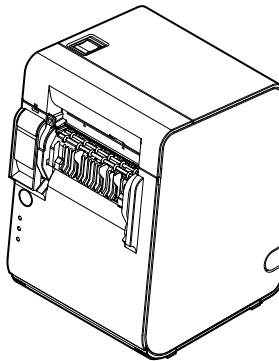


TM-L90

Peeler Model

User's Manual



All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Seiko Epson Corporation. No patent liability is assumed with respect to the use of the information contained herein. While every precaution has been taken in the preparation of this book, Seiko Epson Corporation assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained herein.

Neither Seiko Epson Corporation nor its affiliates shall be liable to the purchaser of this product or third parties for damages, losses, costs, or expenses incurred by purchaser or third parties as a result of: accident, misuse, or abuse of this product or unauthorized modifications, repairs, or alterations to this product, or (excluding the U.S.) failure to strictly comply with Seiko Epson Corporation's operating and maintenance instructions.

Seiko Epson Corporation shall not be liable against any damages or problems arising from the use of any options or any consumable products other than those designated as Original Epson Products or Epson Approved Products by Seiko Epson Corporation.

Depending on the area, the interface cable may be included with the product. If so, use that cable.

Seiko Epson Corporation shall not be held liable for any damage resulting from electromagnetic interference that occurs from the use of any interface cables other than those designated as Epson approved products.

EPSON is a registered trademark of Seiko Epson Corporation in Japan and other countries/regions.

NOTICE: The contents of this manual are subject to change without notice.

Copyright © 2014 by Seiko Epson Corporation, Nagano, Japan.

Safety Precautions

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

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 followed 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.



Note:

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

Safety Precautions



WARNING:

Shut down your equipment immediately if it produces smoke, a strange odor, or unusual noise. Continued use may lead to fire. Immediately unplug the equipment and contact your dealer or a Seiko Epson service center for advice.

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

Never disassemble or modify this product. Tampering with this product may result in injury or fire.

Be sure to use the specified power source. Connection to an improper power source may cause fire.

Do not allow foreign matter to fall into the equipment. Penetration by foreign objects may lead to fire.

If water or other liquid spills into this equipment, unplug the power cord immediately, and then contact your dealer or a Seiko Epson service center for advice. Continued usage may lead to fire.

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

 CAUTION:

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

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 and dust may cause equipment damage or fire.

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

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

Caution Labels

The caution labels on the product indicate the following precautions.

 CAUTION:

The thermal head can be very hot during printing and immediately after printing. Touching it may cause burns.

 CAUTION:

Be careful not to injure your hands on the manual cutter when installing roll paper.

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.

Unpacking

The following items are included for the standard specification printer. If any items are damaged, contact your dealer.

- ☐ Printer
- ☐ Label roll paper
- ☐ Power switch cover
- ☐ Roll paper spacer
- ☐ Screw for installation of roll paper spacer
- ☐ Cover operation label
- ☐ Wire saddle
- ☐ Start Here
- ☐ Manual CD
- ☐ AC adapter*
- ☐ AC cable*

** May not be included depending on the printer model.*

Cover Operation Label

If you use the cover operation label included in the package, attach it in one of the following locations:

- a) Side of the operation panel
- b) Beside the power switch
- c) Side of the printer

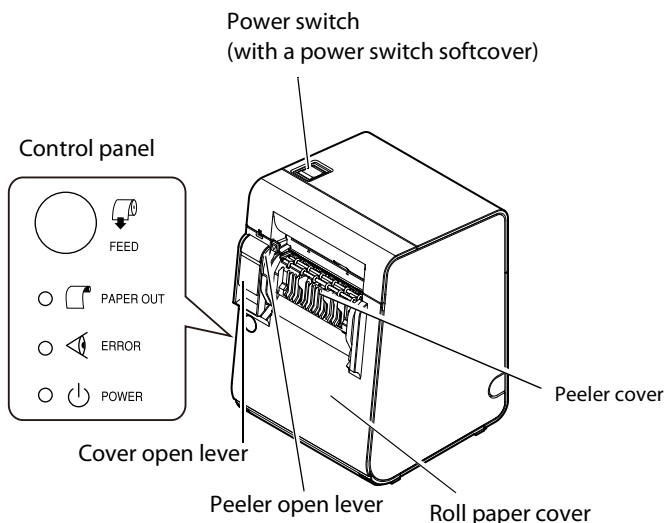
Downloading Drivers, Utilities, and Manuals

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>

Printer Parts



Control Panel

POWER LED

Lights when the power is on, and is off when the power is off.

