



# AirCard<sup>®</sup> 710/750 Wireless Network Card

## Installation Guide



2130135  
Rev 1.2



## 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 Sierra Wireless network card are used in a normal manner with a well-constructed network, the Sierra Wireless network card should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. Sierra Wireless, Inc. accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the Sierra Wireless network card, or for failure of the Sierra Wireless network card to transmit or receive such data.

## Safety and Hazards

Do not operate the Sierra Wireless AirCard® 710/750 wireless network card in areas where blasting is in progress, where explosive atmospheres may be present, near medical equipment, life support equipment, or any equipment which may be susceptible to any form of radio interference. In such areas, the Sierra Wireless network card **MUST BE POWERED OFF**. The Sierra Wireless network card can transmit signals that could interfere with this equipment.

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

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*Note: Some airlines may permit the use of cellular phones while the aircraft is on the ground and the door is open. Sierra Wireless network cards may be used at this time.*

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In August 1996 the Federal Communications Commission (FCC) of the United States with its action in Report and Order FCC 96-326 adopted an updated safety standard for human exposure to radio frequency (RF) electromagnetic energy emitted by FCC regulated transmitters. Those guidelines are

## Limitation of Liability

consistent with the safety standard previously set by both U.S. and international standards bodies. The design of this wireless network card complies with the FCC guidelines and these international standards.

Use only the supplied or an approved antenna. Unauthorized antennas, modifications, or attachments could impair call quality, damage the phone, or result in violation of FCC regulations.

**This device is approved for use in typical laptop PCs only. To comply with FCC RF exposure requirements the AirCard 710/750 PCS GSM modem card must be operated with a minimum separation distance of 2.5 cm (1 inch) between the user/nearby persons and the antenna.**

For more information about RF exposure, please visit the FCC web site at [www.fcc.gov](http://www.fcc.gov).

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# 1: Introducing the AirCard® 710/750 Network Card

- About the AirCard
- Supported platforms and networks
- Care and maintenance

## About the AirCard 710/750 wireless network card

The AirCard® 710/750 wireless network card fits into a standard Type II PC Card slot (available on most notebook PCs) and functions as a wireless network card. This card allows you to connect to the Internet, send and receive e-mail, and connect to a corporate network, without the need of a network cable or phone line. The card uses cellular telephone radio frequencies and the GSM (Global System for Mobile Communications) digital telephone infrastructure.

When packet mode service is available, the AirCard 710/750 network card uses the General Packet Radio Service (GPRS) infrastructure to provide an “always-on” data connection, just like an Ethernet card or other wired network adapter.

## Supported computer platforms and wireless networks

**Windows computer platforms** The AirCard 710/750 wireless network card works in notebook PCs running Windows 95, 98 SE, Me, NT, XP, and 2000, and in Pocket PCs running Windows CE 3.0, Pocket PC and Pocket PC 2002. For more details, see “System requirements” on page 9 (notebooks) and page 19 (Pocket PCs).

**GSM wireless networks** The AirCard 710/750 network card operates over a type of wireless network called GSM (Global System for Mobile communications), supported by a number of wireless carriers in North America and around the world.

To use the AirCard 710/750 network card, you must have an account that gives you access to a GSM network.

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*Note: Every GSM network worldwide operates on one of three radio frequency bands. The AirCard 710 network card operates only on the 1900 MHz PCS band used in North America and in some parts of*

*Central and South America. The AirCard 750 is a tri-band product that operates on the 900, 1800, and 1900 MHz bands used in Europe and Asia.*

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Like GSM mobile phones, the AirCard 710/750 network card requires a SIM card (also known as a “smart card” or “smart chip”), provided by your wireless service provider, in order to function. For more information, see “SIM card overview” on page 6.

## Care and maintenance of your AirCard

Do not apply adhesive labels to the AirCard. This may cause the AirCard to become jammed inside the card slot, or prevent it from being inserted properly.

Optimal signal strength is usually obtained when the antenna is fully extended (applies to the AirCard 710 only) and perpendicular to the card. The antenna should bend easily at the hinge. Do not forcefully bend the antenna.



*Figure 1-1: Proper positioning of the AirCard 710/750 antenna in a notebook*

When storing or transporting your PC in a case (such as a notebook case), retract the AirCard antenna (AirCard 710) or remove the AirCard antenna (AirCard 750) and position the computer where the antenna tip cannot be crushed or broken.

The AirCard should fit easily into your computer’s PC Card slot. Forcing the AirCard into the slot may damage the connector pins.

Protect the card from liquids, dust, and excessive heat (see “Environmental specifications” on page 36 for details).

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



## >> 2: Getting Started

- Information you need from your service provider
- Inserting the SIM card
- Removing the SIM card

Before you can begin using the AirCard 710/750 wireless network card, you must:

1. Obtain certain information from your service provider.
2. Insert the SIM card into the slot in your AirCard PC Card (page 6).
3. Install the AirCard 710/750 software (notebooks: page 10; Pocket PC: page 19).
4. Insert the AirCard into your computer.
5. Configure the AirCard to use your account (page 23).

### Information you must get from your service provider

When you purchase an AirCard, you should also receive a SIM card that holds your account information. Without a valid SIM card and a valid account, your AirCard will not work.

To activate your account, your service provider needs from you:

- Billing information (for example, your credit card information) used to collect payment for your network usage
- The SIM card serial number (printed on the upper surface of the SIM card)

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*Note: Keep a written record, in a secure place, of the account information that your service provider gives you. You will need this information if you ever need to re-enter the account information.*

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You require from your service provider:

- A phone number for your AirCard
- APN (Access Point Name), if required by the network
- User name and password, if required by the network
- Whether or not your provider is using header compression and/or data compression
- IP address, if the network does not automatically assign one
- Optionally: Primary DNS<sup>1</sup> and Secondary DNS addresses

- 
1. DNS (Domain Name Server)—a computer that converts web site names, such as [www.sierrawireless.com](http://www.sierrawireless.com), into IP addresses, such as 64.114.87.11.

