



AirCard® 555 Wireless Network Card

User Guide



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Because of the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (i.e., have errors) or be totally lost. Although significant delays or losses of data are rare when wireless devices such as the Sierra Wireless modem are used in a normal manner with a well-constructed network, the Sierra Wireless modem should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. Sierra Wireless, Inc. accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the Sierra Wireless modem, or for failure of the Sierra Wireless modem to transmit or receive such data.

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Your comments and suggestions on improving this documentation are welcome and appreciated. Please e-mail your feedback to documentation@sierrawireless.com. Thank you.

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>> 1: Introducing the AirCard 555 Network Card

- A Network Card, a Modem, and a Phone
- Package Contents
- About this Guide

Note: Do not insert the AirCard 555 wireless network card into a PC card slot before installing the software.

The AirCard 555 wireless network card fits into a standard Type II PC card slot (available on most notebook PCs) and functions as a wireless network card, a modem, and a mobile phone. This card allows you to connect to the Internet, send and receive e-mail, connect to a corporate network, and make phone calls, without the need of a network cable or phone line.

The AirCard 555 functions in notebook PCs with these Windows® operating systems: 95, 98, NT, 2000, and Me.

The AirCard 555 operates over a type of wireless network called CDMA (Code Division Multiple Access). This network technology has many features beyond providing a wireless link, including:

- **SMS (Short Messaging Service)**, which allows others to send messages to your AirCard
- **QNC (Quick Net Connect)**, which provides a direct Internet connection

Use of the AirCard 555 requires that you have an account that gives you access to a CDMA network.

Every CDMA network operates on one of three radio frequency bands. As a dual band product, the AirCard 555 operates on two of these bands, providing a wide coverage area.

The AirCard operates on the original CDMA network (IS 95A) that provides data transmission speeds of up to 14.4 kbps (kilobits per second). The Venturi compression software included on your CD can increase this speed to a maximum of 56 kbps. The AirCard also runs on the newer 1xRTT network technology that provides data transmission speeds up to 144 kbps. The AirCard 555 provides all the advantages of 1xRTT where it is available while allowing you to use the older CDMA IS 95A standard where 1xRTT has not yet been implemented. The benefits to you are that you can use the AirCard in any area that has coverage (assuming there are no account restrictions) and you will be able to take advantage of the fastest possible data transmission speed.

Note: More information about CDMA networks is available on the CDMA Development Group web site, www.cdg.org.

A Network Card, a Modem, and a Phone

Where 1xRTT is available, the AirCard 555 is a true network card that works just like the network cards familiar to most corporate computer users. Once installed and configured, the AirCard connects instantly to the CDMA network with a few mouse clicks. You can just insert the AirCard 555, click a few buttons, launch your Internet browser, and you're ready to web surf.

As a modem, the AirCard 555 allows you to dial up any other modem or receive faxes. You can also connect a headset to the AirCard 555 and use it as a phone.

Package Contents

Your AirCard 555 package contains the following components:

- AirCard 555 wireless network card
- Antenna
- CD containing the AirCard software, this user guide, and the Venturi software user guide
- Quick reference card

If you want to use the AirCard as a phone, a headset is necessary. Any standard headset with a 2.5 mm jack should work.

About This Guide

This user guide is designed to provide you with all the information you need to install and use your network card.

- Section 1 (which you are reading) gives you an overview of the AirCard 555, providing the background information that is the basis for understanding the following sections.
- Section 2 provides step-by-step instructions on installing, configuring, and using the AirCard 555 on notebook PCs.
- Section 3 provides electrical, radio frequency, and other parameters of the AirCard 555 for those who require technical information.
- Section 4 provides regulatory information.

There is a separate user guide on the AirCard CD for the Venturi compression software.

>> 2: Getting Started

- The AirCard 555 Software
- Account Activation and Configuration
- Care and Maintenance

Note: You must run Watcher anytime you use the AirCard 555.

Before you can begin using the AirCard 555 wireless network card, you must:

1. Install the AirCard 555 software.
2. Activate an account and configure the AirCard to use your account, unless the AirCard has been pre-activated.

This section provides an overview of this process.

The AirCard 555 Software

The AirCard comes with this software:

- An application called Watcher that you use to manage the AirCard and monitor your connections
- An application called the Network Adapter Manager that allows you to switch between the AirCard 555 and other network cards
- Venturi compression software that speeds up your data transmission rate (in network areas where it is supported)
- The driver software that forms the interface between the network card and your Windows operating system

Detailed installation instructions are provided in the next chapter. You can avoid problems by installing the application software prior to inserting the AirCard, using the instructions in Chapter 3.

Account Activation and Configuration

Companies that operate CDMA networks and provide access to these networks are called service providers. You must have an account with a CDMA service provider to use the AirCard 555. The process of setting up an account is called activation.

Note: Most service providers have coverage maps on their web sites.

Note: The fee for service is usually higher when you are roaming (connecting to a network other than the one belonging to your service provider).

If you purchased the AirCard from a service provider, you may already have an account. (That is, your network card is pre-activated.) Otherwise, you can refer to the Sierra Wireless web site, www.sierrawireless.com, for a list of service providers.

When selecting a service provider, it is important to consider the following:

- **Coverage**

There are CDMA networks, that operate in the frequency bands supported by the AirCard 555, throughout North America and parts of Latin America, Asia, New Zealand and Australia. However, each service provider operates a network that covers a limited geographical area within the overall CDMA coverage area. Most service providers have “roaming” agreements with other service providers, so that they can offer service outside of the coverage area of their own networks. For example, assuming you live in Vancouver and travel frequently to Seattle, you can obtain an account with a Vancouver service provider that has a roaming agreement with a service provider in Seattle. You would then have local service in Vancouver, and roaming service in Seattle. (Most service providers charge more for roaming service than local service.)

Select a service provider that gives you network coverage in all areas you intend to use the AirCard 555.

- **Pricing**

Each service provider has its own pricing options. There are flat rate accounts which provide you a maximum number of minutes of network usage for a fixed monthly fee. There are accounts for which you are charged for network usage by the minute or by the amount of data transmitted. You may want to shop around to find the best value.

Your service provider will activate your account. To do so your service provider requires from you:

- The billing information used to collect payment for your network usage
- The ESN (electronic serial number) assigned to your modem during the manufacturing process. (This number is printed on a label on the AirCard and can be displayed in Watcher.)

You require from your service provider:

- A phone number for your AirCard
- An activation code that gives you access to the window in which the phone number is entered

- An SID (System Identifier) that identifies your home network area and is used in conjunction with your phone number to identify your account when you connect to the CDMA network.

Unless your AirCard has been pre-activated, Watcher will automatically detect that no account has been configured when you run it for the first time. Watcher will then auto-launch the Activation Wizard to guide you through the activation and configuration process.

Care and Maintenance of Your AirCard 555 Wireless Network Card

As with any electronic device, the AirCard must be handled with care to ensure reliable operation. Follow these guidelines in using and storing the AirCard:

- Do not apply adhesive labels to the AirCard. This may cause the AirCard to become jammed inside the card slot.
- Optimal signal strength is usually obtained when the antenna is perpendicular to the modem. The antenna should bend easily at the hinge. Do not forcefully bend the antenna.
- When storing or transporting your PC in a case (such as a notebook case), remove the AirCard antenna and store it in a compartment where it cannot be crushed or broken.
- The AirCard should fit easily into your PC slot. Forcing the AirCard into a slot may damage connector pins.
- Protect the card from liquids, dust, and excessive heat.
- When not installed in your computer, store the AirCard in a safe place.

3: Installation on Notebook PCs

- System Requirements
- Software Installation Procedures
- Driver Installation Procedures
- Card Insertion & Removal
- Account Configuration Procedures

Note: Most problems in using the AirCard can be avoided by installing the software prior to inserting the AirCard, and by following the detailed software and driver installation instructions in this chapter.

This chapter guides you through the steps necessary to making the AirCard operational on a notebook PC. The basic steps are:

1. Insert the AirCard CD into your CD-ROM drive and install Watcher, the Network Adapter Manager, and the Venturi compression software.
2. Insert the AirCard into the PC card slot and install the AirCard driver from the CD.
3. If the AirCard has not been pre-activated, use the Activation Wizard to configure the AirCard.

Before you begin the installation process, ensure your PC is running a supported operating system and meets the hardware requirements described below.

System Requirements

The AirCard 555 wireless network card is supported on:

- Windows 95 OSR2 and higher
- Windows 98 / 98 SE
- Windows 2000
- Windows NT 4.0 with Service Pack 6a
- Windows Me

To install the AirCard, you require these system resources:

Table 3-1: System Resource Requirements

Card Slots	1 Type II PCMCIA (PC Card) Slot
Communications Ports	1 Available
Disk Drive	CD-ROM
I/O Resources	1 IRQ, 40 bytes I/O Space
Memory	32 MB
Disk Space	7 MB

Note: Users of Windows 2000 and Windows NT must be logged in with administrative privileges to install the AirCard software.

Software Installation Procedures

Follow these steps to install Watcher, the Network Adapter Manager, and the Venturi compression software:

1. If the AirCard CD is not already in your CD-ROM drive, insert it. The CD should auto-start and display a menu.
2. If the CD does not auto-start, select **Start > Run** and enter **d:\launch.exe** where **d** is the drive letter of your CD-ROM drive.
3. From the CD start-up window, select **notebook installation (BETA) and documentation** and then **notebook software installation** to launch the InstallShield Wizard.
4. Use the **Next** and **Back** buttons to navigate through the wizard noting the following:
 - The first series of windows in the InstallShield Wizard installs Watcher, the second series installs the Network Adapter Manager, and the third series installs the Venturi compression software.
 - You must indicate your acceptance of the terms of the license agreement by clicking **Yes** to proceed with the installation.
 - Using the default settings for the Destination Location and Program Folder is recommended unless you have special requirements and an advanced understanding of PC configuration. (The Destination Location dictates where the software is installed. The Program Folder dictates the name assigned to the software in the Add/Remove Programs in the Control Panel.)
 - A check box allows you to choose to display release notes. The release notes list known issues in the software and are displayed in the Windows Notepad. (If you choose to display them, when you are finished reading, use the close box in the upper right corner of the window to close the Notepad.)
 - A check box allows you to choose to have a desktop shortcut for Watcher. This gives you the option of launching Watcher by double clicking an icon on your desktop (as well as from the Start menu).
 - Click **Finish** to close the last screen of each wizard. On the final screen of the Venturi installation, select a radio button to choose to restart your PC now or later before clicking **Finish**.

- If you choose to re-start your PC later, use the **exit** option in the lower left corner of the window to close the CD start-up menu. YOU MUST RE-START YOUR PC TO COMPLETE INSTALLATION OF THE VENTURI SOFTWARE.

Once your PC is re-started, Watcher, the Network Adapter Manager, and the Venturi compression software are installed. You can proceed to install the driver.

Driver Installation

There is an AirCard driver for each supported operating system on the AirCard CD. The AirCard will not function properly unless the appropriate driver for your operating system is installed.

In Windows 95, 98, 2000, and Me, driver installation is done through a wizard. Windows NT does not have a wizard to facilitate driver installation.

Windows 98, 2000, and Me:

To install the AirCard driver in Windows 98, 2000 or Me, follow these instructions:

1. Insert the AirCard CD into your CD-ROM drive, if not already inserted, and close any Windows programs that are running.
2. If the CD start-up menu is displayed, use the **exit** option in the lower left corner of the screen to exit the menu.
3. Attach the antenna to the AirCard and, with the label facing up, carefully insert the AirCard into your PC card slot. Windows should detect that a new device has been inserted and launch the wizard that guides you through the driver installation.
4. Follow the instructions corresponding to your operating system below.

