TYSSO®

# PRP-188

## Thermal Receipt Printer

## Instruction Manual

Save the user manual for future reference.

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# A. Important Safety Notification

- Read the instruction manual carefully before use. Save the manual in the near location for further reference.
- Use only parts or accessories, especially power adapter, recommended by the manufacturer; unapproved parts may be hazardous and cause injures to the product or human.

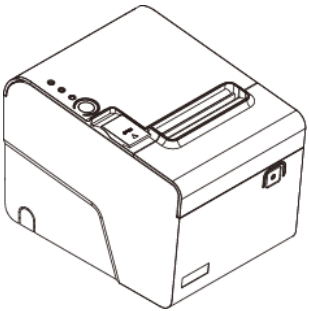
  **WARNING:**
  IF ANY FUNCTIONAL PROBLEMS OR DEFECTS OCCUR WHICH ARE ATTRIBUTABLE TO IMPROPER USE OF THE PRODUCT SHALL VOID THE WARRANTY.

- Refer servicing to qualified personnel only.
- Do not attempt to repair or dissemble the product on your own. Opening or removing cover can expose you to dangerous voltage or other hazards.
- Before plugging the power cord into the AC inlet of the power supply unit, make sure that the voltage applied to the power outlet is within the specified range (100V ~240V). Improper power source voltage range will cause damage to the power supply unit.
- Power off the product and remove the power adapter while cleaning the system.
- Before powering on the product, make sure all the connectors, cables are firmly installed.

## Important Safety Notification

- Do not expose the product to rain or moisture, such as a bathtub, a washbowl, a kitchen sink, a laundry tub, and a swimming pool.
- Do not expose the machine under direct sunlight, and keep it away from any heat source.
- Do not place the product on an unstable location, stand or table. If the machine falls, it may injure a person or cause serious damage to the appliance.
- Do not allow anything to rest on the power cord.
  Do not locate the product where people may walk on the cord.
- Do not make the power outlet and extension cords overload. Overload can result in fire or electric shock.
- If any of the following situations occurs, unplug the product from the power outlet immediately and consult with a qualified service person:
  1. The power cord or plug is damaged or frayed.
  2. Liquid is spilled into the system.
  3. The product is dropped and damaged.
- Use a soft cloth to clean the product when it is dirty. In case the dirt is hard to remove, use a mild detergent and wipe the product gently.
  Turn OFF and unplug the product before cleaning.
- When the product is not in use, clean and stores it with care.

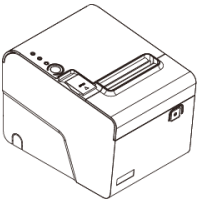
# B. Product Overview



## Main Features

- Splash and dust proof design
- Paper Auto-Cutter
- Vertical printing
- Multi I/O Interfaces:
  (Serial +Ethernet +USB or Parallel +USB)
- Cash drawer connection port (RJ-11)
- Compatible with ESC/POS print commands set
- Various Drivers available
- User friendly, drop-and-print paper installation, simple paper jam elimination
- Optional audible indicator version good for noisy environment operation
- Multiple Language fonts selectable
- DHCP Clint Mode support

# Packing



**Printer Unit**

**Power Adaptor**

***Power Cord**

****Printer Cable**

**Paper Roll**

**Utility CD**

**Quick Installation Guide**

***** Power Cord is selectable depending on the types of electrical plug.

****** Printer cable is selectable depending on the interface required (RS-232, USB, RJ-45 or Parallel).
Please refer to the nearest local representatives for further information.

# Specification

| General | | |
|---|---|---|
| **Print Method** | | Thermal line printing |
| **Print Speed** | | 250mm/sec |
| **Print Life** | | 100 Km |
| **Print Font** | **(ASCII Mode)** | ANK Font.<br>Font A: 12 x 24 dots,<br>Font B: 9 x 17 dots |
| | **Graphic Font)** | Chinese Character: 24 x 24 dots |
| **Print Resolution** | | 576 dots/line or 512 dots/line |
| **Print Font Character Support *** | | International Font, Big 5 Chinese, GB Chinese, Japanese, Korean selectable |
| **Character Per Line** | | 48 (Font A) / 42(Font B) |
| **Effective Print Width** | | 72mm |
| **Paper Width** | | 79.5mm± 0.5mm |
| **Paper Roll Diameter** | | ≦83mm |
| **Paper Thickness** | | 0.06~0.08mm |
| **Driver** | | Win 9X/Win ME/Win 2000/ Win 2003/Win NT/Win XP/ Win Vista/Win 7, Win 8 compatible with EPSON and SAMSUNG |
| **Print Command** | | ESC/POS print commands set |
| **Buffer** | **Receipt** | 128K bytes |
| | **User-Defined** | 128K bytes |
| | **NV Flash** | 256K bytes |

*** All specifications are subject to change without prior notice.**

| **Interface** | |
|---|---|
| **I/O Interface** | Multi I/O Interface (Serial +Ethernet +USB or Parallel type selectable) |
| **Cash Drawer** | DC 24V/1A, 6-Wire RJ-11 |

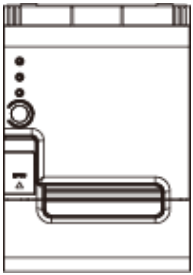
| **Notification** | |
|---|---|
| **Indicator** | Audio and LED Indicators |
| **Auto Cutter** | Partial |
| **Paper End Notice** | Yes |
| **Over-Heat Halt-on Protection** | **Yes** |

| **Others** | |
|---|---|
| **Power Input** | 24VDC/2.5A (External Adapter: 100~240VAC 50/60Hz) |
| **Color** | Black |
| **Compliance** | FCC / CE / WEEE / RoHS |
| **Weight** | 1600g (without cable ) |
| **Dimension (mm)** | 202(L) x 140(W) x 149(H) |
| **Operating Temperature** | 0°C~45°C |
| **Operating Humidity** | 10% ~ 80% RH, non-condensing |
| **Storage Temperature** | -10°C~ 60°C |
| **Storage Humidity** | 10% ~ 90% RH non-condensing |

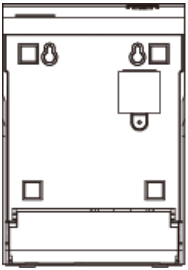
*** All specifications are subject to change without prior notice.**

# Part Description

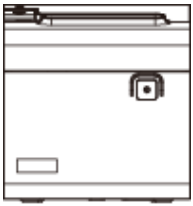
## Product Views



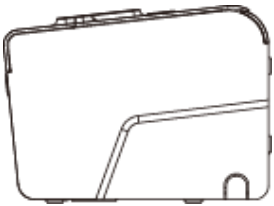
Top View



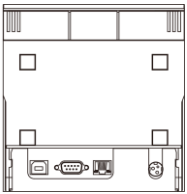
Bottom View



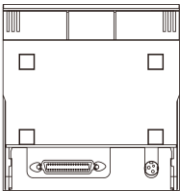
Front View



Side View

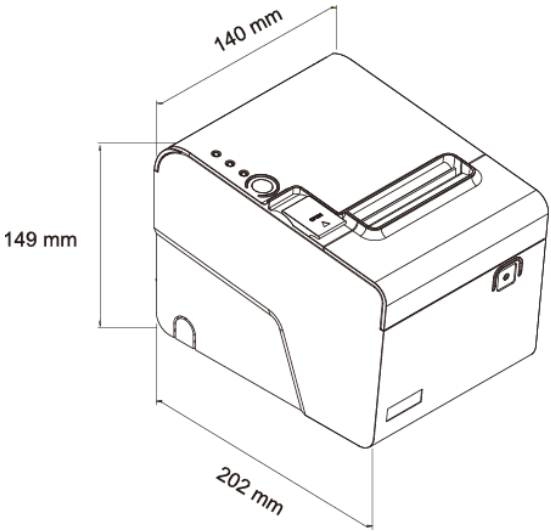


Rear View (Serial/USB)

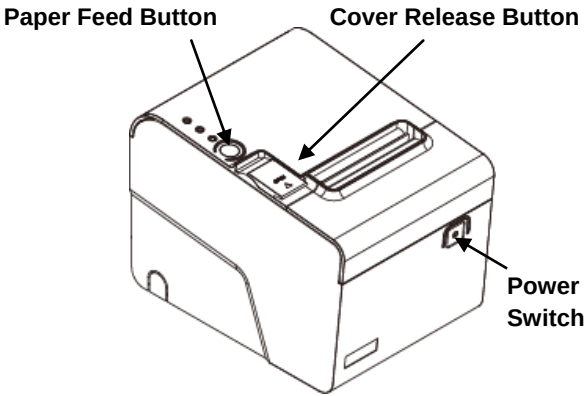


Rear View (Parallel)

## Dimensions



## Control buttons & Indicators

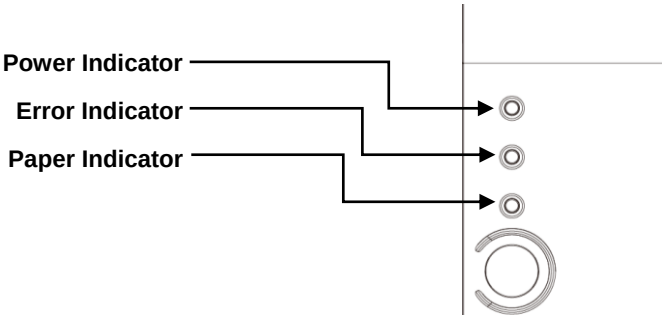



**Paper Feed:**

This function is to advance the paper.
Press the key and the paper advances by a single line.
Press and hold the key for over 3 seconds and the paper advances by multiple lines.

