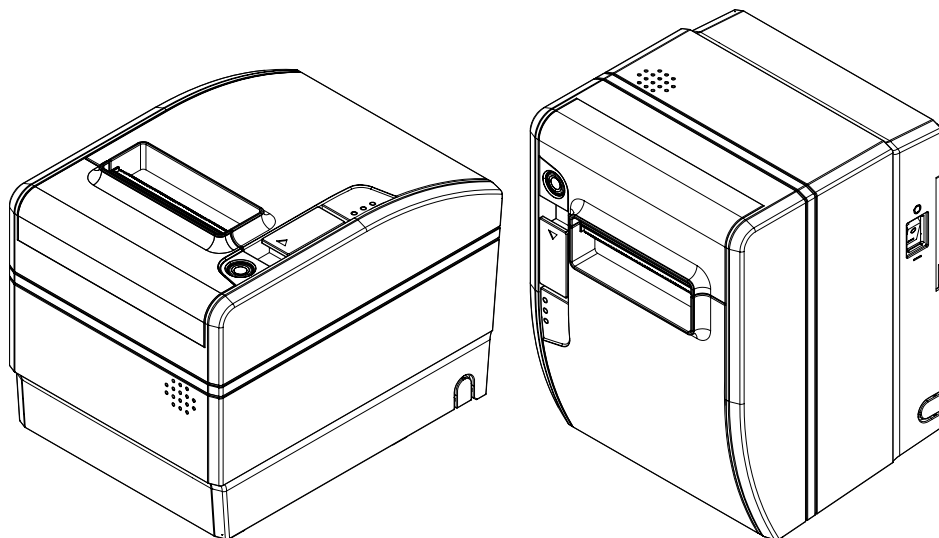




User's Manual **SRP-S300**

Thermal Printer
Rev. 1.01



■ Safety Precautions

In using the present appliance, please keep the following safety regulations in order to prevent any hazard or material damage.



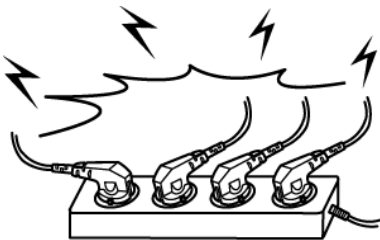
WARNING

Violating following instructions can cause serious injury or death.

Do not plug several products in one multi-outlet.

- This can provoke over-heating and a fire.
- If the plug is wet or dirty, dry or wipe it before usage.
- If the plug does not fit perfectly with the outlet, do not plug in.
- Be sure to use only standardized multi-outlets.

PROHIBITED



You must use only the supplied adapter.

- It is dangerous to use other adapters.

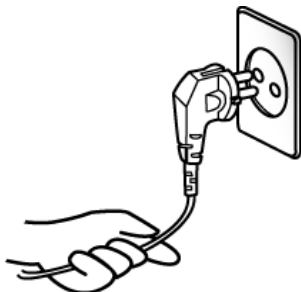
PROHIBITED



Do not pull the cable to unplug.

- This can damage the cable, which is the origin of a fire or a breakdown of the printer.

PROHIBITED



Keep the plastic bag out of children's reach.

- If not, a child may put the bag on his head.

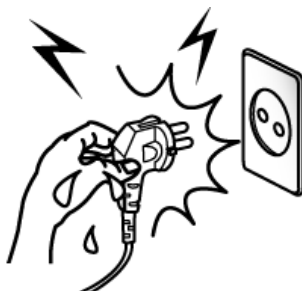
PROHIBITED



Do not plug in or unplug with your hands wet.

- You can be electrocuted.

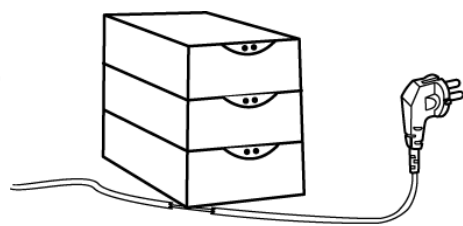
PROHIBITED



Do not bend the cable by force or leave it under any heavy object.

- A damaged cable can cause a fire.

PROHIBITED





CAUTION

Violating following instructions can cause slight wound or damage the appliance.

If you observe a strange smoke, odor or noise from the printer, unplug it before taking following measures.

- Switch off the printer and unplug the set from the mains.
- After the disappearance of the smoke, call your dealer to repair it.

TO UNPLUG



Keep the desiccant out of children's reach.

- If not, they may eat it.

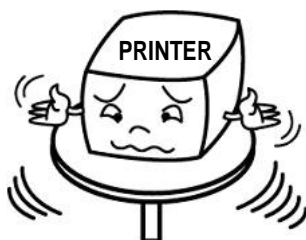
PROHIBITED



Install the printer on the stable surface.

- If the printer falls down, it can be broken and you can hurt yourself.

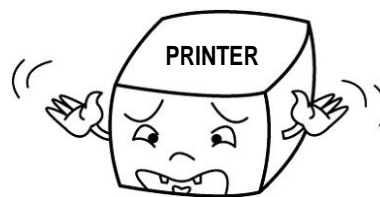
PROHIBITED



Use only approved accessories and do not try to disassemble, repair or remodel it for yourself.

- Call your dealer when you need these services.
- Do not touch the blade of auto cutter.

**DISASSEMBLING
PROHIBITED**



Do not let water or other foreign objects in the printer.

- If this happened, switch off and unplug the printer before calling your dealer.

PROHIBITED



Do not use the printer when it is out of order. This can cause a fire or an electrocution.

- Switch off and unplug the printer before calling your dealer.

TO UNPLUG



■ Warning - U.S.A

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.

■ Notice - Canada

This Apparatus complies with class “A” limits for radio interference as specified in the Canadian department of communications radio interference regulations.

Get appareil est conforme aux normes class “A” d’interference radio tel que specifier par ministre canadien des communications dans les reglements d’interference radio.

■ Caution

Some semiconductor devices are easily damaged by static electricity. You should turn the printer “OFF”, before you connect or remove the cables on the rear side, in order to guard the printer against the static electricity. If the printer is damaged by the static electricity, you should turn the printer “OFF”.

■ Waste Electrical and Electric Equipment(WEEE)



This marking shown on the product or its literature, indicates that is should not be disposed with other household wastes at the end of its working life, To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

■ Rating Label Symbol Information



DC(Direct current)

■ Introduction

The SRP-S300 Roll Printer is designed for use with electronic instruments such as system ECR, POS, banking equipment, computer peripheral equipment, etc.

The main features of the printer are as follows:

1. Print at a max. speed of 170mm/s(Sticky, Re-stick,Linerless Extreme), 300mm/s(Receipt).
2. Low noise thermal printing.
3. Support of USB(built-in type), Ethernet, Serial, Parallel, Powered USB, Wireless LAN, and Bluetooth interfaces.
4. Internal data buffer(data can be received and buffered while printing).
5. Control of external devices like cash registers through peripheral device drive circuit.
6. Barcode Printing.
7. Support of various print density settings(by changing memory switch settings).

It is advisable to read the contents of this manual carefully before using the printer for the first time.

※ **Note**

The socket-outlet shall be near the equipment and it shall be easy accessible.

※ **All specifications are subjected to change without notice.**

This equipment is indoor use and all the communication wiring are limited to inside of the building.

We at BIXOLON maintain ongoing efforts to enhance and upgrade the functions and quality of all our products. In following, product specifications and/or user manual content may be changed without prior notice.

