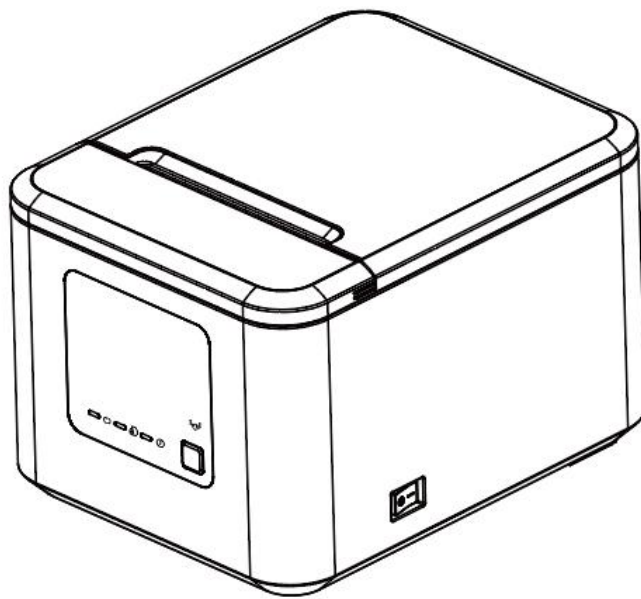


TP70

User Manual



Rev.1.0

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Statement

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 the continuous improvement of the product, the specifications, fittings, parts, designs and procedures described in the manual are subject to the actual machine without prior notice.

Important Safety Instructions

◆ 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.

◆ 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 information only applies to customers in the European Union, according to Directive 2012/19/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 04 July 2012 on waste electrical and electronic equipment, and to customers in countries in Europe, Middle East and Africa(EMEA) where they have implemented equivalent regulations.



For other countries, please contact your local government to investigate the possibility of recycling your product.

◆ **FCC WARNING**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.



Note: The product needs to be reliably earthing after being powered on.



Caution: Operating this device in a residential environment may cause radio interference.

1 OVERVIEW

1.1 Introductions

TP70 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.

TP70 can connect with other equipment through serial, USB, Ethernet and cash drawer interfaces. And the printer drivers are available for the WINDOWS XP/WINDOWS 7/WINDOWS 8/WINDOWS 10 operating system.

1.2 The Main Features

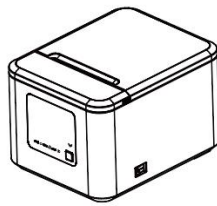
- 1) Low noise
- 2) High print speed
- 3) Easy paper loading
- 4) Cash drawer interface

2 GETTING STARTED

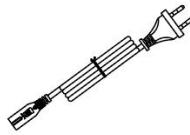
2.1 Packing List

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 are any items missing, please contact your local dealer.



Printer



Power Cord



Quick Start Guide



USB Cable



Power Adapter



Roll Paper



CD

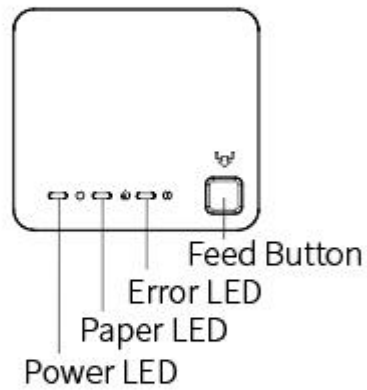
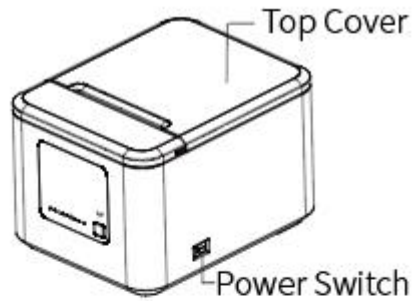


Notes:

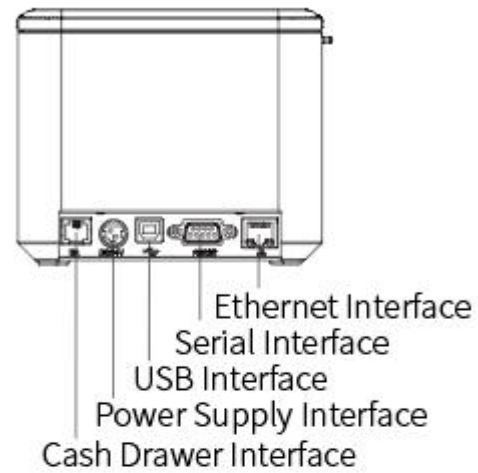
- 1) *The power adapter and power cord vary by country or region.*
- 2) *The items in the package are actually dependent on the order.*

2.2 Appearance

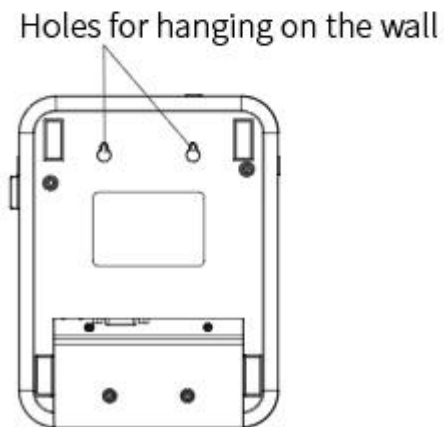
■ Front & Side View



■ Back View



■ Bottom View



3 SPECIFICATION

3.1 Printer Specification

Item		Parameter
Printing Parameter	Printing Method	Direct thermal line printing
	Resolution	Default 203 dpi, 180 dpi can be emulated
	Printing Width	72mm / 48mm
	Printing Speed	Max. 230mm/s
	Printing density	Adjustable from degree 1 to degree 4
	Printing Direction	Vertical and horizontal
Interface	Default	Type-B USB 2.0, Serial, Ethernet, Cash drawer
Auto cutter		Partial Cut
Page mode		Support
Memory	RAM	4MB
	Flash	4MB
Character set	Font	ANK Font A: 12*24 Font B: 9*17 CHN: GBK 24*24dots
	Number of Columns	48/64
	Alphanumeric	95
	Code page	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
Graphics		Support bitmap printing with different density and user defined bitmap printing (Max. 196K for total)
Barcode	1D	UPC-A, UPC-E, CODE39, CODE93, CODE128, EAN128, EAN8, EAN13, Interleaved 2 of 5
	2D	QR Code, PDF417
Detection	Sensor	Paper end, cover opening, cutter jam, TPH over-temperature
LED indicator	Power indicator	Blue
	Paper indicator	Orange
	Error indicator	Red

Item		Parameter
Power supply	Input	AC100V-240V 50/60HZ
	Output	DC 24V±5%, 2A
Paper	Paper Loading	Easy-loading structure of upward open cover
	Paper Type	Standard thermal paper
	Paper Width	79.5±0.5mm/57.5±0.5mm
	Paper Thickness	0.056~0.13mm
	Paper Roll Diameter	83mm Max.
Condition	Operating	0~45℃ / 5~95%RH No condensation
	Storage	-20~70℃ / 15~95%RH No condensation
Reliability	TPH Life	100km
	Cutter Life	1,500,000 times
Emulation		ESC/POS
Packing Information	Printer Dimension (W*D*H)	140mm*179mm*117mm
	Accessories	Power adaptor, Power Cord, Quick Guide, USB Cable
Driver		Windows 7/8/10, Windows Server 2008/2012/2016 Linux, Javapos, OPOS, MacOS

3.2 Printing Media Specification

3.2.1 Continuous Thermal Paper Specification

Paper Type : Standard thermal paper

Paper Width : 79.5±0.5mm/57.5±0.5mm

Paper Outer Diameter : Max. 83 mm

Paper Thickness : 0.056~0.13mm

3.2.2 Notices



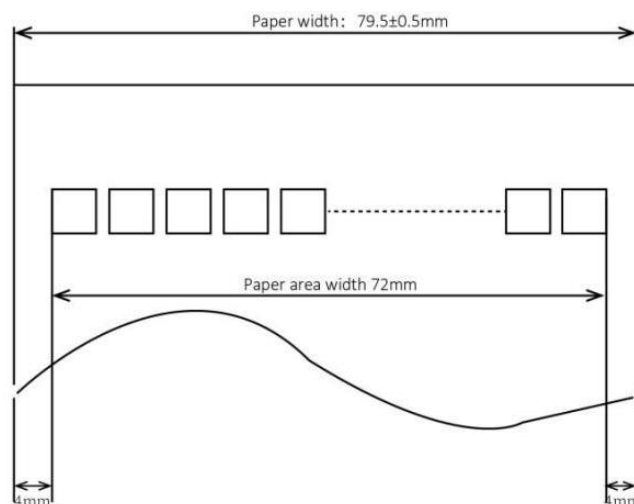
Notes:

- 1) Please use the recommended thermal paper or same quality paper, otherwise it will influence the printing quality and decrease the thermal printer head life;*
- 2) Don't stick the paper on the core of paper roll.*
- 3) If the thermal paper is polluted by chemical or oil, the thermal paper heat sensibility would decrease, which would influence the printing quality;*
- 4) Don't use finger nail or hard articles to touch the surface of thermal paper, otherwise it will cause color fading;*
- 5) 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.*

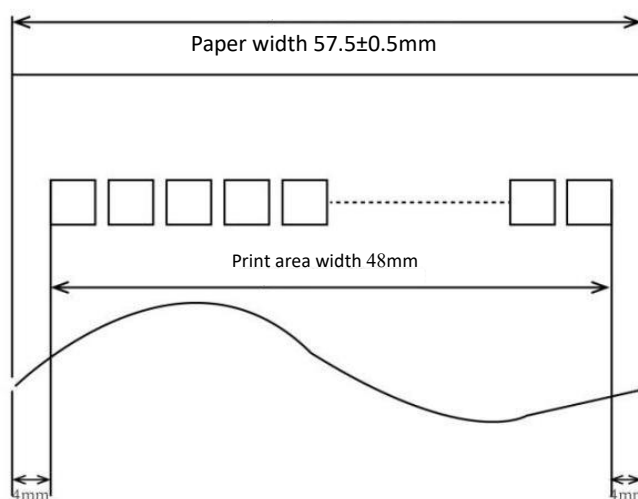
3.3 Printing and Cutting Position

3.3.1 Printing position

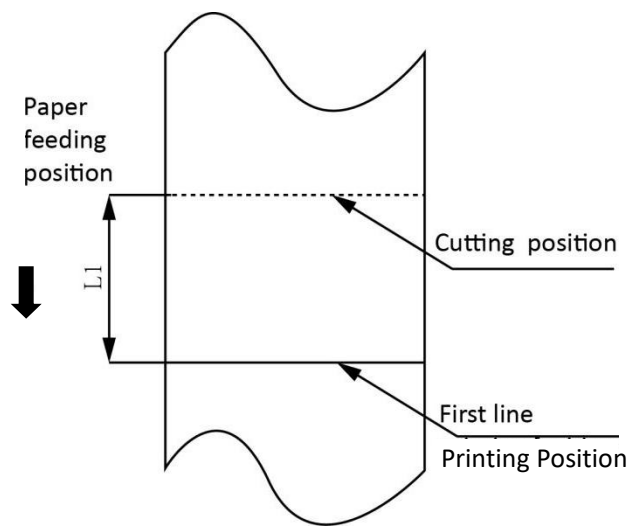
79.5±0.5 mm Print Paper



57.5±0.5 mm Print Paper



3.3.2 Cutting Position



Type	Paper Cutting Position(L1)
TP70	8.5mm

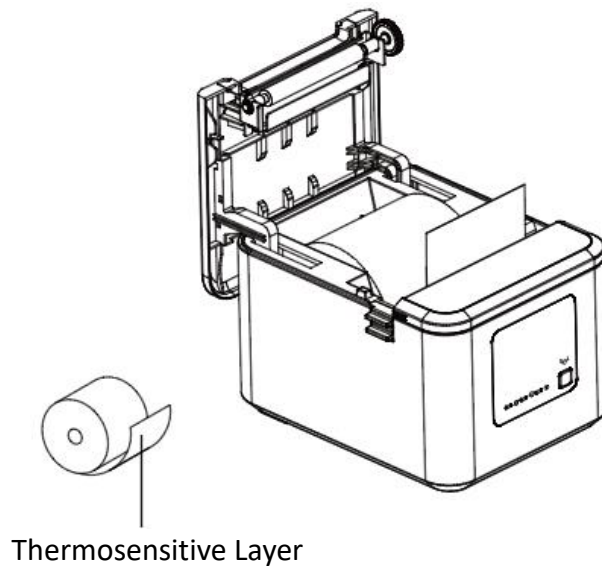
4 INSTALLATION AND USAGE

4.1 Media Loading

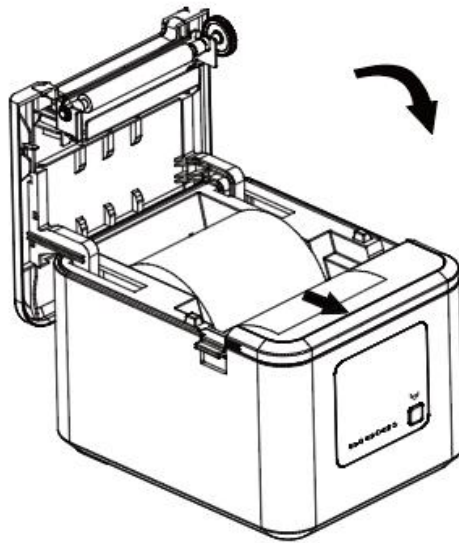
- 1) Press the cover opening button to open the top cover.
- 2) Remove the used roll paper core, if any.



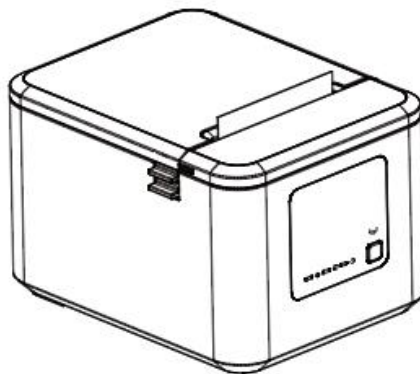
- 3) In the correct direction of the roll paper, load the paper.



- 4) Pull out some roll paper and close the top cover.

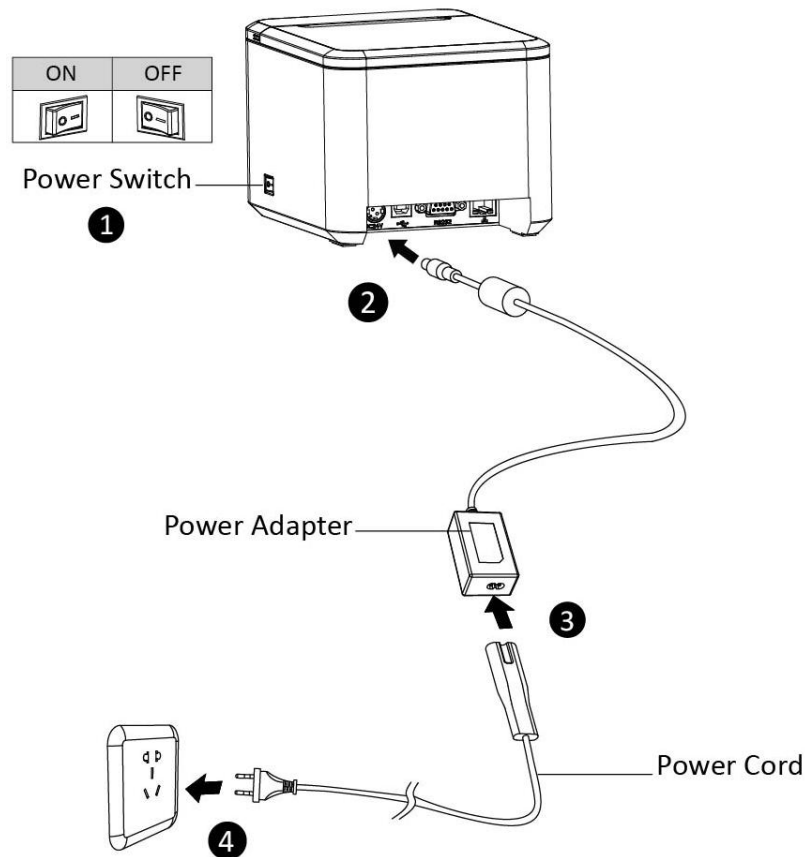


- 5) Tear the extra paper.



4.2 Power Connection

- 1) Make sure the printer power is turned off.
- 2) Connect power adapter with printer.
- 3) Connect power adapter with power cord.
- 4) Plug the other side of power cord into the socket outlet.



Notes:

- 1) *The power adapter and power cord vary by country or region.*
- 2) *Disconnect or connect the power adapter by correct method, or damage may be caused.*

When pulling out the adapter, please pinch the shell of power adapter and pull the switch up, when the switch is fully opened then pull out the power adapter.

Don't put forth your strength to pull the plug by squeezing any place of power adapter. Because it is more difficult to pull it out and easy to damage the cable.



Notes:

- 1) Please only use the power adapter recommended by supplier or equivalent products.**
- 2) When disconnecting the power adapter plug, handhold plug connector shell 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.**

4.3 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.)