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*Note: If you change GSM service providers (such as if you move to a new city), you will need a new SIM card from your new service provider. You will also need to enter your new profile information into the Watcher software (see “Configuring Your Account” on page 23).*

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## SIM card overview

### Inserting a SIM card

To install your SIM card into the AirCard 710/750 network card, follow these steps:

1. Hold the AirCard 710/750 network card with the label on top and the antenna closest to you.
2. Locate the thin SIM card slot on the left side of the AirCard PC Card’s antenna end.
3. Orient the SIM card, as shown in the diagram on the bottom side of the AirCard.
4. Insert the end of the SIM card into the slot, and gently push it until it clicks into place.

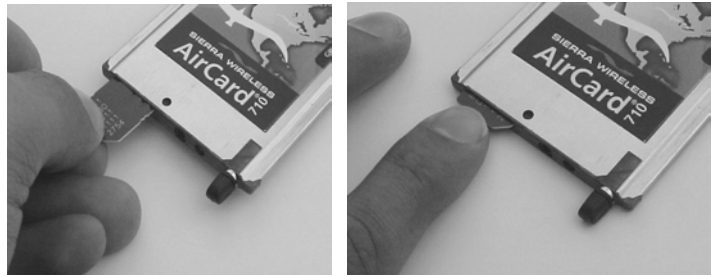


Figure 2-1: Inserting the SIM card Into the AirCard 710/750 SIM card slot

5. Once the SIM card is properly inserted, it should not extend beyond the end of the card. See Figure 2-2.



Figure 2-2: A SIM card properly inserted

### Removing a SIM card

To remove the SIM card, you will need a slim object, such as the tip of a pen or a straightened paper clip, to push into the eject hole.

1. Place the AirCard 710/750 PC Card on a smooth, hard surface such as a tabletop, as shown in Figure 2-3.



Figure 2-3: Positioning a pen to eject the SIM card

2. Position your pen or paperclip above the eject hole, which is on the top surface of the AirCard housing, just to the right of the SIM card slot (left photo in Figure 2-4).
3. Press down firmly (but without excessive force) on the eject hole. The SIM card should pop out of its slot.

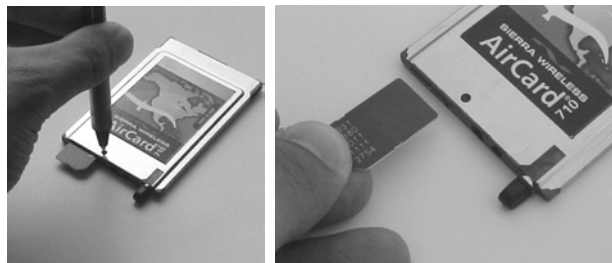


Figure 2-4: Ejecting and removing the SIM card

4. Gently pull the SIM card from the slot until it slides free.





## 3: Installation on Notebook PCs

- System requirements
- Setting up your Internet connection
- Installing the AirCard software

*Note: Dial-up Networking and Winsock are components of the Windows operating system required by the AirCard 710/750. The versions of these components shipped with Windows 95 OSR2 do not meet the AirCard 710/750 requirements. If you are using Windows 95 OSR2 and have not yet upgraded to Winsock2 and Dial-up Networking version 1.3 or later, you must do so before installing the AirCard. The required versions can be downloaded from the Microsoft web site, [www.microsoft.com](http://www.microsoft.com).*

### System requirements

The AirCard 710/750 wireless network card is supported on:

- Windows 95 OSR2 and higher with Winsock2 and Dial-up Networking 1.3 or higher
- Windows 98 SE
- Windows 2000 with Service Pack 1
- Windows NT 4.0 with Service Pack 6a and Networking installed
- Windows Me
- Windows XP (Home and Professional versions)

To install the AirCard, you require these system resources:

**Table 3-1: System resource requirements**

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

### Setting your Internet connection to use the AirCard

Most likely, your computer will be set to use a modem to connect to the Internet.

To use the AirCard, you must set your computer to connect to the Internet through a LAN (local area network).

The specific steps to do this will depend on the browser you are using.

#### Internet Explorer version 5 and 6

1. In Internet Explorer, select **Tools > Internet Options**.
2. Click the Connections tab.

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*Note: **Users of Windows 2000** must be logged in with administrative privileges.*

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#### Windows 2000

3. Click **Setup** to run the Internet Connection Wizard.
4. Select the option "**I want to set up my Internet connection manually, or I want to connect through a local area network (LAN).**" Click **Next**.
5. Select "**I connect through a local area network (LAN)**". Click **Next**.
6. In the "Local area network Internet configuration" window, ensure no checkboxes are selected. Click **Next**.

## Windows 95 OSR 2, 98 SE, 2000, and Me

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*Note: **Users of Windows 95** must have Winsock2 and Dial-up Networking version 1.3 installed. These versions of the components were not included in Windows 95 OSR as it was originally shipped. You can download them from the Microsoft web site.*

*You must also verify that your PC card slots are enabled and that TCP/IP is installed. For instructions on installing Dial-Up Networking and TCP/IP and enabling your PC card slots, see the Windows 95 online Help (available by selecting **Start > Help**).*

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*Note: You may require your Windows CD (particularly if you are using Windows 95). Ensure you have the CD before proceeding.*

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1. If the AirCard CD is not already in your CD-ROM drive, insert it. The CD should auto-start and display a menu.
  - If the CD does not auto-start, select **Start > Run** and enter **d:\launch.exe** where **d** is the drive letter of your CD-ROM drive.
2. From the CD start-up menu, select **notebook installation and documentation** and then **notebook software installation** to launch the InstallShield® Wizard.
3. Use the **Next** and **Back** buttons to navigate through the wizard.

