



Snifit Model 50

Carbon Monoxide Analyzer

Introduction

Designed for HVAC professionals and utility personnel, the Snifit Model 50 Analyzer is ideal for measuring low levels of CO in ambient air such as in rooms and garages, or around registers, furnaces, stoves, water heaters, and other types of combustion appliances. The Snifit samples the surrounding air and shows the detected concentration of CO on its Liquid Crystal Display. The Snifit is *not* intended to be used in flue gases or in temperatures exceeding 104 °F (40 °C).

Features

- Measures and displays 0 to 1999 ppm CO in room air
- Sensitive CO sensor will last up to 2 years
- Backlight for viewing in dark areas
- Compact pocket size
- Low battery indication
- Manual zero adjust
- Factory calibrated on 100 ppm CO
- Simple field calibration
- Auto power-off after 35 minutes
- Single 9V battery (included) provides at least 1500 hours of operation

3. Push the Calibration Cup over the sensor housing.
4. Attach a CO Span Gas Cylinder to the regulator. Then apply span gas to the sensor by adjusting the regulator knob for a flow rate of 2 SCFH.
5. Allow span gas to flow until the displayed reading stabilizes – approx. 3 minutes. Then, using Calibration Tool 0006-9453 (supplied in Calibration Tool / Cup Kit 0019-3242), turn the **Span Adjust** potentiometer until the displayed reading matches the concentration stamped on the Span Gas Cylinder.
6. Calibration is now complete. Turn off the Regulator and remove the calibration equipment.

4. Remove wire-jumper (if installed) from pins of new sensor; plug in sensor and install the new gasket supplied; then reassemble the instrument.
5. Wait 30 minutes; then calibrate the new sensor.

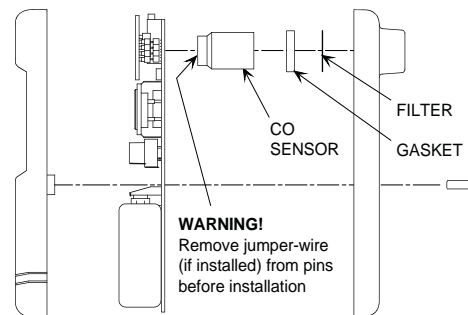


Figure 4. Sensor Installation

Maintenance

Battery Replacement

Remove slotted screw from rear of instrument; then lift off front case.

Replace 9V Alkaline battery (Duracell MN1604 or equiv.) in location shown in Figure 3; then reinstall front case.

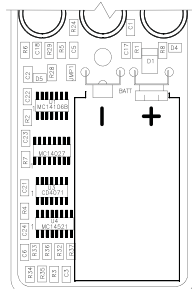


Figure 3. Battery Location

Sensor Replacement

The sensor needs replaced when it can no longer be calibrated to the Span Gas Cylinder value using the **Span Adjust** potentiometer, or if it no longer responds to a CO source.

1. See Figure 4. Remove the screw from the rear of the instrument; then lift off the front case and remove the printed circuit board assembly.
2. Unplug the old sensor and remove its gasket. Discard both items properly.
3. Inspect the sensor filter. Replace the filter if it has become contaminated with dirt.

Replacement Parts

Item	Part No.
CO Sensor and Gasket.....	0019-7061
Filter	0019-3244

Accessories

Item	Part No.
Calibration Kit	0024-7059
Calibration Tool / Cup Kit	0019-3242
Span Gas Cylinder, 100 ppm CO in air	0051-1994
Zero Gas Cylinder, 20.9% O ₂ in Nitrogen	0051-7131

Bacharach Service Center

Replacement parts and accessories can be obtained by contacting the following Bacharach Service Center:

Bacharach, Inc., 621 Hunt Valley Circle
New Kensington, PA 15068
Phone: 1-800-736-4666 • FAX: 724-334-5723

Bacharach, Inc.

