Humidity Generation and Calibration Equipment

THUNDER SCIENTIFIC®

CORPORATION THE HUMIDITY SOURCE

Model 1200

Cleaning the Pre-saturator Fill Solenoid 4 and Liquid Level Probe Procedure

Tech Support Document TSD-0291
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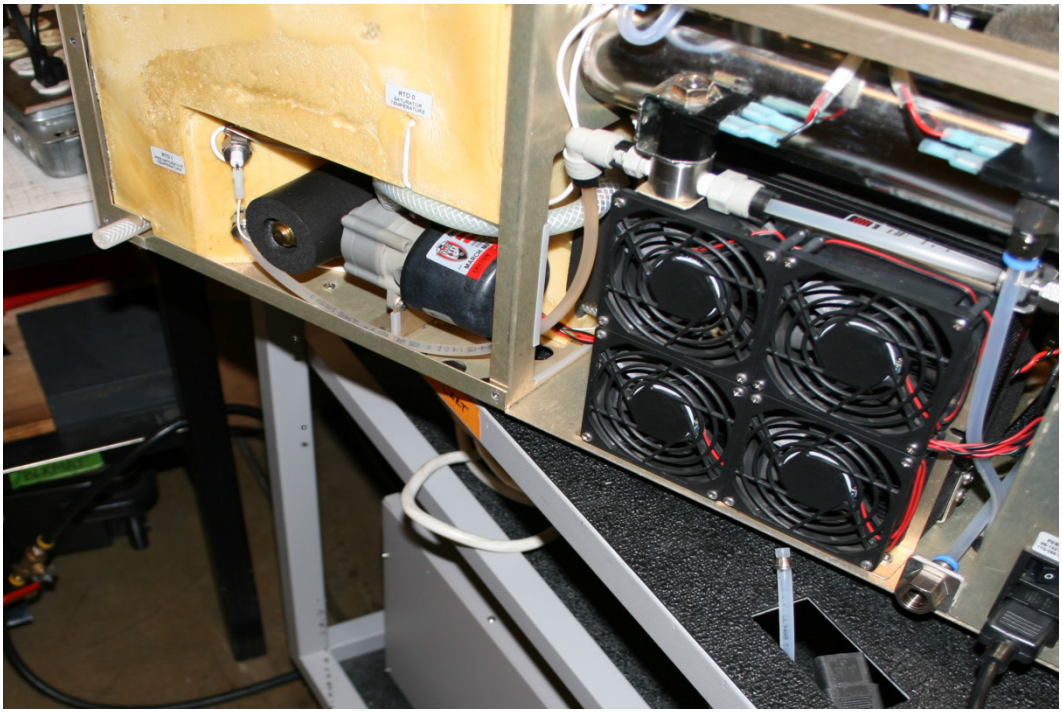
Cleaning the Pre-saturator fill solenoid 4 and liquid level probe procedure

1. First turn off the main power switch.

2. Next remove the power supply cord.

3. Remove the rear/top panel screws using a #10 Torx driver that was provided.

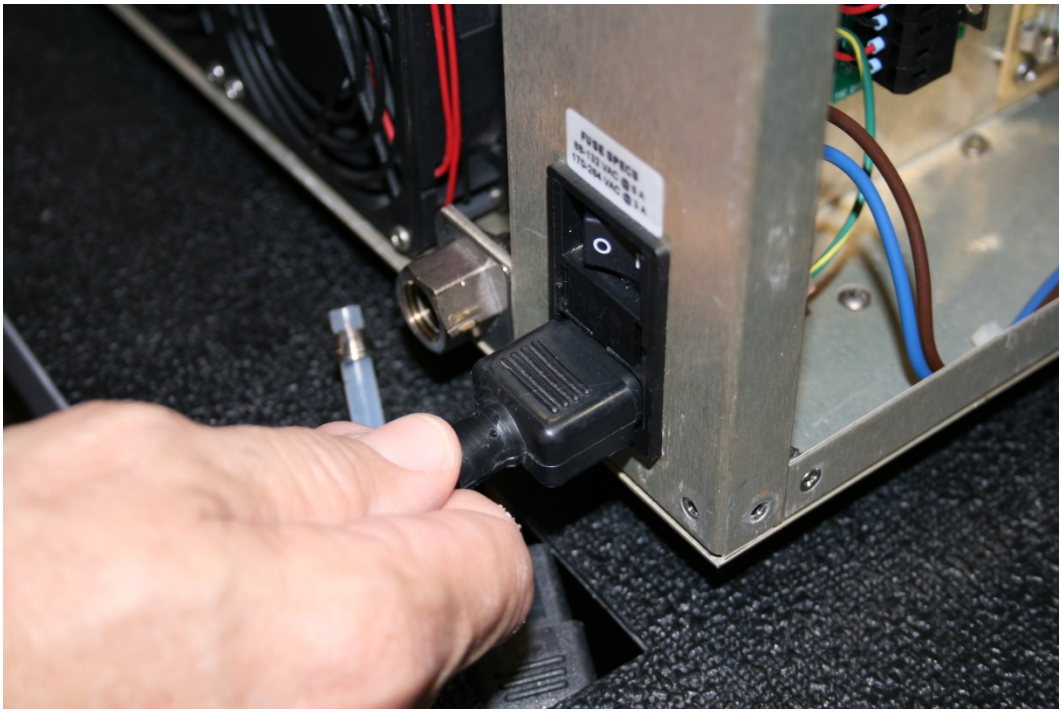
4. Rotate the system so that the right rear is hanging off the bench or cart, as looking from the front of the unit.



