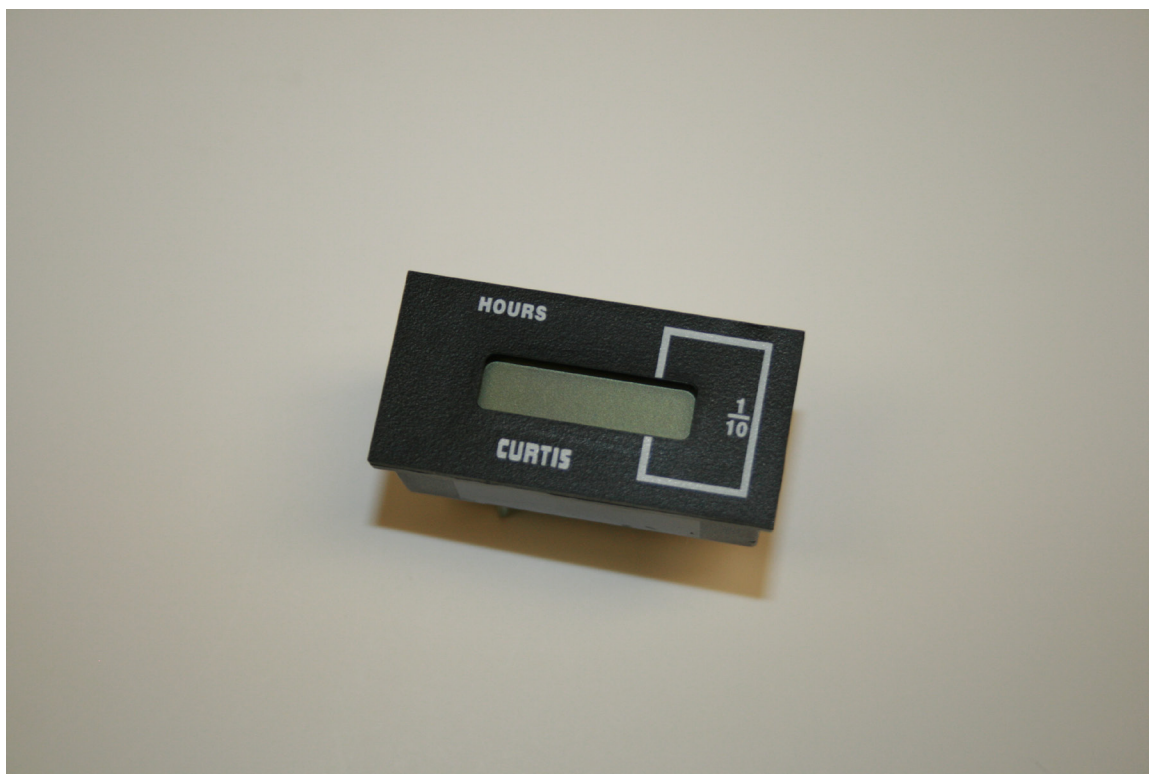


Humidity Generation and Calibration Equipment

THUNDER SCIENTIFIC
CORPORATION THE HUMIDITY SOURCE

Model ACS-517B

Hour Meter Upgrade Kit Procedure



Tech Support Document TSD-0211
Revision Date: September 5, 2002

623 WYOMING BLVD. SE



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- 1) Disconnect the power cable from the ACS-517B system. Remove the screws that secure the outer cover and lift it off.



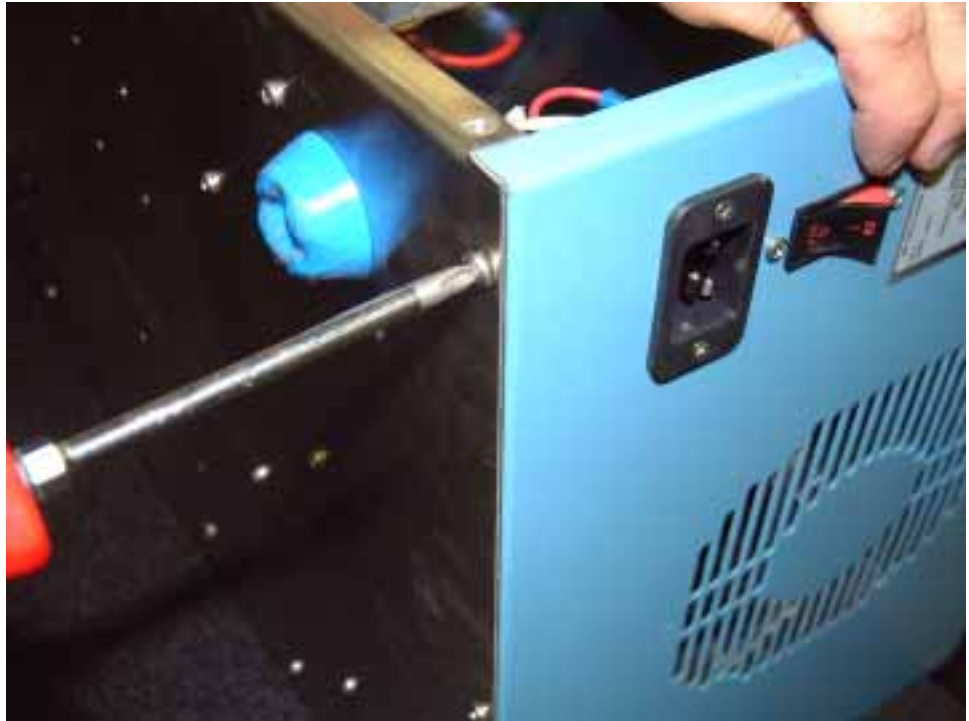
- 2) Loosen the electrical bulkhead fitting.



- 3) Push the electrical power cable through to give the cable some slack.



