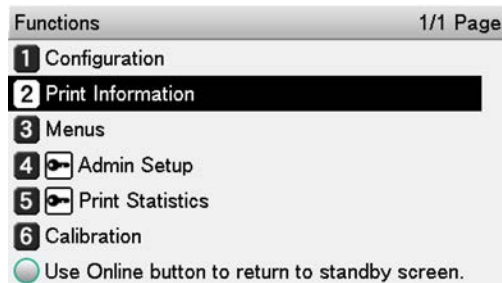


## User Media List

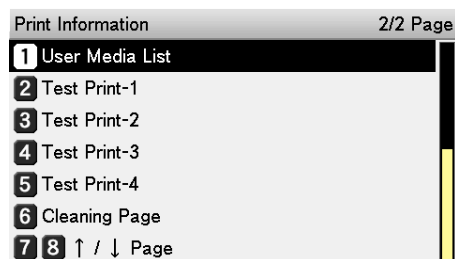
Prints the table of the user media registered to the device.

**Note:** Displayed when the user media is registered.

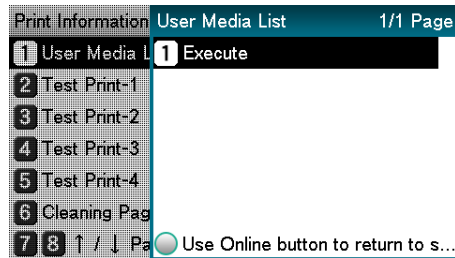
1. Press the scroll button ▼ several times, and when **Print Information** appears, press the **OK** button.



2. Select **User Media List**, and then press the **OK** button.



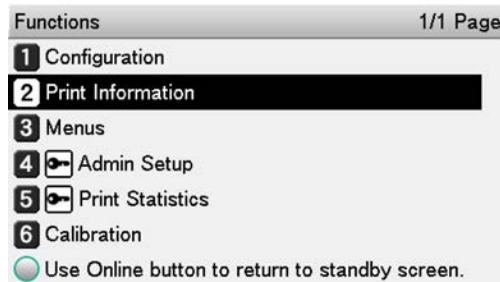
- Confirm that **Execute** is selected, and then press the **OK** button.



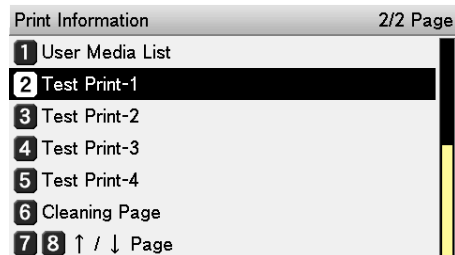
## Test Print

Prints the print quality lists.

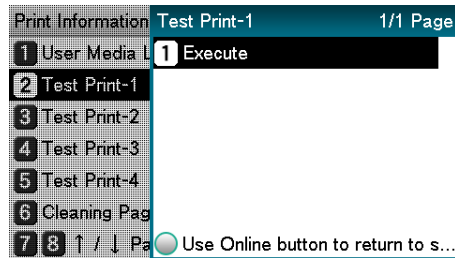
- Test Print-1 - Prints the patterns for analyzing the print quality.
  - Test Print-2 - Prints the patterns for analyzing CMYK print quality.
  - Test Print-3 - Prints the patterns for analyzing the status of the print cartridges.
  - Test Print-4 Prints the patterns for analyzing print quality of the spot colors (white). Displayed with QL-300s only.
- Press the scroll button ▼ several times, and when **Print Information** appears, press the **OK** button.



- Select **Test Print-1**, **Test Print-2**, **Test Print-3**, or **Test Print-4**, and then press the **OK** button.



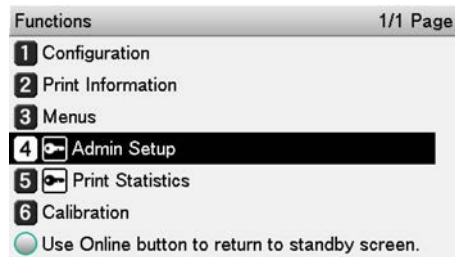
- When **Execute** appears, press the **OK** button.



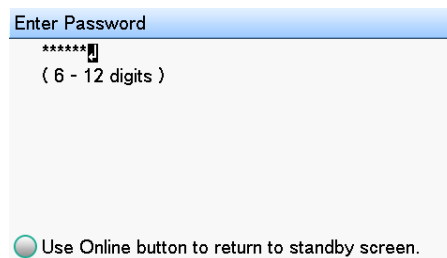
## Changing the Administrator Password

Change the administrator password. The factory default setting is 999999.

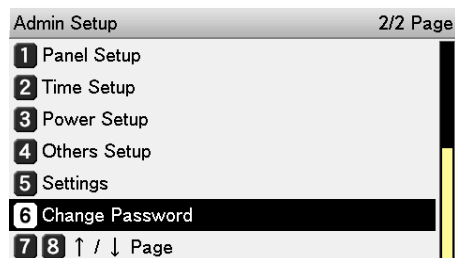
- Press the scroll button ▼ several times to select **Admin Setup**, and then press the **OK** button.



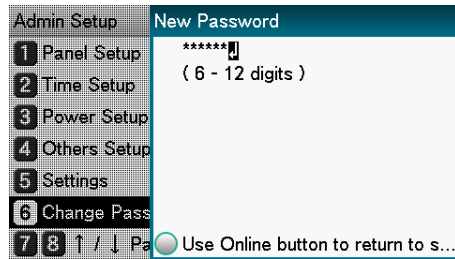
- Enter the administrator password, and then press the **OK** button.



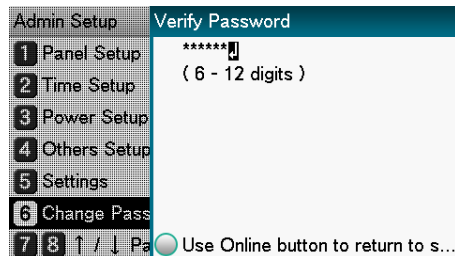
- Select **Change Password**, and then press the **OK** button.



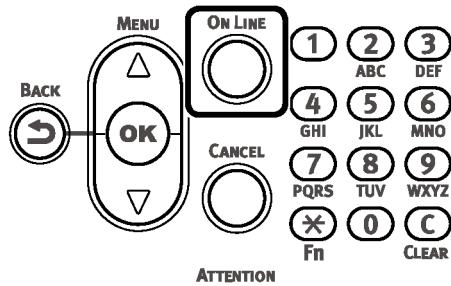
- Enter the new password, and then press the **OK** button.  
Specify a password that is at least six characters long.



- Re-enter the new password, and then press the **OK** button.



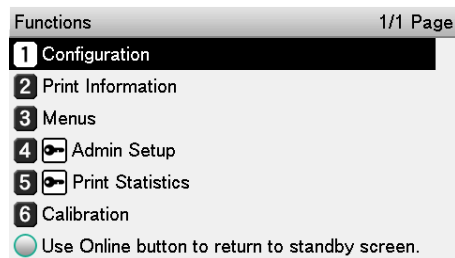
- Press the **ON LINE** button to return to the standby screen.



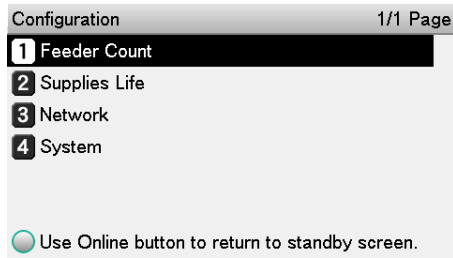
## Checking the Print Count

You can check the quantity of paper printed from the unwinder to date.

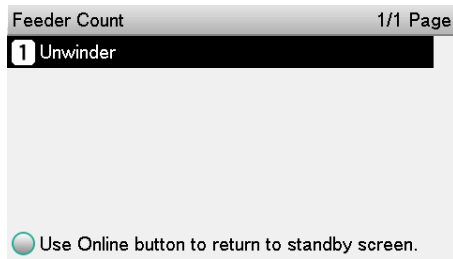
- Press the scroll button ▼ several times to select **Configuration**, and then press the **OK** button.



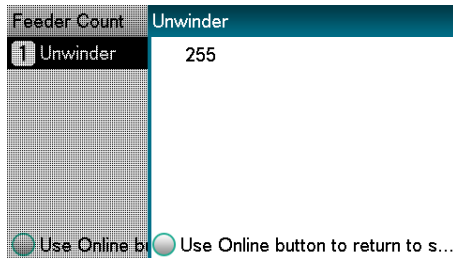
2. Select **Feeder Count**, and then press the **OK** button.



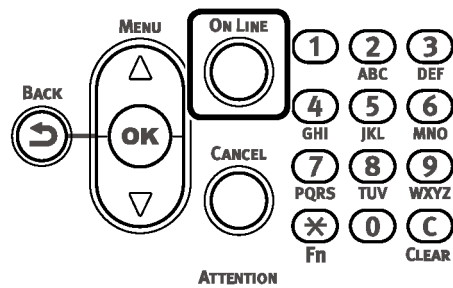
3. Select the feeder you want to check.



4. Press the **OK** button.



5. Press the **ON LINE** button to return to the standby screen.



## Troubleshooting Solutions Procedure

This chapter describes the procedure for solving problems that occur while using the printer. If you are unable to solve the problem with this procedure, contact Technical Support.

### Troubleshooting when an error message is displayed

1. If a paper jam error appears, refer to “Paper Jams” on page 268.
2. If a message about the replacement schedule or service life of wear items appears, refer to “Messages about Replacing Wear Items” on page 299.
3. If other errors appear, refer to “Messages about Other Issues” on page 301.
4. If you cannot solve the problem, record the message displayed on the control panel. Contact Technical Support.

### Troubleshooting when an error message is not displayed

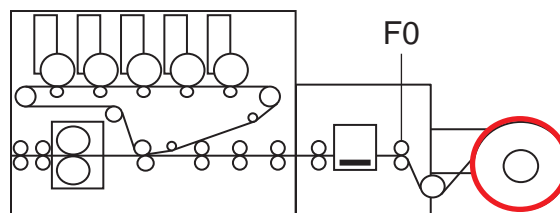
1. If trouble occurs, refer to the following pages for solutions.
  - “Unable to Print” on page 308
  - “Printer Driver Malfunctions” on page 313
  - “Print Quality Is Poor” on page 315
  - “Paper Feed Is Poor” on page 327
2. If you cannot solve the problem, contact Technical Support.

## Paper Jams

This section describes the procedure when paper is jammed inside the printer, when part of a piece of paper that is being removed is left inside the printer, or when paper is left inside the printer because an error occurred and caused printing to stop.

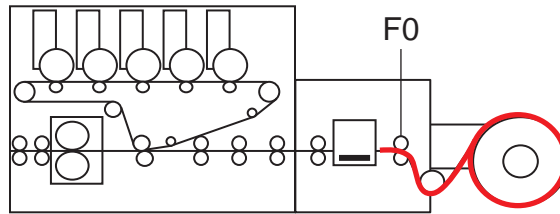
### Condition of paper

- **Unload** - Indicates that the paper is not set on the F0 roller on the unwinder.

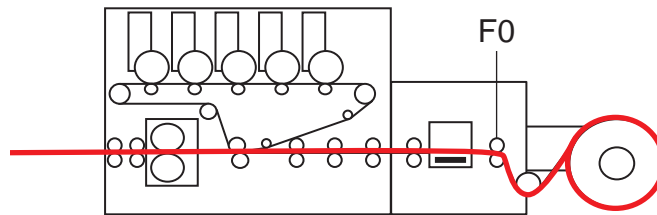




- **Stand-by** - Indicates that paper is set on F0 roller on the unwinder.



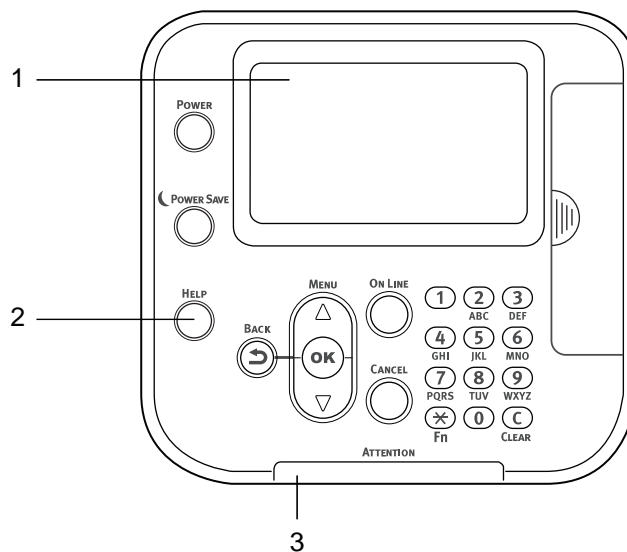
- **Through paper** - Indicates that paper is passing through the printer from the unwinder.



## Checking Messages (if a paper jam occurs)

When paper is jammed inside the printer, or when paper is remaining inside the printer even after removing it, a message notifying paper jam will appear on the display screen of the control panel, and the **ATTENTION** lamp will blink. Or, when an error occurs causing printing to stop and leaves paper inside the printer, an error notification message appears on the display screen on the control panel, and the **ATTENTION** lamp blinks.

When “Please see HELP for details” is shown in the message, pressing the **HELP** button in the control panel will show the troubleshooting procedure, and you can easily solve the process according to the guidance. See *“Operating the Help Screen” on page 271.*



1. Display screen
2. **HELP** button
3. **ATTENTION** lamp

The following table shows the messages. Check the message, and remove the jammed paper according to the procedure described in the reference.

Category	Message displayed on the display screen	Error code displayed after pressing the HELP button
Paper jam (When paper is jammed inside the printer)	Open Unwinder Cover Paper Jam Please see HELP for details	391
	Open Top Cover Paper Jam Please see HELP for details	380 381
	Check Fuser and Exit Unit Paper Jam Please see HELP for details	382
	Remove Paper Printing Page Lost Please see HELP for details	389
	Check Fuser Unit Paper Feed Jam Please see HELP for details	386
Message does not disappear (When the message does not disappear even after removing the jammed paper)	Open Unwinder Cover Paper Remain Please see HELP for details	631
	Open Top Cover Paper Remain Please see HELP for details	637 638
	Check Fuser and Exit Unit Paper Remain Please see HELP for details	639

Category	Message displayed on the display screen	Error code displayed after pressing the HELP button
When paper is left inside the printer because an error occurred and the printer stopped	Paper Detection Error %SENSOR_ERROR% Please see HELP for details	7381
	Open Unwinder Cover Roll Paper End Please see HELP for details	7311
	Change Paper in Unwinder Roll Paper End Please see HELP for details	7310
	Check Installed Paper Mark Detection Error Please see HELP for details	7306
	Paper Feed Error Please see HELP for details	7319 7372
	Check Paper Roll Paper Slack Winding Error Please see HELP for details	7314
	Check Paper Roll Paper Set Sensor Error Please see HELP for details	7315

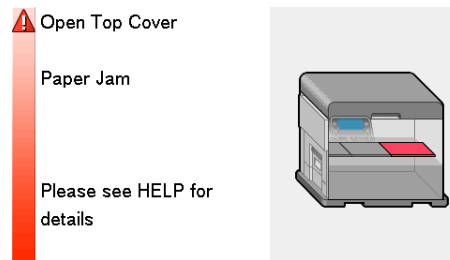
**Note:** Error code 389 may appear when there is no paper left inside. If it appears when there is no paper jam, open and close the top cover to clear it. If error code 389 appears many times, or if it does not clear, contact Technical Support.

## Operating the Help Screen

Pressing the **HELP** button in the control panel will display the solution method. You can easily remove the paper according to the guidance.

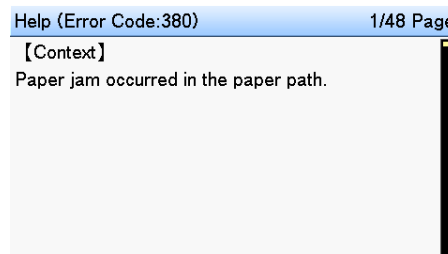
Example: When paper is jammed inside the printer

The following message will appear on the display screen, and the ATTENTION lamp will blink.



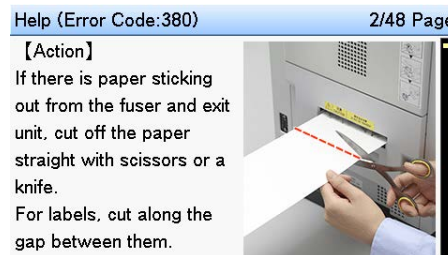
1. Press the **HELP** button.

The error code will appear and the condition of paper jam will be displayed.



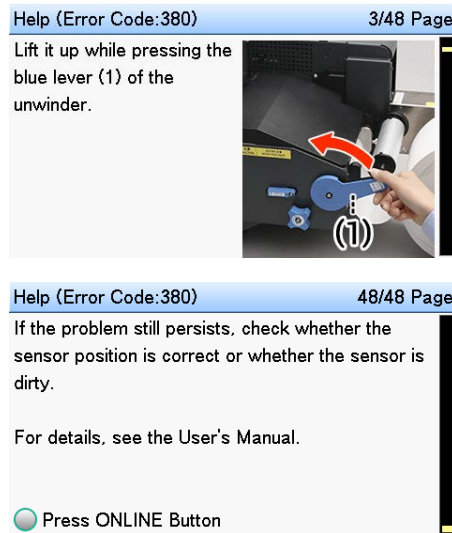
2. Press the scroll button ▼.

The next page will appear, and solution procedure for paper jam will be displayed.



Press the scroll button ▲ to return to the previous page.

3. Scroll the pages of the Help screen with the scroll buttons, and remove the paper according to the solution procedure for the paper jam displayed on the screen.

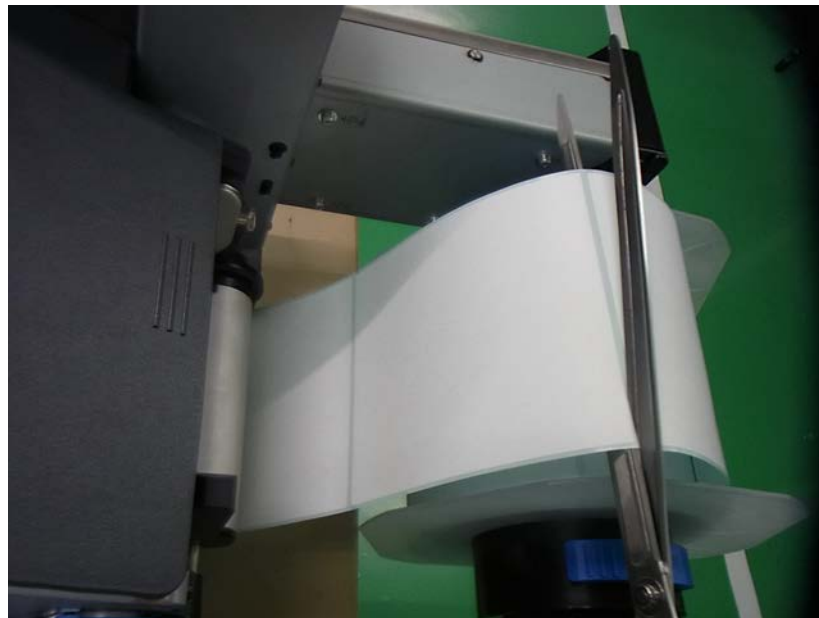


Removing the jammed paper will return the display to the Standby screen and the remaining printing will start.

## Removing Jammed Paper

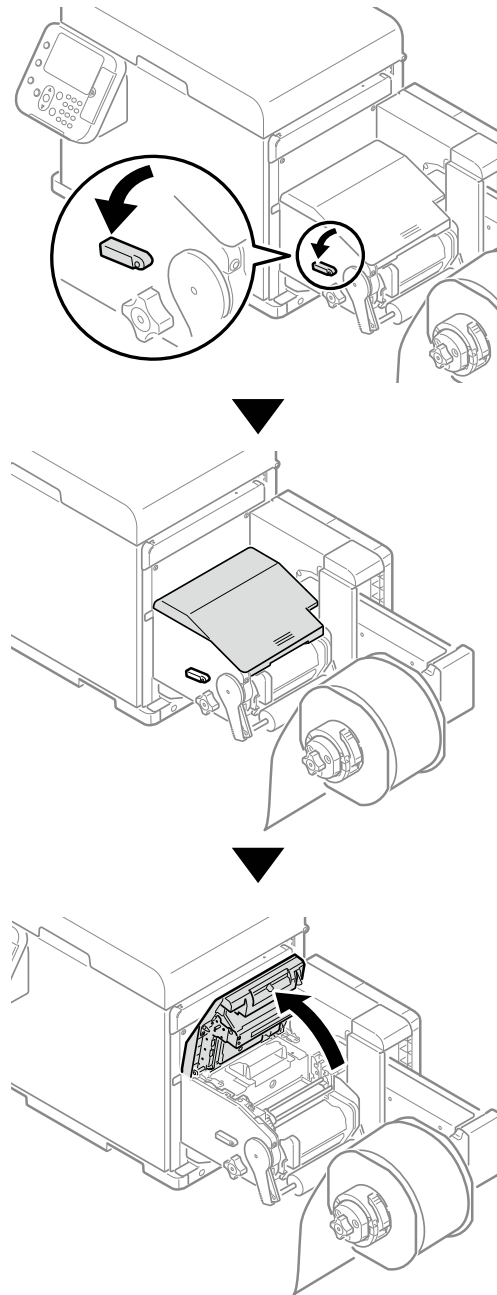
Use the following instructions to remove jammed paper. This procedure can be used to resolve error codes 380, 381, 382, 386, 389, 391, 631, 637, 638, 639, 7381, 7310, 7306, 7319, 7372, 7311, 7314, and 7315.

1. Use scissors to cut the jammed paper.



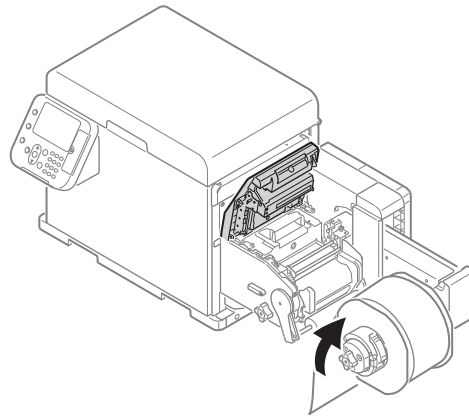
For labels, cut in the space between labels. If the paper is feeding, cut it on the output side too.

2. Lower the unwinder cover open lever to open the unwinder cover.

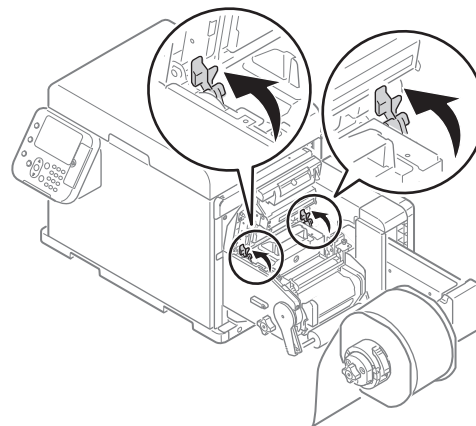
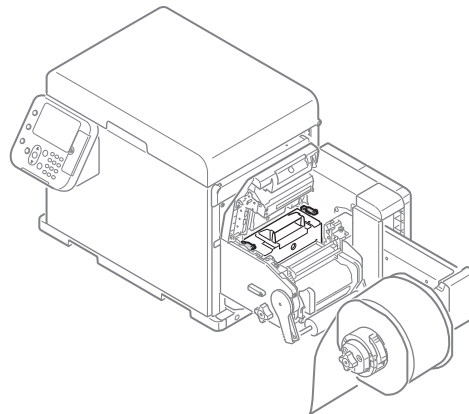


**Note:** Securely open the unwinder cover so it does not close while cleaning.

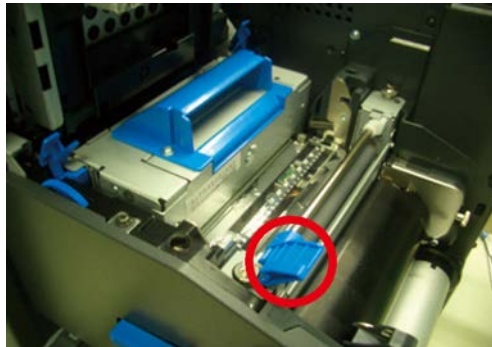
3. Turn the roll paper holder in the direction of the arrow to wind up the roll paper.



4. Raise the cutter unit lock levers at both ends of the cutter unit.



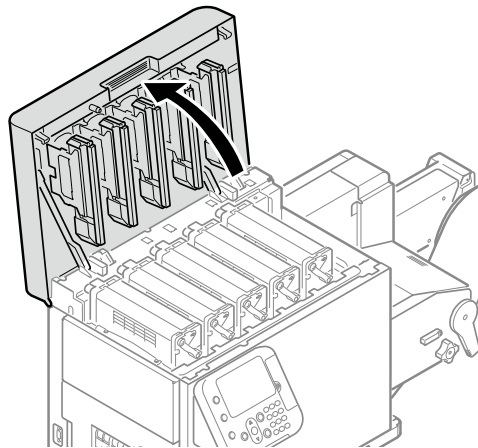
5. Raise the F0 roller release lever.



If any paper is left in the printer, do not forcefully remove it.

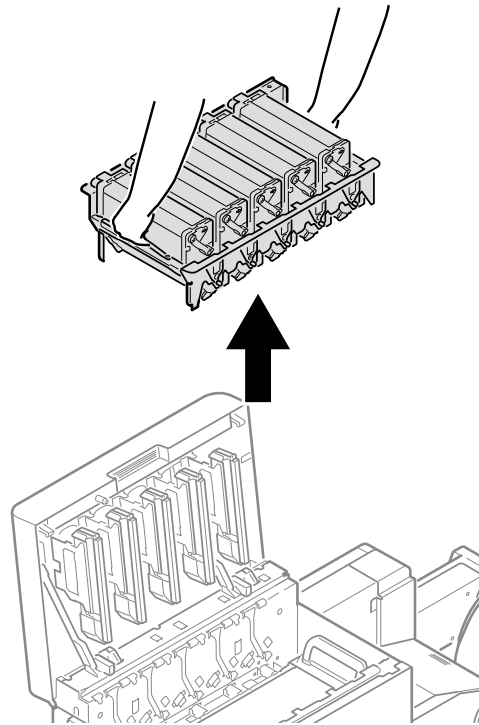


6. Grasp the top cover open lever and open the top cover.

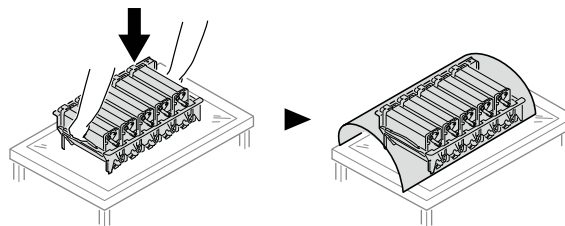




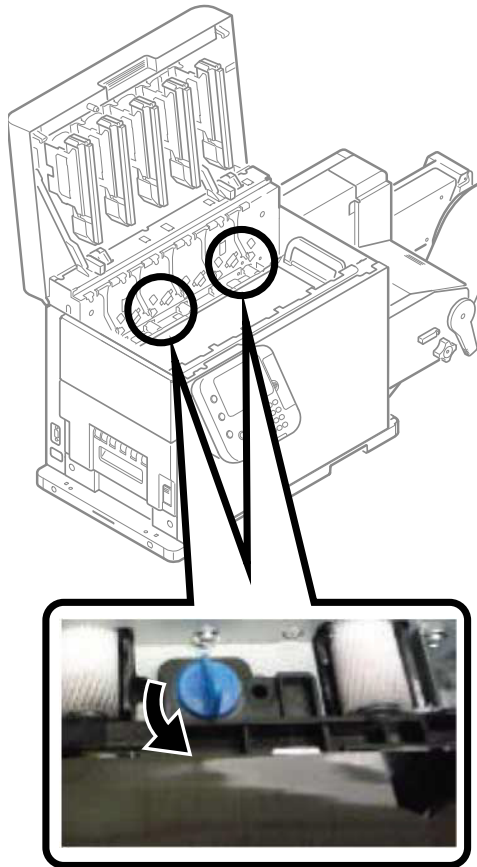
7. Remove the print cartridge set.



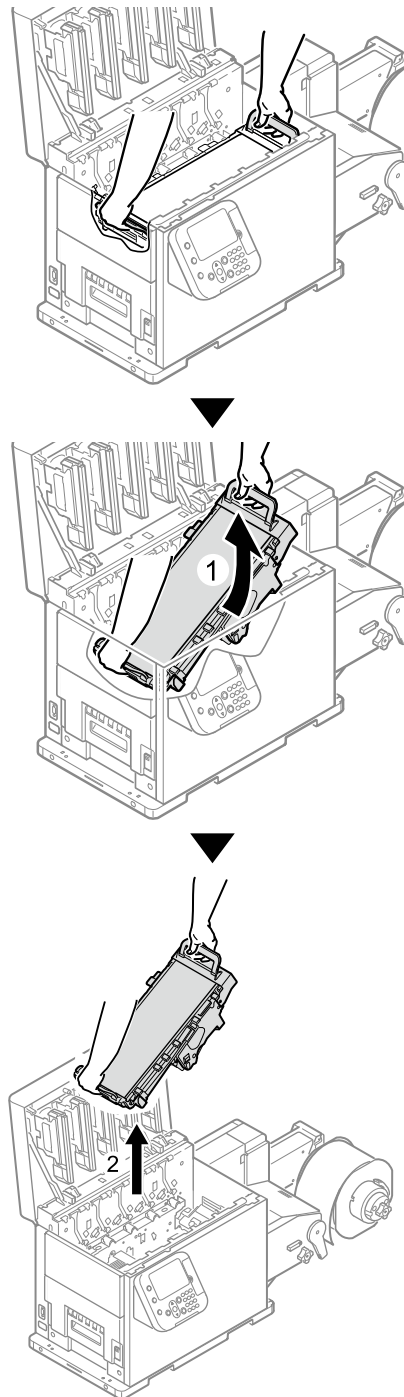
8. Place the removed print cartridge set on a flat surface covered with newspaper or something similar, and cover it with paper so it is not exposed to direct light.



9. Turn the two belt locking keys counterclockwise to release the lock.



10. Hold the belt unit handles (blue) on the left and right, and remove the belt unit at an angle.

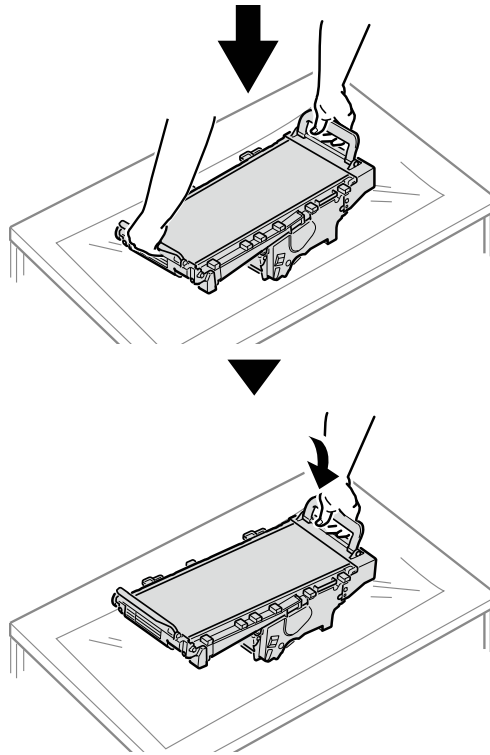


**Caution:** Be careful not to spill waste toner while removing the belt unit.

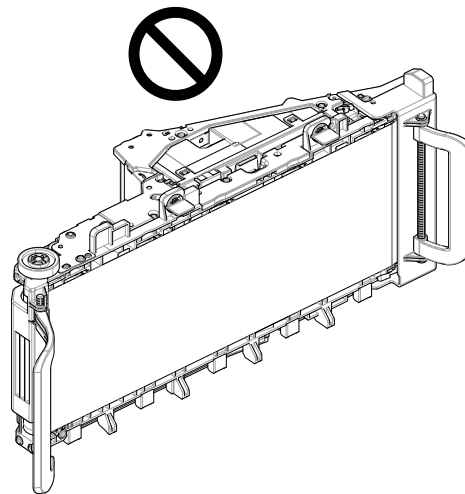
**Caution:** Be careful to not pinch your hands or fingers between the handle and the machine while removing the belt unit.

**Caution:** When removing the belt unit, do not tilt it further than is needed to remove it.

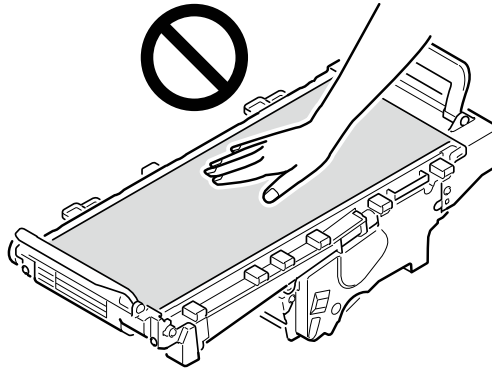
11. Place the belt unit with the right side down on a flat surface covered with paper.



**Caution:** Place the belt unit on a flat surface, as shown in the diagram above. Do not stand it on its side.



**Caution:** Do not touch the belt surface or damage the belt.



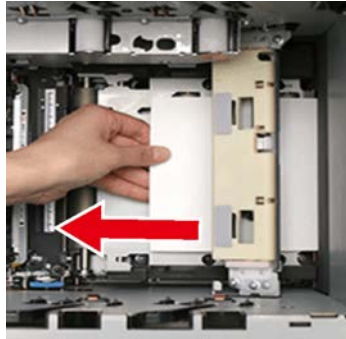
12. Pull up the paper guide release lever.



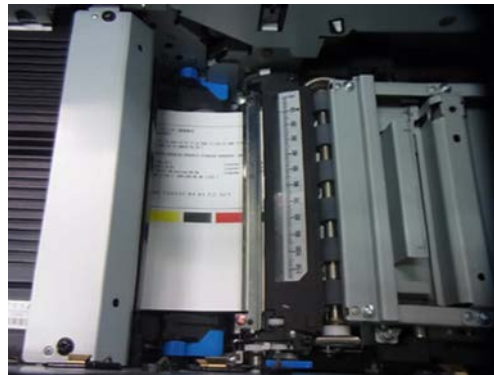
13. While the paper guide release lever is lifted, slide the paper guide in the direction of the arrow to remove it.



14. If any paper is jammed, pull it out in the direction of the arrow.

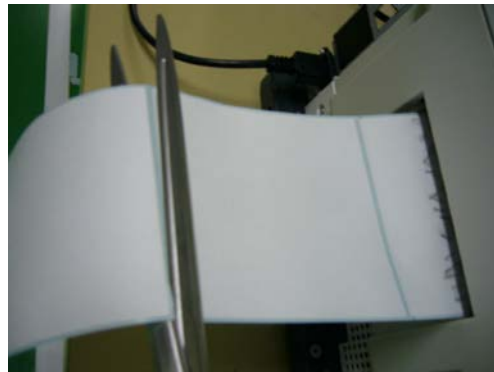


There may be some unfused toner on the paper.

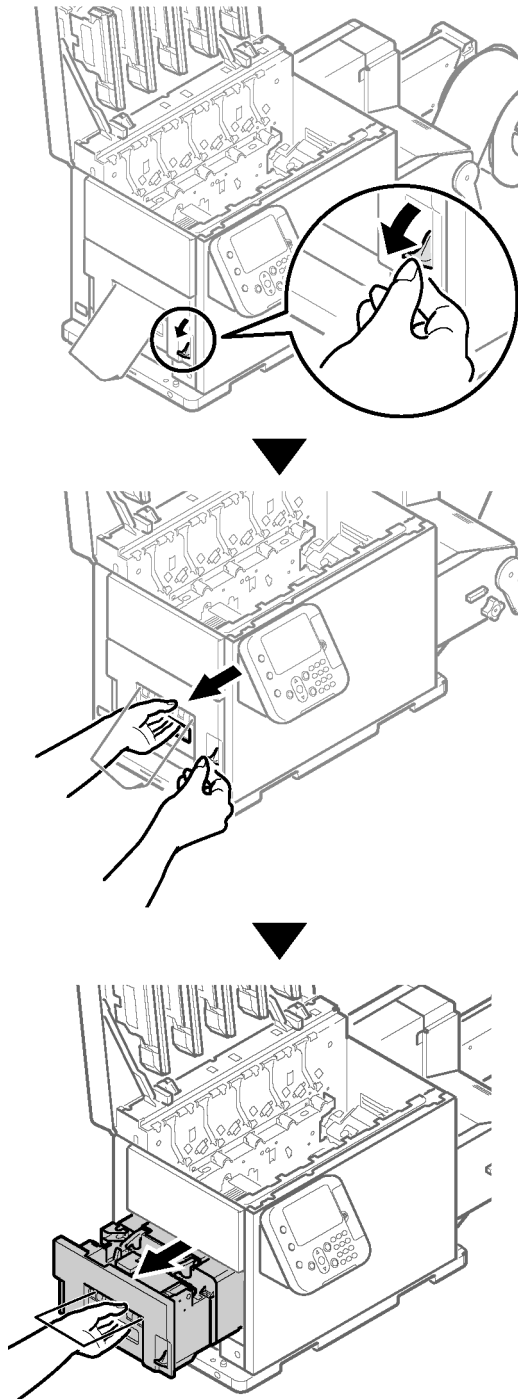


**Caution:** Be careful, the fuser unit is very hot immediately after printing.

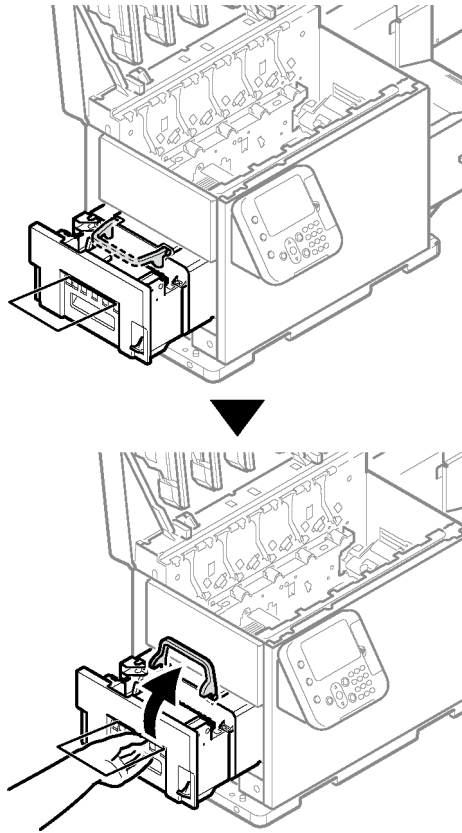
15. If paper is being output from the printer, use scissors to cut it between two labels.



16. While pulling the fuser and exit unit locking lever towards you, pull out the fuser and exit unit.

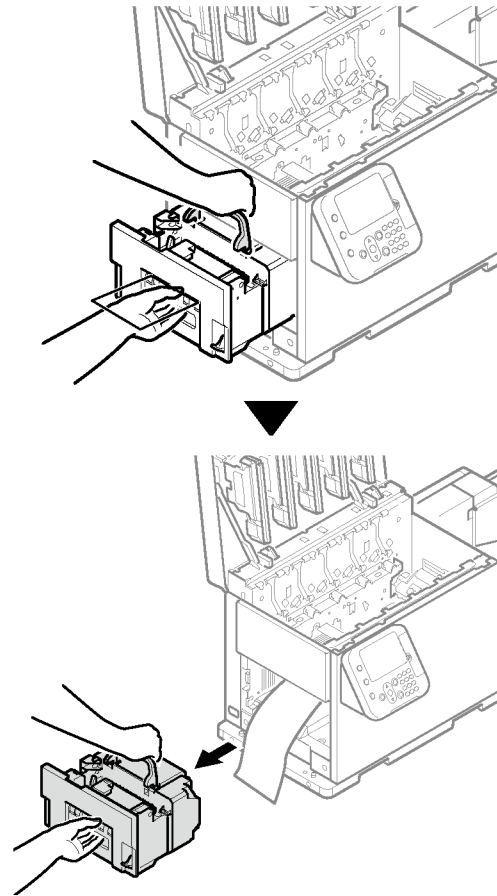


17. While supporting the fuser and exit unit with one hand, lift up the fuser unit handle.





18. Hold the fuser and exit unit with both hands and remove it to a level spot.

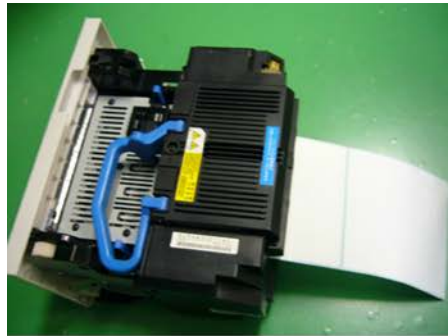


**Caution:** Be careful, the fuser unit is very hot immediately after printing.

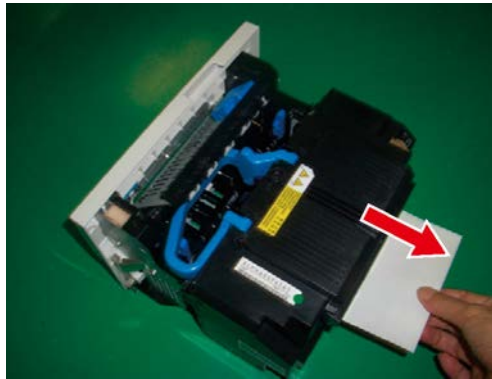
19. Slowly pull the paper straight out so it does not overlap.



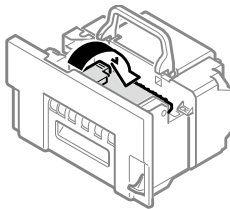
20. Lower the release lever of the fuser and exit unit, open the exit feed cover and put the fuser unit handle below the exit feed cover.



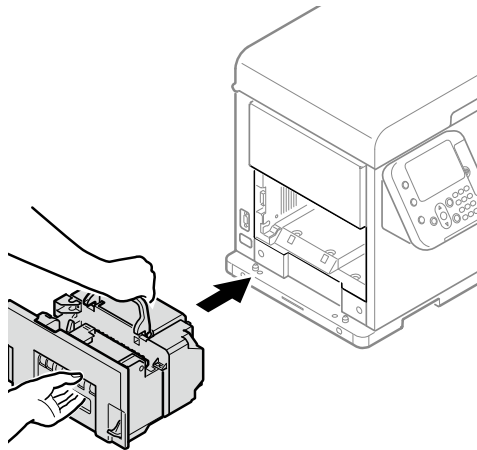
21. Slowly pull out the paper that is left in the fuser and exit unit in the direction of the arrow.



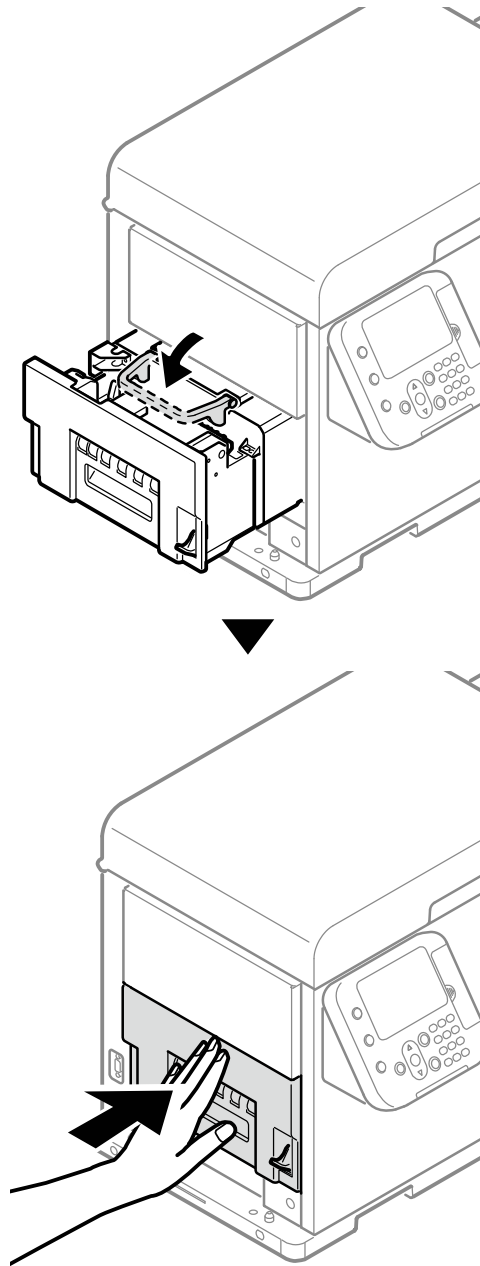
22. Close the exit feed cover.



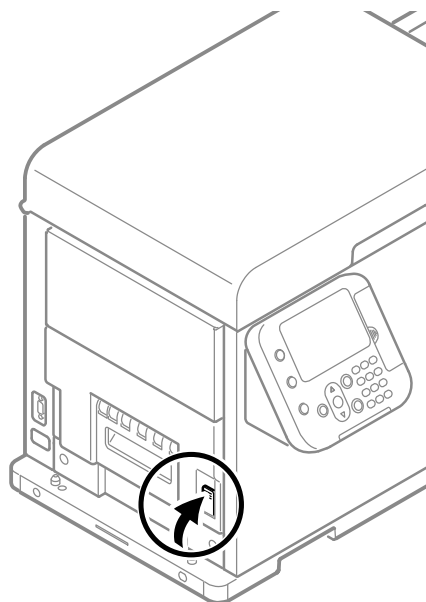
23. Lift the fuser and exit unit with both hands and put it into the printer.



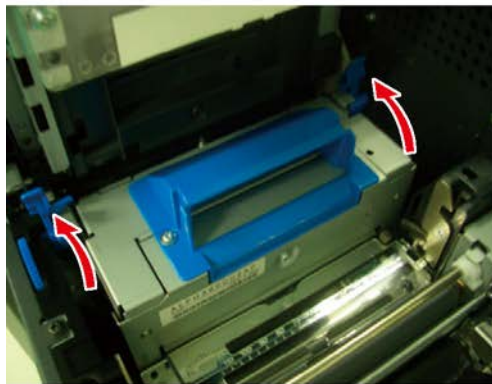
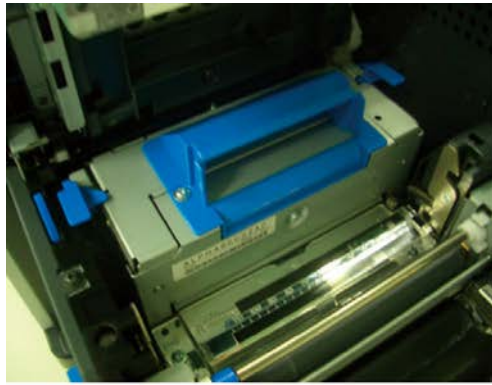
24. Push down the fuser unit handle, and firmly push it inside.



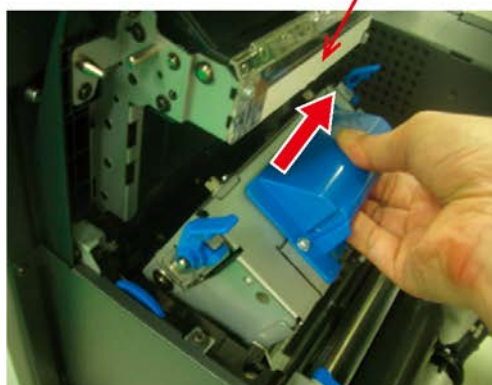
25. Lift up the fuser and exit unit locking lever.



26. Raise the blue lever in the unwinder, and then remove the cutter unit.

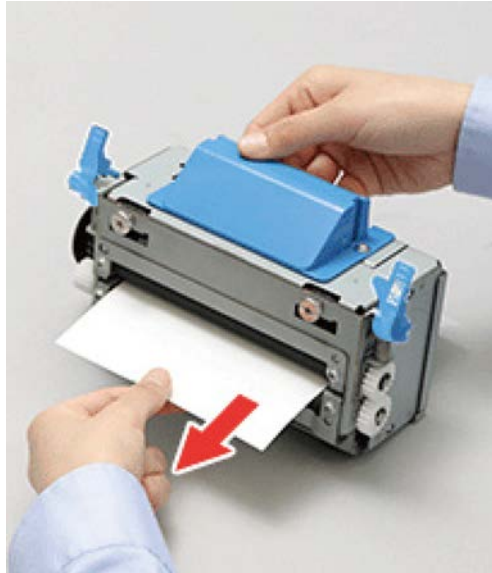


Sensor cover (upper)



Be careful that the cutter unit does not hit the sensor cover (upper) when removing it.

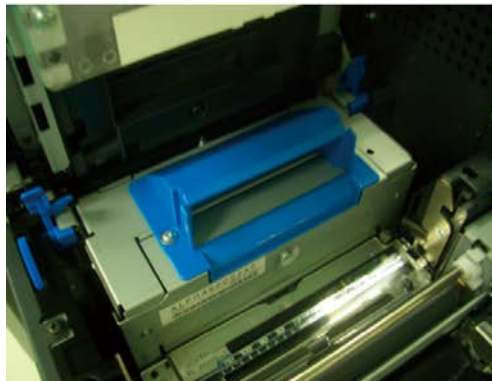
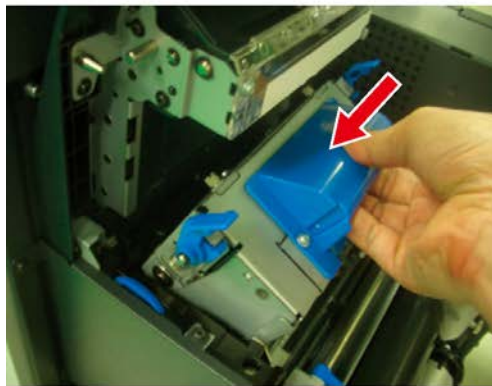
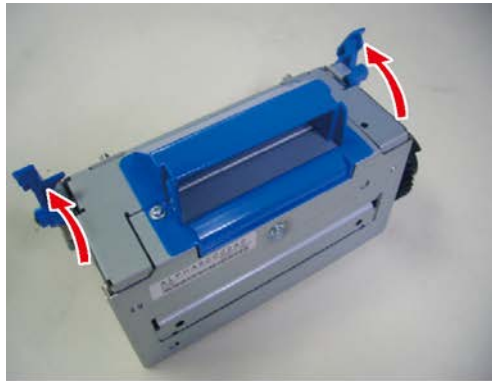
27. Check for any paper or paper dust that has accumulated in the cutter unit, and remove any that has accumulated.



28. Remove any paper that is left in the paper feed path in the unwinder.



29. Raise the blue lever and install the cutter unit.





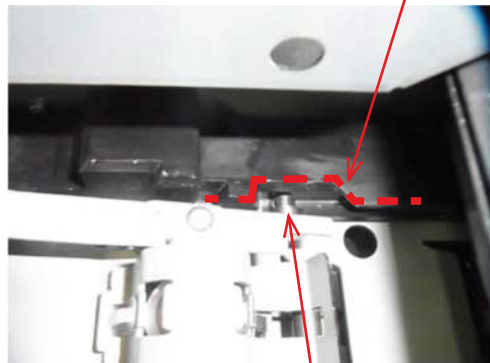
30. Align the positions of the paper guide's edge (1) and the guide notch on the printer.



