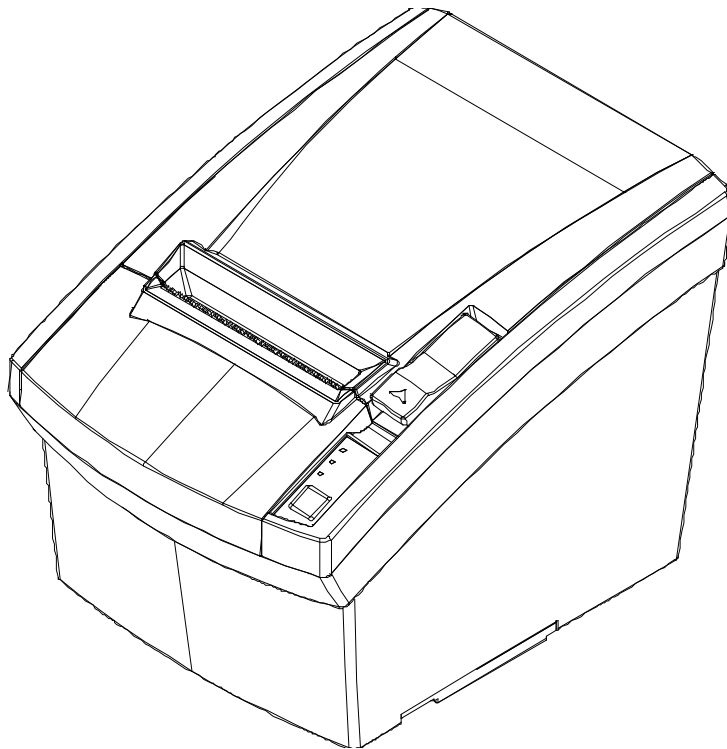


BIXOLON®

User's Manual
SRP-330II/332II

Thermal Printer
Rev. 1.02



<http://www.bixolon.com>

■ Safety Precautions

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



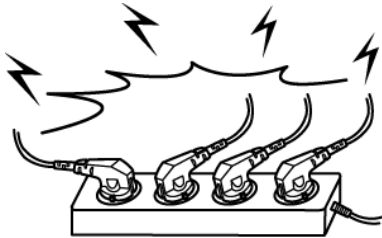
WARNING

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.

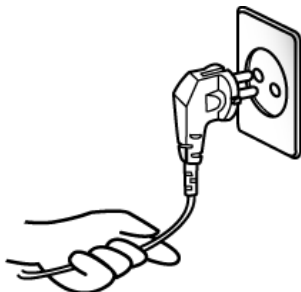
PROHIBITED



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.

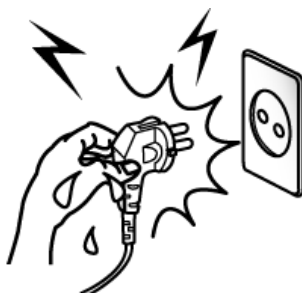
PROHIBITED



Do not plug in or unplug with your hands wet.

- You can be electrocuted.

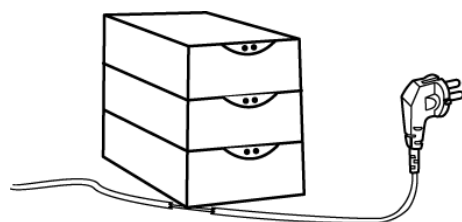
PROHIBITED



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.

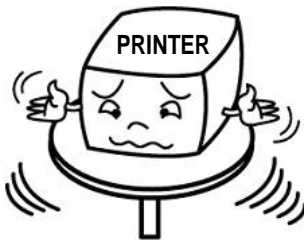
PROHIBITED



Install the printer on the stable surface.

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

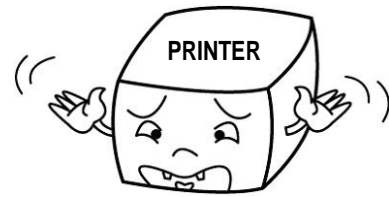
PROHIBITED



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-330II/332II 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 220mm/s.
2. Low noise thermal printing.
3. Support of USB & Serial(SRP-33xIICOS/COSD), USB & Parallel(SRP-33xIICOP), USB & Ethernet & Serial(SRP-33xIICOES)
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.

