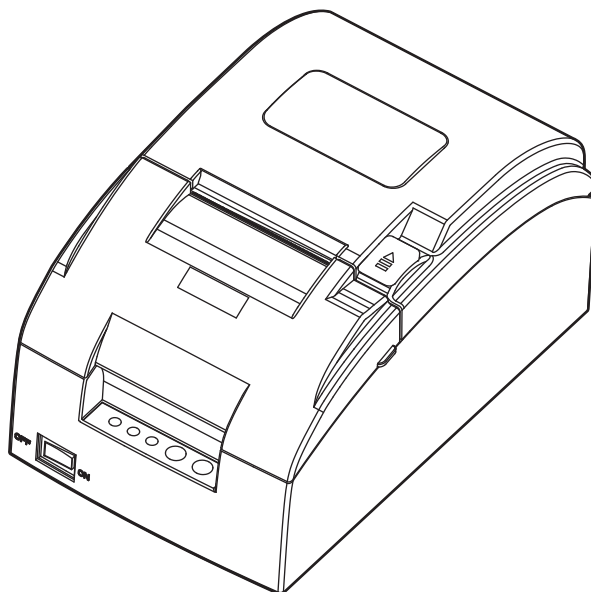




User's Manual

TP610/610C Series

Printer



Declare

About Trademark

Corporation names and product names are the registered trademarks or commodity names of the corporation.

Jolimark is a registered trademark of Kong Yue Electronics & Information Industry (XIN HUI) LTD.

EPSON, ESC/PK2 and ESC/POS are the registered trademarks of Seiko Epson Corporation.

Windows is a registered trademark of Microsoft Corporation.

Warnings, Cautions, and Notes

Pay attention to the following promises when using this manual:

Warning:

Warnings must be followed carefully to avoid bodily injury.

Caution:

Cautions must be observed to avoid damage to your equipment.

Note:

Notes contain important information and useful tips on the operation of your printer.

Important Safety Instructions

Read all of these instructions carefully and thoroughly and save them for later reference. The unauthorized operation would lead to malfunction or accident. Manufacturers have no responsibilities for the problems which are led by unauthorized operations.

1. Follow all warnings and instructions in the manual as well as marked on the product.
2. Unplug this product from the power outlet before cleaning. Do not use the chemicals like alcohol to clean the printer. Use a damp cloth for cleaning.
3. Do not use this product where is easy to get wet.
4. Do not place this product on an unstable car, stand or table. The product may fall, causing serious damage to you or to the product.
5. Slots and openings on the cabinet and the back or bottom are provided for air ventilation. To ensure reliable operation of the product and to protect it from overheating, do not block or cover these openings. And do not place the printer on a bed, sofa, rug or other similar surface in case of blocking the openings. This product should not be placed in crowded environment unless proper ventilation is provided.
6. This product should never be placed near or over a radiator or heat origin, and should avoid direct sunshine.
7. Do not locate this product where the cord will be stepped on. When the cord or the plug is mangled, please stop using and get a new one replaced. Make sure the old one is far away from the printer, so it can avoid someone who does not know the inside story getting damaged.
8. Only the AC adapter supplied by our company can be used, or else, manufacturer will not answer for any problems which are led by using unauthorized AC adapter.
9. Do not use in locations subject to high humidity or dust levels.
10. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage dots or short out parts.
11. Don't remove the printer's out-cover and repair the printer yourself. When needed, call or take it to the professional.
12. If there are any liquid accidentally splashed into the product, or printer is exposed to rain or water, please remove the plug immediately, and send it to a professional for repair.
13. To ensure safety, please unplug this product prior to leave it unused for an extended period. The wall outlet you plan to connect to should be nearby and unobstructed.
14. Unplug this product from the power outlet and leave servicing to qualified service personnel under the following conditions:
 - A. When the power cord or plug is damaged or frayed.
 - B. If liquid has been spilled into the product.
 - C. If the product has been exposed to rain or water.
 - D. If the product does not operate normally when the operating instructions are followed.
 - E. If the product has been dropped or the cabinet has been damaged.
 - F. If the product exhibits a distinct change in performance, it indicates a need for service.

Notice: The contents of this manual are subject to change without notice.

***All the parts of the printer can be recycled. When it is abandoned, we can call it back freely. Please contact us when you abandon it.**

Table of Contents

Declare.....	i
Important Safety Instructions	iii
Chapter 1 Overview	1
1.1 Model Information	1
1.2 Application.....	1
1.3 Main Parts of the Printer.....	1
Chapter 2 Printer Installation.....	3
2.1 Unpacking and Checking	3
2.2 Removing the Protective Materials.....	3
2.3 Connecting to Computer or Other Equipment	3
2.3.1 <i>Connecting the Cash Drawer Cable</i>	3
2.3.2 <i>Connecting the Parallel Cable</i>	4
2.3.3 <i>Connecting the USB Cable</i>	4
2.3.4 <i>Connecting the Serial Cable</i>	5
2.3.5 <i>Connecting the Ethernet Cable</i>	5
2.4 Connecting the Power Cord	6
2.5 Installing the Ribbon Cartridge	6
2.6 Installing the Driver	7
2.6.1 <i>Auto-installing Way (Recommended)</i>	7
2.6.2 <i>Hand-operated Installing Way</i>	7
2.7 Selecting the Cutter.....	10
2.8 Installing Bluetooth Interface Driver	11
2.9 Network Settings	14
2.9.1 <i>Connecting the Printer</i>	14
2.9.2 <i>Setting IP Address</i>	14
2.10 Wi-Fi Setting of Jolimark Printer.....	16
2.10.1 <i>Connecting the Printer</i>	16
2.10.2 <i>Wi-Fi Parameters Description</i>	19
2.10.3 <i>Wi-Fi Interface Status Display and Parameters Reset</i>	29
2.11 Mobile Equipment Wi-Fi Printing Function Application	30
2.11.1 <i>The System Print Service Application of Android Equipment</i>	30
2.11.2 <i>AirPrint Printing Application of iPhone iOS Equipment</i>	35
2.12 Installing Printer Network Driver.....	38
Chapter 3 Control Panel.....	45
3.1 Control Panel	45
3.1.1 <i>LED Indicator</i>	45
3.1.2 <i>Function Keys</i>	45
3.2 Parameter Settings	45
3.3 Menu Terms Descriptions.....	49
3.4 Self-Test	50

Chapter 4 Paper Loading	52
Chapter 5 Specifications	53
5.1 General Specifications	53
5.2 Interface	55
5.2.1 Cash Drawer Interface.....	55
5.2.2 Parallel Interface.....	55
5.2.3 USB Interface	56
5.2.4 Serial Interface	57
5.2.5 Ethernet Interface	58
5.3 Auto-cutter Specification.....	58
Chapter 6 Maintenance and Technical Service	59
6.1 Cleaning the Printer	59
6.2 Error Message on the Control Panel	59
6.3 Contact the Technical Service Center	60

Chapter 1 Overview

1.1 Model Information

TP610/610C (Mini Receipt Printer) is developed by our corporation in order to fulfill different requirements and using environments. TP stands for Mini printer, "610" stands for the model and "C" means the printer is with cutter. TP610/610C series printers can be configured with parallel interface, USB interface, USB interface + Serial interface, USB interface + Ethernet interface, USB interface + Serial interface+ Ethernet interface, USB interface + Bluetooth, Wi-Fi interface or USB interface + Wi-Fi.

Interface:

U	USB interface
S	Serial interface
E	Ethernet interface
B	Bluetooth
W	Wi-Fi interface

Note: Please contact the local dealer to change the interface with added expense if needed.

1.2 Application

- Embedded installation and preprinting common bill printing market
- Embedded installation and two-sheet common bill printing market
- Can be applied to tax-controlled cash register for invoice printing
- Can be applied to electronic billing machine for invoice printing
- Can be applied to self-service terminal for invoice printing or applied to other preprinting bill printing

1.3 Main Parts of the Printer

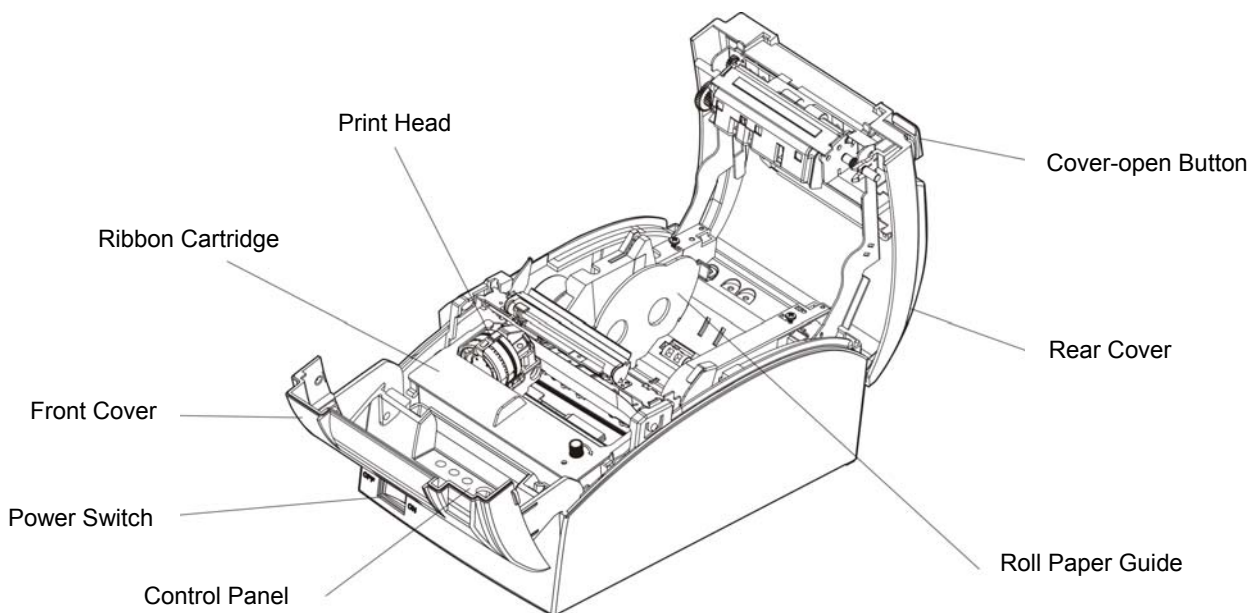


Figure 1-1 Main parts of printer (Top view) 【Without auto-cutter assembly】

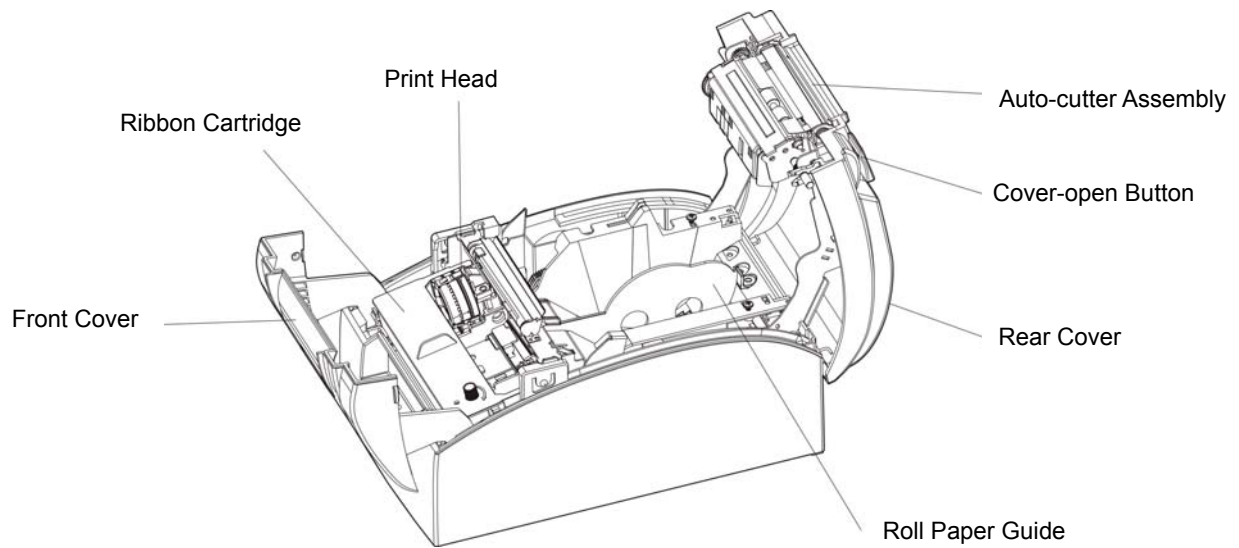


Figure 1-2 Main parts of printer (Top view) 〔With auto-cutter assembly〕

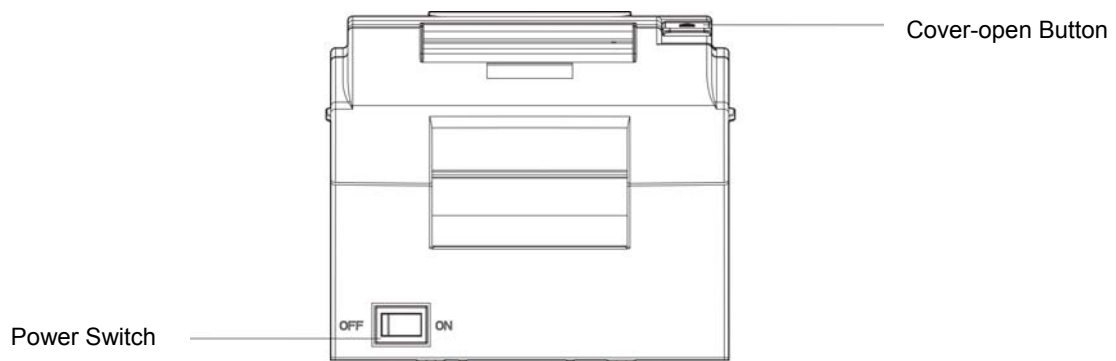


Figure 1-3 Main parts of printer (Front view)

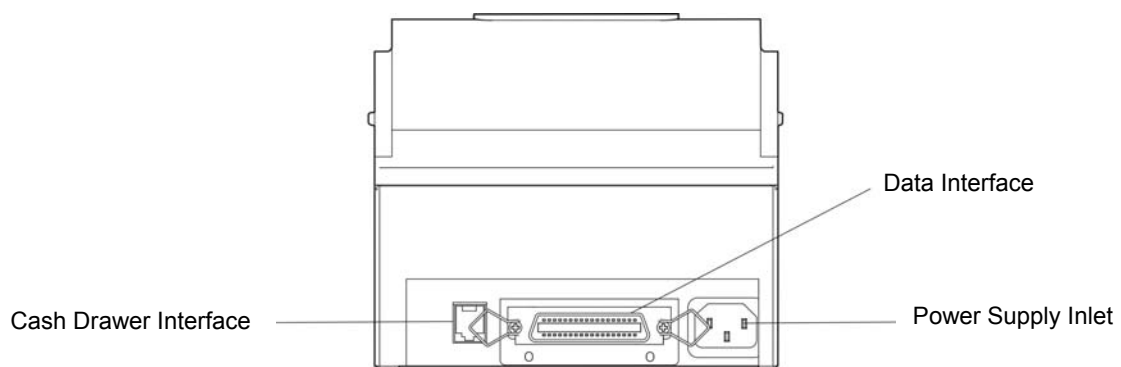


Figure 1-4 Main parts of printer (Rear view)

Note: Please take the specific interface as standard.

Chapter 2 Printer Installation

2.1 Unpacking and Checking

Check the following items in the package, if any of these items is missing, please contact your dealer.
(As shown in Figure 2-1)

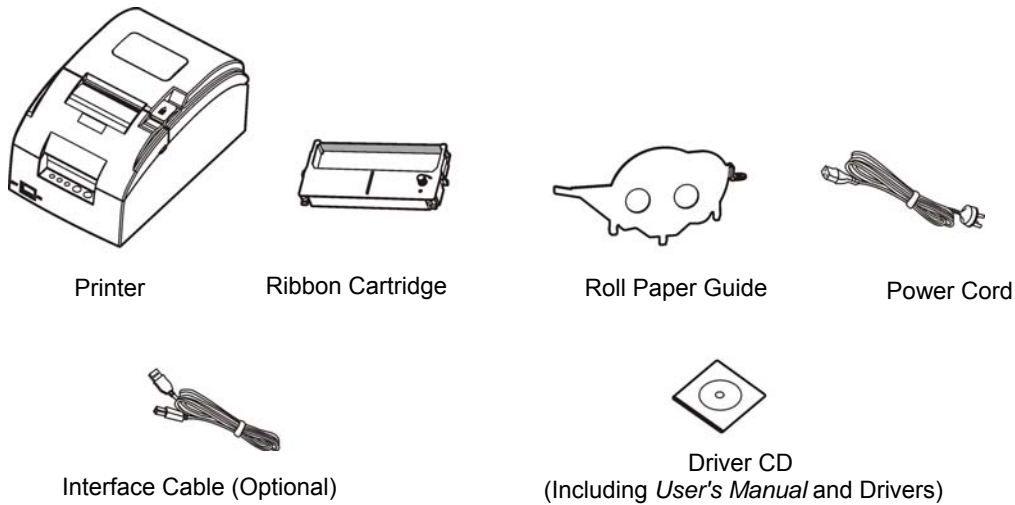


Figure 2-1 Packing list

Note: 1. Models with Bluetooth and Wi-Fi are not equipped with interface cable.

2. This serial products are classified into TP610 model (without auto-cutter assembly) and TP610C model (with auto-cutter assembly), the product model has been confirmed before leaving the factory, it can not be changed in client side.

2.2 Removing the Protective Materials

1. Open the packing box, take out the printer.
2. Save all the packing materials so that they can be used when transporting the printer in the future.

2.3 Connecting to Computer or Other Equipment

This printer can be equipped with one cash drawer interface and a data interface (you can select parallel interface, USB interface, USB interface + Serial interface, USB interface + Ethernet interface, USB interface + Serial interface + Ethernet interface, USB interface + Bluetooth, Wi-Fi interface or USB interface + Wi-Fi). (Please take the specific interface as standard.) Connect the printer to the computer with correct cable.

Caution: Before connecting or disconnecting the cash drawer interface, parallel interface or serial interface, you should make sure that the power of the printer is turned off. Only after tightening the cable could you turn on the printer, or else, it may damage the printer.

2.3.1 Connecting the Cash Drawer Cable

Make sure the printer is turned off. Plug one end of the cable into the cash drawer interface of the printer and the other end to cash drawer. (Shown as Figure 2-2)

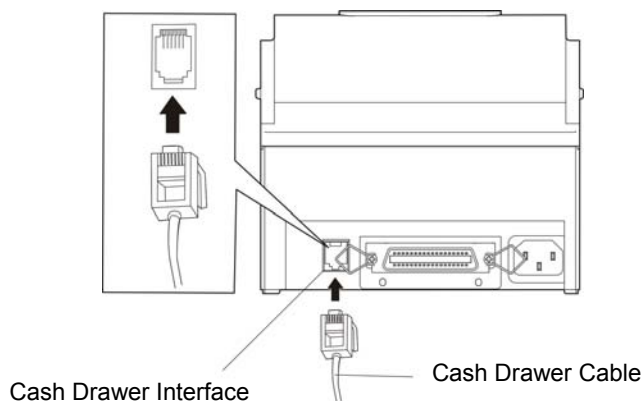


Figure 2-2 Connecting the cash drawer cable

Note: You must use the proper cash drawer. Manufacturer will not honor warranty when using improper cash drawer.

2.3.2 Connecting the Parallel Cable

1. Make sure that the computer and the printer are both turned off, connect the parallel cable to the parallel interface of the printer, and squeeze the wire clips on both sides of the connector to make the cable fixed. (As shown in Figure 2-3)

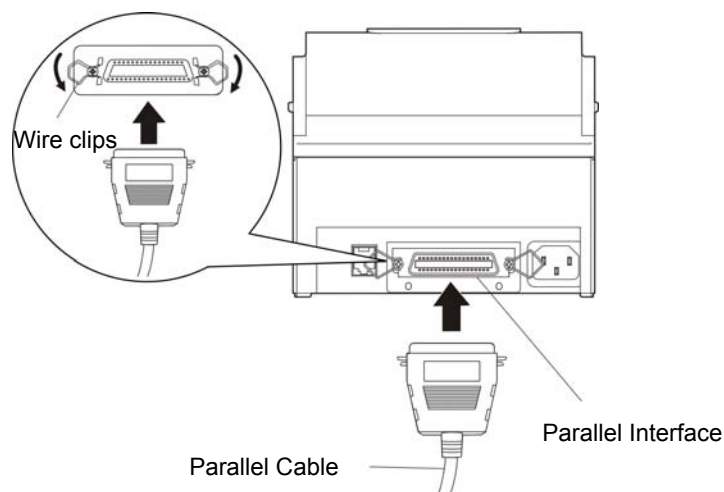


Figure 2-3 Connecting the parallel cable

2. Connect the other end of the cable to the computer's parallel interface, and tighten the screws on both sides to make the cable fixed.

2.3.3 Connecting the USB Cable

1. Plug the A end of USB cable (flat shape) into the computer's USB interface connector.
2. Plug the B end of USB cable (square shape) into the printer's USB interface connector. (As shown in Figure 2-4)

Note: Do not impact the plug after connecting the USB cable.

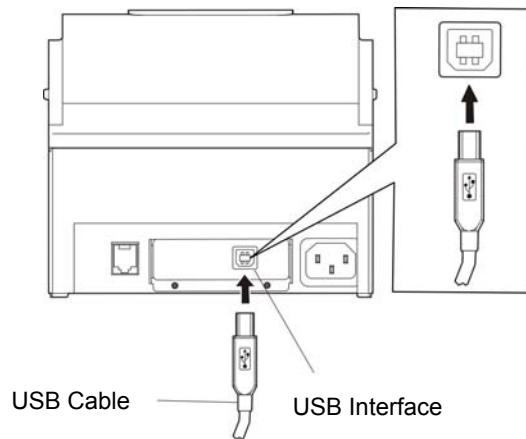


Figure 2-4 Connecting the USB cable

2.3.4 Connecting the Serial Cable

1. Make sure that the computer and the printer are both turned off, connect the serial cable to the serial interface of the printer and tighten the screws on both sides to make the cable fixed. (As shown in Figure 2-5)

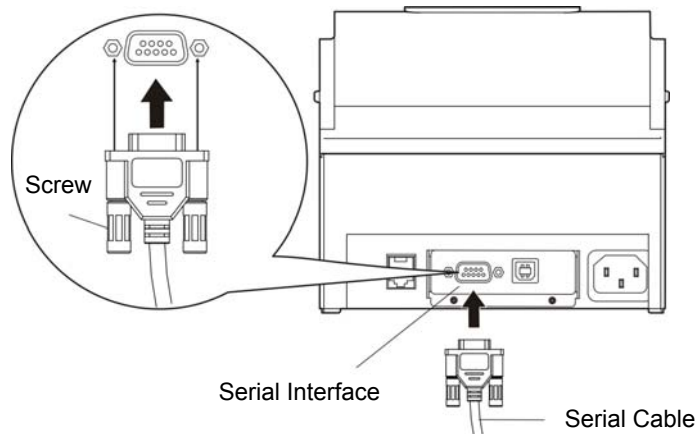


Figure 2-5 Connecting the serial cable

2. Connect the other end of the cable to the computer's serial interface and tighten the screws on both sides to make the cable fixed.

2.3.5 Connecting the Ethernet Cable

Plug the crystal end of the Ethernet cable (RJ-45) into the printer's Ethernet interface, and then, plug the other end into the LAN's entrance. (Shown as Figure 2-6)

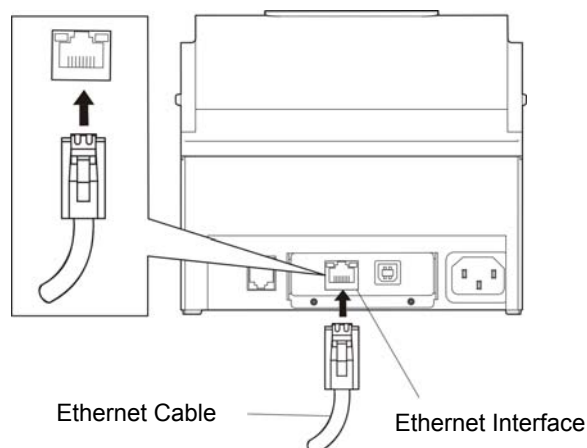


Figure 2-6 Connecting the Ethernet Cable

Note: The detailed information of the network settings, please refer to the *User's Manual*.

2.4 Connecting the Power Cord

1. Make sure the printer is turned off. (The pressed down side on the power switch with "O" mark denotes the printer is off). (As shown in Figure 2-7)
2. Make sure the voltage required by the printer matches that of your electrical outlet.
3. Plug one end of the power cord to printer's power supply inlet.
4. Plug the other end of the power cord into a properly grounded electrical outlet.