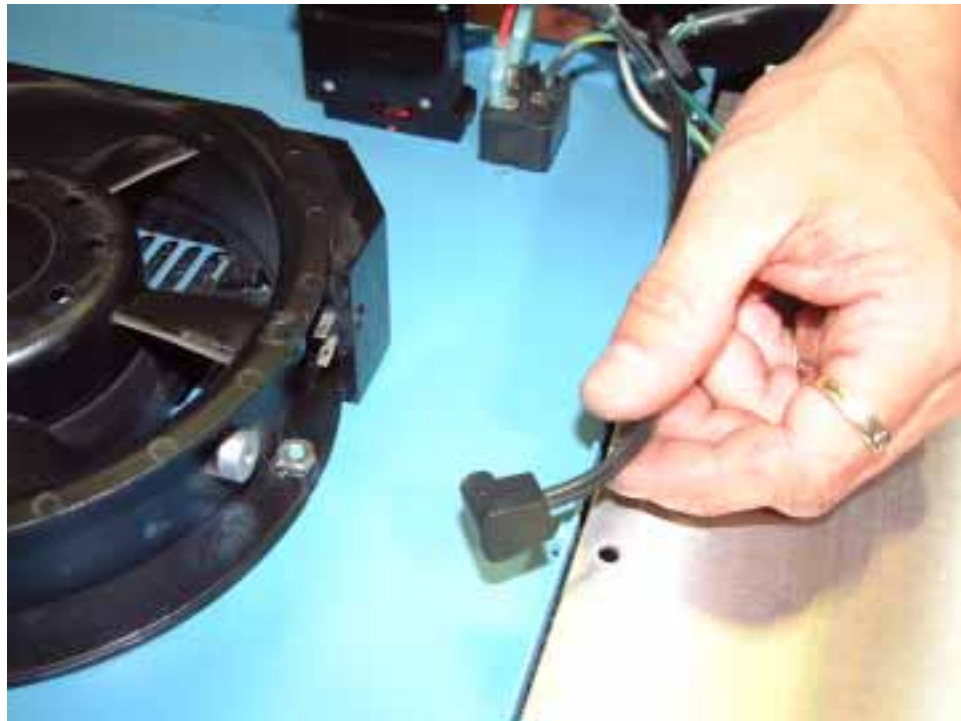
- 4) Turn the system on its side and remove the three screws that hold the electrical panel on.



- 5) Rest the system back on its feet and fold down the electrical panel.



- 6) Disconnect the exhaust fan power connection.



- 7) Lift the electrical panel to remove the 6-32 screws that secure the power switch.



- 8) Remove the 4-40 screws from the electrical power cable receptacle.



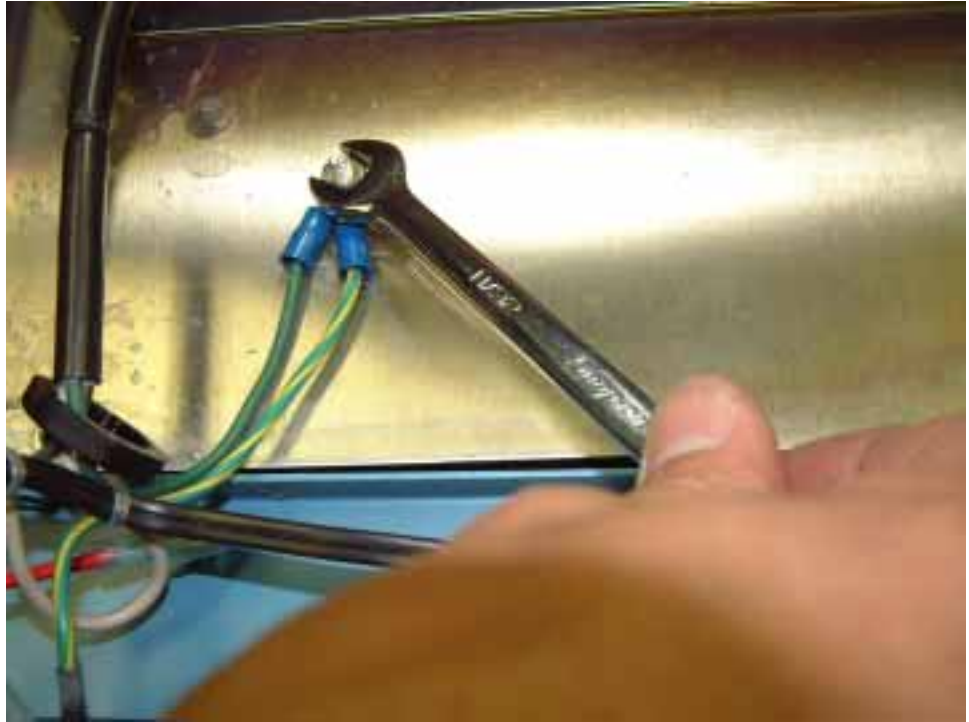
- 9) Remove the top left terminal connector from the electrical power cable receptacle.



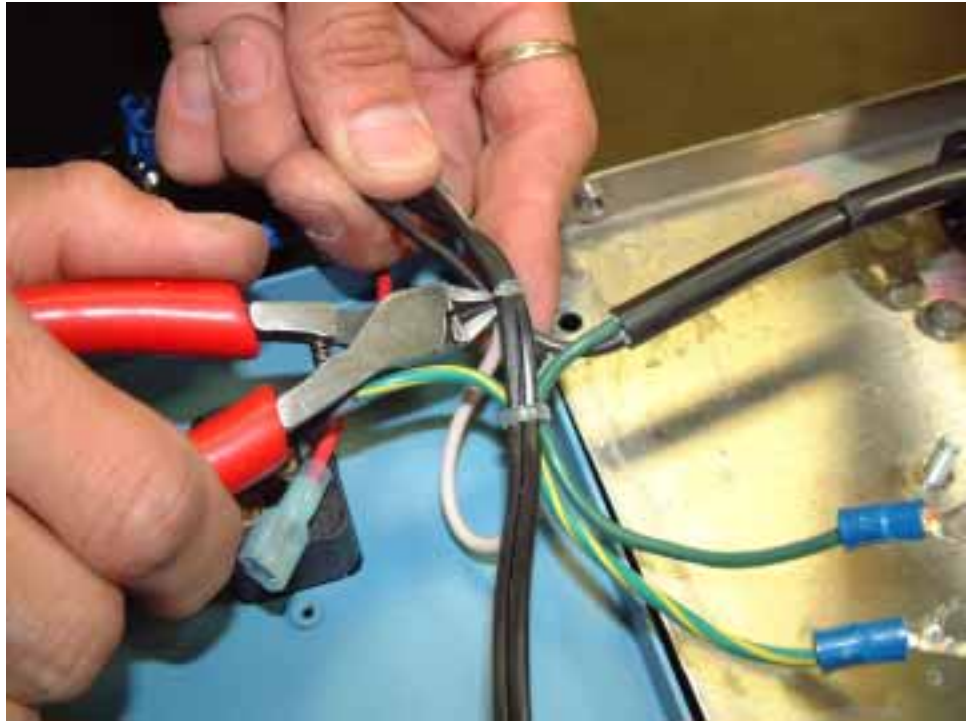
- 10) Remove the top right dual terminal connector from the electrical power cable receptacle.



