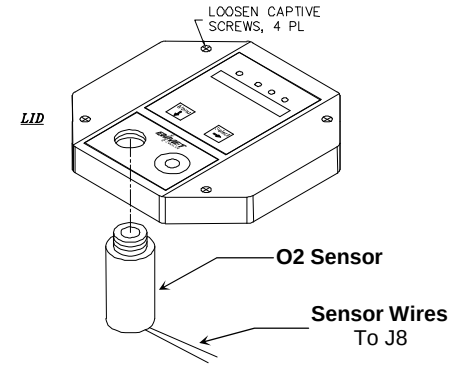
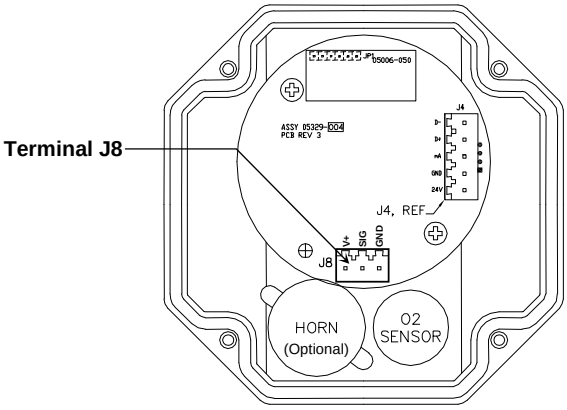
# Guide for MRI-5175 Sensor Replacement

An Oxygen sensor must be replaced when it can no longer be calibrated. Typical sensor life is 3 to 5 years in a 20.9% oxygen environment.

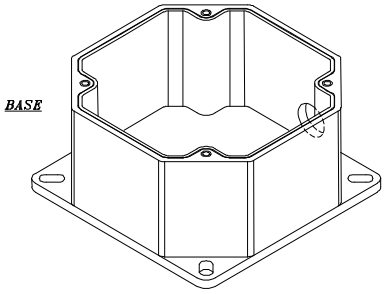
To replace a sensor, perform the following steps:

- Turn off the electrical power.
- Open the display panel and remove the four cover (lid) retention screws and remove the lid. See **Figure 1**.
- Remove the old $O_2$ sensor, by unscrewing it, and replace it with a new sensor. See **Figure 1**.
- Replace cover(lid) with retention screws.
- Turn on the electrical power.
- Wait 3 – 4 hours, then recalibrate the sensor per the instructions.




***MRI-5175 Lid, Interior View***




***MRI-5175 Exterior View***

## Sensor Wiring

| J8 | Sensor Wires |
|---|---|
| V+ | Not Used |
| Sig | Red wire |
| Gnd | Black wire |
| | |

**Figure 1: MRI-5175 Sensor Replacement**

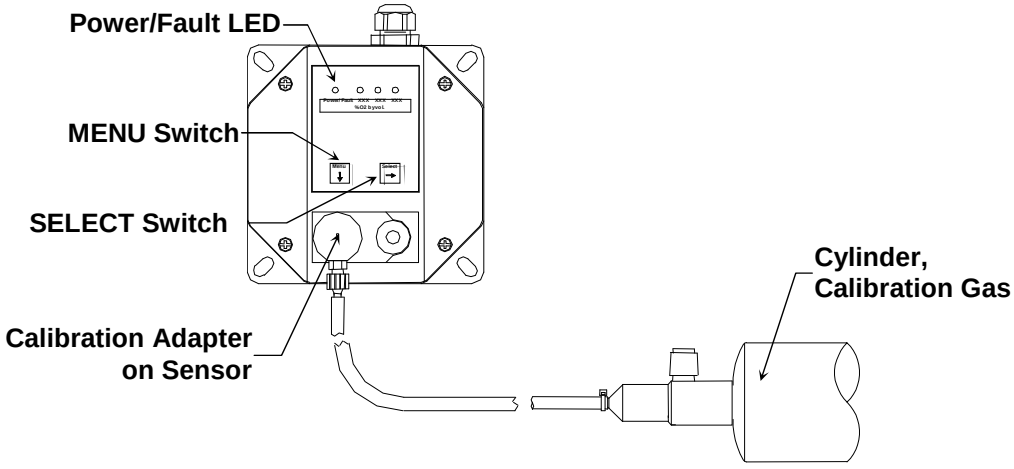



**Figure 2: Calibration MRI-5175**

## Standard Calibration

The following procedure is suitable for altitudes below 4500 ft (1372 meters):

1. Press and hold the Menu switch for 3 to 5 seconds, the Power /Fault led will flash red- green, red- green, red-green….
2. Attach the MRI calibration adaptor to the cylinder regulator and attach the cylinder regulator to the cylinder of 20.9 % oxygen

To calibrate:

3. Press and release the Menu switch, then press and release the Select switch. This places the transmitter into the calibration Span operation. The Power/ Fault led will flash Green-red-red-red, Green-red-red-red…
4. Open the valve on the cylinder regulator and attach the MRI calibration adaptor to the sensor.
5. The MRI-5175 transmitter begins to look for signal stabilization; this process lasts from 60 to 120 seconds. Observe the Power/ Fault led during this time. When the signal has stabilized, the Power/Fault led will show green for 3 seconds, indicating a successful calibration, and then flash red-green, red-green,…If the calibration was unsuccessful, following the 60 to 120 second stabilization time the Power/Fault led will show Red for 3 seconds and then flash red-green, red-green, red-green…
6. Press and release the Select switch to exit calibration and return to operation mode. If the calibration was completed successfully the Power/Fault led will show steady Green. If the calibration Failed the Power/Fault led will flash a Slow red-green, red-green……

## Altitude Calibration

This procedure is required for altitudes above 4500 ft (1372 meters). Due to the reduction of partial pressure at elevations above 4500 ft (1372 meters), the following procedure must be used when installing the ISA-60M monitor. Subsequent calibration should be done using the Standard calibration procedure as the compensation for partial pressure variances will have been accomplished.

1. Press and hold the Menu switch for 3 to 5 seconds, the Power /Fault led will flash red- green, red- green, red-green….
2. Attach the MRI calibration adaptor to the cylinder regulator and attach the cylinder regulator to the cylinder of 20.9 % oxygen

To calibrate:

3. Press and hold the Menu switch for 3 to 5 seconds, the Power /Fault led will flash red, red, red, red …….
4. Press and release the Menu switch then press and release the Select switch. This places the transmitter into the calibration Span operation. The Power/ Fault led will flash Green-red-red-red, Green-red-red-red…
5. Open the valve on the cylinder regulator and attach the MRI calibration adaptor to the sensor.
6. The MRI-5175 transmitter begins to look for signal stabilization; this process lasts from 60 to 120 seconds. Observe the Power/ Fault led during this time. When the signal has stabilized, the Power/Fault led will show green for 3 seconds, indicating a successful calibration, and then flash red-green, red-green *and then red, red, red*…If the calibration was unsuccessful, following the 60 to 120 second stabilization time the Power/Fault led will show Red for 3 seconds and then flash red-green, red-green, red-green…
7. Press and release the Select switch to exit calibration and return to operation mode. If the calibration was completed successfully the Power/Fault led will show steady Green. If the calibration Failed the Power/Fault led will flash a Slow red-green, red-green…

NOTE: After the initial Altitude Calibration, subsequent calibrations should be done following the Standard Calibration procedure.