VANDAGRAPH Ltd

Revision date: 20-April-2023

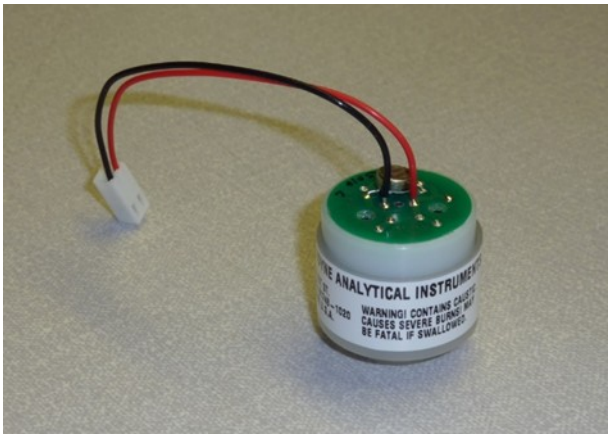
VM3COP40.13 R-33DE Oxygen Sensor Production Procedure

Parts list		
Qty	**Description**	**Part Number**
1	Oxygen sensor – R-33S1	0110132
1	2 pin JST connector	9071014
1	Anti-static gas barrier bag	0150000

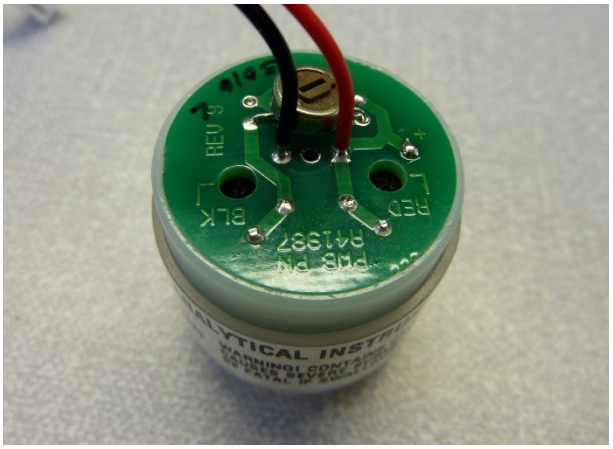
Tool list
Soldering iron
Wire cutters
Stanley knife
Small pliers
Solder

Production

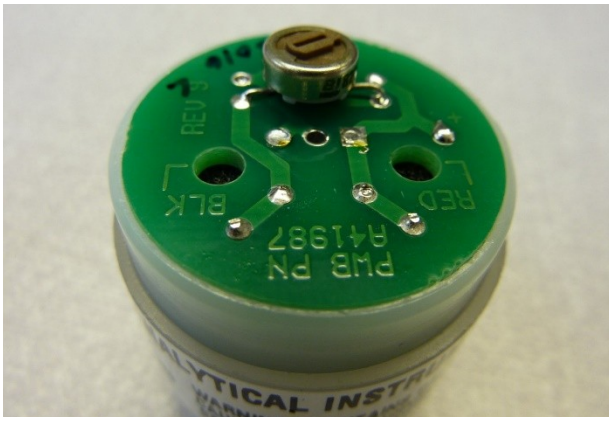
1) Remove the R-33S1 Oxygen sensor from the gas barrier bag.



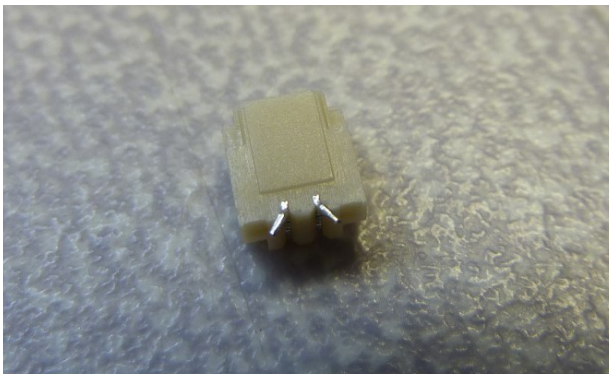
2) Using a soldering iron, remove the black and red wires.



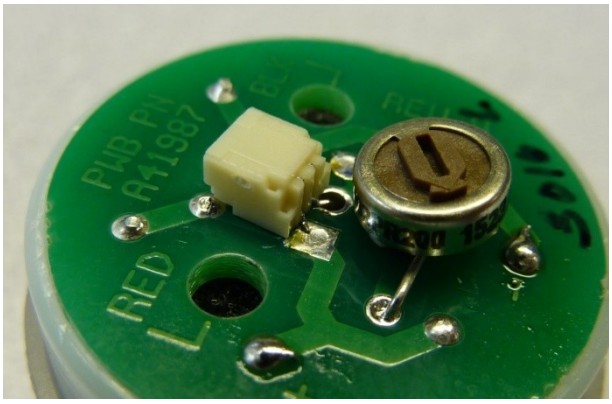
3) Ensure that the PCB is free from any excess solder or residue.



