

QUICK DEPLOY GUIDE

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Sierra Wireless Air<u>Link RV50</u>

Wireless Modem



IMPORTANT NOTE: This Quick Deploy Guide is meant to be a general reference to give the installer an overview of the steps required to make this system operational. The Instruction Manual is the definitive source for detailed installation instructions and information.



Do not operate the Sierra Wireless modem in areas where blasting is in progress, 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 modem **MUST BE POWERED OFF**. The Sierra Wireless modem can transmit signals that could interfere with this equipment.

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Required Hardware/Software

- SIM card from provider (mini-SIM)
- APN information from provider
- #1 Phillips (pn 6290) or 2.5 mm flat (pn 8125) screwdriver
- Computer with Ethernet port
- Ethernet cable (supplied)
- DevConfig version 2.10 or greater. https://www.campbellsci.com/devconfig



Install the SIM Cards

- 1. Use a #1 Phillips (pn 6290) or 2.5 mm flat (pn 8125) screwdriver to remove the SIM card cover.
- 2. Slide the mini-SIM (2FF) card into the upper SIM card slot until it clicks into place.

By default, the SIM card in the upper slot is the primary SIM. Note the location of the notched corner for correct alignment. The gold contact points of the SIM face down when inserting into the upper slot. They face up when inserting into the lower slot. To eject a SIM card, press it in slightly and release.



3. Reattach the cover.



- 1. Connect the **Cellular** antenna.
- Connect the Diversity antenna, if used. Note: If a Diversity antenna is used, use ACEmanager to enable WAN/ Cellular | RX Diversity.
- 3. Connect the power cable leads to the power supply.

Lead Color	Function	Connect To
Black	Ground	G
White	Enabled (On/Off)	12V (or SW12V or C- or U- for control)
Red	Power (7–36 V)	12V



4. Connect the power cable to the RV50 DC Power input. When the RV50 is properly set up and powered, the status LEDs will turn on. The RV50 will begin the activation/provisioning process and attempt to connect to the mobile network. This process typically takes 5-10 minutes. A successful connection is indicated by a solid green Network LED. If the RV50 does not automatically connect to the network, proceed to Configuration (Step 5) to confirm or enter the WAN/Cellular APN information.

Configure the RV50 Using ACEmanager

- Download Campbell Scientific's collection of configuration templates from <u>https://www.campbellsci.com/downloads?c=9999&d=344</u> and run the executable downloaded.
- 2. Connect a Windows [®] computer to the RV50 using the supplied Ethernet cable.
- Launch Internet Explorer® or Firefox® web browser, and enter http://192.168.13.31:9191 into the address bar. The ACEmanager login screen should appear in the browser.
- 4. Log in using **User Name** = *user* and **Password** = *12345*
- 5. Click the **Template** menu button in the *ACEmanager* toolbar. A template application window will appear. Browse to and upload one of the configuration templates downloaded from Campbell Scientific.

Template File Name	Description
RV50_115200.xml	115200 baud RS-232, 10 Mbps Ethernet. The most common template used. Use with dataloggers such as CR300-series, CR800- series, CR1000, CR3000, and CR6.
RV50_9600.xml	9600 baud RS-232, 10 Mbps Ethernet. Most commonly used with older model dataloggers such as CR200X-series, CR10X, and CR23X.

NOTES:

Campbell Scientific templates reduce power consumption by changing LED behavior to report activity and errors only.

Default port numbers- Serial Server: 3001, PPP Pakbus: 6785

- Click WAN/Cellular SIM Slot 1 Configuration. Enter APN provided by cellular provider into User Entered APN. See manual for common examples.
- Reboot the RV50 after successfully applying the configuration template. Do this by clicking the **Reboot** button in the *ACEmanager* toolbar, by momentarily pressing the **Reset** button (2 seconds), or by temporarily removing power from the RV50.
- Log in again. Check the Status Network State field. It should read 'Network Ready,' indicating the RV50 is connected to the cellular network. The RV50's connection to the Internet can easily be tested by selecting the Admin | Advanced tab and using the PING tool to ping an Internet server, such as www.campbellsci.com.

