USER'S MANUAL

Label Printer

BTP-4200E Series

Shandong New Beiyang Information Technology Co., Ltd.

Declaration

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Warning and caution

Warning: Items shall be strictly followed to avoid injury or damage to body and equipment.

Caution: Items with important information and prompts for operating the printer.

SNBC has been approved by following certifications:

ISO9001 Quality Control System Certification

ISO14001 Environmental Management System Certification

OHSAS18001 Occupational Health and Safety Management System Certification

IECQ QC 080000 Hazardous Substance Process Management System Certification

Safety Instructions

Before installing and using the printer, please read the following items carefully.

1 Safety warning

The print head is a thermal element and it is at a high temperature during printing or just after operation, therefore do not touch it or its peripherals for safety's sake.

The print head is an ESD-sensitive device. To prevent damage, do not touch either its printing parts or connecting parts.

2 Cautions

1) Install the printer on a flat and stable surface;
2) Reserve adequate space around the printer so that convenient operation and maintenance can be performed;
3) Keep the printer far away from water source, and do not expose the printer to direct sunlight, strong light and heat;
4) Do not use or store the printer in a place exposed to high temperature, high humidity or serious pollution;
5) Do not place the printer in a place exposed to vibration or impact;
6) No condensation is allowed to the printer. In case of such condensation, do not turn on the power until it has completely gone away;
7) Connect the printer power to an appropriate grounding outlet. Avoid sharing one electrical outlet with large power motors or other devices that may cause the fluctuation of voltage;
8) Disconnect the power when the printer is deemed to idle for a long time;
9) Don't spill water or other electric materials into the printer (e.g. metal). In case this happens, turn off the power immediately;
10) Do not allow the printer to start printing when there is no recording paper installed; otherwise the print head and platen roller will be damaged;
11) To ensure quality print and normal lifetime, use recommended paper or its equivalent;
12) Shut down the printer when connecting or disconnecting interfaces to avoid damages to control board;
13) Set the print darkness to a lower grade as long as the print quality is acceptable. This will help to keep the print head durable;
14) Avoid turning on and off the printer frequently when using the printer and turn on the printer at least 2 seconds after it is turned off;
15) Do not disassemble the printer without permission of a technician, even for repairing purpose;
16) Keep this manual safe and at hand for reference purpose.

Contents

1 Product introduction 1

1.1 Introduction 1
1.2 Unpacking and checking 1
1.3 Appearance and modules 2
1.4 Introduction of main modules 2

2 Printer installation 3

2.1 Installation position 3
2.2 Installing the paper roll 3
2.3 Installing the ribbon 4
2.4 Connecting the power adapter 6
2.5 Connecting the communication cable 6
2.6 Starting the printer 6
2.6.1 Power-on and self-test 6
2.6.2 Calibrate the marks 6
2.6.3 Printing the self-test page 7
2.7 Driver installation 7

3 Printer operation 10

3.1 Function description of indicator light, button and buzzer 10
3.1.1 Function description of indicator light 10
3.1.2 Function description of button 10
3.1.3 Function description of buzzer 11
3.2 Printer status and operation 11
3.2.1 Printer status 11
3.2.2 Daily operation of printer 11
3.3 Sensor position adjustment 11
3.4 Print pressure adjustment 12
3.5 Ribbon protective plate adjustment 12
3.6 Print position adjustment 13

4 Routine maintenance 15

4.1 Clean the print head 15
4.2 Clean the platen roller 15

5 Troubleshooting 16

5.1 Troubleshooting 16
5.2 Print quality problems 17

Appendix.....18

Appendix 1 Technical specification 18
Appendix 1.1 Main technical specifications.....18
Appendix 1.2 Technical specifications of paper 20
Appendix 2 Self-test page 21
Appendix 3 Print and paper output position.....22
Appendix 4 Communication interface 22
Appendix 4.1 Serial interface.....22
Appendix 4.2 USB interface.....23
Appendix 4.3 Ethernet interface 23

1 Product introduction

1.1 Introduction

BTP-4200E label printer is an ideal desktop barcode label printing device, with delicate appearance and excellent performance. It can be used for label printing in many fields, such as retailing, medical, manufacturing, logistics, asset management etc.

BTP-4200E label printer can be connected with external devices via serial interface, Ethernet interface, USB interface, Bluetooth or WiFi, and it can provide common drivers for operating systems such as Windows XP / Windows server 2003 / Windows Vista / Windows server 2008 / Windows 7 / Windows 10 / Windows11.

Main features:

- Thermal / Thermal transfer printing;
- Low noise, high speed printing
- Modular and open-type ribbon assembly, convenient operation and maintenance;
- With 32-bit high speed microprocessor;
- Adopting heat history and auto temperature adaptation control;
- Adopting the new-type print head with long lifetime, high printing quality;
- Supporting continuous paper, label paper, marked paper, etc.
- Adopting reflective and moveable sensor, adapting to various types of paper

1.2 Unpacking and checking

Open the packaging and check the items according to the packing list. Please contact SNBC or your local dealer if there is shortage or damage (communication cables are optional depending on the printer interface type).

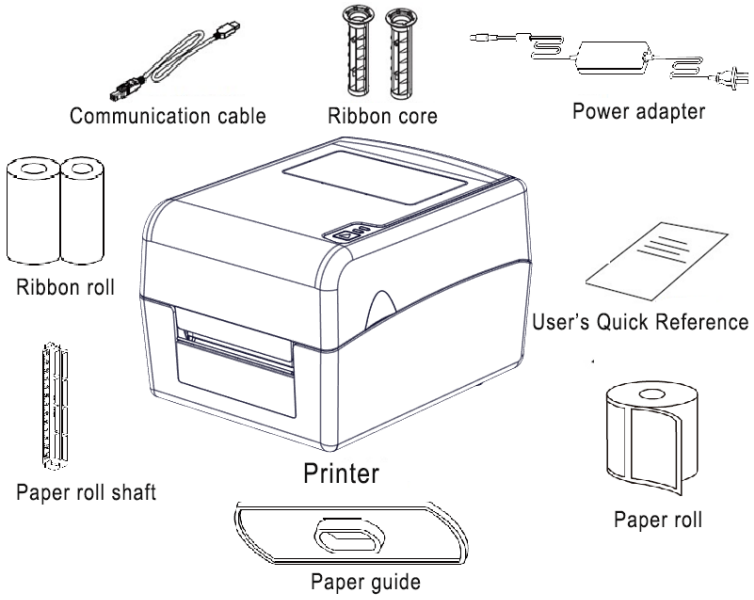
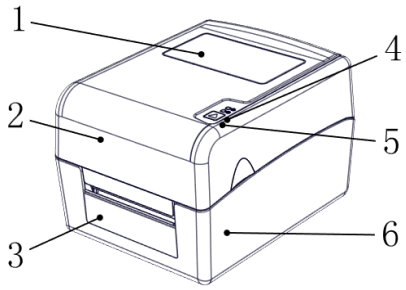
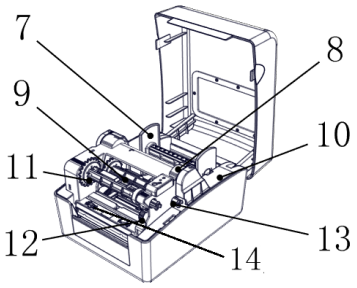


