# Sprint

**Sprint Mobile Broadband Card
by Sierra Wireless
AirCard® 597E**

SIERRA WIRELESS
*HEART OF THE WIRELESS MACHINE®*

## www.sprint.com

# Table of Contents

# Welcome to Sprint

We are committed to bringing you the best wireless technology available, and we built our network right from the start, so no matter where you are on the network, all your services will work the same.

When it comes to mobile connectivity, the Sprint Mobile Broadband card offers more freedom than ever before. No wires, no cables, just access to your data when you need it. The power of the Internet and company data is truly at your fingertips.

This guide will familiarize you with our technology and with Sprint Connection Manager℠ software with enhanced Local Search (for Windows computers), Watcher® Lite software (for Mac computers), and your new Sprint Mobile Broadband card through simple, easy-to-follow instructions.

**Welcome and thank you for choosing Sprint.**

# Introduction

This User's Guide introduces you to Sprint service and all the features of your new wireless Sprint Mobile Broadband card. It's divided into seven sections:

⬥ **Section 1: Basics of Your Card**

⬥ **Section 2: Installing the Card**

⬥ **Section 3: Using the Card on a Windows Computer**

⬥ **Section 4: Using the Card on a Mac**

⬥ **Section 5: Technical Specifications and Regulatory Information**

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

⬥ **Section 7: Glossary and Index**

Throughout the guide, you'll find tips that highlight special shortcuts and timely reminders to help you make the most of your ExpressCard modem and services.

The Table of Contents and Index will help you locate specific information quickly. The Sprint Connection Manager software (for Windows) includes extensive online help to guide you through the steps to use each feature.

You'll get the most out of your new Sprint Mobile Broadband card if you read each section of this document. However, if you'd like to get right to a specific feature, simply go to that page. Follow the instructions in that section and you'll be ready to use your card in no time.

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

ii

# Basics of Your Card

**2**

# Introducing the Sprint Mobile Broadband Card

## In This Section

♦ **Your Sprint Mobile Broadband Card**

♦ **CDMA Networks**

♦ **TRU-Install**

♦ **One Touch Activation**

♦ **Package Contents**

♦ **Care and Maintenance**

♦ **About This Guide**

This section introduces the basic features and functions of your Sprint Mobile Broadband card, what is included with your card, and how to use this guide to get you started.

# Your Sprint Mobile Broadband Card

The Sierra Wireless AirCard® 597E ExpressCard is a dual-band wireless ExpressCard modem. It enhances the functionality of your mobile computing devices by adding wireless data.

This card allows you to do the following (subject to feature availability), without using a landline network or phone:

- Easily activate your account (One Touch Activation)
- Connect to the Internet, VPNs, and corporate networks
- Send and receive large email messages
- Use Sprint Location Services (Windows® only)
- Conduct Internet-based videoconferencing
- Access streaming real-time media
- Play games online

Your card fits into an ExpressCard/34 slot,  ExpressCard/54 slot (available on newer notebook computers), or PC Card slot (when used with the included ExpressCard to PC Card adapter) available on older notebook computers.

# CDMA Networks

The card operates over a type of wireless network called CDMA (Code Division Multiple Access).

To use the card, you need an account that gives you access to the CDMA network. Some features described in this manual may not be available with your account. For details of the services and accounts available, contact Sprint (page 14).

There are CDMA networks that operate in the frequency bands supported by the card throughout North America. However, each service provider operates a network that covers a limited geographical area within the overall CDMA coverage area.

The fee for service may be higher when you are roaming (connecting to a network other than Sprint).

Sprint has "roaming" agreements with other service providers, so that you can get service outside of the coverage area of the network. (There may be additional charges for roaming service.)

CDMA technology provides a variety of connectivity features, depending on your Sprint account (actual speed depends on the network conditions):

- 1xEV-DO Rev. A (Sprint Power Vision$^{SM}$) supports Internet connections with data rates up to 3.1 Mbps (downlink from the network) and 1.8 Mbps (uplink to the network). Average data rates are 600 kbps - 1.4 Mbps (downlink from the network) and 350-500 kbps (uplink to the network).

- 1xEV-DO Rev. 0 (Sprint Power Vision) supports Internet connections with data rates up to 2.4 Mbps (downlink from the network) and 153 kbps (uplink to the network). Average data rates are 400-700 kbps (downlink from the network) and 40-80 kbps (uplink to the network).

- 1X (Sprint Vision) supports Internet connections with data rates up to 153 kbps. Average data rates are 40-80 kbps.

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

| **Tip:** | For pointers on optimizing your settings, see "How can I optimize my settings to achieve the fastest speeds and conserve data when accessing my corporate network?" on page 98. |

## TRU-Install

TRU-Install™ is a Sierra Wireless feature that installs the necessary software and drivers the first time you insert the card into your Windows or Mac computer. An installation CD is not required.

## One Touch Activation

Where supported by the network, One Touch Activation (IOTA 2.4) lets you easily activate your card. When prompted, you simply click "**Yes**" to indicate that you'd like the network to autoprogram your card. If this is successful, you are ready to connect to the network.

# Package Contents

Your Sprint Mobile Broadband card package contains the following components:

● Sprint Mobile Broadband card by Sierra Wireless (Model AirCard 597E)

● ExpressCard to PC Card adapter (needed only if your computer doesn't have an ExpressCard slot)

● Getting Started guide

# Care and Maintenance

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

● The card should fit easily into your ExpressCard slot or ExpressCard to PC Card adapter. Forcing the card into the slot or adapter may damage the connector pins.

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

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

● Remove the card before storing or transporting your computer.

● When inserting or removing the card, always grip it by the sides rather than the end, as this prevents damage to the card (see diagrams on page 29).

● Do not use the card with a handheld computer; it is designed only for notebook computers running Windows Vista, Windows XP, Windows 2000, or Mac OS X.

● Do not handle or operate the card while driving or operating a vehicle. Doing so may distract you from properly operating the vehicle. In some states and provinces, operating communication devices while in control of a vehicle is a criminal offense.

# About This Guide

This user's guide is designed to provide you with all the information you need to install and use your card by Sierra Wireless (AirCard 597E).

> **Note:** The comprehensive Getting Started guide that comes with the Sprint Mobile Broadband card should be sufficient for most installations.

- **Section 1** (which you are reading) gives you an overview of the card (AirCard 597E).
- **Section 2** provides step-by-step instructions for installing the card and software on a Windows or Mac computer (page 15).
- **Section 3** provides step-by-step instructions on using the card on a Windows computer (page 39).
- **Section 4** provides step-by-step instructions for using the card on a Mac computer (page 105).
- **Section 5** provides electrical, radio frequency, and other parameters of the card for those who require technical information, as well as regulatory information (page 129).
- **Section 6** provides important safety and liability information and the Terms and Conditions of use for the Sprint Mobile Broadband card (page 145).
- **Section 7** include a glossary (page 169) and index (page 174).

# Getting Started With Your Card

## In This Section

♦ **Installation Overview**

♦ **System Requirements (Windows)**

♦ **System Requirements (Mac)**

♦ **Included Software**

♦ **Attaching an External Antenna**

This section describes the basics of getting started with your card, and how to look after your card.

# Installation Overview

Before you begin using your card, you must install the card's software and configure the card for your computer. The installation process consists of:

● Ensuring that your computer meets the system requirements.

● Inserting the card into your computer and installing the drivers for the card and the Sprint Connection Manager software (for Windows) or Watcher Lite software (for the Mac).

● Starting the software.

● Activating your Sprint account and configuring the card to use your account (unless the card has been preactivated).

| **Note:** | To install the drivers and software, you do not need an installation CD. Your card uses the Sierra Wireless TRU-Install feature—the drivers and software are installed when you insert the card into your computer. (To get the latest drivers and software, you can always go to **www.sprint.com/downloads**.) |
| --- | --- |

# System Requirements (Windows)

The Sprint Mobile Broadband card is supported on:

● Windows Vista.

● Windows XP with Service Pack 2.

● Windows 2000 with Service Pack 4 and high encryption support. (See "High Encryption Requirements (Windows)" on page 10.)

To install and run the card and accompanying Sprint Connection Manager software on a Windows computer, you will need the minimum system resources shown in the following table.

| Slots | One ExpressCard/34 or ExpressCard/54 slot; alternatively, a Type II PC Card slot (when used with the ExpressCard to PC Card adapter [included in your package]). |
| --- | --- |
| Memory | 32 MB |
| Disk space | 32 MB |

## High Encryption Requirements (Windows)

Depending on your configuration, an IOTA (Internet Over The Air) session may automatically start as part of the installation process. IOTA requires high-security 128-bit encryption to establish a secure Internet connection to the CDMA network. (For more information, see "Data Provisioning [IOTA]" on page 34.)

If you are running Windows Vista or Windows XP, your computer should already include high-security 128-bit encryption.

### If you are running Windows 2000 with Internet Explorer

1. Ensure you have installed the Windows 2000 High Encryption Pack: in Internet Explorer, select **Help > About Internet Explorer**.

   If you see "Cipher Strength: 128-bit," then the High Encryption Pack is installed. Proceed to step 2.

   If the High Encryption Pack is not installed, download and install it (www.microsoft.com/windows2000/downloads/recommended/encryption).

2. If your version of Internet Explorer is earlier than 5.5, download and install the latest version (www.microsoft.com/windows/ie/downloads).

### If you are running Windows 2000 with Netscape Communicator

Ensure your version of Netscape Communicator is 4.7 or higher.

To verify that your version supports 128-bit encryption:

1. In Navigator, select **Help > About Navigator**.

   – or –

   In Netscape Communicator, select **Help > About Communicator**.

2. See the section "Contains encryption software from RSA Data Security, Inc."

   If the next paragraph states "This version supports U.S. security," you have 128-bit security.

   If the paragraph states that you have International security, you have 40-bit security. Download a version that supports 128-bit security.

# System Requirements (Mac)

| **Note:** | The Mac software (Watcher Lite) currently does not support Sprint Location Services. |
|---|---|

The Sprint Mobile Broadband card is supported on a MacBook™ Pro or PowerBook® G4 computer running Mac OS X version 10.4 or newer.

To check your version, from the Apple menu ( ) choose **About This Mac**. If your version is earlier than 10.4, then:

- Visit www.apple.com/downloads/macosx/apple for upgrading instructions.
  – or –

1. In Finder™, choose **Go > Applications > System Preferences**.
2. Double-click the System Preferences icon.
3. Double-click **Software Update**.
4. Click **Check Now**.

If your card has not been activated, you may also need access to a telephone.

For technical support issues, please contact Apple. If you can't recall your lock code, contact Sprint Customer Service.

# Included Software

The Sprint Mobile Broadband card comes with the following software:

- Sprint Connection Manager, which allows you to manage the card's actions and monitor your connections on a Windows computer
- Watcher Lite, which allows you to manage the card's actions and monitor your connections on a Mac computer
- The driver software that forms the interface between the card and your Windows or Mac operating system

The appropriate software is installed the first time you insert the card into your computer.

Detailed instructions are provided beginning on page 17 (for Windows) and page 21 (for Mac).

# Attaching an External Antenna

You can improve the signal strength by attaching an external antenna (sold separately).

To attach an external antenna:

1. Remove the card if it is inserted in your computer (page 28).

2. Remove the rubber cap (located on the thick end of the card).

3. Hold the antenna cable by the connector (end) part, and carefully insert the connector part of the cable into the corresponding connector on the card.

# Getting Help

## In This Section

- **Visiting the Sprint Web Site**
- **Contacting Sprint Customer Service**
- **Troubleshooting**

This section describes where you can find more information on Sprint services, options, and troubleshooting problems you might encounter.

# Visiting the Sprint Web Site

Stop by www.sprint.com and log on to get up-to-date information on Sprint services, options, and more.

You can also:

- Review coverage maps.
- Access your account information.
- Add additional options to your service plan.
- Purchase accessories.
- Check out frequently asked questions.
- And more.

# Contacting Sprint Customer Service

You can reach Sprint Customer Service by:

- Logging on to your account at www.sprint.com.
- Calling us toll-free at **1-888-788-4727** (business use) or **1-888-715-4588** (personal use).
- Writing to us at Sprint Customer Service, P.O. Box 8077, London, KY 40742.

# Troubleshooting

The Online Help for Sprint Connection Manager on your Windows computer (see page 63) includes descriptions of most common error messages. Look in the Contents under Troubleshooting.

For help with other problems:

- See "Troubleshooting Tips (Windows)" on page 99 or "Troubleshooting Tips (Mac)" on page 116.
- Consult the Sierra Wireless Web site at www.sierrawireless.com, where you will find an extensive knowledge base that can be searched to address most problems, and the Installation Troubleshooting wizard (in the Support & Download section).
- Contact Sprint as noted above.

# Installing the Card

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# Installing the Software on a Windows Computer

## In This Section

⬥ **Installing the Software on a Windows Computer**

This section explains how to install your Sprint Connection Manager software and Sprint Mobile Broadband card on a Windows computer.

The process may vary, depending on the version of Windows that you are running.

(If you're using your card on a Mac computer, see "Installing the Software on a Mac Computer" on page 21.)

# Installing the Software on a Windows Computer

| Note: | For comprehensive instructions on installing the Sprint Connection Manager software and activating the card, see the Getting Started guide. |
|-------|----|

Before you can use your card, you must first install the card's software and configure the card for your computer. The installation process consists of:

- **Card insertion** - Inserting the card, which automatically installs the drivers and the Sprint Connection Manager software on your computer (described in this section).

- **Card activation and provisioning** - Activating your Sprint account and configuring the card to use your account. (See "Setting Up Service [Windows]" on page 30.)

| Note: | **Windows Vista and Windows 2000 users:** You must log in with administrative privileges to install the software and drivers. **Windows XP users:** You may need to log in with administrative privileges, depending on your Windows configuration. |
|-------|----|
|       | Before beginning the installation process, it is recommended that you close all open applications. |

**To install the software and drivers on your computer:**

1. If your card has not yet been activated, ensure you are in the network coverage area (not roaming).

2. If your computer does not have an ExpressCard slot, insert the ExpressCard to PC Card adapter (included in your package) into your computer's PC Card slot.
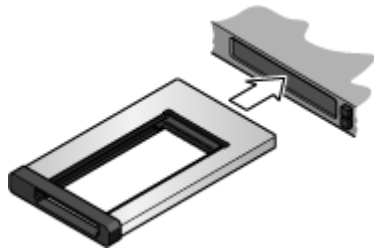
**3.** With the picture label facing up, insert the card into your computer.



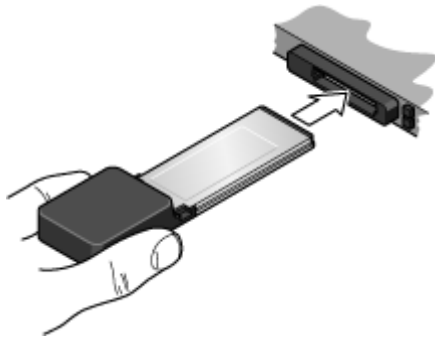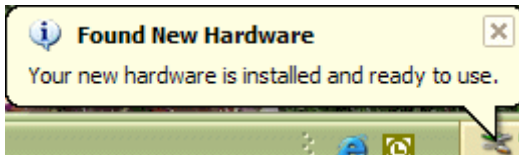Windows detects the card and installs the drivers for it. This may take a few minutes. Once completed, the system tray may display "Your devices are ready to use" or "Your new hardware is installed and ready to use."



The ⏻ LED is lit (blue, or blinking amber).

**4.** If the Software Installation Wizard has not started automatically, in Explorer browse to the 🌐 CD Drive entry, and run **AppLaunch.exe** or, if you're running Windows Vista, in the "AutoPlay" window click **Sprint Connection Manager Installation**. This starts the wizard.

**5.** In the installation window, click **Next**.

**6.** Read the license agreement and select **I accept the terms in the license agreement** to indicate your acceptance of the terms. Click **Next**. (A series of dialog boxes guides you through the installation.)

**7.** Use the **Next** and **Back** buttons to navigate through the wizard.

**8.** When the "Installation Complete!" window is displayed, click **Finish**.

**9.** If you're running Windows Vista or Windows XP, wait until the system tray displays "Your devices are ready to use" or "Your new hardware is installed and ready to use."



**Section 2A: Installing the Software on a Windows Computer** 19
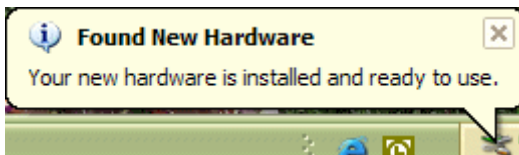
10. Run Sprint Connection Manager.

   (Double-click the program's icon [] on your desktop.)

11. If your card is preactivated or if you have activated it at the time of purchase, Sprint Connection Manager displays "Device locked" or "Disconnected;" proceed to "Preactivated Card" on page 31.

12. Proceed to "Non-preactivated Card: One Touch Activation" on page 32 if your card has not been activated.

# Installing the Software on a Mac Computer

## In This Section

◆ **Installing the Software and Drivers on a Mac**

This section explains how to install your Watcher Lite software and Sprint Mobile Broadband card on a Mac computer.

# Installing the Software and Drivers on a Mac

| **Note:** | As part of the installation process you will be prompted to restart your computer; save any open documents. |
|---|---|

**To install the Watcher Lite software and drivers on your Mac computer:**

1. If your card has not yet been activated, ensure you are in the network coverage area (not roaming).

2. If your computer does not have an ExpressCard slot, insert the ExpressCard to PC Card adapter (included in your package) into your computer's PC Card slot.
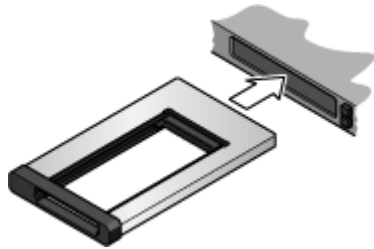


3. With the picture label facing up, insert the card into your computer.
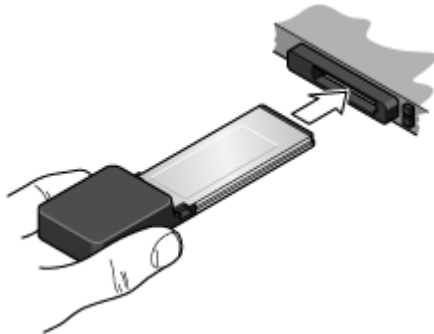


   The "TRU-Install" Finder window is displayed.

4. In the "TRU-Install" Finder window, double-click **SierraWirelessWatcherLite.mpkg**.
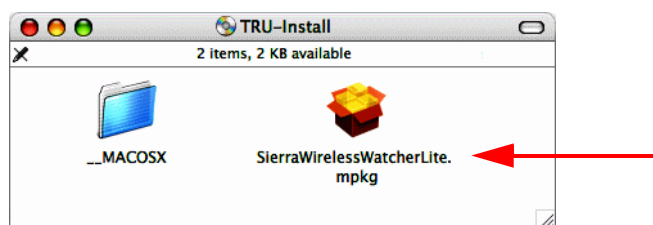
**5.** In the "Welcome to the Sierra Wireless Watcher Lite Installer" window, click **Continue**.
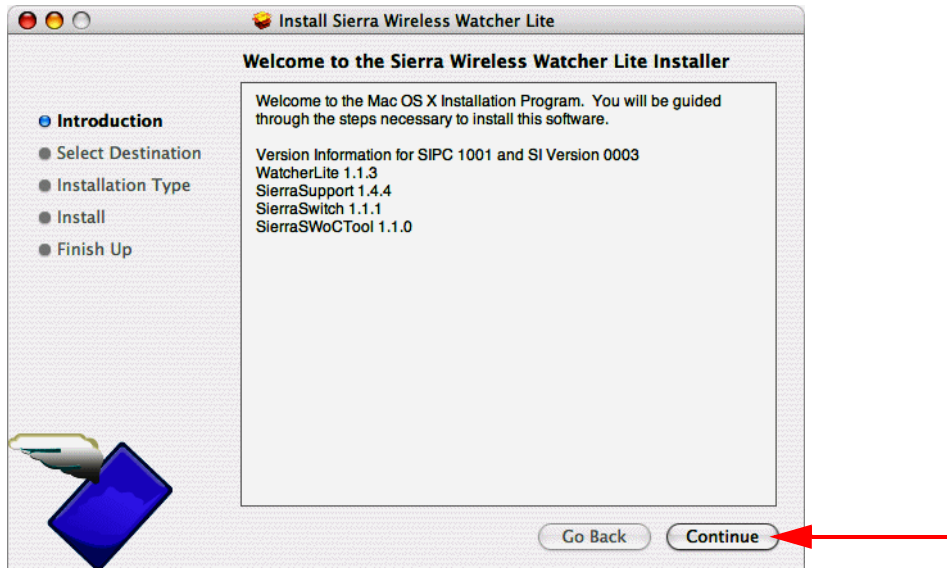


**6.** In the "Select a Destination" window, choose a destination volume. A green vertical arrow indicates which volume(s) you can install the software onto. If more than one volume has a green vertical arrow, select the volume that has the active operating system.



**7.** Click **Continue**.

**Section 2B: Installing the Software on a Mac Computer**                                          **23**
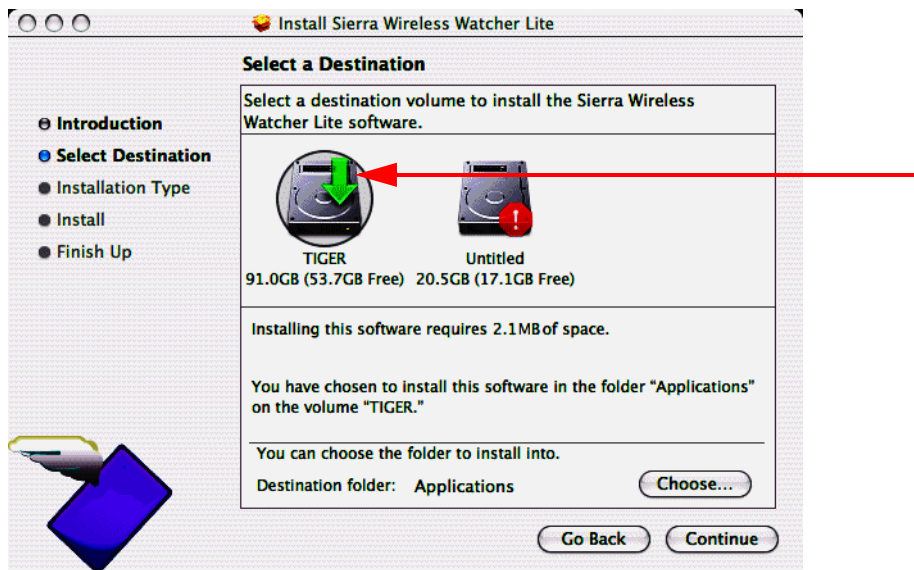
**8.** In the "Easy Install on …" window, click **Install**.
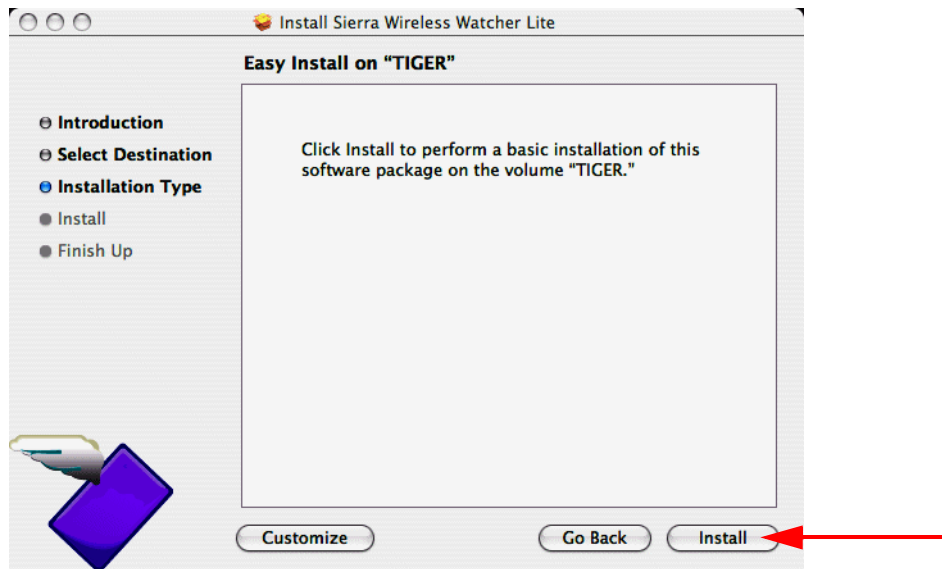


**9.** If the "Authenticate" window appears, enter your Mac user name and password, and then click **OK**.



**10.** In the window with the message that you will have to restart your computer, click **Continue Installation**.

**11.** Click **Restart**.
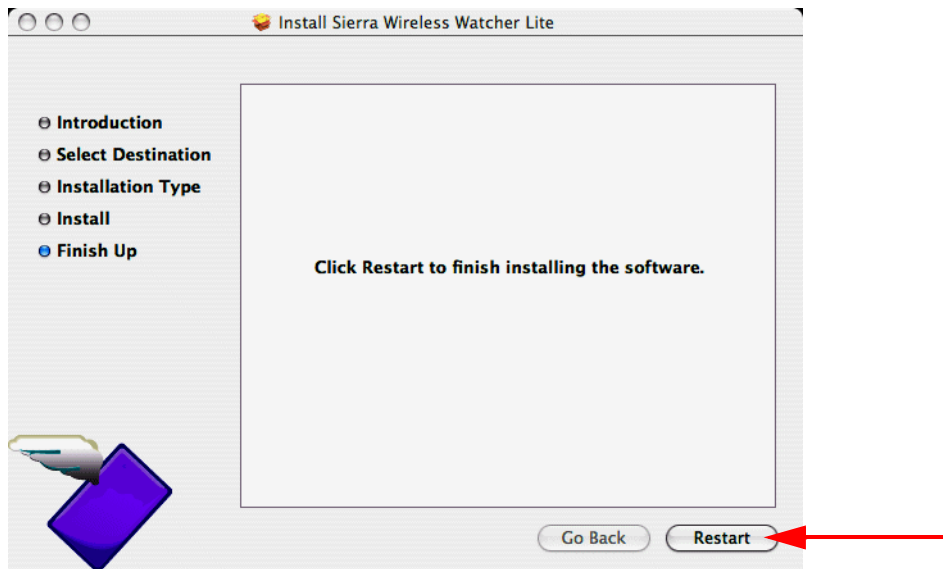


**12.** After your computer restarts, run Watcher Lite: in Finder, choose **Go > Applications**, and then double-click **Sierra Wireless Watcher**.

