

# CB-SERIES DATA BUOY WET-MATE LID

## INSTALLATION INSTRUCTIONS



**Figure 1:** NexSens CB-MCL Data Buoy Wet-Mate Lid.

### Overview

The NexSens CB-MCL Wet-Mate Lid is compatible with CB-150 and larger data buoys. It is designed for use with MCBH bulkhead connectors (sold separately).

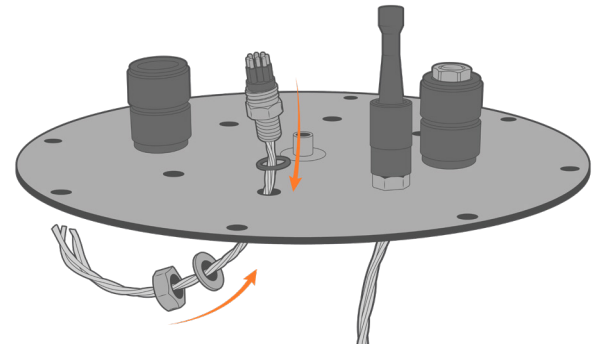
### What's Included

Wet-Mate Lid

- (1) CB-MCL Solar Connector
- (1) Vent Port
- (1) Bushing Connector
- (1) Solar/COM Port Adapter

### MCBH Bulkhead Installation (Sold separately)

- 1 Remove the nut and flat washer from an MCBH bulkhead connector.
  - a. Route the wires through an open hole on the wet-mate lid.
  - b. Reinstall the nut and flat washer and tighten to the plate. Ensure the O-ring underneath the connector stays in place.

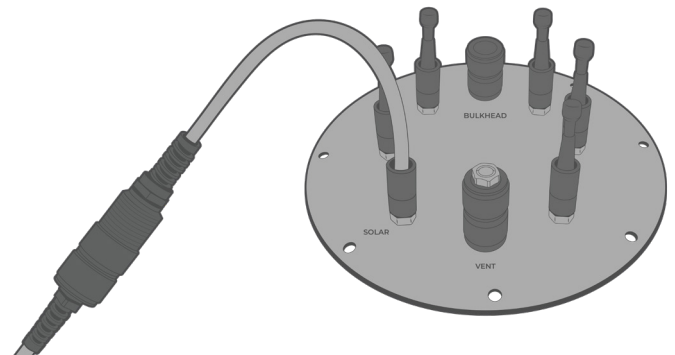


**Figure 2:** Install an MCBH connector (Step 1).

- 2 Apply an adhesive, such as marine goop, to the nut underneath the plate.
  - a. Ensure the adhesive for all connectors is fully cured before installing the plate on the buoy.
- 3 Repeat this process for all cables that will be inserted through the pass-through plate and into the buoy well.
  - a. For the remaining unused ports, ensure to install a water-tight blank connector before deployment.

### Solar Panel Connection

- 1 Remove the 6-pin blank plug from the SOLAR port. Plug the CB-MCL solar connector into the SOLAR port.
  - a. To apply power from the solar tower, connect the solar tower plug to the 6-pin receptacle end of the CB-MCL solar connector.



**Figure 3:** Power connection to solar power pigtail.



## CB-MCL Solar Connector Wiring Information

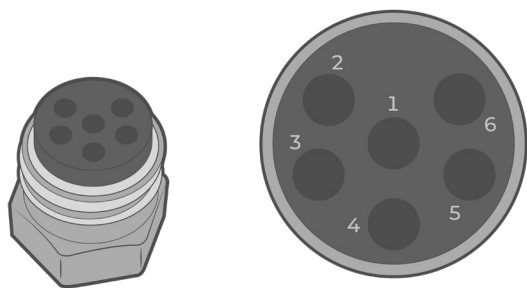


Figure 4: CB-MCL solar connector pin numbers.

Table 1: CB-MCL solar connector wiring information.

| CB-MCL Solar Connector Receptacle Pin | Wire Color                               |
|---------------------------------------|------------------------------------------|
| 1                                     | Orange <sup>b</sup>                      |
| 2                                     | Yellow                                   |
| 3                                     | Black <sup>a</sup><br>(Both black wires) |
| 4                                     | Red<br>(Only on molex connector)         |

The free red (+++) and black (---) wires are for power and ground connection to an external device.

Note: Information below refers to connection with a NexSens solar tower.

<sup>a</sup>The solar tower plug is connected to both black wires (ground) and the single yellow wire (power).

<sup>b</sup>The orange molex wire and the red flying lead wire are shorted together.

## MCBH Connection with NexSens MCIL Connectors

When connecting a sensor with a factory-installed NexSens MCIL connector, follow the wiring diagram below for information on the sensor's power, ground, and communication lines.

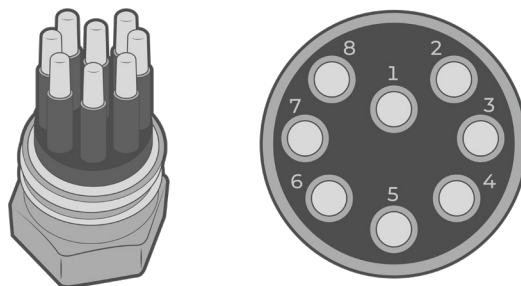


Figure 5: MCBH Male Connector.

Table 2: MCBH male connector wiring information.

| Wire Number | NexSens Signal |
|-------------|----------------|
| 1           | RS-232 Tx      |
| 2           | Ground         |
| 3           | RS-232 Rx      |
| 4           | --             |
| 5           | Power          |
| 6           | SDI-12         |
| 7           | RS-485 B       |
| 8           | RS-485 A       |