Using the default settings for the Destination Location and Program Folder is recommended unless you have special requirements and an advanced understanding of PC configuration.
4. If the **Digital Signature Not Found** window appears (this may happen several times), click **Yes** (to continue the installation).

**AirCard 750 only**

*Note: Do not forcefully insert the AirCard. This may damage connector pins.*

5. When prompted to insert the AirCard:
  - a. Attach the antenna to the AirCard 750. (The AirCard 710 has a built-in antenna.)
  - b. With the SIM card inserted into the AirCard (page 6) and the label of the AirCard facing up, carefully insert the AirCard into your PC Card slot.



Figure 3-1: Inserting the AirCard 710/750 network card

- c. Click OK in the window requesting you to insert the AirCard.

Windows detects that a new device has been inserted and launches a wizard that guides you through the driver installation.

**Windows 2000**

6. If the **Digital Signature Not Found** window appears (this may happen several times), click **Yes** (to continue the installation).

**AirCard 710 only**

7. Grasp the tip of the AirCard 710 antenna and pull it to extend the antenna fully (it should click into place).
8. Pivot the antenna hinge so that the antenna is vertical to your keyboard.

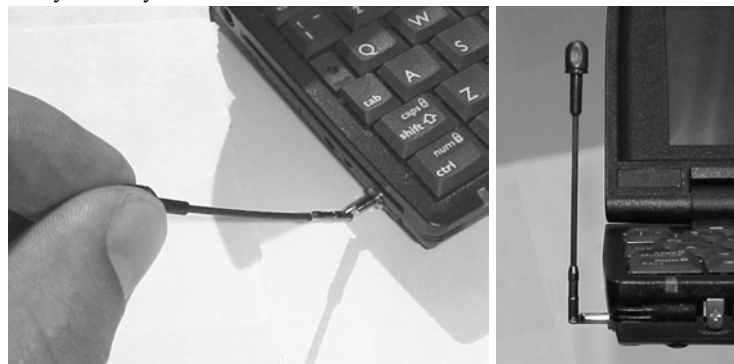


Figure 3-2: Pivoting the antenna at the hinge

**Windows 95, 98 and Me**

9. If prompted to eject the card and then restart the PC:
  - a. Eject the AirCard.

*Note: Depending on the XP installation, you may require administrative privileges.*

**AirCard 750 only**

- b. Click **Yes** to restart your computer.
  - c. Only after your computer has restarted and Windows has finished launching, insert the AirCard.
10. To close the CD start-up menu, use the **exit** option in the lower right corner of the window.

Watcher should start, and a window prompting you to configure your account should display.

- 11.** Click **Yes**. See “Configuring Your Account” on page 23.

# Windows XP

1. If the AirCard CD is not already in your CD-ROM drive, insert it. The CD should auto-start and display a menu.
  - If the CD does not auto-start, select **Start > Run** and enter **d:\launch.exe** where **d** is the drive letter of your CD-ROM drive.
2. From the CD start-up menu, select **notebook installation and documentation** and then **notebook software installation** to launch the InstallShield Wizard.
3. Use the **Next** and **Back** buttons to navigate through the wizard.

Using the default settings for the Destination Location and Program Folder is recommended unless you have special requirements and an advanced understanding of PC configuration.
4. Each time the **Software Installation** window appears, click **Continue Anyway**.
5. When prompted to insert the AirCard:
  - a. Attach the antenna to the AirCard 750. (The AirCard 710 has a built-in antenna.)

*Note: Do not forcefully insert the AirCard. This may damage connector pins.*

- b.** With the SIM card inserted into the AirCard (page 6) and the label of the AirCard facing up, carefully insert the AirCard into your PC Card slot.



Figure 3-3: Inserting the AirCard 710/750 network card

- c.** Click **OK** in the window requesting you to insert the AirCard.

Windows should detect that a new device has been inserted and launch a wizard that guides you through the driver installation.

- 6.** On the first window of the Found New Hardware Wizard, select **Install from a list or specific location (Advanced)** and click **Next** to proceed.
- 7.** In the **Found New Hardware Wizard** window:
  - a.** Select the **Search for the best driver in these locations** radio button.
  - b.** Ensure “Search removable media” is **not** selected.
  - c.** Select the **Include this location in the search** check box, then enter **d:\Drivers\WinXP** where **d** is the drive letter of your CD-ROM drive.



- d.** Click **Next** to proceed to the next window.
- 8.** If a window appears requesting you to “Please select the best match for your hardware from the list below”, select

**AirCard 710 only**

the file that is located on the CD (in the `\drivers\winxp` folder) and click **Next**.



9. If a warning appears stating that AirCard 710/750 has not passed Windows Logo testing, click **Continue Anyway**.
10. Click **Finish** and repeat steps 6 to 9 as prompted.
11. Grasp the tip of the antenna and pull it to extend the antenna fully (it should click into place).
12. Pivot the antenna hinge so that the antenna is vertical to your keyboard.

