

# WL630USB Wireless B/G USB Adapter

## User Manual

Version 1.0

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Product warranty does not apply to damage caused by lightning, power surges or wrong voltage usage.

## **Declaration of Conformity**

### **FCC Certification**

The United States Federal Communication Commission (FCC) and the Canadian Department of Communications have established certain rules governing the use of electronic equipment.

### **Part 15, Class B**

This device complies with Part 15 of FCC rules. Operation is subject to the following two 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 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 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 distance between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

### **CAUTION:**

1. To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.
2. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## **1 Introduction to WL630USB Wireless B/G USB Adapter**

The WL630USB Wireless B/G USB Adapter is designed for creating a wireless workstation for notebook or desktop computer. It is compatible with any USB-equipped computers.

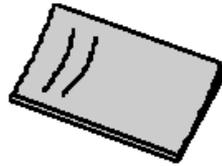
The WL 630USB Wireless B/G USB Adapter is compliant with both Wireless-G (802.11g) and Wireless-B (802.11b). It delivers data rates up to 54Mbps. With this incredible speed, you are able to access the Internet easily anywhere in the building.

### **1.1 Package Contents**

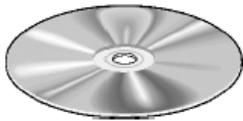
Make sure that you have the following items. If any of the items is damaged or missing, please contact your dealer immediately.



WL630USB Wireless B/G USB Adaptor (Qty:1)



Easy Start (Qty:1)



Installation CD (Qty:1)



USB Extension Cable (Qty:1)

### **1.2 Features**

- Complies with IEEE 802.11g standard for 2.4GHz Wireless LAN
- USB 2.0 compliant
- USB Plug & Play
- Interoperable with existing network infrastructure
- Secure information transmission
- Freedom to roam while staying connected
- Compatible with specialty wireless products and services
- Up to 54 Mbps data rate
- Antenna is built in the card with LED indication
- Low power consumption
- Easy to install and configure

## **2 Installation**

### **2.1 System Requirements**

- Desktop PC or Notebook PC
- Pentium® 233 processor or higher
- 64MB RAM
- 20MB hard disk space (system files and modem driver only)
- A free USB Port
- CD-ROM drive
- Windows® 98 SE / Windows® Me / Windows® XP / Windows® 2000

### **2.2 Step 1: Install the Driver & Utility**

## **Caution!!!**

**Do not insert the wireless LAN card into your computer until the procedures in “ Install the Device & Utility ” have been performed.**



#### ***Important Note:***

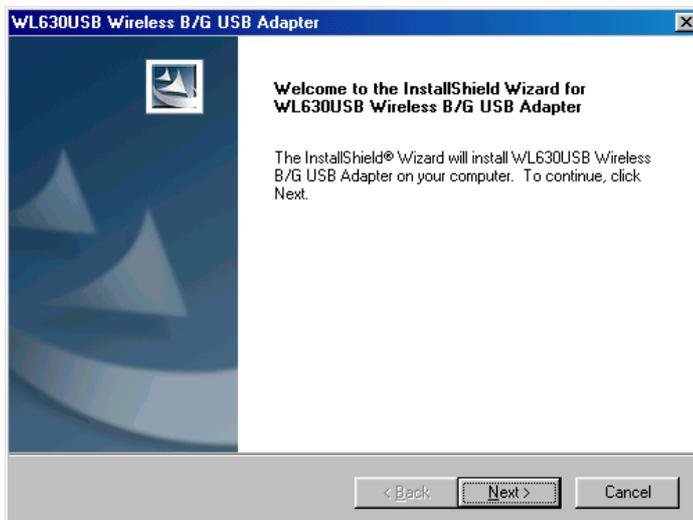
***Connect to an USB 2.0 USB host to have maximum rate of 54Mbps (802.11g).***

