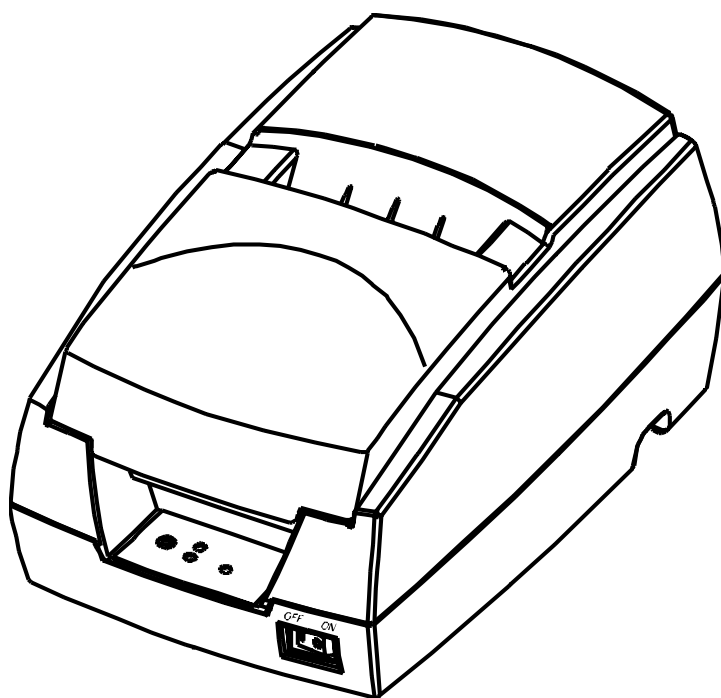


# User's Manual **SRP-280**

---

**Impact Printer**  
**Rev. 1.03**



## ■ Table of Contents

<b>※ Manual Information &amp; Usage Precautions .....</b>	<b>3</b>
<b>1. Content Confirmation .....</b>	<b>7</b>
<b>2. Product Part Names.....</b>	<b>8</b>
<b>3. Installation &amp; Usage.....</b>	<b>9</b>
3-1 Power Connection .....	9
3-2 Interface Cable Connection .....	10
3-3 Cash Drawer Connection.....	11
3-4 Ribbon Cartridge Installation .....	12
3-5 Paper Installation .....	13
3-6 Control Panel Usage.....	15
<b>4. Self-Test.....</b>	<b>16</b>
<b>5. Fine Tuning .....</b>	<b>17</b>
5-1 Dip Switch Adjustment.....	17
5-2 Paper Width Adjustment .....	19
5-3 Paper Jam Removal .....	20
<b>6. Appendix .....</b>	<b>22</b>
6-1 Specifications .....	22
6-2 RS-232C (Serial Interface) Cable Specifications .....	23
6-3 IEEE1284 (Parallel Interface) Cable Specifications .....	24
6-4 USB Interface Cable Specifications .....	25
6-5 Cash Drawer Cable Specifications .....	25
6-6 Certification.....	26
6-7 Label Types .....	26

## ■ Manual Information

This user manual contains basic information for product usage as well as for emergency measures that may be required.

※ The following separate manuals provide more detailed content on various technological issues and areas.

### **1. Windows Driver Manual**

This manual provides information on installation and main functions of the Windows Driver for this product.

### **2. OPOS Driver Manual**

This manual provides information on installation and main functions of the OPOS Driver for this product.

### **3. Control Commands Manual**

This manual provides information on the protocol and functions of the control commands that can be used with this product.

### **4. Code Pages Manual**

This manual provides information on each character code page that can be used with this product.

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.

## ■ Safety Precautions

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



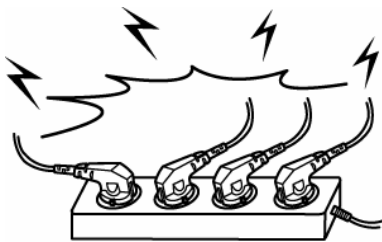
### **WARNING**

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.

PROHIBIT



#### **You must use only the supplied adapter.**

- It is dangerous to use other adapters.

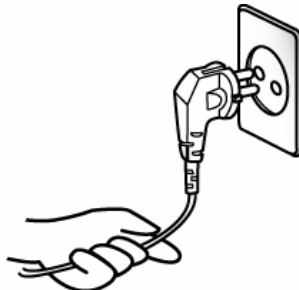
PROHIBIT



#### **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.

PROHIBIT



#### **Keep the plastic bag out of children's reach.**

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

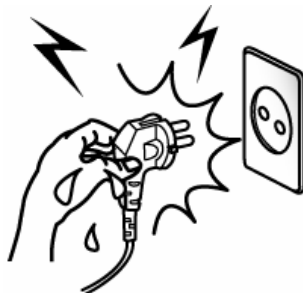
PROHIBIT



#### **Do not plug in or unplug with your hands wet.**

- You can be electrocuted.

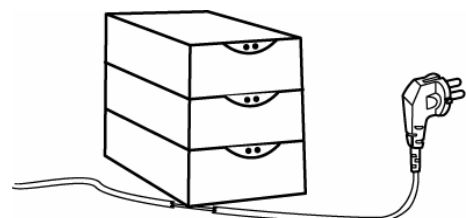
PROHIBIT



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

- A damaged cable can cause a fire.

PROHIBIT





## 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.

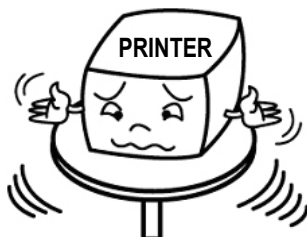
**PROHIBIT**



**Install the printer on the stable surface.**

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

**PROHIBIT**



**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.

**PROHIBIT**



**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**



## ■ Other Precautions

The copyright for this user manual and various other manuals is property of the BIXOLON Co., Ltd. Any copying or conversion into electronic form and saving of this material without the express written permission of BIXOLON Co., Ltd. is strictly prohibited.

Use of the information contained in this manual is not subject to any patent liability. This manual has been prepared with utmost care and attention to detail but may contain certain errors and/or omissions.

BIXOLON Co., Ltd. is not legally liable for any damages resulting from the use of the information in this manual.

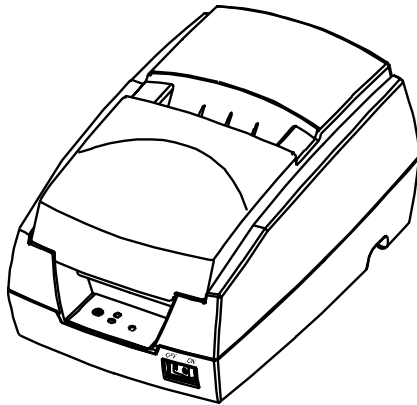
BIXOLON Co., Ltd. and its affiliates are not legally liable (United States excluded) for any damages, loss, costs, and/or expenses that result from the breakdown, malfunction, and/or misuse of the product due to violation or neglect of the operation and maintenance information and instructions provided by the BIXOLON Co., Ltd., as well as from the unauthorized alteration, repair, and/or modification of the product by the user and/or third party.

BIXOLON Co., Ltd. is not legally liable for any damages and/or issues resulting from the use of options and/or parts that are not authentic BIXOLON products or authorized products.

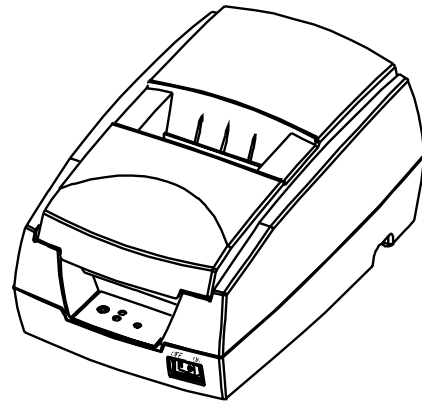
## 1. Content Confirmation

The following items should all be contained in the printer package.

