

1 station printer

TM-U300A/U300B TM-U300PA/U300PB

Operator's Manual

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FCC CLASS A

FCC Compliance Statement

For American Users

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

WARNING

The connection of a non-shielded printer interface cable to this printer will invalidate the FCC Verification of this device and may cause interference levels which exceed the limits established by the FCC for this equipment.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

FOR CANADIAN USERS

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

GEREÄUSCHPEGEL

Gemäß der Dritten Verordnung zum Gerätesicherheitsgesetz (Maschinenlärminformations- Verordnung-3. GSGV) ist der arbeitsplatzbezogene Geräusch-Emissionswert kleiner als 70 dB(A) (basierend auf ISO 7779).

INTRODUCTION

The TM-U300A/U300B and TM-U300PA/U300PB printers are designed to provide a high cost-performance ratio. They are compact, light-weight, and highly reliable one-station printers using plastic mechanical frames. They have the following features and are applicable to the POS 1 station printer market.

- Compact and light-weight.
- High speed printing using logic-seeking.
- High reliability and long life due to the use of stepping motors for both carriage return and paper feeding.
- Printing color switch (red/black) available.
- Various formats are possible because the paper feeding pitch is selectable.
- High general control utility based on the ESC/POS® standard.
- 2 drawers can be driven due to the internal drawer interface.
- Character font (7 X 9, 9 X 9) is selectable.
- Semi-automatic paper loading.
- Compact AC adapter power supply.
- An auto-cutter unit is provided and full cut/partial cut is selectable by command.
- A take-up device is included. (Standard only for the TM-U300A/U300PA)

	Function Available	Interface
TM-U300A	With auto-cutter With take-up device	Serial
TM-U300B	With auto-cutter	Serial
TM-U300PA	With auto-cutter With take-up device	Parallel
TM-U300PB	With auto-cutter	Parallel

Please be sure to read the instructions in this manual carefully before using your new Epson printer.

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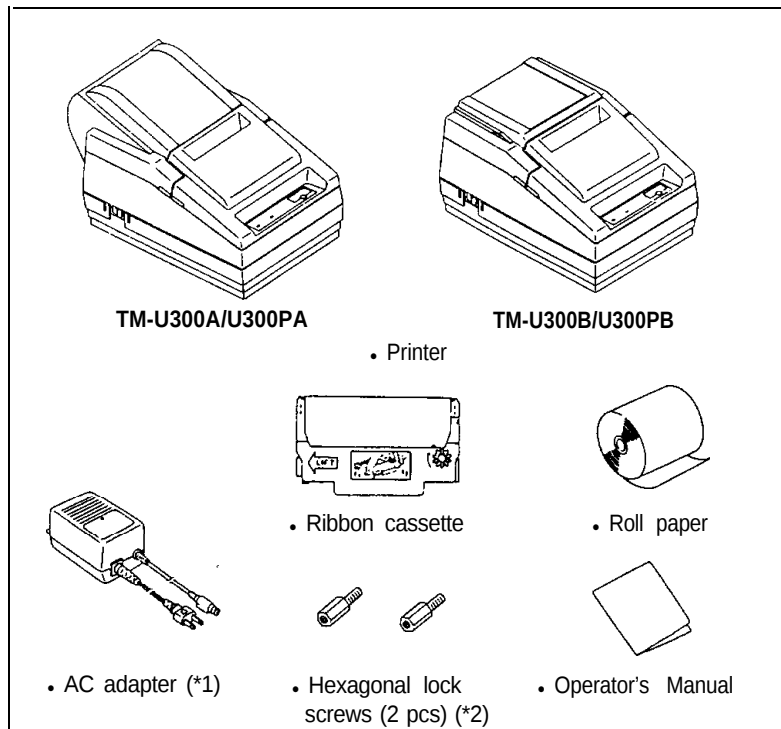
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Chapter 1 Unpacking the Printer

1-1 Checking the Contents of the Box

■ Checking the parts

Remove the printer and other parts from the box.



(*1) One of eight types of AC adapters may be included with your printer. Refer to Appendix A, General Specifications for information on your AC adapter's input voltage, dimensions, and weight.

(*2) Hexagonal lock screws are provided only if the printer has a serial interface and is shipped to the United Kingdom. See note in page 7 for more information about these screws.

Make sure no parts are missing or damaged. If you find any damaged or missing parts, please contact your dealer for assistance.

■ Maintenance

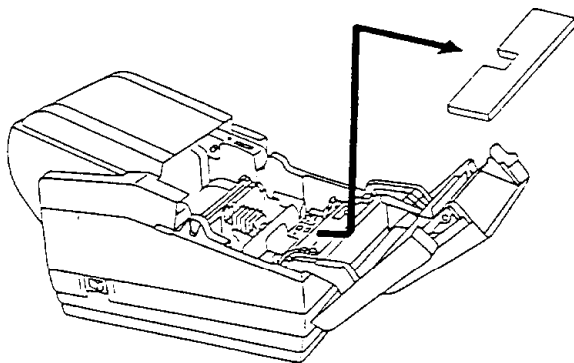
Keep the packing case in case you ever need to transport or store your printer.

1-2 Choosing a Place for the Printer

- Avoid locations that are subject to direct sunlight or excessive heat (near heaters).
- Avoid using or storing the printer in places subject to excessive temperatures or moisture.
- Do not use or store the printer in a dusty or dirty location.
- When setting up the printer, choose a stable, horizontal location. Intense vibration or shock may damage the printer.
- Ensure the printer has enough space to be used easily.

1-3 Removing the Transportation Damper

The transportation damper must be removed before turning on the printer. Open the printer cover, and remove this material as follows:



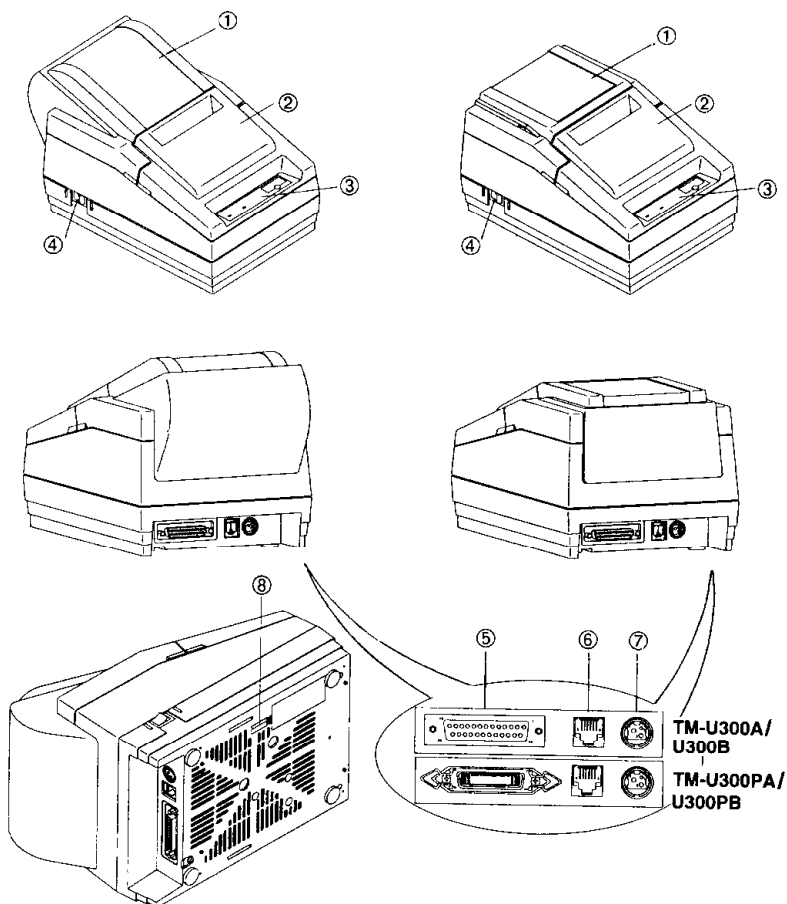
1-4 Names and Functions of Parts

■ Part names

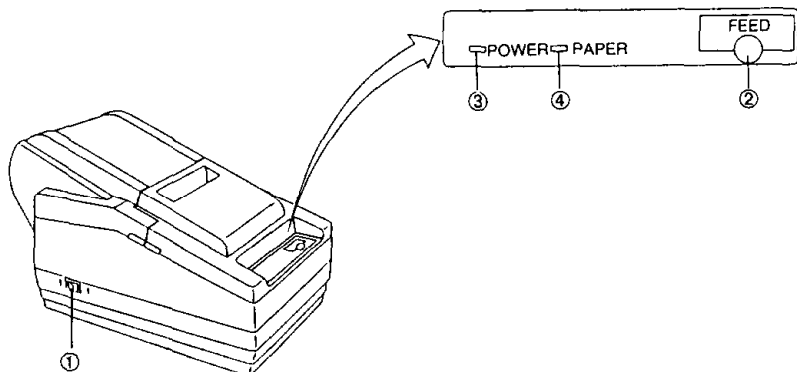
- | | |
|-----------------------------------|-----------------------------|
| ① TM-U300A/U300PA: Take-up cover | ⑤ Interface connector |
| TM-U300B/U300PB: Roll-paper cover | ⑥ Drawer kick-out connector |
| ② Printer cover | ⑦ Power connector |
| ③ Operation panel | ⑧ DIP switches |
| ④ Power switch | |

TM-U300A/U300PA

TM-U300B/U300PB



■ Operation panel



Panel Switches

① **POWER switch**

Turn the printer ON and OFF.

② **FEED switch**

Feeds roll paper.

- Feeds roll paper based on the line feed amount set by **ESC 2** and **ESC 3**.

Panel Lights (LED)

③ **POWER LED (green)**

On when power is turned on.

④ **PAPER LED (red)**

On when the paper roll near the end.

Blinks when an error has been detected, when the printer is in the test printing standby state, or when printing has stopped due to exceeding the allowable print duty cycle.

Chapter 2 Before Setting Up

2-1 Connecting the AC Adapter to the Printer

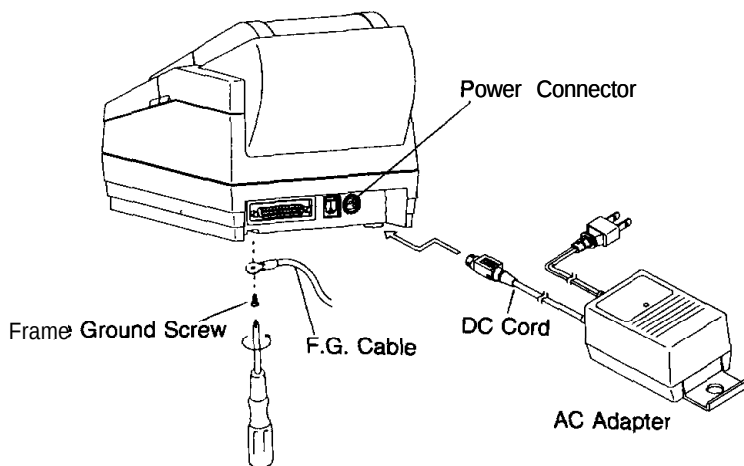
■ Plugging in AC adapter

CAUTIONS:

- Before connecting the printer to the power supply, make sure that the voltage and power specifications match the printer's requirements.
- Using an incorrect power supply can cause serious damage to the printer.

Connect the AC adapter according to the following procedure.

- ① Make sure the printer is turned off.
- ② Plug the power cable connector into the printer's power connector with the arrow mark facing upward. (You can remove the power cable by grasping the connector firmly at the arrow mark and pulling straight out.)



- ③ Plug the power cord into the outlet, and turn on the power.
- ④ Be sure to ground the printer with the frame ground screw on the board at the rear side of the unit via a F.G. cable.

2-2 Connecting the Host Computer to the Printer

■ Connecting the interface cable

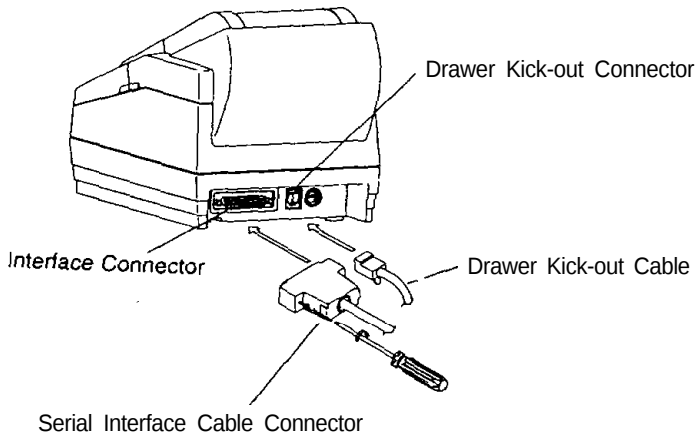
Connect the printer with the host ECR (host computer) through an interface cable matching the specifications of the printer and the host ECR (host computer).

Be sure to use a drawer that matches the printer's specifications.

<TM-U300A/U300B>

Connect the interface cable according to the following procedure.

- ① Turn off the printer and the ECR (host computer).
- ② Plug the interface cable connector into the interface connector on the printer; then fasten the screw on both sides of the connector.
- ③ Plug the drawer kick-out cable connector into the drawer kick-out connector on the printer. (When removing the drawer kick-out cable, press in on the connector's clip and pulling out.)



NOTE:

- Your printer comes with inch-type hexagonal lock screws installed. If you plan to use an interface cable that requires millimeter-type lock screws, replace the inch-type screws with the enclosed millimeter-type screws using a hex screwdriver (5 mm). To distinguish the two types of screws, see the figure below.

