

Required Tools


- ▶ Anti-static wrist strap
- ▶ Small slotted screwdriver
- ▶ Small Phillips head screwdriver
- ▶ Wire stripper and wire cutter
- ▶ Adjustable wrench
- ▶ Voltmeter
- ▶ Tools to prepare mounting surface
- ▶ Hardware to mount enclosure
- ▶ Compass
- ▶ Wire to connect the power supply to a voltage supply
- ▶ Wire nuts
- ▶ Windows[®] Laptop PC
- ▶ USB Mini-b cable
- ▶ Bullhorn[®] Tools (see back)

Installing the Equipment

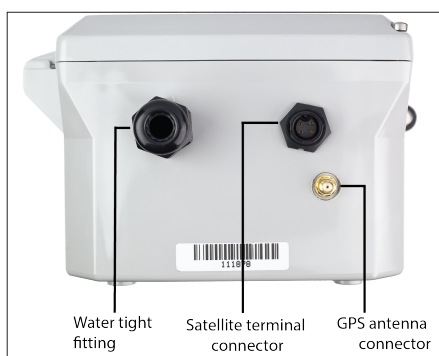
The following procedures are general steps for a typical installation. For specific instructions, including safety warnings and safety icon descriptions, visit the Bullhorn RMU Support site (www.support.aiworldwide.com/products/bh2).

WARNING: To prevent electrostatic discharge (ESD) damage when handling electronic equipment, always wear an anti static wrist strap attached to an unpainted, grounded metal object. Ensure the wrist strap has maximum contact with bare skin.

WARNING: Before beginning any wiring to the RM4014/RM4014S, ensure that power has been turned off at the rectifier.

 **NOTE:** For additional safety precautions for wiring power supply and unit inputs, refer to the *RM4000 Series User Guide* available from the Bullhorn RMU Support site.

1 Mount enclosure; install antenna & power supply



RM4014 Connectors

- 1 Mount **RM4014/RM4014S** enclosure.
- 2 Attach **GPS antenna** to connector on bottom of unit enclosure.
- 3 Install **power supply**:
 - a Connect **AC/DC** or **DC/DC** power supply to connection on unit faceplate (see figure in step 3).
 - b If using an **AC/DC** power supply, connect AC input cable of the power supply to a 100-240 V AC supply/outlet or to a breaker.
 - c If using a **DC/DC** power supply, connect DC input cable of the power supply to a 9-36 V DC supply/outlet or to a breaker.

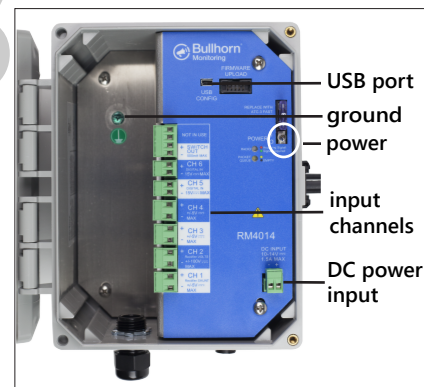
2 Install satellite terminal




Satellite Terminal

- 1 Mount **satellite terminal** on angle bracket. Mount to pole or other structure.
- 2 Angle bracket to 90°, with the terminal lying flat (as shown in photo).
- 3 Connect **satellite terminal** to connector on bottom of unit enclosure.
- 4 Use **Bullhorn Tools** to verify satellite signal strength (see back of this Guide).

3 Connect ground & inputs



RM4014 Inputs and Ground

- 1 Route input wires through fitting to inside enclosure.
- IMPORTANT:** Only ground the RMU if it is mounted on a structure other than the rectifier.
- 2 Connect ground wire from RM4014/RM4014S ground screw to rectifier ground. 
- 3 Connect input devices and relay (for interruption only) to input channels. Refer to the following:
 - **SWITCH OUT:** relay (interruption only)
 - **CH 1 Rectifier SHUNT:** analog (± 5 V DC)
 - **CH 2 Rectifier VOLTS:** analog (± 100 V DC)
 - **CH 3 & CH 4:** analog (± 5 V DC)
 - **CH 5:** digital (0 - 15 V DC). Can also be set as an accumulator.
 - **CH 6:** digital (0 - 15 V DC)

WARNING: If wires are to be buried or covered, use conduit to protect the wires.

(Continued on back.)

