



HAKIT-RTG Series Certified Amplifier Kit

User Manual

Models	FCC ID
HAKIT-RTGU-250 HAKIT-RTGIU-250 HAKIT-RTGU-500 HAKIT-RTGIU-500	MYF-LCUSB
HAKIT-RTGXU-1000 HAKIT-RTGXIU-1000	MYF-LCUSBX

(For 802.11b/g Wireless Networks)

FCC Information

FCC Information

This equipment complies with CFR 47, Part 15.19 of the FCC rules. Operation of the equipment is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received; including interference that may cause undesired operation.

This device must not be co-located or operating in conjunction with any other antenna or transmitter

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

Federal Communications Commission (FCC) Requirements, Part 15

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Regulatory information / Disclaimers

Installation and use of this Wireless LAN device must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment. The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this device, or the substitution of the connecting cables and equipment other than manufacturer specified. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or attachment. Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government

CAUTION: To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with minimum distance 20cm between the radiator and your body. Use only the supplied antenna. Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.

MPE Statement (Safety Information)

Your device contains a low power transmitter. When device is transmitted it sends out Radio Frequency (RF) signal.

Safety Information

In order to maintain compliance with the FCC RF exposure guidelines, this equipment should be installed and operated with minimum distance 20cm between the radiator and your body. Use only with supplied antenna. Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.

When locating the antenna or operating this device you must observe the following exposure limits:

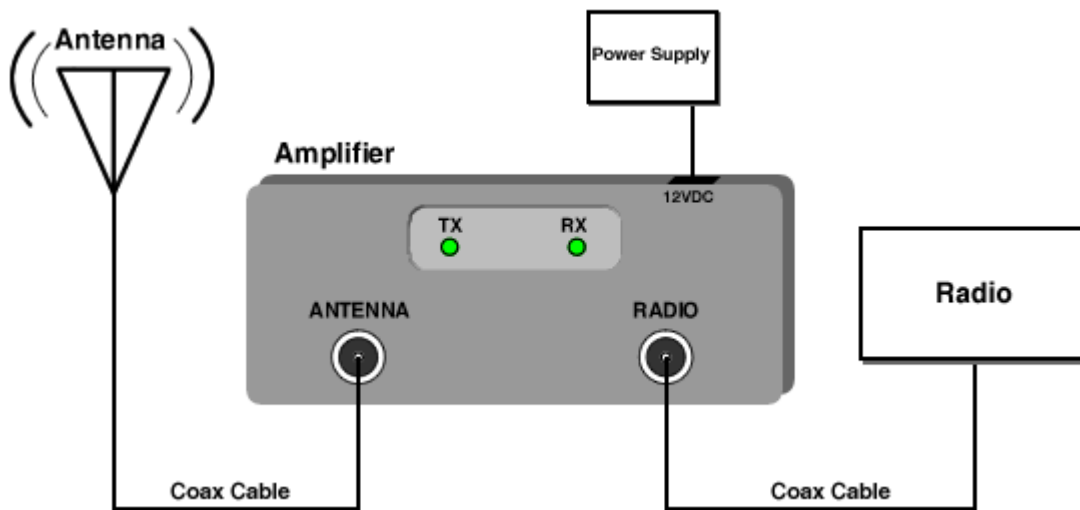
When this device is installed either as a fixed-mount or mobile application there is a minimum required separation distance of 20 cm from users.

Non-Amplified Systems:

For non-amplified systems simply attach the antenna into the antenna port on the USB adapter and proceed to USB Adapter Installation section.

Indoor Amplified Systems:

Amplifier connections are clearly labeled on the amplifier unit as shown below.

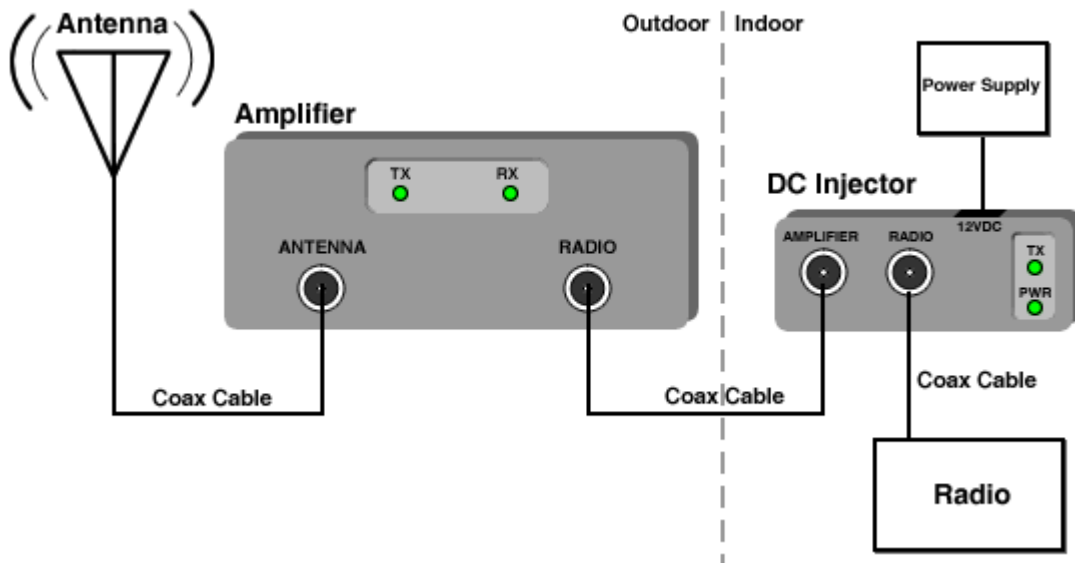


1. Connect the Antenna to the Amplifier output labeled "**ANTENNA**"
2. Connect the Radio to the Amplifier input labeled "**RADIO**" using a pigtail cable.
3. Plug the AC Adapter into the Amplifier's DC power jack and wall outlet.

Proceed to USB Adapter/Software Installation section.

Outdoor Amplified Systems:

Amplifier connections are clearly labeled on the amplifier unit as shown below.



1. Connect the Antenna to the Amplifier output labeled "**ANTENNA**"
2. Connect the DC Injector output labeled "**TO AMPLIFIER**" to the Amplifier input labeled "**RADIO**"
3. Connect the Radio to the DC Injector input labeled "**RADIO**" using a pigtail cable.
4. Plug the AC Adapter into the DC Injector's DC power jack and wall outlet.

Proceed to USB Adapter/Software Installation section.

USB Wireless Adapter and Software Overview



Product Introduction

The WLAN-LCUSB-02 adapter is designed to provide a high-speed and unrivaled wireless performance for your PC. With a faster wireless connection, you can get a better Internet service, such as downloading, gaming, video streaming and so on.

The WLAN-LCUSB-02 supports IEEE 802.11b/g 2.4GHz radio operation. With auto-sensing capability, the adapter packet transfer rate is up to 54 Mbps. Additionally, the WLAN-LCUSB-02 has good capability in anti-jamming and supports WEP, TKIP, AES, WPA, and WPA2 encryption, which prevents outside intrusion, protecting your personal information from being exposed. Featuring high-performance transmission rate, simple installation and adaptability, as well as strong security, the WLAN-LCUSB-02 is the perfect solution for small office and home needs.

System Requirements

Recommended system requirements are as follows:

- Windows XP, Windows 2000, Windows Vista and Windows 7
- Standard USB 2.0 port
- 32MB system memory or larger
- 300MHz processor or higher

USB Driver and Wireless Utility Information

To ensure proper operation of the WLAN-LCUSB-02 wireless adapter, the drivers and utility software contained on the enclosed CD must be installed. This software is designed specifically for the WLAN-LCUSB-02.

Operational Note:

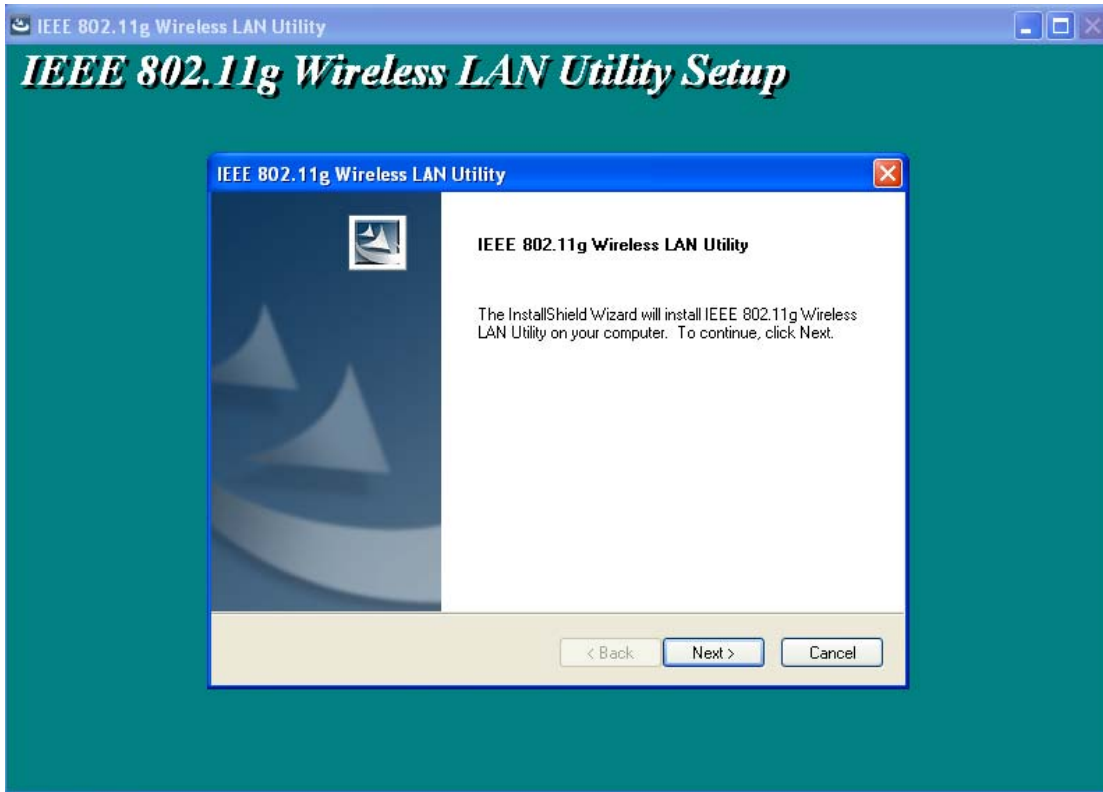
The WLAN-LCUSB-02 is factory set to operate on channel 6 only.

