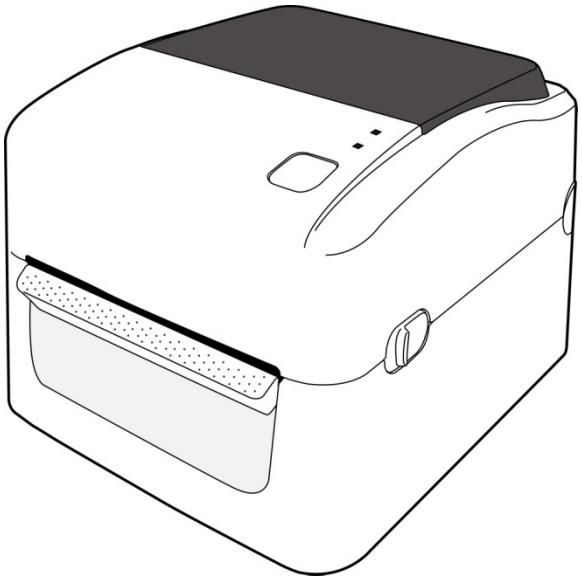
WS Printer

Owner’s Manual

WS408DT



FCC ID

In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

FCC Warning

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Statement for Optional RF module

This device complies with RF radiation exposure limits set forth for an uncontrolled environment.

The antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all people and must not be collocated or operating in conjunction with any other antenna or transmitter.

Bluetooh/Wireless Communication

Compliance Statement

This product has been certified for compliance with the relevant radio interference regulations of your country or region. To make sure continued compliance, do not:

- Disassemble or modify this product.
- Remove the certificate label (serial number seal) affixed to this product.

Use of this product near microwave and/or other wireless LAN equipment, or where static electricity or radio interference is present, may shorten the communication distance, or even disable communication.

WARNING

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

(for USA only)

Liability Disclaimer

SATO Corporation takes steps to assure that the company's published engineering specifications and manuals are correct; however, errors do occur. SATO reserves the right to correct any such errors and disclaims any resulting liability. In no event shall SATO or anyone else involved in the creation, production, or delivery of the accompanying product (including hardware and software) be liable for any damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or other pecuniary loss) arising out of the use of or the results of use of or inability to use such product, even if SATO has been advised of the possibility of such damages.

Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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1 Introduction

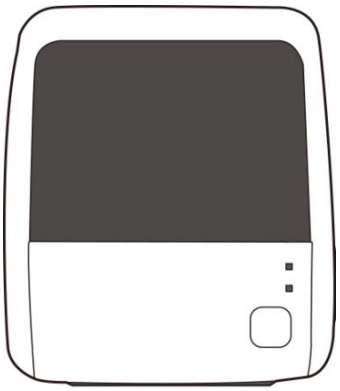
Thank you for purchasing a SATO WS printer. This manual provides information about how to set up and operate your printer, load the media and solve common problems.

1.1 Features

- **Various Connectivity Options** USB, Ethernet
- **Easy Operation** One-button design for easy control
- **Fast Print Speed** Max 6 inches/sec for the WS408 model
- **Wireless Connection** Build a wireless printing environment with Bluetooth
- **External Memory** The extra USB port allows you to use a USB flash drive for storage

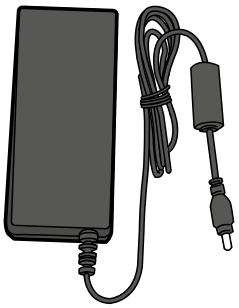
1.2 Unpacking

Make sure all of the following items are included in your package.