***If connected to an USB 1.1 USB host, the maximum rate will be 11 Mbps (802.11b) only.***

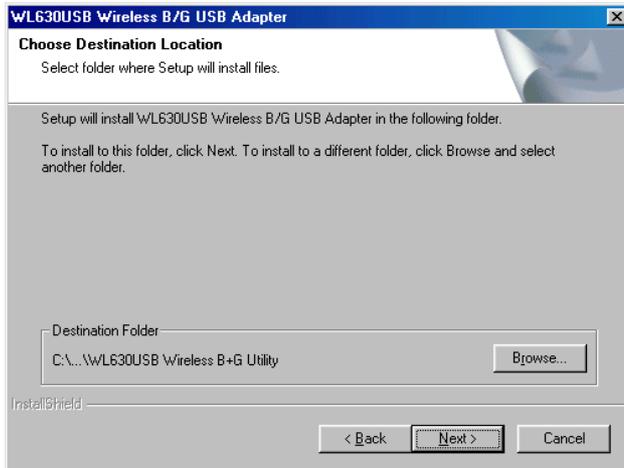
1. Exit all Windows programs. Insert the Installation CD into your CD-ROM. The CD will run automatically. If the Installation CD auto run fails, please run the “**Setup.exe**” file in the CD.

#### **For Windows 98SE/ME**

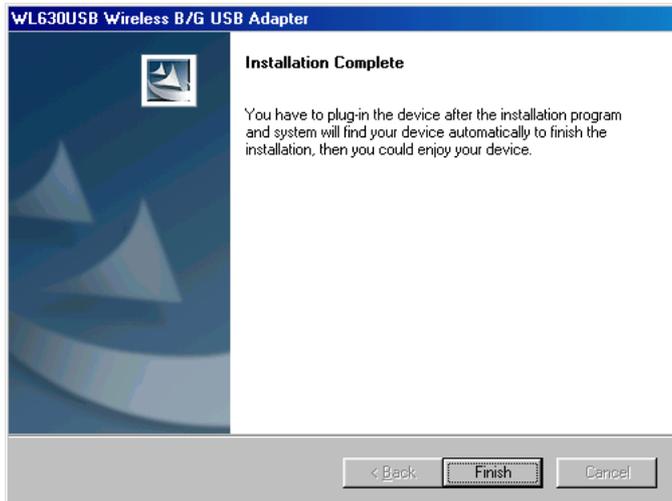
2. When the Welcome screen appears, click “**Next**” to continue.



3. The below screen will be shown. Click **Next** to continue and the installation program will start running automatically.



4. When the below screen is shown, click **Finish** to complete the installation.



### **For Windows 2000/XP**

2. When the Welcome screen appears, click **Next** to continue.



3. The below screen will be shown. Click **Next** to continue and the installation program will start running automatically.



4. For **Windows 2000** when the **“Digital Signature Not Found”** screen appears, click **“Yes”** to continue the installation.  
For **Windows XP** when the **“Software Installation”** screen appears, click **“Continue Anyway”** to continue the installation.



5. When the below screen is shown, click **“Finish”** to complete the driver and utility installation.



### 2.3 Step 2: Install the Device

**Note: Before you install the device to your computer, make sure you have installed the driver and utility as described in the previous section.**

1. Locate your **USB host** and insert the **USB Adapter**.
2. Once the device has been inserted to your computer, Windows will detect the new hardware.
3. Windows will begin copying the files to your computer.



#### For Windows 98SE/ME

4. Before installing the device, make sure you have your original Windows 98 CD-ROM on hand. When the prompt for "**Windows 98 Second Edition CD-ROM**" window appears, insert the CD-ROM as requested. Click "**OK**" to continue the installation.



5. The installation will continue and the system may prompt for a "**Version Conflict**". Click "**Yes**" to keep the existing file. This completes the installation of the device.

#### For Windows 2000

4. When the "**Digital Signature Not Found**" screen appears, click "**Yes**" to continue the installation.



5. This completes the installation of the device.

**For Windows XP**

- When below is prompted, click “Next” to continue the installation.



- When the “Software Installation” screen appears, click “Continue Anyway” to continue the installation.



- When the following screen appears, click “Finish” to complete the installation of the device.



## 2.4 Verify Installation

To verify if the device exists in your computer and works, go to **Start** → **Settings** → **Control Panel** → **System** → **Hardware** → **Device Manager**. Expand the **Network Adapters** category. If the **WL630USB Wireless B/G USB Adapter** is listed here, it means that your device is properly installed and enabled.



