



06-010B

18 June, 2008

PROPER ADJUSTMENT OF AN O₂ SENSOR IN AN “E” SERIES ANALYZER

I. PURPOSE:

This service note provides instructions for properly adjusting the O₂ sensor in an “E” series analyzer.

II. TOOLS:

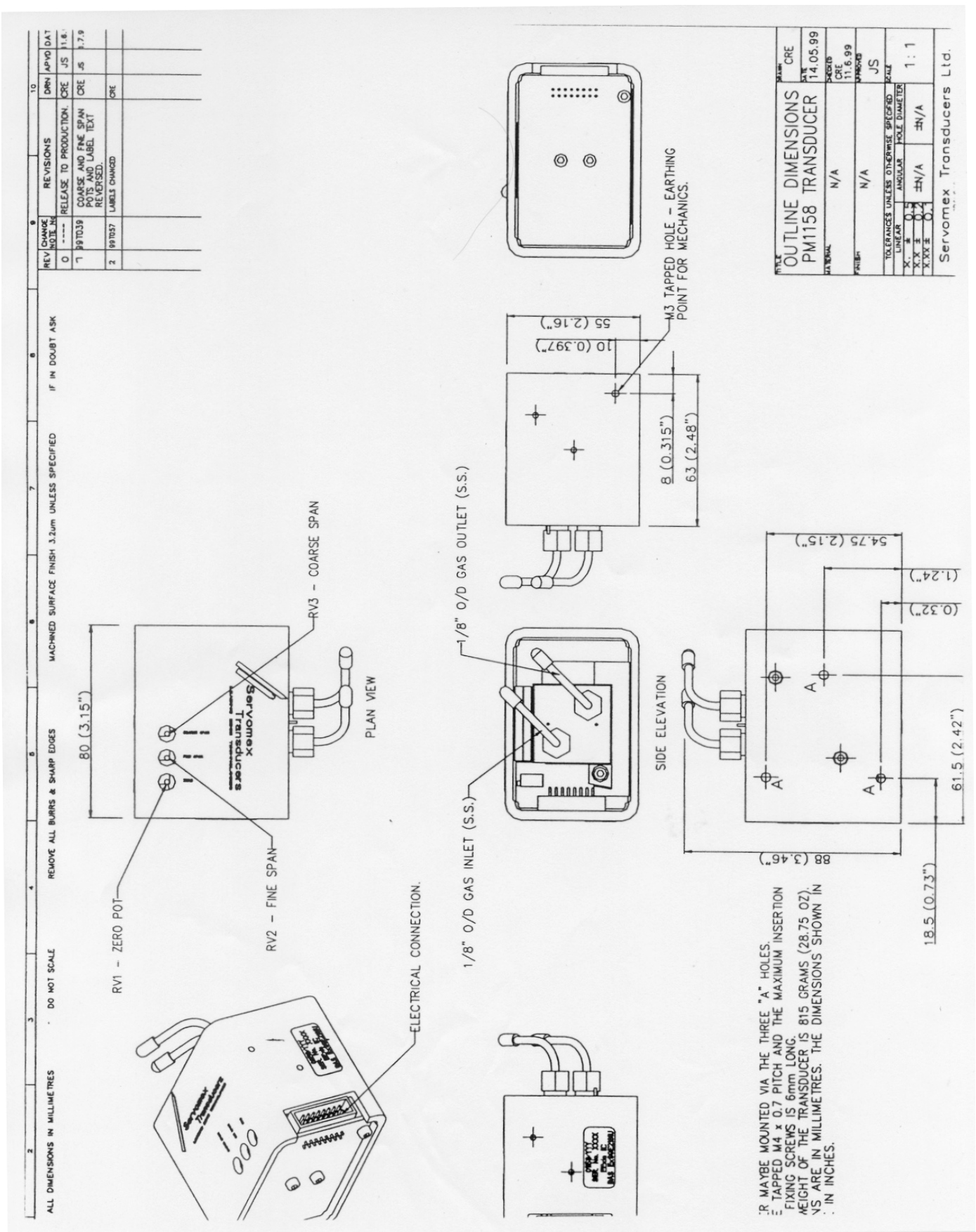
Potentiometer adjustment tool
Phillips head screwdriver
Slot head screwdriver

III. PARTS:

None

IV. PROCEDURE:

1. Remove cover from analyzer.
2. Input N₂ (or other O₂ free gas) to analyzer.
3. Monitor the voltage of the sensor in the Signal I/O, SETUP – MORE - DIAG - ENTR - SIGNAL I/O – ENTR – NEXT.... untilO₂_SENSOR.
4. After the analyzer has been on N₂ for 5 minutes, observe the voltage. If the voltage is not 0±5mV, 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 reads 0±5mV (see attached drawing).
5. Exit to the main menu, allow the analyzer to stabilize for 5 minutes. Press CAL-O₂-ENTR-ZERO-ENTR to zero the analyzer’s O₂ channel.
6. Input O₂ span gas to the analyzer.
7. After the analyzer has been measuring the O₂ span gas for 5 minutes, go back to the O₂_SENSOR in the Signal I/O and observe the voltage.
8. The correct voltage is based on the value of the span gas. Calculate using the following formula: O₂ concentration times 10 = voltage in mV. (I.E. For 20.9% O₂ this equals 209mV. For 22.5% this equals 225mV.)
9. If the voltage is not equal to the calculated voltage within ±5mV, you will need to adjust the O₂ sensor span potentiometer. Locate the “Coarse Span” and “Fine Span” potentiometers on the O₂ sensor. Adjust them as needed until the voltage is equal to the calculated voltage ±5mV.
10. Exit to the main menu and allow the analyzer to stabilize for 5 minutes.
11. Press CAL-O₂-ENTR-CONC and enter the value of the span gas in percent. EXIT to the main menu.
12. Press CAL-O₂-ENTR-SPAN-ENTR to span the O₂ sensor.



Proper Adjustment of an O₂ Sensor in an "E" Series Analyzer.
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