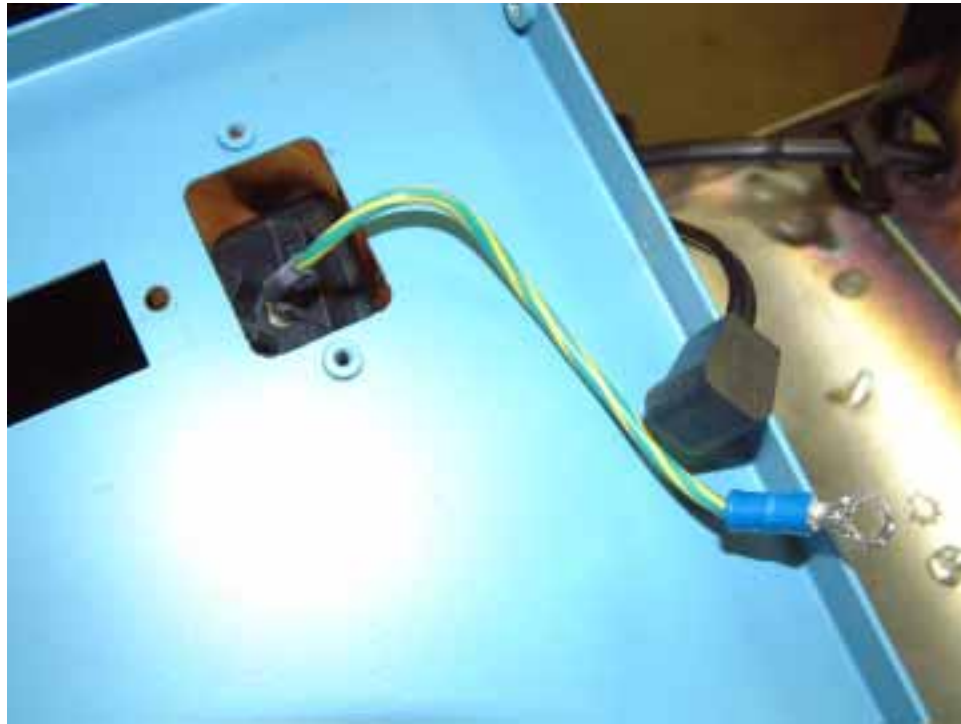
- 11) Using a 11/32" wrench, remove the nut that secures the ground cables.



- 12) Clip the Ty-raps that hold the cables together.



- 13) Pull through the electrical power cable receptacle.



- 14) Using a 11/32" wrench, remove the nuts that hold down the fan and remove it.



- 15) Turn over the panel and use a razor blade to remove the serial number label.



- 16) Take great care when lifting off the label so that no damage occurs because you will reuse the label on the new panel.



- 17) Apply the Serial Number label you just removed to the new panel in this approximate location.



- 18) Apply the new Maintenance Schedule label.



- 19) Place the Maintenance Schedule label above the Serial Number label about 1/4".



- 20) Insert the hour meter into the panel and hold it in while you turn the panel over.



- 21) Slide the U bracket over the threaded stud.



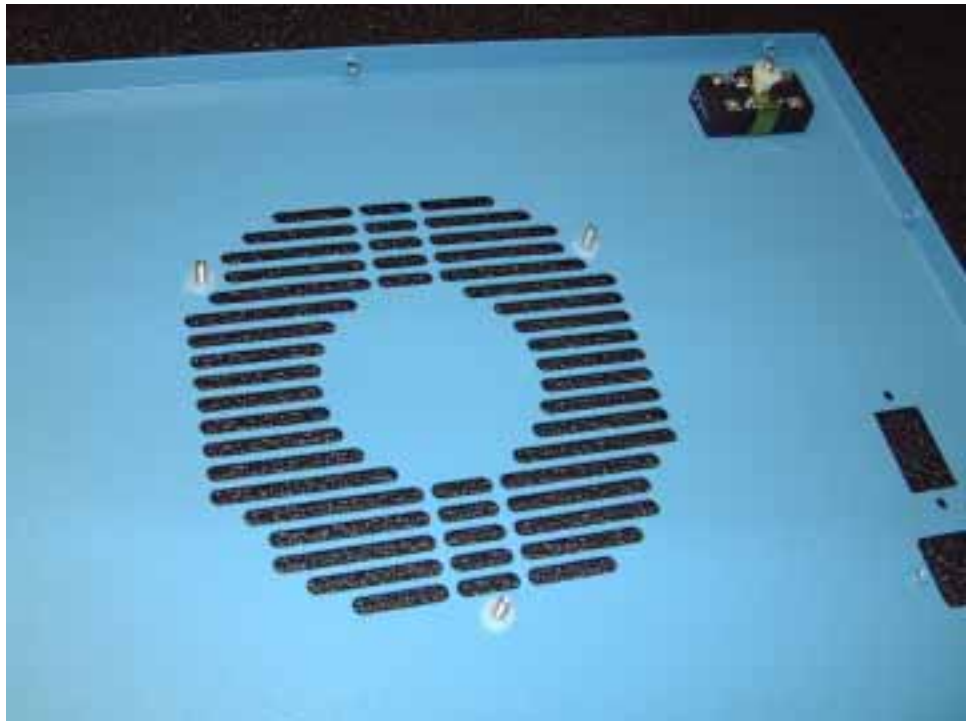
- 22) Put the lock washer over the stud.



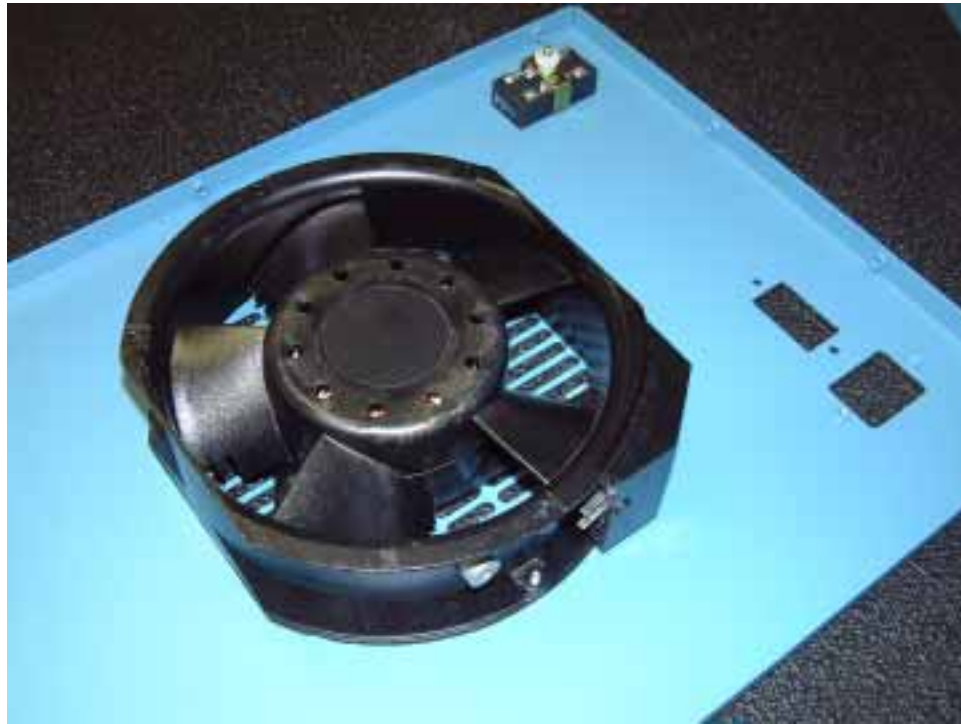
- 23) Twist on nylon finger screw, finger tight is adequate.



