

FilterQuick Gas Heated Solid Shortening Kit

This kit adds a heated JIB platform and heat tape to provided and existing flex lines to accommodate the use of semi-solid shortening. The changes are broadly explained below. Detailed explanations are provided inside.

Front of Fryer

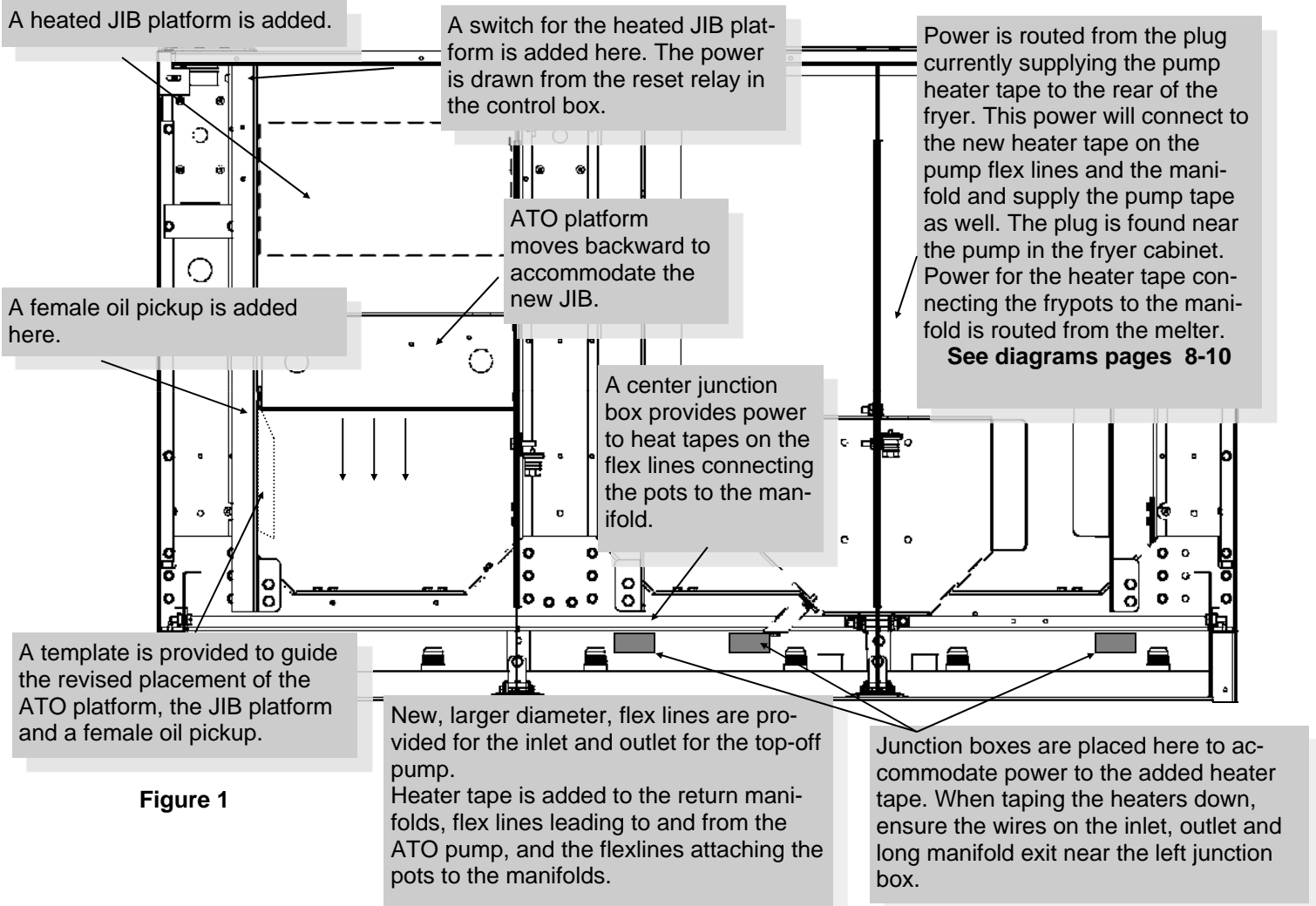


Figure 1



Figure 2

Large diameter return lines are provided for the top-off pump.

