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User's Guide

**PCS Connection Card™
by Sierra Wireless
AirCard® 550**

SIERRA WIRELESS
HEART OF THE WIRELESS MACHINE®

Table of Contents

Welcome to Sprint

S print built the largest all-digital, all-PCS nationwide network with advanced multimedia services, reaching more than 230 million people for clarity you can see and hear. We built our network to give you what we believe you really want from a wireless phone, clear sound, private conversations, and time-saving features.

But with Sprint, you can do something even more far-reaching—simplify your life. Our advanced technology is designed to grow with your communications needs so that one day you'll be able to rely entirely on your PCS Phone to stay connected.

This guide will familiarize you with our technology and your new Vision-enabled PCS Phone through simple, easy-to-follow instructions. If you have already reviewed the Start Here Guide, which was packaged with your new phone, then you're ready to explore the advanced features outlined in this guide.

If you have not read your Start Here Guide, go to Section One - Getting Started. This section provides all the information you need to quickly activate your phone, set up your voicemail, and much more. It also contains information on how to contact Sprint should you have questions about service, wish to check your account balance, or want to purchase additional products or services.

Thank you for choosing Sprint.

Introduction to this User's Guide

This User's Guide introduces you to all the features of your new PCS Connection Card™. It's divided into six sections:

▸ **Section 1:** PCS Connection Card Basics

▸ **Section 2:** Installing the PCS Connection Card

▸ **Section 3:** Using the PCS Connection Card

▸ **Section 4:** PCS Vision

▸ **Section 5:** Technical Specifications & Regulatory Information

▸ **Section 6:** Safety Information and Terms & Conditions

Throughout the guide, you'll find tips that highlight special shortcuts to help you make the most of your wireless network card and service. The Table of Contents and Index will help you locate specific information quickly.

You'll get the most out of your PCS Connection Card if you read each section. However, if you'd like to get right to a specific feature, simply turn to that page. Follow the instructions in that section and you'll be ready to use your card in no time.

Tip: You can print out this guide to keep on hand or view it online. If you're viewing it online, simply click on a topic in the Table of Contents or Index on any page reference within a section. The PDF will automatically display the appropriate page.

PCS Connection Card Basics

Introducing the
PCS Connection Card™

In This Section

▶ **A Network Card and a Phone**

▶ **Package Contents**

▶ **About this Guide**

T his section introduces the basic features and functions of
your PCS Connection Card, what is included with your
card and how to use this guide to get you started.

Your PCS Connection Card

The PCS Connection Card fits into a standard Type II PC Card slot (available on most notebook PCs, Handheld PCS and, through an accessory, on Pocket PCs) and functions as a wireless network card and a mobile phone. This card allows you to:

▶ Access your corporate network

▶ Send and receive email

▶ Access the Internet

▶ Make and receive voice calls

▶ Receive short text (Web) messages

all without the need of a network cable or phone line.

The PCS Connection Card functions in notebook PCS with these Windows® operating systems: 98 SE, 2000, Me, and XP. The PCS Connection Card also functions in select Handheld and Pocket PCs.

CDMA Networks

The PCS Connection Card 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:

▶ Web Messaging, which allows you to receive short messages using the PCS Connection Card.

To use the PCS Connection Card, you need an account that gives you access to a CDMA network.

Every CDMA network operates on one of three radio frequency bands. Your PCS Connection Card operates on the 1900 MHz band.

The PCS Connection Card utilizes CDMA technology enabling real-time wireless access to email, the Internet or your company network. The card runs on most current Windows-compatible laptop or desktop computers, and it provides data transmission of up to 144 kilobits per second (kbps) (average speed of 50-70 kbps before bandswidth optimization).

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

A Network Card and a Phone

During PCS Vision connections, the PCS Connection Card is a true network card, functioning just like the network cards familiar to most corporate computer users. Once installed and configured, the card connects instantly to the CDMA network with a few mouse clicks.

You can just insert the card, click a few buttons, launch your Internet browser, and you're ready to surf the Web. To access your corporate network, you may need to launch an extranet client after you connect to the CDMA network.

Tip: To optimize your settings for faster speeds and conservation of data transmission when accessing your corporate network, work in "Offline" mode and synchronize periodically to send and receive corporate email. Also, save/drag-and-drop attachments to a desktop folder rather than double-clicking prior to opening. For more detailed information, access the Microsoft whitepaper at http://www.microsoft.com/office/outlook/evaluation/perform.doc.

You can also connect a headset to the card and use it as a phone.

Package Contents

Your PCS Connection Card package contains the following components:

▶ PCS Connection Card by Sierra Wireless (AirCard 550)

▶ Antenna

▶ Hands-free earbud

▶ Installation CD containing the PCS Connection Manager℠ Software, and this user guide

▶ Quick reference card

If you want to use the PCS Connection Card to make voice calls, a headset is necessary. See the Sierra Wireless Web site, www.sierrawireless.com, for a listing of approved headsets that will work with your card.

About This Guide

This user guide is designed to provide you with all the information you need to install and use your PCS Connection Card.

▶ **Section 1** (which you are reading) gives you an overview of the card, providing the background information that is the basis for understanding the following sections.

▶ **Section 2** provides step-by-step instructions on installing the PCS Connection Card.

▶ **Section 3** provides step-by-step instructions on using the card.

▶ **Section 4** provides an introduction to PCS Vision Services.

▶ **Section 5** provides electrical, radio frequency, and other parameters of the PCS Connection Card for those who require technical information, as well as regulatory information.

▶ **Section 6** provides safety and liability information and the Terms and Conditions of use for the PCS Connection Card.

Getting StartedWith Your PCS Connection Card™

In This Section

▶ **The PCS Connection Card Software**

▶ **Activating and Configuring Your Account**

▶ **Care and Maintenance**

This section outlines the basics of getting started with your PCS Connection Card, including installing the PCS Connection Manager℠ Software and inserting and activating your card.

Getting Started

Before you can begin using the PCS Connection Card, you must:

1. Install the PCS Connection Manager Software.
2. Activate your PCS Account and configure the PCS Connection Card to use your account, unless the card has been pre-activated.

The PCS Connection Card Software

The PCS Connection Card comes with this software:

▶ PCS Connection Manager, which allows you to manage the card and monitor your connections.

▶ (For notebook PCS only) An application called the Network Adapter Manager that allows you to switch between the PCS Connection Card and other network cards

▶ The driver software that forms the interface between the network card and your Windows operating system

The software must be installed before you insert the PCS Connection Card for the first time. Detailed instructions are provided, starting on page 13 (for notebook PCs) and on page 23 (for Handheld / Pocket PCs).

Activating and Using PCS Service

Before using your PCS Connection Card, you must first set up your PCS wireless network account.

To set up your PCS Connection Card wireless network account:

Call PCS Customer Service Solutions.

▶ If you will be using your PCS Connection Card primarily for business purposes, call **1-877-789-3969**.

▶ If your card is intended primarily for personal use, call **1-888-715-4588**.

You should have the following information available:

▶ Your billing address
▶ Your Social Security or Tax ID number
▶ Your driver's license number

▶ Your PCS Connection Card's ESN (electronic serial number) The ESN is printed on the card's label and can also be displayed during the installation process.

▶ A pen and paper to write down your account information

During this call, PCS Customer Service Solutions will help you select your service plan and guide you through the activation process. They will also provide you with the following important account information:

▶ Your card's Activation Code

▶ Your card's Phone Number

▶ Your card's Lock Code

Tip: You can use the Lock Code feature to prevent others from using your account should your PCS Connection Card be stolen. See page 80 for instructions on using this feature.

Unless your card has been pre-activated, the PCS Connection Manager application will automatically detect that no account has been configured when you run it for the first time. The Sprint Activation Wizard will then launch to guide you through the activation and configuration process.

Care and Maintenance

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

▶ Do not apply adhesive labels to the card. This may cause the card 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 antenna and store it in a compartment where it cannot be crushed or broken.

▶ The card should fit easily into your PC slot. Forcing the card into a slot may damage connector pins.

▶ Protect the card from liquids, dust, and excessive heat.

▶ When not installed in your computer, store the card in a safe place.

Section 2

Installing the
PCS Connection Card

Installation on Notebook PCs

In This Section

▶ **System Requirements**

▶ **Installing the PCS Connection Manager℠ Software**

▶ **Inserting and Removing the Card**

▶ **Configuring Your Account**

This chapter guides you through the steps necessary to install your PCS Connection Card™ and make it operational on a notebook PC.

Getting Started

Before you can use your PCS Connection Card, you must first:

1. Install the PCS Connection Manager Software, located on the Installation CD, onto your computer. This process is described in detail starting on page 15 for Windows 98 SE, ME, and 2000, and on page 17 for Windows XP.

Note: Before installing your new software, delete or uninstall any previously existing modem or dialer software from your system.

Note: Do not insert the PCS Connection Card in the slot until prompted to do so by the Setup program.

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2. Insert the card into your computer's PC Card slot (Sprint label facing up). Windows will detect the card and automatically install the necessary card drivers.
3. Launch the PCS Connection Manager Software application.
4. If your card has not previously been activated, the Activation Wizard will automatically launch and guide you through the process.

System Requirements

The PCS Connection Card is supported on the following operation systems:

► Windows 98 SE

► Windows 2000 with Service Pack 1

► Windows Me

► Windows XP (Home and Professional versions)

To install the PCS Connection Card, you require these system resources:

Table 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

Tip: A driver is software that forms the interface between a device (such as the PCS Connection Card) and the operating system on your PC (such as Windows Me).

Special Note for Windows 98 and 2000 Users: To function properly, the PCS Connection Card's IOTA protocol requires support for high-security 128-bit encryption. If the installer does not detect high-security support on your system, a pop-up window will appear instructing you to update your Internet Explorer to version 6 (Windows 98) or update your Windows 2000 to support 128-bit security (Windows 2000). Follow the onscreen instructions to update your system.

Installing the PCS Connection Manager℠ Software (Windows 98 SE, Me, and 2000)

Note for Windows 2000 Users: Users of Windows 2000 must be logged in with administrative privileges to install the PCS Connection Manager Software. If the "Digital Signature Not Found" window appears during the installation process, you may safely click **Yes** to proceed.

Installing the PCS Connection Manager Software and the PCS Connection Card driver:

1. If the PCS Connection Manager 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 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:

   ▶ You must click **Yes** to indicate your acceptance of the terms of the license agreement 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 the PCS Connection Manager Software. This gives you the option of launching the application by double clicking an icon on your desktop (as well as from the Start menu).

   ▶ Click **Finish** to close the last screen of the wizard.

5. You may have the option to install Bytemobile compression software. This is recommended to improve performance during web browsing. If you decline this option and want to install it later, you will have to uninstall the PCS Connection Manager software and reinstall it.

6. If your operating system is Windows 2000, you are prompted that the driver files will be copied to your notebook. Click **OK**.

7. Click **OK** when you are prompted to insert the PCS Connection Card. Attach the antenna and insert the card into your PC Card slot.

Note for Windows 98 and Me Users: If your computer has a built-in network adapter, your computer may appear to have stopped responding during the card detection process. The operating system is resolving resource issues related to your built-in adapter and the PCS_Connection Card. Do not abort the installation process. Allow several minutes for the process to complete.

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

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8. Click **OK** when you are notified that the installation is complete. If your operating system is Windows 98 SE or Windows Me, restart your PC from the **Start** menu.

Note for Windows 98 and Me Users: If your computer has a built-in network adapter, another long delay occurs the first time the PCS_Connection Card is inserted after this reboot. Subsequent insertions of the card will not experience the delay.

On completion of this step, the PCS Connection Manager Software and the PCS Connection Card driver are installed and you can proceed to activate your card. See "Activating Your PCS Connection Card" on page 20.

Installing the PCS Connection Manager Software (Windows XP)

Note: You may require administrative privileges, depending on your Windows XP installation.

Installing the PCS Connection Manager Software:
1. If the PCS Connection Manager 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 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:

  ▶ You must click **Yes** to indicate your acceptance of the terms of the license agreement 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.)

  ▶ You may have the option to install Bytemobile compression software. This is recommended to improve performance during web browsing. If you decline this option and want to install it later, you will have to uninstall the PCS Connection Manager software and reinstall it.

  ▶ 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 the PCS Connection Manager Software. This gives you the option of launching the software by double clicking an icon on your desktop (as well as from the Start menu).

  ▶ Click **Finish** to close the last screen of the wizard.

  ▶ If you are running Windows XP, a window indicates that the driver files will be copied to your notebook. Click **OK** and click **Continue Anyway** on the Software Installation window each time it appears. A window prompts you to insert the PCS Connection Card to install the drivers. Click **OK**.

Installing the PCS Connection Card driver.

1. Attach the antenna to the PCS Connection Card and, with the label facing up, carefully insert the card 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.

2. Select **Install from a list or specific location (Advanced)** on the first window of the Found New Hardware Wizard and click **Next** to proceed.

3. Select the **Search for the best driver in these locations** radio button, and the **Include this location in the search** check box, then enter **d:\Drivers\WinXP** where **d** is the drive letter of your CD-ROM drive. Click **Next** to proceed to the next window.

4. If a warning appears stating that PCS Connection Card has not passed Windows Logo testing, click **Continue Anyway**.

5. Click **Finish** and repeat steps 1 to 4 as prompted.

6. Click **OK** when prompted that the card has been successfully installed.

On completion of this step, the PCS Connection Manager Software and the PCS Connection Card driver are installed and you can proceed to activate your card. See "Activating Your PCS Connection Card" on page 20.

Tip: A driver is software that forms the interface between a device (such as the PCS Connection Card) and the operating system on your PC (such as Windows XP).

Inserting and Removing the PCS Connection Card

Inserting the PCS Connection Card

Before you insert the PCS Connection Card, you must first install the Wireless Connection Manager Software. Once you have completed the installation procedure, you may insert your card into your computer's PC Card slot. The Sprint label should be facing up, and the 68-pin connector, located at the

end of the card, should be inserted directly into the computer's PC Card slot.

Note: The PCS Connection Card should fit snugly, but you should be able to insert or remove it easily from your computer's PC Card slot.

When you insert the card, 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).

▸ The PCS Connection Manager Software launches (unless the auto-launch feature has been disabled).

The card is powered as soon as you insert it.

Removing the PCS Connection Card

To remove the card:
1. Close the PCS Connection Manager program if it is open.
2. Click the PC Card icon in the status area to display the option to stop the card.
3. Click "Stop PCS Connection Card Parent" (Windows 98 SE, 2000, or Me) or "Safely remove PCS Connection Card Parent" (Windows XP).
4. If a dialog box appears notifying you that it is safe to remove the card, click **OK**.
5. Use the ejector to remove the card from the slot.

Activating Your PCS Connection Card

The final step to making the PCS Connection Card operational is configuring it to use your account.

Tip: For an overview of account activation and configuration, see "Activating and Using PCS Service" on page 8.

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

Otherwise, you must use the Sprint Activation Wizard to activate and configure your account. Future releases of the

PCS Connection Manager Software will allow for both Manual and Voice-Assisted Activation, but only Manual Activation is available in this release. Manual Activation involves phoning PCS Customer Service Solutions, exchanging information and entering your account information into the appropriate fields in the wizard. You require a separate phone to use this method.

To activate an account and configure your PCS Connection Card:

1. Insert the card into your PC Card slot, if it is not already inserted.

2. If the Activation Wizard does not appear automatically, launch the PCS Connection Manager Software. Double-click the shortcut icon on your desktop or select **Start** > **Programs** > **Sierra Wireless** > **AirCard 550** > **PCS Connection Manager for AirCard 550**.

3. From the PCS Connection Manager, launch the Activation Wizard by selecting **MENU** > **Activation Wizard**.

4. Use the **Next** and **Back** buttons to navigate through the Activation Wizard, noting the following:

   ▶ Use the radio button 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 PCS Customer Service Solutions or proceeding to the next window.

   ▶ Please telephone PCS Customer Service Solutions to set up your PCS wireless network account.

      • If you will be using your PCS Connection Card primarily for business purposes, call **1-877-789-3969**.

      • If your card is intended primarily for personal use, call **1-888-715-4588**.

   ▶ Inform your PCS Customer Solutions Specialist that you are activating a PCS Connection Card by Sierra Wireless (AirCard 550). The representative will request your ESN (electronic serial number). This is displayed in the Activation Wizard (and is printed on the PCS Connection Card box and on the label on the back of the card).

5. Click **Finish** on the final window of the wizard.

On completion of this step, the card is ready for use for voice calls and receiveing Wireless Web Messages. When you make

your first data connection, the card will use IOTA (Internet Over The Air) to obtain and activate your data services. This account setup is performed for you by making a data connection to the PCS Vision network and using a secure (encrypted) Internet connection to download account parameters to the AirCard 550 PCS Connection Card.

After this first activation, there may be changes to your account that will require updating parameters in the AirCard 550 PCS Connection Card. If this is needed you can select **MENU > Data Provisioning** to have the PCS Connection Card retrieve the updates to your data services account.

Section 3A: The PCS Connection Manager Window and Indicators on page 35 explains how to use the PCS Connection Manager Software to manage and monitor your connections.

Installation on Handheld and Pocket PCs

In This Section

▶ **System Requirements**

▶ **Installing the PCS Connection Manager℠ Software**

▶ **Inserting and Removing the PCS Connection Card™**

▶ **Configuring Your Account**

T his chapter guides you through the steps necessary to install your PCS Connection Card and make it operational on a Handheld or Pocket PC. This requires that you install the PCS Connection Manager Software and activate and configure your account (unless the card is pre-activated).

Getting Started

Since software cannot be installed directly to a Handheld/Pocket PC, you require a desktop or notebook computer to function as a "host". The installation, activation, and configuration process follows these steps:

1. Install the software to the host.
2. Connect the Handheld/Pocket PC to the host and download the software from the host to the Handheld/Pocket PC. (You can connect the Handheld/Pocket PC to the host before or after you install the software to the host.)
3. If the card has not been pre-activated, use the Sprint Activation Wizard to configure the card.

Before you begin the installation, ensure you have the necessary hardware, software, and system resources described in the next section.