Watcher Lite should start:
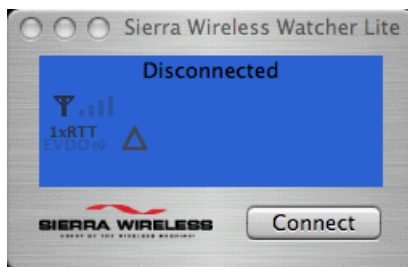


Watcher Lite displays a status message or the "Device Not Activated" window.

Proceed to "Setting Up Service (Mac)" on page 35.

**Section 2B: Installing the Software on a Mac Computer** 25

# Inserting and Removing the Card

## In This Section

◆ **Inserting the Card**

◆ **Removing the Card (Windows)**

◆ **Removing the Card (Mac)**

This section describes how to properly insert the card and remove it from your computer.

# Inserting the Card

To insert the card into a notebook computer:

1. If your computer does not have an ExpressCard slot, insert the ExpressCard to PC Card adapter into your computer's PC Card slot.
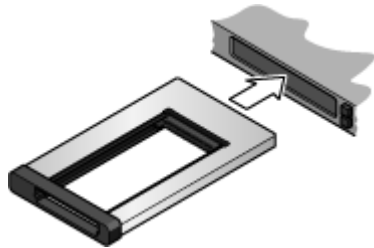


2. With the picture label facing up, insert the card into your computer.
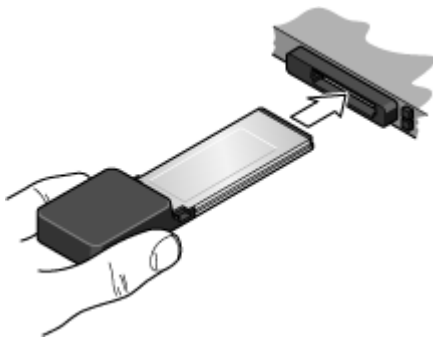


| **IMPORTANT!** | When inserting or removing your card, always grip the card by its sides, as this prevents damage to the card. See the graphics below. |



| **Correct** | **Incorrect** |
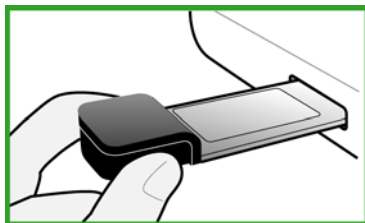
When you insert the card into a Windows computer, the following should occur:

- The first time the card is inserted, Windows detects the card and installs the drivers for it. This may take a few minutes. Once completed, Sprint Connection Manager should display "Disconnected." To connect to the network, click the **GO** button in the **Mobile Broadband** window.

- If sound effects are enabled, the computer beeps.

**Section 2C: Inserting and Removing the Card** 27

● The Unplug and Eject Hardware icon appears in the system tray, if it is not already displayed for another card (and unless the feature has been disabled).

Windows Vista　　　　Windows XP　　　　Windows 2000

The card is powered as soon as you insert it.

# Removing the Card (Windows)

| IMPORTANT! | When inserting or removing your card, always grip the card by its sides, as this prevents damage to the card. |
|---|---|

**To remove the card from your Windows computer:**

1. Exit Sprint Connection Manager if it is open (page 58).

2. Click the Unplug and Eject Hardware icon in the system tray:

Windows Vista　　　　Windows XP　　　　Windows 2000

3. Click the entry for "**NEC PCI to USB Open Host Controller**" or "**Standard Enhanced PCI to USB Host Controller.**"

4. If a dialog box appears notifying you that it is safe to remove the card, click **OK**, or click the Close button (✖).

5. Use your computer's ExpressCard or PC Card ejector to eject the card from the slot.

6. If you're using your card (with the ExpressCard to PC Card adapter) in a PC Card slot, remove the card and adapter from your computer's slot by gripping both sides of the adapter and pulling straight out.
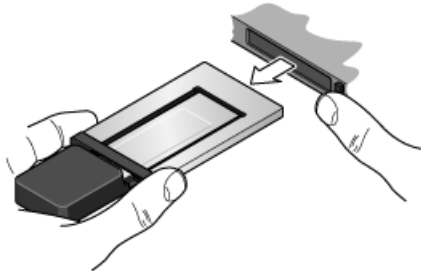
– or –

Remove the card from your computer's slot by gripping both sides of the card and pulling straight out.
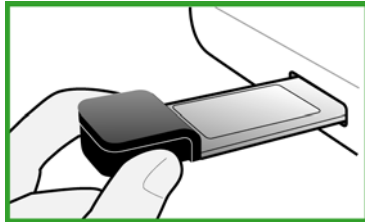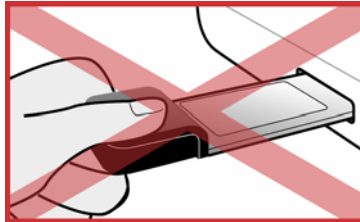


| Correct | Incorrect |
|---|---|

## Removing the Card (Mac)

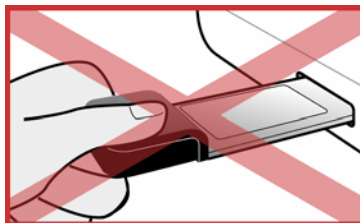| **IMPORTANT!** | When inserting or removing your card, always grip the card by its sides, as this prevents damage to the card. |
|---|---|

**To remove the card from your Mac:**

1.  End your network connection (in Watcher Lite, click **Disconnect**).
2.  Eject the card from the slot.
3.  If you're using your card (with the ExpressCard to PC Card adapter) in a PC Card slot, remove the card and adapter from your computer's slot by gripping both sides of the adapter and pulling straight out.
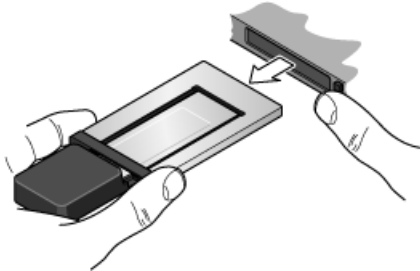


– or –

Eject the card from the slot, and remove the card from your computer's slot by gripping both sides of the card and pulling straight out.



| Correct | Incorrect |
|---|---|

**Section 2C: Inserting and Removing the Card** 29
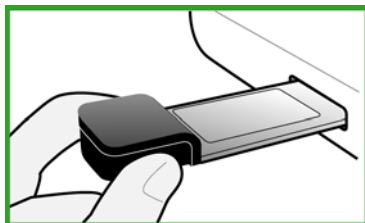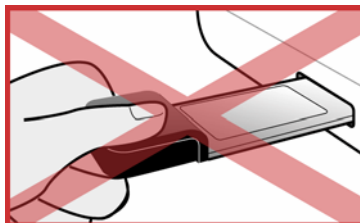
# Setting Up Service (Windows)

## In This Section

- **Activating and Using Sprint Service**

- **Preactivated Card**

- **Non-preactivated Card: One Touch Activation**

- **Non-preactivated Card: Activation Wizard**

- **Data Provisioning (IOTA)**

This section walks you through setting up service for your Sprint Mobile Broadband card after you have inserted the card and installed the Sprint Connection Manager software (page 18).

# Activating and Using Sprint Service

Before using your card, you must have a Sprint wireless network account set up. The process of setting up an account is called activation.

When the card is inserted and Sprint Connection Manager is started, it will detect whether the card has been configured with an account ("preactivated"). If it has not, the "One Touch Activation" window or the Activation Wizard starts automatically.

# Preactivated Card

If you received your card in the mail or purchased it at a Sprint Store, it probably has already been activated.

To prevent unauthorized use, preactivated cards may have been set with a security lock. If so, Sprint Connection Manager displays the message "Device locked."

**To unlock your card:**

1.  Click the 🔒 icon. (If is not visible, in the **Mobile Broadband** window click ⊞ to expand Sprint Connection Manager.)

2.  In the "Enter User Lock Code" window, enter your four-digit lock code, and click **OK**. For security purposes, the code is not visible as you type.

| Tip: | If you can't recall your lock code, try using the last four digits of your card's phone number (MDN). If this doesn't work, call Sprint Customer Service at 1-888-788-4727 (business use) or 1-888-715-4588 (personal use). |
|------|---|

After unlocking your preactivated card, it is ready for use. See "Using the Card on a Windows Computer" on page 39.

# Non-preactivated Card: One Touch Activation

If the "One Touch Activation" window appears, click **Yes** to indicate that you'd like to have the network autoprogram your card.
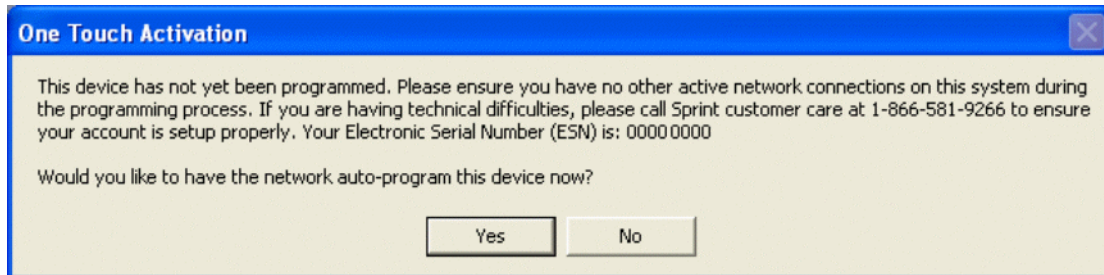


Sprint Connection Manager will display "Updating User Profile."

If One Touch Activation is successful, Sprint Connection Manager will then display "Disconnected," after which you are ready to connect to the network. (Click the **GO** button in Sprint Connection Manager.) To learn about using the software, see "Using the Card on a Windows Computer" on page 39.

If One Touch Activation was not successful, a message window is displayed. To activate your card, use the Activation Wizard (see the next section).

# Non-preactivated Card: Activation Wizard

If your card is not preactivated, please see the Getting Started guide included with your card.

| **Note:** | If you successfully activated your card through the "One Touch Activation" window (page 32), skip these steps and go directly to "Using the Card on a Windows Computer" on page 39. |
| --- | --- |

The Activation Wizard will guide you through the activation process.

To set up your account, you will be contacting Sprint.

## Before you call Sprint, have these things ready:

- A phone
- Your card
- The city and state where the card will be primarily used
- A pen and paper to write down your account information. Your package includes a printed Getting Started guide, where you can record this information.

When you call Sprint, Sprint Customer Service will help you select your service plan and guide you through the activation process. They will also provide you with this information:

● Your card's activation code (gives you access to configure the account)

● Your card's phone number (MDN)

● Your card's MSID (Mobile System ID) code, used for WLNP (Wireless Local Number Portability) and to determine whether you are "home" or "roaming"

## Stepping Through the Activation Wizard

**If the Activation Wizard has not started automatically:**

1. Ensure the card is inserted, and Sprint Connection Manager is running. If Sprint Connection Manager is not running, select:
   (Windows Vista or Windows XP) **Start > All Programs > Sprint > Sprint Mobile Broadband (Sierra)**.
   (Windows 2000) **Start > Programs > Sprint > Sprint Mobile Broadband (Sierra)**.

   Sprint Connection Manager should display "Disconnected."

2. If Sprint Connection Manager displays "Device locked," unlock the card (page 66).

3. If Sprint Connection Manager displays "Device powered off," power the card on (page 50).

4. Start the Activation Wizard: select **MENU > Settings > Sprint Mobile Broadband - Sierra Wireless > Activation Wizard**.

**Once the Activation Wizard is running:**

1. To begin activation of the card, click **Next**.

2. Call Sprint at the appropriate phone number listed on the screen. Click **Next**.

3. Give the account representative your ESN (Electronic Serial Number) or MEID (Mobile Equipment IDentifier) number as displayed by the Activation Wizard. Enter the activation code provided by the account representative and click **Next**.

4. Enter the phone number (no spaces or hyphens) and, if not the same value as the phone number, the MSID value given by the account representative, and then click **Next**.

   A confirmation window will be displayed.

5. Confirm with the service representative that the information is correct. If it is, click **Yes**. If it isn't, click **No**, and re-enter the information.

6. Click **Finish** to close the Activation Wizard.

7.  Wait a few moments for the card to automatically reset. Depending on your configuration, an IOTA session may automatically start. (See "Data Provisioning [IOTA]" on page 34.)

After Sprint sets up your account on the network, your card should be configured and ready for use. To learn about using the software, see "Using the Card on a Windows Computer" on page 39.

# Data Provisioning (IOTA)

IOTA (Internet Over The Air), supported by some service providers (including Sprint), is an automated feature to perform account setup for you by making a connection to the CDMA network and using a secure Internet connection to download account parameters to your card. To make this secure connection, IOTA requires that your computer support 128-bit encryption. (See "High Encryption Requirements (Windows)" on page 10.)

Depending on your configuration, the first time Sprint Connection Manager detects the activated card, an IOTA session may automatically start, during which status messages ("Updating User Profile...") are displayed.

After this first activation, there may be changes to your account that require updating the parameters in the card. If this is needed:

1.  In the "Device Info & Diagnostics" window (page 86), click **Update Data Profile**. (If this button is not displayed, remove and reinsert the card.)

2.  In the "IOTA Provisioning" window, click **Yes**.

Your card then retrieves the updates to your data services account. Once the updates are successful, Sprint Connection Manager is displayed ("Disconnected"). You can now connect to the network. To learn about using the software, see "Using the Card on a Windows Computer" on page 39.

# Setting Up Service (Mac)

## In This Section

◆ **Activating and Using Sprint Service**

◆ **Activating Your Card**

This section walks you through setting up service for your Sprint Mobile Broadband card, after you have inserted the card into your Mac computer and installed the Watcher Lite software (page 22).

# Activating and Using Sprint Service

Before using your card, you must have a Sprint wireless network account set up. The process of setting up an account is called activation.

# Activating Your Card

After you have inserted the card into your computer and started Watcher Lite, Watcher Lite will detect whether the card has been configured with an account ("preactivated"). If it has not, Watcher Lite displays a message ("Not activated") or the "Device Not Activated" window. Use the following table to determine your next actions:

| Text/window displayed | Description/next action |
|---|---|
| **"Disconnected"** | Your card is preactivated. You are ready to connect to the network. (Click the **Connect** button in Watcher Lite.)<br><br>▶ Proceed to "Your Card: The Basics (Mac)" on page 106. |
| **"Device is Locked"** | Your card is preactivated. Unlock the card:<br><br>1. If the "Unlock Device" window is not displayed: from the **Extras** item on the Sierra Wireless Watcher menu, choose **Unlock Device**.<br><br>2. In the "Unlock Device" window, enter the lock code (PIN), and click **OK**.<br><br>▶ If you can't recall your lock code, try using the last four digits of your card's phone number. If this doesn't work, call Sprint Customer Service at 1-888-788-4727 (business use) or 1-888-715-4588 (personal use).<br><br>3. Proceed to "Your Card: The Basics (Mac)" on page 106. |

| Text/window displayed | Description/next action |
|---|---|
| **"Device Not Activated" window** | Your card is not activated.<br>▶ Click **Yes** to indicate that you'd like to activate your card. Watcher Lite will display "Updating User Profile."<br><br>If provisioning is successful, Watcher Lite displays "Disconnected," after which you are ready to connect to the network. (Click the **Connect** button in Watcher Lite.) Proceed to "Your Card: The Basics (Mac)" on page 106.<br><br>– or –<br><br>If the "Data Provisioning" window displays "Provisioning failed," use the Activation Assistant (below). |
| **"Not activated"** | Your card is not activated.<br>▶ Use the Activation Assistant (below). |

## Activation Assistant

The Activation Assistant will guide you through the activation process if your card is not preactivated.

| **Note:** | If you close the Activation Assistant before finishing the card activation, you can start the Activation Assistant later. (From the **Extras** item on the Sierra Wireless Watcher menu, choose **Activation**.) |
|---|---|

To set up your account, you will be contacting Sprint.

### Before you call Sprint, have these things ready:

- A phone
- Your card
- The city and state where the card will be primarily used
- A pen and paper to write down your account information. Your package includes a printed Getting Started guide, where you can record this information.

When you call Sprint, Sprint Customer Service will help you select your service plan and guide you through the activation process. They will also provide you with this information:

- Your card's activation code (gives you access to configure the account)
- Your card's phone number (MDN)
- Your card's MSID (Mobile System ID) code, used for WLNP (Wireless Local Number Portability) and to determine whether you are "home" or "roaming"

**To activate your card and account:**

1. From the **Extras** item on the Sierra Wireless Watcher menu, choose **Activation**.
2. In the "Activation Assistant" window, click **Continue**.
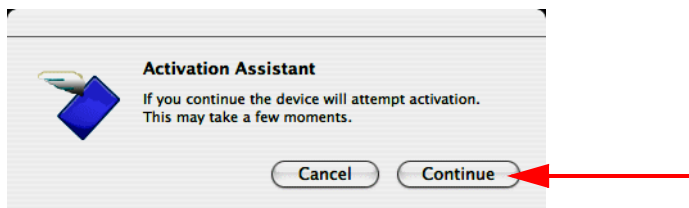


3. Call Sprint at the appropriate number displayed in the Activation Assistant.
4. Follow the instructions of the account representative to activate your card.
5. To complete the activation process, enter the information (from the account representative) into the fields on the screen.
6. Continue through the Activation Assistant, until the "Success!" window is displayed. Click **Finish**.

   After Sprint sets up your account on the network, your card is activated.
7. From the **Extras** item on the Sierra Wireless Watcher menu, choose **Data Provisioning**.
8. In the "Data Provisioning" window, click **OK**.

   The card then retrieves the updates to your account. Watcher Lite will display "Updating User Profile," then "Disconnected," after which you are ready to connect to the network. (Click the **Connect** button in Watcher Lite.) Proceed to "Your Card: The Basics (Mac)" on page 106.

**38**                                          **Section 2E: Setting Up Service (Mac)**

# Using the Card on a Windows Computer

**40**

# Your Card: The Basics (Windows)

## In This Section

- **Sprint Connection Manager**
- **Starting Sprint Connection Manager**
- **Starting Sprint Connection Manager Automatically**
- **Sprint Connection Manager Window**
- **Connection States (Mobile Broadband Window)**
- **GPS Status (GPS Receiver Window)**
- **System Tray Connection States**
- **Determining the Type of Coverage**
- **Sprint Location Services**
- **Powering the Card On and Off**
- **Controlling the Sprint Connection Manager Window**
- **Launching a Sprint Power Vision or Sprint Vision Connection**
- **Viewing the Amount of Data Transferred**
- **Ending a Connection**
- **Online Help**
- **Displaying Your Phone Number**
- **Security**
- **Accessing Links**
- **Uninstalling the Sprint Connection Manager Software**

# Sprint Connection Manager

Sprint Connection Manager is an application that allows you to manage and monitor the high-speed Sprint Power Vision (1xEV-DO) and Sprint Vision (1X) connections using your Windows computer. Use Sprint Connection Manager to:

● Determine your signal strength and other network connection parameters (page 43).

● Initiate data calls (page 59).

● Access Sprint Location Services (page 53).

● View call statistics (page 84) and messages (page 48).

● Customize features and options (page 74).

| Tip: | Without running Sprint Connection Manager, you can make a data connection simply by starting whatever application you want to use (such as your Web browser or email application). Prerequisites: you must have previously selected, in Sprint Connection Manager, **Enable Network Adapter (NDIS)** (page 78). However, to make use of other features of the card (including Sprint Location Services), you must run Sprint Connection Manager. |
|------|---------------------------------------------------------------------------------------------------------------|

# Starting Sprint Connection Manager

**To start Sprint Connection Manager:**

1. Ensure the card is inserted into your computer's ExpressCard or PC Card slot, with the Sprint label facing up.

2. Double-click the program's icon () on your desktop, or, from the **Start** menu on your Windows desktop, select:
   (Windows Vista or Windows XP) **All Programs > Sprint > Sprint Mobile Broadband (Sierra)**.
   (Windows 2000) **Programs > Sprint > Sprint Mobile Broadband (Sierra)**.

When Sprint Connection Manager is running, it places an icon () in the system tray, usually at the right end of the taskbar. If Sprint Location Services are supported and enabled, then a second icon () is displayed in the system tray. (See page 52.)

| Tip: | You can also set Sprint Connection Manager to launch automatically whenever Windows starts. (See "Starting Sprint Connection Manager Automatically" on page 43.) |
|------|---------------------------------------------------------------------------------------------------------------|

# Starting Sprint Connection Manager Automatically

**To set Sprint Connection Manager to start automatically whenever Windows starts:**

▶ From the General option in the "Settings" window (page 75), select **Launch when Windows starts**.

| | |
|---|---|
| **Note:** | Changes to this setting apply only after you restart Windows. |

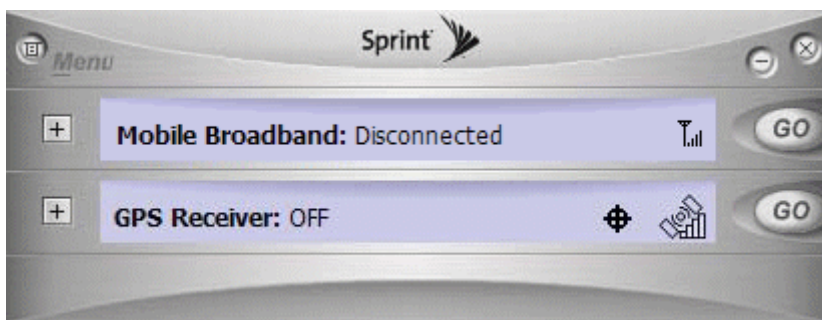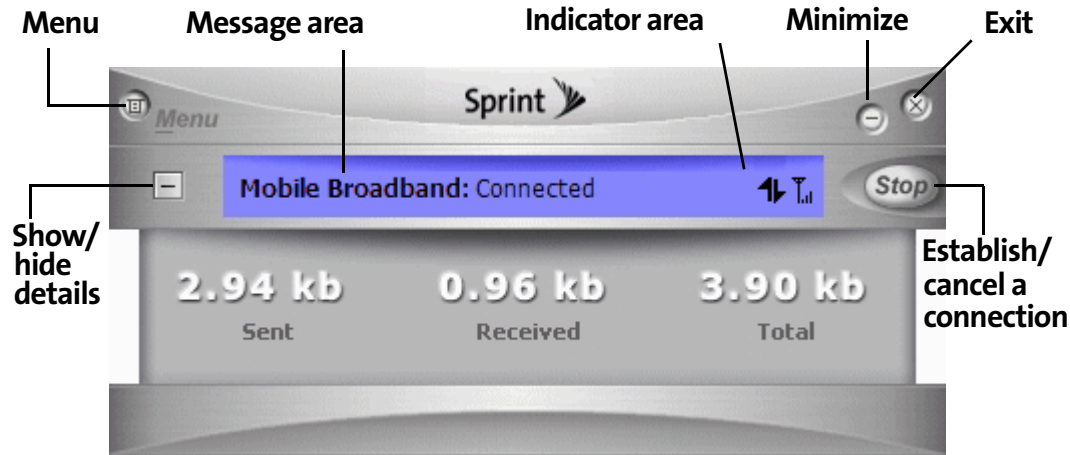| | |
|---|---|
| **Tip:** | You can also set the connection to launch automatically whenever available. (See "**GO automatically when ready**" on page 78.) These settings provide an "always-on" connection, as long as you have network coverage. |

# Sprint Connection Manager Window

If Sprint Location Services and the **GPS Receiver** window are not supported or not enabled (page 81), then only the **Mobile Broadband** window is displayed:
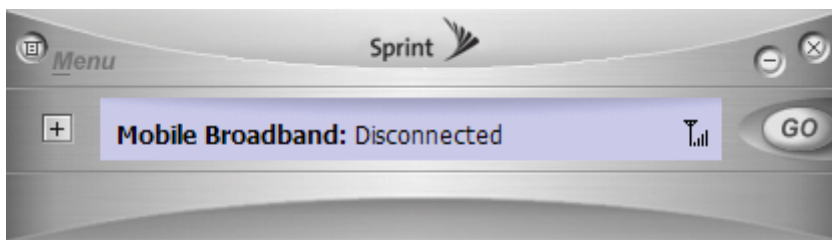


If Sprint Location Services and the **GPS Receiver** window are supported and enabled, then the **GPS Receiver** window is additionally shown below the **Mobile Broadband** window:

## Mobile Broadband Window

Menu    Message area    Indicator area    Minimize    Exit

Show/
hide
details

Establish/
cancel a
connection

Sprint

Menu

Mobile Broadband: Connected    Stop

2.94 kb        0.96 kb        3.90 kb
Sent          Received        Total

The text and icons in the **Mobile Broadband** window indicate the connection state (page 48), and, when disconnected, whether the card is locked 🔒 or unlocked 🔓 (page 64).

