



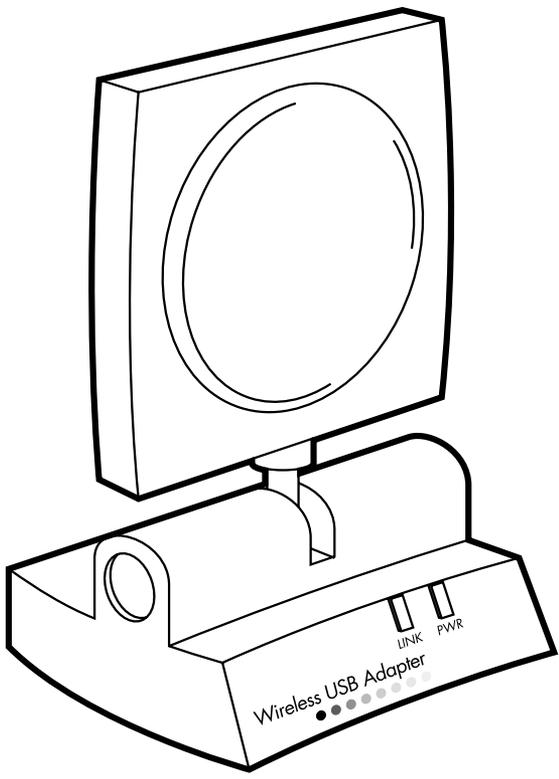
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1000 Park Drive • Lawrence, PA 15055-1018 • 724-746-5500 • Fax 724-746-0746



# Pure Networking 802.11g Wireless High-Gain USB Adapter



**CUSTOMER  
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INFORMATION**

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**FEDERAL COMMUNICATIONS COMMISSION  
and INDUSTRY CANADA  
RADIO FREQUENCY INTERFERENCE STATEMENTS**

*Class B Digital Device.* This equipment has been tested and found to comply with the limits for a Class B computing device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. However, there is no guarantee that interference will not occur in a particular 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. If this equipment does cause harmful interference to radio or telephone reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one 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 an experienced radio/TV technician for help.

**CAUTION**

**Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.**

To meet FCC requirements, shielded cables and power cords are required to connect this device to a personal computer or other Class B certified device.

*This digital apparatus does not exceed the Class B limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.*

**EUROPEAN UNION DECLARATION OF CONFORMITY**

This equipment complies with the requirements of the European EMC Directive 89/336/EEC.



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# 1. Specifications

**Antenna:** 6-dBi directional high-gain antenna

**Distance (Maximum):** 328 ft. (100 m)

**Frequency Band:** 2.4000–2.4835 GHz

**Interface:** USB 2.0

**Modulation:** OFDM with BPSK, QPSK, 16QAM, 64QAM (11g), BPSK, QPSK, CCK (11b)

**Operating System:** Compatible with all major operating systems; Drivers included for Windows® 98 SE/Me/XP, and Windows 2000

**Security:** 64-/128-WEP Data Encryption, AES

**Speed:** 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 Mbps with auto fallback

**Standards:** IEEE 802.11b, IEEE 802.11g

**Connectors:** (1) mini USB F

**Indicators:** (2) LEDs: (1) Power, (1) Link

**Power:** From the interface

**Size:** 4.5"H x 3"W x 3.4"D (11.4 x 7.6 x 8.6 cm)

## 2. Introduction

### 2.1 Overview

The Pure Networking 802.11g Wireless High-Gain USB Adapter is used to attach a PC to another network device using wireless technology to transfer data. It plugs into your computer's USB port. The adapter complies with the IEEE 802.11g standard, which supports high-speed wireless network connections up to 54 Mbps. It can also work with IEEE 802.11b devices. When the adapter connects to 11b devices, the maximum link speed is 11 Mbps.

Using a 6-dBi directional high-gain antenna (included), the adapter increases the signal strength and the focus of wireless coverage so that the link quality and communication distance are significantly improved. For security, the adapter supports 64-/128-bit WEP data encryption; this protects your wireless network from eavesdropping.

The adapter supports a USB 2.0 interface, which is forty times faster than a USB 1.1 interface. Through the faster data transfer interface, it raises the data transfer rate to 54 Mbps. USB 2.0 is also backward-compatible with USB 1.1/1.0 standards, so the adapter can work with PCs or laptops that only support the USB 1.1/1.0 interface.

Two power-saving features make the adapter particularly efficient. First, its power consumption is very low. Second, you can control how long the adapter's attached devices' power stays on. Simply set the time (in minutes) that your portable or handheld devices wait before powering off.

The Pure Networking 802.11g Wireless High-Gain USB Adapter works with Windows 98 SE/Me/XP and Windows 2000.

### 2.2 What's Included

Your package should include the following items. If anything is missing or damaged, please contact Black Box at 724-746-5500.

- (1) Pure Networking 802.11g Wireless High-Gain USB Adapter
- (1) 59" (149.9-cm) USB 2.0 extension cable
- (1) Integral 6-dBi high-gain antenna
- (1) CD-ROM containing software drivers and this users' manual in PDF format

# 3. Installation

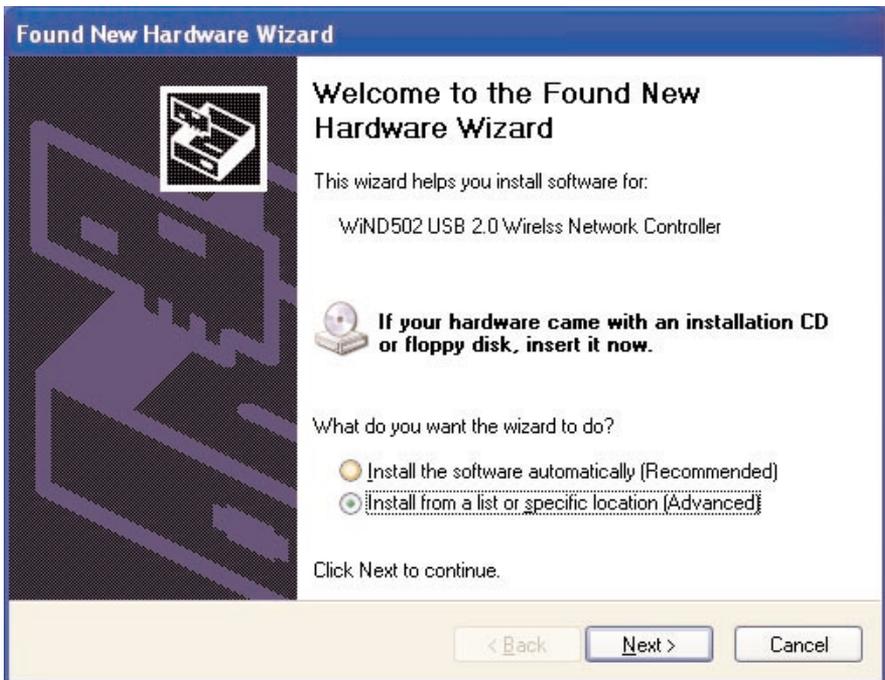
## NOTES

The following instructions describe installation using Windows XP. (Procedures are similar for Windows 98 SE/Me/Windows 2000.)

The Windows 2000 driver can only support Windows 2000 Service Pack 3.

