

Installing a Purge Point Upgrade kit, 20-2902

Bill of Materials

Item	Description	Quantity
1	8 Point Purge Board	1
2	12 Terminals, Terminal Block	1
3	2 Pin Power Harness	1
4	2 Pin Power Harness (forked)	1
5	16 Pin Signal Harness	1
6	16 Pin Jumper Connector	1
7	Purge Point Line Harness	1 (8 COLORED WIRES)
8	Purge Point Neutral Harness	1 (4 BLACK WIRES)
9	Purge Point Board Mount Screws (M3 X 6)	4

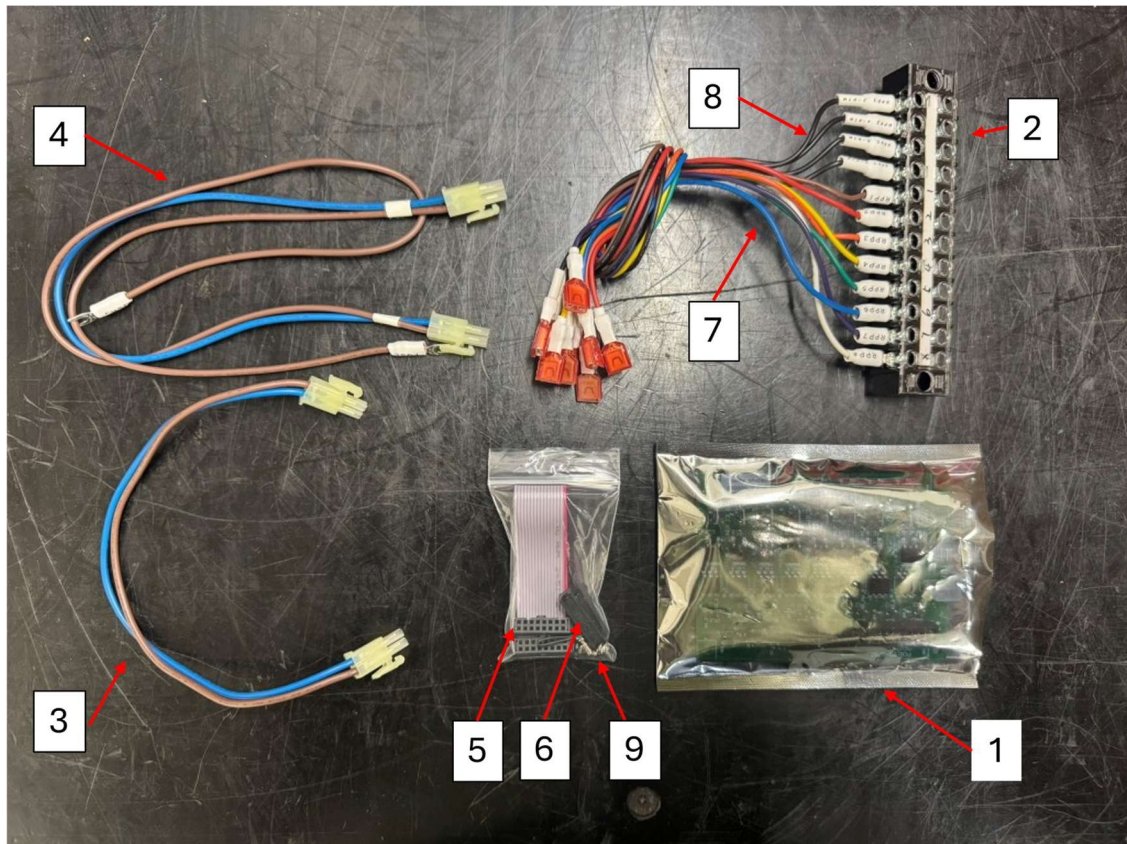
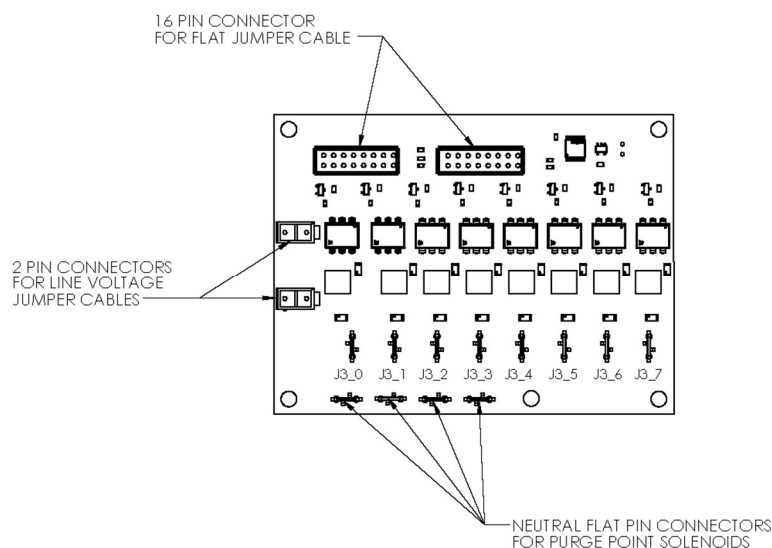


Figure 1. Kit Items

Instruction for Upgrading from AP08WT to AP16WT or AP24WT

1. If the purger is powered on, cycle power off by flipping the toggle switch inside the control cabinet.
2. Connect colored cables to the purge point board according to the table below. The board should match Figure 1.



BOARD PIN LABEL	PURGE POINT	WIRE LABEL	WIRE COLOR
LINE VOLTAGE WIRES			
J3_0	1 / 9 / 17	RPP1	BROWN
J3_1	2 / 10 / 18	RPP2	RED
J3_2	3 / 11 / 19	RPP3	ORANGE
J3_3	4 / 12 / 20	RPP4	YELLOW
J3_4	5 / 13 / 21	RPP5	GREEN
J3_5	6 / 14 / 22	RPP6	BLUE
J3_6	7 / 15 / 23	RPP7	PURPLE
J3_7	8 / 16 / 24	RPP8	WHITE
NEUTRAL WIRES			
J4_0	1,2 / 9,10 / 17,18	RPP1-2 RTN	BLACK
J4_1	3,4 / 11,12 / 19,20	RPP3-4 RTN	
J4_2	5,6 / 13,14 / 21,22	RPP5-6 RTN	
J4_3	7,8 / 15,16 / 23,24	RPP7-8 RTN	

Figure 2. Purge Point Board Flat Pin Diagram

3. Assemble the terminal block on the right side of the back plate using the two screw holes.

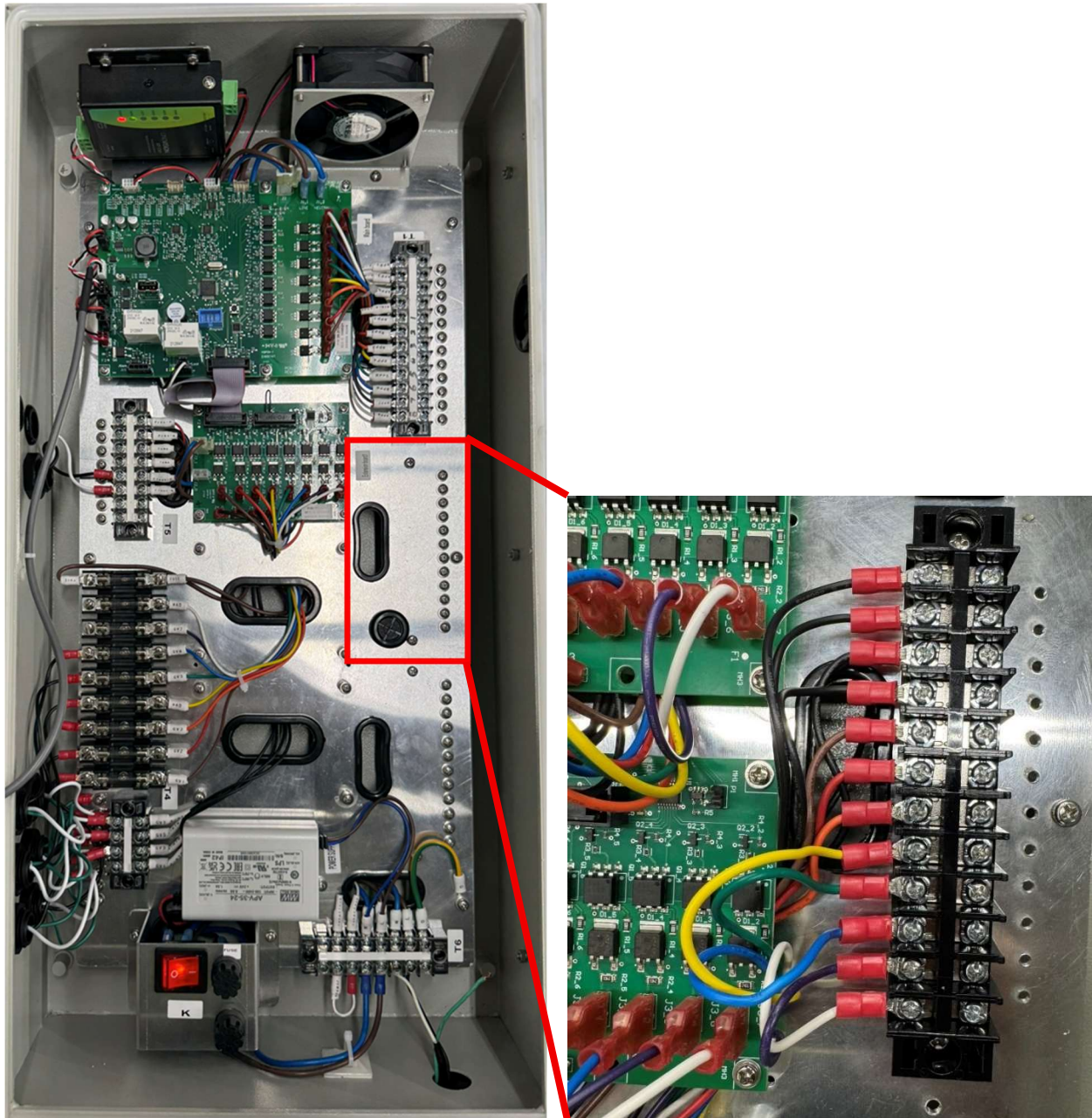


Figure 3. Purge Point Board Terminal Block

4. Unscrew mounting screws from the **top/existing** purge board.

5. Route the flat pin cable (item 5) underneath the **top/existing** purge board and plug it into the **right** 16-pin connection on the **top/existing** purge board. Figures 4 and 5.
 - a. This cable will connect to the 16-pin connection on the left side of the purge board. Figure 9.