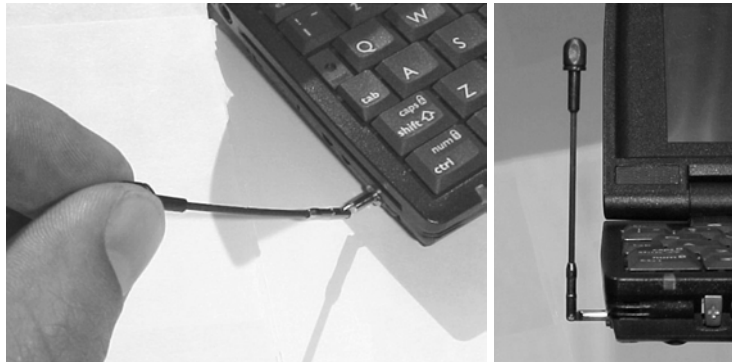


Figure 3-4: Pivoting the antenna at the hinge

13. When you see a window with the message "AirCard® 710/750 has been successfully installed.", click **OK**.

Watcher should start, and a window prompting you to configure your account should display.

14. Click **Yes**. See "Configuring Your Account" on page 23.

To close the CD start-up menu, click **DemosHield** on the Taskbar, then use the **exit** option in the lower right corner of the window.

**Note:** The AirCard driver requires that Windows Networking is installed. Also the PC Card slots must be enabled. If you are not certain that networking is installed and the slots enabled, see the Windows NT user documentation for instructions.

Your PC must be off whenever you insert or eject the AirCard  
AirCard 750 only

## Windows NT

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

**Note:** Windows system files may also be required to complete the installation. These files are located on the Windows NT CD.

1. If the AirCard CD is not already in your CD-ROM drive, insert it. The CD should auto-start and display a menu.
  - If the CD does not auto-start, select **Start > Run** and enter **d:\launch.exe** where **d** is the drive letter of your CD-ROM drive.
2. From the CD start-up menu, select **notebook installation and documentation** and then **notebook software installation** to launch the InstallShield Wizard.
3. Use the **Next** and **Back** buttons to navigate through the wizard.

Using the default settings for the Destination Location and Program Folder is recommended unless you have special requirements and an advanced understanding of PC configuration.

On completion of the software installation, exit from the startup menu by clicking **exit** in the lower right corner.

## Inserting the AirCard

1. Close all Windows programs and turn your PC off.
2. Attach the antenna to the AirCard. (The AirCard 710 has a built-in antenna.)

*Note: Do not forcefully insert the AirCard. This may damage connector pins.*

**AirCard 710 only**

*Note: Depending on how Windows NT is configured, the prompts and windows described here may not appear in the precise order indicated. Use these instructions as a guideline to the selections you should make.*

3. With the SIM card inserted into the AirCard (page 6) and the label of the AirCard facing up, carefully insert the AirCard into your PC Card slot.



Figure 3-5: Inserting the AirCard 710/750 network card

4. Grasp the tip of the antenna and pull it to extend the antenna fully (it should click into place).
5. Pivot the antenna hinge so that the antenna is vertical to your keyboard.

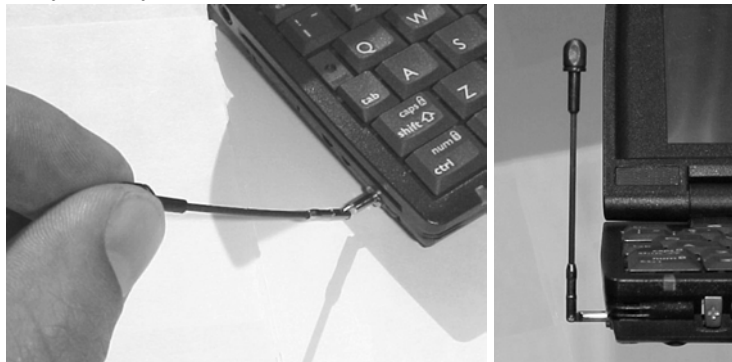


Figure 3-6: Pivoting the antenna at the hinge

6. Turn on your PC.
7. Log on as Administrator.

## Installing the Network Card Driver

1. Open the Control Panel by selecting **Start > Settings > Control Panel**.
2. Double click the Network icon to open the Network window.
3. Click the **Adapters** tab in the Network window.
4. Click the **Add...** button to open the Select Network Adapter window.



*Note: The AirCard will not function with the default settings for the I/O Port , Interrupt, and Com port if any of these resources are allocated to another network card or other device. If you are familiar with the Windows NT Diagnostics window, you can check to see if these resources are available. Otherwise, leave the default settings and if the AirCard does not function following the driver installation, see the instructions on changing the interrupt on page 18.*

5. Click the **Have Disk...** button to open the Insert Disk window.
6. Enter **d:\Drivers\WinNT** where **d** is the drive letter for your CD-ROM drive and click **OK** to open the Select OEM Option window in which **Sierra Wireless AirCard GPRS Adapter** is selected.
7. Click **OK**. A window opens showing the settings for the I/O Port (0x800), interrupt (10) and COM port (4).
8. If you are aware that these resources are in use by another device (see the note in the margin), change the settings and click **OK**. Otherwise, click **OK** to use the default settings. Windows then copies the driver files.
9. Click **Close** to close the Network window and open the Microsoft TCP/IP Properties window.
10. Select **Sierra Wireless AirCard GPRS Adapter** in the Adapter field and select **Obtain an IP address from a DHCP Server** radio button.
11. Click **Yes** to confirm that DHCP is to be used.
12. Click **OK** to close the TCP/IP Properties window.
13. Click **No** if prompted to restart your PC. (You must restart your PC after the modem driver installation.)

On completion of this step, the network card driver is installed and you can proceed to install the modem driver. Follow the instructions in the next section.