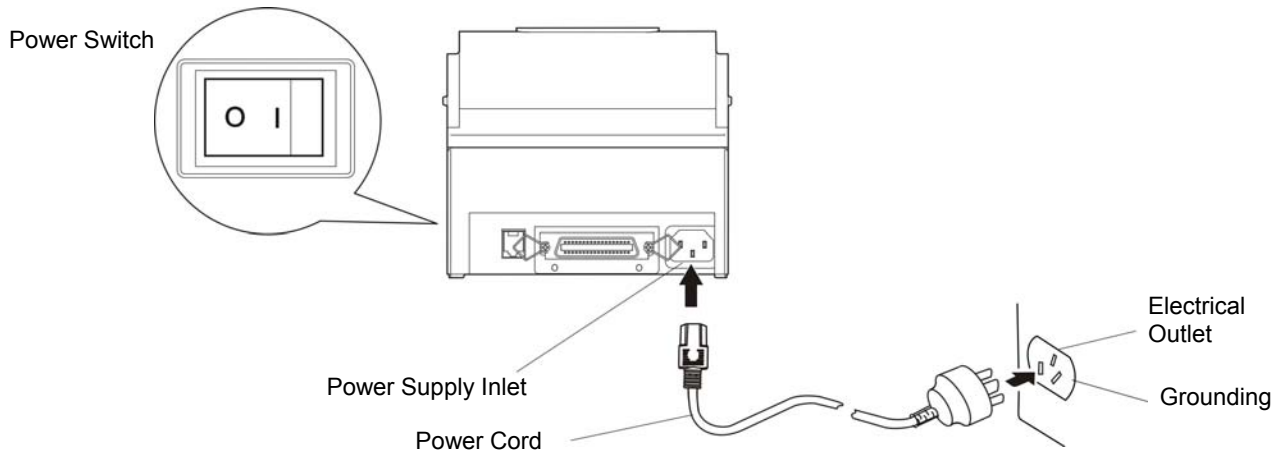


Figure 2-7 Connecting the power cord

Warning: 1. If the rated voltage and your outlet voltage do not match, do not plug the power cord to electrical outlet, and contact your dealer for assistance.
2. Please use the electrical outlet connecting the ground properly.

2.5 Installing the Ribbon Cartridge

1. Make sure the printer is turned off.

Note: Don't replace the ribbon cartridge when the power is on, or else, the printer may start to work suddenly and you may get hurt.

2. Pull the projections on both sides of the front cover upwards to open the front cover.
3. Take out the ribbon cartridge, and then turn the ribbon knob in the direction shown by the arrow to tighten the ribbon.
4. As Figure 2-8 shows, place the ribbon cartridge into the printer and make the printer oblique backwards slightly. Push the ribbon cartridge down until the ribbon core is locked in place.
5. Turn the ribbon knob in the direction shown by the arrow again to tighten the ribbon.
6. Close the front cover and the installation is finished.

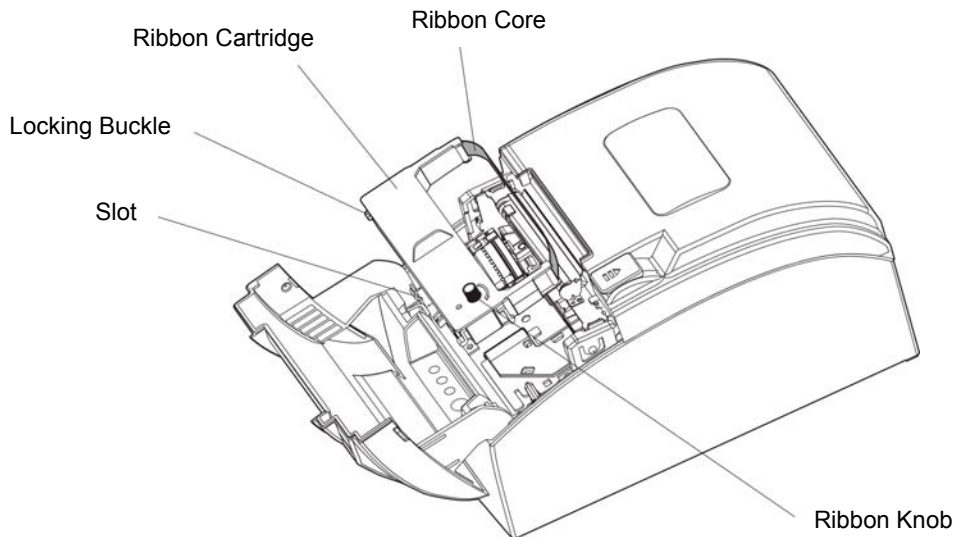


Figure 2-8 Installing the ribbon cartridge

Caution: Don't move the print head when the printer is powered on, or else, it may damage the printer. Moreover, don't touch the print head if the printer has just been used as the print head may be hot.

- Note:**
1. When your print becomes faint, you need to replace the ribbon cartridge. Otherwise, the print quality will be affected and the print head may be damaged.
 2. To remove the old ribbon cartridge, firstly, make sure the power is turned off, then hold the bottom part of the ribbon cartridge with your middle finger, make the buckle separate from the slot, and then take out the ribbon cartridge. Install a new one as the above steps.
 3. Please use the original ribbon cartridge only. Manufacturer will not honor warranty when using unauthorized ribbon cartridge.
 4. Please turn the ribbon knob according to the arrow direction.

2.6 Installing the Driver

Please use the cable to connect computer with printer, then turn on the computer and the printer, put the driver CD into the CD-ROM. Install driver by the following ways:

2.6.1 Auto-installing Way (Recommended)

Double click the file "Setup.exe" in the driver disc, install driver by the prompt.

Note: Auto-install way needs the operating system of Windows 2000 or above and the operating system of Window 98/ME or below is not supported.

2.6.2 Hand-operated Installing Way

Note: This installing way is used for people who have some knowledge on hand-operated installing and equipment application.

2.6.2.1 The Operating Systems of Windows 2000/XP/Vista/Win7

(1) The hand-operated installing steps of parallel interface cable or serial interface cable:

In the following, Windows XP is taken as an example to show the installing steps. There are slight differences among different operating systems. The installing way with other operating systems depends on the practical installing process.

1. Click "Start" → "Settings" → "Select Printers".
2. Click "Add Printer", then a window of "Add Printer Wizard" pops up, click "Next", then please read the select guide carefully, for example: select "Local Printer" in the "Local or Network Printer" window, then click "Next".
3. A window of "Select a Printer Port" pops up, according to your requirement, select "LPT1: (Recommended Printer Port)", click "Next".
4. A window of "Install Printer Software" pops up, click "Have Disk...".
5. A window of "Install From Disk" pops up. Please according to the operating system environment, you should select the path as follows: CD-ROM → "Drivers" → "WIN2000 (XP-Vista-Win7)", click "Open", then click "OK" to return to the window of "Install Printer Software", click "Next".
6. Follow the guide and click "Next" gradually until the installation is finished.
7. After installing the driver, click "Start" --- "Settings" --- "Printers", select "Jolimark TP610" or "Jolimark TP610C" printer in the product model list, right click it and select properties, then click "Advanced", cancel "Enable advanced printing features", at last, click "OK".

(2) The hand-operated installing steps of USB interface cable:

In the following, Windows XP is taken as an example to show the installing steps. There are slight differences among different operating systems. The installing way with other operating systems depends on the practical installing process.

1. Connect with the USB cable and turn on both the computer and the printer. After the computer finds out new hardware, and a window of "Found New Hardware" pops up — "Welcome to the new hardware wizard".
2. Select the "Set from the list or specific position", then click "Next".
3. A window of "Please choose your search and installation options" pops up, choose "Don't search, I will choose the driver to install", click "Next".
4. A window of "Add Printer Wizard" pops up, click "Have Disk...".
5. A window of "Install From Disk" pops up. Please according to the operating system environment, you should select the path as follows: CD-ROM → "Drivers" → "WIN2000 (XP-Vista-Win7)", click "Open", then click "OK" to return to the window of "Add Printer Wizard", click "Next".
6. Follow the guide and click "Next" gradually until the installation is finished.

2.6.2.2 The Operating System of Windows 8/Windows 10

The hand-operated installing steps of parallel interface, serial interface or USB interface cable:

1. Enter "Control Panel" → "Device and Printers".
2. Click "Add Printer", then a window of "Add Printer" pops up, select "Add Local Printer Manually" in the "Local or Network Printer" window.
3. A window of "Select a Printer Port" pops up, according to your requirement, click "Use the Current Port", select "LPT1: (Printer Port)", "serial interface" or "USB interface", click "Next".
4. A window of "Install Printer Driver" pops up, click "Have Disk...".
5. A window of "Install From Disk" pops up. Please according to the operating system environment, you should select the path as follows: CD-ROM → "Drivers" → "WIN8(WIN10)", click "Open", then click "OK" to return to the window of "Install Printer Driver", click "Next".
6. Follow the guide and click "Next" gradually until the installation is finished.
7. After installing the driver, click "Start" --- "Settings" --- "Printers", select "Jolimark TP610" or "Jolimark

TP610C" printer in the product model list, right click it and select properties, then click "Advanced", cancel "Enable advanced printing features", at last, click "OK".

2.6.2.3 The Operating System of Windows 98

(1) The installing steps of a parallel interface cable or a serial interface cable:

1. Click "Start" → "Settings" → "Printers".
2. Double click "Add Printer", then a window of "Add Printer Wizard" pops up, select "Local Printer" in the "Local or Network Printer" window, then click "Next".
3. A window of "Click the manufacturer and model of your printer" pops up, click "Have Disk...", please click "Browse", select the path as follows: CD-ROM → "Drivers" → "WIN98 (WINME)", then click "OK".
4. A window of "Install From Disk" pops up, click "OK", return to a window of "Add Printer Wizard", then click "Next".
5. A window of "Printer Port" pops up, select "Available ports", according to your requirement, select "LPT1: (Recommended Printer Port)" or "serial interface", click "Next", and then the printer's name will be shown. If the system has not installed other printer driver process, the printer is treated as default printer by the application process of Window98 environment, click "Next". Otherwise, according to prompt, choose the printer is default: "Yes", click "Next", choose "Yes-(recommended)", click "Finish". A window of "Printer test page completed" pops up, click "Yes".
6. The printer driver process is installed successfully.

(2) The installing steps with the USB interface cable:

Note: 1. As the system of Windows 98/ME doesn't integrate USB driver control, please install USB driver before using USB interface printing. Then install USB printer driver.

2. If it has installed the USB driver, please install the USB printer driver directly by the following steps.

USB driver installing steps:

1. Connect with the USB interface cable and turn on the printer.
2. After the computer finds out new hardware and finishes searching, a window of "Add New Hardware Wizard" pops up, click "Next".
3. A window of "Add New Hardware Wizard" — "Windows Operation" pops up, choose "Search the best driver for the device (recommended)", and click "Next".
4. A window of "Add New Hardware Wizard" pops up, check "Specify a location (L)", click "Browse", select the path as follows: CD-ROM → "Drivers" → "WIN98 (WINME)" → "USBdriver", then click "OK".
5. Return to the window of "Add New Hardware Wizard", click "Next"; a window of "Windows driver file search for the device" pops up, click "Next".
6. After the system finishing installing the file automatically, a window of "Jolimark USB Printer Supported" pops up, click "Finish".
7. The printer USB driver process is installed successfully.

USB printer driver installing steps:

1. Click "Start" → "Settings" → "Printers".
2. Double click "Add Printer", then a window of "Add Printer Wizard" pops up, click "Next".
3. A window of "Click the manufacturer and model of your printer" pops up, click "Have Disk...", please click "Browse", select the path as follows: CD-ROM → "Drivers" → "WIN98 (WINME)", and then click "OK".

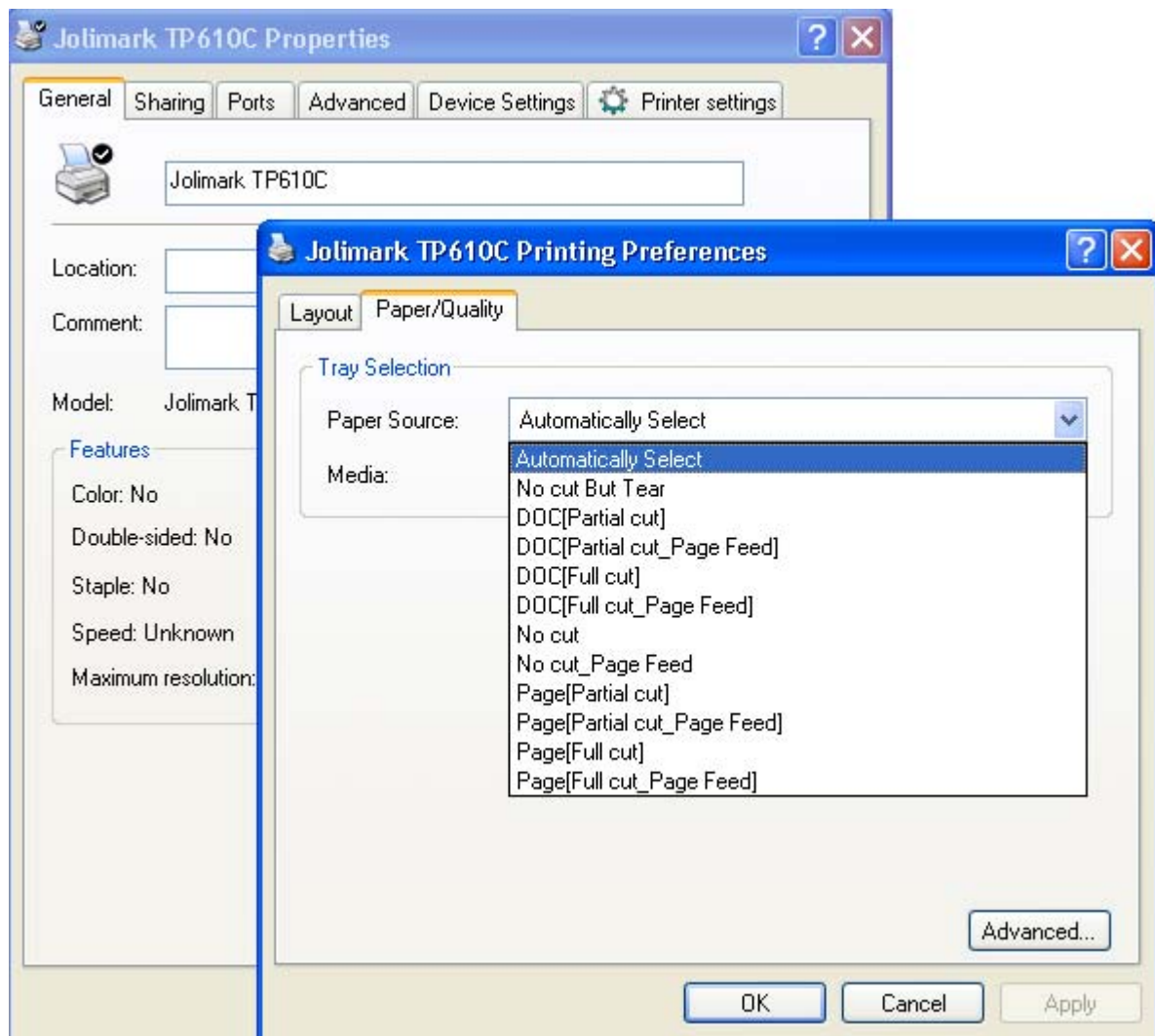
4. A window of "Install From Disk" pops up, click "OK", return to the window of "Add Printer Wizard", then click "Next".
5. A window of "Printer Port" pops up, select "Available ports", select "JMUSB", click "Next", and then the printer's name will be shown. If the system has not installed other printer driver process, the printer is treated as default printer by the application process of Window98 environment, click "Next". Otherwise, according to prompt, choose the printer is default: "Yes"; click "Next", choose "Yes-(recommended)", click "Finish". A window of "Printer test page completed" pops up, click "Yes".
6. The printer driver process is installed successfully.

2.7 Selecting the Cutter

Please install the driver following the setup description in the Driver CD. What's more, you can use the TM-T88II, TM-T88III series driver of EPSON.

If you want to cut the paper after printing each page, please select "cut" or "not cut" in the "Paper Source" of "Paper/Quality" page after clicking the "Printing Preferences" button, which lies in the "General" page of the driver properties (as shown below).

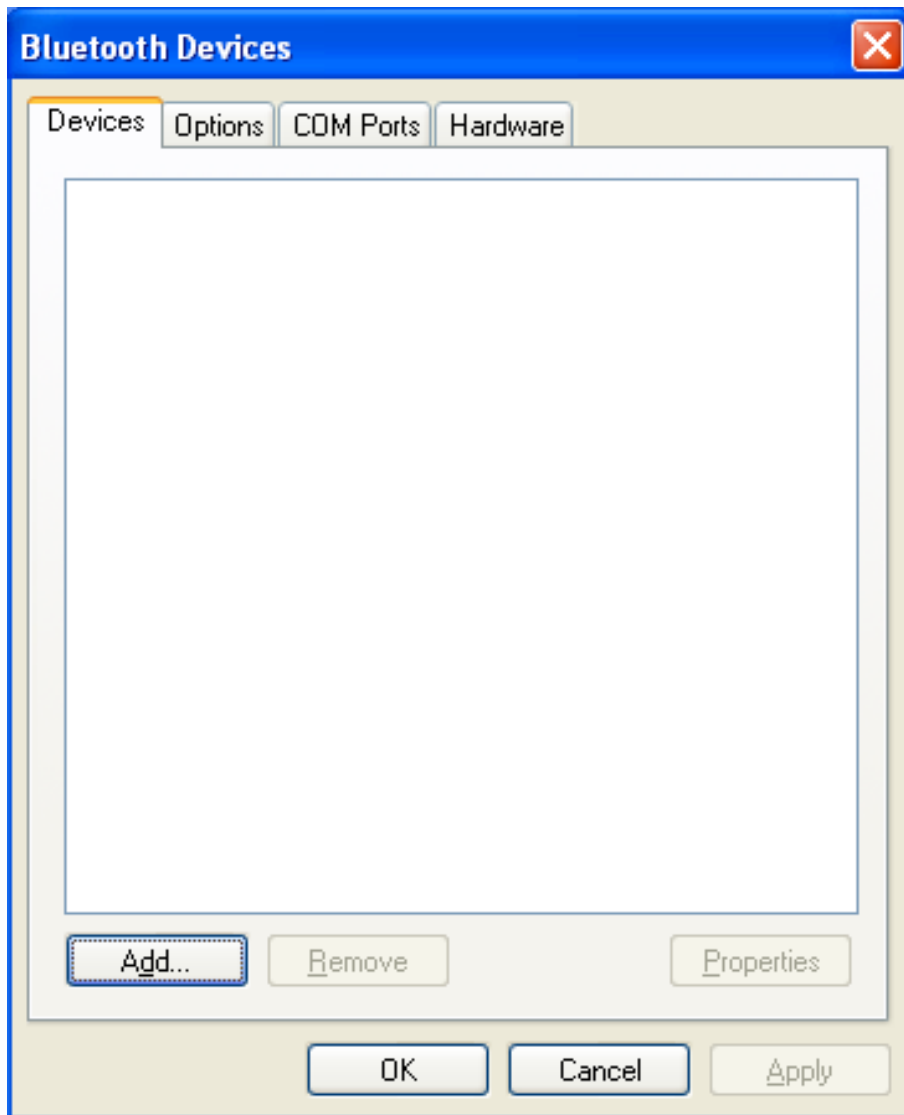
Note: if paper cut effect is the same whichever you select "full cut" or "partial cut" in the driver properties, it means that the cutter (the printer equipped with) can only carry out one kind of cut-methods.



2.8 Installing Bluetooth Interface Driver

Note: Select to install this driver according to the chosen model.

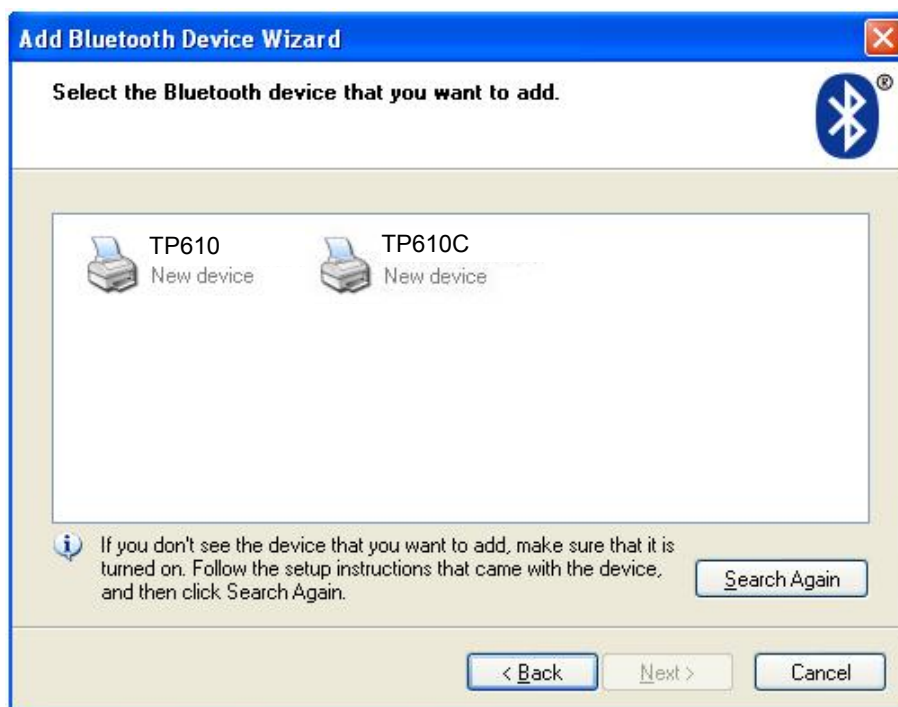
1. Choose the appropriate Bluetooth adapter, the operation system is Window XP or above which is with Bluetooth adapter driver.
2. Turn on the printer, search Bluetooth device in Window XP system, and click “Add”.



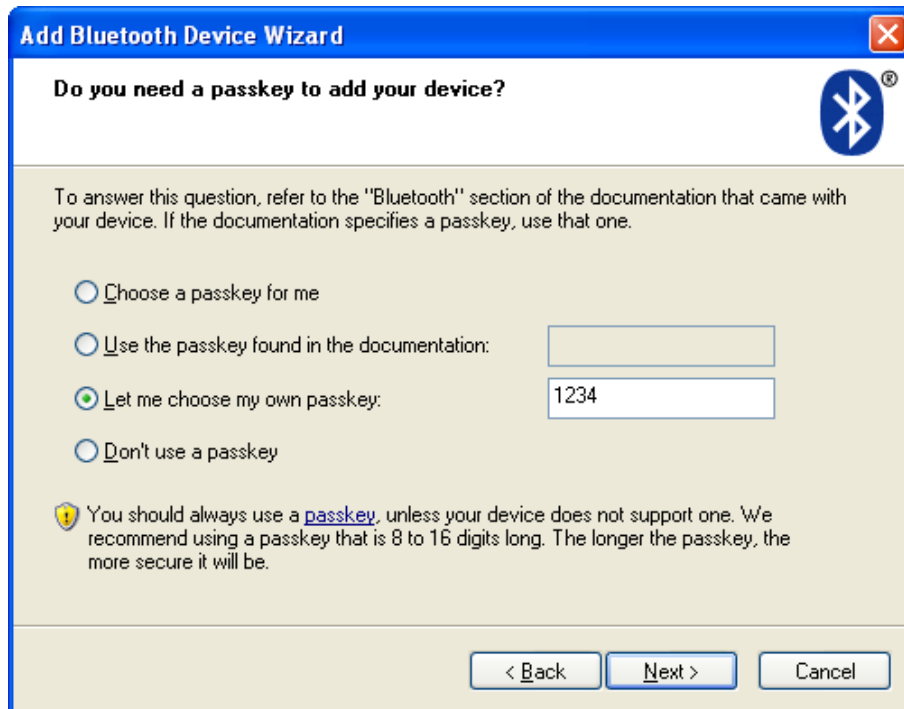
3. Tick off the option of “My device is set up and ready to be found.” Click “Next” to continue.



4. Select the “TP610” or “TP610C”, and then click “Next”.



5. Tick off the option of “Let me choose my own passkey” and enter “1234” as shown, then click “Next”.



6. Record the Outgoing COM port and click “Finish”, then reboot the computer.



7. Set the printer driver print port as the outgoing port and the installation is finished.

Note: Every Bluetooth device has its own address. Please reinstall it when replacing the Bluetooth device.

2.9 Network Settings

Please use Jolimark network setting software NetFinder to set the IP address for Jolimark Ethernet interface network printers, which can be found in the CD or downloaded from www.jolimark.com.

Note: The network printing function needs the operation system of Windows2000 or above and the operation system of Windows98/ME or below is not supported.