4.4 LED Indicator and Beeper

Function specification of indicated light and beeper.

LED Name	LED Status	Printer Status
POWER LED (Blue)	ON	The printer works well.
	OFF	The printer is power off.
ERROR LED (Red)	Flash	The printer is in error status.
	OFF	The printer is in normal status.
PAPER LED (Orange)	ON	The printer is in paper end status. / The printer cover is open.
	OFF	The printer is in normal status.

Error Description	POWER LED	ERROR LED	PAPER LED	Beeper
cover opening	ON	ON	ON	"Beep ,Beep--,Beep"
Paper End	ON	ON	ON	"Beep, Beep, Beep"
Cutter Jam	ON	Flash	OFF	"Beep—, Beep—"
TPH over-temperature	ON	Flash	OFF	"Beep ,Beep--,Beep"
Over-voltage / Low-voltage	ON	Flash	OFF	"Beep, Beep, Beep"



Note: The printer uses a thermistor to detect the temperature of the print head. If the temperature of print head is higher than 65℃, printer will send a warning. If the temperature of print head is higher than 80℃, printer will stop working until the temperature is lower than 60℃.

4.5 Print Test

4.5.1 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 connected and paper is loaded properly.
- 2) Make sure the printer is off and top cover is closed properly.
- 3) Press the paper feed button and power button simultaneously to turn the printer on. The printer is ready to receive data as soon as it completes the self-test.

4.5.2 Printing of Windows Driver Program

- 1) Install the Windows Driver program.

Please refer to the Windows Driver Instruction at Chapter 9.

- 2) Please set the "Ports" as the type you use.
- 3) Use the Windows Driver Program to print out the "Print Test Page".

5 INTERFACES

TP70 supports serial, Ethernet, cash drawer and USB interfaces.

5.1 USB

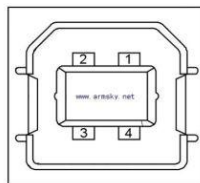


Figure 5-1

PIN NO.	SIGNAL NAME
1	VBUS
2	D-
3	D+
4	GND

5.2 Cash Drawer Interface

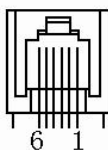


Figure 5-2

PIN NO.	SIGNAL NAME
1	FG
2	Drawer 1
3	DRSW
4	VDR
5	Drawer 2
6	GND

Electrical characteristics

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

Detection signal for drawer status: “L” = 0 ~ 0.5 V “H” = 3 ~ 5 V

5.3 Power Port Connector

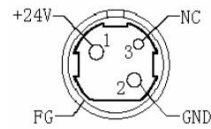


Figure 5.3

PIN NO.	SIGNAL NAME
1	+24V
2	GND
3	N.C
SHELL	F.G

5.4 Serial Interface

Printer TP70 serial interface is compatible with RS-232 standard, with 9 pin sockets.

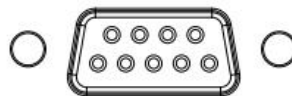
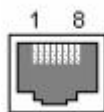


Figure 5.4

PIN NO.	SIGNAL NAME
1	-
2	TXD
3	RXD
4	-
5	GND
6	DTR
7	-
8	RTS
9	-

5.5 Ethernet Interface



PIN NO.	SIGNAL NAME
1	TX+
2	TX-
3	RX+
4	n/c
5	n/c
6	RX-
7	n/c
8	n/c



Note: The printer is equipped with an Ethernet interface, and use the network connection router, switch and other network communication equipment which meet RJ45 interface standard. When connecting directly with PC, it is suggested that the cross network line in accordance with RJ45 interface standard should be adopted.

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 is not on, printer is not working	Printer has no power	Connect to the power supply
	Printer is not on	Turn on the printer
	Circuit board is broken	Contact with the dealer

6.2 LED Indicator and Beeper Alarm

Problem Description	Probable Reason	Solution
Error LED and paper LED are always on and beeper alarms	Printer cover is open	Close the printer cover
	Paper end	Reload the roll paper
Error LED blinks and beeper alarms	Thermal print head is overheated	Turn the printer off and resume when it cools
	Over-voltage	Print with specified voltage
	Low-voltage	Print with specified voltage
	Cutter jam	Restart the printer. (Or refer to 6.5)

6.3 Troubles Occur During Printing

Problem Description	Probable Reason	Solution
Blurred printing or spot	Incorrect roll paper loading	Check if the roll paper is loaded
	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 is not feeding normally	Paper is jammed	Open the printer cover, check the paper path and remove jammed paper
Vertical print words are missing	Dirty thermal head or print roller	Clean the thermal head or print roller
	Thermal head is damaged	Contact with your dealer for assistance

6.4 Problems Emerge During the Paper Cutting

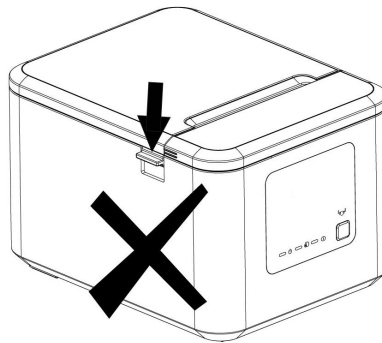
Problem Description	Probable Reason	Solution
Cutter jam, the movable cutter cannot go back	Cutter abrasion, insufficient cutting	Replace the cutter
	Worm gear and worm wheel abrasion	Replace the worm gear and worm wheel
	Motor is burnt	Replace the motor
	Paper scraps	Clean the paper scraps on the transmission system
Insufficient cutting	Cutter edge abrasion, paper is too thick	Replace the cutter
Paper jam	Thermal printer head is over heated	Reduce the density of printing
	Driving too fast	Reduce the printer speed to the limit of thermal printer head
	Wrong paper feeding position	Put the paper parallel with the paper mount and insert into the space between platen roller and the thermal printer head.



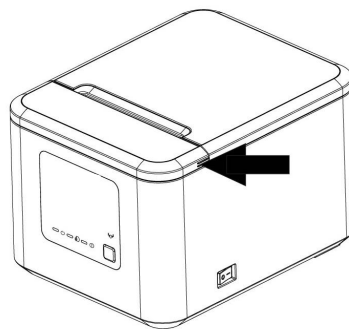
Note: about the density setting, pls refer to Utility Tool for POS Instruction at chapter 8.

6.5 Troubleshooting for Cutter Jam

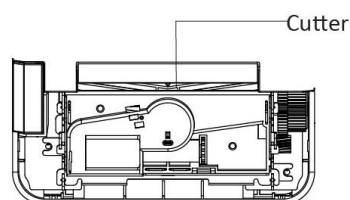
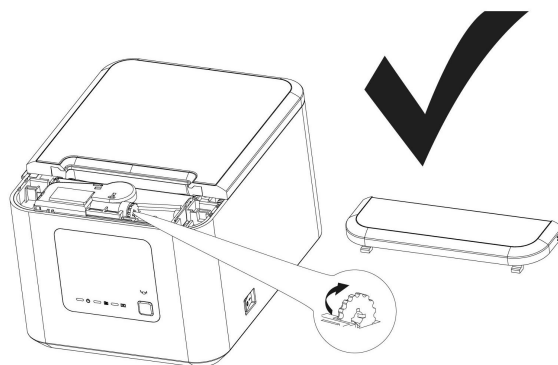
1) When cutter jam occurs, do not press the cover opening button to avoid damaging the blade.



2) Fix the printer by one hand and press either side of the convex bars by the other hand. Push up and open the front cover.

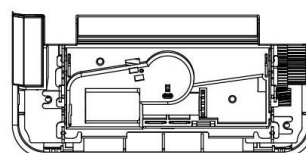


3) Please rotate the gear until the blade returns to its normal position, as shown in Figure 2.



When cutter jam occurs, the cutter does not retreat back and can be seen.

Figure 1



Cutter retreats back totally and cannot be seen.

Figure 2

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 following steps:

※ CAUTION

- 1) Make sure to turn off the printer prior to cleaning.
- 2) As the print head gets hot during printing, turn the printer off and wait approximately 2~3 minutes before starting to clean.
- 3) 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.

- 4) 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 cotton stick with medical alcohol 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

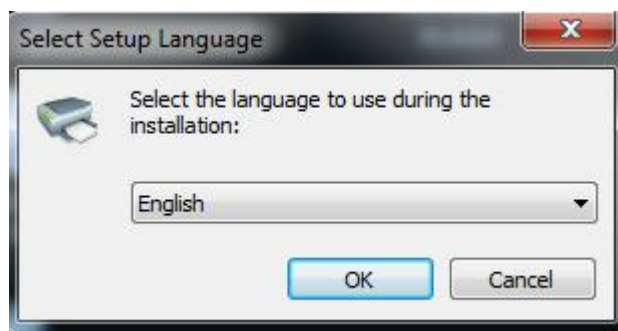
Utility Tool is applicable to the following operating system:

- 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

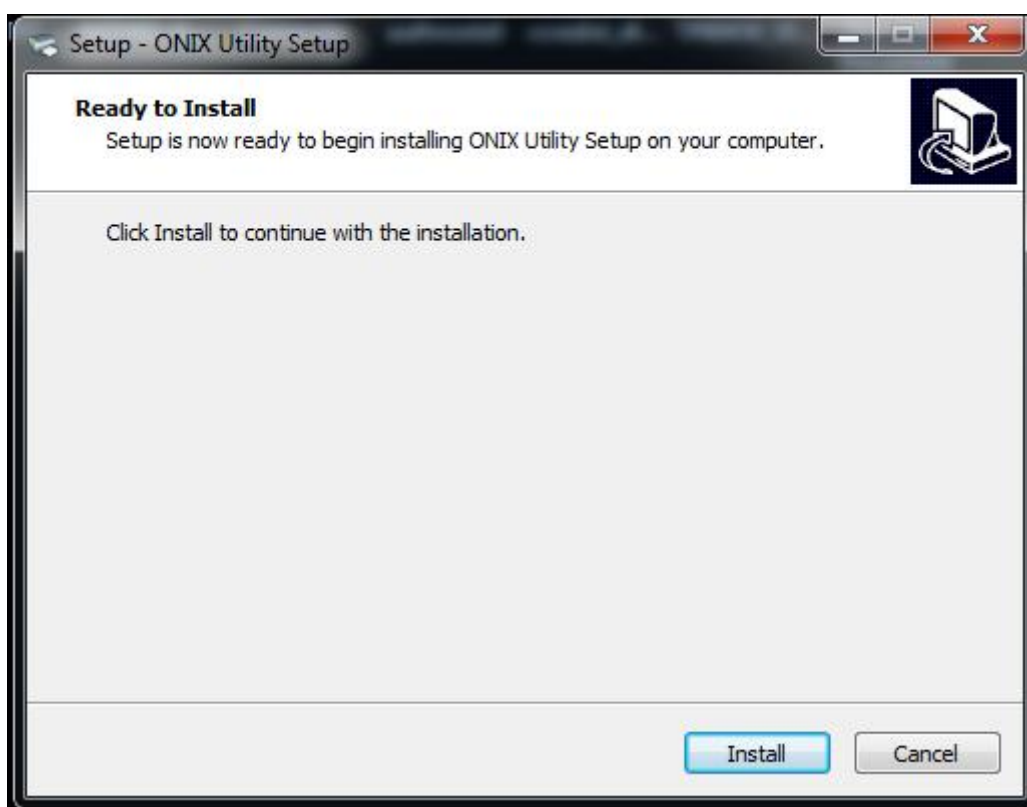
8.1 Utility Tool Installation

The following screens take Win 7 for example.

- 1) Open the installation package.
- 2) Choose language, and click "OK".



- 3) Click "Install".



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



8.2 Using Utility Tool

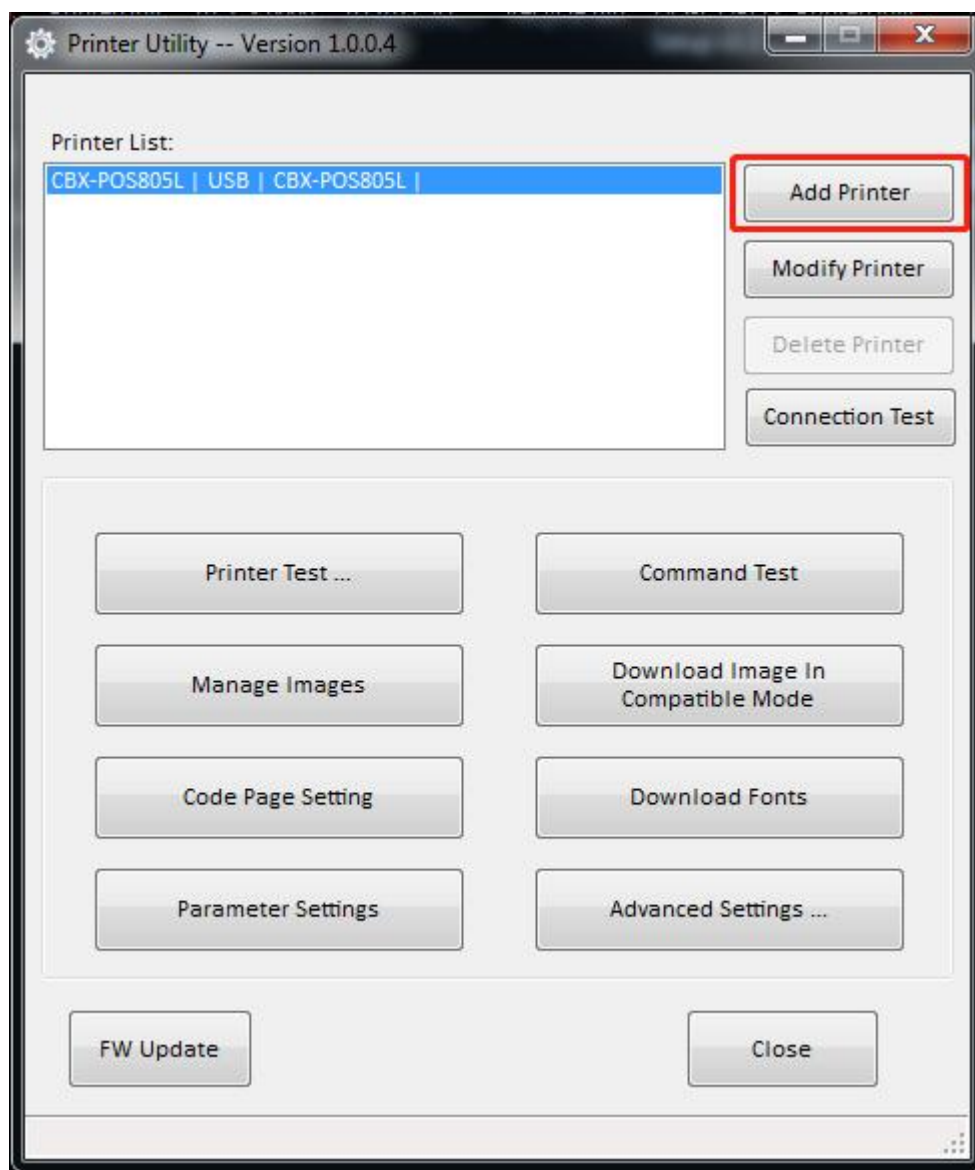


Warning: In different operating system, screen has a slight difference. Please operate it according to the tips. Take TP70 (Windows 7) for example.

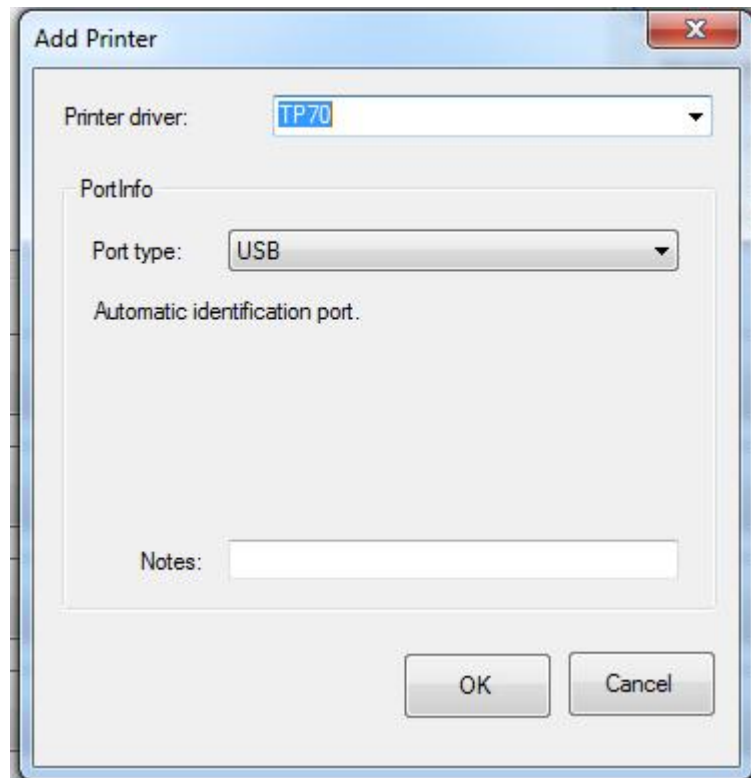
8.2.1 Add/Modify/Delete/Connect Printer

8.2.1.1 Add printer

- 1) Click "Add Printer".