5. Locate the PreSaturator drain plug at the bottom right rear of the system. Using a 7/16” nut driver, remove the drain plug.

6. Make sure you have a container big enough to hold approximately 0.528 gal. (2 liters) underneath the drain.

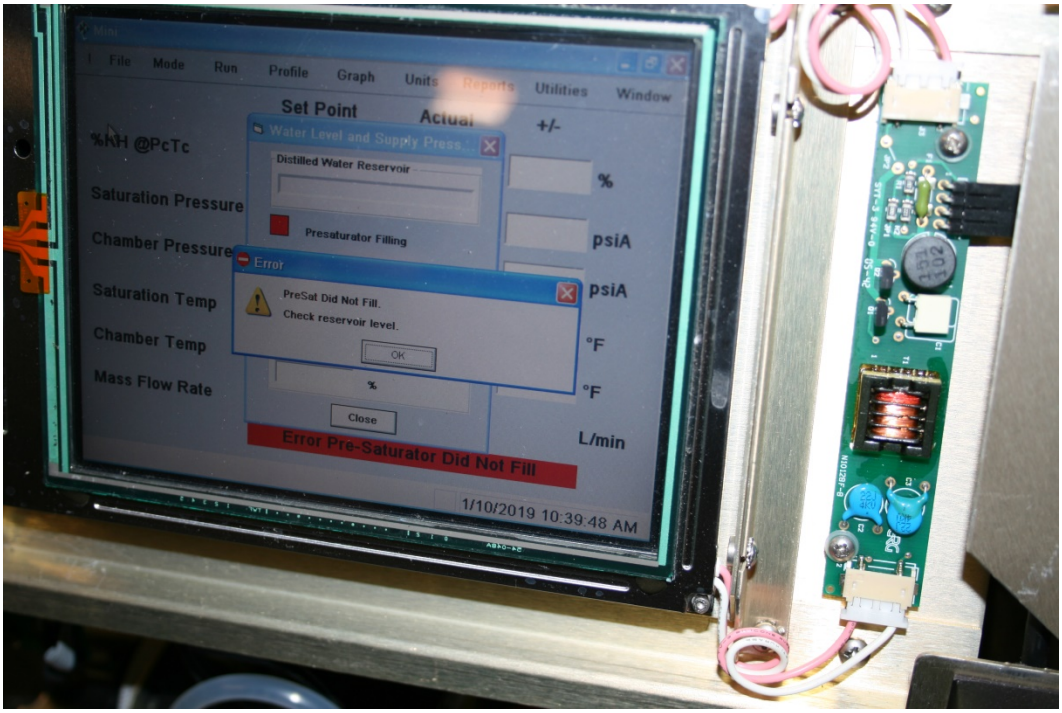
7. Now plug the system back in and power it up.