Windows 98

1. Click **Next** on the first window of the Add New Hardware Wizard to proceed to the next window.
2. Select **Search for the best driver for your device (Recommended)** and click **Next** to proceed to the next window.
3. Ensure that **Specify a location** is the only check box selected, enter **d:\Drivers\Win98** where **d** is the drive letter for your CD-ROM drive, and click **Next** to proceed.

Note: A driver is software that forms the interface between a device (such as the AirCard) and the operating system on your PC (such as Windows 98).

Note: Do not forcefully connect the antenna, or forcefully insert the AirCard. This may damage connector pins.

4. Click **Next** on the window that displays the file name.
5. Click **Finish** and repeat steps 1 to 4 as prompted.
6. If you are prompted to restart your PC, click **Yes**. Otherwise, restart your PC from the Start menu. (You must restart your PC to complete the driver installation.)

Windows 2000

1. Click **Next** on the first window of the Found New Hardware Wizard to proceed to the next window.
2. Select **Search for a suitable driver for my device (recommended)** and click **Next**.
3. Ensure that **Specify a location**, under Optional search locations, is selected and click **Next** to proceed.
4. Enter **d:\Drivers\Win2k**, where **d** is the drive letter for your CD-ROM drive, and click **OK** to proceed.
5. Click **Next** on the window that displays the file name.
6. If the Digital Signature Not Found window displays, click **Yes**.
7. Click **Finish** to proceed. Repeat steps 1 to 6 as prompted.
8. If you are prompted to restart your PC, click **Yes**. Otherwise, restart your PC from the Start menu. (You must restart your PC to complete the driver installation.)

Windows Me

1. Click **Specify the location of the driver (Advanced)** on the first window of the Add New Hardware Wizard and click **Next** to proceed.
2. Select the **Search for the best driver for your device** radio button, and the **Specify a location** check box, then enter **d:\Drivers\WinMe** where **d** is the drive letter of your CD-ROM drive. Click **Next** to proceed to the next window.
3. If prompted, "What would you like to install?", select **The updated software (Recommended)** and click **Next**.
4. Click **Next** on the window that displays a file name.
5. Click **Finish** and repeat steps 1 to 4 as prompted.
6. If you are prompted to restart your PC, click **Yes**. Otherwise, restart your PC from the Start menu. (You must restart your PC to complete the driver installation.)

Once your PC is restarted, the driver is installed and you can proceed to configure the AirCard to use your account (if it was not pre-activated).

Windows 95 Driver Installation

Note: Windows system files may be required to complete installation of the AirCard 555 driver. These files are located on the Windows CD and may be stored on your hard drive in .CAB files. Ensure you have your Windows CD, or know the location of the .CAB files before proceeding.

Depending on how Windows 95 was installed on your PC and what devices have since been installed, your PC card (PCMCIA) slots may or may not have been enabled and the TCP/IP stack may or may not be installed.

These instructions guide you through these steps:

1. Verifying that the PC card slots are enabled
2. Verifying that TCP/IP is installed
3. Installing the driver

Verifying That the PC Card Slots Are Enabled

1. Open the Control Panel by selecting **Start > Settings > Control Panel**.
2. Double click the PC card icon.
3. If the PC Card (PCMCIA) Properties window is displayed, the slots are enabled and you can proceed to the section titled *Verifying That TCP/IP Is Installed*.
4. If the PC Card (PCMCIA) Wizard is displayed, the slots are not yet enabled, and the wizard guides you through the enabling process. (Generally it is sufficient to click **Next** at each window.) Click **Finish** on the final window and click **Yes** when prompted to restart the PC.

Verifying That TCP/IP Is Installed

1. If the Control Panel is not already open, select **Start > Settings > Control Panel** to open it.
2. Double click the Network icon.
3. Look for TCP/IP next to any listing on the Configuration tab. If TCP/IP is listed, you can close the window and proceed to the section titled *Installing the Driver*.
4. If TCP/IP is not listed, click the **Add...** button to open the Select Component Type window.
5. Select **Protocol** in the component type list and click the **Add...** button to open the Select Network Protocol window.
6. Select **Microsoft** under Manufacturers and **TCP/IP** under Network Protocols, then click the **OK** button.

7. Verify that a listing for TCP/IP appears in the Network window and then click the **OK** button to close the window.
8. If you are prompted that your network is not complete, make the selections appropriate to your network configuration.
9. If you are prompted for the Windows CD, remove the AirCard CD and insert the Windows CD in your CD-ROM drive, or enter the path to the .CAB files.
10. Click **Yes** at the prompt to restart your PC. Once the PC has restarted, proceed to the next section.

Installing the Driver

1. Insert the AirCard CD into your CD-ROM drive, if it is not already inserted, and close any Windows programs that are running.
2. If the CD start-up menu is displayed, use the **exit** option in the lower left corner of the screen to exit the menu.
3. Attach the antenna to the AirCard and, with the label facing up, carefully insert the AirCard into your PC card slot. Windows should detect that a new device has been inserted and launch the wizard that guides you through the driver installation.
4. Click **Next** on the first window of the Update Device Driver Wizard to proceed to the next window.
5. Click the **Other Locations...** button to open the Select Other Location window.
6. Enter **d:\Drivers\Win95** where **d** is the drive letter for your CD-ROM drive and click **OK**. The wizard should search for and find the Windows 95 AirCard driver on the CD-ROM drive.
7. Click **Finish** and repeat steps 4 to 6 as prompted.
8. If you are prompted to insert the Windows 95 CD, remove the AirCard CD and insert the Windows CD.
9. If you are prompted to restart your PC, click **Yes**. Otherwise, restart your PC from the Start menu. You must restart your PC to complete the driver installation.

Windows NT Driver Installation

Since Windows NT does not have the "Plug and Play" feature included in other Windows operating systems, installing the AirCard driver requires more steps. Installation involves:

1. Verifying that your PC card slots are enabled
2. Checking whether Networking is installed

3. Installing the network card driver (procedures depend on whether or not Networking is already installed)
4. Installing the modem driver

Note: You must re-install the Windows NT Service Pack following installation of the AirCard driver. Ensure you have your Service Pack CD before you begin. (Version 6a is supported.)

Note: Windows system files may also be required to complete the installation. These files are located on the Windows NT CD and may also be stored as .CAB files on your hard drive. If the .CAB files are not available to you, the recommendation is to copy the Windows NT driver from the AirCard CD to a directory on your hard drive. The Windows NT driver is located on the CD in the directory \Drivers\WinNT.

Windows NT Users: *Your PC must be off whenever you insert or eject the AirCard.*

1. If your PC is on, close any Windows programs that are running and shut down the PC.
2. Attach the antenna to the AirCard, and with the label facing up, carefully insert the AirCard into your PC card slot. Power on your PC.
3. Insert the AirCard CD into your CD-ROM drive, if it is not already inserted.
4. If the CD start-up menu is displayed, use the **exit** option in the lower left corner of the screen to exit the menu.

Verifying That the PC Card Slots Are Enabled

1. Open the Control Panel by selecting **Start > Settings > Control Panel** from the taskbar.
2. Double click the PC card icon.
3. If a window titled PC Card (PCMCIA) Properties displays, the slots are already enabled. Close this window and proceed to the next section.
4. If the PC Card (PCMCIA) Wizard displays, the slots are not yet enabled, and the wizard guides you through the installation process. (Generally it is sufficient to click **Next** at each window.) Click **Finish** on the final window and you should be prompted to restart your PC. Click **Yes** and allow the PC to shut down. Then restart it.

Determining Whether Networking is Installed

1. If the Control Panel is not open, select **Start > Settings > Control Panel**.
2. Double click the Network icon.

3. If the Network window opens, networking is already installed. Proceed to the section *Installing the Network Card Driver When Networking Is Already Installed*.
4. If a dialog box appears, prompting you to install Networking, the component has not yet been installed. Proceed to the section *Installing the Network Card Driver When Networking Has Not Been Installed*.

Installing the Network Card Driver When Networking Has Not Been Installed

1. Click **Yes** to the prompt, "Do you want to install it now?" to launch the wizard that installs Networking.
2. Click the check boxes on the first window of the wizard so that **Wired to the network:** is checked and Remote access to the network: is *not* checked. Click **Next** to proceed.
3. Click the **Select from list...** button to open the Select Network Adapter window.
4. Click the **Have Disk...** button to open the Insert Disk window.
5. If you have copied the driver from the AirCard CD to your hard drive, enter the path to the driver and click **OK** to open the Select OEM Option window.
6. If you are installing the driver from the AirCard CD, enter **d:\Drivers\WinNT** where **d** is the drive letter for your CD-ROM drive and click **OK** to open the Select OEM Option window.
7. If Sierra Wireless AirCard 555 is highlighted, click **OK**. The Sierra Wireless AirCard 555 should appear in the Network Setup Wizard under Network Adapters. Otherwise click **Cancel** and repeat the previous two steps.
8. Click **Next** to display a list of network protocols.
9. Ensure **TCP/IP Protocol** is checked (as well as any other protocols appropriate to your network configuration) and click **Next** to display a list of network services.
10. Select the services appropriate to your network configuration and click **Next**. (For the purpose of installing the AirCard 555, it does not matter what selections you make in this window.)
11. Click **Next**.
12. If the Windows NT Setup window appears, system files are required to install the components you checked. Either insert the Windows NT CD and enter your CD-ROM drive letter, or enter the path to the .CAB files. Click **Continue**.

Note: Use the Windows NT Diagnostics window to locate an available IRQ and I/O space.

13. Use the drop down menus to select an I/O Port, Interrupt, Memory, and Com Port, noting that the AirCard 555 requires 1 IRQ and 40 bytes of I/O Space. Click **Continue**.
14. If the Windows NT Setup window displays again, enter the path to your CD-ROM drive or the .CAB files.
15. Click **Yes** at the DHCP prompt to proceed to a display of network bindings. (DHCP or Dynamic Host Configuration Protocol is required by the AirCard 555 regardless of your network configuration.)
16. Click **Next** to start the Network component.
17. Click **Next** to proceed to the window in which you enter a Computer Name and Workgroup or Domain.
18. Enter the information appropriate to your network configuration and click **Next**.
19. Click **Finish** on the final window of the wizard.
20. Click **Yes** at the prompt to restart your PC. (You must restart your PC to complete the driver installation.)
21. When the PC restarts, re-install your Service Pack.
22. On completion of this step, the driver is installed and you can proceed to configure the AirCard to use your account (if it was not pre-activated).

Installing the Network Card Driver When Networking Is Already Installed

1. Click the **Adapters** tab in the Network window.
2. Click the **Add...** button to open the Select Network Adapter window.
3. Click the **Have Disk...** button to open the Insert Disk window.
4. If you have copied the driver from the AirCard CD to your hard drive, enter the path to the driver and click **OK** to open the Select OEM Option window.
5. If you are installing the driver from the AirCard CD, enter **d:\Drivers\WinNT** where **d** is the drive letter for your CD-ROM drive and click **OK** to open the Select OEM Option window.
6. If Sierra Wireless AirCard 555 is highlighted, click **OK**. The Sierra Wireless AirCard 555 should appear under Network Adapters in the Network Setup Wizard. Otherwise, click **Cancel** and repeat the previous two steps.

