HENNY PENNY
Engineered to Last

Henny Penny
Open Fry Station

Model OFE/OFG-323
Model OFE/OFG-322
Model OFE/OFG-321
Model OFE/OFG-324
Model OEA/OGA-323
Model OEA/OGA-322
Model OEA/OGA-321
Model OEA/OGA-324
Model ODE/ODG-323

TECHNICAL MANUAL

NOTICE

This manual should be retained in a convenient location for future reference.

A wiring diagram for this appliance is located on the inside of the right side panel.

Post in a prominent location, instructions to be followed in event user smells gas. This information shall be obtained by consulting the local gas supplier.

Do not obstruct the flow of combustion and ventilation air. Adequate clearance must be left all around appliance for sufficient air to the combustion chamber.

The Model OFG/OGA-32X open fryer is equipped with a continuous pilot. But the open fryer can not be operated without electric power. The unit will automatically return to normal operation when power is restored.

CAUTION

To avoid a fire, keep appliance area free and clear from combustibles.

WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

DANGER

FOR YOUR SAFETY, DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

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SECTION 1. TROUBLESHOOTING

1-1. INTRODUCTION

This section provides troubleshooting information in the form of an easy to read table.

If a problem occurs during the first operation of a new fryer, recheck the Installation Section of the Operator's Manual.

Before troubleshooting, always recheck the Operation Section of the Operator's Manual.

1-2. SAFETY

Where information is of particular importance or is safety related, the words DANGER, WARNING, CAUTION, or NOTE are used. Their usage is described on the next page:

SAFETY ALERT SYMBOL is used with DANGER, WARNING or CAUTION which indicates a personal injury type hazard.

NOTICE is used to highlight especially important information.

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

CAUTION used with the safety alert symbol indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

DANGER INDICATES AN IMMINENTLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY.

1-3. TROUBLESHOOTING

To isolate a malfunction, proceed as follows:

1. Clearly define the problem, or symptom and when it occurs.

2. Locate the problem in the troubleshooting table.

3. Review all possible causes, then one at a time, work through the list of corrections until the problem is solved.

If maintenance procedures are not followed correctly, injuries and/or property damage could result.

PROBLEM	CAUSE	CORRECTION
With the switch in the POWER position, fryer is completely inoperative	● Open circuit	● Check to see if unit is plugged in ● Check the breaker or fuse at supply box ● Check POWER switch per Power Switch Section; replace if defective ● Check voltage at wall receptacle ● Check cord and plug
Shortening will not heat but lights are on	● Faulty contactor (elec. Model) ● Faulty gas control valve (gas model) ● Faulty temperature probe ● Faulty high limit ● Faulty drain switch	● Check contactor per Heating Contactors Section ● Check gas control per Gas Control Valve Assembly Section ● Check temperature probe per Temperature Probe Replacement Section; “E-6A or B” ● Check high limit per the appropriate High Temperature Limit Control Section; “E-10” ● Check drain switch per Drain Microswitch Section; “E-15”

1-3. TROUBLESHOOTING (Continued)

PROBLEM	CAUSE	CORRECTION

Heating of shortening too slow	● Low or improper voltage (elec. Model) ● Weak or burnt out elements (elec. Unit) ● Wire(s) loose ● Burnt or charred wire connection ● Faulty contactor ● Supply line too small-low gas volume (gas unit) ● Improper ventilation	● Use a meter and check that receptacle voltage against the data plate ● Check heating elements per Heating Elements Section ● Tighten ● Replace wire and clean connectors ● Check contactor per Heating Contactors Section ● Increase supply line size; refer to Installation Section of Operator's Manual ● Refer to Installation Section of Operator's Manual
Shortening overheating	● Temperature probe needs calibration ● Mercury contactor stuck closed ● Bad control board	● Calibrate temperature probe if ± 10° off; if more than ± 10° off, replace temperature probe ● Check mercury contactor for not opening; replace if necessary (elec. Unit) ● Replace control board if heat indicator stays on past ready temperature
Foaming or boiling over of shortening	● Water in shortening ● Improper or bad shortening ● Improper filtering ● Improper rinsing after cleaning fryer	● At end of cook cycle, drain shortening and clean ● Use recommended shortening ● Refer to the Filtering the Shortening Section in Operator's Manual ● Clean and rinse the frypot; then dry thoroughly

1-3. TROUBLESHOOTING (Continued)

PROBLEM	CAUSE	CORRECTION
Shortening will not drain from frypot	● Drain valve clogged with crumbs	● Open valve, force cleaning brush through drain

	● Drain valve will not open by turning handle	● Replace cotter pins in valve coupling
Filter motor runs but pumps shortening slowly	● Pump clogged ● Filter line connection loose ● Solidified shortening in lines	● Remove pump cover and clean ● Tighten all filter line connections ● Clear all filter lines of solidified shortening
Filter switch on but motor does not run	● Defective switch ● defective motor ● Motor thermal protector tripped	● Check/replace switch per Filter Switch Section ● Check/replace motor ● Reset thermal switch on filter motor
Motor hums but will not pump	● Clogged lines or pump	● Remove and clean pump and lines ● Replace pump seal, rotor and rollers

1-4. ERROR CODES

In the event of a control system failure, the digital display shows an error message. These messages are coded: “E-4”, “E-5”, “E-6A”, “E-6B”, “E-10”, “E-15”, “E-20”, “E-31”, “E-41”, “E-46”, and “E-92”. A constant tone is heard when an error code is displayed, and to silence this tone, press any button.

DISPLAY	CAUSE	PANEL BOARD CORRECTION
“E-4”	Control board overheating	Turn switch to OFF position, then turn switch back to ON; if display shows “E-4”, the

		control board is getting too hot; check the louvers on each side of the unit for obstruction
"E-5"	Shortening overheating	Turn the switch to OFF position, then turn switch back to ON; if display shows "E-5", the heating circuits and temperature probe should be checked
"E-6A"	Temperature probe open	Turn switch to OFF position, then turn switch back to ON; if display shows "E-6A" the temperature probe should be checked
"E-6B"	Temperature probe shorted	Turn switch to OFF position, then turn switch back to ON; if display shows "E-6B" the temperature probe should be checked to replace, per Temperature Probe Replacement Section
"E-10"	High limit	Reset the high limit by manually pushing up on the red reset button; if high limit does not reset, high limit must be replaced per High Limit Temperature Control Section
"E-15"	Drain switch failure	Close drain, using the drain valve handle; if display still shows "E-15", check the drain microswitch per Drain Microswitch Section
"E-41" "E-46"	Programming failure	Turn switch to OFF, then back to ON. If display shows any of the error codes, try to reinitialize the control (Special Program Mode Section of Operator's Manual). If error code persists, replace the control panel per Complete Control Panel Replacement Section
"E-20A"	Vacuum switch failure (stuck closed)	Press the timer button to try the ignition process again, and if "E-20A" persists, check the vacuum switch per Vacuum Switch Section

1-4. ERROR CODES (Continued)

DISPLAY	CAUSE	PANEL BOARD CORRECTION
"E-20B"	Draft fan or vacuum switch failure (stuck open)	Press the timer button to try the ignition process again, and if "E-20B" persists, check the vacuum switch per Vacuum Switch Section or the blower motor per Blower Motor Assembly Section

“E-20C”	Ignition modules not responding	Press the timer button to try the ignition process again; if “E-20C” persists, check the ignition module per Ignitor Module Section or the spark ignitor per Pilot/Ignitor Assembly Section, or the I/O board per I/O Power Supply Boards Assembly Section
“E-20D”	Pilots not lit or no flame sense	Press the timer button to try the ignition process again; if “E-20D” persists, check the ignition module per Ignitor Module Section, or the I/O board per I/O Power Supply Boards Assembly Section, or the flame sense per Flame Sensor Section
“E-31”	Fan switch jumper wire missing	Check for jumper wire on 12-pin connector and add if missing
“E-47”	Analog converter chip or 12 volt supply failure	Turn switch to OFF, then back to ON; if “E-47” persist, replace the I/O board, or the PC board; if speaker tones are quiet, probably I/O board failure
“E-48”	Input system error	Replace PC board
“E-70”	Faulty POWER switch or switch wiring; faulty I/O board	Check POWER switch, along with its wiring; replace input/output board if necessary
“E-92”	24 VAC fuse on I/O open	Check for shorted component in 24 volt circuit; (i.e., high limit, drain switch, vacuum switch)

SECTION 2. MAINTENANCE

2-1. INTRODUCTION

This section provides procedures for the checkout and replacement of the various parts used within the fryer. Before replacing any parts, refer to the Troubleshooting Section. It will aid you in determining the cause of the malfunction.

2-2. MAINTENANCE HINTS

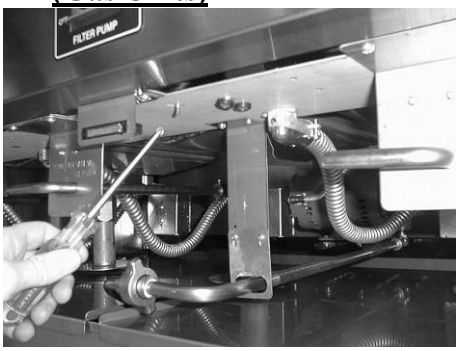
1. You may need to use a multimeter to check the electric

components.

2. When the manual refers to the circuit being closed, the multimeter should read zero unless otherwise noted.

3. When the manual refers to the circuit being open, the multimeter will read infinity.

2-3 HIGH TEMPERATURE LIMIT CONTROL (Gas Units)



The high temperature limit control is a safety, manual reset control that senses the temperature of the shortening. If the shortening temperature exceeds 425°F (218°C), this switch will open and shut off heat to the frypot. When the temperature of the shortening drops to a safe operation limit, the control must be manually reset by pressing the red reset button. The red reset button is located under the control panel, in the front of the fryer. This will allow heat to be supplied to the frypot once again.

Before replacing a high temperature limit control, check to see that its circuit is closed.

NOTICE

The shortening temperature must be below 380°F (193°C) to accurately perform this check.

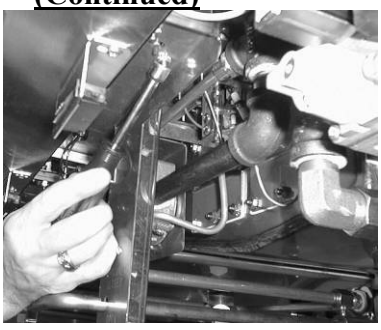
Checkout:

1. Remove electrical power supplied to fryer.

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove the control panel.

2-3 HIGH TEMPERATURE LIMIT CONTROL (Continued)



3. Remove the two nuts securing the high limit bracket to the unit and pull the bracket from the unit.

4. Remove the two screws securing the high limit to the bracket, and remove the high limit from the bracket.

5. Remove the two electrical wires from the high temperature limit control.

6. Manually reset the control, then check for continuity between the two terminals after resetting the control. If the circuit is open, replace the control, then continue with this procedure. (If the circuit is closed, the high limit is not defective. Re-connect the two electrical wires.)

Replacement:

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

1. If the tube is broken or cracked, the control will open, shutting off electrical power to the heat circuit. The control cannot be reset, and it will continuously click when pushed.

2. Drain the shortening from the frypot and discard. A substance in the tube could contaminate the shortening.

3. Remove the control panel.

4. Loosen small inside screw nut on capillary tube.

2-3 HIGH TEMPERATURE LIMIT CONTROL (Continued)

5. Remove the bracket from the heat tube covering the high limit bulb.

6. Straighten the capillary tube behind the pot wall.

7. Pull the high limit bulb through the retainers on the heat tube.

8. Remove the larger outside nut that threads into the pot wall.

9. Remove the defective high limit from the control panel area.

10. Insert new high limit into bracket and replace wires.

11. Uncoil capillary line, starting at capillary tube, and insert through frypot wall.

To avoid electrical shock or other injury, run the capillary line under and away from all electrical power wires and terminals. The tube must never be in such a position where it could accidentally touch the electrical power terminals.

12. Insert capillary line through brackets on heat tube, and then pull back through pot wall until capillary bulb is secure in brackets.

13. Pull excess capillary line from pot and tighten nut into frypot wall.

14. With excess capillary line pulled out, tighten smaller nut.

15. Replace bracket on heat tube covering the high limit bulb.

16. Replace front panel.

17. Refill frypot with shortening.

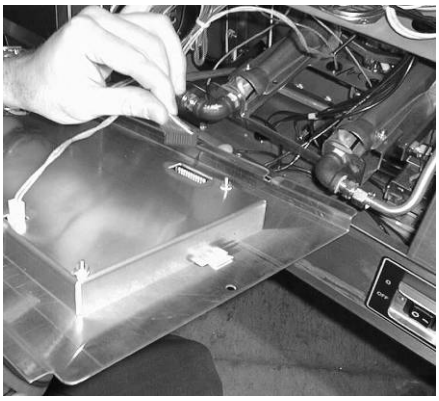
2-4. COMPLETE CONTROL PANEL REPLACEMENT

Should the control board become inoperative, follow these instructions for replacing the board.

