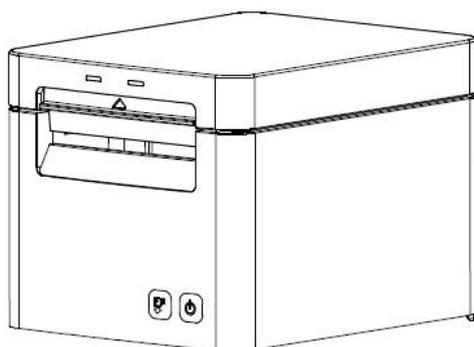




# Thermal Receipt Printer SP900 User Manual



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# Statement

## Copyright

This manual is printed in 2021

Version 1.0

## Warnings



This must be complied with in order to avoid any damage to the human body and to the equipment.



This is showing the important information and tips for the printer operating.



**Note:** Due to continuous update of product, please take in kind of real machine, such as accessories, programs etc.

# Important Safety Instructions

## 1. Safety Warning



Warnings: The print head will become very hot during printing; avoid contact with the print head after printing has finished.



Warnings: Do not touch the printer head and connector in case static damage the printer head.

## 2. Instructions

Carefully read the installation and operating instructions provided with the printer before starting up your printer.

- 1) Place the printer on a flat and stable surface.
- 2) Leave enough space around printer for operation and maintenance.
- 3) Do not place the printer on or near a heat source.
- 4) Do not use the printer near water. Never spill liquid into the printer.
- 5) Do not expose the printer to high temperatures, direct sunlight or dust.
- 6) Protect the printer from shock, impact and vibration.
- 7) Be certain the power source is within the voltage rating and frequency listed for the printer.
- 8) Switch off the printer power supply when won't use it for a long time.
- 9) Do not place the power cord where it can be stepped on. If the power cord becomes damaged or frayed, replace it immediately.
- 10) To ensure the print quality and reliability, you are suggested to use the recommended paper or the same quality paper.
- 11) Please switch off the power supply when connect/disconnect all the ports or it will cause damage to the printer control circuit.
- 12) Never carry out maintenance or repair work yourself. Always contact a qualified service technician.
- 13) Keep this User Manual in a place which is easily accessible at all times.

**◆ Other Precautions**

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**◆ 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 others 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.



**Caution: This is a Class A product. In a domestic environment this product may cause radio interference in which the user may be required to take adequate measures.**

# **1 OVERVIEW**

## **1.1 Introductions**

SP900 is a thermal receipt printer, featured by high print quality, high print speed, high stability, etc. It can be used in commercial POS system, food industry and occasions which need real-time field print receipts.

## **1.2 The Main Features**

- 1) Low noise
- 2) High print speed
- 3) Easy paper loading
- 4) Support page mode printing
- 5) Compatible with various width paper
- 6) Cash drawer interface

## 2 GETTING STARTED

### 2.1 Packing List

After receiving your printer, please check for possible shipping damage:

- 1) Inspect the outside of both the box and the printer for possible damage.
- 2) Check whether you have received the following accessories together with the printer, if there is any items missing, please contact your local dealer.



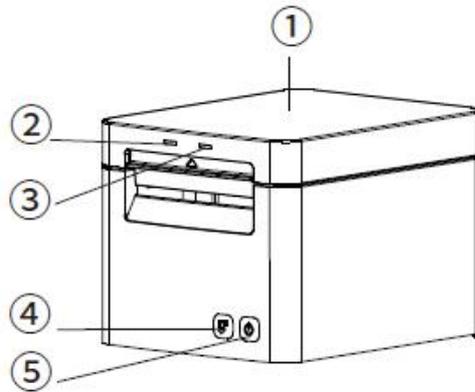
**Notes:**

- 1) *The items in the package depend on the actual order.*
- 2) *The power cord varies by country or region.*

## 2.2 Appearance and Components

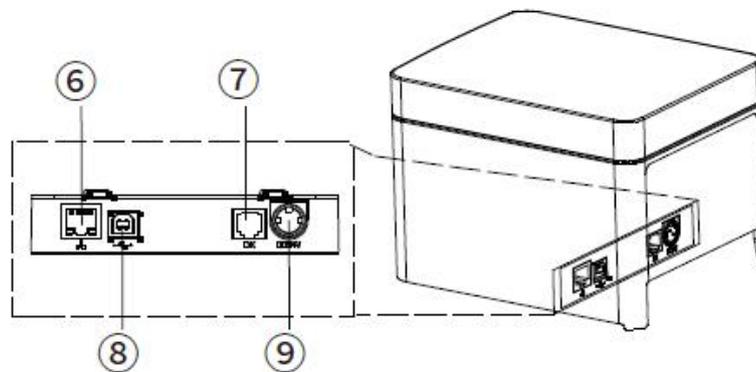
### • Front

- ① Printer Cover
- ② Error LED Indicator
- ③ Power LED Indicator
- ④ Feed Button
- ⑤ Power Button



### • Rear

- ⑥ Ethernet Interface
- ⑦ Cash Drawer Interface
- ⑧ USB Interface
- ⑨ Power Supply Interface



## 3 SPECIFICATION

### 3.1 Printer Specification

**Table3-1 General Specification**

(1/2)

Item		Parameter
Printing Parameter	Printing Method	Direct thermal line printing
	Resolution	203dpi, 8dots/mm
	Printing Width	72mm(default)/48mm
	Print Speed	260mm/s
	Interface	Standard: USB, Ethernet, Cash drawer Optional: WiFi, BT
	Print density	Adjustable from level 1 to level 4
Page Mode		Support
Memory	RAM	4MB
	Flash	4MB
Fonts	Chinese	GBK 24×24
	Alphanumeric	ASC II 9×17, 12×24.
	User-defined	Support
	Code page	Optional character sets: PC437(std.Europe), Katakana, PC850(Multilingual), PC860(Portuguese), PC863(Canadian), PC865(Nordic), PC857(Turkish), PC737(Greek), ISO08859-7(Greek), WPC1252, PC866(Cyrillic #2), PC852(Latin 2), PC858(Euro), KU42(Thai), TIS11(Thai), TIS18(Thai), PC720(Arabic), WPC775(Baltic Rim), PC855(Cyrillic), PC862(Hebrew), PC864(Arabic), ISO8859-2(Latin2), ISO8859-15(Latin9), WPC1250(Latin 2), WPC1251(Cyrillic), WPC1253(Greek), WPC1254(Turkish), WPC1255(Hebrew), WPC1256(Arabic), WPC1257(Baltic Rim), WPC1258(Vietnamese), MIK(Cyrillic), PC755(Latin 2), Iran, Iran II, Latvian, ISO-8859-1(WestEur), ISO-8859-3(Latin 3), ISO-8859-4(Baltic), ISO-8859-5(Cyrillic), ISO-8859-6(Arabic), ISO-8859-8(Hebrew), ISO-8859-9(Turkish), PC856, PC3848(ABICOMP), MONGOLIAN, VISCII
Barcode	1D	UPC-A, UPC-E, EAN8, EAN13, CODE39, CODE93, ITF, CODEBAR, CODE128
	2D	PDF417, QR code
Graphics		Support varied density bitmap as and download bitmap printing, and the total size of bitmap is 256K.
Detection	Standard	Paper end detection, cover opening detection, cutter jam detection, over-temperature detection
	Optional	Paper near end, black mark detection
LED indicator		Power LED, status indicator

Table3-1 General Specification (Continued)

(2/2)

Item		Parameter
Power Supply	Input	AC100V-240V
	Output	24V $\pm$ 2.5A
Paper	Paper type	Specified Thermal Paper
	Paper width	58 <sup>+0</sup> <sub>-1</sub> mm/80 <sup>+0</sup> <sub>-1</sub> mm/83 <sup>+0</sup> <sub>-1</sub> mm
	Paper thickness	0.056 ~ 0.13mm
	Roll paper diameter	Max. OD $\phi$ 83mm
	Paper load	Easy-loading structure of upward open cover
	Paper cut	Partial cut or full cut
Physical Spec.	Operating condition	0°C ~ 40°C, 20% ~ 85%RH, non-condensing
	Storage condition	-20°C ~ 70°C, 5% ~ 95%RH, non-condensing
	Dimensions	165.4(L)*130(W)*119.3(H)mm
	Weight	1.24kg
Command		ESC/POS
Software	Driver	Windows Server 2008/2012/2016, Windows 7/8/10, Linux, Javapos, OPOS, MacOS
	SDK	WinCE, Android, iOS

## 3.2 Printing Media Specification

### 3.2.1 Continuous Thermal Paper Specification

Paper Type : Specified Thermal Paper  
Paper Width : 57.5±0.5mm/79.5±0.5mm/82.5±0.5mm  
Paper Outer Diameter : Max. 83 mm  
Paper Thickness : 0.053 ~ 0.085mm

Paper Type	Manufacturer	Thickness
FD210	OJI Paper CO., LTD.	0.062mm

### 3.2.2 Notices



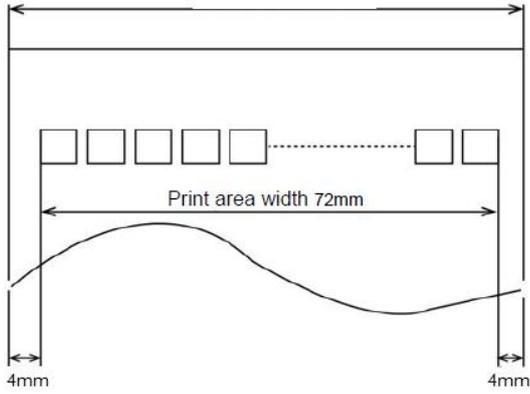
#### Notes:

- Please use the recommended thermal paper or same quality paper, otherwise it will influence the printing quality and decrease the thermal printer head life;
- Don't stick the paper on the roll paper mandril;
- If the thermal paper is polluted by chemical or oil, the thermal paper heat sensibility decreases, which will influence the printing quality;
- Don't use finger nail or hard articles to touch the surface of thermal paper, otherwise it will cause color fading;
- When the environment temperature is higher than 70°C, the thermal paper color will fade, so pay attention to the influence of temperature, humidity and sunlight.

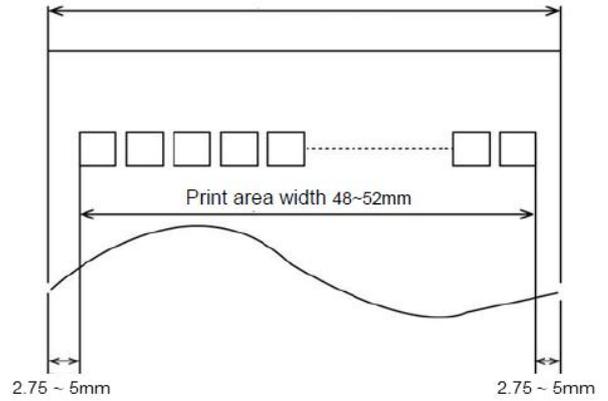
### 3.3 Printing and Cutting Position

#### 3.3.1 Printing position

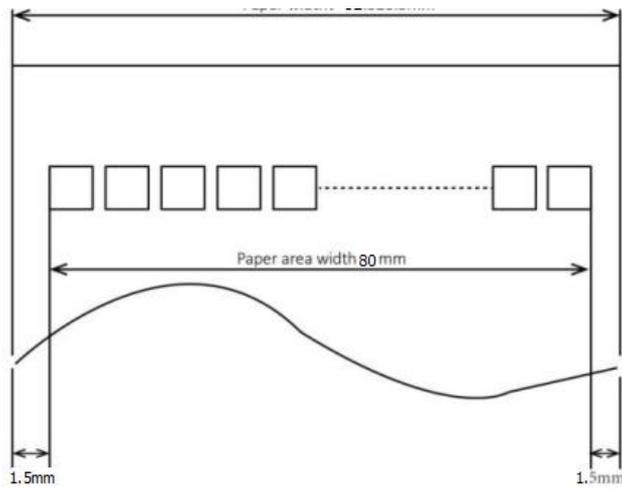
79.5mm Print Paper



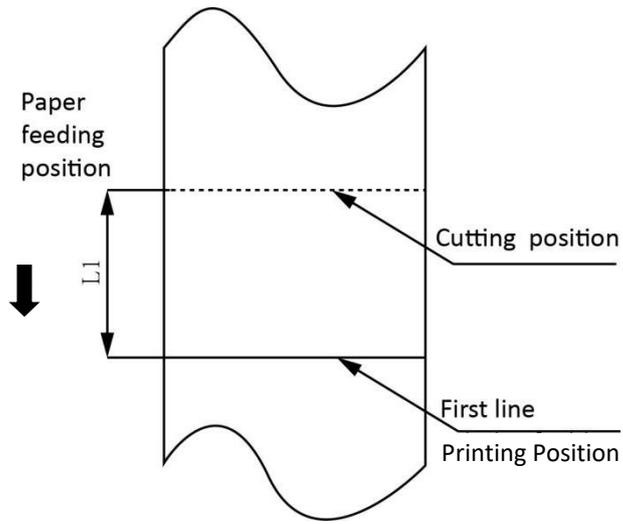
57.5mm Print Paper



82.5mm Print Paper



3.3.2 Cutting Position



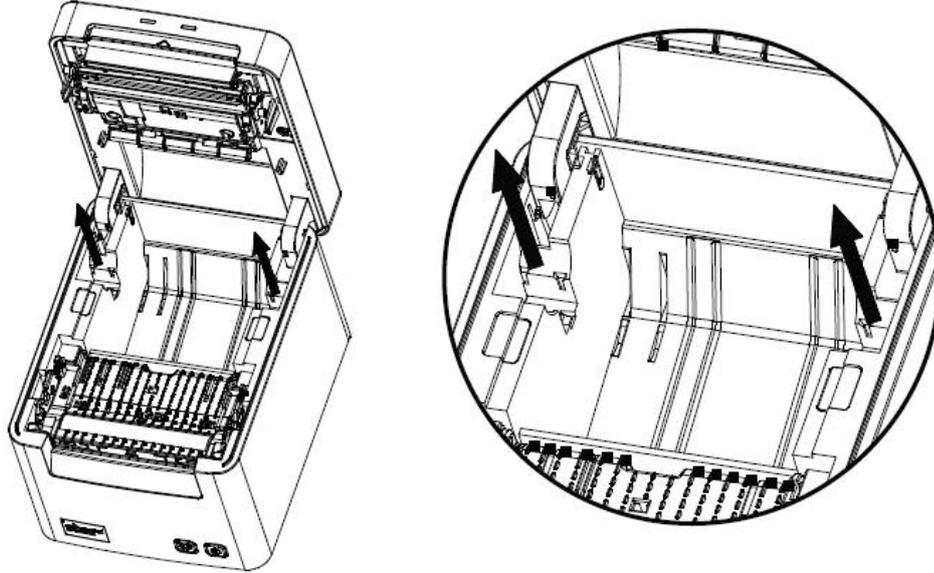
Type	Paper Cutting Position(L1)
SP900	12±1mm

## 4 INSTALLATION AND USAGE

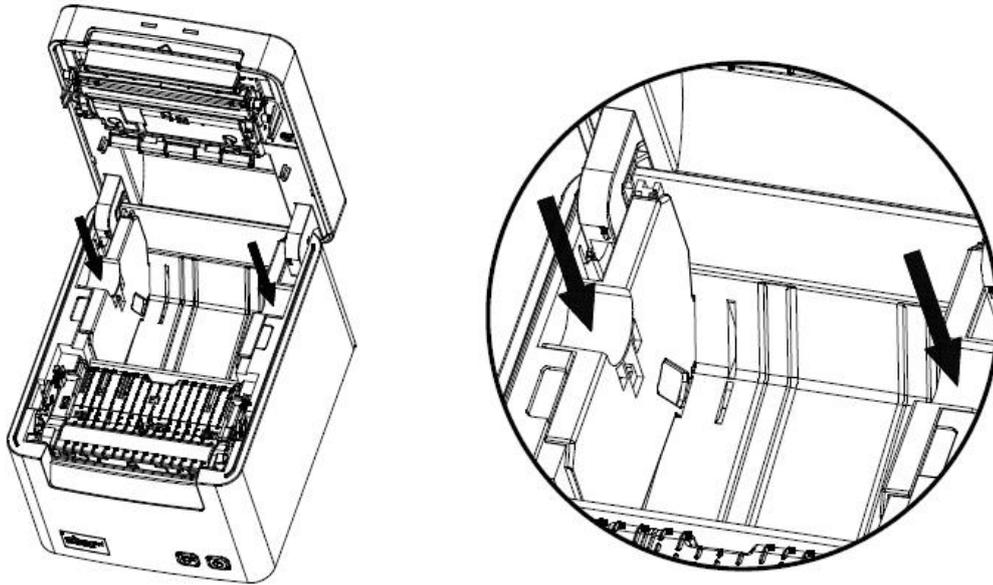
### 4.1 Media Loading

#### 4.1.1 Paper Confirmation

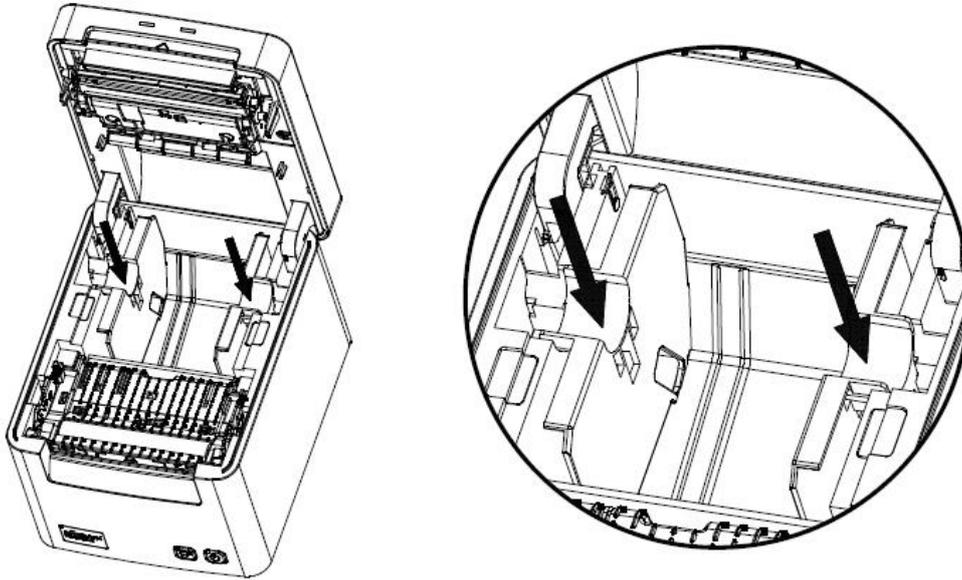
- 1) When using 82.5mm(width) roll paper, take out the paper guide of both sides.



2) When using 79.5mm(width) roll paper, insert the paper guide to each side.



- 3) When using 57.5mm(width) roll paper, insert the paper guide to each side.(by the middle position)

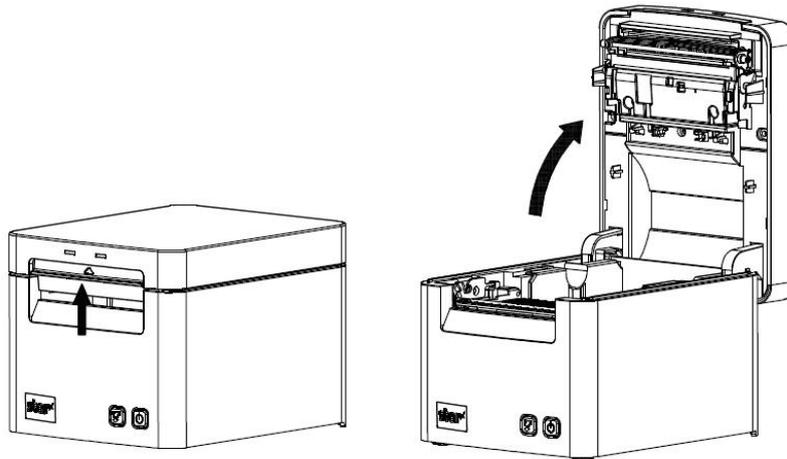


**Note:**

- 1) *Roll paper should be placed in the middle.*
- 2) *Insert the paper guide straight so that it is not set at an angle.*

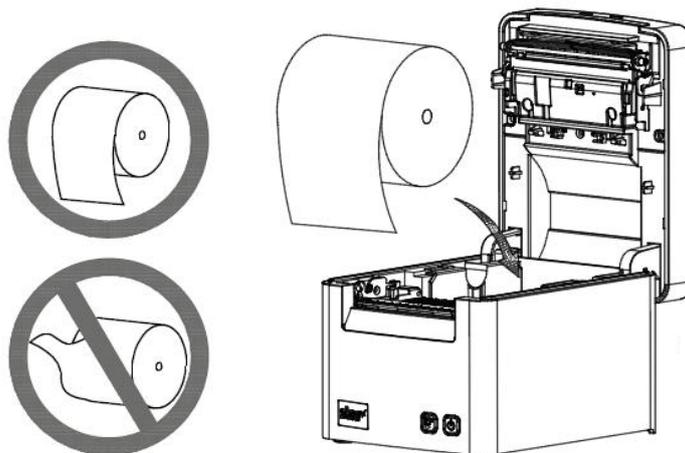
### 4.1.2 Paper Installation

1) Pull up the cover open lever on the front of the printer, and then open the printer cover.

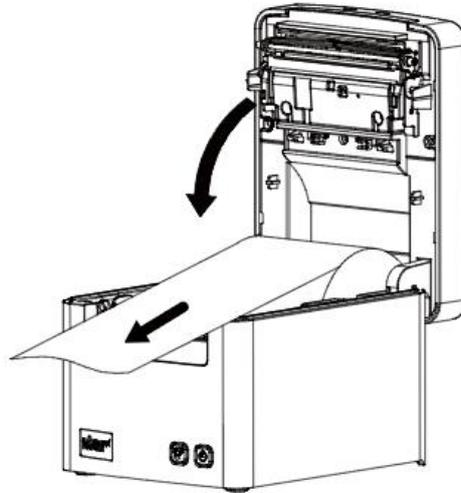


2) Remove the used roll paper core, if any.

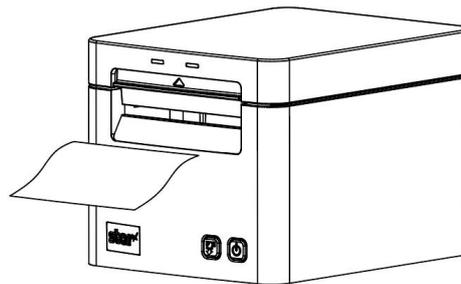
3) In the correct direction of the roll paper, insert the roll paper.



4) Pull out some roll paper, and close the printer cover.



5) Remove the piece of paper that is cut automatically.



**Notes:**

- 1) According to the paper size to adjust the paper guide;**
- 2) Make sure the paper inside is at tight status, or it will issue paper or other obstacle.**

## 4.2 LED Indication and Beeper

Function specification of indicated light and beeper.

Problem Description			Status
LED		Beeper	
Power	Error		
On	On	beep beep, beep beep	Cover open
On	Flashing interval: 1s	Beep beep beep beep, beep beep beep beep	Paper end
On	Flashing interval: 0.12s	Beep beep beep-, Beep beep beep-	Cutter error
Flashing interval: 1s	Off	Silent	Print head over-temperature
On	Flashing interval: 2s	Silent	Paper near-end
Off	Flashing interval: 2s	Silent	Over/Low Voltage

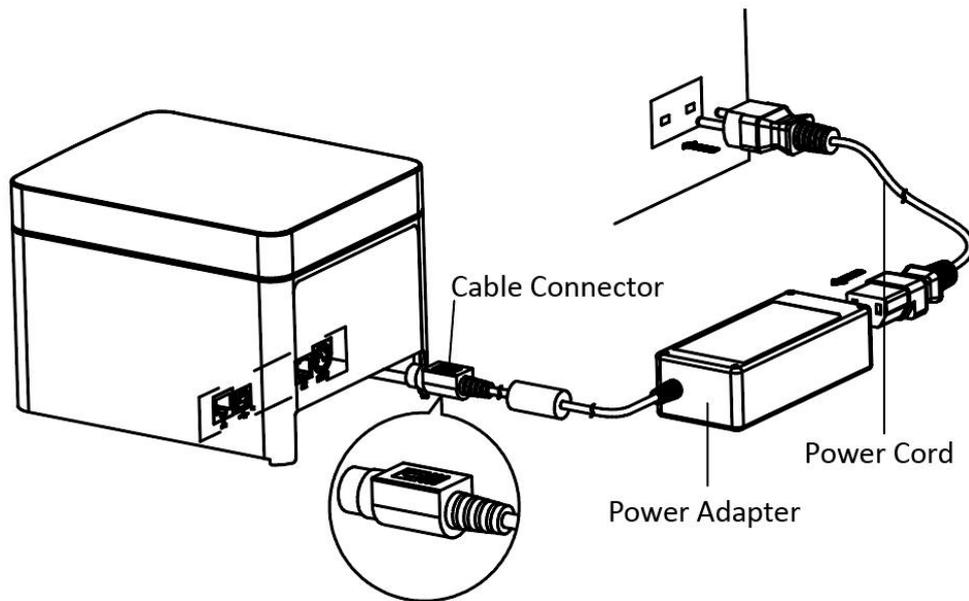


**Notes:**

**1) The printer use a thermistor to detect the temperature of the print head. If the temperature of print head is more than 65°C, printer will send a warning. If the temperature of print head is more than 80°C, printer will stop working until the temperature is less then 60° C.**

### 4.3 Power Connection

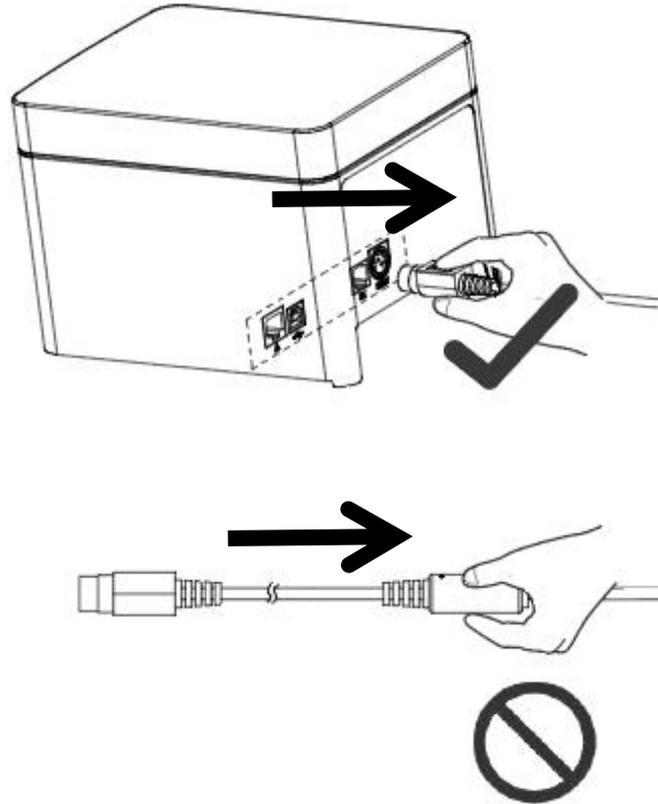
- 1) Put the cable connector of power adapter facing up at flat side. Plug in the cable connector of the power adapter to the power connector at the rear of the printer.
- 2) Connect the power cord to the power adapter, and insert the power cord plug into a suitable wall outlet.
- 3) Be sure to disconnect or connect the Power adapter by correct method, or it is likely to cause damage.



**Note:** The Power adapter and power cord vary by local and region.

When disconnecting the cable, take hold of the cable connector to pull it out. Releasing the lock makes it easy to disconnect the connector.

Pulling the cable excessively could cause damage to the connector.



**Notes:**

- 1) *Please only use the power adapter recommended by supplier or equivalent products.*
- 2) *When disconnecting the power adapter plug, handheld plug connector housing to avoid the pulling on the cable in force.*
- 3) *Avoid dragging the power adapter cable, otherwise it will damage the cables, causing fire and shock.*
- 4) *Avoid putting power adapter around a heating device, otherwise the cable may melt, causing fire and shock.*
- 5) *If you do not use the printer for a long time, disconnect the power supply of printer power adapter.*

## 4.4 Interface Cable Connection

1. Make sure the printer's power switch is turned off.
2. Put the interface cable into the matched interface.
3. Connect the other end of the interface cable to the host.

## 4.5 Cash Drawer Connection

1. Make sure the printer's power switch is turned off;
2. Connect the cash drawer cable into the cash drawer interface on the rear side of the printer.



**Warning:**

*Cash drawer interface can only be connected to a voltage of 24V cash drawer device (can't connect to the phone line, etc.)*

## 4.6 Print Test

### 4.6.1 Print Self-Test

The self-test checks the printer's current settings, status and whether the printer has any problem.

1. Make sure the power is connecting and paper is loading properly.
2. Make sure the printer is off and printer cover closes properly.
3. Press the paper feed button and power button simultaneously turns the printer on.

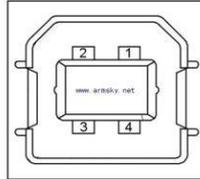
### 4.6.2 Printing of Windows Driver Program

1. Install the Windows Driver program. (Please refer to the Windows Driver Manual)
2. Please set the "Interface" as the type you use.
3. Use the Windows Driver Program to print out the "Print Test Page".

## 5 INTERFACES

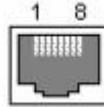
SP900 supports cash drawer interface and many other various communicate interfaces, such as USB interface, Ethernet interface.

### 5.1 USB Interface



PIN NO.	Signal Name
1	VBUS
2	D-
3	D+
4	GND

### 5.2 Ethernet Interface

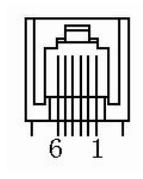


PIN NO.	Signal Name
1	TX+
2	TX-
3	RX+
4	-
5	-
6	RX-
7	-
8	-



**Note:** Ethernet interface can only be connected to an has been isolated SELV such interface of end device.

### 5.3 Cash Drawer Connector



PIN NO.	Signal Name
1	FG
2	Drawer 1
3	VDR
4	VDR
5	Drawer 2
6	DRSW

#### Electrical characteristics

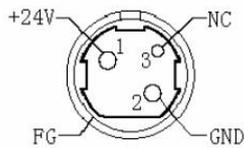
- Driving voltage: DC 24 V
- Driving current: Maximum 0.8 A ( In 510 ms)



**Caution:**

*Please do not connect phone line to cash drawer connector.*

### 5.4 Power Supply Connector



PIN NO.	Signal Name
1	+24V
2	GND
3	N.C
SHELL	F.G

## 6 TROUBLESHOOTING

Your printer is very reliable, but occasionally problems may occur. This chapter provides information on some common problems you may encounter and how to solve them. If you encounter problems that you can not resolve, contact your dealer for assistance.

### 6.1 Printer Not Working

Problem Description	Probable Reason	Solution
LED not light, printer not working	Printer no power	Connecting the power supply
	Printer not on	Press power button turns the printer on.
	Circuit board broken	Contact with the dealer

### 6.2 LED Indicator and Beeper

Problem Description		Beeper	Probable Reason	Solution
LED				
Power	Error			
Lit	Lit	Beep, beep	Rear cover open error	Close the printer cover
Lit	Flashing	Beep beep beep, beep beep beep	Paper out error	Reload the roll paper
Lit	Flashing	Beep beep, beeeep	Cutter error	Restart the printer. If problem remains, please contact your dealer
Flashing	Lights off	Silent	Print head thermistor high temperature stop	The printer recovers automatically when the thermal head cools.
Lights off	Flashing	Beep, beeeep	Print head thermistor error due to abnormal value detection	Print with specified voltage
Lights off	Flashing	Silent	Flash Memory write error	Check the validity of your configuration, reconfigure when necessary

### 6.3 Troubles Occur During Printing

Problem Description	Probable Reason	Solution
Blurred printing or spot	Incorrect roll paper installation	Check if the roll paper is installed
	Unqualified roll paper	Use recommended thermal roll paper
	Dirty thermal head or print roller	Clean the thermal head or print roller
	Low print density	Increase the print density level
Paper Jam	Paper strike	Open the printer cover, check the paper path and remove jammed paper
Vertical print words missing	Dirty thermal head or print roller	Clean the thermal head or print roller
	Thermal head damaged	Contact your dealer for assistance

## 6.4 Removing Jammed Paper



**Warning:** Do not touch the thermal print head because it becomes very hot after printing.

If the printer cover can be opened, operate it according to the next steps.

- 1) Open the printer cover.
- 2) Remove jammed paper, reload the roll, and close the printer cover.

## 7 PRINTER CLEANING AND MAINTENANCE

Print quality might be degraded by dust, foreign substance, adhesive substance, or other pollution materials stuck in the printer head or inside the printer.

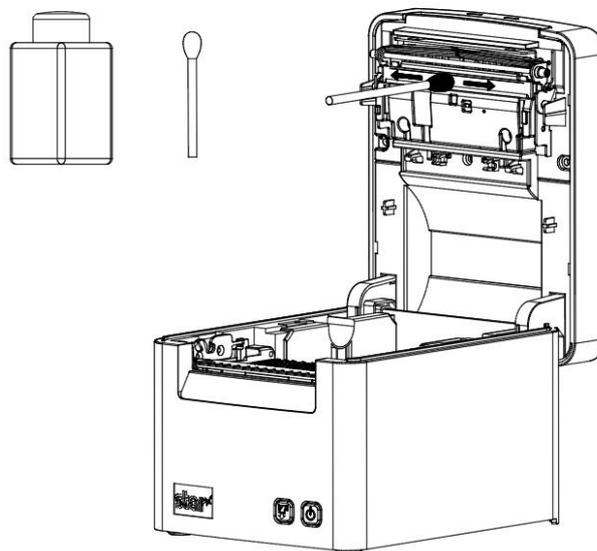
When dirty, clean the print head as follows:

### ※ CAUTION

- Make sure to turn off the printer prior to cleaning.
- As the print head gets hot during printing, intending to clean the print head, turn the printer off and wait approximately 2~3 minute before commencement.
- When cleaning the print head, take care not to touch the heated portion of the print head. Print Head is susceptible to damage from static electricity, etc.
- Take care not to allow the print head become scratched and/or damaged in any way.