ERROR LED

Off when the printer is online, lights when the printer is offline, and flashes when an error occurs.

PAPER OUT LED

Comes on when roll paper is used up or not installed. When roll paper is being installed, it starts flashing when the first label comes out after the roll paper cover is closed, and goes off when the PAPER FEED button is pressed. When the printer is issuing labels, it starts flashing when a label is issued and goes off when the issued label is removed from the peeler. It also flashes when the printer is in a wait status for the FEED button to be pressed.

FEED button

Feeds the roll paper.

Power Switch

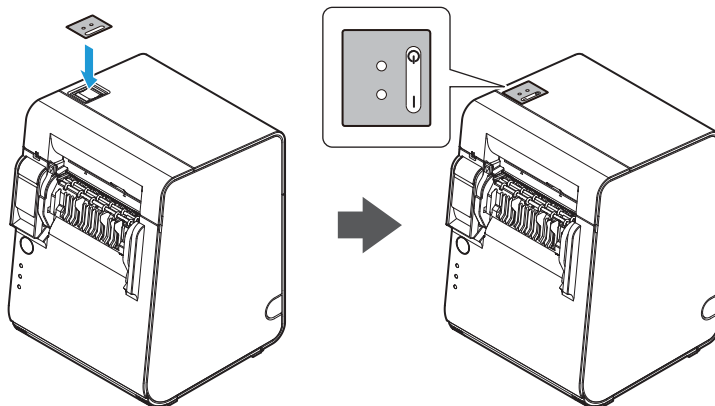
Use the power switch on the top left of the printer to turn the printer on and off.

Power Switch Cover

You can use the enclosed power switch cover to make sure that the power switch is not accidentally pressed. Peel off the backing tape and press the cover into place to install it.

You can turn the power switch on and off by inserting a pointed object such as a ballpoint pen in the holes in the power switch cover.

Power switch cover



⚠ WARNING:

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

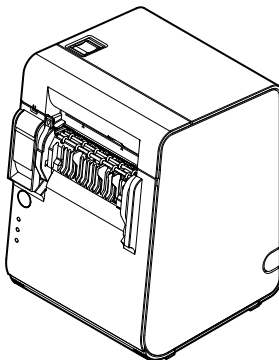
⚠ CAUTION:

Do not remove the power switch soft cover.

Installing the Printer

You must install this printer vertically (with the paper exit at the front).

If the paper exit is blocked by label backing paper accumulating on a table or other surface, a paper jam or other problem may occur. Install the printer in a location, such as at the edge of a counter, where the backing paper will not accumulate near the paper exit.



⚠ CAUTION:

Never install the printer in locations that receive direct sunlight. The diffuse reflection from the roll paper may cause the label peeler detector to malfunction.

✎ Note:

You can install it either on a flat surface, or you can hang it on a wall by using the optional bracket (WH-10).

To hang the printer on the wall, see the Wall Hanging Bracket Set Installation Manual provided with the WH-10 for instructions.

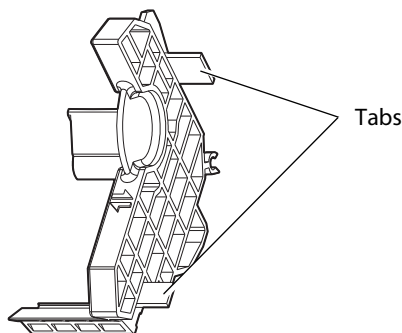
⚠ WARNING:

When hanging the printer on the wall with the hanging bracket set, be sure to attach a connector cover to the printer.

