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TM-H6000V

User's Manual
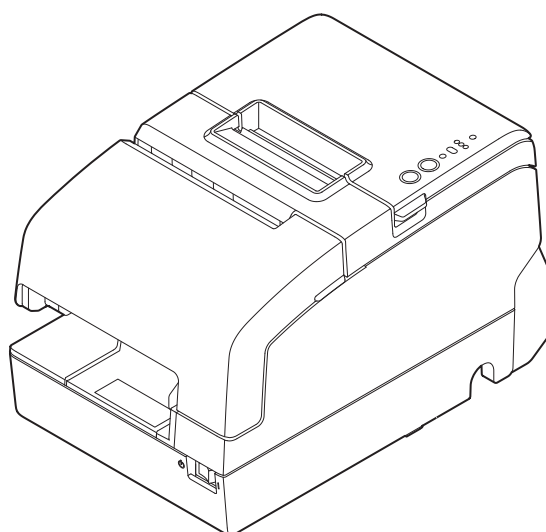
Before Use

This manual provides information describing basic operations of the TM-H6000V to operators to enable safe and correct use of the printer.

Please read this manual carefully before using this product. For details about the functions and operation procedure of this product and software, refer to *Technical Reference Guide*.

Applicable Models and Features

This manual applies to the following models of the TM-H6000V. If your printer is equipped with a MICR reader (factory installed option), the printer can read MICR characters.

❏ Standard model: Can print on the face of roll/slip paper.
                          Models with endorsement printers (factory installed option) can print also on the back of slip paper.

❏ Validation model: Can print on the face of roll/slip/validation paper.

Key to Symbols

The symbols in this manual are identified by their level of importance, as defined below. Read the following carefully before handling the product.

⚠ WARNING:

Handling the product improperly by ignoring this symbol can lead to death or serious injury.

⚠ CAUTION:

Handling the product improperly by ignoring this symbol can lead to injury and property damage.

✎ Notes:
Indicates supplementary notes and other useful information.

Safety Precautions

⚠ WARNING:

❏ **Shut down your equipment immediately if it produces smoke, a strange odor, or unusual noise. Continued use may cause a fire. Immediately unplug the equipment and contact qualified service personnel.**

❏ **Never attempt to repair this product yourself. Improper repair work can be dangerous.**

❏ **Never disassemble or modify this product. Tampering with this product may cause injury or a fire.**

❏ **Do not use this product with any voltage other than the specified one. Doing so may cause a fire or electric shock.**

❏ **For the power cable, use either the included one or a designated one that meets the relevant safety standards of the area where you plan to use it.**

❏ **Do not connect cables in ways other than those described in this manual. Different connections may cause equipment damage and burning.**

❏ **Do not allow foreign matter to fall into the equipment. Penetration by foreign objects may cause a fire.**

❏ **If water or other liquid spills into this equipment, unplug the AC cable immediately, and contact qualified service personnel. Continued usage may cause a fire.**

❏ *Do not use aerosol sprayers containing flammable gas inside or around this product. Doing so may cause a fire.*

⚠ CAUTION:

❏ *Be sure to set this equipment on a firm, stable, horizontal surface. The product may break or cause injury if it falls.*

❏ *Do not use in locations subject to high humidity or dust levels. Excessive humidity or dust may cause equipment damage or fire.*

❏ *Do not place heavy objects on top of this product. Never stand or lean on this product. The product may fall or collapse, causing breakage and possible injury.*

❏ *Take care not to injure your fingers on the manual cutter:*
   • *When you remove printed paper.*
   • *When you perform other operations, such as loading/replacing roll paper.*

❏ *To ensure safety, unplug this product before leaving it unused for an extended period.*

❏ *Do not put your hand inside this product or touch the white flat cable during printing.*

❏ *Make sure cords and foreign objects are not caught in the printer.*

❏ *Do not connect a telephone line to the drawer kick connector or the display module connector; doing so may damage the printer and the telephone line.*

❏ *Do not connect a LAN cable to the DM-D connector; doing so may damage the connected device.*

❏ *Do not open the covers during printing or autocutting.*

❏ *To prevent a paper jam, do not prevent paper from being ejected from the paper exit, and do not pull the paper being ejected.*

❏ *Use the product under the environmental conditions specified in the manual.*
   (☞ "Specifications" on page 31)

Caution Labels

The caution labels on the product indicate the following precautions.
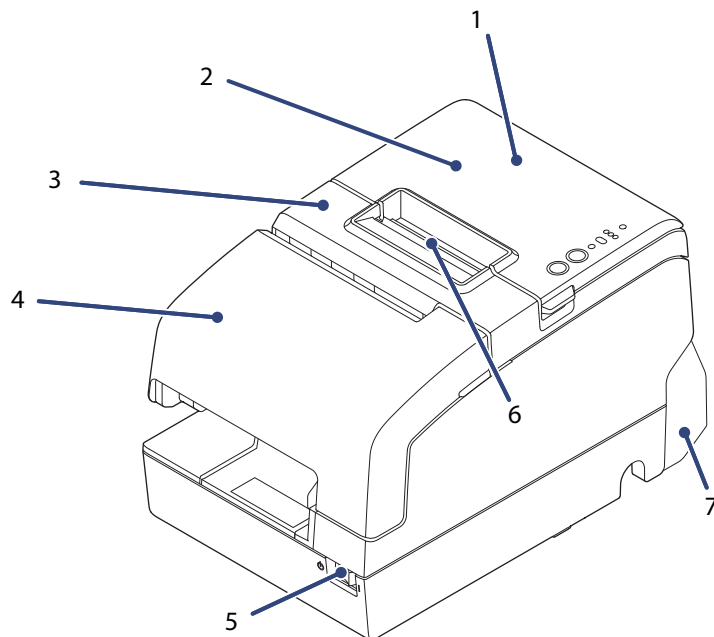
⚠ ⚠ CAUTION:

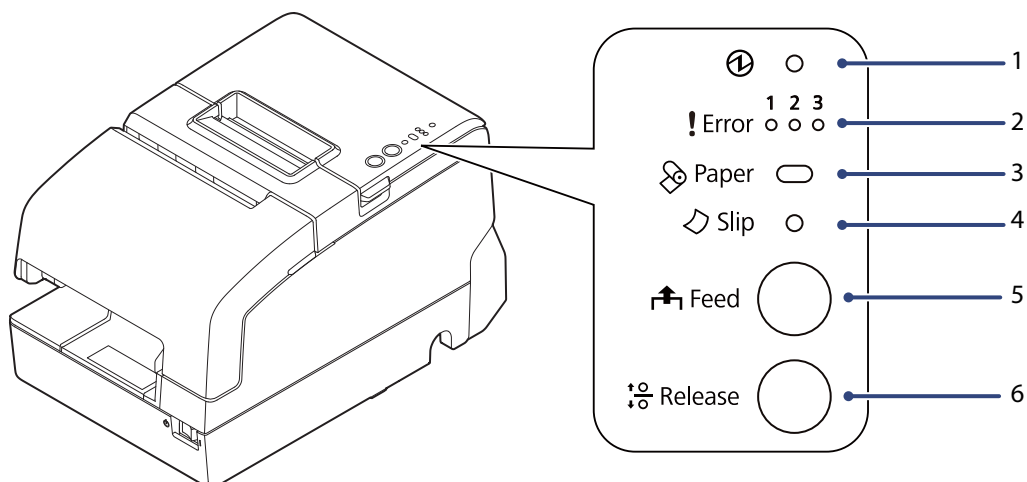*Do not touch the thermal head because it can be very hot after printing.*

🚫 CAUTION:
Do not touch the cables in the product. Doing so can cause product malfunctions.