**Cover Release Button:**
Push the button to the right to open the printer cover.

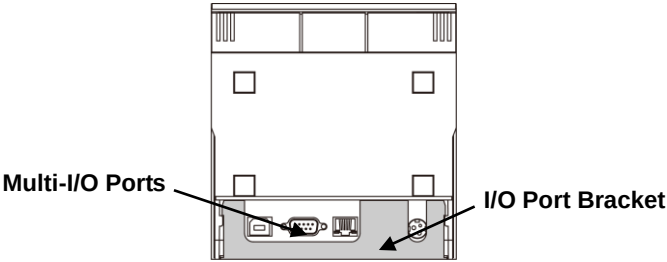
## Indicator Status



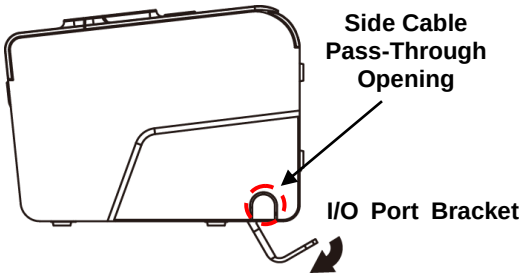

| Indicator | Status | Description |
|---|---|---|
| Power | | Power Off |
| | | Power On |
| Error | | Printer Error (Out of paper, Printer head over heat, or paper cutter error) |
| Paper | | Out of paper<br>* The Error Indicator is lit as well |

## I/O Ports & Cables

When plug the cables to the printer, pull the I/O Port Bracket beforehand so as to secure connectors easily.
Open the side cable pass-through opening if necessary.




**Rear View**

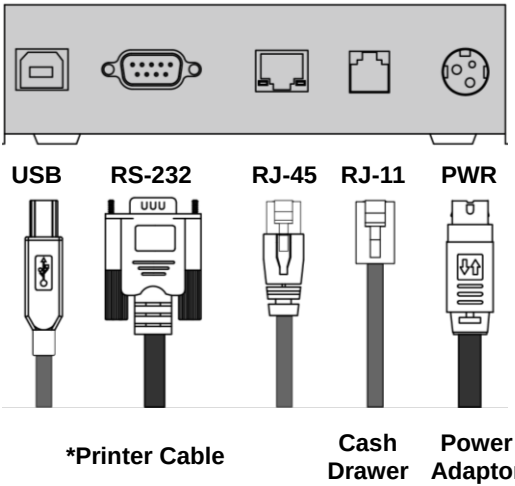



**Side View**

**Note:**
Remember to re-install the I/O Port Bracket to the printer as the connectors are properly secured.

## Multi-I/O Ports

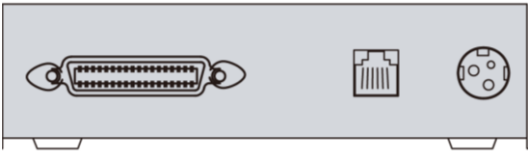
### RS-232/USB Type



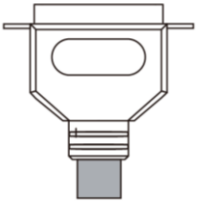

***** Printer cable is selectable depending on the interface required

Please use the supplied printer cable or purchase it separately

## Parallel Type



**Parallel Port** **RJ-11** **PWR**

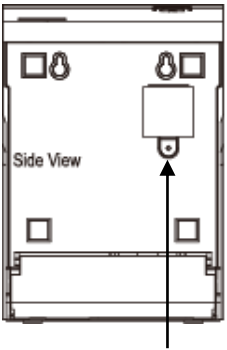


**Printer Cable** **Cash Drawer** **Power Adaptor**

# DIP Switch Configuration

To change the setting of the printer manually:

1. Turn off the printer.
2. Loosen the securing screw to remove the protective cover of the DIP Switches.
3. Adjust the switches to configure the printer.




**Protective Cover**

## DIP Switch Setting

**Configuration DIP Switches**

| DIP | Function | ON | OFF |
|---|---|---|---|
| 1 | Paper Cutter | No | Yes* |
| 2 | Audio Alarm | Yes * | No |
| 3 | Print Density | Dark | Light * |
| 4 | Two-byte Character Code | No | Yes* |
| 5 | Character Per Line | 42 | 48 * |
| 6 | Cutter with Cash Drawer | Yes | No * |
| 7 & 8 | Baud Rate Setting | --- | OFF* |

The “*” mark indicates the default value of each setting.

**Baud Rate Setting (DIP 7, DIP 8)**

**19200**
**(*Default)**

9600

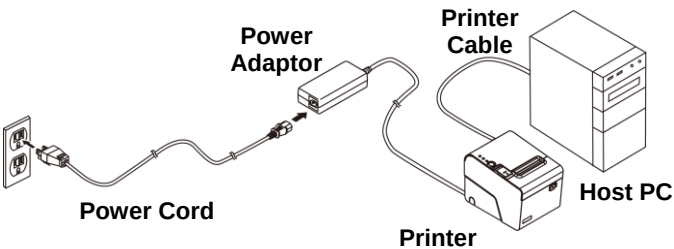
115200

38400

# C. Installing your Printer

## Connecting Your Printer

Please check the printer and the supplied accessories before Installation. It's recommended to read the entire instruction manual prior to the installation.

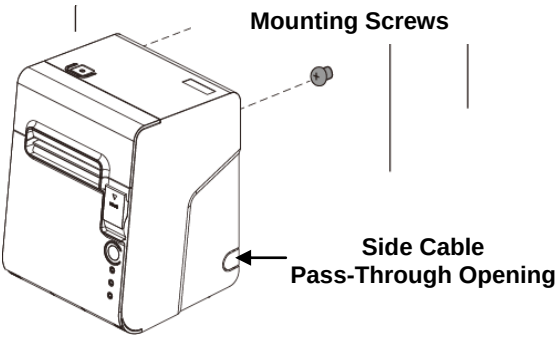


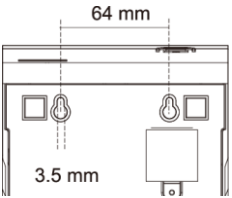

1. Place the printer on the designate location.
2. Detach the I/O Port Bracket.
   Plug the connector of Power Adaptor to the printer.
3. Use the supplied Printer Cable (RS-232, Serial, USB or RJ-45) and connect to the Host PC.
4. Plug the Power Cord to the Power Adaptor and then plug to the power outlet.
5. If there is a Cash Drawer to be connected, connect the RJ-11 cable to the printer.
6. Re-install the I/O Port Bracket.

# Vertical Printing Installation

You can install the printer onto a flat surface vertically and perform printing tasks. It is convenient when the space is important concerns:

1. Secure two mounting screws onto the location (e.g. wall).
2. Connect the cables to the printer.
3. Place the printer on the location with the mounting holes fitted on the screws.

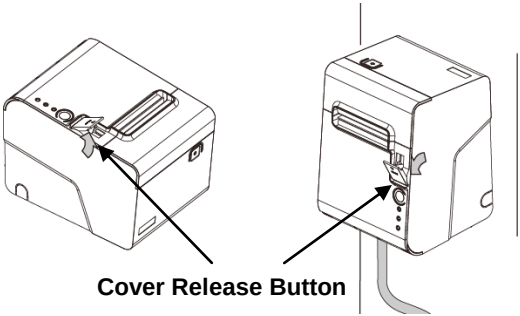


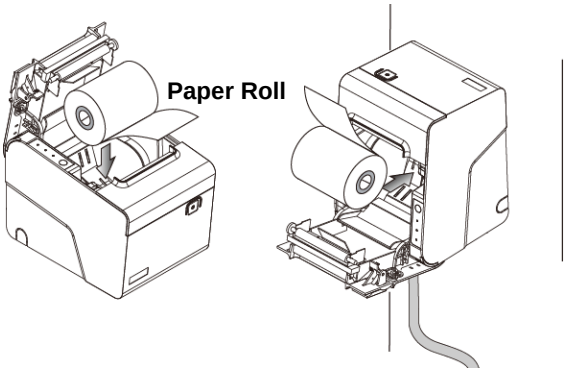

**Mounting Holes**

# Install/Replace the Paper Roll

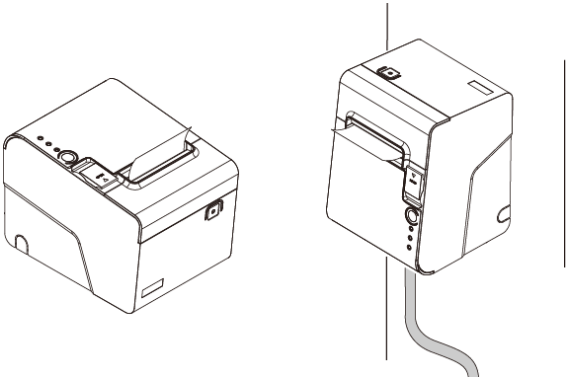
1. Pull the Cover Release Button to open the Cover.