## 2.5 Uninstallation

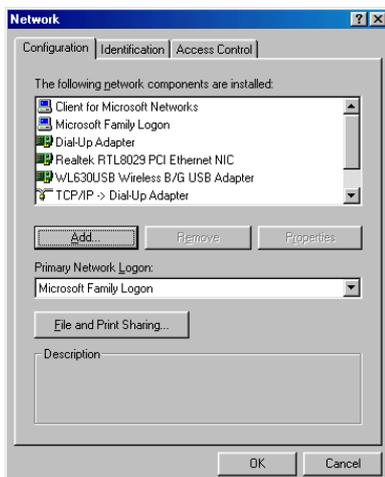
1. To uninstall the driver and utility, go to the **Control Panel** of your system.
2. Open the **Add/Remove Programs**.
3. Select the **WL630USB Wireless B/G USB Adapter** in the **Add/Remove Programs** and then click on the **Remove**.
4. Follow the on screen instructions to uninstall the driver and utility. After the uninstallation, plug out the device and reboot the system.

## 3 NETWORK CONNECTION

Once the device driver is well installed, a network setting described in the following should be also established.

### 3.1 In Windows 98SE/ME

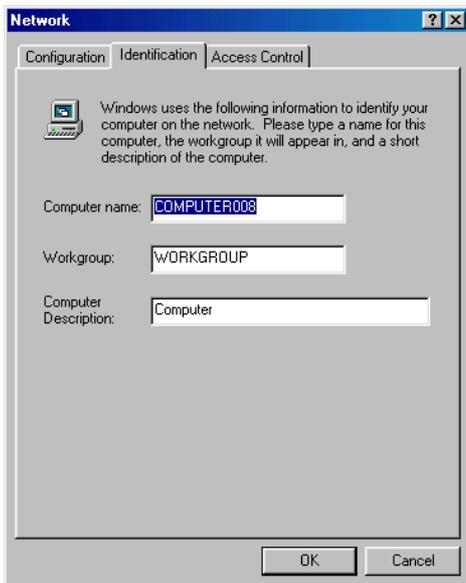
1. Go to **Start** → **Settings** → **Control Panel** → **Network**. Make sure that all the required components are installed. If any components are missing, click on the **“Add”** button to add them in.



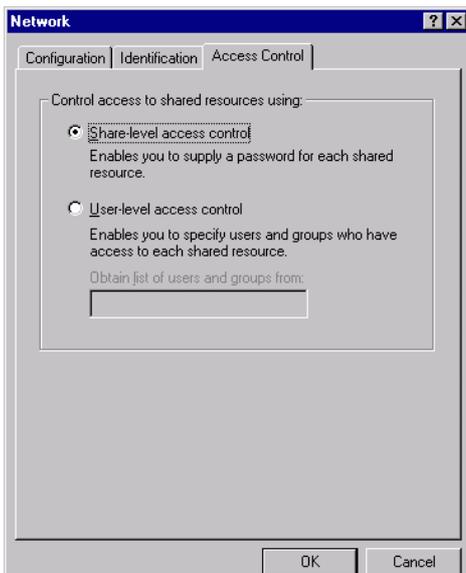
2. For making your computer visible on the network, enable the **“File and Print Sharing...”** and check on the boxes as shown.



3. Click the **“Identification”** tab. Make up a name that is unique from the other computers' names on the network. Type the name of your workgroup, which should be the same used by all of the other PCs on the network.



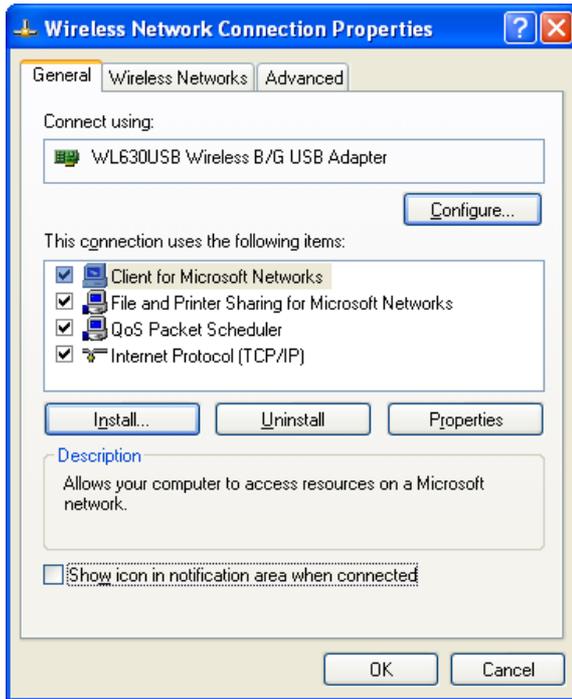
4. Click the **“Access Control”** tab. Make sure that **“Share-level access control”** is selected. If connecting to a Netware server, share level can be set to **“User-level access control”**.