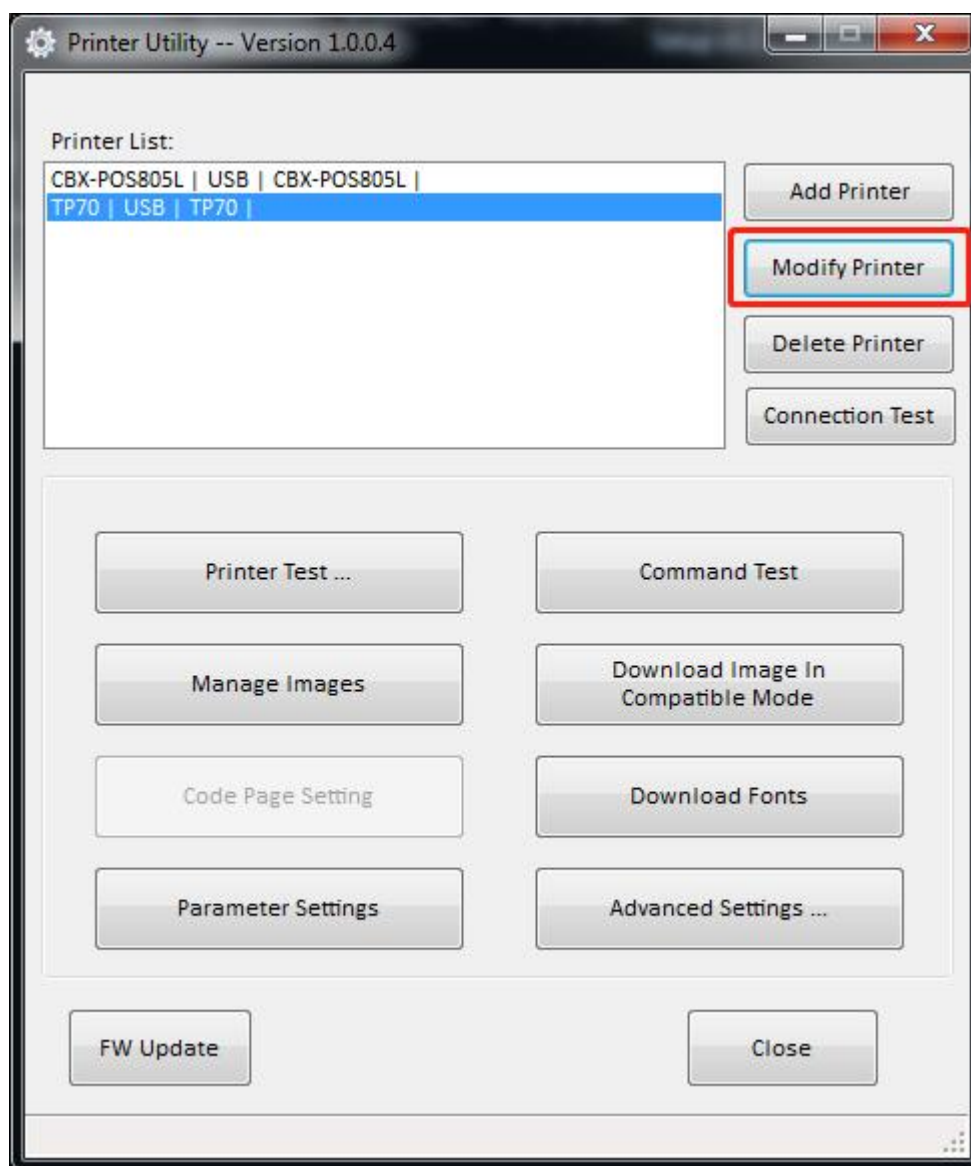


2) Choose the appropriate printer type and port. Then click “OK”. (Take TP70 for example.)

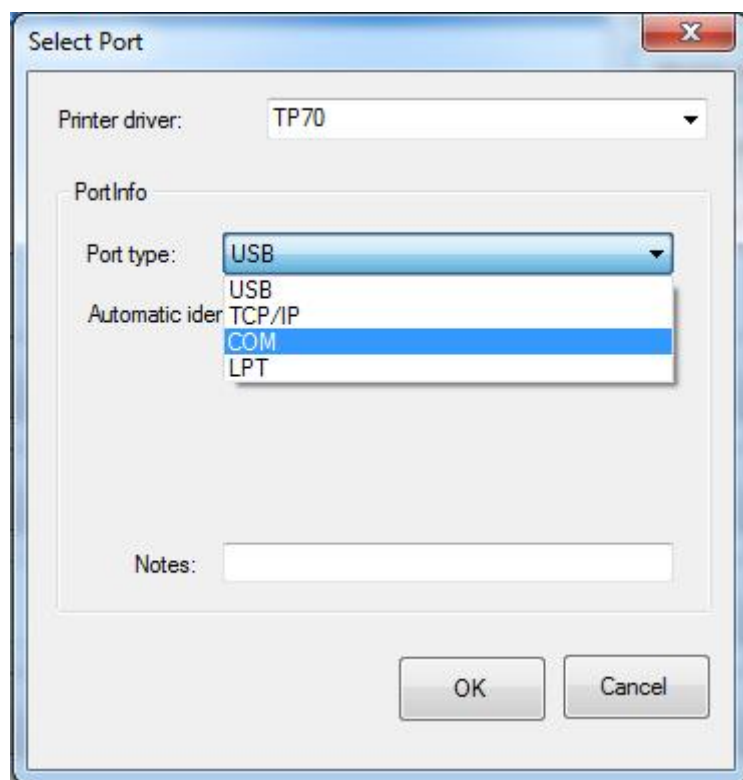


8.2.1.2 Modify printer

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



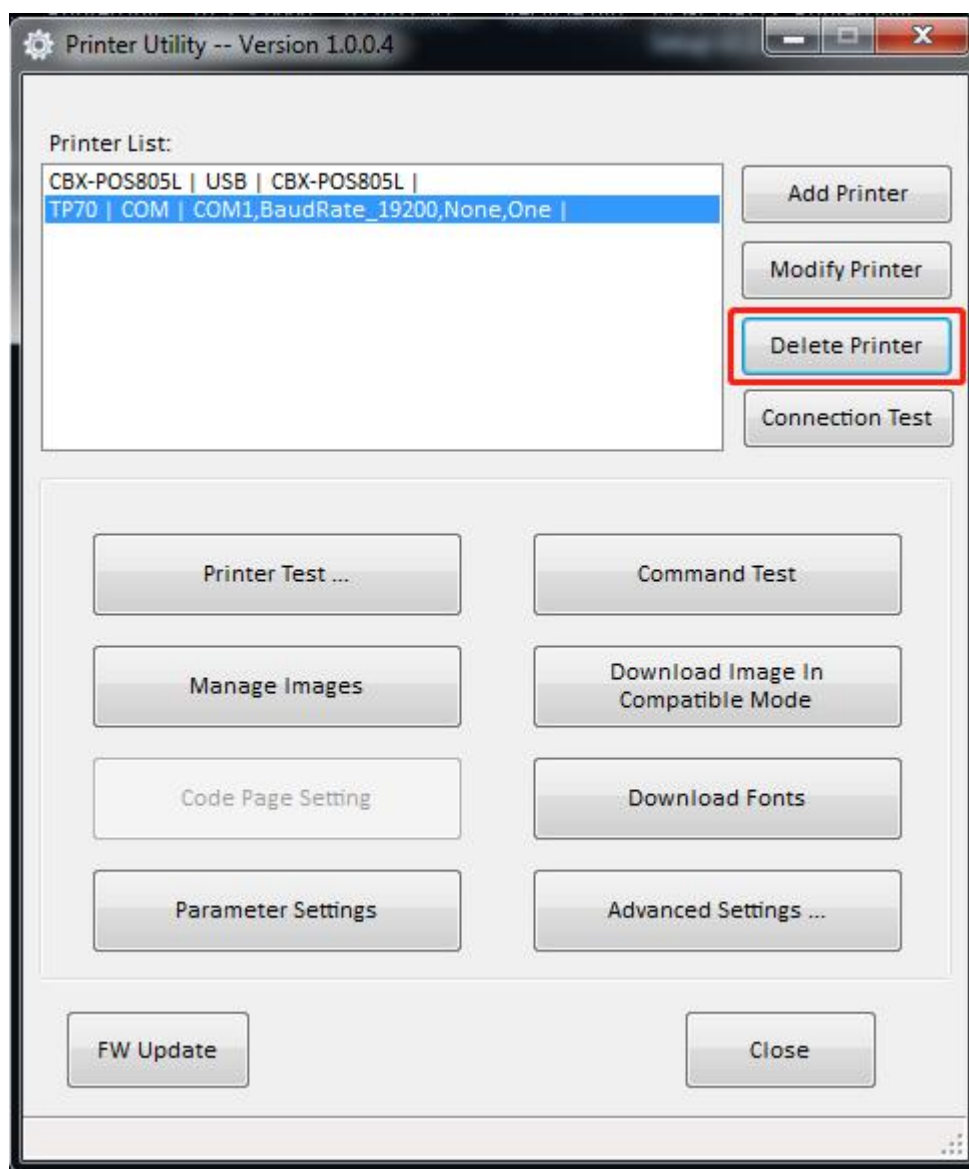
2) Choose the new printer and new port. Then click “OK”.



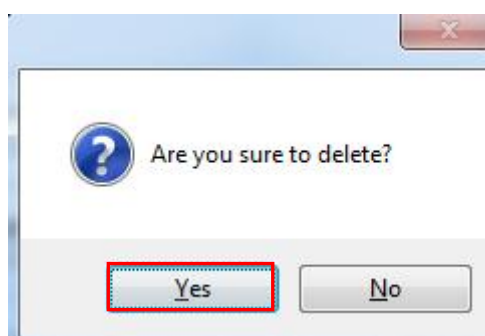
3) The new printer is added successfully.

8.2.1.3 Delete printer

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



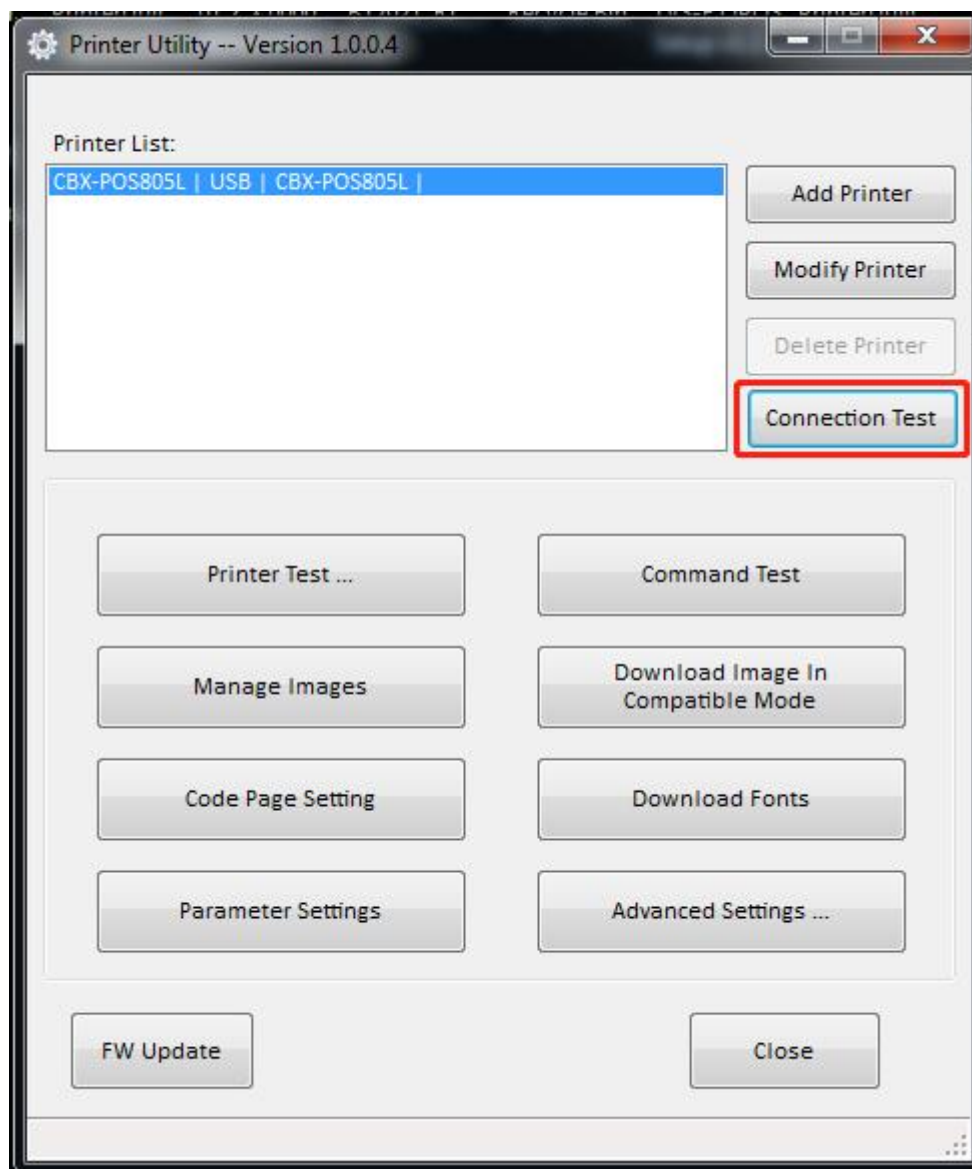
- 2) Click “Yes”, then the printer is deleted.



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

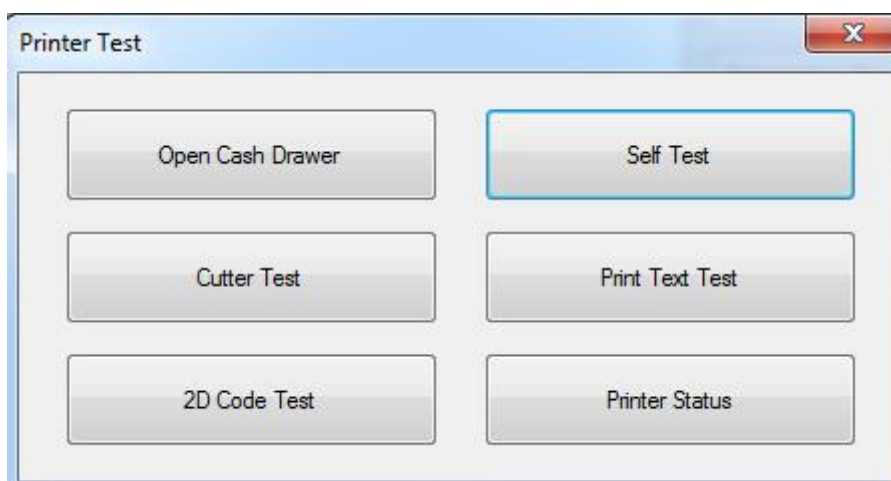
Printer Test contains the following items:

- 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

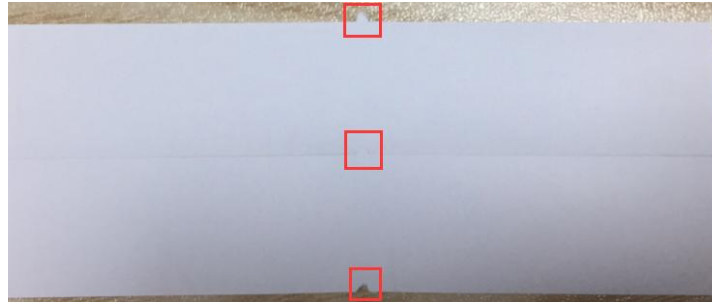
Click “Self Test” to see if the printer will print properly.



2) Cutter Test

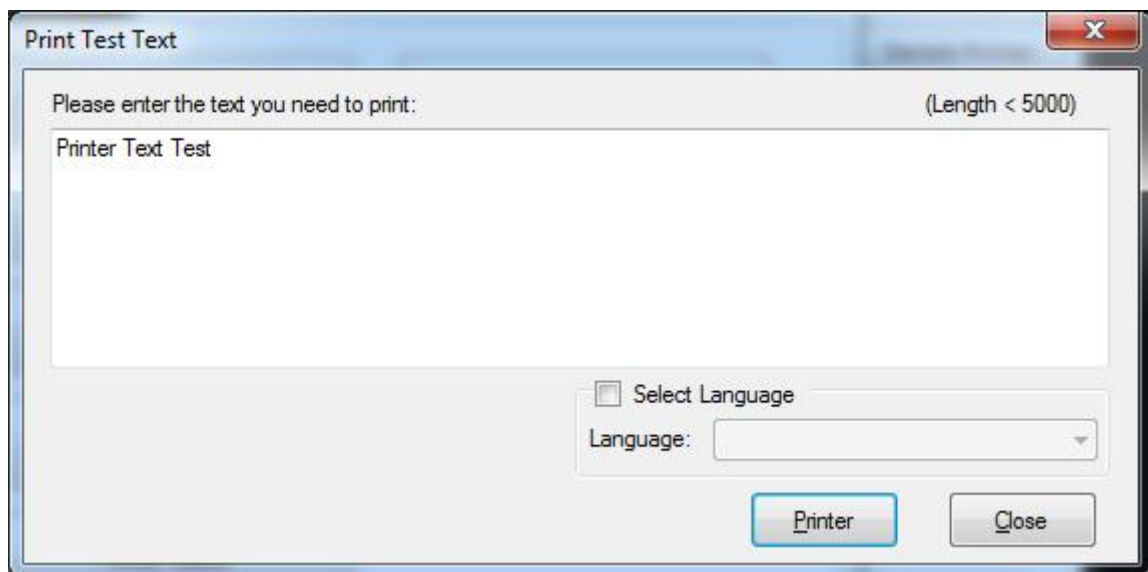
Click the cutter test and the paper will be cut automatically. Cutting method is partial cut (Partial cut: Not fully cut off, leave a connection point between the two sheets of paper).

