RE SERIES
E4 ELECTRIC FRYERS
Service & Parts Manual

FootPrint® PRO Series by Frymaster

Frymaster®

CE

CFESA Commercial Food Equipment Service Association

Frymaster, a member of the Commercial Food Equipment Service Association, recommends using CFESA Certified Technicians.

24-Hour Service Hotline 1-800-551-8633

10/2024

8196150

www.frymaster.com E-mail: service@frymaster.com

NOTICE

IF, DURING THE WARRANTY PERIOD, THE CUSTOMER USES A PART FOR THIS FRYMASTER DEAN EQUIPMENT OTHER THAN AN UNMODIFIED NEW OR RECYCLED PART PURCHASED DIRECTLY FROM FRYMASTER DEAN, OR ANY OF ITS AUTHORIZED SERVICE CENTERS, AND/OR THE PART BEING USED IS MODIFIED FROM ITS ORIGINAL CONFIGURATION, THIS WARRANTY WILL BE VOID. FURTHER, FRYMASTER DEAN AND ITS AFFILIATES WILL NOT BE LIABLE FOR ANY CLAIMS, DAMAGES OR EXPENSES INCURRED BY THE CUSTOMER WHICH ARISE DIRECTLY OR INDIRECTLY, IN WHOLE OR IN PART, DUE TO THE INSTALLATION OF ANY MODIFIED PART AND/OR PART RECEIVED FROM AN UNAUTHORIZED SERVICE CENTER.

⚠ DANGER

Copper wire suitable for at least 167°F (75°C) must be used for power connections.

⚠ DANGER

The electrical power supply for this appliance must be the same as indicated on the rating and serial number plate located on the inside of the fryer door.

⚠ DANGER

This appliance must be connected to the voltage and phase as specified on the rating and serial number plate located on the inside of the fryer door.

⚠ DANGER

All wiring connections for this appliance must be made in accordance with the wiring diagrams furnished with the equipment. Wiring diagrams are located on the inside of the fryer door.

⚠ DANGER

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

⚠ WARNING

Do not attach accessories to this fryer unless fryer is secured from tipping. Personal injury may result.

⚠ WARNING

Frymaster fryers equipped with legs are for permanent installations. Fryers fitted with legs must be lifted during movement to avoid damage and possible bodily injury. For a moveable or portable installation, Frymaster optional equipment casters must be used.
Questions? Call 1-800-551-8633 or email at service@frymaster.com.

⚠ WARNING

Do not use water jets to clean this equipment.

⚠ WARNING

This equipment is intended for indoor use only. Do not install or operate this equipment in outdoor areas.

⚠ DANGER

Adequate means must be provided to limit the movement of this appliance without depending on or transmitting stress to the electrical conduit. A restraint kit is provided with the fryer. If the restraint kit is missing contact your local Frymaster Factory Authorized Service Center (FASC) for part number 826-0900.

⚠ DANGER

Prior to movement, testing, maintenance and any repair on your Frymaster fryer, disconnect all electrical power from the fryer.

ELECTRICAL POWER SPECIFICATIONS

Three (3) Phase Requirements								
				MINIMUM SIZE		AMPS PER LEG		
kW	VOLTAGE	PHASE	WIRE SERVICE	AWG	mm^2	L1	L2	L3
14	208	3	3	6	16	39	39	39
14	240	3	3	6	16	34	34	34
14	480	3	3	8	10	17	17	17
14	220/380	3	4	6	16	21	21	21
14	240/415	3	4	6	16	20	20	21
14	230/400	3	4	6	16	21	21	21
ALL EPRI 14kW (SOLID STATE)	208	3	3	6	16	39	39	39
	240	3	3	6	16	34	34	34
	220/380	3	4	6	16	21	21	21
	240/415	3	4	6	16	20	20	20
17	208	3	3	6	16	48	48	48
17	240	3	3	6	16	41	41	41
17	480	3	3	6	16	21	21	21
17	220/380	3	4	6	16	26	26	26
17	240/415	3	4	6	16	24	24	24
17	230/400	3	4	6	16	25	25	25
ALL EPRI 17kW (SOLID STATE)	208	3	3	6	16	48	48	48
	240	3	3	6	16	41	41	41
	220/380	3	4	6	16	26	26	26
	240/415	3	4	6	16	24	24	24
22	208	3	3	4	25	61	61	61
22	240	3	3	4	25	53	53	53
22	480	3	3	6	16	27	27	27
22	220/380	3	4	6	16	34	34	34
22	240/415	3	4	6	16	31	31	31
22	230/400	3	4	6	16	32	32	32

Single Phase Requirements						
				MINIMUM SIZE		AMPS
kW	VOLTAGE	PHASE	WIRE SERVICE	AWG	mm^2	
14	208	1	2	3	34	68
14	240	1	2	4	25	59
14	480	1	2	8	10	30

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RE SERIES E^4 ELECTRIC FRYERS
CHAPTER 1: SERVICE PROCEDURES

1.1 General

Before performing any maintenance on your Frymaster fryer, disconnect the fryer from the electrical power supply.

When electrical wires are disconnected, it is recommended that they be marked in such a way as to facilitate re-assembly.

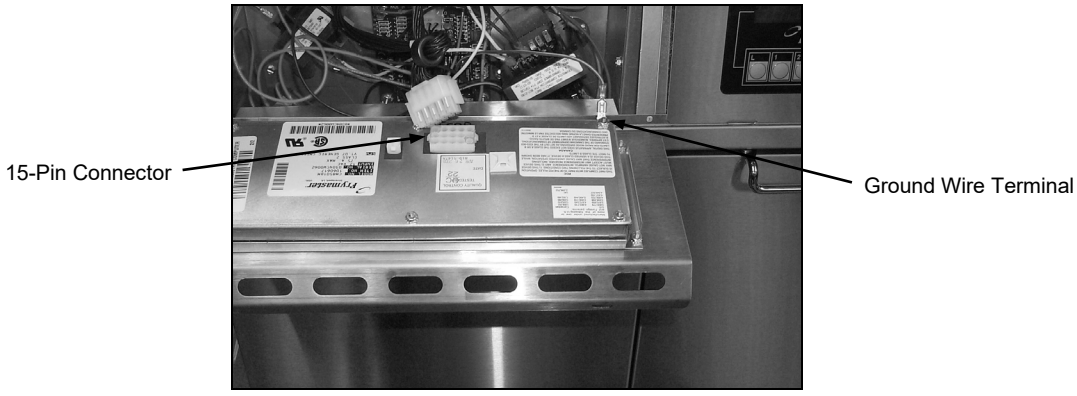
1.2 Replacing a Controller

1. Disconnect the fryer from the electrical power supply.

2. The controller bezel is held in place by tabs at the top and bottom. Slide the metal bezel up to disengage the lower tabs. Then slide the bezel down to disengage the upper tabs.

3. Remove the two screws from the upper corners of the control panel. The control panel is hinged at the bottom and swings open from the top.

4. Unplug the wiring harness from the connector on the back of the controller and disconnect the grounding wire from terminal adjacent to the connector. Remove the control panel assembly by lifting it from the hinged slots in the control panel frame.



5. Remove the controller from the control panel assembly and install the replacement controller. Reinstall the control panel assembly by reversing steps 1 and 2.

1.3 Replacing Component Box Components

1. Disconnect the fryer from the electrical power supply.

2. The controller bezel is held in place by tabs at the top and bottom. Slide the metal bezel up to disengage the lower tabs. Then slide the bezel down to disengage the upper tabs.

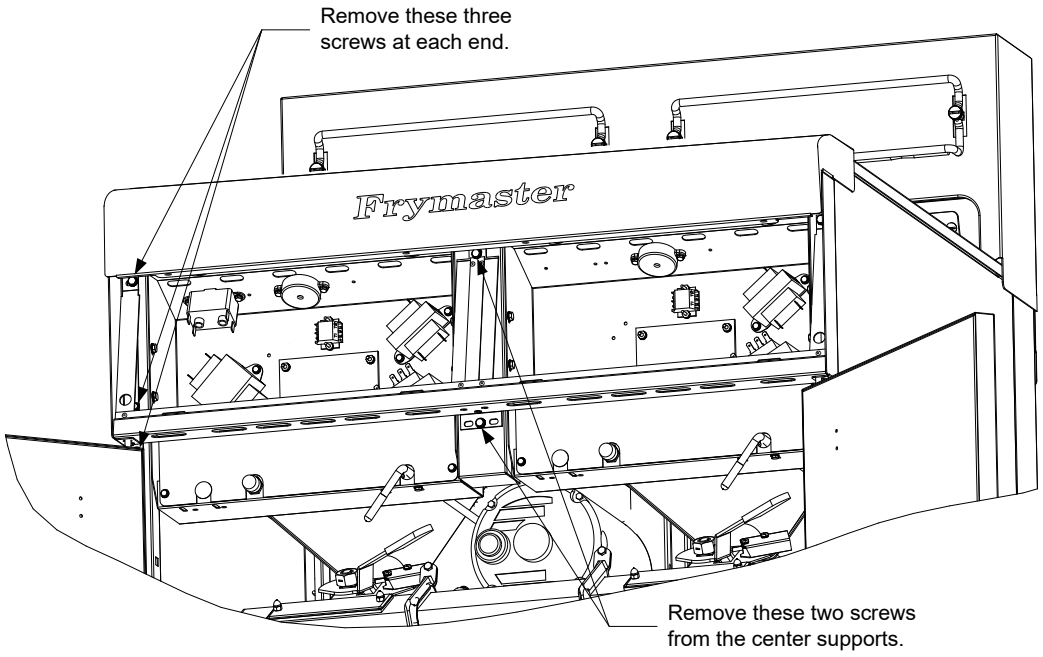
3. Remove the two screws from the upper corners of the control panel and allow the control panel to swing down.

4. Unplug the wiring harness from the 15-pin connector on the interface board and disconnect the grounding wire from terminal adjacent to the 15-pin connector on the back of the controller. Remove the control panel assembly by lifting it from the hinge slots in the control panel frame.

5. Disconnect the wiring from the component to be replaced, being sure to make a note of where each wire was connected.

6. Dismount the component to be replaced and install the new component, being sure that any required spacers, insulation, washers, etc. are in place.

   NOTE: If more room to work is required, the control panel frame assembly may be removed by removing the hex head screws that secure it to the fryer cabinet (see illustration below). If this option is chosen, all control panel assemblies must be removed per steps 1 and 2 above. The cover plate on the lower front of the component box may also be removed if desired. *Removing the component box itself from the fryer is not recommended due to the difficulty involved in disconnecting and reconnecting the oil-return valve rods, which pass through openings in the component box.*



Removing the Control Panel Frame and Top Cap Assembly

7. Reconnect the wiring disconnected in Step 3, referring to your notes and the wiring diagrams on the fryer door to ensure that the connections are properly made. Also, verify that no other wiring was disconnected accidentally during the replacement process.

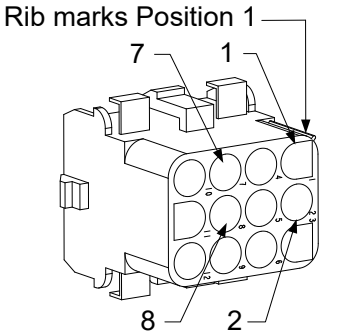
8. Reverse steps 1 through 4 to complete the replacement and return the fryer to service.

1.4 Replacing a High-Limit Thermostat

1. Remove the filter pan and lid from the unit. Drain the frypots into a Shortening Disposal Unit (SDU) or other appropriate metal container.

⚠ DANGER
DO NOT drain more than one full frypot or two split frypots into the SDU at one time.

2. Disconnect the fryer from the electrical power supply and reposition it to gain access to the rear of the fryer.
3. Remove the four screws from both the left and right sides of the lower back panel.
4. Locate the high-limit that is being replaced and follow the two-black wires to the 12-pin connector C-6. Note where the leads are connected prior to removing them from the connector. Unplug the 12-pin connector C-6 and using a pin-pusher push the pins of the high-limit out of the connector.
5. Using a wrench, carefully unscrew the high-limit thermostat to be replaced.
6. Apply Loctite™ PST 567 or equivalent sealant to the threads of the replacement and screw it securely into the frypot.
7. Insert the leads into the 12-pin connector C-6 (see illustration below). For full-vat units or the left half of a dual-vat unit (as viewed from the rear of the fryer) the leads go into positions 1 and 2 of the connector. For the right half of a dual-vat unit (as viewed from the rear of the fryer), the leads go into positions 7 and 8. In either case, polarity does not matter.



High-Limit Lead Positions

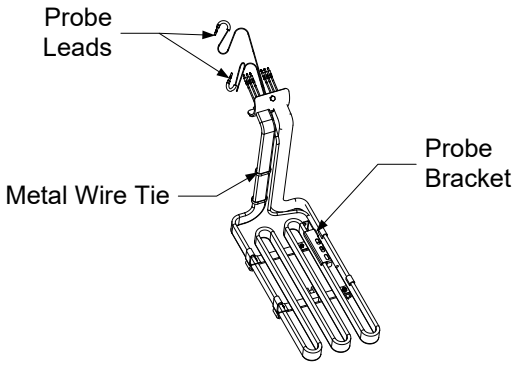
8. Reconnect the 12-pin connecting plug C-6. Use wire ties to secure any loose wires.
9. Reinstall the back panels reposition the fryer under the exhaust hood, and reconnect it to the electrical power supply to return the fryer to service.

1.5 Replacing a Temperature Probe

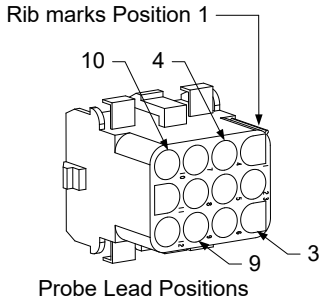
1. Remove the filter pan and lid from the unit. Drain the frypots into a Shortening Disposal Unit (SDU) or other appropriate metal container.

⚠ DANGER
DO NOT drain more than one full frypot or two split frypots into the SDU at one time.

2. Disconnect the fryer from the electrical power supply and reposition it to gain access to the rear of the fryer.
3. Remove the four screws from both sides of the lower back panel. Then remove the two screws on both the left and right sides of the back of the tilt housing. Lift the tilt housing straight up to remove from the fryer.
4. Locate the red and white wires of the temperature probe to be replaced. Note where the leads are connected prior to removing them from the connector. Unplug the 12-pin connector C-6 and using a pin-pusher push the pins of the temperature probe out of the connector.
5. Raise the element and remove the securing probe bracket and metal tie wraps that secure the probe to the element (see illustration below).



6. Gently pull on the temperature probe and grommet, pulling the wires up the rear of the fryer and through the element tube assembly.
7. Insert the replacement temperature probe (wires first) into the tube assembly ensuring that the grommet is in place. Secure the probe to the elements using the bracket which was removed in Step 5 and the metal tie wraps which were included in the replacement kit.
8. Route the probe wires out of the tube assembly following the element wires down the back of the fryer through the Heyco bushings to the 12-pin connector C-6. Secure the wires to the sheathing with wire ties.
9. Insert the temperature probe leads into the 12-pin connector C-6 (see illustration below). For full-vat units or the right half of a dual-vat unit (as viewed from the rear of the fryer) the red lead goes into position 3 and the white lead into position 4 of the connector. For the left half of a dual-vat unit (as viewed from the rear of the fryer), the red lead goes into position 9 and the white lead into position 10. **NOTE:** ***Right*** and ***left*** refer to the fryer as viewed from the rear.



10. Secure any loose wires with wire ties making sure that the lead wires will not interfere with the movement of the springs. Rotate the elements up and down making sure that movement is not restricted and that the wires are not pinched.

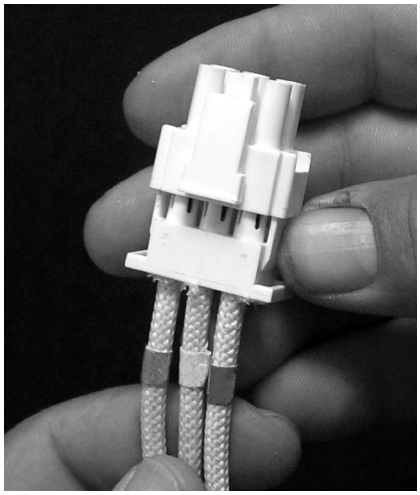
11. Reinstall the tilt housing and back panels, reposition the fryer under the exhaust hood, and reconnect it to the electrical power supply to return the fryer to service.

1.6 Replacing a Heating Element

1. Perform steps 1-3 of section 1.5, *Replacing a Temperature Probe*.

2. On dual-vat fryers, and on full-vat fryers where the temperature probe is attached to the element being replaced, disconnect the wire harness containing the probe wiring. Using a pin pusher, disconnect the probe wires from the 12-pin connector C-6.

3. In the rear of the fryer directly behind the frypot disconnect the 6-pin connector for the left element (as viewed from the front of the fryer) or the 9-pin connector for the right element. Press in on the tabs on each side of the connector while pulling outward on the free end to extend the connector and release the element leads (see photo below). Pull the leads out of the connector and out of the wire sleeving.



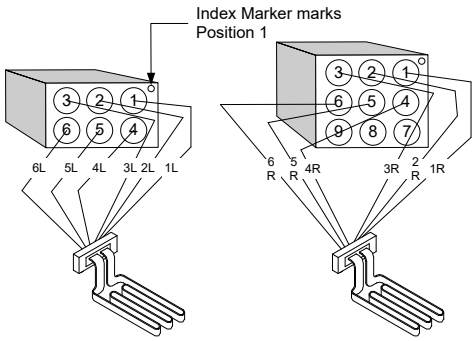
4. Raise the element to the full up position and support the elements.

5. Remove the hex head screws and nuts that secure the element to the tube assembly and pull the element out of the frypot. **NOTE:** Full-vat elements consist of two dual-vat elements clamped together. For full-vat units, remove the element clamps before removing the nuts and screws that secure the element to the tube assembly.

6. If applicable, recover the probe bracket and probe from the element being replaced and install them on the replacement element. Install the replacement element in the frypot, securing it with the nuts and screws removed in Step 5 to the tube assembly. Ensure the gasket is between the tube and element assembly.

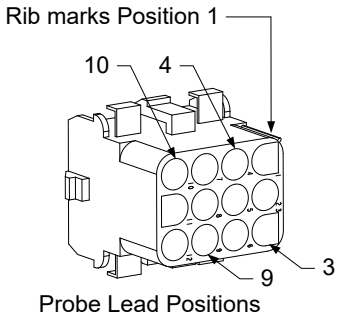
7. Route the element leads through the element tube assembly and into the wire sleeving to prevent chafing. Ensure that the wire sleeving is routed back through the Heyco bushing keeping it clear

from the lift springs. Also ensure that the wire sleeving extends into the tube assembly to prevent the edge of the tube assembly from chafing the wires. Press the pins into the connector in accordance with the diagram on the following page, and then close the connector to lock the leads in place. **NOTE:** It is critical that the wires be routed through the sleeving to prevent chafing.



8. Reconnect the element connector ensuring that the latches lock.

9. Insert the temperature probe leads into the 12-pin wiring harness connector C-6 (see illustration below). For full-vat units or the right half of a dual-vat unit, the red lead goes into position 3 and the white into position 4. For the left half of a dual-vat unit, the red lead goes into position 9 and the white into position 10. **NOTE:** ***Right*** and ***left*** refer to the fryer as viewed from the rear.



10. Reconnect the 12-pin connector C-6 of the wiring harness disconnected in Step 2.

11. Lower the element down onto the basket rack.

12. Reinstall the tilt housing and back panels, reposition the fryer under the exhaust hood, and reconnect it to the electrical power supply.

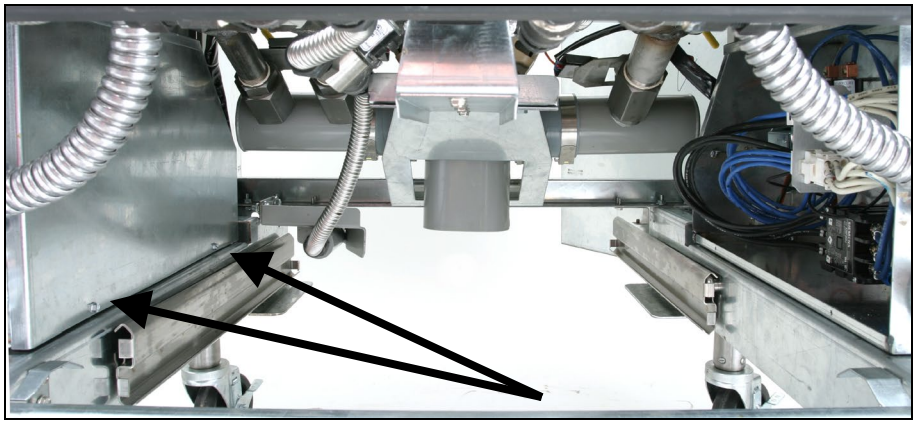
1.7 Replacing Contactor Box Components

1. If replacing a contactor box component above the built-in filter system, remove the filter pan and lid from the unit. Drain the frypots into a Shortening Disposal Unit (SDU) or other appropriate metal container. If replacing a contactor box component in a non-filter unit or a frypot that's not over the filter pan, drain the frypot above the box into a Shortening Disposal Unit (SDU) or other appropriate metal container.

⚠ DANGER
<u>DO NOT</u> drain more than one full frypot or two split frypots into the SDU at one time.

2. Disconnect the fryer from the electrical power supply.

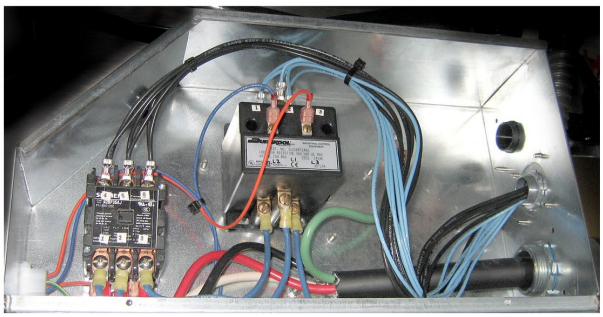
3. Remove the two screws securing the cover of the contactor box. The contactor boxes above the filter pan are accessed by sliding under the fryer. They are located to the left and right above the guide rails (see photo below). The contactor boxes of non-filter units or frypots not over the filter pan are accessed by opening the fryer door directly under the affected frypot.

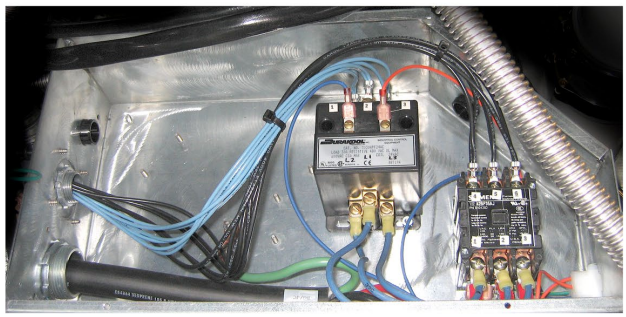


Remove two screws to access contactor box components above the filter pan.

4. The contactors and relays are held on by threaded pin studs so that only removal of the nut is required to replace the component.

5. After performing necessary service, reverse steps 1-4 to return the fryer to operation.





Left and right views of mechanical contactor box components.

1.8 Replacing a Frypot

1. Drain the frypot into the filter pan or, if replacing a frypot over the filter system, into a Shortening Disposal Unit (SDU) or other appropriate metal container. If replacing a frypot over the filter system, remove the filter pan and lid from the unit.

⚠ DANGER
<u>DO NOT</u> drain more than one full frypot or two split frypots into the SDU at one time.

2. Disconnect the fryer from the electrical power supply and reposition it to gain access to both the front and rear.

3. Slide the metal bezel up to release the bottom tabs, then slide the bezel down to disengage the upper tabs.

4. Remove the two screws from the upper corners of the control panels and allow them to swing down (see illustration and photo on page 1-1).

5. Unplug the wiring harnesses and ground wires from the backs of the controllers. Remove the controllers by lifting them from the hinge slots in the control panel frame.

6. Remove the tilt housing and back panels from the fryer. The tilt housing must be removed first in order to remove the upper back panel.

7. To remove the tilt housing remove the hex head screws from the rear edge of the housing. The housing can be lifted straight up and off the fryer.

8. Remove the control panel by removing the screw in the center and the nuts on both sides.

9. Loosen the component boxes by removing the screws, which secure them in the cabinet.

10. Dismount the top cap by removing the nuts at each end that secure it to the cabinetry.

11. Remove the hex head screw that secures the front of the frypot to the cabinet cross brace.

12. Remove the top-connecting strip that covers the joint with the adjacent frypot.

13. Unscrew the Teflon vent/vacuum-breaker tube fitting, unscrew the nut located on the front of each section of drain tube, and remove the tube assembly from the fryer.

14. Remove the covers from the drain safety switch(es) and disconnect the switch wiring at the switch(es).

15. At the rear of the fryer, unplug the 12-pin connector C-6 and, using a pin pusher, disconnect the high-limit thermostat leads.

16. Disconnect the oil return flexline(s) at the frypot end(s).

17. Raise the elements to the “up” position and disconnect the element springs.

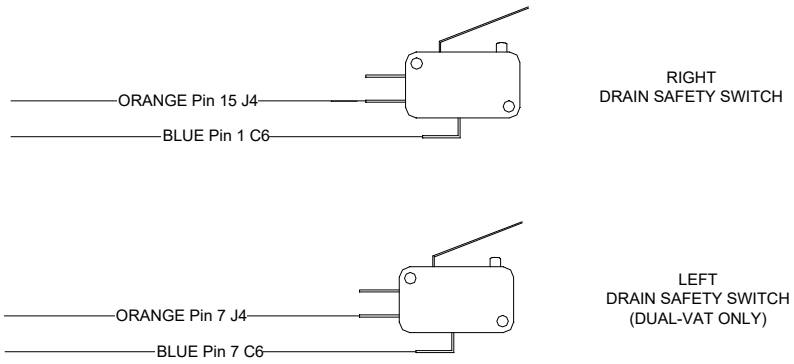
18. Remove the machine screws and nuts that secure the element tube assembly to the frypot. Carefully lift the element assembly from the frypot and secure it to the cross brace on the rear of the fryer with wire ties or tape.

19. Carefully lift the frypot from the fryer and place it upside down on a stable work surface.

20. Recover the drain valve(s), oil return flexline connection fitting(s), and high-limit thermostat(s) from the frypot. Clean threads and apply Loctite™ PST 567 or equivalent sealant to the threads of the recovered parts and install them in the replacement frypot.

21. Carefully lower the replacement frypot into the fryer. Reinstall the hex head screw removed in step 7 to attach the frypot to the fryer.

22. Position the element tube assembly in the frypot and reinstall the machine screws and nuts removed in step 14.
23. Reconnect the oil return flexlines to the frypot, and replace aluminum tape, if necessary, to secure heater strips to the flexlines.
24. Insert the high-limit thermostat leads disconnected in step 13 (see illustration on page 1-3 for pin positions).
25. Reconnect the drain safety switch wiring to the switch(es) in accordance with the diagram below then reinstall the switch covers.



26. Reinstall the drain tube assembly.
27. Reinstall the top connecting strips, top cap, control panel, component box, tilt housing and back panels.
28. Reinstall controllers in the control panel frame and reconnect the wiring harnesses and ground wires.
29. Reposition the fryer under the exhaust hood and reconnect it to the electrical power supply.

1.9 Built-in Filtration System Service Procedures

1.9.1 Filtration System Problem Resolution

One of the most common causes of filtration problems is placing the filter paper on the bottom of the filter pan rather than over the filter screen.

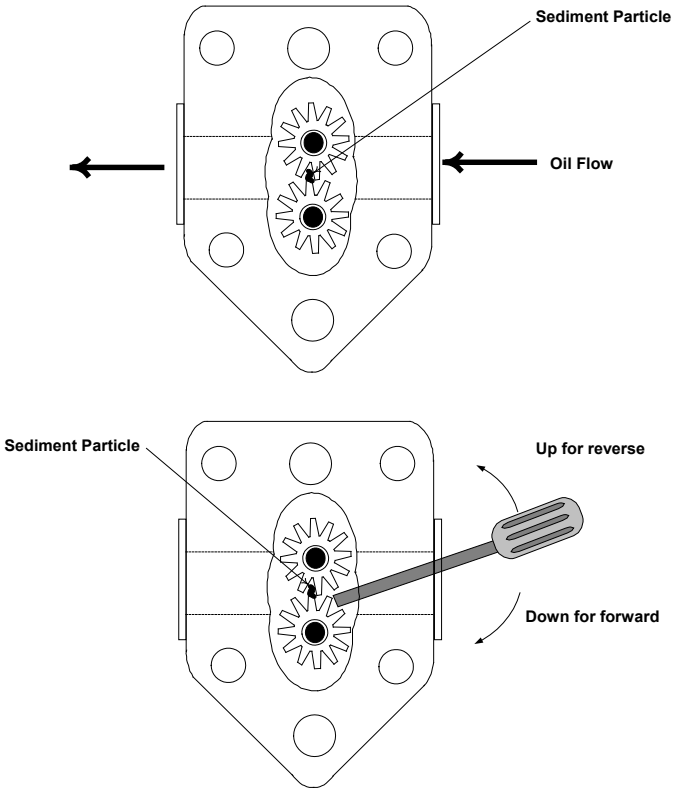
⚠ CAUTION
Ensure that filter screen is in place prior to filter paper placement and filter pump operation. Improper screen placement is the primary cause of filtration system malfunction.

Whenever the complaint is "the pump is running, but no oil is being filtered," check the installation of the filter paper, and ensure that the correct size is being used. While you are checking the filter paper, verify that the O-rings on the pick-up tube of the filter pan are in good condition. Missing or worn O-rings allow the pump to take in air and decrease its efficiency.

If the pump motor overheats, the thermal overload will trip and the motor will not start until it is reset. If the pump motor does not start, press the red reset switch (button) located on the rear of the motor at the front of the fryer.

If the pump starts after resetting the thermal overload switch, then something is causing the motor to overheat. A major cause of overheating is when several frypots are filtered sequentially, overheating the pump and motor. Allow the pump motor to cool at least 30 minutes before resuming operation. Pump overheating can be caused by:

- Solidified shortening in the pan or filter lines, or
- Attempting to filter unheated oil (cold oil is more viscous, overloading the pump motor and causing it to overheat).



If the motor runs but the pump does not return oil, there is a blockage in the pump. Incorrectly sized or installed paper/pads will allow food particles and sediment to pass through the filter pan and into the pump. When sediment enters the pump, the gears bind, causing the motor to overload, again tripping the thermal overload. Shortening that has solidified in the pump will also cause it to seize, with the same result.

A pump seized by debris or hard shortening can usually be freed by manually moving the gears with a screwdriver or other instrument.

Disconnect power to the filter system, remove the input plumbing from the pump, and use a screwdriver to manually turn the gears.

- Turning the pump gears in reverse will release a hard particle.
- Turning the pump gears forward will push softer objects and solid shortening through the pump and allow free movement of the gears.

Incorrectly sized or installed paper/pads will also allow food particles and sediment to pass through and clog the suction tube on the bottom of the filter pan. Particles large enough to block the suction tube may indicate that the crumb tray is not being used. Pan blockage can also occur if shortening is left in the pan and allowed to solidify. Blockage removal can be accomplished by forcing the item out with an auger or drain snake. Compressed air or other pressurized gases should not be used to force out the blockage.

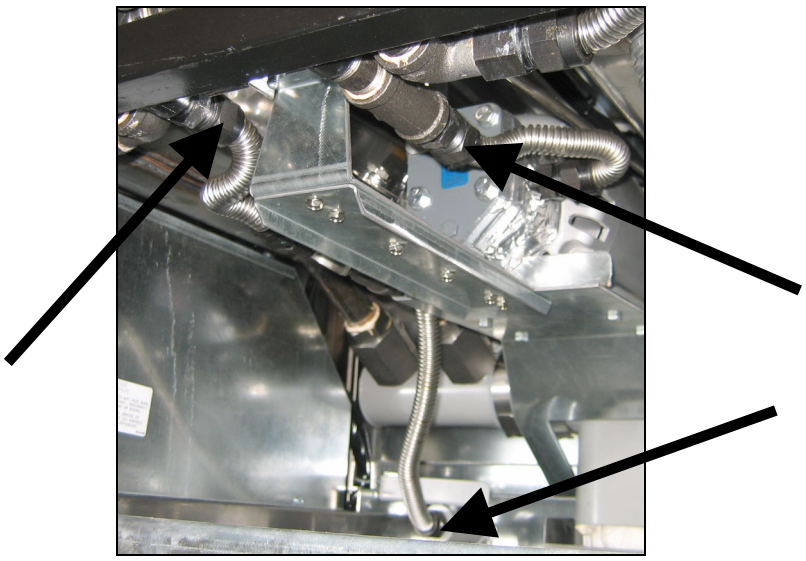
1.9.2 Replacing the Filter Motor, Filter Pump, and Related Components

1. Remove the filter pan and lid from the unit. Drain the frypots into a Shortening Disposal Unit (SDU) or other appropriate metal container.

⚠ DANGER
DO NOT drain more than one full frypot or two split frypots into the SDU at one time.

2. Disconnect the fryer from the electrical power supply and reposition it to gain access to both the front and rear.

3. Disconnect the two flexlines running to the oil-return manifold at the rear of the fryer as well as the pump suction flexline at the end of the filter pan connection (see photo below).



Disconnect flexlines indicated by the arrows.

4. Loosen the nut and bolt that secures the bridge to the oil-return manifold.

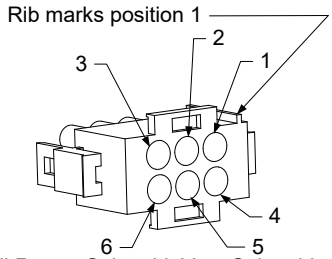
5. Remove the cover plate from the front of the motor and disconnect the motor wires.

6. Unplug the pump motor assembly 6-pin connector C-2 and, using a pin pusher, disconnect the vent vacuum-breaker solenoid (pins 2 and 5) that is attached to the oil return manifold.

7. Remove the two nuts and bolts that secure the front of the bridge to the cross brace and carefully slide the bridge rearward off the cross brace until its front end can be lowered to the floor. Undo the single nut holding it in place in back. Be careful not to let the rear of the bridge slip off the manifold at this point.

8. Get a good grip on the bridge, carefully pull it forward off the oil-return manifold, and lower the entire assembly to the floor. Once on the floor, pull the assembly out the front of the fryer.

9. When required service has been completed, reverse steps 6-12 to reinstall the bridge. **NOTE:** The black motor wires go on the top terminal, the white on the bottom. The pump solenoid valve wires go in positions 1 and 4 of the 6-pin connector C-2; the vent vacuum-breaker solenoid valve wires go in positions 2 and 5; the red/black heater tape wires go into position 3 and the violet/white wires go into position 6 (see illustration on the following page).



Oil Return Solenoid, Vent Solenoid
and Heater Lead Positions

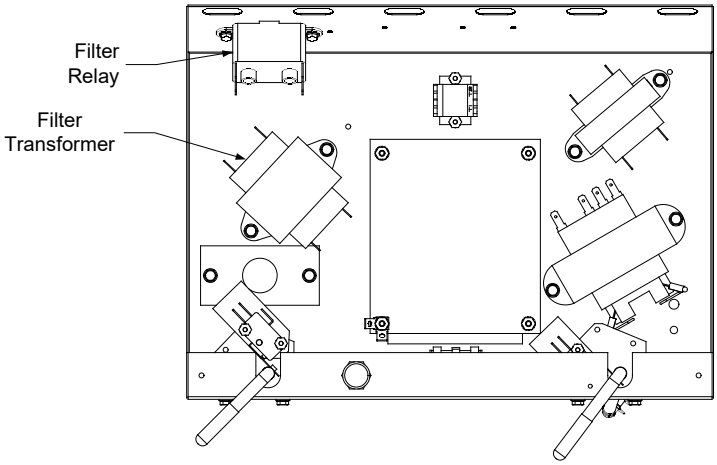
10. Reconnect the unit to the electrical power supply, and verify that the pump is functioning correctly (i.e., when a filter handle is placed in the ON position, the motor should start and there should be strong suction at the intake fitting and outflow at the rear flush port.)

11. When proper operation has been verified, reinstall the back panels and the filter pan and lid.

12. Reposition the fryer under the exhaust hood and reconnect it to the electrical power supply to return the fryer to service.

1.9.3 Replacing the Filter Transformer or Filter Relay

Disconnect the fryer from the electrical power supply. Remove the left controller from the fryer to expose the interior of the left component box. The filter transformer and relay are located as shown in the illustration below. **NOTE:** The right component box is identical to the left except that the filter transformer and relay are not present. The components are held on by threaded pin studs so that only removal of the nut is required to replace the component.



Dual-vat configuration illustrated. In full-vat units, left filter handle is not present.

1.10 Basket Lift Service Procedures

RE Series electric fryers may be equipped with automatic basket lifts. Basket lifts always come in pairs, although each operates independently.

A **modular basket lift** (illustrated on the following page) is a self-contained sub-assembly consisting of a pair of toothed rods which support removable basket lift arms, a pair of reversible-drive gear motors, and four microswitches. The gear motors engage the teeth of the rods, moving them up or down depending upon the motors' direction of rotation. The microswitches at the upper and lower limits of movement stop the motors when the basket is in the full up or full down position.

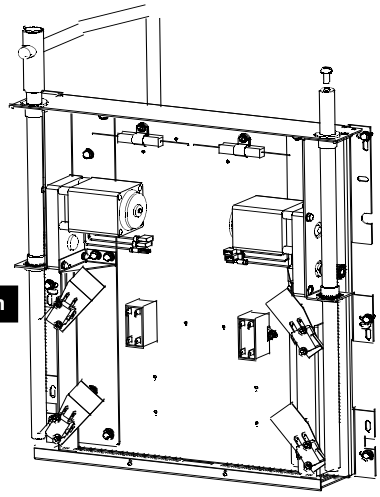
Timing circuitry in the controller initiates and stops basket lift operation depending upon the variables programmed by the operator. When the product button is pressed, the timing circuitry activates a coil in the basket lift relay to supply power to the lower microswitch. The microswitches stop the motor at the lift's upper and lower travel limits and reverse the direction of current flow thus reversing the motor direction.

