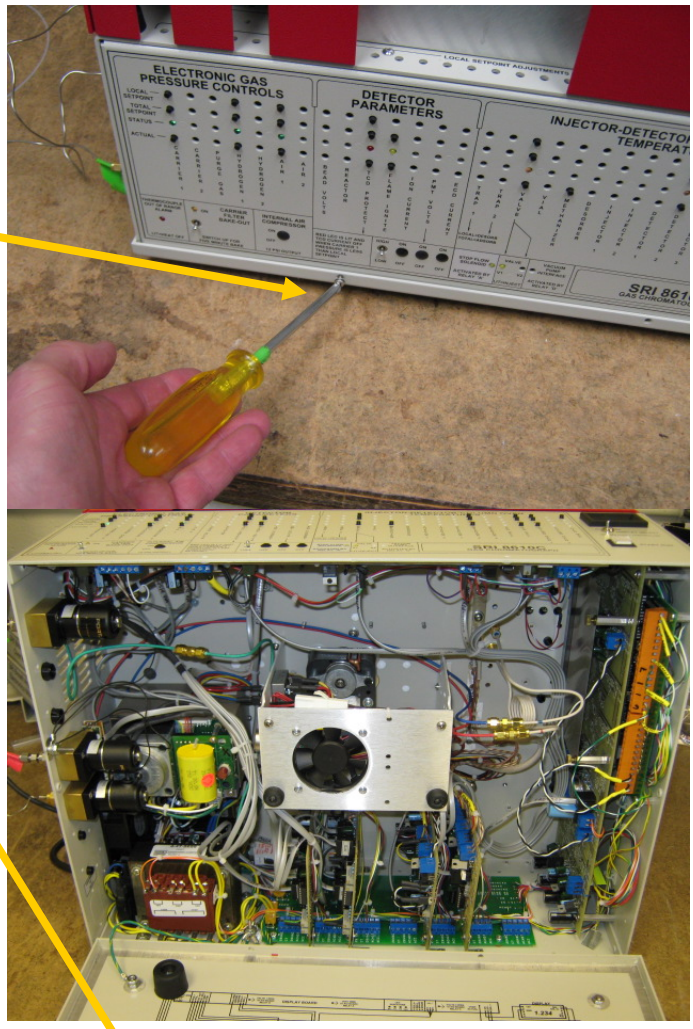
Installation of the Vacuum Pump Interface on the SRI 8610C GC

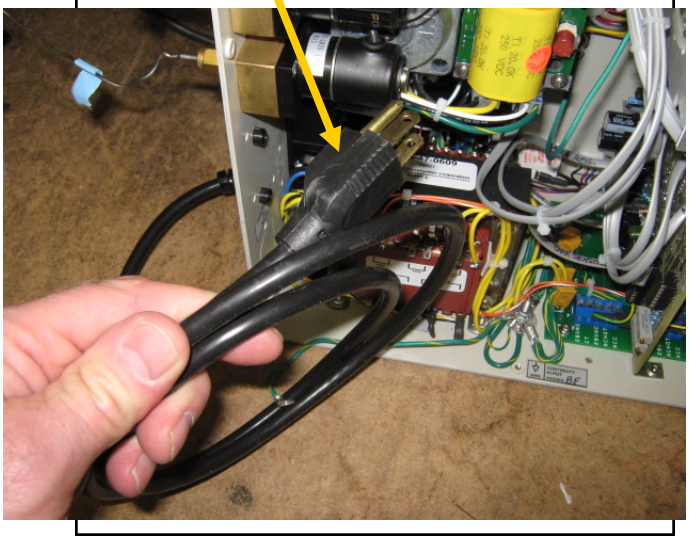
Remove the six Phillips head screws holding the bottom of the GC.