Note: Use the Windows NT Diagnostics window to locate an available IRQ and I/O space.

7. Use the drop-down menus to select an I/O Port, Interrupt, Memory, and Com Port, noting that the AirCard 555 requires 1 IRQ and 40 bytes of I/O Space. Click **Continue**.
8. Select the **Obtain an IP address from a DHCP Server** radio button and click the **Close** button.
9. Click **Yes** to confirm that you want to use DHCP.
10. Click **No** if prompted to restart your PC. (You must restart your PC after the modem driver installation.)

Installing the Modem Driver

1. In the Control Panel, double click the Modem icon to open the Modem Properties window.
2. Click the **Add** button to open the Install New Modem wizard.
3. Select **Don't detect my modem, I will select it from a list** and click **Next**.
4. Select the **Have Disk** button.
5. Enter **d:\Drivers\WinNT\mdmac555** where **d** is the drive letter for your CD-ROM drive and click **Open**.
6. Click **OK**.
7. Verify that **Sierra Wireless AirCard 555 Modem** is displayed and click **Next**.
8. Select the **Selected Ports** radio button and select the same communications port you selected when you installed the network card driver. Click **Next**.
9. Click **Finish**.
10. If you are prompted that Dial-Up Networking needs to be configured, click **Yes**.
11. Click **Add** in the Remote Access Setup window.
12. Select the AirCard 555 listing under RAS Capable Devices and click **OK**.
13. If you are prompted to restart your PC, click **Yes**. Otherwise restart your PC from the Start menu.
14. When the PC restarts, re-install your Service Pack.

On completion of this step, the driver is installed and you can proceed to configure the AirCard to use your account (if it was not pre-activated).

Card Insertion & Removal

Inserting the AirCard

The AirCard should be inserted into the PC card slot with the label facing up.

Note: If you are using Windows NT, the PC must be off whenever you insert or eject the AirCard.

In Windows 95, 98, 2000, and Me, when you insert the AirCard, the following should occur:

- If sound effects are enabled, the PC beeps
- The PC Card icon appears in the status area (if it is not already displayed for another card, and unless the feature has been disabled)
- Watcher launches.

The AirCard is powered as soon as you insert it.

Removing the AirCard

To remove the AirCard (Windows 95, 98, 2000, or Me):

- Close Watcher if it is open.
- Click the PC Card icon in the status area to display the option to stop the card.
- Click on "Stop Sierra Wireless AirCard 555 PC Card Parent".
- Click **OK** in the dialog box that notifies you that it is safe to remove the card.

Account Configuration Procedures

The final step to making the AirCard operational is configuring it to use your account.

If you purchased a pre-activated AirCard, this step is not necessary. Once the application software and driver are installed, the AirCard is ready for use.

Otherwise, you must use the Activation Wizard to activate and configure your account. Future releases of the AirCard software will allow for Manual Activation and Voice-Assisted Activation but only Manual Activation is available in the Beta

Note: See Chapter 2 (Getting Started) for an explanation of account activation and configuration.

release. Manual Activation involves phoning a service provider, exchanging information, and entering your account information into the appropriate fields in the wizard. You require a phone, other than the AirCard, to use this method.

To activate an account and configure your AirCard:

1. Insert the AirCard into your PC card slot, if not already inserted.
2. If the Activation Wizard does not auto-launch, run Watcher (by selecting **Start > Programs > Sierra Wireless > Watcher for AirCard 555**) and in Watcher select **Tools > Administration > Activation Wizard**.
3. Use the **Next** and **Back** buttons to navigate through the Activation Wizard, noting the following:
 - Use the radio buttons to select **Manual Activation** as the method of activation you want to use.
 - Obtain the billing information listed on the second window of the wizard before phoning the service provider or proceeding to the next window.
 - Tell the representative the ESN number listed in the wizard, and enter the information the representative gives you, to activate and configure the AirCard.
4. Click **Finish** on the final window of the wizard.

On completion of this step, the AirCard is ready for use. The next chapter explains how to use Watcher to manage and monitor your connections.

4: The Watcher Window & Indicators

- Components of the Watcher Window
- The Menu Bar
- The Minimize, Toggle Full/Compact, and Close Boxes
- Connection Status Area
- Call Status Box
- Indicator Area
- Taskbar Icons

Watcher is the application that allows you to manage and monitor the connection between the AirCard 555 network card and the CDMA network. You use Watcher to:

- Determine your signal strength, roaming status, 1xRTT availability, and other network connection parameters
- Initiate voice and data calls
- View call statistics and SMS messages
- Enable and disable features like Always On Top (that allows you to set the Watcher window to display in front of other application windows), and KeyGuard (that prevents accidental dialing)
- Set options related to SMS messages, sounds played, voice calls, and the lock code security feature (that you can use to prevent others from using your AirCard)

Anytime you use the AirCard you must run Watcher.

Watcher should auto-launch anytime you insert the AirCard 555. You can also launch Watcher by:

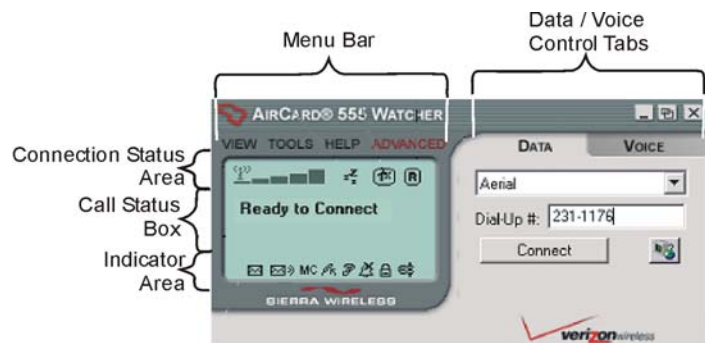
- Double clicking the Watcher icon on your desktop
- Selecting **Start > Programs > Sierra Wireless > AirCard 555 > Watcher**



Components of the Watcher Window

The Watcher window has these components:

- A menu bar on the upper left side of the window
- The Minimize, Toggle Full/Compact and Close buttons in the top right corner
- The Data and Voice tabs on the upper right side of the window
- A section of the window that resembles an LCD screen (beneath the menu bar) that includes these areas:
 - The connection status area at the top
 - The call status box in the middle
 - The indicator area at the bottom

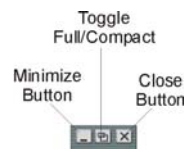


The Menu Bar



Chapter 7 gives a detailed description of each option in each of Watcher's four menus: View, Tools, Help, and Advanced.

The Minimize, Toggle Full/Compact and Close Boxes



- The **Minimize** button closes the Watcher window but leaves the application running. When Watcher is minimized, the Watcher icon in the status area can be used to determine the AirCard status. (See the final page of this chapter.)
- The **Toggle Full/Compact** button is used to switch between the full Watcher window and the compact view:



The compact view allows you to see connection status information while you use other applications.

- The **Close** button is used to exit Watcher.

Connection Status Area



The Connection Status area uses these icons:

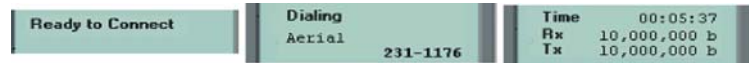
Table 4-1: Connection Status Area Icons

Icon	Meaning
	The Signal Strength indicator uses bars to show the intensity of the radio signal. The number of bars increases as signal strength increases to a maximum of five bars.
	When the bars are dimmed and the antenna icon is crossed out, no connection is possible for one of these reasons: • no antenna is attached • you are outside the CDMA network coverage area • the signal strength is too weak • a network or account problem is preventing the AirCard 555 from obtaining service

Table 4-1: Connection Status Area Icons

Icon	Meaning
The In Use indicator shows whether a call is in progress. Depending on the in use state, one of these icons is displayed:	
	When the In Use indicator is a handset, a voice call is in progress.
	When the In Use indicator is a modem, a data call is in progress.
	When the In Use indicator is a modem with "1x", a 1xRTT data call is in progress. (For a description of 1xRTT data calls, see the next chapter.)
	When the In Use indicator is a large "X", a fatal error has occurred and the AirCard is inoperable. (This may be resolved by closing Watcher and restarting your computer.)
	The 1x indicator shows whether 1xRTT is available in this area. Where 1xRTT is available, you can make high speed data connections, if your billing plan allows for it. (Depending on your billing plan, there may be a surcharge for 1xRTT data connections.)
	The Roaming Status indicator shows whether you are roaming onto the network of a service provider other than your own. When the indicator is off (gray), you are within the local coverage area of your service provider. When the indicator is on (solid black), you are in a "preferred" roaming area. When the indicator is blinking, you are within the coverage area of a CDMA network but not in a "preferred" roaming area. Your coverage area and billing charges depend upon your service provider and the type of account you have. There may be surcharges for roaming service that vary based on whether you are in a preferred roaming area or a non-preferred roaming area. If there is no roaming agreement between your service provider and the local carrier, you may be unable to complete calls in non-preferred roaming areas.

Call Status Box



The Call Status Box displays one of these messages:

- *Ready to Connect* indicates that you have a network connection but there is no call in progress.
- *Dialing* indicates that the AirCard is attempting to connect to a phone number.
- *Time ... the name of the person to with whom you are connected (or "Unknown" if the name is not obtainable), and the phone number* indicates that a voice call is in progress. The time shown is the duration of the call.
- *Time...Rx...Tx...* indicates that a data call is in progress. The time shown is the duration of the call. Rx shows the number of bytes of data received. Tx shows the number of bytes of data transmitted.

Note: Watcher begins timing outgoing calls from the time the call is initiated—not from the time the call is answered.

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Indicator Area

The Indicator area displays icons that notify you when you receive messages and indicate whether certain options and features are enabled. The icons are black when “on” and gray when “off”.

Table 4-2: Indicator Area Icons

Icon	Meaning
	The SMS message indicator shows whether you have unread messages. A blinking SMS message icon indicates that there are one or more unread messages that are flagged as urgent. To display the SMS Manager window (in which the messages are displayed) select Tools > Mobile Messenger... or click the icon.
	The voice mail indicator shows whether you have unheard voice messages. To hear the messages, you must dial your voice messaging system. Click this icon to connect to your voice messaging system.
	The missed call indicator displays if you failed to answer an incoming call. To view the phone number(s) of any missed calls, click the icon to display the call log.

Table 4-2: Indicator Area Icons

Icon	Meaning
	The auto-answer indicator shows whether Watcher is set to automatically answer incoming calls. You can enable and disable this feature under Tools > Options .
	The headset indicator shows whether a headset is connected to the AirCard.
	This indicator shows whether the silent ringer feature is enabled. When enabled, no sound is played when an incoming call is received. You can enable and disable this feature under Tools > Options .
	The privacy indicator shows whether encryption is in use on voice calls. (Encryption prevents your calls from being monitored.) The AirCard uses encryption where it is available on the network.
	The compression indicator shows whether V.42bis compression is in use. Where V.42bis is available on the network, the AirCard uses this compression scheme to increase throughput and the effective data transmission speed.

Taskbar Icons

Watcher displays an icon in the status area (which is usually located in the lower right corner of your screen). The status area icon indicates your connection status or notifies you when you have voice mail or SMS messages, or when you have missed a call.

Table 4-3: Status Area Icons

Icon	Meaning
	There is no CDMA network connection.
	The AirCard is connected to the CDMA network.

