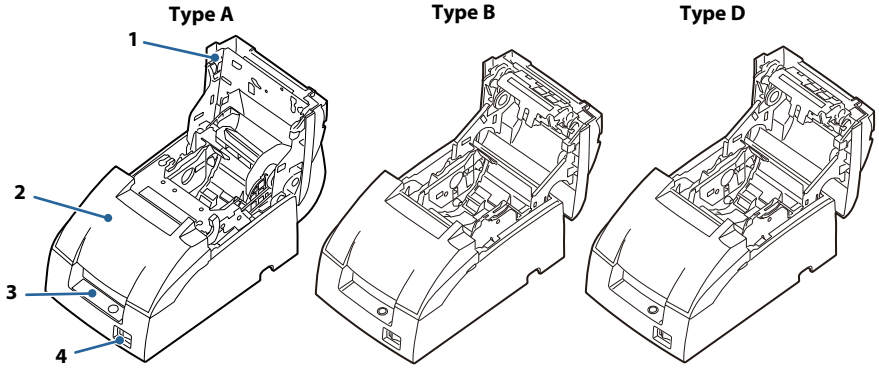
EPSON

English

TM-U220II

User's Manual



1. Roll paper cover
2. Ribbon cassette cover
3. Control panel
4. Power supply switch

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M00155901 EN

Important Safety Information

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

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 or damage to 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 qualified service personnel.

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

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

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

Only use the AC power cord provided. Do not use the AC power cord provided with another equipment.

Do not use this product with any voltage other than the specified one. Doing so may lead to fire or electric shock.

Be sure your AC power cord meets relevant safety standards of the area where you plan to use it.

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, do not continue to use it. Continued use may lead to fire. Unplug the power cord immediately and contact qualified service personnel.

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 indicated in the manuals. Different connections may cause equipment damage and burning.

Be sure to set this equipment on a firm, stable, horizontal surface. 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.

Take care not to injure your fingers on the manual cutter

- *When you remove printed paper*
- *When you perform other operations such as loading/replacing roll paper*

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

Before moving the product, unplug it and unplug all cables connected to it.

Safety Label

The caution labels on the product indicate the following precautions.



CAUTION:

During printing or after printing, the print head can be very hot. Touching it may cause burns.

Notes on Usage

- ❏ Do not open the cover during printing or when the autocutter is being operated.
- ❏ Do not install the printer in a dusty place.
- ❏ Protect the printer from impact.
- ❏ Cords or other foreign objects must not be caught on the printer.
- ❏ Do not apply excessive force to the printer case.
- ❏ Do not place food or beverages such as coffee on the case of the printer.

Notes on Installation

- ❏ When using the printer, be sure that the printer is installed horizontally.
- ❏ If you are using a Type B or D printer, you can hang it on a wall, using the optional hanging bracket set, WH-10.

  Note:
  To hang the printer on a wall, see the WH-10 Installation Manual for detailed instructions.

Notes on Connecting the Power Supply Unit

Be sure to use the correct power supply unit as listed below:

TM-U220II (types A, B, and D)
"AC adapter,C1", "PS-180" or "PS-190"

English

Purpose of This Manual

This manual provides information to operators of the TM-U220II to describe basic operations to enable safe and correct use of the printer.

Features of Printer Types

	Type A	Type B	Type D
Autocutter	Yes	Yes	No
Take up device	Yes	No	No
Paper width (mm)	76	76/69.5/57.5	76/69.5/57.5

Illustrations

This manual covers the three types of TM-U220II series printers. As such, some of the illustrations may be slightly different from your printer. However, the instructions cover all types, except as noted.

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 item is damaged, contact your dealer.

- ❏ Printer
- ❏ Roll paper*
- ❏ Exclusive ribbon cassette [ERC-38(B/R)]
- ❏ AC adapter*
- ❏ Power supply switch cover
- ❏ Locking wire saddle*

* May not be included with the printer.

