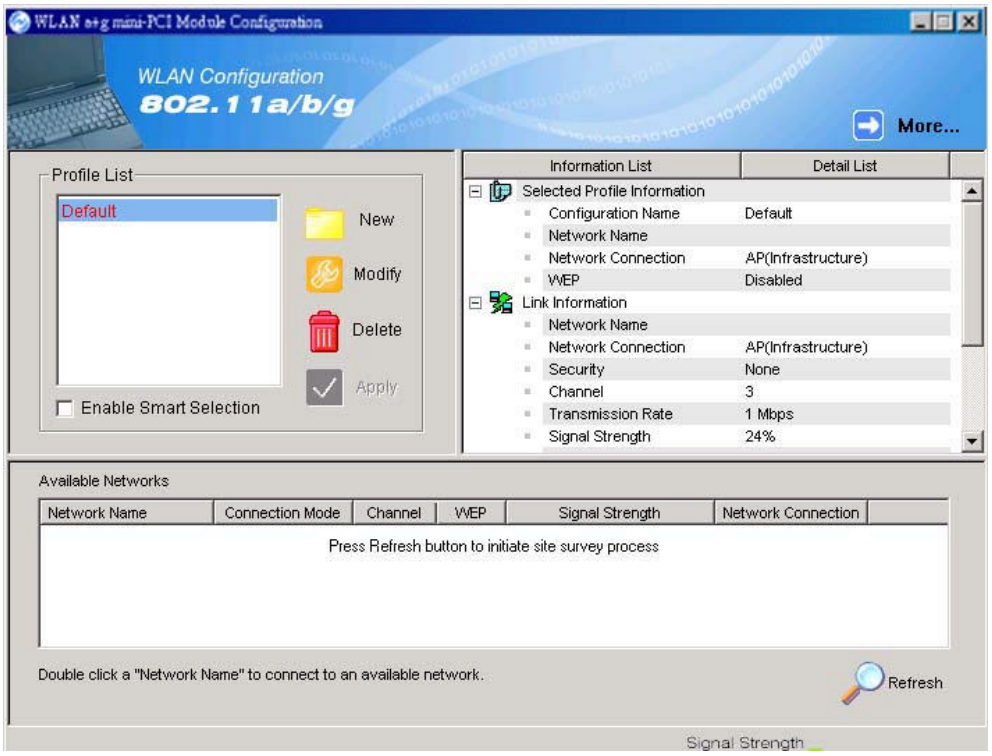
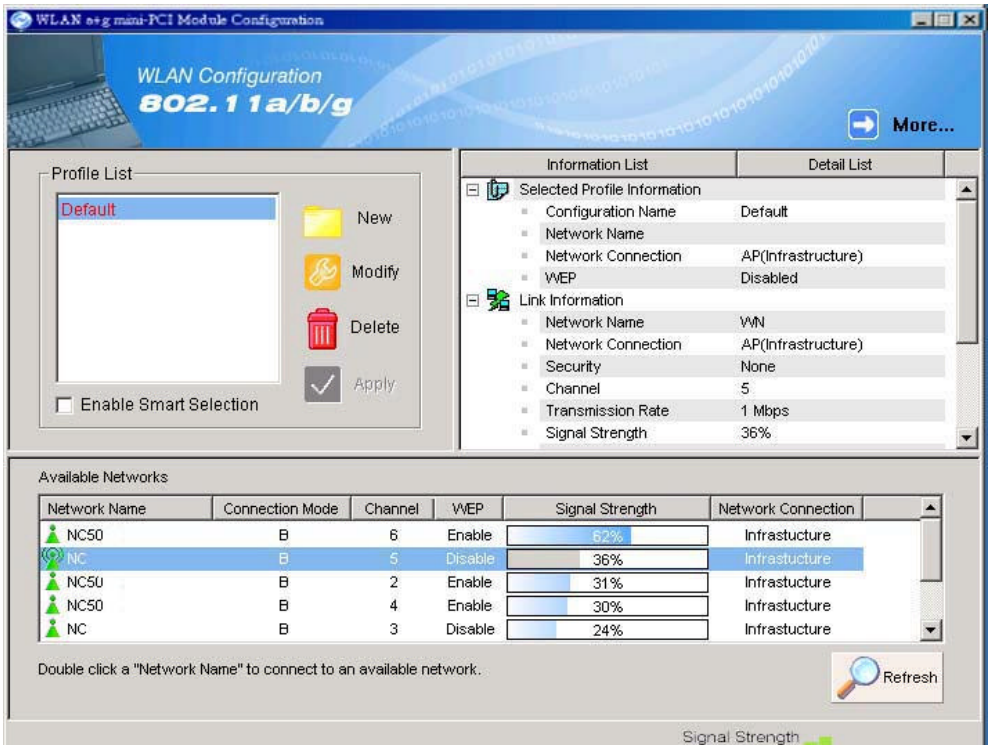
3. Connecting to an Existing Network

