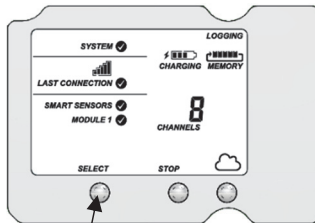## Adding a Mote to the HOBOnet® Wireless Sensor Network

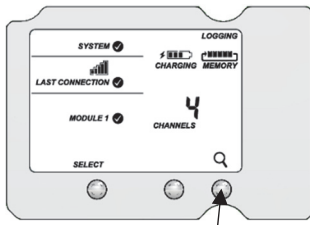**Important:** Keep the mote near the station while completing these steps.

If you are setting up a new station, follow the instructions in the station quick start before setting up this mote (go to www.onsetcomp.com/manuals/24500-rx2105-and-rx2106-manual for RX2105 and RX2106 stations or www.onsetcomp.com/manuals/rx3000-qsg for RX3000 stations).
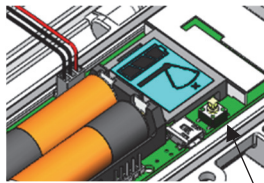
1

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 icon will blink while the station is in search mode waiting for motes to join the network.

3

Open the mote door and Install the rechargeable batteries. Press this button on the mote for 3 seconds.

4 Watch the mote LCD during the process of joining the network:

a.

This signal strength icon blinks while searching for a network.

b.

Once a network is found, the icon will stop flashing and the bars will cycle from left to right.
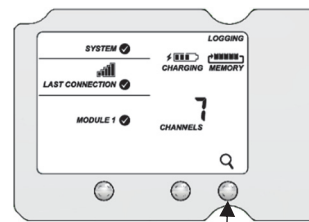
c.

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

d.

Once the mote has finished joining the network, the "x" icon is removed and the channel count on the station LCD increases by three (two for temperature/RH and one for the mote battery).

5

Press the Search button on the station again to stop the search for motes.
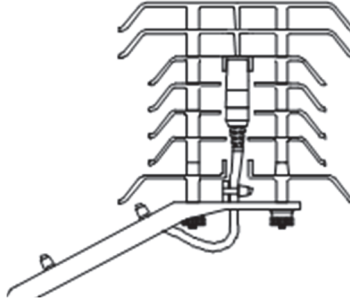
6 **HOBOlink®** Go to www.hobolink.com to monitor mote status and health. See the HOBOlink Help for details.

Mounting and Positioning the Mote

- Close the mote and use a padlock to keep it secure.
- Mount the mote vertically using cable ties or screws.
- Position the mote towards the sun, making sure the solar panel is oriented so that it receives optimal sunlight throughout each season. It may be necessary to periodically adjust the mote position 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 mote 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 mote as certain types of metal could decrease the signal strength.
- Place the mote so there is full line of sight with the next mote. Use a repeater if there is an obstruction between motes.
- There should not be more than five motes in any direction from a repeater or the manager. Data from sensor motes travels or "hops" across the network and may not reach the station if the mote is more than five hops away.

Sensor Mounting Guidelines

- When mounting the probe, thermally isolate the sensor from the mounting surface to ensure accurate air temperature and humidity readings.
- It is recommended that the probe be protected from direct exposure to the weather. This will prolong the sensor accuracy.
- If the sensor cable is left on the ground, use conduit to protect against animals, lawn mowers, exposure to chemicals, etc.
- A solar radiation shield is strongly recommended when measuring outdoor air temperatures in direct sunlight. Mount the sensor with the solar radiation shield (RS3-B) as shown.

For specifications, complete mounting guidelines, and other details about this mote, refer to the full product manual. Scan the code at left or go to www.onsetcomp.com/support/manuals/22242-rxw-thc-manual.

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22234-C MAN-QSG-RXW-THC