Table 4-3: Status Area Icons

Icon	Meaning
	You missed (failed to answer) an incoming call. You can view the number of the caller in the call log.
	You have an unread SMS message.
	You have voice mail.

>> 5: Data Connections

- Dial-Up Connections
- QNC Connections
- 1xRTT High Speed Connections

Note: You cannot have a data and a voice connection at the same time. If you have a data connection when an incoming call occurs, your caller will get a busy signal or be put through to your voice mail box.

Note: Depending on your billing plan, there may be a surcharge for 1xRTT calls.

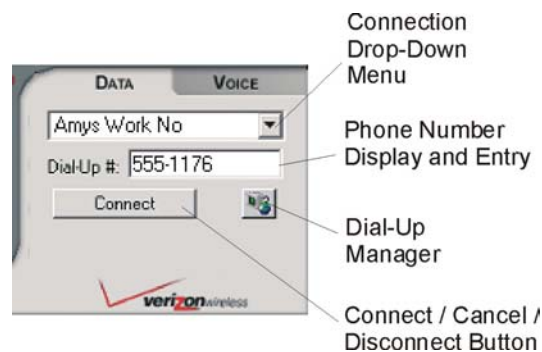
The Data tab on the main Watcher window is used to make data connections for any of these purposes:

- Browsing the Internet
- Sending and receiving e-mail
- Dialing into your corporate network
- Sending and receiving faxes

The AirCard 555 network card offers three types of data connections:

- **Dial-up connection** – in this type of connection, the AirCard 555 functions as a modem. You provide the phone number and the AirCard dials the number. Using this type of connection, you can connect to any other modem and receive faxes. The maximum speed of this type of connection is 14.4 kbps. (When Venturi software compression is in use, you will experience higher throughput and a maximum data transmission speed of 56 kbps.)
- **QNC (Quick Net Connect) connection** – in this type of connection, the AirCard dials a modem pool that makes a direct Internet connection. The data transmission speed for this type of Internet connection is the same as for a dial-up connection but the time required to initiate the connection is shorter. QNC availability is dependent on your service provider.
- **1xRTT high-speed network connection** – in this type of connection, the AirCard functions as a network card. The AirCard establishes a high-speed Internet connection to the CDMA network. (You do not need to provide a phone number and there is no dialing involved.) The maximum speed of this connection is 144 kbps but it is only available in areas where 1xRTT has been implemented.

The 1xRTT connection provides access to the Internet. Once the connection is established, you can open your browser and connect to any web site that is accessible through the Internet, or access other Internet services (such as e-mail).



Dial-Up Connections

These steps are required to make a dial-up connection:

1. Set up the number in the Dial-Up Manager. (This step is only necessary the first time you dial the number.) The Dial-Up Manager is displayed by selecting **Tools > Dial-Up Manager**, or by clicking the **Dial-Up Manager** button to the right of the Connect button. Chapter 7 explains how to use the Dial-Up Manager.
2. Select the connection name from the pull-down menu on the Data tab of the main Watcher window. The number is then displayed in the **Dial-Up #** field.
3. If necessary, change the phone number in the **Dial-Up #** field. (For example, depending on your location, you may need to add or remove the area code.)
4. Click the **Connect** button.

Watcher then initiates the connection. Progress is shown in the call status area. Once the connection is established, the call statistics (duration, bytes transmitted, and bytes received) are displayed.

To terminate a call:

1. Click the **Cancel** button (during the connection process) or the **Disconnect** button (once the connection is established).

Incoming Data Calls

By default the AirCard is set to answer all calls as voice calls. To receive a fax or data call, you must set the AirCard to answer appropriately. This setting is in the Options window (**Tools > Options**) on the **General** tab. See Chapter 7 for a detailed explanation.

*Note: If you change the number in the **Dial-Up #** field, the record is not changed. The next time you select the connection, the old number appears. If you want to permanently change the record, you can do so in the Dial-Up Manager.*

QNC Connections

The QNC connection is set up for you when Watcher is installed. All you need to do to make a QNC connection is:

1. Select **Quick 2NetSM (14.4 kbps)** from the drop-down menu on the Data tab of the main Watcher window.
2. Click the **Connect** button.

Once connected you can use any Internet application (such as Internet Explorer, Netscape Navigator, or your e-mail application).

1xRTT High Speed Connections

When the 1xRTT indicator is on, the 1xRTT connection is available to you.

To make a 1xRTT connection:



1. Select **Express Network 1xRTT** from the drop-down menu on the Data tab of the main Watcher window.
2. Click the **Connect** button. (No phone number or dialing is required.)

Once the connection is established, you can use any Internet application (such as Internet Explorer, Netscape Navigator, or your e-mail application).

Note: Depending on your billing plan, there may be a surcharge for 1xRTT service.

>> 6: Voice Connections

- The Dial Pad
- The Scratch Pad
- Outgoing Calls
- Incoming Calls

Note: The headset connects to the circular connector on the end of the AirCard next to the antenna.

You can use your AirCard 555 network card as a mobile phone simply by connecting a headset. Any standard headset with a 2.5 mm jack can be used.

The AirCard 555 has several voice features:

- The volume controls allow you to adjust the loudness of what you hear.
- The mute button allows you to turn off the speaker so that you cannot be heard.
- The **Send** button allows you to redial the previously dialed number.
- The Any-Key Answer feature allows you to answer an incoming call by pressing any button on the dial pad except **End**, **Clr** or the volume controls.
- The Auto-Answer feature can be enabled to automatically answer incoming calls within a specified number of rings.
- The KeyGuard feature prevents accidental dialing.
- The Silent Ringer feature prevents any sound from occurring when you receive calls.
- The Missed Call indicator notifies you of any incoming calls that were not answered.
- A scratch pad provides an easily accessible temporary place to record very brief notes.
- The call log records details about all incoming and outgoing calls, providing useful information such as the phone numbers of missed calls.
- If your billing plan with your service provider includes Conference Calling (Three-Way Calling), Voice Mail, Call Alert, or Caller-ID, they are supported by the AirCard.

The Dial Pad

The dial pad for the AirCard is in Watcher and is displayed when you click the Voice tab.



Table 6-1: The Watcher Dial-Pad

Dial Pad Buttons	Function
0-9, #, * (or the same keys on your keyboard)	Use these buttons to enter the digits (and other characters) you want to dial. The numbers are displayed in the call status area until you press Send, End, or Clr, or you receive an incoming call. Any of these buttons can be used to answer an incoming call if the Any-Key Answer feature is enabled. If you click (or press) these buttons during a call, the AirCard beeps and the characters are displayed in the call status area.
Send (<Enter> on your keyboard)	Use this button to dial numbers and to answer incoming calls. When you are not receiving an incoming call, clicking Send dials the numbers in the call status area. If no numbers are displayed, Watcher re-dials the last number you dialed.
End (<Esc> on your keyboard)	Use this button to hang-up or end a call, or to clear all the digits and characters in the call status area (i.e. to cancel a call that you've started to enter). This button also clears status messages.
Clr (<Backspace> on your keyboard)	Use this button to clear the last number you've entered. If you hold this button down for one second, it has the same effect as the End key. This button can also be used to hang-up or end a call.

Table 6-1: The Watcher Dial-Pad

Dial Pad Buttons	Function
Volume Keys (Up Arrow and Down Arrow)	Use the Up Arrow to increase the headset volume you hear. Use the Down Arrow to decrease the volume.
Mute Key	Use this key during a call to prevent the caller from hearing what you say. When no call is in progress, this key enables and disables the Silent Ringer feature.

The Scratch Pad

The scratch pad gives you a place to record very brief notes (such as a name and phone number) temporarily.

Display the scratch pad by clicking the Scratch Pad button on the right side of the Watcher window. 



Note: The standard function keys for copy (<Ctrl> C), cut (<Ctrl> X), and paste (<Ctrl> V) can be used to move text from the scratch pad to another application (such as the Windows Notepad).

To enter text:

1. Type the text from your keyboard.

To erase all the text in the scratch pad:

1. Click the **clear** button.

To close the scratch pad (saving any text in it):

1. Click the **ok** button.

*Note: If you click the **Send** button without entering a number, the AirCard re-dials the last number you dialed.*

*Note: The Options window, displayed when you select **Tools > Options**, allows you to customize the sound played when you receive an incoming call and to enable and disable the Silent Ringer feature.*

Note: If an incoming call occurs while you have a data connection, your caller will get a busy signal or be put through to your voice mail box.

Outgoing Calls

To initiate a call:

1. Connect a headset to the AirCard, if one is not already connected.
2. Enter the number you want to dial by either clicking the number buttons on the dial pad or typing the numbers on your keyboard.
3. Click the **Send** button.

As the call is being dialed, Watcher displays “Dialing” and the phone number.

You can also initiate a call from the call log. The call log is displayed when you select **Tools > Call Log** and is described in Chapter 7.

Incoming Calls

Depending on how certain features are configured, when you receive an incoming call the following occurs:

- A sound is played, unless the Silent Ringer feature is enabled.
- If Watcher is in compact view when you receive the call, the Watcher window maximizes.

To answer a call:

1. Connect the headset, if it is not already connected, and put it on.
2. Click the **Send** button. (Or, if the Any-Key Answer feature is enabled, click any key except **End** or **Clr**.)

>> 7: The Watcher Menu Options

- The View Menu
- The Tools Menu
- The Help Menu

This chapter describes each option in each of the Watcher menus.

The View Menu



The options under the View menu allow you to:

- Set the Watcher window to always display on top of other application windows.
- Set the Watcher window to jump to the edge of the screen (dock) when you reposition the window.
- Switch between the compact version of the Watcher window and the full version.

Always On Top

When Always On Top is enabled, the Watcher window displays in front of all other application windows, even when you position another window over Watcher. This allows you to view connection status indicators while using another application, such as your Internet browser.

To enable or disable Always On Top:

1. Select **Always On Top** from the **View** menu.

A check mark next to the option indicates that it is enabled.

Docking

When Docking is enabled, the Watcher window jumps to the edge of your screen when the window is dragged close to an edge. This allows you to easily position the window to a corner of your screen.

To enable or disable Docking

1. Select **Docking** from the **View** menu.

A check mark next to the option indicates that it is enabled.

Toggle Full/Compact

The Watcher window has two sizes:

The Full Window



The Compact Window



The full window is required to initiate data connections and make voice calls, but if all you require from Watcher is status information, you can use the compact view.

To switch from the full window to the compact window:

1. Select **Toggle Full/Compact** from the **View** menu.

Or

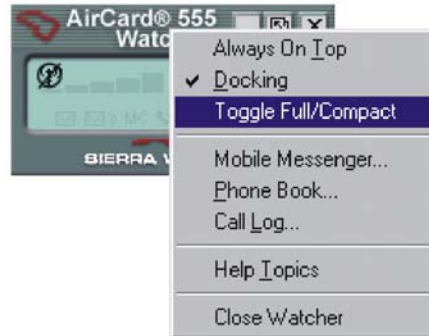
1. Click the Toggle Full/Compact button (next to the **Close** button in the upper right corner of the Watcher window).



Note: The Watcher window switches to full view automatically when you receive an incoming call.

To switch from the compact window to the full window:

1. Click the Toggle Full/Compact button. 
- Or
1. Right click on the Watcher window.
2. Select **Toggle Full/Compact** from the shortcut menu.



