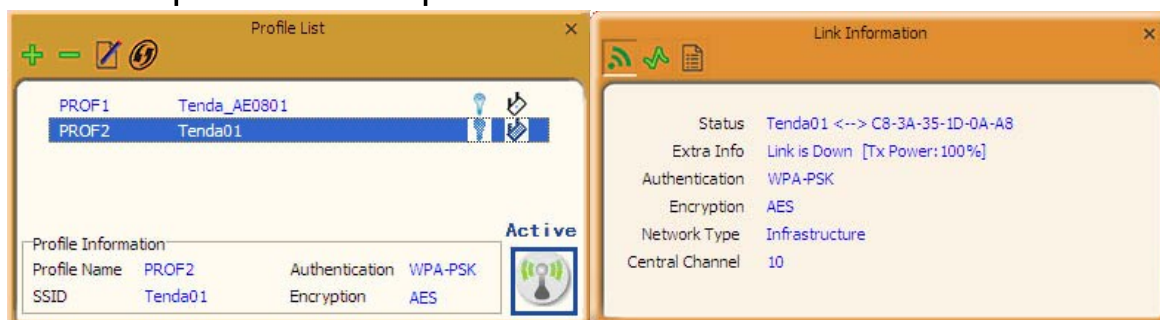


Tenda Wireless Network Adapter User Guide



Now, you may see the added profile in the list. You can edit or delete it. By clicking Connect, you will quickly connect to the wireless network specified in the profile.



Note:

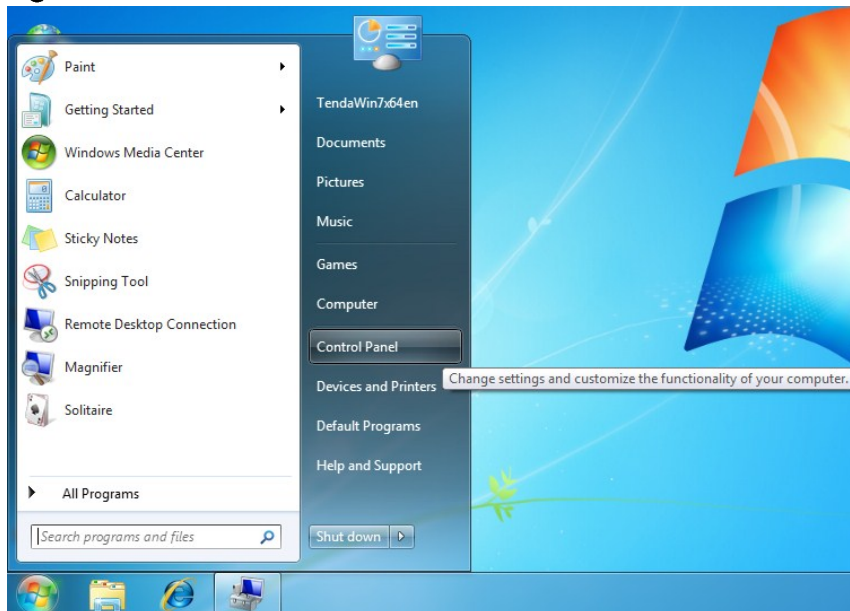
If you wish to join a hidden network (wireless AP or wireless router that does not broadcast its SSID), you must add a profile to manually connect to it.

Profile Set Up for Ad Hoc Mode

By using ad hoc mode for communication, each PC must have a wireless adapter for sharing resources. All PCs on the Ad Hoc network must be configured with static IP addresses manually. Setting up the Ad Hoc is easy.

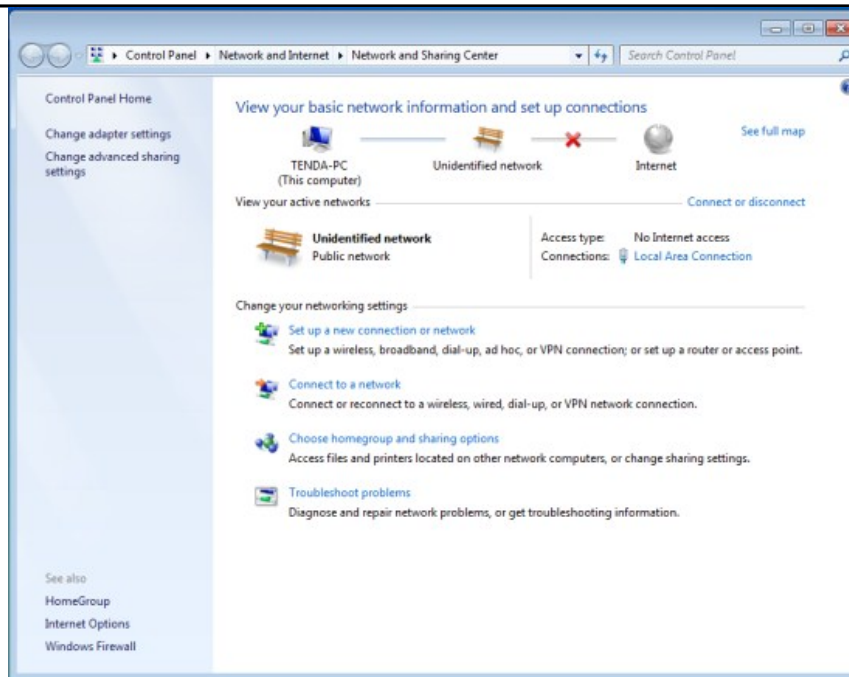
Simply follow below instructions to assign a static IP address to your wireless network adapter (for Windows 7):

(1) Click on Start > Control Panel > Network and Internet > Network and Sharing Center.

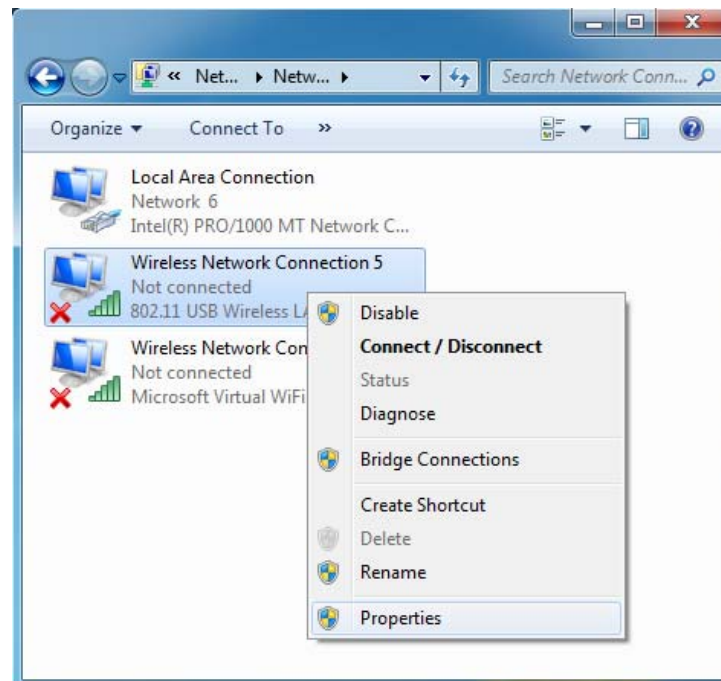


(2) Click Change adapter settings.

Tenda Wireless Network Adapter User Guide

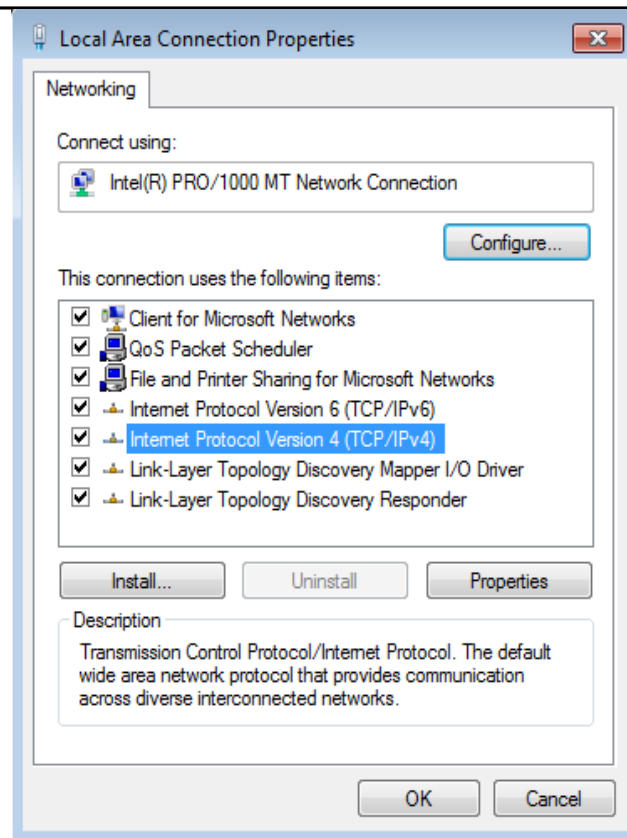


(3) Right-click on the Wireless Network Connection and select Properties.