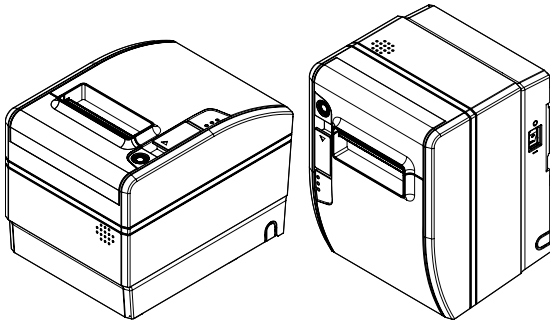
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1. Setting Up the Printer

1-1 Unpacking

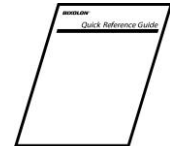
Your printer box should include these items. If any items are damaged or missing, please contact your dealer for assistance.



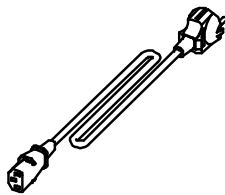
SRP-S300



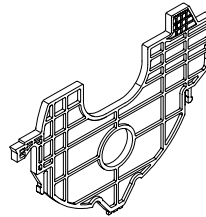
CD



Installation Guide



Power cord



Partition 2ea

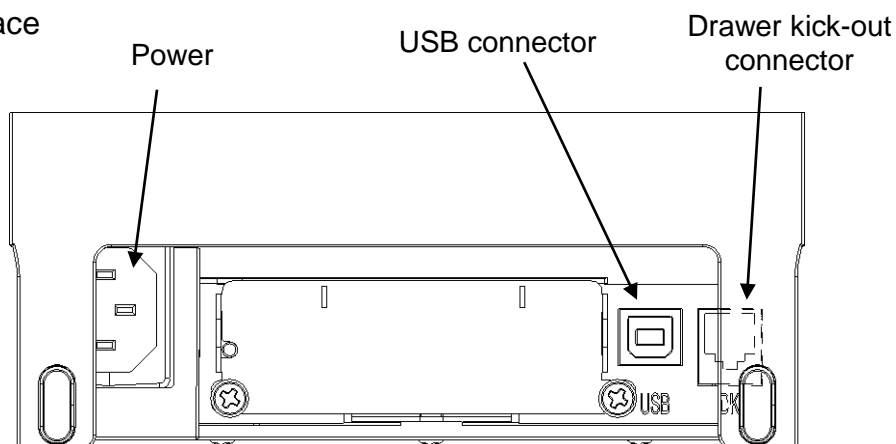
1-2 Connecting the Cables

Connect the printer to the host computer using the right interface cable that complies with the specifications of the interface. The drawer to be used with the printer should meet the specifications of the printer.

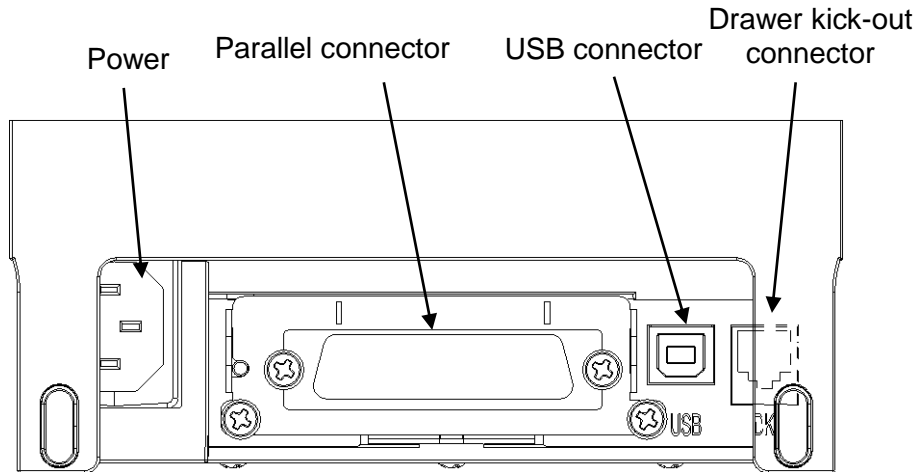
※ Caution

Before connecting any of the cables, make sure that both the printer and the host are turned off.

1-2-1 USB Interface

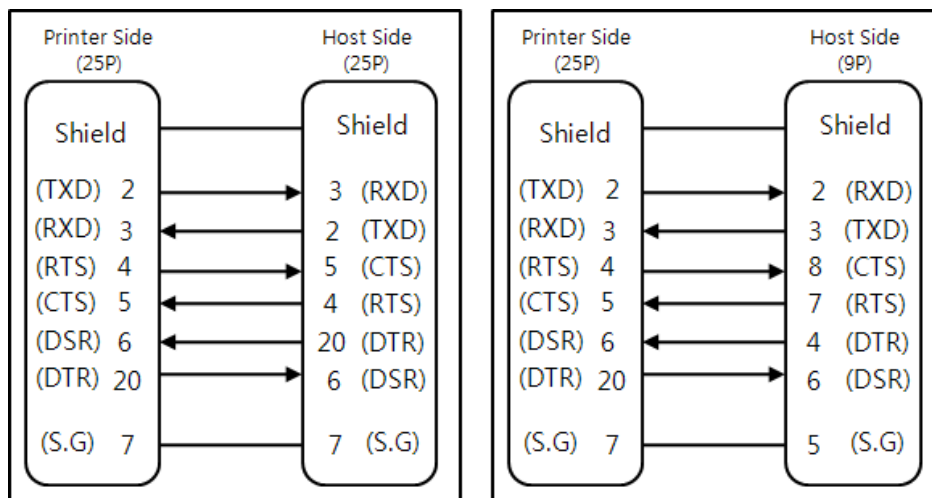
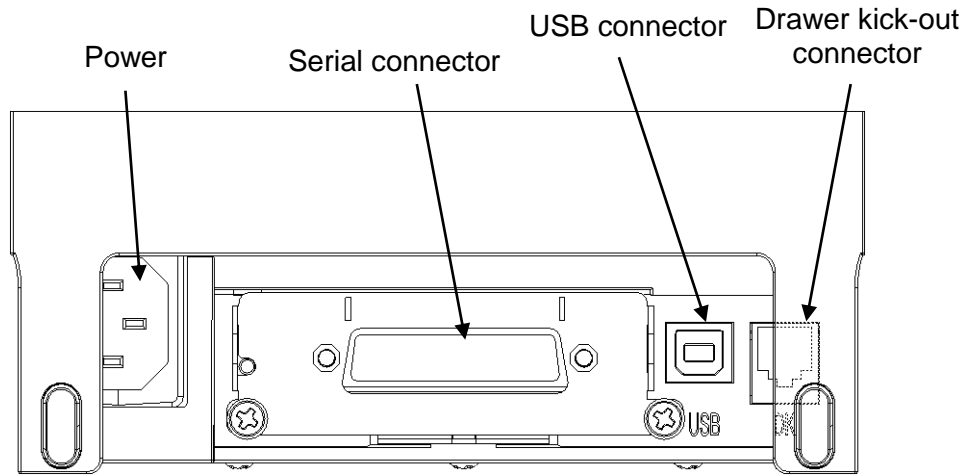


Pin No.	Signal Name	Designation(Color)	Function
Shell	Shield	Drain Cable	Frame Ground
1	VBUS	Red	Host Power: DC5[V] / 500[mA]
2	D-	White	Differential Data Line(D-)
3	D+	Green	Differential Data Line(D+)
4	GND	Black	Signal Ground

