

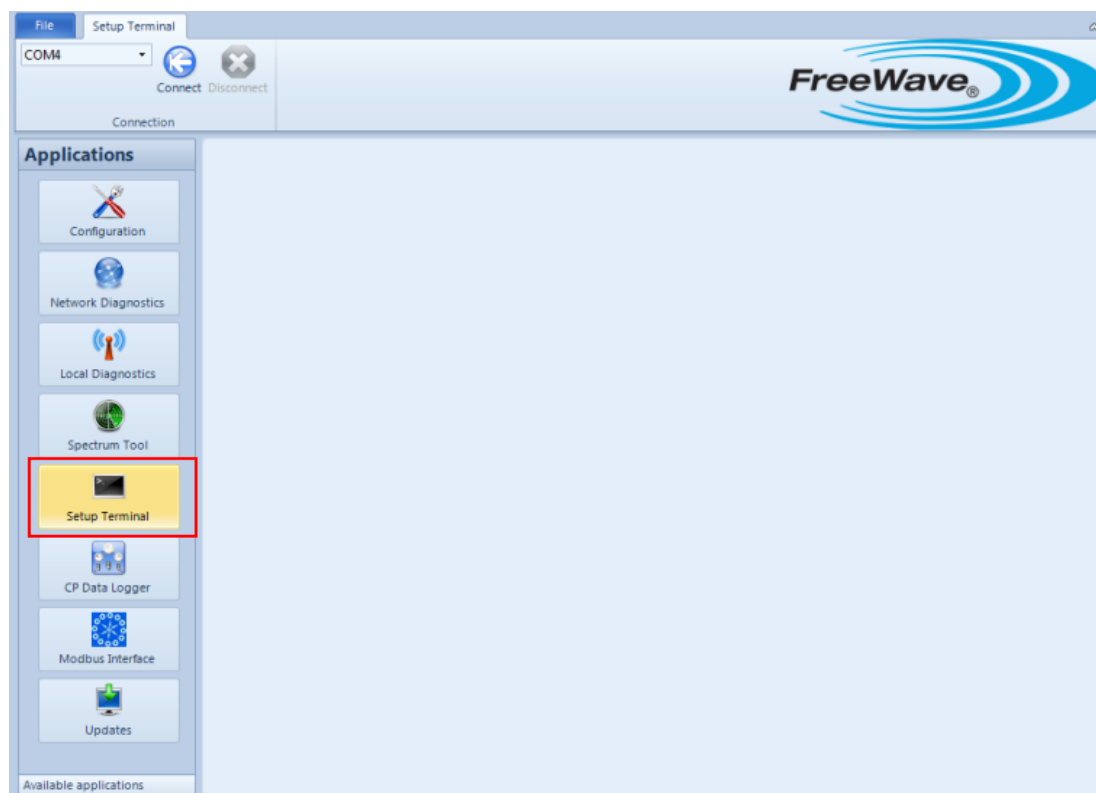
Applies to the Following FreeWave Products

- CB-900-V
- CB-2.4-V
- CB-900-SM
- CB-2.4-SM

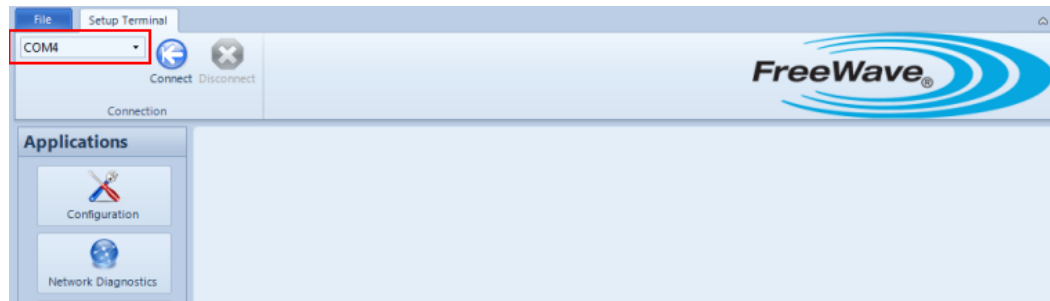
Using Tool Suite's Setup Terminal to Connect to and Configure a Cellular Bridge

To read and program both the cellular settings and the radio settings using the Setup Terminal application in Tool Suite, you need to connect the Cellular Bridge to a computer that runs the Tool Suite software. Tool Suite is available on the *User Manuals and System Tools* CD or at www.freewave.com.

1. Connect a serial cable between the computer or laptop and the P1 connector on the front panel of the Cellular Bridge.
2. With the Cellular Bridge connected to the computer, open Tool Suite and select **Setup Terminal** in the Application pane to display the Setup Terminal application.



3. Ensure the computer port to which the serial cable is connected is selected in the **Com Port** field in the Setup Terminal ribbon.



4. Click **Connect**.
5. Connect power to the Cellular Bridge.

The Cellular Bridge powers up and the Setup Terminal displays the boot sequence.

```
Cellular Bridge                               Firmware: R1500L00B10

Waiting for 3G Modem to register with carrier...
Press 'q' to bypass...

Modem Registration: Not Registered, Searching...

Starting Network - obtaining IP address...

Network Interface Status: DOWN, PENDING UP.
```

6. After the Network Interface Status message displays, type **700** at the cursor prompt to display the Cellular Bridge Main Configuration menu.