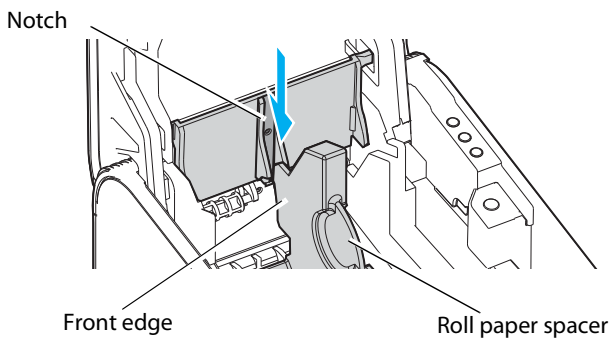
Changing the Paper Width

This printer accommodates 80 mm wide roll paper with no adjustments.

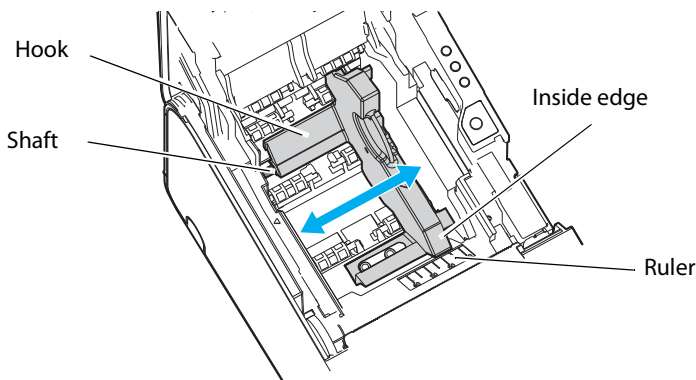
For rolls from 38 mm to 70 mm wide, use the roll paper spacer included with the printer. If the rolls are from 61 to 70 mm wide, break two tabs off the back of the roll paper spacer. (You can still use widths from 38 mm to 60 mm with the roll paper spacer with the tabs broken off) Follow the steps below to attach the roll paper spacer.



1. Pull the peeler open lever forward and open the peeler cover.
2. Pull the roll paper cover open lever forward, and open the roll paper cover.
3. Insert the roll paper spacer so that the front edge goes through the notch; then push down the spacer so that the hook on the spacer and the shaft align.



4. Push the roll paper spacer until you feel it clicks onto the shaft.
Check that the roll paper spacer slides smoothly to the left and right.

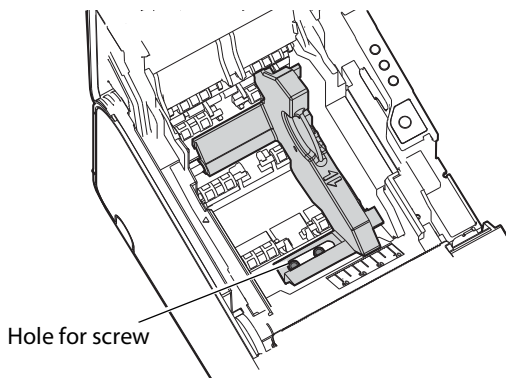


5. Slide the roll paper spacer to the appropriate width.
You can use the measurement printed inside the printer, aligning the inside edge of the spacer with the desired measurement.

 Note:

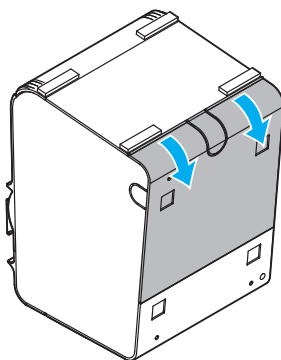
When you want to set the roll paper width from 61 mm to 70 mm, break off by hand the two tabs of the spacer. (You can still also use widths from 38 mm to 60 mm with the spacer with the tabs broken off.)

