

# **802.11b Wireless LAN P3 Detachable Antenna PCMCIA Card**

**WN-113SH18**

***User Manual***

**Version 1.0**

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We assume no responsibility for errors contained herein or for direct, indirect, special, incidental, or consequential damages with the furnishing, performance, or use of this manual or equipment supplied with it, even if the suppliers have been advised of the possibility of such damages.

### **Electronic Emission Notices**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

### **FCC INFORMATION**

The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:

The 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 instruction, may cause harmful interference to radio communication. 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 overcome 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.

The equipment is for home or office use.

### **IMPORTANT NOTE**

Following RF exposure info shall be supplied in end-users manual depends on the application.

#### **For mobile configuration of RF Exposure Information:**

To comply with FCC RF exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter

#### **For Laptop Configuration of RF Exposure information:**

This device has been tested for compliance with FCC RF Exposure (SAR) limits in the typical laptop computer configuration and this device can be used in desktop or laptop computers with side mounted PCMCIA slots. This device cannot be used with handheld PDAs (personal digital assistants).

This device and its antenna must not be co-located or operated in conjunction with any other antenna or transmitter.

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

## **R&TTE Compliance Statement**

This equipment complies with all the requirements of the Directive 1999/5/EC of the European parliament and the council of 9 March 1999 on radio equipment and telecommunication terminal Equipment and the mutual recognition of their conformity(R&TTE).

The R&TTE Directive repeals and replaces in the directive 98/13/EEC. As of April 8, 2000.

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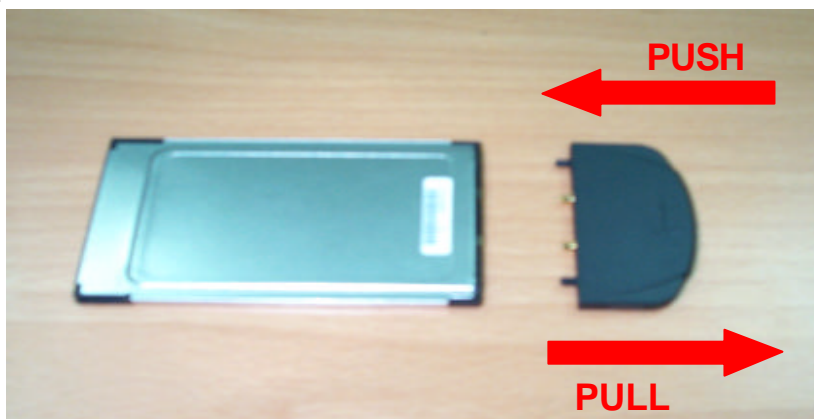
## **INTRODUCTION**

The 802.11b Wireless LAN P3 PCMCIA Card aims to let your computer quickly and seamlessly communicate with 802.11b (at up to 11 Mbps) networks. It allows you to configure the Wireless LAN as both independent networks known as peer-to-peer or ad-hoc network, and infrastructure networks. The former is suitable for small or temporary peer-to-peer networking requirement, and the later is offering fully distributed data connectivity via micro cells and roaming. In addition, the detachable antenna design allows the Card to apply more applications.

To obtain most benefits your 802.11b Wireless LAN P3 PCMCIA Card brings, please read this manual carefully before using it.

### **1.1 Features**

This 802.11b WLAN P3 PCMCIA Card allows you to remove the antenna simply by pulling it back or push it in as the picture below.



With 802.11b WLAN P3 PCMCIA Card, you can:

- establish a wireless connection without the hassles and cost of cabling
- operate Ad-Hoc or Infrastructure mode
- utilize up to 128-bit WEP and WPA encryption
- enjoy high-speed data transfer rate up to 11 Mbps
- employ automatic data rate switching which offers maximum reliability, throughput and connectivity
- possess the network's range up to 100 meters indoor and 300 meters outdoor (standard)
- monitor and configure the network via the supplied friendly-interfaced application –

#### **Wireless 11Mbps Configuration Tool**

### **1.2 Product Package**

Before starting the installation, please make sure the package you purchased includes the following items:

1. One Wireless LAN P3 PCMCIA Card with Detachable Antenna.
2. One Quick Installation Guide
3. One Setup Wizard CD-ROM with User Manual

In order to let the device function properly, please use only the accessories attached with the device package. If any of these accessories were missing or damaged, please contact your distributor.

### **1.3 System Requirements**

To properly operate your Card, your computer should meet the following minimum requirements:

- Microsoft Windows 98/98 Second Edition/Me/2000 or Windows XP
- Minimum 5 Mbytes free disk space for installing the driver and the utility program
- 32 MB RAM or above
- A CD-ROM drive
- 300 MHz processor or higher

## INSTALLATION

This chapter describes the steps to install the required drivers and the **Wireless 11Mbps Configuration Tool** for properly operating the 802.11b Wireless LAN P3 PCMCIA Card on your computer. Please follow the steps listed below carefully to assure a successful installation.

### 2.1 Installation Procedures

- a) Insert the 802.11b Wireless LAN P3 PCMCIA Card to your computer's PCMCIA slot.
- b) The **Found New Hardware** message box will appear once the system detected the insertion of the Card. Click **Cancel** to ignore it.

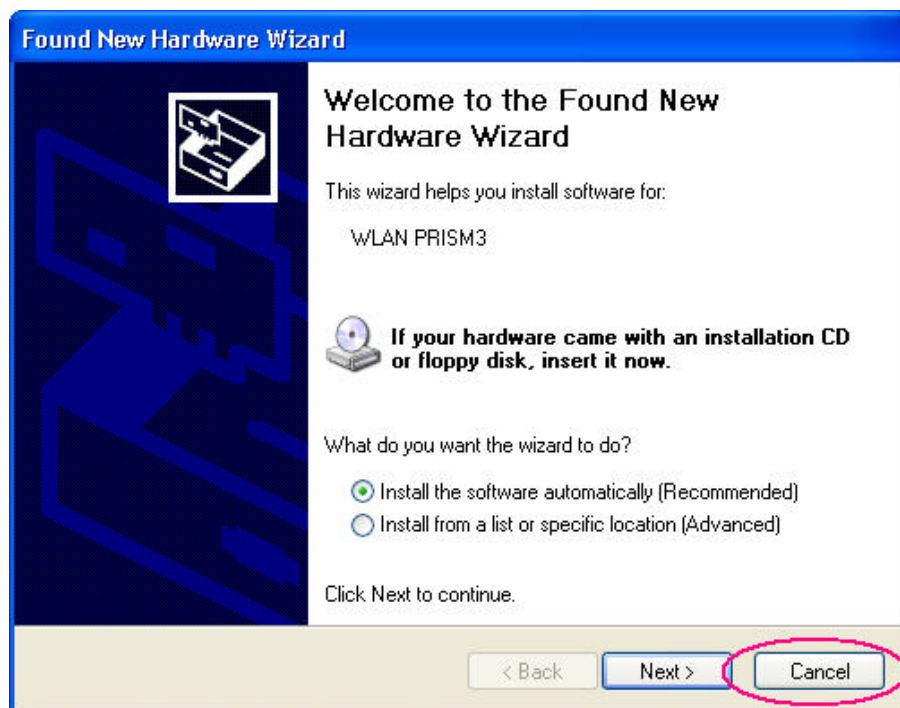


Figure 2.1-1: The **Found New Hardware Wizard** Dialog Box

- c) Put the supplied CD-ROM into your CD-ROM drive, and the startup window will appear automatically. If it does not, double click the **Autorun.exe** icon in the CD's directory to awake the Setup Wizard manually.
- d) In the startup window, click **Install Driver** to start the installation.



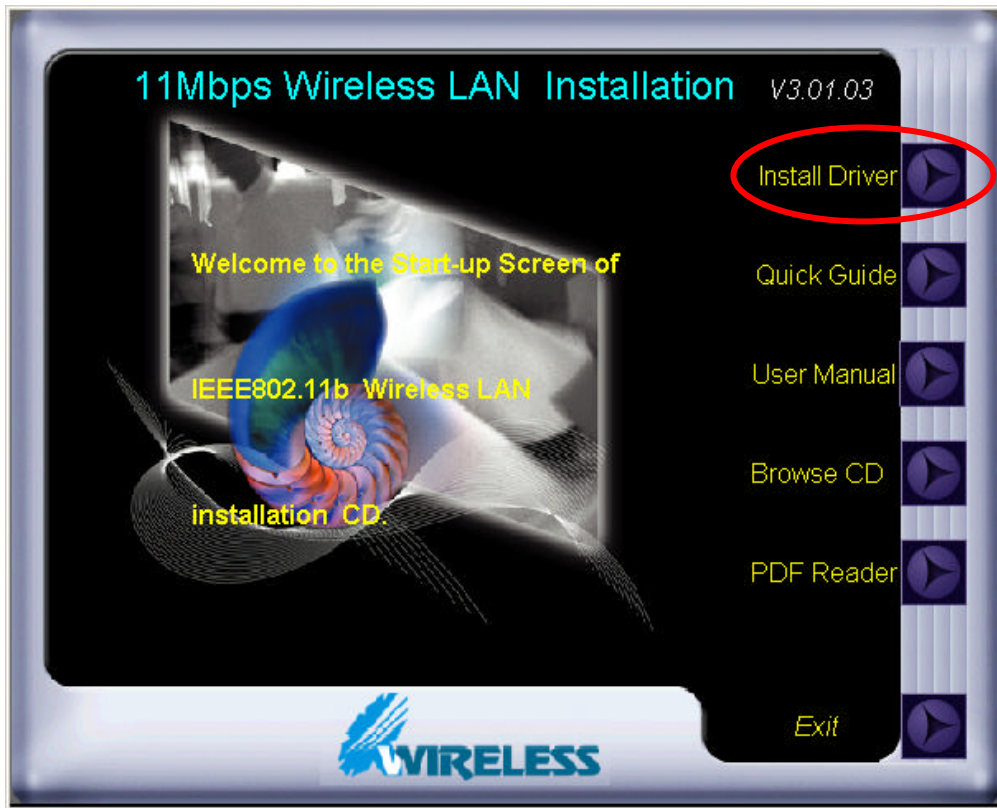


Figure 2.1-2: The Startup Window of the Supplied CD-ROM

- e) Click **Next** in the **Welcome to the InstallShield Wizard** dialog box to continue. And the system will start to copy the drivers found.