2. Roll out and install the Paper Roll into the Printer.



3. Replace the Cover and tear out the paper.



# Installing the Driver of Your Printer

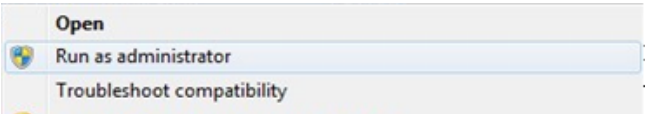
Before installing the driver of your printer, make sure the printer is properly connected to the host PC.

Place the supplied Utility CD into the CD-ROM drive. Browse the CD and install the required software.

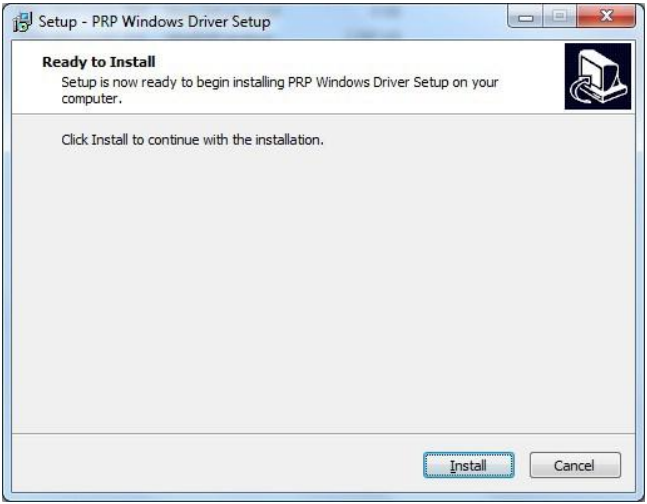
1. Double click the icon “SetupPRP.EXE” to initiate the installation.

**Note:**

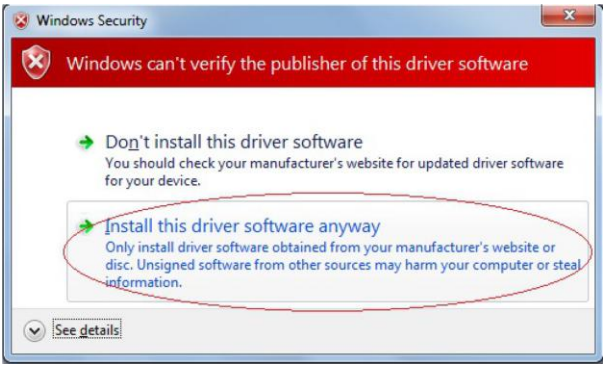
For Windows 7 / Vista and the later version, Please Right-Click the icon and use “**Run as administrator**” option while installing the Driver.



2. Click “Install” to continue.

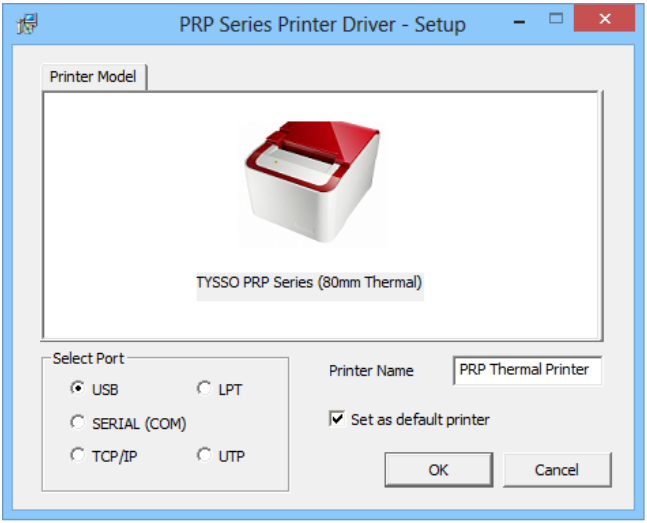


3. Select “Install this driver software anyway”.



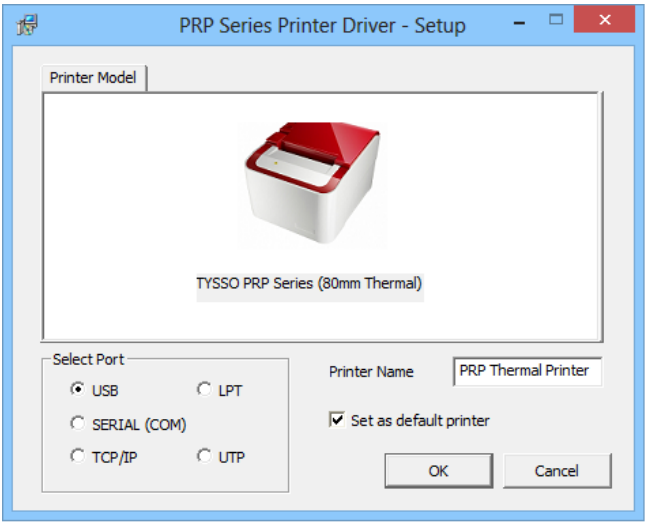
4. **Select the Printer Port.**
   Enter printer name and select the port type for installation.
   (USB, Serial, TCP/IP, LPT or UTP).

5. You can click the checkbox to set the printer as default printer.
   Click “OK” to continue.

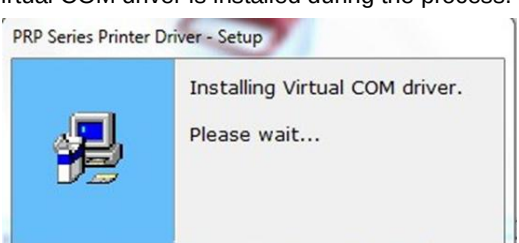


**a. For USB Interface**:

Select the USB port

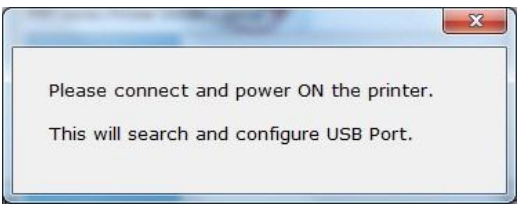



The Virtual COM driver is installed during the process.



- **Searching USB Device:**

If the printer is already attached and the message box below is displayed,
please Power OFF and Power ON the printer to continue installation.

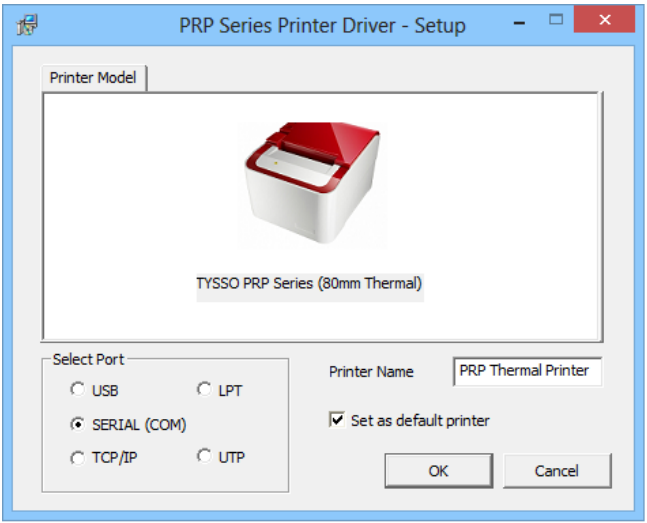


- **Installation completed**

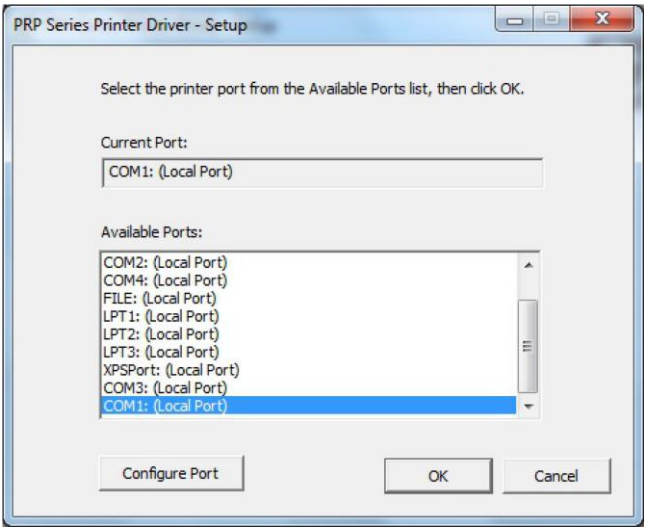
The driver is successfully installed.
Click “Finish” to exit the menu.