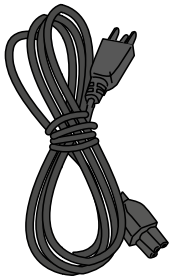


SATO WS Printer

SATO WS Quick Installation Guide



Power Supply



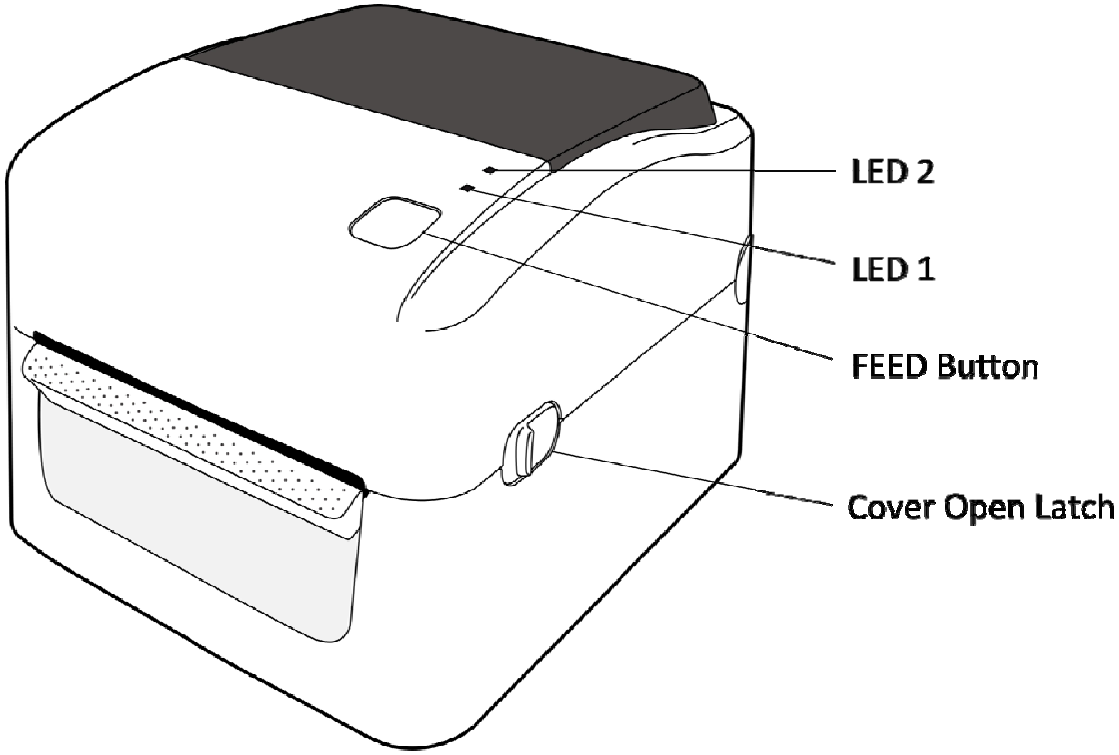
AC Power Cord

When you receive the printer, open the package immediately and inspect for shipping damage. If you discover any damage, contact the shipping company and file a claim. SATO is not responsible for any damage incurred during shipping. Save all package materials for the shipping company to inspect.

