

#### www.campbellsci.com/cellular-communications

# 1. Introduction

#### NOTE:

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

For best results, update to the latest data logger operating system and version of Device Configuration Utility.

#### NOTE:

CR3000, CR1000 and CR800-series users must refer to the CELL200 Product Manual. This Quick Deploy Guide does not apply.

You should have received two Quick Deploy Guides with your CELL200-series module. The one you follow will depend on whether your module was configured with a private dynamic or public static IP address.

The Provisioning Report received with your Cellular Data Service shows whether the module was configured with a private dynamic or public static IP address. See FIGURE 1-1 (p. 1) for an example of a Campbell Scientific Provisioning Report. Other cellular providers should provide similar information.

**USE THIS GUIDE** if your module has a private dynamic IP address.

		r Data Service		
	Provis	sioning Report		
т	he following device has been provisi	ioned for Campbell Scientific	Cellular Data Service.	
Sales Order #	329081	Sales Order Due Date	03/23/2018	
Sales Order Date	0319/018	Date Provisioned	092220118	
Company	Contraction of the Name	Customer ID		
company	carbon manual or strend	Customer ID		
Address	Dage 815 W 1800 N	Phone		
City	Loger .	Email		
State				
Country	United States			
Postal Code	84321-1784			
		*		
Hardware	21086-12			
Hardware Model #		Datalogger (-40 to +70C) -0	ELL200 w/3G GSM -IT1B International 1B	
	CR088-CELL288-/718	Datalogger (-40 to +70C) -0	ELL200 w/3G GSM -IT1B International 1B	
Model #	CR086-CELL286-F18	Datalogger (-40 to +70C) -0	Cellular Data Modern Provisioning for User Supplied modern -IT1B International 1B	
Model # Serial #	CROB-CELLIN-FYB		Cellular Data Modern Provisioning for User Supplied modern -IT1B International	
Model # Serial # Provision Code	0000-021.00.718 exe 2002-0	CELLPROV-IT1B CELLDATA-IT1B-A25	Cellular Data Modern Provisioning for User Supplied modern 4T1B International 18 Campbell Scientific Cellular Data Service Subscription 4T1B International 1B -A25	
Model # Serial # Provision Code Data Plan Data Limit	0000-01100-716 997 1000-0 1000-0 2140	CELLPROV-IT1B CELLDATA-IT1B-A25 Network	Cellular Data Modern Provisioning for User Supplied modern -11'll International 18 Campbell Scientific Cellular Data Service Subscription -11'll International 18 -A25 25MB/Mon for 1 Yr International 18	
Model # Serial # Provision Code Data Plan	0000-01100-718 80 1001-4 1000-4 2100 2100 2100 2100	CELLPROV-IT1B CELLDATA-IT1B-A25 Network	Cellular Data Modern Provisioning for User Supplied modern -IT18 International 18 Campbell Scientific Cellular Data Service Subscription -IT18 International 18 -A25 20MB/Mon for 1 Yr	

FIGURE 1-1. Private dynamic IP provisioning report

Additionally, Campbell Scientific cellular modules configured with a private dynamic IP address will have one sticker on the module, as shown in FIGURE 1-2 (p. 1). It will show the module phone number and data plan. **USE THIS GUIDE.** 

Campbell Scientific cellular modules configured with a public static IP address will have two stickers on the module. One sticker will show the module phone number and data plan. The second sticker will show the static IP address. **USE THE OTHER GUIDE.** 



FIGURE 1-2. Module with private dynamic IP address

# 2. Campbell Scientific cellular data service

Campbell Scientific can provide subscriptions to cellular service through Verizon, AT&T, T-Mobile, Vodafone, Telstra, and over 600 other providers worldwide. When this cellular service is purchased with the module, the module will come pre-provisioned with the required SIM card and APN. If you have already purchased the CELL200 series, call Campbell Scientific to set up service.

# 3. Install the SIM card

#### NOTE:

If you purchased cellular service from Campbell Scientific with the module, it will come with the SIM (Subscriber Identity Module) card already installed.