If the device is already up and running, it disconnects from the cell network and closes any open socket connections before entering Configuration Mode. The Main Configuration menu displays.

```
Main Configuration Menu:

1 Internal Radio Configuration
2 TCP Port Configuration
3 Cellular Connection Configuration
4 Activate Radio Diagnostics on P1 Port
5 Administration

Enter Choice (ESC to exit and reboot):
```

All three FreeWave LEDs on the Cellular Bridge light green ■ ■ ■ and stay green as long as the Cellular Bridge is in Configuration mode.

As you navigate through the Configuration menu and make changes to the parameters, the parameters are sent to the device as you exit each menu or on exit from the Main Configuration menu. Changes to the Internal radio settings are sent to the radio immediately.

7. When you are finished making changes, press **Esc** until you exit the Main Configuration menu.

Activating Verizon Cellular Bridges

You must request activate each CB-900-V and CB-2.4-V Cellular Bridge with Verizon prior to use. Activating the device indicates to Verizon that the device is valid on their network, provides the device with its phone number, and loads the Preferred Roaming List (PRL) version. The PRL includes the list of cell towers to which the Cellular Bridge can connect.

Prior to activating a Verizon Cellular Bridge:

- Note the ESN number located on the outside label of the device. The ESN is unique to the device, much like a serial number. You must have this number to complete activation with Verizon.

You can also find the ESN number on the Cellular Configuration menu when the device is in Configuration mode.

- Ensure that you are within the cell carrier's coverage area. Coverage maps are available on most carriers' Web sites. The Cellular Bridge must be connected to a Verizon cell tower, and not connected to a roaming partner's tower for activation. Representatives at the Data Activation Center (866-966-8881) can assist you in locating a Verizon cell tower.
- Verify that you have a strong cell signal at your location. FreeWave recommends a signal strength of -100 dBm or better to activate a Cellular Bridge.
- Ensure that the cell and radio antennas are attached to the Cellular Bridge **before** powering the Cellular Bridge.

When you have completed the above, you are ready to activate the Cellular Bridge.

1. With the ESN noted, call the Data Activation Center at 866-966-8881.

Note: Do not take the Cellular Bridge to a Verizon store for activation.

The Verizon representative asks you for the ESN plus additional information such as name and address for billing purposes, similar to the information required to activate a cell phone.

2. After **one to three business days**, access the device's configuration Main Menu.
3. From the Main Configuration menu, select **(3) Cellular Connection Configuration** to display the Cellular Modem Configuration menu.
4. Select **(1) Activate CDMA Modem** and enter **Y** at the prompt to continue with the activation.

Once initiated, the activation process can take up to three minutes to complete. Ensure that the device has power through the entire activation process. The Cellular Bridge connects with the cell network, verifies the ESN has been activated, and acquires its phone number, MIN/MSI numbers, and the PRL version.

When the activation has completed, a message displays indicating that the attempt to connect was successful.

5. To verify the activation, press any key to redisplay the Cellular Modem Configuration menu.

If the activation was successful, the device now has an assigned phone number, MIN/MSI number, and an updated PRL version listed in the header information in the Cellular Modem Configuration menu.

Activating SIM-based Cellular Bridges

Activating the CB-900-SM and CB-2.4-SM Cellular Bridge models is done using the SIM card. The SIM card itself is activated with the carrier you choose.

Prior to activating a SIM-based Cellular Bridge:

- Obtain an account and a SIM card enabled for data services from the cellular carrier.
Some cellular carriers require the International Mobile Equipment Identity (IMEI) number of the Cellular Bridge before they provide or activate a SIM card. The IMEI number of the embedded cellular modem is printed on the label on the outside of the Cellular Bridge. You can also find the IMEI number on the Cellular Configuration menu when the device is in Configuration mode.
- Note the Access Point Name (APN) of the cellular carrier. APNs apply to GPRS/EDGE cellular networks.
- Note the SIM personal identification number (PIN), if required for the cellular carrier. SIM PINs apply to GSM/GPRS/EDGE cellular networks.
- Ensure that you are within the cell carrier's coverage area. Coverage maps are available on most carriers' Web sites.
- Verify that you have a strong cell signal at your location. FreeWave recommends a signal strength of -100 dBm or better to activate a Cellular Bridge.
- Ensure that the cell radio antennas are attached to the Cellular Bridge and that the SIM card is inserted **before** powering the Cellular Bridge.

When you have completed the above, you are ready to activate the Cellular Bridge.

1. Insert the activated SIM card for the cellular carrier into the SIM card slot in the Cellular Bridge and connect the device to power.



Warning! Do not insert or remove a SIM card from a Cellular Bridge that is connected to and receiving power. Inserting and removing a SIM card from a powered Cellular Bridge can result in damage to the Cellular Bridge and the SIM card itself.

2. Access the Cellular Bridge Main Configuration menu.
3. From the Main Configuration menu, select **(3) Cellular Connection Configuration** to display the Cellular Modem Configuration menu.
4. Select **(5) APN**, enter the APN for the cellular carrier, and press **Enter**.
The APN identifies to which networks the Cellular Bridge can connect. The APN is unique to each carrier and is case-sensitive. The cellular carrier provides the APN name to you when you activate the SIM card for the device.
5. If the SIM card requires a PIN, select **(6) SIM PIN**, enable the setting, enter the PIN, and press **Enter**.
6. Press **Esc** until you return to the main menu and **Esc** again to exit Configuration mode.