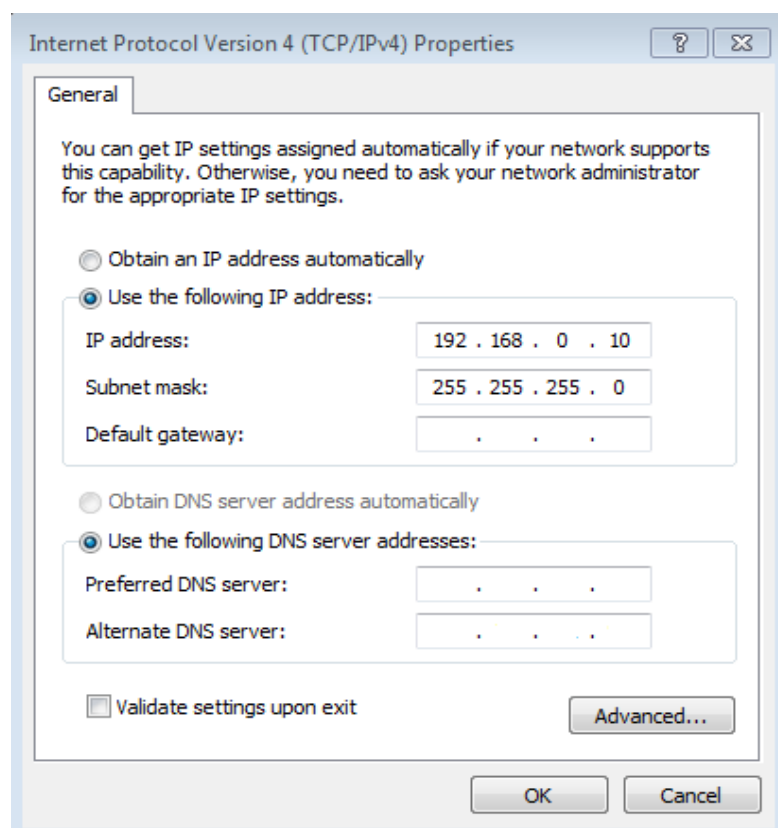


(4) Select Internet Protocol Version 4 (TCP/IPv4) and click Properties or directly double-click on Internet Protocol Version 4 (TCP/IPv4).

Tenda Wireless Network Adapter User Guide



(5) Select Use the following IP address.



IP address: Enter 192.168.0.xxx (where xxx can be any number between 2 and 253). Note that the IP address you configure should not be used by another device on the network.

Subnet mask: Enter 255.255.255.0

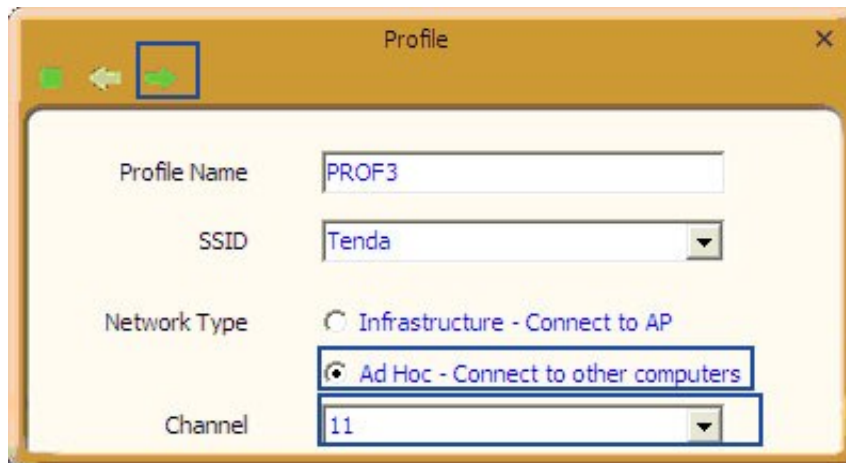
(6) Click OK twice to save your settings.

Create a new Ad-hoc profile

(1) Click the “Add” button and enter the network name in the SSID field to identify the wireless network, and select Ad-hoc as the network type and then select the channel.

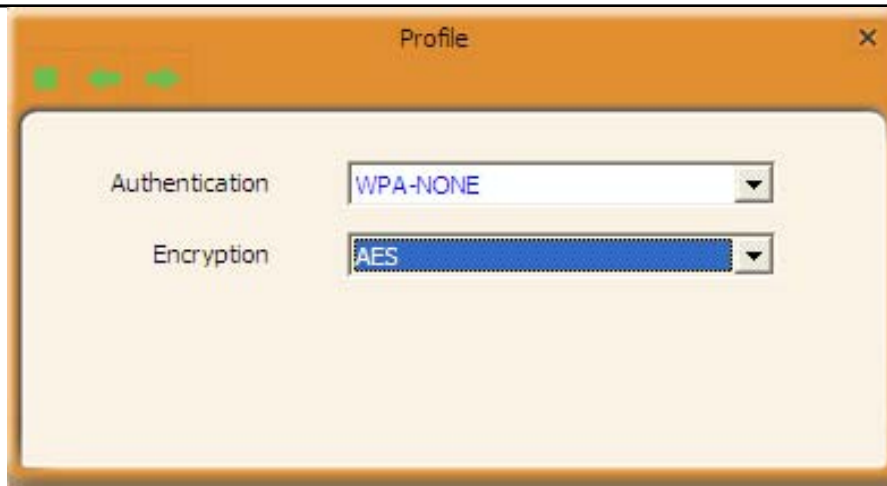
(2) To add Ad Hoc profile:

- a) Click Add and enter a SSID (wireless network name), say, "Tenda";
- b) Select Ad Hoc as network type;
- c) Select a channel.

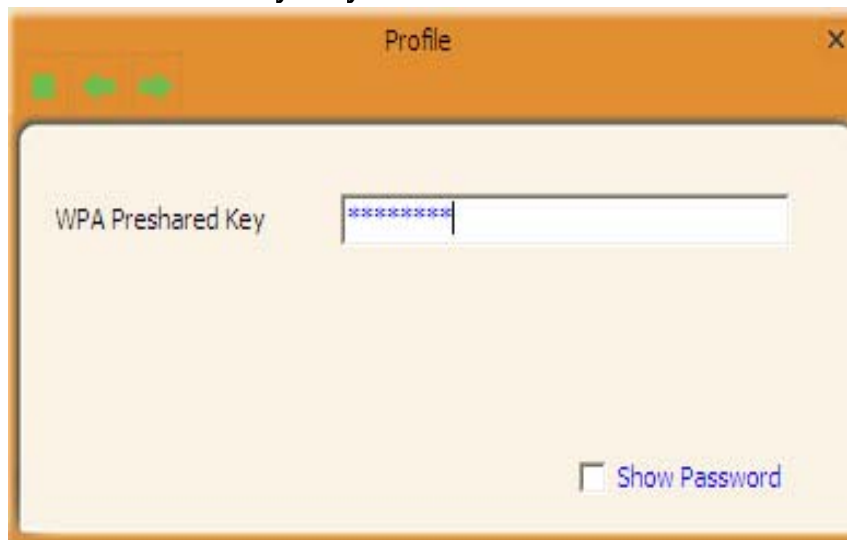


(3) Click Next and select an authentication mode and an encryption mode.

Tenda Wireless Network Adapter User Guide



(4) Enter a correct security key and click Next.