System Requirements

The minimum system requirements for both Pocket PCS and Handheld PCS (as well as their host computers) are as follows:

Pocket PC System Requirements

Operating System:

▶ Windows CE 3.0 MS Pocket PC, or

▶ Windows CE 3.0 Pocket PC 2002

If you do not know what version of Windows CE you are using, select **Start > Settings**, tap the **System** tab, and tap the **About** icon. If the second line on the screen reads, "Windows 3.0.9348 (Build…)", your operating system is Windows CE 3.0 MS Pocket PC. If the second line reads, "Windows 3.0.11171 (Build…)", your operating system is Windows CE 3.0 Pocket PC 2002.

Your Pocket PC must have:

▶ 900 kB of storage memory

▶ The PCMCIA jacket accessory (with a PC Card slot)

▶ A method of connecting to a host computer, using either a serial autosync cable, USB autosync cable, or infrared ports

Special Note for Pocket PC Users: To function properly with IOTA protocol, the PCS Connection Card requires support for high-security 128-bit encryption. If the installer does not detect high-security support on your system, a warning will appear instructing you to install Microsoft High Encryption Pack for Pocket PC. Your host computer will then display a pop-up window instructing you to upgrade your Pocket PC Internet Explorer to support high encryption. Follow the onscreen instructions to update your system.

Handheld PC System Requirements

Operating System:

▶ Windows CE 3.0 Handheld PC 2000

Your Handheld PC must have:

▶ 900 kB of storage memory

▶ A PC Card slot

▶ A method of connecting to a host computer, using either a serial autosync cable or infrared ports

Host System Requirements

Whether you are using a Handheld or Pocket PC, you require a desktop or notebook computer to function as the host that:

▶ Has the necessary port (serial, USB, or infrared) to connect to the Handheld/Pocket PC

▶ Has a CD-ROM drive

▶ Is running Windows 98 SE or 2000

▶ Has ActiveSync version 3.1 or 3.5 installed (ActiveSync 3.5 is required if you are using Windows CE 3.0 Pocket PC 2002)

Tip: ActiveSync is made by Microsoft and is included with all Handheld/Pocket PCS running Windows CE 3.0.

Special Note for Handheld PC Users: To function properly with IOTA protocol, the PCS Connection Card requires support for high-security 128-bit encryption. If the installer does not detect high-security support on your system, it will automatically update your Handheld PC with an XML extension provided by Hewlett Packard. When your Handheld PC displays "Install HP msxml," tap **OK** to complete the installation. Your host computer will then display a pop-up window instructing you to upgrade your

Handheld PC Internet Explorer to support high encryption. Follow the onscreen instructions to update your system.

Installing the PCS Connection Manager℠ Software

To install the software, you can either:

▶ Connect the host and the Handheld/Pocket PC before you install the software to the host. (In this case, you are prompted to initiate the download as soon as the software installation is complete.)

– or –

▶ Install the software to the host and then connect the host and the Handheld/Pocket PC, as described here.

This process installs the PCS Connection Manager Software and the PCS Connection Card drivers.

Installing the PCS Connection Manager Software on the Host

To install the software on the host:

1. Close any Windows programs that are running and insert the PCS Connection Manager installation CD in your CD-ROM drive. 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:
   ▶ **Pocket PC installation and documentation** then **Pocket PC software installation** (if you have a Pocket PC running Windows CE 3.0 MS Pocket PC), or
   ▶ **Pocket PC 2002 installation and documentation** then **Pocket PC 2002 software installation** (if you have a Pocket PC running Windows CE 3.0 Pocket PC 2002), or
   ▶ **Handheld PC 2000 installation and documentation** then **Handheld PC 2000 software installation** (if you have a Handheld PC running Windows CE 3.0)

This launches the InstallShield® Wizard that installs the software to the host.

4. Use the **Next** and **Back** buttons to navigate through the wizard noting the following:

▶ 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 dialog box displays this message, "On the next mobile device connection, the installed application will be downloaded to the device." Click **OK**.

▶ 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.)

▶ Click **Finish** to close the last screen of the wizard.

▶ Use the **exit** option in the lower left corner of the window to close the CD start-up menu.

Downloading the Software to the Handheld/Pocket PC

To download the software to the Handheld/Pocket PC:

1. Connect the Handheld/Pocket PC to the host in one of these ways:

Pocket PCs:

▶ Connect one end of the serial cable to the bottom of the Pocket PC and the other end to a serial port on your host PC, or

▶ Place your Pocket PC in its cradle and connect the USB cable on the cradle to a USB port on your host PC, or

▶ Align the infrared port on your Pocket PC with an infrared port on your host PC.

Handheld PCs:

▶ Place your Handheld PC in its docking cradle and connect the serial cable on the cradle to a serial port on your host PC, or

▶ Align the infrared port on your Handheld PC with an infrared port on your host PC.

ActiveSync should launch automatically when the host and Handheld/Pocket PC are connected.

Note: If you are unable to establish a connection, launch ActiveSync from the Start menu and use the online help in ActiveSync.

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2. If you are prompted to indicate whether you want to set up a partnership, click **Yes** or **No** and click **Next**. (For the purpose of downloading the PCS Connection Manager Software, it does not matter whether you have a partnership.) You should then be prompted that there is software to download.
3. Click **Yes** to start the download. When complete, you will be prompted to check your mobile device screen to see if additional steps are required.
4. Click **OK**.
5. Reset your Handheld/Pocket PC by inserting the stylus into the reset button. (The reset button is usually a circular indentation that may be on the keyboard of the Handheld PC or the bottom of the Pocket PC. Consult the documentation that came with your PC if you do not know how to reset the device.)

On completion of this step, the PCS Connection Manager Software and the PCS Connection Card driver are installed and you can proceed to activate your card. See "Activating Your PCS Connection Card" on page 29.

Inserting and Removing the PCS Connection Card

Inserting the PCS Connection Card

To insert the PCS Connection Card into a Pocket PC:
1. If the PCMCIA jacket accessory is not already attached, slide the Pocket PC bottom first into the jacket. It should click into place.
2. Attach the antenna to the circular copper connector on the end of the card. **DO NOT FORCE**.

3. With the Sprint label facing towards the front of the Pocket PC, insert the network card into the slot at the top of the jacket.

To insert the PCS Connection Card into a Handheld PC:
1. Attach the antenna to the circular copper connector on the end of the card. **DO NOT FORCE**.
2. With the Sprint label facing towards the top of the Handheld PC, insert the network card into the slot.

The card is powered as soon as you insert it.

Removing the PCS Connection Card

▶ Use the ejector to release the card and remove it from the slot.

Note: On Pocket PCs, anytime you eject and re-insert the PCS Connection Card, restart your PC by turning it off and on again. This step is necessary to ensure the communication port detects the card.

Activating Your PCS Connection Card

The final step to making the PCS Connection Card operational is configuring it to use your account.

Tip: For an overview of account activation and configuration, see "Activating and Using PCS Service" on page 8.

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

Otherwise, you must use the Sprint Activation Wizard to activate and configure your account. Future releases of the PCS Connection Manager Software will allow for both Manual and Voice-Assisted Activation, but only Manual Activation is available in this release. Manual Activation involves phoning PCS Customer Service Solutions, exchanging information and entering your account information into the appropriate fields in the wizard. You require a separate phone to use this method.

To activate an account and configure your PCS Connection Card:

1. Insert the card into your PC Card slot, if it is not already inserted.

2. If the Activation Wizard does not appear automatically, launch the PCS Connection Manager Software. Double-click the shortcut icon on your desktop or select **Start** > **Programs** > **Sierra Wireless** > **AirCard 550** > **PCS Connection Manager for AirCard 550**.

3. From the PCS Connection Manager, launch the Activation Wizard by selecting **MENU** > **Activation Wizard**.

4. Use the **Next** and **Back** buttons to navigate through the Activation Wizard, noting the following:

   ▶ Use the radio button 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 PCS Customer Service Solutions or proceeding to the next window.

   ▶ Please telephone PCS Customer Service Solutions to set up your PCS wireless network account.

      • If you will be using your PCS Connection Card primarily for business purposes, call **1-877-789-3969**.

      • If your card is intended primarily for personal use, call **1-888-715-4588**.

   ▶ Inform your PCS Customer Solutions Specialist that you are activating a PCS Connection Card by Sierra Wireless (AirCard 550). The representative will request your ESN (electronic serial number). This is displayed in the Activation Wizard (and is printed on the PCS Connection Card box and on the label on the back of the card).

5. Click **Finish** on the final window of the wizard.

On completion of this step, the card is ready for use for voice calls and receiveing Wireless Web Messages. When you make your first data connection, the card will use IOTA (Internet Over The Air) to obtain and activate your data services. This account setup is performed for you by making a data connection to the PCS Vision network and using a secure (encrypted) Internet connection to download account parameters to the AirCard 550 PCS Connection Card.

After this first activation, there may be changes to your account that will require updating parameters in the AirCard 550 PCS Connection Card. If this is needed you can select **TOOLS > Data Provisioning** to have the PCS Connection Card retrieve the updates to your data services account.

On completion of this step, the card is ready for use. Section 3A: The PCS Connection Manager Window and Indicators on page 35 explains how to use the PCS Connection Manager Software to manage and monitor your connections.

Using the PCS Connection Card

Section 3A

The PCS Connection Manager^{SM} Window and Indicators

In This Section

▶ **The PCS Connection Manager**

▶ **Getting Help**

▶ **Components of the PCS Connection Manager window**

▶ **Menu items**

▶ **Taskbar icons**

This chapter outlines the PCS Connection Manager interface for your PCS Connection Card, including the components of the main window, button usage, taskbar icons and more. Once you've mastered the basics here, you'll be ready to begin using your PCS Connection Card.

The PCS Connection Manager

PCS Connection Manager Software allows you to manage and monitor the connection between your PCS Connection Card and the CDMA network. Use the PCS Connection Manager to:

► Determine your signal strength, roaming status, PCS Vision availability, and other network connection parameters

► Initiate voice and data calls

► View call statistics and Web messages

► Enable and disable features like Always On Top (which allows you to set the card software to display in front of other application windows) and KeyGuard (which prevents accidental dialing)

► Set options related to Web messages, sounds played, voice calls, and the lock code security feature (which you can use to prevent others from using your card)

Anytime you use the PCS Connection Card you must run the PCS Connection Manager Software.

Starting the PCS Connection Manager Software

On a notebook PC, you can launch the PCS Connection Manager Software by:

► [icon] Double clicking the icon on your desktop

► Selecting **Start** > **Programs** > **Sierra Wireless** > **AirCard 550** > **PCS Connection Manager for AirCard 550**

On a Handheld/Pocket PC, you can launch the PCS Connection Manager Software by selecting **Start > Programs > PCS Connection Manager**.

Depending on your settings in the Options window, the software launches automatically anytime you insert the PCS Connection Card.

Once you make a connection in the card software, you can launch whatever application you want to use (such as your Web browser or email application).

On Pocket PCs, when you open another application, the card software remains running although it is not visible. Windows CE manages your applications, shutting down applications that are not being used in order to save memory. It should not be necessary to close the card software, but you can close the software by tapping CTRL + Q on the soft keyboard.

On Handheld and notebook PCs, use the Close button in the lower right corner to exit. See page 39.

Getting Help

Online Help is available on all platforms. See page 92 (notebook PCs), page 93 (Handheld PCs), and page 93 (Pocket PCs).

The PCS Connection Manager Window

The PCS Connection Manager window has these components:

▶ A menu button and keypad button in the lower left corner

▶ A Minimize and Close button in the lower right corner

▶ A message area (in the upper left area)

▶ An indicator area (near the middle of the screen)

▶ A button ("GO") used to establish/cancel a connection

Notebook / Handheld PCs

Message area **Indicator area** **Establish/cancel a connection**

Ready to Connect

📶
Ⓡ

GO

SIERRA WIRELESS

MENU | ⬛ | ◆ Sprint | — | ✕

Keypad button

Minimize button

Close button

Pocket PCs

🎯 PCS Connection Manag◀ 5:01

◆ Sprint

Ready to Connect

📶 Ⓡ

GO

SIERRA WIRELESS

Tools 🐢 | ▦|▲

Message area

Indicator area

Establish/cancel a connection
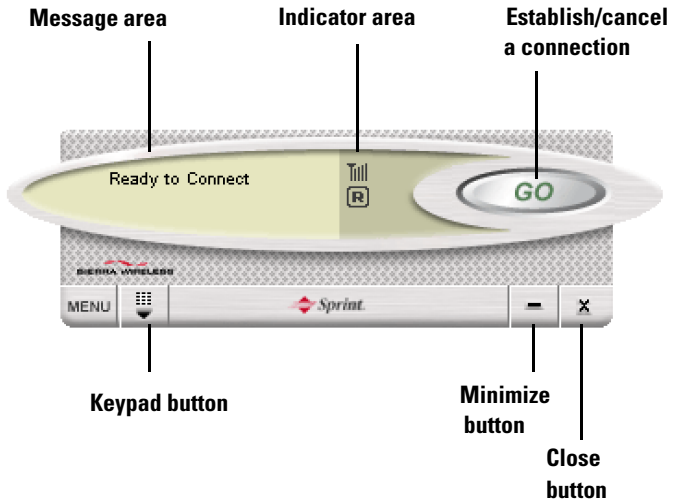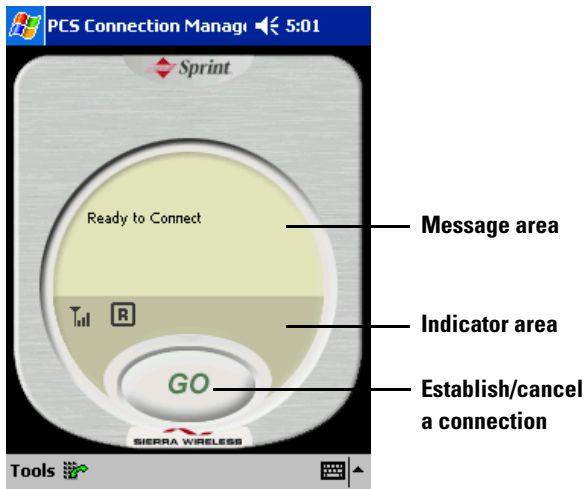
Displaying the Menu Items

The menus are described in detail in "Menu Options" on page 63.

Notebook / Handheld PC: The MENU Button

To display the menu items, click the MENU button located in the lower left corner of the PCS Connection Manager window.

Pocket PC

To display the menu items, click **Tools**, located in the lower left corner of the PCS Connection Manager window.

Keypad Button (Notebook / Handheld PCs)

 The keypad button displays and hides the keypad, used to place or answer voice calls. For more information, see
"Using the Keypad" on page 55.

The Minimize and Close Buttons (Notebook / Handheld PC)

The Minimize button closes the window but leaves the program running. When the program is minimized, its icon in the status area can be used to determine the card status. (See page 46.)

Once minimized, you can redisplay the program by double clicking the desktop shortcut or launching the card software from the Start menu. (See page 36.) You can also click the icon in the status area. (The icons are shown in the section "Taskbar Icons" on page 46.)

The Close button is used to exit the card software.

Message Area

Notebook and Handheld PCs

Ready to Connect
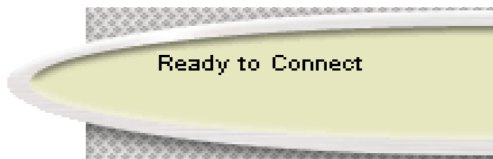
Pocket PCs
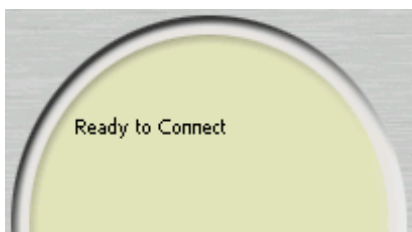
Ready to Connect

Description

The message area 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 PCS Connection Card is attempting to connect to a phone number.

▶ **The name of the person with whom you are connecting (or "Unknown" if the name is not obtainable), and the phone number** indicate that a voice call is being established.

▶ **In Use** and time counters indicate that the voice call is answered.

▶ **Rx…Tx…** indicates that a data call is in progress. Rx shows the number of bytes of data received. Tx shows the number of bytes of data transmitted.

▶ **Connected to** indicates a PCS Vision data connection is established.

▶ **Voice Call From…** indicates that an incoming voice call is in progress.

▶ **Roam Call From …** indicates that an incoming voice call is in progress and you are roaming.

▶ **… New Missed Call(s)** indicates that you received a call (or calls) that you failed to answer. (Depending on your settings in the Options window, a record of these calls is maintained in the Call Log which is described on page 71.)

▶ **You have new voicemail!** indicates that you have new voicemail messages.(For more information on voicemail, see page 61.)

▶ **Provisioning Complete** indicates that your account has successfully been set up or changed.

▶ **Not Activated** indicates that your account has not been set up. Run the Activation Wizard. (Notebook users: see "Configuring Your Account" on page 20; Handheld/ Pocket PC users: see "Configuring Your Account" on page 29.)

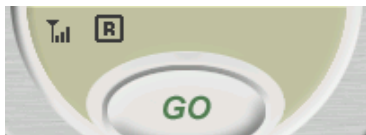▶ **Service Required** indicates that you should contact PCS Customer Service Solutions.

For other messages, see "Troubleshooting Tips (Notebook PC)" on page 101 or "Troubleshooting Tips (Handheld / Pocket PC)" on page 119.

Indicator Area

Notebook / Handheld PCs

Pocket PCs

The indicator area displays icons that notify you when you receive messages and indicate whether certain options and features are enabled.

Table 1: Indicator Area Icons

Icon	Meaning
Tᵢₗₗ	**Note:** This icon is displayed only when voice and data services are available.
	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 four bars.
	Tip: Optimal signal strength is obtained when the antenna is perpendicular to the card.
T	When no bars are shown, 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 PCS Connection Card from obtaining service Once a connection is established, this icon is replaced by the Transmit/Receive icon (shown on page 44).
	The silent ringer feature is enabled. When an incoming call is received, no sound is played. You can enable and disable this feature under **MENU > Options**. (Page 77.)
	Encryption is in use on voice calls. (Encryption prevents your calls from being monitored.) The PCS Connection Card uses encryption where it is available on the network.
	A voice call is in progress.