When the product button is pushed on the computer/controller, current flows through a coil in the basket lift relay, causing the lower circuit to be activated. The basket lift lowers, closing the normally open upper-micro-switch. When the downward-moving rod opens the lower normally closed microswitch, the power to the motor ceases to flow. When the computer/controller times out, the current to the relay coil is cut, allowing the upper circuit to be activated. The basket lift then raises and re-closes the lower microswitch. When the basket lift rod clears the upper microswitch, the microswitch reopens, power to the circuit is cut, and the motor stops. Pushing the product button restarts the cycle.

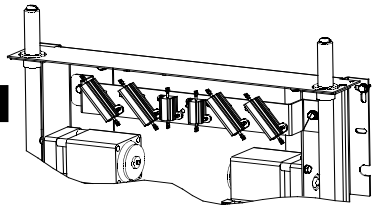
Problems with the basket lift can be grouped into three categories:

- Binding/jamming problems
- Motor and gear problems
- Electronic problems

100-120V Configuration



208-250V Configuration



BINDING/JAMMING PROBLEMS

Noisy, jerky or erratic movement of the lifts is usually due to lack of lubrication of the rods and their bushings. Apply a light coat of Lubriplate® or similar lightweight white grease to the rod and bushings to correct the problem.

With the modular basket lift, another possible cause of binding is improper positioning of the motor, which prevents the gear from correctly engaging the teeth in the rod. To correct the problem, loosen the screws that hold the motor in place and move it forward or backward until the rod has just enough slack to be rotated slightly.

MOTOR AND GEAR PROBLEMS

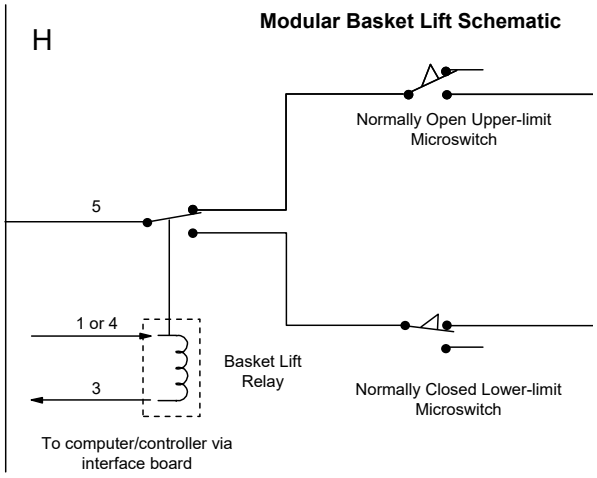
With the modular basket lift, the most likely problem to be encountered in this category is erratic motion of the lift due to a worn drive gear. Failure to keep the lift rod and bushings properly lubricated will cause unnecessary wear of the gear. The problem is corrected by replacing the worn gear.

If the lift cycles correctly but fails to remain in the up position (i.e., goes up, but then slowly settles back down into the frypot), the problem is a failed motor brake. A failed motor brake cannot be repaired and requires replacement of the motor itself.

If power is reaching the motor but the motor fails to run, the motor is burned out and must be replaced.

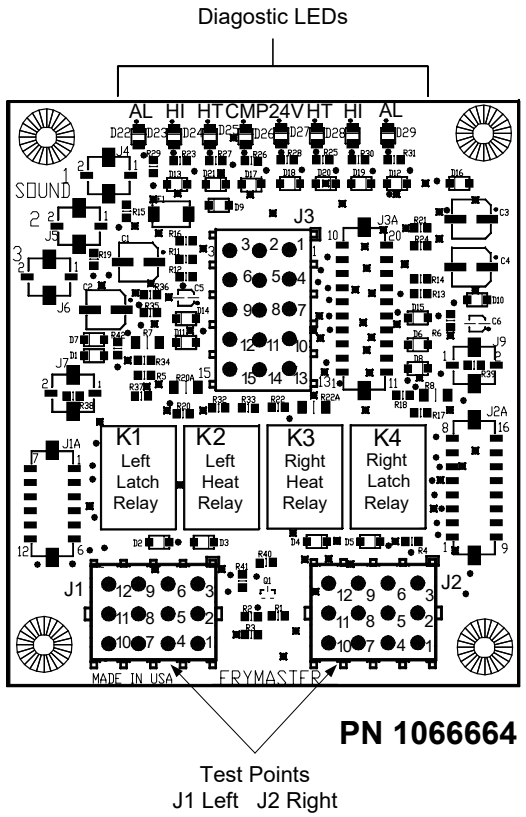
ELECTRONIC PROBLEMS

Within this category are problems associated with the relays, microswitches, capacitors, resistors, interface board, wiring, and controls. The most common problem in this category is a lift that continuously travels up and down. This is usually caused by a microswitch that is out of adjustment. Troubleshooting the electronics of a modular basket lift is simply a process of verifying current flow through the individual components up to and including the motor. Using a multimeter set to the 250 VAC range, check the connections on both sides of the component for the presence of the applied line voltage. The schematic below and the wiring diagram on page 1-16 can identify the components and wiring connection points.



1.11 Interface Board Diagnostic Chart

The following diagram and charts provide ten quick system checks that can be performed using only a multimeter.



Diagnostic LED Legend

CMP	**indicates power from 12V transformer**
24	**indicates power from 24V transformer**
HI	**(RH) indicates output (closed) from right latch relay**
HI	**(LH) indicates output (closed) from left latch relay**
HT	**(RH) indicates output from right heat relay**
HT	**(LH) indicates output from left heat relay**
AL	**(RH) indicates output (open) from right latch relay**
AL	**(LH) indicates output (open) from left latch relay**

NOTE – When testing the test points on J1 and J2 test use the illustration above disregarding any silk-screened numbers on the board depicting the location of Pin 1. Pin 1 is located in the bottom right corner of Both J1 and J2. These test points are ONLY for RE Series boards with J1 and J2 plugs on the front of the board.

Meter Setting	Test	Pin	Pin	Results
12 VAC Power	50 VAC Scale	3 of J2	1 of J2	12-16 VAC
24 VAC Power	50 VAC Scale	2 of J2	Chassis	24-30 VAC
*Probe Resistance (RH)	R X 1000 OHMS	11 of J2	10 of J2	See Chart
*Probe Resistance (LH)	R X 1000 OHMS	1 of J1	2 of J1	See Chart
High-Limit Continuity (RH)	R X 1 OHMS	9 of J2	6 of J2	0 - OHMS
High-Limit Continuity (LH)	R X 1 OHMS	6 of J1	9 of J1	0 - OHMS
Latch Contactor Coil (RH)	R X 1 OHMS	8 of J2	Chassis	3-10 OHMS
Latch Contactor Coil (LH)	R X 1 OHMS	5 of J1	Chassis	3-10 OHMS
Heat Contactor Coil (RH)	R X 1 OHMS	7 of J2	Chassis	11-15 OHMS
Heat Contactor Coil (LH)	R X 1 OHMS	4 of J1	Chassis	11-15 OHMS

*** Disconnect 15-Pin harness from the computer/controller before testing the probe circuit.**

1.12 Probe Resistance Chart

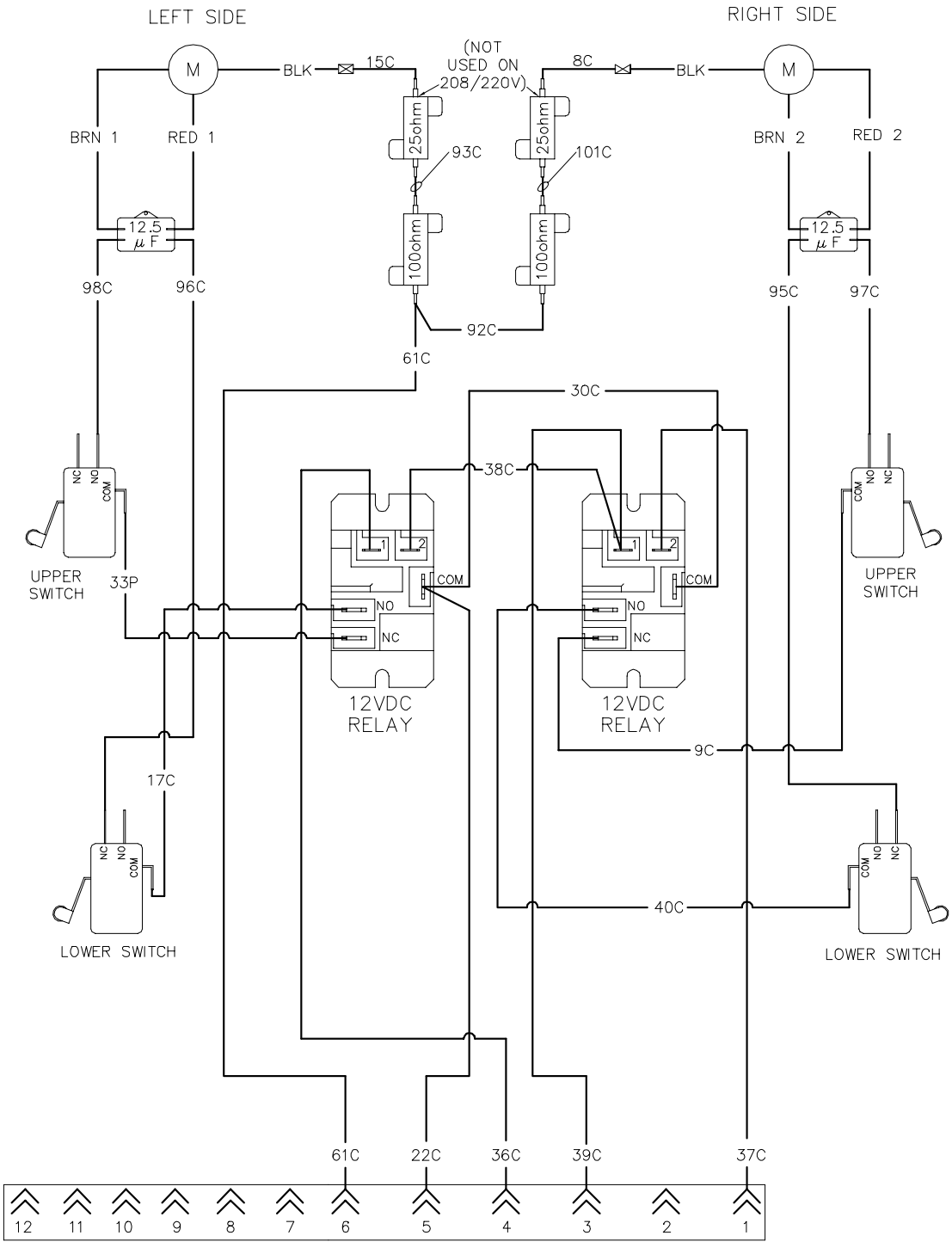
Probe Resistance Chart

For use with fryers manufactured with Minco Thermistor probes only.

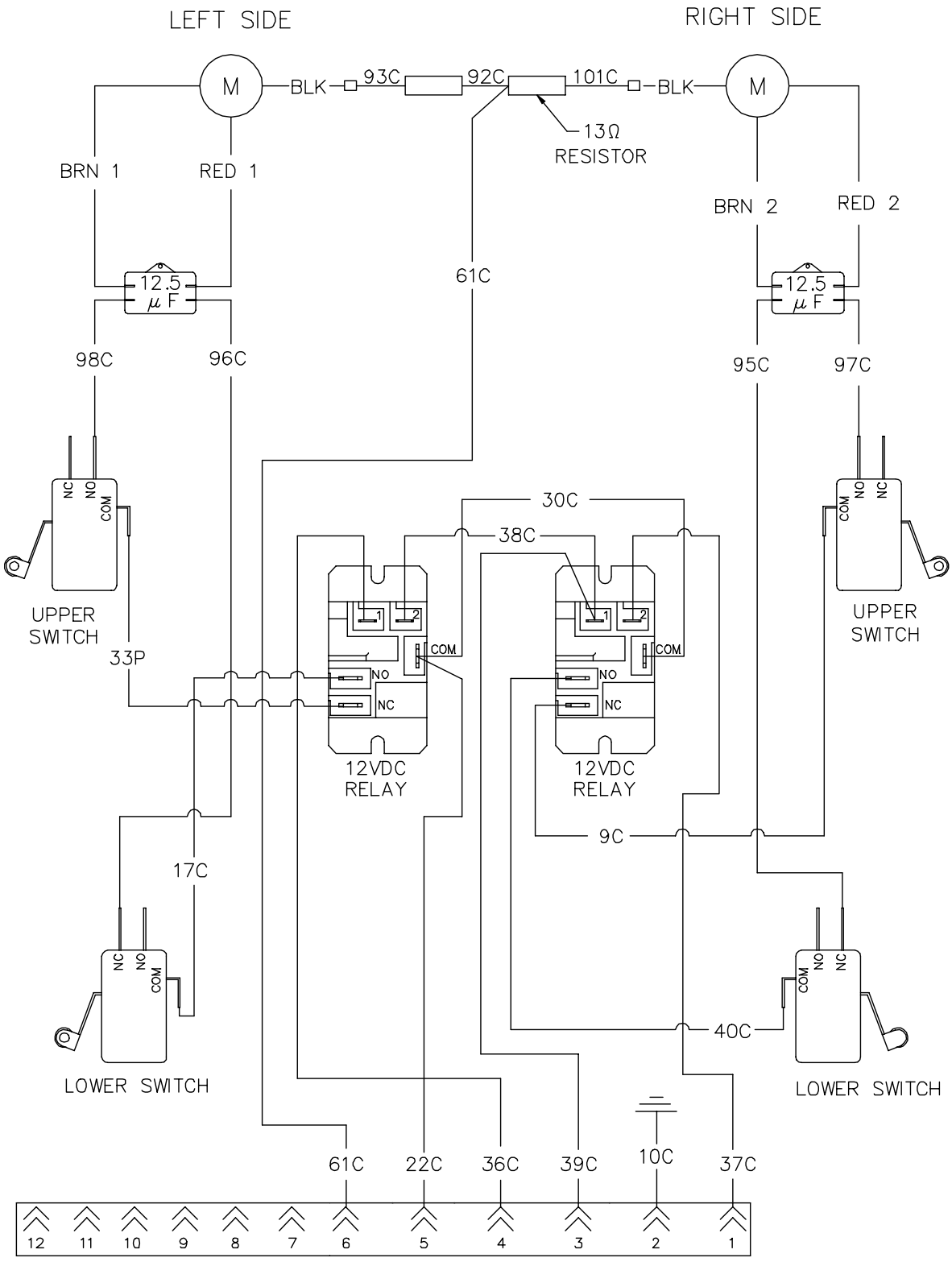
F	OHMS	C	F	OHMS	C	F	OHMS	C	F	OHMS	C	F	OHMS	C
60	1059	16	130	1204	54	200	1350	93	270	1493	132	340	1634	171
65	1070	18	135	1216	57	205	1361	96	275	1503	135	345	1644	174
70	1080	21	140	1226	60	210	1371	99	280	1514	138	350	1654	177
75	1091	24	145	1237	63	215	1381	102	285	1524	141	355	1664	179
80	1101	27	150	1247	66	220	1391	104	290	1534	143	360	1674	182
85	1112	29	155	1258	68	225	1402	107	295	1544	146	365	1684	185
90	1122	32	160	1268	71	230	1412	110	300	1554	149	370	1694	188
95	1133	35	165	1278	74	235	1422	113	305	1564	152	375	1704	191
100	1143	38	170	1289	77	240	1432	116	310	1574	154	380	1714	193
105	1154	41	175	1299	79	245	1442	118	315	1584	157	385	1724	196
110	1164	43	180	1309	82	250	1453	121	320	1594	160	390	1734	199
115	1174	46	185	1320	85	255	1463	124	325	1604	163	395	1744	202
120	1185	49	190	1330	88	260	1473	127	330	1614	166	400	1754	204
125	1195	52	195	1340	91	265	1483	129	335	1624	168	405	1764	207

1.13 Wiring Diagrams

1.13.1.1 Modular Basket Lift Wiring Diagram 208-250V (Prior to Jan. 2013)



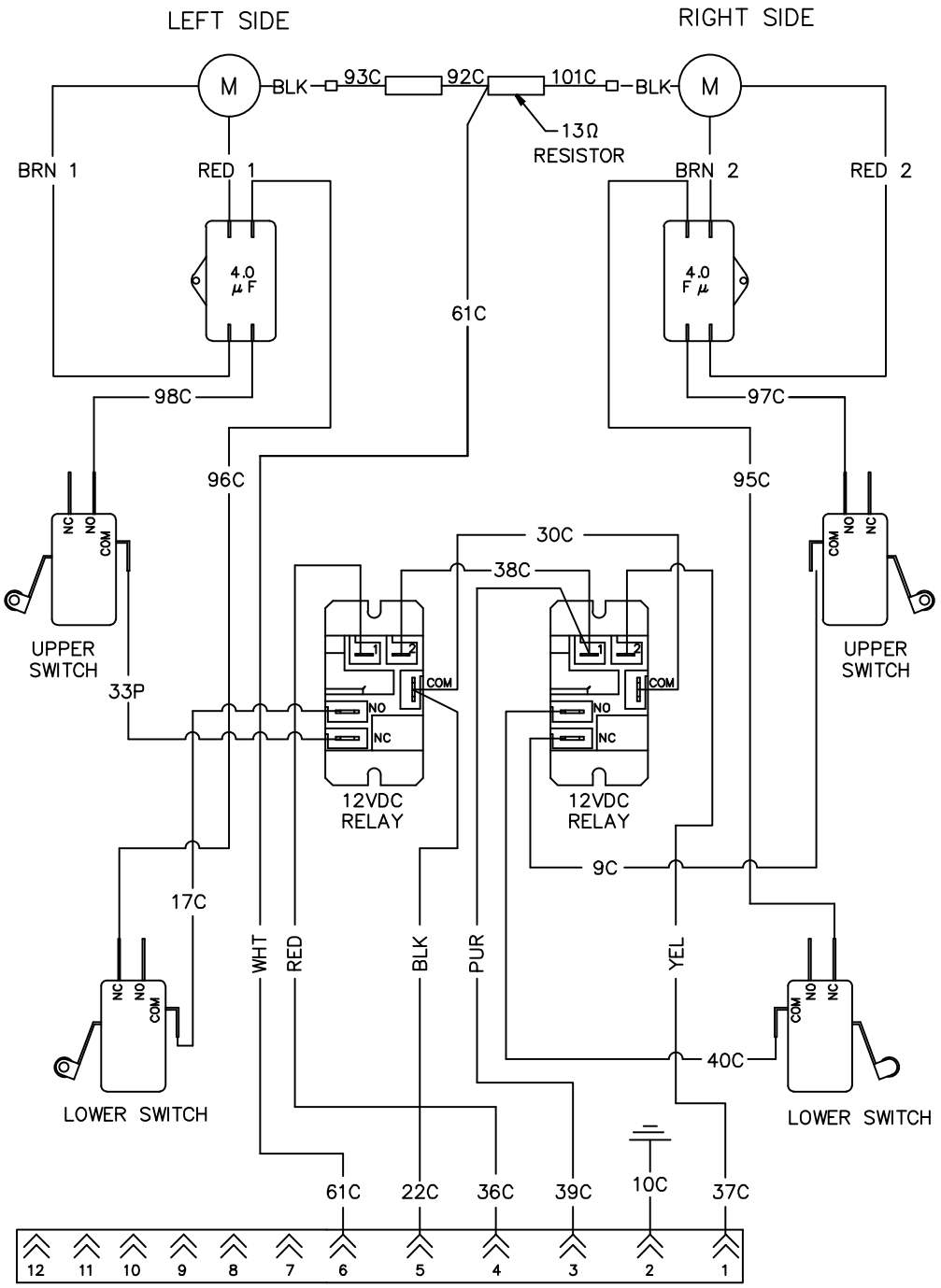
1.13.1.2 Modular Basket Lift Wiring Diagram 100-120V