As shown in the figure:



3) Print Text Test

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

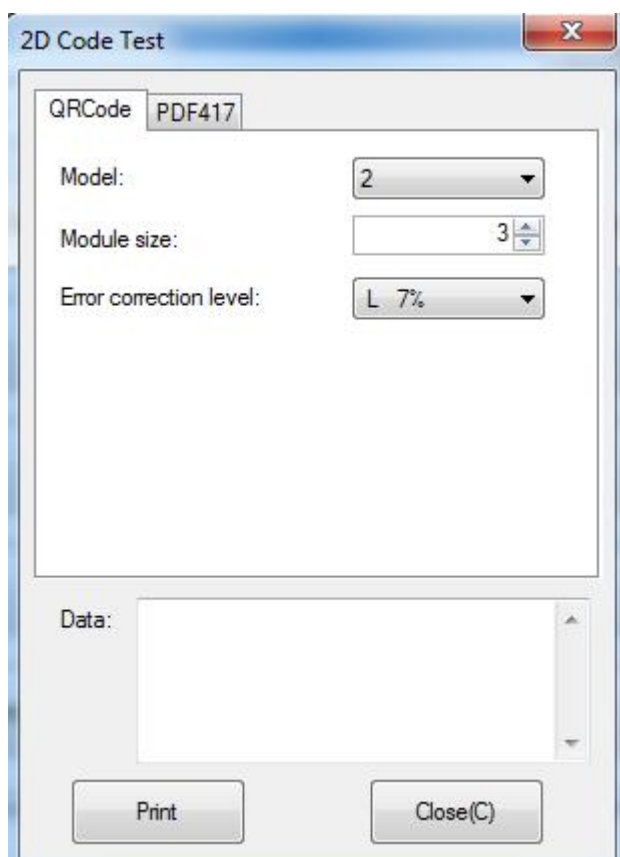


Note:

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)

4) 2D Code

Click the QRCode mode.



▲ Model: 1~2

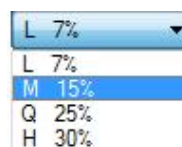


▲ Module size: 1~16

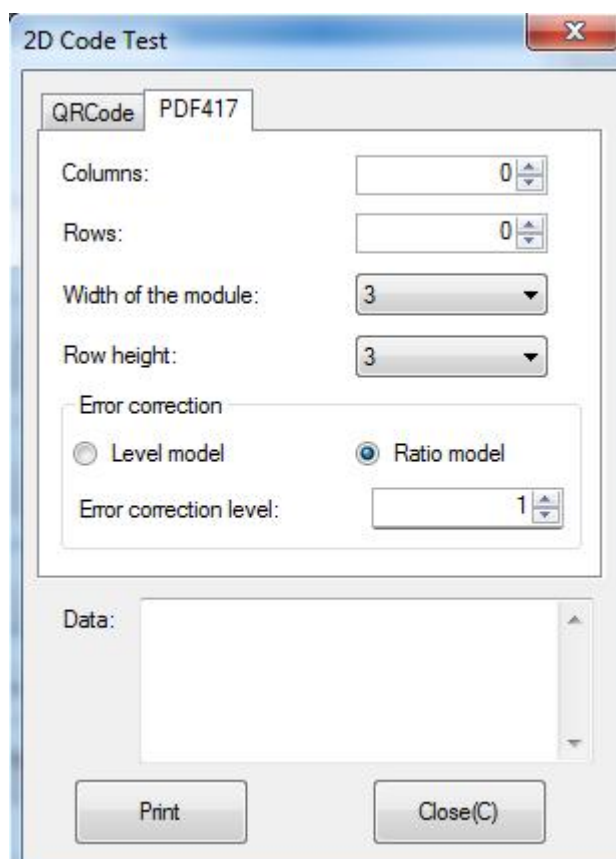
The larger the module value, the larger the printed QR code is, and the smaller the opposite.

▲ Error correction level: 7%~30%

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



Click the PDF417 mode.

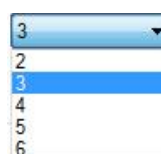


▲ Columns: 0~30

▲ 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.

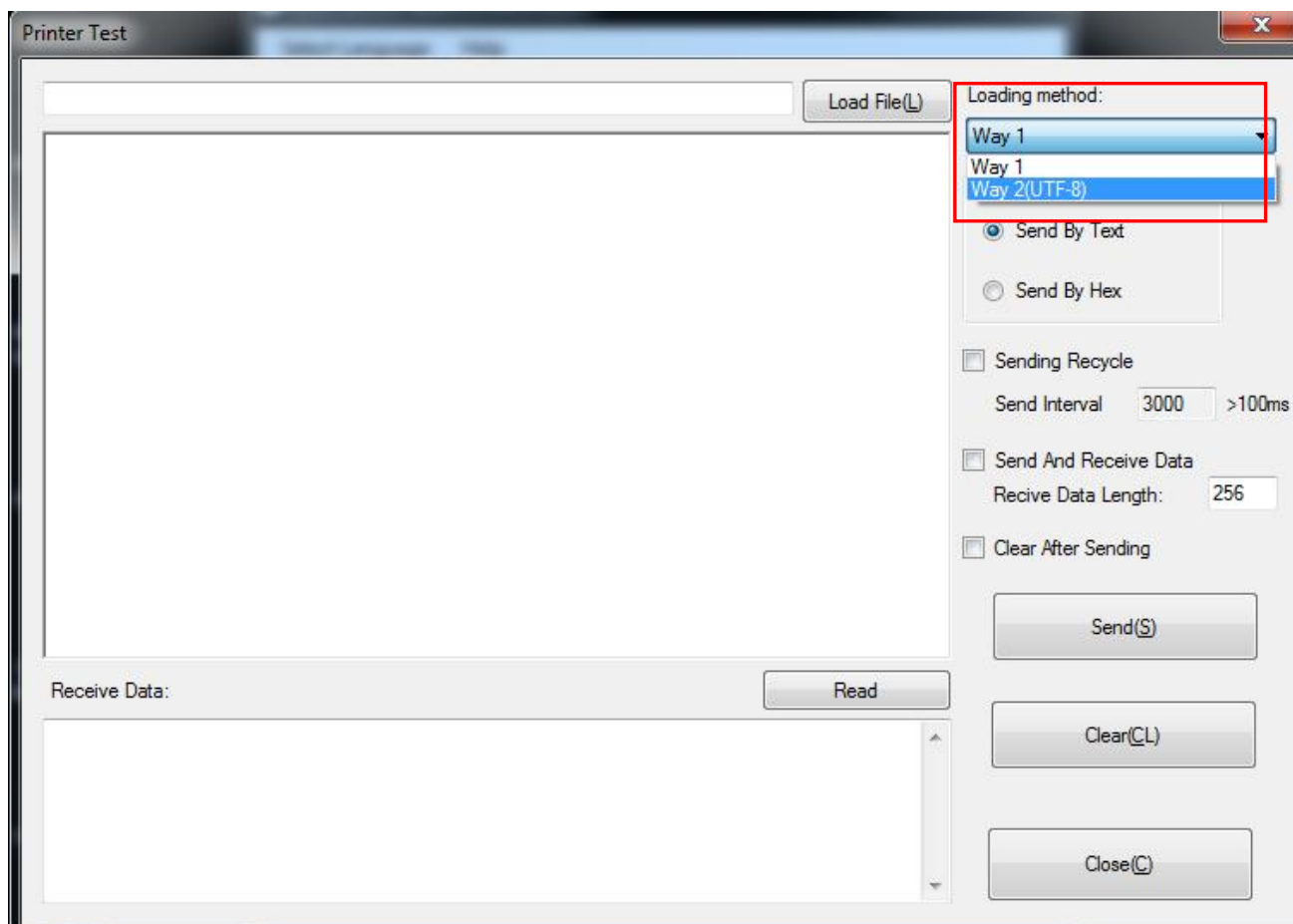
▲ Error connection level

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) There're two ways to load files. You can choose the way you want.



▲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 >100ms

☐ Send And Receive Data

Recv Data Length:

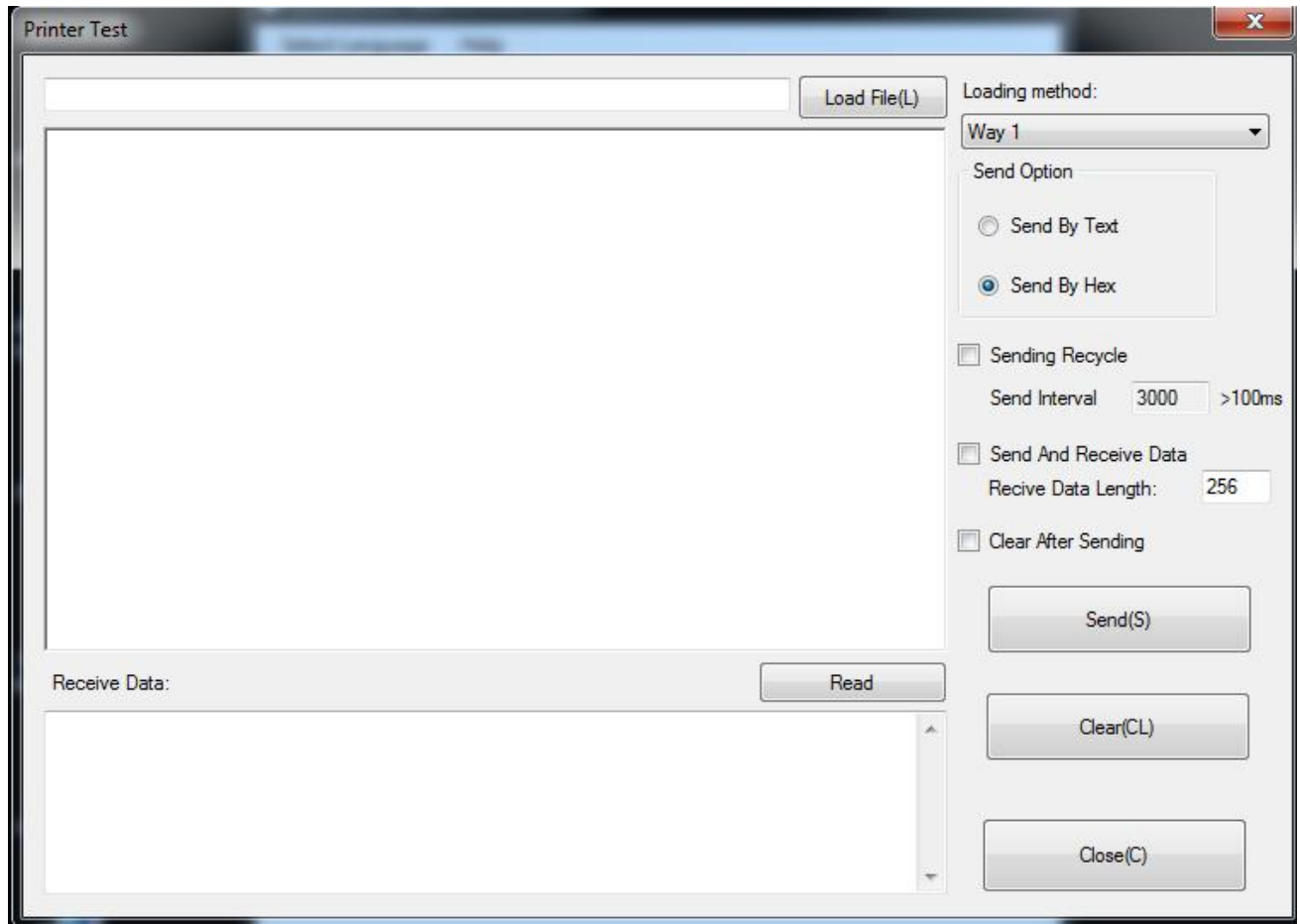
☐ Clear After Sending

Send(S)

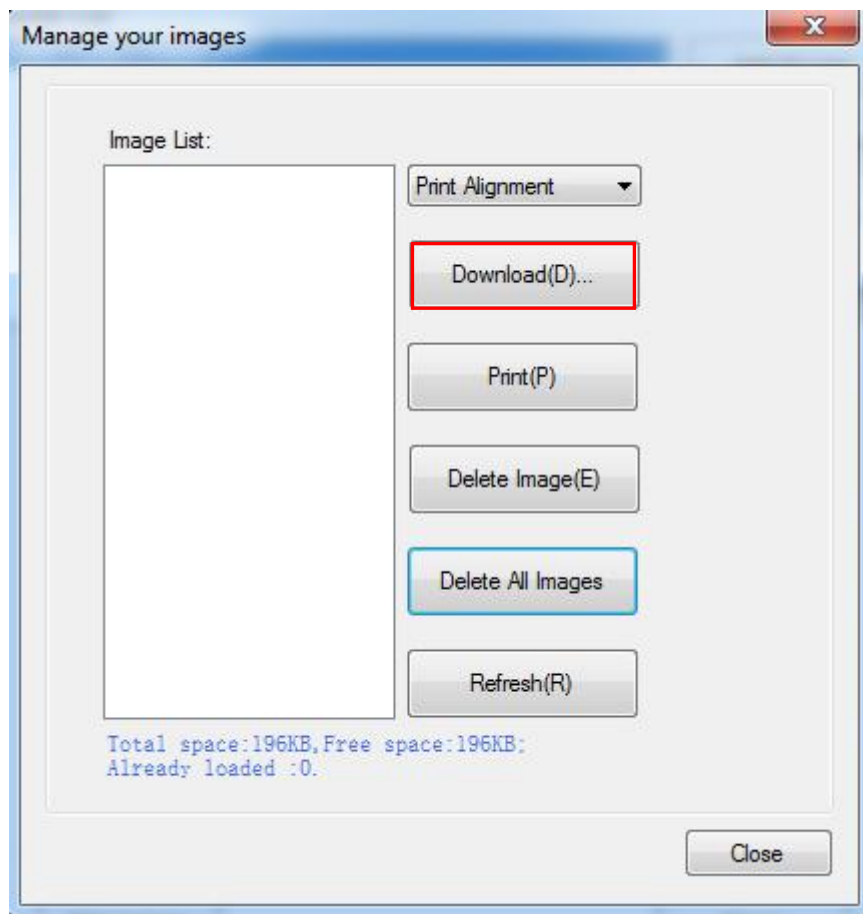
Clear(CL)

Close(C)

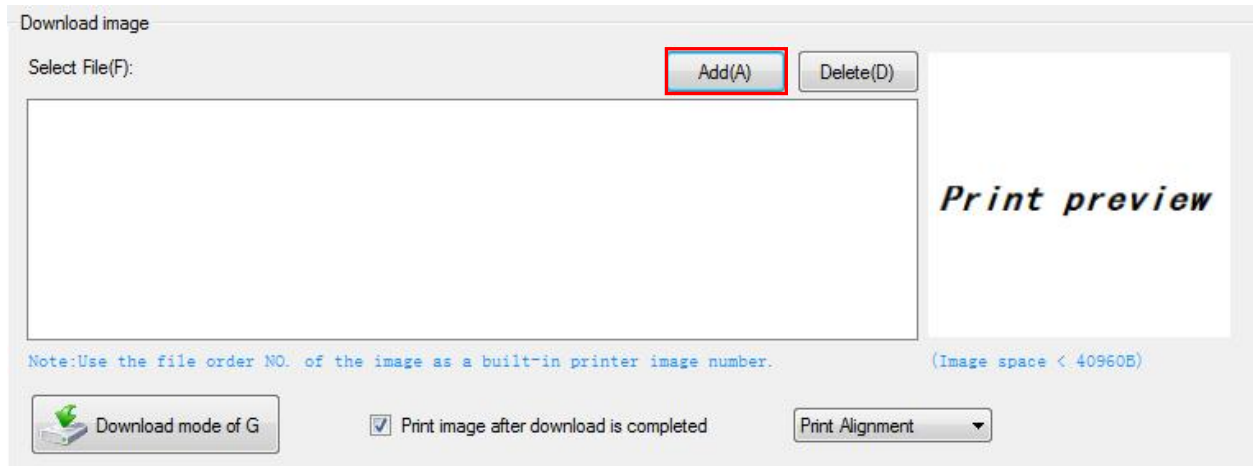
2) Click “Send by Hex”, input the content. (Convert text to HEX or send ESC command)



