

**802.11b Wireless**

**CardBus PC Card**

**Quick Installation**

# REGULATORY STATEMENTS

## 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.

### Part15, 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 interface, and
- 2) This device must accept any interface received, including interface 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.

## Installing the Utility

**Precaution:** Installing the Adapter's utility before installing the device is highly recommended for saving your time.

**Precaution for Windows XP users:**

There are two options for you to choose:

① Follow below instructions to install the utility.

② Skip this section. Go to [Installing the Device – Manually - In Windows XP](#) section to install the device, and then you can use the

1. Insert the **Setup Utility CD-ROM** into the CD-ROM drive and double click on **Setup.exe** to install the **Wireless LAN Utility**.
2. When the Welcome screen appears, click **Next** to continue.
3. The **Choose Destination Location** screen will show you the default destination chosen by the utility. Click **Next** to continue.
4. Follow the instruction to select the program folder. Click **Next** to continue.
5. In **Start Copying Files**, click **Next** to continue.
6. In **Setup Status**, the InstallShield Wizard will begin copying the files.
7. Click **Finish**.

# Installing the Device

## Automatically

If the Application setup in Installing the Utility section has been completed, follow below steps to install the device.

1. Locate the CardBus slot of your system.
2. Align the Wireless PC Card toward the CardBus slot. Push evenly and steadily until it is seated.

After the device has been connected to your computer, Windows will detect the new hardware and then automatically copy all of the files needed for networking.

**For Windows 98 users:** As you perform the installation, have your system operating CD-ROM at hand. You may be asked to insert the OS CD-ROM for the system to download a specific driver.

**For Windows 2000 users:** When **Digital Signature Not Found** screen appears, click **Yes** to continue.

**For Windows XP users:**

1. Select **Install the software automatically (Recommended)** and click **Next**.
2. Click **Continue Anyway**.
3. Click **Finish** to complete the installation.

## Manually

If you want to install the device before installing the utility, please follow below sections.

1. Locate the CardBus slot of your system.
2. Align the Wireless PC Card toward the CardBus slot. Push evenly and steadily until it is seated.

After the device has been connected to your computer, Windows will detect the new hardware automatically.

### In Windows 98

1. In **Add New Hardware Wizard**, click **Next**.
2. Select **Search for the best driver for your device (Recommended)**. Click **Next**.
3. Insert the device driver CD-ROM into the CD-ROM drive. Select **CD-ROM** and **Specify a location:** and click **Browse** to provide the appropriate path (e.g. **D:\Win9xMe**). Click **Next**.
4. Click **Next**, Windows will copy all the necessary files to your system.
5. Insert **Windows 98** CD-ROM, and then click **OK**.
6. Click **Finish** to complete the installation.
7. When Windows prompts you to restart your computer, click **Yes**.

## In Windows ME

1. Select **Specify the location of the driver (Advanced)**, click **Next**.
2. Insert the device driver CD-ROM into the CD-ROM drive. Select **Search for the best driver for your device (Recommended)** and click **Browse** to provide the appropriate path (e.g. **D:\Win9xMe**). Click **Next**.
3. Click **Next**, Windows will copy all the necessary files to your system.
4. Click **Finish** to complete the installation.
5. When Windows prompts you to restart your computer, click **Yes**.

## In Windows 2000

1. In **Found New Hardware Wizard**, click **Next**.
2. In **Install Hardware Device Drivers**, select **Search for a suitable driver for my device (recommended)**, click **Next**.
3. Insert the device driver CD-ROM into the CD-ROM drive. Select **CD-ROM drivers** and **Specify a location**, click **Next**.
4. Click **Browse** to provide the appropriate path (e.g. **D:\Win2kXP**). Click **OK**.
5. Click **Next**, Windows will copy all the necessary files to your system.
6. In **Digital Signature Not Found** window, click **Yes** to continue.
7. Click **Finish** to complete the installation.
8. Restart your computer.

## In Windows XP

1. Once the device is well connected to your computer, Windows XP will automatically detect the new device. Select **Install from a list or specific location (Advanced)** and click **Next**.
2. Insert the device driver **CD-ROM** into the CD-ROM drive. Select **Include this location in the search:** and click **Browse** to provide the appropriate path (e.g. **D:\Win2kXP**). Click **Next**.
3. Click **Continue Anyway** to proceed. Windows will copy all the necessary files to your system.
4. Click **Finish** to complete the installation.

## Configuration Utility




After installing the Wireless PC Card's driver successfully, the **Network Status** icon will appear in the task bar. You can open it by double-clicking on this icon.