1. Double click the shortcut icon of “WLAN a+b+g mini-PCI Module” on the desktop, and the “WLAN a+b+g mini-PCI Module Configuration” window will appear.

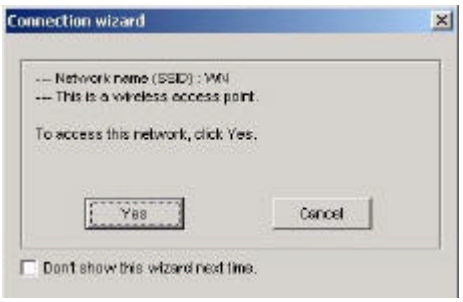


2. Click “Refresh” button

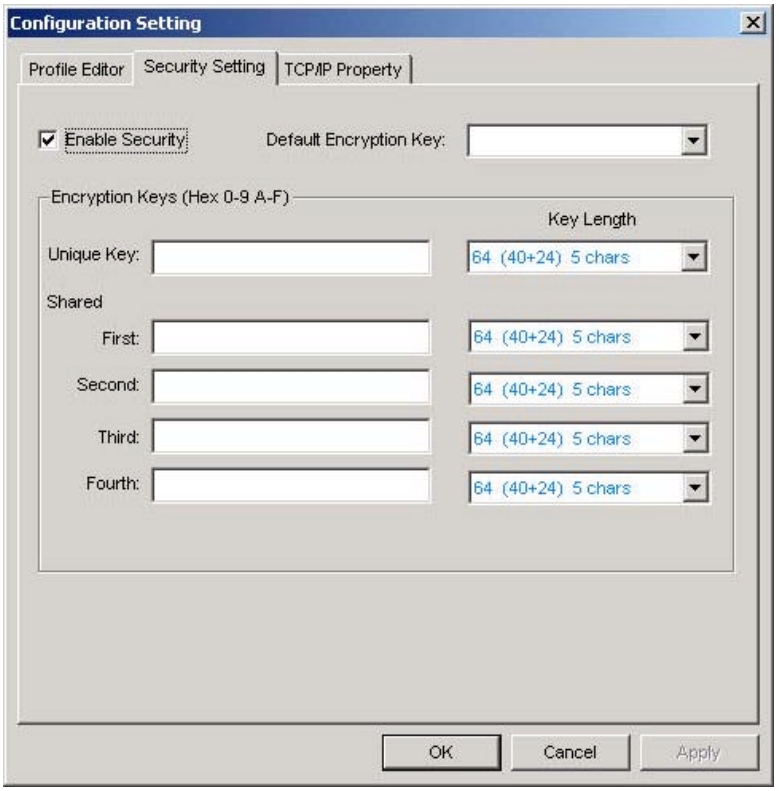
nd all available networks will be listed.



3. From the list of “Available Networks”, choose one network by double clicking the **Network Name**. One of the following dialog boxes appears. Click **“Yes”** to continue.



4. If the WEP of the chosen network is enabled, the “Security Setting” tab is displayed. Enter the correct **Encryption Keys** and click “OK”. You need to contact the network administrator for the values the **Encryption Keys**.



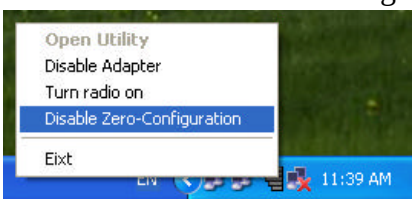
8. Once connected (when you see the icon or in front of the name of the Connected Network), you can check the signal strength from the icon in the Windows System Tray.