## Installing the Modem Driver

1. In the Control Panel, double click the Modems icon. If the Install New Modem wizard opens, skip to step 3. Otherwise, proceed to step 2.
2. Click the **Add** button to open the Install New Modem wizard.
3. Select **Don't detect my modem, I will select it from a list** and click **Next**.
4. Select the **Have Disk** button.
5. Enter **d:\Drivers\WinNT\** where **d** is the drive letter for your CD-ROM drive and click **OK**.
6. Verify that **Sierra Wireless AirCard GPRS Modem** is displayed and click **Next**.
7. Select the **Selected Ports** radio button and select the same communications port used for the network card driver (COM 4 unless you changed it). Click **Next**.
8. Click **Finish**.

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*Note: You must restart your PC to complete the installation.*

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9. Click **Close** to close the Network Properties window.

10. If you are prompted to restart your PC, click **Yes**. Otherwise restart your PC from the Start menu.

11. When the PC restarts, re-install your Service Pack.

On completion of this step, the modem driver is installed and you can proceed to configure the AirCard to use your account (if it was not pre-activated). See the section "Account Configuration Procedures" on page 23.

## Changing the Interrupt

If the message, "Communication Failed!..." occurs when you start Watcher, a possible reason is that you have assigned an interrupt to the AirCard that has also been assigned to another device.

To change the interrupt assigned to the AirCard:

1. Open the Control Panel by selecting **Start > Settings > Control Panel**.
2. Double click the Network icon.
3. Select the **Adapters** tab.
4. Select **Sierra Wireless AirCard GPRS Adapter** and click the **Properties...** button.
5. Use the drop-down list to change the Interrupt to another number and click **OK**.
6. Close the Network window by clicking the **Close** button.
7. Restart your PC.
8. If the AirCard still does not function properly, repeat the procedure, selecting a different interrupt.

## 4: Installation on Pocket PCs

- System requirements
- Installing the software
- Inserting the AirCard

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*Note: If your device is running Pocket PC, we strongly recommend you **upgrade to Pocket PC 2002**, if possible. Contact your retailer or manufacturer for details.*

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*Note: ActiveSync is made by Microsoft and is included with all Pocket PCs running Windows CE 3.0. (It is also available from the Microsoft web site.)*

*ActiveSync 3.1 is supported on Windows 95/95, Windows 2000, Windows Me, and Windows NT 4.0 with Service Pack 3 or later. ActiveSync 3.5 is supported on Windows 98, Windows 2000, Windows XP, and Windows NT 4.0 with Service Pack 6 or later.*

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### System requirements

On Pocket PCs, your operating system must be:

- Windows CE 3.0 MS Pocket PC, or
- Windows CE 3.0 Pocket PC 2002

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

Your Pocket PC must have:

- [2.6] MB of storage memory
- The PCMCIA jacket accessory (with a single PC Card slot)
- A method of connecting to a host computer, using either a serial autosync cable, USB autosync cable, or infrared ports

You require a desktop or notebook computer to function as the host that:

- Has the necessary port (serial, USB, or infrared) to connect to the Pocket PC
- Has a CD-ROM drive
- Has ActiveSync version 3.1 or 3.5 installed (ActiveSync 3.5 is required if you are using Windows CE 3.0 Pocket PC 2002)

### Installing the software

Software cannot be installed directly to a Pocket PC. The installation process has these steps:

1. Install the software to the host (a desktop or notebook computer to function as a host).

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*Warning: Do not insert the AirCard into the Pocket PC before downloading the software.*

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*Note: Newer versions of the AirCard software may be available on the Sierra Wireless web site, [www.sierrawireless.com](http://www.sierrawireless.com).*

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2. Connect the Pocket PC to the host and download the software from the host to the Pocket PC. (You can connect the Pocket PC to the host before or after you install the software to the host.)

3. Insert the AirCard into the Pocket PC.

To install the software, you can either:

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

Or

- Install the software to the host and then connect the host and the Pocket PC, as described here.

This process installs Watcher and the AirCard drivers.

### Installing the software on the host

1. If the AirCard installation CD is not in your CD-ROM drive, insert it. The CD should auto-start and display a menu.
  - If the CD does not auto-start, select **Start > Run** and enter **d:\launch.exe** where **d** is the drive letter of your CD-ROM drive.

2. From the CD start-up menu, select:
  - **Pocket PC installation and documentation** and then **Pocket PC software installation** (if you have a Pocket PC running Windows CE 3.0 MS Pocket PC), or
  - **Pocket PC 2002 installation and documentation** and then **Pocket PC 2002 software installation** (if you have a Pocket PC running Windows CE 3.0 Pocket PC 2002)

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

3. Use the **Next** and **Back** buttons to navigate through the wizard.
  - Using the default settings for the Destination Location and Program Folder is recommended unless you have special requirements and an advanced understanding of PC configuration.
  - A dialog box displays this message, "On the next mobile device connection, the installed applications will be downloaded to the device." Click **OK**.
  - Use the **exit** option in the lower right corner of the window to close the CD start-up menu.

**Warning:** Download the AirCard software before inserting the AirCard into your Pocket PC.

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

## Downloading the software to the Pocket PC

1. Connect the Pocket PC to the host in one of these ways:
  - Connect one end of the serial cable to the bottom of the Pocket PC and the other end to a serial port on your host PC, or
  - Place your Pocket PC in its cradle and connect the USB cable on the cradle to a USB port on your host PC, or
  - Align the infrared port on your Pocket PC with an infrared port on your host PC.

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

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

## Inserting the AirCard into a Pocket PC

To insert the AirCard into a Pocket PC:

1. If the PCMCIA jacket accessory is not already attached, slide the Pocket PC bottom first into the jacket. It should click into place.
2. Ensure the SIM card is inserted into the AirCard (described on page 6).
3. Attach the antenna to the circular copper connector on the end of the AirCard. **DO NOT FORCE**. (The AirCard 710 has a built-in antenna.)

