



02-024B
2 May, 2007

PROPER ADJUSTMENT OF O2 SENSOR IN M200AH ANALYZER

I. PURPOSE:

This service note provides instructions for properly adjusting the O2 sensor in the M200AH analyzer.

II. TOOLS:

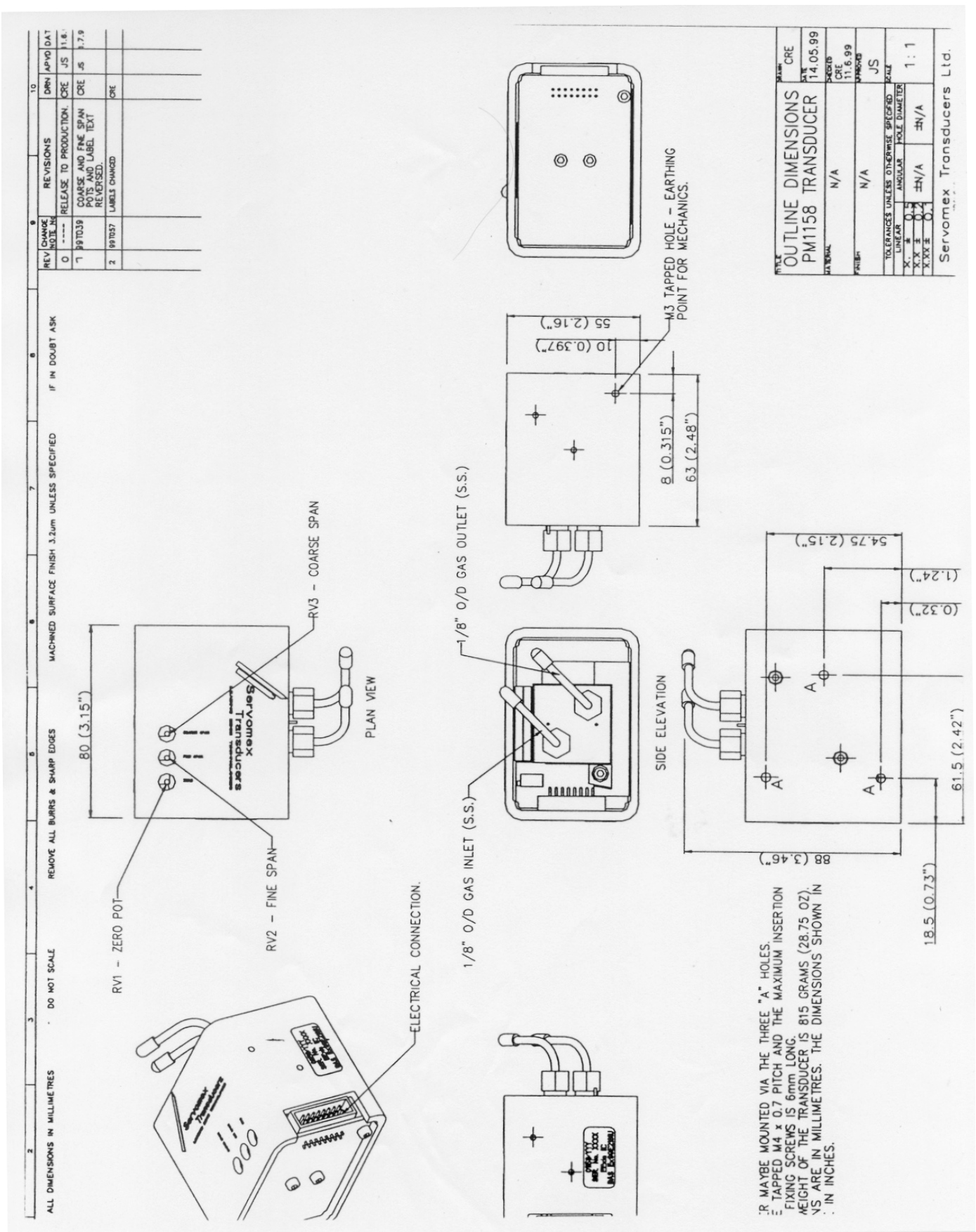
Tweaker
Volt Meter

III. PARTS:

None

IV. PROCEDURE:

1. Remove cover from analyzer.
2. Input N2 (or other O2 free gas) to analyzer.
3. Put the meter on DC MilliVolts. Place the black lead of the meter onto TP3 of the V/F card.
4. After the analyzer has been on N2 for 5 minutes, place the red lead of the meter on pin 3 of U1 on the O2 Sensor interface board. This board is located on top of the O2 sensor at the rear of the analyzer (behind the converter).
5. If the voltage at U1-3 is not $0\pm 10\text{mV}$, you will need to adjust the zero pot on the O2 sensor. This is done by removing the cover from the O2 sensor and locating the three potentiometers on the O2 sensor. Adjust the potentiometer marked "Zero" until the voltage at U1-3 reads $0\pm 10\text{mV}$.
6. Allow the analyzer to stabilize for 5 minutes. Press CAL-O2-ENTR-ZERO-ENTR to zero the analyzer's O2 channel.
7. Input O2 span gas to the analyzer.
8. After the analyzer has been measuring the O2 span gas for 5 minutes, place the voltmeter on DC Volts and measure the voltage at U1-3.
9. The correct voltage for U1-3 is based on the value of the span gas. Calculate using the following formula: O2 concentration time 10 = U1-3 voltage in mV. (I.E. For 20.9% O2 this equals 209mV. For 22.5% this equals 225mV.)
10. If the voltage at U1-3 is not equal to the calculated voltage $\pm 10\text{mV}$, you will need to adjust the O2 Sensor span. Locate the "Coarse Span" and "Fine Span" pots on the O2 sensor. Adjust them as needed until U1-3 is equal to the calculated voltage $\pm 10\text{mV}$.
11. Allow the analyzer to stabilize for 5 minutes.
12. Press CAL-O2-ENTR-CONC and enter the value of the span gas in percent. EXIT to the main menu.
13. Press CAL-O2-ENTR-SPAN-ENTR to span the O2 sensor.



REV. CHANGE	INDEX No.	REVISIONS	DRN	APP'D	DATE
0	---	RELEASE TO PRODUCTION.	CRE	JS	11.6.
1	981039	COARSE AND FINE SPAN POTS AND LABEL TEXT REVERSED.	CRE	JS	1.7.9
2	981037	LABELS CHANGED	CRE		

OUTLINE DIMENSIONS		SCALE
PM1158 TRANSDUCER		1:1
MATERIAL	N/A	
FINISH	N/A	
TOLERANCES UNLESS OTHERWISE SPECIFIED		
LINEAR	±0.02	ANGLE
RADIUS	±0.02	HOLE DIAMETER
THREAD	±0.02	FIN/A
	±0.02	FIN/A

Servomex Transducers Ltd.

THE TRANSDUCER IS 815 GRAMS (28.75 OZ).
 THE DIMENSIONS SHOWN IN
 MILLIMETRES.

Proper Adjustment of O2 Sensor in M200AH Analyzer.
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