Table 1: Indicator Area Icons (Continued)

Icon	Meaning
✉	You have unread Web messages. If the indicator is blinking, you have one or more urgent or important unread Web messages. To display the Web Messaging window (in which the messages are displayed), select **MENU > Web Messaging…**. For instructions on reading Web messages, see page 65.
📳	You have new voicemail. To retrieve your voicemail, press and hold the "**1**" key for about 2 seconds.
R	**Note:** This icon is displayed only when voice and data services are available. The Roaming Status indicator shows whether you are roaming off of the Sprint Nationwide PCS Network. When the indicator is **not displayed** and the icon ✖ is **not** displayed, you are within the Sprint Nationwide PCS Network. 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 Sprint 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 Sprint and the local carrier, you may be unable to complete calls in non-preferred roaming areas.
◀▶	When the Transmit/Receive icon is solid, a PCS Vision data connection is active.

Table 1: Indicator Area Icons (Continued)

Icon	Meaning
	When the Transmit/Receive icon is gray, the PCS Vision data connection is dormant. For more information, see page 52.
	When the Transmit/Receive icon is crossed out, PCS Vision service is not available. **Note:** This icon is displayed only when voice and data services are available.
	Voice and data services are not available.

GO Button

The GO button is used to establish and cancel a connection. The text on the button changes during different connection stages:

▶ **GO** – Ready to establish a connection. Click the button to start a connection (if a default connection is defined), or to display a list from which you can select a connection (if more than one connection is defined and there is no default set).

▶ **Stop** – A connection is being established or is established. If you click the button, the connection will be canceled.

Taskbar Icons

The PCS Connection Manager Software displays an icon in the status area. The status area icon indicates your connection status or notifies you when you have voicemail or Web messages, or when you have missed a call.

On notebooks and Handheld PCs, the icon is in the status area (which is located in the lower right corner of your screen).

Status Icon (active)

On Pocket PCs, the icon is on the Today screen.

Status Icons

Table 2: Status Area Icons

Icon	Meaning
	You are in service on the CDMA network but have no active voice or data connection.
	You have an active voice or data connection.
	You missed (failed to answer) an incoming call. You can view the number of the caller in the Call Log.
	You have unread Web message(s).
	You have voicemail.

Data Connections

In This Section

▶ **Basic Data Connection Information**

▶ **PCS Vision Connections**

This section provides an overview of the high-speed data connection available through your PCS Connection Card and how best to take advantage of the card's versatility.

The Basics

The GO button on the PCS Connection Manager window is used to launch data connections for any of these purposes:

▶ Browsing the Internet

▶ Sending and receiving email

▶ Uploading and downloading files (FTP)

The PCS Connection Card functions as a network card using a PCS Vision data connection. In this type of connection, the card establishes a high-speed (PCS Vision) Internet connection to the CDMA network. (You do not need to provide a phone number and there is no dialing involved.) This connection has average speeds of 50-70 kbps with a maximum speed of up to 144 kbps.

Note: You cannot make phone calls with the PCS Connection Card during active PCS Vision connections. You can make phone calls during dormant PCS Vision connections. (See page 52.)

The PCS Vision 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 email).

The PCS Connection Card is "active" in a PCS Vision connection when data transmission is occurring. If data transmission stops for a period of time, the card becomes "dormant". (See page 52.) You can place voice calls while the card is dormant, but not while the card is active.

If you also use another wireless network card with your computer, eject the additional card before you use the PCS Connection Card. Under some operating systems, if both cards are inserted, then the path that the Internet Protocol (IP) traffic will take is not predictable. If the data gets routed through the other card, you will experience slower data transfer rates.

PCS Vision (High-Speed) Connections

Important: If the following icon appears in the indicator area of the PCS Connection Manager window, you do not currently have PCS Vision service and cannot make a connection:

At installation, the PCS Vision connection profile is created for you by the Connection Manager, and it is set as the default connection.

To make a PCS Vision connection:
1. From the PCS Connection Manager window, click the **GO** button.
2. If the PCS Vision connection is the default connection, then the connection will start. (This connection definition is set up during installation.)
   If more than one connection is defined and there is no default set, then the Connections popup window displays. Select the connection you want to use.

The PCS Connection Manager program initiates the connection. Progress is shown in the message area ("Dialing", "Authenticating"). Once the connection is established, the number of bytes received and transmitted are displayed:

If you are running Windows 2000 or Windows XP and having problems establishing a connection, see page 104.

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

To end a PCS Vision connection:
▶ Click the **Stop** button.

Dormant Connection

The PCS Connection Card is "active" during PCS Vision connections when data transmission is occurring. If data transmission over the network stops for a period of time, the card becomes "dormant". The period of inactivity that causes the card to become dormant is set by Sprint and is always less than one minute. This permits the card to be used for voice calls when not actively needed for data.

When the card is in this state, you are able to make phone calls with the card. You will not be able to transmit data (for example, you won't be able to browse the Web) during the phone call, but the connection is not lost. When you end the phone call, data transmission is automatically resumed.

When the card has an active PCS Vision connection, you cannot make phone calls.

Note: Some programs may be unable to function on a dormant connection.

During dormant PCS Vision connections, the connection icon in the indicator area of the PCS Connection Manager window is grayed out:

Voice Connections

In This Section

▶ **The Keypad**

▶ **Outgoing Calls**

▶ **Incoming Calls**

▶ **Voicemail**

Y̲ou can use your PCS Connection Card to transform your notebook or pocket PC into a mobile phone simply by connecting a headset to the card and using the PCS Connection Manager interface to place and receive voice calls.

Voice Connection Features

The PCS Connection Card offers many convenient voice features:

▶ The volume control allows you to adjust the headset volume.

▶ Selecting the **TALK** button allows you to redial the previously dialed number.

▶ **Any-Key Answer** allows you to answer an incoming call by pressing any button on the keypad (except **END**, **BACK**, or the volume control). (Page 83.)

▶ **Auto-Answer** can be enabled to automatically answer incoming calls after a specified number of rings. (Page 82.)

▶ The **KeyGuard** feature prevents accidental dialing. (Page 74.)

▶ The **Silent Ringer** prevents any sound from occurring when you receive calls. (Page 78.)

▶ The **Phone Book** allows you to keep a record of frequently used phone numbers and to dial a number simply by double clicking it. (Page 67, page 71.)

▶ The **Call Log** records details about all incoming and outgoing calls, providing useful information such as the phone numbers of missed calls. (Page 71.)

▶ If your PCS Service Plan includes Three-Way Calling, Voicemail, Call Alert or Caller ID, they are supported by the card.

Tip: Many voice features are configured in the Voice Options window. See page 82.

Using the Keypad

The keypad is used to answer and place voice calls. The keypad performs the same functions as the keypad on a mobile phone.

Tip: You can store frequently dialed numbers in the Phone Book and dial directly from the Phone Book window instead of entering the number on the keypad. See page 67 (notebook PCs) or page 71 (Handheld/Pocket PCs).

Notebook / Handheld PC

The keypad is displayed when you click the keypad button, located next to the MENU button in the lower left corner of the PCS Connection Manager window.

1. Click the keypad button

2. The keypad appears

Open/close the keypad

Volume control

MENU

1 ✉ 2 abc 3 def
4 ghi 5 jkl 6 mno
7 pqrs 8 tuv 9 wxyz
* 0 #

TALK BACK END

Sprint.

Place and answer calls

Clear a number you've entered

End a call; clear status messages
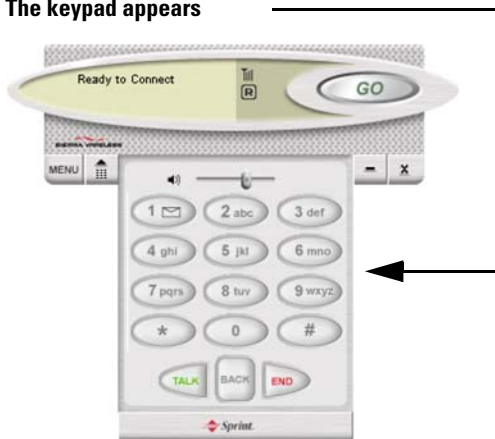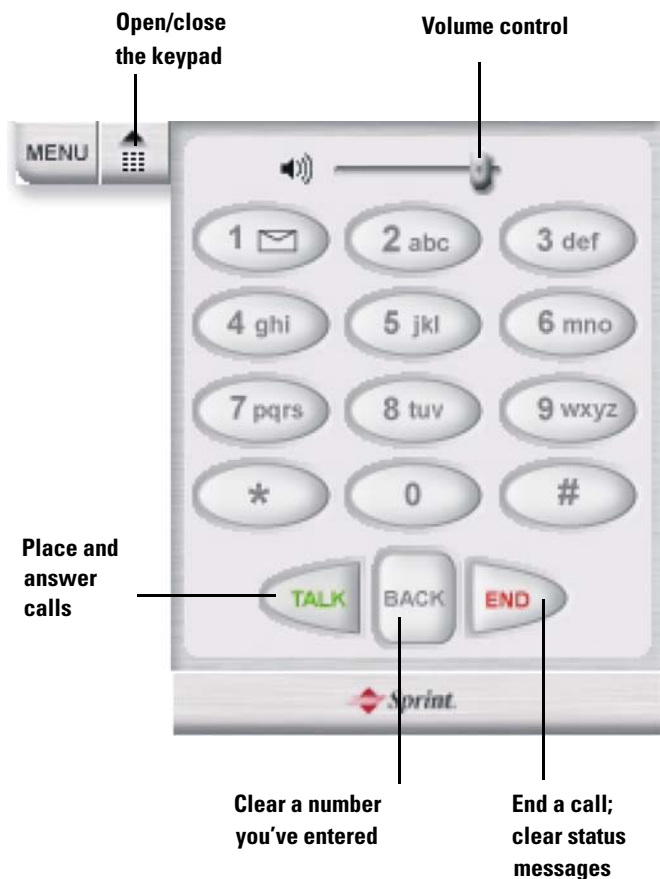
Pocket PC

The keypad is displayed when you tap **Tools** > **Voice Call**.

Volume control

Place and answer calls

Clear a number you've entered

End a call; clear status messages
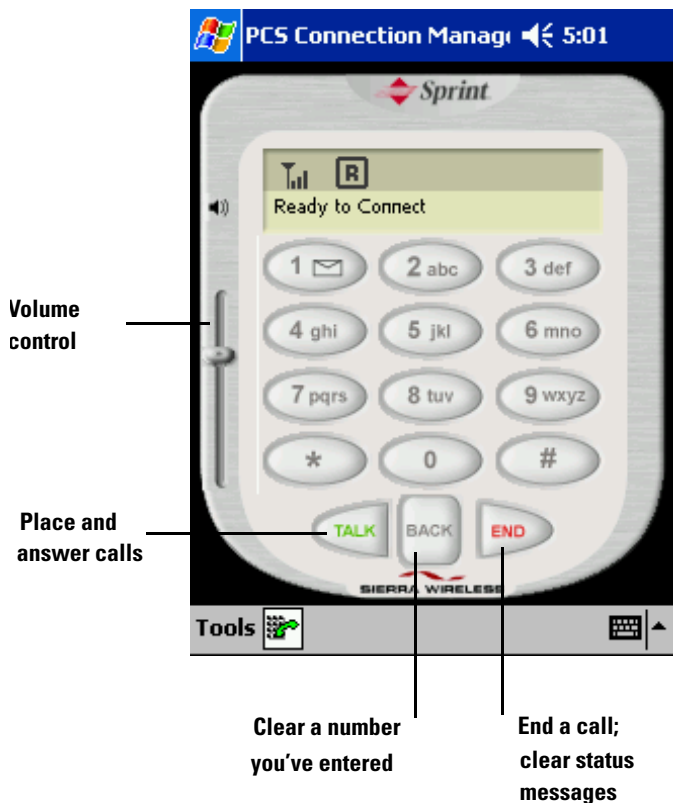
Note: When KeyGuard is on, clicking the buttons on the keypad has no effect. For information on KeyGuard, see page 74.

Notebook / Handheld PC: To hide the keypad, click the keypad button

Pocket PC: To switch from the keypad to the data connection screen, tap **Tools** > **Connections**.

Table 3: The PCS Connection Manager Keypad

Keypad Buttons	Function
0-9, #, * **(or the same keys on your keyboard)**	Enter the digits (and other characters) you want to dial. The numbers are displayed in the message area until you press **TALK**, **END**, or **BACK**, or you receive an incoming call. If the Any-Key Answer feature is enabled, any of these keys can be used to answer an incoming call. (See page 83.) If you click (or press) these buttons during a call, the card beeps and the characters are displayed in the message area.
1	In addition to acting as a number key, the **1** key can be used to access voicemail. Press and hold the key for approximately 2 seconds to connect to your voicemail.
TALK **(<Enter> on your keyboard)**	Place and answer incoming calls. When you are not receiving an incoming call, **TALK** dials the numbers in the message area. If no numbers are displayed, the card redials the last number you dialed.
END **(<Esc> on your keyboard)**	End a call or clear all the digits and characters in the message area (cancel a call that you've started to enter). This button also clears most status messages.
BACK **(<Backspace> on your keyboard)**	Clear the last number you've entered. Press and hold **BACK** to clear an entire entry.
Volume Control 	Increase or decrease the headset volume. Notebook, Handheld PCs: To increase the volume, move the slider to the right. To decrease the volume, move the slider to the left. Pocket PCs: To increase the volume, move the slider up. To decrease the volume, move the slider down.

Outgoing Calls

To initiate a call:

1. Connect a headset to the card, if one is not already connected.

2. If the keypad is not displayed, then:

   Notebook / Handheld PC: click the keypad button.

   Pocket PC: tap **Tools** > **Voice Call**.

3. Enter the number you want to dial by either clicking the number buttons on the keypad or typing the numbers on your keyboard.

4. Click the **TALK** button.

Note: You cannot make a phone call when there is an active PCS Vision connection. You can make phone calls during dormant PCS Vision connections. For information on dormancy, see page 52.

Tip: If you click the TALK button without entering a number, the card redials the last number you dialed.

If you are roaming and Call Guard is enabled (page 92), the card beeps and a screen appears stating that a roaming rate applies.

As the call is being dialed, the PCS Connection Manager displays "Dialing" and the phone number.

Once the call is answered, "In Use" is displayed.

You can also dial a number from the Phone Book (see page 67 for notebook PCS and page 71 for Handheld/Pocket PCs) and from the Call Log (see page 71).

Incoming Calls

When you receive an incoming call:

▶ A sound is played, unless the Silent Ringer feature is enabled.

▶ The keypad is displayed.

▶ If you have Caller ID, the phone number and, if available, the name of the caller are displayed.

▶ If you are roaming and Call Guard is enabled (page 92), then the card beeps and a screen appears, stating that a roaming rate applies.

Tip: The Options window, displayed when you select **MENU** > **Options**, allows you to customize the sound played when you receive an incoming call and to enable and disable the Silent Ringer feature. (See page 78.)

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

To answer a call:
1. Connect a headset to the card, if one is not already connected.
2. Click the **TALK** button.

The indicator area displays the connection icon ; the message area displays "In Use" and shows the duration of the call.

Tip: If the Any-Key Answer feature is enabled, tap any key except **END** or **BACK**. On the Pocket PC, you can also use any of the four application buttons. On the notebook and Handheld PC, you can also use keys on your keyboard: A through Z, 0 through 9 and the * or # key.

Voicemail

Incoming calls may be put through to your voicemail box, if:

▶ A calls arrives while you have an active data connection, or

▶ You do not answer an incoming voice call

When you have new voicemail:

▶ The following icons are displayed: in the indicator area, and in the status area (page 47)

▶ The message area displays the message "You have new voicemail!".

You can also set a sound to play when you have new voicemail (page 79).

To retrieve your voicemail:

▶ Press and hold the "**1**" key for about 2 seconds.

If required, you can change the phone number for your voice messaging system. See page 86.

Menu Options

In This Section

▶ **Overview of Menu Items**

▶ **Description of Menu Items**

T his chapter provides an overview and brief description of
each menu option you may encounter while using your
PCS Connection Card™ and PCS Connection Manager℠
Software.

Overview of menu items

The following table outlines the various menu items and provides a brief description and directions on where in this guide to find more detailed information about the item.

Table 4: Menu Items

Menu item	Description	For more information, see:
Connect	Establish a data connection.	Page 51
Wireless Web Messaging	Read Web messages sent to you.	Page 65
Phone Book	Store phone numbers and email addresses of people you are in frequent contact with.	Page 67
Call Log	View information on outgoing and incoming calls.	Page 71
KeyGuard	Prevent accidental dialing.	Page 74
Activation Wizard	Configure the card to use your account.	Page 74
Data Provisioning	Obtain or update your PCS Vision data account parameters.	Page 75
Software Updates	Check for updates to the PCS Connection Card or the Connection Manager software.	Page 75
Options	Configure the software to your preferences.	Page 76

Table 4: Menu Items (Continued)

Menu item	Description	For more information, see:
Help Topics (Notebook and Handheld)	View the online Help.	Page 92 (Notebook PC) Page 93 (Handheld PC)
Start > Help (Pocket PC)	View the online Help.	Page 93
About	View information about the card software and hardware.	Page 93
Exit	Close the card software.	

Web Messaging

The Web Messaging window is used to display Web messages you receive.

Note: For information about Web message service subscription, contact PCS Customer Service Solutions. Additional charges may apply.

Web messaging is a feature that allows you to receive short messages (up to 160 characters) through the CDMA network.

Reading Web 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 Web message indicator ☒ notifies you when new messages arrive. (If the icon is flashing, one or more of the messages is tagged as urgent.)

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

To read messages:
1. Select **MENU > Wireless Web Messaging** to display the Web Messaging window.

   The message header is displayed in the top of the screen (notebooks and Pocket PCs) or on the left side of the window (Handheld PCs), showing the address or phone number from which the message was sent, the beginning of the message, and the callback number. If the phone number is in your Connection Manager Phone Book, the sender's name will appear in place of the phone number.
2. Click the message header to display the message.