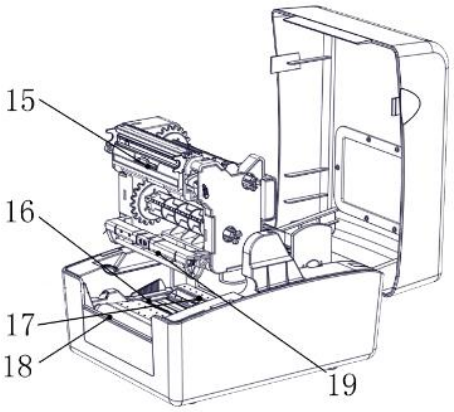
Figure 1.2.1

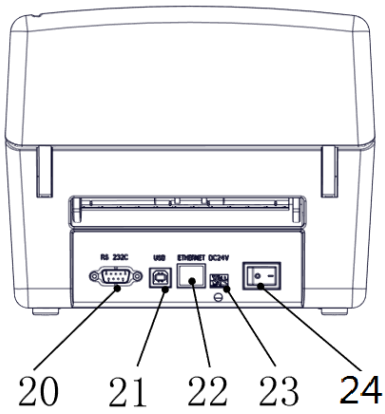
1.3 Appearance and modules





1—Window
2—Top cover
3—Front baffle
4—LED
5—Button
6—Bottom cover
7—Paper guide plate
8—Paper roll holder
9—Ribbon thumb wheel
10—Paper cabinet
11—Ribbon core
12—Ribbon holder lift lever
13—Ribbon cap
14—Adjustment wheel





15—Print head
16—Paper guide block
17—Sensor holder
18—Platen roller
19—Pendular rod
20—Serial interface (optional)
21—USB interface
22—Ethernet interface (optional)
23—Power interface
24—Power switch

1.4 Introduction of main modules

1) LED (4) / button (5): indicate the printer status and perform the printing function;
2) Paper roll holder (8) / Paper guide plate (7): support paper holder and prevent the paper roll from shaking.
3) Power switch (24): press "O" to power off and " – " to power on;
4) Sensor is installed at the sensor holder (17), the sensor is used for the calibration, detection and location of media.

2 Printer installation

2.1 Installation position

Flatly place the printer on the operation table, which must be water-proof, moisture-proof and dust-proof. The mixture tilted angle should not exceed 15° during installation.

2.2 Installing the paper roll

1) Press the cover open lever with both hands and turn the top cover upward to open it (see figure 2.2.1);

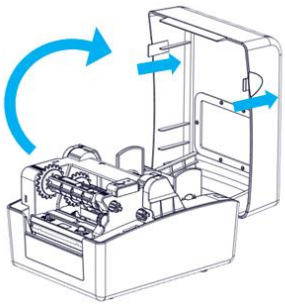


Figure 2.2.1

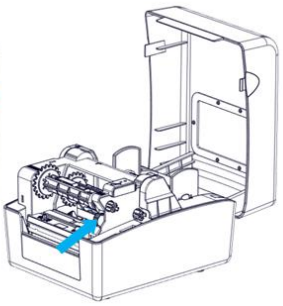


Figure 2.2.2

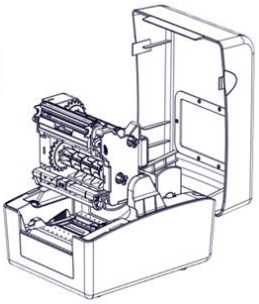


Figure 2.2.3

2) Press the ribbon holder lift lever in the direction of the arrow shown in Figure 2.2.2. After the ribbon holder is lifted, turn it upward for 90° as shown in Figure 2.2.3;
3) Install the paper roll on the paper roll holder, and add a paper guide plate on each side of the paper roll (see Figure 2.2.4);

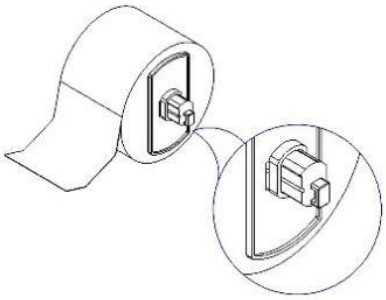


Figure 2.2.4

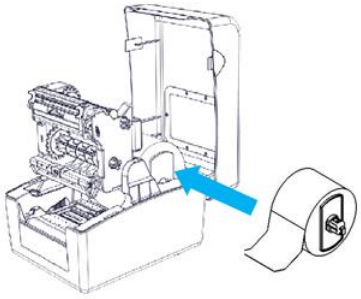


Figure 2.2.5

4) Place the paper roll mounted on the paper roll holder into the paper cabinet, then pull out the front end of the paper and lay it flatly in the print path, then pass the paper under the buffer shaft and clamp it with the left and right paper blocks (see Figure 2.2.5).

Caution:

- ✧ Apply force upward to open the top cover, do not press it with strong force;
- ✧ The paper print side should face upward. If marked paper is used, the black mark should face downward;
- ✧ Manually load the paper head and lead it pass across the tear-off bar and the middle position of platen roller as far as possible, and then press the button to feed one label.

2.3 Installing the ribbon

1) There are two types of inner diameter of ribbon shaft: 12.7mm (1/2 inch) and 25.4mm (1 inch). When the inner diameter of ribbon shaft is different, the ribbon installation method is also different:

   a) When the inner diameter of ribbon shaft is 12.7 mm (1/2 inch), the operation method is as shown in Figure 2.3.1 (please pay attention to the installation direction). Firstly, turn the ribbon holder to the position shown in Figure 1, insert the ribbon into the ribbon cap in the direction shown in Figure 2, and then insert the other end of ribbon into the ribbon thumb wheel as shown in Figure 3, finally, pull the ribbon outward gently, and it means that the ribbon installation is complete when the operator feels the elastic recovery force (see Figure 2.3.1);

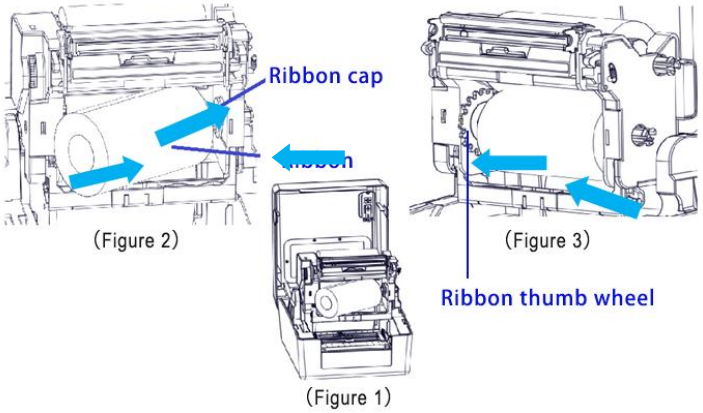


Figure 2.3.1

   b) When the inner diameter of ribbon shaft is 25.4mm (1 inch), thread the ribbon cores into the ribbon and the empty ribbon shaft respectively in the direction shown in the figure (see Figure 2.3.2).