The **Mobile Broadband** window may display, depending on the connection state, some of the following icons:

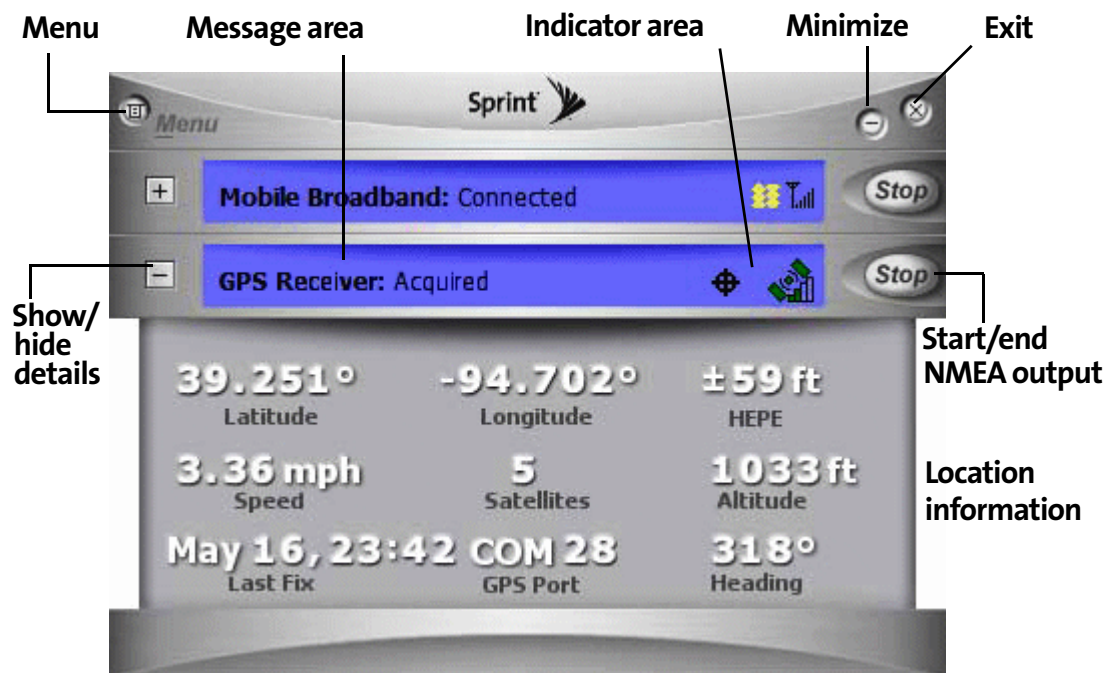| | |
|---|---|
| 📶 | CDMA network signal strength, indicated by the number of bars. The ToolTip indicates the type of coverage you have (for example, 1X or 1xEV-DO), and the signal strength, in dBm. |
| △ | You are roaming. Roaming charges may apply. **Note:** Sprint Location Services may not be available when roaming. If this icon is flashing, you are in a non-preferred roaming area, and you may not be able to complete your calls. **Tip:** You can change the roaming option ("Roam Mode;" for example, to disable roaming, select Sprint), and also enable the Roam Guard feature (from the Sprint Mobile Broadband "Settings" window; page 77). |
| ↕ | 1xEV-DO Rev. A transmit/receive icon: a data connection is active. The up arrow is animated (for example: ↕) when data is being transmitted to the network. The down arrow is animated (for example: ↕) when data is being received from the network. |

| | |
|---|---|
| ⬆⬇ | 1xEV-DO Rev. 0 transmit/receive icon: a data connection is active.<br><br>The up arrow is animated (for example: ⬆⬇) when data is being transmitted to the network.<br><br>The down arrow is animated (for example: ⬆⬇) when data is being received from the network. |
| ⬆⬇ | 1xEV-DO (Rev. 0 and Rev. A) transmit/receive icon: the data connection is dormant. The up and down arrows are gray. |
| ⬆⬇ | 1X transmit/receive icon: a data connection is active.<br><br>The up arrow is black and animated when data is being transmitted to the network.<br><br>The down arrow is black and animated when data is being received from the network. |
| ⬆⬇ | 1X transmit/receive icon: the data connection is dormant. The up and down arrows are gray. |

## GPS Receiver Window



Menu   Message area   Indicator area   Minimize   Exit

Sprint

Mobile Broadband: Connected   Stop

GPS Receiver: Acquired   Stop

Show/hide details

Start/end NMEA output

**39.251°** Latitude   **-94.702°** Longitude   **±59 ft** HEPE

**3.36 mph** Speed   **5** Satellites   **1033 ft** Altitude

Location information

**May 16, 23:42** Last Fix   **COM 28** GPS Port   **318°** Heading

The text and icons in the **GPS Receiver** window indicate the following (described in the table that follows):

- GPS status
- GPS/Privacy status
- Satellite status
- Location information (when the **GPS Receiver** window is expanded)

The **GPS Receiver** window may display, depending on the GPS/Privacy status and satellite status, some of the following icons and text. The icons' ToolTips in Sprint Connection Manager provides more information.

| | |
|---|---|
| | Privacy is on (you have not accepted the Privacy Consent Agreement). Sprint Location Services are not available.<br><br>To use Sprint Location Services, in the Sprint Location Services "Settings" window, select **Enable Location Services**. |
| | Privacy is off. GPS is available. For the status of GPS, see the satellite status icon (described below). |
| | GPS is available, but off. The satellite and the vertical bars are not colored.<br><br>To use GPS, click the **GO** button in the **GPS Receiver** window. |
| | GPS is on, but not usable (searching for satellites). The vertical bars are not colored.<br><br>The ToolTip indicates the number of satellites. |
| | GPS is on and is usable, but with lower accuracy. The vertical bars are colored.<br><br>The ToolTip indicates the number of satellites acquired. |
| | GPS is on and is usable, with better accuracy. The vertical bars are colored.<br><br>The ToolTip indicates the number of satellites acquired. |
| Latitude | Latitude, in decimal degrees. For example, -17.123° |
| Longitude | Longitude, in decimal degrees. For example, 23.023° |
| HEPE | Accuracy (horizontal/vertical precision), in feet. |
| Speed | Current speed, in miles per hour. |

| | |
|---|---|
| Satellites | Number of satellites used in the current GPS fix. |
| Altitude | Altitude, in feet. |
| Last fix | Date/time that the GPS values were last acquired. |
| GPS Port | The current NMEA port. (For information on NMEA, see "What is NMEA?" on page 96.)<br><br>This information is useful when configuring a GPS application to use your GPS-capable device (page 96). |
| Heading | Current direction, in degrees. |

## Common items

Sprint Connection Manager may display, depending on the settings of your card, the following buttons and text:

● **Menu** or the 🔲 button — Displays the Sprint Connection Manager menu (page 70).

● ▬ (upper right corner of the window) — Minimizes Sprint Connection Manager (page 58).

● ⊠ — Exits Sprint Connection Manager (page 58).

● [+] (**Mobile Broadband** window) — Expands the **Mobile Broadband** window (page 56) and displays the amount of data transferred (when Connected), or, when disconnected, the lock status of your card (locked 🔒 or unlocked 🔓).

● [−] (Displayed when the **Mobile Broadband** window is expanded) — Hides the amount of data transferred and the lock status of your card (page 56).

● **GO** (**Mobile Broadband** window) — Starts the Sprint Power Vision or Sprint Vision connection (page 59).

● **Stop** (**Mobile Broadband** window) — Ends the data connection (visible when a connection is established; page 63); also ends the NMEA output.

● [+] (**GPS Receiver** window) — Expands the **GPS Receiver** window (page 56) and displays location information.

● [−] (Displayed when the **GPS Receiver** window is expanded) — Hides the location information.

- **GO** (**GPS Receiver** window) — Starts the NMEA output (page 97).
- **Stop** (**GPS Receiver** window) — Ends the NMEA output.

# Connection States (Mobile Broadband Window)

The **Mobile Broadband** window can display various connection and interaction states, including:

- No device
- Initializing
- Updating User Profile... (See "Data Provisioning [IOTA]" on page 34.)
- Searching for service...
- Disconnected
- Connecting
- Connected
- Connected to NDIS
- Device locked
- Device powered off

| Note: | The system tray icon also indicates the connection state (page 41). |
|---|---|

## No device

Sprint Connection Manager did not detect the card. The **GO** button is unavailable.
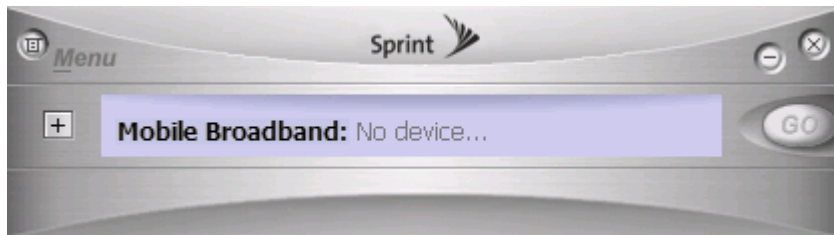


Insert the card. If it is already inserted, remove and reinsert it; wait a few moments. If this message is still displayed, uninstall (page 68) and reinstall Sprint Connection Manager, or contact Sprint (page 14).

## Initializing

Sprint Connection Manager is attempting to establish communication with the card.

## Searching for service...

Sprint Connection Manager is determining whether 1X or 1xEV-DO service is available. If this message persists, see page 101.

## Disconnected

Sprint Connection Manager is ready to make a connection to the network or to use Sprint Location Services. The **GO** button is available; the signal strength icon (📶) and the roaming icon (△) (if you're roaming) are visible. If the **Mobile Broadband** window is expanded, the lock icon (🔒 or 🔓) is visible.

To connect to the network, click the **GO** button.
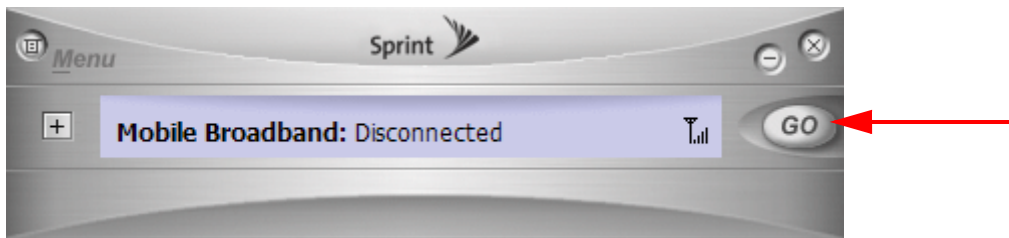


## Connecting

Sprint Connection Manager is establishing a connection to the network.

## Connected

The connection is established. In addition to the signal strength icon (📶) and the roaming icon (△) (if you're roaming), the transmit/receive icon (⚡ for 1xEV-DO Rev. A; ⇅ for 1xEV-DO Rev. 0; ⬆⬇ for 1X) is also displayed.

If you expand the **Mobile Broadband** window (⊞), the amount of data transferred is shown. (See note on page 62.)

To end the connection, click **Stop**.
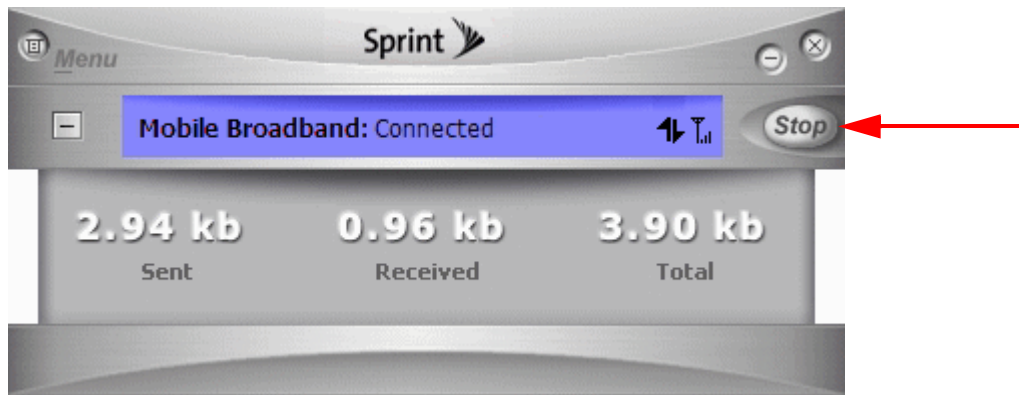


## Connected to NDIS

This message applies only if **Enable Network Adapter (NDIS)** (page 78) has been selected. For a description, see "Connected" (page 49).

## Device locked

The card is locked, so that others cannot use the card and your account. To use most of the features, you must unlock the card (page 66).
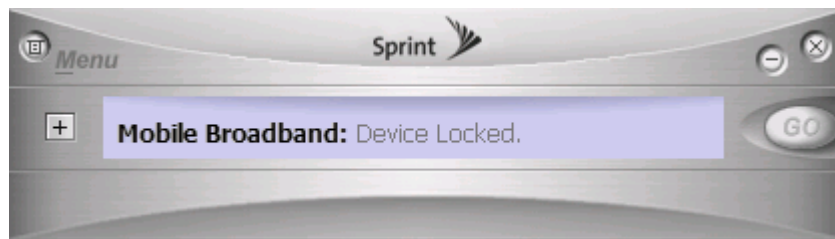


## Device powered off

The card has been powered off (through **Menu > Power Off Modem**). To use the card, select **Menu > Power On Modem**.



For more information, see "Powering the Card On and Off" on page 55.

# GPS Status (GPS Receiver Window)

The **GPS Receiver** window displays the GPS status:

- OFF
- Validating
- Searching
- Acquired

## OFF

GPS is not available or is turned off.

To use GPS:

1. Ensure the card is turned on and the **GPS Receiver** window is  displayed.

   ▶ If the **GPS Receiver** window is not displayed, in Sprint Connection Manager select **MENU > Settings > Sprint Location Services**, and then select **Enable Location Services** and **Display GPS Receiver**. (If Privacy Consent Agreements are displayed, you must read and accept them.)

2. Click the **GO** button in the **GPS Receiver** window.

| Tip: | You can turn off the display of the Privacy Consent Agreements (from the Sprint Location Services "Settings" window; page 80). |
|------|------|

If the **GPS Receiver** window still displays "OFF," ensure **Network Mode** (page 78) is set to **Automatic** or **1X Only**, and (subject to change) ensure that you are in the network coverage area (not roaming).

## Validating

The network is authenticating your wireless or GPS subscription.
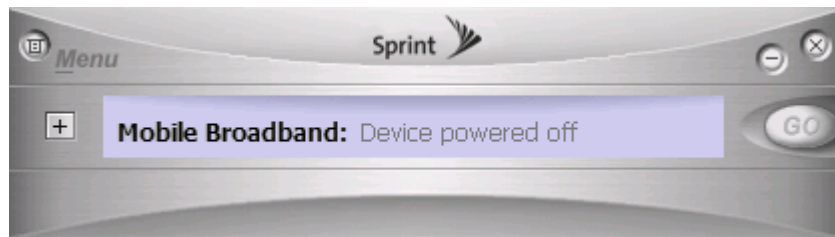
## Searching

Sprint Connection Manager is searching for satellites.

## Acquired

Satellites have been acquired and location coordinates are available for use (and displayed in the **GPS Receiver** window [page 46]).

NMEA output is being generated. (For information on NMEA, see "What is NMEA?" on page 96.)

# System Tray Connection States

Sprint Connection Manager has an associated icon ( ) that appears in the system tray. The icon reflects the connection state.

| | |
|---|---|
| | Sprint Connection Manager is not ready to connect to the network. Your card is either locked ("Device locked"; page 50), not detected ("No device"; page 48), or powered off ("Device powered off"; page 50). |
| | **Disconnected** — Sprint Connection Manager is ready to make a connection to the network (page 49), or<br>**Connecting** — Sprint Connection Manager is making a connection to the network (page 49). |
| | **Connected** — Connection is established to the network; data transfer is in progress (page 49). |
| | **Dormant** — Connection is established, but no data transfer is taking place. |

Clicking the system tray icon toggles between displaying and minimizing Sprint Connection Manager.

Right-clicking the icon displays the shortcut menu (page 72).
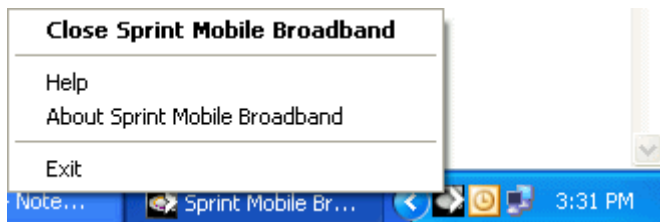
If Sprint Location Services are supported and enabled, then a second icon ( ) is displayed in the system tray. The ToolTip indicates GPS and satellite status.

# Determining the Type of Coverage

The ToolTip over the signal strength indicator (📶) indicates the type of coverage you have (for example, 1X [synonym of 1xRTT] or 1xEV-DO):
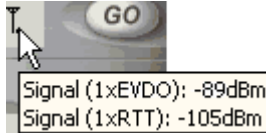


| Tip: | The type of coverage is also displayed in the lower left part of the "Device Info & Diagnostics" window under "Network Service" (page 87). |
|---|---|

# Sprint Location Services

Sprint Location Services (Location & Search Services) allow you to query the network for information on points of interest that are near your current location. The network automatically determines your current location. All you have to do is specify the type of business that you are looking for (for example, a restaurant or hotel).

For limitations related to Sprint Location Services, see "Location-Based Services limitations" on page 94.

To use Sprint Location Services:

1. Ensure that, in the settings for Sprint Location Services (page 80), you have selected **Enable Location Services** and, if you will be using GPS applications, **Display GPS Receiver**, and you have accepted the Privacy Consent Agreement(s).

2. In Sprint Connection Manager, click **Menu > Location & Search Services**.

| Note: | If the menus and windows (page 53 and page 80) related to Sprint Location Services are unavailable in Sprint Connection Manager, see "Sprint Location Services Aren't Working or Don't Seem to Be Available" on page 102. |
|---|---|

If the GPS fix is successful or if data from a recent GPS fix is available, then the "Sprint Nextel Location & Search" window is displayed. The bottom part of the window displays location information (latitude and longitude) of your card, and the time that the location information was acquired.
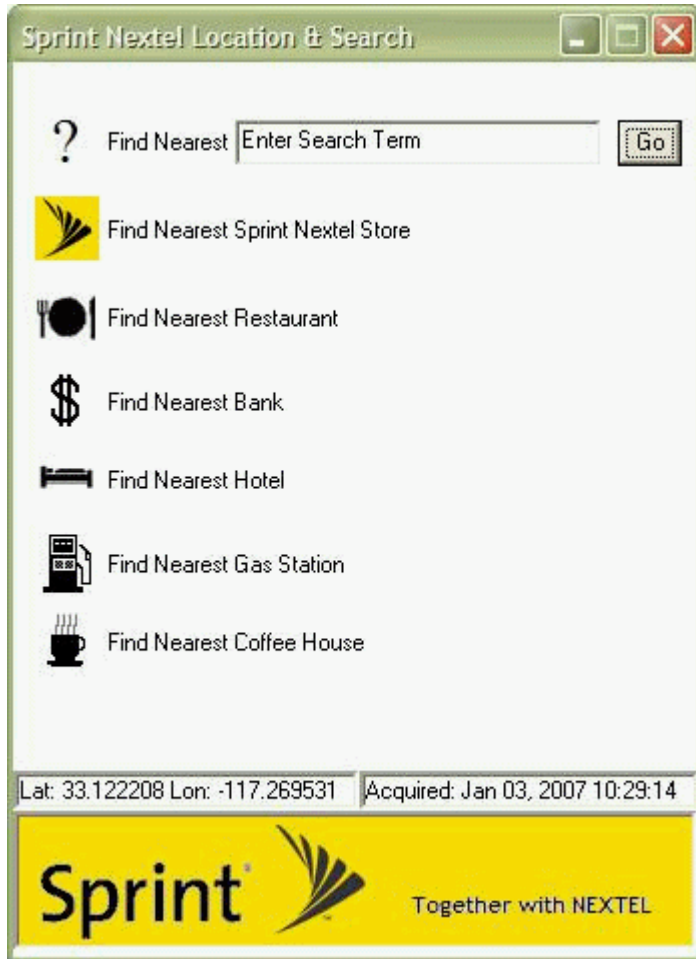


3. From the "Sprint Nextel Location & Search" window, enter or select the type of item you want to find. If you've previously entered search items, a drop-down list displays the last five items you've entered. Click **Go**.

If more than a preconfigured period of time has elapsed since the last time you've submitted a location search, a window is displayed asking whether you want to get an updated (GPS) position fix. (Depending on your account, you may be charged for each position fix or after you have performed a certain number of fixes.) If your current location is different from where you submitted your last location search, click **Yes**.

| Note: | Sprint Connection Manager uses your computer's default Web browser to display the results of Sprint Location Services. |
| --- | --- |

Your Web browser opens and displays the results of your search query. In the search results of some mapping and search services, you can right-click your location to get additional information—for example, driving instructions.

From the "Sprint Nextel Location & Search" window, you can submit additional searches.

From the "Settings" window, you can specify the settings for Sprint Location Services (page 80).

## Powering the Card On and Off

If you are using your card in an aircraft, hospital, or other environment where the card may cause interference, you can power the card off (without removing it from your computer's slot), and still use other functions of your computer.

This also allows you to conserve your notebook computer's battery.

To power the card off:

1.  Close any active data connection (page 63).

2.  Select **MENU > Power Off Modem**.

When the card is powered off, the menu option switches to **Power On Modem**, the **Mobile Broadband** window displays the message "Device powered off," and the **GPS Receiver** window displays "OFF."
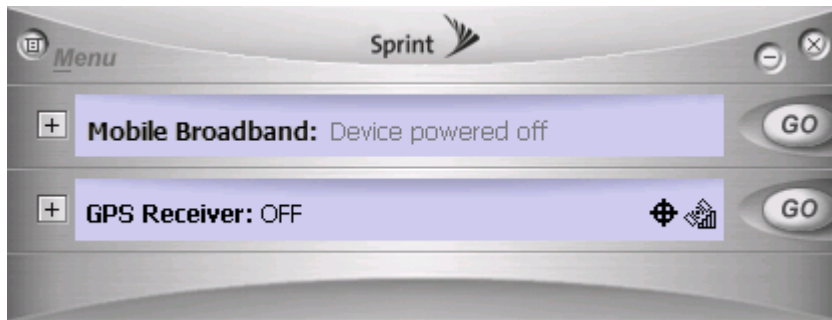


To power the card on:

► Select **MENU > Power On Modem**.

# Controlling the Sprint Connection Manager Window

## Expanding Sprint Connection Manager

The **Mobile Broadband** window and, if supported and enabled (page 81), the **GPS Receiver** window each have two views: compact and expanded.

To expand Sprint Connection Manager, click $\boxed{+}$ in the appropriate window.

To change back to the compact view, click $\boxed{-}$.

## Mobile Broadband Window

Compact view:
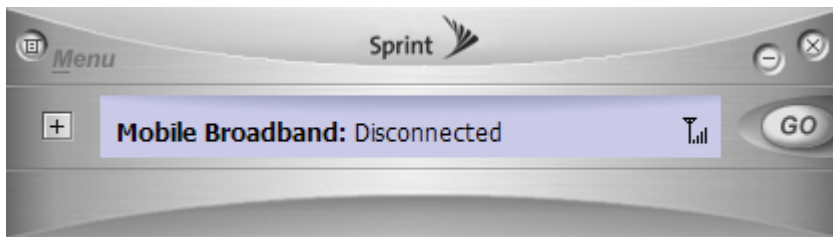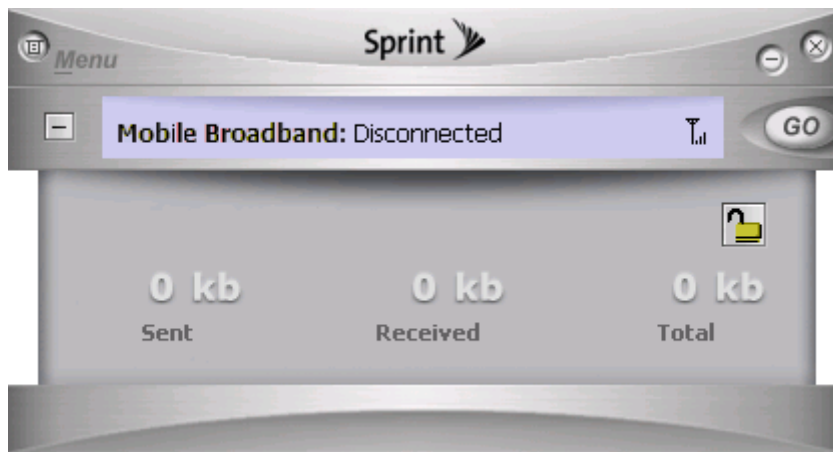


Expanded view:



When expanded, the **Mobile Broadband** window also displays the amount of data transferred during the current connection, and (only when disconnected) the lock state of the card (locked 🔒 or unlocked 🔓).

## GPS Receiver Window

Compact view:
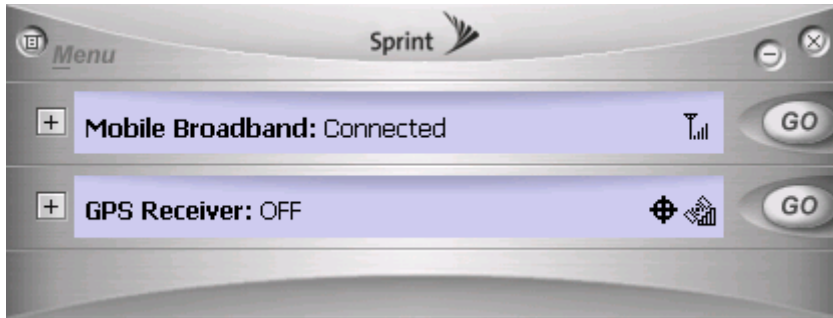


Expanded view:
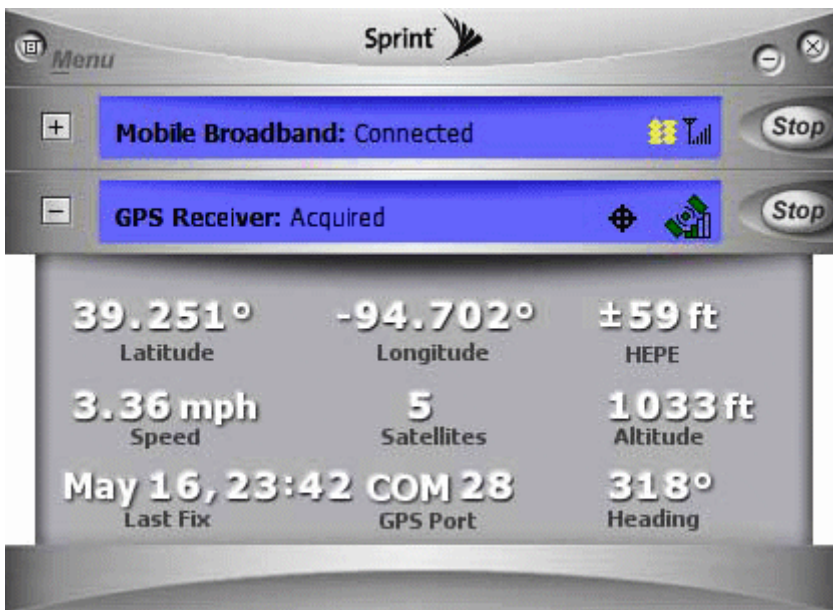


When expanded, the **GPS Receiver** window displays location information (described in the table on page 46.)