Installation

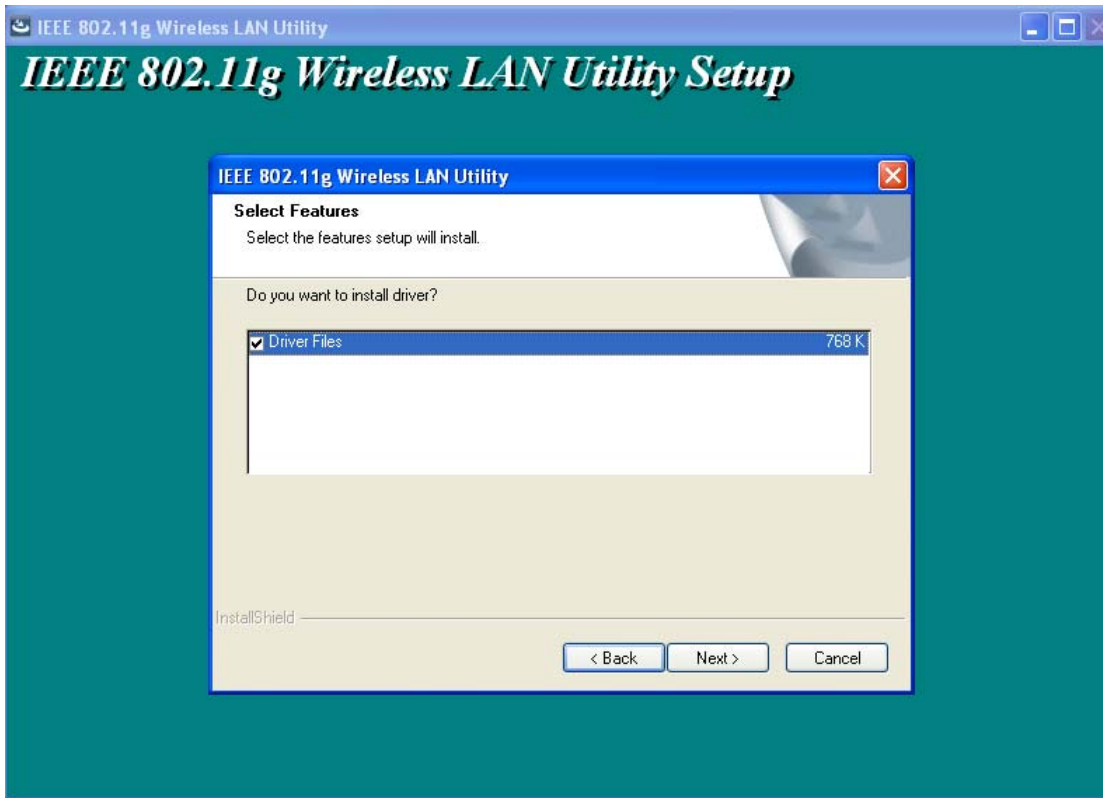
This chapter describes how to install the driver and utility of the WLAN-LCUSB-02. The following procedure is illustrated in Windows XP.

Installation Guide

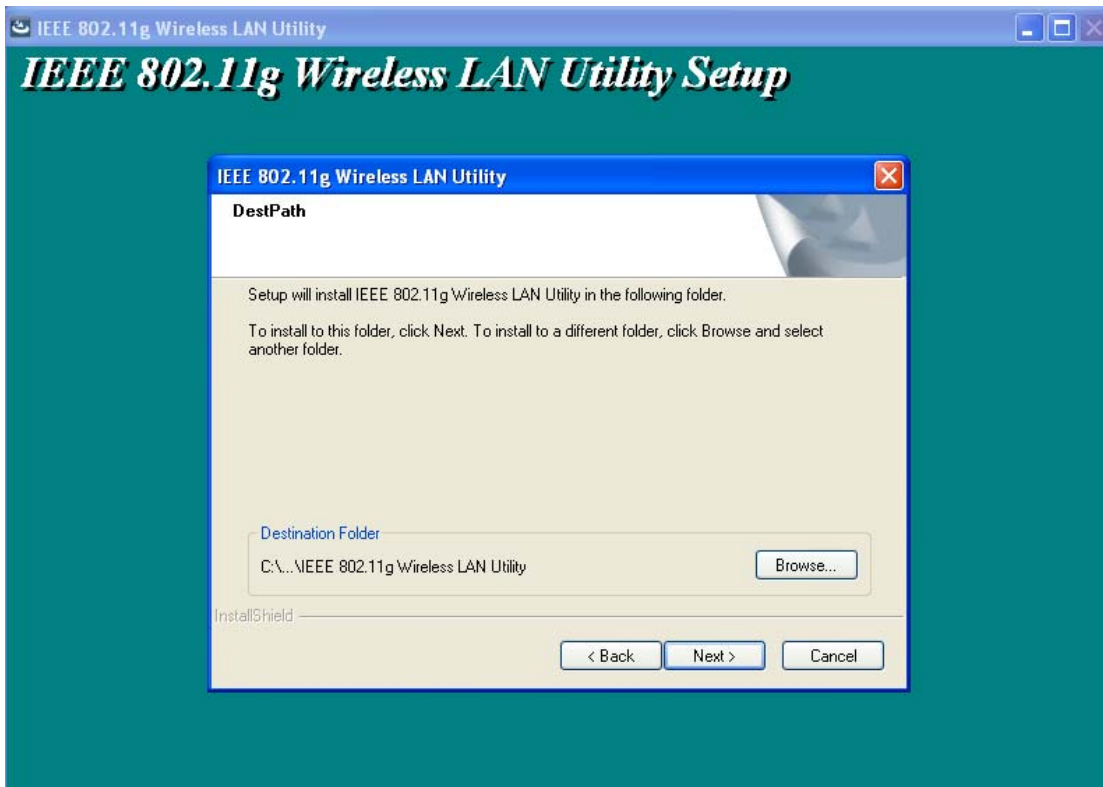
Step 1 Find the setup file named **WLAN-LCUSB-02 .exe** on the included CD and then double-click on it to start the installation. The page shown in the following figure appears. Then click "**Next**" to continue.



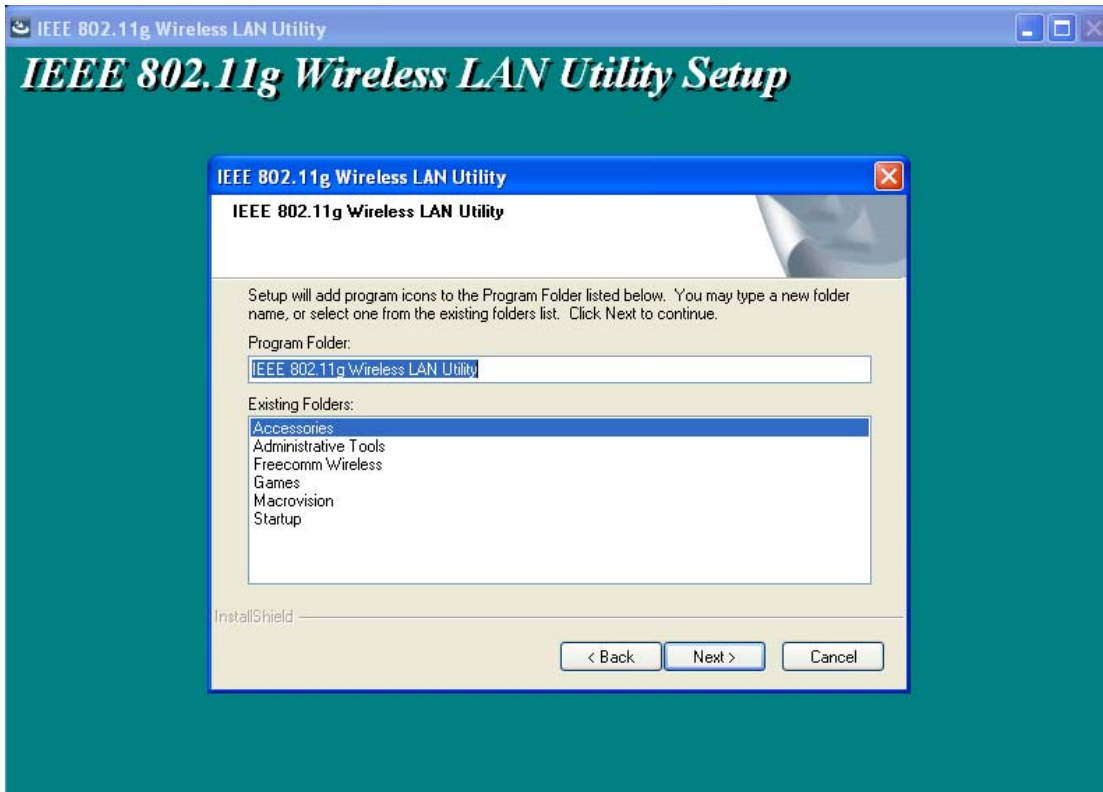
Be sure "Driver Files" are checked and click "**Next**" to continue.



