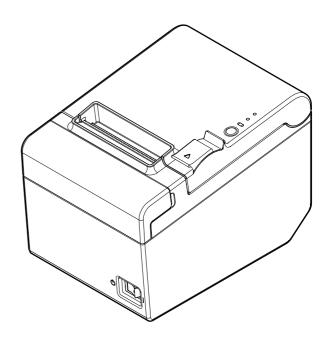


TM-T20II-i

User's Manual

| Important Safety Information | page 2 |
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Important Safety Information

This manual presents important information intended to ensure safe and effective use of this product. Read this manual carefully and store it in an accessible location.

For information on development of a system with this product and setup, see also *Technical Reference Guide*. You can access *Technical Reference Guide* from the included *Manual CD*.

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:

Warnings must be observed carefully to avoid serious bodily injury.



CAUTION:

Cautions must be observed to avoid minor injury to yourself, damage to your equipment, or loss of data.

ØNote:

Notes have important information and useful tips on the operation of your product.

Safety Precautions

| <u> </u> | WA | RN | ING: |
|-----------|----|------|------|
| <u>۔۔</u> | WA | NIVI | MG. |

| IJ If t | his product produces smoke, a strange odor, or unusual noise, immediately unplug the |
|---------|--|
| AC | Cable, and then contact your dealer or an Epson service center for advice. Continued |
| us | e may lead to fire or electric shock. |

| $ar{t}$ Do not use this product with any voltage other than the specified one. Doing so may lead |
|--|
| to fire or electric shock. |

| Do not connect the cables in ways other than those specified in the manuals. | Different |
|--|-----------|
| connections may cause equipment damage or fire. | |

| $oldsymbol{I}$ Do not use this product where inflammable fumes of gasoline, benzine, thinner, | or other |
|---|----------|
| inflammable liquids may be in the air. Doing so may cause an explosion or fire. | |

| ${f r}$ Do not use aerosol sprayers containing flammable gas inside or around this product. |
|---|
| Doing so may cause fire. |

| If water or other liquid spills into this product, immediately unplug the AC cable, and ther |
|--|
| contact your dealer or an Epson service center for advice. Continued use may lead to fire |
| or shock. |

| $ar{t}$ Do not allow foreign objects to fall into this product. Penetration by foreign objects may |
|--|
| lead to fire or electric shock |

| ∠ Ner | ver attem, | pt to re | pair this | product | yourself. In | proper re | pair wor | k can be | dangerous. |
|-------|------------|----------|-----------|---------|--------------|-----------|----------|----------|------------|
|-------|------------|----------|-----------|---------|--------------|-----------|----------|----------|------------|

| ☐ Never disassemble or modify this product. | Tampering with this product may result in |
|---|---|
| injury, fire, or electric shock. | |

ACAUTION:

- ☐ Do not use this product in locations subject to high humidity or dust levels. Excessive humidity and dust may cause paper jams and other problems, such as fire, or electric shock.
- ☐ Be sure to set this product on a firm, stable, horizontal surface. The product may break or cause injury if it falls.
- ☐ Do not stand on or place heavy objects on top of this product. Equipment may fall or collapse, causing breakage and possible injury.
- ☐ The print head can be very hot during and immediately after printing. If you need to touch it, such as for cleaning, wait until it cools down. Touching it before that may cause burns.
- ☐ Do not connect a telephone line to the drawer-kick connector of this product. The telephone line or product may become damaged.
- ☐ To ensure safety, unplug this product before leaving it for an extended period.

Caution Labels

The caution label on the product indicates the following precautions.



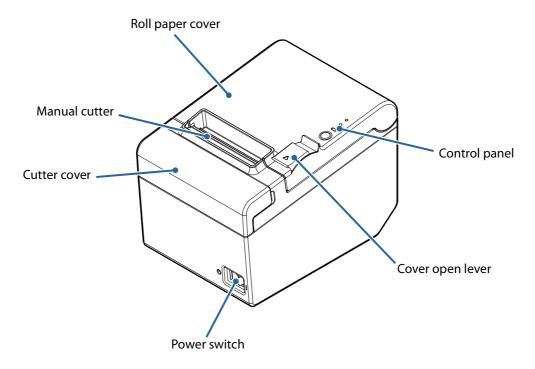
Do not touch the thermal head because it can be very hot after printing.