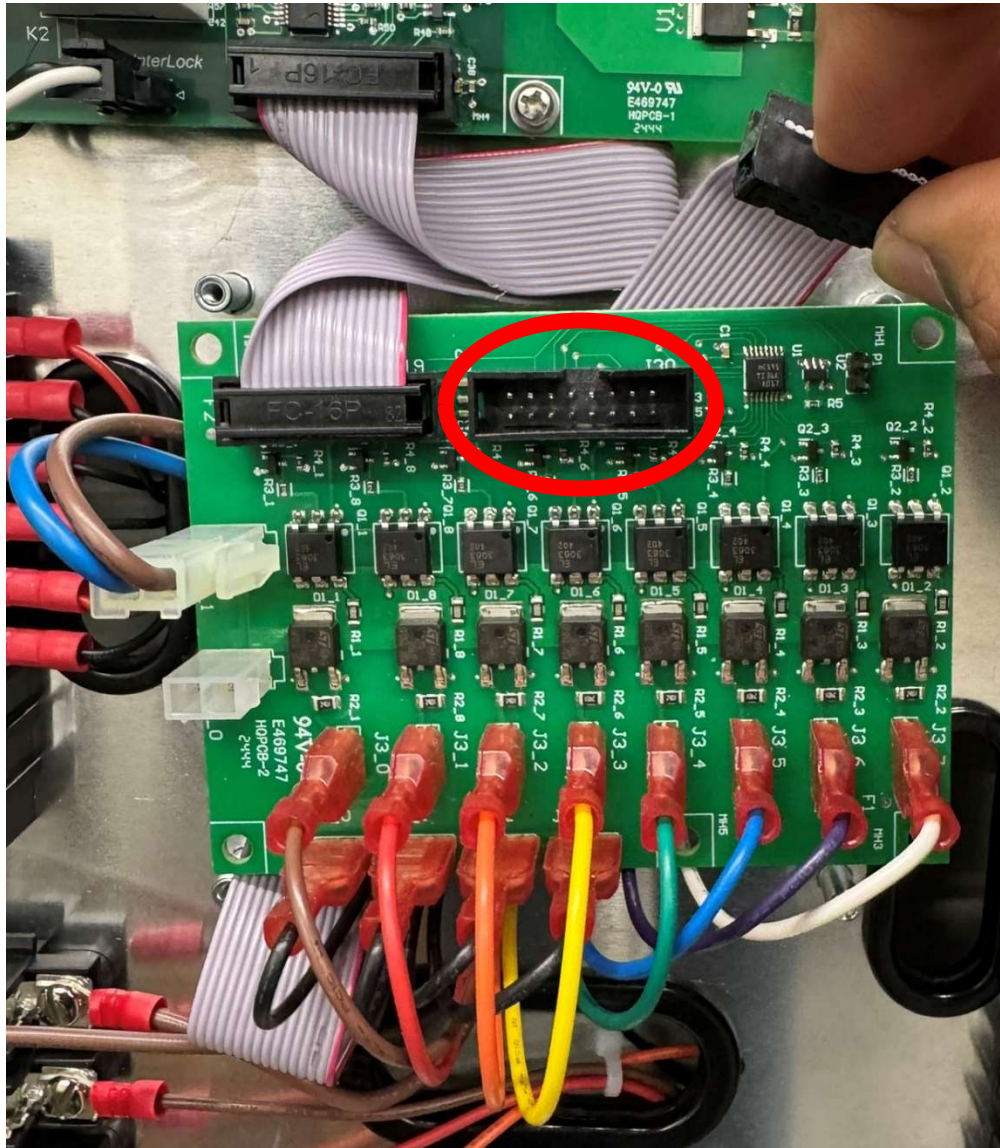


Figure 4. Top/existing board. Assembly Steps 4 & 5

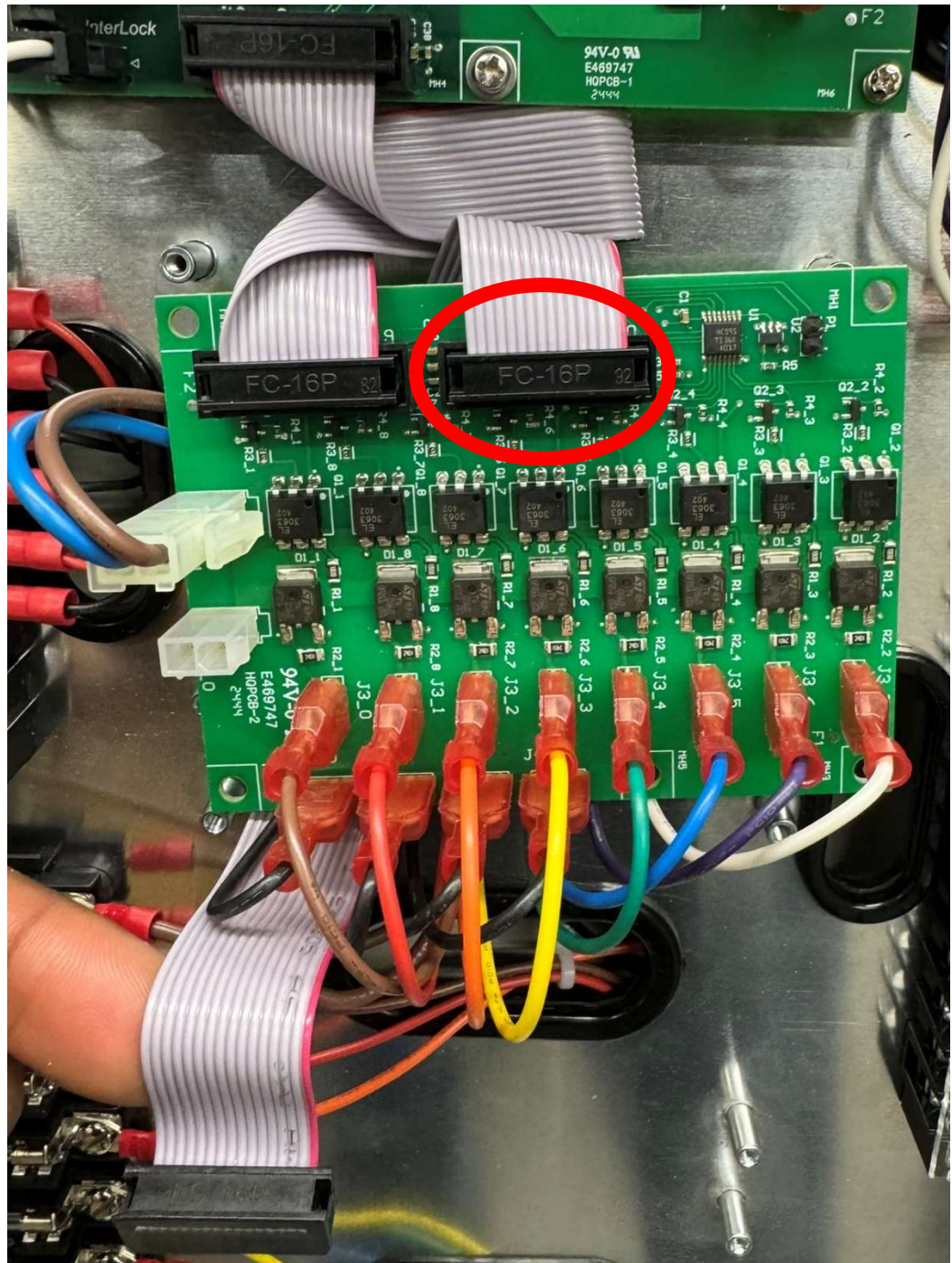


Figure 5. Top/existing board. Assembly Steps 4 & 5

6. Connect the 2-pin cable (item 3) to the bottom 2-pin connector on the **top/existing** purge board. Route the cable underneath the **top/existing** purge board. Figures 6 and 7

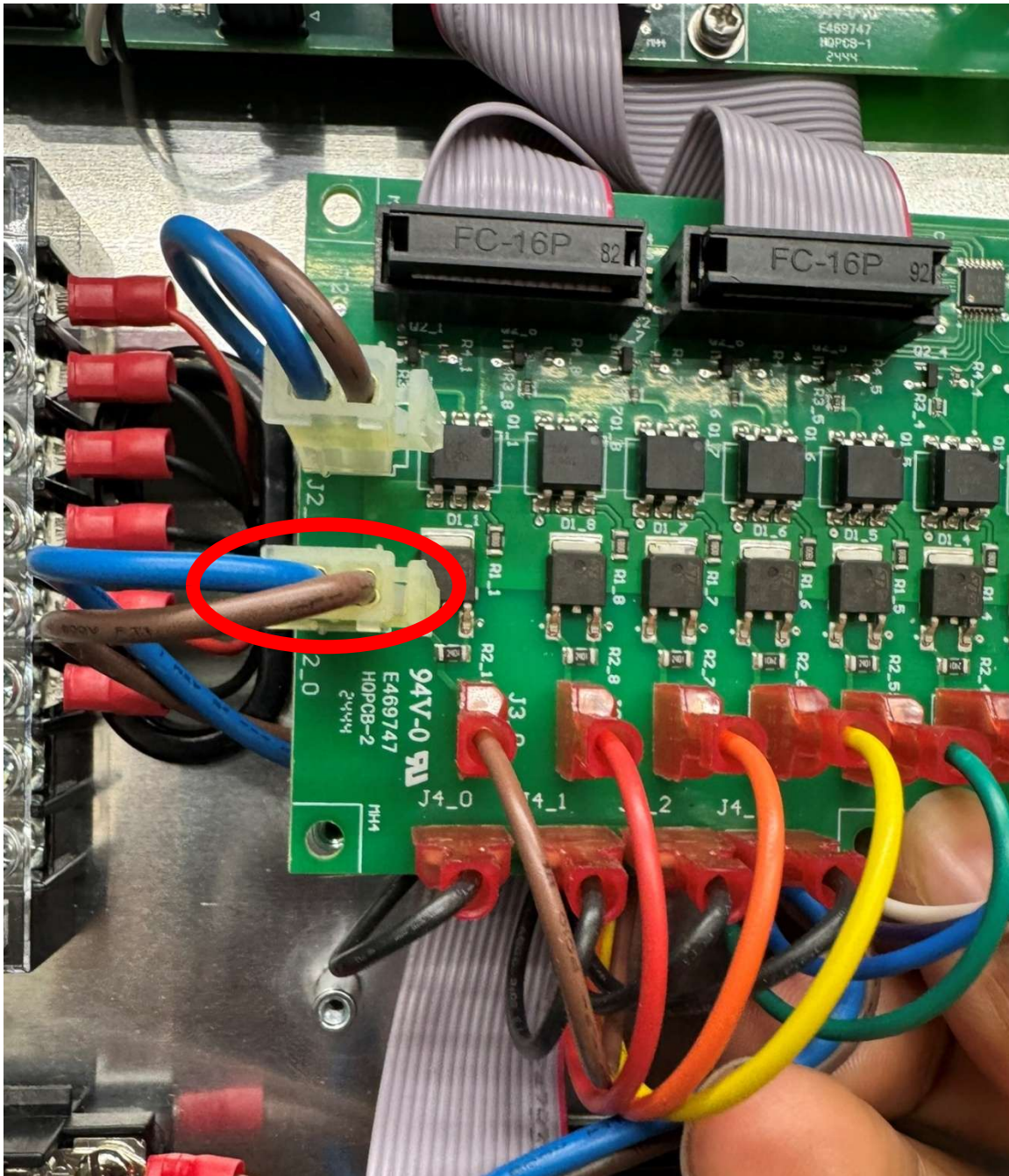


Figure 6.