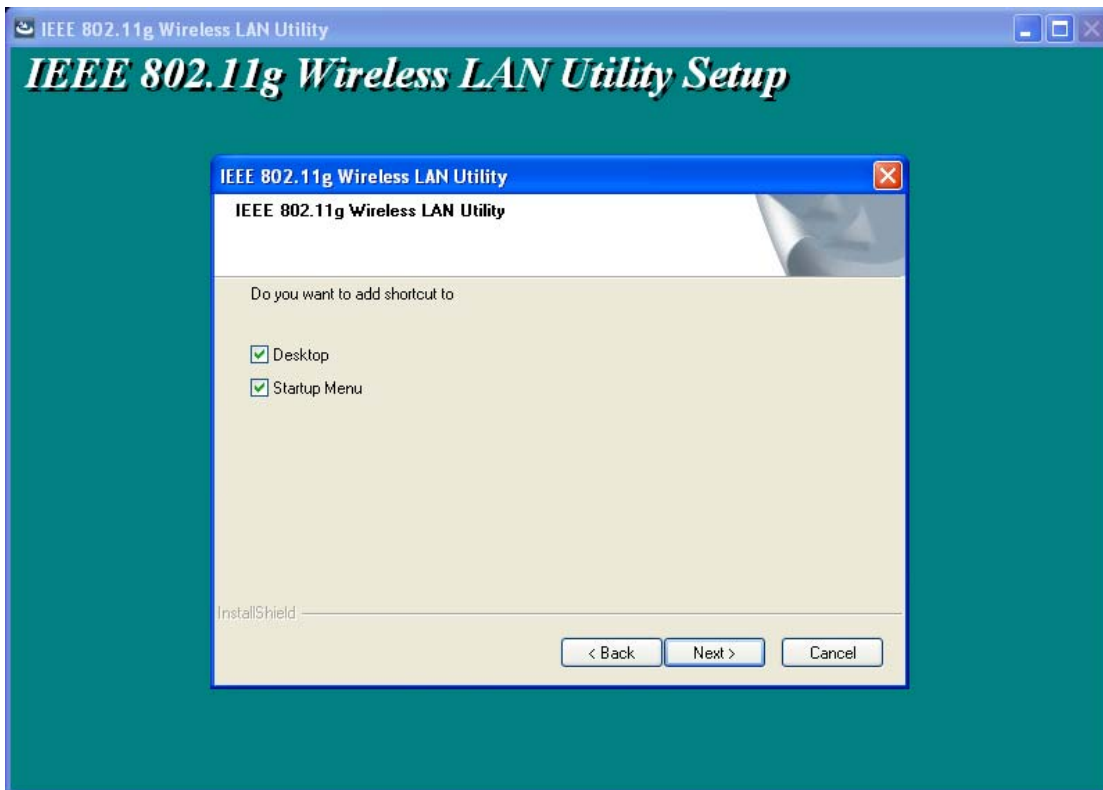
Step 2 Select a destination folder for installation files. Then click "**Next**" to continue.



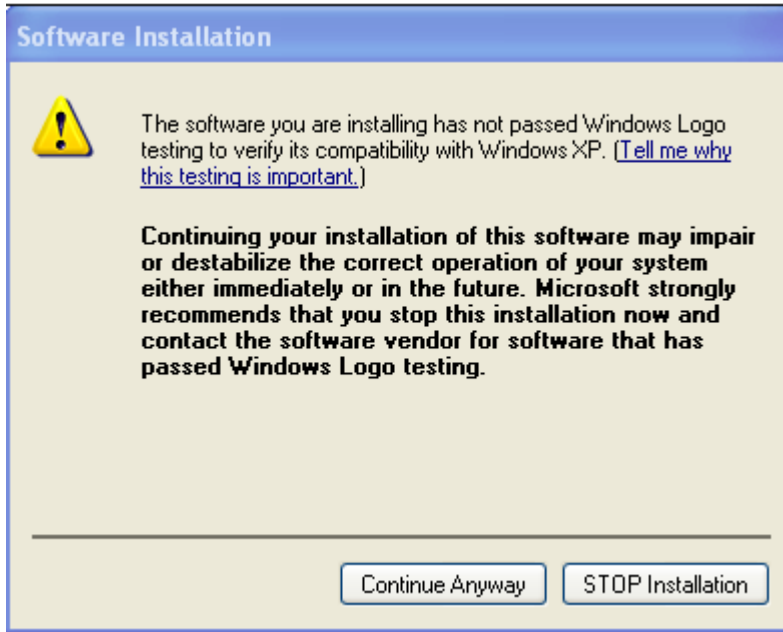
Step 3 Click “Next” to continue.



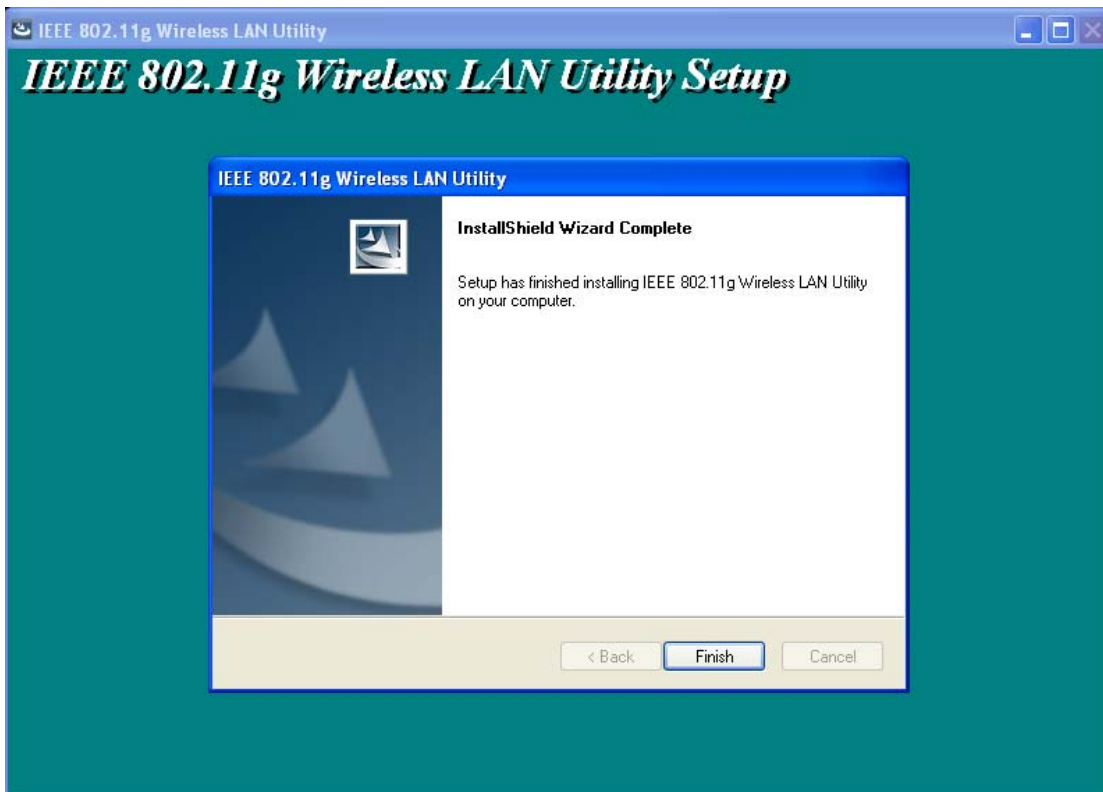
Step 4 Click “Next” to continue.



Step 5 The following warning will appear. Click the “**Continue Anyway**” button to continue the installation.

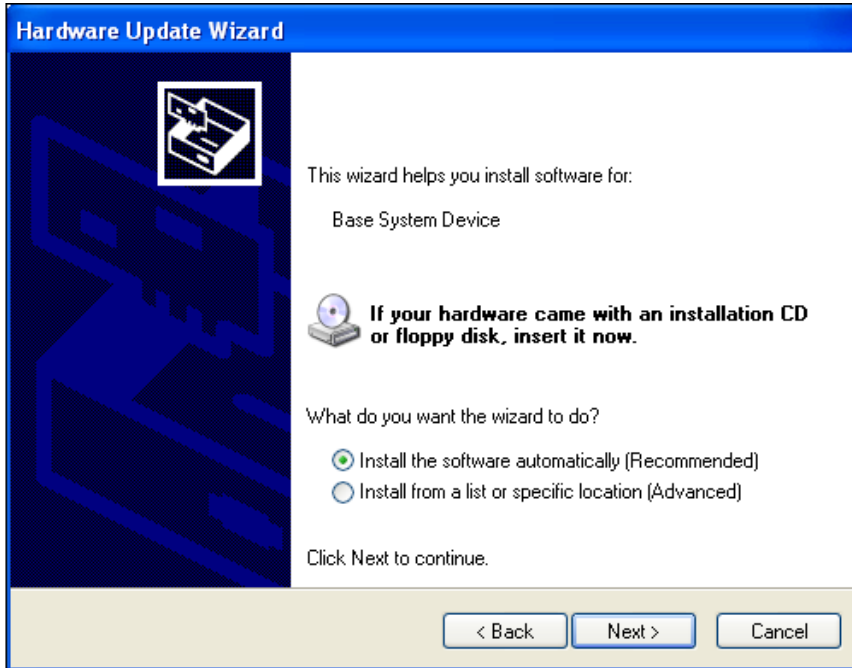


Step 6 After the installation has been completed, click “**Finish**” to exit the setup wizard.