## b. For Serial Interface

Select and configure the serial port for driver installation.



Select the COM port preferred and click “OK” to continue.

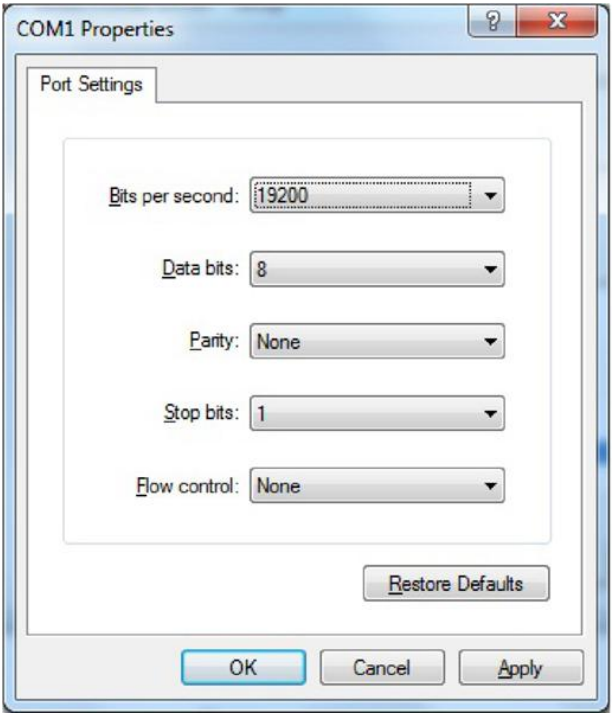



To configure the selected COM port, select the COM port and click “Configure Port” to continue (see next page).

- **Configure the Serial Port:**

Select the proper settings

(baud rates. Data bits, parity…etc.

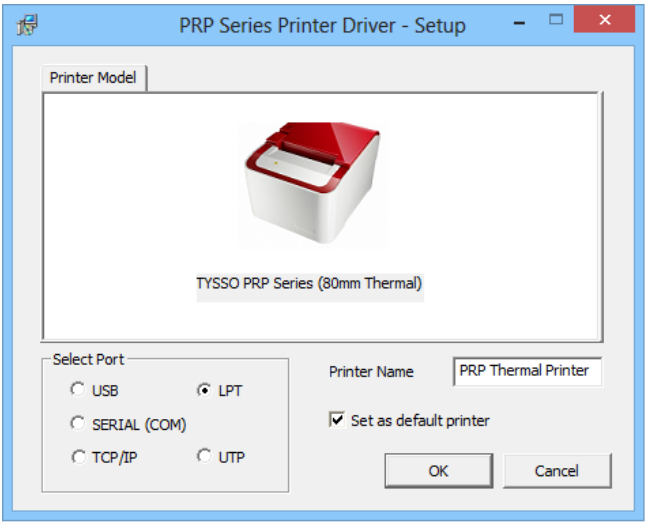


- **Installation completed**

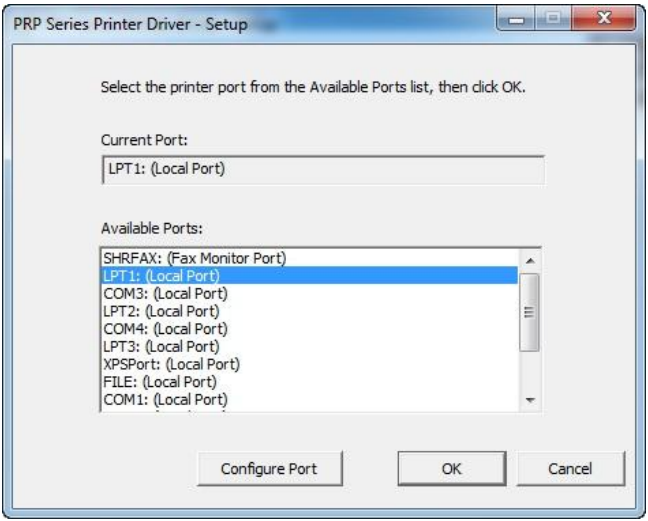
The driver is successfully installed.
Click “Finish” to exit the menu.

### c. For LPT Interface:

Select the LPT port



Select the LPT port preferred and click “OK” to continue.




- **Installation completed**

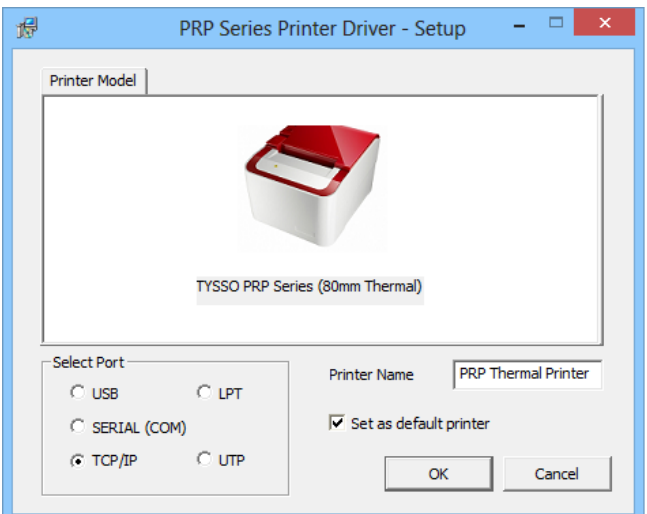
The driver is successfully installed.

Click “Finish” to exit the menu.

### d. For Ethernet (TCP/IP) Interface:

Select and assign a TCP/IP port for your printer.

Click “OK” to continue.



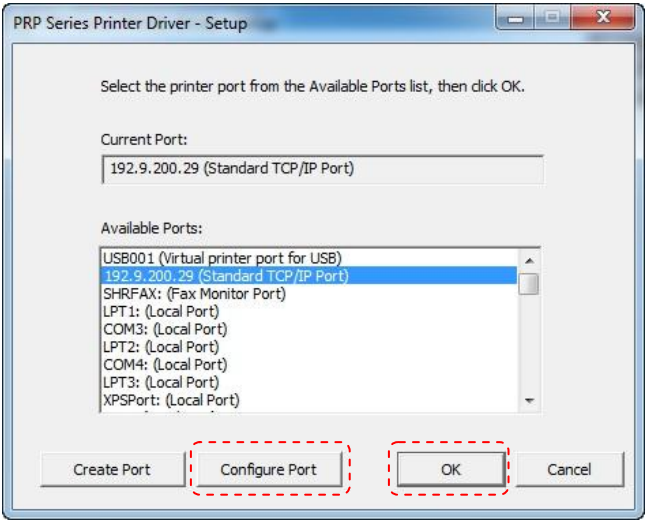

**Note**:

**Printing on the TCP/IP Port is only possible if both IP Address (Printer and Computer) belongs to the same class.**

- **Select IP Address**

Move the cursor to the Available Port (IP address).

Click “OK” to continue.

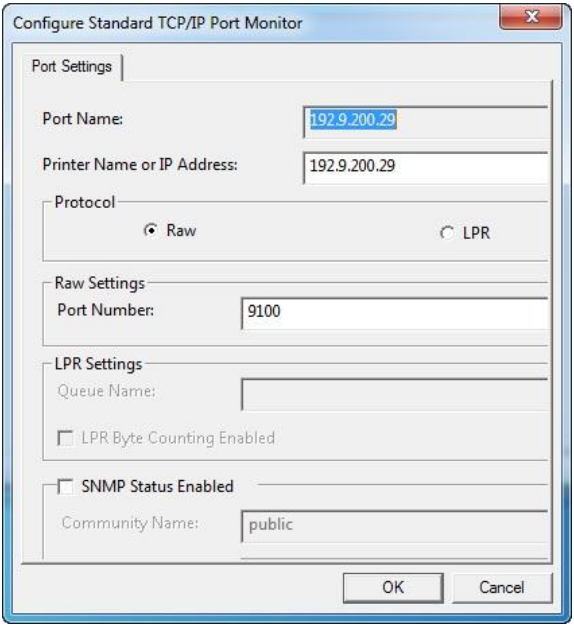



**Note:**

User can configure the selected IP port or create a new IP address manually.