*Note:* Except for the following configuration utility, using Windows to configure the wireless network settings in the Windows XP is recommended. (Please skip to the [Configuration for Windows XP](#) section)

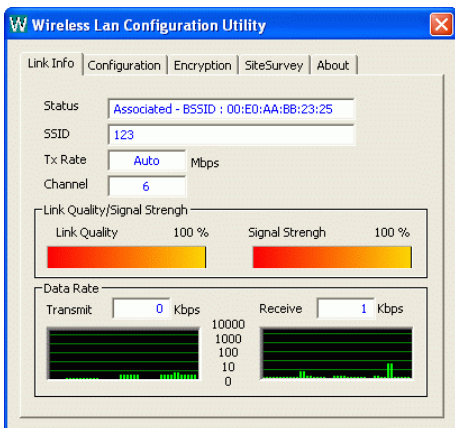
# Network Status Icon

## The Status Icon

Icon	Link Status
	<b>Access Point mode. (Green)</b>
	<b>Peer-to-Peer mode. (White)</b>
	<b>No connection. (Red)</b>

## Link Info

The **Link Info** tab will display the current status of the Wireless Network Adapter.

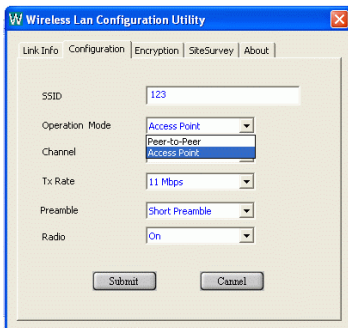




<b>Item</b>	<b>Description</b>
<b>Status</b>	It displays the information about the status of the communication (the BSSID of the Access Point to which the card is associated).
<b>SSID</b>	The <b>SSID</b> is the unique name shared among all points in your wireless network. The name must be identical for all devices and points attempting to connect to the same network. It shows the current SSID setting of the Wireless Network Adapter.
<b>Tx Rate</b>	It shows the current transfer rate. ( <b>1, 2, 5.5, or 11Mbps or Auto</b> )
<b>Channel</b>	It shows the selected channel that is currently used. (There are 14 channels available, depends on the country.)
<b>Link Quality</b>	It displays the link quality of the connection between the Wireless Network Adapter and the Access Point it connects.
<b>Signal Strength</b>	It displays the signal strength of the connection between the Wireless Network Adapter and the Access Point it connects.
<b>Data Rate</b>	It displays the current transmitting and receiving rate.

## Configuration

You can change advanced configuration settings, such as the **SSID**, **Operation Mode**, **Tx Rate** and **Preamble Type**.



Item	Description
<b>SSID</b>	<b>SSID</b> is the unique name shared among all points in your wireless network. It must be identical for all points in the network. It is case-sensitive and must not exceed 32 characters. Make sure that all points in the network are set the same.
<b>Operating Mode</b>	It displays the current operating mode. ( <b>Access Point</b> or <b>Peer-to -Peer</b> ).
<b>Channel</b>	Select the appropriate channel from the list provided to correspond with your network settings. All devices in the wireless LAN must be configured to share the same radio channel in order to work correctly. (There are 14 channels available, depends on the country.)
<b>Tx Rate</b>	Select ( <b>1</b> , <b>2</b> , <b>5.5</b> , or <b>11Mbps</b> or <b>Auto</b> ) from the pull-down list to change the current transfer rate
<b>Preamble</b>	A preamble is a signal used in wireless environment to synchronize the transmitting timing including Synchronization and Start frame delimiter. ( <b>Note:</b> Please check the setting of AP first.)

Item	Description
<p><input checked="" type="radio"/> <b>Auto</b></p> <p><input type="radio"/> <b>Long Preamble</b></p> <p><input type="radio"/> <b>Short Preamble</b></p>	<p>Select <b>Auto</b> for the Network adapter to select the Preamble type automatically depending on the Access Point Preamble type.</p> <p>If in a "noisy" network environment, the Preamble Type should be set to <b>Long Preamble</b>.</p> <p>The <b>Short Preamble</b> is intended for applications where minimum overhead and maximum performance is desired. If in a "noisy" network environment, the performance would be decreased.</p>
<b>Radio</b>	Select <b>On/Off</b> from the pull-down list to <b>enable/disable</b> the Radio Module function of the Wireless Network Adapter.