### 7.1 Cleaning Head

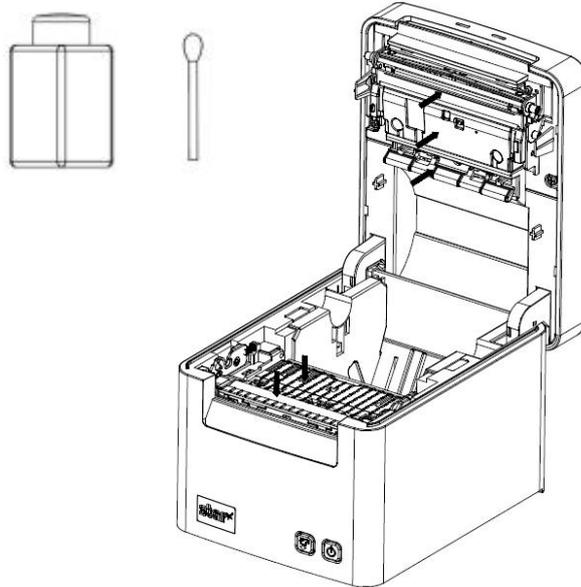
- 1) Open the Printer Cover and then use the cleaning pen to clean the head in the direction from the center of the head to the edges.



- 2) After cleaning the head, do not use the printer until the alcohol used for cleaning evaporates completely (1~2 min) and the printer has completely dried.

## 7.2 Cleaning Sensors, Roller and/or Paper Path

- 1) Open the printer cover and then remove the paper.
- 2) Remove any dust or foreign substance using dry cloth or cotton swab.
- 3) Soak the cloth or cotton swab in alcohol for medical use and use it to remove adhesive foreign substances or other pollution materials.
- 4) After cleaning the parts, do not use the printer until the alcohol evaporates completely (1~2 min) and the printer has completely dried.



※ Clean the parts whenever print quality or paper detection degraded.

## **8. UTILITY TOOL FOR POS INSTRUCTION**

Utility Tool is applicable to the following operating system:

- Microsoft Windows 10 (32 bit/64 bit)
- Microsoft Windows 8 (32 bit/64 bit)
- Microsoft Windows 7 SP1 (32 bit/64 bit)
- Microsoft Windows Vista SP2 (32 bit/64 bit)
- Microsoft Windows XP Professional SP3 (32 bit)
- Microsoft Windows Server 2012(64 bit)
- Microsoft Windows Server 2008 R2

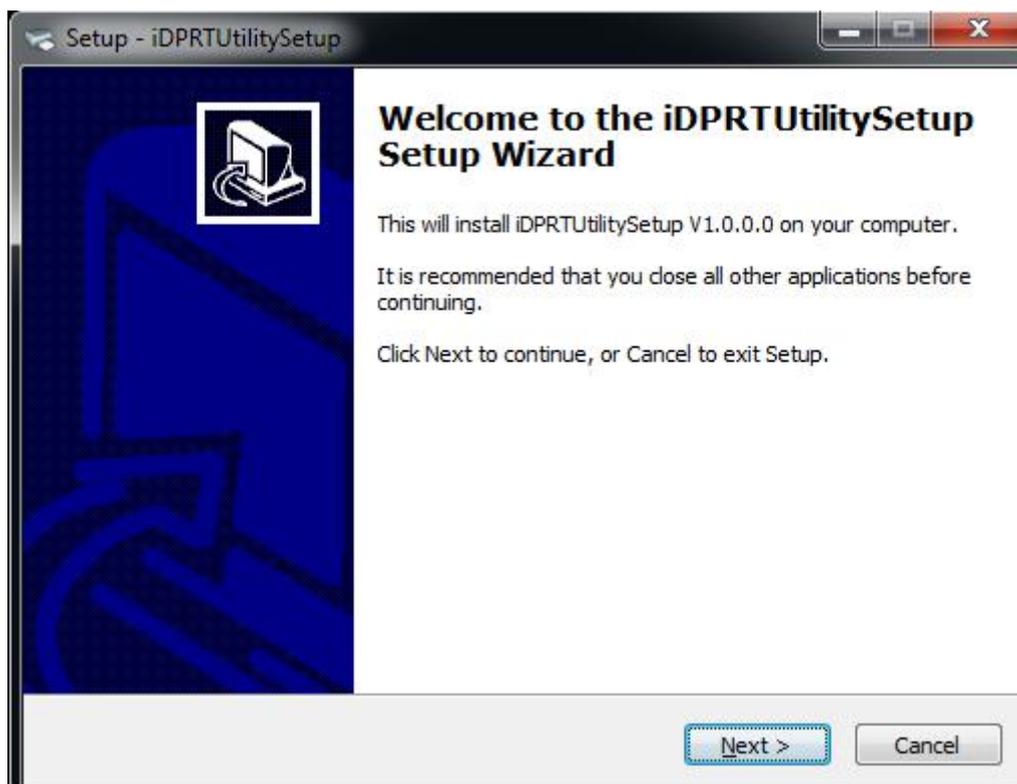
## 8.1 Utility Tool Installation

The following screens take Win 7 for example.

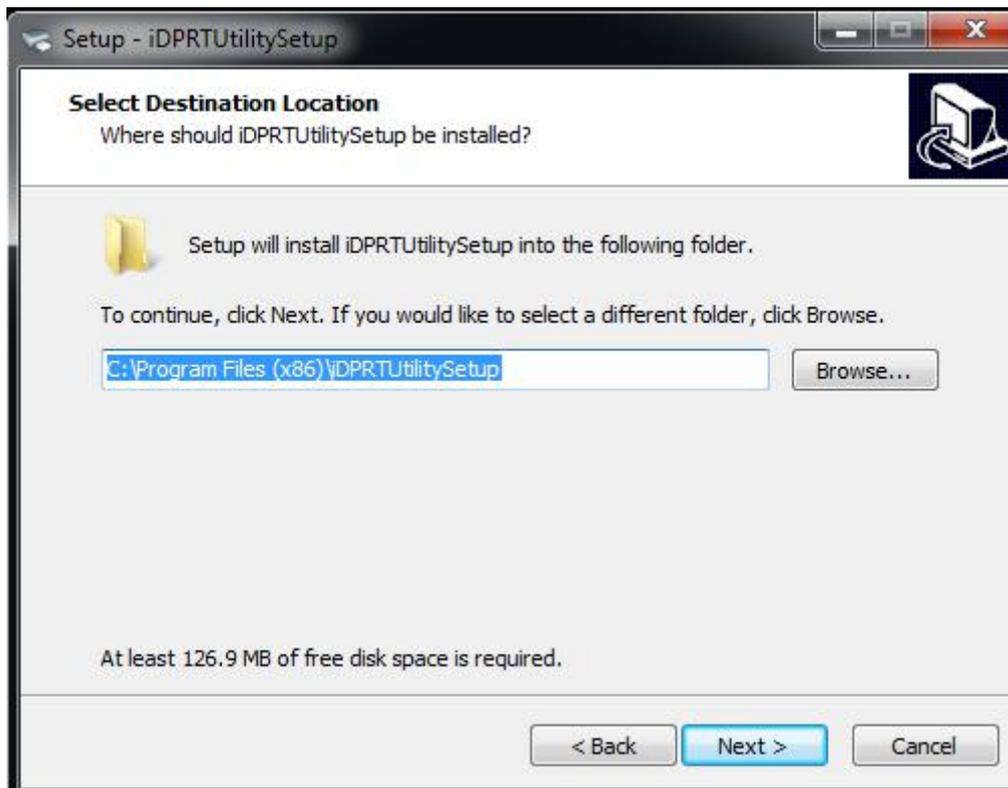
- 1) Open the installation package.
- 2) Choose “English” and click “OK”.



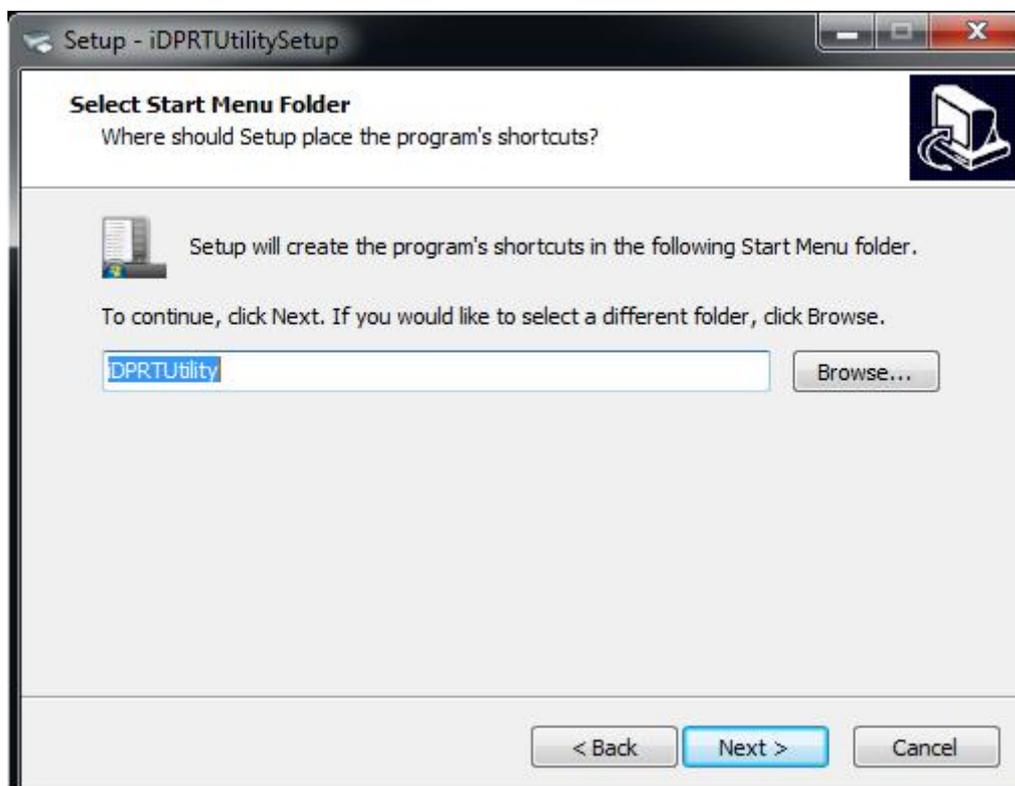
- 3) Choose “I accept the agreement”, then click “Next”.



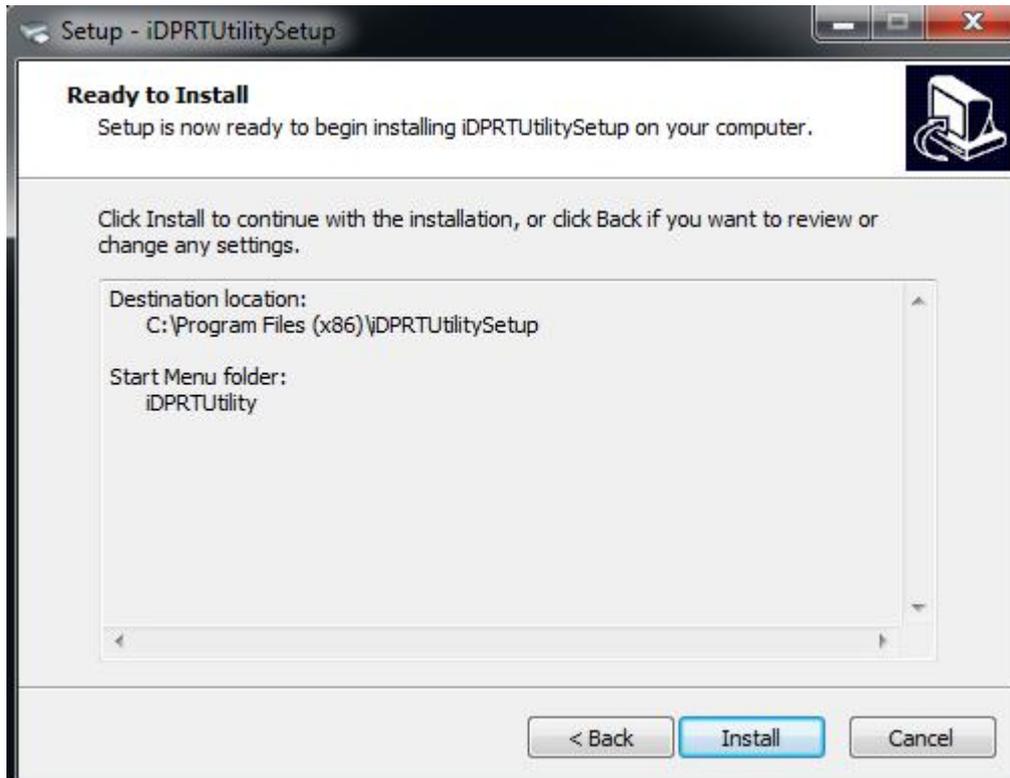
4) Click “Next”.



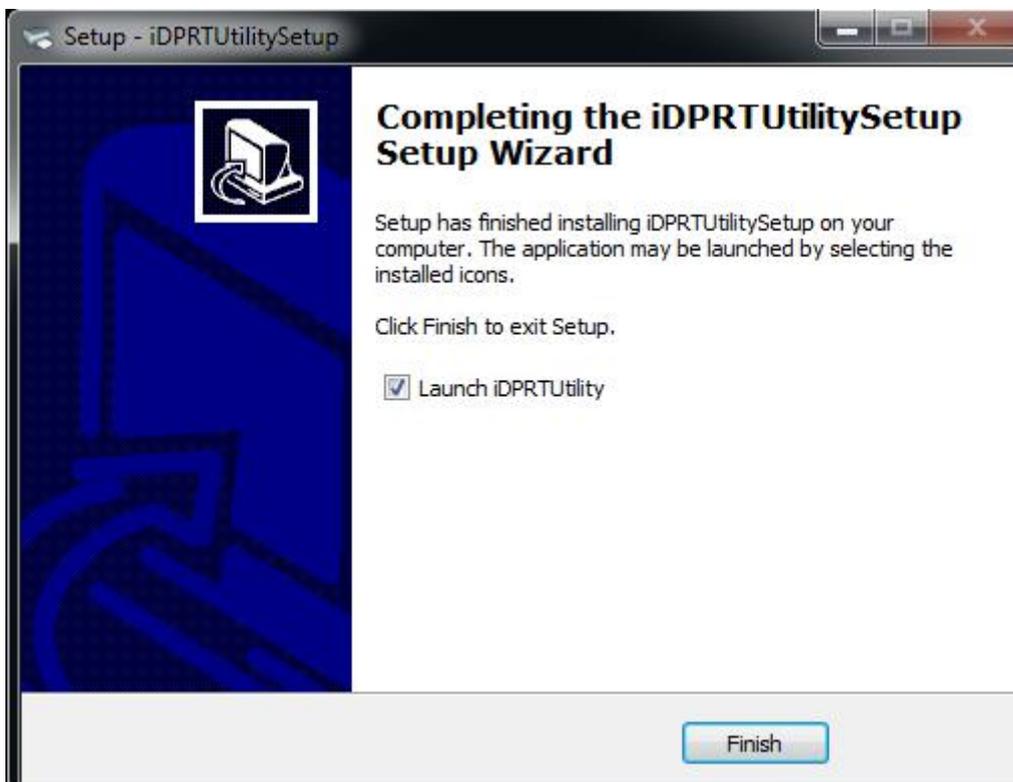
5) Select start menu folder. Click “Next”.



6) Click "Install".



7) Click "Finish". Utility is installed successfully.



## 8.2 Using Utility Tool

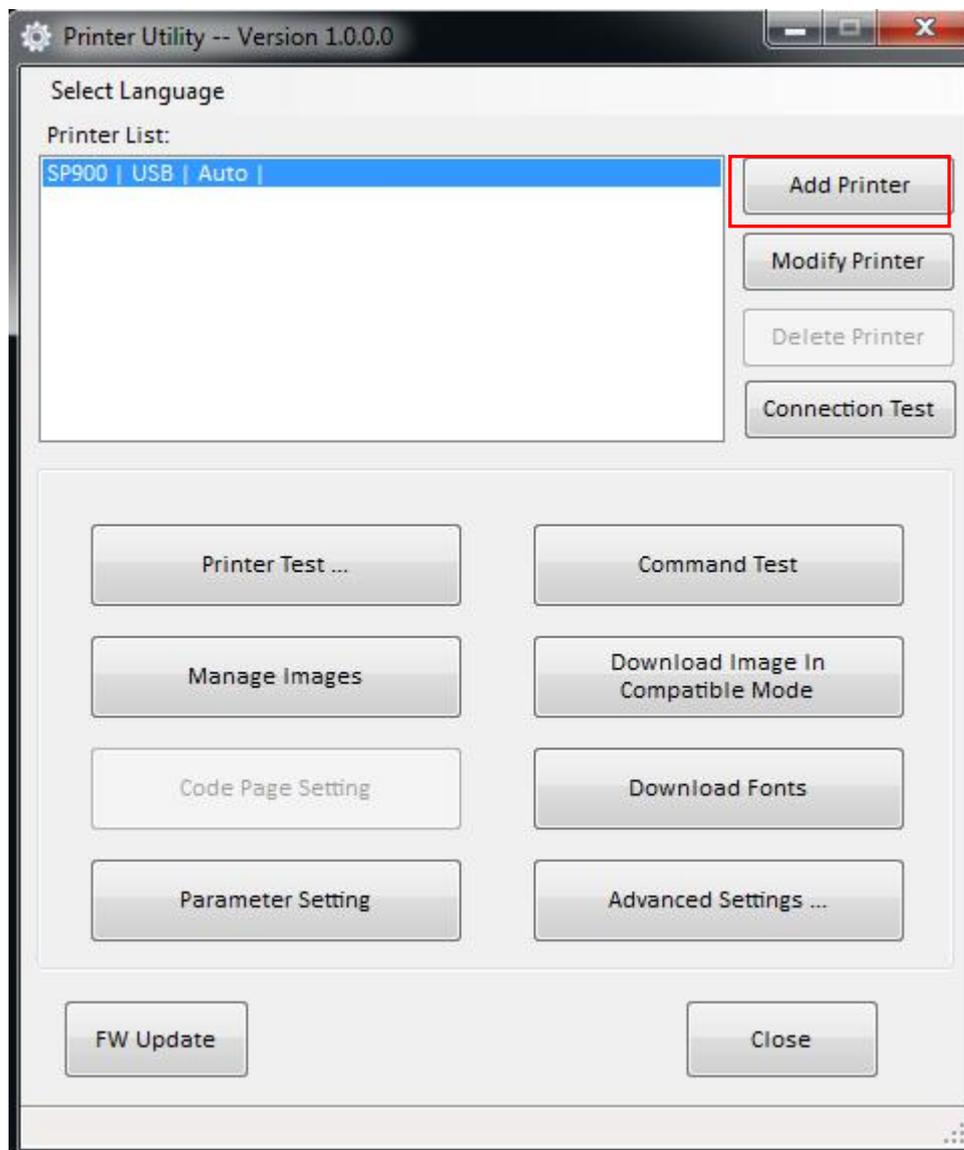


Warning: In different operating system, screen has a slight difference. Please operate it according to the tips. Take SP900 (Windows 7) for example.

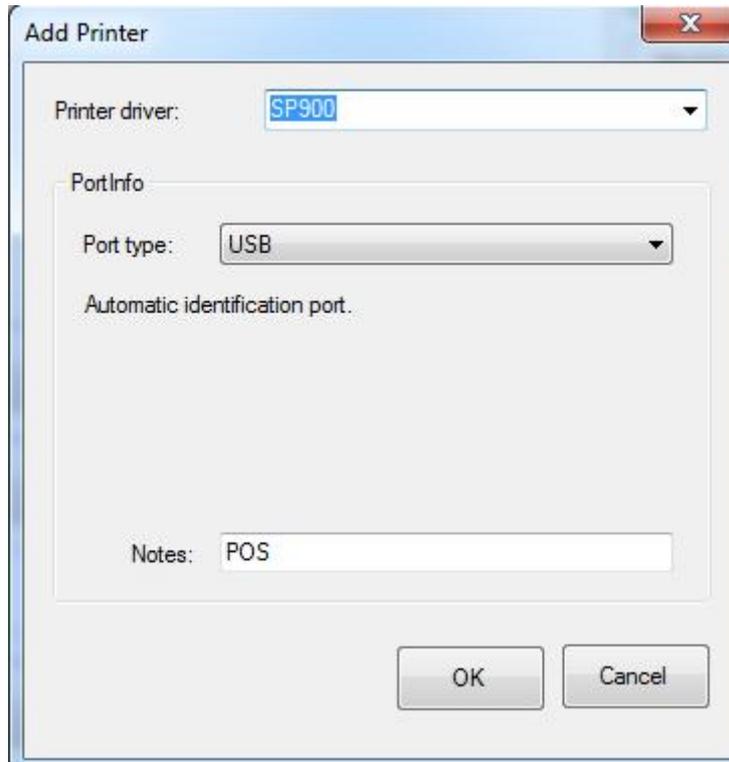
### 8.2.1 Add/Modify/Delete/Connect Printer

#### 8.2.1.1 Add printer

1) Click "Add Printer".

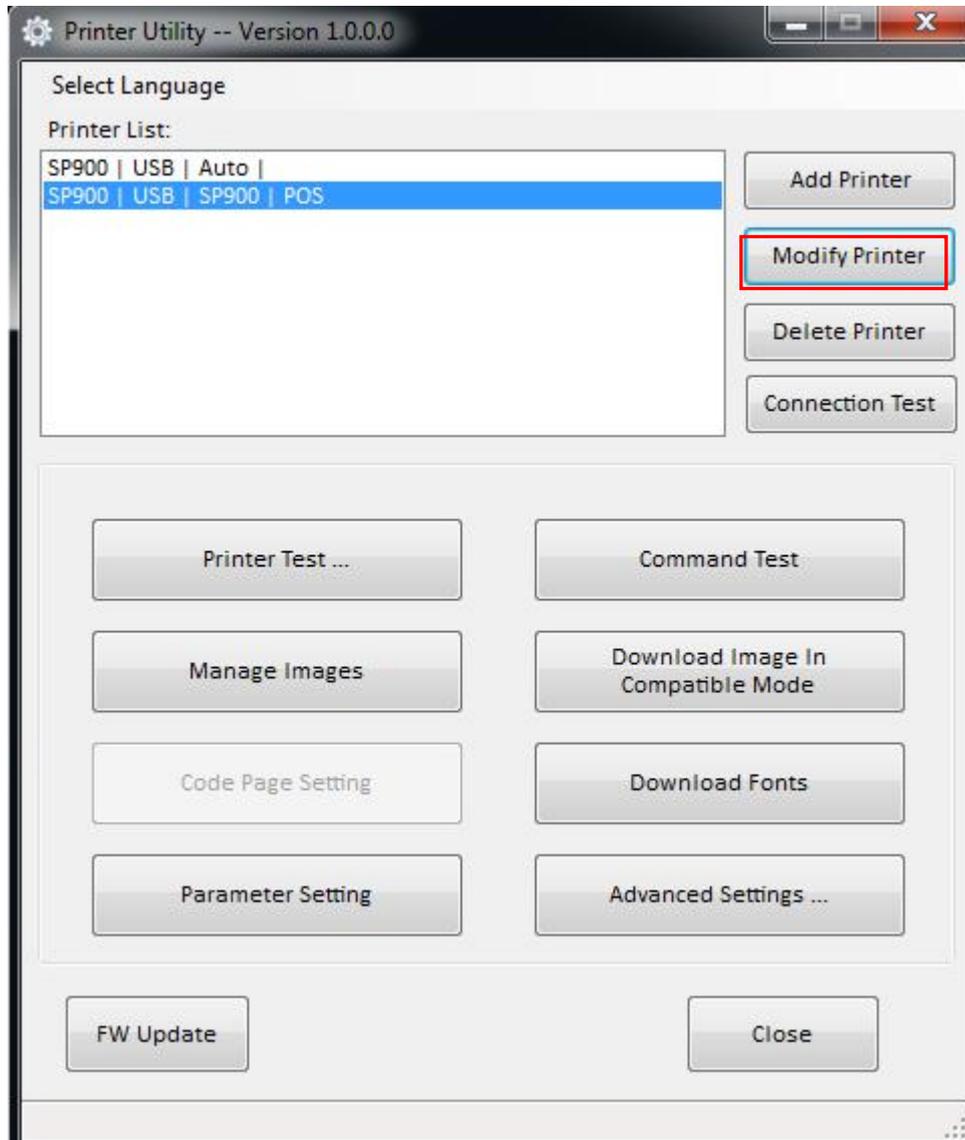


2) Choose the appropriate printer type and port. Then click “OK”. (Take SP900 for example.)

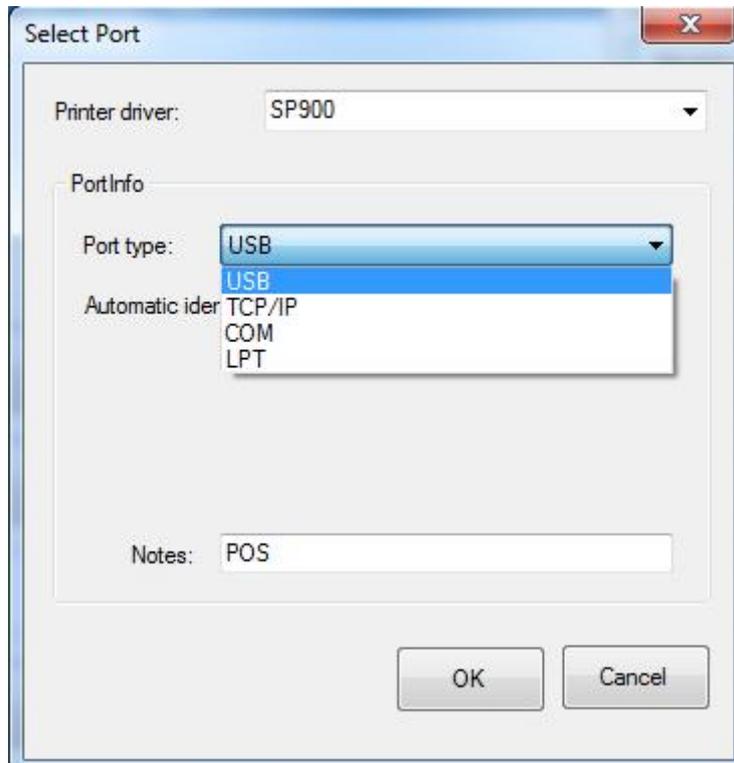


### 8.2.1.2 Modify printer

1) Choose the printer you want to modify in the list. Click “Modify Printer”.



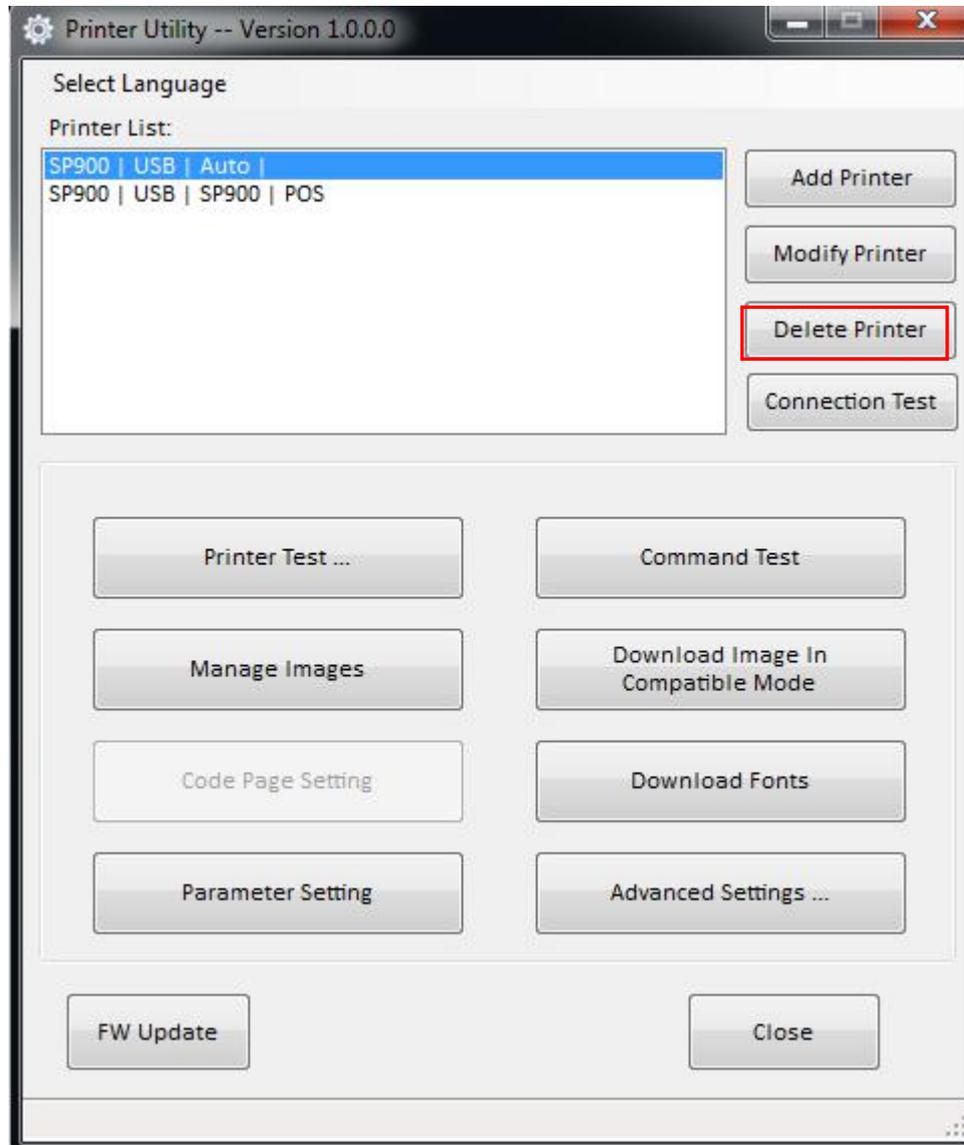
2) Choose the new printer and new port. Then click "OK".



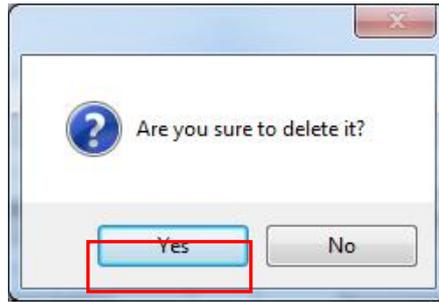
3) The new printer is added successfully.

### 8.2.1.3 Delete printer

1) Choose the printer you want to delete in the list and click “Delete Printer”.



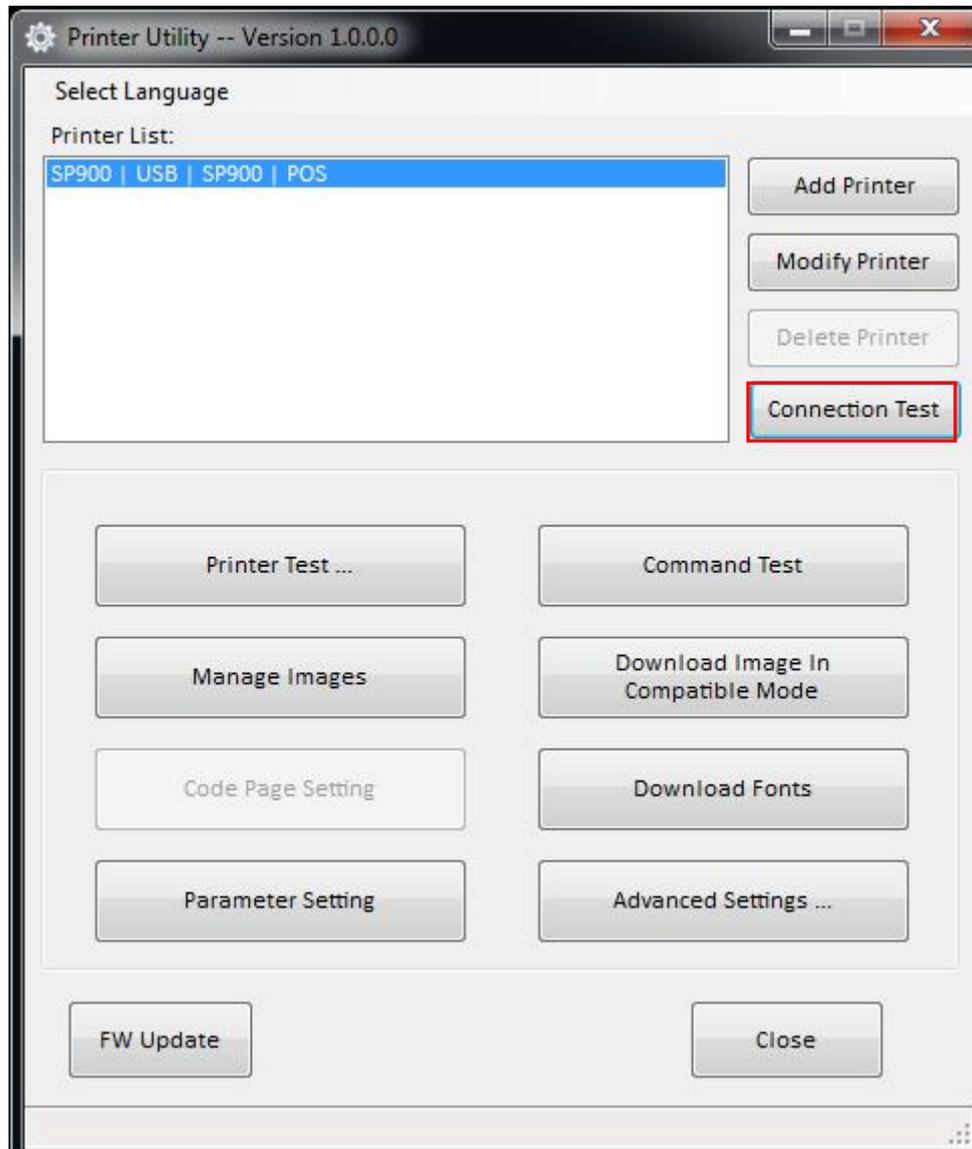
2) Click “Yes”, then the printer is deleted.



### 8.2.1.4 Connection Test

**Make sure printer is connected to computer and it is powered on.**

1) Choose the printer. Click “Connection Test”.



2) If the connection is successful, it will appear the following window. If the connection is unsuccessful, please connect the printer with computer.



**Notes:**

- 1) Make sure printer is connected with computer and power on.
- 2) Make sure printer is loaded with paper.
- 3) Before using the following function, carry out the "Connection Test" first.

