

Activating your Raven on the TELUS Network

- Installing the SIM
- Hardware Installation
- Indicator Lights
- Optional: Setting up a
 DUN Connection

This Quick Start guide provides step-by-step directions for activating your Raven on the TELUS cellular network.

Tip: For additional configuration options, refer to the User Guide for your Raven.

Installing the SIM

The SIM in the Raven is a smartcard securely storing the key identifying a cellular subscriber. Generally, you will only need to install a SIM once in the life of the modem and it may be pre-installed by your Sierra Wireless Representative.

1. Before you start

If the SIM was pre-installed activation of your modem is complete. Skip to the Raven Placement section and/or to the DUN instructions, if you need Dial-Up Networking.

Cellular Account Required

• **Cellular account** - To use your modem you need to have a SIM (Subscriber Identity Module) with an active account with an iDEN cellular provider.

Software Required

• **Terminal application** - for example Microsoft HyperTerminal.

Hardware Required

- Serial cable A straight through serial cable.
- **Power adapter and a power source** You will need a power supply and power source for the modem.
- **PC or Laptop** To configure the modem, you will need a computer with an available serial port.

Tools Required

- **Small Phillips screw driver** The Phillips screw driver is the one which is also called a plus (+) or X screw driver.
- Slim stylus A PDA stylus, an unbent paperclip, or other such item.

1. Opening the Case

- **a.** Unplug the Raven power and all cables.
- **b.** Using a small phillips head screw driver, remove the screws on the back of the Raven.
- c. Slide the case off of the Raven and set it aside.



Figure 0-1: Partially removed case

2.

a. Carefully remove the SIM card from the card you got from TELUS.

3. Ejecting the SIM tray

Tip: The button is between two boards.



Figure 0-2: SIM tray button

Note: The card and SIM may be a different color than these examples.

4. Insert the SIM into the Tray

a. Remove the SIM from the card you obtained from your TELUS.



Figure 0-3: Sample of a Card with SIM



Figure 0-4: Insert SIM in to the modem

b. Place the SIM into the tray and gently press to click it into place.





Figure 0-5: Empty SIM Tray and a Tray with a Sample SIM

5. Insert the Tray and SIM

- **a.** Slide the tray back into the modem.
- **b.** Gently press to click it into place.

Tip: The top of the card faces the bottom of the modem.



Figure 0-6: Inserting the SIM

6. Finishing the SIM installation

- **a.** Slide the Raven back into the case.
- **b.** Secure the back of the Raven with the screws.

Once you have the SIM installed, the final step for it to work with your Raven is issuing a master reset. You will need to connect to the Raven using a terminal application such as HyperTerminal with the Raven connected directly to your computer.

You can access and configure your Raven using a terminal application such as Microsoft HyperTerminal, PuTTY, or similar. The following directions are for HyperTerminal which is part of a standard installation of Windows XP.

Start > All Programs > Accessories > Communications > HyperTerminal



Figure 0-7: HyperTerminal

1. Choose a name and icon for your connection.

a. Choose a name for your connection, such as *Raven* or *Sierra Wireless AirLink Solutions*. The name and icon are only for your own reference so you can find the connection at a later date.

Tip: If you want to have a connection saved for both local and remote, it is recommended the connection name reflect the connection type, i.e. Raven local.

b. Select OK.

2. Connect To

a. Select *COM1*, or the comport to which the modem is connected, for the "Connect Using".

