

## Install the SIM Card

1. Turn off power to display.
2. Remove the three screws that hold the modem inside the watertight enclosure. Refer to **Figure 1**.
3. Remove the two screws that secure SIM card cover. Refer to **Figure 2**.
4. Gently slide the card into the upper slot - the primary SIM - until it stops and locks into place. Note the location of the notched corner for correct alignment. The gold contact points of the SIM card face down.
5. Replace the SIM card cover.
6. Secure the modem in the enclosure using the three screws removed in Step 2.
7. Turn on power to the display.

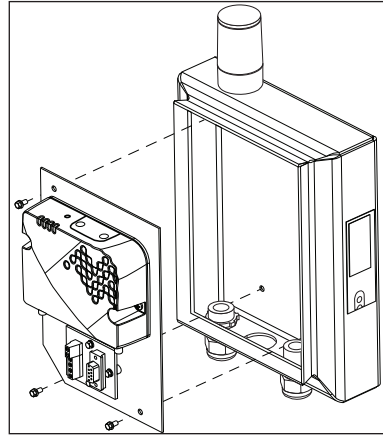


Figure 1: Remove Modem

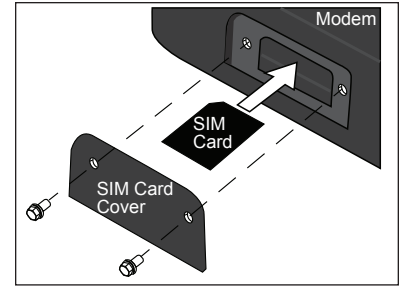


Figure 2: Install SIM Card

## Install the Cellular Modem at the Display

If this is a new installation, work with your service provider to activate cellular service for the modem.

1. Temporarily mount the cellular modem in the desired location with the antenna pointing upward, as shown in **Figure 3**, and within 25 feet of the display.
2. Plug the serial and power cable into the quick-connect jack labeled J33 Aux on the back of the display. Refer to **Figure 3**.

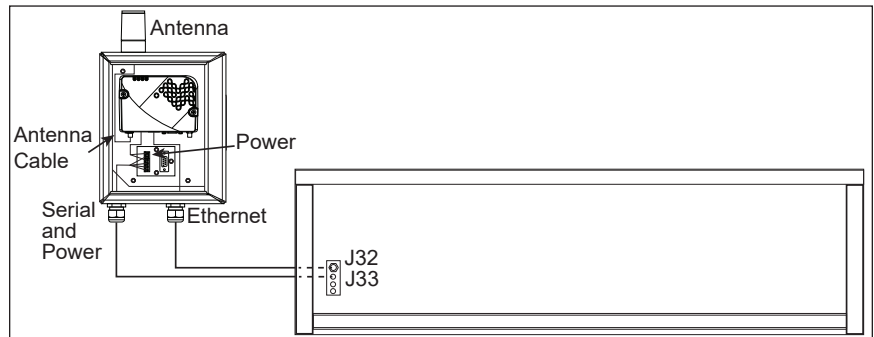


Figure 3: Cellular Antenna Installation Front View

3. Plug the Ethernet cable into the quick-connect jack labeled J32 Ethernet In on the back of the display. Refer to **Figure 3**.
4. Check signal and network LED indicators for strength per the table that follows. Ideally there should be solid green LEDs lit for signal and network.
5. **Permanently fasten the modem vertically with the antenna pointing upward** once it has been proven effective in the location.

**Note:** The cellular modem is mounted in a watertight enclosure and should not need additional protection from the elements. The cable is also rated for outdoor use and does not need to be in conduit. If conduit is not used, secure the cable to protect it from weather and vandalism.

### Modem Replacement

When an existing 4G modem is replaced, follow the steps in **Install the SIM Card (p.1)** to remove and replace the SIM card for use in the replacement modem. Gently press and release the SIM card to remove it.