Heater tape is added to the return manifolds, flex lines leading to and from the ATO pump, and the flexlines attaching the pots to the manifolds.

Junction boxes are installed to accommodate power routed from the pump heater and from the melter.

Follow the instructions below to retrofit a Frymaster gas FilterQuick fryer with a heated reservoir and heated oil lines to accommodate semi-solid shortening in the fryer's auto top-off system.

Preparing the Hardware

1. Remove power from unit and remove fryer from hood to gain access to the front and back of the unit.
2. Remove the oil JIB.
3. Remove the plumbing for the flow of oil from the JIB to the top off pump.
4. Remove the shelf supporting the JIB.
5. Remove the cover from the rear of the ATO box.
6. Mark the back and the wires entering the back of the ATO box to ensure they are returned to the correct spot when the work is near complete.
7. Remove the wires from the ATO box and bring it forward to a secure spot.
8. Remove the bridge securing the ATO box and ATO pump.
9. Remove the JIB platform.
10. Attach the provided pump-support bracket to the ATO support bracket.
11. Attach ATO bracket with drill-point screws, using the bracket to position holes on the (front view) left side. **See Figure 3.**
12. Position the female oil pickup assembly and secure with 1/4" x 20 bolts, lifting, as necessary, the contactor box to secure nuts on the bolts. **See Figure 4.**
13. Return the ATO box to its position on the ATO bracket, carefully reattaching the wires. Reposition the cover over the ATO wiring. **See Figure 5.**

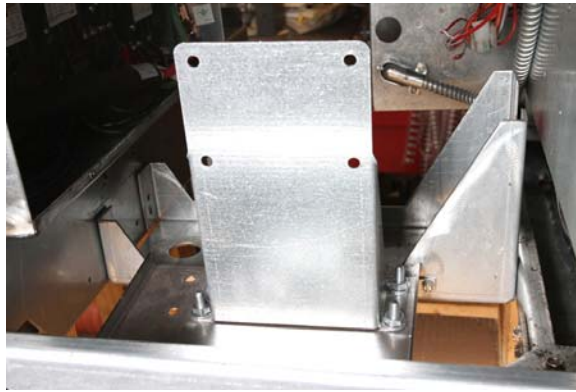


Figure 3: ATO bridge (left) and pump bracket, with pump attachment installed, shown from rear. Pump attachment can go on later to accommodate access to the ATO wiring.



Figure 4: Positioning female oil pickup on fryer channel using the 1/4 x 20 bolts securing the pickup. **May not be necessary in newer fryers.**



Figure 5: Reposition the ATO box on the ATO bracket.

14. Position the JIB platform, using the hole drilled on the right (front view) and the platform to position a supporting screw on the left (front view).
15. Attach the vertical bracket for the pump, if necessary, to the bracket behind the ATO box.
16. Position the pump vertically, with the head down on the vertical bracket attached to the horizontal bracket behind the ATO box. **See Figure 6.**



Figure 6: Position the pump on the provided bracket.

Prepare Wiring for Heated JIB Platform

1. Remove the bezel surrounding the computers by removing the screws accessible inside the cabinet.
2. Remove the screws supporting the computer above the JIB cavity.
3. Remove an outlet plug in the control box and replace with a provided grommet. **See Figure 7.**
4. Route the heater harness, which will provide power to the heated platform for the new JIB, to the control box.

5. Attach the heater harness white wire from the switch to the T2 block. **See Figure 8 and detail "A" on diagrams on pages 8 and 9.**

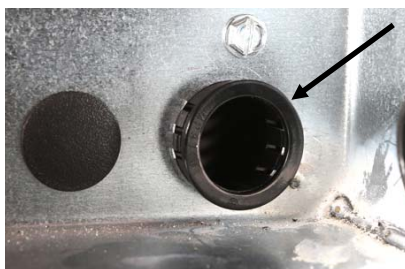


Figure 7: A plug is removed from this position and replaced with a grommet.