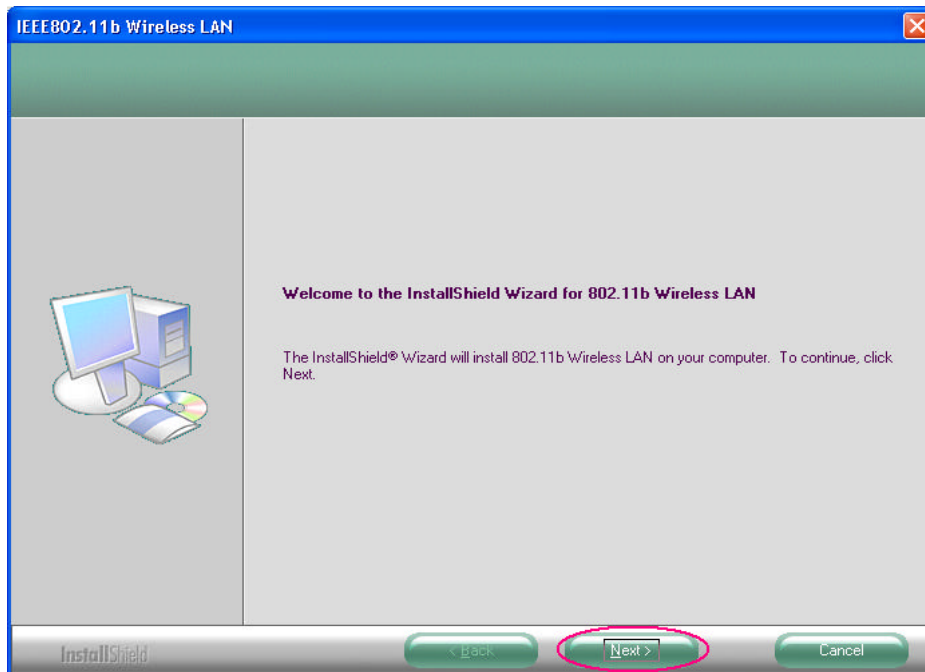


Figure 2.1-3: The **Welcome to the InstallShield Wizard** dialog box

- f) Windows system may send out a warning message box as the picture below. Because the device has been tested to work with Windows system without problem, click **Continue Anyway** to ignore it.

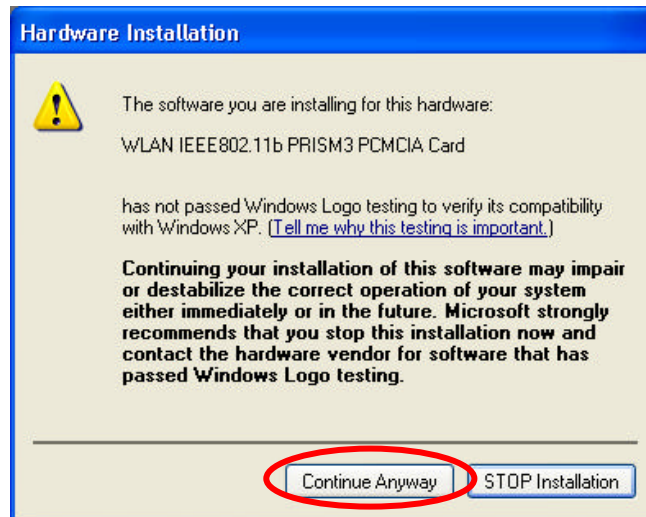


Figure 2.1-4: The Warning Message Box Sent by Windows XP System

- g) On the **Install Finished** screen, click **Finish** to complete the installation. Note that when you are running Win98/98SE/ME, the computer will be restarted automatically after you click the **Finish** button.

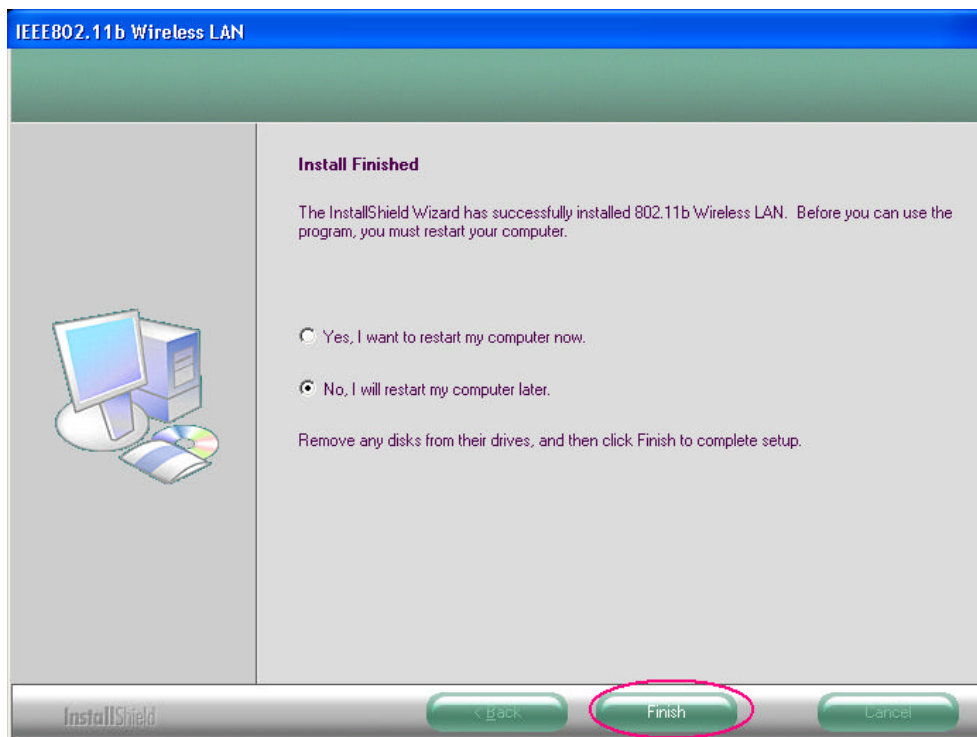


Figure 2.1-5: The **Install Finished** Dialog Box

**Note:** For Win 98 users, the system will ask for Windows 98 CD-ROM after rebooting. Please replace the supplied CD with the required one and click **OK** to proceed.

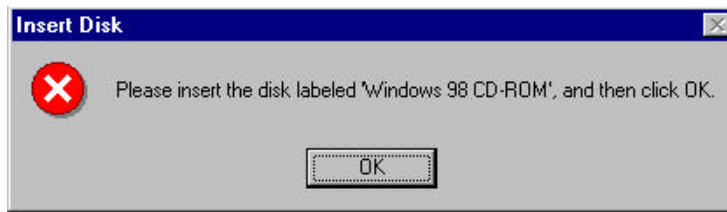


Figure 2.1-6: The Message Box of **Insert Disk** in Windows 98 System

- h) Then, you shall see the status icon of the **Wireless 11Mbps Configuration Tool** appeared in the system tray, and the installation is entirely finished at the moment.

To set configurations for the network connection, double-click the **Wireless 11Mbps Configuration Tool** icon, which should be displayed on your desktop already. For more details about the application program, please refer to the [Wireless 11Mbps Configuration Tool Basics](#) chapter in this manual.

## 2.2 Installation Notes- Windows XP

If your current system is running Windows XP, you shall find that two tabs are contained in the **PRISM Wireless Settings** dialog box after you've followed the instructions above and successfully installed the drivers. However, normally, the dialog box should be consisted of five tabs. This is because Windows XP has its built-in configuration tool – **Windows XP Wireless Zero Configuration Service** to assist you in networking activities. It is recommended to utilize the attached **Wireless 11Mbps Configuration Tool** to enjoy more benefits it will bring. Thus, to employ your **Wireless 11Mbps Configuration Tool** under Windows XP, please proceed to the next steps to change the default settings of **Windows XP Wireless Zero Configuration Service** to **Wireless 11Mbps Configuration Tool**.