1. Remove electrical power supplied to the unit.

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit

breaker, or unplug cord at wall receptacle.



2. Remove the four screws securing the control panel and lift out.

3. Unplug the wire connectors going to the control board.

4. Install new control panel in reverse order.

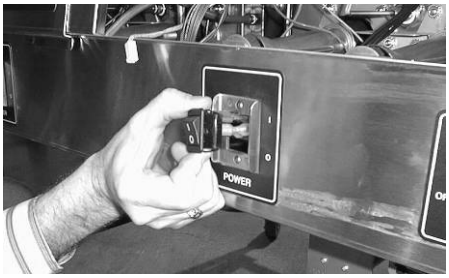
CAUTION

When plugging connectors onto new control panel, be sure the connectors are inserted onto all of the pins, and that the connectors are not forced onto the pins backwards. If not connected properly, damage to the board could result.

2-5. POWER SWITCH

1. Remove electrical power supplied to fryer.

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.



2. Remove control panel.

2. Label and remove the wires from the switch. With test instrument, check across the terminals of the switch with the switch in the ON position, then in the OFF position. With the switch in the ON position, the circuit should be closed. With the switch in the OFF position, the circuit should be open. If the switch checks defective, replace by continuing with this procedure.

2-5. POWER SWITCH (Continued)

4. With control panel removed, and the wires off the switch, push in on tabs on the switch to remove from panel.

5. Replace with new switch, and reconnect wires to switch.

6. Replace the control panel.

2-6. TEMPERATURE PROBE REPLACEMENT

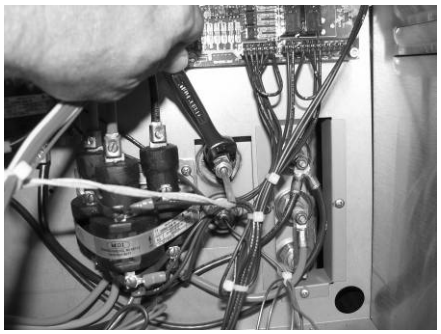
The temperature probe relays the actual shortening temperature to the control board. If it becomes disabled, “E-6B” will show in the display. Also, if the shortening temperature is out of calibration by

more than 10°F or C°, the temperature probe should be replaced. An Ohm check can be performed also. See chart on page 2-7.

1. Remove electrical power supplied to the fryer.

To avoid electrical shock or property damage, move the power switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

Electric



2. Drain the shortening from the frypot.

3. Remove the control panel.

Gas

4. Using a 1/2" wrench, remove the nut on the compression fitting.

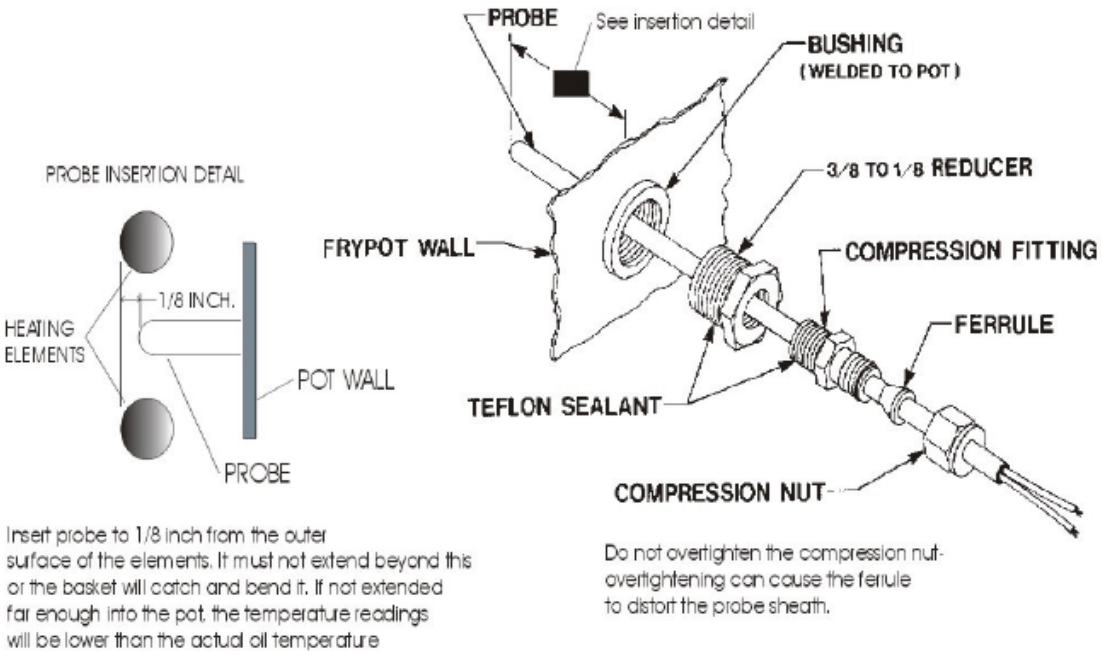
5. Remove the temperature probe from the frypot.

6. Follow the appropriate instructions, on the following page, depending upon the type of fryer, gas or electric.

2-6. TEMPERATURE PROBE REPLACEMENT (Continued)

ELECTRIC

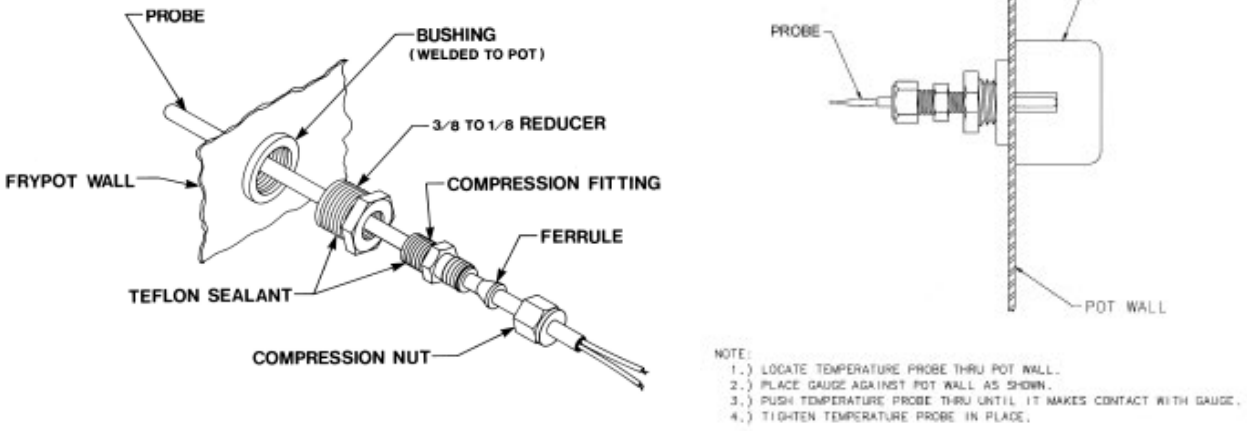
PROBE INSTALLATION INSTRUCTIONS



Insert probe to 1/8 inch from the outer surface of the elements. It must not extend beyond this or the basket will catch and bend it. If not extended far enough into the pot, the temperature readings will be lower than the actual oil temperature

Do not overtighten the compression nut- overtightening can cause the ferrule to distort the probe sheath.

GAS

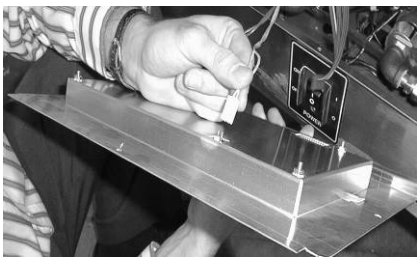


2-6. TEMPERATURE PROBE REPLACEMENT

(Continued)

7. Tighten the compression nut hand tight and then a half turn with wrench.

CAUTION



Excess force will damage temperature probe.

8. Connect new temperature probe to PC board and replace control panel.

9. Replace shortening.

10. Turn power on and check out fryer.

Temp. F	Temp. C	Resistance Ohms	Temp. F	Temp. C	Resistance Ohms
0	-17.78	930.34	250	121.11	1464.79
10	-12.22	952.14	260	126.67	1485.71
20	-6.67	973.92	270	132.22	1506.58
30	-1.11	995.65	280	137.78	1527.43
32	0.00	1000.00	290	143.33	1548.23
40	4.44	1017.35	300	148.89	1569.00
50	10.00	1039.02	310	154.44	1589.73
60	15.56	1060.65	320	160.00	1610.43
70	21.11	1082.24	325	162.78	1620.77
80	26.67	1103.80	330	165.56	1631.09
90	32.22	1125.32	340	171.11	1651.72
100	37.78	1146.81	350	176.67	1672.31
110	43.33	1168.26	360	182.22	1692.86
120	48.89	1189.67	365	185.00	1703.13
130	54.44	1211.05	370	187.78	1713.38
140	60.00	1232.39	380	193.33	1733.87
150	65.56	1253.70	390	198.89	1754.31
160	71.11	1274.97	400	204.44	1774.72
170	76.67	1296.20	410	210.00	1795.10
180	82.22	1317.40	420	215.56	1815.44
185	85.00	1327.99	430	221.11	1835.74
190	87.78	1338.57	440	226.67	1856.01
200	93.33	1359.69	450	232.22	1876.24
210	98.89	1380.79	460	237.78	1896.44
212	100.00	1385.00	470	243.33	1916.60
220	104.44	1401.84	480	248.89	1936.73
230	110.00	1422.86	490	254.44	1956.81
240	115.56	1443.85	500	260.00	1976.87

2-7. FLAME SENSOR (Gas Units)

The flame sensor recognizes the pilot flame and allows gas to continue to the pilot. The flame sensor must send a minimum of one (1) micro amps to the ignition module. The pilot flame should be split in two by the flame sensor, causing the flame sensor to be bright red color.

1. Remove electrical power supplied to the unit.

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle..

2. To access flame sensor, open the filter doors in the front of the unit. Follow the small gauge yellow wire running to the sensor behind the pilot assembly.

3. Disconnect the flame sense wire from the flame sensor.

4. Using a pair of needle nosed pliers, pull the flame sensor out of the pilot assembly bracket.

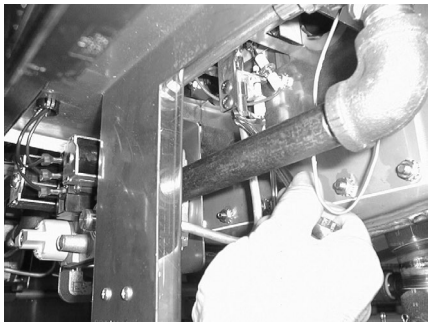
5. Insert new flame sensor and reconnect flame sensor wire.

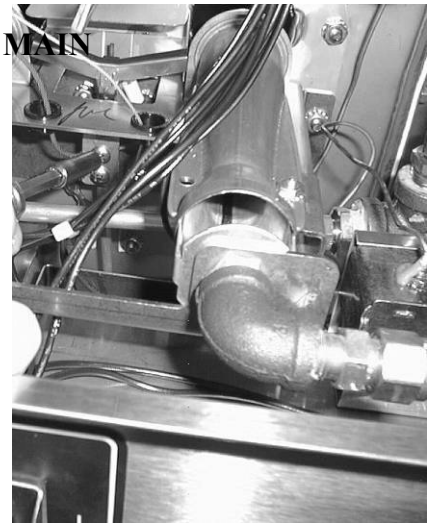
6. Turn power on and check fryer.

2-8. PILOT / IGNITOR ASSEMBLY

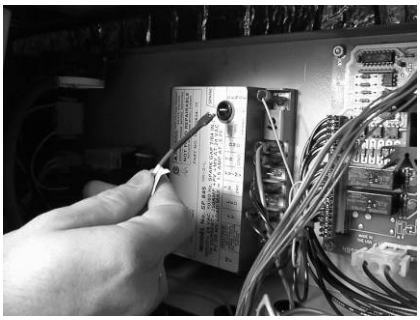
The Henny Penny open fryer (gas) has electronic spark ignition that lights a standing pilot. The gap between the spark electrode and the pilot hood should be set at 1/8 of an inch.

1. Remove electrical power supplied to the unit.





MAIN



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

TO AVOID PERSONAL INJURY OR PROPERTY DAMAGE, BEFORE STARTING THIS PROCEDURE, MOVE THE MAIN POWER SWITCH TO THE OFF POSITION. DISCONNECT THE

CIRCUIT BREAKERS AT THE CIRCUIT BREAKER BOX OR UNPLUG SERVICE CORD FROM WALL RECEPTACLE. TURN OFF THE MAIN GAS SUPPLY TO THE FRYER AND DISCONNECT AND CAP THE MAIN SUPPLY LINE TO FRYER, OR POSSIBLE EXPLOSION COULD RESULT.

2. Remove the control panel as discussed in Complete Control Panel Replacement Section.

3. Disconnect the pilot gas line fitting at the pilot assembly with a ½ inch wrench.

4. With a Phillips head screwdriver, remove the two screws securing the pilot assembly to the mounting bracket.

5. Remove the flame sensor wire from the flame sensor.

6. Follow the wire from the spark ignitor back to the module, and remove wire from module.

7. After removing assembly from unit, pull the flame sensor out of the bracket as discussed in section 6-7. Insert flame sensor into new pilot/ignitor assembly.