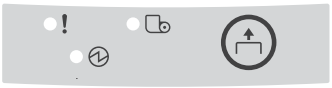
Downloading Drivers, Utilities, and Manuals

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

For customers in North America, go to the following web site and follow the on-screen instructions.
https://www.epson.com/support/

For customers in other countries and regions, go to the following web site:
https://epson.sn

Control Panel



LEDs

(POWER)

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

(ERROR)

Lights when the printer is offline (when the roll paper is at the end, or the roll paper cover is open). Off when the printer operates correctly. Flashes when an error occurs. (See the Troubleshooting section.)

(PAPER OUT)

Lights when roll paper is out or nearly out.

Button

(FEED)

(FEED) button feeds the roll paper.

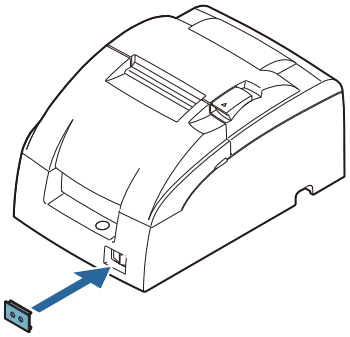
Note:
Paper cannot be fed by using this button when a paper out is detected.

Power Supply Switch and Power Supply Switch Cover

The power supply switch is on the front of the printer. Press the power supply switch to turn on the printer.

Power Supply Switch Cover

You can use the enclosed power supply switch cover to make sure that the power supply switch is not accidentally pressed. Just press the cover into place to install it. If you need to turn the power supply switch on or off with the cover attached, you can insert a thin tool into one of the holes in the cover to operate the switch.



WARNING:

If an accident occurs when the power supply switch cover is attached, immediately unplug the power supply cable to avoid fire.

If you are going to store the printer or leave it unused for a long time, turn it off using the power supply switch on the printer.

Inserting and Replacing the Ribbon Cassette

CAUTION:

The print head becomes very hot during printing. Touching it may cause burns. Allow it to cool before you replace the ribbon cassette.

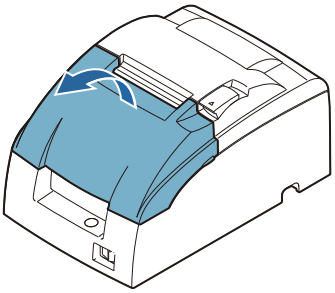
CAUTION:

Never turn the ribbon cassette's feed knob in the opposite direction of the arrow marked on the cassette; otherwise the ribbon cassette may be damaged.

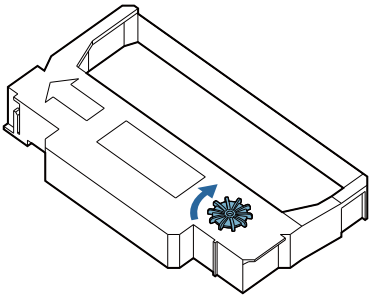
Note:

Use the EPSON ERC-38 ribbon cassette for your printer.

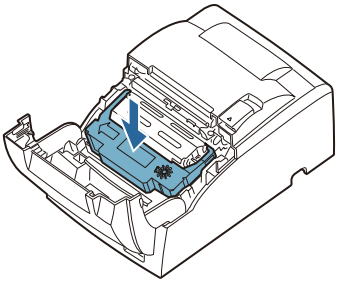
1. Open the ribbon cassette cover by using the tabs on the sides of the cover.



2. Turn the knob two or three times in the direction of the arrow.



3. Insert the ribbon in the position shown in the illustration below and push the ribbon cassette down until it clicks.



Note:
Make sure the ribbon is installed between the print head and the platen without wrinkles or creases.

4. Again turn the ribbon cassette's knob 2 or 3 times in the direction of the arrow and close the ribbon cassette cover.

CAUTION:

Be careful not to touch the print head with your fingers when turning the ribbon cassette knob because the print head is hot and you might be burned.