6. Tighten the spacer with the screw included with the spacer.
(Although there are two holes, this is the only one to put the screw in.)

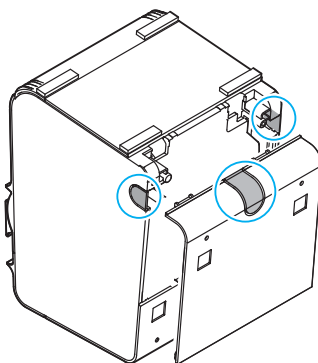


Connecting the Cables

1. Place the printer and pull the cover in the direction of the arrow in the illustration to remove the cover.



2. Break off by hand any of the three portions indicated by circles in illustration to pass the cables through.



3. Connect the cables to the printer.
4. Attach the cover while passing the cables through the holes.

Installing the Roll Paper

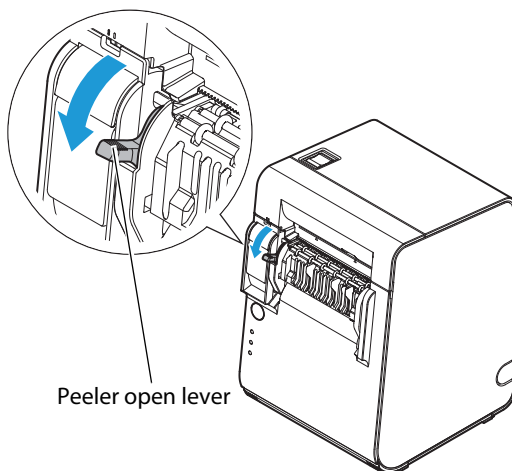
1. Make sure that the power is on.
2. Pull the peeler open lever forward and open the peeler cover.



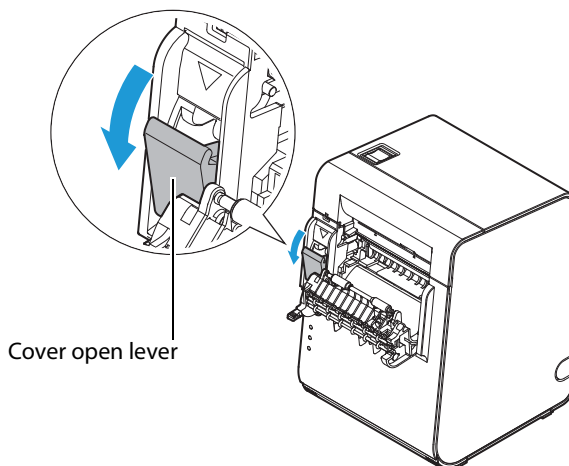
CAUTION:

If you open the roll paper cover with roll paper installed, make sure to open the peeler cover first, and then the roll paper cover.

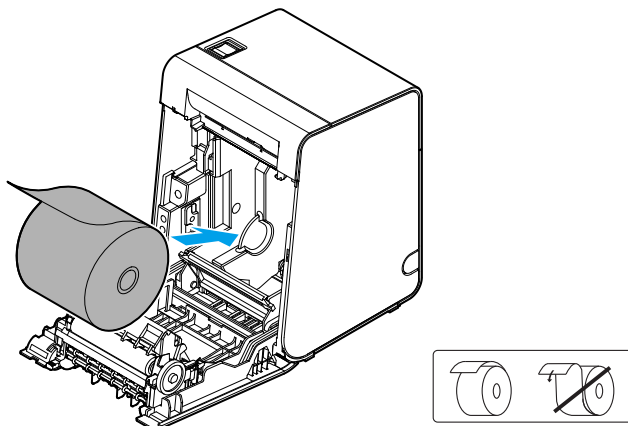
If you open them in the reverse order, the roll paper can get trapped under the roll paper cover when it is closed, causing a possible paper jam.