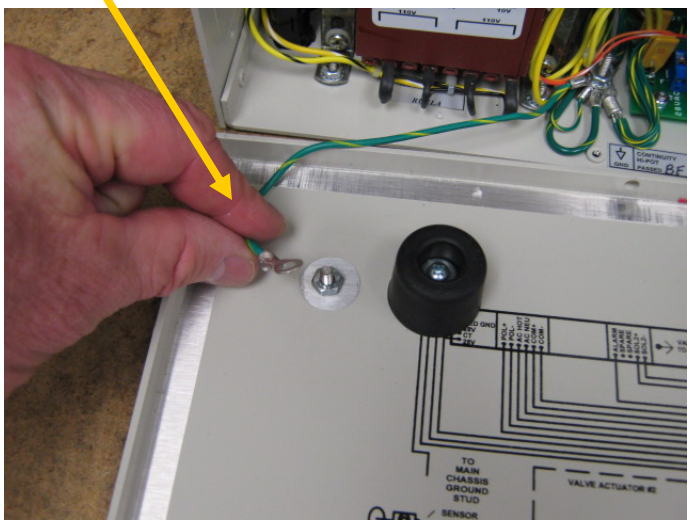
Tilt the GC on its back and remove the bottom cover. Disconnect the ground wire so the bottom cover can be moved out of the way.

Important:

Disconnect the AC power cord



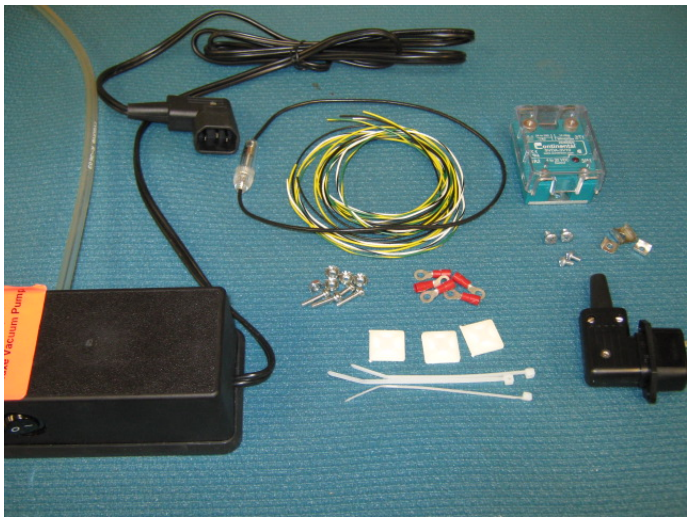


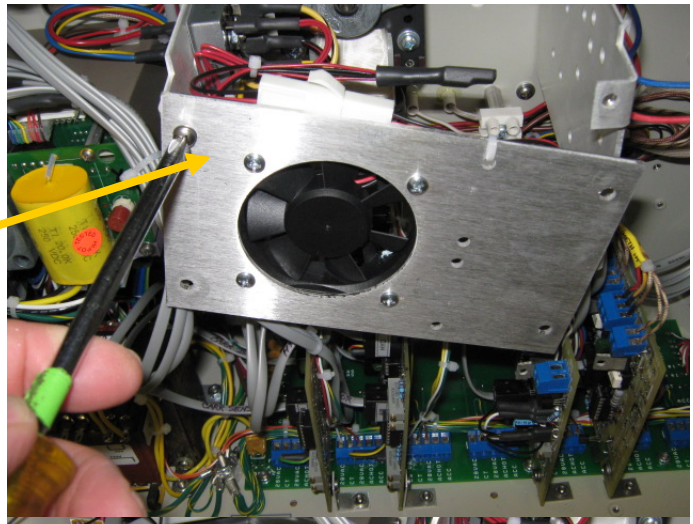


Installation of the Vacuum Pump Interface on the SRI 8610C GC

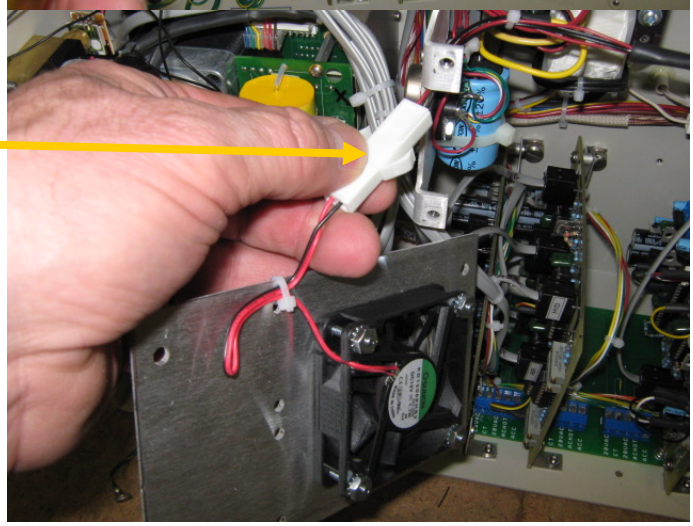
The Vacuum Pump Interface Kit 8670-0073 contains:

Vacuum pump (specify voltage)
Solid state Relay (100-240 volts AC) and attached screws
2 amp fuse and fuseholder 250volts
4 #6 x 1/2” screws
5 #6 locknuts
5 crimp ring terminals
3 sticky back cable tie mounts
3 tie wraps
Two meters each:
Black wire, white wire, yellow and green/ yellow.
Shrink tubing





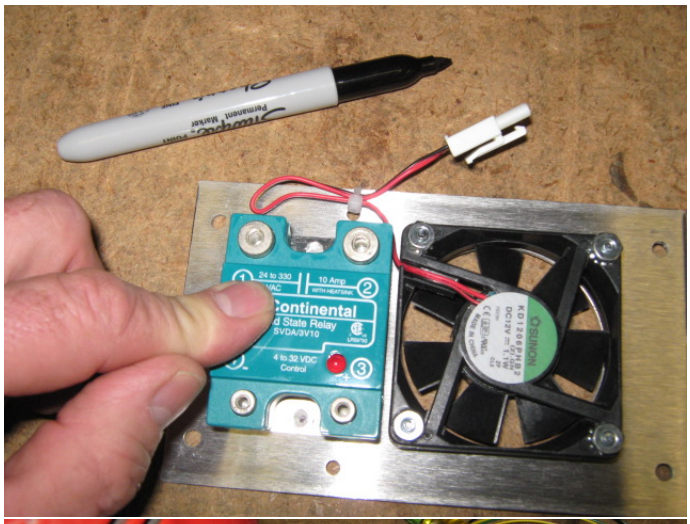
Remove the four screws holding the chassis circulation fan.



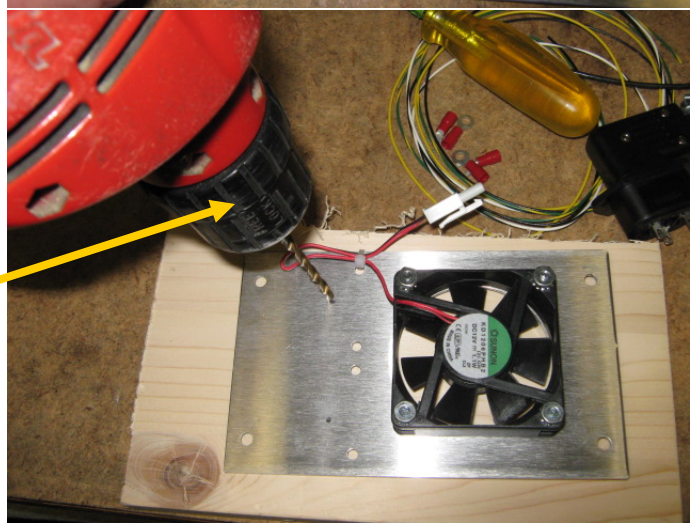
The fan connector un-clips.

Installation of the Vacuum Pump Interface on the SRI 8610C GC

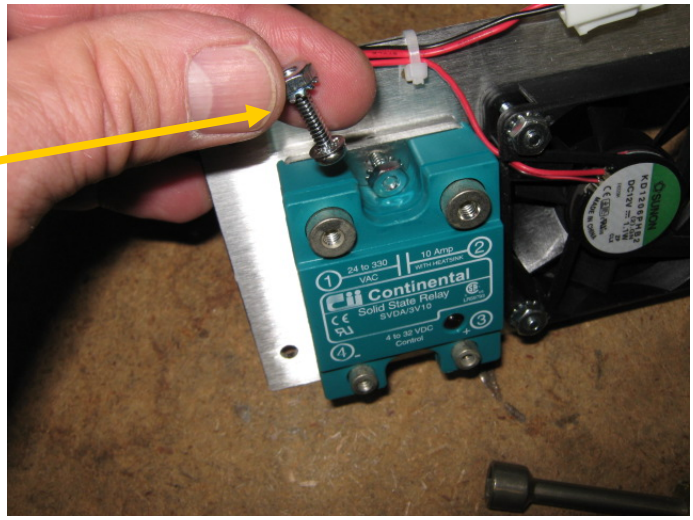
Mount the solid state relay module on the aluminum plate next to the fan.



Mark the hole locations and then drill two 5/32” holes.