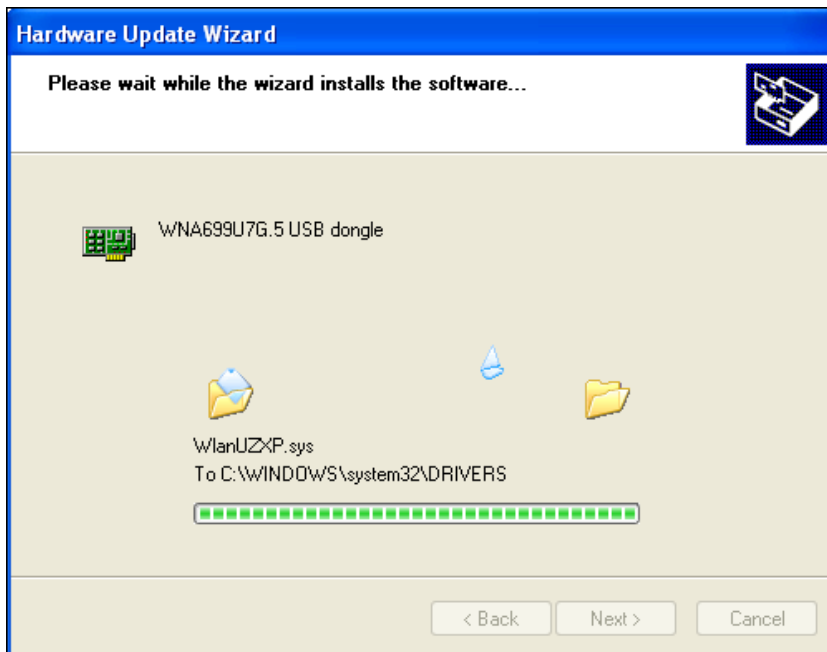


Step 7 Driver Installation

Step 8.1 After step 7, plug the USB adapter into any open USB slot on computer. The page shown in the following figure appears within seconds. Select **“Install the software automatically”** and click **“Next”** to continue.



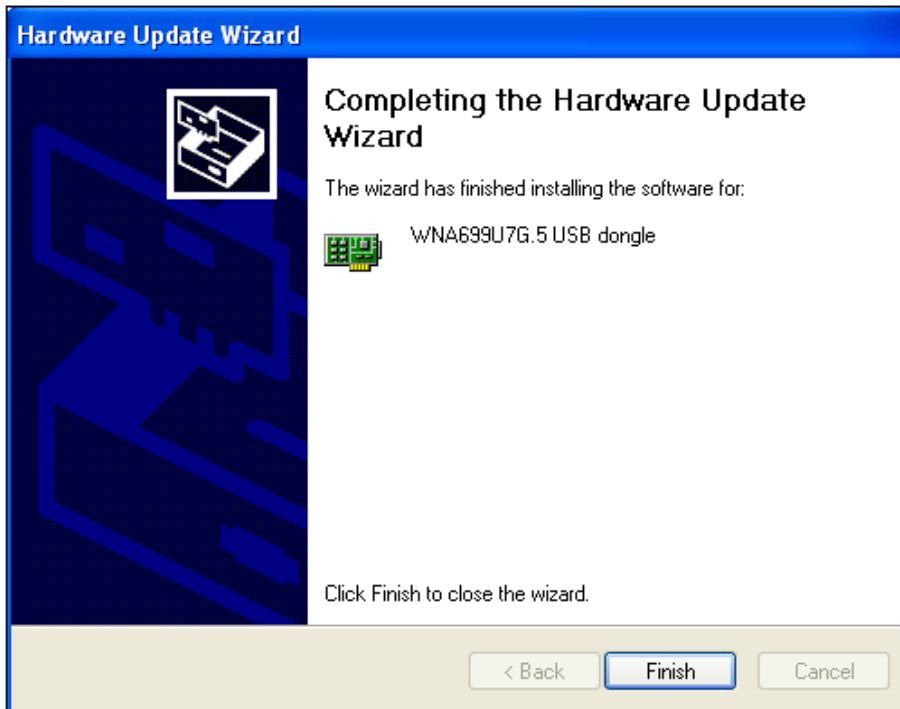
The drivers will then begin to install.



Step 8.2 The following warning will appear. Click the “**Continue Anyway**” button to continue the installation.



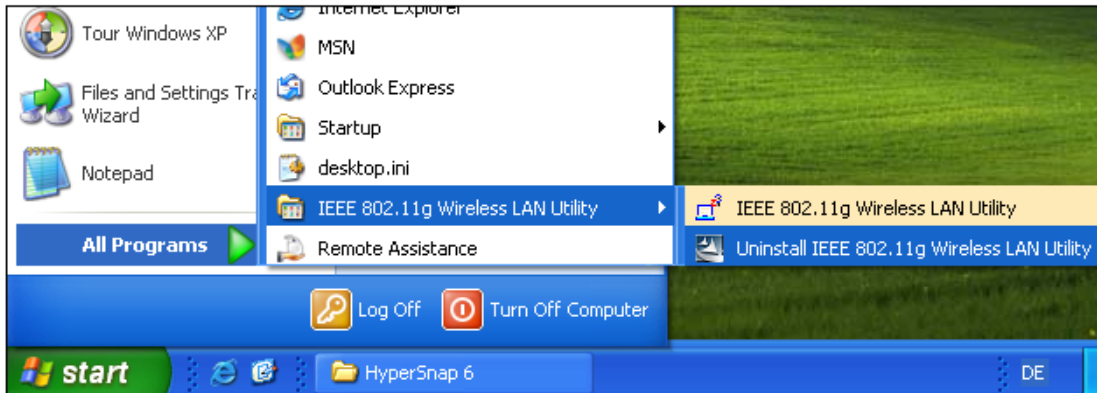
Step 8.3 After the installation has been completed, click “**Finish**” to exit the setup wizard.



Uninstall the Software and Driver

Uninstall the utility software and driver from your PC

Step 1 Choose **Start > All Programs > IEEE 802.11g Wireless LAN Utility**, and the page shown in the following figure appears. Then choose **Uninstall IEEE 802.11g Wireless LAN Utility** from the menu.




Step 2 Follow the **Install Shield Wizard** to uninstall the utility software and driver from your PC.

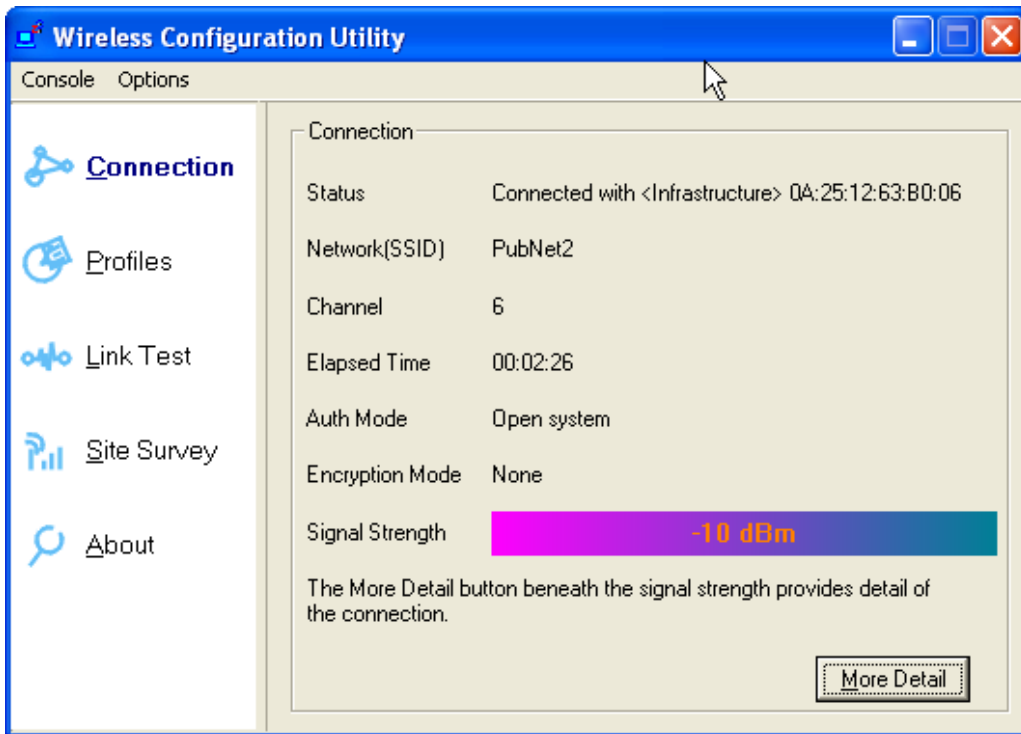
Configuration

The WLAN-LCUSB-02 can be configured by its utility in Windows 2000, XP, Vista or Windows 7. This chapter describes how to configure your wireless adapter for wireless connectivity with trustable data security encryption features. The configuration procedures in Windows 2000, Windows Vista, Windows 7 and Windows XP are similar.