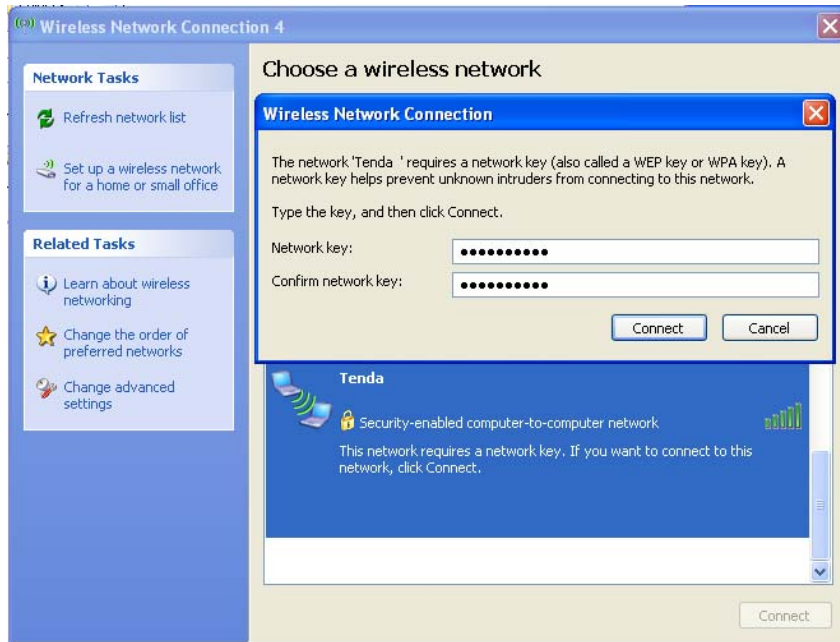
(5) You will find the profile in profile list, Select it and click the “Active” icon.



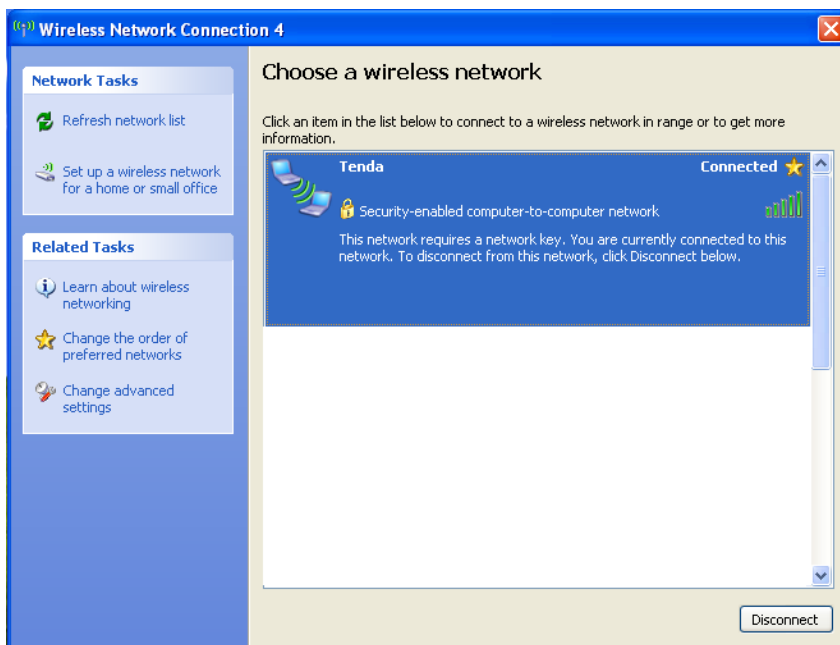
(6) Search the wireless network from devices on other nodes.

Tenda Wireless Network Adapter User Guide

Double-click it, enter a security key if required and then click **Connect**.



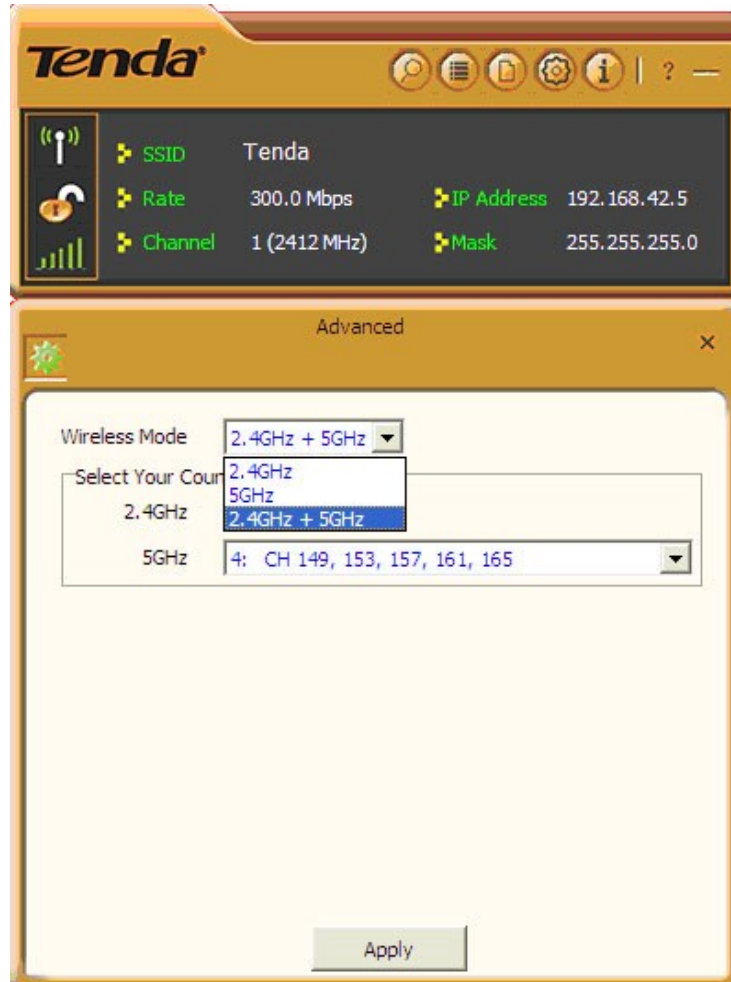
(7) When below screen appears, you have successfully connected to it.



4.1.4 Advanced

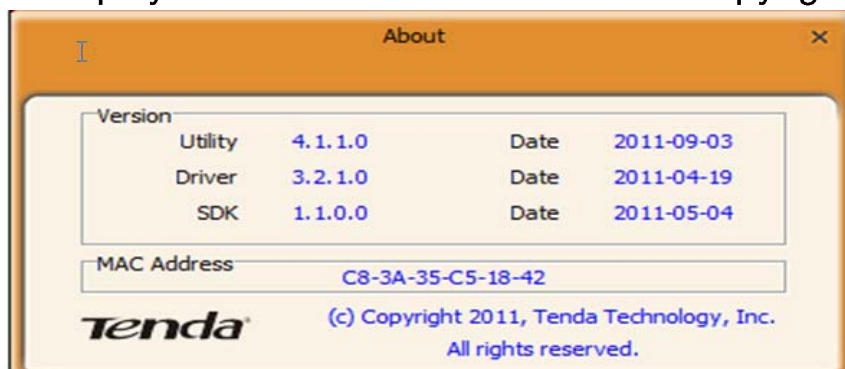
This section is used to set the wireless mode and country region code for the current wireless adapter. You have three options to choose

from: 2.4G, 5G or 2.4G+5G. The widely used is 2.4G wireless adapter. To use the 5G mode of 802.11a technology, please set it here.



4.1.5 About

This screen displays the information of the UI and copyright info.



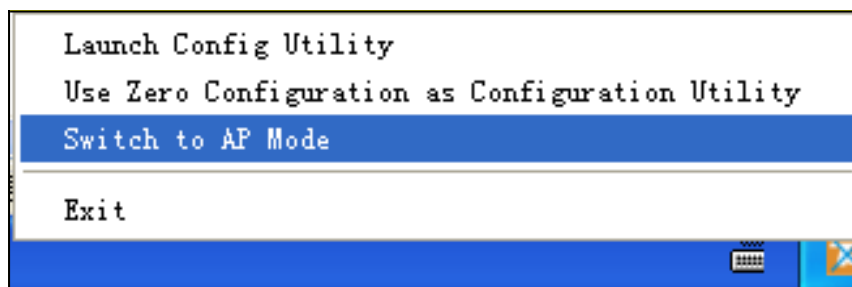
4.1.6 Help

Click the **Help** button to display help.



4.2 AP mode

When you want to use the wireless adapter's AP function, please right click the UI icon on the taskbar of your computer desktop and select "Switch to AP Mode".