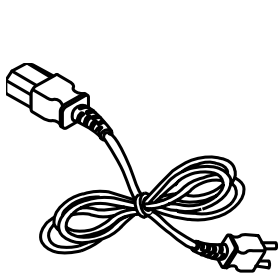
Contact the dealer from which the purchase was made if any item is damaged and/or missing.



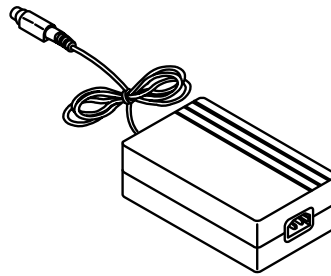
SRP-280C



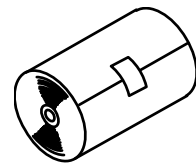
SRP-280A



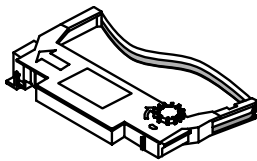
Power Cord



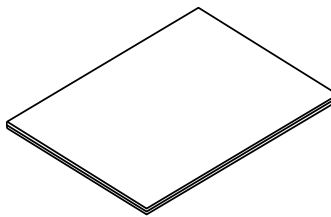
AC Adapter



Paper Roll



Ribbon Cartridge



Installation Guide

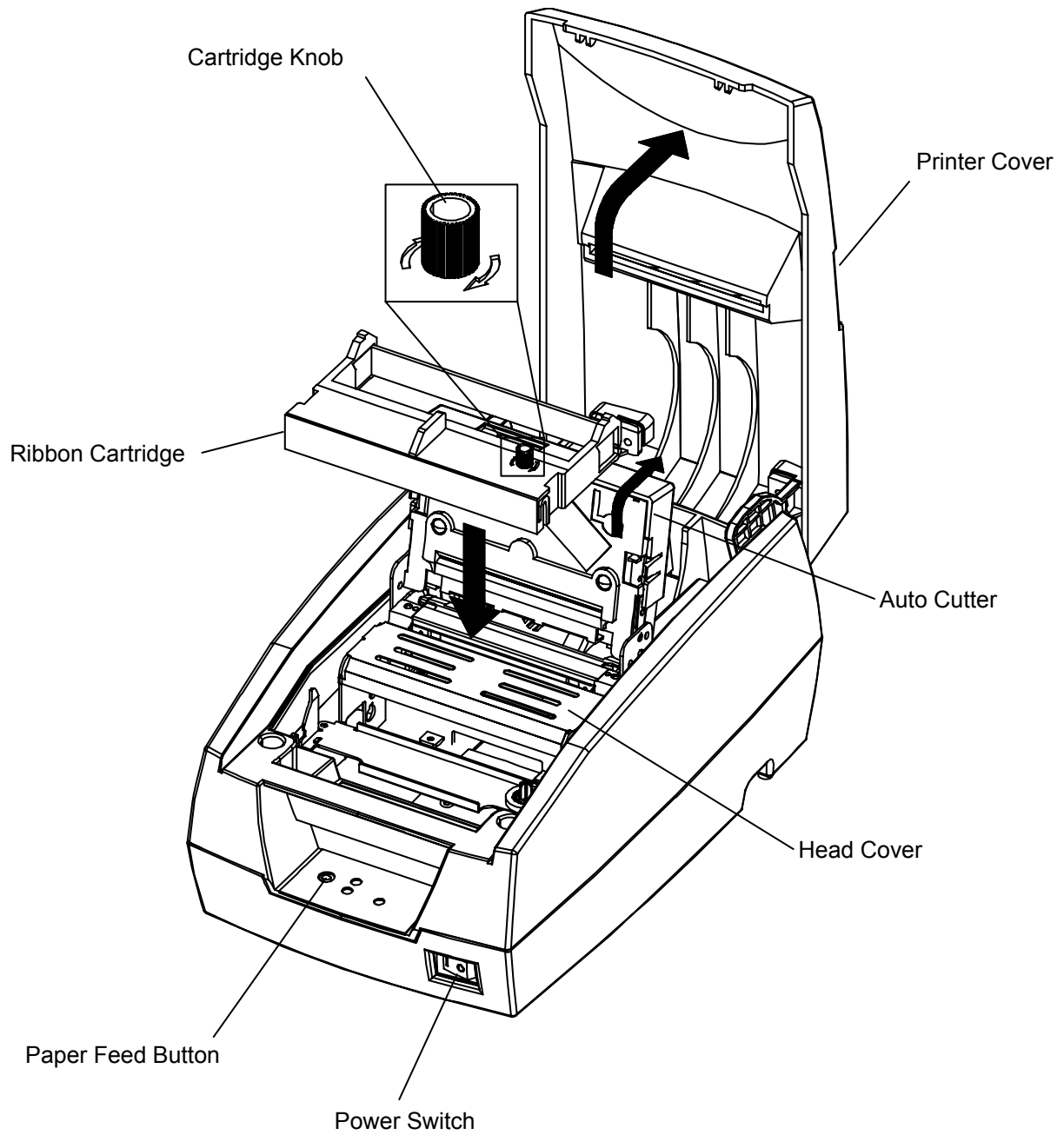


CD



Two-Inch Paper Guide

## **2. Product Part Names**

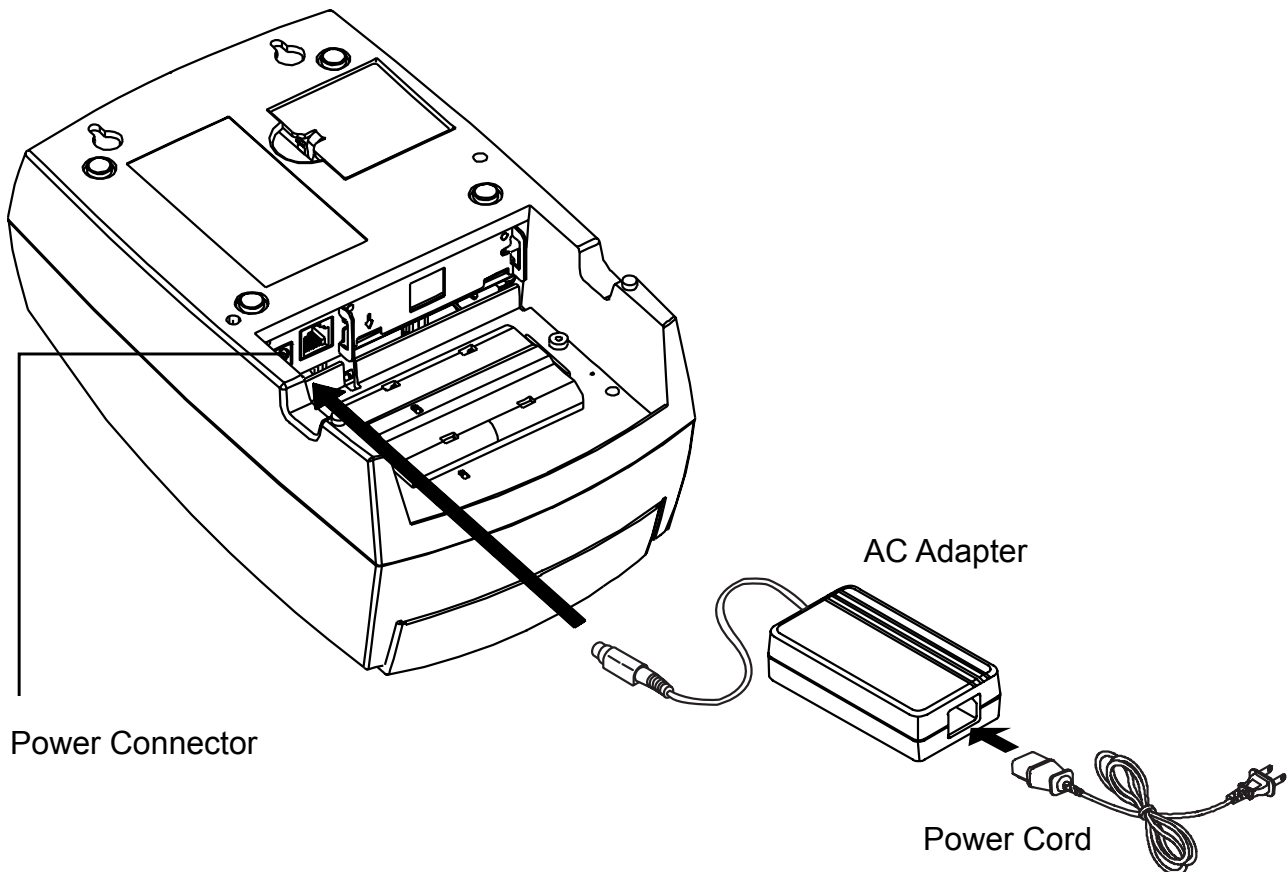




### **3. Installation & Usage**

#### **3-1 Power Connection**

Connect power to the printer as shown below.