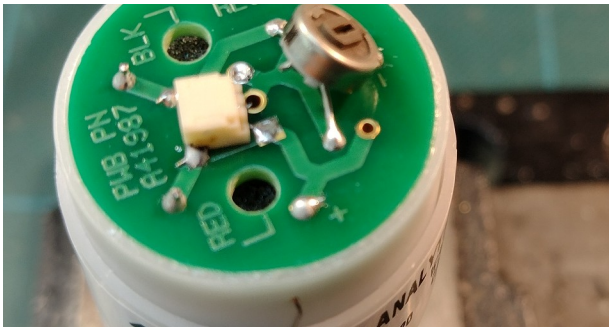
4) Splay the solder contacts to around a 30° angle.



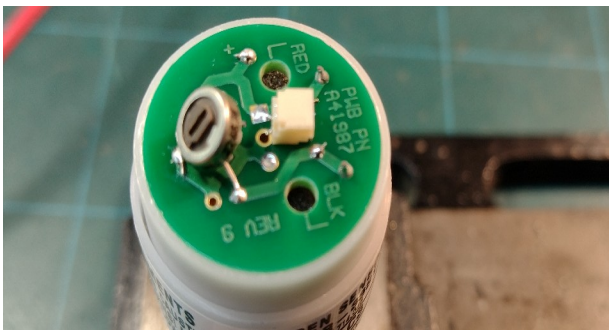
5) Place the JST connector on to the PCB, ensuring that the connector contacts align with the contacts of the PCB.



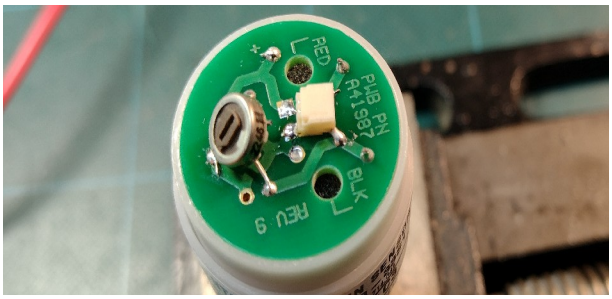
6) Solder the two contacts on this side as shown.



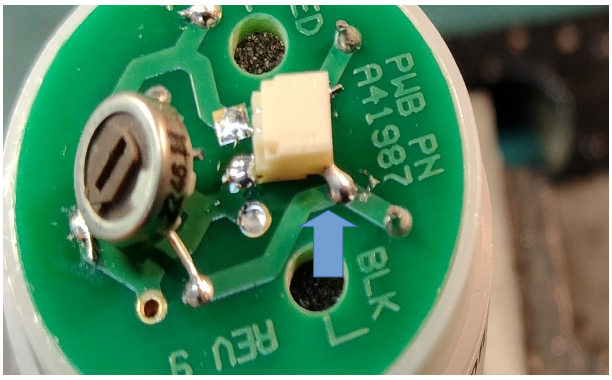
7) Then turn the sensor around.



8) Solder the two contacts on this side as shown.



9) This contact here may need bridging with solder.

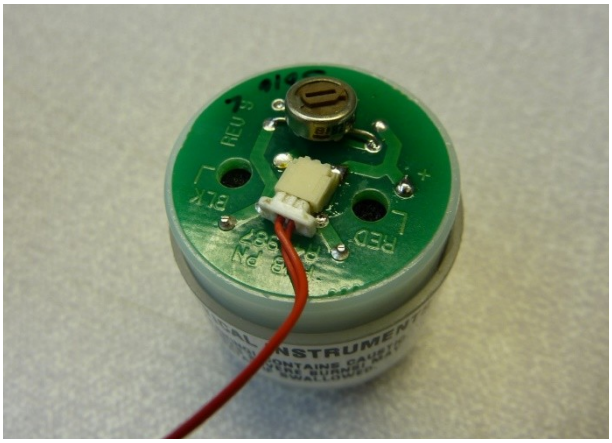


10) Remove the Teledyne label (R-33S1) and replace it with the Vandagraph (R-33DE) label with the same serial number.

NB. To ensure retention of the original serial number, each sensor should be done individually.

QA

11) Using the appropriate test lead, connect the sensor to a digital volt meter.



12) Set the digital volt meter to the millivolt scale.

13) Observe the output of the sensor. The output must be between 23mV and 27mV.

14) Using the Intrastats system, mark the sensor as having passed or failed QA as applicable.

Packing

15) Take a sensor that is to be packed, note its serial number, and affix that corresponding bag serial number label to the bag.

16) Place the sensor in the bag. Using a strip heat sealer, seal the sensor into the gas barrier bag.

17) Once passed, place the finished product, along with the production sheet, on to the production shelf to await stock entry.