6. Attach the heater harness black wire from the switch to the T1 block. **See Figure 8 and detail "A" on diagrams on pages 8 and 9.**

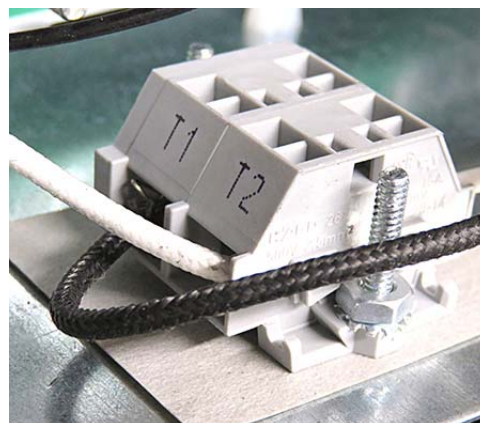


Figure 8: Connect to T1 and T2.

7. Position the switch in the cabinet door frame with one mounting hole over an existing hole. Attach with a drill-point screw. **See Figure 9.**



Figure 9: Switch being positioned on JIB cabinet right interior (front view).

8. Square the switch and drive in a second drill-point screw to secure the switch.
9. Route the wiring harness to the rear of the JIB platform.

10. Position the provided heated JIB platform in the JIB cabinet. It must enter the cabinet at a steep angle. **See Figure 10.**



Figure 10: The heated JIB platform must enter the JIB cabinet at a steep angle.

11. Mount the thermostat box to the bottom of the ATO pump bracket.
See Figure 11.
12. Connect the power cord from the heated JIB platform to the front-facing plug on the thermostat box.
13. Route wiring from the rear of the thermostat box over the pump. **See Figure 12.**
14. Mount the protective cover for the thermostat housing, drilling holes in the cabinet channel to position the cover. **See Figure 13.**



Figure 11: Mount the thermostat housing under the ATO pump bracket.



Figure 12: Route the heater controller wire over the pump and to the right.



Figure 13: Position the thermostat protective cover over the thermostat and mount with drill-point screws.

Prepare Wiring for Heat Tapes, Routing Inlet and Outlet Oil Pump Lines

1. Locate the plug carrying line voltage to the existing heater tape on the pump. **See Figure 14. Also see detail "C" in wiring diagrams on page 8 and 9.**
2. With a pin pusher, push out the wires carrying power to the solenoid heater tape.
3. Insert the pins of the provided harness and route to the rear of the fryer.
4. Route the wires to the pump to the rear of the fryer. They will be reattached to power later when the new heater tape is attached.
5. At the rear of the fryer, remove the lower rear backs to gain access to flex lines. **See Figure 15.**
6. Route the power harness from the melter. (**See Melt-er Wiring Detail on page 10.**) to the center junction box. This will be used to power the heat strips connecting the frypots to the manifold. (**See drawing on page 10.**)
7. A new, larger diameter, flex line is provided for the oil line leading from the female pickup to the inlet side of the pump. **See Figure 16.**
8. A new, larger diameter, flex line is also provided for the outlet side of the pump to the return manifold. Identify these hoses and place the tape straight along the flexline or gradually wrap each with a short heater tape. Ensure the wires from the heater tape exit near the left junction box. **See Figure 17.**
9. Ensure the wire connections are positioned to exit the wrapping near the left junction box. **See drawing on page 10.**
10. Similarly, attach short heater tapes to the flex lines attaching the oil-return manifold to the frypots. Again, ensure the exposed wiring exits the tape wrapping near the left junction box.
11. Use the long heater tapes to run along the bottom of the horizontal oil-return manifold in the fryer framework. Ensure the wire leads exit near the junction box on the left side. **See diagram on page 9, drawing on page 10.**

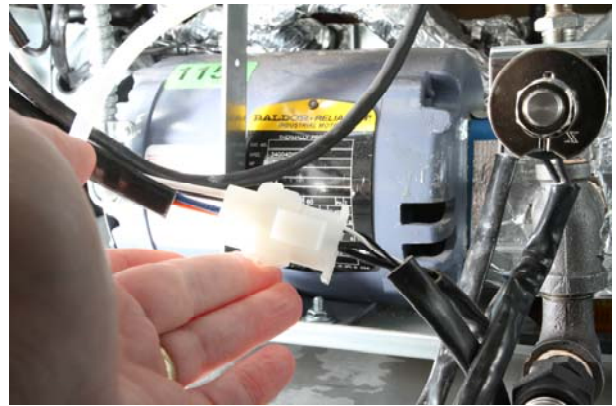


Figure 14: Locate the plug on the pump head heater tape.