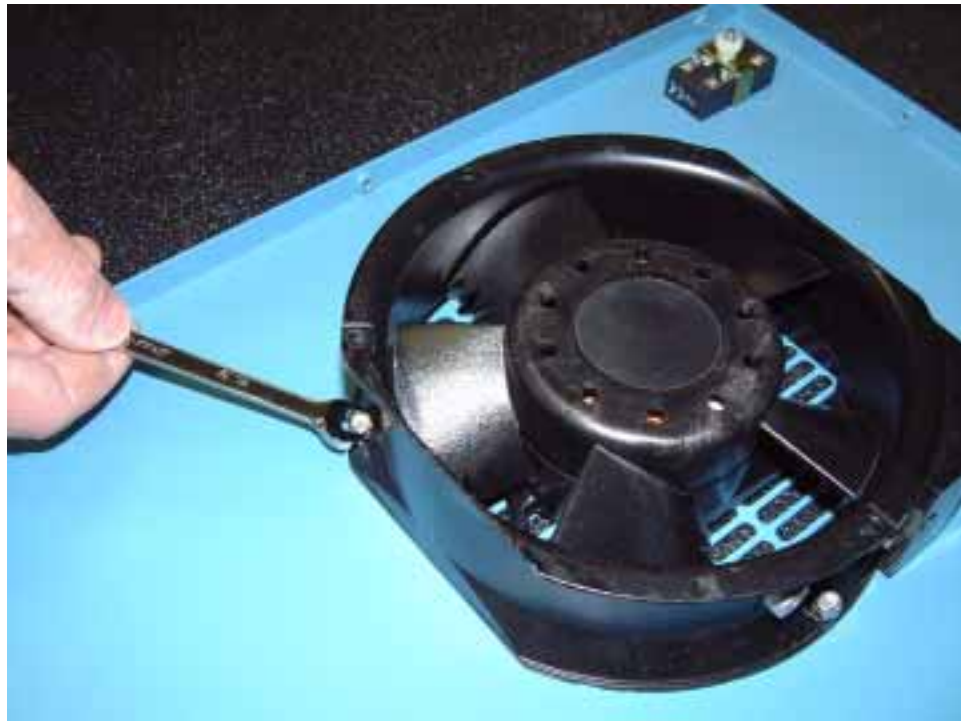
- 24) Replace the nylon washers you removed from the old panel for the fan.



- 25) Place the fan in this orientation.



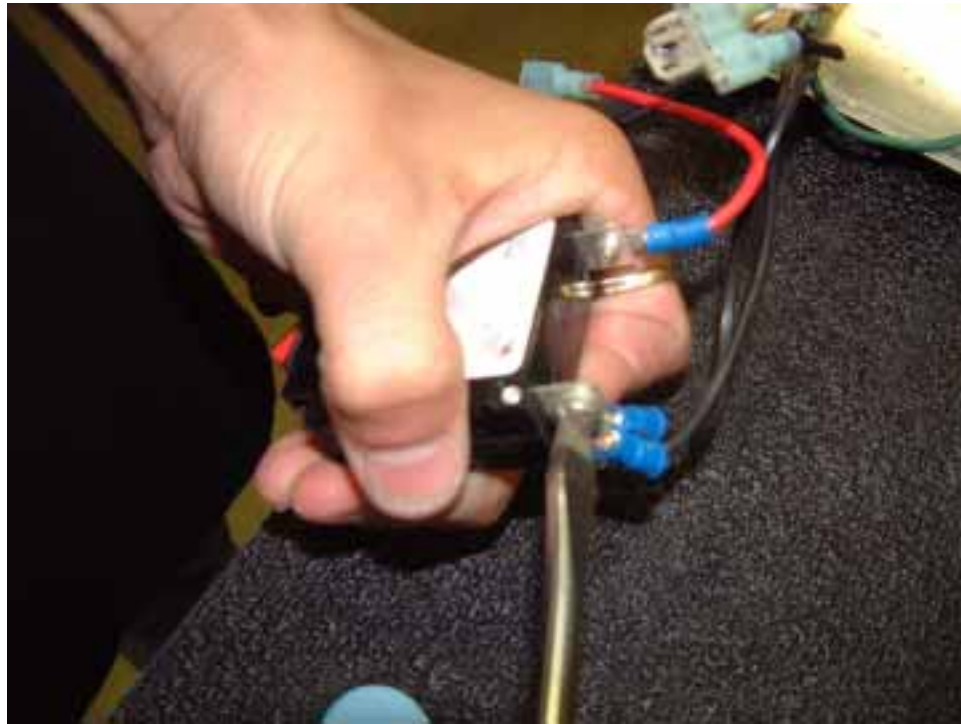
- 26) Put the lock nuts over the studs and tighten with a 5/16" wrench.