When you replace the ribbon casette, lift the left side of the ribbon cassette first; then lift the whole ribbon cassette.

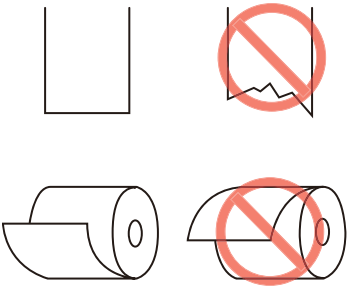
Inserting Roll Paper

CAUTION:

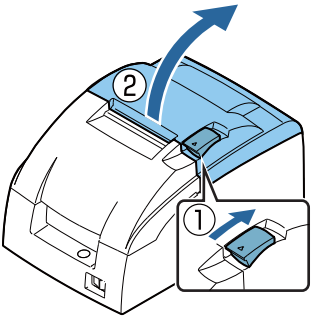
Be sure to use roll paper that meets the specifications.

Be sure not to touch the manual cutter. Otherwise your fingers might be injured.

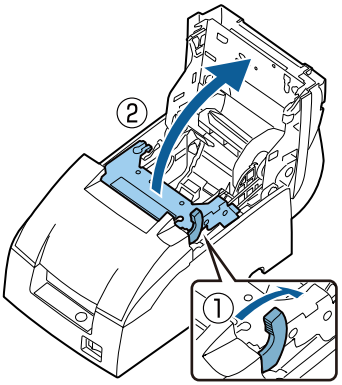
1. Using scissors, cut the leading edge of the roll paper.



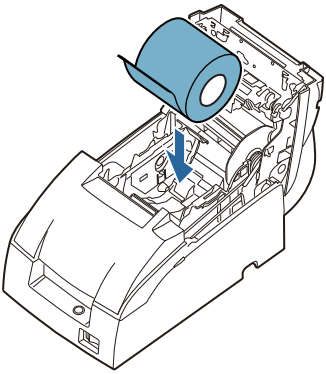
2. Turn on the printer and open the roll paper cover by using the tab.



3. **Type A only:** Open the unit by using the unit open lever.

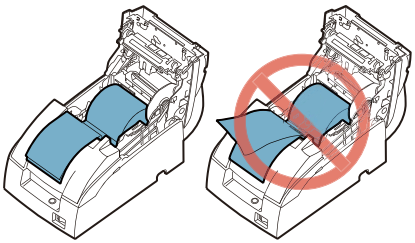


4. Insert the roll paper.

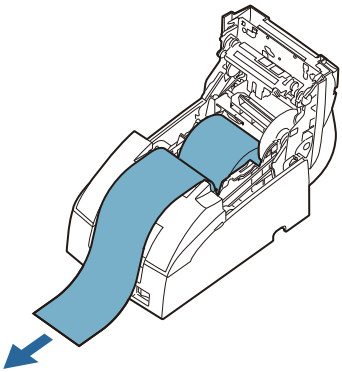


Note:
Note the direction the paper comes off the roll.

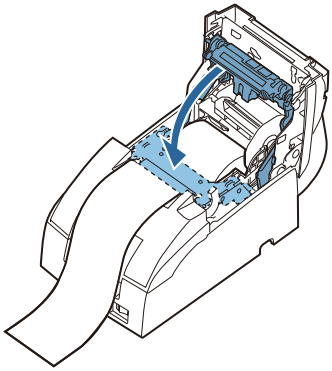
When using 2-ply roll paper, be sure that the top and bottom sheets are aligned at the paper exit.



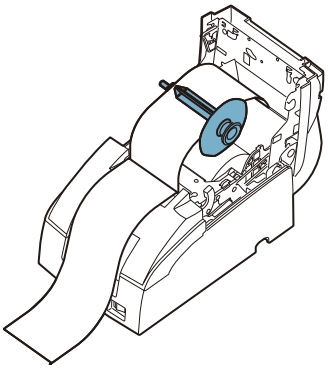
5. **If you are not using a take-up spool**, pull out a small amount of roll paper and close the roll paper cover; then tear off the paper with the manual cutter. You can skip steps 6 through 11.
6. **Type A only:** When using 2-ply roll paper, pull out the roll paper to the bottom front of the printer as a guide.