■ Table of Contents

1. Setting Up the Printer..... 7
1-1 Unpacking 7
1-2 Connecting the Cables 8
 1-2-1 Serial Interface(RS-232C) 8
 1-2-2 Parallel Interface(IEEE1284) 10
 1-2-3 USB Interface 11
 1-2-4 Ethernet Interface 11
1-3 Drawer Cable 12
1-4 Setting the Dip Switches..... 13
 1-4-1 Serial / Dual Serial Interface Settings..... 13
 1-4-2 Parallel / Ethernet / USB Interface Settings..... 13
1-5 Installing or Replacing the Paper Roll 15
1-6 Recommended Papers..... 17
1-7 Using the Printer..... 18
 1-7-1 Control Panel 18
 1-7-2 Mounting 2” Partition 18
1-8 Removing Paper Jam 19
1-9 Connecting the computer 20
1-10 Connecting the Power Supply 20

2. Self Test 21

3. Hexadecimal Dumping 23

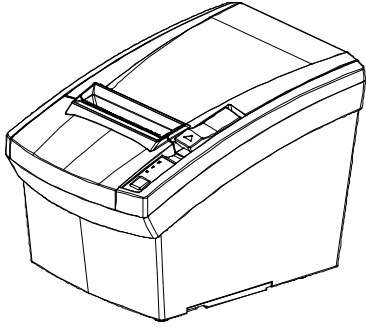
4. Specification 24

5. Appendix 25
5-1 Cleaning Printer..... 25

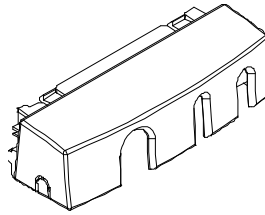
1. Setting Up the Printer

1-1 Unpacking

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



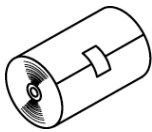
SRP-330II/332II



Cover Cable



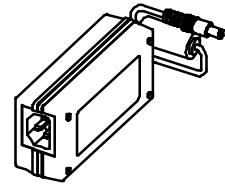
CD



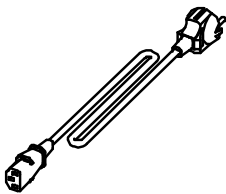
Paper Roll



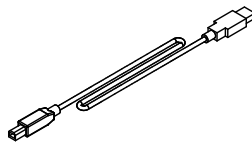
Manual



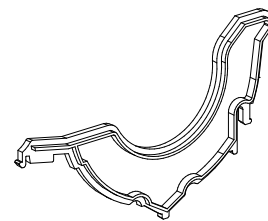
AC/DC Adapter



Power Cord



USB A-B Cable



2" Partition

1-2 Connecting the Cables

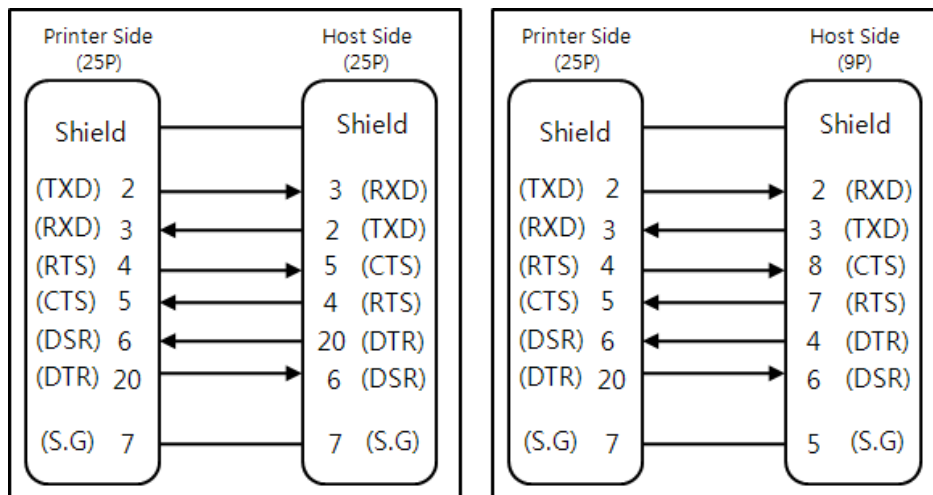
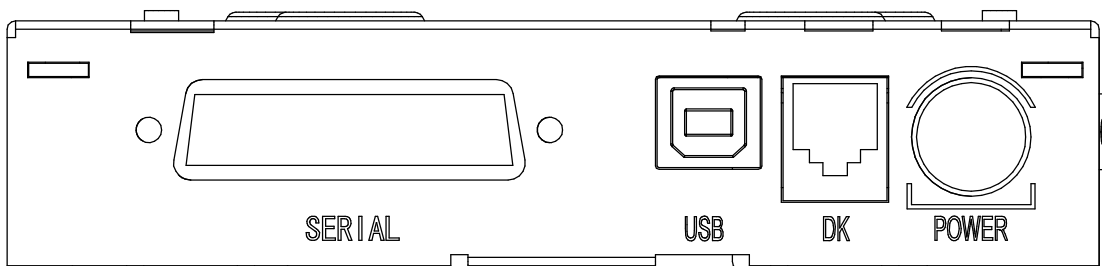
Connect the printer to the host computer using the right interface cable that complies with the specifications of the interface. The drawer to be used with the printer should meet the specifications of the printer.