### Limitation of Liability



The warranty will be nullified if:

- The modem enclosure is modified
- The modem is improperly installed
- The modem enclosure is damaged

### Troubleshooting Connectivity Issues

1. Open the enclosure with a flathead screw driver.
2. Verify all the connections - including the server and antenna - inside the enclosure are tight.
3. Check the diagnostic LEDs inside the cellular modem enclosure. The table below describes the indicator lights on the front of the modem and what they show during different modes:

| LED  | Color/Pattern                 | Description  | LED Power Saving Mode |
|--|-------------------------------|--|-----------------------|
| <b>Power</b><br>  | <b>Off</b>                    | No power or input voltage $\geq 36$ VDC or $\leq 7$ VDC  |                       |
|  | <b>Solid Green</b>            | Power is present   |                       |
|  | <b>Green with Amber Flash</b> | Power is present and the gateway has a GPS fix   |                       |
|  | <b>Solid Red</b>              | Standby mode   |                       |
|  | <b>Flashing Green</b>         | When pressing the reset button, flashing green indicates when to release the reset button to reboot the gateway                              |                       |
|  | <b>Flashing Red</b>           | When pressing the reset button, flashing red indicates when to release the reset button to reset the gateway to the factory default settings |                       |
| <b>Signal</b><br> | <b>Solid Green</b>            | Good signal (equivalent to 4-5 bars)   | Off                   |
|  | <b>Solid Amber</b>            | Fair signal (equivalent to 2-3 bars)   | Off                   |
|  | <b>Flashing Amber</b>         | Poor signal (equivalent to 1 bar)<br>If possible, move the gateway to a location with a better signal  |                       |
|  | <b>Flashing Red</b>           | Inadequate (equivalent to 0 bars)<br>Move the gateway to a location with a better signal   |                       |

| LED  | Color/Pattern             | Description  | LED Power Saving Mode |
|--|---------------------------|--|-----------------------|
| <b>Network</b><br>  | <b>Solid Green</b>        | Connected to an LTE network  | Off                   |
|  | <b>Solid Amber</b>        | Connected to a 3G or 2G network  | Off                   |
|  | <b>Flashing Green</b>     | Connecting to the network  |                       |
|  | <b>Flashing Red</b>       | No network available   |                       |
|  | <b>Flashing Red/Amber</b> | Network Operator Switching is enabled, but the gateway is unable to locate the required firmware. For more information, refer to the ALEOS Software Configuration User Guide (Admin chapter)                                   |                       |
| <b>Activity</b><br> | <b>Flashing Green</b>     | Traffic is being transmitted or received over the WAN interface  |                       |
|  | <b>Flashing Red</b>       | Traffic is being transmitted or received over the serial port. This behavior only appears if the RV50 is configured to display it. For more information, refer to the ALEOS Software Configuration Guide (Serial chapter)      |                       |
|  | <b>Flashing Amber</b>     | Traffic is being transmitted or received over both the WAN interface and the serial port. This behavior only appears if the RV50 is configured to display it. Refer to the ALEOS Software Configuration Guide (Serial chapter) |                       |
| <b>All</b>   | <b>Green LED Chase</b>    | Radio module reconfiguration/firmware update or Network Operator Switching is in progress  |                       |
|  | <b>Amber LED Chase</b>    | ALEOS software update is in progress   |                       |

- Contact the cell service provider to ensure service is available.
- Contact Daktronics at 1-800-325-8766 for assistance troubleshooting display hardware or software.

## Control Software Configuration and Display Network Configuration

Click the article links below or go to [www.daktronics.com](http://www.daktronics.com) and enter the DD number in the search box at the top-right of the home page for information specific to Control Software configuration or Display network configuration.

- To configure Venus<sup>®</sup> 1500 Version 4 software, reference [How to configure a display in Venus 1500 using a CDMA modem \(DD2325961\)](#).
- For information regarding Galaxy<sup>®</sup> display network configuration of the display controller follow [How do I change the static IP address on a Galaxy display? \(DD1980638\)](#).

**Note:** To set AF series Galaxy<sup>®</sup> or GalaxyPro<sup>®</sup> displays to factory default IP schemes, follow [What is the default IP address on a Galaxy or GalaxyPro display? \(DD2430017\)](#).

- For information regarding GalaxyPro<sup>®</sup> display network configuration follow [How do I change the IP address settings on a GalaxyPro<sup>®</sup> message center? \(DD1996041\)](#).

**Note:** These displays can be set to DHCP when utilizing a 4G modem.