Connect To	? 🛛	
🧾 Sierra W	/ireless AirLink Solutions	
Enter details for	the phone number that you want to dial:	L
Country/region:	United States (1)	
Area code:	510	L
Phone number:		
Connect using:	COM1 BCM V.92 56K Modem Standard 33600 bps Modem COM3 COM1 TCP/IP (Winsock)	
aure 0-8: Co	nnect To	
c. Cha	inge the "Port Number" t	52
Connect To	? 🛛	
Sierra W	/ireless AirLink Solutions	
Enter details for	the host that you want to call:	L
Host address:	192.168.13.31	L
Port number:	2332	L
Connect using:	TCP/IP (Winsock)	
	TCP/IP (Winsock)	
d. Sele	ect OK.	
. Port S	Settings (serial o	۱ļ
 a. Cha Bits p Data I Parity Stop F Flow 	inge or verify the settings er Second: 115200 (defaul Bits: 8 : None Bits: 1 Control: Hardware.	t)
• Flow	Control: Hardware.	

COM1 Properties	?
Port Settings	
Bits per second:	115200
Data bits:	8
Parity:	None
Stop bits:	1
Flow control:	Hardware
	Restore Defaults
	K Cancel Apply
Figure 0-9: Port	Restore Defaults K Cancel Apply Settings

Tip: If you have configured the Raven for settings different than the defaults for Bits per Second, Data Bits, Parity, and/or Stop Bits, you will need to use your changed settings.

b. Select OK.

4. Connected



- **b.** To see what you are typing as you type it, you will need to turn on the echo and verbose mode. Type *ATE1V1* and press *Enter*.
- **c.** If you get a reply of "OK", then you entered the command successfully. If you get a reply of "0" or "ERROR", try entering the command again.

5. Enter the Master Reset Command for iDEN

- a. Type AT*PROVISION=000000, 0123456789
- **b.** The Raven should respond with: "Master Reset Succeeded". With any other response, contact TELUS to check the account status.
- **c.** Press the reset button on the Raven.

The Raven should now register on the network.

Hardware Installation

Your Raven should be mounted in a position that allows easy access for the cables so they are not bent, constricted, in close proximity to high amperage, or exposed to extreme temperatures. The LEDs on the front panel should be visible for ease of operational verification. You should ensure that there is adequate airflow around the modem but that it is kept free from direct exposure to the elements, such as sun, rain, dust, etc.

In a mobile location, such as a car or truck, ensure the location is secure both against abrupt movements of the vehicle and from other items coming into contact with the modem.

Caution: The Raven is in a hardened case and designed for use in industrial and extreme environments. However, unless you are using cables expressly designed for such environments, they can fail if exposed to the same conditions the Raven can withstand.



Figure 0-11: Raven Connectors

Figure 0-12:

Cellular

Antennas selected should not exceed a maximum gain of 5 dBi under standard installation configuration. In more complex installations (such as those requiring long lengths of cable and/ or multiple connections), it's imperative that the installer follow maximum dBi gain guidelines in accordance with the radio communications regulations of the Federal Communications Commission (FCC), Industry Canada, or your country's regulatory body (if used outside the US).

- RSS-102 (...Health Canada's Safety Code 6 for Exposure of Humans to RF Fields)
- RSS-129 (800 MHz Dual-Mode CDMA Cellular Telephones) (Analogue & CDMA)
- RSS-133 r1 (2 GHz Personal Communications)
- http://www.industrycanada.ca.

Your Raven will work with most Dual-Band PCS cellular antennas with a TNC connector that works in the high and low frequencies of the cellular technology of your modem. Connect the primary antenna or primary RF cable directly to the antenna connector on the back of the Raven.

Tip: When using a cable to an antenna placed away from the modem, minimize the length of your cable. All gain from a more advantageous antenna placement can be lost with a long cable to the modem.

Note: When using a DC power source (such as a car battery or solar cell), Sierra Wireless recommends placing a fuse (1-2 Amp) on the line close to the power source to protect your power source from possible surges due to shorts or other line issues.

Power

Your Raven can be used with either DC, available in most automobiles, or 110 AC, standard US wall power, with the appropriate power adapter. DC cables and AC adapters are available as optional accessories in addition to the one included with your Raven.

The DC power cable positive lead should be connected to the battery or power source positive terminal. The power cable negative lead should be connected to the battery or power source negative terminal.