## 8.2.2 Functions

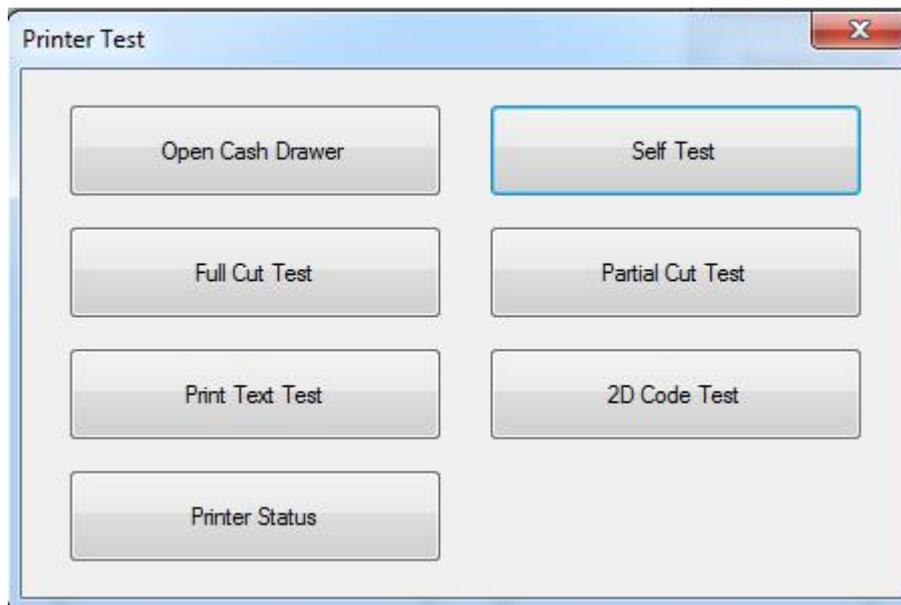
Printer Test contains the following items:

- Printer Test
- Command Test
- Manage Images
- Download Image in Compatible Mode
- Download Fonts
- Parameter Setting
- Advanced Settings

### 8.2.2.1 Printer Test

#### 1) Self Test

Click “Self Test” to see if the printer will print properly.



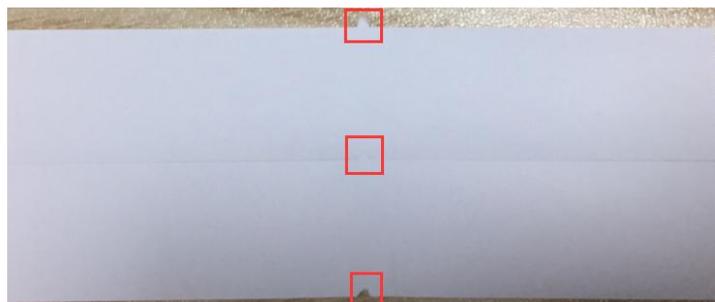
#### 2) Full Cut Test

Click the “Full Cut Test” and the paper will be cut automatically. Cutting method is full-cutting. The paper would be falling down from the paper outlet after cutting.

#### 3) Partial Cut Test

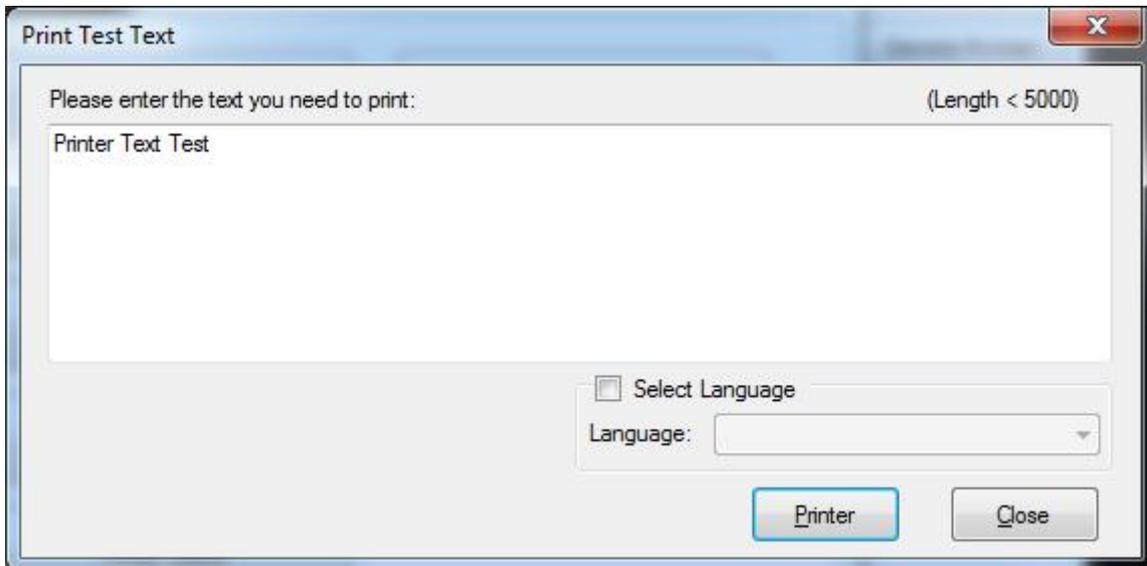
Click the cutter test and the paper will be cut automatically. Cutting method is partial cut. (Partial cut: the paper is not all cut off, a connection point is left between the two sheets of paper)

As shown in the figure:



#### 4) Print Test Text

Click "Print Test Text", input the text you want to print. When you click "Print", the printer starts printing text content. Such as: Print Text Test.

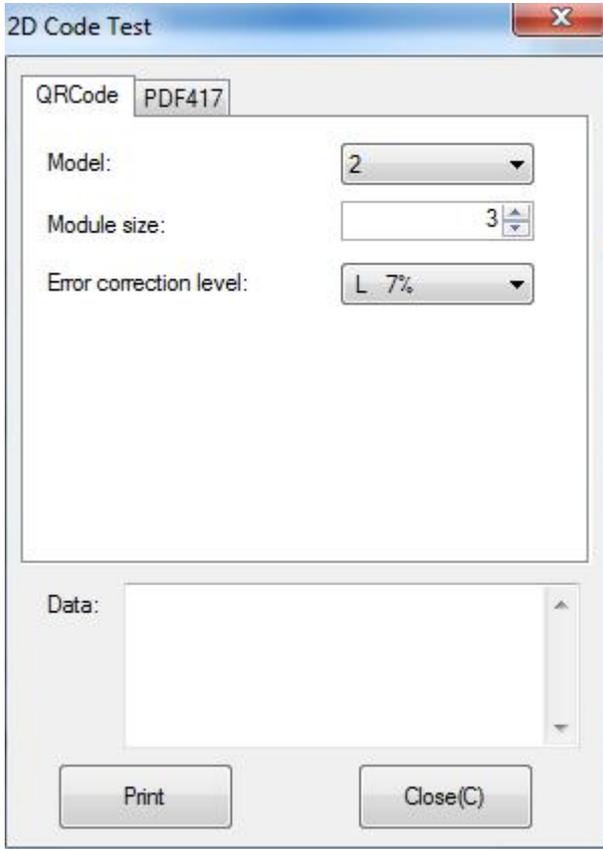


#### Note:

The language option in the lower right corner is checked according to the input text. (For example: The input is Simplified Chinese, the language is checked for Simplified Chinese, the printer prints the input text according to the setting options, and if you check other languages, the printer does not print the text)

5) 2D Code

Click the QRCode mode.



▲ Model: 1~2

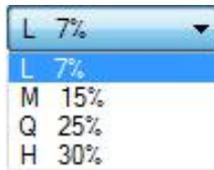


▲ Module size: 1~16

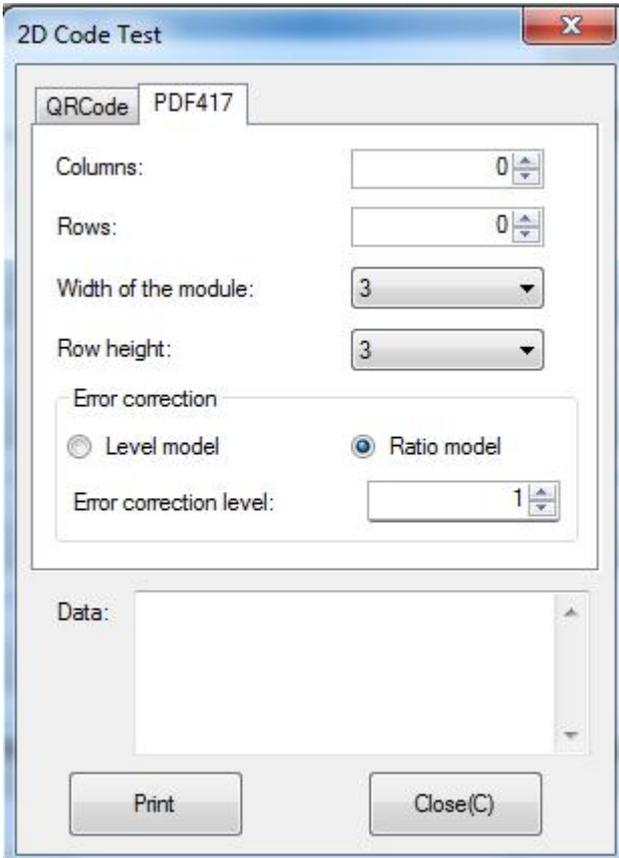
The larger the module value, the larger the printed QR code is, and the smaller the opposite.

▲ Error correction level: 7%~30%

The higher the error correction level, the more intensive the module graphics.



Click the PDF417 mode.



▲ Columns: 0~30

▲ Rows: 0~90

▲ Width of the module: 2~6

The larger the module value, the wider the width of the printed PDF417 barcode, and the smaller the opposite.



▲ Row height: 2~8

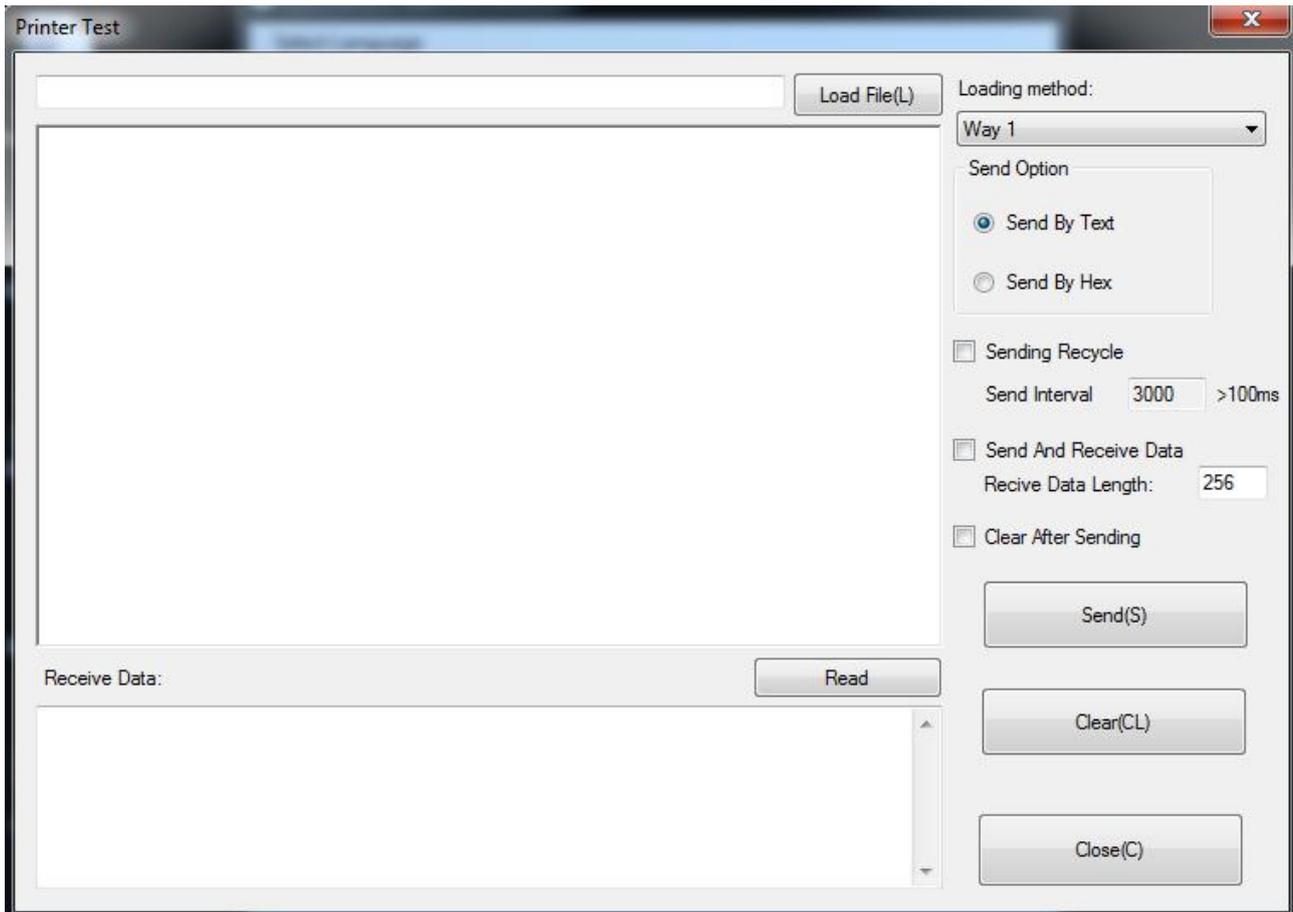
The larger the module value, the longer the printed PDF417 barcode, and the smaller the opposite.

▲ Error connection level

### 8.2.2.2 Command Test

In the command test, you can send command to the printer. Input text or hexadecimal data. Select a file or enter a command in the input box.

- 1) Click “Send by Text”, input text content.



**▲Sending Recycle:**

When the interval is set to 3000ms (you can set the interval as needed), then click “Send”, the printer starts to recycle printing. Click “Stop” to stop the recycle printing.

Send Option

Send By Text

Send By Hex

Sending Recycle

Send Interval: 3000 >1000

Send And Receive Data

Recive Data Length: 256

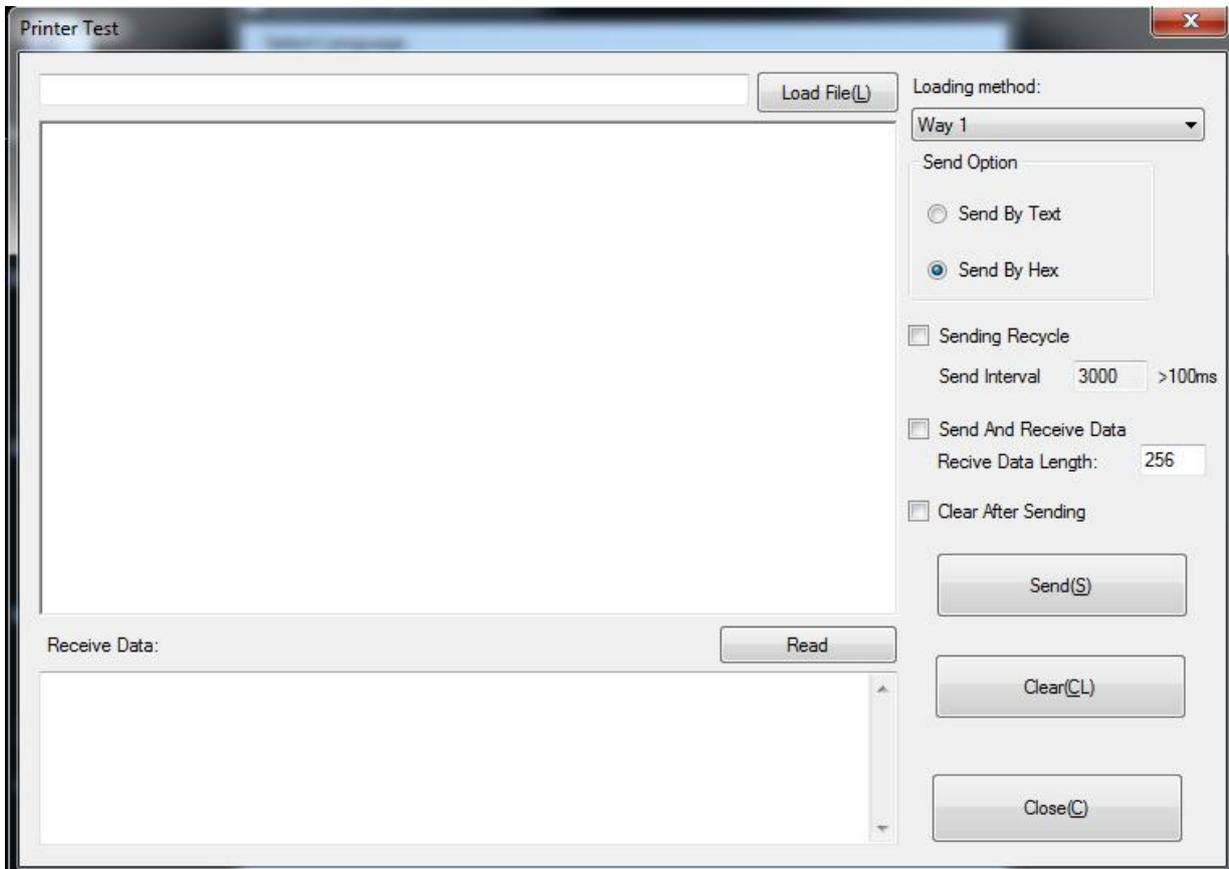
Clear After Sending

Send(S)

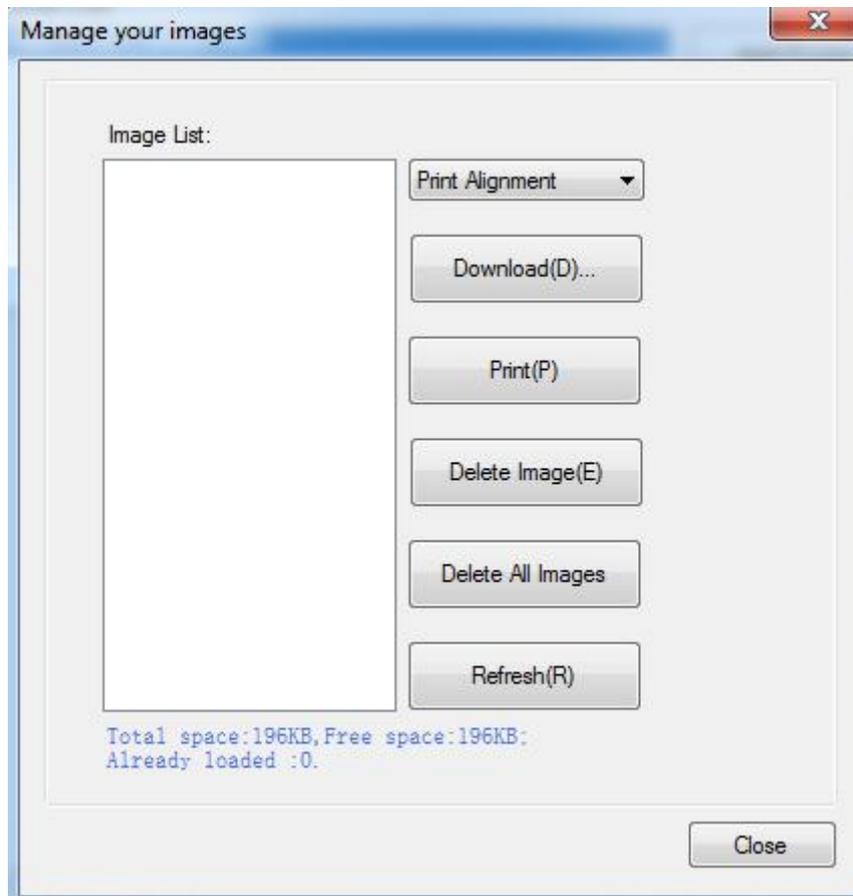
Clear(CL)

Close(C)

2) Click “Send by Hex”, input the content. (Convert text to HEX or send ESC command)



### 8.2.2.3 Manage Images



1) Click "Download" to add the image, if you want to print the picture, set the print location before clicking "Download mode of G" to print the picture. (It is recommended to use a picture in BMP format)

Download image

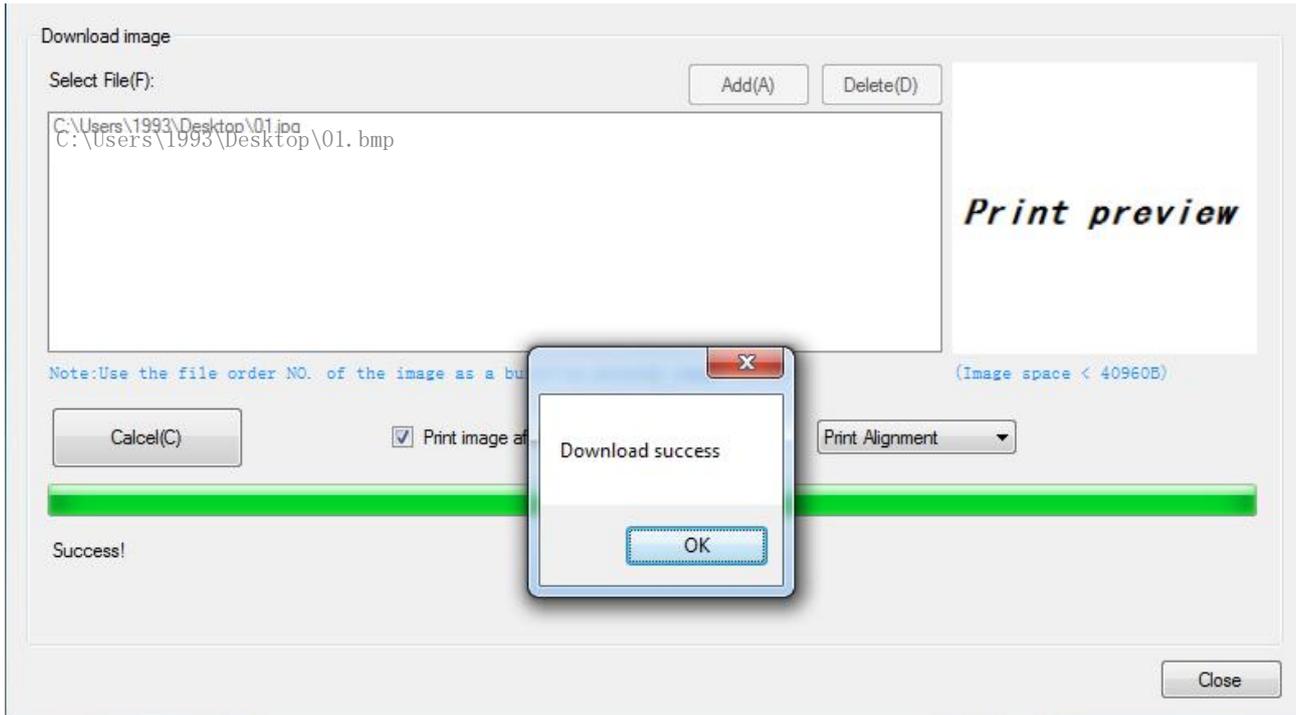
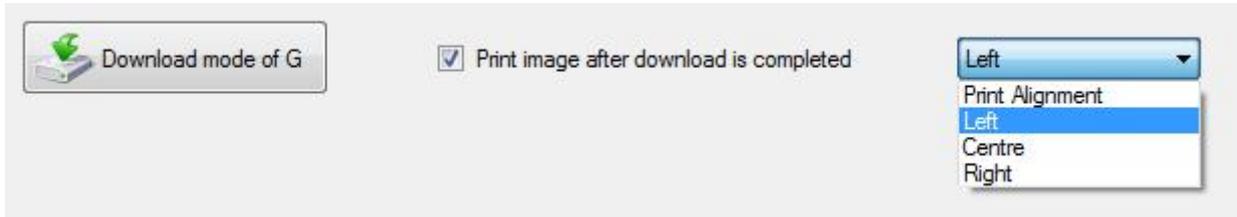
Select File(F): Add(A) Delete(D)

*Print preview*

Note: Use the file order NO. of the image as a built-in printer image number. (Image space < {0}B)

 Download mode of G  Print image after download is completed Print Alignment

2) Select the print location, center, left, and right. (Such as, left print).

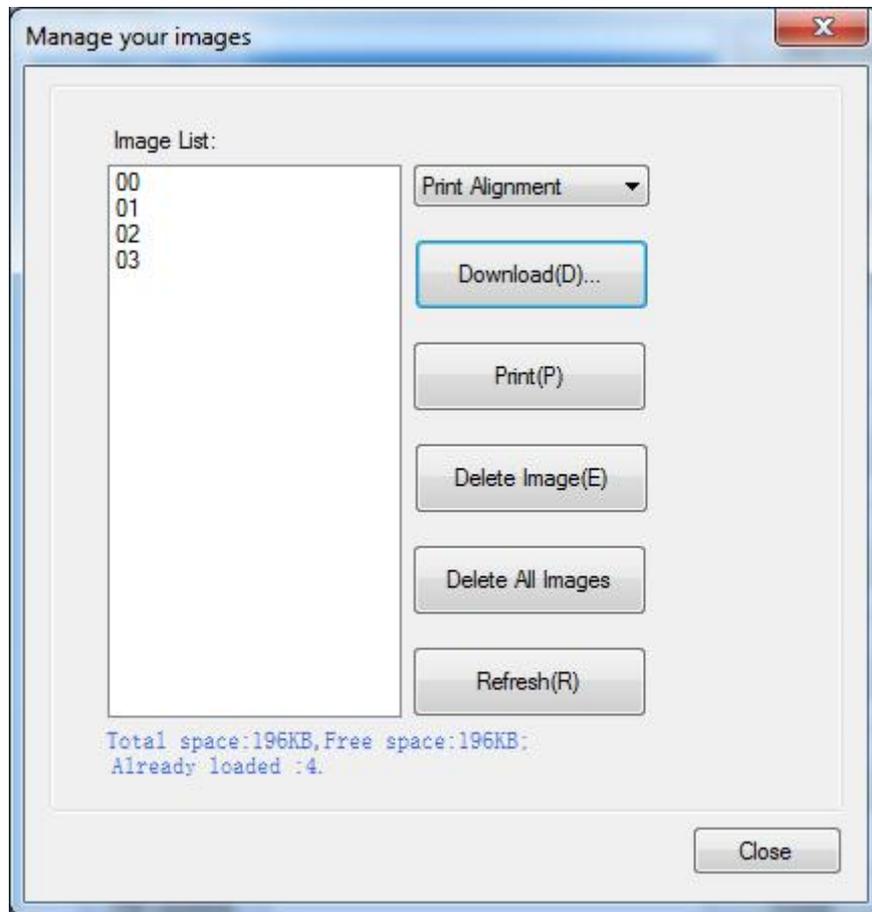


**Note: Total memory is 196K.**

## 3) Delete Image.



**Note:** Each time click "Download mode of G", an image list number will be generated.



Click the image list, select "Delete selected image" will delete the image, click "Delete all Images", without clicking the list option to delete all the images in the list.

### 8.2.2.4 Download Fonts

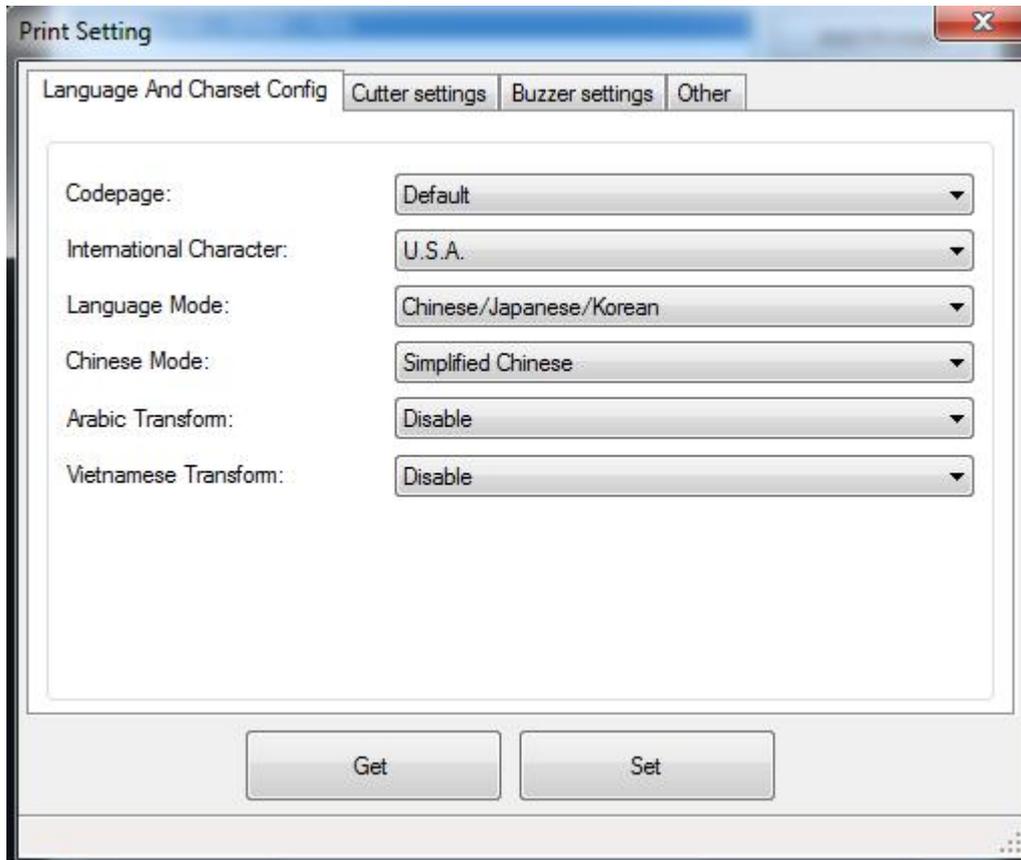
Select the font from the existing file and click "Download".



**Note:** After downloading the font successfully, you need to restart the printer to take effect.

### 8.2.2.5 Parameter Setting

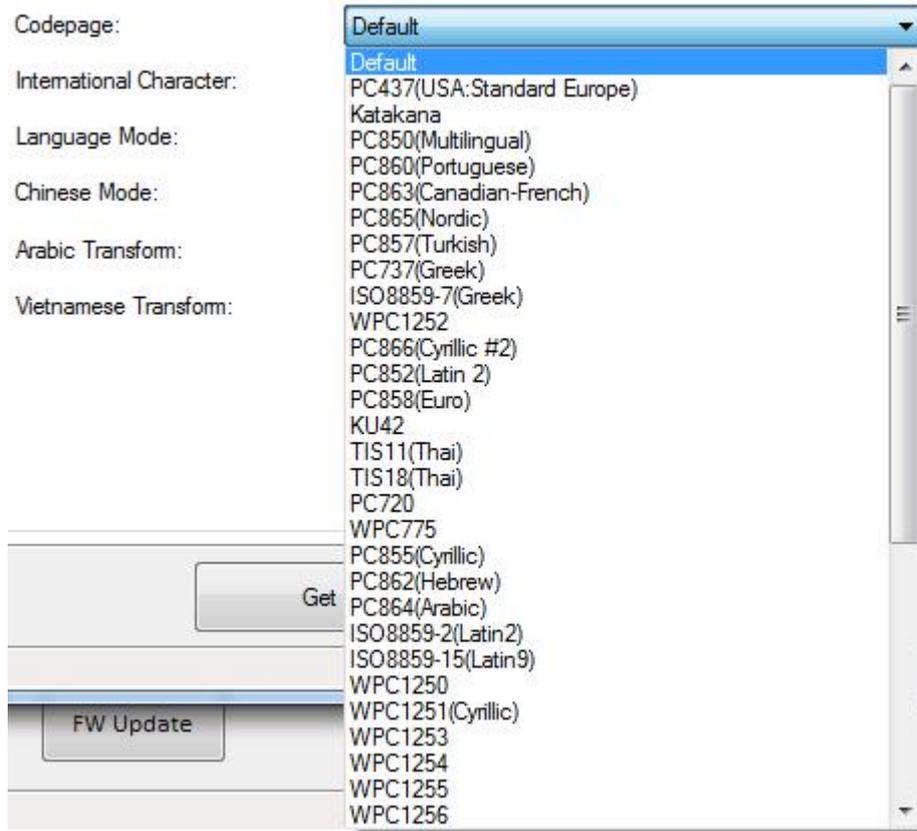
Click “Parameter Setting” to set “Language And Charset Config”, “Cutter setting”, “Buzzer setting” and “Other”.



◆ **Language And Charset Config**

Click the items to set “Codepage”, “International Character”, “Language Mode”, “Chinese Mode”, “Arabic Transform” and “Vietnamese transform”.

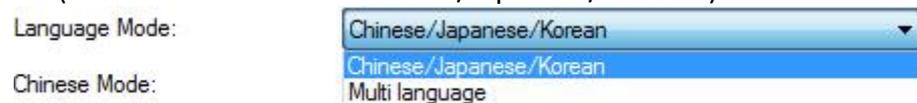
• Codepage



• International Character



• Language Mode ( The default mode is “Chinese/Japanese/Korean”)



• Chinese Mode

Chinese Mode: Simplified Chinese ▼

Arabic Transform: Simplified Chinese

Vietnamese Transform: Disable ▼

• Arabic Transform

Arabic Transform: Disable ▼

Vietnamese Transform: Disable

• Vietnamese transform

Vietnamese Transform: Disable ▼

◆ **Cut setting**

Enable or disable “Cut paper after the cover is closed” / “Cut paper when power on”.

Language And Charset Config **Cutter settings** Buzzer settings Other

Enable Cut Paper

Cut paper after the cover is closed

Enable  Disable

Cut paper when power on

Enable  Disable

**Enable “Cut paper after the cover is closed”:**

When the printer closes the cover, it will automatically cut the paper.

**Disable “Cut paper after the cover is closed”:**

The printer does not cut the paper automatically after closing the cover.

**Enable “Cut paper when power on”:**

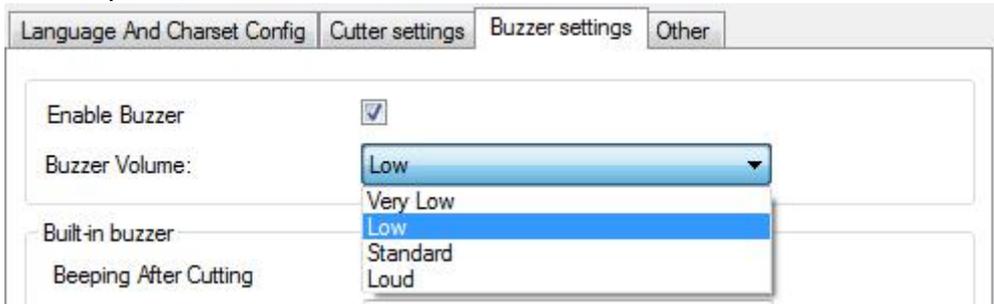
The printer will automatically cut paper when it is powered on.

