

# Calibration Kit 529-04-48, Large

## *User Instructions*

*For use with 3M™ Carbon Monoxide Monitor*

[3M 256-02-00 Portable Compressed Air Filter Regulator Panel](#)

[3M 256-02-01 Portable Compressed Air Filter Regulator Panel](#)



## ⚠ WARNING

3M's respirator products help provide protection against certain airborne hazards. **Misuse may result in sickness or death.** For proper use, see supervisor or *User Instructions*.

## GENERAL SAFETY INFORMATION

### Intended Use

This 3M™ Calibration Kit is designed to allow the 3M™ Carbon Monoxide Monitor to be zeroed and spanned to insure accurate readings of CO in the air flowing through 3M™ Portable Air Purification Panels.

## USE INSTRUCTIONS AND LIMITATIONS

### Important

Before use, the user must read and understand these *User Instructions* and the 3M™ Carbon Monoxide Monitor *User Instructions*. Keep these instructions for reference.

### Use For

Calibration of 3M carbon monoxide monitor.

### Do Not Use For

Any other purposes other than calibration of 3M carbon monoxide monitor.

### Use Instructions

The calibration kit 529-04-48 is furnished with an "On-Off" regulator to ease the calibrating procedure.

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## CAUTION

To avoid damage to the monitor's sensor, the regulator provided in this kit must be used. Before attempting to use this kit, be certain that the components are connected as shown in figure 1 and read the section on "Calibration and Adjustment" in the *User Instruction* furnished with the CO monitor. It will save time and conserve calibration gas if the monitor is "warmed up" and the calibration adjustment controls have been located on the monitor prior to screwing the regulator onto the test gas cylinder.

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## ⚠ WARNING

Use of equipment described in these *User Instructions* must be in accordance with applicable health and safety standards or pursuant to the recommendations of an industrial hygienist.

Do not use with parts or accessories other than those supplied by 3M as specified in these *User Instructions*. Failure to do so may reduce respirator effectiveness and result in sickness or death.

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## CALIBRATION PROCEDURE

**Note:** Have all tubing and equipment ready for performing the following calibration procedure before screwing bottle of test gas onto regulator.

### Zeroing the Monitor

1. Remove the protective cap (if supplied) from the ZERO AIR cylinder outlet.
2. Connect the plastic tubing provided in the kit to the plastic fitting as shown in figure 1, and connect the opposite end of the tubing securely to the barbed fitting on the regulator.
3. Connect the monitor's sample tube to the proper end of the above tubing/regulator assembly.
4. Locate ZERO adjustment potentiometer and verify monitor has had adequate warm-up time (see 3M™ CO Monitor *User Instructions*).
5. Screw regulator valve onto the ZERO AIR cylinder outlet, making sure not to "cross thread" the regulator or cylinder outlet port, and tighten regulator firmly. Open knob on regulator counterclockwise to start gas flow.
6. Observe display on monitor. Reading should move to zero (00) after approximately one (1) minute. If display does NOT read zero (00), adjust ZERO potentiometer such that display now reads zero (00).
7. When the above steps have been completed, close knob on regulator clockwise to stop gas flow. Unscrew regulator valve from the ZERO AIR cylinder and replace plastic protective cap.