Part Names and Functions

| 1	**NFC tag**
	A mark is printed here to indicate the position of the NFC tag. To establish communication with an NFC device, bring the device close to this mark. For details on functions that use the NFC tag, refer to the *Technical Reference Guide*.
2	**Roll paper cover**
	Open this cover to install/replace the roll paper.
3	**Receipt unit**
	Open this unit to install/replace the ribbon cartridge for endorsement printing.
4	**Front cover**
	Open this cover to install/replace the ribbon cartridge for slip/validation printing.
5	**Power switch**
	Use this switch to turn the printer on or off.
6	**Manual cutter**
	Use this cutter when you cut the roll paper manually.
7	**Connector cover**
	Use this cover to hide and protect rear connectors and cables.

Control Panel

1	① **(Power) LED**

On when the printer is on.

2	**! Error LED**

The 3 LEDs indicate an error status. ("Error LEDs are on or flashing" on page 27)

3	**Paper LED**

On when the roll paper is near its end.

4	**Slip LED**

On when the printer is in slip paper mode. Off when the printer is in roll paper mode. Flashes when the printer is waiting for slip paper to be inserted/removed.

5	**Feed button**

This button feeds paper.

6	**Release button**

This button releases the retained paper.

Connectors

All connectors are located on the lower rear of the printer.
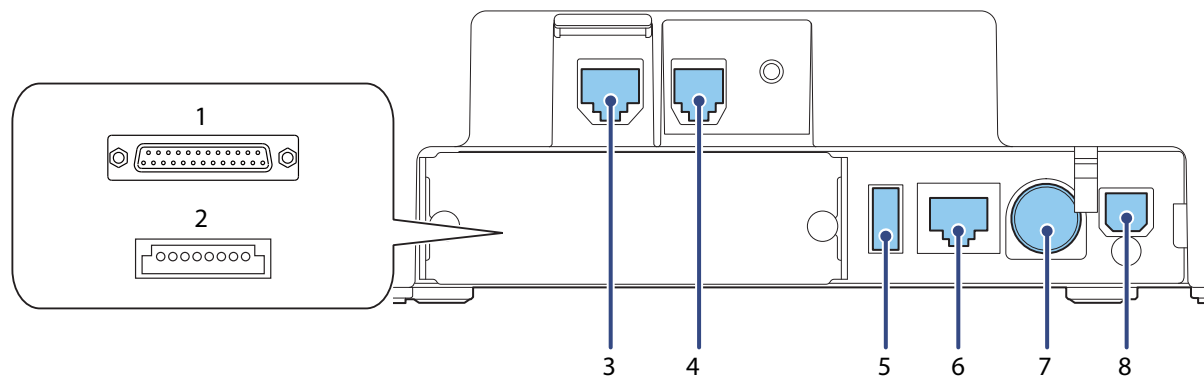
1	**Serial interface connector**
	For connecting a serial cable for connecting to a computer.
2	**USB Plus Power connector**
	For connecting a USB Plus Power cable for connecting to a computer.
3	**DM-D connector**
	For connecting the customer display.
4	**Drawer kick connector**
	For connecting a modular cable for the cash drawer.
5	**USB connector**
	For connecting an Epson certified unit.
6	**Ethernet connector**
	For connecting a LAN cable.
7	**Power supply connector**
	For connecting the power cable.
8	**USB connector (type-B)**
	For connecting a USB cable for connecting to a computer.

Setup

To set up the printer, follow the steps below.

1. Removing the protective materials and tape (✍ "Removing the Protective Materials and Tape" on page 8)

2. Connecting the cables (✍ "Connecting the Cables" on page 9)

3. Attaching the connector cover (✍ "Attaching and Removing the Connector Cover" on page 11)

4. Installing the ribbon cartridge (✍ "Installing and Replacing the Ribbon Cartridge" on page 12)

5. Installing the roll paper (✍ "Installing the Roll Paper" on page 17)

6. Test printing (✍ "Test Printing" on page 19)

7. Attaching the power switch cover (✍ "Attaching the Power Switch Cover" on page 19)

8. Applying the LED information label (✍ "Applying the LED Information Label" on page 20)

✎ *Notes:*

❏ *When using the printer, be sure to install roll paper.*

❏ *For models with the MICR reader, do not place the printer near any magnetic fields to avoid decreasing the MICR recognition rate. In particular, when you install the printer near a CRT display device, check the recognition rate of the MICR reader.*

Removing the Protective Materials and Tape

Protective materials and tape are applied for protection against impacts during transportation. Remove all of them, from A to L.
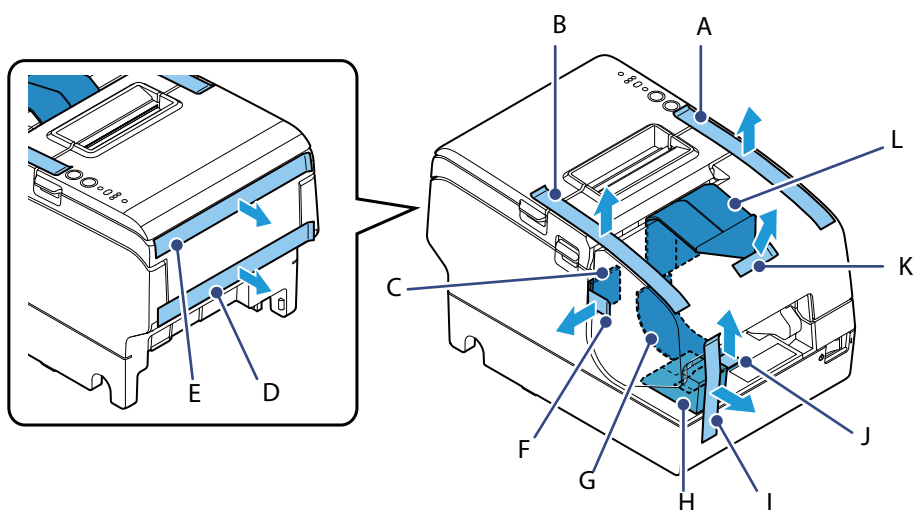
To remove protective material L, you must open the receipt unit.
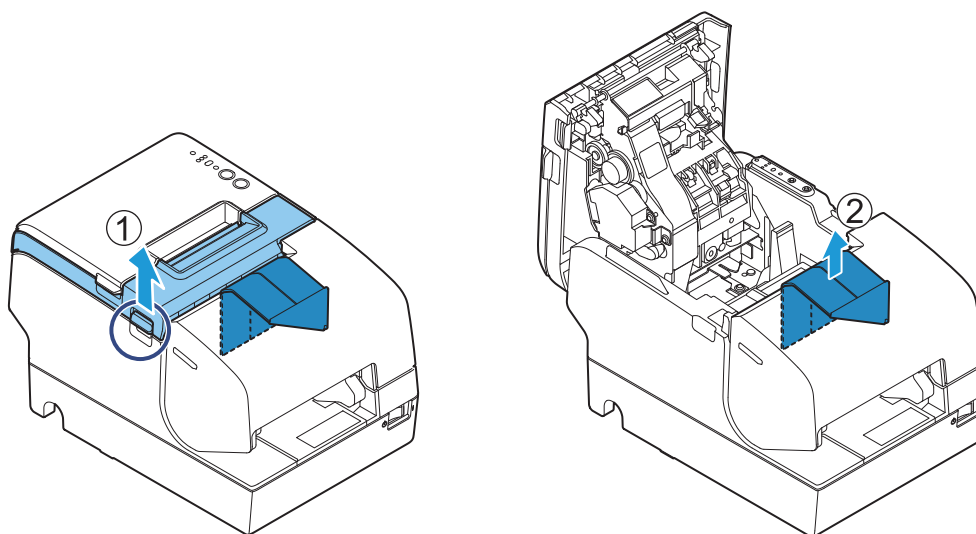
Connecting the Cables

⚠️ **CAUTION:**

When using USB Plus Power interface, be careful of the following points. The printer may malfunction.

