HOBO MX802 Direct Read Logger Quick Start Guide

Overview

The HOBO MX802 Direct Read Logger is designed to be used with compatible HOBO W-Series sensors to log water parameters such as conductivity, temperature, depth and more.

This logger is typically deployed with the sensor connected via direct-read cable. The sensor remains in the water while deployed and the logger is above the water for convenient wireless Bluetooth readout. The MX802 is weatherproof but not waterproof, so it must be mounted in such a way so that it remains above the water. The cables must be attached to the sensors for them to be waterproof and attached to the logger for that to be weatherproof.

If you are using this logger with two sensors, you will need to use the 2-sensor adapter. See the manual that comes with that adapter for attaching the two sensors.

The following is an overview of the steps for configuring and deploying your logger:

1. Connect the Sensor
2. Calibrate the Sensor
3. Deploy the Logger
4. Configure Your Logger
5. Download Your Data
6. Process the Data

> **Note:** We recommend that you put the logger together as described below. If you are using either a W-CTD or a W-CT sensor, soak the sensor for 24 hours before you begin calibration.
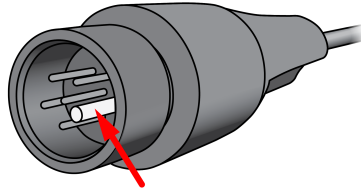
Connect the Cable and Sensor to the Logger

1. Take the rubber cap off the end of the logger.
2. Connect the cable to the logger by aligning the alignment pin on the cable connector with the alignment hole on the logger connector. Do not force the connection because you do not want to bend any of the pins.
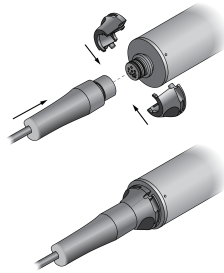
> **Important:** When assembling the logger or attaching the cable, make sure the o-rings and cable connector surfaces are clear of any debris. Any contamination of these surfaces can cause leaks that lead to logger failure.
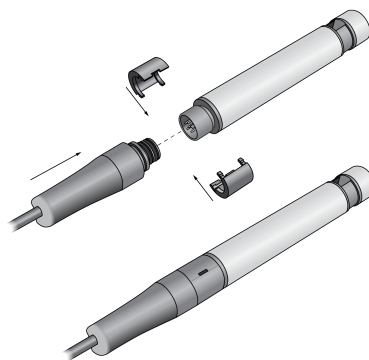
3. Attach the tapered coupler over the connection between the cable and the logger. To do so, ensure that the magnetic fob is attached to one half of the tapered coupler. Snap one side of the coupler over the connection between the cable and the logger with the tapered end toward the cable. Slide the second tapered coupler over the connection and press the two parts together; listen for a snap.

4. Tighten the tapered coupler screws with the allen wrench that is included with the logger. You may need to move the magnetic fob out of the way.
5. Insert the magnetic fob into its holding spot on the coupler.
6. Remove the protective cap from the other end of the cable.
7. Align the alignment pin and connect the end of the cable to the sensor in the same manner as you did above.
8. Use the straight coupler that comes with the cable to lock the connection between the cable and the sensor. There are two coupler halves that snap together over the connection. Each half has pins that should be positioned on opposite sides. In addition, one of the coupler halves is slightly larger; attach that over the connection first.

Download and open HOBOconnect

You need to use HOBOconnect with your HOBO MX Series loggers. To download HOBOconnect go to:

www.onsetcomp.com/products/software/hoboconnect

Calibrate the Sensor

If you are using conductivity, CTD, or DO sensors, calibrate them in your office or lab before configuring the loggers for deployment. The HOBOconnect app guides you through the basic calibration steps. To achieve the best calibration accuracy, refer to the sensor calibration sections in the HOBO MX800 Series User's Guide.

Deploying Your Logger

1. Deploy the MX802 at the site with the sensor in the water and the logger above the water. Refer to the HOBO MX800 Series User's Guide for mounting recommendations. Make sure that the logger is mounted high enough so that it will not get flooded.
2. If you are logging water level, use HOBOconnect to enter the current water level as the Reference Water Level. Make sure that the CTD sensor has had enough time to reach temperature equilibrium when you enter the Reference Water Level. Enter the Water Density as well. To connect to the logger with HOBOconnect, you may need wake the logger using the magnetic fob.

Configure and Start the HOBO MX802 Logger Using HOBOconnect

1. You may may need to wake the MX802 logger using the magnetic fob.
2. Configure the Logging Interval and Start Logging settings.
3. Turn the other measurement channels on or off as desired. If you want to record Specific Conductivity, select that channel and enter the temperature coefficient for the water where the logger will be deployed. This is typically different than the temperature coefficient of the calibration solutions.
4. Refer to the HOBO MX800 Series User's Guide for more detail.

> **Note:** The logger is able to calculate and log certain parameters without needing to log the basic measurements used to get those parameters. For example you can log salinity without having to log electrical conductivity and temperature. However, it is often a good idea to log the basic measurements in case you need those later.

Download Your Data

1. At the end of the deployment, we recommend taking measurements of any critical water parameters, and making notes of these values and the time they were taken. These could be useful later for data validation and data correction if necessary.
2. In HOBOconnect, tap the MX802 tile and download data.

You can choose to export and share the file. Share is available only on the mobile app.

Process Your Data

You can process your dissolved oxygen (DO) data with data from a nearby conductivity logger to get salinity-adjusted DO. Refer to the HOBO MX800 Series User's Guide.

For specifications, complete mounting guidelines, and other details about this logger, refer to the full product manual. Scan the code at left or go to: www.onsetcomp.com/resources/documentation/25707-mx800-user-guide