7. Screw down the **top/existing** purge board to re-secure it

8. Route the two-pin connector under the **new** purge board and plug it into the **top** two-pin connector on the **new** purge board - Figure 7.
 - b. You can screw down the top left screw on the new board a few turns to hold the board in place.

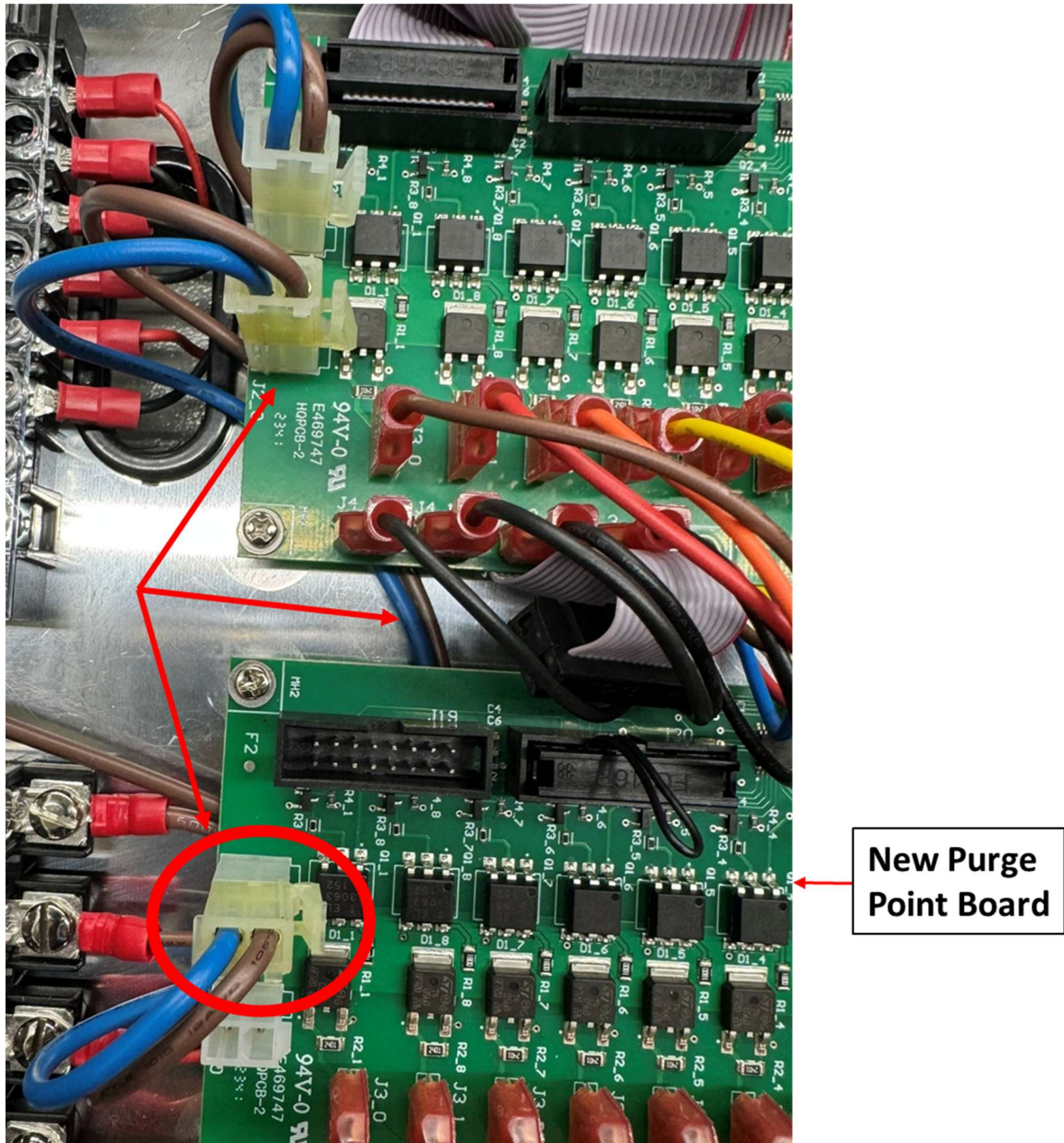


Figure 7. Assembly Step 8

10. Plug in the 16-pin cable, Figure 5, to the **left** connector on the **new** purge board. Place the 16-pin connector with the **jumper** cable (item 6) into the **right** 16-pin connection on the new purge board.
- If you install two new purge point boards, the 16-pin jumper connector will go on the last board.

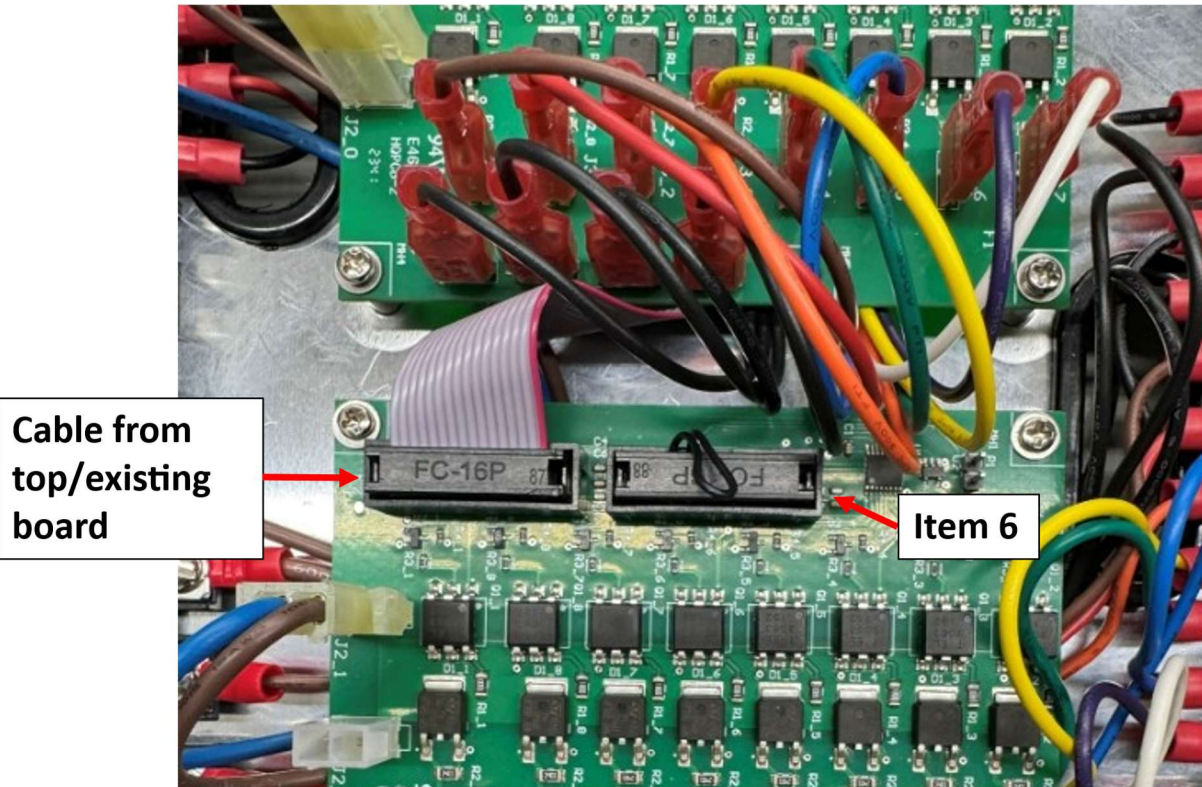



Figure 9. Assembly Step 9

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11. The wires should be assembled to the terminal block according to Figure 10 and/or Table 1.

- a. The colors should match the top/existing purge board terminal block wiring

Table 1.