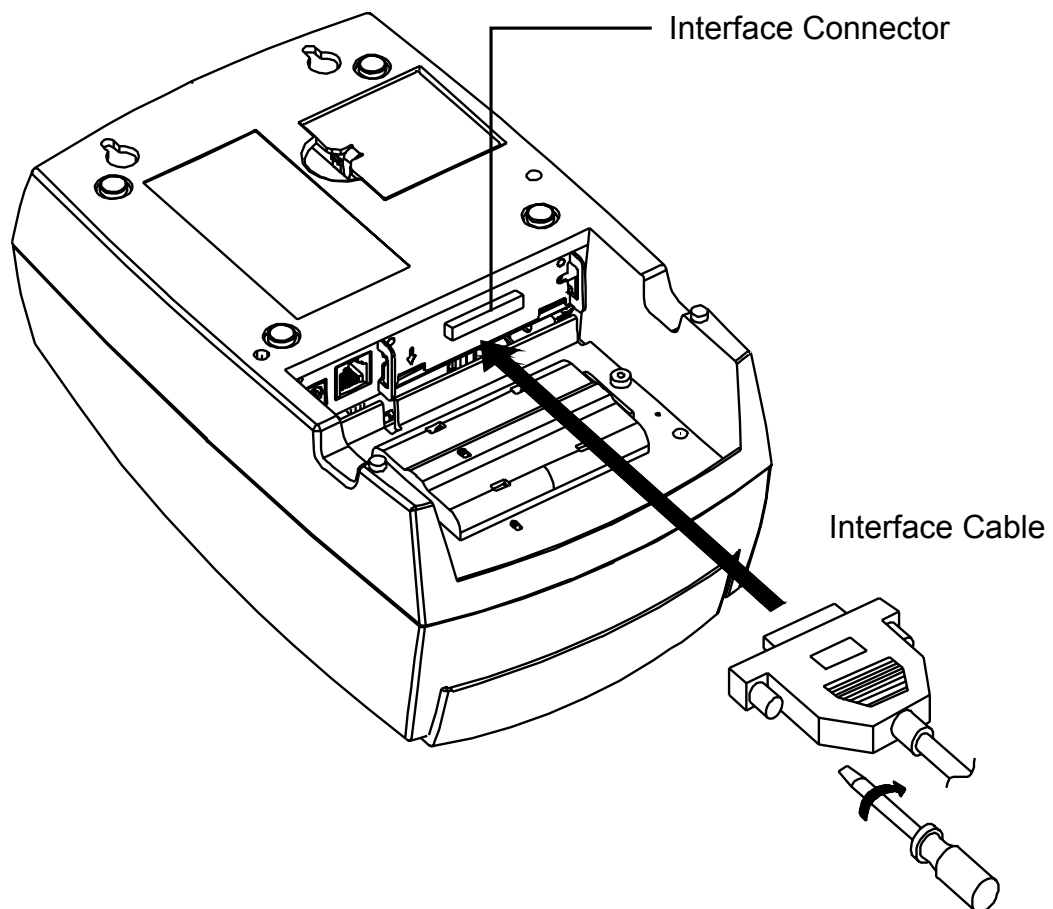
- 1) Turn off the printer power switch.
- 2) Check to see that the AC adapter voltage matches that of the power source.
- 3) Connect the AC adapter jack to the printer power connector.
- 4) Connect the power cord to the AC adapter.
- 5) Connect the power cord to a power source/outlet.

### 3-2 Interface Cable Connection

Connect the printer with a POS system (PC, ECR, etc.) via an interface cable as shown below.

This printer supports the following communications interface standards.

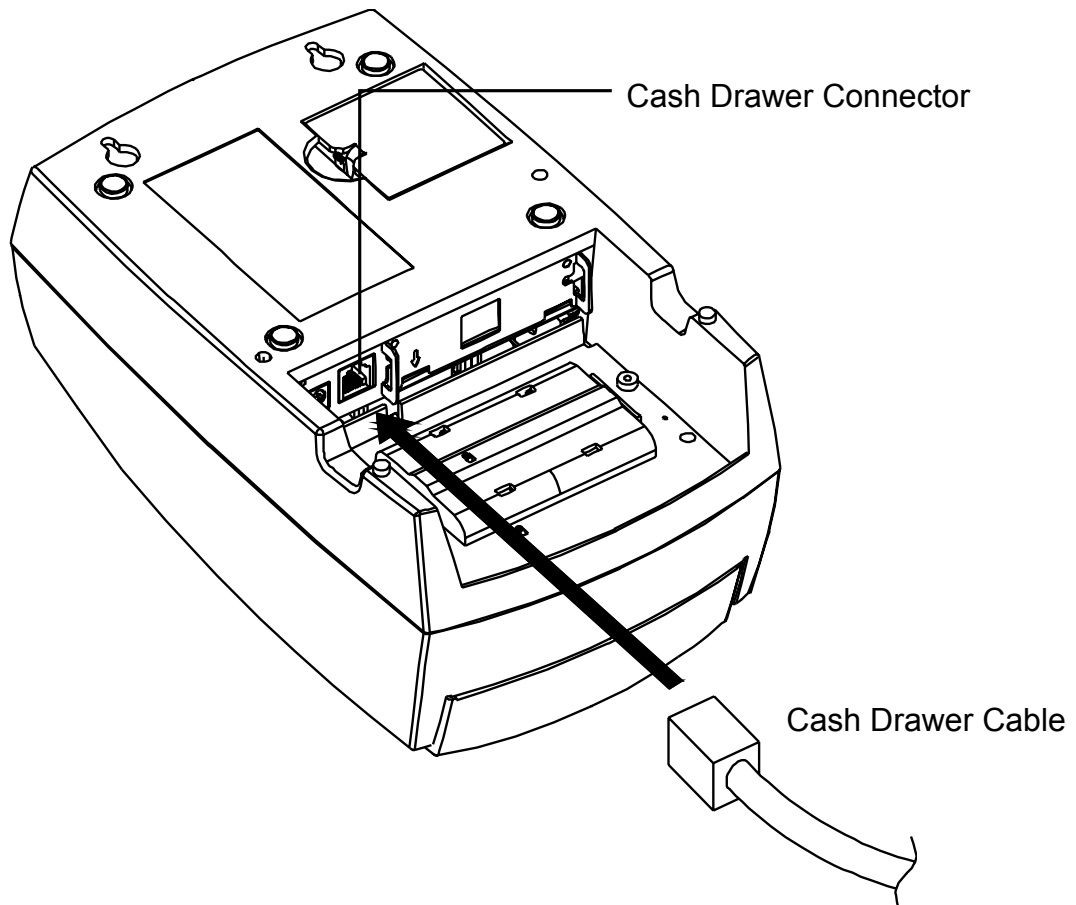
- RS-232C (Serial)
- IEEE1284 (Parallel)
- USB



- 1) Turn off the power switch on both the printer and the POS system (PC, ECR, etc.).
- 2) Connect the interface cable to the printer interface connector.
  - For a Serial cable, secure by tightening the screws on both sides.
  - For a Parallel cable, secure by fastening the clips on both sides.

### 3-3 Cash Drawer Connection

Connect the printer and cash drawer via the interface cable as shown below.