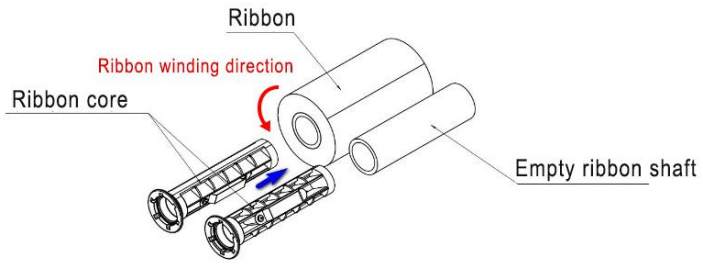


Figure 2.3.2

Turn and open the ribbon holder to the position shown in Figure 1, insert the installed ribbon assembly into the ribbon cap in the direction shown in Figure 2, and insert the other end of the ribbon into the ribbon thumb wheel as shown in Figure 3, finally, pull the ribbon outward gently, and it means that the ribbon installation is complete when the operator feels the elastic recovery force (see Figure 2.3.3).

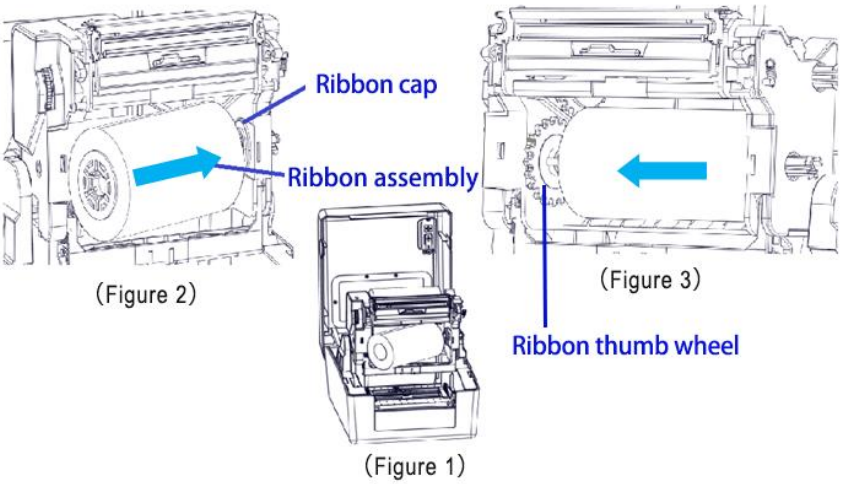


Figure 2.3.3

2) Pass the front end of ribbon under the print head assembly, and wind it on the ribbon rewinding shaft;
3) Install the ribbon rewinding shaft on the ribbon holder as shown in Figure 2.3.3;
4) Move the ribbon thumb wheel to tighten the ribbon (the installed paper roll and ribbon are shown in Figure 2.4.1);

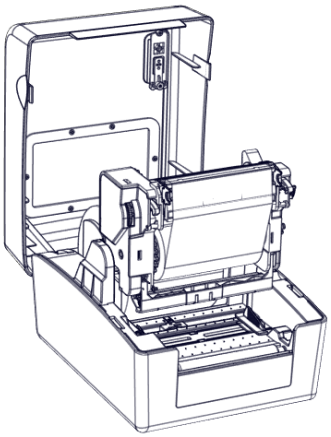


Figure 2.4.1

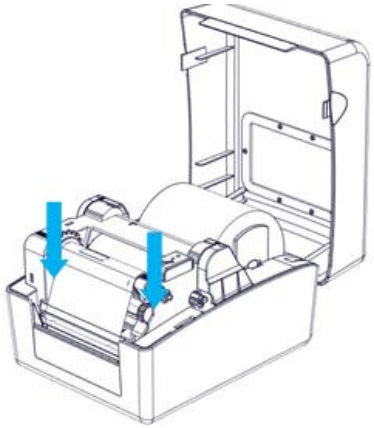


Figure 2.4.2

5) Press down the ribbon holder until it is locked, and then close the upper cover of the printer (see Figure 2.4.2).

⚠ Caution:

✧ Determine the print method:
If thermal transfer printing is selected, the ribbon needs to be installed;
If thermal printing is selected, the ribbon does not need to be installed.

✧ Under normal condition, the selected ribbon should be wider than the print media.

✧ Keep the ribbon as flat as possible during ribbon installation in case the ribbon is cockled or damaged during printing.

2.4 Connecting the power adapter

1) Ensure the printer is turned off;
2) Connect one end of the of the power adapter into the power adapter interface on the back of printer;
3) Insert the other end of AC power input cable into the 220V power socket.

Caution:

✧ If leaving the printer idle for a long time, please disconnect the power of printer.

2.5 Connecting the communication cable

1) Ensure the printer is turned off;
2) Insert the communication cable into the corresponding interface, and fix it with the screws delivered with the connector for serial interface;
3) Connect the other end of the communication cable to the host.

Caution:

✧ Don't connect or disconnect the communication cable when the power has not been turned off.

2.6 Starting the printer

2.6.1 Power-on and self-test

1) Ensure the power adapter and the communication cable are connected correctly, and turn on the printer;
2) When the printer starts the self-test. The buzzer beeps once for a short time after the self-test is finished, and then the green indicator light is always on;
3) If power-on action is set, the printer will perform power-on action.
   Note: Power-on action refers to the actions performed automatically after the printer is turned on, including feeding one label, starting calibration automatically (only valid under discontinuous paper mode). The power-on action can be set by configuration tools.

Caution

✧ If the printer can not be started or can not work normally after it is started, please contact the local dealer or manufacturer in time.