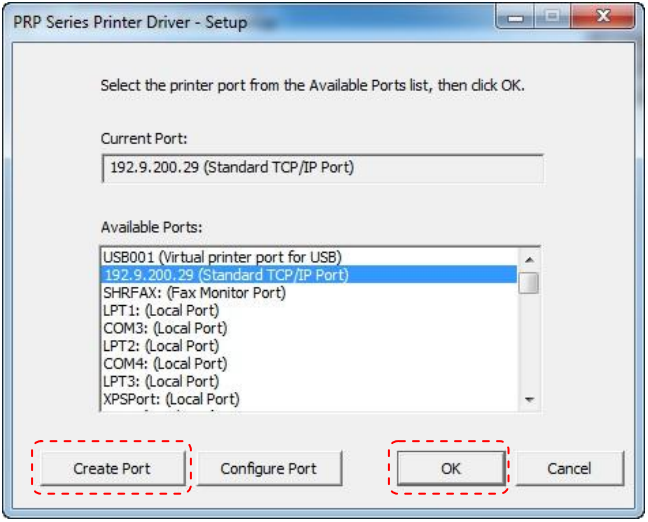
**To Configure The TCP/IP Port:**

Configure port (If required) by clicking “Configure Port” button and apply settings.



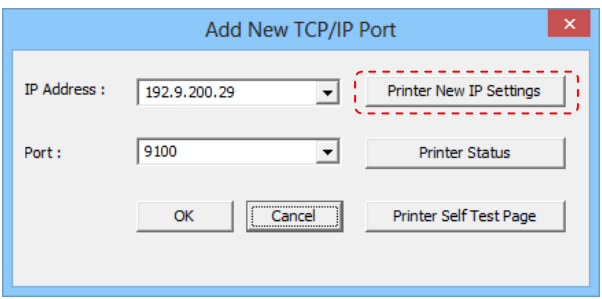
## To Create a New TCP/IP Port:

If TCP/IP port doesn't exist in the list, click "Create Port" button for further installation.



## Add New TCP/IP Port:

IP Addresses of all the Printers that are attached over the network are shown in “Add New TCP/IP Port” dialog.




**IP Address:**

The present IP address setting of the printer. Select a correct IP address for the printer.

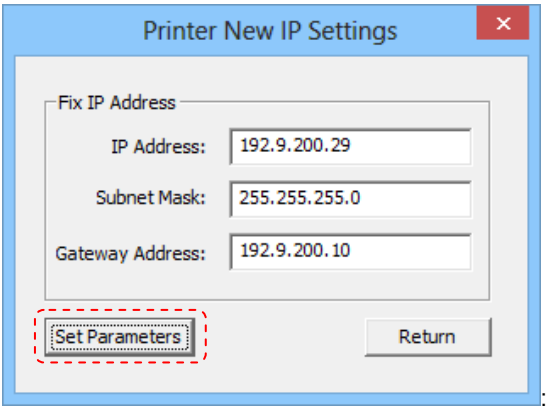
**Printer Self Test Page:**

User can click “Printer Self Test Page” button to print out the test page.

**Set Parameters:**

Click “Printer New IP Settings” button to configure the Printer parameters settings (see next page).

**Printer New IP Settings:**



:

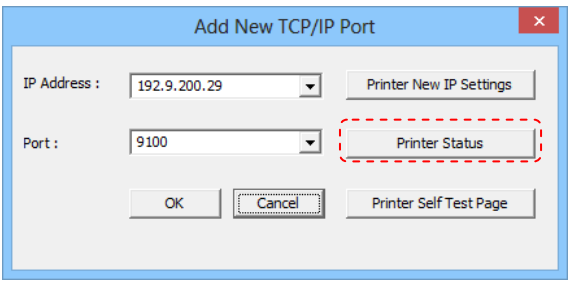
User can enter the New IP address, Subnet Mask, and Gateway Address manually.
Click “Set Parameters” button to confirm the new parameters of Printer.

**Note: Reboot the Printer**
The printer will reboot automatically and return to the previous menu after the new parameters are confirmed.

**Cancel:**
User can click “Return” button to cancel the new IP settings and return to the previous menu.

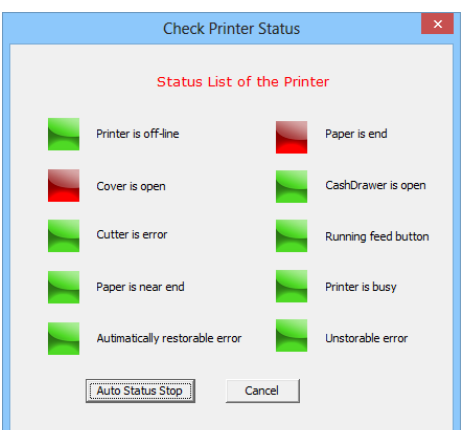
**Printer Status:**

Click “Printer Status” to examine the printer.




Check the status list and resolving the red-mark items.

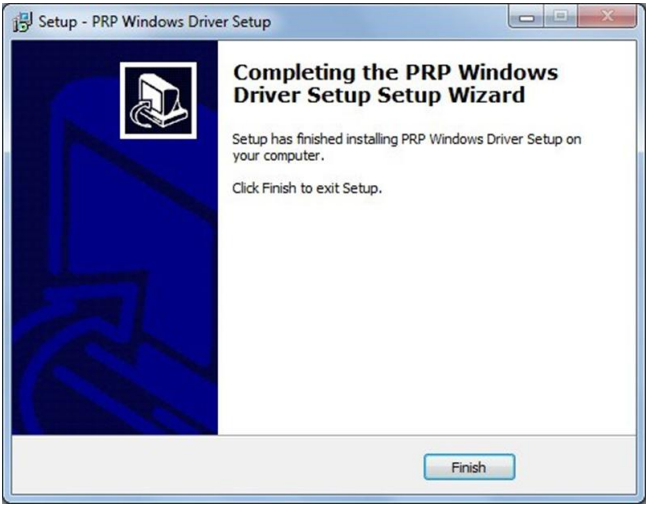
Click “Cancel” to return



- **Installation completed**

The driver is successfully installed.

Click “Finish” to exit the menu.



## e. For UTP Interface

**WARNING:**

This instruction is ONLY for customized model with UTP (USB to Parallel) interface.

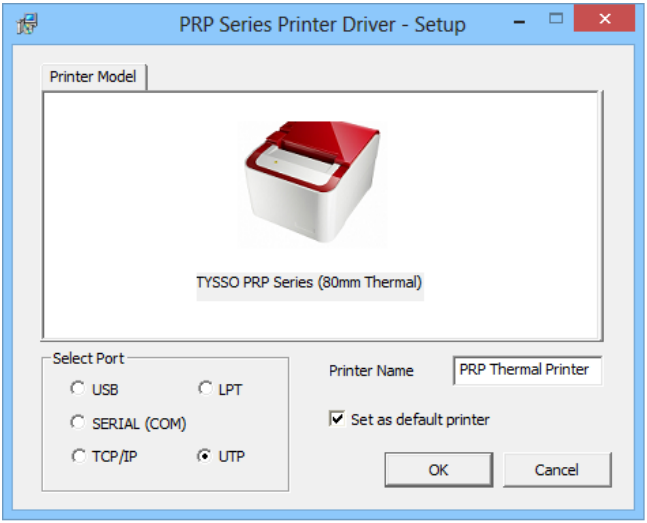
DO NOT install the driver to any models not support the UTP interface. It may cause the printer not functioning

**Before Installation:**

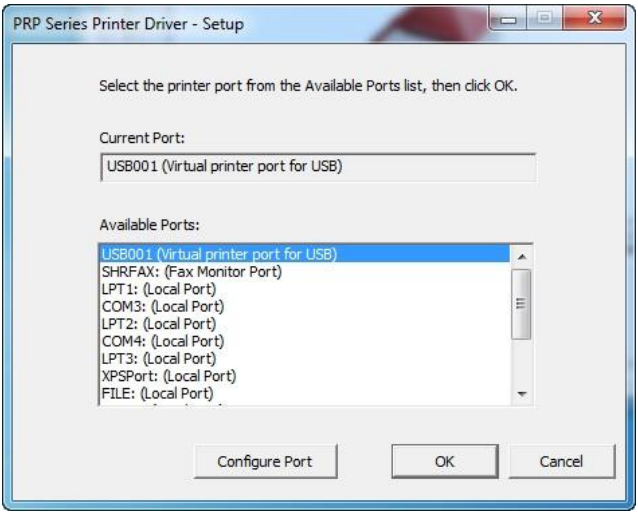
Please consult the local supplier and purchase the customized models support UTP (USB to Parallel) interface.

- Select the UTP Port

Select the UTP port and Click “OK” to continue.



Select the LPT port preferred and click “OK” to continue.