REFERENCES TO LEFT & RIGHT ARE FROM THE REAR OF THE FRYER

8050555E

1.13.1.3 Modular Basket Lift Wiring Diagram 480V and 208V-250V (After Jan. 2013)

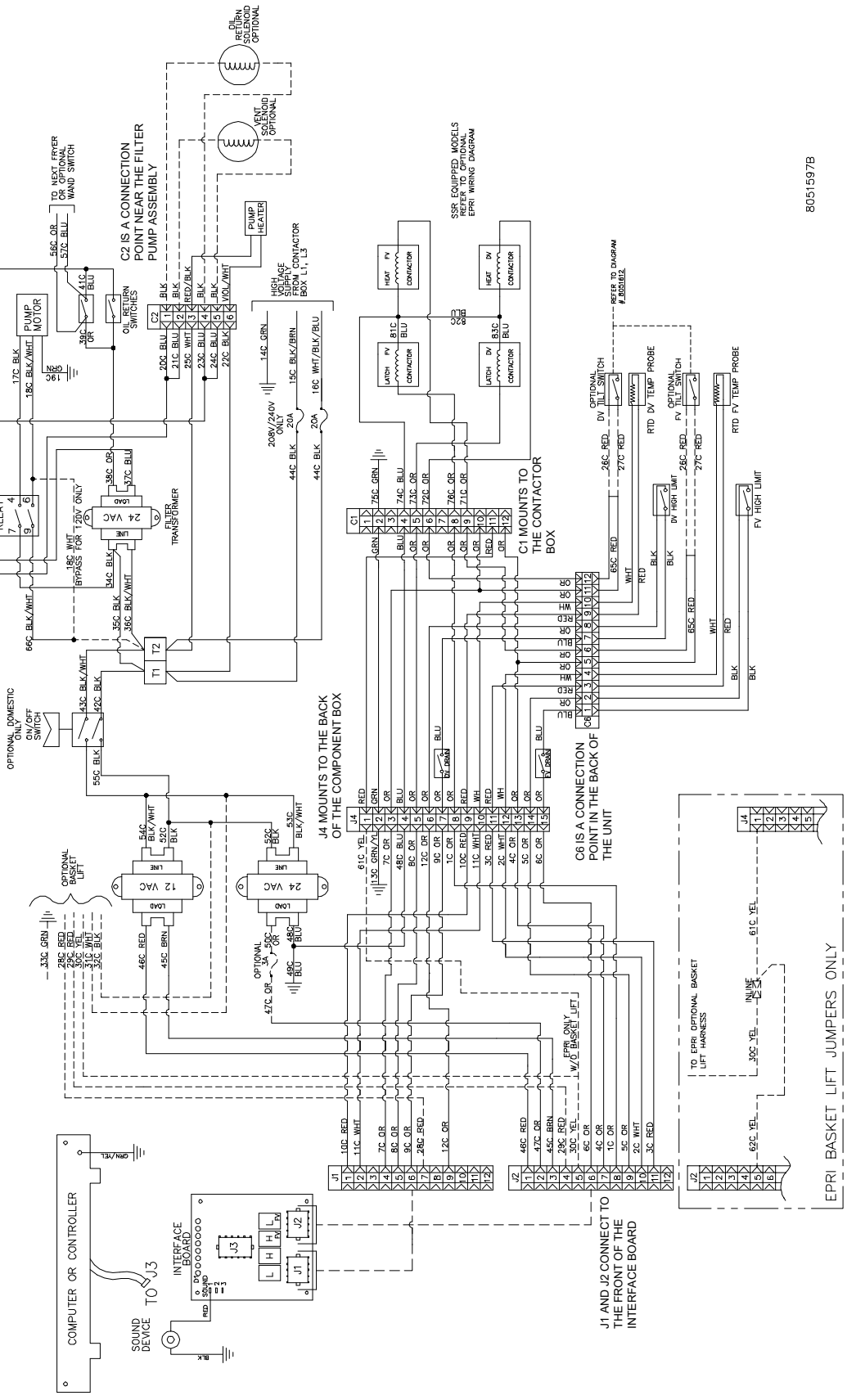


REFERENCES TO LEFT & RIGHT ARE
FROM THE REAR OF THE FRYER

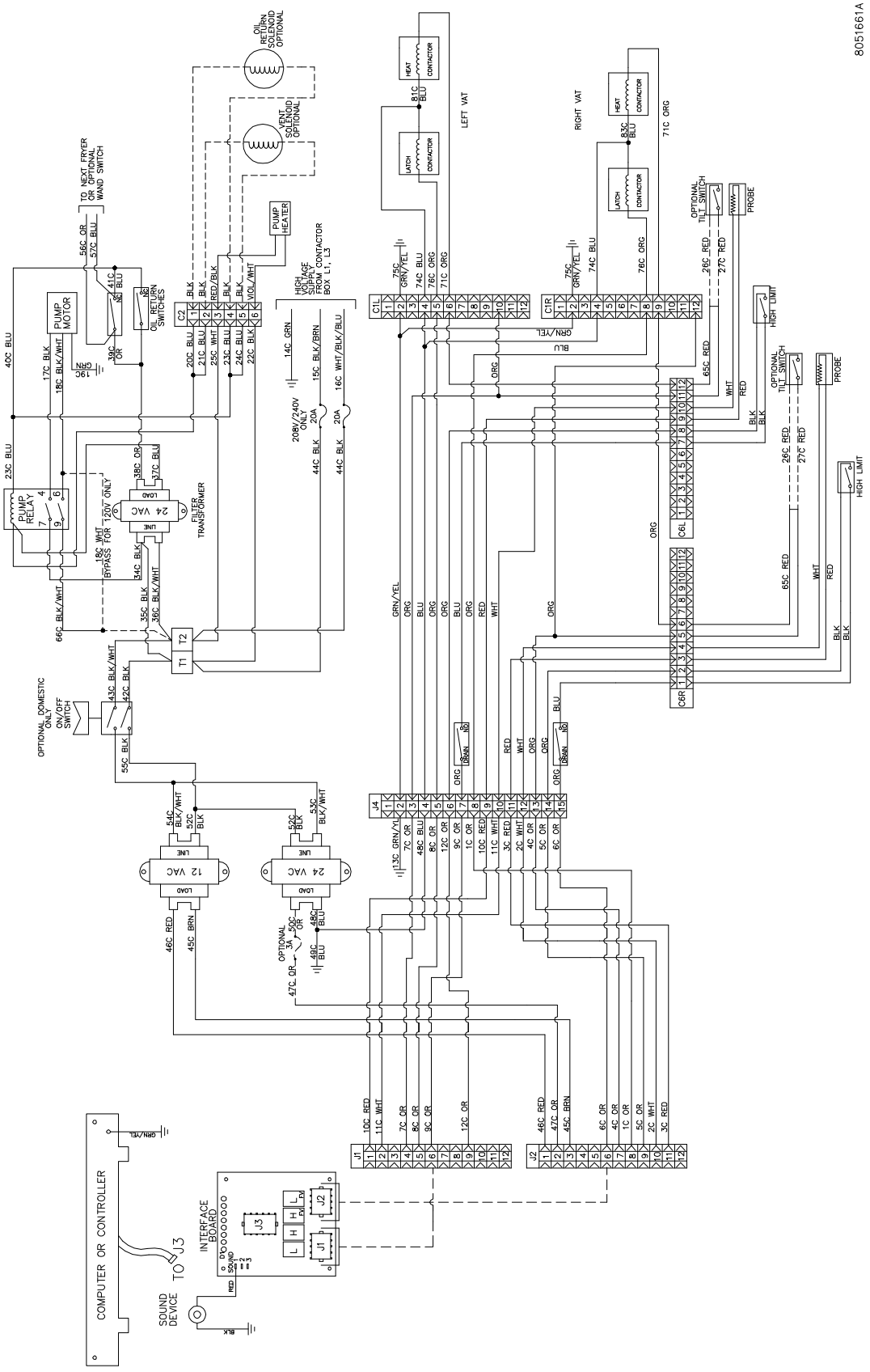
8051964B

1.13.2 Component Wiring

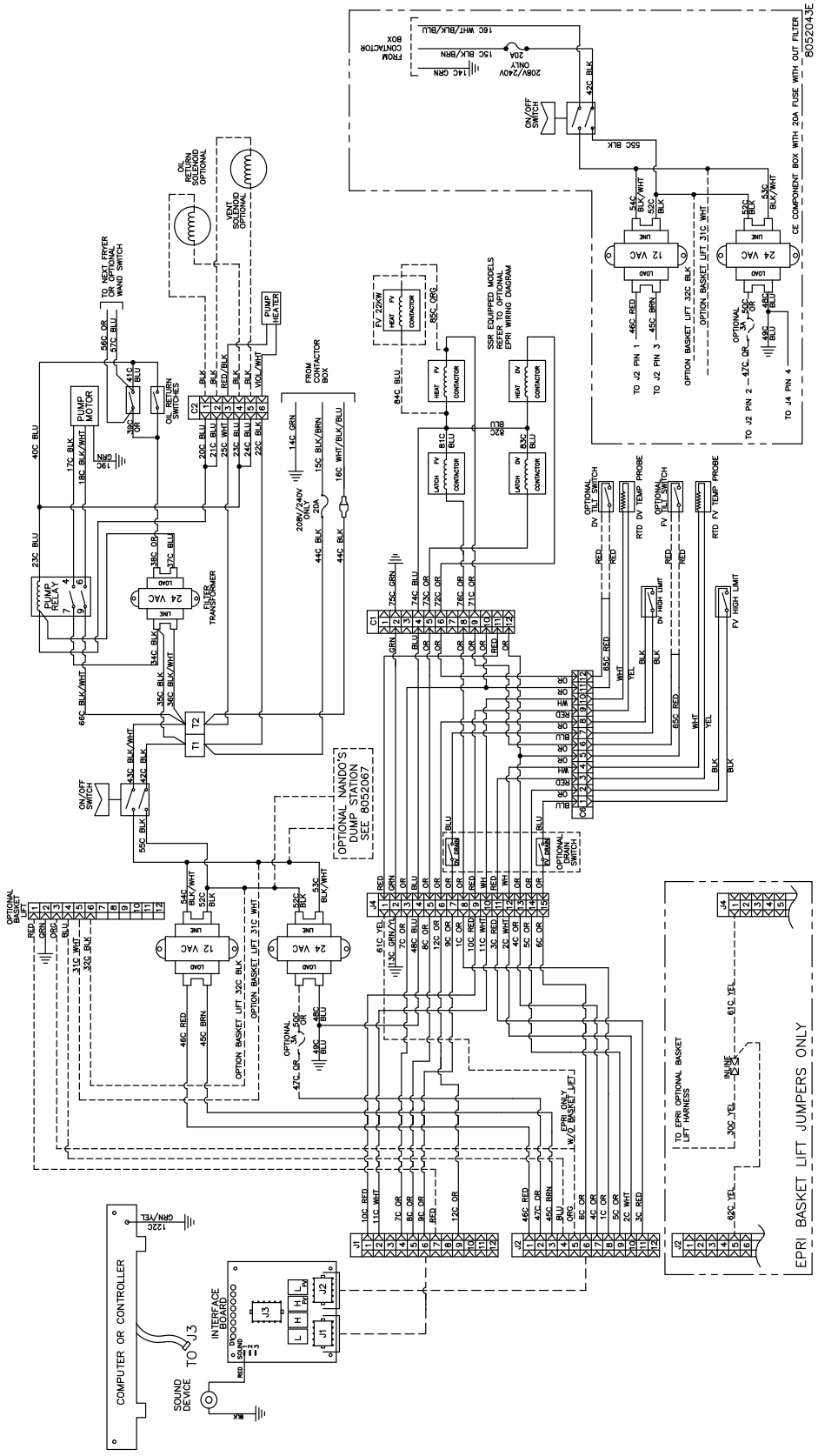
1.13.2.1 Standard Fryers



1.13.2.2 Component Wiring- Fryer and Half

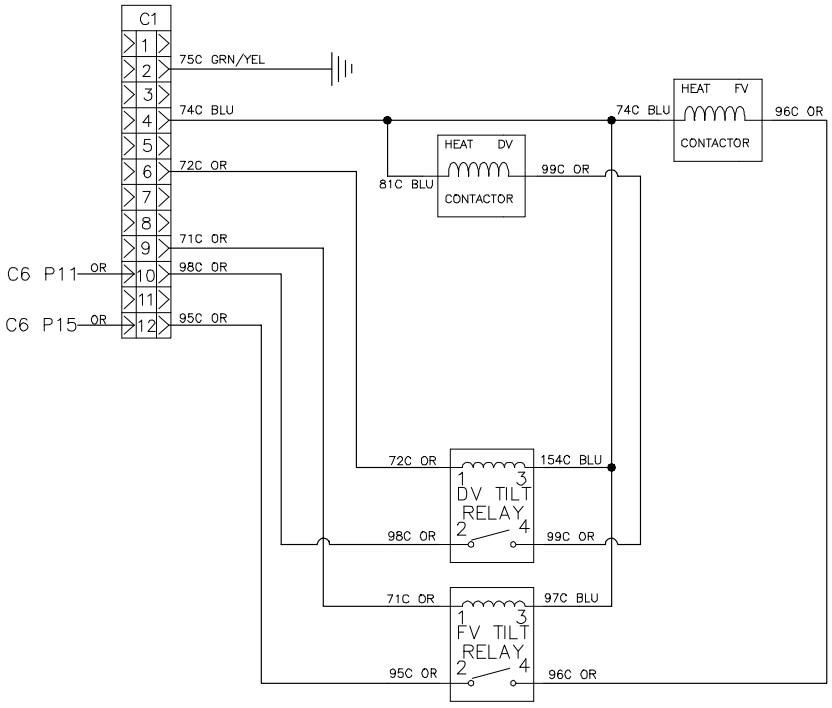


1.13.2.3 Component Wiring - CE



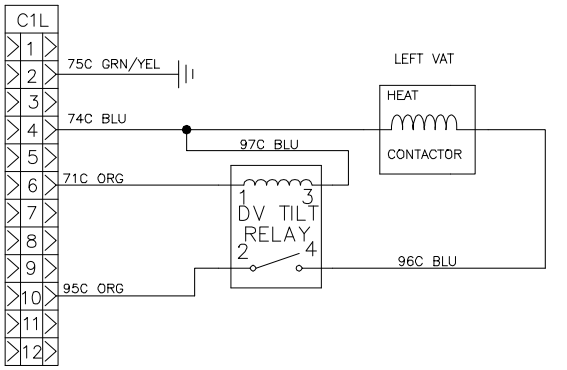
1.13.3 Tilt Switch Wiring

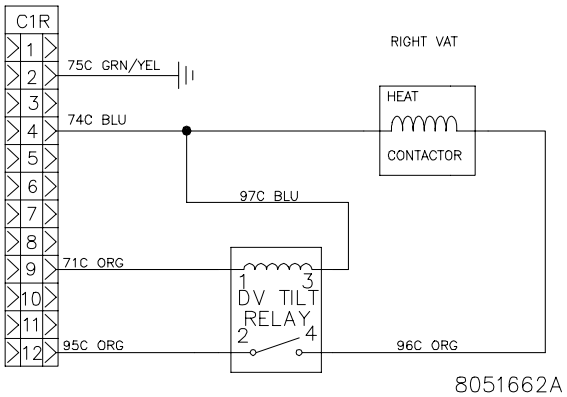
Standard



8051612B

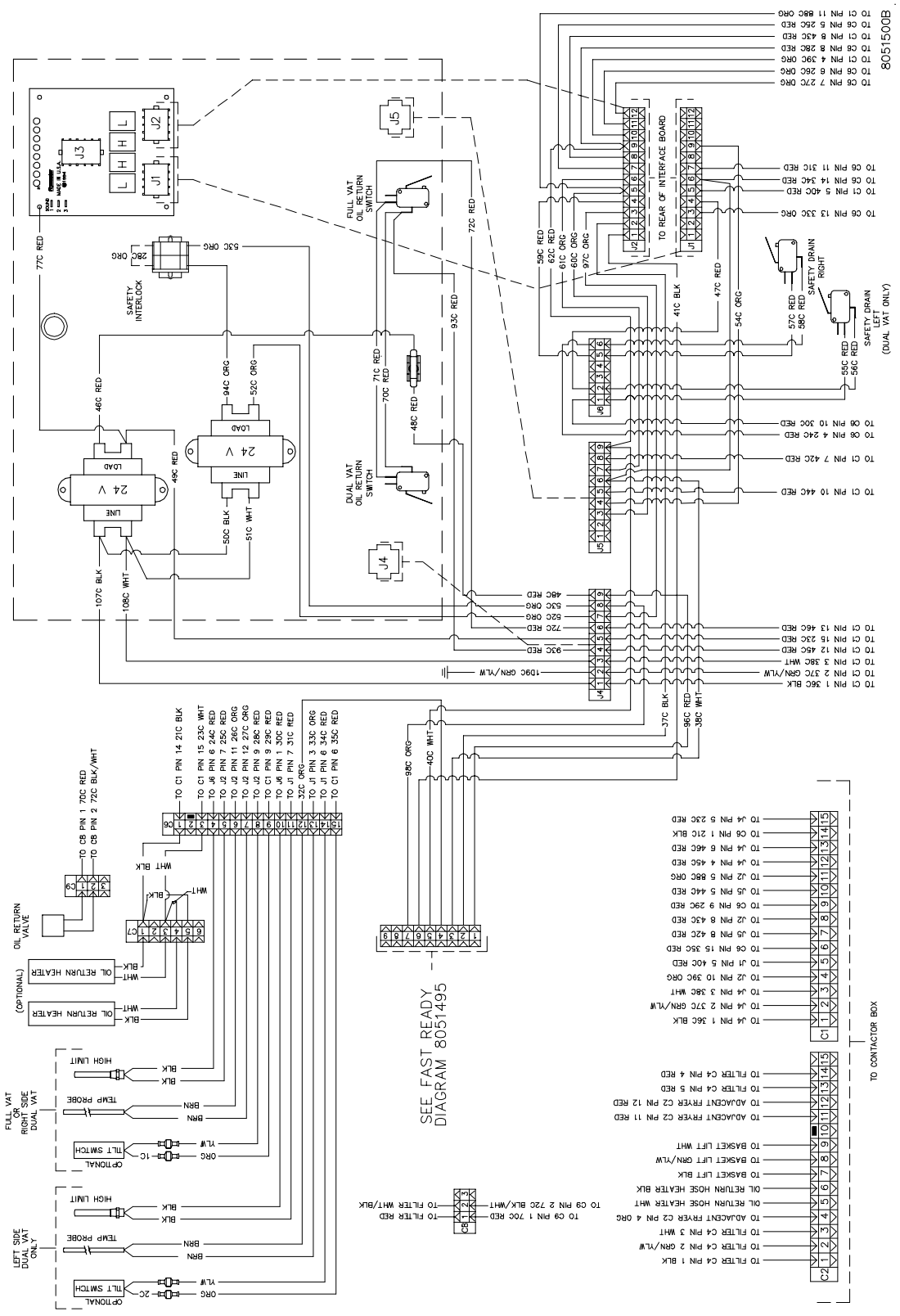
Fryer and half



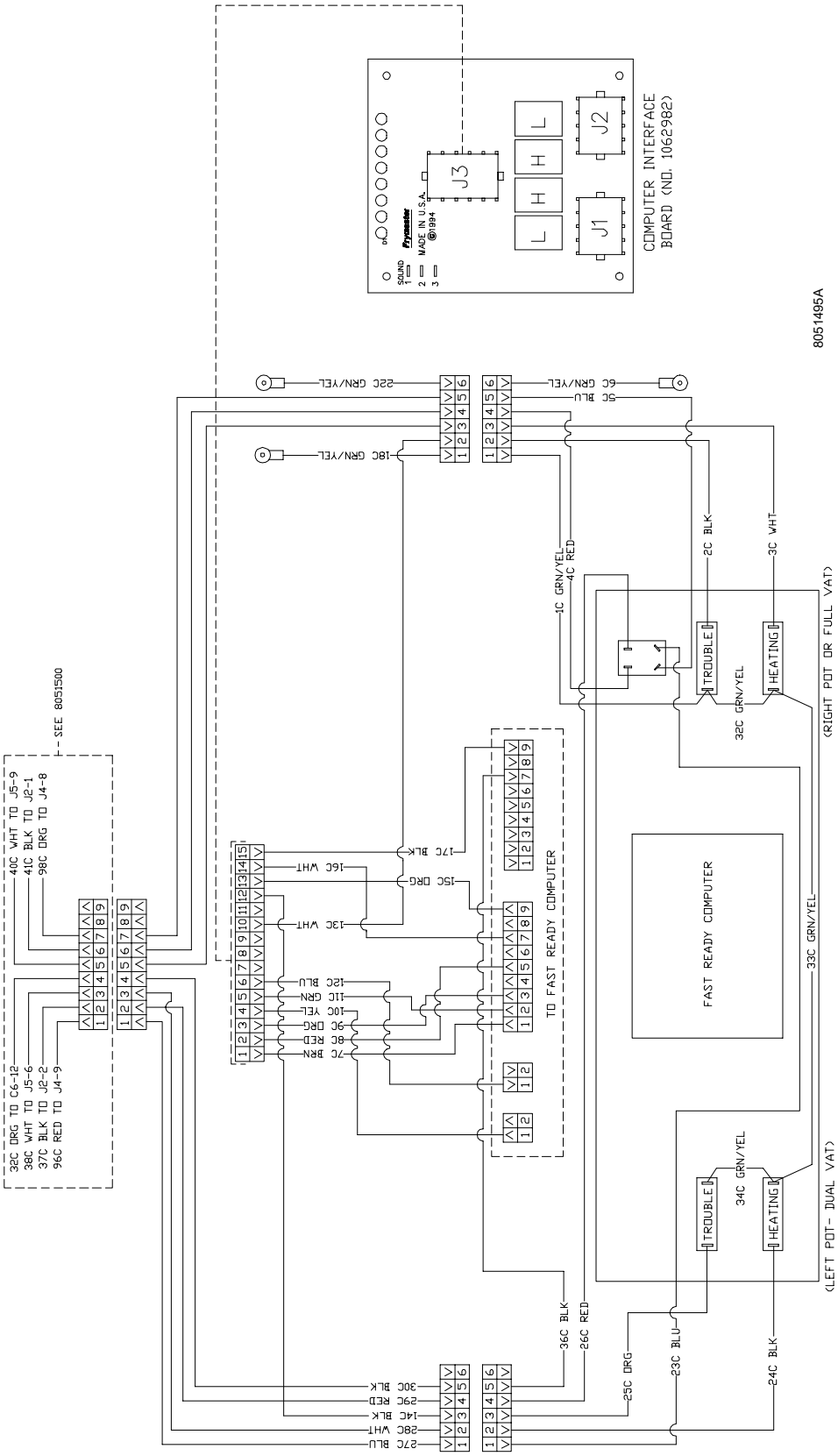


8051662A

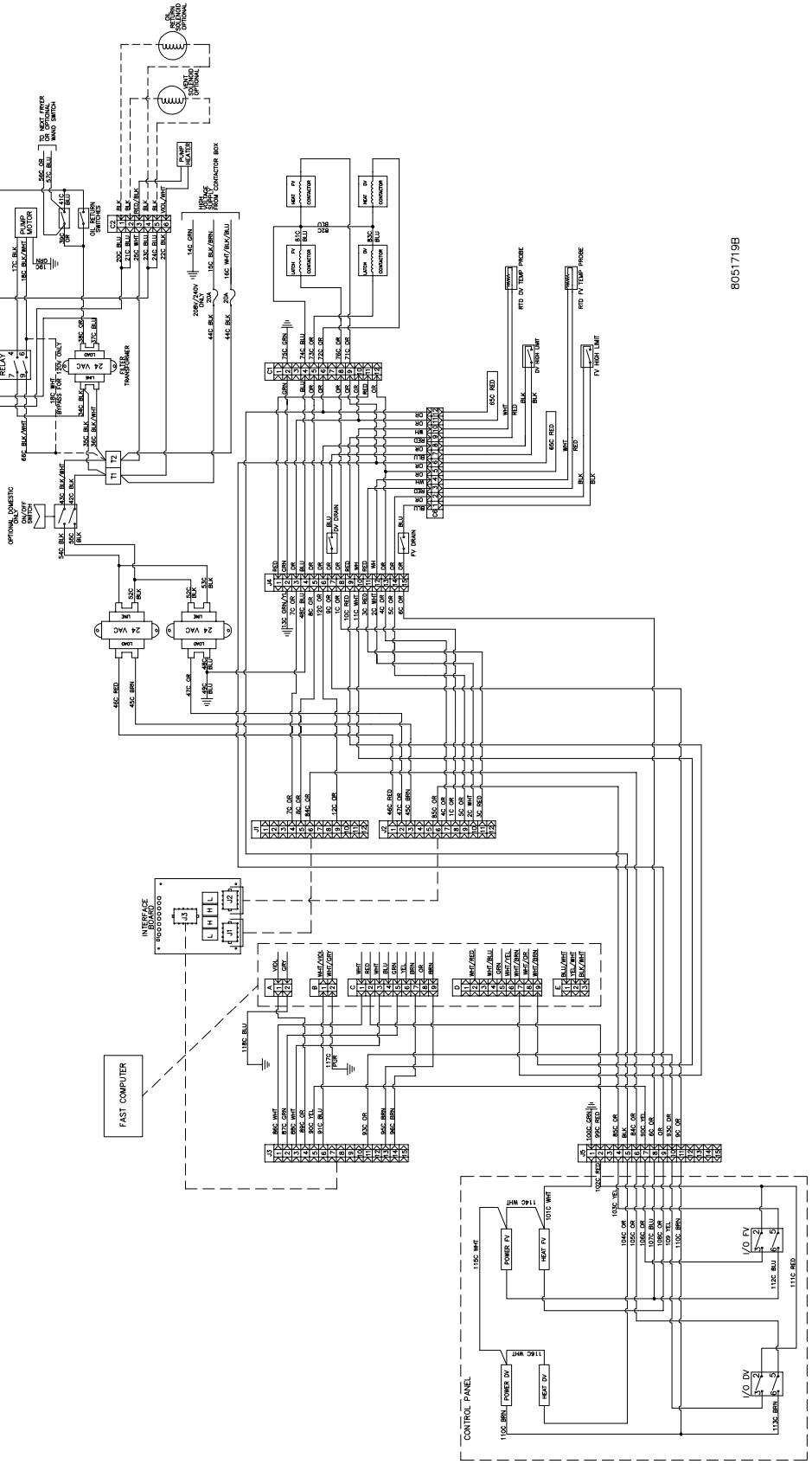
1.13.4 Component Wiring - Fast Ready



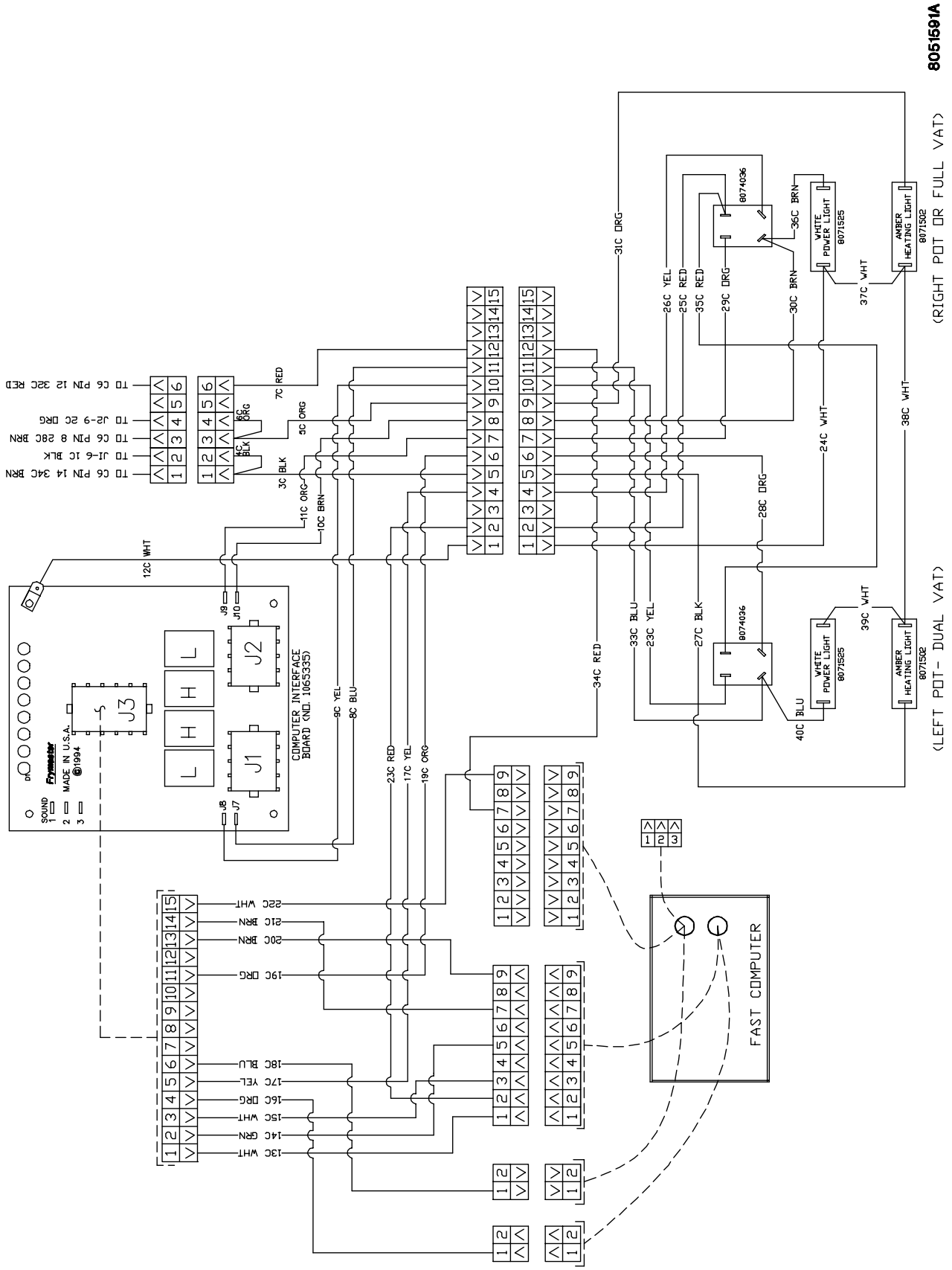
1.13.5 Fast Ready Computer Wiring



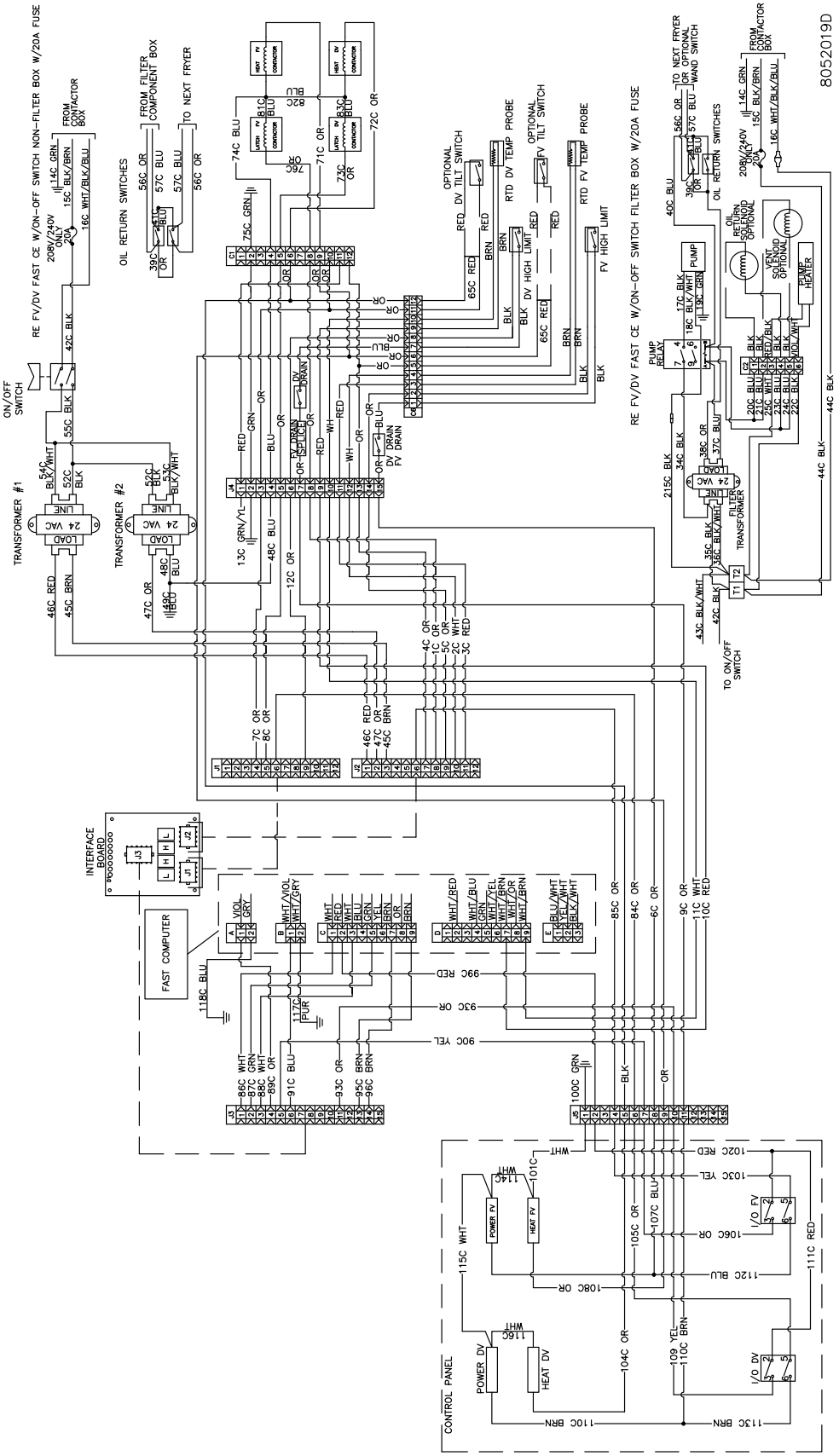
1.13.6 Computer Harness - Fast Ready



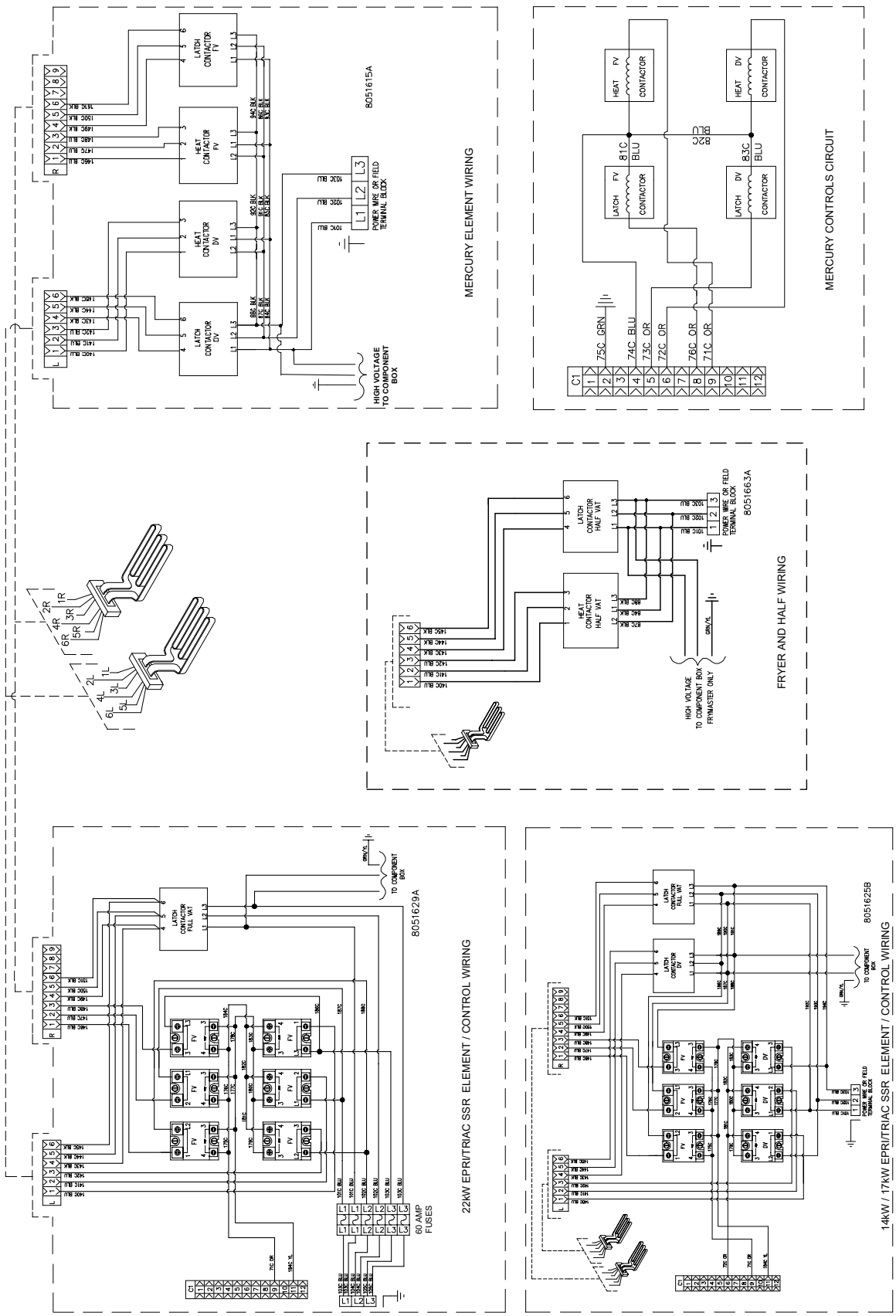
1.13.7 Control Wiring - Fast Ready



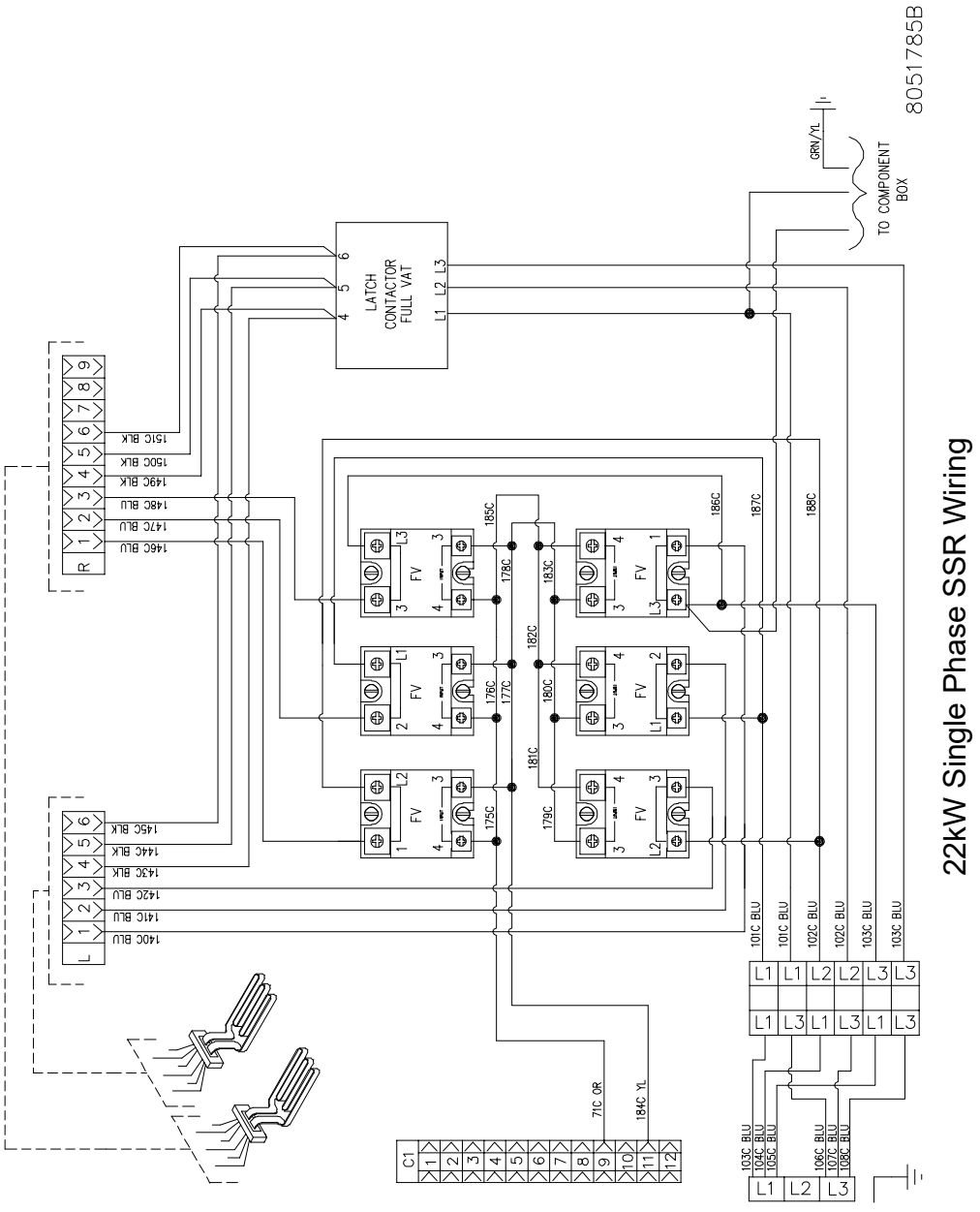
1.13.7.1 Fast Wiring CE



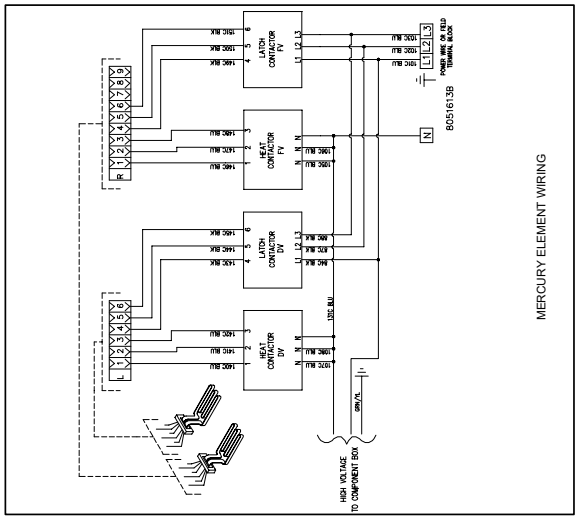
1.13.8 Contactor – DELTA Configuration

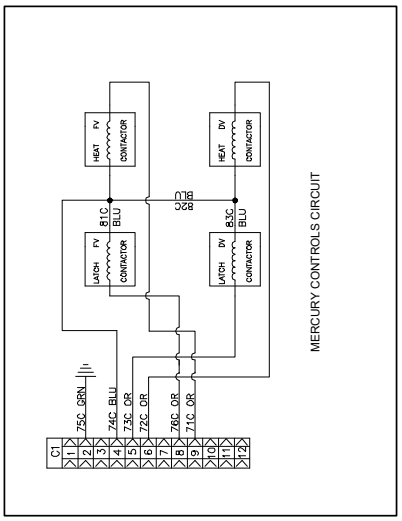


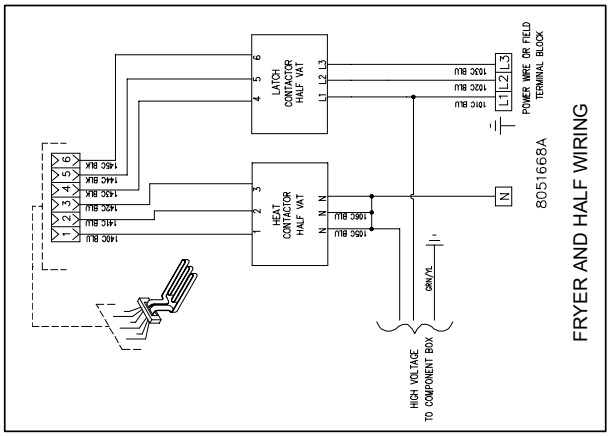
1.13.8 Contactor – DELTA Configuration cont.

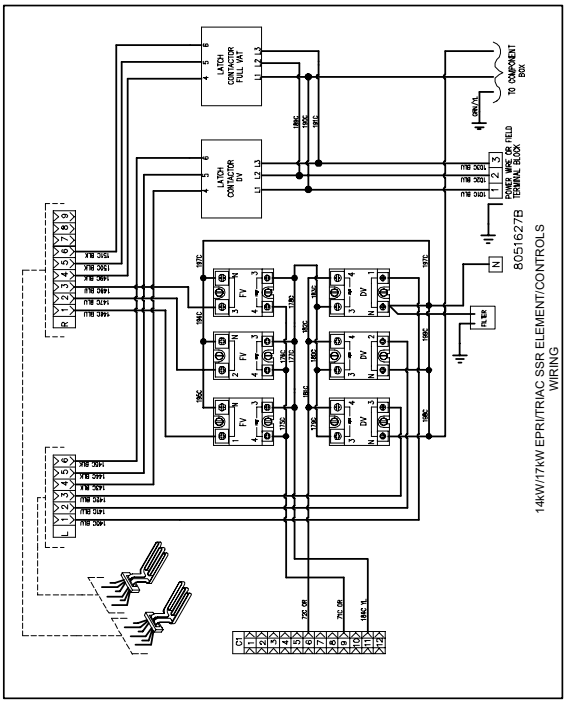


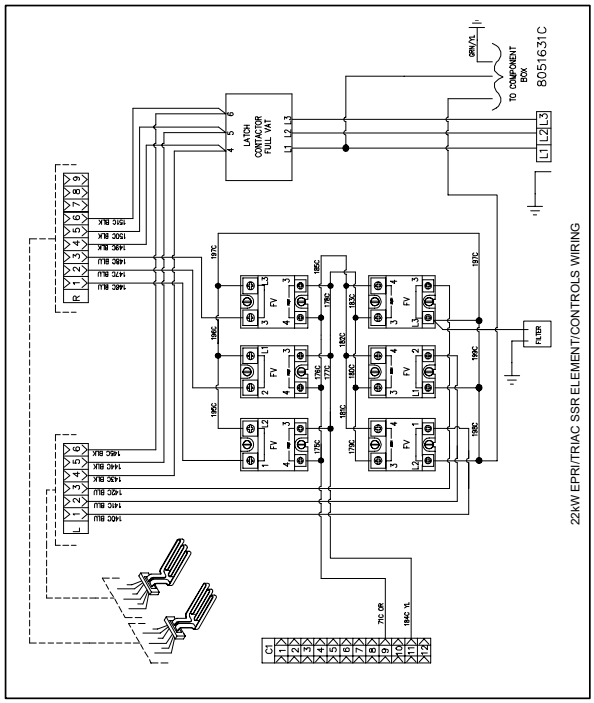
1.13.9 Contactor Box - WYE Configuration Export