### 3.1 Install the Driver

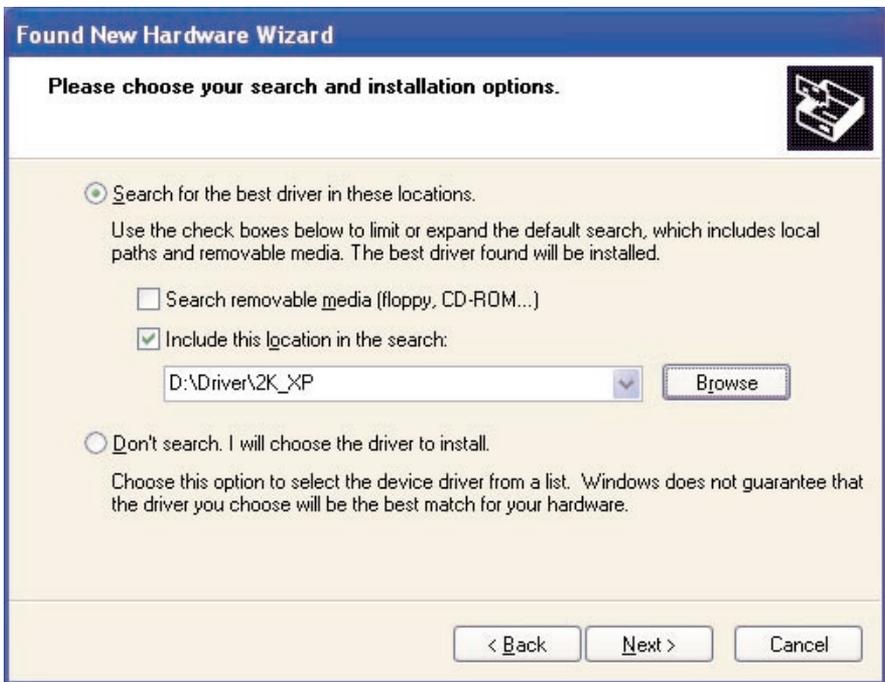
1. Insert the installation CD into your CD-ROM drive. Figure 3-1 appears.



**Figure 3-1. Found New Hardware Wizard screen.**

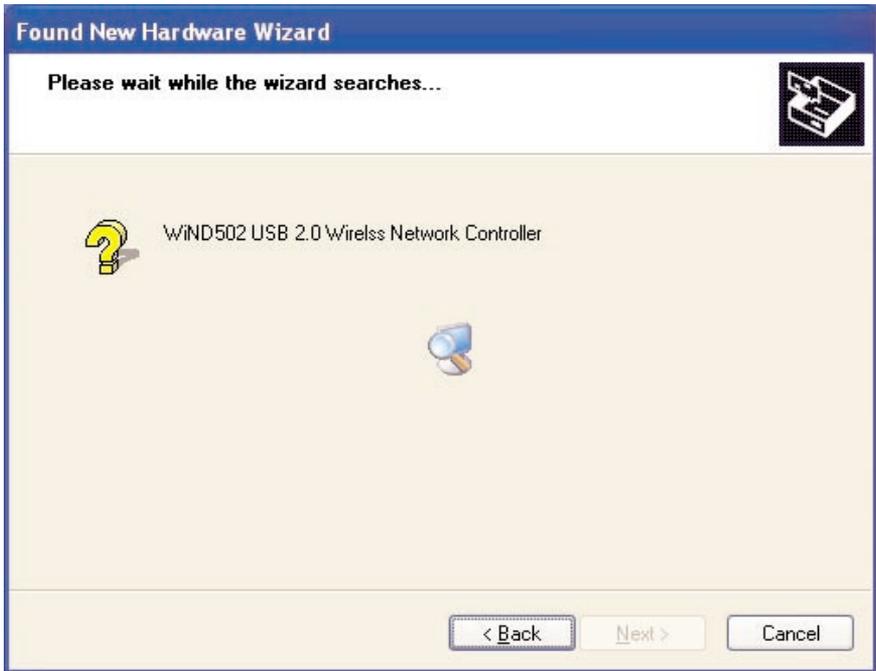
2. Insert the USB adapter into your laptop or desktop PC's USB port.

3. Choose **Install from a list or specific location (Advanced)** and click on the **Next** button. Figure 3-2 will appear.



**Figure 3-2. Selecting search and installation options.**

4. Click on the **Browse** button to search for the driver. Choose the location in the format `D:\Driver\xxx` ("D" is the CD-ROM drive where you install the included CD-ROM and "xxx" is your computer's operating system) and click on the **Next** button. Figure 3-3 will appear.



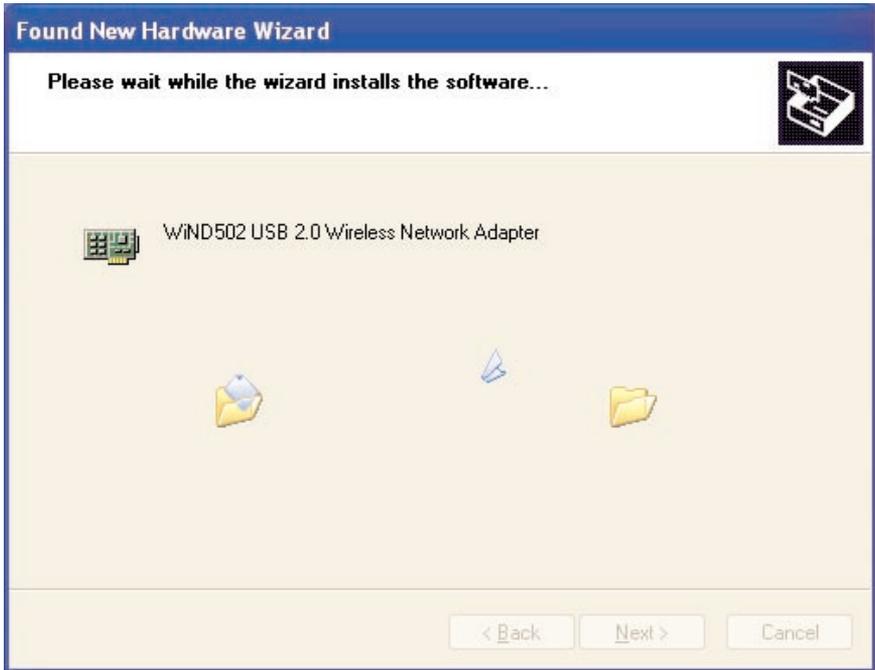
**Figure 3-3. Wizard search screen.**

5. The wizard will take a few minutes to search for the driver. Once it's done, click on **Next** to go to the next screen, **Back** to go back to the previous screen, or **Cancel** to cancel the search. If you click on **Next**, Figure 3-4 will appear.



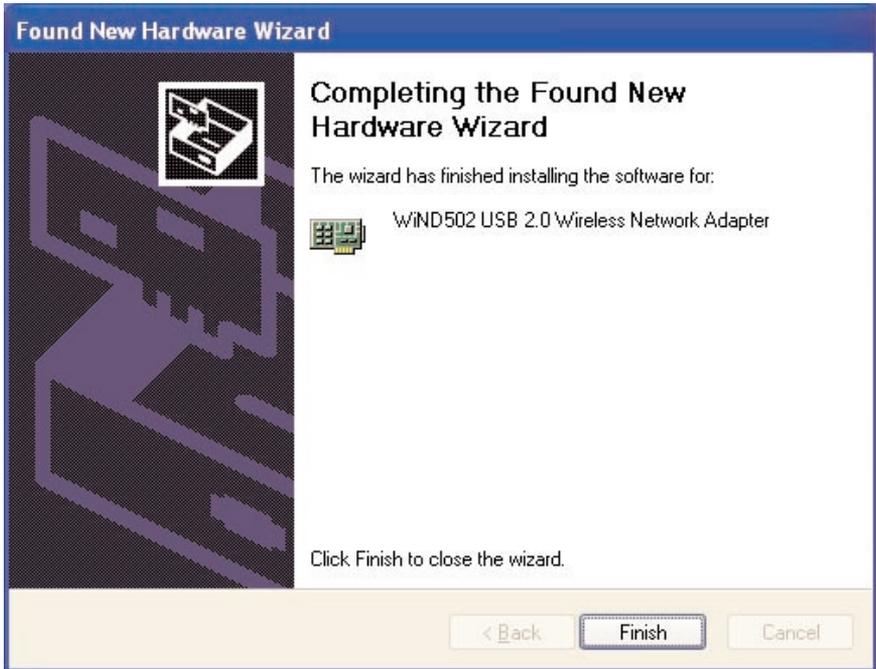
**Figure 3-4. Continue Anyway screen.**

6. Click on the **Continue Anyway** button to finish the installation (Figure 3-5 will appear) or the **STOP Installation** button to stop the installation.