8. Look at the monitor and you should see the Water Level and Supply Pressure dialog box appear.

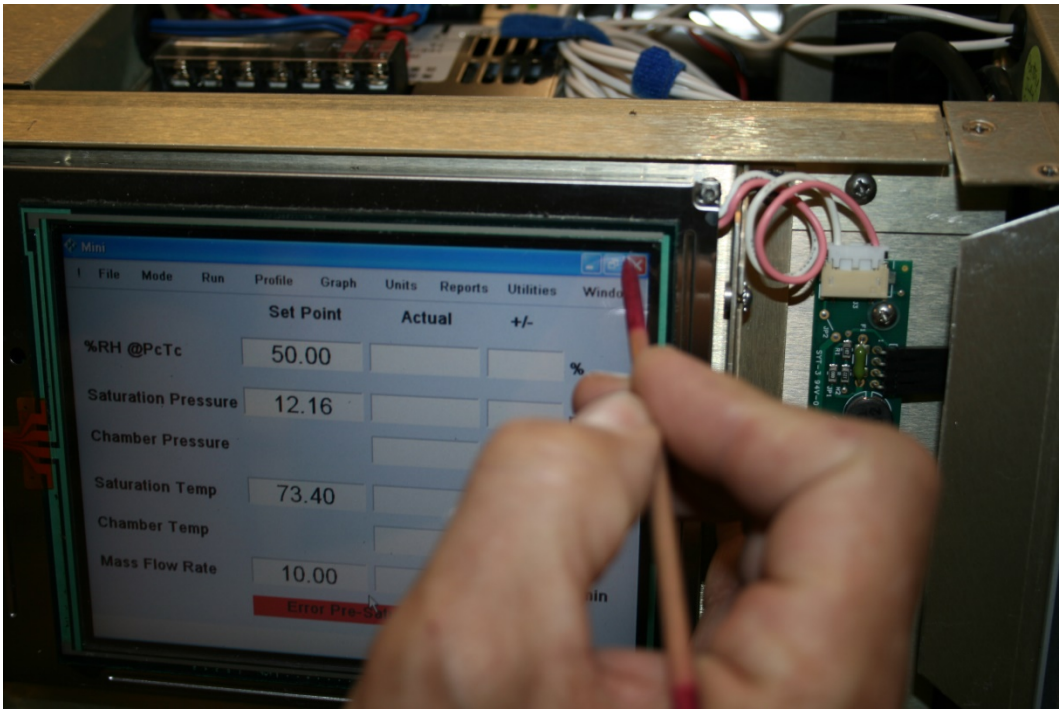
9. This action will drain the PreSaturator, this may take a few minutes.

10. The next dialog box that will appear will be an Error message stating PreSat Did Not Fill. Check reservoir level. An audible alert will sound. Click the OK button.

