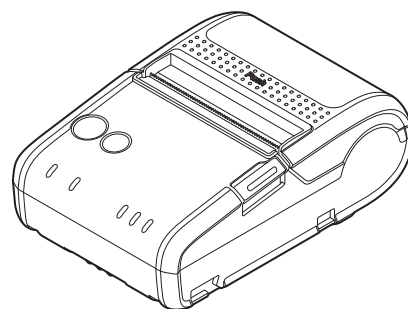


TM-P20

User's Manual

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Before Use

Please read this manual carefully before using this product. Keep this manual at hand for immediate reference whenever necessary. For details about the functions and operation procedure of this product and software, refer to *Technical Reference Guide*.

Safety Precautions

The symbols shown below are used in this manual in order to ensure safety and proper use of this product and to prevent danger to customers and other persons, and property damage. The symbols indicate the precaution levels as described below. Be sure that you completely understand their meaning before reading this manual.



DANGER:

Handling the product improperly by ignoring this symbol can result in immediate danger of death or serious injury.



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.

Cautions on Handling



DANGER:

Do not use or charge this product in high temperature places (60°C {140°F} or higher). Furthermore, do not leave or store this product in places that are 60°C {140°F} or higher. Doing so could lead to heat, smoke, ruptures, fire, or leaks.



WARNING:

- Do not use this product in a location with volatile substances such as alcohol or paint thinner, or near fire. Doing so may cause electric shock or fire.*
- Shut down the product immediately if it produces smoke, a strange odor, or unusual noise. Continued use may cause electric shock or fire. When a fault or other problem occurs, immediately shut down the product and remove the battery from the product. Then, contact your dealer or a Seiko Epson service center for advice.*
- Shut down the product immediately if water or other liquid spills into this product. Continued use may cause electric shock or fire. Immediately shut down and remove the battery from the product, and contact your dealer or a Seiko Epson service center for advice.*
- Do not disassemble the areas other than those mentioned in this manual.*
- Never repair this product. Tampering with this product may result in injury or fire.*
- Do not use this product in an environment where flammable gas or explosive gas may exist. Do not use aerosol sprayers containing flammable gas inside or around this product. Doing so may cause fire.*
- Do not connect cables in ways other than those mentioned in this manual. Doing so may cause fire. It may also damage other devices.*

- ❑ **Do not touch the areas inside the product other than those mentioned in this manual. Doing so may cause electric shock or burns.**
- ❑ **Do not insert metal or flammable materials, or allow them to fall into the product. Doing so may cause electric shock or fire.**

 **CAUTION:**

- ❑ **Do not allow anyone to stand or place heavy objects on top of this product. Equipment may fall or collapse, causing breakage and possible injury.**

Cautions on Installation

 **CAUTION:**

- ❑ **Do not store/leave the product in an unstable location or in a location subject to vibration from other devices. Doing so may cause injury. Also, it may cause malfunction of the printer.**
- ❑ **Do not install the product in a location exposed to oily smoke or dust, or in a humid location. Doing so may cause electric shock or fire.**
- ❑ **Install the cables and optional products in the proper direction according to the proper procedures. Failure to install correctly may cause fire or injury. Follow the instructions in this manual to install them properly.**

Cautions on Wireless Connection

 **WARNING:**

- ❑ **In airplanes, follow the instructions from the airline. Turn off wireless devices during takeoff and landing according to the in-flight announcement.**
- ❑ **Do not use the product near medical equipment or in medical institutions. Radio waves may affect artificial cardiac pacemakers or other medical electrical equipment.**
- ❑ **Keep the product 22cm {8.66"} or more away from the location of an artificial cardiac pacemaker. Otherwise, radio waves may affect operation of the pacemaker.**
- ❑ **Do not use the product near automatic control equipment such as automatic doors and fire alarms. Doing so may cause malfunction due to radio waves, resulting in an accident.**

Bluetooth® Specification

Time required to start printing

- ❑ **If you establish a radio connection between the host computer and the printer each time you start printing instead of maintaining the connection, it may take a while between the time you send a print job and the time that the printer actually starts printing. This happens because connecting the host computer and the printer requires some time. The time required for connection depends on the operating environment.**

When terminating wireless connection

- ❑ **Even after data transfer from the host computer is already finished, data may remain in the buffer in the printer. When wireless connection is terminated, data remaining in the buffer may be discarded. Before printing or terminating a wireless connection, make sure that the transmitted data has been printed completely by checking the print job status or by checking another way.**
- ❑ **When the wireless connection is ended while the printer is offline, reconnection may not be possible. In such case, remove the cause of offline and reconnect it.**

Cautions on the Battery

This printer operates only with the battery installed. Read the manual supplied with the battery carefully before using the battery.

WARNING:

For this product, use only the specified battery (OT-BY20 (model: D171A)). To charge the specified battery, use only the specified battery charger (OT-SC20, OT-MC20). Using other models may cause electric shock or fire.

Transportation of the Battery

In transportation of the battery, make sure to follow the latest UN recommendations.

Recycling the Batteries

The OT-BY20 is a lithium-ion battery. Must be recycled or disposed of properly.



For American Users

The lithium-ion battery is recyclable. At the end of its useful life, under various state and local laws, it is illegal to dispose of this battery into your municipal waste stream. Please call 1-800-8-BATTERY for information on how to recycle this battery.

