# VM3COP64.03 Aii-2000PALM O2 Calibration Test

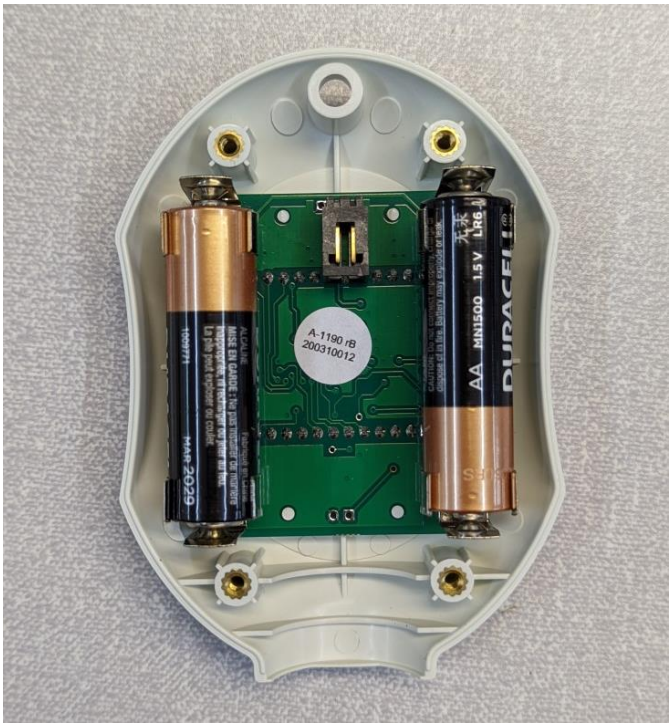
Before using this calibration test procedure, the user should refer to the appropriate Aii-2000PALM O2 user manual (Revision 10).

Required equipment: Time Electronics LTD Microcal 1030 – Calibrated Voltage source (CE076) - Calibration traceable to UKAS calibration standards. The specifications can be found on Document ID 30969.

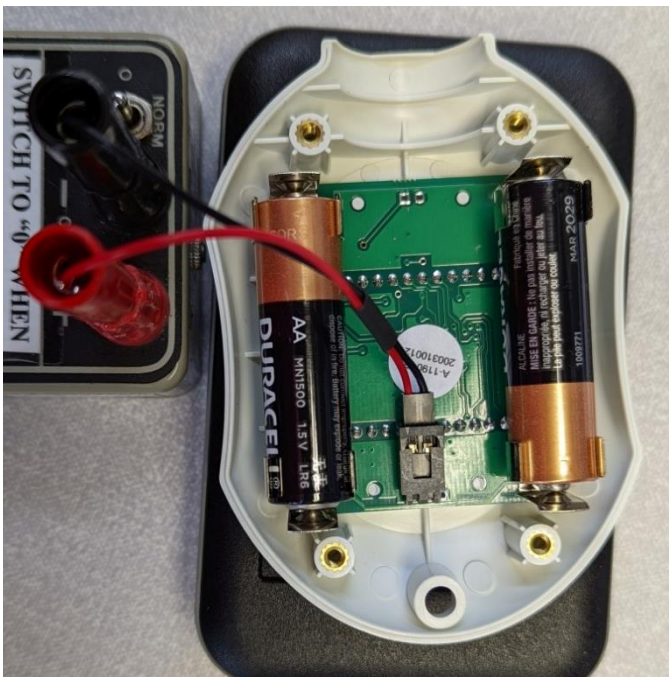
Test lead – Molex to 4 mm banana plugs.

1) Remove the 4 case screws on the back of the Aii-2000PALM.

2) Open the case and disconnect the Oxygen sensor from the PCB.




3) Connect the Microcal to the Aii-2000PALM O2R analyser using the test lead as shown.

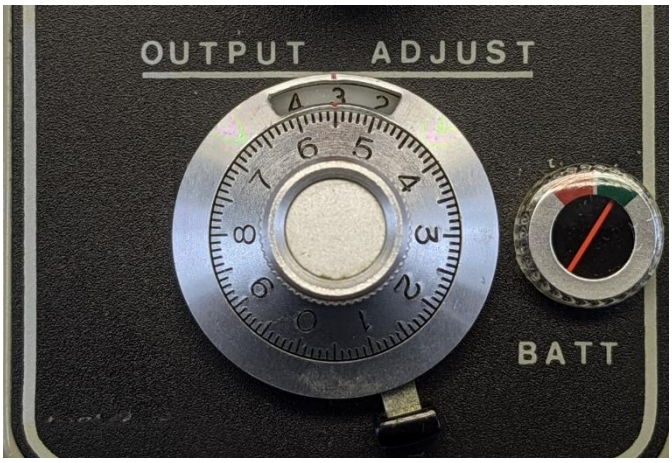


4) Set the Microcal to 100 mV scale and the polarity switch to NORM.


5) Set the output adjustment dial to 35.0mV.

6) Power up the Aii-2000PALM O2 analyser.

7) Press the CAL button on the front panel to calibrate the analyser.




8) At the end of the calibration procedure the analyser should display 100.0. If the Aii-2000PALM O2 analyser fails to calibrate, check the connections and repeat the test.

   The Microcal is simulating the output of an Oxygen sensor reading a 100% Oxygen concentration. By decreasing the output of the Microcal to set values the accuracy of the AII-2000PALM O2 analyser can be determined across a range of simulated Oxygen concentrations.

9) In turn, dial in the input voltages from the table below. Record the values on the certificate (0180030).

10) Once the calibration test has been performed, disconnect the test lead and reconnect the Oxygen sensor.

11) Carefully align the upper and lower case and replace the case screws.

12) Save the document and upload to the Intrastats calibration index.

13) Print a copy on Viamed letter headed paper.

| **Microcal output** | **Aii-2000PALM O2 expected reading (≤2% relative)** |
|---|---|
| 35.0 mV | 100% (98.0% - 102.0%) |
| 31.5 mV | 90% (88.2% - 91.8%) |
| 28.0 mV | 80% (78.4% - 81.6%) |
| 24.5 mV | 70% (68.6% - 71.4%) |
| 21.0 mV | 60% (58.8% - 61.2%) |
| 17.5 mV | 50% (49.0% - 51.0%) |
| 14.0 mV | 40% (39.2% - 40.8%) |
| 10.5 mV | 30% (29.4% - 30.6%) |
| 7.3 mV | 20.9% (20.5% - 21.3%) |
| 6.3 mV | 18% (17.6% - 18.4%) |