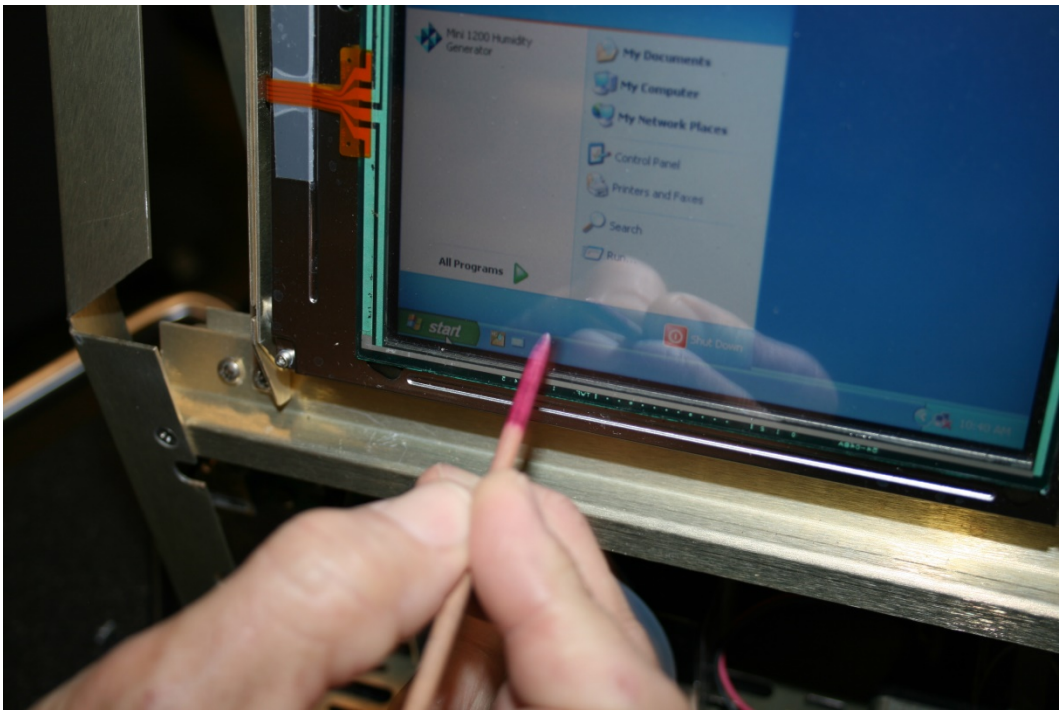


11. Click the close button on the Water Level box.

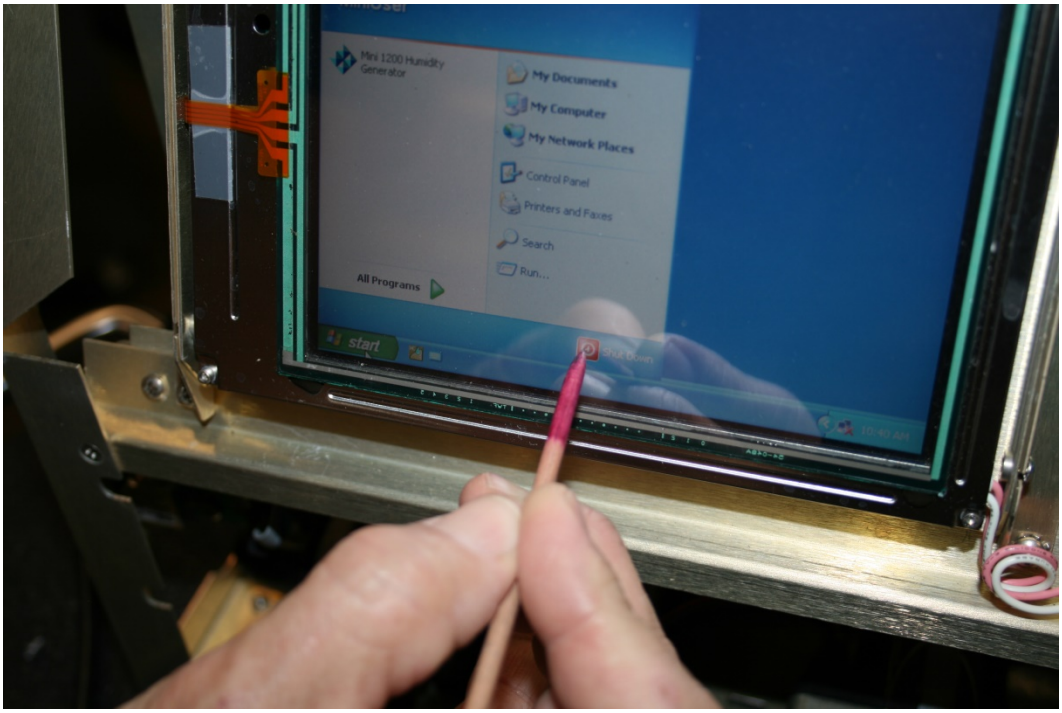
12. Click the X to close the main screen.



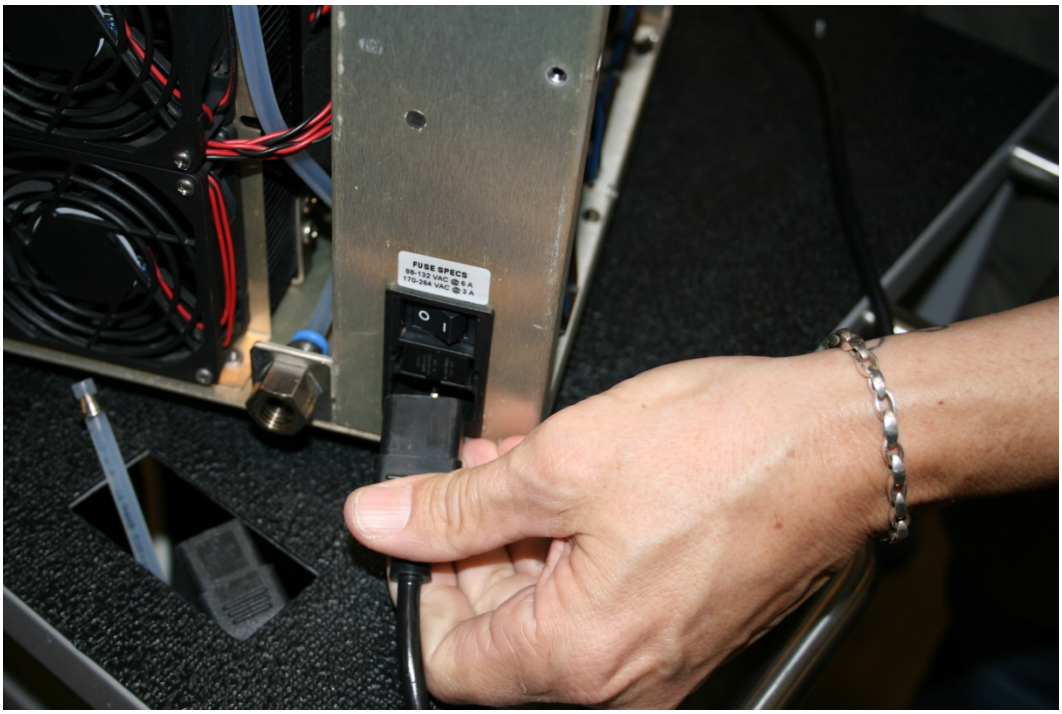
13. Click the Start menu at the bottom.