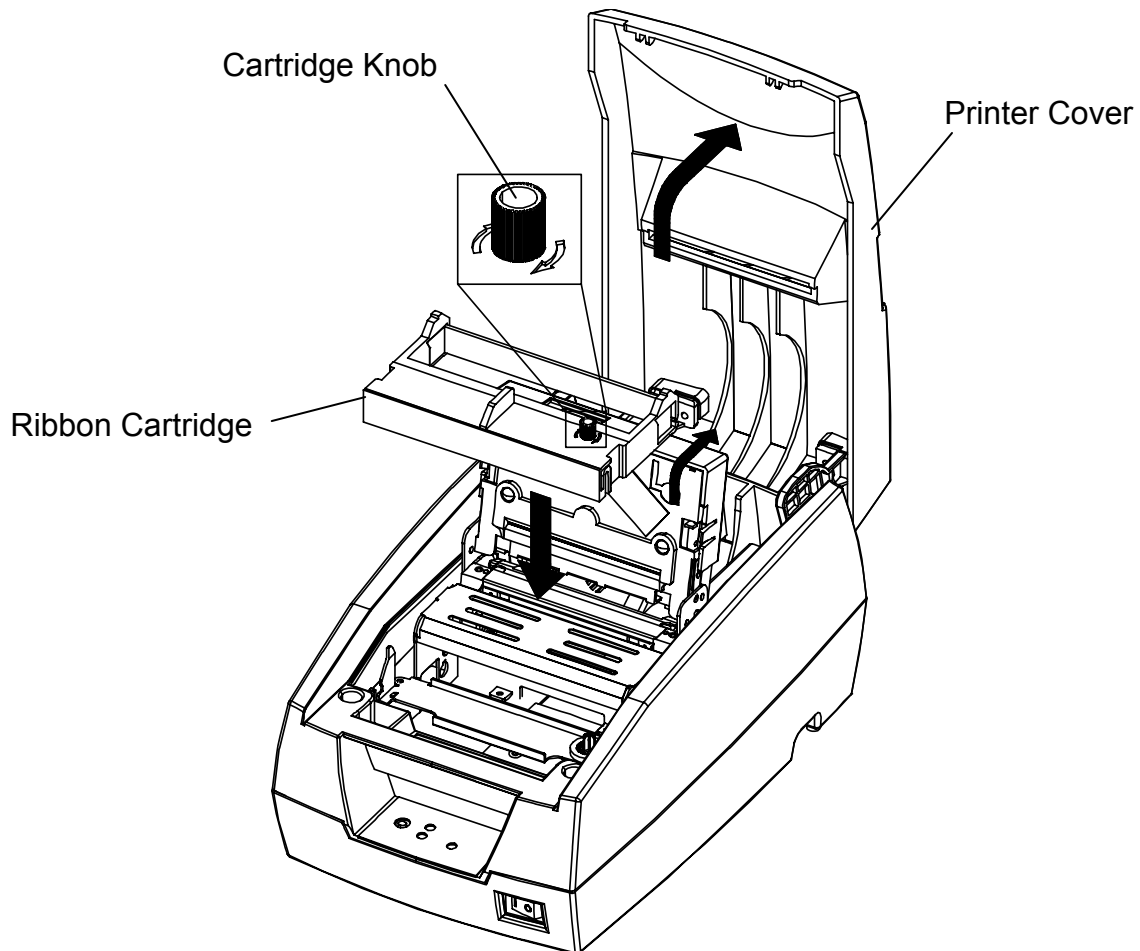
- 1) Turn off the power switch on both the printer and the POS system (PC, ECR, etc.).
- 2) Connect the cash drawer cable to the printer cash drawer connector.

**※ CAUTION**

**Do not connect a telephone line to the printer cash drawer connector.  
Doing so may cause damage to the printer and telephone line.**

### 3-4 Ribbon Cartridge Installation

Install the ribbon cartridge as shown below.



- 1) Turn off the printer power switch.
- 2) Open the printer cover.
- 3) Before inserting the ribbon cartridge, turn the cartridge knob clockwise in order prevent the ribbon from tangling.
- 4) Insert the ribbon cartridge as shown in the image above, and set the ribbon so that is behind the printer head.
- 5) To allow the ribbon to move freely within the ribbon cartridge during insertion, turn the cartridge knob clockwise once more.

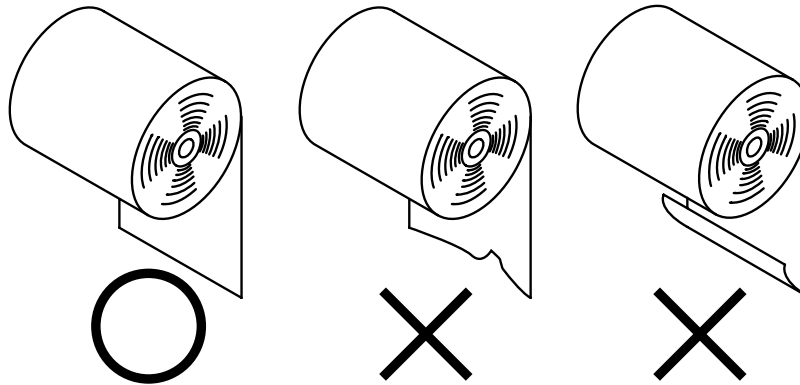
**※ CAUTION**

**Only use BIXOLON-approved ribbon cartridges.**

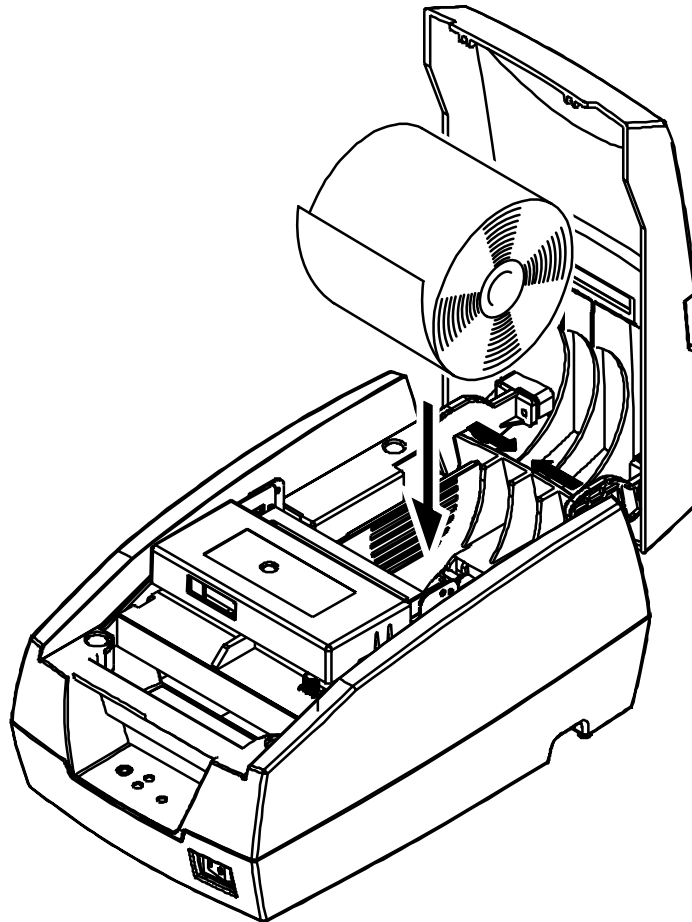
**Use of an unapproved ribbon cartridge can result in malfunction and/or other issues. In such cases, warranty service is not available.**

