11Mbps High Speed Wireless PC Card

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Technical Support

The firmware version of this wireless PC Card is displayed on the utility main window. Users could download and upgrade the most recent software version from the supplier's web site or refer to the selling contact for the latest software information. If you have difficulty resolving the problem while installing or using the Access Point, please contact the supplier for support.

About This Manual

11Mbps Wireless PC Card User's Manual is first published on May, 2000. This revision is for 11Mbps PC Card Version 3.0.0, issued on June, 2001. The manual includes procedures for the setup of the 11Mbps Wireless LAN PCMCIA Adapter under Windows 98, Windows ME, Windows NT or Windows 2000. Take a moment to read through this manual and familiarize yourself with wireless technology

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Chapter 1 About 11Mbps Wireless PC Card

The 11Mbps IEEE 802.11b PC Card is a standard PCMCIA adapter that fits into any standard PCMCIA Type II slot in a notebook computer. Its 11Mbps data rate gives equivalent Ethernet speed to access corporate network or the Internet in a wireless environment. In addition, a detachable antenna version is specifically designed for system integrator application. When installed, 11Mbps Wireless PC Card is able to communicate with any 802.11 and 802.11b compliant products.

1-1 Features and Benefits

1. Supports 1, 2, 5.5 and 11 Mbps data rate.
2. Working range up to 800 ft. in an open environment.
3. Seamless connectivity to wired Ethernet and PC network LAN's augments existing networks quickly and easily.
4. Direct Sequence Spread Spectrum (DSSS) technology provides robust, interference-resistant and secure wireless connection.
5. Wireless connection without the cost of cabling.
6. Supports a wide range of LAN NOS (Win95/98/ME, NT, Win2000, NetWare client, DOS, Linux).
7. Support high security WEP encryption (40-bit and 128-bit).
8. Supports Plug and Play.
9. Easy installation.
10. Greater flexibility to locate or move networked PCs.

1-2 Applications

11Mbps Wireless PC Card offers a fast, reliable, cost-effective solution for wireless client access to the network in applications like these:

1. **Remote access to corporate network information**
   E-mail, file transfer and terminal emulation.
2. **Difficult-to-wire environments**
   Historical or old buildings, asbestos installations, and open area where wiring is difficult to deploy.
3. **Frequently changing environments**
   Retailers, manufacturers and those who frequently rearrange the workplace and change location.
4. **Temporary LANs for special projects or peak time**
   C1- Trade shows, exhibitions and construction sites where a temporary network will be practical. C2- Retailers, airline and shipping companies need additional workstations during peak period. C3- Auditors requiring workgroups at customer sites.
5. **Access to database for mobile workers**
   Doctors, nurses, retailers, accessing their database while being mobile in the hospital, retail store or office campus.
6. **SOHO (Small Office and Home Office) users**
   SOHO users need easy and quick installation of a small computer network.
7. **High security connection**

   The secure wireless network can be installed quickly and provide flexibility. (Please refer to page 22 for encryption configuration.)

1-3 Product Kit

11Mbps Wireless PC Card comes with the following items. Please go through each item below. If any listed item is not included or found damaged, please contact your local dealer.

11Mbps Wireless PC Card

- 11Mbps Wireless LAN PC Card…….…….…..…. x1

- 11Mbps PC Card Software and Documentation CD or Floppy Diskette……..... x 1
- 11Mbps Wireless LAN PC Card User Manual……..……..… x 1

Chapter 2 Hardware Installation

This chapter describes the instructions that guide you through the proper hardware installation of your 11Mbps Wireless PC Card.

2-1 System Requirements

In order to use the 11Mbps Wireless PC Card, your computer must be equipped with the following:

1. A PCMCIA Type II slot, and a PCMCIA card and socket services compliant with revision 2.10 of the PCMCIA specification (or higher).
2. Windows 95/98/ME/NT/2000 (with a Windows installation CD-ROM, diskettes for use during installation)
3. Minimum 500 Kbytes free disk space for installing driver and utility program.

2-2 Hardware Installation for 11Mbps Wireless PC Card

To install the 11Mbps Wireless PC card, please do the following:

1. Find an available Type II or Type III PCMCIA slot in your notebook computer.
2. With the PCMCIA adapter's 68-pin connector facing the PCMCIA slot and its label facing up, slide the PCMCIA adapter completely into the PCMCIA slot.