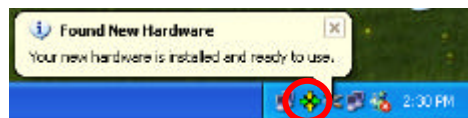


Figure 2.2-1: The **Wireless 11Mbps Configuration Tool** Tray Icon

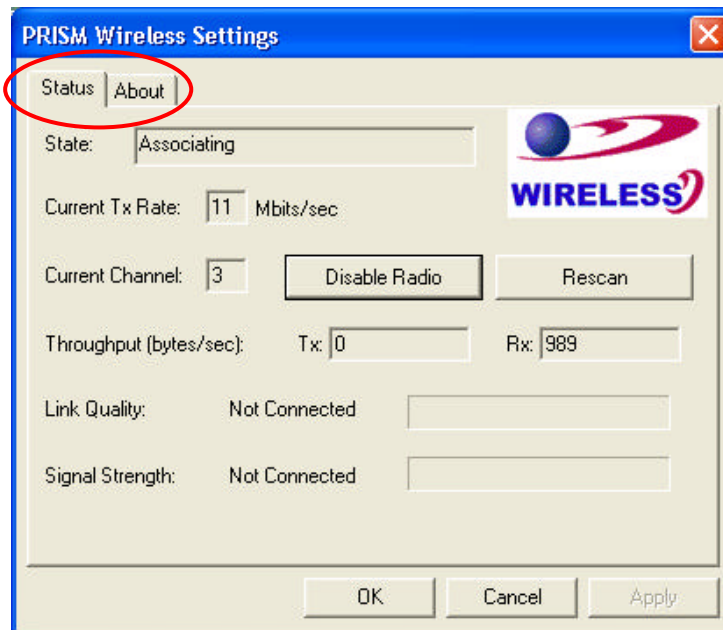


Figure 2.2-2: The **PRISM Wireless Settings** Dialog Box

- a) Right-click the **Network Connections** icon at the task bar to open the **Wireless Network Connection Status** dialog box, and then select **Properties**.

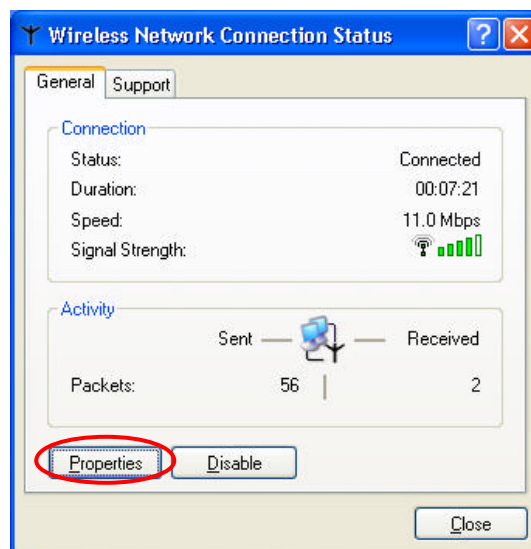


Figure 2.2-3: The **Wireless Network Connection Status** Dialog Box

- b) Choose the **Wireless Networks** tab in the **Wireless Network Connection Properties** dialog box, and remove the tick from the **Use Windows to configure my wireless network settings** checkbox.

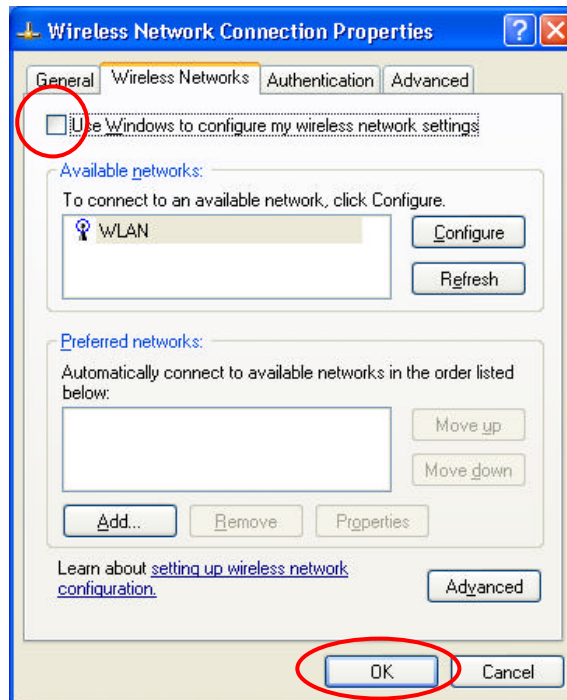


Figure 2.2-4: The **Wireless Network Connection Properties** Dialog Box

- c) Click **OK**. Now, you have successfully disabled the **Windows XP Wireless Zero Configuration Service**.

To monitor and configure the network via **Wireless 11Mbps Configuration Tool**, double-click its tray icon, and you shall find five tabs contained in the popped up **PRISM Wireless Settings** dialog box this time. For more information on **Wireless 11Mbps Configuration Tool**, please refer to [Wireless 11Mbps Configuration Tool Basics](#) below.

**Note:** If you wish to use Windows XP's built-in configuration tool – **Windows XP Wireless Zero Configuration Service**, please refer to the next chapter for basic configuration through **Wireless Zero Configuration Service**.

## 2.3 Verifying a Successful Installation

To confirm that your 802.11b WLAN P3 PCMCIA Card is properly installed, please go along with the procedures below.

1. Right-click the **My Computer** desktop icon and choose **Properties** from the opened menu.
2. In the **System Properties** dialog box, choose **Device Manager** if you are under Windows 98/98SE/ME. If you are operating Windows 2000/XP, click the **Hardware** tab, and then choose the **Device Manager** button.
3. In the opened window, expand **Network adapters** to find the input device – **WLAN**

**IEEE802.11b PRISM3 PCMCIA Card.** Right-click over the item and choose **Properties**.

4. From the opened dialog box, on the **General** tab, find the descriptions under the **Device Status** pane to check if the card is working properly. However, if there's an error message shown, please choose **Uninstall** from the opened menu while right-clicking over the USB Adapter item, to which a red or yellow icon is attached beside, in the **Device Manager** dialog box. Then restart your system and go through the installation procedures again.

The following picture indicates a successful installation of the 802.11b Wireless LAN P3 PCMCIA Card.

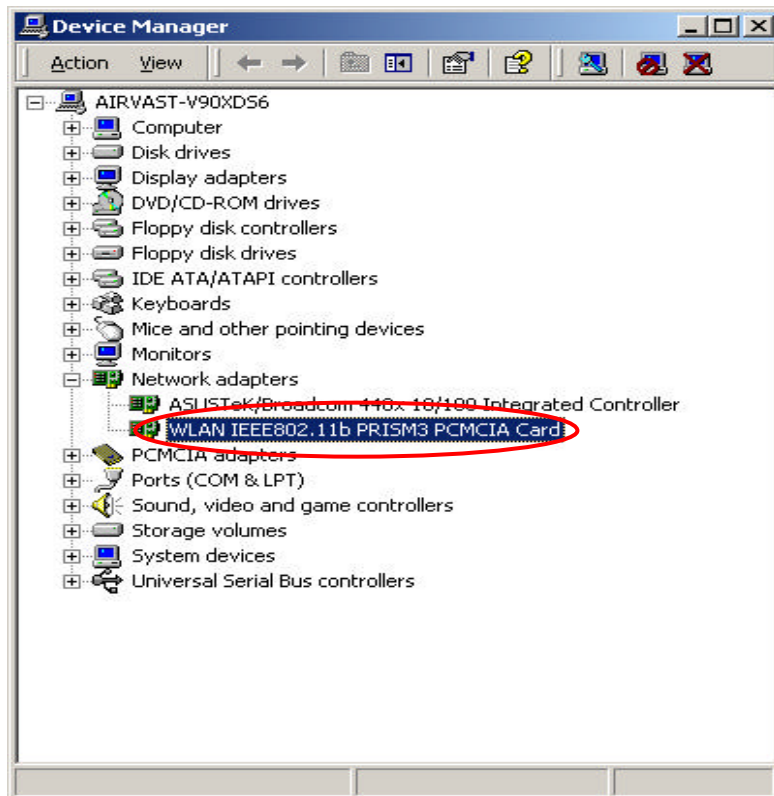


Figure 2.3-1: The **Device Manager** Dialog Box

## CONFIGURATION FOR WINDOWS XP

As known from previous chapter, Windows XP has its built-in configuration tool – **Windows XP Wireless Zero Configuration Service**, to assist you in some basic configurations of wireless network connection. It activate automatically right after the completion of the installation of 802.11b Wireless LAN P3 PCMCIA Card, and you will find the **Wireless Network Connection** icon appears in your system tray as the picture below.



Figure 3-1: The Wireless Network Connection Icon

Please refer to the desired topics here to know more details about how to operate your 802.11b Wireless LAN P3 PCMCIA Card via **Wireless Zero Configuration Service**.

### **3.1 To Connect an Available Network via Wireless Zero Configuration**

1. Double-click the **Wireless Network Connection** icon.
2. In the opened **Connect to Wireless Network** dialog box, the currently available networks are listed in the **Available networks** field. From the list, choose an item that you intend to make an association.
3. If the chosen entry requires a WEP encryption key and also automatically provides it, leave the **Network Key** field blank and then choose the **Connect** button to build the connection. Otherwise, you will need to manually enter the identical key in the **Network Key** field before clicking **Connect**.