**Disable “Cut paper when power on”:**

The printer does not cut paper automatically after it is powered on.

◆ **Buzzer**

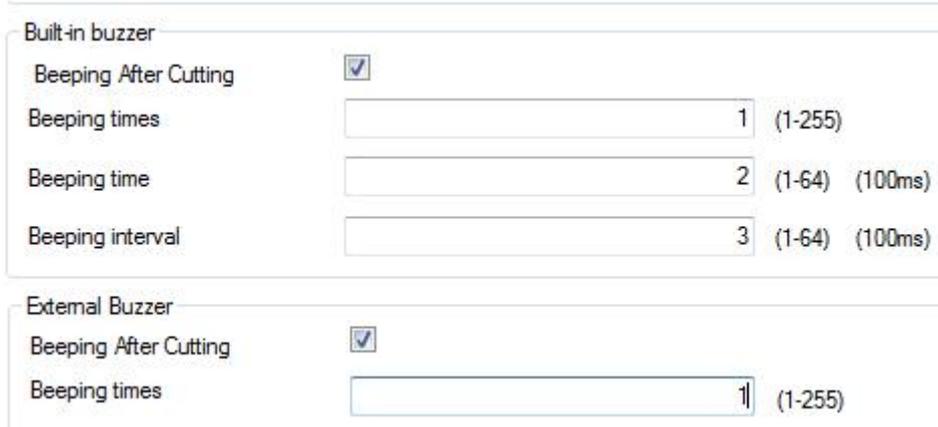
Buzzer Volume: Very Low/Low/Standard/loud



Tick “Beeping after cutting” (The beeping time, times and interval time can be set for what you want, such as 1 milliseconds, 2 milliseconds or 3 milliseconds, etc.):

The following setting is set as an example:

When cutting one piece of paper each time, the printer will emit the “Beep” for one time, and the beeping time is two milliseconds and beeping interval is three milliseconds.

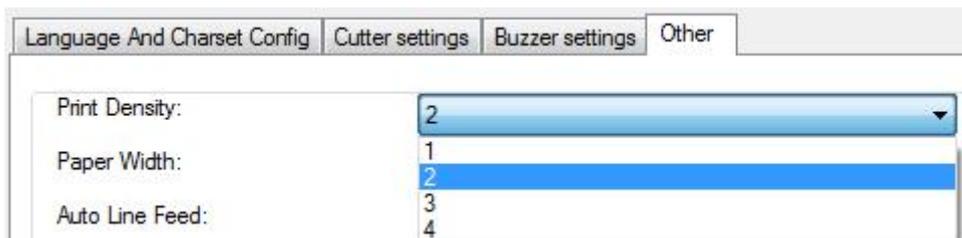


◆ **Other**

Click the items to set “Print Density”, Paper Width”, “Auto Line Feed”, “DPI Mode”, “USB Port Mode” and “Paper Type”.

- Print Density (default “level 2”)

The print density value varies according to the paper material and it can be adjusted to suit your needs.



• Paper Width Setting

Paper Width: 80mm(576dot)

Auto Line Feed: 58mm(360dot)  
58mm(384dot)  
58mm(416dot)  
80mm(512dot)

DPI Mode: 80mm(576dot)

USB Port Mode: USB



**Note:** Select the paper width above according to the paper print width.

• Auto Line Feed

Auto Line Feed: Disable

DPI Mode: Disable  
Enable

• DPI Mode (Default "203DPI")

DPI Mode: 203

USB Port Mode: 203  
180

• USB Port Mode

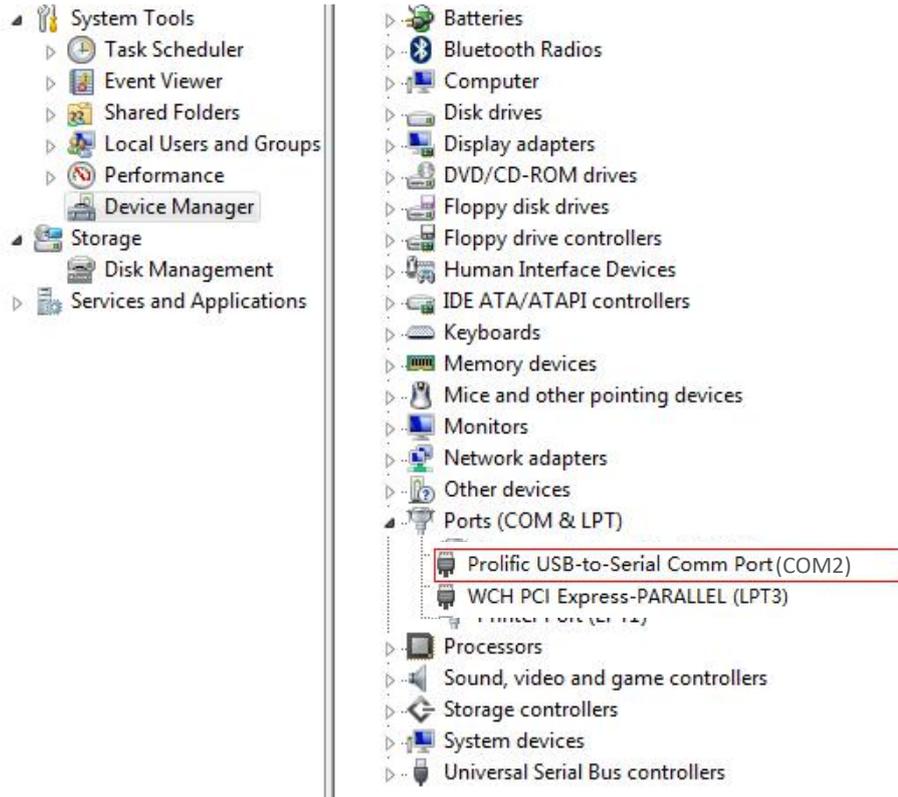
USB Port Mode: USB

Paper Type: USB  
Virtual Serial Port

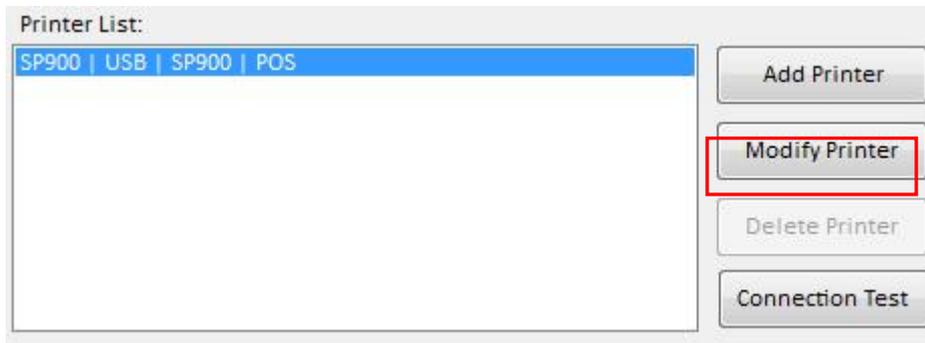
• Check the Virtual Serial Port

- ① Right-click the computer and select "Manage".
- ② Click "Device Manager" to view the virtual port. (such as: COM2).





③ Return to the printer utility and click "Modify Printer".



④ Change the port to "COM2".

PortInfo

Port type: COM

System Port: COM2

Baud rate: COM1  
COM2

Parity: None

Stop Bits: 1

Notes:

PortInfo

Port type: COM

System Port: COM2

Baud rate: 19200

Parity: None

Stop Bits: 1

Notes:

- Paper Type

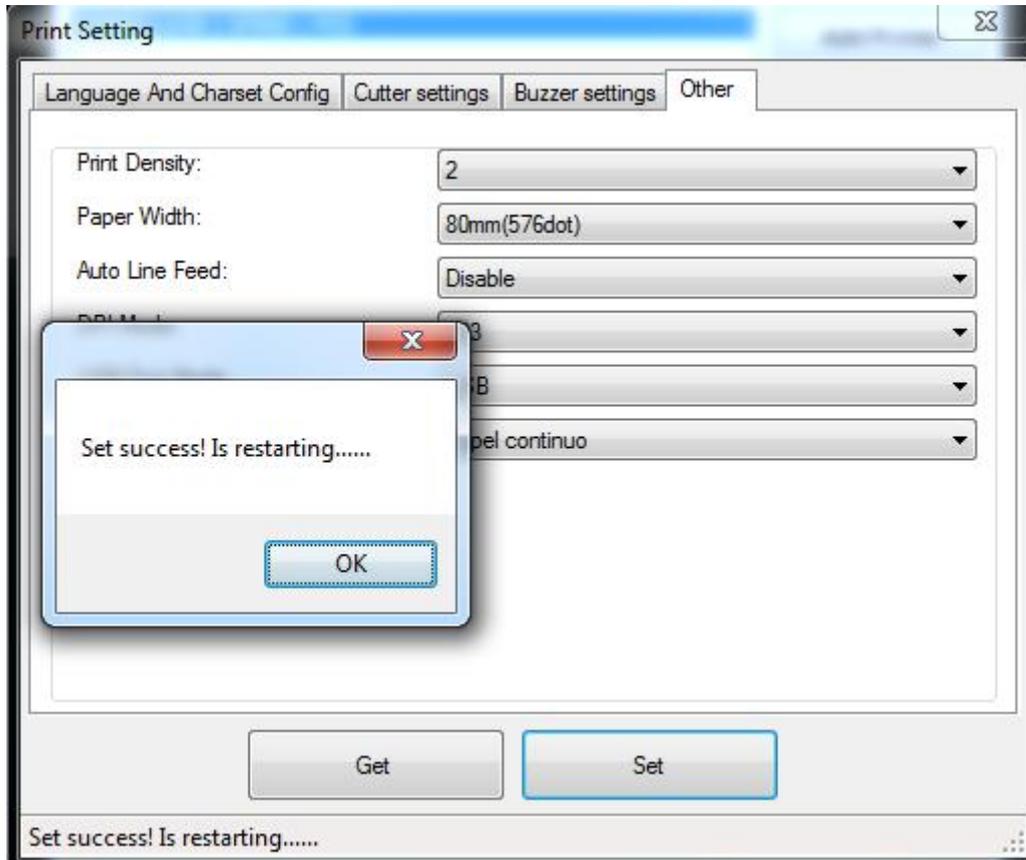
Paper Type:

Papel continuo

Papel continuo

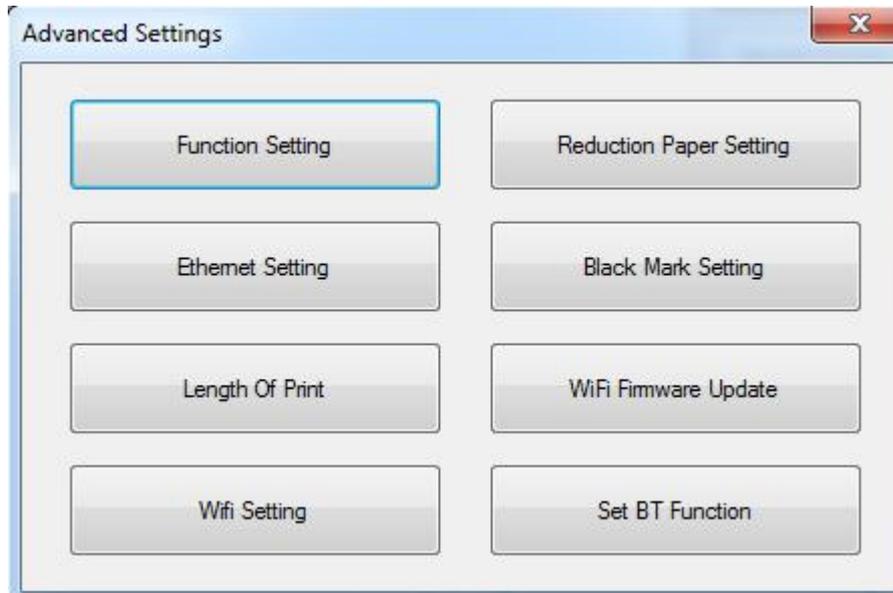
Black Mark Paper

After finishing setting all the above parameters, click "Set", the printer would restart automatically, then the settings would take effect.



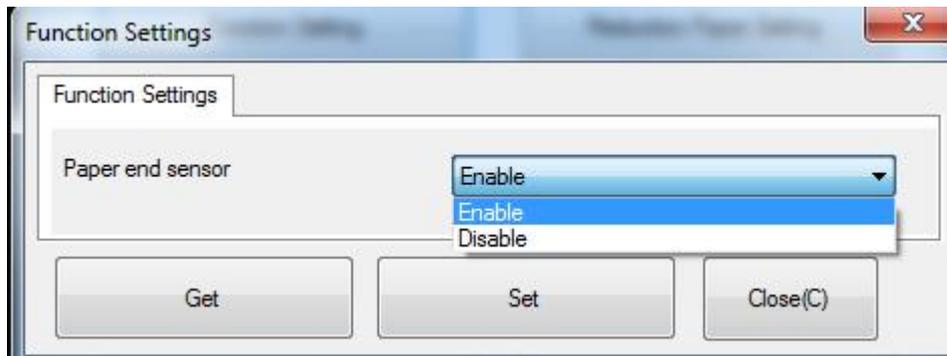
### 8.2.2.7 Advanced Setting

Advanced Settings contain following items. Click the button and printer will execute the appropriate action. The change will take into effect after restarting the printer.



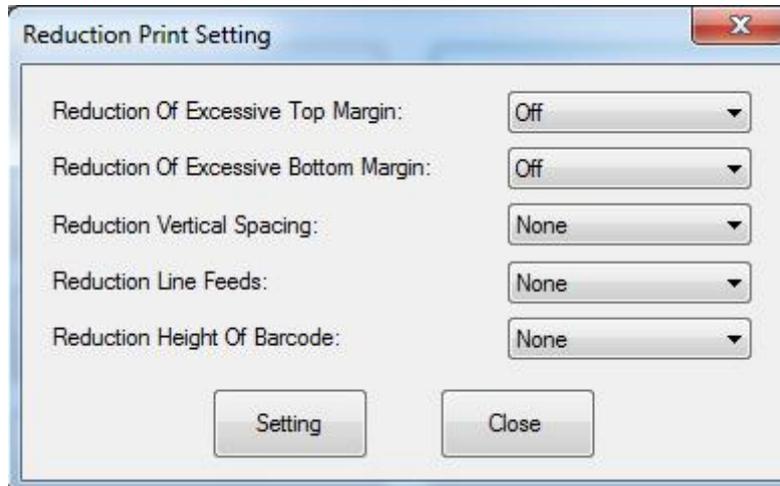
#### ◆ Function Setting

Choose the item and click "Set".



### ◆ Reduction Paper Setting

Choose the item and click "Setting".



① Reduction Of Excessive Top Margin:

When the printer is in the "off" state, the blank part at the top of the printed paper is larger than the blank part at the top of the paper printed in the "on" state.

② Reduction Of Excessive Bottom Margin:

When the printer is in the "off" state, the blank part of the bottom of the printed paper is larger than the blank part of the bottom of the paper printed in the "on" state.

③ Reduction Vertical Spacing: 25%~75%

The bigger the reduction vertical spacing, the narrower the interval between two lines of characters.

④ Reduction Line Feeds: 25%~75%

The higher the reduction line feeds, the narrower the interval between two lines of characters.

⑤ Reduction Height of Barcode: 25%~75%

The bigger the reduction height of barcode, the smaller the height of the barcode.

**◆ Ethernet Setting****Note:**

1. This setting only supports machines with Ethernet capabilities.
2. IP addresses can be obtained from the SELF-TEST page.

This mode is divided into “Auto Assignment IP” and “Static IP Mode”, select one of the modes to connect as needed.

Ethernet Setting

Ethernet Setting

DHCP: Static IP Mode

IP address:

Subnet mask: 255 . 255 . 255 . 0

Default gateway: 192 . 168 . 0 . 1

MAC: 80 : 35 : 13 : 83 : 30 : 20

Set

Close

- Static IP Mode

1) Change the printer IP address so that the printer IP address (such as: 192.168.0.33) is the same segment as the host IP address (such as: 10.0.21.89).

Here is the illustration:

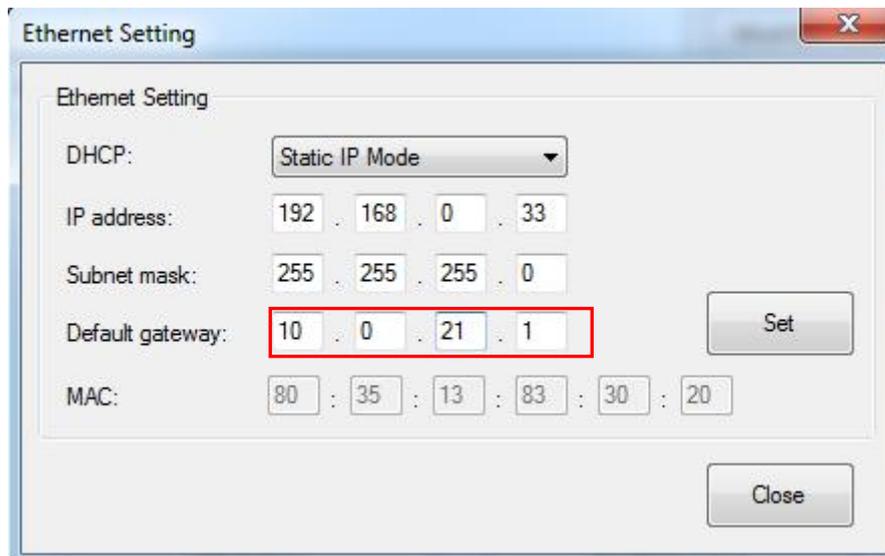


Figure ■ Printer IP Address

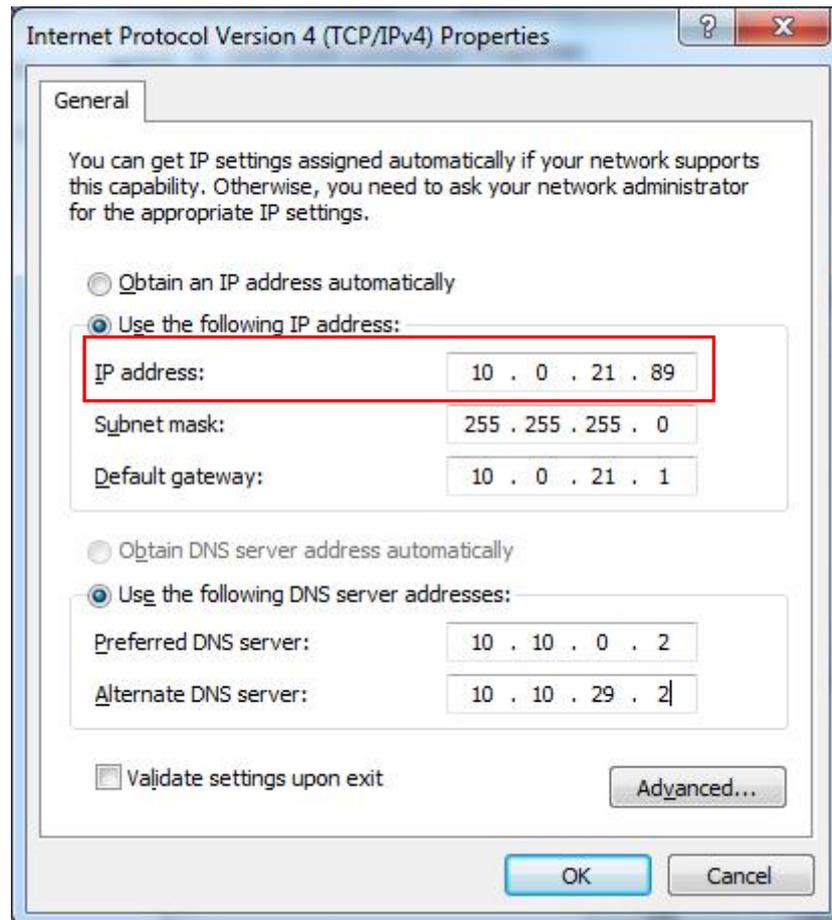


Figure ■ Host IP Address

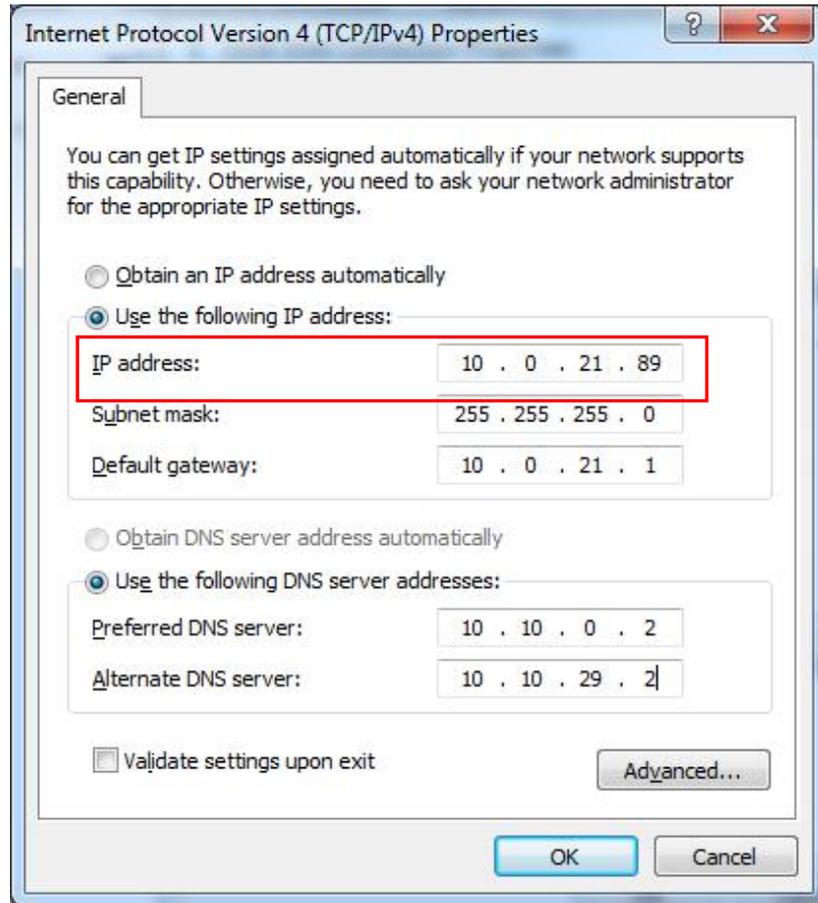


Figure ■ Host IP Address

2) Set the same network segment.

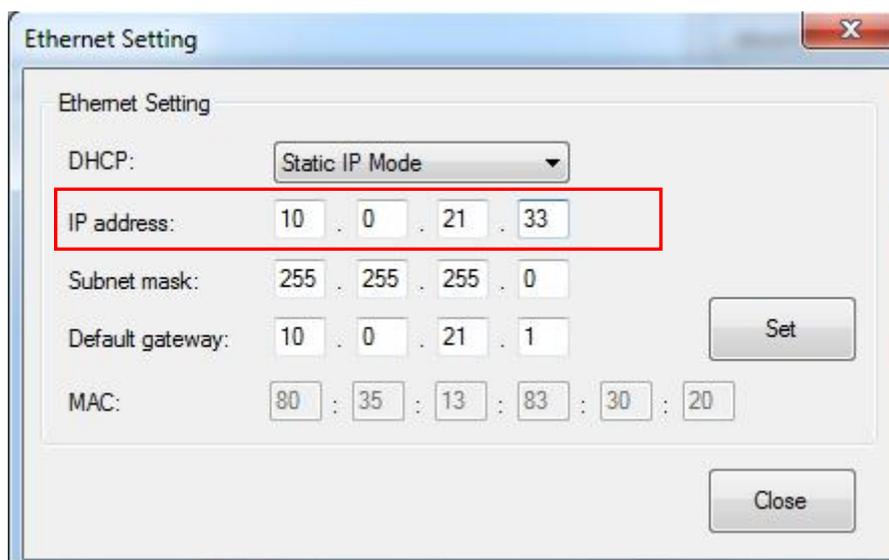


Figure ■ Printer IP Address

- Auto Assignment IP

This mode automatically assigns the IP address to the printer.

The screenshot shows a window titled "Ethernet Setting" with a close button (X) in the top right corner. Inside the window, there is a section labeled "Ethernet Setting" containing the following fields:

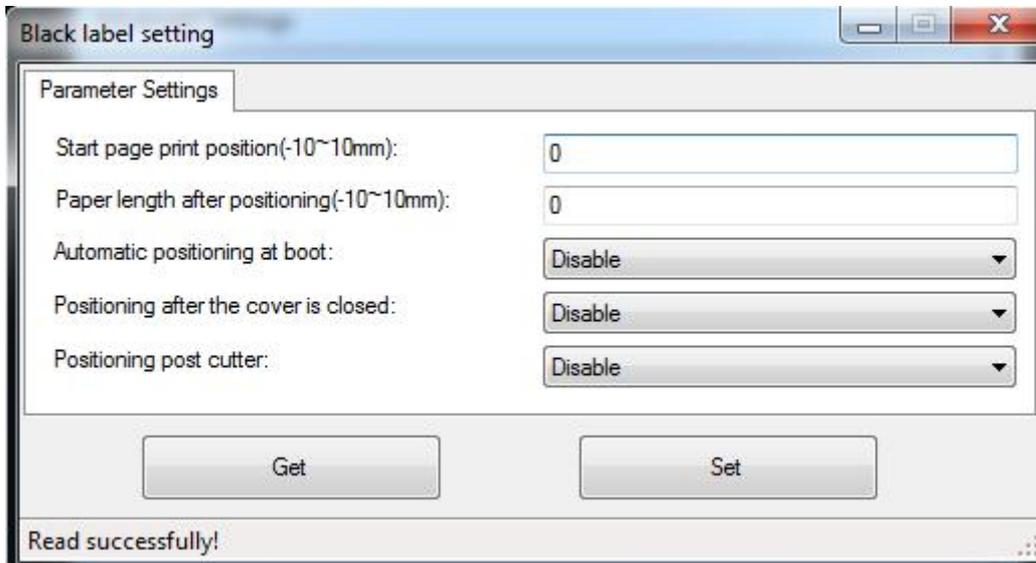
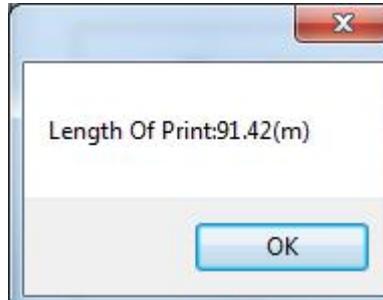
- DHCP: A dropdown menu currently showing "Auto Assignment IP".
- IP address: Four input boxes containing the values 10, 0, 21, and 33, separated by dots.
- Subnet mask: Four input boxes containing the values 255, 255, 255, and 0, separated by dots.
- Default gateway: Four input boxes containing the values 10, 0, 21, and 1, separated by dots.
- MAC: Six input boxes containing the values 80, 35, 13, 83, 30, and 20, separated by colons.

There are two buttons: a "Set" button located to the right of the Default gateway field, and a "Close" button located at the bottom right of the dialog box.

When the settings are complete, click "Set", then restart the printer.

**◆ Black Mark Setting**

When using black mark paper, the black mark can be set, and the printer will automatically locate the black mark position.

**◆ Length Of Print**

It shows the length of the paper that the print head of the printer has printed.

◆ **WiFi Firmware Update**

Choose a file and click “Update”.

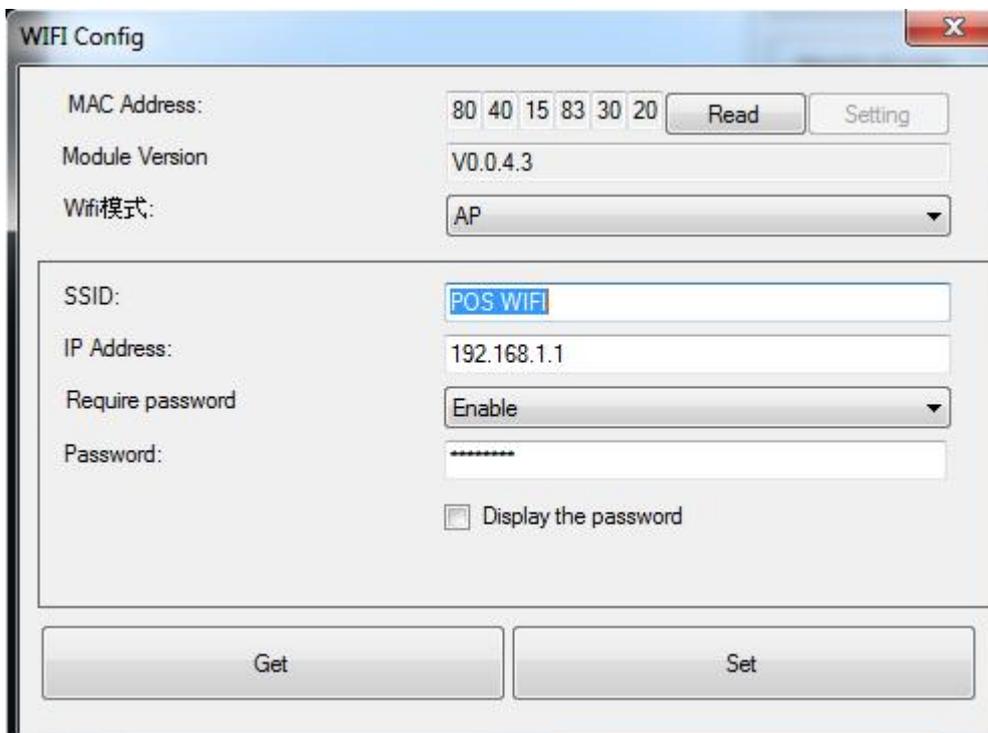


◆ **WiFi Setting**

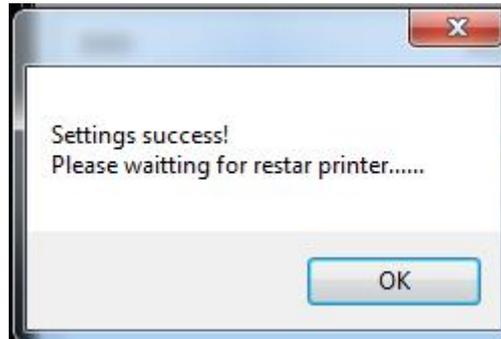


Note:

1. This setting only supports machines with WiFi capabilities.
2. IP addresses can be obtained from the SELF-TEST page.



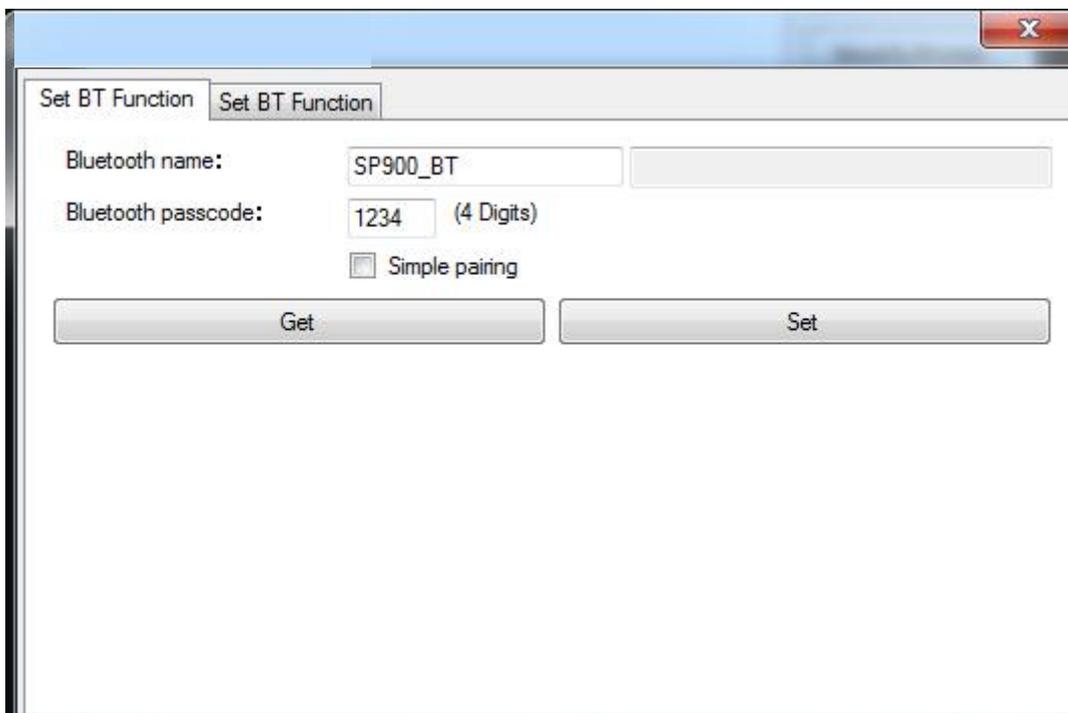
Click "Set".