## Minimizing Sprint Connection Manager

To save space on your screen for other programs, you can minimize Sprint Connection Manager:

▶ Click ▬ (in the upper right corner of Sprint Connection Manager).

– or –

Click the Sprint Connection Manager icon  in the system tray.

– or –

Right-click the system tray icon and select **Close Sprint Mobile Broadband**.

You can use the system tray icon to monitor the connection state (page 52).

| Tip: | You can set Sprint Connection Manager to start minimized. (See "**Start in system tray**" on page 76.) |
|------|------|

| Tip: | You can prevent Sprint Connection Manager being covered up by other windows, by setting **Always on top** (page 76). |
|------|------|

## Restoring Sprint Connection Manager

To restore Sprint Connection Manager when it is minimized:

▷ Click the Sprint Connection Manager icon  in the system tray.

– or –

Right-click the system tray icon and select **Open Sprint Mobile Broadband**.

## Exiting Sprint Connection Manager

To exit Sprint Connection Manager:

▷ In Sprint Connection Manager, select **Menu > Exit**, or click the ⊠ button.

– or –

Right-click the Sprint Connection Manager icon  in the system tray and select **Exit** from the shortcut menu.

If **Enable Network Adapter (NDIS)** (page 78) has not been selected and a connection is in progress, a window is displayed asking whether you want to disconnect the call. To end the connection and close Sprint Connection Manager, you must click **Yes**.

Sprint Connection Manager closes, and the Sprint Connection Manager icons disappear from the system tray.

| Note: | If **Enable Network Adapter (NDIS)** (page 78) has been selected, after exiting Sprint Connection Manager you are still connected to the network (data may still be transferred). To manage the connection, use the Windows network connection icon in the system tray. |
|---|---|

## Launching a Sprint Power Vision or Sprint Vision Connection

**To launch a connection:**

▶ Click the **GO** button in the **Mobile Broadband** window. (If the **GO** button is unavailable, see "GO Button Is Unavailable" on page 101.)

| Note: | A connection is automatically established if you select **Menu >** **Location & Search Services** or click the **GO** button in the **GPS Receiver** window. |
|---|---|

When the connection is successfully established, the network welcome screen appears (unless you have turned off the welcome screen display; see "**Always show Welcome Screens**" on page 78).



The **Mobile Broadband** window displays "Connected" or "Connected to NDIS" (page 49).

You can now use your Web browser, perform data transfers, and so on.

**Section 3A: Your Card: The Basics (Windows)** 59

The connection is "active" when data transmission is occurring. If data transmission stops for a period of time (determined by the network), the connection becomes "dormant." When you resume data traffic, the connection becomes active.

To monitor the status of the connection, you can use the text (page 48) and icons (page 43) in the **Mobile Broadband** window, and the icon in the system tray (page 52). You can also view the amount of data transferred (page 62).

| Tip: | You can optionally specify which application to automatically launch when the connection is established. (See "Auto-launch upon Network Connection" on page 61.) |
|---|---|
| | You can also set the connection to launch automatically whenever available. (See "**GO automatically when ready**" on page 78.) If the connection is lost, it is restarted automatically. If you also set Sprint Connection Manager to launch automatically (see "**Launch when Windows starts**" on page 76), this can provide an "always-on" connection, as long as you have network coverage. |
| | You can have a connection established automatically—without running Sprint Connection Manager—simply by starting whatever application you want to use (such as your Web browser or email application). Select **Enable Network Adapter (NDIS)** (page 78). However, Sprint Connection Manager and its icon in the system tray won't be available for you to monitor the status of the connection. Sprint Location Services also won't be available. |

## Roam Guard

The Roam Guard feature, when enabled, displays a warning message if you are roaming and a data connection is established or about to be established. The message reminds you that roaming rates may apply.
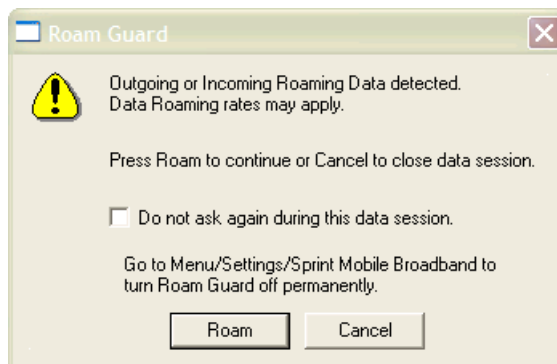
From the warning message window, you can:

- Turn off the warning message for this data session only ("Do not ask again during this data session.").
- Continue with the data connection ("Roam"), in which case you may be subject to roaming rates.
- End the data connection ("Cancel").

| | |
|---|---|
| **Note:** | This feature is available only if **Roam Mode** is set to **Automatic** (from the Sprint Mobile Broadband option in the "Settings" window; page 77). |

**To turn on the Roam Guard feature:**

1.  From the Sprint Mobile Broadband option in the "Settings" window, ensure **Roam Mode** is set to **Automatic**.

2.  From the **Roam Guard** drop-down list, select **Always Ask**.

**To permanently turn off the Roam Guard feature:**

▶ From the **Roam Guard** drop-down list, select **Never Ask**.

# Auto-launch upon Network Connection

You can optionally specify which application to automatically launch when a Sprint Power Vision or Sprint Vision connection is established.

**To specify which application to automatically launch:**

1.  Ensure Sprint Connection Manager is running and not locked (page 65).

2.  Ensure that your card is not powered off (page 50).

3.  Select **MENU > Settings > Sprint Mobile Broadband - Sierra Wireless**.

4.  Select **Auto Launch**.

5.  In the "Auto-Launch Options" window, select one of the following:

    - **None** — Do not auto-launch any application.

    - **Website** — Auto-launch Internet Explorer. In the URL field, specify the Web site (such as http://www.sierrawireless.com) you want to view on connection.

    - **Microsoft VPN (PPTP) Connection** — Auto-launch a Windows VPN connection. Type in the address of the VPN connection, or select the VPN connection from the drop-down list.

    - **Application (VPN client, etc.)** — Auto-launch an installed VPN program, or any other program. Enter the program path in the field, or use the Browse button to locate the program.

The changes are applied the next time you launch a connection.

| Note: | This feature functions only when Sprint Connection Manager is running. |
| --- | --- |

## Viewing the Amount of Data Transferred

| Note: | Even though the number of bytes sent and received is displayed while the connection is running, this is not necessarily the actual amount of data being transmitted across the network. **Do not use this information to estimate billing.** If **Enable Network Adapter (NDIS)** (page 78) has been selected, after exiting Sprint Connection Manager you are still connected to the network. Data may still be transferred. |
| --- | --- |

**To view the number of bytes sent and received during the current connection:**

▶ If the **Mobile Broadband** window is not expanded, click the $\boxed{+}$ button.

The number of bytes sent and received during the current connection is displayed to three significant digits (for example, 581 kb, 1.23 Mb, or 1.81 Mb).
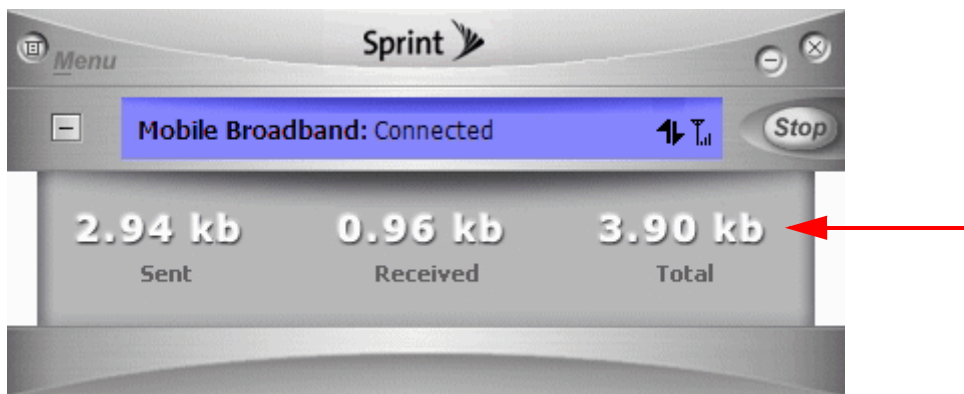


Once you end the connection, all numbers reset to zero.

To hide this information, click the $\boxed{-}$ button in the **Mobile Broadband** window.

# Ending a Connection

**To end a connection:**

▶ In the **Mobile Broadband** window, click **Stop**.

This ends your data connection, and also your GPS connection, if it is open.

| | |
|---|---|
| **Note:** | The **Stop** button in the **GPS Receiver** window ends only your GPS connection; data may still be transferred. |

If **Enable Network Adapter (NDIS)** (page 78) has not been selected and you exit Sprint Connection Manager while a connection is in progress, a window opens asking whether you want to disconnect the call. Click **Yes** to end the connection and exit Sprint Connection Manager. (See "Exiting Sprint Connection Manager" on page 58.)

If **Enable Network Adapter (NDIS)** has been selected, manually disconnecting will leave the card disconnected. It will not reconnect until you remove and reinsert the card.

If **GO automatically when ready** (page 78) has been selected, manually disconnecting will leave the card disconnected. It will not reconnect until one of the following occurs:

• You make a connection through Sprint Connection Manager

• A GPS fix is successfully acquired after you initiate Sprint Location Services (page 53)

• You restart Sprint Connection Manager

# Online Help

Sprint Connection Manager includes extensive online help to provide operating hints and step-by-step instructions for getting the most from your card.

With Sprint Connection Manager running, you can access online help in several ways:

• Press <F1> when Sprint Connection Manager is the active window.

• From Sprint Connection Manager, select **MENU > Help**.

• Right-click the system tray icon () and select **Help**.

The help file has a table of contents and an index.

# Displaying Your Phone Number

You can view your phone number in the "Device Info & Diagnostics" window (**Menu > Device Info & Diagnostics**).

# Security

When it is disconnected, you can lock your card so that others cannot use it to access your account. A four-digit lock code is needed to unlock the card.

You can set the card to lock:

● Whenever Sprint Connection Manager is started (page 65).

– or –

● Immediately (without restarting Sprint Connection Manager) — useful if you are lending your card and computer or leaving your computer for a short time (page 65).

### Initial Lock Code

The initial lock code value is determined by your service provider.

For service provider configurations that do not require account activation, a default lock code is set at the factory to a value determined by the service provider. For assistance, contact Sprint (page 14).

Configurations that use the Activation Wizard or IOTA set the initial lock code to the last four digits of your account phone number whenever a new phone number is activated.

After activation, you can change the lock code (page 67) from the initial value to any four-digit code you choose.

| **Note:** | The security lock code is reset to the last four digits of the phone number whenever an account is activated. This may change a custom value you have set. |
|---|---|

## When the Card Is Locked

When the card is locked, you can:

- Unlock the card (page 66).
- Power off the card (page 55).

When the card is locked, you cannot:

- Make data connections (the **GO** button is unavailable).
- Use Sprint Location Services.
- Run the Activation Wizard.

## Locking the Card

| Warning: | If you forget the lock code, you will not be able to use the card until you receive assistance from Sprint. |
|---|---|

**To lock the card immediately:**

1. End any active connection. (You can lock the card only when it is disconnected; page 49.)

2. If the **Mobile Broadband** window is not expanded, click + to expand it.

3. Click the 🔓 icon.

4. In the "Enter User Lock Code" window, enter the lock code, and click **OK**.

When the card is locked, the **Mobile Broadband** window displays "Device locked," and the lock icon is now 🔒. The **GO** button is unavailable.

| Tip: | You can also set the card to be locked upon startup of Sprint Connection Manager, as described next. |
|---|---|

## Locking upon Sprint Connection Manager Startup

**To set the card to lock as soon as Sprint Connection Manager starts up:**

1. End any active connection. (You can lock the card only when disconnected; see page 49.)

2. If the **Mobile Broadband** window is not expanded, click + to expand it.

3. Click the lock icon (🔒 or 🔓, depending on the current lock status).

4. In the "Enter User Lock Code" window, enter the lock code, and select **Relock modem when program exits**.

5. Click **OK**.

| Note: | This setting takes effect only after you exit and restart Sprint Connection Manager. |
|---|---|

## Unlocking the Card

When the card is locked, the **Mobile Broadband** window displays "Device locked," and the lock icon is .

**To unlock the card:**

1. If the **Mobile Broadband** window is not expanded, click  to expand it.

2. Click the  icon.

3. In the "Enter User Lock Code" window, enter the lock code, and click **OK**.

When the card is unlocked, the **Mobile Broadband** window no longer displays "Device locked," and the lock icon is .
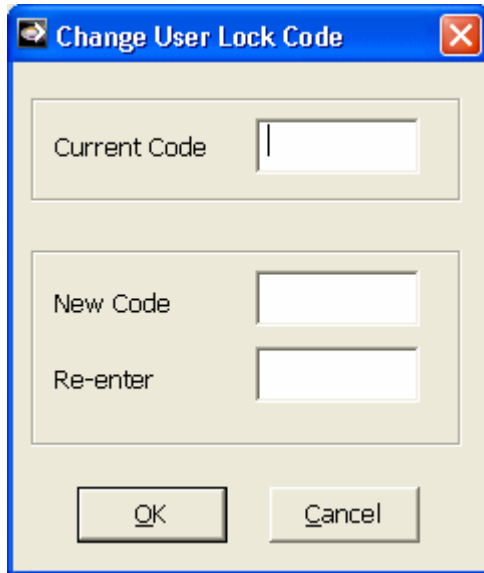
## Changing the Lock Code

| **Warning:** | If you forget the lock code, you will not be able to use the card until you receive assistance from Sprint. |
|---|---|

**To change the lock code:**

1. In the Sprint Mobile Broadband "Settings" window (page 77), click **User Lock Change**.

   The "Change User Lock Code" window is displayed:



2. Enter the current lock code.

3. Enter a new four-digit lock code.

4. Enter the new lock code for confirmation.

5. Click **OK**.

## Accessing Links

For your convenience, Sprint Connection Manager includes links to Sprint products and services. To access these links:

1. In Sprint Connection Manager, click **Menu**.

2. Select **Links**.

| **Note:** | You cannot add or remove links from the **Links** menu. To add or remove links, use your Web browser. |
|---|---|

# Uninstalling the Sprint Connection Manager Software

To remove the Sprint Connection Manager software from your computer, use the Add/Remove Programs utility built into your Windows operating system.

1. Exit Sprint Connection Manager (page 58).

2. Remove the card. (See "Removing the Card (Windows)" on page 28.)

3. Select **Start > Control Panel** and select:

   (Windows Vista) **Programs and Features**.
   (Windows XP or Windows 2000) **Add/Remove Programs**.

   The Windows Add/Remove Programs utility will start. Be sure the Change or Remove Programs feature is selected (default).

4. From the list, select **Sprint Mobile Broadband (Sierra)**, and click **Remove** or **Uninstall**.

# Menu Options (Windows)

## In This Section

◆ **Sprint Connection Manager Menu**

◆ **System Tray Menu**

This chapter describes each menu option you may encounter while using your card and the Sprint Connection Manager software on your Windows computer.

# Sprint Connection Manager Menu

Clicking **Menu** or the 🔳 button, located in the upper left corner of
Sprint Connection Manager, displays the Sprint Connection Manager menu.
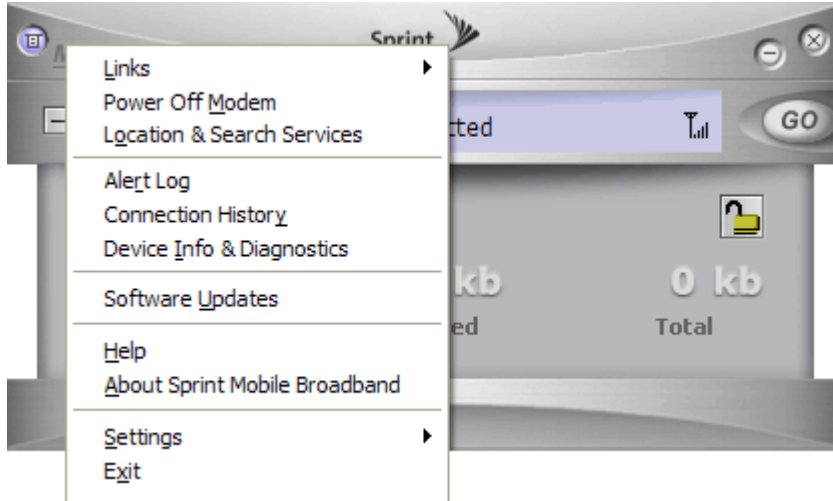


| Note: | Depending on your configuration and settings, not all menu options may be shown or enabled as described here. |
|---|---|

| Tip: | You can also display the menu by positioning the cursor over the **Menu** text or the 🔳 button and then pressing the spacebar or Enter key on your keyboard. To hide the menu, press **Esc**, or click outside the menu. |
|---|---|

The following table describes the menu options:

| Menu Item | Description |
|---|---|
| **Links** | Access links to Sprint products and services. See "Accessing Links" on page 67. |
| **Power Off Modem** | Power off your card. See "Powering the Card On and Off" on page 55. |
| **Location & Search Services** | Query the network for information on points of interest that are near your current location. See "Sprint Location Services" on page 53. |

| Menu Item | Description |
|---|---|
| **Alert Log** | View a record of all alerts (for example, connection errors) that have been received while establishing and maintaining connections.<br><br>See "Viewing Alerts" on page 85. |
| **Connection History** | View a record of connections established using your card (unavailable if the Connection History is empty, or if **Keep Connection History** [page 76] is not selected).<br><br>See "Viewing the Connection History" on page 84. |
| **Device Info & Diagnostics** | View information about your card and run diagnostic tests.<br><br>See "Running Diagnostics" on page 86. |
| **Software Updates** | Retrieve updates for Sprint Connection Manager and your card.<br><br>See "Updating the Software" on page 88. |
| **Help** | Display the online Help, which has operating hints and step-by-step instructions for getting the most from your card.<br><br>See "Online Help" on page 63. |
| **About Sprint Mobile Broadband** | Display brief information about the Sprint Connection Manager software. To close the window, click anywhere inside it.<br><br>See "About Sprint Mobile Broadband" on page 89. |
| **Settings** | Change the settings for Sprint Connection Manager. Contains submenu items:<br><br>● **General**: See "General Settings" on page 75.<br><br>● **Sprint Mobile Broadband - Sierra Wireless**: See "Sprint Mobile Broadband Settings" on page 77.<br><br>● **Sprint Location Services**: See "Sprint Location Services Settings" on page 80. |
| **Exit** | Exits Sprint Connection Manager. |

# System Tray Menu

When you right-click the system tray icon (), a shortcut menu is displayed:
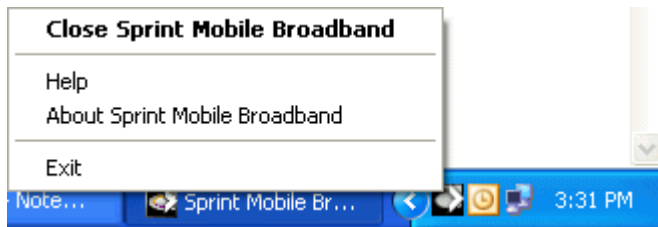


The following table describes the menu options:

| Menu Item | Description |
|---|---|
| **Open/Close Sprint Mobile Broadband** | Minimize Sprint Connection Manager (**Close**), or restore (**Open**) if Sprint Connection Manager is minimized. |
| **Help** | Display the online Help. |
| **About Sprint Mobile Broadband** | Display brief information about the Sprint Connection Manager software. To close the window, click anywhere inside it. |
| **Exit** | Exit Sprint Connection Manager. |

# Changing Sprint Connection Manager Settings (Windows)

## In This Section

♦ **Settings Window**

♦ **General Settings**

♦ **Sprint Mobile Broadband Settings**

♦ **Sprint Location Services Settings**

This chapter describes you can change to customize Sprint Connection Manager.

## Settings Window

| Note: | This feature is temporarily unavailable if you have powered off the card (page 55). |
|---|---|

From the "Settings" window, you can specify the settings for Sprint Connection Manager.

1. In Sprint Connection Manager, click **Menu**.

2. Select **Settings**.

3. From the drop-down list, select one of the following categories of settings:

   - General (general behavior of Sprint Connection Manager; page 75)

   - Sprint Mobile Broadband - Sierra Wireless (behavior of your Sprint Power Vision or Sprint Vision connection; page 77)

   - Sprint Location Services (page 80)

4. Make the appropriate changes to the settings (described in the following pages).

5. To change other settings, repeat steps 3 and 4.

6. Click **OK**.

| Note: | Changes to the setting **Launch when Windows starts** apply only after you restart Windows. Changes to the setting **Start in system tray** apply only after you exit and restart Sprint Connection Manager. |
|---|---|

| Tip: | You can also access the "Settings" window from the "Connection History" window (page 84): click **File > Settings**. |
|---|---|

# General Settings

From the General option in the "Settings" window, you can specify settings that affect the general behavior of Sprint Connection Manager.

The following table describes the options:

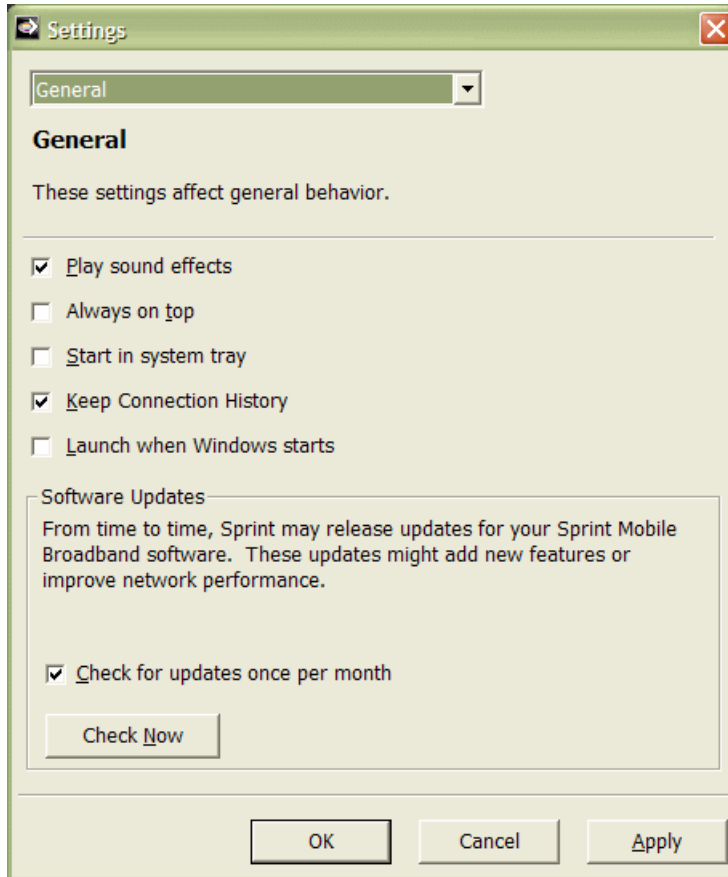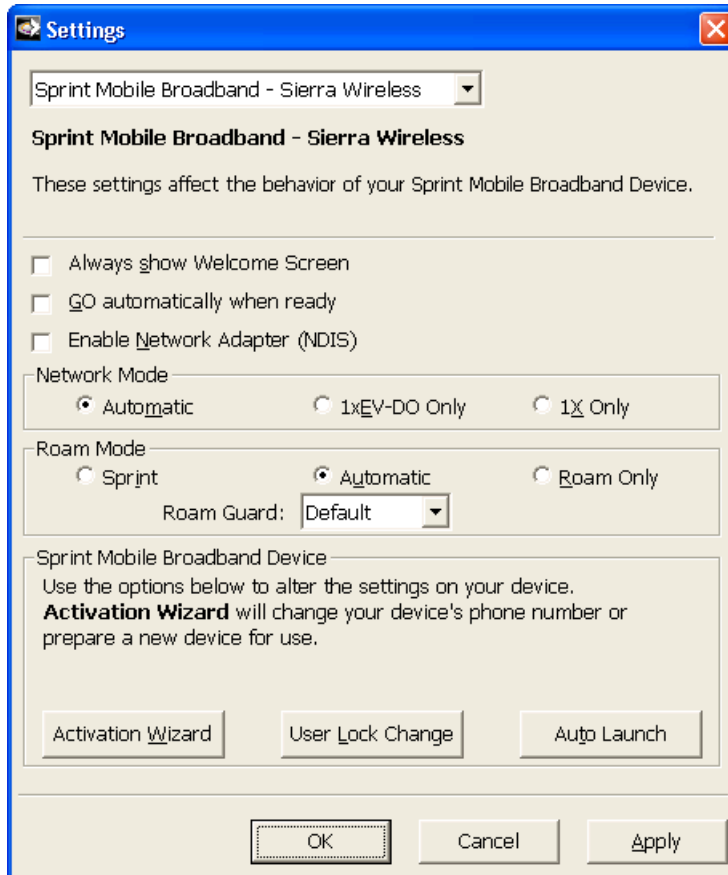| Menu Item | Description |
|---|---|
| **Play sound effects** | Play a clicking sound whenever an action is made in Sprint Connection Manager. |
| **Always on top** | Keep Sprint Connection Manager visible on your screen regardless of which applications are open. |
| **Start in system tray** | Have Sprint Connection Manager start (minimized) in the system tray on startup. (See "Restoring Sprint Connection Manager" on page 58.) |
| **Keep Connection History** | Have Sprint Connection Manager keep a log of your data connections (page 84). |
| **Launch when Windows starts** | Have Sprint Connection Manager start automatically when Windows starts.<br><br>**Tip:** You can also set the Sprint Power Vision or Sprint Vision connection to launch automatically whenever available (see "**GO automatically when ready**" on page 78). These settings provide an "always-on" connection, as long as you have network coverage. |
| **Check for updates once per month** | Have Sprint Connection Manager automatically check for software updates (page 88). |
| **Check Now** | Check for software updates immediately.<br><br>**Note:** During the software update, Sprint Connection Manager will close. Before you initiate the software update, finish any Web browsing, data transfers, and so on. |

| **Note:** | Changes to the setting **Launch when Windows starts** apply only after you restart Windows. Changes to the setting **Start in system tray** apply only after you exit and restart Sprint Connection Manager. |
|---|---|

