CO2 Sensor Calibration

These calibration notes are applicable to the following products:

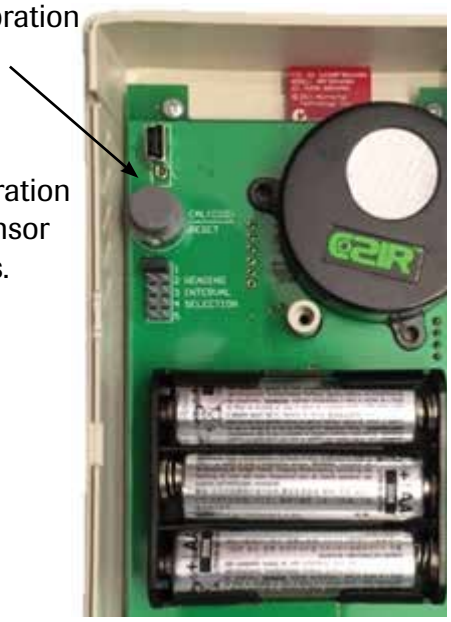
58-N-1202-CO2-R
58-N-1102-CO2-R

The IDEAL Wireless CO2 Sensors utilize Non-Dispersive Infra-Red (NDIR) technology and are self-calibrating. The IDEAL Wireless CO2 Sensors have an accuracy of:

- Filtered +/- 15ppm (S1 Value)
- Unfiltered +/-40ppm (S2 Value)

Self-Calibration

In order for the IDEAL Wireless Sensor to self-calibrate it must see “fresh air” a minimum of once per week. In most HVAC use cases this should occur without intervention as CO2 levels typically return to outdoor background levels while the building is vacant.



Manual Calibration

Place the CO2 sensor outside or in a location with a background concentration of CO2 near 385ppm. Press the calibration button on the inside of the sensor for two seconds. The sensor should remain in this location for 30 minutes.

Note: When placing the sensor outside for calibration, be sure that it is not placed in direct sunlight or where exposed to rain or excess moisture. The temperature should be between 0 and 120F.

Calibration Methodology

The IDEAL Wireless CO2 sensor uses typical outdoor background levels of CO2 as a baseline for calibration. This is accomplished by calibrating the sensor using the lowest level of CO2 over a period of time to 385ppm. For self-calibration the period of time is 1 week and for manual calibration the period of time is 30 minutes.

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