WARNING :

- Risk of explosion if battery is replaced by an incorrect type.**
- Dispose of used batteries according to the instructions.**

Cautions on the Single Charger

The OT-SC20 is a single charger exclusively for this product and the OT-BY20 battery. To charge only the OT-BY20 battery, a battery spacer, sold separately, is required. (🔗 ["Battery spacer \(OT-BS20\)" on page 23](#))

Cautions on Handling

WARNING:

- Do not charge any device other than the TM-P20 printer or the OT-BY20 battery. Doing so may cause heat, explosion, fire, leaks, or other damage.**
- Do not use this product in a location with volatile substances such as alcohol or paint thinner, or near fire. Doing so may cause electric shock or fire.**
- Shut down the product immediately if it produces smoke, a strange odor, or unusual noise. Continued use may cause electric shock or fire. When a fault or other problem occurs, immediately shut down the product and unplug the product. Then, contact your dealer or a Seiko Epson service center for advice.**
- Shut down the product immediately if water or other liquid spills into this product. Continued use may cause electric shock or fire. Immediately unplug the product, and contact your dealer or a Seiko Epson service center for advice.**
- Do not disassemble the areas other than those mentioned in this manual.**
- Never repair this product. Tampering with this product may result in injury or fire.**

- ❑ **Do not use this product in an environment where flammable gas or explosive gas may exist. Do not use aerosol sprayers containing flammable gas inside or around this product. Doing so may cause fire.**
- ❑ **Do not connect cables in ways other than those mentioned in this manual. Doing so may cause fire. It may also damage other devices.**
- ❑ **Do not touch the areas inside the product other than those mentioned in this manual. Doing so may cause electric shock or burns.**

 **CAUTION:**

- ❑ *Do not allow anyone to stand or place heavy objects on top of this product. Equipment may fall or collapse, causing breakage and possible injury.*
- ❑ *Install the printer, cables and optional products in the proper direction according to the proper procedures. Failure to install correctly may cause fire or injury. Follow the instructions in this manual to install them properly.*
- ❑ *Be sure to disconnect all the cables from the product before you move it. Otherwise the cables could be damaged, potentially resulting in electric shock or fire.*

Cautions on the Power Supply

Read the manual supplied with the AC adapter carefully before using the accessory AC adapter.

This product uses a listed power unit marked "Class 2" or "LPS," with the output voltage of maximum 1.5 A at DC 24 V.

With the optional AC adapter (Epson AC Adapter, C), the output voltage is maximum 1.5 A at DC 24 V, and the input voltage is AC 100 V to 240 V.

 **WARNING:**

Be sure to use the specified AC adapter (Epson AC adapter C, model: M235A or M235B). Using any other power supply could cause faults, fire or electric shock.

Caution Label

The caution label on the product indicates the following precaution.

  **CAUTION:**

Do not touch the thermal head during printing or immediately after printing. After printing, the thermal head can be very hot.

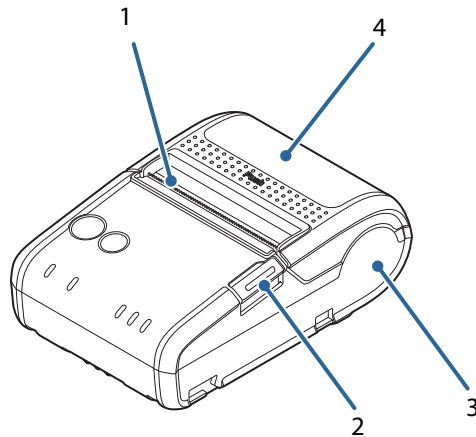
 **CAUTION:**


Take care not to injure your fingers on the manual cutter.

Part Names and Functions

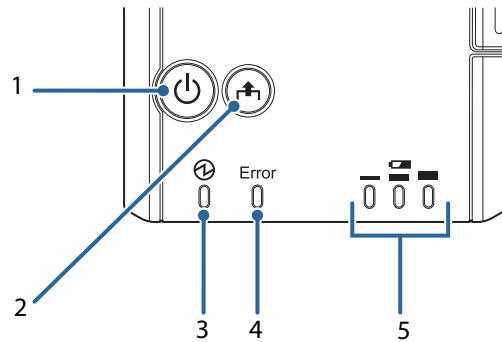
Printer

Front Side







1	Manual Cutter
Use this cutter to cut the paper. (↗ "Cutting the Roll Paper" on page 17)	
2	Cover Open Button
Press this button to open the roll paper cover. (↗ "Opening the Roll Paper Cover" on page 16)	
3	NFC Tag
To establish communication with an NFC device, bring the device close to the NFC tag ( mark) on the printer. For the functions using the NFC tag, refer to <i>Technical Reference Guide</i> .	
4	Roll Paper Cover
Open this cover to set/replace roll paper. (↗ "Setting/Replacing the Roll Paper" on page 18)	

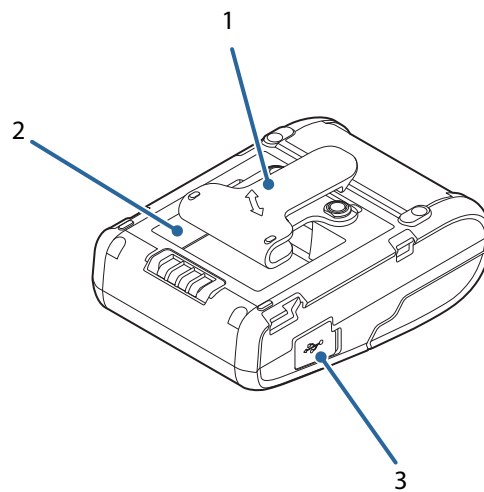
Operation Panel



- | | |
|---|-----------------------|
| 1 | (Power) Button |
| Turns on/off the printer. (🔗 "Turning On/Off" on page 15) | |
| 2 | (Feed) Button |
| Press this button to feed paper. | |
| 3 | (Power) LED |
| Lights when the printer is powered on. | |
| 4 | Error LED |
| Lights/Flashes when an error occurs. (🔗 "Error LED is on" on page 21 , "Error LED is flashing" on page 21) | |
| 5 | (Battery) LED |
| Lights/Flashes according to the battery level. | |