Guide notch



Guide notch

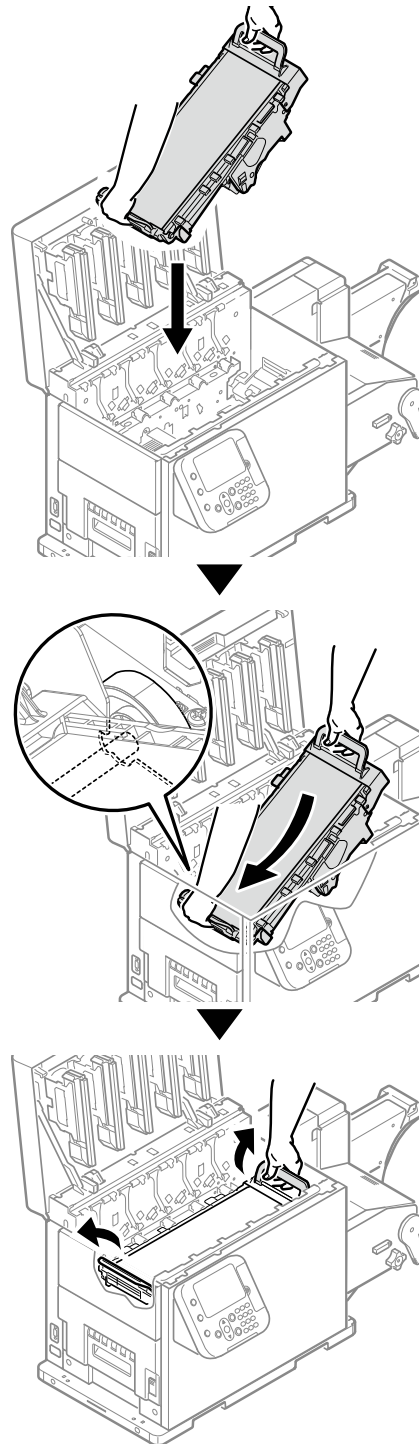


Paper guide's edge (1)

31. Firmly push the paper guide all the way in the direction of the arrow, and then push on the A position to lock it.

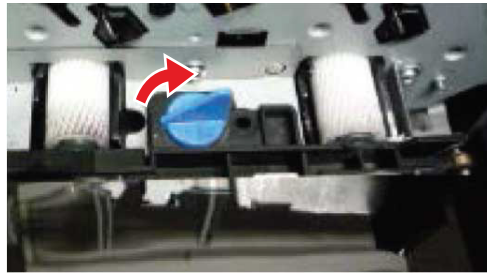


32. Tilt the belt unit and align the arrow labels (red) on the belt unit and printer to position it, and then open the belt unit handles (blue) on the left and right.

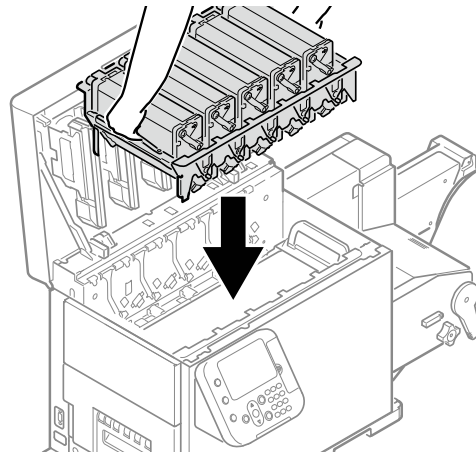


**Caution:** Be careful to not pinch your hands or fingers between the handle and the machine while installing the belt unit.

33. Turn the two belt unit locking keys clockwise to lock it.

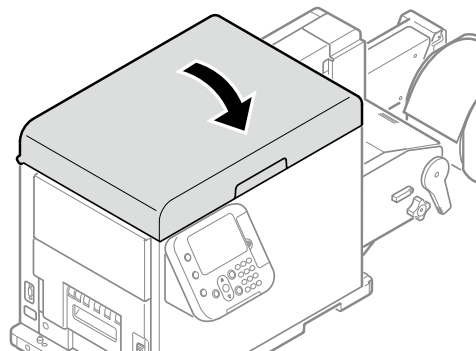


34. Put the print cartridge set back into the printer.



**Caution:** There is a risk of pinching your fingers or hands when repositioning the print cartridge set. Hold the handle parts of the basket for this operation.

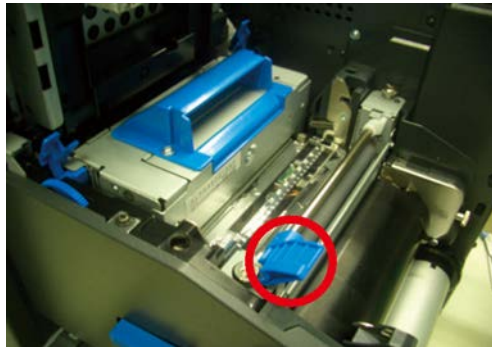
35. Close the top cover.



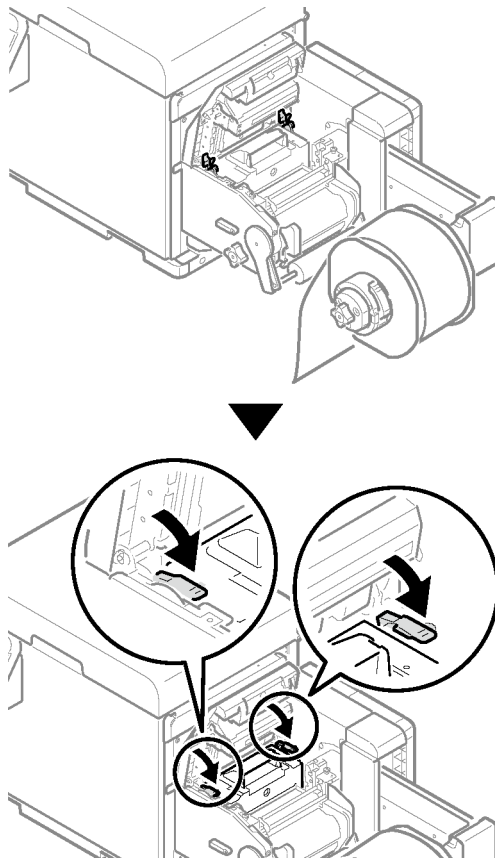
**Caution:** When closing the top cover, there is a risk of pinching your fingers or hands in the top cover or the top cover's support. Press on the top of the top cover to close it.

**Caution:** There is a risk of pinching your fingers or hands if you hold the LED head while closing the top cover. Press on the top of the top cover to close it.

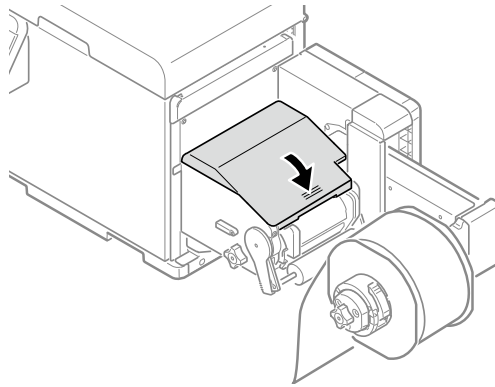
36. Lower the F0 roller release lever.



37. Lower the cutter unit lock levers at both ends of the cutter unit.



38. Close the unwinder cover.



**Caution:** There is a risk of pinching your fingers or hands while closing the unwinder cover. Press on the top of the unwinder cover to close it.

## Frequent Paper Jams

Check the following when paper jam occurs very frequently.

- Are the paper feeding components dirty? See *“Cleaning the Inside of the Printer”* on page 379.
- Is the roll paper guide set correctly?
- Are you using paper that is compatible with the printer?
- Are there any fragments of paper remaining inside the printer?
- Is there glue on it?
- Are the sensor positions abnormal? See *“Calibrating the Sensor”* on page 104.

## Messages about Paper

When paper type/size set in the unwinder differs from the printer driver specification, messages, such as “Change paper”, will appear, and the **ATTENTION** lamp will blink.

Messages related to paper and error codes, cause of errors and their resolutions, and status of the **ATTENTION** lamp is described below.

Besides, when “Please see HELP for details” is shown in the message, pressing the **HELP** button in the control panel will show the solution procedure, and you can easily solve the process according to the guidance. See *“Operating the Help Screen” on page 271.*

Category	Message displayed on the display screen	Error code	ATTENTION lamp	Causes and Troubleshooting
Change paper	Change paper in Unwinder Press UNLOAD or OK Button Please see HELP for details	461	Blinking	The paper settings for the unwinder are different from the print driver specifications. To cancel printing, press the <b>CANCEL</b> button. If multiple errors occur, you may not be able to cancel printing. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen.
Empty	Install paper in Unwinder Please see HELP for details	491	Blinking	Paper has run out. Load paper that is the size displayed. To cancel printing, press the <b>CANCEL</b> button. If multiple errors occur, you may not be able to cancel printing. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen.
	Open Unwinder Cover Roll Paper End Please see HELP for details	7311	Blinking	Paper has run out. Open the unwinder cover, and remove the cut paper end. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen.

## Messages about Replacing Wear Items

When the scheduled replacement of wear items approaches, or when the replacement becomes necessary, messages, such as “ABC Near End of Life” and “Install New ABC / ABC Life”, will appear, and the **ATTENTION** lamp will start blinking.

Messages related to replacement of wear items and error codes, cause of errors and their resolutions, and status of the **ATTENTION** lamp are described below.

Besides, when “Please see HELP for details” is shown in the message, pressing the **HELP** button in the control panel will show the solution procedure, and you can easily solve the process according to the guidance. See *“Operating the Help Screen” on page 271.*

Meanings of the symbols used in the error messages are as follows.

- [COLOR]: Either yellow, magenta, cyan, black, or white\* appears.

\*: White appears only for the QL-300s

Category	Message displayed on the display screen	Error code	ATTENTION lamp	Causes and Troubleshooting
Print cartridges	Install New [COLOR] Print Cartridge Print Cartridge Life Please see HELP for details	4100, 4101, 4102, 4103, 4104, 4140, 4141, 4142, 4143, 4144, 5600, 5601, 5602, 5603, 5604, 6800, 6801, 6802, 6803, 6804	Blinking	The lifespan of the print cartridge has been reached. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen. <i>See “Replacing Print Cartridges” on page 334.</i>
Belt Unit	Install New Belt Unit Belt Unit Life Please see HELP for details	355	Blinking	The lifespan of the belt unit and 2nd transfer roller has been reached. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen. <i>See “Replacing the Belt Unit and 2nd Transfer Roller” on page 338.</i>
Fuser and exit unit	Install New Fuser and Exit Unit Fuser and Exit Unit Life Please see HELP for details	354	Blinking	The lifespan of the fuser and exit unit has been reached. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen. <i>See “Replacing the Fuser and Exit Unit” on page 359.</i>



Category	Message displayed on the display screen	Error code	ATTENTION lamp	Causes and Troubleshooting
Waste Toner Box	Install New Waste Toner Box Waste Toner Full Please see HELP for details	357	Blinking	Waste toner is full. If you re-set and use a waste toner box that is already used, there is a risk of the waste toner overflowing, so please replace it with a new waste toner box. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen. <i>See “Replacing Waste Toner Boxes” on page 348.</i>

## Messages about Other Issues

Other messages and error codes, cause of errors and their resolutions, and status of the **ATTENTION** lamp are described below.

Besides, when “Please see HELP for details” is shown in the message, pressing the **HELP** button in the control panel will show the solution procedure, and you can easily solve the process according to the guidance. *See “Operating the Help Screen” on page 271.*

- Meanings of the symbols used in the error messages are as follows.
  - [COLOR]: Either yellow, magenta, cyan, black, or white\* appears.  
\*: White appears only for the QL-300s
  - [MENUCOLOR] : Y,M,C,K (QL-300) / Y,M,C,K,W (QL-300s)
  - [COVER]: Either top cover or unwinder cover is displayed.
  - [ERRCODE]/ [CODE]: Detailed numbers of the error are displayed.

Message displayed on the display screen	Error code	ATTENTION lamp	Causes and Troubleshooting
Close Cover [COVER]	310, 589	Blinking	The cover shown in the message is open. Close the cover.
Power Off/On [ERRCODE]:Error	-	Blinking	A fatal error has occurred. Restart the printer. If 188 appears in [ERRCODE], check the condition of the unwinder’s installation.
Service Call [ERRCODE]:Error	-		

Message displayed on the display screen	Error code	ATTENTION lamp	Causes and Troubleshooting
<p>Print Cartridge Not Installed [COLOR] Please see HELP for details</p>	<p>6940, 6941, 6942, 6943, 6944</p>	<p>Blinking</p>	<p>The print cartridge is not installed properly. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen.</p>
<p>Check Print Cartridge [COLOR] Please see HELP for details</p>	<p>3400, 3401, 3402, 3403, 3404</p>	<p>Blinking</p>	<p>Print cartridge has not been set correctly. Install the print cartridge correctly.</p>
<p>Invalid Print Cartridge Order Set to [MENUCOLOR]</p>	<p>7382</p>	<p>Blinking</p>	<p>The print cartridge is not installed in the correct position. Reset in the order that is displayed in the display screen.</p>
<p>Unnecessary Print Cartridge Error The job was cancelled. Check the position of the print cartridge lift up lever. To turn off the display, press the <b>OK</b> button Please see HELP for details</p>	<p>7390, 7391, 7392, 7393, 7394, 7395, 7396</p>	<p>Blinking</p>	<p>The Lift Up Lever of the print cartridge is not in the correct position. Printing was stopped and the print data was deleted. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen.</p>
<p>The job was canceled due to a spot color order mismatch To turn off the display, press the <b>OK</b> button Please see HELP for details</p>	<p>7385</p>	<p>Blinking</p>	<p>Printing was stopped and the data was deleted because the spot color settings were different from those specified in the printer driver. Press the <b>OK</b> button to delete the display on the display screen. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen.</p>

Message displayed on the display screen	Error code	ATTENTION lamp	Causes and Troubleshooting
<p>The job was canceled due to a paper width mismatch To turn off the display, press the <b>OK</b> button Please see HELP for details</p>	7386	Blinking	<p>Printing was stopped and the data was deleted because the paper width settings were different from those specified in the printer driver. Press the <b>OK</b> button to delete the display on the display screen. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen.</p>
<p>Press the <b>OK</b> Button for Restoration Memory Overflow</p>	420	Blinking	<p>Cannot print. Printing data has exceeded the memory capacity of the printer. Select a lower Quality of the printer driver and print once again. Press the <b>OK</b> button to delete the display on the display screen.</p>
<p>Resume Print from Page xxx/xxx Press the <b>OK</b> Button Please see HELP for details</p>	502	Blinking	<p>Printing can be resumed. Press the <b>OK</b> button to print the rest of the pages. To cancel printing, press the <b>CANCEL</b> button.</p>
<p>Non Genuine Print Cartridge[COLOR] Please see HELP for details</p>	6840, 6841, 6842, 6843, 6844	Blinking	<p>Print cartridge is not intended for use with this printer model. Use a print cartridge intended for use in this model.</p>
<p>Incompatible Print Cartridge [COLOR] Please see HELP for details</p>	6900, 6901, 6902, 6903, 6904, 7000, 7001, 7002, 7003, 7004, 7040, 7041, 7042, 7043, 7044, 6840, 6841, 6842, 6843, 6844, 7100, 7101, 7102, 7103, 7104, 7200, 7201, 7202, 7203, 7204	Blinking	<p>Print cartridge is not intended for use with this printer model. Use a print cartridge intended for use in this model.</p>

Message displayed on the display screen	Error code	ATTENTION lamp	Causes and Troubleshooting
Non Genuine Fuser and Exit Unit Please see HELP for details	6981	Blinking	Fuser and exit unit is not intended for use with this printer model. Use a fuser and exit unit intended for use in this model.
Incompatible Fuser and Exit Unit Please see HELP for details	6982, 6983, 6984, 6985, 6986, 6987	Blinking	Fuser and exit unit is not intended for use with this printer model. Use a fuser and exit unit intended for use in this model.
Non Genuine Belt Unit Please see HELP for details	6881	Blinking	Belt unit is not intended for use with this printer model. Use a belt unit intended for use in this printer model.
Incompatible Belt Unit Please see HELP for details	6882, 6883, 6884, 6885, 6886	Blinking	Belt unit is not intended for use with this printer model. Use a belt unit intended for use in this printer model.
Receiving Data Timeout Press the <b>OK</b> Button for Restoration Please see HELP for details	519	Blinking	A data receipt timeout occurred. Increase the length of timeout print setting.
Check Data Message Data Write Error [CODE]	-	-	Failed to write the message data to be updated. Check data.
Fuser and Exit Unit Not Installed Please see HELP for details	699	Blinking	The fuser and exit unit is not installed properly. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen.
Check Fuser and Exit Unit Please see HELP for details	348, 320	Blinking	The fuser and exit unit is not installed correctly. Install the fuser and exit unit correctly.

Message displayed on the display screen	Error code	ATTENTION lamp	Causes and Troubleshooting
Install Fuser and Exit Unit Please see HELP for details	333	Blinking	The fuser and exit unit is disconnected. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen.
A spot color printing error has occurred. Data will be erased. Check the paper and paper settings, and try to print again. To turn off the display, press the <b>OK</b> button. Please see HELP for details	459	Blinking	Because of a print request for paper unavailable to spot color printing, the printing has been stopped, and the data was deleted. Check the paper and paper settings, and print again. Press the <b>OK</b> button to delete the display on the display screen.
The data will be deleted due to a spot color order mismatch error. Check the print cartridge position and spot color settings, and try to print again. To turn off the display, press the <b>OK</b> button Please see HELP for details	7380	Blinking	The position of the white print cartridge is different from that specified in the printer driver. Printing has been stopped, and the data was deleted. Check the order of the print cartridge and the Spot Color setting, then print once again. Press the <b>OK</b> button to delete the display on the display screen.
Check Waste Toner Box Please see HELP for details	331	Blinking	The waste toner box is not set correctly. Install the waste toner box correctly.
Firmware Update Error Please retry If network doesn't work, please try firmware update over USB	302	-	Firmware update failed. Follow the instructions in the message.
Feeder Unit Not Installed Shut down and Install Feeder Unit	7305	Blinking	The unwinder is not installed. Turn off the power, and then install the unwinder.

Message displayed on the display screen	Error code	ATTENTION lamp	Causes and Troubleshooting
Belt Unit Not Installed Please see HELP for details	689	Blinking	The belt unit is not installed properly. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen.
Check Belt Unit Please see HELP for details	330	Blinking	The belt unit is not installed correctly. Install the belt unit correctly.
Unnecessary Print Cartridge Error Check the position of print cartridge lift up lever Please see HELP for details	7398, 7399	Blinking	The lift up lever of the print cartridge is not in the correct position. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen.
Install Paper Guide Re-set the Paper Guide Please see HELP for details	7384	Blinking	The paper guide is not set correctly. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen.
Open Cover Paper was pulled out	7312	Blinking	Paper was forcefully extracted while being fed. Open the cover and if there are scraps of paper, remove them, and then close the cover.
Check Installed Paper Edge Paper Edge Long Error Press the <b>OK</b> Button Please see HELP for details	7308	Blinking	The mark on the leading edge of the paper cannot be detected correctly. Replace the paper, and then press the <b>OK</b> button. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen.

Message displayed on the display screen	Error code	ATTENTION lamp	Causes and Troubleshooting
<p>Paper Width Error Press the <b>OK</b> Button Please see HELP for details</p>	7383	Blinking	<p>The paper currently being used is different from the paper settings in the printer driver. Replace the paper, and then press the <b>OK</b> button. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen.</p>
<p>Check Installed Paper Paper Edge Error Press the <b>OK</b> Button Please see HELP for details</p>	7307	Blinking	<p>The mark on the leading edge of the paper cannot be detected correctly. Replace the paper, and then press the <b>OK</b> button. Press the <b>HELP</b> button, and solve according to the guidance shown on the Help screen. The feed roller (F0) is worn and requires replacement. When this roller is in good condition and the roller is locked, media cannot be pulled out of the printer by hand.</p>
<p>Paper Detection Error [SENSOR_ERROR] Press the <b>OK</b> Button [SENSOR_ERROR]: Detailed information of the error will be displayed.</p>	7381	Blinking	<p>The paper sensor cannot correctly detect paper. Paper setting is incorrect or the sensors are not set/adjusted. Or, the sensor is dirty. There is paper left in the printer; remove it. The feed roller (F0) is worn and requires replacement. When this roller is in good condition and the roller is locked, media cannot be pulled out of the printer by hand.</p>
<p>Wait a Moment Rebooting %CODE% It may take some time to complete this process.</p>	-	Lit	<p>The controller unit is rebooting.</p>

Message displayed on the display screen	Error code	ATTENTION lamp	Causes and Troubleshooting
Shutting down Please wait. Printer will turn off automatically It may take some time to complete this process.	-	Off	The printer is shutting down.

## Printing Problems

This section describes the possible issues that may occur while operating the printer, and their solutions.

**Note:** If the problem is not solved using the following methods, contact Technical Support.

**Note:** For problems arising from the applications, contact the application development company.

### Unable to Print

#### Basic Reasons

Cause	Solution Procedure
Power supply of the printer is switched off.	Switch on the power supply. <i>See "Turning on the Power" on page 33.</i>
Power supply was switched off due to the auto power off function.	Switch on the power supply. When you do not want to use the auto power off function, disable it with <b>Admin Setup &gt; Power Setup &gt; Auto Power Off</b> in the control panel.
LAN Cable/USB Cable is disconnected.	Check that cables are correctly connected to the printer and the computer. <i>See "Connecting Cables" on page 39.</i>
Cables are defective.	Replace with new cables.
Printer is offline.	Press the <b>ON LINE</b> button on the control panel.
Error message has appeared on the display screen of the control panel.	Refer to the following information or press the <b>HELP</b> button on the control panel. <ul style="list-style-type: none"> <li>• "Messages about Paper" on page 298</li> <li>• "Messages about Replacing Wear Items" on page 299</li> <li>• "Messages about Other Issues" on page 301</li> </ul>
Interface settings are disabled.	From <b>Admin Setup &gt; Network Setup</b> on the control panel, enable the interface you are using.



Cause	Solution Procedure
There is a problem with the print function.	From <b>Printer Information &gt; Configuration &gt; Execute</b> on the control panel, check whether you can print the printer information or not.
This printer is not set as default printer.	Set it to default printer.
Output port of printer driver is incorrect.	Select the output port where LAN cable/USB cable is connected.
Printing from other interface is in progress.	Wait until the printing is complete.

### Network Connection Problems

Cause	Solution Procedure
Cross cable is used.	Arrange straight cable and hub, and connect correctly. <i>See "Network Connection" on page 42.</i>
Compatibility problem with hub.	Select <b>Admin Setup &gt; Network Setup &gt; Hub Link Setting</b> from the control panel, and change the settings.
There is a problem with hub.	Try inserting the network cable into another port or an empty port on the same hub. If the problem is still not solved, use a different hub.
Network cable is defective.	Reconnect with a new or a different network cable, and check again.
Incorrect IP address.	<ul style="list-style-type: none"> <li>• Check that IP address settings of the printer, and IP address of the printer set in the computer are matching.</li> <li>• Check that IP address is not the same as other devices.</li> <li>• Check that correct address is set in IP address, Subnet mask, and Gateway address.</li> </ul>
Duplicate IP address.	Set an IP address for the printer that does not duplicate any other IP address.

### USB Connection Problems

Cause	Solution Procedure
Cable does not meet the standards.	Use USB cable of USB 2.0 specifications.
USB hub is used.	Directly connect the printer to the computer.

Cause	Solution Procedure
Printer driver is not installed correctly.	Please re-install the printer driver. <i>See “Driver Installation Process Overview” on page 38.</i>
Printer is offline.	Right click the QL-300 icon in the Devices and Printers folder, and then select See what’s printing. Select the Printer menu in the dialog displayed, and uncheck Use Printer Offline.
Switch, buffer, extension cable, and USB hub are used.	Directly connect the printer to the computer.
Another printer driver operated through USB connection is installed.	From the computer, remove other printer drivers.

### Printer Troubles

Symptom	Cause	Troubleshooting
Nothing is displayed in the display screen panel even after switching on the power supply.	Power supply cord is disconnected.	Switch off the power supply, and firmly insert the power supply cord. <i>See “Connecting a Power Cord” on page 33.</i>
	Power outage.	Check if electricity is flowing in the power socket.
Does not function.	Power supply cord is not inserted firmly.	Firmly insert the power supply cord. <i>See “Connecting a Power Cord” on page 33.</i>
	Power supply is not switched on.	Switch on the power supply. <i>See “Turning on the Power” on page 33.</i>
LED lamp of the <b>POWER</b> button is blinking at high speed at about 0.3 second interval.	The printer has broken down.	Immediately pull the power plug out of the socket, and contact Technical Support.

Symptom	Cause	Troubleshooting
Printing process does not start.	Error is displayed.	<p>Check the error code, and follow the instructions displayed on the display screen.</p> <ul style="list-style-type: none"> <li>• See “Messages about Paper” on page 298.</li> <li>• See “Messages about Replacing Wear Items” on page 299.</li> <li>• See “Messages about Other Issues” on page 301.</li> </ul>
	LAN Cable/USB Cable is not connected.	Firmly insert LAN Cable/USB Cable.
	LAN Cable/USB Cable is defective.	Use another LAN Cable/USB Cable.
	LAN Cable/USB Cable does not meet the standards.	<ul style="list-style-type: none"> <li>• Use a cable of USB 2.0 specifications.</li> <li>• Use a cable of LAN Cable 1000 BASE-T Specifications.</li> </ul>
	There may be a problem with the print function.	From <b>Print Information &gt; Configuration &gt; Execute</b> on the control panel, check whether you can print the printer information or not.
	Interface is disabled.	From <b>Admin Setup &gt; Network Setup</b> on the control panel, enable the interface you are using.
	Printer is not selected.	Set the printer as the “Default Printer”.
	Output port of printer driver is incorrect.	Specify the output port where LAN cable/USB cable is to be connected.
	The tension bar is not locked.	Lower the tension bar until it clicks. After that, open and close the unwinder cover.
Print data is not sent.	LAN Cable/USB Cable is damaged.	Connect a new cable.
	Computer had timed out.	Increase the length of timeout.
Abnormal sound.	Device is tilted.	Install on a stable and a flat surface.

Symptom	Cause	Troubleshooting
Resonant sound.	While temperature inside the device has increased, printing is done on a narrow paper or a thick paper.	Device has not broken down. Use the device as it is.
A sound is heard from the cutter unit when cutting the paper.	Glue of the labels accumulated on the cutter blades inside the cutter unit or paper dust may make the blade rubbed and make a sound.	Clean the cutter unit. <i>See "Cleaning the Cutter Unit" on page 401.</i>
Printing does not start immediately.	Device is warming up to return from the power saving mode.	Please wait. When you do not want to use Power Save mode, on the control panel, select <b>Admin Setup &gt; Power Setup &gt; Power Save</b> to disable the mode.
	Cleaning of print cartridge may be in progress.	Please wait.
	Temperature adjustment of the fuser unit is under progress.	Please wait.
	Processing of data from other interface is in progress.	Wait until the printing is complete.
	All the print data is being processed before printing starts.	Please wait.
Printing stops while printing.	Adjusting colors or correcting density during continuous printing.	Please wait.
Not enough memory.	Inadequate memory of the printer due to large printing data.	Lower the print quality in the printer driver, and then print. <i>See "Fine Quality Printing" on page 186.</i>
Slow printing.	Printing process is also done at the computer side.	User a computer with fast processing speed.
	Complicated print data.	Select simple print data.

## Trouble with Sensor Calibration

Symptom	Cause	Troubleshooting
Failure to calibrate sensor	The sensor is out of position.	Check the position of the sensor. <i>See "Confirming the Printer Sensor Position" on page 109.</i>
	The surface of the sensor cover is dirty.	Clean the surface of the sensor cover. <ul style="list-style-type: none"> <li>• <i>See "Cleaning the Surfaces of the Unwinder" on page 368.</i></li> <li>• <i>See "Cleaning the Surfaces of the Printer" on page 378.</i></li> </ul>
	Last of the paper was detected while calibrating the sensor.	Replace the paper with a new roll of paper.
	The information for the paper being used is not registered on the printer.	Correctly register, on the printer, the information for the paper being used.

## Printer Driver Malfunctions

### USB Connection Problems

Symptom	Solution Procedure
Icon of the printer is not created in the Devices and Printers folder.	Printer driver is not installed correctly. <i>See "Driver Installation Process Overview" on page 38.</i>
Error message such as "Printer driver installation failed" appears.	Use plug and play. Follow the procedure given below. <ol style="list-style-type: none"> <li>1 Check that the power supply to the printer and computer are turned off.</li> <li>2 Connect the USB cable.</li> <li>3 Turn on the power supply of the printer.</li> <li>4 Turn on the power supply of the computer.</li> <li>5 Open the Devices and Printers screen from Control Panel, and then click Add a printer.</li> <li>6 Execute the setup according to the on-screen instructions.</li> </ol> <p>Specify the following location to directly specify the printer driver. \Drivers\PCLXL</p>


## Trouble when Setting up Printing

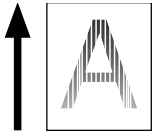
Symptom	Solution Procedure
A few seconds of waiting time occurs if you switch from another printer to the QL-300, using the printer settings in an application.	<p>These symptoms occur when there are many types of paper registered in the printer driver. If you want to reduce this waiting time, delete the paper settings that you do not need from the printer driver.</p> <p><i>See "Registering a Desired Paper Size with the Printer Driver" on page 78.</i></p>
Printing is being done in specified batches, even though they have not been specified.	<p>For some applications, batch copies may be specified automatically if a number of copies have been specified in the print settings on the application. To solve this, manually turn off the batch settings that were turned on automatically in the application.</p> <p><i>See "Collating Printed Output (Sorted Printing)" on page 203.</i></p>
The setting for printing multiple copies does not appear on the control panel of the printer, even though the setting for multiple copies is specified in printer settings in the printer driver or the application.	<p>When you specify to print multiple copies in the printer driver or application, some applications generate print data for all of the copies to be printed. When this type of data is being printed, the printer cannot recognize that you have specified multiple copies to be printed, so the indicator for printing multiple copies does not appear on the control panel. You can use the printer as it is, because all the copies that you specified will be printed.</p>
The final printout is not cut, even though <b>Cut by collation</b> or <b>To specify the number of pages per cut</b> is specified in the Cut Mode settings in the printer driver, although the setting for collate is specified in the printer settings in the printer driver or the application.	<p>When you specify to collate printouts in the printer driver or application, some applications reorder the pages in collated order, and then generate print data for all of the copies to be printed. When this type of data is being printed, the printer cannot recognize that the printout is being collated, so the indicator for collated printing does not appear on the control panel. In addition, the final printout is not cut, even though <b>Cut by collation</b> or <b>To specify the number of pages per cut</b> is specified in the Cut Mode settings in the printer driver.</p> <p>Even if the application is suitable, when you want to cut collated printouts, specify the pages in <b>To specify the number of pages per cut</b> so they match the pages being collated.</p> <p>Furthermore, if you can only specify a number of pages that is a multiple of that in <b>To specify the number of pages per cut</b> because the paper is short, you need to edit the print data, such as by adding blank pages, so it has a number of pages that can coincide with the number specified in <b>To specify the number of pages per cut</b>.</p>

## Problems Concerning Restrictions of Windows OS


Items	Symptom	Causes and Troubleshooting
Printer driver	The User Account Control dialog appears.	When starting installer or utility, the User Account Control dialog may appear. Click Yes or Go, and run installer or utility as administrator. Clicking No or Cancel will not start installer or utility.
	Images are being printed in an incorrect layout when doing "Print Test Page".	Occurred because Windows OS is creating print information that is larger than the paper settings that are set in the printer driver. Operation is not abnormal.



## Print Quality Is Poor



Symptom	Cause	Troubleshooting
<p>White stripe in perpendicular direction.</p>  <p>Paper feed direction</p>	LED head is unclean.	Wipe LED head with a soft tissue paper. <i>See "Cleaning LED Heads" on page 397.</i>
	Low toner.	Replace the print cartridge. <i>See "Replacing Print Cartridges" on page 334.</i>
	Deposit of foreign substances.	Replace the print cartridge. <i>See "Replacing Print Cartridges" on page 334.</i>
	Window film on print cartridge is dirty.	Wipe window film with a soft tissue paper. <i>See "Cleaning LED Heads" on page 397.</i>
	Print cartridge has not been set correctly.	Please set the print cartridge correctly. <i>See "Cleaning LED Heads" on page 397.</i>


Symptom	Cause	Troubleshooting
<p>Printing is blurred in perpendicular direction.</p>  <p>Paper feed direction</p>	LED head is unclean.	Wipe LED head with a soft tissue paper. <i>See "Cleaning LED Heads" on page 397.</i>
	Low toner.	On the control panel, set +1 to +3 in <b>SMR Setting</b> . If the problem is not rectified after that, replace the print cartridge. There is a risk of the printouts being dirty if you continue using the +1 to +3 setting in SMR Setting. <i>See "Replacing Print Cartridges" on page 334.</i>
	The toner is clumping.	Shake the print cartridge up and down, and left and right. <i>See "Replacing Print Cartridges" on page 334.</i>
	Paper not suitable.	Check the roll paper specifications, and then use paper that is described on the roll paper specifications.
	The temperature and humidity controls are not suitable.	On the control panel, set +1 to +3 in <b>SMR Setting</b> . There is a risk of the printouts being dirty if you continue using the +1 to +3 setting in <b>SMR Setting</b> .










Symptom	Cause	Troubleshooting
Printing is light. 	Print cartridge has not been set correctly.	Re-install the print cartridge. <i>See "Replacing Print Cartridges" on page 334.</i>
	Low toner.	Replace the print cartridge. <i>See "Replacing Print Cartridges" on page 334.</i>
	Paper is moist.	Use paper that has been stored at appropriate temperature and humidity.
	Paper not suitable.	Check the roll paper specifications, and then use paper that is described on the roll paper specifications.
	Paper not suitable. Type and thickness setting of paper is inappropriate.	Correct <b>Media Weight</b> in the control panel to the appropriate value. Or, change <b>Media Weight</b> to a thicker value than the present value.
	Recycled paper is used.	Correct <b>Media Weight</b> in the control panel to the appropriate value. Or, change <b>Media Weight</b> to a thicker value than the present value.



Symptom	Cause	Troubleshooting
<p>Printing is blurred in some parts. White dots appear when printing solid colors.</p> 	<p>The paper is too damp or too dry.</p>	<p>Use paper that has been stored at appropriate temperature and humidity.</p>
	<p><b>Transfer Setting</b> is not properly set.</p>	<p>If white dots appear in cyan transfer, lower the setting value by selecting <b>Print Adjust &gt; Transfer Setting &gt; Cyan Transfer Setting</b> on the control panel. If white dots appear in other colors' transfer, change the transfer setting value of the corresponding color.</p>
	<p><b>Media Transfer Setting Black</b> or <b>Media Transfer Setting Color</b> is not properly set.</p>	<p>On the control panel, change the value in <b>Print Adjust &gt; Media Transfer Setting Black</b> or <b>Media Transfer Setting Color</b>.</p>
	<p>There are scratches, dents or foreign matter (including glue from labels) on the belt unit.</p>	<p>Replace the belt unit. Implement protection against foreign matter and do daily maintenance (cleaning). <i>See "Replacing the Belt Unit and 2nd Transfer Roller" on page 338.</i></p>
<p>Stripes in perpendicular direction.</p>  <p>Paper feed direction</p>	<p>There are dents on the print cartridge.</p>	<p>Replace the print cartridge. <i>See "Replacing Print Cartridges" on page 334.</i></p>
	<p>Low toner.</p>	<p>Replace the print cartridge. <i>See "Replacing Print Cartridges" on page 334.</i></p>
	<p>The transfer path or the fuser and exit unit are dirty because bits of paper or glue are on them.</p>	<p>Clean the transfer path and the fuser and exit unit. <i>See "Cleaning the Inside of the Printer" on page 379.</i></p>


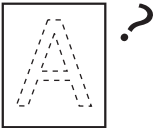


Symptom	Cause	Troubleshooting
<p>The front or rear edge of the paper is dirty.</p>  <p>Paper feed direction</p>	<p>The 2nd transfer roller is dirty.</p>	<p>Run <b>Print Adjust &gt; Transfer Roller Cleaning</b> on the control panel.                      If it is not rectified even after that, replace the 2nd transfer roller. Replacement of the 2nd transfer roller is done together with the belt unit, which is a wear item.  <i>See "Replacing the Belt Unit and 2nd Transfer Roller" on page 338.</i></p>
	<p>The area around the 2nd transfer roller or the paper transfer path is dirty.</p>	<p>Wipe the area around the roller on the 2nd transfer roller and the paper transfer path with a soft tissue paper.  <i>See "Cleaning the Inside of the Printer" on page 379.</i></p>
<p>Image disturbance occurs to the printed portion.</p> 	<p>The speed of the fuser unit is incorrect.</p>	<p>Feed 400 mm of media or longer one time.</p>

Symptom	Cause	Troubleshooting
<p>Stripes or dots appear periodically in horizontal direction.</p>  <p>Paper feed direction</p>	<p>In the case of a cycle length of about 94 mm, the print cartridge may be scratched or dirty.</p>	<p>Wipe it lightly with a soft tissue paper. If there are dents, replace the print cartridge. <i>See "Replacing Print Cartridges" on page 334.</i></p>
		<p>Set <b>Smooth</b> in <b>Screen</b> for the print quality settings in the printer driver.</p>
	<p>In the case of cycle length of about 31 mm, there is dirt inside the print cartridge.</p>	<p>Replace the print cartridge. <i>See "Replacing Print Cartridges" on page 334.</i></p>
	<p>In the case of cycle length of about 140 mm, there are scratches on the fuser and exit unit.</p>	<p>Replace the fuser and exit unit. <i>See "Replacing the Fuser and Exit Unit" on page 359.</i></p>
	<p>Print cartridge is exposed to light.</p>	<p>Return the print cartridge inside the printer, and do not use the printer for a few hours. If it does not rectify even after that, replace the print cartridge. <i>See "Replacing Print Cartridges" on page 334.</i></p>
	<p>In the case of cycle length of about 63 mm, the feed roller is dirty.</p>	<p>Clean the feed roller. <i>See "Cleaning the Inside of the Printer" on page 379.</i></p>
	<p>In the case of cycle length of about 75 mm, 2nd transfer roller may be dirty.</p>	<p>Run <b>Print Adjust &gt; Transfer Roller Cleaning</b> on the control panel. If it is not rectified even after that, replace the 2nd transfer roller. Replacement of the 2nd transfer roller is done together with the belt unit, which is a wear item. <i>See "Replacing the Belt Unit and 2nd Transfer Roller" on page 338.</i></p>
<p>Dirt has deposited on the paper transfer path.</p>	<p>Print a few pages as a test Or, clean the transfer path. <i>See "Cleaning the Inside of the Printer" on page 379.</i></p>	

Symptom	Cause	Troubleshooting
Portion of white background is lightly stained. 	Paper has static electricity.	Use paper that has been stored at appropriate temperature and humidity.
	Thick paper is used.	Use thinner paper.
	Low toner.	Replace the print cartridge. <i>See "Replacing Print Cartridges" on page 334.</i>
Border of characters is blurred. 	LED head is unclean.	Wipe LED head with a soft tissue paper. <i>See "Cleaning LED Heads" on page 397.</i>
	Paper not suitable.	Check the roll paper specifications, and then use paper that is described on the roll paper specifications.
	Paper is moist.	Replace with new paper.
Rubbing paper removes the toner. 	Type and thickness setting of paper is inappropriate.	Correct <b>Media Weight</b> in the control panel to the appropriate value. Or, change <b>Media Weight</b> to a thicker value than the present value.
	Recycled paper is used.	Correct <b>Media Weight</b> in the control panel to the appropriate value. Or, change <b>Media Weight</b> to a thicker value than the present value.
Specks appear on glossy papers. 	Type and thickness setting of paper is inappropriate.	Correct <b>Media Weight</b> in the control panel to the appropriate value. Or, change <b>Media Weight</b> to a thicker value than the present value.

Symptom	Cause	Troubleshooting
<p>Bold lines appear in horizontal direction.</p>  <p>Paper feed direction</p>	<p>Type and thickness setting of paper is inappropriate.</p>	<p>If a line is printed from the second page with black &amp; white print, set the <b>Media Weight</b> to an appropriate value from the control panel. Or, change <b>Media Weight</b> to a thicker value than the present value.</p>
	<p>Occurs when the following edge of the paper leaves the F4 roller, if it is 77 mm from the following end of the paper.</p>	<p>Bold lines or thin lines may occur on media similar to cast coated paper (stiff media or media on yellow separators). Use recommended paper.</p>
	<p>Occurs due to the different levels of the gap between labels, if it occurs periodically at labels.</p>	<p>Bold lines or thin lines may occur on media similar to cast coated paper (stiff media or media on yellow separators). Use recommended paper.</p>
	<p>Occurs when paper has been loaded for a long time, at the F0 roller, if it is about 40 mm from the leading edge of the paper. Glossy media is more sensitive to this artifact. This artifact can occur in less than one hour.</p>	<p>When media is pinched in F0 roller, streaks appear, stiff media becomes curled, and images may be affected. After printing, remove the paper. Also, always remove the paper if you will not use the equipment for a long time.</p>
<p>Lateral-stripe white dots appear at the solid printing portion.</p> 	<p><b>Transfer Setting</b> is not properly set.</p>	<p>If white dots appear in cyan transfer, lower the setting value by selecting <b>Print Adjust &gt; Transfer Setting &gt; Cyan Transfer Setting</b> on the control panel. If white dots appear in other colors' transfer, lower the transfer setting value of the corresponding color.</p>
	<p><b>Media Transfer Setting Black</b> or <b>Media Transfer Setting Color</b> is not properly set.</p>	<p>On the control panel, decrease the value set in <b>Print Adjust &gt; Media Transfer Setting Black</b> or <b>Media Transfer Setting Color</b>.</p>
<p>Border of the solid printing portion is lightly stained.</p> 	<p>Paper is too dry.</p>	<p>Use paper that has been stored at appropriate temperature and humidity.</p>
	<p><b>Media Transfer Setting Black</b> or <b>Media Transfer Setting Color</b> is not properly set.</p>	<p>On the control panel, increase the value set in <b>Print Adjust &gt; Media Transfer Setting Black</b> or <b>Media Transfer Setting Color</b>.</p>

Symptom	Cause	Troubleshooting
The back of the paper is dirty.	The 2nd transfer roller is dirty.	Confirm that the size of the image and the length of the paper match. Clean the 2nd transfer roller. <i>See "Cleaning the Inside of the Printer" on page 379.</i>
Does not print with color shades as you thought.	Low toner.	Replace the print cartridge. <i>See "Replacing Print Cartridges" on page 334.</i>
	Setting of <b>Black Finish</b> is not matching with the application.	In the <b>Black Finish</b> of printer driver, select <b>True Black (K)</b> or <b>Composite Black (CMYK)</b> .
	Change color matching options.	Change to color matching option of the printer driver.
	No color balance.	Select <b>Calibration</b> on the control panel, and then run <b>Adjust Density</b> .
	Misalignment of color.	Open the top cover at once, and the close it again. Select <b>Calibration</b> on the control panel, and then run <b>Adjust Registration</b> .
Black spots or white spots appear. 	Paper not suitable.	Check the roll paper specifications, and then use paper that is described on the roll paper specifications.
	In the case of a cycle length of about 94 mm, the print cartridge may be scratched or dirty.	Gently wipe the dirt stuck to the brown tube in the print cartridge with a soft tissue paper. If there are dents, replace the print cartridge. <i>See "Replacing Print Cartridges" on page 334.</i>
Stains are printed. 	Paper is moist.	Replace with a new paper.
	Paper not suitable.	Check the roll paper specifications, and then use paper that is described on the roll paper specifications.
	The surface of the roller in the feed path is dirty.	If foreign matter is found on the surface of the roller in the feed path, remove the dirt with a soft cloth or tissue paper.

Symptom	Cause	Troubleshooting
<p>The entire paper is printed black.</p> 	<p>The device might have broken down.</p>	<p>Contact Technical Support.</p>
<p>Nothing is printed.</p> 	<p>The device might have broken down.</p>	<p>Contact Technical Support.</p>
<p>White spaces occur.</p> 	<p>Paper is moist.</p>	<p>Replace with a new paper.</p>
	<p>Paper not suitable.</p>	<p>Check the roll paper specifications, and then use paper that is described on the roll paper specifications.</p>
	<p>Scraps of paper from the labels are stuck to the belt unit.</p>	<p>Replace the belt unit. The belt unit is replaced together with the 2nd transfer roller, which is a wear item. <i>See "Replacing the Belt Unit and 2nd Transfer Roller" on page 338.</i> Implement protection against foreign matter and do daily maintenance (cleaning). Or, check the cutting position; if it has shifted, readjust the cutting position.</p>
	<p>If it is near the leading edge of the roll paper, it may be the remains of the tape that has peeled off the roll paper.</p>	<p>Cut off the end part of the paper that has any tape left on it, and do not use that paper.</p>
<p>Afterimages are appearing.</p>  <p>Paper feed direction</p>	<p>The print quality setting is not appropriate.</p>	<p>Set <b>Smooth</b> in <b>Screen</b> for the print quality settings in the printer driver.</p>



Symptom	Cause	Troubleshooting
Blank pages are being inserted.	An image that is less than 4 inches long is being printed.	<p>When setting <b>User-defined paper</b> in the printer driver, if you set less than 4 inches for the following, then a blank piece of paper will be inserted after cut pages when you print.</p> <ul style="list-style-type: none"> <li>• For continuous paper, <b>Paper length</b></li> <li>• For die-cut labels, die-cut labels with black marks and continuous labels, <b>Label length</b></li> <li>• For continuous paper with black marks and continuous labels with black marks, <b>Black mark interval</b></li> </ul> <p>This occurs because an image that is shorter than the length of the paper that can be fed is printed; so it is a limit.</p>
The position that printing starts on the leading edge is misaligned.	The belt has stretched	Adjust the registration and execute paper interval detection before you start printing, and install the printer in a room that has humidity that is as stable as possible.
	The gap interval between labels is different between each label.	Rolls of labels that have different intervals between labels cannot be used. Use rolls of labels that have regular intervals.
	There is a join in the roll paper.	If there is a join in the roll paper, the position that printing starts on the leading edge may be misaligned. We cannot recommend media that has joins.
	The paper size specified in the printer driver is different from the paper size that is loaded.	Specify the correct paper size in the printer driver.
	The black mark sensor position or gap sensor position is skewed.	For black marks, adjust the position of the sensor to the center of the black mark. For gaps, adjust the position of the sensor to the center of the label.

Symptom	Cause	Troubleshooting
<p>The position that printing starts on the leading edge is misaligned.</p>	<p>(The first page is misaligned) The paper and media form that you are using have been switched.</p>	<p>Do fine adjustments to the print position. Set Cut Mode-Specified Interval-Cut Interval to "1". Then print 5 pages of your content on the media you are actually using and use them to measure the differences in the position you want to print and the actual printed positions, and then calculate the average of these 5 measurements. Use this difference to finely adjust the print position using the print position correction (Y position).</p>
	<p>(The second and following pages are misaligned) Immediately after doing paper interval detection, replacing the roll of paper, or changing the print pattern, the print position adjustment (auto) was not done well enough.</p>	<p>Print 20 continuous pages of the actual print pattern you are using (set Cut Mode-Specified Interval-Cut Interval to "20") so you can compensate for the position that printing starts.</p>
<p>Printing extends off the trailing edge of the paper.</p>	<p>The paper size specified in the printer driver is different from the paper size that is loaded.</p>	<p>Specify the correct paper size in the printer driver.</p>
	<p>The compensation value specified for the print position correction (Y position) is too large.</p>	<p>Specify a correction value that is within a range that the printing does not extend off the trailing edge of the paper. If the image extends off the trailing edge of the paper, clean the 2nd transfer roller.</p>
<p>Pages are cut on a different page than the specified page.</p>	<p>Last of the paper was detected.</p>	<p>Replace the paper with a new roll of paper. When reprinting, paper is output from the page where the error occurred up to the cut page. So, if you want to justify the number of pages up to the cut, temporarily cancel printing and send print data starting from the page you want to reprint.</p>

Symptom	Cause	Troubleshooting
There is an abnormality in the print results on the <b>Test Page</b> .	You are printing image data that is an inappropriate size.	The layout of the image skews in the printed results when you do the <b>Print Test Page</b> from the printer driver, depending on the type of OS that you are using. This is not a problem with the printer driver or the equipment. It is caused by the OS transmitting the images on A4 or letter size paper, which are paper sizes that the device does not support.

## Paper Feed Is Poor

Symptom	Cause	Troubleshooting
Paper jam occurs frequently.	Device is tilted.	Install on a stable and a flat surface.
	The paper feed path is dirty.	Clean the paper feed path. <i>See "Cleaning the Inside of the Printer" on page 379.</i>
	Position of the roll paper guide is not aligned.	Align the roll paper guide to the position of the paper size that is set.
	Papers are not set correctly.	Remove the roll paper and reset.
	The position of the roll paper is misaligned.	Remove the roll paper and reset it, and then turn the roll paper position adjustment dial to adjust the position.
	The leading edge of the paper is curled. Or, the paper that is loaded does not have cuts in the gaps between the labels.	Correctly cut the leading edge of the paper and reset it.

Symptom	Cause	Troubleshooting
<p>Paper jam occurs frequently.</p>	<p>Printer driver sensor settings are not specified correctly.</p>	<p>Specify <b>Sensor settings</b> in <b>Paper settings</b> of the printer driver so it is the same as where the results of the sensor calibration are registered.</p> <p>Furthermore, if several of the same model printer are connected to a single computer and if the same paper settings are specified on the printer driver for the various printers, then in <b>Sensor settings</b> the same registration number should be specified for all the printers.</p> <p>Register the sensor adjustment results from each printer so they match the <b>Sensor settings</b> numbers that are in the paper settings on the printer driver as the above countermeasures.</p>
	<p>The width of the paper being used and the width of the paper guide do not match. Or, the paper width set in the printer driver and the width of the paper being used do not match.</p>	<p>Use paper that is as wide as the paper width that is set in the printer driver.</p> <p>Align the width of the paper guide to the width of the paper you are using.</p>
	<p>An appropriate paper is not set.</p>	<p>Match the settings of the paper on which you want to print with the settings in the printer driver. Do a sensor calibration for the paper on which you want to print.</p>
	<p>There are traces of sealing tape on the roll paper that is being used.</p>	<p>Do not use the part of the roll paper on which there are traces of sealing tape. Feeding may not be normal because of the glue stuck to the paper.</p>

Symptom	Cause	Troubleshooting
Paper jam occurs frequently.	The positions of the machine and the unwinder sensors do not match.	Align the position of the sensor with the paper.
	Labels are missing from the roll of paper that is being used.	Load a suitable roll of paper. If the cause described on the left is correct, there may be toner on the fuser unit, so you should clean it.
	Only when paper feed is started by pressing the <b>FEED</b> button Stiff continuous labels are being used (or, die-cut labels that are longer than 600 mm).	Fold the media about 200 mm from the leading edge of the media (liner) to make a crease that forms a valley in the printed face, and then feed the paper.
	The roll of paper is old so its color or quality has changed. There are large differences in the reflectiveness of the black marks or the transmittance of the liner.	Calibrate the sensor.
Paper is not fed.	The paper settings for the printer are different from the paper settings in the printer driver.	Check the message on the display screen, and if there is no problem, press the <b>OK</b> button on the control panel.
	Glue has smeared on the liner.	Do not use a liner on which glue is smeared. It will not feed normally. In the worst case, it could damage the equipment.
Device is not restored even after removing the jammed paper.		Open the top cover at once, and then close it again.
Paper gets curled. Creases appear on the paper.	Paper contains moisture or static electricity.	Use paper that has been stored at appropriate temperature and humidity.
	Thin paper is used.	Correct <b>Media Weight</b> in the control panel to the appropriate value. Or, change <b>Media Weight</b> to a thicker value than the present value.
Paper winds around the roller of the fuser and exit unit.	Type and thickness setting of paper is inappropriate.	Correct <b>Media Weight</b> in the control panel to the appropriate value. Or, change <b>Media Weight</b> to a thicker value than the present value.
	Thin paper is used.	Use thicker paper.