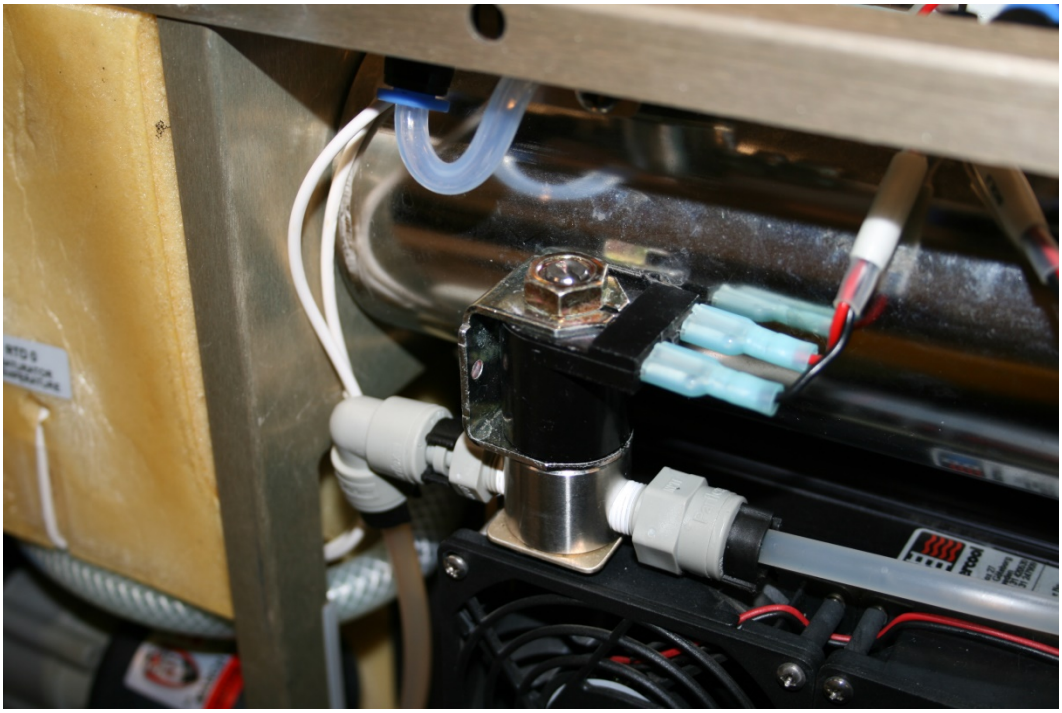
14. Click the Shut Down button next to shut the system down.



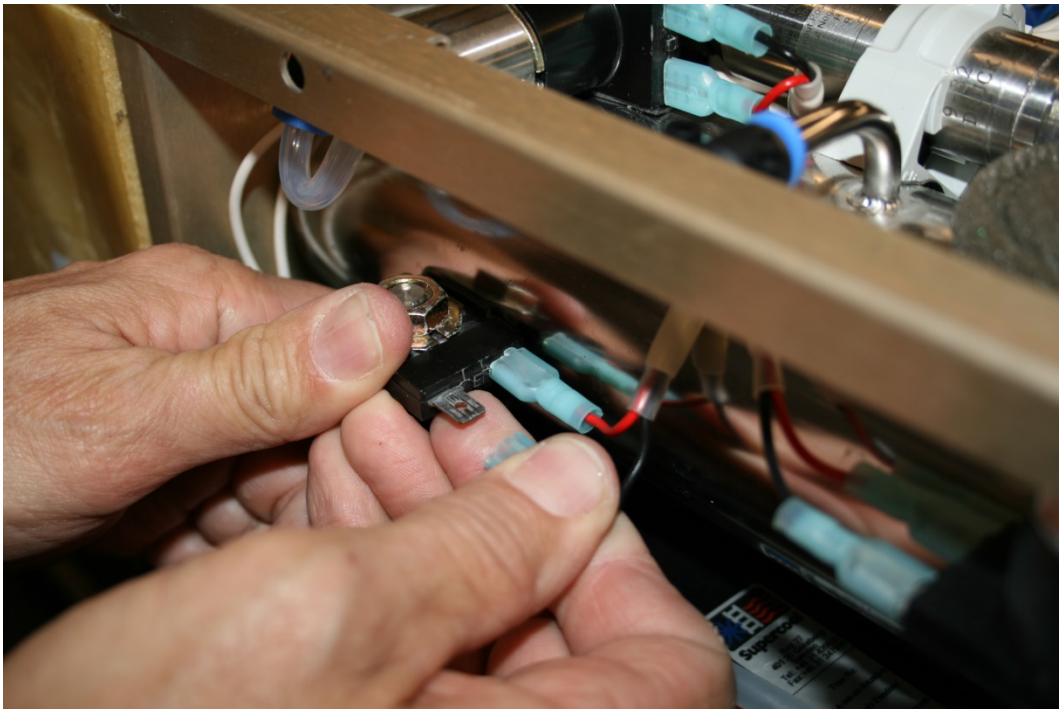
15. Turn the system off and unplug the power cable.



16. Replace the PreSaturator drain plug tighten to 1/8 turn max after finger tight.
17. Locate the PerSaturator fill solenoid (SOL4) at the rear of the system.