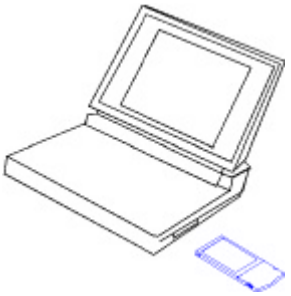


Fig Insert the 11Mbps PC Card into the notebook.

NOTE: The PCMCIA slot allows "hot swap" of PCMCIA adapter. You may therefore insert or remove your 11Mbps Wireless PC Card from the slot whenever you like even when the power of your computer is on. However, you are advised to always disable the PC card prior to removing the card from the PC card slot. This will allow the Windows operating systems to log off from the network server. Disable the driver properly and disconnect the power to the PC card slot.

Chapter 3 Software Installation

This chapter describes the installation of the 11Mbps Wireless PC Card driver for the Windows 95/98/ME, Windows NT 3.51/4.0 and Windows 2000 operating systems. The installation procedures for Windows 95/98/ME refer to ***3-1 Set up 11Mbps Wireless PC Card for Windows 95/98/ME***; for Windows NT4.0 please see ***3-2 Set up 11Mbps Wireless PC Card for Windows NT 3.51/4.0;*** for Windows 2000 please see ***3-3 Set up 11Mbps Wireless PC Card for Windows 2000.***

3-1 Set up 11Mbps Wireless PC Card for Windows 95 / 98/ ME

1. Insert the 11Mbps Wireless PC Card into a standard type II PCMCIA slot in your notebook.
2. Windows 95/98/ME will automatically detect the new hardware and prompt you to install the driver needed.

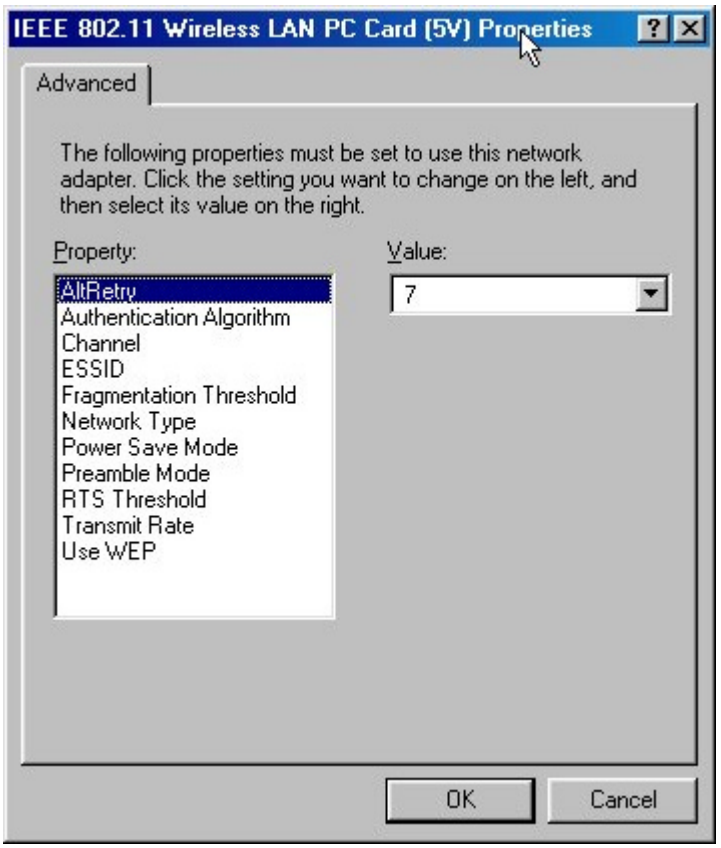
3. Select "**Search for the best driver for your device**" and click **Next**.

4.

Select the location where the corresponding driver is placed (either from "**Floppy disk devices**" or "**Select a location**"), then click **Next**.

5. Windows 95/98/ME will find "IEEE 802.11 Wireless LAN PC Card". Now click **Next**.

6. Set parameters for the 11Mbps Wireless PC Card. Please refer to Chapter 4-2 for the definition of each parameter.



AltRetry: This parameter defines the number of times a packet will be resent if the initial transmission is unsuccessful. The maximum number of retry is 7.

