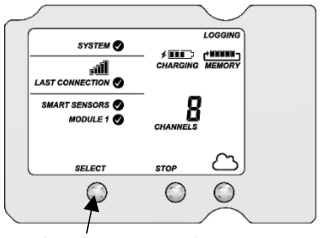
RXW HOBOnet® Analog Mote (RXW-ANA-xxx) Quick Start

Adding a Sensor Node to the HOBOnet Wireless Sensor Network

Important: Keep the sensor node near the station while completing these steps.

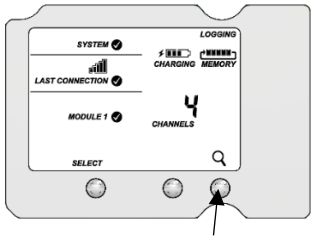
If you are setting up a new station, follow the instructions in the station quick start guide before setting up this sensor node (go to www.onsetcomp.com/resources/documentation/24380-man-rx2105-rx2106-qsg for RX2105 and RX2106 stations or www.onsetcomp.com/resources/documentation/18254-man-qsg-rx3000 for RX3000 stations).

1



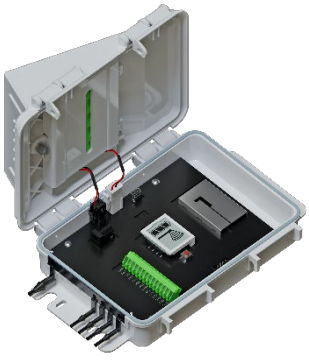
Press the Select button on the station to switch to the module with the manager (module 2 on RX2105 or RX2106 stations).

2



Press the Search button (the magnifying glass) on the station. The magnifying glass icon will blink while the station is in search mode waiting for sensor nodes to join the network.

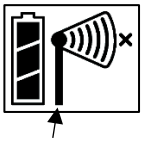
3



Open the door on the sensor node. Plug in the battery cable and the solar panel cable. Press the button on the sensor node for 3 seconds. The signal strength icon will flash then cycle.

4 Watch the sensor node LCD while it joins the network:

a.

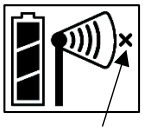


This signal strength icon blinks while the sensor node searches for a network.

b.

Once the sensor node finds a network, the icon stops blinking and the bars cycle from left to right.

c.



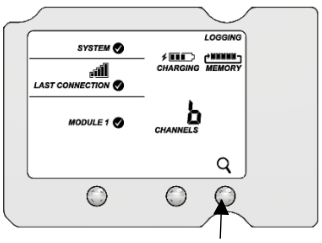
This network connection "x" icon blinks while the sensor node completes the registration process, which may take up to five minutes.

d.

Once the sensor node has finished joining the network, the "x" icon no longer appears. The channel count on the station LCD increases by four.

Note: If the mote fails to join the system and error code 135 is displayed on the station's LCD, log in to licor.cloud and update your station with the latest firmware.

5



Press the Search button on the station again to stop the search for sensor nodes.

6 Connect the analog sensor(s) (see *Connecting Analog Sensors*).

7 LI-COR Cloud™

Go to licor.cloud to monitor the status and health of the sensor node.

See *Configuring the Sensors in HOBOlink* in the manual or *View and Manage Devices* in HOBOlink Help for more information.

Connecting Analog Sensors

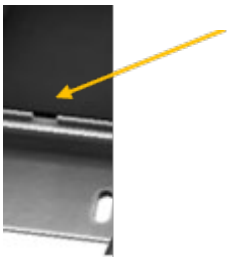
You can connect a two- or three-wire sensor or transducer to one of the four terminals.

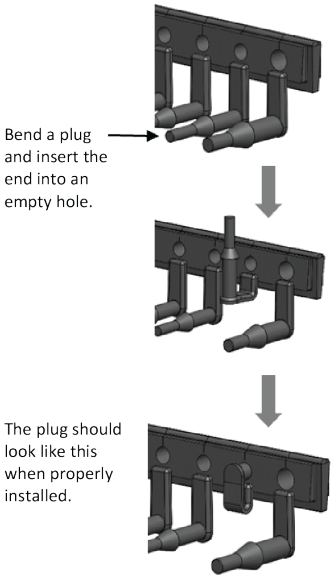
1. Loosen the screw for each pin on the screw terminal.
2. Feed the wire through the grommet.
3. Insert the correct wire into the screw terminal.
   Note: A pinout table is located on the inside of the mote door.
4. Open the interior of the mote. Trim the wire to expose 0.25 inches ±0.04 inches of bare wire.
5. Tighten the screw.
6. Plug in the battery then the charging device to power up the sensor if it is not already powered.

Note: All four input channels share the same common ground.

Greasing and Reinstalling the Cable Channel

1. Use the integrated plugs to fill any unused holes (right). Bend the plugs up so they can be pushed into the holes. Once a plug is partially pushed through, pull on the part of the plug that is inside the case. You may need to bend the ends of the channel slightly to widen the holes for installing the plugs.
2. Lightly coat the portion of the sensor cables that will be in the cable channel with a small amount of silicone grease (about the size of a pea).
3. Lightly coat the bottom and two sides of the cable channel with silicone grease.
4. Reinstall the cable channel in the station making sure the key on the bottom is inserted in the notch in the station enclosure (below).





Mounting and Positioning the Sensor Node

- Position the sensor node towards the sun, making sure the solar panel is oriented so that it receives optimal sunlight throughout each season. You may need to periodically adjust the position of the sensor node as the path of the sunlight changes throughout the year or if tree and leaf growth alters the amount of sunlight reaching the solar panel.
- Make sure the sensor node is mounted a minimum of 1.8 m (6 feet) from the ground or vegetation to help maximize distance and signal strength.
- Consider using plastic poles such as PVC to mount the sensor node as certain types of metal could decrease the signal strength.
- Place the sensor node so there is full line of sight with the next sensor node. Use a repeater if there is an obstruction between sensor nodes.
- There should not be more than five sensor nodes in any direction from a repeater or the manager. Data from sensor nodes travels or “hops” across the network and may not reach the station if the sensor node is more than five hops away.

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U.S. and International Sales: 1-508-759-9500
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