Checking the Utility

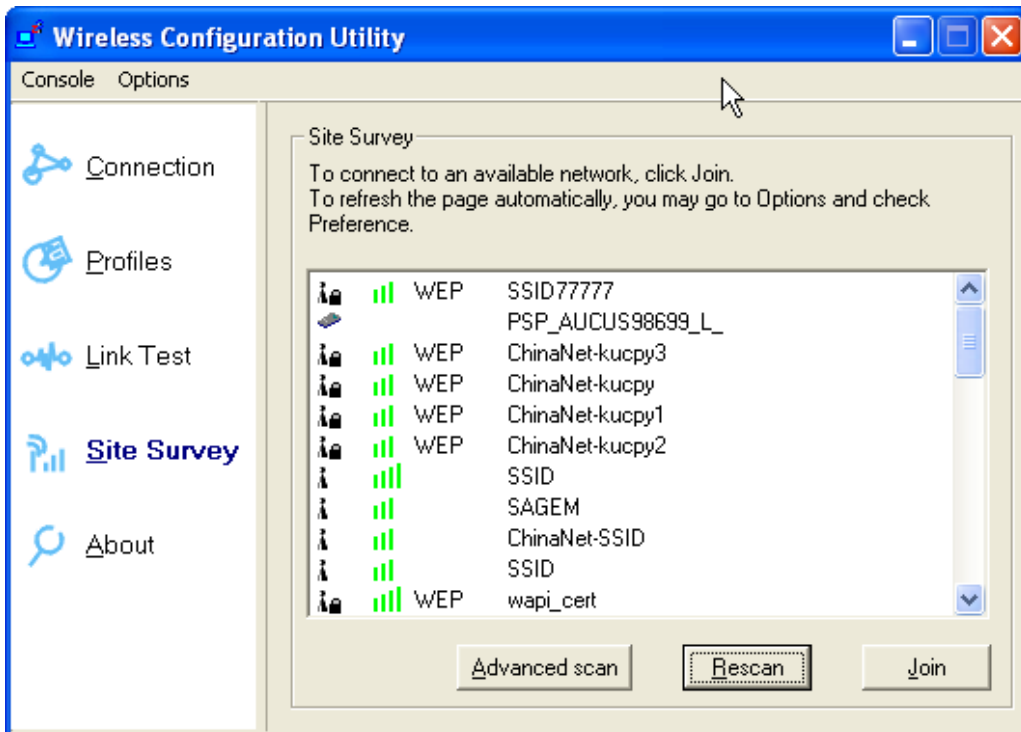
After completing the adapter's driver installation, choose **Start > All Programs > IEEE 802.11g Wireless LAN Utility >** to run the utility. Then the adapter's icon  will appear in the system tray.

Connection status page of Main User Interface (UI)



This page shows the connection status information, such as SSID, Channel and so on.

Site Survey Page of Main UI

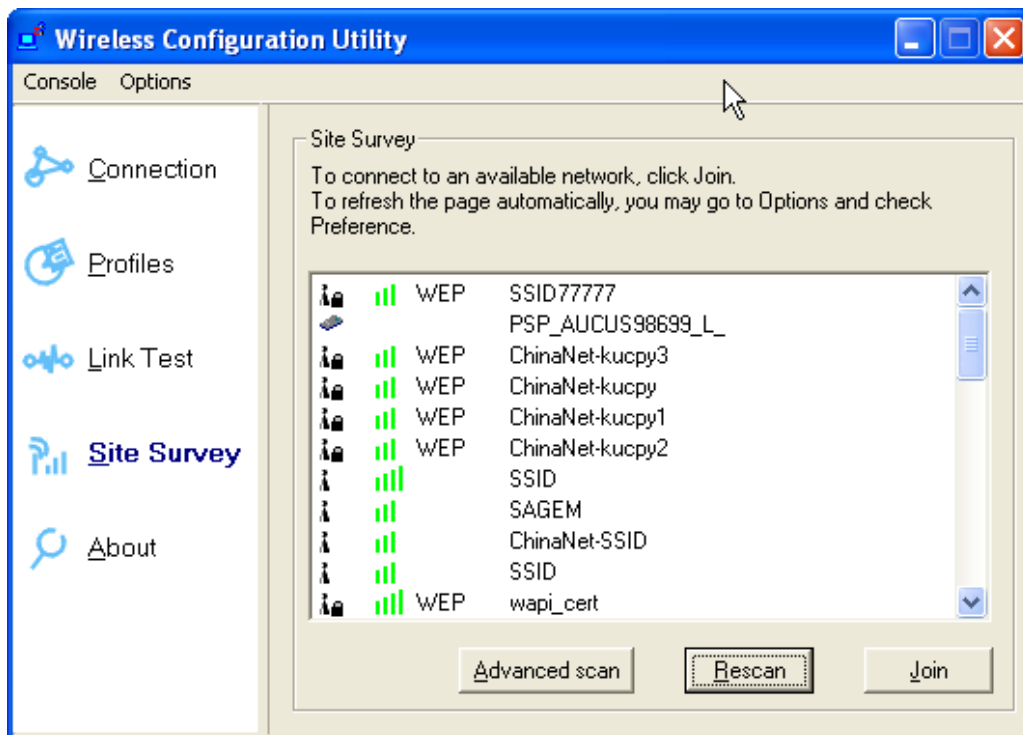


This page shows Site Survey information. Users may select one AP to connect to.

The Button “Advanced Scan” will show more information including channel as in the following picture:

ESSID	Channel	Security	Signal	BSSID	Network Type	Supported Rates
wapi_cert	1	WEP	-52 dBm	0A:1A:7F:08:07:44	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
DefaultNet_AUTO	3	NO	-65 dBm	06:1C:F0:66:2C:F2	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
DefaultNet	3	NO	-71 dBm	06:25:12:63:AF:CC	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
Factory	6	NO	-52 dBm	06:1F:6F:33:F9:86	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
PubNet_OPEN	6	NO	-64 dBm	0A:1E:E3:11:22:33	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
ChinaNet-one	6	WPA	-75 dBm	00:1F:A3:68:ED:BA	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
ZXDSL831L	6	NO	-78 dBm	00:0C:43:30:52:88	Infrastructure	1/2/5.5/11 Mbps
vvv	8	WEP	-80 dBm	00:1E:E3:E6:6C:30	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54/300 Mbps
ChinaNet-WoWo	9	NO	-38 dBm	00:74:04:17:11:12	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
WMASTERS	9	NO	-30 dBm	00:E0:4C:81:86:D1	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
Free Public WiFi	10	NO	N/A	82:3C:3A:38:C4:31	Adhoc	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
PubNet	11	WPA2	-80 dBm	06:25:12:63:AF:CA	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
ChinaNet-SSID	11	WEP	-49 dBm	00:1F:8F:C0:01:50	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
PubNet	11	WPA2	-46 dBm	06:25:12:63:AF:B1	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
PubNet2	11	NO	-62 dBm	0A:25:12:63:AF:B1	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
ASMAX_BR615n	11	WEP	-40 dBm	00:0C:43:30:52:78	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54/300 Mbps
ZSYH	11	NO	-68 dBm	00:22:B0:91:99:29	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
PubNet2	11	NO	-78 dBm	0A:25:12:63:AF:D1	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
PubNet2	11	NO	-67 dBm	0A:25:12:63:AF:CA	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
PubNet2	11	NO	-78 dBm	0A:25:12:63:B0:19	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps
PubNet2	11	NO	-78 dBm	0A:25:12:63:B0:24	Infrastructure	1/2/5.5/11/6/9/12/18/24/36/48/54 Mbps

The “Rescan” Button will refresh information in the list.



To select an AP, click the “Join” button.

Note: You will be only able to connect to an Access Point that is set to Channel 6.

Security Settings

Privacy

Authentication Mode: WPA2-PSK

Encryption Mode: AES

IEEE 802.1X Authentication

Enable IEEE 802.1X authentication for this network

EAP Type: [] []

Keys will be generated automatically for data privacy

Pre-shared key [WPA]

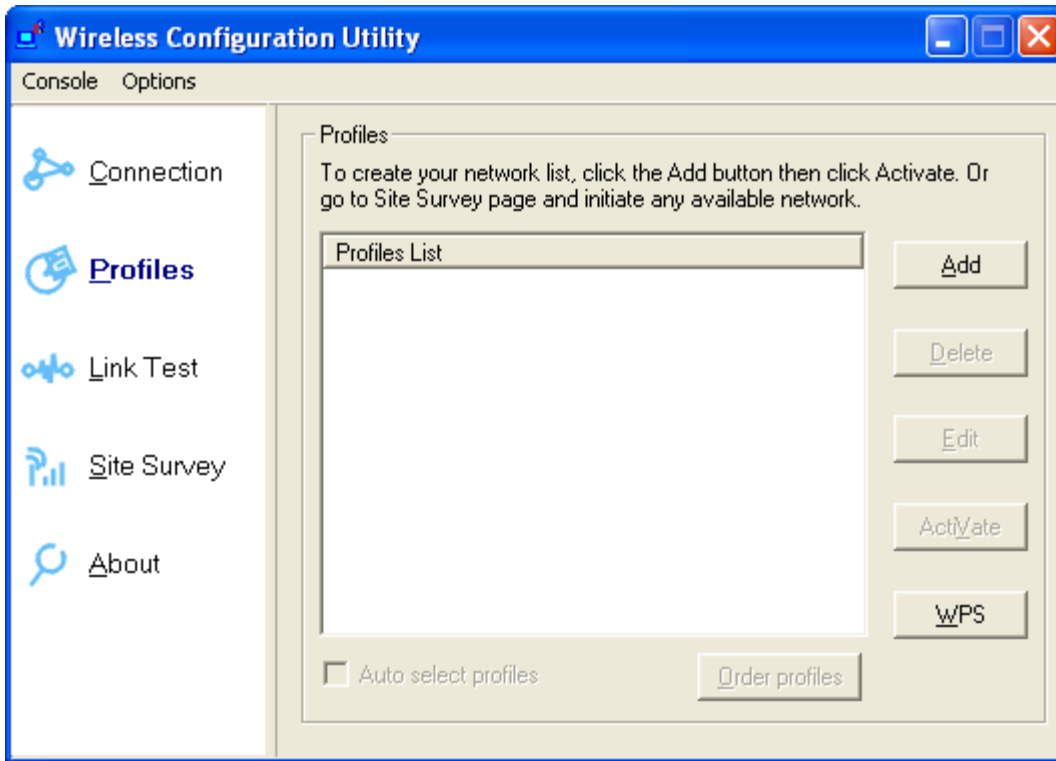
Network Key: []