2.6.2 Calibrate the marks

1) Correctly install the print media, and then turn on the printer power;
2) After the self-test of printer is completed, the green indicator light is always on; Press and hold the button, wait for the green light to flash once, and then continuously flash twice, next, release the button, and the printer will feed paper and start to calibrate the marks of paper;
3) If the calibration is successful, then the printer will enter the idle status; if the calibration fails, the printer will give an alarm, at this time, please check whether the media is installed correctly.
   In any of the following cases, the media needs to be calibrated before printing:
   ✧ The printer is used for the first time after installation or sensor cleaning;

- ✧ Re-use the printer after a long idle time or replacing the paper roll with a new type;
- ✧ Unable to effectively identify the marks during printing;
- ✧ The use environment of printer has been changed greatly.

⚠ Caution

✧ After performing the above steps and sensor cleaning, if you still can't find out the reason of calibration failure, please contact the maintenance personnel.

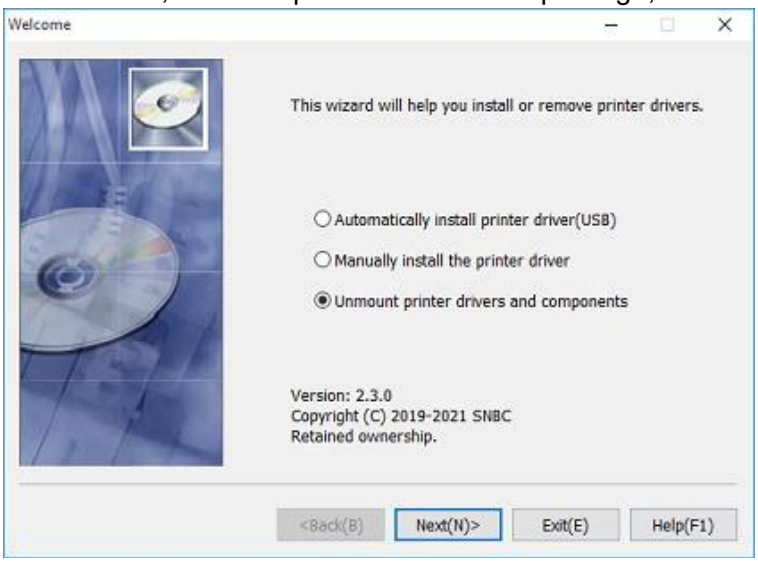
2.6.3 Printing the self-test page

1) Install the media, and turn on the printer, the green indicator light will always on after completing the self-test. Press and hold the button, release it after the green light flashes once, then the printer will feed paper and print the self-test page (sample refers to Appendix 2);
2) The self-test page lists the current configuration information of the printer.

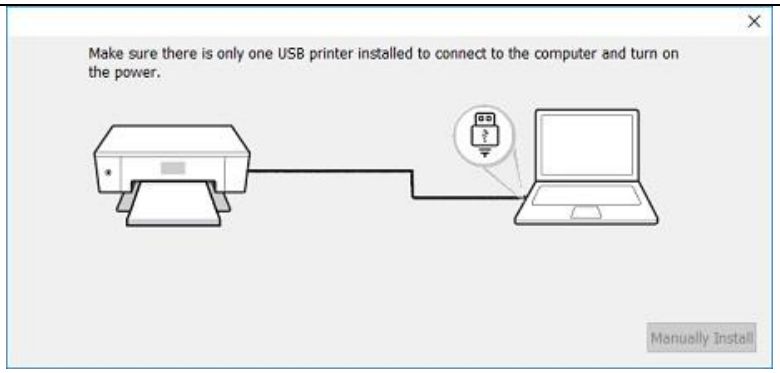
2.7 Driver installation

The driver installation program for this printer can be downloaded from the website: www.snbc.cn.
The 32-bit/64-bit operating systems supported by the driver are as follows: Windows XP / Windows server 2003 / Windows Vista / Windows server 2008 / Windows 7 / Windows 8 / Windows 10 / Windows 11.

1) Connect the printer and start it, run "Setup. exe" in the driver package, and click "Next";

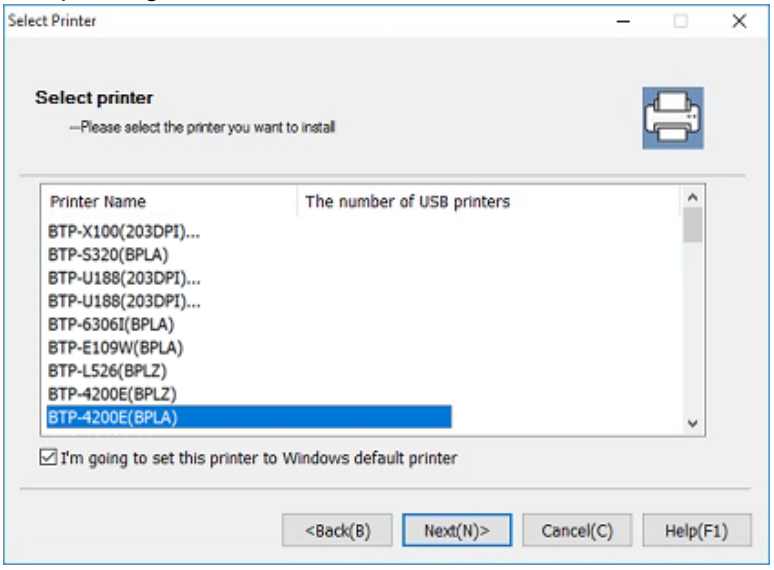


2) Default setting: install the printer driver automatically as shown in the figure below (if the installation fails, select the manual installation at the lower right corner to return to the manual installation interface);

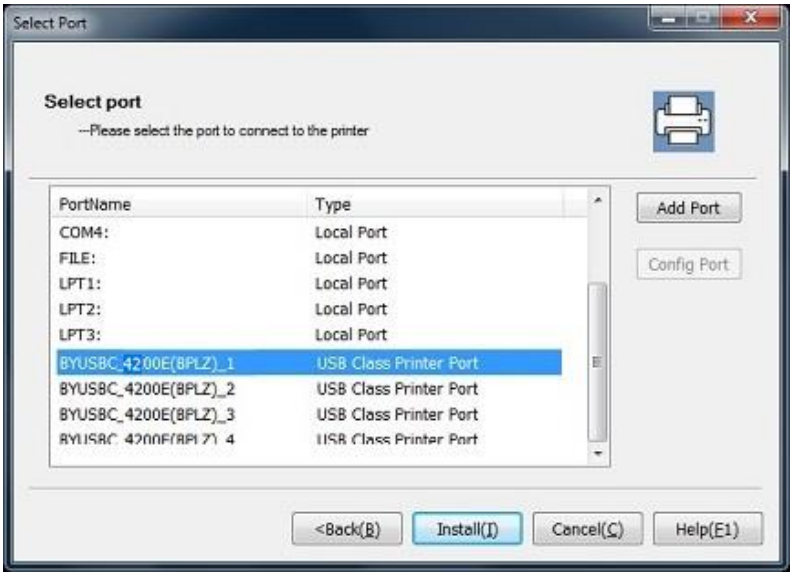


3) Select the corresponding model and click the "Next" button;