BOARD PIN LABEL	PURGE POINT	WIRE LABEL	WIRE COLOR
LINE VOLTAGE WIRES			
J3_0	1 / 9 / 17	RPP1	BROWN
J3_1	2 / 10 / 18	RPP2	RED
J3_2	3 / 11 / 19	RPP3	ORANGE
J3_3	4 / 12 / 20	RPP4	YELLOW
J3_4	5 / 13 / 21	RPP5	GREEN
J3_5	6 / 14 / 22	RPP6	BLUE
J3_6	7 / 15 / 23	RPP7	PURPLE
J3_7	8 / 16 / 24	RPP8	WHITE
NEUTRAL WIRES			
J4_0	1,2 / 9,10 / 17,18	RPP1-2 RTN	BLACK
J4_1	3,4 / 11,12 / 19,20	RPP3-4 RTN	
J4_2	5,6 / 13,14 / 21,22	RPP5-6 RTN	
J4_3	7,8 / 15,16 / 23,24	RPP7-8 RTN	

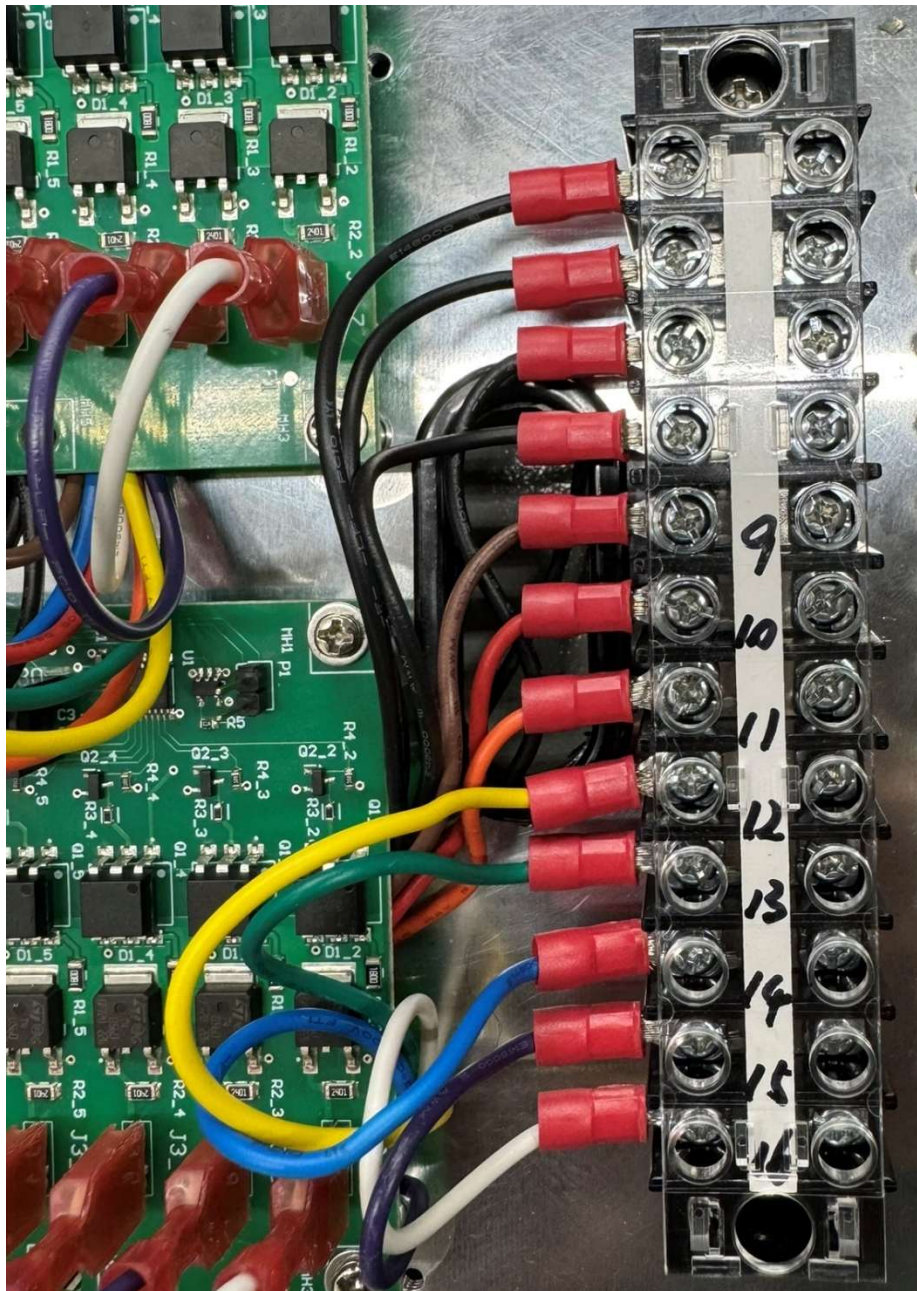
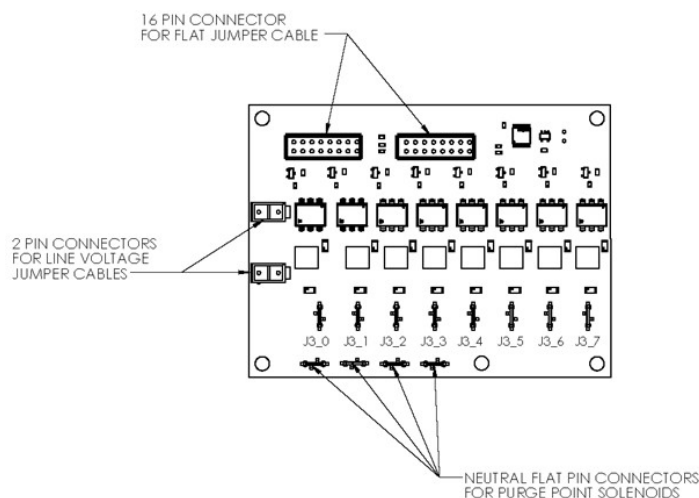


Figure 10. AP16WT Purge Point Board Terminal Block

12. If two purge point boards need to be installed, repeat steps 1-11.

Instructions for Upgrading from APCWT to AP08WT

1. If the purger is powered on, cycle power off by flipping the toggle switch inside the control cabinet.
2. Connect colored cables to the purge point board according to the table below. The board should match Figure 11.
3. Connect the 16-pin jumper connector (item 6) to the right 16-pin connector on the purge point board. Figure 12.



BOARD PIN LABEL	PURGE POINT	WIRE LABEL	WIRE COLOR
LINE VOLTAGE WIRES			
J3_0	1 / 9 / 17	RPP1	BROWN
J3_1	2 / 10 / 18	RPP2	RED
J3_2	3 / 11 / 19	RPP3	ORANGE
J3_3	4 / 12 / 20	RPP4	YELLOW
J3_4	5 / 13 / 21	RPP5	GREEN
J3_5	6 / 14 / 22	RPP6	BLUE
J3_6	7 / 15 / 23	RPP7	PURPLE
J3_7	8 / 16 / 24	RPP8	WHITE
NEUTRAL WIRES			
J4_0	1,2 / 9,10 / 17,18	RPP1-2 RTN	BLACK
J4_1	3,4 / 11,12 / 19,20	RPP3-4 RTN	
J4_2	5,6 / 13,14 / 21,22	RPP5-6 RTN	
J4_3	7,8 / 15,16 / 23,24	RPP7-8 RTN	

Figure 11. Purge Point Board Flat Pin Diagram

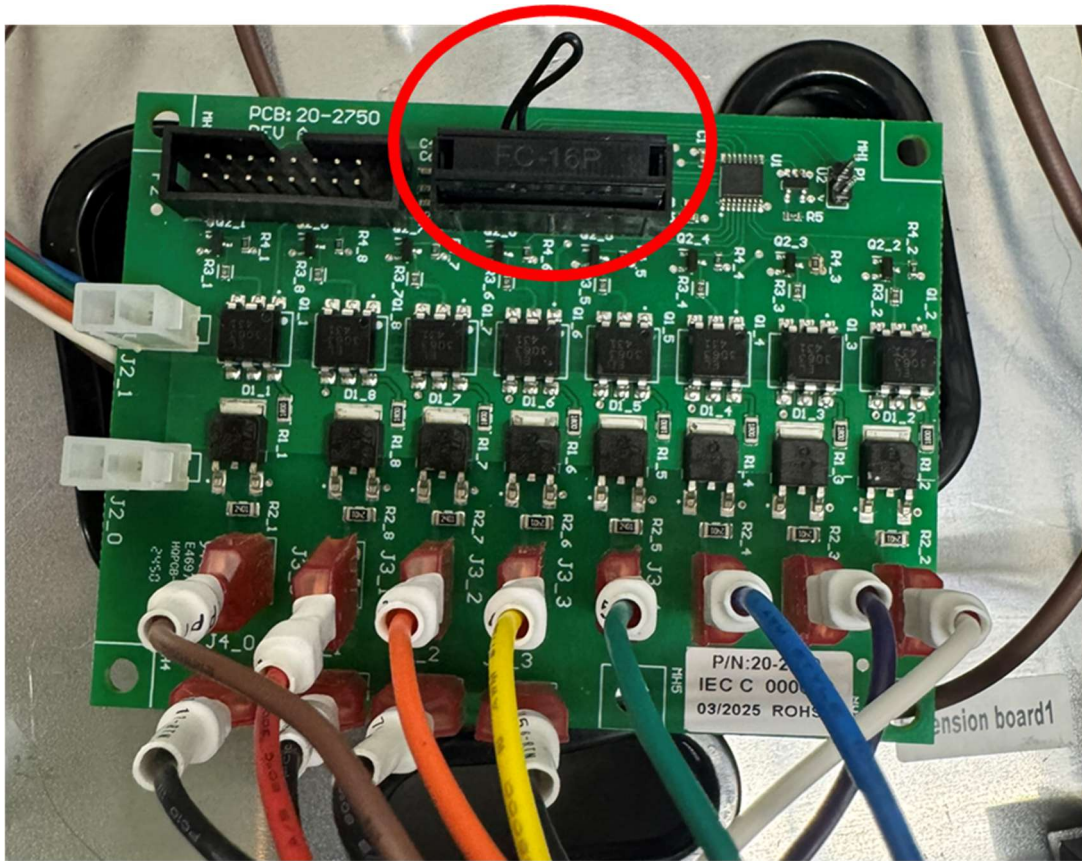


Figure 12. 16-pin Jumper Connector Install Location

3. Grab the **forked** 2-pin power harness (item 4). Connect the end labelled **M-J2** to the connector labelled **J2** on the main board. Figure 13.