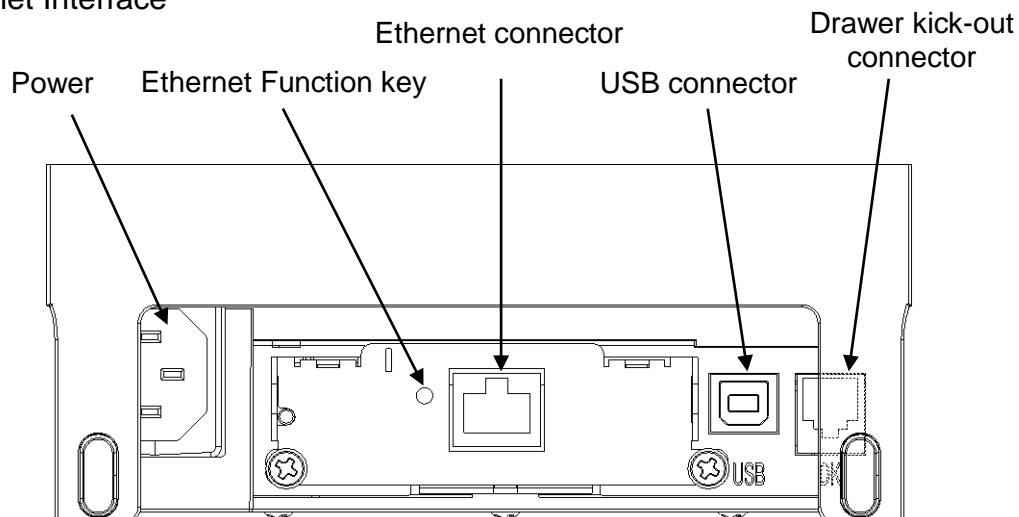
1-2-2 Parallel Interface(IEEE1284)

Pin No.	Source	Compatibility Mode	Nibble Mode	Byte Mode
1	Host	nStrobe	HostClk	HostClk
2	Host / Printer	Data 0(LSB)	-	Data 0(LSB)
3	Host / Printer	Data 1	-	Data 1
4	Host / Printer	Data 2	-	Data 2
5	Host / Printer	Data 3	-	Data 3
6	Host / Printer	Data 4	-	Data 4
7	Host / Printer	Data 5	-	Data 5
8	Host / Printer	Data 6	-	Data 6
9	Host / Printer	Data 7(MSB)	-	Data 7(MSB)
10	Printer	nACK	PtrClk	PtrClk
11	Printer	Busy	PtrBusy / Data3,7	PtrBusy
12	Printer	Perror	AckDataReq / Data2,6	AckDataReq
13	Printer	Select	Xflag / Data1,5	Xflag
14	Host	nAutoFd	HostBusy	HostBusy
15	-	NC	NC	NC
16	-	GND	GND	GND
17	-	FG	FG	FG
18	Printer	Logic-H	Logic-H	Logic-H
19~30	-	GND	GND	GND
31	Host	nInit	nInit	nInit
32	Printer	nFault	nDataAvail / Data0,4	nDataAvail
33	-	GND	ND	ND
34	Printer	DK_Status	ND	ND
35	Printer	+5V	ND	ND
36	Host	nSelectIn	1284-Active	1284-Active

1-2-3 Serial Interface(RS232)



Pin No.	Signal Name	Direction	Function
FG	FG	-	Frame Ground
2	TxD	Output	Transmit Data
3	RxD	Input	Receive Data
4	RTS	Output	Ready To Send
5	CTS	Input	Clear To Send
6	DSR	Input	Data Set Ready
7	SG	-	Signal Ground
20	DTR	Output	Data Terminal Ready

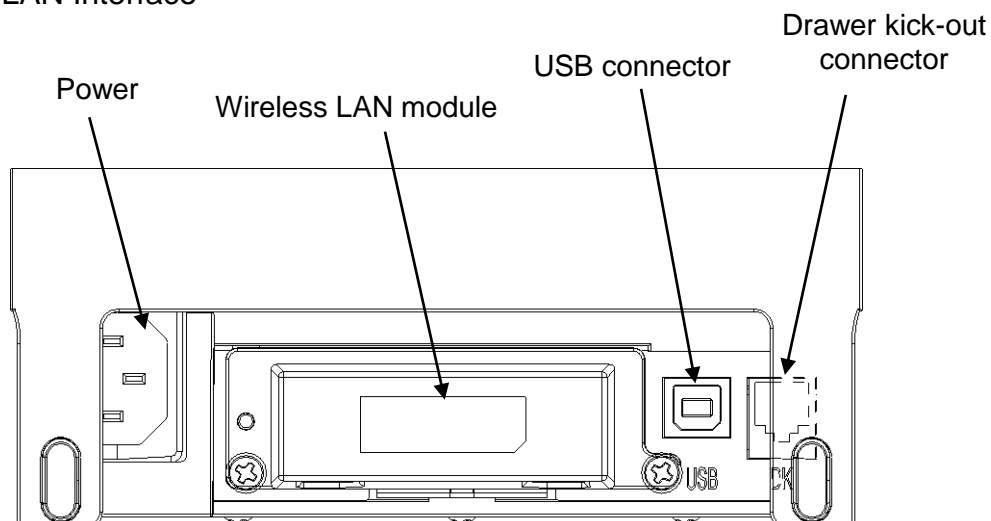
1-2-4 Ethernet Interface

Pin No.	Signal Name	Designation(Color)	Function
1	TD+	White Orange	Transmit +
2	TD-	Orange	Transmit -
3	TCT	White Green	Receive +
4	NC	Blue	-
5	NC	White Blue	-
6	RCT	Green	Receive -
7	RD+	White Brown	-
8	RD-	Brown	-

* If you push the function key, IP and MAC information can be obtained.

* Refer to the Network User Manual that is available from the BIXOLON website for more detailed information.

1-2-5 Wireless LAN Interface



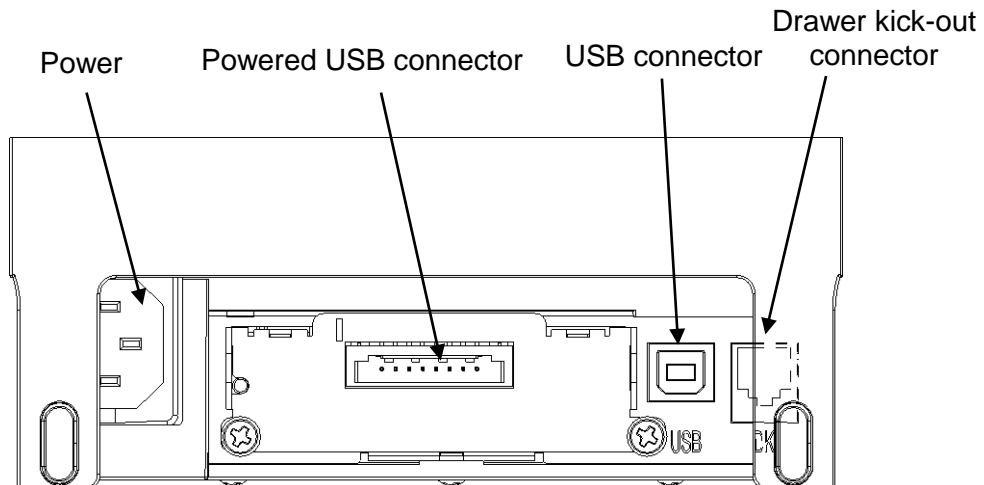
1-2-5-1 Wireless LAN Communication Specifications

Item	Specifications
Frequency	2.412~2.484 GHz
Channel	Channel 1~13
Protocol	802.11b, 802.11g, 802.11n

1-2-5-2 Connecting Wireless LAN

Printer can be connected to terminal devices with wireless LAN communication capability (PDA, PC, smartphone, tablet PC, etc.).

* Refer to the Wireless LAN Connection Manual for more detailed instructions about how to establish the connection.