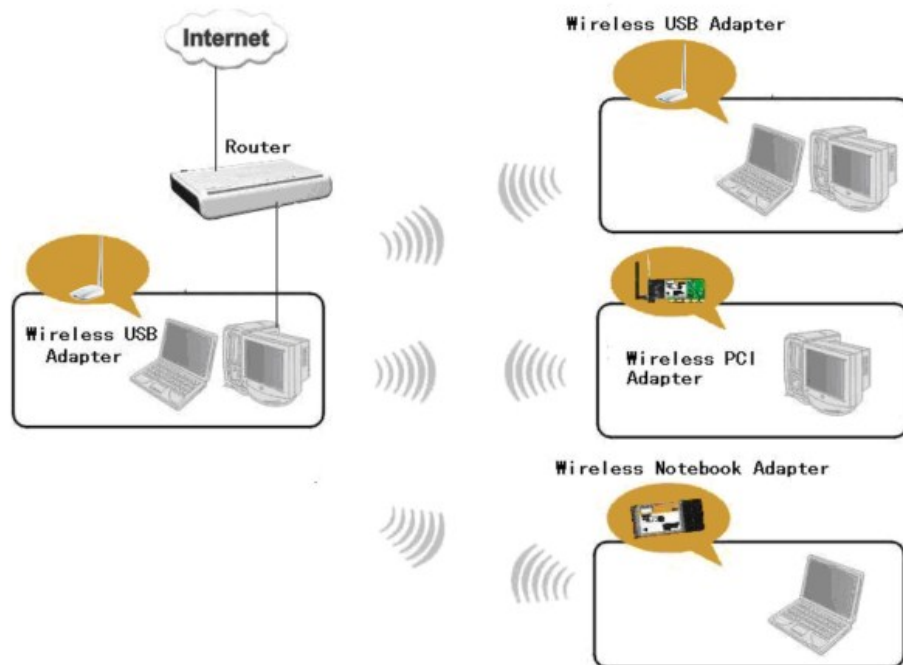


In this mode, the wireless adapter acts as an AP to transmit wireless signal and create a wireless network, while allowing other wireless clients to access this network.

As shown in the diagram below: The PC in the left has already accessed to the Internet by using a wired network adapter, meanwhile, you install a Tenda wireless adapter (take a USB wireless adapter as an example) and its UI on this computer, and set the adapter to AP mode.

By using the wireless adapters to scan the AP's SSID to connect, the

computers in the right can also access to the Internet after successfully connected



In this mode, the client utility differs from that in station mode, and the main interface is as shown below.



When it is switched to AP mode, the wireless adapter will automatically set its IP address as 192.168.123.1, and other clients that connected to this AP will automatically obtain the IP addresses of: 192.168.123.X(X is any integer from 2 to 254).The function buttons on the top (From L to R)are respectively Config AP, Advanced, Access Control List, Associate List, About, Help, and MiniSize, while the left

column displays Turn On/Off RF, Security /No security, and AP mode icon.

4.2.1 Config AP

This screen is used to set the AP' s general parameters including SSID, wireless mode, channel, authentication type and encryption type, as shown in the picture below.

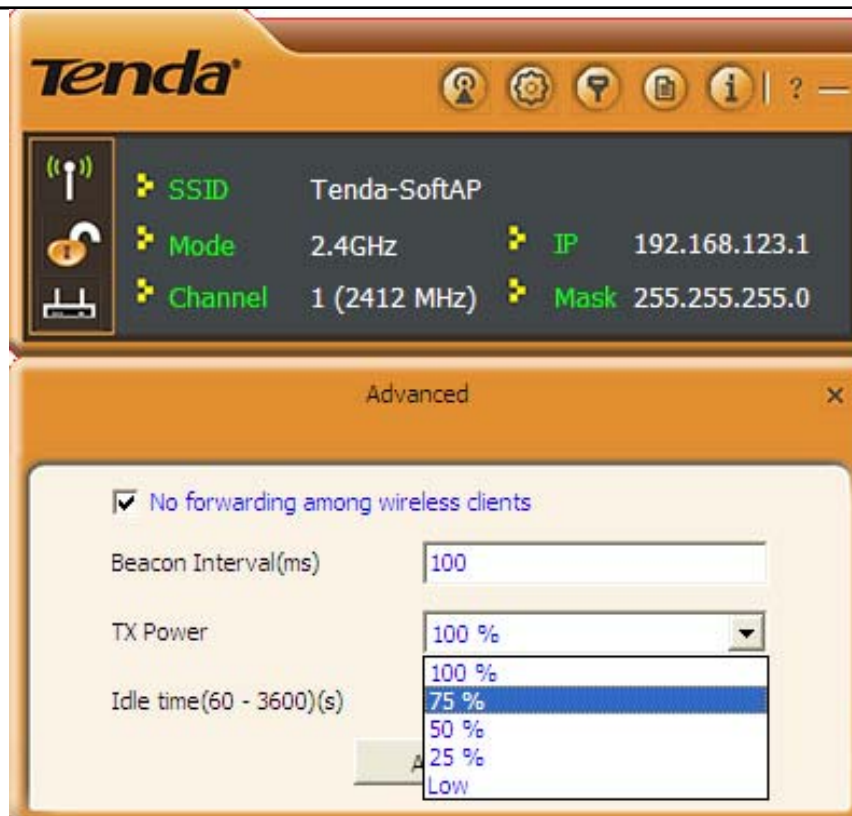


Here the authentication type is set as “Open” and the encryption type “Not Use” .



4.2.2 Advanced

This screen is used to set the advanced parameters of the wireless adapter when working in AP mode, such as No forwarding among wireless clients and TX power.

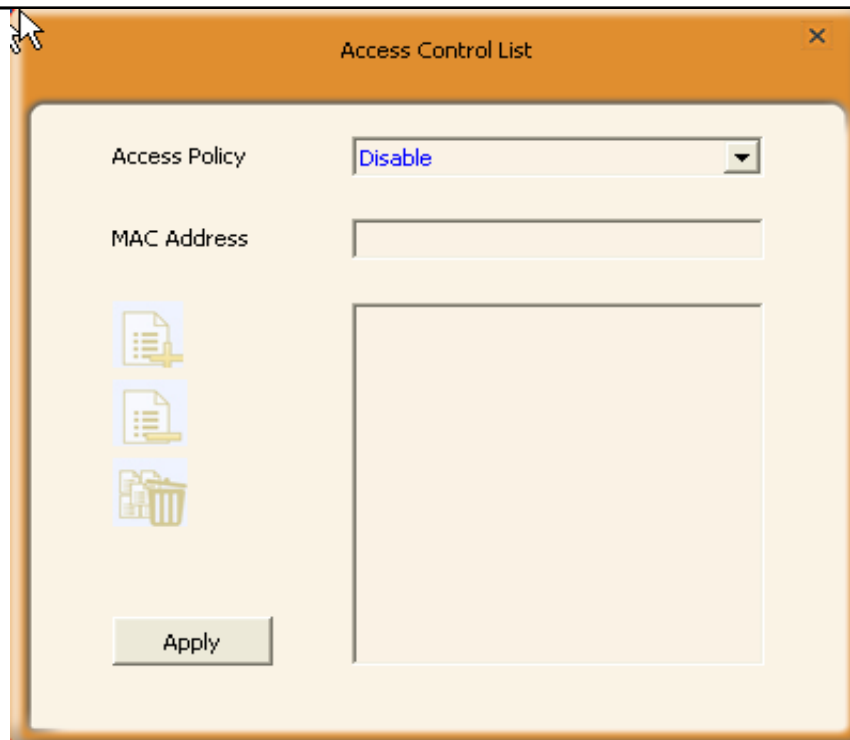


No forwarding among wireless clients: This feature isolates the communications among the wireless clients that are connected to the wireless adapter in AP mode.

TX power: To adjust the transmit power for the wireless adapter

4.2.3 Access Control List

Access Control is based on the wireless adapter's MAC addresses to allow or reject a specified client's access to this wireless network.



Access Policy:

Disable: To disable the filter function.

Allow All: To permit all hosts whose wireless MAC addresses are included in the list to access the wireless network, other hosts whose wireless MAC addresses have not been added to the list will be prohibited by default.

Reject All: To prohibit all hosts whose wireless MAC addresses are included in the list from accessing the wireless network, other hosts whose wireless MAC addresses have not been added to the list will be permitted by default.

MAC Address: To input the client's wireless MAC address you want to filter in the physical address field.



add the entered wireless client MAC address to the list.



delete an existing MAC address in the list.