Unread messages are displayed in **bold**.

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**.

Note: The Delete All menu option deletes all messages, whether or not the messages have been read. The message expiry feature deletes only messages that have been read.

The software also has a feature that allows you to set an expiry period after which messages are automatically deleted. This is set in the Options window. (Select **MENU > Options** to display the window, and then select the **Messaging** tab. This is described in the "Options" section on page 86.)

To phone the sender of a message:
1. Select the message header.
2. Select **File > Call back sender**.

The PCS Connection Manager Software then dials and attempts to connect to the callback number.

Note: The Call back sender menu option is only available if the message includes a valid callback number.

To add the sender of a message to your phone book:

1. Select the message header.
2. Select **Edit > Add Contact to Phonebook** or, on notebook PCs, right-click the message header and select **Add Contact to Phonebook**.

If the message you received has a callback number, then you can add the number to a new or existing contact.

If the message doesn't have a callback number, then you can add the email address of the sender to a new or existing contact.

Exiting the Web Messaging Window

To exit from the Web Messaging window:

▶ Select **File > Close**

– or –

▶ (Notebook and Handheld PCs) Click the **Close** box in the upper right corner of the window

– or –

▶ (Pocket PCs) Tap **ok** in the upper right corner.

Phone Book (Notebook PC)

The phone book provides a place to store the phone numbers and email addresses of your contacts. The phone book allows you to easily call or email frequent contacts without having to enter the phone numbers and email addresses each time.

The number of phone book entries you may enter is limited only by the amount of storage space available on your computer.

To open the phone book:

▶ Select **MENU > Phone Book**.

Adding a Record to the Phone Book

To add a record to the phone book:

1. In the PhoneBook window, select **Add New Contact**, or right-click any existing record and select **Add New Contact**.
2. In the Contact Properties window, enter the person's name and phone numbers and/or email addresses.
3. Click **Save**.

You can also add a record from a Web message you have received (Reading Web Messages: The Inbox, page 67) or a call you have received or made (Call Log, page 71).

Tip: Use the tabs at the top of the PhoneBook window to jump to a name in the listing beginning with a particular letter. For example, click the **fgh** tab to select the first name in the phone book that begins with the letter "F".

Changing a Record

To change a record:

1. Select the record in the PhoneBook window.
2. Select **File > Edit Contact**, or right-click the record and select **Edit Contact**.
3. Make any changes in the Contact Properties window and click **Save** to keep the changes or **Cancel** to exit without saving the changes.

Deleting a Record

To delete a record:

1. Select the record in the PhoneBook window.
2. Select **File > Delete Contact**, or right-click the record and select **Delete Contact**.

Dialing a Phone Number in the Phone Book

To dial a phone number in the phone book:

1. Select the record in the PhoneBook window.
2. Double-click the phone number or click the phone number and select **File > Dial**, or right-click the phone number and select **Dial**.

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Synchronizing Your Phone Book With Microsoft® Outlook®

Manually Synchronizing Your Phone Book Entries With Outlook

To manually synchronize your phone book entries and Outlook:

1. Ensure you are online (that is, connected to your Outlook server).
2. From the PhoneBook window of the PCS Connection Manager Software, click **File** > **Synchronize with Outlook**, or right-click a record and select **Synchronize with Outlook**.

If, since the last synchronization, you have made changes to the same entry in both the phone book and in Outlook, a window will appear detailing the differences between the two entries. Select which entry to keep.

Setting Your Phone Book to Automatically Synchronize With Outlook

To set your phone book to automatically synchronize with Outlook:

1. Ensure you are online.
2. From the General tab of the Options window of the PCS Connection Manager, select the "Outlook Synchronization (Contacts only)" check box.
3. Click **OK** to synchronize the phone book and Outlook.

The following table describes the circumstances under which Outlook and your phone book will be synchronized.

("Checkbox" refers to the "Outlook Synchronization (Contacts only)" checkbox.)

Table 5: Synchronization of Outlook and Your Phone Book

Checkbox	You change	When you are	Then Outlook and your phone book become synchronized:
Selected	Phone book in PCS Connection Manager	Online	Automatically, immediately.
Selected	Contacts in Outlook	Online	When one of the following occurs: you restart the PCS Connection Manager, change the phone book in the manager, or manually synchronize the phone book.
Selected	Contacts in Outlook, or phone book in PCS Connection Manager	Offline	Once you go online and one of the following occurs: you restart the PCS Connection Manager, change the phone book in the manager, or manually synchronize the phone book.
Cleared	Contacts in Outlook, or Phone book in PCS Connection Manager	Online	Only if you manually synchronize the phone book.
Cleared	Contacts in Outlook, or Phone book in PCS Connection Manager	Offline	Only if you manually synchronize the phone book, once you go online.

Phone Book (Handheld/Pocket PC)

The phone book is an interface to the Contacts screen of the Pocket Outlook program. Any contact information you enter in Outlook is accessible through the phone book in the PCS Connection Manager Software. (You cannot add contact information directly to the phone book of the PCS Connection Manager.)

Note: If you add new information to Outlook, it does not appear in the phone book of the PCS Connection Manager until the manager is restarted or you refresh the phone book. To refresh the phone book, select **File** > **Refresh**.

The benefit of the phone book is that it saves you having to enter phone numbers of the people you regularly call each time you make a call.

The number of phone book entries is limited only by the amount of storage space available on your computer.

To open the phone book:

▶ Select **Tools > Phone Book**.

To dial a phone number in the phone book:
1. Select the record on the PhoneBook screen.
2. Select the phone number for the record
3. Select **File > Dial**.

Call Log

The Call Log maintains a record of your outgoing and incoming calls. In the Options window (displayed when you select **MENU** > **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

This option is described on page 88.

To display the Call Log:

▶ Select **MENU** > **Call Log**

For each message, the Call Log displays:

▶ The call direction (see Table 6: Call Direction Icons on page 72)

▶ The phone number of the caller (for incoming calls), or the phone number that you dialed (for outgoing calls)

▶ The date and time the call was made or received

▶ 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 or voice)

Table 6: 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 an incoming call that you did not answer.

Phoning a Number

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

▶ (Notebooks only) Double click the record.

– or –

1. Select the number.

2. Select **File** > **Dial**.

This can be used to place voice calls only.

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.

Saving to a Text File

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**.

Adding an Entry

To add an entry to the phone book:
1. Select the record.
2. Select **Edit > Add Number to Phonebook**.

   Select a radio button to specify whether to add the information to a new or existing contact.

Copying a Phone Number to the Windows Clipboard

To copy a phone number to the Windows Clipboard:
1. Select the record.
2. Select **Edit > Copy Phone Number**.

You can then paste the number into another window (in most cases, using CTRL+V). The phone number that is copied is the number in the **From** column for incoming calls, and the number in the **To** column for outgoing calls.

Deleting Records

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.

Selecting Which Call Records are Displayed

To select which call records are displayed:

▶ Use the **VIEW** menu to select the call type (**Incoming**, **Outgoing**, **Missed**) and call logs (**Voice Logs**, **Data Logs**) to be displayed.

The Call Log displays only messages that correspond to the type and log that are checked in the VIEW menu. For example, if only **Incoming** and **Voice Logs** are checked, only incoming voice calls are displayed.

Tip: Clicking All Types in the VIEW menu causes all incoming, outgoing, and missed calls to be displayed. Clicking All Logs in the VIEW menu causes all voice and data calls to be displayed.

Sorting the Calls

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.

KeyGuard

The KeyGuard feature is designed to prevent accidental dialing. When the feature is enabled, clicking the **TALK** button, or any other button on the keypad, has no effect. You can still establish data connections.

Tip: Use the KeyGuard feature if you are concerned that you might inadvertently press **TALK** and dial a number. While KeyGuard is enabled, no number (except 911) can be dialed.

To enable or disable KeyGuard:

▶ Select **MENU > KeyGuard**.

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

Activation Wizard…

The Activation Wizard is used to configure the PCS Connection Card to use your account. An overview of this process is provided on page 8. Specific instructions on using the Activation Wizard begin on page 20.

Data Provisioning

Data Provisioning is a feature that performs account setup for you by making a data connection to the PCS Vision network and using a secure (128-bit encryption) Internet connection to download account parameters to the PCS Connection Card. (This feature is also known as IOTA (Internet Over The Air) Provisioning.)

When you activate your PCS Connection Card using the Activation Wizard, the card is ready to make and receive voice calls and receive Wireless Web Messages. When you make your first data connection, the card will use IOTA to obtain and activate your data services.

After this first activation, there may be changes to your account that will require updating parameters in the PCS Connection Card. If you are advised that this is needed, you can select **MENU > Data Provisioning** to have the PCS Connection Card retrieve the updates to your data services account.

Software Updates...

From time to time, Sprint will make available updates to the The AirCard 550 PCS Connection Card firmware and the PCS Connection Manager software. These updates enhance performance and add functionality to to the product.

The PCS Connection Manager is capable of automatically checking for updates (via PCS Vision and the Internet), downloading, and installing them. This option allows you to:

▶ Set the program to check for updates once a month. Use the "Check for updates once a month" check box to enable automatic updates. Click **OK** to save the checkbox setting. (The setting is also available on the Security tab of the Options window.)

▶ Check for updates immediately (provided a PCS Vision network connection can be made). Use the **Check Now** button to immediately check for, and perform, any available updates.

Options…

The Options window allows you to configure the
PCS Connection Manager Software to suit your preferences.
In the Options window you can:

▶ Enable and disable several features, including Auto-
Answer, Any-Key Answer, Auto-Connect, Web 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, Web messaging,
sounds that notify you of incoming calls, new Web
messages, and new voicemail.

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.

Click **OK** (notebook/Handheld PC) or **Save** (Pocket PC) to exit
the Options window, saving any changes you've made. Click
Cancel to exit without saving.

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

Sounds Tab

Table 7: 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 Web 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 **(Pocket PC: Call Waiting 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. (If you require more information about Call Alert, contact PCS Customer Service Solutions.) 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.)

Table 7: Sounds Tab Options (Continued)

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 ![icon]. 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 message 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 Web Message	This field allows you to select whether a sound is played when you receive a new Web 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 Web 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.)

Table 7: Sounds Tab Options (Continued)

Field	Description
New Voicemail	This field allows you to select whether a sound is played when a new voicemail message arrives. When this is enabled, a sound is played when voicemail 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 voicemail. 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.)
Headset Volume	This slider allows you to adjust the volume of the earpiece 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 keypad. To increase the volume, drag the slider to the right. To decrease the volume, drag the slider to the left.

Security Tab

Tip: Locking the PCS Connection Card does not prevent you from dialing 911.

Table 8: Security Tab Options

Field	Description
Lock modem	The Lock Code feature can be used to prevent others from using your card and your account. When the Lock Code is enabled, you are prompted to enter a code any time the PCS Connection Manager is launched. If the wrong code is entered, the software closes. (This makes it impossible to use the card 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 the manager, 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 button 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 the PCS Connection Manager before the lock code comes into effect.)
	When you click the button, the PCS Connection Manager prompts, "Lock the modem now?". Click **Yes** at this prompt to lock the card.

Table 8: Security Tab Options (Continued)

Field	Description
Change Lock Code	This button allows you to set a new lock code. To change the lock code: 1. Tap 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 and tap **OK**. 3. Enter a new lock code and tap **OK**. 4. Enter your new lock code again for confirmation and tap **OK**. 5. Tap **OK**. **Note:** Whenever you run the Activation Wizard, the lock code gets changed to the last four digits of the phone number that was most recently activated.
Check for updates once a month	This check box enables automatic checking for updates to the PCS Connection Card and Connection Manager software (see page 75).
Check Now	This button performs an immediate check for updates to the PCS Connection Card and Connection Manager software (see page 75).

Voice Tab

Table 9: Voice Tab Options

Field	Description
Auto-Answer Incoming Calls	This field allows you to enable and disable the Auto-Answer feature.
	To disable the feature, select **off** from the drop-down menu. To enable the feature, select the number of rings after which the PCS Connection Manager Software automatically answers the voice call.
Auto-Retry	This field allows you to enable and disable the Auto-Retry feature and, when enabled, to select the interval between retrys.
	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 card does not retry.
	To disable the feature, select **off**. Otherwise, select the interval at which you want automatic retrys to occur.

Table 9: Voice Tab Options (Continued)

Field	Description
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 keypad except **END** and **BACK**. On the Pocket PC, you can also use any of the four application buttons. On a notebook or Handheld PC, you can also use keys on your keyboard: A through Z, 0 through 9 and the ∗ or # key. When disabled, you must use the **TALK** 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 affect 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 9: Voice Tab Options (Continued)

Field	Description
Prefix all Voice calls with '1'	When travelling, dialing your phone book entries may not work without prefixing the number with the North American long distance code "1". By setting this option, the PCS Connection Card will automatically insert a "1" before dialing any voice call (data connections are not affected). The "1" will not be prefixed to numbers that start with "1" or an asterisk "*". **Note:** This includes numbers you enter manually so it will impact local dialing as well. The "1" does not appear on the display.
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 voicemail systems require a shorter or longer than normal length tone. This field allows you to set the card to use a shorter or longer tone for systems that require it. The "coninuous" setting will send the tone until the key or mouse button is released. The network may limit the duration of tones over the air. The default tone length is set to **normal**.
Level	This field allows you to adjust the volume of the beep that occurs when you click buttons on the keypad.

Table 9: Voice Tab Options (Continued)

Field	Description
Mute	When DTMF mute is enabled, there is no audible tone while the card dials. Use the check box to enable and disable the feature. (Sound is muted when checked.)
Minute Alert	This field allows you to enable and disable the Minute Alert feature. When enabled, the card 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	This field allows you to enable and disable the Service Alert feature. When enabled, the card emits a tone whenever a change occurs in the PCS Vision coverage or roaming status. A tone is emitted whenever the card: ▶ Goes from being out of PCS Vision coverage to being in PCS Vision coverage ▶ Goes from being in PCS Vision coverage to being out of PCS Vision coverage ▶ Leaves the Sprint Nationwide PCS Network ▶ Enters the Sprint Nationwide PCS Network Use the check box to enable and disable the feature. (The feature is enabled when checked.)

Messaging Tab

Table 10: Messaging Tab Options

Field	Description
Incoming: Automatically delete	This feature allows for the automatic deletion of Web messages that have been in your Inbox for a specified amount of time. The Web messaging feature is described in detail beginning on page 65. 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 window) are deleted by this feature. Manual deletion of messages is covered on page 66.
Voice Mail: Change …	Depending on your PCS Service Plan, you may have a Voicemail 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 your PCS Phone Number. When the PCS Connection Card is configured, your voicemail dial-in number 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**.

Table 10: Messaging Tab Options (Continued)

Field	Description
Clear Indicator	When you retrieve voicemail, the network normally informs the modem. However, if the network notification is missed, the card may show an indicator when you have no new messages. Use this button to clear the indicator (reset it to zero).

General Tab

Table 11: General Tab Options

Field	Description
Data Call Inactivity Timeout: Disconnect	[Not implemented at this time. For future development.] The Inactivity Timeout terminates your data connections automatically when the card is inactive for the amount of time you specify here. (The card 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. Note that this has no affect on PCS Vision connections.
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 **MENU > Call Log**, and is described on page 71.) 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.
System Select	This field allows you to set roaming parameters for your PCS Connection Card. The options in this field are: ▶ **Home Only** prevents the card from roaming off the Sprint Nationwide PCS Network ▶ **Home Preferred** allows the card to roam on networks of "preferred" service providers

Table 11: General Tab Options (Continued)

Field	Description
TTY Mode	A TTY (TeleTYpewriter) is a device for people with hearing and speech impairments. The device allows people to communicate over phone systems using a typewriter-like keyboard. When TTY Mode is set to any value besides **Off**, you can attach a TTY device to the headset connector and use a TTY device with the PCS Connection Card. The options in this field are: ▶ **Off** – you don't use a TTY device for communicating. ▶ **On (Full)** – you use the TTY device for receiving and sending messages.
Auto-Launch	If this feature is enabled, the PCS Connection Manager Software automatically launches when you insert the card into a PC Card slot. When disabled, you must launch the software from the desktop shortcut or from the Start menu. Use the check box to enable and disable the feature. (The feature is enabled when checked.)

Table 11: General Tab Options (Continued)

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: ▶ (Notebook/Handheld PCs) in the status area, in the lower right corner of your screen ▶ (Pocket PCs) On the Today page, in the top right corner of your screen Generally you would use the Windows Control Panel (notebook PCs) or the Settings screen (Handheld/Pocket PCs) 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.)
Outlook Synchronization (Contacts only) (Notebooks only)	Set the PCS Connection Manager Software to automatically synchronize your phone book entries with your Contacts entries in Microsoft® Outlook®. For more information, see Table 5: Synchronization of Outlook and Your Phone Book on page 70. If you do not select this check box, then changes you make to the phone book will not be reflected in Outlook. To synchronize the two: once online, from the Phone Book, click **File** > **Synchronize with Outlook**.

Display Tab

Table 12: Display Tab Options

Field	Description
Restore previous position on startup	You can set the PCS Connection Manager window to "remember" its position on the screen; next time you run the PCS Connection Manager, the window will open in the same location on your screen. If the check box is cleared, the PCS Connection Manager displays in a default location selected by the operating system.
Always on Top (Notebook PCS only)	When Always On Top is enabled, the PCS Connection Manager displays in front of all other application windows, even when you position another window over the manager. 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.)

Table 12: Display Tab Options (Continued)

Field	Description
Data connection lost	When this feature is enabled, a warning message is displayed any time you lose your data connection. Use the check box to enable and disable this feature. (The feature is enabled when checked.)
Call Guard	The field allows you to enable and disable the Call Guard feature. When enabled, the card emits a tone and displays a warning whenever you receive or initiate a voice call while you are roaming off the Sprint Nationwide PCS Network. Use the check box to enable and disable the feature. (The feature is enabled when checked.)

Online Help

The PCS Connection Card comes with complete online help.

Help Topics (Notebook PC)

Tip: Help is available in most windows by pressing <F1> or clicking the **Help** button. Also, in any window that has a **?** next to the close button, you can click the **?** button, then click any field in the window to display a description of the field.