- 1. Remove the SIM card cover.
- Note the location of the notched corner for correct alignment. The gold contact points of the SIM face down when inserting the SIM card as shown in FIGURE 3-1 (p. 2). Gently slide the card into the slot until it stops and locks into place. To eject the SIM card, press it in slightly and release.
- 3. Replace the SIM card cover.

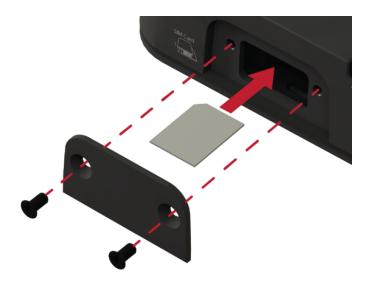


FIGURE 3-1. SIM card installation

# 4. Konect PakBus Router setup

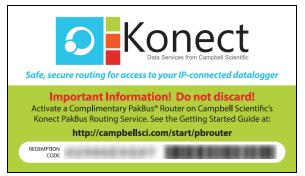
## 4.1 Get started

Open a web browser and go to www.konectgds.com.

First-time users need to create a **free account**. After you submit your information, you will receive two emails up to five minutes apart. One email will contain a Passport ID and the other your Password. If emails are not received, check your email junk folder.

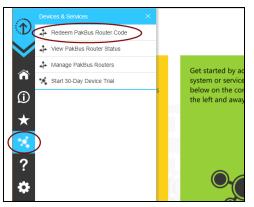


You will need the Konect PakBus Router redemption code that came on a card with the Campbell Scientific cellular module.



# 4.2 Set up Konect PakBus Router

- 1. Sign in to www.konectgds.com using your Passport ID and Password found in the two received emails. Once logged in, you will be at the Welcome page.
- 2. Click **devices and services** on the command bar to the left and select **Redeem PakBus Router Code**. Enter your complimentary Router Code found on the included card with your cellular-enabled device and click **Submit**.



3. The next screen shows the assigned **DNS** address and **Port** for the router. An optional **TCP Password** may be entered for additional security, and you must select a unique **PakBus Address** for your data logger.

TIP: Make note of this information for use in later steps.

Cluster Details	3
DNS:	Konectgds.com
Port:	80.40
Enter a TCP Pas	ssword or leave blank if not required
TCP Passwor	d:
Maintained No	odes (PakBus Addresses in use)
	(no addresses currently in use)
You can	select a PakBus address to use between 1 - 3999, excluding any addresses already in use.
	PakBus Address: 1
	Submit

# 5. Modules using Konect PakBus Router (private dynamic IP)

### 5.1 Set up hardware

- 1. Connect the **Cellular** antenna.
- 2. Connect your data logger to the CELL200-series module RS-232 or CS I/O port.
- 3. If not connecting through CS I/O, provide power to the CELL200 series.

## 5.2 Configure data logger

- 1. Connect to your data logger by using Device Configuration Utility.
- 2. On the **Datalogger** tab, change the data logger **PakBus Address** and optional **PakBus/TCP Password** to match the values entered in the Konect PakBus Router setup.
- 3. On the **Network Services** tab in the **PakBus/TCP Client** field, enter the DNS address and Port number noted during the Konect PakBus Router setup.
- On the PPP tab, set Config/Port Used to CS I/O SDC8 or RS-232, depending on how you are connected to the data logger.
- 5. (Optional) On the **PPP** tab, set **User Name** and **Password** if required by your cellular carrier (usually outside of the United Sates).
- 6. Verify the **Modem Dial String** setting is blank.
- 7. If connecting through RS-232, on the **Comport Settings** tab, set **RS232 BaudRate** to **115200 Fixed**.
- 8. Shut down Device Configuration Utility and start it again. This will activate the **Cellular** tab needed for the next step.

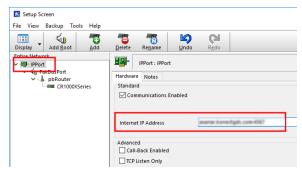
9. On the **Cellular** tab, enter the **APN** provided by your cellular provider.