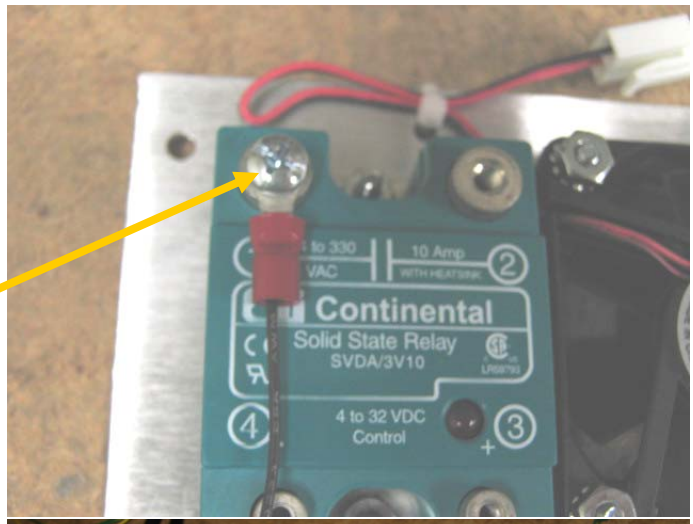


Use two of the screws and lock-nuts to secure the solid state relay module.



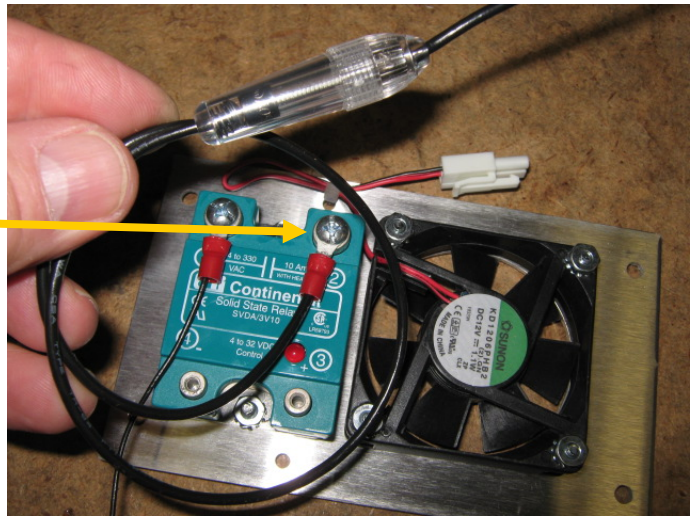
Installation of the Vacuum Pump Interface on the SRI 8610C GC

Crimp the black wire to a ring terminal and then screw it to Terminal#1 on the Solid state Relay.



Cut the fuseholder wire about 3 inches from the fuse.

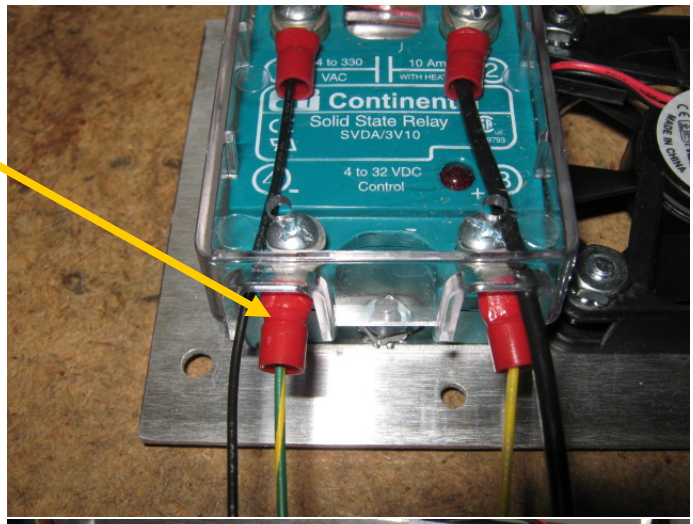
Crimp the longer side of the fuseholder wire to a ring terminal and then fasten to Terminal#2