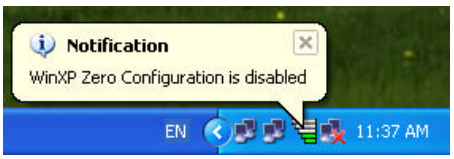
3.1 Additional Note for Windows XP

In Windows XP, it is recommended that you use the WLAN a+b+g mini-PCI Module Configuration Utility. Before using the Utility, please follow the steps below to disable the Windows XP Zero Configuration:

Option 1:

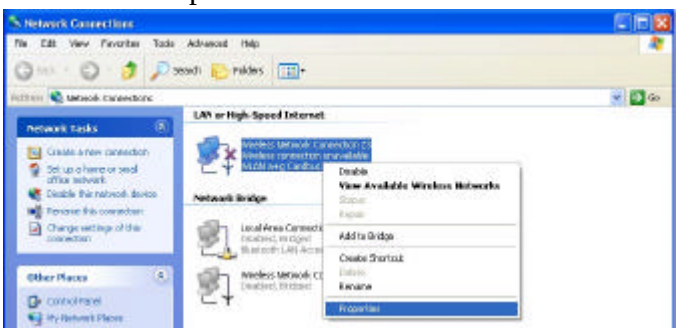
1. Double click the shortcut icon to open the Utility.
2. From the Windows System Tray, you should see the signal icon. Right-click it and select "Disable Zero-Configuration".



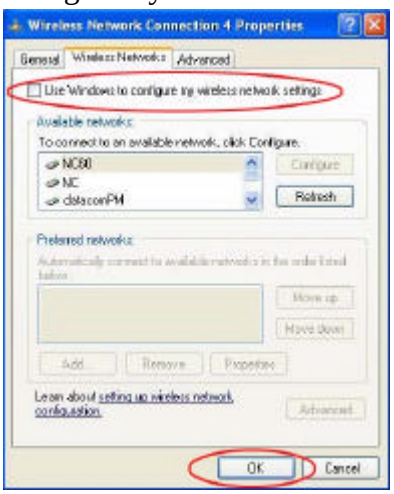


Option 2:

1. Go to "Control Panel" and double click "Network Connections".
2. Right-click "Wireless Network Connection" of "WLAN a+b+g mini-PCI Module", and select "Properties".

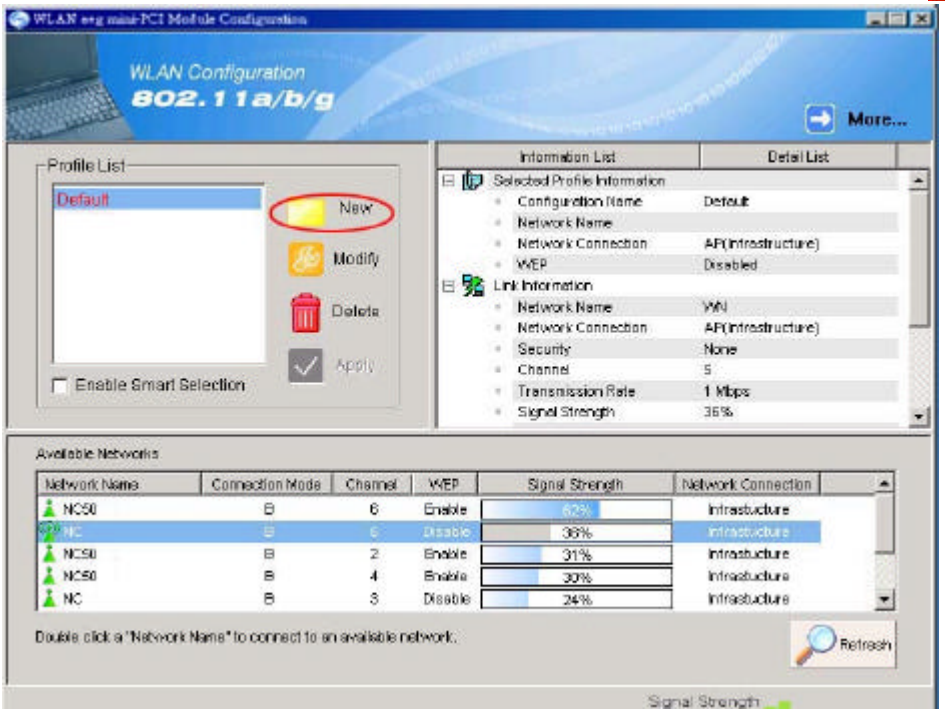


3. Select "Wireless Networks" tab, and uncheck the check box of "Use Windows to configure my wireless network settings", and then click "OK".