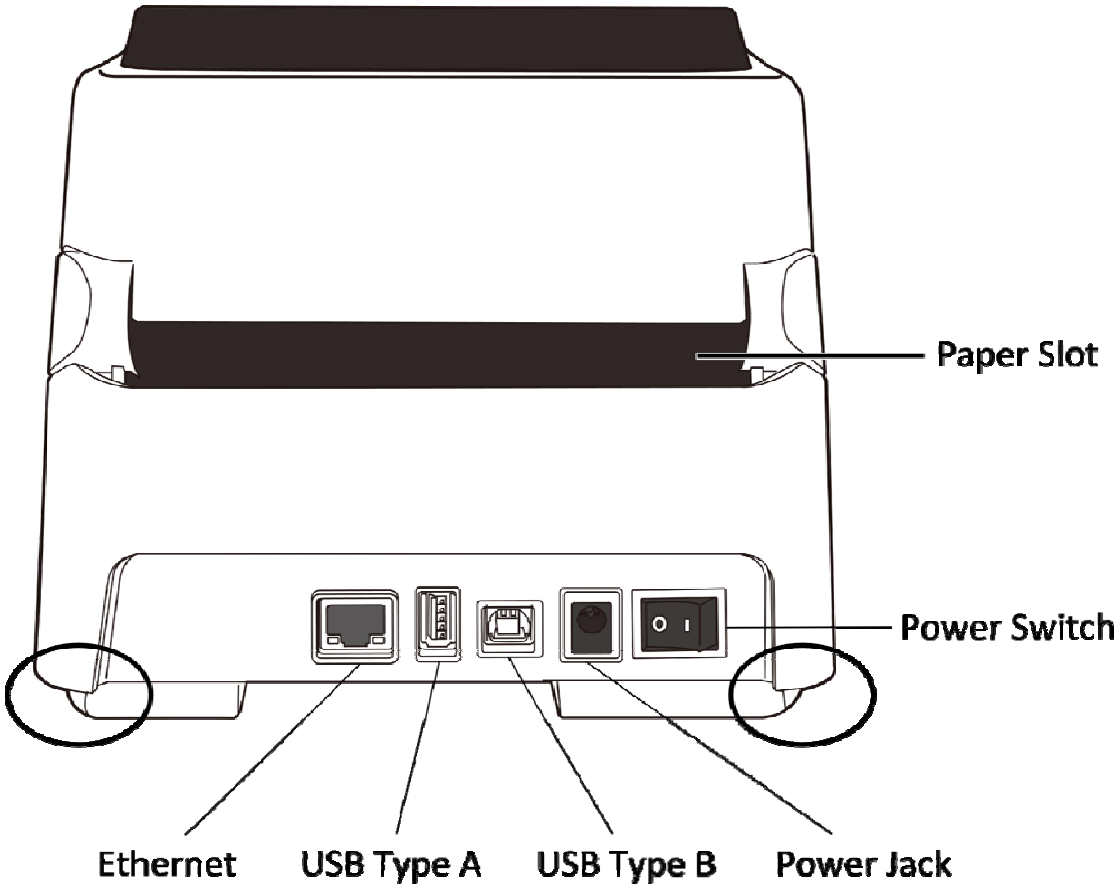
Note If any item is missing, please contact your local dealer.