### Spanning the Monitor

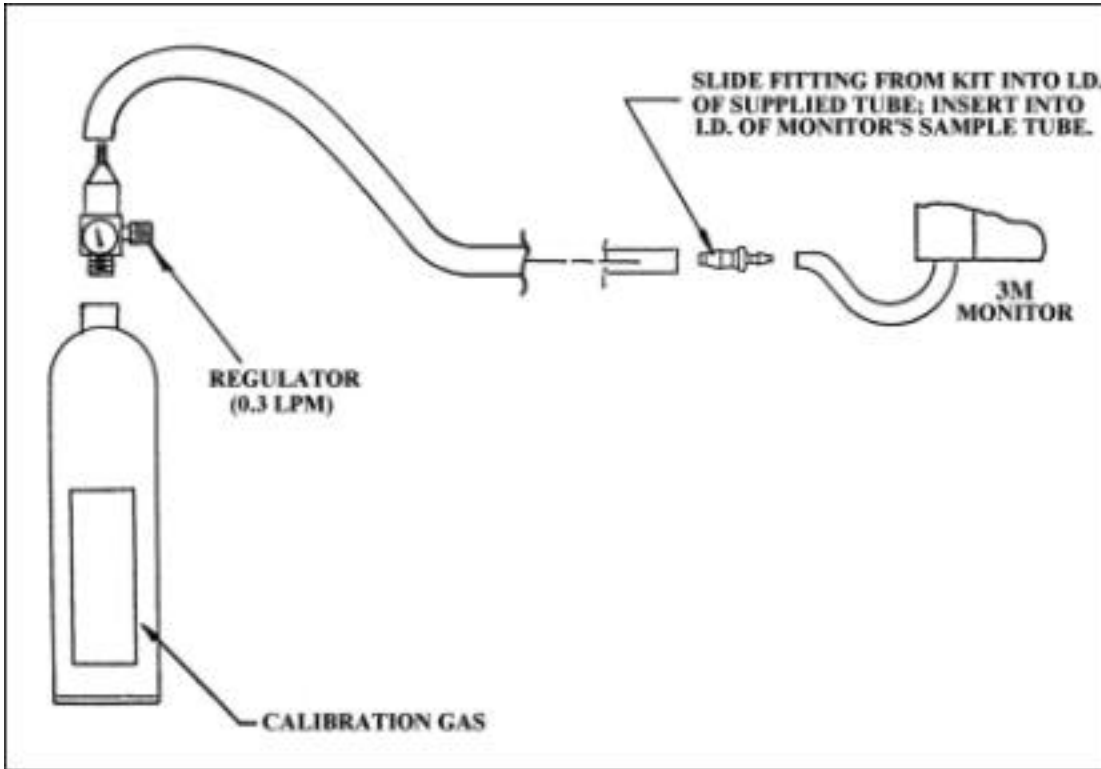
1. Remove the protective plastic cap (if supplied) from the SPAN GAS cylinder, noting the concentration of carbon monoxide printed on the cylinder.
2. Connect the plastic tubing provided in the kit to the plastic fitting as shown in figure 1, and connect the opposite end of the tubing securely to the barbed fitting on the regulator.
3. Connect the monitor's sample tube to the proper end of the above tubing/regulator assembly.
4. Locate SPAN adjustment potentiometer and verify monitor has had adequate warm-up time (see CO Monitor's *User Instructions*).
5. Screw regulator valve onto the SPAN GAS cylinder outlet, making sure not to "cross thread" the regulator or cylinder outlet port, and tighten regulator firmly. Open knob on regulator counterclockwise to start gas flow.
6. Observe the display on the monitor. The reading will increase, and then stabilize. As soon as reading is stable (approximately one minute), compare the value indicated on the display, with the value noted on the SPAN GAS cylinder. If the display does NOT read the same value as noted on the SPAN GAS cylinder, adjust the SPAN potentiometer until the reading indicated on the display matches the concentration of carbon monoxide printed on the SPAN GAS calibration gas cylinder.
7. When the above steps have been completed, close knob on regulator clockwise to stop gas flow. Unscrew regulator valve from SPAN GAS cylinder and replace the protective plastic cap.
8. Disconnect the associated calibration test tubing from the monitor and reconnect monitor's sample tube to sampling supply on filtration system.

Place all calibration kit components back into the protective plastic case to prevent damage or loss to components.

**⚠ WARNING**

Failure to reconnect monitor to breathing air system will void appropriate standards requiring a carbon monoxide monitor and may result in sickness or death.

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**Figure 1**

**SPECIFICATIONS**

Span Gas      95 ppm (parts per million)



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