The Tools Menu



The options under the Tools menu allow you to:

- Send and receive SMS messages.
- View the call log that lists the phone numbers and other details of voice and data calls you've made and received.
- Maintain the Dial-Up Manager in which you enter the phone numbers and details required to make data calls.
- Enable and disable features like KeyGuard, Auto-Answer, Any-Key Answer, the Lock Code, and certain alerts and warning messages.
- Configure options related to SMS messages, the call log, the location of the Watcher window on your screen, and sounds used to notify you of incoming calls and messages.

Note: Check with your service provider to see if you have a subscription to SMS service.

Mobile Messenger...

The Mobile Messenger... window is used to display SMS messages you receive and to send SMS messages.

SMS (Short Messaging Service) is a feature that some service providers offer, that allows you to send and receive short messages through the CDMA network. Depending on your service provider, one or more of these methods of sending SMS messages may be available to you:

- Some wireless service providers have web pages on which anyone can enter a message and direct it to your phone number. In this case, anyone who has access to the Internet can send you a message, provided he or she knows your phone number and can locate the appropriate web page.
- Some service providers allow SMS messages to be sent through Internet e-mail applications. Your phone number is then used as an e-mail address (example: 6045553993@serviceprovider.com).
- Some products, such as the AirCard 555, have software that allows you to send messages to other subscribers, using their phone numbers to direct the message.

The **Mobile Messenger...** option in the **Tools** menu allows you to read, create and send SMS messages.

Reading SMS Messages: The Inbox

Incoming messages are stored in the Inbox until you delete them or until they expire (depending on your settings in the Options window).

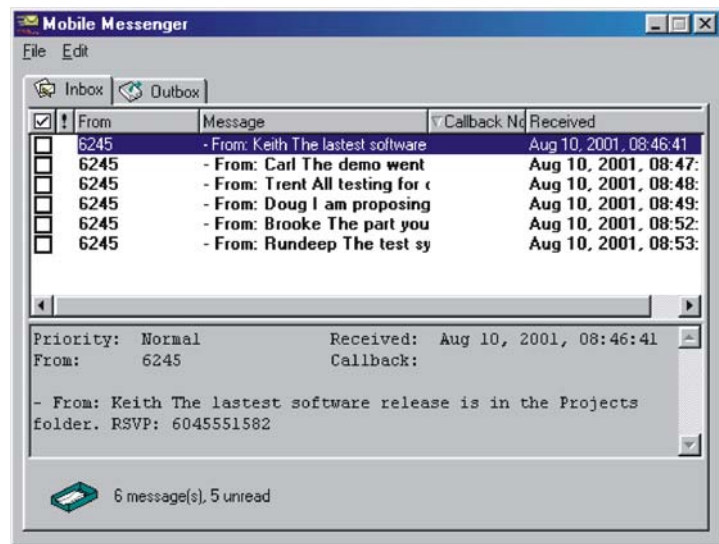
The SMS indicator notifies you when new messages are received by displaying the icon below. The ToolTip (displayed when you position the mouse pointer on top of the icon) identifies how many unread messages you have.



If the icon is flashing, one or more of the messages is tagged as urgent.

To read a message(s):

1. Double click the SMS icon, or select **Tools > Mobile Messenger...** to display the Mobile Messenger window.
2. Click the **Inbox** tab if it is not already selected.



Note: Unread messages are displayed in bold.

The message header is displayed in the top of the window, showing the address or phone number from which the message was sent, the beginning of the message, and the call back number.

3. Click the message header to display the message in the lower section of the window.

Messages marked with an exclamation mark (!) have been tagged by the sender as being urgent or important.

To delete messages:

1. Use the check boxes to the left of the messages to select the messages you want to delete.
2. Select **Edit > Delete**.
3. Confirm that you want to delete the messages by clicking **Yes**.

To delete all messages:

1. Select **Edit > Delete All**.
2. Confirm that you want to delete the messages by clicking **Yes**.

Watcher also has a feature that allows you set an expiry period after which messages are automatically deleted. This is set in the Options window. (Select **Tools > Options** to display the window, and click the **SMS** tab. This is described below under the *Options...* heading.)

*Note: The **Delete All** and message expiry features do not delete unread messages (that have never been displayed).*

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Note: The **Reply to Sender** menu option is only available if the e-mail address of the person who sent you the message is included in the message. This won't be available if, for example, the message was sent from a web site.

Note: The **Call back Sender** menu option is only available if the message includes a valid call back number.

Note: In the Options window you can enable and disable the option to save outgoing messages to the Outbox.

To forward a message:

1. Select the message header.
2. Select **File > Forward Message...** to open the Message window.
3. In the Message window you can edit the message, append text to the message, and send it. (See the detailed instructions below.)

To reply to a message:

1. Select the message header.
2. Select **File > Reply to Sender...** to open the Message window.
3. In the Message window create the message and send it. (See the detailed instructions below.)

To phone the sender of a message:

1. Select the message header.
2. Select **File > Call back sender.**

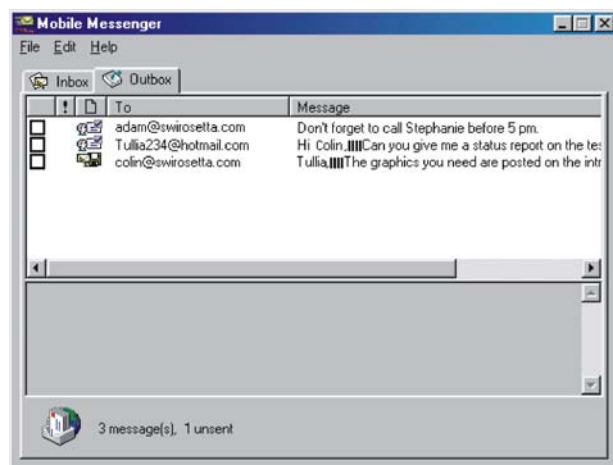
Watcher then dials and attempts to connect to the call back number.

To exit the Mobile Messenger window:

1. Select **File > Close** or click the close box in the upper right corner.

Sending SMS Messages: The Outbox

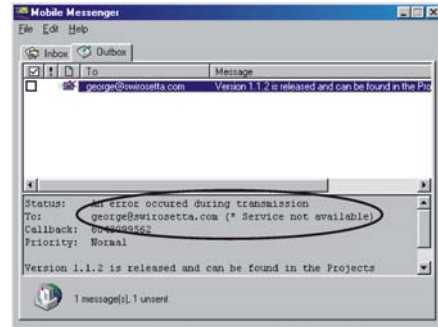
The Outbox is the place where your outgoing messages are stored. Click the Outbox tab in the Mobile Messenger window to display the Outbox contents:





The third column from the left indicates the status of each message in the Outbox:

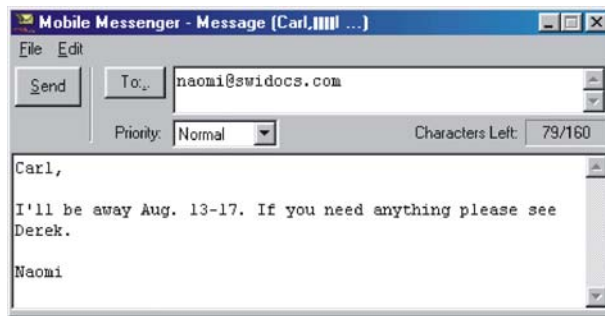
Table 7-1: Outgoing Message Status Icons

Icon	Meaning
	Saved The message has been saved in the Outbox but not yet sent.
	Sent The message has been sent successfully to the CDMA network but has not yet been delivered to the recipient(s).
	Delivered The message has been delivered to the recipient(s)' mail box(es).
	Partially Sent The message has been sent to the network but the network did not respond. (This may indicate a network problem.)
	Not Sent The message was sent to the network and the network responded with an error. The error message is shown in the Status field when you display the message.  Some possible reasons for a failure to send are: • You do not have a subscription to a service that allows you to send SMS messages. • The e-mail address in the To field is not valid. • The message exceeded the maximum length for SMS messages. • There is a network problem or a problem with your account.

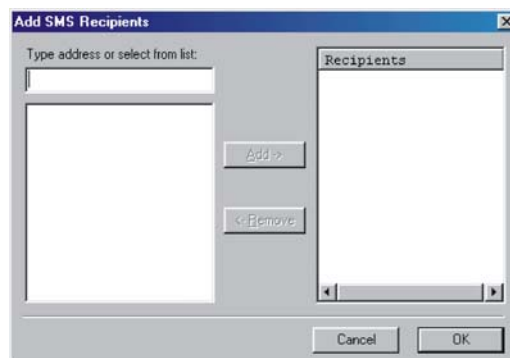
To send a message from the Mobile Messenger window:

1. Select **File > New Message** to open the Message window:

Note: A message can have up to 16 recipients.



2. Enter the recipients for the message by typing e-mail addresses, or click the **To** button to display the Add SMS Recipients window.



The SMS Recipients window allows you to create a list of e-mail addresses for the **To:** field of the Message window. In this window, you can:

- Enter a new address and click **Add->** to add it to the list of recipients.
- Select an address and click **<-Remove** to delete it from the list of recipients.

Use this window to create a recipient list and click **OK** to return to the Message window.

3. If you want to send a message that is tagged as urgent or important, select **High** from the **Priority** drop-down menu.
4. Type the message in the lower portion of the window.
5. If you want to save the message in the Outbox and send it later, select **File > Save**.
6. If you want to send the message immediately, click the **Send** button, or select **File > Send**.

To erase a message and start again:

1. Select **Edit > Clear**.

To open a message that is saved in the Outbox:

1. Double click the message header to open the message in the Message window.

You can then edit the message and change or add recipients.

Exiting the Mobile Messenger Window

To exit from the Mobile Messenger window and return to the main Watcher window:

1. Select **File > Close**.

Or

Click the **Close** box in the upper right corner of the window.

If there are any unsaved messages, Watcher prompts you to indicate whether you want to save them.

Phone Book

This feature is not yet available.

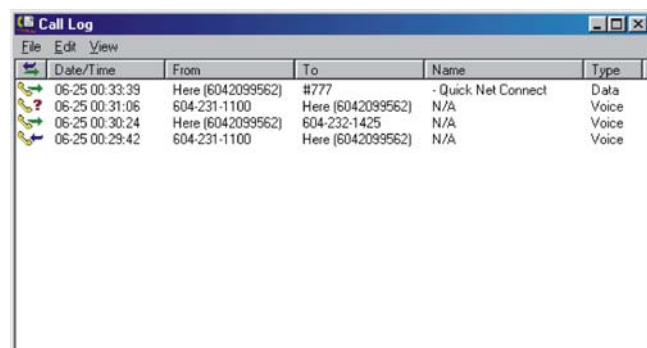
Call Log

The call log maintains a record of your outgoing and incoming calls. In the *Options* window (displayed when you select **Tools > Options**) on the **General** tab, you can choose to keep a record of:

- none of your calls
- all of your calls
- the last 50 calls
- the last 100 calls

To display the call log:

1. Select **Tools > Call Log**



Date/Time	From	To	Name	Type
06-25 00:33:39	Here (6042099562)	#777	- Quick Net Connect	Data
06-25 00:31:06	604-231-1100	Here (6042099562)	N/A	Voice
06-25 00:30:24	Here (6042099562)	604-232-1425	N/A	Voice
06-25 00:29:42	604-231-1100	Here (6042099562)	N/A	Voice

*Note: The **Dial** option in the **File** menu can be used to establish a voice call to any number in the **From** or **To** column.*

*Note: The **Add to PhoneBook** menu option will be available in future versions.*

For each message, the call log displays:

- The call direction (see below)
- The date and time the call was made or received
- The phone number of the caller (for incoming calls), or the phone number that you dialed (for outgoing calls)
- The name of the caller (for incoming calls), or the name of the person called (for outgoing calls), if available
- The type of call (data, voice, or fax)

Table 7-2: Call Direction Icons

Icon	Meaning
	Incoming Call This is a call that you answered.
	Outgoing Call This is a call that you made.
	Missed Call This is a call you received but did not answer.