**3-5 Paper Installation**

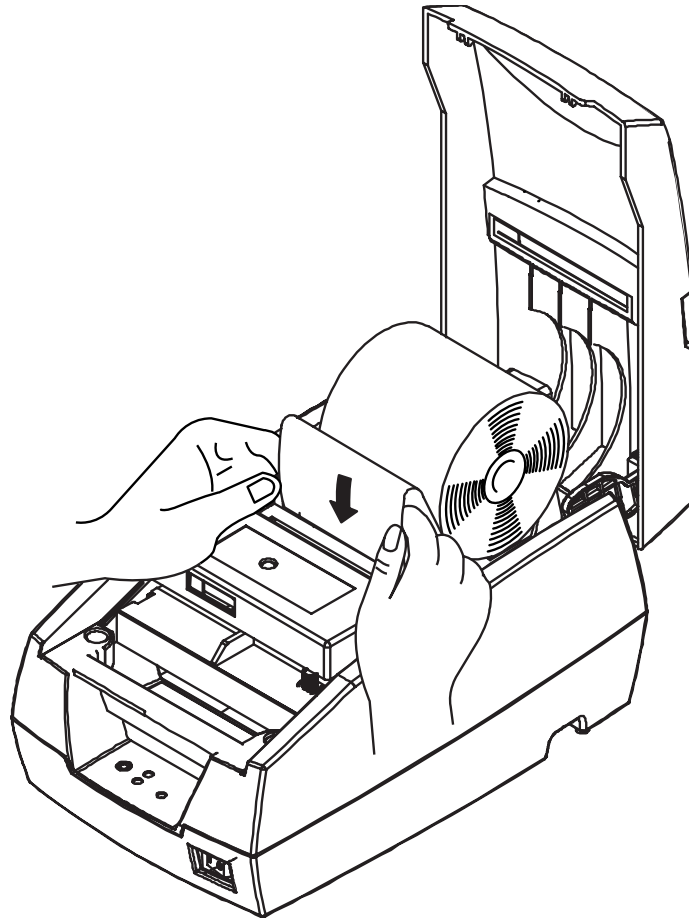
- 1) Turn on the printer power.
- 2) Open the printer cover. (Remove any core of a fully used paper roll if present.)
- 3) Undo the paper roll, and make sure that the lower edge is cleanly cut.



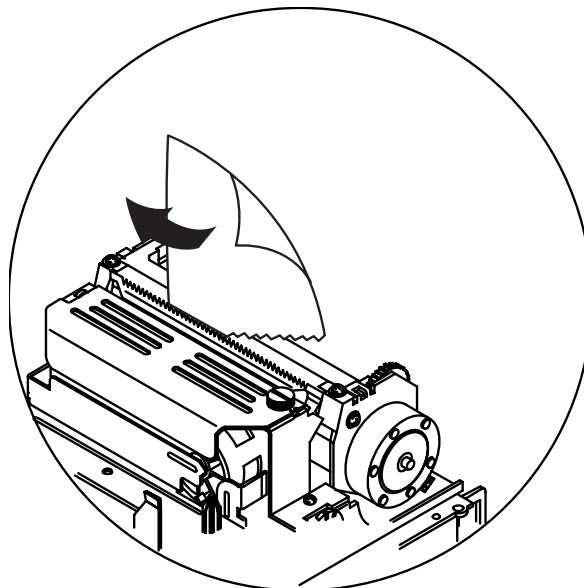
- 4) Insert the paper roll as shown below.

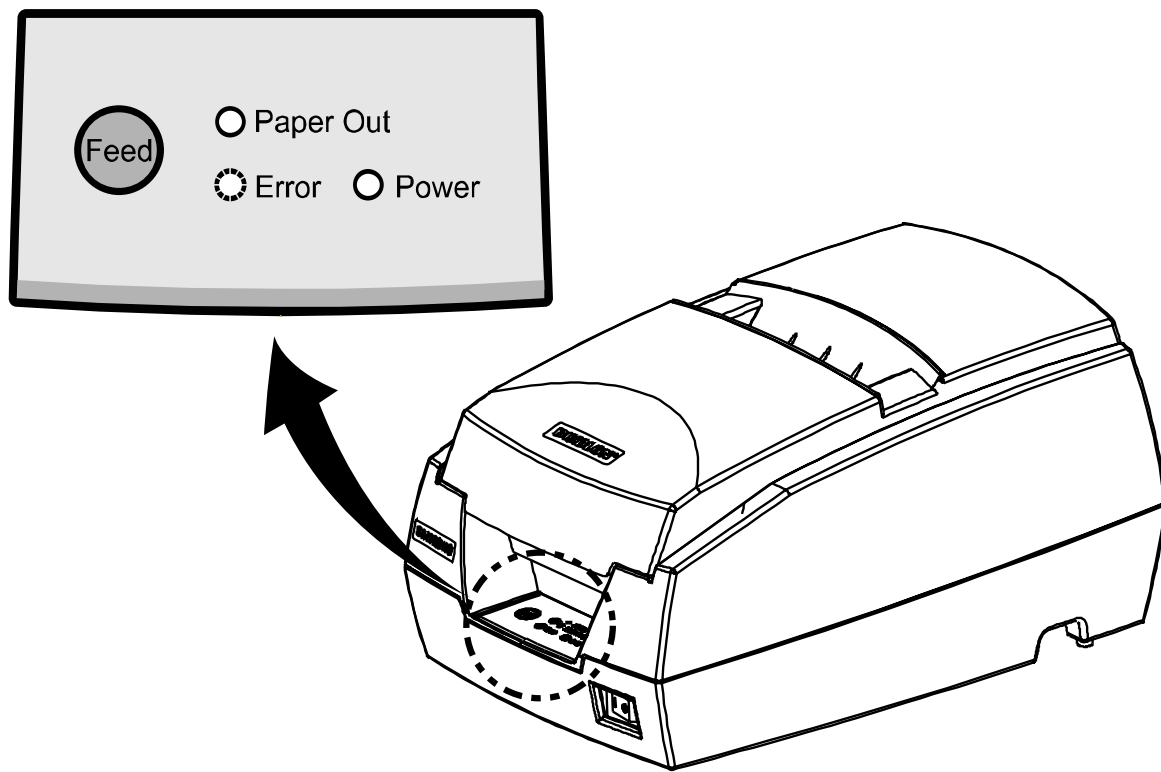


- 5) Insert the end of the paper roll into the paper slot as shown below. The paper then feeds automatically.  
Automatic cutting is available for printer models equipped with auto cutters.  
(SRP-280C)



- For printer models without auto cutters, tear off the paper as shown below.  
(SRP-280A)



**3-6 Control Panel Usage**

- Feed      Press this button to feed paper.  
This button is also used for self-tests and hexa-printing.  
- Refer to “4. Self-Test” for details related to self-tests.  
- Refer to the service manual for information on hexa-printing.
- Power      This lamp turns green when the printer power is on.
- Error      This lamp turns red when a printer error occurs.
- Paper Out      This lamp turns red when paper has been fully used.

## **4. Self-Test**

Run the self-test when first setting the printer or when encountering a problem. The following printer attributes can be assessed.

- Control Circuits, Mechanisms, Print Quality, and ROM Version.

If no issue is found with the printer after running the self-test, examine the other devices or peripherals and software. This function is independent of such other devices and software.

Self-Test instructions are as follows.

- 1) Check to see that the paper is properly installed.
- 2) Turn off the printer power and close the printer paper cover.
- 3) Press the paper feed button and simultaneously turn on the printer power to commence the self-test.
- 4) The test ceases after printing the current printer status and the following message.  
(The 'PAPER LED' lamp blinks.)

**Self-Test printing.  
Please press the FEED button.**

- 5) To additionally print the embedded characters in the printer, press the paper feed button once more.
- 6) The self-test ends automatically after the following message is printed.