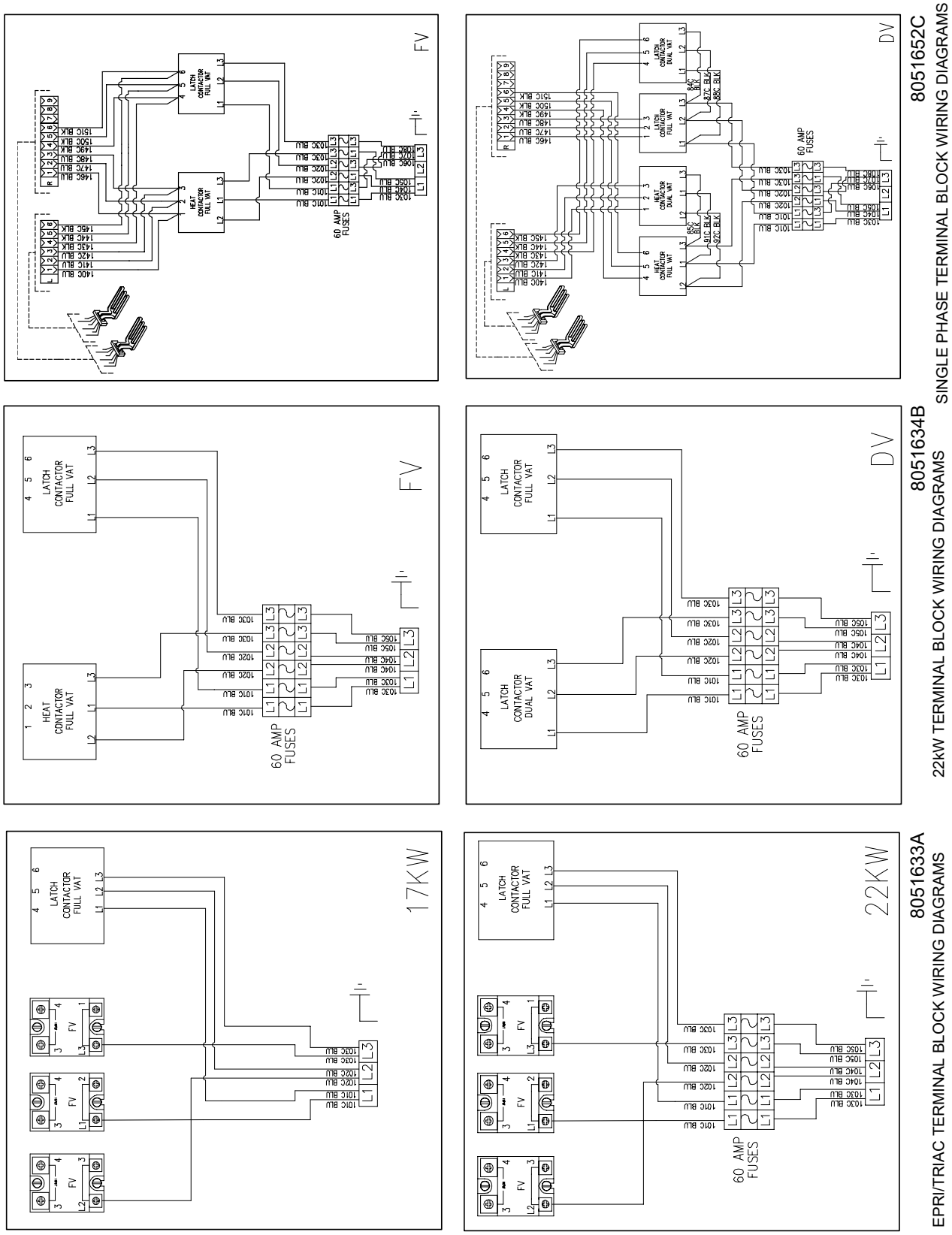




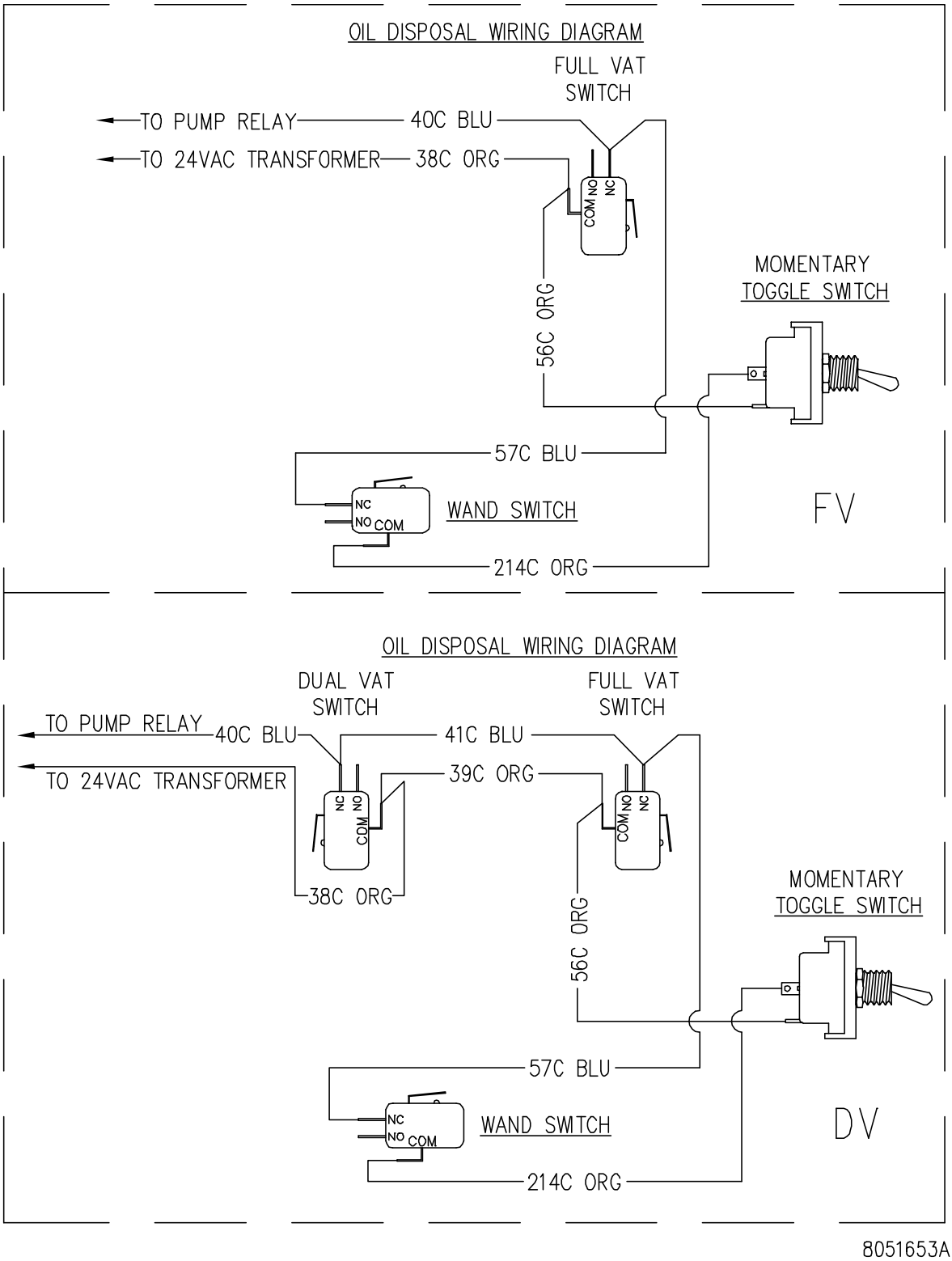




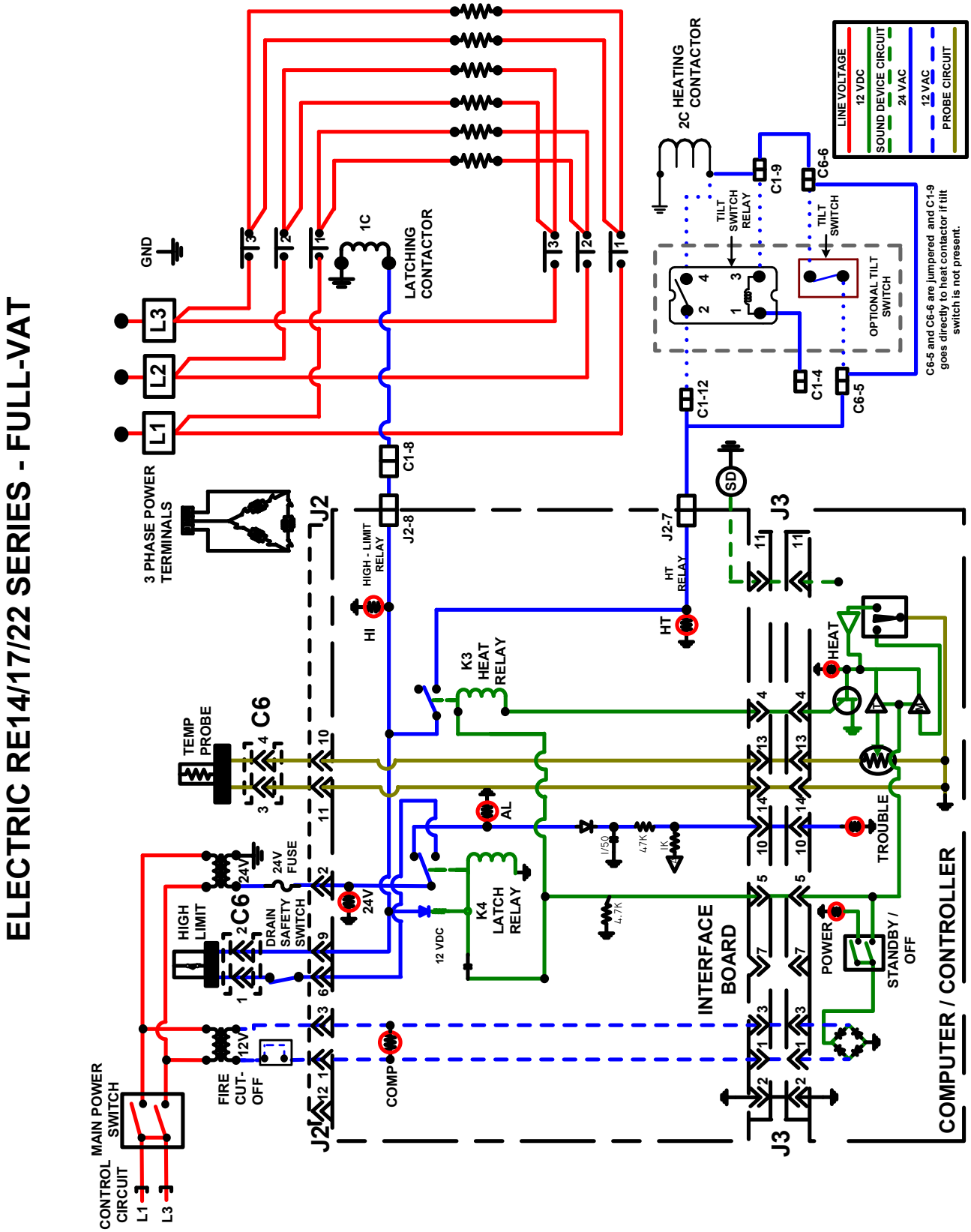
1.13.10 Terminal Block Wiring



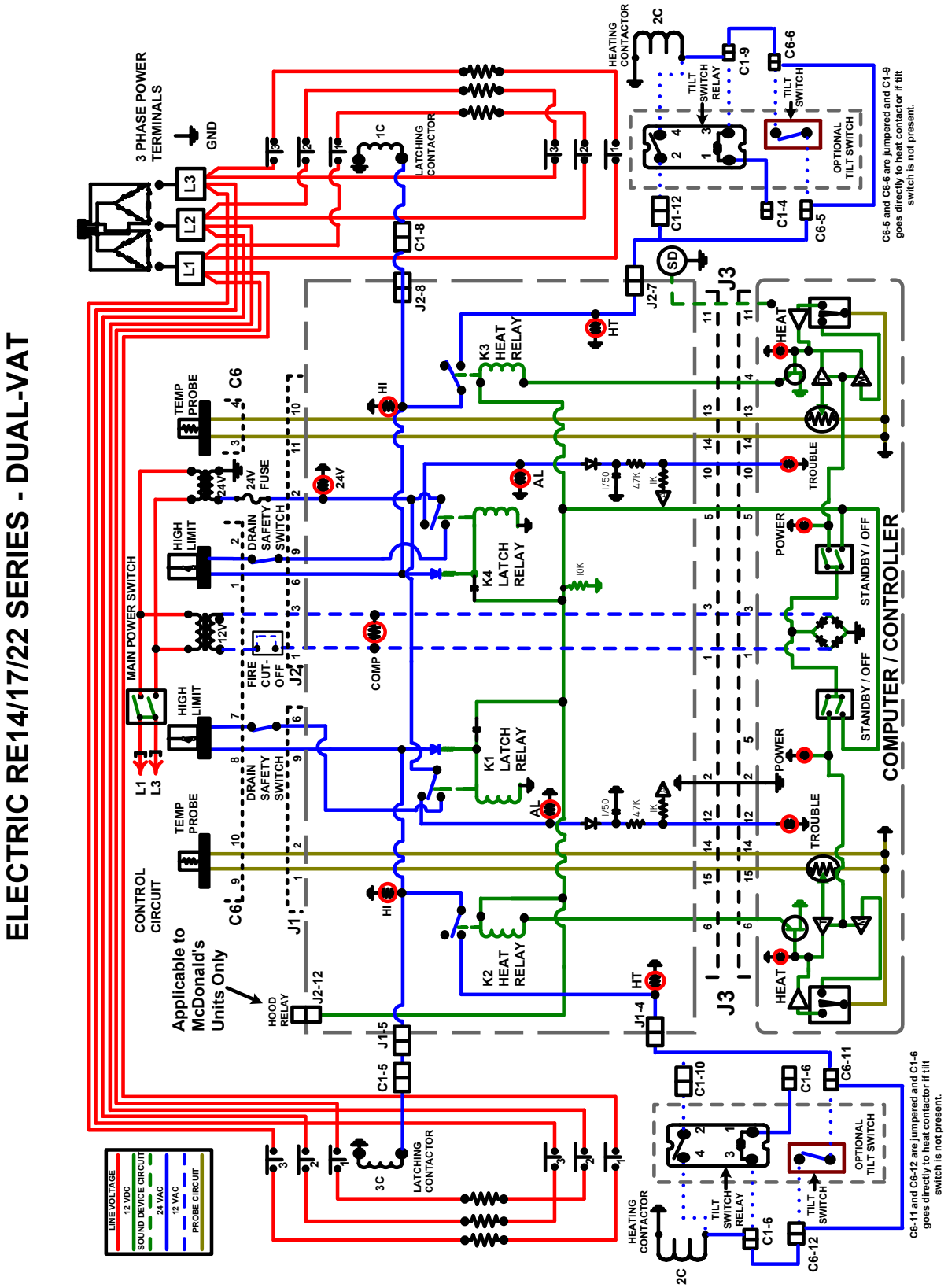
1.13.11 Oil Disposal Wiring



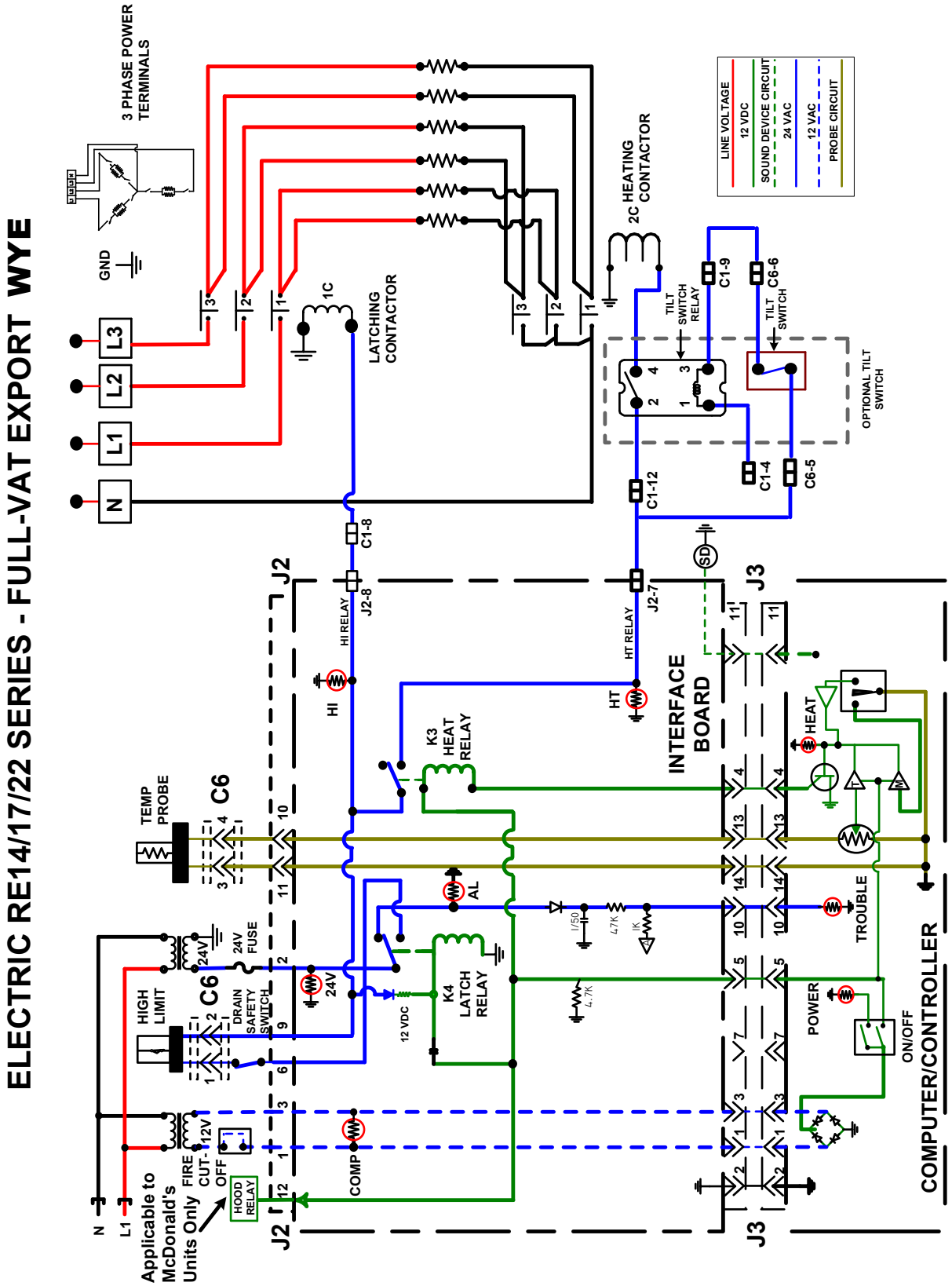
1.13.12 Simplified RE14/17/22 Series – Full Vat Wiring



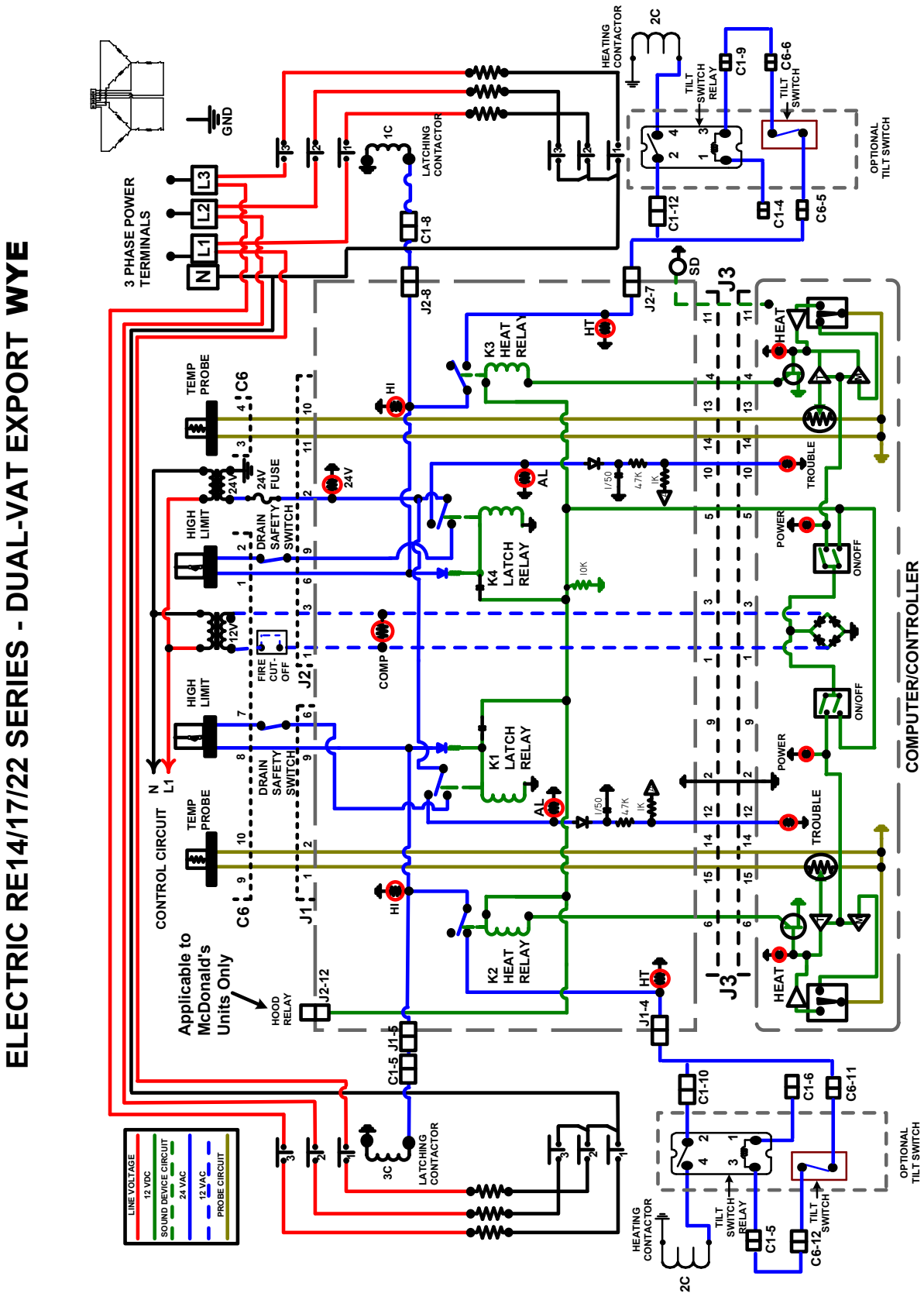
1.13.13 Simplified RE14/17/22 Series – Dual Vat Wiring



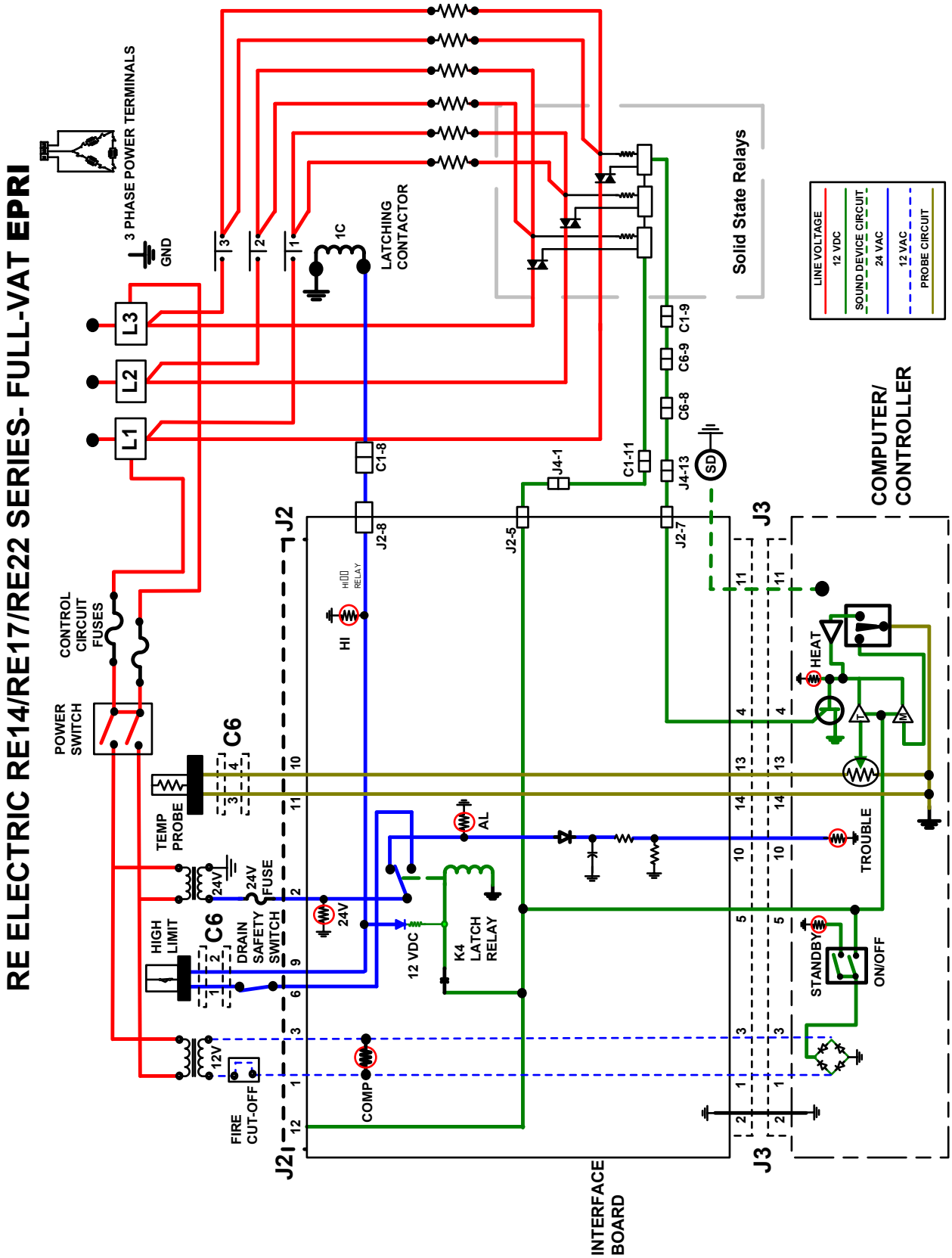
1.13.14 Simplified RE14/17/22 Series – Full Vat Wiring (EXPORT) WYE



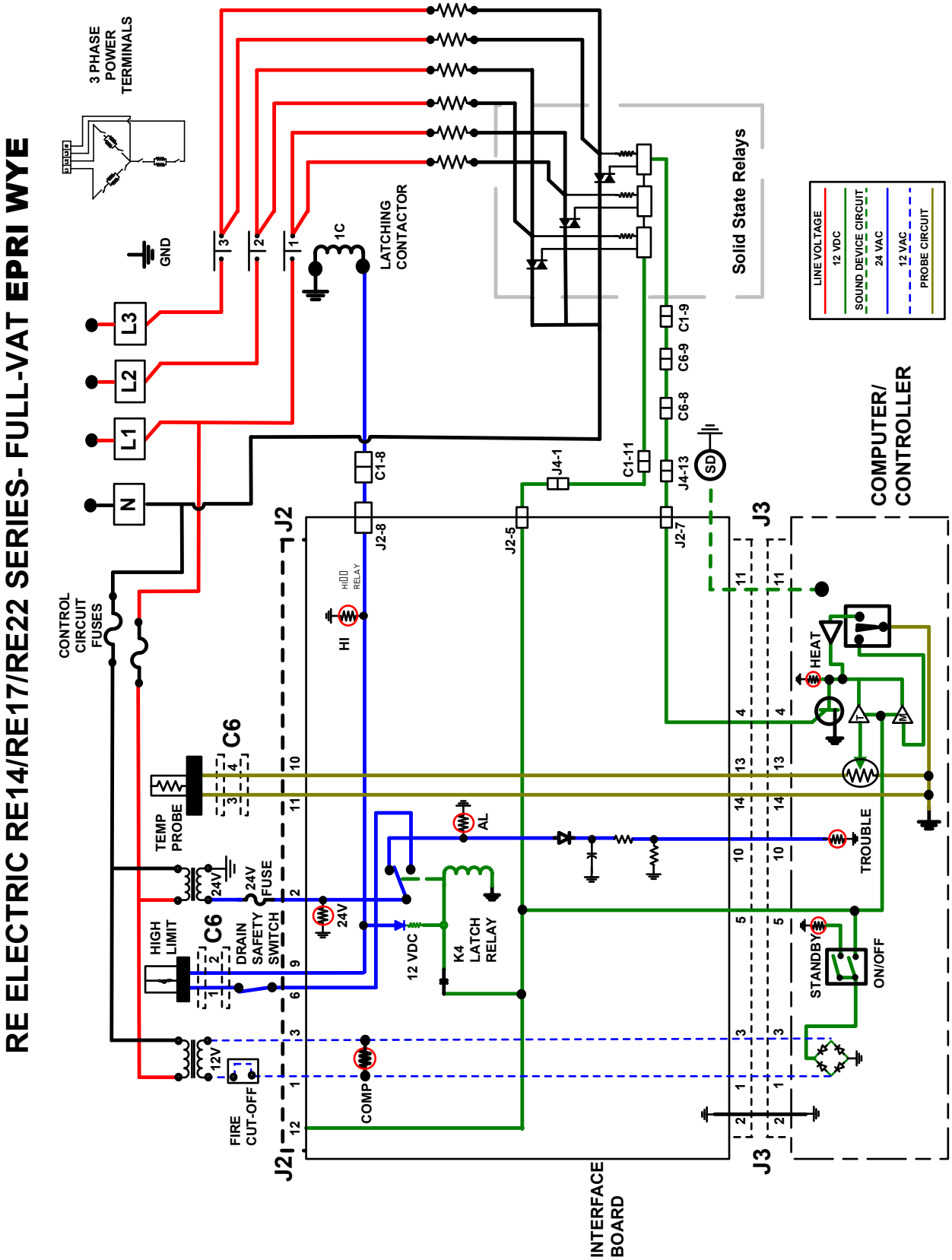
1.13.15 Simplified RE14/17/22 Series – Dual Vat Wiring (EXPORT) WYE



1.13.16 Simplified RE14/17/22 Series – Full Vat Wiring EPRI

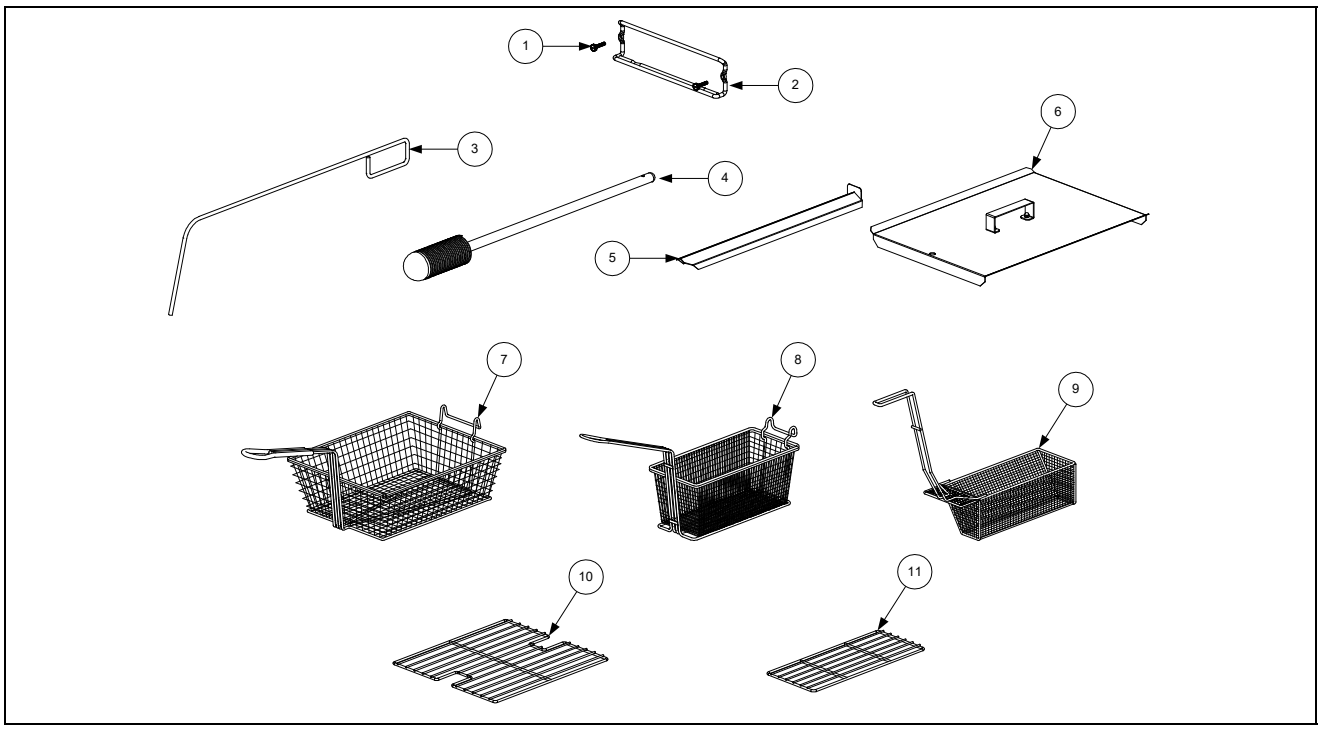


1.13.17 Simplified RE14/17/22 Series – Full Vat Wiring EPRI (EXPORT) WYE



RE SERIES E⁴ ELECTRIC FRYERS
CHAPTER 2: PARTS LIST

2.1 Accessories

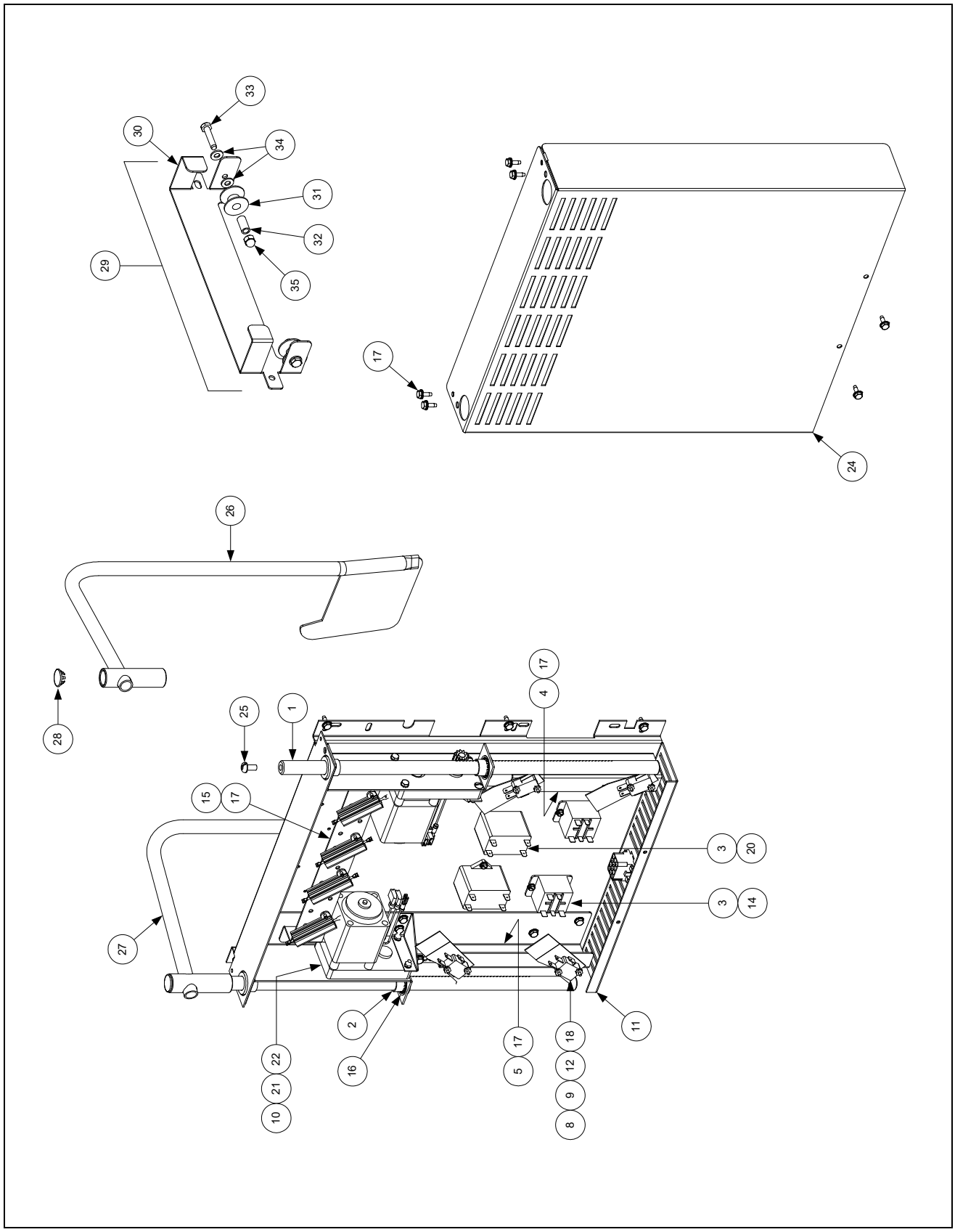


ITEM	PART #	COMPONENT
1	8090171	Thumbscrew, ¼ -20 X 1⅜-inch
2	8102793	Hanger, Wireform Basket ***(use 8102794 for Fryer ½)***
*	8090921	Spacer, Basket Hanger
3	8030197	Cleanout Rod, 27-inch
4	8030209	Brush, Frypot
5	8235772	Connecting Strip, Frypot ***(use 8236000 for LH, use 8235966 for RH Fryer ½)***
	8235807	Connecting Strip, Frypot Deep Cabinet
6	8063068	Cover, Full-Vat Frypot
	8063071	Cover, Dual-Vat Frypot
	1066349	Cover, Full-Vat Frypot Deep Cabinet
7	8030099	Basket, Full-Vat
8	8030271	Basket, Dual-Vat (Twin)
9	8030122	Sediment Tray, Left Dual-Vat
*	8030123	Sediment Tray, Right Dual-Vat
*	8030113	Sediment Tray, Full-Vat ***(use 8030365 for FV Deep Cabinet)***
10	8030132	Rack, Full-Vat Basket Support ***(use 8030364 for FV Deep Cabinet)***
11	8030106	Rack, Dual-Vat Basket Support
*	8241664	Spreader Pan
*	8241720	Cover, Spreader Pan
*	8071575	Heatlamp, Merco 120V 2 Bulb ***(use 8065278SP for 120V Lamp Assembly)***
*	8071576	Heatlamp, Merco 240V 2 Bulb ***(use 8065285SP for 240V Lamp Assembly)***
*	8030002	Powder, Filter (80 1-Cup Applications)
*	8030170	Pack, 100-Sheet Filter Paper

* Not illustrated.

2.2 Basket Lift Assembly and Associated Parts

2.2.1 Basket Lift Assembly and Associated Parts - Jan 2002 to April 2019

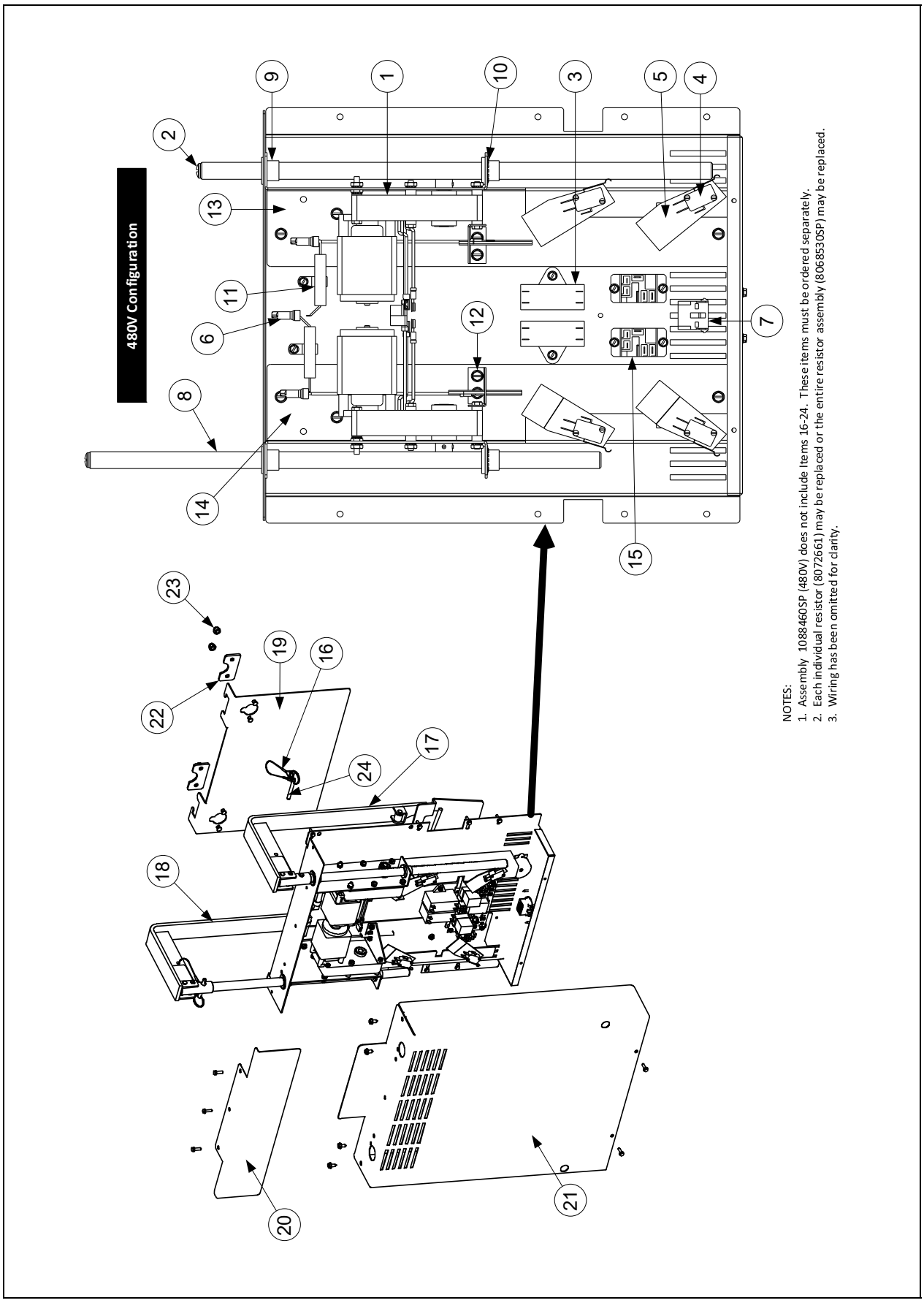


2.2.1 Basket Lift Assembly and Associated Parts cont. - Jan 2002 to April 2019

ITEM	PART #	COMPONENT
	1061805SP	Basket Lift Assembly, 200-220VAC w/Relay *(Items 1-23)*
1	8101012	Rod, Basket Lift
2	8130035	Bushing, Bronze
3	8072513	Capacitor, 12.5 µFarad 330VAC
4	9018499	Chassis, Left Basket Lift
5	9028499	Chassis, Right Basket Lift
6	8070159	Connector, 12-Pin Female
7	9005529	Gusset, Basket Lift Motor
8	8120442	Insulation, Microswitch
9	8072572	Microswitch
10	8065964SP	Motor Assembly, 208-240VAC Modular Basket Lift
11	2002942	Mount, Modular Basket Lift
12	8261366	Nut, 4-40 Hex Keps (Pkg. of 25)
13	8090247	Nut, 8-32 Hex Keps
14	8071683	Relay, 12VDC
15	1062770SP	Resistor Assembly, 208-220VAC Modular Basket Lift
16	8090082	Ring, Bushing Retainer
17	8261374	Screw, #10 X ½-inch Hex Washer Head (Pkg. of 25)
18	8261359	Screw, 4-40 X ¾-inch Slotted Round Head (Pkg. of 25)
19	8261361	Screw, 8-32 X 1-inch Slotted Truss Head (Pkg. of 25)
20	8261371	Screw, #8 X ½-inch Drill Point Hex Head (Pkg. of 25)
21	8090503	Screw, 8-32 X ½-inch Hex Head
22	8090186	Washer, #8 Lock
23	WIR0166SP	Wire Bundle, 200-250VAC Basket Lift w/Relay
24	9104776	Cover, Modular Basket Lift Rear S/S ***(Use 900-4776 for Mild Steel)***
25	8090127	Screw, ¼-20 X ½-inch Slotted Round Head
26	8232704	Arm, Left Basket Lift
27	8232705	Arm, Right Basket Lift
28	8100179	Button, Plug
29	8069110SP	Roller Assembly, Basket Lift
30	9108112	Bracket, Basket Lift Roller
31	8100194	Roller, Basket Lift
32	8100374	Spacer, Basket Lift Roller
33	8090508	Bolt, ¼-20 X 1¼ -Inch
34	8090190	Washer, ¼-inch Flat
35	8090047	Nut, ¼-20 Cap
*	1065957	Wiring Harness, RE Series Electric Basket Lift *(Plugs into Item 6)*

* Not illustrated.