❏ *Do not connect an AC adapter.*

❏ *Do not remove or insert the USB Plus Power cable while the printer is still on.*

✎*Notes:*

Available interfaces vary depending on the printer model.

1. Make sure the power switch is off.

2. Connect each interface cable to the printer. When using the USB interface, fix the USB cable with the locking wire saddle to prevent the USB cable from coming off.

Locking wire saddle
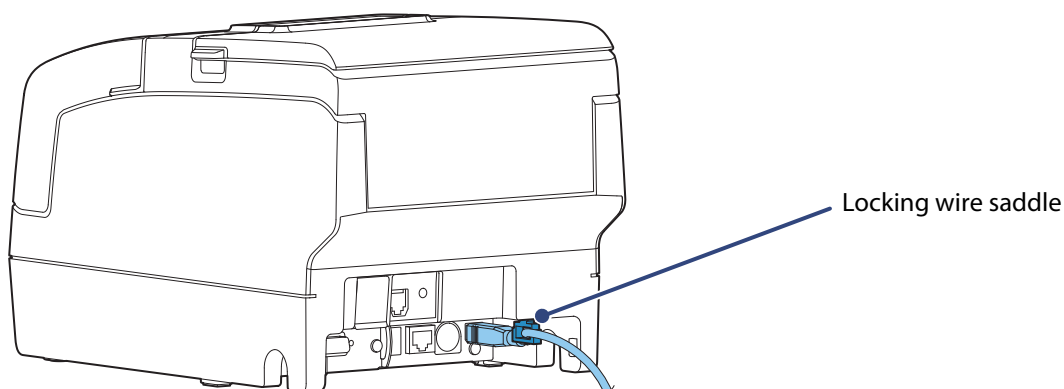
3. Connect the interface cable to the computer.

4. Connect the AC cable connector to the AC port of the AC adapter.
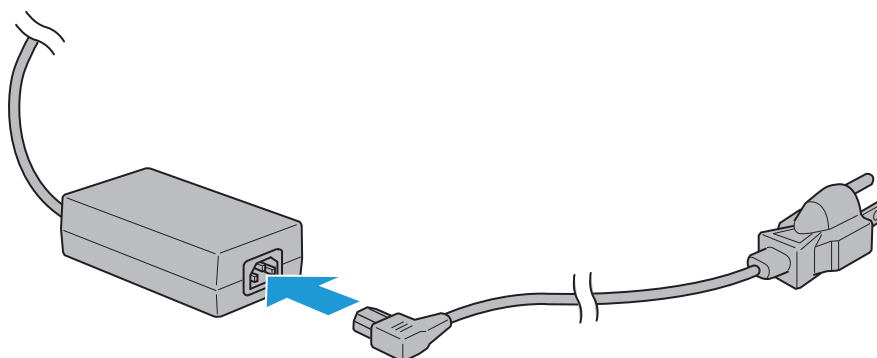
5. Connect the DC cable to the printer.
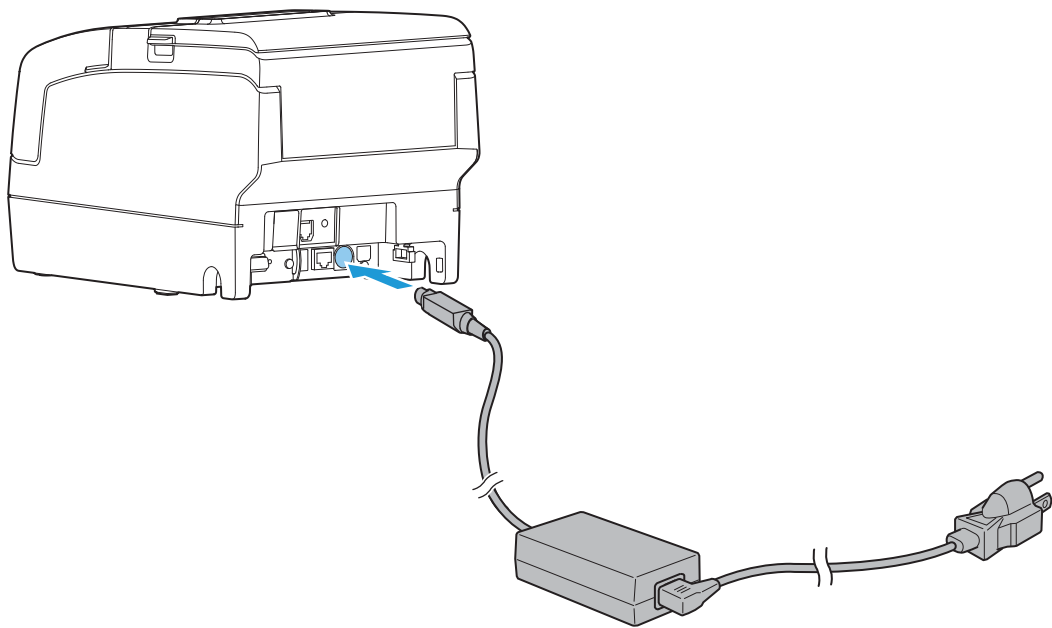
6. Insert the AC cable plug into a power outlet.
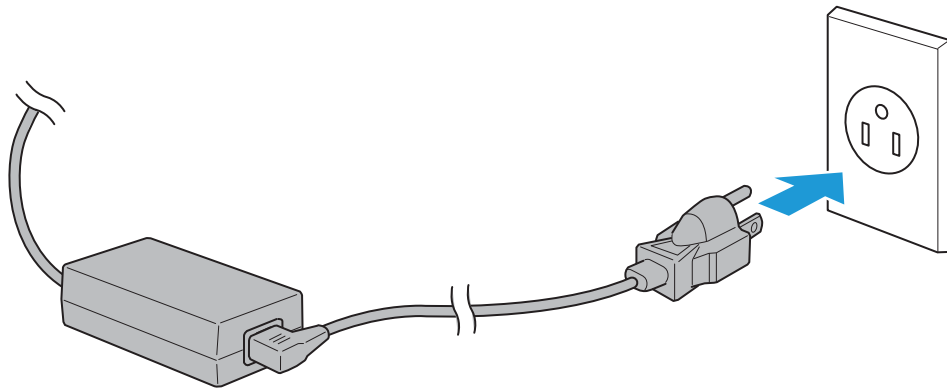
7. Set the AC adapter so that its label side is facing down.

Attaching and Removing the Connector Cover

Follow the steps below to attach the connector cover to protect cables.