Battery LED	Error LED	Charge Level	Status
 3 LEDs On	 Off	Level H	Printing is available.
 2 LEDs On	 Off	Level M	Printing is available.
 1 LED On	 Off	Level L	Printing can be continued, but replacing/charging the battery is recommended.

 <p>1 LED Flashing</p>	 <p>Off</p>	Level S	Printing may stop during operation. Replace/charge the battery.
 <p>3 LEDs Off</p>	 <p>On</p>	Level E	Printing is not available. Replace/charge the battery.

Rear Side

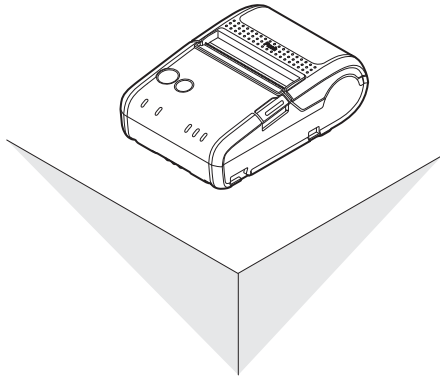
1	Belt Clip
Use this clip to hang the printer on your waist belt or other place. (🔗 "Carrying" on page 11)	
2	Battery Holder
Set the battery in this holder. (🔗 "Setting the Battery" on page 12)	
3	USB Connector
For connecting a USB cable.	

Setup

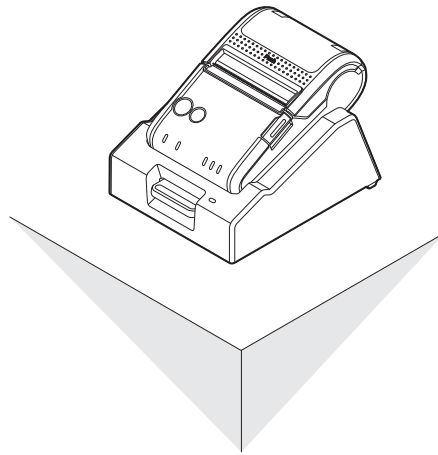
Installing the Printer

Install/use the printer as shown below.

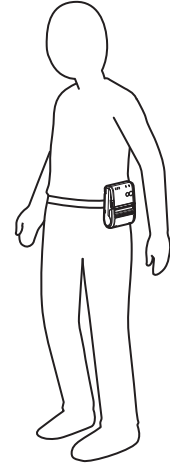
<Installing on a flat surface>



<Installing in the single charger>



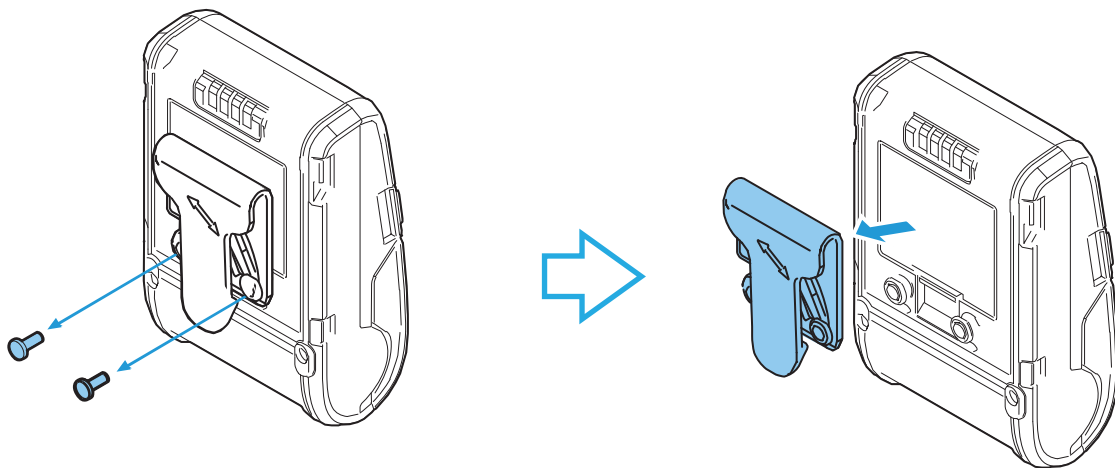
<Carrying>



Installing on a Flat Surface

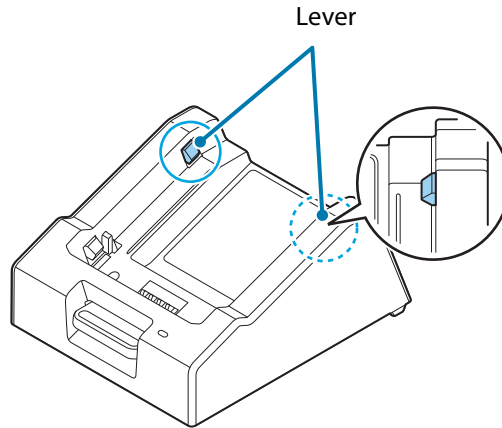
To install the printer on a flat surface, remove the belt clip on the rear of the printer. Removing the belt clip makes the rubber feet on the rear of the printer effective so the printer is less slippery.