Connecting to a Computer or other Device



Figure 0-13: Serial

The serial port of your Raven can be connected directly to most computers or other devices using a standard straight through cable. If you have a DCE device, you will need a null modem or null modem cable.

Indicator Lights

When your Raven is connected to power and an antenna, there is a specific pattern to the lights to indicate its operation mode.



Figure 0-14: Raven Indicator lights

• **Chan (channel)** - Indicates the modem has acquired a network channel.

- Link Indicates a successful connection to the cellular network.
- **Reg (registration)** Indicates the Raven has acquired an IP fromTELUS.
- **RSSI (signal level)** Light shows the strength of the signal and may be nearly solid (strong signal) or flashing (weaker signal). A slow flash indicates a very weak signal.

RSSI LED Ranges

RSSI/Signal LED Status	Ranges of RSSI (dBm)
On Solid	Equal to or stronger than -69
Fast Blink	-70 to -79
Normal blink	-80 to -89
Slow Blink	-90 to -99
Extinguished	Equal to or weaker than -100

- **TxRx (transmit/receive)** The light will flash as data is transferred to and from the Raven-E modem on the remote network.
- **Pwr (power)** Indicates the power adapter is connected and there is power getting to the Raven.
- The **Reset button** performs the same function as unplugging power from the modem and plugging it back in. Reset will not alter any saved configuration settings.

Light Patterns

The LEDs on the front of the modem will respond in different patterns to indicate modem states.

- Normal Each LED, mentioned above, lit as applicable.
- **Start up** The LEDs will cycle from left to right.
- **PassThru mode** The Chan, Reg, and Link LEDs will blink in tandem. The Tx and Rx LEDs will blink when transmitting or receiving data.

Optional: Setting up a DUN Connection

Dial-up Networking (DUN) allows a computer or other device to use the serial port on your Raven to connect to the Internet or private network using PPP just like an analog modem using a standard phone line.

Caution: To install any driver on your computer, you may need to be logged in as Administrator or have Administrator privileges for your login.

Microsoft Windows XP is used in the examples below. The modem driver installation and DUN setup and configuration is similar in Microsoft Windows products. Examples are not provided here for installing the driver or configuring DUN for any other operating system.

Installing a modem driver for Raven

Standard installations of Microsoft Windows XP and 2000 include a generic modem driver which will work with your Raven.

1. Connect the Raven.

- **a.** Connect the modem to the computer with a DB-9 cable or the USB port in serial mode. .
- **b.** Plug in the AC adapter, connect the antenna(s) and power on the modem.

2. Install the driver.

a. Select *Start* > *Control Panel* > *Phone and Modem Options* (in Classic View).

	Phone and Modem Options	2
	Disfine Rides 14 1 4 1 4 1	ك الن
	Modems Advanced	
	The list below displays the locations you have specified. S location from which you are dialing.	Select the
	Location Area Code	
	New Edit C)elete
	OK Cancel	Apply
	Figure 0-15: Phone and Modem Options	
	b. Select the <i>Modems</i> tab.	
	Dialing Rules Modems Advanced	
	The following moderns are installed:	
	Modem Attached To	
	Add Remove Properties	s
F	igure 0-16: Phone and Modern Options: Moderns	
	C. Select <i>Aaa</i> .	
	A	
	л /\	



Figure 0-17: Add Hardware Wizard

- **d.** Check *Don't detect my modem; I will select it from a list.*
- e. Select *Next*.

Add Hardware Wizard	
Install New Modem	
Select the manufacturer an have an installation disk, cl	id model of your modem. If your modem is not listed, or if you ick Have Disk.
Manufacturer	Models 🔼
(Standard Modem Types)	Standard 19200 bps Modem
	Standard 28800 bps Modem
	Standard 33500 bps Modem
This driver is digitally signed. <u>Tell me why driver signing is imp</u>	Have Disk
	<pre></pre>

Figure 0-18: Add Hardware Wizard: Install New Modem

- f. Select (*Standard Modem Types*) from the Manufacturers column.
- **g.** Select *Standard 33600 bps Modem* from the Models column.