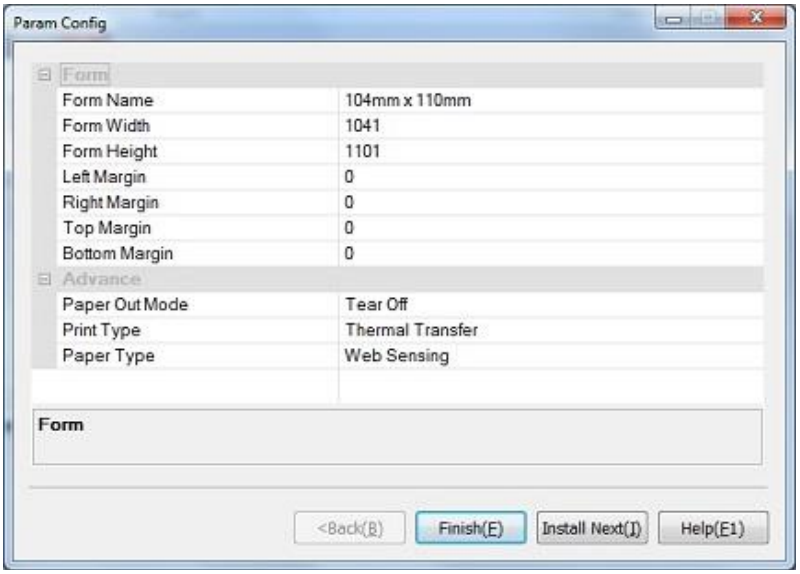
Note: Firstly, confirm whether the corresponding instruction set of the printer is BPLA or BPLZ, and then select the corresponding driver and click "Next";



4) The driver will automatically select the current system type. Click the "Next" button, and set the printer port. User can select the port or add the port for installation according to the actual situation. For serial port, please select the driver "COMx" (x equals to 1, 2, 3, 4, 5, 6, 7 or 8). For USB port, please select the driver "USB_model name_x" or "BYUSBC_model name_x" (x equals 1, 2, 3, 4, 5, 6, 7 or 8). Click "Install" to end the installation.



5) After installation, make initial settings for the printer on the pop-up interface "Parameter Config", and then click "Finish".



3 Printer operation

3.1 Function description of indicator light, button and buzzer

3.1.1 Function description of indicator light

LED name	Status	Description
Working indicator light (Green LED)	Always on	The printer is in idle or working status
	Flash	The printer is busy
Pause indicator light (green LED + red LED)	Always on	The printer is in pause status
	Flash	The printer is in upgrading, or the printer is in pause status when there is a print task
Abnormality indicator light (Red LED)	Flash	The printer has an abnormality. Refer to Section 5 Troubleshooting for details.

3.1.2 Function description of button

Button	Function	Description
Short press	Paper feeding	When the printer is in idle status, press the button for a short time to feed paper.
	Pause	When the printer is in printing status, press the button for a short time to enter the pause status.
	Continue	When the printer is in pause status, press the button for a short time to recover the printing.
	Troubleshooting	When the printer has an error, press the button for a short time to eliminate the error.
Long press	Self-test page	Press and hold the button until the green indicator light flashes once, and then release it.
	Calibration	Press and hold the button until the green indicator light flashes twice, and then release it.
	Restore the serial port default configuration	Press and hold the button until the green indicator light flashes three times, and then release it.
	Restore the factory settings	Press and hold the button until the green indicator light flashes four times, and then release it.
	Print the sensor waveform	Press and hold the button until the green indicator light flashes five times, and then release it.
	Restore the WIFI default configuration	Press and hold the button until the green indicator light flashes six times, and then release it.
	Enter the DUMP mode	Press and hold the button until the green indicator light flashes seven times, and then release it.

Note:

- ✧ Short press means that the duration time from the button being pressed down to the button being released and bouncing back is less than 0.5 seconds.
- ✧ Long press means that the button is pressed down for more than 1 second.

3.1.3 Function description of buzzer

1) The buzzer beeps once when the printer is turned on or reset;
2) The buzzer beeps several times when the printer has an abnormality. Refer to section 5 Troubleshooting for details.

3.2 Printer status and operation

3.2.1 Printer status

The printer has four status: idle, working, pause and abnormal.

Printer status	Indicator light
Idle	Green LED is always on, and red LED is always off
Working	Green LED flashes, and red is always off
Pause	Green + red LEDs are always on or flashing
Abnormal	Refer to section 5 Troubleshooting for details

3.2.2 Daily operation of printer

- **Idle status**

  The printer is in a ready status without exception and waiting for operation or task. After the printer is turned on normally, it will enter the idle status by default or the printer will return to the idle status after completing the task. In the idle status, if press the button for a short time, the printer will feed paper; if press the button for a long time until the green indicator light flashes, then user can select the corresponding function after releasing the button.

- **Working status**

  A status in which the printer has a print task. At this time, press the button, and the printer will enter the pause status after release the button.

- **Pause status**

  The printer is in the status of temporarily stopping printing tasks. The printer will enter the pause status under the following two conditions:

  a) Press the button while printing;
  b) After the printer exception is eliminated.

  When the printer enters the pause status, users can press the button for a short time to recover the printing task.

- **Abnormal status**

  The printer is in an abnormal status. At this time, the printer prompts the printer fault through the indicator light and buzzer. For fault prompts and troubleshooting, refer to section 5 Troubleshooting for details

3.3 Sensor position adjustment

The sensor is installed on a sensor holder and can be moved left and right (as shown in Figure 3.3.1).

Before installing the media, adjust the position of the sensor holder assembly. The default setting is position 1. If there are other special consumables, adjust the position according to the demand. The media used shall comply with the technical specifications in section Appendix 1.2.

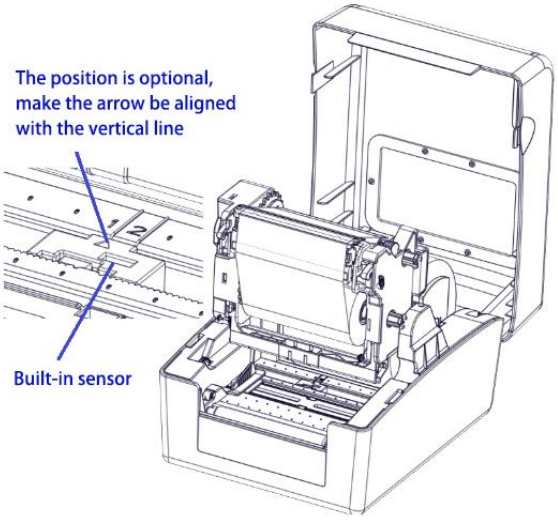


Figure 3.3.1

3.4 Print pressure adjustment

The pressure adjustment knob is set at position 3 by default. If the consumables are too narrow to be fed, the position of pressure adjustment knob can be appropriately adjusted, but keep the both ends be consistent as shown in Figure 3.4.1.