Authentication Algorithm: The 11Mbps Wireless PC Card provides two types of authentication services: **WECA Compliant (always use)** and **Must be Shared with WEP**. The default value is **WECA Compliant (always use)**.

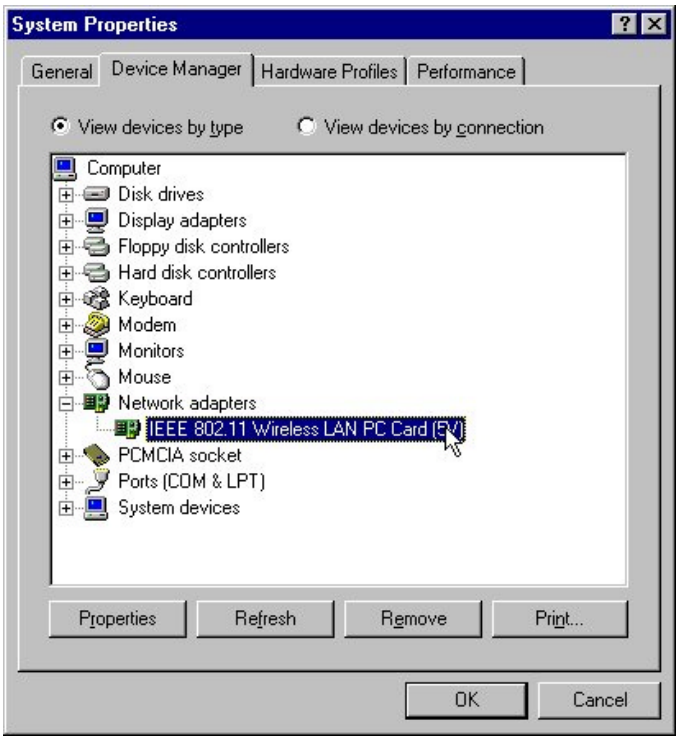
Preamble Mode: The Wireless LAN PCMCIA Card supports three preamble modes: Long Tx Preamble, Short Tx Preamble, and Auto. Long Tx headers ensure compatibility with older models of client adapters. Short Tx headers improve throughput performance. The default value is Long Tx Preamble.

For other parameters' definition and further configuration please go to *Chapter 4-2 Using the WLA Utility* on page 18.

7. Click **Finish** to complete the software installation.

8. Restart the computer.

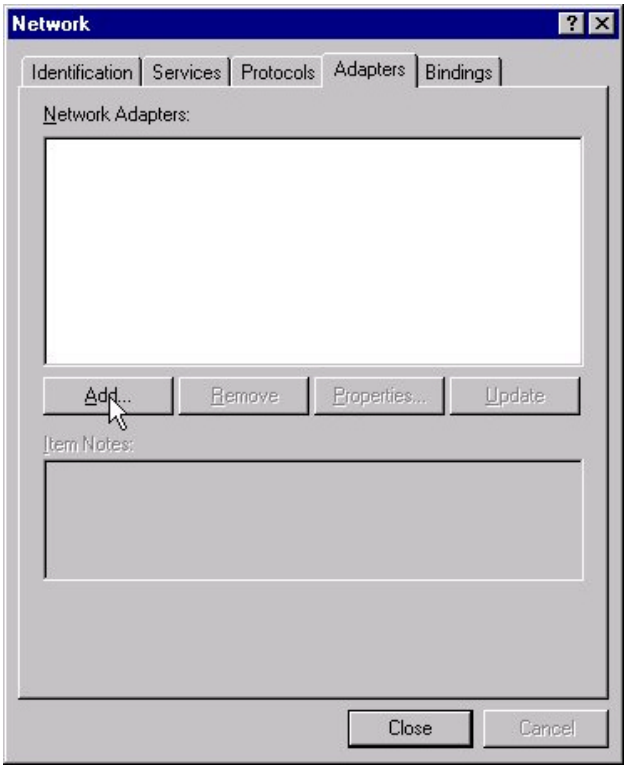
9. Open Control Panel/System/Device Manager, and check Network Adapters to see if any error icon appears. If no, your 11Mbps Wireless PC Card is working well.