To phone a number contained in one of the call records:

1. Double click the record.

Or

1. Select the number.
2. Select **File > Dial**.

This can be used to place voice calls only.

To save the information in the call log to a text file:

1. Select **File > Save As...**
2. Use the Save As dialog box to select a location and name for the file and click **Save**.

To delete a record:

1. Select the record.
2. Select **Edit > Delete**.

To delete all records in the call log:

1. Select **Edit > Delete All**
2. Click **Yes** to confirm the deletion.

To select what type of calls are displayed:

Note: Clicking All in the View menu causes all call types to be displayed.

1. Use the **View** menu to select the call types:
 - When **Voice logs** is checked, all voice calls are displayed.
 - When **Data logs** is checked, all dial-up data calls are displayed.
 - When **Fax logs** is checked, all fax calls are displayed.

To sort the calls:

1. Click any column heading to sort by that column in ascending order.
2. Click the same column heading again to sort by the same column in descending order.

For example, to sort the calls by name, click the Name column heading. This sorts the records from A to Z. If you click the Name column heading again, the records will be sorted from Z to A.

Dial-Up Manager

The Dial-Up Manager is where dial-up data connections are set up. (See Chapter 5 for a description of the types of data connections.)

In the Dial-Up Manager you can:

- Add new records for phone numbers to which you want to connect.
- Change existing records.
- Set the default connection.
- Select and establish a connection.

To add a phone number to the Dial-Up Manager:

1. Select **Tools > Dial-Up Manager** to open the Dial-Up Manager window.

*Note: The default connection is the one established if you click the **Connect** button on the main Watcher window without making a selection from the drop-down menu.*

- Click the **Add...** button to open the Connection Properties window.

- Enter a name for the connection and complete the remaining fields noting the following:
 - If the phone number must be preceded with an area code, click the **Use area code** check box and enter the area code. Click the **Use 1** check box if the phone number must be prefixed with a 1.
 - If dialing into a system that requires you to enter a user name and password, enter this information. If you want to save the information so that it is not necessary to enter it each time you connect, click the **Save password** check box.
- Click **OK** to close the window and save the information you entered, or **Cancel** to close the window without saving.

To change an existing record in the Dial-Up Manager window:

- Click the connection to select it and click the **Properties...** button to open the Connection Properties window.
- Enter the new information in the appropriate fields. (The **Connection Name** cannot be changed.)
- Click **OK** to close the window and save the information you entered, or **Cancel** to close the window without saving.

To delete a record in the Dial-Up Manager window:

- Click the connection to select it and click the **Delete** button.
- When prompted to confirm the deletion, click **Yes**.

To connect to a number in the Dial-Up Manager window:

- Click the connection to select it and click the **Connect** button.

*Note: Use the KeyGuard feature if you are concerned that you might inadvertently press **Send** and dial a number.*

The AirCard then attempts a connection to the phone number you selected.

To set a number as the default in the Dial-Up Manager window:

1. Click the connection to select it and click the **Set as Default** button.

KeyGuard

The KeyGuard feature is designed to prevent accidental dialing. When the feature is enabled, clicking the **Send** button, or any other button on the dial pad, has no effect.

To enable or disable KeyGuard:

1. Select **KeyGuard** from the **Tools** menu.

A check mark next to the option indicates that it is enabled.

Options...

The Options window allows you to configure Watcher and the AirCard 555 to your preferences. In the Options window you can:

- Enable and disable several features, including: Auto-Answer, Any-Key Answer, the Inactivity Time-Out, Auto-Connect, SMS Message Expiry, and the Lock Code.
- Select whether certain warning messages are displayed to warn you of circumstances such as your data connection being lost.
- Configure options related to call logging, the Watcher window, the call back number in SMS messaging, sounds that notify you of incoming calls, new SMS messages, and new voice mail.

Use of the Options Window

In the Options window, buttons, drop-down menus, and check boxes are provided to allow you to select your preferences.

Use **OK** to exit the Options window, saving any changes you've made, or **Cancel** to exit without saving.

The **Restore Defaults** button causes all the fields on all the tabs to revert to the settings they had at installation.

General Tab

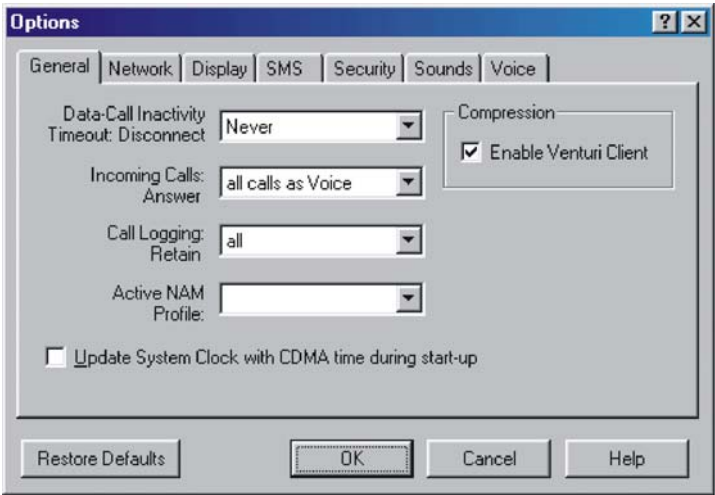


Table 7-3: General Tab Options

Field	Description
Data Call Inactivity Timeout: Disconnect	The Inactivity Timeout terminates your connection to the CDMA network automatically when the AirCard is inactive for the amount of time you specify here. (The AirCard is inactive when no data transmission is occurring.) Select Never to disable the feature. Otherwise, select the number of minutes after which you want to automatically disconnect.
Incoming Calls Answer	By default the AirCard is set to answer all calls as voice calls. To receive a fax or data call, you must set this field appropriately, before the call is answered. This means that anyone wanting to send a fax, or establish a data connection with the AirCard, must notify you in advance so that you can change this field before the call is made. This setting reverts to “all calls as Voice” whenever Watcher is restarted. If you select “next call as Fax” or “next call as Data”, the AirCard maintains the setting for one call, or until Watcher is restarted. If you select “all calls as Fax” or “all calls as Data”, the AirCard maintains the setting until you select another option.

Table 7-3: General Tab Options

Field	Description
Call Logging Retain	You have the option of maintaining records of your outgoing and incoming calls in the call log. (The call log is displayed when you select Tools > Call Log, and is described above.) This field allows you to specify the number of calls retained. Select none, all, last 50 calls, or last 100 calls from the drop-down menu.
Active NAM* Profile	The AirCard allows you to configure and use up to two accounts (with two different phone numbers). This may be useful to users who want, for example, to have one account for business calls and one for personal calls. This drop-down menu lists these items: Auto-Select, NAM 1, and NAM 2. If one account has been activated, NAM 1 has a phone number next to it, and if two accounts have been activated, NAM 1 and NAM 2 have phone numbers. When Auto-Select is in effect, the AirCard uses the account most appropriate to your location, based on the coverage of your accounts. To configure a second account (where only one account has been activated): 1. Select the option NAM 2 from this drop-down menu and click OK. 2. Stop, eject and re-insert the AirCard. 3. Launch Watcher; the Activation Wizard should launch. You can then configure a second account. If two accounts are configured, both phone numbers should be displayed in this drop-down menu. To switch from one account to the other: 1. Select the phone number from the drop-down menu. 2. Stop, eject and reinsert the AirCard.

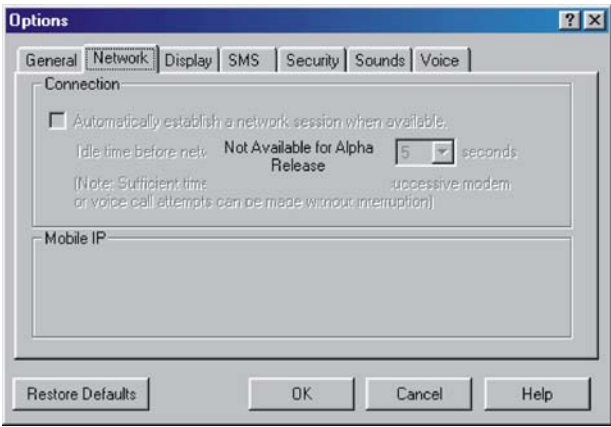
Installation and Use
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Table 7-3: General Tab Options

Field	Description
Update System Clock with CDMA time during start-up	All PCs have an internal clock called the system clock. Depending on your configuration, the time according to this clock is usually displayed in the status area, in the lower right corner of your screen. Generally you would use the Windows Control Panel to change the time on the system clock. This field gives you the option of setting the time of your system clock automatically from the CDMA network each time you connect. This might be useful to you if you frequently change time zones. Use the check box to enable and disable this feature. (It is enabled when checked.)
Enable Venturi Client	Venturi Client is compression software that increases data throughput between the CDMA network and the AirCard, effectively increasing the data transmission speed. This compression can only be used where it is available on the network. The Venturi Client software necessary to using this compression, is normally installed when you install Watcher and the Network Adapter Manager When this option is enabled (assuming the Venturi Client software is installed) Venturi compression is used where available to increase throughput. When disabled, Venturi compression is not used even when it is available on the network. Use the check box to enable and disable support for Venturi compression.

* NAM stands for Number Assignment Module and is information stored in the flash memory of the AirCard. The information includes your phone number parameters specific to your service provider.

Network Tab



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Table 7-4: Network Tab Options

Field	Description
Automatically establish a network session when available	In future releases the AirCard will have a feature to allow for an immediate 1xRTT connection whenever the AirCard is inserted, where 1xRTT service is available. (See Chapter 5 for a description of 1xRTT connections.) This option is not yet available.

Display Tab

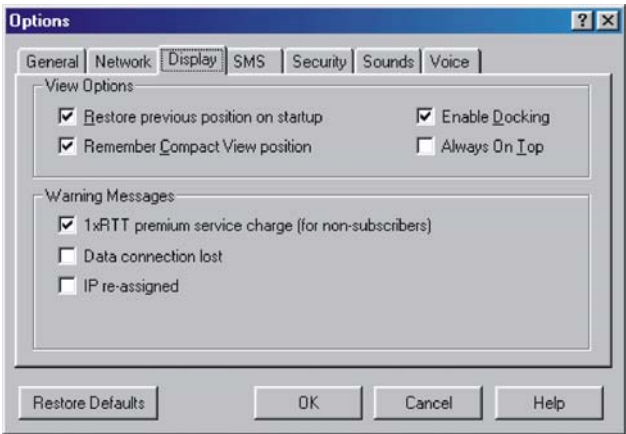


Table 7-5: Display Tab Options

Field	Description
Restore previous position on startup	This field determines where the full Watcher window appears when launched. (The full and compact views of the Watcher window are shown in the <i>Toggle Full/Compact</i> section above.) If this feature is disabled, Watcher always displays in the center of your screen. If you enable this feature and move the Watcher window, the window will re-appear in its new position if you close and re-open it, or change the view to compact and then full again. Use the check box to enable and disable the feature. (The feature is enabled when checked.)
Remember Compact View position	This field determines where the compact Watcher window appears. If this feature is enabled, when you switch from the full view to the compact view, the Watcher window remains in the same place. If this feature is disabled, when you switch from the full view to the compact view, the Watcher window displays in the position it last occupied. Use the check box to enable and disable this feature. (The feature is enabled when checked.)
Enable Docking	When Docking is enabled, the Watcher window jumps to the edge of your screen when the window is dragged close to an edge. This allows you to easily position the window in a corner of your screen. Use the check box to enable and disable this feature. (The feature is enabled when checked.) You can also enable and disable this feature by selecting View > Docking.