2.9.1 Connecting the Printer

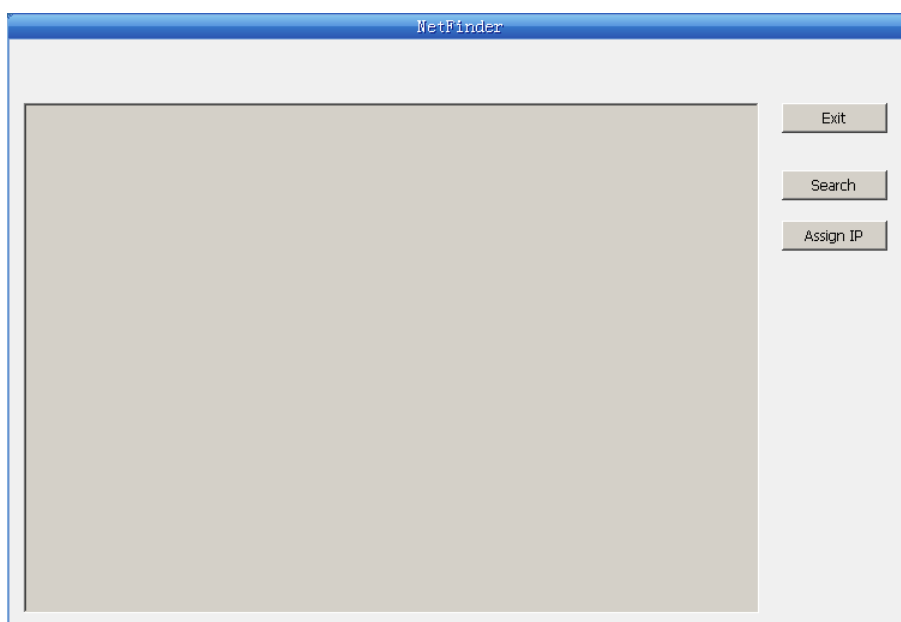
Power on the printer, connect with the Ethernet cable which has been connected to LAN, and look into the information of Ethernet LED indicator to ensure the printer has entered into the normal connection.

Orange LED	Green LED	Description
ON	Blink	Connecting to network
OFF	OFF	Not connecting to network

2.9.2 Setting IP Address

1. Run NetFinder software

Double click NetFinder.exe in the PC which connects the printer in the same LAN. The figure of the software is shown as follows:



Button description:

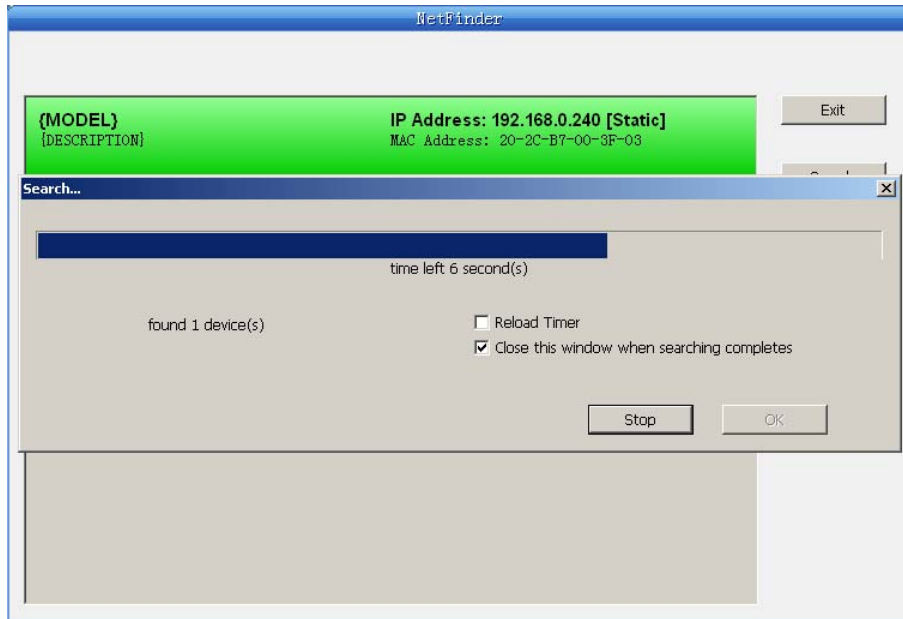
Exit — Exit from the software

Search — Search printers in the same LAN

Assign IP — Modify the IP address and other settings for the specified printer.

2. Search printer

Click "Search" button in the main interface, the dialog box appearing will begin searching automatically and displays the status, listing a printer in the main interface if found. The time is counting down in the progress bar (10s in total) and the search will finish as soon as the time is over. If you need to go on searching, press "Search" button again.

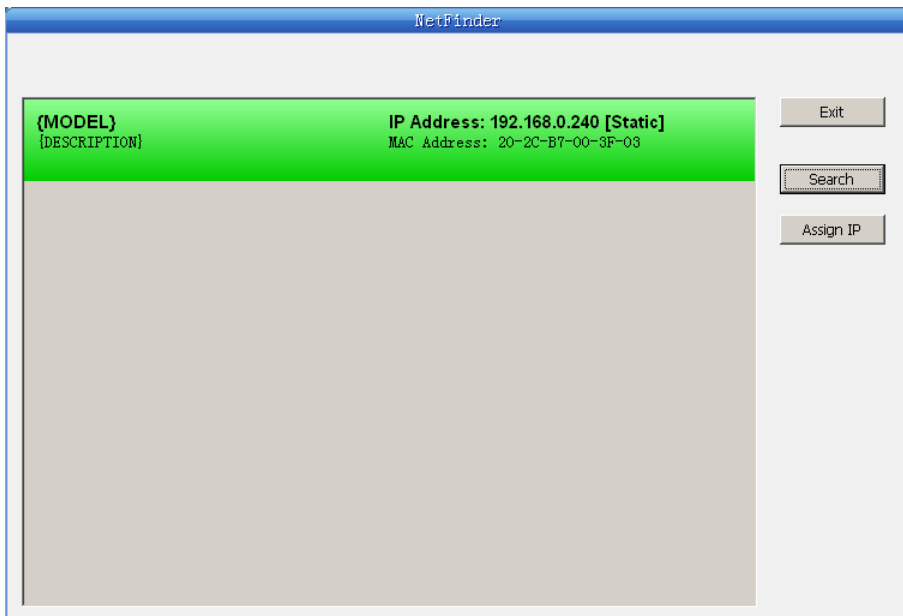


If the printer connects correctly, the IP address can be found in a search period.

If the printer still can not be found out when the network connection is correct in the same network, Please check whether the network fire wall on the PC is open or not. If there is fire wall, please close it temporarily, open again after finishing searching and setting a printer completely.

3. Setting printer's IP address

The printer's information is listed in the main interface, the left side of which is the model and description and the right is the IP and MAC address. What's more, the assign mode (dynamic/static) is noted behind the IP address.



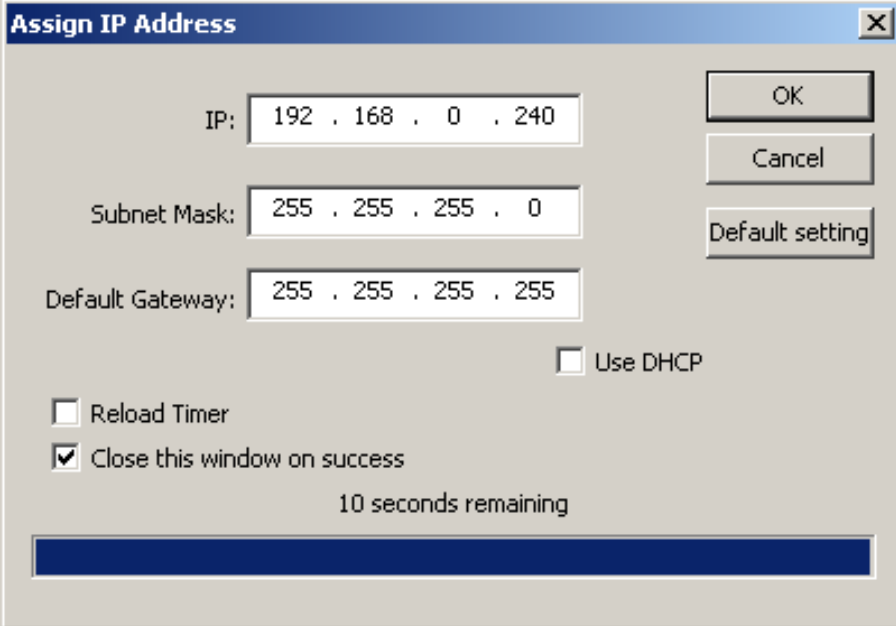
1) Correlative description for IP address settings

In order to search and set printer's IP address conveniently for the first time, the factory default setting is DHCP mode which assigns IP address dynamically. If there is no DHCP server in the connected LAN but printer is set to DHCP mode, then it will use the internal pre-set address (IP: 10.0.0.1, Subnet Mask: 255.255.255.0) automatically.

It is suggested that printer's IP is set to static in actual usage, which can cut down the time when initializing the Ethernet interface as the printer is turned on and prevent IP conflicts (The dynamic address used in printer may conflict with another one). The network segment part of the IP address and Subnet Mask must be the same as those of PC connecting with a printer. For example, the address of working PC is 192.168.0.1/255.255.255.0 (IP/Subnet Mask), then which of printer should be set to 192.168.0.x/255.255.255.0 (x=2~254 and should avoid the occupied IP). It is not restricted for NetFinder to search printers in the same network but different segment parts (can not stride gateway). Please refer to corresponding information for relative glossary of IP address.

2) Setting printer's IP address

Select the printer information whose address would be modified (black frame appears), click "Assign IP" button. Set the IP in the dialogue box appearing.



The image shows a dialog box titled "Assign IP Address". It contains three input fields for IP configuration: "IP:" with the value "192 . 168 . 0 . 240", "Subnet Mask:" with "255 . 255 . 255 . 0", and "Default Gateway:" with "255 . 255 . 255 . 255". To the right of these fields are three buttons: "OK", "Cancel", and "Default setting". Below the input fields, there are three checkboxes: "Use DHCP" (unchecked), "Reload Timer" (unchecked), and "Close this window on success" (checked). At the bottom, a progress bar is shown with the text "10 seconds remaining".

Check the "Use DHCP" if you need to assign dynamic address, the settings above will be disabled automatically. Please make sure there is a DHCP server in the network, or the printer can not receive an effective IP address.

When to specify static address, uncheck "Use DHCP" and fill in "IP address", "Subnet Mask" and "Default Gateway". If there is no gateway in the network, fill 255.255.255.255 in the "Default gateway". "IP address" and "Subnet Mask" should obey the assigning rules of local LAN (Ethernet), please enquire the administrator of networks which the printer connects to for more details.

Click "OK" to send address setting information to the specified printer. Click "Cancel" if you abandon the modification.

Click "Search" in the main interface again to update printer information after modifying the printer's IP address and restarting the printer.

3) Record printer's IP address

Record the printer's IP address, which will be used in the section "Newly-install printer network driver" or "Upgrade-install printer network driver (setting driver's network port)".

2.10 Wi-Fi Setting of Jolimark Printer

2.10.1 Connecting the Printer

TP830 is taken as an example to respectively describe the connection of Windows, Android and iOS operation systems. Please make the connection according to the operating guide of the current system, and skip to the next chapter "**Wi-Fi Parameters Description**" when the connection is successfully.

(1) Connecting to the equipment in Windows

Take Windows XP operating system as an example to show how to connect the printer with the equipment in Windows system.

1. Turn on the printer and make sure the printer is in normal working condition. Start the operation 30 seconds after the printer is on.
2. Right click "My Network Places", and then click "Properties" to find the "Local Area Connection 2". Double click it and the window of "Wireless Network Connection" pops up, select and double click the corresponding printer Wi-Fi name. The printer Wi-Fi default name is composed of "the printer model+6 numbers and letters" (as shown in Figure 1)

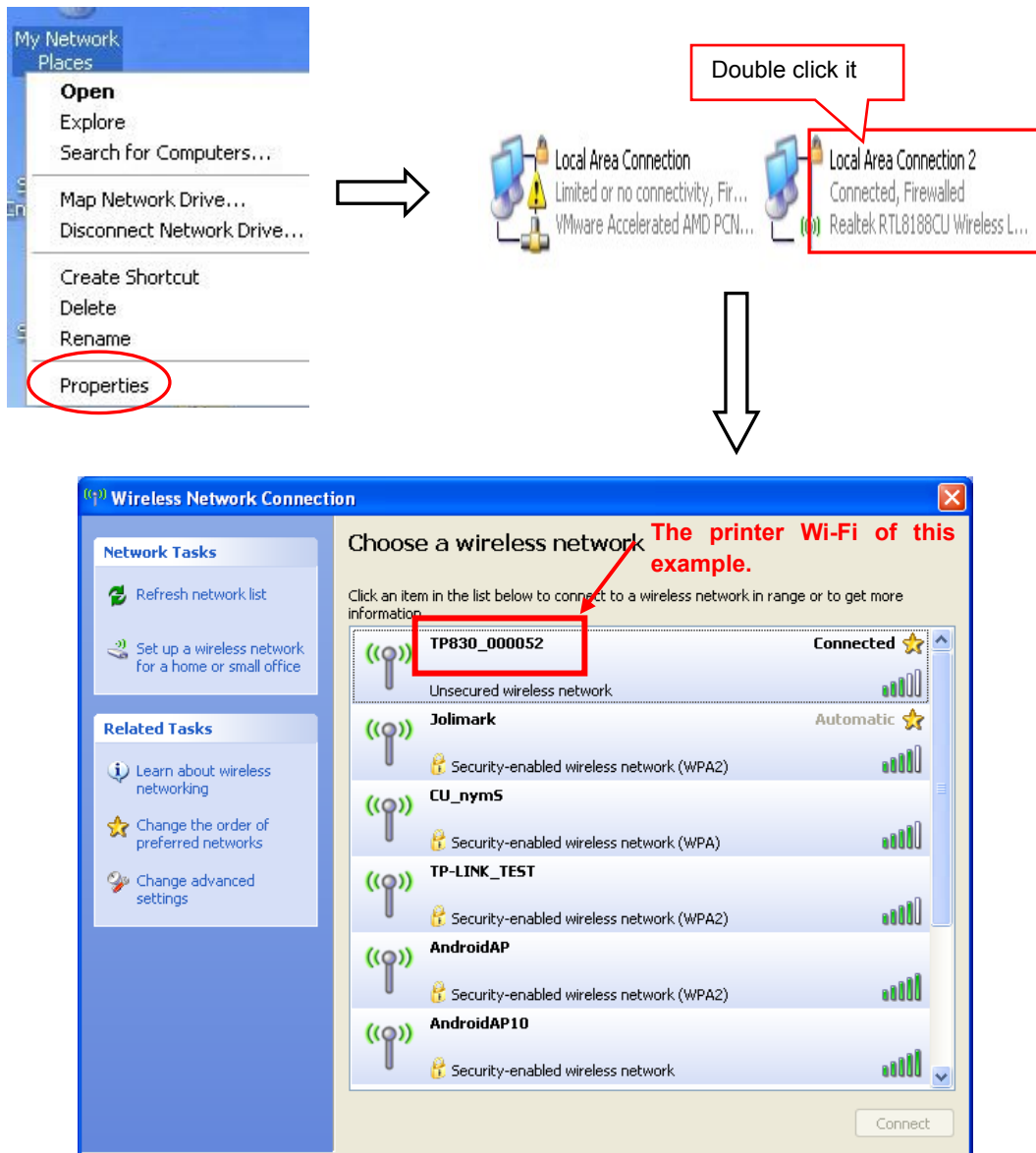


Figure 1

(2) Connecting to the equipment in Android

Take the mobile phone of Android 4.4 as an example to show how to connect the printer with the equipment in Android.

1. Turn on the printer and make sure the printer is in normal working condition. Start the operation 30 seconds after the printer is on.
2. Click "Settings" and the interface pops up. Select the "WLAN" function to "ON", then click the printer Wi-Fi searched by the mobile phone to connect. The printer Wi-Fi default name is composed of "the printer model+6 numbers and letters" (as shown in Figure 2).

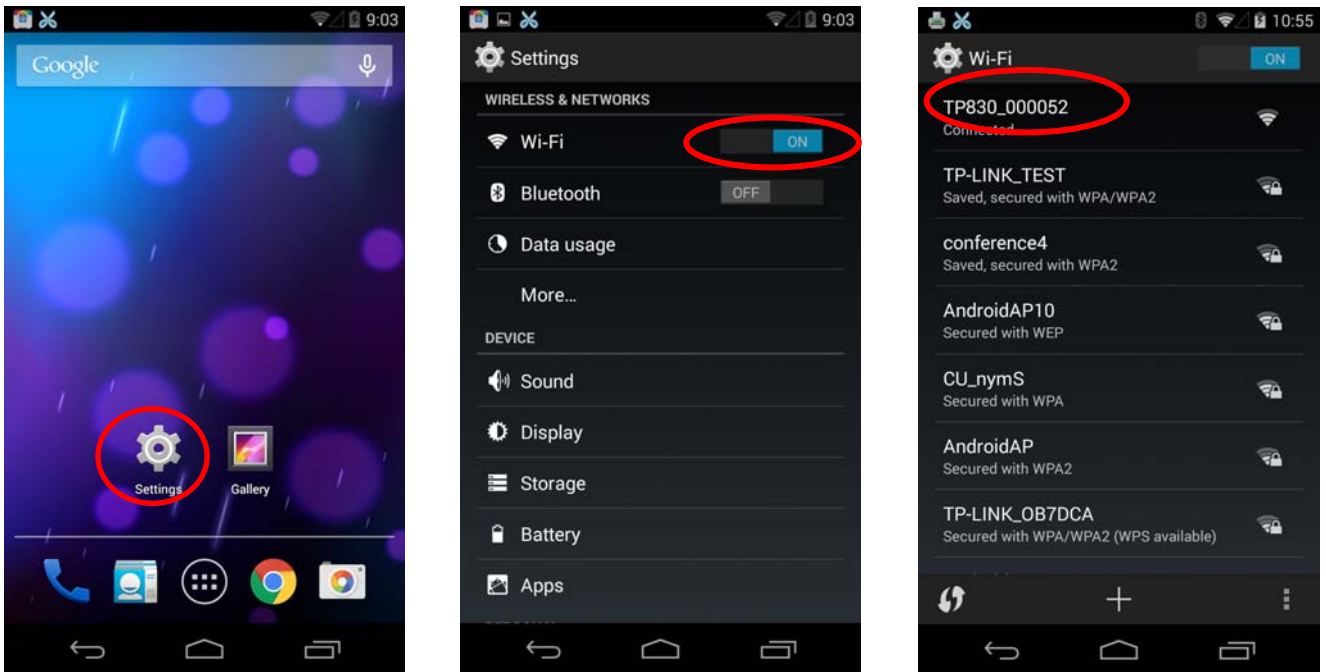


Figure 2

(3) Connecting to the equipment in iOS

Take the mobile phone of iOS 8.1 as an example to show how to connect the printer with the equipment in iOS.

1. Turn on the printer; make sure the printer is in normal working condition. Start the operation 30 seconds after the printer is on.
2. Click "Settings" and the interface pops up. Select the "WLAN" function to "ON", then click the printer Wi-Fi searched by the mobile phone to connect. The printer Wi-Fi default name is composed of "the printer model+6 numbers and letters" (as shown in Figure 3).



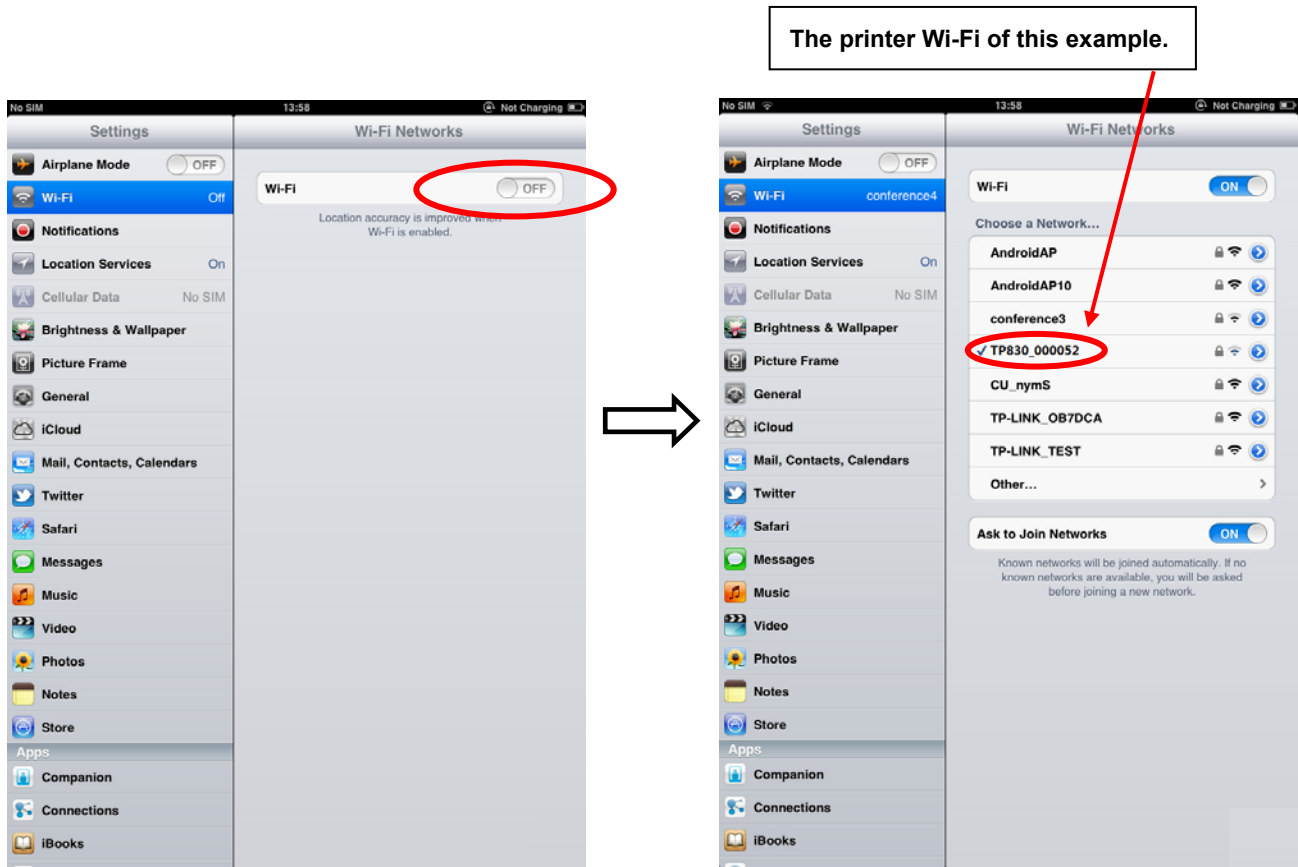


Figure 3

2.10.2 Wi-Fi Parameters Description

After connecting the equipment with the printer through wireless network, please import <http://10.10.10.1> in the browser address bar and enter, then the setting interface pops up. The display style of setting interface may differ in different systems, but the parameter items are the same. Take Windows XP as an example in the following, as shown in Figure 4.

The screenshot displays the configuration interface for the TP610/610C device. At the top, there is a header bar with a menu icon. Below it, the 'F/W Version' is 1.0.306, dated Dec 5 2014. The 'Select Language' dropdown is set to 'English', and an 'Apply' button is visible. The 'Wireless Settings' section includes fields for BSSID (CC:D2:9B:00:00:52), Network Name (SSID) (TP830_000052), IP Address (10.10.10.1), Subnet Mask (255.255.255.0), and Security Mode (Disable). The 'AP Client' section includes fields for BSSID (CC:D2:9B:00:00:53), Channel (Auto), SSID (empty), Security Mode (OPEN), Encrypt Type (None), and Address Assignment (DHCP (Auto config)).

F/W Version	
F/W Version	1.0.306 Dec 5 2014

Select Language	
Select Language	English

Apply

Wireless Settings

BSSID	CC:D2:9B:00:00:52
Network Name(SSID)	TP830_000052
IP Address	10.10.10.1
Subnet Mask	255.255.255.0
Security Mode	Disable

AP Client

BSSID	CC:D2:9B:00:00:53
Channel	Auto
SSID	
Security Mode	OPEN
Encrypt Type	None
Address Assignment	DHCP (Auto config)

Figure 4

You can select Simple Chinese, Traditional Chinese and English in the “Select Language” and the default language is English. When you need to change the language, just select the language you need in the “Select Language” and then click “Apply” (as shown in Figure 5).

The screenshot shows the 'Select Language' dropdown menu open, displaying three options: '简体中文 (Simple Chinese)', 'English', and '繁體中文 (Traditional Chinese)'. The '简体中文 (Simple Chinese)' option is highlighted. Below the dropdown, the 'Apply' button is circled in red.