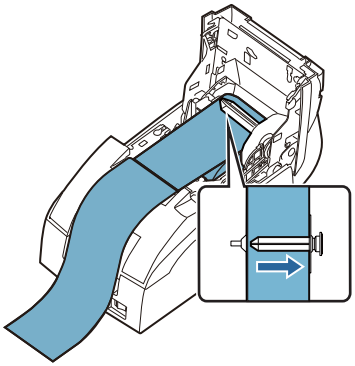
7. Close the unit.



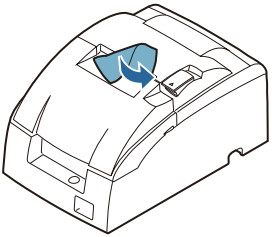
8. Insert the end of the bottom paper (journal paper) into the paper take-up spool.



9. Insert the paper take-up spool in the printer. Be sure that the paper is aligned with the spool's flange.



10. Feed the paper with the (FEED) button so that the paper is taken up by the spool.
11. Close the roll paper cover and tear off the roll paper with the manual cutter.



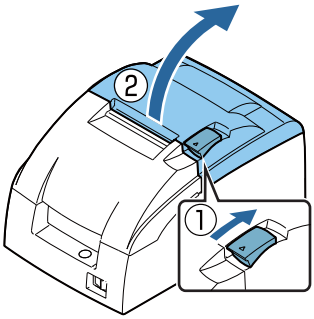
Note:

Do not open the roll paper cover during printing or paper feeding.

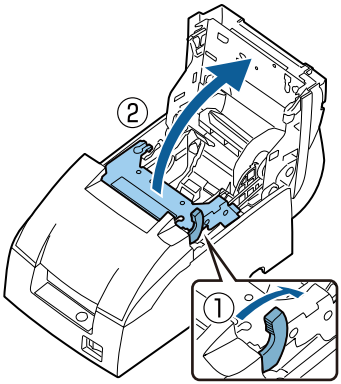
When using the printer, be sure to cut the roll paper with the manual cutter after paper feeding is complete.

Replacing Roll Paper

1. Open the roll paper cover by using the tab.



2. **Types B and D:** Remove the used roll paper core.
3. **Type A only:** Remove the take-up spool, and open the unit by using the unit open lever; then remove the used roll paper core.



4. Insert new roll paper. See the section “Inserting Roll Paper”.

Troubleshooting

Printing stops before all the lines are printed or the printer prints the same line repeatedly

If the correct power supply unit is not used, the printer cannot operate correctly. Make sure the correct power supply unit is connected to the printer, referring to the table below:

TM-U220II (types A, B, and D)
"AC adapter,C1", "PS-180" or "PS-190"

No lights on the control panel

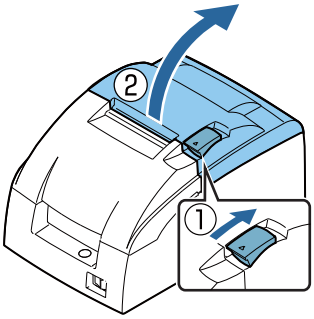
Check the power supply cable connections and the power outlet.