! CAUTION:

When connecting external devices to the USB ports, follow the precautions below.

- ☐ Confirm the rated current of the external devices by checking the descriptions on the devices or manuals. Connect the external devices only when those total rated current is less than 800 mA. Do not use a device whose rated current is unclear.
- ☐ Use UL-approved external devices (only for North American users).

Part Names and Functions



Roll paper cover

Open this cover to install/replace the roll paper.

Manual cutter

Use this cutter when you cut the roll paper manually.

Cutter cover

Open this cover to unlock the autocutter blade when the roll paper cover does not open due to a paper jam. ("Paper is jammed" on page 17)

Power switch

Use this switch to turn on or off the printer.

Cover open lever

Use this lever to open the roll paper cover.

Control panel

(Power) LED: This LED is on when the printer is on.

Error LED: This LED indicates an error. (Fror LED is on on page 17 or "Error LED is

flashing" on page 17)

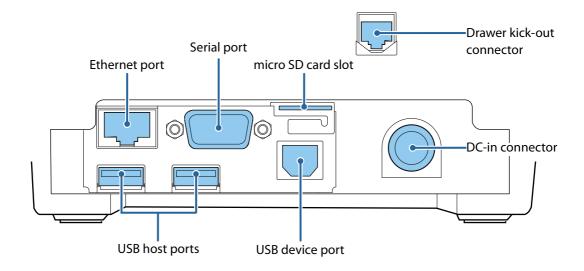
Paper LED: This LED is on when the paper is out. This LED flashes when the printer is in

standby.

Feed button: This button feeds paper.

Interface

All the ports and connectors are located on the back of the printer.

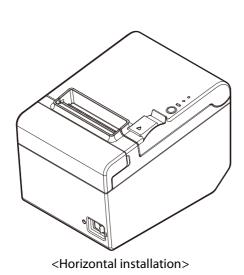


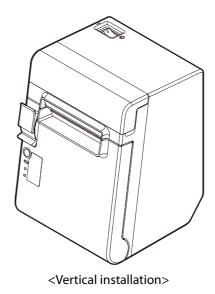
Setup

Installing the Printer

Install the printer horizontally on a flat surface.

If you want to install the printer vertically, be sure to attach the included control panel label for vertical installation and rubber feet. ("Installing the printer vertically" on page 6) Also, you can hang it on a wall using the included accessories. ("Hanging the printer on a wall" on page 8)





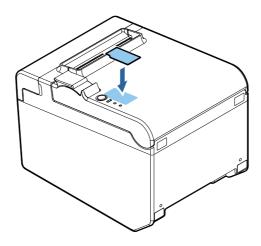
∅ Note:

Take measures to prevent the printer from moving by vibration during paper cutting and when using a drawer. Affixing tape (DF-10) is provided as option.

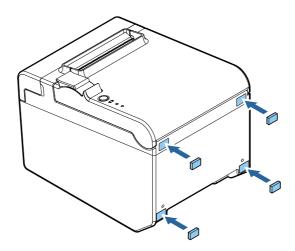
Installing the printer vertically

Attach the included control panel label for vertical installation and rubber feet on the printer.

☐ Attaching the control panel label for vertical installation

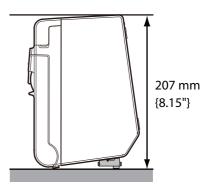


☐ Attaching the rubber feet

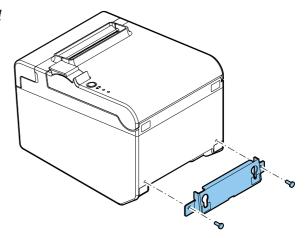


ØNote:

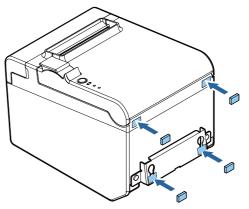
You can install the printer so that the roll paper cover is upright to the mounting surface using the included wall hanging bracket. Follow the steps below.