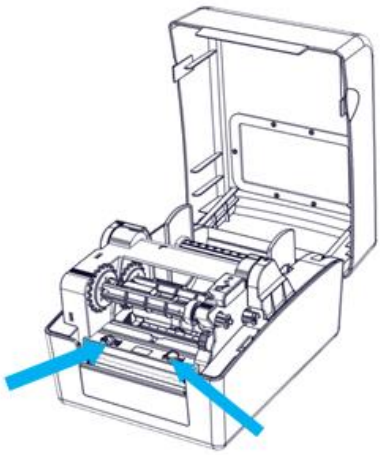


Figure 3.4.1

3.5 Ribbon protective plate adjustment

The front ribbon protective plate is normally installed to the top position. If the printout has pleated lines due to the wrinkle of ribbon, firstly, loosen the left screw to adjust the left end of ribbon protective plate downward, then perform the print test. If there is no improvement, please make the left end back to the original position and fix the left screw, then loosen right screw to adjust the right end of ribbon protective plate downward. Continue the previous operation until the problem of pleated lines is solved (as shown in Figure 3.5.1).

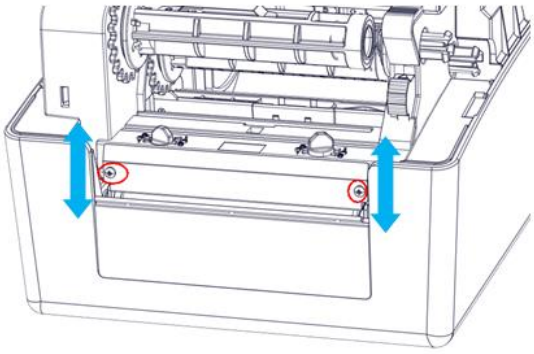


Figure 3.5.1

3.6 Print position adjustment

1) **Adjust vertical print position**

When the situation like figure A or B occurs, adjust the vertical print position to figure C.

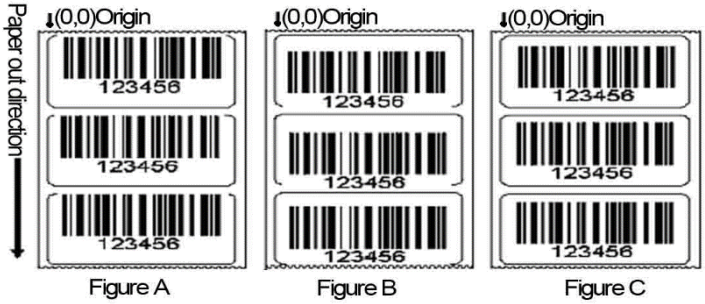


Figure 3.6.1

Caution:

- ✧ Figure A indicates that the print position is upper than the correct position. Adjust it in the negative direction (The data symbol in the option "Vertical position adjustment" is "+");
- ✧ Figure B indicates that the print position is lower than the correct position. Adjust it in the positive direction. (The data symbol in the option "Vertical position adjustment" is "-").

2) **Adjust horizontal print position**

When the situation like figure D or E occurs, adjust the horizontal print position to figure F.

Figure 3.6.2

Caution:

- ✧ Figure D indicates that the print position is on the left of the correct position. Adjust it in the positive direction (The data symbol in the option "Horizontal position adjustment" is "+");

✧ Figure E indicates that the print position is on the right of the correct position. Adjust it in the negative direction. (The data symbol in the option "Horizontal position adjustment" is "-").

3) **Adjust tear-off position**

When the situation like figure G or H occurs, adjust the tear-off position to figure J.

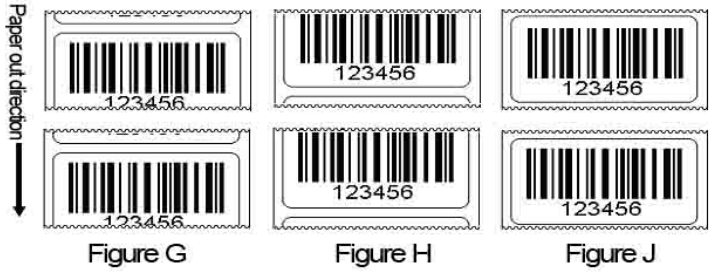


Figure 3.6.3

Caution:

✧ Figure G indicates that the tear-off position is upper than the correct position. Adjust it in negative direction; (The data symbol in the option "Tear-off position adjustment" is "-");

✧ Figure H indicates that the tear-off position is lower than the correct position. Adjust it in positive direction. (The data symbol in the option "Tear-off position adjustment" is "+").

4 Routine maintenance

Clean the print head, platen roller and sensor every month according to the following steps. If the printer works in a tough environment, the maintenance times can be properly increased.

4.1 Clean the print head

When any of the following cases occurs, the print head should be cleaned:

- Printout is not clear;
- Feed or retract paper with big noise;
- Something else sticks onto the print head.

Follow the steps below to clean the print head:

1) Turn off the printer and open the top cover;
2) Lift up the top cover and find the print head. Wait for print head to cool down completely if it has just finished the printing;
3) Wipe off the dust and stains on the surface of the print head with 75° alcohol cotton ball (it should be wrung out);
4) Wait for 5 to 10 minutes until the alcohol evaporates completely, press down print head module, and close the top cover.

4.2 Clean the platen roller

When any of the following cases occurs, the platen roller should be cleaned:

- Printout is not clear;
- Feed and retract paper with big noise;
- Something else sticks onto the platen roller.

Follow the steps below to clean the platen roller:

1) Turn off the printer and open the top cover;
2) Uplift the top cover and find the platen roller. Wait for the platen roller to cool down completely if it has just finished printing;
3) Wipe off the dust and stains on the surface of the platen roller with 75° alcohol cotton ball (it should be wrung out) while turning the platen roller;
4) Wait for 5 to 10 minutes until the alcohol evaporates completely, and close the top cover.

Caution

- Before starting routine maintenance of printer, make sure the printer is turned off;
- Do not touch the surface of print head with hands or metal. Do not use forceps in case it scratches the surface of the print head, platen roller and sensor;
- Do not use organic solvent like gasoline, acetone etc. to clean the print head or platen roller;
- Please wait for alcohol to evaporate completely before starting printing.

5 Troubleshooting

When the printer has a malfunction, please handle it with reference to this charter. If it still can not be cleared, please contact SNBC or your local dealer.