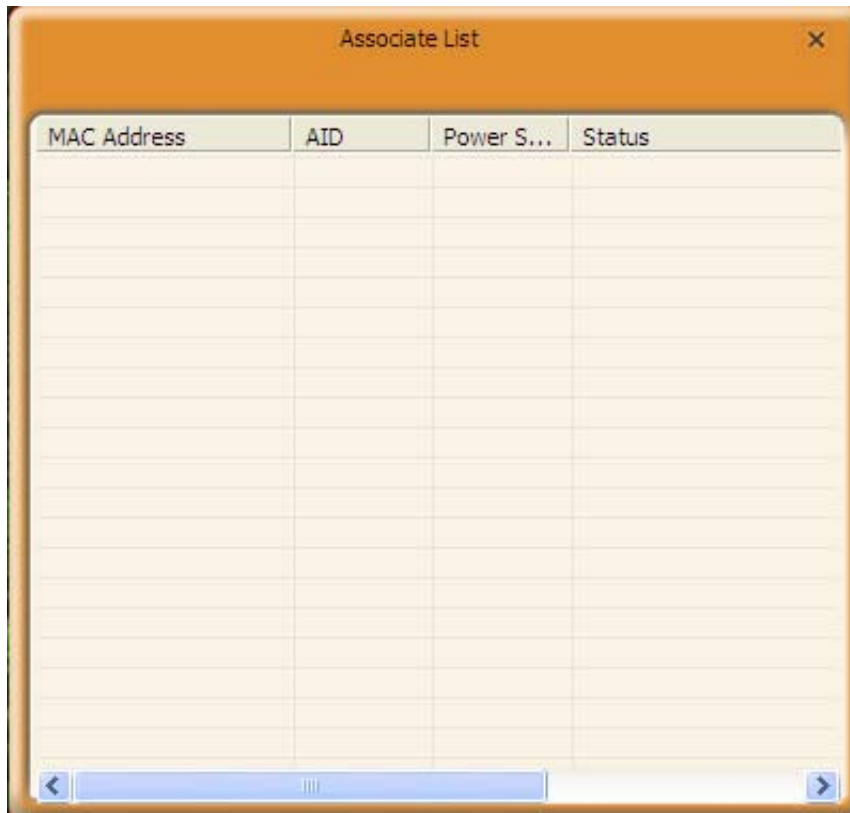
delete all clients' wireless MAC addresses in the list.

Add the MAC address of the client's wireless network adapter to the

list and select “All Allow” in the access policy drop-down list, computers whose wireless MAC addresses are not included in the list will be rejected by default. Select “All reject” , and only the host computers whose wireless MAC addresses are included in the list can not access the AP wireless network.

4.2.4 Associate List

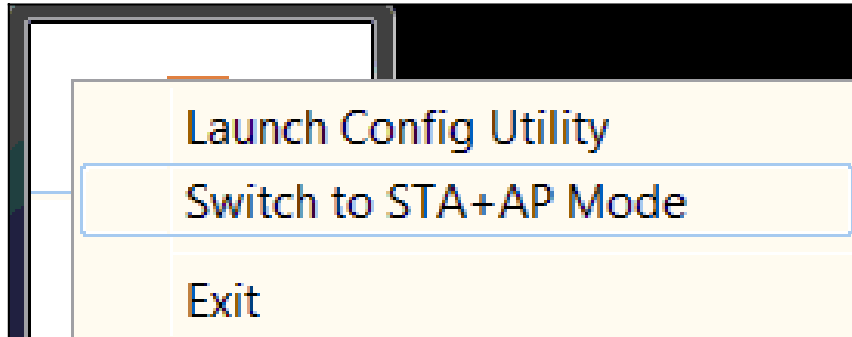
When there' s client connected to this AP and has successfully obtained the IP address ,then the client' s MAC address, AID and Status can be seen on the list.



4.2.5 AP Mode under Windows 7

(1) Under Windows 7, wireless adapters are allowed to work in both STA and AP modes. Here, the wireless adapter acts not only as a client, but also an AP to send wireless signal, which equals to an

amplifier. Right click the UI icon on the lower right corner of the computer desktop and select “Switch to STA+AP Mode” .



(2) You can change the SSID on the Config AP screen and control the number of the connected clients by modifying the max number of peers. AP mode has only one encryption method which is WPA2–AES by default and cannot be modified.



Appendix 1 Glossary

802.11a: 802.11a is an amendment to the IEEE 802.11 specification that added a higher data rate of up to 54 Mbit/s using the 5 GHz band.

802.11b: 802.11b is an amendment to the IEEE 802.11 wireless networking specification that extends throughput up to 11 Mbit/s using the same 2.4 GHz band.

802.11e: 802.11e is an approved amendment to the IEEE 802.11 standard that defines a set of Quality of Service enhancements for wireless LAN applications through modifications to the Media Access Control (MAC) layer. The standard is considered of critical importance for delay-sensitive applications, such as Voice over Wireless LAN and streaming multimedia.

802.11g: 802.11g is an amendment to the IEEE 802.11 specification that extended throughput to up to 54 Mbit/s using the same 2.4 GHz band as 802.11b.

802.11h: 802.11h, refers to the amendment added to the IEEE 802.11 standard for Spectrum and Transmit Power Management Extensions. It solves problems like interference with satellites and radar using the same 5 GHz frequency band. It was originally designed to address European regulations but is now applicable in many other countries.

802.11i: 802.11i, implemented as WPA2, is an amendment to the original IEEE 802.11.

802.11j: 802.11j is an amendment to the IEEE 802.11 standard designed specially for Japanese market.

802.11n: 802.11n is an amendment to the IEEE 802.11 standard, which improves network throughput over the two previous standards—802.11a and 802.11g—with a significant increase in the maximum net data rate. 802.11n standardized support for multiple-input multiple-output and frame aggregation, and security improvements, among other features.

IEEE 802.15: IEEE 802.15 is a working group of the IEEE 802 standards committee which specifies Wireless Personal Area Network (WPAN) standards. It includes seven task groups. Task group one is based on Bluetooth technology.

IEEE 802.16: IEEE 802.16 is a series of Wireless Broadband standards authored by the Institute of Electrical and Electronics Engineers (IEEE). Although the 802.16 family of standards is officially called Wireless MAN in IEEE, it has been commercialized under the name “WiMAX” (from "Worldwide Interoperability for Microwave Access") by the WiMAX Forum industry alliance.

802.16a: 802.16a, also known as WiMAX, extends throughput up to 70Mbit/s transmission rate within the distance of 30 miles.

802.20: Delivers 1Mbit/s throughput for wireless MAN (Metropolitan area network).

IEEE 802.1X: IEEE 802.1X is an IEEE Standard for port-based Network Access Control (PNAC). It is part of the IEEE 802.1 group of networking protocols. It provides an authentication mechanism to devices wishing to attach to a LAN or WLAN. IEEE 802.1X defines the encapsulation of the Extensible Authentication Protocol (EAP) over IEEE 802 which is known as "EAP over LAN" or EAPOL.

WEP: Wired Equivalent Privacy (WEP) is a security algorithm for IEEE 802.11 wireless networks. Introduced as part of the original 802.11 standard, its intention was to provide data confidentiality comparable to that of a traditional wired network.

WPA: Wi-Fi Protected Access (WPA) and Wi-Fi Protected Access II (WPA2) are two security protocols and security certification programs developed by the Wi-Fi Alliance to secure wireless computer networks. The Alliance defined these in response to serious weaknesses researchers had found in the previous system, WEP (Wired Equivalent Privacy) and intended as an intermediate solution to WEP insecurities.

RSN: The Wi-Fi Alliance refers to their approved, interoperable implementation of the full 802.11i as WPA2, also called RSN (Robust Security Network). RSN, based on 802.1x, is introduced to supersede the security specification, WPA.

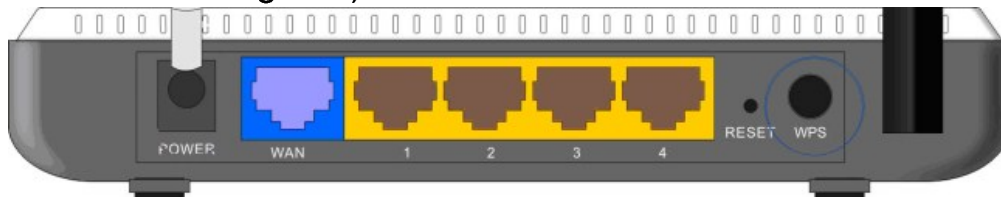
Appendix 2 How to Set WPS

WPS setting supports two modes :PBC and PIN. The detailed setting steps are as follows:

1.Wireless Connection in PBC Mode

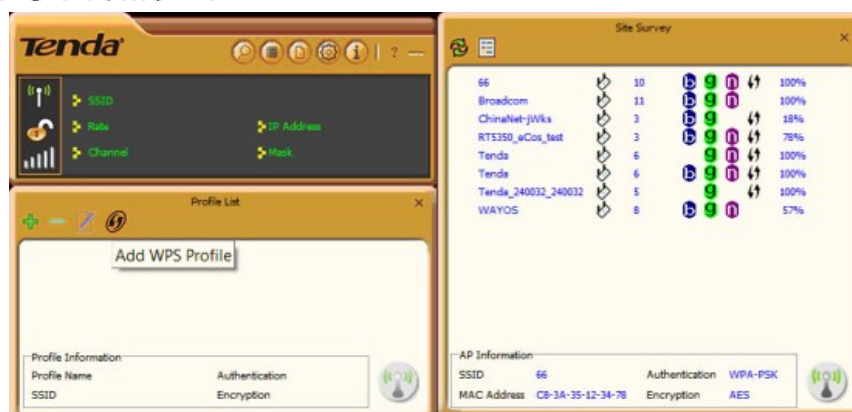
1.1 Enable the router' s WPS–PBC feature.