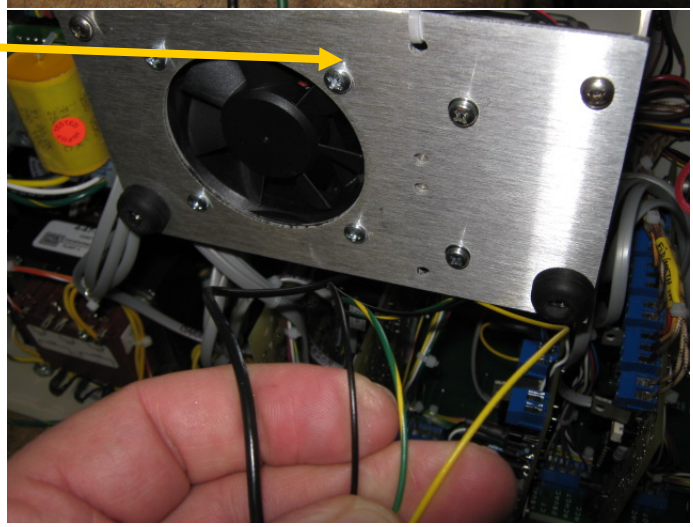
Installation of the Vacuum Pump Interface on the SRI 8610C GC

Crimp the yellow and green/yellow wires in the ring terminals. Connect the yellow to terminal#3 and the green/yellow to terminal#4.

Snap the plastic cover over the solid state relay module.

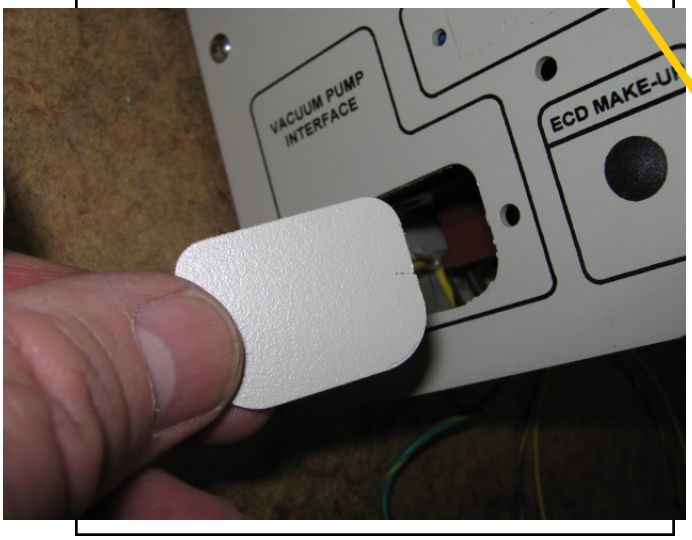


Replace the aluminum plate letting the four wires dangle for the time being.



Use a hammer and screwdriver to remove the knock out plate for the power jack located on the rear of the GC's right side.

Use a file to smooth the edges of the hole so the jack slides in easily.



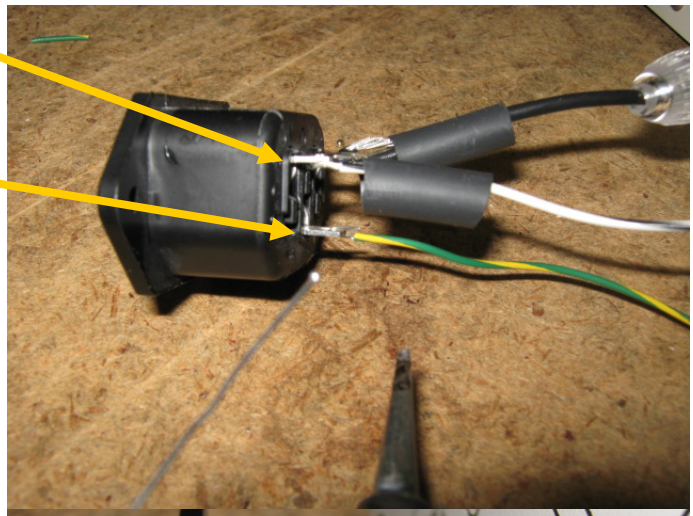
Installation of the Vacuum Pump Interface on the SRI 8610C GC

Run the fuseholder wire, the white wire and .5meter long length of the green/yellow wire out through the hole in the chassis. Slide a section of heat shrink tubing onto each wire before soldering to the power jack.