# Sprint Mobile Broadband Settings

From the Sprint Mobile Broadband option in the "Settings" window, you can change the behavior of your Sprint Power Vision or Sprint Vision connection.
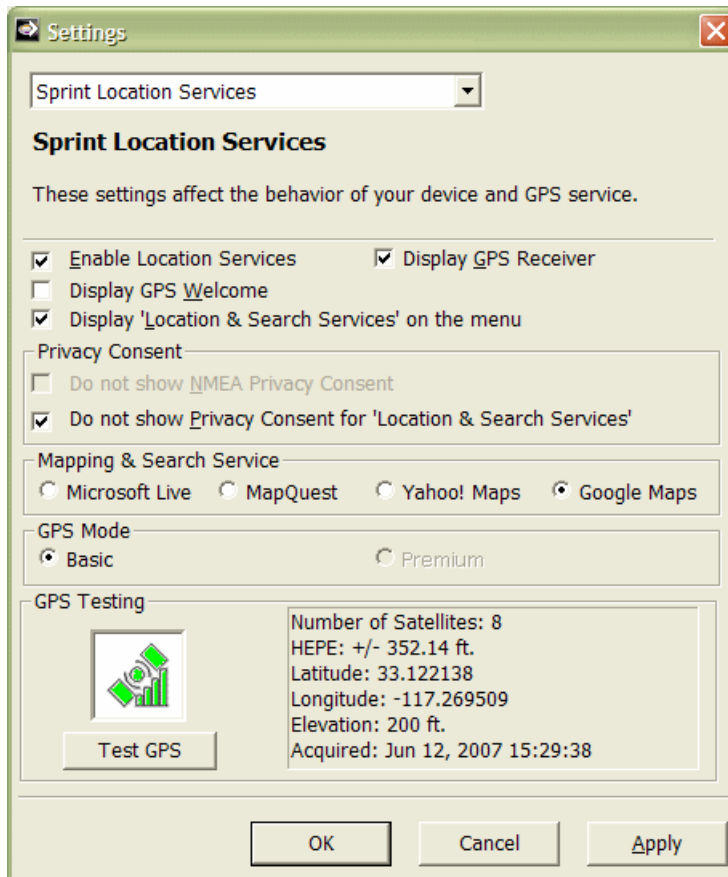
The following table describes the options:

| Menu Item | Description |
|---|---|
| **Always show Welcome Screens** | Display a welcome screen upon a successful connection to the network. |
| **GO automatically when ready** | Automatically connect to the network after Sprint Connection Manager starts, or whenever Sprint Connection Manager loses the network connection.<br><br>To select **GO automatically when ready**, ensure that **Enable Network Adapter (NDIS)** (below) is not selected.<br><br>**Tip:** You can also set Sprint Connection Manager to start automatically (see "**Launch when Windows starts**" on page 76). These settings provide an "always-on" connection, as long as you have network coverage.<br><br>You can have a connection established automatically, without having to run Sprint Connection Manager. Ensure that **GO automatically when ready** is not selected, and select **Enable Network Adapter (NDIS)** (below). |
| **Enable Network Adapter (NDIS)** | Make a connection automatically, without running Sprint Connection Manager—simply by starting whatever application you want to use (such as your Web browser or email application).<br><br>To select **Enable Network Adapter (NDIS)**, ensure that **GO automatically when ready** (above) is not selected.<br><br>**Note:** Sprint Location Services are available only when Sprint Connection Manager is running. |
| **Network Mode: Automatic** | Attempt a Sprint Power Vision (1xEV-DO) connection and, if not successful, attempt the slower Sprint Vision (1X) connection. |
| **Network Mode: 1xEV-DO Only** | Attempt only a Sprint Power Vision (1xEV-DO) connection.<br><br>**Note:** Sprint Location Services may not be supported. When in an area that has only Sprint Vision (1X) coverage, you won't be able to connect to the network. |

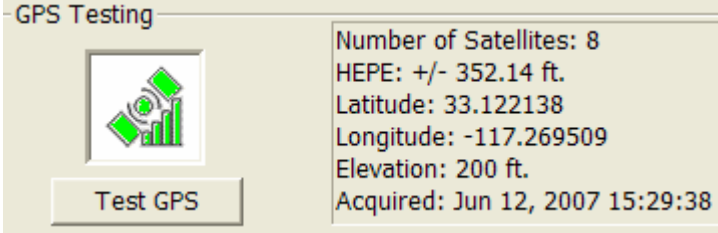| Menu Item | Description |
| --- | --- |
| **Network Mode: 1X Only** | Attempt only a Sprint Vision (1X) connection (even when you have Sprint Power Vision [1xEV-DO] coverage, which provides faster data transmission speeds).<br><br>**Note:** When in an area that has only Sprint Power Vision (1xEV-DO) coverage, you won't be able to connect to the network. |
| **Roam Mode: Sprint** | Disable roaming when you are not in the network coverage area. You will be able to connect only when you are in the network coverage area. |
| **Roam Mode: Automatic** | Allow roaming when you are not in the network coverage area.<br><br>**Note:** Roaming rates may apply. Roam Guard (page 60) can remind you of this. |
| **Roam Mode: Roam Only** | Allow only roaming.<br><br>**Note:** Roaming rates may apply. Roam Guard (page 60) can remind you of this. Sprint Location Services may not be available. |
| **Roam Mode: Roam Guard** | Display a warning message when you are about to establish a data connection while roaming. For more information, see "Roam Guard" on page 60.<br><br>Available only if Roam Mode is set to Automatic (page 79).<br><br>**Note:** If you proceed with the data connection, roaming rates may apply. |
| **Activation Wizard** | Used only when activating a card, or when changing your card's phone number (page 32). |
| **User Lock Change** | Change the security lock code of the card (page 67). |
| **Auto Launch** | Optionally specify which application to automatically launch when a connection is established.<br><br>See "Auto-launch upon Network Connection" on page 61. |

# Sprint Location Services Settings

From the Sprint Location Services option in the "Settings" window, you can change the behavior of Sprint Location Services. (For more information on Sprint Location Services, see page 53.)

The following table describes the options:

| Menu Item | Description |
|---|---|
| **Enable Location Services** | Turn on support (by your card) for Sprint Location Services.<br><br>**Note:** To use Sprint Location Services, your account must also be configured appropriately. If you are unable to use Sprint Location Services, see "Sprint Location Services Aren't Working or Don't Seem to Be Available" on page 102 or contact Sprint Customer Service (page 14). |
| **Display GPS Receiver** | Show or hide the **GPS Receiver** window (page 56). |
| **Display GPS Welcome** | Display a welcome window whenever you initiate Sprint Location Services. |
| **Display 'Location & Search Services' on the menu** | Show or hide the Sprint Connection Manager menu item that displays the "Sprint Nextel Location & Search" window. For more information on this window, see "Sprint Location Services" on page 53. |
| **Do not show NMEA Privacy Consent** | Prevent a "Privacy Consent Agreement" window from appearing every time you use NMEA. For more information, see "What is NMEA?" on page 96 and "When do I need to use NMEA?" on page 96. |
| **Do not show Privacy Consent for 'Location & Search Services'** | Prevent a "Privacy Consent Agreement" window from appearing every time you use the **Location & Search Services** menu. |
| **Microsoft Live**<br><br>**MapQuest**<br><br>**Yahoo! Maps**<br><br>**Google Maps** | Specify which mapping and search service (for example, Microsoft® Live, or Google™ Maps) your Web browser uses for Sprint Location Services.<br><br>Some mapping and search services may have data that is more current or accurate than that of other mapping and search services. |

**Section 3C: Changing Sprint Connection Manager Settings (Windows)** 81

| Menu Item | Description |
|---|---|
| **Test GPS** | Verify that your card is able to obtain data for Sprint Location Services:<br><br>1. Ensure that **Network Mode** (from the Sprint Mobile Broadband "Settings" window; page 77) is set to **Automatic** or **1X Only**. (Sprint Location Services may not be available if **Network Mode** is set to **1xEV-DO Only**.)<br><br>2. Ensure you are in the network coverage area (not roaming).<br><br>3. Click **Test GPS**.<br><br>The results (including the number of satellites, latitude, longitude, and elevation information) are displayed to the right of the **Test GPS** button.<br><br>GPS Testing<br><br>Test GPS<br><br>Number of Satellites: 8<br>HEPE: +/- 352.14 ft.<br>Latitude: 33.122138<br>Longitude: -117.269509<br>Elevation: 200 ft.<br>Acquired: Jun 12, 2007 15:29:38 |

# Tools (Windows)

## In This Section

- ♦ **Viewing the Connection History**

- ♦ **Viewing Alerts**

- ♦ **Running Diagnostics**

- ♦ **Updating the Software**

- ♦ **About Sprint Mobile Broadband**

This chapter describes various features you can use to view information about the card and the Sprint Connection Manager software on your Windows computer.

# Viewing the Connection History

Connection History displays a record of connections established using your card. You can sort records by connection name to easily distinguish between personal and business usage.
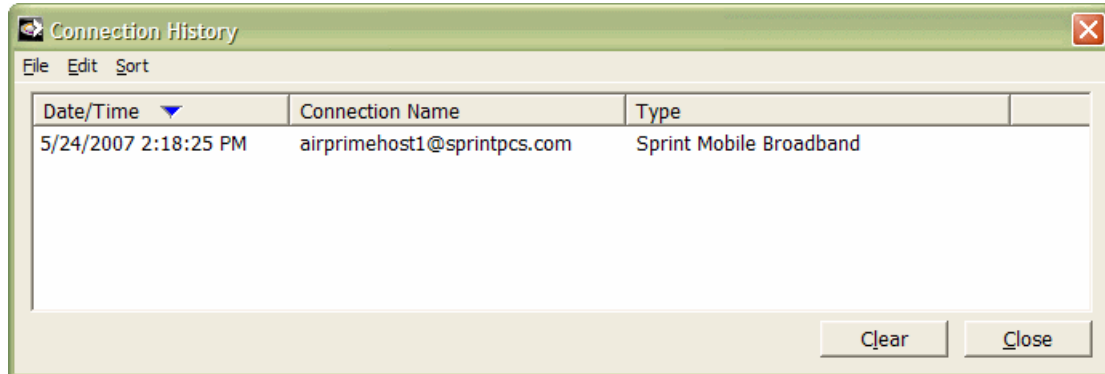


From this window you can also access the "Settings" window (page 74) (**File > Settings**).

| Note: | For connections to be recorded, **Keep Connection History** must be enabled (page 76). |
|---|---|

**To view the Connection History:**

1. In Sprint Connection Manager, click **Menu**.
2. Select **Connection History**.

**To sort the entries:**

▶ Click the button that contains the title of the column you want to sort by. (You can reverse the sort order by clicking the button again.)

– or –

Click an option under the **Sort** menu.

**To export the entries to a text file:**

1. Select **File > Export**.
2. Specify a file name and path.
3. Click **Save**.

**To copy one or more entries:**

1. Select the entries. (Click a single entry, or hold down CTRL or SHIFT and click to select multiple entries; to select all entries, select **Edit > Select All**.)

2. Select **Edit > Copy**.

3. Paste the entries (for example, into a text file or email message).
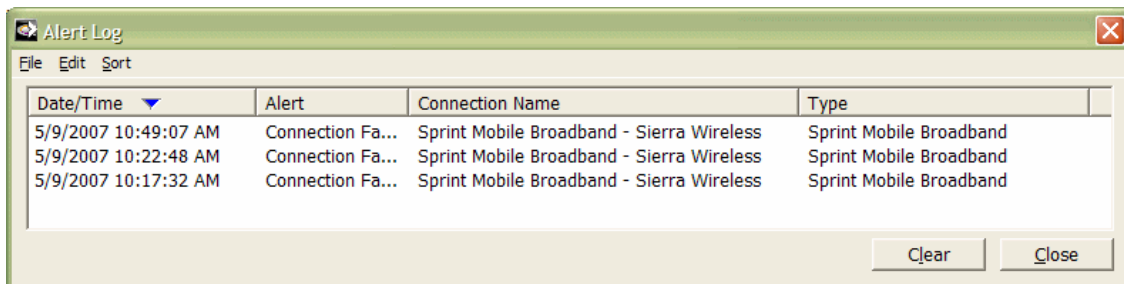
**To delete all entries:**

▶ Click the **Clear** button.

**To delete one or more entries:**

1. Select the entries. (Click a single entry, or hold down CTRL or SHIFT and click to select multiple entries.)

2. Select **Edit > Delete**.

# Viewing Alerts

The Alert Log displays a record of all alerts (for example, connection errors) that have been received while establishing and maintaining connections. You can use the Alert Log to help isolate and resolve connection issues.



**To view the Alert Log:**

1. In Sprint Connection Manager, click **Menu**.

2. Select **Alert Log**. (This menu option is unavailable if the alert log is empty.)

**To sort the entries:**

▶ Click the button that contains the title of the column you want to sort by. (You can reverse the sort order by clicking the button again.)

– or –

Click an option under the **Sort** menu.

**To export the entries to a text file:**

1. Select **File > Export**.

2. Specify a file name and path.

3. Click **Save**.

**To copy one or more entries:**

1. Select the entries. (Click a single entry, or hold down CTRL or SHIFT and click to select multiple entries; to select all entries, select **Edit > Select All**.)

2. Select **Edit > Copy**.

3. Paste the entries (for example, into a text file or email message).

**To delete all entries:**

▶ Click the **Clear** button.

**To delete one or more entries:**

1. Select the entries. (Click a single entry, or hold down CTRL or SHIFT and click to select multiple entries.)

2. Select **Edit > Delete**.

# Running Diagnostics

To identify problems when connecting to the network, use the "Device Info & Diagnostics" window. Device Info & Diagnostics evaluates issues with your USB port, port configuration, network signal strength, Sprint Connection Manager, and more. Once the program runs a diagnostics check, it recommends solutions.

The program also displays information such as your phone number.

Results of the diagnostics can be shared with a Sprint Customer Service Specialist, to assist that person with troubleshooting.

**To access the "Device Info & Diagnostics" window:**

1. Ensure the card is inserted.

2. In Sprint Connection Manager, click **Menu**.

3. Select **Device Info & Diagnostics**.

The tests automatically start when the window opens.
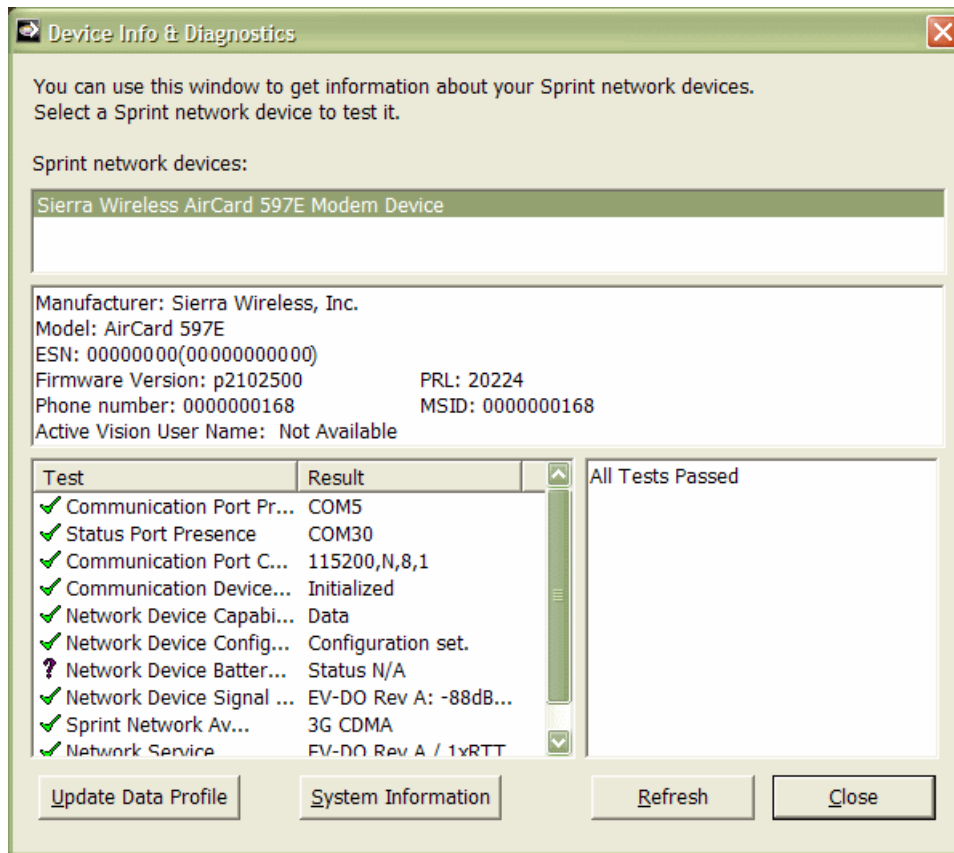


From the "Device Info & Diagnostics" window, you can view system information (page 88) and save the system information to an RTF (Rich Text Format) file.

From the "Device Info & Diagnostics" window, you can also update parameters in your card:

▶ Click **Update Data Profile**. (If this button is not displayed, remove and reinsert the card.)

**Section 3D: Tools (Windows)**                                                   **87**

## Displaying System Information

The "System Information" window displays:

- **System Parameters:** Information about your computer hardware and software.
- **Installed Files**: Files related to Sprint Connection Manager.
- **Device Info & Diagnostics**: Information about the card (including its phone number), and results of various tests.

**To display system information:**

1. Select **Menu > Device Info & Diagnostics**.
2. In the "Device Info & Diagnostics" window, click **System Information**.

**To save the information to a file (for example, if you are requested to send the report to your service provider representative):**

1. In the "System Information" window, click **Create Report**.
2. Specify a file name and path.
3. Click **Save**.

## Updating the Software

From time to time, Sprint may release updates for Sprint Connection Manager and your card. These updates may add features or improve network performance.

| Note: | During the software update, Sprint Connection Manager will close. Before you initiate the software update, finish any Web browsing, data transfers, and so on. |
|---|---|

**To update the software:**

1. Ensure you have a network connection.
2. In Sprint Connection Manager, click **Menu**. Select **Software Updates**.

    – or –

    From the General option in the "Settings" window (page 74), click **Check Now**.

**You can also set the software to automatically check for updates once a month:**

1. In Sprint Connection Manager, click **Menu** and then select **Settings**.
2. Select **Check for updates once per month**.

# About Sprint Mobile Broadband

The "About Sprint Mobile Broadband" window displays information about the Sprint Connection Manager software.

**To display this window:**

▶ In Sprint Connection Manager, click **Menu** and then select **About Sprint Mobile Broadband**.

– or –

Right-click the Sprint Connection Manager icon () in the system tray and, from the shortcut menu, select **About Sprint Mobile Broadband**.

To close this window, click anywhere inside it.

| Tip: | To display more information, you can run diagnostics (page 86). |
|------|------------------------------------------------------------------|

# Frequently Asked Questions (Windows)

## In This Section

- **Questions about My Account**
- **Questions about Sprint Connection Manager**
- **Questions about GPS and Sprint Location Services**
- **Other Questions**

# Questions about My Account

## If the connection is "always on," am I always being billed?

No. The connection to the network goes dormant after a period of inactivity, but the connection can be re-established faster than having to reconnect. Billing occurs only when data is passed across the network.

# Questions about Sprint Connection Manager

## What is Sprint Connection Manager?

Sprint Connection Manager is software that lets you connect to the Sprint Power Vision or Sprint Vision network. Sprint Connection Manager takes advantage of the increased data speeds offered by the Sprint Mobile Broadband Network.

## How fast is the connection with Sprint Connection Manager?

The Sprint Mobile Broadband Network allows you to connect to the Internet at speeds of up to 3.1 Mbps (1xEV-DO Rev. A), 2.4 Mbps (1xEV-DO Rev. 0), or 144 kbps (1X). Average connection speeds are:

- For 1xEV-DO Rev. A: between 600 kbps and 1.4 Mbps downlink from the network, and between 350 and 500 kbps uplink to the network;
- For 1xEV-DO Rev. 0: between 400 and 700 kbps downlink from the network, and between 40 and 80 kbps uplink to the network;
- For 1X: between 40 and 80 kbps.

These speeds are faster than dial-up connection speeds.

## Can I connect to a dial-up account like AOL or EarthLink?

No. The software does not support dial-up connections.

# Questions about GPS and Sprint Location Services

## What is LBS?

LBS (Location-Based Services) is used to provide enhanced Local Search functionality via internet mapping services. For more information, see "What is enhanced Local Search?" on page 92.

## What is GPS?

GPS stands for Global Positioning System, which is a system that uses a series of 24 geosynchronous satellites to provide location data.

GPS satellites transmit signals to equipment on the ground. GPS receivers passively receive satellite signals, but do not transmit.

Various GPS standards exist for the User Plane and Control Plane. For more information, see "What is GPS User Plane?" and "What is GPS Control Plane?" on page 93.

## What is enhanced Local Search?

Enhanced Local Search is a quick, easy method to run, via Sprint Connection Manager, local search queries to find locations and directions to locations and businesses.

The enhanced Local Search feature uses LBS and allows you to search for Sprint Nextel stores, restaurants, banks, hotels, and so on, outdoors and (with GPS Premium) indoors. For more information, see "What is GPS Premium?" on page 95.

## How do I get the enhanced Local Search feature?

The enhanced Local Search feature works only with GPS-capable data cards and the latest version of Sprint Connection Manager. The feature is available at no additional charge in the latest version of Sprint Connection Manager.

| Note: | Sprint Location Services may not be supported if **Network Mode** is set to **1xEV-DO Only**. To use Sprint Location Services, ensure **Network Mode** is set to **Automatic** or **1X Only**. Sprint Location Services are not supported if you're roaming (subject to change). |
|---|---|

## Where do I find the enhanced Local Search feature?

In Sprint Connection Manager, select **Menu > Location & Search Services**.

## How do I use the enhanced Local Search feature?

When running Sprint Connection Manager, select **Menu > Location & Search Services**. Some predefined, most frequently used queries are listed. There is also an option to run your own custom query; if you've previously entered search items, a drop-down list displays the last five items you've entered.

## Where can I use GPS?

GPS works wherever there is both Sprint CDMA network access and GPS access.

> **Note:** In some locations where CDMA network access is available, GPS may not be available at this time. For the latest on service available by location, refer to Sprint Nextel Coverage maps.

## What is GPS User Plane?

GPS User Plane is the ability to execute GPS requests at the subscriber level on the card. In other words, the User Plane allows you to submit location-related queries to the network.

Compare to GPS Control Plane (see below).

## What is GPS Control Plane?

GPS Control Plane is the ability to execute GPS requests at the network (server) level.

Compare to GPS User Plane (see above).

## How do I enable/disable GPS?

By default, Sprint Location Services are disabled.

To enable Sprint Location Services:

1.  In the Sprint Location Services "Settings" window, select **Enable Location Services**.

2.  If you will be using the **GPS Receiver** window (page 45), select **Display GPS Receiver**.

> **Tip:** To prevent Privacy Consent Agreements from appearing every time you use NMEA or the Location & Search Services menu, select **Do not show NMEA Privacy Consent** and **Do not show Privacy Consent for 'Location & Search Services'**.

## Will GPS work when Privacy is set to ON?

No. Setting Privacy to ON [by not accepting the Consent Privacy Agreement(s)] means you do not want your card to be discoverable; thus, GPS is not enabled/ started on the card.

> **Tip:** An icon in the **GPS Receiver** window indicates the GPS/Privacy status (page 46).

## Can I use Sprint Location Services if I have enabled NDIS?

Yes. Sprint Location Services/GPS services are supported, whether or not you have selected **Enable Network Adapter (NDIS)**.

## Do I need a GPS subscription to use GPS?

For GPS Basic, you do not need a GPS subscription.

For GPS Premium, you need a GPS subscription.

For more information on GPS Basic and GPS Premium, see "What is GPS Basic?" and "What is GPS Premium?" on page 95.

## Location-Based Services limitations

To acquire a location fix, you must be connected to the Sprint network, (subject to change) not roaming, and, for the initial fix, in 1X coverage.

If you're outside with a clear view of the sky, the card uses MS-Based position location technology. Weather conditions may affect your ability to get a clear view of the satellites and thus to acquire a GPS fix. MS-Based GPS (Basic) is for outdoor use only.

| Note: | Location-Based Services use Advanced Forward Link Trilateration (AFLT). AFLT is a type of device-based position location technology. Unlike A-GPS, AFLT does not use GPS satellites to determine location. Instead, the device takes measurements of signals from nearby cellular base stations (towers) and reports the time/distance readings back to the network; the readings are then used to triangulate an approximate location of the device. In general, at least three surrounding base stations are required to get an optimal position fix. |
|---|---|
|  | AFLT accuracy may vary, depending on the geometry of the cell towers in your location. |

## What GPS mode options are supported?

GPS on a Sprint data card works like any other GPS device. Sprint provides two types of GPS mode: GPS Basic, and GPS Premium.

For more information, see "What is GPS Basic?" and "What is GPS Premium?" on page 95.

| Note: | Sprint Location Services may not be supported if **Network Mode** is set to **1xEV-DO Only** or (subject to change) if you are roaming. To use Sprint Location Services, ensure **Network Mode** is set to **Automatic** or **1X Only**, and ensure that you are in the network coverage area (not roaming). |
|---|---|

## What is GPS Basic?

Sprint GPS Basic supports GPS outdoors. Your card requires an unobstructed view of GPS satellites (in the sky), and, like any other GPS device, might not perform well within forested areas or near tall buildings.

Sprint GPS Basic is based on GPSOne™ standards and uses Location-Based Services for the first, fast, GPS fix. GPS coordinate values are made available to applications via a local GPS NMEA Com port.

See also "What is NMEA?" on page 96 and "What is the difference between GPS Basic and GPS Premium?" on page 95.

## What is GPS Premium?

| Note: | At the time of this software release, this GPS mode option is not yet available. |
|---|---|

GPS Premium supports GPS outdoors (as does GPS Basic) and additionally indoors (where no GPS satellites are available).