1. Install the wall hanging bracket on the printer, and fix it using 2 included screws.



2. Attach 2 rubber feet on the printer case, and attach 2 rubber feet on the hanging bracket.

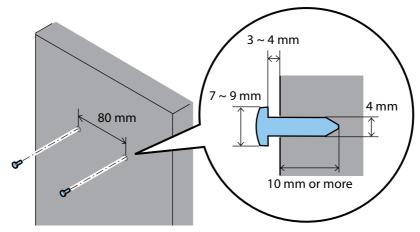


Hanging the printer on a wall

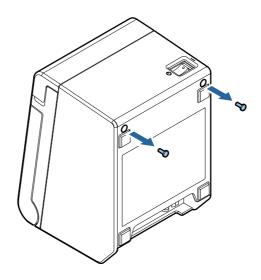
Follow the steps below to hang the printer on the wall.

ACAUTION:

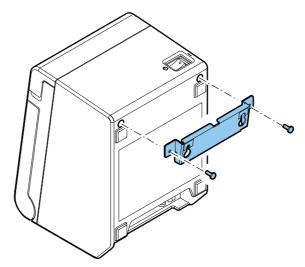
- \Box To fix the printer securely, install printer on a wall made of wood, concrete, or metal. The thickness of the wall should be 10 mm {0.4"} or more.
- ☐ Be sure to use metallic screws.
- \Box The screws on the wall side must have a pull-out strength of 150 N (15.3 kgf) or more.
- 1. Install 2 screws (screw diameter: 4 mm $\{0.16^{"}\}$, head diameter: 7 to 9 mm $\{0.28^{"}$ to $0.35^{"}\}$ in the wall at an interval of 80 mm $\{3.15^{"}\}$. Make sure the length of the screw's body in the wall is 10 mm $\{0.39^{"}\}$ or more, and the length outside the wall is 3 to 4 mm $\{0.12^{"}$ to $0.16^{"}\}$.



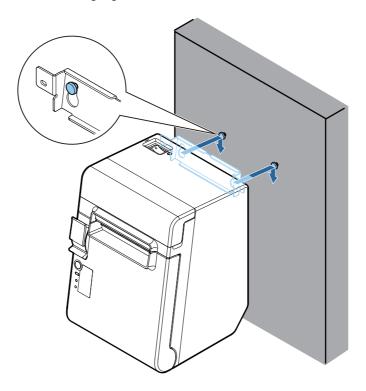
2. Remove the installed 2 screws from the printer.



3. Install the wall hanging bracket on the printer, and fix it using the screws removed in Step 2.



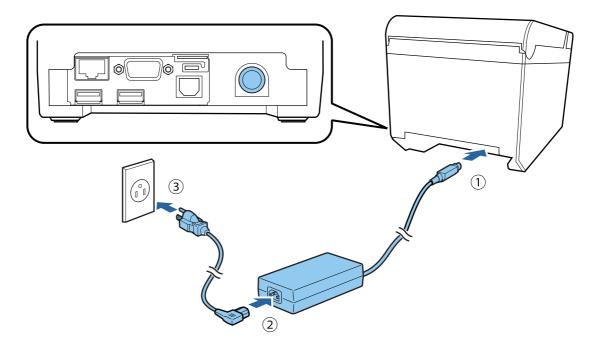
4. Align the holes in the wall hanging bracket with the screws on the wall, and hook it securely.



Connecting the AC Adapter

Follow the steps below to connect the AC adapter.

- 1. Firmly insert the DC connector of the AC adapter all the way into the DC-in connector on the printer.
- 2. Firmly insert the connector of the AC cable all the way into the AC inlet on the AC adapter.
- 3. Firmly insert the plug all the way into the grounded wall outlet.
- 4. Set the AC adapter so that its label side is facing down.