To get help on any topic:

▶ Select **MENU > 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, highlight the entry and click **Display**.

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.

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.

Help Topics (Handheld PC)

On Handheld PCs, help is available in most windows by tapping the **?** button in the upper right corner of the window, and is also available through **Start > Help**.

Use the index to locate the topic you want to display.

Help Topics (Pocket PC)

On Pocket PCs, you can display help by selecting **Help** from the **Start** menu (in the upper left corner of the screen).

Use the index to locate the topic you want to display.

About Window…

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 PCS Connection Card by the manufacturer

▶ The version of software in use

▶ The version of the card driver (software that forms the interface between the card and your operating system) in use

▶ The version of the PRL (Preferred Roaming List, which specifies the radio frequency channels that the card is permitted to use)

- ▶ The hardware version
- ▶ The version of firmware (software that resides in the flash memory of the card) in use
- ▶ The version of the bootloader (a component of the firmware) in use

On notebook PCs, if you have an Internet connection, you can go to the Sierra Wireless Web site by clicking the www.sierrawireless.com button.

The Network Adapter Manager (Notebooks Only)

In This Section

- ▶ **Windows 98 SE and Me**

- ▶ **Windows 2000 and XP**

- ▶ **On-Line Help and Version Information**

- ▶ **Closing the Network Adapter Manager**

This chapter outlines the functionality of the built-in Network Adapter Manager during active PCS Vision connections using your PCS Connection Card™, when more than one network interface card is present in your notebook computer.

The Basics

The PCS Connection Card comes with an application, called the Network Adapter Manager, that is designed to manage multiple network interface cards on notebook PCs.

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

▶ A phone during voice connections

▶ A network interface card during PCS Vision connections

It is only while the PCS Connection Card is behaving as a network interface card (when there is an active PCS Vision connection) that the Network Adapter Manager is of use.

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 status area icon is the only evidence that the Network Adapter Manager is running.

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 PCS Vision connection with the PCS Connection Card, and you have another network interface card (such as an Ethernet or Token Ring LAN card) inserted, data traffic is routed through either the PCS Connection Card 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).

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

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

AirCard 300 is the primary network card

AirCard 400 is the primary network card

PCS Connection Card is the primary network card

LAN card is the primary network card

No network card is inserted (This icon is always displayed in Windows 2000, except during PCS Vision connections.)

Windows 98 SE and Me

In Windows 98 SE and Me, the Network Adapter Manager can be used to switch between the PCS Connection Card and other network interface cards.

Switching Primary Cards

If you initiate a PCS Vision connection with the PCS Connection Card while a LAN card is primary, the Network Adapter Manager automatically makes the PCS Connection Card the primary card. That is, making a PCS Vision connection while a LAN card is in use has the effect of rerouting data traffic from the LAN card to the PCS Connection Card.

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 PCS Connection Card while an email application is running, the email application may behave unpredictably. The recommendation is to close network applications, switch cards, and launch the applications again.

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. The Network Adapter Manager window will appear. Use the radio buttons to select the card you want to use as the primary card and click **OK**.

Windows 2000 and XP

Windows 2000 and XP have more advanced device handling capabilities than Windows 98 SE and Me. If more than one network card is detected, Windows 2000/XP 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 PCS Connection Card). If, for example, you have a PCS Connection Card and an Ethernet card installed and active on your laptop, Windows routes network traffic through the Ethernet card because it offers the higher
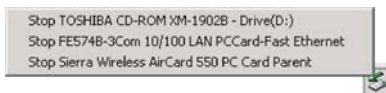
transmission speed. If you then want to take the computer to another location, you can stop the Ethernet card (see below), disconnect the cable to the Ethernet card, and Windows 2000/XP automatically begins routing network traffic through the PCS Connection Card.

Since Windows 2000/XP 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 these operating systems.

In Windows 2000/XP 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.

> Stop TOSHIBA CD-ROM XM-1902B - Drive(D:)
> Stop FE574B-3Com 10/100 LAN PCCard-Fast Ethernet
> Stop Sierra Wireless AirCard 550 PC Card Parent

Windows 2000

> Safely remove Sierra Wireless AirCard 550 PC Card Parent
> Safely remove FE574B-3Com 10/100 LAN PCCard-Fast Ethernet

Windows XP

3. Click the card you want to stop.

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.

Troubleshooting Tips (Notebook PC)

In This Section

▶ **Problem Causes and Solutions**

▶ **Reinstalling the PCS Connection Card Driver**

▶ **Resolving Resource Conflicts**

T his section provides assistance in diagnosing and solving many common problems you may experience while using your PCS Connection Card with your notebook PC.

Problem Causes and Suggestions

When properly installed, the PCS Connection Card is a highly reliable product. Most problems are caused by one of these issues:

▶ The wrong driver has been installed.

▶ System resources required by the card are in use by other devices.

▶ Network coverage is not available (either because you are outside the coverage area, or because of an account or network problem).

This section describes how to diagnose and solve these and other problems. If, after reading this section, you are unable to resolve a problem, please visit www.sprintpcs.com or contact PCS Customer Service Solutions at 1-888-211-4PCS (4727).

Error: Searching for PCS Connection Card...

The PCS Connection Manager Software displays this message: "**Searching for PCS Connection Card….**

Possible Causes	Suggestions
a. The card is not completely inserted into the PC Card slot. **b.** The wrong driver is installed for the card. **c.** There is a resource conflict.	**a.** Eject and reinsert the card. **b.** See "Reinstalling the PCS Connection Card Driver" on page 105". **c.** See "Resolving Resource Conflicts" on page 111.

Error: Splash Screen is Frozen

The splash screen of the PCS Connection Manager Software is frozen.

Possible Causes	Suggestions
• If you are unable to resolve this problem by restarting your PC, you may have a resource conflict.	• See "Resolving Resource Conflicts" on page 111.

Error: **When Clicking the Keypad, Nothing Happens**

Possible Causes	Suggestions
• KeyGuard is on.	• Turn KeyGuard off. See page 74.

Error: **Not In Service**

The PCS Connection Manager Software displays the message "Not in service".

Possible Causes	Suggestions
Inadequate signal strength may occur for any of these reasons: **a.** You are outside the Sprint Nationwide PCS Network. **b.** Your antenna is not attached or is pointed in the wrong direction. **c.** You may be inside a building or near a structure that is causing radio interference.	**a.** Verify that you are within the Sprint Nationwide PCS Network. Coverage maps are available at www.sprintpcs.com. **b.** Ensure your antenna is properly attached and is perpendicular to the card. Re-orient your antenna. **c.** Change your location.

Error: **Not able to prepare data services (Windows 98 and 2000)**

The PCS Connection Manager Software displays the message "Unable to prepare data services.".

Possible Causes	Suggestions
• The modem was unable to access to the IOTA server to obtain data account parameters for you. This may be due to poor signal strength, or the IOTA server is not responding.	• Confirm you have sufficient signal strength. Try the actions listed above for "Not In Service". • Contact Sprint for assistance.

Error: **Connection Seems Slow**

When you have a both a PCS Connection Card and an AirCard 300 in your computer, the data connection seems quite slow.

Possible Causes	Suggestions
Under some operating systems, if both cards are inserted, then the path that the Internet Protocol (IP) traffic will take is not predictable. If the data gets routed through the AirCard 300, you will experience slower data transfer rates.	Before you use the PCS Connection Card, eject the AirCard 300 from your computer.

Error: **Connection Gets Dropped (Windows 2000 and XP)**

When attempting a data connection with PCS Connection Manager, the connection gets dropped as soon as it is established (the status goes from "Authenticating" and "Authenticated" back to "Ready to Connect").

Possible Causes	Suggestions
The connection properties are not optimal.	1. Windows XP: Click **Start** > **Connect To** > **1xRTT (High-Speed)**. Windows 2000: Click **Start** > **Settings** > **Network and Dial-Up Connections** > **1xRTT (High-Speed)**. 2. In the window that appears, click **Properties**. 3. Click the **Networking** tab. 4. Click **Settings**. 5. Ensure that **Enable LCP Extensions** and **Negotiate multi-link for single link connections** are not selected. 6. Click **OK**.

Reinstalling the PCS Connection Card Driver

There is a PCS Connection Card driver for each supported Windows operating system. Unless the appropriate driver for your version of Windows is installed, you will not be able to establish a network connection with the card. This section provides instructions on verifying that you have the correct card driver installed.

Note: You must have the PCS Connection Card installation CD to complete this procedure.

Windows 98 SE

To verify that the correct driver is installed:

▶ Locate the existing driver

▶ Replace the driver with the Windows 98 SE driver from the PCS Connection Card installation CD.

Locating the Existing Driver

1. Close all Windows programs and open the Control Panel by selecting **Start > Settings > Control Panel**.
2. Double click the **System** icon.
3. Click the **Device Manager** tab.
4. Locate the PCS Connection Card entries by using the "+" signs to expand the listings. (For example, to see all the installed modems, click the "+" sign to the left of **Modems**.) The card should have 3 entries:
   ▶ The card should display under **Multifunction adapters** as **Sierra Wireless AirCard 550 PC Card Parent**.
   ▶ The card should display under **Modems** as **Sierra Wireless AirCard 550 Modem**.
   ▶ The card should display under **Network adapters** as **Sierra Wireless AirCard 550 Adapter**.

If the listings above do not appear, identify the listing for the PCS Connection Card by ejecting the card. This causes the driver listing for the card to disappear from the list. Reinsert the card again to cause the driver listing to reappear. You can identify the entries for the PCS Connection Card by observing which entries are affected when you eject and reinsert the card.

Replacing the Driver

1. If the installation CD is not already in your CD-ROM drive, insert it. If the CD start-up menu appears, use the **exit** option in the lower left corner of the screen to exit the menu.
2. Under **Network adapters**, click the PCS Connection Card entry.
3. Click the **Properties** button.
4. Click the **Driver** tab.
5. Click the **Update Driver…** button to launch the Update Device Driver Wizard.
6. Click **Next**.
7. Select **Display a list of all the drivers in a specific location, so you can select the one you want** and click **Next**.
8. Click the **Have Disk…** button to open the Install From Disk window.
9. Enter **d:\Drivers\Win98** where **d** is the drive letter for your CD-ROM drive. Click **OK**.
10. Click **OK**.
11. Click **Next**.
12. Click **Finish**.
13. Click **No** when prompted to restart your PC.
14. In the Control Panel Device Manager window, select the PCS Connection Card listing under **Modem**.
15. Repeat steps 3 to 12.
16. Restart your PC.

The correct driver should then be installed.

Windows 2000

To verify that the correct driver is installed:

▶ Locate the existing driver

▶ Update the driver

Locating the Driver

1. Close all Windows programs and open the Control Panel by selecting **Start > Settings > Control Panel**.
2. If the card is not already inserted into your PC Card slot, insert it.
3. Double click the **System** icon.
4. Click the **Hardware** tab.
5. Click the **Device Manager…** button.

6. Locate the PCS Connection Card entries by using the "+" signs to expand the listings. (For example, to see all the installed modems, click the "+" sign to the left of **Modems**.) The card should have 3 entries:
   ▶ The card should display under **Multifunction adapters** as **Sierra Wireless AirCard 550 PC Card Parent**.
   ▶ The card should display under **Modems** as **Sierra Wireless AirCard 550 Modem**.
   ▶ The card should display under **Network adapters** as **Sierra Wireless AirCard 550 Adapter**.

   If the listings above do not appear, identify the listing for the PCS Connection Card by ejecting the card. This causes the driver listing for the card to disappear from the list. Reinsert the card again to cause the driver listing to reappear. You can identify the entries for the PCS Connection Card by observing which entries are affected when you eject and reinsert the card.

Updating the Driver
1. If the installation CD is not already in your CD-ROM drive, insert it. If the CD start-up menu appears, use the **exit** option in the lower left corner of the screen to exit the menu.
2. Right click **Sierra Wireless AirCard 550 PC Card Parent** (or the card listing under **Multifunction adapters**) to display a pop-up menu.
3. Select **Properties** in the pop-up menu to open the Properties window.
4. Click the **Driver** tab.
5. Click the **Update Driver…** button to open the Upgrade Device Driver Wizard.
6. Click **Next** on the first window of the Found New Hardware Wizard to proceed to the next window.
7. Select **Display a list of the known drivers for this device so that I can choose a specific driver** and click **Next**.
8. Click the **Have Disk…** button.
9. Enter **d:\Drivers\Win2k**, where **d** is the drive letter for your CD-ROM drive, and click **OK** to proceed.
10. Click **Next**.
11. If the Digital Signature Not Found window displays, click **Yes**.
12. Click **Finish** to proceed. Repeat steps 6 to 12 as prompted.

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.) The correct driver is then installed.

Windows Me

To verify that the correct driver is installed:

▶ Locate the existing driver

▶ Replace the driver with the Windows Me driver from the PCS Connection Card installation CD.

Locating the Existing Driver

1. Open the Control Panel by selecting **Start > Settings > Control Panel**.
2. If the System icon is not in the window, **view all Control Panel options**.
3. Double click the **System** icon.
4. Click the **Device Manager** tab.
5. Locate the PCS Connection Card entries by using the "+" signs to expand the listings. (For example, to see all the installed modems, click the "+" sign to the left of **Modems**.) The card should have 3 entries:
   ▶ The card should display under **Multifunction adapters** as **Sierra Wireless AirCard 550 PC Card Parent**.
   ▶ The card should display under **Modems** as **Sierra Wireless AirCard 550 Modem**.
   ▶ The card should display under **Network adapters** as **Sierra Wireless AirCard 550 Adapter**.

If the listings above do not appear, identify the listing for the PCS Connection Card by ejecting the card. This causes the driver listing for the card to disappear from the list. Reinsert the card again to cause the driver listing to reappear. You can identify the entries for the PCS Connection Card by observing which entries are affected when you eject and reinsert the card.

Replacing the PCS Connection Card Driver

1. If the installation CD is not already in your CD-ROM drive, insert it. If the CD start-up menu appears, use the **exit** option in the lower left corner of the screen to exit the menu.

2. Click to select **Sierra Wireless AirCard 550 PC Card Parent** (or the PCS Connection Card listing under **Multi-function adapters**).
3. Click the **Properties** button.
4. Click the **Driver** tab.
5. Click the **Update Driver** button to launch the Update Device Driver Wizard.
6. Select the **Specify the location of the driver (Advanced)** radio button, and click **Next** to proceed to the next window.
7. Select the **Search for a better driver than the one your device is using now. (Recommended**) radio button. Click the check boxes so that the **Removable Media** check box is NOT checked and **Specify a location** IS checked. Enter **d:\Drivers\WinMe** where **d** is the driver letter for your CD-ROM drive and click **Next**.
8. If a window appears stating that you are already using the best driver for this device, click the **Install one of the other drivers** radio button and click the **View List…** button.
9. Ensure the line selected in the Select Other Drivers window is **d:\DRIVERS\WINME\…** (where **d** is your CD-ROM drive letter) and click **OK**.
10. Click **Next**.
11. Click **Finish** and repeat steps 6 to 11 as prompted.
12. If you are prompted to restart you computer, click **Yes**. Otherwise restart your PC from the Start menu.

The correct driver is then installed.

Windows XP

To verify that the correct driver is installed:

▶ Uninstall the existing driver

▶ Install the Windows XP driver from the PCS Connection Card installation CD.

Uninstalling the Existing Driver

1. Open the Control Panel by selecting **Start > Control Panel**.
2. If "Pick a category" is displayed, select **Switch to Classic View**.
3. Double click the **System** icon.
4. Click the **Hardware** tab.
5. Click the **Device Manager** button.
6. Locate the PCS Connection Card entries by using the "+" signs to expand the listings. (For example, to see all the installed modems, click the "+" sign to the left of **Modems**.) The card should have 3 entries:
   ▶ The card should display under **Multifunction adapters** as **Sierra Wireless AirCard 550 PC Card Parent**.
   ▶ The card should display under **Modems** as **Sierra Wireless AirCard 550 Modem**.
   ▶ The card should display under **Network adapters** as **Sierra Wireless AirCard 550 Adapter**.

   If the listings above do not appear, identify the listing for the PCS Connection Card by ejecting the card. This causes the driver listing for the card to disappear from the list. Reinsert the card again to cause the driver listing to reappear. You can identify the entries for the PCS Connection Card by observing which entries are affected when you eject and reinsert the card. Right click **Sierra Wireless AirCard 550 PC Card Parent** (or the PCS Connection Card listing under **Multifunction adapters**) to display a pop-up menu.
7. Select **Uninstall** in the pop-up menu.
8. Confirm that you want to uninstall the device by clicking **OK**.

The PCS Connection Card listings should be removed.

Installing the Windows XP PCS Connection Card Driver

1. If the installation CD is not already in your CD-ROM drive, insert it. If the CD start-up menu appears, use the **exit** option in the lower left corner of the screen to exit the menu.

2. Eject and reinsert the PCS Connection Card to launch the Found New Hardware Wizard.

3. Select **Install from a list or specific location (Advanced)** on the first window of the Found New Hardware Wizard and click **Next** to proceed.

4. Select the **Search for the best driver in these locations** radio button, and the **Include this location in the search** check box, then enter **d:\Drivers\WinXP** where **d** is the drive letter of your CD-ROM drive. Click **Next** to proceed to the next window.

5. If a warning appears stating that PCS Connection Card has not passed Windows Logo testing, click **Continue Anyway**.

6. Click **Finish** and repeat steps 1 to 5 as prompted.

The correct driver is then installed.

Resolving Resource Conflicts

Note: You require your PCS Connection Card installation CD to complete this procedure.

The PCS Connection Card requires these system resources:

▶ 1 IRQ

▶ 40 bytes of I/O space

▶ 1 communications port

If these resources are not available to the card, you have a resource conflict. If another PC Card is installed, you may be able to free the necessary resources simply by ejecting the other card. Otherwise, you may need to disable another device (such as an internal modem, infrared device, or network card) to resolve the resource conflict. This section explains how to disable other devices.