3. Pull the roll paper cover open lever forward, and open the roll paper cover.



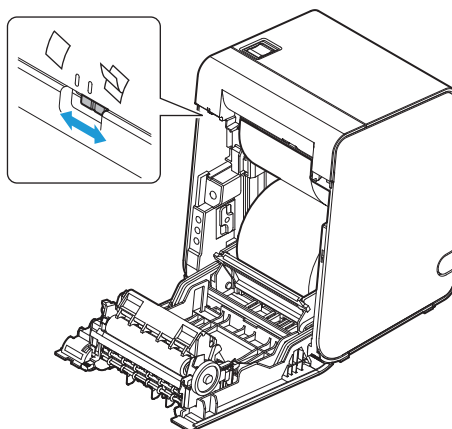
4. Insert the roll paper.



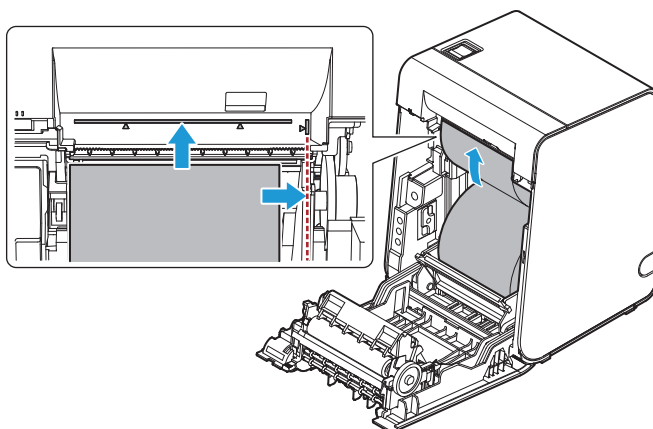
5. You can switch the issuing mode between the label continuous issuing mode (issue the label continuously) and the label peeler issuing mode (after the issued label is removed, the printer issues the next label). Make sure that the mode switch is set to the mode you are going to use.

 :Label continuous issuing mode

 :Label peeler issuing mode



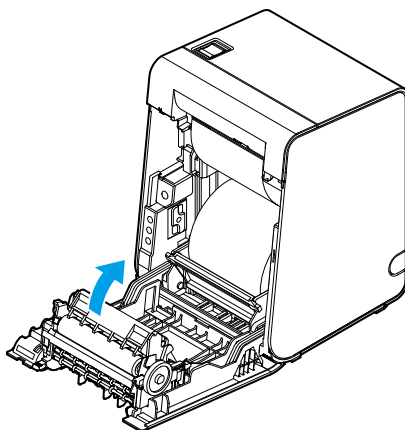
6. Pull out the paper until the end exactly reaches the guideline.



 Note:

Making sure the paper end is at the guideline reduces the number of labels required for detecting the minimum paper length. The number of labels issued depends on the length of the label, but 2 labels are issued when the length of the label is less than 50 mm {2"}, and 1 label is issued when it is 50 mm {2"} or more.

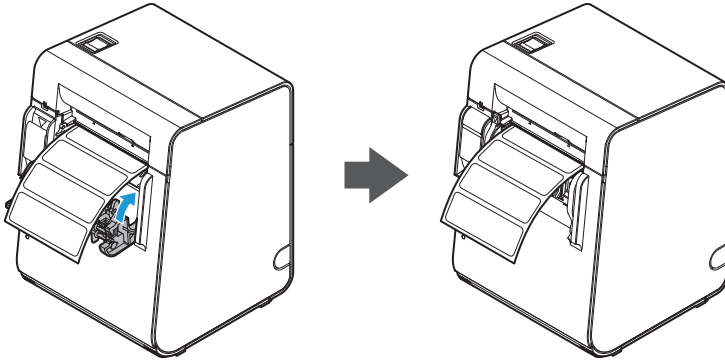
7. Eliminate any slack in the roll paper, and then close the roll paper cover. Make sure to close it firmly, pressing both ends.



