

---

# Application Note

## TGR Field Calibration

---



153-0048-0A

3/5/2024

---

Applies To: Senva TGR Series

Description: Recommendations for field calibration of TG sensors.

### EQUIPMENT

---

Contact Senva (866-660-8864) to buy calibration gas kits and shrouds which will contain all necessary equipment for each sensor.

If using gas not provided by Senva, please ensure your calibration gas is not expired and that it meets the below requirements for concentration (PPM or %) and you are using a **0.5 LPM regulator**. It is also recommended to calibrate using Senva's gas shrouds to ensure proper gas allocation.

#### Carbon Monoxide

- 100 PPM Certified
- 0.5 LPM Regulator
- Tygon or Silicone Tubing
- TG-CO Gas Shroud (CALSHROUD-CO)

#### Nitrogen Dioxide

- 10 PPM Certified
- 0.5 LPM Stainless Steel Regulator
- Tygon Tubing
- TG Gas Shroud (CALSHROUD-TGUL)

#### Methane, Propane, Hydrogen

- 50% LEL Certified
- 0.5 LPM Regulator
- Tygon or Silicone Tubing
- TG Gas Shroud (CALSHROUD-TGUL)

#### Oxygen

- 19.0% Certified
- 0.5 LPM Stainless Steel Regulator
- Tygon Tubing
- TG Gas Shroud (CALSHROUD-TGUL)

#### Refrigerant Gases

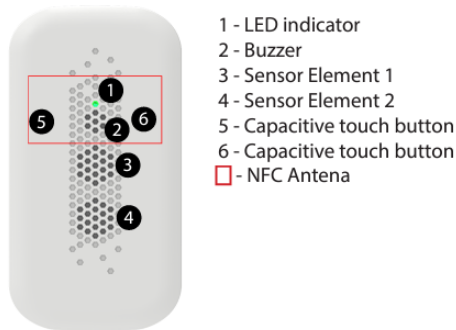
- 1000 PPM Certified
- 0.5 LPM Regulator
- Tygon or Silicone Tubing
- TG Gas Shroud (CALSHROUD-TGUL)

#### H2S, NH3

- 25 PPM Certified
- 0.5 LPM Stainless Steel Regulator
- Tygon Tubing
- TG Gas Shroud (CALSHROUD-TGUL)

# FIELD CALIBRATION PROCEDURE

---



## 1. Enter Calibration:

Hold down left + right buttons for 5 seconds. The buzzer will begin to sound and led will blink Green 1 time every 2 seconds to indicate successful entry into calibration mode.

## 2. Choose Sensor:

- Hold down the left button (sensor 1) or right button (sensor 2) for 5 seconds.
- Buzzer will begin to sound and led will blink orange: 1 time for sensor 1, or 2 times for sensor 2, every 2 seconds.

## 3. Apply baseline calibration.

- IMPORTANT:** Calibration requests take place instantly. When calibrating baseline, ensure sensor is in a good stable environment without gas for at least 15 minutes prior to applying a baseline calibration.
- Hold down left button for 5 seconds to activate baseline calibration.
- The buzzer will sound and LED will blink 3 times to indicate status of the request. (Red LED if failed, Green LED if succeeded)

## 4. Apply Span Calibration:

- IMPORTANT:** Check the table above to ensure the correct gas is being used.
- Apply gas until output stabilized, should take 60-90 seconds.
- Hold down the right button for 5 seconds to activate span calibration.
- The buzzer will sound and LED will blink 3 times to indicate status of the request. (Red LED if failed, Green LED if succeeded)

**NOTE:** if calibration is done incorrectly go back through steps 1 and 2 then hold down left + right buttons for 10 seconds to reset to factory calibration.

Buzzer will sound and LED will blink 3 times to indicate status of the request. (Red LED if failed, Green LED if succeeded)