## Encryption

**WEP (Wired Equivalent Privacy)** encryption can be used to ensure the security of your wireless network.

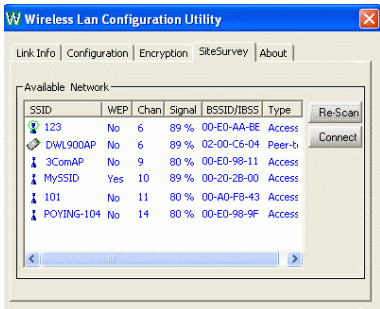




Item	Description
<b>Data Encryption</b>	WEP is a data privacy mechanism based on a 64 Bit/128 Bit shared key algorithm. Check this box to enable WEP encryption.
<b>Auth. Mode</b>  <b>Open Authentication</b>  <b>Shared Authentication</b>  <b>Auto</b>	The authentication mode defines configuration options for the sharing of wireless networks to verify identity and access privileges of roaming wireless network cards. You may choose between <b>Open Authentication</b> , <b>Shared Authentication</b> , and <b>Auto</b> . If the Access Point is using " <b>Open Authentication</b> ", then the wireless adapter will need to be set to the same authentication mode. <b>Shared Authentication</b> is when both the sender and the recipient share a secret key. Select <b>Auto</b> for the network adapter to select the Authentication mode automatically depending on the Access Point Authentication mode.
<b>Key Length</b>	<b>64 Bit or 128 Bit.</b>
<b>WEP Key</b> <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4	This setting is the configuration key used in accessing the wireless network via WEP encryption. Fill in the appropriate value/phrase.
<b>Apply</b>	Click <b>Apply</b> to save the changes.
<b>Cancel</b>	Click <b>Cancel</b> to exit the application.

**Note:** You must use the same value/phrase or WEP key settings for all wireless computers in order for the wireless network to function well

## Site Survey

The **Site Survey** tab shows all the available Access Points and their features.

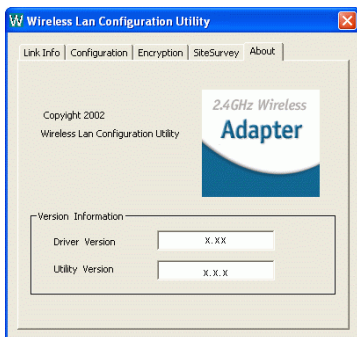


Item	Description
<b>SSID</b>	It displays the current SSID setting of the Wireless Network Adapter.
<b>WEP</b>	It displays the status of WEP Encryption.
<b>Channel</b>	It displays the selected channel that is currently used.
<b>Signal</b>	It displays the signal strength of the connection between the Wireless Network Adapter and the Access Point it connects.
<b>BSSID/IBSSID</b>	A set of wireless stations is referred to as a Basic Service Set (BSS). Computers in a BSS must be configured with the same BSS ID.
<b>Type</b>	It displays the type of Basic Service Set. (  Access Point or  Peer-to-Peer)

Item	Description
<b>Re-Scan</b>	Search for all available networks. Clicking on the button, the device will start to rescan and list all available sites.
<b>Connect</b>	Select one from the list to connect.

## About

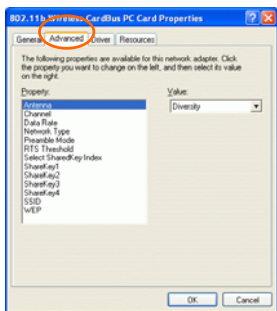
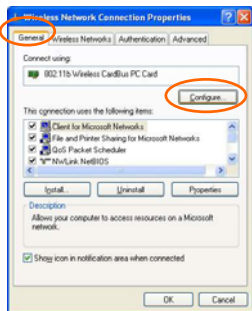
You can view basic information about the Utility like the **Driver** and **Utility** Version.



## Configuration for Windows XP

1. Go to **Start** → **Control Panel** → **Network Connections**.
2. In **Network Connections** window, right-click the **Wireless Network Connections** icon, and select **Properties**.
3. In **Wireless Network Connection Properties** window, select the **General** tab.

Click **Configure** to enable Windows configuration.

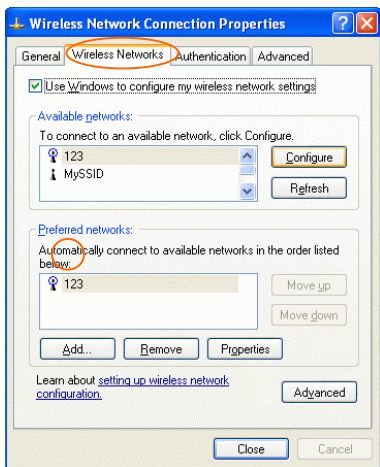


Property	Description
<b>Antenna</b>	<b>(Diversity, Antenna A or Antenna B):</b> These settings determine which antenna will be used to transmit or receive.
<b>Channel</b>	Select the appropriate channel from the list provided to correspond with your network settings. All devices in the wireless LAN must be configured to share the same radio channel in order to work correctly. (There are 14 channels available, depends on the country.)
<b>Data Rate</b>	Select <b>(1, 2, 5.5, or 11Mbps or Auto)</b> from the pull-down list to change the current transfer rate.
<b>Network Type</b>	Select the appropriate Network Type from <b>802.11 AdHoc Mode (Active), 802.11 AdHoc Mode (Passive) or Infrastructure.</b> In <b>AdHoc</b> mode, <b>Active mode</b> is recommended since it can generate/pass beacon packets automatically.