**Figure 3-5. Installing the adapter's software.**

7. The wizard will install the driver. Click on **Next** to continue (Figure 3-6 will appear). Or, click on **Back** to go back to the previous screen or **Cancel** to cancel the installation.



**Figure 3-6. Completing the adapter's software installation.**

8. Click on **Finish** to complete the installation. Or, click on **Back** to go back to the previous screen or **Cancel** to stop the installation.

## 3.2 Install the Utility

1. Type `Utility\setup.exe` at the `C:\` prompt to execute the program from the installation CD. Figure 3-7 will appear. Click on **Cancel** if you need to cancel the installation.

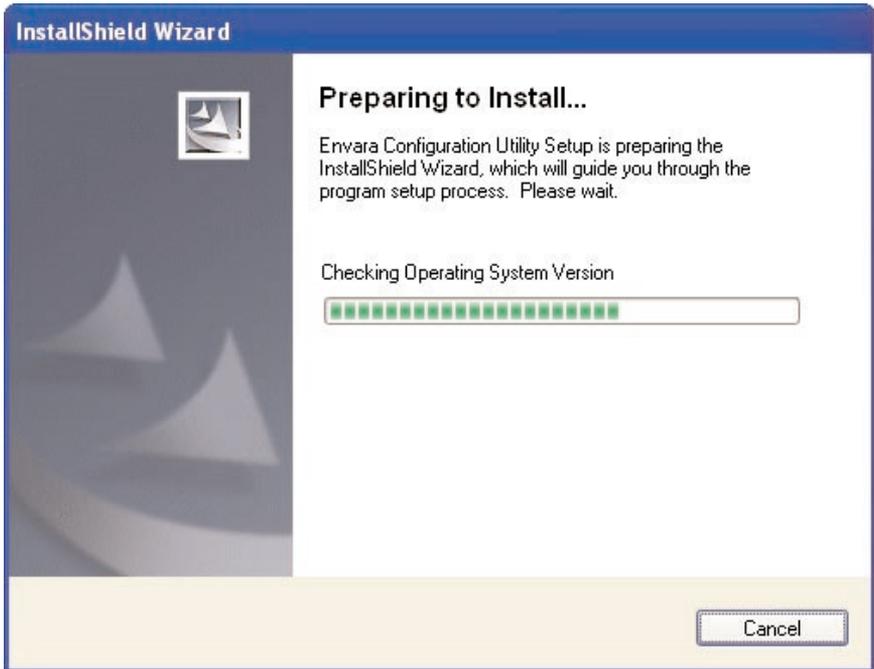
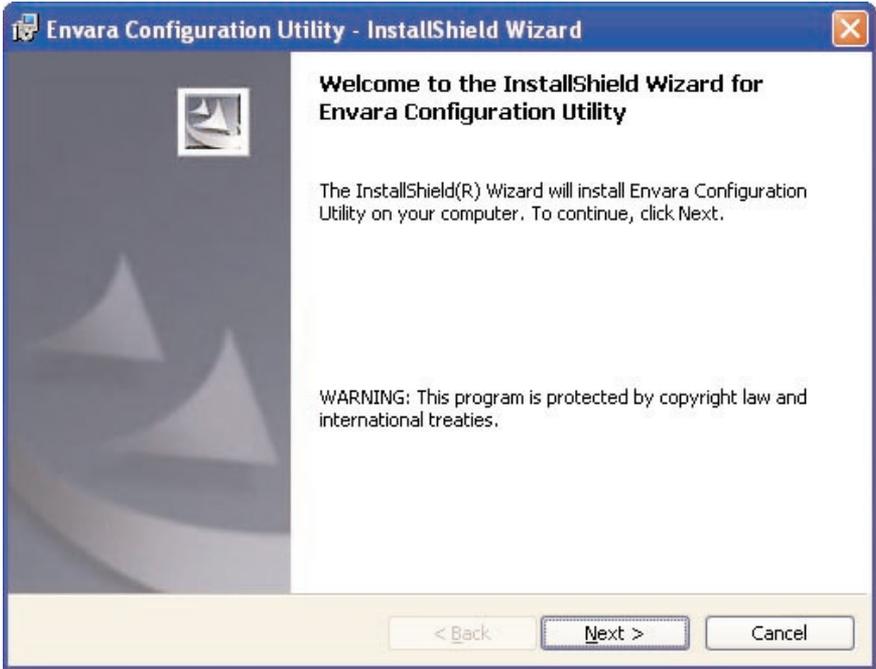


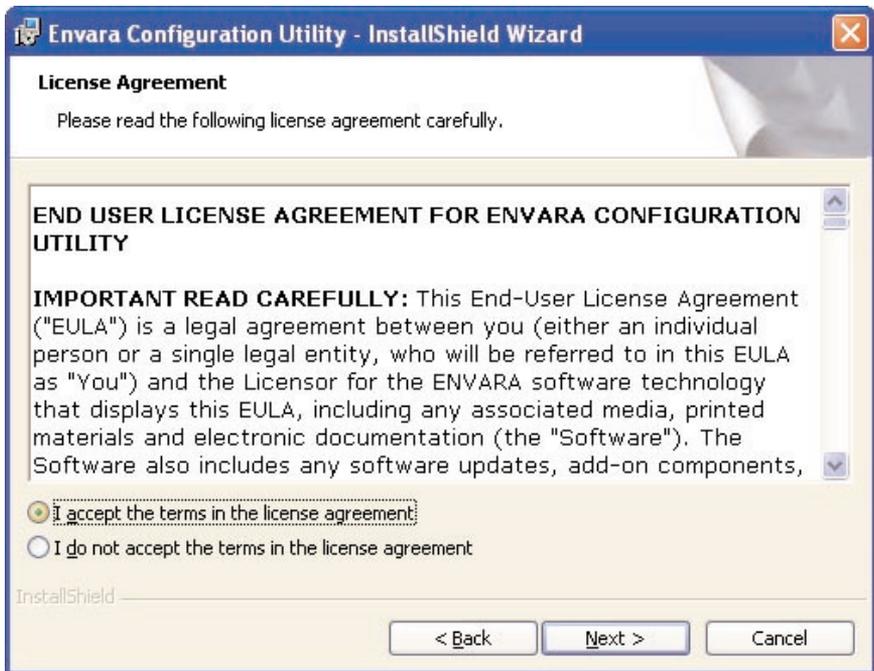
Figure 3-7. Preparing to install the utility.

2. The InstallShield Wizard box will appear (see Figure 3-8). Click on **Next** to continue, **Back** to go back to the previous screen, or **Cancel** to stop the installation.