Tip: If you have the speed for your modem configured as something other than the default, use the Standard Modem that matches the speed you configured.

h. Select *Next*.



Figure 0-19: Add Hardware Wizard: Select Ports

- i. Check Selected Ports
- **j.** Select the COM port the modem is connected to (commonly COM1).
- **k.** Select *Next*.



Figure 0-20: Add Hardware Wizard: Finish

I. Once the modem driver is installed, select *Finish*.

3. Configure the driver.

When you return to the *Phone and Modem Options* window, you should see the newly installed modem "attached to" the correct COM port.

Phone and Modem Options	? 🗙
Dialing Rules Modems Advanced	
The following modems are installed:	
Modem Attached	To
Standard 33600 bps Modem COM1	
Add Remove	
OK Cancel	Apply

Figure 0-21: Phone and Modem Options: Modems

a. Highlight the modem and select *Properties*.

Standar	1 33600 bps Mo	dem Properties 🛛 🛛 🔀
General	Modem Diagnos	tics Advanced Driver
	Standard 33600 E	ips Modem
	Device type:	Modems
	Manufacturer:	(Standard Modem Types)
	Location:	Unknown
Devic	ce status	
This If yo start	device is working p u are having problen the troubleshooter.	roperly.
		Troubleshoot
Device	usage:	
Use th	is device (enable)	<u> </u>
		OK Cancel

Figure 0-22: Modem Properties

b. Select the *Modem* tab.

General Modem Diagnostics Advanced Driver
Port: COM1
Speaker volume
Low High
Maximum Port Speed
115200
Dial Control
Wait for dial tone before dialing

Figure 0-23: Modem Properties: Modem

- **c.** Maximum Port Speed should be set to *115200* (default).
- **d.** Select *OK* to exit.
- **e.** Select *OK* again to exit out of the Phone and Modem Options.

Creating a Dial-Up Networking (PPP) Connection

Once you have the driver for the modem installed on your computer, you can set up and configure Dial Up Networking (DUN) to use the modem as your connection to the Internet using PPP.

Note: No other device or program can be using the same COM port (serial port) configured for the modem driver.

Caution: If you have an existing LAN connection, installing DUN for the modem may interfere with the LAN connection. It's recommended to disconnect your LAN connection before using a PPP connection with your Raven. Once the DUN connection is initiated, by default, it will take over as the "default route" for network communication and specifically for Internet access. If you want the two connections to co-exist, you will need to de-select "Use default gateway on remote network" (described later) and use the route command in Windows to setup routing through the modem properly. This guide does not provide information on the route command. You may need to consult with your network administrator to properly configure routing.

1. Create a new network connection.

a. Select *Start* > *Connect To* > *Show All Connections* to open the Network Connections window.





Figure 0-25: Create New Connection

c. Select *Next* to start installing and configuring the DUN connection.

New Connection Wizard	
S	Welcome to the New Connection Wizard
	This wizard helps you:
	Connect to the Internet.
	 Connect to a private network, such as your workplace network.
	To continue, click Next.
	< Back Next> Cancel
Figure 0-26: New Conned	ction Wizard

- **d.** Select *Connect to the Internet*.
- e. Select Next.