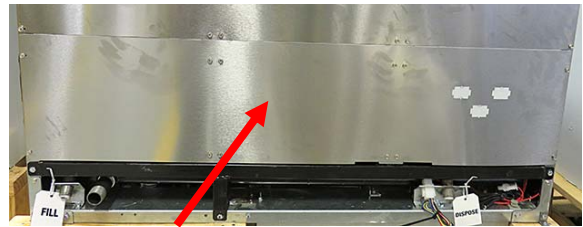


Figure 15: Remove lower rear back(s).



Figure 17: Position straight or gradually wrap the provided, larger diameter, inlet and outlet flex lines with heater tape. Ensure the wire leads exit near the junction box position.



Figure 16: Route the wrapped flex line to the pump inlet side.

12. As viewed from the rear of the fryer, locate the far right transformer box. See **Figure 18**.
13. Remove the two nuts that secure the transformer box to the frame to lower the box. See **Figures 18 and 19**.
14. Locate and remove the three sheet metal screws that secure the box cover. See **Figure 20**.
15. Locate the pump relay. See **Figure 21**.
16. Attach the two included black wires to the relay in pins 7 and 8. See **Figures 22 and 25**.
17. Ensure the 6-pin connector, on the lower left front corner of the transformer box, is disconnected. See **Figure 23**.
18. Push the female pins on the other end of the black wires into the position 5 and 6 of the C5 connector at the bottom right corner of the box, as viewed from the rear. See **Figures 24 and 25**.
19. Locate the two wires in the drawing in detail "B" from C10 and plug the male pins into the open positions 5 and 6 on the C5 connector on the front of the transformer box. (See detail "B" in diagrams on pages 8 and 9). See **Figures 25 and 26**.
20. Reconnect the C5 connector to the front of the transformer box.
21. Reverse steps 13-14 to reattach the transformer box.

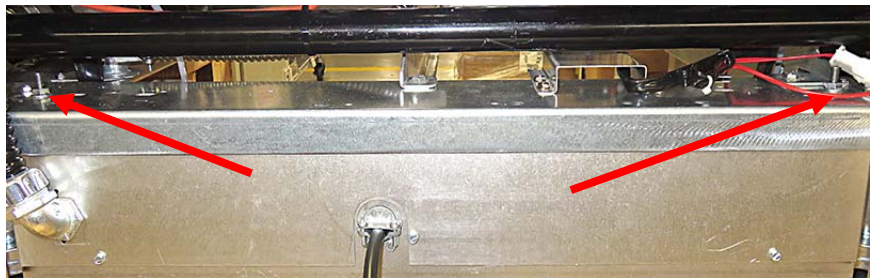


Figure 18: Remove the nuts that secure the transformer box.



Figure 19: Transformer box lowered from the fryer.



Figure 20: Remove the three sheet metal screws to remove the cover.

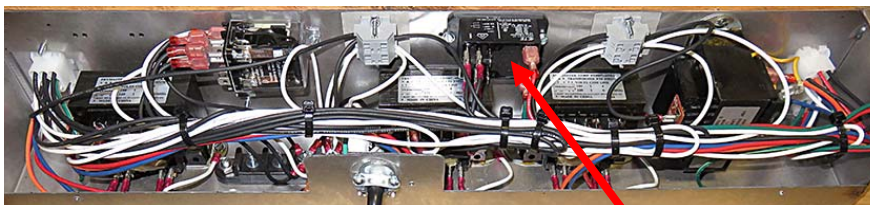


Figure 21: Locate the pump relay.