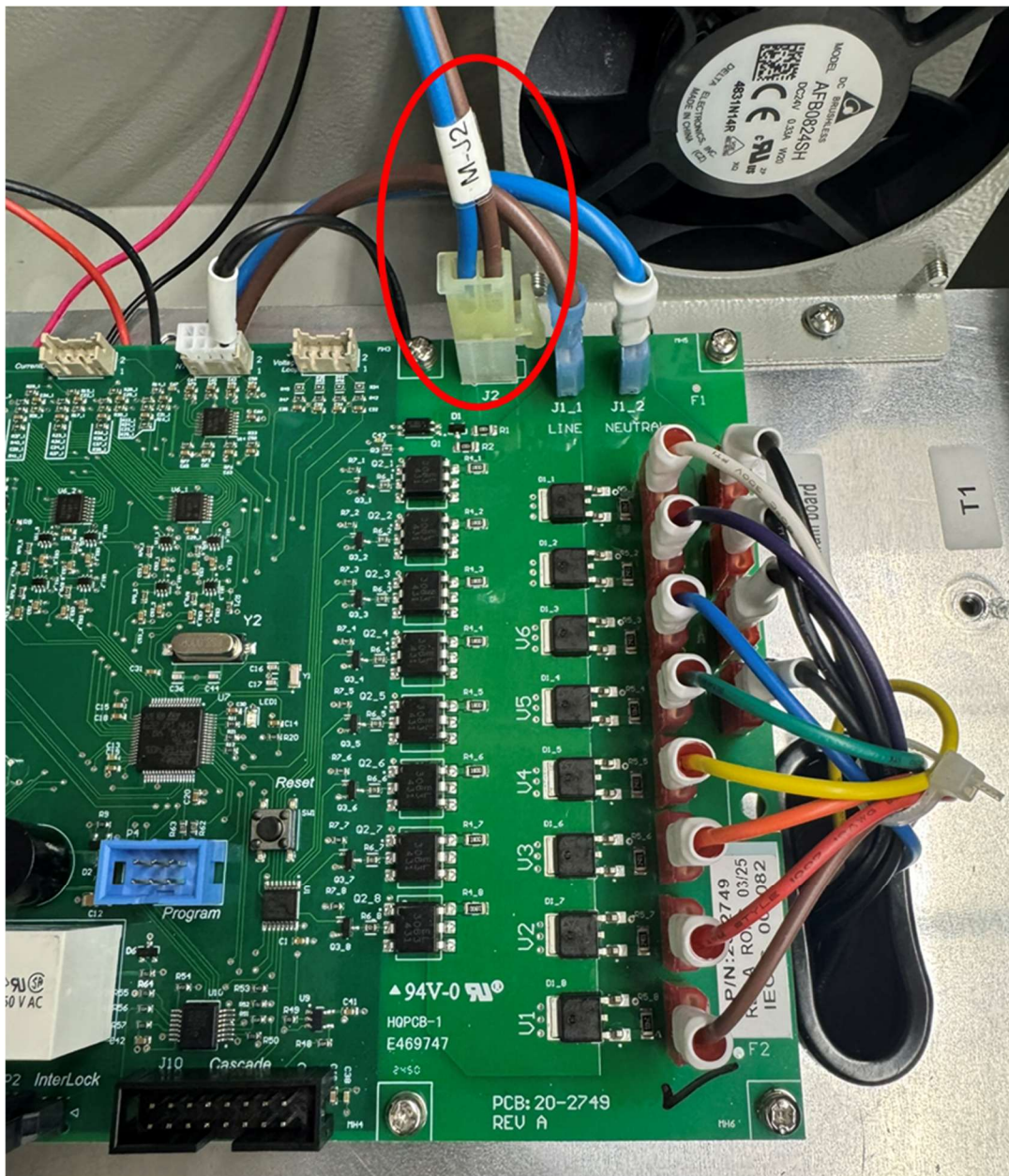


Figure 13. Assembly step 3

4. Connect the brown wire from **M-J2** to the **left** side of the **top** fuse. Figure 14.

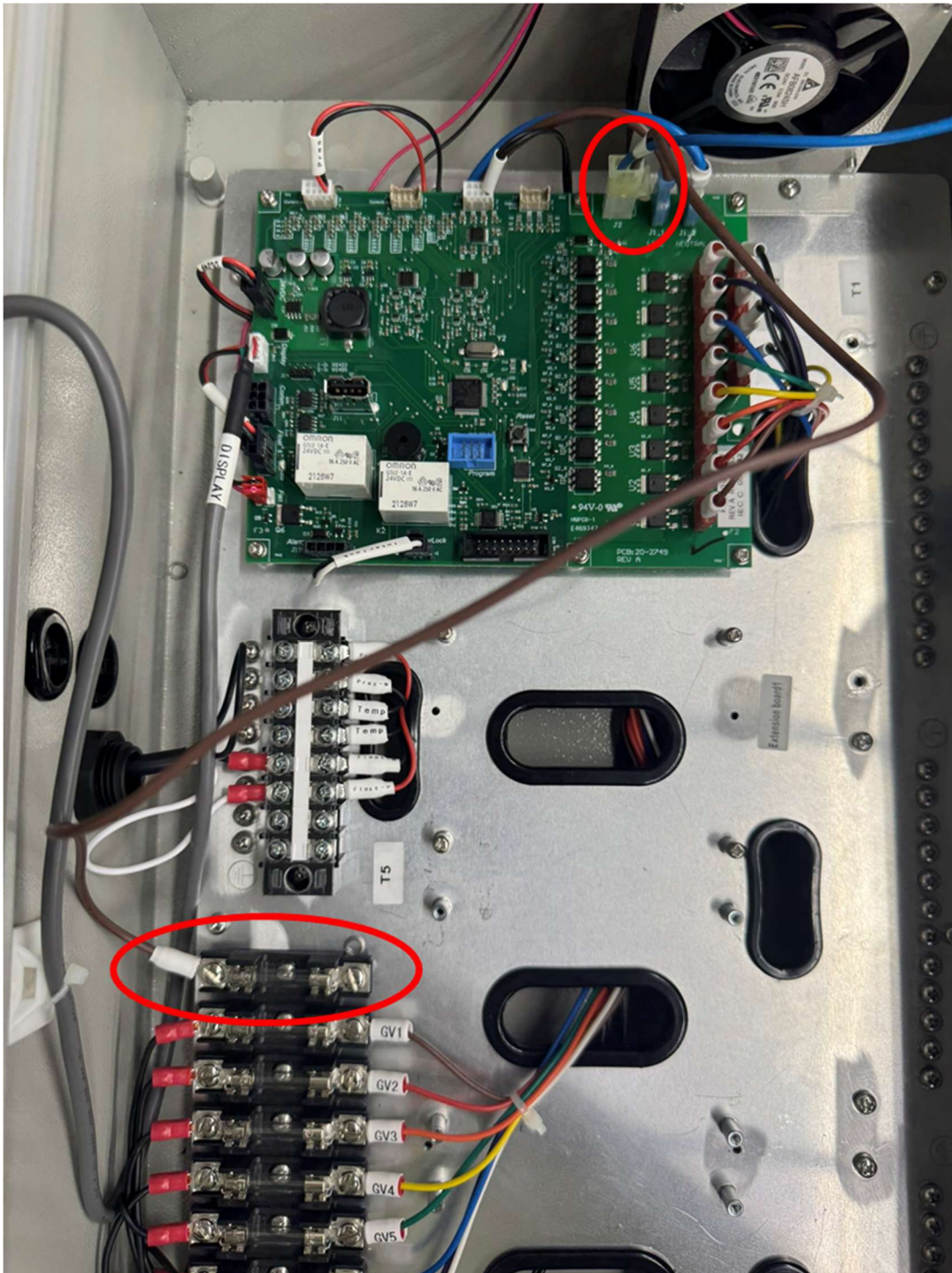


Figure 14. Assembly step 4

5. Connect the brown wire from **E-J2** to the **right** side of the **top** fuse. Figure 15.

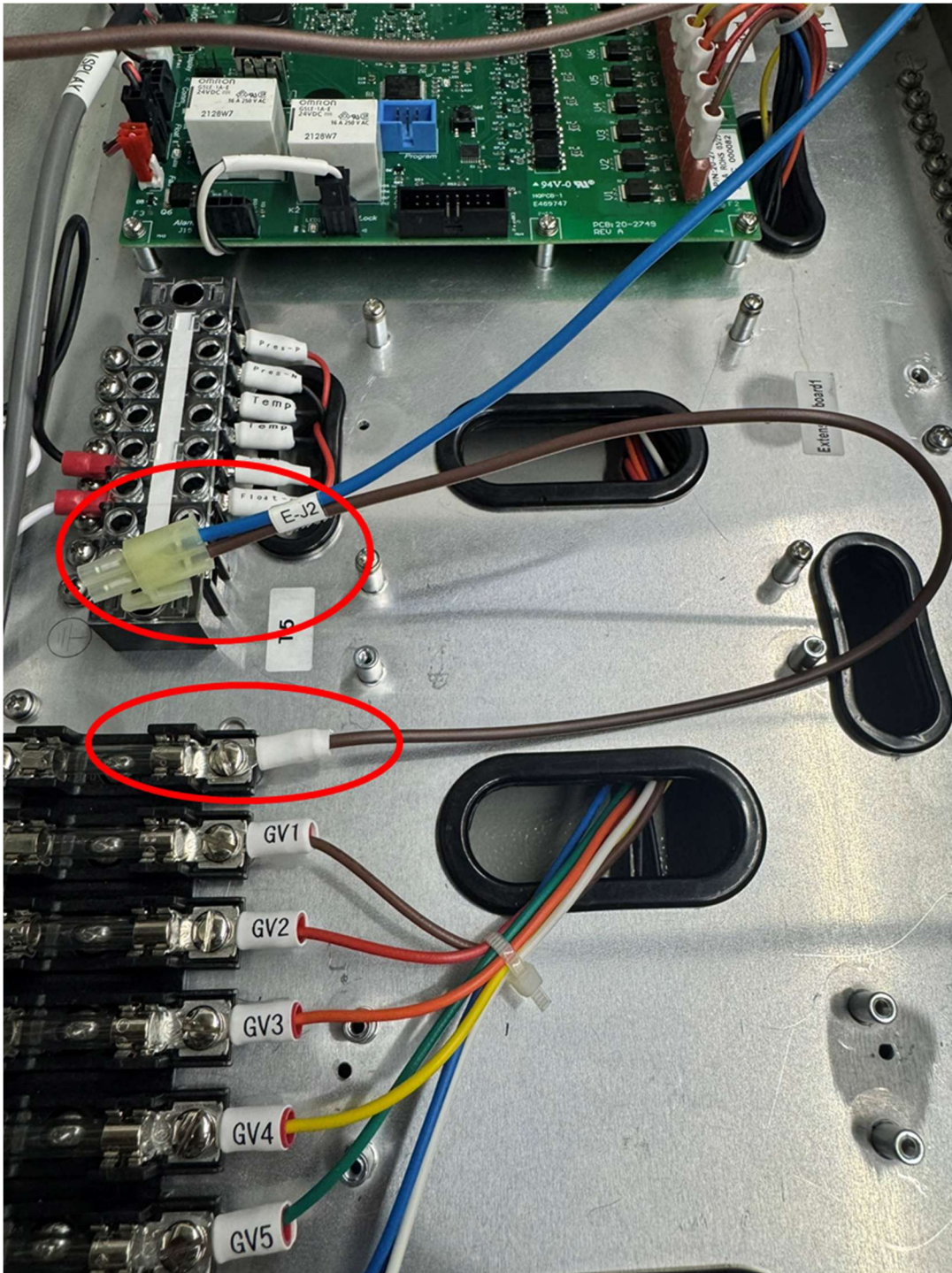


Figure 15. Assembly step 5.