O Device Configuration Utility 2.19	Beta	
File Backup Options Help		
Device Type	Deployment Logger Control Data Monitor Data Collection	File Control Manage
Q Search 🔕	Datalogger Com Ports Settings Ethernet CS I/O IP PPF	Cellular Netwo
Datalogger	Cell Modem Enable:	Status
CR 1000	APN: HELLEDWITHTE	State: Ne
CR 1000X Series		Signal Strength: -8
CR 10X-PB	PDP User Name:	Signal Quality: -1
CR200 Series	PDP Password: Show	
CR23X-PB	Automated Power Schedule	Cellular Network Stat
CR300 Series	Start (power-on) Time: Always On $$	Cellular is the defaul
CR3000	On Duration: 1 Hour	PPP State: IP Opene IP:
CR510-PB		gw: 10.64.64.64 dns: 198.224.173.1
CR6 Series	Repeat Cyde: Disabled V	dns: 198.224.174.1

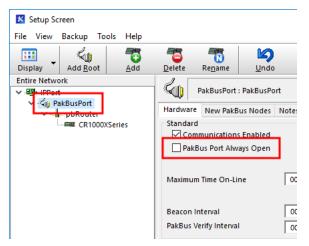
10. Click **Apply** to save the changes.

## 5.3 Set up LoggerNet

- 1. Select Add Root > IPPort.
- 2. Select **PakBusPort** and **pbRouter** for PakBus data loggers such as the CR1000X.
  - ✓ <sup>1</sup> Port
     ✓ <sup>1</sup> PakBusPort
     ✓ <sup>1</sup> pbRouter
     ✓ <sup>1</sup> CR1000XSeries
- 3. Add a data logger to the **pbRouter**.
- 4. Select the **IPPort** in the Network Map. Enter the Konect PakBus Router DNS address and port number as noted in the Konect PakBus Router setup. The DNS address and port number are input in the **Internet IP Address** field separated by a colon. For example, axanar.konectgds.com:pppp where pppp is the port number.



5. For PakBus data loggers, leave the default settings for the **PakBusPort. PakBus Port Always Open** should **not** be checked. If used, enter the **TCP Password**.



6. For PakBus data loggers, select the pbRouter in the Network Map and set the **PakBus Address** to **4070**.



 For PakBus data loggers, select the data logger in the Network Map and set the PakBus Address to match that of the data logger (default address in the data logger is 1). Click Apply to save the changes.

Display Add Boot	Add	Delete	Rename	L Undo	Redo					Z View
Entire Network			CR1000KSer	es : CR1000	Series					
Alig PakBusPort     Alig PakBusPort     Alig PakBusPort     CR1000XSeries		Hardware Schedule Data Files Cook. Program File Retrieval Notes Standard Communications Enabled Calificant Enabled								
			i Packet Size		998					
		Security O Delay Har			0 00 s 00	0 ms		۲		
			ncryption Ke							
		No final st Scheduled	Data Collec	are defined tion is disat	in the sta led.	tion's pro	gram.			

### 5.4 Test the connection

Use the **Connect** screen to test the connection. Click on the appropriate station and click **Connect** to initiate a call to the data logger.



is often less than 30 seconds but could be up to fifteen minutes. Be patient.

If the call is successful, the connectors at the bottom of the screen will come together and clock information from the data logger will be displayed in the **Station Date/Time** field.

Connect Screen: CR1000XSeries	s (CR1000XSeries)	- D >
ile Edit View Datalogger H	elp	
Disconnect Collect Now	Custom Station Status File Control Num Display	Graphs Ports & Flags
Stations	Table Monitor: Real Time Monitoring	Clocks
mu CR1000XSeries	V Show Units	Adjusted Server Date/Time
	Field Value	6/13/2018 2:30:44 PM Station Date/Time 6/13/2018 2:30:44 PM Check Set Pause Clock Update Current Program SCWinExLCR1X
List Alphabetically	Stop Interval 00 m 01 s	Send New Retrieve