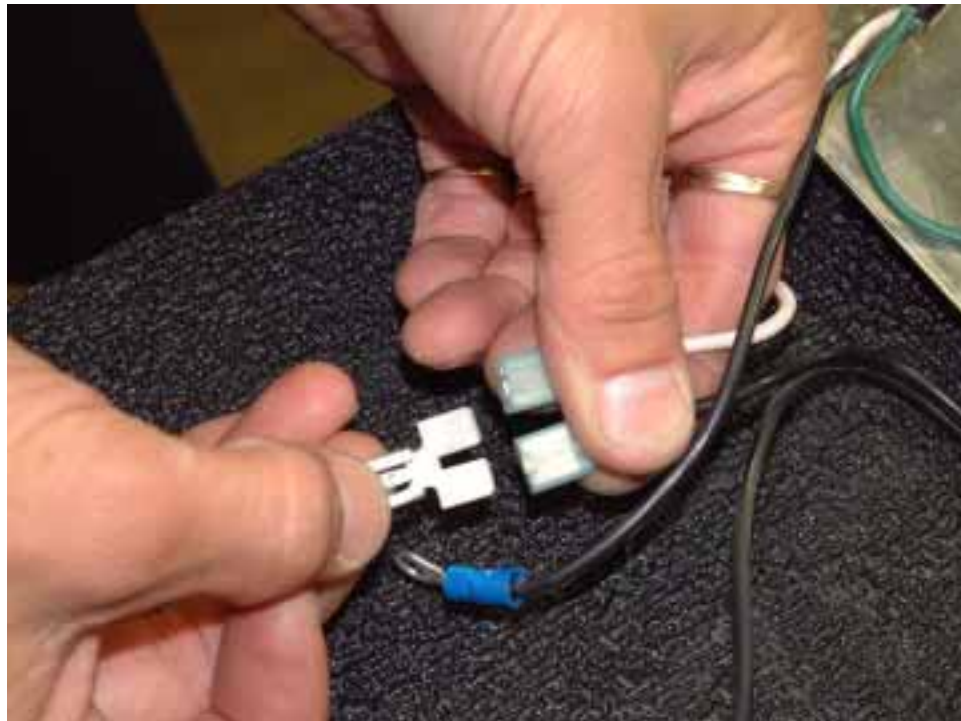
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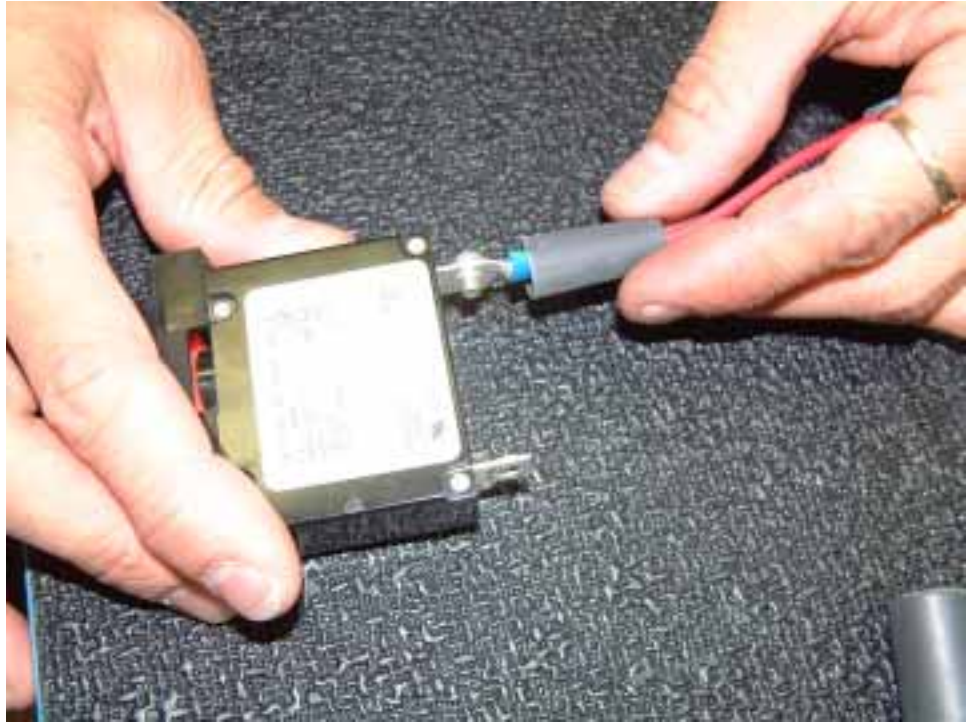
- 29) Remove the screw from the power switch that has the two black wires attached to it.



- 30) Disconnect the Y terminal.



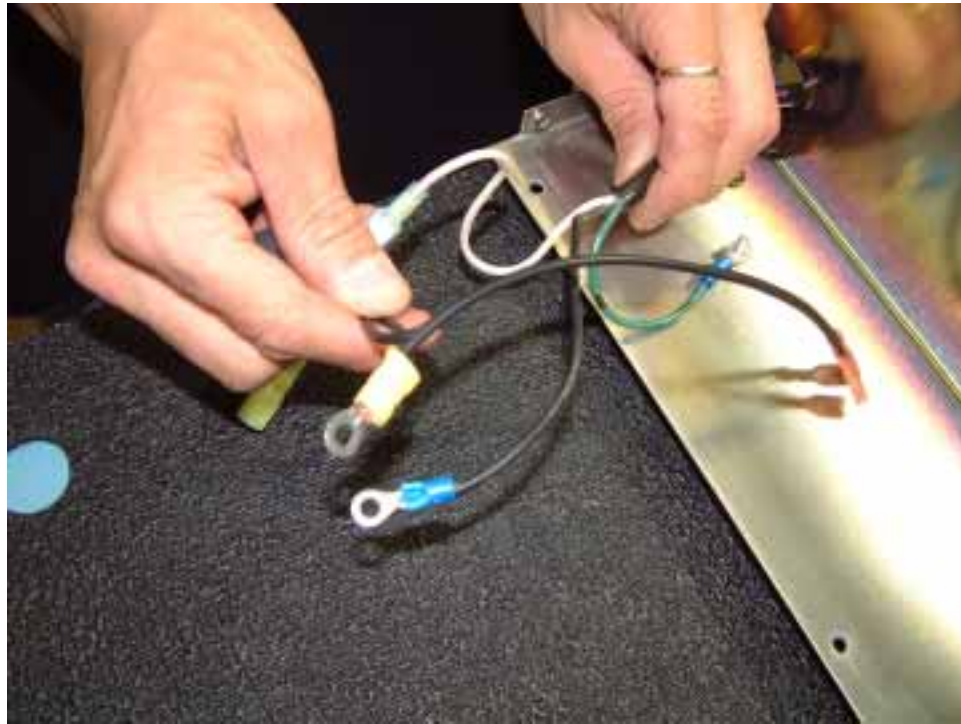
- 31) Take the power switch and slide the heat shrink tubing that was provided over the red wire.



- 32) Make sure the heat shrink tubing is over the terminal and then heat it up until it shrinks in to place.



- 29) Take the terminal ring from the new harness and the black wire terminal ring from the compressor harness and bring them together.



- 30) Bring the two terminal rings in a close proximity.



- 31) Next slide the heat shrink tubing that was provided over the terminal rings.