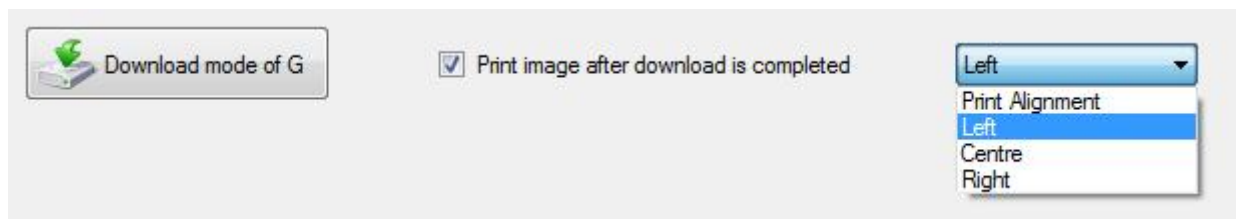
8.2.2.3 Manage Images

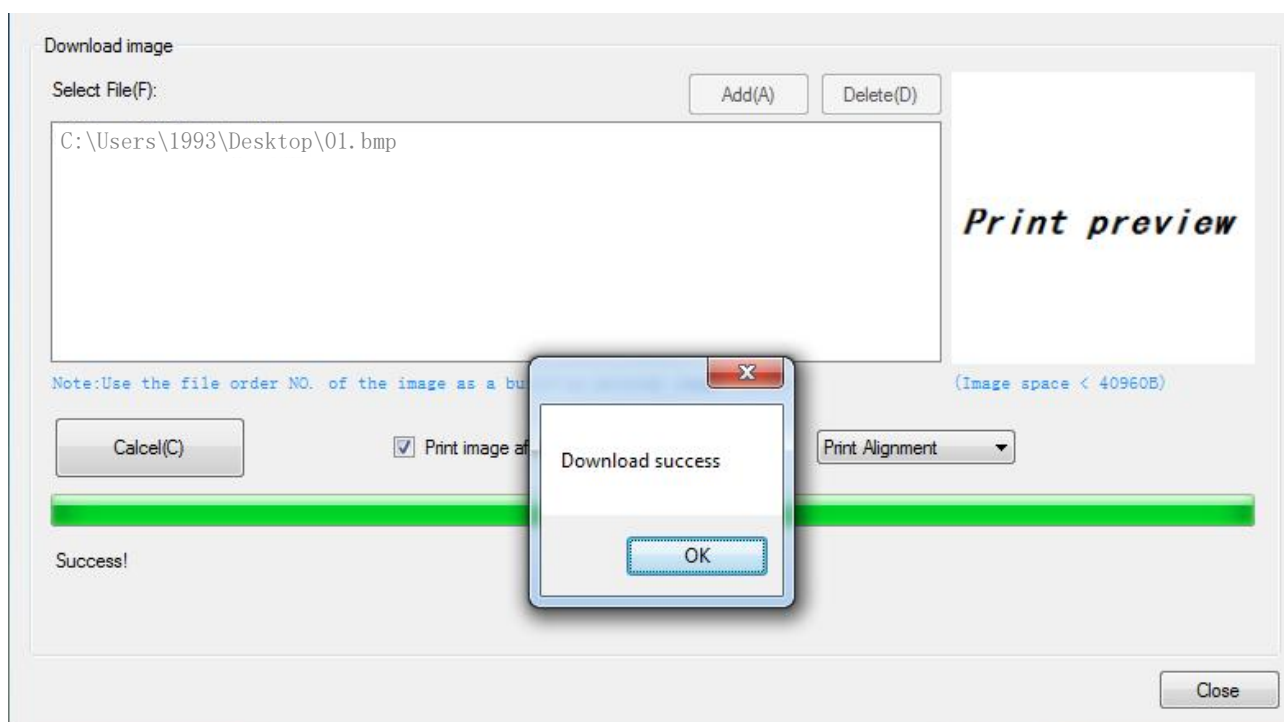


- 1) Click "Download" to add the image, if you want to print the picture, set the print location before clicking "Download mode of G" to print the picture. (It is recommended to use a picture in BMP format)



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



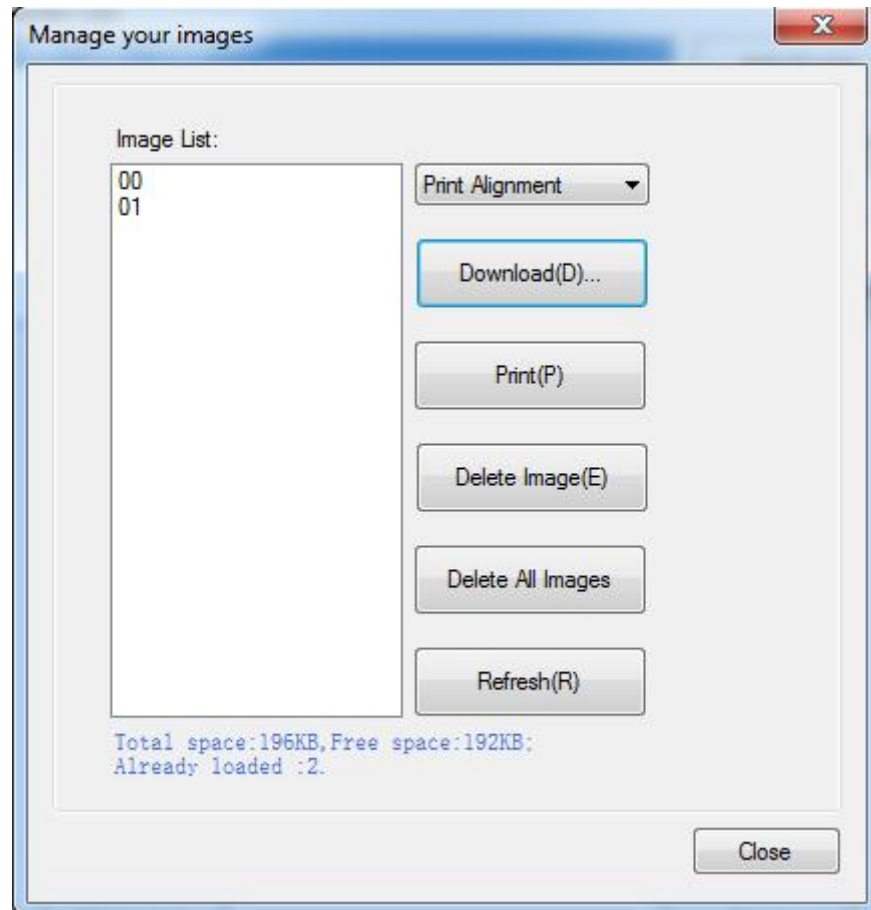


Note: Total memory for the bitmap is 196K.

3) Delete Image.



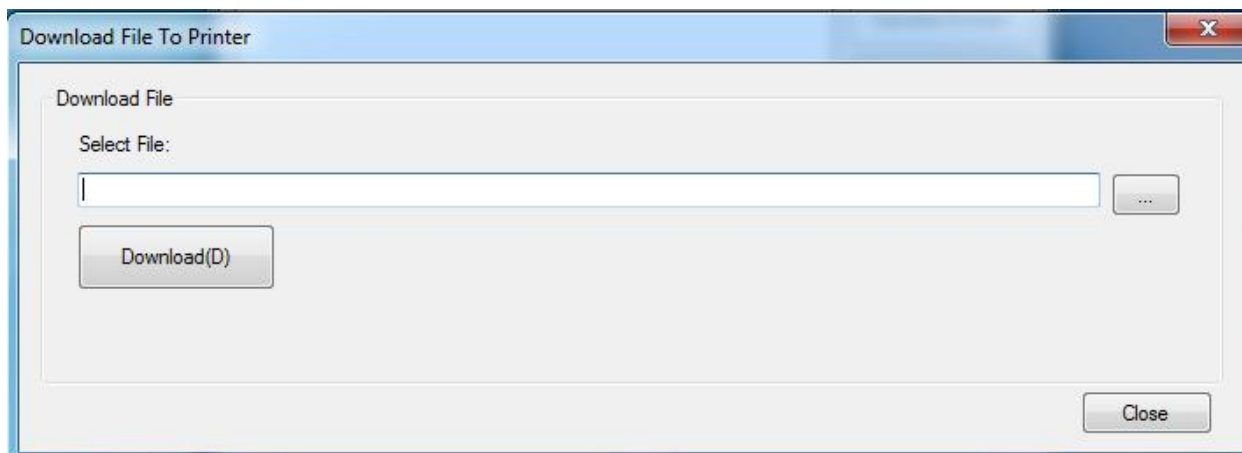
Note: Each time click "Download mode of G", an image list number will be generated.



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

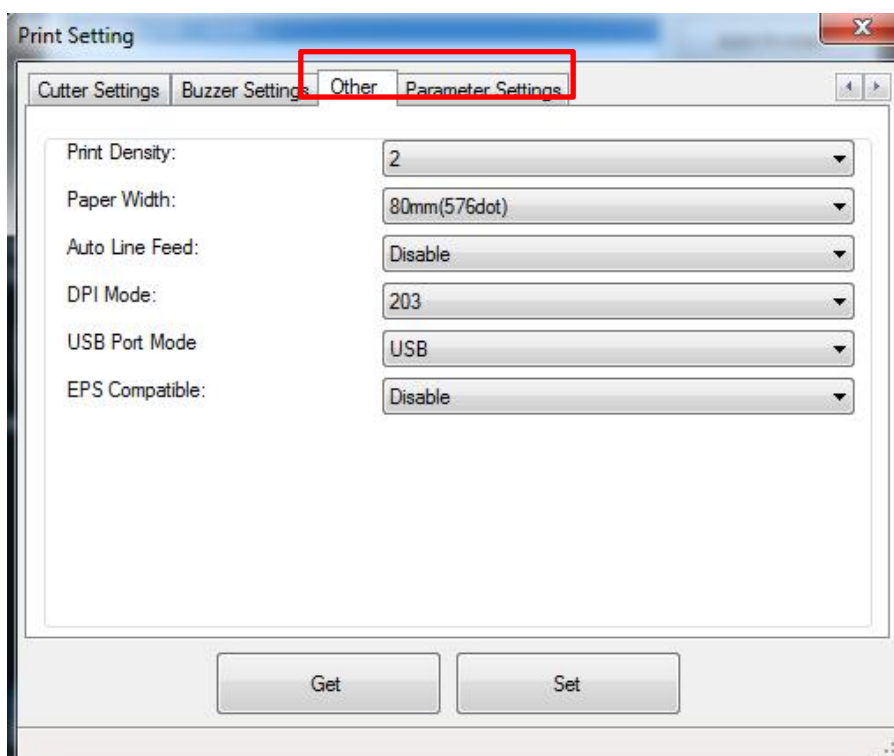
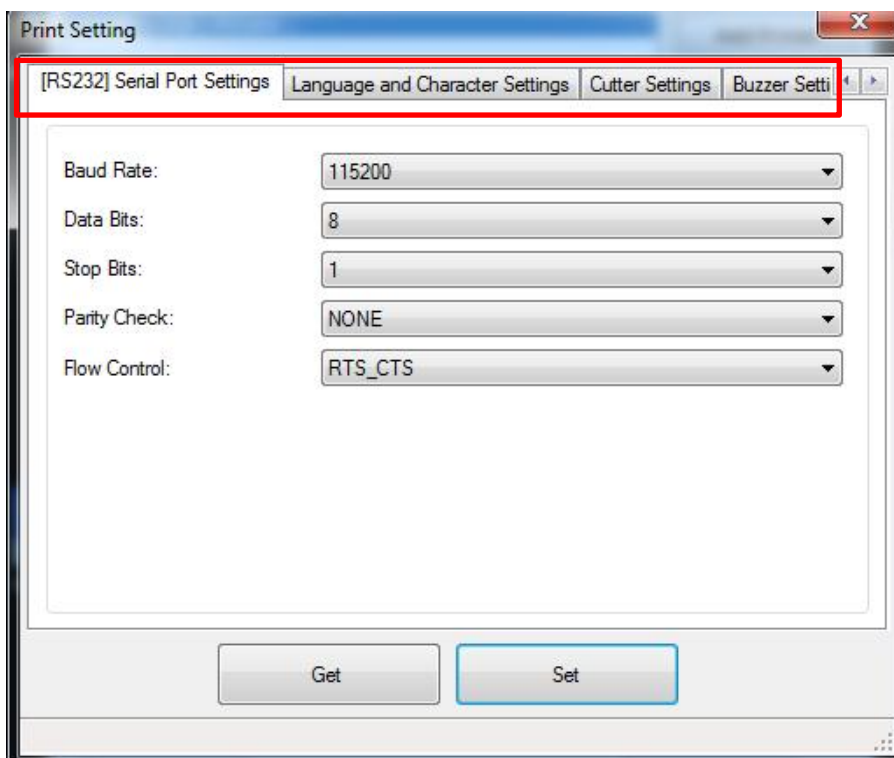
Select the font from the existing file and click "Download".



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

8.2.2.5 Parameter Settings

- 1) Click “Parameter Settings” to set “RS232 serial port” “Language and character”, “Cutter”, “Buzzer” and “Other”.



◆ RS232 Serial Port Settings

Click the items to set “Baud Rate”, “Data Bits”, “Stop Bits”, “Parity Check”, and “Flow Control”.

• Baud Rate

Baud Rate:	115200
Data Bits:	2400
Stop Bits:	4800
Parity Check:	9600
Flow Control:	14400
	19200
	38400
	57600
	115200
	230400
	460800
	921600

• Data Bits

Data Bits:	8
Stop Bits:	8
	7

• Stop Bits

Stop Bits:	1
Parity Check:	0.5
Flow Control:	1
	1.5
	2

• Parity Check

Parity Check:	NONE
Flow Control:	NONE
	EVEN
	ODD

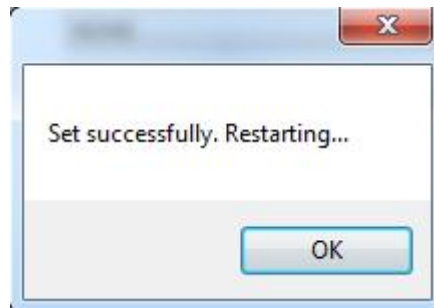
• Flow Control

Flow Control:	RTS_CTS
	RTS_CTS
	XON_XOFF

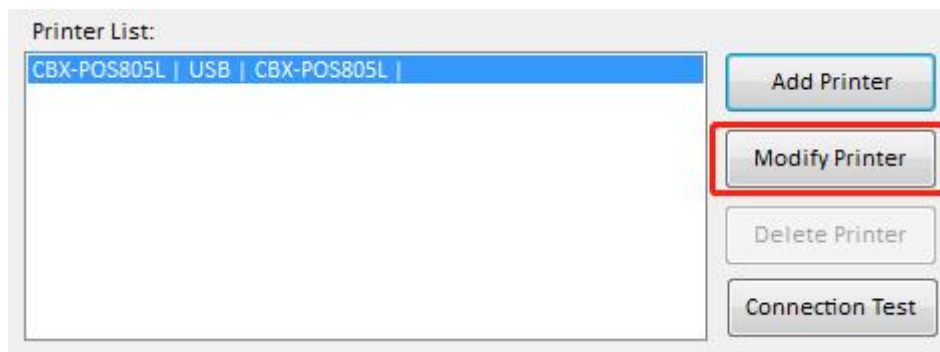


Note: The value of the serial port parameter can be obtained according to the value of the Self-test page information.

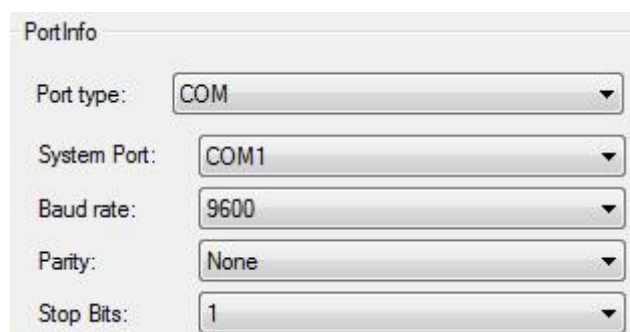
① After setting the parameters as required, click "Set" and the printer would restart automatically. The setting will be taken into effect after finishing restarting.



② After the printer finishing restarting, open the main menu screen of the tool and click "Modify Printer".