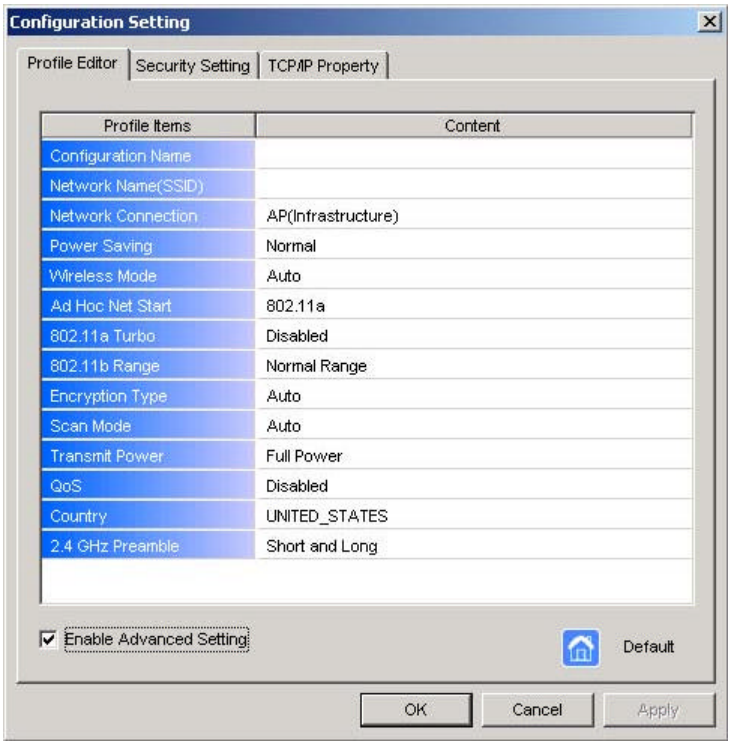


4. Creating a New Network

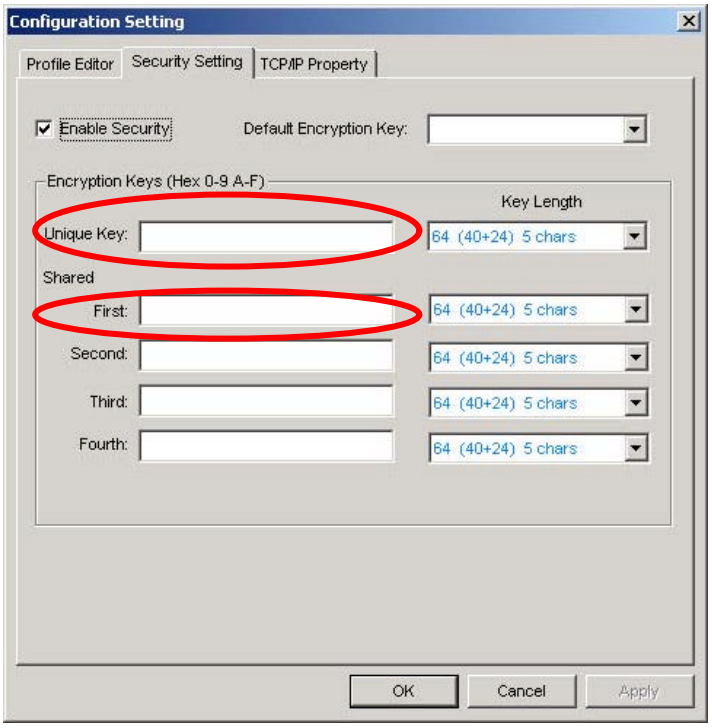
1. In “WLAN a+b+g mini-PCI Module Configuration” window, click “New”



2. Select the “Profile Editor” tab and check the check box of “Enable Advanced Setting” to edit all settings. Click “OK” to save the settings.



3. Click the "Security Setting" tab and set the **Encryption Keys**. Click "OK" to save the settings. When you are creating an **Infrastructure mode and IEEE802.11b** standard network, please enter a passkey in "**Shared Keys: First**" field. For **Infrastructure mode and IEEE802.11a** standard network, you may enter a passkey in either "**Unique Key**" field or "**Shared Keys: First**" field. If you are creating an **Ad-Hoc mode** network, enter a passkey in "**Shared Keys: First**" field.