6. When finished, restart your computer to activate the new device.

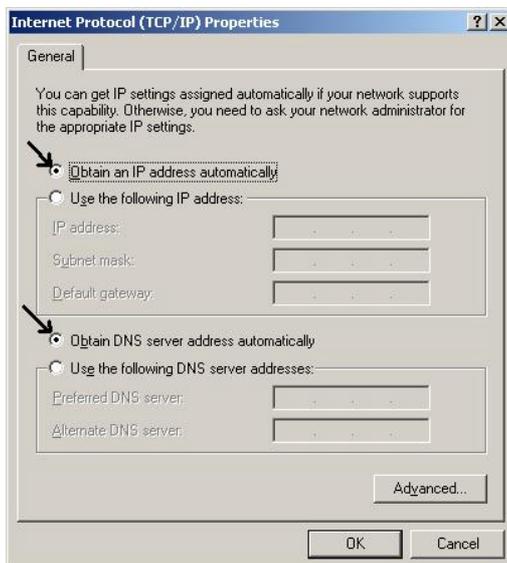
### 3.2 In Windows 2000/XP

1. For **Windows 2000**, go to **Start** → **Settings** → **Control Panel** → **Network and Dial-up Connections** → **Local Area Connection** → **Properties**.  
For **Windows XP**, go to **Start** → **Control Panel** → **Network and Internet Connections** → **Network Connection** → **Wireless Network Connection Enabled WL630USB Wireless B/G USB Adapter**
2. Make sure that all the required components are installed. If any components are missing, click on the **“Install...”** button to add them in.

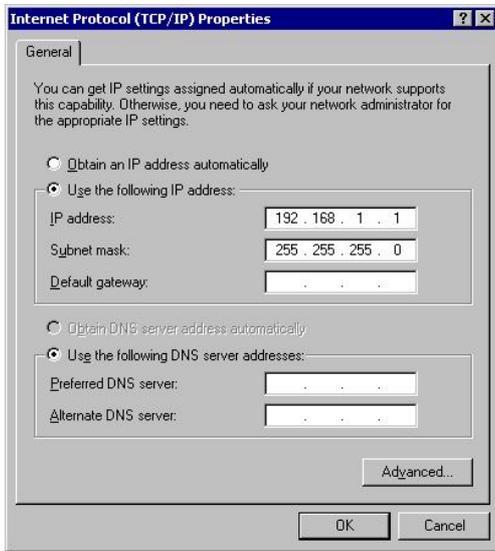


## 4 IP Address

1. To configure a dynamic IP address check the **“Obtain an IP Address Automatically”** option.



- To configure a fixed IP, check the **“Use the following IP address”** option. Then enter an IP address into the empty field. For example, enter 192.168.1.1 in the IP address field and 255.255.255.0 for the Subnet Mask.



**Note: When assigning IP Addresses to the computers on the network, remember to have the IP address for each computer set on the same subnet mask.**

## **5 Configuration Utility**

After the Wireless adapter has been successfully installed, users can use the included **Configuration Utility** to set their preference.

To activate the Configuration Utility, you may go to **Start → Program → WL630USB Wireless B+G USB Adapter → WL630USB Wireless B+G USB Utility**.

The Configuration Utility icon will also appear in the taskbar. You can open the Configuration Utility by clicking the icon.

