TELEDYNE INSTRUMENTS

Service Note

Advanced Pollution Instrumentation

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INSTALLING A NOx CONVERTER INTO A M200E/EH

I. PURPOSE

To provide instructions on how to install a Nox converter into an M200E/EH NOx analyzer & how to configure the firmware so that it controls the temp of the converter to the proper temp. A Moly converter will run @ 315*C & a Mini-Hi-con will run @ 700*C.

II. <u>TOOLS</u>:

7/16" wrench ½" wrench #2 Phillips head screwdriver

III. PARTS:

Replacement Converter

IV. **PROCEDURE**:

- 1. Turn analyzer off, remove power cord from rear panel & remove cover from analyzer.
- 2. Allow analyzer to cool, this could take a few hours.

WARNING this converter is VERY HOT & can cause severe burns if not allowed to cool.

- 3. Disconnect the two tubes coming out of the front of the converter.
- 4. Disconnect the Thermo Couple from the connector on the RELAY BOARD (See diagram in the manual for the location of the Relay Board).
- 5. Trace the heater cables out of the converter to their connector & disconnect it.
- 6. Remove the converter from the analyzer
- 7. Install the new converter in the reverse order of the old converter
- 8. Connect the TC & heater cables.
- 9. Connect the IN & OUT tubes to the converter
- 10. Connect the power cable to the back of the analyzer & power up the analyzer.
- 11. Once the analyzer has booted up, push: SETUP-MORE-VARS-929-ENTER-NEXT until you come to the VAR that is labeled CONV_TYPE (note that this VAR should be around number 69, it might be a bit smaller or larger than 69, but close to it). push EDIT & then select the type of converter you are installing into the machine. If you are installing a Mini-hi-con select the "CONV" type. If you are installing a MOLY converter select "MOLY". Push ENTER & then EXIT all the way back out to the main "SAMPLE" menu. Wait 20 seconds, turn the analyzer off, wait 20 seconds & turn the analyzer back on.
- 12. Once the analyzer has booted up, push the TST> button until you come to the converter temp & watch it. If you have installed a Moly converter it should goto 315*C, if you have installed a Mini-hi-con, the temp should goto 700*C. if the temp overshoots the target by 5 or 10*C, but then comes back down to the set point, that is OK, if it overshoots & continues going, turn the machine off & call the API Tech service @ 858 657 9800 or email @ API-customservice@teledyne.com & we will help you figure out what is wrong

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