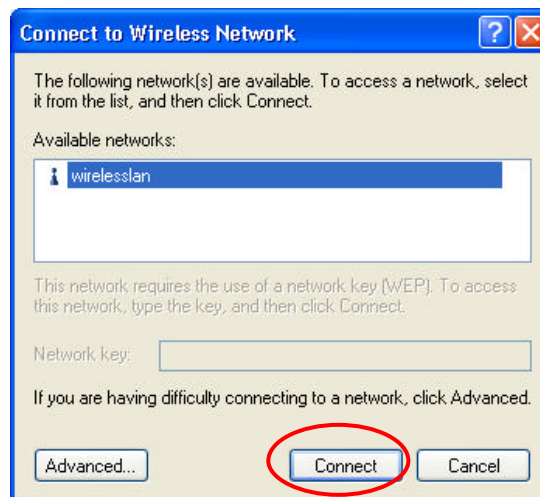


Figure 3.1-1: The **Connect to Wireless Network** Dialog Box

4. If the connection is established, there will be a pop-up message shown beside the **Wireless Network Connection** icon on the system tray. You could obtain the information on the status of connection from the message.



### 3.2 To Configure the Wireless Networks Properties

If you cannot establish a connection with the chosen entry or you wish to configure further wireless network connection settings, choose the **Advanced** button in the **Connect to Wireless Network** dialogue box.

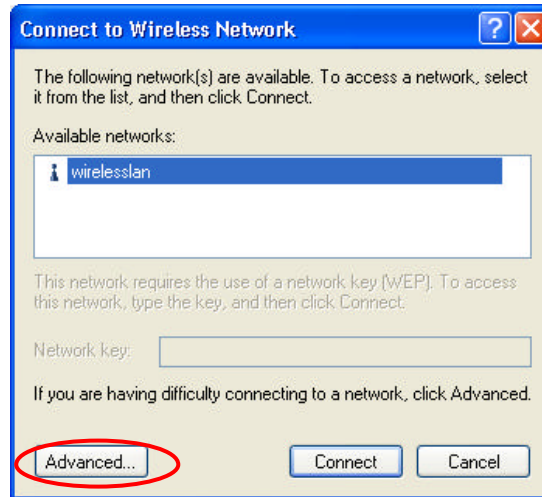


Figure 3.2-1: The **Connect to Wireless Network** Dialog Box

After clicking **Advanced**, you will enter into the **Wireless Networks** tab of the **Wireless Network Connection Properties** dialog box, in which three other tabs are found, including **General**, **Authentication**, and **Advanced**. The **Wireless Networks** tab includes the most main settings for the networking connection. Thus, please check the descriptions below to learn more about the tab.

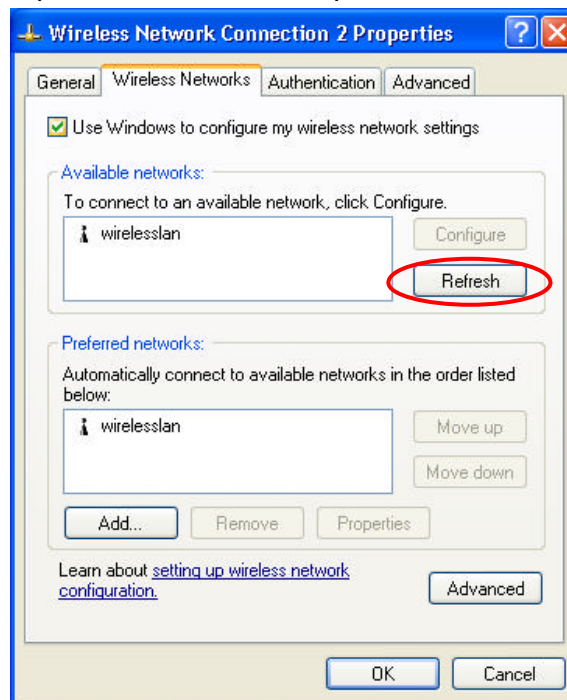


Figure 3.2-2: The **Wireless Network Connection Properties** Dialog Box



**Note:** For more detailed information about each tab, please refer to the *Windows XP Online-Help*.

The **Wireless Networks** tab is chiefly consisted of two sections: **Available networks** and **Preferred networks**.

- Under the **Available networks** area, all the available access points or Wireless LAN PC Card equipped computers are displayed. You may wish to click **Refresh** to update the list. If you choose any listed item in the field and then click **Configure**, the **Wireless Network Properties** dialog box will appear as Figure 3-5 shows. Check the description below the figure to obtain more information about the dialog box.
- In the **Preferred networks** area, you could add any displayed networks to the list by clicking over the intended item from **Available networks** and then selecting the **Add** button. After clicking **Add**, the **Wireless Network Properties** dialog box will appear as Figure 3-5 displays. Note that to delete any item under the **Preferred networks** area, simply click on it and then select the **Remove** button. Additionally, you may adjust the items in the list by clicking the desired item and then choosing the **Move up** or **Move down** button. It is, however, important to realize that Windows XP will always choose the first one in the list to establish the networking connection.

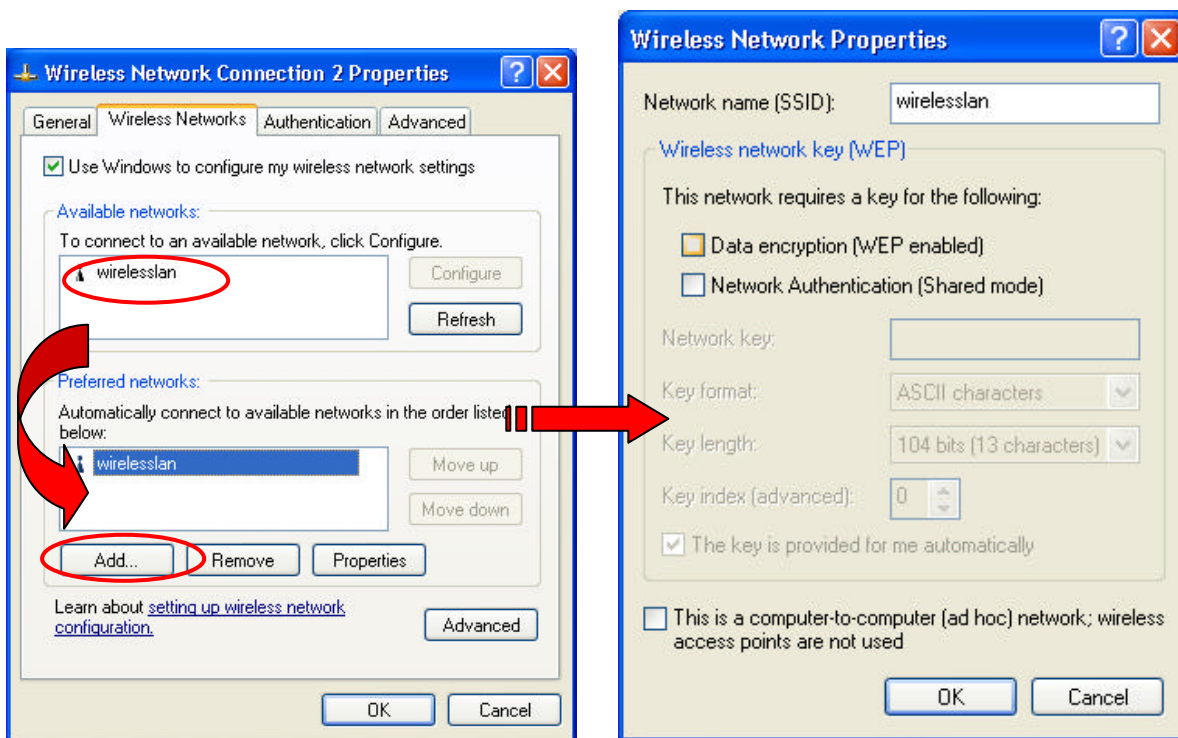


Figure 3.2-3: The **Wireless Network Properties** Dialog Box

**Note:** Once you choose an item from the **Preferred networks** list and then click **Properties**, the **Wireless Network Properties** will also be provoked.

- In the opened **Wireless Network Properties** dialog box, edit texts in the **Network Name (SSID)** field to identify the chosen network entry in the wireless LAN.

- If there's a need, go to the **Wireless network key (WEP)** area below to set the keys as the associated access point or Wireless LAN PC Card equipped computer requests. To set WEP, select **Data encryption (WEP enabled)** and **Network Authentication**. Then enter the encryption keys for the network you intend to connect in the **Network Key** field. Meanwhile, the **Key format** and **Key length** options change the settings according to **Network Key** string you just typed. Click **OK** when you are finished, and you will return to the **Wireless Network Connection Properties** dialog box.