1-2-6 Powered USB Interface

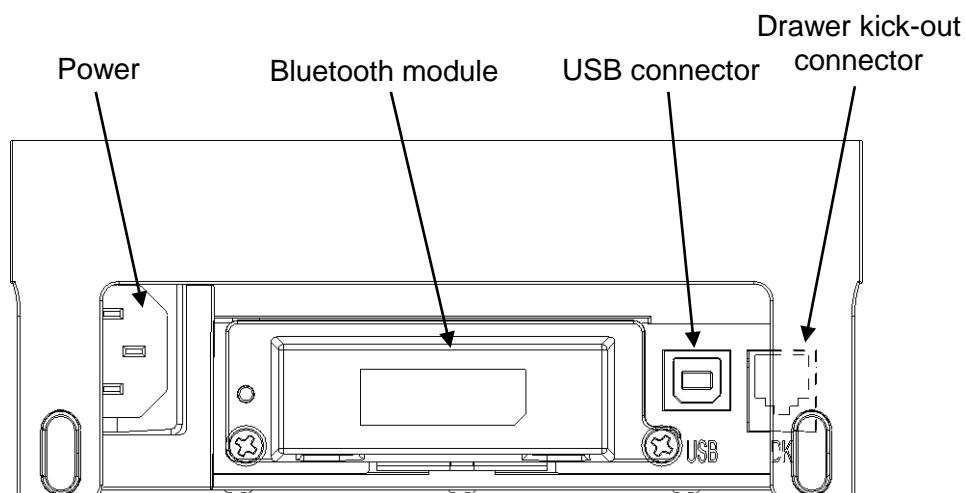
Pin No.	Signal Name	Function
Shield	Shield	Prevent Noise
1	PGND	Main Power Ground
2	VPP24V	Main Power
3	GND	Signal ground
4	D+	Data Line(D+)
5	D-	Data Line(D-)
6	VBUS	Host Power
7	VPP24V	Main Power
8	PGND	Main Power Ground

* Refer to www.poweredusb.org for detailed information related to the specifications of cable and connector.

* Do not apply power when using Powered USB.(Powered USB uses its own power.)

* In case of using Powered USB interface, the other USB interface provided by default is not useful. (In this case, USB communication is only available through the Powered USB)

1-2-7 Bluetooth Interface



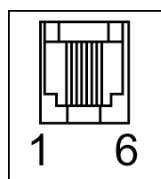
1-2-7-1 Bluetooth Communication Specifications

Item	Specifications
Frequency	2.402 ~ 2.480 GHz
Version	4.2 2.1 + EDR
Module Type	Class 1

1-2-7-2 Bluetooth Connection

Printer can be connected to terminal devices with Bluetooth communication capability (PDA, PC, smartphone, tablet PC, etc.)

* Refer to the Bluetooth Connection Manual for more detailed instructions about how to establish the connection.

1-3 Drawer Cable

Connect the cash drawer connecting cable to the cash drawer connector located in the back of the printer.

※ Warning

Use a cash drawer that meets the printer specifications.

Using an improper cash drawer may cause faults in the cash drawer and the printer.

Make sure to use a cash drawer with an internal coil resistance of 24 Ω (Ohm) or higher. (The maximum current is 1A.)

The open signal time for the cash drawer should not exceed 0.8 seconds. After opening the cash drawer, make sure to idle for at least 3.2 seconds(at least 4 times that of the open signal time) before operating it.

Do not connect to a communication connector such as telephone line or modem as it can damage the project.

※ Caution

Do not connect a telephone line to the drawer kick-out connector.

Otherwise, the telephone line and the computer may be damaged.

Pin No.	Signal Name	Direction
1	Frame Ground	-
2	Drawer Kick-out Drive Signal 1	Output
3	Drawer Open/Close Signal	Input
4	+24V	-
5	Drawer Kick-out Drive Signal 2	Output
6	Signal Ground	-

1-4 Setting the Dip Switches**1-4-1 DIP Switch 1**

• Serial Interface

SW	Function	ON	OFF	Default
1-1	Auto Line Feed	Enabled	Disabled	OFF
1-2	Flow Control	XON/XOFF	DTR/DSR	OFF
1-3	Data Length	7-bit	8-bit	OFF
1-4	Parity Check	Yes	No	OFF
1-5	Parity Selection	EVEN	ODD	OFF
1-6	Baud Rate(bps)	Refer to the following Table 1		OFF
1-7				ON
1-8				OFF

• Parallel / USB / Ethernet / Wireless LAN / Powered USB Interface

SW	Function	ON	OFF	Default
1-1	Auto Line Feed	Enabled	Disabled	OFF
1-2	Reserved	-	-	OFF
1-3	Reserved	-	-	OFF
1-4	Reserved	-	-	OFF
1-5	Reserved	-	-	OFF
1-6	Reserved	-	-	OFF
1-7	Reserved	-	-	ON
1-8	Reserved	-	-	OFF

• Bluetooth Interface

SW	Function	ON	OFF	Default
1-1	Auto Line Feed	Enabled	Disabled	OFF
1-2	Reserved	-	-	OFF
1-3	SSP Mode	Enabled	Disabled	OFF
1-4	Reserved	-	-	OFF
1-5	Reserved	-	-	OFF
1-6	Reserved	-	-	OFF
1-7	Reserved	-	-	ON
1-8	Reserved	-	-	OFF

• Table 1 – Baud Rate(bps) Selection

Baud Rate	1-6	1-7	1-8	Default
2400	ON	OFF	OFF	9600
4800	ON	OFF	ON	
9600	OFF	ON	OFF	
19200	OFF	OFF	OFF	
38400	OFF	ON	ON	
57600	OFF	OFF	ON	
115200	ON	ON	ON	

1-4-2 DIP Switch 2

• SRP-S300L/T

SW	Function	ON	OFF	Default
2-1	Reserved	-	-	OFF
2-2	Black Mark Sensor	Disabled	Enabled	OFF
2-3	Internal Bell Control	Disabled	Enabled	OFF
2-4	Taken Sensor ^{*1)}	Disabled	Enabled	OFF
2-5	Printing Density	Refer to the following Table 2		OFF
2-6				OFF
2-7				OFF
2-8	Auto External Buzz	Enabled	Disabled	OFF

^{*1)} Dip Switch 2-4 is only valid for Taken Sensing Model (SRP-S300T).

And then both taken sensing and back feeding are disabled when 2-4 is on.

• SRP-S300R

SW	Function	ON	OFF	Default
2-1	Reserved	-	-	OFF
2-2	Near End Sensor Control	Disabled	Enabled	OFF
2-3	Internal Bell Control	Disabled	Enabled	OFF
2-4	Reserved	-	-	OFF
2-5	Printing Density	Refer to the following Table 2		OFF
2-6				OFF
2-7				OFF
2-8	Auto External Buzz	Enabled	Disabled	OFF

• Table 2 – Print Density Selection

Printing Density	2-5	2-6	2-7	기본값
Level 1	OFF	OFF	OFF	- Level 1 is default - Level 6 is darkest
Level 2	ON	OFF	OFF	
Level 3	OFF	ON	OFF	
Level 4	ON	ON	OFF	
Level 5	OFF	OFF	ON	
Level 6	ON	OFF	ON	

※ Print Density

The print density can be set to one of eighteen different levels through virtual memory switches.

Dip Switch		Density			Density Level
		Light		Dark	
Speed	6(High Speed)			3	Level 1
	5			6	Level 2
	4			9	Level 3
	3			12	Level 4
	2			15	Level 5
	1(Low Speed)			18	Level 6

Memory Switch		Density			Density Level
		Light		Dark	
Speed	6(High Speed)	1	2	3	Level 1
	5	4	5	6	Level 2
	4	7	8	9	Level 3
	3	10	11	12	Level 4
	2	13	14	15	Level 5
	1(Low Speed)	16	17	18	Level 6

* Choose Unified Utility or Self-Test mode to set the print density using the VMSM (Virtual Memory Switch Management).