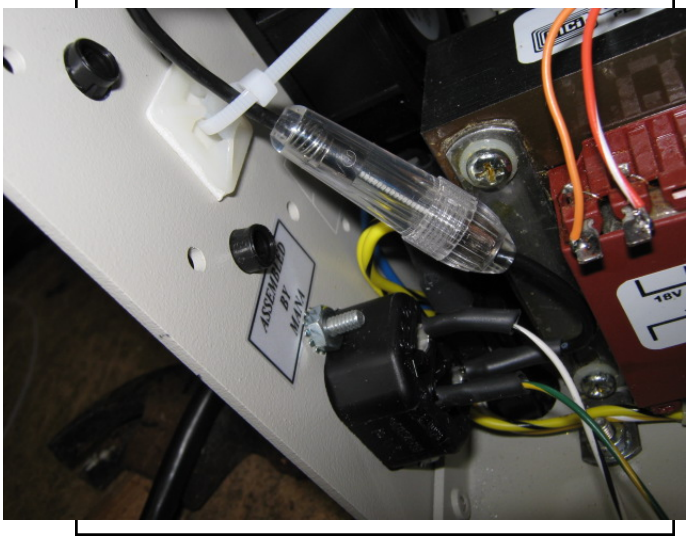
The fuseholder wire is connected to the terminal marked ‘L” (line)

The white wire is connected to the terminal marked “N” (neutral)

The green/yellow wire is soldered to the middle terminal which is marked with the ground symbol

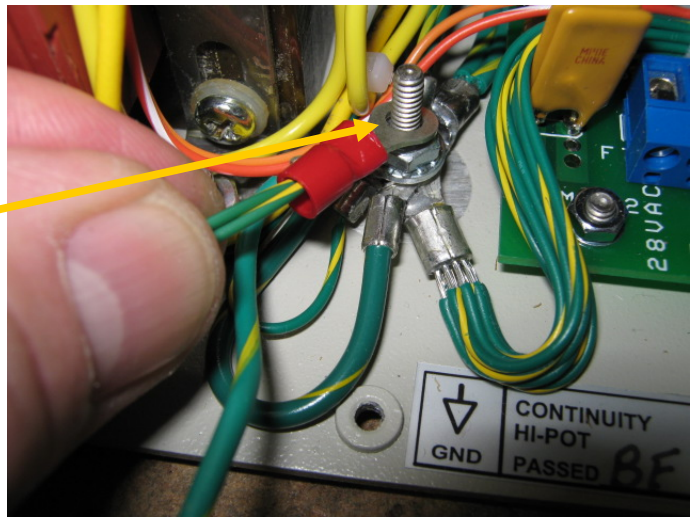


Secure the jack in place with two screws and locknuts. Use a stick-pad and tiewrap to secure the fuseholder near the jack.

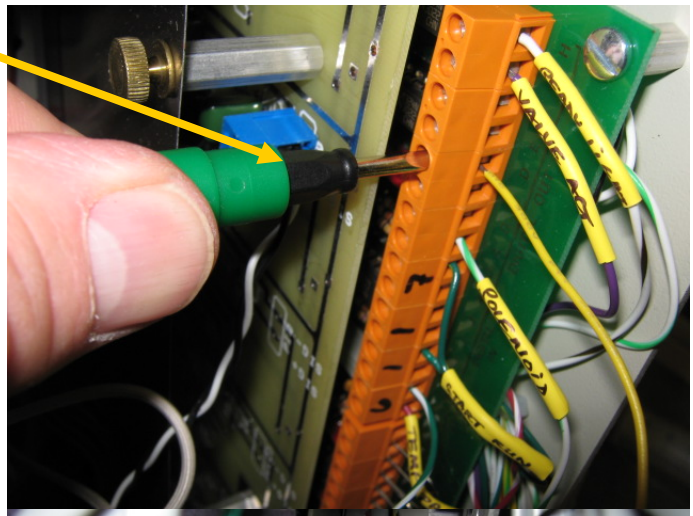


Installation of the Vacuum Pump Interface on the SRI 8610C GC

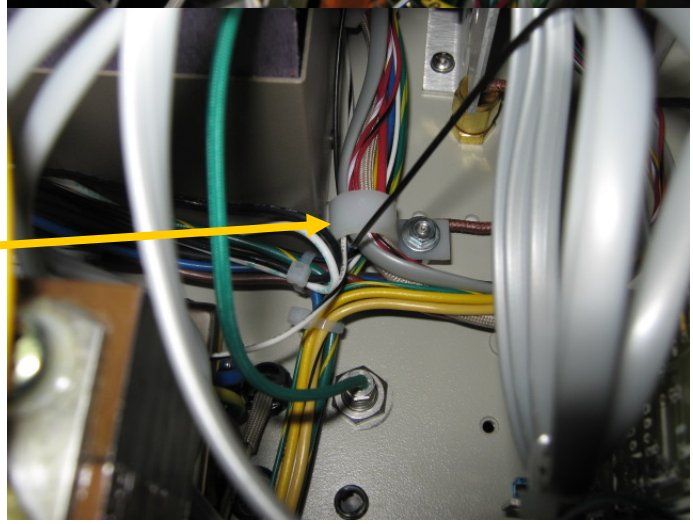
Crimp the two green/yellow wires (from solid state relay and from power jack) to a single ring terminal and then connect the ring terminal to the chassis ground stud with a lockwasher.