**\*\* Character Test Completed \*\***



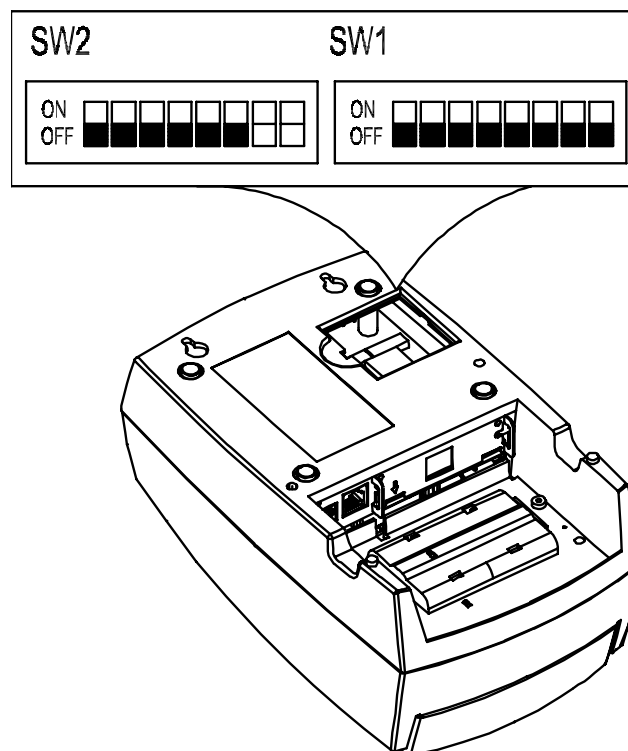
## 5. Fine Tuning

### 5-1 Dip Switch Adjustment

The dip switches can be used to select the following printer functions.

- Emulation
- Auto Cutter, Font Interval, Auto Line Feed
- Serial Communications Settings, Hexa-Printing

The dip switches are located on the under side of the printer.



Dip switch adjustment instructions are as follows.

- 1) Turn off the printer power.
- 2) Turn the printer over and remove the dip switch cover.
- 3) Use a pointy edged object to adjust the dip switches.  
(Refer to the following diagram for functions per switch.)
- 4) New settings take effect when turning the printer back on.

[Diagram 1] Dip Switch 1 Settings

Switch	Function	On	Off	Default
SW1-1	Emulation Selection	STAR	EPSON	OFF
SW1-2	Language Selection	Standard	Chinese	-
SW1-3	Auto Cutter Setting	Enable	Disable	by Model
SW1-4	Font Interval Setting	2 (46 column)	3 (42 column)	OFF
SW1-5	Vertical Alignment	Refer to Chart (1) below.		OFF
SW1-6				OFF
SW1-7	Service Technician Mode			OFF
SW1-8	Black-Mark Setting	Black-mark mode	Normal mode	OFF

Chart (1) Vertical Alignment

SW-5	SW-6	Mode
ON	OFF	Backlash #0
OFF	OFF	Backlash #1
OFF	ON	Backlash #2
ON	ON	Backlash #3

[Diagram 2] Dip Switch 2 Settings

Switch	Function	On	Off	Default
SW2-1	Paper Width Selection	2 inch	3 inch	OFF
SW2-2	Hexa-Printing Selection	Enable	Disable	OFF
SW2-3	Reserved			
SW2-4	RS-232C Setting – Data Length	7 bits	8 bits	OFF
SW2-5	RS-232C Setting – Parity Check	Enable	Disable	OFF
SW2-6	RS-232C Setting – Parity Selection	EVEN	ODD	OFF
SW2-7	RS-232C Setting – Baud Rate	Refer to Chart (2) below.		OFF
SW2-8				OFF

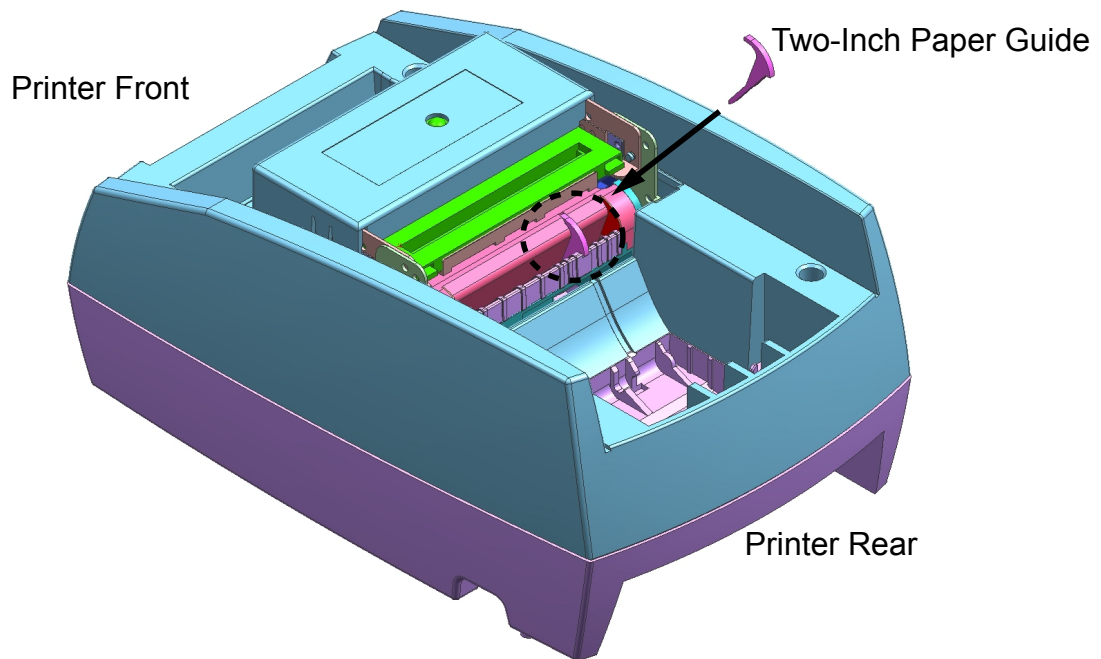
Chart (2) RS-232C Setting – Baud Rate

SW-7	SW-8	Baud Rate
OFF	ON	2400
ON	OFF	4800
OFF	OFF	9600
ON	ON	19200

## **5-2 Paper Width Adjustment**

This printer supports the use of two-inch and three-inch paper.

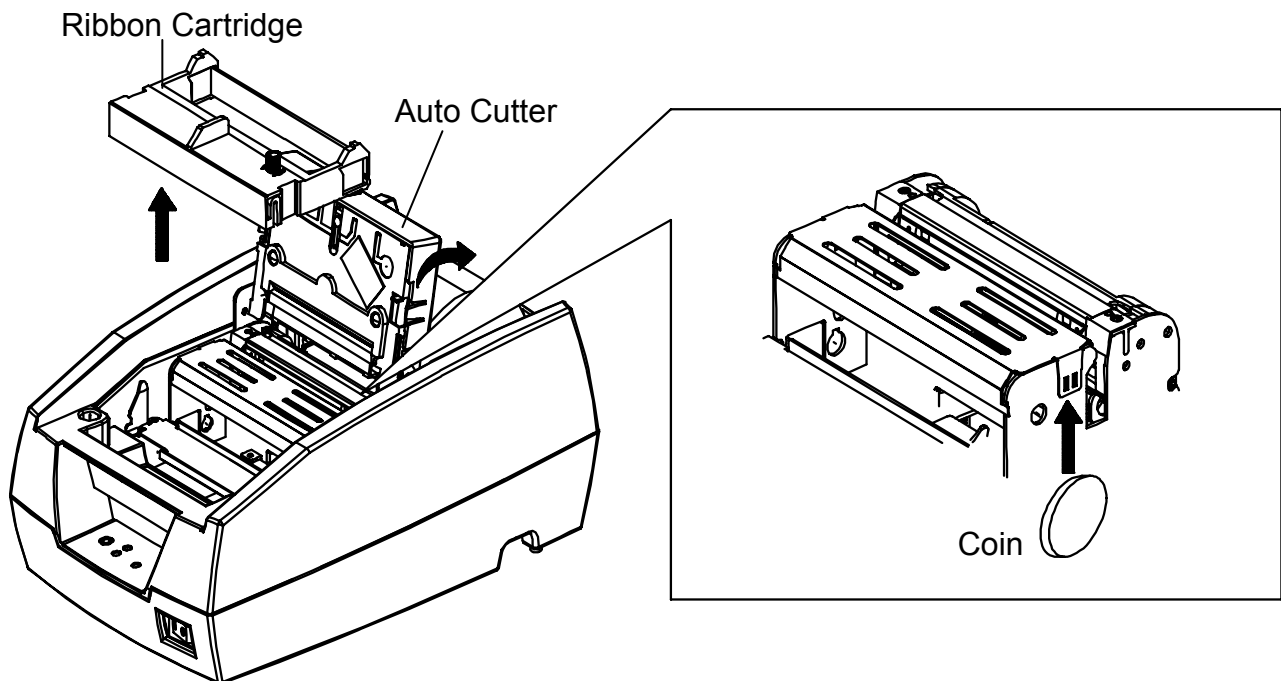
To use two-inch paper, install the two-inch paper guide as shown below.