Installing the Equipment, cont.


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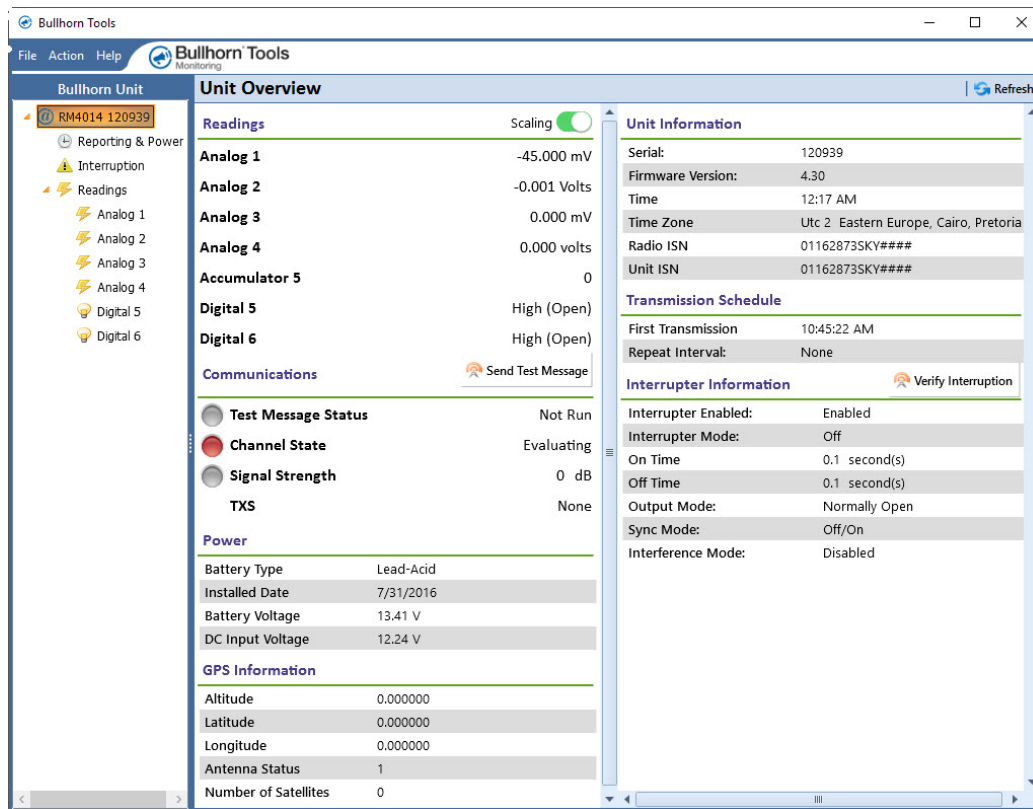
Dress input wires






- 1 Connect input wires from **RM4014/RM4014S** to output terminals of your device.
- 2 Dress input wires inside enclosure, making sure wires do not slip through opening of faceplate.
- 3 Tighten fitting on bottom of enclosure.
- 4 Turn ON your device. Wait at least 2 minutes.

Configuring the RM4014/RM4014S for Service

The following procedure provides general steps for configuring the **RM4014/RM4014S** for service using Bullhorn Tools. Before beginning the configuration steps, ensure that Bullhorn Tools is installed on your laptop. The software can be downloaded from the **Downloads** page on the Bullhorn RMU Support site (www.support.aiworldwide.com/products/bh2).

- 1 Ensure that the configuration cable is connected to the **RM4014/RM4014S** and your laptop and the unit is powered on.
- 2 Open Bullhorn Tools. After the scan has completed, click  **Connect** to open the *Unit Overview* window.



- 3 Click  **Refresh** to update unit settings.
- 4 Click  **Send Test Message** to verify communications.
- 5 Load or import a saved template, if available (**File > Load Template**).
- 6 Click  **Reporting & Power** to adjust unit clock, create a transmission schedule, check battery information, and set AC outage delay alarm times.
- 7 **For interruption only** - click  **Interruption** and configure interruption and (optional) interference settings. Click  **Verify Interruption** button (on *Unit Overview* window) to verify process is working correctly.
- 8 Configure **Readings**, including Analog and Digital. **Digital 5** can be configured as an accumulator.
- 9 Exit **Bullhorn Tools** and disconnect configuration cable.
- 10 Close and secure enclosure door.