Confirm Network Key: []

< Back Next > Finish Cancel

After selecting an AP, the user must choose Authentication Mode, Encryption Mode and Network Key to connect to the AP selected. After those fields are filled in, click the **“Finish”** button to start connect progress.

Profile Configuration Page of Main UI



On this page, the user can Add, Delete, Edit, Activate a Profile and use WPS to Connect an AP.

Add a Profile

Adding a profile

Profile Setting

Profile Name: MzProfile001

Network(SSID): ANY

Network Type: Infrastructure

Link any network

< Back Next > Finish Cancel

Enter Profile Name, SSID and select Network Type on this page and click the **“Next”** button.

Security Settings

Security

Privacy

Authentication Mode: WPA-PSK

Encryption Mode: TKIP

IEEE 802.1X Authentication

Enable IEEE 802.1X authentication for this network

EAP Type: [] []

Keys will be generated automatically for data privacy

Pre-shared key [WPA]

Network Key: [*****]

Confirm Network Key: [*****]

< Back Next > Finish Cancel

Select Authentication Mode, Encryption Mode and enter Network Key in on this page and click the "Next" button (if this information is not required, just use the default configurations, then click the "Finish" button to start connect).

TCP/IP Settings

Change current IP setting:
 Obtain an IP Address automatically:
 Specify IP Address:

Use the following IP Address:

IP Address: 0 . 0 . 0 . 0
Subnet Mask: 0 . 0 . 0 . 0
Default Gateway: . . .

Use the following DNS Server addresses:

DNS Server 1: . . .
DNS Server 2: . . .

< Back Next > Finish Cancel

Select to Specify IP Address or Obtain an IP Address automatically.

TCP/IP Settings

Change current IP setting:
 Obtain an IP Address automatically:
 Specify IP Address:

Use the following IP Address:

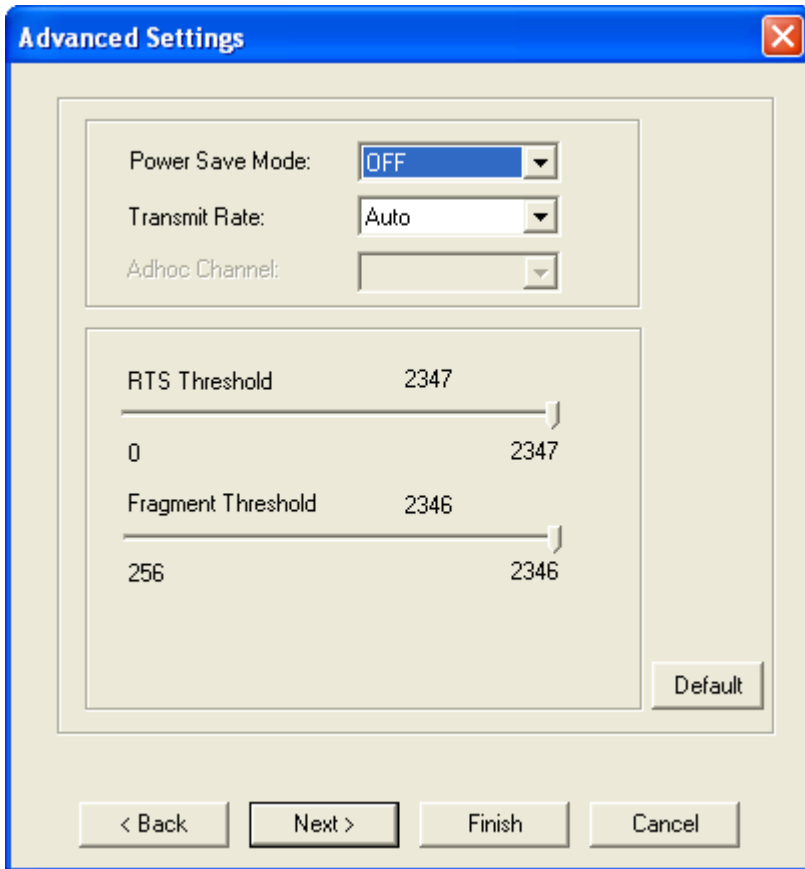
IP Address: 192 . 168 . 1 . 5
Subnet Mask: 255 . 255 . 255 . 0
Default Gateway: | . . .

Use the following DNS Server addresses:

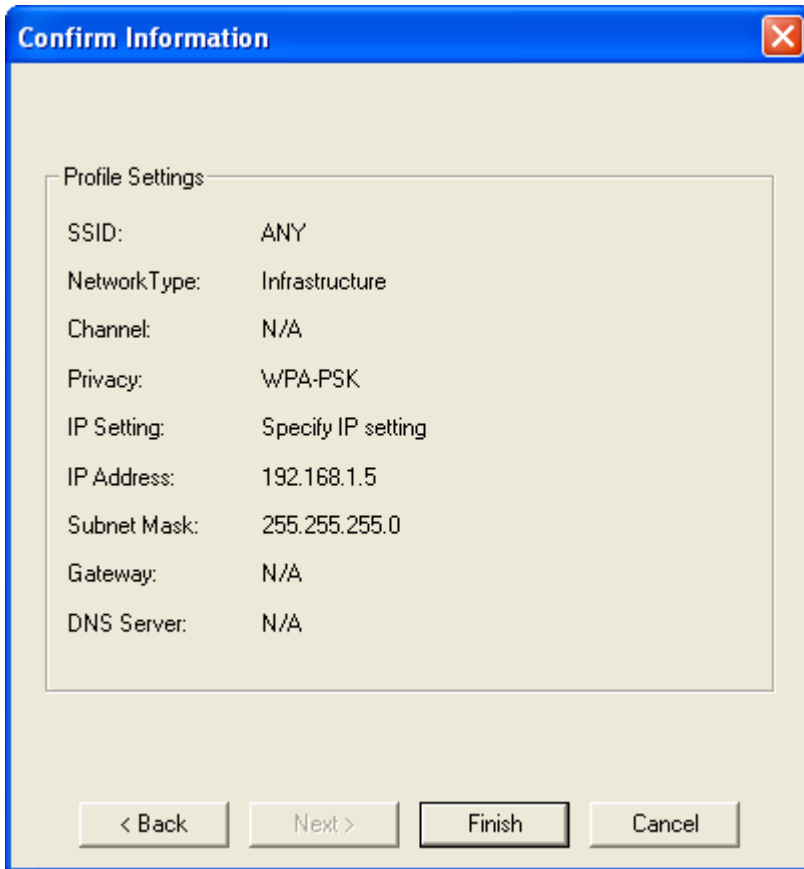
DNS Server 1: . . .
DNS Server 2: . . .

< Back Next > Finish Cancel

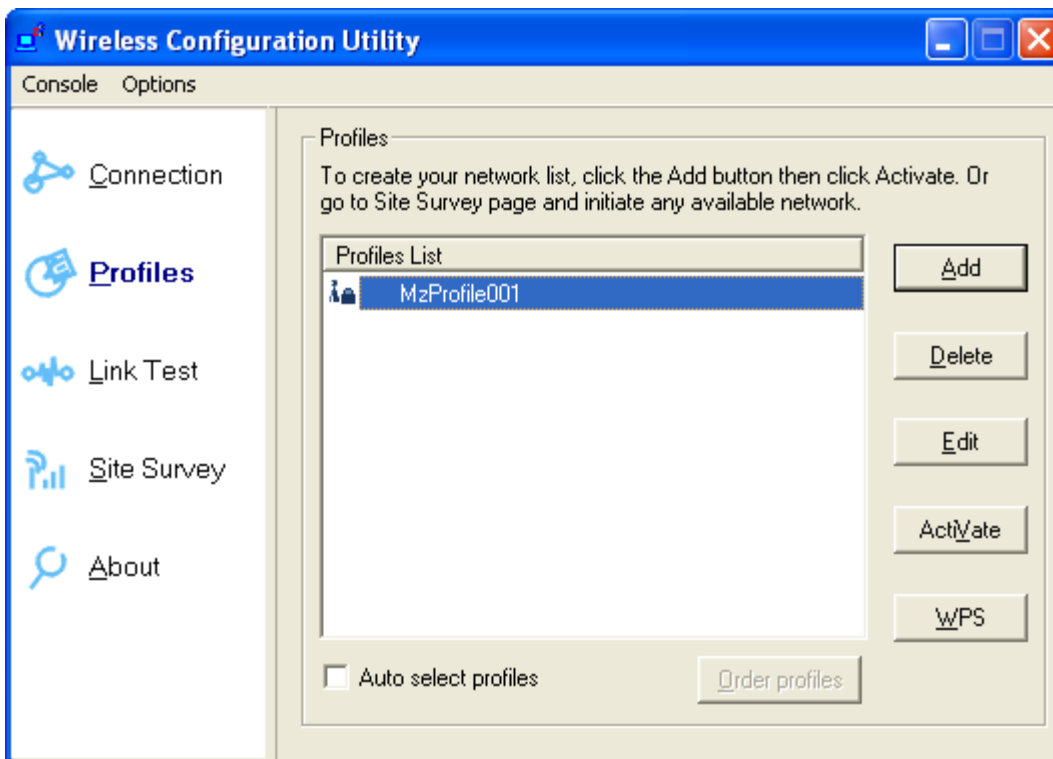
If selecting an IP address, fill in the required information. Check with your network administrator for IP address information.