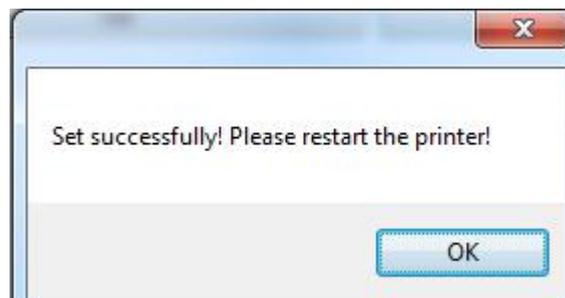
◆ **Set BT Function**



**Note: This setting only supports machines with Bluetooth capabilities.**

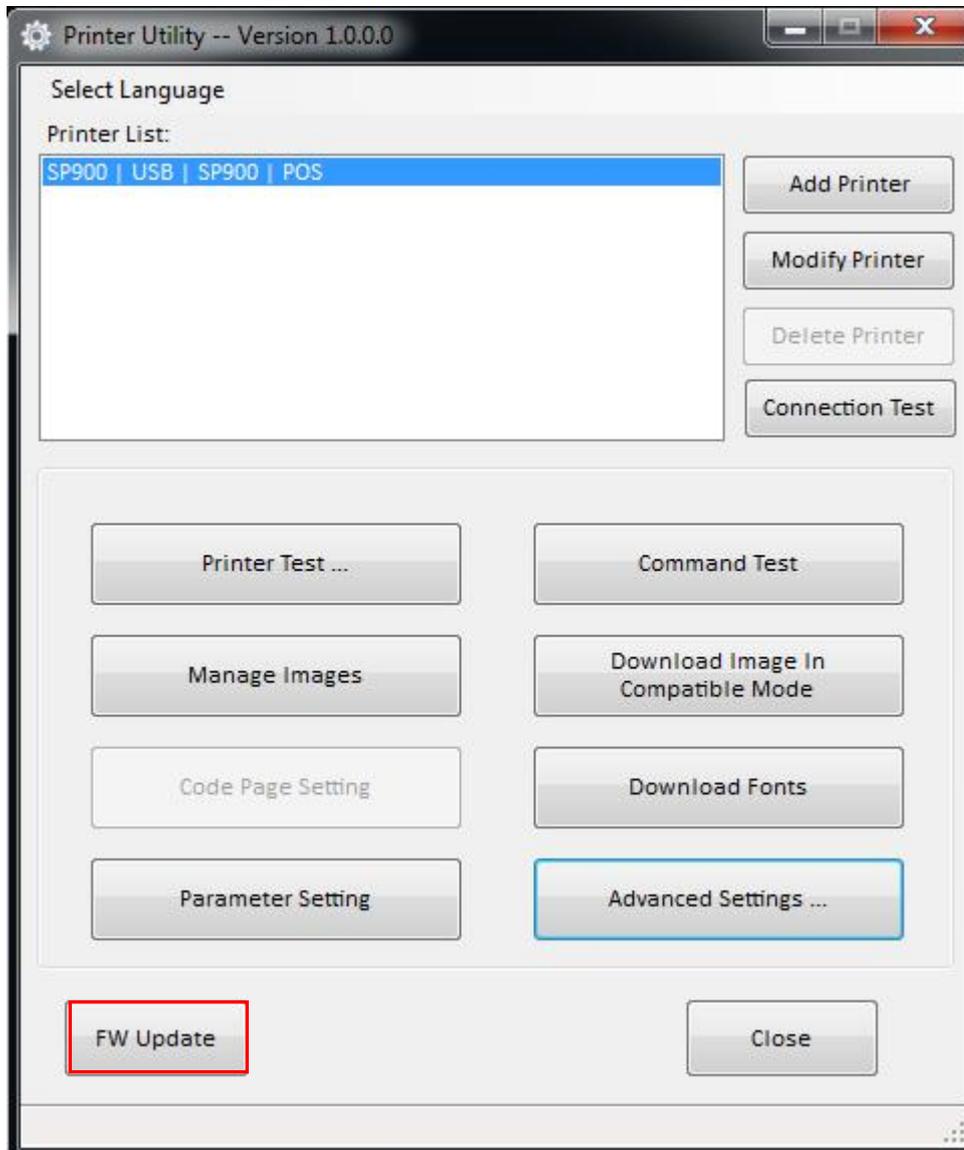


Click "Set".

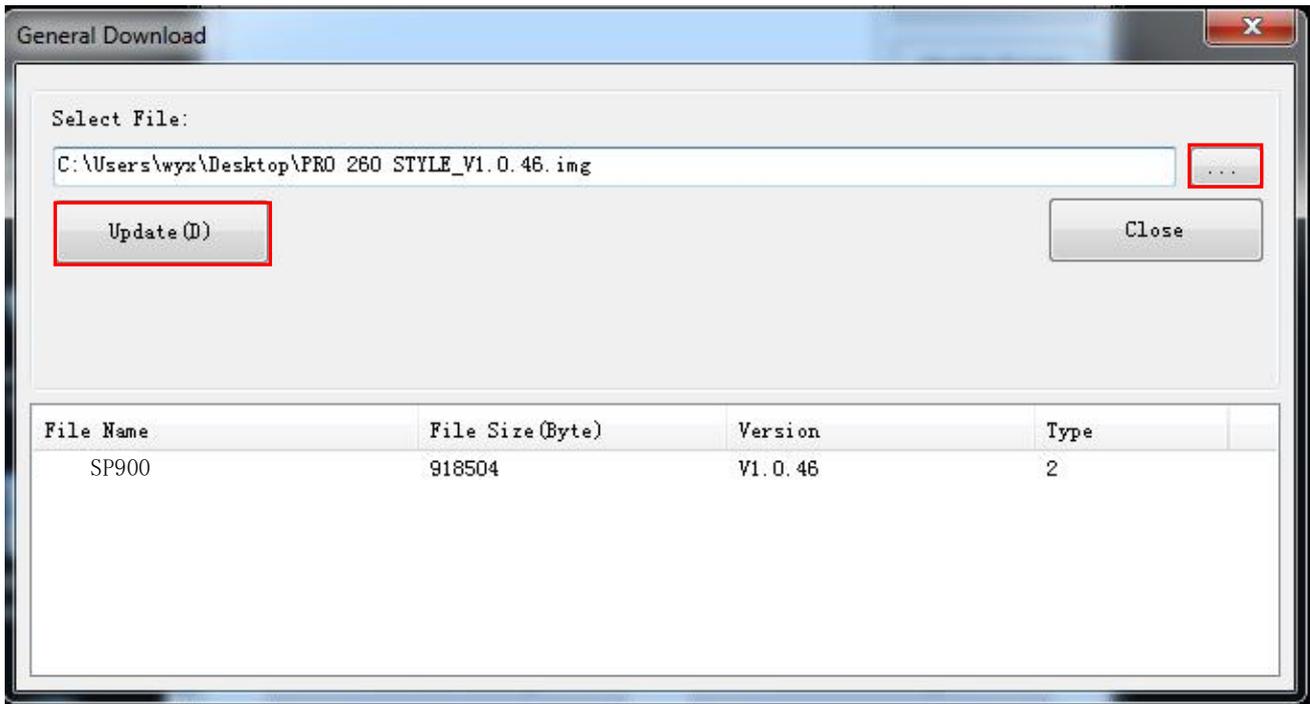


## 8.3 Firmware Update

1) Click “FW Update”.

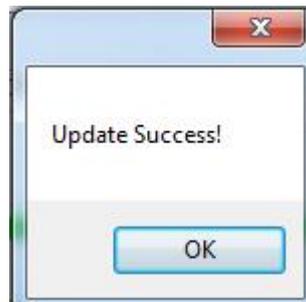


2) Add the “img” file. When the device appears in the list, click “Update”.



3) Click “Update”.

4) Update success.



5) Restart the printer.

## **9 WINDOWS DRIVER INSTRUCTION**

### **9.1 Information**

This Windows Driver Installation Manual provides information on installation, detailed specifications, and usage of the printer's Windows Driver according to PC operating system (OS).

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

### **9.2 Operating System (OS) Environment**

The following operating systems are supported for usage.

- Microsoft Windows 10 (32 bit/64 bit)
- Microsoft Windows 8 (32 bit/64 bit)
- Microsoft Windows 7 SP1 (32 bit/64 bit)
- Microsoft Windows Vista SP2 (32 bit/64 bit)
- Microsoft Windows XP Professional SP3 (32 bit)
- Microsoft Windows Server 2012 (64 bit)
- Microsoft Windows Server 2008 R2

### **9.3 Windows Driver Preparation**

Please download the Windows Driver application program from the enclosed CD. The installation file name is iDPRT SP900 POS Printer Driver v2.7.2.0

## 9.4 Windows Driver Installation



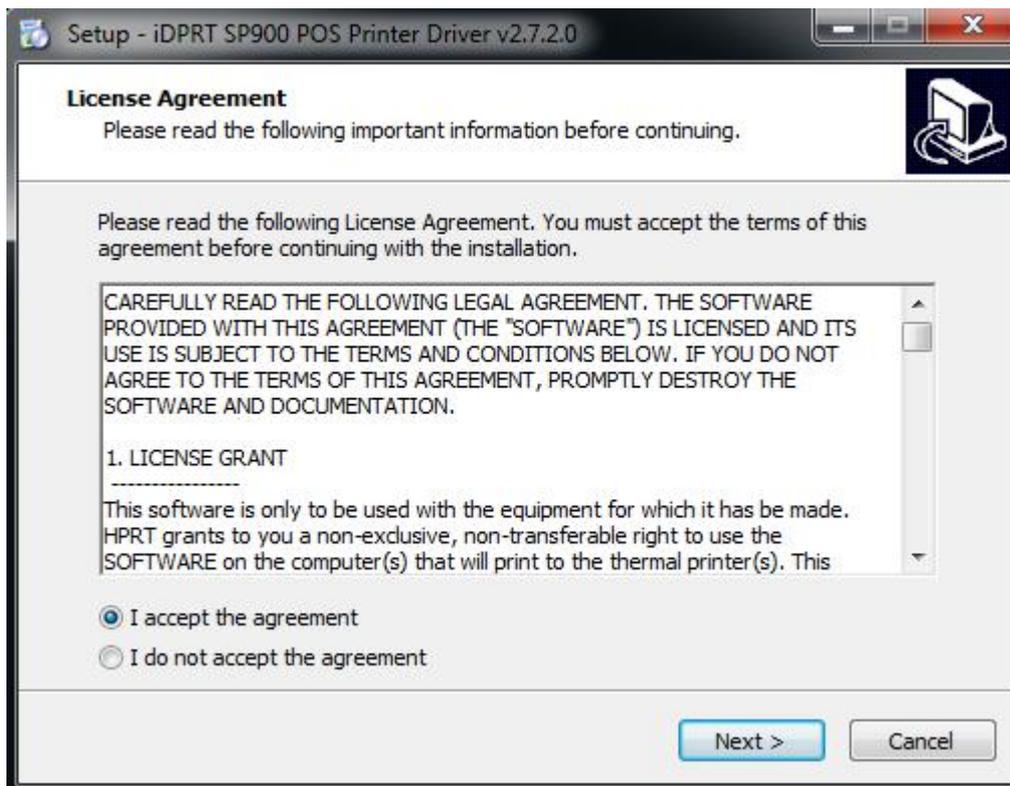
**Warning:**

Under different operating system, the screen has slight difference. Please operate it according to the tips. Take SP900 (Windows 7) as example.

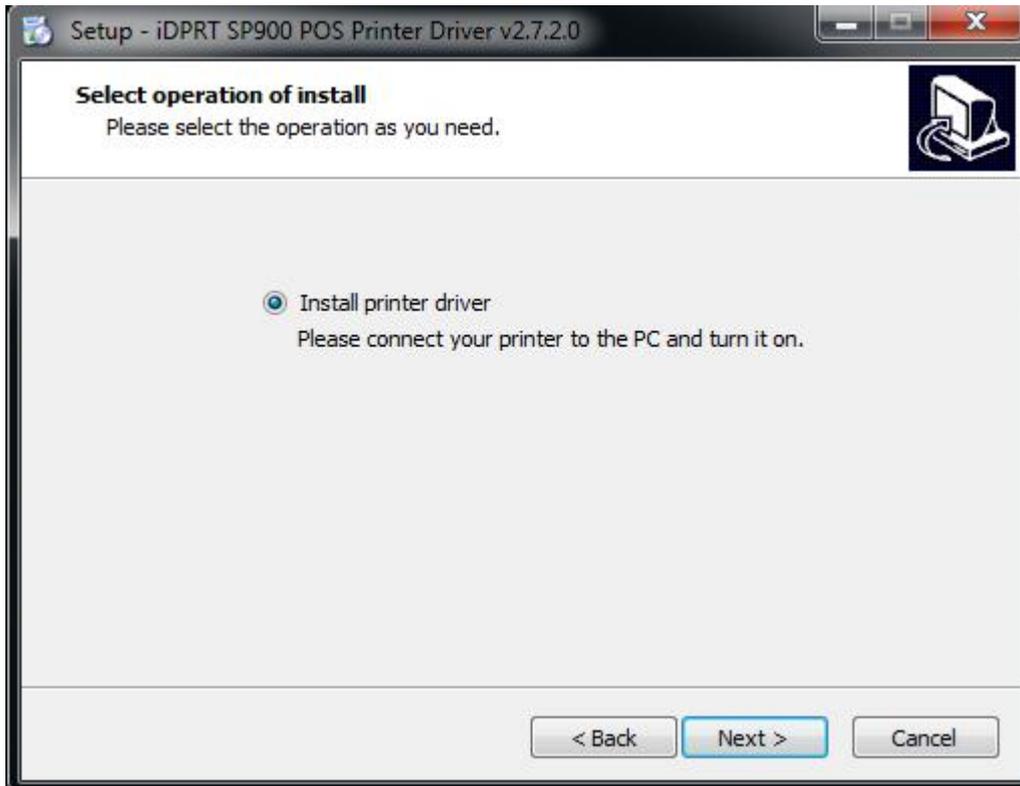
1) Double click Windows Driver, and choose the language.



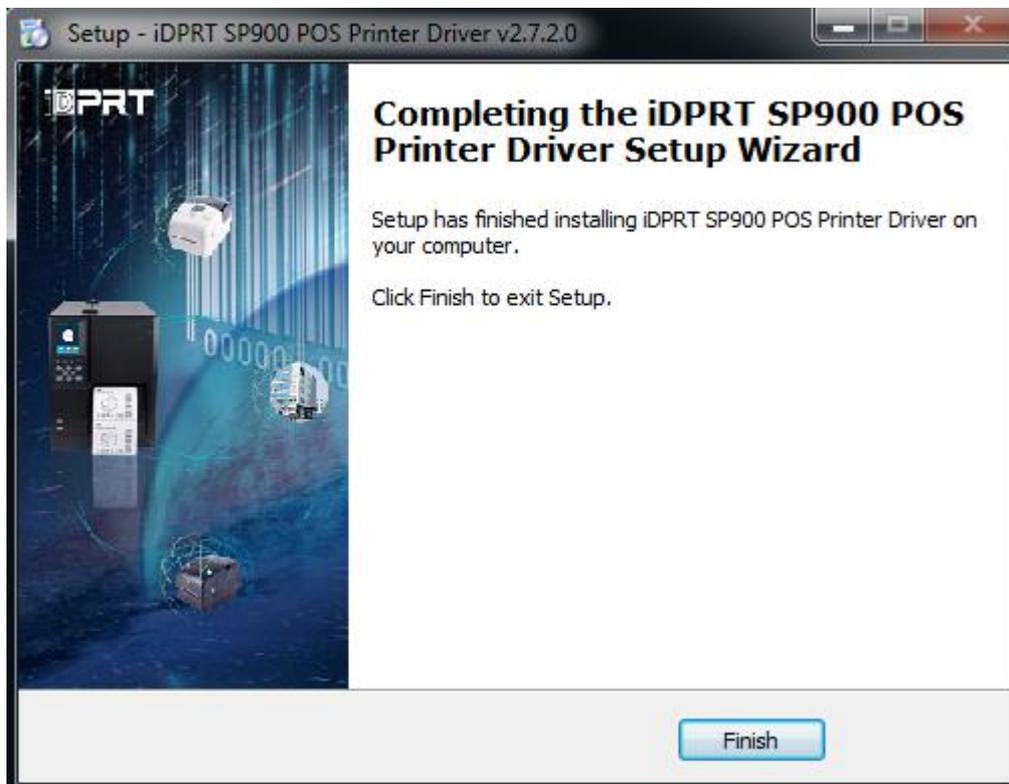
2) Choose "I accept the agreement" and click "Next".



3) Click "Next".



4) Click "Finish". POS printer driver is installed successfully.



5) After installation, the icon will be found in “Start” → “Devices and Printers”.

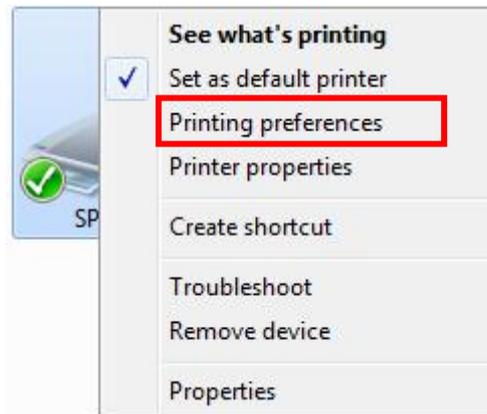


**Note:** If you already installed the driver (No matter what kind of port), when you connect the printer with computer, it will create a USB port automatically.

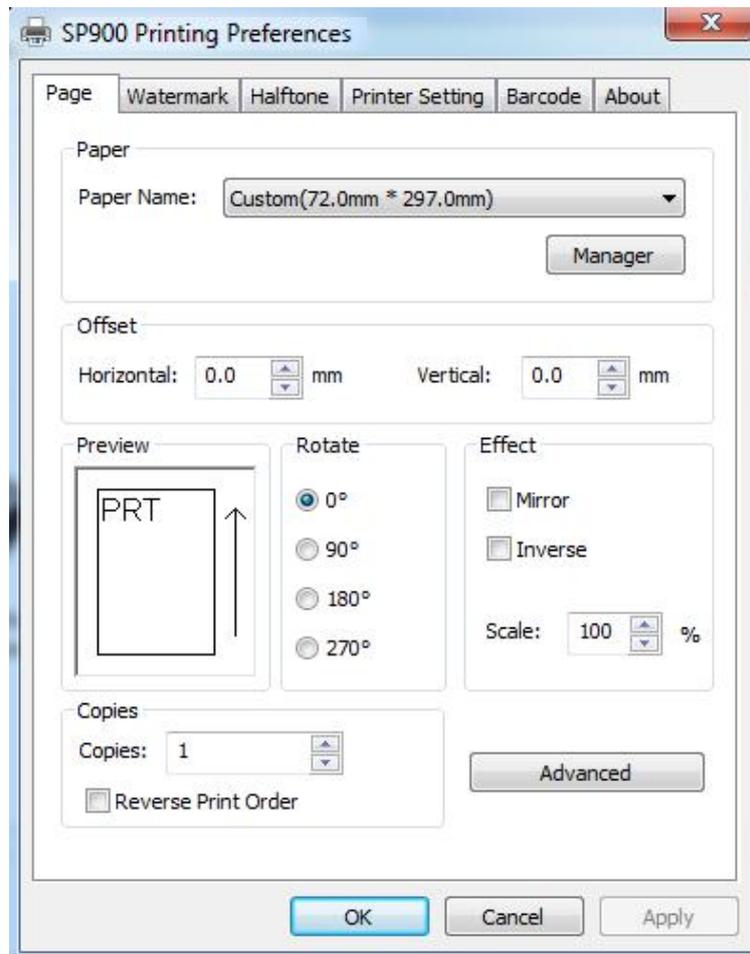
## 9.5 Detailed Windows Driver Setting

### 9.5.1 Printing Preferences

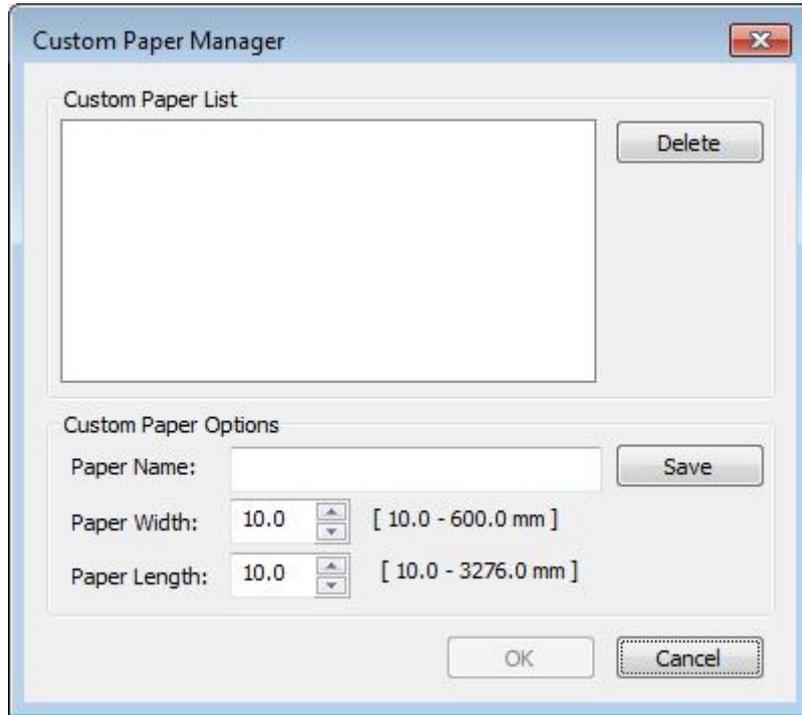
1) Click "Start" → "Devices and Printers". Right click "Pos-D SP900" and choose "Printing preferences".



2) According to the different needs, choose "Paper" \ "Offset" \ "Rotate" \ "Effect" \ "Copies" in "Page".

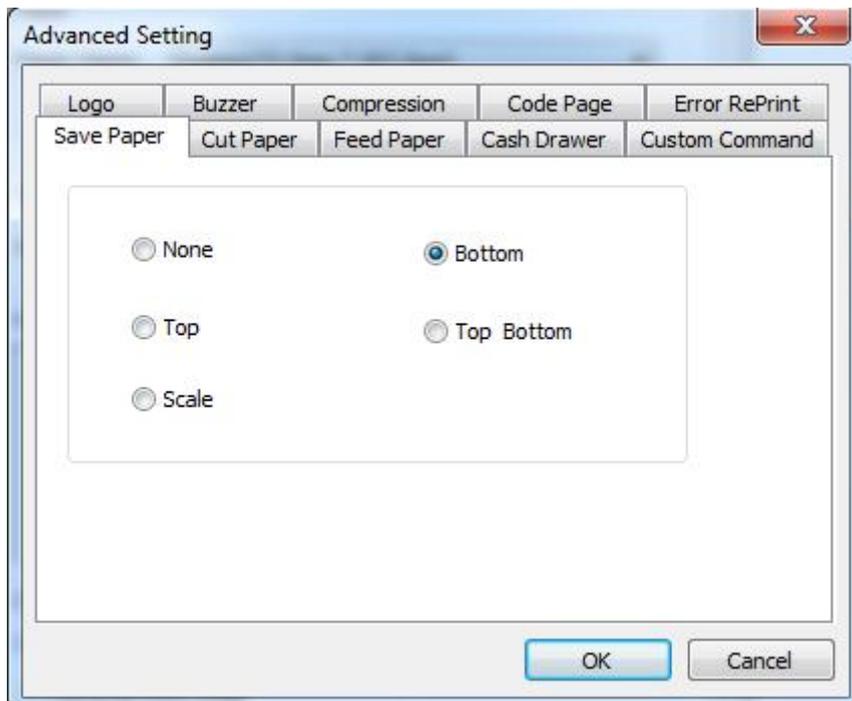


- Click on “Manager”, add or delete paper.

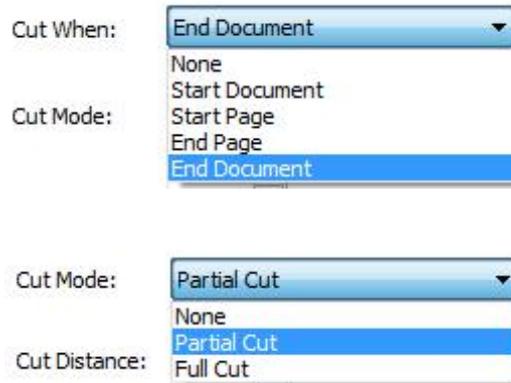
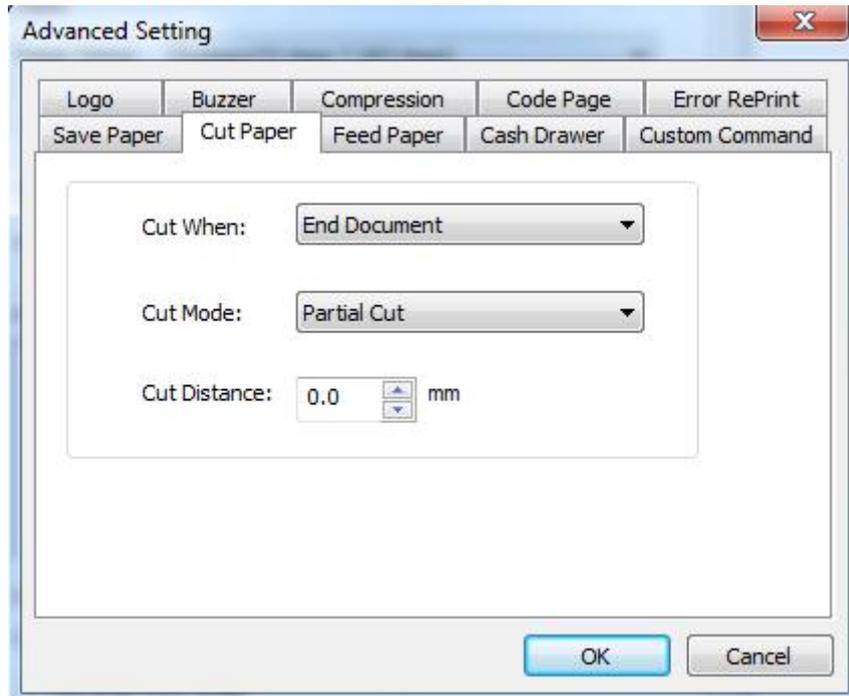


- Click on “Advanced” to set “Save Paper”, “Cut Paper”, “Feed Paper”, “Cash Drawer”, “Custom Command”, “Logo”, “Buzzer”, “Compression”, “Code Page”, “Error Reprint”.

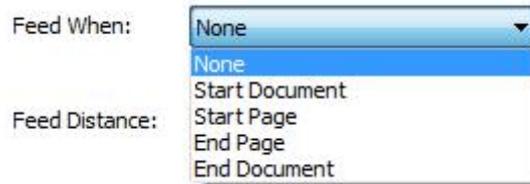
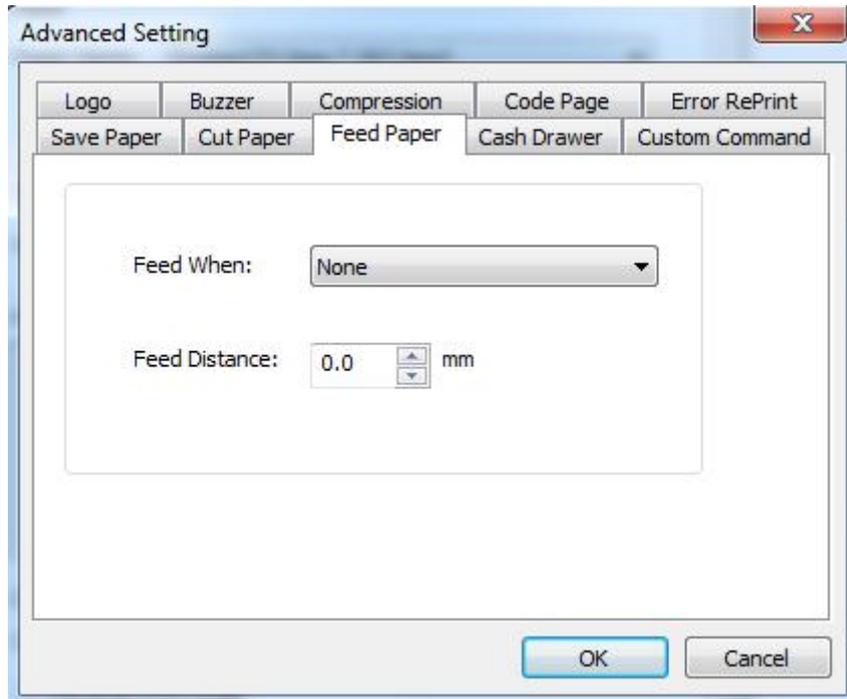
- Save Paper



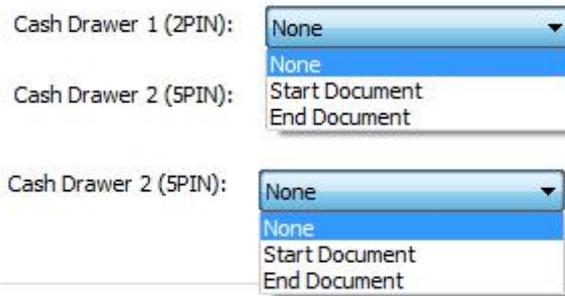
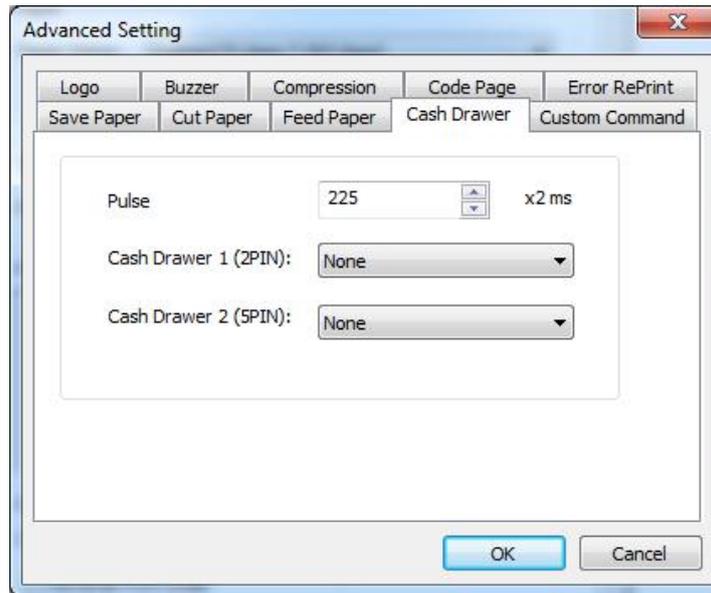
▪ Cut Paper



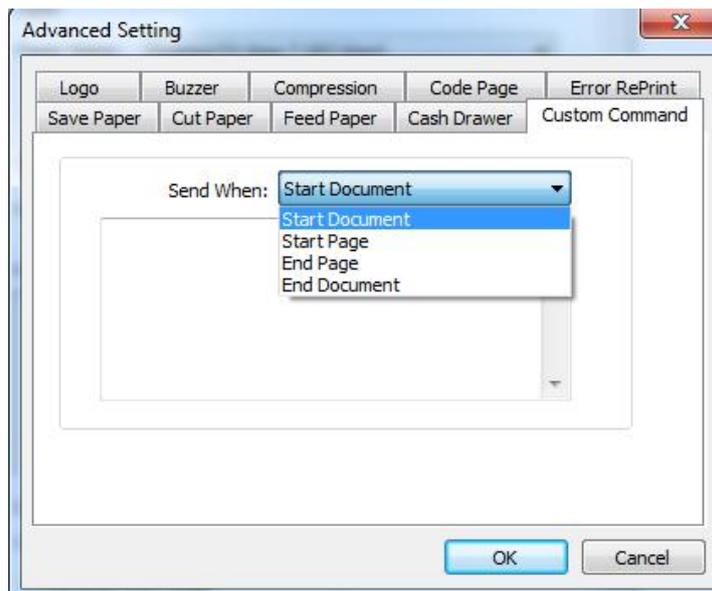
▪ Feed Paper



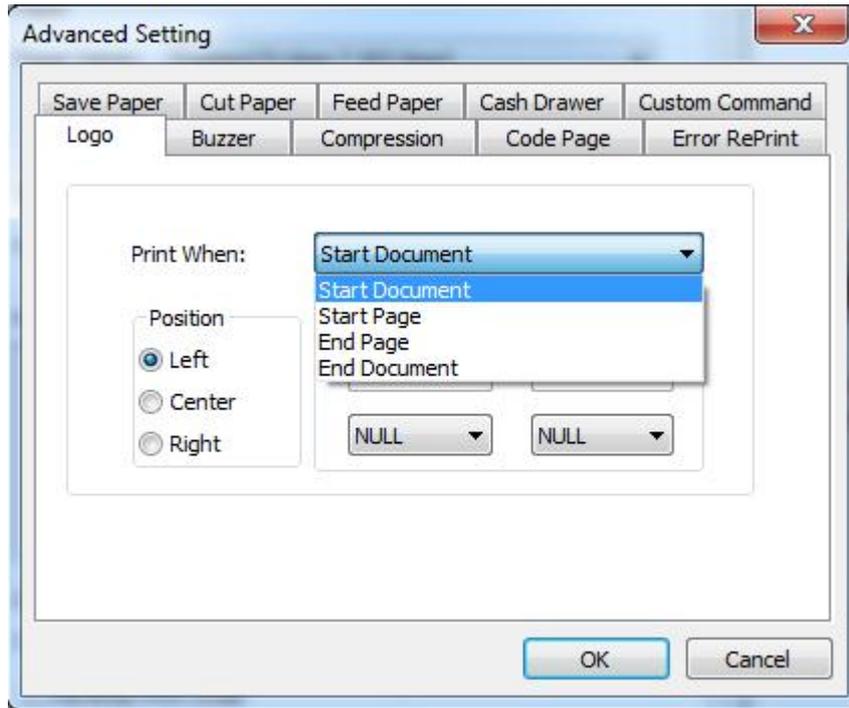
▪ Cash Drawer



▪ Custom Command

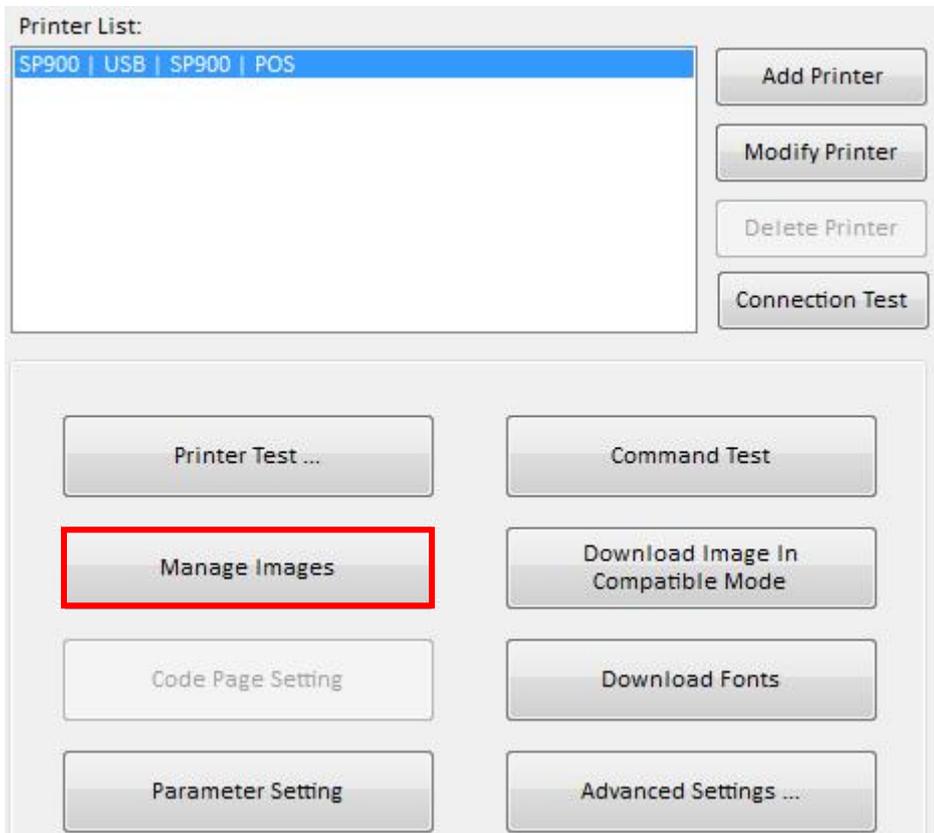


▪ Logo

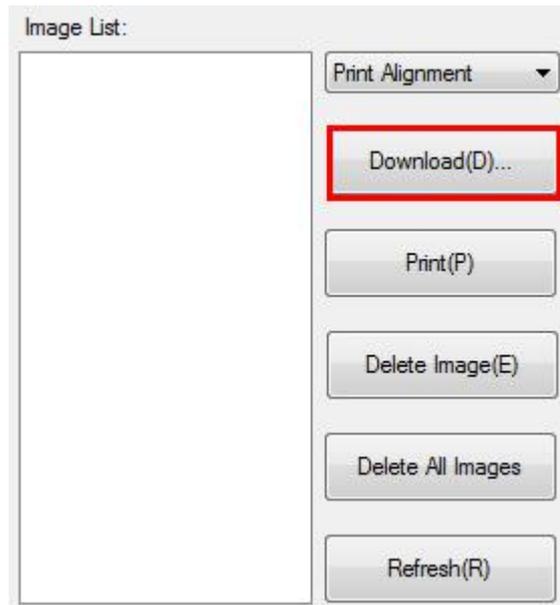


**Note:** This setting need to be set in utility. Here are the steps:

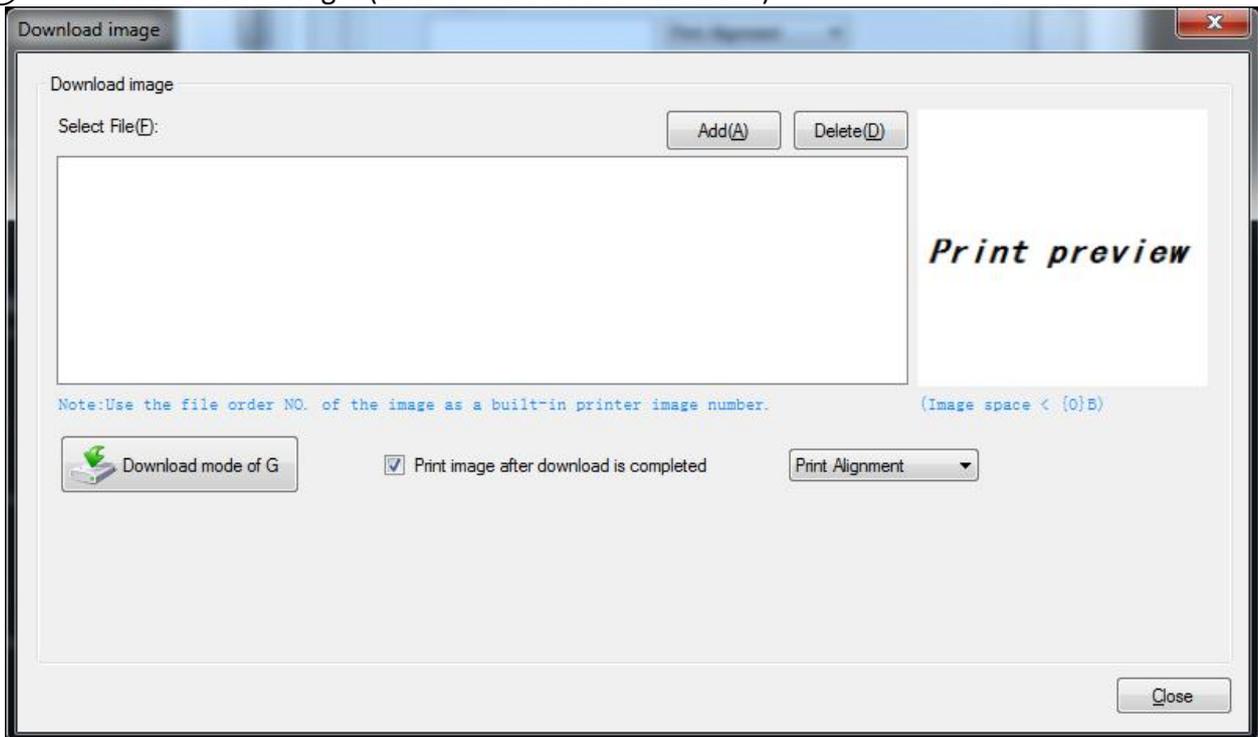
- ① Open the utility and click "Manage Images".