Windows 98 SE

To resolve a resource conflict in Windows 98 SE:

▶ Disable a device (internal modem, infrared device, or network card)

▶ Uninstall and reinstall the PCS Connection Card driver

Disabling an Internal Modem, Infrared Device, or Network Card

1. Close all Windows programs and open the Control Panel by selecting **Start > Settings > Control Panel**.
2. Double click the **System** icon.
3. Click the **Device Manager** tab.
4. Locate the device that you want to disable:
   ▶ If you want to disable an internal modem, expand the **Modem** tree by clicking the "+" sign to its left. Double click the internal modem that you wish to disable.
   ▶ If you want to disable an infrared device, expand the **Infrared Devices** tree by clicking the "+" sign to its left. Double click the infrared device that you wish to disable.
   ▶ If you want to disable a network card, expand the **Network Adapters** tree by clicking the "+" sign to its left. Double click the network card you wish to disable.
5. In the window that appears, in the Device Usage section, click the check box labeled **Disable in this hardware profile** so that the box is checked, and click **OK**.

Uninstalling and Reinstalling the PCS Connection Card Driver

1. If the installation CD is not already in your CD-ROM drive, insert it. If the CD start-up menu appears, use the **exit** option in the lower left corner of the screen to exit the menu.
2. If the card is not already inserted into a PC Card slot, insert it.
3. In the Control Panel Device Manager window, open the **Multifunction Adapters** tree by clicking the "+" sign to its left.
4. Highlight the **Sierra Wireless AirCard 550 PC Card Parent**.
5. Click the **Remove** button.
6. Confirm that you want to remove the driver by clicking **OK**.
7. Reinsert the card into your PC Card slot.

Windows should then reinstall the driver for your PCS Connection Card. If the Add New Hardware Wizard is launched, follow the installation below.

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.
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

To resolve a resource conflict in Windows 2000:

▶ Disable a device (internal modem, infrared device, or network card

▶ Uninstall and reinstall the PCS Connection Card driver

Disabling an Internal Modem, Infrared Device, or Network Card

1. Close all Windows programs and open the Control Panel by selecting **Start > Settings > Control Panel**.
2. Double click the **System** icon.
3. Click the **Hardware** tab.
4. Click the **Device Manager** button.
5. Locate the device that you want to disable:
   ▶ If you want to disable an internal modem, expand the **Modem** tree by clicking the "+" sign to its left.
   ▶ If you want to disable an infrared device, expand the **Infrared Devices** tree by clicking the "+" sign to its left.
   ▶ If you want to disable a network card, expand the **Network Adapters** tree by clicking the "+" sign to its left.
6. Right click the device you want to disable, choose **Disable** from the pop-up menu that appears and click **OK**.

Updating the Driver

1. If the installation CD is not already in your CD-ROM drive, insert it. If the CD start-up menu appears, use the **exit** option in the lower left corner of the screen to exit the menu.
2. If the card is not already inserted into your PC Card slot, insert it.
3. In the Control Panel Device Manager window, expand the Multifunction adapters tree by clicking the "+" sign to its left.
4. Right click **Sierra Wireless AirCard 550 PC Card Parent**.
5. Select **Properties** in the pop-up menu to open the Properties window.
6. Click the **Driver** tab.
7. Click the **Update Driver…** button to open the Upgrade Device Driver Wizard.
8. Click **Next** on the first window of the Found New Hardware Wizard to proceed to the next window.
9. Select **Display a list of the known drivers for this device so that I can choose a specific driver** and click **Next**.
10. Click the **Have Disk…** button.
11. Enter **d:\Drivers\Win2k**, where **d** is the drive letter for your CD-ROM drive, and click **OK** to proceed.
12. Click **Next**.
13. If the Digital Signature Not Found window appears, click **Yes**.
14. Click **Finish** to proceed. Repeat steps 8 to 13 as prompted.

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 and reassign the resources.)

Windows Me

To resolve a resource conflict in Windows Me:

▶ Disable a device (internal modem, infrared device, or network card

▶ Uninstall and reinstall the PCS Connection Card driver

Disabling an Internal Modem, Infrared Device, or Network Card

1. Close all Windows programs and open the Control Panel by selecting **Start > Settings > Control Panel**.
2. If the System icon is not in the window, click **view all Control Panel options**.
3. Double click the **System** icon.
4. Click the **Device Manager** button.
5. Locate the device that you want to disable:
   ▶ If you want to disable an internal modem, expand the **Modem** tree by clicking the "+" sign to its left.
   ▶ If you want to disable an infrared device, expand the **Infrared Devices** tree by clicking the "+" sign to its left.
   ▶ If you want to disable a network card, expand the **Network Adapters** tree by clicking the "+" sign to its left.
6. Click to select the device you want to disable, and the **Properties** button.
7. Click to check the **Disable in this hardware profile** check box in the Device usage section of the window and click the **OK** button.

Uninstalling and Reinstalling the PCS Connection Card Driver

1. If the installation CD is not already in your CD-ROM drive, insert it. If the CD start-up menu appears, use the **exit** option in the lower left corner of the screen to exit the menu.
2. If the card is not already inserted into a PC Card slot, insert it.
3. In the Control Panel Device Manager window, expand the **Multifunction Adapters** tree by clicking the "+" sign to its left.
4. Click the **Sierra Wireless AirCard 550 PC Card Parent** and click the **Remove** button.
5. Confirm that you want to remove the device by clicking **OK**.
6. Close all windows and restart your PC.

7. If you are prompted for a file when the PC restarts, enter **d:\Drivers\WinMe** where **d** is the drive letter of your CD-ROM drive and click **OK** to proceed.

8. If the Add New Hardware Wizard appears, follow these instructions:

   ▶ Click **Specify the location of the driver (Advanced)** on the first window of the Add New Hardware Wizard and click **Next** to proceed.

   ▶ 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.

   ▶ If prompted, "What would you like to install?", select **The updated software (Recommended)** and click **Next**.

   ▶ Click **Next** on the window that displays a file name.

   ▶ Click **Finish** and repeat steps 1 to 4 as prompted.

   ▶ 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 XP

To resolve a resource conflict in Windows XP:

▶ Disable a device (internal modem, infrared device, or network card)

▶ Uninstall and reinstall the PCS Connection Card driver

Disabling an Internal Modem, Infrared Device, or Network Card

1. Close all Windows programs and open the Control Panel by selecting **Start > Settings > Control Panel**.

2. Double click the **System** icon.

3. Click the **Hardware** tab.

4. Click the **Device Manager** button.

5. Locate the device that you want to disable:

   ▶ If you want to disable an internal modem, expand the **Modem** tree by clicking the "+" sign to its left.

   ▶ If you want to disable an infrared device, expand the **Infrared Devices** tree by clicking the "+" sign to its left.

   ▶ If you want to disable a network card, expand the **Network Adapters** tree by clicking the "+" sign to its left.

6. Right click the device you want to disable, choose **Disable** from the pop-up menu that appears and click **OK**.

Uninstalling and Reinstalling the PCS Connection Card Driver

1. If the installation CD is not already in your CD-ROM drive, insert it. If the CD start-up menu appears, use the **exit** option in the lower left corner of the screen to exit the menu.

2. If the card is not already inserted into a PC Card slot, insert it.

3. In the Control Panel Device Manager window, expand the **Multifunction Adapters** tree by clicking the "+" sign to its left.

4. Right click the **Sierra Wireless AirCard 550 PC Card Parent**.

5. Click **Uninstall** from the pop-up menu and click **OK**.

6. Eject and reinsert the PCS Connection Card to launch the Found New Hardware Wizard.

7. Select **Install from a list or specific location (Advanced)** and click **Next**.

8. Select the **Search for the best driver in these locations** radio button, and the **Include this location in the search** check box, then enter **d:\Drivers\WinXP** where **d** is the drive letter of your CD-ROM drive. Click **Next** to proceed to the next window.

9. If a window appears prompting you to select the best match for your hardware from a list, select the listing that shows, in the Location column, **d:\drivers\winxp\netac550.inf** (where **d** is your CD-ROM driver letter). Click **Next**.

10. If a warning appears stating that the PCS Connection Card has not passed Windows Logo testing, click **Continue Anyway**.

11. Click **Finish** and repeat steps 7 to 11 as prompted.

12. 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 and reassign the resources.)

The driver should then be reinstalled, and the resource conflict resolved.

Troubleshooting Tips (Handheld / Pocket PC)

In This Section

▶ **Problem Causes and Suggestions**

▶ **Uninstalling the PCS Connection Manager^{SM} Software**

This section provides assistance in diagnosing and solving many common problems you may experience while using your PCS Connection Card™ with your Handheld or Pocket PC.

Problem Causes and Suggestions

When properly installed, the PCS Connection Card is a highly reliable product. Most problems are caused by one of these issues:

▶ The wrong driver has been installed.

▶ Network coverage is not available (either because you are outside the coverage area, or because of an account or network problem).

This section describes how to diagnose and solve these and other problems. If, after reading this section, you are unable to resolve a problem, please visit www.sprintpcs.com or contact PCS Customer Service Solutions at 1-888-211-4PCS (4727).

Error: ActiveSync Does Not Prompt that There is Software to Download

You have installed the PCS Connection Manager Software to the host and connected the Handheld/Pocket PC to the host. ActiveSync launches but does NOT prompt that there is software to download, so you are unable to complete the installation process.

Possible Causes	Suggestions
There was a failure in the host installation process or ActiveSync has failed to detect that there is software to download.	Uninstall the software and start the installation process again. For instructions, see 'Uninstalling the PCS Connection Manager Software" on page 123.

Error: When Tapping the Keypad, Nothing Happens

Possible Causes	Suggestions
• KeyGuard is on.	• Turn KeyGuard off. See page 74.

Error: Searching for PCS Connection Card...

The PCS Connection Manager Software displays the message
"**Searching for PCS Connection Card….**"

Possible Causes	Suggestions
a. The card is not completely inserted into the PC Card slot. **b.** The wrong driver is installed for the card. **c.** The battery of your Pocket PC or its expansion pack is low.	**a.** Eject and reinsert the card. **b.** Uninstall the PCS Connection Card Software and reinstall it. For instructions on removing the software, see 'Uninstalling the PCS Connection Manager Software" on page 123. To reinstall the software, see "Installing the PCS Connection Manager Software" on page 26. **c.** Ensure your Pocket PC and its expansion pack are fully charged.

Error: Not able to prepare data services

The PCS Connection Manager Software displays the message
"Unable to prepare data services.".

Possible Causes	Suggestions
• The modem was unable to access to the IOTA server to obtain data account parameters for you. This may be due to poor signal strength, or the IOTA server is not responding.	• Confirm you have sufficient signal strength. Try the actions listed above for "Not In Service". • Contact Sprint for assistance.

Error: Not In Service

The PCS Connection Manager displays the message "**Not in service**".

Possible Causes	Suggestions
Inadequate signal strength may occur for any of these reasons: **a.** You are outside the Sprint Nationwide PCS Network. **b.** Your antenna is not attached or is pointed in the wrong direction. **c.** You may be inside a building or near a structure that is causing radio interference.	**a.** Verify that you are within the Sprint Nationwide PCS Network. Coverage maps are available at www.sprintpcs.com. **b.** Ensure your antenna is properly attached. Re-orient your antenna. **c.** Change your location.

Error: Connection Seems Slow

(Pocket PCS only:) When you have both a PCS Connection Card and an AirCard 300 in your dual-card PCMCIA jacket accessory, the data connection seems quite slow.

Possible Causes	Suggestions
• If both cards are inserted, then the path that the Internet Protocol (IP) traffic will take is not predictable. If the data gets routed through the AirCard 300, you will experience slower data transfer rates.	• Eject the AirCard 300 from your PCMCIA jacket accessory before you use the PCS Connection Card.

Uninstalling the PCS Connection Manager Software

To uninstall the PCS Connection Manager Software from the host PC:
1. If your Handheld/Pocket PC is connected to the host, disconnect it.
2. On the host, open the Control Panel by selecting **Start > Settings > Control Panel**.
3. Double click the **Add/Remove Programs** icon to open the Add/Remove Programs window.
4. Click to select **Sierra Wireless AirCard 550 Pocket PC…**.
5. Double click the **Add/Remove** button.
6. Confirm that you want to delete the program by clicking **OK**.
7. Click **Finish**.

To remove the software from a Pocket PC:
1. Eject the PCS Connection Card if it is inserted in your PCMCIA jacket (and the jacket is attached).
2. Tap **Start > Settings**.
3. Tap the **System** tab.
4. Tap the **Remove Programs** icon.
5. Tap **Sierra Wireless Inc AirCard 550…** and tap the Remove button.
6. Confirm that you want to remove the program by tapping **Yes**.

To remove the software from a Handheld PC:
1. Eject the PCS Connection Card if it is inserted in your PC Card slot.
2. Open the Control Panel by selecting **Start > Settings > Control Panel**.
3. Double tap the Remove Programs icon.
4. Select **Sierra Wireless Inc AirCard 550 Handheld** and tap the **Remove** button.
5. Confirm that you want to delete the software by tapping **Yes**.

To reinstall the software, follow the instructions starting on

PCS Vision

PCS Vision℠

In This Section

► **Web**

► **Messaging**

► **PCS Business Connection℠**

$\mathbf{P}$ CS Vision℠ brings you clarity you can see and hear with always-on, advanced multimedia services. These features, including email, Internet browsing and PCS Business Connection℠, are easy to learn and use. Clearly. It's a whole new way to look at wireless.

Browsing the Web With Your PCS Connection Card

Launching the Web

To launch the Web:

▶ From the card's main menu, highlight **Web** and select **Launch**.

Your User Name

When you buy a PCS Connection Card and sign up for service, you're automatically assigned a User name. Then, when you use PCS Vision services, your User name is submitted to identify you to the enhanced Sprint Nationwide PCS Network. The User name is also useful as an address for email and instant messaging, as a way to personalize Internet services, and as an online virtual identity.

A User name is typically based on the customer's name and a number, followed by "@sprintpcs.com." For example, the third John Smith to sign up for PCS Vision Services might have jsmith003@sprintpcs.com as his User name. If you want a particular User name, you can visit www.sprintpcs.com and get the name you want – as long as nobody else has it!

Note: If you already have a PCS Mail User name, that will automatically become your PCS Vision User name.

Your User name will be automatically programmed into your PCS Connection Card. You don't have to enter it.

Messaging

Now you can chat and send and receive email and instant messages on select PCS Connection Cards. When you chat, you can have a conversation without talking. Join in a Web-based chat room to exchange information on a specific topic or read conversations that others have posted – even launch a one-on-one chat for a more in-depth conversation.

PCS Messages

These appear on your screen as **Page/Text** and include numeric messages and PCS Messages.

Signing Up for Web Updates

With Web Updates, you can have news and information sent directly to your PCS Connection Card at the times you choose.

To select the information you want sent to your card:
1. From your computer, log on to the Internet.
2. Go to the site from which you want to receive information. A few of the sites you can visit are America Online®, Yahoo!®, MSN® and eBay®. (The location where you request updates within each site will vary.)
3. Where indicated on the site, input your 10-digit PCS Phone Number followed by "@messaging.sprintpcs.com." For example: 5551234567@messaging.sprintpcs.com.

Upon completing the registration process, you should begin receiving updates on your card as requested.

PCS Business Connection^{SM} Personal Edition

PCS Business Connection^{SM} Personal Edition is designed to offer secure wireless access to both Microsoft® Outlook® and Lotus Notes®.

PCS Business Connection Personal Edition delivers the following features:

▶ **Business email access**: Read, reply to, forward, delete and compose your company email.

▶ **Company directory and contacts**: Search, view, call, and email contacts from your company's directory. Do all this and add/edit your personal contacts.

▶ **Work calendar**: Accept and reject meetings, view daily summaries and details, navigate to various dates.

▶ **Files/information on your PC**: Browse folders, download and view documents from any device using a PC browser or Pocket Internet Explorer.

To use PCS Business Connection Personal Edition, install Business Connection Personal Edition software on your work PC. This allows data to be securely retrieved in real-time by your wireless device when connected to the Sprint Nationwide PCS Network. There is a monthly charge for PCS Business Connection, and usage charges will also apply.

When your work PC isn't on, you can share connections with your co-workers so that you always have access to your email, calendar, and contacts. Your data remains secure behind the corporate firewall and any changes you make on your wireless device are instantly updated on your company server without the need to synchronize.

Additional Business Connection solutions are available to your company. For more details, visit businessconnection.sprintpcs.com.

PCS Vision FAQs

How will I know when my card is ready for PCS Vision Service?

Your user name (for example, bsmith001@sprintpcs.com) will appear on the display screen.

How do I sign-in for the first time?

You are automatically signed in to PCS Vision services when you turn on your PCS_Connection Card.

How do I know when my card is connected to PCS Vision Services?

Your card automatically connects when PCS Vision Service is used or an incoming message arrives. Your screen will also display the signal strenth icon. (Connecting takes about 10-12 seconds.)

When is my data connection active?

Your connection is active when data is being transferred. Incoming calls go directly to voicemail. When active, the data indicator appears on the display.

When is my data connection dormant?

If no data is received for 10 seconds, the connection goes dormant. When the connection is dormant, voice calls are allowed. (The connection may become active again quickly.) While dormant, the data icon appears grey. If no data is received for an extended period of time, the connection will terminate.

Can I sign out of data services?

You can sign out without turning off your card, however you will not be able to browse the Web or use other PCS Vision services. While signed out, you can still place or receive phone calls, check voicemail, and use other voice services. You may sign in again at any time.

How can I optimize my settings to achieve faster speeds and send and receive less data while dialing into my corporate network?

For optimized results, work in "Offline" mode and synchronize periodically to send and receive corporate email. Also, save/drag-and-drop attachments to a desktop folder rather than double-clicking prior to opening. For more detailed information, access the Microsoft whitepaper at http://www.microsoft.com/office/outlook/evaluation/perform.doc.

Technical Specifications and Regulatory Information

Technical Specifications

In This Section

▶ **LED Operation**

▶ **Radio Frequency and Electrical Specifications**

▶ **Environmental Specifications**

This section outlines LED operation and the technical and environmental specifications of your new PCS Connection Card.

LED Operation

The PCS Connection Card has a single red/green LED on the antenna end of the card. The LED operates as follows:

Table 1: LED Operation

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

*Both red and green are lit.