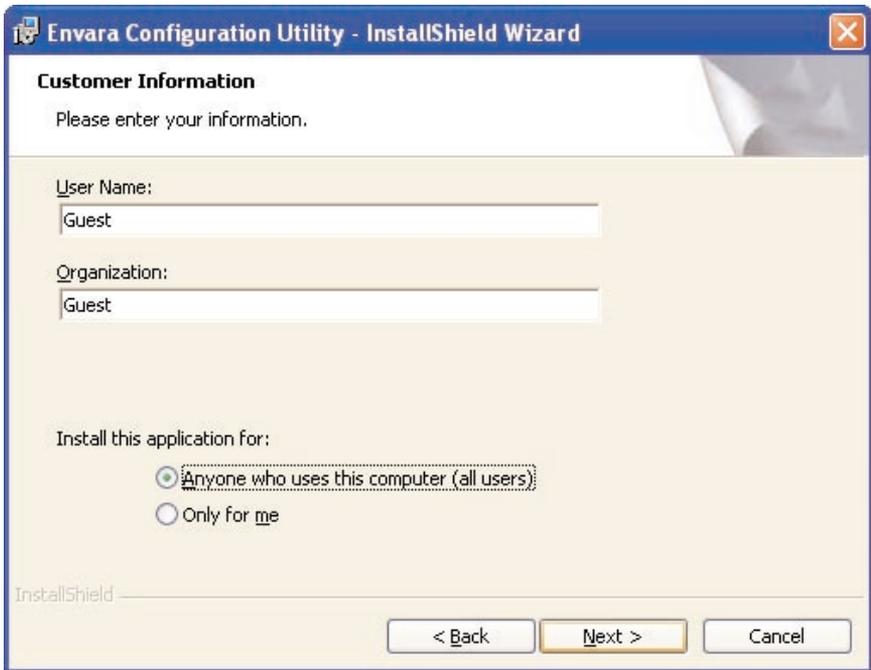
**Figure 3-8. Welcome screen.**

3. Figure 3-9 appears. Choose **I accept the terms in the agreement** and click on **Next**.



**Figure 3-9. License Agreement screen.**

4. In the Customer Information screen (Figure 3-10), you can allow anyone to access the utility or limit access to yourself.

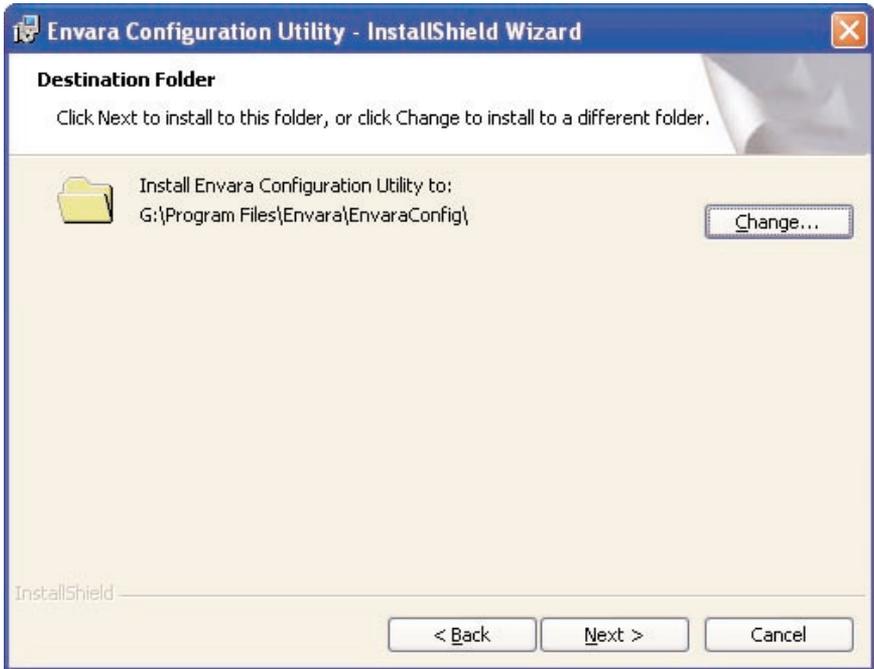


**Figure 3-10. Customer Information screen.**

Type in the user name and organization. Install the application for all users or only one user. Click on **Next** to go to the next screen, **Back** to go back to the previous screen, or **Cancel** to stop the installation.

5. Figure 3-11 appears. If you want to change the destination folder, click on **Change**. Then click on **Next** to continue. The Install Utility screen will appear (not shown in this manual).

Or, click on **Back** to go back to the previous screen or **Cancel** to cancel the selection.



**Figure 3-11. Choosing the destination folder.**

6. Click on **Next** in the Install Utility screen to go to the Installation Complete screen (not shown in this manual), **Back** to go back to the previous screen, or **Cancel** to stop the installation.

## 4. Configuration Utility

The Configuration Utility is a powerful application that helps you configure the adapter and monitor the link status and the statistics during the communication process.

However, there are some restrictions on the utility. Restrictions include:

1. If you want to connect to an 802.11g network (up to 54 Mbps), install the adapter in a PC or laptop that has a USB 2.0 interface. This adapter can only support 802.11b while it's connected to your computer's USB 1.1/1.0 port.
2. Windows 98 SE/Me may not support the USB 2.0 interface, so the adapter can work only in 802.11b mode in that operating system.
3. This adapter will work in 802.11b mode when the network type is in ad-hoc mode, defined by the Wi-Fi organization. To enable the data rate up to 54 Mbps (802.11g), follow the steps listed below.
  - a) In Windows, click on **Properties**, then **Network Connections**.
  - b) From the pop-up screen, click on **Configure**.
  - c) Go to the Properties screen's **Advanced** page.
  - d) Change the setting of the IBSS Originator Phy-Mode from **802.11b** to **802.11g**.

## 4.1 General

From the General tab, you can view information about the network you are connecting to. See Figure 4-1.

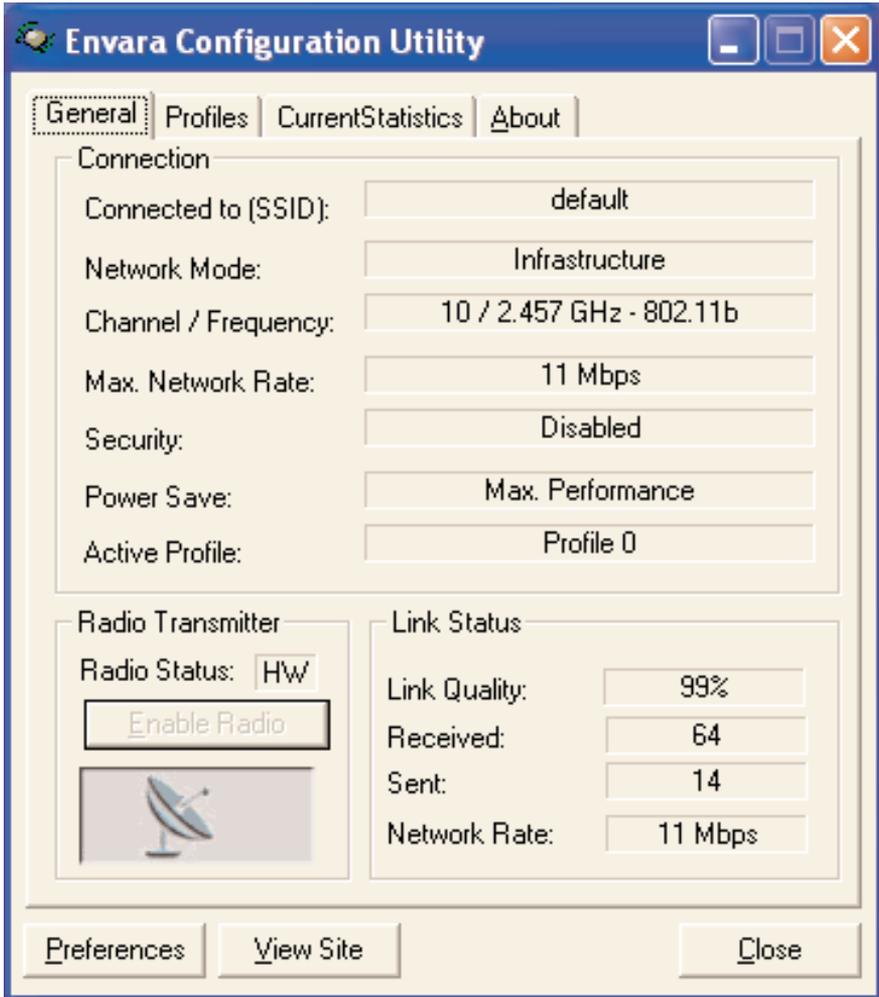


Figure 4-1. General tab.