F/W Version	
F/W Version	1.0.306 Dec 5 2014

Select Language	
Select Language	简体中文 (Simple Chinese)

Apply

Figure 5

(1) Printer-equipment connected printing

Printer-equipment connected printing is a way of printing which uses printer as the hotspot and connects the wireless equipment for printing.

“Wireless Settings” is the relevant setting parameter when the printer is as the hotspot (as shown in Figure 6). In the printer-equipment connected printing mode, the parameters of the wireless equipment must match that of the printer so as to make the communication successful. Please record the relevant parameters and fill them in the wireless equipment correctly.

After you finish resetting the parameters in the setting column, click “Apply” on the upper side of “Update Firmware”. Then the countdown interface of saving the modification appears and the wireless equipment can conduct communications with the printer as soon as the countdown is over.

Wireless Settings	
BSSID	CC:D2:9B:00:00:52
Network Name(SSID)	TP830_000052
IP Address	10.10.10.1
Subnet Mask	255.255.255.0
Security Mode	Disable
AP Client	
BSSID	CC:D2:9B:00:00:53
Channel	Auto
SSID	
Security Mode	OPEN
Encrypt Type	None
Address Assignment	DHCP (Auto config)
IP Address	
Subnet Mask	
<input type="button" value="Apply"/>	
Update Firmware	
Location:	<input type="text"/> <input type="button" value="Browse..."/>

Figure 6

Description in “Wireless Settings”

BSSID: The address of the printer wireless card in the “Wireless Settings”, which is the MAC address (Valid when it's in printer-equipment connected printing).

Network Name (SSID): The network name of the printer wireless card. You can modify it if necessary, but you have to connect the network again after modifying.

IP Address: The IP address of the printer wireless card. You can modify it if necessary, but you need to enter the browser with the new IP after modifying.

Subnet Mask: The subnet mask of the printer wireless card. You can modify it if necessary.

Security Mode: The security mode of the printer wireless card. You can modify it if necessary.

If the connection between printer and computer is exceptional, please restart the printer or modify "Channel" in "AP Client".

(2) AP connected printing

AP connected printing is a way of printing which connects the printer with the wireless equipment by the outer hotspot.

"AP Client" (as shown in Figure 7) includes the setting parameters of AP connection. Please fill in the information of current outer hotspot in the corresponding place. The parameters of the printer should match that of the current outer hotspot so as to make the communication successful. Please input them correctly.

AP Client	
BSSID	CC:D2:9B:00:00:53
Channel	Auto ▼
SSID	<input type="text"/>
Security Mode	OPEN ▼
Encrypt Type	None ▼
Address Assignment	DHCP (Auto config) ▼
IP Address	<input type="text"/>
Subnet Mask	<input type="text"/>
<input type="button" value="Apply"/>	

Figure 7

Description in "AP Client"

BSSID: The address of the printer wireless card in "AP Client", which is the MAC address. (Valid when it's in AP connected printing)

Channel: Select the corresponding channel according to the hotspot setting (Automatic is recommended).

SSID: The Wi-Fi name of the current hotspot.

Security Mode: Select the corresponding security mode according to the hotspot setting.

Encrypt Type: Select the corresponding encrypt type according to the hotspot setting.

Acquiring and Setting the Security Mode and Encrypt Type

There are three ways to acquire security mode and encrypt type:

- (1) Get the security mode and encrypt type according to the corresponding network information given by the network administrator.
- (2) Find them by entering the router of hotspot with the administrator's account.
- (3) Find them through Windows operating system and the steps are shown below (Take WIN XP as an example):

- ① Right click "My Network Places", and click "Properties", then double click "Local Area

Connection 2" (as shown in Figure 8).

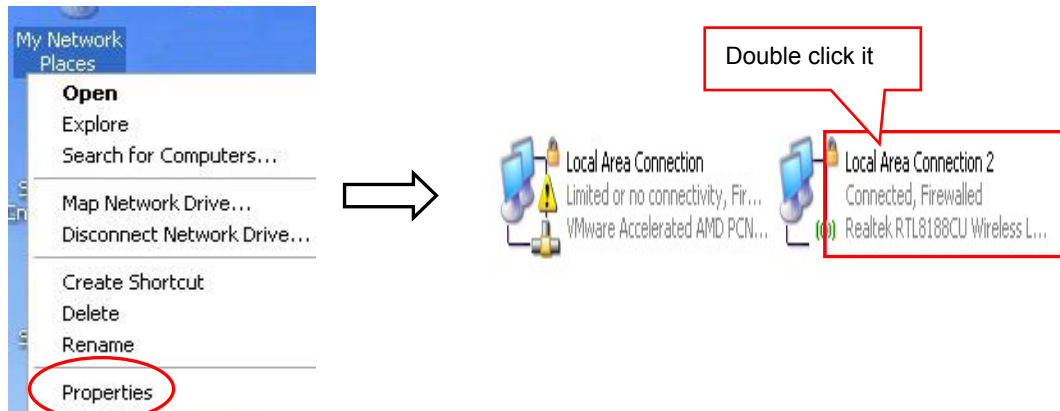


Figure 8

- ② The dialog box "Wireless Network Connection Status" pops up, then click "Properties" (as shown in Figure 9).

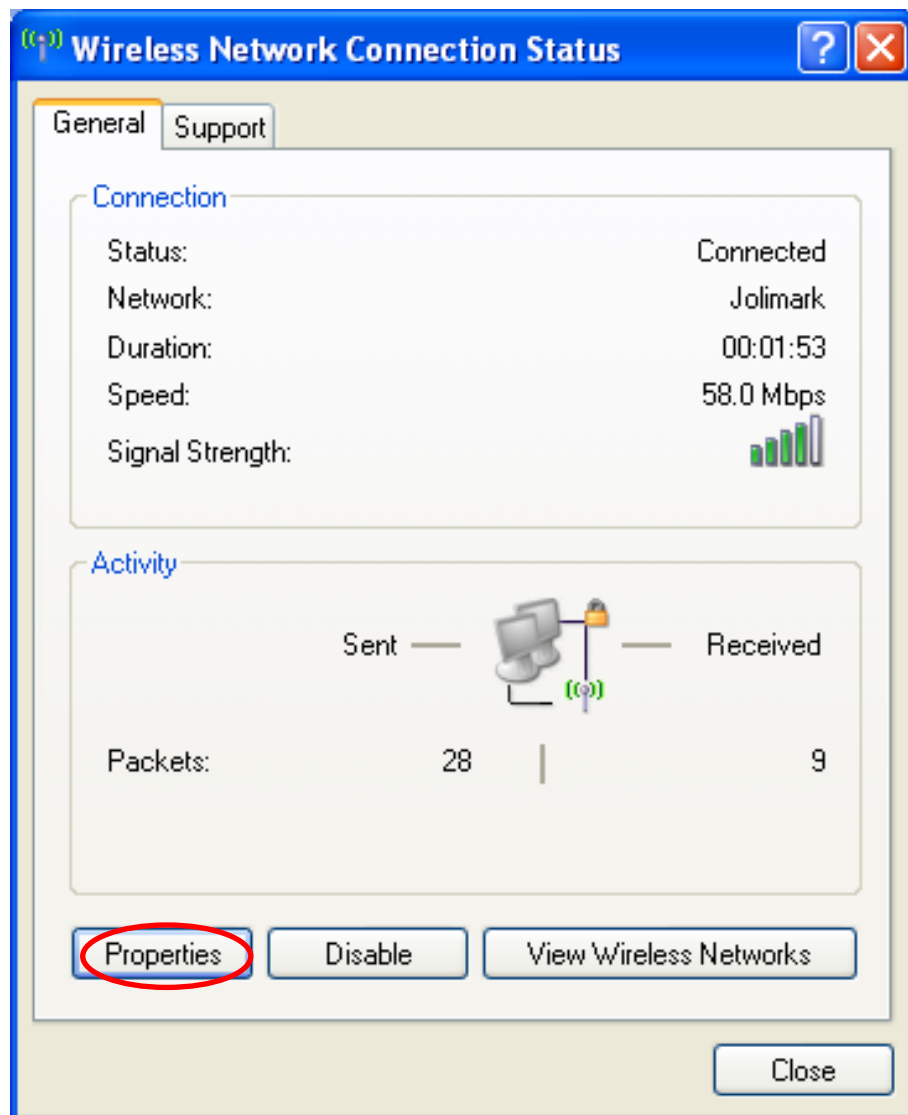


Figure 9

- ③ When the dialog box pops up, click “Wireless Networks” on the upper side of the dialog box (as shown in Figure 10).

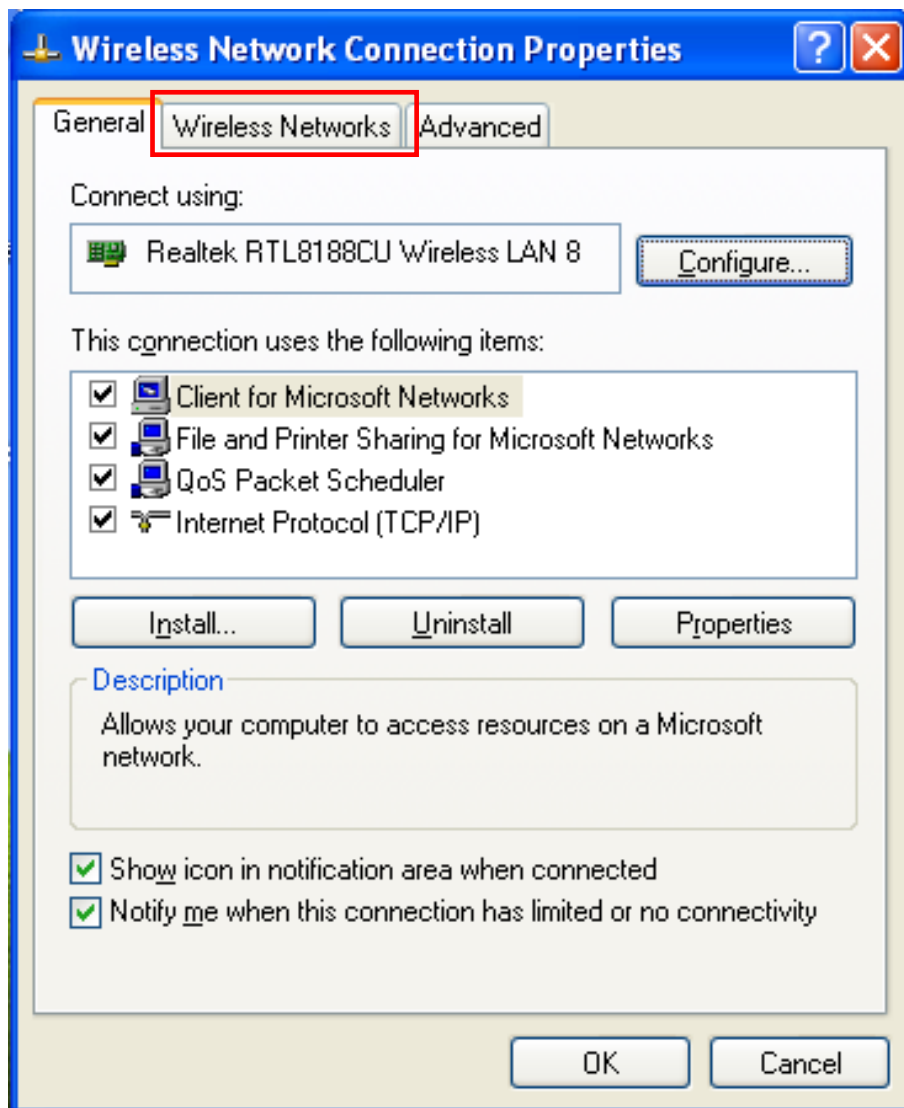


Figure 10

- ④ Select the current wireless network name in “Preferred networks” and then click “Properties” (as shown in Figure 11).

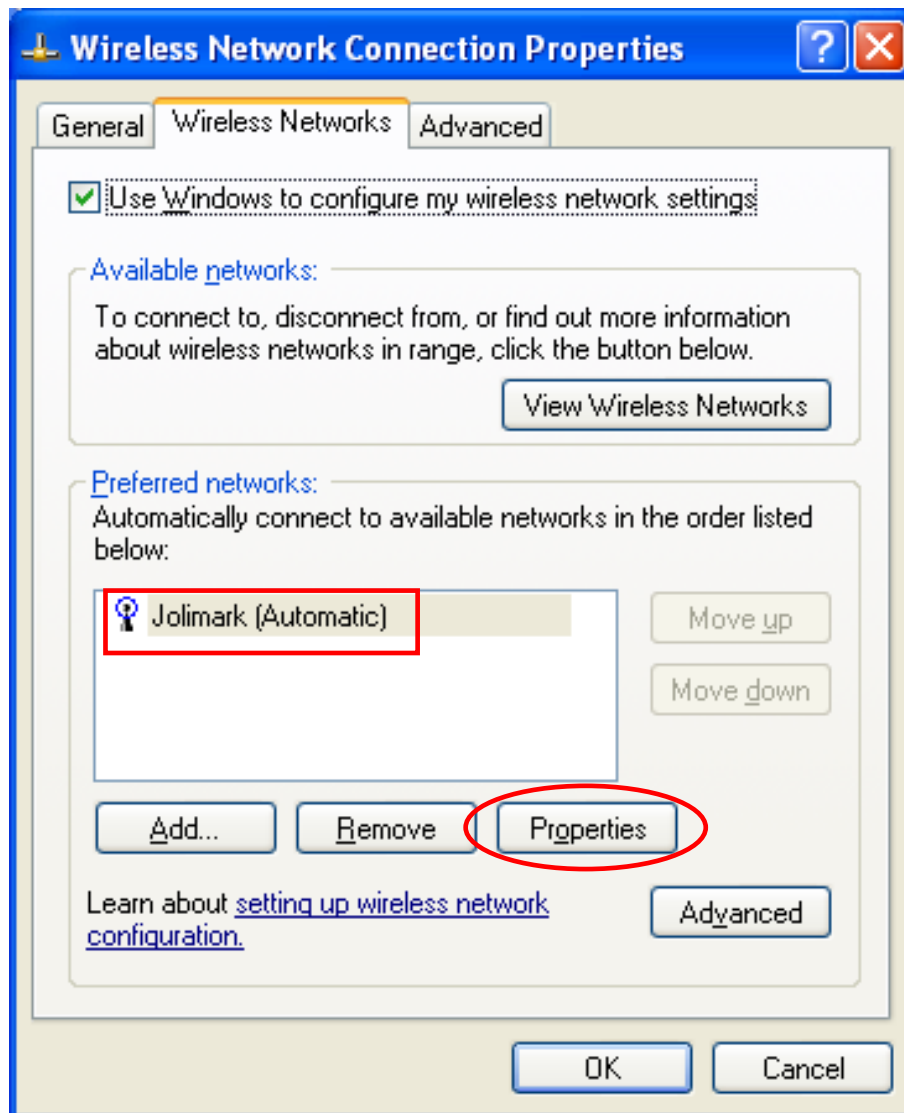


Figure 11

- ⑤ When the window of "Properties" pops up, find out the security mode and encrypt type in "Wireless network key" (as shown in Figure 12).

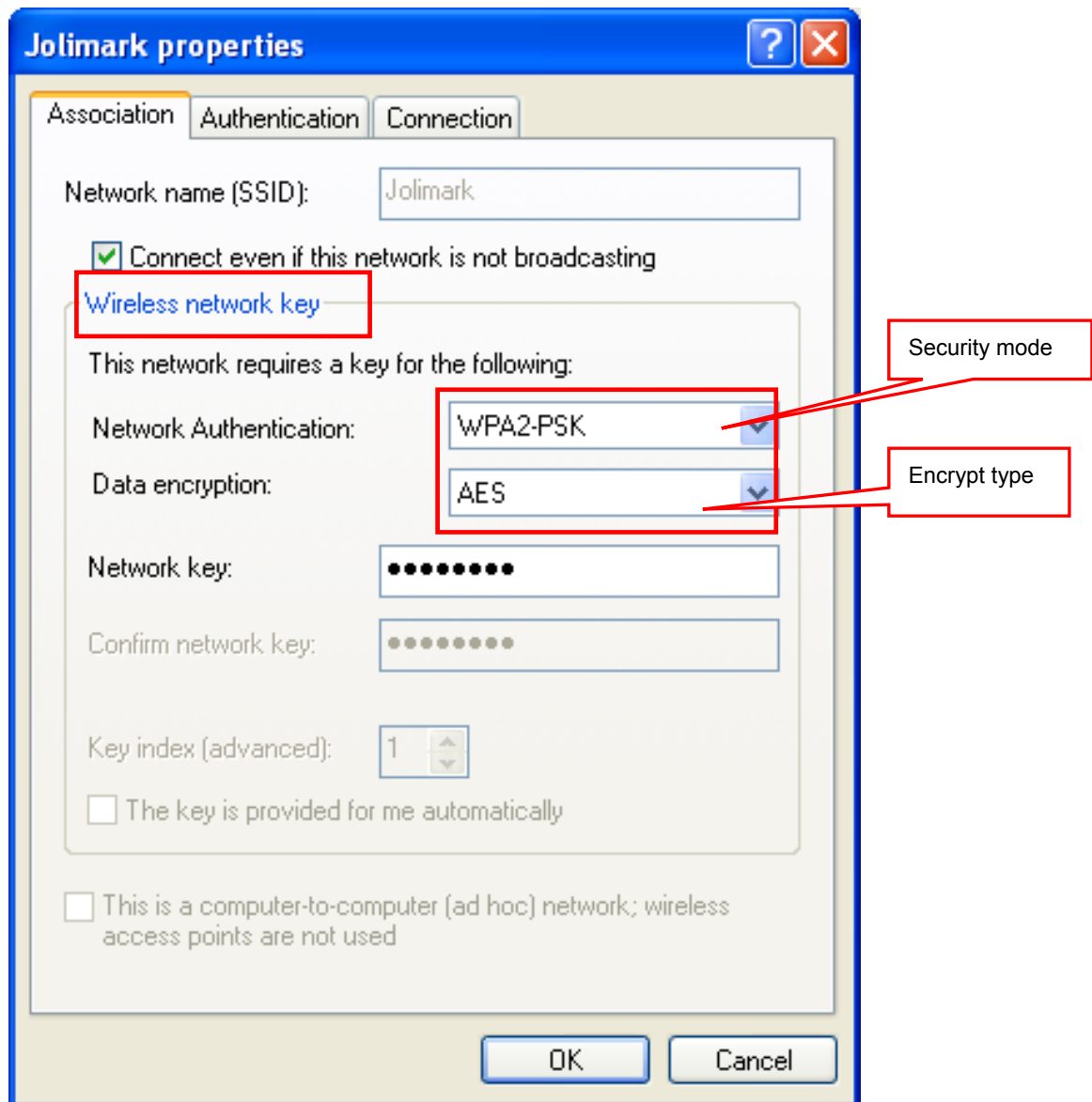


Figure 12

- ⑥ Close the windows in turn, then the dialog box "Local Area Connection 2 Status" pops up according to the operation of step ①, click "View Wireless Networks" (as shown in Figure 13). When the window of "Wireless Network Connection" pops up, double click the current hotspot and the connection will be disconnected (as shown in Figure 14).

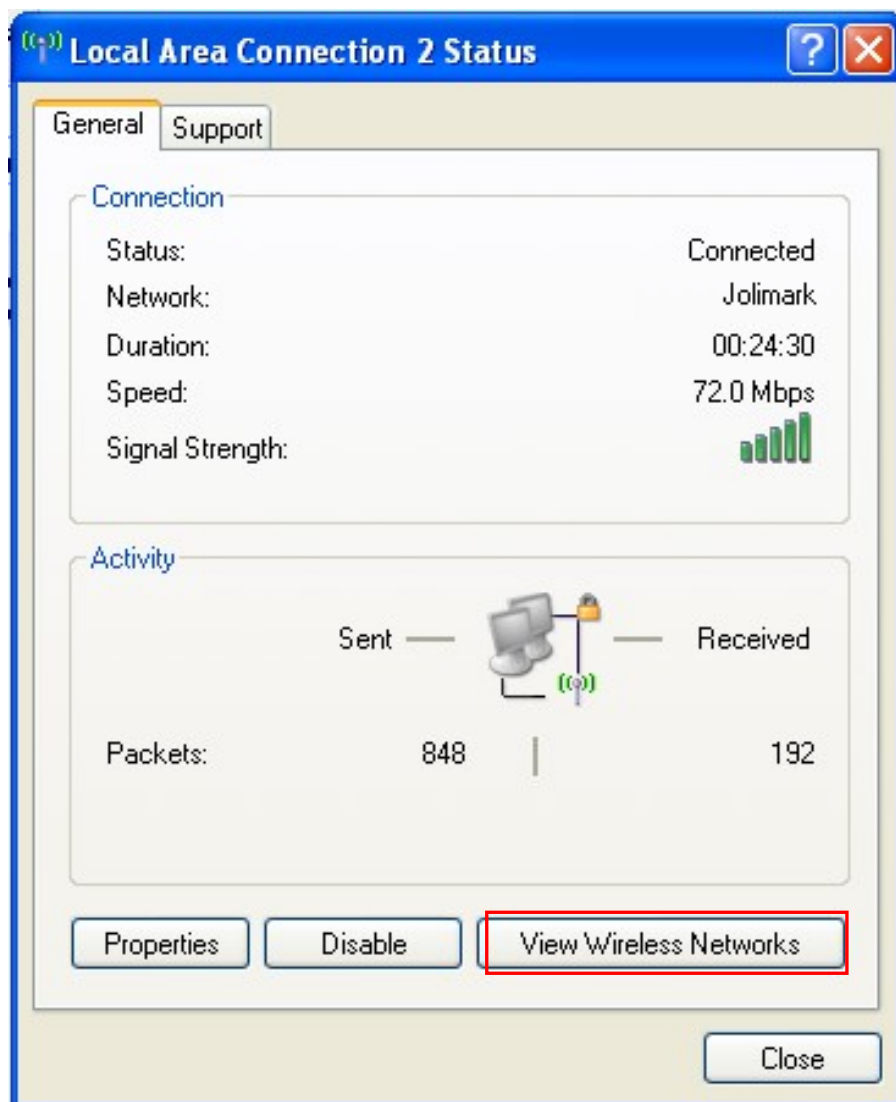


Figure 13

The current Wi-Fi hotspot of this example.

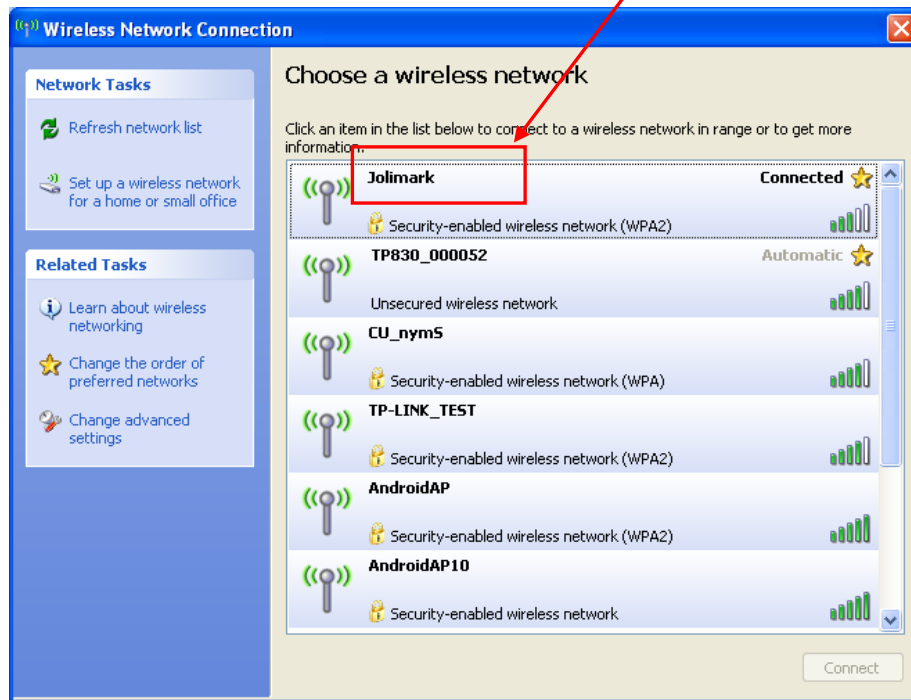


Figure 14

The setting of Security Mode and Encrypt Type

Refer to **“Connecting the Printer”**, connect the wireless equipment with the printer and select the parameters acquired by the above steps in the “Security Mode” and “Encrypt Type” of the **“AP Client”**.

Pass Phrase: The password of the hotspot

Address Assignment: It includes “DHCP (Auto config)” and “Static (Assigned IP)”. You can select the corresponding assignment way according to your need. When selecting “DHCP (Auto config)”, the IP Address and Subnet Mask can be acquired automatically (Click “Apply” and the system will assign automatically), and there is no need to set manually (as shown in Figure 15).