8. Reinstall the new pilot/ignitor assembly in reverse order. Be extremely careful not to cross thread the pilot gas line fitting.

2-9. IGNITOR MODULE

During normal operation, the ignition modules send 24 volts to the ignitors and gas control valve. If a module does not sense a pilot flame, the module starts the ignition process again. But, if a pilot light goes out for longer that 10 seconds, or it goes out 3 times within 10 seconds, the module keeps the 24 volts from reaching the gas

control valve. The burners shut down.

1. Remove electrical power supplied to the unit.

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove the control panel as discussed in Complete Control Panel Replacement Section.

3. Label and remove the wires at module.

4. Using a 3/8 inch nut driver, remove the keps nuts securing the module to the shroud.

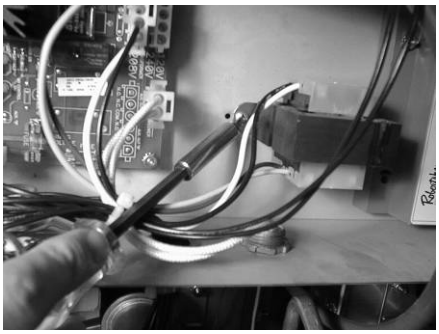
5. Install new module in reverse order.

2-10. TRANSFORMER

The transformer reduces voltage down to accommodate those components with low voltage.

1. Remove electrical power supplied to the unit.

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.



2. Remove the control panel as discussed in Complete Control Panel Replacement Section.

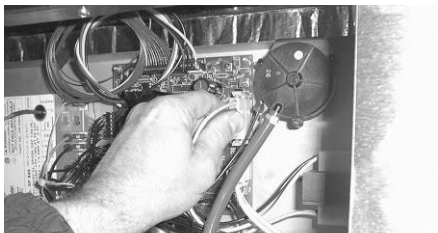
3. Squeeze on the wire connector at the I/O board assembly to disconnect the wires from the transformer.

4. Using a Phillips head screwdriver, remove the two screws securing the transformer to the shroud.

5. Install the new transformer in reverse order.

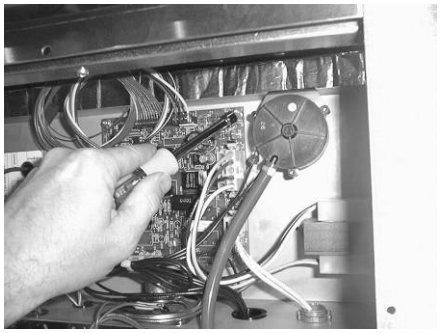
2-11. I/O POWER SUPPLY BOARD ASSEMBLY

The input/output power supply board assembly distributes voltage to the various components in the fryer. The board also receives information from components in the fryer.



1. Remove electrical power supplied to the unit.

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.



2. Remove the control panel as discussed in Complete Control Panel Replacement Section.

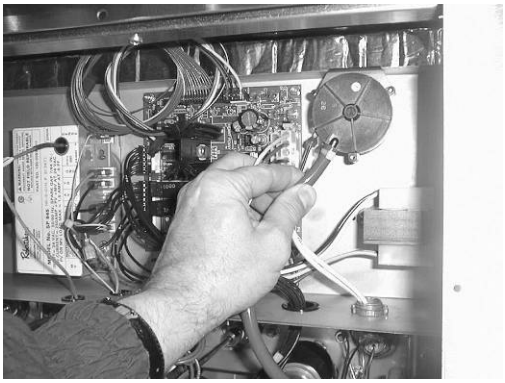
3. Disconnect the wire assemblies from the board.

4. Using a nut driver or wrench, remove the four keps nuts securing the board to the shroud.

5. Install the new I/O board assembly in reverse order.

2-12. VACUUM SWITCH

The vacuum switch senses the airflow from the induction blower. If the airflow is reduced below a set amount, the switch will open and the I/O board will cut power to the gas control valve, which will shut the pilot flame off.



1. Remove electrical power supplied to the unit.

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove the control panel as discussed in Complete Control Panel Replacement Section.

3. Remove the air hose from the vacuum switch.

4. Label and remove wires from vacuum switch.

2-12. VACUUM SWITCH (Continued)

5. Using a Phillips head screwdriver, remove the screws securing the vacuum switch to the shroud.

6. Install the new vacuum switch in reverse order.

CAUTION

To avoid property damage, do not tamper with, or disassemble this component. It is set and sealed from the factory and is not to be adjusted.

2-13. SPEAKER ASSEMBLY (Gas Units)

The speaker assembly emits audible signals to let the operator know when cooking and hold times are finished.

1. Remove electrical power supplied to the unit.

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove the control panel as discussed in Complete Control Panel Replacement Section.

3. Using a Phillips head screwdriver, remove the four screws securing the speaker to the shroud.

4. Install new speaker in reverse order. When plugging connector into control board, be sure to align pins into connector correctly.

2-14. DRAIN MICROSWITCH

Upon turning the drain handle, the drain microswitch circuit should open, cutting off the pilot flame. This will prevent the fryer from heating while shortening is being drained from the frypot.

1. Remove electrical power supplied to the unit.

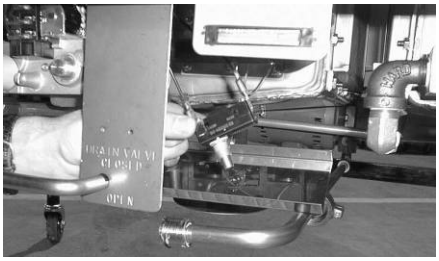
To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. The following check should be made to determine if the drain microswitch is defective.

   a. Remove the two screws securing the microswitch to the drain rod valve bracket.

   b. Remove wires from the switch.

   c. Check for continuity across the two outside terminals of the drain switch. If the circuit is open, the drain switch is defective. The circuit should only be opened by pressing on the actuator of the drain switch.



3. Replace switch in reverse order.

2-15. FILTER SWITCH

1. Remove electrical power supplied to the unit.

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2-15. FILTER SWITCH (Continued)

2. Remove the control panel above the switch.

3. Label and remove the wires from the switch. With test instrument, check across the terminals of the switch with the switch in the ON position, and then in the OFF position. With

the switch in the ON position, the circuit should be closed. With the switch in the OFF position, the circuit should be open. If the switch checks defective, replace it by continuing with this procedure.

4. With wires removed from the switch, push in on tabs on the switch and remove switch from the panel.

5. Push new switch into panel and reconnect wires.

2-16. GAS CONTROL VALVE ASSEMBLY

The gas control valve assembly controls the flow of gas to the pilot and the main burner. The valve has two 24 volt coils, which are regulated by terminals P and M on the valve. The C terminal is the common terminal. For gas flow to the pilot, 24 VAC must be present between the P and C terminals. For gas flow to the main burner, 24 VAC must be present between the M and C terminals.

DANGER
EXPLOSION RISK

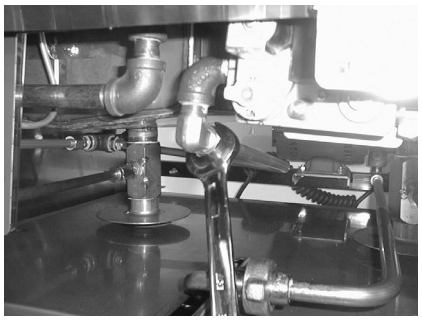
TO AVOID PERSONAL INJURY OR PROPERTY DAMAGE, BEFORE STARTING THIS PROCEDURE, MOVE THE MAIN POWER SWITCH TO THE OFF POSITION. DISCONNECT THE MAIN CIRCUIT BREAKERS AT THE CIRCUIT BREAKER BOX OR UNPLUG SERVICE CORD FROM WALL RECEPTACLE. TURN OFF THE MAIN GAS SUPPLY TO THE FRYER AND DISCONNECT AND CAP THE MAIN SUPPLY LINE TO FRYER, OR POSSIBLE EXPLOSION COULD RESULT.

1. Remove control panel assembly.

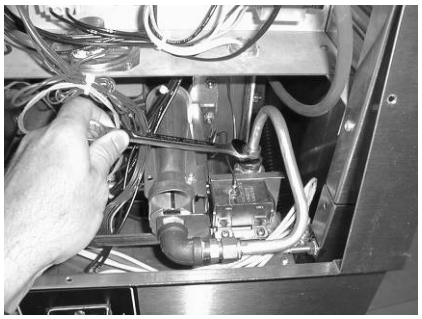
2. Remove wires from gas control valve.

2-16. GAS CONTROL VALVE ASSEMBLY (Continued)

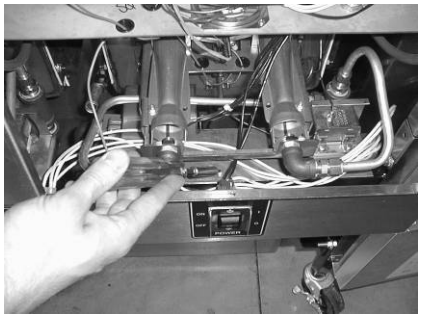
3. Using a 7/16 inch wrench, remove the pilot line from the gas control valve.



4. Using a 1 inch wrench, loosen the nut securing the main gas inlet line to the gas control valve.



5. Using 5/8 inch wrench, remove the two burner gas line fittings at the black tee fitting, located behind the control panel area.



6. Using a Phillips head screwdriver, remove the three screws securing the gas control valve bracket to the frame of the fryer behind the control panel area.

2-16. GAS CONTROL VALVE ASSEMBLY (Continued)

7. With the bracket dropped down, remove the two screws behind the bracket securing the gas control valve to the bracket.

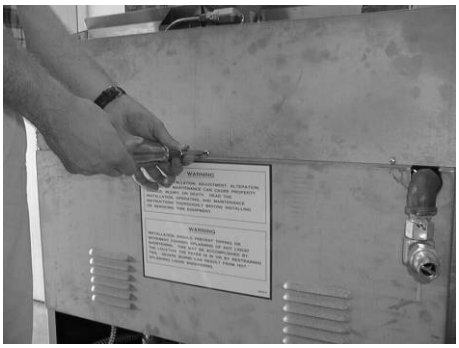
8. Install the new gas control valve in reverse order.

2-17. BLOWER MOTOR ASSEMBLY

The blower motor assembly induces the draft for the burners. If the blower motor fails, the air switch will fail to close, causing an "E-20B" error code in the display.

1. Remove electrical power supplied to the unit.

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.



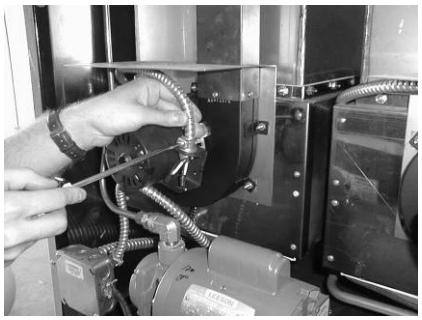
2. Remove screws securing the two rear covers to the unit.

3. Remove the wire cover from the blower motor housing.

2-17. BLOWER MOTOR ASSEMBLY (Continued)

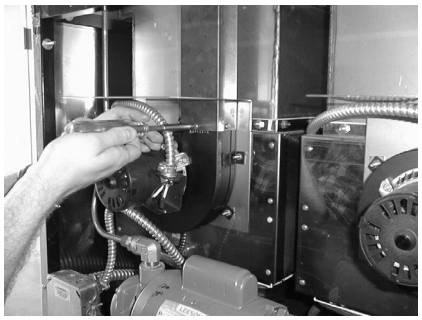
4. Remove wire nuts connecting blower motor wires to wires in

conduit.



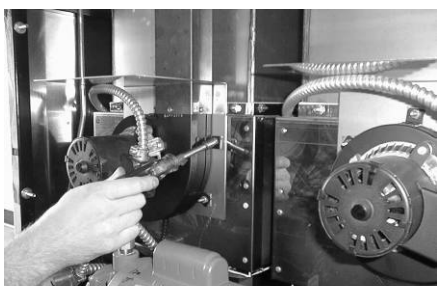
5. Loosen conduit from blower motor.

6. Remove screws connecting flue to bracket in upper frame.



7. Remove screws connecting flue to blower.

2-17. BLOWER MOTOR ASSEMBLY (Continued)



8. Using 3/8 inch nut driver, remove nuts securing blower to the unit. Pull blower from unit.

9. Install new blower in reverse order.

2-18. HEATING ELEMENTS (ELECTRIC ONLY)

Heating elements are available for 208 and 230 volts. Check data plate to determine correct voltage.

Checkout:
If the shortenings temperature recovery is very slow or at a slower rate than required, this may indicate defective heating element(s). An ohmmeter will quickly indicate if the elements are shorted or open.

1. Remove electrical power supplied to the frypot to be worked on.

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle, to the frypot to be worked on. Be aware the other controls will have power.