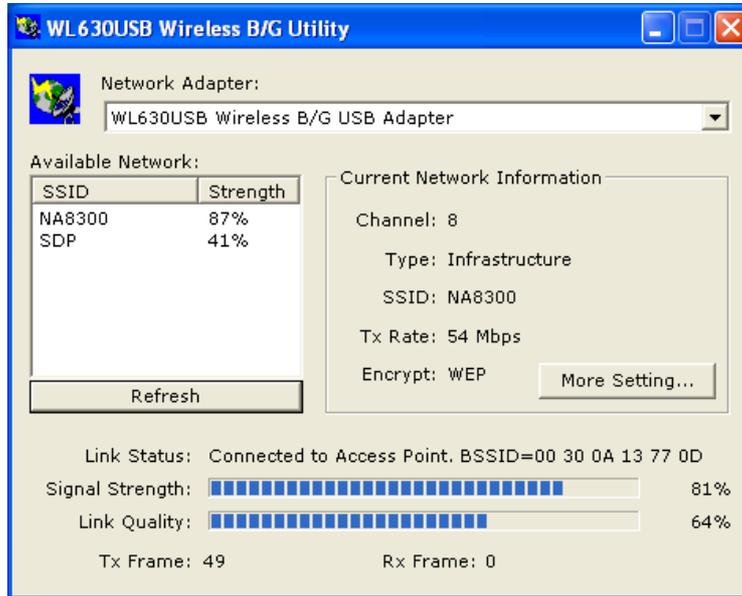


There is also a Configuration Utility icon created on the desktop. You can also open the Configuration Utility by clicking the icon.



## 5.1 Status

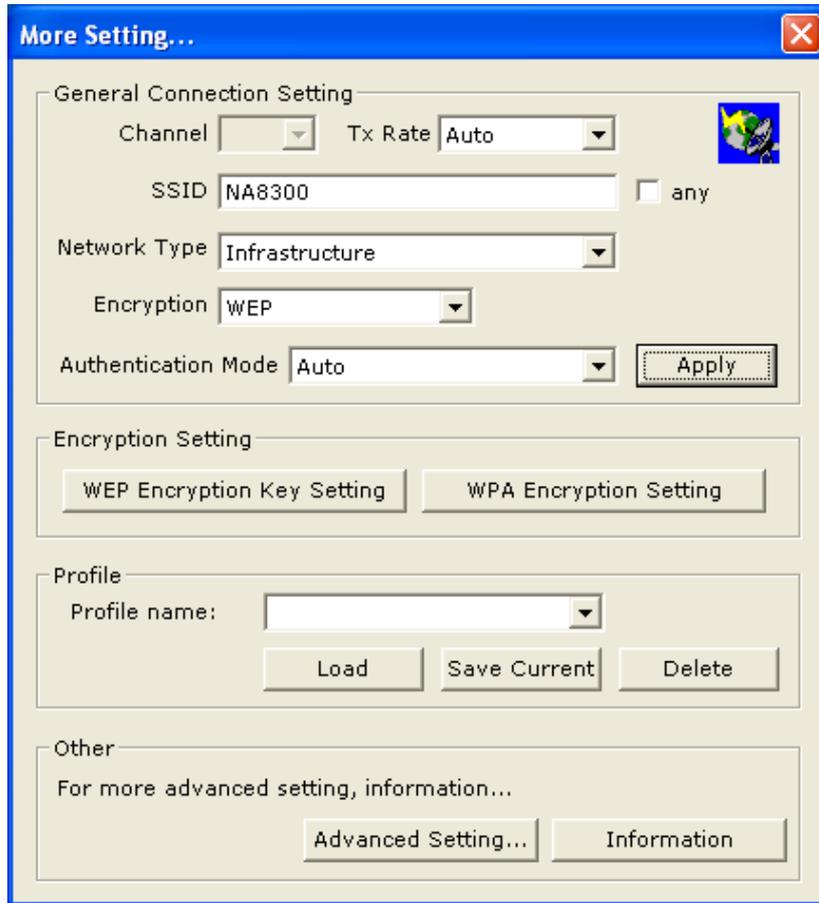
Open up the **Configuration Utility** and the below screen will display the current status of the **WL630USB Wireless USB Adapter**.