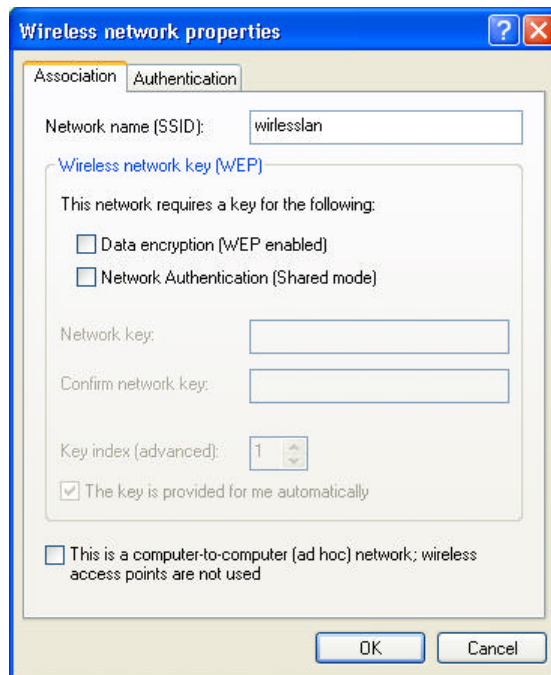


Figure 3.2-4: Entering WEP Keys

**Note:** For more details of this tab, you may click the link: [setting up wireless network configuration](#) at the bottom of the **Wireless networks** tab to launch the Windows XP Online-Help.

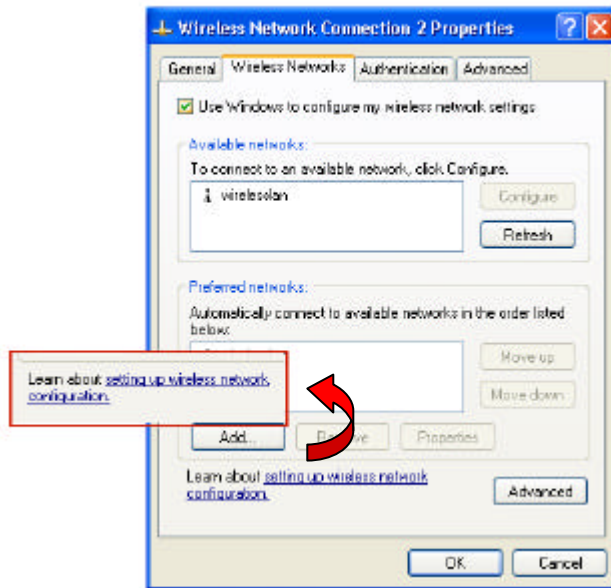


Figure 3.2-5: Setting up Wireless Network Configuration

### 3.3 To Access to Certain Wireless Network Type

The default network type of **Windows XP Wireless Zero Configuration Service** is any available access points (Access Point mode) or WLAN Card equipped computers (Ad-Hoc mode) within the range at the given time. However, you may wish to connect to a certain network type sometimes. To change the default settings, click **Advanced** button in the **Wireless Networks** tab of the **Wireless Network Connection Properties** dialog box.

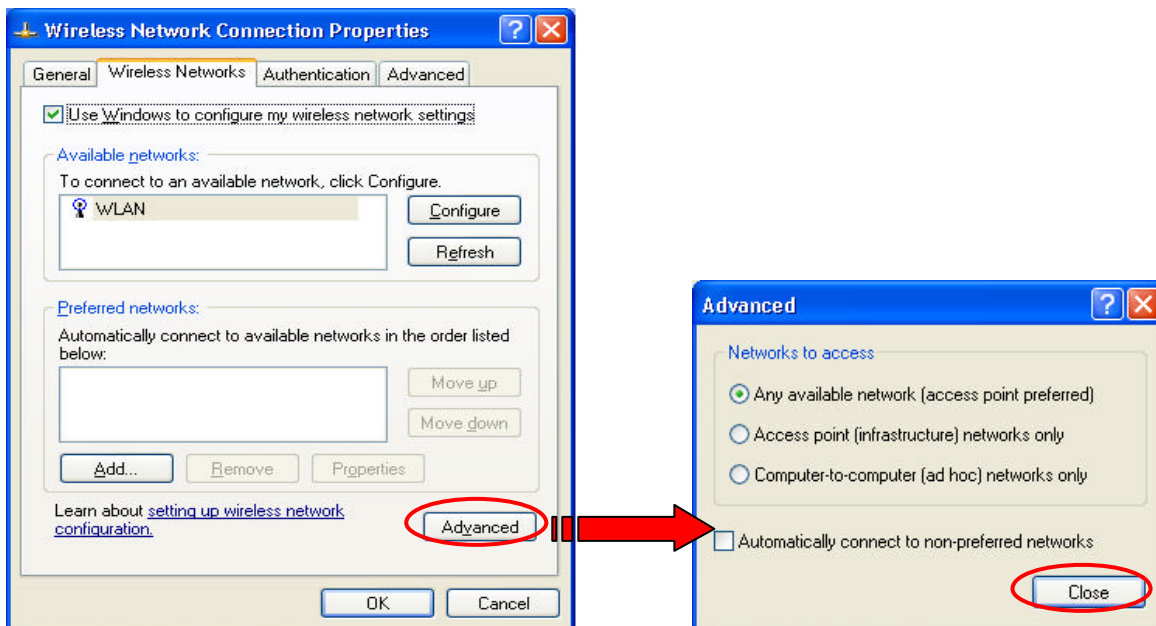



Figure 3.3-1 The **Advanced** Dialog Box:

The **Advanced** dialog box provides three options, **Any available network**, **Access point networks only**, and **Computer-to-computer networks only**. Choose one of them according to your need and click **Close** to finish. Then you will find under the **Available networks** area in the **Wireless Network Connection Properties** dialog box, only the specified networks are displayed.


*Note: If you wish to use the attached application – **Wireless 11Mbps Configuration Tool** of the WLAN IEEE802.11b PRISM3 PCMCIA Card instead of Windows XP's **Wireless Zero Configuration**, please refer to **2.2 Installation Notes –Windows XP** in this manual to change the settings.*

## WIRELESS 11Mbps CONFIGURATION TOOL BASICS






Once you insert the card, it will operate with the factory default settings. However, you may configure the desired settings by double-clicking the **Wireless 11Mbps Configuration Tool** icon, , on the system tray. Then in the opened **PRISM Wireless Settings** dialog box, in which five tabs are contained, including **Status**, **Configuration**, **Encryption**, **Site Survey**, and **About**. Each of them proffers different functions to assist you in configuring the networking.

In this chapter, three topics are offered: [Tray Icon](#), [Right-Click Menu of the Tray Icon](#), and [The Configuration Tool Function](#). Please refer to the preferred topic to obtain more information and enjoy vast advantages **Wireless 11Mbps Configuration Tool** brings.

### 4.1 Tray Icon

As long as you finish installing **Wireless 11Mbps Configuration Tool** on your computer system, you will see the **Wireless 11Mbps Configuration Tool** icon, , shown at the right bottom corner of your screen. When you move the mouse cursor over it, the information on the current link quality is provided in the tips.

Furthermore, the color of the icon varies with the current state of your network connection. Check the list below to learn the definition of each color.

<i>Icon</i>	<i>Quality</i>
	Excellent Link Quality
	Data Frame Errors – Check WEP Settings
	Fair Link Quality
	Poor Link Quality or Not Linked
	Radio Off

**Note:** The blue icon indicates that you might have entered incorrect WEP keys. To solve the problems, choose the **Configuration** tab in the **PRISM Wireless Settings** dialog box to correct the keys for encryption.

### 4.2 Right -Click Menu of the Tray Icon

Right-clicking the **Wireless 11Mbps Configuration Tool** icon, , in the system tray will open a menu as the following picture:



Figure 4.2-1: Right-Click Menu of the Tray Icon

Check the descriptions below to obtain detailed information about each command in the menu.

### Wireless Radio On

Choose the **Wireless Radio On** command to receive the radio frequency signal.

### Wireless Radio Off

Choosing the **Wireless Radio Off** command will stop receiving the radio frequency signal.

### Remove Status Icon

If you do not wish to have the **Wireless 11Mbps Configuration Tool** icon displayed in the system tray, choose this command to open the **Remove Wireless Status Icon** dialog box, and then choose **Yes** to have the icon disappeared. The icon will reappear next time when you restart the computer. If you intend to remove it permanently, put a tick in the checkbox next to the **Remove Status Icon Permanently** option. To launch the utility hereafter, click **Start** on the taskbar, choose **Program** from the menu, and then point to **Wireless 11Mbps Configuration Tool** from the submenu of **11Mbps Wireless LAN**. Clicking **No** will undo the removal.



Figure 4.2-2: The **Remove Wireless Status Icon** Dialog Box

### Wireless Network Status

Choose this command to launch the **Status** tab of the **PRISM Wireless Settings** dialog box. For more details about the tab, please refer to **The Status Tab** in **The Utility Function** section below.

## Advanced Configuration

Choose this command to launch the **Configuration** tab of the **PRISM Wireless Settings** dialog box. Please refer to **The Configuration Tab** in **The Utility Function** section below to gain more information about the tab.

## WEP Encryption

Choose this command to launch the **Encryption** tab of the **PRISM Wireless Settings** dialog box. This tab offers you various options to maintain the secure management in a wireless LAN environment. See the explanations in **The Encryption Tab** of **The Utility Function** section below for more details.

## Version Information

Choosing this command will launch the **About** tab of the **PRISM Wireless Settings** dialog box. The **About** tab reveals general information on your 802.11b WLAN P3 PCMCIA Card, including the release version of driver and the **Wireless 11Mbps Configuration Tool** and the card's MAC Address.

