

Control Box Upgrade Kit Assembly for Customers

1. Pump out the purger to remove traces of refrigerant.
 - a. You must unscrew the pressure gauge and gauge valve to replace them with the H9490.
2. Power off the old control box. Remove power and purge point cabling from the control box. Unscrew and remove the float switch from the top of the purger. Remove the coils from the purger body.
3. **If the purger uses a Sporlan Level Master**, it must be replaced with the Liquid Feed Retrofit Kit 20-2744.
4. Locate the thermostat bulb underneath the insulation by the metering line.
 - a. Carefully cut insulation covering the existing thermostat. These are sealed with putty during the build process. The putty will have to be cut to access the thermostat. Save the insulation.
 - b. Remove the retaining nut using a 7/16" (11mm) wrench. Leave the clamp to secure the new thermistor.
 - c. Step 11 explains how to add the new thermistor

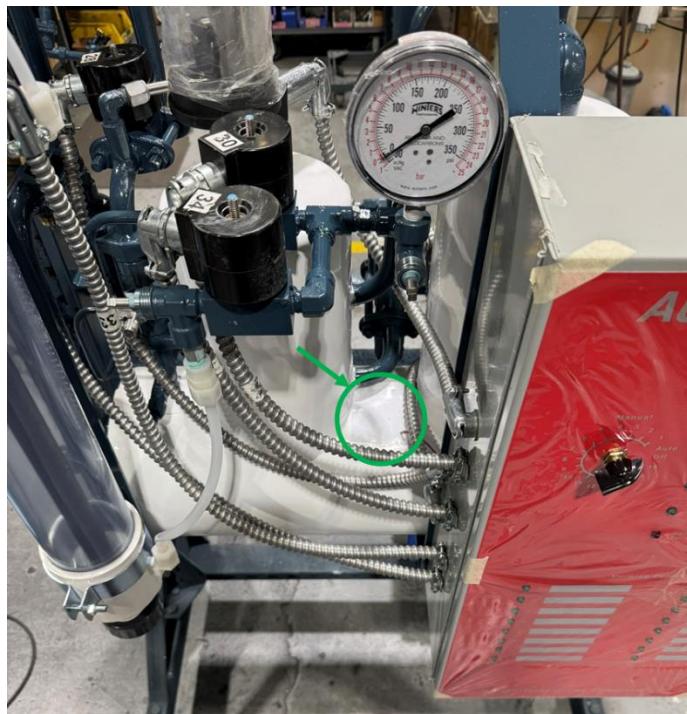
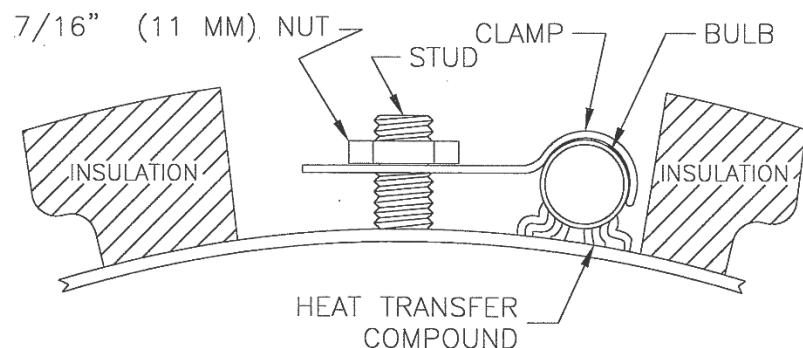
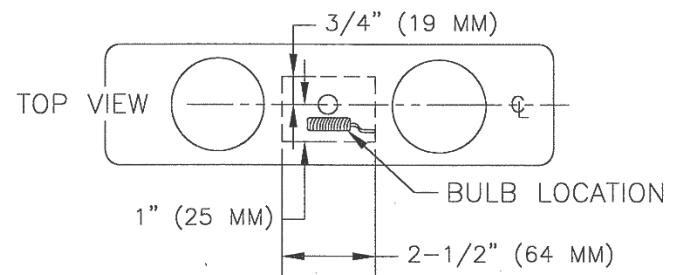