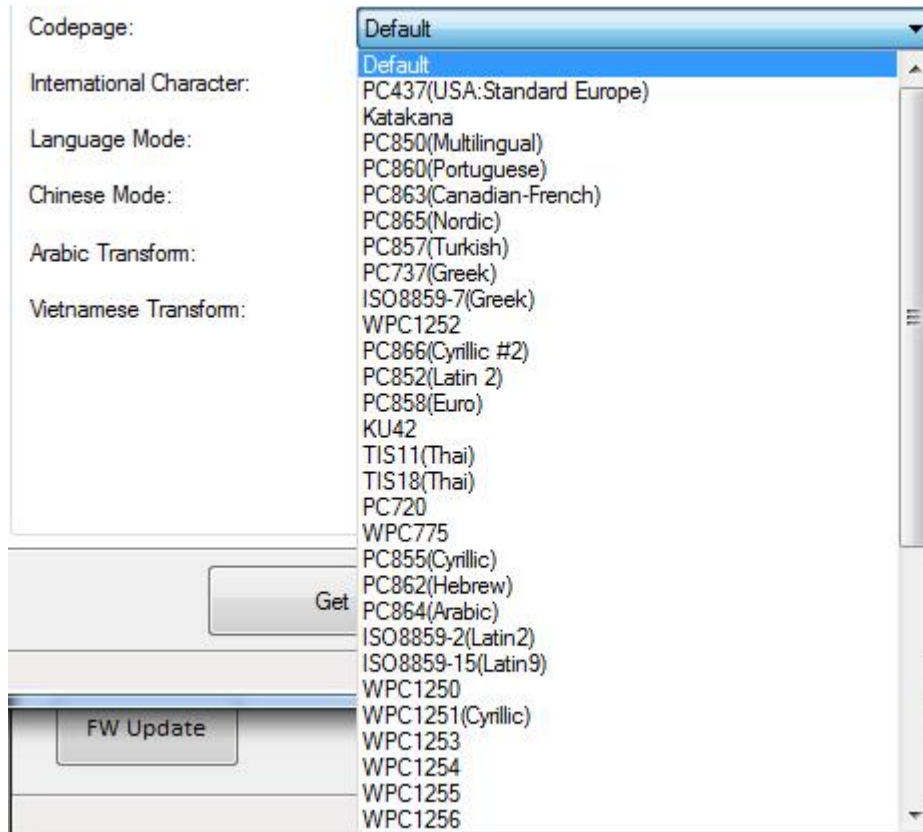
③ Select the port category "COM" and set the baud rate to the value "9600" as shown above, and parity "None". This port allows you to print after setup is complete.



◆ Language and Charset Config

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

• Codepage



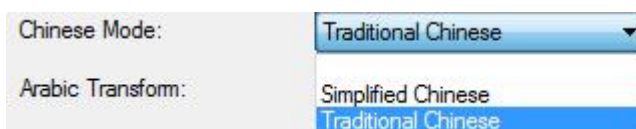
• International Character



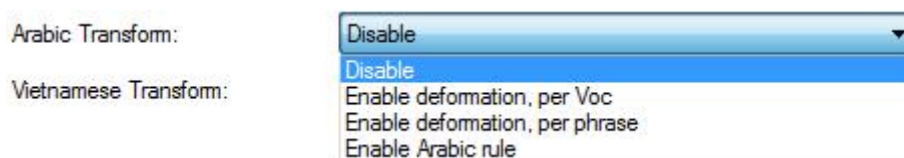
- Language Mode (The default mode is “Chinese/Japanese/Korean”)



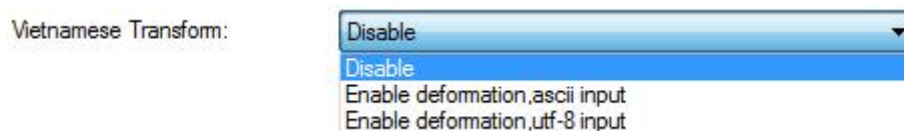
- Chinese Mode



- Arabic Transform

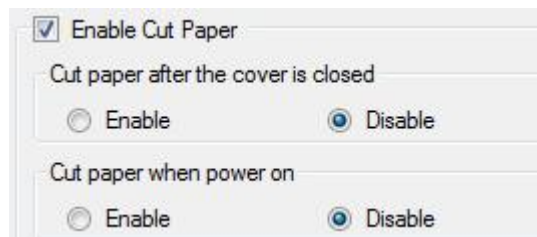


- Vietnamese transform



◆ Cutter Settings

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

**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 Setting

Buzzer Volume: Very Low/Low/Standard/loud

Enable Buzzer	☒
Buzzer Volume	Low
Built-in Buzzer	Low
Beeping after Cutting	

Built-in Buzzer:

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.

Built-in Buzzer			
Beeping after Cutting	☒		
Beeping Times	0	(1-255)	
Beeping Time	0	(1-64)	(100ms)
Beeping Interval	0	(1-64)	(100ms)

External Buzzer:

External Buzzer	
Beeping after Cutting	☒
Beeping Times	0 (1-255)

◆ **Other**

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

• Print Density (default “level 2”)

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

Print Density:	2
Paper Width:	1
	2
Auto Line Feed:	3
	4

• Paper Width

Paper Width:	80mm(576dot)
Auto Line Feed:	58mm(360dot)
	58mm(384dot)
DPI Mode:	58mm(416dot)
	80mm(512dot)
USB Port Mode	80mm(576dot)



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”)

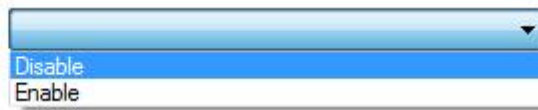
DPI Mode:	203
USB Port Mode	203
	180

• USB Port Mode

USB Port Mode	USB
EPS compatible:	USB
	Virtual Serial Port

- EPS compatible

EPS compatible:

A blue dropdown menu with a downward arrow on the right. The menu is open, showing two options: "Disable" and "Enable". "Disable" is highlighted in blue.

◆ Parameter Settings

- Detect Paper AD Value: click “Read” and you can see the value and cannot be input. Each time you click “Read”, the value will change in a small range.

- Set AD threshold value: the default value is 2400, and you can input the value, but it cannot be set too low or too high.

Detect Paper AD Value:

3872

Set AD Threshold Value:

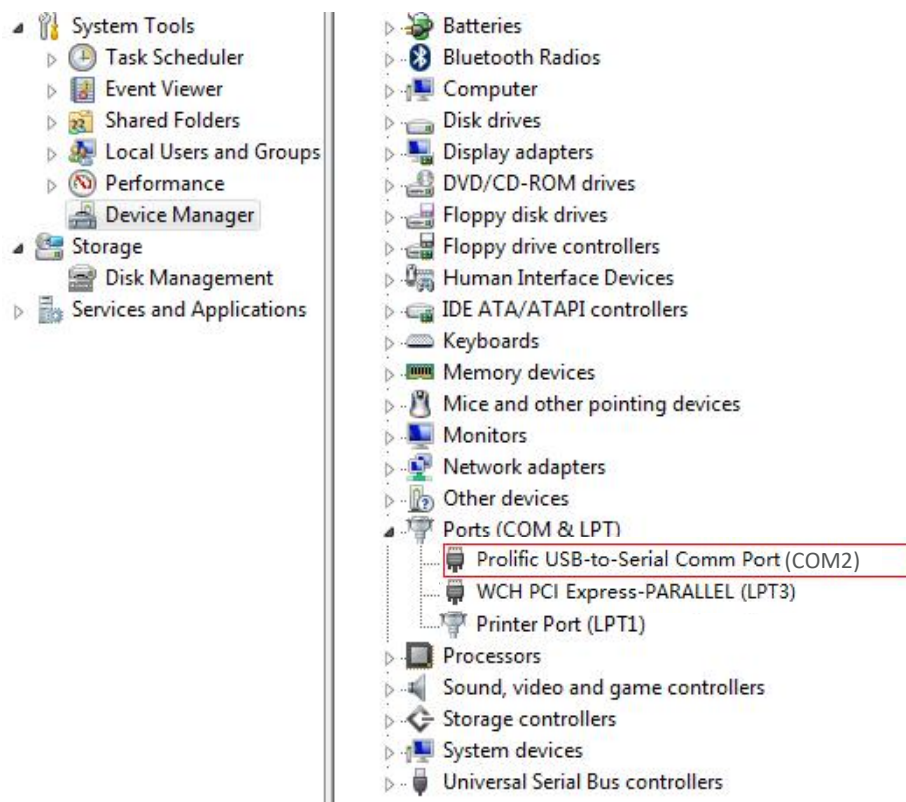
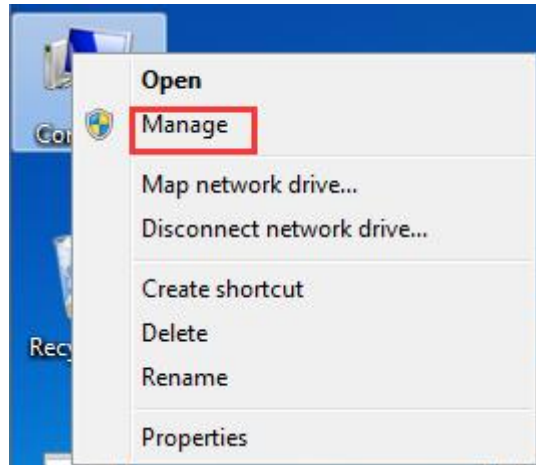
2400

Read

Write

- Check the Virtual Serial Port

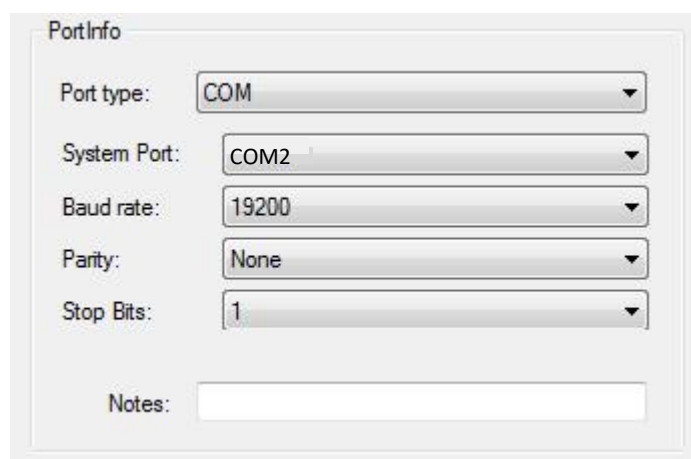
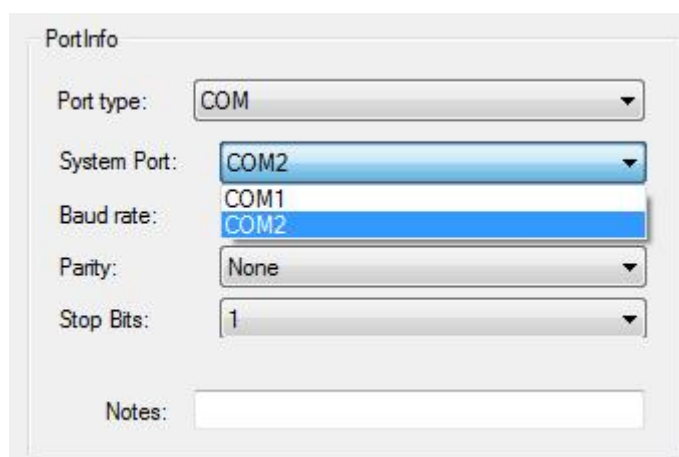
- ① Right-click the computer and select "Manage".
- ② Click "Device Manager" to view the virtual port. (such as: COM2).



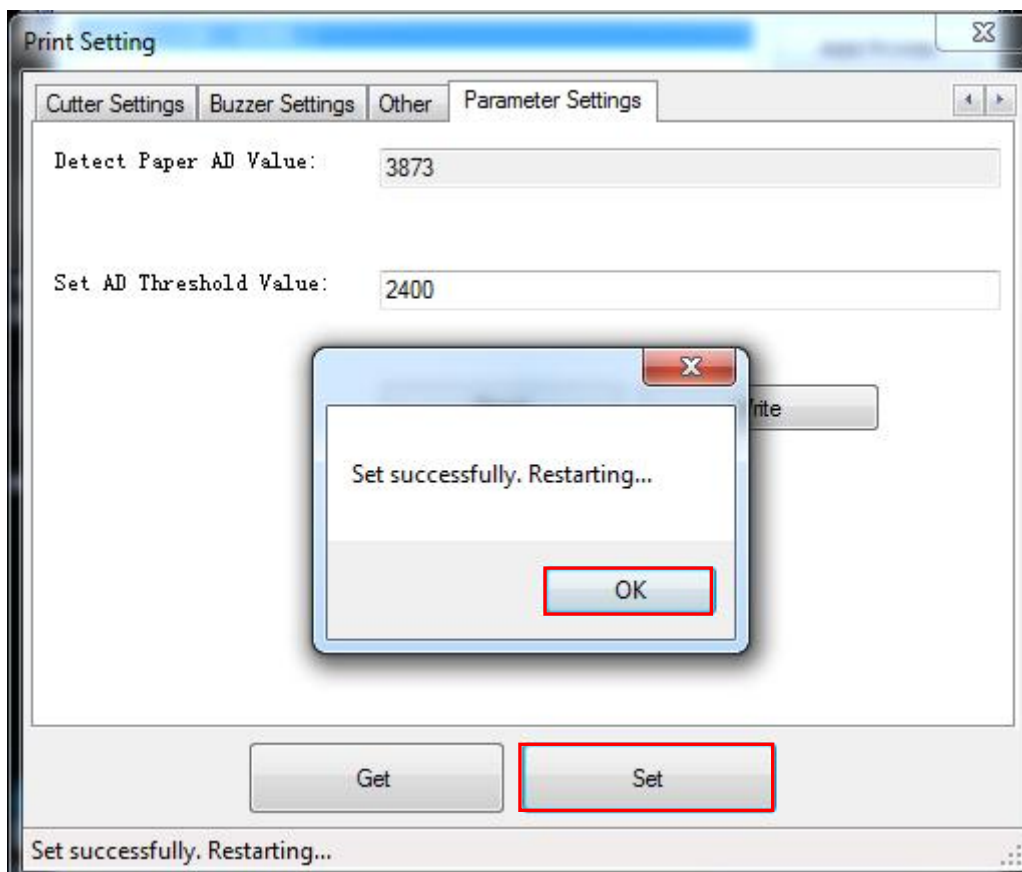
- ③ Return to the printer utility and click "Modify Printer".



- ④ Change the port to "COM2".

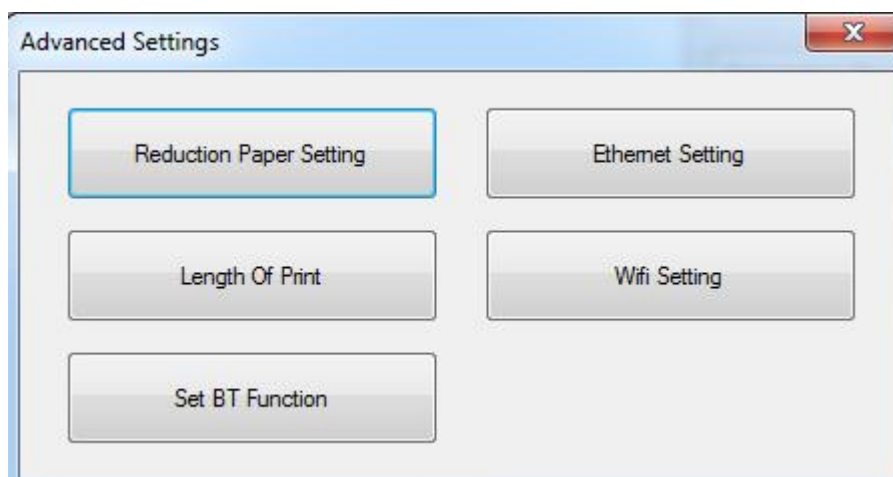


2) After finishing setting all the above parameters, click "Set", the printer would restart automatically, then the settings would take effect.



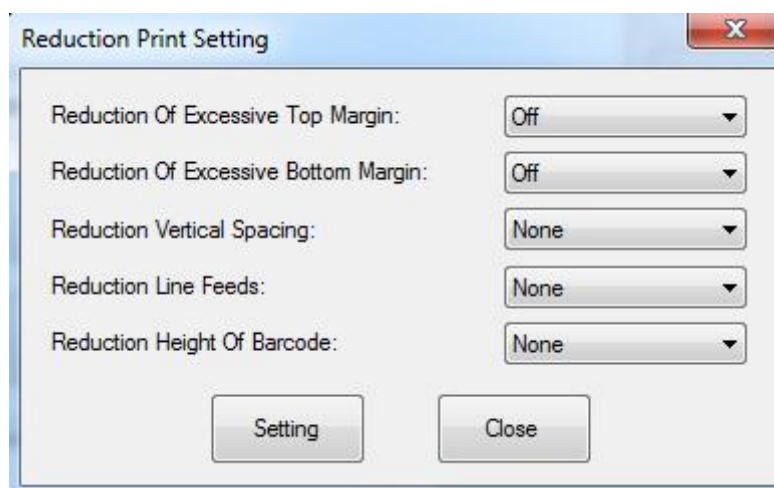
8.2.2.6 Advanced Settings

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.



◆ 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

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

④ Reduction Line Feeds

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

⑤ Reduction Height of Barcode

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

◆ **Ethernet Setting**

Note: This setting is only available for models with Bluetooth functionality.

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



Note: IP addresses can be obtained from the Self-test page.

