

Manual Supplement

OX-500

This supplement includes calibration instructions and a spare parts list for the OX-500.

Calibrating the OX-500 in Maintenance Mode

Preparing for Calibration

NOTE: The following procedure assumes the use of a calibration kit which includes a 100% nitrogen calibration gas cylinder, a zero air cylinder, a 2.0 LPM fixed flow regulator with an on/off knob, a calibration cup, and a short piece of sample tubing to connect the regulator to the calibration cup.

NOTE: The following procedure assumes that the OX-500 is not in a fresh air environment. If a fresh air environment can be verified, applying zero air to the detector is not necessary when setting the span adjustment.

1. Connect the calibration kit sample tubing to the calibration cup hose barb.
 2. Connect the fixed flow regulator to the calibration cup using the sample tubing. Be sure that you are using a 2.0 LPM fixed flow regulator.
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WARNING: *Failure to use the recommended gas flow rate will result in an inaccurate reading.*

Adjusting the Zero Reading

1. While in Measuring Mode, press and hold the MAINTe Switch and the MODE Switch simultaneously for 3 seconds to enter Maintenance Mode. Release the switches when the following screen appears.

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NOTE: The MAINTe Switch is a small recessed push button switch located to the left of the MODE Switch. It is labelled on page 5 of the attached OX-500 manual. A tool such as a small tipped screwdriver or a pencil may be used to press the MAINTe Switch.

2. Press and release the MODE Switch to proceed to item 2-2, Zero Adjustment Mode.
3. Press and release the RESET switch to select item 2-2. The display will indicate the current gas reading.
4. Screw the 100% nitrogen cylinder into the fixed flow regulator.
5. Turn the regulator knob counterclockwise to open the regulator.
6. Hold the calibration cup against the case over the diffusion grill that covers the sensor face in the lower left corner of the front.
7. Allow 100% nitrogen to flow for two minutes. The reading should decrease and stabilize after two minutes.

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8. Press and release the MODE switch to perform the zero adjustment. The reading will momentarily flash and the OX-500 will perform a zero adjustment.
9. If the zero adjustment is successful, the buzzer will sound a double tone and the display reading will be set to 0.0 %.

If the zero adjustment is not successful, the LCD will indicate the error message **Err**.

10. Remove the calibration cup from the front face of the OX-500.
11. Turn the regulator knob clockwise to close the regulator.
12. Unscrew the 100% nitrogen cylinder from the fixed flow regulator.
13. Press and release the RESET Switch to exit Zero Adjustment Mode and return to the screen that indicates item 2-2.

Adjusting the Span Setting

1. Press and release the MODE Switch to proceed to item 2-3, Span Adjustment Mode.
2. Press and release the RESET Switch to select item 2-3. The display will indicate the current gas reading.

NOTE: If you can confirm a fresh air environment, you do not need to apply zero air to set the span.

3. Screw the zero air calibration gas cylinder into the fixed flow regulator.
4. Turn the regulator knob counterclockwise to open the regulator.
5. Hold the calibration cup against the case over the diffusion grill that covers the sensor face in the lower left corner of the front.
6. Allow zero air calibration gas to flow for two minutes.
7. Adjust the gas reading so that it matches the calibration gas concentration using the MAINT Switch. The MAINT Switch will only increase the gas reading. When the reading reaches the maximum, it will “wrap around” and begin increasing from zero.
8. Press and release the MODE Switch to accept the span setting. The gas reading will momentarily flash and the span setting will be saved.
9. If the span adjustment is successful, the buzzer will sound a double tone and the gas reading will be displayed.

If the span adjustment is not successful, the display will indicate **Err**.

10. Remove the calibration cup from the front face of the OX-500.
11. Turn the regulator knob clockwise to close the regulator.
12. Unscrew the zero air calibration gas cylinder from the fixed flow regulator.
13. Press and release the RESET Switch to exit Span Adjustment Mode and return to the screen that indicates item 2-3.
14. Press and hold the MAINT Switch for 3 seconds to exit Maintenance Mode and return to Measuring Mode.
15. Store the components of the calibration kit in a safe place.

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Spare Parts List

Table 1 below lists spare parts for the OX-500.

Table 1: Spare Parts List

Part Number	Description
06-1248RK-03	Calibration tubing, 3/16" ID x 5/16" OD, 3 foot length
81-OX500-LV	Calibration kit, 2 LPM regulator, 100% nitrogen, 34 liter
81-0076RK	Calibration cylinder, zero air, 17 liter
81-0076RK-01	Calibration cylinder, zero air, 34 liter
81-0078RK	Calibration cylinder, 100% nitrogen, 17 liter
81-0078RK-01	Calibration cylinder, 100% nitrogen, 34 liter
81-1059RK-20	Regulator, with gauge and knob, 17L/34L, 2.0 LPM
81-1113RKP	Calibration Cup
OS-B11	Oxygen replacement sensor