Table 7-5: Display Tab Options

Field	Description
Always on Top	When Always On Top is enabled, the Watcher window displays in front of all other application windows, even when you position another window over Watcher. This allows you to view connection status indicators while using another application, such as your Internet browser. Use the check box to enable and disable this feature. (The feature is enabled when checked.) You can also enable and disable this feature by selecting View > Always on Top.
1xRTT premium service charge (for non-subscribers)	When this feature is enabled, a warning message is displayed any time you select 1xRTT from the drop-down menu on the main Watcher window, to remind you that you may be charged extra for this service. (Depending on your billing plan, your service provider may apply a surcharge to 1xRTT service.) Use the check box to enable and disable this feature. (The feature is enabled when checked.)

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Table 7-5: Display Tab Options

Field	Description
Data connection lost	When this feature is enabled, a warning message is displayed any time you lose your connection to the CDMA network. Use the check box to enable and disable this feature. (The feature is enabled when checked.)
IP re-assigned	All devices connected to the Internet require an IP (Internet Protocol) address. In some technologies, a device is assigned a permanent IP address and that IP address can never be used by another device. Where DHCP (Dynamic Host Configuration Protocol) is used, the network maintains a pool of IP addresses and assigns them to devices as needed. The AirCard 555 uses DHCP so that it is assigned an IP address by the network. This means that the IP address for your AirCard changes each time you connect, and sometimes during a connection. When this feature is enabled, a warning message is displayed each time the network assigns a new IP address to the AirCard. Use the check box to enable and disable this feature. (The feature is enabled when checked.)

SMS Tab



Table 7-6: SMS Tab Options

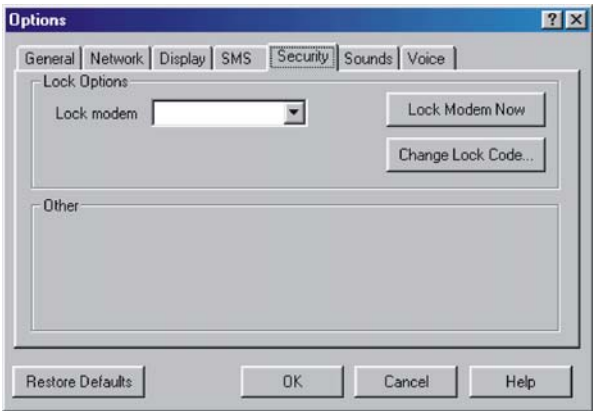
Field	Description
SMS Messages: Expire	This feature allows for the automatic deletion of SMS messages that have been in your Inbox for a specified amount of time. The SMS messaging feature is described in detail under the heading <i>Mobile Messaging...</i> above. To disable automatic deletion of messages, select Never from the drop-down menu. To enable automatic deletion of messages, select a number of days from the drop-down menu. Only messages that have been “read” (displayed in the Mobile Messenger window) are deleted by this feature. Manual deletion of messages is covered in the section on <i>Mobile Messaging...</i> above.
Override Callback #	When you send SMS messages, you have the option of specifying a call back number so that the message recipient will know how to reach you. By default, your call back number is your AirCard phone number. This feature allows you to use a different number than the AirCard phone number. To set a new call back number, click the check box to enable the feature and enter a number in the field. (Leave the field blank if you prefer to have no call back number on your messages.) To disable the feature (and use the AirCard phone number as your call back number), click the check box so that it is not checked.

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Table 7-6: SMS Tab Options

Field	Description
Save to Outbox	You have the option of retaining, in the Outbox, a copy of messages that you send. See the <i>Mobile Messenger...</i> section for details about the Outbox. This feature allows you to specify whether outgoing messages are saved in the Outbox. If you do not want to save any messages, select never. If you want to be prompted as you send each message, as to whether you want to retain a copy, select ask first. If you want to retain a copy of all messages you send, select automatically. Note that if you do not save messages to the outbox you do not receive status messages, such as the one that notifies you of a successful delivery.

Security Tab



Note: Locking the AirCard 555 does not prevent you from dialing 911.

Table 7-7: Security Tab Options

Field	Description
Lock modem	The Lock Code feature can be used to prevent others from using your AirCard and your account. When the Lock Code is enabled, you are prompted to enter a code any time Watcher is launched, and if the wrong code is entered, Watcher closes. (This makes it impossible to use the AirCard without knowing the lock code.) By default the lock code is the last four digits of your phone number. To disable the feature, select never from the drop-down menu. To enable the feature, so that you are prompted for a lock code the next time you launch Watcher, select on power up from the drop-down menu. (The Lock Code feature will then remain enabled until you disable it by selecting never in this field.)
Lock Modem Now	This field allows you to enable the Lock Code feature immediately. (If you select on power up in the previously described drop-down menu, you need to close Watcher before the lock code comes into effect.) When you click the button, Watcher prompts, "Lock the modem now?". Click Yes at this prompt to lock the AirCard.

Table 7-7: Security Tab Options

Field	Description
Change Lock Code	This button allows you to set a new lock code. To change the lock code: 1. Click the Change Lock Code button. 2. Enter your existing lock code (the last four digits of your phone number unless you have changed it) at the prompt. 3. Enter a new lock code. 4. Enter your new lock code for confirmation. 5. Click OK.

Sounds Tab



Table 7-8: Sounds Tab Options

Field	Description
Enable	This field allows you to enable and disable all sounds. When this box is checked, you have the option of individually enabling and disabling the Call Alert, Incoming Call, New SMS Message, and New Voice mail sounds. When the box is not checked, there are no sounds to notify you of any of these events. Use the check box to indicate whether you want all sounds enabled or disabled.
Call Alert	Depending on your billing plan, you may have a feature called Call Alert. When you are on a call, this feature notifies you when you have another incoming call. You can then ignore the new incoming call or put your current caller on hold and answer the new call. (Contact your service provider if you require more information about Call Alert.) If you have Call Alert, you can use this field to select whether a sound is played to notify you of another incoming call when you are already on a voice call. Use the check box to enable and disable the sound assigned to Call Alert. The play button (with the arrow head on it) allows you to hear the sound assigned to this feature. If you have another sound file you would prefer to play for call alerts, you can use the Browse button to select it. (Any *.wav file can be used.)

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Table 7-8: Sounds Tab Options

Field	Description
Incoming Call	This field allows you to select whether a sound is played when you receive a call. When this is disabled, the Silent Ringer icon is displayed in the indicator area of the main Watcher window. The only notification you will then have of an incoming voice call is the “Voice Call From ...” or “Roam Call From ...” message displayed in the call status area. Use the check box to enable or disable the sound. The play button (with the arrow on it) allows you to hear the sound assigned to incoming calls. If you have another sound file you would prefer to use, you can use the Browse button to select it. (Any *.wav file can be used.)
New SMS Message	This field allows you to select whether a sound is played when your receive a new SMS message. When this is enabled, a sound is played each time a message arrives. When disabled no sound is played. Use the check box to enable or disable the sound. The play button (with the arrow on it) allows you to hear the sound assigned to new SMS messages. If you have another sound file you would prefer to use, you can use the Browse button to select it. (Any *.wav file can be used.)
New Voicemail	This field allows you to select whether a sound is played when a new voice mail message arrives. When this is enabled, a sound is played when voice mail arrives. When disabled, no sound is played. Use the check box to enable or disable the sound. The play button (with the arrow head on it) allows you to hear the sound assigned to new voice mail. If you have another sound file you would prefer to use, you can use the Browse button to select it. (Any *.wav file can be used.)

Table 7-8: Sounds Tab Options

Field	Description
Headset Volume	This slider allows you to adjust the volume of the ear piece on your headset. This affects only the volume of what you hear. (That is, it does not adjust the volume of the speaker.) This performs the same function as the volume controls on the main Watcher window. To increase the volume, drag the slider to the right. To decrease the volume, drag the slider to the left.

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Voice Tab

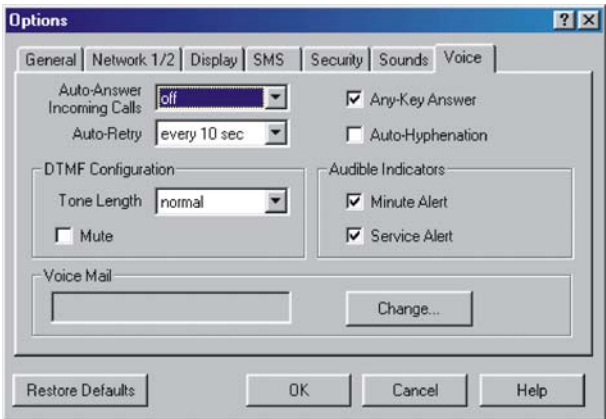


Table 7-9: Voice Tab Options

Field	Description
Auto-Answer Incoming Calls	This field allows you to enable and disable the Auto-Answer feature, and when enabled to select the number of rings after which a voice call is answered. To disable the feature, select off from the drop-down menu. To enable the feature, select the number of rings after which Watcher automatically answers the call.

Table 7-9: Voice Tab Options

Field	Description
Auto-Retry	This field allows you to enable and disable the Auto-Retry feature, and when enabled to select the interval between retrys. At times when a large number of users are connected to a single base station on the CDMA network, you may be unable to make a network connection on your first attempt. When enabled, Auto-Retry attempts the connection up to five times at the interval you select. When disabled, the AirCard does not retry automatically. To disable the feature, select off. Otherwise, select the interval at which you want automatic retrys to occur.
Any-Key Answer	This field allows you to enable and disable the Any-Key Answer feature. When enabled, you can answer an incoming call by clicking any button on the dial pad except End and Clr. When disabled, you must click the Send key to answer incoming calls. Use the check box to enable and disable the feature. (The feature is enabled when checked.)
Auto-Hyphenation	This field allows you to enable and disable the Auto-Hyphenation feature. When enabled, a hyphen is automatically inserted after the area code, and between the first three and last four digits of a phone number, as you enter the number. (This has no effect on what is dialed.) When disabled, no hyphen is inserted as you enter a phone number. Use the check box to enable and disable the feature. (The feature is enabled when checked.)

Table 7-9: Voice Tab Options

Field	Description
Tone Length	DTMF (Dual Tone Multi-Frequency) is the system used by touch tone phones under which a specific frequency or tone is assigned to each key. There is a standard length for these tones. However, some voice mail systems require a shorter or longer than normal length tone. This field allows you to set the AirCard to use a shorter or longer tone for systems that require it. The recommendation is to select normal unless your service provider indicates that a different tone is required.
Mute	When DTMF mute is enabled, there is no audible tone while the AirCard dials. Use the check box to enable and disable the feature. (The feature is enabled when checked.)
Minute Alert	This field allows you to enable and disable the Minute Alert feature. When enabled, the AirCard beeps at one minute intervals while you are on voice calls. This allows you to keep track of the duration of your call. Use the check box to enable and disable the feature. (The feature is enabled when checked.)
Service Alert	The field allows you to enable and disable the Service Alert feature. When enabled, the AirCard emits a tone whenever it goes from being out of service to being in service, and whenever it goes from being in service to being out of service. Use the check box to enable and disable the feature. (The feature is enabled when checked.)