6. The new purge point board will be installed on top of the wires. Lay the wires flat.
 - a. The two-pin connector labelled **E-J2** will connect to the left side of the purge point board

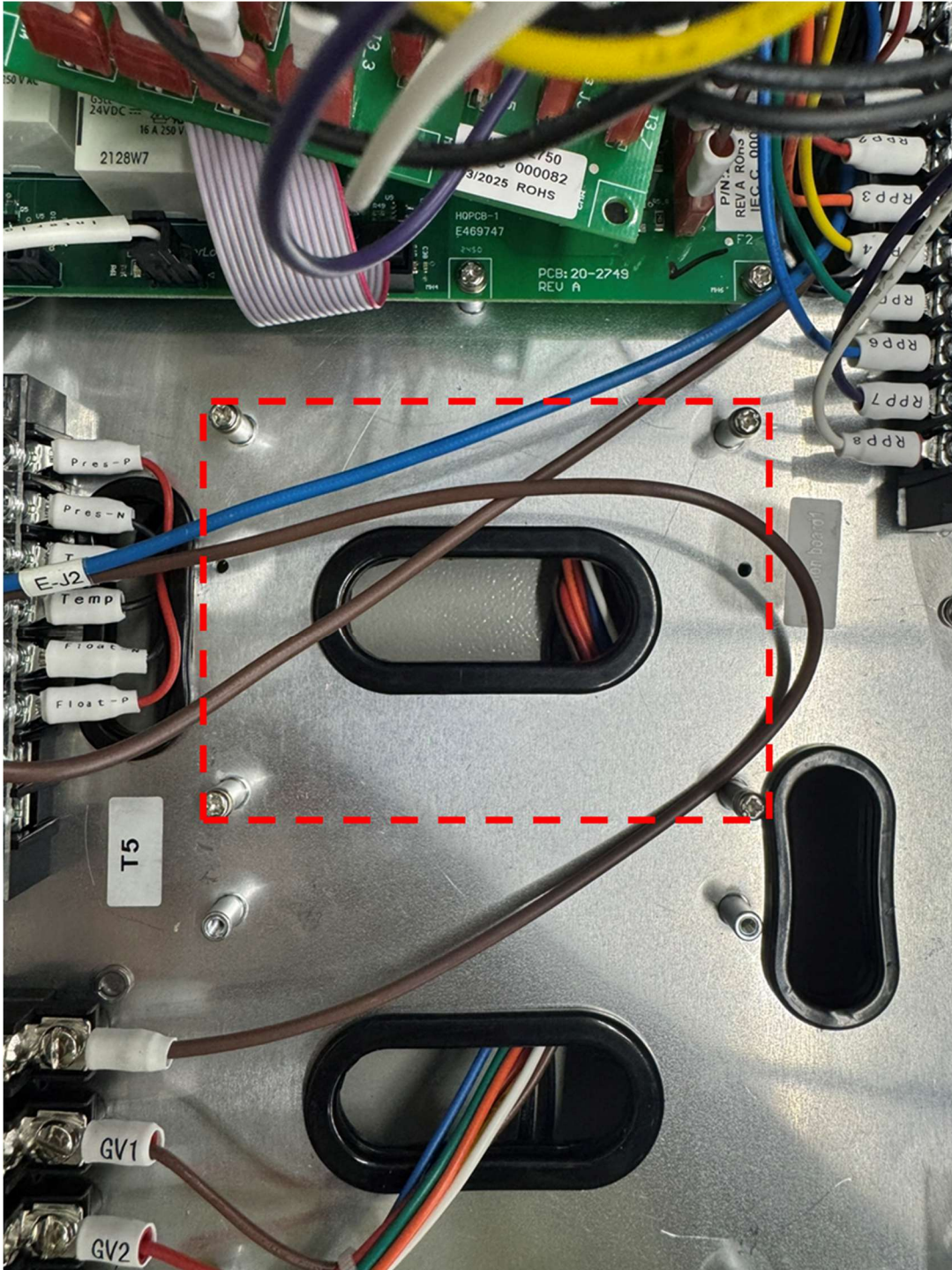


Figure 16. Routing of wires underneath the Purge Point Board outline

7. Assemble the purge point terminal block to the back plate. Figure 17.

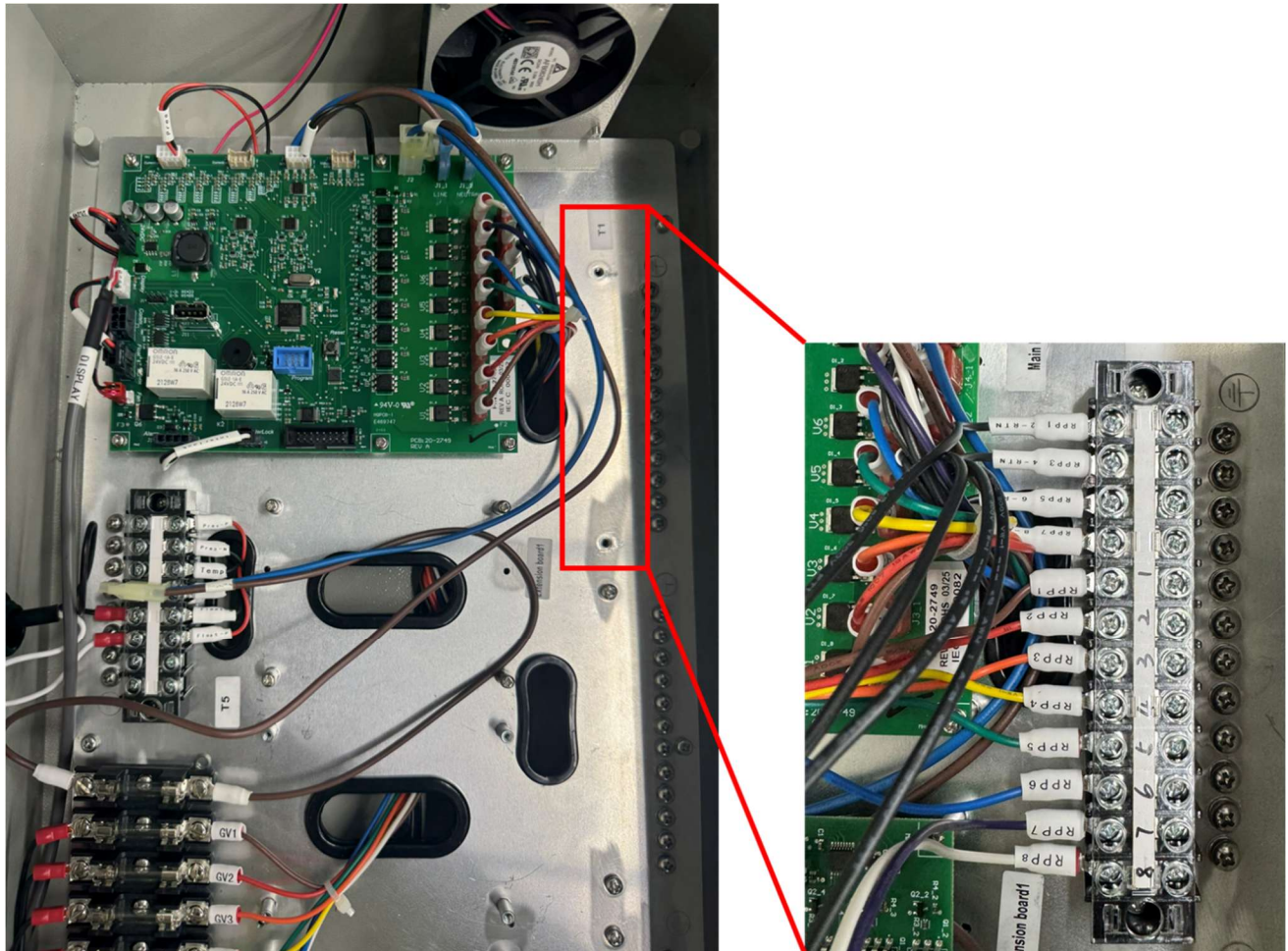


Figure 17. Assembly step 7.

8. Assemble the purge point board to the back plate using the four mounting holes.
- Route all wires underneath the purge point board, if possible.