To remove the belt clip, remove the two screws on the rear of the printer.



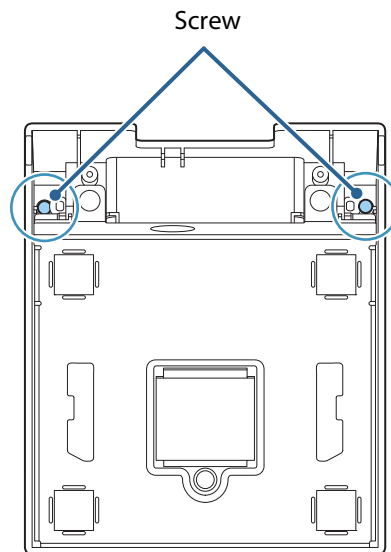
Installing in the Single Charger

To use the printer as set in the single charger, let out the levers on the single charger and then set the printer. With the levers out, the single charger can be securely fastened to the printer.



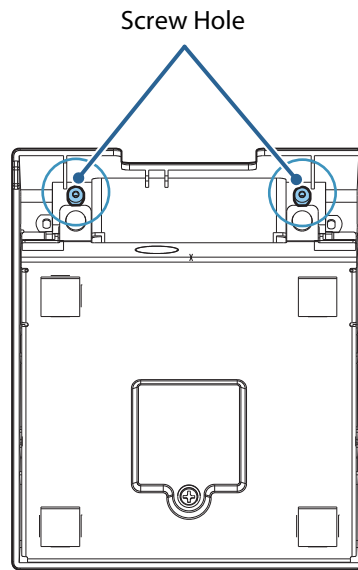
Let out the levers on the single charger by following the steps below.

1. Remove the two screws on the rear of the single charger (the screws fastening the levers).



2. Then, the levers that have been fastened with the screws automatically come out.

3. Attach the removed screws to the screw holes on the rear of the single charger.



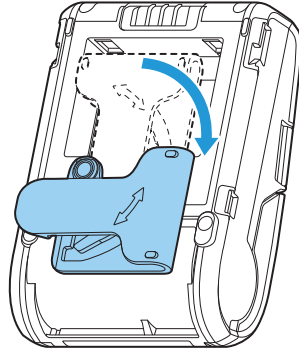
Carrying

To carry the printer with you, securely attach the belt clip on the rear of the printer to your waist belt.

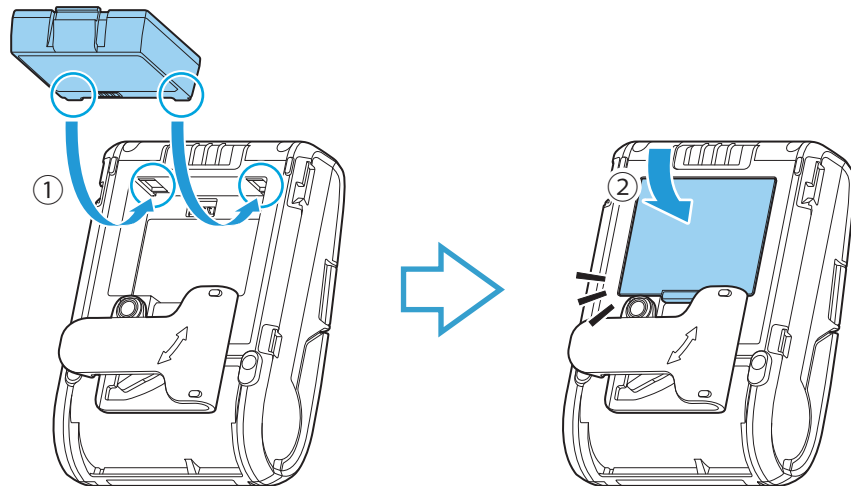
Setting the Battery

Set the battery in the printer by following the steps below.

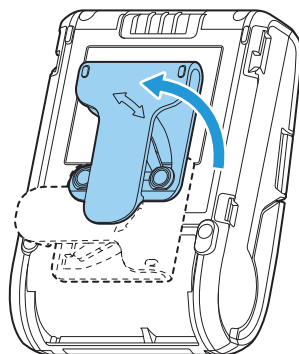
1. Turn the belt clip on the rear of the printer.



2. Set the battery in the battery holder. Insert the battery, with its tabs fitted into the printer's grooves, until it clicks firmly into place in the holder.



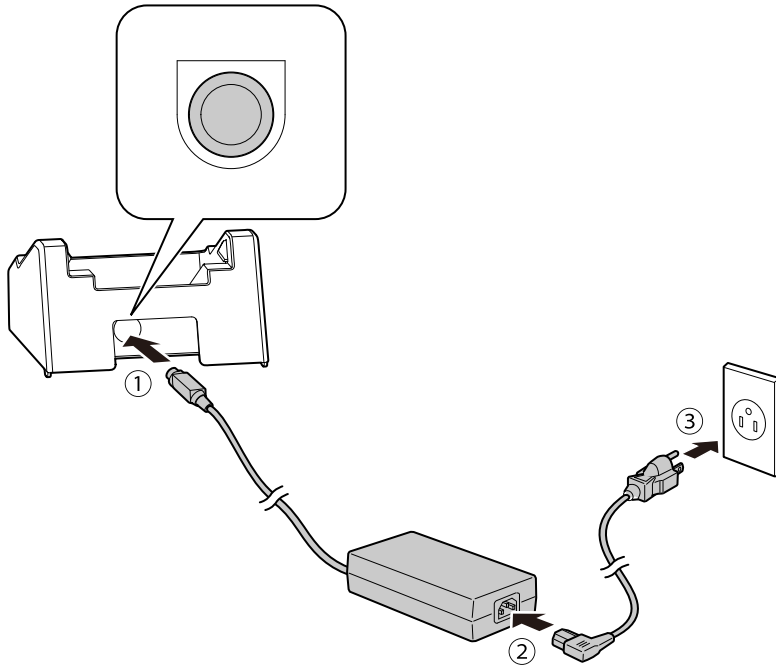
3. Restore the belt clip on the rear of the printer to the original position.