2. Remove control panel.

2-18. HEATING ELEMENTS (ELECTRIC ONLY) (Continued)

3. Perform an ohm check on one element at a time, with wires disconnected from element. If the resistance is not within tolerance, replace the element.

Voltage	Wattage	Resistance Ohms (cold)
208	4800	9
230	4800	11

Replacement:

NOTICE

Refer to figure 2-2.

1. Drain the shortening from the frypot.

2. Remove the high limit bulb holder from the heating element inside the frypot.

3. Remove the heating element wires from the terminals by removing the nuts and washers. Label each so it can be replaced on the new element in the same position.

4. Remove the bolts from the five element spreaders. The element spreaders will now pull off the elements.

5. Remove the brass nuts and washers which secure the ends of the elements through the frypot wall.

6. Remove the heating elements from the frypot as a group by lifting the far end and sliding them up and out toward the rear of the frypot.

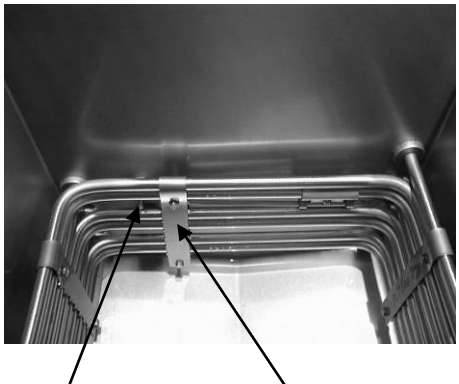
NOTICE

Always install new rubber O-rings when installing heater elements.

7. Install new heating elements with the new O-rings, terminal end first at approximately a 45° angle, slipping the terminals through the front wall of the frypot.

8. Replace the brass nuts and washers on the element terminals. Tighten the brass nuts to 30 foot lbs. of torque.

2-18. HEATING ELEMENTS (ELECTRIC ONLY) (Continued)



9. Evenly space the element spreaders on the sides of the elements and reinstall bolts. Place the fifth spreader in the front of the elements as to protect the temperature probe. (Fig.6-1

10. Replace the high limit bulb holder on the top element, and position the bulb between the top and second element midway from side to side, and tighten screw that holds the bulb in place.

11. Reconnect the wires to the appropriate terminal as labeled when they were removed.

Temperature Probe **Spreader**

Fig. 2-1

12. Replace the front control panel.

13. Connect the power cord to the wall receptacle or close wall circuit breaker.

CAUTION

Heating elements should never be energized without shortening in the frypot, or damage to the elements could result.

14. Replace the shortening in the frypot.

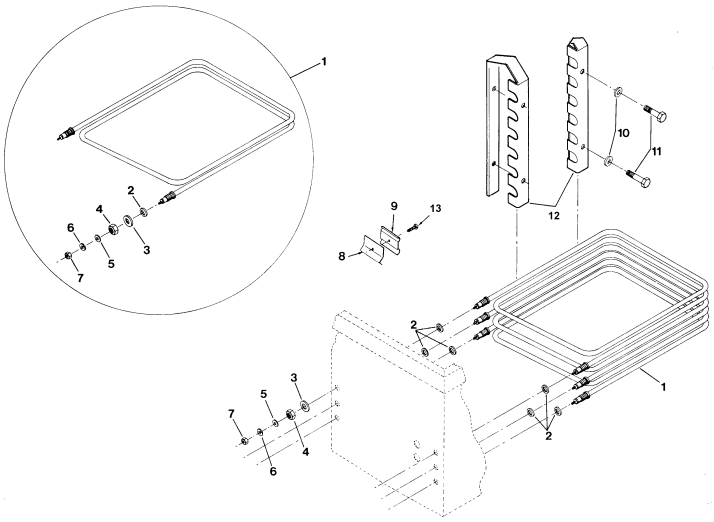


Fig. 2-2

2-19. HEATING CONTACTORS (ELECTRIC ONLY)

Each well of an electric fryer requires two switching contactors. The first in line is the primary contactor and the second in line is the heat contactor. When open, the primary contactor does not allow power to flow to the heat contactor. When closed, the primary supplies voltage to the heat contactor. When the heat contactor is open, no voltage is supplied to the heating elements. When the heat contactor closes, voltage is supplied to the heating elements.

Checkout (Power Removed)

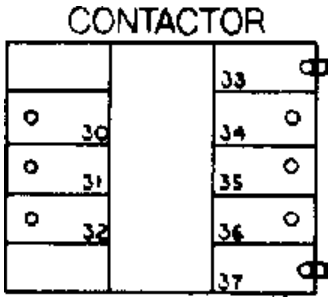
1. Remove electrical power supplied to the frypot to be worked on.

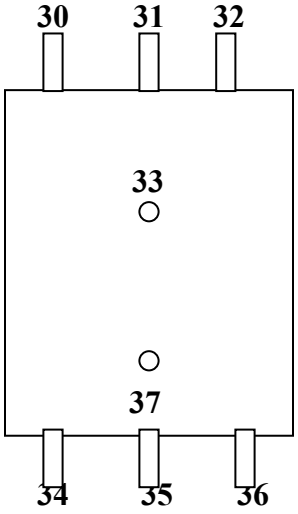
To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle, to the frypot to be worked on. Be aware the other controls will have power.

2. Remove the control panel.

3. Perform a check on the contactor as follows:

Electromechanical





Mercury Contactor

ELECTROMECHANICAL CONTACTOR

Test Points	Results
From 30 to 34	open circuit
From 31 to 35	open circuit
From 32 to 36	open circuit
From 33 to 37	ohm reading 5 to 6

MERCURY CONTACTOR

Test Points	Results
From 30 to 34	open circuit
From 31 to 35	open circuit
From 32 to 36	open circuit
From 33 to 37	ohm reading 1700

Wires should be removed and labeled to obtain an accurate check of contactors.

2-19. HEATING CONTACTORS (ELECTRIC ONLY) (Continued)

Checkout (Power Supplied)

To avoid electrical shock, make connections before applying power, take reading, and remove power before removing meter leads. The following checks are performed with the wall circuit breaker closed and the main power switch in the ON position.

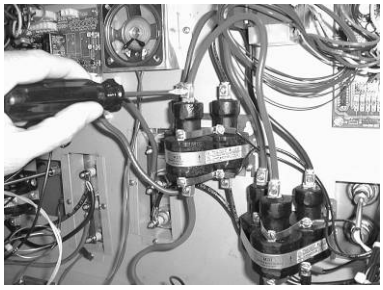
1. Re-apply power to unit and turn POWER switch ON.

2. Using illustrations from previous page, check voltage as follows:

Test Points	Results
From terminal 34 to 35	The voltage should read
From terminal 35 to 36	the same at each terminal
From terminal 34 to 36	

Mercury Contactor Replacement:
If either contactor is defective it must be replaced as follows:

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle, to the frypot to be worked on. Be aware the other controls will have power.



1. Remove only the wires directly connected to the contactor being replaced. Label the wires for replacement.

2. Loosen the screws securing the contactor bracket to the shroud.

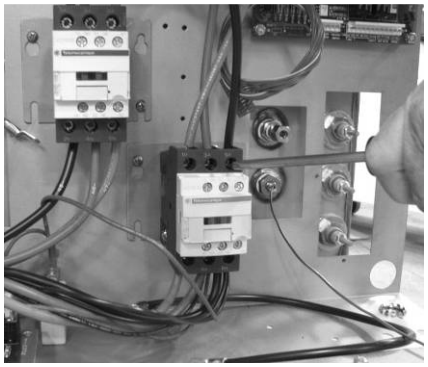
3. Remove the contactor from the bracket.

4. Reinstall in reverse order.

2-19. HEATING

Checkout (Power Supplied)

CONTACTORS



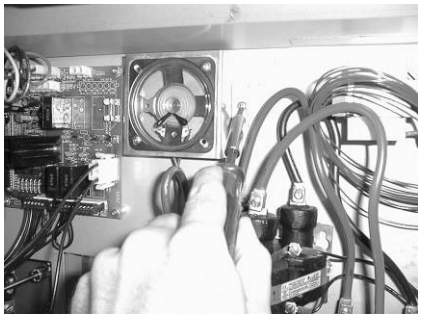
Electromechanical Contactor Replacement:
If either contactor is defective it must be replaced as follows:

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle, to the frypot to be worked on. Be aware the other controls will have power.

1. Remove only the wires directly connected to the contactor being replaced. Label the wires for replacement.
2. Remove nuts securing the contactor to the shroud.
3. Remove the contactor from unit.
4. Reinstall in reverse order.

2-20. SPEAKER ASSEMBLY

The speaker assembly emits audible signals to let the operator know when cooking and hold times are finished.



1. Remove electrical power supplied to unit.

To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove control panel.
3. Follow the speaker wire and disconnect from control board.
4. Remove the screws securing the speaker bracket to the shroud.
5. Remove the speaker from the bracket.
6. Reinstall in reverse order.

2-21. HIGH TEMPERATURE LIMIT CONTROL (Electric Units)

The electric units, model OFE-321/2/3/4, use the same high temperature control limits as the gas units, OFG-321/2/3/4, but the mounting of the capillary tube is different on the electric units compared to the gas units.

Checkout:
Use the same procedure as in the High Limit Temperature Control (Gas) Section.

Replacement:

To avoid electrical shock or property damage, move the

POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle, to the frypot to be worked on. Be aware the other controls will have power.

1. Drain the shortening from the frypot.

2. Remove control panel.

3. Loosen small inside screw nut on capillary tube.

4. Remove capillary bulb from bulb holder inside the frypot.

5. Straighten the capillary tube.

6. Remove larger outside nut that threads into pot wall.

7. Remove the two screws that secure the high limit to the high limit bracket.

8. Remove the defective control from the control panel area.

10. Insert new control and replace screws.

2-21. HIGH TEMPERATURE LIMIT CONTROL (Electric Units) (Continued)

10. Uncoil capillary tube, starting at control, and insert through pot fitting.

To avoid electrical shock or other injury, run the capillary line under and away from all electrical power wires and terminals. The tube must NEVER be in such a position where it could accidentally touch the electrical power terminals.

11. Carefully bend the capillary bulb and tube toward bulb holder on heating elements.

12. Slip capillary bulb into bulb holder on heating elements. Pull excess capillary line from pot and tighten nut into frypot

wall.

CAUTION

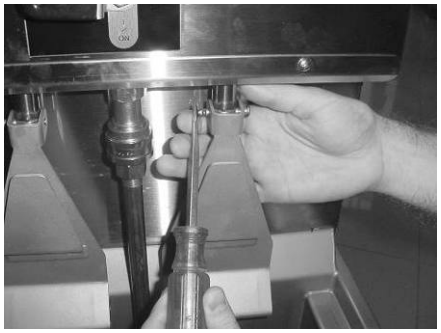
Be sure capillary bulb of high limit is located behind capillary bulb of thermostat. Both capillary bulbs and bulb holders should be positioned as not to interfere with basket or when cleaning the frypot wall, or damage to capillary tube could result.

13. With excess capillary line pulled out, tighten smaller nut hand tight, then ¼ turn with wrench.

14. Replace front panel.

15. Refill with shortening.

2-22. AUTOLIFT ACTUATOR (MOTOR) REPLACEMENT (if applicable)



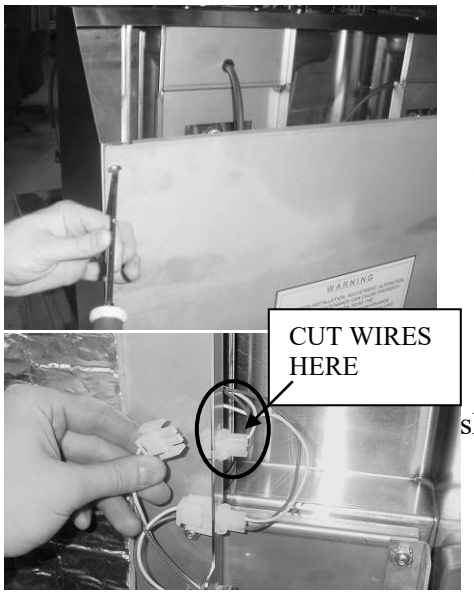
1. Remove electrical power supplied to unit.

To avoid electrical shock or property damage, move the power switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Drain shortening from frypot.

3. Remove baskets and using a large, flat-head screwdriver, push the clevis pin through basket hanger. Using pliers, pull pin from assembly.

2-22. AUTOLIFT ACTUATOR (MOTOR) REPLACEMENT (if applicable) (Continued)



4. Remove rear cover.

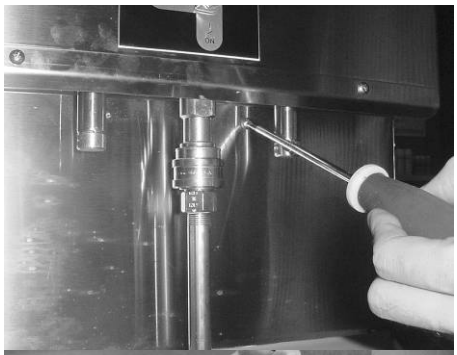
5. Disconnect actuator connector and cut the wires from the other shown at left. The new actuator wires do not have a connector on them and must be connected directly to the wires on the unit.