※ Caution

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

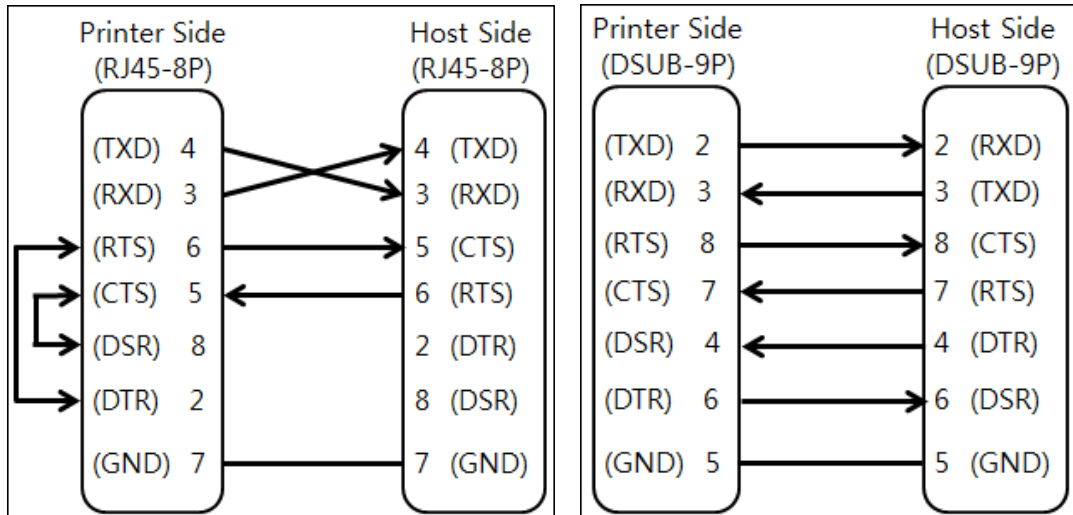
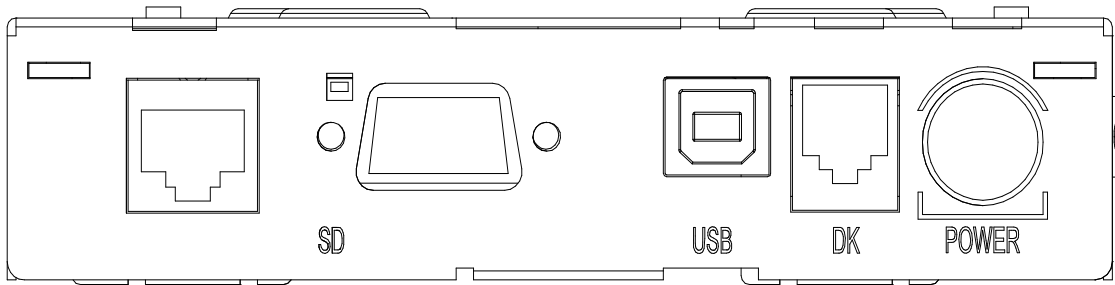
1-2-1 Serial Interface(RS-232C)