If your router provides WPS button, just press and hold it for about 1 second, then the WPS LED will be flashing for about 2 minutes, which indicates the router' s WPS feature has been enabled. Otherwise, you can also log on to the router' s web–based utility to enable the PBC mode in WPS settings screen(For detailed settings,please refer to your router' s user guide).



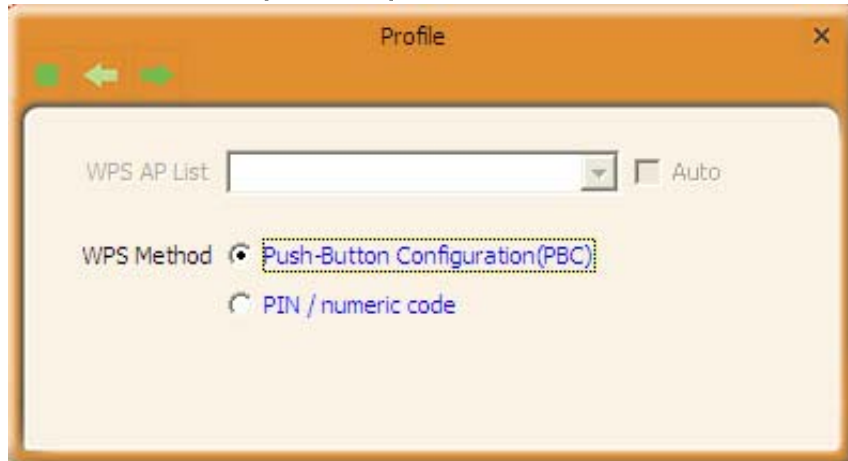
1.2 Perform PBC connection on the UI of the wireless adapter

- 1) On the main interface of Tenda' s UI, click “Profile Settings” — “Add WPS Profile” .

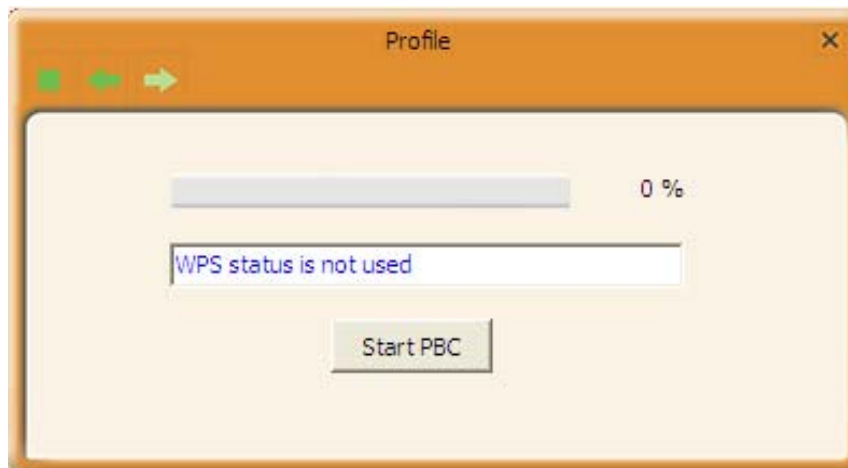


- 2) On the Profile List screen, select “Push–Button Configuration”

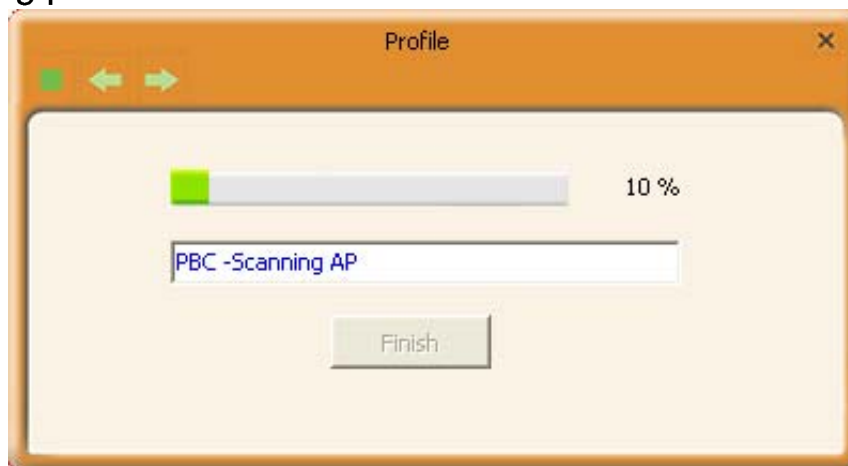
(PBC) and then click the “Next” button, select “Start PBC” two minutes after the router enables the WPS function. The connection is established when the negotiating process finishes.



Start PBC:



Negotiating process:



A profile forms automatically after the connection is successfully

established.



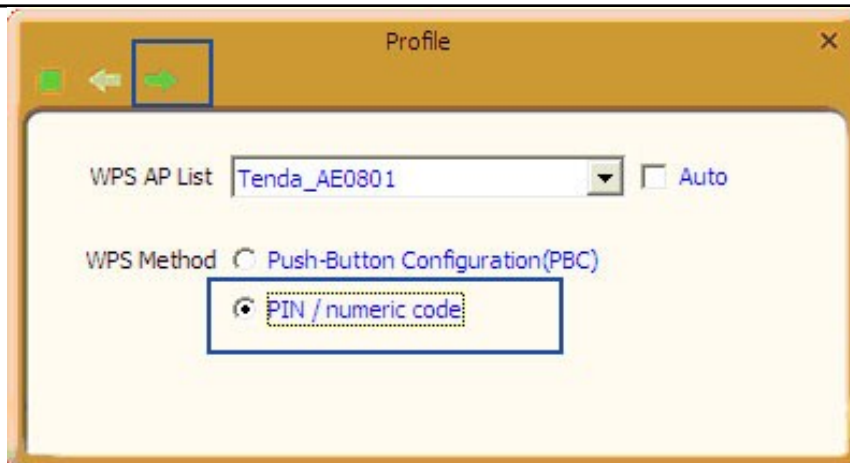
1.3 Using the wireless adapter' s WPS button to perform PBC connection.

If your wireless adapter provides a WPS button, you may use the button to perform PBC connection.

- Run the adapter' s UI and switch to STATION mode
- Two minutes after the router' s WPS–PBC is enabled, press the adapter' s WPS button to connect in PBC mode.
- You may view the PBC connection process on the UI' s PBC screen.

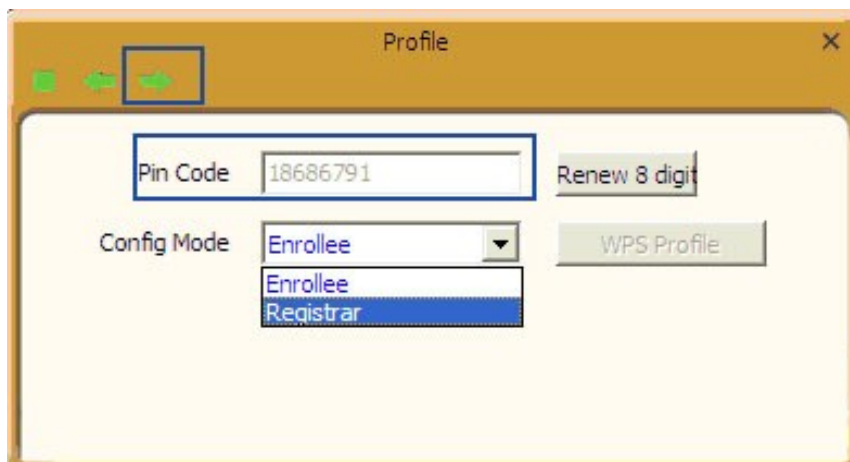
2. Wireless Connections in PIN Mode

On the “Add WPS Profile” screen, select “PIN ” as the WPS Method. You may select the wireless AP to be connected in WPS mode on the WPS AP drop–down List, or select “Auto “and then click the next button.