9. Plug in the 2-pin connector **E-J2** from steps 5 & 6 to the **top** 2-pin connector on the purge point board.

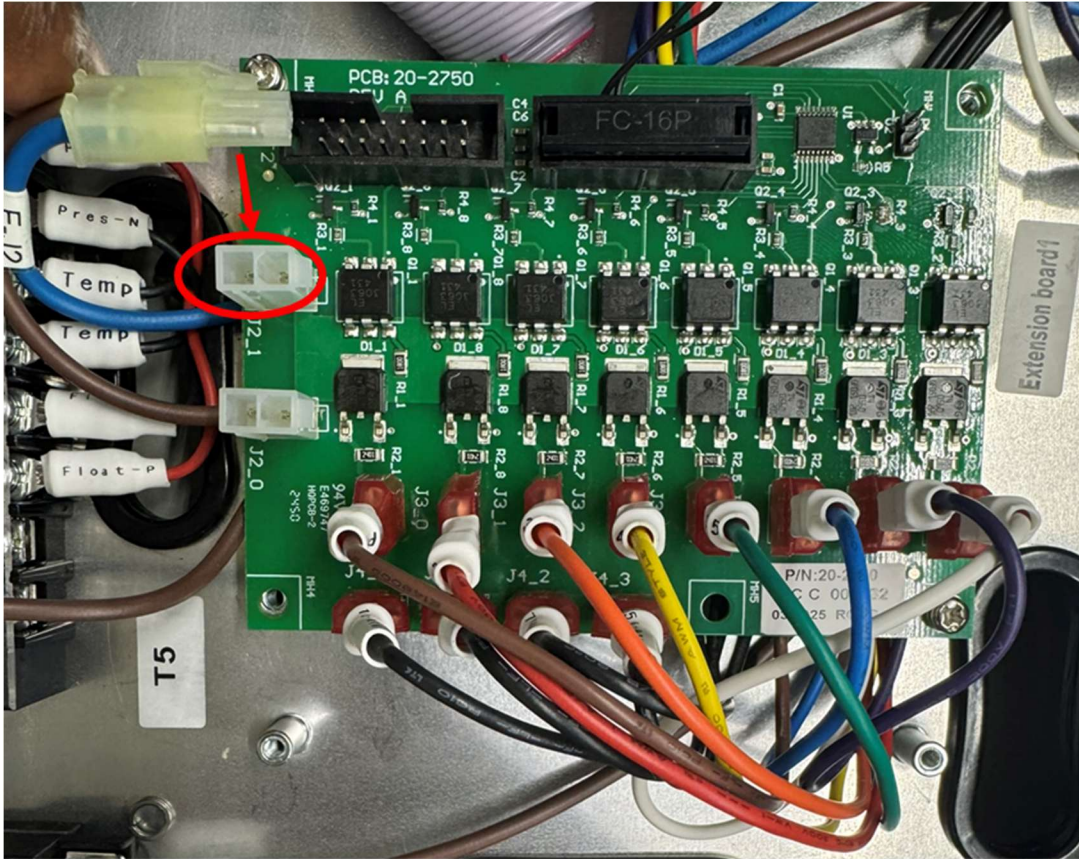


Figure 18. Assembly step 9

10. Plug in the signal cable (item 5) to the 16-pin connector on the **main board**, **J10**.
Figure 19.

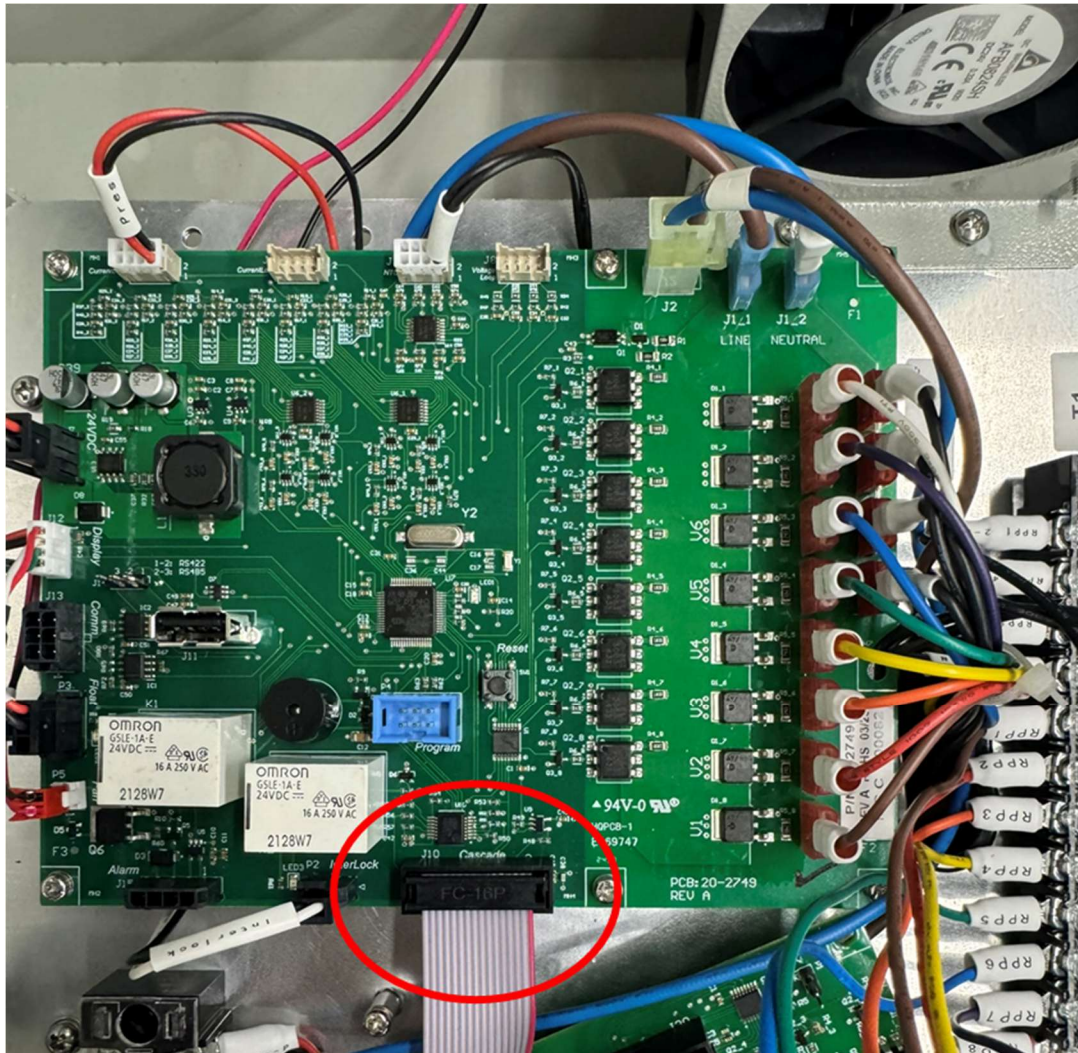
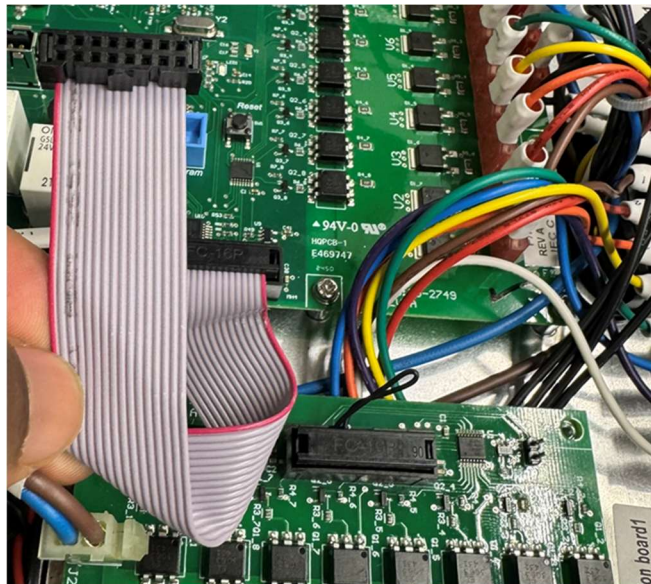
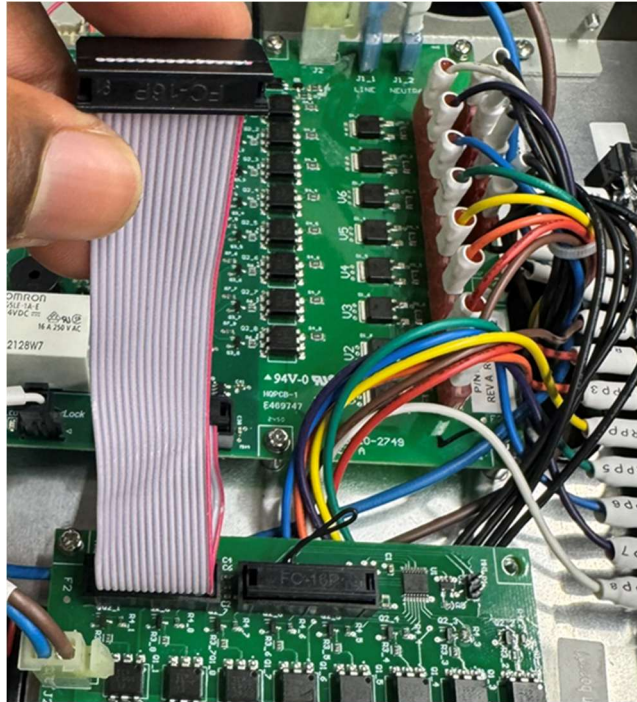
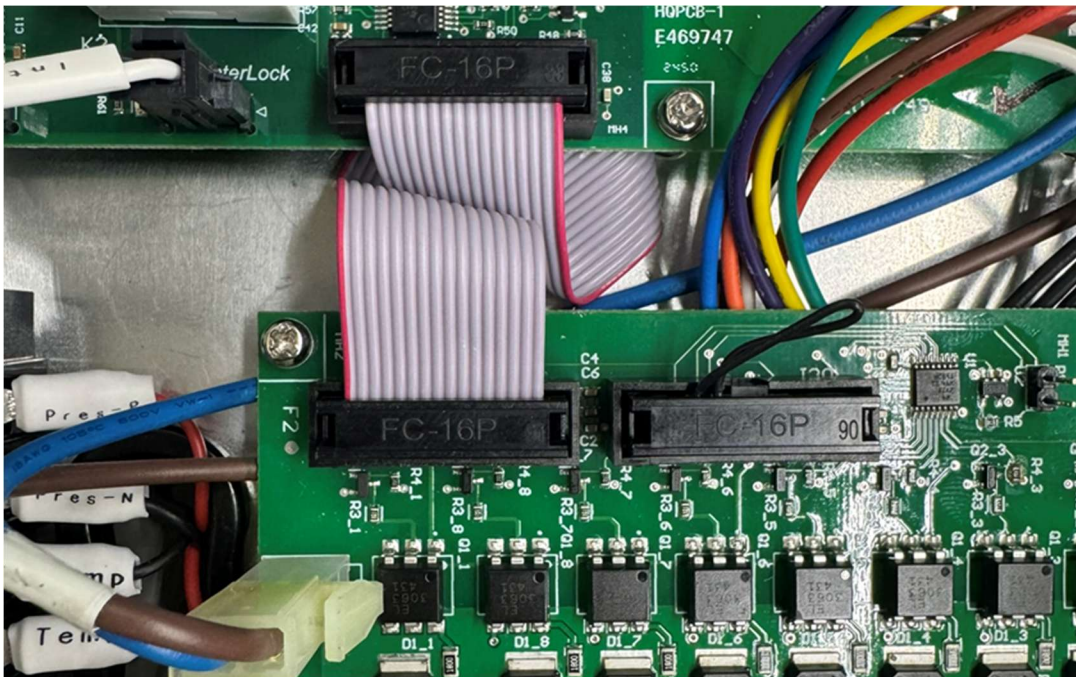
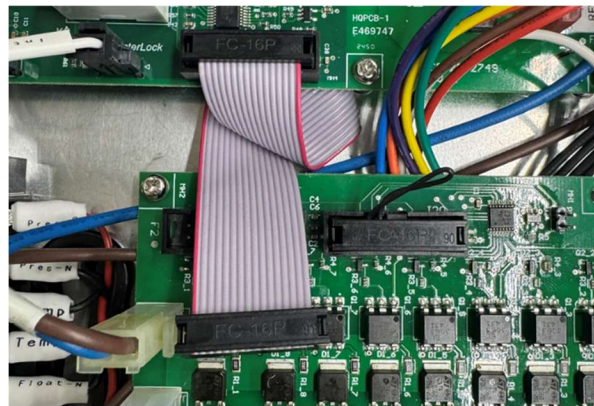
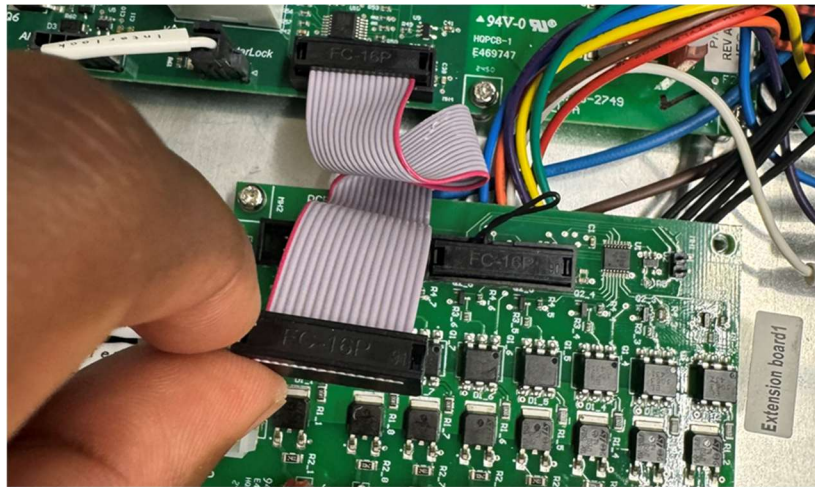