Notch (one or more line)



Inch-type

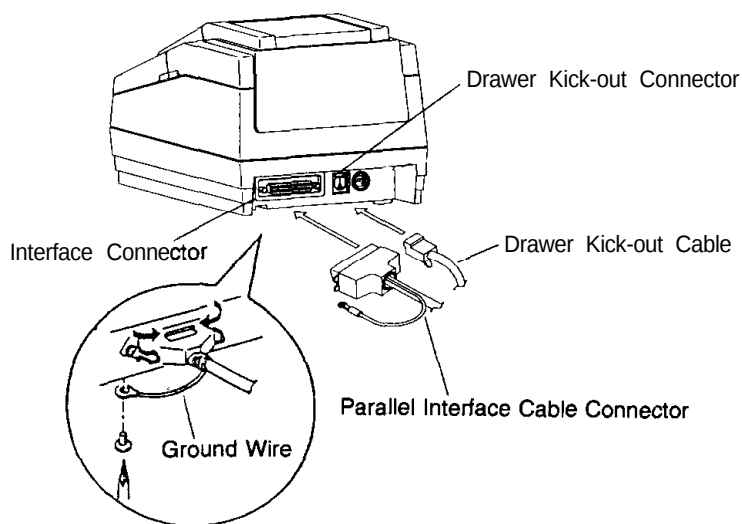


Millimeter-type

<TM-U300PA/U300PB>

Connect the interface cable according to the following procedure.

- ① Turn off the printer, and the ECR (host computer).
- ② Plug the interface cable connector into the interface connector on the printer.
- ③ Squeeze the wire clips together until they lock in place on both sides of the connector.
- ④ Attach the ground wire to the ground connector on the bottom of the printer.
- ⑤ Plug the drawer kick-out cable connector into the drawer kick-out connector on the printer. (When removing the drawer kick-out cable, press in on the connectors clip and pulling out.)



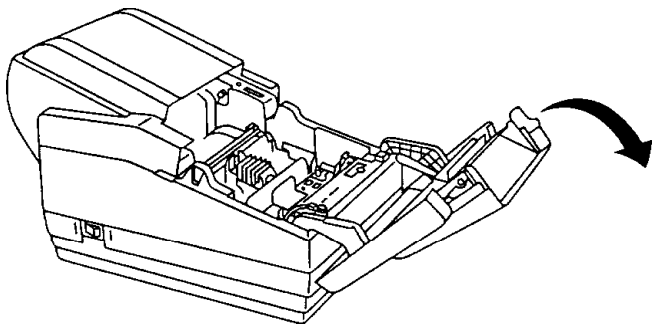
Chapter 3 Installing the Parts

3-1 Installing the Ribbon Cassette

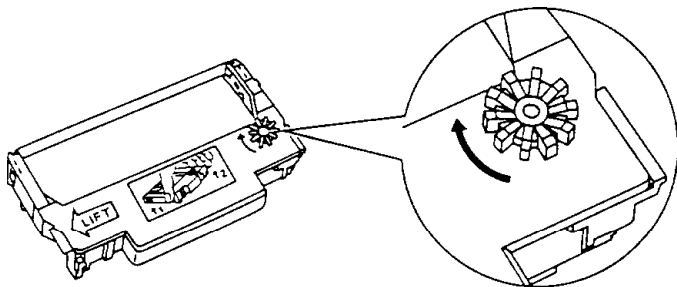
■ Installing the ribbon cassette

Be sure to use a ribbon cassette that matches the printer's specifications.

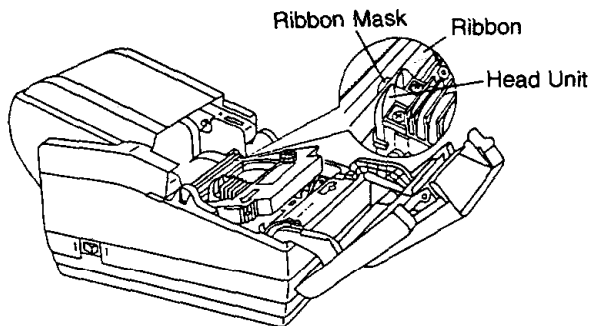
- ① Open the printer cover.



- ② Turn the ribbon-tightening knob in the direction of the arrow to take up any slack in the ribbon.



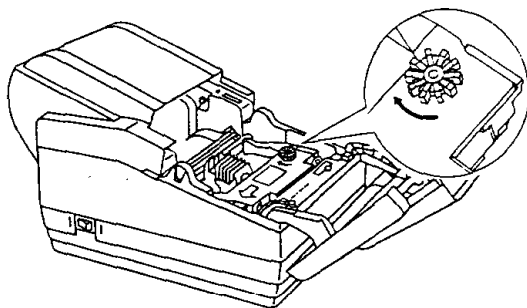
- ③ Fit the ribbon between the head unit and the ribbon mask. Then push the cassette firmly into position.



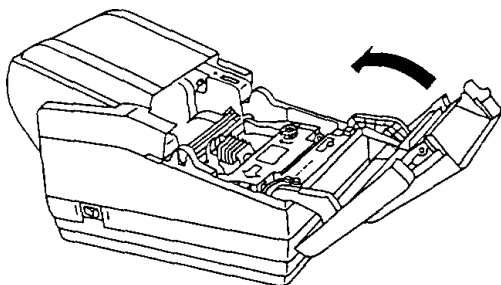
- ④ Turn the ribbon-tightening knob five or six times in the direction of the arrow to feed the ribbon smoothly into place between the head unit and the ribbon mask.
- Check that the ribbon is not twisted or creased.

CAUTION:

- Do not turn the ribbon-tightening knob in the reverse direction.



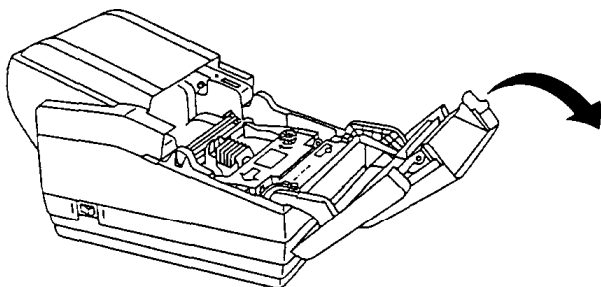
- ⑤ Close the printer cover.



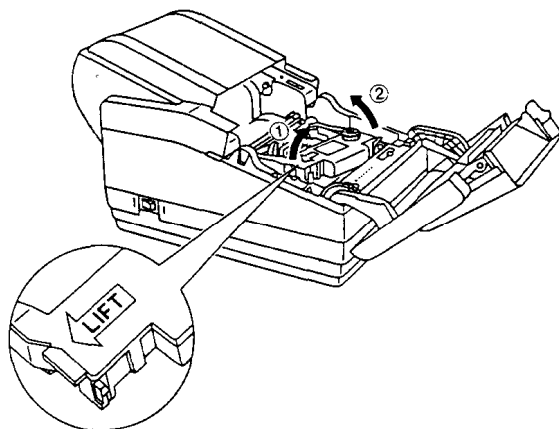
■ Exchanging the ribbon cassette

Be sure to use a ribbon cassette that matches the specifications.

- ① Open the printer cover.



- ② When removing the ribbon cassette, grasp the tab on the left side and lift the left side out first.



- ③ Install a new ribbon cassette.

See 3-1 *Installing the Ribbon Cassette* ② to ⑤.

3-2 Installing the Roll Paper

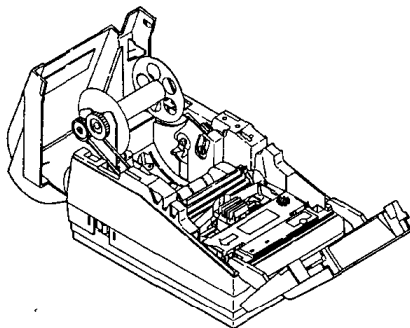
■ Installing the roll paper for TM-U300A/U300PA

Be sure to use roll paper that matches the printer's specifications.

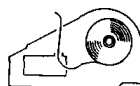
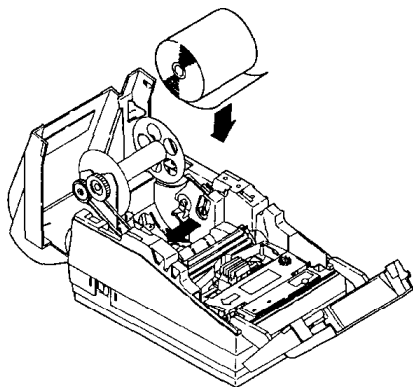
- ① Using scissors, cut the leading edge of the roll paper perpendicular to the paper feed direction.



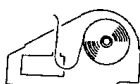
- ② Open the printer cover and the take-up cover.
 - Check that the ribbon cassette is properly installed.



- ③ Load the roll paper while lightly pressing the left roll-paper holder outward. Release the holder after fitting the paper core onto the holder. Make sure the roll paper turns freely. When loading roll paper, make sure to insert so that it rotates in the correct direction.

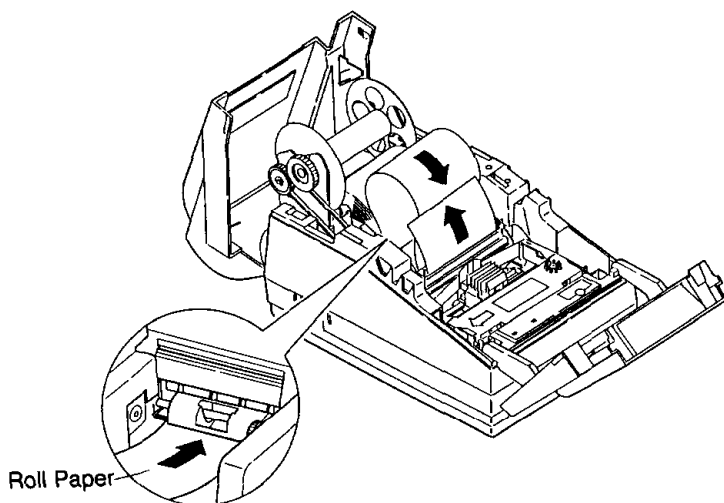


Correct



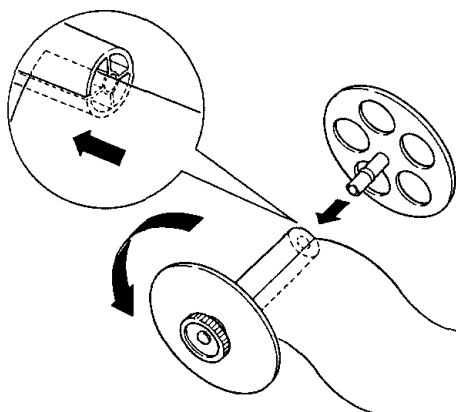
Incorrect

- ④ Turn on the printer.
- ⑤ While leaving some slack in the roll paper, insert the end of the roll paper straight into the paper inlet. The printer automatically feeds the roll paper into the printer.

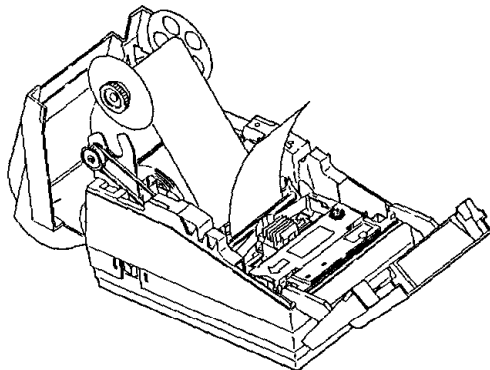


- ⑥ Press the FEED switch to continue feeding the paper until it extends about 20 cm beyond tear-off edge.
- ⑦ Remove the take-up spool from the take-up frame.

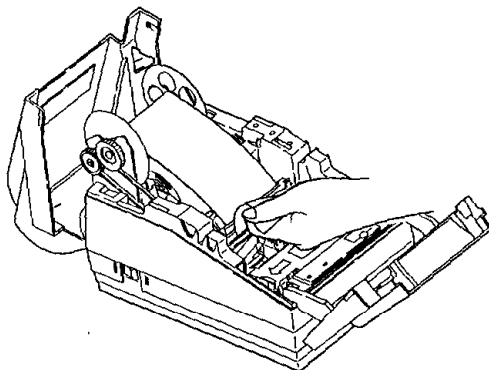
Remove the side of the spool and insert the end of the paper roll (journal paper when using 2-ply paper and 3-ply paper) into the groove on the spool and wrap the roll paper around the spool two or three times. Install the flange to flange shaft.



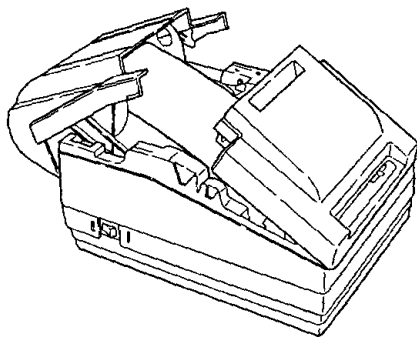
- ⑧ Install the take-up spool to the take-up frame.



- ⑨ Tear off the receipt paper by the cutter when using the 2-ply paper and 3-ply paper.



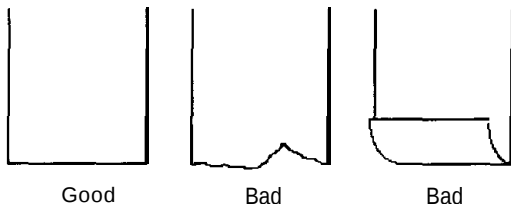
- ⑩ Close the printer cover and the take-up cover.