6. Using a 3/8 socket, remove the 3 nuts securing the bottom of the actuator bracket.

7.Remove trim strip from front of shroud.

8. Using a 15T torx driver, remove the 4 torx screws from the pair of actuators.

2-22. AUTOLIFT ACTUATOR (MOTOR) REPLACEMENT (if applicable) (Continued)



9. Remove the 2 front mounting screws from the actuator support plate.

10. Remove all the top screws, securing all the actuator support

plates to the back shroud, to help loosen the back shroud.

11. Remove all remaining back shroud screws to loosen the back shroud from the unit.

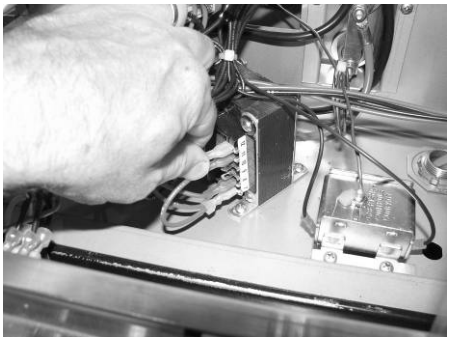
12. Lift up on the entire back shroud assembly, enough to have the top of the actuator and bracket assembly to clear the top of the back shroud. Pull the top of the actuator and bracket assembly away from back shroud, as shown in Figure 10. Now, using a flat-blade screwdriver, push the clevis pin from the bracket and actuator and using pliers to pull the pin from the assembly. Actuator can now be removed from unit.

13. Reassemble in reverse order.

2-23. AUTOLIFT TRANSFORMER REPLACEMENT (if applicable)

1. Remove electrical power supplied to unit.

To avoid electrical shock or property damage, move the power switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.



2. Remove control panel.

3. Label and remove wires from transformer.

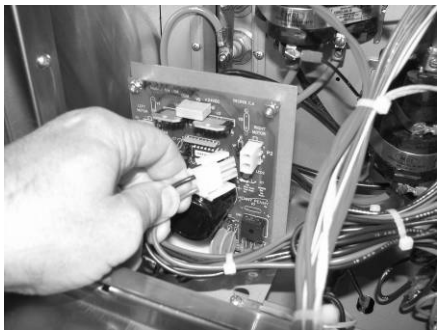
4. Using a Phillips-head screwdriver, remove the screws securing transformer to shroud and remove transformer from shroud.

5. Install new transformer in reverse order.

2-24. AUTOLIFT PC BOARD REPLACEMENT (if applicable)

1. Remove electrical power supplied to unit.

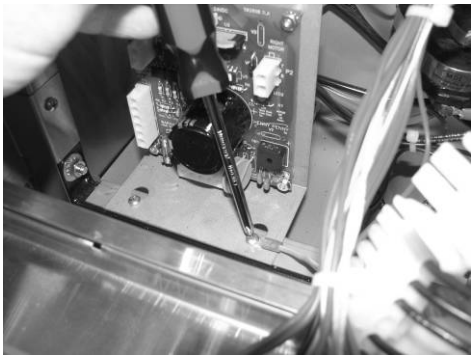
To avoid electrical shock or property damage, move the power switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.



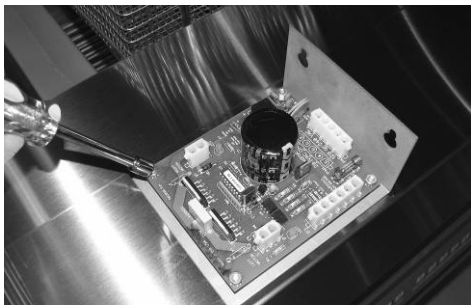
2. Remove control panel

3. Disconnect connectors from PC board.

2-24. AUTOLIFT PC BOARD REPLACEMENT (if applicable) (Continued)



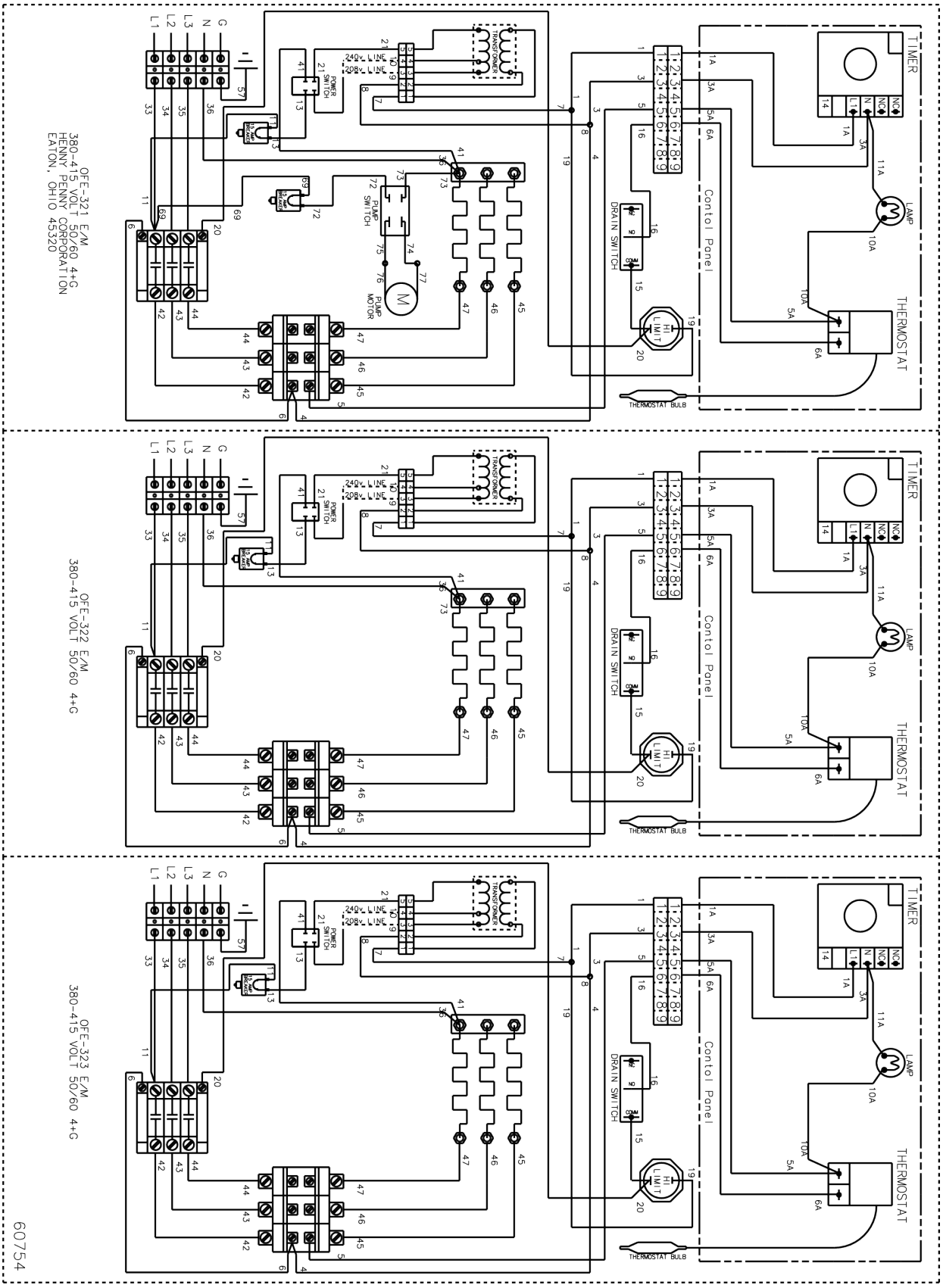
4. Using a Phillips-head screwdriver, remove the 2 screws securing the autolift PC board bracket to the frame and remove bracket from unit. (The right screw needs removed to disconnect the ground wire, but the left screw can be loosened and the bracket slid forward to be removed through the slots.)