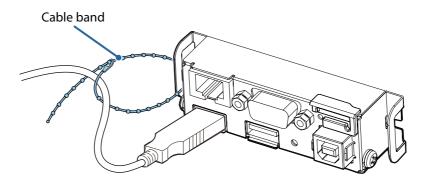


Connecting External Devices

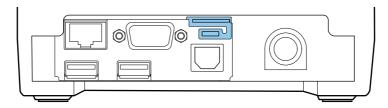
If you connect external devices, connect each cable to the port/connector on the back of the printer. (Therface" on page 5)

riangle CAUTION:

- \Box When connecting external devices to the USB ports, follow the precautions below.
 - Confirm the rated current of the external devices by checking the descriptions on the devices or manuals. Connect the external devices only when those total rated current is less than 800 mA. Do not use a device whose rated current is unclear.
 - Use UL-approved external devices (only for North American users).
- ☐ When connecting the USB cables, pass the cables through the cable band to prevent them from coming off.



☐ When using the printer, make sure the protective cover fits firmly into place.



☐ When Ethernet cables are installed outdoors, make sure devices without proper surge protection are cushioned by being connected through devices that do have surge protection. Otherwise, the devices can be damaged by lightning.

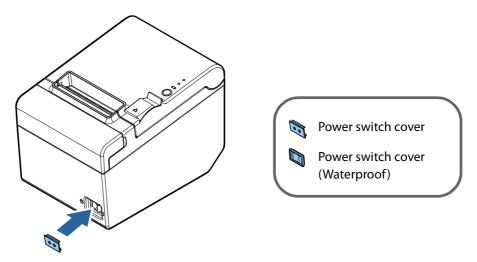
Note:

Connecting the optional Wireless LAN Cable Set (OT-WL01) to the USB port enables the wireless LAN connection. While connecting via wireless LAN, keep the Ethernet cable unconnected to the printer.

Attaching the Power Switch Cover

Attaching the enclosed power switch cover prevents inadvertent changing of the power switch and tampering. You can turn the power switch on and off by inserting a sharp-pointed object in the holes in the power switch cover. A waterproof cover for the power switch is also included.

To detach these covers, also use a sharp-pointed object.



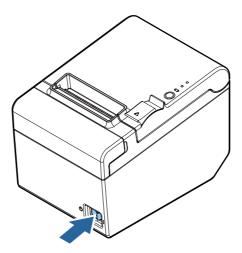


If an accident occurs with the power switch cover attached, unplug the AC cable immediately. Continued use may lead to fire or electric shock.

Basic Operations

Turning Power On/Off

Press the power switch to turn on/off the printer.



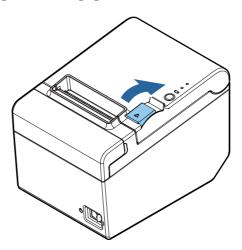
⊘Note:

It takes approximately 30 seconds after the printer is turned on until it is ready for printing.

Opening the Covers

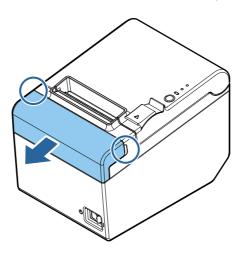
Opening the roll paper cover

Pull the cover open lever to open the roll paper cover.



Opening the cutter cover

Put your fingers in the indents in both sides of the cutter cover, and pull it to open it.



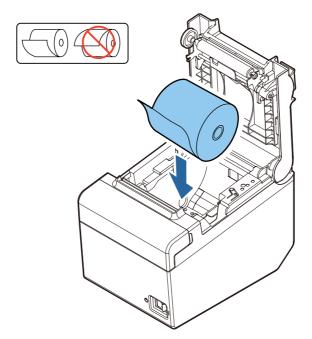
Installing/Replacing the Roll Paper

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

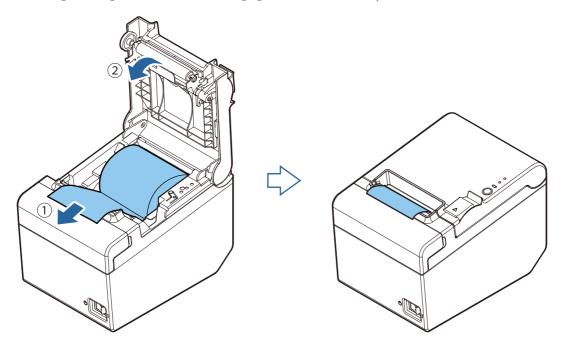
riangle CAUTION:

Be sure to use the specified roll paper. (T "Specifications" on page 19)

- 1. Open the roll paper cover. (Topening the roll paper cover" on page 13)
- 2. Remove the used roll paper core, if there is one.
- 3. Insert the roll paper in the correct direction.



4. Pull out some paper, and close the roll paper cover. When the printer power is on, the roll paper is automatically cut.



Cleaning

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.

A CAUTION:

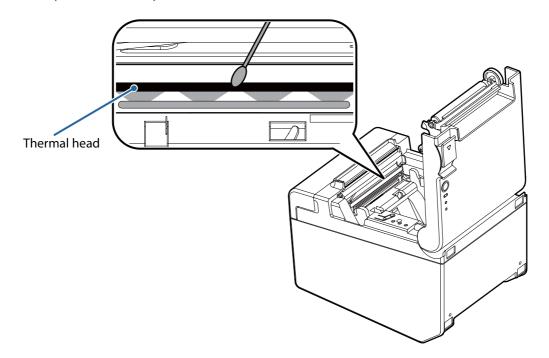
Never clean the printer with alcohol, benzine, thinner, or other such solvents. Doing so may damage or break the parts made of plastic and rubber.

Cleaning the Thermal Head

To maintain print quality, Epson recommends cleaning the thermal head periodically (generally every 3 months) by following the steps below.

⚠ CAUTION:

- ☐ The thermal head can be very hot after printing. Be careful not to touch it and to 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. (Turning Power On/Off" on page 13)
- 2. Open the roll paper cover. (Topening the roll paper cover" on page 13)
- 3. Clean the thermal elements of the thermal head with a cotton swab moistened with an alcohol solvent (ethanol or IPA).



Troubleshooting

(Power) LED does not light

Check whether the AC adapter is correctly connected. ((*Connecting the AC Adapter on page 10)

Error LED is on

- ☐ Check whether the roll paper cover is correctly closed.
- ☐ If the **Paper** LED is on, check whether the roll paper is correctly installed and any roll paper remains. (☐ "Installing/Replacing the Roll Paper" on page 15)

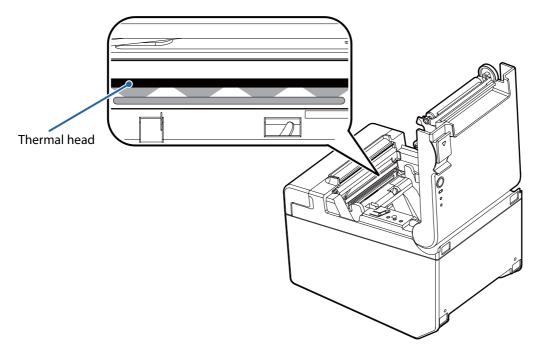
Error LED is flashing

- ☐ Check whether paper is jammed. If it is jammed, remove it. (☐ "Paper is jammed" on page 17)
- ☐ Printing stops if the thermal head overheats and resumes automatically when it cools.
- ☐ For other cases, turn the printer off, and after 10 seconds, turn it back on.

Paper is jammed



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

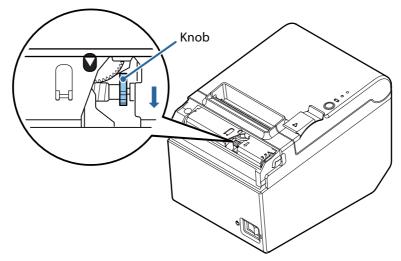


When paper is jammed, never pull out the paper forcibly. Open the roll paper cover (Topening the roll paper cover on page 13), and then remove the jammed paper.