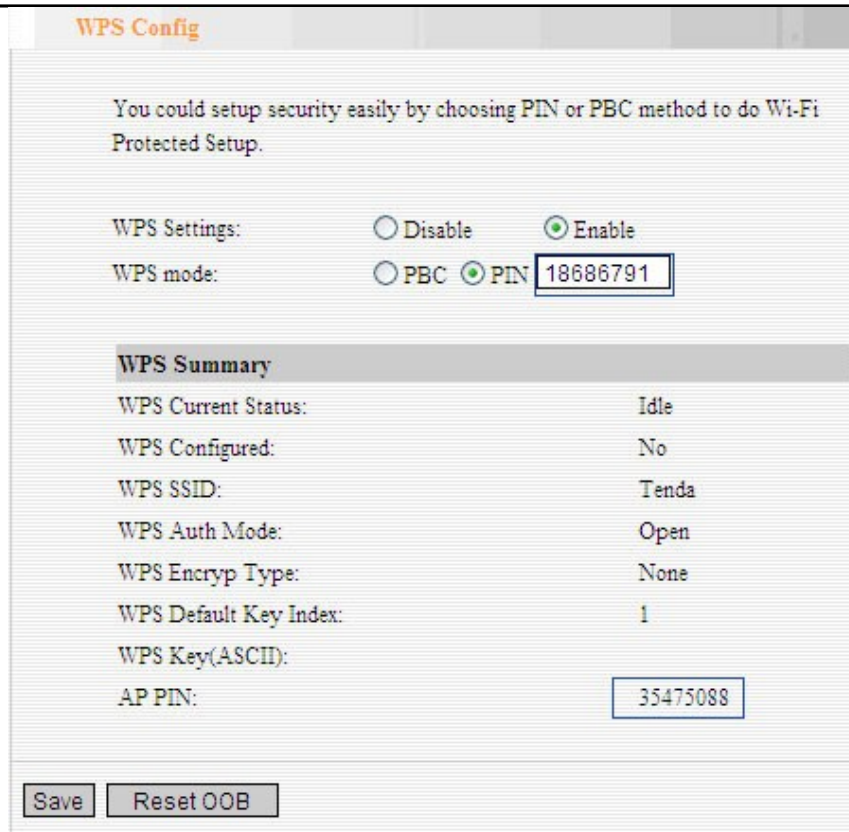


2.1 Enrollee Mode

The PIN code field lists the adapter's current PIN code, when you select "Enrollee" as the Config Mode, you need to copy this PIN code and input it in the PIN code field of the router's WPS setting screen.



Here we take Tenda W311R as an example. First enter its WPS configuration screen, enable WPS settings and select PIN for WPS mode and then input 18686791 in the PIN code field, and then click the "Save" button. When the WPS indicator of the Router starts flashing, it indicates that WPS feature is enabled.



WPS Config

You could setup security easily by choosing PIN or PBC method to do Wi-Fi Protected Setup.

WPS Settings: ☐ Disable ☒ Enable

WPS mode: ☐ PBC ☒ PIN

WPS Summary

WPS Current Status:	Idle
WPS Configured:	No
WPS SSID:	Tenda
WPS Auth Mode:	Open
WPS Encryp Type:	None
WPS Default Key Index:	1
WPS Key(ASCII):	
AP PIN:	<input type="text" value="35475088"/>

Click the next button on the Profile List screen and click “Start PIN” to start the PIN code negotiation.



Profile

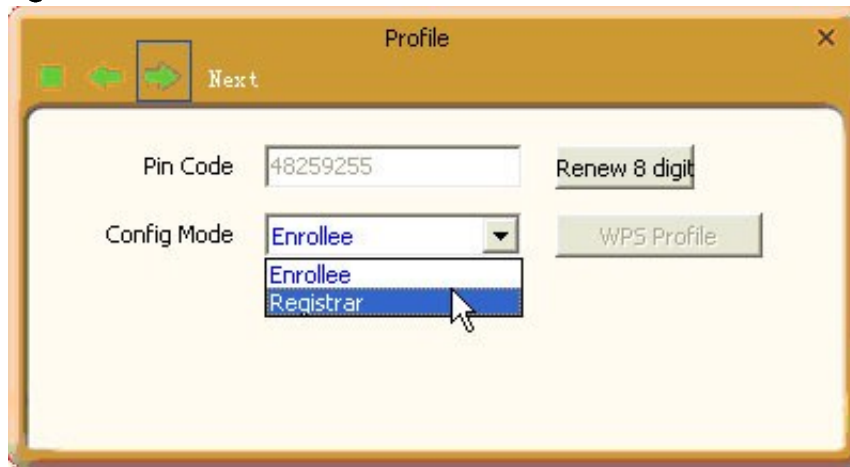
0 %

WPS status is not used

2.2 Registrar Mode

On the “Add WPS Profile” screen, select the SSID of the AP that need to negotiate in WPS mode instead of selecting” Auto” .Then select” PIN” as the WPS method and click the next button to display

the following screen:



Select “Registrar” as the config mode and enter the router’s PIN code, such as 35475088 that displays on the router’s WPS screen in section 2.1, in the PIN code field here.



Now you can view the SSID, authentication type, and encryption type that need to be negotiated by the WPS in registrar mode. These values can be modified but we recommend using the default. Here we use the default setting and then click the next button.

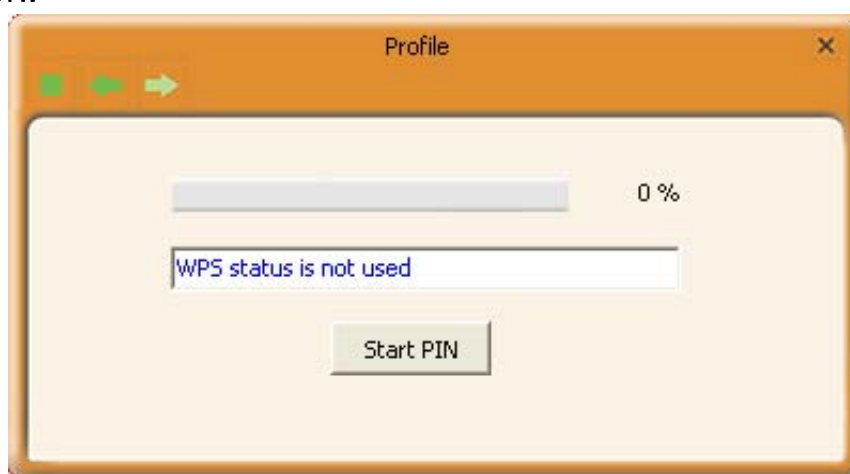
Tenda Wireless Network Adapter User Guide



You can view the negotiation key on the screen below ,but you are not recommended to modify it,just click the next buton.



Then click “Start PIN” on the screen below to perform WPS connection.



NOTE:

1. Under the WPS connection mode, when multiple routers simultaneously enable the WPS function, it may cause connection failure.
2. If the router connects to the adapter using the WPS, only one client can be connected at one time, and so if the router needs to connect to multiple clients through WPS, you should repeat the WPS operation.

Appendix 3 PSP XLink Mode Setup

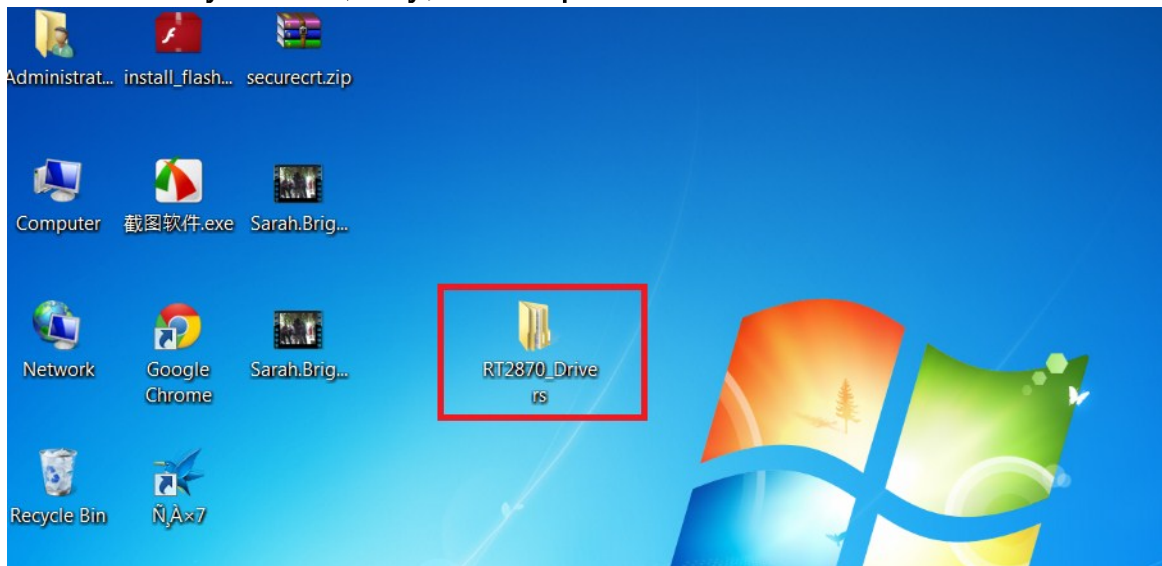
Setup PSP Ad Hoc mode in both Win7 and Windows XP Operating Systems is described below:

Note: XLink KAI and "Monster Hunter Portable 3rd" mentioned herein are third party softwares. Instructions hereof are for references only. Anything arising from use is to be borne by users.