Symptom	Cause	Troubleshooting
The space between labels is not cut; the labels are cut.	The position of the cut is misaligned.	Readjust the cutting position.
	The leading edge of the label and the black mark positions are not aligned.	Labels cannot be used if the leading edge of the label and the black mark positions do not align. Use labels whose leading edges align with the black mark.
	The gap interval between labels is different between each label.	Rolls of labels that have different intervals between labels cannot be used. Use rolls of labels that have regular intervals.
	The gap interval between labels is not from 3 to 10 mm.	A gap between labels from 3 to 10 mm can be used. Do not use any others.
	The paper size specified in the printer driver is different from the paper size that is loaded.	Specify the correct paper size in the printer driver.
Paper has stopped feeding.	Last of the paper was detected during warm up while paper was feeding.	Replace the paper with a new roll of paper.
Paper is not fed, even when the <b>FEED</b> button is pressed.	Last of the paper was detected while feeding paper.	Replace the paper with a new roll of paper.
Paper is not unloaded, even when the <b>UNLOAD</b> button is pressed.	Last of the paper was detected while unloading paper.	Replace the paper with a new roll of paper.
The rear edge of the paper is skewed.	Paper is not set on the roll shaft.	Replace the paper with a new roll of paper.

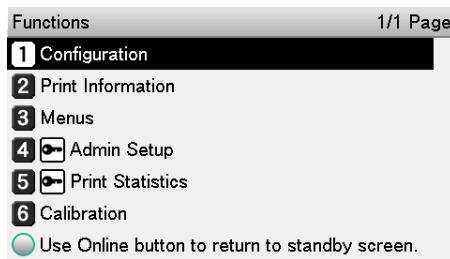
# 13

## Replacing Wear Items

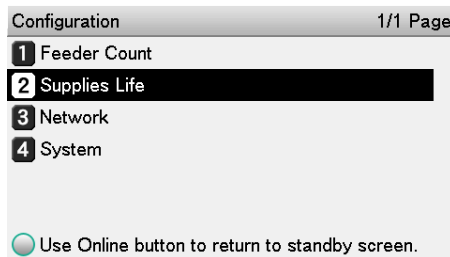
### Checking Service Life and Remaining Amounts of Wear Items

You can check the service life and remaining quantities of the print cartridge, belt unit, fuser and exit unit, and waste toner box.

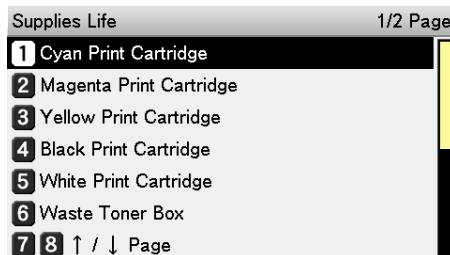
1. Press the scroll button ▼ several times to select **Configuration**, and then press the **OK** button.



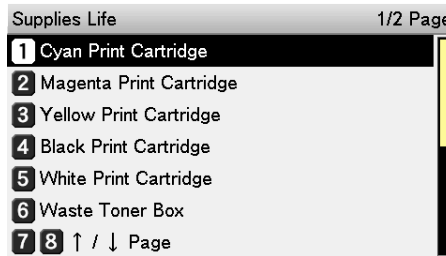
2. Select **Supplies Life**, and press the **OK** button.



3. Select the wear items to check (print cartridge, belt unit, fuser and exit unit, or waste toner box).

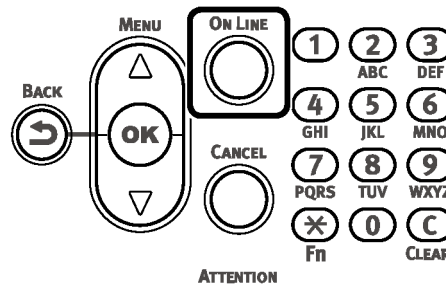


- Press the **OK** button.



If you want to continue to check other items, press the **BACK** button to return to the previous step.

- Press the **ON LINE** button to return to the standby screen.



## Replacing Wear Items

This section describes the service life and replacement method of wear items.

### About the Service Life of Wear Items

Guidelines for replacement of wear items are as follows. Service life estimates are for reference. The actual service life will vary based on label design, usage status, powering on/off, and adjustment operations.

Wear item	Approximate service life
Print Cartridge (CMYK)	52,200 linear inches at 20% toner density. Print quality will decline one year after opening the package. Monochrome printing (black and white) is possible even if cyan, magenta, or yellow cartridge life has been reached. <i>See "Monochrome (Black and White) Printing" on page 237.</i>



Wear item	Approximate service life
Print Cartridge (W) The white print cartridge is for the QL-300s only.	26,100 linear inches at 20% toner density. Print quality will decline one year after opening the package. CMYK printing is possible even if the white cartridge life has been reached. <i>See "Printing Using the Specified Print Cartridge Only (Lift Up)" on page 184.</i>
Belt Unit	2,610,000 linear inches at 5% toner density.
2nd Transfer Roller	2,610,000 linear inches at 5% toner density. The 2nd transfer roller is included in the belt unit, which is a wear item.
Fuser and Exit Unit	870,000 linear inches.
Waste Toner Box	435,000 linear inches at 5% toner density.
Paper Guide/Feed Unit	5,800,000 linear inches.
Cutter Unit (Unwinder)	1,000,000 cuts.
F0 Roller Unit (Unwinder)	5,800,000 linear inches.

Toner density is the proportion of area having toner on printable area of 1 page.

## When the Replacement Period Is Approaching

When the scheduled replacement of wear items approaches, the following message will appear and the **ATTENTION** lamp will blink.

Replace wear items when "Install New..." appears in the message.

Pressing the **HELP** button on the control panel will display the replacement procedure. You can easily replace the wear items according to the guidance. *See "Operating the Help Screen" on page 271.*




Item	Message displayed on the display screen	
	When the replacement period approaches	When it is time for replacement
Print cartridges <i>See "Replacing Print Cartridges" on page 334.</i>	[COLOR]* <sup>1</sup> Print Cartridge Near End of Life	Install New [COLOR]* <sup>1</sup> Print Cartridge Print Cartridge Life Please see HELP for details
Belt Unit <i>See "Replacing the Belt Unit and 2nd Transfer Roller" on page 338.</i>	Belt Unit Near Life	Install New Belt Unit Belt Unit Life Please see HELP for details





Item	Message displayed on the display screen	
	When the replacement period approaches	When it is time for replacement
Fuser and exit unit See "Replacing the Fuser and Exit Unit" on page 359.	Fuser Unit Near End of Life	Install New Fuser and Exit Unit Fuser and Exit Unit Life Please see HELP for details
Waste Toner Box See "Replacing Waste Toner Boxes" on page 348.	Waste Toner Near Full	Install New Waste Toner Box Waste Toner Full Please see HELP for details








\*1: [COLOR]: Either yellow, magenta, cyan, black, or white is displayed. (White appears only for the QL-300s.)

## Replacing Print Cartridges

### Precautions Related to Print Cartridge Replacement

Symbol	Warning
	Do not put toner or print cartridges in fire. The toner may spray out and cause burns.
	Do not store print cartridges in locations exposed to open flame. They could ignite, burn, and cause burn injuries.
	Do not clean spilled toner with a vacuum cleaner. If cleaning spilled toner with a vacuum cleaner, it may catch fire due to the sparks from electric contact. Toner spilled on the floor should be wiped up with a wet cloth.

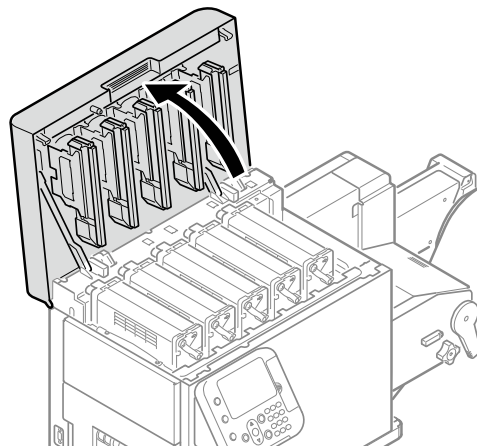
Symbol	Caution
	Some parts inside the machine are very hot. Do not touch the areas near the "High Temperature Warning" labels. Doing so may cause burns.
	Keep the print cartridges away from children.
	If toner is ingested, follow the direction from a doctor if necessary.
	If toner is inhaled, gargle with plenty of water and move to a location where the air is fresh. Follow the direction from a doctor if necessary.

Symbol	Caution
	<p>If toner gets on your hands or skin, carefully wash it off with soapy water.</p>
	<p>If toner gets into your eyes, flush them with large amount of water. Follow the direction from a doctor if necessary.</p>
	<p>Be careful to not get toner on your clothes or hands when you are clearing paper jams or replacing the print cartridges. If toner gets on your hands or skin, carefully wash it off with soapy water. If it gets on your clothes, rinse it off with cold water. If you wash them with warm water or heat the toner, it will stain the clothes permanently.</p>
	<p>Do not disassemble or forcibly open the print cartridge. It may scatter the toner, which people may inhale or may stain clothes and hands.</p>
	<p>Store used print cartridges in a bag so that the toner does not scatter around.</p>
	<p>Toner spilled on the floor should be carefully wiped up with a wet cloth so the toner does not scatter around.</p>
	<p>Gently wipe the dirt stuck to the brown tube in the print cartridge with a soft tissue paper. Do not use alcohol or other solvents to wipe it. If alcohol or some other solvent is used to wipe it, the irregularities left from wiping it will degrade print quality.</p>

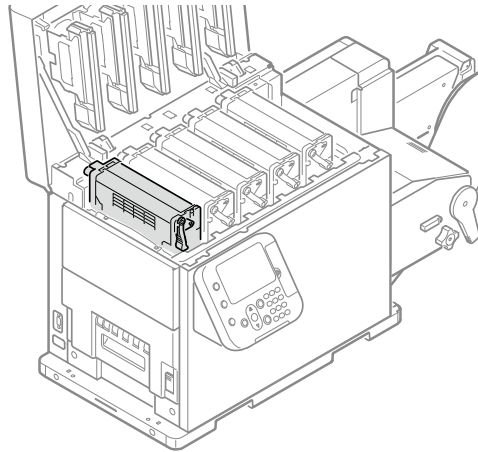
## Replacing Print Cartridges

The following example describes how to replace the yellow (Y) print cartridge. Adjust the procedure based on the print cartridge you are replacing.

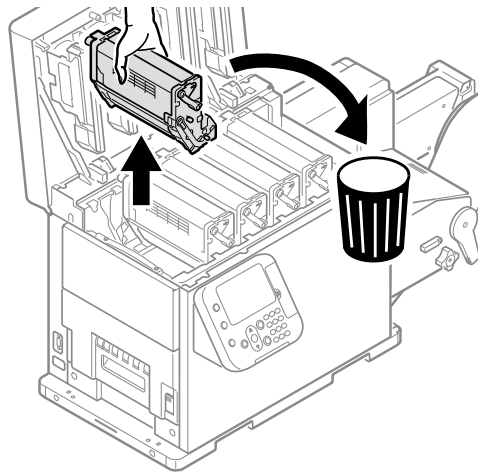
1. Grasp the top cover open lever and open the top cover.



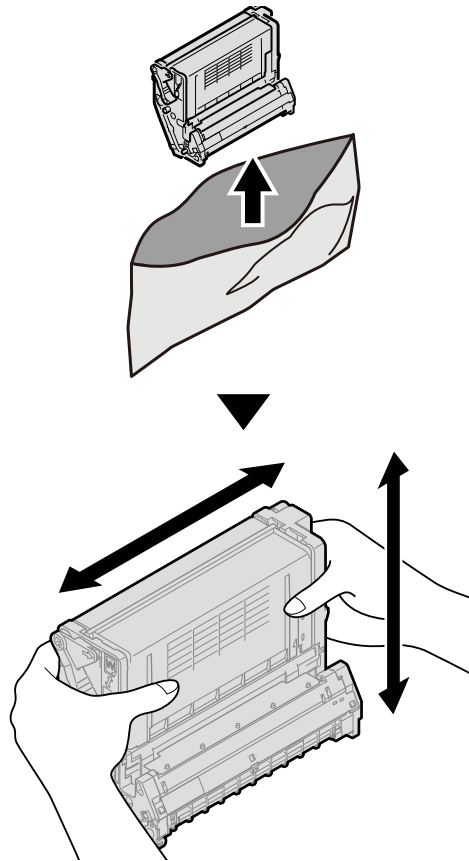
2. Check the position of the print cartridge to replace, by the text and color of the label.



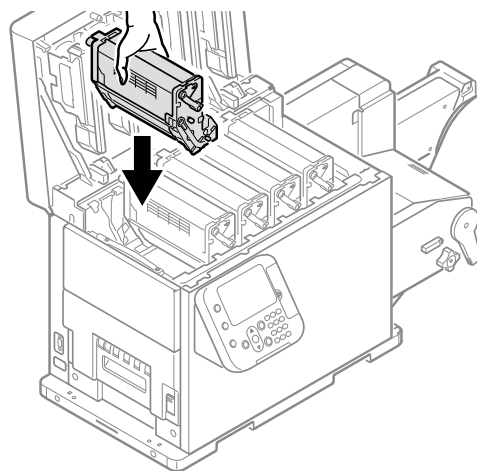
3. Pull out the print cartridge.



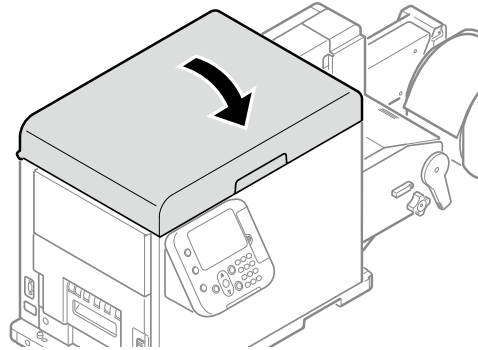
4. Remove the new print cartridge from the packing bag, and then shake it vertically and horizontally.



5. Check the position where a label with the same text and colors has been applied, and firmly and levelly push the print cartridge in as far as it will go.



6. Close the top cover.



**Caution:** When closing the top cover, there is a risk of pinching your fingers or hands in the top cover or the top cover's support. Press on the top of the top cover to close it.

**Caution:** There is a risk of pinching your fingers or hands if you hold the LED head while closing the top cover. Press on the top of the top cover to close it.

If the **Print Cartridge Life** message does not disappear even though you have replaced the print cartridge, the print cartridge may not be securely installed. Install it correctly.

If Error709 appears after you replace a print cartridge, refer to "Messages about Other Issues" on page 301.

7. Please support the recycling of used print cartridges.

If you must dispose of a used print cartridge, put it in a plastic bag and be sure to dispose of it according to the local laws and government regulations.

Use the box and packing bag from the new print cartridge to recycle the used print cartridge.

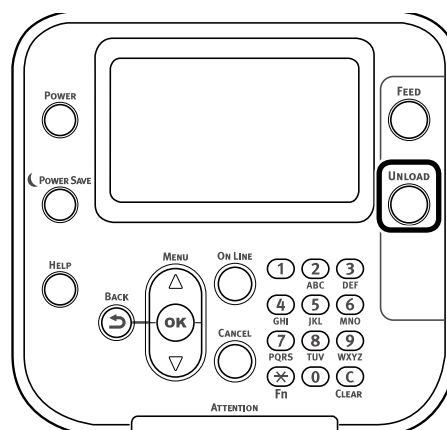
## Replacing the Belt Unit and 2nd Transfer Roller

A new 2nd transfer roller is supplied with the new belt unit in the same package.

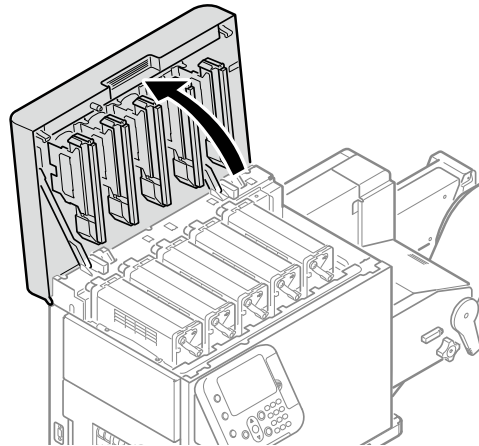
Also, a new waste toner box is mounted inside the belt unit.

1. If roll paper has been fed through the printer, press the **UNLOAD** button to cut the roll paper.

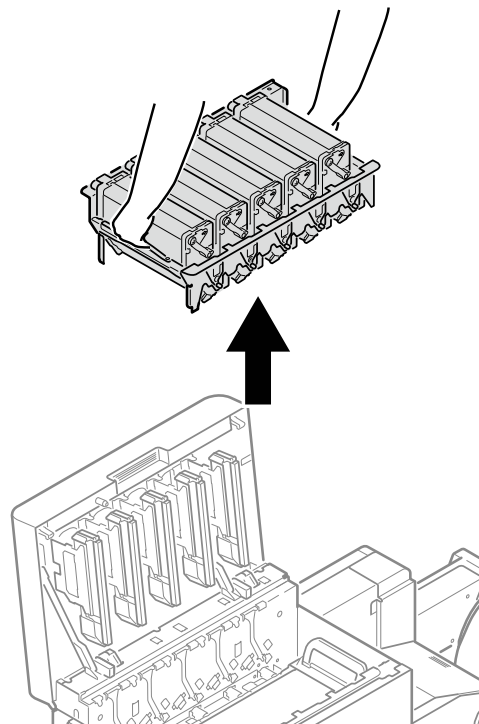
The cut paper will be fed to the supply side and the feeding side.



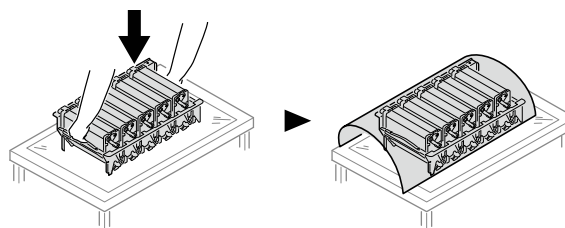
2. Grasp the top cover open lever and open the top cover.



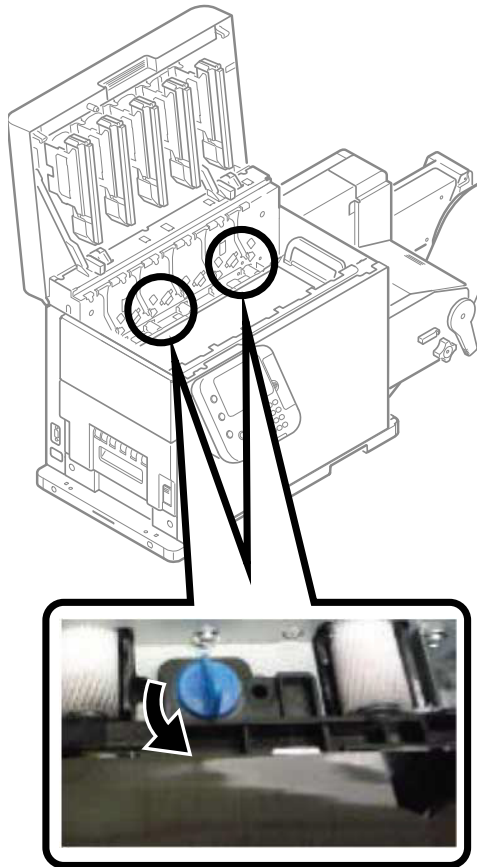
3. Remove the print cartridge set.



4. Place the removed print cartridge set on a flat surface covered with newspaper or something similar, and cover it with paper so it is not exposed to direct light.

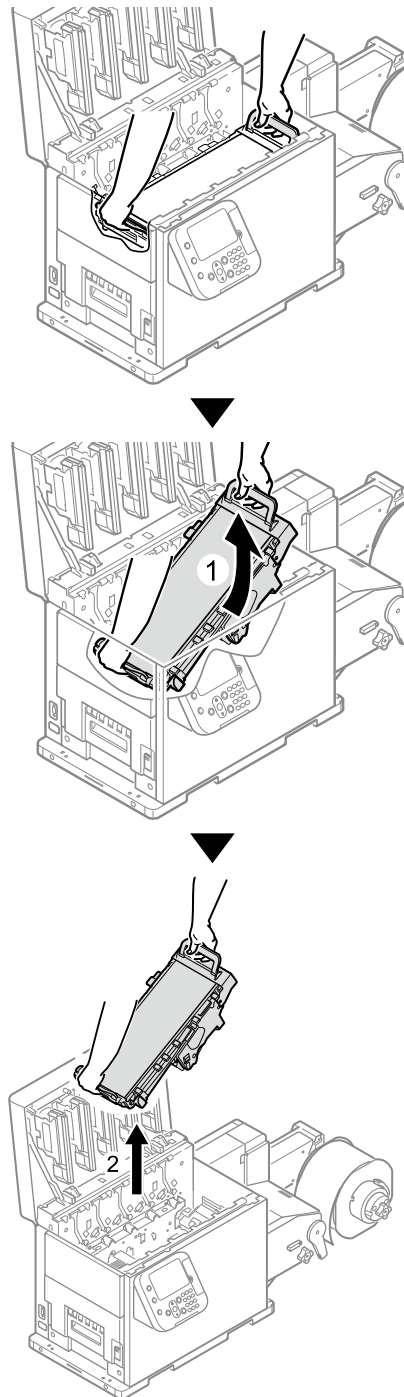


5. Turn the two belt locking keys counterclockwise to release the lock.





6. Hold the belt unit handles (blue) on the left and right, and remove the belt unit at an angle.

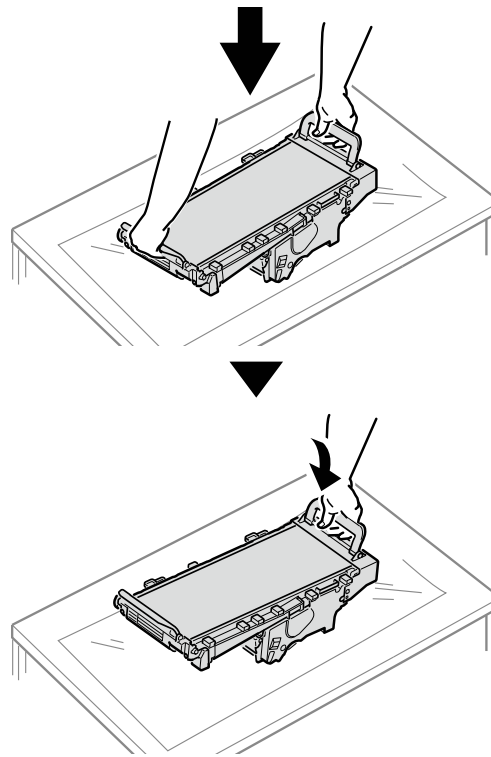


**Caution:** Be careful not to spill waste toner while removing the belt unit.

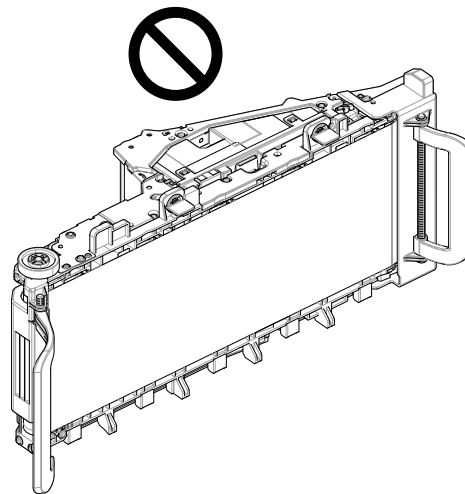
**Caution:** Be careful to not pinch your hands or fingers between the handle and the machine while removing the belt unit.

**Caution:** When removing the belt unit, do not tilt it further than is needed to remove it.

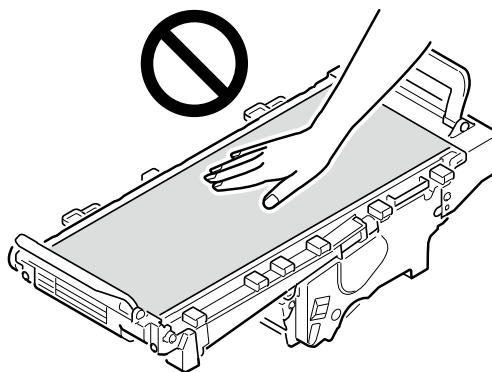
7. Place the belt unit with the right side down on a flat surface covered with paper.



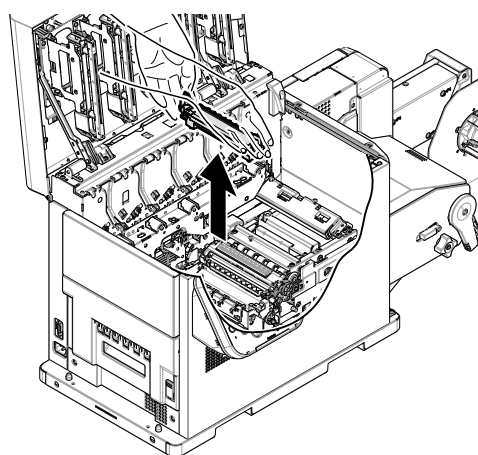
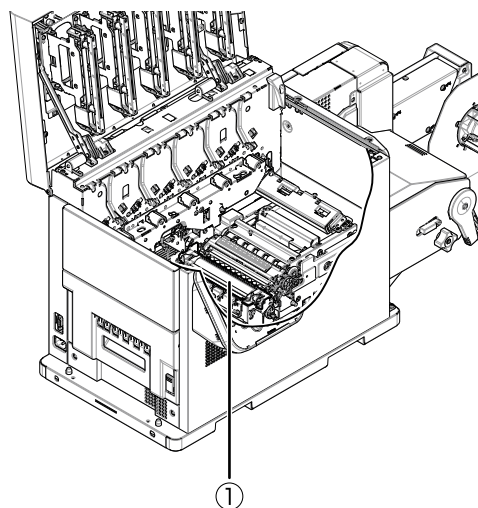
**Caution:** Place the belt unit on a flat surface, as shown in the diagram above. Do not stand it on its side.



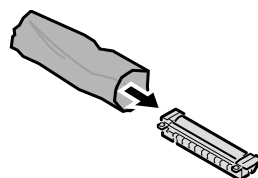
**Caution:** Do not touch the belt surface or damage the belt.



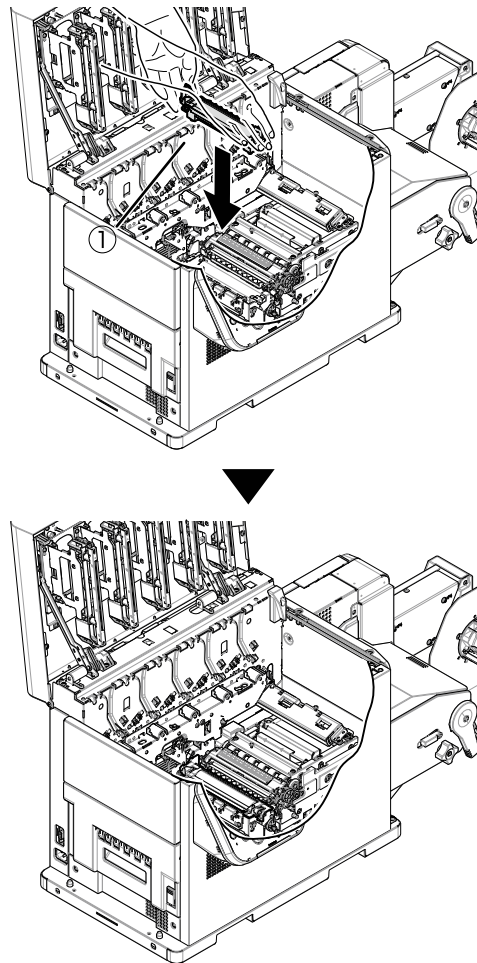
8. Hold the 2nd transfer roller unit (1) knob (blue) and remove it.



9. Remove the 2nd transfer roller from its packaging.



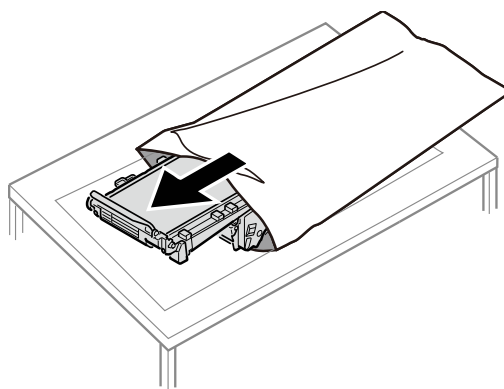
10. Set the new 2nd transfer roller (1) into the printer.



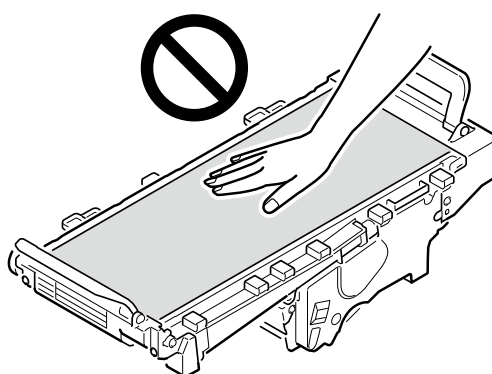
**Note:** Do not touch the roller part (sponge part) of the 2nd transfer roller. Touching it damages the surface of the roller, which degrades print quality.

**Caution:** Be careful, the fuser unit is very hot immediately after printing.

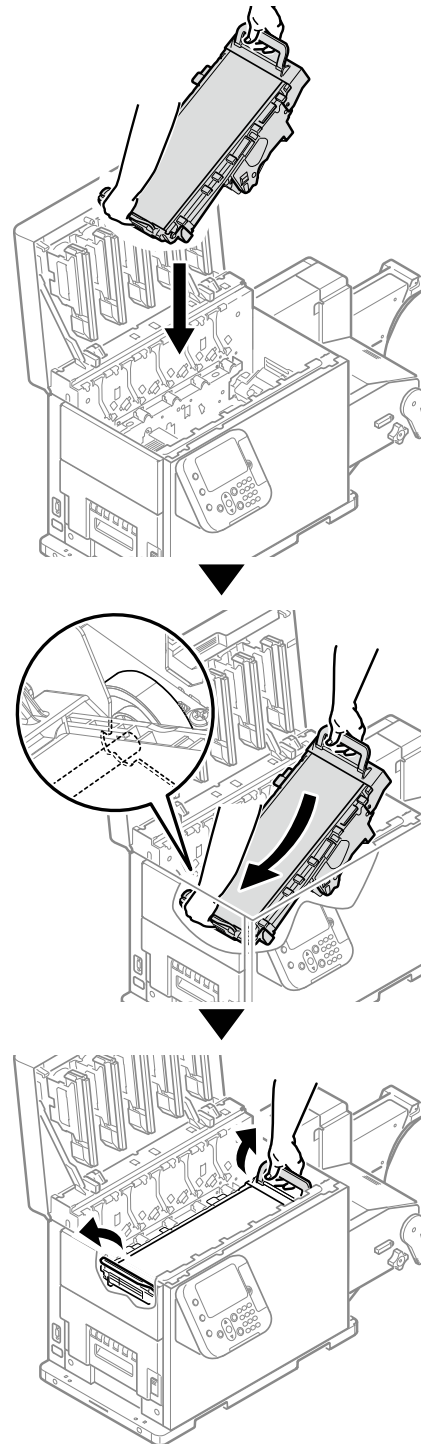
11. Remove the new belt unit from its packaging.



**Caution:** Do not touch the belt surface or damage the belt.



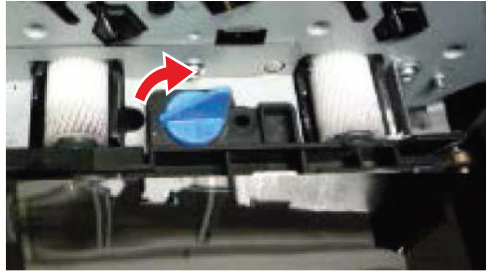
12. Tilt the belt unit and align the arrow labels (red) on the belt unit and printer to position it, and then open the belt unit handles (blue) on the left and right.



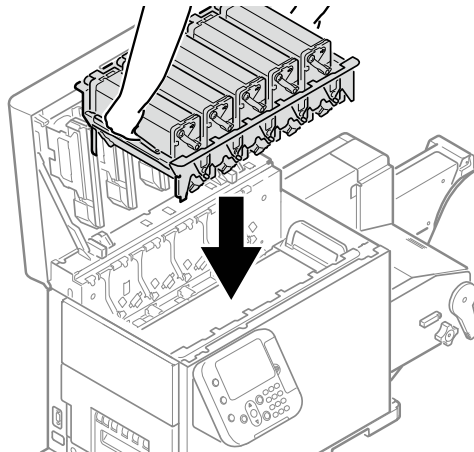
**Caution:** Be careful to not pinch your hands or fingers between the handle and the machine while installing the belt unit.

**Note:** When the belt unit is replaced, the waste toner box is also replaced at the same time.

13. Turn the two belt unit locking keys clockwise to lock it.

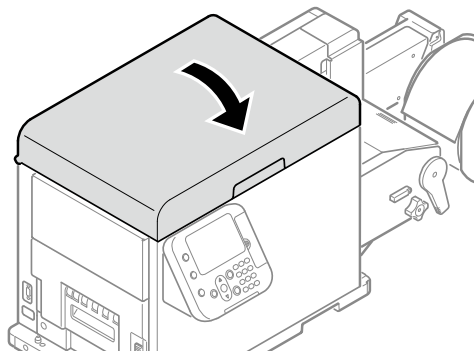


14. Put the print cartridge set back into the printer.



**Caution:** There is a risk of pinching your fingers or hands when repositioning the print cartridge set. Hold the handle parts of the basket for this operation.

15. Close the top cover.



**Caution:** When closing the top cover, there is a risk of pinching your fingers or hands in the top cover or the top cover's support. Press on the top of the top cover to close it.

**Caution:** There is a risk of pinching your fingers or hands if you hold the LED head while closing the top cover. Press on the top of the top cover to close it.

16. Please support the recycling of used belt units and 2nd transfer rollers.

**Caution:** You cannot clean the belt unit yourself. To protect the equipment against dirt and foreign matter, do daily maintenance (cleaning) as described in "Cleaning Schedule" on page 367. Also, do not use alcohol or other solvents to wipe the surfaces. If alcohol or

*some other solvent is used to wipe it, the irregularities left from wiping it will degrade print quality.*

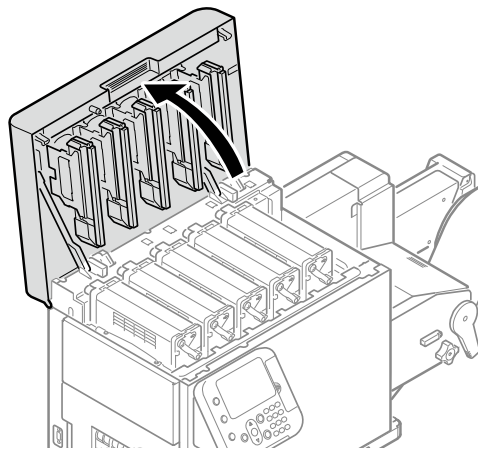
**Caution:** *Do not disassemble the belt unit and the waste toner box, and do not force them open. Doing so may cause toner to spray out, to be inhaled, or to soil your clothing and hands.*

If you must dispose of a used belt unit or 2nd transfer roller, put them in a plastic bag and be sure to dispose of them according to the local laws and government regulations.

Use the box and packing bag from the new belt unit and 2nd transfer roller for when the used belt unit and 2nd transfer roller are recycled.

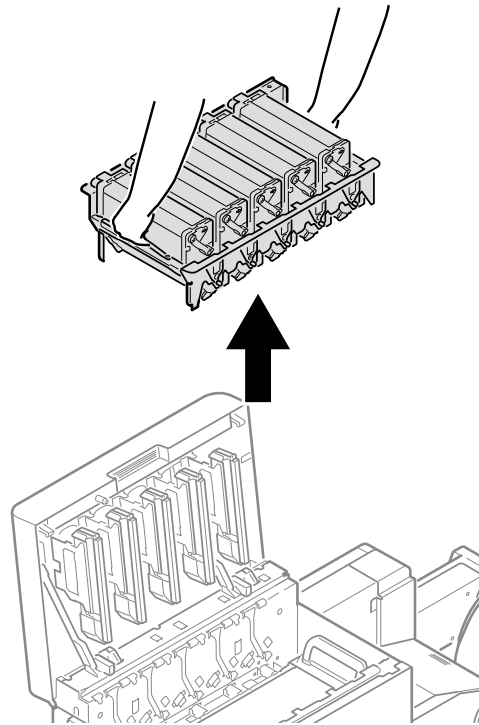
## Replacing Waste Toner Boxes

1. Grasp the top cover open lever and open the top cover.

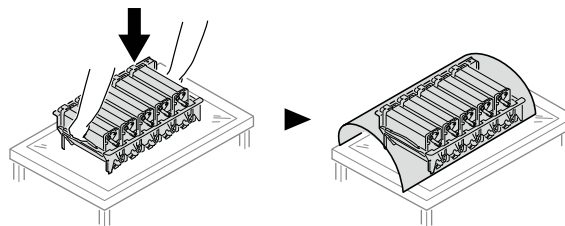




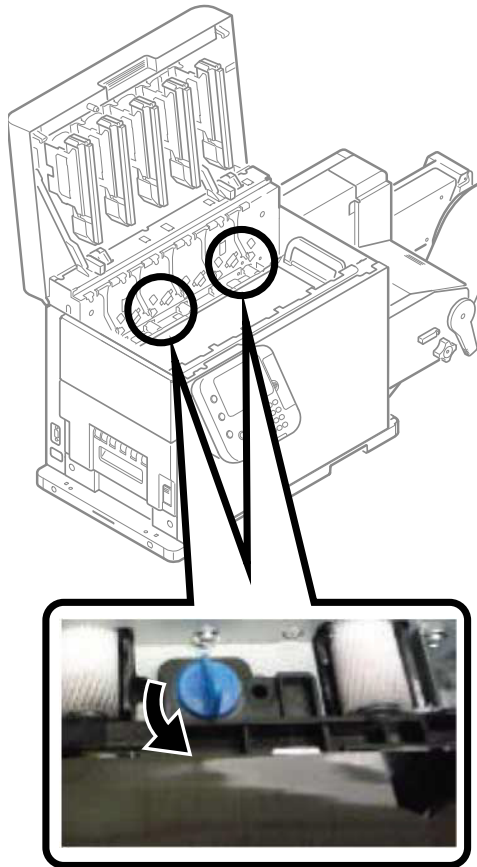
2. Remove the print cartridge set.



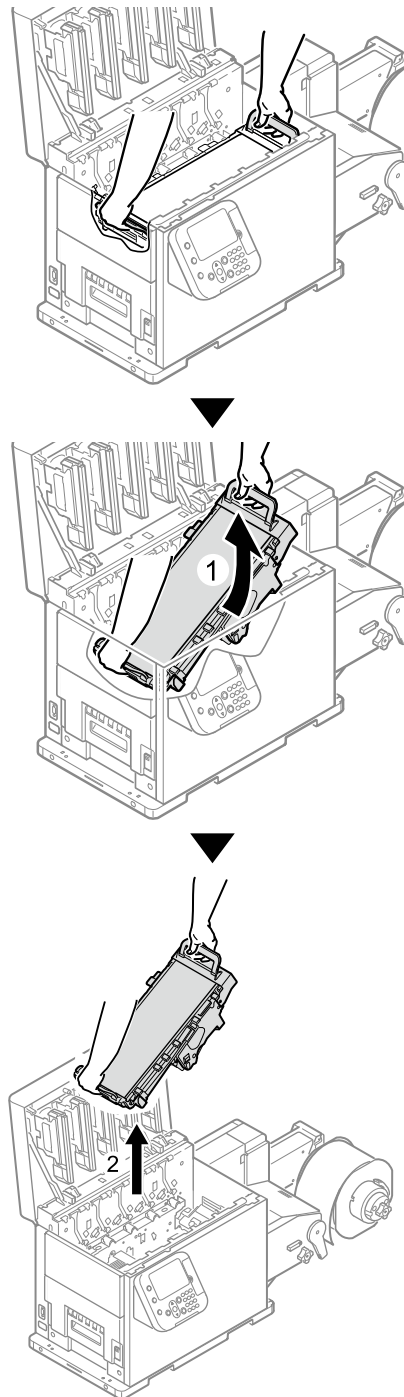
3. Place the removed print cartridge set on a flat surface covered with newspaper or something similar, and cover it with paper so it is not exposed to direct light.



4. Turn the two belt locking keys counterclockwise to release the lock.



5. Hold the belt unit handles (blue) on the left and right, and remove the belt unit at an angle.

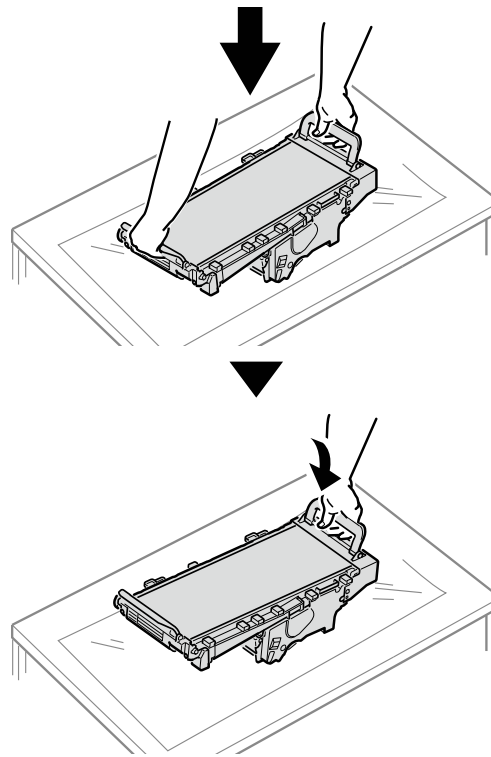


**Caution:** Be careful not to spill waste toner while removing the belt unit.

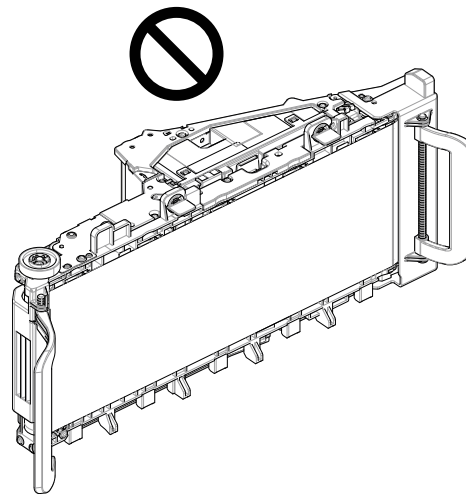
**Caution:** Be careful to not pinch your hands or fingers between the handle and the machine while removing the belt unit.

**Caution:** When removing the belt unit, do not tilt it further than is needed to remove it.

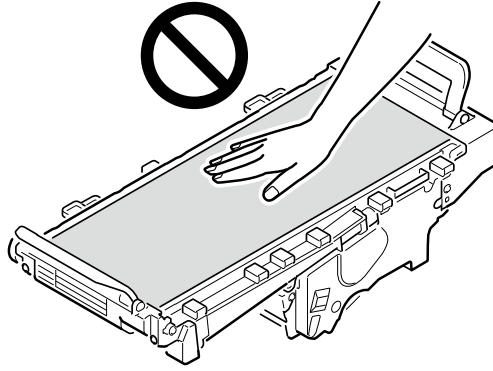
6. Place the belt unit with the right side down on a flat surface covered with paper.



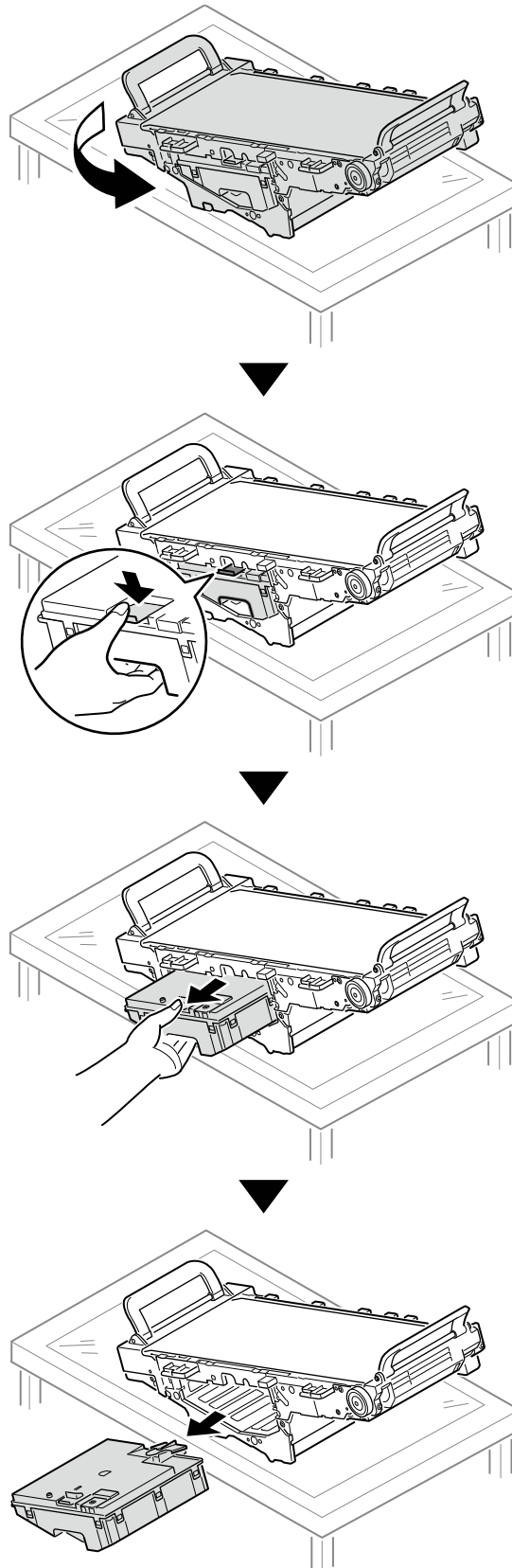
**Caution:** Place the belt unit on a flat surface, as shown in the diagram above. Do not stand it on its side.



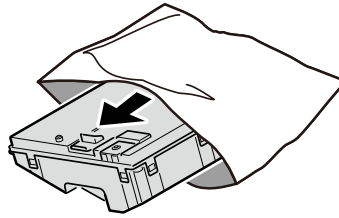
**Caution:** Do not touch the belt surface or damage the belt.



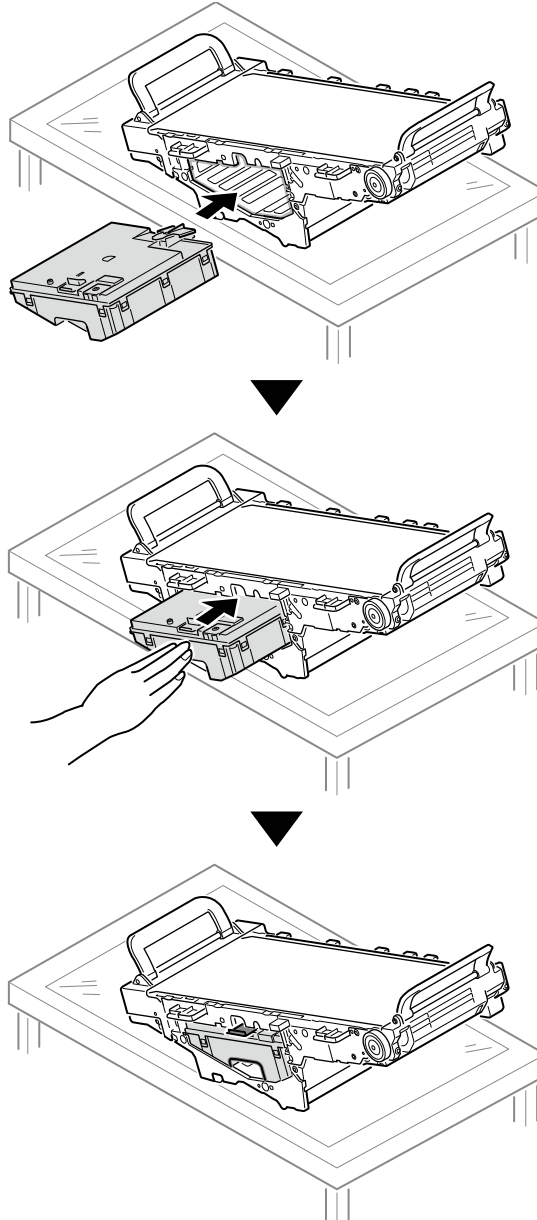
7. Remove the waste toner box from the back of the belt unit.



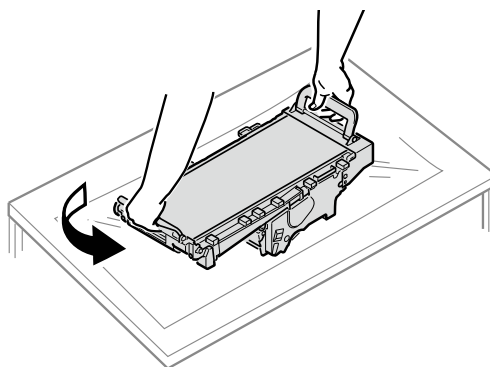
8. Remove the new waste toner box from its packaging.



9. Insert the new waste toner box into the belt unit, and firmly push it inside.

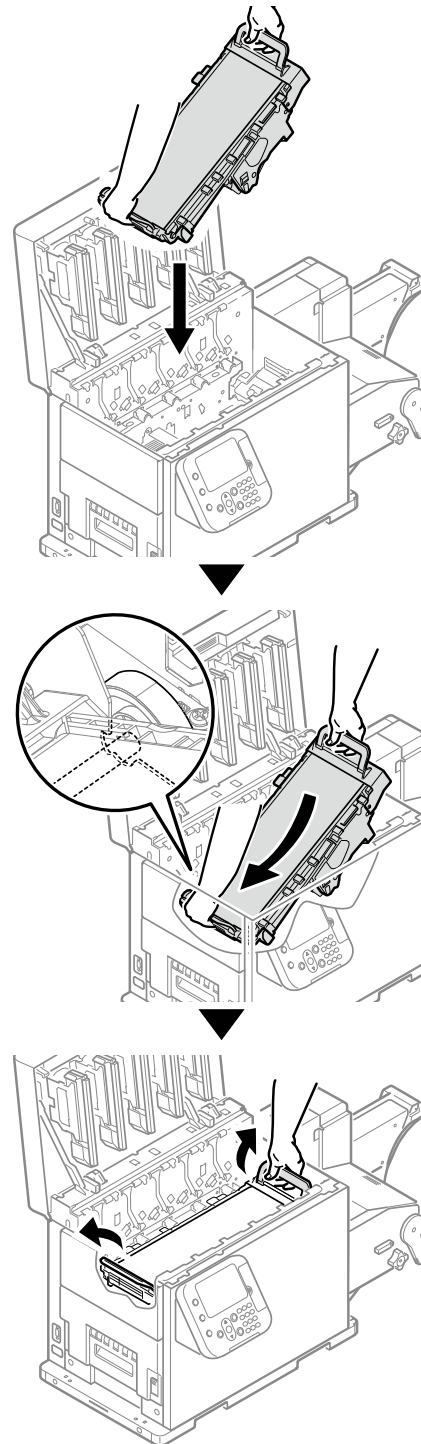


10. When facing the belt unit, hold the handles (blue) on its left and right sides.



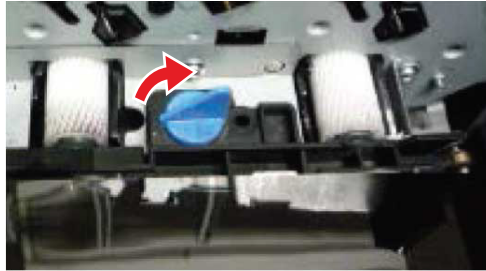


11. Tilt the belt unit and align the arrow labels (red) on the belt unit and printer to position it, and then open the belt unit handles (blue) on the left and right.

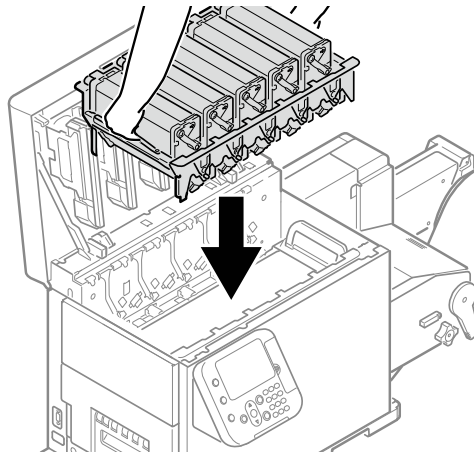


**Caution:** Be careful to not pinch your hands or fingers between the handle and the machine while installing the belt unit.