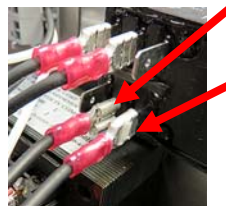


Figure 22: Attach the two black wires to the relay.

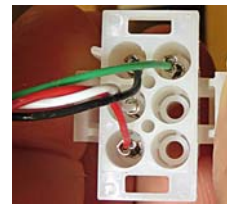


Figure 23: Disconnect the connector.

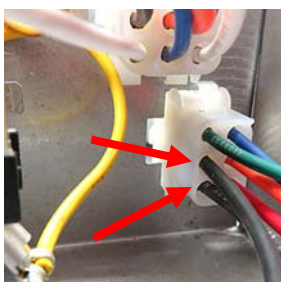


Figure 24: Push pins into the connector.

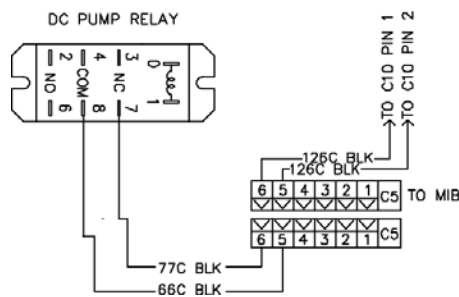


Figure 25

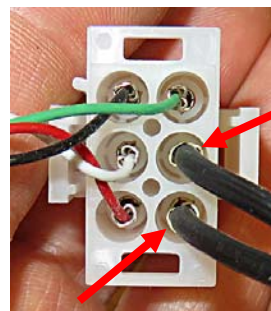


Figure 26

Routing Power to Junction Boxes

1. Install the junction boxes, positioned as shown in Figure 1 on page 1 and Figure 27 to right. Three boxes are used for 3-battery Filter-Quick fryers.
2. Route power harness previously removed from pump heater tape to the left junction box.
3. Route the power harness from the melter to the center junction box.
4. Connect the heater tape leads from the top-off pump inlet and outlet heater tapes, the long manifold heater tapes and the pump heater tape and to the left junction box.
5. Daisy chain the power from the melter harness to all the junction boxes using the provided five-position Wago connectors. See Figure 28.
6. Attach the heater tapes connecting the frypots to the manifold to the power from the melter harness.
7. Position fryer near hood, apply power and test.
8. Replace backs on fryer.
9. Position provided metal JIB, ensuring the male fitting fits tightly and smoothly into the female connection. See Figure 29.



Figure 27: Outlet boxes shown in place on a FilterQuick fryer with power and heater tapes connected.

See simplified wire routing drawing on page 10.



Figure 28: Wago connectors shown in junction box.

NOTE: Later model fryers will look different than model shown.



Figure 29: The heated JIB platform is shown in place with the metal JIB.

Using Wago Connectors

Wago connectors allow stripped wires (3mm) to be cleanly connected. They are easy to use:

1. Lift completely the orange lever. It will stay upright.
2. Insert stripped wires.
3. Close orange levers.



FilterQuick Gas Wiring Diagram

A

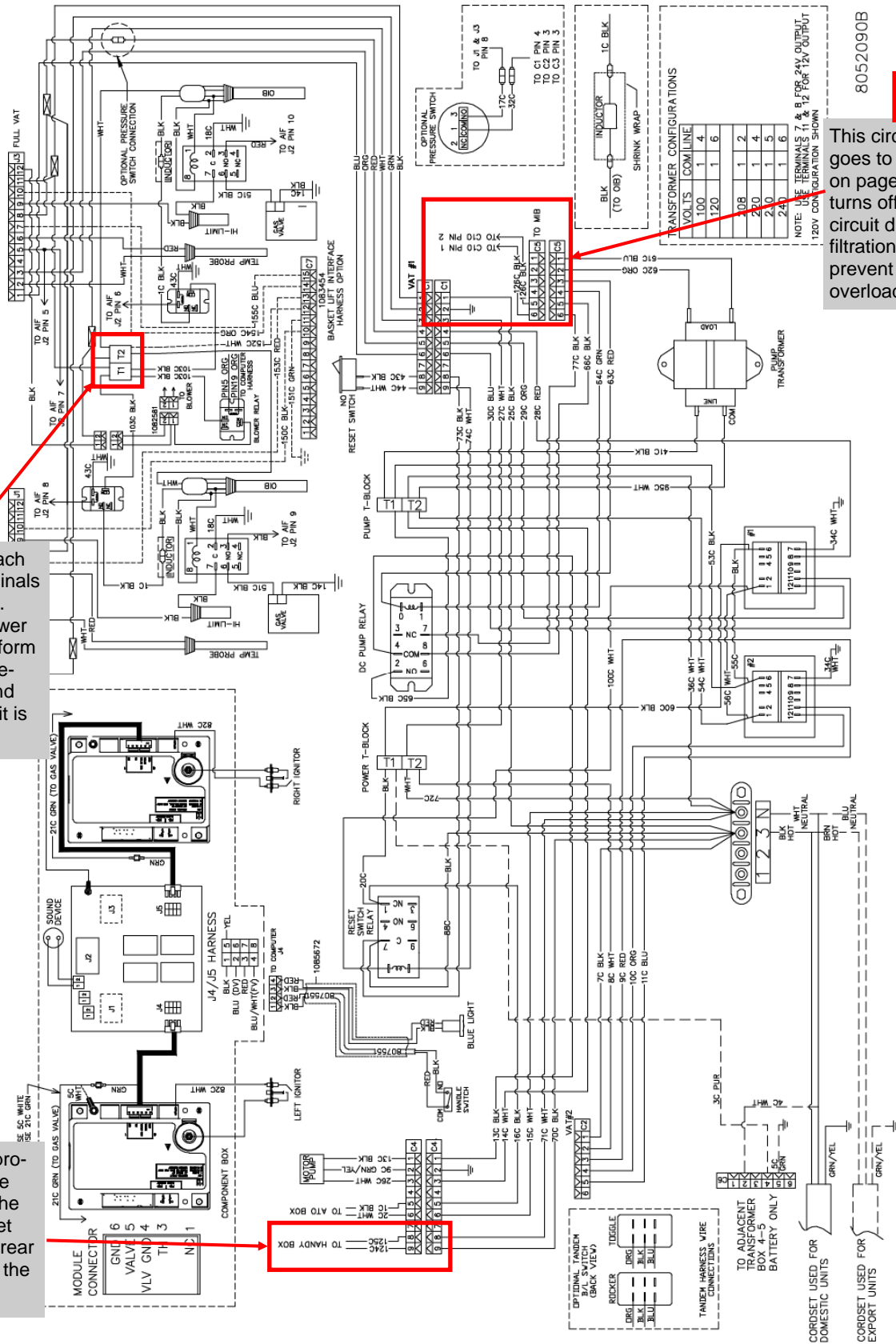
Wires from switch attach to the T1 and T2 terminals in the component box. These will provide power to the heated JIB platform and to the flex lines between the manifold and the frypots. This circuit is switched.

C

This circuit will provide power to the heater tape on the top-off pump inlet and outlets, the rear oil manifold and the pump.