To use GPS Premium, you need a GPS subscription.

## What is the difference between GPS Basic and GPS Premium?

GPS Basic is for outdoor use — similar to the capability of a regular GPS device.

GPS Premium is an enhanced GPS capability that allows GPS to be used indoors and outdoors. To use GPS Premium, you need a GPS subscription.

## What is a GPS application?

A GPS application is an application that uses NMEA data to get regular location coordinate updates and values typically displayed in an application. (For more information on NMEA, see "What is NMEA?" [below].)

Examples of GPS applications are Microsoft Streets & Trips, and Microsoft MapPoint.

## What is NMEA?

NMEA stands for "National Marine Electronics Association."

NMEA 0183 is a standard protocol used by GPS devices to send and receive data.

NMEA output is composed of various strings. Sprint GPS data cards support the following strings:

- $GPGGA
- $GPRMC
- $GPGSA
- $GPGSV

See also "When do I need to use NMEA?", "How do I start and stop NMEA?", and "How do I configure my NMEA port?", starting on page 96.

## How do I configure a GPS application to use my GPS-capable device?

**To configure a GPS application to use your GPS-capable device:**

1. Start GPS NMEA (page 97).

2. Note the "GPS Port" value displayed in the expanded **GPS Receiver** window (page 45).

3. Configure your GPS application to use the same port. For help, see the documentation of the GPS application.

## When do I need to use NMEA?

You need to use NMEA only when using a GPS application that uses an NMEA output stream. For more information, see "What is a GPS application?" on page 95.

| Note: | To ensure the best data performance of your card, it's recommended that you not activate the NMEA stream unless you are going to use it. |
|---|---|

# How do I start and stop NMEA?

| Note: | To ensure the best data performance of your card, it's recommended that you not activate the NMEA stream unless you are going to use it. |
|---|---|

**To start NMEA output:**

1. Click the **GO** button in the **GPS Receiver** window (page 45).

2. Read and accept the Privacy Consent Agreement.

| Tip: | You can turn off the display of the NMEA Privacy Consent Agreement (from the Sprint Location Services "Settings" window). |
|---|---|

**To stop NMEA output, you have several options:**

● In the **GPS Receiver** window, click **Stop**.

● In the **Mobile Broadband** window, click **Stop**.

● Exit Sprint Connection Manager.

● If you have started the GPS application before you started NMEA output: exit the GPS application.

## How do I configure my NMEA port?

At the time of this software release, you cannot specify which port Windows uses for NMEA output. Windows automatically uses the next available port.

You can, however, configure the GPS application to use the NMEA Com port that Windows is using (page 96).

# Other Questions

## Once I connect to the network, how do I access my corporate network through a VPN?

Once you complete a wireless connection, you may need to launch an extranet client provided by your company and supply the appropriate user name and password to gain access. For support, contact your company help desk.

## How can I optimize my settings to achieve the fastest speeds and conserve data when accessing my corporate network?

Depending on your corporate email client, you can optimize your settings by doing the following:

- Work in "offline" mode, and connect only when you need to send or receive email.
- Remove the Preview Pane, or use the AutoPreview for headers only.
- Save attachments to a desktop folder and then open from that folder, rather than opening the attachment directly from the message.

For more information, see the user documentation of your email client.

## Why won't my laptop go into hibernation mode when using my Sprint Mobile Broadband card?

If you're using Windows 2000, you need to upgrade to Service Pack 4 from www.microsoft.com.

# Troubleshooting Tips (Windows)

## In This Section

- **Problems, Causes, and Solutions**
- **GO Button Is Unavailable**
- **Searching for Service**
- **Cannot Connect to the Network**
- **Sprint Location Services Aren't Working or Don't Seem to Be Available**
- **Could Not Prepare Data Services**
- **Unable to Prepare Data Services**
- **Sprint Connection Manager Stops Working After Upgrading Windows**

This section helps you diagnose and solve common problems you may experience while using your Sprint Mobile Broadband card and the Sprint Connection Manager software on a Windows computer.

# Problems, Causes, and Solutions

When properly installed, the Sprint Mobile Broadband card is a highly reliable product.

Most problems are caused by one of these issues:

● Network coverage is not available (because of your "Network Mode" settings [page 77], or because you are outside the network, or because of an account or network problem).

● The drivers were not properly installed because of a problem with your computer's ExpressCard slot, PC Card slot, or with the ExpressCard to PC Card adapter.

● System resources required by the card are being used by other devices.

Tips when troubleshooting problems with your card and software:

● Ensure your card is inserted, not locked (page 65), and not powered off (page 50).

● To determine the connection status, use the icons in the system tray (page 52), and icons in the **Mobile Broadband** window (page 44) and **GPS Receiver** window (page 46), and messages in the **Mobile Broadband** window (page 48) and **GPS Receiver** window (page 51).

● The alert log might indicate the nature of the problem (page 85).

● Run diagnostic tools supplied with Sprint Connection Manager (page 86).

● Check the Frequently Asked Questions (Windows) (page 90).

● Use the resources listed in "Getting Help" (page 13).

● If Sprint Connection Manager stopped working after you've upgraded to a different version of Windows, see "Sprint Connection Manager Stops Working After Upgrading Windows" on page 104.

If, after reading this section, you are unable to resolve a problem, please visit www.sprint.com or contact Sprint Customer Service. (See "Getting Help" on page 13.)

# GO Button Is Unavailable

Ensure the card is properly inserted, not locked (page 65), and not powered off (page 50).

If the **Mobile Broadband** window displays "Searching for service" for a long period of time (for example, several minutes), see "Searching for Service" below.

If **Roam Mode** is set to **Sprint**, ensure you are in the network coverage area (not roaming), or change the setting (page 79). (You may be subject to roaming rates.)

# Searching for Service

If the **Mobile Broadband** window displays "Searching for service" for a long period of time (for example, several minutes), try one of the following:

- Try reorienting your computer.
- If you are inside a building or near a structure that may be blocking the signal, change the position or location of your computer.
- If **Roam Mode** is set to **Sprint**, ensure you are within the network coverage area, or change the Roam Mode setting. (You may be subject to roaming rates.)
- If **Roam Mode** is set to **Roam Only**, ensure you are roaming, or change the Roam Mode setting.
- If **Network Mode** is set to **1X Only**, and only 1xEV-DO coverage is available, either move to an area that has 1X coverage, or change the setting to **Automatic** or **1xEV-DO Only. Note:** With the setting **1xEV-DO Only**, Sprint Location Services may not be supported.
- If **Network Mode** is set to **1xEV-DO Only**, and only 1X coverage is available, either move to an area that has 1xEV-DO coverage, or change the setting to **Automatic** or **1X Only**.
- Check with Sprint — a network or account problem may be preventing the card from obtaining service.

# Cannot Connect to the Network

If you're having problems connecting, or there's no Sprint Power Vision (1x-EVDO) coverage in your area, set **Network Mode** to **1X Only** and try to establish a connection.

If the connection is dropped as soon as it is established:

 1. Select:

    (Windows Vista) **Start > Control Panel > Network and Sharing Center > Manage Network Connections**
    (Windows XP) **Start > Control Panel > Network Connections**
    (Windows 2000) **Start > Settings > Control Panel > Network and Dial-Up Connections**

 2. Right-click **Sprint Mobile Broadband - Sierra Wireless**, and select **Properties**.

 3. Select:

    (Windows Vista) **Options**, and select **PPP Settings**.
    (Windows XP) **Networking** tab, and select **Settings**.

 4. Ensure that "Enable LCP Extensions" is selected and "Negotiate multi-link for single link connections" is **not** selected.

 5. Click **OK**.

# Sprint Location Services Aren't Working or Don't Seem to Be Available

If Sprint Location Services aren't working or don't seem to be available, check whether you have, in the "Settings" window (page 74), a **Sprint Location Services** option in the drop-down list.

▶ If the drop-down list does not have the **Sprint Location Services** option, then your account, your card, or both are not configured to support Sprint Location Services; contact Sprint Customer Service (page 14).

   – or –

 1. Select the **Sprint Location Services** option from the drop-down list and ensure that **Enable Location Services** and **Display 'Location & Search Services' on the menu** are selected. (If a Privacy Consent Agreement is displayed, you must read and accept it.)

2. If you will be using NMEA, select **Display GPS Receiver**. (For more information on NMEA, see "What is NMEA?" on page 96.)

3. Ensure that **Network Mode** (in the Sprint Mobile Broadband "Settings" window) is set to **Automatic** or **1X Only**. (Sprint Location Services may not be available if **Network Mode** is set to **1xEV-DO Only**.)

4. Ensure you are in the network coverage area (not roaming). For the initial fix, you must be in 1X coverage.

5. To verify that your card is able to obtain data for Sprint Location Services, in the Sprint Location Services "Settings" window, click **Test GPS**.

6. If the results show the number of satellites and valid latitude, longitude, and elevation information, then check that the GPS application (for example, street mapping application) is configured to use the correct port. (The port number that the GPS application should use is displayed in the **GPS Receiver** window [page 45].)

   For help on checking which port the GPS application is configured to use, see the documentation of the GPS application.

7. If the GPS application is configured to use the correct port, but the application doesn't seem to be reporting correct results, then there may be a problem with the GPS application.

## Could Not Prepare Data Services

See "Unable to Prepare Data Services" (below).

## Unable to Prepare Data Services

| Note: | The message may appear as **"Could not prepare data services. Please contact…"** |
|---|---|

The card was unable to access the IOTA server to obtain data account parameters for you. This may be because the signal strength is poor or because the IOTA server is not responding.

- Confirm you have sufficient signal strength. Try the actions listed for "Searching for Service" (page 101).
- Contact Sprint for assistance (page 14).

This message may indicate that your system does not support 128-bit encryption for high-security access to data provisioning. You will not be able to complete the activation of data services until you upgrade your system's security. (See "High Encryption Requirements [Windows]" on page 10.)

## Sprint Connection Manager Stops Working After Upgrading Windows

| Note: | After the following steps, any changes you made to Sprint Connection Manager settings will be lost; you will have to reapply the changes. |
|---|---|

If you've upgraded Windows, and Sprint Connection Manager stopped working:

1. Uninstall Sprint Connection Manager (page 68).
2. Reinstall Sprint Connection Manager (page 17).

# Using the Card on a Mac

# Your Card: The Basics (Mac)

## In This Section

- ⬥ **Starting Watcher Lite**
- ⬥ **Watcher Lite Window**
- ⬥ **Connection States**
- ⬥ **Determining the Type of Coverage**
- ⬥ **Powering the Card Off**
- ⬥ **Launching a Sprint Power Vision or Sprint Vision Connection**
- ⬥ **Viewing the Amount of Data Transferred**
- ⬥ **Ending a Connection**
- ⬥ **Displaying Your Phone Number and ESN**
- ⬥ **Security**
- ⬥ **Uninstalling the Watcher Lite Software**

# Watcher Lite

Watcher Lite is an application that allows you to manage and monitor the high-speed Sprint Power Vision (1xEV-DO) and Sprint Vision (1X) connections on your Mac computer. Use Watcher Lite to:

- Determine your signal strength and other network connection parameters (page 107).
- Initiate data calls (page 112).

# Starting Watcher Lite

**To start Watcher Lite:**

1. Ensure the card is inserted into your computer's ExpressCard or PC Card slot, with the Sprint label facing up.

2. In Finder, choose **Go > Applications > Sierra Wireless Watcher**.

# Watcher Lite Window
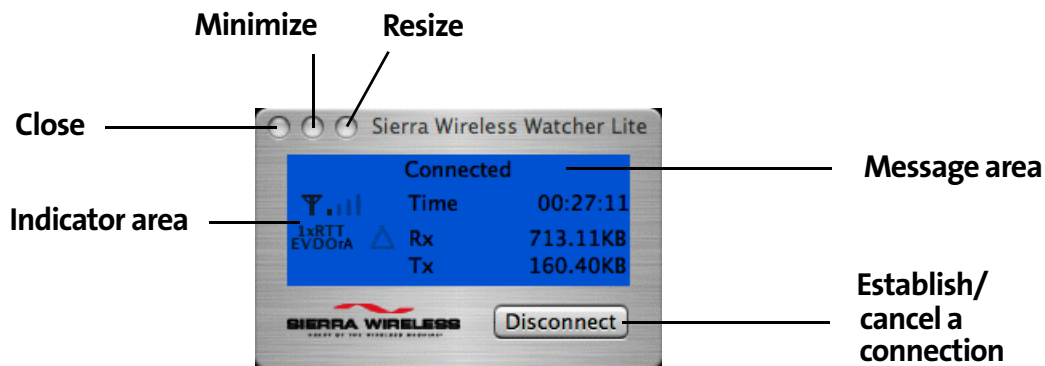


The "Sierra Wireless Watcher Lite" window may display, depending on the coverage and connection state, some of the following icons and text:

| | |
|---|---|
| ▼.ıll | CDMA network signal strength, indicated by the number of bars. |
| 1xRTT EVDO r0 | You are not in a network coverage area. |
| 1xRTT EVDO r0 | You have 1X and 1xEV-DO Rev. 0 coverage. |
| 1xRTT EVDOrA | You have 1X and 1xEV-DO Rev. A coverage. |
| 1xRTT EVDO r0 | You have 1X coverage. |

| | |
|---|---|
| 1xRTT EVDO r0 | You have 1xEV-DO Rev. 0 coverage. |
| 1xRTT EVDOrA | You have 1xEV-DO Rev. A coverage. |
| △ | You are roaming. Roaming charges may apply. |
| △ | You are in the network coverage area (not roaming). |
| **Rx** | Amount of data received from the network. |
| **Tx** | Amount of data transmitted to the network. |

# Connection States

The "Watcher Lite" window can display various connection and interaction states, including:

- No device detected
- Not activated
- Updating User Profile...
- Disconnected
- Connecting
- Connected
- Device is Locked

## No device detected

Watcher Lite did not detect the card. The **Connect** button is unavailable.
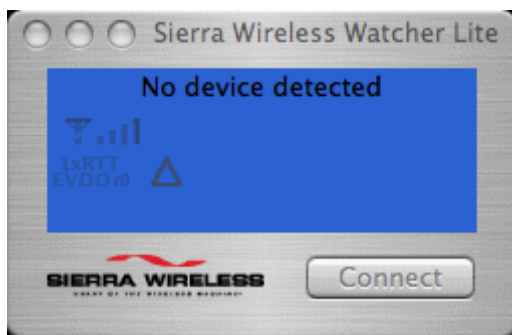


Insert the card. If it is already inserted, remove and reinsert it; wait a few moments. If this message is still displayed, uninstall (page 116) and reinstall Watcher Lite.

## Not activated

To use your card, you must activate it. Use the Activation Assistant (page 37).

## Updating User Profile

Watcher Lite is performing account setup for you by making a connection to the CDMA network and using a secure Internet connection to download account parameters to your card.

## Disconnected

Watcher Lite is ready to make a connection to the network. The **Connect** button is available; the signal strength icon (▼.ıll), coverage indicator (1xRTT/EVDOrA), and the roaming icon (△) are visible.

To connect to the network, click the **Connect** button.

**Section 4A: Your Card: The Basics (Mac)** 109
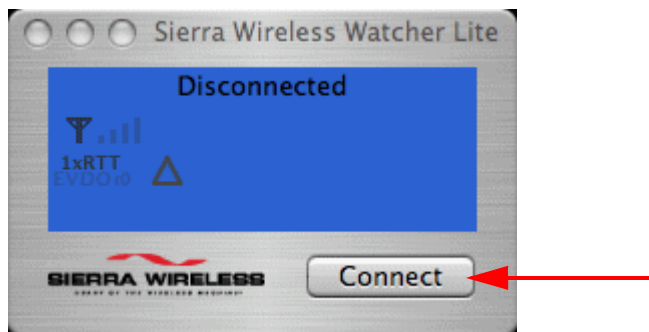
# Connecting

Watcher Lite is establishing a connection to the network.



# Connected

The connection is established. In addition to the signal strength icon ( ), coverage indicator ( ), and roaming icon ( ), the amount of time you've been connected and the amount of data received (Rx) and transmitted (Tx) are also displayed. (See the note on page 113.)

To end the connection, click **Disconnect**.



# Device is Locked

The card is locked, so that others cannot use the card and your account. To use most of the features, you must unlock the card (page 116).

# Determining the Type of Coverage

An icon in Watcher Lite (<sub>EVDO</sub>rA<sup>1xRTT</sup>) indicates the type of coverage you have (for example, 1X [synonym of 1xRTT] or 1xEV-DO). See the table on page 107.

# Powering the Card Off

If you are using your card in an aircraft, hospital, or other environment where the card may cause interference, you can power the card off (without removing it from your ExpressCard or PC Card slot), and still use other functions of your computer.

This also allows you to conserve your notebook computer's battery.

To power the card off:

1. Close any active data connection (page 113).

2. From the **Extras** item on the Sierra Wireless Watcher menu, select **Turn Sprint Device Off**.

When the card is powered off, Watcher Lite displays the message "No device detected."



To power the card on:

▶ Remove the card (page 29) and reinsert it.

## Exiting Watcher Lite

**To exit Watcher Lite:**

▶ Click the button in the upper left corner of the "Watcher Lite" window.
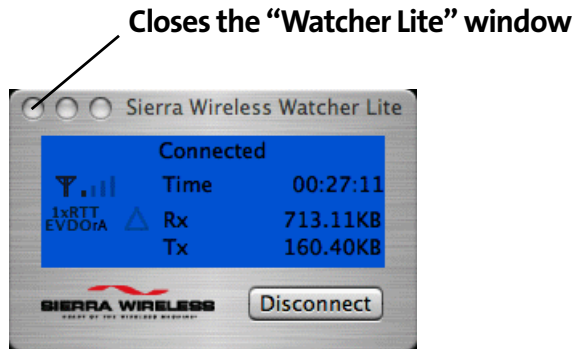
**Closes the "Watcher Lite" window**

# Launching a Sprint Power Vision or Sprint Vision Connection

**To launch a connection:**

▶ Click the **Connect** button in the "Watcher Lite" window. (If the **Connect** button is unavailable, see "Connect Button Is Unavailable" on page 126.)

Once you're connected to the network, Watcher Lite displays "Connected," the amount of time you've been connected, and the amount of data received (Rx) and transmitted (Tx).

You can now use your Web browser, perform data transfers, and so on.

**Section 4A: Your Card: The Basics (Mac)**

# Viewing the Amount of Data Transferred

| **Note:** | Even though the number of bytes sent and received is displayed while the connection is running, this is not necessarily the actual amount of data being transmitted across the network. **Do not use this information to estimate billing.** |
|---|---|

Once you're connected to the network, Watcher Lite shows the amount of data received (Rx) and transmitted (Tx).



Once you end the connection, all numbers reset to zero.

# Ending a Connection

**To end your network connection:**

▶ Click **Disconnect** in Watcher Lite.

# Displaying Your Phone Number and ESN

You can view your phone number ("Directory Number") and ESN in the "About Sprint Device" window.
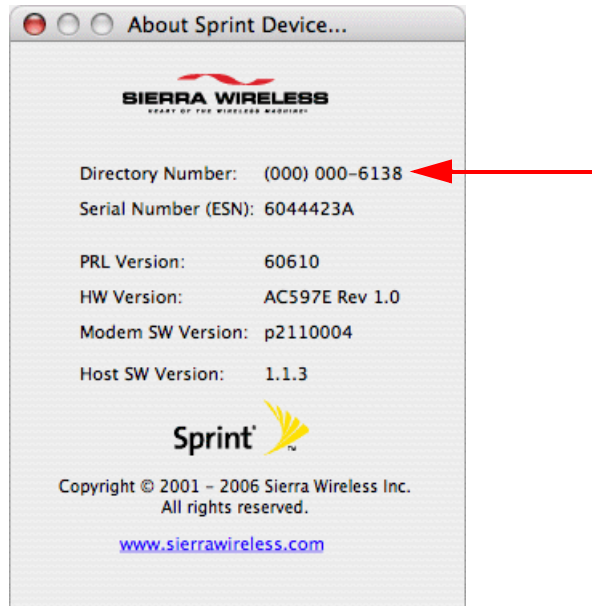


To display the "About Sprint Device" window:

▶ From the **Extras** item on the Sierra Wireless Watcher menu, select **About Sprint Device**.

# Security

When it is disconnected, you can lock your card so that others cannot use the card and your account. A four-digit lock code is needed to unlock the card.

## Initial Lock Code

The initial lock code value is determined by your service provider.

For service provider configurations that do not require account activation, a default lock code is set at the factory to a value determined by the service provider. For assistance, contact Sprint (page 14).

Configurations that use the Activation Assistant or IOTA set the initial lock code to the last four digits of your account phone number whenever a new phone number is activated.

| **Note:** | The security lock code is reset to the last four digits of the phone number whenever an account is activated. |
|---|---|

## Warning Regarding the Lock Code

If you lock the card and forget the lock code, you will not be able to use the card until you receive assistance from Sprint.

## When the Card Is Locked

When the card is locked, you can:

- Unlock the card (page 116).
- Power off the card (page 111).

When the card is locked, you cannot:

- Make data connections (the **Connect** button is unavailable).
- Run the Activation Assistant.

## Locking the Card

| **Warning:** | If you forget the lock code, you will not be able to use the card until you receive assistance from Sprint. |
|---|---|

**To lock the card:**

1. End any active connection. (You can lock the card only when it is disconnected; page 109.)

2. From the **Extras** item on the Sierra Wireless Watcher menu, choose **Lock Device**.

3. In the "Lock Device" window, enter the lock code, and click **OK**.
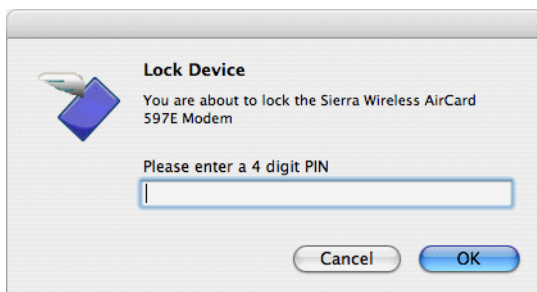


When the card is locked, Watcher Lite displays "Device is Locked." The **Connect** button is unavailable.

## Unlocking the Card

When the card is locked, Watcher Lite displays "Device is Locked."

**To unlock the card:**

1. If the "Unlock Device" window is not displayed: from the **Extras** item on the Sierra Wireless Watcher menu, choose **Unlock Device**.

2. In the "Unlock Device" window, enter the lock code (PIN) and click **OK**.

▶ If you can't recall your lock code, try using the last four digits of your card's phone number. If this doesn't work, call Sprint Customer Service at 1-888-788-4727 (business use) or 1-888-715-4588 (personal use).

When the card is unlocked, Watcher Lite no longer displays "Device is Locked."

# Uninstalling the Watcher Lite Software

| Note: | As part of the software removal process you will be prompted to restart your computer; save any open documents. |
|---|---|

**To remove the Watcher Lite software from your computer:**

1. Exit Watcher Lite (page 112).

2. Remove the card. (See "Removing the Card [Mac]" on page 29.)

3. On your Mac desktop, double-click **SierraUninstall.pkg**:



SierraUninstall.pkg

**4.** In the "Welcome to the Sierra Wireless Remove Installer" window, click **Continue**.



**5.** In the "Select a Destination" window, choose the volume onto which you had installed the Watcher Lite software, and then click **Continue**.

**6.** In the "Easy Install on ..." window, click **Upgrade**.
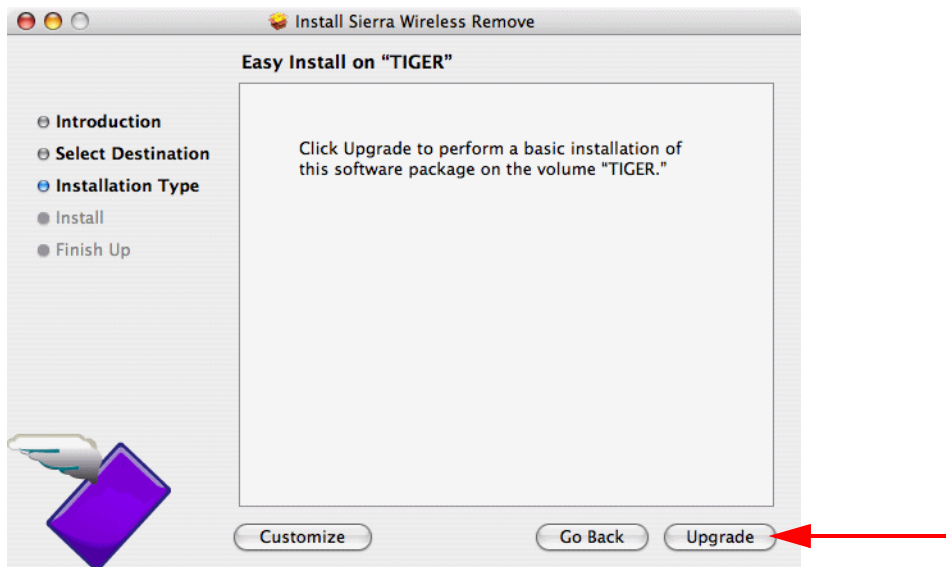


**7.** If the "Authenticate" window appears, enter your Mac user name and password, and then click **OK**.



**8.** In the window with the message that you will have to restart your computer, click **Continue Installation**.

**9.** Click **Restart**.
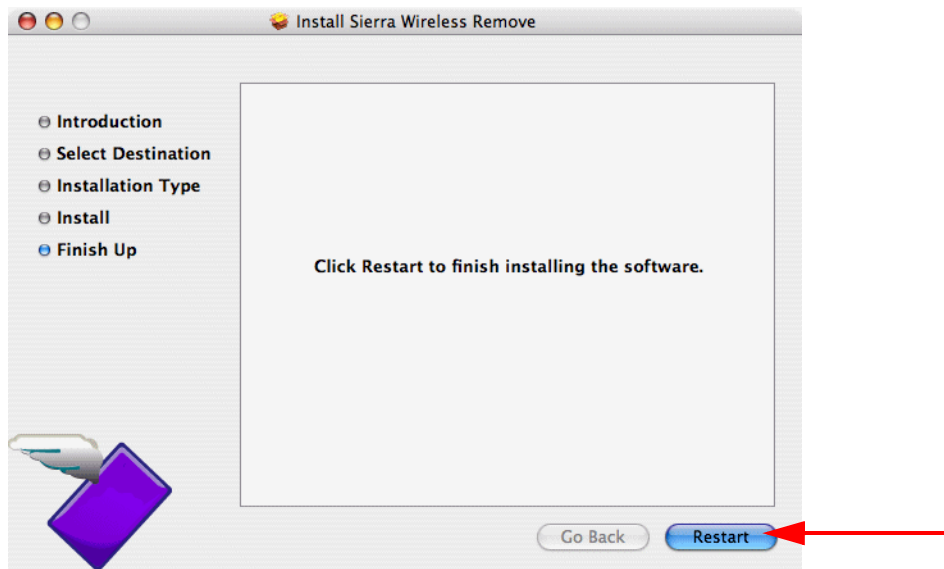
# Menu Options (Mac)

## In This Section

◆ **Watcher Lite Menu Options**

This chapter describes each menu option you may encounter while using your card and the Watcher Lite software on your Mac computer.

