

VANDAGRAPH VN202 mkII O₂ Analyser

COMPANY OPERATING PROCEDURE

VM3/COP/40.71

Date: 3 Aug 2011	Revision Date: 28-Jul-15	Issue: 1
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Parts Used


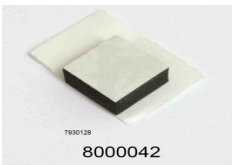









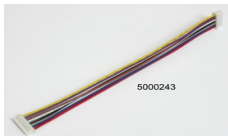


Pt. Number OEM number Description	Qty	Description	Pt. Number OEM number Description	Qty	Description
7930102 7000383 Enclosure Top	1		7930110 8000184 Label Front Housing	1	
7930103 7000384 Enclosure bottom	1		7930112 8000186 Label Battery Housing front	1	
7930104 7000385 Enclosure battery cover	1		7930111 8000185 Label Back Housing	1	
Serial number Label			9730040 P16NP10KMA Pot 10K Cal control	1	
9000052-1 PCB loaded	1		9730036 150-243 Yellow Push Switch, Round,	1	
7930119 9000052 Graphics Display	1		9730037 148-921 Switch waterproof kit	1	

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7930122 7000386 Holder Display	1		7930128 8000042 12 x12 rubber cushion	1	
7930114 7000248 2.0 x h6.0 x3.5 screws PCB holder	4		7930125 5000244 9 Pin wire	1	
9080015 121-0467 Heat shrink Tubing 1 cm x 2mm	3		7930127 5000245 Electronic wire Any colour	1	
7930107 7000085 CO2 +v Battery term	2		7930113 7000247 1.7 v h4.0 3.0 screws pcb	2	
7930108 7000086 CO2 -v Battery term	2		7930124 9000054 PCBA JTAG-B-V1.1	1	
7930105 7000390 Seal ring Housing			7930126 5000244 8 pin wire	1	
7930116 7000376 2.6 x h6.0 4.0 screws housing			7000389 Display window		

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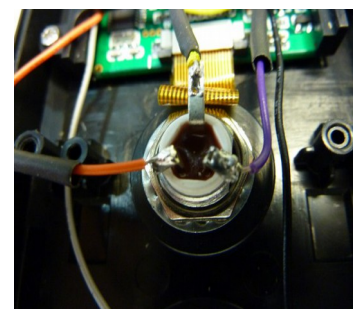
7930123 9000053 PCBA JTAG-A- V1.1		793115 7000375 2.6 x h10.0 4 screws housing	4	
		Double sided taps	1	

- 1.0 Unwrap the cases and separate them into their component parts,
- 2.0 Add the Main label to the front panel
- 3.0 Fit the yellow switch 9730036 for auto switch off or(Green for non auto switch off).
Ensure the waterproof kit 9730037 is fitted including the O ring
- 4.0 Add the Calibration potentiometer 9730040
Ensure the long centre terminal is at the top.
The white spot should also be at the top half way between max and min settings.
- 5.0 Graphics Display
If the graphics display and PCB are separate fix the graphics display to the back of the PCB with double-sided tape

[Check OEM as pcb may need shorting links removed. See end of procedure](#)

READ 6.0 > 15.0 before proceeding

- 6.0 Remove the LCD protective film or enough to allow it to be removed through the front panel hole
- 7.0 Fit the 9 pin cable 7930125 to the 9 pin socket.
- 8.0 Locate the PCB/LCD assembly in the recess as near to the
- 9.0 Add the frame 7931022. It only locates one way.
- 10.0 Place the small foam pad underneath the frame
- 11.0 Fasten with 4 off 7930144 silver screws.
- 12.0 NB Do not tighten as the LCD may need realigning.
Check once the wiring is completed and the batteries can be fitted.
- 13.0 Blue and Red go down the side of the enclosure
- 14.0 Grey & Purple go under the frame to the right
- 15.0 The Yellow, Orange, & Black go under the frame to the left
- 16.0 Green and Brown go through the small channel in the Jack enclosure
- 17.0 Wire Black & Grey to the switch
- 18.0 Wire Orange Yellow Purple to the Calibration pot.
- 19.0 Add heat shrink tubing 1cm x 2mm dia
- 20.0 Wire the Jack socket. The short White & Brown go through the groove and into the Jack socket compartment.
- 21.0 Brown (may be Green) pin 4 on socket White Pin 5 on socket
- 22.0 Fit the Jack socket Type 42 into the small area and screw on the nut



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- 23.0 Ensure the wires go through the access slit wires do not get trapped and are tucked down around the socket so that they do not foul the jack plug when it is inserted
- 24.0 Connect the Red to +ve and the Blue to -ve on the battery terminals
- 25.0 Connect a wire across the lower battery terminals
- 26.0 Add non slump silicone to the access holes of battery cover



27.0 CHECK

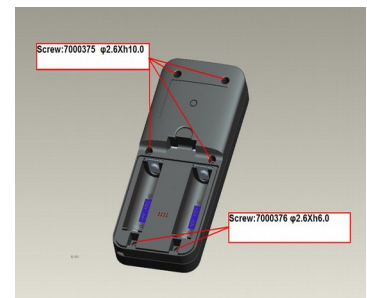
The seal is in the groove all around the enclosure
 The Battery wires are not going to be trapped
 The wires to the Jack are in their groove and covered by the seal.
 The LCD is aligned
 The potentiometer increases the reading when turned clockwise. A sensor or Oxycal is required for this test



- 28.0 Fix the two parts of the enclosure together.
- 29.0 4 screws 793115 are used in the top half of the enclosure and 2 screws 7930116 in the bottom two holes.
- 30.0 Fix the Rear Label
- 31.0 Front small label
- 32.0 Check Software

Software is different for different OEM

- 33.0 Add serial number label
- 34.0 Fit the battery cover



R11=10k R12= NC no auto off } NC means cut out the resistor
 R11=NC R12=0R Auto off } Leave resistor in place it is zero ohms

R13=10K R14 = NC reverse display I.e. reads 0% when it is at 100% for non oxygen gases
 R13= NC R14= 0R normal display