4. The new **Network Name** is then listed in the **Profile List**.

Note! For details of each setting, please read Chapter 5 "Configuration".

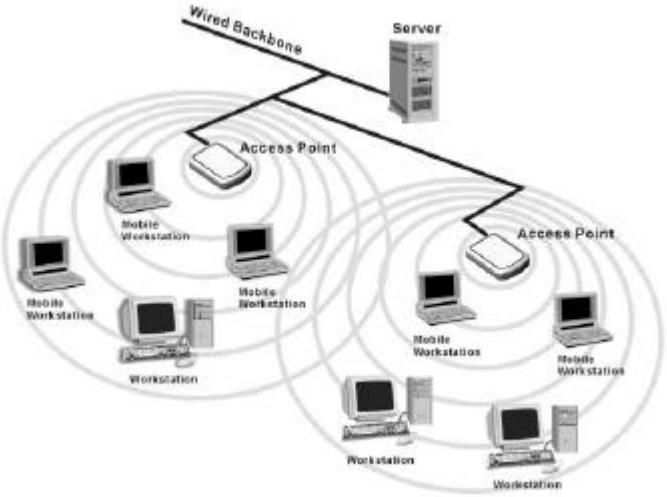
5. Configuration

5.1 Device Configuration

You can set the Wireless Network Adapter to work in either “infrastructure” mode or “ad hoc” mode.

Infrastructure Mode

In infrastructure mode, devices communicate with each other by first going through an Access Point (AP). Wireless devices can communicate with each other or can communicate with a wired network. When one AP is connected to wired network and a set of wireless stations, it is referred to as a BSS (Basic Service Set).



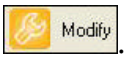
Ad Hoc Mode

Ad-hoc mode is also called “peer-to-peer mode” or “Independent Basic Service Set (IBSS)”. In ad hoc mode, devices communicate directly with each other without using an Access Point (AP).

5.1.1 Non-Default Settings Configuration

1. Open “WLAN a+b+g mini-PCI Module Configuration” by double clicking the shortcut icon on the desktop.

   Note! If there’s no network name listed in the “Profile List”, click “Refresh” button and double click a Network Name from “Available Networks”. The chosen Network Name will then be listed in the Profile List.