12. Turn the two belt unit locking keys clockwise to lock it.

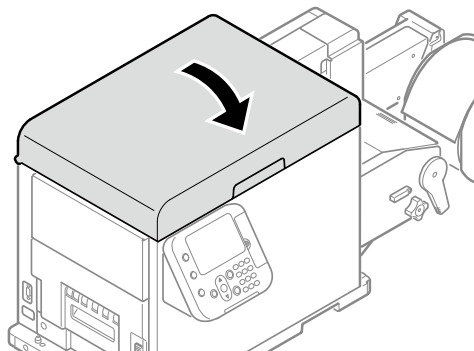


13. Put the print cartridge set back into the printer.



**Caution:** There is a risk of pinching your fingers or hands when repositioning the print cartridge set. Hold the handle parts of the basket for this operation.

14. Close the top cover.



**Caution:** When closing the top cover, there is a risk of pinching your fingers or hands in the top cover or the top cover's support. Press on the top of the top cover to close it.

**Caution:** There is a risk of pinching your fingers or hands if you hold the LED head while closing the top cover. Press on the top of the top cover to close it.

- Please support recycling of the used waste toner boxes.

**Caution:** Do not disassemble the waste toner box, and do not force it open. Doing so may cause toner to spray out, to be inhaled, or to soil your clothing and hands.

When disposing of the used waste toner box in unavoidable circumstances, put it in a plastic bag, and ensure to dispose according to the instructions provided by the local municipality.

Use the box and packing bag from the new waste toner box for when the used waste toner box is recycled.

## Replacing the Fuser and Exit Unit

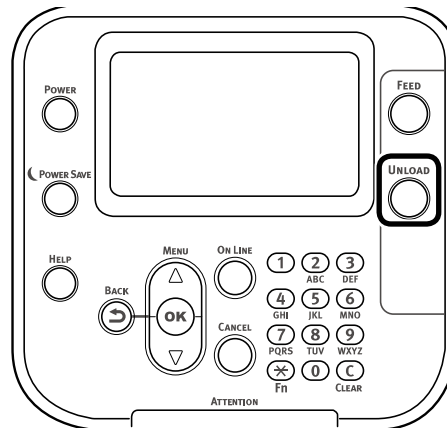


**Warning: There is a risk of burns.**

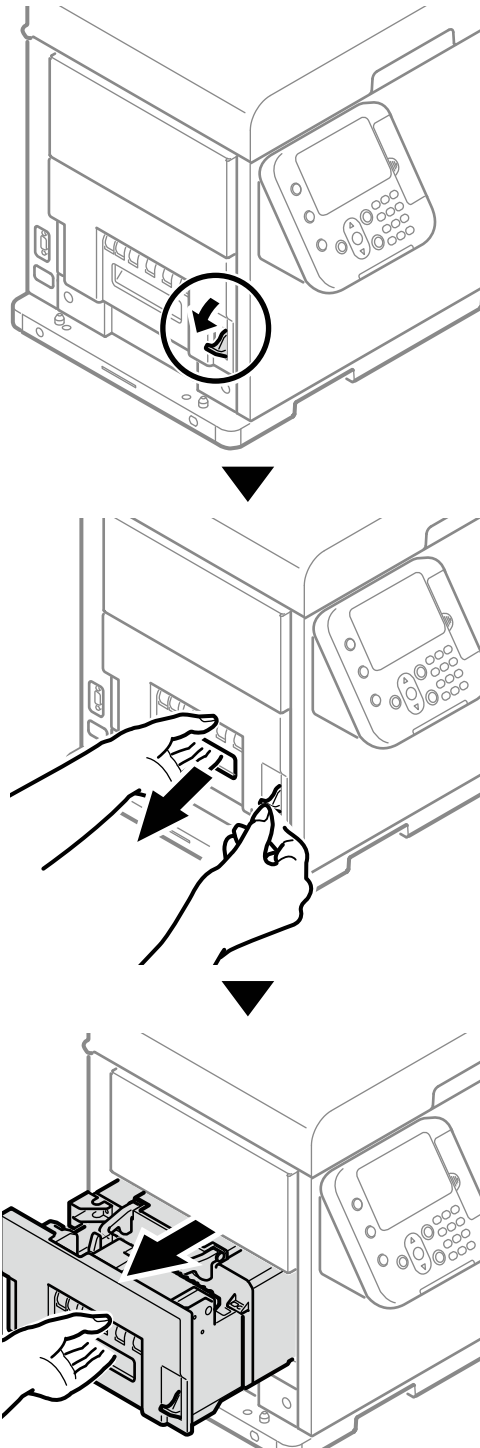
Work carefully because the fuser and exit unit is very hot. Be sure to hold the fuser unit handle when you lift it. When it is hot, wait until it cools down before starting the work.

- If roll paper has been fed through the printer, press the **UNLOAD** button to cut the roll paper.

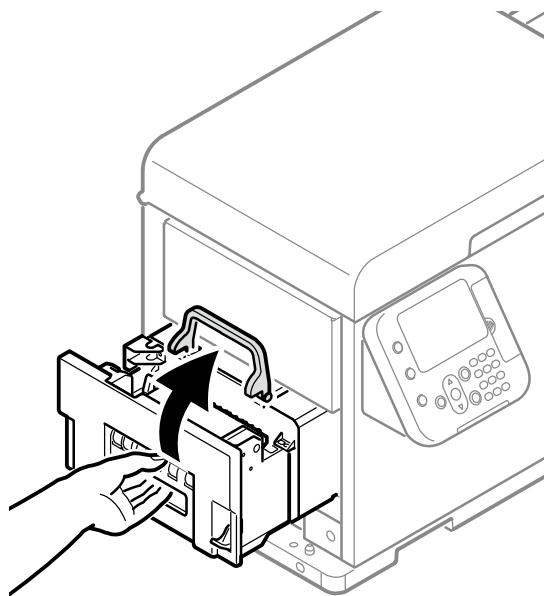
The cut paper will be fed to the supply side and the feeding side.



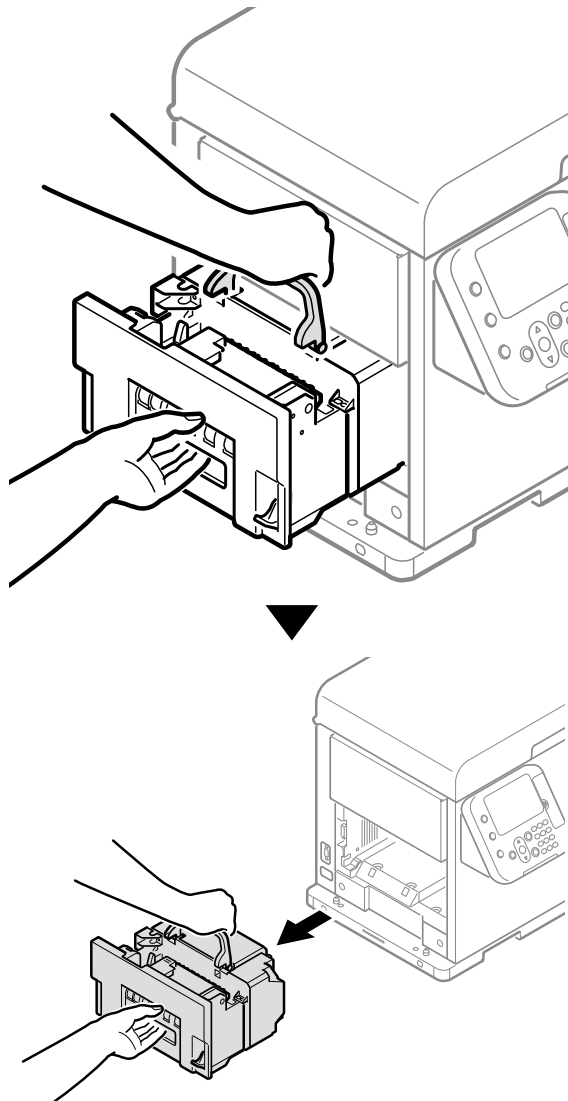
2. While pulling the fuser and exit unit locking lever towards you, pull out the fuser and exit unit.



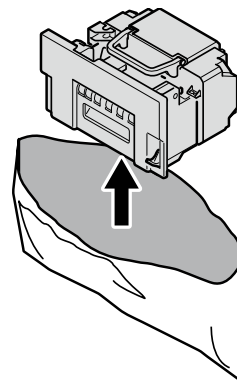
3. While supporting the fuser and exit unit with one hand, lift up the fuser unit handle.



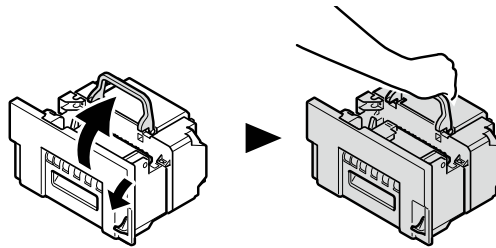
4. Hold the fuser and exit unit with both hands to remove it.



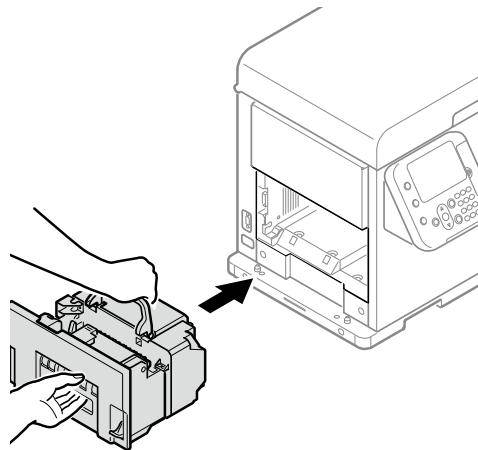
5. Remove the new fuser and exit unit from its packaging.



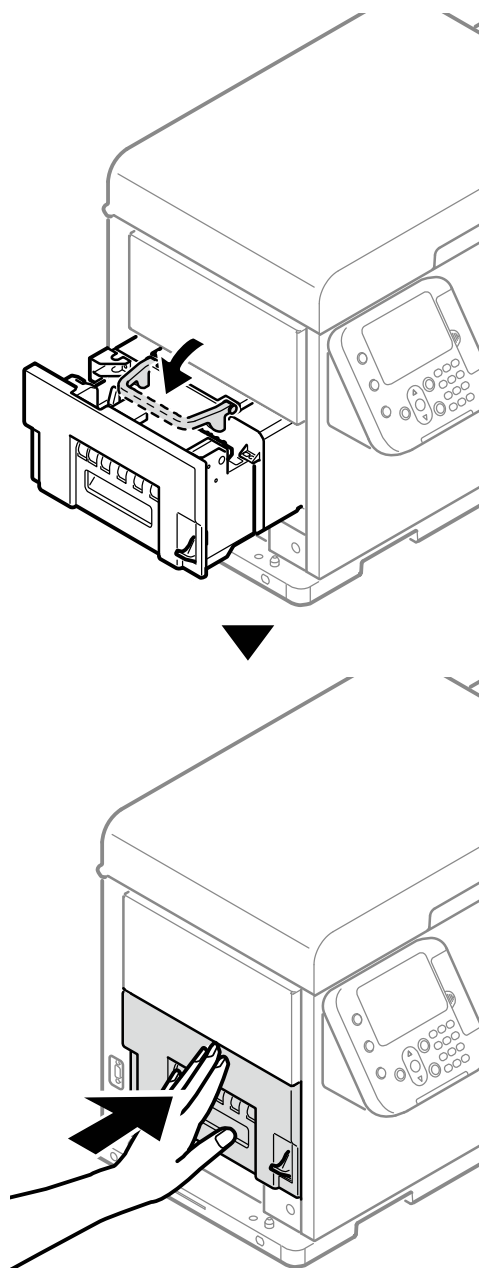
6. Pull the fuser and exit unit locking lever on the new fuser and exit unit towards yourself, and lift the fuser unit handle.



7. Lift the new fuser and exit unit with both hands and put it into the printer.

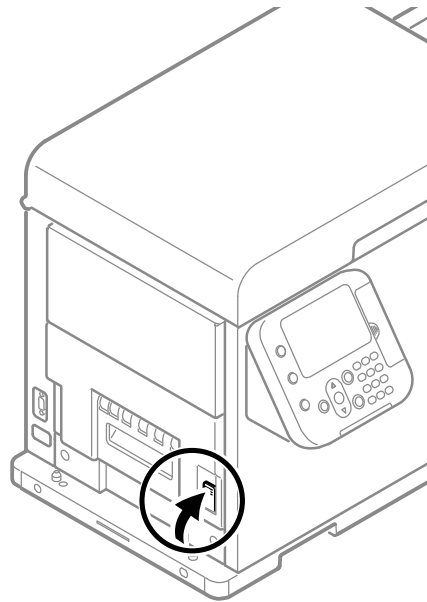


8. Push down the fuser unit handle, and firmly push it inside.





9. Lift up the fuser and exit unit locking lever.



10. Please support recycling of the used fuser and exit units.

**Caution:** Do not disassemble the fuser output unit, and do not force it open.

If you must dispose of the used fuser and exit unit, put it in a plastic bag and be sure to dispose of it according to the local laws and government regulations.

Use the box and packing bag from the new fuser and exit unit for when the used fuser and exit unit are recycled.

## Required Materials for Cleaning

Prepare the following things for cleaning the various parts of the printer.

- Clean, lint-free cloth
- Cleansing solvent/IPA (isopropyl alcohol)
- Water or neutral cleanser
- Screwdriver
- Tweezers
- Cotton swabs

## Cleaning Schedule

Check the condition of the equipment at the start and end of operations, and clean it as needed. Cleaning guidelines are noted below.

		Cleaning schedule	
		Every day	When dirt is noticeable
Unwinder	Surface	No	Yes
	Flange	Yes	Yes
	Side-Guide-8Inch	No	Yes
	Tension Bar	Yes	Yes
	Guide-Side-Roller-F	Yes	Yes
	Paper Guide	Yes	Yes
	Sheet Guide	Yes	Yes
	Roll Paper Guide	Yes	Yes
	F0 Roller Unit	Yes	Yes
	Sensor Cover (Upper)	Yes	Yes
	Sensor Cover (Lower)	Yes	Yes
	F1 Roller Unit	Yes	Yes
	Cutter Unit	Yes	Yes
Printer	Surface	No	Yes
	Paper Guide	Yes	Yes
	Feed Unit	Yes	Yes
	Sensor Cover (Lower)	Yes	Yes
	Sensor Cover (Upper)	Yes	Yes
	Exit Unit	No	Yes
	LED Heads	No	Yes
	Fuser Unit	No	Yes*

\* Clean the feed path (including rollers) and fuser unit when changing the width of the roll paper. Streaks may appear when printing, particularly after changing the paper width from narrow to wide, because of the traces (paper dust etc.) left along the width of the paper.

When you change the width of the roll paper, check the conditions of the fuser unit and feed path and clean them, and then restart printing.

## Cleaning the Unwinder

This section describes how to clean the various parts of the unwinder.

### Cleaning the Surfaces of the Unwinder

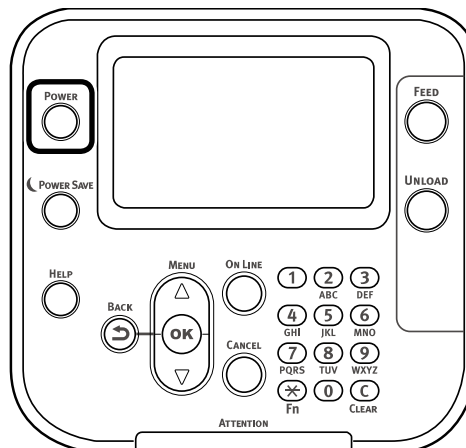
Items to be prepared: Water or neutral washing agent, two sheets of soft, dry cloth

**Note:** Do not use Benzene or thinner as it may damage plastic parts and coating.

**Note:** Only use water or neutral washing agent.

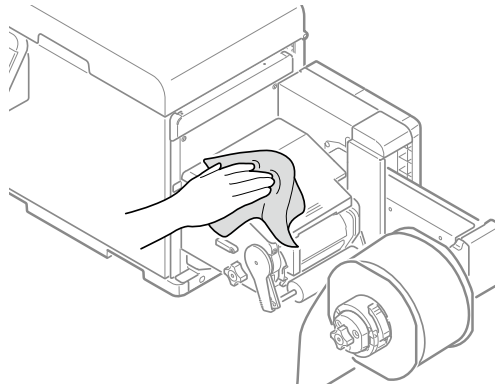
**Note:** It is not necessary to oil the unwinder. Do not oil it.

1. Press and hold the **POWER** button for approximately 1 second to switch off the power supply.



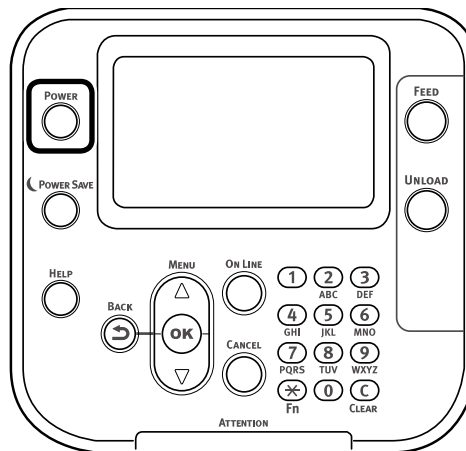
Wait a moment, and the LED lamp on the **POWER** button will turn OFF.

2. Take water or neutral washing agent on one piece of cotton cloth, and wipe with thoroughly squeezed cloth.  
Furthermore, wipe off with another dry cotton cloth.



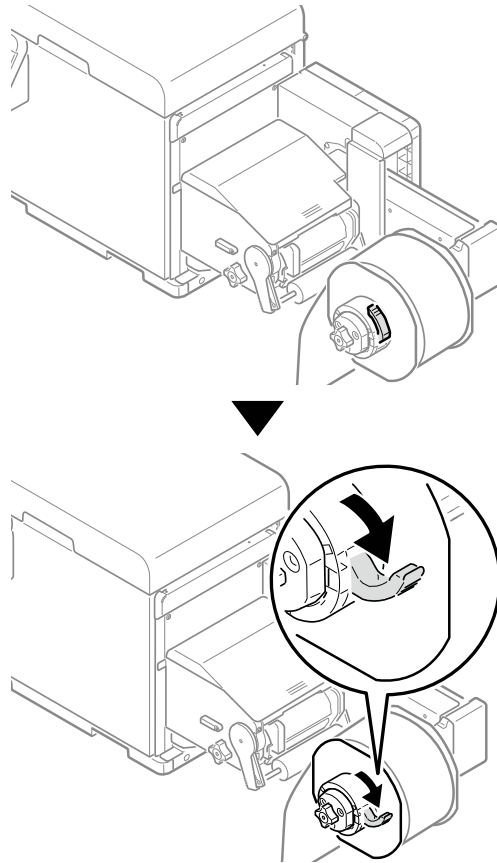
## Cleaning the Inside of the Unwinder

1. Press and hold the **POWER** button for approximately 1 second to switch off the power supply.

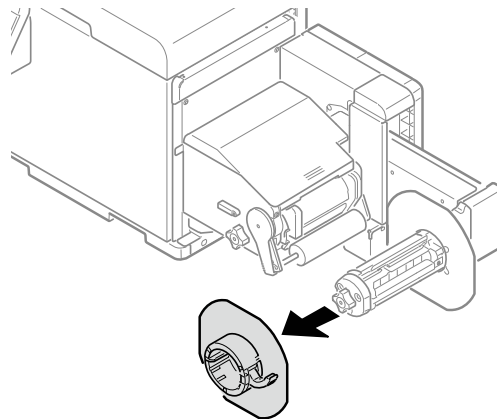


Wait a moment, and the LED lamp on the **POWER** button will turn OFF.

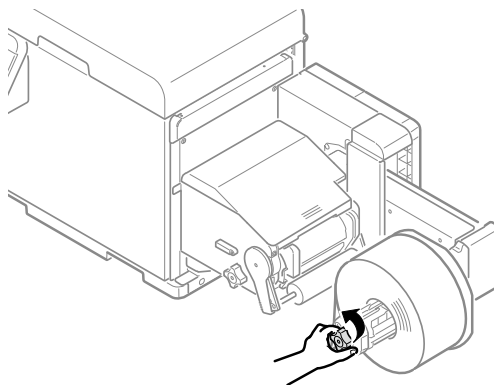
2. Press down the flange locking lever.



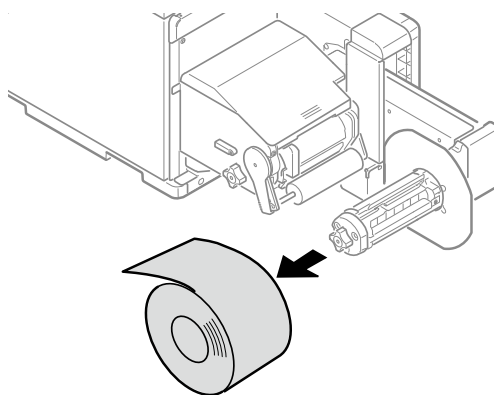
3. Remove the flange.



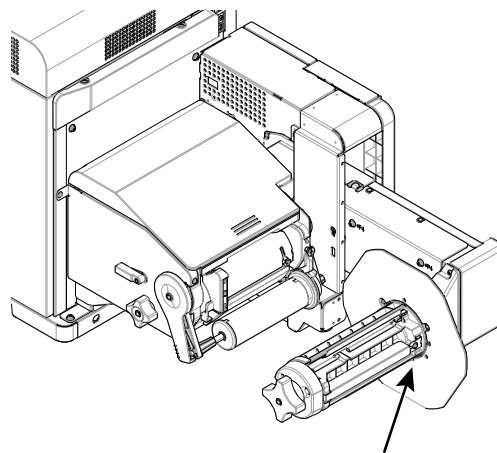
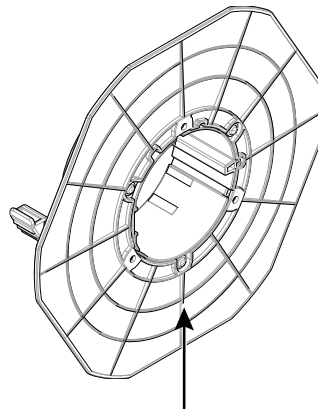
4. Rotate the roll paper holder knob to narrow the axial diameter of the roll paper holder.



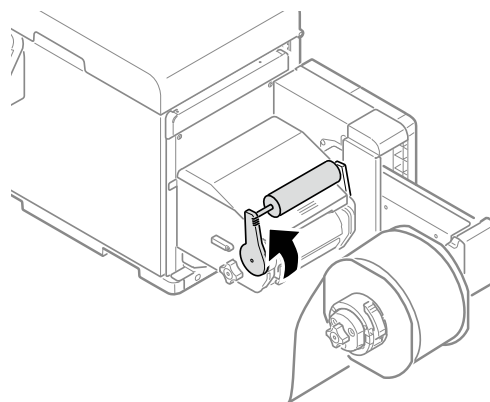
5. Remove the roll paper.



6. Use a clean, lint-free cloth moistened with alcohol to wipe any dirt off the sides of the flange and Side-Guide-8Inch.

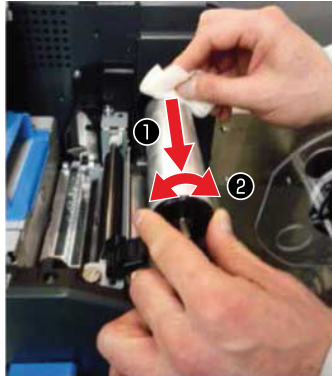


7. Mount the roll paper.
8. Press up on the tension bar open lever until it clicks.



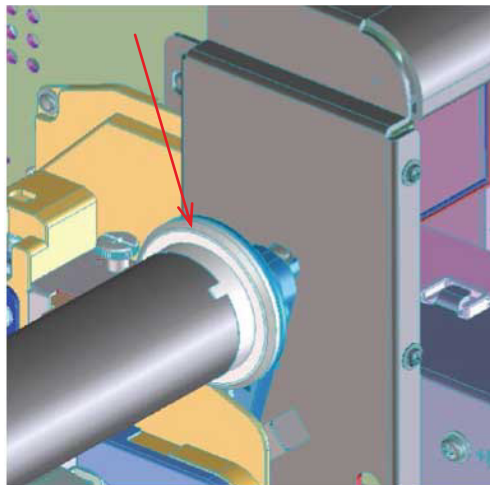


9. While restraining the tension bar with one hand, use a lint-free cloth moistened with alcohol to wipe, in one direction, the dirt off the tension bar (1).



Use the hand that is restraining the tension bar to rotate it (2) as you finish cleaning each side, until the entire tension bar is clean.

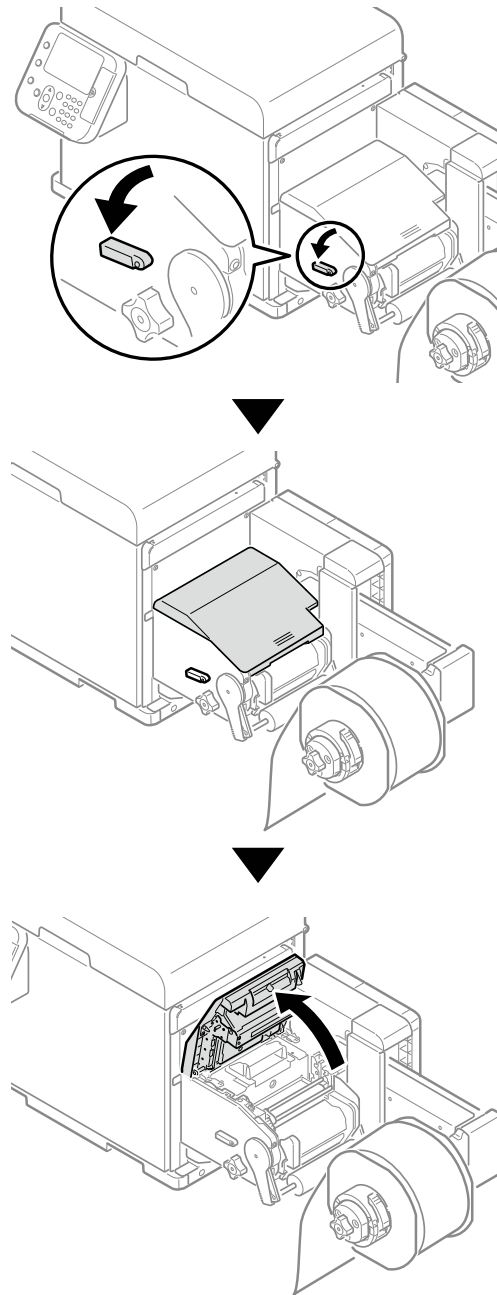
10. While rotating the guide-side-roller-F, use a lint-free cloth moistened with alcohol to wipe any dirt off the sides and corners of the guide-side-roller-F.



11. Press down on the tension bar open lever until it clicks.

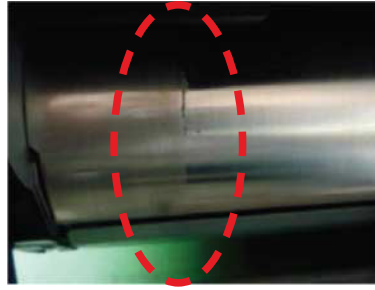


12. Lower the unwinder cover open lever to open the unwinder cover.



**Note:** Securely open the unwinder cover so it does not close while cleaning.

13. If there are scraps of paper or glue from the labels on the sheet guide, use a lint-free cloth moistened with alcohol to wipe it off.



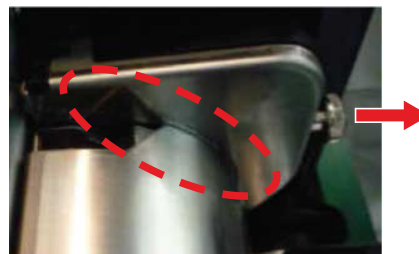
14. Use a lint-free cloth moistened with alcohol to wipe, in one direction, the dirt off the sheet guide.



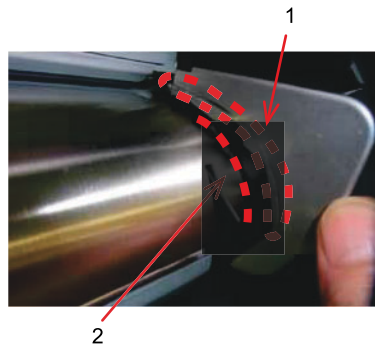
15. Move the roll paper guide to confirm that there is no glue or paper scraps on it. If there are scraps of paper or glue from the labels on it, use a lint-free cloth moistened with alcohol to wipe it off.



16. If there are scraps of paper or glue from labels on the ends of the paper guide, undo the screw and remove the paper guide.



17. Use a lint-free cloth moistened with alcohol to wipe the dirt off the sides of the paper guide (1) and ends of the sheet guide (2).



18. Install the paper guide and secure the screw.



19. Remove the screws, two places, for the F0 roller unit.



20. Remove the F0 roller unit.



21. As you rotate the gears with one hand, use a lint-free cloth moistened with alcohol to clean the top and bottom rollers on the F0 roller unit by wiping in just one direction.

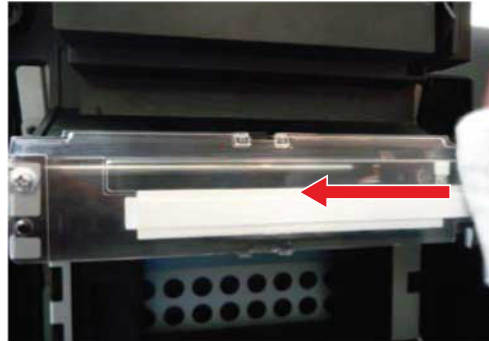


**Note:** Lower the set lever on the rollers to rotate the top and bottom roller at the same time.

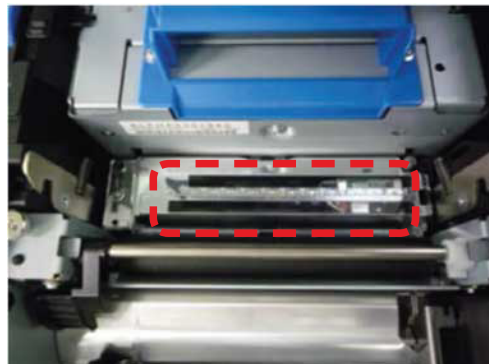
22. Install the F0 roller unit, and fasten the two screws.



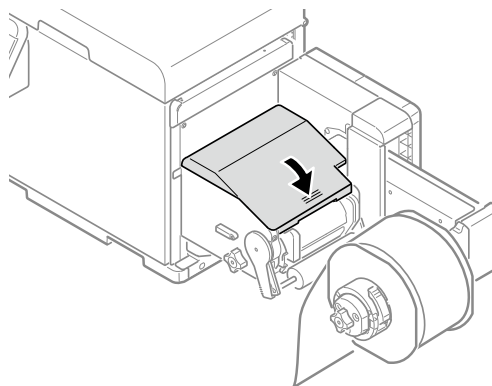
23. Use a lint-free cloth moistened with alcohol to wipe, in one direction, the dirt off the sensor cover (upper).



24. Use a lint-free cloth moistened with alcohol to wipe, in one direction, the dirt off the sensor cover (lower).



25. Close the unwinder cover.



**Caution:** There is a risk of pinching your fingers or hands while closing the unwinder cover. Press on the top of the unwinder cover to close it.

## Cleaning the Printer

This section describes how to clean the various parts of the printer.

### Cleaning the Surfaces of the Printer

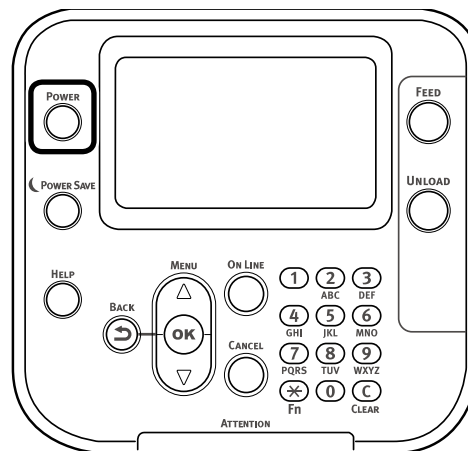
Items to be prepared: Water or neutral washing agent, two sheets of soft, dry cloth

**Note:** Do not use Benzene or thinner as it may damage plastic parts and coating.

**Note:** Only use water or neutral washing agent.

**Note:** It is not necessary to oil the device. Do not oil it.

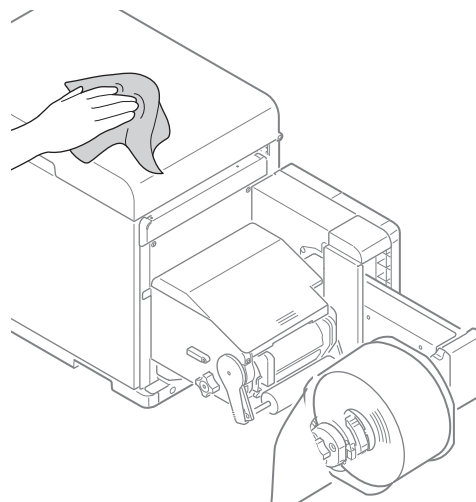
1. Press and hold the **POWER** button for approximately 1 second to switch off the power supply.



Wait a moment, and the LED lamp on the **POWER** button will turn OFF.

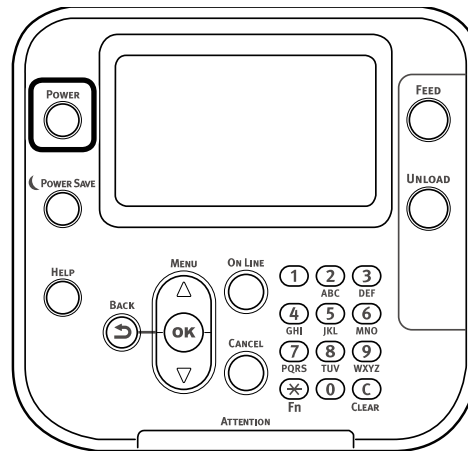
2. Take water or neutral washing agent on one piece of cotton cloth, and wipe with thoroughly squeezed cloth.

Furthermore, wipe off with another dry cotton cloth.



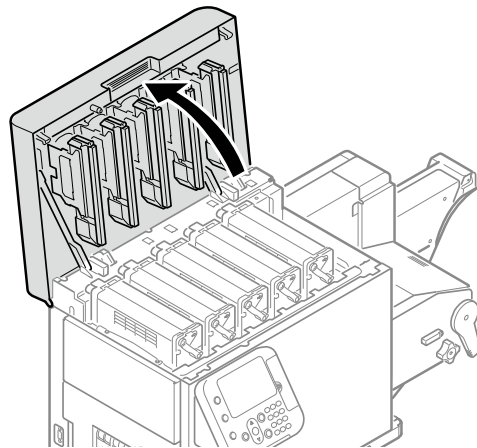
## Cleaning the Inside of the Printer

1. Press and hold the **POWER** button for approximately 1 second to switch off the power supply.

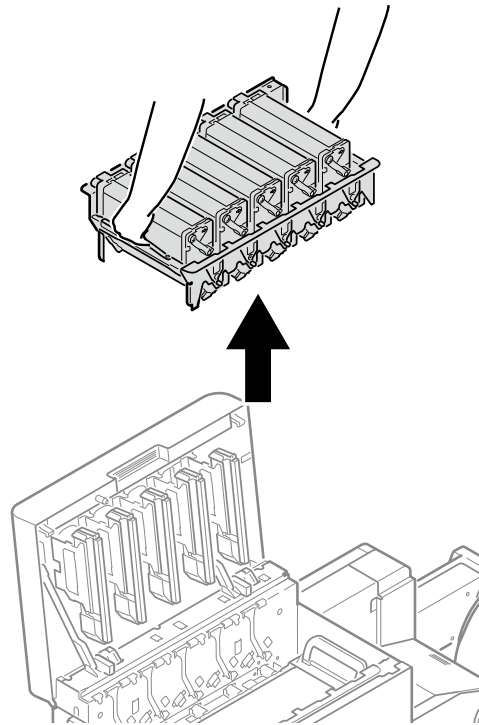


Wait a moment, and the LED lamp on the **POWER** button will turn OFF.

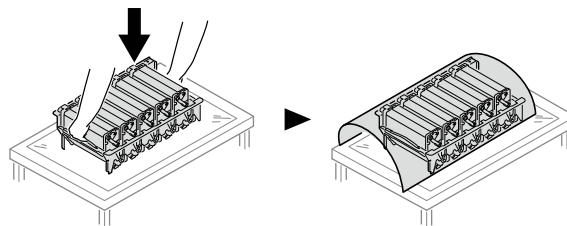
2. Grasp the top cover open lever and open the top cover.



3. Remove the print cartridge set.

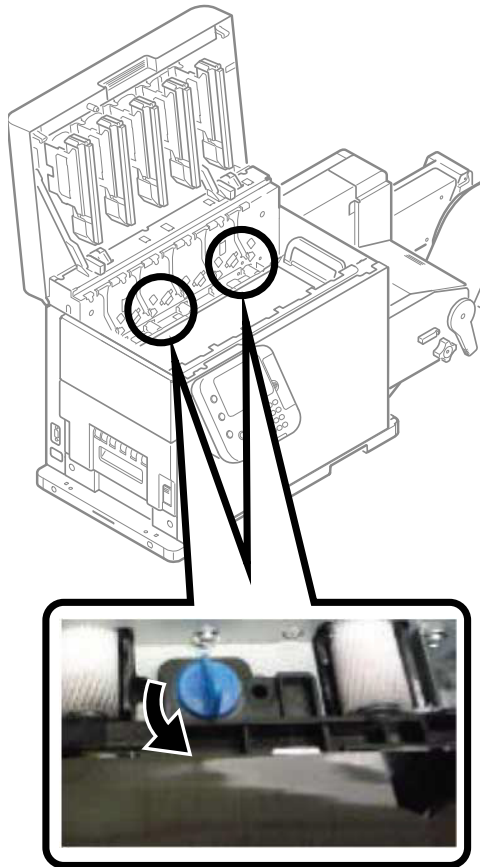


4. Place the removed print cartridge set on a flat surface covered with newspaper or something similar, and cover it with paper so it is not exposed to direct light.

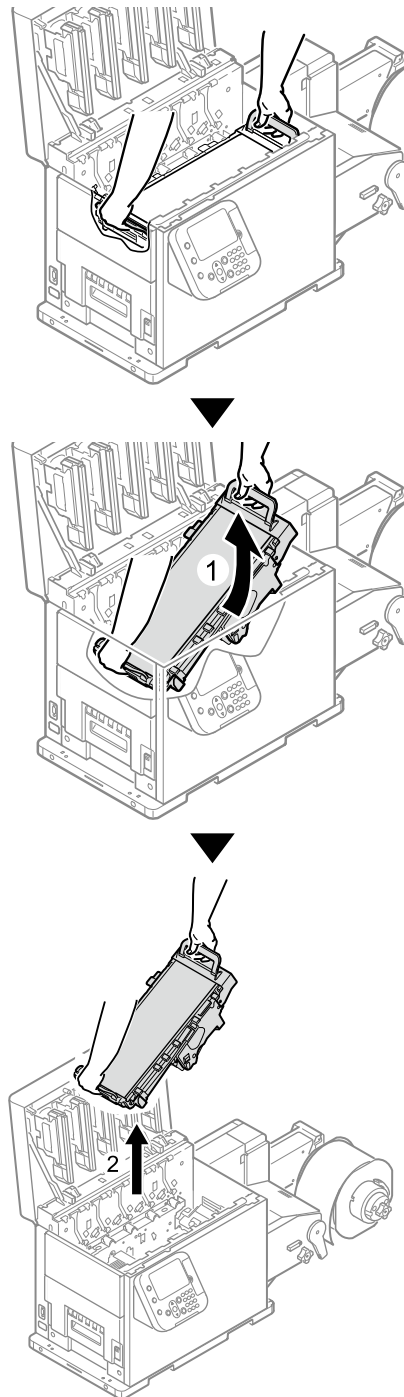




5. Turn the two belt locking keys counterclockwise to release the lock.



6. Hold the belt unit handles (blue) on the left and right, and remove the belt unit at an angle.

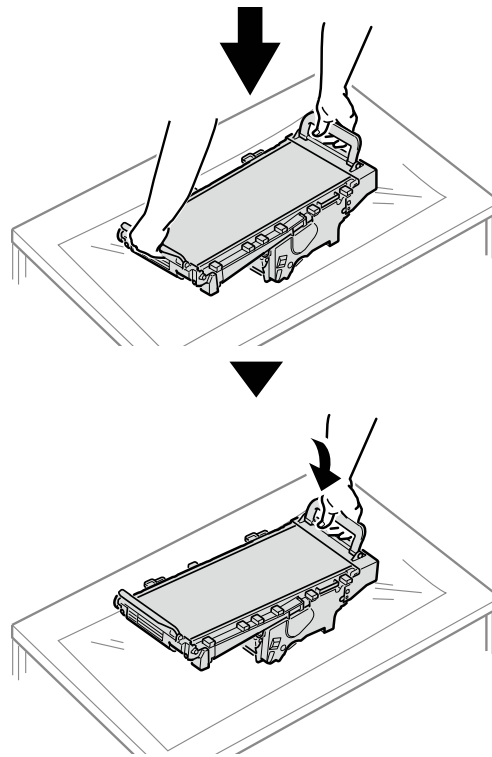


**Caution:** Be careful not to spill waste toner while removing the belt unit.

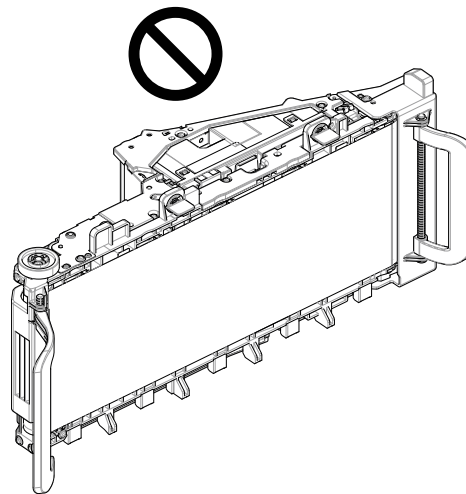
**Caution:** Be careful to not pinch your hands or fingers between the handle and the machine while removing the belt unit.

**Caution:** When removing the belt unit, do not tilt it further than is needed to remove it.

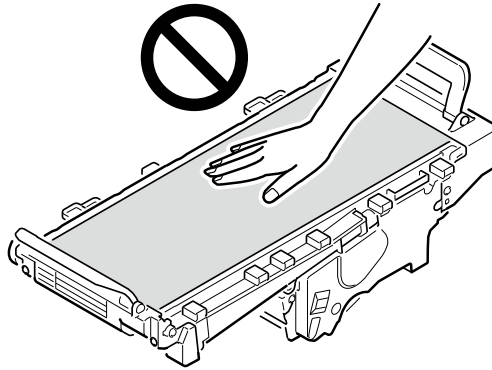
7. Place the belt unit with the right side down on a flat surface covered with paper.



**Caution:** Place the belt unit on a flat surface, as shown in the diagram above. Do not stand it on its side.



**Caution:** Do not touch the belt surface or damage the belt.



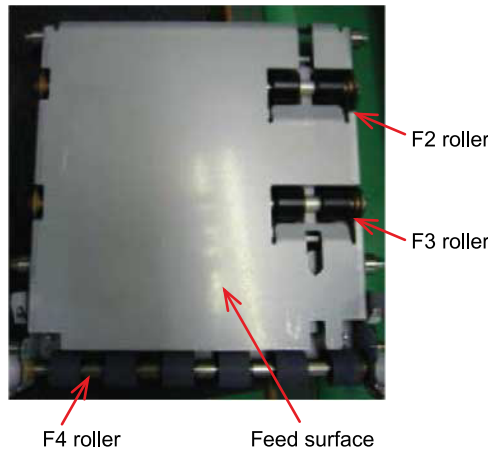
8. Pull up the paper guide release lever.



9. While the paper guide release lever is lifted, slide the paper guide in the direction of the arrow to remove it.



10. Turn the paper guide over.

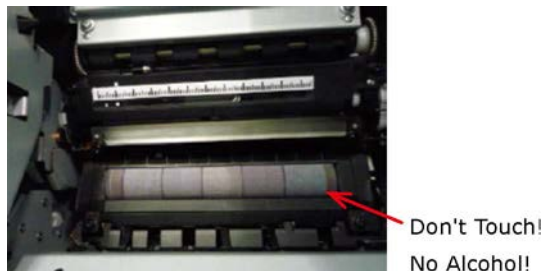


11. Use a lint-free cloth moistened with alcohol to wipe the dirt off the F4 roller, F3 roller, F2 roller, and feed surface of the paper guide.



**Caution:** Do not touch the rollers (sponge areas) on the 2nd transfer roller.

**Caution:** Do not allow cloth or cotton swabs moistened with alcohol to touch the rollers (sponge areas) on the 2nd transfer roller.



**Caution:** Cleaning the rollers (sponge areas) on the 2nd transfer roller is prohibited. Touching or cleaning them could damage the surfaces of the rollers and affect print quality.

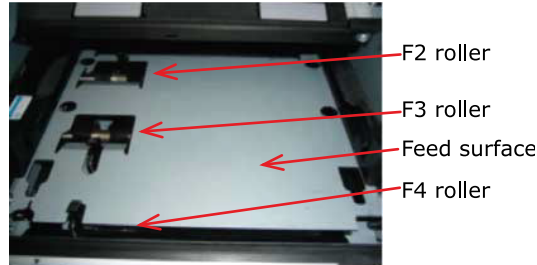
**Caution:** When you clean the rollers on the 2nd transfer roller, perform the 2nd transfer roller cleaning from the menu screen on the control panel (**Print Adjust > Transfer Roller Cleaning**). See "Menus" on page 152.

**Caution:** If the area around the 2nd transfer roller is dirty, clean it carefully without touching the rollers.

12. If the rollers and feed surface of the feed unit on the bottom of the paper guide are dirty, gently wipe them clean with a lint-free cloth or cotton swabs moistened with alcohol.

**Caution:** Do not apply force to the sensor lever.

**Caution:** Rotate the rollers slowly.



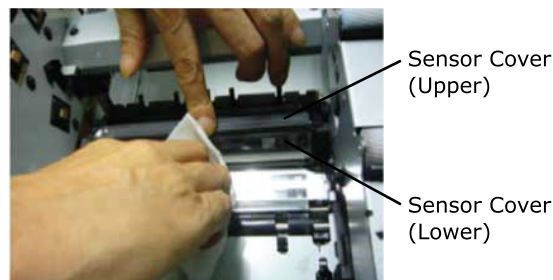
**Note:** While rotating the F4 roller with one hand, hold a lint-free cloth against the F3 roller and F2 roller to wipe off any dirt on them.

**Note:** The F2 roller and the F3 roller are positioned in difficult to see locations. Use a mirror to check the insides before you clean them. Also, use a light to brightly illuminate the relevant areas; after checking their conditions, clean them.

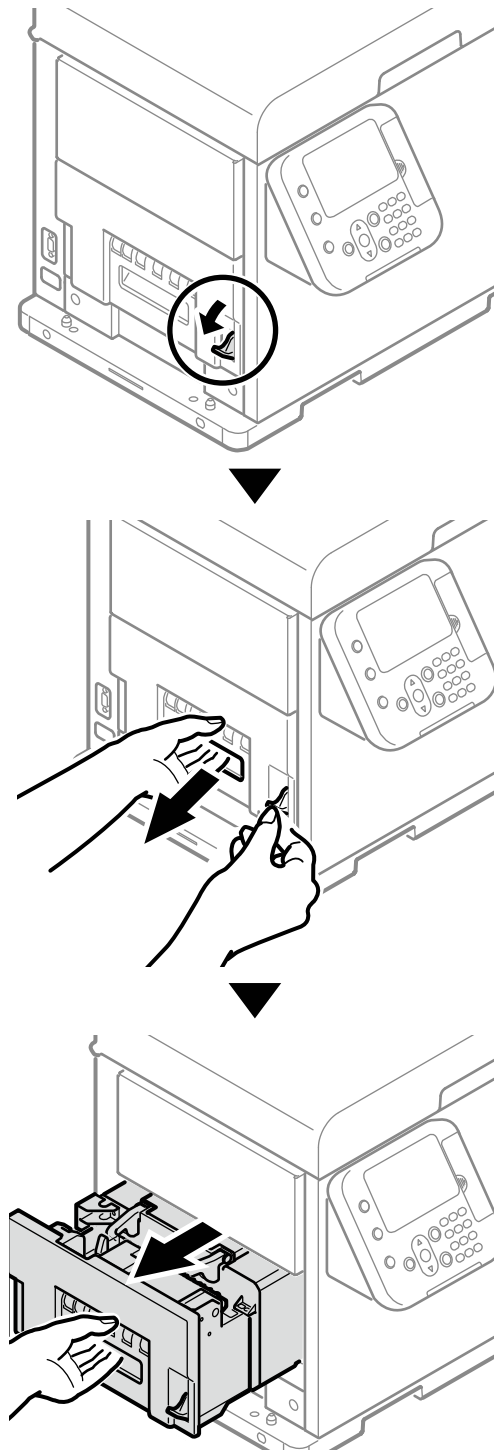
13. Open the sensor cover.



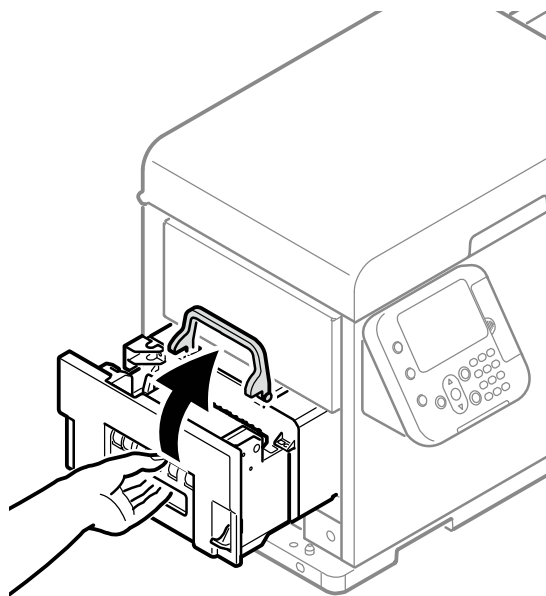
14. Use a lint-free cloth moistened with alcohol to wipe, in one direction, the dirt off the sensor cover (lower and upper).