1-2-1-1 Single Serial Interface



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

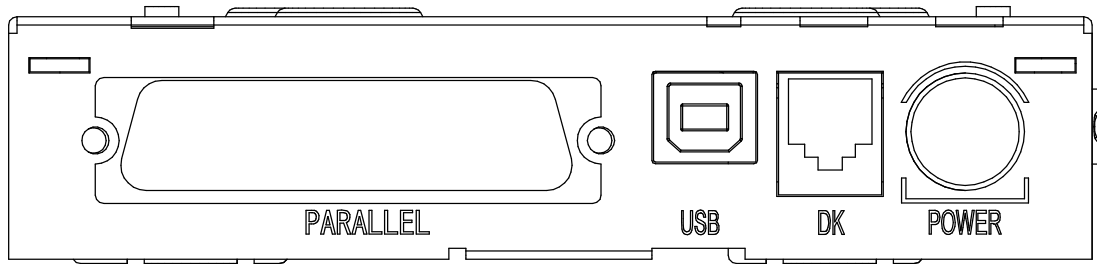
1-2-1-2 Dual Serial Interface



RJ45 Pin No.	DSUB 9P Pin No.	Signal Name	Direction	Function
4	2	TxD	Output	Transmit Data
3	3	RxD	Input	Receive Data
8	4	DSR	Input	Data Set Ready
7	5	GND	-	Signal Ground
2	6	DTR	Output	Data Terminal Ready
5	7	CTS	Input	Clear To Send
6	8	RTS	Output	Ready To Send

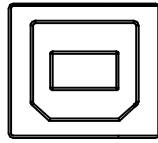
※ Dual Serial RJ45 cable is not provided.

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

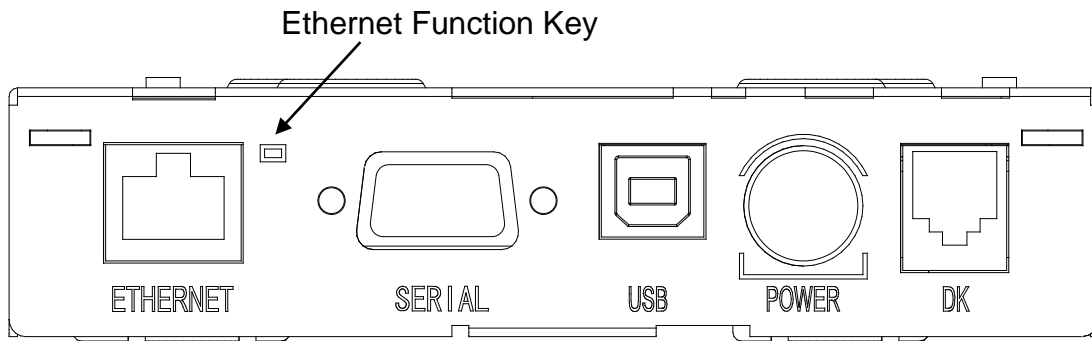
1-2-3 USB Interface



USB connector

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

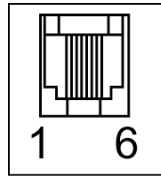
1-2-4 Ethernet Interface



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.

1-3 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 Serial / Dual Serial Interface Settings

- DIP Switch 1

Switch	Function	ON	OFF	Default
1-1	Auto Cutter Control	Disable	Enable	OFF
1-2	Flow Control	XON/XOFF	DTR/DSR	OFF
1-3	Data Length	7 bits	8 bits	OFF
1-4	Parity Check	Yes	No	OFF
1-5	Parity Selection	EVEN	ODD	OFF
1-6	Baud rate Selection(bps)	Refer to the following Table 1		OFF
1-7				ON
1-8				OFF

- Table 1 – Baud rate(bps) Selection

Transmission Speed	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 Parallel / Ethernet / USB Interface Settings

- DIP Switch 1

Switch	Function	ON	OFF	Default
1-1	Auto Cutter Control	Disable	Enable	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

※ Print Density(Virtual Memory Switch)

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

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

* It is recommended to select Unified POS Utility or Self-Test mode to change print density using the virtual memory switch.

※ Attention

The printer must be turned off when changing the DIP switch settings. Failure to turn it off may cause a short circuit and damage the printer.

To change the settings:

- 1) Turn off the printer.
- 2) Open the DIP switch cover located at the back of the printer.
- 3) Set the DIP switch number.
- 4) Close the DIP switch cover after the settings have been completed.
- 5) Position the printer in front and turn it on.

※ Note

Please make sure that the printer is turned off when changing the DIP switch settings. The change is not accepted when the power is on.