Table 4-1 describes the parameters in Figure 4-1.

**Table 4-1. Configuration Utility, General tab parameters.**

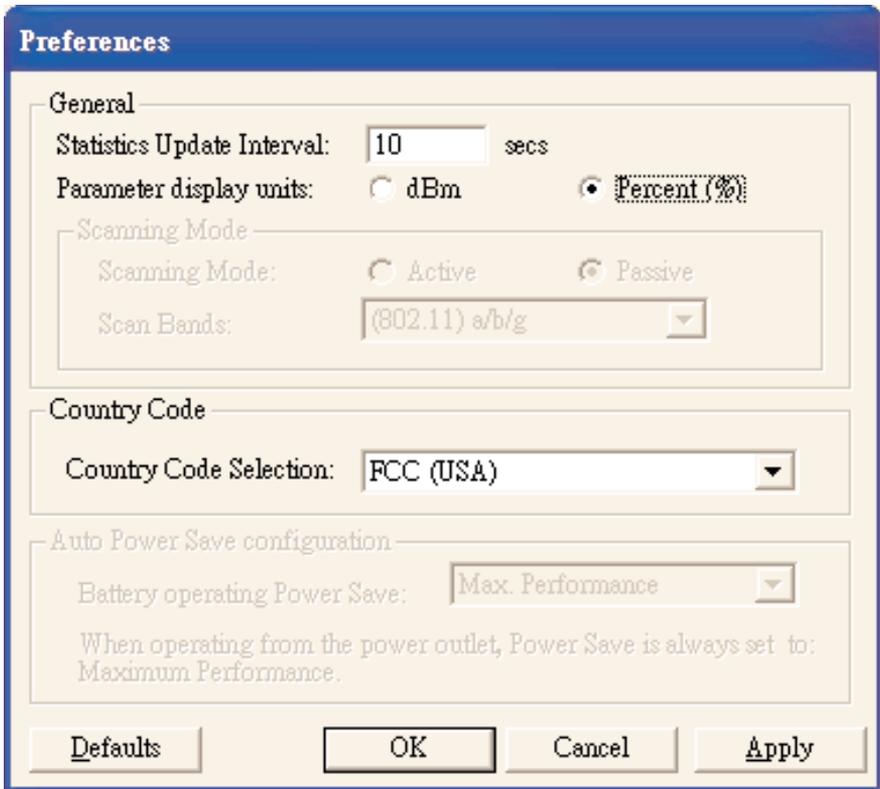
<b>Parameter</b>	<b>Description</b>
Connected to (SSID)	Displays the wireless network that the adapter is connected to.
Network Mode	This field shows the current mode. Choose from Ad-Hoc or Infrastructure.
Channel/Frequency	Displays the radio channel's number and the frequency used.
Max. Network Rate	Shows the network's maximum link rate (54 Mbps for 802.11g or 11 Mbps for 802.11b).
Security	Displays the network's security setting (Enabled or Disabled). If disabled, the network has no security.
Power Save	Displays the adapter's power save setting. Choose from Maximum Performance, Maximum Battery Life, and Automatic.
Active Profile	Shows the current connection profile.
Radio Status	Shows the transmitter's status (HW or Ad-Hoc).
Enable Radio	Enables or disables radio transmission.
Link Quality	Indicates the link's quality. The higher the percentage, the better the quality.
Received	Shows the current received baud rate (measured in KBps).
Sent	Shows the current sent baud rate (measured in KBps).

**Table 4-1 (continued). Configuration Utility, General tab parameters.**

<b>Parameter</b>	<b>Description</b>
Network Rate	The data rate changes when the environment is different. This field displays the current data rate, so that you can adjust the adapter's direction or distance from other wireless stations.
Preferences button	To change the percentage of signal from an access point that is received (the link quality) or the transmitted and received data's update interval, click on this button.
View Site button	Click on this button to view available wireless networks.
Close button	Click on this button to close the configuration utility.

## 4.1.1 PREFERENCES SETTING

The Preferences screen (Figure 4-2) enables you to change the parameter display units (in dBm or percent) or the transmitted and received statistics update interval. To get to this screen, select **Preferences** from the Configuration Utility screen (Figure 4-1). The default settings are **10** (for Statistics Update Interval) and **Percent (%)** (for Parameter Display Units). If you change the preferences settings and want to return them to the default values, click on the **Defaults** button. The Preferences screen also enables you to change the country code.



**Figure 4-2. Preferences screen.**

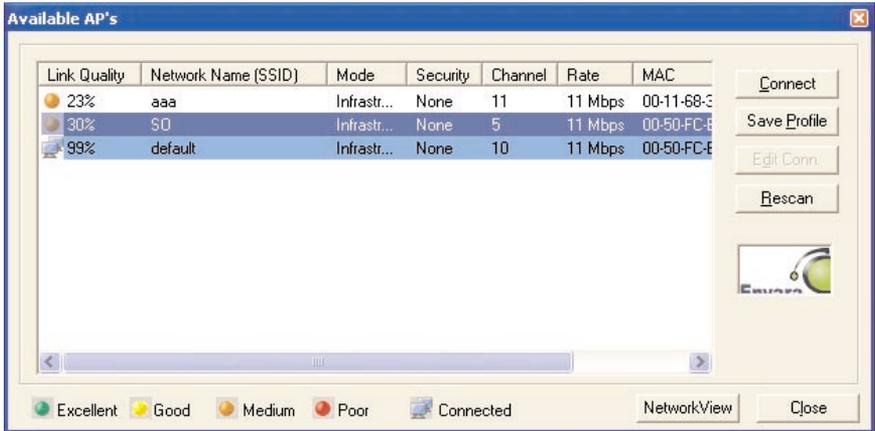
Table 4-2 describes the preferences parameters.

**Table 4-2. Preferences screen settings.**

<b>Parameter</b>	<b>Description</b>
Statistics Update Interval	This is the time it takes to update your preferences (in seconds).
Parameter display units  dBm button  Percent (%) button	Provides the signal strength in dBm.  Provides the percent of available signal strength.
Scanning Mode	Automatically finds all active wireless access points. This parameter cannot be changed.
Scan Bands	Automatically scans frequency (in GHz). This parameter cannot be changed.
Country Code Selection	Selects the available country signal codes.
Battery Operating Power Save	This is available only if the user's PC or laptop is powered by a battery. You can change the setting to a lower power level to save battery power.
Defaults button	Sets the adapter to factory-default settings.
OK button	Click on this button to go on to the next screen.
Cancel button	Click on this button to cancel the changes.
Apply button	Click on this button to save the changes.

## 4.1.2 SITE SURVEY

This screen (Figure 4-3) shows all the wireless networks nearby. To get to this screen, click on the **View Site** button in Figure 4-1. If you want to connect to any network in the list, double click on the item, or click once on a network and then press the **Connect** button.



