

Troubleshooting HOBO MX2300 Series Data Loggers



Communications

If you experience difficulty communicating with your MX2300 logger (or any other MX logger), try the following on your mobile device:

- Toggle WiFi on/off, toggle BLE on/off.
- Put mobile device in airplane mode, then manually turn on BLE only.
- Check to be sure your HOBOMobile app is up-to-date.

Premature Logger Shutdown

If you see spurious “low-battery shutdown events” or the logger suddenly shuts down, it likely needs a firmware update:

- The option to update the firmware appears when you try to connect to the logger. Be sure to offload any data you want before you do the firmware update; otherwise that data will be lost.
- For loggers with serial numbers below 20205834, firmware cannot be updated. These loggers will need to be replaced.

Water or Moisture Ingress

If you suspect water or moisture has leaked into your logger:

- Check the front label for signs of it lifting, and make sure that it’s aligned properly.
- For models with RH, check that the vent membrane over the RH sensor is not lifting up or damaged.
- Check the logger seal for any sign of it not being seated properly.
- If you think that moisture has gotten into the logger, you can remove the back of the logger to look for signs of moisture. Do not attempt to remove the printed circuit board, as that will damage the logger. Do not use any sharp tools when removing the back of the logger, as that could damage the logger seal.
- If you see signs of moisture in the logger, try drying it out by placing the logger on a layer of dry rice in a dry room, with the open side of the logger facing down. Leave it like this for a few hours, and then check to see if the logger operates correctly. Make sure to clean off any rice residue before closing up the logger.
- Also before closing up the logger, inspect the rubber gasket and the bead that presses against it to make sure that they are clean and free of nicks.

Temperature Measurement Accuracy

For issues related to temperature measurement:

- Place the logger in a waterproof bag in an ice bath to confirm the temperature reads close to 0°C after appropriate time to acclimate. For MX2303 and MX2304 models, the temperature probes can be placed directly in the water.
- Do not use a comparison test in air to check temperature accuracy, as there is too much variation in air temperature to ensure that the logger and reference sensor are at the same temperature.

Relative Humidity Measurement Accuracy

For issues related to relative humidity measurement:

- Place the logger in an enclosed chamber with uniform RH and a precision reference sensor to check for accuracy. For a general check, another logger can be used in the chamber as a point of comparison.
- For more information on testing RH accuracy, refer to [Testing the Accuracy of Sensirion Relative Humidity Sensors in HOBO Data Loggers](#).

Temperature Readings Flatline

If temperature readings flatline:

- Power-cycle the logger by removing and then reinstalling the battery.

Logger not responding to button pushes

If the logger doesn't respond to button pushes:

- Try connecting to the logger with HOBOMobile.
- Remove the battery, and then reinstall the battery while watching the LEDs. If the battery is good, the LEDs will flash. If not, the battery needs to be replaced.
- If the logger passes either of the above tests and still does not respond to button pushes, then the button is bad and the logger needs to be replaced.

If after trying the above troubleshooting tips, the logger still does not operate, or still fails to meet its accuracy specifications, it will need to be replaced.



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