1.3 Understand your printer

1.3.1 Perspective view



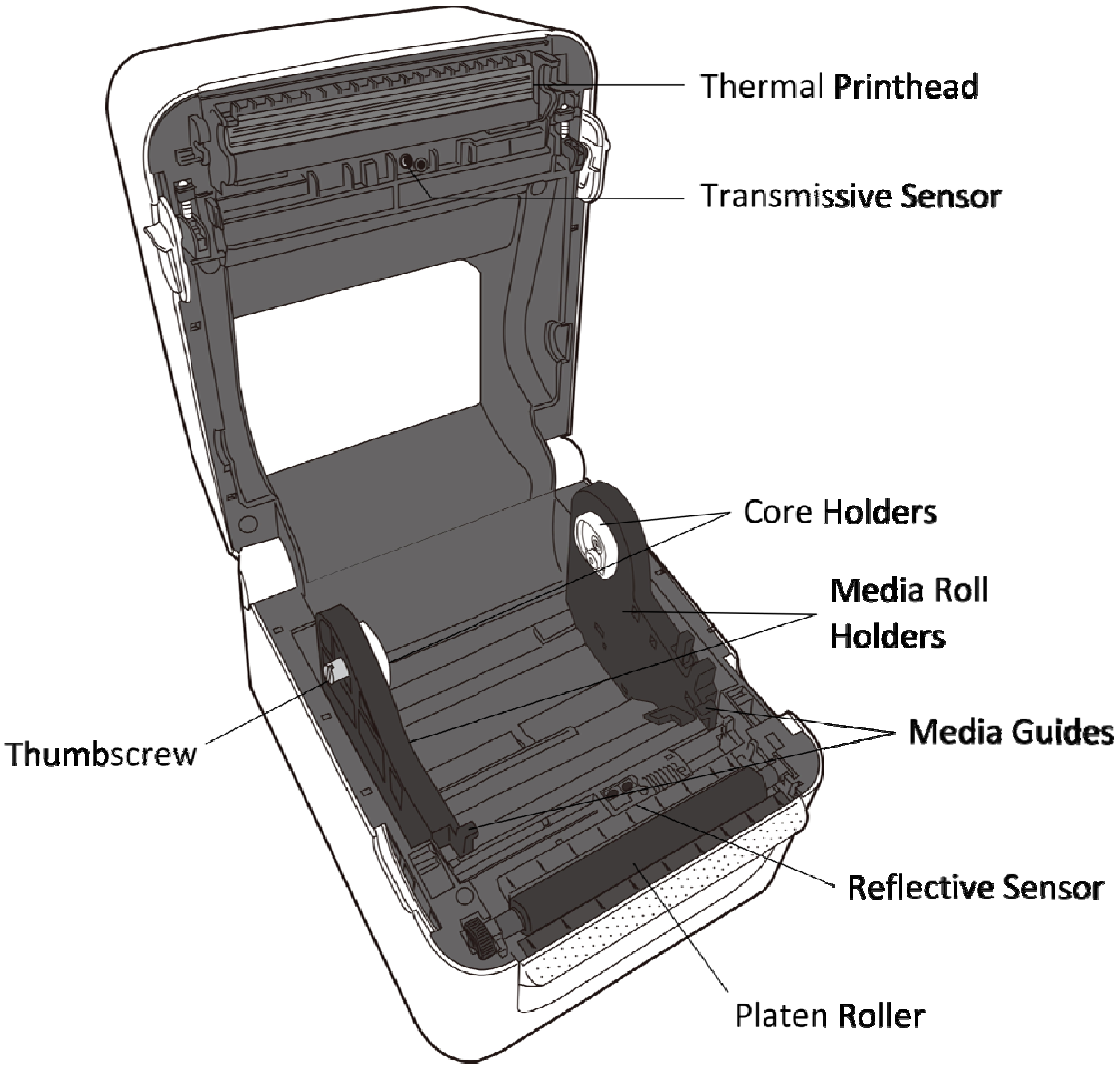
1.3.2 Back view



Caution The areas indicated by the ellipse have sharp edges. To avoid injury, be careful not to touch them when handling the printer.

Caution To avoid injury, be careful not to trap your fingers in the Paper Slot while opening or closing the Top Cover.

1.3.3 Interior view



Warning The printhead becomes very hot during printing. Do not touch the printhead or touch around it directly after printing. By doing so you may get burnt.

1.4 Printer lights

There are two LED lights that show the status of your printer.

1.4.1 Status lights

Status lights help you check printer's condition. The following tables show the blinking speed of status lights and the conditions they indicate.

Symbol	Blinking Speed	Blinking Interval
★	Fast	0.5 Second
◉	Medium	1 Second
◈	Slow	2 Seconds

LED 1	LED 2	Description
Off	Off	The print module is opened when the printer is turned on.
Green	Off	In the online mode.
★Green	Off	The printer is transmitting data.
◈Green	Off	In a pause state.
Green	Green	The printer is writing data to the flash or USB memory.
Green	◉Green	The USB memory is being initialized. The process takes about 15 seconds.
Orange	Green	Paper jam.
Orange	★Red	The media is out when the print data is sent to the printer.
Orange	Red	Paper end.
Red	Green	Communication error (RS-232C).
Red	★Green	Cutter error (with optional cutter).
Red	◉Green	Flash ROM on the CPU board error or USB memory error.
		An erase error occurred when formatting the USB memory.
		Unable to save files due to insufficient USB memory.
Red	◈Green	Command error.
Red	★Orange	Head high temperature error.
Red	◉Orange	The printhead is broken.
Red	◉Red	Cover (Thermal Head) open error.
Red	◈Red	The RTC battery is low. (If the printer has a built-in RTC)

1.4.2 System mode

The system mode consists of status light color combinations. It contains a list of commands for you to select and run.

To enter the system mode and run the command, do the following:

1. Turn off the printer.
2. Press and hold the **FEED** button, and turn on the printer.
3. Both status lights glow solid orange for a few seconds. Next, they turn to green shortly, and then turn to other colors.
4. When status lights show the color combination you need, release the **FEED** button immediately.
5. Press the **FEED** button to run the command.