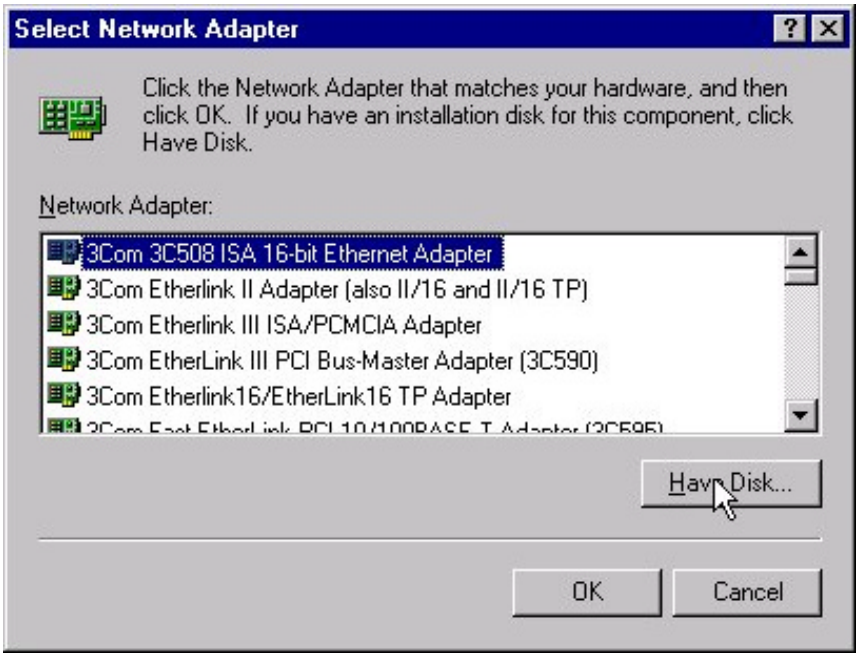
3-2 Setup 11Mbps Wireless PC Card for Windows NT 4.0

1. Login as Administrator.

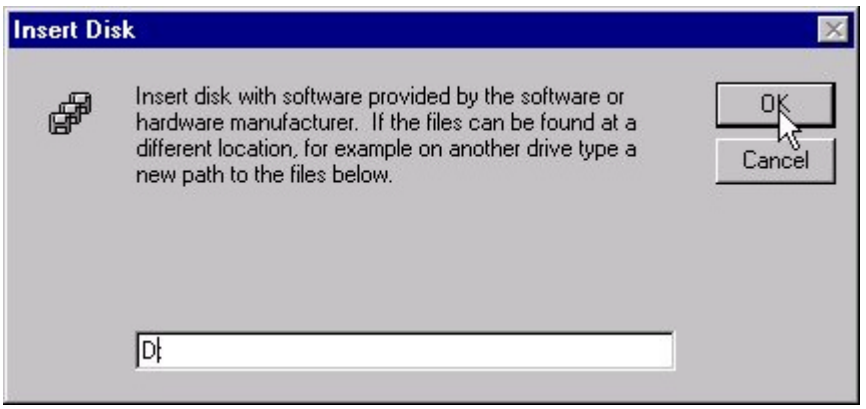
2. From the desktop, select **Control Panel**, double-click **Network**, go to the **Adapters** tab, and then click the **Add** button.



3. Windows NT will present a list of all its supported adapters. Select **OTHERS**, or click **Have Disk** to continue.



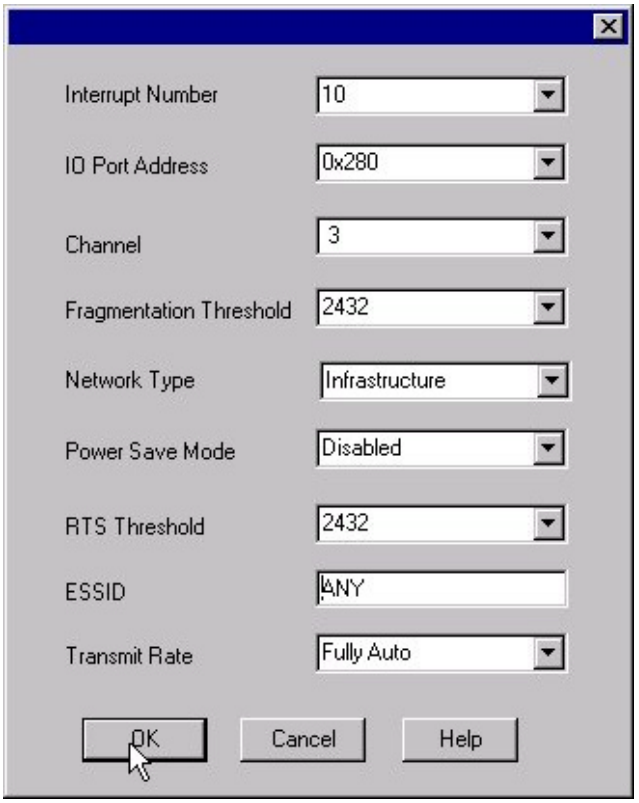
4. Windows NT will ask for the drive/path containing the 11Mbps Wireless PC Card Windows NT drivers. Insert the 11Mbsp PC Card Driver and Utility CD-ROM or diskette into the corresponding drive, and then type the location where it is placed.