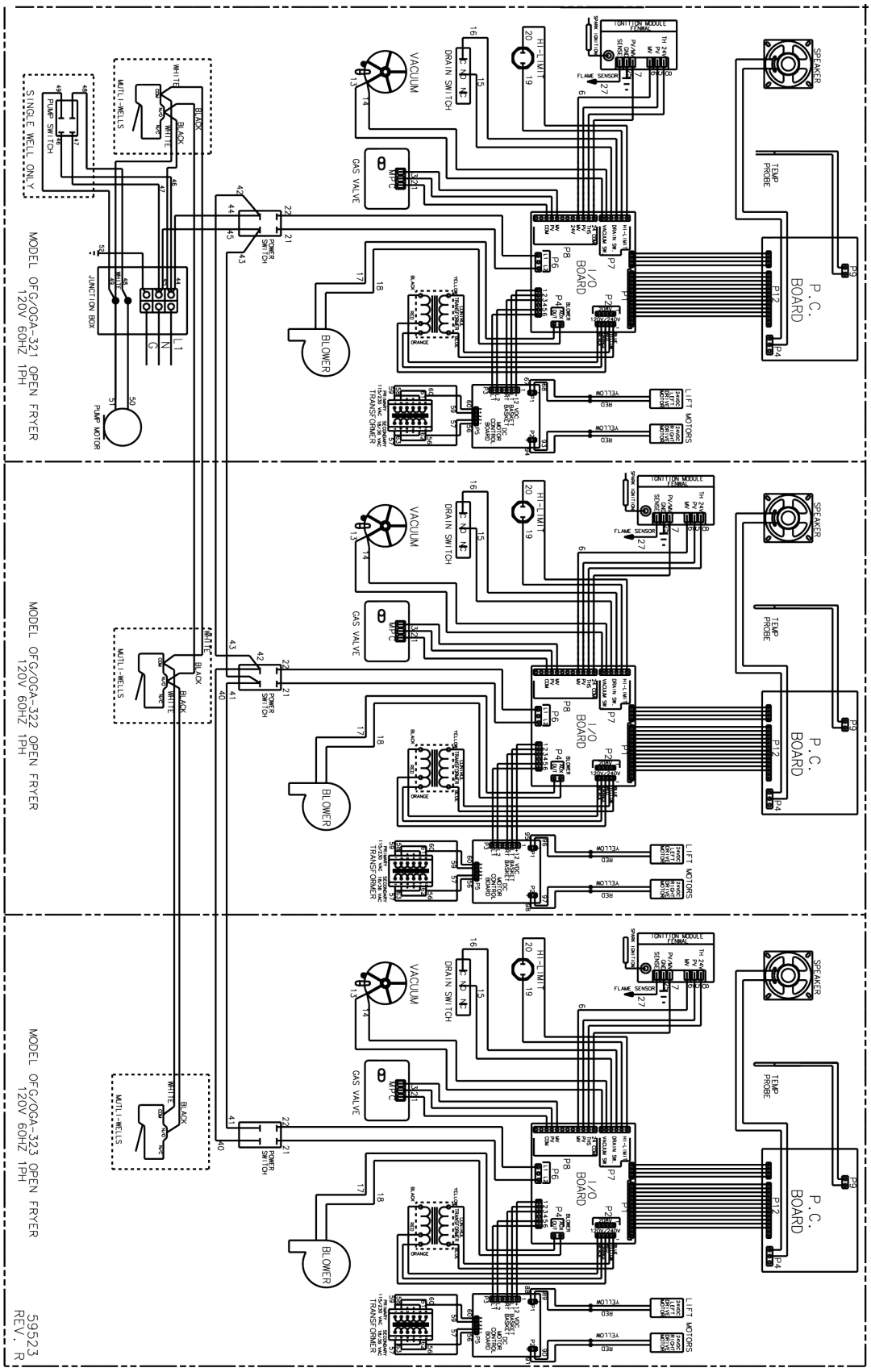


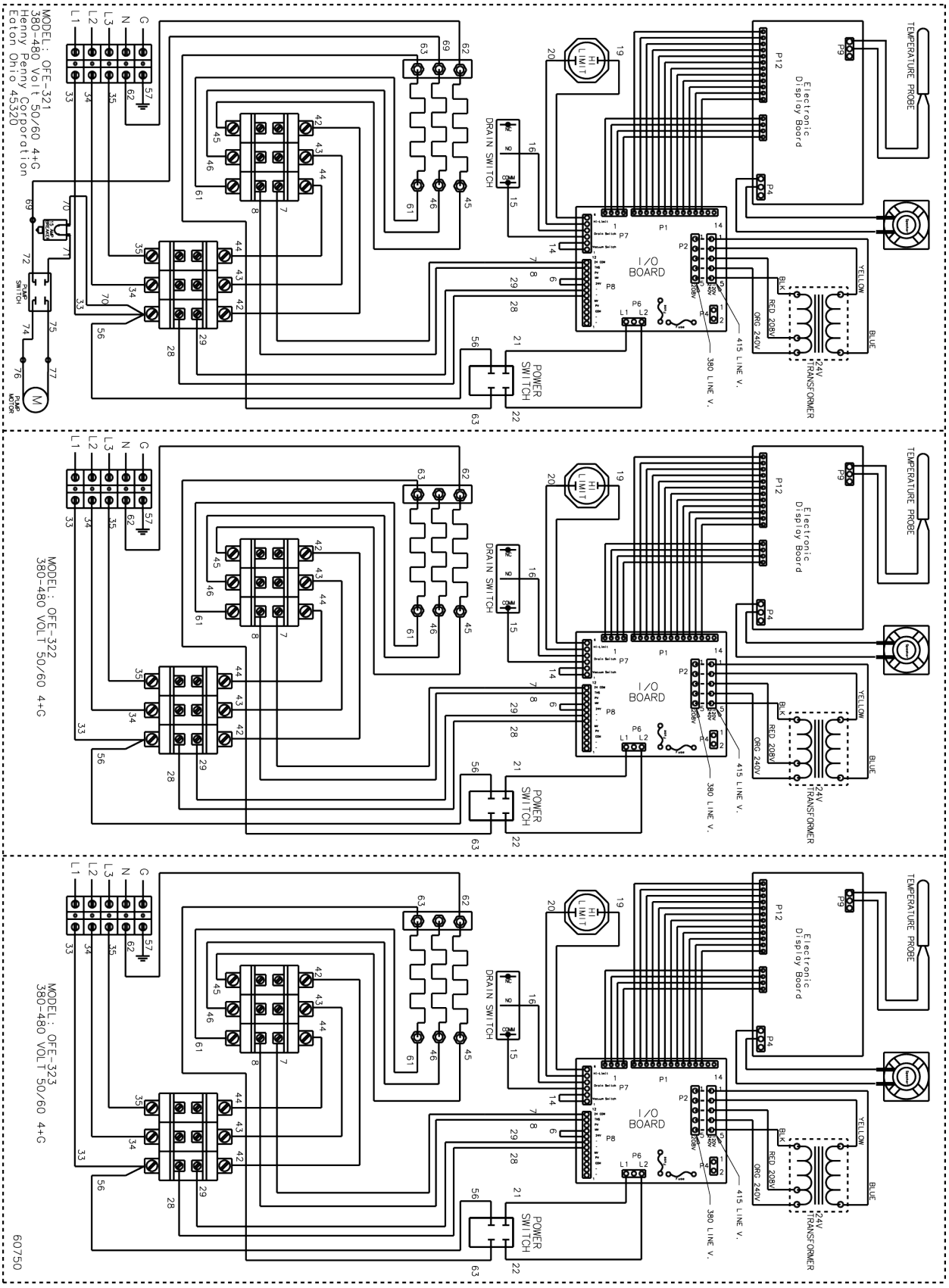
5. Using 5/16” nut-driver or wrench, remove the 4 nuts securing the autolift PC board to the bracket and remove PC board from

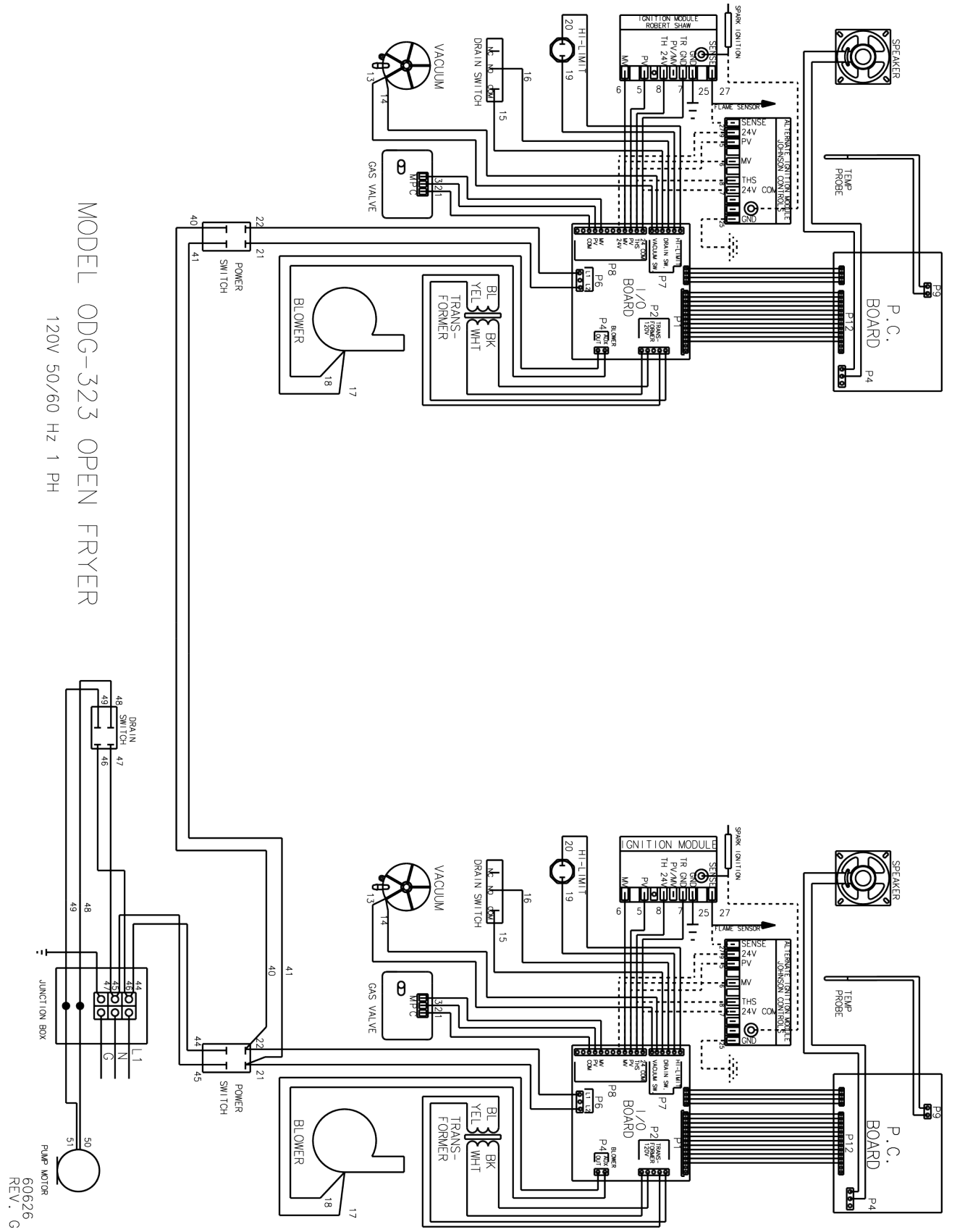
bracket.

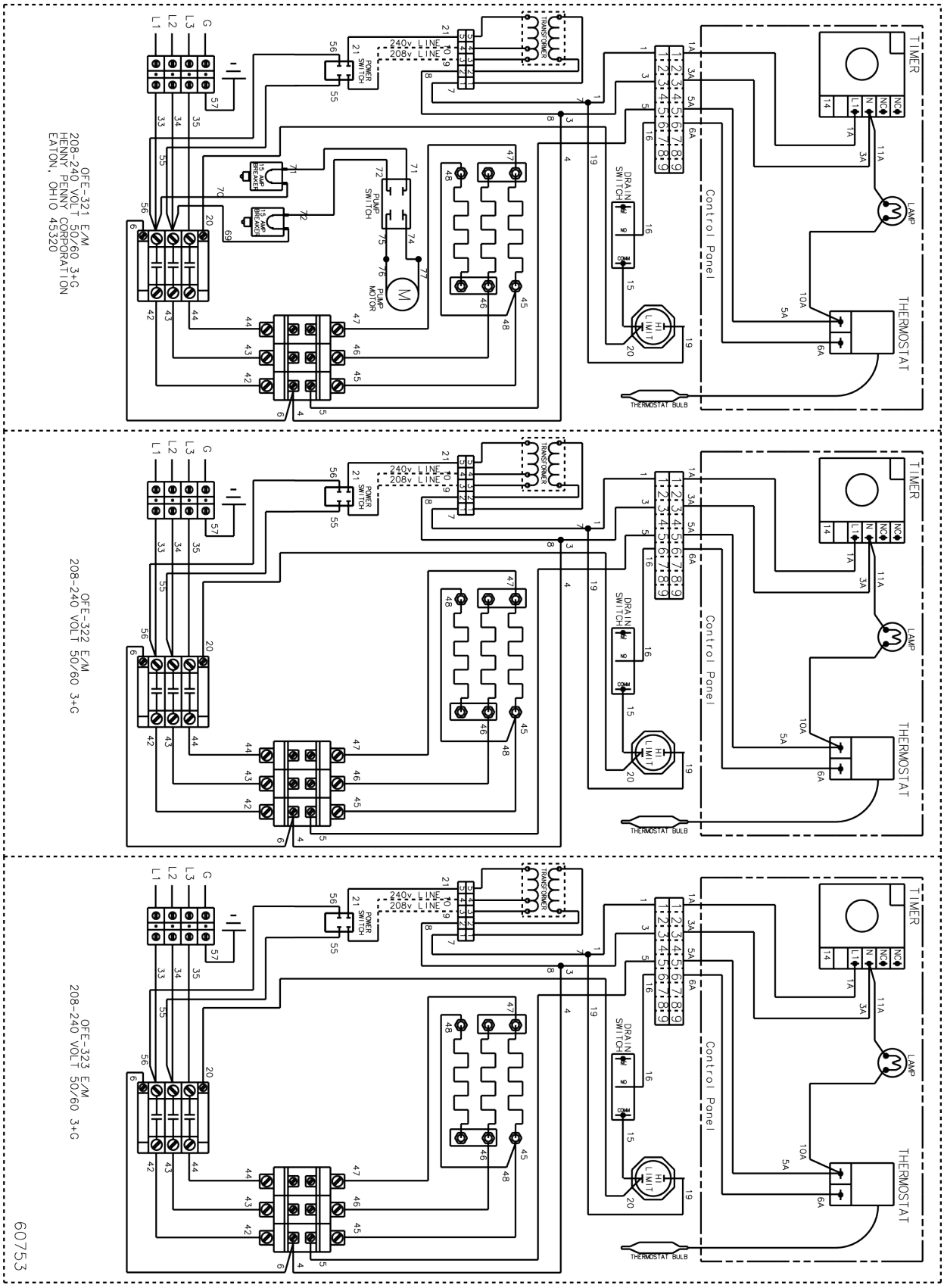
6. Install new panel in reverse order.

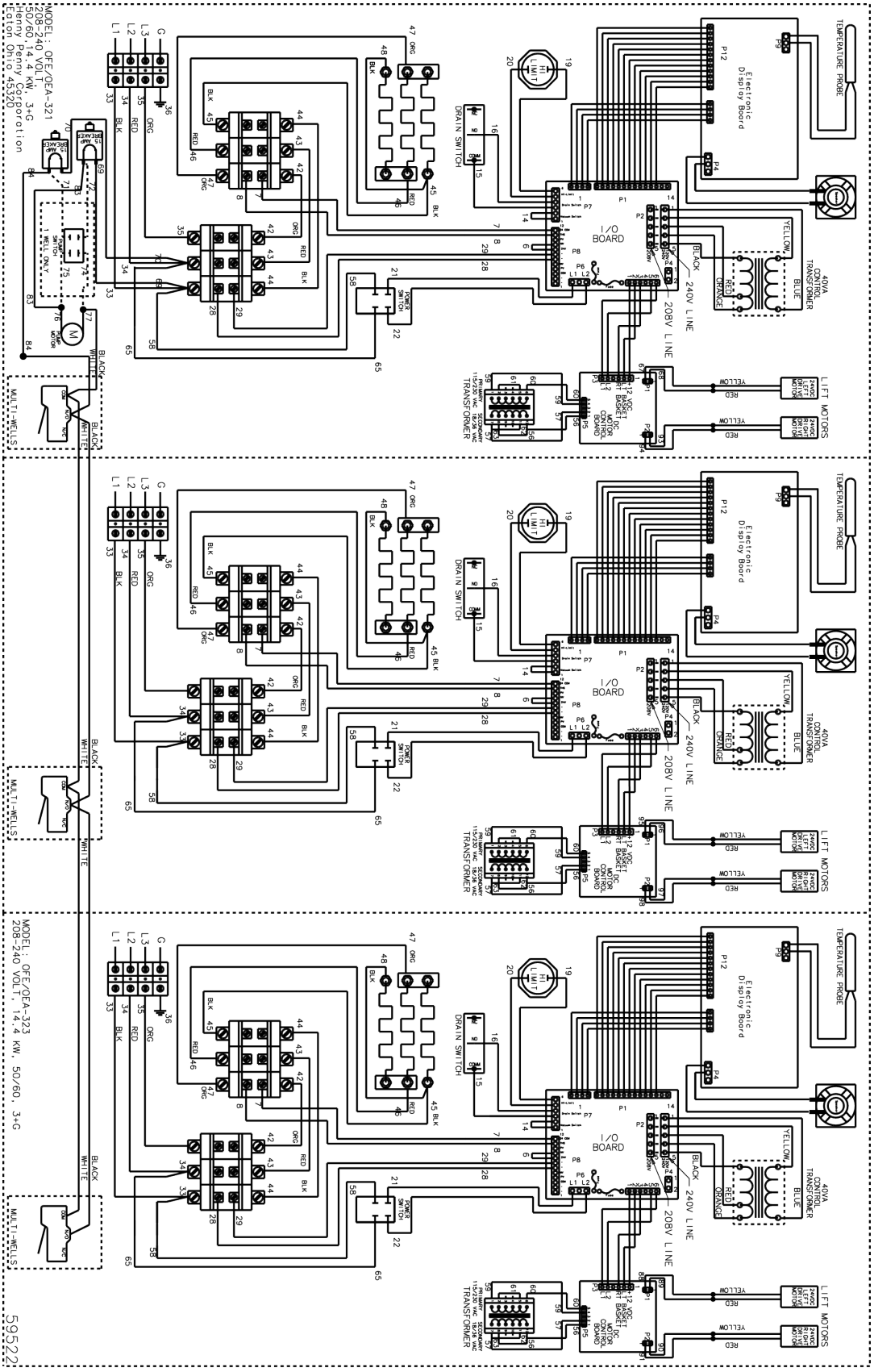

OFE-321 E/M
380-415 VOLT 50/60 4+G
HENNY PENNY CORPORATION
EATON, OHIO 45320
OFE-322 E/M
380-415 VOLT 50/60 4+G
OFE-323 E/M
380-415 VOLT 50/60 4+G
TIMER
Contol Panel
LAMP
THERMOSTAT
HI LIMIT
DRAIN SWITCH
POWER SWITCH
PUMP SWITCH
PUMP MOTOR
TRANSFORMER
THERMOSTAT BULB
60754