For advance settings, the Default is recommended. Click "**Next**" to continue.



Click "**Finish**" to return to the Profile Configuration page of Main UI, A profile has been created.



Additional options on this page include:

Delete a Profile:

Please select a profile and click the "**Delete**" button. The Profile will be deleted.

Edit a Profile:

Please select a profile and click the "**Edit**" button. You can then edit the parameters of the profile.

Activate a Profile:

Please select a profile and click the "**ActiVate**" button. This will activate the selected profile.

WPS:

Please refer to the next section "**WPS Configuration**"

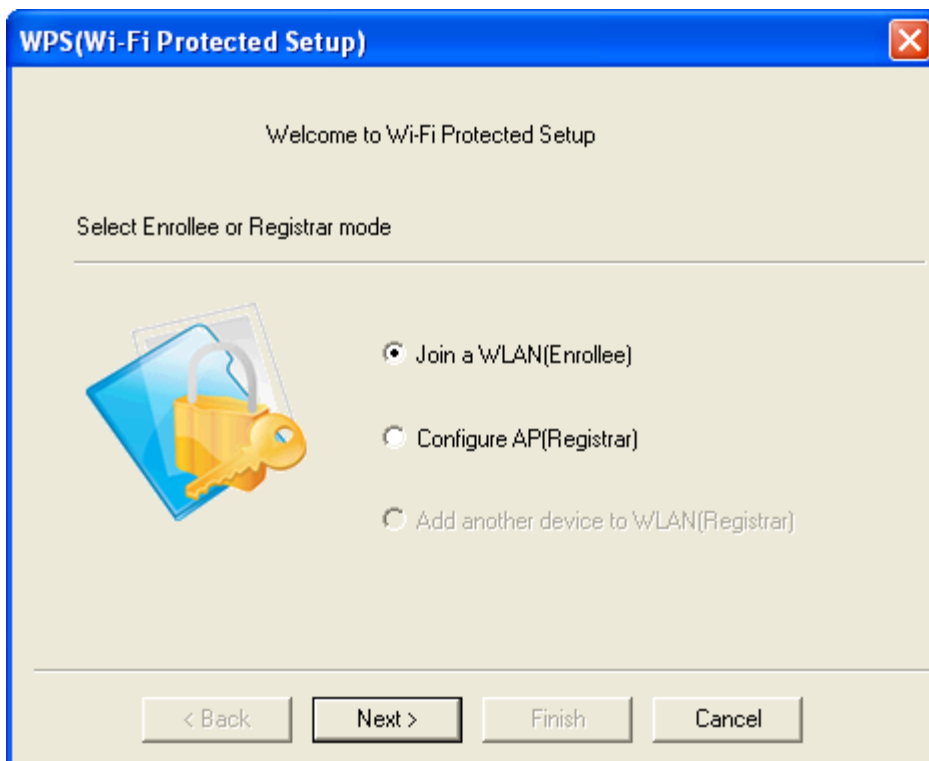
WPS Configuration

WPS Configuration has three methods, PBC, PIN code (Enrollee, Registrar);

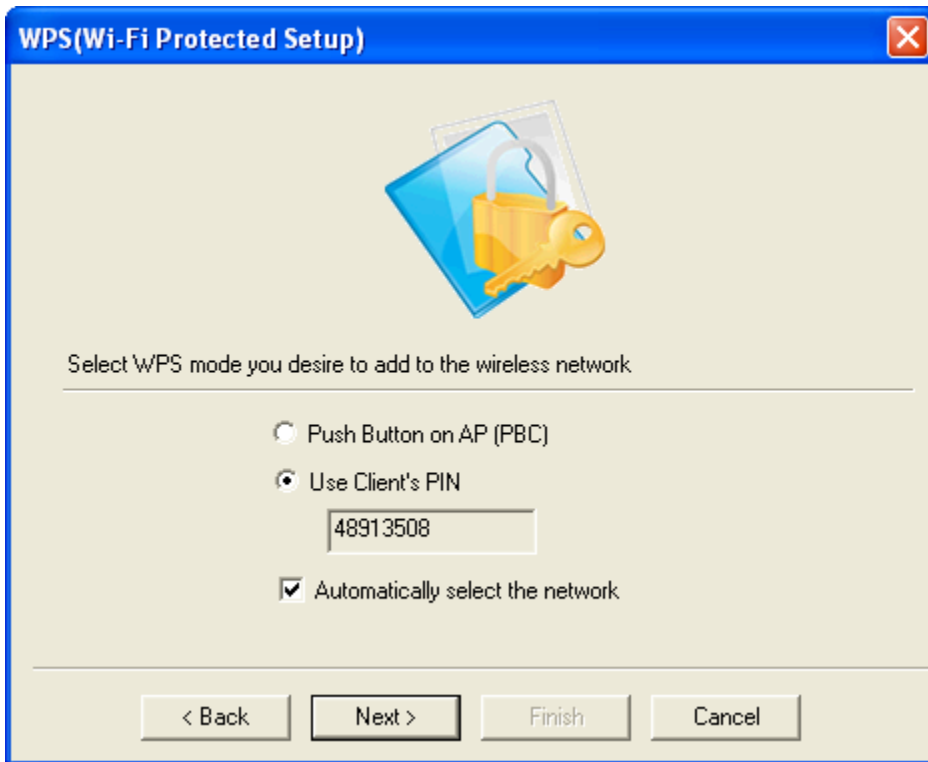


Select WPS (Wi-Fi Protected Setup)

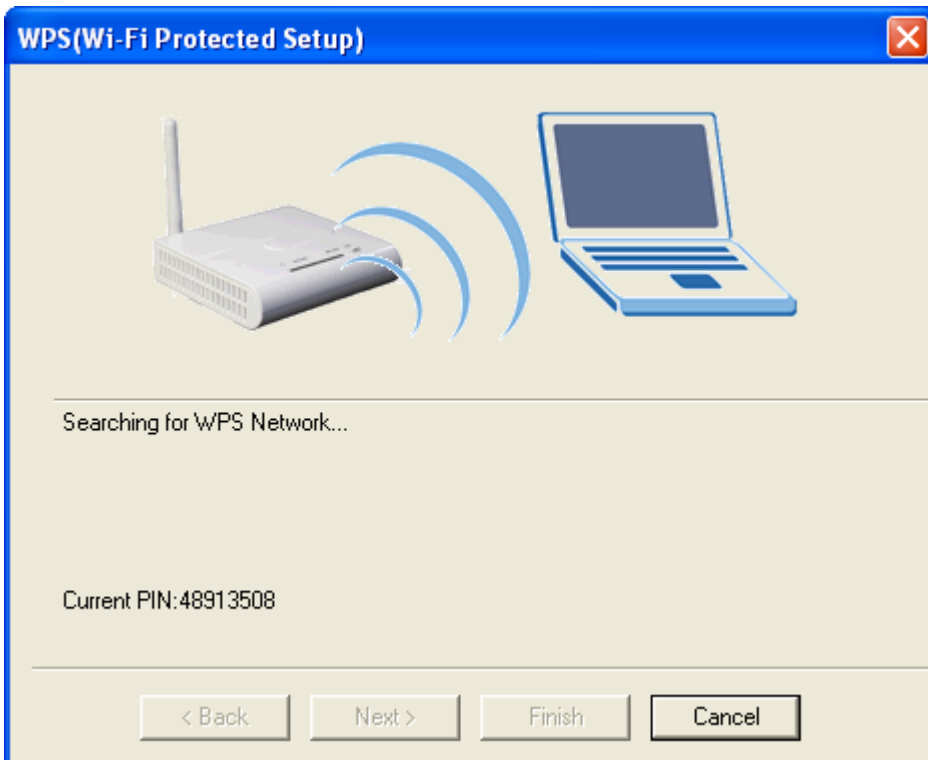
For Enrollee setup, select **"Join a WLAN(Enrollee)"** and click the **"Next"** button.