※ Note

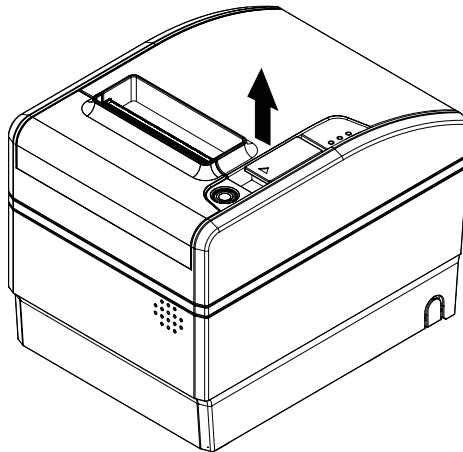
Change in DIP Switch settings are recognized only when the printer power is turned on or when the printer is reset by using the interface. If the DIP Switch setting is changed after the printer power is turned on, the change does not take effect until the printer is turned on again or is reset.

1-5 Installing or Replacing the Paper Roll**※ Caution**

Use the paper rolls in supported sizes only. The printer may not recognize the availability of the paper correctly if the paper roll is stuck to the tube.

1-5-1 Make sure that the printer is in standby mode and that no data is sent before replacing the paper as it can lead to data loss.

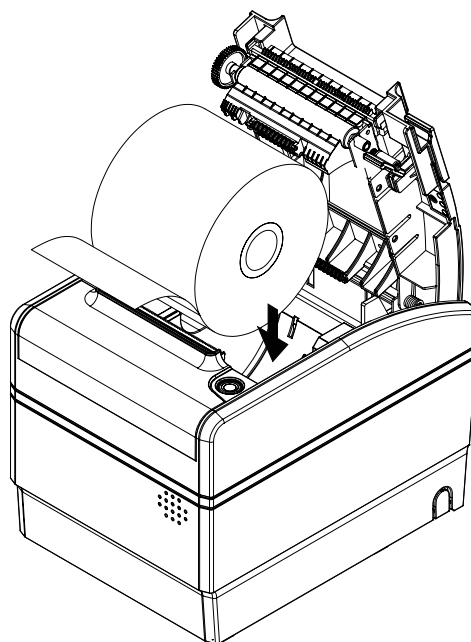
1-5-2 Open the paper roll cover by raise the cover-open lever.

**※ Caution**

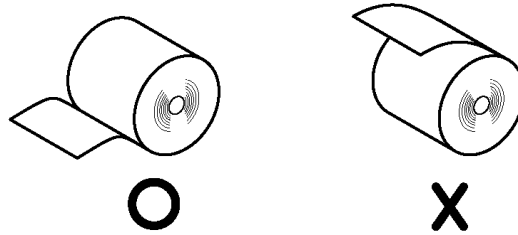
Do not open the print cover while the printer is operating, otherwise the printer may be damaged.

1-5-3 Remove any existing used paper roll core when replacing the paper roll.

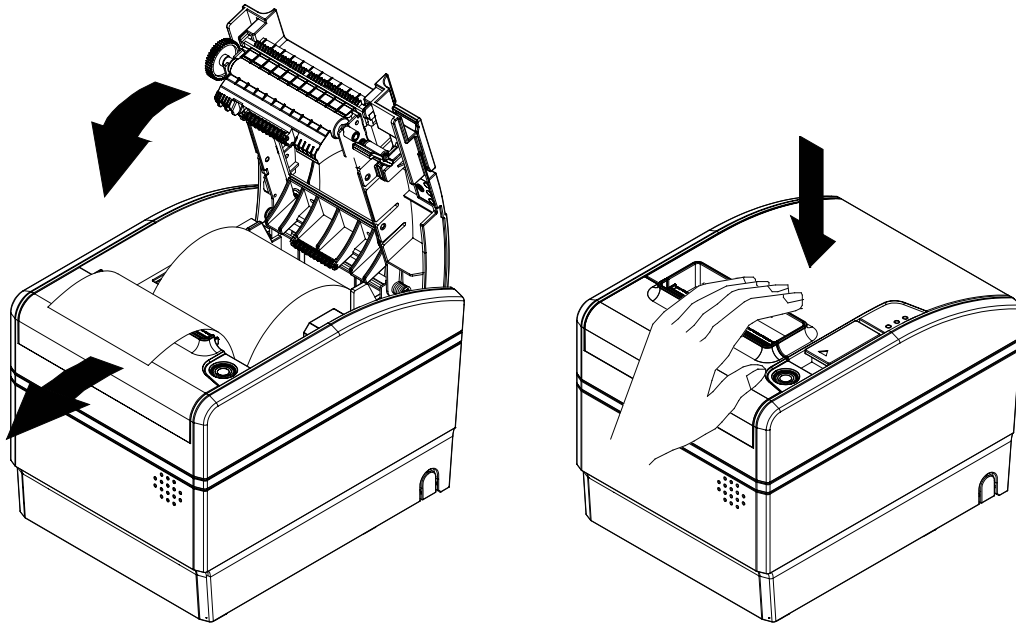
1-5-4 Insert the paper roll as shown in the following picture.



1-5-5 Check the orientation of the roll paper when inserting it into the printer.



1-5-6 Pull out a small amount of paper as shown in the picture, and close the cover.



※ Caution

When closing the cover, hold down the center of printer cover firmly so that paper roll is loaded correctly.

1-5-7 After the paper is rolled about 70mm, it switches to the black mark mode if there is a black mark, otherwise, it is automatically set to the continuous paper mode.

1-5-8 Once the setting is completed, the paper will be cut automatically.

1-6 Recommended Papers

Sticky, Re-stick, Linerless Extreme

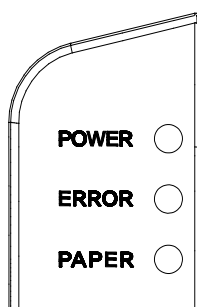
- Iconex Sticky Media(USA):
 Classic: 9023-1253, 9023-1232(80mm), 9023-1823, 9023-1397(58mm),
 9023-1233, 9023-1818(40mm)
 Classic High Tack: 9023-1254(80mm), 9023-1500(58mm), 9023-1258(40mm)
 Classic High Temp: 9023-1267, 9023-1463 (80mm), 9023-1269(40mm)
 Ultralite: 9023-1866(80mm), 9023-1410(58mm), 9023-1865(40mm)
 Classic High Tack Plus: 9023-1846(80mm)
- Iconex Linerless Label(USA)
 Linerless Extreme: 9023-1873, 9023-1708(40mm)
- MAX International Converters, Inc. MAXStick Products Ltd(USA)

Receipt

- TF50KS-E(Paper Thickness: 65µm): Nippon Paper Industries Co., Ltd.
- PD 150R(Paper Thickness: 75µm): New Oji Paper Mfg. Co., Ltd.
- PD 160R(Paper Thickness: 75µm): New Oji Paper Mfg. Co., Ltd.
- P350(Paper Thickness: 62µm): Kansaki Specialty Paper, Inc.(USA)
- P220AG(Paper Thickness: 65µm): Mitsubishi Paper Mills Limited
- P220A(Paper Thickness: 65µm): Mitsubishi Paper Mills Limited
- F5041(Paper Thickness: 65µm): Mitsubishi HitecPaper Flensburg GmbH

※ Caution

Use of papers other than those recommended above may damage TPH or degrade the printing quality and our company is not responsible for the damage caused by non-recommended papers. If you have to use other products, we recommend that you use papers with a similar level of quality to the recommended ones.