2. From the Profile List, select one Profile and click “Modify” button 

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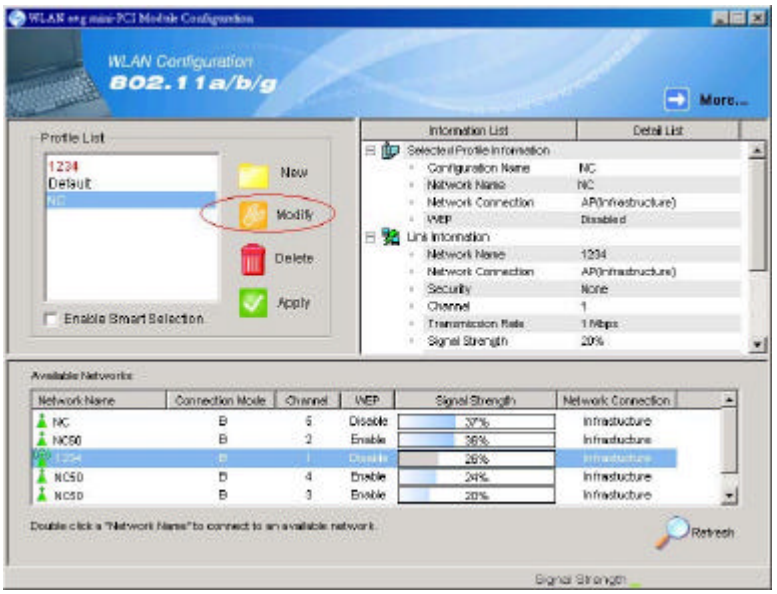
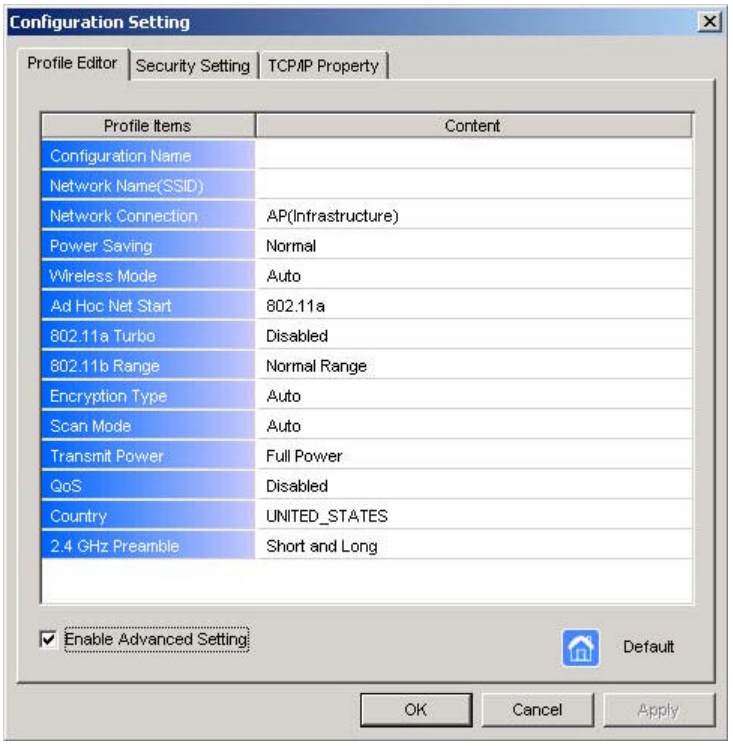
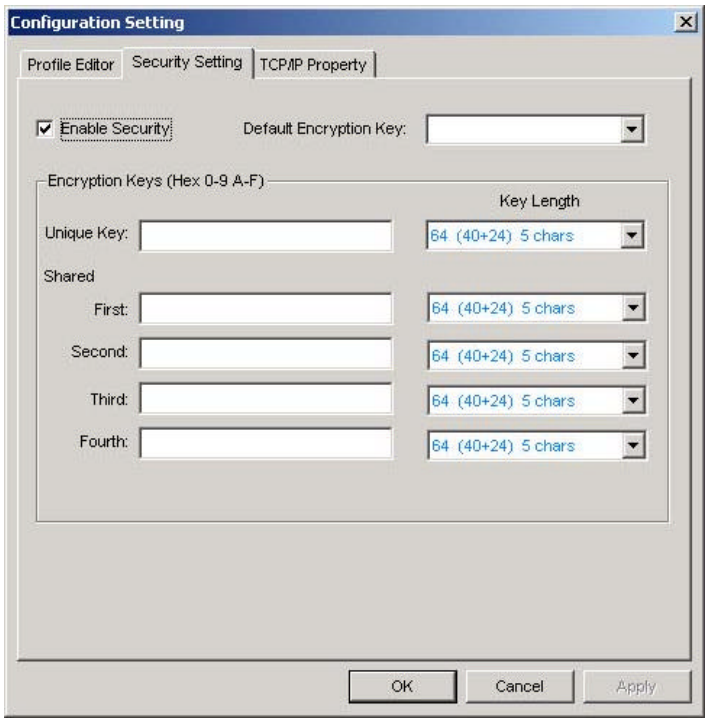