- 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:

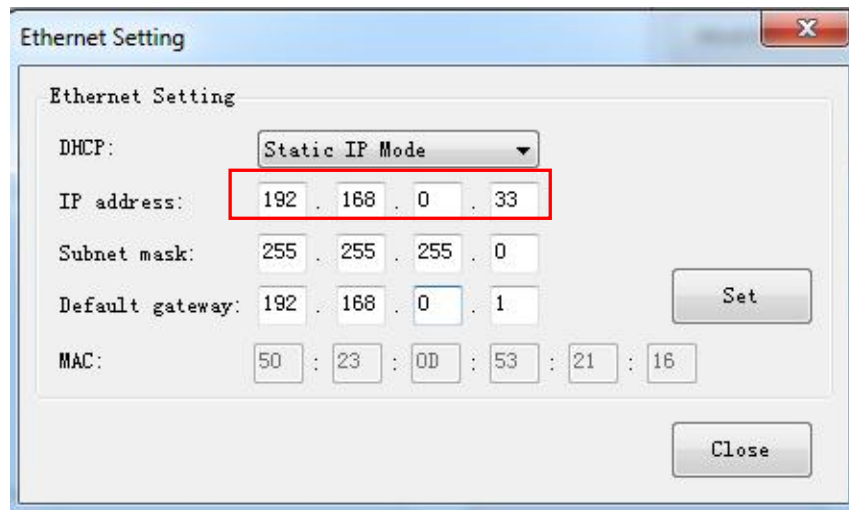


Figure ■ Printer IP Address

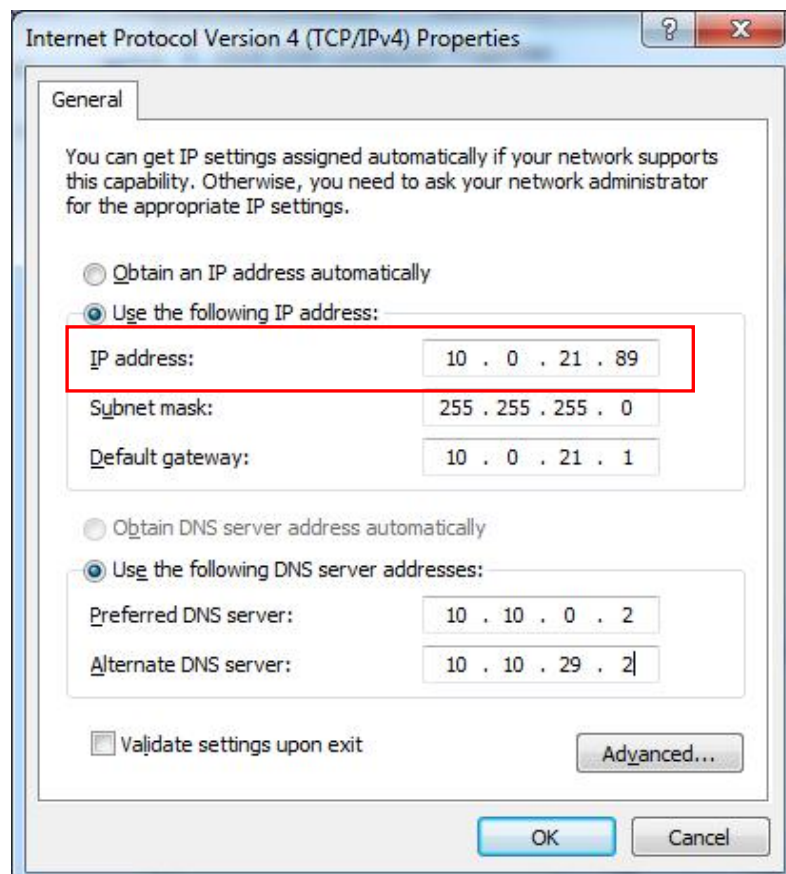
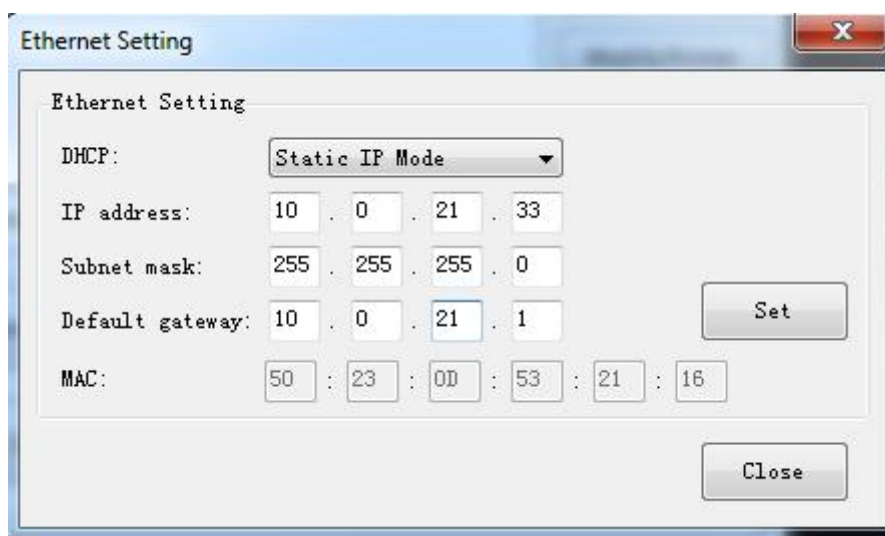


Figure ■ Host IP Address

2) Set the same network segment.

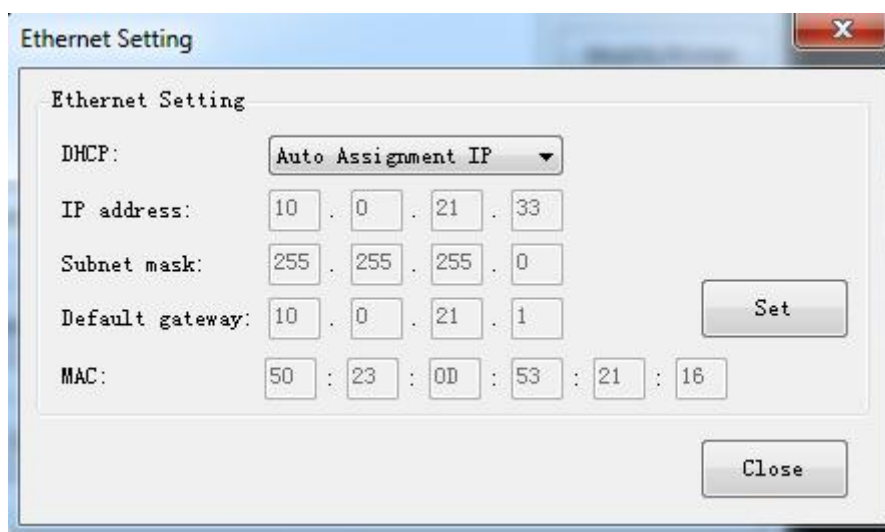


The image shows a screenshot of the 'Ethernet Setting' dialog box. The title bar is blue with a close button (X) in the top right corner. The dialog box has a light gray background. At the top, it says 'Ethernet Setting'. Below that, there is a section labeled 'DHCP:' with a dropdown menu set to 'Static IP Mode'. Underneath, there are four input fields for 'IP address:' (10, 0, 21, 33), 'Subnet mask:' (255, 255, 255, 0), 'Default gateway:' (10, 0, 21, 1), and 'MAC:' (50, 23, 0D, 53, 21, 16). To the right of these fields are two buttons: 'Set' and 'Close'.

Figure ■ Printer IP Address

- Auto Assignment IP

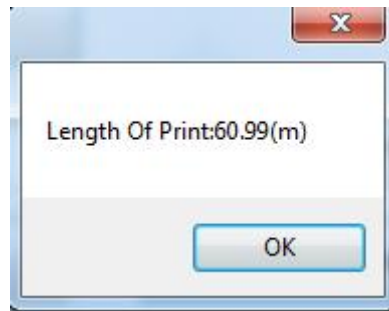
This mode automatically assigns the IP address to the printer.



The image shows a screenshot of the 'Ethernet Setting' dialog box. The title bar is blue with a close button (X) in the top right corner. The dialog box has a light gray background. At the top, it says 'Ethernet Setting'. Below that, there is a section labeled 'DHCP:' with a dropdown menu set to 'Auto Assignment IP'. Underneath, there are four input fields for 'IP address:' (10, 0, 21, 33), 'Subnet mask:' (255, 255, 255, 0), 'Default gateway:' (10, 0, 21, 1), and 'MAC:' (50, 23, 0D, 53, 21, 16). To the right of these fields are two buttons: 'Set' and 'Close'.

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

◆ **Length Of Print**



Click “Length of Print” to obtain the length of the paper that the printer has printed.

◆ **Wi-Fi Setting**

Note: This setting is only available for models with Wi-Fi functionality.

The method to switch between Ethernet and Wi-Fi modes: In the power-on state, open the top cover, then press and hold the paper feed button and power button at the same time for about 3 seconds. After that, close the cover, so the printer will automatically restart and print out the information about successful mode switching.



Note: Simultaneous use of Ethernet and Wi-Fi is not supported.

The following steps take TP70 (under WINDOWS 7) for example.

The image shows a 'WIFI Config' window with a close button (X) in the top right corner. The window contains the following fields and controls:

- Module MAC:
- Module Version:
- Host Name:
- Wifi Mode:
- Scan:
- SSID:
- DHCP:
- IP Address:
- Default gateway:
- Subnet mask:
- Password:
- ☐ Show password
- Read:
- Set:
- Restore Factory Setting:

Click "Read" to obtain the current status of printer.

A single button labeled 'Read'.

Wi-Fi Module supports AP mode and STA mode, and default as AP mode.

■ Under AP mode, printer will be used as a wireless network access point, computer or other mobile devices can connect to this Wi-Fi.

Module Version	Current Module Version
WiFi Mode	Supports “AP” mode and “STA” mode, and default as “AP” mode
SSID	Modifiable, default as “POS_WIFI”
IP Address	Modifiable, default as “192.168.1.1”

If it's necessary to modify SSID and IP address, click “Set” after modifying, then restart the printer.

WIFI Config

×

Module MAC:

88:83:5D:E4:DF:C4

Module Version:

4.0.8

Host Name:

printer_sta

Wifi Mode:

AP

▼

SSID:

POS_WIFI

IP Address:

192.168.1.1

Password:

☐ Show password

Read

Set

Restore Factory Setting

■ When using the STA mode, take the printer as a terminal. The PC or mobile devices and printer need to be on the same LAN.

- Choose STA under Wi-Fi mode, the interface is shifted to the following screenshot:

The screenshot displays the 'WIFI Config' window. At the top, the title bar reads 'WIFI Config' with a close button (X) on the right. The window contains several configuration fields: 'Module MAC:' with the value '88:83:5D:E4:DF:C4', 'Module Version:' with '4.0.8', and 'Host Name:' with 'printer_sta'. The 'Wifi Mode:' dropdown menu is open, showing three options: 'STA' (highlighted in blue), 'STA' (in white), and 'AP' (in white). Below the dropdown, the 'SSID:' field is set to 'POS_WIFI', 'DHCP:' is set to 'Enable', and 'IP Address:' is set to '192.168.1.10'. The 'Password:' field is masked with asterisks, and there is a checkbox labeled 'Show password' which is currently unchecked. At the bottom of the window, there are three buttons: 'Read', 'Set', and 'Restore Factory Setting'.

- Click “Scan”, choose a connectable “hot spot” from SSID options. type in the password of Wi-Fi that you want to connect to.
- Click “Set”. After it is set successfully, the printer would restart automatically.

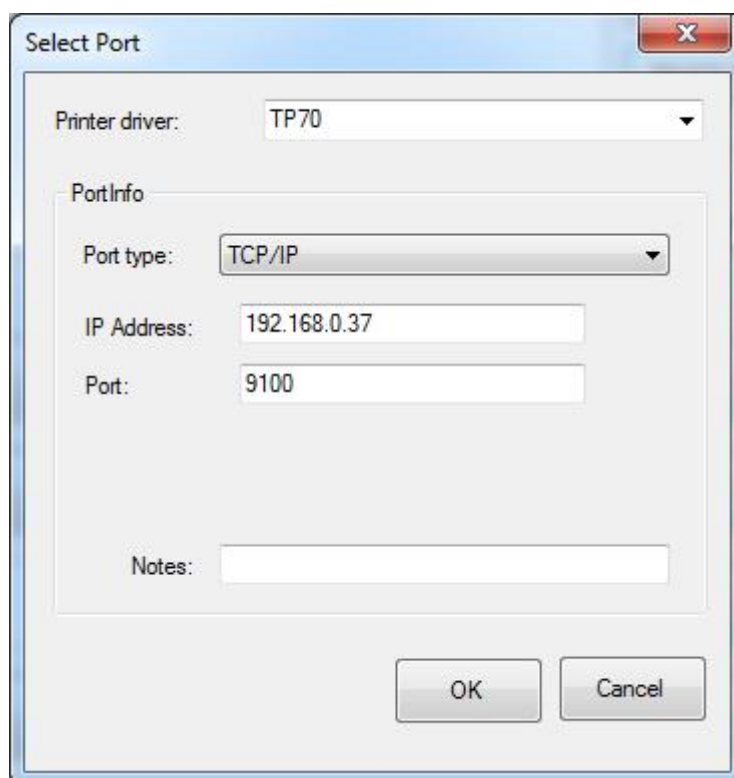
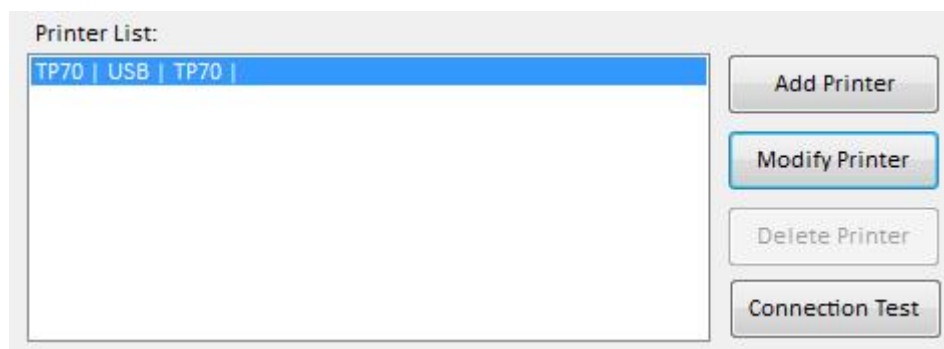
The screenshot shows the 'WIFI Config' window with the following fields and buttons:

- Module MAC:** 3A:13:24:33:25:C2
- Module Version:** V0.0.5.2
- Host Name:** (empty text field)
- Wifi Mode:** STA (dropdown menu)
- Buttons:** 'Scan' (top right), 'Read' (bottom left), 'Set' (bottom right), and 'Restore Factory Setting' (bottom center).
- SSID:** prtftot123 (dropdown menu)
- DHCP:** Enable (dropdown menu)
- IP Address:** 192.168.1.1
- Default gateway:** 192.168.1.1
- Subnet mask:** 255.255.255.0
- Password:** (masked with asterisks) *****
- Show password:** (checkbox, currently unchecked)

Red boxes highlight the 'Scan' button, the SSID dropdown, the Password field, and the 'Set' button.

SSID	The SSID name that is chosen after scanning “hot spot”
DHCP	Enable/Disable dynamic allocation of IP
IP Address	When DHCP is at Enable status, IP address will be allocated automatically, no need to do the setting; When DHCP is at Disable status, IP address must be set to the same LAN with the Wi-Fi that you connect to
Default gateway	When DHCP is at Enable status, default gateway will be allocated automatically, no need to do the setting; When DHCP is at Disable status, default gateway can be input
Subnet mask	When DHCP is at Enable status, subnet mask will be allocated automatically, no need to do the setting; When DHCP is at Disable status, subnet mask can be input

- After the printer is restarted, short press the power button 3 times, so that the current Wi-Fi parameter information can be printed.
- After completing the setting, connect the computer to the Wi-Fi that the printer connects to, click “Modify Printer”, choose “TCP/IP”, and set the IP address the same as the printer’s IP address, then click “OK”. **(Following Screenshot takes TP70 as an example)**



- Click “Connection Test” to check if the setting is successful.





Notes: When the printer is failed to connect with its master devices, please check if settings are correct, and please check if the master devices and the printer are on the same network segment. When parameter setting error occurs, which leads to failed connection, please reset the Wi-Fi parameter by the following way 1) or 2):

1) For TP70 (with built-in Wi-Fi module), shortly press the power button five times, so that the Wi-Fi parameter would be reset. The printer would restart automatically, so the reset is taken into effect.

2) For other models of POS printers (with external Wi-Fi module), shortly press the Function/Reset Button (at the interface board) for five times, and the Wi-Fi parameter would be reset. The printer would restart automatically, so the reset is taken into effect.

◆ Bluetooth Setting

Note: This setting is only available for models with Bluetooth functionality.