### 4.3 The Configuration Tool Function

When you double-click the **Wireless 11Mbps Configuration Tool** tray icon, the **PRISM Wireless Settings** dialog box will be prompted as the picture shown below. The application is a window-based program, which is consisted of five tabs, including **Status**, **Configuration**, **Encryption**, **Site Survey**, and **About**.

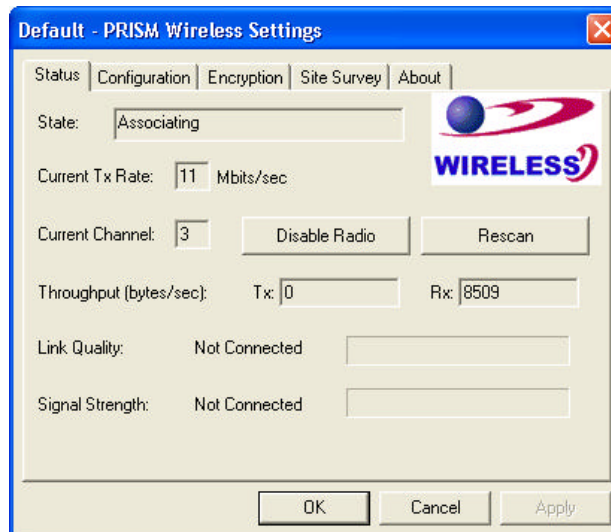


Figure 4.3-1: The **PRISM Wireless Settings** Dialog Box

Check the desired items below to obtain more details about these tabs.



## The Status Tab

In the **PRISM Wireless Settings** dialog box, click the **Status** tab, and you will see the following display. Here presents the status of your current connection. To close the window, click **OK**.

*Note: Choosing the **Wireless Network Status** command from the right-click menu of **Wireless 11Mbps Configuration Tool** tray icon will launch this tab too.*

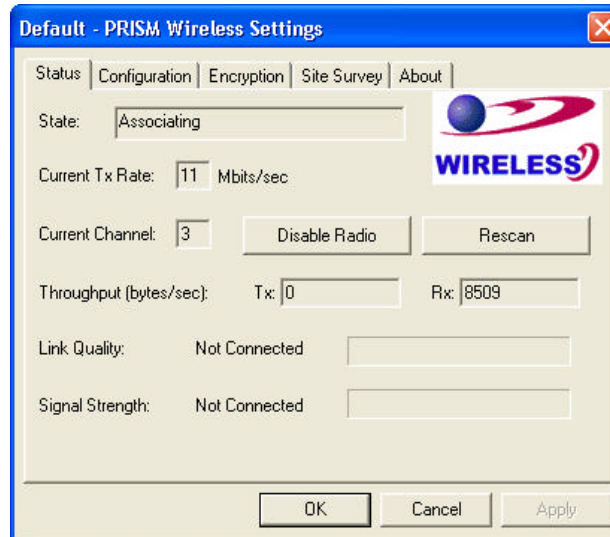


Figure 4.3-2: The **Status** Tab

*Note: The texts before **"PRISM Wireless Settings"** in the caption bar of the dialog box is the profile name of the current connection. Thus, the caption contexts vary according to the connectivity at the given time. From the above picture, the associated profile is named **"Default"**.*

From the window, the general information on the status of currently connected entry is presented. You may want to click the **Rescan** button to reinitiate the scanning process and update the status. Later the result of scanning will be renewed and displayed in the window. If you wish to stop the networking connection, click the **Disable Radio** button to stop scanning. However, if you are already in the disabled radio mode, you will find the **Enable Radio** button here instead. Click **Enable Radio** to regain the link then.

### State

Here displays the MAC Address of the current associated entry, which could be a connected access point in the Infrastructure mode or computers joining in the Ad-Hoc network.

### Current Tx Rate

This feature indicates the transmission rate of the current connection.

### Current Channel

Here reveals the current channel operated in the wireless network. Note that the channel number differs as the radio scans any available channels in the Infrastructure mode.



### Throughput (bytes/sec)

This feature indicates the rates of transmitting (**Tx**) and receiving (**Rx**) data package of your WLAN P3 PCMCIA Card within a short period of time; thus, the values vary on a time basis.

### Link Quality

**Link Quality** is based on the percentage of successfully transmitted or received signal of the associated access point beacon within a limited period. The higher the percentage, the better the link quality. The bar graph beside also provides a visual interpretation of the current link quality. It is noted that the **Link Quality** and **Signal Strength** features only apply to the Infrastructure mode. They are inapplicable in the Ad-Hoc mode since data will be transferred from many different computers.

### Signal Strength

You may learn the received signal strength of the baseband processor of the beacon signal from the **Signal Strength** bar beside, and it's also presented in terms of percentage. As the signal gets stronger, the signal percentage rate gets higher. It is noted that the **Signal Strength** and **Link Quality** features only apply to the Infrastructure mode. They are inapplicable in the Ad-Hoc mode since data will be transferred from many different computers.

## The Configuration Tab

Click this tab to edit different profiles for different network configurations. When finish changing the settings, please click **Apply** to perform the new configuration at last.

*Note: Choosing the **Advanced Configuration** command from the right-click menu of Wireless 11Mbps Configuration Tool tray icon will launch this tab too.*

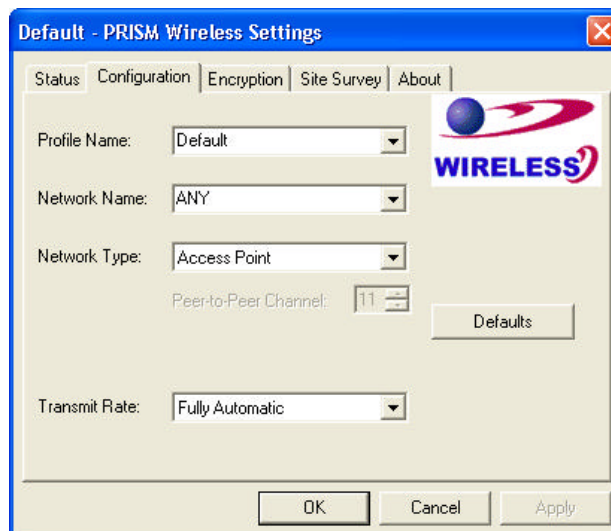


Figure 4.3-3: The **Configuration** Tab

## Profile Name

Enter texts in the **Profile Name** field to identify a new profile. After defining the configurations below, click the **Apply** button to establish the profile. To switch between any existing profiles, simply click the arrow button at the right of the **Profile Name** field to open the pull-down menu and then select the intended one from it.

*Note: You will have at least one profile named **ANY**, which allows a link with an Access Point or a Wireless LAN PC Card equipped computer at the given time. When you click the **Defaults** button under the tab, a profile of the current connection is created.*

## Network Name

**Network Name**, also known as SSID (Service Set Identifier), must be unique to distinguish itself as a particular wireless network, while all wireless points in this network area share the same SSID. Type the identical SSID in the **Network Name** field to associate with access points or stations within the specified wireless LAN. To change the **Network Name**, highlight the name in the box, edit a new SSID, and then click **Apply** to save the changes.

## Network Type

Two network types are offered here: **Access Point** and **Peer-to-Peer**. Choose the intended type from the two options. The **Access Point** mode, which is also known as the Infrastructure mode, allows you to communicate with a wired network via an access point. If you attempt to operate this mode, you must indicate the identical **Network Name** to make a communication with the intended access point. On the other hand, the **Peer-to-Peer** mode provides you with the so-called Ad-Hoc communication, which means each wireless-equipped computers within a group is able to connect with each other as an independent wireless LAN without the use of an access point. Each station within this Ad-Hoc network has to define the same **Network Name**.

## Peer-to-Peer Channel

This command is only available while you are operating the **Peer-to-Peer** mode, the so-called Ad-Hoc mode. Specify the operating radio frequency channel from the pull-down menu if you are the creator of the wireless network. If you are the joiner, just configure the SSID and click **Apply**. Note that the available channels differ from country to country, and the channel number must be the same between the entries/stations within the range, so that each can communicate with each other. While in the **Access Point** mode, the channel number would be the same as the associated access point. Thus, there's no need to manually set up the value.

## Transmit Rate

This command allows you to indicate the rate of transferring the data packet from the associated access point or any nodes within the range. There are four options for you: **Auto 1 or 2 Mb**, **5.5 Mb**, **11 Mb**, and **Fully Automatic**. Specify the rate from the provided options according to the speed of your wireless network, or you may simply choose **Fully Automatic** to set the best

available rate according to the received signal quality and the capabilities of the associated access point or station.

## The Encryption Tab

Click the **Encryption** tab to define the encryption settings for a specific profile. It offers you various options concerning the so-called WEP (Wired Equivalent Privacy) to maintain the secure management in a wireless LAN environment. See the explanations below for more details, and before making an activation of any new settings, click **Apply**. To leave the window, click **OK**. To undo the new settings, select the **Cancel** button.

