

Service Note

Advanced Pollution Instrumentation

A Teledyne Technologies Company 9480 Carroll Park Drive, San Diego, CA 92121-2251

Phone (858) 657-9800 Fax: (858) 657-9818 Toll Free 1800 324-5190 E-mail: api-customerservice@teledyne.com http://www.teledyne-api.com

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E-SERIES CONVERTER RETROFIT FOR NEW RELAY BOARDS (HICON TO MOLY)

I. PURPOSE:

To give instructions on how to change converters from a HICON to a MOLY converter. This is for instruments with the New Relay board (045230000) already installed.

II. TOOLS:

7/16" wrench Phillips head screwdriver

III. PARTS:

047200000 - ASSY, MOLY GUTS, M200E, EM, EH 049760300 - ASSY, TC PROG PLUG, MOLY, TYPE K,

IV. PROCEDURE:

Removing the HICON Converter

- 1. Turn off the instrument.
- 2. Wait at least 30 minutes so that the converter will have a chance to cool down.
- Once the converter has cooled down, disconnect the two lines to and from the converter.
- 4. Remove the thermocouple connector at the relay board. Cut any tie wraps that hold the thermocouple down or into the harness.
- 5. Disconnect the converter heater from the harness. If the converter heater cables are held down by tie wraps cut and remove the tie wraps.
- 6. Remove the top cover of the converter.
- 7. The converter has fiber glass wool inside. If you are allergic or sensitive to fiber glass please wear gloves.
- 8. The converter will be sitting in the middle. *Please take CAUTION when pulling out the converter assembly, the converter may still be HOT*. Pull on the converter tubes and lift the converter material out of the converter box.
- 9. The heater, thermocouple and converter will be all together as an assembly. Remove the assembly from the instrument.
- 10. Locate the relay board. You will need to remove the converter configuration jumper from JP5. See Diagram 1.

Installing the Moly Converter

- 1. Take the assembly from the package. This assembly will contain the Thermocouple, Heater and Moly converter material.
- 2. Install the assembly into the converter housing ensuring that the converter is in the center of the fiber glass wool.

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- 3. Take the grommets on the converter lines, the heater and thermocouple wires and place them on the notches on the converter housing.
- 4. Place the top cover back on to the converter housing.
- 5. Connect the heater cable back to its connector in the wiring harness.
- 6. Run the thermocouple wire between the converter and the relay board and plug it back into the thermocouple connector on the relay board.
- 7. Take the converter configuration plug from the package and install it into JP5 on the relay board.
- 8. Reconnect the tubes on the converter back to their proper locations on the NO, NOx and Azero valves.
- 9. Turn on the analyzer and (once it has booted to the main menu) press the following buttons:
- 10. From the main menu press **SETUP-MORE-VARS**-(press **929** for the password when prompted). Press **NEXT** until you come to **CONV_TYPE**.
- 11. Press **EDIT** and change the setting from CONV to MOLY by pressing the **NEXT** button.
- 12. Press ENTR and then EXIT to the main menu.
- 13. Press the **TST** buttons until you come to the **MOLY TEMP**. Wait for the temperature to come up to **315°C**.
- 14. The temperature should cycle up and down around 315°C.
- 15. Once you have verified that the temperature is working properly perform a leak check on the instrument.
- 16. The instrument is now ready for use.

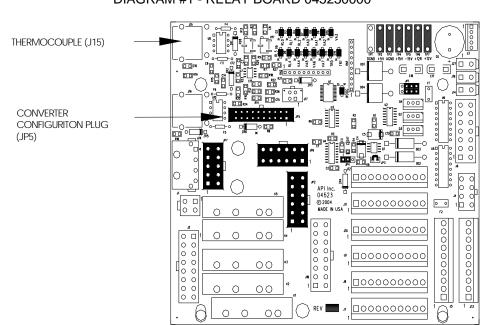


DIAGRAM #1 - RELAY BOARD 045230000

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