AP Client	
BSSID	CC:D2:9B:00:00:53
Channel	1
SSID	Jolimark 
Security Mode	WPA2PSK
Encrypt Type	AES
Pass Phrase	••••••••
Address Assignment	DHCP (Auto config)
IP Address	192.168.43.129
Subnet Mask	255.255.255.0
<input type="button" value="Apply"/>	

Figure 15

Note: The green handshaking mark on the right side of the SSID column denotes the connection between the printer and the outer Wi-Fi hotspot is successful.

IP Address: Set the IP address of the printer wireless card and the IP address should be in the same segment with the wireless networks you are using.

Subnet mask: Set the subnet mask of the printer wireless card and the subnet mask should be the same with that of the wireless networks you are using.

Click “Apply” after all the parameters are set, then the countdown interface appears. When the time is over, disconnect the computer with the printer and connect the computer with the outer hotspot.

Update Firmware: Upgrade the wireless module of the printer (as shown in Figure 16), and you can ignore it if there is no need to upgrade.

Update Firmware	
Location:	<input type="text"/> <input type="button" value="Browse..."/>
<p style="color: red;">It takes about 1 minute to upload and upgrade flash and be patient please. Caution! A corrupted file will hang up the system.</p>	
<input type="button" value="Apply"/>	

Figure 16

2.10.3 Wi-Fi Interface Status Display and Parameters Reset

Wi-Fi interface is equipped with the “RESET button (Wi-Fi RESET)” and “LED indicator”.

After turning on the printer, the Wi-Fi LED blinks fast, which denotes the interface is in the ON status.

30 seconds later, the Wi-Fi LED blinks slowly, which denotes the Wi-Fi interface is in normal working condition.

If user needs to restore the Wi-Fi parameters to factory default setting; just press the Wi-Fi RESET button to do it in a quick way. The method is as below:

1. Turn on the printer, wait for a few seconds until the Wi-Fi LED blinks slowly, and then press down the Wi-Fi RESET button for 2 seconds. Loosen the button and the LED blinks twice fast then blinks slowly again.
2. Reboot the printer and the factory default settings have been restored.

2.11 Mobile Equipment Wi-Fi Printing Function Application

The Jolimark printer which is equipped with Wi-Fi interface supports the print service of Android system 4.4 or above version and the AirPrint wireless printing function of iPhone iOS system. After the Android mobile equipment has installed the Jolimark print service plug-in, it can directly use the system print service to realize wireless printing; the iPhone iOS equipment does not need to install any plug-in.

Note: 1. Only if wireless printing function is supported by the APP can it be used.

2. The Android system must be 4.4 or above version and should have the complete Android Print function.

TP830 which is equipped with Wi-Fi interface is taken as an example to describe printing application. Network name (SSID) is "TP830", IP Address is 10.10.10.1, Subnet Mask is 255.255.255.0 and Security Mode is "Disable". Turn on the printer and then conduct the subsequent application steps. As shown in Figure 17.



Figure 17

2.11.1 The System Print Service Application of Android Equipment

As the Android system is relatively open, the equipment manufacturers can customize the special interface and function according to their need. The parameter setting way may be different because of the different interfaces.

1. Install the print service

Download the print service installation package AdrPrintSvc.apk from www.jolimark.com. After

running the installation program, the “JM Print Service” will be added in the Android system.

2. Connect Wi-Fi printer

2.1 Enter into the “Settings” of system, as shown in Figure 18.

2.2 Find out the “WIRELESS & NETWORKS” in “Settings” interface, then click “Wi-Fi”, as shown in Figure 19.

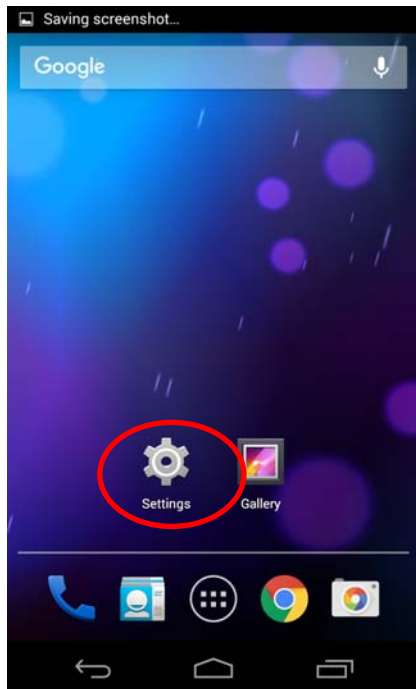


Figure 18

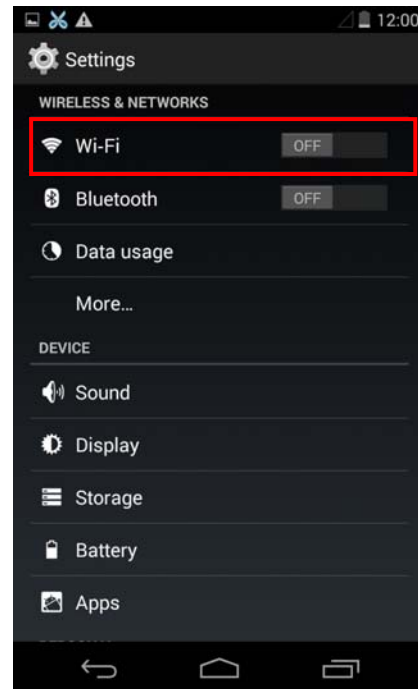


Figure 19

2.3 Select the “Wi-Fi” function to “ON”, and select the “TP830” hotspot, as shown in Figure 20.

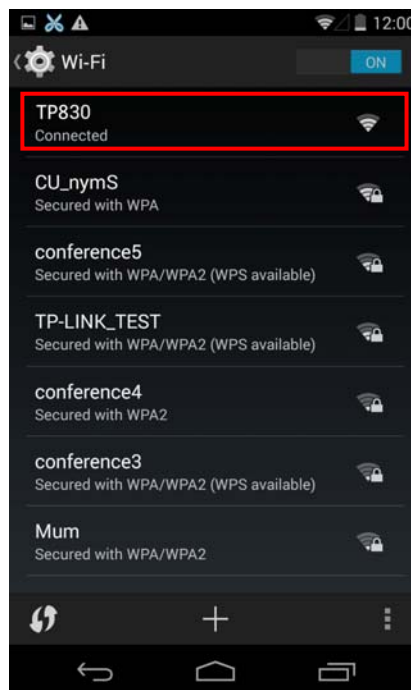


Figure 20

3. Turn on the print service

3.1 Enter into the “Settings” of the system, as shown in Figure 18.

3.2 Find out “Printing” in “Settings” interface and enter into, as shown in Figure 21.

3.3 Find out “JM Print Service” in “Printing” interface and enter into, as shown in Figure 22.

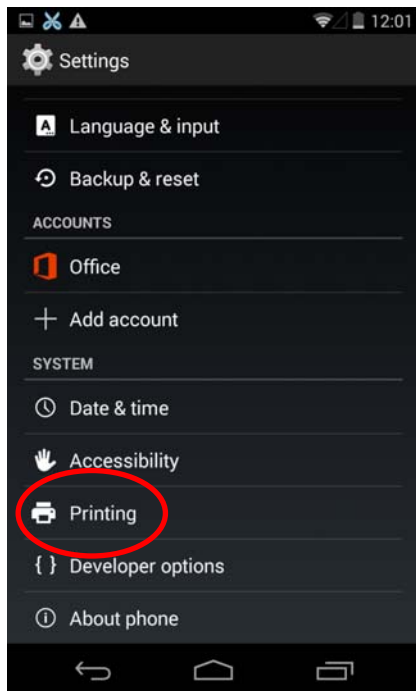


Figure 21

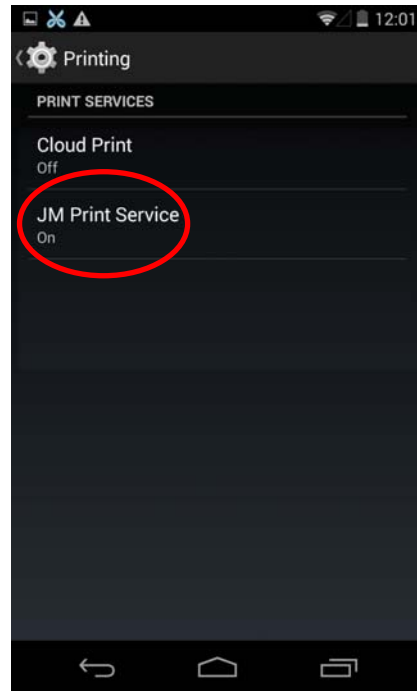


Figure 22

3.4 Switch the “JM Print Service” function from “OFF” to “ON”, as shown in Figure 23.

Note: If there is no function switch in the upper right of “JM Print Service” interface, it means the current system has no complete Android Print function; it does not support the system print service.

3.5 After turning on the “JM Print Service”, it will search automatically and show the printer if found, as shown in Figure 24.

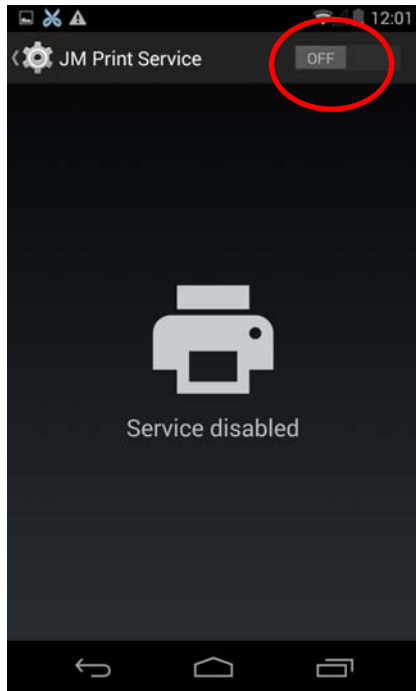


Figure 23

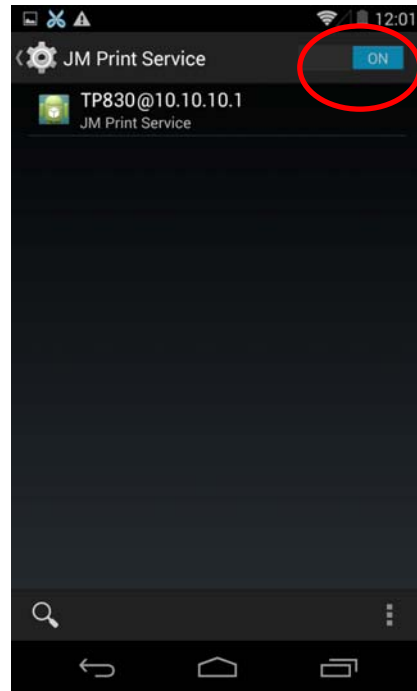


Figure 24

4. Run APP

APP has to support the system's print service, WPS Office is taken as an example to describe.

4.1 Run the APP "WPS Office", as shown in Figure 25.

4.2 Open the document which is to be printed in the software, then click the "Tools" button, as shown in Figure 26.

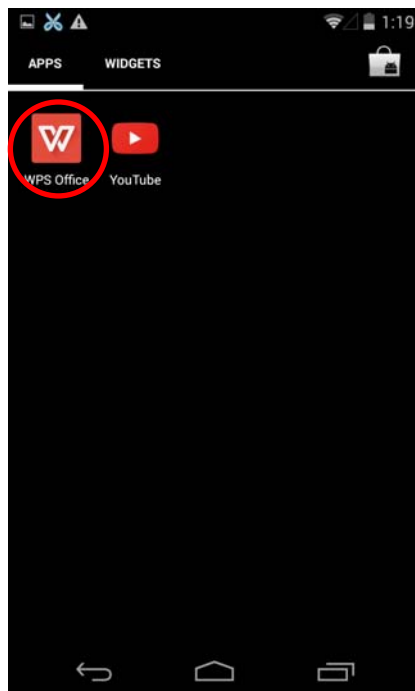


Figure 25

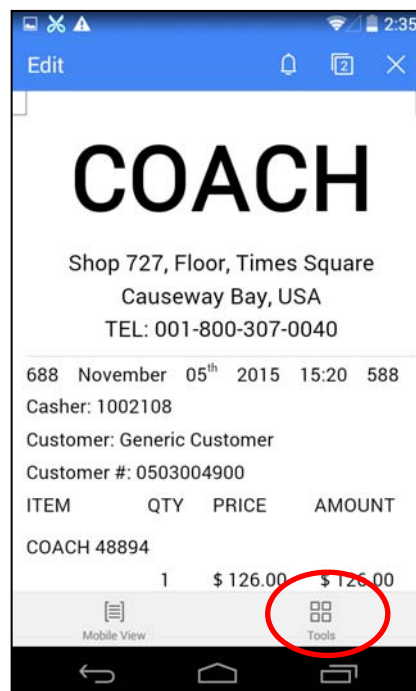


Figure 26

4.3 When the menu pops up, select "Print", as shown in Figure 27.

4.4 When the "Print" interface pops up, click "Print", as shown in Figure 28.

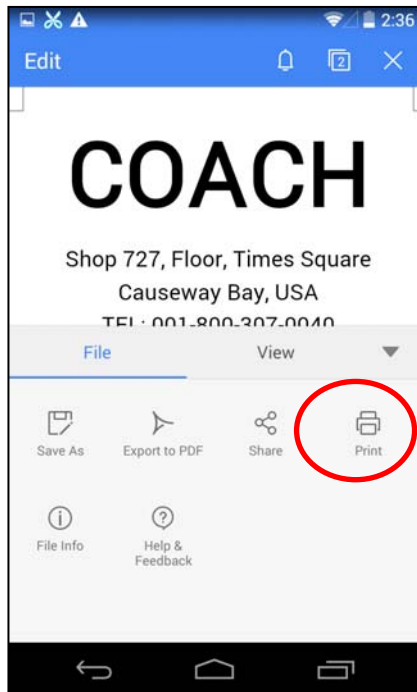


Figure 27

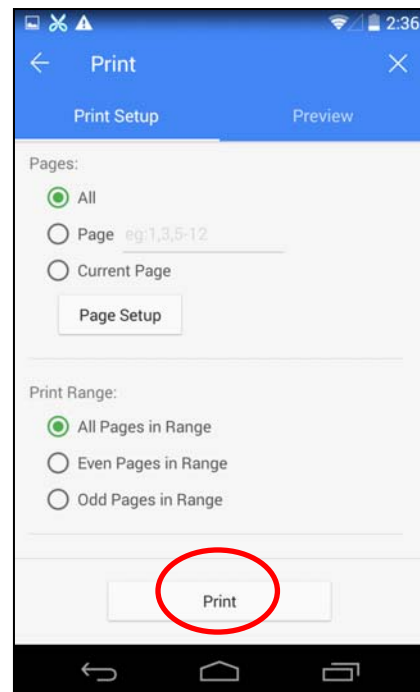


Figure 28

4.5 When the “Select Print Service” interface pops up, select “System Print Service”, as shown in Figure 29.

4.6 Select “TP830@10.10.10.1”, as shown in Figure 30.

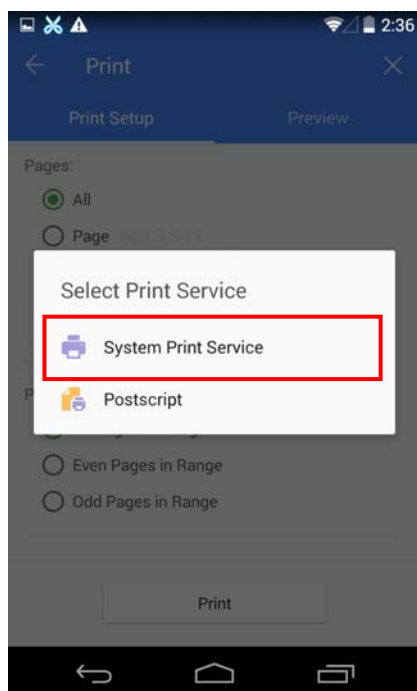


Figure 29

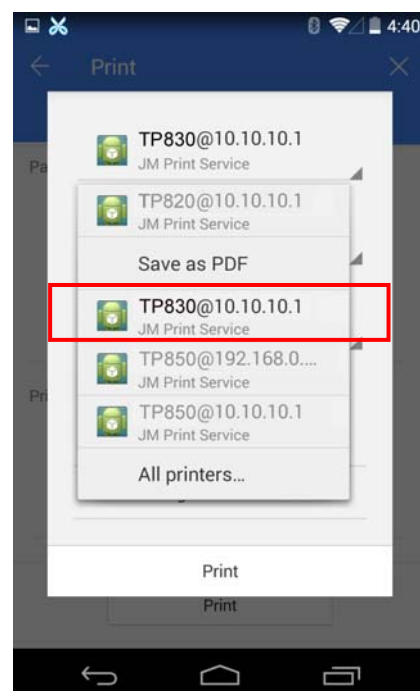


Figure 30

4.7 Make sure the printer and the corresponding printing parameters are correct, click “Print”, as shown in Figure 31.

4.8 The system sends print data to the printer, when the printer finishes receiving, a prompt “Print job completed!” will be shown, as shown in Figure 32.

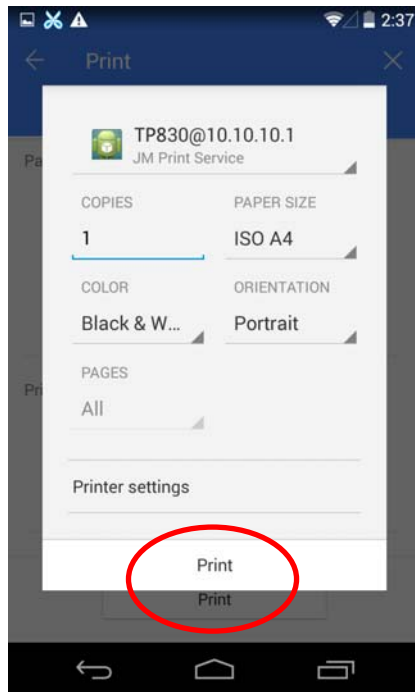


Figure 31

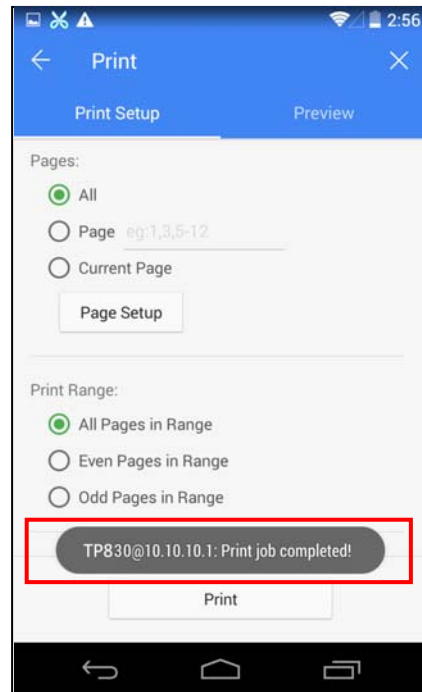


Figure 32

2.11.2 AirPrint Printing Application of iPhone iOS Equipment

iPhone iOS equipment used in this example is iPad Air2, iOS system version is 9.1. The application situation of other iOS equipment or system version may be different to this example.

1. Connect Wi-Fi printer

1.1 Enter into the “Settings” of the system, as shown in Figure 33.

1.2 Find out “WLAN” in “Settings” interface and enter into, as shown in Figure 34.

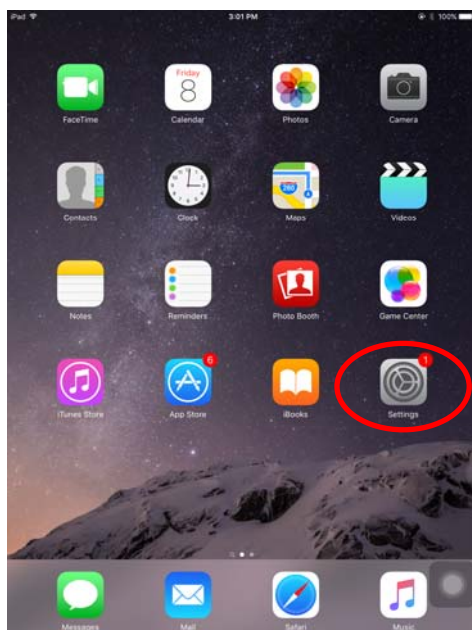


Figure 33

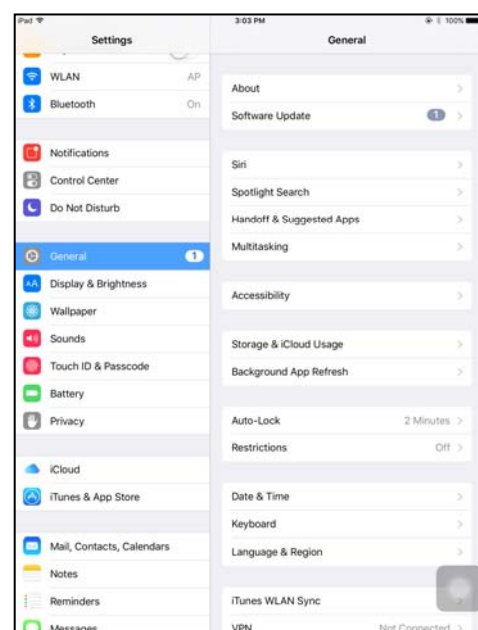


Figure 34

1.3 Turn on the “WLAN” function, equipment will search automatically and show the current hotspot, as shown in Figure 35.

1.4 Select the “TP830” hotspot, as shown in Figure 36.

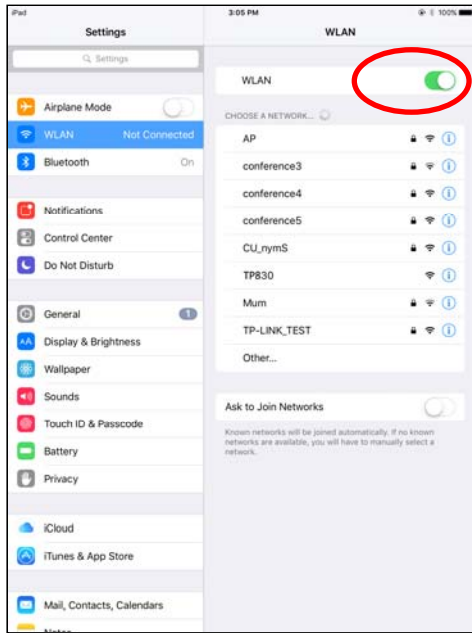


Figure 35

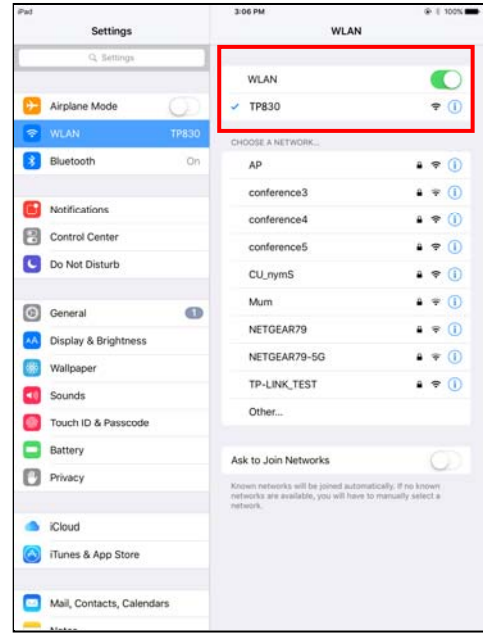


Figure 36

2. Run APP

As the interface designs of APP are different, the operating way of printing function will also be different. “Word” is taken as an example to describe.