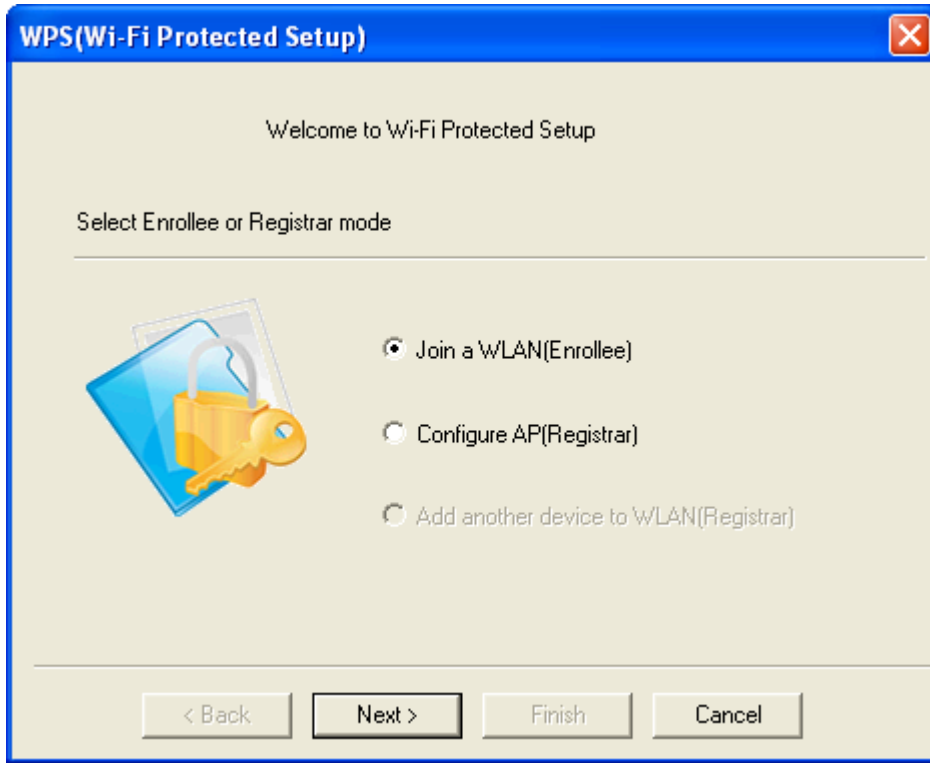
If PBC mode is selected, click **"Next"**. The user must now press the AP's WPS button within 2 minutes. This will start the normal WPS process. If Client PIN mode is selected, remember the PIN code (48913508). Click the **"Next"** button to continue.



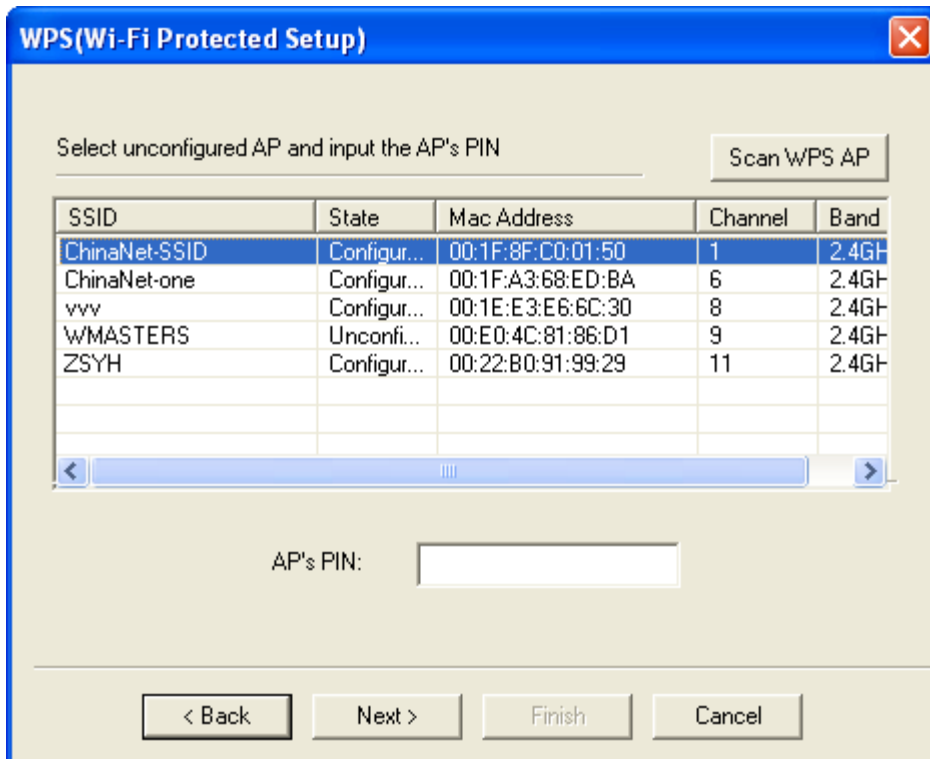
User must input the PIN Code into the AP within 2 minutes. The WPS process will be start normally.

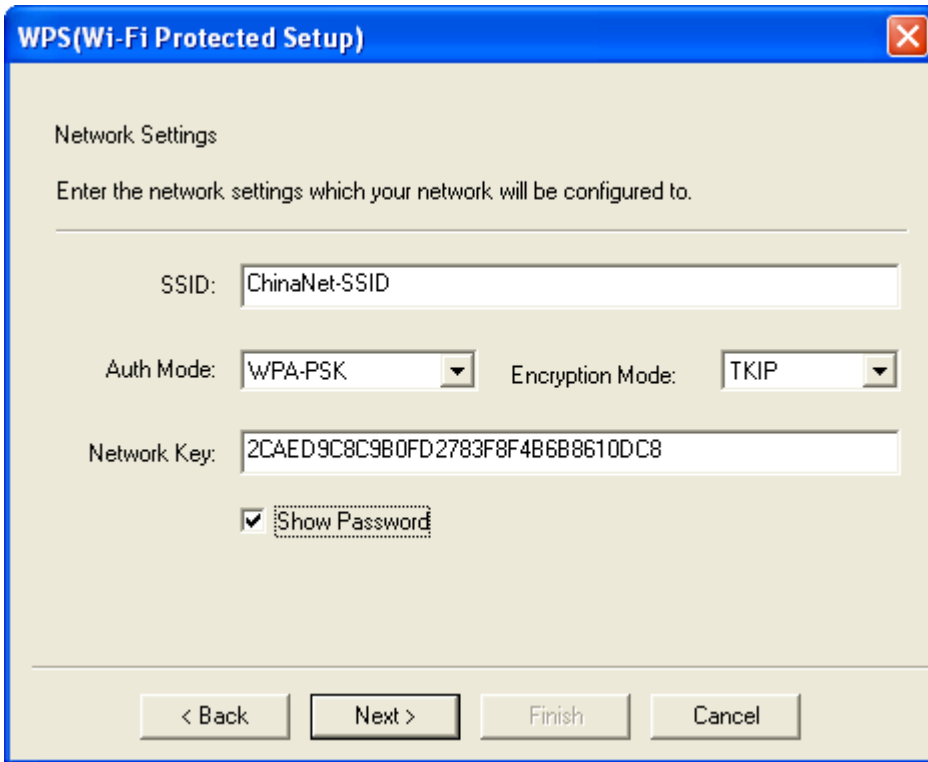


If user selects Configure AP(Registrar) mode:

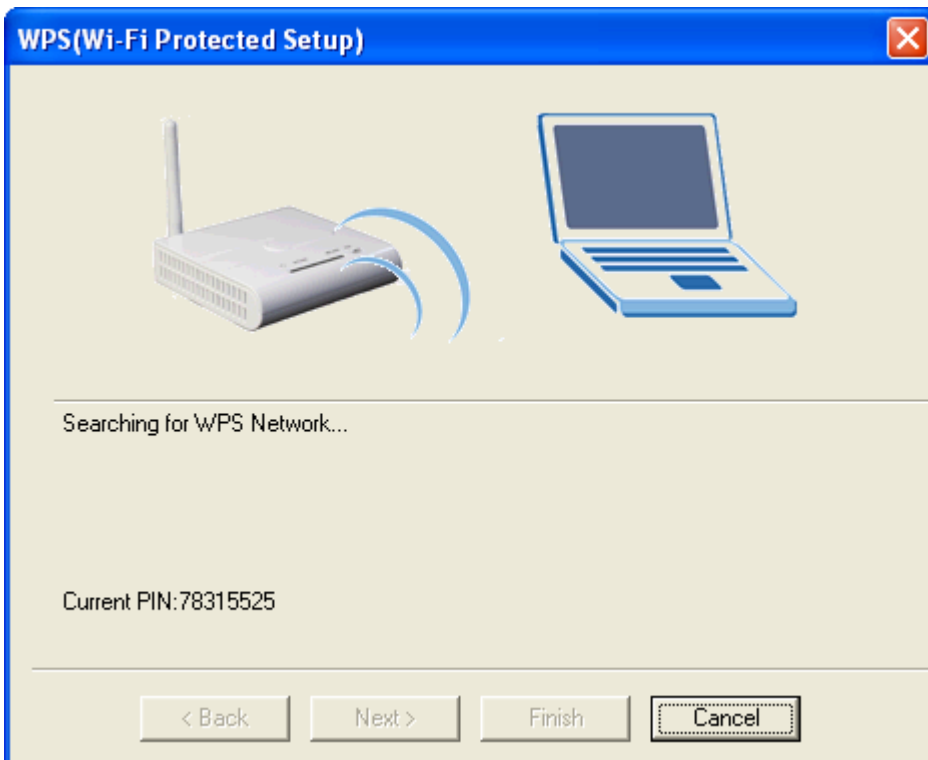


Please select the AP and input AP's PIN code in the "AP's PIN:" field and click the "Next" button.





On this page the user can configure the AP's information. Then click the "Next" button.



The WPS Progress will start.