15. While pulling the fuser and exit unit locking lever towards you, pull out the fuser and exit unit.

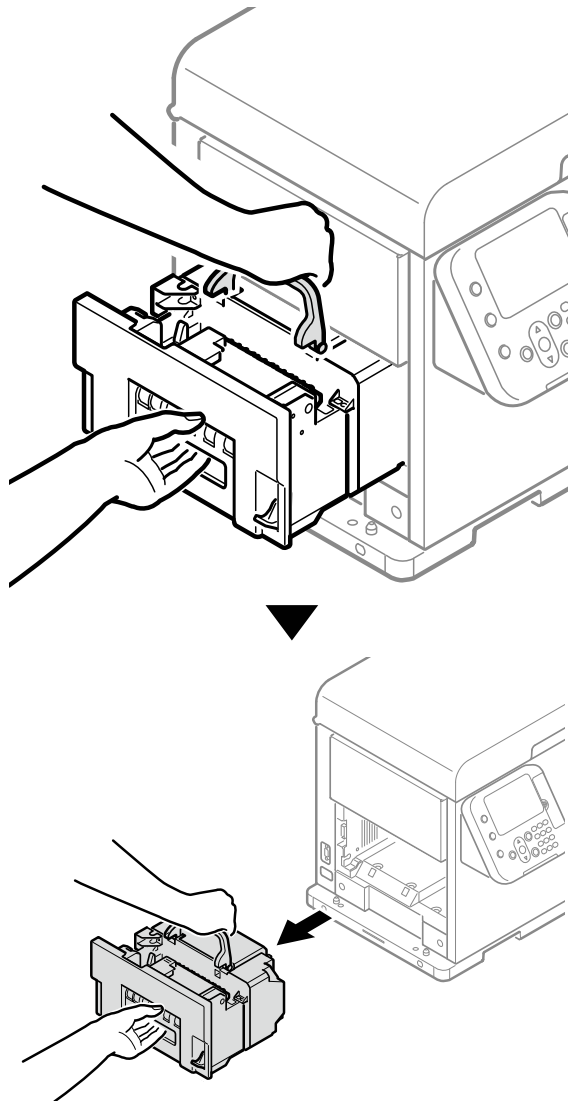


16. While supporting the fuser and exit unit with one hand, lift up the fuser unit handle.



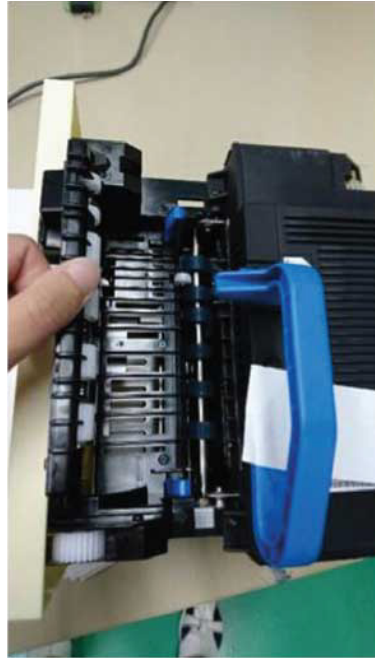


17. Hold the fuser and exit unit with both hands and remove it to a level spot.



**Caution:** Be careful, the fuser unit is very hot immediately after printing.

18. Lower the release lever and open the exit feed cover.

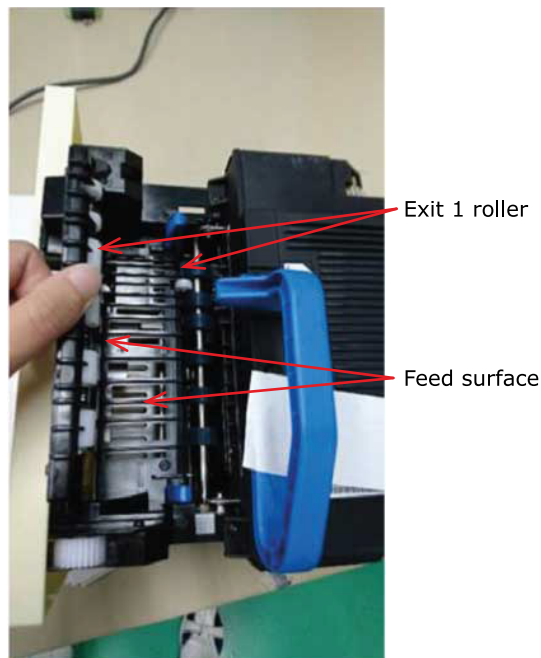


**Note:** If you take your hand off the exit feed cover, the exit feed cover will close.

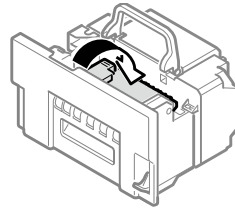
**Note:** Do not remove your hand from the exit feed cover while you are cleaning.

**Note:** The inlet of the fuser unit may be stained by toner during use. However, this does not particularly affect printing.

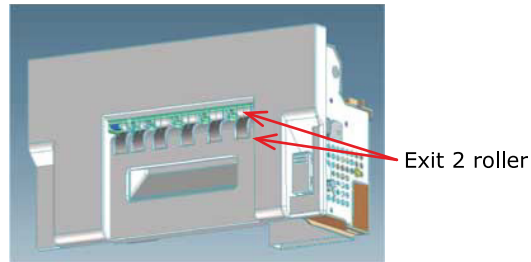
19. Use a lint-free cloth moistened with alcohol to wipe the dirt off exit 1 roller/paper feed surface.



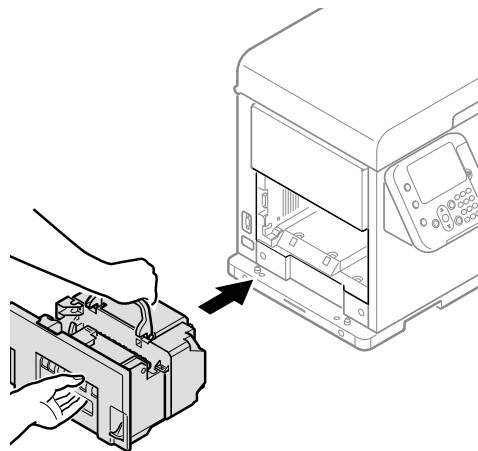
20. Close the exit feed cover.



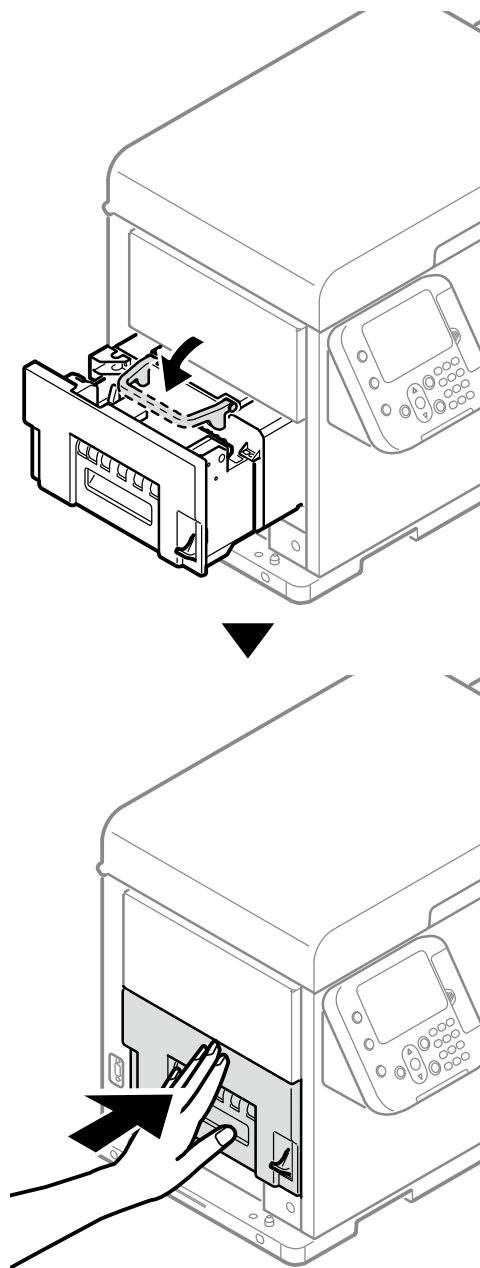
21. Use a lint-free cloth moistened with alcohol to wipe the dirt off exit 2 roller from the outside.



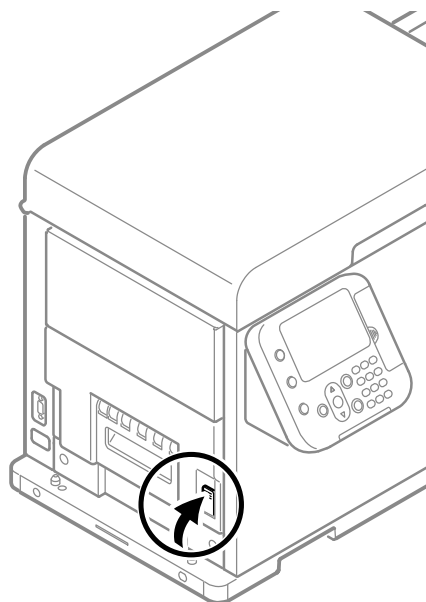
22. Lift the fuser and exit unit with both hands and put it into the printer.



23. Push down the fuser unit handle, and firmly push it inside.



24. Lift up the fuser and exit unit locking lever.



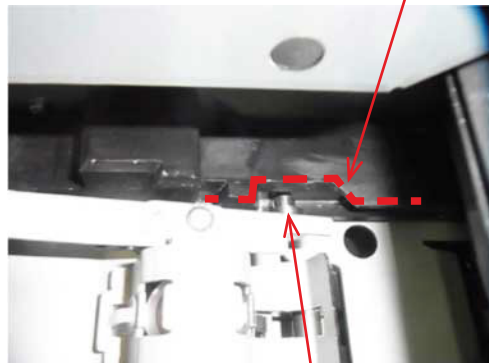
25. Align the positions of the paper guide's edge (1) and the guide notch on the printer.



Guide notch

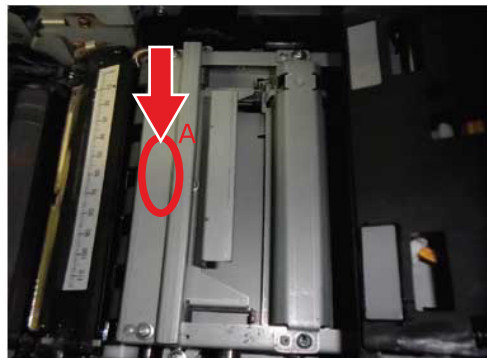


Guide notch

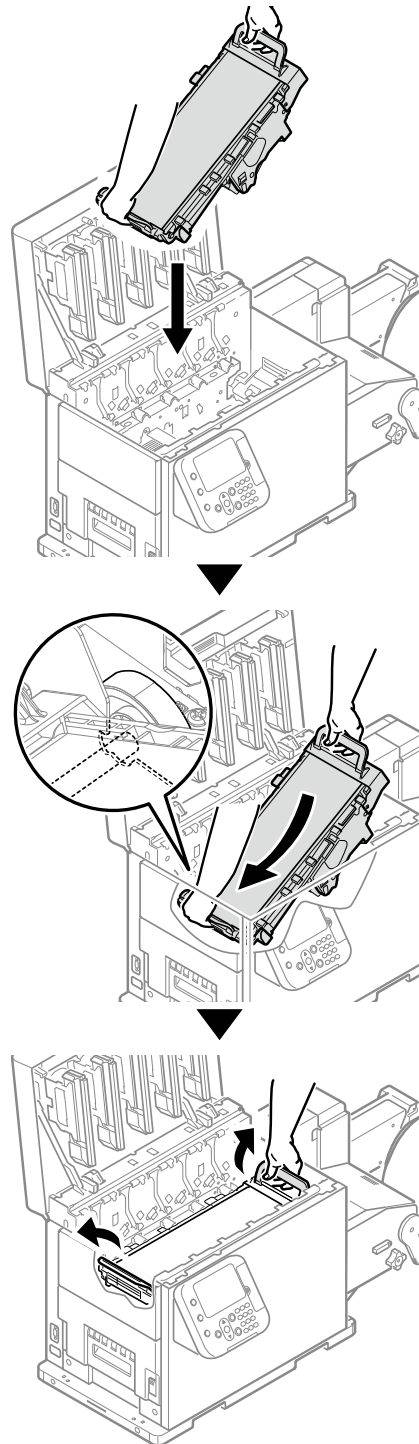


Paper guide's edge (1)

26. Firmly push the paper guide all the way in the direction of the arrow, and then push on the A position to lock it.



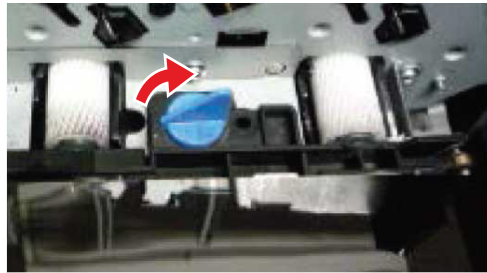
27. Tilt the belt unit and align the arrow labels (red) on the belt unit and printer to position it, and then open the belt unit handles (blue) on the left and right.



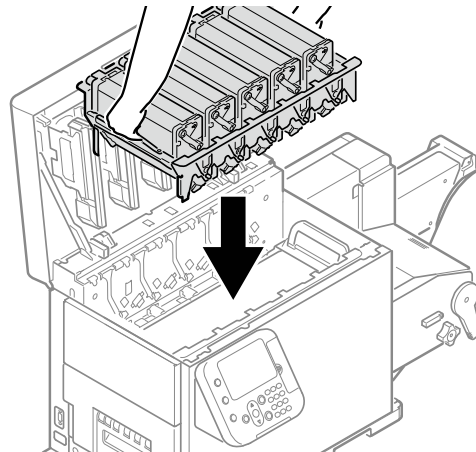
**Caution:** Be careful to not pinch your hands or fingers between the handle and the machine while installing the belt unit.



28. Turn the two belt unit locking keys clockwise to lock it.

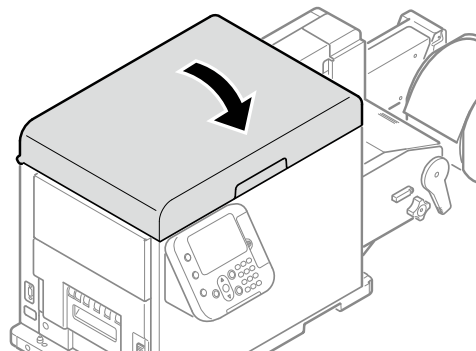


29. Put the print cartridge set back into the printer.



**Caution:** There is a risk of pinching your fingers or hands when repositioning the print cartridge set. Hold the handle parts of the basket for this operation.

30. Close the top cover.



**Caution:** When closing the top cover, there is a risk of pinching your fingers or hands in the top cover or the top cover's support. Press on the top of the top cover to close it.

**Caution:** There is a risk of pinching your fingers or hands if you hold the LED head while closing the top cover. Press on the top of the top cover to close it.

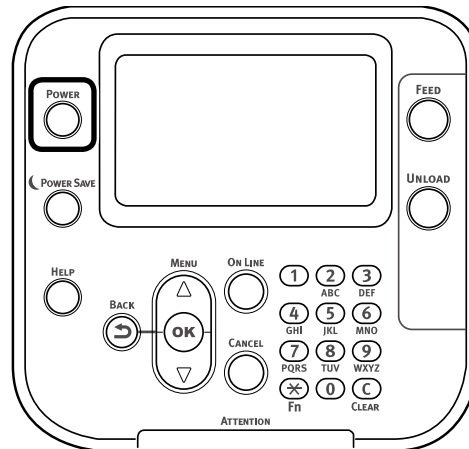
## Cleaning LED Heads

Clean the LED heads if the print results are blurry, white stripes appear, or if text is bleeding.

Clean the LED heads if the printed results show lengthwise white lines, if images are omitted lengthwise, or if there is bleeding around text. If the LED heads are dirty, it could cause a paper jam.

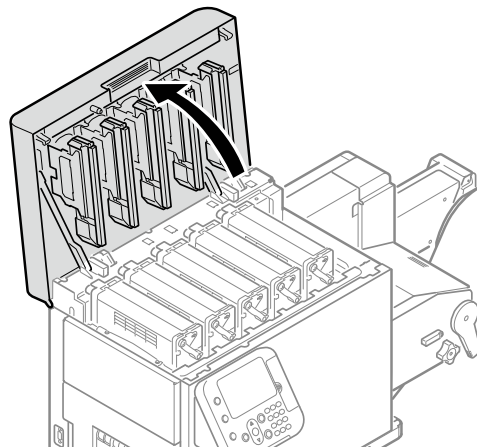
**Caution:** Do not use methyl alcohol or thinner. Doing so could damage the LED heads.

1. Press and hold the **POWER** button for approximately 1 second to switch off the power supply.

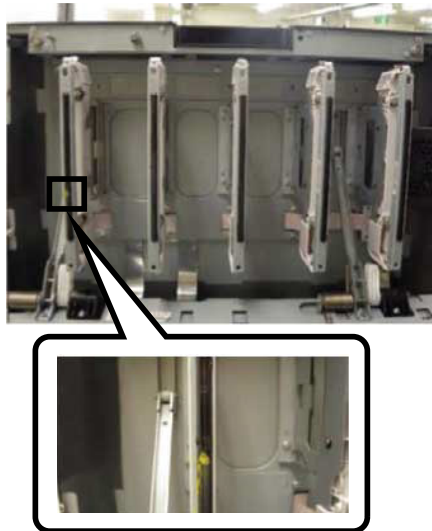


Wait a moment, and the LED lamp on the **POWER** button will turn OFF.

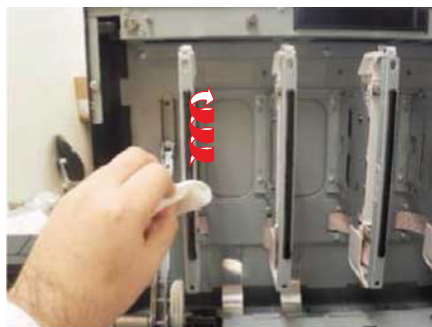
2. Grasp the top cover open lever and open the top cover.



3. Check if the LED heads are dirty because toner or something is on them.



4. Lightly wipe the lenses of the LED heads with a clean, lint-free cloth.

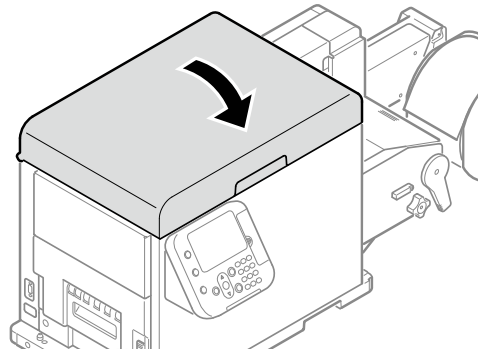


**Caution:** Do not use methyl alcohol or thinner. Doing so could damage the LED heads.

5. Confirm that the dirt has been removed from the LED heads.



- Close the top cover.



**Caution:** When closing the top cover, there is a risk of pinching your fingers or hands in the top cover or the top cover's support. Press on the top of the top cover to close it.

**Caution:** There is a risk of pinching your fingers or hands if you hold the LED head while closing the top cover. Press on the top of the top cover to close it.

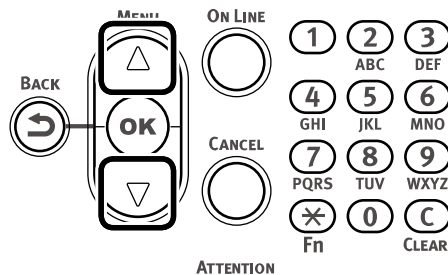
## Cleaning the Fuser Unit

This procedure describes how to clean the inside of the fuser unit.

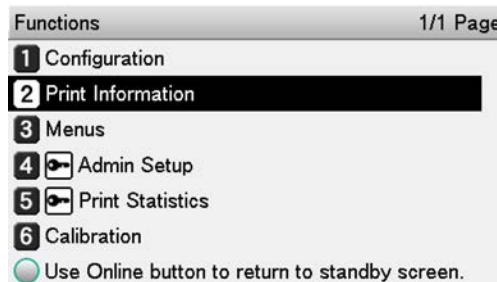
Streaks may appear when printing, particularly after changing the paper width from narrow to wide, because of the traces (paper dust etc.) left along the width of the paper.

When you change the width of the roll paper, check the condition of the fuser unit and clean it, and then restart printing.

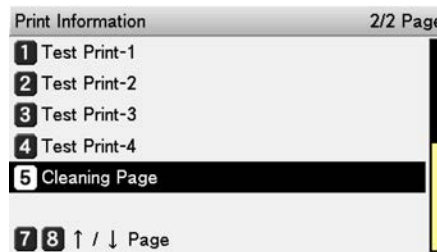
- Set a roll of paper on the unwinder. Use continuous paper that is 5" wide. *See "Loading Media" on page 92.*
- Press the scroll button ▲ or ▼.



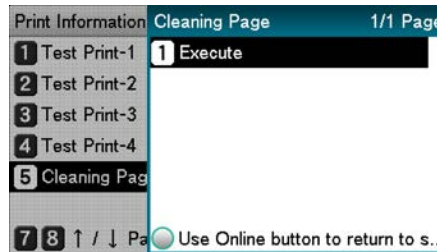
- Select **Print Information**, and press the **OK** button.



- Select **Cleaning Page**, and press the **OK** button.



- Select **Execute**, and press the **OK** button. The printing for cleaning starts.



Dispose of the paper that you print during cleaning.

After cleaning is finished, remove the paper roll, load new paper, and start printing.

## Cleaning the Cutter Unit

Do not dismantle any parts other than those specified in this procedure. Malfunctions could occur.

You should do daily maintenance to keep the machine in good condition as you use it. Check the condition of the machine when you start and stop using it, and clean it if needed.

## Cleaning the Cutter Blades

Glue on the labels gradually accumulates on the cutter's blades while cutting roll paper. This causes problems with cutting and feeding.

Glue is more likely to accumulate on the cutter's blades when using continuous label paper (because the part being cut has glue on it). Clean the cutter's blades periodically to prevent cutting and feeding problems from occurring.

There is no specified frequency for cleaning, it depends on the type of roll paper being used (liner/glue materials). If cutting or feeding problems occur, clean the cutter's blades.

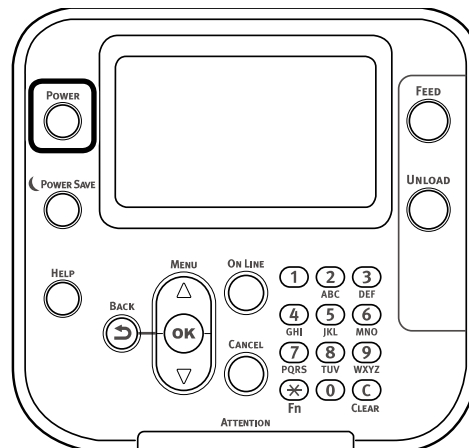
- Always turn off the power to the printer and remove the power cord from the electric outlet before you start work.
- Use the specified tools for cleaning work.
- Do not touch the blades of the cutter with your bare hands. There is a risk of injury.
- Do not use any solvents other than alcohol or isopropyl alcohol.
- After cleaning, wipe the machine dry.

Prepare the following things to clean the cutter's blades.

- Cleaning swab
- Wiping solvent (alcohol-based solvent)
- Flathead screwdriver
- Tweezers
- Soft cloth

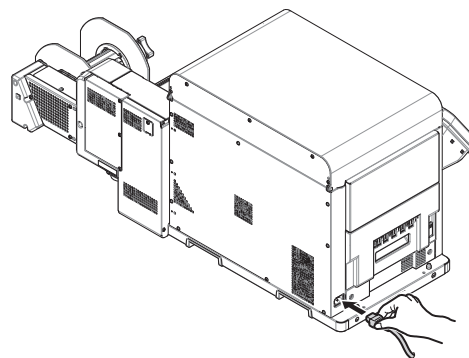
The cleaning swabs and wiping solvent should be the recommended products. Contact Technical Support to purchase the recommended products.

1. Press and hold the **POWER** button for approximately 1 second to switch off the power supply.



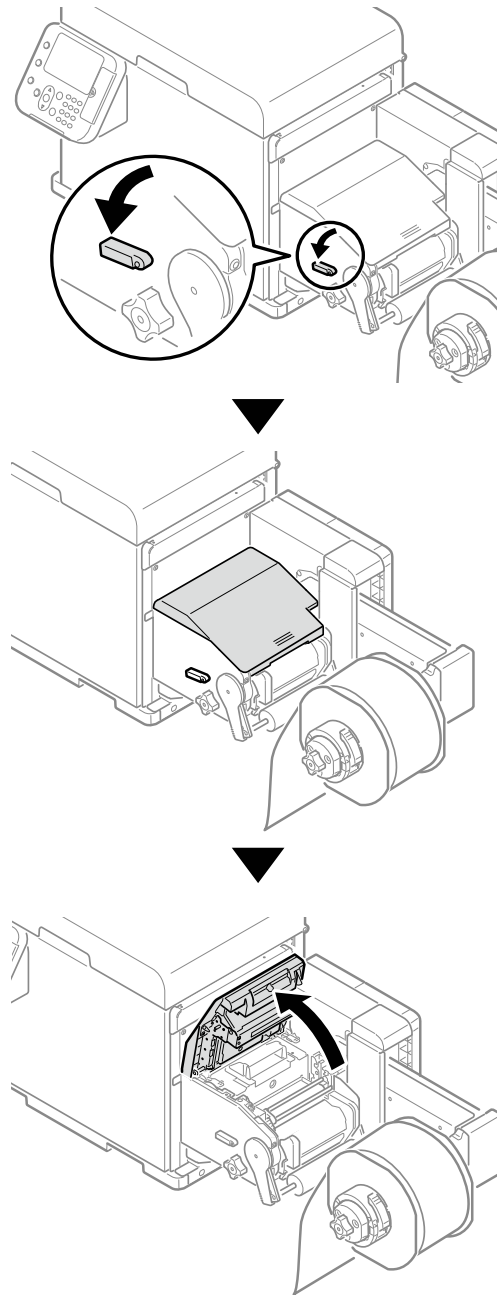
Wait a moment, and the LED lamp on the **POWER** button will turn OFF.

2. Remove the power cord from the printer.



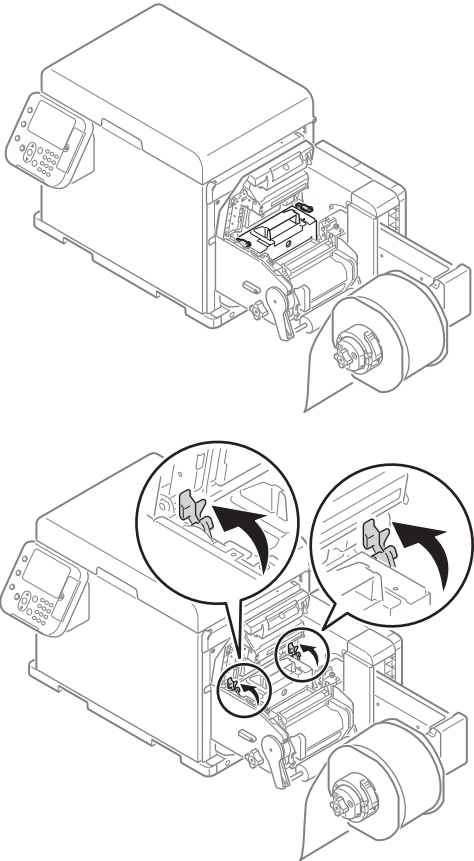
3. Remove the paper that is loaded in the unwinder.

4. Lower the unwinder cover open lever to open the unwinder cover.



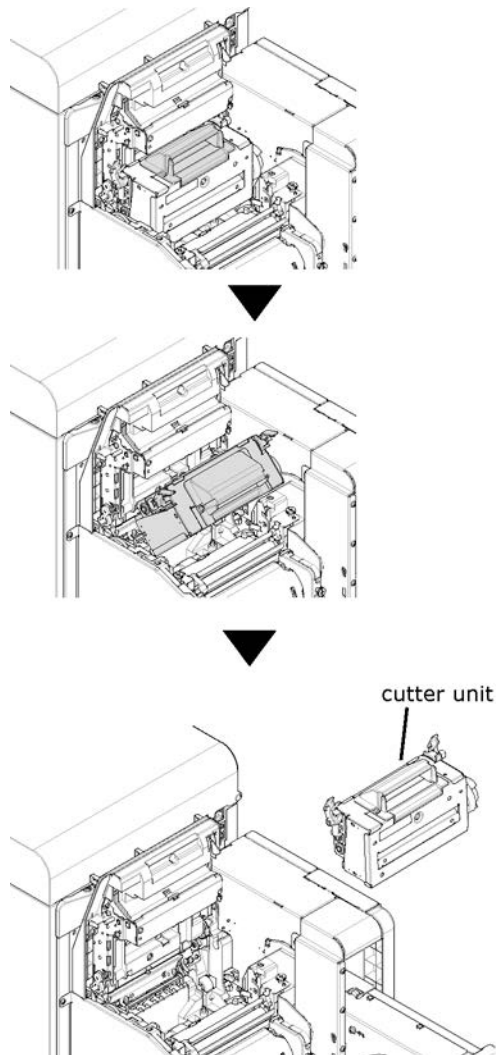
**Note:** Securely open the unwinder cover so it does not close while cleaning.

- 5. Raise the cutter unit lock levers at both ends of the cutter unit.





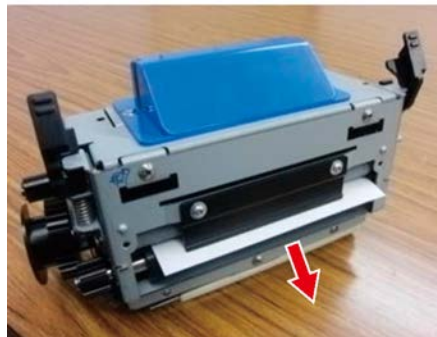
6. Hold the handle of the cutter to remove the cutter unit.



**Note:** Be careful that the cutter unit does not hit the sensor cover (upper) when removing it.

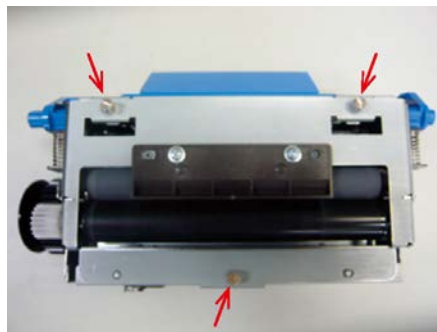
7. Remove any paper left in the cutter unit.

If there is paper left inside the cutter unit after you have removed it, remove that paper.

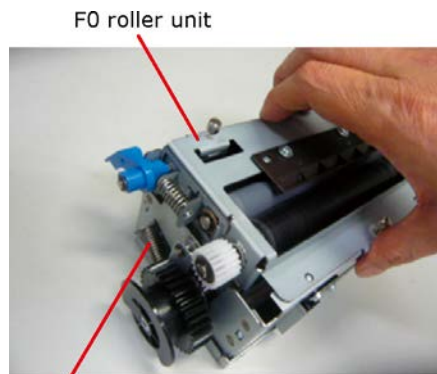


8. Disassemble the cutter unit.

- a. Use a flathead screwdriver to remove the 3 screws.

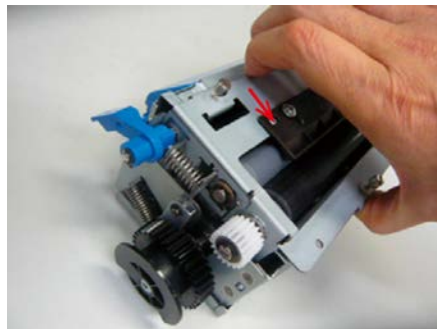


- b. Remove the F1 roller unit.

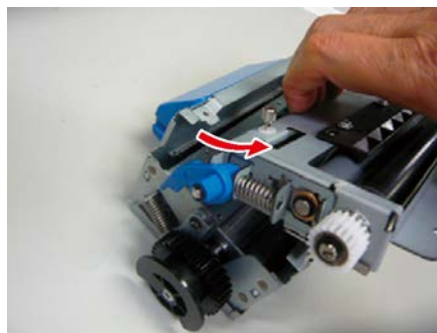


Cutter part

Hold the F0 roller unit.



Slide the F0 roller unit in the direction of the arrow.



Slide the F0 roller unit at an angle (arrow direction) and remove it.

**Caution:** There are blades inside the cutter unit for cutting roll paper. Do not touch the blades of the cutter with your hands. There is a risk of injury.

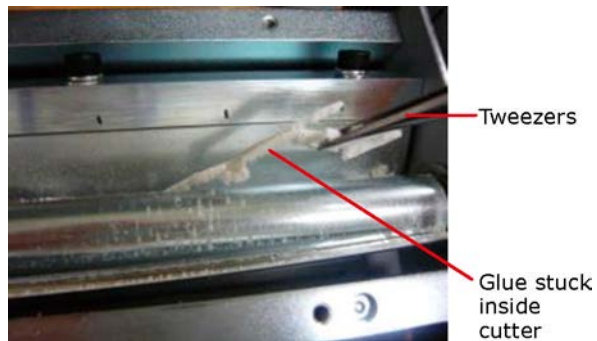
9. Remove any paper left inside the cutter unit.

If there is paper left inside the cutter unit after you have disassembled it, use the tweezers to remove that paper.



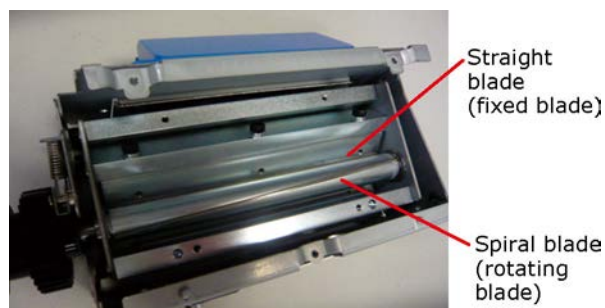
10. Clean the blades of the cutter.

- a. If there is glue stuck to the inside of the cutter unit, use the tweezers to remove as much as possible.



- b. Clean the glue off the cutter blades.

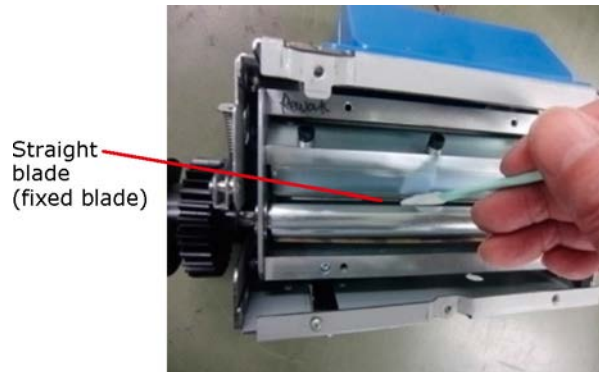
There are two types of cutter blades; the spiral blade (rotating blade) and the straight blade (fixed blade).



**Caution:** There are blades inside the cutter unit for cutting roll paper. Do not touch the blades of the cutter with your hands. There is a risk of injury.

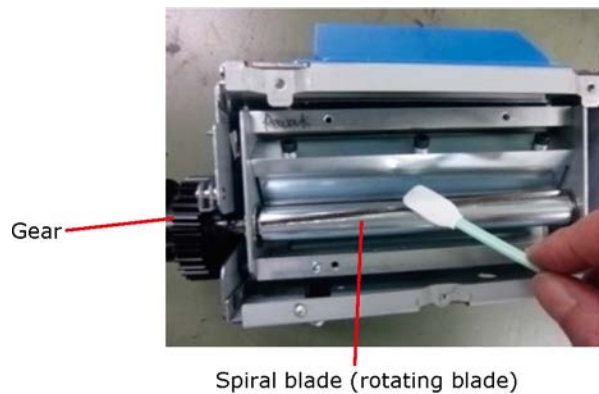
- c. Clean the fixed blade.

Apply alcohol solvent to a cleaning swab and press it against the straight blade (fixed blade) to remove glue stuck to the blade.



- d. Clean the rotating blade.

Apply alcohol solvent to a cleaning swab and press it against the spiral blade (rotating blade) and move it back and forth as you manually turn the gears so the spiral blade faces towards the front so you can remove any glue stuck to the blade.



- e. After cleaning the blades:

Confirm that there is no glue stuck to the blade of the cutter. If there is any glue remaining, clean the blades of the cutter again in the same way.

Confirm that there are no scraps or threads from the cloth left inside the blades of the cutter or the cutter unit. If there are any left, wipe the machine again.

After cleaning, wipe the machine dry.

11. Clean the F1 roller unit.

The F1 roller unit feeds paper through the cutter unit. When cleaning the cutter blades, check the surfaces of the top and bottom rollers of the F1 roller unit and clean them if

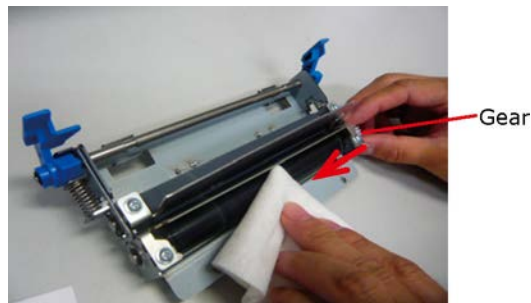
there is any glue, paper dust, or scraps of paper on the surfaces of the top and bottom rollers.

Rotate the gears with one hand and use your other hand to clean with a soft cloth to which alcohol-based solvent has been applied.

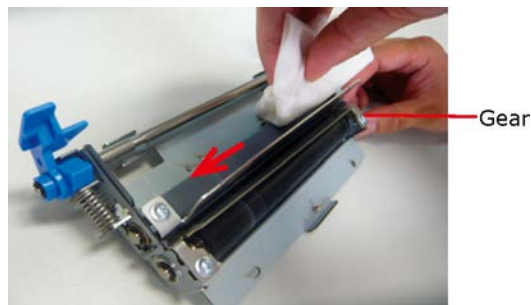
When wiping, wipe in one direction, and never wipe back and forth.

Lower the levers on both sides to rotate both the top and bottom rollers at the same time.

Cleaning the lower roller:



Cleaning the upper roller:

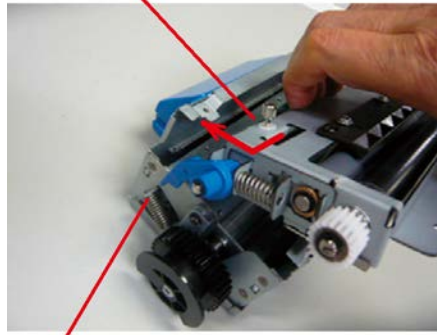


12. Assemble the cleaned cutter unit.

**Caution:** There are blades inside the cutter unit for cutting roll paper. Do not touch the blades of the cutter with your hands. There is a risk of injury.

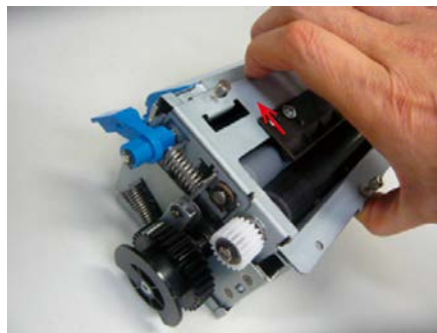
- a. Assemble the F1 roller unit.

F0 roller unit

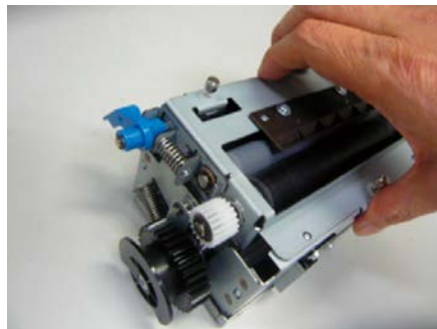


Cutter part

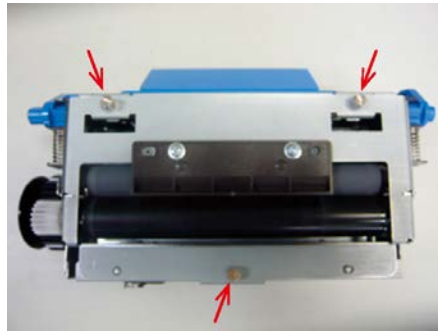
Hold the F0 roller unit and insert it at an angle (arrow direction).



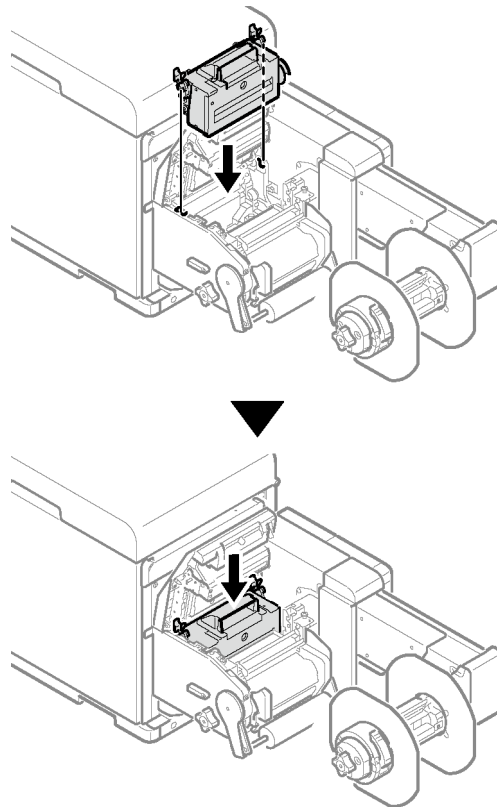
Slide the F0 roller unit in the direction of the arrow.



- b. Use a flathead screwdriver to tighten the 3 screws.

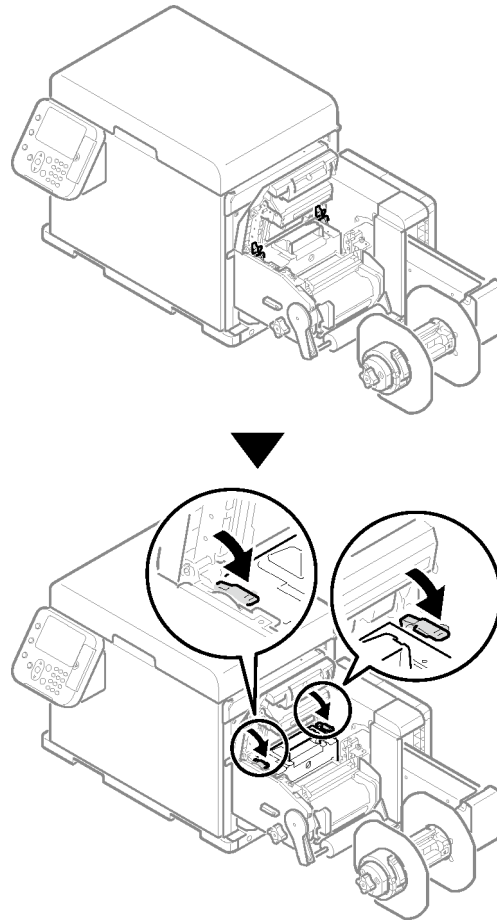


13. Put the cutter unit into the unwinder.
  - a. Align the positions of the cutter unit lock levers on both ends of the cutter unit with the notches in the unwinder.

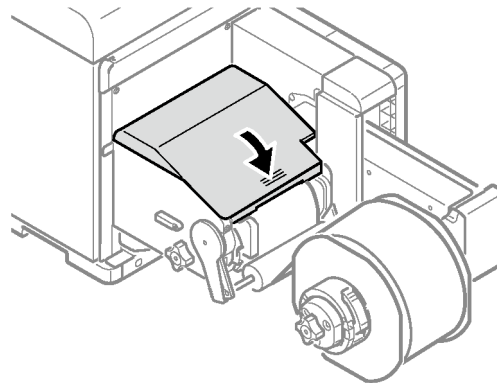




- b. Lower the cutter unit lock levers at both ends of the cutter unit.



- 14. Close the unwinder cover.



# 15

## Web Utility

### Operating Environment

Computer with Microsoft Internet Explorer, Safari, Google Chrome, or Firefox installed

Computer running TCP/IP

**Note:** Check to make sure that the security setting of the web browser is MEDIUM.

### Starting Up

1. Start up a web browser on your PC.
2. In the address bar, enter the following URL then press Enter: `http://<printer IP address>/`.

This displays the printer status screen.

If the IP address includes a one-digit or two-digit number, do not enter leading zeros. Doing so may cause communication problems.

Example: Correct: `http://192.168.0.2/`

Incorrect: `http://192.168.000.002/`

### Logging in as an Administrator

To change printer settings using a web browser, you need to log in as a printer administrator.

1. Click **Administrator Login**.

The screenshot displays the web utility interface for a QuickLabel QL-300s printer. The interface is organized into several sections:

- Header:** "QuickLabel QL-300s" with a "View Information | Links" link.
- Left Sidebar:** A navigation menu with "View Information" selected. Under "View Information", there are links for "Status", "Feeder Count", "Supplies Life", "Network", and "System". An "Administrator Login" button is located at the bottom of this sidebar.
- Main Content Area:**
  - Status:** A large purple box with the text "Ready To Print" and a "Refresh" button.
  - Print Cartridge Remaining:** A section showing the remaining percentage for Cyan (90%), Magenta (90%), Yellow (90%), Black (90%), and White (80%) cartridges.
  - Printer Information:** A table listing various printer details:

Field	Value
Printer Name	QuickLabelQL-300s-91F5F9
IPv4 Address	172.16.2.236
IPv6 Address	fe80:0000:0000:0000:0225:36ff:fe91:f5f9 <small>Link-Local Address</small>
	0000:0000:0000:0000:0000:0000:0000:0000 <small>Global Address</small>
MAC Address	00:25:36:91:F5:F9
Printer Location	
Serial Number	BETA200003
Asset Number	
Contact Name	- Administrator
HDD	Installed
RAM	2048MB
  - Print Service:** A table showing the status of various services:

Service	Enabled
LPR	<input checked="" type="checkbox"/>
Port9100	<input checked="" type="checkbox"/>
FTP	<input type="checkbox"/>
IPP	<input checked="" type="checkbox"/>
  - Setting Service:** A table showing the status of various settings:

Service	Enabled
SNMP	<input checked="" type="checkbox"/>
WEB	<input checked="" type="checkbox"/>
Telnet	<input type="checkbox"/>
  - Version Information:** A table listing software versions:

Version	Value
Firmware Version	AA5.20_0_4
CU Version	99.38
PU Version	00.06.66
Network FW Version	00.14
Web Browser Version	00.22

- For **Username** enter "root", for **Password** enter the current password, and then click **OK**. The password is the same as the control panel "Administrator Password". The factory default setting of the administrator password is 999999.
- Specify the configuration information that can be checked on the network, and then click **OK** or **SKIP**.

**Note:** You can skip configuring settings by clicking **SKIP**.

**Note:** Selecting the **Do not show this page again** checkbox, and then clicking **OK** or **SKIP** will cause this page not to be displayed any more.

- This will display the screen below.

## Item List

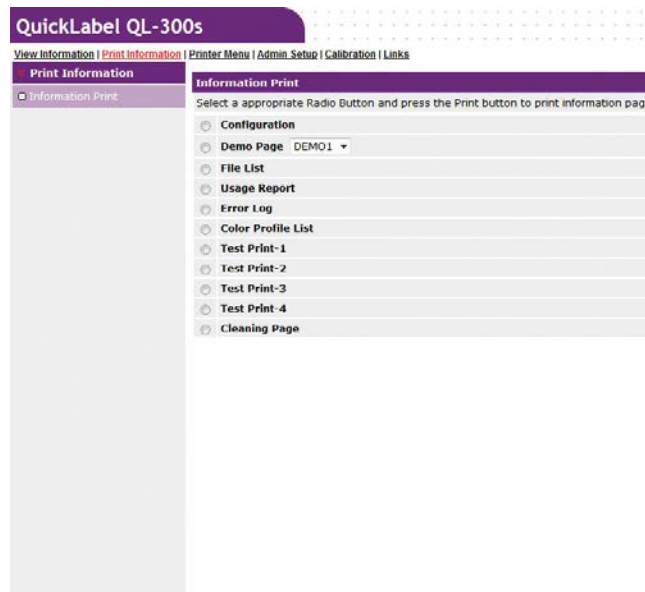
Appears for a person logged in as a printer administrator.

### View Information

The screenshot displays the 'View Information' page for a QuickLabel QL-300s printer. The interface includes a navigation menu on the left with options like Status, Feeder Count, Supplies Life, Usage Report, Network, and System. The main content area shows a 'Ready To Print' status, a 'Refresh' button, and a 'Status Window' button. On the right, there are 'Print Cartridge Remaining' indicators for Cyan, Magenta, Yellow, Black, and White, each with a 90% level. Below these are sections for 'Printer Information' (including Printer Name, IP addresses, MAC Address, and Serial Number), 'Printer Service' (LPR, Port9100, FTP, IPP), and 'Setting Service' (SNMP, WEB, Telnet). A 'Version Information' section at the bottom lists Firmware, CUJ, PU, Network FW, and Web Browser versions.

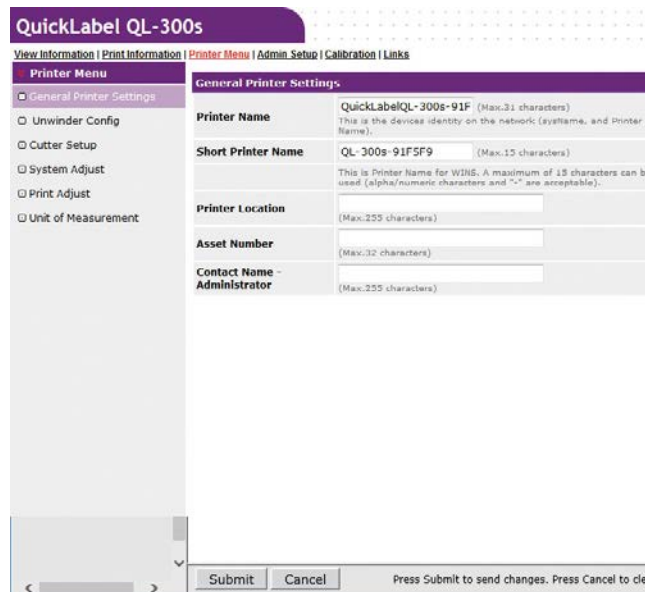
Item	Description
Status	Shows the current printer status. All warnings and errors generated by the printer are shown as “problem information”. You can also check the operational status of each network service, a configuration list, and the IP address assigned to the printer.
Tray Count	Shows the print count.
Supplies Life	Shows the remaining life of wear items.
Usage Report	Shows usage reports.
Network	Can be used to check general information, TCP/IP status, maintenance information, and other network-related setup information.
System	Shows versions, memory capacity, flash memory capacity, and system related information.

## Print Information



Item	Description
Information Print	Can be used to configure print and check information about the network, the font list, and other printer settings.

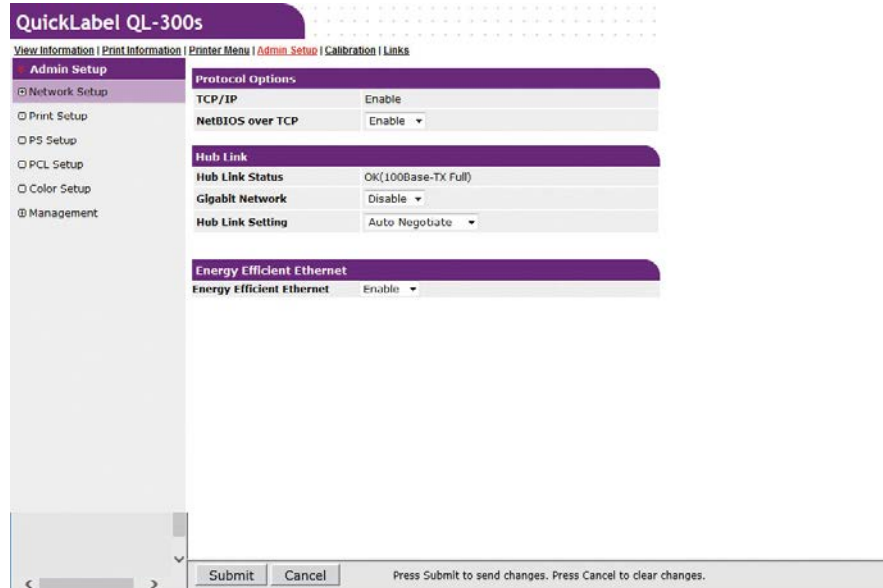
## Printer Menu



Item	Description
General Printer Settings	Can be used to configure the printer name, asset number, installation location, and other printer settings.

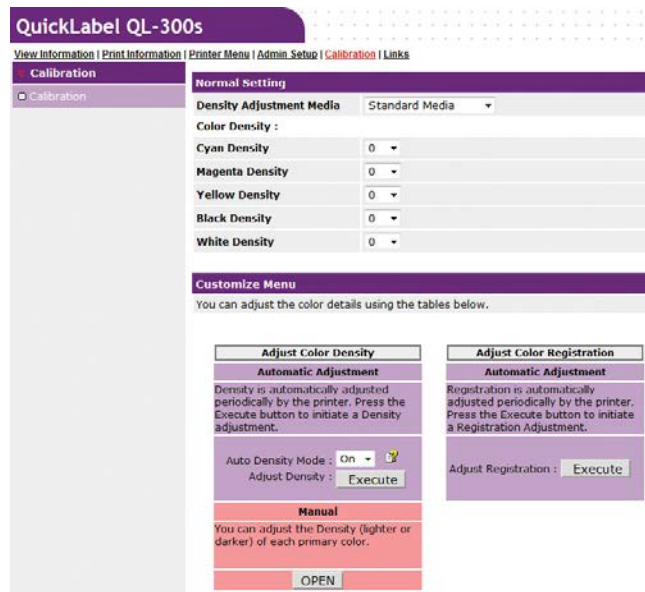
Item	Description
Unwinder Config	You can do settings related to the unwinder and the paper loaded in the unwinder.
Cutter Setup	You can set the cutter operations and the cutting interval. Appears when the unwinder is mounted.
System Adjust	Can be used to configure the power save time, and for clearing warnings, timeout printing, and other printer operations.
Print Adjust	Can be used to configure print position adjustment, print quality, and to adjust other settings.
Unit of Measurement	You can set the units that are displayed.