# Watcher Lite Menu Options
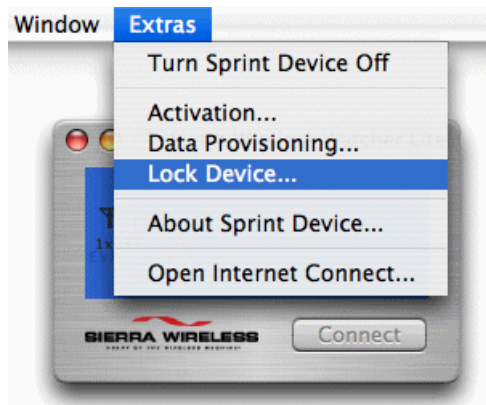


The following table describes the menu options available from the **Extras** item on the Sierra Wireless Watcher menu.

| Menu Item | Description |
|---|---|
| **Turn Sprint Device Off** | Power off your card.<br><br>See "Powering the Card Off" on page 111. |
| **Activation** | Activate your card.<br><br>See "Activation Assistant" on page 37. |
| **Data Provisioning** | Provision your card, after you've activated it.<br><br>See step 7 on page 38. |
| **Lock Device / Unlock Device** | Lock your card so that others cannot use it to access your account; unlock your card so that you can use it.<br><br>See "Locking the Card" on page 115, or "Unlocking the Card" on page 116. |
| **About Sprint Device** | View information about the card.<br><br>See "Displaying Your Phone Number and ESN" on page 114. |
| **Open Internet Connect** | View, configure, and use the data and VPN connections available on your computer (for example, WWAN). |

# Frequently Asked Questions (Mac)

## In This Section

♦ **Questions about My Account**

♦ **Questions about Watcher Lite**

♦ **Questions about GPS and Sprint Location Services**

♦ **Other Questions**

# Questions about My Account

### If the connection is "always on," am I always being billed?

No. The connection to the network goes dormant after a period of inactivity, but the connection can be re-established faster than having to reconnect. Billing occurs only when data is passed across the network.

# Questions about Watcher Lite

### What is Watcher Lite?

Watcher Lite is software that lets you connect to the Sprint Power Vision or Sprint Vision network. Watcher Lite takes advantage of the increased data speeds offered by the Sprint Mobile Broadband Network.

### How fast is the connection with Watcher Lite?

The Sprint Mobile Broadband Network allows you to connect to the Internet at speeds of up to 3.1 Mbps (1xEV-DO Rev. A), 2.4 Mbps (1xEV-DO Rev. 0), or 144 kbps (1X). Average connection speeds are:

- For 1xEV-DO Rev. A: between 600 kbps and 1.4 Mbps downlink from the network, and between 350 and 500 kbps uplink to the network;
- For 1xEV-DO Rev. 0: between 400 and 700 kbps downlink from the network, and between 40 and 80 kbps uplink to the network;
- For 1X: between 40 and 80 kbps.

These speeds are faster than dial-up connection speeds.

### Can I connect to a dial-up account like AOL or EarthLink?

No. The software does not support dial-up connections.

# Questions about GPS and Sprint Location Services

### Does the Watcher Lite software support GPS and Sprint Location Services?

No. The Watcher Lite software does not support GPS and Sprint Location Services.

# Other Questions

## Once I connect to the network, how do I access my corporate network through a VPN?

Once you complete a wireless connection, you may need to launch an extranet client provided by your company and supply the appropriate user name and password to gain access. For support, contact your company help desk.

## How can I optimize my settings to achieve the fastest speeds and conserve data when accessing my corporate network?

Depending on your corporate email client, you can optimize your settings by doing the following:

● Work in "offline" mode, and connect only when you need to send or receive email.

● Remove the Preview Pane, or use the AutoPreview for headers only.

● Save attachments to a desktop folder and then open from that folder, rather than opening the attachment directly from the message.

For more information, see the user documentation of your email client.

# Troubleshooting Tips (Mac)

## In This Section

- ◆ **Problems, Causes, and Solutions**
- ◆ **Connect Button Is Unavailable**
- ◆ **Searching for Service**

This section helps you diagnose and solve common problems you may experience while using your Sprint Mobile Broadband card and the Watcher Lite software on a Mac computer.

# Problems, Causes, and Solutions

When properly installed, the Sprint Mobile Broadband card is a highly reliable product.

Most problems are caused by one of these issues:

- Network coverage is not available (because you are outside the network, or because of an account or network problem).
- The drivers were not properly installed because of a problem with your computer's ExpressCard slot, PC Card slot, or the ExpressCard to PC Card adapter.
- System resources required by the card are being used by other devices.

Tips when troubleshooting problems with your card and software:

- Ensure your card is inserted, not locked (page 110), and not powered off (page 111).
- Ensure the ⏻ LED is amber (blinking) or blue.
- To determine the connection status, use the icons (page 107), and messages (page 108) in the "Watcher Lite" window.
- Check the Frequently Asked Questions (page 122).
- Use the resources listed in "Getting Help" (page 13).

# Connect Button Is Unavailable

| Note: | In some cases, the **Connect** button can establish a connection to the network, even if the button seems unavailable. |
|---|---|

If nothing seems to happen when you click the button, ensure that the card is properly inserted, not locked (page 110), and not powered off (page 111).

If Watcher Lite displays "Device is Locked," see page 110.

# Searching for Service

If Watcher Lite displays "Searching for service" for a long period of time (for example, several minutes), try one of the following:

- Try reorienting your computer.

- If you are inside a building or near a structure that may be blocking the signal, change the position or location of your computer.

- Check with Sprint — a network or account problem may be preventing the card from obtaining service.

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# Technical Specifications and Regulatory Information

**Sprint**®

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2A

Section 5A

# Technical Specifications

## In This Section

◆ **LED Operation**

◆ **Radio Frequency and Electrical Specifications**

◆ **Software Specifications**

◆ **Environmental Specifications**

◆ **Mechanical Specifications**

This section describes the LED and various specifications of your Sprint Mobile Broadband card.

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# LED Operation

Your card has two LED light bars near the antenna end of the card. The LED light bars operate as follows:

| LED | State of LED | Indicates |
|---|---|---|
| ⏻ | Off | The card has no power. The card may not be completely inserted into the computer, the computer may be turned off or in suspend mode (Windows) or sleep mode (Mac), which powers down the card, or you have powered the card off (for Windows, see page 55; for Mac, see page 111). |
| | Blue, not blinking | The card has power and is working properly. |
| | Blue, blinking | The card's firmware is being updated. **Do not remove the card.** |
| | Amber, blinking | The card is searching for service. If this LED state persists, see "Searching for Service" on page 101 (Windows) or page 117 (Mac). |
| | Amber, not blinking | An error has occurred. Eject the card (for Windows, see page 28; for Mac, see page 115) and reinsert it. |
| 📶 | Off | No service is available. See "Searching for Service" on page 101 (Windows) or page 127 (Mac). |
| | Amber, blinking | Sprint Vision (1X) coverage is detected. Ready to connect to the network; to connect, click the **GO** button (Windows) or the **Connect** button (Mac). |
| | Amber, not blinking | The card is connected to the Sprint Vision (1X) network, and can send or receive data. |

| LED | State of LED | Indicates |
|---|---|---|
| | Blue, blinking | Sprint Power Vision (1xEV-DO) coverage is detected. Ready to connect to the network; to connect, click the **GO** button (Windows) or the **Connect** button (Mac). |
| | Blue, not blinking | The card is connected to the Sprint Power Vision (1xEV-DO) network, and can send or receive data. |

# Radio Frequency and Electrical Specifications

| | |
|---|---|
| **Approvals** | Compliant with:<br><br>IS-2000 Release 1.0 (CDMA (1X), IS-707-A Data, IS-856 (CDMA 1xEV-DO), IS-866, IS-878, IS-890, CDMA Development Group<br><br>FCC (ID: N7NAC597E)<br><br>Industry Canada (ID: 2417C-AC597E) |
| **Voltage** | +3.3 Vdc from ExpressCard slot |
| **Current** | Maximum:  1 A<br><br>Typical data call current (talk mode):<br><br>       370 mA (1X)<br>       420 mA (1xEV-DO)<br><br>Standby:    50 mA (1xEV-DO/IS-2000 hybrid mode) |
| **Transmitter power** | 200 mW (+23 dBm) |
| **Transmit** | PCS:      1805 to 1870 MHz<br>Cellular:  824 to 849 MHz |
| **Receive** | PCS:      1715 to 1780 MHz<br>Cellular:  868 to 894 MHz<br>GPS:      1575.42 MHz |
| **Channel spacing** | 1.25 MHz |
| **Frequency stability** | ±150 Hz |

                                                  **Section 5A: Technical Specifications**

# Software Specifications

| | |
|---|---|
| **CDMA specification** | IS-2000 Release 0 |
| **Data service** | IS-707A |
| **SMS (IS-637)** | Not supported |
| **FAX** | Not supported |
| **IOTA** | Supported |
| **OTASP (IS-683A, IS-683B, IS-683C)** | Supported |
| **OTAPA** | Supported |
| **PRL (preferred roaming list)** | Supported |
| **Authentication** | Supported |
| **Voice** | Not supported |
| **NAM** | Single |
| **E911** | Not supported |
| **Position Location** | Mobile Station based. Supported on Windows only. |
| **TTY/Accessibility** | Not supported |
| **Mobile IP** | Supported |

# Environmental Specifications

| | |
|---|---|
| **Operating temperature** | -30 to +60°C (ambient, outside PCMCIA enclosure) |
| **Storage temperature** | -20 to +85°C |
| **Humidity** | 95%, non-condensing |
| **Vibration** | 147 m/s$^2$ (15 G) sinusoidal vibration, 10 to 2000 Hz, 20 minute sweep, 12 cycles per axis, 3 axes for 36 cycles. (12 hours total test time [non-operating]) |
| **Drop** | 30" (76.2 cm) onto vinyl-covered concrete |

# Mechanical Specifications

| | |
|---|---|
| **Dimensions (W x L x H)** | 34 mm x 134.6 mm x 5 mm (14mm - ExpressCard extension) |
| **Power button** | Not supported |
| **Headset jack** | Not supported |
| **LED** | Amber/blue |

# Regulatory Information

## In This Section

♦ **Regulatory Notices**

♦ **Patents**

♦ **Trademarks**

♦ **Copyright**

♦ **Limitation of Liability**

♦ **Additional Information and Updates**

This section contains important regulatory notices about your Sprint Mobile Broadband card, and also patent and other information.

# Regulatory Notices

The design of the AirCard 597E ExpressCard complies with U.S. Federal Communications Commission (FCC) and Industry Canada (IC) guidelines respecting safety levels of radio frequency (RF) exposure for portable devices, which in turn are consistent with the following safety standards previously set by Canadian, U.S. and international standards bodies:

- ANSI / IEEE C95.1-1999, *IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300 GHz*

- National Council on Radiation Protection and Measurements (NCRP) Report 86, 1986, *Biological Effects and Exposure Criteria for Radio Frequency Electromagnetic Fields*

- Health Canada, Safety Code 6, 1999, *Limits of Human Exposure to Radio frequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz*

- International Commission on Non-Ionising Radiation Protection (ICNIRP) 1998, *Guidelines for limiting exposure to time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz)*

**FCC ID:** N7NAC597E

**CAUTION:** The AirCard 597E ExpressCard has been tested for compliance with FCC/IC RF exposure limits in the laptop computer(s) configurations with the side loading ExpressCard slot and can be used in laptop computers with substantially similar physical dimensions, construction, and electrical and RF characteristics. This ExpressCard must not be colocated or operated in conjunction with any other antenna or transmitter. Use of this device in any other configuration may exceed the FCC RF Exposure compliance limit. **Note:** If this ExpressCard is intended for use in any other portable device, you are responsible for separate approval to satisfy the SAR requirements of Part 2.1093 of FCC rules.

**WARNING (EMI) - United States FCC Information** - This equipment has been tested and found to comply with the limits for a class B computing device peripheral, pursuant to Parts 15, 22, and 24 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio 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

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

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesirable operation.

FCC guidelines stipulate that the antenna should be more than 1.8 cm from the user.

The highest reported SAR values of the AirCard 597E ExpressCard by Sierra Wireless are:

1. Separation distance of at least 1.8 cm needs to be maintained to user's lap with the AirCard 597E ExpressCard inserted into the bottom ExpressCard slot of the laptop computer (1.0 mW/g).

**CAUTION:** Any changes or modifications not expressly approved by Sprint Communications Company L.P. could void the user's authority to use the equipment.

**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 préscrites 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.

## Information pertaining to OEM customers

The AirCard 597E ExpressCard has been granted modular approval for mobile applications. Integrators may use the AirCard 597E ExpressCard in their final products without additional FCC/IC certification if they meet the following conditions. Otherwise, additional FCC/IC approvals must be obtained.

1. At least 20 cm separation distance between the antenna and the user's body must be maintained at all times.

2. To comply with FCC/IC regulations limiting both maximum RF output power and human exposure to RF radiation, the maximum antenna gain must not exceed 5.55 dBi in the Cellular band and 4.95 dBi in the PCS band.

3. The AirCard 597E ExpressCard and its antenna must not be colocated with any other transmitter or antenna within a host device.

4. A label must be affixed to the outside of the end product into which the AirCard 597E ExpressCard is embedded, with a statement similar to the following:

   **This device contains TX FCC ID: N7NAC597E.**

   **This equipment contains equipment certified under IC: 2417C-AC597E.**

5. A user manual with the end product must clearly indicate the operating requirements and conditions that must be observed to ensure compliance with current FCC/IC RF exposure guidelines.

The end product with an embedded AirCard 597E ExpressCard must pass the unintentional emission testing and properly authorized per FCC Part 15 requirements.

| **Note:** | If this ExpressCard is intended for use in a portable device, you are responsible for separate approval to satisfy the SAR requirements of FCC Part 2.1093 and IC RSS-102. |
|---|---|

# Patents

Portions of this product are covered by some or all of the following US patents:

| | | | | |
|---|---|---|---|---|
| 5,515,013 | 5,629,960 | 5,845,216 | 5,847,553 | 5,878,234 |
| 5,890,057 | 5,929,815 | 6,169,884 | 6,191,741 | 6,199,168 |
| 6,339,405 | 6,359,591 | 6,400,336 | 6,516,204 | 6,561,851 |
| 6,643,501 | 6,653,979 | 6,697,030 | 6,785,830 | 6,845,249 |
| 6,847,830 | 6,876,697 | 6,879,585 | 6,886,049 | 6,986,171 |
| 6,985,757 | 7,023,878 | 7,053,843 | 7,106,569 | 7,145,267 |
| 7,200,512 | D442,170 | D459,303 | | |

and other patents pending.

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**QUALCOMM® 3G CDMA**

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

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# Additional Information and Updates

For up-to-date product descriptions, documentation, application notes, firmware upgrades, troubleshooting tips, and press releases, visit:

www.sierrawireless.com

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# Safety Information and Terms & Conditions

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# Safety and Notices

## In This Section

♦ **Important Notice**

♦ **Safety and Hazards**

This section describes important guidelines regarding your Sprint Mobile Broadband 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 Sprint Mobile Broadband card by Sierra Wireless (AirCard 597E ExpressCard) CDMA modem are used in a normal manner with a well-constructed network, they 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. SPRINT SPECTRUM L.P. accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the Sprint Mobile Broadband card by Sierra Wireless (AirCard 597E ExpressCard) CDMA modem, or for failure of the Sprint Mobile Broadband card by Sierra Wireless (AirCard 597E ExpressCard) to transmit or receive such data.

# Safety and Hazards

Do not operate the Sprint Mobile Broadband card by Sierra Wireless (AirCard 597E ExpressCard) 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 Sprint Mobile Broadband card by Sierra Wireless (AirCard 597E ExpressCard) **MUST BE POWERED OFF**. It can transmit signals that could interfere with this equipment.

Do not operate the Sprint Mobile Broadband card by Sierra Wireless (AirCard 597E ExpressCard) in any aircraft, whether the aircraft is on the ground or in flight. In aircraft, the Sprint Mobile Broadband card by Sierra Wireless (AirCard 597E ExpressCard) **MUST BE POWERED OFF**. When operating, it can transmit signals that could interfere with various onboard systems.

The driver or operator of any vehicle should not operate the Sprint Mobile Broadband card by Sierra Wireless (AirCard 597E ExpressCard) while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some jurisdictions, operating such communications devices while in control of a vehicle is an offense.

# Warranty and Terms and Conditions

## In This Section

⬥ **Warranty**

⬥ **Subscriber Agreement/General Terms and Conditions of Services**

This section describes how to access the Sierra Wireless warranty and contains the terms and conditions of service for your Sprint Mobile Broadband card.

# Warranty

**To view the Sierra Wireless warranty for your AirCard 597E ExpressCard:**

▶ In Windows Vista or Windows XP, select
**Start > All Programs > Sprint > Sierra Wireless Device Warranty.**

– or –

In Windows 2000, select **Start > Programs > Sprint > Sierra Wireless Device Warranty.**

– or –

On your Mac desktop, double-click **AirCard 59x Warranty.pdf**.

# Subscriber Agreement
# General Terms and Conditions of Services

Please note these terms may not be the most current version. A current version of the terms is available at our Web site or upon request.

Para solicitar esta literatura en español, por favor visitar a <u>www.sprint.com</u>.

## Basic Definitions

In this document: (1) "we," "us," "our" mean Sprint Solutions, Inc. and its affiliates doing business as Sprint or Sprint PCS; (2) "you," "your," "customer," and "user" mean an account holder or user with us; (3) "Device" means any phone, device, accessory or other product we sell to you or that is active on your account with us; and (4) "Service" means our offers, rate plans, options, wireless services or Devices on your account with us.

## The Subscriber Agreement

The Subscriber Agreement ("Agreement") is a contract under which we provide and you accept our Services. In addition to these Terms and Conditions of Service ("Ts&Cs"), there are several parts to the Agreement, including, but not limited to, the detailed plan or other information on Services we provide or refer you to during the sales transaction, and any confirmation materials we may provide you. It is important that you carefully read all of the terms of the Agreement.

## Services Covered By These Ts&Cs & Additional Terms

These Ts&Cs apply to our standard wireless Services and any other Service we offer you that references these Ts&Cs. Different terms will apply to most business accounts. Additional terms will apply when you use certain Services, typically those you can access online (for example, picture/video Services, online forums, etc.). Additional terms will also apply if you activate Services as part of a bundle with another company's services (for example, cable services, home phone services, etc.). The additional terms for bundled Services may either modify or replace certain provisions in these Ts&Cs, including terms relating to activation, invoicing/payment, and disputing charges. Also, a different dispute resolution provision may apply to services provided by another company (the dispute resolution provisions in this Agreement still apply to our Services). You will be provided details on any additional terms with your selection of any bundled Service.

## Our Policies

Services are subject to our business policies, practices and procedures ("Policies"), including, but not limited to, our Privacy Policy and Acceptable Use Policy and Visitor Agreement – both available at our Web site. You agree to all of our Policies when you use our Services. Our Policies are subject to change at anytime with or without notice.

## When You Accept The Agreement

You must have the legal capacity to accept the Agreement. You accept the Agreement when you do any of the following: (a) sign a contract with us on paper or electronically; (b) accept Agreement through an oral or electronic statement; (c) attempt to or in any way use the Services; (d) pay for the Services; or (e) open any package or start any program that says you are accepting the Agreement when doing so. **If you don't want to accept the Agreement, don't do any of these things.**

## Term Commitments & Early Termination Fees

Many of the Services (for example, rate plans and Device discounts) that we offer require you to maintain certain Services with us for a minimum term, usually 1 or 2 years ("Term Commitment"). **You will be charged a fee ("Early Termination Fee") for each line of Service that you terminate early (i.e., prior to satisfying the Term Commitment) or for each line of Service that we terminate early for good reason (for example, violating the payment or other terms of the Agreement).** Early Termination Fees are a part of our rates. Your exact Term Commitment and Early Termination

Fee may vary based on the Services you select and will be disclosed to you during the sales transaction. **Carefully review any Term Commitment and Early Termination Fee requirements prior to selecting Services.** After you have satisfied your Term Commitment, your Services continue on a month-to-month basis without any Early Termination Fee, unless you agree to extend your Term Commitment or agree to a new Term Commitment – for example, by accepting a new rate plan or upgrading your Device. As explained directly below, there are instances when you will not be responsible for an Early Termination Fee for terminating Services early.

## When You Don't Have To Pay An Early Termination Fee

You aren't responsible for paying an Early Termination Fee when terminating Services: (a) provided on a month-to-month basis; (b) consistent with our published trial period return policy; or (c) in response to a materially adverse change we make to the Agreement as described directly below.

## Our Right To Change The Agreement & Your Related Rights

**We may change any part of the Agreement at any time, including, but not limited to, rates, charges, how we calculate charges, or your terms of Service. We will provide you notice of material changes, and may provide you notice of non-material changes, in a manner consistent with this Agreement (see "Providing Notice Under This Agreement" paragraph). Except as provided below, if a change we make to the Agreement is material and has a material adverse effect on you, you may terminate each line of Service materially affected without incurring an Early Termination Fee only if you: (a) call us within 30 days after the effective date of the change; and (b) specifically advise us that you wish to cancel Services because of a material change to the Agreement that we have made.** If you do not cancel Service within 30 days of the change, an Early Termination Fee will apply if you terminate Services before the end of any applicable Term Commitment.

## Our Right To Suspend Or Terminate Services

**We can, without notice, suspend or terminate any Service at any time for any reason,** including, but not limited to: (a) late payment; (b) exceeding an Account Spending Limit ("ASL"); (c) harassing/threatening our employees or agents; (d) providing false information; (e) interfering with our operations; (f) using/suspicion of using Services in any manner restricted by or inconsistent with the Agreement; (g) breaching the Agreement, including our Policies; (h) providing false, inaccurate, dated or unverifiable identification or credit information, or becoming

insolvent or bankrupt; (i) modifying a Device from its manufacturer specifications; or (j) if we believe the action protects our interests, any customer's interests or our network.

## Your Ability To Change Services & When Changes Are Effective

You typically can change Services upon request. In some instances, changes may be conditioned on payment of an Early Termination Fee or certain other charges, or they may require you to accept a new Term Commitment. Changes to Services are usually effective at the start of your next full invoicing cycle. If the changes take place sooner, your invoice may reflect pro-rated charges for your old and new Services.

## Your Right To Terminate Services

You can terminate Services at any time by calling us and requesting that we deactivate all Services. You're responsible for all charges billed or incurred prior to deactivation. If Services are terminated before the end of your invoicing cycle, we won't prorate charges to the date of termination and you won't receive a credit or refund for any unused Services. **Except as provided above, you must also pay us an Early Termination Fee for each line of Service that you terminate early.**

## Credit Checks & Credit Information

We agree to provide you Services on the condition you have and maintain satisfactory credit according to our standards and policies. You agree to provide information we may request or complete any applications we may provide you to facilitate our review. We rely on the credit information you furnish, credit bureau reports or other data available from commercial credit reference services, and other information (such as payment history with us) to determine whether to provide or continue to provide you Services. The Services we offer you can vary based on your credit history. We may at any time, based on your credit history, withdraw or change Services, or place limits or conditions on the use of our Services. You agree to provide us updated credit information upon request. We may provide your payment history and other account billing/charge information to any credit reporting agency or industry clearinghouse.

## Account Spending Limits ("ASL")

An ASL is a temporary or permanent limit (typically based on credit history, payment history, or to prevent fraud) we place on the amount of unpaid charges you can accumulate on your account, regardless of when payment on those

charges is due. We reserve the right to determine which charges count towards an ASL. If you have an ASL, we may suspend your Services without prior notice if your account balance reaches the ASL, even if your account is not past due. We may impose or increase an ASL at any time with notice. An ASL is for our benefit only and should not be relied on by you to manage usage.

## Deposits & Returning Deposits

We may at any time require a deposit, as a guarantee of payment, for you to establish or maintain Service ("Deposit"). By providing us a Deposit, you grant us a security interest for all current or future amounts owed to us. We may change the Deposit at any time with notice. You can't use a Deposit to make or delay payments. The Deposit, the length of time we hold the Deposit, and changes to the Deposit are determined based on your credit history, payment history and other factors. Unless prohibited by law, we may mix Deposits with our other funds and it won't earn interest and we reserve the right to return the Deposit as a credit on your invoice at anytime. If your Services are terminated for any reason, we may keep and apply your Deposit to any outstanding charges. We'll send any remaining portion of Deposit to your last known address within 90 days after your final invoice – if it is returned to us, we will forward it on to the appropriate state authorities to the extent required by law.

## Restrictions On Using Services

You can't use our Services: (a) to transmit content/messages that are, or in any manner that is, illegal, fraudulent, threatening, abusive, defamatory, or obscene; (b) in a way that could cause damage or adversely affect our customers, reputation, network, property or Services; (c) to communicate any unsolicited commercial voice, text, SMS, or other message; (d) to infringe on the copyright of another, or upload or transmit any "virus", "worm", or malicious code; or (e) in any way prohibited by the terms of our Services, the Agreement or our Policies.