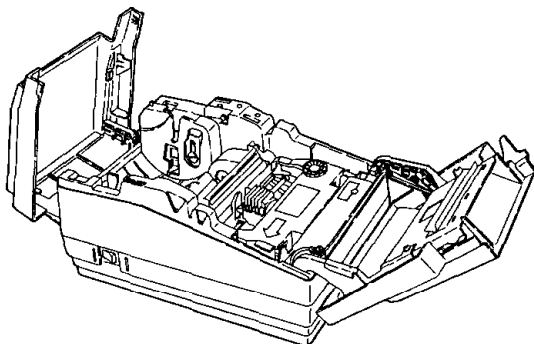
■ Installing the roll paper for TM-U300B/U300PB

Be sure to use roll paper that matches the printer's specifications.

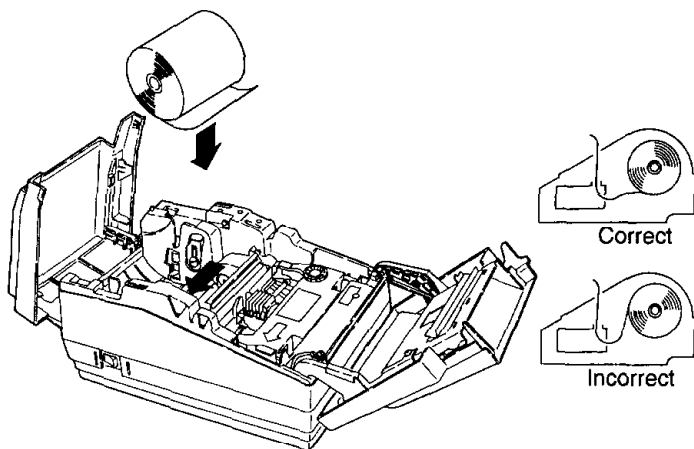
- ① Using scissors, cut the leading edge of the roll paper perpendicular to the paper feed direction.



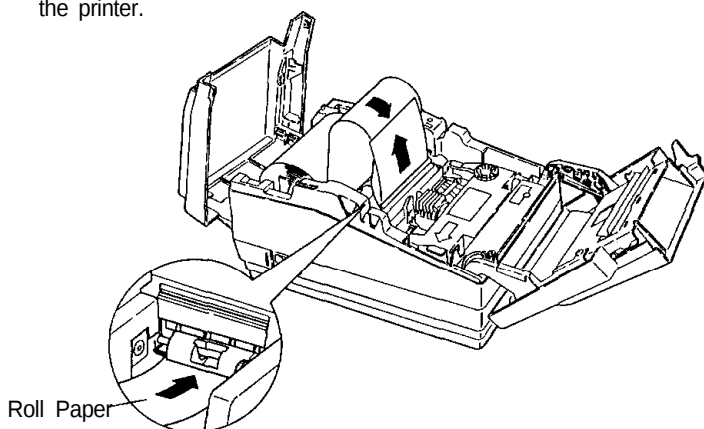
- ② Open the printer cover and the roll-paper cover.
 - Check that the ribbon cassette is properly installed.



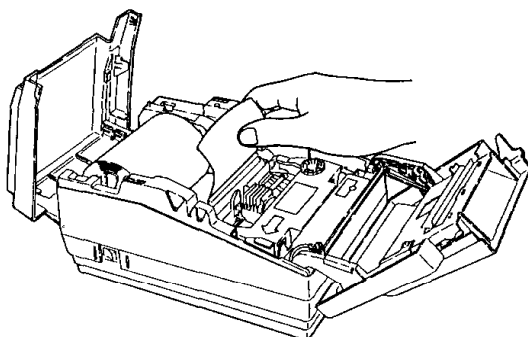
- ③ Load the roll paper while lightly pressing the left roll-paper holder outward. Release the holder after fitting the paper core onto the holder. Make sure the roll paper turns freely. When loading roll paper, make sure to insert so that it rotates in the correct direction.



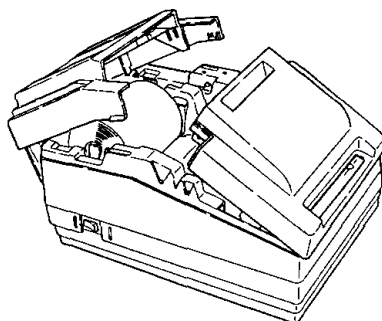
- ④ Turn on the printer.
- ⑤ While leaving some slack in the roll paper, insert the end of the roll paper straight into the paper inlet. The printer automatically feeds the roll paper into the printer.



- ⑥ Tear off any extra paper at the tear-off edge by pulling the paper toward you.



- ⑦ Close the printer cover and the roll-paper cover.



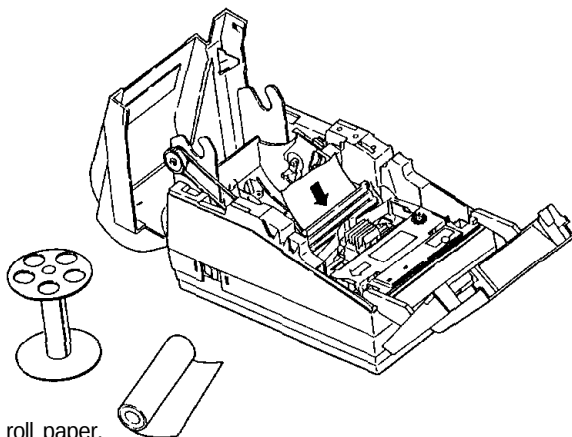
■ Exchanging the paper roll

Be sure to use roll paper that matches the printer's specifications.

<TM-U300A/U300PA>

- ① Open the printer cover and the take-up cover.

Remove the journal paper and the receipt paper. While pressing the FEED switch, remove the remaining paper by pulling it out in the direction of the arrow.



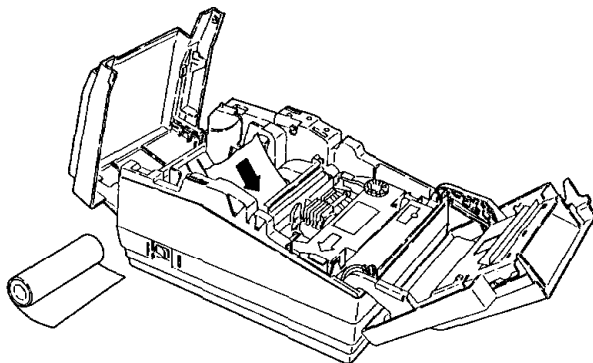
- ② Install a new roll paper.

See Installing the Roll Paper for TM-U300A/U300PA ① to ⑩.

<TM-U300B/U300PB>

- ① Open the printer cover and the roll-paper cover.

Remove the roll paper. While pressing the FEED switch, remove the remaining paper by pulling it out in the direction of the arrow.



- ② Install a new roll paper.

See Installing the Roll Paper for TM-U300B/U300PB ① to ⑦.

3-3 Adjusting the Paper Near-End Detector

■ The paper near-end detector

The paper near-end detector senses when the paper is nearing its end and turns on the PAPER LED.

The paper near-end detector can be adjusted according the thickness of the paper core.

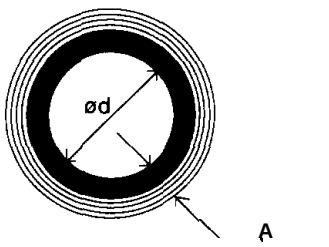
■ Adjusting the paper near-end detector

Roll paper differs in paper core size, so you may need to adjust the paper near-end detector.

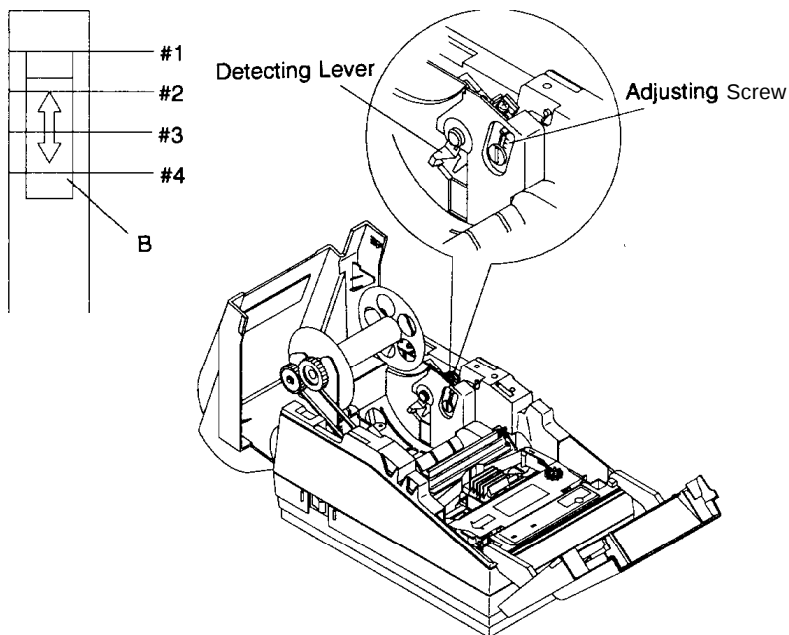
- ① Make sure the paper core inside diameter ($\varnothing d$) is 10.5 to 12.5 mm.
- ② Measure the paper core thickness A (Refer to Figure below) for the roll paper to be used.
- ③ Determine the corresponding adjustment value from the table below.

Table 3-1. Paper Core Thickness and its Graduation Degrees

Dimension A	Adjustment value
4.5 mm	# 1
6.5 mm	# 2
8.5 mm	# 3
10 mm	# 4



- ④ The adjusting screw which holds the roll paper near-end detector, may be loosened and then set the top of "B" to the adjustment value found in ③, and tighten the adjusting screw. (The adjusting screw can be turned with a coin.)



- ⑤ Be sure that the detecting lever operates smoothly after finishing the adjustment.

NOTES:

- Since the adjustment values in Table 3-1 are calculated from standard measurements, there may be some variations depending on the model.
- If a roll paper with a red end mark at the paper end is used, this mark may cause the paper to stick together. If this occurs, the dimension A differs from the table.
- Be sure that the detecting lever operates smoothly after finishing the adjustment.
- If the roll paper becomes loose due to poor paper quality, the detector may operate incorrectly.

3-4 DIP Switches

■ Locating DIP switches

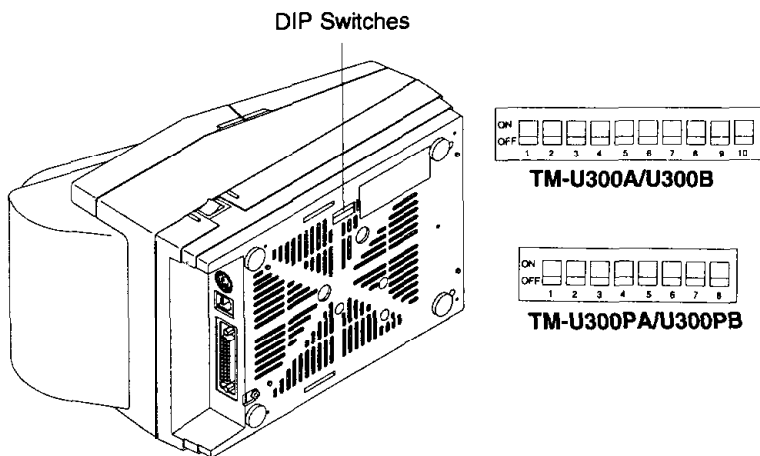
On the bottom of your printer are DIP switches that allow the printer to be set or perform a number of different functions.

- The switches are numbered SW-1 to SW-10 (TM-U300A/U300B) or SW-1 to SW-8 (TM-U300PA/U300PB), from left to right as shown in figure below.
- The lists on the following page describe each switch's function.

■ Setting the DIP switches

Follow these steps when changing DIP switch settings.

- ① Turn the printer power switch off.
- ② Flip the DIP switches using tweezers or other narrow-ended tool.
Switches are on when up and off when down.



- ③ The new setting takes effect when you turn on the printer.

NOTES:

- Always change DIP-switch settings when printer is turned off.
- Changes made with the power on have no effect until you turn the printer off and then on again.

■ TM-U300A/U300B DIP Switch Functions

Table 3-2. TM-U300A/U300B DIP Switch Functions

Switch	Function	ON	OFF
SW-1	Data receive error	Ignored	Prints “?”
SW-2	Receive buffer capacity	40 bytes	Approx. 1 Kbyte
SW-3	Handshaking	XON/XOFF	DSR/DTR
SW-4	Word length	7 bits	8 bits
SW-5	Parity check	On	Off
SW-6	Parity selection	Even	Odd
SW-7	Baud rate selection (Refer to Table 3-3.)		
SW-8			
SW-9	(Internal use)	*)	
SW-10	(Internal use)		

*) Do not change the setting of DIP switches 9 and 10 in the TM-U300A/U300B.

Table 3-3. Baud Rate Selection

Transmission Speed (bps)	SW-7	SW-8
1200	ON	ON
2400	OFF	ON
4600	ON	OFF
9600	OFF	OFF

■ TM-U300PA/U300PB DIP Switch Functions

Table 3-4. TM-U300PA/U300PB DIP Switch Functions

Switch	Function	ON	OFF
SW-1	Auto-feed	Always enable	Depends on “AUTO FEED XT”
SW-2	Receive buffer capacity	0 byte	Approx. 1 Kbyte
SW-3	(Internal use)	*) Fixed to ON.	
SW-4	(Internal use)	*) Fixed to OFF.	
SW-5	(Internal use)	*) Fixed to ON.	
SW-6	(Internal use)	*) Fixed to ON.	
SW-7	(Internal use)	*)	
SW-8	(Internal use)		

*) Do not change the setting of DIP switches 3 to 8 in the TM-U300PA/U300PB.