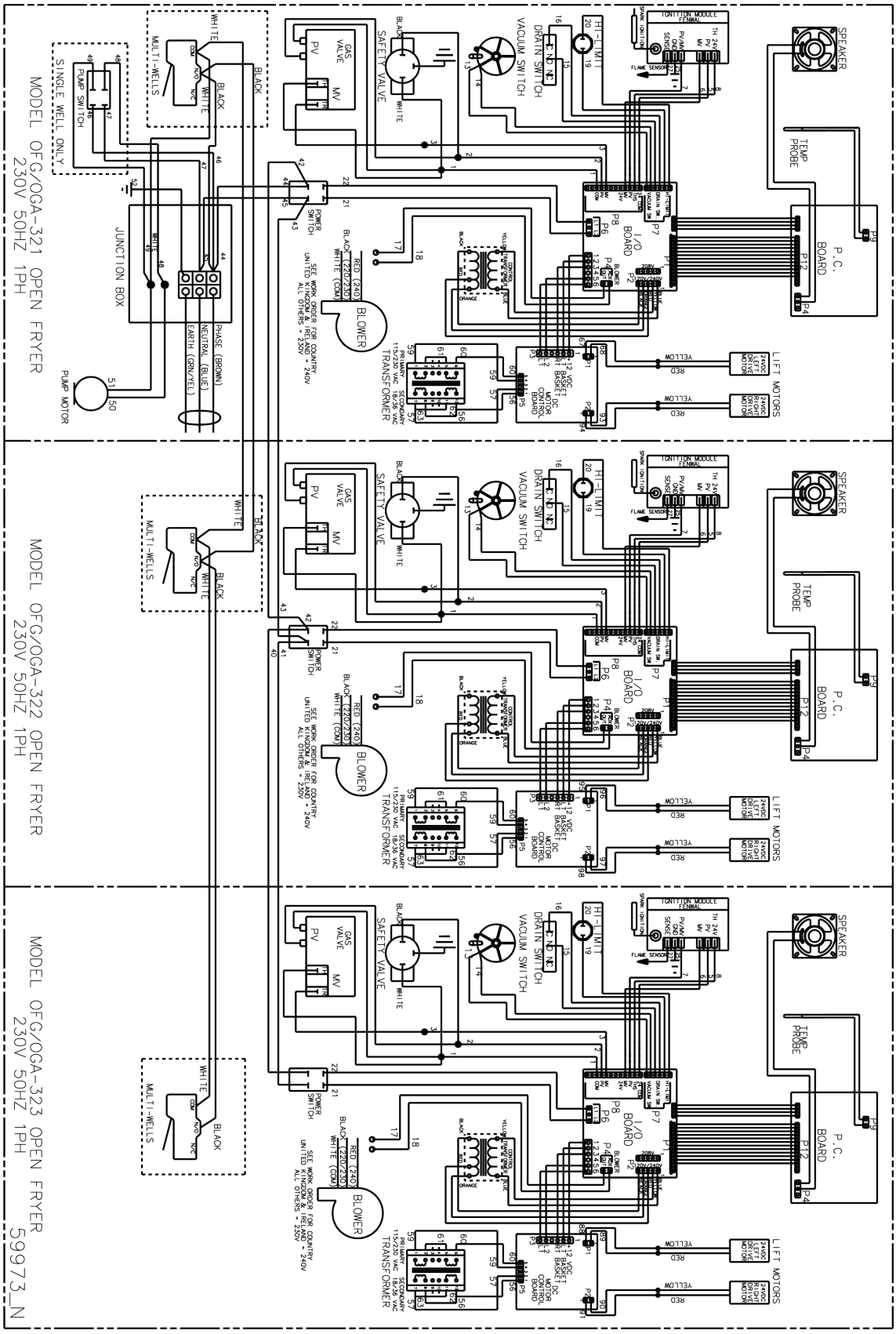

MODEL OFG/OGA-321 OPEN FRYER
120V 60HZ 1PH
SINGLE WELL ONLY
MODEL OFG/OGA-322 OPEN FRYER
120V 60HZ 1PH
MODEL OFG/OGA-323 OPEN FRYER
120V 60HZ 1PH
59523
REV. R
VACUUM
DRAIN SWITCH
GAS VALVE
HI-LIMIT
IGNITION MODULE
FLAME SENSOR
SPEAKER
TEMP PROBE
I/O BOARD
P.C. BOARD
BLOWER
POWER SWITCH
MULTI-WELLS
PUMP SWITCH
JUNCTION BOX
PUMP MOTOR
TRANSFORMER
LIFT MOTORS

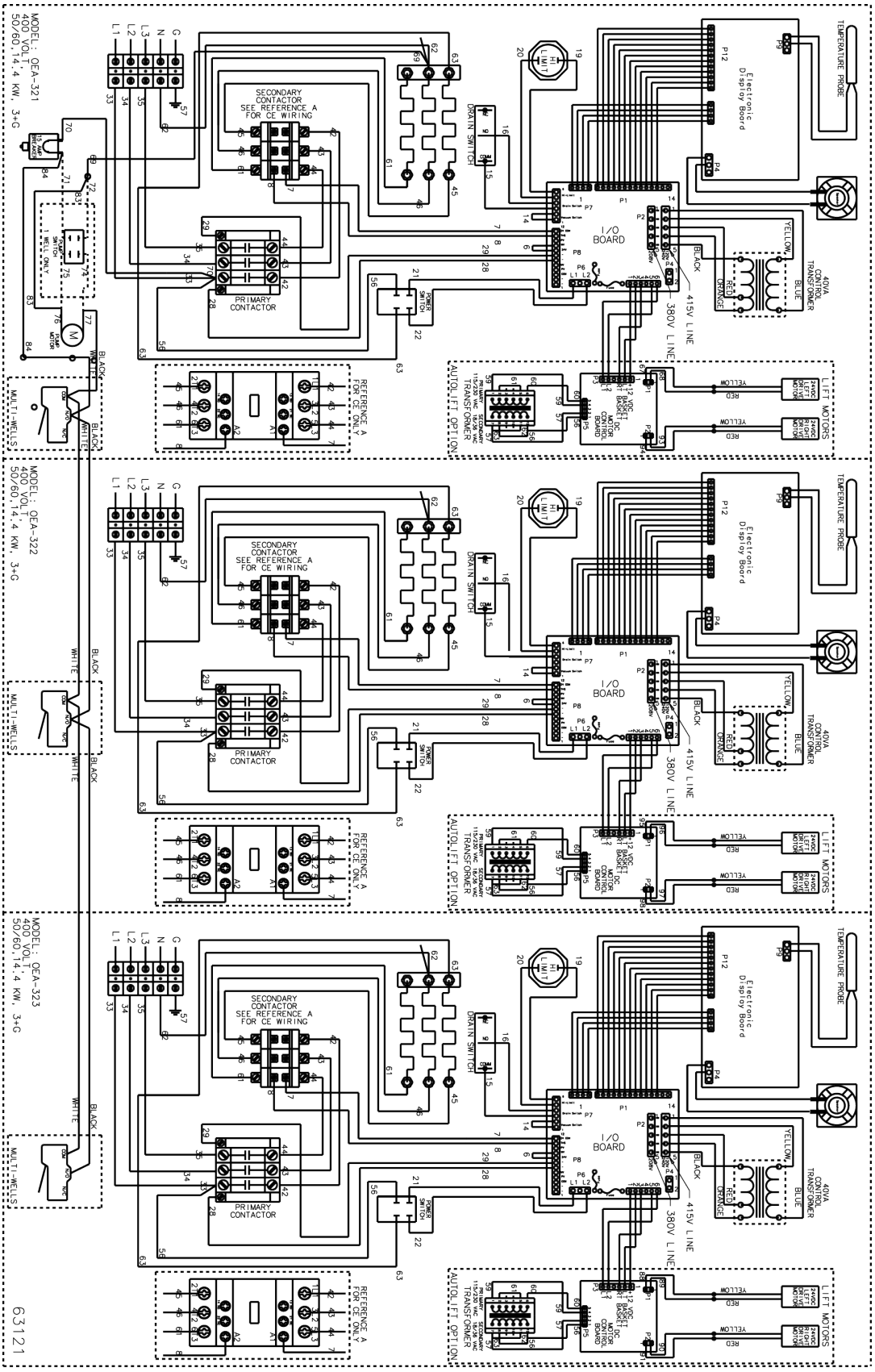

MODEL: OFE-321
380-480 Volt 50/60 4+G
Henny Penny Corporation
Eaton Ohio 45320
MODEL: OFE-322
380-480 VOLT 50/60 4+G
MODEL: OFE-323
380-480 VOLT 50/60 4+G
60750
TEMPERATURE PROBE
Electronic Display Board
I/O BOARD
HI LIMIT
DRAIN SWITCH
POWER SWITCH
PUMP MOTOR
PUMP SWITCH
BLK
YELLOW
RED 208V
ORG 240V
BLUE
24V TRANSFORMER
380 LINE V.
415 LINE V.