2.1 Install and run “Word”, as shown in Figure 37.

2.2 Open the document which is to be printed, as shown in Figure 38.

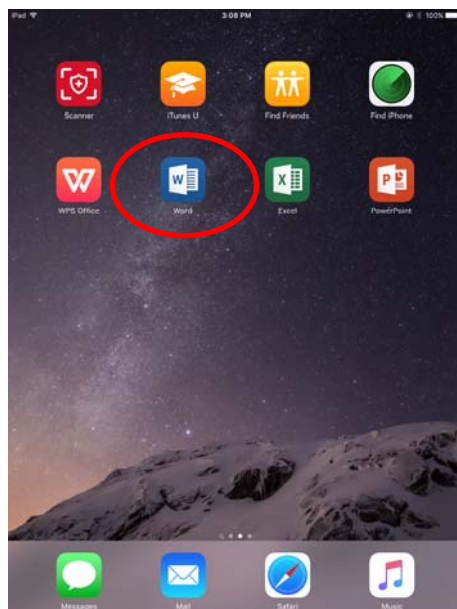


Figure 37

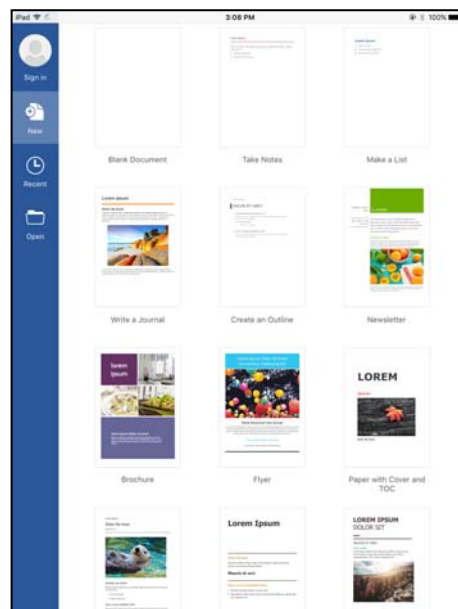


Figure 38

2.3 Click the menu icon on the upper left of the “Word” software interface, as shown in Figure 39.

2.4 When the menu pops up, click “Print”, as shown in Figure 40.



Figure 39

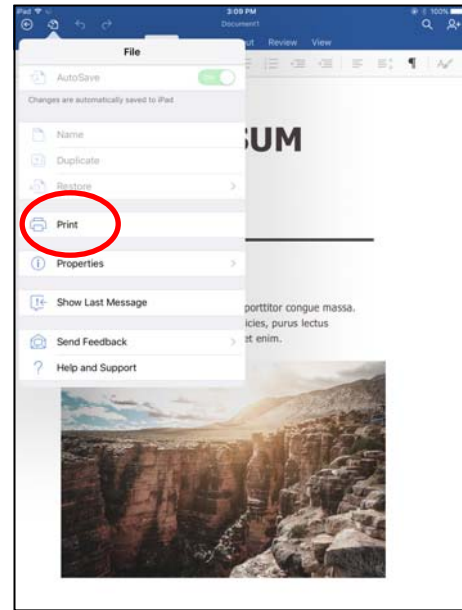


Figure 40

2.5 When the “Printer Options” interface pops up, click “Select Printer”, as shown in Figure 41.

2.6 Select “TP830” in the list, as shown in Figure 42.

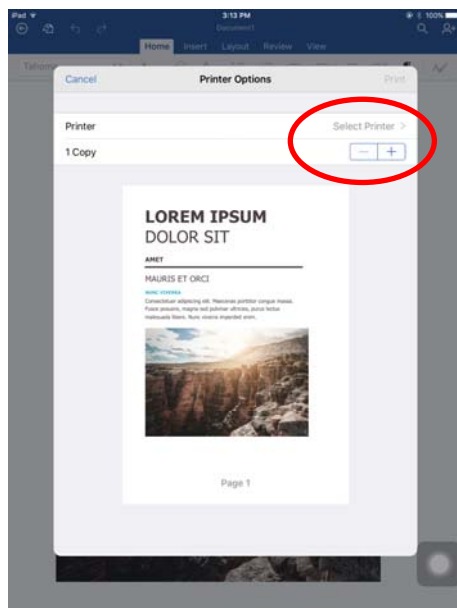


Figure 41

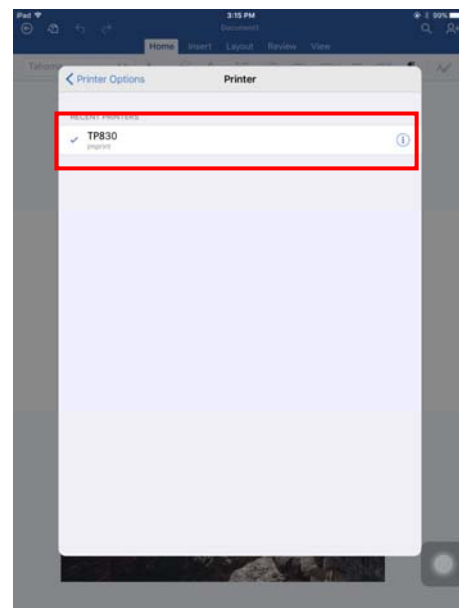


Figure 42

2.7 Return to “Printer Options” interface and click “Print”, the system sends print data to the printer, as shown in Figure 43.

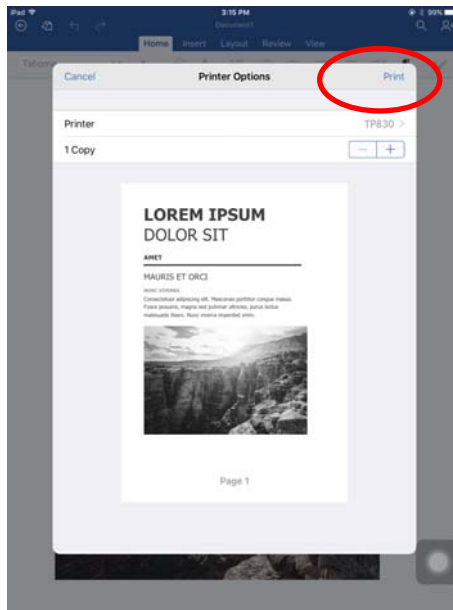


Figure 43

2.12 Installing Printer Network Driver

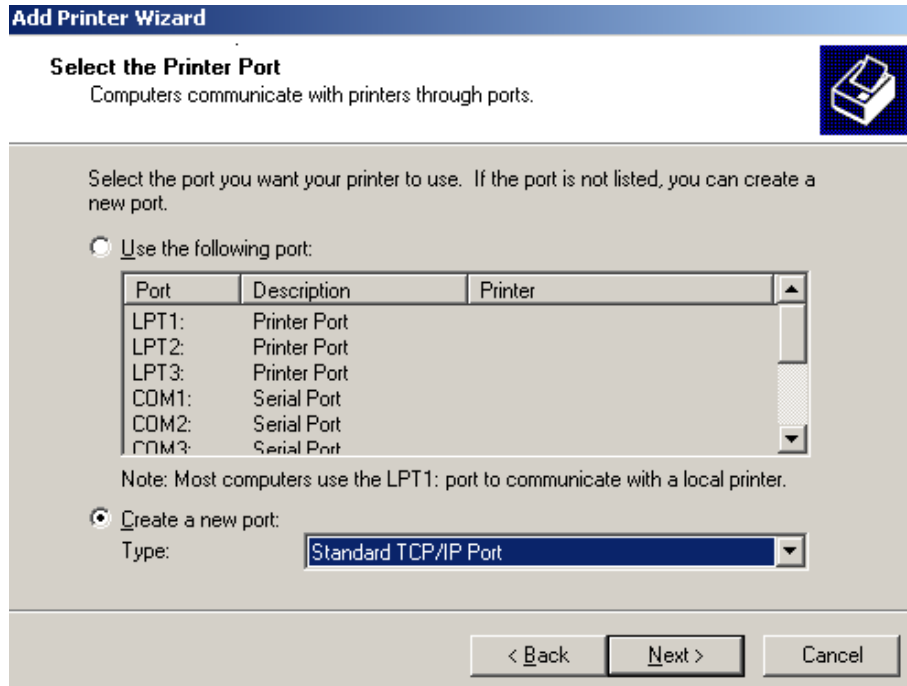
The ways of installing network driver are divided into Newly-install way and Upgrade-install way according to whether the PC installs the printer driver or not.

If the printer driver hasn't been installed on the PC, adopt newly-install way whose steps are shown in "Newly-install printer network driver".

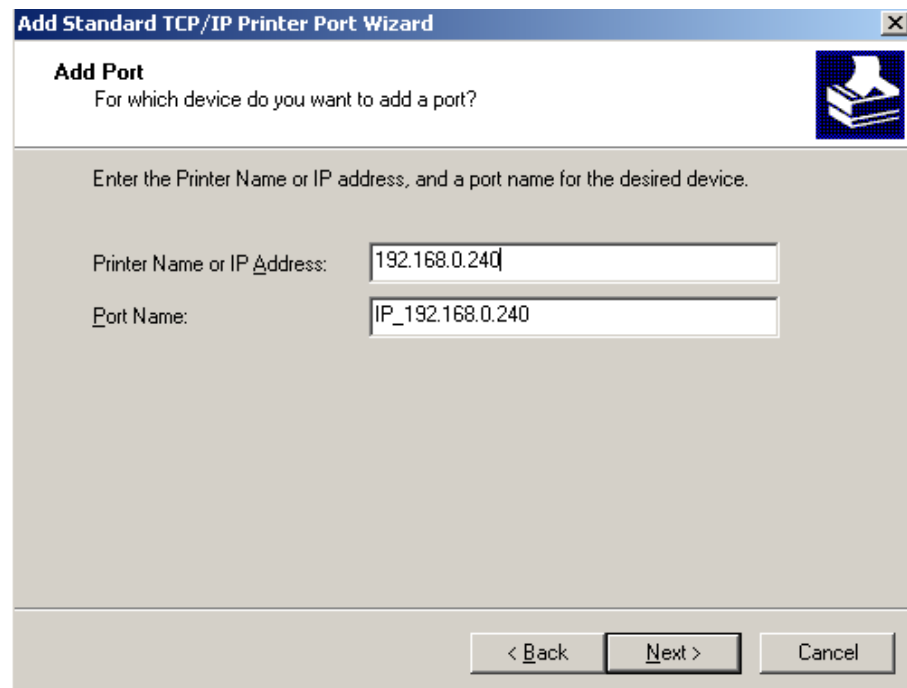
If the printer driver has been installed on the PC, adopt Upgrade-install way whose steps are shown in "Upgrade-install printer network driver" (setting driver's network port).

1. Newly-install printer network driver

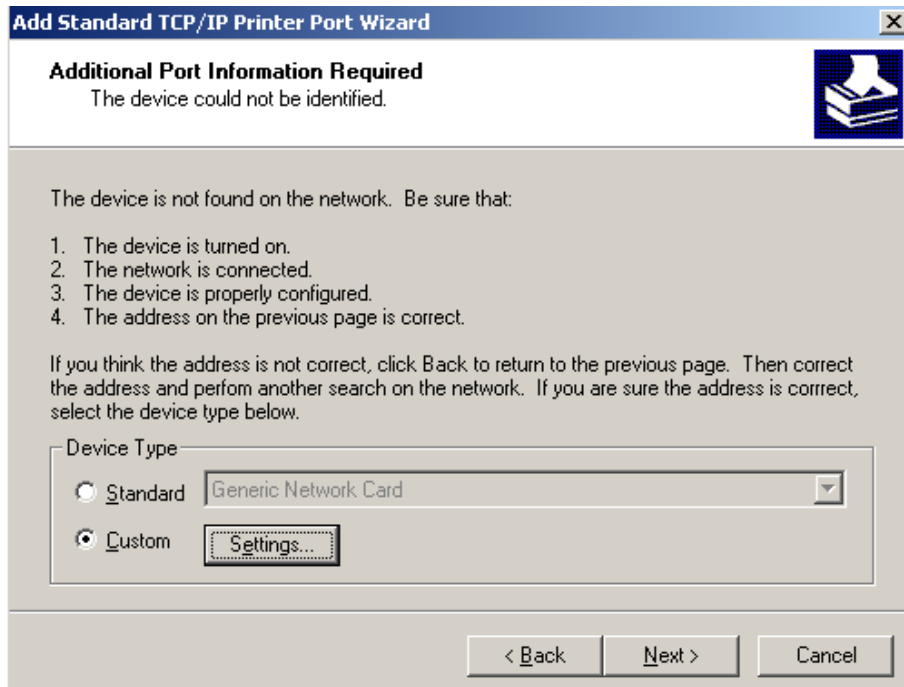
- 1) Click "Start" → "Settings" → "Select Printers".
- 2) Click "Add printer", then a window of "Add Printer Wizard" pops up, click "Next".
- 3) A window of "Add Printer Wizard" pops up, select "Local printer" in the "Local or Network Printer" window, and then click "Next".
- 4) A window of "Select the Printer Port" pops up, select "Create a new port", and then select "Standard TCP/IP Port" in the port and click "Next".



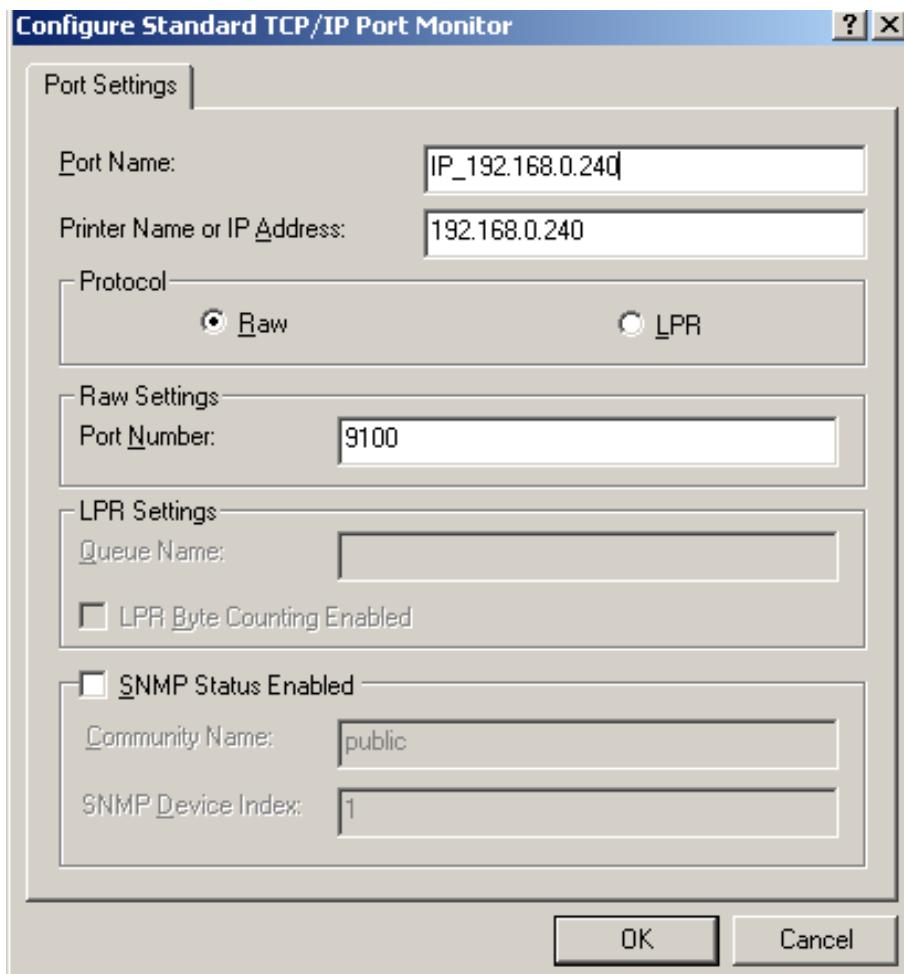
- 5) A window of "Add Standard TCP/IP Printer Port Wizard" pops up, click "Next".
- 6) A window of "Add Port" pops up, enter the IP address reported by the "Setting printer's IP address" in the "Printer Name or IP Address" column. Take IP address "192.168.0.240" for example. "Port Name" is created automatically after finishing filling in IP address. Click "Next"



- 7) A window of "Additional Port Information Required" pops up, select "Custom" in the "Device Type", then click "Settings".



- 8) A window of “Port Settings” pops up. Affirm that “Port Name” and “Printer Name or IP Address” are correct, “Protocol” is “RAW” and “Port Number” is “9100”, click “OK”.

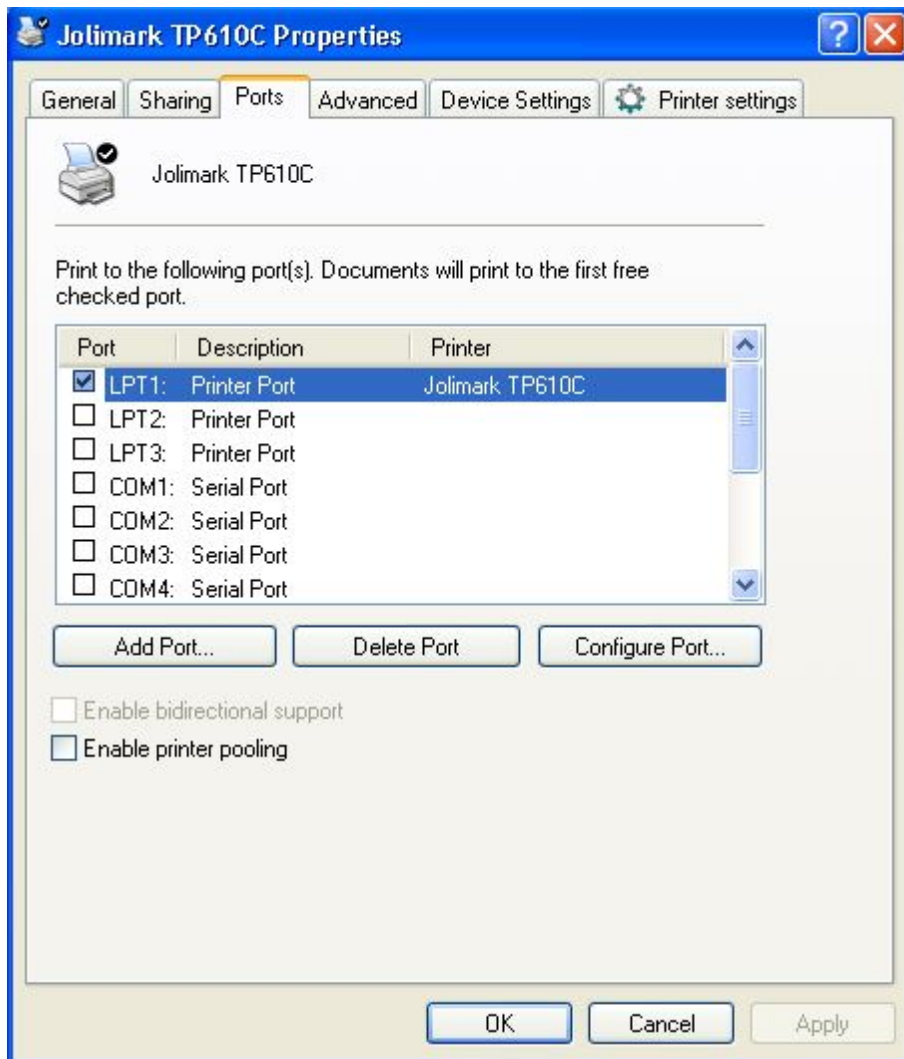


- 9) Return to "Additional Port Information Required", click "Next".
- 10) A window of "Completing the Add Standard TCP/IP Printer Port Wizard" pops up, click "Finish".
- 11) A window of "Install Printer Software" pops up, click "Have Disk".
- 12) A window of "Install From Disk" pops up. Please according to the operating system environment, such as in Windows 2000/XP/Vista/Win7 operating system you should select the path as follows: CD-ROM-"Drivers"- "WIN2000 (XP-Vista-Win7)", click "Open", then click "OK" to return to the window of "Install Printer Software", click "Next".
- 13) Follow the guide and click "Next" gradually till the installation is finished. At this time, printer network driver is installed completely.

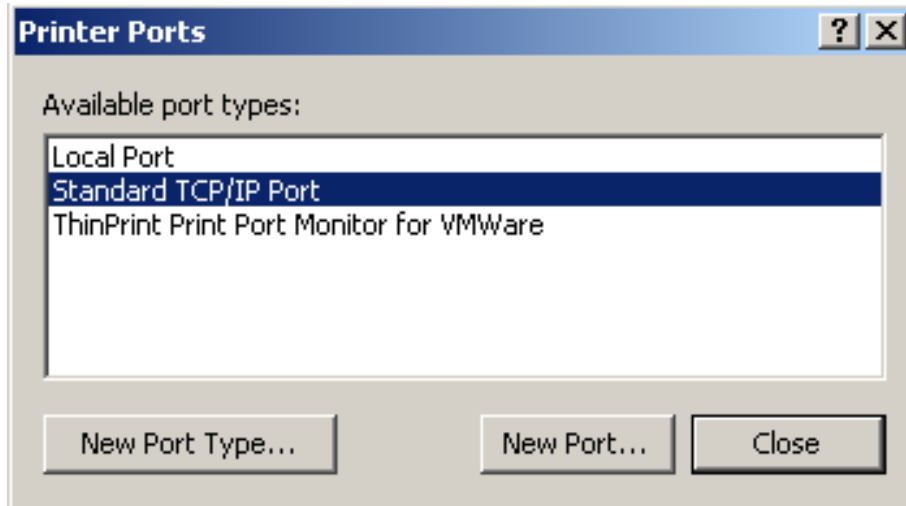
2. Upgrade-install printer network driver (setting driver's network port)

If PC has installed the printer's driver, set driver's network port to carry out network printing. The concrete steps are shown below:

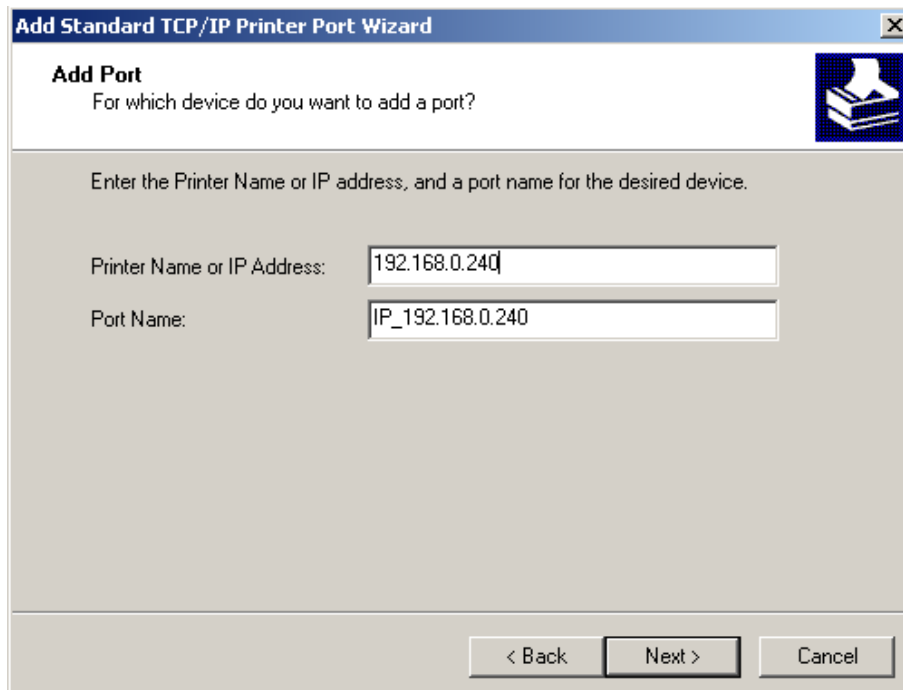
- 1) Click "Start" → "Settings", select "Printers".
- 2) Right click this printer's driver; click "Properties" on the window popping up.
- 3) A window of "Properties" pops up; click "Ports" and "Add Ports".



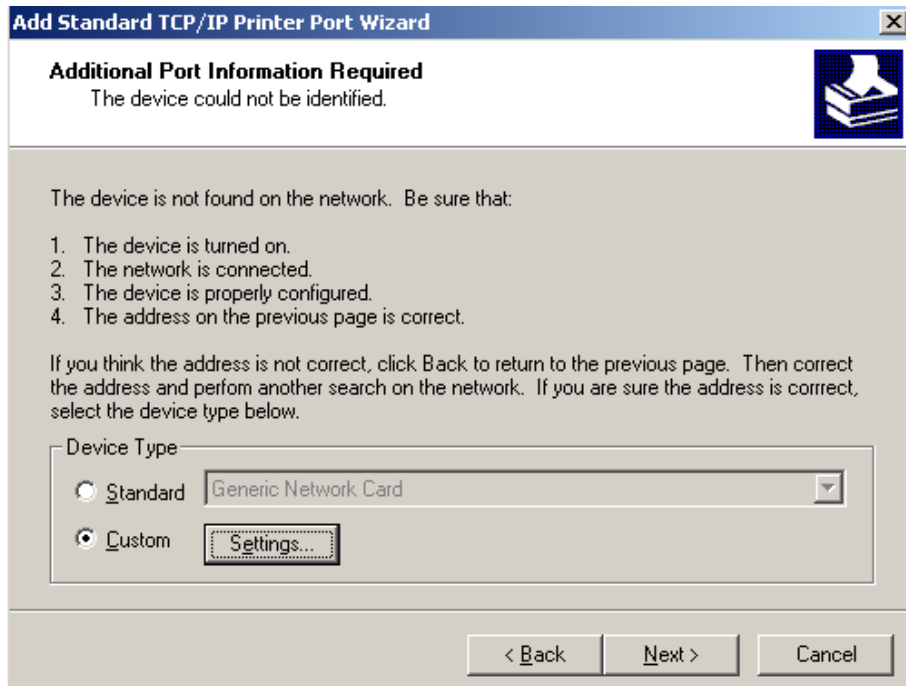
- 4) A window of "Printer Ports" pops up, select "Standard TCP/IP Port", click "New Port".