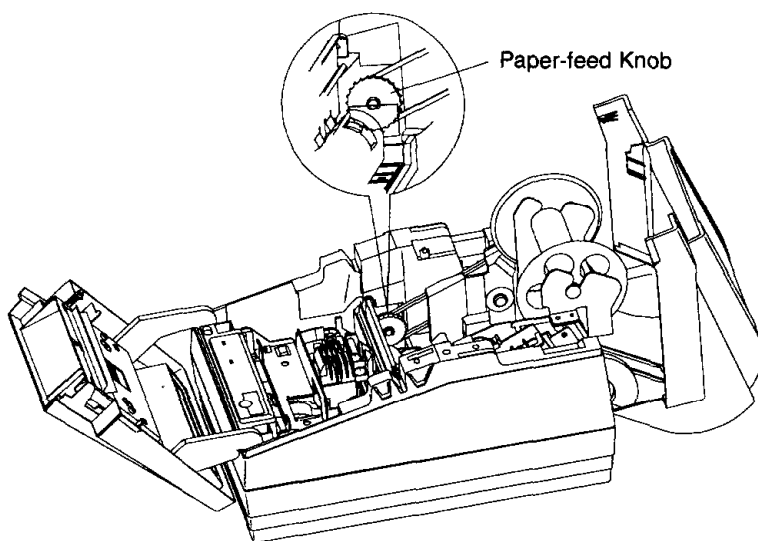
Chapter 5 Removing Jammed Paper

5-1 Removing Jammed Paper

■ Removing jammed paper

Remove jammed paper according to the following steps.

- ① Open the roll-paper take-up cover (TM-U300A/U300PA) or the roll-paper cover (TM-U300B/U300PB).
- ② Then turn the paper-feed knob and remove any jammed paper.



- ③ Reload roll paper, and close the roll-paper take-up cover (TM-U300A/U300PA) or the roll-paper cover (TM-U300B/U300PB).

See 3-2, *Installing the Roll Paper*.

APPENDIX

APPENDIX A General Specifications

1. Printing specifications

Printing method:	Serial impact dot matrix
Head wire arrangement:	Serial-type 9 pin
Printing directions:	Bi-directional (logic-seeking)
Lines per second:	Approx. 3.5 LPS (40 columns, 16 CPI, Single color continuous printing) Approx. 5.6 LPS (20 columns, 16 CPI, Single color continuous printing) ★ In the case of heavy use, printing stops to protect the head. In this case the actual lines per second may be lower. (LPS: Lines Per Second) (CPI: Characters Per Inch)
Characters per line:	Refer to Table A-1
Character per inch:	Refer to Table A-1
Print color switching mechanism:	Selectable black or red printing

2. Characters specifications

Number of characters:	Alphanumeric: 95 Graphics: 126 X 7 tables International characters: 32
Character structure:	7 x 9 (Total number of dots in the horizontal direction: 400 half dots) 9 x 9 (Total number of dots in the horizontal direction: 406 half dots)
Character size:	Refer to Table A-1

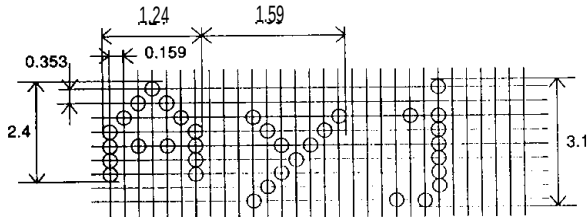
Table A-1. Character Size, Characters Per Line, Characters Per Inch

Character Structure		Character Size	Character	Characters	Characters
Horizontal × Vertical	Characters	W × H (mm)	Dot Spacing	Per Line (CPL)	Per Inch (CPI)
7 × 9 (★1)	ANK (★2)	1.24 × 3.1	3 half dots	40	16
	Graphic	1.59 × 3.1	0	40	16
9 × 9	ANK (★2)	1.56 × 3.1	3 half dots	33	13.3
	Graphic	1.91 × 3.1	0	33	13.3

(★1) 7 × 9 font is the default. (★2) ANK: Alphanumeric and Kana

Example) 7 × 9 font

[Units: mm]



3. Ribbon

Ribbon cassette type: Exclusive ribbon cassette ERC-38 (★)

Color: Black and Red, Black, Purple

Ribbon life: Black: Approx. 1,500,000 characters

(In case of using 2-color type) Red: Approx. 750,000 characters

Ribbon cassette overall dimensions:

Refer to Figure A-1

Units: mm1

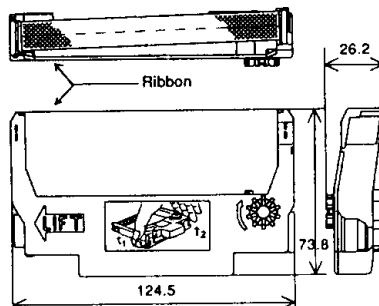


Figure A-1. ERC-38 Overall Dimensions

(★) Single-color ribbons [Part No.:ERC-34(P)(purple) or ERC-34(B)(black)] and P-color ribbon [Part No.:ERC-34(B/R)(black and red)] are also available. In case of using the single-color ribbon, the print color selection command, **ESC r** must not be used.

[Condition]

- Character font: 7 X 9 font
(with descenders)
- Printing pattern: ASCII 96-character rolling
pattern continuous printing
- Temperature: 25°C

4. Roll paper supply device

Supply method: Roll paper shaft-support loading

Near-end detector:

- Detection method: Micro switch
- Roll paper core inside diameter:
Ø 10.5 to 12.5 mm
- Near-end adjustment: Adjustable slider
(Refer to 3-3, *Adjusting the Paper Near-End De-
tector*)

5. Roll paper take-up device

The TM-U300A and TM-U300PA are equipped with a take-up device. The paper is automatically take-up by the paper feed motor.

6. Auto-cutter

Both the TM-U300A/U300B and TM-U300PA/U300PB are equipped with the auto-cutter. Full-cut/partial-cut can be executed by commands.

7. Paper

Paper feed method: Friction feed

Paper feed pitch: Default 1/6 inch

Can be set in 1/144 inch units by software command.

Paper feed speed: Approx. 4.17 IPS (25 LPS) (continuous feeding)

(IPS: Inches Per Second)

(LPS: Lines Per Second)

Paper size:

- Roll paper

Paper width: 76 mm ± 0.5 mm

Maximum diameter: Ø 83 mm (When 2-ply or 3-ply paper is used.
When 1-ply paper is employed, the maximum diameter shall be Ø 60 mm.)

Paper core inside diameter:

Ø 10.5 to 12.5 mm

- Normal paper

Paper thickness: 0.06 to 0.85 mm

Weight: 52.3 g/m² to 64 g/m²
(45 to 55 kg/1000 sheets/1091 X 788 mm)

- Pressure sensitive paper

Maximum 1 original + 2 copies. Copy capability is considerably affected by the ambient temperature.

Refer to table A-2. Relationship between Ambient Temperature and Number of Copies.

Paper thickness: Total thickness shall be a 0.2 mm or less combination of 0.05 to 0.08 mm sheets. Paper thickness to be auto cut should be 0.06 mm + 0.06 mm, and the total thickness shall be a 0.12 mm or less.

Table A-2. Relationship between Ambient Temperature and Number of Copies

Number of Copies	Temperature
1 original + 1 copy	5 to 40 °C
1 original + 2 copies	Approx. 25°C

8. Receive buffer

Either 40 bytes or approx. 1 Kbyte is selectable using DIP switch. (TM-U300A/U300B)

Either 0 byte or approx. 1 Kbyte is selectable using DIP switch. (TM-U300PA/U300PB)

9. Electrical characteristics

Opening power supply: Packaged AC adapter
One of the following 4 AC adapters is selected, depending on the local power:

Table A-3. AC Adapter Types

Factory setting	Voltage	AC adapter type
North America	120 V	PA-6509 or PB-6509
Europe (Germany)	230 V	PA-6510 or PB-6510
Europa (U.K.)	240 V	PA-6511 or PB-6511
Australia	240 V	PA-6513 or PB-6513

Printer power consumption (except for drawer kick-out):

Operating: Mean 33 W
 Standby: Mean 10 W (TM-U300A/U300B)
 Mean 12 W (TM-U300PA/U300PB)

10. EMI (using packaged AC adapter)

FCC Class A

BZT (Adaptable level (self declaration by Vfg 243/1991))(*)

(*) When it is necessary to apply for a self declaration, Seiko Epson Corporation will submit the EMI measurement data.

To prevent radio interference, this device may only be operated in conjunction with devices which comply with the requirements stipulated in item 1 of paragraph 2 of the BMPT-Amtsbl/Vfg 243/1991 (decree no. 243/1991 of the German Ministry of Posts and Telecommunications).

11. Safety Standards (packaged AC adapter only)

UL/CSA

TÜV

12. Reliability

Life: Mechanism: 7,500,000 lines
 Print head: 100 million characters
 (when printing an average of two dots/wire/character)

☐ End of Life is defined as the point at which the printer reaches the beginning of the Wearout Period.

MTBF: 180,000 hours

☐ Failure is defined as Random Failure occurring at the time of the Random Failure Period.

MCBF: 18,000,000 lines

☐ This is an average failure interval based on failures relating to wearout and random failures up to the life of 7.5 million lines.

13. Environmental conditions

Temperature: Operating: 5 to 40°C
 (30°C or more: Operating humidity is limited)

Storage: -10 to 50°C (excluding paper and ribbon cassette)

Humidity:

Operating: 20 to 80°C (non-condensing)

Storage: 20 to 90%
(non-condensing, excluding paper and ribbon cassette)

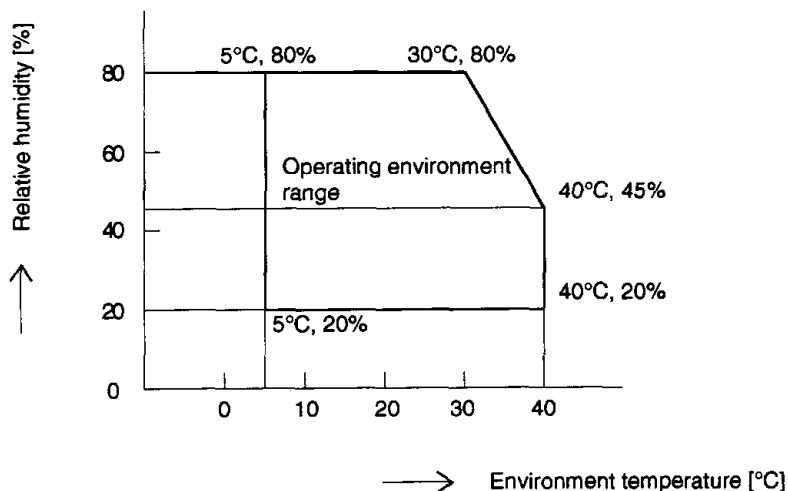


Figure A-2. Operating Temperature and Humidity Range

1 station printer

TM-U300C/U300D TM-U300PC/U300PD

Operator's Manual

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FCC CLASS A

FCC Compliance Statement

For American Users

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

WARNING

The connection of a non-shielded printer interface cable to this printer will invalidate the FCC Verification of this device and may cause interference levels which exceed the limits established by the FCC for this equipment.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

FOR CANADIAN USERS

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

GEREÄUSCHPEGEL

Gemäß der Dritten Verordnung zum Gerätesicherheitsgesetz (Maschinenlärminformations-Verordnung-3. GSGV) ist der arbeitsplatzbezogene Geräusch-Emissionswert kleiner als 70 dB(A) (basierend auf ISO 7779).

INTRODUCTION

The TM-U300C-U300D and TM-U300PC/U300PD are compact, light-weight printers, designed to provide the highest possible performance to cost ratio.

The main features of the printers are as follows:

- Compact size and light weight
- High-speed printing using logic seeking
- High reliability and long life through the use of stepping motors for both carriage return and paper feeding
- Two print colors (black or red)
- Selectable paper feeding increments for various print formats
- Command protocol based on the ESC/POS® standard
- Internal drawer interface that can control two drawers
- Two character fonts (7 X 9 or 9 X 9)
- Semi-automatic paper loading
- Compact AC adapter
- 1 line validation printing
- Roll paper take-up device (for the TM-U300C and the TM-U300PC)

The table below describes the differences between the TM-U300C/U300D and TM-U300PC/U300PD printers.

	Take-up device	Interface
TM-U300C	Installed	Serial
TM-U300D	-----	Serial
TM-U300PC	Installed	Parallel
TM-U300PD	-----	Parallel

Please be sure to read the instructions in this manual carefully before using your new Epson printer.

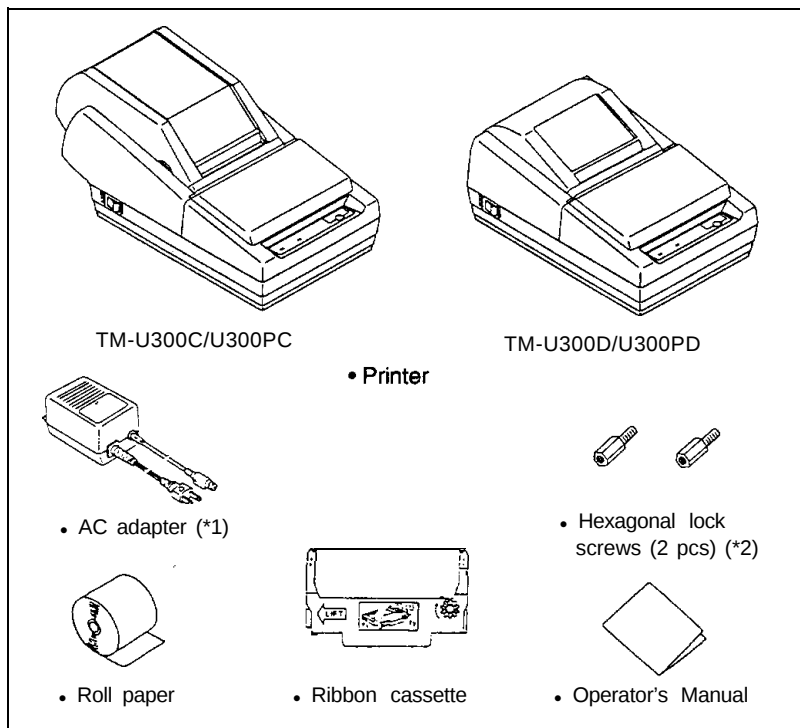
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Chapter 1 Unpacking the Printer

1-1 Checking the Contents of the Printer Box

Remove the printer and the other items from the box.