Figure 1. Old AP Thermistor Location

APPROXIMATE DIMENSIONS FOR CUTTING INSULATION**Figure 2.** Thermistor Clamp Diagram

5. Unmount the old control box from the purger frame.

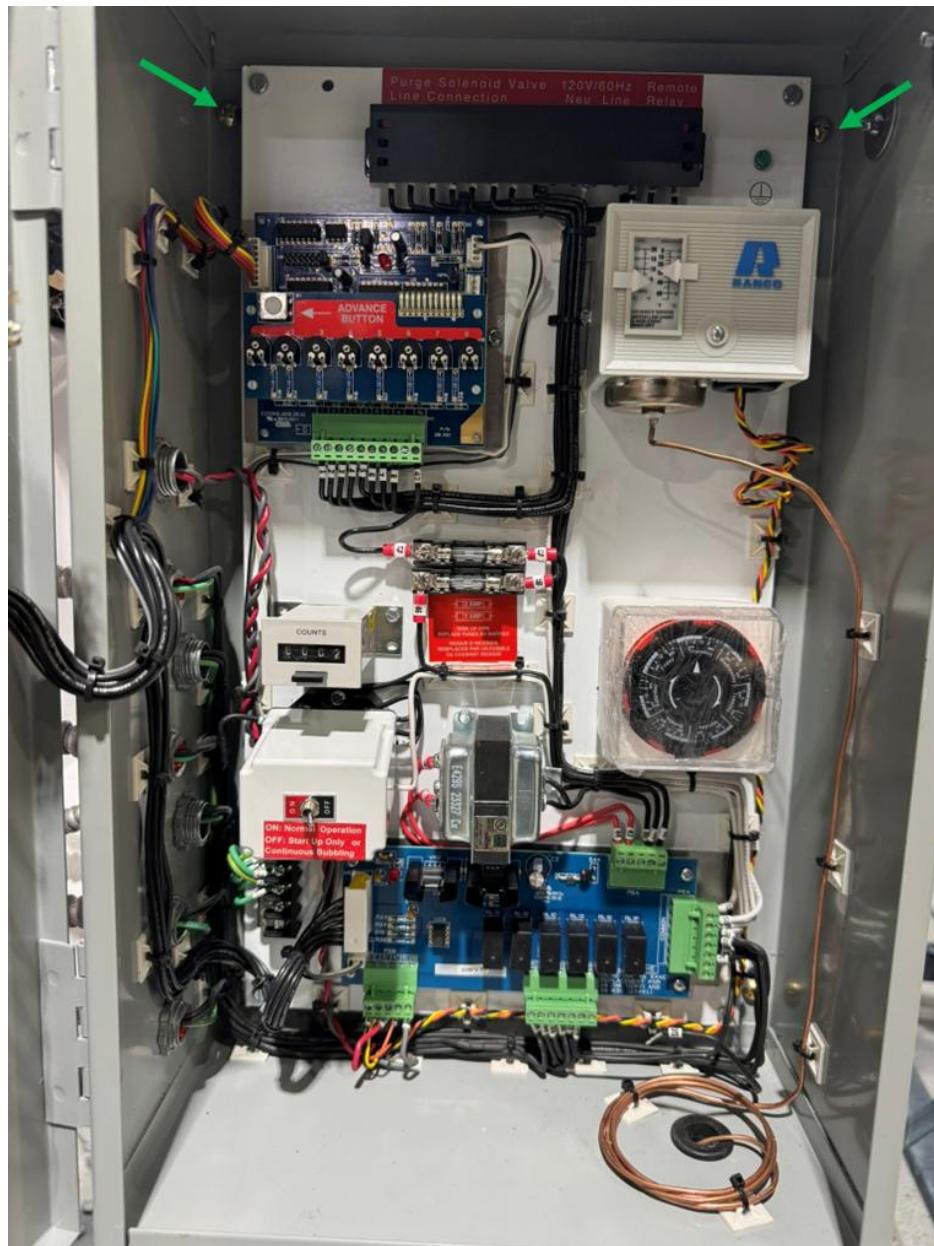


Figure 3. Old AP Control Cabinet Mounting Screws Location

6. Unscrew the control mounting brackets from the purger frame.



Figure 4. Control Box Mounting Brackets

7. Open the crate and take out the new purger control cabinet and other kit items
8. Locate the mounting hardware
 - a. 4 screws, 4 flat washers, and 4 lock washers
9. Mount the purger to the brackets using the threaded holes on the back of the cabinet. See Figure 6 for bracket orientation.



Figure 5. New Control Cabinet Bracket Mounting Holes

10. Make sure the brackets have the correct orientation. Figure 6



Figure 6. Control Box Mounting Bracket Orientation

11. Once mounted, place the coils on the purger body according to Figure 7. Assemble pilot lights and knobs to the coils. The amber pilot light goes on coil V5. Connect DIN harnesses to coils according to Figure 7.

- The coil harnesses are labelled V1 – V6.
- Place DIN gaskets on the harness DIN connectors. Screw in DIN connectors to secure them.