18. Remove the two wire connectors on the right side of the solenoid valve.



19. Remove the nut on top of the valve using a 9/16” open end wrench.

20. Lift out the valve housing from its location.

21. Using channel lock pliers remove the valve stem turning counterclockwise to remove.

22. Turn over the valve stem and remove the coil from the stem.

23. Clean the coil of any debris form the coil.

24. Next clean the valve stem on the inside.

25. Then clean out the valve body, that's still mounted in the system.

26. Put the coil back inside the stem and place it back in the valve body.

27. Tighten the stem back down using the channel lock pliers, turning clockwise until tight.

28. Replace the valve housing over the stem.

29. Put the nut back on the valve housing.

30. Tighten the nut down using the 9/16” open end wrench.

31. Replace the two wire connectors.

32. Next locate the liquid level probe (LL2) located on the side of the PreSaturator and pull the wire connector off.

33. Using a 9/16” open end wrench, remove the probe nut.

34. Remove the probe from the PreSaturator.

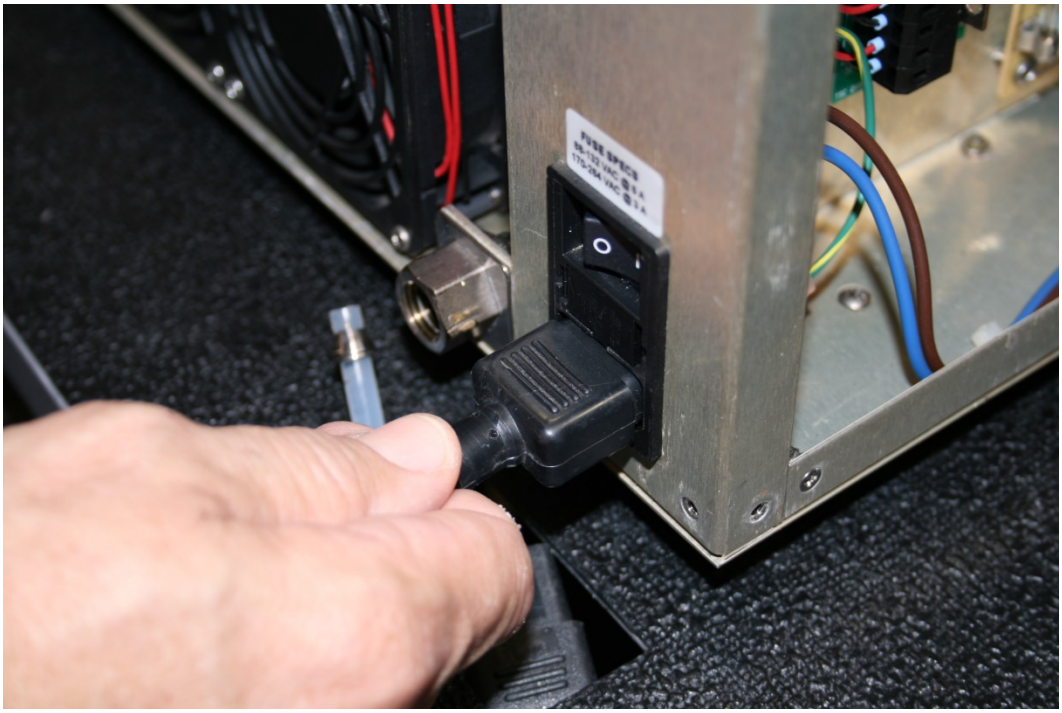
35. Inspect the probe for any build up on the Inconel metal part of the probe. Clean the probe using an emery cloth to clean it.

