

FATHOM

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HUD USER MANUAL



Calibration

Calibration is the process on the rebreather's monitoring devices (handset or HUD) used to align the oxygen sensors' output in millivolts to a known partial pressure of oxygen.

To calibrate the FATHOM HUD, flush the loop with oxygen and push the piezo button three times within 1.5 seconds. It might take a little practice to get this, but it is intended to prevent accidental calibrations. If you successfully complete the calibrate sequence, all three lights will come on bright red for 1 second. If you don't see that, it didn't get the calibration command. Cells that calibrate correctly flash green for 1 second, and if there is a problem with an individual cell, that cell's LED will flash red for 1 second. Each cell calibrates independently of the others. Calibration failure may occur because the cell voltage is out of range (e.g. below 35 mV in 100% oxygen) or the cell voltage is unstable. Calibration data (and other settings) are retained even if power is disconnected (e.g. when changing the battery). After you calibrate, each of the sensors should be flashing one orange. That means the PO₂ is between 0.95 and 1.05. The actual value that's used for calibration is 0.98.

Installation

The External HUD with unterminated cable needs to be installed in your CCR head by a trained technician. An appropriate sized cable gland should be used to seal the 6.2 mm cable. After trimming the cable to length, it should be waterblocked to prevent moisture from traveling up the cable. The following table indicates which wires correspond to which cells.

Cell 1	Red
Cell 2	Brown
Cell 3	Purple
Ground	Black

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