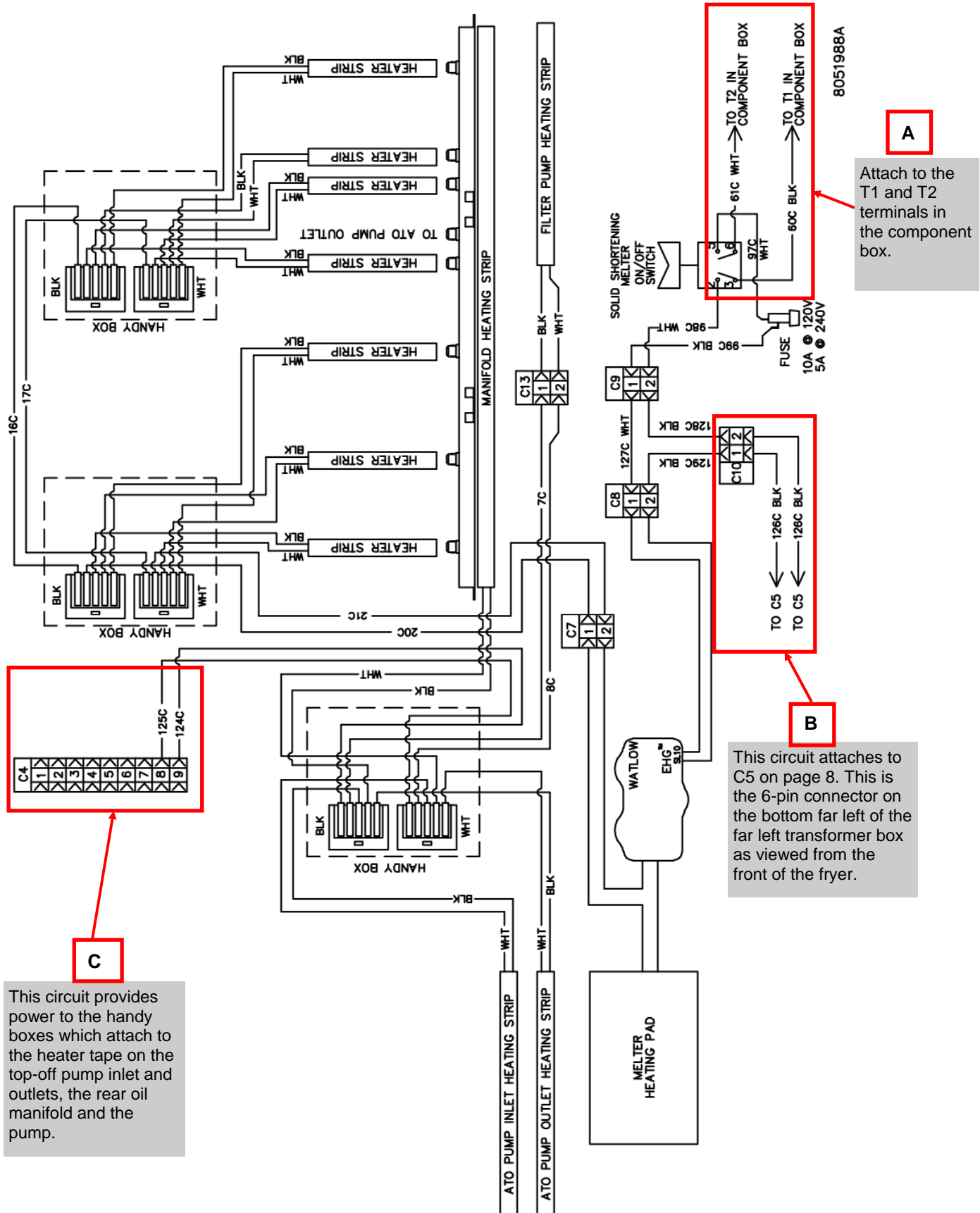
B

This circuit goes to C10 on page 9. It turns off melter circuit during filtration to prevent amp overload.