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SIERRA WIRELESS										1	ACEma	inager	
							Software and Firmware	Template	Refresh All	Reboot	Help	Logout	
s	tatus	WAN/Cellular	LAN	VPN	Security	Services	GPS	Events Reporting	Serial	Applications	1/0	Admin	
La	st update	d time : Thursday, I	Decembe	er 31, 2015 10:4	8:44 AM						Ap	ply Refresh	Cancel
	Home			AT Phone N	lumber				-				
	WAN/Cellular				AN IP Addres	3 5			100.124.183.49				
	LAN				State				Network Ready				
VPN			AT Cell Info					Cellinfo: TCH: 2100 RSSI: -83 LAC: 3346 CelliD: 3329804					
			AT Current I	Network Open	ator			Verizon Wireless					
Security				AT Radio Te	chnology				LTE				
Services			Network	Service Type				4G					
GPS				AT Signal St	trength (RSSI	0			-83				
GF3				LTE Sign	nal Strength (RSRP)			-109				
Serial				LTE Sign	nal Quality (R	SRQ)			-10				
Applications				LTE Sign	nal Interferenc	e (SINR)			3.0				
About			AT Channel					2100					
			WAN/Ce	ilular Bytes S	ent			1051843					
			WAN/Ce	ilular Bytes R	cvd			1610619					
			Persisted	d WAN/Cellul	ar Bytes Sent			24356699					
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				ALEOS S	Software Vers	ion			4.5.0				
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Configure the Datalogger

With the appropriate RV50 template applied and the RV50 connected to the datalogger **RS-232** or **CS I/O** port, most dataloggers do not require any further configuration. If **PPP** or the **Ethernet** port is used, additional configuration of the RV50 and the datalogger is required. See the RV50 manual for more information.

The RV50 has <u>optional</u> PPP support for the datalogger's PPP and Internet protocol capabilities such as Email, FTP, HTTP, etc. This applies to the CR300-Series, CR800-Series, CR1000, CR3000, and CR6 connected via RS-232 or CS I/O. To enable PPP in the datalogger:

- 1. Connect to the datalogger using Campbell Scientific's Device Configuration Utility (*DevConfig*).
- 2. On the **Deployment** | **PPP** tab, change:
 - a. **Config/Port Used** to the datalogger serial port that will be connected to the RV50 RS-232 port. A common selection is RS232.
 - b. Modem Dial String to AT\APPP

D	eployment	Logger Contro	ol Data	Monitor	File	Control	Send (os i	Settin	gs Editor	Terminal	
	Datalogger	Com Ports S	Settings	CS I/O I	P	PP	Network	Servi	ices	Advanced	I	
	Confi	g/Port Used:	RS232		۷	DNS Se	erver 1:	0.0.	0.0]	
		IP Address:	0.0.0.0			DNS Se	erver 2:	0.0.	0.0]	
		User Name:				PPP Ne	twork St	tatus				
		Password:				PPP is	ate: dial Default	ed -> Netw	> IP O /ork	pened		^
	Moder	n Dial String:	AT\APP	P		gw: 19	92.168.1	15.31				
	Modem Dia	al Response:	CONNEG	ст								
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- On the Deployment | ComPorts Settings tab, select the datalogger serial port that will be connected to the RV50 RS-232 port and change Baud Rate to 115.2k Fixed. This is done to match the configuration of the RV50.
- Using the Deployment | Network Services tab, protect the datalogger by disabling any services that are not required. Common examples include FTP, HTTP, and Telnet.

Connect the Datalogger to the RV50

Dataloggers can be connected in a variety of ways to suit the needs of the application. Common methods include the use of one of the following serial or Ethernet peripherals.

Datalogger	Serial	Ethernet Cable
CR200X-Series, CR300-Series	• 18663 RS-232 null modem	• NL201 RS-232
CR800-Series	 18663 RS-232 null modem 17855 C-port cable SC105 CS I/O to RS-232 	• NL201 RS-232 or CS I/O
CR1000, CR3000	 18663 RS-232 null modem 17855 C-port cable SC105 CS I/O to RS-232 	 NL116 or NL121 NL201 RS-232 or CS I/O
CR6-Series	 31055 CPI/RS-232 cable 17855 C-port or U-port cable SC105 CS I/O to RS-232 	 Direct to Ethernet NL201 RS-232 or CS I/O