<b>Preamble</b>	A preamble is a signal used in wireless environment to synchronize the transmitting timing including Synchronization and Start frame delimiter. ( <b>Note:</b> Please check the setting of AP first.)
<input type="radio"/> <b>Auto</b>	Select <b>Auto</b> for the Network adapter to select the Preamble type automatically depending on the Access Point Preamble type.
<input type="radio"/> <b>Long Preamble</b>	If in a "noisy" network environment, the Preamble Type should be set to <b>Long Preamble</b> .
<input type="radio"/> <b>Short Preamble</b>	The <b>Short Preamble</b> is intended for applications where minimum overhead and maximum performance is desired. If in a "noisy" network environment, the performance would be decreased.
<b>RTS Threshold</b>	This value should remain at its default setting of <b>2347</b> . Should you encounter inconsistent data flow, only minor modifications of this value are recommended.
<b>Select Shared key Index</b>	Select from <b>1, 2, 3, 4</b> or <b>No selection</b> .
<b>Sharekey1</b> <b>Sharekey2</b> <b>Sharekey3</b> <b>Sharekey4</b>	This setting is the configuration key used in accessing the wireless network via WEP encryption. Fill in the appropriate value/phrase.
<b>SSID</b>	<b>SSID</b> is the unique name shared among all points in your wireless network. It must be identical for all points in the network. It is case-sensitive and must not exceed 32 characters. Make sure that all points in the network are set the same.
<b>WEP</b>	WEP is a data privacy mechanism based on a 64 Bit/128 Bit shared key algorithm. Select <b>WEP key 128bit</b> or <b>WEP key 64bit</b> to enable WEP encryption.



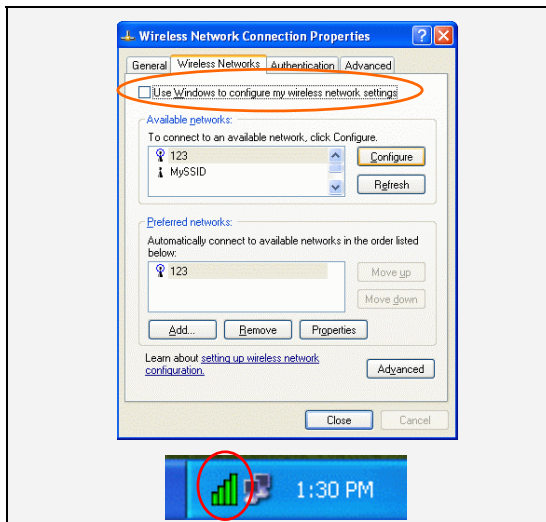
4. In **Wireless Network Connection Properties** window, select the **Wireless Networks** tab.



Use Windows to configure...

**\*Use the Configuration Utility for 802.11b Wireless CardBus PC Card**

**Note:** If you want to use the utility in [Configuration Utility](#) section to configure the wireless settings. Make sure the check box is **NOT** enabled (please refer to below figure), and then the Network Status icon will appear in the taskbar. You can open it by double-clicking the icon.



### \* Use Windows to configure

**Note:** Right-click the Network Status icon in the taskbar, click **Disable Utility**. The Network Status icon in the taskbar will disappear, and then you can use Windows to configure the

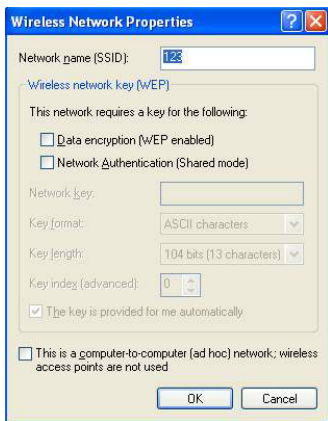


### Available networks

Displays all available networks.

## **Configure**

Click the button to set up a new network or WEP configuration as illustrated as below.



## **Refresh**

Click the button to refresh and search for all available networks.

## **Preferred networks**

From available network(s) listed above, you can select preferred one(s) in an order that you can arrange.

The marked one is the currently used network.

## **Move up**

Move the selected network forward one position.

### **Move down**

Move the selected network back one position

### **Add...**

Click the button and the **Wireless Network Properties** window will appear. In the **Network name** field, enter your desired network name listed in the above **Available networks** box, and click **OK**.

*Note:* The new settings will be active only after you click on **OK** in the **Wireless Network Connection Properties** window.

### **Remove**

Highlight the unwanted network listed in the **Preferred networks** box, and click the button to remove it.

### **Properties**

Highlight the network listed in the above **Preferred networks** box, and click the button to display its properties.

Once network configuration is done, make sure to click **OK**. The new parameters will be saved and active only after doing so.