Preparing the Single Charger

Connect the AC adapter to the single charger by following the steps below.

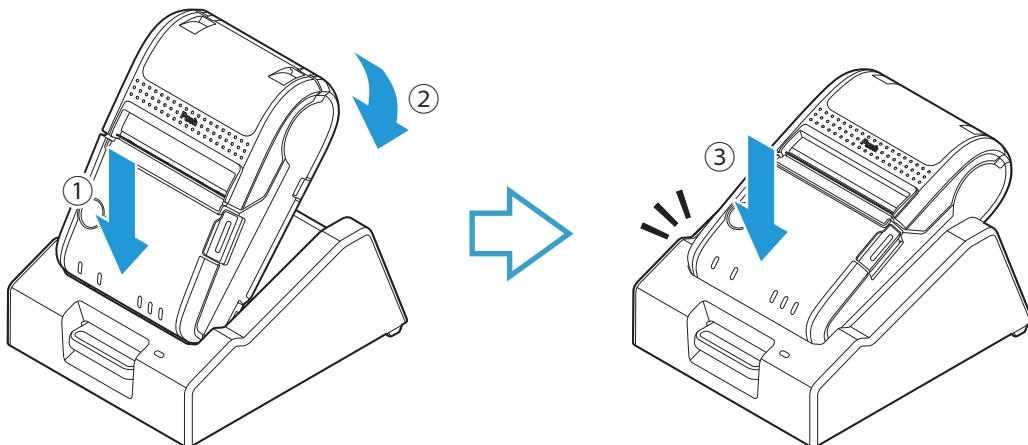
1. Insert the DC connector of the AC adapter into the DC-in connector on the single charger securely to the bottom.
2. Insert the AC cable connector into the AC inlet of the AC adapter securely to the bottom.
3. Fully insert the power plug securely into the grounded outlet.
4. Set the label side of the AC adapter facing down.



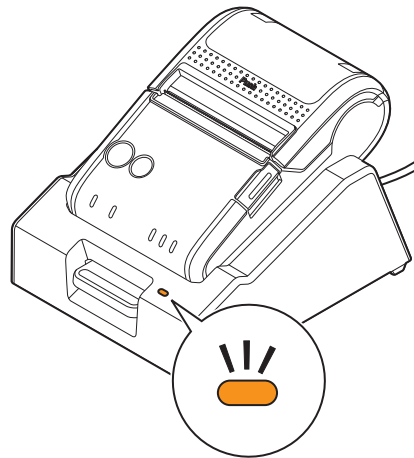
Charging the Printer

Charge the printer by following the steps below.

1. Set the printer in the single charger. Push down the printer until it clicks.



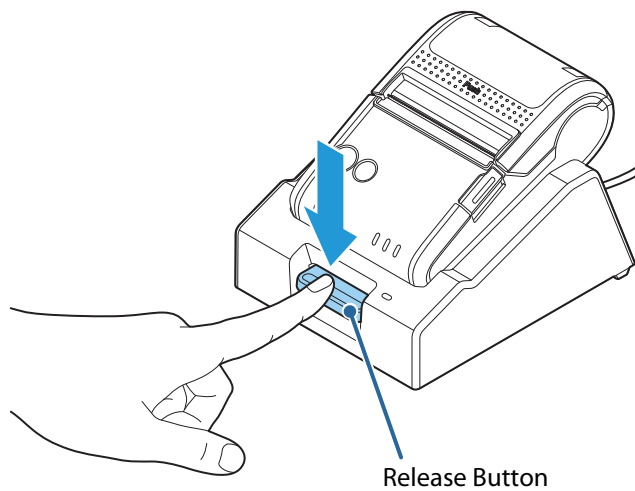
2. Charging starts and the Charge LED on the single charger turns on.



⚠ CAUTION:

Charge the printer at an ambient temperature between 10 and 30°C {50 and 86°F}.

3. When charging is complete, the Charge LED on the single charger turns off. Press the Release button and remove the printer.

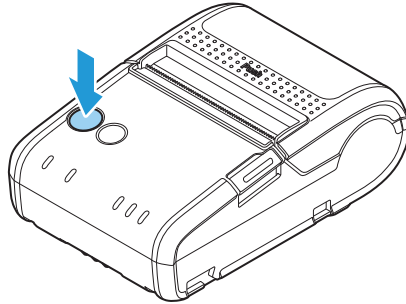


Basic Operation

Turning On/Off

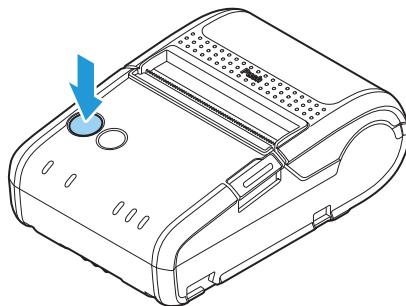
Turning On

Press Power button.  Power LED lights up and the power turns on.