Table 7-9: Voice Tab Options

Field	Description
Voice Mail Change ...	Depending on your billing plan, you may have a Voice Mail feature that allows callers to leave you a message when you don't answer a call. If you have this feature, then you access your voice messages by dialing a number specific to your service provider. When the AirCard is configured, the phone number your service provider uses for voice mail is automatically set up for you. If this number should change, you can change the number here. To change the number: 1. Click Change... 2. Enter the new phone number in the window that appears. 3. Click OK.

Administration > Activation Wizard...

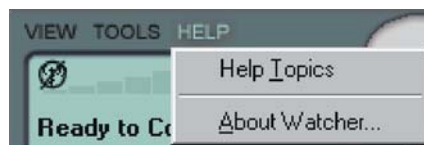
The Activation Wizard is used to configure the AirCard to use your account. An overview of this process is provided in the chapter *Getting Started*, under the heading *Account Configuration and Activation*.

Use of the Activation Wizard is described in Chapter 3 (*Installation on Notebook PCs*) under the heading *Account Configuration Procedures*.

Administration > Modem Update...

This option is not available in the Beta release.

The Help Menu



The options in the help menu allow you to:

- Use the on-line help
- Display version information

*Note: Help is available in most Watcher windows by clicking the **Help** button or by pressing <F1>.*

Help Topics...

The AirCard 555 network card comes with complete on-line help. To get help on any topic:

1. Select **Help > Help Topics...**

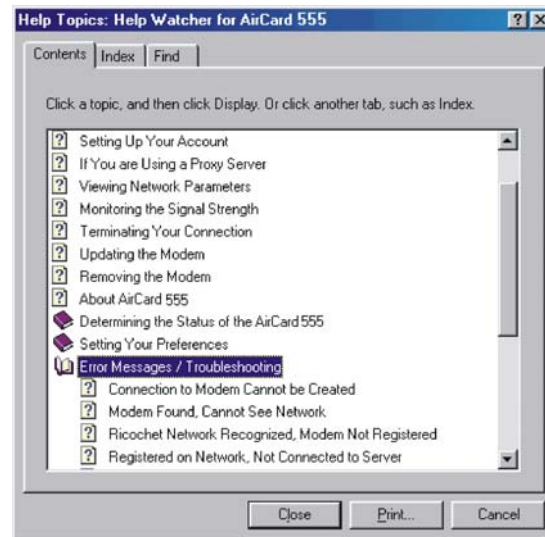
If the topic you want to display has a link on the main window, click the link.

If you do not see the topic you want to display, use the **Index**, **Find**, or **Help Topics** buttons to display the corresponding window:

In the **Index** window, a list of topics is displayed in the lower portion of the window. Search for an index entry by either typing the first few letters in the field at the top, or use the scroll bars to scan the list of entries. When you locate an entry you want to display, click the entry and click **Display**.



In the **Help Topics** (Contents) window, use the scroll bar to locate a topic of interest. Topics that have a book icon next to them can be expanded by double clicking the icon. Double click a topic to display its window.



In the **Find** window, select a radio button to generate a database. Then use the word matching options to locate the help section you want to display.

About Watcher...

The About window displays version information.



The information displayed in this window is:

- The phone number of your account
- The Electronic Serial Number (ESN), a number assigned to each AirCard 555 by the manufacturer
- The IP (Internet Protocol) Address currently assigned to the AirCard
- The version of Watcher (Software) in use

- The version of the AirCard driver (software that forms the interface between the AirCard and your operating system) in use
- The hardware version
- The version of firmware (software that resides in the flash memory of the AirCard) in use
- The version of the bootloader (a component of the firmware) in use

If you have an Internet connection, you can go to the Sierra Wireless web site by clicking the **www.sierrawireless.com** button.

>> 8: The Network Adapter Manager

- Windows 95, 98, NT & Me
- Windows 2000
- On-Line Help and Version Information
- Closing the Network Adapter Manager

Note: If you install the Sierra Wireless AirCard 300 or AirCard 400 software, it is necessary to re-install the Network Adapter Manager from the AirCard 555 CD.

Note: The Network Adapter Manager launches automatically whenever Windows is started. Unless you manually exit the application, it remains running from the time you start Windows until you shut down. Generally, the only evidence that the Network Adapter Manager is running is the status area icon.

The AirCard 555 wireless network card comes with an application, called the Network Adapter Manager, that is designed to manage multiple network interface cards.

To understand the purpose of the Network Adapter Manager, it is necessary to understand that the AirCard behaves differently for each type of connection. The AirCard 555 behaves as:

- A modem during dial-up data connections
- A phone during voice connections
- A network interface card during 1xRTT connections

It is only while the AirCard 555 is behaving as a network interface card (when there is an active 1xRTT connection) that the Network Adapter Manager is of use.

When you have more than one network interface card inserted, Windows routes the data traffic through only one of the cards. This means that when you have a 1xRTT connection with the AirCard 555, and you have another network interface card (such as an Ethernet or Token Ring LAN card) inserted, data traffic is routed through either the AirCard 555 or the LAN card — not both. The card through which data traffic is being routed is the “primary” card. The Network Adapter Manager shows you which card is primary by displaying an icon in the status area (usually located in the lower right corner of your screen).



Depending on which card is primary, the Network Adapter Manager displays one of these icons.



Note: Switching between cards while using a network application is NOT recommended. For example, if you use the Network Adapter Manager to switch from using your LAN card to the AirCard while an e-mail application is running, the e-mail application may behave unpredictably. The recommendation is to close network applications, switch cards, and launch the applications again.

The tooltip, displayed when you position the pointer over the Network Adapter Manager icon in the status area, identifies the primary card:



Windows 95, 98, NT & Me

In Windows 95, 98, NT, and Me, the Network Adapter Manager can be used to switch between the AirCard 555 and other network interface cards.

Switching Primary Cards

If you initiate a 1xRTT connection with the AirCard 555 while a LAN card is primary, the Network Adapter Manager automatically makes the AirCard the primary card. That is, making a 1xRTT connection while a LAN card is in use has the effect of re-routing data traffic from the LAN card to the AirCard 555.

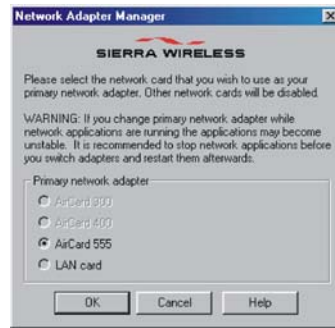
The Network Adapter Manager also has a menu through which you can switch primary cards. To switch cards:

1. Right click the Network Adapter Manager icon in the status area to display the shortcut menu.
2. Select the card you want to use as the primary card from the menu.



Or

Select **Show Options** from the menu. In the window that appears, use the radio buttons to select the card you want to use as the primary card and click **OK**.



Windows 2000

Windows 2000 has more advanced device handling capabilities than Windows 95, 98, NT, and Me. If more than one network card is detected, Windows 2000 automatically routes network traffic through the card that provides the highest transmission speed.

Generally a wireline LAN card (such as an Ethernet card) provides faster transmission speed than a wireless card (such as the AirCard). If, for example, you have an AirCard and an Ethernet card installed and active on your laptop, Windows routes network traffic through the Ethernet card because it offers the higher transmission speed. If you then want to take the computer to another location, you can stop the Ethernet card (see below), disconnect the cable to the Ethernet card, and Windows 2000 will automatically begin routing network traffic through the AirCard.

Since Windows 2000 has this enhanced method of handling multiple PC cards, the Network Adapter Manager does not allow you to switch cards from the shortcut menu in this operating system.

In Windows 2000 you can control which card is the primary card by stopping the cards you do not want to use.

To stop a card:

1. Click the PC card icon in the status area.
2. A listing of active cards is displayed.



3. Click the card you want to stop in the listing.

On-Line Help and Version Information

To display on-line help for the Network Adapter Manager:

1. Right click the Network Adapter Manager status area icon.
2. Select **Help** from the shortcut menu.

To display version information for the Network Adapter Manager:

1. Right click the Network Adapter Manager status area icon.
2. Select **About Network Adapter Manager** from the menu.

Closing the Network Adapter Manager

To close the Network Adapter Manager:

1. Right click the Network Adapter Manager status area icon.
2. Select **Exit** from the shortcut menu.

9: Technical Specifications

- LED Operation
- Radio Frequency & Electrical Specifications
- Environmental Specifications

This chapter describes the function of the LED, and provides technical product data for the AirCard 555 wireless network card.

LED Operation

The AirCard 555 has a single red/green LED on the antenna end of the card. The LED operates as follows:

Table 9-1: LED Operation

LED Behavior	Indicates
Solid amber*	The AirCard is powering up.
Blinking amber	The AirCard is searching for a channel.
Solid green	A call is in progress.
Blinking green	The AirCard has acquired a channel and is in idle mode (no call is in progress).
Solid red	An error has occurred.

* Amber is used to describe the color of the LED when both red and green are lit.

Radio Frequency & Electrical Specifications

Table 9-2: Radio Frequency & Electrical Specifications

Approvals	Compliant with: IS95A, IS95B, IS-98D, IS-707A, IS707A-1, CDMA Developers Group FCC Industry Canada
Voltage	+5 Vdc from PCMCIA Slot
Current	Maximum: 680 mA Typical: 150 mA
Transmitter Power	200 mW (+23 dBm)
Transmit	PCS: 1850 to 1910 MHz Cellular: 824 to 849 MHz
Receive	PCS: 1930 to 1990 MHz Cellular: 869 to 894 MHz
Channel Spacing	1.25 MHz
Freq. Stability	± 150 Hz

Environmental Specifications

Table 9-3: Environmental Specifications

Operating Temp.	-30 to +60 °C (ambient, outside PCMCIA enclosure)
Storage Temp.	-30 to +85 °C
Humidity	95%, non-condensing
Vibration	15 g peak 10 to 2000 Hz (non operating)
Drop	30" (76.2 cm) on to vinyl covered concrete

>> 10: Regulatory Information

This device complies with Part 15 of the FCC Rules. Operation of this device is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operations. FCC guidelines stipulate that the antenna should be more than 17mm (0.68") from all persons.

FCC ID: N7NACRD555

Where appropriate, the use of the equipment is subject to the following conditions:

CAUTION Unauthorized modifications or changes not expressly approved by Sierra Wireless, Inc. could void compliance with regulatory rules, and thereby your authority to use this equipment.

WARNING (EMI) – United States FCC Information – This equipment has been tested and found to comply with the limits pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in an appropriate 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 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 correct 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

WARNING (EMI) – Canada – This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference causing equipment standard entitled "Digital Apparatus", ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", NMB-003 édictée par le ministre des Communications.

If you have purchased this product under a United States Government contract, it shall be subject to restrictions as set forth in subparagraph (c)(1)(ii) of Defense Federal Acquisitions Regulations (DFARs) Section 252.227-7013 for Department of Defense contracts, and as set forth in Federal Acquisitions Regulations (FARs) Section 52.227-19 for civilian agency contracts or any successor regulations. If further government regulations apply, it is your responsibility to ensure compliance with such regulations.