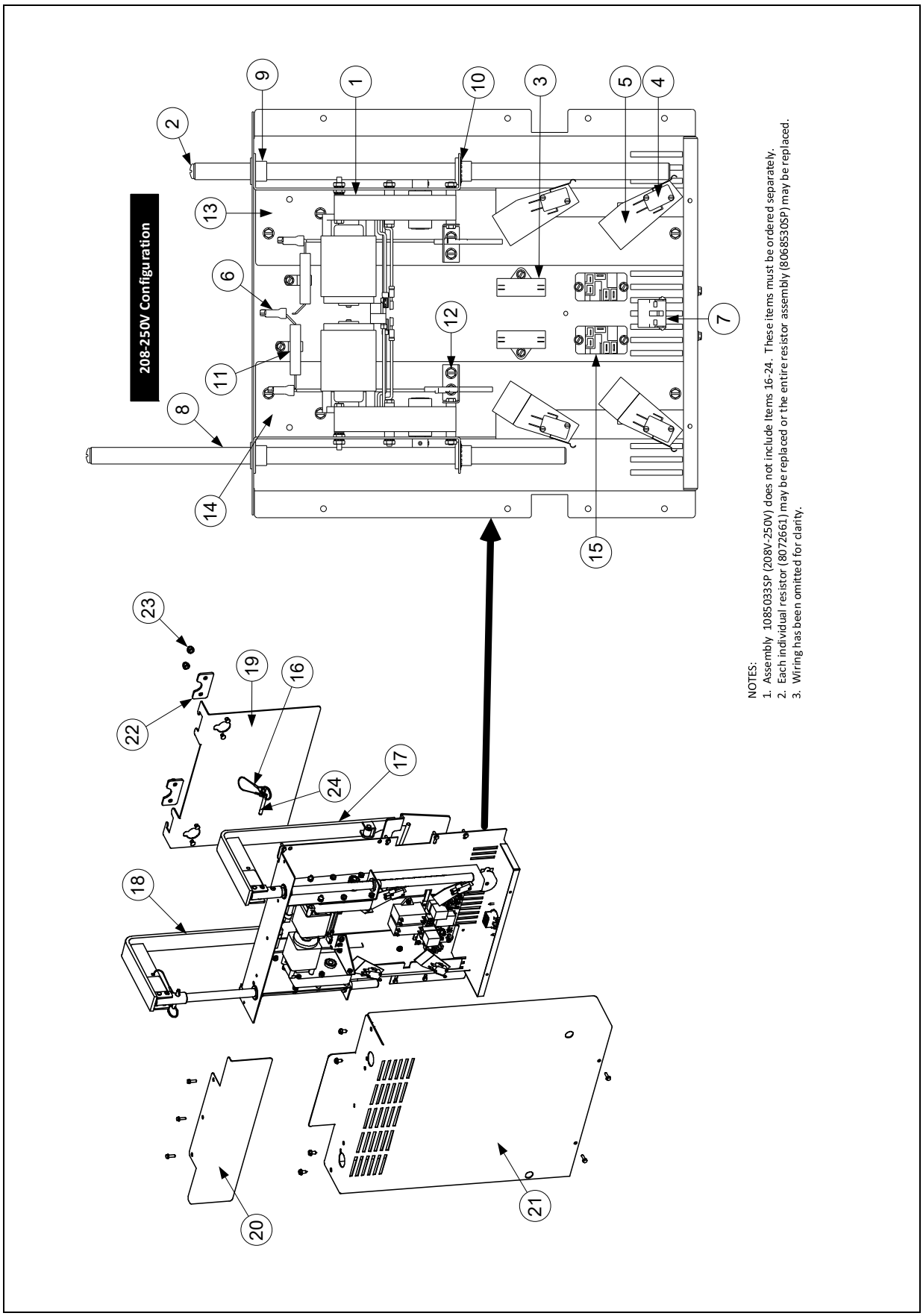
2.2.2 Basket Lift Assembly and Associated Parts – 480V – After April 2019



2.2.2 Basket Lift Assembly and Associated Parts – 480V – After April 2019

ITEM	PART #	COMPONENT
		Basket Lift Assemblies *(see **Note 1** in illustration)*
A	1088460SP	Basket Lift Assy, 480VAC *(Items 1-15)*
1	1084181SP	Motor Assy, 120VAC Modular Basket Lift
2	8090129	Screw, 1/4-20 X 5/8 Slotted Round Head
3	8072513	Capacitor, Motor Run 12.5 MFD 330VAC
4	8072572	Microswitch
5	8120442	Insulation, Microswitch Box
6	8068530SP	Resistor Assembly *(see **Note 2** in illustration)*
7	8070159	Connector, 12 Pin Plug Housing
8	8101012	Rod, Modular BL
9	8130035	Bushing, Bronze
10	8090082	Ring, Bushing Retainer ¾ Truarc
11	8090810	Clamp, Nylon
12	2209678	Gusset, Reversing Basket Lift Motor
13	2229617	Chassis, FPRE14/17/22 MDLR B/L
14	2219617	Chassis, FPRE14/17/22 MDLR B/L
15	8071683	Relay, 12VDC
16	8104854	Lanyard, w/Ring
17	8238465	Arm, Left *(Illustration May Slightly Differ)*
18	8238466	Arm, Right *(Illustration May Slightly Differ)*
19	2309618	Guide, B/L Arm *(Illustration May Slightly Differ)*
20	2401693	Shield, Rear Modular B/L Cover
21	2401707	Cover, Modular B/L *(Illustration May Slightly Differ)*
22	2601474	Cover, Basket Hanger Rivet B/L
23	8090047	Nut, Cap ¼" -20
24	8104852	Pin, ¼" X 1-5/16" Quick Release

2.2.3 Basket Lift Assembly and Associated Parts – 208V–250V – After Jan. 2013

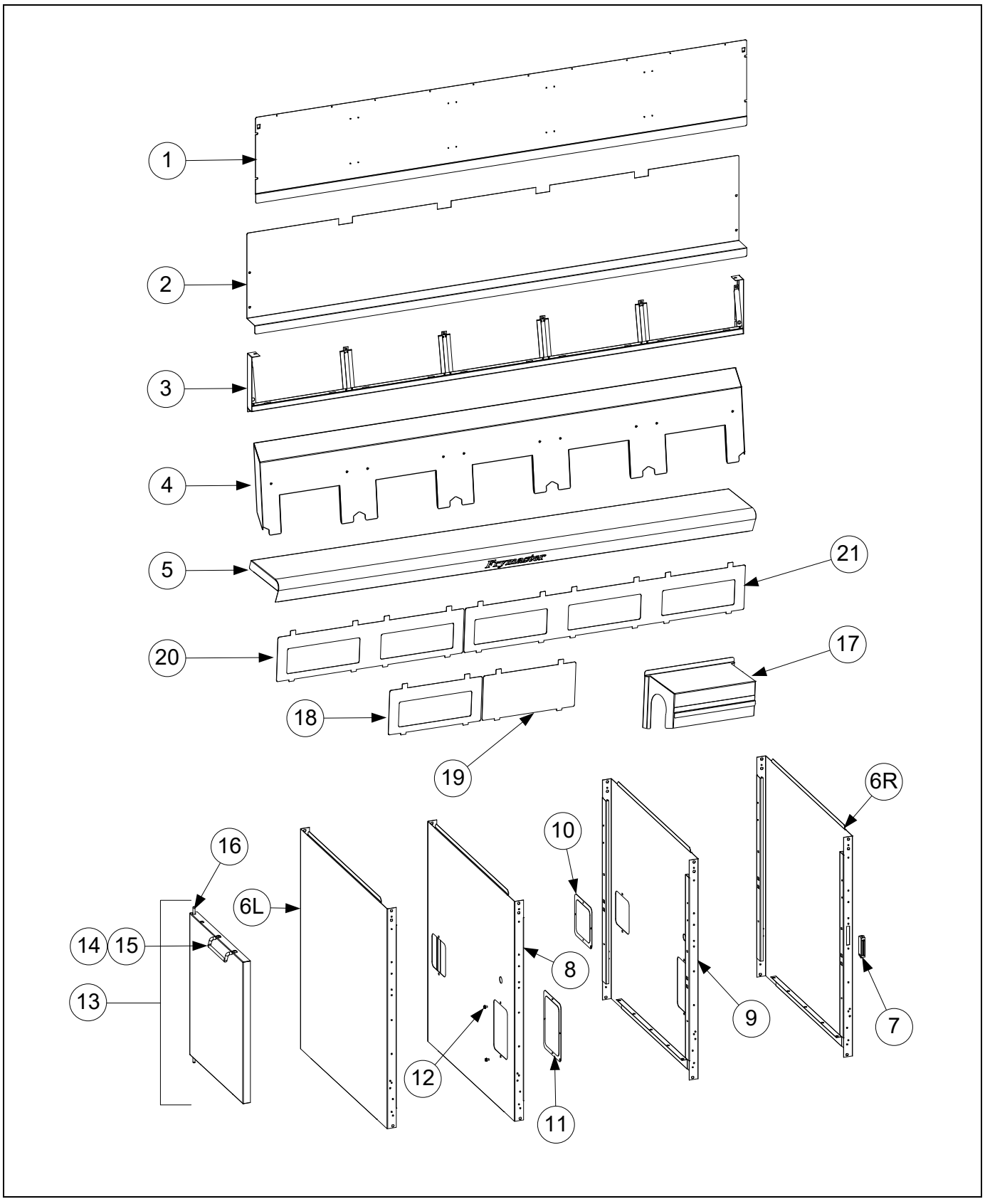


2.2.3 Basket Lift Assembly and Associated Parts – 208V–250V – After Jan. 2013

ITEM	PART #	COMPONENT
		Basket Lift Assemblies *(see **Note 1** in illustration)*
A	1085033SP	Basket Lift Assy, 208-250VAC *(Items 1-15)*
1	1085031SP	Rev Motor Assy, Basket Lift w/Gear 208-250V
2	8090129	Screw, 1/4-20 X 5/8 Slotted Round Head
3	8076253	Capacitor, Motor Run 4.0 MFD 440VAC
4	8072572	Microswitch
5	8120442	Insulation, Microswitch Box
6	8068530SP	Resistor Assembly *(see **Note 2** in illustration)*
7	8070159	Connector, 12 Pin Plug Housing
8	8101012	Rod, Modular BL
9	8130035	Bushing, Bronze
10	8090082	Ring, Bushing Retainer ¾ Truarc
11	8090810	Clamp, Nylon
12	2209678	Gusset, Reversing Basket Lift Motor
13	2229617	Chassis, FPRE14/17/22 MDLR B/L
14	2219617	Chassis, FPRE14/17/22 MDLR B/L
15	8071683	Relay, 12VDC
16	8104854	Lanyard, w/Ring
17	8238465	Arm, Left *(Illustration May Slightly Differ)*
18	8238466	Arm, Right *(Illustration May Slightly Differ)*
19	2309618	Guide, B/L Arm *(Illustration May Slightly Differ)*
20	2401693	Shield, Rear Modular B/L Cover
21	2401708	Cover, Modular B/L *(Illustration May Slightly Differ)*
22	2601474	Cover, Basket Hanger Rivet B/L
23	8090047	Nut, Cap ¼" -20
24	8104852	Pin, ¼" X 1-5/16" Quick Release

2.3 Cabinetry

2.3.1 Back Panels, Control Panel Frames, Doors, Sides, Tilt Housings, and Top Caps



2.3.1 Back Panels, Control Panel Frames, Doors, Sides, Tilt Housings & Top Caps cont.

ITEM	PART #	COMPONENT
1		Back Panel, Upper (Panel for five station fryer shown)
	2200421	Single Station Fryer CRS ***(Use 2300422 for Stainless Steel)***
	2201973	Fryer ½ Station Fryer CRS
	2200419	Two Station Fryer CRS ***(Use 2300420 for Stainless Steel)***
	2200423	Three Station Fryer CRS ***(Use 2300424 for Stainless Steel)***
	2200425	Four Station Fryer CRS ***(Use 2300546 for Stainless Steel)***
	2200611	Five Station Fryer CRS ***(Use 2300612 for Stainless Steel)***
2		Back Panel, Center (Panel for five station fryer shown)
	2200501	Single Station Fryer CRS ***(Use 2300502 for Stainless Steel)***
	2201977	Fryer ½ Station Fryer CRS
	2200487	Two Station Fryer CRS ***(Use 2300490 for Stainless Steel)***
	2200491	Three Station Fryer CRS ***(Use 2300492 for Stainless Steel)***
	2200499	Four Station Fryer CRS ***(Use 2300500 for Stainless Steel)***
	2200616	Five Station Fryer CRS ***(Use 2300617 for Stainless Steel)***
3		Frame, Control Panel (Frame for five station fryer shown)
	1065016	Single Station Fryer
	1066846	Fryer ½ Station Fryer
	1065221	Two Station Fryer
	1065018	Three Station Fryer
	1065019	Four Station Fryer
	1065020	Five Station Fryer
4		Tilt Housing (Housing for five station fryer shown)
	8235494	Single Station
	8235999	Fryer ½ Station LH ½ fryer ***(use 8235965 for RH ½ fryer)***
	8235497	Two Station
	8235489	Three Station
	8235575	Four Station ***(use 1067516 for Cracker Barrel)***
	8235581	Five Station
5		Top Cap (Top cap for five station fryer shown)
	1065195	Single Station ***(Also requires four 8090079 1/4-20 Nutserts)***
	1067060	Fryer ½ Station LH ½ fryer ***(use 1066838 for RH ½ fryer) (Also requires four 8090079 1/4-20 Nutserts)***
	1065196	Two Station ***(Also requires four 8090079 1/4-20 Nutserts)***
	1065197	Three Station ***(Also requires six 8090079 1/4-20 Nutserts)***
	1065198	Four Station ***(Also requires eight 8090079 1/4-20 Nutserts)***
	1065199	Five Station ***(Also requires ten 8090079 1/4-20 Nutserts)***
*		Heat Shield
*	2009614	Single Station
*	2009610	Two Station ***(Two are used on Four Station) (One used on Five Station)***
*	2009611	Three Station ***(One used on Five Station)***
6L	2310323	Side, Standard Cabinet Left SS ***(use 2210323SP for Enameled Steel)***
	2311345	Side, Left Deep Cabinet SS
6R	2320323	Side, Standard Cabinet Right SS ***(use 2220323SP for Enameled Steel)***
	2321345	Side, Right Deep Cabinet SS
7	8101105	Magnet, Door
8	2310352	Side, Filter Ready Cabinet Left SS ***(use 2210352 for Cold Rolled Steel)***
9	2320352	Side, Filter Ready Cabinet Right SS ***(use 2220352 for Cold Rolled Steel)***
10	9100889	Cover, 5-inch X 5-inch Access
11	9100890	Cover, 5-inch X 7-inch Access
12	8090359	Screw, #8 X ¼-inch Hex Washer Head
13	1064397	Door, Left or Right (Left shown – move handle to opposite side for Right) - Standard
	1066899	Door, Left or Right – Fryer ½
14	8090266	Screw, #10 X ½-inch Phillips Truss Head
15	2109739	Handle, Eurolook Door ***(use 2302088 for Fryer ½ handle)***

* Not illustrated.

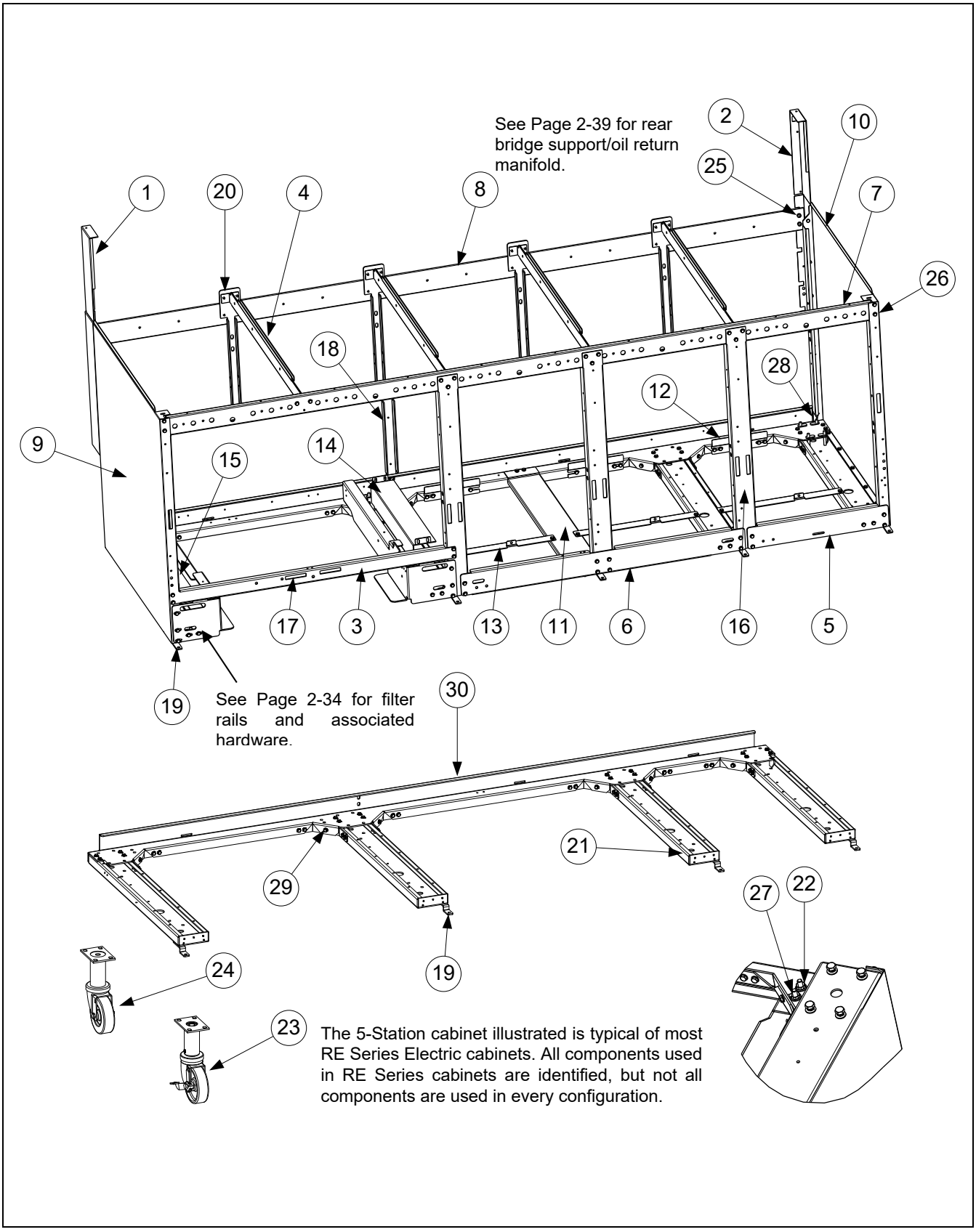
continued on the following page...

2.3.1 Back Panels, Control Panel Frames, Doors, Sides, Tilt Housings & Top Caps cont.

ITEM	PART #	COMPONENT
16	1064067	Pin Assembly, Door
*	8100275	Spring, Door Pin
*	8090970	Retaining Ring
17	8235440	Cove, Element Tilt Housing ***(use 8235726 for Fryer ½)***
18	2105046	Bezel, One-Controller Non-3000 ***(Prior to 06/20212)(use 2301953 for Fryer ½)***
*	2309637	Bezel, One-Controller Non-3000 ***(06/2012 to Current)***
*	2309655	Bezel, One Controller 3000
19	2105623	Bezel, Blank
20	2105819	Bezel, Two–Controller Non-3000 ***(Prior to 06/2012)***
*	2309638	Bezel, Two-Controller Non-3000 ***(06/2012 to Current)***
*	2309656	Bezel, Two-Controller 3000
21	2106698	Bezel, Three-Controller
*	2309639	Bezel, Three-Controller Non-3000 ***(06/2012 to Current)***
*	2309657	Bezel, Three-Controller 3000

* Not illustrated.

2.3.2 Cabinets, Bases, Braces, and Associated Parts



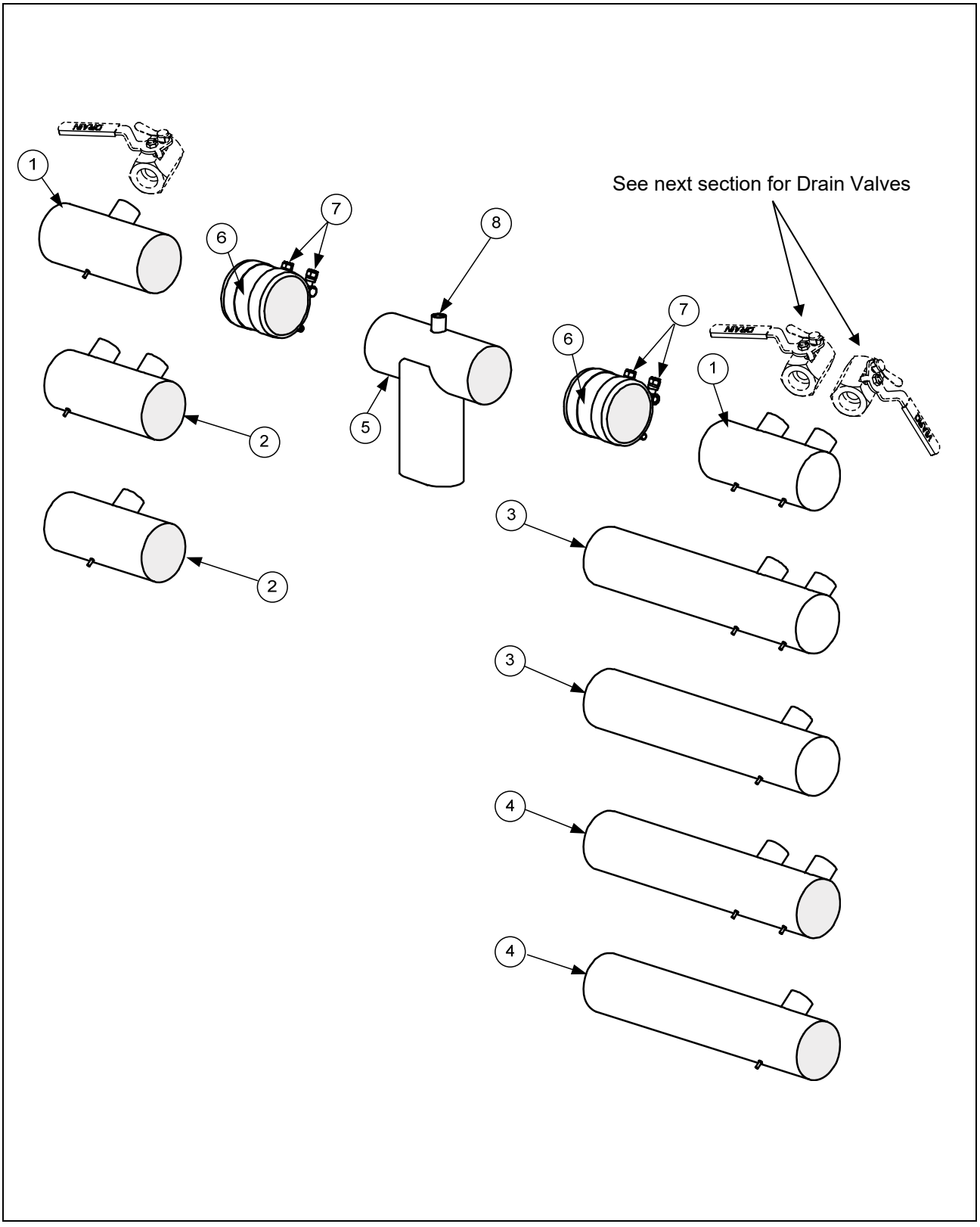
2.3.2 Cabinets, Bases, Braces, and Associated Parts cont.

ITEM	PART #	COMPONENT
1	1063828	Upright Assembly, Left
2	1063829	Upright Assembly, Right
3	2001651	Support, Cross Cabinet ***(use 2201742 for Fryer ½)***
4	2001659	Divider, Cabinet ***(use 2201348 for Deep Cabinet Divider)***
5	2002293	Brace, Single Station Lower
6	2003774	Brace, Double Station Lower
7		Brace, Front Horizontal
	2007036	Single-Station Fryer ***(use 2200624 for Single-Station Lower Brace)***
	2201740	Fryer ½ Station Fryer
	2007037	Two-Station Fryer
	2007038	Three-Station Fryer
	2007039	Four-Station Fryer
	2007040	Five-Station Fryer
8		Brace, Rear Horizontal
	2005356	Single-Station Fryer
	2201711	Fryer ½ Station Fryer
	2002284	Two-Station Fryer
	2002295	Three-Station Fryer
	2002725	Four-Station Fryer
	2003592	Five-Station Fryer
9	2310323	Side, Cabinet LH S/S ***(use 2210323 for CRS)(use 2311345 for Deep Cabinet)***
10	2320323	Side, Cabinet RH S/S ***(use 2220323 for CRS)(use 2321345 for Deep Cabinet)***
11	2201100	Support, RE Bottom Contactor Box
12	2201095	Support, RE Rear Contactor Box
13	2201093	Brace, RE Front Contactor Box
*	2201294	Brace, Contactor Box Single-Station Fryer Front
14	2220610	Bracket, RH Contactor Box Mount ***(use 2221845 for Fryer ½)***
15	2210610	Bracket, LH Contactor Box Mount ***(use 2211845 for Fryer ½)***
*	2201446	Bracket, Contactor Box Mount SCF Deep Cabinet
*	2006498	Bridge, Contactor Box Single-Station Fryer
16	2004424	Post, Door
17	8102346	Magnet, Door
18	2004786	Support, Oil Return Manifold
19	2106862	Hinge, Door
20	8241393	Bracket, Rear Support ***(use 2008253 for Fryer ½)***
21	8244557	Channel, Base Side
*	8235782	Channel, Base Side SCF Deep Cabinet
*	2210621	Channel, Base Left Side Single-Station Fryer ***(use 2220621 for RH side)***
22	8090131	Bolt, ¼-20 X ¾-inch Hex Head ***(also used w/Item 27 to mount filter rails)***
23	8102970	Caster with Brake
24	8101494	Caster without Brake
25	8261376	Nut, 10-32 Keps Hex (Pkg. of 10)
26	8261374	Screw, #10 X ½-inch Hex Washer Head ***(primary cabinet screw)***(Pkg. of 25)
27	8090417	Nut, ¼-20 Hex Flange
28	8090429	Bolt, ¼-20 X 2-inch Hex Head
29	2005417	Brace, Rear Channel Corner
30		Channel, Base Rear
	8235589	Single-Station Fryer Base ***(use 2201737 for Fryer ½)***
	8234558	Two-Station Fryer
	8234560	Three-Station Fryer
	8234561	Four-Station Fryer
	8234562	Five-Station Fryer
*	8101234	Leg, Stainless Steel 8.5-inch Adjustable ***(mounts with Items 27 and 28)***
*	8103010	Leg, Single Fryer Single-Station Fryer

* Not illustrated.

2.4 Drain System Components

2.4.1 Drain Tube Sections and Associated Parts

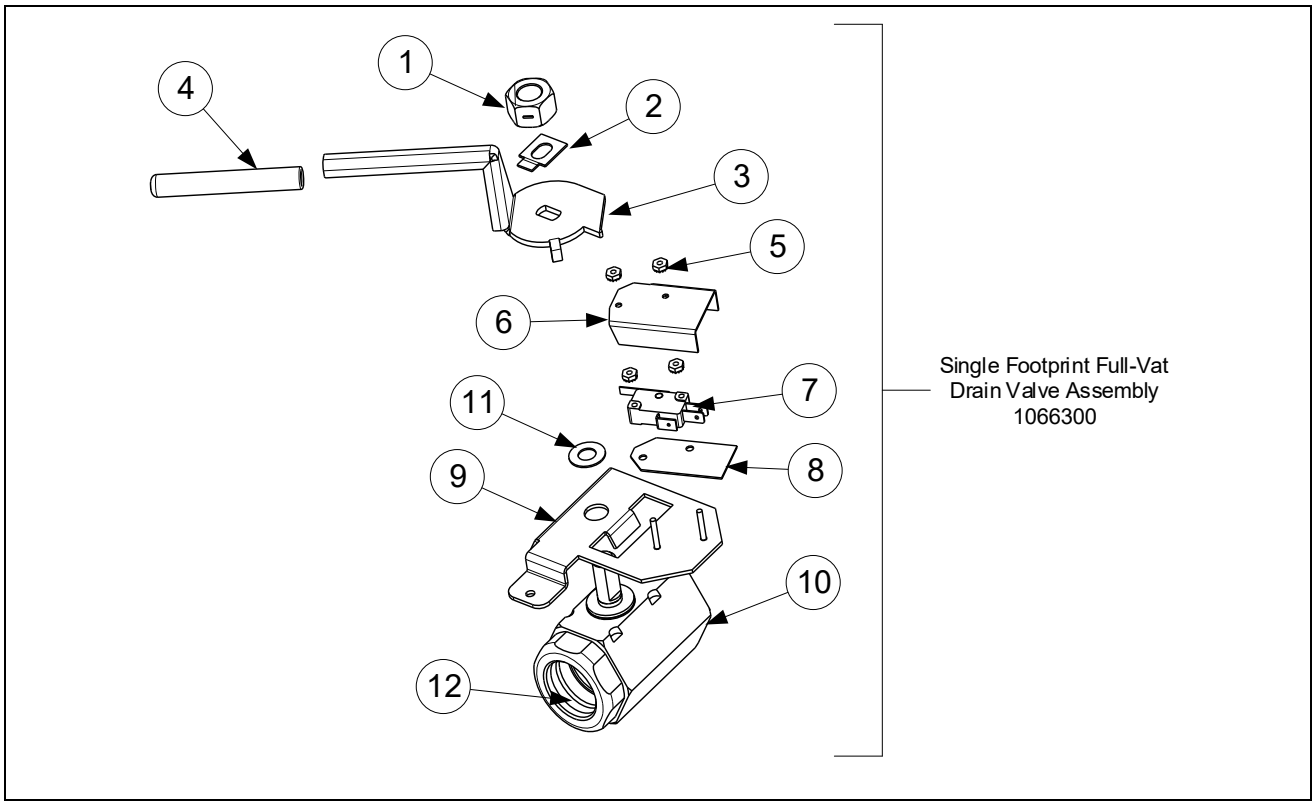


2.4.1 Euro-Look Drain Tube Sections and Associated Parts cont.

ITEM	PART#	COMPONENT
1		Drain Tube, Left/Right End Short
	8234625	Full-Vat
	8234624	Dual-Vat
	8235943	Fryer ½, RH ½ Fryer
	8236003	Fryer ½, LH ½ Fryer
2		Drain Tube, Left/Right Open Short
	8234643	Full-Vat
	8234642	Dual-Vat
3		Drain Tube, Right End Long
	8234639	Full-Vat
	8234638	Dual-Vat
4		Drain Tube, Left/Right Open Long
	8234641	Full-Vat
	8234640	Dual-Vat
5	8234892	Drain Outlet Center Dump
	8235944	Fryer ½, RH ½ Fryer
	8236004	Fryer ½, LH ½ Fryer
6	8160625	Sleeve
7	8090969	Clamp
*	8160630	Vinyl Cap
8	8102492	Fitting, Quick-Connect Straight (receives Teflon vent tube)
*	KIT6033	Kit, Round Drain Clamp (contains 2 of Item 7 and 1 of Item 6)
*	8111071	Tube, Teflon Vent (sold by the foot)

* Not illustrated.

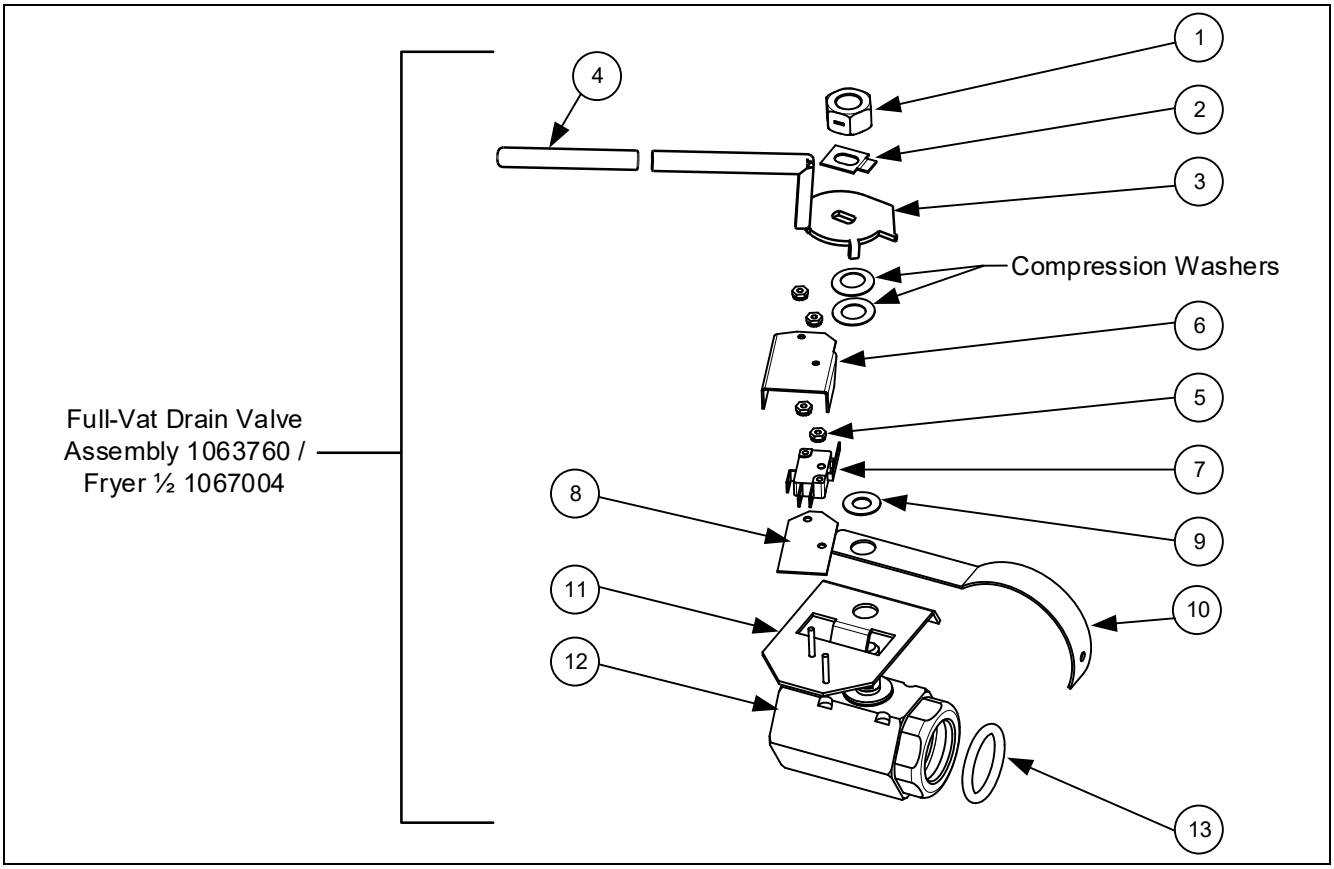
2.4.2 Drain Valves and Associated Parts (Units with Built-In Filtration)



2.4.2 Drain Valves and Associated Parts (Units with Built-in Filtration) cont.

ITEM	PART #	COMPONENT
1	8090540	Nut, ½-13 2-Way Hex Lock
2	9002936	Retainer, Full-Vat Nut Drain Valve
3	8241602	Handle, Full-Vat Drain Valve
4	8160639	Cap, Red Handle
5	8090237	Nut, 4-40 Keps Hex
6	9012348	Cover, Dual Vat Drain Safety Switch
7	8072103	Microswitch, CE Straight Lever
8	8160220	Insulation, Drain Safety Switch
9	1065391	Bracket Assembly, Full-Vat Drain Safety Switch Single FP Only
10	8101018	Valve, 1.25-inch Full-Vat Drain
11	8101165	Washer, Teflon Drain Valve
12	8160135	O-Ring, Round Drain

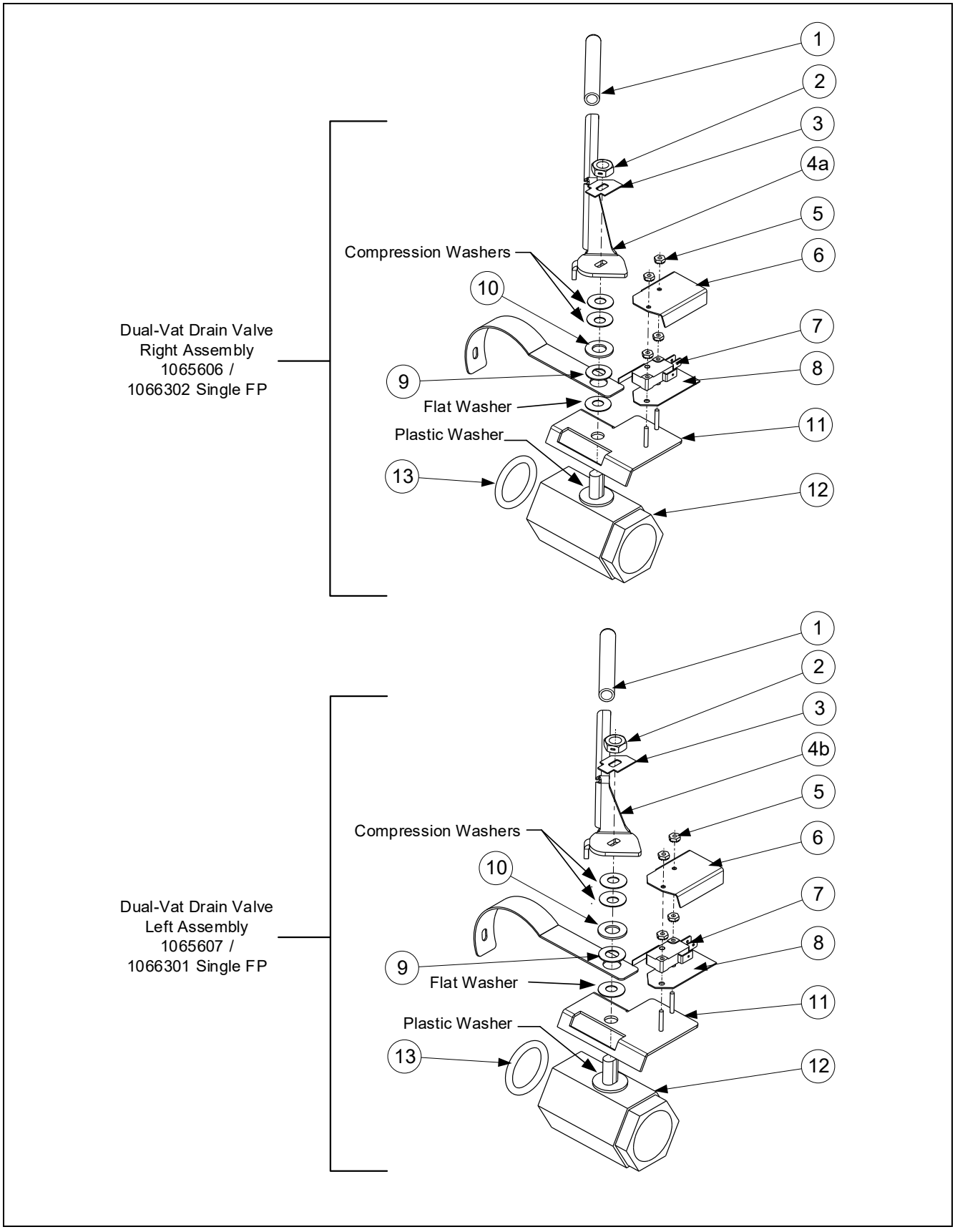
2.4.2 Drain Valves and Associated Parts (Units with Built-In Filtration) cont



2.4.2 Drain Valves and Associated Parts (Units with Built-In Filtration) cont.

ITEM	PART#	COMPONENT
1	8090540	Nut, ½-13 2-Way Hex Lock
2	9002936	Retainer, Full-Vat Drain Valve Nut
3	8241602	Handle, Full-Vat Drain Valve
	8241740	Handle, Fryer ½ Half Vat
4	8160639	Cap, Red Handle
5	8090237	Nut, 4-40 Keps Hex
6	9012348	Cover, Dual Vat Drain Safety Switch
7	8072103	Microswitch, CE Straight Lever
8	8160220	Insulation, Drain Safety Switch
9	8101165	Washer, Teflon Drain Valve
10	2006496	Support, 3” Drain
11	8068137	Bracket Assembly, Full-Vat Drain Safety Switch
	1067005	Bracket Assembly, Fryer ½
12	8101018	Valve, 1.25-inch Full-Vat Drain
13	8160135	Round Drain O-Ring

2.4.2 Drain Valves and Associated Parts (Units with Built-In Filtration) cont.

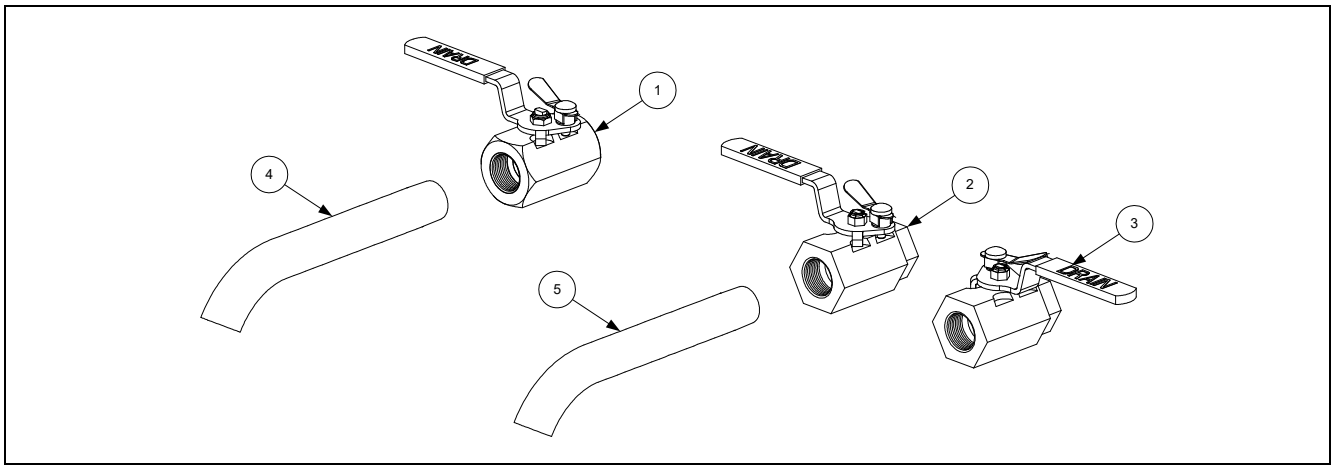


2.4.2 Drain Valves and Assoc. Parts (Units with Built-In Filtration) cont.

ITEM	PART#	COMPONENT
1	8160639	Cap, Drain Handle
2	8090539	Nut, ⅜-16 2-Way Hex Lock
3	9002934	Retainer, Dual-Vat Drain Valve Nut
4a	8241636	Handle, Dual-Vat Right Drain Valve
4b	8241637	Handle, Dual-Vat Left Drain Valve
5	8090237	Nut, 4-40 Keps Hex
6	9012348	Cover, Dual Vat Drain Safety Switch
7	8072103	Microswitch, CE Straight Lever
8	8160220	Insulation, Drain Safety Switch
9	8101165	Washer, Teflon Drain Valve
10	8090196	Washer, ⅜-inch Flat
11	1062671	Bracket Assembly, Dual-Vat Drain Safety Switch
	1066304	Bracket Assembly, Dual-Vat Drain Safety Switch Single Footprint Only
12	8101114	Valve, 1-inch Dual-Vat Drain
13	8160135	Round Drain O-Ring
*	8235592	Tube, Drain Single-Station Only with Filter

* Not illustrated.

