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Converting an M701 GEN 1 or GEN 2 into a GEN 3

I. PURPOSE:

To provide information regarding how to convert a Gen 1 or Gen 2 M701 into a Gen 3

II. TOOLS:

Phillips Screwdriver
9/16" Wrench



III. PARTS:

KIT000525 KIT, RETROFIT M701/H PCB, GEN 1or2 to GEN3 W/O DEWPOINT
OR
KIT000526 KIT, RETROFIT M701/H PCB, GEN 1or2 to GEN3 W/ DEWPOINT

IV. PROCEDURE:

- 1) Power off the analyzer, and remove the power plug.
- 2) Remove the cover.
- 3) Locate the control board sitting on top of the surge tank shown in Figure 1.



Figure 1

- 4) All of the connectors on the old and new board have J labels, these will match on all of the old and new boards.
- 5) Remove and save connector J2.
- 6) If you have the board identical to the one in Figure 1, then you have a Gen 1 M701 and will need the adaptor cable, stand offs, and screws in the kit.
- 7) Remove the old control board keeping note of where your connectors are plugged in.
- 8) Install the new control board and add the standoffs and screws as shown in Figure 2.



Figure 2

- 9) Remove the pressure switch assembly shown in figure 3.



Figure 3

- 10) Install the tubing provided in the kit attached to the PCA that is where the old pressure switch connected to the surge tank, as shown in figure 4.

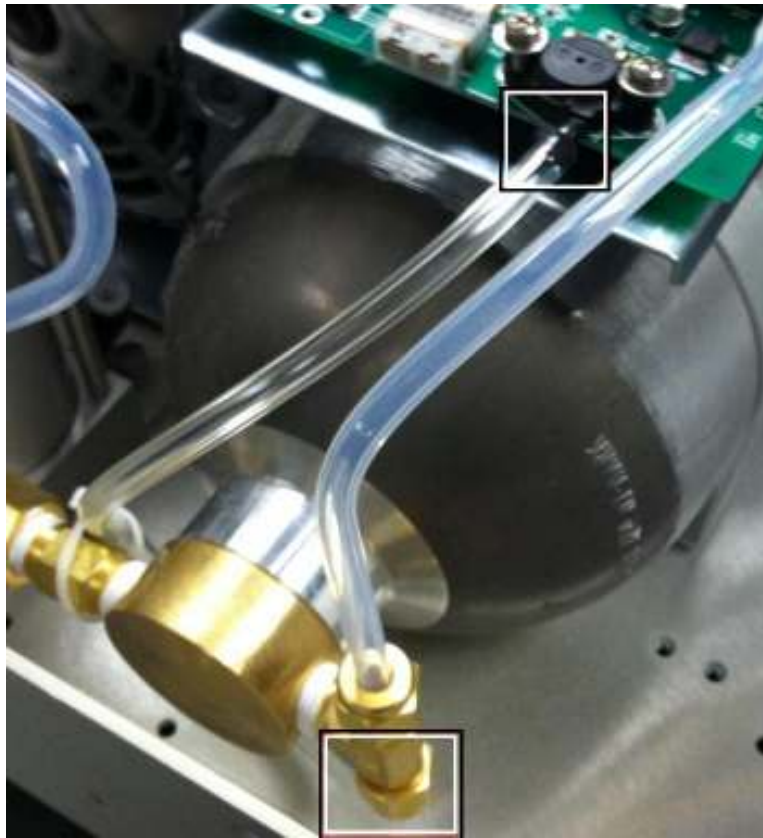


Figure 4

- 11) If you identified your board at a Gen 1, you will need to use the 075510000 Power adapter cable as shown in figure 6. There is only one way this connector can be plugged in using J1 and J10.



Figure 6

- 12) Install your 4-way valve on the regen tower into J7.
- 13) Install the water dump valve into J8.
- 14) Install the fan into J3.
- 15) Install the pump into J6.
- 16) Install the connector you pulled off and saved in step 5 into J2.
- 17) If you have an old hydrocarbon scrubber with the control board then you can continue to use this by plugging the HC control board into J5. If you wish to purchase the new heater that is currently used with the Gen 3 boards, then you will need one 073390000 ASSY, HEATER, HC SCRUBBER M701/H and you will plug it into J13 instead of J5. You will also need to unplug J5 and remove the control board mounted to the HC scrubber box from the instrument, and the thermocouple will be plugged into J12 on the main control board noting polarity of the connector and plug. You should only be able to install it in one way.

***NOTE* If you use the newer Gen 3 HC heater do not plug it into J5, it must be plugged into J13 or it will not regulate temp and damage the instrument.**

- 18) Place the clear plastic cover back on the main control board with the wires tucked in as shown on figure 7.



Figure 7

- 19) The final step will be to add the two grounding straps as shown in figure 8 and 9. You will need to use the two SN-9 and SN-277 included in the kit in order to connect the straps to the chassis as shown.

NOTE: Be sure that the star washers are located between the ground strap and the chassis to ensure good grounding.



Figure 8



Figure 9