**Figure 4-3. Available APs list.**

Table 4-3 describes the available APs parameters.

**Table 4-3. Available APs settings.**

Parameter	Description
Available APs List	This list shows the wireless networks' link quality, network name (SSID), mode, security, etc. This information will help you decide which network you want to connect to.
Connect button	Select one network from the list, then click on this button. Or, you can right click on the network and select <b>Connect</b> .

Table 4-3 (continued). Available APs settings.

Parameter	Description
Save Profile button	Save the selected network as a profile (a profile is a saved connection). This profile will be listed in the profiles list table so that you can easily connect to the network. You can also right click on the network and select <b>Save as Profile</b> .
Edit Conn button	If the connection network has changed the WEP security setting, you can click on this button to update the adapter's setting. The WEP setting <i>must</i> be the same as the network's setting. You can also click on the connection network and select <b>Edit Connect</b> .
Rescan button	Click on the <b>Rescan</b> button to collect the connection information for all the wireless networks nearby.
Network View button	This button can change the way the available networks are displayed. Network View shows the active access points in the network.
Close button	Click on this button to close the screen.

## 4.2 Profiles

You can manage the user connections from the Profiles list (see Figure 4-4). This makes connecting to a network easy. (A profile is defined as a saved connection.)

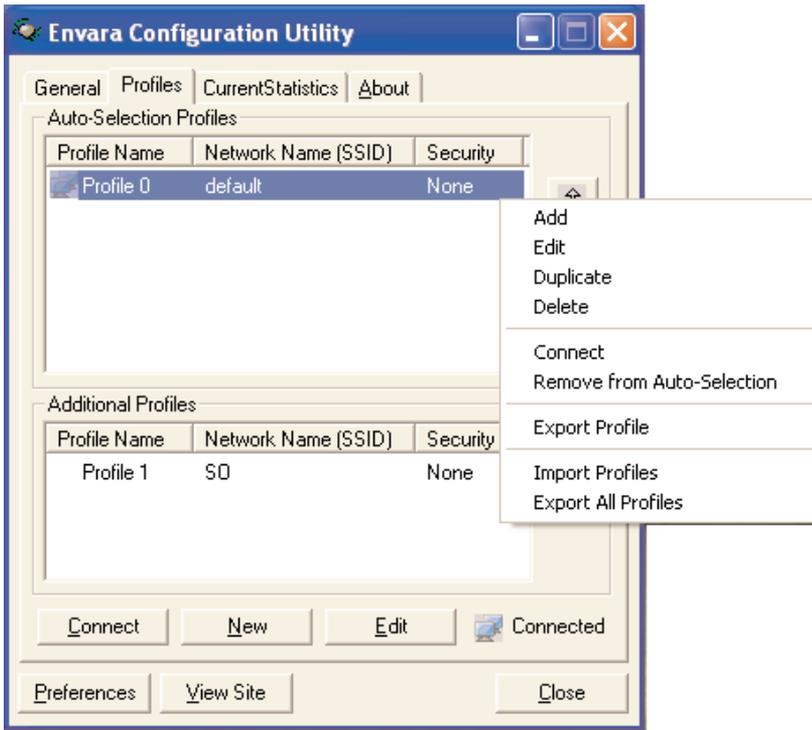


Figure 4-4. Profiles options screen.

Table 4-4 describes the screen choices shown in Figure 4-4.

**Table 4-4. Profiles screen parameters.**

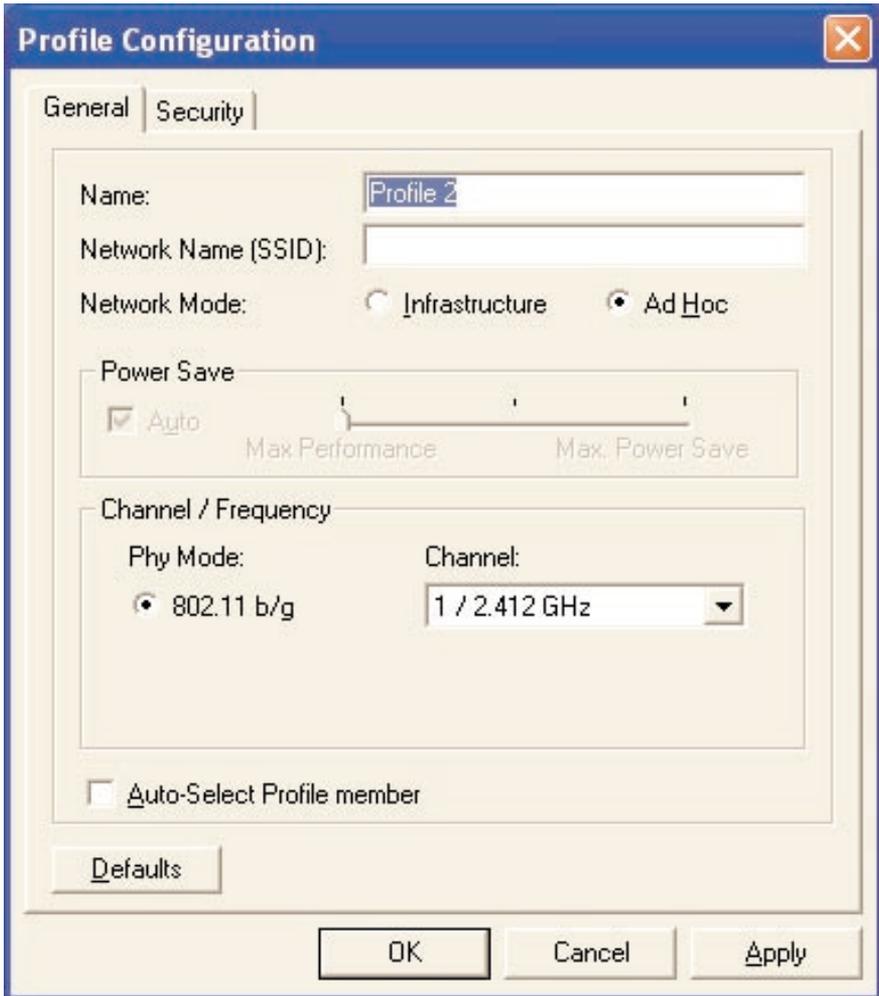
<b>Parameter</b>	<b>Description</b>
Auto-Selection Profiles	This is the default access point connection. The adapter automatically selects the profile.
Additional Profiles	Create additional profiles here for a secondary access point.
Connect button	Click on this button to connect to the selected profile.
New button	Click on this button to begin adding a new profile.
Edit button	Click on this button to edit the selected profile.
Preferences button	Click on this button to set preferences for the profile.
View Site button	Click on this button to view the available networks.
Close button	Click on this button to close the program.
Right Click Function list	<p>Add—Add a new profile in the list.</p> <p>Edit—Edit the selected profile.</p> <p>Duplicate—Copy the same profile to the list.</p> <p>Delete—Delete the selected profile.</p> <p>Connect—Connect to the profile.</p> <p>Add/Remove to/from Auto-Selection—Add the profile to the Auto-Selection Profiles or move it from Auto-Selection Profiles to Additional Profiles.</p>

**Table 4-4 (continued). Profiles screen parameters.**

<b>Parameter</b>	<b>Description</b>
Right Click Function list (continued)	Export Profile—Save the profile as a new file.  Import Profiles—Import the profile file to the list.  Export All Profiles—Save all the profiles as a new file.

## CONFIGURE THE PROFILE

When you click on **New** or **Edit** in Figure 4-4, the Profile Configuration screen shown in Figure 4-5 will appear. In the screen, there are two tabs: General and Security.