1-7 Using the Printer**1-7-1 Control Panel**

☐ **POWER LED**

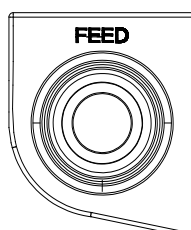
The POWER light is on whenever the printer is on.

☐ **ERROR LED**

This indicates an error.

☐ **PAPER LED**

This light indicates the near end of the paper roll. Install a new paper roll and the printer will continue printing. When the light blinks, it indicates the self-test printing standby state or macro execution Standby state when the macro execution command is used.



☐ **FEED Button**

Press the FEED button once to advance paper one line. You can also hold down the FEED button to feed paper continuously.

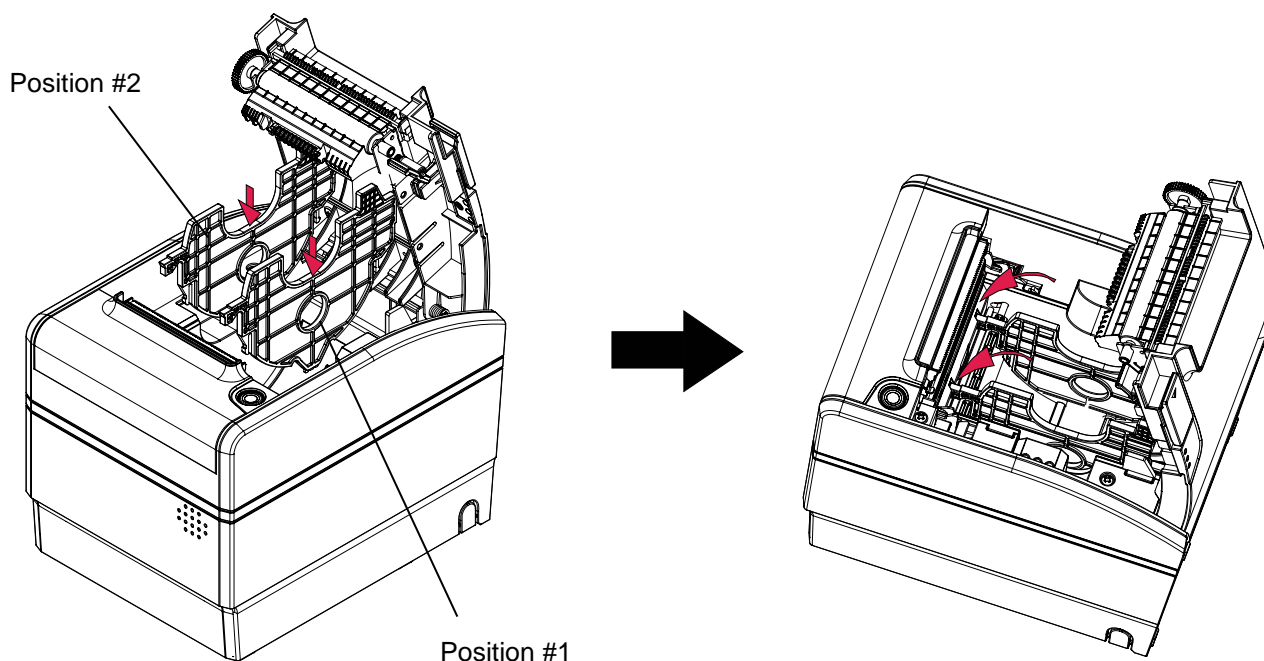
1-7-2 Mounting Partition(40,58,62mm)

Position the partition on the front and back grooves and press the center part to fix it as shown in the picture.

The position to secure the partition varies depending on the type of paper.
(Refer to the picture below.)

1. 58mm (2") roll paper: mount 1 partition at Position #1.
2. 40mm roll paper: mount 2 partitions at Positions #1 and #2.
3. 62mm roll paper: mount 1 partition at Position #2.

※ **The shape of the partition is the same for each type of roll paper.**

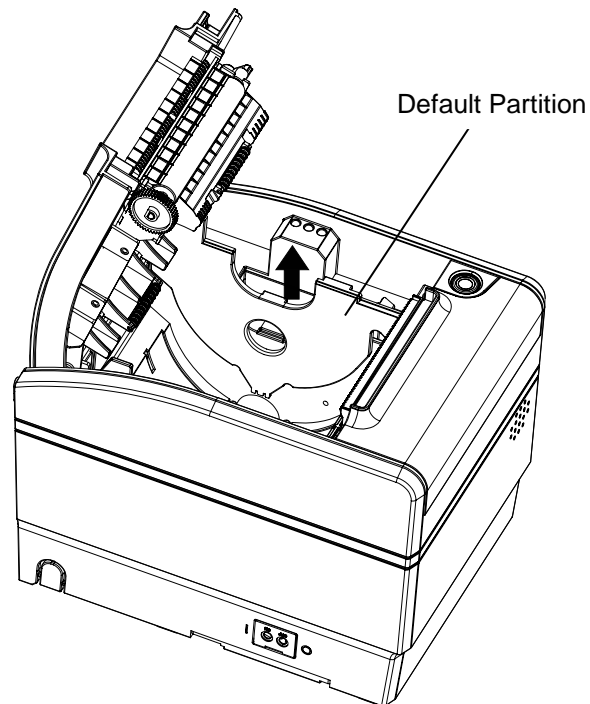


※ **Caution**

After using narrower papers (e.g. 40, 58, 62mm width) than the maximum paper width of 80mm, please do not use any wider ones as it might affect printing quality due to uneven platen roller abrasion.

1-7-3 Using of 83mm Paper Roll

Remove the side-mounted partition when using 83mm roll paper.