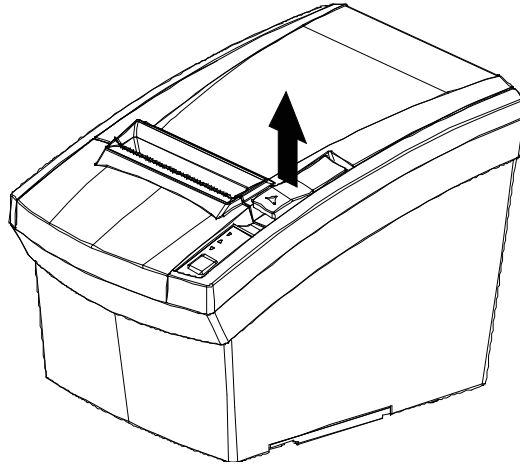
1-5 Installing or Replacing the Paper Roll

※ **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.

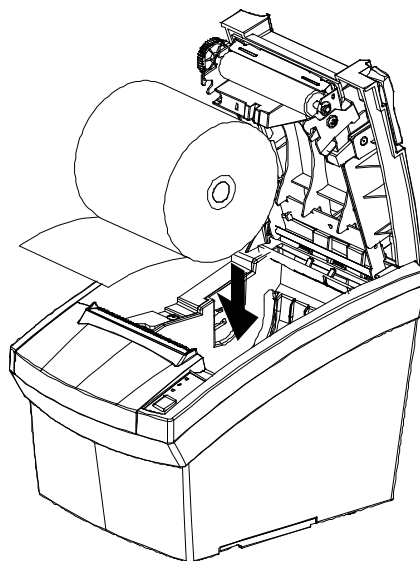


※ **Caution**

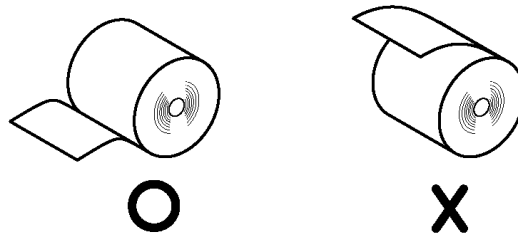
Do not open the print cover while the printer is operating, otherwise the printer may be damaged.

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

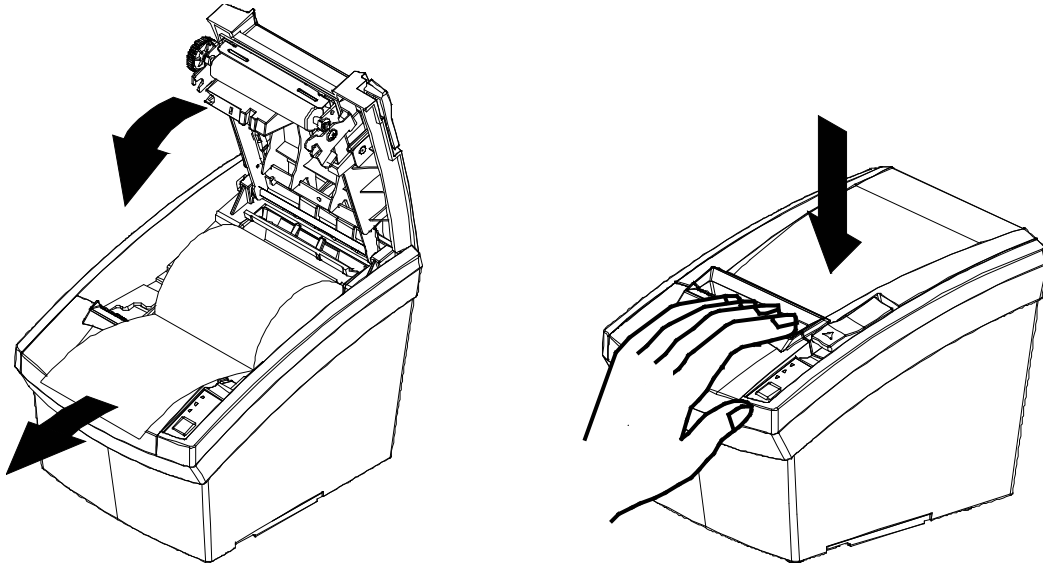
1-5-4 Insert the paper roll as shown in the following picture.