(*1) One of eight types of AC adapters may be included with your printer. Refer to Appendix A, Specifications for information on your AC adapter's input voltage, dimensions, and weight.

(*2) Hexagonal lock screws are provided only if the printer has a serial interface and is shipped to the United Kingdom. See note in page 7 for more information about these screws.

Make sure you have all the items shown above. If any items are damaged or missing, please contact your dealer for assistance.

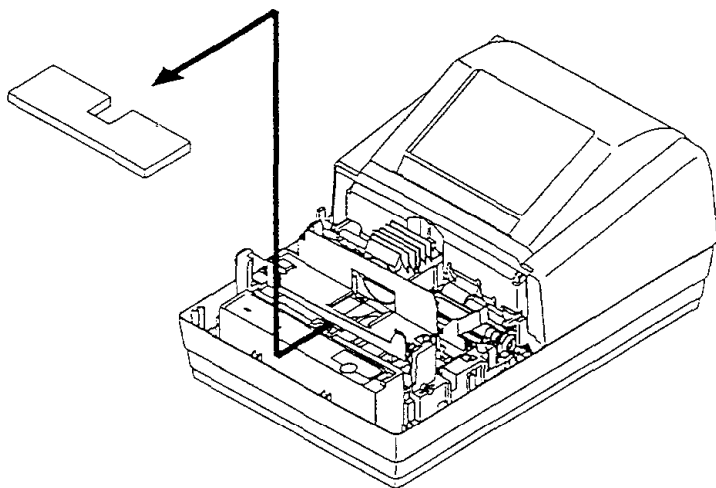
Keep the original box and packing materials in case you need to transport or store the printer later.

1-2 Choosing a Place for the Printer

- Avoid locations in direct sunlight or subject to excessive heat (such as near heaters).
- Avoid using or storing the printer in places subject to excessive moisture.
- Do not use or store the printer in a dusty or dirty area.
- Choose a stable, horizontal surface for the printer. Avoid places subject to intense vibration or shock.
- Make sure there is enough space around the printer so that it can be used easily.

1-3 Removing the Transportation Damper

The transportation damper must be removed before turning on the printer. Open the printer cover and remove the damper as shown below.

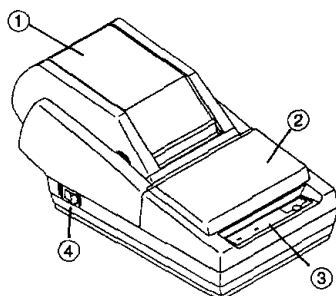


1-4 Part Names and Functions

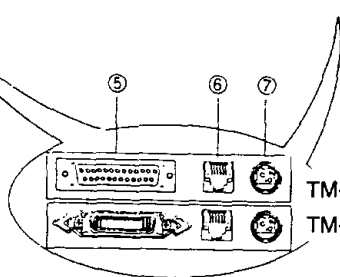
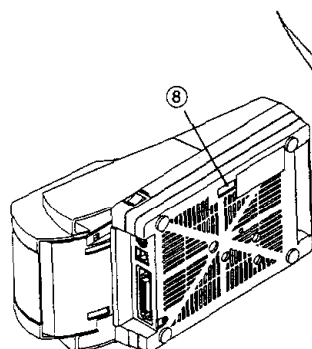
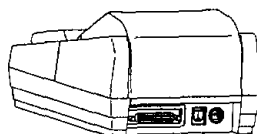
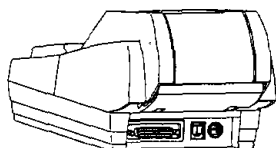
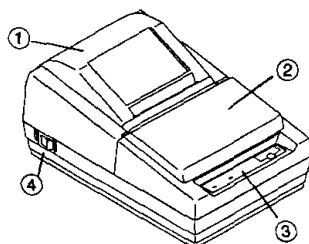
■ Part names

- | | |
|--|-----------------------------|
| ① Take-up device cover (TM-U300C/U300PC) | ⑤ Interface connector |
| Roll paper cover (TM-U300D/U300PD) | ⑥ Drawer kick-out connector |
| ② Printer cover | ⑦ Power connector |
| ③ Control panel | ⑧ DIP switches |
| ④ Power switch | |

TM-U300C/U300PC



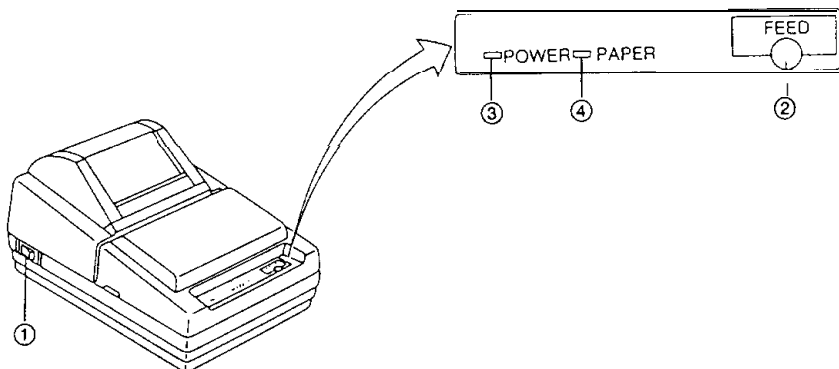
TM-U300D/U300PD



TM-U300C/U300D

TM-U300PC/U300PD

■ Functions



Switches and Buttons

① POWER Switch

The POWER switch is used to turn the printer on and off.

② FEED Button

The FEED button is used to feed roll paper. The line feed amount is set by the printer commands **ESC 2** and **ESC 3**.

Control Panel Lights (LEDs)

③ POWER LED (green)

The POWER LED is on when the printer is turned on and off when the printer is turned off.

④ PAPER LED (red)

Normally the PAPER LED is off.

The PAPER LED is on when the paper roll is nearly finished or completely finished or the paper roll is not installed.

The PAPER LED blinks when an error occurs, when validation paper must be inserted or removed, when the self test enters the printing standby state, or when printing has stopped due to exceeding the allowable print duty cycle.

Chapter 2 Connecting the Cables

2-1 Connecting the AC Adapter to the Printer

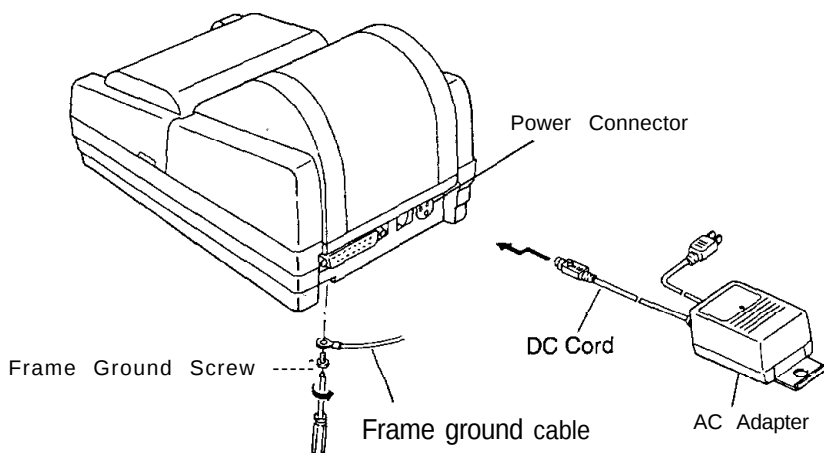
Follow these steps to connect the AC adapter to the printer:

- ① Make sure the printer is turned off. It is off when the O side of the switch is pressed down.
- ② Check the label on the AC adapter to make sure the voltage required by the AC adapter matches that of your electrical outlet.

CAUTIONS:

- To avoid damage to the AC adapter and the printer, or to avoid an incorrect operation of the printer, do not plug in the power cord, if the rated voltage of the AC adapter and your outlet voltage do not match.

- ③ Plug the DC cord connector into the printer's power connector with the arrow mark facing upward. (You can remove the DC cord by grasping the connector firmly at the arrow mark and pulling it straight out.)



- ④ Ground the printer by connecting a frame ground cable (*1) to the printer with the frame ground screw located on the bottom of the printer.

(*1) This cable is not enclosed. Please obtain the appropriate cable for your system.

- ⑤ Plug the AC adapter power cord into the wall outlet.

2-2 Connecting the Host Computer to the Printer

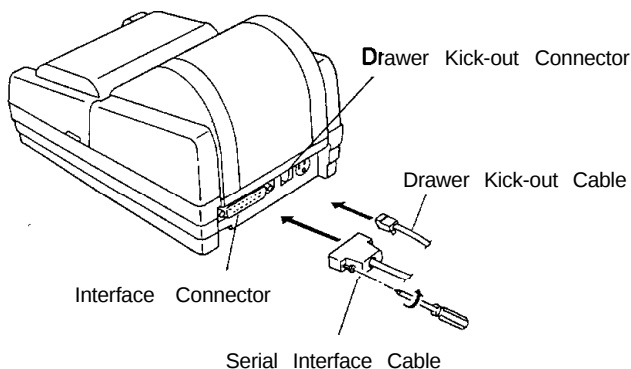
Connect the host ECR (host computer) to the printer using an interface cable that matches the specifications of the printer and the host ECR (host computer).

Be sure to use a drawer that matches the printer's specifications.

■ Connecting the host computer to the TM-U300C/U300D

Connect the interface cable as follows:

- ① Turn off the printer and the host ECR (host computer).
- ② Plug the serial interface cable connector into the printer's interface connector: then tighten the screws on both sides of the connector.
- ③ Plug the drawer kick-out cable connector into the printer's drawer kick-out connector. (You can remove the drawer kick-out cable by pressing in the connector's clip and pulling out the connector.)



NOTE:

- Your printer comes with inch-type hexagonal lock screws installed. If you plan to use an interface cable that requires millimeter-type lock screws, replace the inch-type screws with the enclosed millimeter-type screws using a hex screwdriver (5 mm). To distinguish the two types of screws, see the figure below.

Notch (one or more line)



Inch-type

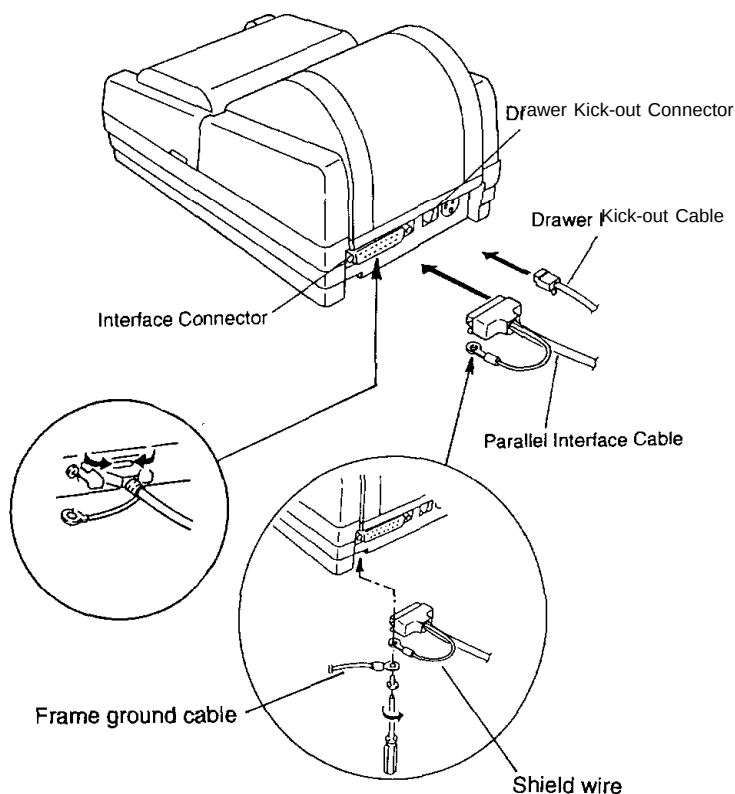


Millimeter-type

■ Connecting the host computer to the TM-U300PC/U300PD

Connect the interface cable as follows:

- ① Turn off the printer and the host ECR (host computer).
- ② Plug the parallel interface cable connector into the printer's interface connector.
- ③ Squeeze the wire clips together until they lock in place on both sides of the connector.
- ④ Secure the frame ground cable and the shield wire of the parallel interface cable with the frame ground screw on the bottom of the printer.
- ⑤ Plug the drawer kick-out cable connector into the printer's drawer kick-out connector. (You can remove the drawer kick-out cable by pressing in the connector's clip and pulling out the connector.)