Connect to the Internet so you can browse the Web and read email.
O Connect to the network at my workplace
Connect to a business network (using dial-up or VPN) so you can work from home, a field office, or another location.
O Set up an advanced connection
Connect directly to another computer using your serial, parallel, or infrared port, or set up this computer so that other computers can connect to it.
Figure 0-27: New Connection: Type
f. Select Set up my connection manually.
g. Select <i>Next</i> .
How do you want to connect to the Internet?
Choose from a list of Internet service providers (ISPs)
Set up my connection manually
For a dial-up connection, you will need your account name, password, and a phone number for your ISP. For a broadband account, you won't need a phone number.
○ Use the CD I got from an ISP
Figure 0-28: New Connection: How do you want to connect?
h. Select <i>Connect using a dial-up modem</i> .
i. Select <i>Next</i> .
⊙ Connect using a dial-up modem
This type of connection uses a modem and a regular or ISDN phone line.
O Connect using a broadband connection that requires a user name and
password This is a high-speed connection using either a DSL or cable modem. Your ISP may refer to this type of connection as PPPoE.
O Connect using a broadband connection that is always on
This is a high-speed connection using either a cable modem, DSL or LAN connection. It is always active, and doesn't require you to sign in.
Figure 0-29: New Connection: Connect using
. Ontional: If you have multiple modems installed on
your computer, you may be prompted to select the
modem to be used. If you only have one modem
installed this option will be omitted
instaned, this option will be onlitted.
 k. Check Standard 33600 bns Modem.
 k. Check Standard 33600 bps Modem. Select Next

You b	ave more than one dial, up device on your computer
Select	the devices to use in this connection:
	Modem - BCM V 92 56K Modem (CDM3)
⊡	Modem - Standard 33600 bps Modem (COM1)
5	
Figure 0-	-30: New Connection: Select Modern
m.	Type in a name for the connection, such as <i>Sierra Wireless AirLink Modem</i> .
n.	Select Next.
Turne Mer	a new a Contro ICD in the Collection have
туре те	e name or your rom in the following box.
ISP Nan	
Sierra V	/ireless Airlink Modem
The nam	ne you type here will be the name of the connection you are creating.
Figure 0-	-31: New Connection: Connection Name
0.	Type in <i>10001</i> as the phone number for the modem to dial.
p.	Select Next.
Type t	the phone number below.
Pł	none number:
10	0001
Yo yo he	ou might need to include a "1" or the area code, or both. If you are not sure ou need the extra numbers, dial the phone number on your telephone. If you ear a modem sound, the number dialed is correct.
Figure 0-	-32: New Connection: Phone Number
a	Ontional: If you have multiple users configured for
ч.	your computer, you may be prompted for Connection Availability. If you select <i>My use only,</i> the account currently logged on will be the only one able to use this DUN connection.
r.	Select Next.
	∧

A conr availat	nection that is created for your use only is saved in your user account and is not
	ble unless you are logged on.
Create	this connection for:
۲	Anyone's use
0	My use only
-igure C)-33: New Connection: Permissions
Genera User n he fiel	ally the modem takes care of the Account Information, ame and Password, for the connection, so you can lear lds blank (unless otherwise instructed by Support).
s.	If you want to allow others to use the same login for the modern select <i>Use this account name and nassuord</i>
t.	Select Next.
Type - safe p	an ISP account name and password, then write down this information and store it in lace. (If you have forgotten an existing account name or password, contact your ISF
User	name:
Passy	word:
Confi	rm password:
	se this account, name and password when anyone connects to the Internet from
th	is computer
🛄 М	ake this the default Internet connection
Eiguro () 24: Now Connection: Connection Information
igure o	-54. New Connection. Connection mormation
Cautio Make ti you wili also aff LAN. S connec	n: If you have a LAN connection to the Internet and select his the default Internet Connection for the DUN configuration I not be able to use the LAN to connect to the Internet and m fect the network connection on your computer to the rest of elect this option ONLY if the Raven will be your sole network tion.
Cautio Make ti you wili also aff LAN. S connec u.	n: If you have a LAN connection to the Internet and select his the default Internet Connection for the DUN configuration I not be able to use the LAN to connect to the Internet and n fect the network connection on your computer to the rest of relect this option ONLY if the Raven will be your sole networ with the to add a shortcut for this DUN connection to your desktop, check Add a shortcut.