(ERROR) LED is flashing or lit

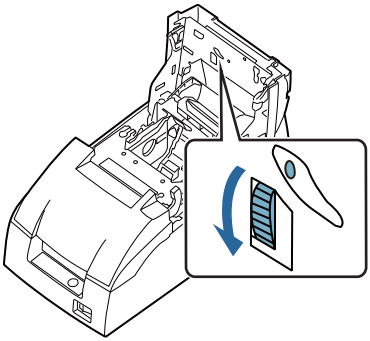
- ❏ The print head temperature may be too high or low. Wait until the print head cools or warms and the printer resumes printing automatically.
- ❏ Make sure that the roll paper cover is properly closed.
- ❏ Types A and B: The autocutter blade is not in the normal position and the autocutter is locked up. If it is a simple lock-up, the error is corrected automatically. If not, see the instructions below to return the blade to the normal position manually.
- ❏ A paper jam has occurred. To remove the jammed paper, see the instructions below.
- ❏ Turn off the power, wait several seconds, and then turn it on again. If the error remains, contact your supervisor or a qualified service person.

Returning the autocutter blade to the normal position

1. Open the roll paper cover by using the tab.



2. Use a ballpoint pen or tweezers to turn the knob of the autocutter in the direction indicated by the arrow until you see a round shaft in the hole.

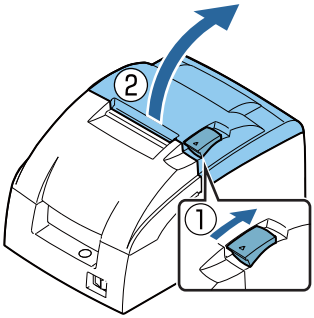


Removing jammed paper

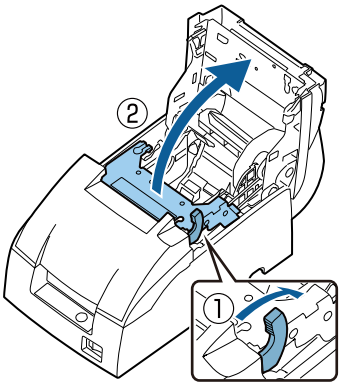
CAUTION:

The print head becomes very hot during printing. Allow it to cool before you reach into the printer.

1. Open the roll paper cover by using the tab.



2. If you have a ***Type A*** printer, remove the take-up spool and open the unit by using the unit open lever.



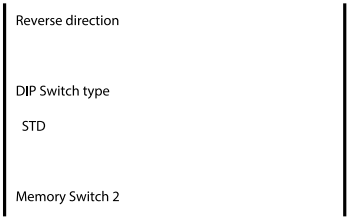
3. Remove the jammed paper.
4. Re-insert the roll paper and close the roll paper cover.

DIP Switch Tables

DIP switch settings vary depending on the model in use.
DIP switch type (US/STD) can be verified by performing a self-test.
Use the following procedure to perform a self-test.

1. Make sure all covers are closed.
2. Press and hold the (FEED) button while turning on the power. (Continue holding the (FEED) button until printing starts.) After the printer status is printed, a self-test continuation guide is printed and the (PAPER OUT) LED blinks.

An example for STD is shown below.



Setup procedure

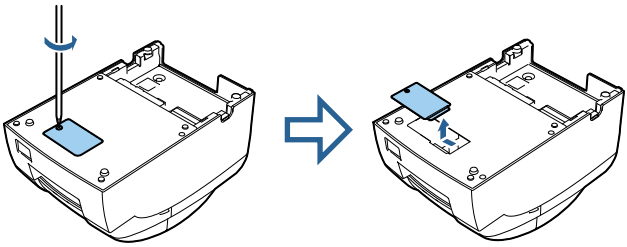
Use the following procedure to change the DIP switch settings.

⚠ CAUTION:

- When removing the DIP switch cover, always turn off the power to the printer, and remove all cables.
  Removing the DIP switch cover with the power on may cause a short circuit, or otherwise damage the printer.
- When opening the DIP switch cover, be sure to close it again after settings are complete.
  Using the product with the cover open may cause fire or electric shock.