## Your Device, Number & E-mail Address; Caller ID

We don't manufacture any Device we might sell to you or that is associated with our Services, and we aren't responsible for any defects, acts or omissions of the manufacturer. **The only warranties on your Device are the limited warranties given to you by the manufacturer directly or that we pass through.** Your Device is designed exclusively for use on our network and in other coverage areas we make available to you. It will not accept wireless service from another carrier. Except for any legal right you may have to port/transfer your phone number to another carrier, you have no and cannot gain any (for example, through publication, use, etc.)

proprietary, ownership or other rights to any phone number, identification number, e-mail address or other identifier we assign to you, your Device or your account. We'll notify you if we decide to change or reassign them.

## Porting/Transferring Phone Numbers

We don't guarantee that number transfers to or from us will be successful. If you authorize another carrier to transfer a number away from us, that is considered a request by you to us to terminate all of the Services associated with that number. You're responsible for all charges billed or incurred prior to deactivation and for any applicable Early Termination Fees.

## Coverage; Where Your Device Will Work

Our coverage maps are available at our stores and at our Web site. The specific network coverage you get will depend on the radio transmissions your Device can pick up and Services you've chosen. **Our coverage maps provide high level estimates of our coverage areas when using Services outdoors under optimal conditions. Coverage isn't available everywhere. Estimating wireless coverage and signal strength is not an exact science. There are gaps in coverage within our estimated coverage areas that, along with other factors both within and beyond our control (network problems, software, signal strength, your Device, structures, buildings, weather, geography, topography, etc.), may result in dropped and blocked connections, slower data speeds, or otherwise impact the quality of Service. Services that rely on location information, such as E911 and GPS navigation, depend on your Device's ability to acquire satellite signals (typically not available indoors) and network coverage.**

## Roaming

"Roaming" typically refers to coverage on another carrier's network that we make available to you based on our agreements with other carriers. These agreements may change from time to time and roaming coverage is subject to change. Your ability to receive roaming coverage depends on the radio transmissions your Device can pick up. You can pick up roaming coverage both within and outside our network coverage areas. Your Device will generally indicate when you're roaming. Depending on your Services, separate charges or limits on the amount of minutes used while roaming may apply. Certain Services may not be available or work the same when roaming (including data Services, voicemail, call waiting, etc.).

## About Data Services & Content

Our data Services and your Device may allow you to access the internet, text, pictures, video, games, graphics, music, email, sound and other materials ("Data Content") or send Data Content elsewhere. Some Data Content is available from us or our vendors, while other Data Content can be accessed from others (third party Web sites, games, ringers, etc.). We make absolutely no guarantees about the Data Content you access on your Device. **Data Content may be: (1) unsuitable for children/minors; (2) unreliable or inaccurate; or (3) offensive, indecent or objectionable. You're solely responsible for evaluating the Data Content accessed by you or anyone on your account. We strongly recommend you monitor data usage by children/minors.** Data Content from third parties may also harm your Device or its software. To protect our network, Services, or for other reasons, we may place restrictions on accessing certain Data Content (such as certain Web sites, applications, etc.), impose separate charges, limit throughput or the amount of data you can transfer, or otherwise limit or terminate Services. If we provide you storage for Data Content you have purchased, we may delete the Data Content with notice or place restrictions/limits on the use of storage areas. You may not be able to make or receive voice calls while using data Services.

## Specific Terms & Restrictions On Using Data Services

In addition to the rules for using all of our other Services, unless we identify the Service or Device you have selected as specifically intended for that purpose (for example, wireless routers, Data Link, etc.), you can't use our data Services: (1) with server devices or host computer applications, or other systems that drive continuous heavy traffic or data sessions; and (2) as a substitute or backup for private lines or frame relay connections. We reserve the right to limit or suspend any heavy, continuous data usage that adversely impacts our network performance or hinders access to our network. If your Services include unlimited Web or data access, you also can't use your Device as a modem for computers or other equipment, unless we identify the Service or Device you have selected as specifically intended for that purpose (for example, with "phone as modem" plans, Sprint Mobile Broadband card plans, wireless router plans, etc.).

## Activation & Miscellaneous Charges

Based on our Policies, we may charge activation, prepayment, reactivation, program or other fees to establish or maintain Services. Certain transactions may also be subject to a charge (for example, convenience payment, changing phone

numbers, handset upgrades, etc.). You will be provided notice of these types of fees before we complete the requested transaction.

## Account & Service Charges; Pro-rating; Unused Minutes

**You are responsible for all charges associated with your account and the Services on your account, no matter who uses the Services.** Charges include, but are not limited to, the monthly recurring charges, usage charges, taxes, surcharges and fees associated with your Services. These charges are described or referred to during the sales transaction, in our marketing materials, and in confirmation materials we may send to you.

## How We Calculate Your Charges For Billing Purposes

**Regular Voice Calls:** We round up partial minutes of use to the next full minute. Time starts when you press "Talk" or your Device connects to the network and stops when you press "End" or the network connection otherwise breaks. You're charged for all calls that connect, even to answering machines. You won't be charged for unanswered calls or if you get a busy signal. For incoming calls answered, you're charged from the time shortly before the Device starts ringing until you press "End" or the network connection otherwise breaks. If charges vary depending on the time of day that you place or receive calls (e.g., Nights and Weekend plans), you're charged for the entire call based on the rate that applies to the time period in which the call starts.

**iDEN Walkie-Talkie Charges:** Charges for walkie-talkie calls are billed to the person who starts the call and calculated by multiplying the duration of the call by the applicable rate and number of participants. You're charged at least 6 seconds of airtime for each call you start; subsequent communications in the same call are rounded up to and billed to the next second. Time begins when you press any button to start a walkie-talkie call and ends approximately 6 seconds after completion of a communication to which no participant responds — subsequent walkie-talkie communications are considered new calls. Depending on your plan, nationwide, international or group walkie-talkie calls may use the local walkie-talkie minutes in your plan and result in additional charges. Responses to call alert transmissions are treated as new walkie-talkie transmissions even when responding within 6 seconds of receiving the alert.

**Data Usage:** Unless we specifically tell you otherwise, data usage is measured in bytes, kilobytes and megabytes — not in minutes/time. 1024 bytes equals 1 kilobyte ("KB"), and 1024 KB equals 1 megabyte. Bytes are rounded up to kilobytes, so you will be charged at least 1 KB for each data usage session ("data

session"). Rounding occurs at the end of each data session, and sometimes during a data session. Depending on your data Services, usage may be charged against an allowance or on a fixed price per KB. If you are charged on a fixed price per KB, any fractional cents will be rounded up to the next cent. You are charged for all data directed to your Device's internet address, including data sessions you did not initiate and for incomplete transfers. As long as your Device is connected to our data network, you may incur data charges. Examples of data you will be charged for includes the size of a requested file or Data Content (game, ringer, etc.), Web page graphics (logos, pictures, banners, advertisement, etc.), additional data used in accessing, transporting and routing the file on our network, data from partial or interrupted downloads, re-sent data, and data associated with unsuccessful attempts to reach Web sites or use applications. These data charges are in addition to any charges for the Data Content itself (game, ringer, etc.). Data used and charged to you will vary widely, even between identical actions or data sessions. Estimates of data usage – for example, the size of downloadable files – are not reliable predictors of actual usage. Your bill won't separately list the number of KB attributed to a specific action/data session.

## Your Bill

Your bill provides you notice of your charges. It reflects monthly recurring charges (usually billed one bill cycle in advance) and usage/transaction specific charges (usually billed in the bill cycle in which they're incurred). Some usage charges, such as those that depend on usage information from a third party, may be billed in subsequent bill cycles and result in higher than expected charges for that month. Bill cycles and dates may change from time to time. **Your bill may also include other important notices (for example, changes to this Agreement, to your Service, legal notices, etc.).** Your paper bill may not include individual call detail. Your call detail is available online. Paper bills with call detail may be subject to an additional charge. If you choose internet billing, you will not receive paper bills.

## Your Payments; Late Fees

Payment is due in full as stated on your bill. If we do not receive payment in full by the date specified on your bill, a late payment charge, which may be charged at the highest rate permissible by law, may be applied to the total unpaid balance. We may also charge you any costs we pay to a collection agency to collect unpaid balances from you. If we bill you for amounts on behalf of a third party, payments received are first applied to our charges. You may be charged additional fees for certain methods of payment. We may charge you, up to the highest amount permitted by law, for returned checks or other payments paid by you and denied

for any reason by a financial institution. Acceptance of payments (even if marked "paid in full") does not waive our right to collect all amounts that you owe us. We may restrict your payment methods to cashier's check, money order, or other similar secure form of payment at any time for good reason.

## Taxes & Government Fees

You agree to pay all federal, state and local taxes, fees and other assessments that we're required by law to collect on the Services we provide you and remit to the government. These charges may change from time to time without advance notice. If you're claiming any tax exemption, you must provide us with a valid exemption certificate. Tax exemptions generally won't be applied retroactively.

## Surcharges

You agree to pay the surcharges, fees and other charges that we assess to recoup our government costs or costs of complying with certain government programs ("Surcharges"). **Surcharges aren't taxes or government mandated charges; they're charges we choose to collect from you. Surcharges are subject to change, sometimes on a monthly or quarterly basis.** Examples of Surcharges include, but are not limited to: Universal Service Fund, E911, Federal Programs Cost Recovery, Federal Wireless Number Pooling and Portability, and gross receipts charges. We will make efforts to provide you notice of any changes to Surcharges in a manner consistent with this Agreement (see "Providing Notice Under This Agreement" paragraph). However, since most Surcharges are based on amounts set by the government or based on government formulas, it will not always be possible to provide advance notice of new Surcharges or changes in the amount of existing Surcharges. Information on Surcharges is provided during the sales transaction and is available at our Web site.

## Disputing Charges - You Must Still Pay Undisputed Charges

Any dispute to a charge on your bill must be made within 60 days of the date of the bill that initially contained the charge. Disputes can only be made by calling or writing us as directed on your invoice or elsewhere. You accept all charges not properly disputed within the above time period – undisputed charges must still be paid as stated on your bill.

## Protecting Our Network & Services

We can take any action to: (1) protect our network, our rights and interests, or the rights of others; or (2) optimize or improve the overall use of our network and Services. Some of these actions may interrupt or prevent legitimate communications and usage – for example, message filtering/blocking software to prevent SPAM or viruses, limiting throughput, limiting access to certain Web sites, applications or other Data Content, etc. For additional information on what we do to protect our customers, network, Services and equipment, see our Acceptable Use Policy and Visitor Agreement at our Web site.

## Your Privacy

You agree to the terms of our Privacy Policy, available at our Web site, when you use our Services. This policy may change from time to time, so review this policy with regularity and care. Among other things, the policy includes important information on what information we collect about you, how we use that information, and with whom we share that information (for example, to provide you certain Services, to protect our rights and interests, to respond to legal process, to facilitate a merger, etc.). Also, to ensure the quality of our Services and for other lawful purposes, we may also monitor or record calls between us (for example, your conversations with our customer service or sales departments). If you do not agree with the terms of our Privacy Policy, do not purchase or use our Services.

## Location Based Services

Our network generally knows the location of your Device when it is outdoors and turned on. By using various technologies to locate your Device, we can provide enhanced emergency 911 services, and optional location-sensitive services provided by us or a third party. Environmental factors (such as structures, buildings, weather, geography, landscape, and topography) can significantly impact the ability to access your Device's location information and use of location-sensitive services. The terms and conditions of any location-sensitive service that you purchase from us may provide more information about how location information is used and disclosed. Use of some of location-sensitive services may require network coverage. **If any Device on your account uses a location-sensitive service, you (the accountholder) must clearly and regularly notify the actual user of your Device that their location may be tracked or discovered.** For additional information on location-sensitive services, see our Privacy Policy at our Web site.

## 911 Or Other Emergency Calls

**Public Safety Officials advise that when making 911 or other emergency calls, you should always be prepared to provide your location information.** Unlike traditional wireline phones, depending on a number of factors (e.g., whether your Device is GPS enabled, where you are, whether local emergency service providers have upgraded their equipment, etc.), 911 operators may not know your phone number, your location or the location of your Device. In certain circumstances, an emergency call may be routed to a state patrol dispatcher or alternative location set by local emergency service providers. Enhanced 911 service ("E911"), where enabled by local emergency authorities, uses GPS technology to provide location information. Even when available, however, E911 does not always provide accurate location information. If your Device is indoors or for some other reason cannot acquire a satellite signal, you may not be located. Some Devices have a safety feature that prevents use of the keypad after dialing 911 – you should follow voice prompts when interacting with emergency service providers employing IVR systems to screen calls.

## If Your Device Is Lost or Stolen

Call us immediately if your Device is lost or stolen because you may be responsible for usage charges before you notify us of the alleged loss or theft. You agree to cooperate if we choose to investigate the matter (provide facts, sworn statements, etc.). We may not waive any Early Termination Fees if you choose to terminate Services as a result of loss or theft of your Device.

## Disclaimer of Warranties

WE MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING (TO THE EXTENT ALLOWED BY LAW) ANY IMPLIED WARRANTY OF MERCHANTABILITY, NON-INFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE CONCERNING YOUR SERVICES (INCLUDING YOUR DEVICE). WE DON'T PROMISE UNINTERRUPTED OR ERROR-FREE SERVICES AND DON'T AUTHORIZE ANYONE TO MAKE WARRANTIES ON OUR BEHALF.

## You Agree We Are Not Responsible For Certain Problems

You agree that neither we nor our vendors, suppliers or licensors are responsible for any damages resulting from: (a) anything done or not done by someone else; (b) providing or failing to provide Services, including, but not limited to, deficiencies or problems with a Device or network coverage (for example, dropped, blocked, interrupted calls/messages, etc.); (c) traffic or other accidents, or any

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health-related claims relating to our Services; (d) Data Content or information accessed while using our Services; (e) an interruption or failure in accessing or attempting to access emergency services from a Device, including through 911, Enhanced 911 or otherwise; (f) interrupted, failed, or inaccurate location information services, (g) information or communication that is blocked by a spam filter, or (h) things beyond our control, including acts of God (for example, weather-related phenomena, fire, earthquake, hurricane, etc.), riot, strike, war, terrorism or government orders or acts.

## You Agree Our Liability Is Limited - No Consequential Damages.

TO THE EXTENT ALLOWED BY LAW, OUR LIABILITY FOR MONETARY DAMAGES FOR ANY CLAIMS YOU MAY HAVE AGAINST US IS LIMITED TO NO MORE THAN THE PROPORTIONATE AMOUNT OF THE SERVICE CHARGES ATTRIBUTABLE TO THE AFFECTED PERIOD. UNDER NO CIRCUMSTANCES ARE WE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR SPECIAL DAMAGES OF ANY NATURE WHATSOEVER ARISING OUT OF OR RELATED TO PROVIDING OR FAILING TO PROVIDE SERVICES IN CONNECTION WITH A DEVICE, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LOSS OF BUSINESS, OR COST OF REPLACEMENT PRODUCTS AND SERVICES.

# DISPUTE RESOLUTION

**We Agree To First Contact Each Other With Any Disputes**

We each agree to first contact each other with any disputes and provide a written description of the problem, all relevant documents/information and the proposed resolution. You agree to contact us with disputes by calling or writing us as instructed on your invoice. We will contact you by letter to your billing address or on your Device.

**Instead Of Suing In Court, We Each Agree To Arbitrate Disputes**

We each agree to finally settle all disputes (as defined and subject to any specific exceptions below) only by arbitration. In arbitration, there's no judge or jury and review is limited. However, just as a court would, the arbitrator must honor the terms and limitations in the Agreement and can award the same damages and relief, including any attorney's fees authorized by law. The arbitrator's decision and award is final and binding, with some exceptions under the Federal Arbitration Act ("FAA"), and judgment on the award may be entered in any court with jurisdiction. We each also agree as follows:

(1) **"Disputes" are any claims or controversies against each other related in any way to our Services or the Agreement, including, but not limited to, coverage, Devices, privacy, or advertising, even if it arises after Services have terminated** – this includes claims you bring against our employees, agents, affiliates or other representatives, or that we bring against you.

(2) If either of us wants to arbitrate a dispute, we agree to send written notice to the other providing a description of the dispute, previous efforts to resolve the dispute, all supporting documents/information, and the proposed resolution. Notice to you will be sent to your billing address and notice to us will be sent to: General Counsel; Arbitration Office; 2001 Edmund Halley Drive VARESP0513-502; Reston, Virginia 20191. We agree to make attempts to resolve the dispute. If we cannot resolve the dispute within forty-five (45) days of receipt of the notice to arbitrate, then we may submit the dispute to formal arbitration.

(3) The FAA applies to this Agreement and arbitration provision. We each agree the FAA's provisions, not state law, govern all questions of whether a dispute is subject to arbitration.

(4) The arbitration will be administered by the National Arbitration Forum ("NAF") under its arbitration rules. If any NAF rule conflicts with the terms of the Agreement, the terms of the Agreement apply. You can obtain procedures, rules, and fee information from the NAF at 1-800-474-2371 or www.adrforum.com.

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(5) Unless we each agree otherwise, the Arbitration will be conducted by a single neutral arbitrator and will take place in the county of your last billing address. The federal or state law that applies to the Agreement will also apply during the arbitration.

(6) **We each agree not to pursue arbitration on a classwide basis. We each agree that any arbitration will be solely between you and us (not brought on behalf of or together with another individual's claim). If for any reason any court or arbitrator holds that this restriction is unconscionable or unenforceable, then our agreement to arbitrate doesn't apply and the dispute must be brought in court.**

(7) We each are responsible for our respective costs relating to counsel, experts, and witnesses, as well as any other costs relating to the arbitration. However, we will cover any arbitration administrative or filing fees above: (a) $25 if you are seeking less than $1,000 from us; or (b) the equivalent court filing fees for a court action in the appropriate jurisdiction if you are seeking $1,000 or more from us.

## Exceptions To Our Agreement To Arbitrate Disputes

Either of us may bring qualifying claims in small claims court. In addition, this arbitration provision does not prevent you from filing your dispute with any federal, state or local government agency that can, if the law allows, seek relief against us on your behalf.

## No Class Actions

TO THE EXTENT ALLOWED BY LAW, WE EACH WAIVE ANY RIGHT TO PURSUE DISPUTES ON A CLASSWIDE BASIS; THAT IS, TO EITHER JOIN A CLAIM WITH THE CLAIM OF ANY OTHER PERSON OR ENTITY, OR ASSERT A CLAIM IN A REPRESENTATIVE CAPACITY ON BEHALF OF ANYONE ELSE IN ANY LAWSUIT, ARBITRATION OR OTHER PROCEEDING.

## No Trial By Jury

TO THE EXTENT ALLOWED BY LAW, WE EACH WAIVE ANY RIGHT TO TRIAL BY JURY IN ANY LAWSUIT, ARBITRATION OR OTHER PROCEEDING.

## Indemnification

You agree to indemnify, defend and hold us harmless from any claims arising out of your actions, including, but not limited to, failing to provide appropriate notices regarding location-sensitive services (see "Location Based Services" paragraph), or violating this Agreement, any applicable law or regulation or the rights of any third party.

## Providing Notice To Each Other Under The Agreement

Except as the Agreement specifically provides otherwise, you must provide us notice by calling or writing us as instructed on your invoice. We will provide you notice in your bill, correspondence to your last known billing address, to any fax number or e-mail address you've provided us, by calling you on your home phone or Device, by voice message on your Device or home phone, or by text message on your Device.

## Other Important Terms

Subject to federal law or unless the Agreement specifically provides otherwise, this Agreement is governed solely by the laws of the state encompassing the area code assigned to your Device, without regard to the conflicts of law rules of that state. If either of us waives or doesn't enforce a requirement under this Agreement in an instance, we don't waive our right to later enforce that requirement. Except as the Agreement specifically provides otherwise, if any part of the Agreement is held invalid or unenforceable, the rest of this Agreement remains in full force and effect. This Agreement isn't for the benefit of any 3rd party except our corporate parents, affiliates, subsidiaries, agents, and predecessors and successors in interest. You can't assign the Agreement or any of your rights or duties under it. We can assign the Agreement. The Agreement and the documents it incorporates

make up the entire agreement between us and replaces all prior written or spoken agreements – you can't rely on any contradictory documents or statements by sales or service representatives. The rights, obligations and commitments in the Agreement that, by their nature, would logically continue beyond the termination of Services (including, but not limited to, those relating to billing, payment, 911, dispute resolution, no class action, no jury trial), survive termination of Services.

# Glossary and Index

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# Glossary

## 1X

One Times Radio Transmission Technology (the "one times" refers to the frequency spectrum). Also known as Sprint Vision. Supports Internet connections with data rates up to 153 kbps. Actual speed depends on the network conditions. Compare to 1xEV-DO.

## 1xEV-DO

A high-speed standard for cellular packet data communications. Also known as Sprint Power Vision.

1xEV-DO Rev. A supports Internet connections with data rates up to 3.1 Mbps (downlink from the network) and 1.8 Mbps (uplink to the network). Average data rates are 600 kbps - 1.4 Mbps (downlink from the network) and 350-500 kbps (uplink to the network).

1xEV-DO Rev. 0 supports Internet connections with data rates up to 2.4 Mbps (downlink from the network) and 153 kbps (uplink to the network). Average data rates are 400-700 kbps (downlink from the network) and 40-80 kbps (uplink to the network)

Actual speed depends on the network conditions. Compare to 1X.

## bps

**bits per second**—The actual data speed over the transmission medium.

## broadband

High-speed wireless services optimized for data. Sprint Mobile Broadband is the next evolutionary step for the Sprint Power Vision Network.

## CDMA

**Code Division Multiple Access**—A wideband spread spectrum technique used in digital cellular, personal communications services, and other wireless networks. Wide channels (1.25 MHz) are obtained through spread spectrum transmissions, thus allowing many active users to share the same channel. Each user is assigned a unique digital code, which differentiates the individual conversations on the same channel.

## dBm

decibels relative to 1 milliwatt

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## dormant

The network switches the data connection into dormant mode if there is no traffic on the connection for some time. When you resume data traffic, the high-speed data connection becomes active.

The data connection may also go dormant while a GPS fix is being acquired.

## ESN

Electronic Serial Number—The unique serial number assigned to the card for cellular network use. Either the ESN or MEID is on the label on the card, and is also displayed in the "Device Info & Diagnostics" window (Windows; page 86) or "About Sprint Device" window (Mac; page 114). See also MEID.

## ExpressCard™

Add-in memory and communications cards for portable computers. ExpressCard is a trademark of the PCMCIA.

## FCC

**Federal Communications Commission**—The U.S. federal agency that is responsible for interstate and foreign communications. The FCC regulates commercial and private radio spectrum management, sets rates for communications services, determines standards for equipment, and controls broadcast licensing. Consult www.fcc.gov.

## firmware

Software stored in ROM or EEPROM memory; essential programs that remain even when the system is turned off. Firmware is easier to change than hardware but more permanent than software stored on disk.

## fix

GPS location information obtained from the network.

## GPS

**Global Positioning System**—A system that uses a series of 24 geosynchronous satellites to provide location data.

## HEPE

**Horizontal Estimated Position Error**—Relates to GPS accuracy.

## IS

**Interim Standard**—After receiving industry consensus, the TIA forwards the standard to ANSI for approval.

**170** **Glossary**

## kbps

**kilobits per second**—Actually 1000, not 1024, as used in computer memory size measurements of kilobytes.

## LAN

Local Area Network

## LED

**Light Emitting Diode**—A semiconductor diode that emits visible or infrared light.

## Mbps

Megabits per second

## MEID

**Mobile Equipment Identifier**—The unique second-generation serial number assigned to the Sprint Mobile Broadband card for cellular network use. Either the MEID or ESN is on the label on the card, and is also displayed in the "Device Info & Diagnostics" window (Windows; page 86) or "About Sprint Device" window (Mac; page 114). Compare to ESN.

## MHz

**megahertz**—One million cycles per second

## PC Card™

Add-in memory and communications cards for portable computers. PC Card is a trademark of the PCMCIA.

## PCMCIA

**Personal Computer Memory Card International Association**—The organization that standardizes ExpressCards and PC Cards.

## PCS

**Personal Communications Services**—A cellular communication infrastructure.

## roaming

A wireless subscriber is in an area where service is obtained from a wireless service provider other than Sprint. This may be subject to roaming charges.
Sprint Location Services may not be available.

## Sprint Connection Manager

Software that allows you to manage the Sprint Mobile Broadband card's actions and monitor your connections on a Windows computer.

## Sprint Mobile Broadband

High-speed wireless services optimized for data. Sprint Mobile Broadband is the next evolutionary step for the Sprint Power Vision Network.

## Sprint Power Vision

Sprint's advanced multimedia third generation services available on the network. See 1xEV-DO.

## Sprint Vision

Sprint's advanced multimedia third generation services available on the network. See 1X.

## system tray

Usually located in the bottom right of the screen (near the clock). When

Sprint Connection Manager is running, it places an icon  in this area, which you can use to monitor the connection state (page 52). If you right-click the icon, a shortcut menu is displayed (page 72):
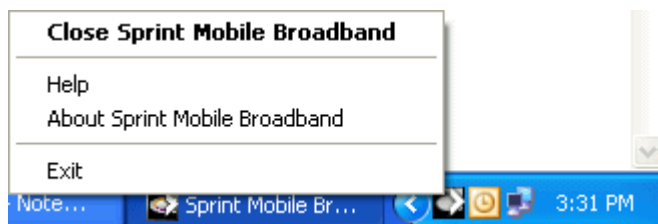


## TIA

**Telecommunications Industry Association**—A standards-setting trade organization, whose members provide communications and information technology products, systems, distribution services, and professional services in the United States and around the world. Consult www.tiaonline.org.

## ToolTip

Text that displays when you position the mouse pointer over an area of the screen (for example, over an indicator).
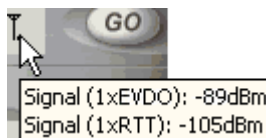
### TRU-Install™

A Sierra Wireless feature that installs the necessary software and drivers the first time you insert the card into your Windows or Mac computer. An installation CD is not required.

### VPN

Virtual Private Network

### WAN

Wide Area Network

### Watcher Lite

Software that allows you to manage the Sprint Mobile Broadband card's actions and monitor your connections on a Mac computer.

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