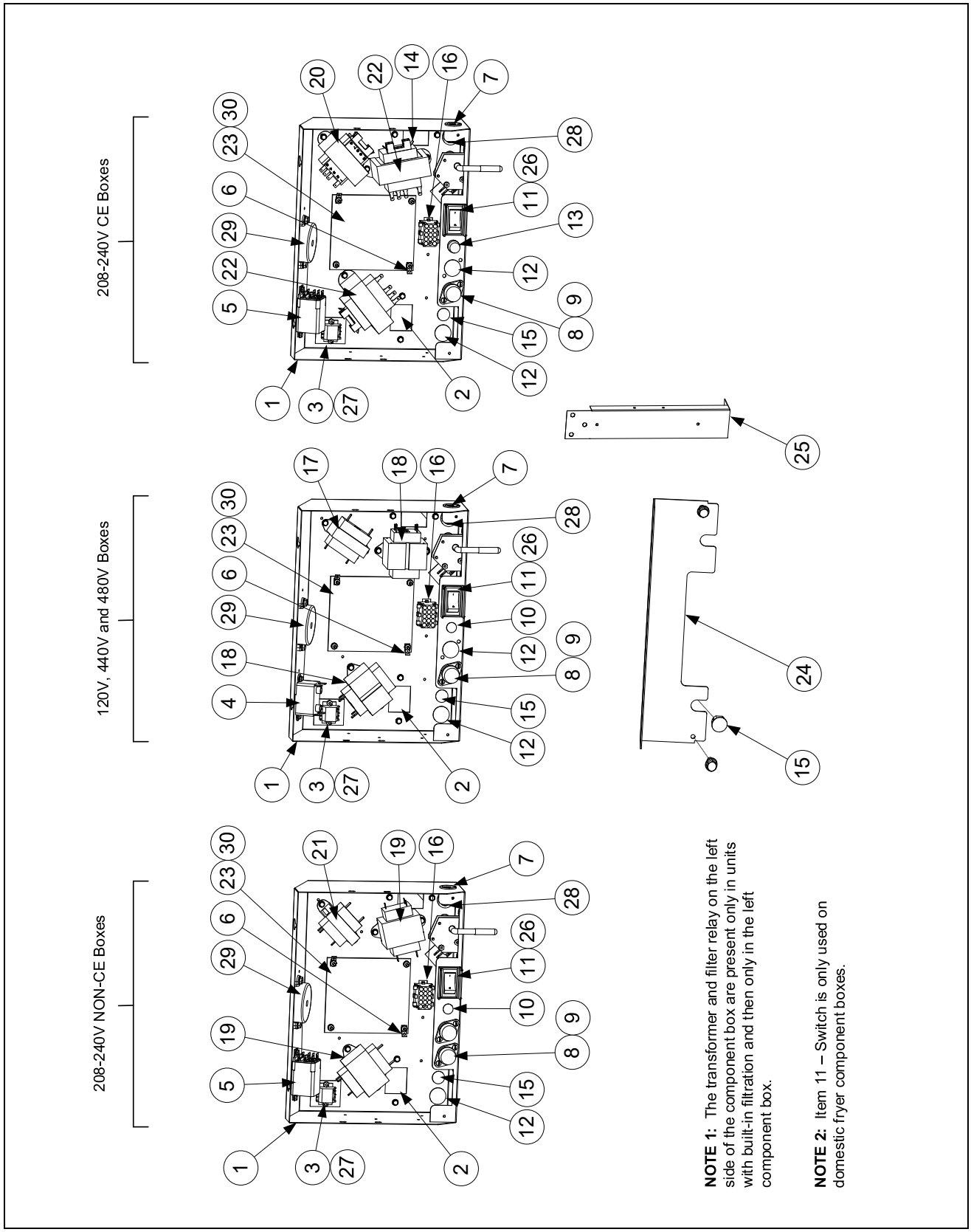
2.4.3 Drain Valves and Associated Parts (Units without Built-In Filtration)



ITEM	PART #	COMPONENT
1	8101569	Valve, 1.25-inch Non-Filter Full-Vat Drain
2	8067915SP	Valve, 1-inch Non-Filter Dual-Vat Left Drain
3	8067916SP	Valve, 1-inch Non-Filter Dual-Vat Right Drain
4	8121226	Drain Extension, 1.25-inch
5	8121227	Drain Extension, 1-inch

2.5 Electronics and Wiring Components

2.5.1 Component Boxes



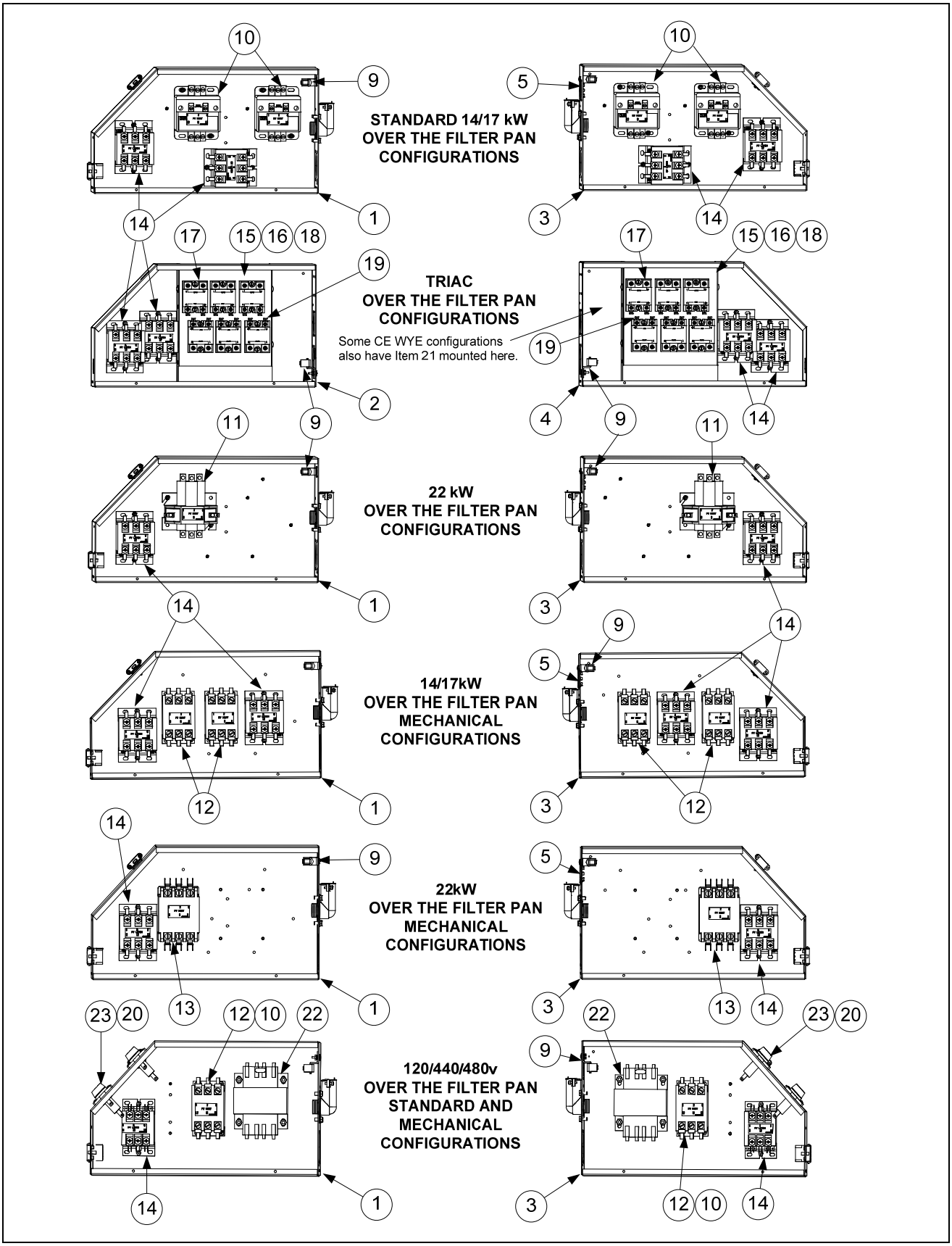
2.5.1 Component Boxes cont.

ITEM	PART #	COMPONENT
1	1065592	Box Assembly, Component Standard
	1066747	Box Assembly, Component Fryer ½
2	2003300	Bracket, Component Box Strain Relief
3	8069495SP	Terminal Block
√ 4	8070012	Relay, Filter 18 Amp ⅓ HP 24V
√ 5	8070670	Relay, Filter Mintex DPDT 24V
6	8070037	Terminal, ¼-inch Push-on
7	8070121	Bushing, Heyco Plastic AB-625-500
8	8070922	Holder, Buss Fuse HPS
9	8072278	Fuse, 20 Amp
10	8102446	Plug, Button .50 Heyco Double "D"
√ 11	8074036	Switch
	8073575	Plug, Carling Switch Hole *(used on some models without a switch)*
12	8071947	Plug, Button .875 Dome
13	8071321	Holder, AGC Panel Mount ¼" Fuse *(Some models use item 10 here.)*
14	130021646	Fuse, 3.15 AMP Slow-Blow
*	8071174	Fuse, 3 AMP, 250V, Slow-Blow
15	8102445	Plug, Button .625 Heyco Double "D"
16	1065750	Harness Assembly, RE FV Control
	1065751	Harness Assembly, RE DV Control
√ 17	8070855	Transformer, 120V/12V 20VA
√ 18	8070800	Transformer, 120V/24V 50VA Filter
√	8072181	Transformer, 100-120V/24V 62VA Filter
√ 19	8070680	Transformer, 208-240V/24V 20VA Filter
√ 20	8072191	Transformer, 208-240V/12V 30VA
√ 21	8070979	Transformer, 208-240V/12V 43VA
√ 22	8072180	Transformer, 208-240V 50VA Filter
*	8074968	Transformer, 208-250V 75VA (Used in DV component boxes)
*	8074967	Transformer, 100-120V 75VA (Used in DV component boxes)
*	8073892	Transformer, 440/480 12/24V (used in non-filter fryers)
23		Interface Board ***(SMT interface board relays are not replaceable.)***
√	8262260	Standard, Full- or Dual-Vat ***(SMT)***
√	8262261	EPRI, Full- or Dual-Vat
	8262262	Fast Computer, Full- or Dual-Vat
*	8073932	Relay, Latch/Heat 12VDC SPDT 12A Sealed ***(SMT relays aren't replaceable.)***
*	1066501	Fallback Controller Assembly RE
24	2200565	Guard, Finger Domestic and Non-CE
	2201061	Guard, Finger Non-Domestic and CE
25	2006654	Brace, Component Box
26	2300834	Guard, RE Box Switch
27	8160217	Paper, Insulating Terminal Block
28	8100045	Bushing, .875 Diameter 11/16"
√ 29	8067179SP	Sound Device Std. ***(Use 8103141 for SMT sound device with SMT connector)***
*	8073520	Speaker, 4 Watt
*	8074330	Sound Device Adapter Harness (SMT)
30	8090349	Spacer, 4mm X 6mm Aluminum
*	8262249	RE Hood/Ansul Interlock Kit (includes terminal block, wires, connectors)

* Not illustrated. √ Recommended parts.

2.5.2 Contactor Boxes

2.5.2.1 Left and Right Over the Filter Pan Contactor Box Configurations



2.5.2.1 Left and Right Over the Filter Pan Contactor Box Configurations cont.

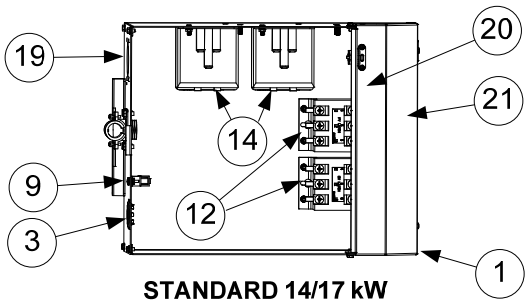
NOTES: Left and right contactor box assemblies are mirror images of one another. With the exception of the box itself, most components of a left-hand assembly are the same as those in the corresponding right-hand assembly and vice versa. The configurations illustrated show most possible components, but a particular configuration may not have all the components shown.

ITEM	PART #	COMPONENT
1	1065488	Box Assembly, Left Contactor Standard (Over the Filter Pan)
	1067066	Box Assembly, Left Contactor Fryer ½ Half Fryer on Left
2	8235736	Box Assembly, Left Contactor **EPRI** (Over the Filter Pan)
3	1065489	Box Assembly, Right Contactor Standard (Over the Filter Pan)
	1066819	Box Assembly, Right Contactor Fryer ½ Half Fryer on Right
4	8235748	Box Assembly, Right Contactor **EPRI** (Over the Filter Pan)
5	8102554	Plug, Cord Cutout 1.125 Button
6	8071947	Plug, .875 Diameter Dome
7	8070064	Transformer, 480V/120V 150VA
8	8070922	Holder, Bus Fuse
*	2210482	Cover, Left Hand Standard Contactor Box
	2222072	Cover, Left Hand Fryer ½ Half fryer on Left
*	2220482	Cover, Right Hand Standard Contactor Box
	2201912	Cover, Right Hand Fryer ½ Half fryer on Right
9	8070070	Terminal, Ground Lug
√ 10	8071071	Contactor, 24V 30 Amp Mercury
√ 11	8070884	Contactor, 24V 50 Amp Mercury
√ 12	8072284	Contactor, 24V 50 Amp Mechanical ***(only in 14kW & 17kW units)***
√ 13	8072283	Contactor, 24V 63 Amp Mechanical ***(only in 22kW units)***
√ 14	8101202	Contactor, 24V 40 Amp Mechanical
15**	8068674	Heatsink Assembly, DV Solid State Relay (See components below)
16**	8068673	Heatsink Assembly, FV Solid State Relay (See components below)
		Components of Items 15 and 16
√ 17	8261562	Kit Relay, Solid State 40 Amp 280V with Heatsink
18	8072749	Heatsink, Solid State
19	8070037	Terminal, ¼-inch Push-on
20	8072278	Fuse, 20 Amp
21	1066204	Filter Assembly, EPRI ***(used in CE WYE-configured EPRI units only)***
22	8070922	Holder, Bus Fuse
*	2210610	Bracket, Left Hand Contactor Box Mounting
*	2220610	Bracket, Right Hand Contactor Box Mounting
*	8070012	Relay, Tilt Switch 18 Amp 1/3 HP 24 V Coil

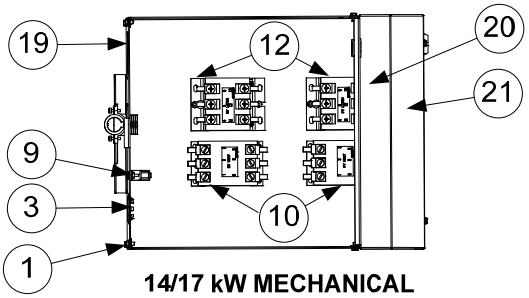
* Not illustrated. ** Full Vat has three relays 8261562, Dual-Vat has six relays.

√ Recommended parts.

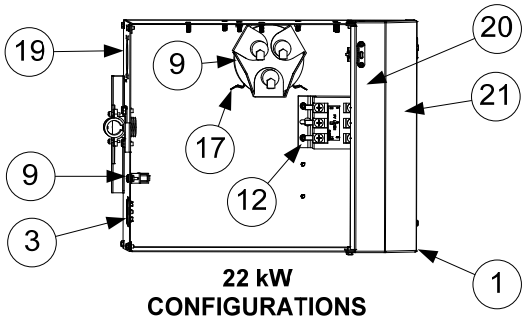
2.5.2.2 Large Center Contactor Box Configurations (Non-Filter, Not over the Filter and Single Units)



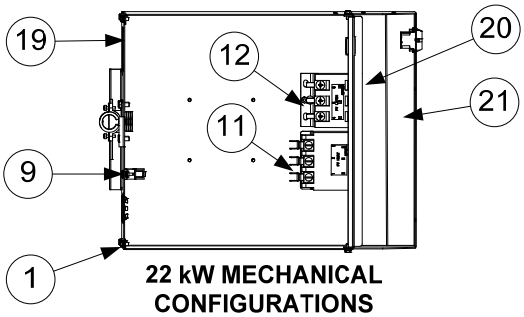
STANDARD 14/17 kW CONFIGURATIONS



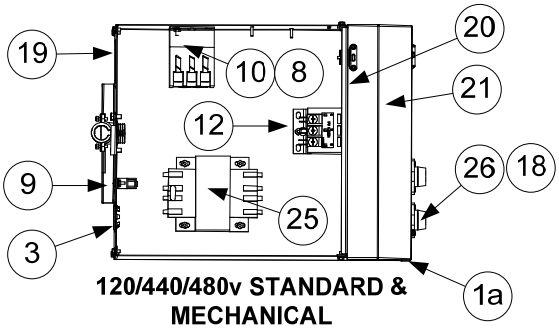
14/17 kW MECHANICAL CONFIGURATIONS



22 kW CONFIGURATIONS

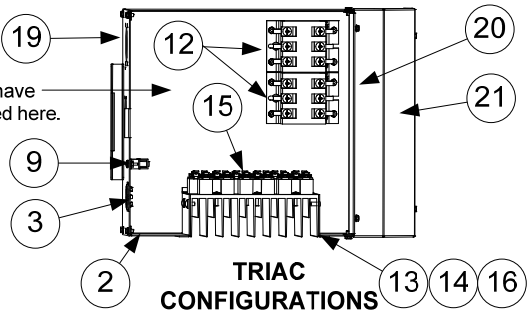


22 kW MECHANICAL CONFIGURATIONS

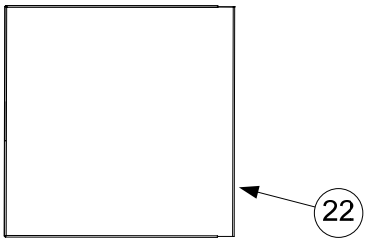


120/440/480v STANDARD & MECHANICAL CONFIGURATIONS

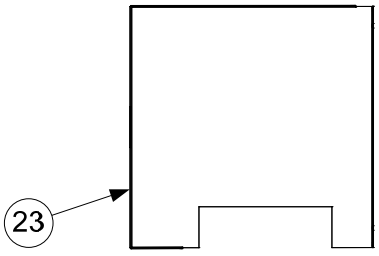
Some CE WYE configurations have Item 24 mounted here.



TRIAC CONFIGURATIONS



LARGE CONTACTOR BOX COVER



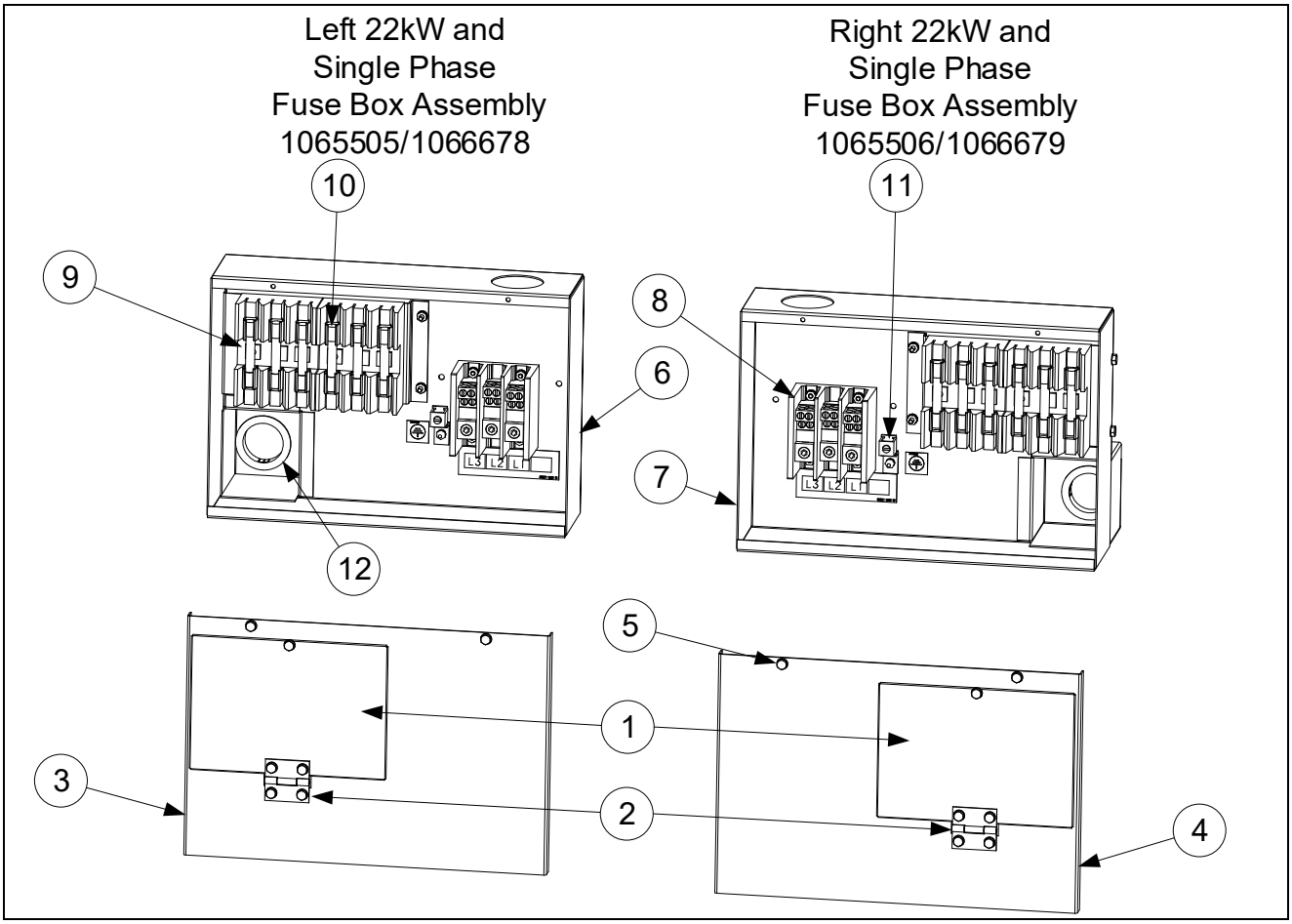
LARGE TRIAC CONTACTOR BOX COVER

2.5.2.2 Large Center Contactor Box Configurations (Non-Filter, Not Over the Filter and Single Units) cont.

ITEM	PART #	COMPONENT
1	1066081	Box Assembly, Contactor (Non-Filter or Not Over the Filter Pan)
1a	1066255	Box, Assembly Contactor (Non-Filter or Not Over the Filter Pan)***120/440/480V***
2	1066173	Box Assembly, Contactor **EPRI** (Non-Filter or Not Over the Filter Pan)
*	1066244	Box Assembly, Contactor Single-Station Fryer Only
3	8102554	Plug, Cord Cutout 1.125 Button
4	8071947	Plug, .875 Diameter Dome
5	2210482	Cover, Left Hand Contactor Box
6	2220482	Cover, Right Hand Contactor Box
7	8070070	Terminal, Ground Lug
√ 8	8071071	Contactor, 24V 30 Amp Mercury
√ 9	8070884	Contactor, 24V 50 Amp Mercury
√ 10	8072284	Contactor, 24V 50 Amp Mechanical ***(only in 14kW & 17kW units)***
√ 11	8072283	Contactor, 24V 63 Amp Mechanical ***(only in 22kW units)***
√ 12	8101202	Contactor, 600V 40 Amp 3-Pole
13**	8068674	Heatsink Assembly, DV Solid State Relay (See components below)
14**	8068673	Heatsink Assembly, FV Solid State Relay (See components below)
		Components of Items 13 and 14
√ 15	8261562	Kit Relay, Solid State 40 Amp 280V with Heatsink
16	8072749	Heatsink, Solid State
17	8070037	Terminal, ¼-inch Push-on
18	8072278	Fuse, 20 Amp
19	8235729	Plate, Contactor Back Cordset
20	2201087	Bracket, Box Connecting
21	2201088	Cover, Contactor Box Front
22	2201089	Cover, Contactor Box Top (Non-Filter or Not Over the Filter Pan)
*	2201175	Cover, Contactor Box Top Full Vat Single-Station Fryer Only
*	2201373	Cover, Contactor Box Top Dual Vat Single-Station Fryer Only
23	2201152	Cover, Contactor Box Top **EPRI** (Non-Filter or Not Over the Filter Pan)
24	1066204	Filter Assembly, EPRI ***(used in CE WYE-configured EPRI units only)***
√ 25	8070064	Transformer, 480V/120V 150VA
26	8070922	Holder, Bus Fuse
*	8070012	Relay, Tilt Switch 18 Amp 1/3 HP 24 V Coil

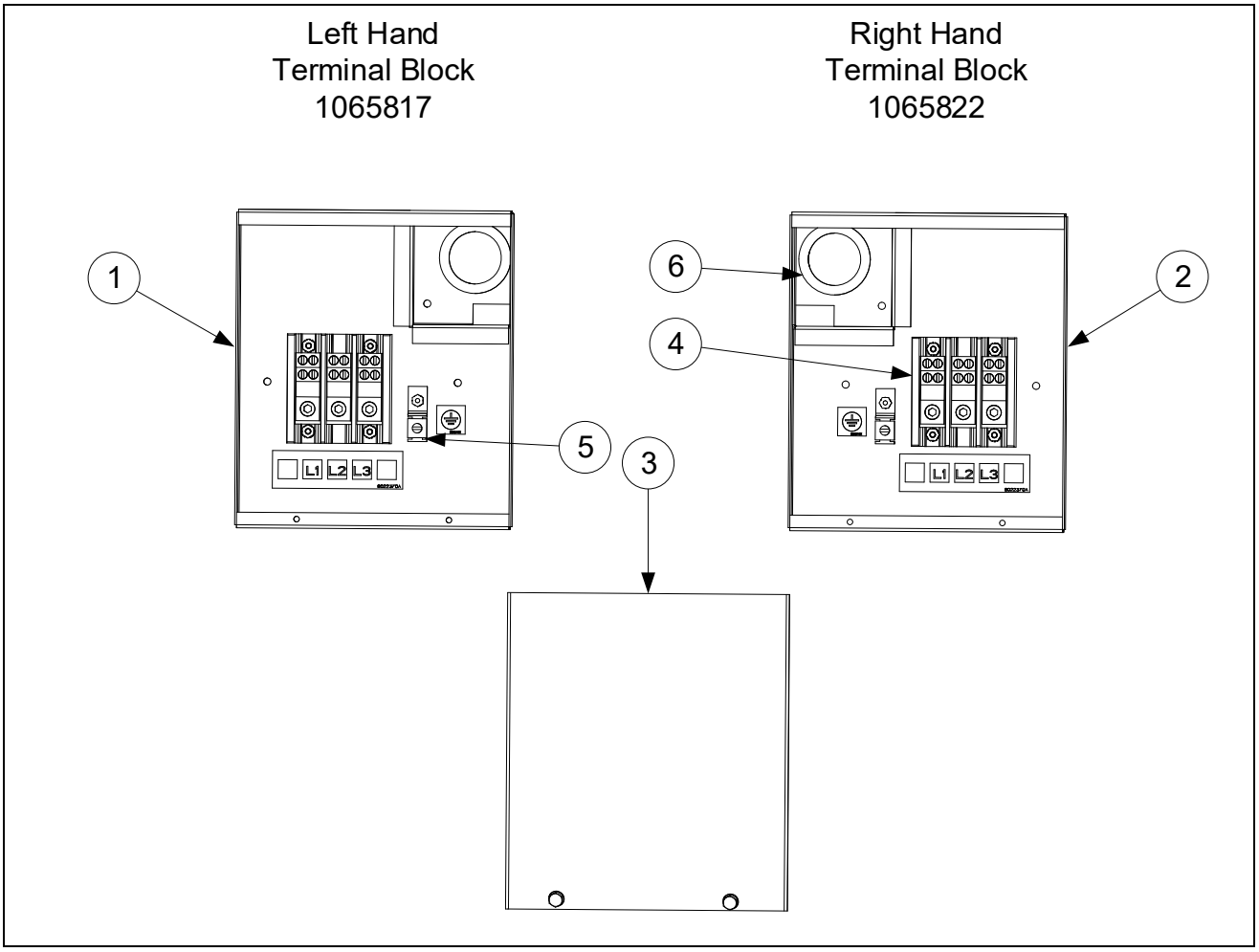
*Not illustrated. ** Full Vat has three relays 8261562, Dual-Vat has six relays.
√ Recommended parts.

2.5.3 Fuse Boxes



ITEM	PART #	COMPONENT
1	2002334	Door
2	8100519	Hinge
3	2210523	Cover, LH Fuse Box
4	2220523	Cover, RH Fuse Box *(Used on Single Station Fryers also)*
5	8090434	Screw, #10 x ⅜" Hex
6	8235585	Box, LH Fuse
7	8235557	Box, RH Fuse
	8235797	Box, Single Station Fryer Only
8	8073970	Block, 3 Pole 600V 175A Terminal
9	8070501	Fuse Block, Buss #2968 3-Pole
10	8072240	Fuse, 60 AMP 300VAC
11	8070070	Terminal, Ground Lug
12	8070128	Bushing, Insulating Heyco

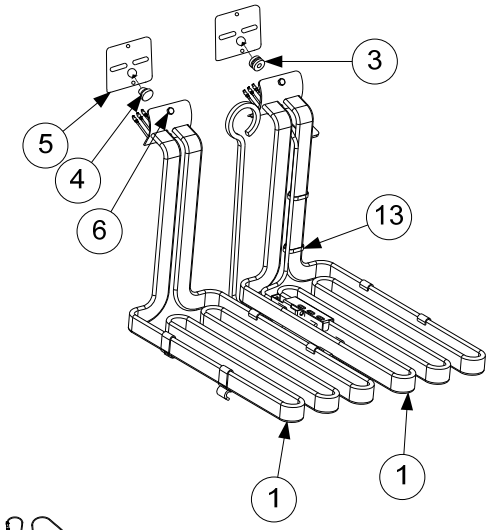
2.5.4 Terminal Blocks



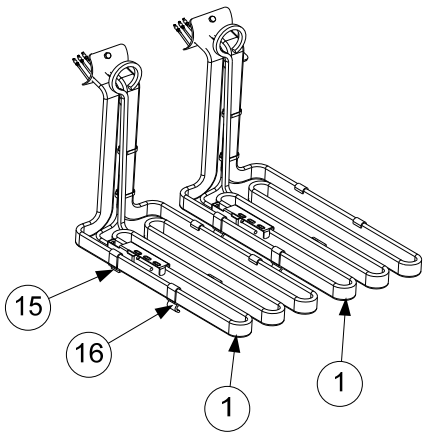
ITEM	PART #	COMPONENT
1	8235631	Box, LH Rear Terminal Block
2	8235632	Box, RH Rear Terminal Block
	8235797	Box, Single Station Fryer Only *(see previous page for cover 2220523)*
3	2200801	Cover, Rear Terminal Block Box
4	8073970	Block, 3 Pole 600V 175A
5	8070070	Terminal, Ground Lug
6	8070128	Bushing, Insulating Heyco

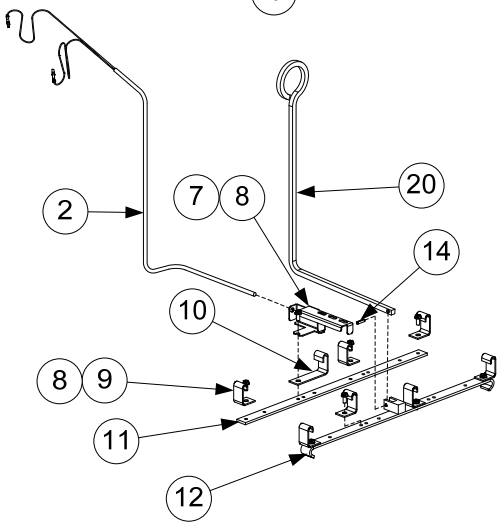
2.5.5 Heating Element Assemblies and Associated Parts
2.5.5.1 Element Assemblies and Hardware

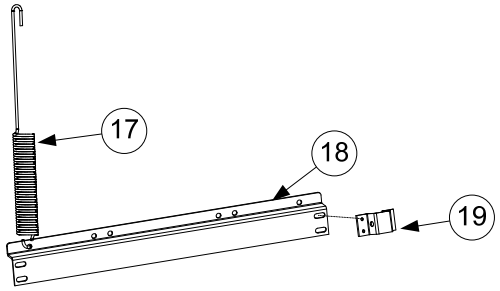
FULL-VAT ELEMENT ASSEMBLY



DUAL-VAT ELEMENT ASSEMBLY







NOTES:
The dual-vat assembly is almost the same as the full-vat assembly except for having two of Items 2, 3, 7, 14, 15, 16 and 20. The only difference between element assemblies for different voltage and kW ratings is the element itself (Item 1).

Items 17, 18 and 19 are shown as associated parts. The are not part of either assembly.

NOTE: These elements apply only to the RE series fryers. For the previous model elements see manual PN 8195990.