Figure 0-35: New Connection: Finish

2. Configure the DUN connection

After you complete the New Connection Wizard, there are a few more things you will want to configure in the connection.

a. Select Properties.

Connect Sierr	a Wireless Airlink Modem 🛛 🛛 🛛
P	
User name: Password:	
Save this us Me only Anyone v	er name and password for the following users: who uses this computer
Dial:	10001
Dial	Cancel Properties Help

Figure 0-36: DUN Connection

b. Uncheck *Use dialing rules*.

25	∨ ∨ 200709
	h. Select <i>OK</i> .
	g. Do not check any other option.
	f. Check Enable hardware flow control.
	Colort 115200 on the Maximum model
	OK Cancel
	Show icon in notification area when connected
	Use dialing rules Dialing Rules
	Country/region code:
	Area code: Phone number: 10001 Alternates
	Phone number
	✓ All devices call the same numbers Configure
	Connect using:
	General Options Security Networking Advanced
	🖒 Sierra Wireless Airlink Modem Properties 🛛 🖓 🔀
	d. Select <i>Configure</i> , below the Connect using line.
	c. Check Show iconwhen connected.

Modem Configuration	? 🛛	
Standard 33600 bps l	Modem (COM1)	
Maximum speed (bps):	115200 👻	
Modem protocol	✓	
Hardware features		
Enable hardware flow control		
Enable modem error control		
Enable modem compress	ion	
Show terminal window		
Enable modem speaker		
	OK Cancel	

Figure 0-38: Modem Configuration

i. Back at the main properties screen, select the *Networking* tab.

🕨 Sierra Wireless Airlink Modem Properties 👘 🛛 🔀		
General Options Security Networking Advanced		
Type of dial-up server I am calling:		
PPP: Windows 95/98/NT4/2000, Internet 🛛 🗸 🗸		
Settings		
This connection uses the following items:		
Que Content Control (Content of Content of		
Install Uninstall Properties		
Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.		
OK Cancel		

Figure 0-39: Networking

- j. Select Settings.
- **k.** Remove the checks from all three PPP settings.
- I. Select OK.

	PPP Settings
	Enable LCP extensions
	Enable software compression
	Negotiate multi-link for single link connections
	OK Cancel
ŀ	≓igure 0-40: PPP Settings
	 M. Select (highlight) Internet Protocol (TCP/IP) and then select <i>Properties</i>.
	Fip: For most configurations, you will be obtaining the IP address and the DNS server address automatically.
	n. Select <i>Advanced</i> .
	General
	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
	Obtain an IR address automatically
	IP address:
	UDtain DNS server address automatically Ulse the following DNS server addresses:
	Preferred DNS server
	Alternate DNS server
	Advanced
	−igure 0-41: TCP/IP Properties
	• Unchook Use ID header commerced
	• Check Use if neutrocompression.
	p. Check use <i>uejuuli guleway on remote network</i> .
	q. Select UK.
	Λ
	\wedge $/ \setminus$
	∨ ∨ 20070914

General DNS WINS		
This checkbox only applies when you are connected to a local network and a dial-up network simultaneously. When checked, data that cannot be sent on the local network is forwarded to the dial-up network.		
Use default gateway on remote network		
PPP link		

Figure 0-42: Advanced TCP/IP

Tip: You may want to check the Options tab and change the settings for applications you might be using. The default options are generally applicable for most uses.

Caution: Unless specifically directed to do so by Support or your network administrator, you do not need to make any changes to the options on the Security tab.

r. Select *OK* until you return to the *Connect* window.

Connecting to the Internet Using DUN

There are two methods you can use to connect with Raven to the Internet using DUN, AceView and the Windows DUN connection directly.

AceView

AceView is a small utility which can maintain your DUN connection and monitor the connection of your Raven to Provider. If you have not already installed AceView you can obtain the most recent version from the Sierra Wireless Airlink website.

This guide assumes you have a default installation of AceView.