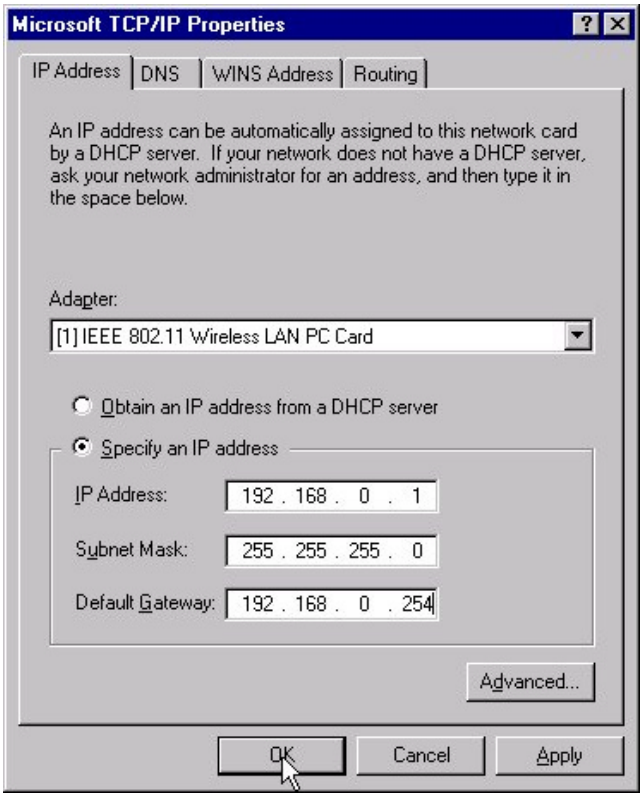
5. Windows NT will attempt to locate an INF file in the specified path. If you have entered the path name correctly, Windows NT should copy the appropriate drivers to the Windows NT system.

Fig. Choose device model.

6. A 11Mbps Wireless PC Card setup dialog box will show up. Please select the "**Default Channel**"、"**Network Type**" and "**SSID**" manually according to the setting in the following fig. Your 11Mbps Wireless PC Card will thereafter work on this configuration under Windows NT. Press **OK** to continue.