Chapter 3 Installing the Printer Parts

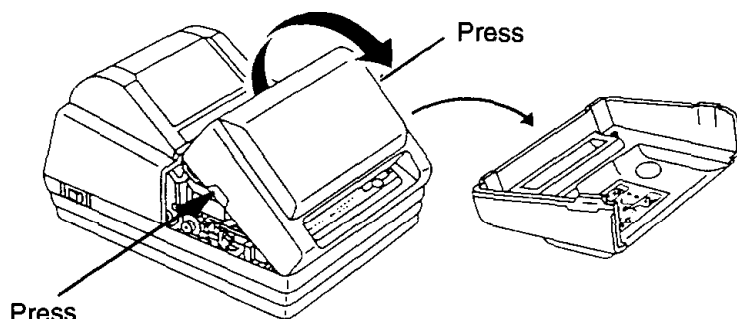
3-1 Installing the Ribbon Cassette

■ Installing the ribbon cassette

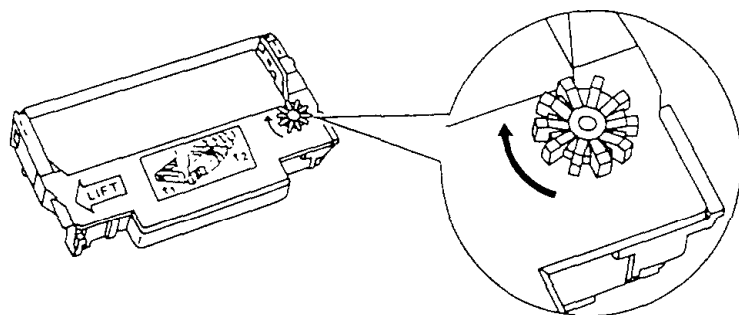
Use Epson ribbon cassette ERC-34 (B/R).

Follow these steps to install the ribbon cassette:

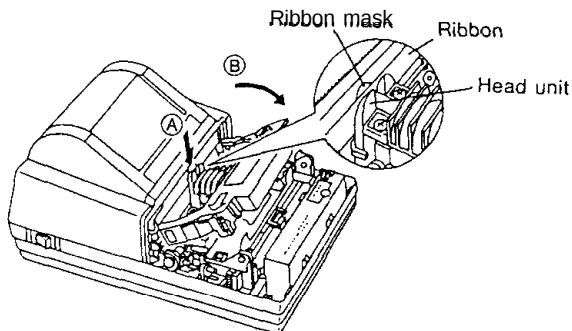
- ① Open the printer cover while lightly pressing the printer cover as shown below.



- ② Turn the ribbon-tightening knob in the direction of the arrow to take up any slack in the ribbon.



- ③ Fit the ribbon between the print head unit and the ribbon mask. Then push the cassette firmly into position.

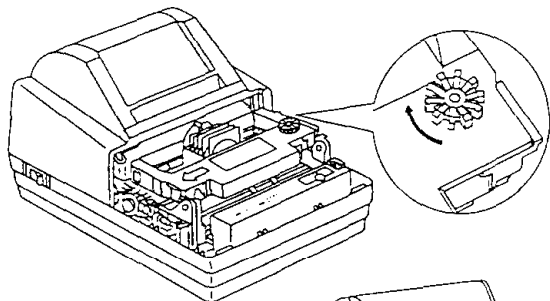


- ④ Turn the ribbon-tightening knob five or six times in the direction of the arrow to feed the ribbon smoothly into place between the print head unit and the ribbon mask.

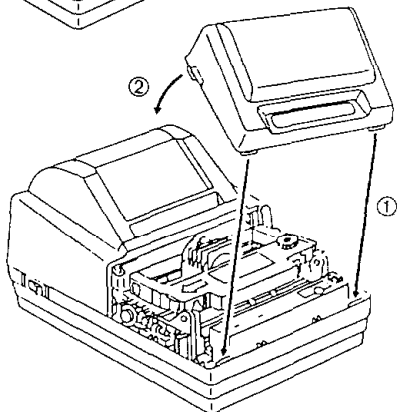
- Check that the ribbon is not twisted or creased.

CAUTION:

- Do not turn the ribbon-tightening knob in the reverse direction.



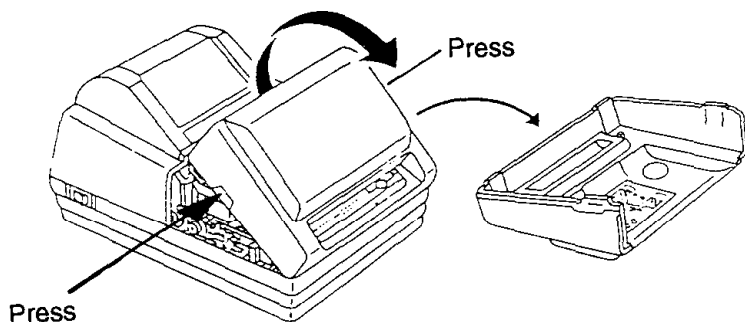
- ⑤ Close the printer cover.



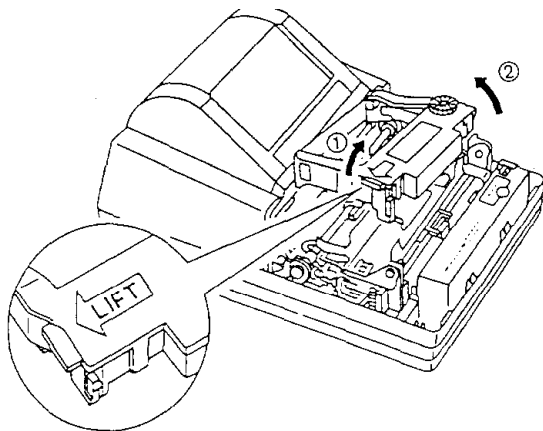
■ Replacing the ribbon cassette

Use Epson ribbon cassette ERC-34 (B/R).

① Open the printer cover while lightly pressing the printer cover as shown below.



② To remove the ribbon cassette, grasp the tab on the left side and lift the left side out first.



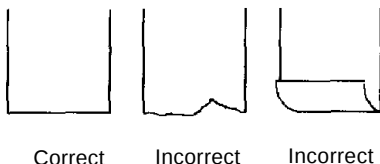
③ To install a new ribbon cassette, follow steps ② through ⑤ in the previous section, *Installing the ribbon cassette*.

3-2 Installing the Paper Roll

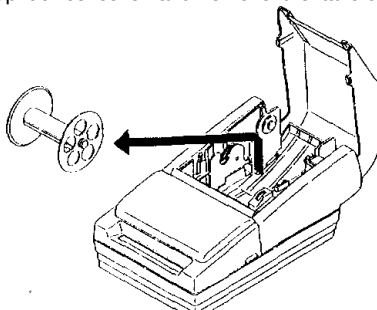
■ Installing the paper roll in the TM-U300C/U300PC

Be sure to use roll paper that matches the printer's specifications. See Appendix A, Specifications.

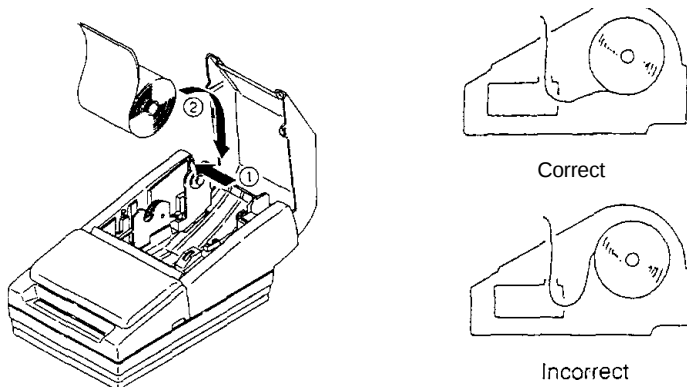
- ① Using scissors, cut the leading edge of the roll paper so that it is perpendicular to the paper feed direction.



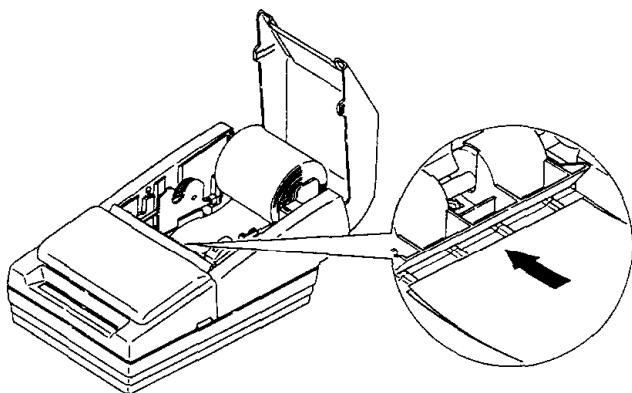
- ② Open the take-up device cover and remove the take-up spool from the printer.



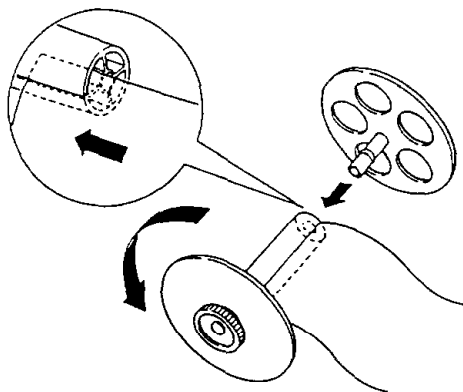
- ③ Load the paper roll while lightly pressing the left paper roll holder outward. Release the holder after fitting the roll paper core onto the holder. Make sure the paper roll turns freely and be sure to load the paper roll so that it rotates in the correct direction.



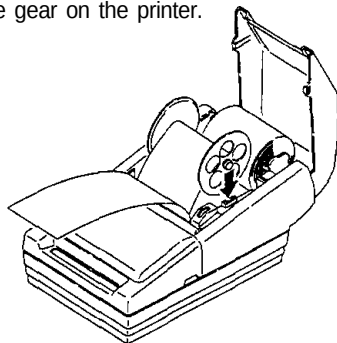
- ④ Turn on the printer. The POWER LED goes on.
- ⑤ While leaving some slack in the paper roll, insert the end of the roll paper straight into the paper inlet. The printer automatically feeds the roll paper into the printer (semi-automatic loading).



- ⑥ Press the FEED button to continue feeding the paper until it extends about 20 cm (8 inches) beyond tear-off edge.
- ⑦ Remove the side board of the take-up spool and insert the end of the roll paper (or journal paper when using 2- or 3-ply paper) into the groove on the take-up spool. Wrap the paper around the spool two or three times and then replace the side board of the take-up spool.



- ⑧ Install the take-up spool in the printer. Make sure that the gear on the take-up spool aligns with the gear on the printer.



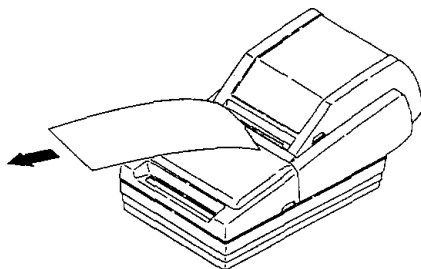
- ⑨ Close the take-up device cover.



- ⑩ Tear off any extra paper at the tear-off edge by pulling the paper toward you.

CAUTION:

- The extra paper must be torn off after closing the take-up device cover so that roll paper comes out correctly from the paper exit.



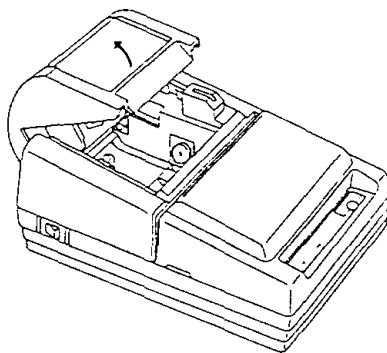
■ Installing the paper roll in the TM-U300D/U300PD

Be sure to use roll paper that matches the printer's specifications. See Appendix A, Specifications.

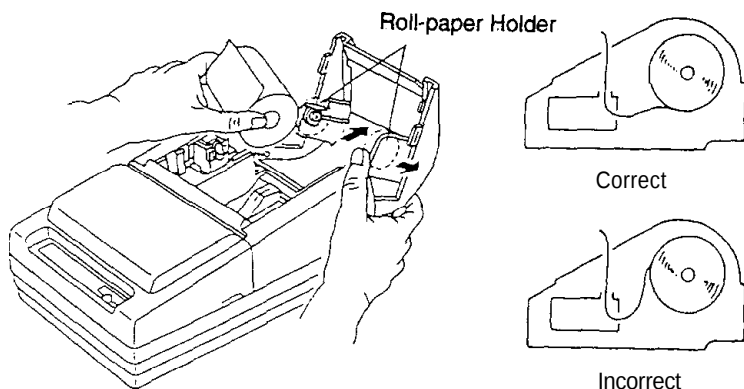
- ① Using scissors, cut the leading edge of the roll paper so that it is perpendicular to the paper feed direction.



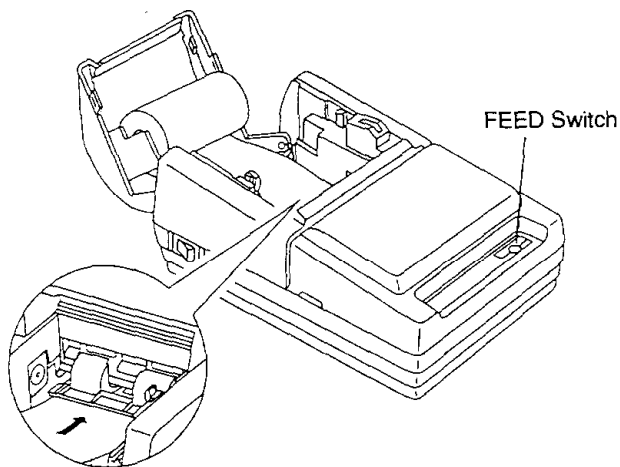
- ② Open the roll paper cover.