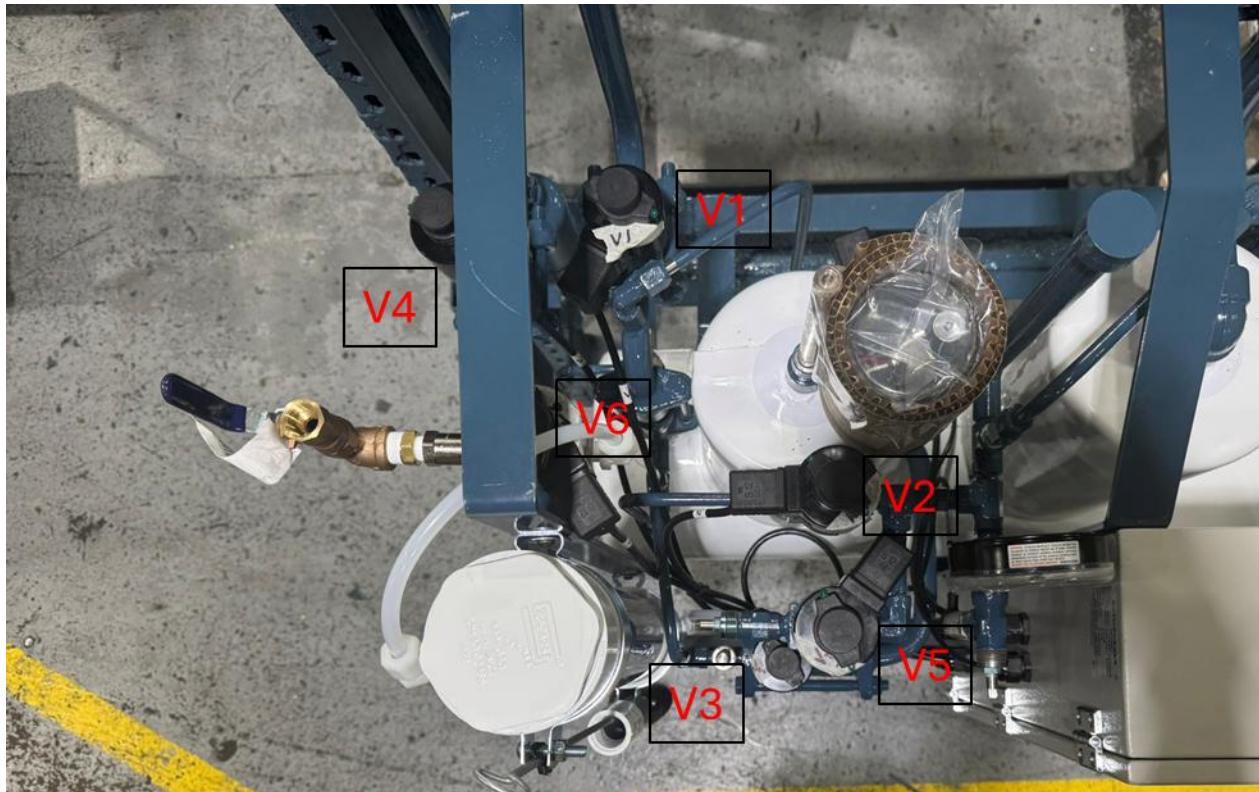


Figure 7. Purge Control Solenoid Locations

12. Ensure the purger is safely pumped out. Remove the pressure gauge and gauge valve from the purger body.

- a. Assemble the H9490 in the same location as the gauge valve.
- b. Assemble the pressure gauge to the H9490 port that is facing up



Figure 8. Old Control Box Pressure Gauge and Gauge Valve

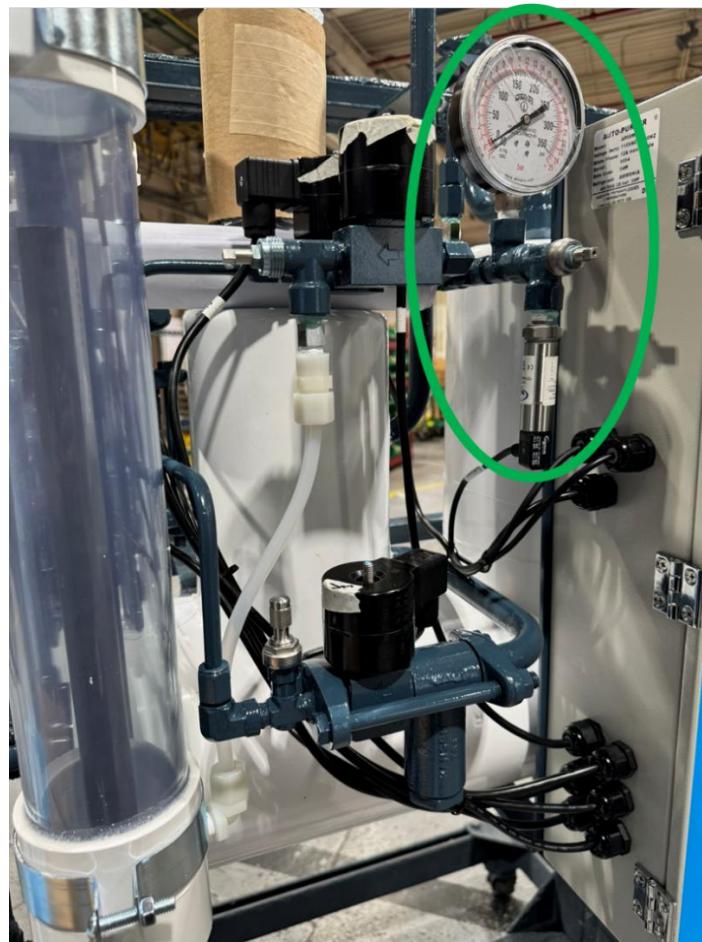


Figure 9. H9490 and Pressure Transducer Installation

13. Pressure Transducer assembly

- a. Take the pressure transducer out of the box
- b. Assemble the pressure transducer to the H9490 port that faces down. Use Teflon tape or equivalent to secure.
- c. Locate the pressure transducer wire on the control box, Figure 10. Connect the mini-DIN connector to the PT and tighten with screw.

14. Thermistor Assembly

- a. Locate thermistor 20-2303 on the control box. This will attach to the purger evaporator in the same location as the old bulb.
- b. Place the thermistor on top of the heat transfer compound. It must be in close contact with the evaporator wall. Secure the thermistor using the same nut and clamp.
- c. Replace the insulation and jacket. If necessary, fill the hole with putty

- d. Cover the hole with the patch that was removed. You may have to cut a bigger hole for the thermistor wire to go through the patch.