36. Then take some alcohol and a clean paper towel.

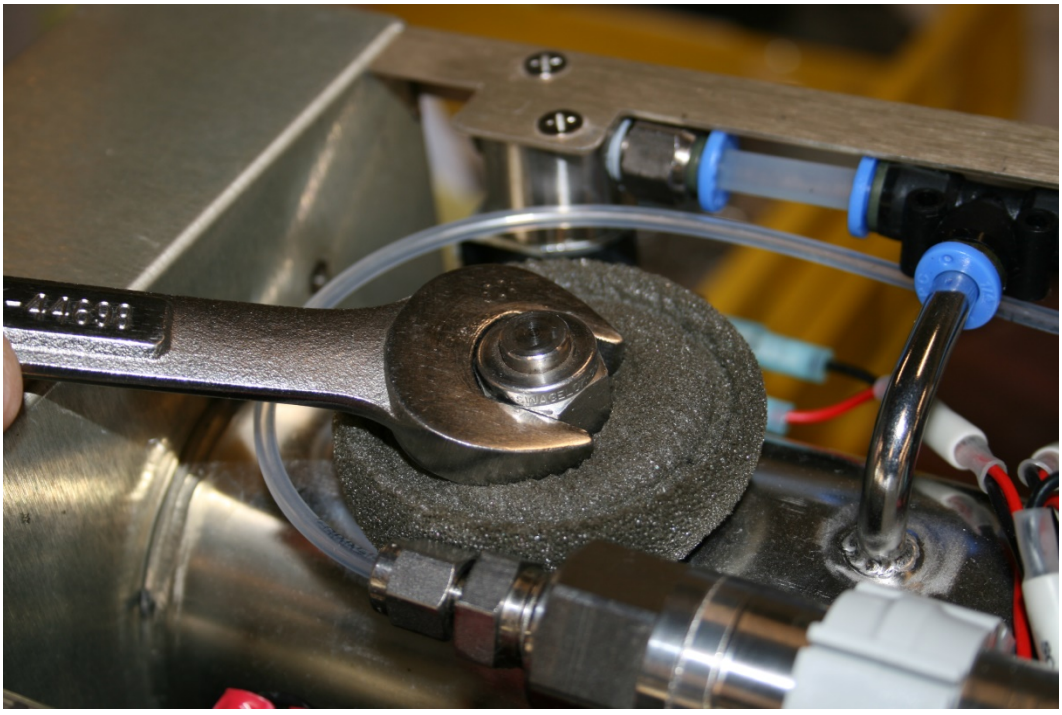
37. Insert the probe back into the PreSaturator, making sur the probe lead is pointing down. Tighten the nut using the 9/16” wrench to 1/4 turn past finger tight.