To set it up in Win7, do as follows

1. Install wireless adapter's driver:

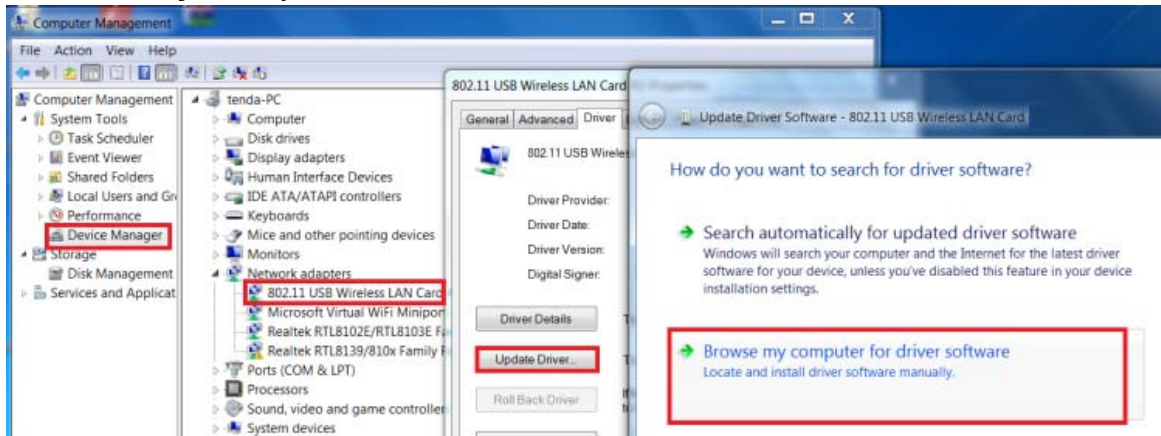
1.1 If you are using it for the first time (Or if you have already installed driver, you must first uninstall it and then), copy "RT2870_Drivers" from CD to your PC, say, desktop.



1.2 If you are using the Win7 OS that comes with internal wireless adapter driver, your system will install the driver automatically. Insert the adapter to your PC, right click "Computer" and select "Manage" → "Device Manager" → "Network adapters" → " 802.11n USB

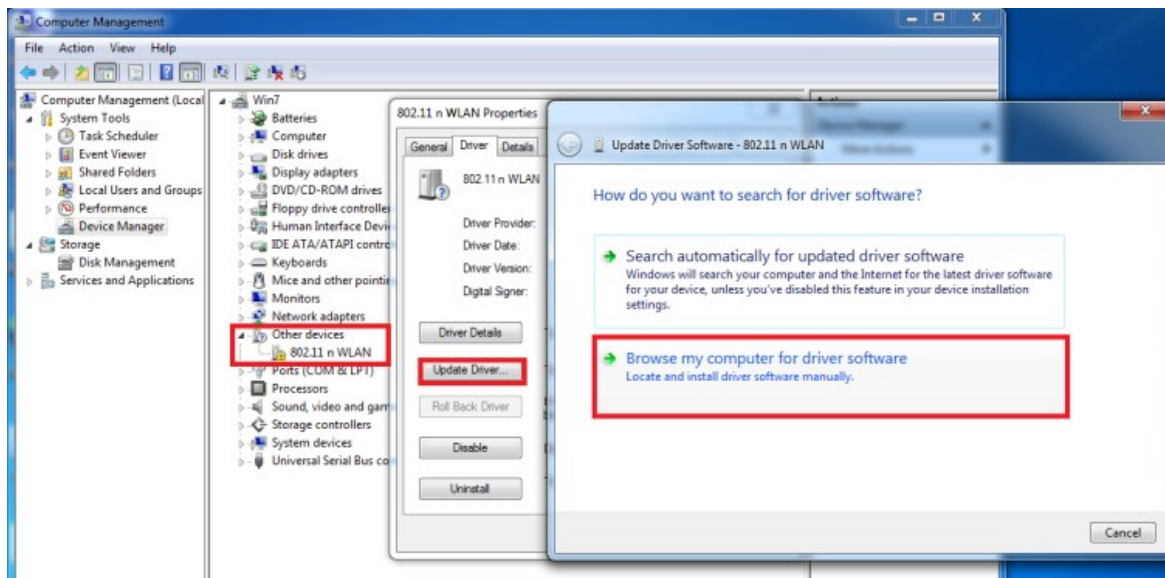
Tenda Wireless Network Adapter User Guide

Wireless LAN Card" → "Properties" → "Driver" → "Update Driver" → "Browse my computer for driver software".



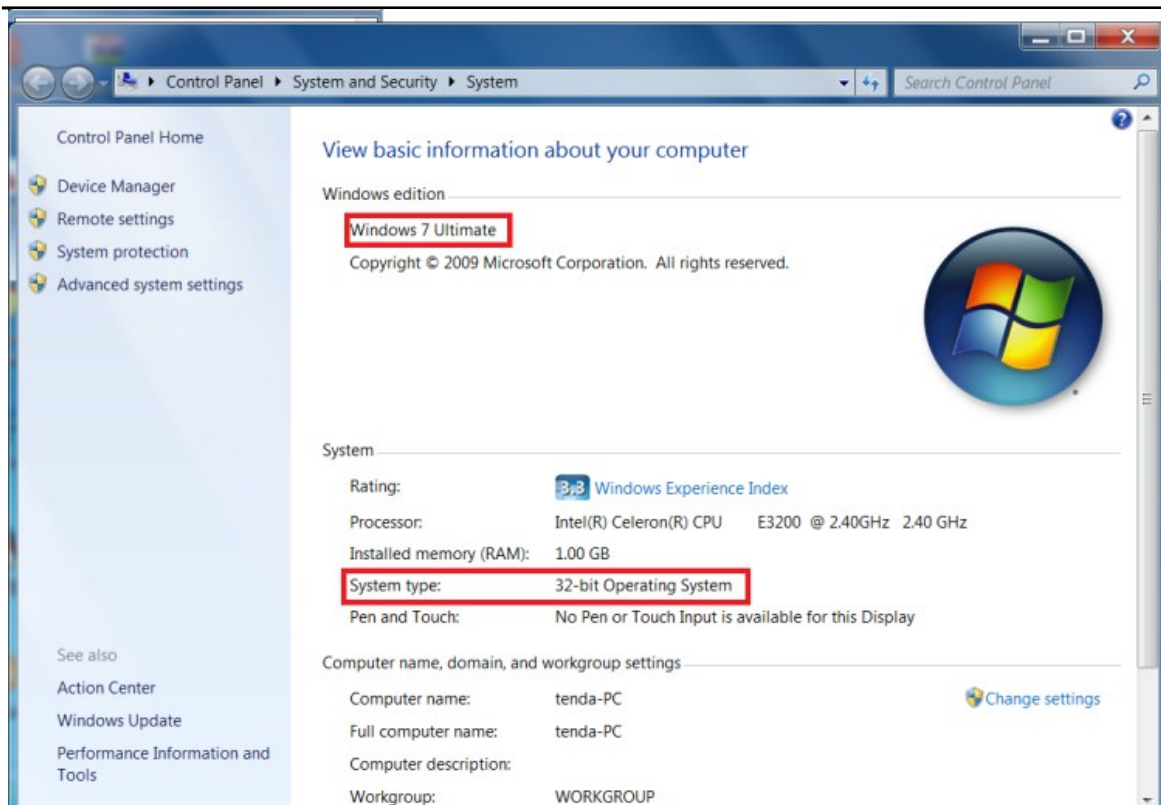
If you are using the Win7 OS that does not come with internal wireless adapter driver, do as follows:

Right click "Computer" and select "Manage" → "Device Manager" → "Scan for hardware changes" → "Other devices" → "802.11n WLAN" → "Properties" → "Driver" → "Update Driver" → "Browse my computer for driver software".



And then select a proper driver from "RT2870_Drivers" depending on the number of bits that your Win7 uses. For example, the screenshot below shows a 32-bit Win7.

Tenda Wireless Network Adapter User Guide



Then you need to select "WINXP2k". Or select "WINX64" if you are using a 64-bit OS.