Items	Description
<b>Channel</b>	Shows the selected <b>Channel</b> that is currently in use. (There are 14 channels available, depending on the country.)
<b>Type</b>	The <b>Infrastructure</b> is intended for the connection between wireless network cards and an Access Point. With the wireless adapter, you can connect wireless LAN to a wired global network via an <b>Access Point</b> (AP). The <b>Ad-hoc</b> lets you set a small wireless workgroup easily and quickly. Equipped with the wireless adapter, you can share files and printers between each PC and laptop.
<b>Tx Rate</b>	The <b>Tx Rate</b> range from <b>Auto, 1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48, 54 Mbps</b> .
<b>SSID</b>	The <b>SSID</b> is the unique name shared among all points in your wireless network. The name must be identical for all devices and points attempting to connect to the same network. It shows the current <b>SSID</b> setting of the <b>WL630USB Wireless USB Adapter</b> .
<b>Encrypt</b>	<b>WEP</b> is a data privacy mechanism based on a 64-bit/128-bit shared key algorithm.
<b>Link Status</b>	Displays the information about the status of the communication between the <b>WL630USB Wireless USB Adapter</b> and the <b>Access Point</b> .
<b>Signal Strength</b>	Displays the <b>Signal Strength</b> of the connection between the <b>WL630USB Wireless USB Adapter</b> and the <b>Access Point</b> it connects.
<b>Link Quality</b>	Displays the <b>Link Quality</b> of the connection between the <b>WL630USB Wireless USB Adapter</b> and the <b>Access Point</b> it connects.
<b>Tx Frame</b>	The quantities for the wireless network card transmit. (Frame: The unit of packet)
<b>Rx Frame</b>	The quantities for the wireless network card receive. (Frame: The unit of packet)

## 5.2 More Setting

The **More Setting** Screen displays the **General Connection Setting** and **Profile**.



### A. General Connection Setting

Items	Description
<b>Channel</b>	The <b>Channel</b> will change automatically according to the <b>Access Point</b> setting.
<b>Tx Rate</b>	Click the down arrow ▼ to select the <b>Tx Rate</b> from <b>Auto, 1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48, 54 Mbps</b> , you can select up to <b>54 Mbps</b> .
<b>SSID</b>	The <b>SSID</b> is the unique name shared among all points in your wireless network. The name must be identical for all devices and points attempting to connect to the same network.
<b>Any</b>	You may select to have <b>SSID</b> by choosing any, the <b>SSID</b> will be obtained automatically from whichever <b>Access Point</b> with the optimal signal for this device. If any is left unchecked, it means you will have to enter the <b>SSID</b> manually.
<b>Network Type</b>	The <b>Infrastructure</b> is intended for the connection between wireless network cards and an <b>Access Point</b> . With the wireless adapter, you can connect wireless LAN to a wired global network via an <b>Access Point</b> . The <b>Ad-hoc</b> lets you set a small wireless workgroup easily and quickly. Equipped with the wireless adapter, you can share files and printers between each PC and laptop.

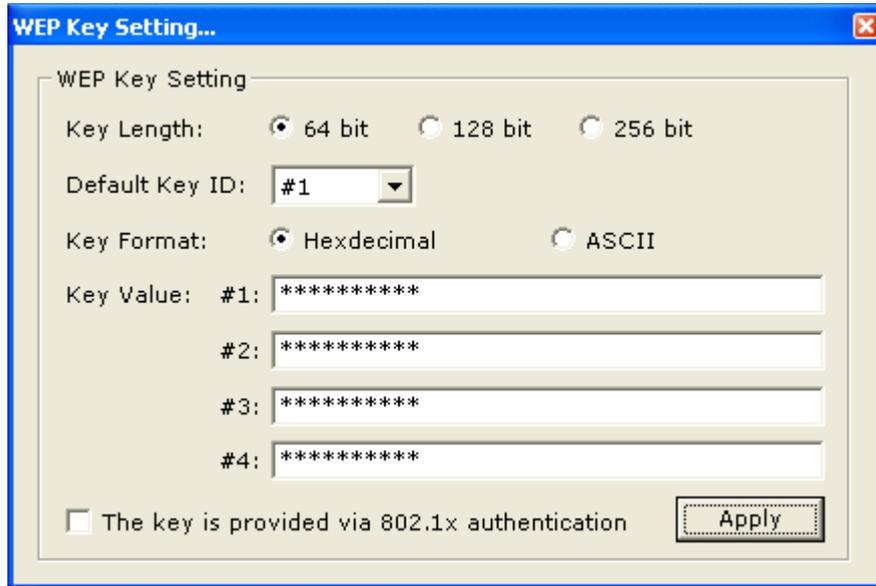
Items	Description
<b>Authentication Mode</b>	<p>The <b>Authentication Mode</b> defines configuration options for the sharing of wireless networks to verify identity and access privileges of roaming wireless network cards.</p> <p>You may choose between <b>Open System, Shared Key, Auto, and WPA-PSK</b>.</p> <p><b>Open System:</b> If the <b>Access Point</b> is using "<b>Open System</b>" authentication, then the wireless adapter will need to be set to the same authentication type.</p> <p><b>Shared Key:</b> The <b>Shared Key</b> is when both the sender and the recipient share a secret key.</p> <p><b>Auto:</b> Select <b>Auto</b> for the USB adapter to select the Authentication type automatically depending on the Access Point Authentication type.</p> <p><b>WPA-PSK:</b> It is one mode of Wi-Fi security and gives 2 methods of encryption, <b>TKIP</b> and <b>AES</b>. Select <b>TKIP</b> or <b>AES</b> according to the settings of the Access Point.</p>
<b>Encryption</b>	<p><b>WEP</b> is a data privacy mechanism based on a 64-bit/128-bit/256-bit shared key algorithm. Press the down arrow ▼, you can choose to have WEP <b>Disabled</b> or <b>Enabled</b>.</p> <p>If the authentication mode is set to <b>WPA-PSK</b>, the encryption type can be chosen from <b>WPA-TKIP</b> and <b>WPA-AES</b>. Check the settings of the Access Point..</p>
<b>Change Or Apply</b>	<p>You may change the above settings by clicking <b>Change</b></p> <p>Press <b>Apply</b> when you have done the change and want to save the settings.</p>