2.5.5.1 Heating Element Assemblies and Associated Parts cont.

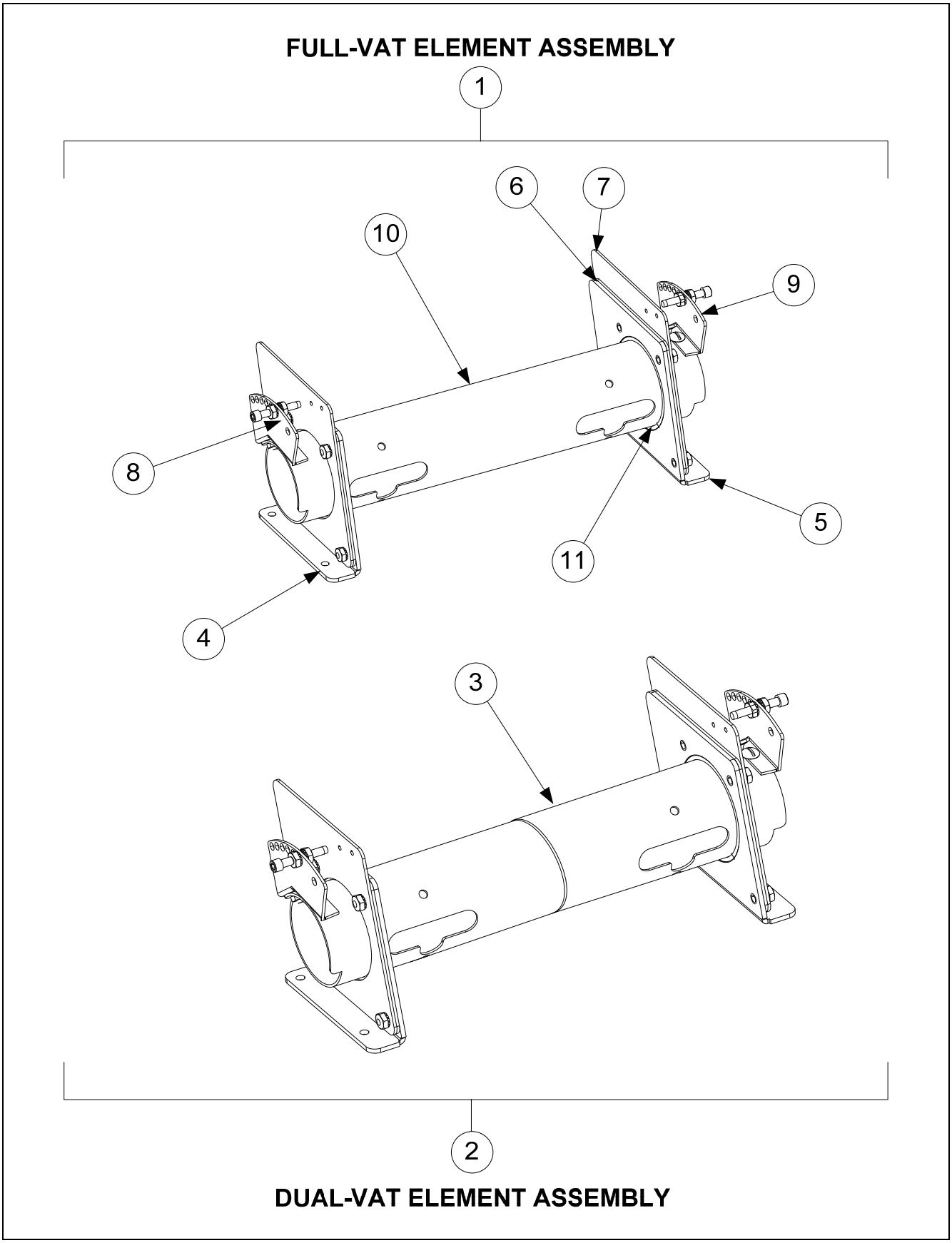
ITEM	PART #	COMPONENT
1		Element Kits – *includes gaskets, grommets, tie wraps, screws and nuts.*
	8262198	200V 7.0 kW (also used for 220V 8.5 kW)
	8262201	200V 8.5 kW
	8262208	200V 11.0 kW
√	8262192	208V 7.0 kW
√	8262197	208V 8.5 kW
	8262210	208V 11.0 kW
	8262200	220V 7.0 kW (also used for 240V 8.5 kW)
	8262205	220V 11.0 kW
	8262193	230V 7.0 kW
	8262199	230V 8.5 kW
	8262206	230V 11.0 kW
	8262194	240V 7.0 kW
	8262207	240V 11.0 kW
	8262204	400V 8.5kW
	8262195	440V 7.0 kW
	8262202	440V 8.5 kW
	8262211	440V 11.0 kW
	8262196	480V 7.0 kW
	8262203	480V 8.5 kW
	8262209	480V 11.0 kW
√ 2	8262212	Probe, Temperature RE – *includes tie wraps and grommet.*
	8074324	Probe, Temperature Fast Ready
3	8160681	Grommet, Probe
4	8160480	Plug, .375-inch Dome
5	8160688	Gasket, Element
6	8091003	Screw, 10-32 X ⅜-inch Hex Head SS
*	8090766	Nut, 10-32 Keps Hex Head SS
7	2300784	Bracket, Temperature Probe
8	8090518	Screw, 8-32 X ⅜-inch Slotted Hex Head
9	9102042	Clamp, Element (Short)
10	2300781	Clamp, Element (Long)
11	2304902	Support, Full-Vat Element Rear
12	8235621	Support, Full-Vat Element Front
13	8090567	Tie-Wrap, Metal
14	8101212	Pin, .125 X .5-inch Split
15	2304903	Support, Dual-Vat Element Rear Dual Vat
16	8235627	Support, Dual-Vat Element Front Dual Vat 14kW and 17kW
	2304103	Support, Dual-Vat Element Front Dual Vat 22kW
17	8103030	Spring, Element Lift Left
	8103031	Spring, Element Lift Right
18	2201190	Bracket, Lower Spring Single Foot Print
	2200464	Bracket, Lower Spring
	2201855	Bracket, Lower Spring Fryer ½
19	2200733	Bracket, Lower Spring Mating
20	8101233	Handle, Element Lift

The wire harnesses must be replaced when replacing 22kW elements on all fryers, except 440V and 480V, manufactured before March 2007. (See Page 2-30 for wire harnesses.)

* Not illustrated.

√ Recommended parts.

2.5.5.2 Element Tube Assemblies

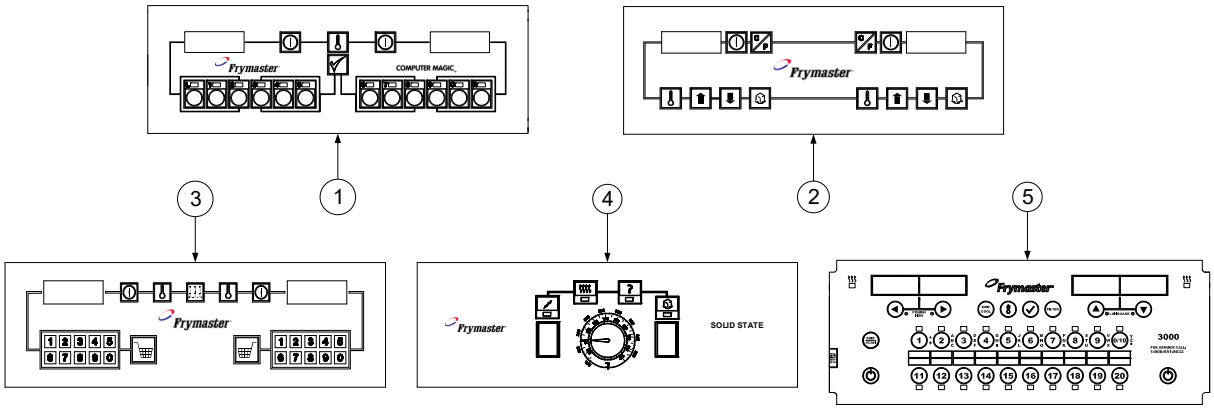


2.5.5.2 Element Tube Assemblies cont.

ITEM	PART #	COMPONENT
1	1067653SP	Tube Assembly RE Element, Full-Vat
	1066736	Tube Assembly RE Element Fryer ½ LH Half Fryer ***(use 1066061 RH Half Fryer)***
2	1067654SP	Tube Assembly RE Element, Dual-Vat
3	8103246	Bushing and Tube Assembly, Dual-Vat
4	1065329	Bracket Assembly, LH Element Tube Support
5	1065330	Bracket Assembly, RH Element Tube Support
6	2200122	Plate, Element Tube Support Inner
7	2200123	Plate, Element Tube Support Outer
8	1067651	Bracket Assembly, LH Upper Spring ***(use 1066569 for 17kW)***
9	1067652	Bracket Assembly, RH Upper Spring ***(use 1066570 for 17kW)***
10	8102992	Tube, FV Element Mounting
	8103135	Tube, Fryer ½ LH Half Fryer ***(use 8103036 RH Half Fryer)***
11	8102993	Bushing, Tube End Teflon
*	8090766	Nut, 10-32 Hex HD SS
*	1066587	Magnetic Position Sensor Assembly
*	1066588	Magnetic Position Sensor Assembly with Bracket
*	8103007	Magnet
*	2300794	Bracket, Magnetic Position Sensor Wire

* Not illustrated.

2.5.6 Controllers



NOTE: See Page 2-33 for Interface Board to Controller Wiring Harness

ITEM	PART #	COMPONENT
1		Computer Magic III.5
√	8262395	Full-Vat (CE)
	8262396	Dual-Vat (CE)
√	8262332	Full-Vat (Non-CE)
	8262405	Dual-Vat (Non-CE)
	8262397	Full-Vat (EPRI/Solid State)
	8262398	Dual-Vat (EPRI/Solid State)
2		Digital Controller
	8262399	Full-Vat (CE)
	8262400	Dual-Vat (CE)
	8262329	Full-Vat (Non-CE)
	8262476	Dual-Vat (Non-CE)

√ Recommended parts.

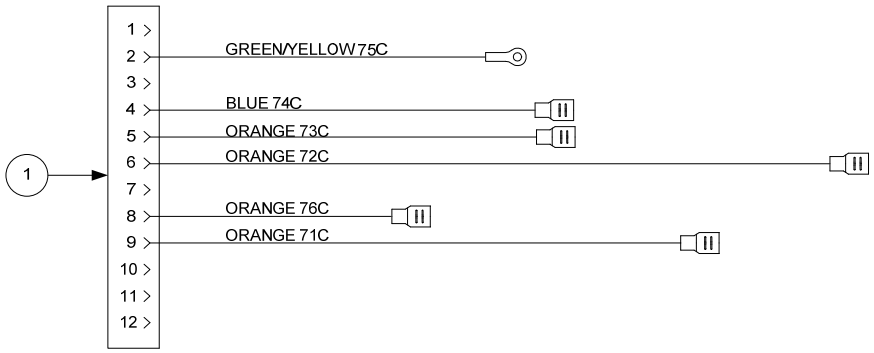
continued on the following page

2.5.6 Controllers cont.

ITEM	PART #	COMPONENT
3		Basket Lift Timer
	8262330	Full-Vat (CE)
	1064366	Dual-Vat (CE)
	8262401	Full-Vat (Non-CE)
	8262402	Dual-Vat (Non-CE)
4		Solid-State (Analog) Controller
	8262538	Full-Vat
	1064334	Dual-Vat
*	8022021	Graphic Sheet of Symbols
5	8263108	3000 Controller

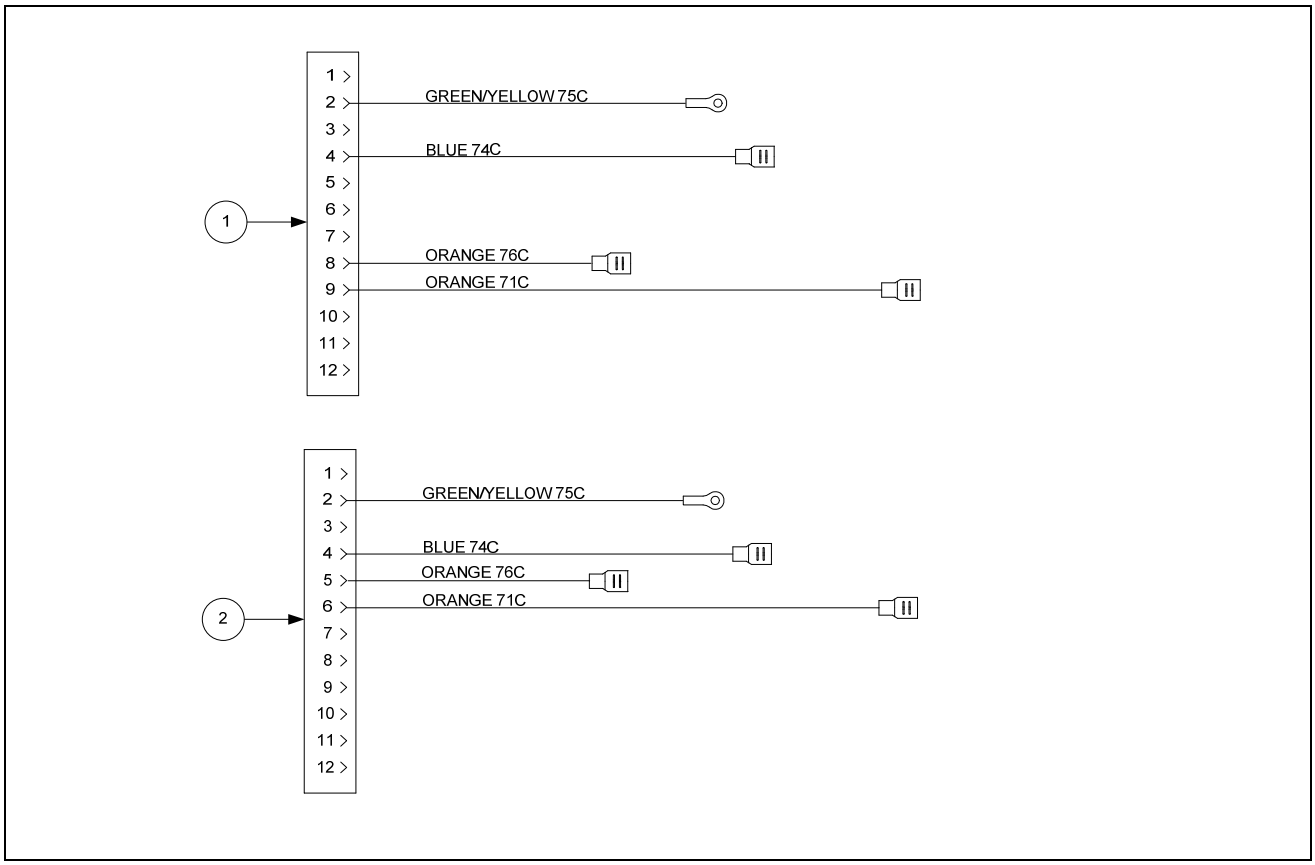
2.5.7 Wiring

2.5.7.1 Contactor Box Wiring Assemblies – 12-Pin Dual-Vat C-1



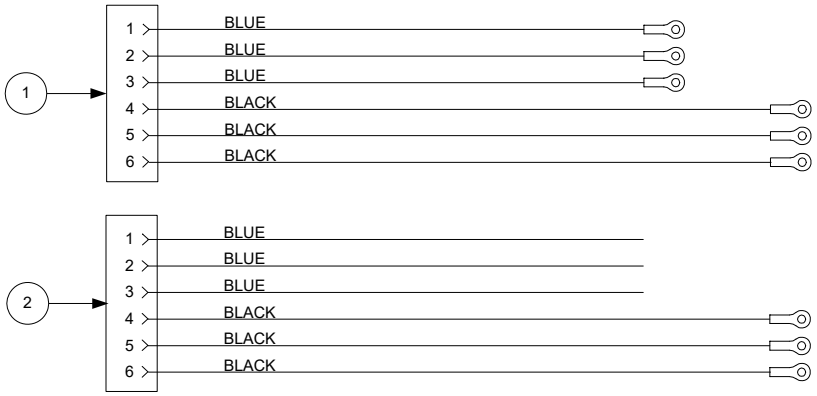
ITEM	PART #	COMPONENT
	1065980SP	Contactor Box Harness Assembly Dual Vat
1		Standard (See wiring diagrams on pages 1-19.)
		EPRI (uses harness above plus wire kits WIR0734 and WIR0737) (See wiring diagrams on pages 1-26 and 1-27.)

2.5.7.2 Contactor Box Wiring Assemblies – 12-Pin Full-Vat C-1



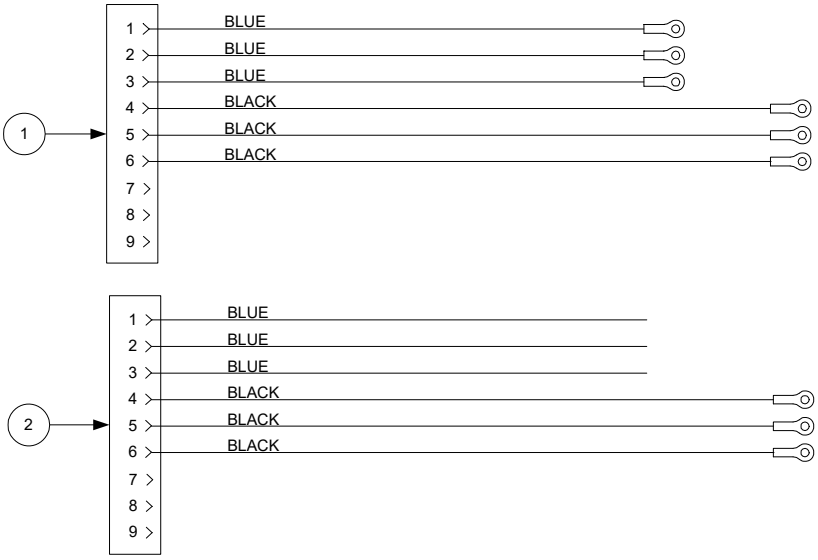
ITEM	PART #	COMPONENT
	1066031SP	Contactor Box Harness Assembly Full Vat
1		Standard (See wiring diagrams on pages 1-19.)
		EPRI (uses harness above plus wire kits WIR0733 and WIR0736) (See wiring diagrams on pages 1-26 and 1-27.)
2	1067042	Fryer and ½ Contactor Box Harness Assembly

2.5.7.3 Contactor Box Wiring Assemblies – 6-Pin (Left Element)



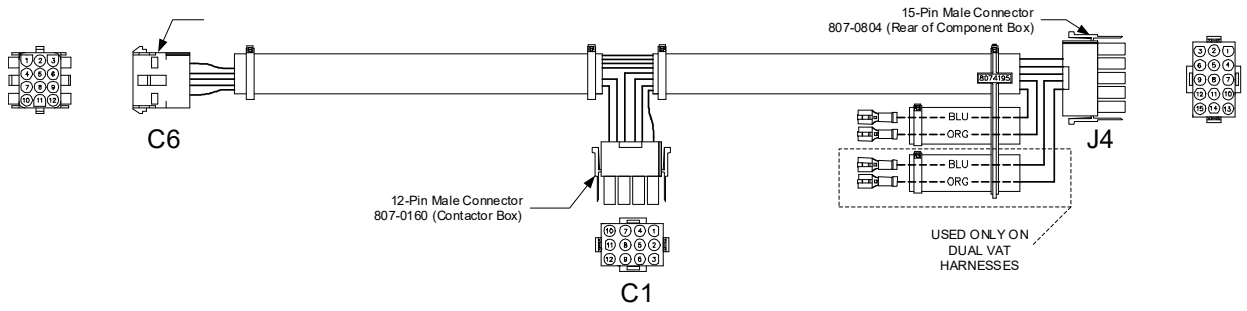
ITEM	PART #	COMPONENT
1	1066768	14/17 kW Standard Mercury
	1067849	22 kW Triac SSR
2	1066771	14/17 kW Mechanical Contactor
	1067851	22 kW Mercury and High Amp Mechanical Contactor

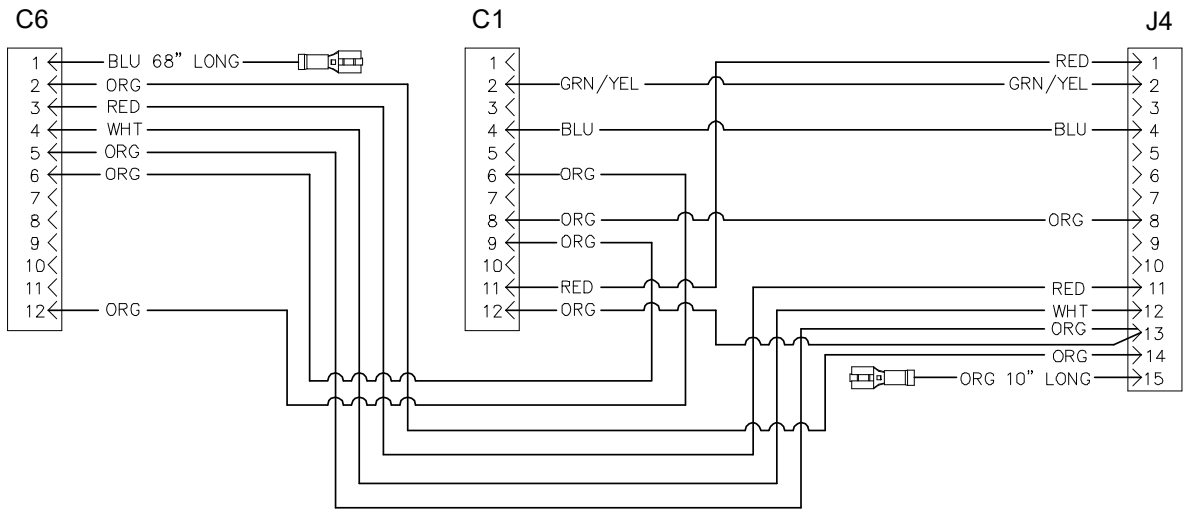
2.5.7.4 Contactor Box Wiring Assemblies – 9-Pin (Right Element)



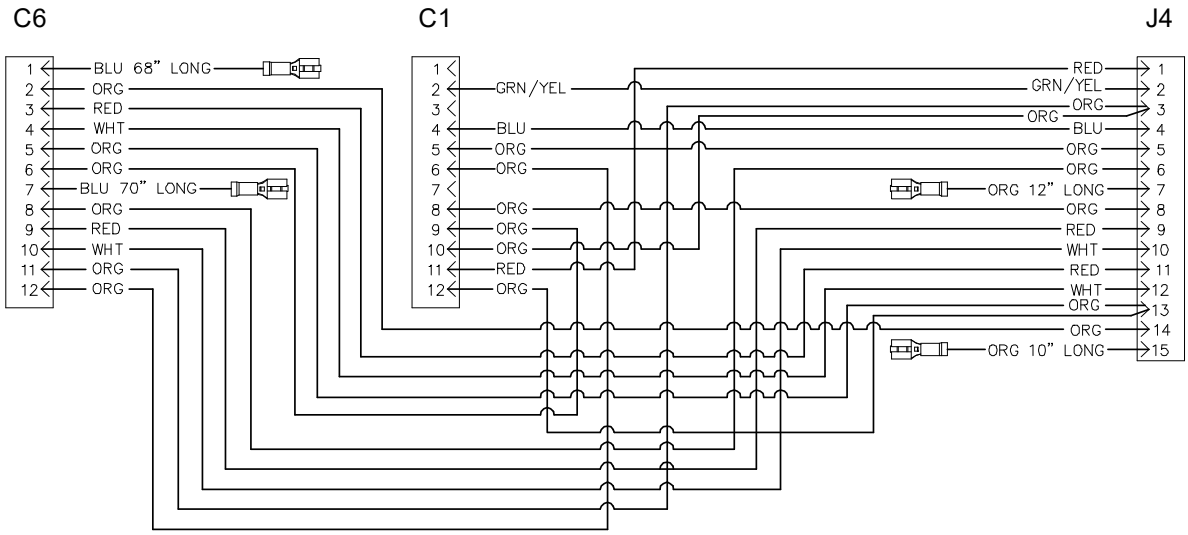
ITEM	PART #	COMPONENT
1	1066769	14/17 kW Standard Mercury
	1067850	22 kW Triac SSR
2	1066772	14/17 kW Mechanical Contactor
	1067852	22 kW Mercury and High Amp Mechanical Contactor

2.5.7.5 Main Wiring Harnesses - Full and Dual Vat



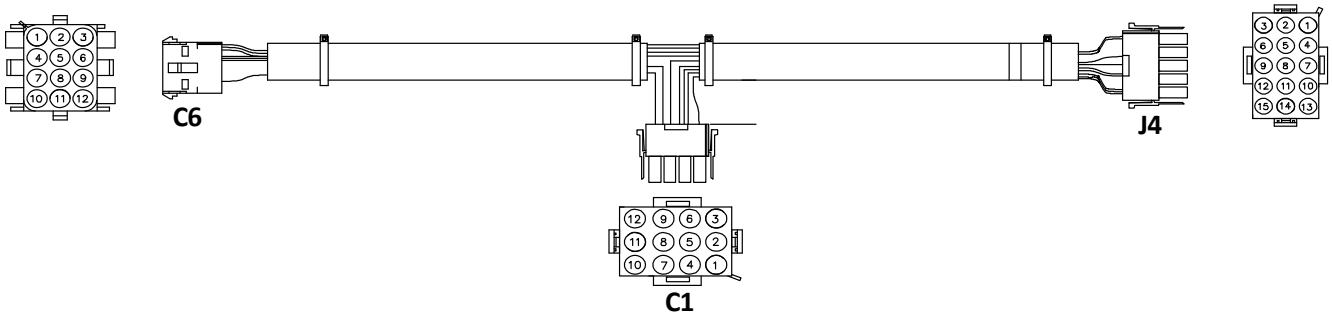


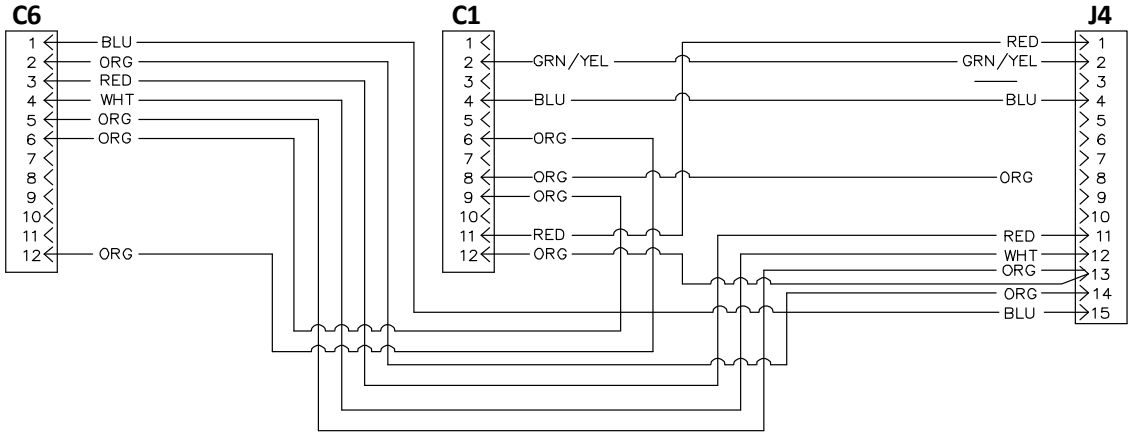
FULL VAT HARNESS
8074194



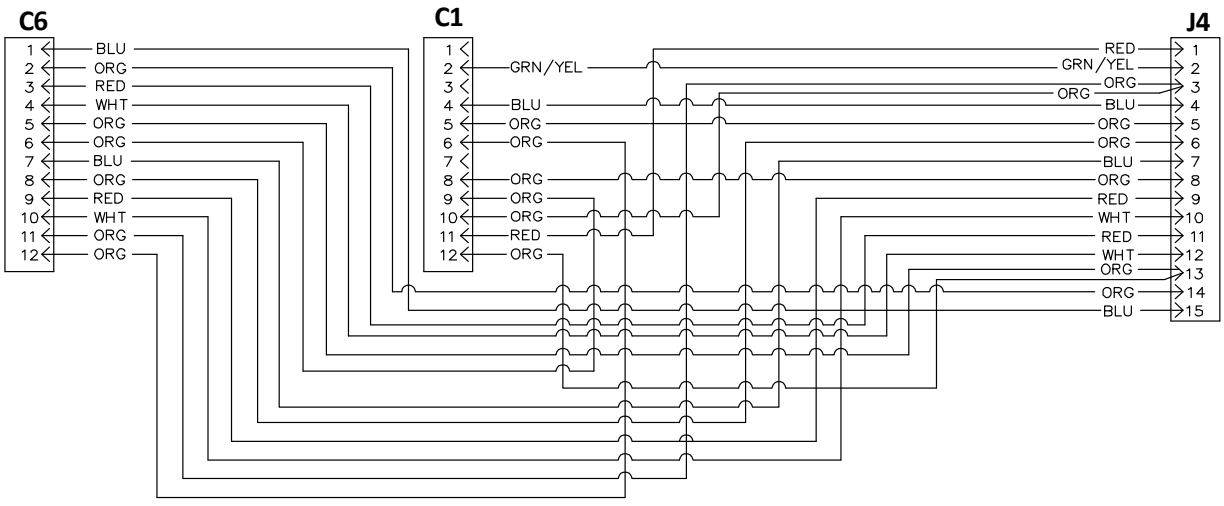
DUAL VAT HARNESS
8074195

2.5.7.5.1 Main Wiring Harnesses - Full and Dual Vat with K3000 Controller



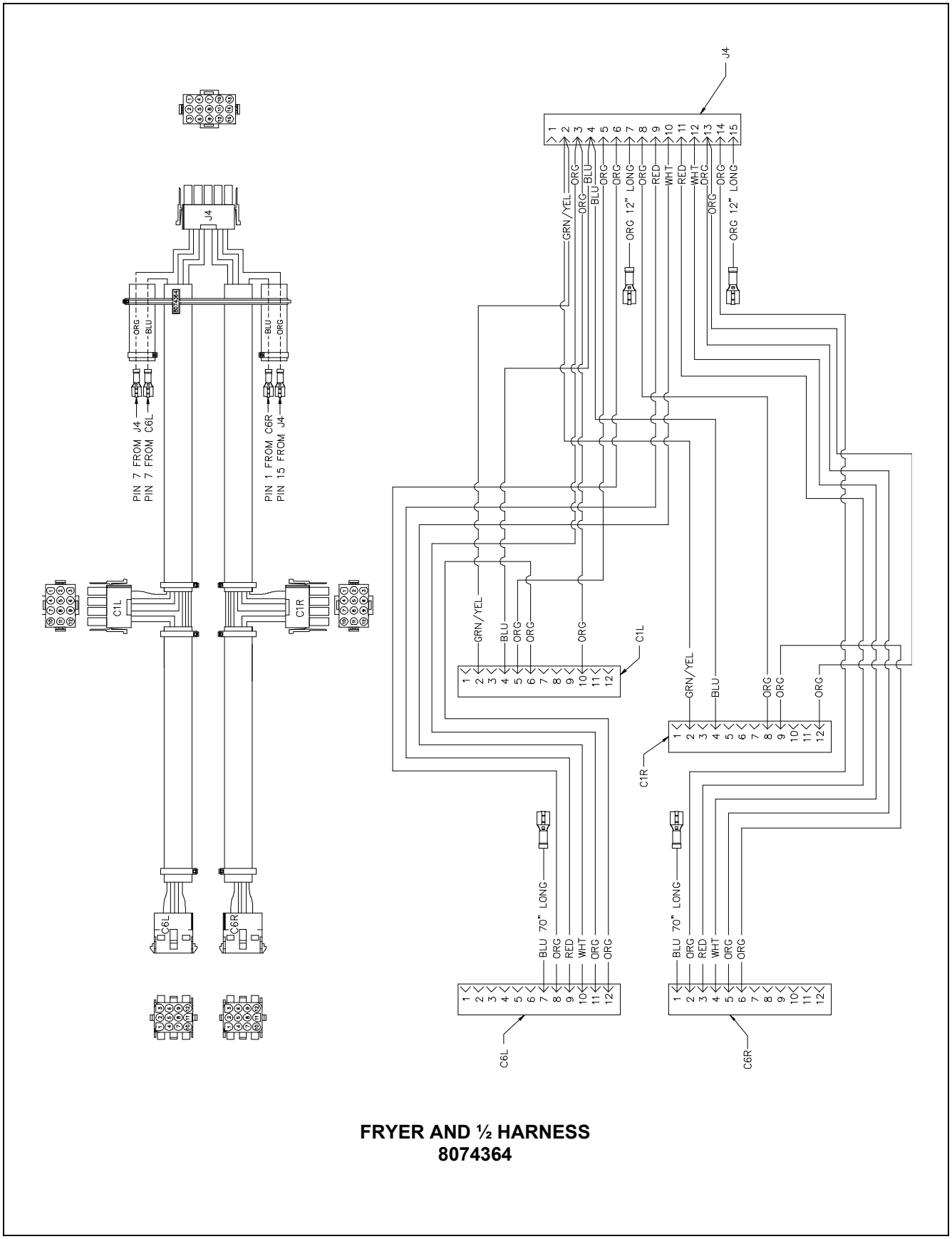


Full Vat Harness with K3000
8074705



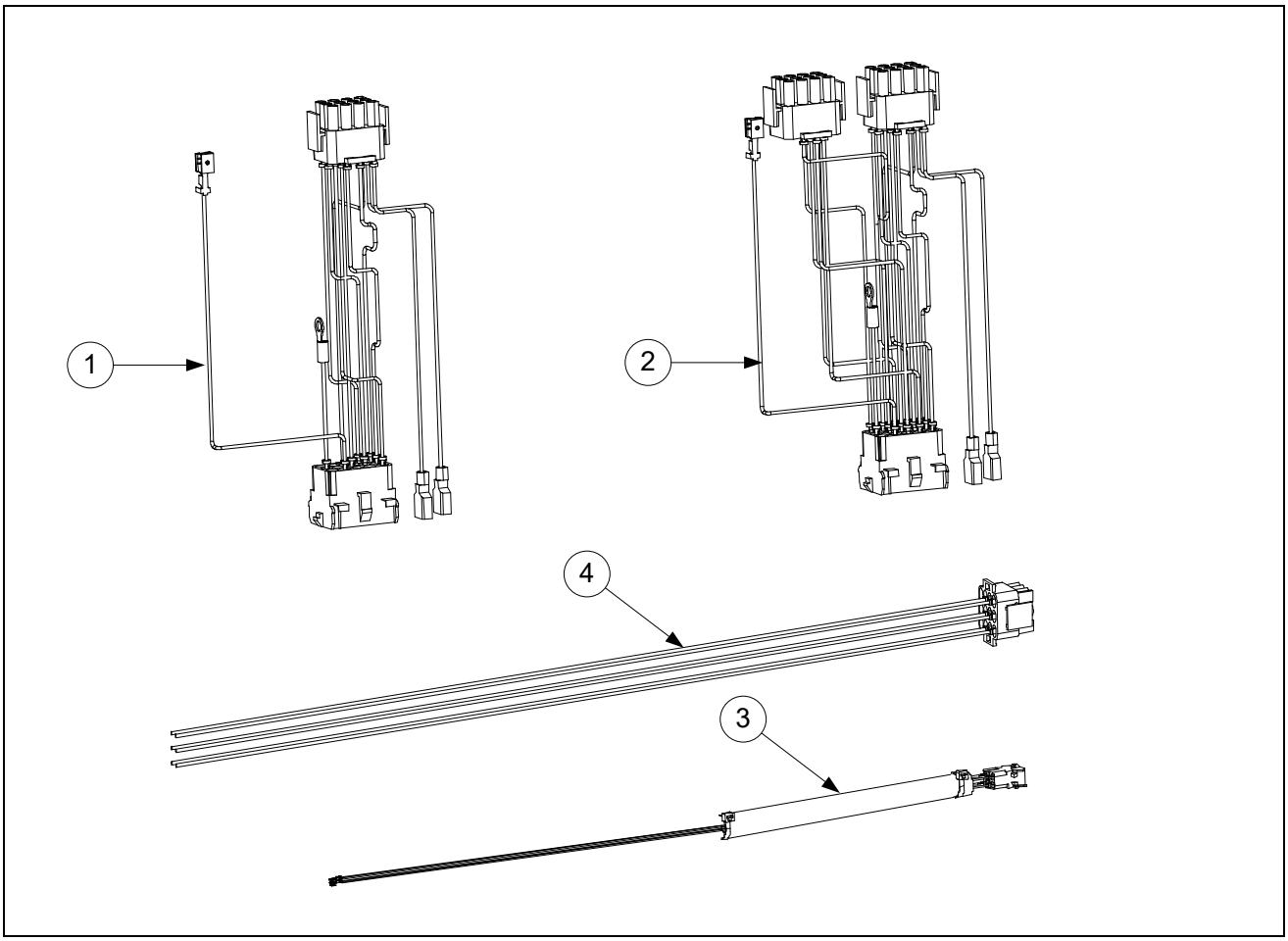
Dual Vat Harness with K3000
8074706

2.5.7.5 Main Wiring Harnesses – Fryer and ½



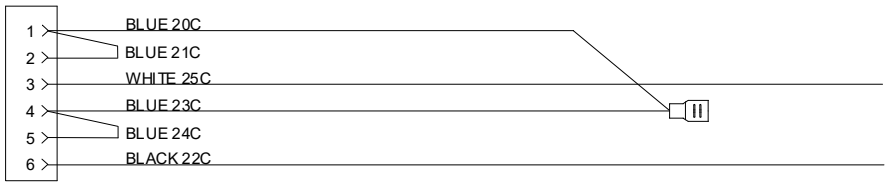
FRYER AND ½ HARNESS
8074364

2.5.7.6 Component Box, Filter Pump and Basket Lift Wiring Harnesses

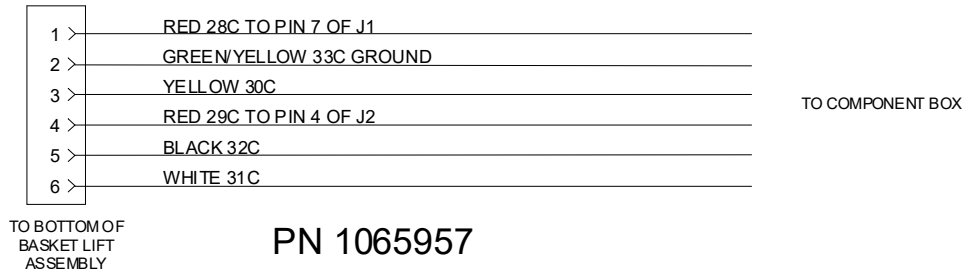


ITEM	PART #	COMPONENT
1	1065750	Full Vat Control Harness J4 to J2 ***(Standard)***
	1066639	Full Vat Control Harness J4 to J2 ***(EPRI)***
2	1065751	Dual Vat Control Harness J4 to J1 and J2 ***(Standard)***
	1066644	Dual Vat Control Harness J4 to J1 and J2 ***(EPRI)***
3	1065935	Filter Pump C2 to Component Box Wiring Harness
4	1065957	Basket Lift Harness Assembly ***(Standard)***
	1066640	Basket Lift Harness Assembly ***(EPRI)***

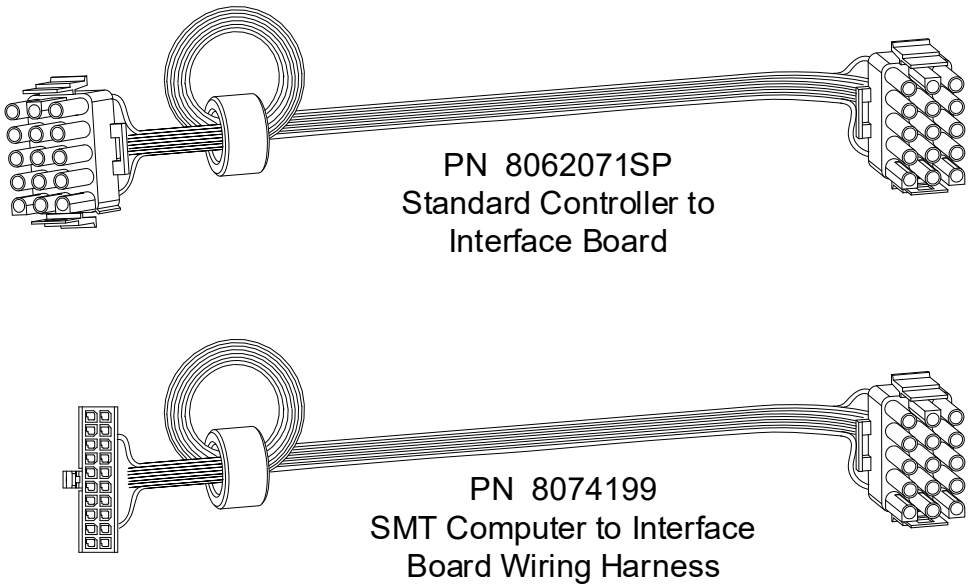
2.5.7.7 Component Box to Filter Pump Harness