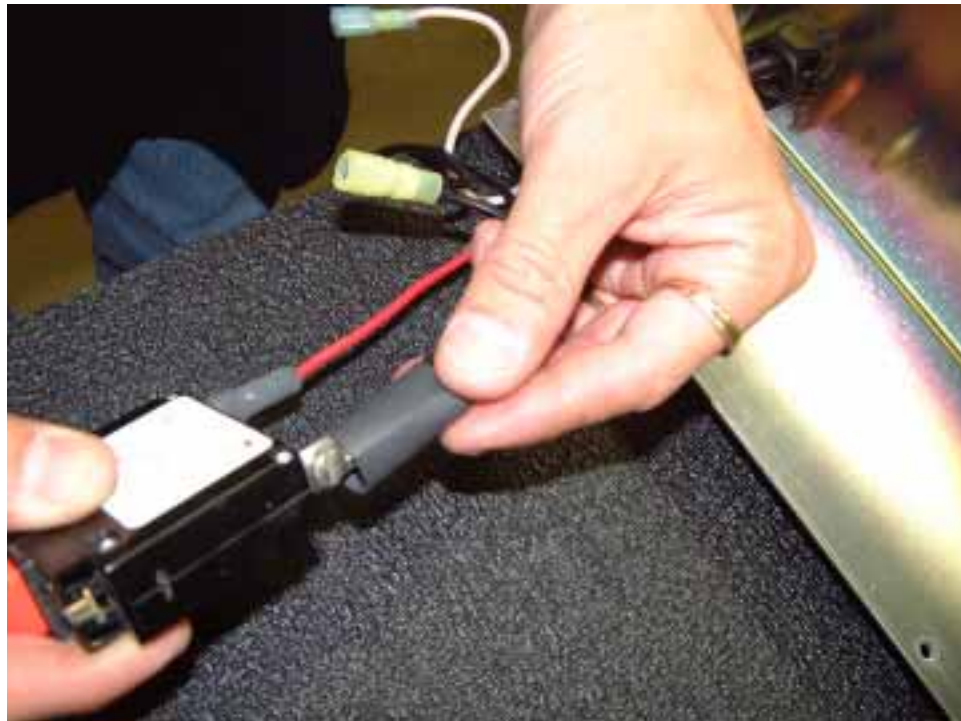
- 32) Set the two terminal rings over the top screw tab of the power switch.



- 33) Insert the screw and tighten down.



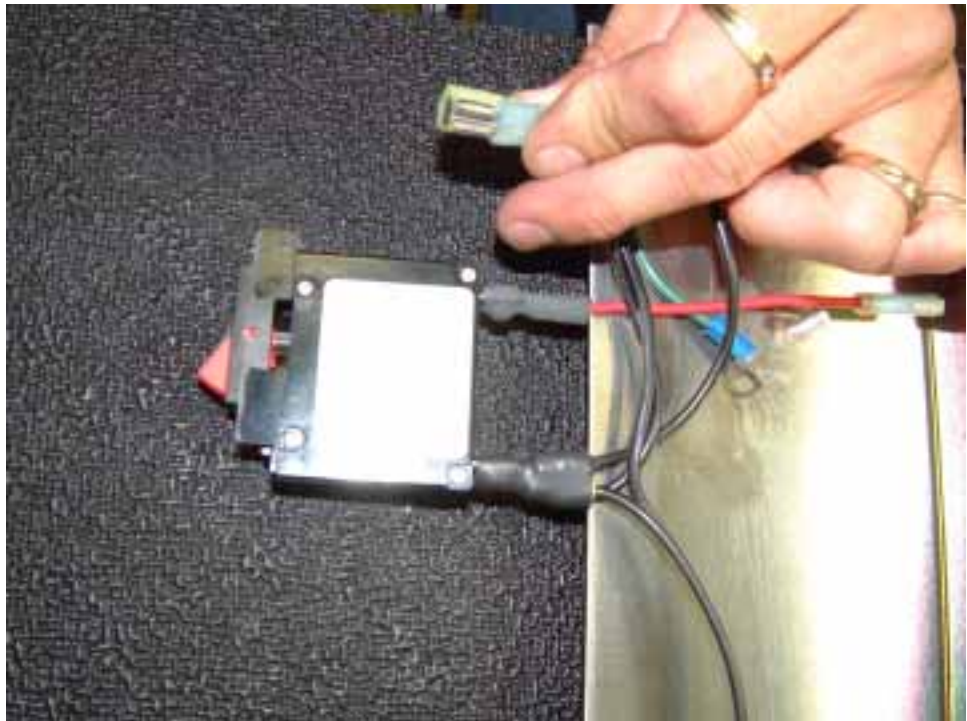
- 34) Then slide the heat shrink tubing over the terminal rings, then heat it up until it shrinks in to place.



- 35) Take the white wire from the compressor and the black from the fan/hour meter harness and slide the multi-stack adapter inside each terminal connector..



- 36) The harness assembly should look like this.



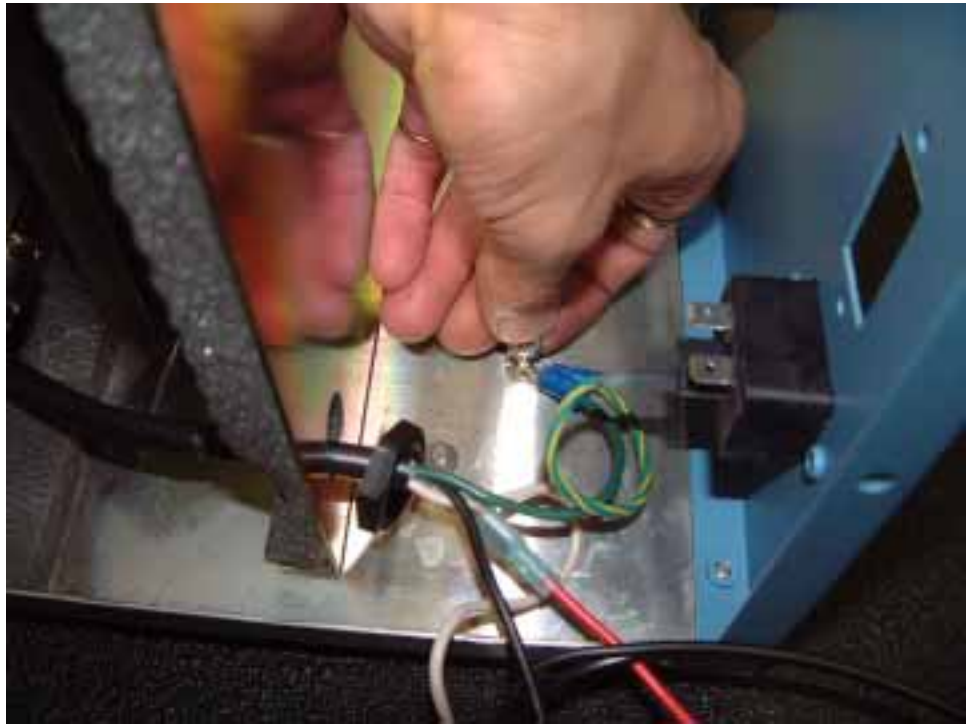
- 37) Turn the system on its side and line up the panel and insert the screws and tighten.