Radio Frequency and Electrical Specifications

Table 2: Radio Frequency & Electrical Specifications

Approvals	Compliant with: IS-95A, IS-95B, 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
Frequency stability	± 150 Hz

Environmental Specifications

Table 3: Environmental Specifications

Operating temperature	-30 to +60 °C (ambient, outside PCMCIA enclosure)
Storage temperature	-30 to +85 °C
Humidity	95%, non-condensing
Vibration	15 g peak 10 to 2000 Hz (non-operating)
Drop	30" (76. cm) on to vinyl covered concrete

Regulatory Information

In This Section

▶ **Warning (EMI) - US FCC Information**

▶ **Warning (EMI) - Canada**

This section outlines important regulatory notices concerning your new PCS Connection Card.

Regulatory Notices

This device complies with Part 15 of the FCC Rules. Operation of this device is subject to the condition that this device does not cause harmful interference. 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.

Safety Information
and
Terms & Conditions

Safety and Notices

In This Section

▶ **Important Notice**

▶ **Safety and Hazards**

▶ **Limitations of Liability**

T his section outlines important safety guidelines and liability statements concerning your new PCS Connection Card™.

Important Notice

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 PCS Connection Card are used in a normal manner with a well-constructed network, the PCS Connection Card 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. and its affiliates accept no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the PCS Connection Card, or for failure of the PCS Connection Card to transmit or receive such data.

Safety and Hazards

Do not operate the PCS Connection Card in areas where blasting is in progress, where explosive atmospheres may be present, near medical equipment, life support equipment, or any equipment which may be susceptible to any form of radio interference. In such areas, the PCS Connection Card **MUST BE POWERED OFF**. The PCS Connection Card can transmit signals that could interfere with this equipment.

Do not operate the PCS Connection Card in any aircraft, whether the aircraft is on the ground or in flight. In aircraft, the PCS Connection Card **MUST BE POWERED OFF**. When operating, the PCS Connection Card can transmit signals that could interfere with various onboard systems.

Note: Some airlines may permit the use of cellular phones while the aircraft is on the ground and the door is open. PCS Connection Cards may be used at this time.

The driver or operator of any vehicle should not operate the PCS Connection Card while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some states and provinces,

operating such communications devices while in control of a vehicle is an offence.

Limitation of Liability

The information in this manual is subject to change without notice and does not represent a commitment on the part of Sierra Wireless, Inc. or its affiliates. SIERRA WIRELESS, INC. AND ITS AFFILIATES SPECIFICALLY DISCLAIM LIABILITY FOR ANY AND ALL DIRECT, INDIRECT, SPECIAL, GENERAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUE OR ANTICIPATED PROFITS OR REVENUE ARISING OUT OF THE USE OR INABILITY TO USE ANY SIERRA WIRELESS, INC. PRODUCT, EVEN IF SIERRA WIRELESS, INC. AND/OR ITS AFFILIATES HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR THEY ARE FORESEEABLE OR FOR CLAIMS BY ANY THIRD PARTY. NOTWITHSTANDING THE FOREGOING, IN NO EVENT SHALL SIERRA WIRELESS, INC. AND/OR ITS AFFILIATES' AGGREGATE LIABILITY ARISING UNDER OR IN CONNECTION WITH THE SIERRA WIRELESS PRODUCT, REGARDLESS OF THE NUMBER OF EVENTS, OCCURRENCES OR CLAIMS GIVING RISE TO LIABILITY, BE IN EXCESS OF THE PRICE PAID BY THE PURCHASER FOR THE SIERRA WIRELESS PRODUCT.

Patents

Portions of this product are covered by some or all of the following US patents: 5515013, 5617106, 5629960, 5682602, 5748449, 5845216, 5847553, 5878234, 5890057, 5929815, 6169884, 6191741, 6199168, 6339405, D367062, D372248, D372701, D416857, D442170, D452495, D452496, and other patents pending.

QUALCOMM®
3G CDMA

Licensed by QUALCOMM Incorporated under one or more of the following United States Patents and/or their counterparts in other nations:

4901307	5490165	5056109	5504773	5101501
5506865	5109390	5511073	5228054	5535239
5267261	5544196	5267262	5568483	5337338
5600754	5414796	5657420	5416797	5659569
5710784	5778338			

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Trademarks

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Comments

Consult our Web site for up-to-date product descriptions, documentation, application notes, firmware upgrades, troubleshooting tips, and press releases:
www.sierrawireless.com

Terms and Conditions

In This Section

▶ **Terms and Conditions of Services**

T his section contains the terms and conditions of service for your new PCS Connection Card™.

Terms and Conditions of Services

(Effective as of August 1, 2002 until replaced)

Thanks for choosing Sprint. These terms and conditions are part of your agreement with Sprint for PCS Services.

For the most current version of the terms and conditions, please visit our Web site at www.sprintpcs.com or call PCS Customer Service SolutionsSM at 1-888-211-4PCS, because the terms and conditions included with your PCS Phone may not be the most current version. If you activated PCS Services before the effective date of these terms and conditions, these terms and conditions replace and supersede any previous terms and conditions.

If you have questions about your PCS Services, call PCS Customer Service SolutionsSM at 1-888-211-4PCS (4727) or visit our Web site at www.sprintpcs.com.

Para solicitar esta literatura en español, por favor contactar a 1-888-211-4PCS (4727).

Agreement. Your agreement ("Agreement") with Sprint Spectrum L.P. and any of its Affiliates doing business as Sprint providing PCS Services ("Services") to you is made up of these Terms and Conditions of Service ("Terms") and the Service Plan that we agree to provide you. Your "Service

Plan" is described in our marketing materials, and includes the rates and features we set for that Service Plan. We use the words "we," "us," "our" or "Sprint" to refer to Sprint Spectrum L.P. and its Affiliates doing business as Sprint in these Terms. When you activate PCS Services or attempt to use our PCS Services (including, without limitation, attempting to place a call on the Sprint Nationwide PCS Network, or off the Sprint Nationwide PCS Network when roaming, including "911" or similar calls), you accept the Agreement.

Provision of Service. Your purchase of PCS Phones or other equipment does not mean that we must provide Services to you. We may decide not to provide Services to you for any lawful reason. We may request that you provide us with any information we reasonably require to determine whether you qualify for Services. Services in some areas are managed and provided under contract with Sprint by independent Affiliates with access to the Sprint Nationwide PCS Network. Some Services may not be available or may operate differently in certain Affiliate markets.

Credit Verification. You must have and keep satisfactory credit to receive and continue to receive Services. We will verify your credit before agreeing to provide Services to you and we may verify your credit at any time while we provide Services to you. Credit verification may include a review of credit reports that we receive from commercially available credit bureaus. We may require a guarantee of payment by an individual or entity approved by us. If at any time we determine, in our sole discretion, that payment for Services may not be made when due, we may suspend Services to your phone and require that you provide payment on account or a guarantee of payment before we resume Services to your phone.

Changes to Agreement. We may change this Agreement at any time (but see PCS Service Plan). Any changes to the Terms are effective when we publish the revised Terms. If you use our Services or make any payment to us on or after the effective date of the changes, you accept the changes. If you do not accept the changes, you may terminate Services (but see Termination and Changing Service Plans). For purposes of the Agreement, "use" includes keeping the right to access

the Sprint Nationwide PCS Network by not terminating Services. You may not modify the Agreement except for your PCS Service Plan (see Termination and Changing Service Plans).

Service Plan. You may be eligible for a fixed length PCS Service Plan ("Term Service Plan") or for a month-to-month Service Plan ("Non-Term Service Plan"). We determine the Service Plan for which you qualify. We may offer non-identical Service Plans to different individuals or entities. Services and coverage under some Service Plans may be more limited than available under other Service Plans. Your Service Plan sets out the charges for Services and is your Service Plan until that Service Plan is changed, you switch to a different Service Plan, or your Services terminate. Your Service Plan may require that you make a deposit, prepayment, or a series of deposits or prepayments, or be subject to an account spending limit, before Services are activated or maintained.

Changing Service Plans. If you are on a Non-Term Service Plan, you may change to a different Service Plan for which you qualify. Any change is effective at the start of your next full invoicing cycle unless otherwise specified by us at the time that you place your change order. If you change or add a different Service Plan or service feature and the change is effective prior to the start of your next full invoicing cycle, you will be invoiced a prorated amount. We may require a service charge for implementing any change directed by you as well as the Service Plan or optional service features you select. If you are on a Term Service Plan, your ability to change to another Service Plan may be limited and we may require you to pay a termination fee as set out in your Service Plan.

Use of Services and Equipment; Availability. You must be at least 18 years old to subscribe to our Services. We may require you to provide proof of your age and identity. If you are under 18 years old you may be eligible for certain Services that have Account Spending Limits if a person 18 years or older is also named as a subscriber on the Account. Services and equipment may not be used for any unlawful, fraudulent or abusive purpose. By requesting Services, you agree that you will not use Services and equipment in any unlawful,

fraudulent or abusive manner. You may not resell or lease Services or equipment to anyone. Services are available within the operating range of the Sprint Nationwide PCS Network. Coverage and quality of Services may be affected by conditions within or beyond our control, including atmospheric, geographic, or topographic conditions. We do not guarantee that there will be no interruptions or delays in Services. Your PCS Phone will not accept the services of any wireless provider other than Sprint (but see Roaming).

Number. We assign a phone number ("Number") to the phone or other equipment used by you on the Sprint Nationwide PCS Network. We may change the Number without compensation by giving you prior notice. You do not own the Number. You may not modify the Number we program into any phone or other equipment, transfer or duplicate the Number to any phone or other equipment other than that authorized by us, or transfer the Number to any other individual or entity.

Phone Activation Fee. You may be required to pay a non-refundable phone activation fee when you activate a new Number, have us switch a Number to a different phone, have your current Number changed, we activate a different phone on your existing account or your Service Plan says so. Details on any applicable phone activation fee are set out in your Service Plan or can be obtained by calling PCS Customer Service Solutions.

Charges. For most forms of wireless Service, your usage will be charged from the time you first initiate contact between your phone or other wireless device and the network until the network connection is broken, whether or not you are successful in connecting with the service with which you seek to connect, even if the connection is later broken or dropped. An exception is that you are not charged for voice calls that are not completed. You are charged for completed calls to your Number from the time shortly before the phone starts ringing until the call is terminated by either party. You will be charged peak rates for the entire duration of calls initiated during the peak time periods applicable to your Service. You will be charged off-peak rates for the entire duration of calls initiated during the off-peak time periods

applicable to your Service. In addition to these usage charges, you may be charged for recurring monthly service charges, applicable local and long-distance toll charges, other usage charges, connection fees, roaming charges, directory assistance, call completion charges, account review and management charges optional features you select at an extra cost, and taxes and other regulatory-related charges. Charges for most Services are incurred in one-minute increments, with partial minutes of use rounded up to the next highest minute. You must pay, by each invoice due date, all charges for Services provided to the Number for each phone or other equipment that our records show you activated, no matter who actually uses or has possession of the phone or other equipment at the time Services are provided.

PCS Vision (Third Generation) Wireless Charges. For PCS Vision wireless services, you will be charged, on a per kilobyte basis, for Web access, whether sent or received by your PCS Phone or other wireless device, rather than for airtime used, even for certain PCS Vision voice ervices. As long as your PCS Phone or other wireless device is connected to the enhanced (Third Generation) Sprint Nationwide PCS Network, you will be incurring data usage charges. You cannot receive incoming calls while using third generation services. Data packet usage will be measured in kilobytes and will be rounded up to the next whole kilobyte. Kilobyte usage will be rounded up to the next full cent. Rounding up will occur at the end of each separate session or each clock hour (at the top of each hour), if the session spans more than 1 clock hour. When traveling on the Vision network, a session may be ended and new session initiated, although no interruption to the actual data session will occur. Each individual session will be rounded up. The number of data packets used and charged to you will vary widely, depending upon the specific PCS Vision wireless application or other service you use and the amount of data used in the specific application or service. You will be charged for data exchanges initiated by other Internet users as well as those you initiate. Estimates of data usage, for example, the size of downloadable files, will vary from what you actually use. You will be charged for additional data used in transporting and routing on the network. If you use a Premium Service (including services provided by third parties but for which

you are billed on your PCS Invoice), you will be charged for data used in transport and routing in addition to the charge for the Premium Service. You will be charged for partial and interrupted data downloads or other use, including re-sent data, and for unsuccessful attempts to reach Web sites and use other applications and services, including those resulting from dropped network connections. Your invoice will not separately identify the number of kilobytes attributable to your use of specific sites, sessions or services used. Specific additional information about PCS Vision wireless services, including pricing, included kilobytes and combining with other PCS Service Plans, is available in our standard sales collateral for PCS Vision wireless Service Plans or at www.sprintpcs.com.

PCS Voice Command^{SM}. PCS Voice Command^{SM} is an optional service that allows you to place calls by using speech recognition technology. Calls to 911 or similar emergency numbers cannot be placed through the PCS Voice Command feature. Airtime and applicable long distance charges for a call completed from your Number using the PCS Voice Command feature begin when you press or activate the TALK or similar key(s) and end when your call is terminated by hitting the END key or by returning to the PCS Voice Command platform. If you initiate and complete another call without leaving the PCS Voice Command platform, a separate charge for that call will begin from the time the previous call was terminated. Airtime and applicable long distance charges will be applied to the entire length of a completed call initiated from PCS Voice Command. Using Directory Assistance to input names into your PCS Voice Command address book will incur additional charges. Details on charges for the PCS Voice Command feature can be found in the marketing materials for this feature, by visiting www.sprintpcs.com or by calling PCS Customer Service Solutions.

Invoicing. Invoicing cycles are approximately 30 days in length. Invoicing cycles and dates may change from time to time. Except as otherwise provided in your Service Plan, monthly recurring charges (MRCs) are invoiced one invoicing cycle in advance. Charges for Services are usually invoiced as soon as possible after the charges accrue. We may, however,

invoice you for usage and charges occurring before the invoicing cycle being invoiced, if they were not previously invoiced. If you are invoiced for usage incurred during a prior invoicing cycle, those minutes will be applied to your Service Plan minutes for the current invoicing cycle. However, if you change your PCS Service Plan between the time the usage was incurred and the beginning of the current invoicing cycle, those minutes from the prior invoicing cycle will be charged at the rate per minute for usage over included minutes provided in the Service Plan in effect at the time the usage was incurred.

Additional Terms for Premium Services. Access to and downloading of premium content is not included with PCS Vision services. Certain PCS Vision services (e.g., games, ringers and screen savers) contain mostly premium services content. Your invoice will not separately identify the number of kilobytes attributable to your use of specific sites, sessions or services used. You will be charged for Premium Services at the rates and charges specified at the time of access or download, in addition to data usage charges you will incur while connected to the Sprint Nationwide PCS Network. You will be charged for partial and interrupted data downloads or other use, including data that is resent, and for unsuccessful attempts to reach Web sites and use other applications and services, including those resulting from dropped network connections. We provide no warranties and make no representations or claims with regard to the third party Premium Services. In certain instances, subject to the terms of the content purchased, we may delete premium and non-premium items downloaded to available storage areas (e.g., your vault) including any pictures, games and other content. We may impose a dollar or other limit on use of Premium Services including a limit the amount of Premium Service charges that you will be allowed to incur in a specific timeframe (month, week, day, or other time period). We may suspend your use of Premium Services without prior consent or notice if we have reason to suspect fraudulent or unauthorized use of your Premium Services account, but we make no assurances that we will suspend your account.

Payment. If you have authorized payment for Services or equipment by credit card or by debiting a bank account, no

additional notice or consent is required before we invoice the credit card or debit the bank account for all amounts due to us or billed by us on behalf of a third party. You must promptly notify us of any change in your invoicing address or of the credit card or bank account used for payment. We reserve the right to require payment by money order, cashier's check or other secured form of payment. If we take action to receive payment beyond invoicing you for charges for Services or equipment, you must pay our costs and expenses of collection, including attorneys' fees and expenses, the fees of any collection agency and court costs. If we act as an invoicing agent for a third-party service provider, payments received are first applied to amounts due and owing to us and any remaining amounts are applied to sums due and owing to the third-party service provider. We may charge an additional fee for any check or other negotiable instrument endorsed by you and returned unpaid by a financial institution for any reason. You may be charged fees for certain methods of payment.

Late Payment Charges. Payment is past due if we do not receive it by the due date shown on your invoice. Any payment for Services and equipment not made when due accrues late charges until paid at the rate of 5% per month or at the highest rate allowed by law. Acceptance of late or partial payments (even if marked "paid in full") does not waive our right to collect all amounts that you owe us. If your Service has been suspended due to non-payment, you may be charged a reactivation fee.

Disputed Charges. You must raise any dispute that you have about any charges invoiced to you within 15 days of the date of the invoice or you have accepted the invoice. You may notify us of any dispute by notifying PCS Customer Service Solutions. Calls to our sales or general business offices are not notice of a dispute. If disputed invoice procedures are described on the invoice, you must follow them.

Termination. Non-Term Service Plan. If you are on a Non-Term Service Plan you may terminate Services at any time by giving us notice. Subject to the terms of this Agreement, we may terminate Services at any time, with or without notice. If your Service has been suspended due to non-payment, you may be charged a reactivation fee. We may deactivate any Number

before you receive notice of termination without liability to you. Termination by either of us may be with or without cause.

Termination. Term Service Plan. If you are on a Term Service Plan (1) your ability to terminate Services before the end of the term is limited, (2) your ability to change to another Service Plan before the end of the term may be limited, and may result in a termination or activation fee, (3) you may be required to pay a termination fee, (4) we may not terminate Services without cause before the end of the term and (5) if we terminate Services for cause before the end of the term, you may be required to pay a termination fee. No termination fee is charged if you terminate a Term Service Plan within 14 days of activation of your PCS Phone. During the term we must give each other notice to terminate Services. At and after the expiration of the term, you may terminate Services at any time by giving us notice and we may subject, to this Agreement, terminate Services at any time, with or without notice.