5.1 Troubleshooting

The error LED flashes and the buzzer beeps when an error or exception occurs. At this time, the printer stops the printing. Please handle it with reference to the following method:

Error indication mode:

Error message	Buzzer	Error LED
Print head up	Beeps twice	Red LED flashes 2 times circularly
Paper end	Beeps 3 times	Red LED flashes 3 times circularly
Ribbon out	Beeps 4 times	Red LED flashes 4 times circularly
Abnormal temperature of print head	Beeps 5 times	Red LED flashes 5 times circularly
Mark location failure	Beeps 6 times	Red LED flashes 6 times circularly
Mark calibration error	Beeps 7 times	Red LED flashes 7 times circularly

Troubleshooting methods:

Error LED status	Reason analysis	Solutions
Print head up	Print head is lifted up.	Please press down the print head.
	The micro switch has a failure.	Contact the maintainer.
Paper end	Paper roll is used up or no paper roll is installed.	Install a paper roll.
	Paper jam	Clear the paper jammed.
	Paper roll surface is dirty or damaged.	Please skip the dirty or damaged part.
	Paper roll breaks away from the mark sensor.	Install a paper roll again.
	The surface of mark sensor is dirty.	Clean mark sensor surface.
	The position of reflective sensor is not correct.	Adjust the sensor position according to the description in Section 3.3.
	Paper roll type does not match with mark sensor type.	Set the paper type in printer driver to make it consistent with actual paper type.
Lack of ribbon	Ribbon is used up	Install ribbon
	Ribbon is jammed	Clear up the ribbon
	Ribbon sensor has failures	Replace the ribbon sensor
Print head temperature abnormal	Operating environment temperature is too high, causing overheating print head.	Please improve ventilation condition. The printer can return to normal with the fall of temperature.
	Print darkness is too high.	Lower the print darkness properly.

	Paper is jammed in the path, causing heat accumulation and overheating print head.	Clear the paper jammed. Check if the print head test pattern is normal or not after the temperature of print head drops. If normal, the printer can continue to work; otherwise please replace the print head.
Mark location failure or mark calibration failure	Paper type does not match with sensor type.	Set the paper type in printer driver to make it consistent with actual paper type.
	Something wrong with marked paper (for example: no mark or unclear mark)	Use the required media.
	Mark height is less than the required height.	Use the required media.

Table 5.1.1

5.2 Print quality problems

Malfunction	Reason	Solution
Printout is unclear or has stains.	Print head or platen roller is dirty.	Clean the print head or platen roller.
	Paper does not meet the requirement.	Use recommended paper.
	Print darkness is too low.	Increase print darkness.
	Paper is not installed correctly.	Install paper roll correctly.

Table 5.2.1

Appendix

Appendix 1 Technical specification

Appendix 1.1 Main technical specifications

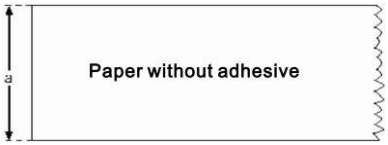
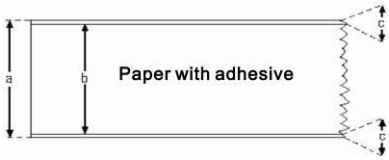
Item		BTP-4200E parameter	BTP-4300E parameter
Printing	Resolution	203DPI	300DPI
	Print method	Thermal/Thermal transfer	
	Print width (Max.)	108mm	106mm
	Print speed (Max.)	150mm/s	100mm/s
	CPU	32-bit RISC microprocessor	
	Memory	FLASH：16MB SDRAM：32MB	
	Print head temperature detection	Thermal resistor	
	Print head position detection	Micro switch	
	Paper mark detection	Photoelectric sensor	
	Paper existence detection	Photoelectric sensor	
	Communication interface	Standard configuration: USB interface. Optional: serial interface, Ethernet interface, Bluetooth or WiFi interface.	
Media	Paper type	Continuous paper, label paper, marked paper, punched paper	
	Paper roll OD (Max.)	127mm (5 inches)	
	Paper roll width (Max.)	118mm	
	Paper roll ID	25mm (1 inch) / 38mm (1.5 inch)	
	Paper thickness	0.06~0.25mm	
	Ribbon length (Max.)	300m	
	Ribbon ID	12.7mm/25.4mm	
	Paper output mode	Tear-off / Rewinding / peel-off (optional) / cutter (optional)	
Character Barcode Graphics	Character enlargement / rotation	**BPLZ command set:** Support four types of rotation printing (0°, 90°, 180°, 270°). Bitmap fonts can be enlarged up to 10 times. Vector fonts can be zoomed without scale. **BPLA command set:** Support four types of rotation printing (0°, 90°, 180°, 270°). Fonts can be enlarged 1-8 times in vertical and horizontal directions.	

	Character set	Built-in 7 bitmap fonts and 1 vector font (only supported by BPLZ command set).
		Support user to download bitmap fonts and vector fonts (only supported by BPLZ command set).
	Graphics	Plain bitmaps in binary system, HEX, PCX, BMP and IMG files can be downloaded to FLASH or RAM.
	Barcode	**BPLZ command set:** **1D barcode:** Code39, Code93, Codabar, Code128(Subsets A, B, and C), EAN-13, EAN-8, UPC-A, UPC-E, UPC/EAN Extensions, Planet Code, Standard 2 of 5, Industrial 2 of 5, Interleaved 2 of 5, LOGMARS, GS1 DataBar (RSS) **2D barcode:** PDF 417, MicroPDF417, QR Code, DataMatrix, MaxiCode, GS1 Composite **BPLA command set:** **1D barcode:** Code39, UPCA, UPCE, interleaved 2 of 5, Code128, EAN13, EAN8, HBIC (Code39 with checkmark), Codabar, Industrial / interleaved 2 of 5, storage and transportation code, UPC2, UPC5, Code93, Postnet 25 (China), UCC/EAN code, matrix 25 code, POSTNET code, etc. **2D barcode:** PDF 417, MAXICODE, QR Code
Operation interface	Button, LED	1 button, 2 LEDs
Power adapter	Input	AC 110～240V, 50/60Hz
	Output	DC 24V, 2.5A
Environmental requirements	Operating environment	+5℃～45℃, 20%～90%(40℃)
	Storage environment	-40℃～60℃, 20%～93%(40℃)
Physical features	Overall size	280mm(L) ×218mm(W)×180mm(H)
	Weight	About 2.2Kg (standard configuration)