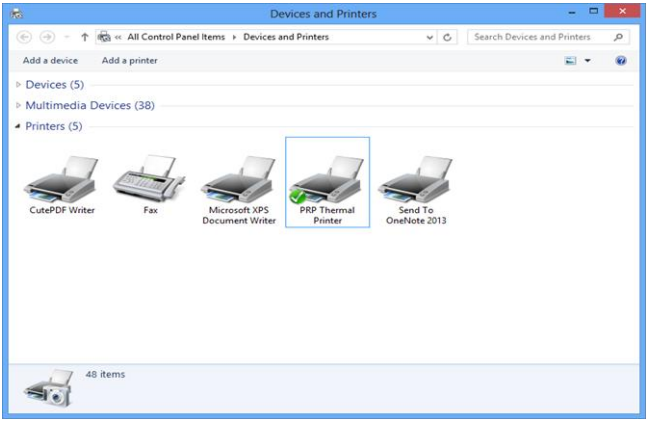
- **Installation completed**

The driver is successfully installed.

Click “Finish” to exit the menu.

## f. Examine the Printer

Now user can access to the “Devices and Printers” and examine the new printer.



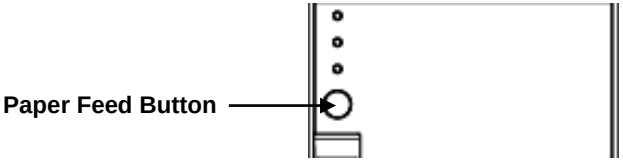
# D. Appendix

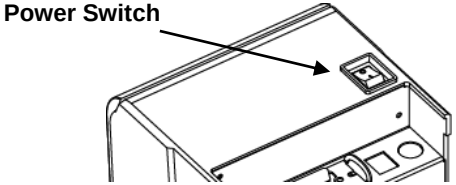
## 1. Self Test

This function allows user to perform self-test and print out the settings of the printer unit:

1. Turn off the printer.
2. Press and hold the Paper Feed Button.
3. Turn on the Power Switch of the printer.
4. Release the Paper Feed Button.

The Indicators would blink and then the printer starts printing out the self test data.



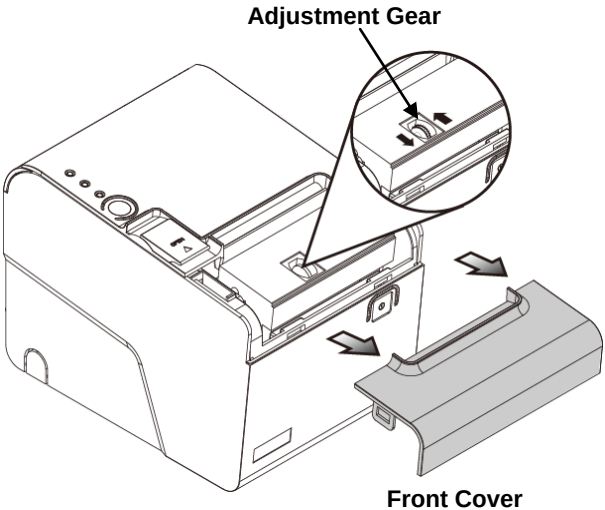
## 2. Cutter Maintenance

In general, the printer will initial and reset the cutter when turn on the power. To reset the cutter back to the initial position:

1. Turn off the printer.
2. Turn on the printer and the printer will initial and reset the cutter.

User can manually reset the cutter back to initial position (as images illustrated):

1. Push the Cover Release Button to open the Cover. Examine and remove the paper dust from the printer by using a soft brush.
2. Push the Front Cover and remove it from the printer.
3. There is an Adjustment Gear in the cutter.
   Turn the Adjustment Gear to move the cutter back to the position.

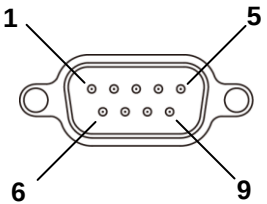



**Note:**
Do not remove the protective cover with force or it may damage the cutter or printer head.

**Warning:**
Beware of the Cutting Edge of the cutter module during maintenance in order to avoid injury to the person near the printer.

# 3. Interface PIN Assignment

- **RS-232 Pin Assignment**




| Pin | Signal | Description |
|---|---|---|
| 1 | N.C. | --- |
| 2 | TXD | XON/XOF Handshake (Control codes transmission). |
| 3 | RXD | Data transmission (the printer receives data from the HOST) |
| 4 | N.C. | --- |
| 5 | GND | Ground |
| 6 | DTR | Printer Status |
| 7 | N.C. | --- |
| 8 | RTS. | Printer Status |
| 9 | N.C. | --- |

## ● Parallel Pin Assignment

| Pin | Signal | Signal Source | Description |
|---|---|---|---|
| 1 | /STB | HOST | The HOST (computer) presents the data on the data lines and pulses STB. |
| 2 | DATA0 | HOST | Indicates Data Bit 0 ~ Data Bit 7 (8 bits) |
| 3 | DATA1 | | |
| 4 | DATA2 | | |
| 5 | DATA3 | | |
| 6 | DATA4 | | |
| 7 | DATA5 | | |
| 8 | DATA6 | | |
| 9 | DATA7 | | |
| 10 | nAck | Printer | Acknowledge Signal (Indicates that the printer has received the data successfully and ready to receive the next data). |
| 11 | BUSY | Printer | Printer is busy and cannot receive data from the HOST. |
| 12 | PE | Printer | Printer Paper is out. |
| 13 | Select | Printer | High electric potential. |
| 14, 15 | N.C. | --- | --- |
| 16, 17 | GND | --- | Ground |
| 18 | Logic-H | Printer | High electric potential. |
| 19 ~ 30 | GND | --- | Ground |
| 31 | N.C. | --- | --- |
| 32 | nFault | Printer | Printer Error Signal |
| 33 | GND | --- | Ground |
| 34 ~ 36 | N.C. | --- | --- |

- **RJ-11 Pin Assignment**

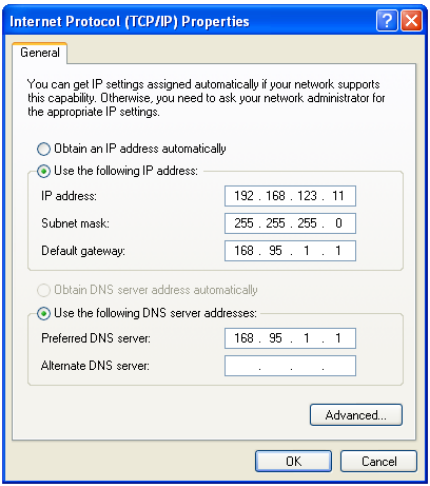
| Pin | Signal | Signal Direction | Description |
|---|---|---|---|
| 1 | Ground | --- | Frame Ground |
| 2 | Cash Drawer Kick Out Signal 1 | Output | --- |
| 3 | Cash Drawer Status | Input | Open/Close |
| 4 | +VDC 24v | --- | --- |
| 5 | Cash Drawer Kick Out Signal 2 | Output | --- |
| 6 | GND | --- | Signal Ground |

# 4. Ethernet Connection and Configuration

When connecting the printer to the Host PC, you can:

1. **Direct Cable Connection:**
   Use the supplied Ethernet crossover cable to create a direct cable connection to your Host PC.

   **Note:**
   Be sure to assign the IP address of the Host PC under the same subnet as your Printer
   e.g.: Printer: **192.168.123.**100
   Host: **192.168.123.**xxx




**Assign the IP address of the Host PC (Direct Cable Connection)**

2. **DHCP Client Connection**:

Connect the printer to the Local Net work (via HUB) with a standard Ethernet Cable.
The DHCP server will assign an IP address to the printer.

Be sure to configure the printer to the **DHCP Client Mode** before install the printer to the Local Network.

**Note:**
It's recommended to consult the MIS personnel relating to the information about the Local Network and IP address assignment.

## ● Acquire the IP address of the Printer

You can perform Self-Test of the printer and acquire the IP address of the printer.

### ■ Fixed IP Setting (Default)

If a fixed IP address is assigned to the printer,
perform the self-test and the printer will print out the data.

| | |
|---|---|
| Protocols: | TCP/IP (A1) |
| Mac address: | X-XXX-XXX-XX |
| IP address: | 192.168.123.100 |
| Netmask: | 255.255.255.0 |
| Gateway: | 192.168.1.1 |
| DHCP: | Disabled |

**Print out the Self-test data**

**Note:**
The default IP address is 192.168.123.100

## ■ DHCP Client Mode

If the printer is set to DHCP Client mode, the DHCP server will assigned an IP address to the printer when connecting to the local network.

Perform the self-test and the printer will print out the test data; then the printer will stand by to receive the IP address from the DHCP server.