**Figure 4-5. Profile Configuration Screen, General tab highlighted.**

Table 4-5 describes the General tab options.

**Table 4-5. General tab parameters.**

<b>Parameter</b>	<b>Description</b>
Name	Type in a recognizable profile name to identify the different networks.
Network Name (SSID)	<p>The SSID (type in up to 32 printable ASCII characters) is the unique name identified in a WLAN. The ID prevents the unintentional merging of two co-located WLANs.</p> <p>Specify the adapter's SSID, then only the device with the same SSID can connect to the adapter.</p>
Network Mode	<p>Infrastructure mode: This operation mode requires the presence of an 802.11 access point. All communication is done via the access point.</p> <p>Ad-Hoc mode: Select this mode if you want to connect to other wireless stations in the wireless LAN network without using an access point.</p>
Power Save	Check the Auto box to enable the adapter to save power when it is idle. Defaults to the middle of the range.
Channel/Frequency	This setting is only available for ad-hoc mode. The 802.11b/g button should be selected.
Auto-Select Profile Member	Check this box to add a profile to the Auto-Selection Profiles list.
Defaults button	The default values are <b>ad-hoc mode</b> and <b>channel one</b> . To set these default values for the adapter, click on this button.
OK button	Click on this button to go to the next screen.

Table 4-5 (continued). General tab parameters.

Parameter	Description
Cancel button	Click on this button to cancel the changes.
Apply button	Click on this button to save the changes.

From the Security tab, you can continue the profile configuration. See Figure 4-6.

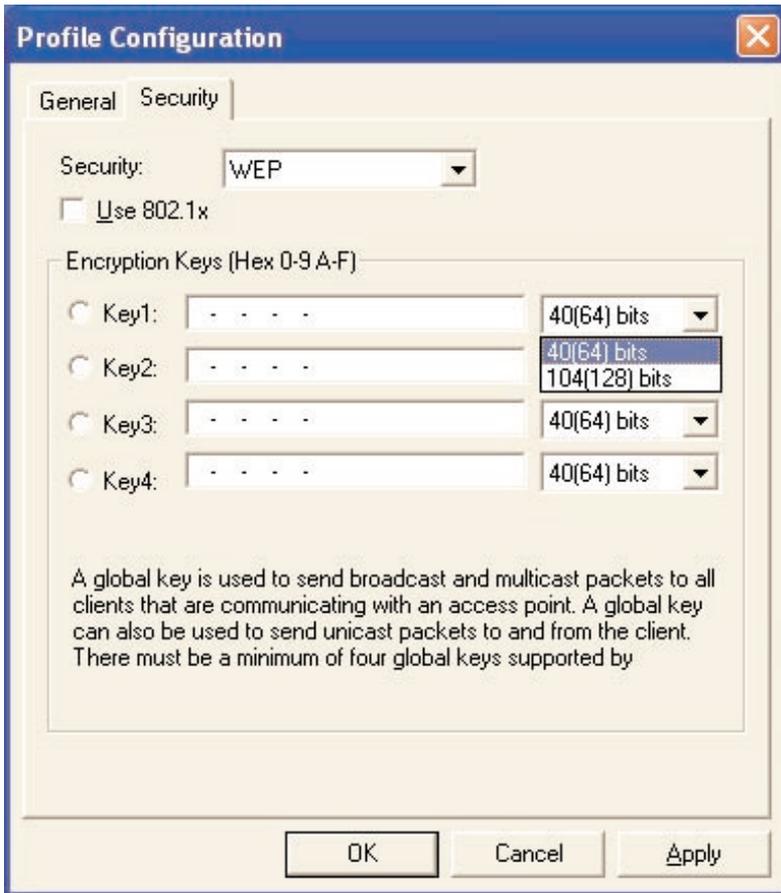


Figure 4-6. Profile Configuration screen, Security tab highlighted.

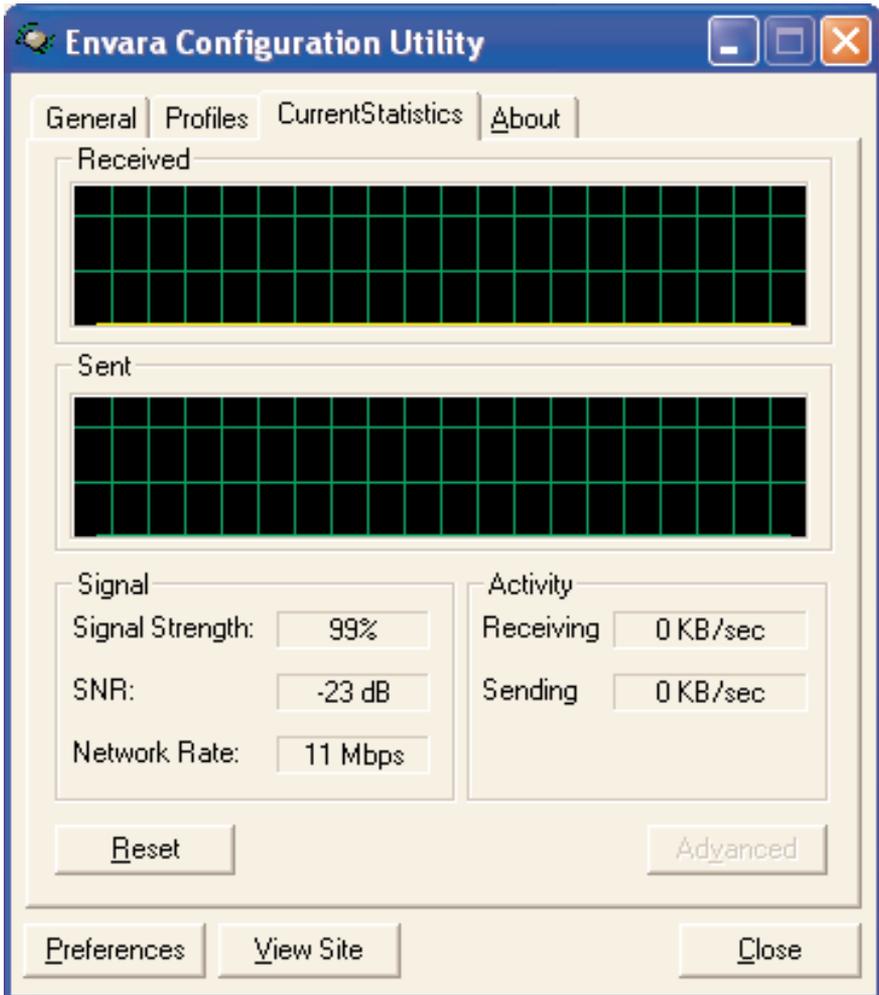
Table 4-6 describes the Security tab options.

**Table 4-6. Security tab parameters.**

<b>Parameter</b>	<b>Description</b>
Security	<p>Select an option (<b>None</b> or <b>WEP</b>) from the drop-down menu.</p> <p><b>None</b> disables the WEP Data Encryption.  <b>WEP</b> enables the WEP Data Encryption.</p> <p>Once the item is selected, you still need to set Key 1–Key 4 (the encryption keys).</p>
Use 802.1x	<p>This function is not functional at this time. Whether or not you check this box, the function will not work.</p>
Encryption Keys (Key1–Key4)	<p>Select the default encryption key (Key 1 to Key 4) by clicking on the corresponding button. The WEP keys are used to encrypt data transmitted in the wireless network. Type the appropriate hex characters in the box, following the rules below.</p> <p>For 64-bit encryption, type 10-digit hex values (in the A–F, a–f, and 0–9 range) as the encryption keys. For example: 0123456aef.</p> <p>For 128-bit encryption, type 26-digit hex values (in the A–F, a–f, and 0–9 range) as the encryption keys. For example: 01234567890123456789abcdef.</p>
OK button	Click on this button to save your changes.
Cancel button	Click on this button to cancel the changes.
Apply button	Click on this button to apply the changes.