1. Start AceView.

Start > All Programs > AirLink Communications > AceView

Note: The direct DUN connection features of AceView are not available in Windows 98 or Windows NT.

2. Enable the Connection.



Figure 0-43: AceView: Menu

- a. Right-click on the AceView window to open the menu.
- **b.** Select *Connection Settings*.

Co	Connection Settings 🛛 🛛 🔀		
	Modem		
	Address:	192.168.13.31	
	Password:	****	
	DUN (Dial-Up Net	working)	_
	💌 Auto Start:	Sierra Wireless Airlink Modem 🛛 🗸 🗸 🗸 🗸 🗸 🗸	
✓ Maintain Persistent Connection			
	C	OK Cancel	

Figure 0-44: AceView: Connection Settings

- c. Select Auto Start in the DUN section.
- d. Select Maintain Persistent Connection.

When checked, AceView will continually check the DUN connection to ensure it is not down. If so, AceView will attempt to connect again.

Tip: When using the DUN connection, make sure the IP Address is set to the local IP address of the modern, 192.168.13.31 by default.

e. Select *OK*.f. *OK*.

Windows **DUN**

You can directly use the Dial-up link for the DUN connection.

1. Start the DUN session.

Start > Connect To > Sierra Wireless Airlink Modem

If you named the connection differently, use the name of the PPP connection you made earlier.

Connect Sierre	a Wireless Airlink Modem 🛛 🛛 🛛 🔀
C	
User name: Password:	
Save this us Me only Anyone v	er name and password for the following users: who uses this computer
Dial:	10001
Dial	Cancel Properties Help

Figure 0-45: DUN Connection

Tip: Generally you will not need to enter a Username or Password. If you do need to enter either, you can enter these parameters beforehand using *NETUID and *NETPW.

2. Select Dial to connect to the modem and the cellular network.

When you're connected, an icon should appear in the system tray showing the connection status.



Note: The speed shown in the connection is the speed between the modem and your computer, it is not the speed of the modem's connection to Provider or the Internet. **Caution:** For DUN connections on a Windows Mobility or other nonpersonal computer, the DNS settings may not be configured with the DUN connection. You may need to go into the network settings and add DNS servers manually.

Important Notice

Due to 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 AirLink Raven are used in a normal manner with a well-constructed network, the Sierra Wireless AirLink Raven 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 accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the Sierra Wireless AirLink Raven, or for failure of the Sierra Wireless AirLink Raven to transmit or receive such data.

Safety and Hazards

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

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

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

The driver or operator of any vehicle should not operate the Sierra Wireless AirLink Raven while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some states and provinces, operating such communications devices while in control of a vehicle is an offence.

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C ontact Information	For support assistance for SouthernLINC and Private iDEN Sierra Wireless AirLink modems, please contact Digitial Highway first.
ev 3.0B Feb.08	

Support Desk:	Phone:	1-877-524-0430
	Hours:	8:00 AM to 5:00 PM Eastern Time, Monday to Friday, except US Holidays
	E-mail:	support@digital-hwy.com
Sales Desk:	E-mail:	sales@digital-hwy.com
Post:	Digital Highway 175 Hill Brady Road Battle Creek, Mi USA 49037	
Web:	www.digital-hw	vy.com

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Fax	: 1-510-781-429 1-604-231-110	9 9	
Web	: www.sierrawire	eless.com	

Consult our website for up-to-date product descriptions, documentation, application notes, firmware upgrades, troubleshooting tips, and press releases:

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Revision History

Revision number	Release date	Changes
1.x	2003-2005	AirLink Communications documentation - CDPD, CDMA, and GPRS.
2.x	Q2: 2005-Q2: 2007	AirLink Communications documentation - CDMA, EV-DO, EDGE, and HSDPA.
3.0	in draft	Converted documentation from AirLink Communications documentation format into Sierra Wireless documentation format. Phase II of the conversion completed. Raven modem line documentation is revised.