- 38) Place the green/yellow chassis ground terminal ring and the green compressor ground over the ground post.



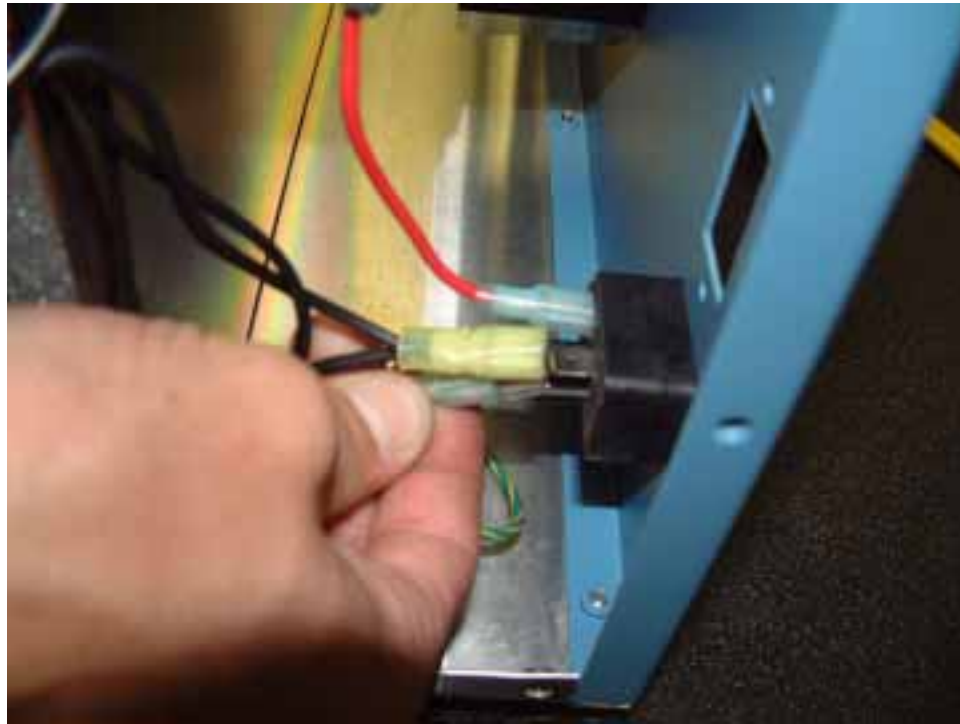
- 39) Use the existing hardware to hold the terminal rings down.



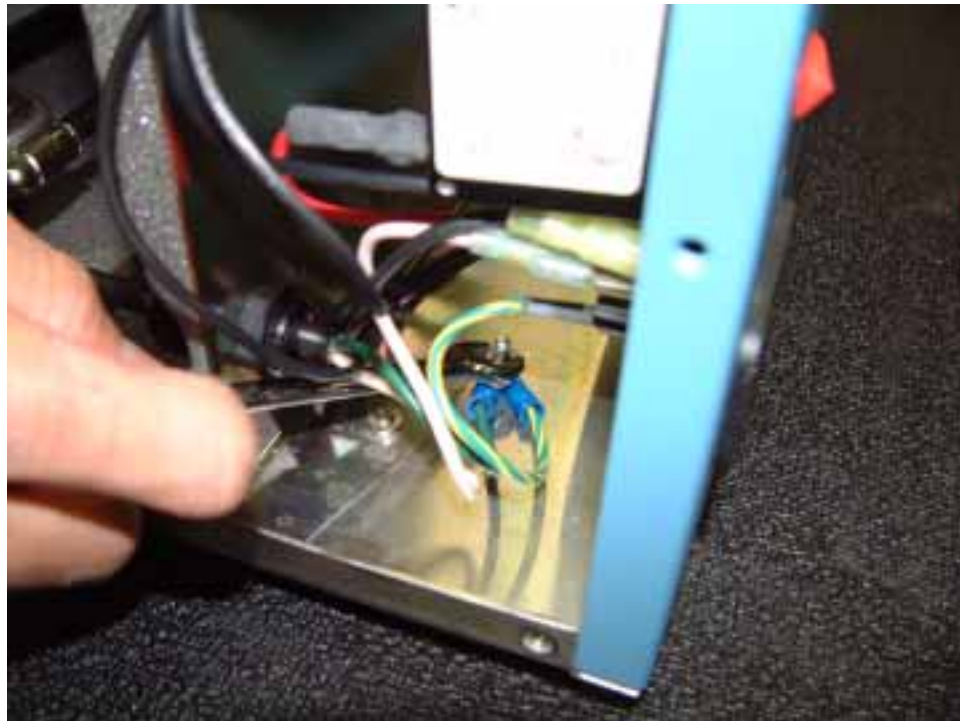
- 40) Slide the compressor harness back to the notch in the cable and tighten down the bulk-head nuts.



- 41) Reconnect the red line to the plug receptacle terminal to the rear and connect the compressor/fan harness to the front plug receptacle terminal.



- 42) Tighten down the hardware to the chassis ground post.



- 43) Insert the power switch.



- 44) Use the same screws to mount the power switch.