38. Replace the wire connector on the probe.

39. Plug in the power cord back in and turn the power back on.

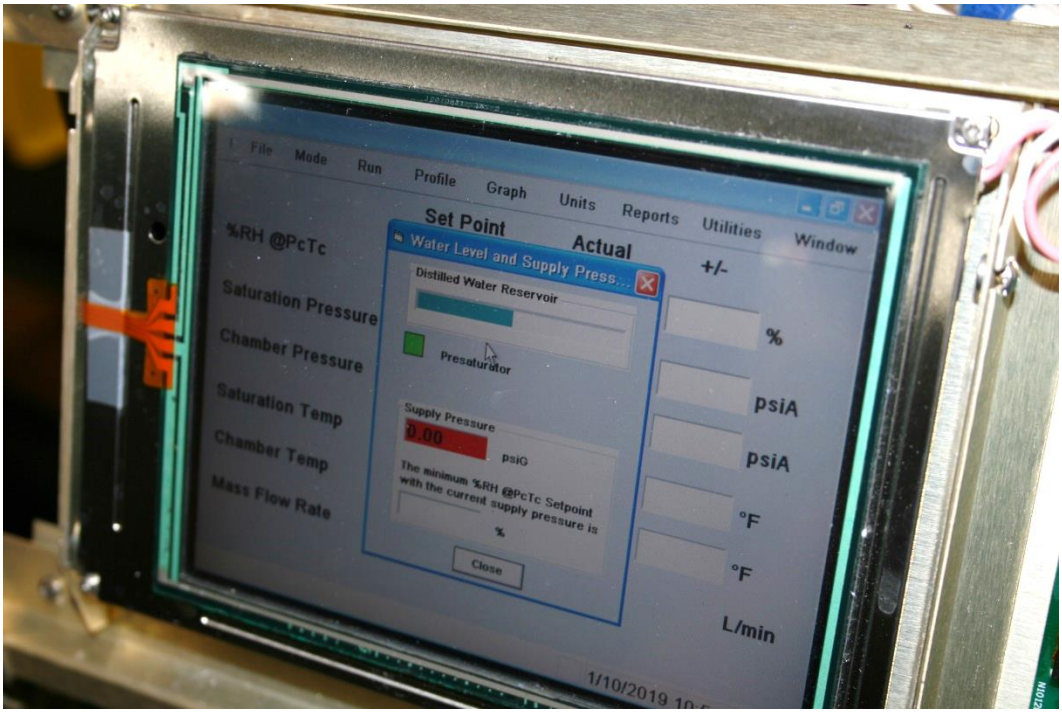


40. Next remove the reservoir fill port cap using a 11/16” wrench.



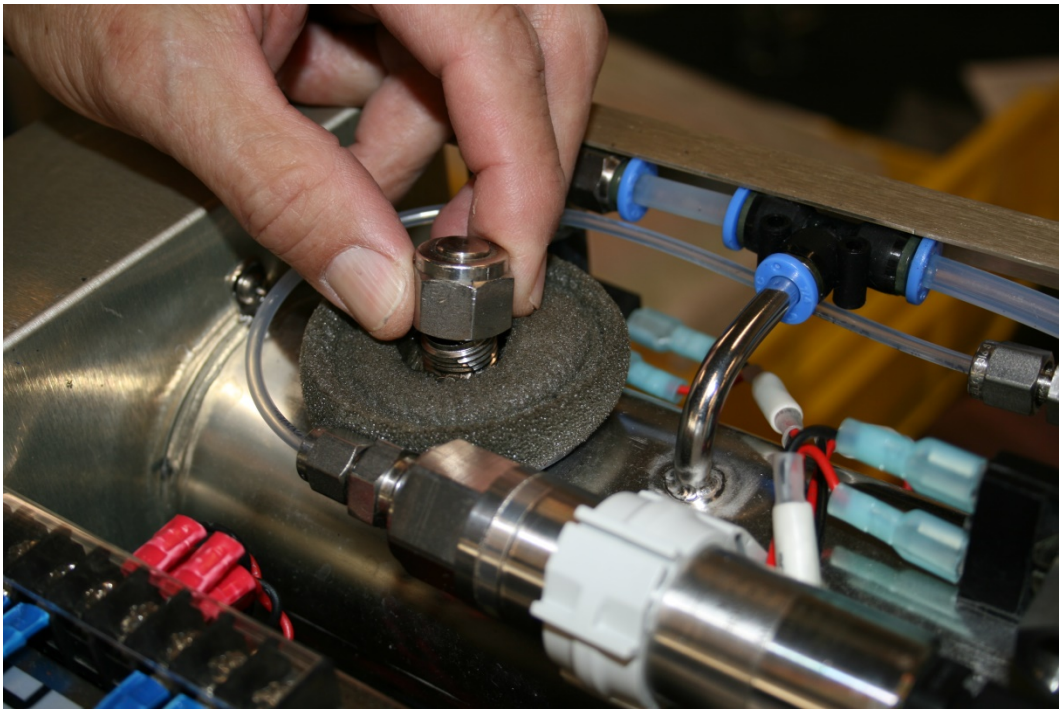
41. Insert the funnel that was provided in the reservoir fill port and start filling with distilled water.

42. Observe the monitor to view the “Water Level and Supply Pressure” dialog box until the “Presaturator” light goes form red to green.

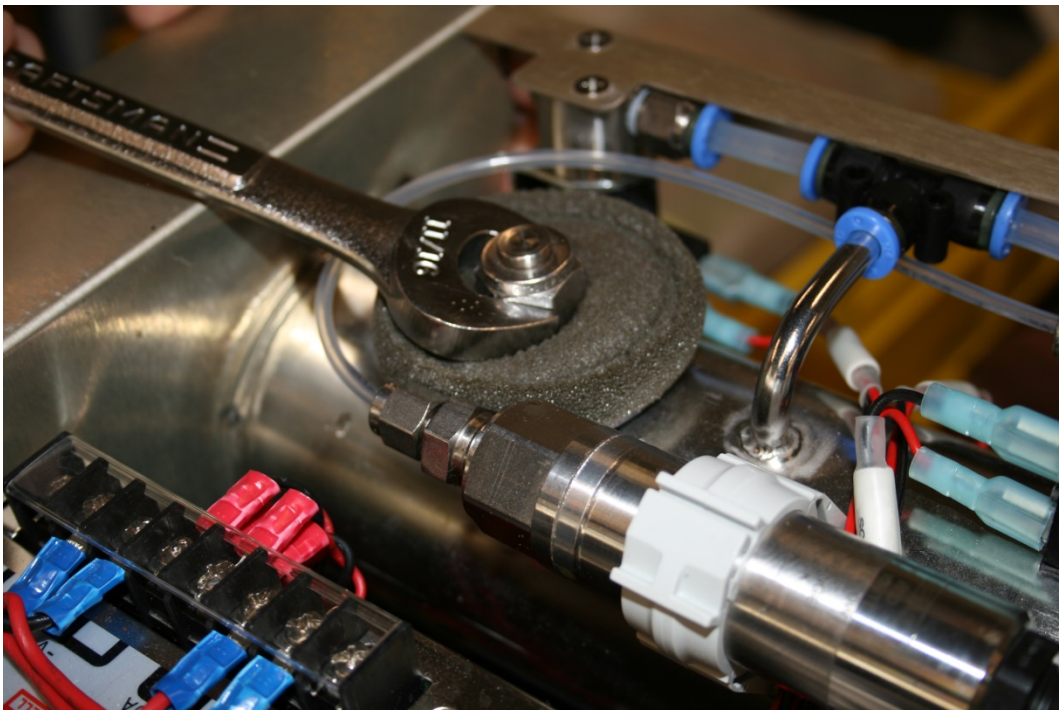


43. If you get an error, then shutdown the system and power it backup and let the system attempt to fill the PreSaturator again.

44. Reinstall the reservoir fill port cap.



45. Using the 11/16” wrench tighten the reservoir fill port cap to 1/4 turn past finger tight.



46. Clean up any spilled distilled water.

For Tech Support:

Please Call 1-800-872-7728, Fax 1-505-266-6203, or E-mail support@thunderscientific.com should you have any questions.