1. Align the 2 protrusions on the top of the connector cover with the holes in the back of the printer.

2. Push the connector cover forward so that the protrusions at the bottom of the printer fit properly in the holes in both sides of the connector cover.
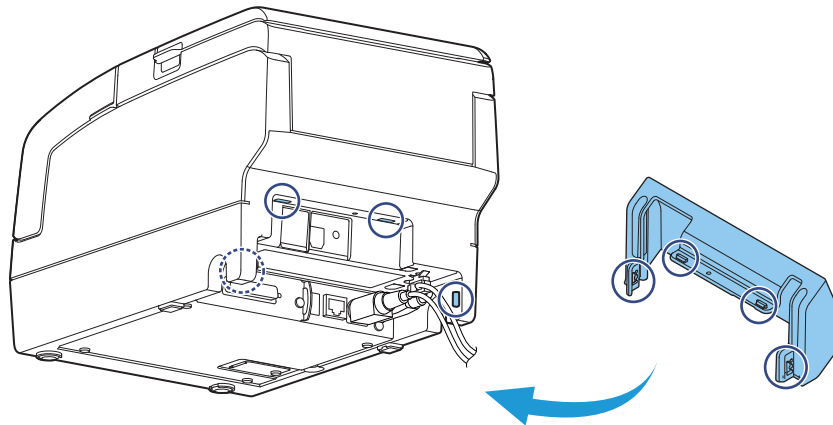
To remove the connector cover, push both sides of the cover inward to remove the holes in both sides of the cover from the protrusions at the bottom of the printer.

Installing and Replacing the Ribbon Cartridge

✎*Notes:*

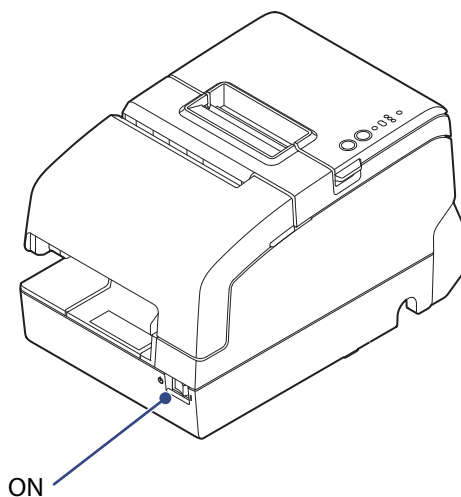*Be sure to use the specified ribbon cassette. ( )*

1. Turn the knob on the ribbon cartridge a little in the direction of the arrow marked on the cartridge to remove any slack in the ribbon.
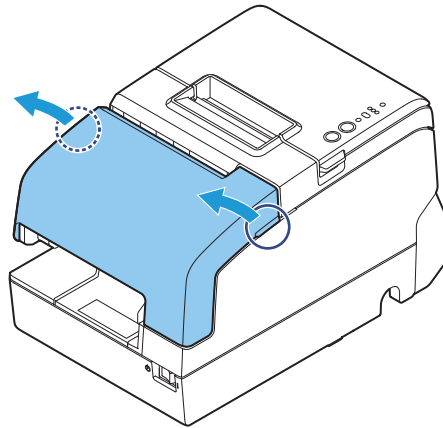

⚠️ **CAUTION:**

Make sure to note the direction of the arrow marked on the ribbon cartridge when turning the knob. Turning it in the reverse direction may damage the cartridge.
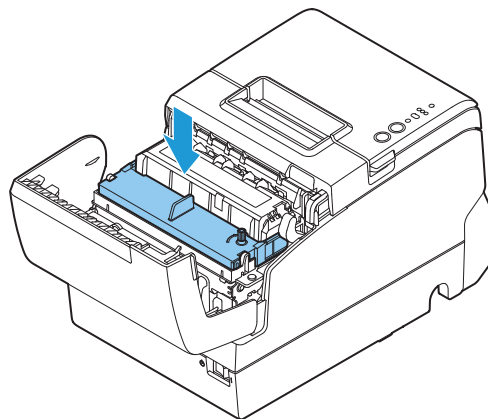
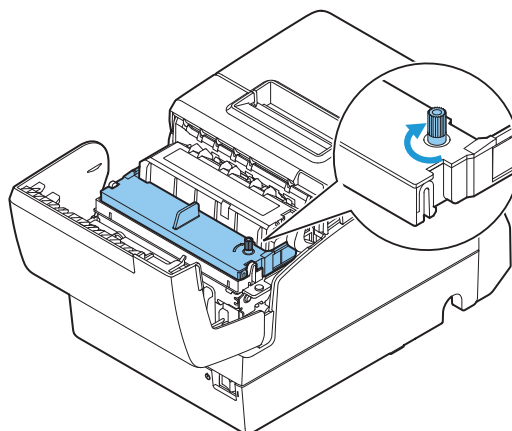2. Turn on the printer.

ON
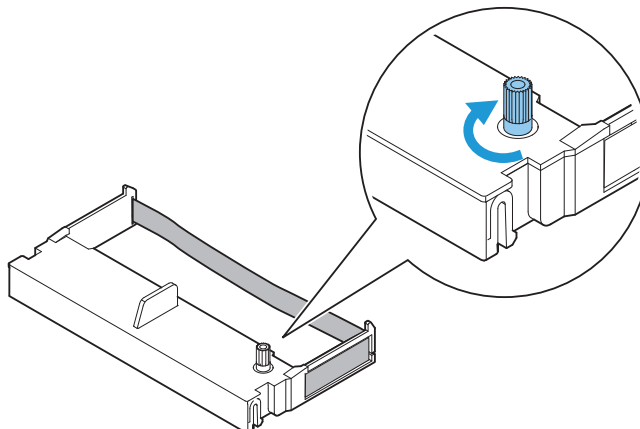
3. Open the front cover.

4. Remove the used ribbon cartridge, if there is one.

5. Insert a new ribbon cartridge until it clicks into place.

6. Turn the knob on the cartridge in the marked direction again to remove any slack in the ribbon.
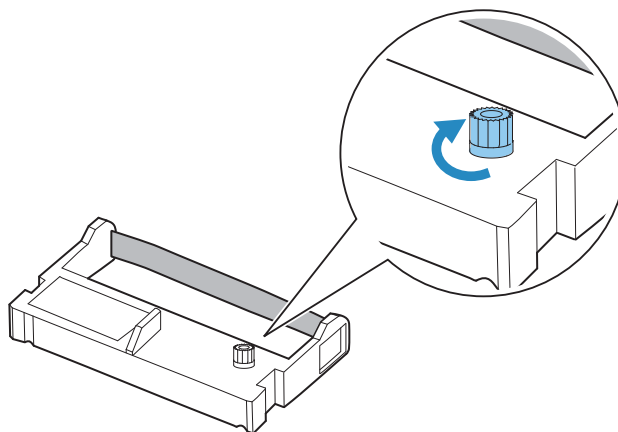
7. Close the front cover.

Installing and Replacing the Ribbon Cartridge for Endorsement Printing

If your printer is equipped with an endorsement printer, endorsement printing on slip paper is available. Follow the steps below to install/replace the ribbon cartridge for the endorsement printer.

✎*Notes:*
*Be sure to use the specified ribbon cassette. (* *)*

1. Turn the knob on the ribbon cartridge a little in the direction of the arrow marked on the cartridge to remove any slack in the ribbon.
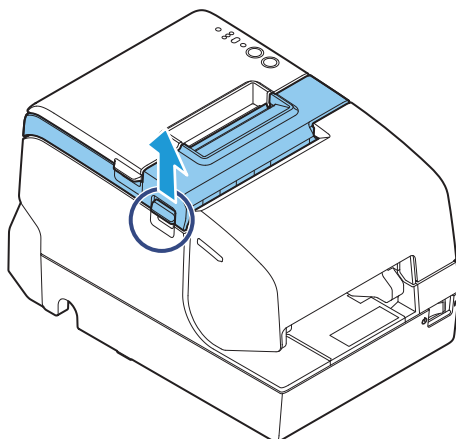

⚠ CAUTION:

Make sure to note the direction of the arrow marked on the ribbon cartridge when turning the knob. Turning it in the reverse direction may damage the cartridge.
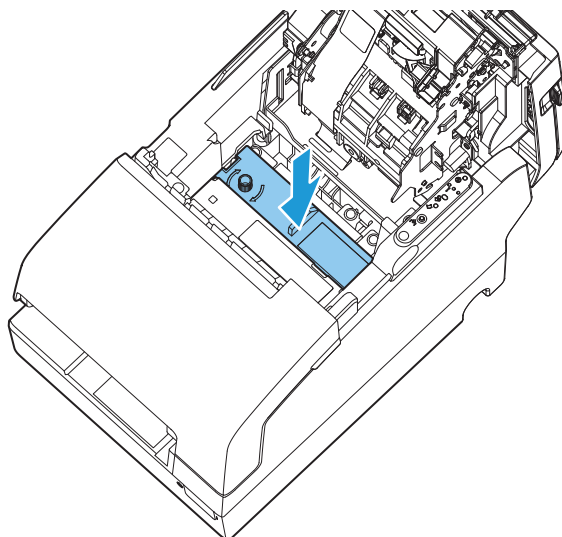
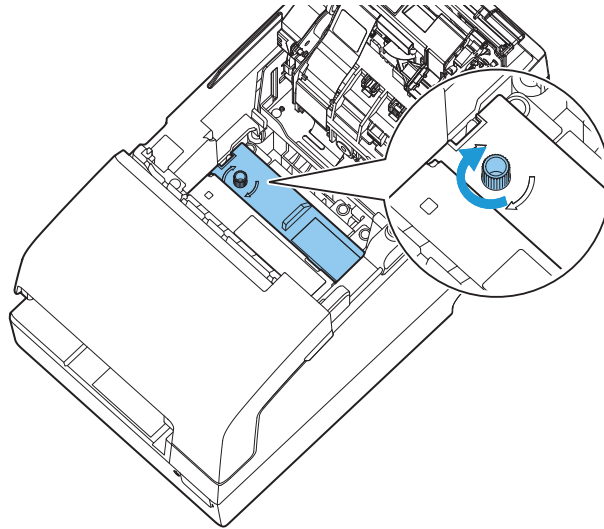2. Turn on the printer.

ON
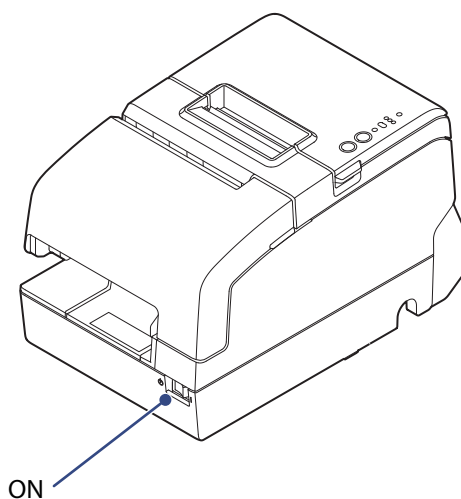
3. Open the receipt unit.

4. Remove the used ribbon cartridge, if there is one.

5. Insert a new ribbon cartridge until it clicks into place.

6. Turn the knob on the cartridge in the marked direction again to remove any slack in the ribbon.

7. Close the receipt unit.

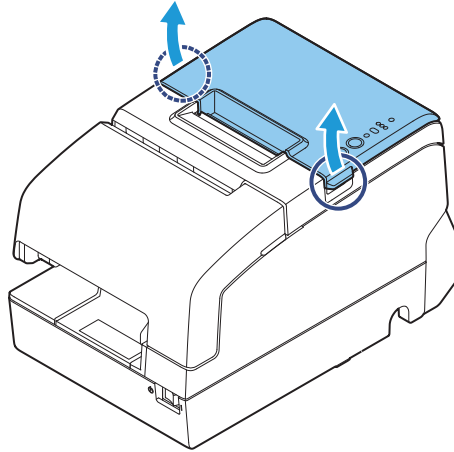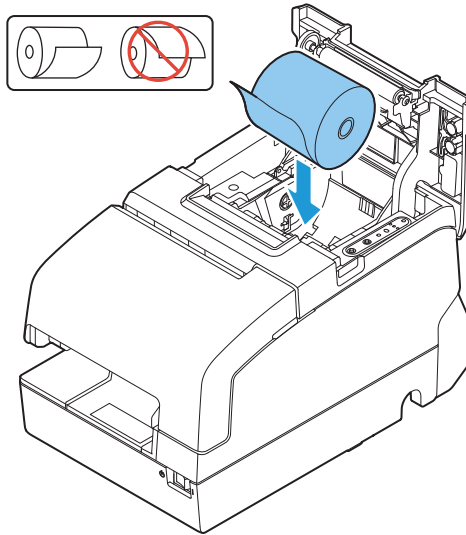# Installing the Roll Paper

✎*Notes:*
Be sure to use the specified paper. (☞ "Specifications" on page 31)

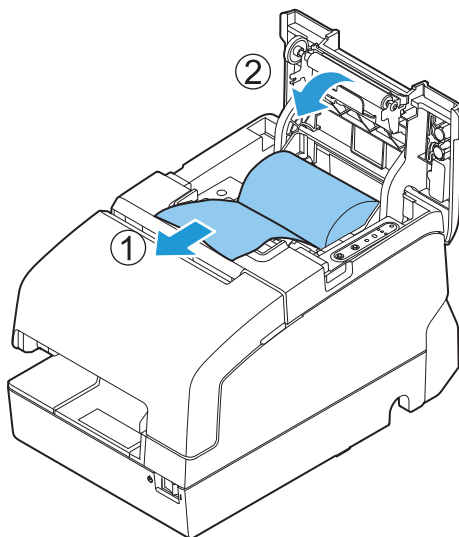Follow the steps below to install the roll paper.

1. Make sure the printer is turned on.

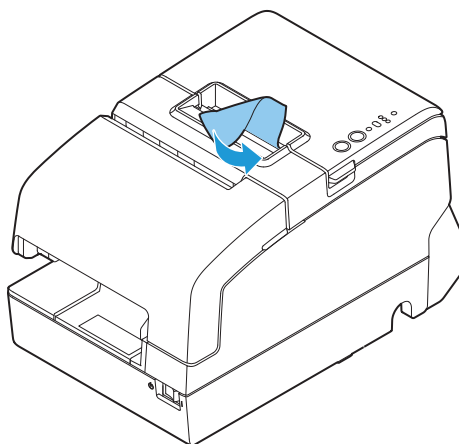2. Open the roll paper cover.

3. Insert the roll paper in the correct direction.

4.   Pull out some paper, and close the roll paper cover.

5.   Tear off the paper with the manual cutter.

Test Printing

After the printer setup or when the printer is not operating correctly, you can check the printer operation with test printing. If the printer performs pattern printing following the steps below, the printer is operating normally.

Test Printing on Roll Paper

Make sure all the covers are closed, and while pressing the Feed button, turn on the printer. After the printer prints its status and the Paper LED flashes, press the Feed button again to restart the test printing.

Test Printing on Slip Paper

Make sure all the covers are closed, and while pressing the Release button, turn on the printer. After the Slip LED flashes, insert the slip paper. If your printer is equipped with the endorsement printer, the printer prints both sides of the paper.

Both types of test printing are completed when "*** completed ***" is printed.

Attaching the Power Switch Cover

By attaching the power switch cover, you can prevent accidental operations of the power switch.

You can turn on and off the power switch by inserting a pointed object in the holes on the power switch cover. To detach the cover, use a pointed object.