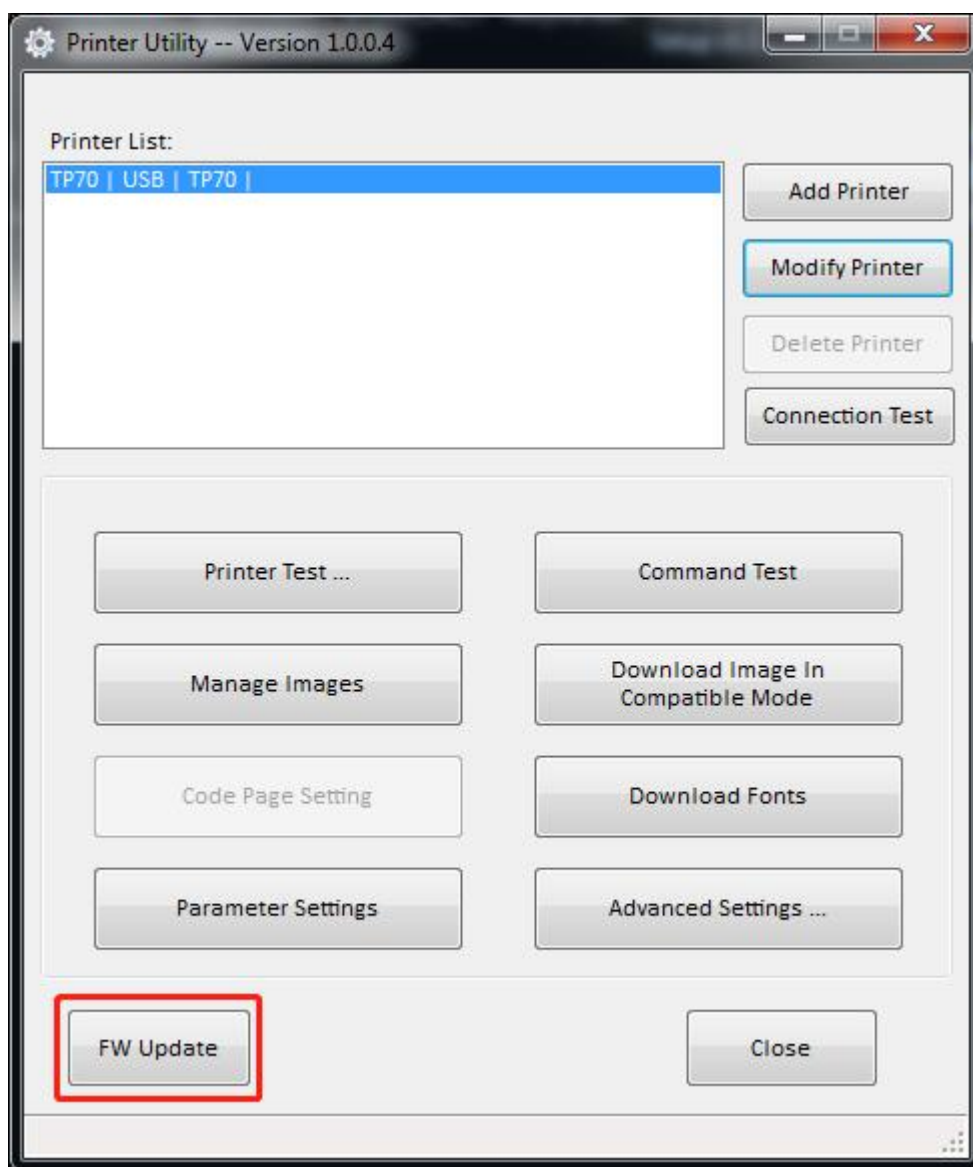
In the below window, type in the new Bluetooth name and password, then click “Set” and restart the printer to take it into effect.

Note: when “Simple Pairing” is ticked, the password is not needed for Bluetooth connection.

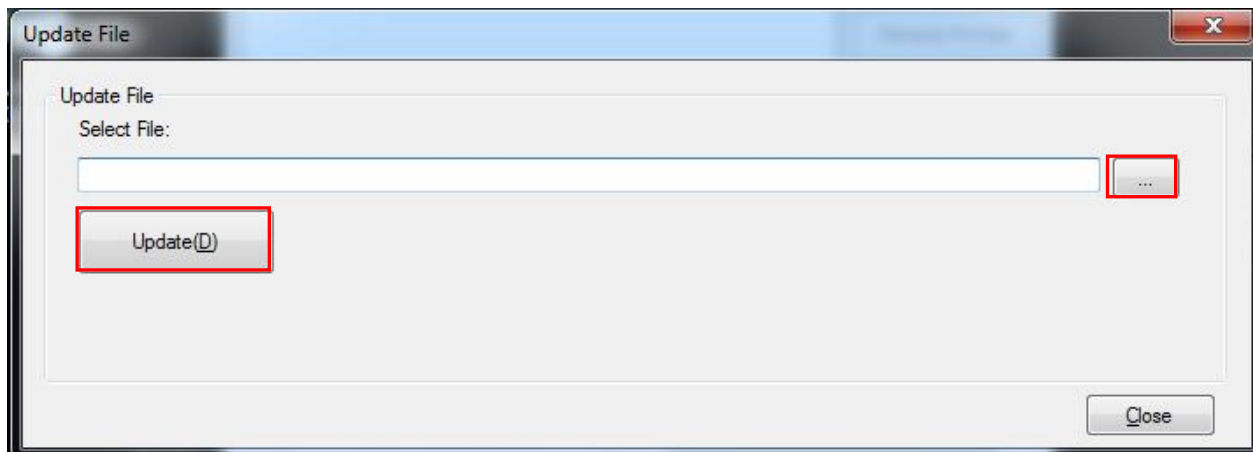
When “Simple Pairing” is not ticked, the password is needed for Bluetooth connection.

8.3 Firmware Update

1) Click “FW Update”.

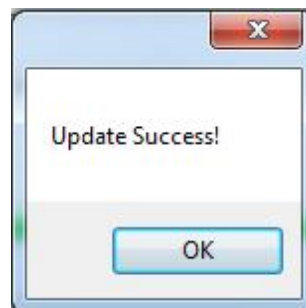


2) Add the “bin” file, and click “Update”.



3) Click “Update”.

4) Update success.



5) Restart the printer.

9 WINDOWS DRIVER INSTRUCTION

9.1 Javapos Driver

9.1.1 Information

This Javapos Driver Instruction 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.

9.1.2 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

9.1.3 Driver Preparation

The Javapos Driver is included in the enclosed CD.

The Javapos Driver installation file name is: V1.0.6539_TP70.

9.1.4 Driver Installation



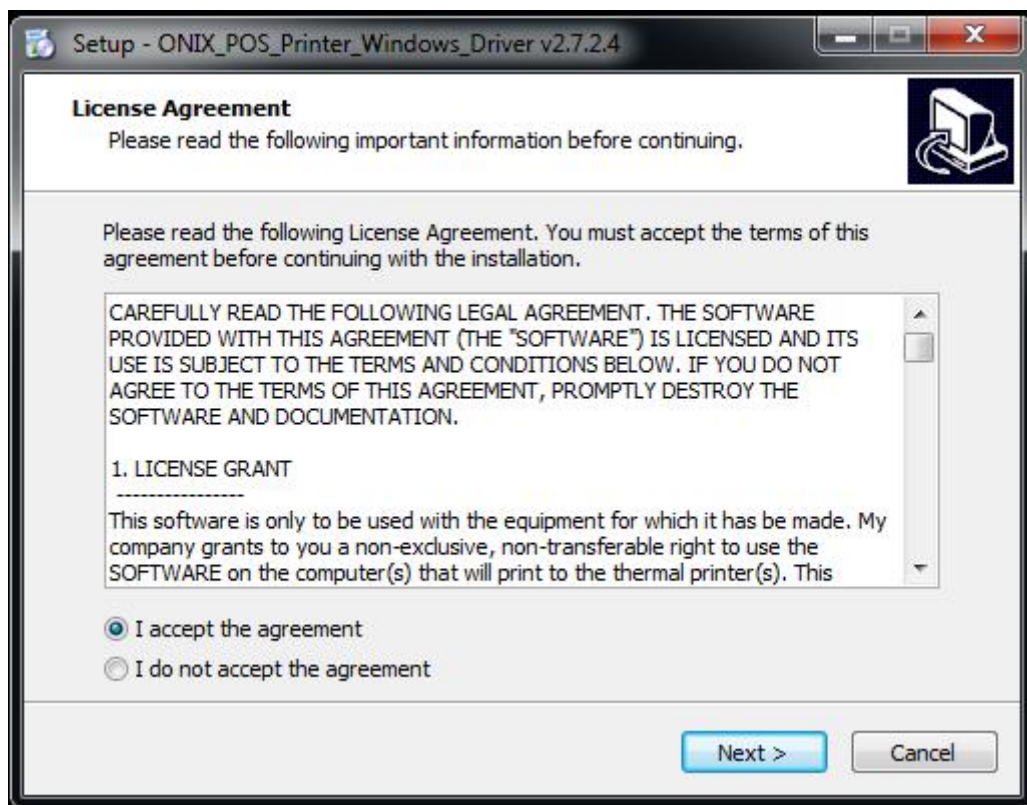
Warning:

*Under different operating system, the screen has slight difference. Please operate it according to the tips. Take **TP70** (Windows 7) as example.*

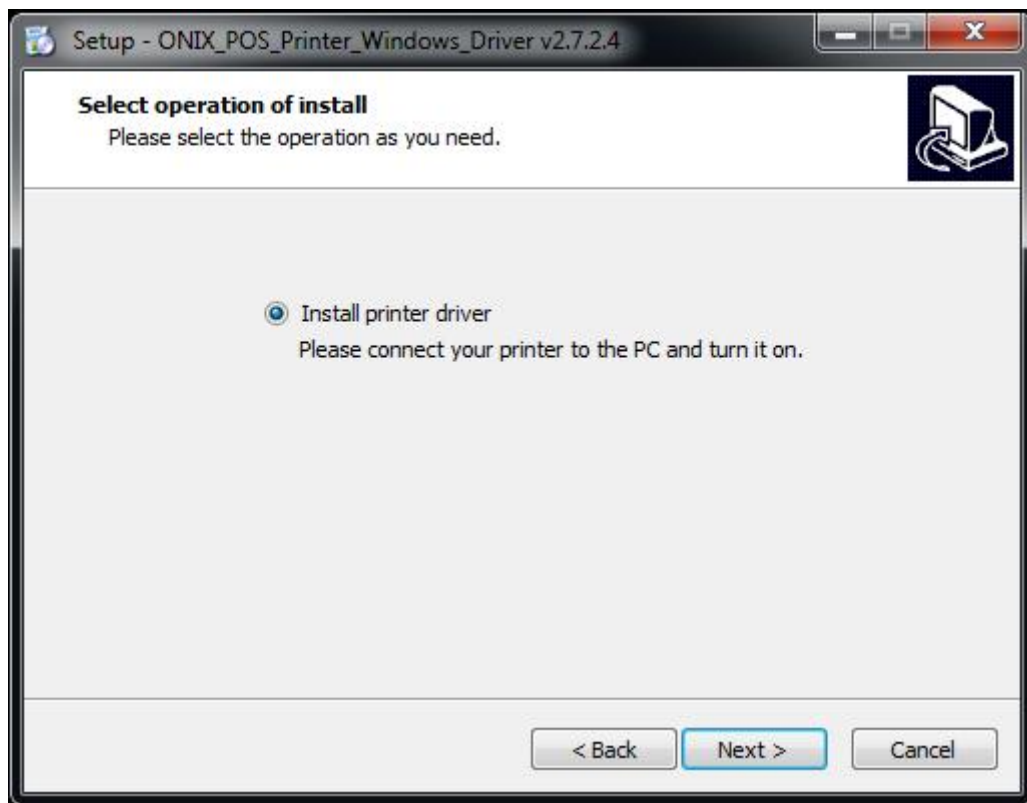
- 1) Double click Windows Driver, and choose language.



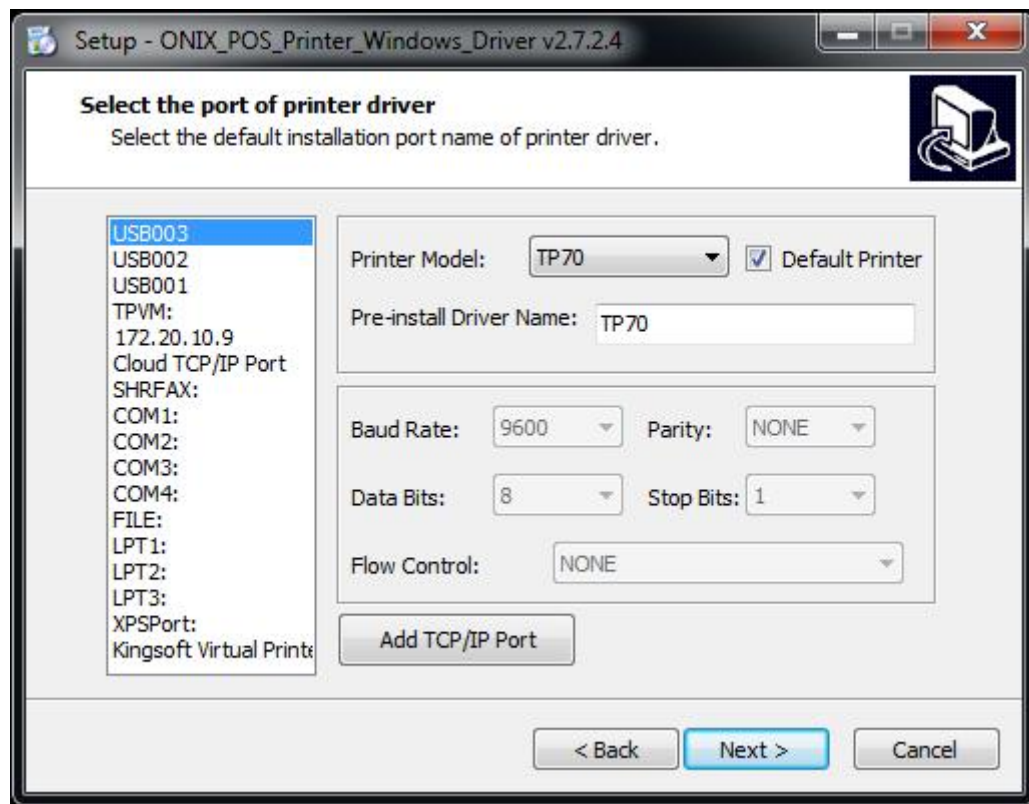
- 2) Choose "I accept the agreement" and click "Next".



1) Click "Next".



2) Choose the matched type and port (USBxxx is for USB port, COMx is for serial port, LPTx is for parallel port). Choose the type and port of driver, such as "TP70", "COM1". Click "Next".



 **Note:** If printer is already connected with computer by USB port, it only needs to click "Install", then it will be installed automatically. Otherwise, proceed to the next step.

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



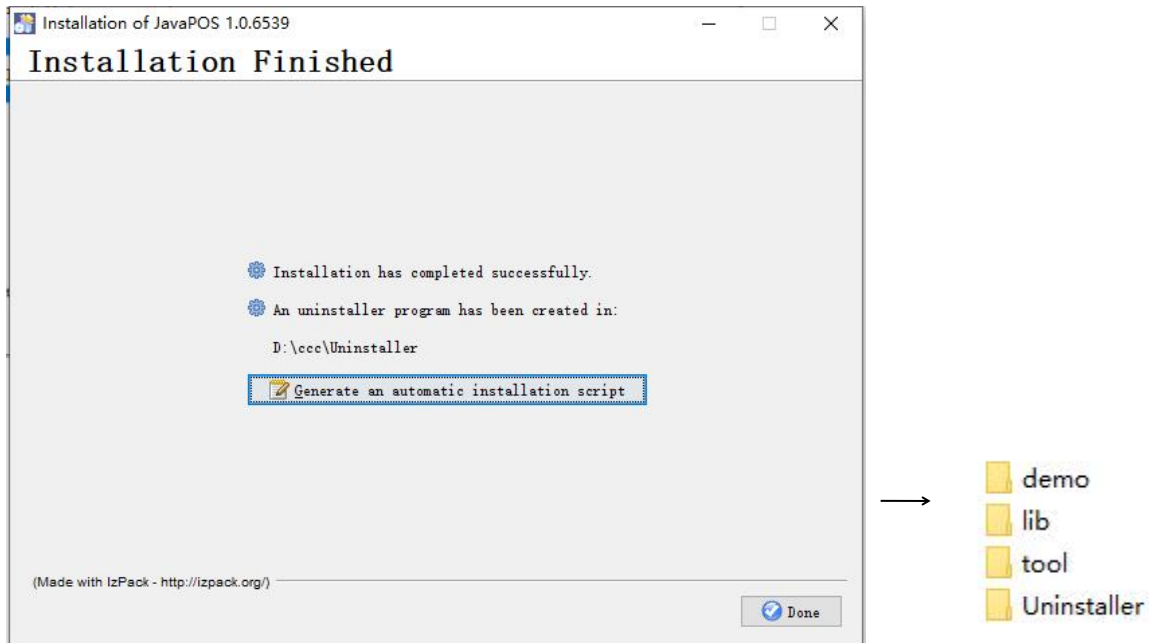
4) After installation, the icon will be found in "Start"→"Devices and Printers".



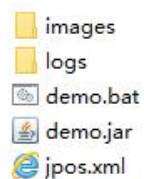
⚠ Note: *If you already installed the driver (No matter what kind of port), when you connect the printer with computer, it will create a USB port automatically.*

9.1.5 Driver Operating

1) Click “Generate an automatic installation script” to open the file.



2) Double click “demo” to open the file, and double click “demo.bat” to run the demo.



3) Then you can click the items for your needs.