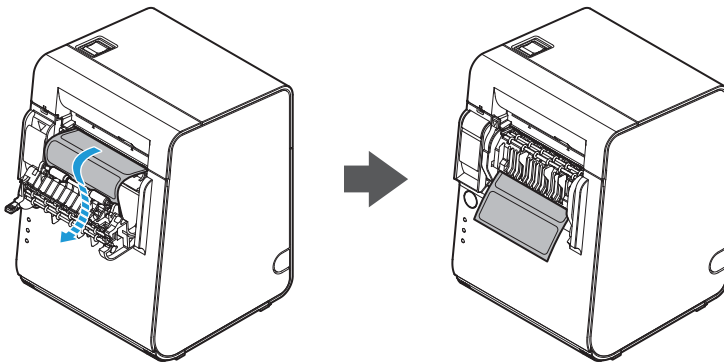
8. After the paper is automatically fed and the first label comes out, the PAPER OUT LED starts flashing.

9. Refer to step of the same mode that you set in step 5.

 Label continuous issuing mode
Close the peeler cover.



 Label peeler issuing mode
Pass the paper through the peeler, and close the peeler cover.



10. Press the PAPER FEED button.
11. The paper is automatically fed backward, and the PAPER OUT LED goes off.

 Note:

While a label is being issued, do not touch it until the PAPER OUT LED starts flashing. Pulling it before that may result in the waste of a label.

Do not block the label peeler detector with your fingers, or anything else while the label issuing is in progress. This may cause the printer to feed the following label.

 CAUTION:

When installing roll paper, be careful not to injure your hands on the manual cutter.

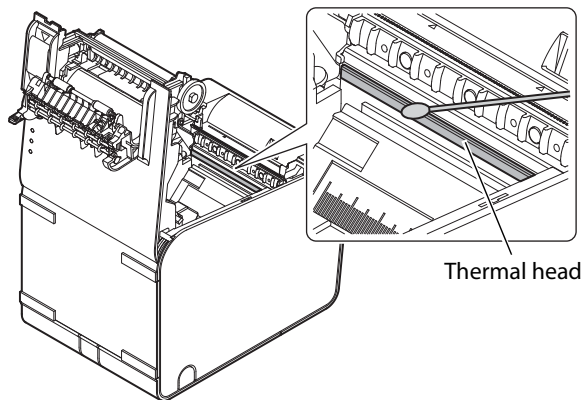
Cleaning the Thermal Head

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.

Epson recommends cleaning the thermal head periodically (generally every 6 months) to maintain receipt print quality.

1. Turn off the printer, open the peeler cover, and then the roll paper cover.
2. Clean the thermal element of the print head with a cotton swab lightly moistened with an alcohol solvent (ethanol or IPA).

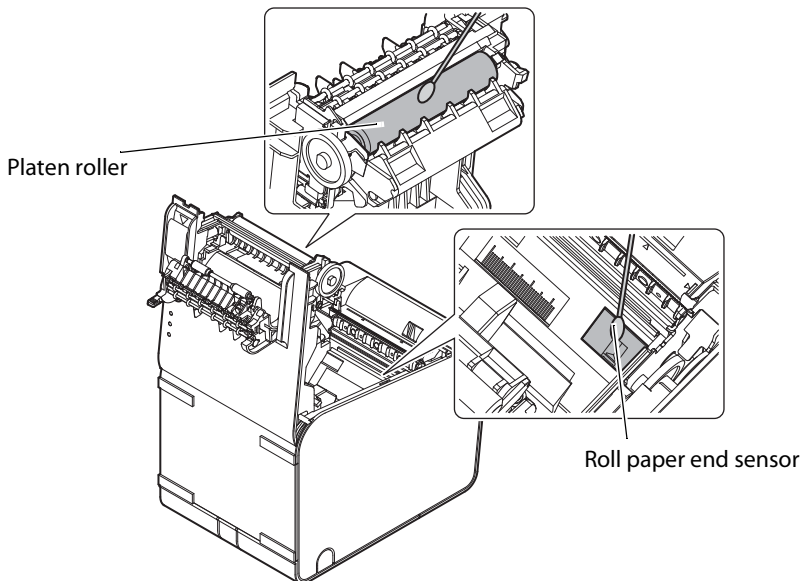


3. Close the roll paper cover after the alcohol solvent has dried.

Cleaning the Platen Roller/Roll Paper End Sensor

When paper dust accumulates on the platen roller or the roll paper end sensor, follow the steps below to clean them. To maintain good functional capabilities, clean them regularly (every 6 months).