Figure 19. 16-pin Main Board Connection

11. Twist the 16-pin cable to align the connector with the 16-pin connector on the purge point board. Figures 20-24.





Figures 20-24. 16-pin Cable Assembly

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12. Plug in the 16-pin connector to the left 16-pin connector on the purge point board.
13. Verify that all purge point wires going from the purge point board to the terminal block match the table below.

BOARD PIN LABEL	PURGE POINT	WIRE LABEL	WIRE COLOR
LINE VOLTAGE WIRES			
J3_0	1 / 9 / 17	RPP1	BROWN
J3_1	2 / 10 / 18	RPP2	RED
J3_2	3 / 11 / 19	RPP3	ORANGE
J3_3	4 / 12 / 20	RPP4	YELLOW
J3_4	5 / 13 / 21	RPP5	GREEN
J3_5	6 / 14 / 22	RPP6	BLUE
J3_6	7 / 15 / 23	RPP7	PURPLE
J3_7	8 / 16 / 24	RPP8	WHITE
NEUTRAL WIRES			
J4_0	1,2 / 9,10 / 17,18	RPP1-2 RTN	BLACK
J4_1	3,4 / 11,12 / 19,20	RPP3-4 RTN	
J4_2	5,6 / 13,14 / 21,22	RPP5-6 RTN	
J4_3	7,8 / 15,16 / 23,24	RPP7-8 RTN	

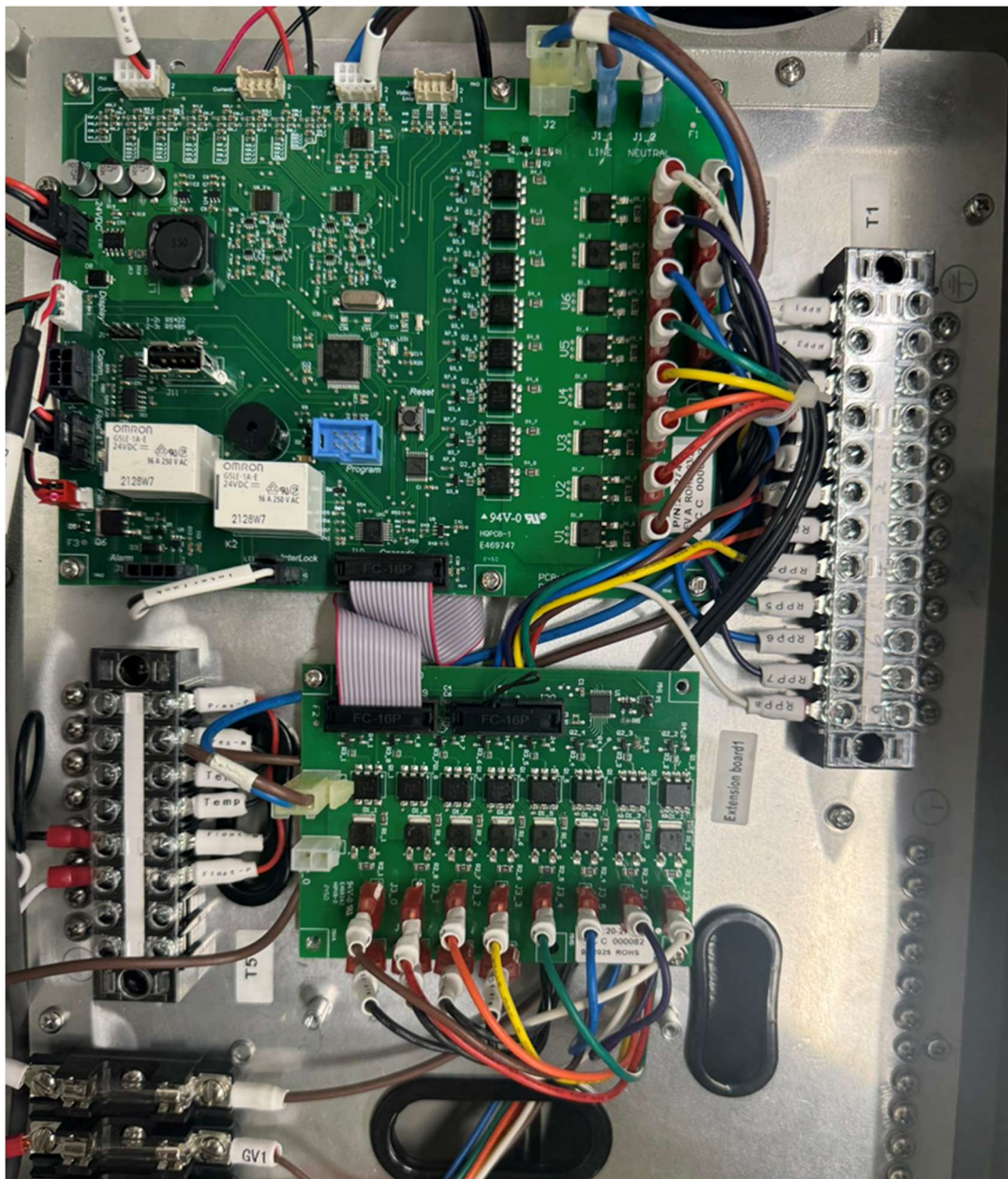


Figure 25. Complete Installation

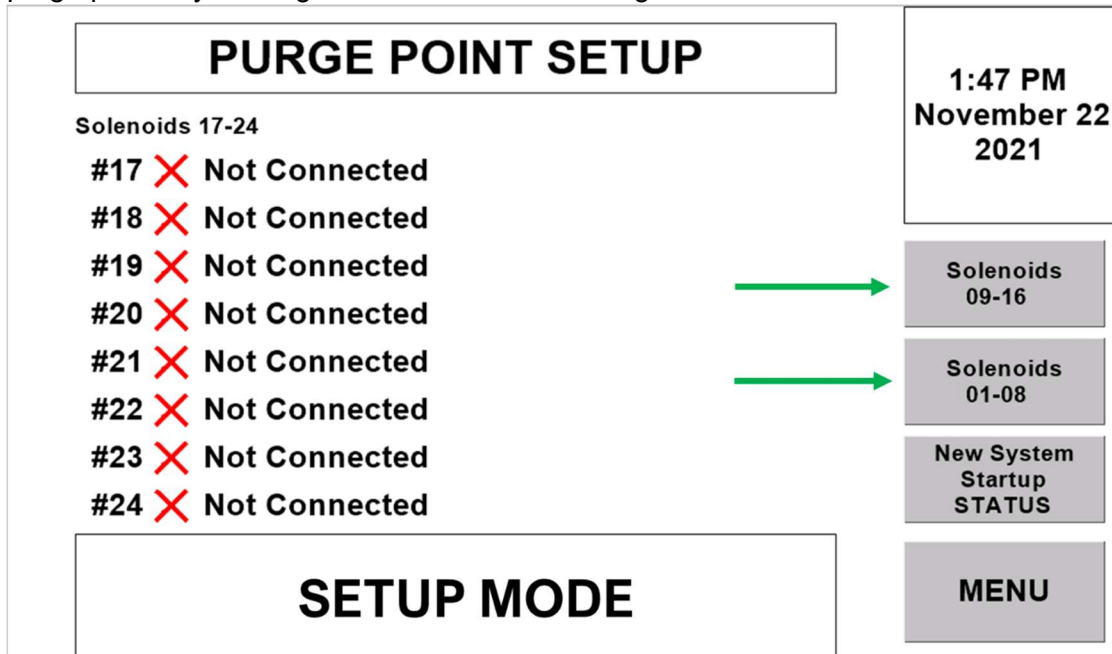
Verify the Purge Point Boards are Installed Correctly

1. Cycle power to the purge unit.
2. Navigate to the Purge Point Setup Page

Note:

The purge point screens require high processing power. Wait 5 seconds after pressing the gray buttons or clicking on the X's to activate purge points. This helps prevent the unit from freezing while processing. If the screen is unresponsive for 30 seconds, cycle power using the red toggle switch and return to the Purge Point Setup screen.

3. The right side of the screen should display buttons indicating the number of available purge points.
4. Click on each button to choose which purge points are active/deactivated. Rename purge points by clicking on the name beside the green check/red X.



PURGE POINT SETUP

Solenoids 17-24

- #17 ☒ Not Connected
- #18 ☒ Not Connected
- #19 ☒ Not Connected
- #20 ☒ Not Connected
- #21 ☒ Not Connected
- #22 ☒ Not Connected
- #23 ☒ Not Connected
- #24 ☒ Not Connected

SETUP MODE

1:47 PM
November 22
2021

Solenoids
09-16

Solenoids
01-08

New System
Startup
STATUS

MENU

Figure 11. Purge Point Setup Page.