- 1) Turn off the printer power and open the printer cover.
- 2) Confirm the location of the hole for the “two-inch paper guide” inside the printer.
- 3) Insert the “two-inch paper guide” into the hole as shown above.  
**(Affix the “two-inch paper guide” securely so that it does not shake loose.)**
- 4) Change dip switch 2-1, on the under side of the printer, from OFF to ON.
- 5) Turn on the printer power.
- 6) Install the two-inch paper roll and use.

### 5-3 Paper Jam Removal

Remove jammed paper as shown below.



- 1) Open the printer cover.
- 2) Raise the auto cutter.
- 3) Remove the ribbon cartridge.
- 4) Use a screwdriver or coin to loosen the screw as shown above.
- 5) Remove the head cover.
- 6) Push the head to the left and fix in place.
- 7) Turn the paper feed knob and remove the jammed paper.
- 8) Replace the head cover and fasten the screw.
- 9) Place the ribbon cartridge and paper back in their original positions and close the printer cover.

※ **WARNING**

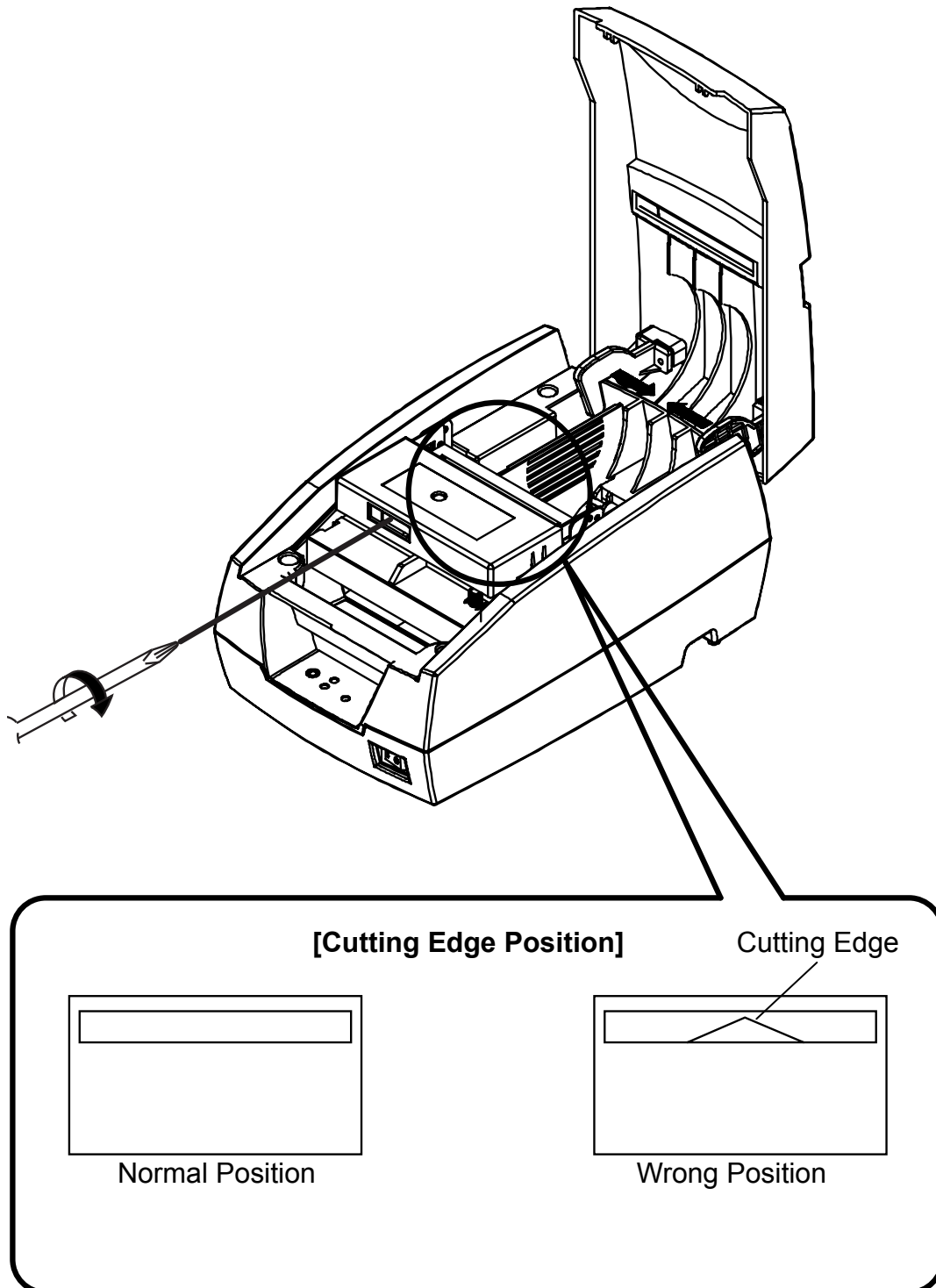
**The printer head can get hot during printing.**

**After printing, wait at least 10 minutes to allow cooling before handling the printer interior.**

**※ CAUTION**

If the cutting edge of the auto cutter is not in its normal position, paper cannot be inserted properly.

Insert a screwdriver into the hole near the bottom of the auto cutter as shown below, and turn the gear within the auto cutter to adjust the cutting edge to its normal position.



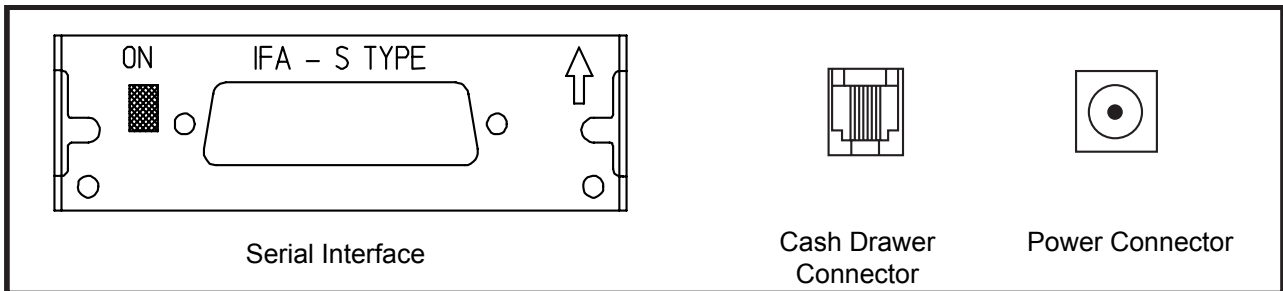
## 6. Appendix

### 6-1 Specifications

Item		Description		
Printer	Printing Method	Serial Impact Dot		
	Head Pin Number	9		
	Print Direction	Two-way		
	Print Speed	4.3 LPS (lines per second)		
	Characters Per Line	ASCII		
		3" printing	9 X 9	7 X 9
			35 char.	42 char.
		2" printing	9 X 9	7 X 9
			25 char.	30 char.
Ribbon	Type	Cartridge type (ERC-39)		
	Color	Black		
	Life	1.5 million characters		
Paper	Type	Roll		
	Width	3 inch: 76 ± 0.5mm 2 inch: 57.5 ± 0.5mm		
	Diameter	Max. φ83mm (3.26")		
	Thickness	0.06mm ~ 0.085mm (0.002" ~ 0.003")		
Adapter	AC Input	AC100 ~ 240V (50Hz ~ 60Hz)		
	Voltage, Current	DC 24 V, 1.5 A		
Auto Cutter	Cutter Type	Guillotine type		
	Cutter Width	Max. 85 mm		
	Cutter Thickness	Max. 0.1mm		
Other	Total Volume	<ul style="list-style-type: none"> <li>• A type: 165 X 270 X 130</li> <li>• C type: 165 X 270 X 132</li> </ul>		
	Weight	Weight (printer only) / Weight (with box & accessories): 1.85kg / 2.8kg		
	Reliability	Head : 300 million dots Printer : 10 million lines (MCBF) Auto Cutter : 1 million cuts		
	Operation Temperature	0℃ ~ 40℃ (32°F ~ 104°F)		
	Operation Humidity	30% ~ 80%		
	Storage Temperature	-5℃ ~ 50℃ (23°F ~ 122°F)		
	Storage Humidity	10% ~ 95%		