## Admin Setup



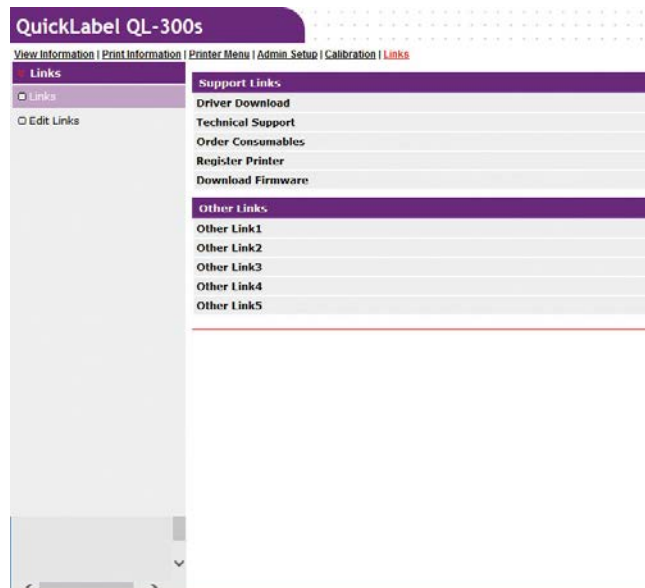
Item	Description
Network Setup	Can be used to configure TCP/IP and other protocol settings.
Print Setup	Can be used to configure toner saving and other printer settings.
PCL Setup	Can be used to configure PCL font and other PCL settings.
Color Setup	Can be used to configure PostScript settings for the CMYK data conversion process and other color settings.
Management	Can be used to configure the power setup, job cancel setup, and other printer settings.

## Calibration



Item	Description
Normal Setting	Adjusts the density of each color and other print quality settings.
Customize Menu	Used to perform density and registration adjustment.

## Links



Item	Description
Links	Displays links configured by the administrator and links configured by the manufacturer.

Item	Description
Edit Links	Allows administrator to set any URL. Up to five support links and five other links can be registered. Be sure to include http:// when entering the URL.

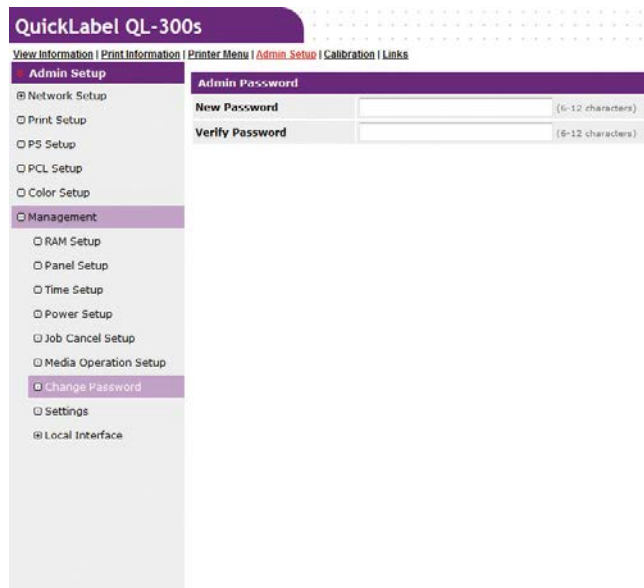
## Changing an Administrator Password

You can use the procedure below to change the password for logging in to the printer as an administrator.

1. Click **Admin Setup > Management**.



2. Click **Change Password**.





- In **New Password**, enter the new password. In **Verify Password**, enter the new password again.

The screenshot shows the 'QuickLabel QL-300s' web utility interface. The top navigation bar includes links for 'View Information', 'Print Information', 'Printer Menu', 'Admin Setup', 'Calibration', and 'Links'. The 'Admin Setup' menu is expanded, showing options like Network Setup, Print Setup, PS Setup, PCL Setup, Color Setup, Management, RAM Setup, Panel Setup, Time Setup, Power Setup, Job Cancel Setup, Media Operation Setup, Change Password (highlighted), Settings, and Local Interface. The 'Admin Password' section contains two input fields: 'New Password' and 'Verify Password', both masked with dots and labeled '(6-12 characters)'.

The password will appear on the screen as a series of dots as you enter it.

You can enter from 6 to 12 alphanumeric English characters for a password.

Note that passwords are case-sensitive, so enter upper-case and lower-case letters correctly.

- Click **Submit**.
- This saves the settings on the printer.

You do not need to re-start the printer. Use the new password the next time you log in as an administrator.

## Checking Printer Settings From a Computer

You can use the procedures below to check the printer status from a computer over a network.

## To check using the “Status Screen”

1. Access the printer web page and open the “Status” screen.

**QuickLabel QL-300s**

[View Information](#) | [Links](#)

**View Information**

- Status
- Feeder Count
- Supplies Life
- Network
- System

[Administrator Login](#)

**Ready To Print**

**Print Cartridge Remaining :**

- Cyan:
- Magenta:
- Yellow:
- Black:
- White:

**Printer Information**

Printer Name	QuickLabelQL-300s-91F5F9
IPv4 Address	172.16.2.236
IPv6 Address	fe80:0000:0000:0000:0225:36ff:fe91:f5f9 <small>Link-Local Address</small>
	0000:0000:0000:0000:0000:0000:0000:0000 <small>Global Address</small>
MAC Address	00:25:36:91:F5:F9
Printer Location	
Serial Number	BETA200003
Asset Number	
Contact Name	- Administrator
HDD	Installed
RAM	2048MB

**Print Service Enabled**

LPR	<input checked="" type="checkbox"/>
Port9100	<input checked="" type="checkbox"/>
FTP	<input type="checkbox"/>
IPP	<input checked="" type="checkbox"/>

**Setting Service Enabled**

SNMP	<input checked="" type="checkbox"/>
WEB	<input checked="" type="checkbox"/>
Telnet	<input type="checkbox"/>

**Version Information**

Firmware Version	AA5.20_0_4
CU Version	99.38
PU Version	00.06.66
Network FW Version	00.14
Web Browser Version	00.??

## To check using the “Status Window”

1. Click **Status Window**, which will display the screen shown below.

The screenshot shows the QuickLabel QL-300s web utility interface. The main status area displays "Ready To Print" with a green indicator and buttons for "Refresh" and "Status Window". A "Print Cartridge Remaining" section shows levels for Cyan, Magenta, Yellow, Black, and White, all at 90%. Below this are sections for "Printer Information" (including name, IP addresses, MAC, and serial numbers) and "Print Service" (LPR, Port9100, FTP, IPP) and "Setting Service" (SNMP, WEB, Telnet).

This close-up shows the printer status window. It displays the IP Address as 172.16.2.236, Location, and Asset Number. The status is "Ready To Print" with a green circular icon. Below the status is a "Refresh" button and a note: "Obtain the latest status of your device by clicking the above button." At the bottom, there is a "No Error" status with a green circular icon.

Information about the printer and its status is displayed in this window. Click **Refresh** to update the window with the latest information.

The color of the printer status icon indicates whether printing is possible.

- **Green** - No error, online
- **Yellow** - Minor malfunction (printing still possible)
- **Red** - Serious malfunction (printing not possible)
- **Gray** - Offline

## Changing Printer Settings From a Computer

You can use the procedure below to change printer settings.

1. Access the printer web page and log in as an administrator.

The screenshot shows the 'QuickLabel QL-300s' web utility interface. At the top, there are navigation links: 'View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links'. The 'Printer Menu' is expanded, showing a list of settings: 'General Printer Settings' (selected), 'Unwinder Config', 'Cutter Setup', 'System Adjust', 'Print Adjust', and 'Unit of Measurement'. The 'General Printer Settings' section is active, displaying the following fields:

<b>Printer Name</b>	QuickLabelQL-300s-91F (Max:31 characters) <small>This is the device's identity on the network (system, and Printer Name).</small>
<b>Short Printer Name</b>	QL-300s-91F5F9 (Max:15 characters)
<b>Printer Location</b>	<input type="text"/> <small>(Max:255 characters)</small>
<b>Asset Number</b>	<input type="text"/> <small>(Max:32 characters)</small>
<b>Contact Name - Administrator</b>	<input type="text"/> <small>(Max:255 characters)</small>

At the bottom of the form, there are 'Submit' and 'Cancel' buttons, and a note: 'Press Submit to send changes. Press Cancel to clear changes.'

2. After changing the settings you want, click **Submit**.

## Encrypting Communication (SSL/TLS)

Communication between the computer (client) and printer can be encrypted when configuring settings, performing IPP printing, and when receiving print data with FTP protocol.

(Encryption of SSL/TLS Communication)

### Configuring Settings

The procedure below shows how to use the web to create a certificate with the printer.

The two types of certificates below can be created.

- Self-signed certificate

- CA certificate (CSR creation)

**Note:** If the printer's IP address is changed from what it was when a certificate was created, that certificate become invalid. Do not change the printer's IP address after creating a certificate.

1. Log in as an administrator. See “Logging in as an Administrator” on page 414.
2. Click in the following sequence: **Admin Setup > Network Setup > Security**.

QuickLabel QL-300s

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

**Admin Setup**

- Network Setup
  - General Network Settings
  - TCP/IP
  - NBT
  - Email
  - SNMP
  - IPP
  - IEEE802.1X
  - Security
    - Protocol ON/OFF
    - IP Filtering
    - MAC Address Filtering
    - SSL/TLS
    - IPSec
    - Change Network Password
  - Maintenance
- Print Setup
- PCL Setup
- Color Setup

**Protocol**

TCP/IP	Enable
NetBIOS over TCP	Enable

**Service**

Web (Port No. : 80)	Enable
IPP (Port No. : 631)	Enable
Telnet	Disable
FTP	Disable
SNMP	Enable
SNT	Disable
Local Ports	Enable

**Port Number**

You can not set port number that is already used.

Web	80	(1-65535)
SMTP	25	(1-65535)

Submit Cancel Press Submit to send changes. Press Cancel to clear changes.

3. Click **SSL/TLS**.
4. Select the type of the certificate to create in **Step 1**.

QuickLabel QL-300s

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

**Admin Setup**

- Network Setup
  - General Network Settings
  - TCP/IP
  - NBT
  - Email
  - SNMP
  - IPP
  - IEEE802.1X
  - Security
    - Protocol ON/OFF
    - IP Filtering
    - MAC Address Filtering
    - SSL/TLS
    - IPSec
    - Change Network Password
  - Maintenance
- Print Setup
- PS Setup
- PCL Setup
- Color Setup
- Management

**Encryption of "Configuration" and "Print"**

You can use SSL/TLS for data encryption.

SSL/TLS can encrypt both Printer Configuration via the webpage and Print Data when printing via "IPP".

**STEP1. Select Certificate type**

Using self signed Certificate

Using a Certificate which a Certification Authority signed

Note:Purchase is required for signed Certificate.

**STEP2. Provide the following information**

Please provide the following information **\*Required**

Name	Example	Value
1 Common Name	Also known as URL, the Common Name is the fully qualified domain name (FQDN) used for DNS lookups of your printer.	172.16.2.236
2 Organization	The organization name (corporation, limited partnership, university, or government agency) must be registered with some authority at a national, state, or city level.	
3 Organizational Unit	(optional) Use this optional field to differentiate between divisions within an organization.	
4 Locality	This field usually denotes the city in which the organization is located.	
5 State/Province	Enter the state where the organization operates. Do not abbreviate.	

5. Enter information for the Common Name, Organization, and other items.
  - If you selected “Use a certificate issued by a certificate authority”, perform detailed content input and other certificate issuing procedures in accordance with issuing authority procedures.

- If you selected a self-signed certificate, the printer's IP address will be set for Common Name.

If you want to change the key exchange method and key size, click **Key Exchange method**. (The initial default setting is RSA, 1024 bits. Normally, you should use this setting without modifying it.)

6. Click **Submit**.

7. **Self-signed Certificate**

**Note:** *This step applies only to self-signed certificates. To create a CA certificate, proceed to step 8.*

a. This displays the input.

Check the contents, and then click **OK**. This creates the certificate.

This completes self-signed certificate creation.

Settings are saved on the printer and the network function is restarted.

b. Perform steps 1 through 3 of this procedure to display the encryption (SSL/TLS) setup screen, and then configure protocol settings to enable encryption.

c. Click **Submit**.

8. **CA Certificate**

**Note:** *This step applies only to CA certificates.*

a. This displays the input.

Check the contents, and then click **OK**.

b. Extract the CSR and send it to the issuing authority. (For a CA certificate)

Copy the contents of the text box from "----- BEGIN CERTIFICATE REQUEST -----" to "----- END CERTIFICATE REQUEST -----". Depending on the CA, sending the CSR may mean pasting it into web page, sending it as a file, attaching it to a mail message, etc.

c. This installs the certificate issued by the CA (using the web). (For a CA certificate)

Perform steps 1 through 3 of this procedure to display the encryption (SSL/TLS) setup screen.

Paste the part of the generated certificate from "----- BEGIN CERTIFICATE -----" to "----- END CERTIFICATE -----" into the text box, and then click **Send**.

This completes CA certificate creation.

Settings are saved on the printer and the network function is restarted.

d. Perform steps 1 through 3 of this procedure to display the encryption (SSL/TLS) setup screen, and then configure protocol settings to enable encryption.

e. Click **Submit**.

## Usage Method

1. Start up the web browser, and then enter “https://<printer IP address>” as the address to connect.

## Printing with IPP

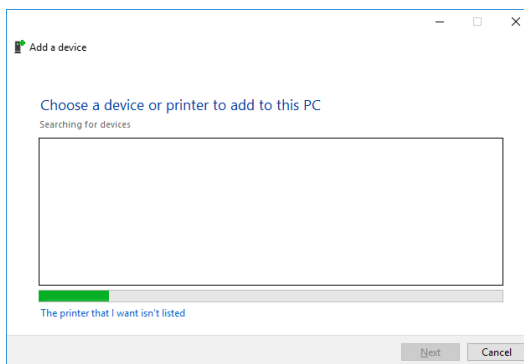
Printing can be performed using IPP.

### To enable IPP printing

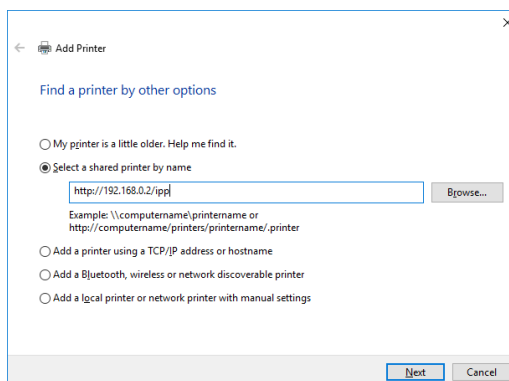
1. Access the printer web page and log in as an administrator.
2. Select **Admin Setup**.
3. Select the following: **Network Setup > IPP > Setup**.
4. Follow the instructions that appear on the display to configure the setup.
5. Click **Submit**.

### To set up the printer as an IPP printer (Windows)

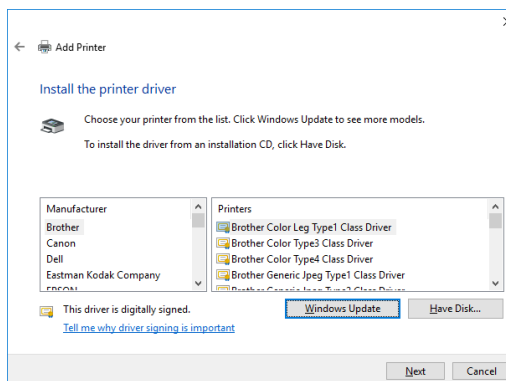
1. Click **Start** and select **Control Panel** in Windows.
2. Select **View devices and printers > Add a printer**.
3. On the **Add a device** wizard, select **Add a network, wireless or Bluetooth printer**.



4. From the list of usable printers, select **The printer that I want isn't listed**.
5. Select **Select a shared printer by name**.



6. Enter "http://<printer IP address>/ipp" or "http://<printer IP address>/ipp/lp", and then click **Next**.
7. Click **Have Disk**.



8. Download the driver installation software. You can obtain the software from [www.QuickLabel.com/downloads](http://www.QuickLabel.com/downloads).
9. For **Copy manufacturer's files from**, browse to the appropriate folder, and then click **Find**.  
PCL driver: \Drivers\PCLXL
10. Select the INF file, and then click **Open**.
11. Click **OK**.
12. Select the printer name, and then click **Next**.
13. Click **Next**.
14. Click **Finish**.
15. A test page is printed after installation is complete.

## Encrypting Communication (IPsec)

You can configure the settings in this section to encrypt and prevent tampering with communication between the computer (client) and printer at the network layer level.

The IKE protocol supported by this printer is "IKEv1". The communication mode supported by this printer is "Transport Mode". It does not support "Tunnel Mode". Printer response may slow down while IPsec is enabled, depending on network communication conditions.

**Note:** IPsec does not operate with the mail send function or SNMP Trap function.

### Setup Flow

Configure printer settings before configuring computer settings.



## To configure the printer setup

The procedure below shows how to use the web to enable IPsec.

1. Log in as an administrator. See “Logging in as an Administrator” on page 414.
2. Click in the following sequence: **Admin Setup > Network Setup > Security**.

**QuickLabel QL-300s**

View Information | Print Information | Printer Menu | **Admin Setup** | Calibration | Links

**Admin Setup**

- Network Setup
  - General Network Settings
  - TCP/IP
  - NBT
  - Email
  - SNMP
  - IPP
  - IEEE802.1X
  - Security**
    - Protocol ON/OFF**
    - IP Filtering
    - MAC Address Filtering
    - SSL/TLS
    - IPSec
    - Change Network Password
  - Maintenance
- Print Setup
- PS Setup
- PCL Setup
- Color Setup
- Management

**Protocol**

TCP/IP Enable

NetBIOS over TCP Enable

**Service**

Web (Port No.: 80) Enable  
IF "Disable", you can not access from your Web browser, and, you can not print with WSD-port.

IPP (Port No.: 631) Enable

Telnet Disable

FTP Disable

SNMP Enable

SNTP Disable

Local Ports Enable

**Port Number**

You can not set port number that is already used.

Web 80 (1-65535)

SMTP 25 (1-65535)

3. Click the **IPsec** tab.

**QuickLabel QL-300s**

View Information | Print Information | Printer Menu | **Admin Setup** | Calibration | Links

**Admin Setup**

- Network Setup
  - General Network Settings
  - TCP/IP
  - NBT
  - Email
  - SNMP
  - IPP
  - IEEE802.1X
  - Security**
    - Protocol ON/OFF
    - IP Filtering
    - MAC Address Filtering
    - SSL/TLS
    - IPSec**
    - Change Network Password
  - Maintenance
- Print Setup
- PS Setup
- PCL Setup
- Color Setup
- Management

**IPSec**

**STEP1. IPsec**

IPSec Disable  
When this feature is enabled, the printer will not go to sleep.

**STEP2. IP Address Settings**

(Example: "192.168.0.2")  
Complete / valid IP Addresses only. Value of 0.0.0.0 is an invalid address.

	IP Address		IP Address
1	0.0.0.0	26	0.0.0.0
2	0.0.0.0	27	0.0.0.0
3	0.0.0.0	28	0.0.0.0
4	0.0.0.0	29	0.0.0.0
5	0.0.0.0	30	0.0.0.0
6	0.0.0.0	31	0.0.0.0
7	0.0.0.0	32	0.0.0.0
8	0.0.0.0	33	0.0.0.0
9	0.0.0.0	34	0.0.0.0
10	0.0.0.0	35	0.0.0.0
11	0.0.0.0	36	0.0.0.0
12	0.0.0.0	37	0.0.0.0
13	0.0.0.0	38	0.0.0.0
14	0.0.0.0	39	0.0.0.0
15	0.0.0.0	40	0.0.0.0
16	0.0.0.0	41	0.0.0.0

4. Under **STEP1**, enable **IPsec**.
  - Set **Enable** for IPsec to encrypt communications from the computer with the IP address you specify in **STEP2**.
  - The web page will not open if IPsec setup fails because the configured parameters do not match the computer, or because of some other reason. If this happens, use

the control panel Network Setup item to disable IPsec, or perform network initialization to disable IPsec.

**QuickLabel QL-300s**

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

**Admin Setup**

Network Setup

- General Network Settings
- TCP/IP
- NBT
- Email
- SNMP
- IPP
- IEEE802.1X
- Security**
  - Protocol ON/OFF
  - IP Filtering
  - MAC Address Filtering
  - SSL/TLS
  - IPsec**
  - Change Network Password
- Maintenance
- Print Setup
- PS Setup
- PCL Setup
- Color Setup
- Management

**IPsec**

**STEP1. IPsec**

IPsec  Enable  When this feature is enabled, the printer will not go to sleep.

**STEP2. IP Address Settings**

(Example: "192.168.0.2")  
Complete / valid IP Addresses only. Value of 0.0.0.0 is an invalid address.

	IP Address		IP Address
1	0.0.0.0	26	0.0.0.0
2	0.0.0.0	27	0.0.0.0
3	0.0.0.0	28	0.0.0.0
4	0.0.0.0	29	0.0.0.0
5	0.0.0.0	30	0.0.0.0
6	0.0.0.0	31	0.0.0.0
7	0.0.0.0	32	0.0.0.0
8	0.0.0.0	33	0.0.0.0
9	0.0.0.0	34	0.0.0.0
10	0.0.0.0	35	0.0.0.0
11	0.0.0.0	36	0.0.0.0
12	0.0.0.0	37	0.0.0.0
13	0.0.0.0	38	0.0.0.0
14	0.0.0.0	39	0.0.0.0
15	0.0.0.0	40	0.0.0.0
16	0.0.0.0	41	0.0.0.0

5. Under **STEP2**, enter the host IP address.

- Use an IP address to specify a host that is allowed to print and configure settings.
- For the IPv4 address, use single-byte numerals separated by periods (.).
- For the IPv6 address, use single-byte alphanumeric characters separated by colons (:). Abbreviated notation is not supported.
- Entry of IP address 0.0.0.0. is invalid.

**QuickLabel QL-300s**

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

**Admin Setup**

Network Setup

- General Network Settings
- TCP/IP
- NBT
- Email
- SNMP
- IPP
- IEEE802.1X
- Security**
  - Protocol ON/OFF
  - IP Filtering
  - MAC Address Filtering
  - SSL/TLS
  - IPsec**
  - Change Network Password
- Maintenance
- Print Setup
- PS Setup
- PCL Setup
- Color Setup
- Management

**IPsec**

**STEP1. IPsec**

IPsec  Enable  When this feature is enabled, the printer will not go to sleep.

**STEP2. IP Address Settings**

(Example: "192.168.0.2")  
Complete / valid IP Addresses only. Value of 0.0.0.0 is an invalid address.

	IP Address		IP Address
1	192.168.0.0	26	0.0.0.0
2	0.0.0.0	27	0.0.0.0
3	0.0.0.0	28	0.0.0.0
4	0.0.0.0	29	0.0.0.0
5	0.0.0.0	30	0.0.0.0
6	0.0.0.0	31	0.0.0.0
7	0.0.0.0	32	0.0.0.0
8	0.0.0.0	33	0.0.0.0
9	0.0.0.0	34	0.0.0.0
10	0.0.0.0	35	0.0.0.0
11	0.0.0.0	36	0.0.0.0
12	0.0.0.0	37	0.0.0.0
13	0.0.0.0	38	0.0.0.0
14	0.0.0.0	39	0.0.0.0
15	0.0.0.0	40	0.0.0.0
16	0.0.0.0	41	0.0.0.0

6. Under **STEP3**, configure the settings of the Phase1 Proposal parameters.

- For **IKE Encryption Algorithm**, select one of the following settings: AES-CBC 256, AES-CBC 192, AES-CBC 128, 3DES-CBC, DES-CBC.

- For **IKE Hash Algorithm**, select SHA-1 or MD5.
- For **Diffie-Hellman Group**, select Group2 or Group1.
- For **Lifetime**, enter and set a value in the range of 600 (seconds) to 86,400 (seconds).

QuickLabel QL-300s

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

Admin Setup

Network Setup

General Network Settings

TCP/IP

NBT

Email

SNMP

IPP

IEEE802.1X

Security

Protocol ON/OFF

IP Filtering

MAC Address Filtering

SSL/TLS

IPSec

Change Network Password

Maintenance

Print Setup

PS Setup

PCL Setup

Color Setup

Management

18	0.0.0.0		43	0.0.0.0
19	0.0.0.0		44	0.0.0.0
20	0.0.0.0		45	0.0.0.0
21	0.0.0.0		46	0.0.0.0
22	0.0.0.0		47	0.0.0.0
23	0.0.0.0		48	0.0.0.0
24	0.0.0.0		49	0.0.0.0
25	0.0.0.0		50	0.0.0.0

STEP3. Phase1 Proposal Settings

IKE Encryption Algorithm AES-CBC 128

IKE Hash Algorithm SHA-1

Diffie-Hellman Group Group2

LifeTime 28800 sec (600-86400)

STEP4. Pre-Shared Key Settings

Pre-Shared Key

(Max:64 Characters)

STEP5. Key PFS Settings

Key PFS NOPFS

Key PFS Diffie-Hellman Group None

STEP6. Phase2 Proposal Settings

ESP Enable

ESP Encryption Algorithm AES-CBC 128

ESP Authentication Algorithm SHA-1

7. Under **STEP4**, set the pre-shared key.

For **Pre-Shared Key**, enter at least one and no more than 64 single-byte alphanumeric characters. Here, we will show an example where “ipsec” is entered for the character string.

QuickLabel QL-300s

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

Admin Setup

Network Setup

General Network Settings

TCP/IP

NBT

Email

SNMP

IPP

IEEE802.1X

Security

Protocol ON/OFF

IP Filtering

MAC Address Filtering

SSL/TLS

IPSec

Change Network Password

Maintenance

Print Setup

PS Setup

PCL Setup

Color Setup

Management

18	0.0.0.0		43	0.0.0.0
19	0.0.0.0		44	0.0.0.0
20	0.0.0.0		45	0.0.0.0
21	0.0.0.0		46	0.0.0.0
22	0.0.0.0		47	0.0.0.0
23	0.0.0.0		48	0.0.0.0
24	0.0.0.0		49	0.0.0.0
25	0.0.0.0		50	0.0.0.0

STEP3. Phase1 Proposal Settings

IKE Encryption Algorithm AES-CBC 128

IKE Hash Algorithm SHA-1

Diffie-Hellman Group Group2

LifeTime 28800 sec (600-86400)

STEP4. Pre-Shared Key Settings

Pre-Shared Key ipsec

(Max:64 Characters)

STEP5. Key PFS Settings

Key PFS NOPFS

Key PFS Diffie-Hellman Group None

STEP6. Phase2 Proposal Settings

ESP Enable

ESP Encryption Algorithm AES-CBC 128

ESP Authentication Algorithm SHA-1

8. Under **STEP5**, set the Key PFS.
  - a. For **Key PFS**, select KEYPFS or NOPFS.

QuickLabel QL-300s

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

**Admin Setup**

- Network Setup
  - General Network Settings
  - TCP/IP
  - NBT
  - Email
  - SNMP
  - IPP
  - IEEE802.1X
- Security**
  - Protocol ON/OFF
  - IP Filtering
  - MAC Address Filtering
  - SSL/TLS
  - IPSec**
    - Change Network Password
  - Maintenance
- Print Setup
  - PS Setup
  - PCL Setup
  - Color Setup
- Management

18	0.0.0.0		43	0.0.0.0	
19	0.0.0.0		44	0.0.0.0	
20	0.0.0.0		45	0.0.0.0	
21	0.0.0.0		46	0.0.0.0	
22	0.0.0.0		47	0.0.0.0	
23	0.0.0.0		48	0.0.0.0	
24	0.0.0.0		49	0.0.0.0	
25	0.0.0.0		50	0.0.0.0	

**STEP3. Phase1 Proposal Settings**

IKE Encryption Algorithm: AES-CBC 128

IKE Hash Algorithm: SHA-1

Diffie-Hellman Group: Group2

LifeTime: 28800 sec (600-86400)

**STEP4. Pre-Shared Key Settings**

Pre-Shared Key: ipsec (Max:64 Characters)

**STEP5. Key PFS Settings**

Key PFS: KEYPFS

Key PFS Diffie-Hellman Group: None

**STEP6. Phase2 Proposal Settings**

ESP: Enable

ESP Encryption Algorithm: AES-CBC 128

ESP Authentication Algorithm: SHA-1

- b. If **Key PFS** is selected, select one of the following settings for **Key PFS Diffie-Hellman Group**: Group 2, Group 1, None.
9. Under **STEP6**, configure Phase2 Proposal settings.
 

**To configure ESP settings**

  - a. For **ESP Encryption Algorithm**, select one of the following settings: AES-CBC 256, AES-CBC 192, AES-CBC 128, 3DES-CBC, DES-CBC.
  - b. For **ESP Authentication Algorithm**, select SHA-1, MD5, or OFF. If you select **OFF**, the ESP verification algorithm will not be applied.

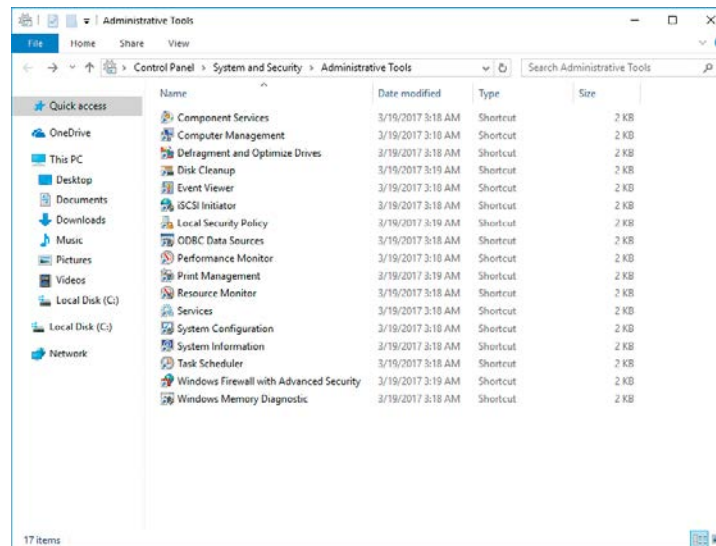
**To configure AH settings**

  - a. For **AH Authentication Algorithm**, select SHA-1 or MD5.
  - b. For **LifeTime**, enter and set a value in the range of 600 (seconds) to 86,400 (seconds).
10. Click **Submit**.
11. Settings are saved on the printer and the network function is restarted.

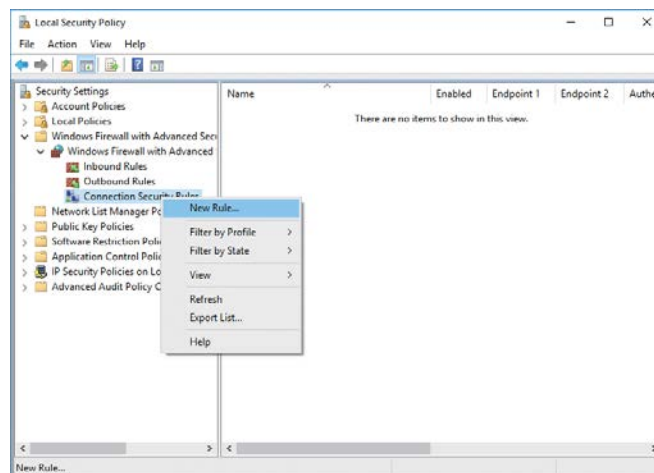
### To configure computer settings

1. Click **Start**, and then select **Control panel** in Windows.
2. Click **System and Security**.
3. Click **Administrative Tools**.

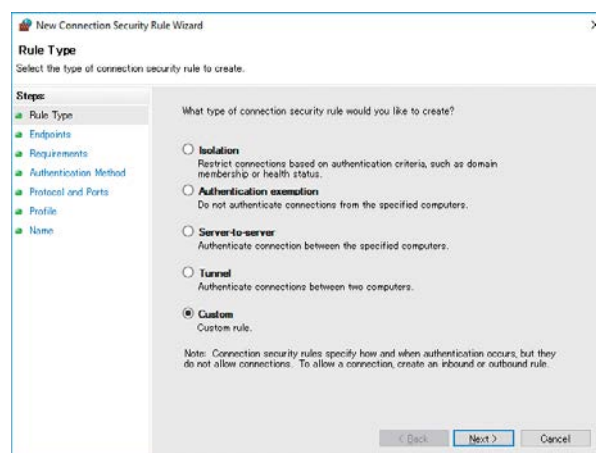
4. Double-click **Local Security Policy**.



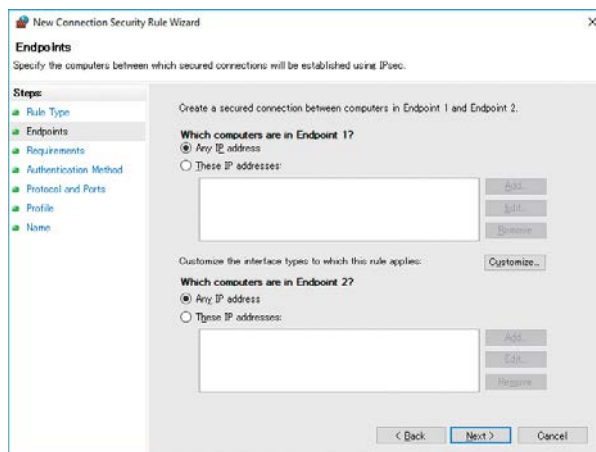
5. Select **Windows Firewall with Advanced Security - Windows Firewall with Advanced Security - Local Group Policy Object**, right-click **Connection Security Rules**, and then select **New Rule**.



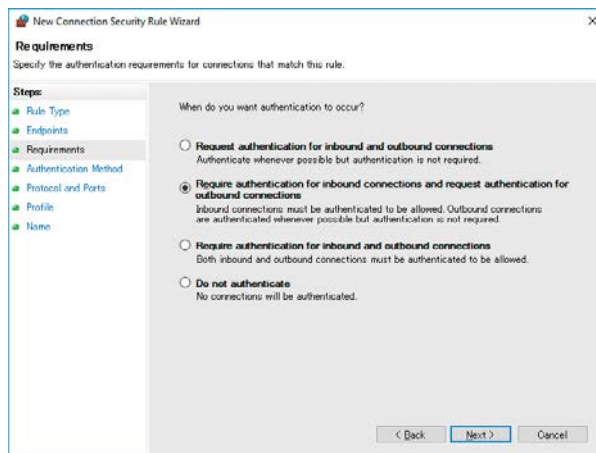
6. Select **Custom**, and then click **Next**.



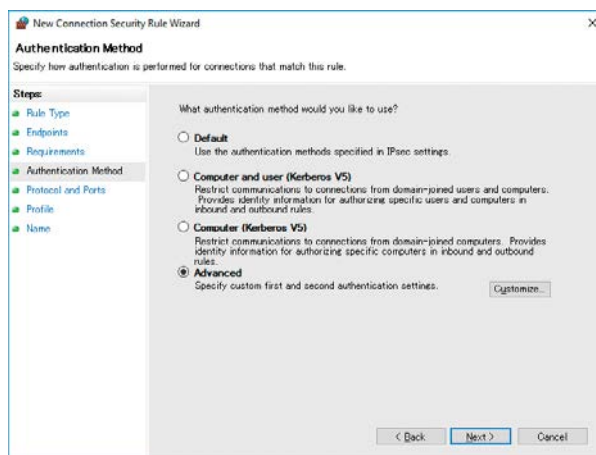
7. Select Endpoint 1 and 2. Configure as required, and then click **Next**.



8. Select **Require authentication for inbound connections and request authentication for outbound connections**, and then click **Next**.

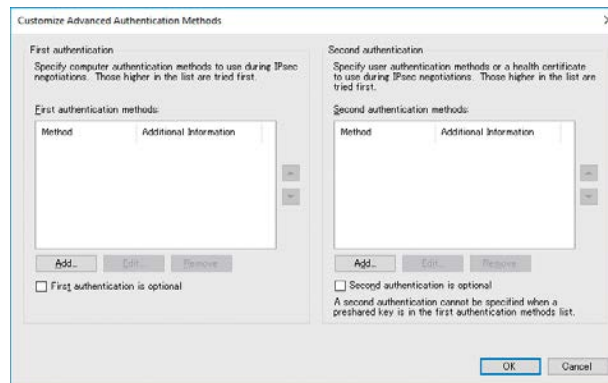


9. Select **Advanced**, and then click **Customize**.

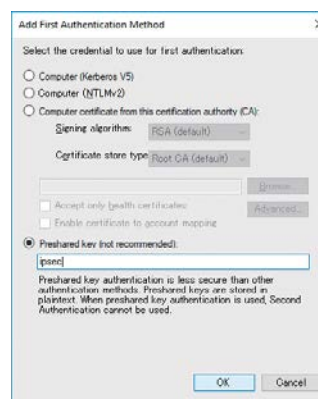




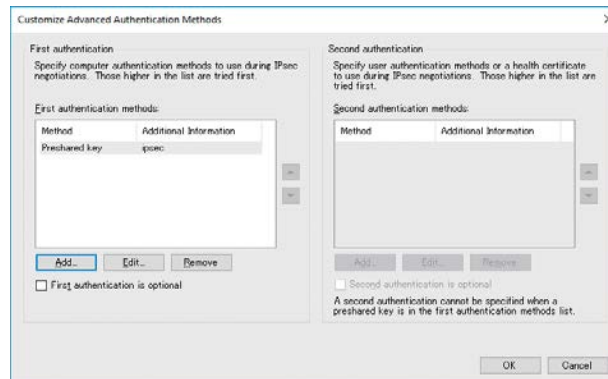
10. In the **First authentication** section, click **Add**.



11. Select **Preshared Key** and enter the key, and then click **OK**.



12. Click **OK**.



13. Click **Next**.

- Click **Next**.

The screenshot shows the 'New Connection Security Rule Wizard' window, specifically the 'Protocol and Ports' step. The window title is 'New Connection Security Rule Wizard'. The main heading is 'Protocol and Ports' with the instruction 'Specify the protocol and ports to which this rule applies.' On the left, a 'Steps' pane lists: Rule Type, Endpoints, Requirements, Authentication Method, Protocol and Ports (selected), Profile, and Name. The main area is titled 'To which ports and protocols does this rule apply?' and contains three dropdown menus: 'Protocol type' set to 'Any', 'Protocol number' set to '0', and 'Endpoint 1 port' set to 'All Ports'. Below 'Endpoint 1 port' is an example text: 'Example: 80, 445, 5000-5010'. There is a second 'Endpoint 2 port' dropdown also set to 'All Ports' with the same example text. At the bottom right are buttons for '< Back', 'Next >', and 'Cancel'.

- After confirming that all of the check boxes are selected, click **Next**.

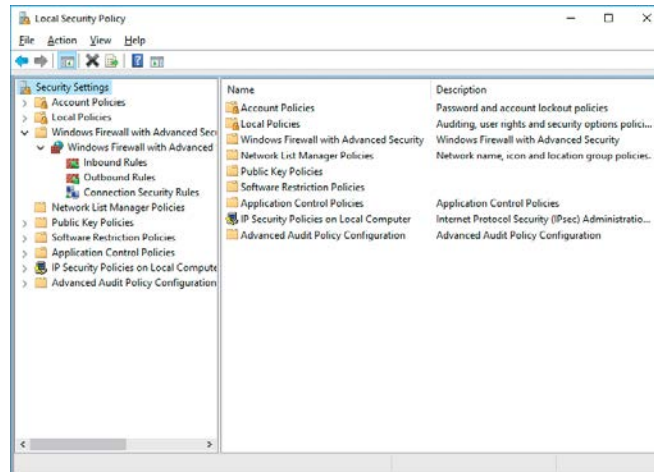
The screenshot shows the 'New Connection Security Rule Wizard' window, specifically the 'Profile' step. The window title is 'New Connection Security Rule Wizard'. The main heading is 'Profile' with the instruction 'Specify the profiles for which this rule applies.' On the left, a 'Steps' pane lists: Rule Type, Endpoints, Requirements, Authentication Method, Protocol and Ports, Profile (selected), and Name. The main area is titled 'When does this rule apply?' and contains three checked checkboxes: 'Domain' (Applies when a computer is connected to its corporate domain.), 'Private' (Applies when a computer is connected to a private network location, such as a home or work place.), and 'Public' (Applies when a computer is connected to a public network location.). At the bottom right are buttons for '< Back', 'Next >', and 'Cancel'.

- Enter a name, and then click **Finish**.

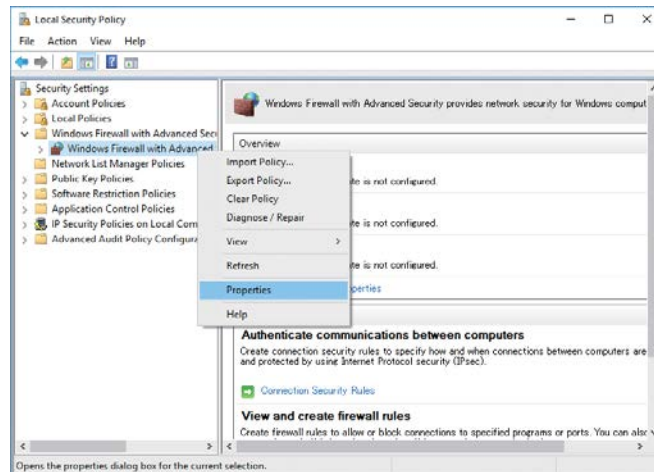
The screenshot shows the 'New Connection Security Rule Wizard' window, specifically the 'Name' step. The window title is 'New Connection Security Rule Wizard'. The main heading is 'Name' with the instruction 'Specify the name and description of this rule.' On the left, a 'Steps' pane lists: Rule Type, Endpoints, Requirements, Authentication Method, Protocol and Ports, Profile, and Name (selected). The main area contains a 'Name' text box with the value 'New Connection Security' and a larger 'Description (optional)' text box. At the bottom right are buttons for '< Back', 'Finish', and 'Cancel'.



17. Open the **Local Security Policy** of the **Administrative Tools**.



18. Select **Windows Firewall with Advanced Security**, right-click, and then select **Properties**.



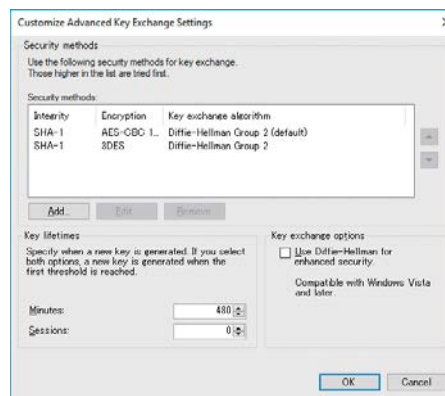
19. Select the **IPsec Settings** tab. Next, in the **IPsec defaults** section, click **Customize**.



20. In the **Key exchange (Main Mode)** section, select **Advanced**, and then click **Customize**.



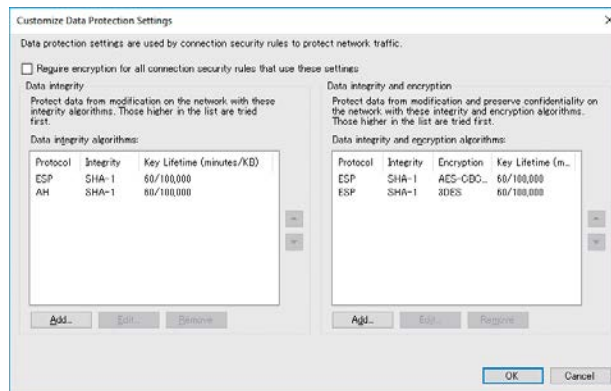
21. Change the **Security Methods** as required, and then click **OK**.



22. In the **Data protection (Quick Mode)** section, select **Advanced**, and then click **Customize**.

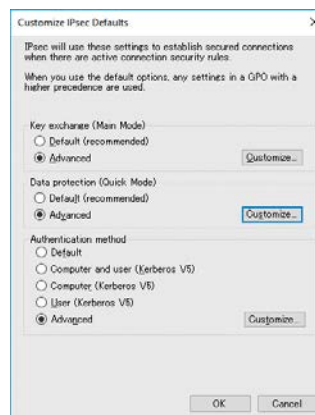


23. Configure the settings you want, and then click **OK**.

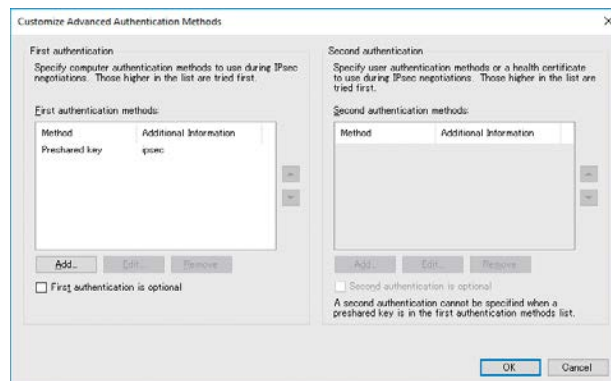


**Note:** Support is provided only for time indicated by the key lifetime. To disable session-specific (IPsec communication data size) conditions, set the maximum value.

24. In the **Authentication method** section, select **Advanced**, and then click **Customize**.



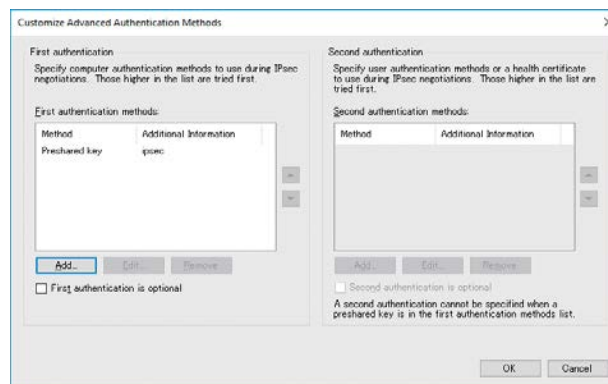
25. In the **First authentication** section, click **Add**.



26. Select **Preshared Key** and enter the key, and then click **OK**.



27. Click **OK**.



28. Click **OK** to exit **Customize IPsec Settings**.



29. Click **OK**.

## Controlling Access by IP Address (IP Filter)

Access to the printer can be managed using IP addresses.

**Note:** IP Filtering is set to Disable under the printer initial default settings.

**Note:** Take care to enter the IP address correctly. An incorrectly entered IP address can make it impossible to access the printer using IP protocol.

1. Log in as an administrator. See “Logging in as an Administrator” on page 414.
2. Click in the following sequence: **Admin Setup > Network Setup > Security**.

QuickLabel QL-300s

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

**Admin Setup**

- Network Setup
  - General Network Settings
  - TCP/IP
  - NBT
  - Email
  - SNMP
  - IPP
  - IEEE802.1X
- Security**
  - Protocol ON/OFF
  - IP Filtering**
  - MAC Address Filtering
  - SSL/TLS
  - IPSec
  - Change Network Password
- Maintenance
  - Print Setup
  - PS Setup
  - PCL Setup
  - Color Setup
  - Management

**Protocol**

TCP/IP: Enable

NetBIOS over TCP: Enable

**Service**

Web (Port No.: 80): Enable  
IF "Disable", you can not access from your Web browser, and, you can not print with WSD-port.

IPP (Port No.: 631): Enable

Telnet: Disable

FTP: Disable

SNMP: Enable

SNTP: Disable

Local Ports: Enable

**Port Number**

You can not set port number that is already used.

Web: 80 (1-65535)

SMTP: 25 (1-65535)

3. Click **IP Filtering**.

QuickLabel QL-300s

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

**Admin Setup**

- Network Setup
  - General Network Settings
  - TCP/IP
  - NBT
  - Email
  - SNMP
  - IPP
  - IEEE802.1X
- Security**
  - Protocol ON/OFF
  - IP Filtering**
  - MAC Address Filtering
  - SSL/TLS
  - IPSec
  - Change Network Password
- Maintenance
  - Print Setup
  - PS Setup
  - PCL Setup
  - Color Setup
  - Management

**IP Filtering**

STEP1. Select IP Filtering Settings.

IP Filtering: Disable

CAUTION!! If you set IP Filtering to Enable, you can access the printer only from hosts at IP Addresses set in STEP2.

STEP2. Set IP Address range.

Enter the ranges of the host IP Addresses and permissions to print to, or configure the printer.  
Complete / valid IP Addresses only. Value of 0.0.0.0 is an invalid address.  
Priorities can be given to determine precedence when overlapping ranges of addresses are used.

(CAUTION!!)  
When checkbox of "Config" is not marked, you can not print with WSD-port.

Admin IP Address, if set in STEP 3, overrides all configuration settings in this section.

Priority	Address Range No.	IP Address Range		Printing	Config
		Start Address	End Address		
Low	1	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	2	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	3	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	4	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	5	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	6	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	7	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	8	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	9	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>

4. Under **STEP1**, select **Enable** for IP Filtering.

**QuickLabel QL-300s**

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

**Admin Setup**

Network Setup

- General Network Settings
- TCP/IP
- NBT
- Email
- SNMP
- IPP
- IEEE802.1X
- Security
  - Protocol ON/OFF
  - IP Filtering**
  - MAC Address Filtering
  - SSL/TLS
  - IPSec
  - Change Network Password
- Maintenance
- Print Setup
- PS Setup
- PCL Setup
- Color Setup
- Management

**IP Filtering**

**STEP1. Select IP Filtering Settings.**

**IP Filtering** Enable

CAUTION!! If you set IP Filtering to Enable, you can access the printer only from hosts at IP Addresses set in STEP2.

**STEP2. Set IP Address range.**

Enter the ranges of the host IP Addresses and permissions to print to, or configure the printer. Complete / valid IP Addresses only. Value of 0.0.0.0 is an invalid address. Priorities can be given to determine precedence when overlapping ranges of addresses are used.

(CAUTION!!) When checkbox of "Config" is not marked, you can not print with WSD-port.

Admin IP Address, if set in STEP 3, overrides all configuration settings in this section.

Priority	Address Range No.	IP Address Range		Printing	Config
		Start Address	End Address		
Low	1	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	2	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	3	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	4	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	5	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	6	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	7	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	8	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	9	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>

**Note:** Enabling IP filtering disables all access from hosts that are outside the range of IP addresses specified in STEP2.

5. Under **STEP2**, specify the IP address range.
- Using IP addresses, enter the range of hosts that are allowed to print and configure settings.
  - For the IP addresses, use single-byte numerals separated by periods (.).
  - Entry of IP address 0.0.0.0. is invalid.
  - When there is overlap of IP addresses, the address range with the highest level set in Priority is given priority.
  - Regardless of what is specified in **STEP2**, you can use **STEP3** to specify administrator addresses for which printing and setting configuration are enabled.

6. Click **Address Range Bar Display/Refresh**.

The screenshot shows the 'Admin Setup' page for a QuickLabel QL-300s printer. The 'Network Setup' section is expanded to show 'IP Filtering'. A table lists 10 IP address ranges with their priorities and start/end addresses. Below the table is a button labeled 'Address Range Bar Display/Refresh' and a 'Hide' button. A 'STEP3. Save Administrator IP Address' section provides instructions on setting an administrator IP address.

Priority	Address Range No.	IP Address Range		Printing	Config
		Start Address	End Address		
Low	1	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	2	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	3	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
Medium	4	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	5	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	6	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	7	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
High	8	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	9	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>
	10	0.0.0.0	0.0.0.0	<input type="checkbox"/>	<input type="checkbox"/>

**Address Range Bar Display/Refresh** Hide

Settings and Address Range Bar Color relation

Printing	Config	Color
Enable	Enable	<span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>
Enable	Disable	<span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>
Disable	Enable	<span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>
Disable	Disable	<span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>

**STEP3. Save Administrator IP Address.**

You can set an administrator's IP Address, which takes priority over any IP Filtering object for configuration set in STEP2.  
Only one IP Address can be registered as administrator IP Address.  
If a proxy is used to access this printer, the proxy address will appear in Your Current Host/Proxy IP Address' box.  
If you do not wish to register an administrator's IP Address, leave "Administrator's IP Address setting" field blank.