**AirCard 750 only**

4. With the label facing towards the front of the Pocket PC, insert the network card into the slot at the top of the jacket, as shown in the following photos.



Figure 4-1: Inserting the AirCard into a Pocket PC

**AirCard 710 only**

5. Grasp the antenna tip and pull it so that the antenna slides out.

**AirCard 710 only**

6. Make sure the antenna is fully extended (it should click into place). The metal hinge should be fully visible, and should rotate and pivot easily.

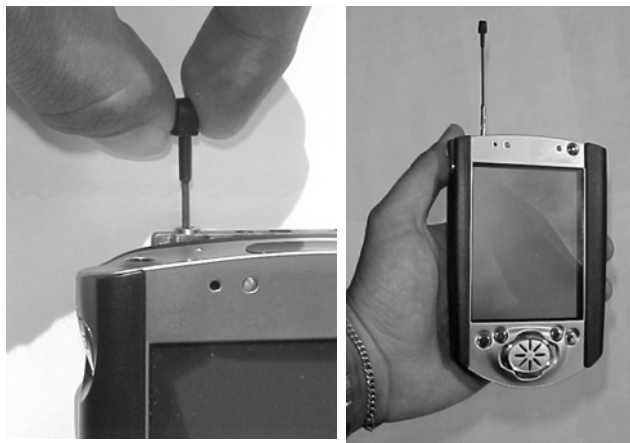


Figure 4-2: Extending the AirCard antenna until it clicks into place (AirCard 710 only)

7. Position the antenna so that it is vertical.

## >> 5: Configuring Your Account

- Notebooks
- Pocket PC 2002

Unless your AirCard was pre-configured, you must set up a user profile before you can use the AirCard.

### Notebooks

To enter your account information into Watcher:

1. If Watcher is not running, start Watcher, by selecting **Start > Programs > Sierra Wireless > AirCard 710 > AirCard 710 Watcher**

If you have a valid SIM card and are in an area that has GPRS coverage, a screen titled “Configure a profile now?” is displayed. Click **Yes**.

If instead the main Watcher window displays, this means that you don’t have a valid SIM card or you are not in an area that has GPRS coverage or your AirCard was pre-configured. Click **Tools > Options** to access the Profiles tab of the Options window.

2. In the Profiles tab of the Options window, click **Add**.  
The User Profile window appears.



Figure 5-1: Entering profile information (notebooks)

3. Fill in the following fields:  
**Profile Name**—type in any name that will help you remember the purpose/use of this account. This name will be shown in the main Watcher window and, if you later create more profiles, you can use it to select this profile.

---

*Note: Depending on your AirCard configuration, the User Profile window may or may not have an **Advanced** button. If the button is not displayed, there is no need to enter an IP address or DNS address(es).*

---

**User Name** and **Password**—type in the user name and password that the service provider gave you, if applicable.

**APN (Access Point Name)**— type in the name that the service provider gave you, if any (some service providers do not use this, and allow a blank name). This is the name of the system located at a base station on the GSM network that maintains connections with other networks like the Internet.

4. If you want to have a GPRS packet data session established whenever you are using this profile and whenever you are in GPRS coverage, then select **Auto Connect**.
5. If your account information includes an IP address or DNS address(es), click the **Advanced** button.
6. If your service provider gave you a specific IP address for your AirCard, then select “**Use static IP address**”, and type the address. (Usually, you should select “**Use dynamic IP address**”.)
7. If your service provider is using data compression and/or header compression, then select the checkbox(es) for the feature(s) that your service provider supports.
8. If your service provider gave you values for **Primary DNS** and **Secondary DNS**, then:
  - a. Click the DNS tab at the top of the window.
  - b. Enter the values into the corresponding fields.
  - c. Click **OK**.
9. Click **OK** until you return to the main Watcher screen.

The AirCard is now ready for use.

## Pocket PC 2002

To enter your account information into Watcher:

1. If Watcher is not running, start Watcher, by selecting **Start > Programs > AirCard 710 or 750 Watcher**  
 If you have a valid SIM card and are in an area that has GPRS coverage, a screen asking you to “Configure a profile now?” is displayed. Tap **Yes**.  
 If instead the main Watcher screen is displayed, this means that you don’t have a valid SIM card or you are not in an area that has GPRS coverage or your AirCard was pre-configured. Tap **Tools > Options** to access the Profiles tab of the Options screen.
2. Tap **Add**.



A screen in which you enter profile information appears.



Figure 5-2: Entering profile information (Pocket PC 2002)

**3.** Fill in the following fields:

**Profile**—type in any name that will help you remember the purpose/use of this account. This name will be shown in the main Watcher screen and, if you later create more profiles, you can use it to select this profile.

**User Name** and **Password**—type in the user name and password that the service provider gave you, if applicable.

**APN (Access Point Name)**— type in the name that the service provider gave you, if any (some service providers do not use this, and allow a blank name). This is the name of the gateway through which you will be connecting to the Internet.

**4.** If you want to have a GPRS packet data session established whenever you are using this profile and whenever you are in GPRS coverage, then check **Auto Connect**.

**5.** Tap **Advanced**.

**6.** If your service provider gave you a specific IP address for your AirCard, then select the radio button “**Use static IP address**”, and type the address. (Usually, you should select the radio button “**Use dynamic IP address**”.)

**7.** If your service provider is using data compression and/or header compression, then select the checkbox(es) for the feature(s) that your service provider supports.

**8.** If your service provider gave you values for **Primary DNS** and **Secondary DNS**, then:

- a.** Tap the DNS tab at the bottom of the screen.
- b.** Enter the values into the corresponding fields.
- c.** Tap **ok**.