To use this cover, install it as shown in the illustration below.
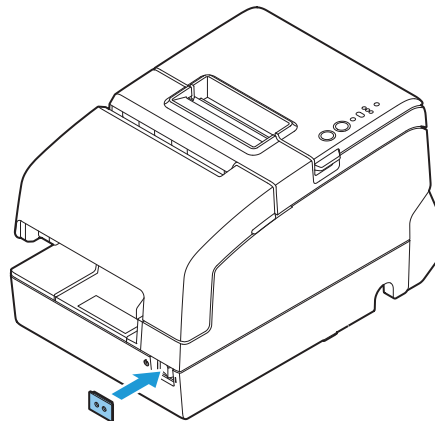
⚠ *WARNING:*

If an accident occurs with the power switch cover attached, unplug the power cord immediately. Continued use may cause a fire or electric shock.

Applying the LED Information Label

You can use the LED information label to swiftly learn the status of the printer when an error occurs. Check the printer's LED on/flashing pattern and identify the error type from the LED information label.

Or, you can scan the QR code using your smart device to check detailed information about the error and the solution.

We recommend applying the LED information label on the reverse side of the front cover following the steps below.

✎**Notes:**

❏ *Depending on your printer model, the LED information label may already be applied.*

❏ *There are 2 types of the LED information label; a label written in English and a label written in French. Some models do not include the label written in French.*

Error Legend

https://www.epson-biz.com/manuals/tmh6k5-led/

Power	Error 1	Error 2	Error 3	Paper	Slip	Status
●	●	○	○	−	−	Cover is open / Roll paper out
●	○	○	○	−	☼	Insert or remove slip*
●	●	●	○	−	−	Auto cutter error
●	●	○	●	−	−	Paper jam
●	●	●	●	−	−	Printing stop by cover open
☼	−	−	−	☼	☼	Call for service

○:off   ●:on   ☼:flashing   −:LED either on, off or flashing
*All of the covers are closed

1. Open the front cover.
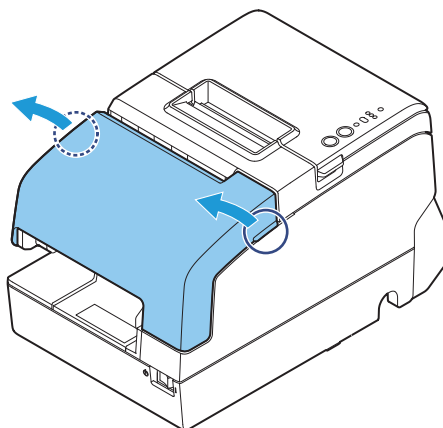
2. Apply the LED Information Label in the position in the figure below.
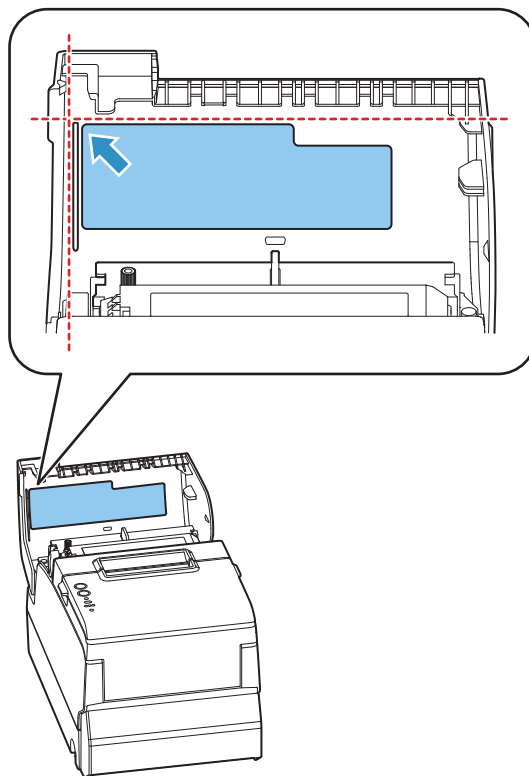
Handling Paper

⚠ CAUTION:

❏ *Be sure to use the specified paper. (☞"Specifications" on page 31)*

❏ *Do not insert any paper that has clips or staples. This may cause paper jams and damage.*

❏ *Make sure the slip/validation paper is flat and without curls, folds, or wrinkles.*

Installing and Replacing the Roll Paper

Follow the steps below to install/replace the roll paper.

1. Make sure the printer is turned on.

2. Open the roll paper cover.
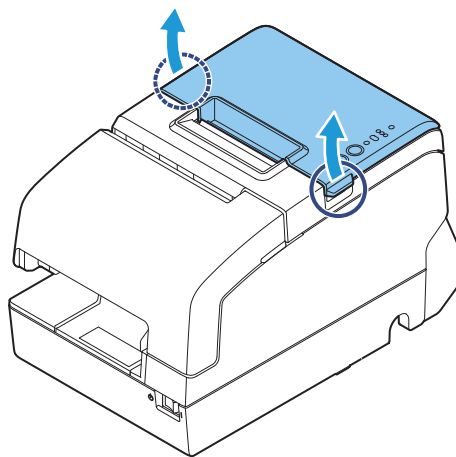
3. Remove the used roll paper core, if there is one, and insert the roll paper in the correct direction.

4. Pull out some paper, and close the roll paper cover.

5. Tear off the paper with the manual cutter.
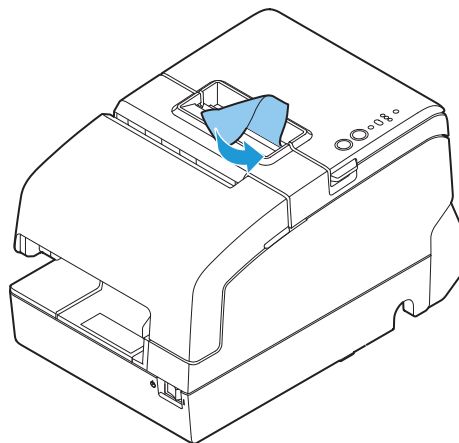
Inserting Slip Paper

⚠️ *CAUTION:*

Models with an MICR reader use a permanent magnet. Do not bring a magnetic card or the like near the product.

When printing on slip paper, follow the steps below to insert the paper.

If your printer is equipped with a MICR reader, MICR reading is available by inserting the check paper so that the MICR characters on the paper are on the right side.

1. Make sure the printer is turned on.

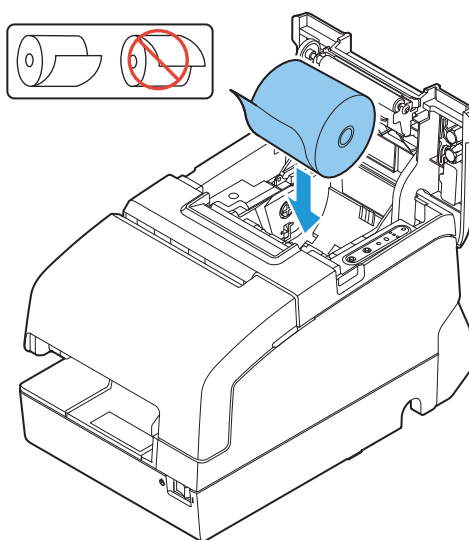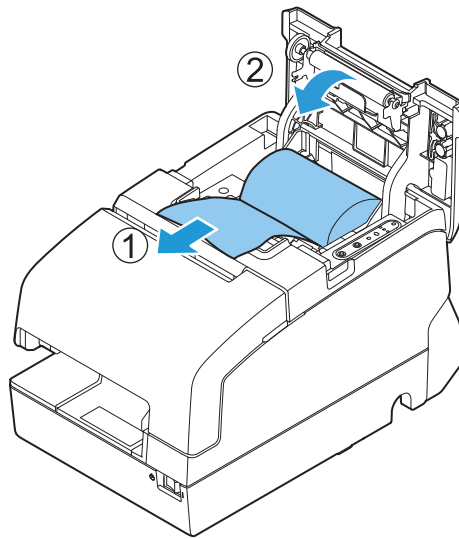2. Set the paper so that the right edge of the paper contacts the paper guide on the right and insert the slip paper. Refer to the label affixed to the printer.
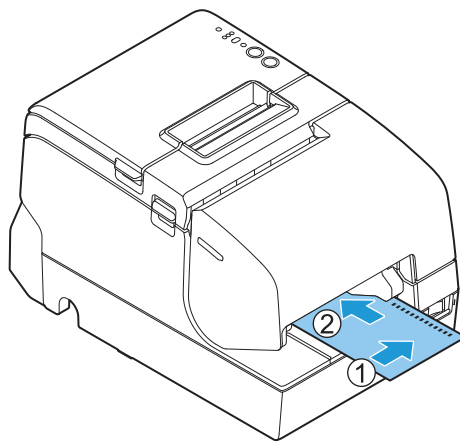
Inserting Validation Paper