Turning Off

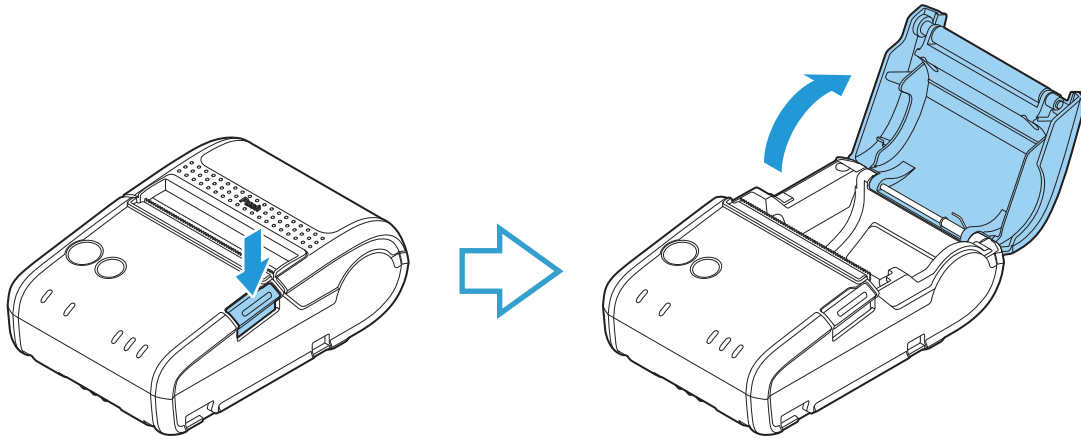
Hold down Power button for 2 seconds or more.  Power LED turns off and the power turns off.



Opening/Closing the Roll Paper Cover

Opening the Roll Paper Cover

Press the cover open button to open the roll paper cover.

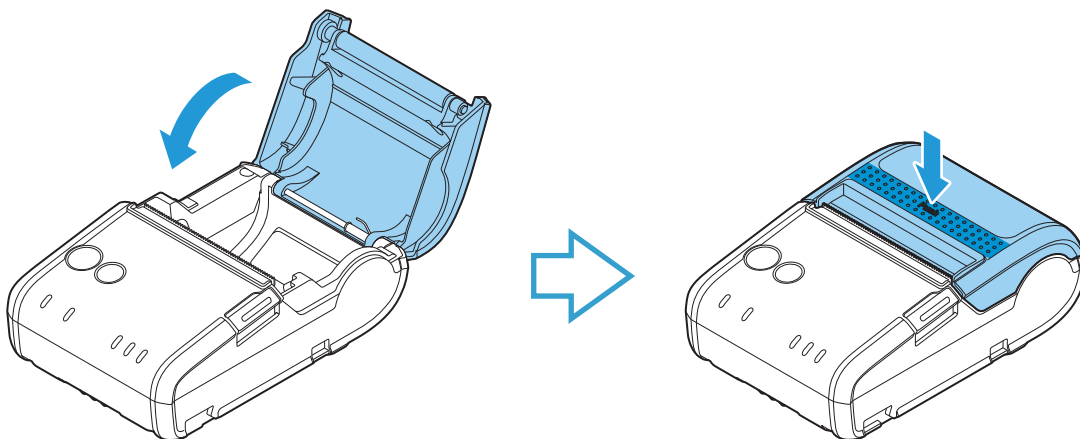


CAUTION:

Do not open the roll paper cover during printing. Doing so may cause injury. Also, it may cause malfunction of the printer.

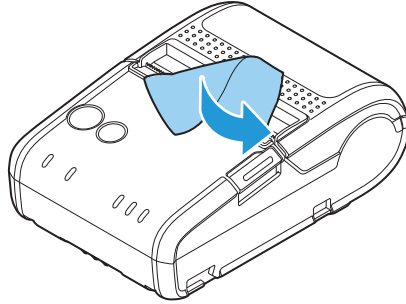
Closing the Roll Paper Cover

Push the entire roll paper cover to close the cover securely.



Cutting the Roll Paper

Pull the paper in the direction of the arrow to cut the paper with the manual cutter.




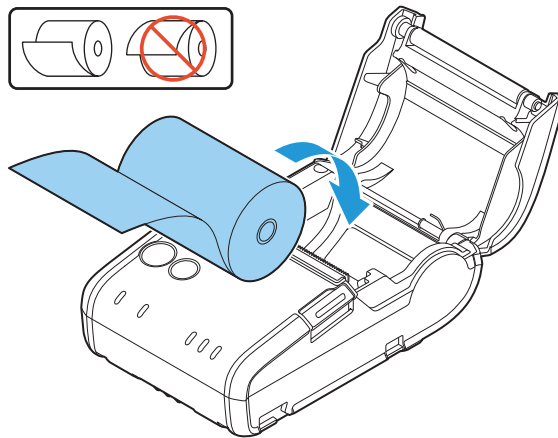
Setting/Replacing the Roll Paper

Set and replace the roll paper by following the steps below.