*Note: Choosing the **WEP Encryption** command from the right-click menu of Wireless 11Mbps Configuration Tool tray icon will launch this tab too.*

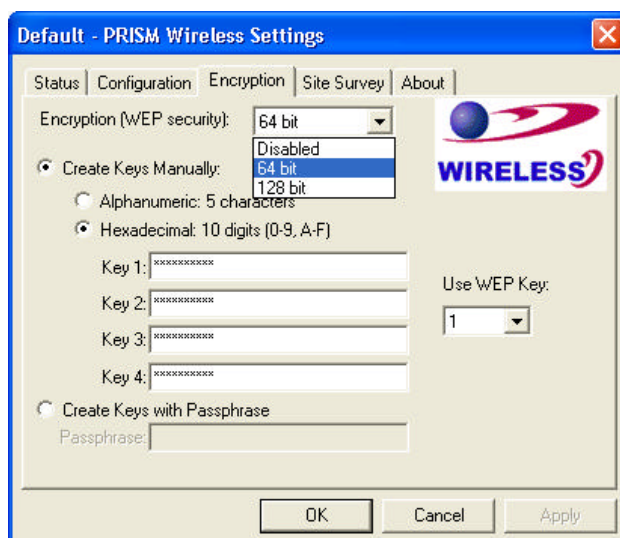


Figure 4.3-4: The **Encryption** Tab

*Note: The 802.11b Wireless LAN P3 PCMCIA Card has been built to support the WPA (Wi-Fi Protected Access) encryption standard.*

### Encryption (WEP security)

If you choose **Disabled** from the pull-down list, you will have the wireless LAN PCMCIA card communicated with all stations within the same networking community without any data encryption. Otherwise, two key lengths are offered: **64 bit** and **128 bit**. Specify a preferred one from the two, so that you may use the identical WEP key to make a communication with the chosen access point.

### Create Keys Manually

Once you set the **Encryption** type as **64 bit** or **128 bit**, you may choose to edit WEP keys manually or create them via the passphrase of your wireless network. If you choose the **Create Key Manually** option, you may directly enter up to 4 WEP keys for use in WEP encryption. To

generate the WEP keys, please define the key entry method as **Alphanumeric** or **Hexadecimal** (for hexadecimal characters, only digits 0-9 and letters A-F are valid). Then edit the texts in the blank fields below, from **Key 1** to **Key 4**, as the encryption codes. Note that these codes/keys shall be identical between the wireless nodes within the range and the access point only. Check the table below to find valid key length of each encryption type:

	64 bit	128 bit
<b>Alphanumeric</b>	5 characters	13 characters
<b>Hexadecimal</b>	10 digits	26 digits

### Use WEP Key

Indicate which WEP key you intend to apply to activate the WEP encryption from the pull-down menu. Make sure that the intended access point on the wireless network shares the same keys. By default, **Key 1** will be used.

### Create Keys with Passphrase

Choose this command when the associated wireless network uses a passphrase to create WEP keys. Enter the passphrase string in the **Passphrase** field to generate four encryption keys in the **Key** fields above. Note that only letters A-F are valid for the **Passphrase** feature.

After finish configuring the **Encryption** features, remember to click the **Apply** button to initiate the new settings.

### **The Site Survey Tab**

Choose this tab to learn the general information on the status of current scan lines, including BSSID, SSID, signal strength, the channel number, WEP type, and network type. You may want to select the **Rescan** button to reinitiate the scanning process and update the list. Later the result of scanning will be renewed and displayed afterwards.

In addition, if you double-click any of the displayed entries, you may directly make an association with it, and you will be led to the **Status** tab then.

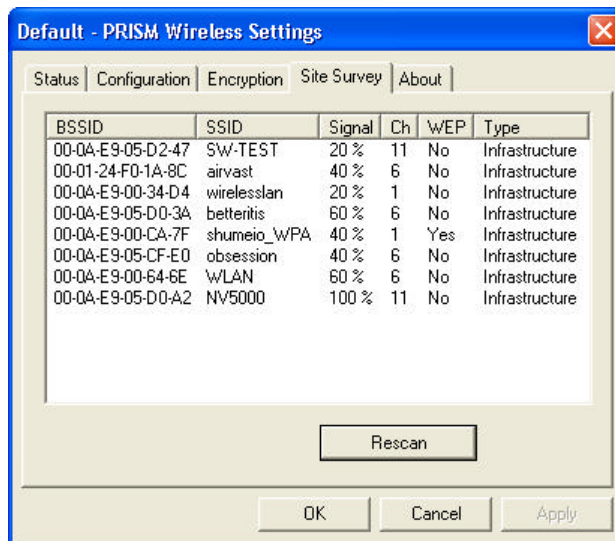


Figure 4.3-5: The **Site Survey** Tab

### The About Tab

This tab reveals general information on your 802.11b WLAN P3 PCMCIA Card, including the following items:

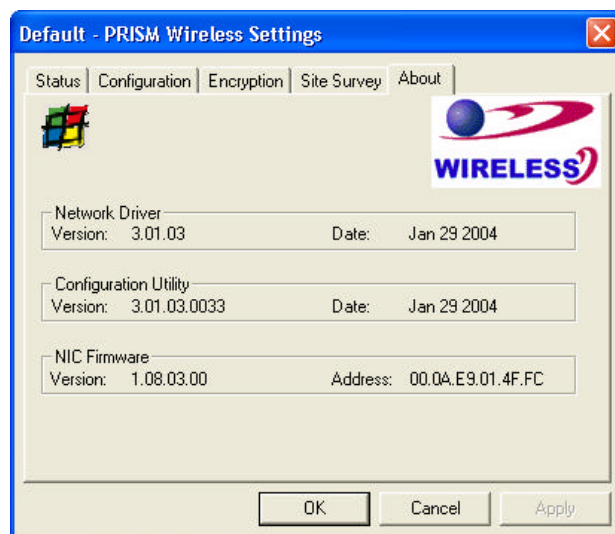


Figure 4.3-6: The **About** Tab

#### **Network Driver**

Displays the current version and released date of the 802.11b WLAN P3 PCMCIA Card's driver.

#### **Configuration Utility**

Displays the current version and released date of the **PRISM Configuration Utility** application.

## **NIC Firmware**

Displays the current NIC card firmware version and the MAC (Media Access Control) address of your wireless card. It is consisted of 12-digit hexadecimal numbers (48 bits in length) to identify your computer's physical address on the local area network.

## TROUBLESHOOTING

This section provides solutions to problems that you might encounter during the installation and operation of your 802.11b WLAN P3 PCMCIA Card. Please refer to the desired topics below and read the descriptions to solve your problems.

### Disable the 802.11b Wireless LAN P3 PCMCIA Card

Supposed you do not need the 802.11b WLAN P3 PCMCIA Card to establish the wireless connectivity for any reason, you can directly unplug and remove your 802.11b Wireless LAN P3 PCMCIA Card from the PCMCIA slot on your computer, or click **Disable Radio** on the **Status** tab of the **PRISM Wireless Settings** dialog box. Once the device is removed, the connection to the network stops. Thus, be sure that you have closed all the network applications before processing the removal.

### Uninstall 802.11b Wireless LAN P3 PCMCIA Card

Prior to starting uninstalling, please make sure that the utility is closed, and then go along with the procedures below to entirely uninstall **Wireless 11Mbps Configuration Tool** and the card's driver.

1. Click **Start** on the taskbar and then select **Programs**.
2. From the **Programs** menu, find **11Mbps Wireless LAN**, and then choose **Wireless LAN 11Mbps Uninstall** from the submenu.