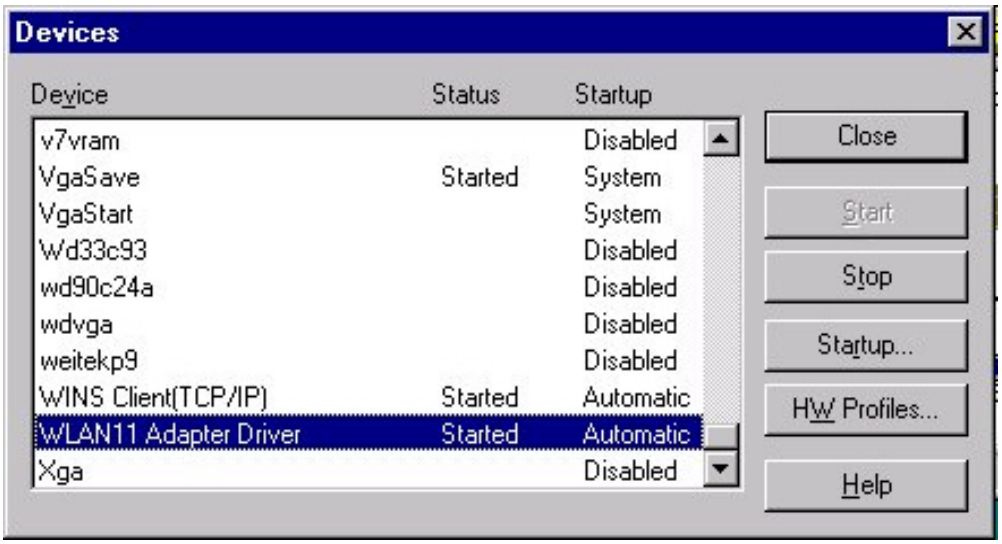


7. Now, the drivers have been properly copied. Go to **Control Panel**, double-click **Network**, go to the **Adapters** tab, and then click the **Properties** button. Please specify each parameter required the network to work on, such as IP Address, Subnet Mask, and Default Gateway.



8. Click **OK** to finish the installation. Restart the Windows.

9. To ensure whether the 11Mbps Wireless PC Card works fine or not, go to **Control Panel**, double-click **Devices**, then verify whether the 11Mbps PC Card driver has started.

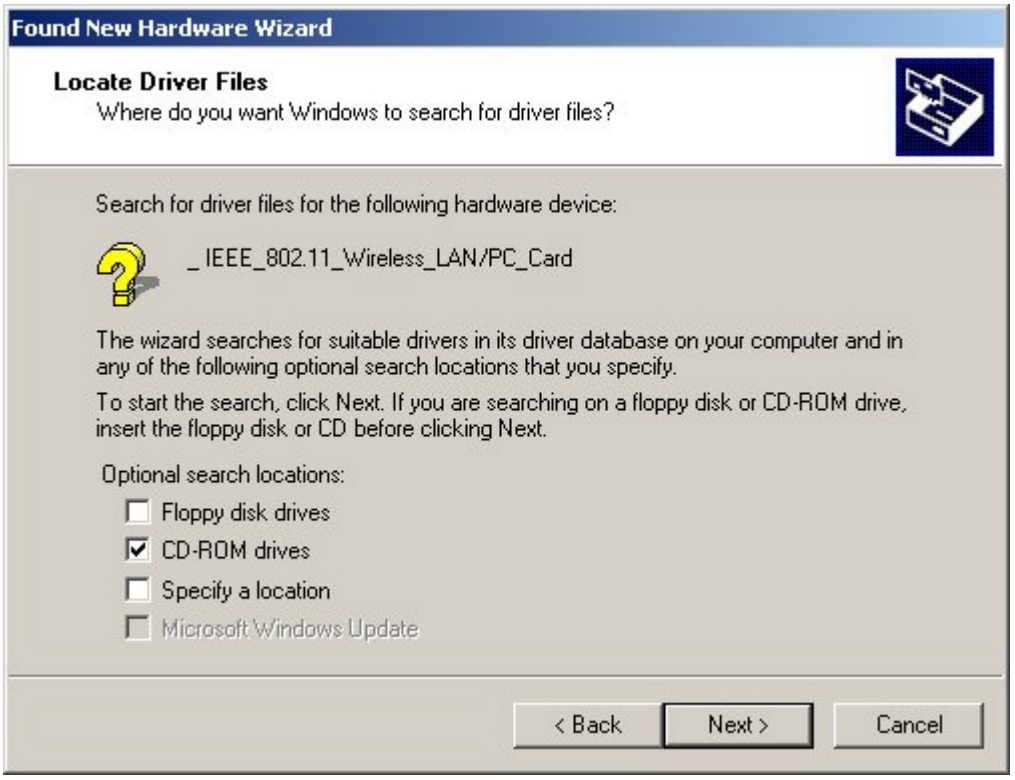


3-3 Setup 11Mbps Wireless PC Card for Windows 2000

1. Insert the 11Mbps Wireless PC Card into a standard type II PCMCIA slot in your notebook.
2. Windows 2000 will automatically detect the new hardware and prompt you to install the driver needed.