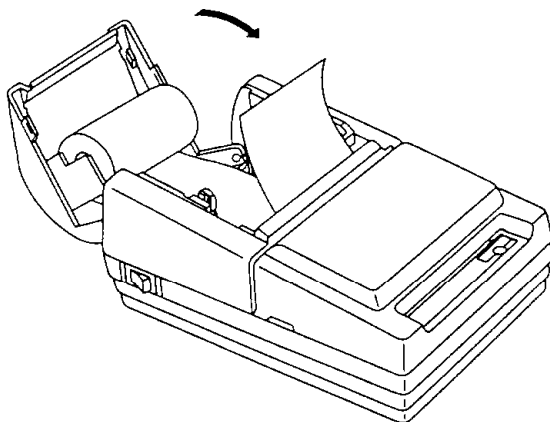
- ③ Load the roll paper while lightly pressing the paper roll holder outward. Release the holder after fitting the paper core onto the holder. Make sure the paper roll turns freely and be sure to load the paper roll so it rotates in the correct direction.



- ④ Turn on the printer. The POWER LED goes on.
- ⑤ While leaving some slack in the paper roll, Insert the end of the roll paper straight into the paper inlet. The printer automatically feeds the roll paper into the printer (semi-automatic loading). Press the FEED button to continue feeding the paper if insufficient paper is fed by the semi-automatic loading.



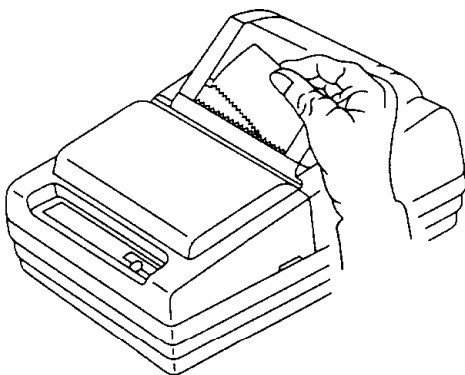
- ⑥ Close the roll paper cover.



- ⑦ Tear off any extra paper at the tear-off edge by pulling the paper toward you.

CAUTION:

- The extra paper must be torn off after closing the roll paper cover so that roll paper comes out correctly from the paper exit.



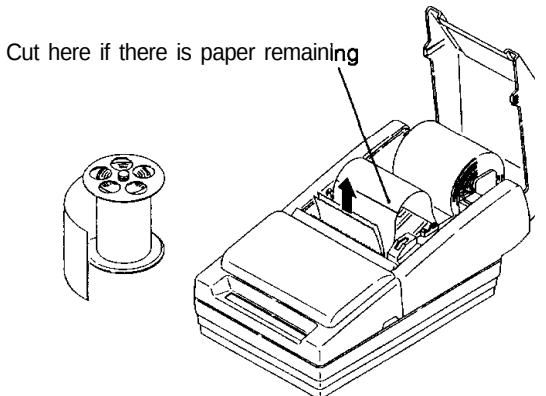
■ Replacing the roll paper for TM-U300C/U300PC

Be sure to use roll paper that matches the printer's specifications. See Appendix A, Specifications.

- ① Open the take-up device cover.
- ② Remove the take-up spool from the printer. (If it is necessary, cut the paper going to the take-up spool, using the tear-off edge.) Then remove the roll paper core.

If there is roll paper remaining, cut the paper straight across using scissors at the place shown in illustration below.

- ③ While pressing the FEED switch, remove the remaining roll paper in the printer by pulling the paper lightly out in the direction of the arrow.



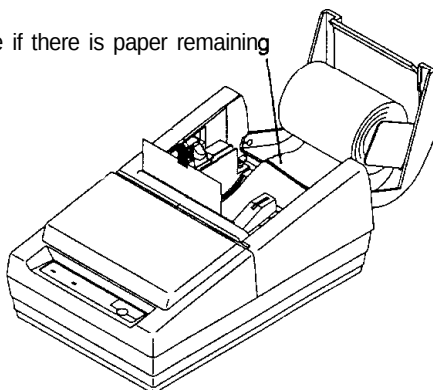
- ④ To install a new paper roll, see *Installing the paper roll* in the TM-U300C/U300PC, on page 11.

■ Replacing the paper roll in the TM-U300D/U300PD

Be sure to use roll paper that matches the printer's specifications. See Appendix A, *Specifications*.

- ① Open the roll paper cover.
- ② Remove the roll paper core. If there is roll paper remaining, cut the paper straight across using scissors at the place shown in illustration below.
- ③ While pressing the FEED button, remove the remaining roll paper in the printer by pulling the paper lightly out in the direction of the arrow.

Cut here if there is paper remaining



- ④ To install a new paper roll, see *Installing the paper roll* in the TM-U300D/U300PD, on page 14.

3-3 Adjusting the Paper Near-End Detector Location

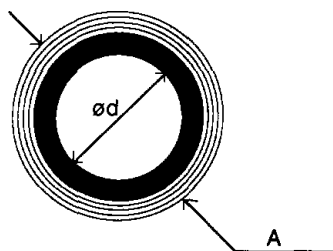
■ The paper near-end detector

When the paper near-end detector senses that the paper is almost out, the printer turns on the PAPER LED. The PAPER LED also turns on when the paper is completely out or paper roll is not installed.

■ Adjusting the paper near-end detector

Because the paper roll core size differs depending on the paper roll, you may need to adjust the paper near-end detector location.

- ① Make sure the paper core inside diameter is 10.5 to 12.5 mm (0.41 to 0.49")
- ② Determine the paper near-end detecting point on your roll paper and measure diameter A as shown below.



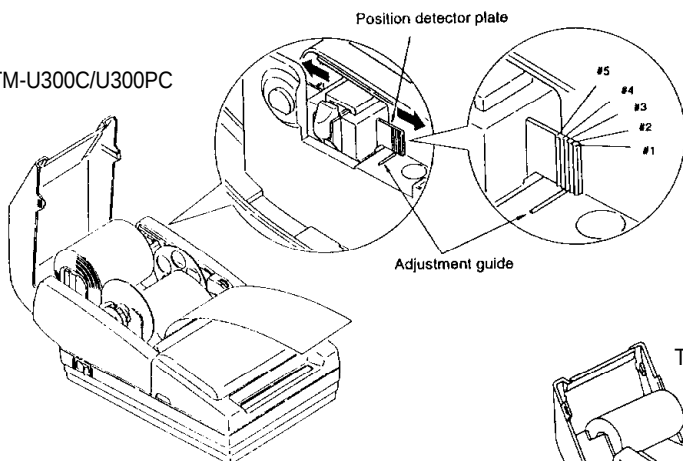
- ③ Find the corresponding adjustment position number from the table below.

Table 3-1. Adjustment Position Number

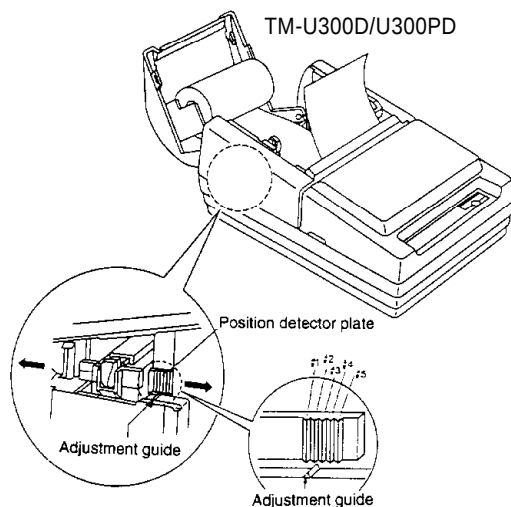
Diameter A	Adjustment position number
18 mm (0.71")	# 1
20 mm (0.79")	# 2
22 mm (0.87")	# 3
24 mm (0.94")	# 4
26 mm (1.02")	# 5

- ④ Referring to the illustration below, set the position detector plate to the appropriate position according to the adjustment position number from the table above.

TM-U300C/U300PC



TM-U300D/U300PD



NOTES:

1. Since the adjustment values in the Table 3-1 are calculated value, there may be some variations depending on the printer.
2. If roll paper with a red end mark at the paper end is used, this mark may cause the paper to stick together. If this occurs, the paper near-end detector may operate incorrectly.
3. Be sure that the detecting lever operates smoothly after you finish the adjustment.
4. If the roll paper becomes loose due to the paper quality, the paper near-end detector may operate incorrectly.

3-4 Inserting a Cut Sheet (Validation Paper)

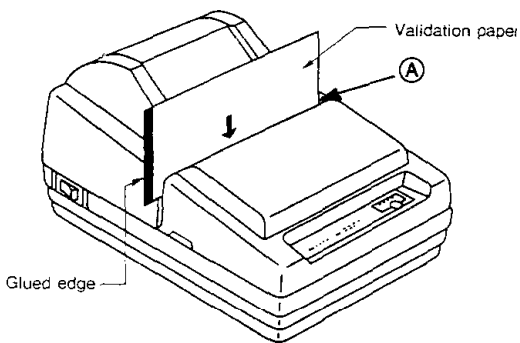
Be sure to use a validation paper that matches the printer's specifications. Refer to Appendix A, *Specifications*.

- ① Check that the paper is not wrinkled. Using creased or wrinkled paper may cause a paper jam.
- ② Check that the paper roll is already installed. If not, install it first.

CAUTION:

- Printing with no roll paper installed in the printer may cause damage to the print head pin.

- ③ After checking that no validation paper is inserted, turn on the power switch. The POWER LED light goes on.
- ④ Using printer control command, select validation paper mode. The PAPER LED begins blinking.
- ⑤ Insert the paper straight into the printer using the guide marked with an A in the following illustration.



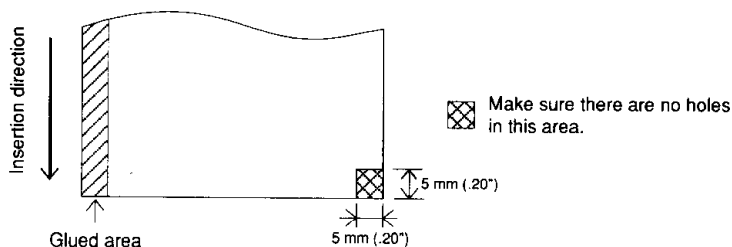
CAUTIONS:

- When printing on copy sheets, make sure the glued (fixed) edge is positioned as shown in the illustration above.
- After you insert validation paper, do not move the paper. Moving the paper may cause the paper to slip.

■ Notes on printing on validation paper

- The printer can print only one line on validation paper. Printing is performed by the print commands, but the paper is not fed. Therefore, double-height printing cannot be performed on validation paper.
- Printing on the validation paper must be performed when roll paper is loaded. However, printing is affected by the total thickness of the paper.
- The validation paper should be flat, with no curls, folds (especially no curls or folds at the edges), wrinkles, or warps. Otherwise, the paper may rub against the ribbon and become dirty or the paper could catch on the ribbon.
- Select multi-ply paper carefully because the gluing conditions (glue quality, gluing method, glued length etc.) and the position of the glued area affect paper insertion; insert the validation paper so that the glued position is on the left or top edge of the paper as seen from the front.
- Insert paper from the top as shown in the following figure.
- When the optional validation detector is installed, do not use validation paper with holes (e.g., sprocket holes) in the area shown below or the paper detector does not work correctly.

Validation paper



Chapter 4 Setting the DIP Switches

■ Finding the DIP switches

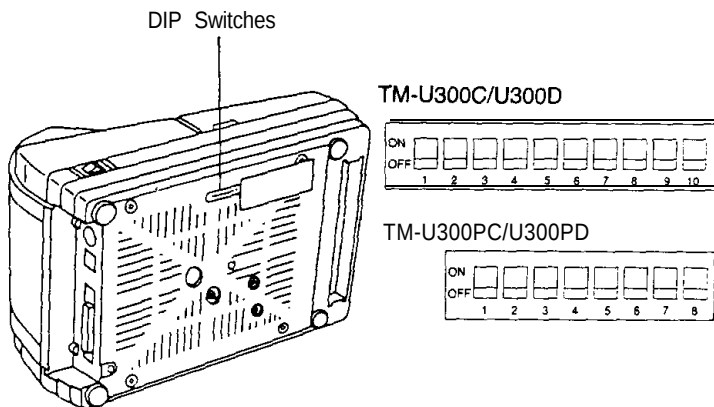
As shown in the illustration below, the DIP switches are located on the bottom of the printer. The DIP switches are used to set the printer to perform various functions

- The TM-U300C/U300D DIP switches are numbered SW-1 to SW-10 and the TM-U300PC/U300PD DIP switches are numbered SW-1 to SW-8, from left to right as shown in figure below.
- The tables on the following pages describes the DIP switch functions.

■ Setting the DIP switches

Follow these steps when changing DIP switch settings:

- ① Turn the printer power switch off.
- ② Flip the DIP switches using tweezers or another narrow-ended tool.
Switches are on when up and off when down in the figure below.



- ③ The new setting takes effect when you turn on the printer.

NOTES:

- Always change DIP switch settings when the printer is turned off.
- Changes made with the power on have no effect until you turn the printer off and then on again.

