

## CALIBRATION KIT (CO<sub>2</sub>)

## MODEL 2000CALKIT

### GENERAL DESCRIPTION:

The **2000CALKIT** is the calibration kit designed specifically for use with AIR2000 carbon dioxide sensors, used in conjunction with the GVV series, TOX-4/ANA, and TOX-CONTROL ventilation control systems. The kit contains two tanks of span gas, which contain the proper concentrations of carbon dioxide and clear air needed for proper calibration. The required hardware is included to provide correct gas metering to the sensor. The kit also contains complete instructions and an industrial grade carrying case.

The kit has enough gas for approximately 125 calibrations. Calibration is recommended on a quarterly basis.



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### FEATURES:

- Two Tanks of Standard Test Gas (17 Liter)
- Regulator/Pressure Gauge
- Tubing With Metering Orifice
- On/Off Valve
- Adjustment Screwdriver
- Carrying Case

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### CALIBRATION PROCESS

The output signal of the gas sensor module is calibrated using a span mixture containing a known concentration of the gas of interest. The concentration of the span gas should be between the high alarm point and full scale.

Calibration requires application of the span gas to the sensor and adjustment of the span switches to make the module signal equivalent to the concentration of the sample gas.

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### CALIBRATION PROCEDURE:

Kit assembly:

1. Screw the valve, regulator, gauge and orifice assembly on to the tank of calibration gas.
2. Insert plastic tubing (with orifice in line) into remaining barb fitting.
3. Fit tubing into calibration adapter.

# MODEL AIR 2000 CALIBRATION SET-UP

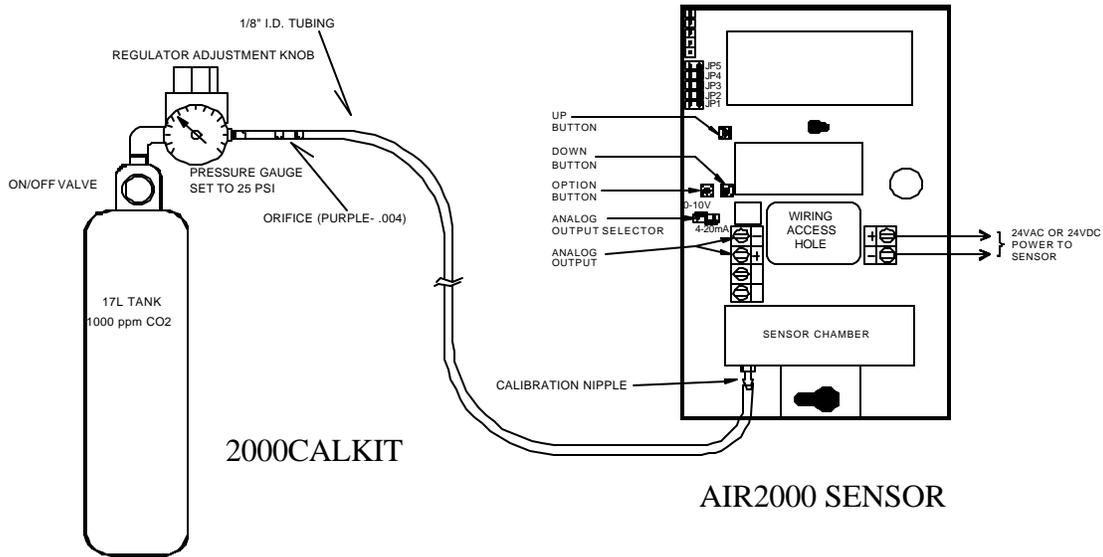


Fig. 1

## CALIBRATION:

(Refer to Fig. 1)

1. Carefully remove the front cover of the unit.
2. If there is no display on the unit being calibrated, connect a current or a voltmeter to the analog output terminals. Check the setting of the analog output selector to determine whether the unit is set for voltage or current output.
3. **Note whether the shorting block at jumper JP5 is covering both pins or only a single pin**, then borrow the shorting block and slide it over both pins of jumper JP2 (see figure 1).
4. Remove the dust cover from the calibration nipple, attach a flexible tube and establish a flow of between 50 and 100cc/min (0.1 to 0.2 SCFM) of calibration gas through the sensor. This is done with the regulator set at 25 psi through the purple orifice. Allow approximately two minutes for the reading to stabilize.
5. With 1000ppm carbon dioxide as a calibration gas, the analog output should read 5V, (or 12mA if in mA position). If unit has a digital display, it should read 1000ppm  $\pm$  75ppm. If the reading differs by more than  $\pm$ 75ppm from the known concentration of calibration gas, use the 'UP' and 'DOWN' buttons (see figure 1) to adjust the reading.
6. When the reading agrees with the concentration of the calibration gas, remove the shorting block on jumper JP2, and replace it in its original position at jumper JP5.
7. Turn off the calibration gas flow, disconnect the tubing from the calibration nipple and replace its dust cover. Remove the meter leads from the terminal strip and replace the front cover.

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## ORDERING INFORMATION:

**2000CALKIT**- Comes standard with calibration gas @ 1000ppm carbon dioxide.