

# REPLACEMENT CARBON MONOXIDE SENSOR

## PART NO. 80133

### REPLACEMENT SENSOR CELL INSTALLATION INSTRUCTIONS:

Remove the singular thumbscrew at bottom right side of monitor (OLD STYLE MONITOR WITH RUBBER CUPS) or the 2 thumbscrews at monitor bottom (NEW STYLE MONITOR WITH FLOW BLOCK) to gain access to sensor.

#### OLD STYLE RUBBER CUP MONITOR

The bottom plate is hinged and will come off completely exposing the rubber cups encapsulated sensor tucked up inside monitor. Remove sample tube's inlet plastic elbow from the rubber cup bottom half and pull the encapsulated sensor from bottom of monitor as far as the wires will allow. **OBSERVE CONNECTORS ON ENDS OF SENSOR WIRES.** The split rubber cup holders may require up-grading to the current plastic holder block to eliminate drift created by current sensor.

If the rubber cup holders are re-used, be sure the sensor wires are guided through the plastic sensor stop and the upper rubber cup properly. Make sure the rubber cup halves encapsulate the sensor completely and the sample tube elbow is inserted in the bottom half rubber cup. The old tab wire harness must be replaced with the new pin style wire harness. Contact Distributor or Factory for this pin style wire harness.

#### NEW STYLE FLOW BLOCK MONITOR

After the thumbscrews have been removed, pull the bottom plate off the housing as far as wiring will allow.

If wires are connected to tab, pin or round circuit board connectors, SEE SECTION I, (Figure No. 1).

If wires are connected to a rectangular circuit board, screw mounted to the flow block, SEE SECTION II, (Figure No. 2).

Remove sensor cell from its cavity in the flow block on top of bottom plate. Pull tab, pin or round circuit board wire connectors off tab/pins of sensor, noting the color coding. If rectangular screw mounted circuit board is supplied, unscrew the 2 mounting screws and remove sensor from flow block cavity. Pull circuit board connectors off pins of sensor.

Discard old sensor cell. It contains a small amount of sulfuric acid. Dispose of sensor according to local regulations.

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**Caution:** Sulfuric acid is poisonous and can cause severe burns. Do not allow acid to contact skin or eyes. If eyes are exposed to acid, flush thoroughly and seek immediate medical attention. Always wash hands thoroughly after handling sensor.

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**The Factory shall not be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use this product, beyond the replacement of defective materials or workmanship. Users of supplied air respirators should evaluate their own particular application and perform their own test for air quality to determine the suitability for use of this product.**

**For further information or questions about service of maintenance care for this unit, contact your local distributor or the Factory at (800) 542-6646.**

## SECTION I

If you have the old tab wire harness, please contact your Distributor or call Factory at (800) 542-6646 for the new pin wire harness. **DO NOT SOLDER** wires of old tab wire harness to sensors' pins; damage to sensor will occur.

To install new pin wire harness, first remove the 3 or 6 screws holding the monitor's face plate to housing. Locate the old wire harness white 5 - point connector plugged into the main circuit board mounted on face plate. Remove the old connector and plug in its place the new white 5 - point connector of new wire harness. Re-install monitor's face plate to housing and discard old tab wire harness.

Attach the pin or circuit board wire harness to new sensor cell as listed below. The fourth pin on sensor is used only as a guide pin to install circuit board to sensor, if supplied. New sensors come with a shorting wire/spring connecting the sensing and reference pins. Remove and discard before attaching wire harness connectors.

<u>WIRE COLOR</u>	<u>SENSOR PIN TERMINAL</u>
Black	CNTR
Blue	REF
Red	SENSING

Be sure flow block cavity is clean and dry and a small amount of petroleum jelly or similar lubricant is applied on the O-Ring seal within block. Then push the sensor cell into block with a twisting motion until it seats on the ledge halfway down.

Replace the bottom plate and secure it with thumbscrews. Make sure the inlet swivel elbow and hose barb fitting are firmly tightened.

Power monitor and allow at least one hour stabilization and then calibrate monitor.