1. Check that the power to the printer is turned off.

2. Remove the screw on the bottom of the printer to remove the DIP switch cover.



3. Use an object with a thin tip to set DIP switch settings.
4. Close the DIP switch cover and tighten the screw.

US (for Type A printer)

Serial interface (DIP Switch 1)

SW	Function	On	Off
1	Data receive error	Ignored	Prints "?"
2	Receive buffer capacity	40 bytes	20 KB
3	Handshaking	XON/XOFF	DTR/DSR
4	Word length	7 bits	8 bits
5	Parity check	Yes	No
6	Parity selection	Even	Odd
7	Transmission speed	4800 bps	9600 bps
8	BUSY condition	Receive buffer full	Receive buffer full or Offline

Serial interface (DIP Switch 2)

SW	Function	On	Off
1	Print column	42/35	40/33
2	For internal use only (autocutter)	Enabled	Disabled
3	Pin 6 reset signal	Used	Not used
4	Pin 25 reset signal	Used	Not used
5	Undefined	-	-
6	For internal use only (flash memory rewriting)	Enabled	Disabled
7	Undefined	-	-
8	Serial interface selection	Memory switch	DIP switch

Other interfaces (DIP Switch 1)

SW	Function	On	Off
1	Auto line feed	Enabled	Disabled
2	Receive buffer capacity	40 bytes	20 KB
3–7	Undefined	-	-
8	BUSY condition	Receive buffer full	Receive buffer full or Offline

Other interfaces (DIP Switch 2)

SW	Function	On	Off
1	Print column selection	42/35	40/33
2	For internal use only (autocutter)	Enabled	Disabled
3	Undefined	-	-
4	Wired LAN, parallel: pin 31 reset signal	Used	Not used
	USB-B: Undefined	-	-
5	Undefined	-	-
6	For internal use only (flash memory rewriting)	Enabled	Disabled
7	Undefined	-	-
8	Undefined	-	-

US (for Type B and Type D printer)

Serial interface (DIP Switch 1)

SW	Function	On	Off
1	Printing mode	Right side up printing mode	Normal printing mode
2	Receive buffer capacity	40 bytes	20 KB
3	Handshaking	XON/XOFF	DTR/DSR
4	Word length	7 bits	8 bits
5	Parity check	Yes	No
6	Parity selection	Even	Odd
7	Transmission speed	4800 bps	9600 bps
8	BUSY condition	Receive buffer full	Receive buffer full or Offline

Serial interface (DIP Switch 2)

SW	Function	On	Off
1	Print column	42/35	40/33
2	For internal use only (autocutter)	Enabled	Disabled
3	Pin 6 reset signal	Used	Not used
4	Pin 25 reset signal	Used	Not used
5	Undefined	-	-
6	For internal use only (flash memory rewriting)	Enabled	Disabled
7	Undefined	-	-
8	Serial interface selection	Memory switch	DIP switch

Other interfaces (DIP Switch 1)

SW	Function	On	Off
1	Printing mode	Right side up printing mode	Normal printing mode
2	Receive buffer capacity	40 bytes	20 KB
3–7	Undefined	-	-
8	BUSY condition	Receive buffer full	Receive buffer full or Offline

Other interfaces (DIP Switch 2)

SW	Function	On	Off
1	Print column selection	42/35	40/33
2	For internal use only (autocutter)	Enabled	Disabled
3	Undefined	-	-
4	Wired LAN, parallel: pin 31 reset signal	Used	Not used
	USB-B: Undefined	-	-
5	Undefined	-	-
6	For internal use only (flash memory rewriting)	Enabled	Disabled
7	Undefined	-	-
8	Undefined	-	-

*: If you set DIP Switch 1-1 to On (Right side up printing mode), make sure to set DIP Switch 1-2 to Off (Receive buffer capacity: 20 KB).