As the IP address is assigned to the printer and configuration is completed, the printer will print out the assign IP address.

```
Ethernet is configuring…



Mac address:          X-XXX-XXX-XX
IP address:           168.95.XXX.XXX
Netmask:              255.255.255.0
Gateway:              192.168.1.1
DHCP:                 Enabled
DHCP Timeout (s) : 90
```

**Note:**
The printer will be set to the default IP address (192.168.123.100) when there is not any IP address assigned to the printer (DHCP timeout is 90 seconds).

## ● IP Reconfiguration

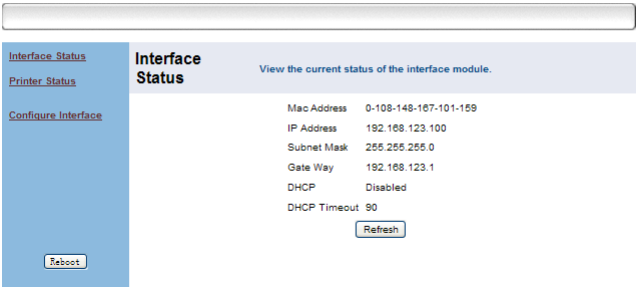
You can open the web-browser and type the IP address to access the **Ethernet WebConfig** utility.

**Note:**
When first re-configuring the IP address of the printer, you may need to use the supplied Ethernet crossover cable to establish a direct cable connection to your Host PC and start IP re-configuration.

### ■ Interface Status

This menu displays the current configuration data of the printer. Click “Refresh” to acquire the newest data.

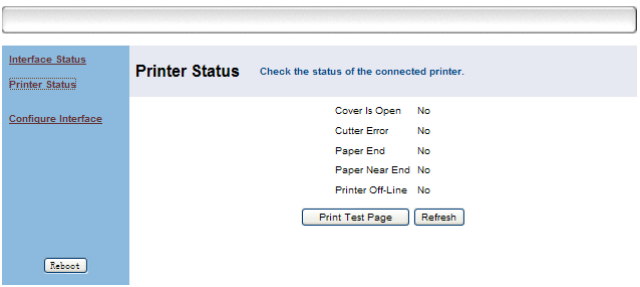
**Ethernet WebConfig Version 1.00**



## ■ Printer Status

This menu displays the printer status and can perform print test.

**Ethernet WebConfig Version 1.00**



## ■ Configure Interface

This menu can change the IP address of the printer.

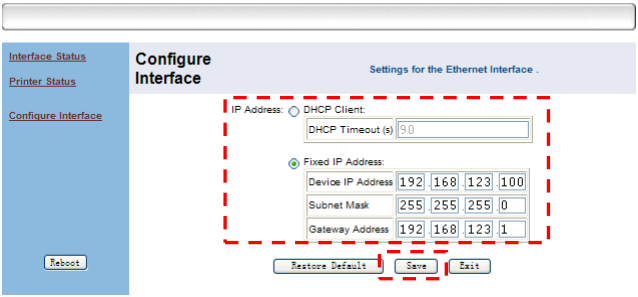
To change the IP address.

1. Type the new IP address and click “Save” button. User can set to “DHCP Client” to enable the DHCP mode.

   **Note: DHCP Timeout**
   The DHCP time out is configurable from 14 sec to 90 sec.

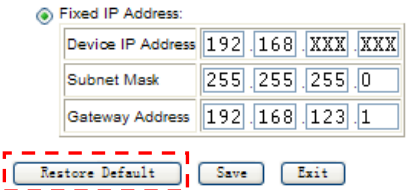
2. Click “Reboot” button to re-initiate the printer.

**Ethernet WebConfig Version 1.00**



**Note: Restore Default Configuration**

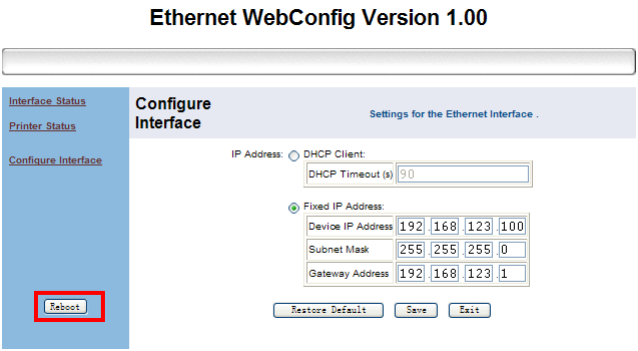
You can click “Restore Default” button to retrieve the factory IP configuration data of the printer.
(IP Address: 192.168.123.100)

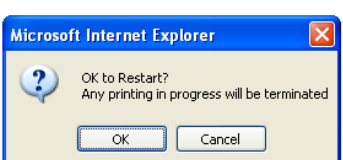


## ■ Reboot

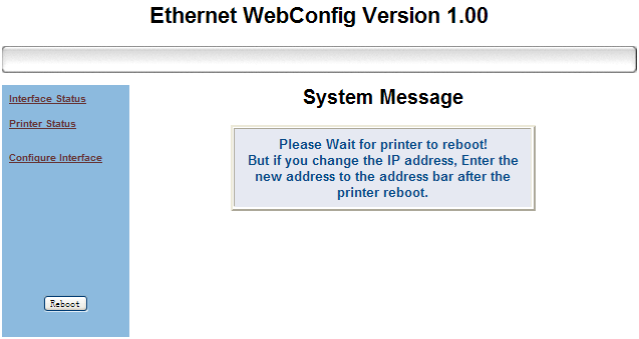
This function can re-initiate the printer and apply the new configuration.

1. Click the “Reboot” button to re-initiate the printer. Click “OK” to proceed.



2. The Printer is initiating.




3. Printer is initiated successfully.

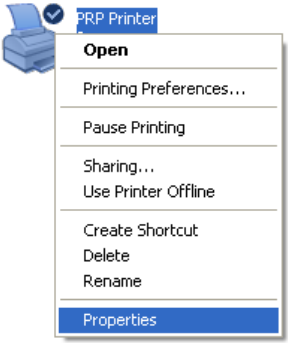
**Note:**

Be sure to access the printer using the new IP address after reboot the printer.

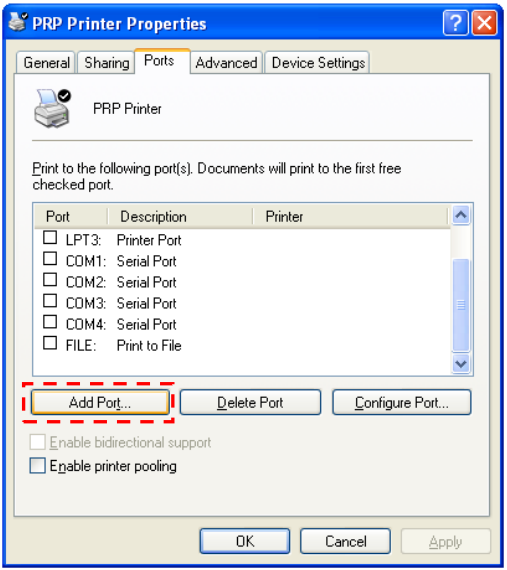
## ● Setup the TCP/IP Printer Port

After the IP address of the printer is re-configured, you can install the printer driver and setup the printer port of your printer.

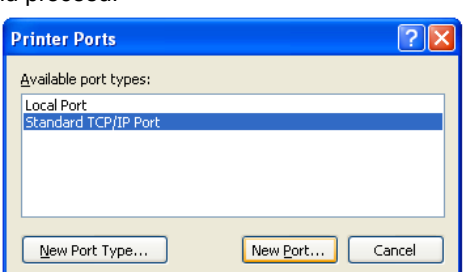
1. Access “Start>>Printer and Faxes>> Printer properties.



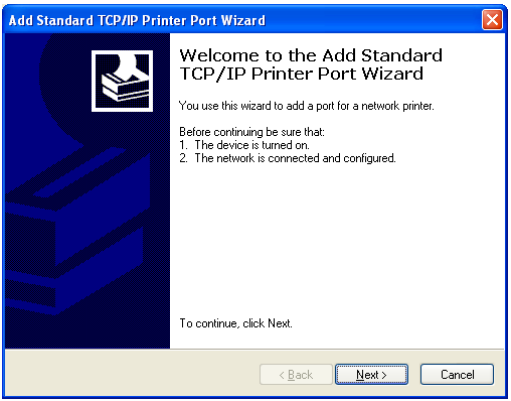
2. Access submenu “Port” and click “Add Port”.