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



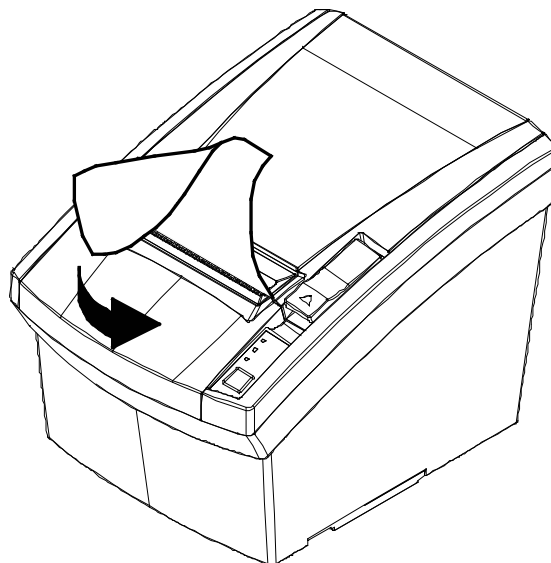
1-5-6 Pull out a small amount of paper as shown in the picture, and close the cover.



※ Caution

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

1-5-7 Cut the paper as shown in the following picture.



1-6 Recommended Papers

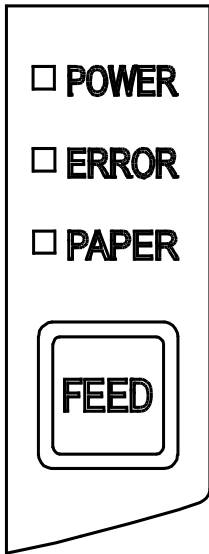
- TF50KS-E (Paper Thickness: 65 μ m): Nippon Paper Industries Co., Ltd.
- PD 150R (Paper Thickness: 75 μ m): New Oji Paper Mfg. Co., Ltd.
- PD 160R (Paper Thickness: 75 μ m): New Oji Paper Mfg. Co., Ltd.
- P350 (Paper Thickness: 62 μ m): Kansaki Specialty Paper, Inc. (USA)
- P220AG (Paper Thickness: 65 μ m): Mitsubishi Paper Mills Limited
- P220A (Paper Thickness: 65 μ m): Mitsubishi Paper Mills Limited
- F5041 (Paper Thickness: 65 μ m): Mitsubishi HitecPaper Flensburg GmbH
- P5047 (Paper Thickness: 60 μ m): Mitsubishi Paper Mills Limited

※ 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**

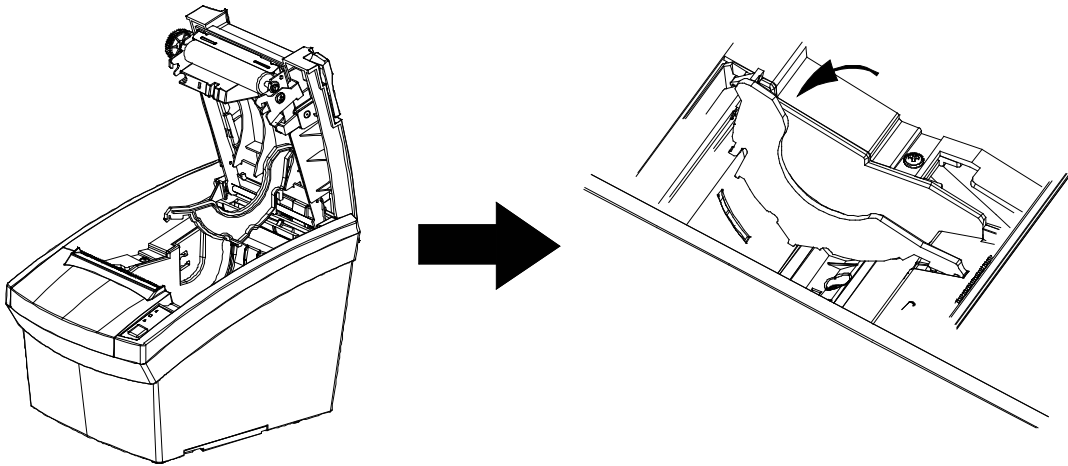
This light indicates the near end of the paper roll. Install a new paper roll and the printer will continue printing. When the light blinks, it indicates the self-test printing standby state or macro execution Standby state when the macro execution command is used.

○ **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 2" Partition

Hang the partition at the front and press down the rear to mount the 2" partition as shown in the picture.