STD

Serial interface (DIP Switch 1)

SW	Function	On	Off
1	Data receive error	Ignored	Prints "?"
2	Receive buffer capacity	40 bytes	20 KB/4 KB
3	Handshaking	XON/XOFF	DTR/DSR
4	Word length	7 bits	8 bits
5	Parity check	Yes	No
6	Parity selection	Even	Odd
7	Transmission speed	4800 bps	9600 bps
8	BUSY condition	Receive buffer full	Receive buffer full or Offline

Serial interface (DIP Switch 2)

SW	Function	On	Off
1	Print column	42/35	40/33
2	For internal use only (autocutter)	Enabled	Disabled
3	Undefined	-	-
	South Asia font/Simplified Chinese font (South Asia font Model)	Simplified Chinese font	Thai font/ Vietnam font
4	Serial interface selection	Memory switch	DIP switch
5	Undefined	-	-
6	For internal use only (flash memory rewriting)	Enabled	Disabled
7	Pin 6 reset signal	Used	Not used
8	Pin 25 reset signal	Used	Not used

Other interfaces (DIP Switch 1)

SW	Function	On	Off
1	Auto line feed	Enabled	Disabled
2	Receive buffer capacity	40 bytes	20 KB/4 KB
3–7	Undefined	-	-
8	BUSY condition	Receive buffer full	Receive buffer full or Offline

Other interfaces (DIP Switch 2)

SW	Function	On	Off
1	Print column selection	42/35	40/33
2	For internal use only (autocutter)	Enabled	Disabled
3	Undefined	-	-
	South Asia font/Simplified Chinese font (South Asia font Model)	Simplified Chinese font	Thai font/ Vietnam font
4–5	Undefined	-	-
6	For internal use only (flash memory rewriting)	Enabled	Disabled
7	Undefined	-	-
8	Wired LAN, parallel: pin 31 reset signal	Used	Not used
	USB-B: Undefined	-	-

Note:

- *Notes on the wired LAN interface*
  Do not change "Pin 31 reset signal" to a setting other than "Used". Doing so will cause the printer to stop working.
- *Notes on the receive buffer capacity*
  Depending on the model, the receive buffer capacity is 4 KB instead of 20 KB.

TM-U220II Specifications

Printing method		9-pin serial impact dot matrix method
Paper	**Dimensions (mm)**	57.5±0.5, 69.5±0.5, 76±0.5
	Normal paper (mm)	Thickness: 0.06–0.085 (1 sheet)
	Pressure-sensitive paper	Thickness: 0.05–0.08 (1 sheet), total thickness must be 0.14 mm or less. Number of copies: Original 1 sheet + one copy sheet
Ribbon cassettes		ERC-38 (B) Black life: 3,000,000 characters ERC-38 (B/R) Black/Red life: Black 1,500,000/Red 750,000 characters Life based on continuous printing at 25°C {77°F}
Interface[*1]	**USB-B**	USB 2.0 Full-speed (12 Mbps)
	Wired LAN	10BASE-T/100BASE-TX
	Serial	RS-232
	Parallel	IEEE1284
Power supply[*2]		24 VDC±7%
Current consumption (at 24 V)		1.3 A
AC power consumption[*3]	**Operating**	24.7 W
	Storage	1.2 W
Cash drawer function		2 drives
Temperature	**Operating**	0–50°C
	Storage	-10–50°C, without paper and ribbon cassette
Humidity	**Operating**	10–90%, must be no condensation
	Storage	10–90%, must be no condensation, without paper and ribbon cassette
Elevation		3,000 m or less
Overall dimensions (mm)		***Type A:*** 160 × 286 × 157.5 (W × D × H) ***Type B:*** 160 × 248 × 138.5 (W × D × H) ***Type D:*** 160 × 248 × 138.5 (W × D × H)
Mass (approx.)		***Type A:*** 2.7 kg ***Type B:*** 2.5 kg ***Type D:*** 2.3 kg

*1: The interface provided varies by model.

*2: Be sure to use a safety-standards-applied power source that meets the following specifications.
Rated output: 24 V/1.3–10.0 A, Maximum output: 240 VA or less

*3: Average power under operating conditions used by Epson. Performance may vary depending on the operating conditions and model in use.