8052090B

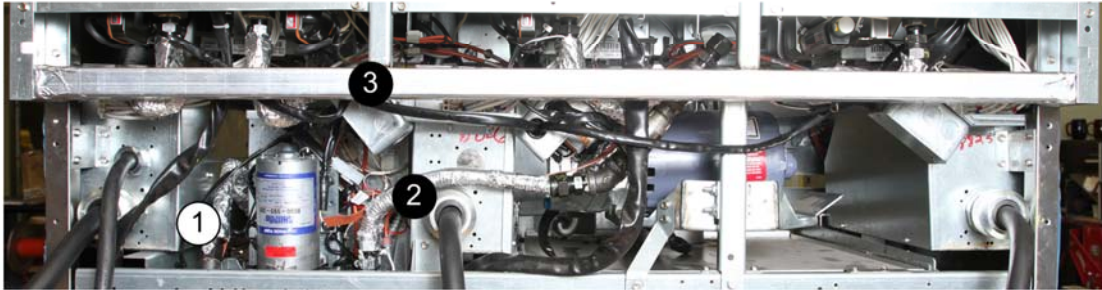
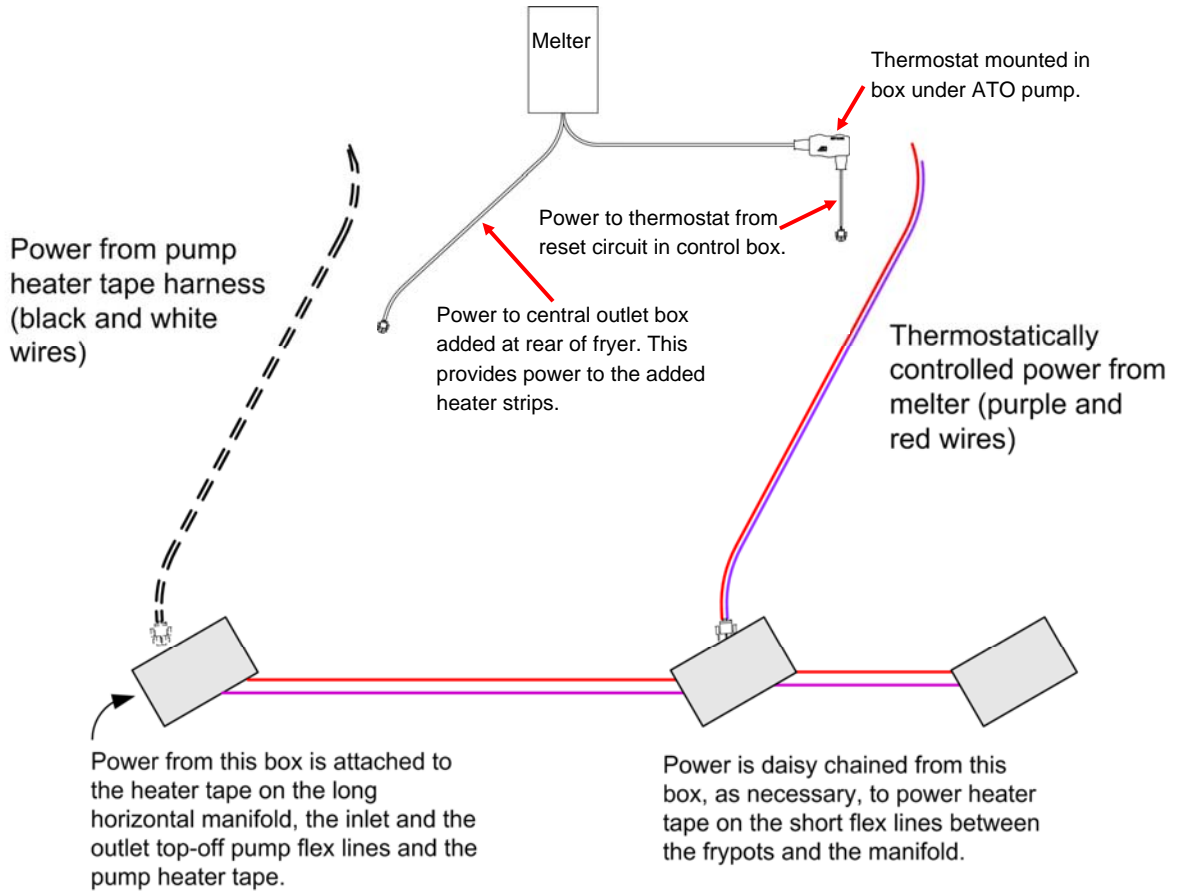
FilterQuick Gas Solid Shortening Wiring Diagram



Power from two sources is routed to the junction boxes at the rear of the fryer.

- Use the power from the melter harness exclusively for the heater tapes on the flex lines between the manifold and the frypots.
- Use the power from the pump heater tape harness exclusively for the top-off pump inlet and outlet heater tapes and the long horizontal manifold heater tape.

FilterQuick Melter Wiring Detail



Heat-tape positions 1,2 and 3 above and the filter pump heat tape are powered with continuous power routed from the left junction box.

The flex lines attaching the frypots to the manifold are powered with power from the melter circuit. Power for the heat tapes is acquired by plugging the provided harness into the melter plug (see arrow at right) routing to the two-pin connector at the center junction box (far right).