※ **Caution**

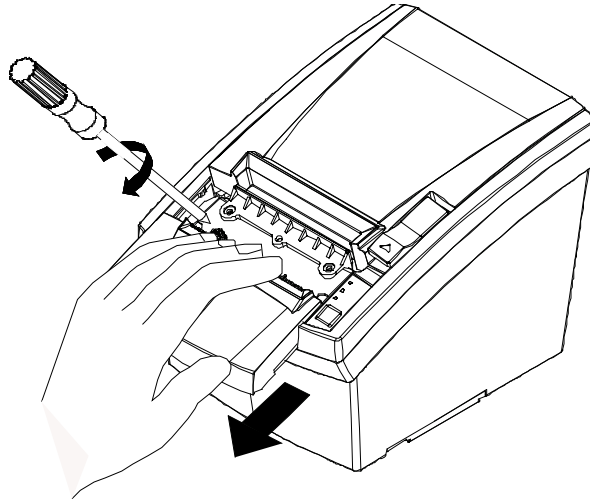
After using 2"(58mm) paper roll, do not replace it with 3"(79.5±0.5mm) paper roll. This may result in poor printing quality.

1-8 Removing Paper Jam

1-8-1 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.



1-8-2 Turn the printer OFF.

1-8-3 Pull the COVER-CUTTER down while holding the part which releases the paper as shown in the picture.

1-8-4 Turn the knob and insert the blade that sticks out using a cross-head screwdriver as shown below.

1-8-5 Lift the cover-open lever and remove the jammed paper. Put the COVER-CUTTER back in place.

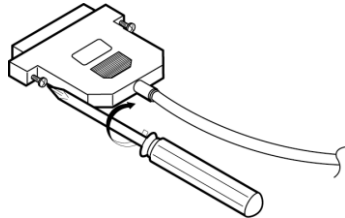
1-8-6 Turn the printer ON and use it.

1-9 Connecting the computer

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

1-9-1 Plug the cable connector securely into the printer's interface connector located in the back of the printer.

1-9-2 Tighten the screws on the cable connector.(Only Serial Interface)



(Serial Cable Sample Image)

1-9-3 Connect the other end of the cable to the COM port of the PC.

1-10 Connecting the Power Supply

※ Caution

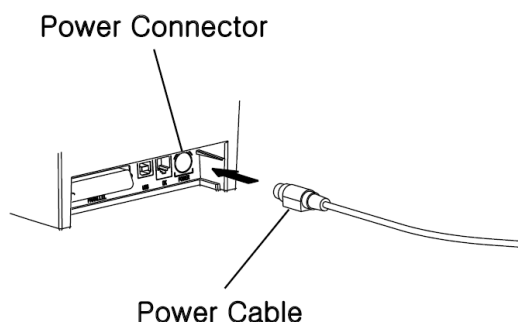
When connecting or disconnecting the power supply to and from the printer, make sure that the power supply adapter is unplugged from the electrical outlet. Otherwise you may damage the power supply or the printer.

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

1-10-1 Make sure that the printer's power switch is turned off, and the power supply's power cord is unplugged from the electrical outlet.

1-10-2 Check the label on the power supply to make sure that the voltage required by the power supply matches that of your electrical outlet.

1-10-3 Plug in the power supply's cable as shown below. Notice that the flat side of the plug faces down.



※ Note

If you want to remove the power cord, grab the arrow part of the connector securely 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: Set External Buzzer after cutting
6: Set Internal Buzzer after cutting
7 or more: None**

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	SRP-330II: 180 dpi(7 dots/mm)	
	SRP-332II: 203 dpi(8 dots/mm)	
Printing Width	3 inches	72 mm
	2 inches	48 mm
Paper Width	79.5±0.5 mm	
Characters Per Line(Default)	SRP-330II: 42(Font A), 56(Font B), 56(Font C)	
	SRP-332II: 48(Font A), 64(Font B), 64(Font C)	
Printing Speed	Max. 220 mm/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	150 km
	Auto Cutter	1,500,000 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. If you want to test the product to determine its life cycle, please contact us for more details and comply with the standard reliability for testing.

5. Appendix

5-1 Cleaning Printer

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

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

5-1-2 Clean the print head with a cotton swab moistened with alcohol solvent.

5-1-3 Clean the paper sensor and paper roller with a cotton swab and a dry cloth.

5-1-4 Insert a paper roll and close the printer cover.