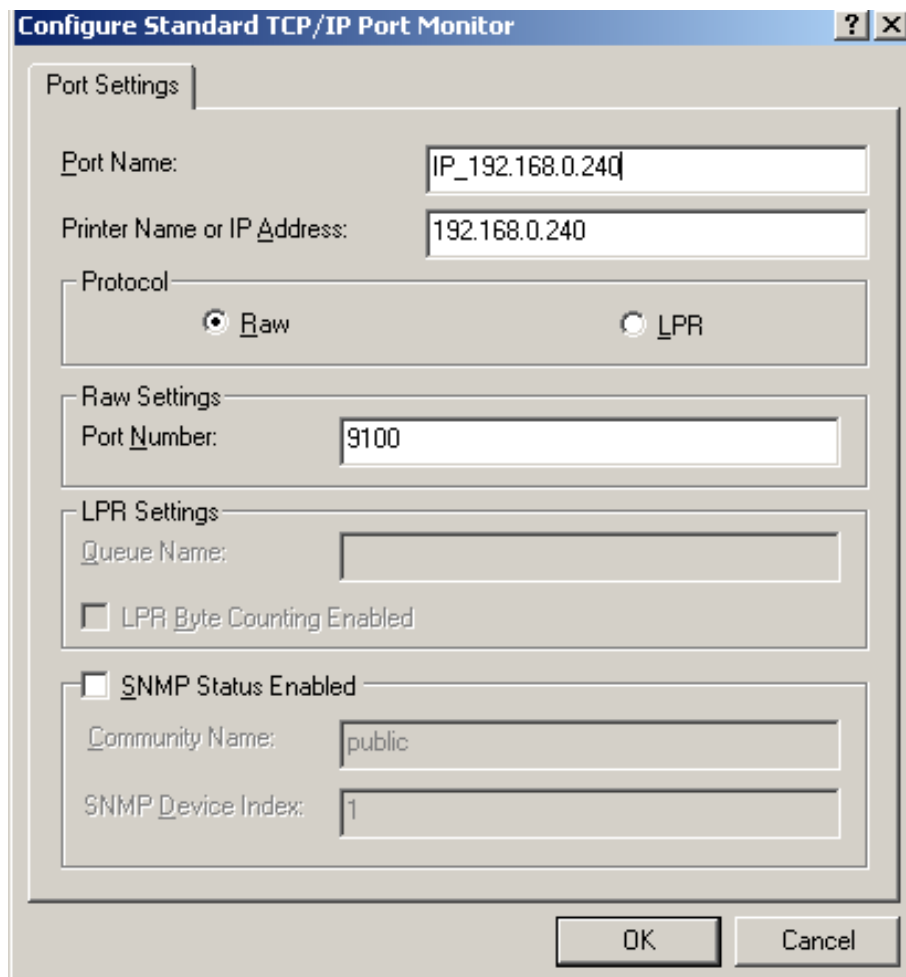
- 5) A window of "Add Standard TCP/IP Printer Port Wizard" pops up, click "Next".
- 6) A window of "Add Port" pops up, import the IP address reported by the "Setting printer's IP address" in the "Printer Name or IP Address" column. Take IP address "192.168.0.240" for example. "Port Name" is created automatically after finishing filling in IP address. Click "Next".



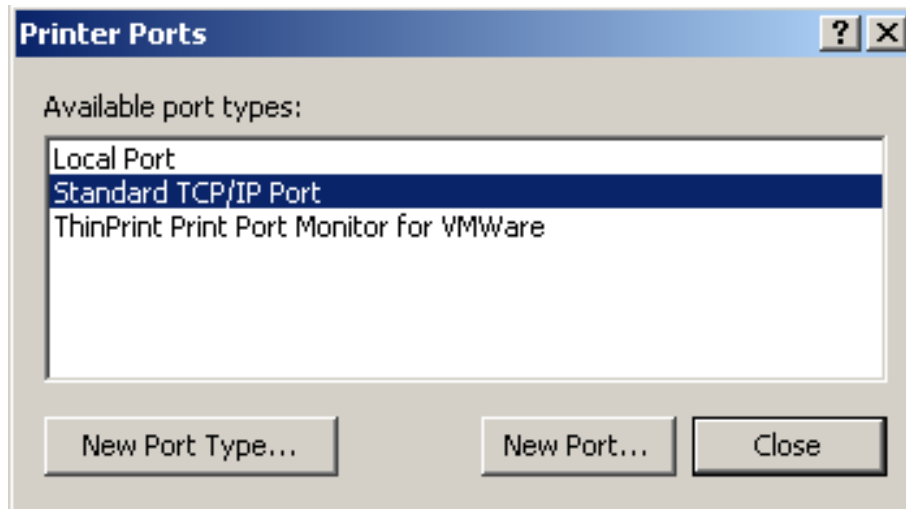
- 7) A window of "Additional Port Information Required" pops up, select "Custom" in the "Device Type", then click "Settings".



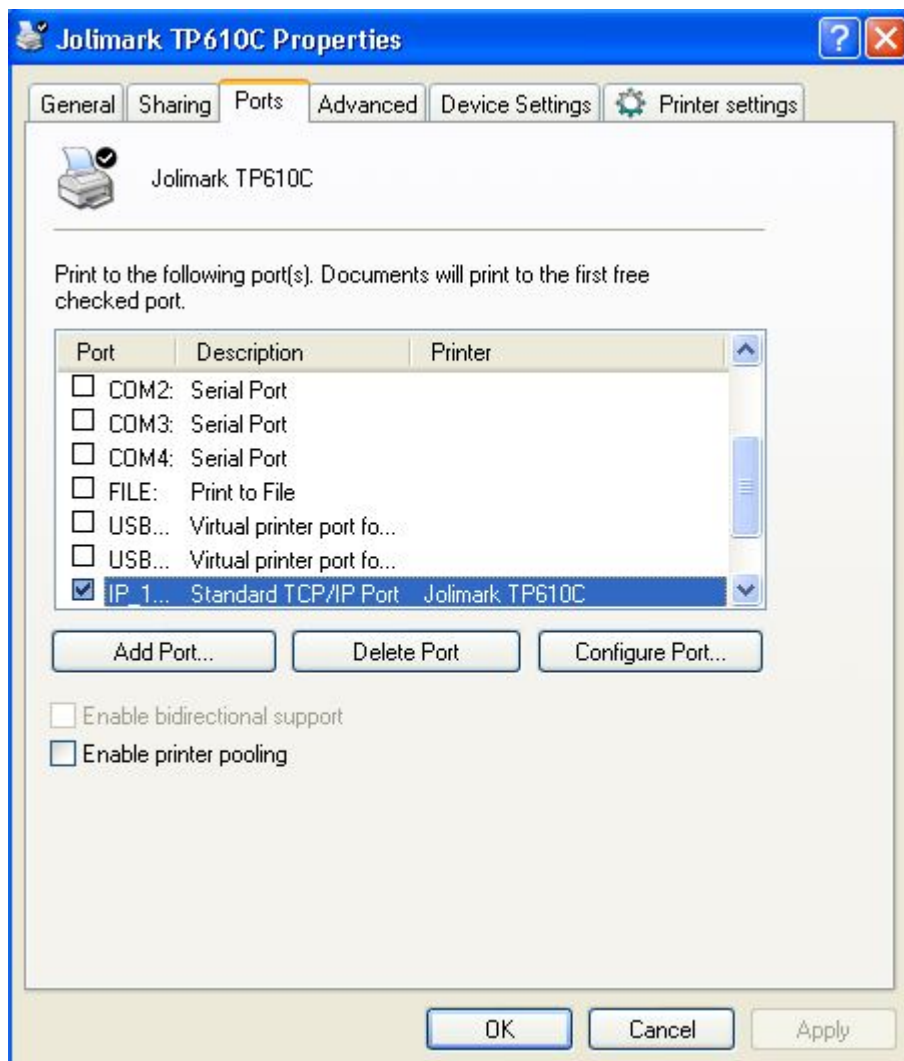
- 8) A window of “Port Settings” pops up. Affirm that “Port Name” and “Printer Name or IP Address” are correct, “Protocol” is “RAW” and “Port Number” is “9100”, click “OK”.



- 9) Return to "Additional Port Information Required", click "Next".
- 10) A window of "Completing the Add Standard TCP/IP Printer Port Wizard" pops up, click "Finish".
- 11) Return to "Printer Ports", click "Close".



- 12) Return to "Properties", make sure the network port is selected, click "Apply", and then click "Close". Thus, printer's network port setting is finished.



Chapter 3 Control Panel

3.1 Control Panel

There are three indicator LEDs and two keys on the control panel (as shown in Figure 3-1).

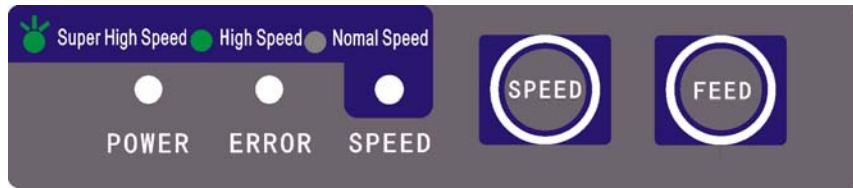


Figure 3-1 Control panel

3.1.1 LED Indicator

LED	Off	On	Blink
POWER	Power off	Power on	—
ERROR	Normal status	Error occurs	Paper out
SPEED	Normal speed printing mode	High speed printing mode	Super high speed printing mode

3.1.2 Function Keys

While pressing the **FEED** key and holding on, turn on the printer at the same time, the printer will enter into the function mode. Loosen the **FEED** key according to beeping times, and the printer will perform the following functions correspondingly.

Beeping times	Description
One beep	Mixed self-test of Chinese and English
Two beeps	Pin test
Three beeps	Current menu setting printing
Four beeps	Hex dump mode
Five beeps	Restoring factory default setting
Six beeps	MTBF self-test printing aging
Seven beeps	English self-test
Eight beeps	Dynamic aging

Note: FEED key: When there is paper in the printer, every time the **FEED** key is pressed (less than 0.5 second), paper will feed one line. If you press and hold the key, the paper will feed one page (default length is 11 inches).

SPEED key: After the printer is turned on, pressing **SPEED** key can switch among normal speed printing mode, high speed printing mode and super high speed printing mode.

3.2 Parameter Settings

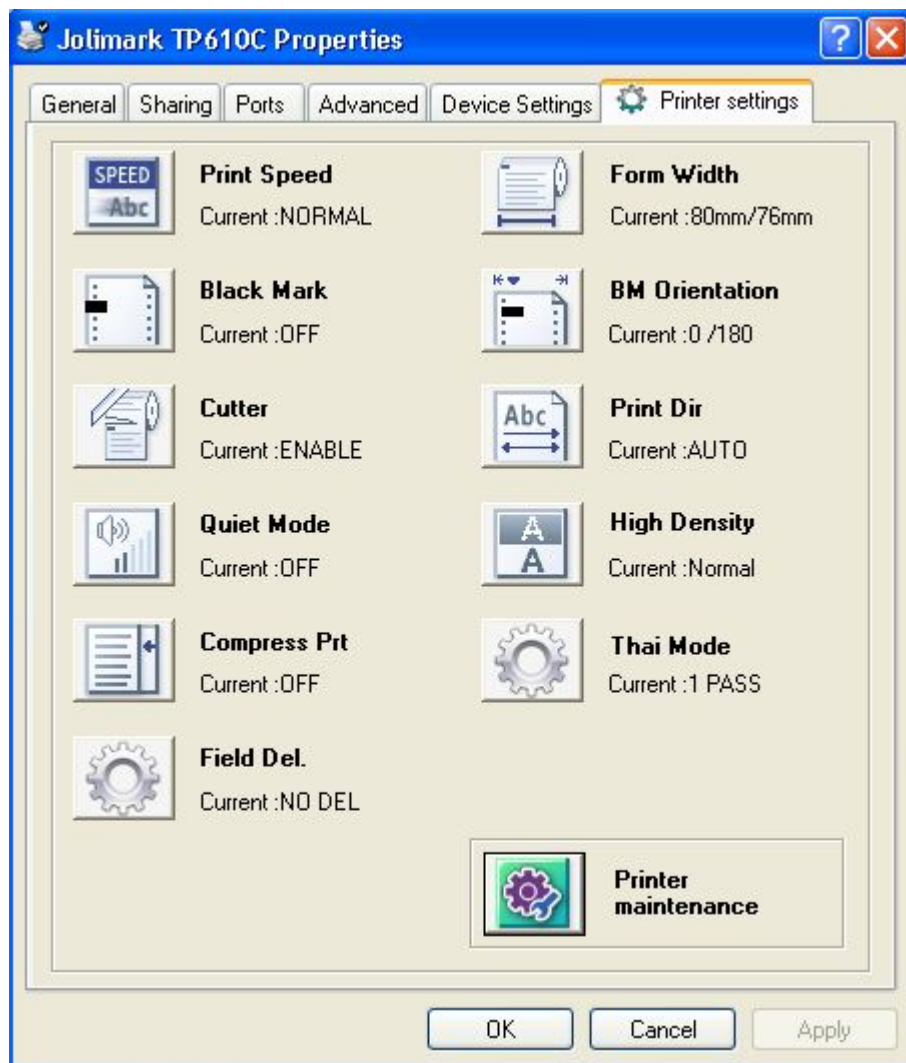
This printer supports the function of parameter settings, which can be set in the PC with the driver installed in.

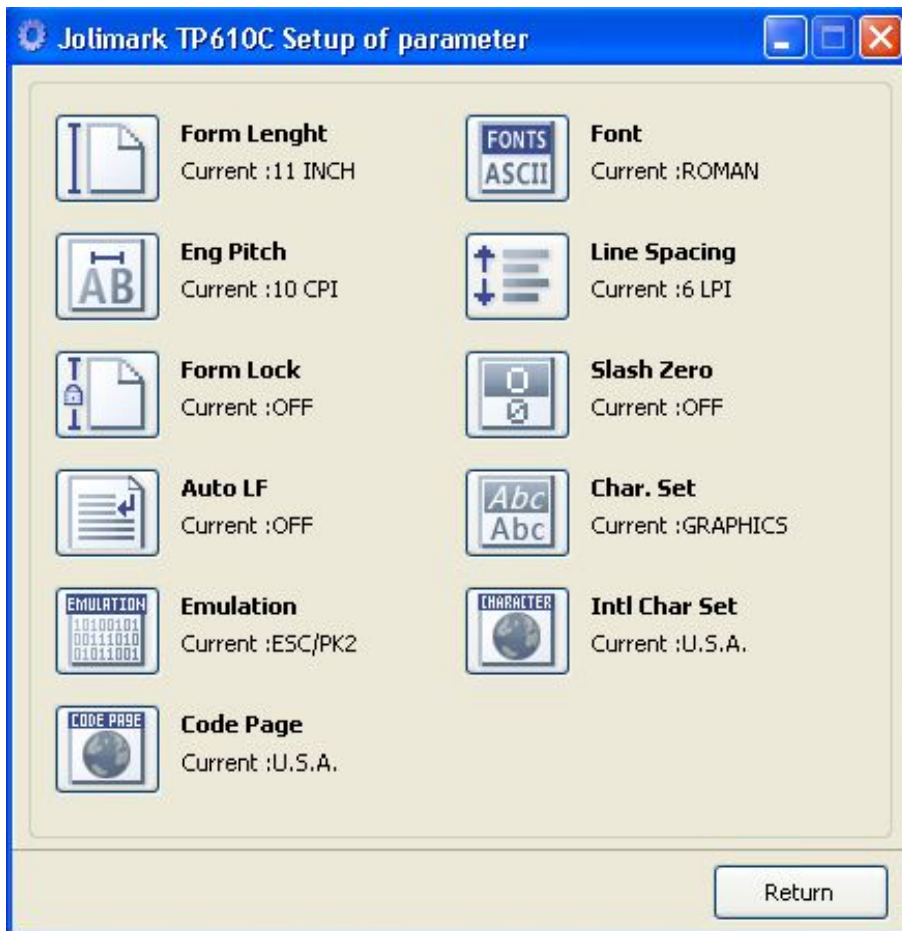
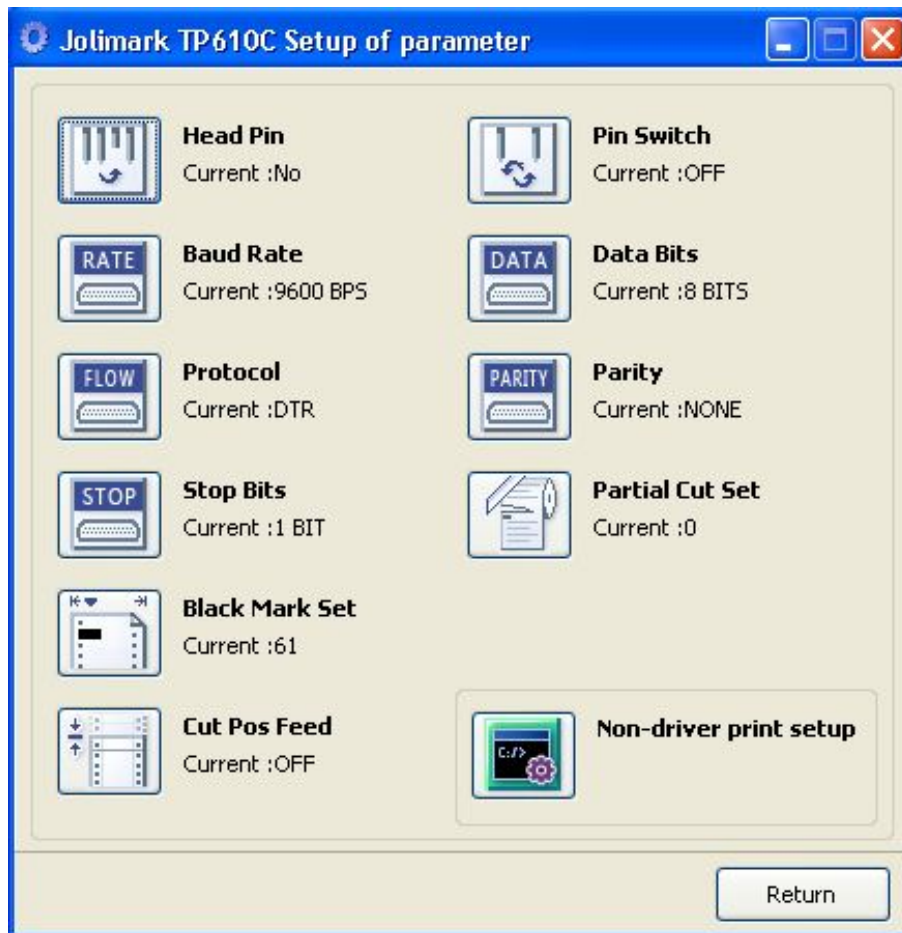
The concrete setting steps are shown as follows:

1. Make sure that the computer and the printer are connected with an USB cable and both the computer and the printer are turned on, the printer should be in normal working condition as well.
2. Under the operation system of WIN 2000/WIN XP/VISTA/WIN 7, Click "Start" → "Settings" → "Printers".

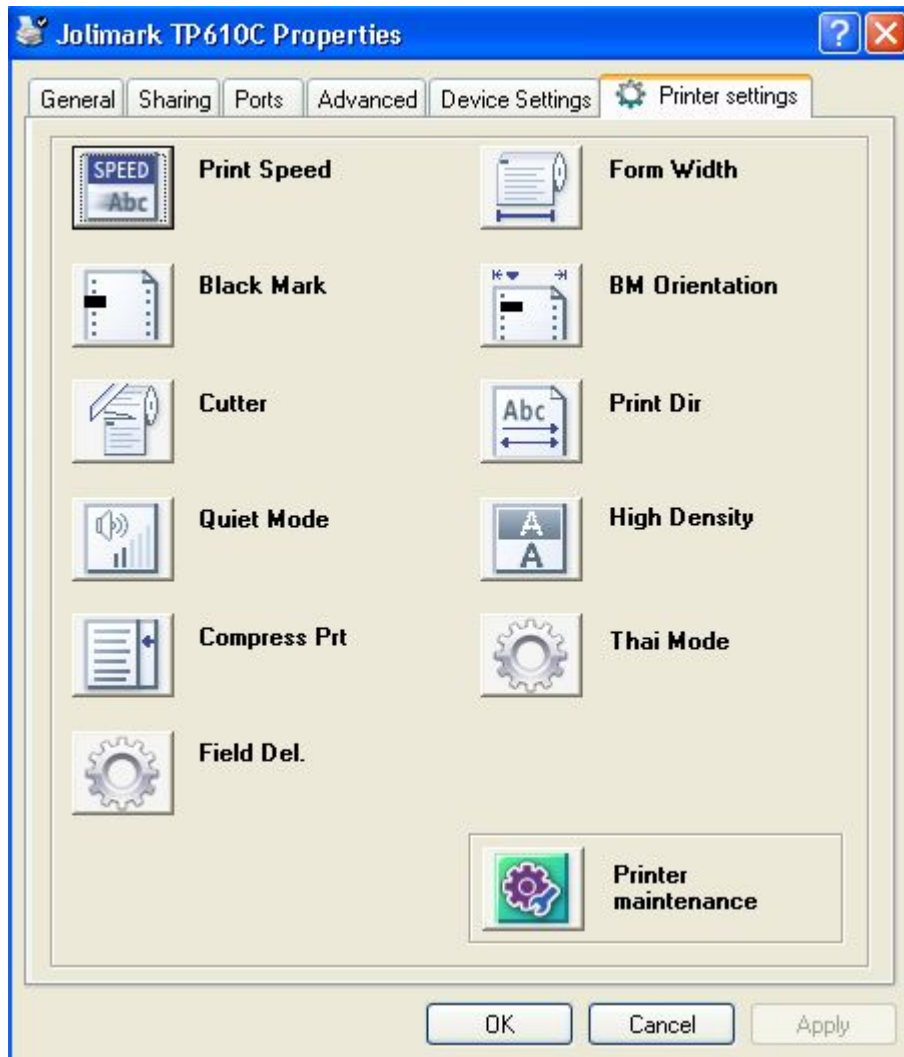
Under the operation system of Windows 8, click "Desktop" in the main panel firstly, and then double click and enter into the window of "Control panel", click "Hardware and Sound" to find "Devices and printers", and open the window of "Devices and printers".

3. Right click "TP610" in the window of "Printers", and then select "Properties".
4. Then a window of "Properties" pops up, click "Printer Settings" and open the window of "Printer Settings".
5. Printer parameters are classified into three levels: the first level is the normal items, the second level is maintenance items and the third level is non-driver print setting items. Items shown in "Printer Settings" are normal items; Click "Printer maintenance" button in "Printer Settings", the items shown in the window of "Printer maintenance" are the maintenance items; Click "Non-driver print setup" button in "Printer maintenance", the items shown in the window of "Non-driver print setup" are the non-driver setting items.

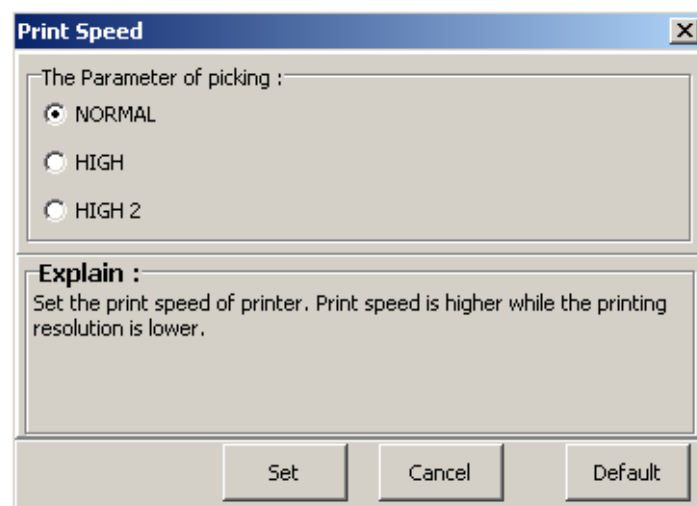




6. The left side of each setting item is the parameter icon, the top right is the item name and the bottom right is the current setting. The current settings of the printer will be loaded automatically when opening each parameter setting window. If the printer isn't online or the printer port is set incorrectly, the current settings will be blank, therefore, please set the printer to online mode or set the correct printer port.



7. When setting the parameter, please click the parameter icon firstly to open the parameter setting window. In the parameter setting window, there are parameter options, item explanation and control buttons. After selecting the corresponding parameter, click "Set", the printer will change the setting at the moment it receives the parameter setting command. Click "Cancel" to return to the upper window. Click "Default" to show the default setting of this item.



8. If you need to set several parameters, please refer to the previous point and set the parameters one by one.
9. After finishing setting, click "OK" to exit the "Properties" window.