## **B. Profile**

1. **Load (profile setting)**  
 You may select already saved file from the "**Profile name**" list, and then press "**Load**". The setting status will then be restored.
2. **Save Current (setting to profile)**  
 You may save current setting to profile and add one new item in "**Profile name**".
3. **Delete**  
 Delete the files in the "**Profile name**".

### 5.3 WEP Key Setting

You can only set your **WEP Key Setting (Security)** preference when **Change** is selected and then all fields are active for change. To save settings, press **Apply** when you are done with the settings.



Items	Description
<b>Key length</b>	You may select the <b>Key length</b> between <b>64 (bit)</b> , <b>128 (bit)</b> and <b>256 (bit)</b> .
<b>Default Key ID</b>	You can set your <b>Default key ID</b> at <b>#1 ~ #4</b> as set in the following field.
<b>Key Format</b>	Select <b>Hexadecimal</b> if you are using hexadecimal numbers (0-9, or A-F). Select <b>ASCII</b> if you are using ASCII characters (case-sensitive). ASCII characters are: 0,1,2,...8,9 and a,b,c,d,...x,y,z. <b>10 Hexadecimal</b> digits or <b>5 ASCII</b> characters are needed if <b>64-bit WEP</b> is used; <b>26 Hexadecimal</b> digits or <b>13 ASCII</b> characters are needed if <b>128-bit WEP</b> is used; <b>58 Hexadecimal</b> digits or <b>29 ASCII</b> characters are needed if <b>256-bit WEP</b> is used. For example, the characters "1122aabbcc" are in <b>10 Hexadecimal</b> digits. For example, the characters "test1" are <b>5 ASCII</b> keys.
<b>Key Value: #1 ~ #4</b>	This setting is the configuration key used in accessing the wireless network via <b>WEP</b> encryption. You can specify up to <b>4</b> different keys to encrypt or decrypt wireless data.
<b>802.1x authentication</b>	Select this box if you want to use the <b>WPA Setting</b> and the <b>WEP Key</b> will be disabled. The <b>WEP Key</b> is simple and commonly used. Use <b>WPA Setting</b> ONLY if you are familiar with it.