15. Float switch Assembly

- a. Unscrew the existing float switch
- b. Remove the shipping tube and place HLLSWE on top of the float switch chamber.
- c. Screw down the float switch to secure it.
- d. Connect the DIN connector harness shown in Figure 10.

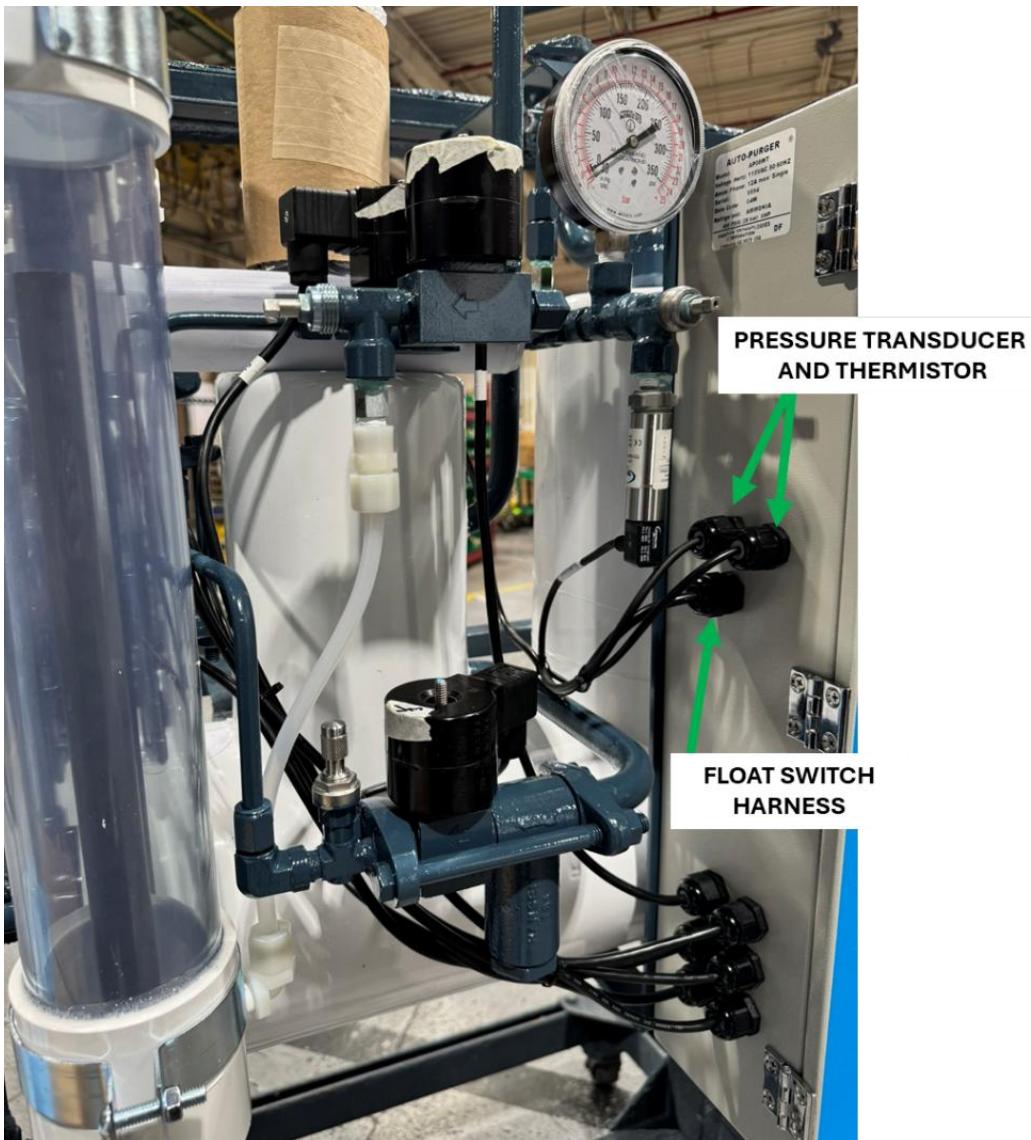


Figure 10. Sensor Location on Control Cabinet