Connect the yellow wire from the solid state relay to the A/D board terminal labeled “D”. The A/D board has eight digital outputs (A-H). The yellow wire can be connected to any of the digital outputs if desired, but we normally use “D” unless it is already occupied with some other function.

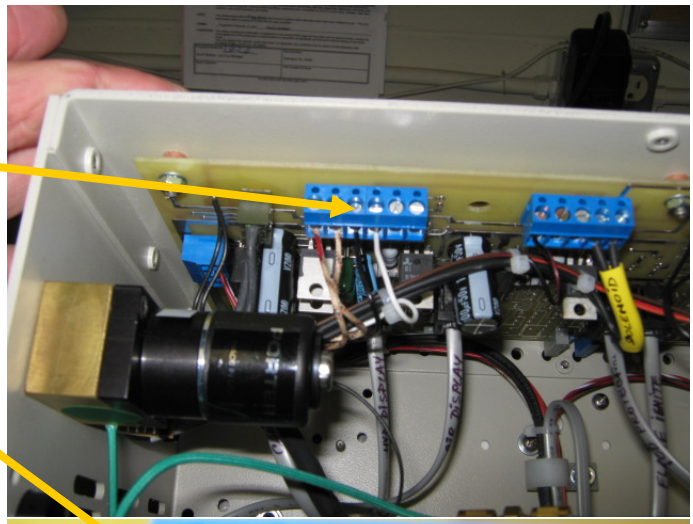


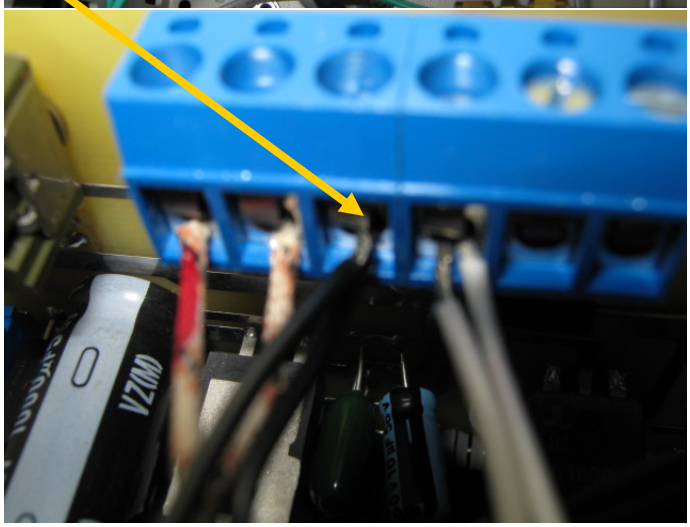
Route the wires neatly through the GC. Often there will already be a wire bundle and clamp through which you can run the wires.



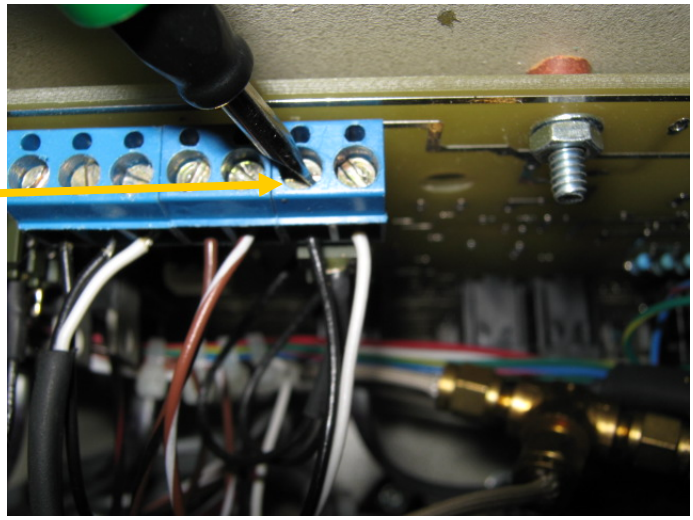
Installation of the Vacuum Pump Interface on the SRI 8610C GC

Connect the white and black wires (white from power jack), (black from soild state relay) to the third and fourth terminals from the left on the display board. There will already be a white and black wire inserted into these terminals.