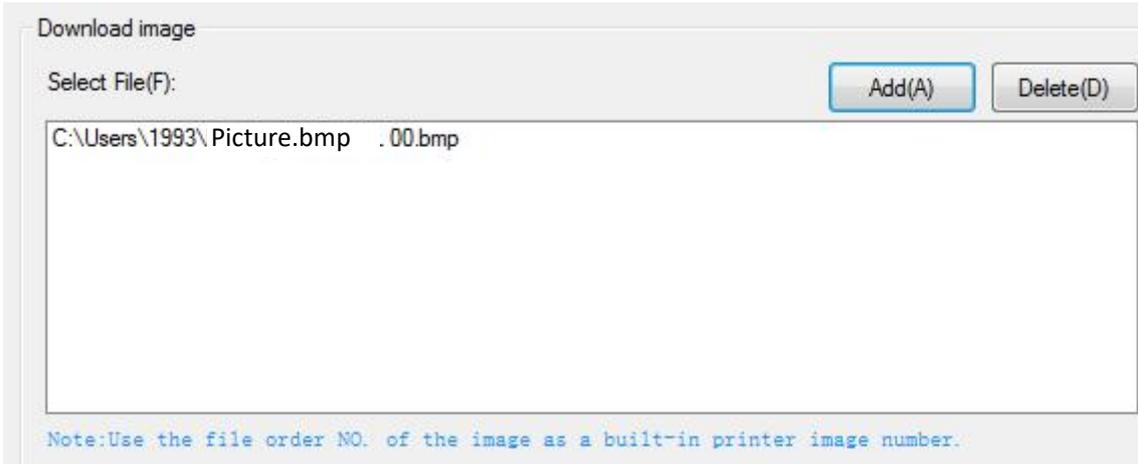


② Click "Download".



③ Click "Add" to add a logo. (BMP format is recommended)





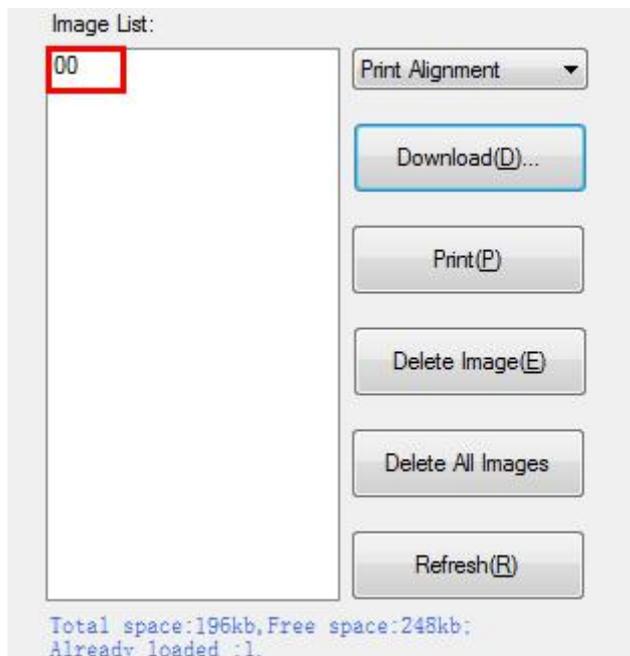
④ Select the print location, and then click "Download mode of G". (Such as: left print)



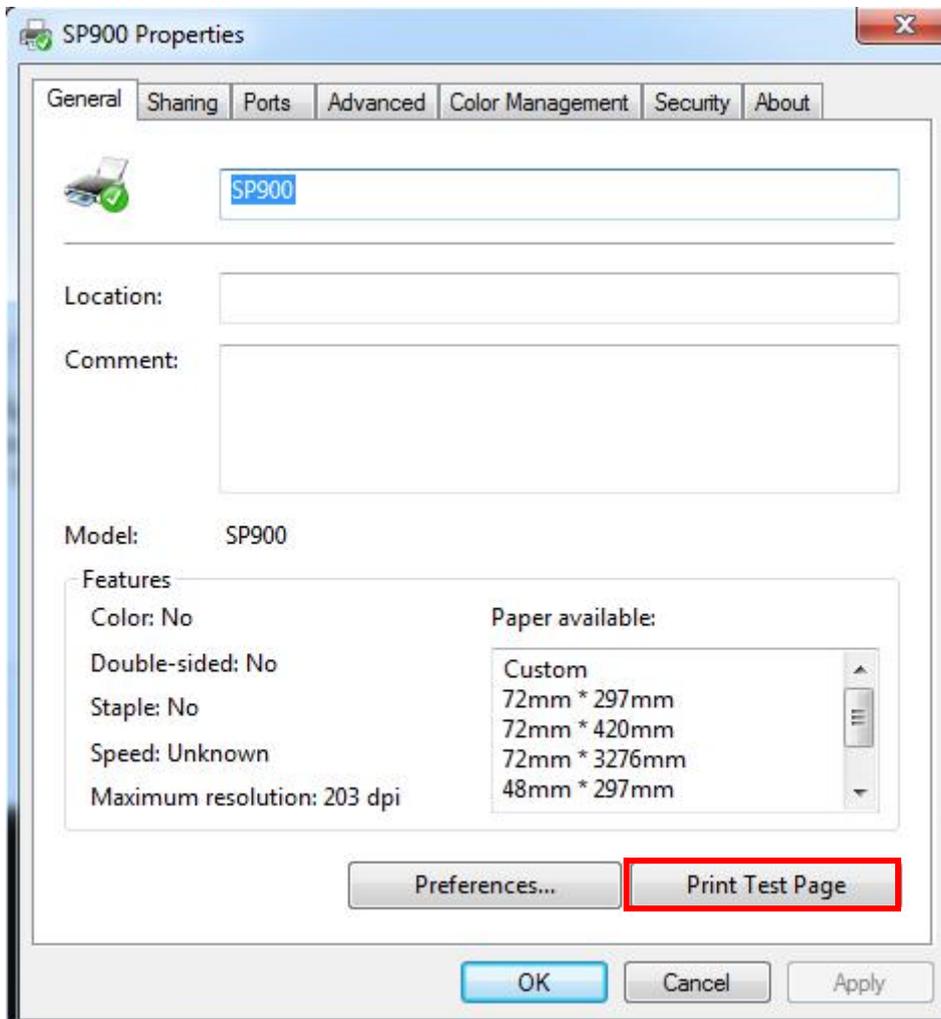
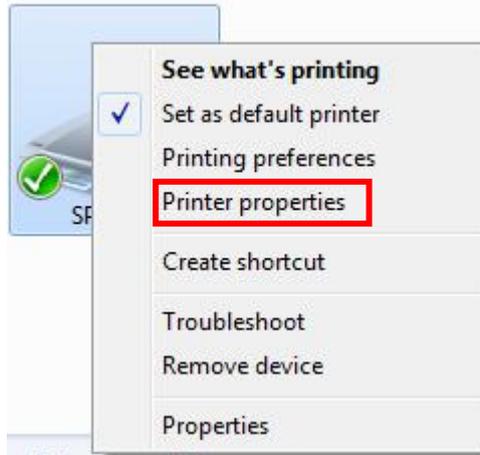
⑤ Return to image list to view the image number.



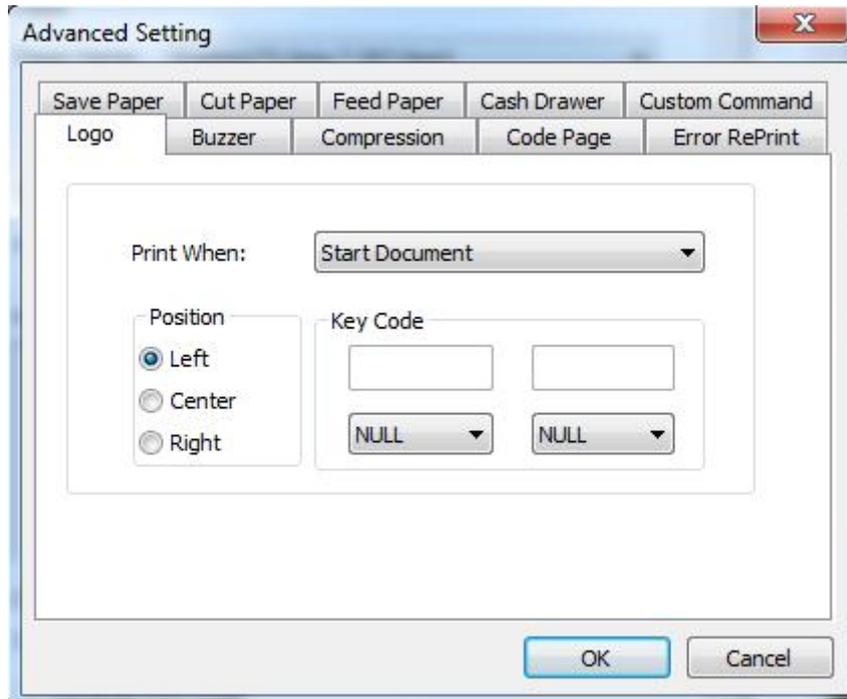
**Note: each time click "Download mode of G", an image list number will be generated.**



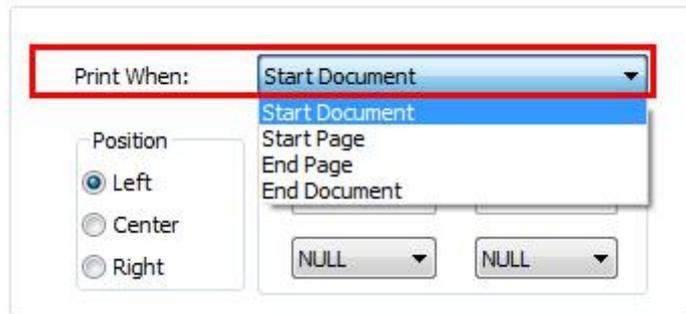
⑥ Select Printer properties, click “Print Test Page” to view the printing effect.



⑦ Click "Logo" under "Advanced".



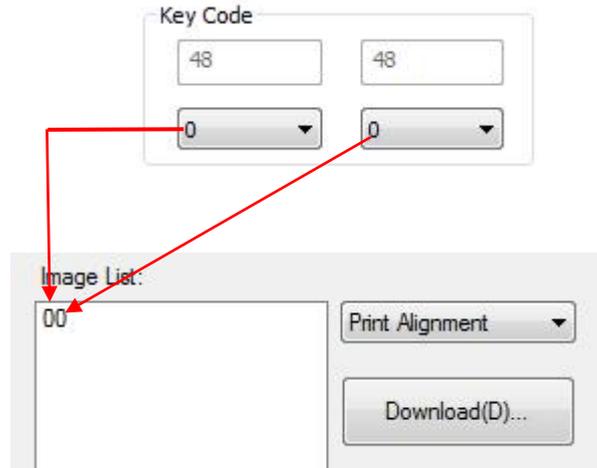
⑧ Select the printing time. (Such as: Start Document)



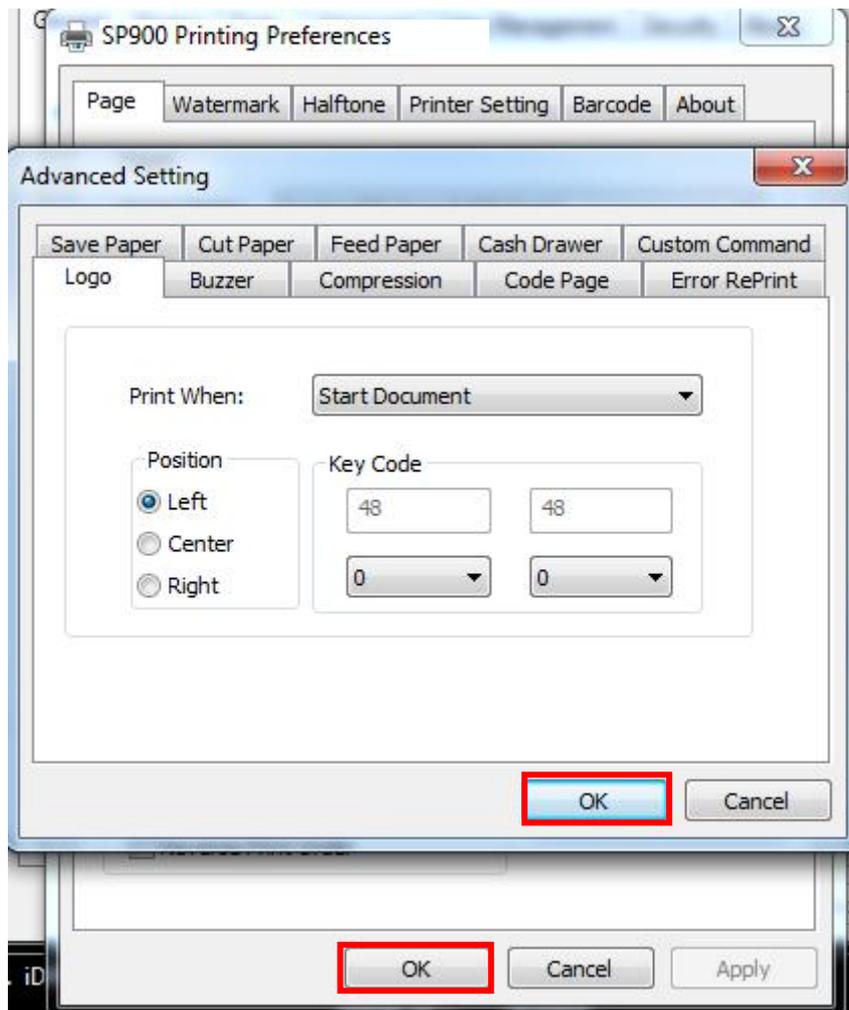
⑨ Select the printing position. (Such as: "Left")



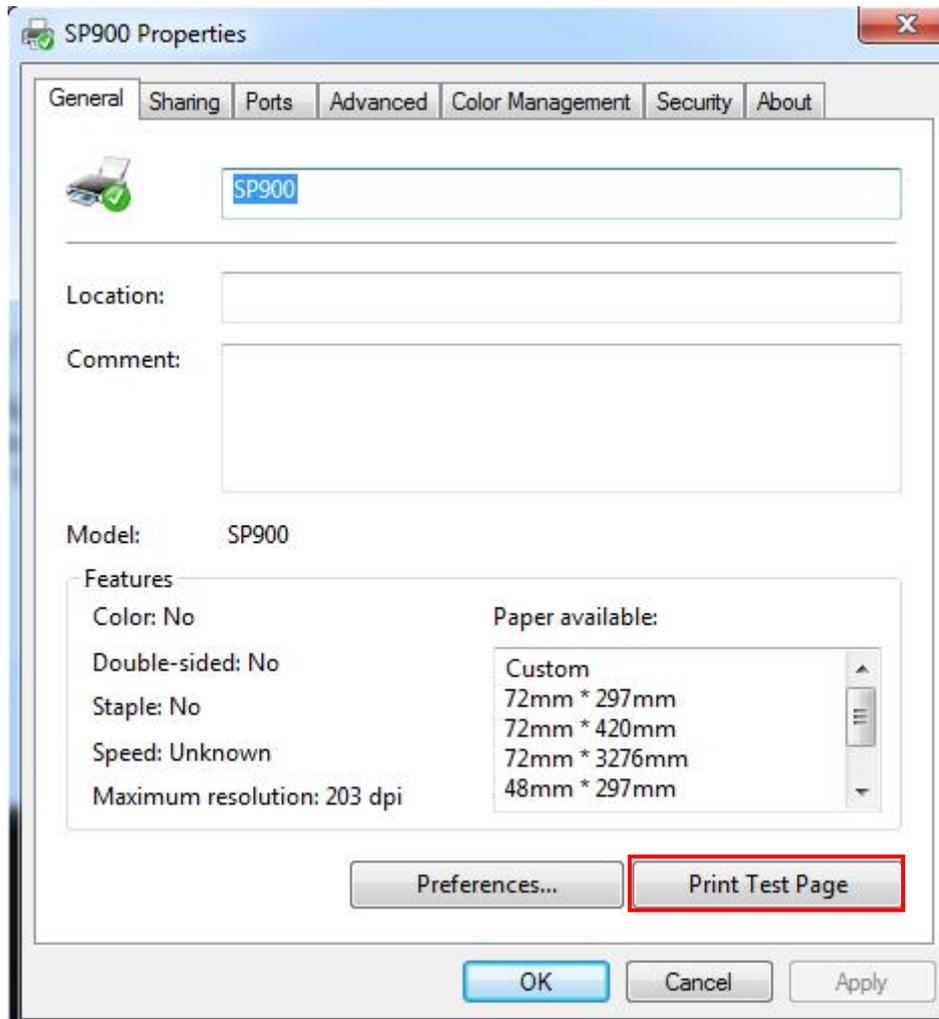
⑩ Set the Key Code according to the image number. (Such as: 0 0)



⑪ Then click "OK".



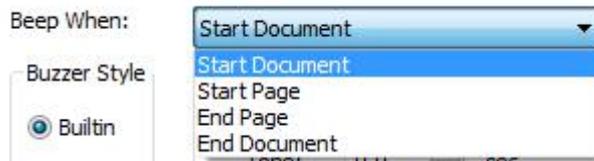
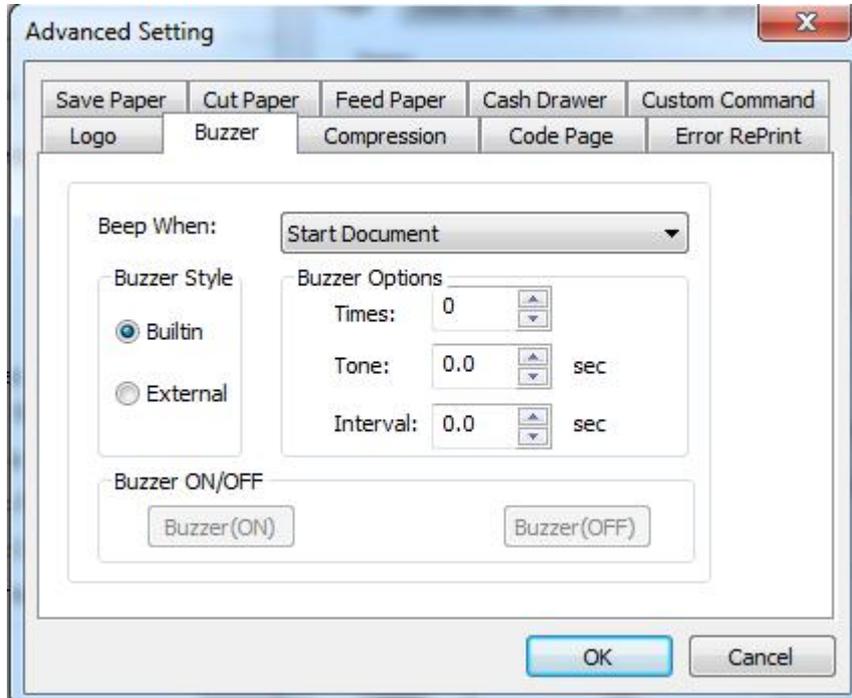
⑫ Click “Print Test Page” to view the printing effect.



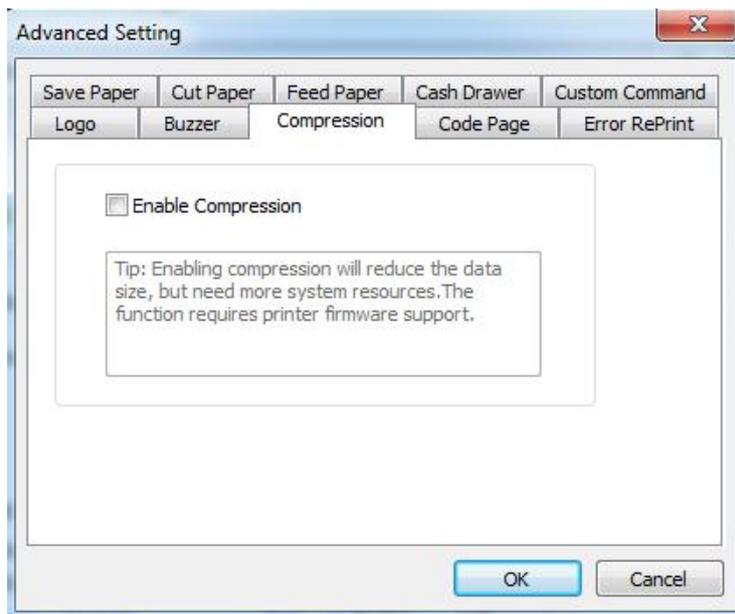
▪ Buzzer



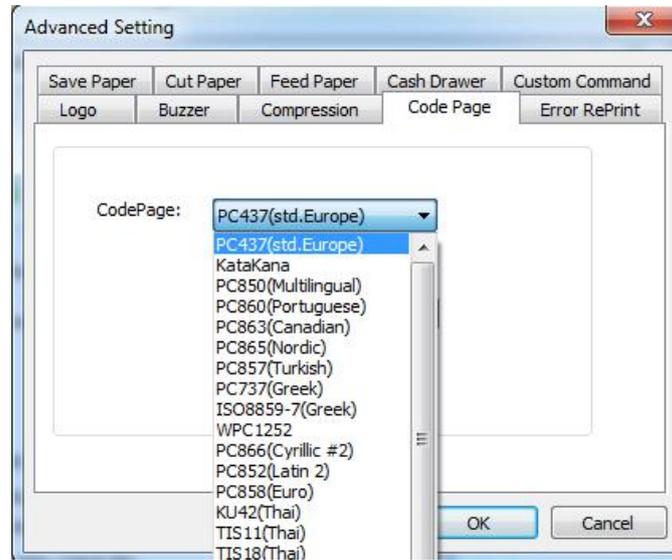
**Note:** this setting can be set in utility.



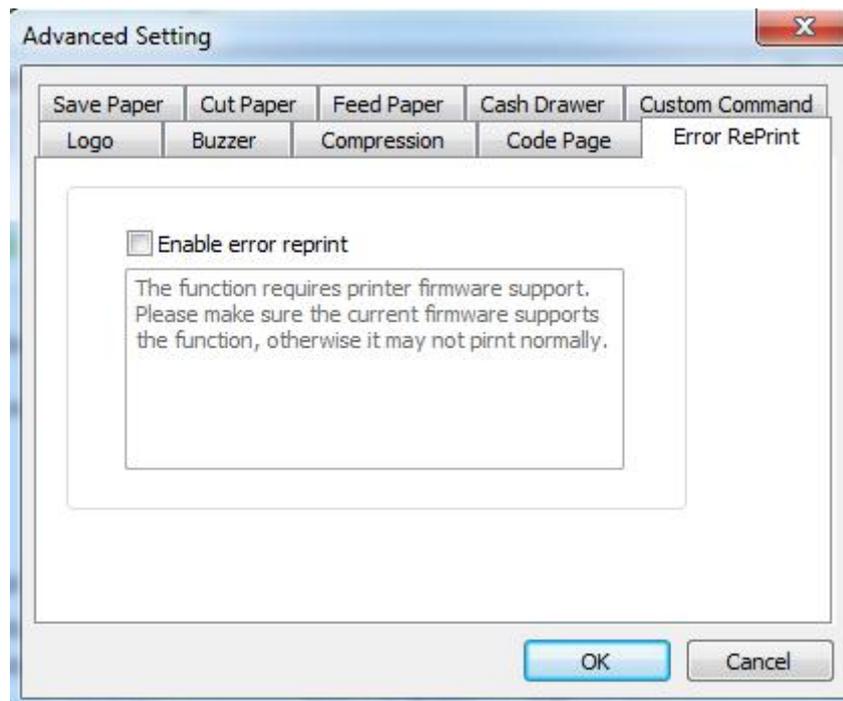
▪ Compression



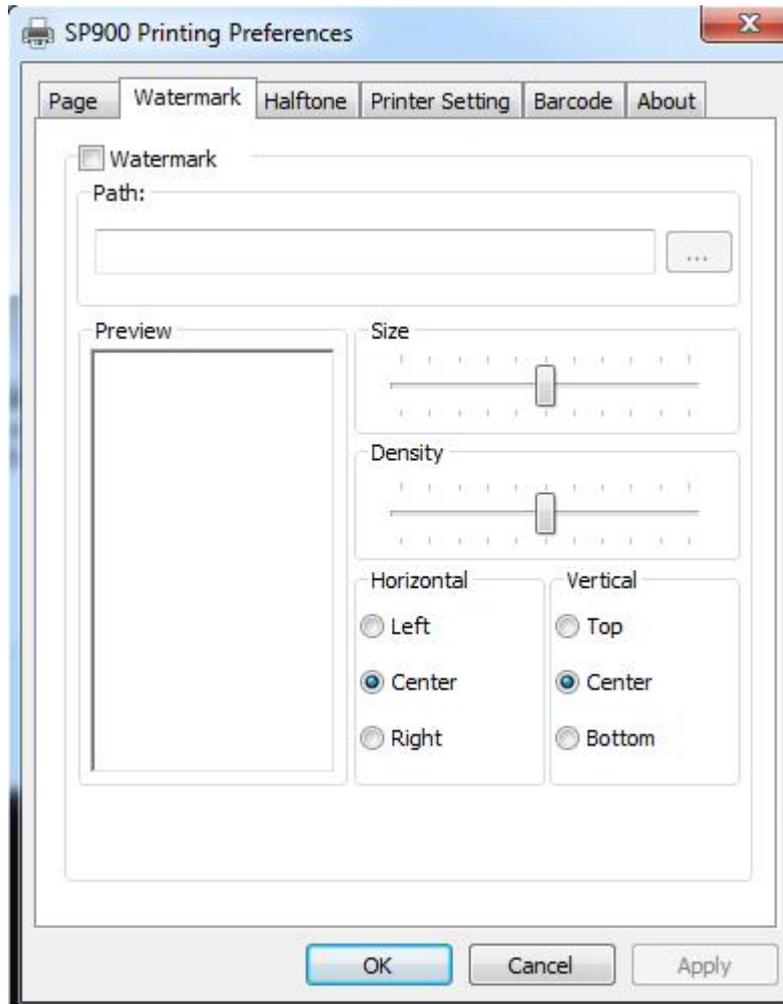
- Code Page



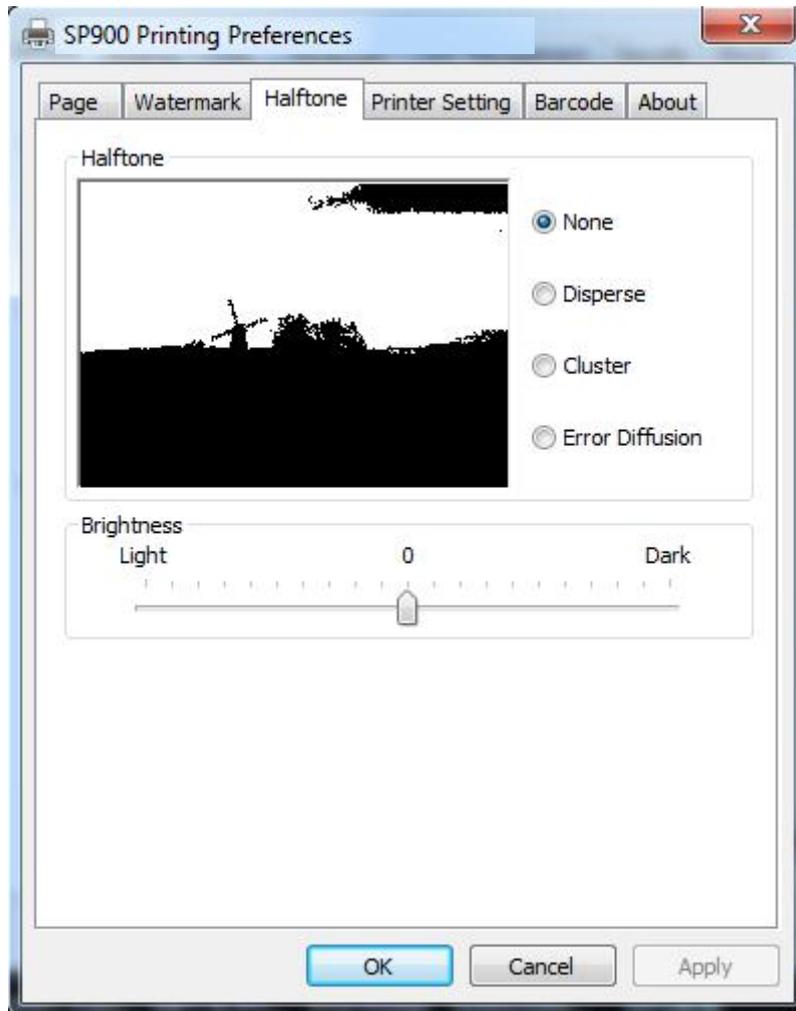
- Error Reprint



3) Click “Watermark”. Set watermark to print (Only BMP file can be selected).