The roll paper cover will not open

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

- 1. Turn off the printer. (Turning Power On/Off" on page 13)
- 2. Open the cutter cover. (**Opening the cutter cover* on page 14)
- 3. Turn the knob in the direction of the arrow until you see a triangle in the opening of the frame.



- 4. Close the cutter cover.
- 5. Open the roll paper cover. (Topening the roll paper cover" on page 13)

Specifications

| | Specification | | | |
|-----------------------------|---|--|--|--|
| | Thermal line printing | | | |
| Paper width*1 | 79.5 mm ± 0.5 mm {3.13" ± 0.02"} | | | |
| Diameter | 83 mm {3.27"} maximum | | | |
| Inside diameter of core | 12 mm {0.47"} | | | |
| Outside diameter of | 18 mm {0.71"} | | | |
| core | | | | |
| | NTP080-80 | | | |
| Ethernet | × 1 | | | |
| | 10BASE-T/100BASE-TX | | | |
| Serial | ×1 | | | |
| | D-sub 9 pin male | | | |
| USB (host) | ×2 | | | |
| | USB 2.0, Type A | | | |
| | 5 V, 500 mA* ² | | | |
| USB (device) | ×1 | | | |
| | USB 2.0 High speed, Type B | | | |
| micro SD card* ³ | ×1 | | | |
| Drawer kick-out | ×1 | | | |
| | DC +24 V ± 7% | | | |
| 4 V) | Mean: Approx. 1.8 A | | | |
| Operating* ⁶ | 230 V/50 Hz: 29.4 W | | | |
| | 115 V/60 Hz: 29.5 W | | | |
| Standby | 230 V/50 Hz: 2.9 W | | | |
| | 115 V/60 Hz: 2.8 W | | | |
| Operating | 5 to 45°C {41 to 113°F} | | | |
| Storage | −10 to 50°C {14 to 122°F} | | | |
| Operating | 10 to 90 %RH | | | |
| Storage | 10 to 90 %RH | | | |
| • | W × D × H: 140 mm × 199 mm × 146 mm {5.51"× 7.83" × 5.75"} | | | |
| AC adapter) | Approx. 1.6 kg {3.55 lb} | | | |
| | Diameter Inside diameter of core Outside diameter of core Core Ethernet Serial USB (host) USB (device) micro SD card*3 Drawer kick-out 4 V) Operating*6 Standby Operating Storage Operating | | | |

^{*1:58} mm width paper (57.5 \pm 0.5 mm) is also available. For information on how to change paper width, see *Technical Reference Guide*.

 $^{^{*}2:500\} mA$ at maximum for one port. $800\ mA$ at maximum for total of the two ports.

^{*3:} Available when the PHP function is enabled. For information on how to setup PHP environment, see *TM-i Series PHP Setup Manual*. Be sure to use a micro SD card with the wear leveling function.

^{*4:} Be sure to use a safety-standards-applied power source that meets the following specifications. Rated output: $24 \text{ V}/2.0 \sim 10.0 \text{ A}$ Maximum output: 240 VA or less

^{*5:} Reference data: In case of using the Epson power supply, PS-180 (Model: M159B)

^{*6:} Based on Epson operating conditions.

Appendix

Downloading Software and Manuals

The latest versions of SDK, 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.epsonexpert.com/

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

Open Source Software License

This product uses open source software in addition to Epson proprietary software.

For information of the open source software used in this product, see the following URL.

http://xxx.xxx.xxx/licenses/

For "xxx.xxx.xxx" in the above URL, input your printer's IP address.

Restriction of Use

When this product is used for applications requiring high reliability/safety, such as transportation devices related to aviation, rail, marine, automotive, etc.; disaster prevention devices; various safety devices, etc.; or functional/precision devices, etc.; you should use this product only after giving consideration to including fail-safes and redundancies into your design to maintain safety and total system reliability. Because this product was not intended for use in applications requiring extremely high reliability/safety, such as aerospace equipment, main communication equipment, nuclear power control equipment, or medical equipment related to direct medical care, etc., please make your own judgment on this product's suitability after a full evaluation.

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