



02-022B
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CHANGING CONVERTER TYPES IN THE M200AH NO_x ANALYZER

I. PURPOSE:

To guide you through changing the converter in a M200AH from a Moly converter to a Mini Hi-con or vice versa. This note only applies to M200AH's that have firmware that is version G.0 or later. If you have firmware in your instrument that is <G.0, please contact the customer service department.

II. TOOLS:

Phillips headed screw driver
7/16" wrenches (X2)
½" wrench (X1)

III. PARTS:

None

IV. PROCEDURE:

1. Turn off the analyzer, remove the power cord from the back of the analyzer & remove the cover from the analyzer.

NOTE: THE CONVERTER IN THIS ANALYZER CAN BE VERY HOT & CAN CAUSE SEVERE BURNS IF THE CONVERTER IS NOT ALLOWED TO COOL ALL THE WAY. BE CAREFUL WHEN HANDLING THE CONVERTER IN ANY OF THE TAPI ANALYZERS.

2. The converter is in the middle of the analyzer & has two wires coming out of it. there are two wires for the heater and another wire that is the Thermo Couple (or TC for short). The two heater wires go directly down to a connector there in front of the converter & the TC wire goes up to the Status Temp card.
3. Follow the pair of wires that come out from the heater & they go directly down to an electrical connector just in front of the converter. Disconnect the heater there at the connector.
4. Follow the TC wire up to the status temp card & disconnect it from the status temp card at J1 where it is connected. Notice that the TC connector has a large pin & a small pin, the mating connector on the status temp card is keyed so that the TC connector only plugs into the status temp connector one way.
5. Remove the two pneumatic tubes that come out of the converter & down to the valve & the fitting on the manifold in front of the converter. If there are screws holding the converter into the analyzer remove them & pull the converter straight up out of the analyzer.
6. Install the new converter & if you removed any screws put them back in. Connect the two pneumatic tubes back to the valve & the manifold.

7. Connect the electrical connector back to the Heater connector. This connector should be a direct plug in connector. If it is not, then the converter that you have is not for the that analyzer. Contact the TAPI customer service department with the model number of the analyzer that you are working on, the serial number of the analyzer & the part number of the converter that you have just received.
8. Connect the TC to J1 of the status temp card.
9. Turn the analyzer on & wait until it boots up completely. From the front panel of the analyzer, push the following buttons "SETUP-MORE-VARS-929-ENTER" now push the NEXT button until you see the VAR that is called "CONV_TYPE".
10. Push the EDIT button.
If you have installed a Moly converter then select "MOLY".
If you have installed a Mini Hi-con then select "CONV"
11. Push the Enter button, & push the exit button until you get back out to the sample menu (that's the menu that says, "sample" in the upper left hand of the display).
12. Count to 10 & turn the analyzer off. count to 10 again & turn the analyzer back on again
13. The analyzer is going to warm up the converter. Depending on what converter you installed, the CPU is going to control the temp to:
Moly converter $\Rightarrow 315^{\circ}\text{C} \pm 5$
Mini Hi-Con $\Rightarrow 700^{\circ}\text{C} \pm 10$

NOTE: WATCH THE CONVERTER TEMP FOR THE FIRST HOUR OR SO THAT THE ANALYZER IS RUNNING. IF THE CONVERTER DOES NOT COME UP TO THE PROPER TEMPERATURE, IT COULD DAMAGE THE CONVERTER.

14. Calibrate the analyzer as you would normally calibrate it. Note that the converter efficiencies & limits are quite different from one converter type to the next, so the proper application of the converter is pretty important to the instrument performance. If you are in doubt of what converter to use in your application, please contact your sales representative and he will help to ensure that you have the right converter for your application.