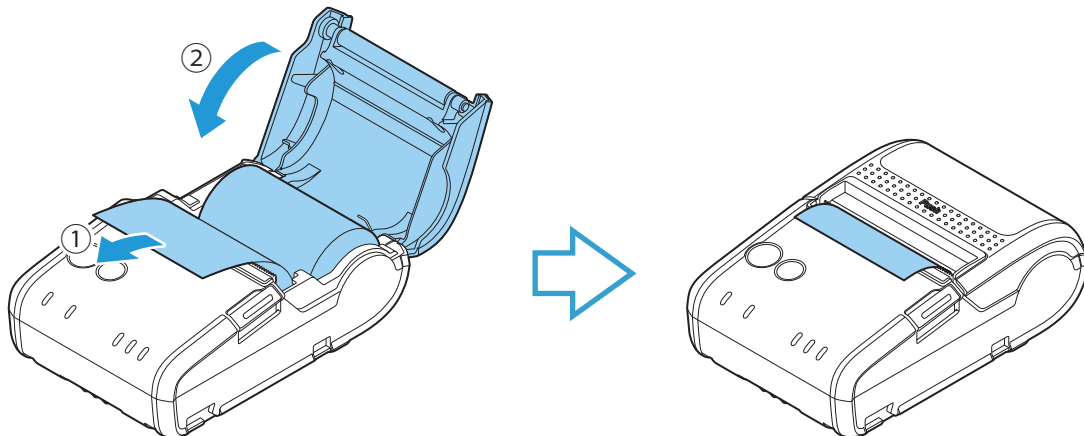
CAUTION:

Be sure to use the specified roll paper. Do not use roll paper with paper glued to the core.

1. Open the roll paper cover. ( "Opening the Roll Paper Cover" on page 16)
2. Remove the used roll paper core if there is one.
3. Insert the roll paper in the proper direction.



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



5. Cut the roll paper. ( "Cutting the Roll Paper" on page 17)

Cleaning the Products

Cleaning the Printer Exterior Surface

Make sure that the printer is turned off, and wipe off dirt with a dry or slightly wet cloth.

CAUTION:

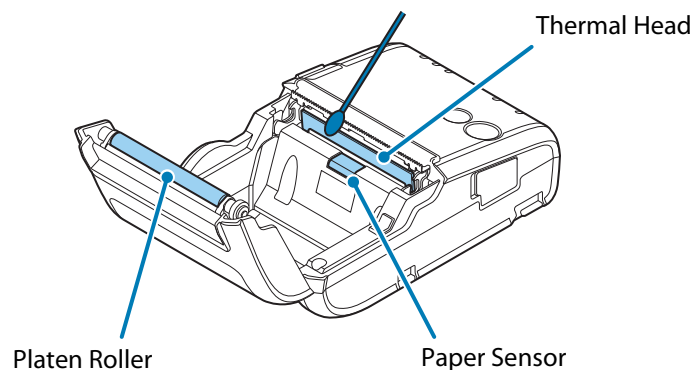
Do not use solvents such as alcohol, benzene, or paint thinner. Using such solvents may transform or damage the plastic or rubber parts.

Cleaning the Printer Interior

To maintain the printing quality, clean the thermal head, platen roller, and paper sensor by following the steps below. Epson recommends cleaning the parts periodically (generally every 3 months).

CAUTION:

- ❑ After printing, the thermal head can be very hot. 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 Off" on page 15)
 2. Open the roll paper cover. (☞ "Opening the Roll Paper Cover" on page 16)
 3. Clean the thermal elements of the thermal head with a cotton swab moistened with an alcohol solvent (ethanol or IPA).



Cleaning the Single Charger

Before cleaning the single charger, unplug its AC cable from the outlet, without fail, and wipe off dirt with a dry or slightly wet cloth.

CAUTION:

Do not use solvents such as alcohol, benzene, or paint thinner. Using such solvents may transform or damage the plastic or rubber parts.

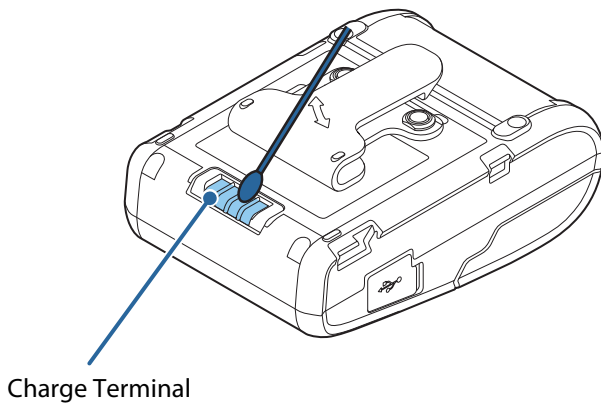
Cleaning the Charge Terminals

Charges may not be performed properly if there is dirt or foreign material on the charge terminals of the printer or single charger. Power off the printer and pull the single charger's AC cable from the outlet. Then, wipe off dirt with a dry cloth or cotton swab. Epson recommends cleaning the parts periodically (generally every 3 months).

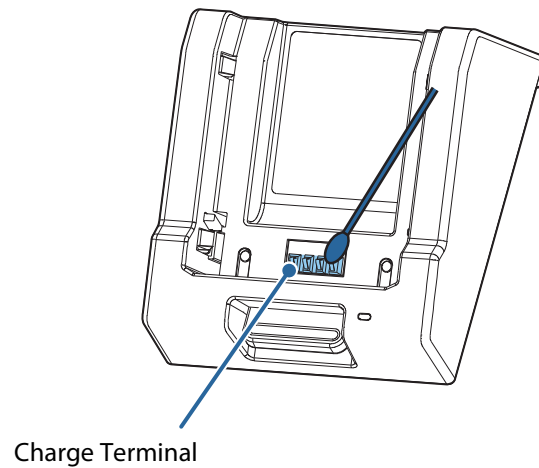
  **CAUTION:**

- After charging, the charge terminals can be very hot. Be careful not to touch them and to let them cool before you clean them.
- Do not damage the charge terminals by touching them with your fingers or any hard object.
- Do not expose the charge terminals to water. Perform the cleaning using a dry cloth or cotton swab.