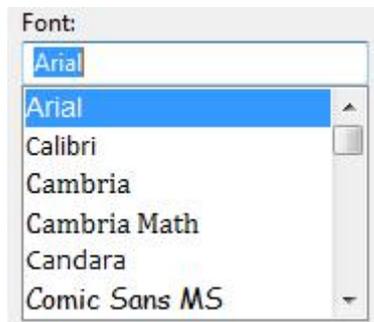
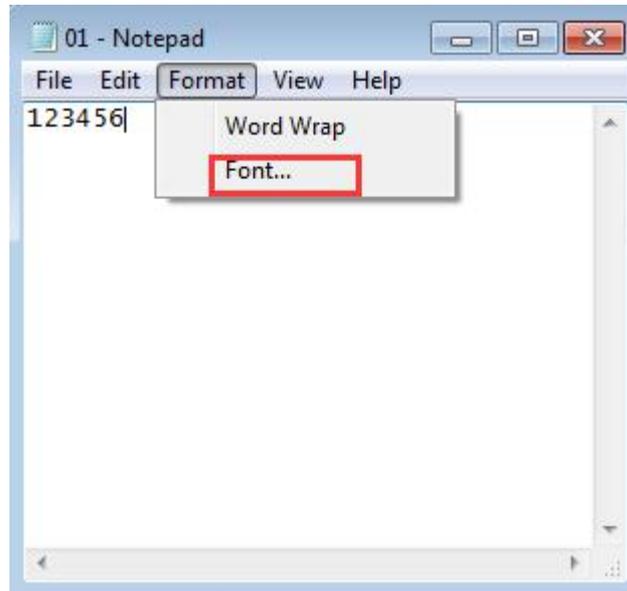
4) Click "Halftone" to set the halftone.



5) Set up the "Barcode".

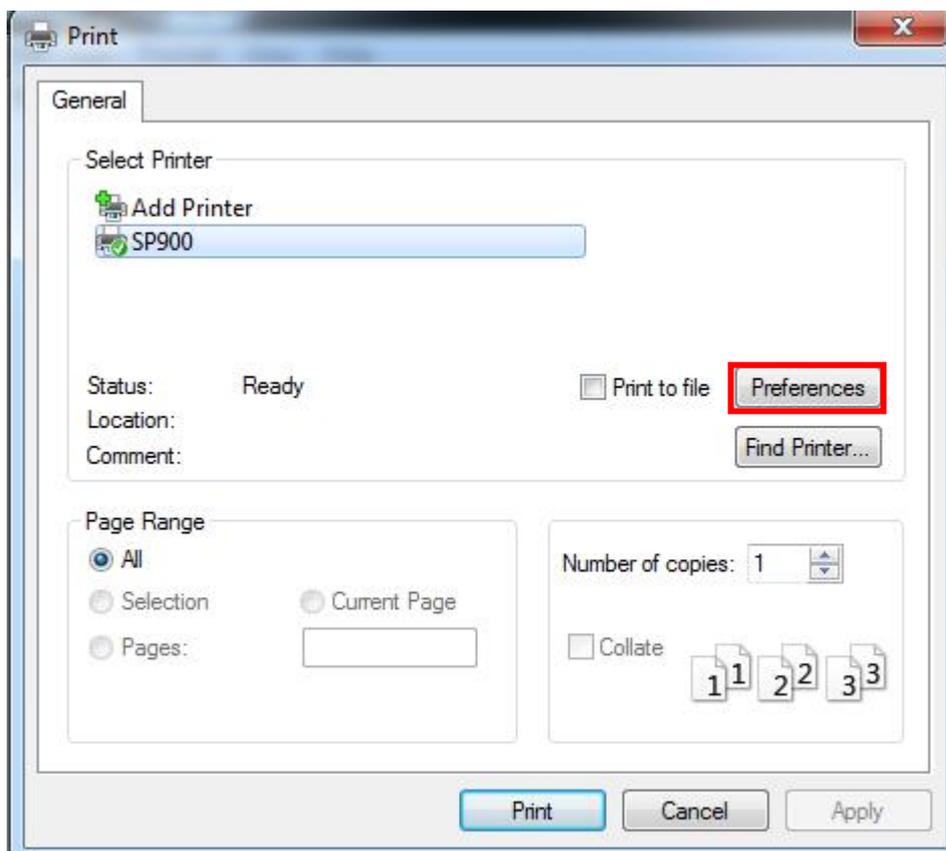
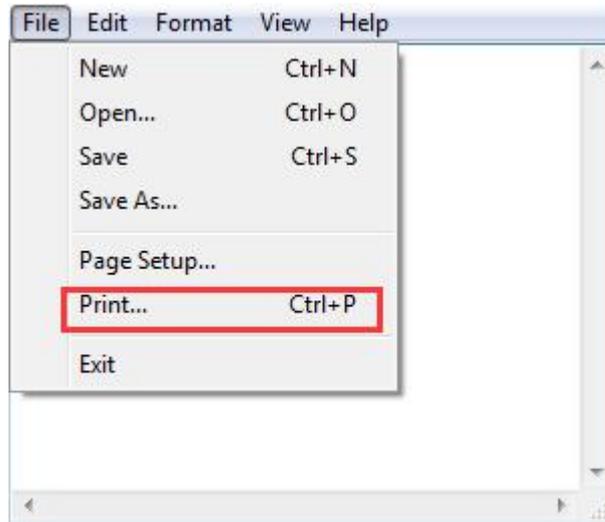
Assuming the font type of the main document is "Italics", if you want to convert the data "123456" to the barcode printing, the steps are as follows:

- ① Sets the data "123456" font type to a different font from the main document. Such as: Arial.



② Open the Preference.

If the document is open, you can set it in the document: “file-print-preferences”.

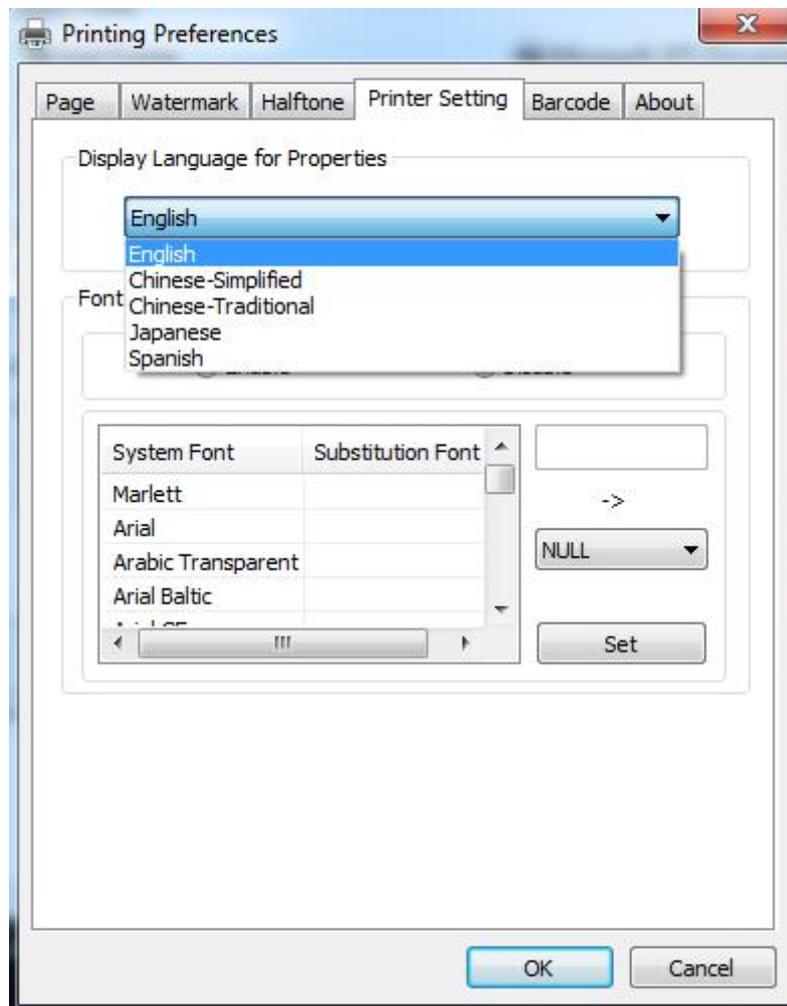






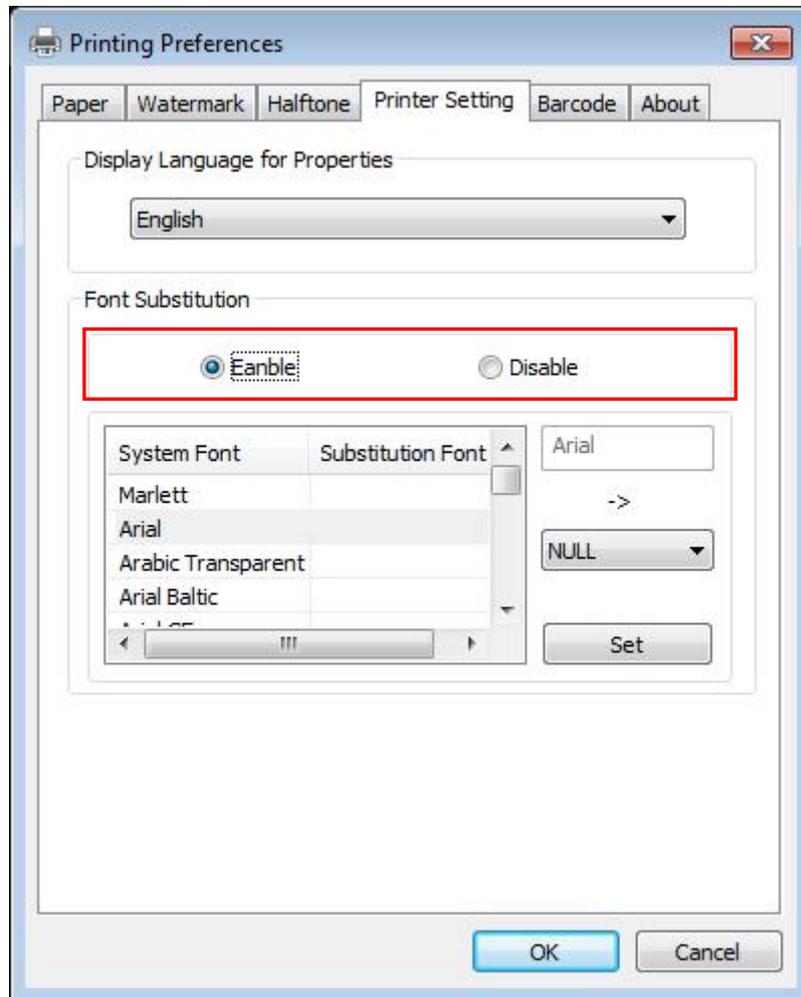
- ③ Click the “Printer Setting”.

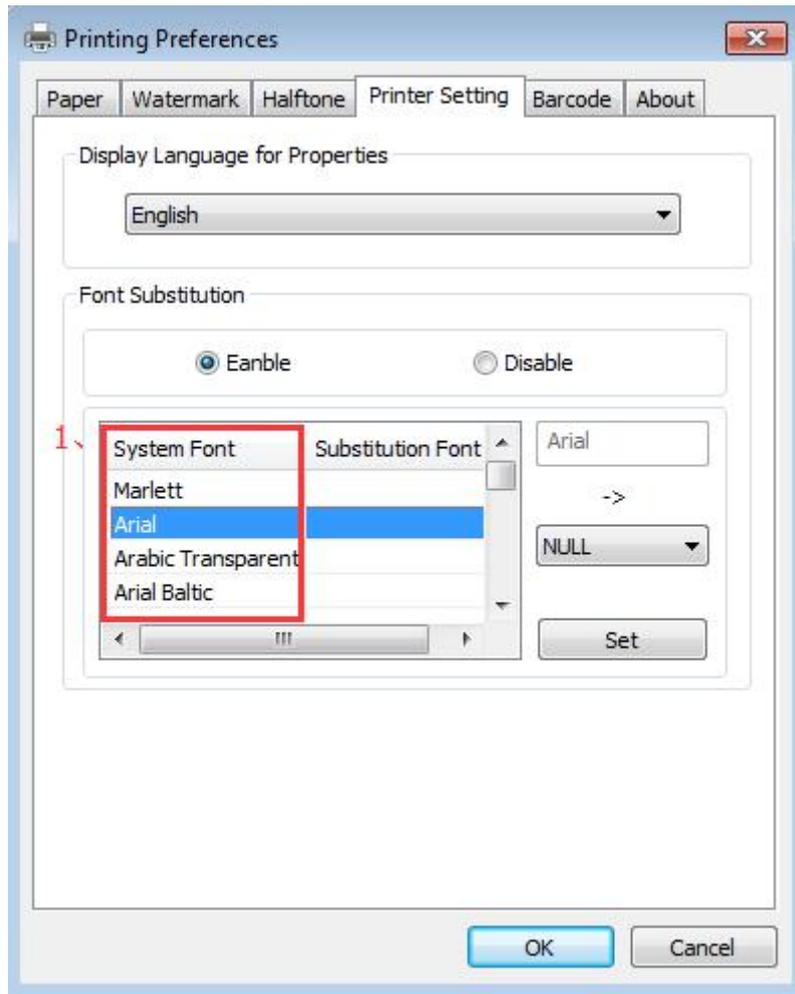
  - Choose the “Display Language for Properties”

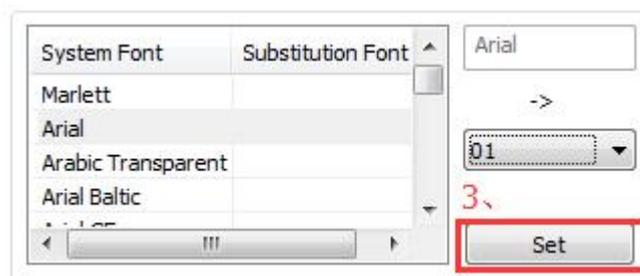
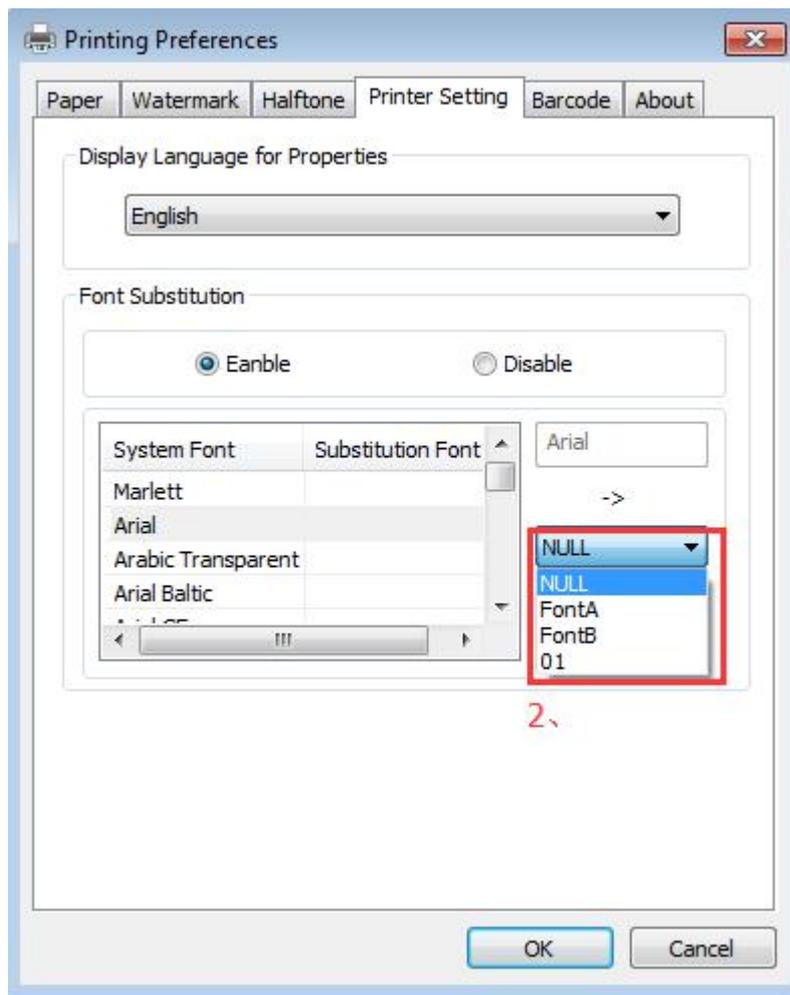


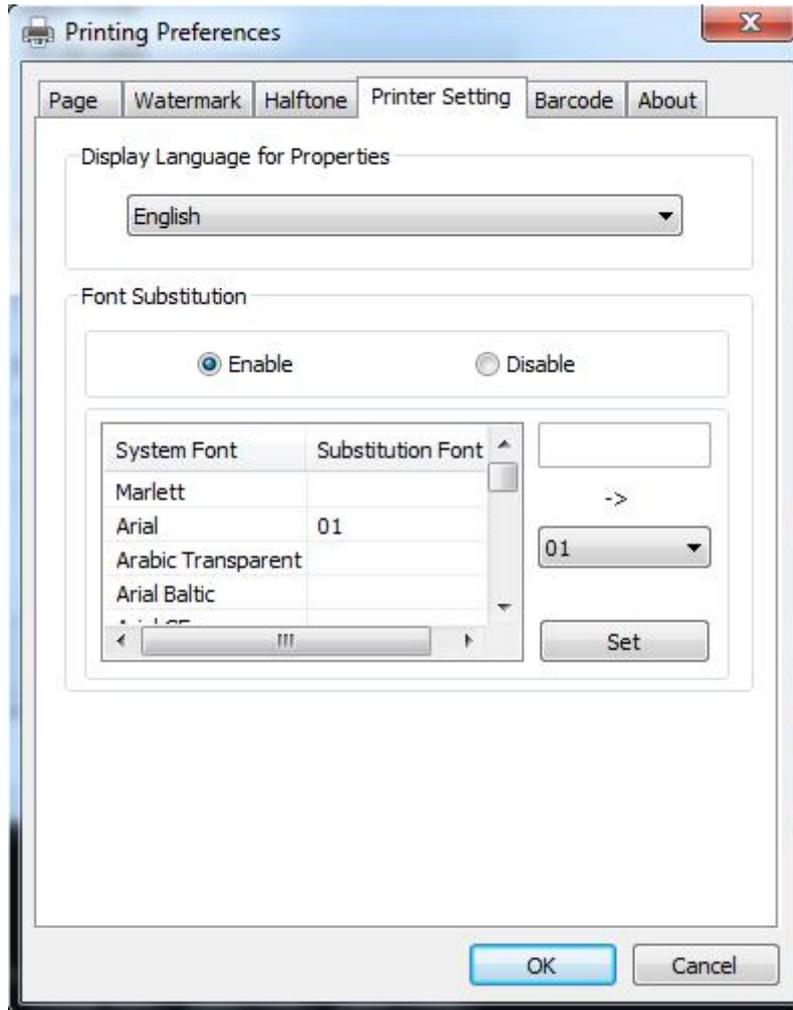
- Turn on the “Font Substitution”, select the system text need to be replaced (for example, Arial), and then select the font you want to replace (for example, 01) and click “Set”, and the replacement font will display "01".

the steps are as follows:



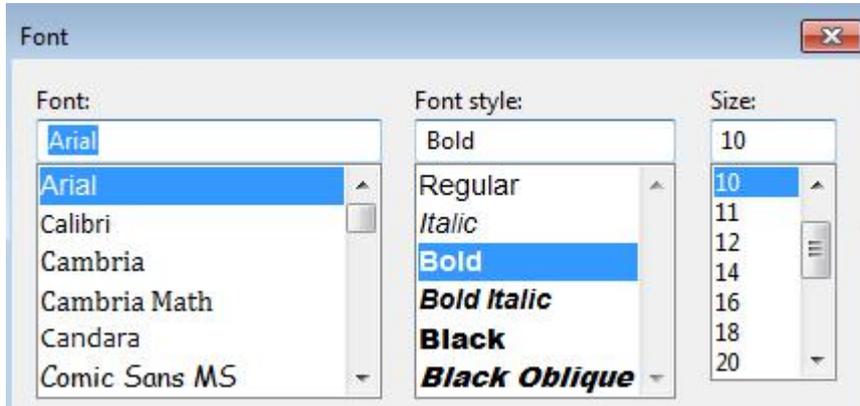




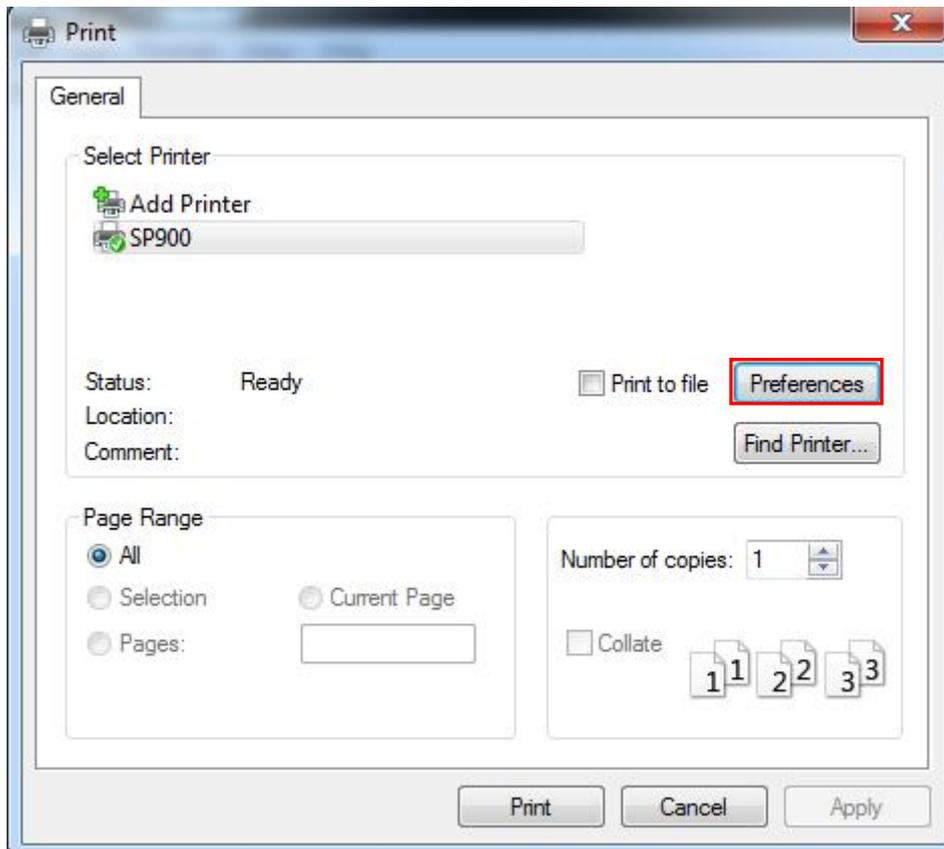


If you do not have a barcode set, the steps are as follows:

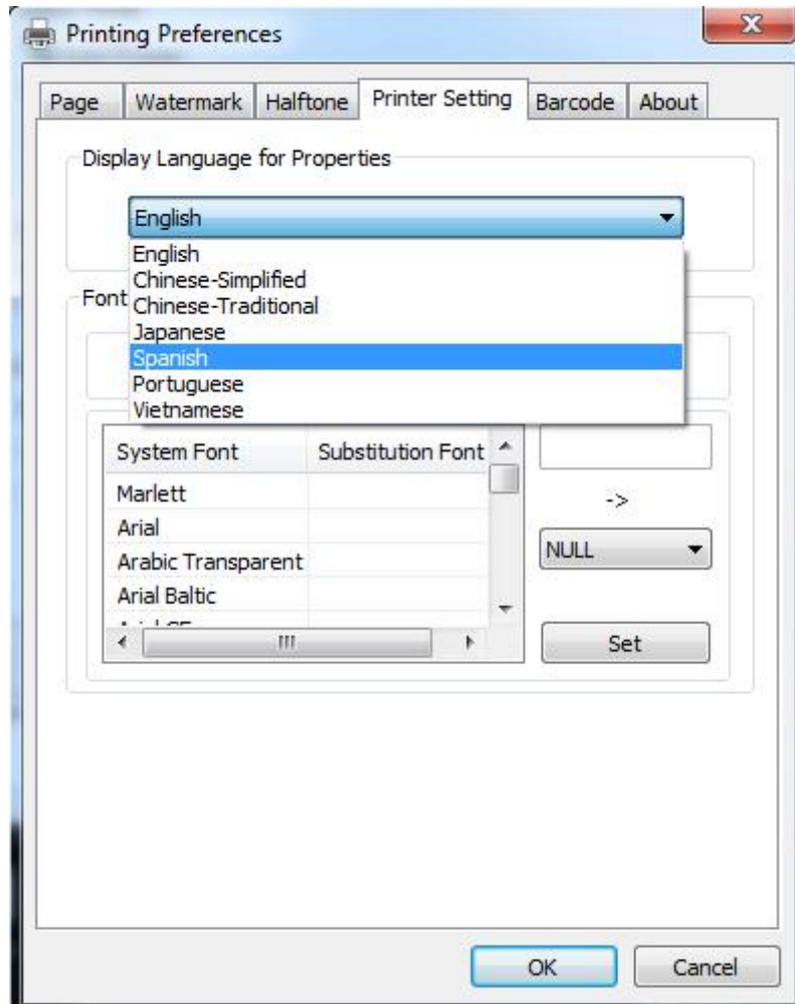
- ① Suppose you change the size of the data "123456", for example:



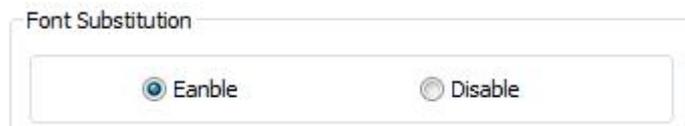
- ② Set the Printing preferences.



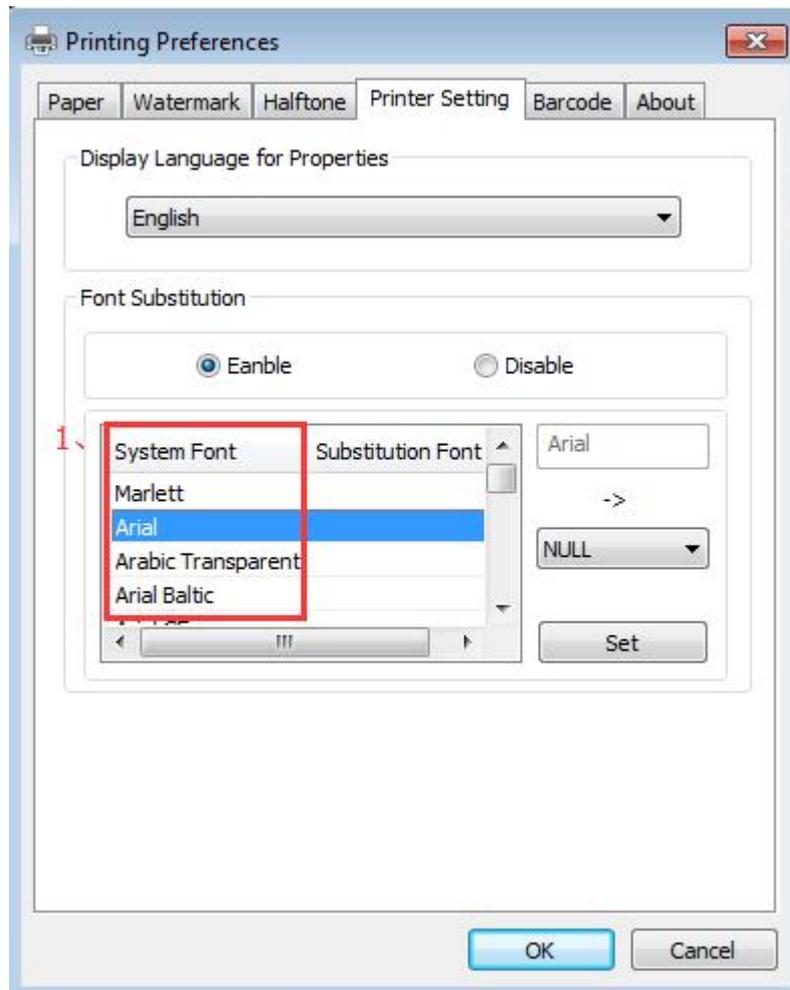
- ③ Click the “Printer Setting”.
- ④ Choose the “Display Language for Properties”.



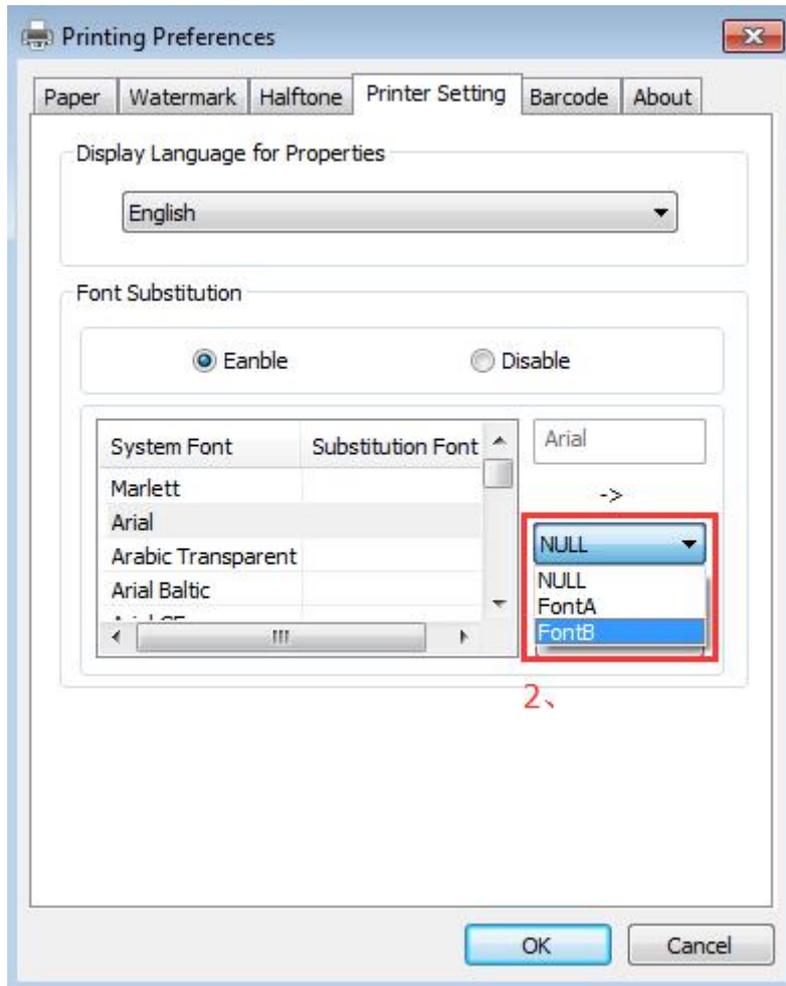
- ⑤ Turn on the “Font Substitution”.



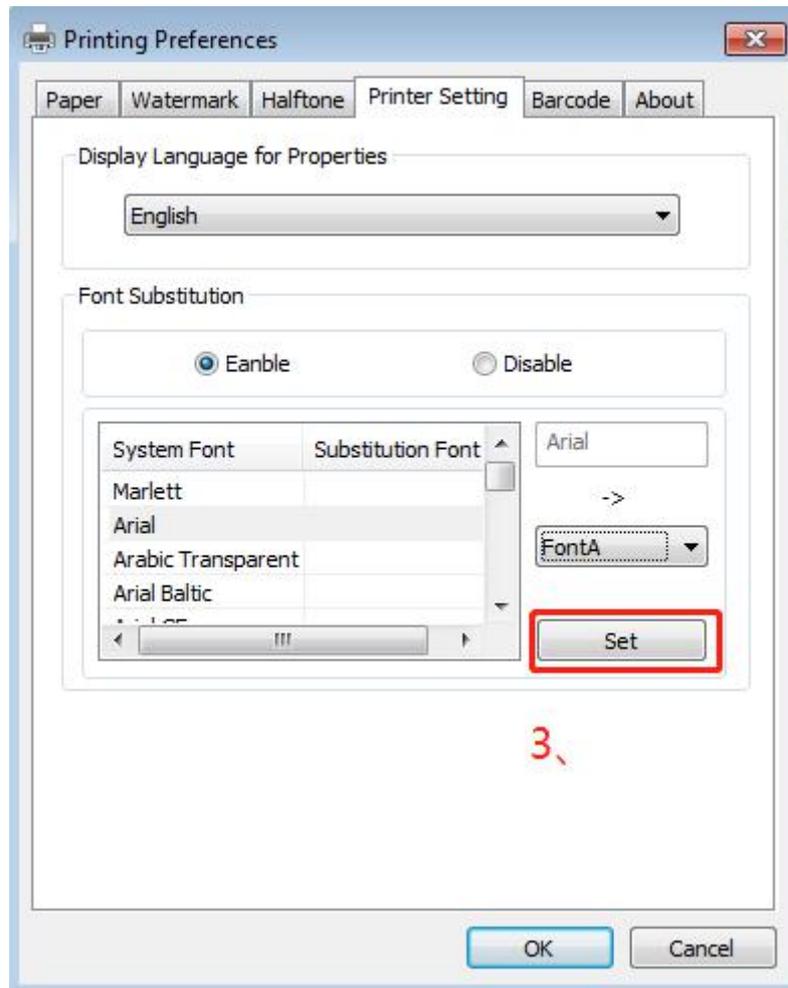
- ⑥ Select the “System Font”, for example: Arial.

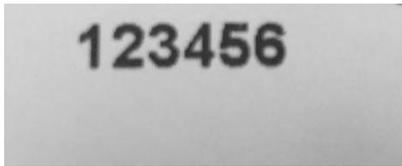
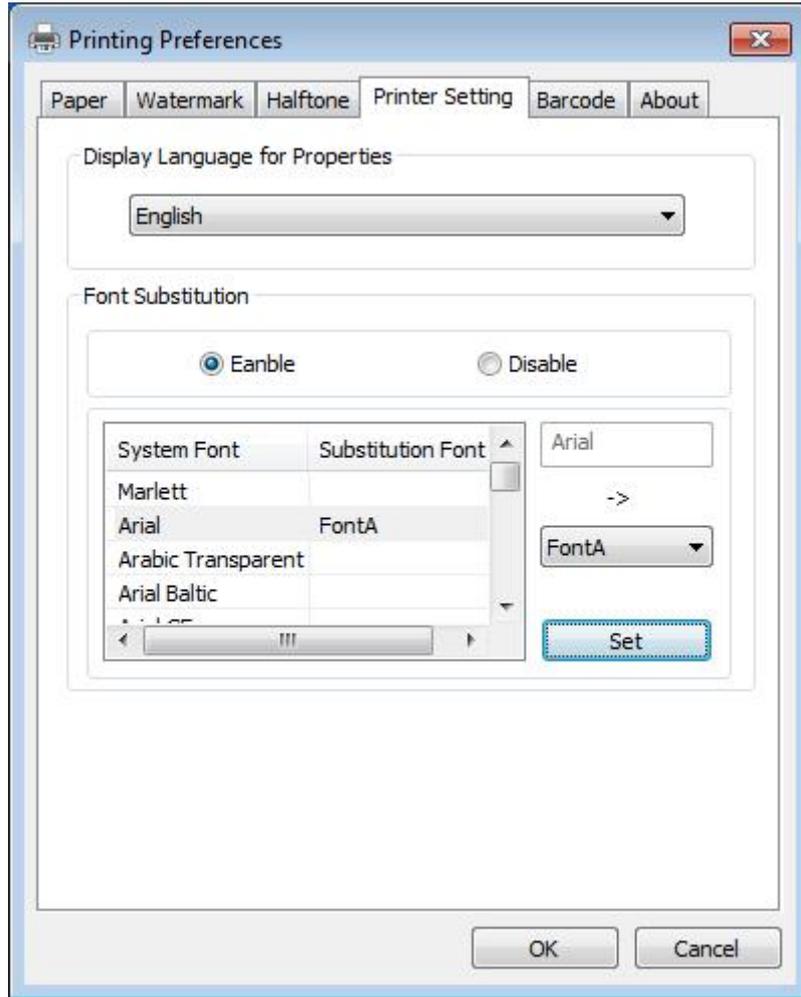


⑦ Select the font to that you want to replace.



