



05-005B  
2 May, 2007

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

**I. PURPOSE:**

To give instructions on how to change converters from a MOLY to a HICON converter. This is for instruments that have the new relay board (045230000) already installed

**II. TOOLS:**

7/16" wrench

Phillips head screwdriver

**III. PARTS:**

047210000 - ASSY, HICON, M200E, EM, EH

049760100 - ASSY, TC PROG PLUG, HICON, TYPE K,

**IV. PROCEDURE:**

**Removing the MOLY Converter**

1. Turn off the instrument.
2. Wait at least 30 minutes so that the converter will have a chance to cool down.
3. 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 fiberglass 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 guts 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 HICON Converter**

1. Take the guts assembly from the package. This assembly will contain the Thermocouple, Heater and HICON converter guts.
2. Install the assembly into the converter housing ensuring that the converter is in the center of the fiberglass wool.
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.

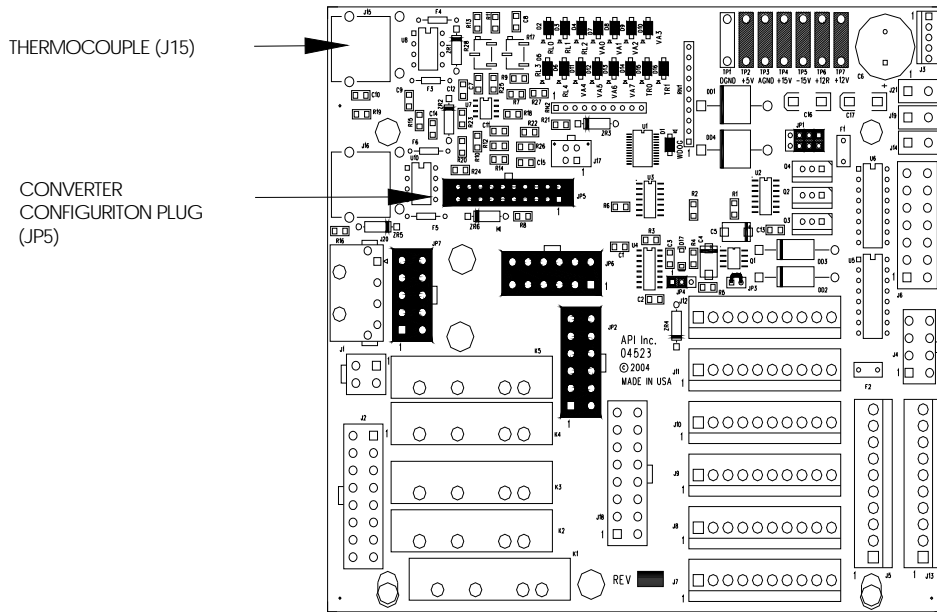
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5. Connect the heater cable back to its connector in the wiring harness.
6. Run the thermocouple wire between the converter and the relay board and plug it back into the thermocouple connector on the relay board.
7. Take the converter configuration 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 NONOx 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 **MOLY** to **CONV** 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 **700°C**.
14. The temperature should cycle up and down around **700°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 #1NEW RELAY BOARD (045230000)



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