Appendix table 1.1.1

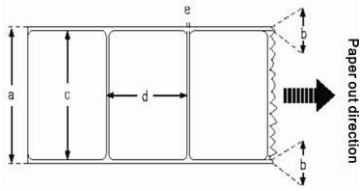
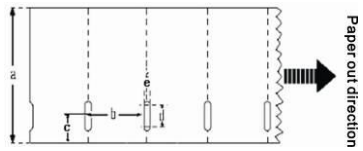
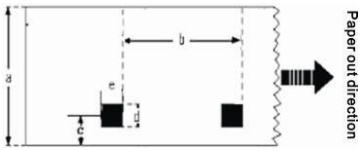
Appendix 1.2 Technical specifications of paper

1) Specifications of continuous paper (unit: mm)

Type	Illustration	Index
Continuous paper without adhesive		Print paper width: 25≤a≤118
Continuous paper with adhesive		Base paper width: 25≤a≤118 Print paper width: 25≤b≤118 Paper margin width: c ≤1

Appendix table 1.2.1

2) Specifications of discontinuous paper (unit: mm)

Type	Illustration	Index
Discontinuous label paper with adhesive		Base paper width: 25≤a≤118 Paper margin width: b≤1 Label width: 25≤c≤118 Label height:: d≥10 Gap width: e≥2
Discontinuous punched paper without adhesive		Punched paper width: 25≤a≤118 Punched paper height: b≥10 Detection hole position: c≤a/2 Detection hole width: d≥5 Detection hole height: e≥2
Discontinuous marked paper without adhesive		Marked paper width: 25≤a≤118 Marked paper height: b≥10 Mark position: c≤a/2 Mark width: d≥10 Mark height: e≥4

Appendix table 1.2.2

Note:

The consumables must meet the following requirements:

The transmittance of label base paper is ≥70%, and the reflective of label paper is 10%~20%.

Appendix 2 Self-test page

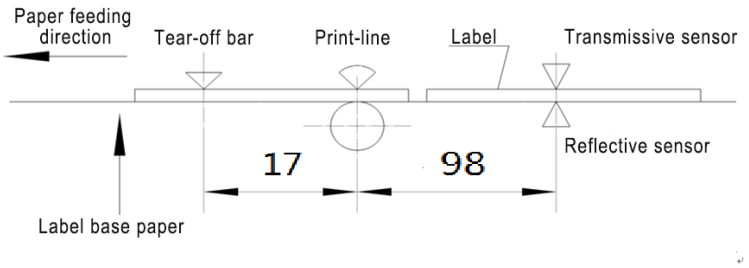
Self-test page includes printer configuration information, reflects the current internal configuration of the printer.

Printer configuration information (BPLZ II) (this information is related to the configuration of the printer.)

PRINTER CONFIGURATION
BTP-4200E……MODEL
FV1.010……MAIN FIRMWARE
BPLZ……COMMAND
15…… DARKNESS
+0…….. TEAR OFF
TEAR OFF…… PRINT MODE
GAP/NOTCH..…….. MEDIA TYPE
WEB…… SENSOR TYPE
MANUAL…… SENSOR SELECT
THERMAL-TRANS…… PRINT METHOD
864…….. PRINT WIDTH
568…… LABEL LENGTH
43IN 1100MM…… MAXIMUM LENGTH
ENABLE…..…….. USB COMM
NONE……PARALLEL COMM
115200……...BAUD
8 BITS……DATA BITS
NONE…… PARITY
DTR/DSR..…… HOST HANDSHAKE
NONE…… PROTOCOL
<~> 7EH…… CONTROL CHAR
<^> 5EH……... COMMAND CHAR
<,> 2CH…… DELIM. CHAR
NO MOTION…… MEDIA POWER UP
NO MOTION…… HEAD CLOSE
BEFORE..……..BACKFEED
+0…… LABEL TOP
+0…… LEFT POSITION
5.1IPS..…… PRINT SPEED
5IPS…… FEED SPEED
5IPS……..…… BACKFEED SPEED
864 FULL..……... RESOLUTION
32768K……..……... R: RAM

16384K……..E: ONBOARD FLASH
NONE…….. FORMAT CONVERT
START……..T SETTINGS
10……..DENSITY
0……..DIRECTION
0……..OFFSET
0……..REFERENCEX
0……..REFERENCEY
0……..SHIFT
850……..CODEPAGE

Appendix 3 Print and paper output position



Appendix figure 3.1

Caution

- ✧ The figure above takes the marked paper as an example to explains the print and paper output position;
- ✧ Discontinuous paper locates by the front edge of the mark;
- ✧ Refer to Section 3.6 to adjust the print and paper output position.

Appendix 4 Communication interface

Appendix 4.1 Serial interface

1) Interface signal

Pin	Signal name	Signal direction	Function
1	None		
2	RXD	Input	Data input terminal
3	TXD	Output	Data output terminal
4	DTR	Output	Data terminal ready
5	SG	–	Signal ground
6	DSR	Input	Data device ready
7	RTS	Output	Request transmission
8	CTS	Input	Allow transmission
9	FG	–	Frame ground

Appendix table 4.1.1 printer signal and status

2) Wiring diagram

PC Printer
TXD----------RXD
RXD----------TXD
CTS----------RTS
RTS----------CTS
SG ----------SG

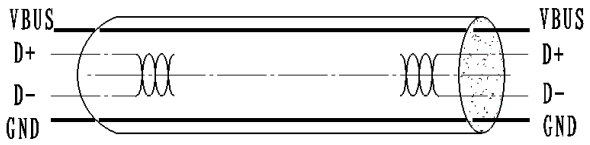
Caution

The following connection method can be used, which only needs 3 wires. This method applies to small data amount or XON/XOFF flow control:

PC Printer
TXD----------RXD
RXD----------TXD
SG ----------SG

Appendix 4.2 USB interface

USB interface meets USB2.0 protocol standard and is optional.
USB interface transmits signal and power via a four–wire cable, as shown in the following figure:



Appendix figure 4.3.1 USB cable

Wire D+ and D- in appendix figure 4.3.1 are used for signal transmission, and the VBUS is +5V.

Appendix 4.3 Ethernet interface

1) Socket parameters

Comply with the 10BASE-T standard of IEEE802.3.

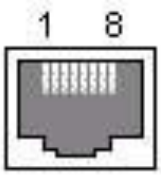


Figure 4.3-1 Socket of interface end

Pin	Signal name	Description
1	TX+	Transmit data +
2	TX-	Transmit data -
3	RX+	Receive data +
4	NC	Reserved
5	NC	Reserved
6	RX-	Receive data -
7	NC	Reserved
8	NC	Reserved

Table 4.3-1 Pin list of interface module

2) Electrical characteristics of interface:

- Output signal

  The effective DMV (differential mode voltage) should be more than 450 mV, and the peak voltage is no more than 13 V;

  Common mode AC peak voltage is no more than 2.5 V.

- Input signal

  If the DMV is more than 160 mV, then it is effective signal.