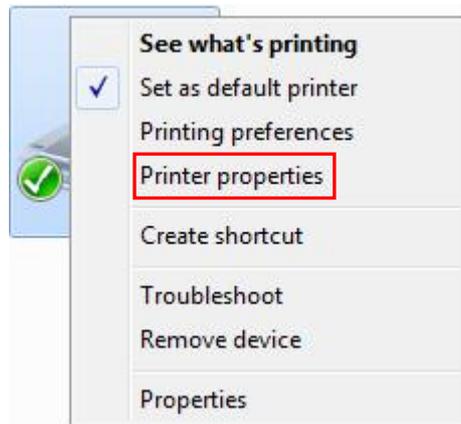
- ⑧ Click “Set”.



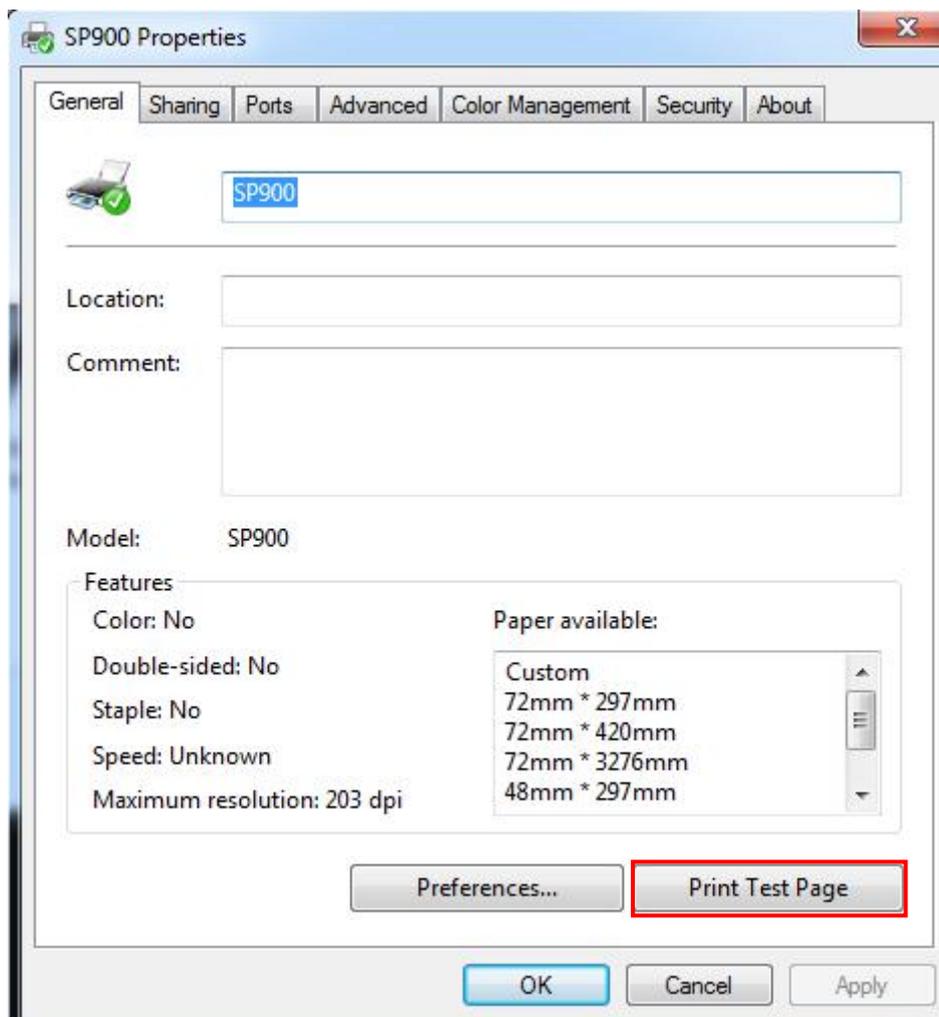


## 9.5.2 Other Settings

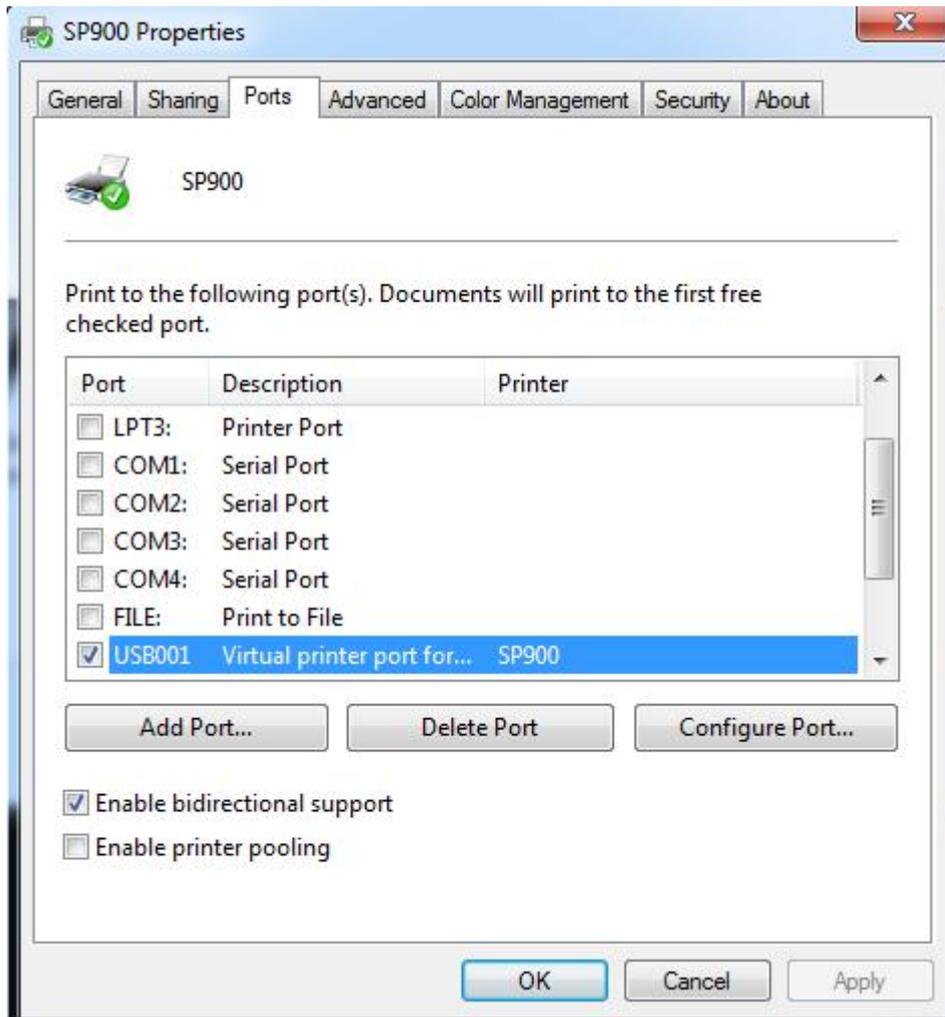
1) Click "Start" → "Devices and Printers". Right click "SP900" and choose "Printer properties".



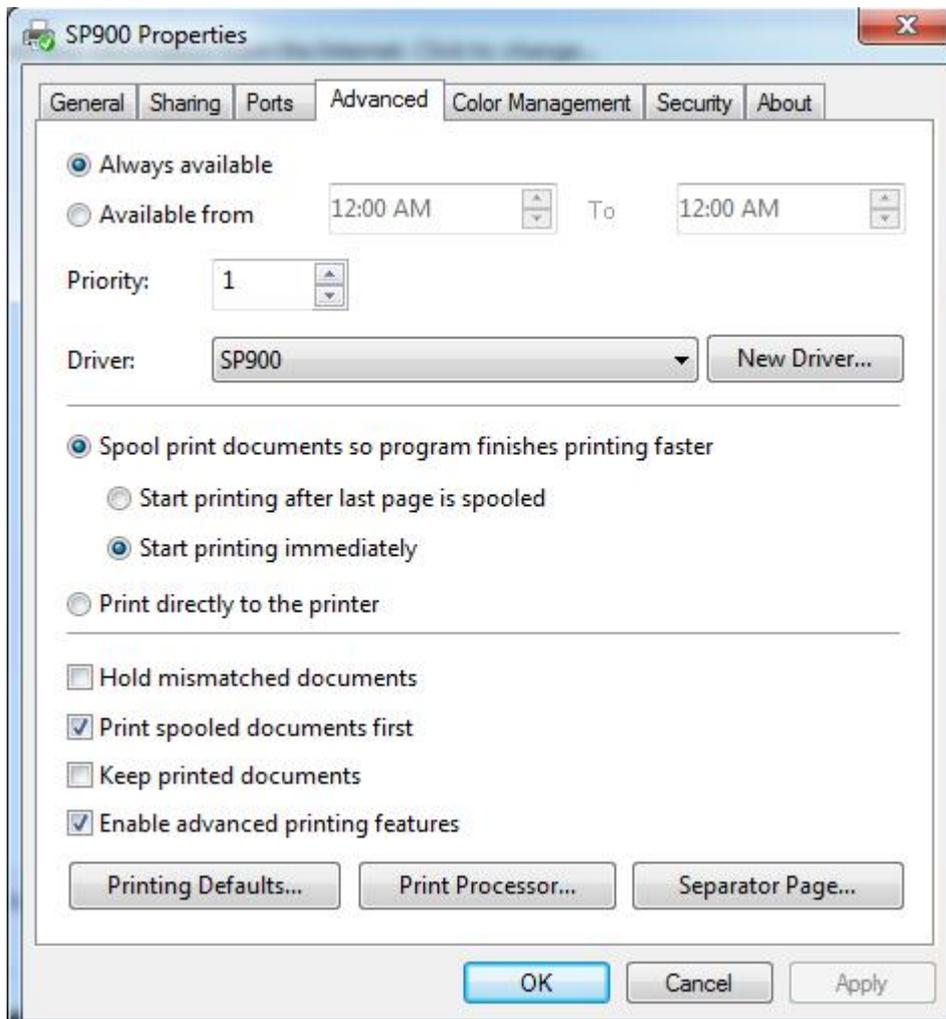
2) Choose "General", click on "Print Test Page", then it will print the current settings.



4) Click "Port" to change the other connecting port.



4) Click "Advanced" to set the available time for using.

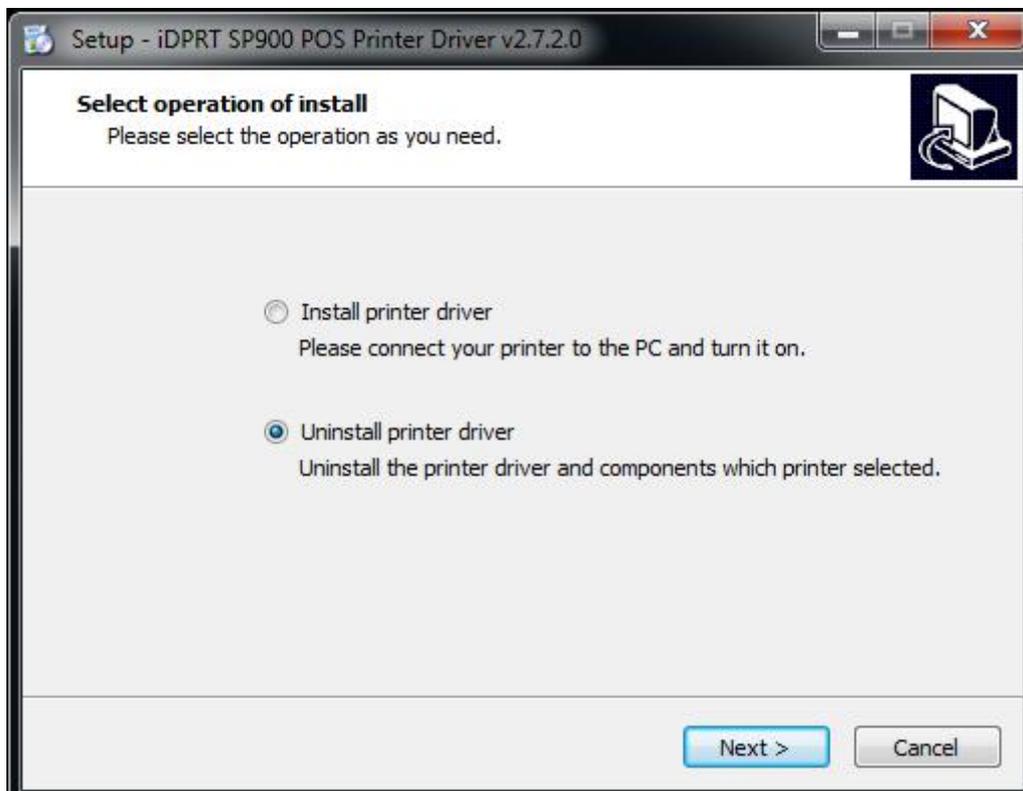


## 9.6 Uninstall Windows Driver

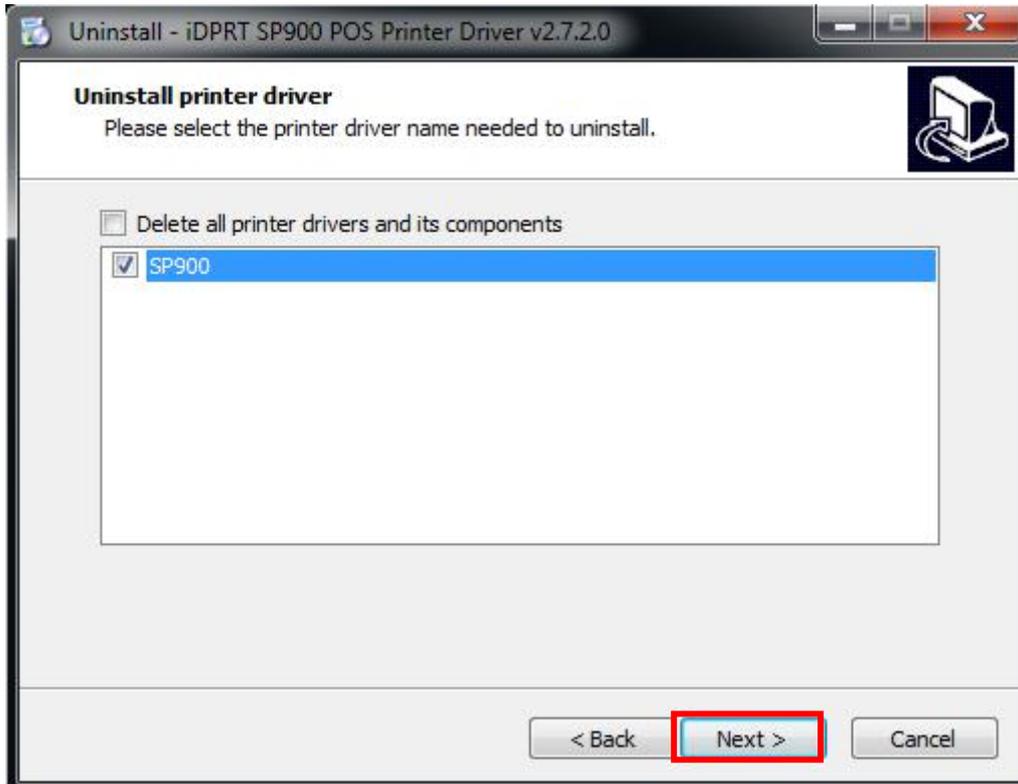
- 1) Double click Windows Driver, and then click "OK".



- 2) Choose "Uninstall printer driver", then click "Next"



- 3) Choose "SP900", then click "Next"



- 4) Then it is complete to uninstall.

## 9.7 Specification

**Resolution:**

203×203dpi

**Paper Size:**

Custom (80.0mm \* 297.0mm)

## 10 MAC DRIVER INSTRUCTION

### 10.1 Information

This Driver Installation Manual provides information on installation in macOS operation system.

### 10.2 Driver Preparation for macOS

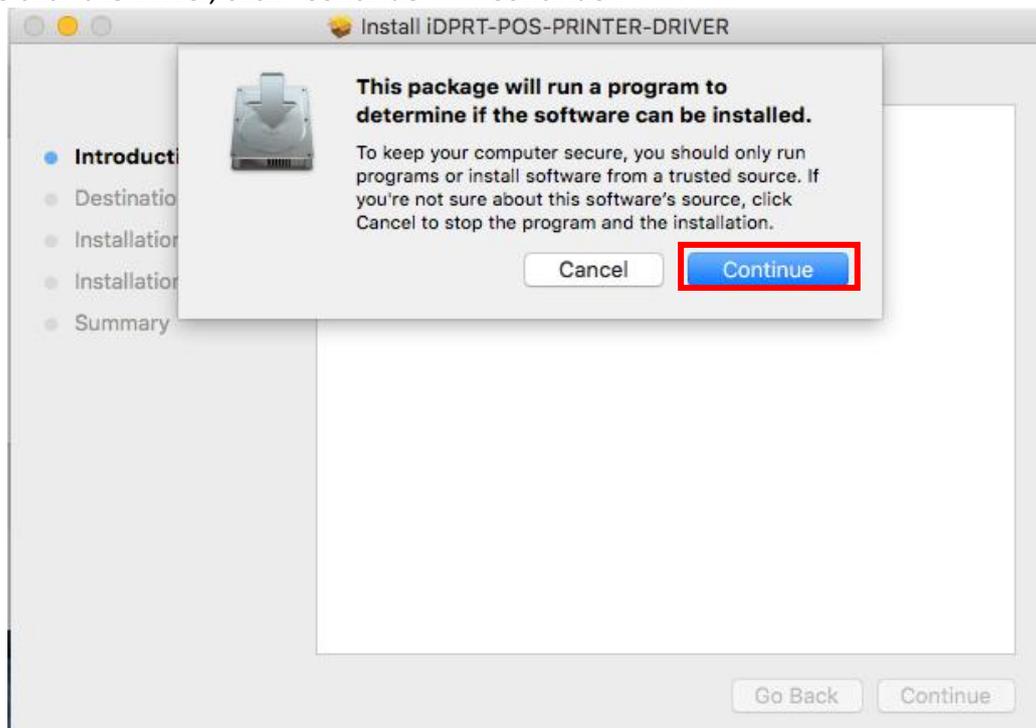
The driver of the installation file name is "idprt-SP900-printer-mac-driver-v1.4.0.pkg"

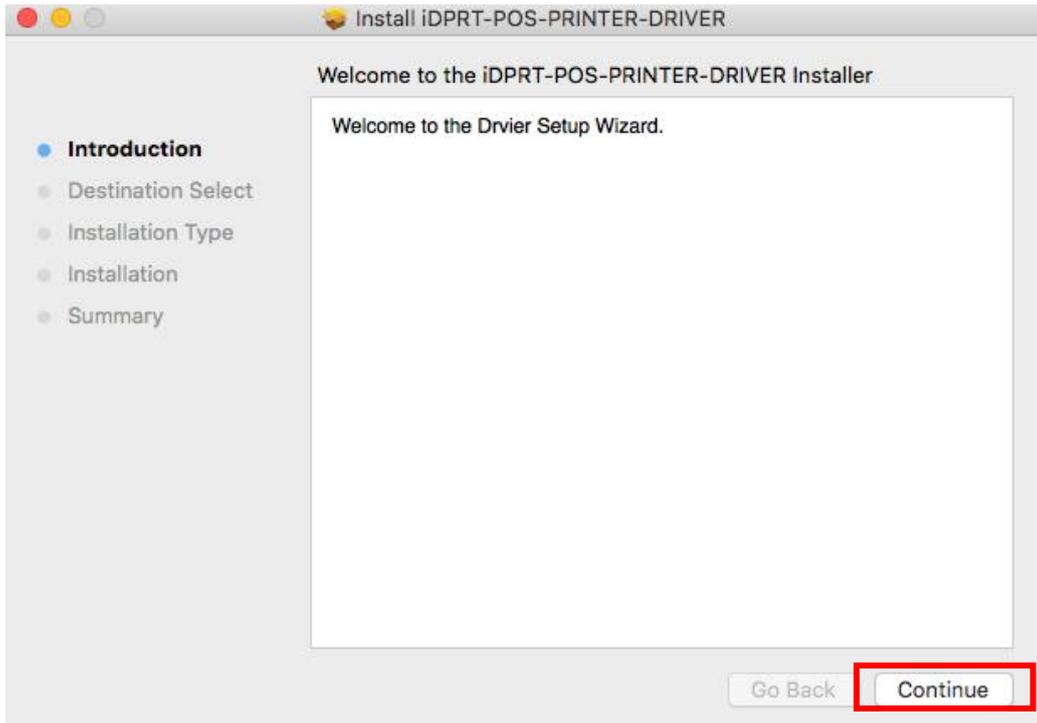
### 10.3. Driver Installation for macOS



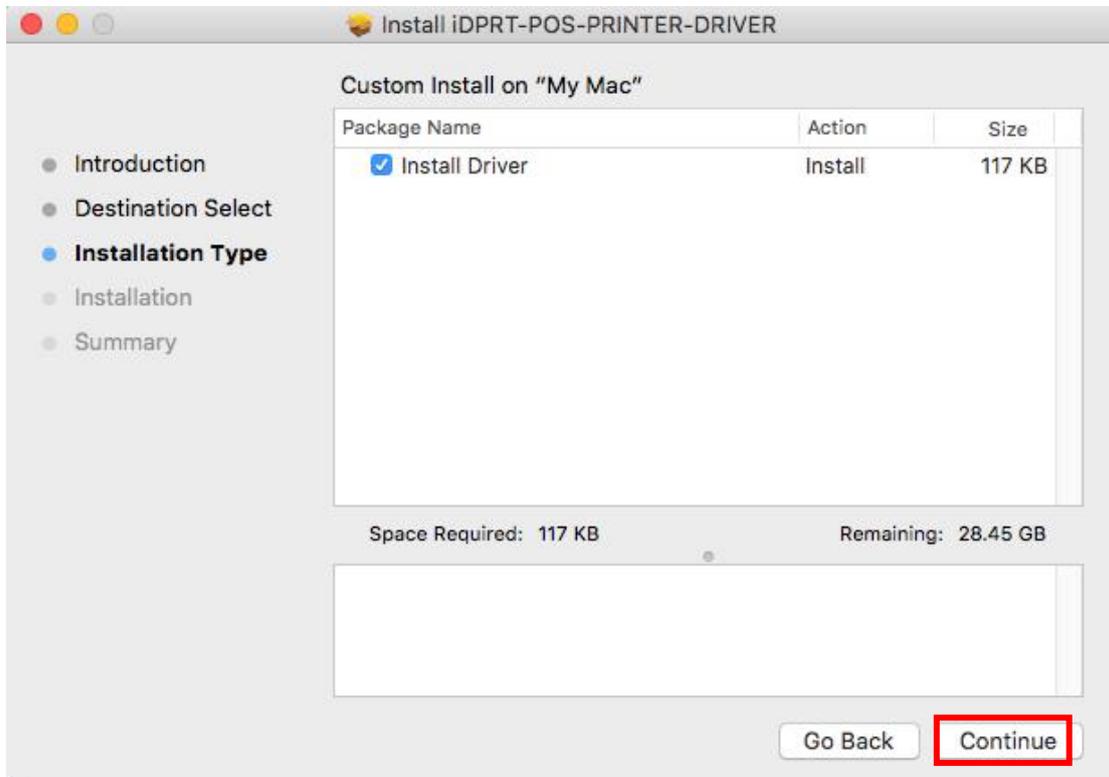
**Warning: Under different operating system, the screen has slight difference. Please operate it according to the tips. Take SP900 (macOS 10.11) as example.**

1. Double click the Driver, click "Continue" -> "Continue".



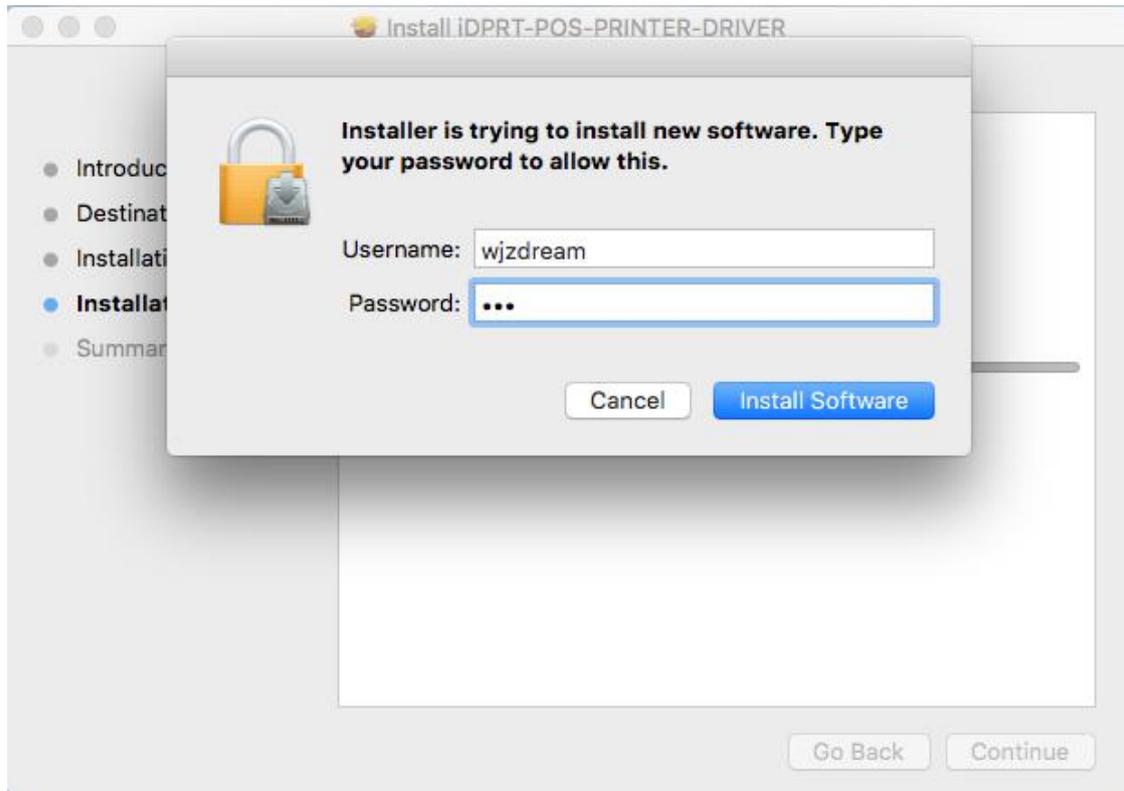


2. Select a destination and click "Continue".
3. Choose "Installation Type" and click "Continue"-> "Install".

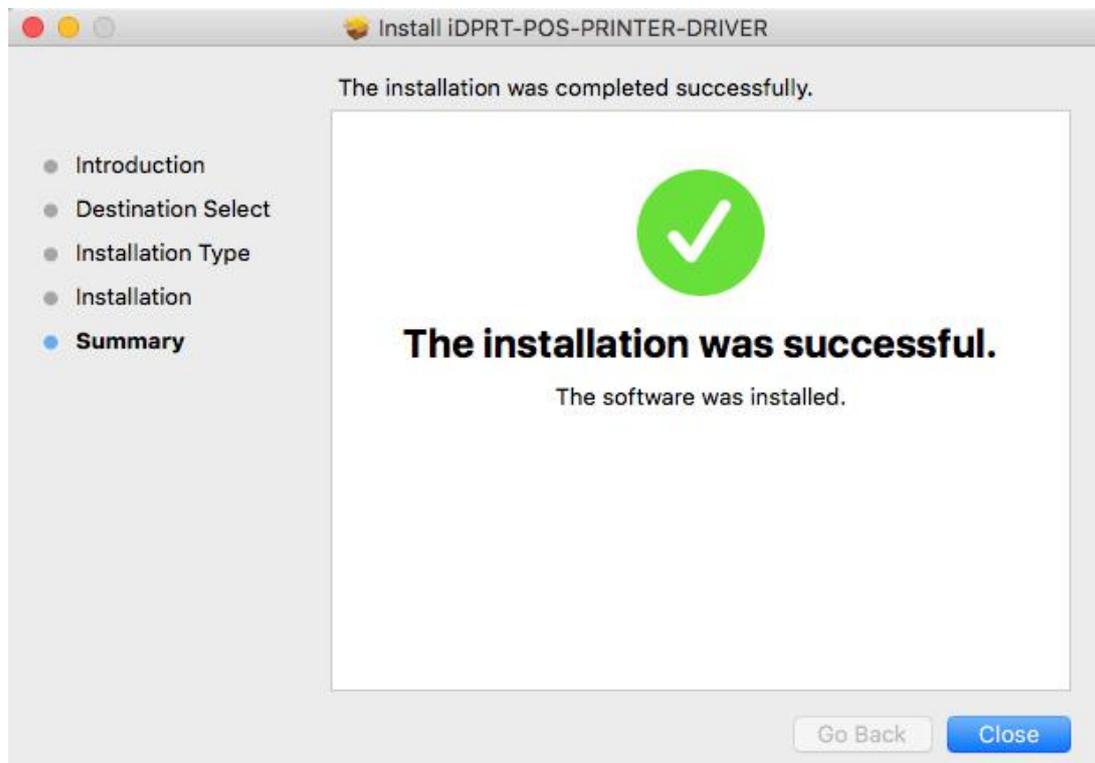


Download the MAC Driver application program from the enclosed CD.

4. Type in the password of your computer, and click “Install Software”.

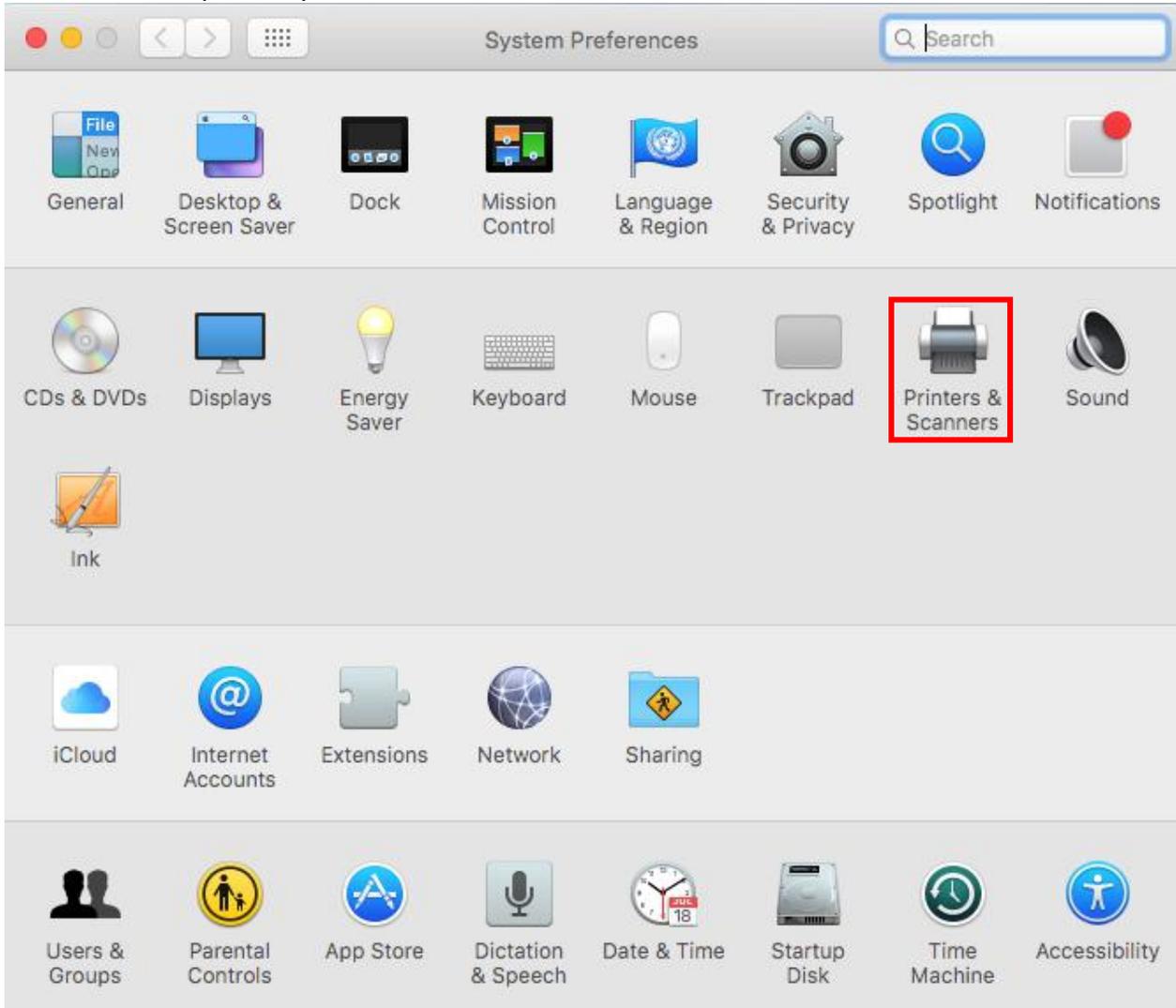


5. The installation was successful.



6. Turn on the printer (for example: SP900) and connect it to your computer (for example: via USB cable)

7. Click: Launchpad -> System Preferences -> Printers & Scanners.



8. Under “Printer & Scanner”, printer SP900 is available.