If you want to modify an IP address range, re-enter the applicable IP addresses, and click **Address Range Bar Display/Refresh** again.

7. Under **STEP3**, specify the **Administrator's IP Address setting**.

Even if the wrong settings are configured in **STEP2** due to administrator IP address entry in **Administrator's IP Address setting**, the administrator can re-configure the setting from a host with the IP address specified with **Administrator's IP Address setting**.

- If the printer is being accessed via a proxy, the intermediate device's address will be displayed as **Your Current Local Host/Proxy IP Address**. Consequently, the address shown by **Your Host IP Address** may be different from your actual host address.
- If nothing is registered for the administrator IP address, the setting in **STEP2** may make the printer completely inaccessible.
- If you do not want to register an administrator IP address, leave **Administrator's IP Address setting** blank.

8. Click **Submit**.

9. Settings are saved on the printer and the network function is restarted.



## Controlling Access by MAC Address

Access to the printer can be managed using MAC addresses.

**Note:** Incorrectly entering a MAC address can make it impossible to access the printer using a network. Exercise caution when entering an address.

1. Log in as an administrator. See “Logging in as an Administrator” on page 414.
2. Click in the following sequence: **Admin Setup > Network Setup > Security**.

**QuickLabel QL-300s**

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

**Admin Setup**

- Network Setup
  - General Network Settings
  - TCP/IP
  - NBT
  - Email
  - SNMP
  - IPP
  - IEEE802.1X
  - Security
    - Protocol ON/OFF
    - IP Filtering
    - MAC Address Filtering
    - SSL/TLS
    - IPSec
    - Change Network Password
  - Maintenance
- Print Setup
- PS Setup
- PCL Setup
- Color Setup
- Management

**Protocol**

TCP/IP	Enable
NetBIOS over TCP	Enable

**Service**

Web (Port No.: 80)	Enable	If "Disable", you can not access from your Web browser, and, you can not print with WSD-port.
IPP (Port No.: 631)	Enable	
Telnet	Disable	
FTP	Disable	
SNMP	Enable	
SNTIP	Disable	
Local Ports	Enable	

**Port Number**

You can not set port number that is already used.

Web	80	(1-65535)
SMTP	25	(1-65535)

3. Click **MAC Address Filtering**.

**QuickLabel QL-300s**

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

**Admin Setup**

- Network Setup
  - General Network Settings
  - TCP/IP
  - NBT
  - Email
  - SNMP
  - IPP
  - IEEE802.1X
  - Security
    - Protocol ON/OFF
    - IP Filtering
    - MAC Address Filtering
    - SSL/TLS
    - IPSec
    - Change Network Password
  - Maintenance
- Print Setup
- PS Setup
- PCL Setup
- Color Setup
- Management

**MAC Address Filtering**

STEP1. Select MAC Address Filtering Settings

MAC Address Filtering: Disable

CAUTION! If you set MAC Address Filtering to Enable, you will only be able to access the printer from devices with MAC Addresses set in STEP2 and STEP3.

STEP2. Set Filtering MAC Address

Communication from the following MAC Addresses: Accept

	MAC Address		MAC Address
1	00:00:00:00:00:00	26	00:00:00:00:00:00
2	00:00:00:00:00:00	27	00:00:00:00:00:00
3	00:00:00:00:00:00	28	00:00:00:00:00:00
4	00:00:00:00:00:00	29	00:00:00:00:00:00
5	00:00:00:00:00:00	30	00:00:00:00:00:00
6	00:00:00:00:00:00	31	00:00:00:00:00:00
7	00:00:00:00:00:00	32	00:00:00:00:00:00
8	00:00:00:00:00:00	33	00:00:00:00:00:00
9	00:00:00:00:00:00	34	00:00:00:00:00:00
10	00:00:00:00:00:00	35	00:00:00:00:00:00
11	00:00:00:00:00:00	36	00:00:00:00:00:00
12	00:00:00:00:00:00	37	00:00:00:00:00:00
13	00:00:00:00:00:00	38	00:00:00:00:00:00
14	00:00:00:00:00:00	39	00:00:00:00:00:00
15	00:00:00:00:00:00	40	00:00:00:00:00:00



4. Under **STEP1**, select **Enable** for **MAC Address Filtering**.

**QuickLabel QL-300s**

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

**Admin Setup**

- Network Setup
  - General Network Settings
  - TCP/IP
  - NBT
  - Email
  - SNMP
  - IPP
  - IEEE802.1X
  - Security
    - Protocol ON/OFF
    - IP Filtering
    - MAC Address Filtering**
    - SSL/TLS
    - IPSec
    - Change Network Password
  - Maintenance
  - Print Setup
  - PS Setup
  - PCL Setup
  - Color Setup
  - Management

**MAC Address Filtering**

**STEP1. Select MAC Address Filtering Settings**

MAC Address Filtering: Enable

CAUTION! If you set MAC Address Filtering to Enable, you will only be able to access the printer from devices with MAC Addresses set in STEP2 and STEP3.

**STEP2. Set Filtering MAC Address**

Communication from the following MAC Addresses: Accept

	MAC Address		MAC Address
1	00:00:00:00:00:00	26	00:00:00:00:00:00
2	00:00:00:00:00:00	27	00:00:00:00:00:00
3	00:00:00:00:00:00	28	00:00:00:00:00:00
4	00:00:00:00:00:00	29	00:00:00:00:00:00
5	00:00:00:00:00:00	30	00:00:00:00:00:00
6	00:00:00:00:00:00	31	00:00:00:00:00:00
7	00:00:00:00:00:00	32	00:00:00:00:00:00
8	00:00:00:00:00:00	33	00:00:00:00:00:00
9	00:00:00:00:00:00	34	00:00:00:00:00:00
10	00:00:00:00:00:00	35	00:00:00:00:00:00
11	00:00:00:00:00:00	36	00:00:00:00:00:00
12	00:00:00:00:00:00	37	00:00:00:00:00:00
13	00:00:00:00:00:00	38	00:00:00:00:00:00
14	00:00:00:00:00:00	39	00:00:00:00:00:00
15	00:00:00:00:00:00	40	00:00:00:00:00:00

5. Under **STEP2**, You can select **Accept** or **Deny** for communication from specific MAC addresses.

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  - IPP
  - IEEE802.1X
  - Security
    - Protocol ON/OFF
    - IP Filtering
    - MAC Address Filtering**
    - SSL/TLS
    - IPSec
    - Change Network Password
  - Maintenance
  - Print Setup
  - PS Setup
  - PCL Setup
  - Color Setup
  - Management

**MAC Address Filtering**

**STEP1. Select MAC Address Filtering Settings**

MAC Address Filtering: Enable

CAUTION! If you set MAC Address Filtering to Enable, you will only be able to access the printer from devices with MAC Addresses set in STEP2 and STEP3.

**STEP2. Set Filtering MAC Address**

Communication from the following MAC Addresses: Accept

	MAC Address		MAC Address
1	00:00:00:00:00:00	26	00:00:00:00:00:00
2	00:00:00:00:00:00	27	00:00:00:00:00:00
3	00:00:00:00:00:00	28	00:00:00:00:00:00
4	00:00:00:00:00:00	29	00:00:00:00:00:00
5	00:00:00:00:00:00	30	00:00:00:00:00:00
6	00:00:00:00:00:00	31	00:00:00:00:00:00
7	00:00:00:00:00:00	32	00:00:00:00:00:00
8	00:00:00:00:00:00	33	00:00:00:00:00:00
9	00:00:00:00:00:00	34	00:00:00:00:00:00
10	00:00:00:00:00:00	35	00:00:00:00:00:00
11	00:00:00:00:00:00	36	00:00:00:00:00:00
12	00:00:00:00:00:00	37	00:00:00:00:00:00
13	00:00:00:00:00:00	38	00:00:00:00:00:00
14	00:00:00:00:00:00	39	00:00:00:00:00:00
15	00:00:00:00:00:00	40	00:00:00:00:00:00

- Using MAC addresses, enter the range of hosts whose communications are allowed or rejected.
- For the MAC addresses, use single-byte numerals separated by periods (.).
- Regardless of what is specified in **STEP2**, you can use **STEP3** to specify administrator addresses for which communication is enabled.

6. Under **STEP3**, specify the **Administrator's MAC Address setting**.

11	00:00:00:00:00:00	36	00:00:00:00:00:00
12	00:00:00:00:00:00	37	00:00:00:00:00:00
13	00:00:00:00:00:00	38	00:00:00:00:00:00
14	00:00:00:00:00:00	39	00:00:00:00:00:00
15	00:00:00:00:00:00	40	00:00:00:00:00:00
16	00:00:00:00:00:00	41	00:00:00:00:00:00
17	00:00:00:00:00:00	42	00:00:00:00:00:00
18	00:00:00:00:00:00	43	00:00:00:00:00:00
19	00:00:00:00:00:00	44	00:00:00:00:00:00
20	00:00:00:00:00:00	45	00:00:00:00:00:00
21	00:00:00:00:00:00	46	00:00:00:00:00:00
22	00:00:00:00:00:00	47	00:00:00:00:00:00
23	00:00:00:00:00:00	48	00:00:00:00:00:00
24	00:00:00:00:00:00	49	00:00:00:00:00:00
25	00:00:00:00:00:00	50	00:00:00:00:00:00

**STEP3. Save Administrator MAC Address.**

You can set an Administrator MAC Address, which takes priority over any MAC Filtering set in STEP2.

Only one MAC Address can be registered as the Administrator address.

If a proxy is used to access this printer, the proxy address will appear in Your Current Host/Proxy MAC Address' box.

If you do not wish to register an Administrator address, leave "Administrator's MAC Address setting" blank.

<b>Administrator MAC Address that has been registered</b>	00:00:00:00:00:00
<b>Your Current Local Host/Proxy MAC Address</b>	34:17:EB:CD:D7:F7
<b>Administrator's MAC Address setting</b>	00:00:00:00:00:00

Submit Cancel Press Submit to send changes. Press Cancel to clear changes.

Even if the wrong settings are configured in **STEP2** due to administrator MAC address entry in **Administrator's MAC Address setting**, the administrator can re-configure the setting from a host with the MAC address specified with **Administrator's MAC Address setting**.

- If the printer is being accessed via a proxy, the intermediate device's address will be displayed as **Your Host MAC Address**. Consequently, the address shown by **Your Host MAC Address** may be different from your actual host address.
- If nothing is registered for the administrator MAC address, the setting in **STEP2** may make the printer completely inaccessible.
- If you do not want to register an administrator MAC address, specify 00:00:00:00:00:00 for **Administrator's MAC Address setting**.

7. Click **Submit**.
8. Settings are saved on the printer and the network function is restarted.

## Sending Error Notifications by Mail

The printer comes with a mail sending function (SMTP) built-in. It can be configured to send a mail message whenever an error occurs. You can select whether to send a periodic mail message about errors, or to send a mail message as soon as an error occurs.

1. Log in as an administrator. *See “Logging in as an Administrator” on page 414.*
2. Click: **Admin Setup > Network Setup.**

QuickLabel QL-300s

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Admin Setup

- Network Setup
  - General Network Settings
    - TCP/IP
    - NBT
    - Email
    - SNMP
    - IPP
    - IEEE802.1X
    - Security
    - Maintenance
  - Print Setup
  - PS Setup
  - PCL Setup
  - Color Setup
  - Management

Protocol Options

TCP/IP	Enable
NetBIOS over TCP	Enable

Hub Link

Hub Link Status	OK(100Base-TX Full)
Gigabit Network	Disable
Hub Link Setting	Auto Negotiate

Energy Efficient Ethernet

Energy Efficient Ethernet	Enable
---------------------------	--------

3. Click: **Email > Send Settings.**

QuickLabel QL-300s

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    - Security
    - Maintenance
  - Print Setup
  - PS Setup
  - PCL Setup
  - Color Setup
  - Management
- Email
  - Send Settings
  - Alert Settings

Email Send Settings

STEP1. SMTP send settings

Set the protocol for the printer to send Email.  
If Disable is selected, skip the rest of the STEPs.

SMTP Send	Disable
-----------	---------

STEP2. Send Address Settings

Set the SMTP Server Address where the printer will send Email.

SMTP Server

Enter Email Server.  
(Max.64 characters)

Send Test

Set the sender Address (this printer's Address).

Printer Email Address

May be required to validate Email transmissions.  
(Max.64 characters)

4. Under **STEP1**, select **Enable** for **SMTP Send**.

The screenshot shows the 'QuickLabel QL-300s' Admin Setup interface. The left sidebar lists various setup categories, with 'Email' and 'Send Settings' selected. The main content area is titled 'Email Send Settings' and contains the following sections:

- STEP 1. SMTP send settings:** Includes instructions to set the protocol and a dropdown menu for 'SMTP Send' which is currently set to 'Enable'.
- STEP 2. Send Address Settings:** Includes instructions to set the SMTP Server Address. It features a text input field for 'SMTP Server', a 'Send Test' button, and another text input field for 'Printer Email Address'.
- STEP 3. More detail settings:** A collapsed section with a link to 'Set detail of the SMTP Protocol'.

5. Under **STEP2**, specify the required addresses.
- For **SMTP Server**, specify the mail server domain name or IP address.
  - For **Printer Email Address**, specify the mail address assigned to the printer.
- To configure SMTP server settings with a domain name, you need to configure DNS server settings with the **TCP/IP** setup.
  - The mail server needs to be configured to allow the printer to send mail. For information about mail server settings, consult with your network administrator.
  - Internet Explorer 7 configured with its initial default setup will not perform a send test.

To perform a send test, you need to change the setup of Internet Explorer 7.

Select **Tools > Security Level Customization**, and then enable **Allow websites to prompt for information using scripted windows**.

6. To configure more advanced settings from this point, click **Set detail of the SMTP Protocol.** for **STEP3.**

Otherwise, jump to step 16 of this procedure.

7. Click **Security Settings.**

8. For **SMTP Port Number**, specify the mail server port number.
9. Select **Enable** for **SMTP-Auth**.
- For **User ID**, specify the user ID for connection to the mail server.
  - For **Password**, specify the password for connection to the mail server.
10. Click **OK**.
11. Click **Configure attached information**.

12. Select or enter the information you want to add to the end of the message text.
13. Click **OK**.
14. Click **Others**.
15. For **Reply-To Address**, specify the return address for the mail sent from the printer. Normally, specify the mail address of the printer administrator.

16. Click **OK**.
17. Click **Submit**.
18. Settings are saved on the printer and the network function is restarted.

**Note:** The authentication method is automatically selected from among authentication methods supported by the mail server.

## Sending Error Notifications by Periodic Mail

For periodic notification, disable the sleep mode setting.

### To send periodic notifications about problems

1. Log in as an administrator. See “Logging in as an Administrator” on page 414.
2. Click: **Admin Setup > Network Setup**.



- Click: **Email > Alert Settings**.

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  - Email**
    - Send Settings
    - Alert Settings**
- SNMP
- IPP
- IEEE802.IX
- Security
- Maintenance

**Print Setup**

- PS Setup
- PCL Setup
- Color Setup
- Management

**Alert Settings**

You can configure this printer to send Email alerts for var.

Email Send Settings must be configured to use this service (Receive Settings have no affect on this service).

**Setting Events Used for Sending Email Alerts**

You can set up to five addresses to which Email messages are sent upon printer status changes.

Address1:  [Setting](#) [Copy](#)

Address2:  [Setting](#) [Copy](#)

Address3:  [Setting](#) [Copy](#)

Address4:  [Setting](#) [Copy](#)

Address5:  [Setting](#) [Copy](#)

(Max:78 characters)Example(jamith@abc\_xo.com)

**View a summary of current events and enabled Email alerts**

[View a Summary of Current Configuration](#)

The selections below allow custom events to be set for the 5 addresses above.

Default  Address1

Condition	Alert Level	Default Upon occurrence of an event	Address1 Upon occurrence of an event	Description
Consumable	Warning	Immediate	Immediate	Toner, Image Drums
	Error	Immediate	Immediate	
Maintenance Unit	Warning	2Hours after	2Hours after	Belt Unit, Fuser Unit
	Error	Immediate	Immediate	
Paper Supply	Warning	15Minutes after	15Minutes after	Paper, Transparencies
	Error	Immediate	Immediate	
Printing Paper	Warning	Disable	Disable	Cover Open, Paper Jam
	Error	2Hours after	2Hours after	
Storage Device	Warning	Disable	Disable	

- Enter the mail address of the malfunction notification recipient.

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**Admin Setup**

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    - Send Settings
    - Alert Settings**
- SNMP
- IPP
- IEEE802.IX
- Security
- Maintenance

**Print Setup**

- PS Setup
- PCL Setup
- Color Setup
- Management

**Alert Settings**

You can configure this printer to send Email alerts for var.

Email Send Settings must be configured to use this service (Receive Settings have no affect on this service).

**Setting Events Used for Sending Email Alerts**

You can set up to five addresses to which Email messages are sent upon printer status changes.

Address1:  [Setting](#) [Copy](#)

Address2:  [Setting](#) [Copy](#)

Address3:  [Setting](#) [Copy](#)

Address4:  [Setting](#) [Copy](#)

Address5:  [Setting](#) [Copy](#)

(Max:78 characters)Example(jamith@abc\_xo.com)

**View a summary of current events and enabled Email alerts**

[View a Summary of Current Configuration](#)

The selections below allow custom events to be set for the 5 addresses above.

Default  Address1

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Consumable	Warning	Immediate	Immediate	Toner, Image Drums
	Error	Immediate	Immediate	
Maintenance Unit	Warning	2Hours after	2Hours after	Belt Unit, Fuser Unit
	Error	Immediate	Immediate	
Paper Supply	Warning	15Minutes after	15Minutes after	Paper, Transparencies
	Error	Immediate	Immediate	
Printing Paper	Warning	Disable	Disable	Cover Open, Paper Jam
	Error	2Hours after	2Hours after	
Storage Device	Warning	Disable	Disable	

- Click **Setting** of the mail address you want to specify.

Malfunction notification condition settings can be copied to another addressee by clicking **Copy**. This is useful when sending malfunction notifications to multiple recipients with similar mail addresses.

- Select the **Periodically** check box, and then click **To STEP2**.

**Setting Email Alert(Address:1:user@aaabbb)**

**STEP1. Determine how Email alerts.**  
Choose one of the following ways and then press "To STEP2".

Way of Email Alerting	Description
<input type="radio"/> Periodically	Emails printer status at predetermined intervals.
<input checked="" type="radio"/> Upon occurrence of an event	Emails the details of an event which has happened to a printer while the printer is operating.

- For **Email Alert Interval**, specify the mail send interval.

**Setting periodically(Address:1:user@aaabbb)**

**Setting Email Alert Interval**  
Specify an interval for sending Email of printer status.  
The interval that can be set is any positive integer value of 1 to 24.

**Email Alert Interval**  Hours(1-24hours)

**Setting Events Used for Sending Email Alerts**  
Mark the checkbox(es) beside event(s) to be Included in Email alerts.  
Unmarked event(s) are not included in Email alerts.

Condition	Warning	Error	Description
Consumable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning or error about its consumables such as image drums or toner cartridges. Example: Drum Life Warning, Drum Life Error
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Maintenance Unit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning or error about its maintenance units such as fuser or bbb unit. Example: User Life Warning, User Life Error
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Paper Supply	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning or error about pages that can still be printed on it. Example: Paper Out Warning, Paper Out
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Printing Paper	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning or error about its printing paper. Example: Size Mismatch, Paper Feed Jam
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Storage Device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning about flash memory. Example: Mass Storage Error
Print Result	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning or error about its print result. Example: Invalid Data, Memory Over Flow
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Interface	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning or error about its interfaces. Example: USB Hub Unsupported
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Security	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning about its security. Example: Invalid Secure Data
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has issued a service call.

Mail is not sent if there are no reportable errors within the period.

- Under **Setting Events Used for Sending Email Alerts**, select the check boxes of the error types for you to be notified of.
- Click **OK**.
- Check the configuration of the malfunction notification conditions.
  - To display as a list, click **Show current settings table**. Check the configuration, and then close the window.
  - To compare the setting conditions of two recipients, use the list box to select each of the recipients you want to compare. Check the displayed configuration.

You can change notification condition settings by clicking inside the setting condition comparison table.

- Click **Submit**.
- Settings are saved on the printer and the network function is restarted.



## To send alerts when problems occur

1. Click: **Email > Alert Settings**.

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- SNMP
- IPP
- IEEE802.1X
- Security
- Maintenance
- Print Setup
  - PS Setup
  - PCL Setup
  - Color Setup
- Management

**Alert Settings**

You can configure this printer to send Email alerts for var.  
Email Send Settings must be configured to use this service (Receive Settings have no affect on this service).

**Setting Events Used for Sending Email Alerts**

You can set up to five addresses to which Email messages are sent upon printer status changes.

Address1:  [Setting](#) [Copy](#)

Address2:  [Setting](#) [Copy](#)

Address3:  [Setting](#) [Copy](#)

Address4:  [Setting](#) [Copy](#)

Address5:  [Setting](#) [Copy](#)

(Max:78 characters)Example:jmith@abc\_co.com

**View a summary of current events and enabled Email alerts**

[View a Summary of Current Configuration](#)

The selections below allow custom events to be set for the 5 addresses above.

Condition	Alert Level	Default	Address1	Description
		Upon occurrence of an event	Upon occurrence of an event	
Consumable	Warning	Immediate	Immediate	Toner, Image Drums
	Error	Immediate	Immediate	
Maintenance Unit	Warning	2Hours after	2Hours after	Belt Unit, Fuser Unit
	Error	Immediate	Immediate	
Paper Supply	Warning	15Minutes after	15Minutes after	Paper, Transparencies
	Error	Immediate	Immediate	
Printing Paper	Warning	Disable	Disable	Cover Open, Paper Jam
	Error	2Hours after	2Hours after	
Storage Device	Warning	Disable	Disable	
	Error			

2. Enter the mail address of the malfunction notification recipient.

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**Admin Setup**

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    - Send Settings
    - Alert Settings**
- SNMP
- IPP
- IEEE802.1X
- Security
- Maintenance
- Print Setup
  - PS Setup
  - PCL Setup
  - Color Setup
- Management

**Alert Settings**

You can configure this printer to send Email alerts for var.  
Email Send Settings must be configured to use this service (Receive Settings have no affect on this service).

**Setting Events Used for Sending Email Alerts**

You can set up to five addresses to which Email messages are sent upon printer status changes.

Address1:  [Setting](#) [Copy](#)

Address2:  [Setting](#) [Copy](#)

Address3:  [Setting](#) [Copy](#)

Address4:  [Setting](#) [Copy](#)

Address5:  [Setting](#) [Copy](#)

(Max:78 characters)Example:jmith@abc\_co.com

**View a summary of current events and enabled Email alerts**

[View a Summary of Current Configuration](#)

The selections below allow custom events to be set for the 5 addresses above.

Condition	Alert Level	Default	Address1	Description
		Upon occurrence of an event	Upon occurrence of an event	
Consumable	Warning	Immediate	Immediate	Toner, Image Drums
	Error	Immediate	Immediate	
Maintenance Unit	Warning	2Hours after	2Hours after	Belt Unit, Fuser Unit
	Error	Immediate	Immediate	
Paper Supply	Warning	15Minutes after	15Minutes after	Paper, Transparencies
	Error	Immediate	Immediate	
Printing Paper	Warning	Disable	Disable	Cover Open, Paper Jam
	Error	2Hours after	2Hours after	
Storage Device	Warning	Disable	Disable	
	Error			

3. Click **Setting** of the mail address you want to specify.

Malfunction notification condition settings can be copied to another addressee by clicking **Copy**. This is useful when sending malfunction notifications to multiple recipients with similar mail addresses.

- Select the **Upon occurrence of an event** check box, and then click **To STEP2**.

**Setting Email Alert(Address:1:user@aaabbb)**

**STEP1. Determine how Email alerts.**

Choose one of the following ways and then press "To STEP2".

Way of Email Alerting	Description
<input type="radio"/> Periodically	Emails printer status at predetermined intervals.
<input checked="" type="radio"/> Upon occurrence of an event	Emails the details of an event which has happened to a printer while the printer is operating.

- Under **Setting Events Used for Sending Email Alerts**, select the check boxes of the error types for you to be notified of.

**Setting upon occurrence of an event(Address:1:user@aaabbb)**

**Setting Events Used for Sending Email Alerts.**

Mark the checkbox(es) beside event(s) to be included in Email alerts.  
Unmarked event(s) are not included in Email alerts.

Condition	Warning	Error	Description
Consumable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning or error about its consumables such as image drums or toner cartridges. Example: Drum Life Warning, Drum Life Error
Maintenance Unit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning or error about its maintenance units such as fuser or belt unit. Example: Fuser Life Warning, Fuser Life Error
Paper Supply	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning or error about pages that can still be printed on it. Example: Paper Out Warning, Paper Out
Printing Paper	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning or error about its printing paper. Example: Size Mismatch, Paper Feed Jam
Storage Device	<input type="checkbox"/>	<input type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning about flash memory. Example: Mass Storage Error
Print Result	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning or error about its print result. Example: Invalid Data, Memory Over Flow
Interface	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning or error about its interface. Example: USB Hub Unsupported
Security	<input type="checkbox"/>	<input type="checkbox"/>	Included in Email alerts for a printer when the printer has reported a warning or error about its security. Example: Invalid Secure Data
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Included in Email alerts for a printer when the printer has issued a service call.

- Specify the delay after an error occurs until the message is sent, and then click **OK**.

**Detail (Consumable Error)**

You can configure parameters used for sending Email alerts.  
(the time entered in "Hours" field is any positive integer value of 0 to 48)

Setting time	
0	Hours 0 Minutes

\*In the case of 0hour and 0minute, Email is sent immediately.

- Setting a delay time makes it possible to send notifications only of errors that are generated only over a long period of time.
- Setting "0 hours, 0 minutes" for the delay time causes the message to be sent immediately after an error occurs.

- Click **OK**.

- Check the configuration of the malfunction notification conditions.

- To display as a list, click **Show current settings table**. Check the configuration, and then close the window.
- To compare the setting conditions of two recipients, use the list box to select each of the recipients you want to compare. Check the displayed configuration.

You can change notification condition settings by clicking inside the setting condition comparison table.

- Click **Submit**.

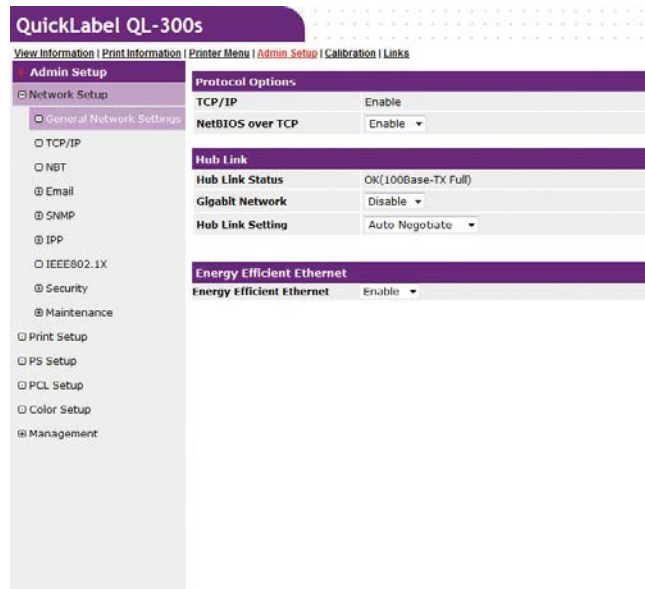
- Settings are saved on the printer and the network function is restarted.

## Using SNMPv3

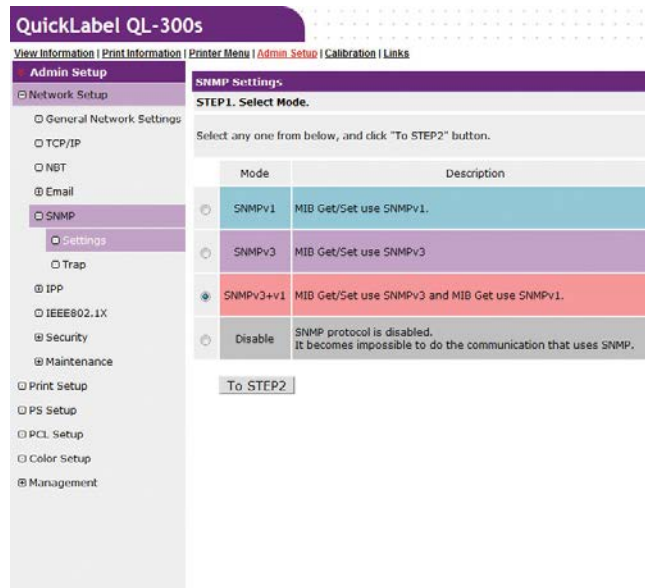
This printer implements an SNMPv3 compatible agent.

You can use an SNMPv3 compatible SNMP manager to encrypt printer administration with SNMP for greater security.

1. Log in as an administrator. *See “Logging in as an Administrator” on page 414.*
2. Click: **Admin Setup > Network Setup.**



3. Click **SNMP > Settings.**



- Select the check box of the SNMP version to be used in **STEP1**, and then click **To STEP2**.

If **SNMPv3** is selected, you will not be able to view or configure settings with SNMPv1. If **SNMPv3+v1** is selected, you will be able to view settings with either SNMPv1 or SNMPv3, but you can configure settings using SNMPv3 only.

- In **STEP2**, enter an SNMPv3 user name for **User Name**.

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Admin Setup

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    - Settings
    - Trap
    - IPP
    - IEEE802.IX
    - Security
    - Maintenance
- Print Setup
  - PS Setup
  - PCL Setup
  - Color Setup
  - Management

SNMPv3+v1 Settings

STEP2: SNMPv3 Detail

User Name: root (Max:32 characters)

Context Name: v3context

Authentication Settings

Passphrase: (0-32 characters)

Algorithm: MD5

Privacy (Encryption) Settings

Passphrase: (0-32 characters)

Algorithm: DES

STEP3: SNMPv1 Detail

SNMP Community Configuration

New SNMP Read Community: (Max:15 characters)

Confirm New SNMP Read Community: (Max:15 characters)

"SNMP Read Community" is needed when you configure the printer by SNMP. The default value is "public". You can limit the browsing printer settings by SNMP, if this name is changed.

- Enter the passphrase for verification in **Passphrase** for **Authentication Settings**.

QuickLabel QL-300s

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

Admin Setup

- Network Setup
  - General Network Settings
  - TCP/IP
  - NBT
  - Email
  - SNMP
    - Settings
    - Trap
    - IPP
    - IEEE802.IX
    - Security
    - Maintenance
- Print Setup
  - PS Setup
  - PCL Setup
  - Color Setup
  - Management

SNMPv3+v1 Settings

STEP2: SNMPv3 Detail

User Name: root (Max:32 characters)

Context Name: v3context

Authentication Settings

Passphrase: \*\*\*\*\* (0-32 characters)

Algorithm: MD5

Privacy (Encryption) Settings

Passphrase: (0-32 characters)

Algorithm: DES

STEP3: SNMPv1 Detail

SNMP Community Configuration

New SNMP Read Community: (Max:15 characters)

Confirm New SNMP Read Community: (Max:15 characters)

"SNMP Read Community" is needed when you configure the printer by SNMP. The default value is "public". You can limit the browsing printer settings by SNMP, if this name is changed.

- Select **Algorithm**.
- Enter the passphrase for encryption in **Passphrase** for **Privacy (Encryption) Settings**. You can select **DES** only for the encryption algorithm.
- Click **Submit**.

- Settings are saved on the printer and the network function is restarted.

**Note:** For the context key of the SNMP manager to be used, specify “v3context”.

## Using IEEE802.1X

Authentication is in accordance with IEEE802.1X.

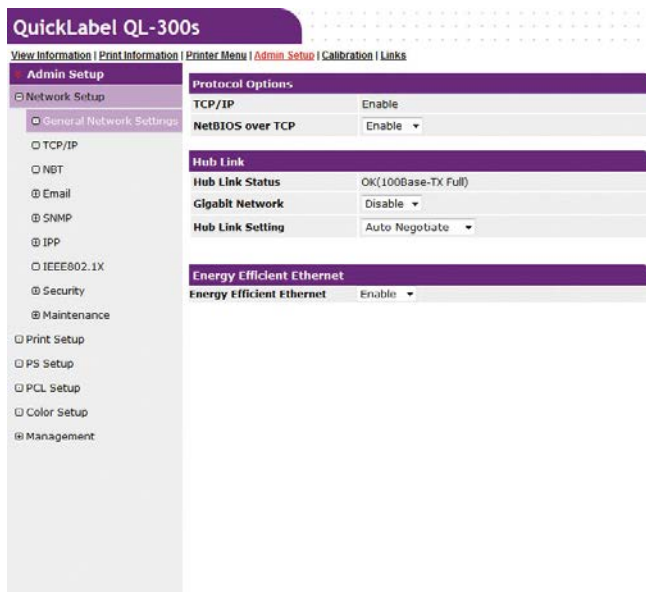
### IEEE802.1X Setup Flow

To configure IEEE802.1X settings on the printer, first connect the printer and computer via a normal hub for setup. After completing the IEEE802.1X setting configuration procedure, connect the printer to the authentication switch.

- Connect the printer to a computer.
- On the computer, specify an IP address for setting up.
- On the printer, specify an IP address for setting up.
- On the printer, configure IEEE802.1 settings.
- Connect the printer to the authentication switch.

### To configure IEEE802.1 settings

- Log in as an administrator. See “Logging in as an Administrator” on page 414.
- Click: **Admin Setup > Network Setup**.



- Click **IEEE802.1X**.

QuickLabel QL-300s

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

Admin Setup

- Network Setup
  - General Network Settings
  - TCP/IP
  - NBT
  - Email
  - SNMP
  - IPP
  - IEEE802.1X**
  - Security
  - Maintenance
- Print Setup
- PS Setup
- PCL Setup
- Color Setup
- Management

IEEE802.1X Settings

IEEE802.1X: Disable

EAP Type: EAP-TLS

EAP User: (Max:64 characters)

Client Certificate Setting

Use SSL/TLS Certificate for EAP authentication

Not use SSL/TLS Certificate for EAP authentication

Import of Client Certificate: Import

CA Certification Setting

Authenticate Server

Not authenticate Server

Import of CA Certificate: Import

If PEAP is to be used, proceed to “To use PEAP”. If EAP-TLS is to be used, proceed to “To use EAP-TLS”.

### To use PEAP

- For the **IEEE802.1X** setting, select **Enable**.
- For **EAP Type**, select **PEAP**.

QuickLabel QL-300s

View Information | Print Information | Printer Menu | Admin Setup | Calibration | Links

Admin Setup

- Network Setup
  - General Network Settings
  - TCP/IP
  - NBT
  - Email
  - SNMP
  - IPP
  - IEEE802.1X**
  - Security
  - Maintenance
- Print Setup
- PS Setup
- PCL Setup
- Color Setup
- Management

IEEE802.1X Settings

IEEE802.1X: Enable

EAP Type: PEAP

EAP User: (Max:64 characters)

EAP Password: (Max:64 characters)

Client Certificate Setting

Use SSL/TLS Certificate for EAP authentication

Not use SSL/TLS Certificate for EAP authentication

Import of Client Certificate: Import

CA Certification Setting

Authenticate Server

Not authenticate Server

Import of CA Certificate: Import

- In **EAP User**, enter the user name.
- In **EAP Password**, enter the password.
- Select the **Authenticate Server** check box.

- Click **Import of CA Certificate**.

**Note:** If the **Not authenticate Server** check box is selected, import of a CA certificate is not required. If the **Not authenticate Server** check box is selected, there is no confirmation to determine if the connection is to a properly authenticated server.

This displays the “Import of CA Certificate” screen.

- Enter the file name of the CA certificate, and then click **OK**.
  - The imported CA certificate is a certificate of the server certificate issuing authority of the RADIUS server.
  - Supported import file formats are PEM, DER, and PKCS#7.

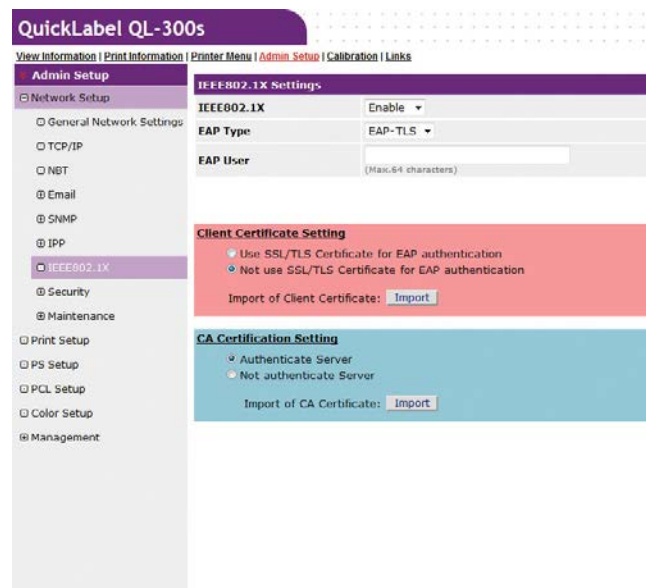


The CA certificate is imported by the printer.

- Click **Submit**.
- Settings are saved on the printer and the network function is restarted. When the standby screen appears on the control panel, turn off the printer. Advance to “To connect the printer to an authentication switch”.

## To use EAP-TLS

- For the **IEEE802.1X** setting, select **Enable**.
- For **EAP Type**, select **EAP-TLS**.



- In **EAP User**, enter the user name.
- Select the **Not use SSL/TLS Certificate for EAP authentication** check box.



5. Click **Import of Client Certificate**.  
This displays the “Import of Client Certificate” screen.
6. Enter the file name of the client certificate.
  - The importable certificate file format is PKCS#12.
7. Enter the client certificate password, and then click **OK**.

The client certificate is imported by the printer.

8. Select the **Authenticate Server** check box.
9. Click **Import of CA Certificate**.
 

**Note:** If the **Not authenticate Server** check box is selected, import of a CA certificate is not required. If the **Not authenticate Server** check box is selected, there is no confirmation to determine if the connection is to the correct authenticated server.

This displays the “Import of CA Certificate” screen.

10. Enter the file name of the CA certificate, and then click **OK**.
  - The imported CA certificate is a certificate of the server certificate issuing authority of the RADIUS server.
  - Supported import file formats are PEM, DER, and PKCS#7.

The CA certificate is imported by the printer.

11. Click **Submit**.
12. Settings are saved on the printer and the network function is restarted.  
When the standby screen appears on the control panel, turn off the printer.  
Advance to “To connect the printer to an authentication switch”.

## To connect the printer to an authentication switch

**Note:** Confirm that the printer is turned off.

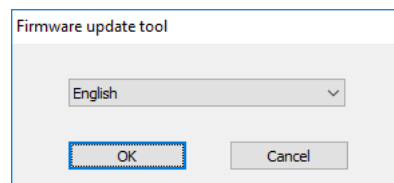
1. Plug a LAN cable into the printer's LAN (network) interface connector.
2. Plug the LAN cable into the authentication switch's authentication port.
3. Turn on the power supply of the printer.
4. Confirm that the standby screen is displayed on the control panel.
5. Configure settings in accordance with the operating environment, such as the printer's IP address, etc.



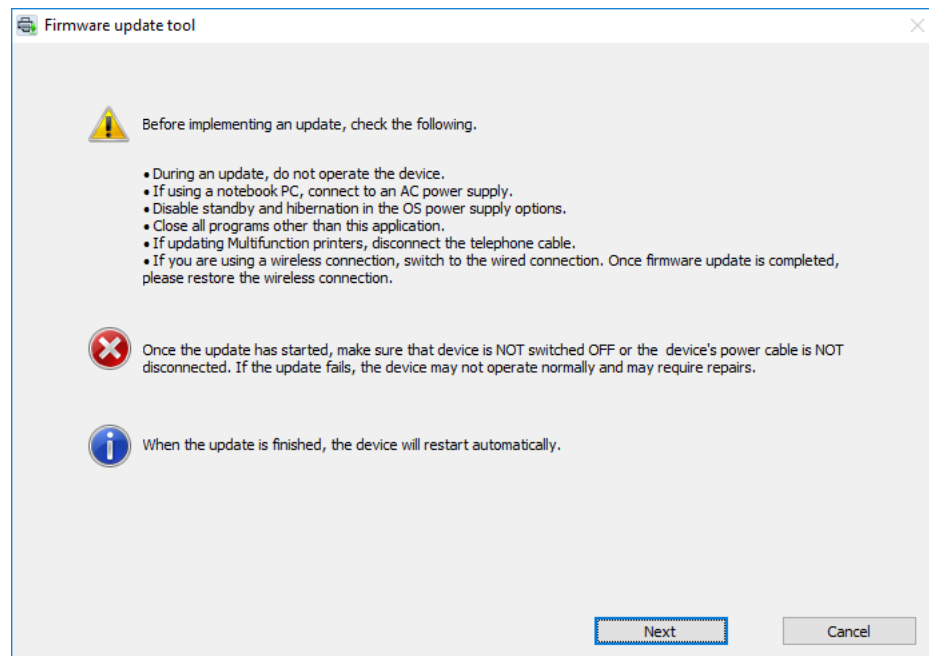
## Upgrading the Printer Firmware

Use the following instructions to upgrade the QL-300 printer firmware.

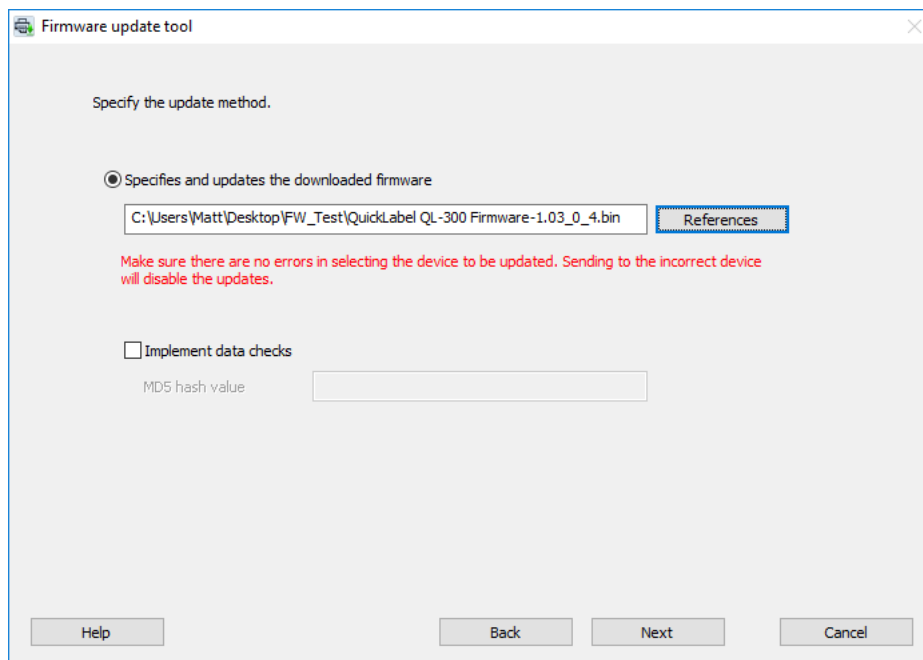
1. Download the QL-300 firmware upgrade package from the QuickLabel website ([www.quicklabel.com](http://www.quicklabel.com)). The file will be named **QuickLabel\_QL-300\_Firmware-x.xx.zip** (where x.xx indicates the firmware version number).
2. Unzip the firmware upgrade package file. A self-extracting executable file named **QuickLabel QL-300 Firmware-x.xx.exe** (where x.xx indicates the firmware version number) will be saved to your PC.
3. Launch the self-extracting executable file and save its contents to a folder on your PC.
4. Launch the **FWUpdateTool.exe** file.
5. At the language prompt, select your desired language. Then choose **OK**.



6. In the software license agreement screen, accept the agreement and choose **Next**.
7. In the precautions screen, observe the warnings and precautions. Then choose **Next**.

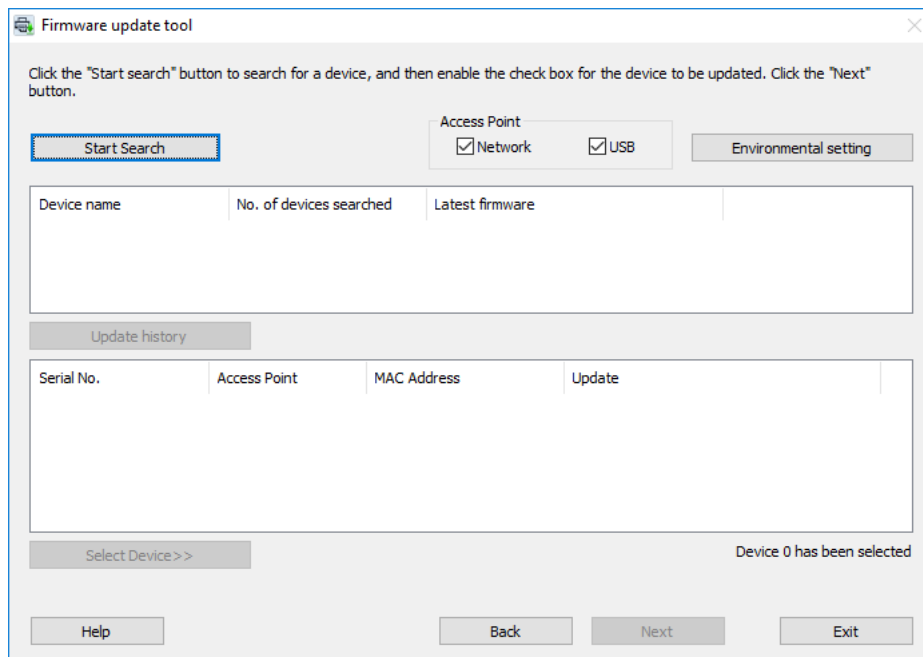


8. In the next screen, select **Specifies and updates the downloaded firmware**.



Select **References**. Browse to and select the file **QuickLabel QL-300 Firmware-B0x.xx\_x\_x.bin** (where x.xx indicates the firmware version number). Then choose **Next**.

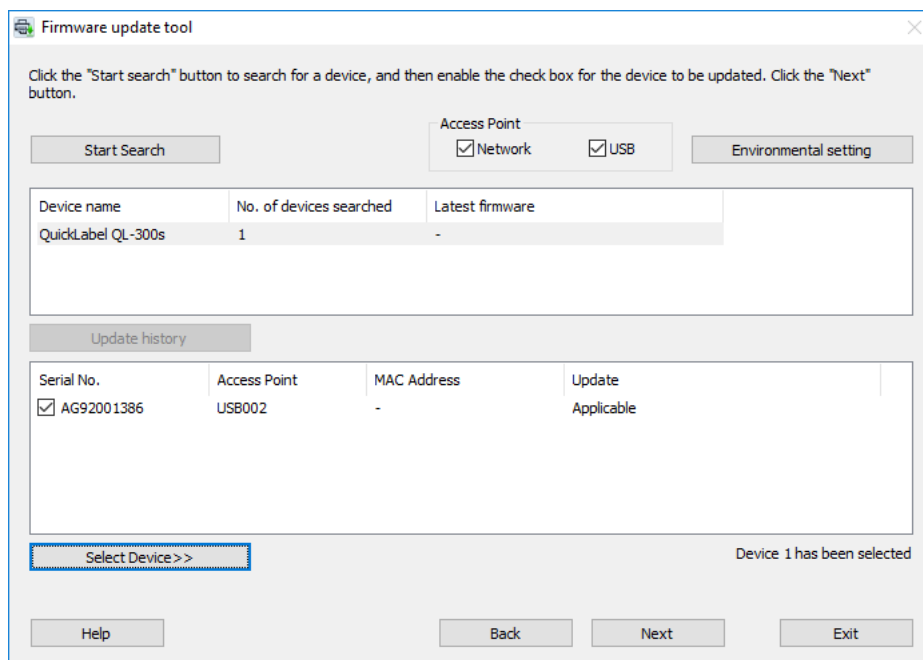
9. In the next screen, you will search for the printer you want to upgrade.



Select whether your printer is connected with a **Network** or **USB** interface. Then choose **Start Search**.

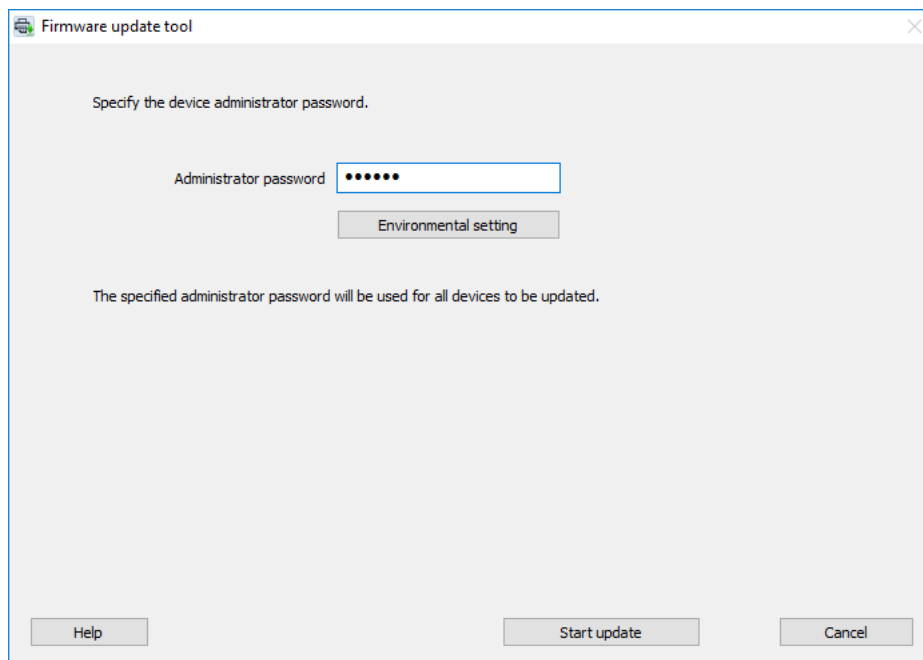
**Note:** Any printers listed after a canceled search may not upgrade properly. Please run the search again if a search has been canceled

10. After the search completes, the installed QL-300 printers will be displayed. Select the printer you want to upgrade.



From the top list, select the printer model. From the bottom list, select the printers you want to upgrade. Then choose **Next**.

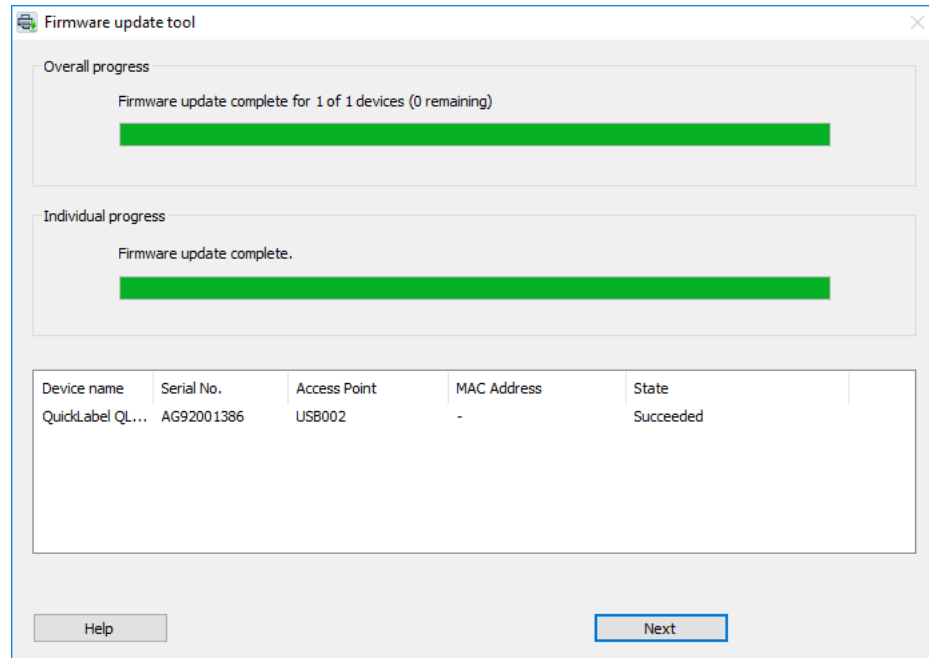
11. In the next screen, you will be prompted to enter the administrator password for the printers.