3. Select “Profile Editor” tab and edit the settings. Click “OK” to save the modifications.



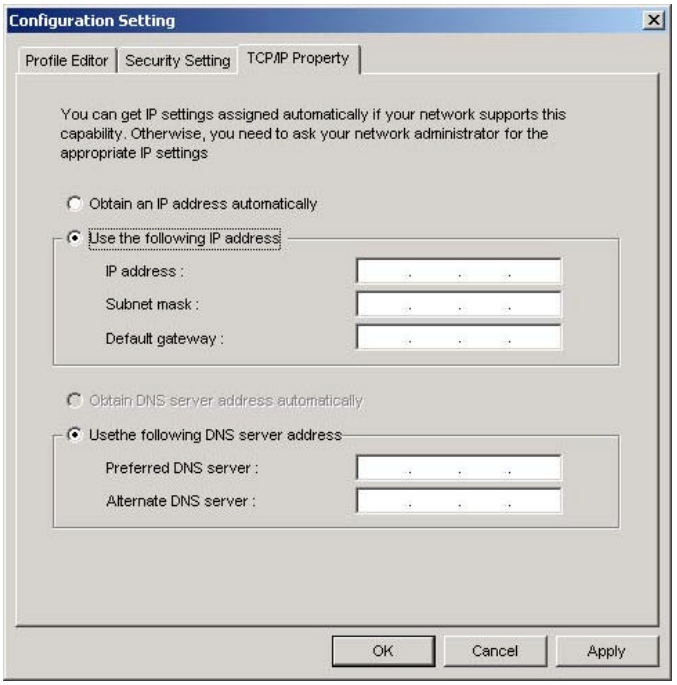
- **Configuration Name:** This name identifies the configuration. This name should be unique.
- **Network Name (SSID):** The name of the wireless network. This name cannot be longer than 32 characters. If the field is set to be "ANY" or is left blank, your computer will connect to an AP with the best signal strength.
- **Network Connection:** Specifies the mode of the network. Two options are "Infrastructure" and "Ad Hoc".
- **Power Saving:** Three power management options are "Off", "Normal" and "Maximum". In **Ad Hoc** mode, **Power Savings** function cannot be enabled.
- **Wireless Mode:** Three options are "802.11b", "802.11a" or "Auto". "Auto" allows the use of either 802.11a or 802.11b mode.
- **Ad Hoc Net Start:** Specifies a band to establish an Ad Hoc network if no matching SSID is found. Four options are available: 802.11b, 802.11a, 802.11aTurbo and 802.11g (Pure g).
- **802.11a Turbo:** Disables or enables the 802.11a Turbo mode.
- **802.11b Range:** Two options are "Normal Range" and "Extended Range".
- **Encryption Type:** Three options are "WEP", "AES" and "Auto". WEP stands for Wired Equivalent Privacy, and AES stands for Advanced Encryption Security. AES provides much higher level of security. "Auto" allows the **Adapter** and AP to negotiate the encryption type. If AES is not available, WEP is used. By default, the **Adapter** is set to "Auto" and will attempt to use AES first. If the AP supports WEP only or is configured for WEP only, the **Adapter** will automatically use WEP.
- **Scan Mode:** Three options are "Active Scan", "Passive Scan" and "Auto".
- **Transmit Power:** Five options are "Full Power", "50% Power", "25% Power", "12% Power" and "Lowest Power".
- **QoS:** Stands for Quality of Service. Disables or enables the **Adapter** to cooperate in a network using QoS.
- **Country:** Select the country where you are. Different countries have different regulations. Please do not illegally use the un-licensed channel.
- **2.4 GHz Preamble:** Allows **Ad Hoc** compatibility with other 2.4 GHz devices. Two options are "Short and Long" and "Long only".

4. Select “Security Setting” tab and edit the settings. Click “OK” to save the settings.



- **Enable Security:** Enables the WEP security when the check box is checked, and disables the WEP security when the check box is cleared.
- **Default Encryption Key:** Allows you to choose one type of encryption key to be used (Unique, First, Second, Third, or Fourth) from the drop down menu.
- **Unique Key:** Defines the unique encryption key for security for the current network configuration. Not used in **Ad-Hoc** mode. To use **Unique Key** for security, this field should be populated. To use AES, you must specify a **Unique Key**.
- **Shared Keys:** Defines four shared encryption keys. To use **Shared Keys** for security, at least one **Shared Key** should be populated.
- **Key Length:** Defines the length of each encryption key. When the length is changed to be a smaller number after a key is entered, the key is automatically truncated to fit. If the length is increased again, the key will not be automatically updated to the previous value.

5. Select “TCP/IP Property” tab. Enter the settings and click “OK” to save the settings.



- If the network uses DHCP server, choose “Obtain an IP address automatically”.
- If the network does not use DHCP server, choose “Use the following IP address” to set the relative settings. For the IP configuration information, please contact the network administrator.

5.1.2 Default Settings Windows XP Zero-Configuration

You may also choose the default parameters and directly proceed to Windows XP zero-configuration through the steps below:

1. Go to “Control Panel” and open “Network Connections”.
2. Right-click the Wireless Network Connection of “WLAN a+b+g mini-PCI Module”, and make sure this connection is **Enabled**.
3. Right-click the Wireless Network Connection of “WLAN a+b+g mini-PCI Module”, and then click “Properties”.
4. Select “Wireless Networks” tab and select “Use Windows to configure my wireless network settings” check box.

Note! Clear the check box of “Use Windows to configure my wireless network settings” will disable automatic wireless network configuration.