

# PRODUCT ANNOUNCEMENT

**FLUKE**

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## Fluke HVAC / IAQ Tools. Get More Done. The Fluke 975 AirMeter™CO<sub>2</sub> Calibration

Fluke announced the 975 AirMeter™ test tool, redefining how technicians test and monitor HVAC output and indoor air quality last year.

To ensure reliable operation CO<sub>2</sub> sensor calibration is required. To calibrate the CO<sub>2</sub> sensor, please follow the steps below.

This is in addition to the normal calibration of the whole instrument.



### Step 1: Establish if the CO<sub>2</sub> Sensor unit needs calibration.

Recommended CO calibration interval: 30 days

Recommended CO<sub>2</sub> calibration interval: 1 year

### Step 2: Obtain the Calibration Gas in Australia

Due to international transportation regulations, Fluke cannot ship Fluke-975CK outside of the United States.

We recommend customers contact their local specialty gas supplier, or the suppliers below.

#### AUSTRALIA

Air Liquide Australia  
40 Bunnett Street  
North Sunshine  
Victoria 3020  
Australia

Tel: +613 9290-1134

Fax: +613 9290-1199

Email: [tim.passmore@airliquide.com](mailto:tim.passmore@airliquide.com)

Zeroing gas requirements: Dry nitrogen (N<sub>2</sub>) free of CO<sub>2</sub> and CO

Span gas requirements: 200 ppm CO, 5000 ppm CO<sub>2</sub>

### Step 3: Obtain the regulator and suitable tubing.

Regulator requirements: 0.5 liters/min constant flow

Part Number – Fluke 975R

Australian List – AUD 350.00 exclusive of GST.

**Step 4: Follow the procedure as follows.**

**4 a 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.

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

**4 b 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 L, R, and S simultaneously for 3 seconds to enter calibration mode.
2. Press 1 [Yes] to initiate the calibration procedure.
3. Press 3[BOTH].

The Meter display reads:  
Calibration Procedure  
Apply Nitrogen...

4. Apply ½ liter/minute of nitrogen for 2 minutes. Press 3[Cancel] to exit calibration.
5. When sensor zero is complete, remove the nitrogen and press 2[OK] or 3[Cancel] to exit calibration.  
The Meter displays:

Apply CO Calgas concentration...

6. Enter the concentration amount using 1[DOWN] and 2[UP] to change the entry and 3[ENTER]to store it.
7. Apply the calibration gas mixture of CO and CO2. Press 2[OK] or 3[Cancel] to exit calibration.
8. When finished, remove gas and press [OK]. Enter the time to next calibration date. Use 1[DOWN] and 2[UP] to change the number and 3[ENTER]to store the number.

The calibration procedure is complete.

## Fluke 975 AirMeter™ Calibration Procedure – Continued

### 4 c Calibrating the CO Sensor

To calibrate the CO sensor:

1. With the calibration cap on, press L, R, and S simultaneously for 3 seconds to enter calibration mode.
2. Press 1 [Yes] to initiate the calibration procedure or press 3[Cancel] to exit calibration mode.
3. Press 1[CO]. The Meter zeros the CO sensor. If desired, press 3[Cancel] to abort Meter calibration.
4. Use 1[DOWN] and 2[UP] to change the gas concentration (ppm). Press 3[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 3[SKIP] to exit.
6. The Meter calibrates the CO sensor. Press 3 to cancel. When finished, remove gas and press 3[OK]. Enter the time to next calibration date. Use 1[DOWN] and 2[UP] to change the number and 3[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.

### 4 d Calibrating the CO2 Sensor

To calibrate the CO2 sensor:

1. If not already in calibration mode, with the calibration cap on, press L, R, and S simultaneously for 3 seconds to enter calibration mode.
2. Press 1 [Yes] to initiate the calibration procedure or press 3[Cancel] to exit calibration mode.
3. Press 2[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 1 [DOWN] and 2[UP] to choose the CAL gas concentration.
2. Press 3[ENTER] to enter the concentration.
3. Apply the CAL gas and press 2[OK], press 3 [SKIP] to exit calibration mode. The Meter will now calibrate the CO2 sensor for 2 minutes. press 3 [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 1[DOWN] and 2[UP] to change the number and 3[ENTER] to store the number.

If two-point is chosen:

1. Apply the neutral gas (Nitrogen) or press 3[Cancel] to exit calibration mode.
2. When zeroing is complete, remove neutral gas (Nitrogen) and press 2[OK] or 3[Cancel] to exit calibration mode.
3. Apply the CAL gas. Enter the amount using 1[DOWN] and 2[UP] to change the number and 3[ENTER] to store the number.
4. Apply cal gas and press 2[OK] or 3[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 1[DOWN] and 2[UP] to change the number and 3[ENTER] to store the number. CO2 sensor calibration is now complete and the Meter exits calibration mode.