

FLUKE®

975CK Gas Sensor Calibration Kit

Instruction Sheet

Calibration

Calibration due dates are tracked using the Meter's clock and stored in non-volatile memory. Due dates can be configured by the user from one to 365 days. When the Meter reaches its calibration due date, it alerts the user but will continue to operate.

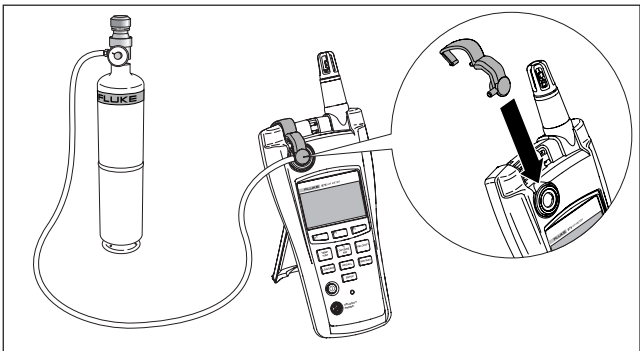
The Meter's CO and CO₂ sensors can be calibrated by the user or returned to Fluke for service. See "Contacting Fluke". The recommended calibration interval is 1 month for CO and 1 year for CO₂.

Gas canisters are available as an accessory allowing the user to calibrate the CO and CO₂ sensors.

Install the calibration cap and attach the hose to the correct gas canister; mixed CO and CO₂ for calibration gas, Nitrogen for zeroing gas when calibrating CO₂. See Figure 1

Note

Calibration gas is applied at the rate of ½ liter/minute for 2 minutes.



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Calibration Connections

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Calibrating the CO and CO₂ Sensors

Calibrate the CO and CO₂ sensors together, or separately.

To simultaneously calibrate both sensors,

1. If not already in calibration mode, press **LOG/SAVE**, **RECALL**, and **SETUP** simultaneously for 3 seconds to enter calibration mode.
2. Press **F1** [Yes] to initiate the calibration procedure.
3. Press **F3** [BOTH].

The Meter display reads:

Calibration Procedure Apply Nitrogen...

4. Apply ½ liter/minute of nitrogen for 2 minutes. Press **F3** [Cancel] to exit calibration.
5. When sensor zero is complete, remove the nitrogen and press **F2** [OK] or **F3** [Cancel] to exit calibration.

The Meter displays:

Apply CO Calgas concentration...

6. Enter the concentration amount using **F1** [DOWN] and **F2** [UP] to change the entry and **F3** [ENTER] to store it.
7. Apply the calibration gas mixture of CO and CO₂. Press **F2** [OK] or **F3** [Cancel] to exit calibration.
8. When finished, remove gas and press **□** [OK]. Enter the time to next calibration date. Use **F1** [DOWN] and **F2** [UP] to change the number and **F3** [ENTER] to store the number.

The calibration procedure is complete.

Calibrating the CO Sensor

To calibrate the CO sensor:

1. With the calibration cap on, press **LOG/SAVE**, **RECALL**, and **SETUP** simultaneously for 3 seconds to enter calibration mode.
2. Press **F1** [Yes] to initiate the calibration procedure or press **F3** [Cancel] to exit calibration mode.
3. Press **F1** [CO]. The Meter zeros the CO sensor. If desired, press **F3** [Cancel] to abort Meter calibration.
4. Use **F1** [DOWN] and **F2** [UP] to change the gas concentration (ppm). Press **F3** [ENTER] to enter the concentration level.

5. The Meter prompts to apply the CAL Gas. Attach the mixed CO and CO₂ calibration gas canister to the Meter via the supplied hose or press **F3** [SKIP] to exit.
6. The Meter calibrates the CO sensor. Press **F3** to cancel. When finished, remove gas and press **F3** [OK]. Enter the time to next calibration date. Use **F1** [DOWN] and **F2** [UP] to change the number and **F3** [ENTER] to store the number.

Note

When either CO or CO₂ sensors are calibrated, the calibration date is reset by the user.

CO calibration is now complete and the Meter exits calibration mode.

Calibrating the CO₂ Sensor

To calibrate the CO₂ sensor:

1. If not already in calibration mode, with the calibration cap on, press **LOG/SAVE**, **RECALL**, and **SETUP** simultaneously for 3 seconds to enter calibration mode.
2. Press **F1** [Yes] to initiate the calibration procedure or press **F3** [Cancel] to exit calibration mode.
3. Press **F2** [CO₂].
4. Specify one-point or two-point calibration methods. The one-point method uses CAL gas only. The two-point method uses CAL gas and also Neutral gas (Nitrogen).

If one-point is chosen:

1. Use **F1** [DOWN] and **F2** [UP] to choose the CAL gas concentration.
2. Press **F3** [ENTER] to enter the concentration.
3. Apply the CAL gas and press **F2** [OK], press **F3** [SKIP] to exit calibration mode. The Meter will now calibrate the CO₂ sensor for 2 minutes. press **F3** [Cancel] to exit calibration mode. If calibration fails, repeat the procedure. If it fails a second time, have the Meter serviced.
4. The Meter finishes the procedure then prompts the user to enter the time until the next calibration. Enter the amount using **F1** [DOWN] and **F2** [UP] to change the number and **F3** [ENTER] to store the number.

If two-point is chosen:

1. Apply the neutral gas (Nitrogen) or press **F3** [Cancel] to exit calibration mode.

2. When zeroing is complete, remove neutral gas (Nitrogen) and press **F2** [OK] or **F3** [Cancel] to exit calibration mode.
3. Apply the CAL gas. Enter the amount using **F1** [DOWN] and **F2** [UP] to change the number and **F3** [ENTER] to store the number.
4. Apply cal gas and press **F2** [OK] or **F3** [Cancel] to exit calibration mode.
5. The Meter finishes the procedure then prompts the user to enter the time until the next calibration. Enter the amount using **F1** [DOWN] and **F2** [UP] to change the number and **F3** [ENTER] to store the number.

CO2 sensor calibration is now complete and the Meter exits calibration mode.

Contacting Fluke



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LIMITED WARRANTY AND LIMITATION OF LIABILITY

Regulators are warranted for 2 years from the date of purchase against defects in the materials and assembly, and performance within specification. If the regulator is considered by Fluke to be defective then Fluke will replace the regulator at no charge. If the gas canister leaks or the gas becomes unstable within 3 years from the manufacturing date on the canister, Fluke will replace the canister at no charge. These warranties will not cover damage from accident, neglect, misuse, alteration, contamination, or abnormal conditions of operation or handling. Resellers are not authorized to extend any other warranty on Fluke's behalf.

To obtain warranty service, contact your nearest Fluke authorized service center to obtain return authorization information. Regulators need to be sent to that Service Center with a description of the problem. Fluke will not accept return of canisters. Customers must dispose of them in accordance with the disposal instructions on the canister.

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