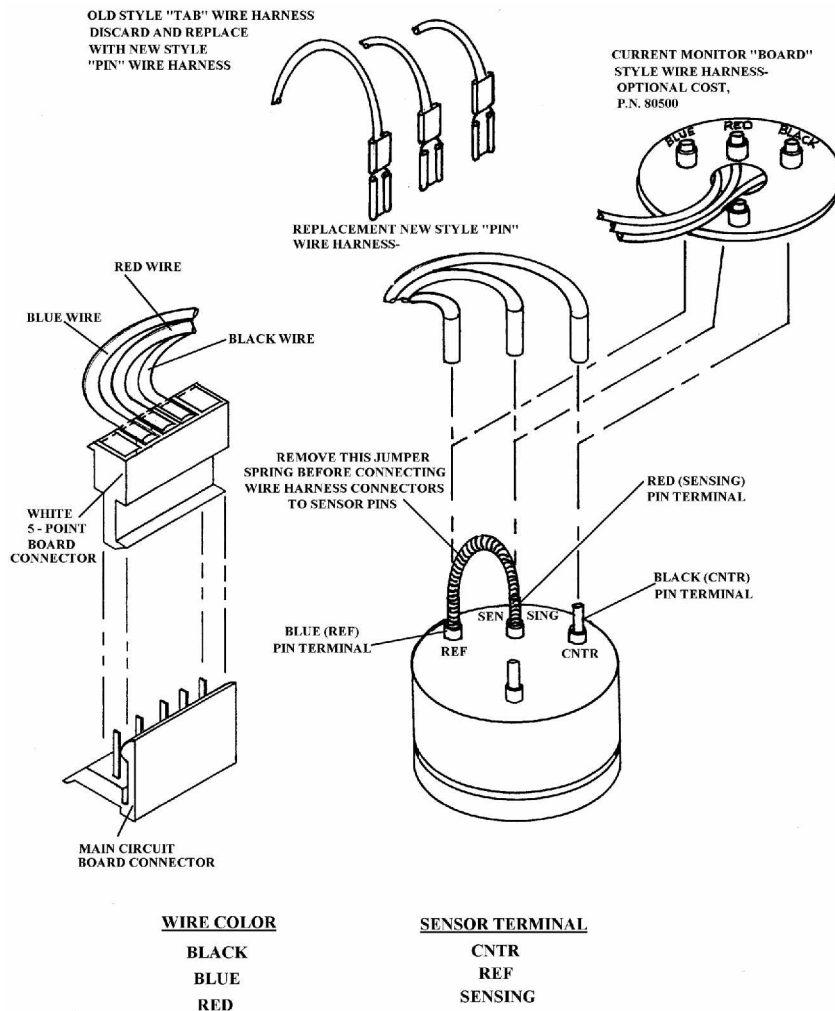


Figure No. 1

## SECTION II

After old sensor has been removed and disposed of, make note of O-Ring located at bottom of flow block. DO NOT LOSE.

The wire connectors' circuit board relates to the sensors' 3 pins as shown below. The fourth pin on sensor cell is used as a guide pin to install circuit board to sensor. Carefully press circuit board on sensors' 4 pins evenly. New sensors come with a shorting wire/spring between sensing and reference pins. Remove and discard before pressing circuit board connectors in place.

<u>WIRE COLOR</u>	<u>SENSOR PIN TERMINAL</u>
Black	CNTR
Blue	REF
Red	SENSING

Be sure flow block cavity and O-Ring are dry and clean of oils, etc. The O-Ring must be positioned evenly in bottom of flow block cavity. Push the sensor in block against O-Ring and evenly tighten the 2 screws that hold circuit board/sensor to flow block. Tighten screws lightly to assure good seal with O-Ring. Do not overtighten screws, or damage to circuit board/sensor may occur.

Replace the bottom plate and secure it with thumbscrews. Make sure the inlet sample swivel elbow and hose barb fitting is firmly tightened.

Power monitor and allow at least one hour stabilization and then calibrate monitor.

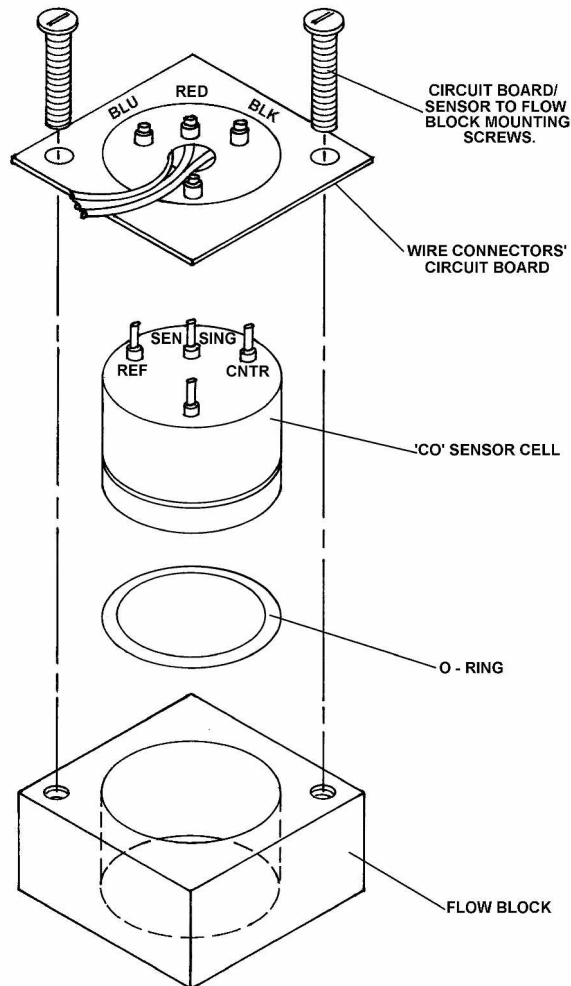


Figure No. 2