3.3 Menu Terms Descriptions

Terms	Description
Print Speed	Set the printer's print speed. The print resolution is lower when the print speed is higher.
Form Width	Select the paper width (80 mm, 76 mm, 57 mm, 45 mm).
Black Mark	After selecting this function on, printer would carry out black mark detection instruction so as to make the vertical positioning printing precisely. (Bills or papers should have black mark on the printed side.)
BM Orientation	The print position adjustment of black mark (-130~+990).
Cutter	<p>When the setting of the cutter is set as cutter, the printer can execute the paper-cut instruction to cut paper. When the setting of the cutter is set as paper collection, the printer will collect the printed roll paper.</p> <p>Note: The cutter function is only valid with auto-cutter assembly; the paper collection function is only valid with automatic paper collection assembly.</p>
Print Dir	Set the printing direction of the print head: bidirectional, unidirectional or being selected by driver instruction.
Quiet Mode	After selecting this function on, the printing speed is decreased when the printing noise is turned down.
High Density	<p>Select the printing quality as normal or LQ, when setting to LQ, printer will print in the highest printing quality.</p> <p>Note: Letter Quality is only valid when the printing speed is normal.</p>
Compress Prt	After selecting this function on, printer would compress the printing content transversely according to the specified percentage. The print speed is set as normal speed automatically. When auto-compress mode is selected, printer would detect paper width automatically and choose the proper percentage to transversely compress.
Thai Mode	Selection of PASS for Thai printing.
Field Del.	Selection of FIELD DELIMITER. This setup is the function to adjust the position of characters when printing spread sheet (currently same as EXEL) in Thai application.
Head Pin	Select the broken pin. Printer would automatically replace it with other pin to print.
Pin Switch	After selecting this function on, the printer will automatically switch different pins to print Chinese tabs.
Baud Rate	Select the printer serial data transfer rate.
Data Bits	Select the serial data bits.
Protocol	Select the control way of protocol of serial data transfer as software control (XON/XOFF) or hardware control (DTR).
Parity	Select the parity bit for serial data transfer.
Stop Bits	Select the serial data transfer stop bit.
Partial Cut Set	<p>Set the paper-cut width in the partial cut mode, the paper-cut width is bigger (-50~+40) while the value is higher. This menu is valid when the function of cutter is enabled.</p> <p>Note: The partial cut set function is only valid with auto-cutter assembly.</p>

Black Mark Set	Black mark detection threshold value. Set the black mark detection sensitivity, the value is lower when the black mark detection sensitivity is higher (0~255).
Cut Pos Feed	Open or close the function of automatically feeding paper to tear position in the tractor paper mode. After selecting this function on, if the printer hasn't received the printable data in a period of time after the printer receives the form feed instruction, the paper will be fed to the tear position automatically.
Form Length	Set the page length of tractor paper. Printer feeds to next page according to the specified page length. If the print data is with page length instruction, printer would give priority to print data instruction.
Font	Specify a kind of ASCII fonts to print when printer receives character printing task. If the print data is with font instruction, printer gives priority to print data instruction. (Only valid when ASCII is selected in CHARACTER MODE)
Eng Pitch	Select the ASCII character spacing in characters per inch (cpi).
Line Spacing	Set the line spacing in lines per inch (lpi). If the print data is with line spacing instruction, printer would give priority to print data instruction.
Form Lock	After selecting this function on, the page length setting would be locked. Printer feeds to next page according to the current setting value and would not be affected by the page length instruction of the print data.
Slash Zero	After selecting this function on, the number 0 is with oblique line so as to distinguish the number 0 and the English letter O.
Auto LF	If this function is on, printer would feed the paper one line automatically after receiving one carriage return instruction.
Char. Set	Select character set as Italic Character or Normal Graphic Character.
Emulation	Select printer's control commands.
Intl Char Set	Select the printer internal character set according to characters using circumstances of different countries.
Code Page	Select the code page according to characters using circumstances of different countries.

3.4 Self-Test

■ Mixed Self-test of Chinese and English

While pressing the **FEED** key and holding on, turn on the printer. The printer would beep once, then loosen the key, the printer would enter this self-test mode.

■ Pin Test

While pressing the **FEED** button and holding on, turn on the printer. The printer beeps twice, and then you should loosen the **FEED** button. The printer will enter the pin test mode.

■ Hex Dump Mode

While pressing the **FEED** button and holding on, turn on the printer. The printer beeps four times, and then you should loosen the **FEED** button. The printer will enter the hexadecimal printing mode.

■ MTBF Self-test Printing Aging Mode

While pressing the **FEED** button and holding on, turn on the printer. The printer beeps six times, and then you should loosen the **FEED** button. The printer will enter this mode.

■ English Self-test

While pressing the **FEED** key and holding on, turn on the printer. The printer would beep seven times, and then loosen the key; the printer would enter the English self-test mode.

■ Alignment Adjust Mode

After turning on the printer, press the **SPEED** key for about 3 seconds in the online mode, the printer will enter the alignment adjust mode.

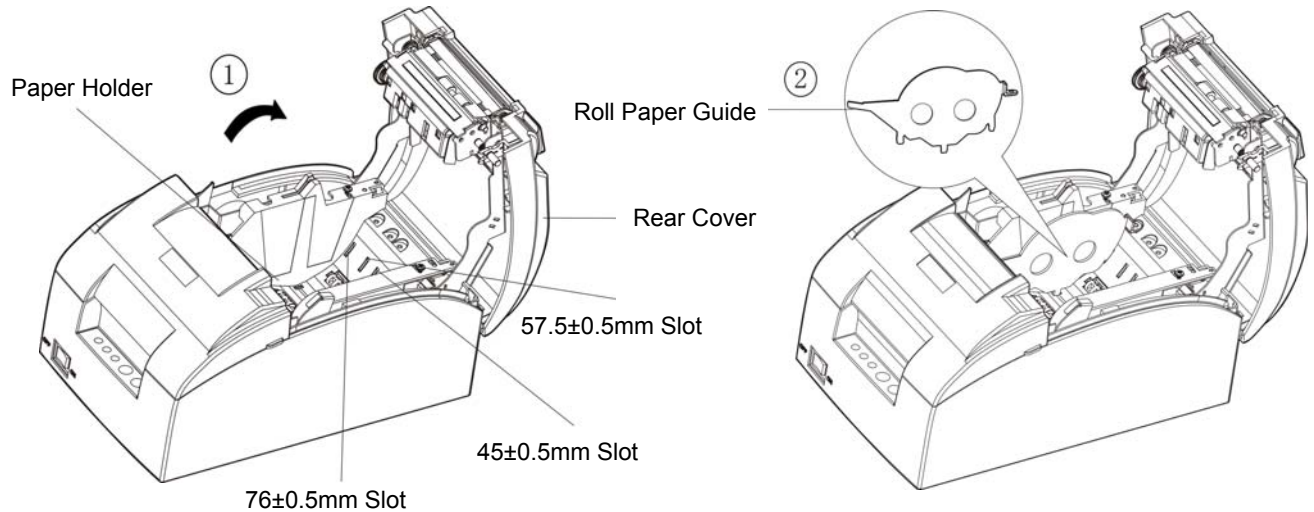
- a: Long pressing the **SPEED** key can switch the printing speed; Press the **SPEED** key one time, the first and third vertical lines will move one step leftwards.
- b: Long pressing the **FEED** key can save and print the alignment status of current speed; Press the **FEED** key one time, the first and third vertical lines will move one step rightwards.

Note: Alignment adjustment will affect print quality. You must think it over before adjusting and must operate it strictly according to the instruction.

Chapter 4 Paper Loading

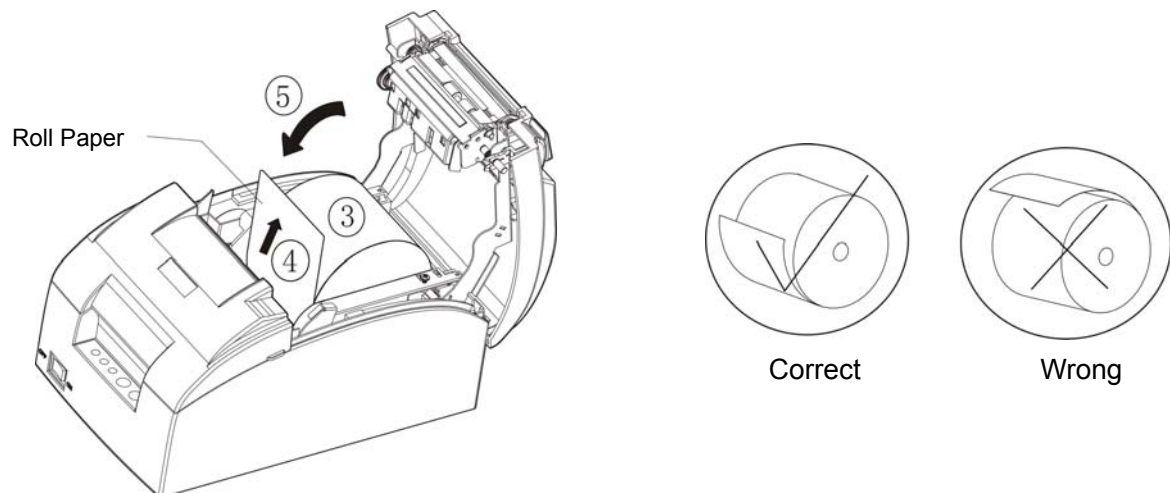
The printer can use the papers with the width of $45\pm0.5\text{mm}$, $57.5\pm0.5\text{mm}$, $76\pm0.5\text{mm}$ or $80\pm0.5\text{mm}$, and it is easy to load paper. How to load paper will be introduced in this chapter.

1. Push the cover-open button to open the rear cover. If you want to use $45\pm0.5\text{mm}$, $57.5\pm0.5\text{mm}$ or $76\pm0.5\text{mm}$ paper to print, you must install the roll paper guide.



2. Place the roll paper into the paper holder. Pull the paper head with your hand.

Note: Paper head should be placed above and pulled out upwards, but not the opposite.



3. Close the rear cover and the installation is finished.

Chapter 5 Specifications

5.1 General Specifications

Item	Description			
Printing method	24 Dot Matrix			
Printing direction	Unidirectional or bidirectional printing			
Resolution	180×180 DPI (Max.)			
Print speed	Normal speed	High speed		Super high speed
	1.5 lines/s (25 columns,10 cpi)	2.5 lines/s (25 columns,10 cpi)		5 lines/s (25 columns,10 cpi)
	6.35 mm/s	10.58 mm/s		21.12 mm/s
Paper feed speed	140 mm/s (Max.)			
Copy	Original + 1 copy			
Paper type	Roll paper (normal paper, black mark paper, copy paper)			
Paper specifications	Paper model	Normal single sheet roll paper		
		Normal two-sheet copy paper		
	Paper width	45±0.5 mm, 57.5 ±0.5 mm, 76 ±0.5 mm, 80 ±0.5 mm		
	Thickness	Single sheet roll paper: 0.06 ~ 0.085 mm		
		Two-sheet copy paper (each page): 0.05 ~ 0.08 mm, total thickness≤0.14 mm		
	Maximum diameter	100 mm		
Note: The inner diameter of paper shaft is Φ12.5 mm and the outer diameter of paper shaft is Φ16 mm.				
Printing width	Max. 63.4 mm			
Character per line	Paper width	76 ±0.5 mm	57.5 ±0.5 mm	45±0.5 mm
	ASCII character (10 CPI)	25 CPL	19 CPL	15 CPL
Character set	ASCII character set, International character set			
Character size	ASCII: 2.54×2.54 mm			
	Character dot matrix: 24×24			
Character pitch	ASCII: 10 CPI, 12 CPI, 15 CPI, and proportional pitch			
Line spacing	1/6 inch, 1/8 inch, programmable in 1/360 inch increments			
Bar code	EAN-13, EAN-8, Interleaved 2 of 5, Matrix 2 of 5, Industrial 2 of 5, Code 39, Code 128 B, Code 128 C, NW-7			
Two-dimension code	QR code, Chinese-sensible code Note: In order to make sure the two-dimension code can be distinguished precisely, it needs: 1. The size of two-dimension code ≥14 mm×14 mm. 2. Use the original ribbon only, print within the ribbon life. 3. The color of paper should be white.			
Emulation	EPSON ESC/PK2, ESC/POS			
Ribbon	Model: JMR137 (support to replace the ribbon core JMR214)			
	Life: 3 million characters			
Cutting method	Auto cut (Full cut, partial cut)			
	Note: Only valid with auto-cutter type.			
Auto cutter	Cutting speed: 30 times/minute (Max.)			

	Cutting frequency: every 2 seconds once	
	Cutting thickness: 0.065 ~ 0.14 mm	
	Cutter life: 1.5 million times	
	Note: This instruction is achieved under the condition of specified paper in laboratory.	
Interface	<p>This printer can be equipped with the following interfaces: Parallel interface: Centronics USB interface: 2.0 Full-Speed USB interface (2.0 Full-Speed) + Serial interface [RS-232C (DB9)] USB interface (2.0 Full-Speed)+ Ethernet interface (10/100Base-T) USB interface (2.0 Full-Speed) + Serial interface [RS-232C (DB9)] + Ethernet interface (10/100Base-T) USB interface (micro)+ Bluetooth Wi-Fi (802.11b/g/n) USB interface (micro)+ Wi-Fi (802.11b/g/n)</p> Note: 1. Only one of the data interfaces is supplied when leaving the factory. 2. Please take the specific interface as standard.	
Cash drawer interface	RJ-11, 24V (DC)/1A	
Black mark	Standard	
Input buffer	256 KB	
Environmental condition	Operating environment	Temperature: 5 ~ 35℃
		Humidity: 25 ~ 80%RH (No condensation)
	Storage environment	Temperature: -40 ~ 55℃
		Humidity: ≤93%RH (40℃, No condensation)
Weight	Approximately 2.7 Kg (With auto-cutter type)	
	Approximately 2.5 Kg (Without auto-cutter type)	
Noise	<54 dB (A) (ISO7779 standard)	
Control panel	2 keys and 3 LED indicators	
Physical dimensions	163 mm(Width) × 262 mm (Depth) × 145 mm(Height)	
Power supply	Voltage: 198 ~ 242 V (AC)	
	Frequency: 50 ~ 60 Hz	
Power consumption	① Operating: 40 W; ② Standby: Approximately 2.5 W	
	Note: Only when the product is unconnected with outer power supply, can it achieve zero energy consumption state.	

Note: All the technical instructions in this user's manual are the laboratorial measurements which are achieved under national standard store and work environment (room temperature), the measuring paper accords with the specification in this user's manual.

5.2 Interface

This printer can be equipped with one cash drawer interface and a data interface (you can select parallel interface, USB interface, USB interface + Serial interface, USB interface + Ethernet interface, USB interface + Serial interface + Ethernet interface, USB interface + Bluetooth, Wi-Fi interface or USB interface + Wi-Fi). Connect the computer with correct cables.

5.2.1 Cash Drawer Interface

The cash drawer interface is RJ-11 interface, shown as below.

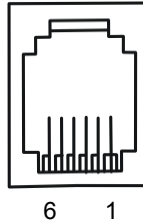


Figure 5-1 Cash drawer interface

The definition of the cash drawer interface pins is shown as the Table below:

Pin NO.	Signal Name	Signal Direction
1	Frame GND	---
2	Cash drawer drive signal	Output
3	Cash drawer Open/closed signal	Input
4	24V(DC)	Output
5	Cash drawer drive signal	Output
6	Cash drawer Open/closed signal GND	---
Drive current≤24V/1A		

Table A-1 Signal of the Cash drawer Interface Pins

Note: Please use the proper cash drawer. Manufacturer will not honor warranty when using improper cash drawer.

5.2.2 Parallel Interface

TP610/610C printer's parallel interface is compatible with Centronics protocol, supporting BUSY/ACK handshaking protocol and the interface connector is the 36 PIN Centronics type.

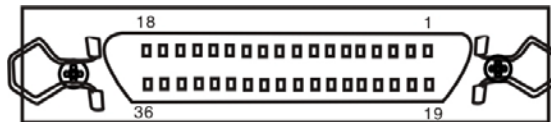


Figure 5-2 Parallel interface

Signal definition of each pin of 36PIN parallel interface is shown as the Table A-2:

Pin number	Signal	Direction	Description
1	/STB	IN	Trigger in low level, load the data in rising edge
2	DATA1	IN	These signals respectively represent the parallel data from the first bit to the eighth. "1" means high level, while "0" in logic means low level.
3	DATA2	IN	
4	DATA3	IN	
5	DATA4	IN	

6	DATA5	IN	
7	DATA6	IN	
8	DATA7	IN	
9	DATA8	IN	
10	/ACK	OUT	Acknowledge pulse, Low level means that printer is ready to receive data.
11	BUSY	OUT	High level means printer is too busy to receive data.
12	PE	OUT	High level means that paper is out.
13	SEL	OUT	"High" level is pulled up by resistor.
32	/ERR	OUT	Low level means the printer is in error state.
14, 15, 17, 18, 34, 36	NC	---	NC
16, 19 ~ 30, 33	GND	---	GND, "0" level in logic

Table A-2 Pin definition of 36PIN parallel interface

Note: ① "IN" means input to the printer, "OUT" means output from the printer.
 ② The logical level of signal is TTL level.

Time sequence of parallel interface signal is shown as Figure 5-3.

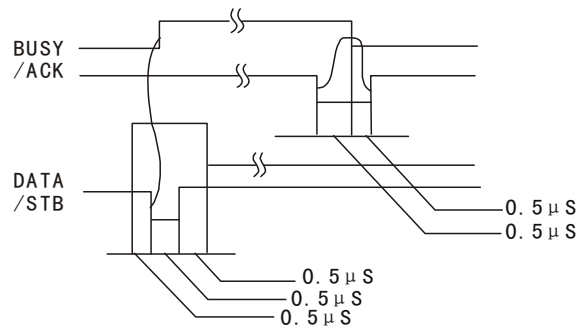


Figure 5-3 Time sequence of parallel interface signal

5.2.3 USB Interface

USB interface is the 2.0 Full-Speed version.

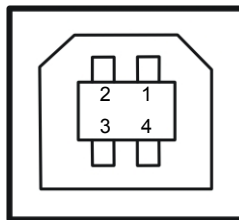


Figure 5-4 USB interface

Sequence number	Signal name	Color
1	VBUS	Red
2	D-	White
3	D+	Green
4	GND	Black

5.2.4 Serial Interface

TP610/610C printer's serial interface is compatible with RS-232C protocol, supporting RTS/CTS and XON/XOFF handshaking protocol. Its connector is a DB-9 type connector and pin number of serial interface connector is shown as below.

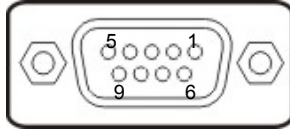


Figure 5-5 Pin number of serial interface connector

Signal definition of each pin is shown as Table A-3:

Pin Number	Signal	From	Description
2	RXD	Host	Printer receives data from Host
3	TXD	Printer	Printer sends control code X-ON/X-OFF and data to the Host
8	CTS	Printer	"MARK" state means printer is too busy to receive data; "SPACE" means printer is ready to receive data.
5	GND	—	Signal GND
4	DTR	Printer	Data terminal is ready

Table A-3 Signal of the serial interface pin

Note: ① "From" means the source where signal comes out.
② The logical level of signal is EIA level.

The default settings of baud rate and data configuration in serial connecting way are 9600bps, 8 bits, parity check disabled and 1 stop bit.

TP610/610C printer's serial interface can be connected with the standard RS-232C interface. When connecting with a PC, the connecting picture is shown as Figure 5-6. While connecting with an IBM PC or a compatible PC, you can connect the cable as shown in Figure 5-7.

The connection of serial interface:

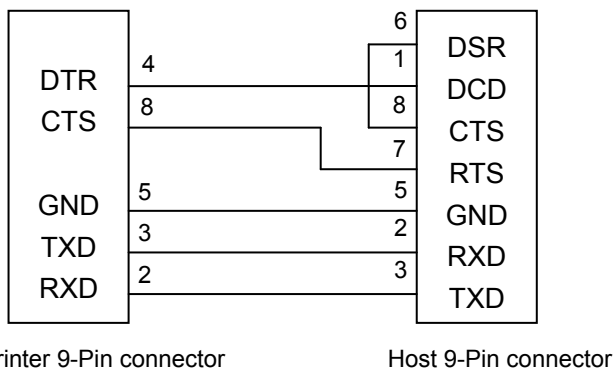


Figure 5-6 The connection figure of host 9 PIN and printer

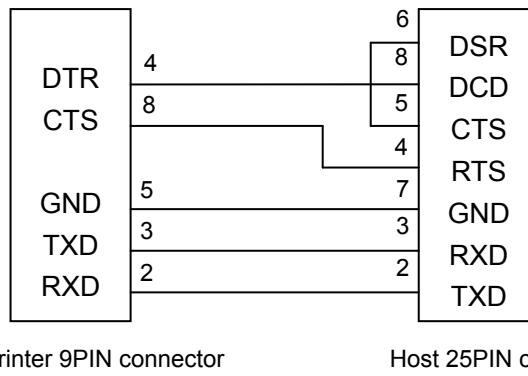


Figure 5-7 The connection figure of host 25 PIN and printer

5.2.5 Ethernet Interface

Ethernet interface of 10/100 Base-T can be connected to 10/100M Ethernet.

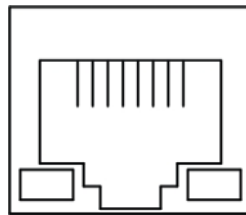


Figure 5-8 Ethernet interface

5.3 Auto-cutter Specification

TP610C is equipped with an auto-cutter assembly; its specification is shown as table A-4:

Table A-4 Auto-cutter Assembly Specification

Item	Specification
Paper width	80 mm (max.)
Paper thickness	0.065 ~ 0.14 mm
Cutting mode	full cut or partially cut leaving point (leaving 1 point, 2mm)
Operation voltage (V)	Motor: 24, detector: 3.3
Startup current (A)	0.8
Cutting speed (second/cut period)	1S
Cutting frequency (cuts/minute)	20
Physical dimensions (length× width ×height) (mm)	95×50×25

Chapter 6 Maintenance and Technical Service

6.1 Cleaning the Printer

Clean the paper scrap and other objects inside the printer periodically.

■ Cleaning periodically and the cleaning tool

Periodical cleaning: every 3 months or every 300 working hours once

Cleaning tool: dry cloth (please use soft cloth to clean metal parts.)

■ Cleaning the paper feed path and the parts under carriage

Wipe off paper scrap and clean dirt and dust.

■ Cleaning the carriage shaft

There is a layer of oil covering the carriage shaft, which guarantees the carriage runs smoothly. But the oil is easy to absorb dust, please clean the dust with soft cloth first, and then add proper amount of lube (NYE180 lube of NYE Company is recommended), move print head back and forth to make lube scattered evenly.

Note: 1. Turn off printer and pull out the power cord before cleaning.

2. While being used under dust circumstance, the carriage shaft may stack much dust, which may affect the print quality. Therefore, please shorten the cleaning period.

3. The temperature of print head and the surrounding part may be high after using. Please avoid cleaning it at the moment.

4. Don't use hard cloth or combustible solvent to clean the printer.

6.2 Error Message on the Control Panel

1) Turn on the printer, all LEDs are off, and printer has no action.

Make sure that the printer is connected to the power, and check whether the two ends of the power cord are connected properly. If it still can not work, plug another electrical device into the outlet to check whether the outlet works properly.

2) Self-test is normal, but online printing is disabled.

- ① Please make sure that the printer is connected with the computer correctly and the paper is already loaded.
- ② If it still can't print in online mode, please replace the interface cable with a new one.

3) Paper out

Phenomenon: ERROR LED blinks and POWER LED is on but printer cannot print; or when the printer stops working during printing, the ERROR LED blinks and POWER LED is on.

Reason: Paper out

Solution: Install the roll paper again.

4) Print head overheating protection

Phenomenon: The print head moves, but prints nothing, POWER LED blinks, and ERROR LED is on.

Reason: The temperature of the print head is too hot, and it enters the protection state.

Solution: Please wait patiently; the print head will work automatically after cooling.

5) Malfunction occurs in auto-cutter.

Phenomenon: POWER LED and ERROR LED blink alternately.

Reason: Auto-cutter is restored incorrectly.

Solution: Restart the printer, the auto-cutter will be restored automatically; if the malfunction still exists, please contact the service center.

6) The rear cover is opened or is not closed properly.

Phenomenon: POWER LED and ERROR LED blink simultaneously.

Reason: The rear cover is opened or is not closed properly.

Solution: Close the cover tightly

7) Print quality

① Phenomenon: The printer can't print at all.

Solution: 1. Check whether the ribbon cartridge is installed or not.

2. Make sure that the interface cable is connected correctly.

② Phenomenon: The printed characters are faint.

Solution: Remove the ribbon cartridge and turn the ribbon knob, then install it again. If the printed characters are still faint, please replace a new one.

8) Print character

Phenomenon: The printer can't print the appropriate characters.

Solution: Make sure the driver is installed correctly, and the character font you selected in the application is what you need.

6.3 Contact the Technical Service Center

If malfunction occurs and you cannot solve the problem through the operation shown in 6.2, the components of the printer are damaged during using or you need to buy some consumables, please contact the authorized technical service center.

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