Termination. General. Regardless of whether you have a Non-Term or a Term Service Plan, we may terminate or suspend Services to you without liability (1) if you breach any provision of this Agreement (including if you fail to pay any charges for Services), or (2) if you fail to pay any charges due us for equipment or otherwise. If you promptly cure the breach, we may, but are not obligated to, reactivate Services to you. You must pay all charges for (a) Services provided before termination of a Number, (b) equipment, regardless of who terminates Services and (c) a reactivation fee, if we agree to reactivate Services to you. If Services are terminated before the end of your current invoicing cycle (i) the monthly recurring charge is not prorated to the date of termination, and (ii) you will not receive a credit or refund for any unused minutes in your Service Plan.

Account Spending Limit. If we agree to provide Services to you on an Account Spending Limit basis, we will tell you your Account Spending Limit before we start Services to your Number, or as reasonably practicable after the limit is imposed. If we require a deposit for you to establish or keep Services on an Account Spending Limit basis, we will hold the deposit as partial guarantee of payment for Services (see

Deposits). Charges for Services accrue against your Account Spending Limit as they are incurred. We may charge an initial ASL start up fee. We may charge a monthly ASL service fee, in addition to your recurring monthly service charge. We may suspend Services to your Number without prior notice to you when your account balance reaches your Account Spending Limit. Services are restored when you have paid any past due balance and pay a specified minimum amount to reduce your account balance below your Account Spending Limit. We may change this minimum amount at any time upon notice to you. You may pay any past due balance and the minimum amount by any method authorized by Sprint. Contact PCS Customer Service Solutions for information about authorized methods of making these payments. We may charge you a fee for calls that involve our live customer care services. If we provide Services to you on an Account Spending Limit basis, Services and coverage may be limited in certain ways. You must pay all charges for Services even if they exceed the amount of your Account Spending Limit.

PCS Clear Pay Program. If we agree to provide Services to you as a PCS Clear Pay Program customer, we may suspend Services to your Number without prior notice to you immediately when your bill becomes past due. Even if your bill is not past due, we may suspend services if your unpaid usage exceeds $125 or another amount to be determined by your past credit or usage history. If we require a deposit for you to establish or keep Services as a PCS Clear Pay Program customer, we will hold the deposit as partial guarantee of payment for Services (see Deposits, below). Contact PCS Customer Service Solutions for information about authorized methods of making these payments. We may charge you a fee for calls that involve our live customer care services. If we provide Services to you on as a PCS Clear Pay Program basis, Services and coverage may be limited in certain ways. You must pay all charges for Services whether or not your Services are suspended or terminated.

Deposits. If we require a deposit for you to establish or keep Services, we will hold the deposit as partial guarantee of payment for Services. We may change the deposit amount at any time to reflect revised estimated monthly charges based upon your usage. A deposit may not be used to pay any

invoice (unless it is used to pay a final invoice) or delay payment. The deposit amount, the length of time we hold the deposit and changes to the deposit amount are determined based on your credit and payment history. The rate of interest, if any, on the deposit is subject to change. We may mix deposits with our other funds. If Services are terminated for any reason, we may, without notice to you, apply your deposit toward payment of outstanding charges and return any excess to you at your last known address within 75 days after termination of Services. If the U.S. Postal Service cannot deliver the money to you and returns it to us, we will hold it for you for one year from the date of return and, during that period, we may charge a servicing fee against the deposit balance. Any money held during this one-year period will not accrue interest for your benefit. You forfeit any portion of the money left after the one-year period.

PCS Wireless Web and Voice Portal Services. PCS Wireless Web Services are part of the Services that can be obtained through Sprint. PCS Wireless Web Services may not be immediately available in some PCS Affiliate markets. Use of PCS Wireless Web Services requires a wireless Internet-ready PCS Phone or certain other equipment (or both) and is subject to any memory, storage or other limitation in the phone or other equipment. The Caller ID blocking feature is not available when using PCS Wireless Web Services. For data calls (including PCS Wireless Web and Voice Portal calls) that are attempted, but not completed, you are charged for the time during which the network attempts to connect the call. You are charged for time spent connected to the PCS Wireless Web or Voice Portal, including time spent browsing on the Internet or Voice Portal and reviewing or scrolling through Internet information on-line while still connected to the Sprint Nationwide PCS Network. Not all Internet sites can be accessed and you may receive an error message if you attempt to access a site that cannot be accessed through PCS Wireless Web Services. You are also charged for PCS Wireless Web connections to review your PCS account information. PCS Wireless Web Services and Voice Portal calls may not be available when you are roaming off the Sprint Nationwide PCS Network. PCS Wireless Web Services are not available to you if you are on a PCS Prepaid Service Plan. If you receive Services on an Account Spending Limit

basis, you may be limited in the PCS Wireless Web and Voice Portal Services available to you. Call PCS Customer Service Solutions or visit our Web site at www.sprintpcs.com for availability and equipment compatibility information. Specific additional information about PCS Wireless Web Services and Voice Portal Services, including pricing, included minutes and combining with other Service Plans, is available in our standard sales collateral for PCS Wireless Web Services and Voice Portal Services or at www.sprintpcs.com. Sprint is not a publisher of third party content that can be accessed through PCS Wireless Web Services or Voice Portal Services. Sprint is not responsible for any opinions, advice, statements, services or other information provided by third parties and accessible through PCS Wireless Web Services or Voice Portal Services. Neither Sprint nor its vendors or licensors guarantees the accuracy, completeness or usefulness of information that is obtained through the PCS Wireless Web Services or Voice Portal Services. You are responsible for evaluating such content.

Other Terms Applicable to PCS Vision Usage. Use of PCS Vision Services requires the purchase of separate third generation wireless compatible phone or other device and is subject to any software, memory, storage or other limitation in the phone or other equipment. Not all applications and services work, or work the same, on all third generation wireless phones and devices. Check the materials accompanying your phone or device to determine which applications and services it will support. PCS Vision Services are not available when roaming off the Sprint Nationwide PCS Network. PCS Vision Services may not be currently available in some Affiliate areas.

Sprint is not responsible for any opinions, advice, statements, services applications or other information provided by third parties and accessible through PCS Vision Services. Neither Sprint nor its vendors or licensors guarantees the accuracy, completeness or usefulness of information that is obtained through the PCS Vision Services. You are responsible for evaluating such content. Use of certain PCS Vision Services, including some messaging services, may result in the disclosure to others of your email address and other information about you in connection with your Internet

usage. Your accessing of, or use of, third party sites or services accessible PCS Vision Services may require the disclosure of information about you, subject to the policies of those sites and services.

You consent to receiving advertising, warnings, alerts and other messages, including broadcast messages.

Your access to PCS Vision Services is controlled by a password.

Taxes and Other Regulatory-Related Charges. We invoice you for taxes, fees and other charges levied by federal, state or local authorities, or foreign government on Services. We also assess charges associated with regulatory mandates and obligations, such as Universal Service and Enhanced 911 service. If you claim any tax exemption, you must provide us with a valid tax-exempt document. Any tax exemption applies only from the date we receive a valid tax-exempt document.

Roaming. Calls made outside of your Home Service Area and off of the Sprint Nationwide PCS Network are "roaming" calls. Your PCS Phone is specifically designed and engineered to work only on the Sprint Nationwide PCS Network. It works on another CDMA PCS provider's system only when a roaming agreement is in place between Sprint and the other providers. If your PCS Phone is a dual-mode phone, it works on both a CDMA PCS provider's system (in addition to the Sprint Nationwide PCS Network) and a wireless analog telecommunications provider's system only when roaming agreements are in place between Sprint and the other providers. If we do not have a roaming agreement in place, you may be able to place roaming calls "manually" by using a valid credit card. If there is a gap or other interruption of coverage within a PCS coverage area that prevents connection with the Sprint Nationwide PCS Network and your dual-band phone is set to roam automatically when outside PCS coverage, you may incur roaming fees within a PCS coverage area. Certain features are not available when roaming. Roaming rates may be different from and higher than the rates you pay for calls within your Sprint PCS Local Service Area and on the Sprint Nationwide PCS Network. When roaming, you are subject to the limitation of liability provisions and other applicable rules imposed by the roaming service provider.

Interruption of Service. We may give credit for a continuous interruption of Services for more than 24 hours on a case-by-case basis. Interruptions caused by your negligent or willful actions, or by failure of equipment or service not provided by us, or by causes beyond our reasonable control, do not qualify for credit. We may provide you with an airtime credit of one minute for a call that is disconnected because of transmission limitations caused by atmospheric, geographic or topographic conditions and that you redial within one minute of disconnection. You must notify us within 24 hours of the disconnection to request credit.

Phones and Other Equipment. Phones and other equipment may be purchased and returned as provided in the purchase documents. We are not the manufacturer of the phones or other equipment. The only warranties on the phones or other equipment are any limited warranties extended by the manufacturers. We have no liability in connection with the phones and other equipment or for the manufacturers' acts or omissions.

Lost or Stolen Equipment. If your phone or other equipment is lost or stolen, you must notify us by calling PCS Customer Service Solutions. You are responsible for all charges for Services provided to the Number for the lost or stolen equipment before you notify us of the loss or theft. We will deactivate Services to the Number upon notification to us of any loss or theft. You may be required to provide evidence of the loss or theft (for example, a police report or sworn statement). If the equipment is later found, we may require that you exchange it for another phone or other equipment before we reactivate Services (if we do reactivate Services), as well as require you to pay a reactivation fee. We will deactivate Services to any Number without prior notice to you if we suspect any unlawful or fraudulent use of the Number. You agree to cooperate reasonably with us in investigating suspected unlawful or fraudulent use.

Caller ID. If you do not want people you call to receive the Number assigned to your phone, you must call PCS Customer Service Solutions for information about automatic Caller ID blocking. The Number assigned to your phone can be blocked on a per-call basis by dialing *67 + Destination Number + TALK (or similar key), but Caller ID

delivery resumes on the next call you make. Caller ID display on incoming calls to your Number depends on receiving the information from the calling party.

TTY Access. A TTY (also known as TDD or Text Telephone) is a telecommunications device that allows people who are deaf or hard of hearing, or who have speech or language disabilities, to communicate by telephone. TTY doesn't work with all PCS Phones. If you have a PCS TTY-capable phone, it may not function effectively, or at all, when attempting 911 calls due to the equipment or software of the answering agency. Therefore, a TTY device should not be relied on for 911 calls.

Pay-Per-Call Service. We will not complete calls from your Number to 900, 976 and similar numbers for pay-per-call services.

International Calling. You may be limited in the international destinations that you can call with Services. You should contact PCS Customer Service Solutions for information about international destinations that you cannot call.

Limitation of Liability. Except as otherwise provided in this section, our sole liability to you for any loss or damage arising out of providing or failing to provide Services (including mistakes, omissions, interruptions, delays, errors, or defects) does not exceed (1) in cases related to a specific piece of equipment, the prorated MRC for Services to the piece of equipment during the affected period, or (2) in cases not related to a specific piece of equipment, the prorated MRCs for Services to you during the affected period. Neither we nor our vendors, suppliers or licensors are liable for any damage arising out of or in connection with:

a) any act or omission of any telecommunications service or other service provider other than us;

b) any directory listing;

c) any dropped calls or inability to place or receive calls;

d) any interruption of Services, including interruptions caused by equipment or facilities failure or shortages, transmission limitations or system capacity limitations;

e) traffic or other accidents, or any health-related claims allegedly arising from the use of Services, phones, equipment or accessories used in connection with the Services;

f) the use of PCS Wireless Web Services and PCS Vision applications and services, including the accuracy or reliability of any information obtained from the Internet using PCS Wireless Web Services or from Voice Portal Services, PCS Vision Services or Internet services, content or applications not supported by Sprint Nationwide PCS Network;

g) any late or failed message delivery;

h) any interruption or failure of 911 or E911 emergency services or identification of the Number, address or name associated with any person accessing or attempting to access emergency services from your phone;

i) the installation or repair of any products or equipment by parties who are not our authorized employees or agents;

j) events due to factors beyond our control, including acts of God (including, without limitation, weather-related phenomena, fire or earthquake), war, riot, strike, or orders of governmental authority;

k) any act or omission of any third party or independent contractor that offers products or services in conjunction with or through the Services; or

l) your negligent or intentional act or omission.

NO CONSEQUENTIAL OR OTHER DAMAGES. UNDER NO CIRCUMSTANCES ARE WE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR SPECIAL DAMAGES OF ANY NATURE WHATSOEVER ARISING OUT OF OR IN CONNECTION WITH PROVIDING OR FAILING TO PROVIDE SERVICES, PHONES OR OTHER EQUIPMENT USED IN CONNECTION WITH THE SERVICES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS, LOSS OF BUSINESS, OR COST OF REPLACEMENT PRODUCTS AND SERVICES. THIS SECTION SURVIVES TERMINATION OF THIS AGREEMENT.

Indemnification. You indemnify and defend us, our partners, directors, officers, employees and agents from and against any claim, action, damage, liability and expense arising out of

or in connection with: (1) your acts or omissions that occur in connection with your use of the Services or equipment used in connection with the Services, and (2) any communications you make or receive using the Services. This indemnification extends to and includes any attorney's fees and costs incurred by us arising from any actions or claims to which this indemnification applies, or from the contesting of the applicability of this provision. This section survives termination of this Agreement.

MANDATORY\ ARBITRATION OF DISPUTES. ANY CLAIM, CONTROVERSY OR DISPUTE OF ANY KIND BETWEEN THE CUSTOMER AND THE COMPANY AND/OR ANY OF ITS' EMPLOYEES, AGENTS, AFFILIATES OR OTHER REPRESENTATIVES, WHETHER SOUNDING IN CONTRACT, STATUTE, OR TORT, INCLUDING FRAUD, MISREPRESENTATION, FRAUDULENT INDUCEMENT, OR ANY OTHER LEGAL OR EQUITABLE THEORY AND REGARDLESS OF THE DATE OF ACCRUAL OF SUCH CLAIM, CONTROVERSY OR DISPUTE SHALL BE RESOLVED BY FINAL AND BINDING ARBITRATION AS PRESCRIBED IN THIS SECTION. THE FEDERAL ARBITRATION ACT, NOT STATE LAW, GOVERNS THE QUESTION OF WHETHER A CLAIM IS SUBJECT TO ARBITRATION. HOWEVER, NOTHING CONTAINED IN THIS ARBITRATION PROVISION SHALL PRECLUDE THE CUSTOMER FROM RESOLVING ANY CLAIM, CONTROVERSY OR DISPUTE IN SMALL CLAIMS COURT HE OR SHE OTHERWISE WOULD HAVE THE RIGHT TO PURSUE.

A single arbitrator engaged in the practice of law will conduct the arbitration. The arbitrator will be selected according to the rules of the American Arbitration Association or JAMS or, alternatively, may be selected by agreement of the parties, who shall cooperate in good faith to select the arbitrator. The arbitration will be conducted by, and under the then-applicable rules of American Arbitration Association or JAMS, as applicable. All expedited procedures prescribed by the applicable rules will apply. Any required hearing fees and costs shall be paid by the parties as required by the applicable rules or as required by applicable law, but the arbitrator shall have the power to apportion such costs as the arbitrator deems appropriate.

The arbitrator's decision and award will be final and binding, and judgment on the award rendered by the arbitrator may be entered in any court with jurisdiction.

If any party files a judicial or administrative action asserting a claim that is subject to arbitration and another party successfully stays such action or compels arbitration, the party filing that action must pay the other party's costs and expenses incurred in seeking such stay or compelling arbitration, including attorney's fees.

Notices. You may get our current address for written notice by calling PCS Customer Service Solutions. Written notice to you is sent to your last known address in our invoicing records. Written notice is deemed delivered 3 days after deposit in the U.S. mail, postage prepaid, and properly addressed. Unless required by this Agreement or Applicable Laws, (1) you may notify us by calling PCS Customer Service Solutions, and (2) we may notify you by leaving a message for you on your PCS Phone, answering machine or with your answering service. Notice addresses may be changed by giving notice as provided in this section.

Choice of Law; Jurisdiction. This Agreement is governed by and must be construed under federal law and the laws of the State of Kansas, without regard to choice of law principles. You agree to submit yourself to the personal jurisdiction of the courts in the State of Kansas.

General. If either of us does not enforce any right or remedy available under this Agreement, that failure is not a waiver of the right or remedy for any other breach or failure by the other party. Our waiver of any requirement in any one instance is not a general waiver of that requirement and does not amend this Agreement. If any part of this Agreement is held invalid or unenforceable, that part is interpreted consistent with Applicable Laws as nearly as possible to reflect the original intentions of the parties and the rest of this Agreement remains in full force and effect. Section headings are for descriptive purposes only and are not used to interpret this Agreement. You may not assign this Agreement to any other person or entity without our prior written approval. This Agreement (including any referenced documents and attachments) makes up the entire agreement between you and us and replaces all prior written or spoken

agreements, representations, promises or understandings between you and us. The provisions of this Agreement that are contemplated to be enforceable after the termination of this Agreement survive termination of this Agreement. This Agreement is subject to any applicable federal and state law (collectively, "Applicable Laws"). If there is a conflict, the Service Plan (including any Term Service Plan) controls over the Terms.

The following provisions are not generally applicable and apply only to customers whose Service Plans include these terms:

Traveling. If you are making or receiving calls outside your Home Service Area but on the Sprint Nationwide PCS Network, you may be charged for Services at a "travel" rate for both outgoing and incoming traveling calls. Long distance charges may not be included in the travel rate. Traveling charges do not apply if you subscribe to a Home Rate USA plan or to both Toll-Free USA and Home Rate USA. (See Home Rate USA and Toll-Free USA for more information.) You do not have to register your Number when traveling outside your Home Service Area.

Home Rate USA. This service lets you make or receive calls from anywhere on the Sprint Nationwide PCS Network at your Home Service Area airtime rates.

Toll-Free USA. This service lets you call from anywhere on the Sprint Nationwide PCS Network to anywhere in the United States, Puerto Rico and the U.S. Virgin Islands and be charged at your Home Service Area airtime rates, with no additional long distance charges. If you have Home Rate USA but do not have Toll-Free USA, and if you make a long distance call outside of your defined local calling area, you are invoiced for the long distance charges.

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