

1.0 INTRODUCTION

1.1 Use these instructions when needed to "zero" (establish impurity-free air baseline) newly installed monitors or when reestablishing electrical power that has been off for an extended period.

1.2 When Zeroing Is Required

1.2.1 Zero the monitor on initial power-up or when reestablishing electrical power after an extended period of nonuse.

1.2.2 Verify the zero setting whenever the instrument stays in an alarm condition when the monitor is in the operating mode. This test shows whether the alarm is due to contaminated air, or to a malfunctioning monitor. Refer to Section 4.8 in the CMS-1 Owner's manual, Stock No. 23301.

2.0 PROCEDURE, Ref Figure 1

2.1 Connect the monitor to the air supply and electrical power as described in the CMS-1 Owners Manual.

2.2 Operate the monitor for one hour to stabilize. Check the calibration as described in Section 4.5 of the CMS-1 owner's manual. Zeroing is not required if all of the following occurs:

- If the monitor calibrates to 10 ppm and does not alarm when the monitor is returned to the operating mode.
- The display does not show a decimal point when the monitor is returned to the operating mode.

2.3 If the monitor does not perform as noted, reset to zero as follows.

2.3.1 Operate the monitor a full day with sample air (from compressed air source) flowing through the monitor and with power connected.

2.3.2 Make sure the calibration connector valve is closed, and then attach the calibration connector to the impurity-free gas.

2.3.3 Open the instrument case cover to access the faceplate. Connect the calibration connector to the "Test Gas Port", by aligning the tabs and inserting the tube end connector into the port and turning it clockwise to lock.

2.3.4 Place the Run/Calibration toggle toward "CAL"

2.3.5 Open the calibration connector flow valve. Test gas is entering the unit when the flow meter ball rises. If the flow meter ball does not rise when the connector valve is opened, the test gas cylinder may be empty.

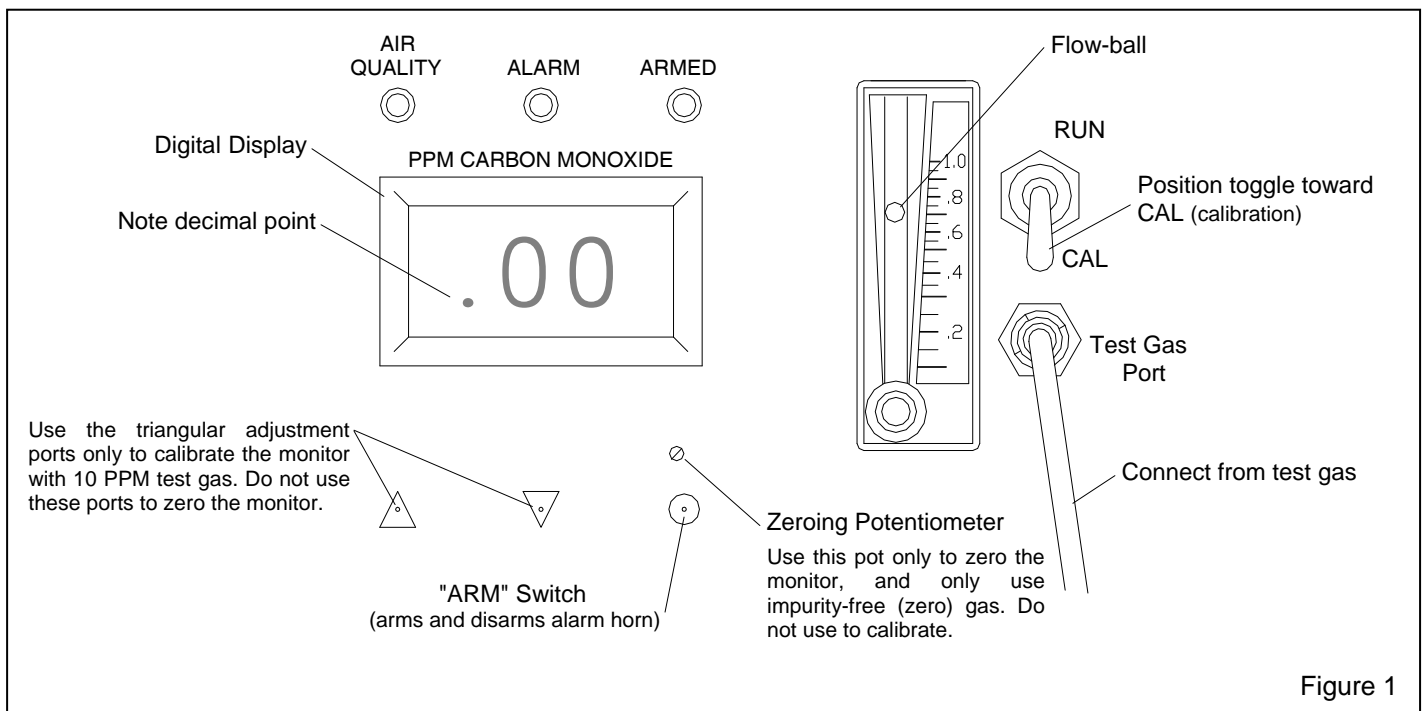


Figure 1

2.3.6 Allow test gas to flow through the instrument until the digital readout stabilizes (about one minute).

2.3.7. If the zero is correctly set, the display will show 00 (without a decimal point), and zeroing is not required. NOTE: If the display shows a decimal point, the reading is in the minus (below zero) and must be reset.

2.3.8 To reset to zero, remove the green dot covering the zeroing potentiometer opening, and insert a small, appropriately sized screwdriver through the opening, and turn the potentiometer until the display reads ".00" (decimal point, zero, zero) NOTE: The readout responds slowly to the potentiometer adjustment. Turn it slowly when making adjustments.

2.3.9 After the display shows ".00", very slowly turn the potentiometer until the decimal point disappears.

2.3.10 Close the calibration connector flow valve and remove the impurity-free gas from the connector.

2.3.11 Attach 10 PPM test gas to the calibration connector and check the calibration as explained in Section 4.5 of the CMS-1 owner's manual. Return the instrument to operating mode, per Section 4.7.