### 4.3 Current Statistics

This option enables you to view the signal strength and the statistics information for successful Tx and Rx baud rates. See Figure 4-7.



**Figure 4-7. Configuration Utility, Current Statistics tab.**

Table 4-7 explains the current statistics parameters.

**Table 4-7. Current Statistics options.**

<b>Parameter</b>	<b>Description</b>
Received	Graphic shows that data is received.
Sent	Graphic shows that data is sent.
Signal Strength	This lists the signal strength as a percent.
SNR	The SNR value indicates the noise and signal rate in the environment. A bigger SNR value provides a stronger signal.
Network Rate	This is the network speed (11 or 54 Mbps).
Activity Receiving	This is the data receive rate in KBps.
Activity Sending	This is the data send rate in KBps.
Reset button	Click on this button to refresh the screen.
Advanced button	This button has no function at this time.
Preferences button	This button lets you configure the Statistics Update and Country Code. See <b>Section 4.1.1</b> .
View Site button	Lets you view available wireless networks.
Close button	Click on this button to close the utility.

## 4.4 About

Choosing this option allows you to view basic information such as the driver, firmware, and utility version. See Figure 4-8. You can also click on the hyperlink to connect to the Web site for information about the wireless chipset vendor.



**Figure 4-8. Configuration Utility screen, About tab.**

The options shown in Figure 4-8 cannot be changed.

# 5. Troubleshooting

## 5.1 Frequently Asked Questions

1. Why can't the USB adapter work or only work in 11b mode while connected to a USB 2.0 port?

If this situation occurs, please upgrade the USB port's driver. This problem may be the compatibility issue with the USB port's old driver.

2. What is the IEEE 802.11g standard?

802.11g is the new IEEE standard for high-speed wireless LAN communications that provides a data rate of up to 54 Mbps in the 2.4-GHz band.

802.11g is quickly becoming the next mainstream wireless LAN technology for the home, office, and public networks.

802.11g defines the use of the same OFDM modulation technique specified in IEEE 802.11a for the 5-GHz frequency band and applies it in the same 2.4-GHz frequency band as IEEE 802.11b. The 802.11g standard requires backward compatibility with 802.11b.

The standard specifically calls for:

- a) A new physical layer for the 802.11 Medium Access Control (MAC) in the 2.4-GHz frequency band, known as the extended rate PHY (ERP). The ERP adds OFDM as a mandatory new coding scheme for 6, 12, and 24 Mbps (mandatory speeds) and 18, 36, 48, and 54 Mbps (optional speeds). The ERP includes the modulation schemes found in 802.11b (including CCK for 11 and 5.5 Mbps, and Barker code modulation for 2 and 1 Mbps).
- b) A protection mechanism called RTS/CTS that governs how 802.11g devices and 802.11b devices interoperate.

3. What is the IEEE 802.11b standard?

The IEEE 802.11b Wireless LAN standard subcommittee formulates the standard for the industry. The objective is seamless communication between wireless LAN hardware from different manufacturers.

**4. What does the IEEE 802.11 feature support?**

The product supports the following IEEE 802.11 functions:

- CSMA/CA plus Acknowledge protocol
- Multi-channel roaming
- Automatic rate selection
- RTS/CTS feature
- Fragmentation
- Power management

**5. What is ad-hoc?**

An ad-hoc integrated wireless LAN is a group of computers linked to each other *without* using an access point; each has a Pure Networking 802.11g Wireless Cardbus (PCMCIA) Adapter (LW6000A) connected as an independent wireless LAN. You'd typically use an ad-hoc wireless LAN for a branch or SOHO operation.

**6. What is infrastructure?**

When you connect a wireless LAN and a combination (wireless and wired) LAN together, it's called an infrastructure configuration. Infrastructure is applicable on an enterprise scale for wireless access to a central database, or for a wireless application for mobile workers.

**7. What is BSS ID?**

A specific ad-hoc LAN is called a Basic Service Set (BSS). Computers in a BSS must be configured with the same BSS ID.

**8. What is WEP?**

WEP is Wired Equivalent Privacy, a data privacy mechanism based on a 40-bit shared key algorithm, as described in the IEEE 802.11 standard.

**9. What is TKIP?**

TKIP is a quick-fix method to quickly overcome the inherent weaknesses in WEP security, especially the reuse of encryption keys. TKIP is involved in the IEEE 802.11i WLAN security standard.

### 10. What is AES?

AES (Advanced Encryption Standard), a chip-based security, has been developed to ensure the highest degree of security and authenticity for digital information, wherever and however communicated or stored, while making more efficient use of hardware and/or software than previous encryption standards. It is also included in the IEEE 802.11i standard. Compared with AES, TKIP is a temporary protocol for replacing WEP security until manufacturers implement AES at the hardware level.

### 11. Can wireless products support printer sharing?

Wireless products perform the same function as LAN products. Therefore, wireless products can work with NetWare®, Windows 2000, or other LAN operating systems to support printer or file sharing.

### 12. Would the information be intercepted while transmitting on air?

WLAN features two-fold protection in security. On the hardware side, as with Direct Sequence Spread Spectrum technology, it has the inherent security scrambling feature. On the software side, the WLAN series offer the encryption function (WEP) to enhance security and access control. Users can set it up depending upon their needs.

### 13. What is DSSS? What is FHSS? And what are their differences?

Frequency-Hopping Spread Spectrum (FHSS) uses a narrowband carrier that changes frequency in a pattern that is known to both transmitter and receiver. Properly synchronized, the net effect is to maintain a single logical channel. To an unintended receiver, FHSS appears to be short-duration impulse noise. Direct Sequence Spread Spectrum (DSSS) generates a redundant bit pattern for each bit to be transmitted. This bit pattern is called a chip (or chipping code). The longer the chip, the greater the probability that the original data can be recovered. Even if one or more bits in the chip are damaged during transmission, statistical techniques embedded in the radio can recover the original data without the need for retransmission. To an unintended receiver, DSSS appears as low-power wideband noise and is rejected (ignored) by most narrowband receivers.

#### 14. What is Spread Spectrum?

Spread-spectrum technology is a wideband radio frequency technique developed by the military for use in reliable, secure, mission-critical communication systems. It is designed to trade off bandwidth efficiency for reliability, integrity, and security. In other words, more bandwidth is consumed than in the case of narrowband transmission, but the trade off produces a signal that is, in effect, louder and thus easier to detect, provided that the receiver knows the parameters of the spread-spectrum signal being broadcast. If a receiver is not tuned to the right frequency, a spread-spectrum signal looks like background noise. There are two main alternatives, Direct Sequence Spread Spectrum (DSSS) and Frequency-Hopping Spread Spectrum (FHSS).

### **5.2 Calling Black Box**

If you determine that your Pure Networking 802.11g Wireless High-Gain USB Adapter is malfunctioning, do not attempt to alter or repair the unit. It contains no user-serviceable parts. Contact Black Box at 724-746-5500.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- the nature and duration of the problem.
- when the problem occurs.
- the components involved in the problem.
- any particular application that, when used, appears to create the problem or make it worse.

### **5.3 Shipping and Packaging**

If you need to transport or ship your Pure Networking 802.11g Wireless High-Gain USB Adapter:

- Package it carefully. We recommend that you use the original container.
- If you are shipping the adapter for repair, make sure you include everything that came in the original package. Before you ship, contact Black Box to get a Return Authorization (RA) number.