**9.** Tap **ok** until you return to the main Watcher screen.

The AirCard is now ready for use.



## >> 6: Removing the AirCard

- Windows NT
- Windows 95, 98, 2000, Me, XP
- Pocket PC 2002

### Windows NT

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

### Windows 95, 98, 2000, Me, XP

To remove the AirCard:

1. Close Watcher if it is open.
2. Click the PC Card icon in the status area to display the option to stop the card.
3. Click “Stop Sierra Wireless AirCard GPRS Adapter Parent” (Windows 95, 98, 2000, or Me) or “Safely remove Sierra Wireless AirCard GPRS Adapter Parent” (Windows XP).
4. If a dialog box appears notifying you that it is safe to remove the card, click **OK**.
5. Pivot the antenna so that it is once again parallel to the end of the AirCard housing, then gently push it all the way into its retracted position.

**AirCard 710 only**

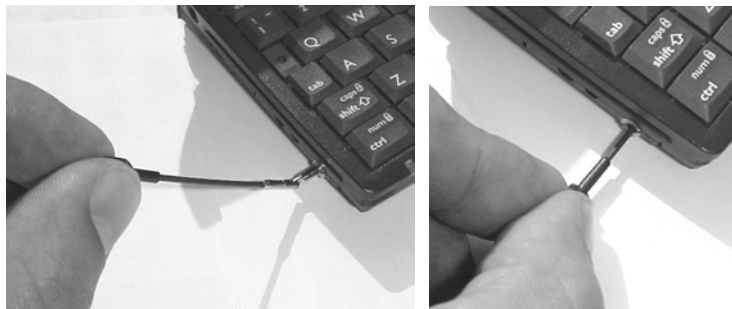


Figure 6-1: Retracting the antenna (AirCard 710 only)

6. Push the PC Card eject button on your computer to eject the card.



Figure 6-2: Ejecting the AirCard 710/750 PC Card from its slot

7. Grasp the AirCard PC Card and remove it from the slot.



Figure 6-3: Removing the AirCard 710/750 PC Card from its slot

---

*Note: Anytime you eject and re-insert the AirCard, restart your Pocket PC by turning it off and on again.*

---

#### AirCard 710 only

## Pocket PC 2002

To remove the AirCard from your Pocket PC:

1. Stop Watcher (**Start > Settings > System tab > Memory > Running Programs** > In the "Running Program List", select "AirCard 710 Watcher", then tap **Stop**.)
2. Pivot the antenna so that it is parallel to the end of the AirCard housing.
3. Gently push the AirCard antenna all the way into its retracted position, until the tip is firmly seated against the edge of the AirCard housing.
4. Push the PC Card eject button on the Pocket PC to eject the card.
5. Grasp the AirCard and remove it from the slot.



Figure 6-4: Removing the AirCard from its slot (Pocket PC)



## >> 7: The Watcher™ Window

- Launching Watcher
- The Watcher window
- Getting more information

Watcher is the application that allows you to manage and monitor the connection between the AirCard network card and the network.

### Launching the Watcher program


If your account profile is set to auto connect (see page 24), you do not need to run Watcher when you use the AirCard, but it does provide useful status information.

Depending on your settings in the Options window, Watcher launches automatically anytime you insert the AirCard. You can also launch Watcher by:

Notebook PCs

Pocket PC 2002

Notebooks PCs

- Selecting **Start > Programs > Sierra Wireless > AirCard 710 > AirCard 710 Watcher**
- Selecting **Start > Programs > AirCard 710 or 750 Watcher**
- Double clicking the Watcher icon  on your desktop

### The Watcher window

#### Notebook PCs

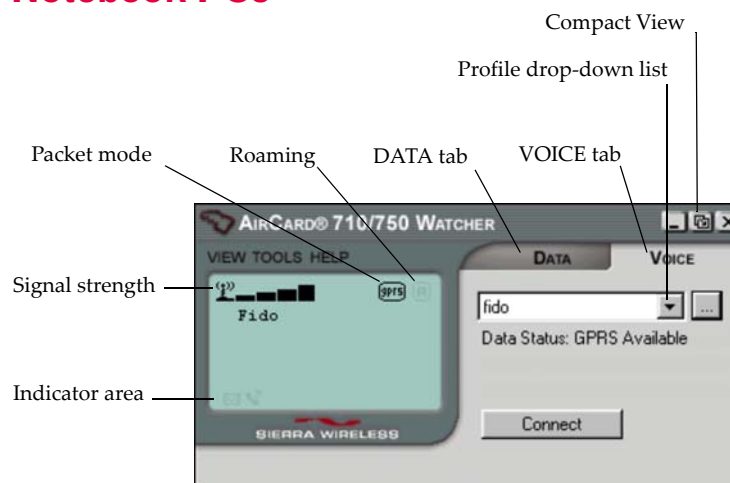


Figure 7-1: The Watcher window (AirCard 750 on notebooks)

*Note: The AirCard 710 does not have a DATA or VOICE tab as it supports data only*

## Components of the Watcher screen (Pocket PC)

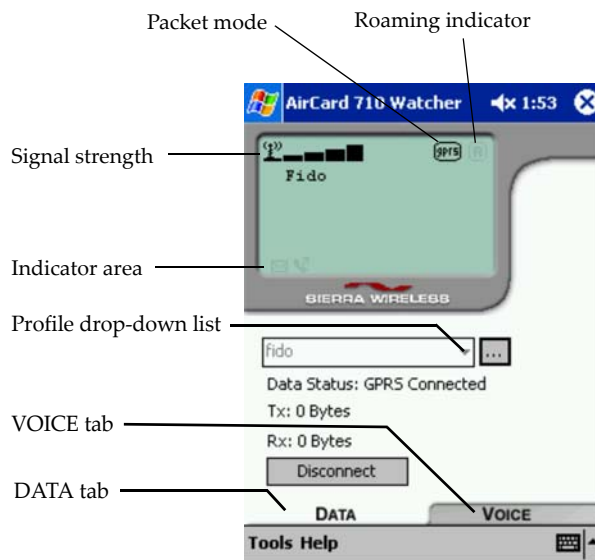


Figure 7-2: The Watcher screen (AirCard 750 on Pocket PC 2002)

*Note: The AirCard 710 does not have a DATA or VOICE tab. Voice features are not supported.*

## Getting more information

Detailed information on using the AirCard is included in the online Help, which can be accessed from the **HELP** menu.