If your printer is a validation model, insert the paper in the same way as normal slip paper (See "Inserting Slip Paper" on page 24) or follow the steps below.

1. Make sure the printer is turned on.

2. Insert the paper with the right paper edge against the right side of the paper guide at the printer top, and insert it as far as it will go.

3. Insert the paper straight down until the bottom edge of the paper touches the stopper.
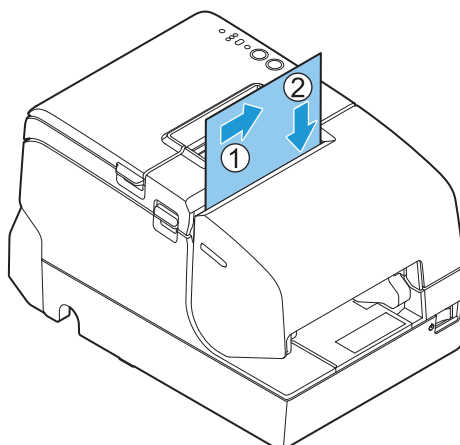
Cleaning the Product

Cleaning the Printer Case

Be sure to turn off the printer, and wipe the dirt off the printer case with a dry cloth or a damp cloth.

⚠ CAUTION:

Never clean the product with alcohol, benzine, thinner, or other such solvents. Doing so may damage or break the parts made of plastic and rubber.

Cleaning the Thermal Head and the Platen Roller

Epson recommends cleaning the thermal head periodically (generally every 3 months) to maintain receipt print quality.

Depending on the roll paper used, paper dust may stick to the platen roller and the paper may not be fed correctly. To remove the paper dust, clean the platen roller with a cotton swab moistened with water. Turn on the product power only after the water has completely dried.

⚠ ⚠ CAUTION:

❏ *The thermal head can be very hot after printing. Be careful not to touch it, and let it cool before you clean it.*

❏ *Do not damage the thermal head by touching it with your fingers or any hard object.*

1. Turn off the printer.
2. Open the roll paper cover.
3. Clean the thermal elements of the thermal head and platen roller with a cotton swab moistened with an alcohol solvent (ethanol or IPA).
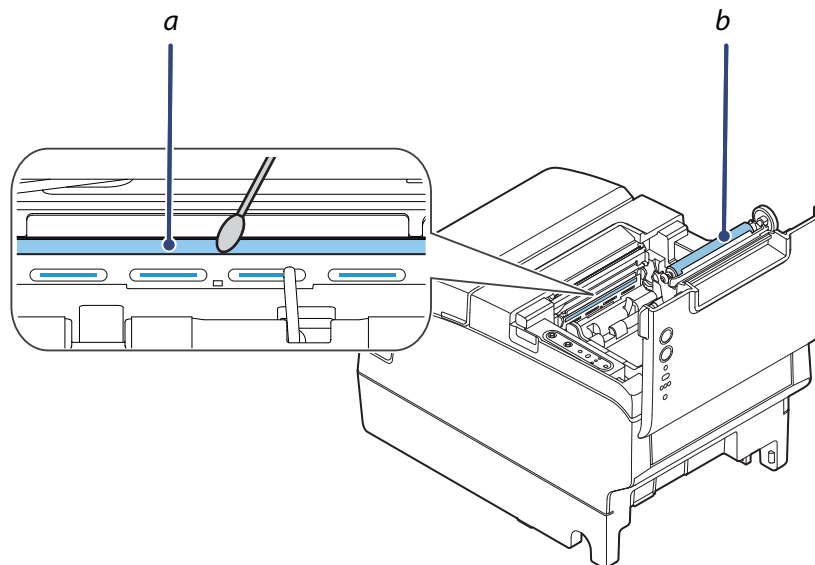
a. Thermal head
b. Platen roller

Cleaning the MICR Head

If your printer is equipped with a MICR reader, when the MICR head becomes dirty, the printer cannot read MICR characters normally.

Approximately every year, clean the MICR head with the following or an equivalent commercially available cleaning sheet: KIC Products "Waffletechnology® MICR cleaning card".

⚠ CAUTION:

❏ *Be sure not to use an adhesive cleaning sheet.*

❏ *Be sure that the cleaning sheet is inserted with the correct side up and in the correct direction.*

❏ *Use a cleaning sheet only one time; then discard it.*

1. Make sure the roll paper is installed correctly and the printer is turned off.

2. Open the roll paper cover.

3. While holding down the Release button, turn the power back on.

4. Press the Release button 7 times; then close the roll paper cover.

5. After the printer prints "*** RECOGNITION MODE *** Please set check." on the roll paper and the Slip LED flashes, insert the cleaning sheet like standard slip paper.

6. Pull the ejected paper straight up out of the printer.

7. Turn off the printer to exit the cleaning mode.

Troubleshooting

⏻ (Power) LED does not turn on

Check whether the power supply cable is correctly connected to the printer and the socket.

Error LEDs are on or flashing

Refer to the table below. For more detailed explanations or if the on/flashing pattern is not listed in this table, scan the QR code on the LED information label (☞ "Applying the LED Information Label" on page 20) or refer to the *Technical Reference Guide*.

● : On   ○ : Off   ☀●̈ : Flashing   - : LED either on, off, or flashing

Power	Error			Paper	Slip	Cause	Solution and reference
	1	2	3				
●	●	○	○	–	–	Either the roll paper cover, receipt unit, or front cover is open, or there is no roll paper.	❏ Make sure that the roll paper cover, receipt unit, and front cover are closed. ☞ "Part Names and Functions" on page 4 ❏ Set roll paper. ☞ "Installing the Roll Paper" on page 17
●	●	●	○	–	–	Autocutter does not work correctly.	Open the roll paper cover and check for any foreign material. If the roll paper cover will not open, refer to "Roll paper cover will not open" on page 30.
●	●	○	●	–	–	Slip paper or foreign material may be jammed.	Open the front cover and front carriage unit and check for any foreign material. ☞ "Slip paper is jammed" on page 29
●	●	●	●	–	–	The roll paper cover was opened while the printer was printing to roll paper, and printing stopped.	Close the roll paper cover and perform error recovery* from your system. While the printer is operating independently (such as a test print, etc.), restart the printer.
●̈	–	–	–	●̈	●̈	An unrecoverable error occurred.	Turn off the power immediately when an unrecoverable error occurs. If the same error occurs again even after turning the power back on, contact qualified service personnel.

*The method for error recovery varies depending on your system. Inquire with your system administrator.