The following table is the command list of the system mode.

LED 1	LED 2	Command
Green	Red	Transmissive Sensor Calibration (Section 3.1)
Green	Orange	Reflective Sensor Calibration (Section 3.1)
Red	Red	Resetting Your Printer (Section 3.3)
Red	Orange	Reserved
Red	Green	Disable Checking RTC Battery Charge
Orange	Red	Reserved
Orange	Green	Self Test and Dump Mode (Section 3.2)

2 Get started

This chapter describes how to set up your printer.

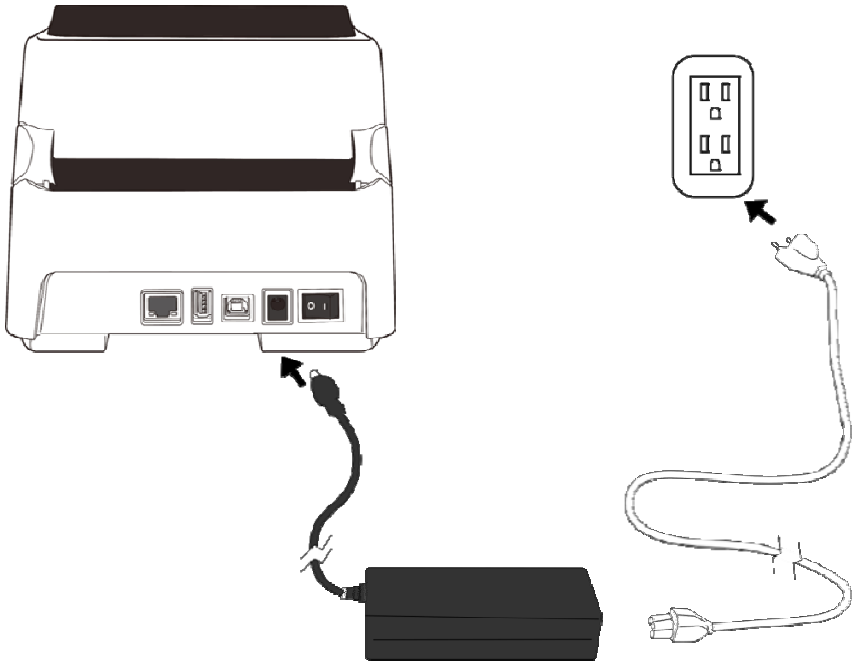
Caution Do not use your printer in areas exposed to splashing water or any other liquid.

Caution Do not drop your printer, or place it in an area subject to humidity, vibration or shock.

2.1 Attach the power cord

1. Make sure the power switch is set to the **OFF** position.
2. Insert the power supply's connector into the printer power jack.
3. Insert the AC power cord into the power supply.
4. Plug the other end of the AC power cord into the wall socket.

Important Use only power supplies listed in the user instructions.