16. Connect purge point coils to purge point terminals. See Figure 11.

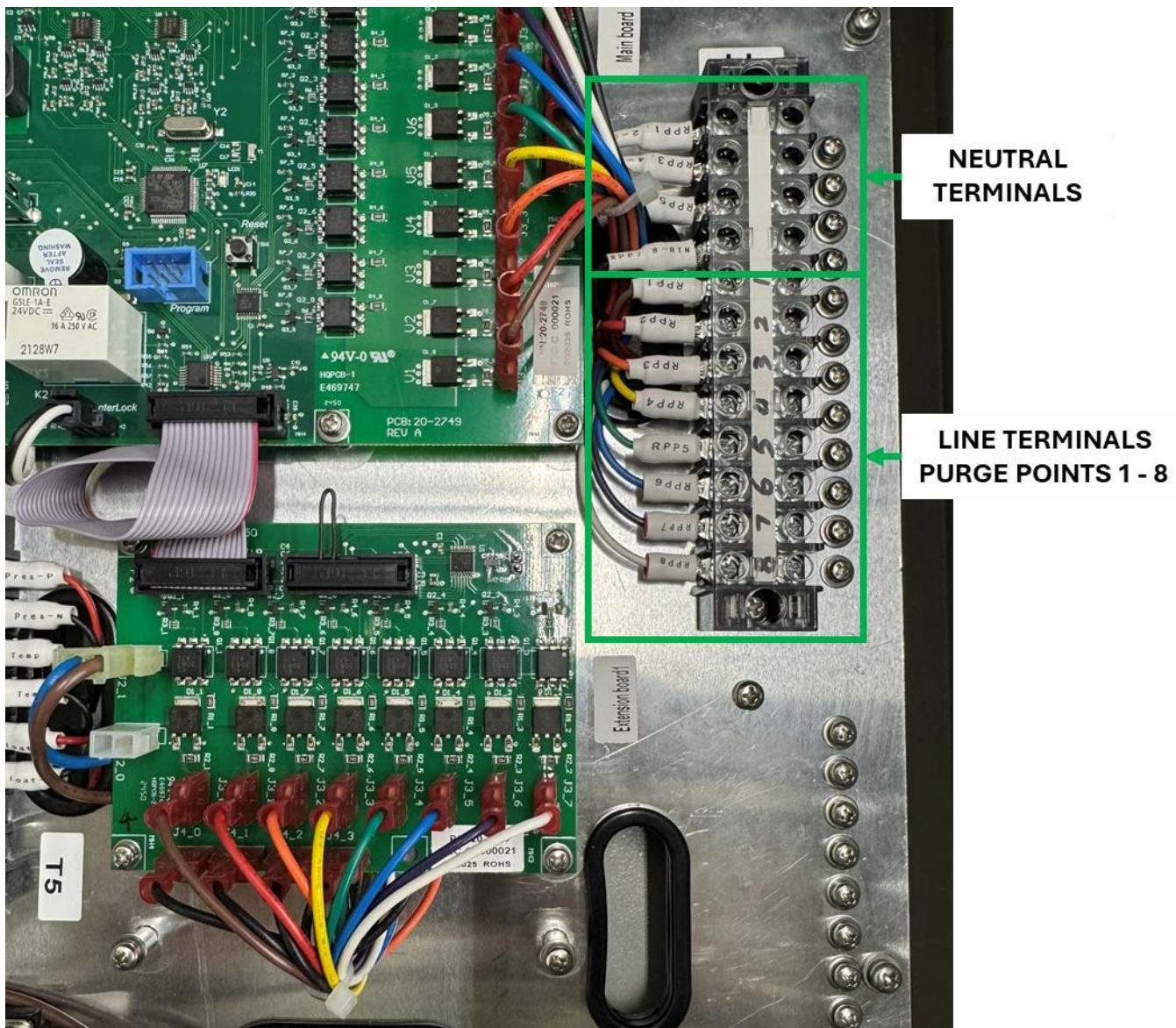


Figure 11. Location of Purge Point Terminal

17. Connect the line voltage wires to the terminals. See Figure 12.
18. Connect the remote relay/interlock to the terminals. See Figure 12.
 - a. If not used, make sure the jumper wire is installed.