621 Hunt Valley Circle, New Kensington, PA 15068
Ph: 724-334-5000 • Fax: 724-334-5001 • Toll Free: 800-736-4666
Website: www.mybacharach.com • E-mail: help@mybacharach.com

Specifications

Gas Monitored.....	Carbon Monoxide (CO)
Range.....	0 to 1999 ppm
Resolution.....	1 ppm
Accuracy.....	± (5% of reading + 5 ppm)
Response.....	≤30 sec. to 90% of final value
Power.....	9V battery
Battery Life.....	1500 hours minimum
Temperature Range....	32 to 104 °F (0 to 40 °C)
Case Material.....	High impact plastic
Weight.....	0.25 lb (0.11 kg) without battery
Dimensions.....	5.5" L x 2.0" W x 1.6" H (140 x 51 x 41 mm)

Operation

Turning the Snifit On & Off

The Snifit is turned on and off by pressing the **Power On** and **Power Off** buttons, respectively. If the instrument is not manually turned off, it will automatically shut itself off after approximately 35 minutes.

Zeroing the Sensor

Turn on the Snifit and allow the displayed reading to stabilize before proceeding – approximately 30 seconds. Then with the instrument sampling fresh air (air that is free of CO), use a screwdriver to adjust the **Zero Adjust** potentiometer at the top of the instrument for a reading of 0 ±1 ppm.

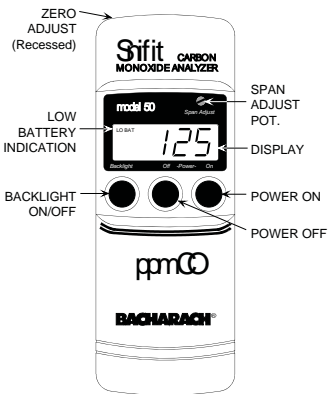


Figure 1. Snifit 50

If you're not sure about the quality of the surrounding air, you can apply a blend of Oxygen/Nitrogen gas to the sensor as described under *Calibration*.

If rapid temperature changes are encountered (such as from freezing to room temperatures) during the operation of the analyzer, the operator must allow the analyzer to stabilize at the ambient temperature for at least 2 minutes before taking a measurement.

Checking for CO

Important! *Ensure that the sensor grille at the rear of the instrument is unobstructed and open to the atmosphere. A quick instrument check can be performed by allowing the smoke of a blown-out match to enter into the sensor grille. This should cause the indicated CO level to increase.*

After zeroing the Snifit, simply hold the instrument in the area that you suspect the presence of CO gas. If CO is present, the instrument will indicate the concentration of CO in ppm on its display.

For more extensive CO investigations and testing in areas of higher temperatures, the Monoxor® II is the preferred instrument.

Backlight

Pressing the **Backlight** button will illuminate the display for a period of 8 minutes, or until it is manually turned off by again pressing the **Backlight** button.

Overrange

If the CO level exceeds 1999 ppm, the displayed reading is replaced by the number "1".



Low Battery

When the Snifit's 9V battery is nearing the end of its useful life, **LO BAT** will



appear in the upper left hand corner of the display. Although you can continue using the instrument under this condition, you should replace the battery as soon as possible to ensure accurate CO readings.

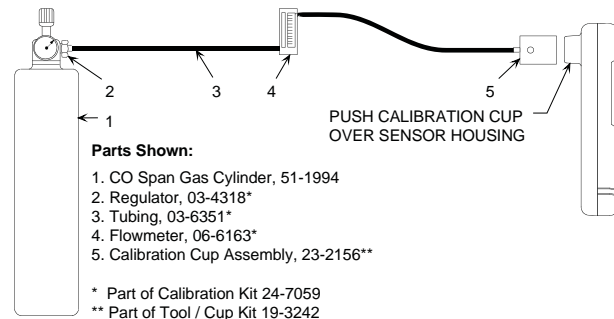


Figure 2. Calibration Equipment Setup

Calibration

Important! *For accurate Snifit operation, calibration every 6 months is recommended.*

To calibrate the CO sensor, you will need the equipment listed under *Accessories*. Note that the Zero Gas Cylinder is needed only if you're unsure about the quality of the surrounding air for zeroing purpose.

Calibrate the sensor to a known concentration of CO gas as follows:

1. Assemble the calibration equipment per Figure 2.
2. Zero the instrument as previously described under *Zeroing the Sensor*.

If necessary, you can use the calibration cup to apply a blend of Oxygen/Nitrogen gas directly over the sensor by attaching a zero gas cylinder to the regulator and adjusting the regulator knob for a flow rate of 2 SCFH.