1. Turn off the printer, open the peeler cover, and then the roll paper cover.
2. Clean the platen roller and roll paper end sensor with a cotton swab lightly moistened with water or an alcohol.



3. Close the roll paper cover after the water or alcohol has dried.

Cleaning the Peeler Unit

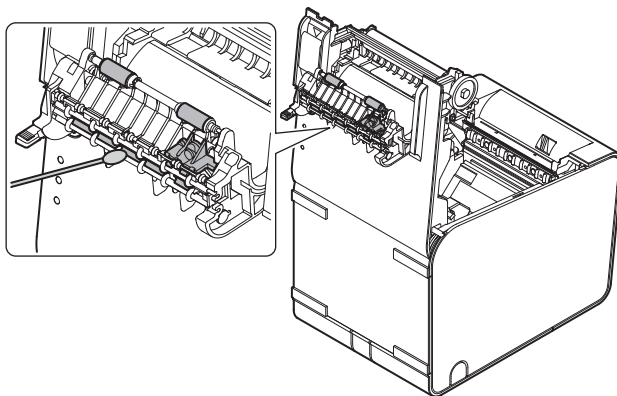
After the peeler is used for a prolonged period of time, the glue from the labels accumulates on the rollers of the peeler unit. If you leave the rollers in such a condition, the glue may stick to issued labels, or a paper jam may occur. To prevent malfunctions and maintain good print quality, clean the rollers regularly (every 100,000 labels).

You can clean them easily if you use a wasted label.



Note:

Do not use any alcohol based solvents for cleaning. Such solvents may enter the roller shaft and cause a malfunction of the peeler.



Troubleshooting

ERROR LED is on or flashing

- ❑ Make sure that the roll paper cover is closed and the PAPER OUT LED is not on. Close the cover or replace the paper if necessary.
 - ❑ If the printer has been printing a lot and the print head gets too hot, the ERROR LED starts flashing, and printing stops. When its temperature cools down to the normal range, printing resumes automatically.
 - ❑ Turn off the printer and then turn it back on. If the LED is still flashing, consult with your supervisor or a service person.
-

PAPER OUT LED is flashing

If the PAPER OUT LED continues to flash even after the issued label is removed, the label peeler detector may be detecting something. Press the PAPER FEED button once.

Paper jam

Turn off the power, open the peeler cover, and then open the roll paper cover to check for a paper jam. If there is a paper jam, remove the jammed paper and follow the instructions in the Installing Roll Paper section to prepare the printer for printing.

TM-L90 Specifications

Print method	Thermal line 8 dots/mm × 8 dots/mm (203 dpi × 203 dpi)
Print width	72 mm, 576 dot positions (receipt roll paper with 80 mm width)
Paper dimensions	37.5 ± 0.5 ~ 69.5 ± 0.5 mm, 79.5 ± 0.5 (max roll diameter 90 mm)
Interface (compatible)	Serial (RS-232) Parallel (IEEE 1284) Ethernet (10BASE-T/100BASE-TX) USB [Compliance: USB 2.0, Communication speed: Full-speed (12 Mbps)] Wireless (IEEE802.11a/b/g/n)
Power supply*	+24 VDC ± 7%
Current consumption	Normal: Approximately 1.8 A
Temperature	Operating: 5 to 45 °C, Storage: –10 to 50 °C
Humidity	10 to 90%
Overall dimensions	203 × 140 × 148 mm
Weight (Mass)	Approximately 1.9 kg

lps: lines per second, dpi: dots per 25.4 mm (dots per inch)

*: Be sure to use a safety-standards-applied power source that meets the following specifications.
Rated output: 24 V/2.0 - 10.0 A or more, Maximum output: 240 VA or less