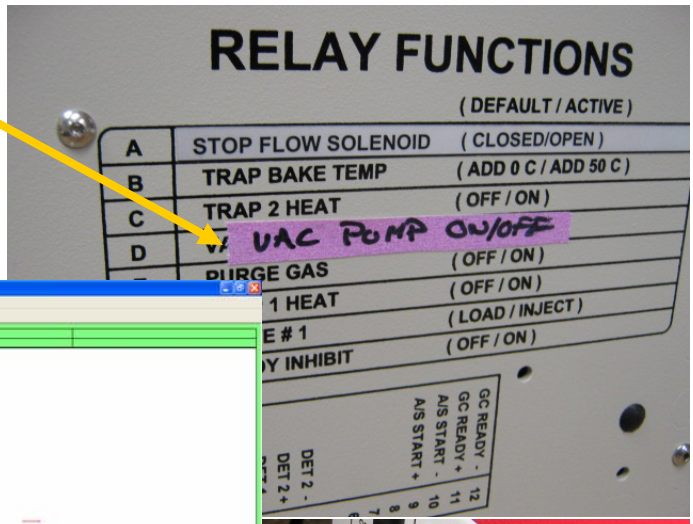


On the model 310C GC connect to the two rightmost terminals in-stead.

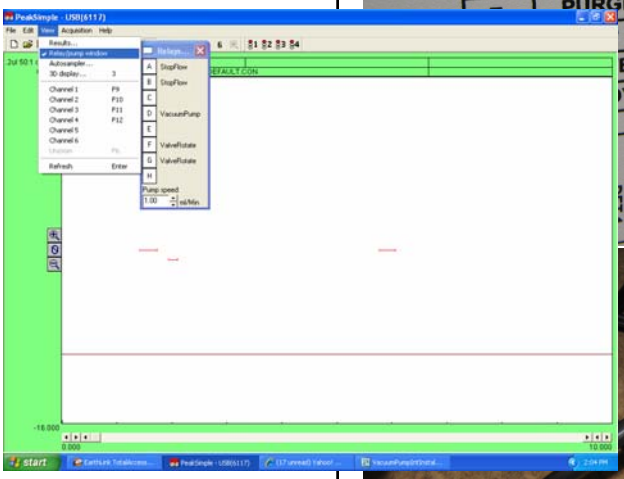


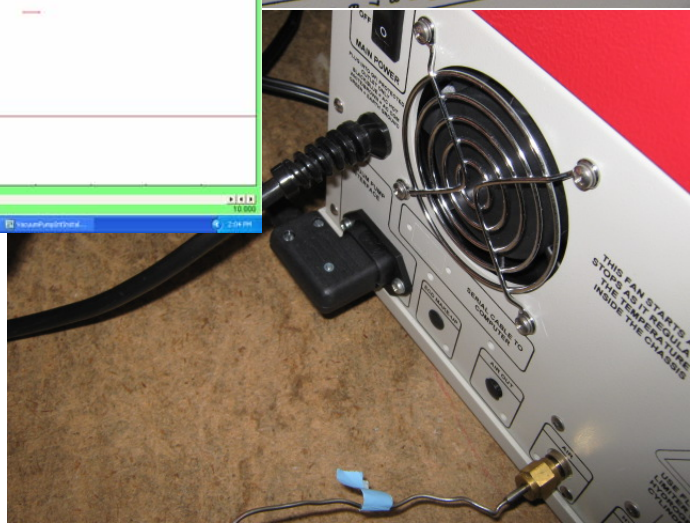
Installation of the Vacuum Pump Interface on the SRI 8610C GC

Label the Relay Function table on the right side of the GC with the Relay letter (A-H) to which you assigned the Vacuum Pump Interface .



Then test the actual vacuum pump by turning Relay D (if that's the one you assigned) on and off using the View/ Relay Window screen in PeakSimple





A simple schematic of the vacuum pump interface wiring is shown below.