### Notebooks

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

If you do not see the topic you want to display, use the **Index**, **Find**, or **Help Topics** buttons to find the topic of interest.

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

*Note: In most windows, you can press the **Help** button for help.*



- In the **Help Topics** (Contents) window, use the scroll bar to locate a topic of interest. Topics that have a book icon next to them can be expanded by double-clicking the icon. Double-click a topic to display it.
- In the **Find** window, select a radio button to generate a database (for text searching). Type the word or words you want to find in the Help system. You can click **Options** to set word matching options.

## Pocket PC 2002

To get help on a particular screen, tap **Start**<sup>1</sup> > **Help**.

To view the contents of the Help:

1. Tap **Start** > **Help** > **AirCard 710**.

---

1. **Start** is on a menu accessed from the icon in the upper left corner of the screen.



## >> 8: Technical Specifications

- Radio frequency and electrical
- Environmental

### Radio frequency and electrical specifications

**Table 8-1: Radio frequency & electrical specifications**

<b>Approvals</b>	FCC Parts 15, and 24 Industry Canada [Pending] CE
<b>Compliance</b>	Compliant with: GPRS GSM Release 97 SMG 31 Phase 2+
<b>Voltage</b>	+5 VDC from PCMCIA Slot
<b>Current</b>	<i>Typical requirement:</i> 4 TX slots on 1.20 A peak, 0.80 A average 2 TX slots on 0.77 A peak, 0.40 A average 1 TX slots on 0.55 A peak, 0.22 A average Standby 15 mA
<b>Multi-slot class</b>	<b>Class 12</b>
<b>Transmit</b>	<b>AirCard 710:</b> <i>PCS:</i> 1850 to 1910 MHz  <b>AirCard 750:</b> <i>PCS:</i> 1850 to 1910 MHz <i>DCS1800:</i> 1710 to 1785 MHz <i>EGSM900:</i> 880 to 915 MHz
<b>Receive</b>	<b>AirCard 710:</b> <i>PCS:</i> 1930 to 1990 MHz  <b>AirCard 750:</b> <i>PCS:</i> 1930 to 1990 MHz <i>DCS1800:</i> 1805 to 1880 MHz <i>EGSM900:</i> 925 to 960 MHz
<b>Channel spacing</b>	200 kHz
<b>Frequency stability</b>	0.1 ppm

**Table 8-1: Radio frequency & electrical specifications**

<b>RX sensitivity</b>	-102 dBm
<b>TX modulation quality</b>	GMSK burst: RMS phase error < 5 degrees; Peak phase error < 20 degrees
<b>Antenna gain</b>	<b>AirCard 710:</b> PCS1900 band: -2.5 dB  <b>AirCard 750:</b> PCS1900 and DCS1800 bands: -2.5 dB EGSM900 band: -3.5 dB

## Environmental specifications

**Table 8-2: Environmental specifications**

<b>Operating temperature</b>	-20 to +60 °C (ambient, outside PCMCIA enclosure)
<b>Storage temperature</b>	-30 to +85 °C
<b>Humidity</b>	95%, non-condensing
<b>Vibration</b>	15 g peak 10 to 2000 Hz (non-operating)
<b>Drop</b>	30" (76.2 cm) onto vinyl-covered concrete

## 9: Regulatory Information

Tested to comply with FCC standards  
FOR HOME OR OFFICE USE.

This device complies with Part 15 of the FCC Rules. Operation of this device is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operations.

**CAUTION** When the AirCard 710/750 is in use, users should maintain a distance of at least 25 mm (1") between the antenna and any part of the body. This device has been tested for compliance with FCC RF exposure limits in a typical laptop computer like the IBM ThinkPad T21 laptop PC used in the grant application. **This device is only authorized to be used in a typical laptop computer, such as the one used in the grant application.**

FCC ID: N7NAC710 (for the AirCard 710); N7NAC750 (for the AirCard 750).

Industry Canada #: 2417332343A (for the AirCard 710);  
2417C11897 (for the AirCard 750).

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

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

**WARNING (EMI) – United States FCC Information** – This equipment has been tested and found to comply with the limits pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in an appropriate installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

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.

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

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



[Pending] The AirCard 750 is certified to be used in the member states of the EU.

## Declaration of conformity for CE Marking

[Pending]

We,

*Sierra Wireless Inc.*

13811 Wireless Way  
Richmond, BC  
Canada V6V 3A4

declare under our sole responsibility that the product *AirCard 750*, to which this declaration relates, is in conformity with the following standard(s) or other normative document(s):

- EN 301 502; V7.0.1 (07-2000)
- ETS 300 342-1, November 1997;
- EN 301 489-07 (09-2000)
- EN 60950, 1992
- ICNIRP Guidelines - 1998

following the provisions of directive:

- R&TTE is 1999/5/EEC.

Date [Pending]

Signature

Name





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