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# Application Note

## TG Field Calibration

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Applies To: Senva TG Series with UL

Description: Recommendations for field calibration of the CO and NO2 sensors.

### OVERVIEW

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Electrochemical sensor signal strength may drift over time, with a possible drift around 5%/year for CO sensors, and 2%/month for NO2 sensors. The TG series products provide you with the ability to field calibrate the sensors to help correct for this drift. Senva recommends annual field calibration on all TG sensors in order to keep the sensors operating properly within their intended application.

### EQUIPMENT

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Contact Senva to buy calibration gas kits, which will contain all necessary equipment for each sensor.

#### **Carbon Monoxide**

- 100 PPM Certified
- 0.5 LPM Regulator
- Tygon/Silicone Tubing
- CO Gas Shroud

#### **Nitrogen Dioxide**

- 10 PPM Certified
- 0.5 LPM Stainless Steel Regulator
- Tygon Tubing
- NO2 Gas Shroud

## FIELD CALIBRATION PROCEDURE

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- 1) Access the *Setup Menu* by holding the **◆** and **▲** buttons down simultaneously for one second.
- 2) Scroll with **▼** and select the sensor from the menu you would like to calibrate (51 or 52) and use the **◆** button to enter the sensor setup menu.
- 3) Scroll with **▼** button and select *CAL* with the **◆** button. You can cancel the calibration at any time before it is complete by holding all 3 buttons down simultaneously for 1 second (**▼+◆+▲**).
- 4) The display will first show *AIR* and then show a timer. The AIR test will take 10 seconds. During this time do not touch the unit or apply gas.
- 5) Next, *Gas* will show up on the screen, and a timer will start counting down from 180 seconds (3 minutes). Apply the gas cup over the sensor and turn the gas on to a flow rate of 0.5 LPM. Ensure the gas cup stays over the top of the sensor throughout the 3 minutes.
- 6) Once completed the display will go back to its normal sequence, displaying each sensor and its concentration.