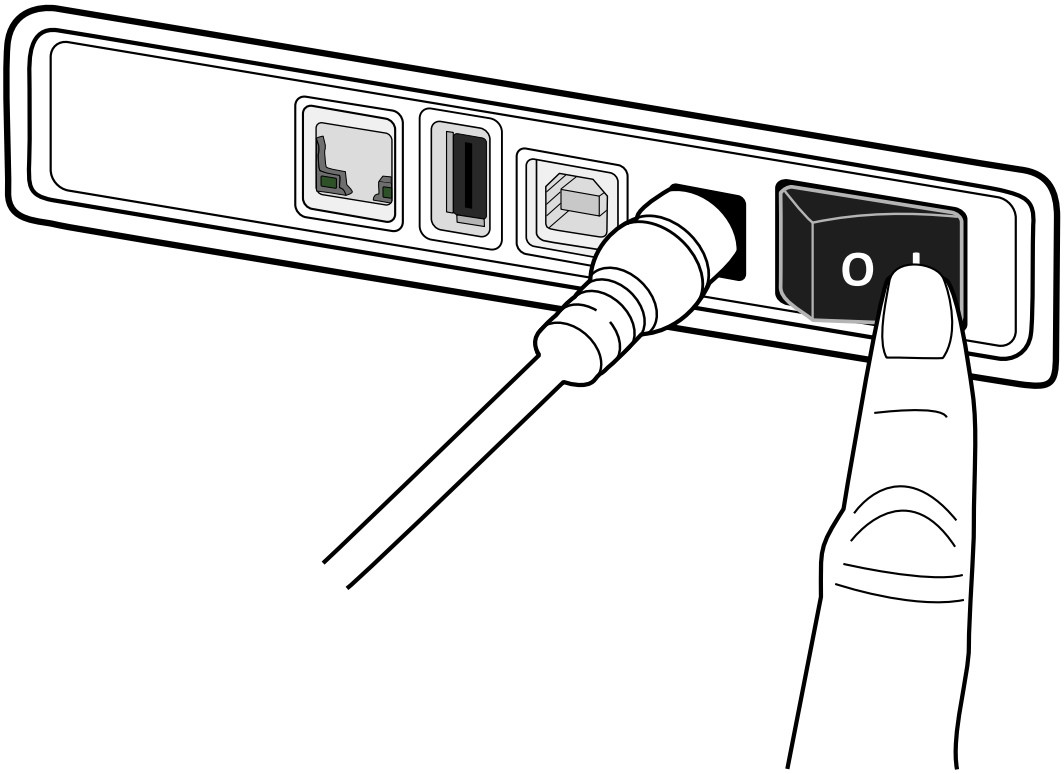
Warning Do not plug the AC power cord with wet hands, or operate the printer and the power supply in an area where they may get wet. Serious injury may result from these actions!

2.2 Turn on/off your printer

When your printer is connected to a host (a computer), it is good to turn on the printer before turning on the host, and turn off the host before turning off the printer.