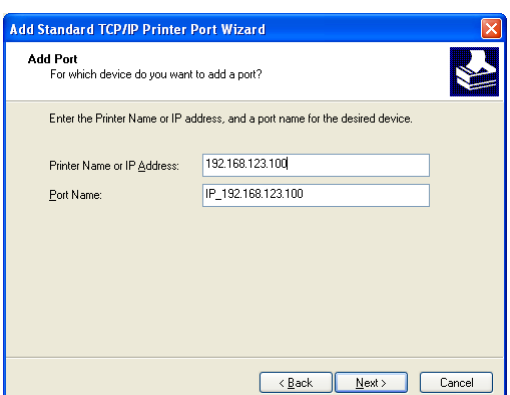

3. Select “Standard TCP/IP Port” and click “New Port.” and proceed.



4. Add TCP/IP Print Port Wizard initiated.
Click “Next” to continue.

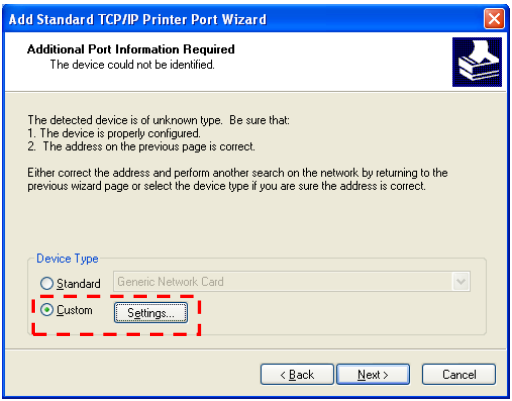



5. Enter the IP address of the Printer then proceed.



6. **Additional Port Information.**

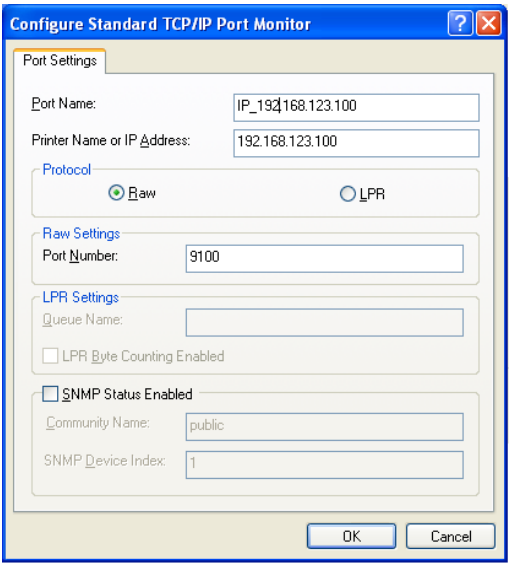
Select “Custom” and click “Setting” to continue.



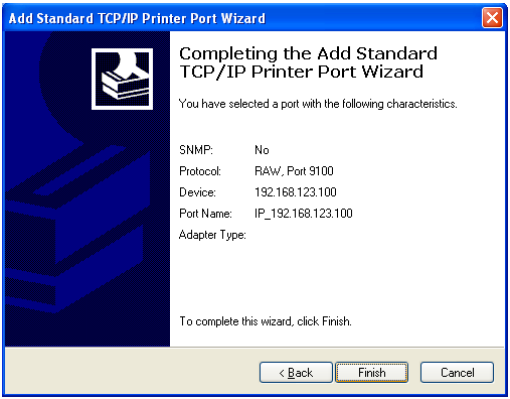
7. **Port Setting.**

Please examine the IP address should be the same to the Printer.

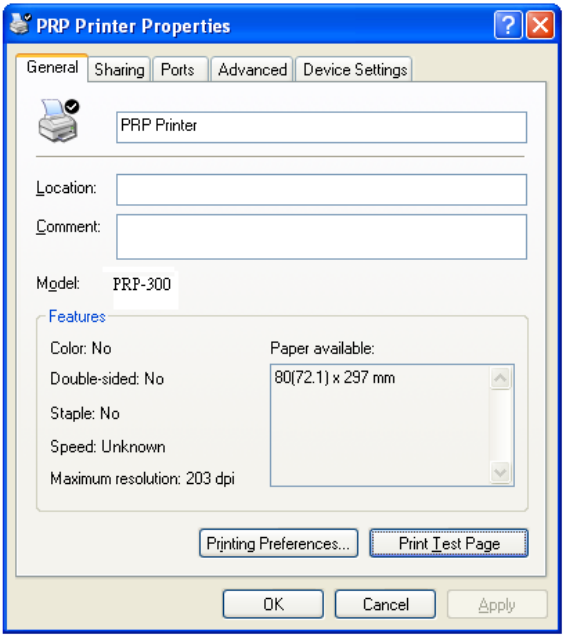
Select the protocol “Raw” and click “OK” to continue.



8. Click “Finish” to complete.

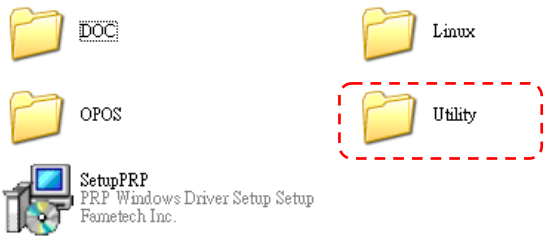


9. You can exit the setting menu and open the printer properties to perform print test. Click “Print Test Page” to perform the test.

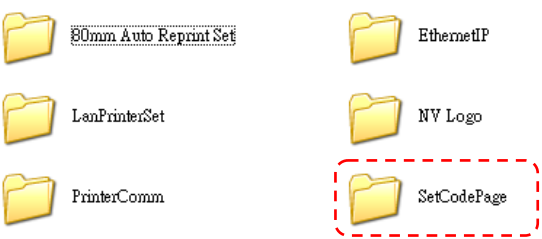


# 5. Code Page Setup

1. Browse the CD and open the folder “Utilities” to install the required software.




2. Click the folder “SetCodePage” to access the software




3. Double click the icon “Setup.EXE” to initial installation. Follow the instructions to install the utility.

## ● Code Page Setup Utility

This utility can help user to setup the code page of the printer.

**Note: Before Setup**

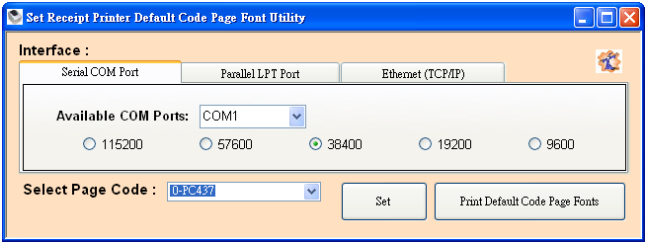
It may need to re-configure the printer prior to the codepage setup (e.g.: DIP switch).
It's recommended to consult the technical personnel relating to the information about the code page and application.

### ■ Interface

User can establish communication with printer via this menu. Select the proper submenu by the connection type of the printer.

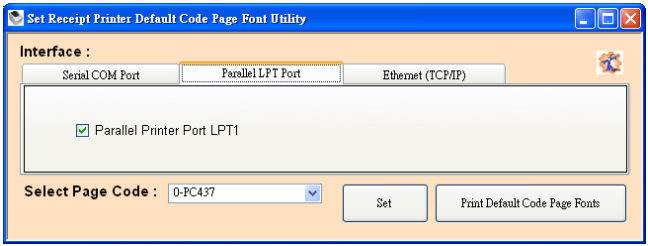
**For Serial COM Port:**

Select the proper COM port and baud rate to establish communication.



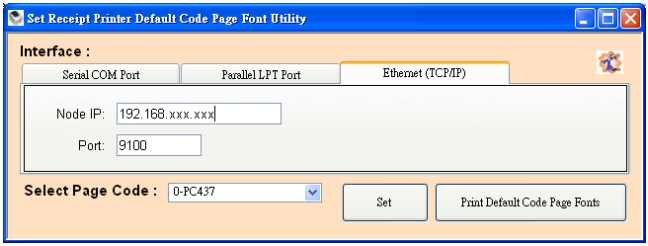
**For Parallel LPT Port:**

Select LPT1 as the printer port to establish communication.




**For Ethernet (TCP/IP):**

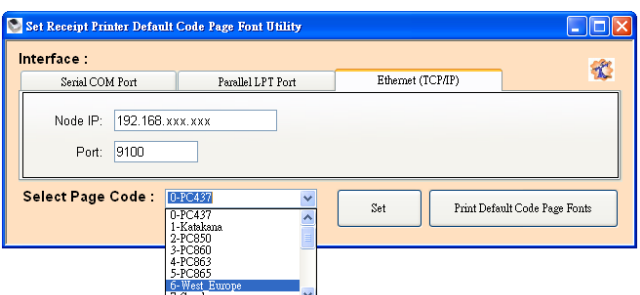
Enter the IP address of the printer to establish the communication.



## ■ Select Page Code

To select the codepage desired:

1. Make sure to the DIP switch 4 of the printer is set **ON** (please refer to DIP Switch Configuration for further information).
2. Go to the scroll menu and select the preset codepage desired.
   User can enter the codepage number into the field manually. (Please refer to the printed Self-Test page for the code number support).
3. Click “Set” button to confirm the setting.




4. **Re-initiate the Printer:**
   Be sure to **Turn-Off and Turn-On** the printer again to initiate the printer with new codepage setting.
   (User can perform the self-test again to exam the new codepage setting)

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