<Printer>



<Single Charger>



Troubleshooting

LED on the control panel does not turn on

Check that the battery is properly installed. (↗ ["Setting the Battery" on page 12](#))

Error LED is on

- ❑ Check that the roll paper cover is properly closed. (↗ ["Closing the Roll Paper Cover" on page 16](#))
 - ❑ Check that the roll paper is set properly and that the printer has sufficient roll paper. (↗ ["Setting/ Replacing the Roll Paper" on page 18](#))
 - ❑ While the printer is charged with the single charger, if the Error LED on the printer is on and the Charge LED on the single charger is flashing at the same time, the battery is faulty. Replace the battery with a new one.
-

Error LED is flashing

- ❑ Check that no paper is jammed. Remove jammed paper, if any.
 - ❑ Printing is paused when the thermal head or battery is hot but is automatically resumed when it cools.
 - ❑ In other cases, power off the printer, wait for 10 seconds, and then power on the printer again.
-

The single charger's Charge LED does not turn on.

- ❑ Check that the AC adapter is properly installed. (↗ ["Preparing the Single Charger" on page 13](#))
 - ❑ Check that the printer and battery are properly installed. (↗ ["Setting the Battery" on page 12](#))
-

The single charger's Charge LED is flashing.

- ❑ Turn the printer's power on. If the printer's Error LED stays unlit, the temperature is outside the range that charging is possible in. Charge the printer at an ambient temperature between 10 to 30°C {50 and 86°F}.
 - ❑ If the printer's Error LED lights (when you turn the printer's power on), the battery is faulty. Replace the battery with a new one.
-

Specifications

Printer (TM-P20)

Item	Specification	
Printing method	Thermal line	
Roll paper type	Thermal paper	Receipt paper (with/without black marks)
Roll paper size	Paper width	57.5 mm ± 0.5 mm {2.26 ± 0.02"}
	External diameter	Max. 40.4 mm {1.59"}
	Roll paper core external diameter	18 mm {0.71"} or more
Interface	Wi-fi model	IEEE802.11a/b/g/n mini-USB 2.0 Full speed, Type B
	Bluetooth® model	Bluetooth 3.0 (EDR supported) mini-USB 2.0 Full speed, Type B
Continuous Operating Time *1	Wi-fi Model	When the power-saving mode is enabled: Approx. 16 hours When the power-saving mode is disabled: Approx. 9 hours
	Bluetooth® model	Approx. 26 hours
Temperature/humidity	During operation	Wifi model: 0 to 50°C {32 to 122°F}, 10 to 90% RH Bluetooth model: -10 to 50°C {14 to 122°F}, 10 to 90% RH
	During charge	0 to 40°C {32 to 104°F}, 10 to 90% RH
	During storage	High temperature and humidity: 45°C {113°F}, 90% RH for 120 hours High temperature: 70°C {158°F} for 120 hours Low temperature: -25°C {-13°F} for 120 hours
External dimensions	W×D×H: 79 mm × 119.8 mm × 43.6 mm {3.11 × 4.72 × 1.72"}	
Weight *2	Wi-fi model	Approx. 221 g {0.48 lb}
	Bluetooth model	Approx. 212 g {0.46 lb}

*1: This is the continuous operating time under Epson operation conditions. The time may vary depending on the environment using the printer.

*2: Including the battery. Excluding roll paper and the belt clip.

Single charger (OT-SC20)

Item	Specification	
Power supply *1	DC 24 V ± 7%, max 1.5 A	
Output	Charging voltage	Max. 8.4V DC
	Charging current	Max. 0.75 A
Charging duration *2	Approx. 3 hours	
Temperature/humidity	During operation	0 to 40°C {32 to 104°F}, 10 to 90% RH
	During storage	High temperature and humidity: 50°C {122°F}, 90% RH for 120 hours High temperature: 70°C {158°F} for 120 hours Low temperature: -25°C {-13°F} for 120 hours
External dimensions (W × D × H)	110 × 133 × 64 mm {4.33 × 5.24 × 2.52"}	
Weight	Approx. 0.3 kg {0.66 lb}	

*1: Power supplied by dedicated AC adapter C (model: M235A or M235B)

*2: For charging from 0 to 100% capacity when batteries are new.

The actual charging duration may be different, depending on the charging environment, battery status and so forth.

Consumable Products and Options

The consumable products and options for this product are available. Those products can be purchased from the sales representatives. For details, visit 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://www.epson.com/>

Battery (OT-BY20)

Battery specialized for this printer.

Single charger (OT-SC20)

Single charger specialized for this printer. With this charger, you can charge one unit of this printer.

Quad charger (OT-MC20)

Quad charger specialized for this printer. With this charger, you can charge four units of this printer.

Battery spacer (OT-BS20)

Specialized spacer to allow charging the battery only as set in the single charger or quad charger.

Soft case (OT-PC20)

Soft case specialized for this printer. This case can store one unit of the printer, allowing operation/printing with the printer as stored in the case.

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.epsonexpert.com/>

For customers in other countries, go to the following web site:

<https://download.epson-biz.com/?service=pos>

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