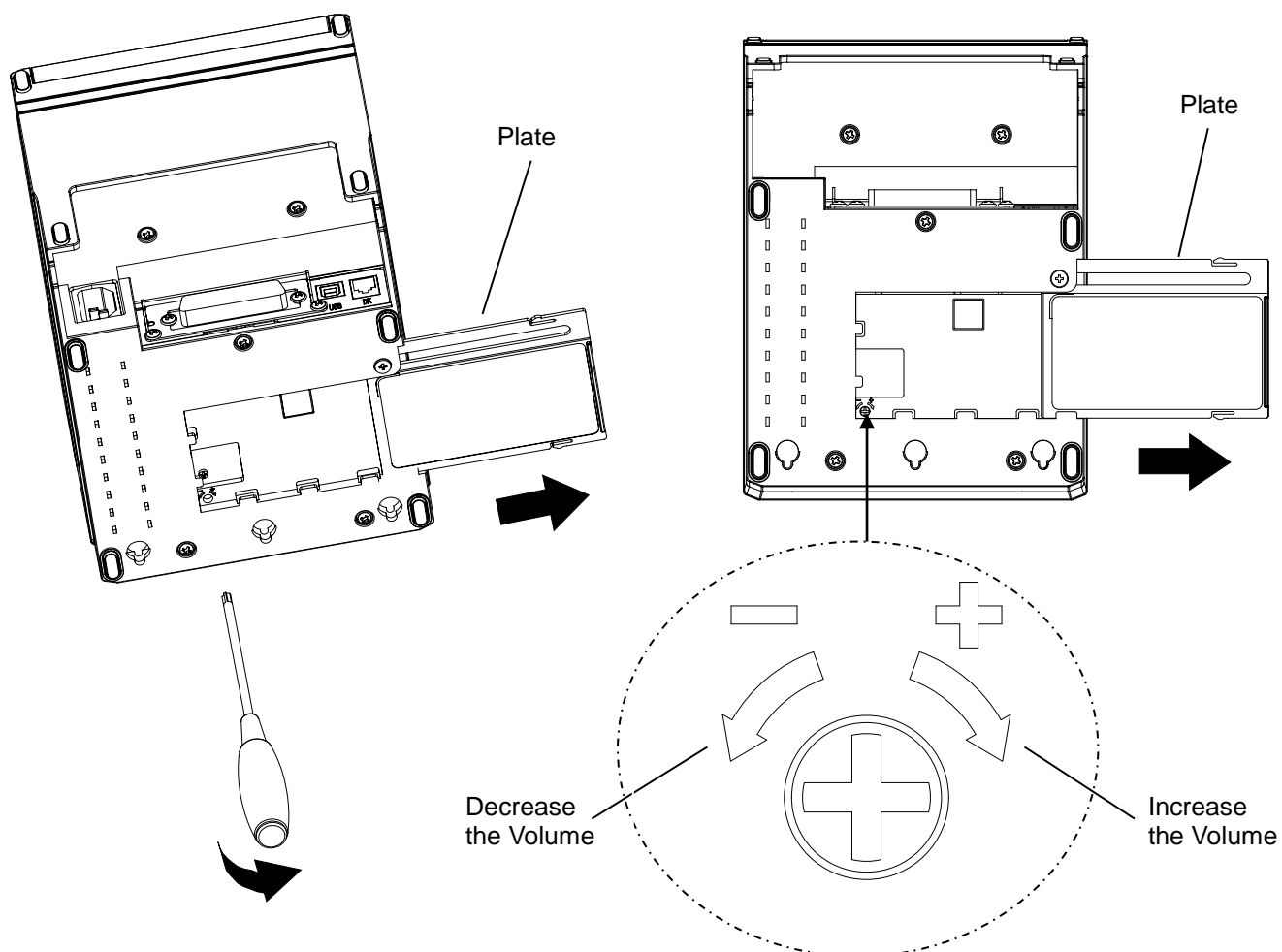
**※ Caution**

The default partition cannot be used in conjunction with the separately packaged partition.

1-8 Setting Volume

Open the plate at the bottom of the printer and use a cross-head screwdriver to adjust the volume.

Then, close the plate.

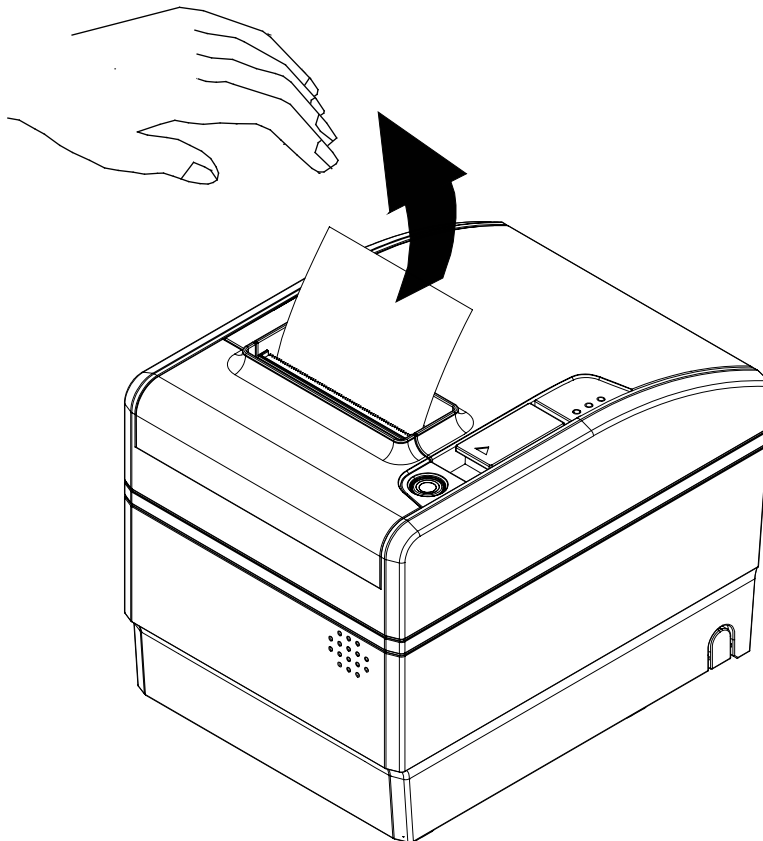
**※ Caution**

To mute the volume, turn it counter-clockwise all the way.

1-9 Using of Taken Sensor Function

When it comes to Taken Sensor, it will detect the paper not to feed next paper before user detach it. This function will be supported by SRP-S300T.

Also, it's available in Partial Cut Mode only but not in Full Cut Mode.

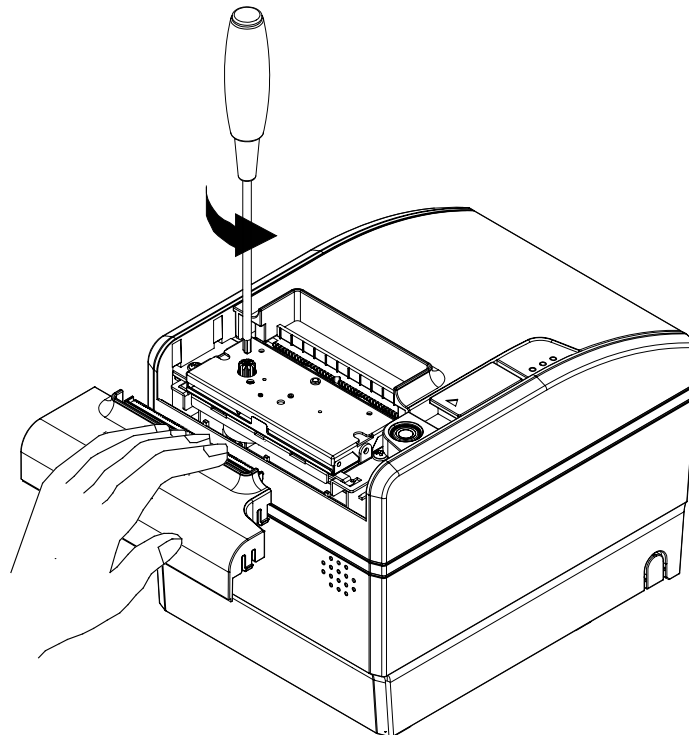


1-10 Removing Paper Jam

1-10-1 When a paper jam occurs, turn the printer OFF and then back ON, open the cover, and remove the jammed paper.

※ In case of a minor jam, it may be possible that the operating blade returns to the original position and cover can be opened simply by turning the printer OFF and then back ON.

Follow the steps shown below if the cover does not open after power cycling.



1-10-2 Turn the printer OFF.

1-10-3 Lift the paper rollout part of the COVER-CUTTER to remove it.

1-10-4 Turn the knob and insert the blade that sticks out using a cross-head screwdriver as shown below.

1-10-5 Lift the cover-open lever and remove the jammed paper. Put the COVER-CUTTER back in place.

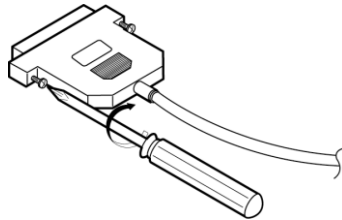
1-10-6 Turn the printer ON and use it.

1-11 Connecting the computer

Use the cable that comes with the printer to connect the printer to computers.

1-11-1 Plug the cable connector securely into the printer's interface connector located in the back of the printer.

1-11-2 Tighten the screws on the cable connector.(Only Serial Interface)



(Serial Cable Sample Image)

1-11-3 Connect the other end of the cable to the COM port of the PC.

