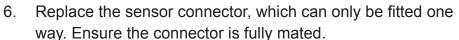


## Replacement of the Alpha-1 Oxygen Sensor using Vandagraph Teledyne R-22SHO

Serial No's: 194 and above

- 1. Remove the rear cover by undoing the 4 screws.
- 2. Disconnect the battery.
- 3. Carefully withdraw the sensor connector lead from the sensor.
- 4. Unscrew the sensor from the case. The sensor may be tight due to the sealing "O" ring, and a tool such as a pair of large pliers or grip may be required to rotate the sensor.
- 5. Position the new sensor inside the case with the screw thread aligned with the hole in the case. Gently screw the sensor into the hole, taking care not to cross-thread. The sensor thread is plastic, and fine, so can be easily damaged. When the thread is finger tight, the sensor can be gripped carefully with a tool and tightened gently just enough to compress the "O" ring seal. Over tightening can damage either the thread or the "O" ring.



- 7. Replace the Battery.
- 8. Carry out a full calibration in accordance with the manufacturers instructions

The following notes are supplied as a guide only: Carry out the calibration in dry outdoor air.

Turn the front calibration control clockwise to maximum.

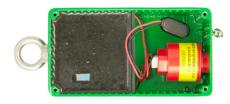
Adjust the internal calibration control until the display reads 22.2%.

The setting 22.2% assumes an ambient pressure of 1013mb.

0.1% should be added for every increase of 5mb and 0.1% subtracted for every 5mb below.

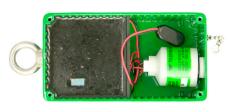
Seal the internal calibration control with a dab of paint, or nail varnish etc.

- 9. Replace the rear panel, taking care not to over tighten the screws.
- Calibrate the outer calibration control to 20.9%.
  The Vandagraph equivalent sensor is the R-22SHO
- 11. Requires adapter 9711110 inside the sensor to fit the Alpha adapter.











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