3. Select "**Search for a suitable driver for my device [recommended]**" and click **Next**.
5.

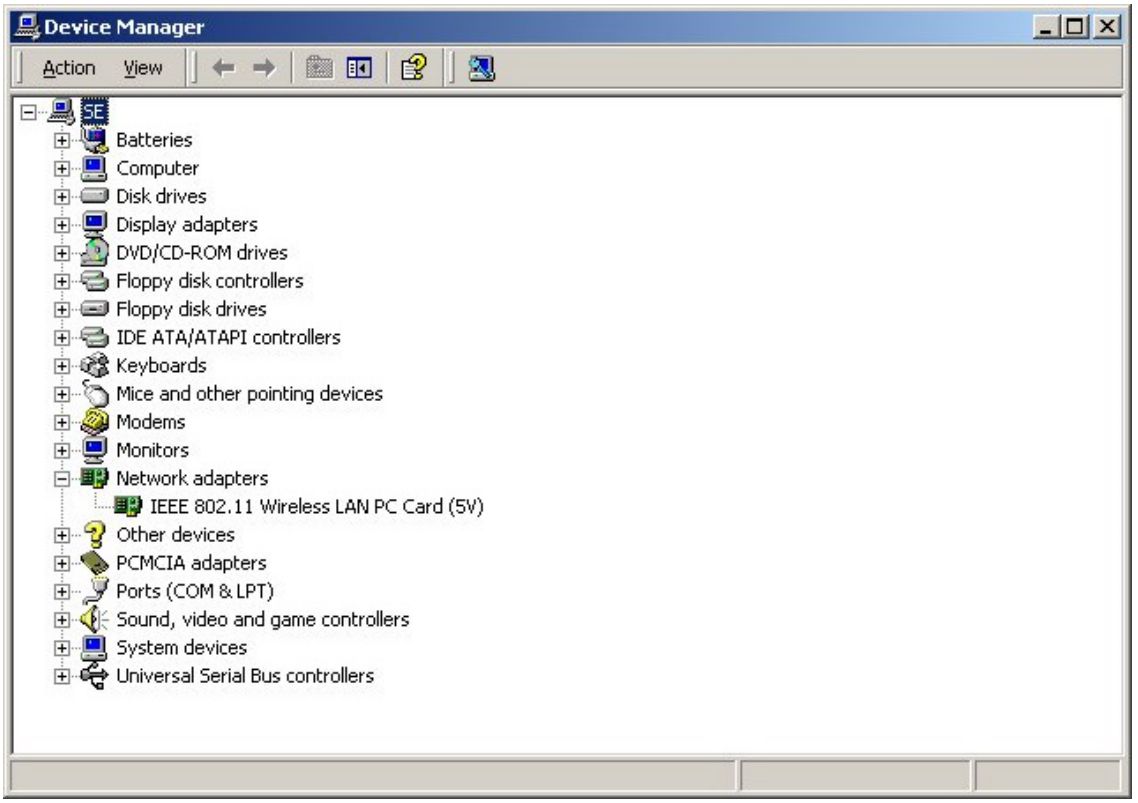
Select the location where the corresponding driver is placed, then click **Next**.



5. Windows 2000 will find “IEEE 802.11 Wireless LAN PC Card”. Now click **Next**.

7. Click **Finish** to complete the software installation.

8. Open Control Panel/System/Device Manager, and check Network Adapters to see if any error icon appears. If no, your 11Mbps Wireless PC Card is working well.