2.2.1 Turn on your printer

1. To turn on your printer, turn on the **Power Switch** as below. The “I” is the **ON** position.

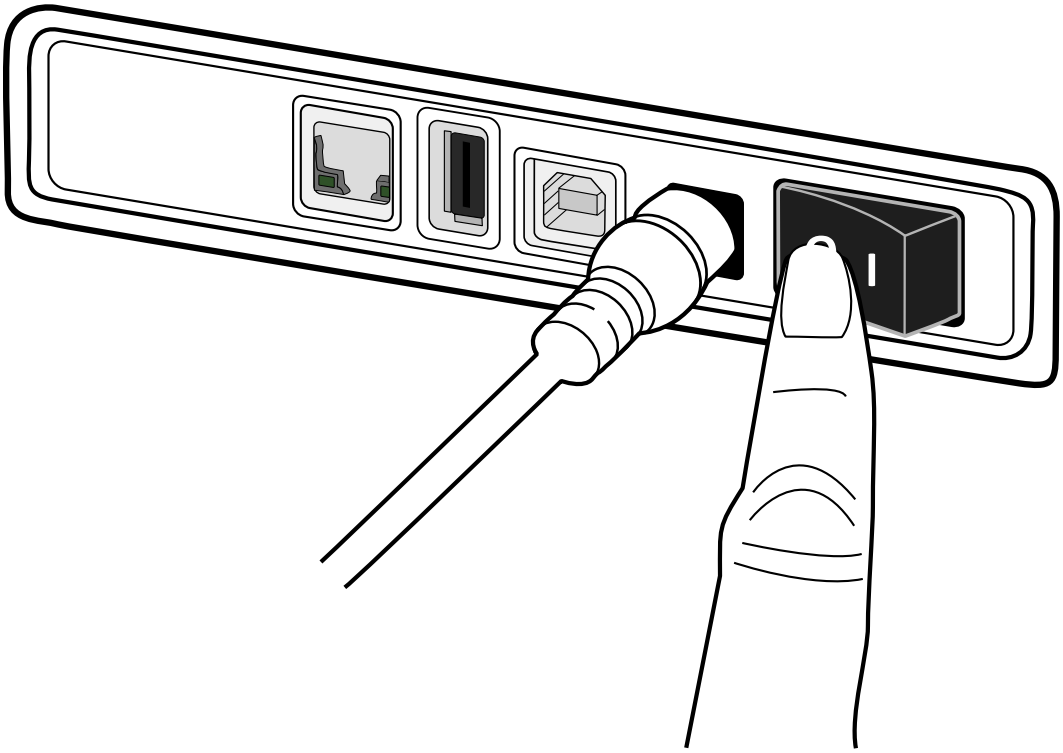


2. Both status lights glow solid orange for a few seconds, and then LED 2 goes out, while LED 1 turns to solid green.

Note If you connect the printer to the internet or insert a USB drive before turning on the printer, it will take longer for the printer to enter the online mode (LED 1 glows solid green) after you turn it on.

2.2.2 Turn off your printer

1. Make sure LED 2 is off and LED 1 is solid green before turning off the printer.
2. To turn off your printer, turn off the **Power Switch** as below. The “O” is the **OFF** position.



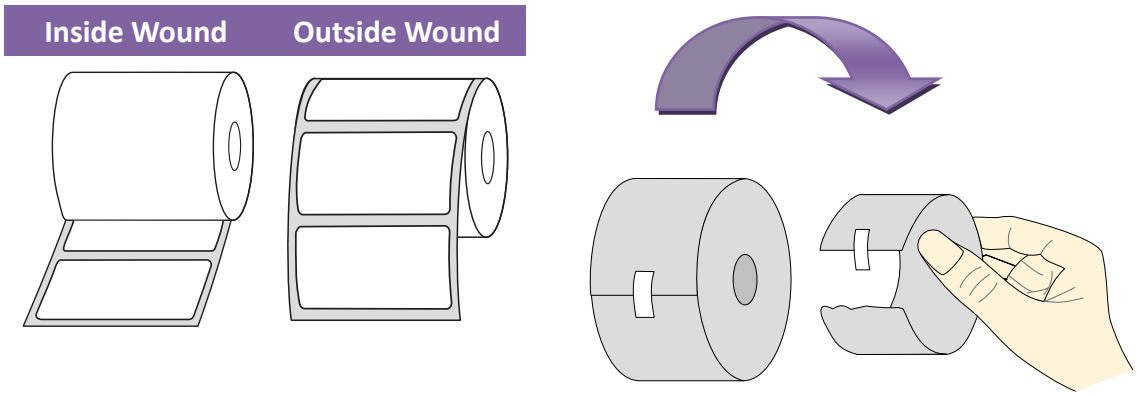
Caution Do not turn off your printer during data transmission.

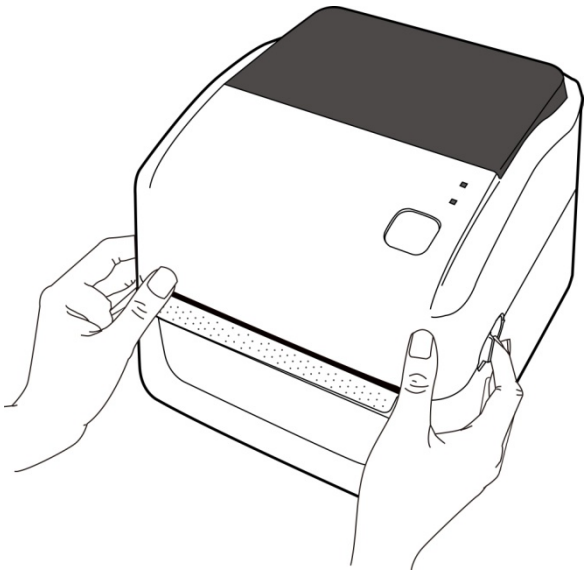
2.3 Load media

There are various types and sizes for the media roll. Load the applicable media to satisfy your need.

2.3.1 Prepare media

The inside wound and outside wound media roll can be loaded into the printer the same way. In case the media roll is dirty during shipping, handling or storage, remove the outside length of the media. It helps avoid dragging adhesive and dirty media between the printhead and platen roller.



2.3.2 Place a media roll

1. Open the top cover of the printer.