■ TM-U300C/U300D DIP Switch Functions

Table 4-1. TM-U300C/U300D DIP Switch Functions

Switch No.	Function	ON	OFF
SW-1	Data receive error	Ignored	Prints "?"
SW-2	Receive buffer capacity	40 bytes	Approx. 1 Kbyte
SW-3	Handshaking	XON/XOFF	DTR/DSR
SW-4	Word length	7 bits	8 bits
SW-5	Parity check	On	Off
SW-6	Parity selection	Even	Odd
SW-7	Baud rate selection	Refer to Table 4-2.	
SW-8			
SW-9	Internal use	(*)	
SW-10	Internal use	(*)	

(*) Do not change the settings of DIP switches 9 and 10 on the TM-U300C/U300D

Table 4-2. Baud Rate Selection

Transmission Speed (BPS)	SW-7	SW-8
1200	ON	ON
2400	OFF	ON
4800	ON	OFF
9600	OFF	OFF

■ TM-U300PC/U300PD DIP Switch Functions

Table 4-3. TM-U300PC/U300PD DIP Switch Functions

Switch No.	Function	ON	OFF
SW-1	Auto feed	Always enabled	Depends on <u>AUTO FEED XT</u>
SW-2	Receive buffer capacity	0 byte	Approx. 1 Kbyte
SW-3	Internal use	(*) Fixed to OFF	
SW-4	Internal use	(*) Fixed to ON	
SW-5	Internal use	(*) Fixed to ON	
SW-6	Internal use	(*) Fixed to OFF	
SW-7	Internal use	(*)	
SW-8	Internal use	(*)	

(*) Do not change the settings of DIP switches 3 through 6 on the TM-U300PC/U300PD.

Chapter 5 The Self Test

■ The purpose of the self test

The self test checks whether the printer has any problems. If the printer does not function properly, contact your dealer. The self test checks the following:

- Control circuit functions
- Printer mechanism
- Print quality
- Control ROM version
- DIP switch settings
- Presence or absence of a validation detector

■ Running the self test

- ① Make sure the ribbon cassette and paper roll have been installed properly. Make sure the printer cover and the take-up device cover or the roll paper cover are closed properly.
- ② Turn on the power while holding down the FEED button. The self test begins.
- ③ First the self test prints the current printer status, which provides the following information:

- Control ROM version

- DIP switch settings

- ④ After printing the current printer status, it prints "Self-test printing. Please press FEED switch". The PAPER LED blinks and the printer enters the test printing standby state. Press the FEED button to restart test printing.

- ⑤ After the printer completes a certain number of lines, it prints “*** completed ***”, and stops printing automatically.

- * The printer goes off-line during and after self-test printing. Turn the power off and on again to put the printer on-line before transmitting data from the host computer.

[illegible]**TM-U300C/U300D**

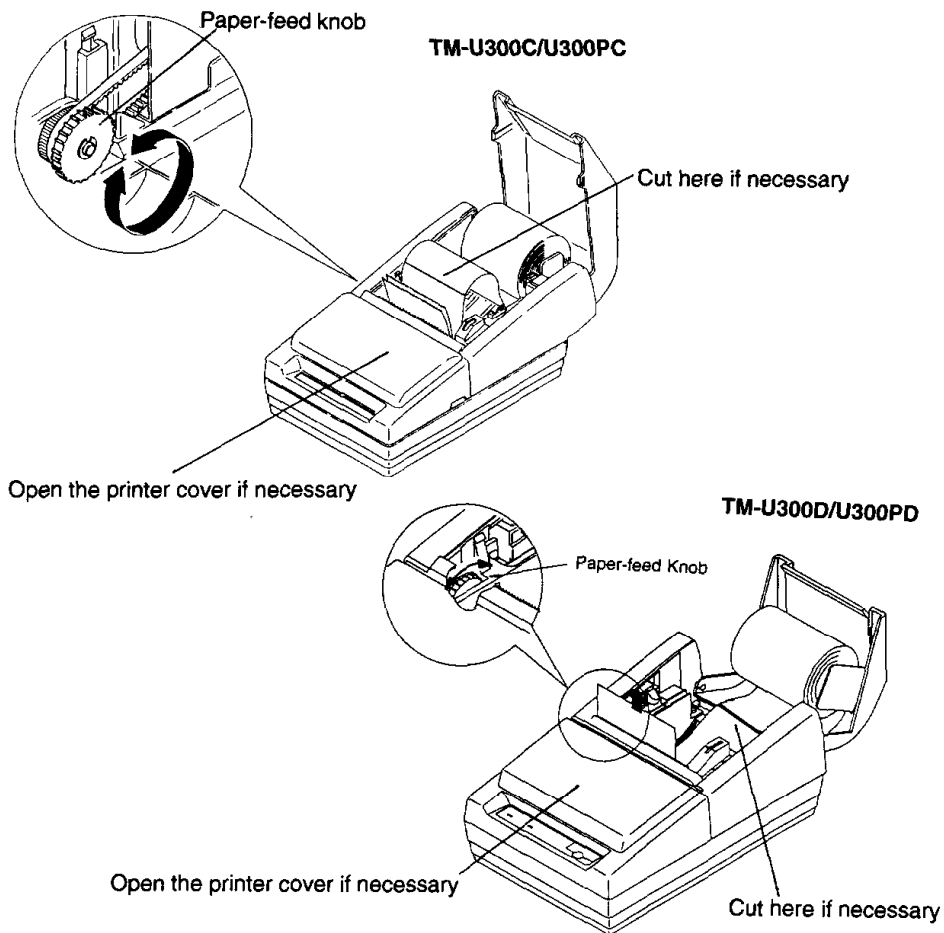
TM-U300PC/U300PD

Self-test Printing Sample

Chapter 6 Removing Jammed Paper

6-1 Removing Jammed Paper

Turn the paper-feed knob as shown below, and remove any jammed paper. It may be easier if you cut the roll paper or remove the printer cover.

**CAUTION:**

Be careful not to touch the tear-off edge.

Appendix

Appendix A. Specifications

1. Printing Specifications

Printing method:	Serial impact dot matrix
Head wire arrangement:	Serial-type, 9-pin
Printing directions:	Bi-directional (logic seeking)
Lines per second:	Approx. 3.5 LPS (40 columns, 16 CPI, single color, continuous printing) Approx. 5.8 LPS (20 columns, 16 CPI, single color, continuous printing)

- NOTES:**
- When printing exceeds the allowable duty cycle, the actual printing speed may be slower than that listed above.
 - Because switching operations are required for red printing or black/red printing, their printing speeds are slower than the black printing speed.

(LPS: Lines Per Second) (CPI: Characters Per Inch)

Characters per line:	Refer to Table A-1.
Characters per inch:	Refer to Table A-1.
Print color switching:	Selectable black or red printing

2. Characters Specifications

Number of characters:	Alphanumeric: 95
	Graphics: 128 X 7 tables
	International characters: 32
Character structure:	7 x 9 (total number of dots in the horizontal direction: 400 half dots)
	9 x 9 (total number of dots in the horizontal direction: 400 half dots)
Character size:	Refer to Table A-1.

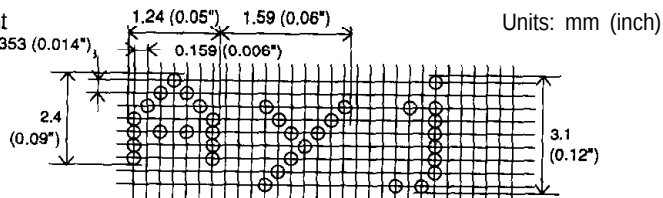
Table A-1. Character Size, Characters Per Inch, Characters Per Line

Character Structure		Character Size W × H (mm)	Character Dot Spacing	Characters Per Line (CPL)	Characters Per Inch (CPI)
Horizontal × Vertical	Characters				
7 × 9 (★ 1)	ANK and International	1.24 × 3.1 (0.05" × 0.12")	3 half dots	40	16
	Graphic	1.59 × 3.1 (0.06" × 0.12")	0	40	16
9 × 9	ANK and International	1.56 × 3.1 (0.06" × 0.12")	3 half dots	33	13.3
	Graphic	1.91 × 3.1 (0.08" × 0.12")	0	33	13.3

(★1) The 7 × 9 font is the default.

Example

7 × 9 font



3. Ribbon

Ribbon cassette type:

Exclusive ribbon cassette ERC-38

Color:

Black and Red, Black, Red

Single-color ribbons [Part No.: ERC-34 (P) (purple) or ERC-34 (B) (black)] and P-color ribbon [Part No.: ERC-34(B/R) (black and red)] are also available. When using these ribbons, the print color selection command (**ESC r**) must not be used.

Ribbon life:

(In case of using 2-color type)

Black: Approx. 1,500,000 characters

Red: Approx. 750,000 characters

[Conditions]

- Character font: 7 X 9 font (with descenders)
- Printing pattern: 96 ASCII character rolling pattern, continuous printing
- Temperature: 25°C (77°F)

Ribbon cassette overall dimensions:

Refer to Figure A-1

[Units: mm]

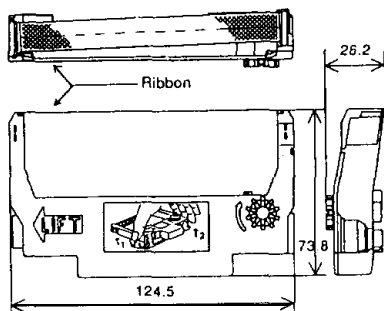


Figure A-1. ERC-38 Overall Dimensions

4. Roll Paper Supply Device

- | | |
|---|--|
| Supply method: | Paper roll holding shaft |
| Near-end detector: | Provided inside the printer case
The paper near-end detector location should be adjusted by the user. Refer to section 3-3, <i>Adjusting the Paper Near-End Detector Location</i> . |
| <ul style="list-style-type: none">Roll paper core | |
| inside diameter: | ø 10.5 to 12.5 mm (0.41" to 0.49") |
| Near-end adjustment: | Adjustable slider |

5. Roll Paper Take-up Device

The TM-U300C and TM-U300PC are equipped with a take-up device. The paper is automatically taken up by the paper feed motor.

6. Paper

- | | |
|--------------------|---|
| Paper feed method: | Friction feed |
| Paper feed pitch: | Default 1/6 inch
Can be set in 1/144 inch units by software command. |
| Paper feed speed: | Approx. 4.17 IPS (25 LPS) (continuous feeding)
(IPS: Inches Per Second)
(LPS: Lines Per Second) |

Paper size:

- Roll paper

Paper width: 76 mm $\pm$ 0.5 mm (2.99" $\pm$ 0.02")

Maximum diameter: $\varnothing$ 83 mm (3.27") (when 2-ply or 3-ply paper is used)
 $\varnothing$ 60 mm (2.36") (when 1 -ply paper is used)

Paper core inside diameter: $\varnothing$ 10.5 to 12.5 mm (0.41" to 0.49")

- ① Normal paper

Paper thickness: 0.06 to 0.085 mm (0.002" to 0.003")
(single-ply sheet)

Weight: 52.3 g/m² to 64 g/m²
(45 to 55 kg/1000 sheets/1091 mm x 788 mm)

- ② Pressure sensitive paper

Maximum 1 original + 2 copies

Copy capability is greatly influenced by the ambient temperature. Refer to the table below.

Number of copies	Ambient temperature
Original + 2 copies	Approx. 25°C (77°F)
Original + 1 copy	5° to 40 °C (41° to 104°F)

- Validation paper

Paper type: Normal paper, pressure-sensitive paper, carbon copy paper

Paper width and paper length:

	Width	Length
Validation paper	135 mm to 210 mm (5.32" to 8.27")	70 mm to 297 mm (2.76" to 11.69")

Paper thickness: 0.07 mm to 0.14 mm (0.003" to 0.006")
(Weight: 56.2 g/m² to 128 g/m²)

Total thickness including roll paper:
0.2 mm (0.008") or less

7. Receive Buffer

Either 40 bytes or approx. 1 Kbyte, selectable using DIP switch. (TM-U300C/U300D)

Either 0 bytes or approx. 1 Kbyte. selectable using DIP switch. (TM-U300PC/U300PD)
(Refer to Chapter 4, *Setting the DIP switches*.)

8. Electrical Characteristics

Operating power supply: Packaged AC adapter
One of the eight AC adapters in the table below
is included, depending on the local power supply.

Table A-2. AC Adapter Types

Factory setting	Voltage	AC adapter type
North America	120 V	PA-6509 or PB-6509
Europe (Germany)	230 V	PA-6510 or PB-6510
Europe (U.K.)	240 V	PA-6511 or PB-6511
Australia	240 V	PA-6513 or PB-6513

Printer power consumption (except for drawer kick-out):

Operating:	Mean	33 W
------------	------	------

Standby: Mean 12 W

9. EMI (with packaged AC adapter and shielded cables)

FCC Class A

BZT (Adaptable level (self declaration by Vfz 243/1991)) (*)

(*) When it is necessary to apply for a self declaration, Seiko Epson Corporation will submit the EMI measurement data.

To prevent radio interference, this device may only be operated in conjunction with devices which comply with the requirements stipulated in item 1 of paragraph 2 of the BMPT-Amtsbl/Vfg 243/1991 (decree no. 243/1991 of the German Ministry of Posts and Telecommunications).

10. Safety Standards (packaged AC adapter only)

UL/CSA
TÜV

11. Reliability

Mechanism: 7.500.000 lines

Life: Print head: 100 million characters

(when printing an average of two dots/wire/character)

- ☐ End of Life is defined as the point at which the printer reaches the beginning of the Wearout Period.

MTBF: 180.000 hours

- ❑ Failure is defined as Random Failure occurring at the time of the Random Failure Period.

MCBF: 18.000.000 lines

- This is an average failure interval based on failures relating to wearout and random failures up to the life of 7.5 million lines.

12. Environmental Conditions

Temperature:

Operating: 5° to 40°C (41° to 104°F)

For the TM-U300C/U300PC, when the temperature is 30°C (86°F) or more, the operating humidity is limited.

Storage: -10° to 50°C (14 to 122°F) (excluding paper and ribbon)

Humidity:

Operating: TM-U300C/U300PC: 20% to 80% (non-condensing)

TM-U300D/U300PD: 30% to 85% (non-condensing)

Storage: TM-U300C/U300PC: 20% to 90%

(non-condensing, excluding paper and ribbon)

TM-U300D/U300PD: 30% to 90%

(non-condensing, excluding paper and ribbon)