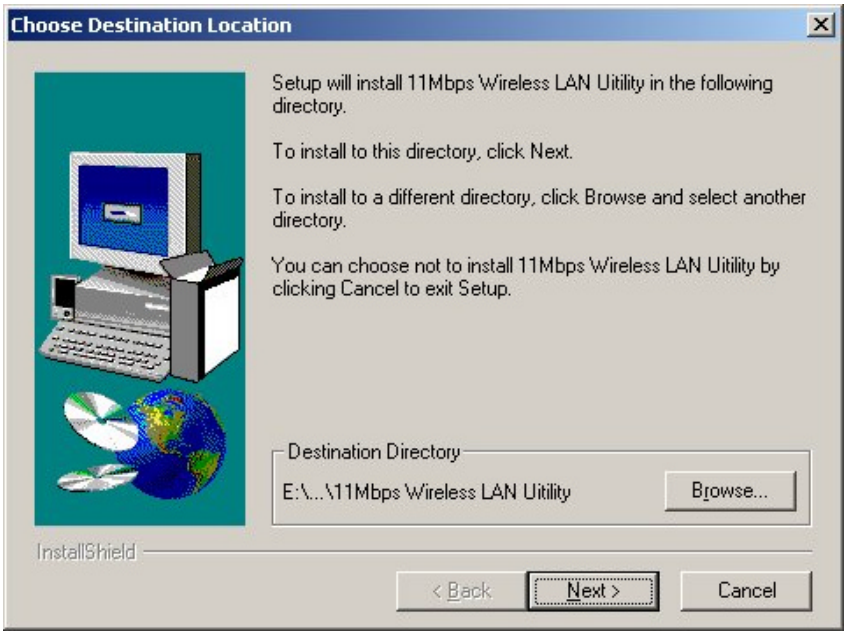


Chapter 4 Parameter Configuration

This chapter gives you assistance with detailed installation procedures of the WLU utility for setting the 11Mbps Wireless PC Card.

4-1 Installation of "WLU" utility

1. Insert the 11Mbps Wireless PC Card Software and Documentation CD or floppy diskette into the corresponding drive, and execute the **WLU\setup.exe.** Then Follow the on-screen instructions guiding you through the process of installation.

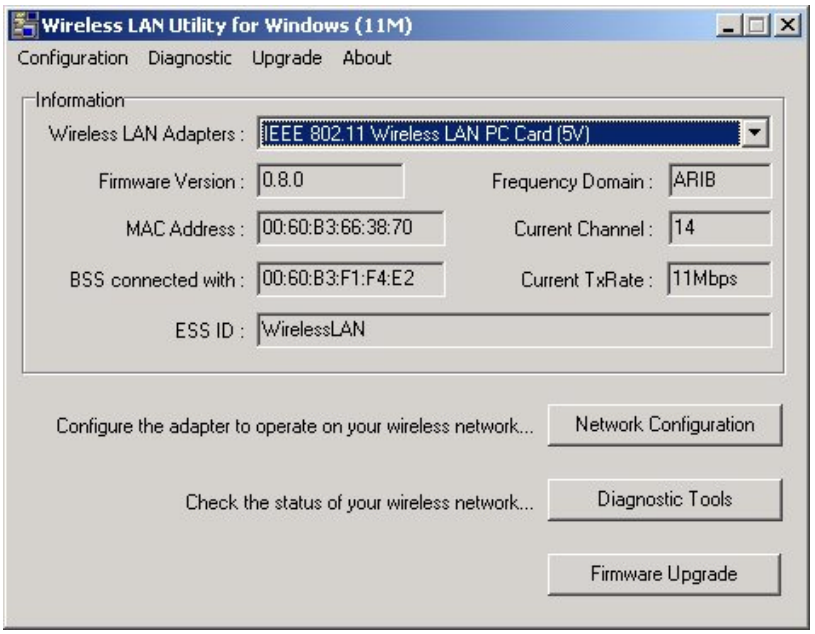


2. Click **Finish** to complete the installation. Proceed to the next section – **Using the WLA Utility** to configure your 11Mbps Wireless LAN PC Card.

4-2 Using the WLA Utility

The 11Mbps Wireless LAN PC Card is a ready-to-use device. Its default settings can set for the typical **Infrastructure Wireless LAN**. Simply install the PC Card onto your computer and it is ready to use. In special situations however, you may change to adjust configuration settings depending on how you would like to manage your wireless network. The WLA utility enables you to make configuration changes and perform user-level diagnostics on your 11Mbps Wireless PC Card in the Windows 95/98/ME/NT/2000 operating system environments. When you minimize the window, a system tray icon will be loaded in the toolbar. Clicking on the icon will open the configuration window again.

1. Click **Start**, point to **Programs** and run **WLA Utility**.
2. Main Menu appears.



A: Main Menu

When Main Menu shows up, the 11Mbps Wireless PC Card hardware information will display on the top of the screen in real time. You will see current adapter configuration information in terms of the MAC address, firmware version, frequency domain, BSS joined, current channel and ESS ID of the adapter that you installed in your desktop or notebook computers.

At the bottom of the Main Menu screen, it shows all main functions of the WLA utility:

- ☐ **[Network Configuration]** – Allows you to change the configuration parameters of your currently installed 11Mbps Wireless PC Card for your wireless network environment.
- ☐ **[Diagnostic Tools]** – The **Site Survey**, **Link Quality Test** and **Access Points Browser** help you assess the wireless network environment and performance of the RF links.
- ☐ **[Firmware Upgrade]** – Allows you to upgrade firmware of the Wireless PC Card.