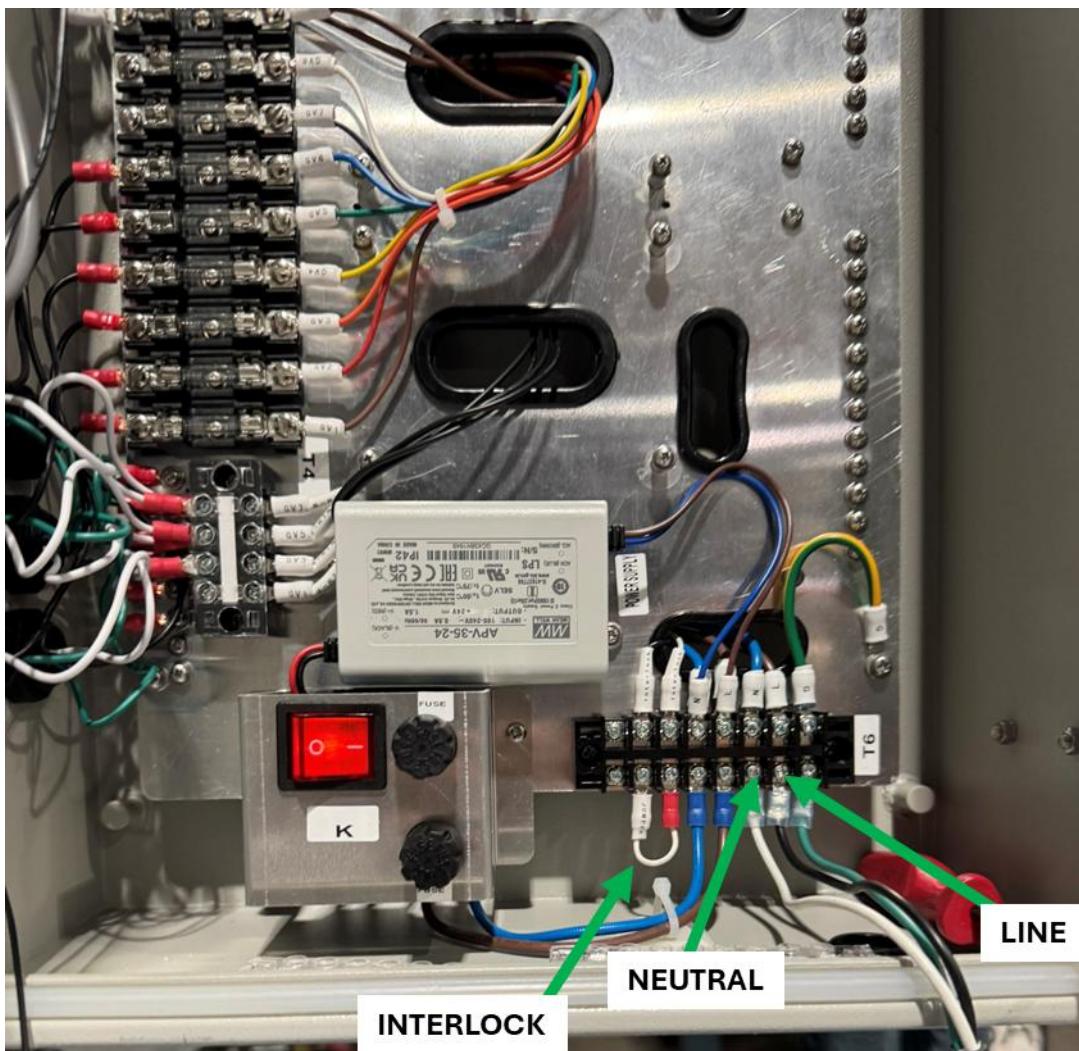


Figure 12. Location of Power Terminal and Toggle Switch

Verify Sensor Connections

1. Power on the purger using the red toggle switch inside the control cabinet. See Figure 13.
 - a. The purger will go through its initialization screens
2. Once the purger is initialized, it will be on the HOME page. Verify that the PT and thermistor do not read ERROR!