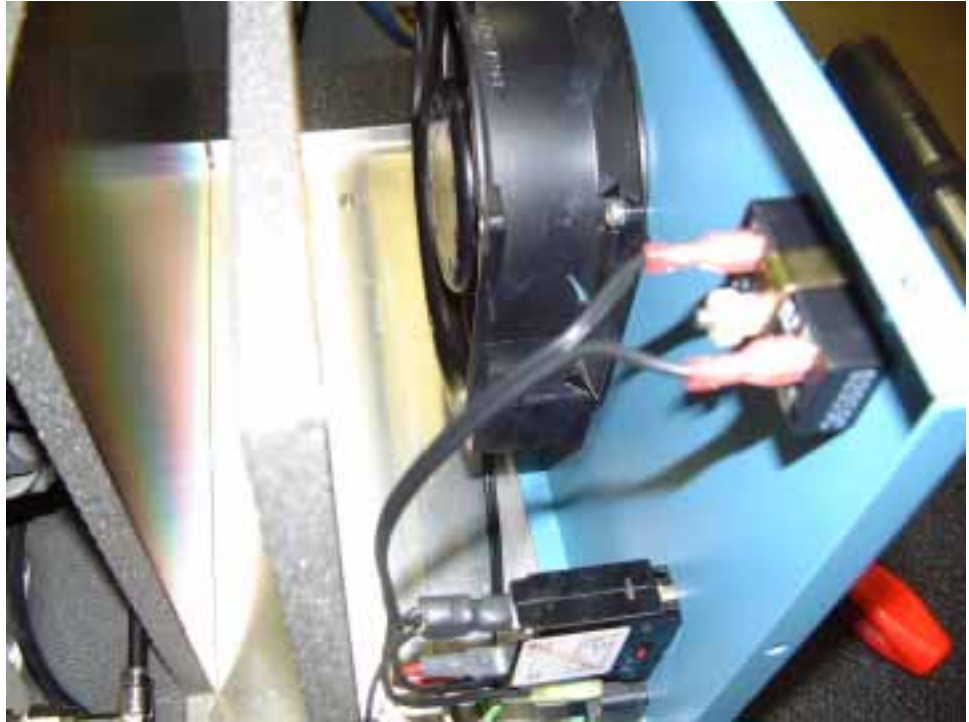
- 45) Reconnect the plug fan harness to the fan terminals.



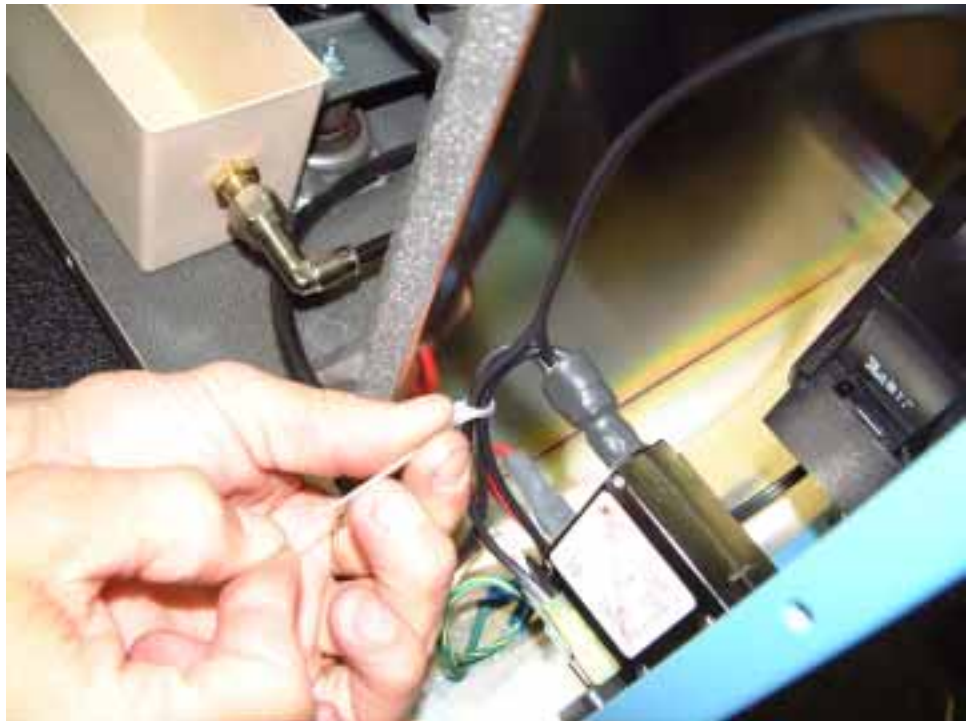
- 46) Connect the two black wire terminal connectors to the hour meter terminals.



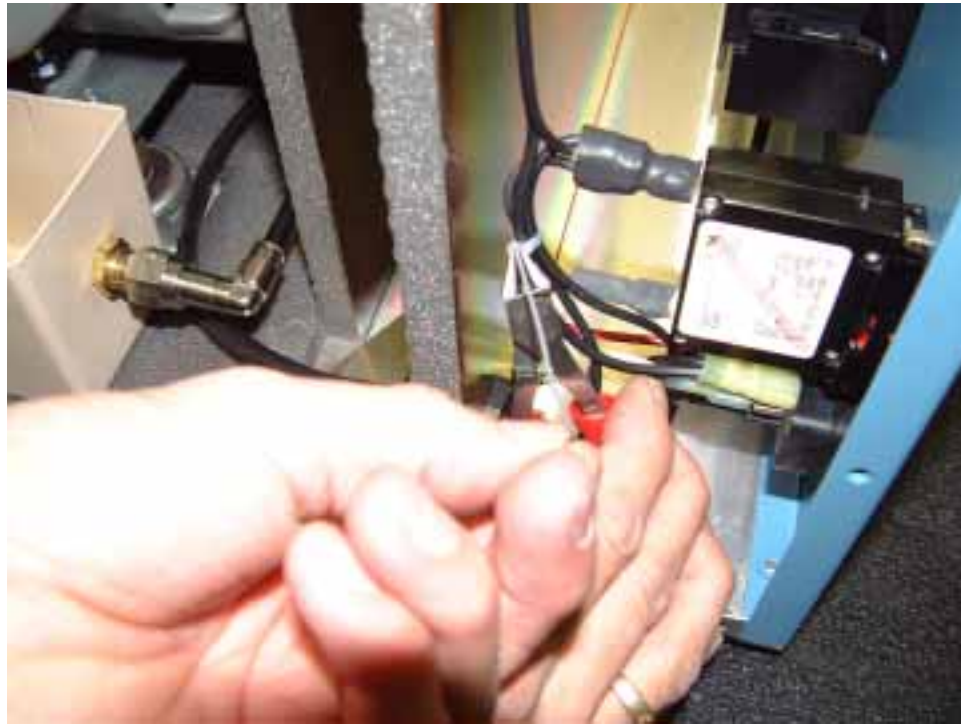
- 47) The assembly should look like this.



- 48) Use the ty-raps provided to secure the harness together at this point.



- 49) Using wire cutters clip off the excess plastic from the ty-rap.



- 50) Add additional ty-raps as needed.



- 51) Reinstall the system cover using the screws removed in step 1.



NOTE: Parts provided in upgrade.

1. ACS-517B fan panel. (D99M25429)
2. Fan/Hour meter harness assembly. (99M25427)
3. LCD digital hour meter. (HRMETERACS)
4. Multi-stack male/female adapter terminal (77-250)
5. Ty-rap cable tie. 6 ea. (TY23M)