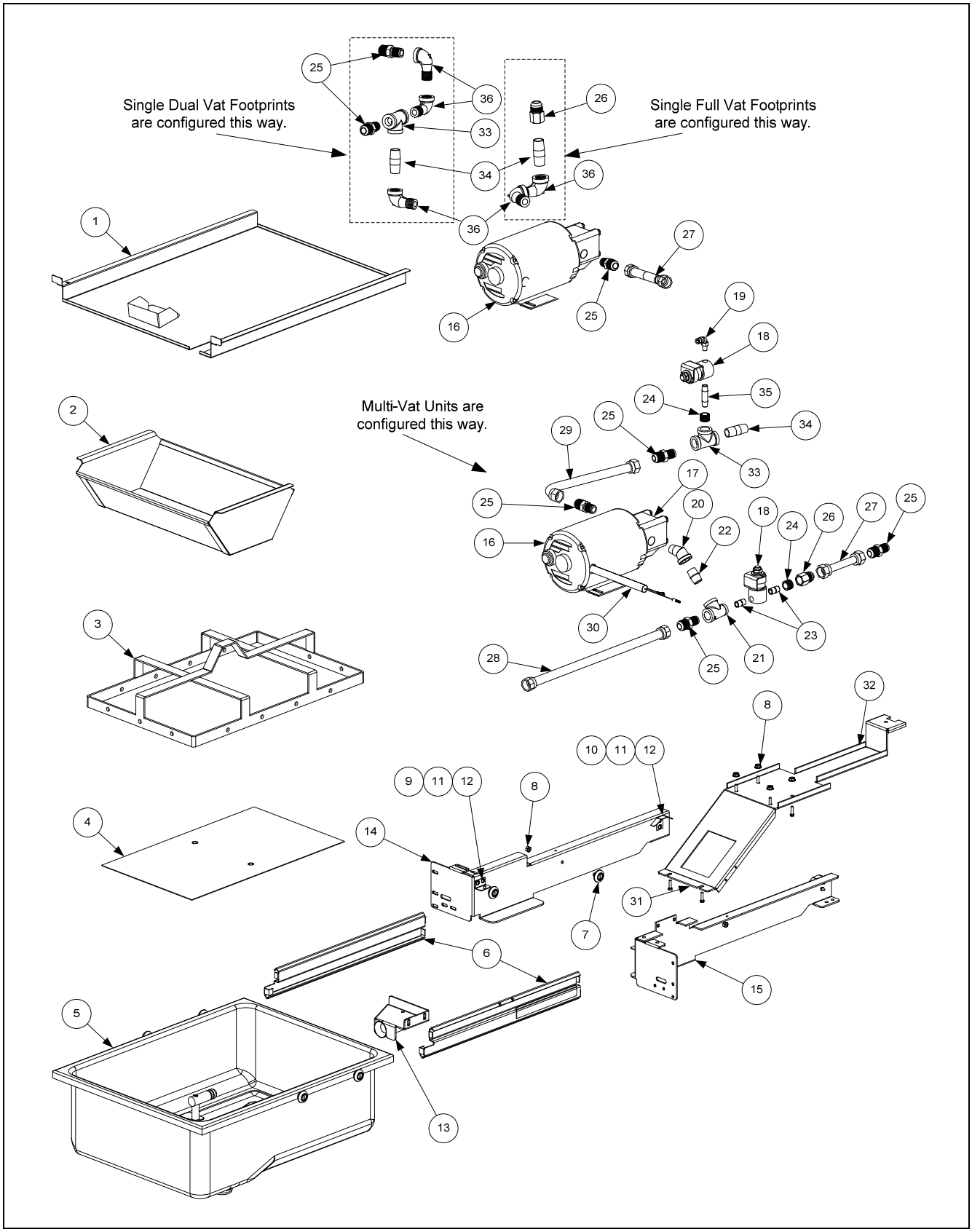
2.5.7.8 Basket Lift Harness



2.5.7.9 Interface Board to Controller Wiring Harness – 15-Pin



2.6 Filtration System Components



2.6 Filtration System Components cont.

ITEM	PART #	COMPONENT
*	8261979	Filter Pan Roller Kit (four each of Items 7 and 8)
*	8261980	Service Filter Pan (Item 5 minus Item 2)
*	8261981	Service Filter Pan Assembly (Service Filter Pan above plus Items 3 and 4)
√ *	8261392	O-Ring (Pkg. of 5; used with Item 5)
*	8130568	Plug, ⅛-inch Socket Head Pipe (component of Item 5; two required)
*	1065911	Heater Strip Assembly, 100-120V 25W 18" 8065933SP
*	1062852SP	Heater Strip Assembly, 208-250V 25W 18"
1	8234787	Lid, Multi-Vat Fryers Filter Pan
	1066243	Lid, Single Station Fryer Only Full Vat Filter Pan
	1066310	Lid, Single-Station Fryer Only Dual Vat Filter Pan
	1066461	Lid, RE SCF Deep Cabinet Filter Pan
	1066735	Lid, Fryer ½ Filter Pan
2	8102874	Crumb Tray, Multi-Vat Fryers(component of Item 5)
	8241707	Crumb Tray, Single Station Fryer Only
	8235812	Crumb Tray, RE SCF Deep Cabinet
	8241734	Crumb Tray, Fryer ½
3	8102910	Hold-Down Ring for Paper 13.65 x 21.41 Multi-Vat Fryers
	8235774	Hold-Down Ring for Paper 8.98 x 19.39 Single Station Fryer Only
	8235811	Hold-Down Ring for Pad 15.75x 20.02 SCF Deep Cabinet
	8235934	Hold-Down Ring for Paper 8.98 x 21.04 Fryer ½
4	2002124	SanaGrid Filter Screen Standard
	2201316	SanaGrid Filter Screen, Single Station Fryer Only
	2201461	SanaGrid Filter Screen, SCF Deep Cabinet
	2201795	SanaGrid Filter Screen, Fryer ½
5	1062617SP	Pan, One-Piece Filter Multi-Vat Fryers (includes Item 2)
	8235594	Pan, One-Piece Filter Single Station Fryer Only
	8235933	Pan, One-Piece Filter Fryer ½
	8235798	Pan, Filter RE SCF Deep Cabinet ***(use 8102805 Caster Front, 2" and 8102807 Caster Rear 2" rigid)***
6	8102012	Rail Set, Filter Pan Roller (includes one left and one right)
*	2301381	Slide, Filter Pan SCF Deep Cabinet
√ *	8261979	Roller Kit ***(includes 4 rollers, 4 nuts and 4 lock washers)***
7	8102198	Roller, Filter Pan and Rail
8	8261372	Nut, ¼-20 Hex (Pkg. of 10)
*	8090191	Washer, Lock 1/4 Spring ZP
9	8234675	Bracket, Lid Support
10		Guide, Filter Pan Lid
	2003556	Left
	2006709	Right
11	8090503	Screw, 8-32 X ½-inch Slotted Truss Head
12	8090247	Nut, 8-32 Hex Keps
13	8233879	Suction Tube, Multi-Vat Fryer
	8235591	Suction Tube, Single-Station Fryer

* Not illustrated.

√ Recommended parts.

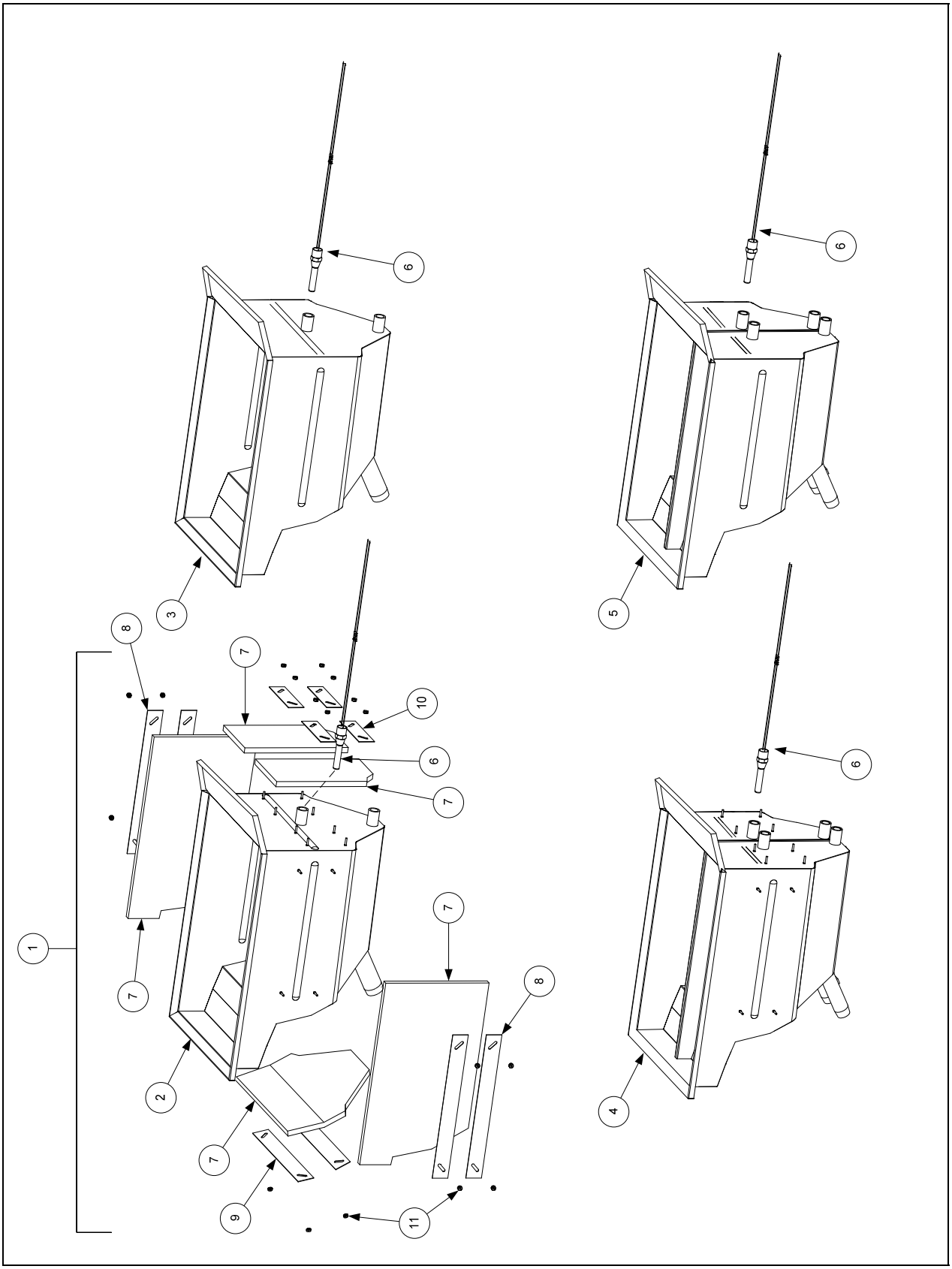
Continued on next page…

2.6 Filtration System Components cont.

ITEM	PART #	COMPONENT
14	2004408	Rail, Left Pan Filter Multi-Vat Fryers
	1065981	Support Assembly, Left Single Station Fryer Only
	2201378	Support, Left Filter Pan SCF Deep Cabinet
	2202069	Support, Left Filter Pan Fryer ½
15	2004409	Rail, Right Filter Pan Multi-Vat Fryers
	1065982	Support Assembly, Right Single Station Fryer Only
	2201379	Support, Right Filter Pan SCF Deep Cabinet
	2202070	Support, Right Filter Pan Filter ½
16		Motor and Gasket Kit
	8261785	100V 50/60 Hz
√	8261712	115V 50/60 Hz
√	8261756	208V 50/60 Hz
	8261270	220-240V 50/60 Hz
	8261755	250V 50/60 Hz
√17	8263191	Pump and Gasket Kit 4 GPM CCW
	8263192	Pump and Gasket Kit 8 GPM CCW
	8160093	Gasket, Pump/Motor
√18	8072484	Valve, ¼-inch Solenoid
19	8102493	Fitting, ¼-inch x 90° Quick-Connect
*	8111071	Tubing, ¼-inch OD Teflon Vent (sold by the foot)
20	8130342	Elbow, ½-inch 45° Street
21	8130530	Tee, ½-inch X ¼-inch X ½-inch Reducing
22	8130022	Nipple, ½-inch Close
23	8130838	Nipple, ¼-inch Close
24	8130304	Bushing, ½-inch to ¼-inch Flush
25	8101668	Adapter, ⅝-inch to ½-inch NPT Male
26	8101669	Adapter, ⅝-inch to ½-inch NPT Female
27	8101680	Flexline, 6.5-inch Oil Return
28	8101057	Flexline, 13-inch Oil Return
29	8101043	Flexline, 9.5-inch Oil Return
30		Wiring Harness, Filter Pump
	1065910	115/120V Filter Harness
	1065906	208/230/240/250V Filter Harness
31	8090401	Screw, 10-32 X ¾-inch Hex Trim Head (Pkg. of 5)
32	2007112	Bridge, Filter Motor Multi-Vat Fryers
	8241705	Bridge Filter Motor Single Station Fryer Only
	2201346	Bridge, Filter Motor SCF Deep Cabinet
	2202080	Bridge, Filter Motor Fryer ½, Half Fryer LH side
	2201837	Bridge, Filter Motor Fryer ½, Half Fryer RH side
33	8130003	Tee, ½-Inch
34	8130298	Nipple, ½-inch 2.0-inch
35	8130537	Nipple, ¼-inch 2.0-inch
36	8130165	Elbow, ST ½-inch x ½-inch NPT 90° BM

* Not illustrated.
√ Recommended parts.

2.7 Frypot Assemblies and Associated Parts



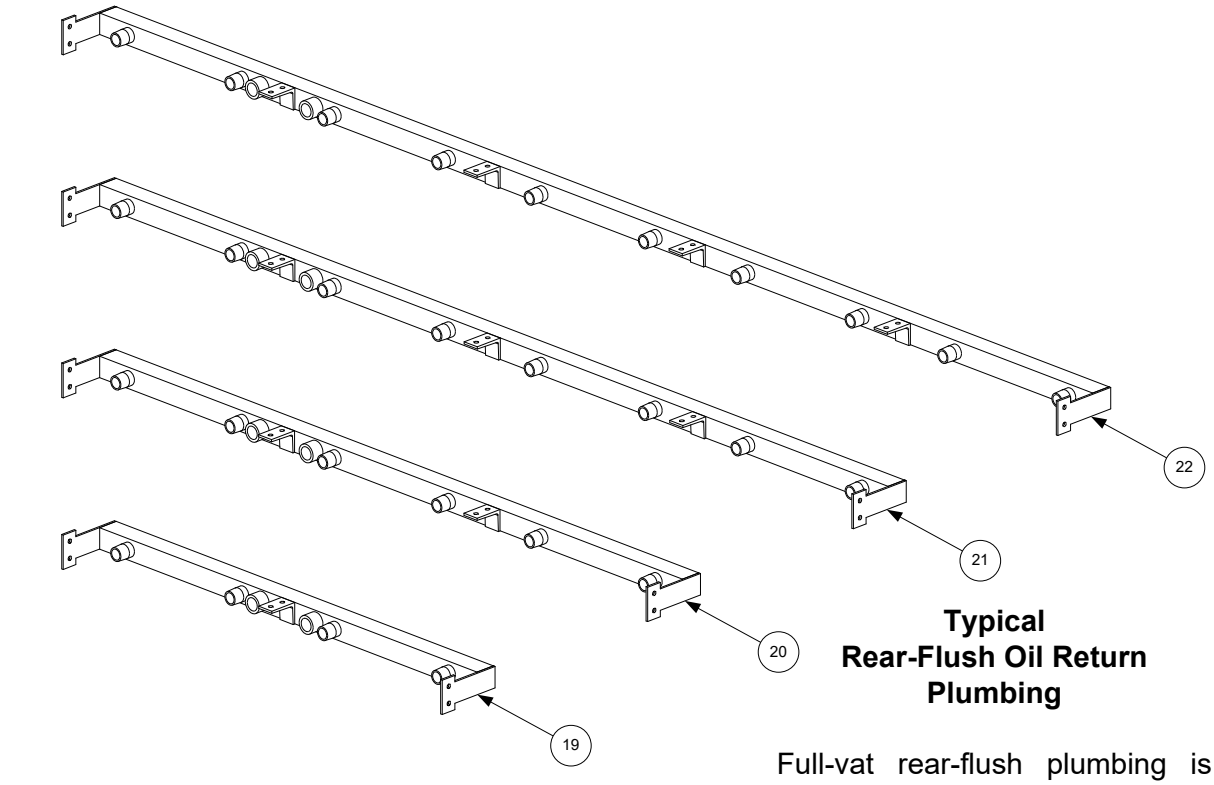
2.7 Frypot Assemblies and Associated Parts cont.

ITEM	PART #	COMPONENT
1		Frypot Assembly ***(does not include Item 6)***
2	8235545SP	Frypot, Full-Vat Filter with Insulation ***(for use on EPRI units)***
3	8235359SP	Frypot, Full-Vat Filter w/o Insulation ***(for use on Standard units)***
	8235996	Frypot, Half-Vat Filter w/o Insulation LH ***(for use on Fryer ½ LH units)***
	8235723	Frypot, Half-Vat Filter w/o Insulation RH ***(for use on Fryer ½ RH units)***
	8235783	Frypot, Full-Vat Filter w/o Insulation Deep Cabinet ***(for use on Standard Deep units)***
4	8235551SP	Frypot, Dual-Vat Filter with Insulation ***(for use on EPRI units)***
5	8235482SP	Frypot, Dual-Vat Filter w/o Insulation ***(for use on Standard units)***
√ 6		Thermostat Assembly, High-Limit
	8262454	Non-CE Full Vat 425°F (218°C) (17kW FV and 14kW FV)(Color-Coded Black 8067543)
	8262456	Non-CE Dual Vat 435°F (224°C) (22kW, 17kW DV and 14 kW DV) (Color-Coded Red 8068035)
	8262455	CE 415°F (213°C) (14kW and 17kW CE) (Color-Coded Yellow 8068132)
	8262457	CE 405°F (207°C) (22 kW FV and DV CE) (Color-Coded White 8068536)
	1089550	Non-CE 395°F (202°C) (China) (Color-Coded White 8076657)
7	8120211	Insulation, Kaowool 17-inch X 10-inch X ½-inch (4 required per pot)
8	9004100	Retainer, Side Insulation
9	9004101	Retainer, Front Insulation
10	9001345	Retainer, Rear Insulation
11	8261376	Nut, 10-32 Keps Hex (Pkg. of 10)

NOTES: The frypots for EPRI-equipped units are insulated; those for non-EPRI (standard) units are not. EPRI frypot assemblies 8065545SP and 8065551SP consist of Items 2 and 4 respectively, plus insulation (Items 7-10). When replacing insulation or adding insulation to a bare frypot, the individual pieces (sides, front, and back) are cut to fit from Item 7 when installed. Each frypot requires four uncut pieces of insulation.

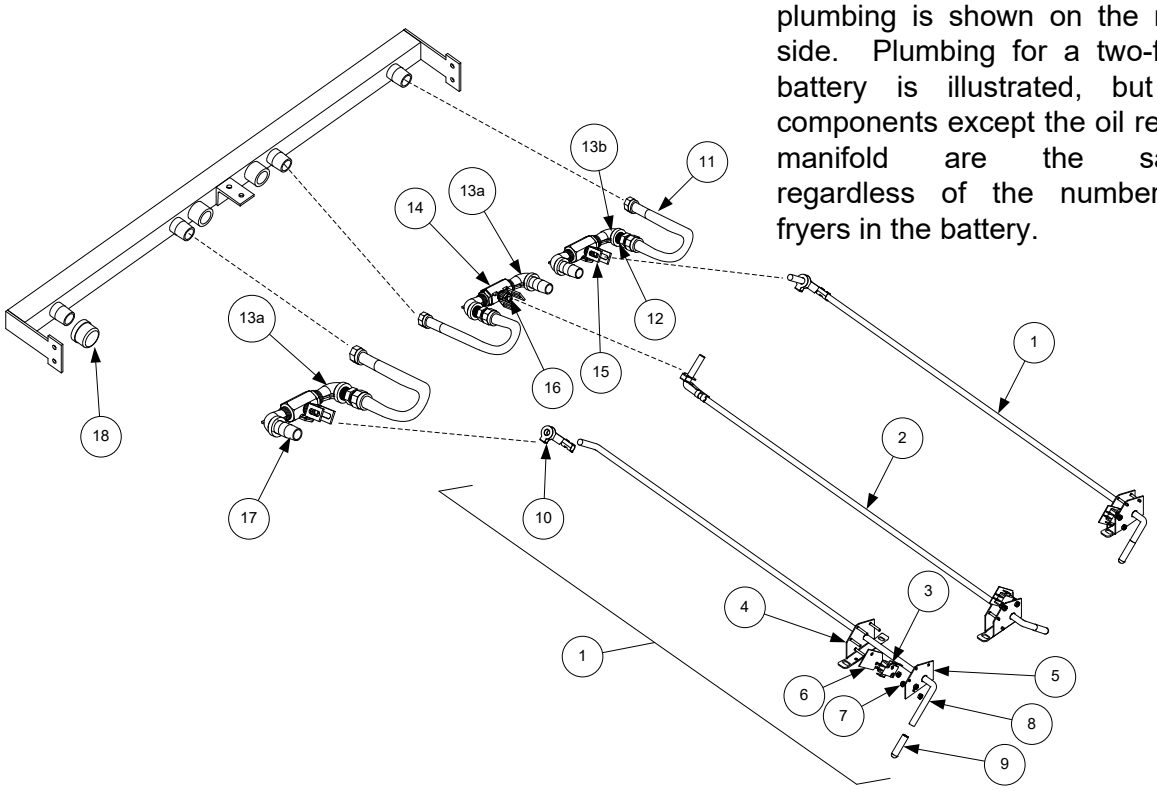
√ Recommended parts.

2.8 Oil Return System Components



Typical Rear-Flush Oil Return Plumbing

Full-vat rear-flush plumbing is shown on the left side of the oil return manifold; dual-vat plumbing is shown on the right side. Plumbing for a two-fryer battery is illustrated, but all components except the oil return manifold are the same regardless of the number of fryers in the battery.

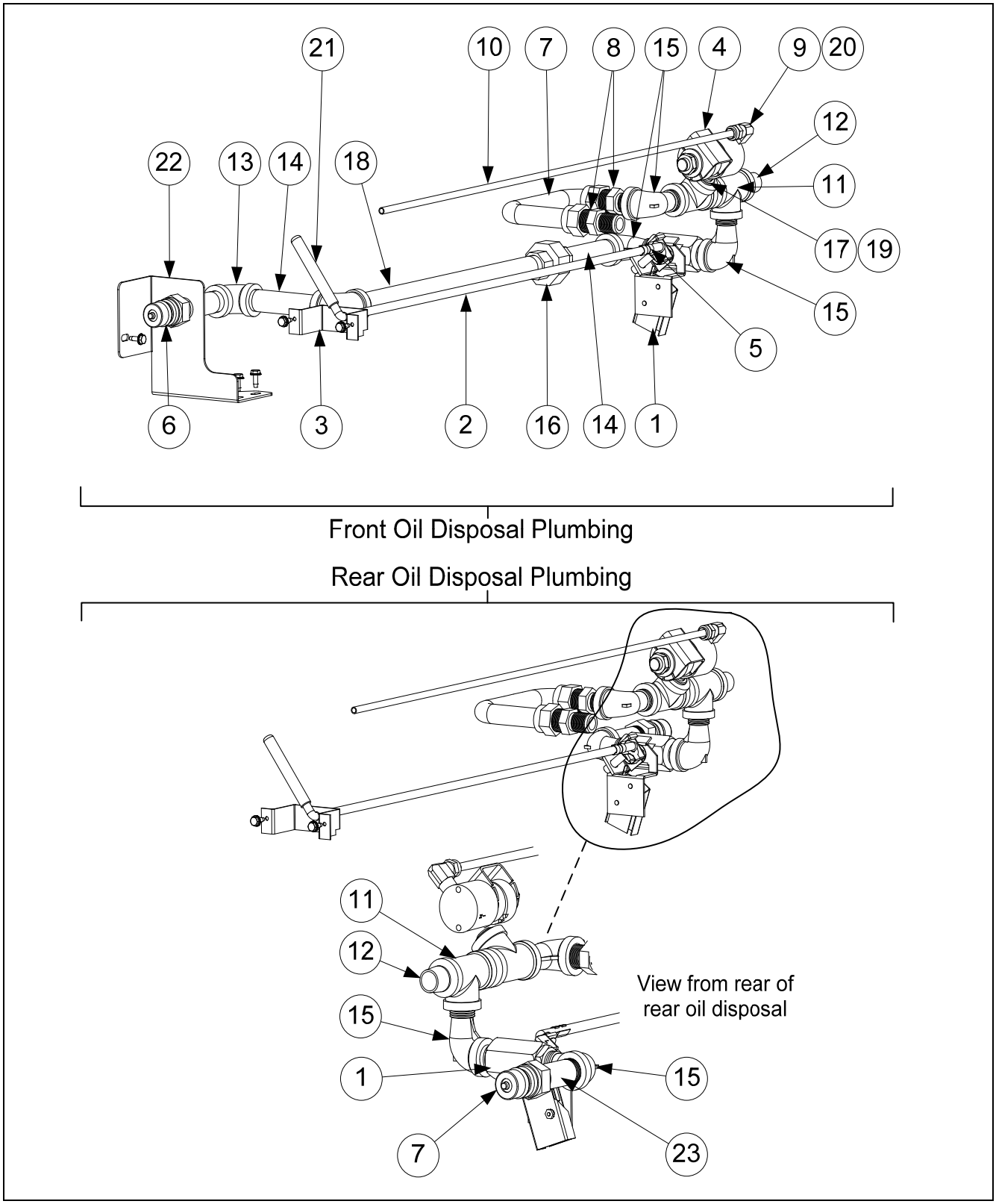


2.8 Oil Return System Components cont.

ITEM	PART #	COMPONENT
1	1065596	Handle Assembly, Full-Vat and Right Dual-Vat Rear Flush Complete
	1066410	Handle Assembly, Full-Vat Deep Cabinet Complete
2	1065597	Handle Assembly, Left Dual-Vat Rear Flush Complete
3	8072103	Microswitch, Straight Lever
4	1065595	Bracket Assembly, Microswitch
5	2005401	Bracket, Handle Retainer
6	8160220	Insulation, Oil Return Microswitch
7	8261366	Nut, 4-40 Keps Hex (Pkg. of 25)
8	8102534	Rod, Full-Vat and Right Dual Vat Rear Flush
	8103081	Rod, Full-Vat Right Hand Deep Cabinet
	8102533	Rod, Left Dual Vat Rear Flush
9	8160643	Grip, Oil Return Valve Handle
10	8090601	Clip, Clevis
11	8102532	Flexline, 7.0-inch Multi-Vat Units
	8101057	Flexline, 13.0-inch Single Footprint Only Full Vat and Dual Vat Left Side
	8101055	Flexline, 11.5-inch Single Footprint Only Dual Vat Right Side
12	8101668	Adapter, ⅝-inch to ½-inch NPT Male
13a	8130165	Elbow, ½-inch X 90° Street
*	8130062	Elbow, ½-inch X 90° BM
*	8130087	Nipple, ½-inch X 1.50-inch NPT
13b	8130908	Adapter, ½-inch NPT M/T 90º ***(used only on cabinet side)***
14	8100278	Valve, ½-inch Ball
15	2005438	Handle, Rear Flush Valve
16	9002935	Retainer, Oil Return Valve Nut
17	8130460	Nipple, ½-inch X 3.0-inch NPT
18	8130907	Cap, 15/16-inch Valve Safety
		Manifolds
*	8103142	Manifold, Fryer ½ Station Fryer
19	8103015	Manifold, Two-Station Fryer ***(use 8102543 for non-filter units)***
20	8103016	Manifold, Three-Station Fryer ***(use 8102544 for non-filter units)***
21	8103017	Manifold, Four-Station Fryer ***(use 8102545 for non-filter units)***
22	8103018	Manifold, Five-Station Fryer ***(use 8102546 for non-filter units)***

***** Not illustrated.

2.9 Oil Disposal Plumbing

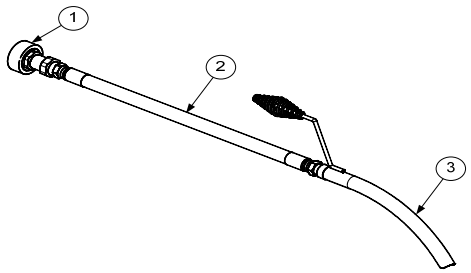


2.9 Oil Disposal Plumbing cont.

ITEM	PART #	COMPONENT
	1065959	Plumbing, Front Oil Disposal
	1065933	Plumbing, Rear Oil Disposal
1	1066033	Valve Assembly, Oil Disposal
2	2200922	Rod, Oil Disposal
3	2200963	Bracket, Oil Disposal Rod
4	8072484	Valve, Solenoid ¼-inch NPT
5	8090601	Clip, Clevis Right Rod End
6	8100487	Coupling, Male
7	8101043	Flexline, ½-inch ID x 9.50”
*	8101055	Flexline, ½-inch ID x 11.50”
8	8101668	Adaptor, Male ⅝-inch OD x ½-inch
9	8102493	Fitting, 90° Quick Connect Tube
10	8111071	Tubing, ¼-inch OD (sold by the foot)
11	8130003	Tee, ½-inch x ½-inch x ½-inch BM
12	8130022	Nipple, ½-inch x Close NPT BM
13	8130062	Elbow, ½-inch 90° BM
14	8130093	Nipple, ½-inch x 4.0” NPT BM
15	8130165	Elbow, Street ½-inch x ½-inch NPT 90° BM
16	8130173	Union, ½-inch NPT BM
17	8130304	Bushing, ½-inch x ¼-inch BM Flush
18	8130429	Nipple, ½-inch x 13.0” NPT BM
19	8130571	Nipple, ¼-inch x 1½-inch BM
20	8130807	Bushing, ¼-inch x ⅛-inch
21	8160637	Cap, Vinyl Blue 5/16-inch x 3.0”
22	8235685	Bracket, Assembly Quick Disconnect
	8235809	Bracket, Assembly Quick Disconnect SCF Deep Cabinet
23	8130265	Nipple, ½-inch x 2.50” NPT BM
*	8101669	Adapter, Female ⅞-inch O.D. x ½-inch
*	8130253	Nipple, ½-inch x 10.00” NPT BM
*	8130298	Nipple, ½-inch x 2.00” NPT BM
*	1066407	Switch Assembly RE Wand

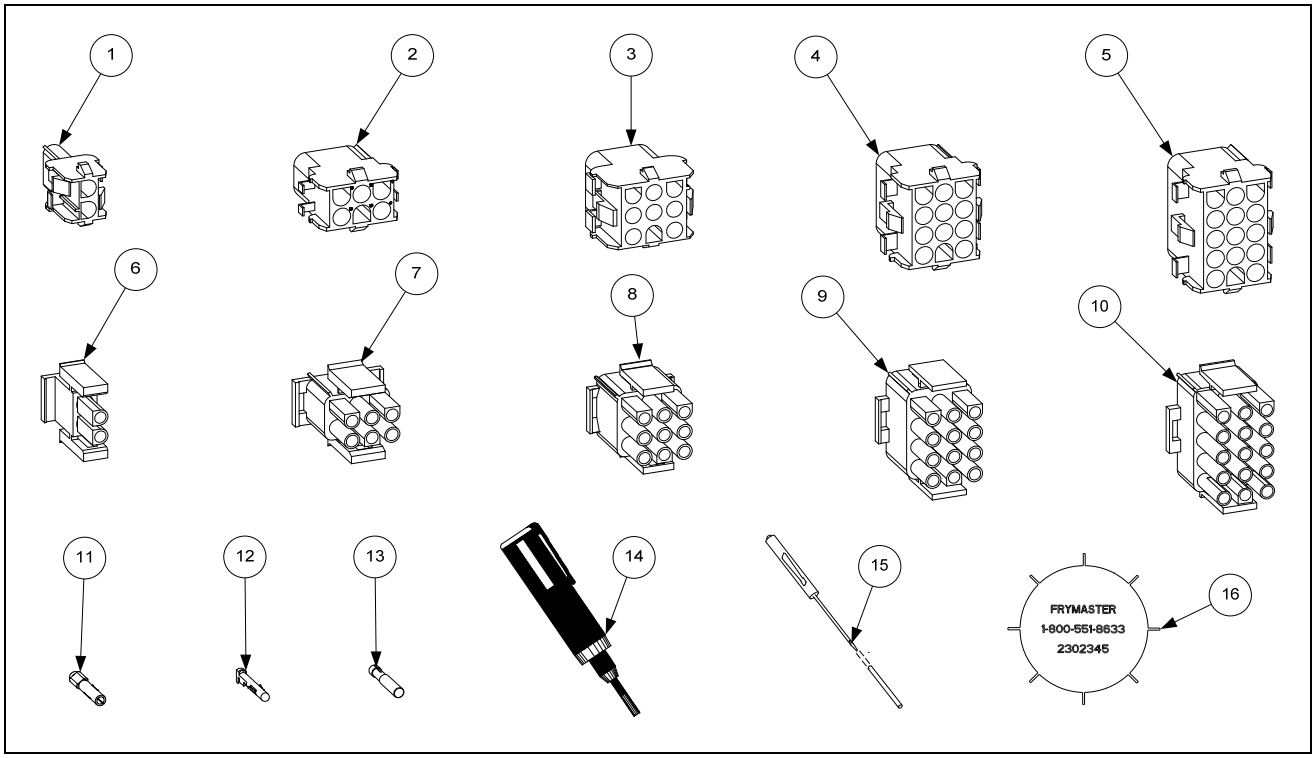
* Not illustrated.

2.10 Oil Disposal Wand



ITEM	PART #	COMPONENT
	1064395	Oil Disposal Wand Assembly
1	810-0490	Quick Disconnect ½-inch Female
2	8101471	Hose, 24-inch
3	8100603	Wand

2.11 Wiring Connectors and Pin Connectors



ITEM	PART #	COMPONENT
1	8071068	2-Pin Female
2	8070158	6-Pin Female
3	8070156	9-Pin Female
4	8070159	12-Pin Female
5	8070875	15-Pin Female
6	8071067	2-Pin Male
7	8070157	6-Pin Male
8	8070155	9-Pin Male
9	8070160	12-Pin Male
10	8070804	15-Pin Male
11	8261341	Terminal, Female Split Pin (pkg. of 25)
12	8261342	Terminal, Male Split Pin (pkg. of 25)
13	8072518	Plug, Mate-N-Lock (Dummy Pin)
√ 14	8070928	Extract Tool Pin Pusher
√ 15	8064855	Pin Pusher Screwdriver Assembly
√ 16	2302345	SMT Pin Extractor
√ *	8074660PK	SMT Pin Service Repair Kit

* Not illustrated.
√ Recommended parts.

2.12 Fasteners

ITEM	PART #	COMPONENT
*	8090429	Bolt, ¼-inch – 20 x 2.00-inch Hex Head ZP Tap
*	8090514	Capscrew, 5/16-inch-18 NC Hex
*	8090448	Clip, Tinnerman
*	8261366	Nut, 4-40 Keps Hex (Pkg. of 25) (8090237)
*	8261358	Nut, 6-32 Keps Hex (Pkg. of 25) (8090049)
*	8090247	Nut, 8-32 Keps Hex
*	8261376	Nut, 10-32 Keps Hex (Pkg. of 10) (8090256)
*	8090766	Nut, 10-32 Keps Hex SS
*	8090581	Nut, ½ NPT Locking
*	8090020	Nut Cap 10-24 NP
*	8261372	Nut Grip ¼-inch 1/4-20 Hex NP (Pkg. of 10) (8090059)
*	8090417	Nut Flange ¼-inch 1/4-20 Serr
*	8090535	Nut, "T" ¼-inch-20 x 7/16 SS
*	8090540	Nut, Lock ½-inch-13 Hex 2-Way ZP
*	8261359	Screw, 4-40 x ¾-inch Slotted Round Head (Pkg. of 25) (8090354)
*	8261365	Screw, 6-32 x ⅜-inch Slot Head (Pkg. of 25) (8090095)
*	8090357	Screw, 6 x ⅜-inch Phillips Head NP
*	8090359	Screw, 8 x ¼-inch Hex Washer Head
*	8090360	Screw, 8 x ⅜-inch Hex Washer Slot Head
*	8261371	Screw, 8 x ½-inch Hex Head ZP (Pkg. of 25) (8090361)
*	8090364	Screw, 8 x ⅝-inch Hex Washer Head ZP
*	8090518	Screw, 8-32 x ⅜-inch Hex Washer Slotted Head SS
*	8090104	Screw, 8-32 x ½-inch Slotted Head ZP
*	8261363	Screw, 8-32 x ½-inch NP (Pkg. of 25) (8090103)
*	8261360	Screw, 10-24 x 5/16-inch Round Slot Head ZP (Pkg. of 25) (8090024)
*	8261330	Screw, 10-32 x ⅜-inch Slot Head SS (8090117)
*	8091003	Screw, 10-32 x ⅜-inch Hex Trim Head SS
*	8261375	Screw, 10-32 x ¾-inch Hex Trim Head SS (Pkg. of 5) (8090401)
*	8091000	Screw, 10-32 x 1¼-inch Hex Sck C/S
*	8261374	Screw, 10 x ½-inch Hex Head (Pkg. of 25) (8090412)
*	8090266	Screw, 10 x ½-inch Phillips Head ZP
*	8090434	Screw, 10 x ⅜-inch Hex Washer Head NP
*	8090123	Screw, 10 x ¾-inch Slot Head
*	8261389	Screw, 1/4-20 x ¾-inch Hex Head ZP (Pkg. of 10) (8090131)
*	8090582	Washer ½ NPT Locking
*	8090184	Washer, #10 LK ZP
*	8090190	Washer, .625 X .275 X 40 Flat SS
*	8090191	Washer, Lock 1/4 Spring ZP
*	8090193	Washer, Flat 1/4 Nylon
*	8090194	Washer, Flat 5/16 ZP

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