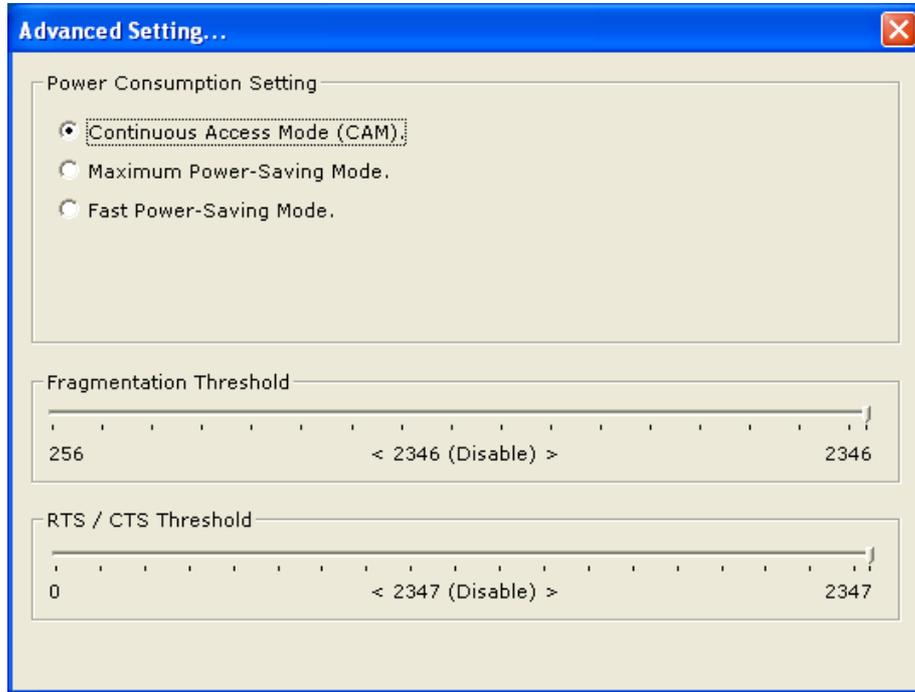
## 5.4 WPA Setting

You can only set your **WEP Key Setting (Security)** preference when **Change** is selected and then all fields are active for change. To save settings, press **Apply** when you are done with the settings. Use **WPA Setting** ONLY if you are familiar with it.

Items	Description
<b>Protocol</b>	This panel enables you to select an <b>Authentication Protocol</b> .
<b>User Name</b>	Type in the <b>User Name</b> assigned to the certificate.
<b>Password</b>	This panel is available when <b>EAP-TLS</b> is not selected (either MSCHAP V2 over PEAP is selected with WEP or LEAP is selected for CCX). This panel enables you to enter a login name and password or request that the driver prompt for them when you connect to a network.
<b>Passphrase</b>	Enter the key that you are sharing with the network for the WLAN connection.
<b>Key Format</b>	Select <b>Hexadecimal</b> if you are using hexadecimal numbers (0-9, or A-F). Select <b>ASCII</b> if you are using ASCII characters (case-sensitive). ASCII characters are: 0,1,2,...8,9 and a,b,c,d,...x,y,z.
<b>Certificate</b>	This is the certificate that represents the capabilities and features that have passed the interoperability governed by the Wi-Fi Alliance.

## 5.5 Advanced Setting

The **Advanced Setting** Screen shows you to change advanced configuration, such as **Fragmentation Threshold**, **RTS/CTS Threshold** and **Power Consumption Setting**.



Items	Description
<b>Fragmentation Threshold</b>	The mechanism of <b>Fragmentation Threshold</b> is used to improve the efficiency when high traffic flows along in the wireless network. If your 802. Wireless LAN Adapter often transmit large files in wireless network, you can enter new Fragment Threshold value to split the packet. The value can be set from <b>256</b> to <b>2346</b> . The <b>default</b> value is <b>2346</b> .
<b>RTS/CTS Threshold</b>	<b>RTS/CTS Threshold</b> is a mechanism implemented to prevent the “Hidden Node” problem. If the “Hidden Node” problem is an issue, users have to specify the packet size. <i>The RTS/CTS mechanism will be activated if the data size exceeds the value you set.</i> The <b>default</b> value is <b>2347</b> . This value should remain at its default setting of 2347. Should you encounter inconsistent data flow, only minor modifications of this value are recommended.
<b>Power Consumption Setting</b>	
<b>Continuous Access Mode (CAM)</b>	When this mode is selected, the power supply will be normally provided even when there is no throughput.
<b>Maximum Power Saving Mode</b>	When this mode is selected, this device will stay in power saving mode even when there is high volume of throughput.
<b>Fast Power Saving Mode</b>	When this mode is selected, the power mode will switch between CAM and Maximum Power-Saving Mode depending on the volume of throughput. The device driver checks the total bytes (only data frame) every 4 seconds to decide the power mode. If the total bytes sent exceed 10k bytes, the device driver will choose “CAM”. If the total bytes are less than 10k bytes, however, the device driver will choose “Maximum Power-Saving Mode”.