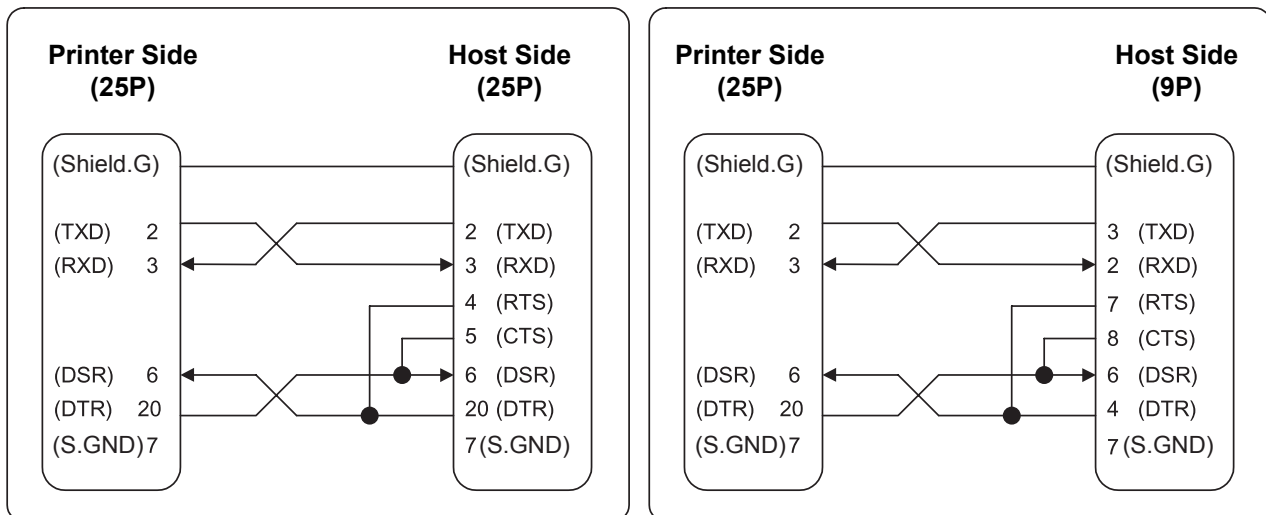
## 6-2 RS-232C (Serial Interface) Cable Specifications

### 1) Printer Rear Image



※ Turning the dip switch on the Serial interface to the ON position connects DTR and RTS signals together.

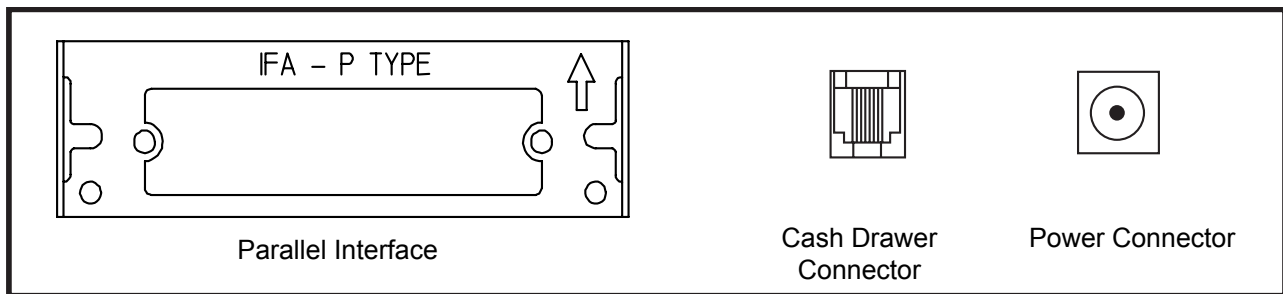
### 2) Cable Specifications



Pin No.	Signal	Direction	Function
1	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

### 6-3 IEEE1284 (Parallel Interface) Cable Specifications

#### 1) Printer Rear Image



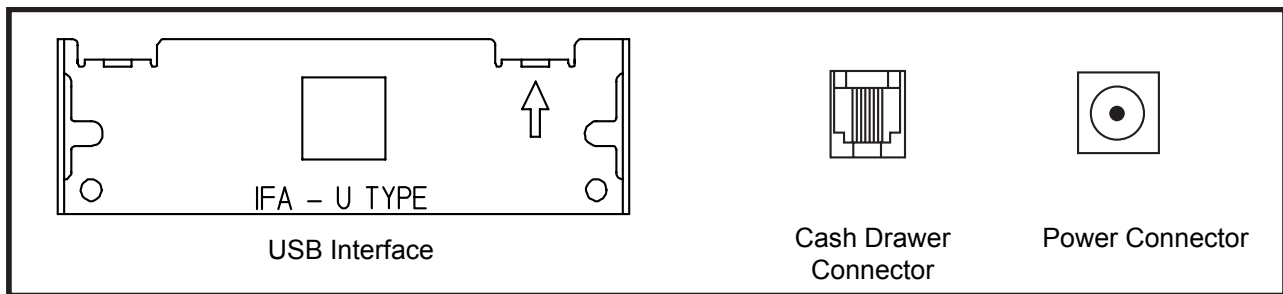
#### 2) Cable Specifications

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



**6-4 USB Interface Cable Specifications**

## 1) Printer Rear Image



## 2) Cable Specifications

Pin No.	Signal	Wire Color	Function
1	VBUS	Red	Host Power
2	D-	White	Data (D-)
3	D+	Green	Data (D+)
4	GND	Black	Signal Ground
Shell	Shield	Drain Wire	Frame Ground

**6-5 Cash Drawer Cable Specifications**

Pin No.	Signal	Direction
1	Frame Ground	-
2	Cash Drawer Control Signal 1	Output
3	Cash Drawer Operation Confirm Signal	Input
4	+24V	-
5	Cash Drawer Control Signal 2	Output
6	Signal Ground	-

## 6-6 Certification

### 1) EMC & Safety Standards

- Europe: CE EMC,CB-Scheme:IEC60950-1, GS: EN60950-1: 2001
- North America: FCC rules parts 15B

#### **⚠ WARNING**

Use of an unprotected interface cable with this printer conflicts with EMC standards. Users should only use cables approved by BIXOLON.

### 2) CE Mark

- EMC Directive 89/336/EEC
  - EN55002:1994+A1:1995+A2:1997
  - EN55024:1998+A1:2001+A2:2003
  - EN61000-3-2:2000
  - EN61000-3-3:1995+A1:2001
  - EN6100-4-2:1995+A1:1998+A2:2001
  - EN6100-4-3: 2002+A1:2002
  - EN6100-4-4:2004
  - EN6100-4-5:1995+A1:2001
  - EN6100-4-6:1996+A1:2001
  - EN6100-4-8:1993+A1:2001
  - EN6100-4-11:1994+A1:2001
- Low Voltage Directive 73/23/EEC
  - Safety: EN60950-1:2001

### 3) WEEE (Waste Electrical and Electric Equipment)



This mark shown on the product or its literature indicates that the corresponding item should not be discarded at the end of its working life with other household waste. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate marked items from other types of waste and recycle them responsibly to promote the sustained 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 conduct environmentally safe recycling of such items. Commercial users should contact their suppliers and check the terms and conditions of purchase contracts. This product should not be combined with other commercial waste for disposal.

## 6-7 Label Types

The label types used with this printer are as follows.

- Control Labels: PC
- Other Labels: PET