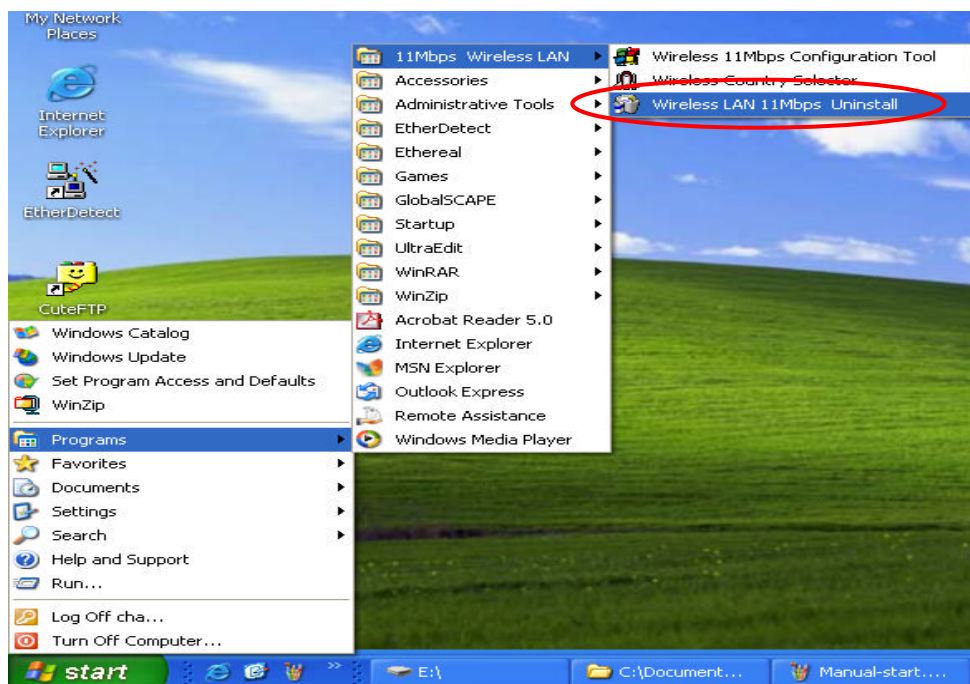


Figure 5-1: The Path of **Wireless LAN 11Mbps Uninstall**

3. Choose **Remove** in the **Welcome** window and click **Next** to proceed.

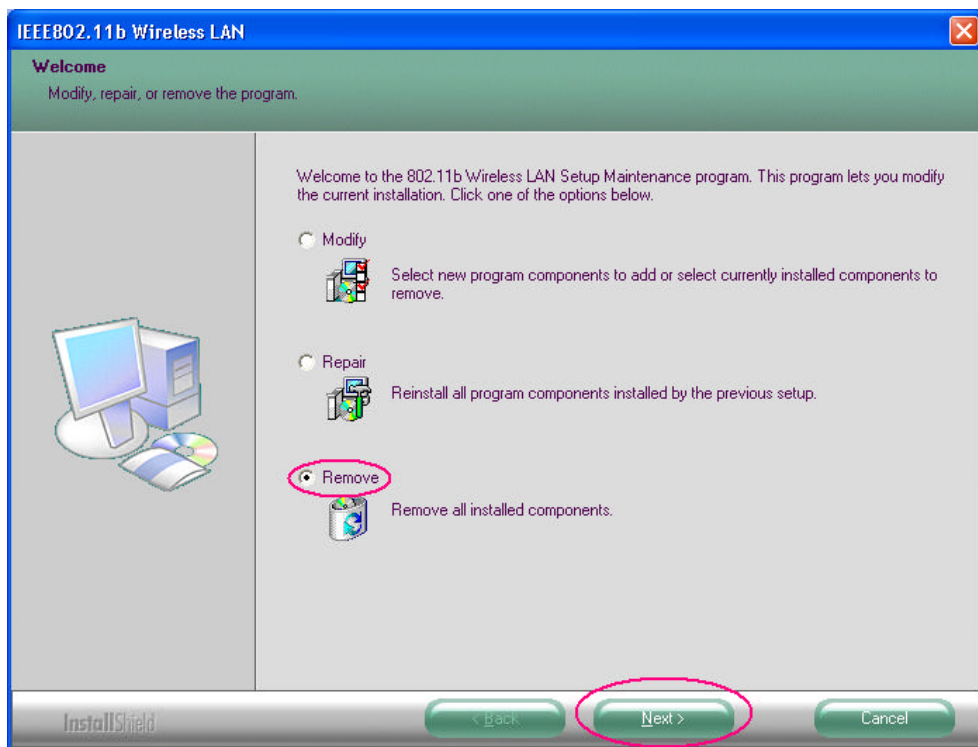


Figure 5-2: The **Welcome** Window

4. Click **Yes** to confirm the removal.

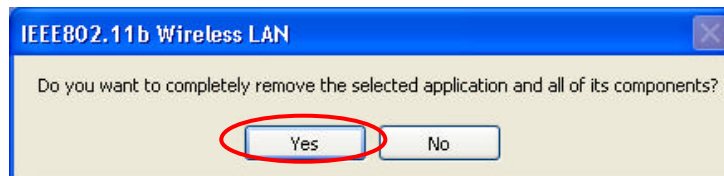


Figure 5-3: The Removal Warning Message Box

5. In the **Maintenance Complete** screen, click **Finish** to complete the task.



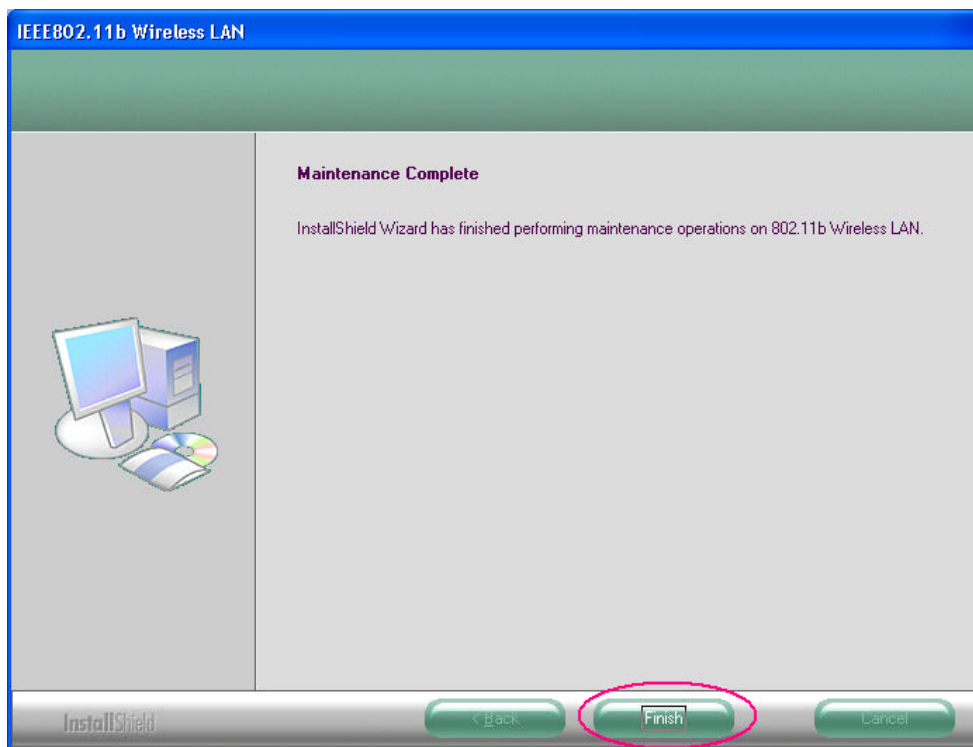


Figure 5-4: The **Maintenance Complete** screen

## The 802.11b WLAN P3 PCMCIA Card Does Not Work Properly

If this happens, follow the guidelines below.

- Unplug and replug the 802.11b WLAN P3 PCMCIA Card into your PC's PCMCIA slot.
- Right-click the **My Computer** desktop icon and choose **Properties** to open the **System Properties** dialog box. If you are under Windows 98/Me, choose the **Device Manager** tab, or if your system is Windows 2000/XP, click the **Hardware** tab, and then choose the **Device Manager** button. In the opened window, find your PCMCIA Card to see if the installation is successful. If you see a yellow exclamation mark beside the item, please go along with the steps below to reinstall the drivers:
  1. Uninstall the software and hardware drivers from your PC. (Please refer to the previous topic for details)
  2. Restart your computer and repeat the installation procedures as indicated in [Chapter 2: Installation](#).
  3. When finished, open the **Device Manager** window again to verify if the installation is approved. The yellow exclamation mark shall be disappeared this time.

## APPENDIX A: SPECIFICATIONS

<b>Product Name</b>	<b>802.11b WLAN P3 Detachable Antenna PCMCIA Card</b>
<b>Host Interface</b>	PCMCIA PC Card PRISM 3.0
<b>Dimensions</b>	111.3 x 54 x 5 mm
<b>Weight</b>	36g
<b>Frequency Band</b>	2.400 ~ 2.4835GHz (subject to local regulations)
<b>Number of Channel</b>	11 channels (US, Canada); 13 channels (ETSI); 4 channels (France); 14 channels (Japan)
<b>Operating Voltage</b>	3.3V $\pm$ 5%
<b>Current Consumption</b>	Normal Model: Typ. 260mA, Max. 350mA High Power Model: Typ. 280mA, Max. 350mA
<b>Spreading</b>	DSSS (Direct Sequence Spread Spectrum)
<b>Data Rate</b>	11Mbps, 5.5Mbps, 2Mbps, 1Mbps
<b>Transmit Power</b>	Normal Model: 18 $\pm$ 1 dBm @ Nominal Temp Range
<b>Receive Sensitivity</b>	Nominal Temp Range: 11 Mbps @ -84 dBm, Typical
<b>Modulation</b>	11Mbps and 5.5Mbps CCK; 2Mbps: DQPSK; 1Mbps: DBPSK;
<b>Security</b>	64 bit WEP Encryption (Optional: 128 bit)
<b>Antenna</b>	Support External Antenna (MMCX Conn. is optional)
<b>Supplied Driver</b>	Windows 95/98/98SE/2K/ME/NT4.0/XP, Linux.
<b>Standards</b>	IEEE 802.11b, Wi-Fi compliant
<b>Media Access Protocol</b>	CSMA/CA with ACK
<b>Warranty</b>	1 year
<b>Temperature Range</b>	0~55°C (Operating), -20~70°C (Storage)
<b>Humidity</b>	Max. 95% Non-condensing
<b>Operating Range</b>	Open Space: 100 – 300m; Indoor: 30m – 100m The transmission speed varies in the surrounding environment.
<b>Roaming</b>	Full mobility and seamless roaming from cell to cell and across access points
<b>Network Protocol</b>	TCP/IP, IPX, NetBEUI
<b>Management Utility</b>	Link Configuration for network join and diagnostics
<b>EMC Certification</b>	FCC、CE
<b>Packaging</b>	Customer Define
<b>CIS</b>	Customer Define