Enter the administrator password. The factory default setting is 999999. *See "Changing the Administrator Password" on page 265.*

Choose **Start update**.

12. The firmware upgrade process will begin. The upgrade status will be indicated by progress bars and informational messages.  
If an error occurs, you will be notified of the failure. In this situation, you can access the help system for assistance resolving the error.
13. When the firmware update is complete, choose **Next** to close the firmware update program.



Be sure to carefully read and follow the instructions in this manual before installing the machine.

## Cautions Related to Safety



Warning

Mishandling due to ignoring this symbol may cause death or serious injury.

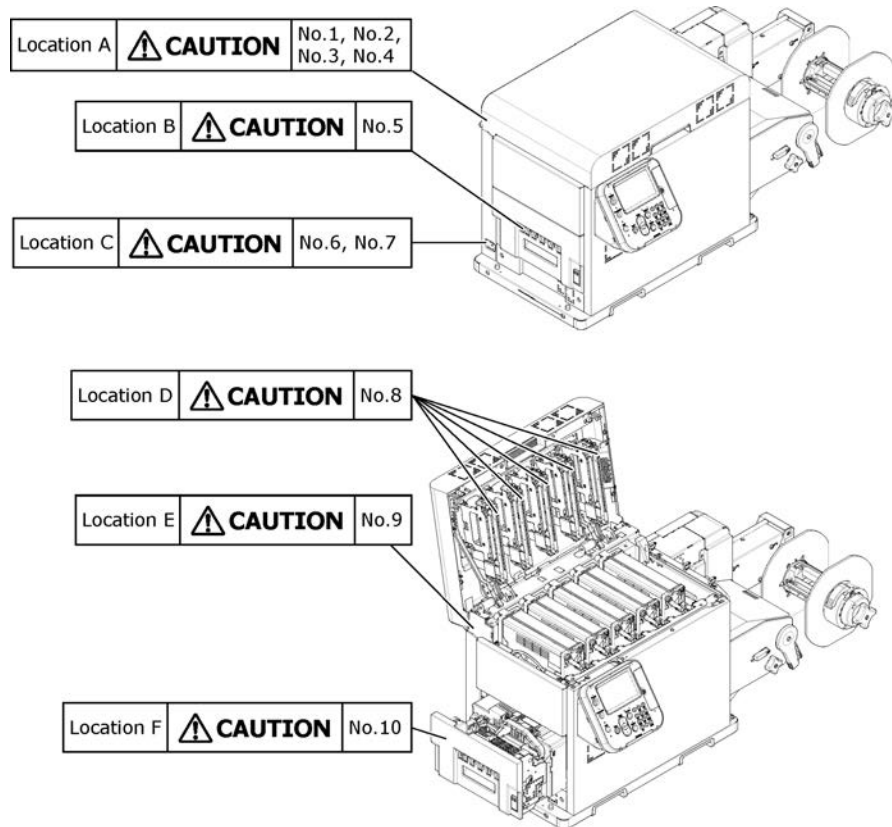


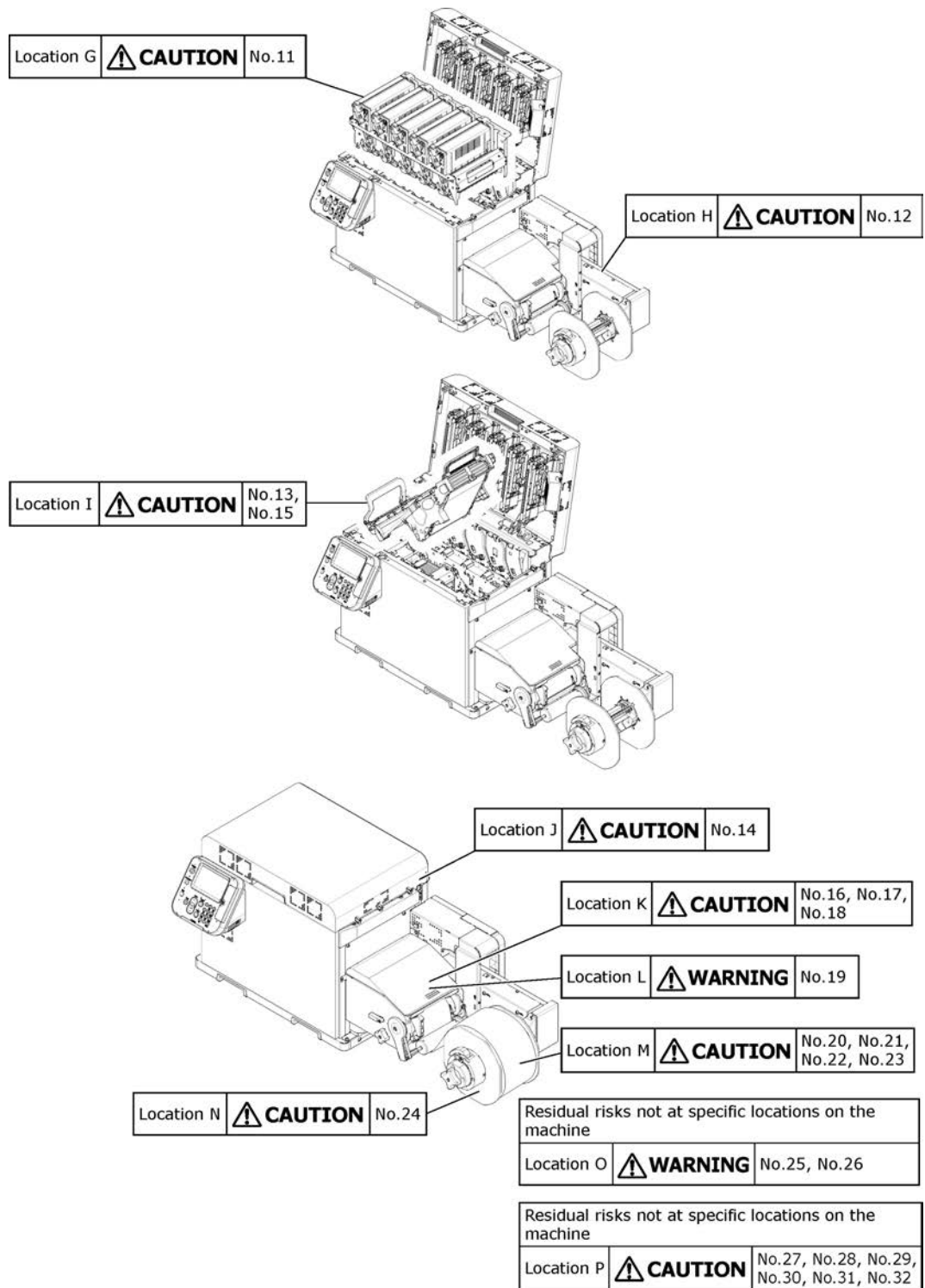
Caution

Mishandling due to ignoring this symbol may cause personal injury.

## Residual Risk Map

The numbers shown in the diagrams indicate the numbers for the residual risk associated with the relevant locations, as described in the “List of Risks” for the product. For details about the various risks, refer to the “List of Risks”.





## List of Risks

The letters shown under “Locations on machine” indicate the locations on the machine as indicated by the letters on the “Residual Risk Map” for the product. Refer to the “Residual Risk Map” for the specific location on the machine.

No	Job	Qualifications and training needed for job	Location on machine	Extent of hazard	Description of hazard	Protective measures implemented by machine installer and user
1	Installation / transportation	Carefully read User Guide	A	CAUTION	Because the machine (the printer alone) weighs 43 kg, there is a risk of injury while lifting it.	Two or more people are required to lift the machine.
2	Installation / transportation	Carefully read User Guide	A	CAUTION	Because the machine (the printer alone) weighs 43 kg, there is a risk of injury if it falls while workers are holding the OP-Assy.	Workers must hold the machine at the specified handholds while working.
3	Installation / transportation	Carefully read User Guide	A	CAUTION	Because the machine (the printer and unwinder) weighs up to 62 kg, there is a risk of injury if the machine is installed on a table that is unstable or unable to bear the load, such that the table overturns or breaks.	The machine must be installed so that the table on which it is installed is stable. The machine must be installed on a table capable of bearing the weight of the machine.

No	Job	Qualifications and training needed for job	Location on machine	Extent of hazard	Description of hazard	Protective measures implemented by machine installer and user
4	Installation / transportation	Carefully read User Guide	A	CAUTION	There is a risk of injury if the machine (printer and unwinder) extend past the edge of the table, such that it could catch on a person and fall off.	The machine must be installed on a table that is large enough to leave empty space around the machine.
5	Usage / maintenance	Carefully read User Guide	B	CAUTION	There is a risk of injury from fingers or hair being twisted into the rollers on the fuser and exit unit.	Workers must not touch the output roller area on the fuser and exit unit with their hands while the printer is operating. Workers must not put their faces close to or look into the output roller area on the fuser and exit unit while the printer is operating.
6	Electrical connections	Carefully read User Guide	C	CAUTION	There is a risk of electric shock from the electric power cord.	Workers must not touch the power plug or power cord if their hands are wet.
7	Electrical connections	Carefully read User Guide	C	CAUTION	There is a risk of electric shock from the electric power connectors.	Workers must not insert any metal objects, such as a screwdriver, into the power connectors.



No	Job	Qualifications and training needed for job	Location on machine	Extent of hazard	Description of hazard	Protective measures implemented by machine installer and user
8	Usage / maintenance	Carefully read User Guide	D	CAUTION	Workers could pinch their hands if they grip the LED head while closing the top cover.	Workers must press on the top of the top cover.
9	Usage / maintenance	Carefully read User Guide	E	CAUTION	Workers could pinch their fingers or hands in the top cover or the top cover's support while closing the top cover.	Workers must press on the top of the top cover.
10	Usage / maintenance	Carefully read User Guide	F	CAUTION	There is a risk of injury if the fuser and exit unit falls while it is being pulled out.	Workers must grip the handle on the fuser unit when lifting the fuser and exit unit.
11	Usage / maintenance	Carefully read User Guide	G	CAUTION	There is a risk of injury if the print cartridge set falls while it is being pulled out.	Workers must grip the handles on the toner cartridge basket for the print cartridge set when lifting it.
12	Installation / transportation	Carefully read User Guide	H	CAUTION	There is a risk of injury if the unwinder falls while it is being lifted.	Workers must hold the machine at the specified handholds while working.
13	Usage / maintenance	Carefully read User Guide	I	CAUTION	There is a risk of injury if the belt unit falls while it is being removed.	Workers must grasp the handle on the belt unit when removing the belt unit.

No	Job	Qualifications and training needed for job	Location on machine	Extent of hazard	Description of hazard	Protective measures implemented by machine installer and user
14	Installation / transportation	Carefully read User Guide	J	CAUTION	There is a risk that fingers or hands could be pinched between the unwinder and the printer while installing the unwinder.	Workers must hold the machine at the specified handholds while working.
15	Usage / maintenance	Carefully read User Guide	I	CAUTION	There is a risk that hands or fingers could be pinched between the handle and the machine while removing or installing a belt unit.	Confirm the procedures for removing and installing the belt unit.
16	Usage / maintenance	Carefully read User Guide	K	CAUTION	There is a risk that hands could be pinched in the cover of the unwinder.	Workers must press on the cover of the unwinder.
17	Usage / maintenance	Carefully read User Guide	K	CAUTION	There is a risk that hands or fingers could be pinched while removing the cutter unit of the unwinder.	Workers must confirm the procedure for installing and removing the cutter unit.
18	Usage / maintenance	Carefully read User Guide	K	CAUTION	There is a risk of injury if the cutter unit of the unwinder falls while it is being removed.	Workers must confirm the procedure for installing and removing the cutter unit.













No	Job	Qualifications and training needed for job	Location on machine	Extent of hazard	Description of hazard	Protective measures implemented by machine installer and user
19	Maintenance	Carefully read User Guide	L	CAUTION	There is a risk that hands may touch the cutter blade and be cut while dismantling the cutter unit of the unwinder and washing the cutter blade.	Confirm the procedure for cleaning before you dismantle the cutter unit and wash the cutter blade.
20	Usage	Carefully read User Guide	M	CAUTION	There is a risk of injury if the roll paper is dropped or overturned.	Workers must wear rubber gloves or similar gloves while installing or removing roll paper. Workers must confirm the storage and installation procedures so they do not drop or overturn the roll paper.
21	Usage	Carefully read User Guide	M	CAUTION	There is a risk that hands could be cut on the edge of roll paper.	Workers must wear rubber gloves or similar gloves while handling roll paper.






No	Job	Qualifications and training needed for job	Location on machine	Extent of hazard	Description of hazard	Protective measures implemented by machine installer and user
22	Usage	Carefully read User Guide	M	CAUTION	There is a risk that hands or fingers could be pinched by the roll paper and the roll paper holder while loading roll paper onto the roll paper holder.	Workers must confirm the procedure for attaching and removing roll paper. Workers must turn the knob on the roll paper holder so it is sufficiently loose when loading roll paper.
23	Usage / maintenance	Carefully read User Guide	M	CAUTION	There is a risk of injury from fingers or hair being twisted into the roll paper or roll paper holder while the machine is operating.	Workers must not touch the shaft of the roll paper holder while the printer is operating. Workers must not put their faces close to or look into the shaft of the roll paper holder while the printer is operating.
24	Usage	Carefully read User Guide	N	CAUTION	There is a risk of injury if the roll paper falls off because the roll paper could not be secured to the roll paper holder.	Workers must confirm the procedure for attaching and removing roll paper. Workers must turn the knob on the roll paper holder so it is sufficiently loose when loading roll paper.



No	Job	Qualifications and training needed for job	Location on machine	Extent of hazard	Description of hazard	Protective measures implemented by machine installer and user
25	Maintenance	Maintenance technology	O	WARNING	There is a risk of injury, accident, or reduced performance of the product if it is dismantled or assembled by a person who does not have the tools or maintenance technology.	Workers must request repairs from Technical Support.
26	Usage	Carefully read User Guide	O	WARNING	There is a risk of electric shock when printing on metal foil or electrically conductive paper if the paper is touched while printing.	Workers must not use metal foil or electrically conductive paper.
27	Usage	Carefully read User Guide	P	CAUTION	There is a risk of injury by stepping on the cores of roll paper or on rolls of paper that are left on the floor.	Workers must confirm the storage and installation procedures so they do not drop or overturn the roll paper.
28	Installation / transportation	Carefully read User Guide	P	CAUTION	There is a risk of injury from the silica gel used in the packing materials.	Workers must be careful when handling the silica gel used in the packing materials.
29	Installation / transportation	Carefully read User Guide	P	CAUTION	There is a risk of injury from the plastic bags used in the packing materials.	Workers must be careful when handling the plastic bags used in the packing materials.

No	Job	Qualifications and training needed for job	Location on machine	Extent of hazard	Description of hazard	Protective measures implemented by machine installer and user
30	Installation / transportation	Carefully read User Guide	P	CAUTION	There is a risk of injury to fingers and hands from the cardboard used in the packing material.	Workers must be careful when handling the cardboard used in the packing materials.
31	Installation / transportation	Carefully read User Guide	P	CAUTION	There is a risk of injury from dropping the printer while removing the plastic bags and cushioning used in the packing materials.	Workers must confirm the procedure for unpacking the machine.
32	Usage	Carefully read User Guide	P	CAUTION	Smoke or fire could occur if the air vents are blocked.	The air vents must not be blocked.

## General Warnings and Cautions

Symbol	Warning
	Do not touch the safety switch inside this machine. High voltage may occur, resulting in electric shock. Also, a gear may rotate, resulting in injury.
	Do not use a highly combustible spray near this machine. Some parts inside the machine become very hot, possibly resulting in fire.
	If the cover becomes extremely hot, the machine emits smoke or odor, or you hear a strange sound, unplug the power plug from the outlet, and contact your dealer. Fire may result.
	If liquid such as water gets inside the machine, unplug the power plug from the outlet, and contact your dealer. Fire may result.
	If you drop a clip or other foreign objects into the machine, unplug the power plug from the outlet, and take the foreign objects out. Electric shock, fire, or injury may result.
	Do not perform any operation or disassembly other than instructed in manuals. Electric shock, fire, or injury may result.
	There is a risk of explosion if the battery is replaced with the wrong type of battery. The battery in the machine does not need to be replaced. Do not touch the battery.
	If the machine is dropped or the cover is damaged, unplug the power plug from the outlet, and contact your dealer. Electric shock, fire, or injury may result.
	Unplug the power plug regularly, and clean the bases of and in between the plug blades. If the power plug is left plugged into the outlet for an extended period of time, dust adheres on the bases of the plug blades, and a short may occur, possibly resulting in fire.
	Do not connect the power cord, cables, or the ground wire in any way other than instructed in manuals. Fire may result.
	Do not put a cup with liquids such as water on the machine. Doing so may cause electric shock and/or fire leading to personal injuries.
	Do not let liquid get inside this machine, or allow this machine to get wet. Electric shock or fire may result.


Symbol	Warning
	<p>Do not insert any object into a vent hole. Electric shock, fire, or injury may result.</p>
	<p>Do not throw print cartridges or waste toner boxes into a fire. The toner may ignite, resulting in burns.</p>
	<p>Do not vacuum spilled toner with an electric vacuum cleaner. Vacuuming spilled toner with an electric vacuum cleaner may result in ignition due to sparks from electric contacts or other reasons. If toner spills on the floor or other places, wipe the toner gently with a damp rag or other cloth while using care not to scatter the toner.</p>
	<p>When the machine cover is opened, do not touch the fuser unit. Burns may result.</p>
	<p>Operation using an UPS (uninterruptible power supply) or inverter is not guaranteed. Do not use an uninterruptible power supply or inverter. Fire may result.</p>

Symbol	Caution
	<p>Do not go near the paper output part when you turn the power on or when printing is in progress. Injury may result.</p>
	<p>Do not disassemble the print cartridge, or force it open. You may inhale the scattered toner, or the toner may land on your hands or clothes, making them dirty.</p>



## Emergency First Aid

Take care with toner powder:

	If you inhale it	Move to an area with fresh air and rest in a posture that allows you to breath freely.
	If it gets on your skin	Wash with plenty of soap and water.
	If it gets in your eyes	Very carefully wash with water for several minutes. Next, if you are wearing contact lenses and can easily remove them, then remove them. Then, continue washing.
	If you drink it	If you feel bad, contact a physician.

# B

# Specifications

## Major Specifications

Item	Specification
Model Number	QL-300 QL-300s
RAM (standard/maximum)	2GB/2GB
Weight	Approx. 62 kg (including unwinder)
Power	110 - 127 VAC (Range 99 - 140 VAC), 50/60 Hz $\pm$ 2% 220 - 240 VAC (Range 198 - 264 VAC), 50/60 Hz $\pm$ 2%
Power consumption	When operating: Maximum 1200 W/Average 710 W
	In standby: Average 27 W
	In power conservation modes Power save mode: 25 W or less Auto power off: 1 W or less *This product does not consume power if the main power switch is turned off, even if it is plugged into an electric outlet.
Operating environment	Temperature: 10 to 30 °C, humidity: 20 to 70% RH Maximum wet-bulb temperature is 25 °C (to assure high-quality full color printing, temperature should be 17 to 27 °C, and humidity at 50 to 70% RH)
Network connections	1000BASE-T/100BASE-TX/10BASE-T (Network Factory Defaults: 100BASE-TX/10BASE-T)
Local connections	USB 2.0 interface (suitable for Hi-Speed USB)
Supported operating systems	Windows 8.1/Windows 8/Windows 7/Windows Server 2012 R2/Windows Server 2012/Windows Server 2008 R2/Windows Server 2008 Refer to the operating environment for details.

Item		Specification
Printing method		QL-300: Full-color dry-type electrophotographic method using 4 consecutive digital LED heads QL-300s: Full-color dry-type electrophotographic method using 5 consecutive digital LED heads
Printable width	Paper width	Roll paper: 25.4 mm (1 inch) - 130 mm (5.1 inches), including liner
	Printable width	Roll paper: 21.16 mm (0.83 inches) - 125.76 mm (4.95 inches)
	Reference position	Right edge facing feed direction
Resolution	Print resolution	1200 × 1200 dpi (2-tone)/600 × 600 dpi (2-tone)
	LED dot-pitch	1200dpi
Print colors		Yellow, magenta, cyan, black, and white* <sup>1</sup>
Print languages		PCL5c, PCL6(PCLXL), PostScript
Print speed	Color	QL-300 (CMYK) roll paper: 6 ips QL-300 (CMYK+W) roll paper: 6 ips
Media Type		Standard Media, die-cut label paper
Feed capacity		Roll diameter: 203.2 mm (8 inches) Core size: 3 inches
Assured print range		2.12 mm from edge of paper. 2.12 mm from edge of label for label paper
Print accuracy		±0.5 mm accuracy at leading edge print start point (2σ N ≥20 When using recommended media and recommended operating conditions) ±0.5 mm accuracy at right edge print start point (When using recommended media and recommended operating conditions) Image stretching: Less than 0.5% of length of paper (When using recommended media and recommended operating conditions)
Warmup time		Approx. (within) 50 seconds after turning power on (at room temperature of 25 °C and rated voltage)* <sup>2</sup>
Wear items and maintenance parts		Wear items: Print cartridge, belt unit (3-piece set of belt, waste toner box, and 2nd transfer roller), waste toner box, fuser and exit unit Maintenance products: Cutter unit, F0 roller unit, paper guide, feed unit

Item	Specification
Service life of equipment*3	5 years or 500 km
Storage environment	Temperature: -10 to 43 °C Relative humidity: 10 to 90%

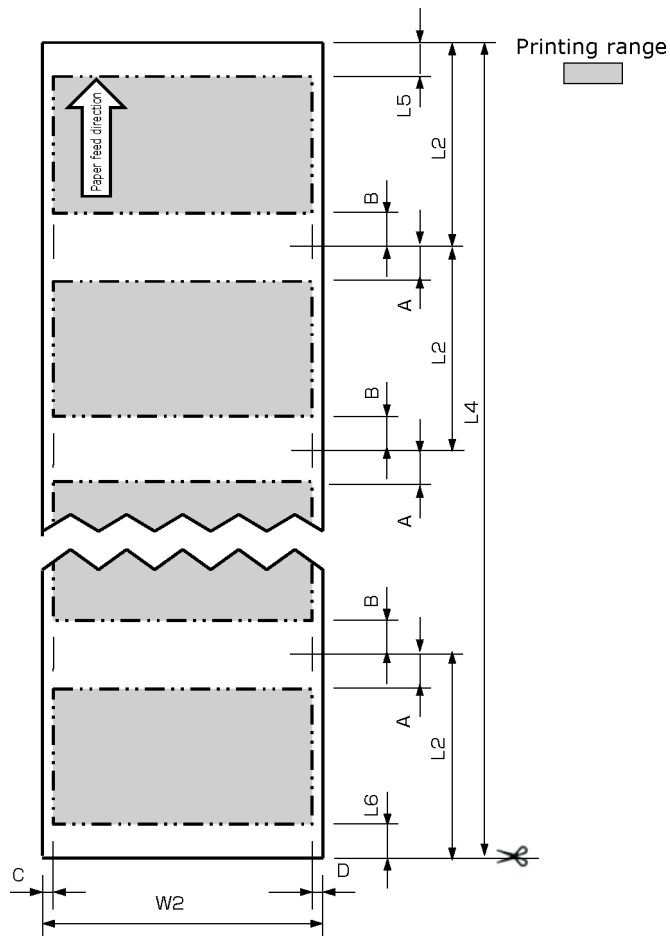
\*1: QL-300s only.

\*2: Not including correction operations.

\*3: Equipment service life varies depending on your operating environment.

## Roll Paper Specifications

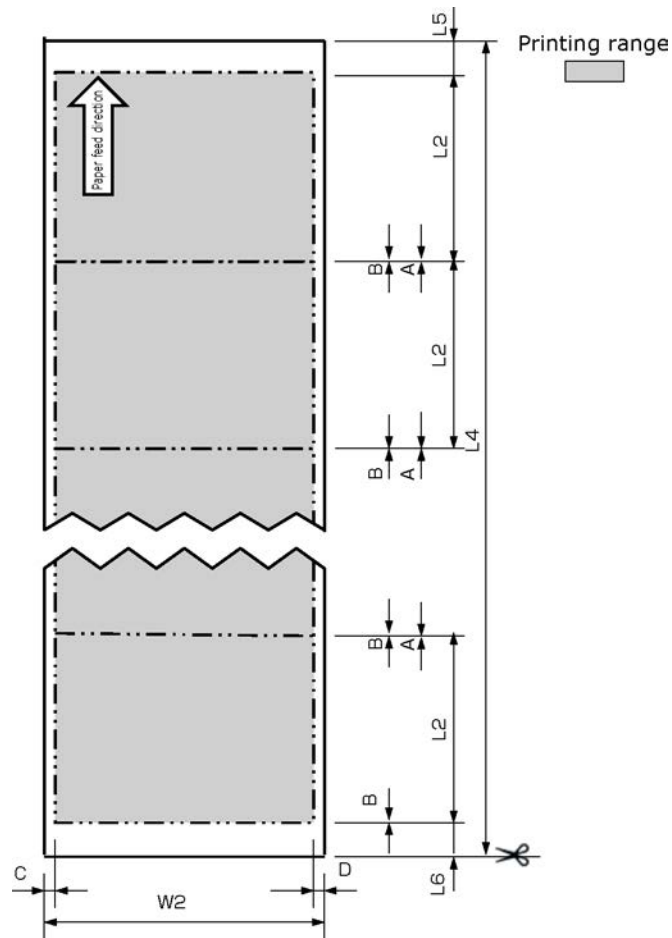
### Continuous paper (normal printing)



Item	Specification
Paper weight	0.07 to 0.25 mm (0.003 to 0.0098 inches)

Item		Specification
Roll core		Inner diameter: 76.2 mm (3 inches)
Outer diameter		203.2 mm (8 inches) or less
Other	W2: Paper width	25.4 to 130 mm (1 to 5.12 inches)
	L2: Paper length	12.7 to 1320.8 mm (0.5 to 52 inches)
	L4: Cut size when in cut mode	101.6 mm (4 inches) or more However, if the length of one label is less than 101.6 mm (4 inches), then the shortest length is 101.6 mm (4 inches) as multiple sheets are cut
	L5: Upper edge cutting margin	2.12 mm (0.0835 inches)
	L6: Lower edge cutting margin	2.12 mm (0.0835 inches)
	A: Top margin	2.12 mm (0.0835 inches) or more
	B: Bottom margin	2.12 mm (0.0835 inches) or more
	C: Left margin	2.12 mm (0.0835 inches) or more
	D: Right margin	2.12 mm (0.0835 inches) or more

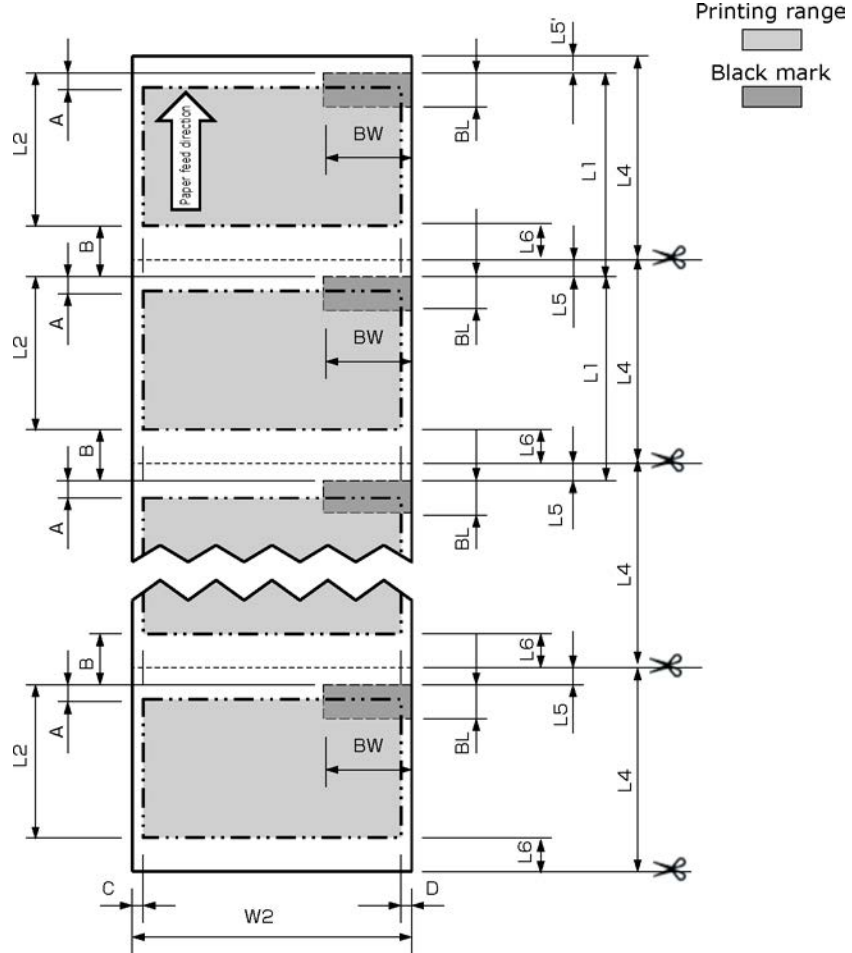
Continuous paper (printing on large size paper)



Item	Specification
Paper weight	0.07 to 0.25 mm (0.003 to 0.0098 inches)
Roll core	Inner diameter: 76.2 mm (3 inches)
Outer diameter	203.2 mm (8 inches) or less

Item		Specification
Other	W2: Paper width	25.4 to 130 mm (1 to 5.12 inches)
	L2: Paper length	12.7 to 1320.8 mm (0.5 to 52 inches)
	L4: Cut size when in cut mode	101.6 mm (4 inches) or more However, if the length of one label is less than 101.6 mm (4 inches), then the shortest length is 101.6 mm (4 inches) as multiple sheets are cut
	L5: Upper edge cutting margin	2.12 mm (0.0835 inches)
	L6: Lower edge cutting margin	1.5 mm (0.0591 inches)
	A: Top margin	0 mm (0 inches)
	B: Bottom margin	0 mm (0 inches)
	C: Left margin	2.12 mm (0.0835 inches) or more
	D: Right margin	2.12 mm (0.0835 inches) or more

Continuous paper (with black marks)

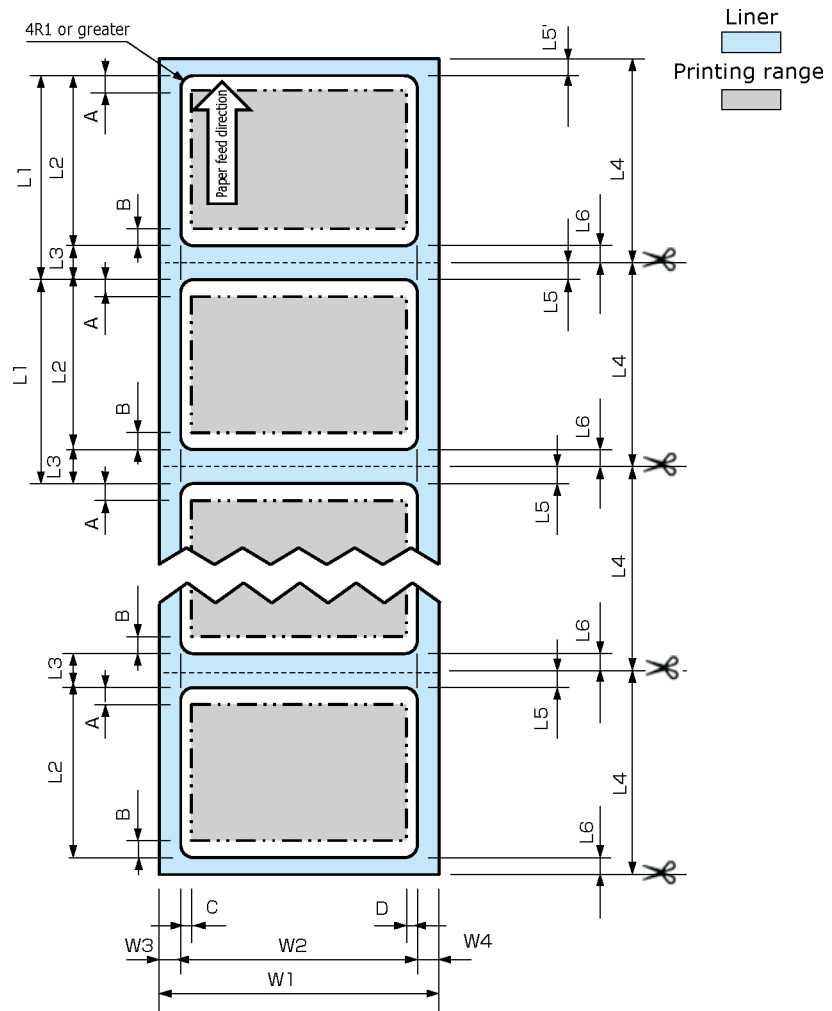


Item	Specification
Paper weight	0.07 to 0.25 mm (0.003 to 0.0098 inches)
Roll core	Inner diameter: 76.2 mm (3 inches)
Outer diameter	203.2 mm (8 inches) or less



Item		Specification
Other	W2: Paper width	25.4 to 130 mm (1 to 5.12 inches)
	L1: Black mark interval	15.9 to 1324.0 mm (0.626 to 52.126 inches) * The black marks contain carbon.
	L2: Paper length	12.7 to 1320.8 mm (0.5 to 52 inches)
	L4: Cut size when in cut mode	101.6 mm (4 inches) or more However, if the length of one label is less than 101.6 mm (4 inches), then the shortest length is 101.6 mm (4 inches) as multiple sheets are cut
	L5: Upper edge cutting margin	1.7 mm (0.067 inches)
	L5': Position of leading edge of paper	1.2 to 4.0 mm (0.0472 to 0.1575 inches) Length of leading margin when paper is loaded
	L6: Lower edge cutting margin	1.5 mm (0.059 inches)
	BW: Black mark width	More than 5 mm (0.197 inches) from edge of paper; maximum is width of paper W1 from edge of paper
	BL: Black mark length	3 mm (0.12 inches)
	A: Top margin	2.12 mm (0.0835 inches)
	B: Bottom margin	3.2 mm (0.126 inches) * In practice, it is the length of the gap
	C: Left margin	2.12 mm (0.0835 inches) or more
	D: Right margin	2.12 mm (0.0835 inches) or more

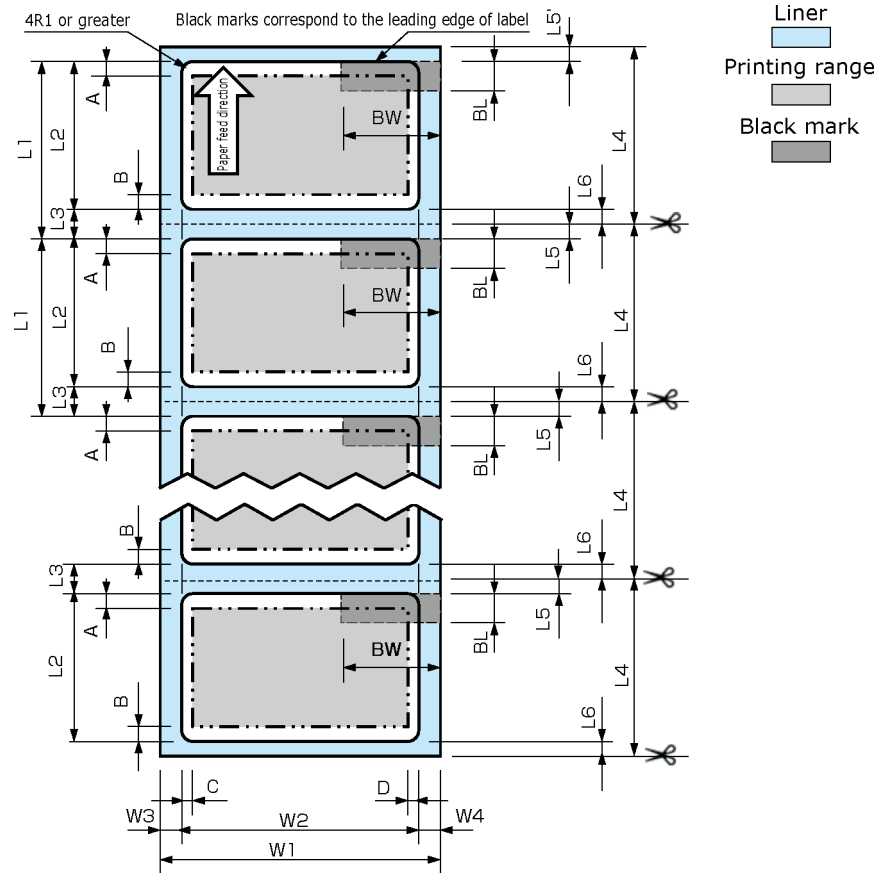
Die-cut label paper



Item	Specification
Paper weight	0.07 to 0.25 mm (0.003 to 0.0098 inches)
Roll core	Inner diameter: 76.2 mm (3 inches)
Outer diameter	203.2 mm (8 inches) or less

Item		Specification
Other	W1: Liner width	29.4 to 130 mm (1.1575 to 5.12 inches)
	W2: Label width	25.4 to 126 mm (1 to 4.9606 inches)
	W3: Right liner width	2 to 25.4 mm (0.0787 to 1 inch)
	W4: Left liner width	2 to 25.4 mm (0.0787 to 1 inch)
	L1: Label pitch	15.7 to 1330.8 mm (0.618 to 52.3937 inches)
	L2: Label length	12.7 to 1320.8 mm (0.5 to 52 inches)
	L3: Gap between labels	3 to 10 mm (0.12 to 0.3937 inches)
	L4: Cut size when in cut mode	101.6 mm (4 inches) or more However, if the length of one label is less than 101.6 mm (4 inches), then the shortest length is 101.6 mm (4 inches) as multiple sheets are cut
	L5: Upper edge cutting margin	1.7 mm (0.067 inches)
	L5': Position of leading edge of paper	1.2 to 6.5 mm (0.0472 to 0.2559 inches) Length of leading liner when paper is loaded
	L6: Lower edge cutting margin	1.3 to 8.3 mm (0.051 to 0.3268 inches)
	A: Top margin	2.12 mm (0.0835 inches) or more
	B: Bottom margin	2.12 mm (0.0835 inches) or more
	C: Left margin	2.12 mm (0.0835 inches) or more
D: Right margin	2.12 mm (0.0835 inches) or more	

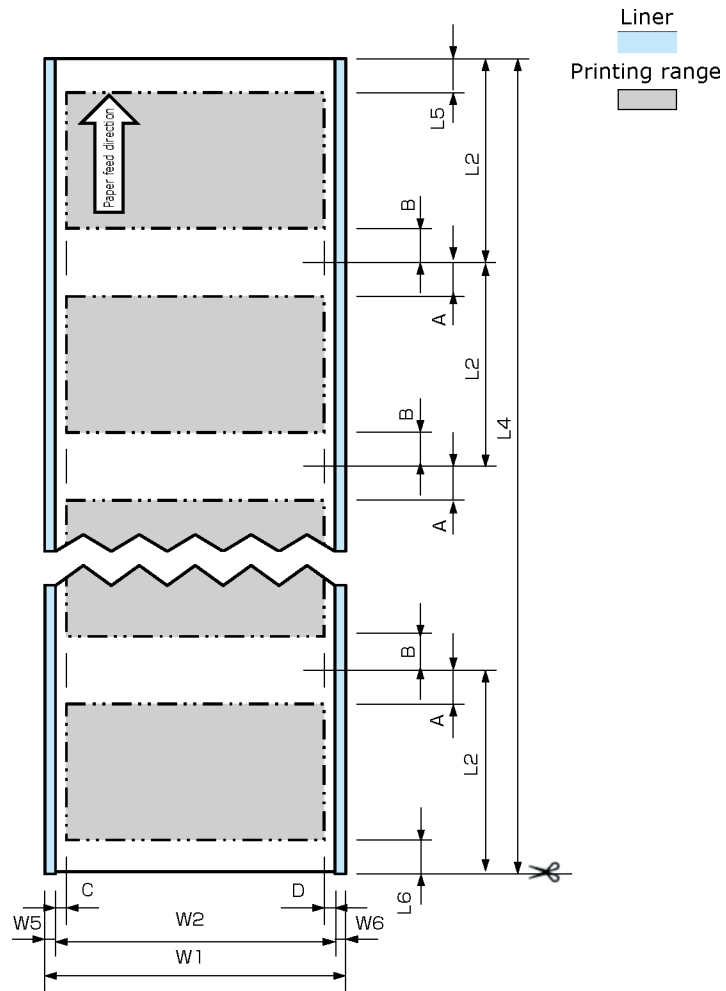
Die-cut label paper (with black marks)



Item	Specification
Paper weight	0.07 to 0.25 mm (0.003 to 0.0098 inches)
Roll core	Inner diameter: 76.2 mm (3 inches)
Outer diameter	203.2 mm (8 inches) or less

Item		Specification
Other	W1: Liner width	29.4 to 130 mm (1.1575 to 5.12 inches)
	W2: Label width	25.4 to 126 mm (1 to 4.9606 inches)
	W3: Right liner width	2 to 25.4 mm (0.0787 to 1 inch)
	W4: Left liner width	2 to 25.4 mm (0.0787 to 1 inch)
	L1: Black mark interval	15.7 to 1330.8 mm (0.618 to 52.3937 inches) * The black marks contain carbon.
	L2: Label length	12.7 to 1320.8 mm (0.5 to 52 inches)
	L3: Gap between labels	3 to 10 mm (0.12 to 0.3937 inches)
	L4: Cut size when in cut mode	101.6 mm (4 inches) or more However, if the length of one label is less than 101.6 mm (4 inches), then the shortest length is 101.6 mm (4 inches) as multiple sheets are cut
	L5: Upper edge cutting margin	1.7 mm (0.067 inches)
	L5': Position of leading edge of paper	1.2 to 4.0 mm (0.0472 to 0.1575 inches) Length of leading margin when paper is loaded
	L6: Lower edge cutting margin	1.3 to 8.3 mm (0.051 to 0.3268 inches)
	BW: Black mark width	More than 5 mm (0.197 inches) from edge of paper; maximum is width of paper W1 from edge of paper
	BL: Black mark length	3 mm (0.12 inches) or more Upper edge is the same as position of leading edge of label
	A: Top margin	2.12 mm (0.0835 inches) or more
	B: Bottom margin	2.12 mm (0.0835 inches) or more
	C: Left margin	2.12 mm (0.0835 inches) or more
D: Right margin	2.12 mm (0.0835 inches) or more	

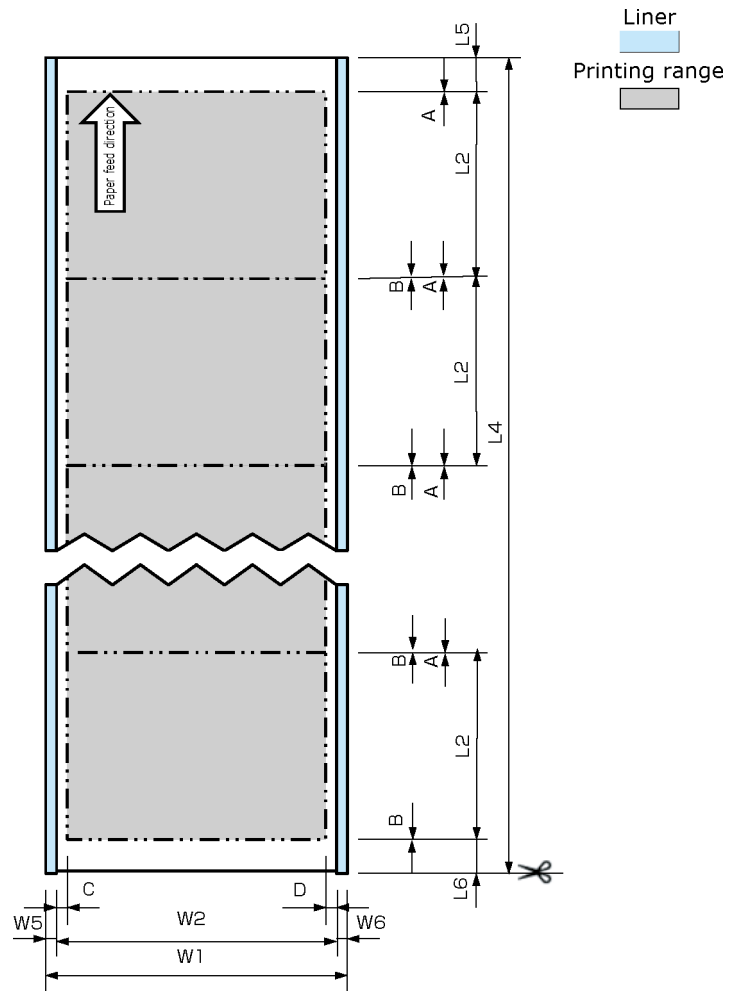
Full sheet labels (normal printing)



Item	Specification
Paper weight	0.07 to 0.25 mm (0.003 to 0.0098 inches)
Roll core	Inner diameter: 76.2 mm (3 inches)
Outer diameter	203.2 mm (8 inches) or less

Item		Specification
Other	W1: Liner width	29.4 to 130 mm (1.1575 to 5.12 inches)
	W2: Label width	25.4 to 126 mm (1 to 4.9606 inches)
	W5: Left liner area (dry edge)	2 to 25.4 mm (0.0787 to 1 inch)
	W6: Right liner area (dry edge)	2 to 25.4 mm (0.0787 to 1 inch)
	L2: Paper length	12.7 to 1320.8 mm (0.5 to 52 inches)
	L4: Cut size when in cut mode	101.6 mm (4 inches) or more However, if the length of one label is less than 101.6 mm (4 inches), then the shortest length is 101.6 mm (4 inches) as multiple sheets are cut
	L5: Upper edge cutting margin	2.12 mm (0.0835 inches)
	L6: Lower edge cutting margin	2.12 mm (0.0835 inches) or more
	A: Top margin	2.12 mm (0.0835 inches) or more
	B: Bottom margin	2.12 mm (0.0835 inches) or more
	C: Left margin	2.12 mm (0.0835 inches) or more
	D: Right margin	2.12 mm (0.0835 inches) or more

Full-sheet labels (printing on large size paper)

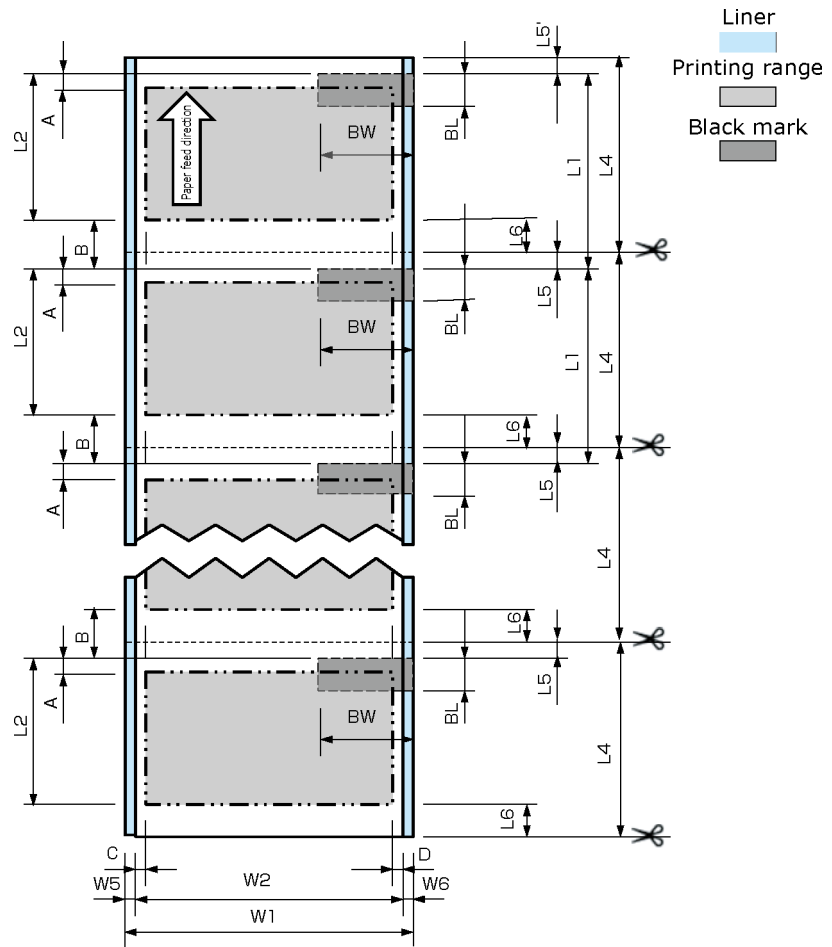


Item	Specification
Paper weight	0.07 to 0.25 mm (0.003 to 0.0098 inches)
Roll core	Inner diameter: 76.2 mm (3 inches)
Outer diameter	203.2 mm (8 inches) or less



Item		Specification
Other	W1: Liner width	29.4 to 130 mm (1.1575 to 5.12 inches)
	W2: Label width	25.4 to 126 mm (1 to 4.9606 inches)
	W5: Left liner area (dry edge)	2 to 25.4 mm (0.0787 to 1 inch)
	W6: Right liner area (dry edge)	2 to 25.4 mm (0.0787 to 1 inch)
	L2: Paper length	12.7 to 1320.8 mm (0.5 to 52 inches)
	L4: Cut size when in cut mode	101.6 mm (4 inches) or more However, if the length of one label is less than 101.6 mm (4 inches), then the shortest length is 101.6 mm (4 inches) as multiple sheets are cut
	L5: Upper edge cutting margin	2.12 mm (0.0835 inches)
	L6: Lower edge cutting margin	1.5 mm (0.0591 inches)
	A: Top margin	0 mm (0 inches)
	B: Bottom margin	0 mm (0 inches)
	C: Left margin	2.12 mm (0.0835 inches) or more
	D: Right margin	2.12 mm (0.0835 inches) or more

Full-sheet label paper (with black marks)



Item	Specification
Paper weight	0.07 to 0.25 mm (0.003 to 0.0098 inches)
Roll core	Inner diameter: 76.2 mm (3 inches)
Outer diameter	203.2 mm (8 inches) or less

Item		Specification
Other	W1: Liner width	29.4 to 130 mm (1.1575 to 5.12 inches)
	W2: Label width	25.4 to 126 mm (1 to 4.9606 inches)
	W5: Left liner area (dry edge)	2 to 25.4 mm (0.0787 to 1 inch)
	W6: Right liner area (dry edge)	2 to 25.4 mm (0.0787 to 1 inch)
	L1: Black mark interval	15.9 to 1324.0 mm (0.626 to 52.126 inches) * The black marks contain carbon.
	L2: Paper length	12.7 to 1320.8 mm (0.5 to 52 inches)
	L4: Cut size when in cut mode	101.6 mm (4 inches) or more However, if the length of one label is less than 101.6 mm (4 inches), then the shortest length is 101.6 mm (4 inches) as multiple sheets are cut
	L5: Upper edge cutting margin	1.7 mm (0.067 inches)
	L5': Position of leading edge of paper	1.2 to 4.0 mm (0.0472 to 0.1575 inches) Length of leading margin when paper is loaded
	L6: Lower edge cutting margin	1.5 mm (0.0591 inches)
	BW: Black mark width	More than 5 mm (0.197 inches) from edge of paper; maximum is width of paper W1 from edge of paper
	BL: Black mark length	3 mm (0.12 inches)
	A: Top margin	2.12 mm (0.0835 inches) or more
	B: Bottom margin	3.2 mm (0.126 inches) * In practice, it is the length of the gap
	C: Left margin	2.12 mm (0.0835 inches) or more
D: Right margin	2.12 mm (0.0835 inches) or more	