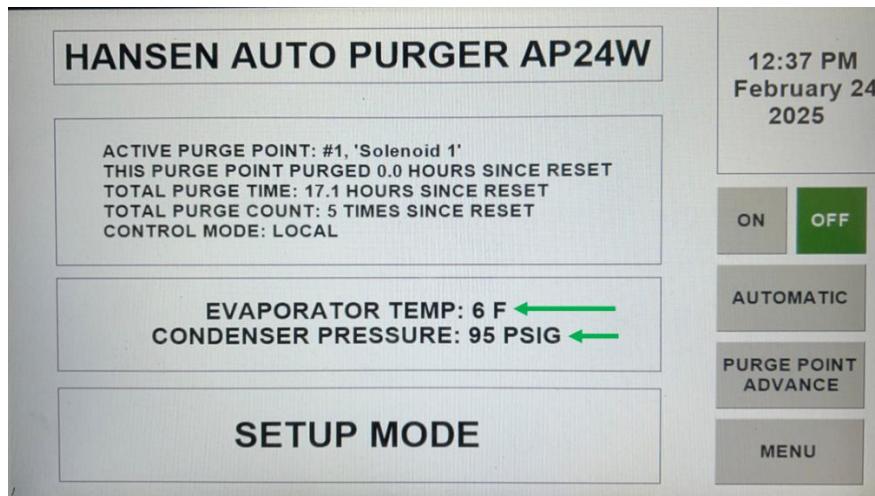


Figure 13. HOME Page in Setup Mode

3. Navigate to the STATUS page by pressing the MENU button on the HOME page.

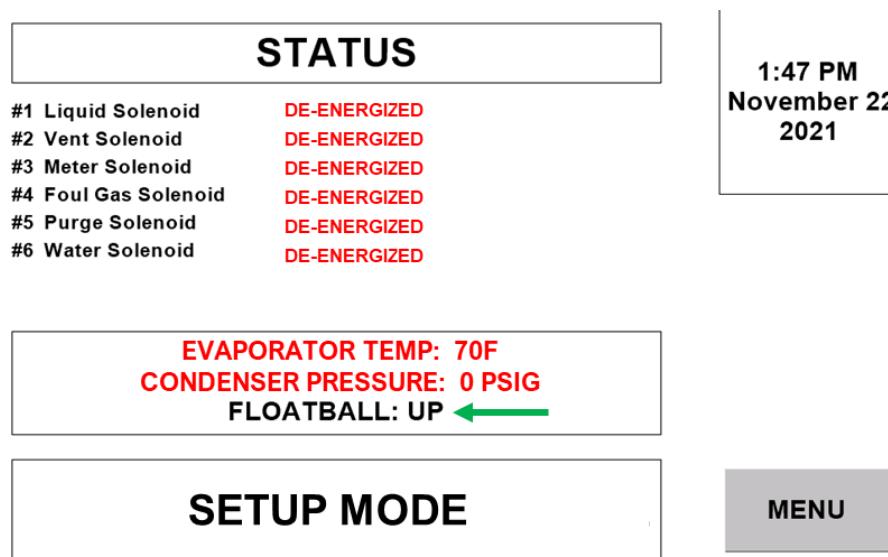


Figure 14. STATUS Page



DOCUMENT NO.
2002-93 REV A

DOCUMENT TITLE:
APWT – Control Cabinet
Upgrade Kit Install

4. Verify the float switch is installed correctly.
 - a. If the purger is pumped out, the float ball should be down. The STATUS screen should show DOWN.
 - b. If the float switch connection is disconnected, the display will show UP.