Roll paper is jammed

⚠️ 🔥 *CAUTION:*

Do not touch the thermal head, because it can be very hot after printing. Let it cool before you remove the jammed paper.

1. Open the roll paper cover.
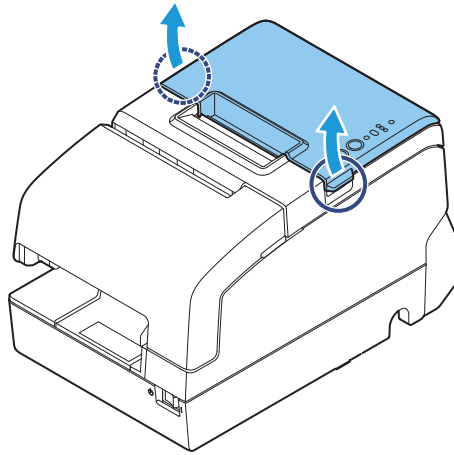
2. Remove the jammed paper.

Slip paper is jammed

1. Open the front cover.
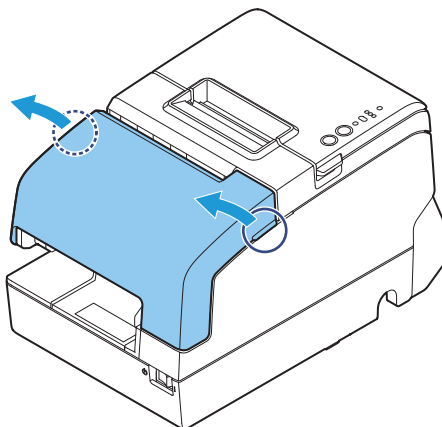
2. Open the front carriage unit using the lever on the right side of the front carriage unit.
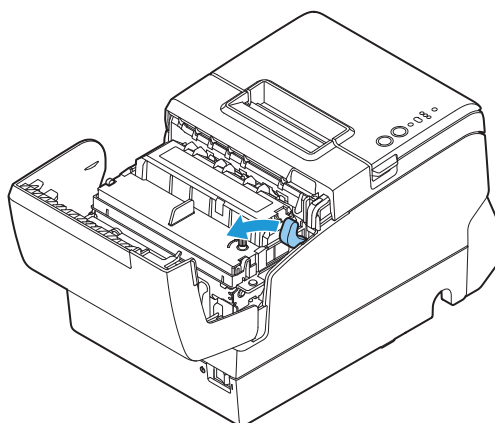
3. Remove the jammed paper.

Roll paper cover will not open

When the roll paper cover is locked and will not open, follow the steps below to return the autocutter blade to the normal position to unlock the roll paper cover.

1. Open the receipt unit.
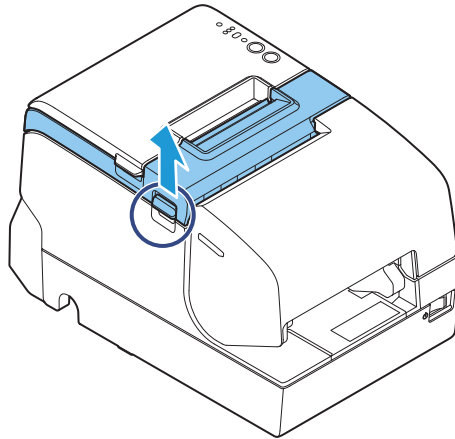
2. Use an object with a pointed tip such as a ballpoint pen or tweezers to turn the knob of the autocutter blade in the direction of the arrow until you see a pin in the opening of the frame, as shown in illustration below.
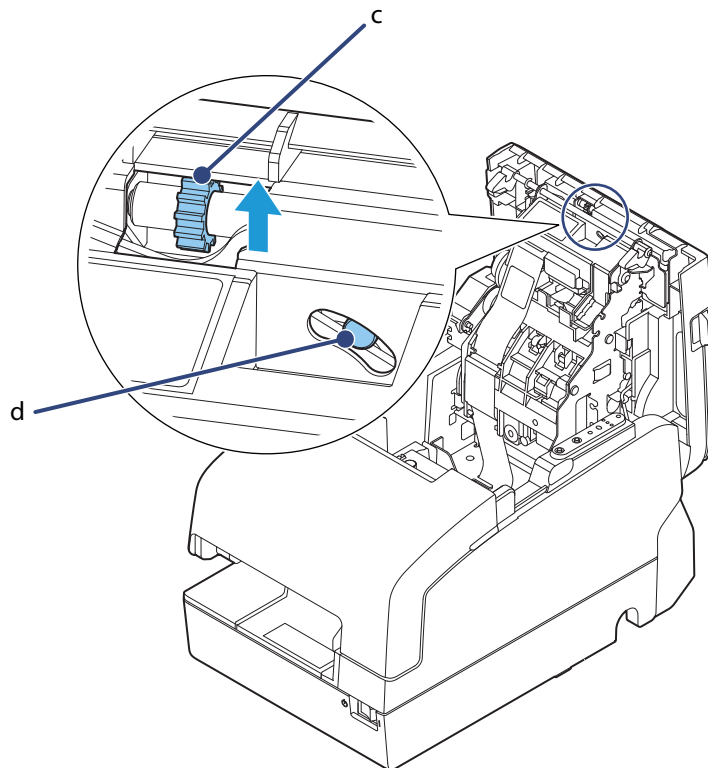
c. Knob
d. Pin

Specifications

Printing method	Receipt	Thermal line
	Slip/Endorsement[1]	9-pin serial impact dot matrix
Paper dimensions	Receipt	79.5 ± 0.5 × 83 mm {3.1 ± 0.02 × 3.3"}
	Slip	68 to 230 × 68 to 297 mm {2.68 to 9.06 × 2.68 to 11.7"} (W × L) Minimum size: 68 × 152 mm {2.68 × 5.98"}
Paper thickness		Slip (single ply): 0.09 to 0.22 mm {0.0035 to 0.0087"}
Inked ribbon	Slip	ERC-32
	Endorsement[1]	ERC-43
Interface[2]	Serial	RS-232
	Ethernet	10BASE-T/100BASE-TX
	USB	USB 2.0, Full-speed (12 Mbps)
	USB Plus Power	Full-speed (12 Mbps)
	Wireless LAN	Connect the Epson certified unit to the USB connector.
	Bluetooth®	*Bluetooth* 3.0 (EDR supported)
Supply voltage[3]		DC + 24 V ± 7%
Current consumption		1.8 A
AC power consumption [4] (100 to 230 V/50 to 60 Hz)		Operating: Approximately 33.8 W Standby: Approximately 0.82 W
Temperature		Operating: 5 to 45°C {41 to 113°F} Storage: −10 to 50°C {14 to 122°F}, except for paper
Humidity		Operating: 10 to 90% RH Storage: 10 to 90% RH, except for paper
Elevation		3,000 m or less
Overall dimensions		181 × 186 × 278 mm {7.13 × 7.32 × 10.94"} (H × W × D)
Weight (mass)		Approx. 4.4 kg {9.7 lb}

Mbps: megabits per second

*1: Factory installed options

*2: The available interfaces vary depending on the printer model.

*3: Be sure to use a safety-standards-applied power source that meets the following specifications.
Rated output: 2.1 - 10.0 A, Maximum output: 240 VA or less

*4: This is the average power under our operation conditions. It varies depending on the conditions of use and the model.

Appendix

Downloading Drivers, Utilities, and Manuals

Printer drivers, utilities, and manuals can be downloaded from one of the following URLs.

For customers in North America, go to the following web site:
http://www.epson.com/support/

For customers in other countries, go to the following web site:
http://download.epson-biz.com/?service=pos

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