1-12 Connecting the Power Supply

※ Caution

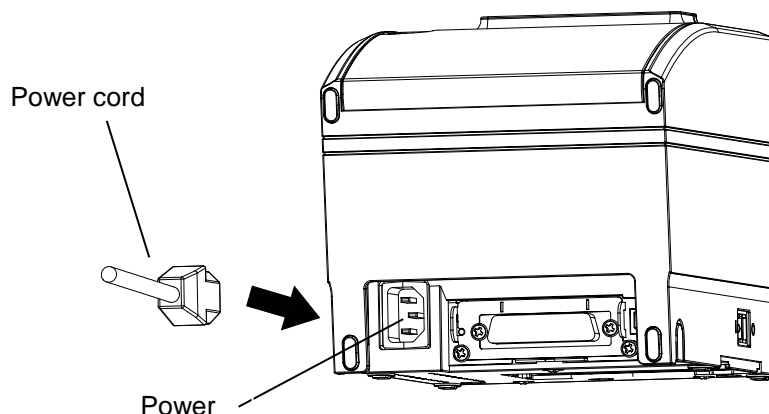
When connecting or disconnecting the power supply from the printer, make sure that the power supply is not plugged into an electrical outlet. Otherwise you may damage the power supply or the printer.

If the power supply's rated voltage and your outlet's voltage do not match, contact your dealer for assistance. Do not plug in the power cord. Otherwise, you may damage the power supply or the printer.

1-12-1 Make sure that the printer's power switch is turned off, and the power supply's power cord is unplugged from the electrical outlet.

1-12-2 Check the label on the power supply to make sure that the voltage required by the power supply matches that of your electrical outlet.

1-12-3 Plug in the power supply's cable as shown below. Notice that the flat side of the plug faces down.



※ Note

To remove the DC cable connector, make sure that the power supply's power cord is unplugged; then grasp the connector at the arrow and pull it straight out.

2. 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 procedure is as follows:

2-1 Check whether the paper is inserted correctly.

2-2 Turn on the printer while depressing the Feed button. Self-diagnostics will begin.

2-3 The printer prints the current status of the printer such as the version of the ROM and DIP switch setting.

2-4 The printer prints the current status and stops after printing the following statement.
(PAPER indicator keeps blinking.)

SELF-TEST PRINTING.
SELECT MODES BY PRESSING FEED BUTTON.
Continuous SELF-TEST : Less than 1 second
VMSM Selection : 1second or more

2-5 Press the FEED button for less than 1 second to perform "**Continuous SELF-TEST**".
Hold down the FEED button for 1 second or longer to perform "**VMSM Selection**".

2-5-1 Self-Test

2-5-1-1 If you press the FEED button for less than 1 second, the printer will print in the preset character type.

2-5-1-2 The self-test completes automatically and cuts the paper after printing the following line.

***** COMPLETED *****

2-5-1-3 The printer goes into standby mode when the self-test is complete.

2-5-2 Virtual Switch Setting Mode

2-5-2-1 When the printer goes into virtual switch-setting mode, the following lines will be printed.

**** VMSM Selection ****
0: Exit and Reboot Printer
1: Print Current Settings
2: Set Print Density
3: Set Print Speed
4: Set Cutting Mode
5: Beep-once Alarm
6: Continuous Alarm
7 Set Black Mark Cut Position ^{*1)}
8or more: None

^{*1)} Sticky, Re-stick, Linerless Extreme Model only

2-5-2-2 Make sure to press the FEED button to perform the above functions.

2-5-2-2-1 Step 1: The number indicates the number of times the FEED button needs to be pressed. Make sure to press it for less than 1 second.

2-5-2-2-2 Step 2: Hold down the FEED button for 1 second or longer to enter the selected item. If there is no selected item in Step 1, select "0: Exit and reboot printer" to exit.

2-5-2-3 When the new settings are applied, hold down the FEED button for 1 second or longer to save the changes. Cut the paper when the following line is printed.
(If "0: Exit and reboot printer" is not performed, the new settings will not be saved.)

***** COMPLETED *****

2-6 The settings will take effect after the printer reboots.

※ Note

You can check whether the printer operates normally or not through self-diagnostics. You can check printing quality, ROM version, and DIP switch settings through self-diagnostics.

3. Hexadecimal Dumping

This function allows experienced users to see exactly what data is coming to the printer. This can be useful in finding software problems. When you turn on the hexadecimal dump function, the printer prints all commands and data in hexadecimal format along with a guide section to help you find specific commands.

To use the hexadecimal dump function, follow these steps.

3-1 After making sure that the printer is off, open the cover.

3-2 Turn the printer on, while holding down the FEED button.

3-3 Close the cover, and then the printer enters the hexadecimal dump mode.

3-4 Select the hexadecimal printing function in the mode selection menu to move to the hexadecimal printing mode.

3-5 Run any software program that sends data to the printer.

The printer will print all the codes it receives in a two-column format.

The first column contains the hexadecimal codes and the second column gives the ASCII characters that correspond to the codes.

```

1B 21 00 1B 26 02 40 40 40 40   . ! . . & . @ @ @ @
02 0D 1B 44 0A 14 1E 28 28 28   . . . D . . . .(((
00 01 0A 41 0D 42 0A 43 43 43   . . . A . B . C C C

```

- A period(.) is printed for each code that has no ASCII equivalent.
- During the hex dump, all commands are disabled.

3-6 When the printing finishes, turn off the printer.

3-7 Turn on the printer and then the hexadecimal mode is off.

4. Specification

Printing Method	Thermal Line Printing	
Dot Density	203 dpi(8 dots/mm)	
Paper Width / Printing Width	83mm	80mm or 72mm
	80mm	72mm
	62mm	60mm
	58mm	48mm
	40mm	32mm
Paper Width	79.5 ±0.5mm, 61.5 ±0.5mm, 57.5 ±0.5mm, 39.5 ±0.5mm, 82.5 +1,-0.5mm	
Characters Per Line(Default)	48(Font A), 64(Font B), 64(Font C) ※ For 80mm Roll Paper	
Printing Speed	Sticky, Re-stick, Linerless Extreme: Max. 170mm/sec Receipt: Max. 300mm/sec	
Receive Buffer Size	4Kbytes	
※ Note Printing speed may become slightly slower depending on the data transmission speed and the combination of commands.		
Supply Voltage	SMPS Input Voltage	100~240 VAC
	Frequency	50/60 Hz
	SMPS Output Voltage	+24 VDC/2.5A
Environmental Conditions	Temperature	0 ~ 40 °C (Operating) -20 ~ 60 °C (Storage)
	Humidity	10 ~ 80 % RH(Operating) 10 ~ 90 % RH(Storage) ; Excluding papers
Life Span *)	Printer Head	Sticky, Re-stick, Linerless Extreme: 75km Receipt: 150km
	Auto Cutter	Sticky,Re-stick: 1,000,000 cuts Receipt: 3,000,000 cuts

*) The specifications were determined based on operation at normal temperature using designated paper on default settings. They are subject to change depending on temperature or printing level.

*) The specifications were tested according to standard reliability.

5. Appendix

5-1 Cleaning Printer

Paper dust inside the printer may lower the print quality. In this case clean the printer as follows:

It is recommended to clean after every 30 rolls when using Sticky, Re-stick, Linerless Extreme paper.

5-1-1 Open the printer cover and remove any paper.

5-1-2 Use a cloth soaked in alcohol solvent or Cleaning Card (Pen) to clean the printer head and roller.

5-1-3 Wipe the paper sensor with a cotton swab or dry cloth.

5-1-4 Clean the Auto Cutter using a cloth soaked in alcohol solvent or Cleaning Card (Pen).

5-1-5 Insert a paper roll and close the printer cover.