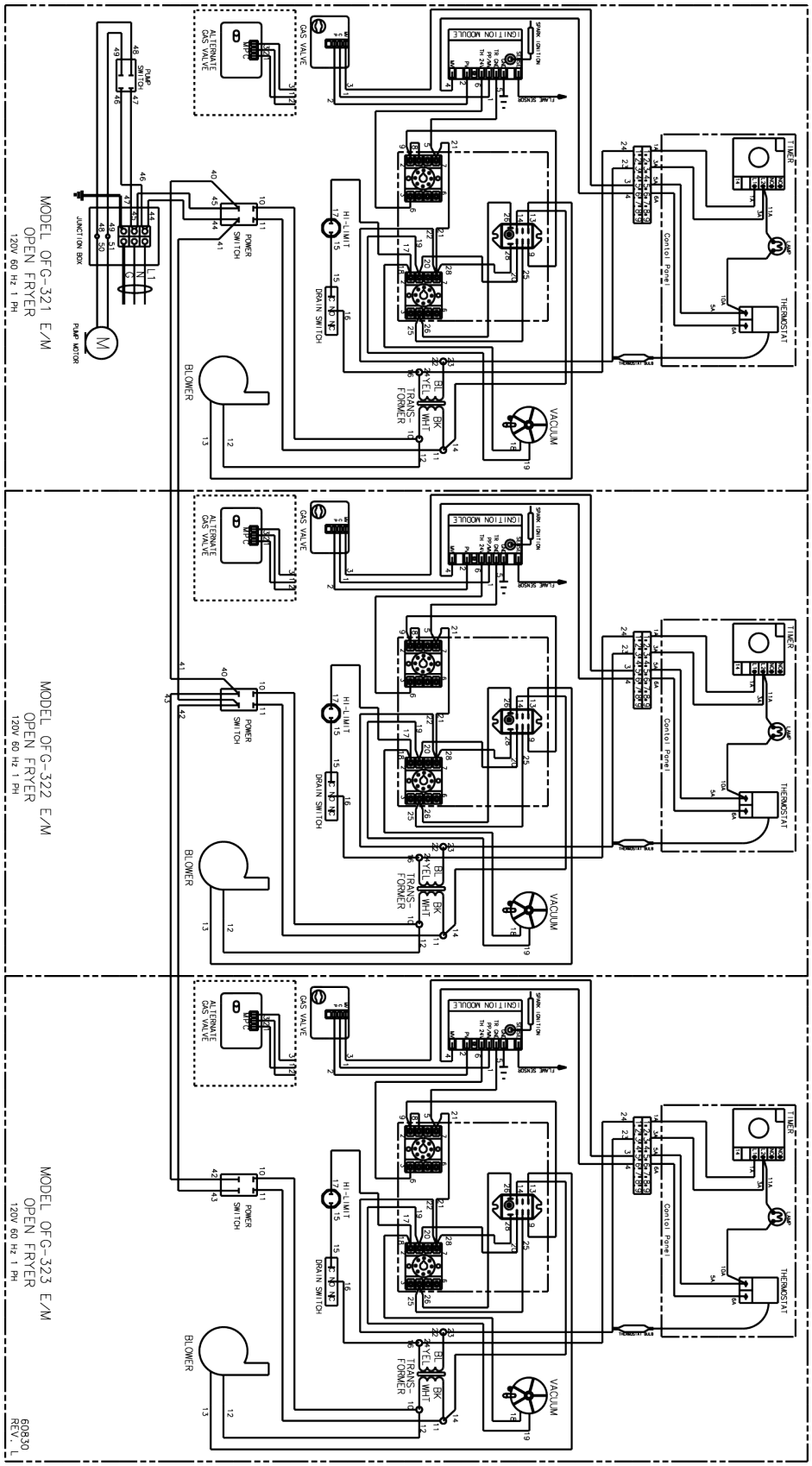

MODEL ODG-323 OPEN FRYER
120V 50/60 Hz 1 PH
IGNITION MODULE
ROBERT SHAW
SPARK IGNITION
SENSE
TR
GND
PV/MV
TH
24V
HI-LIMIT
VACUUM
DRAIN SWITCH
NC NO COM
GAS VALVE
MV PC
FLAME SENSOR
SENSE
24V
PV
MV
THS
24V COM
GND
ALTERNATE IGNITION MODULE
JOHNSON CONTROLS
SPEAKER
TEMP PROBE
P.C. BOARD
I/O BOARD
P1
P2
P3
P4
P5
P6
P7
P8
P9
P12
HI-LIMIT
DRAIN SW
VACUUM SW
TRANS-FORMER
BLOWER
POWER SWITCH
BL
YEL
BK
WHT
DRAIN SWITCH
JUNCTION BOX
L1
N
G
PUMP MOTOR
60626
REV. G

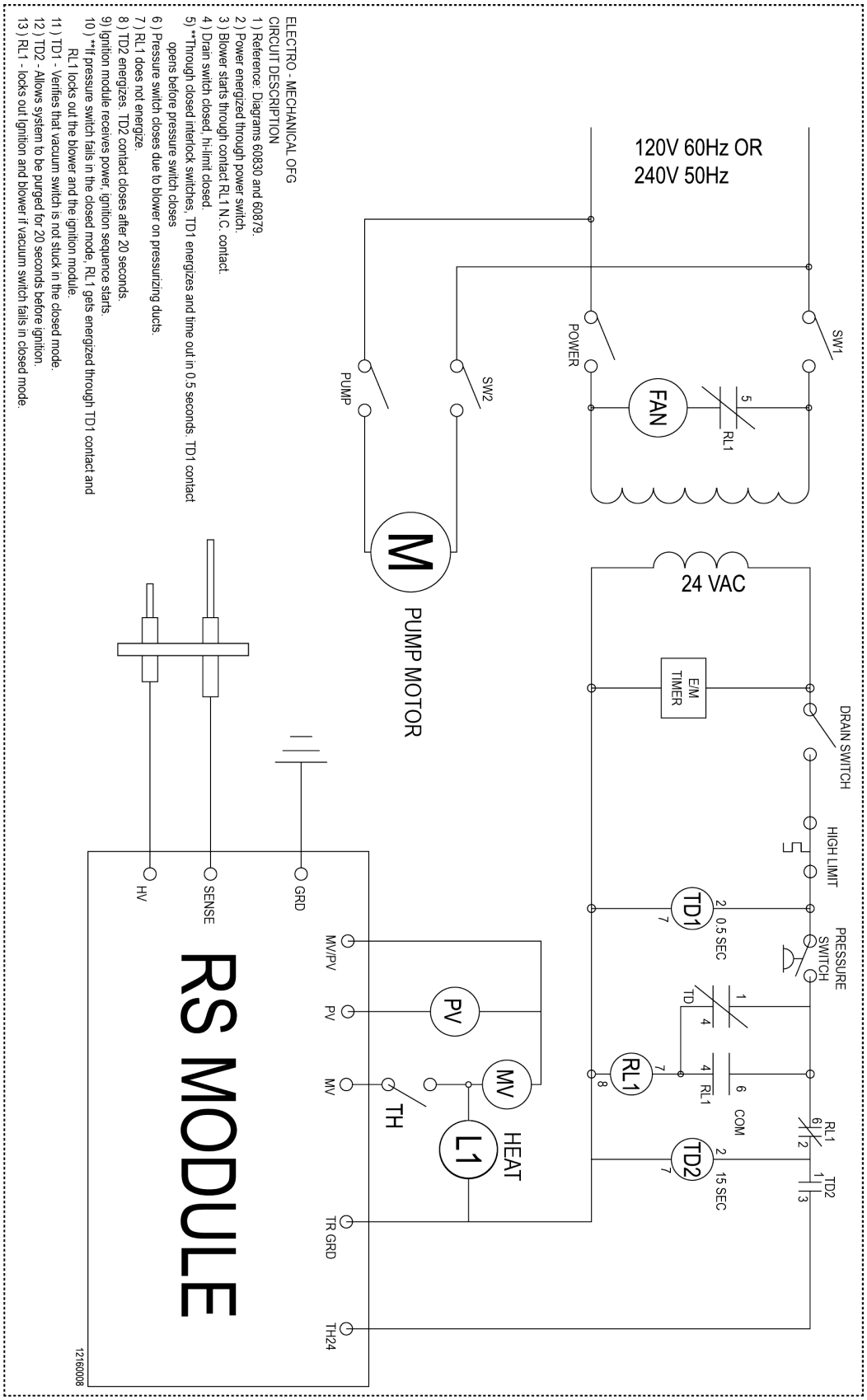

OFE-321 E/M
208-240 VOLT 50/60 3+G
HENNY PENNY CORPORATION
EATON, OHIO 45320
OFE-322 E/M
208-240 VOLT 50/60 3+G
OFE-323 E/M
208-240 VOLT 50/60 3+G
60753
TIMER
Control Panel
THERMOSTAT
LAMP
DRAIN SWITCH
HI LIMIT
THERMOSTAT BULB
POWER SWITCH
TRANSFORMER
PUMP SWITCH
PUMP MOTOR
15 AMP BREAKER
240v LINE
208v LINE
L1
L2
L3
G


MODEL: OFE/OFA-321
208-240 VOLT, 14.4 KW, 50/60, 3+G
Henny Penny Corporation
Eaton Ohio 45320
MODEL: OFE/OFA-322
208-240 VOLT, 14.4 KW, 50/60, 3+G
MODEL: OFE/OFA-323
208-240 VOLT, 14.4 KW, 50/60, 3+G
TEMPERATURE PROBE
Electronic Display Board
I/O BOARD
DRAIN SWITCH
HI LIMIT
40VA CONTROL TRANSFORMER
240V LINE
208V LINE
LIFT MOTORS
MULTI-WELLS
POWER SWITCH
59522


MODEL OFG/OGA-321 OPEN FRYER
230V 50HZ 1PH
MODEL OFG/OGA-322 OPEN FRYER
230V 50HZ 1PH
MODEL OFG/OGA-323 OPEN FRYER
230V 50HZ 1PH
59973_N
SINGLE WELL ONLY
PUMP SWITCH
JUNCTION BOX
PUMP MOTOR
MULTI-WELLS
PHASE (BROWN)
NEUTRAL (BLUE)
EARTH (GRN/YEL)
GAS VALVE
SAFETY VALVE
VACUUM SWITCH
DRAIN SWITCH
HI-LIMIT
IGNITION MODULE
FENWAL
FLAME SENSOR
SPEAKER
TEMP PROBE
P.C. BOARD
I/O BOARD
POWER SWITCH
BLOWER
TRANSFORMER
115/230 VAC PRIMARY
18/36 VAC SECONDARY
12 VDC BASKET MOTOR CONTROL BOARD
LIFT MOTORS
FRONT LEFT MOTOR
FRONT RIGHT MOTOR
SEE WORK ORDER FOR COUNTRY
UNITED KINGDOM & IRELAND = 240V
ALL OTHERS = 230V
BLACK (220/230)
WHITE (COM)
RED (240)
WHITE
BLACK
YELLOW
RED
ORANGE

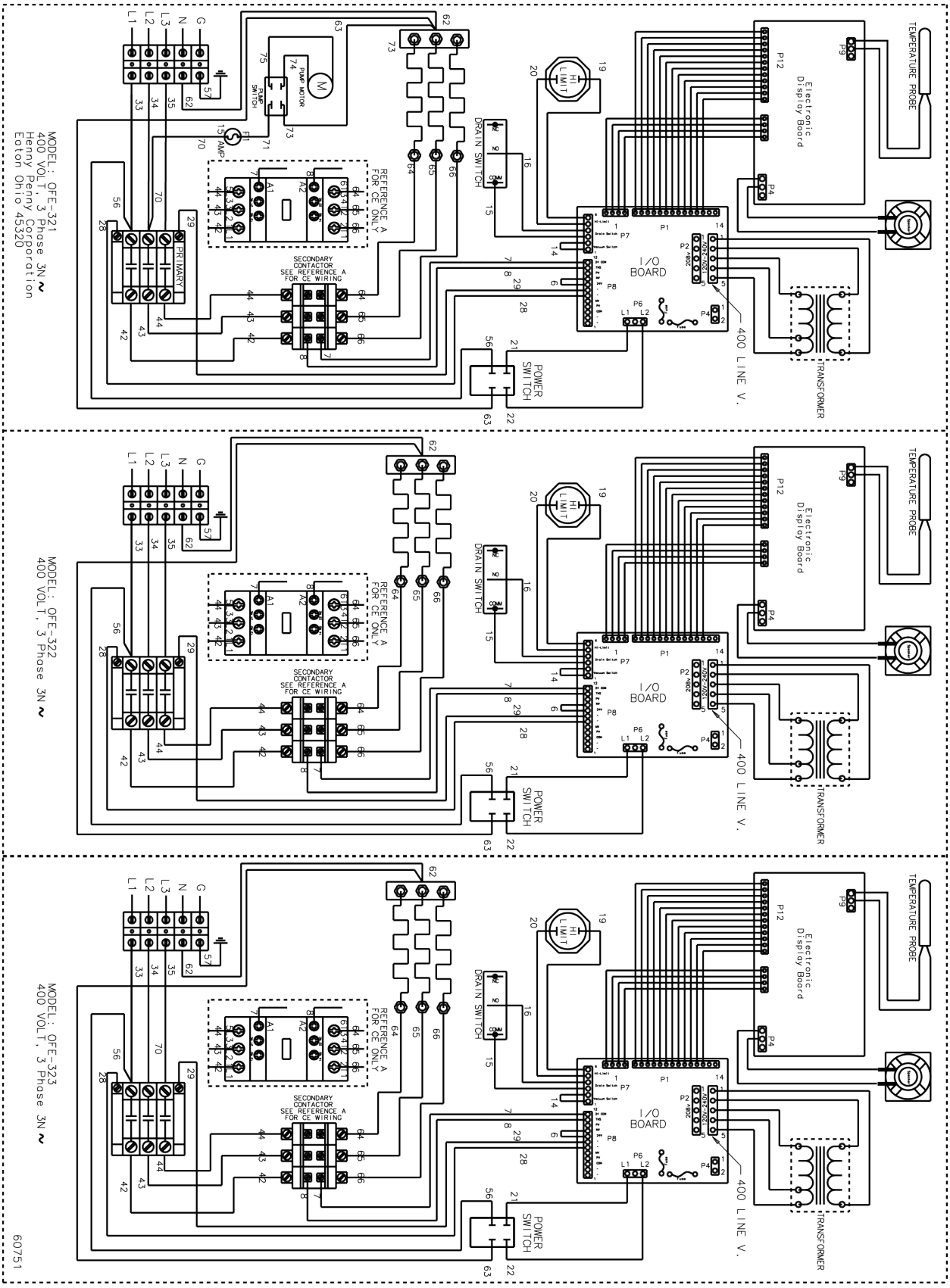

MODEL: OEA-321
400 VOLT, 50/60, 14.4 KW, 3+G
MODEL: OEA-322
400 VOLT, 50/60, 14.4 KW, 3+G
MODEL: OEA-323
400 VOLT, 50/60, 14.4 KW, 3+G
SECONDARY CONTACTOR SEE REFERENCE A FOR CE WIRING
PRIMARY CONTACTOR
DRAIN SWITCH
HI LIMIT
TEMPERATURE PROBE
Electronic Display Board
I/O BOARD
40VA CONTROL TRANSFORMER
380V LINE
415V LINE
AUTOLIFT OPTION
LIFT MOTORS
MULTI-WELLS
WELL ONLY SWITCH
BLACK
WHITE
YELLOW
BLUE
ORANGE
RED
63121

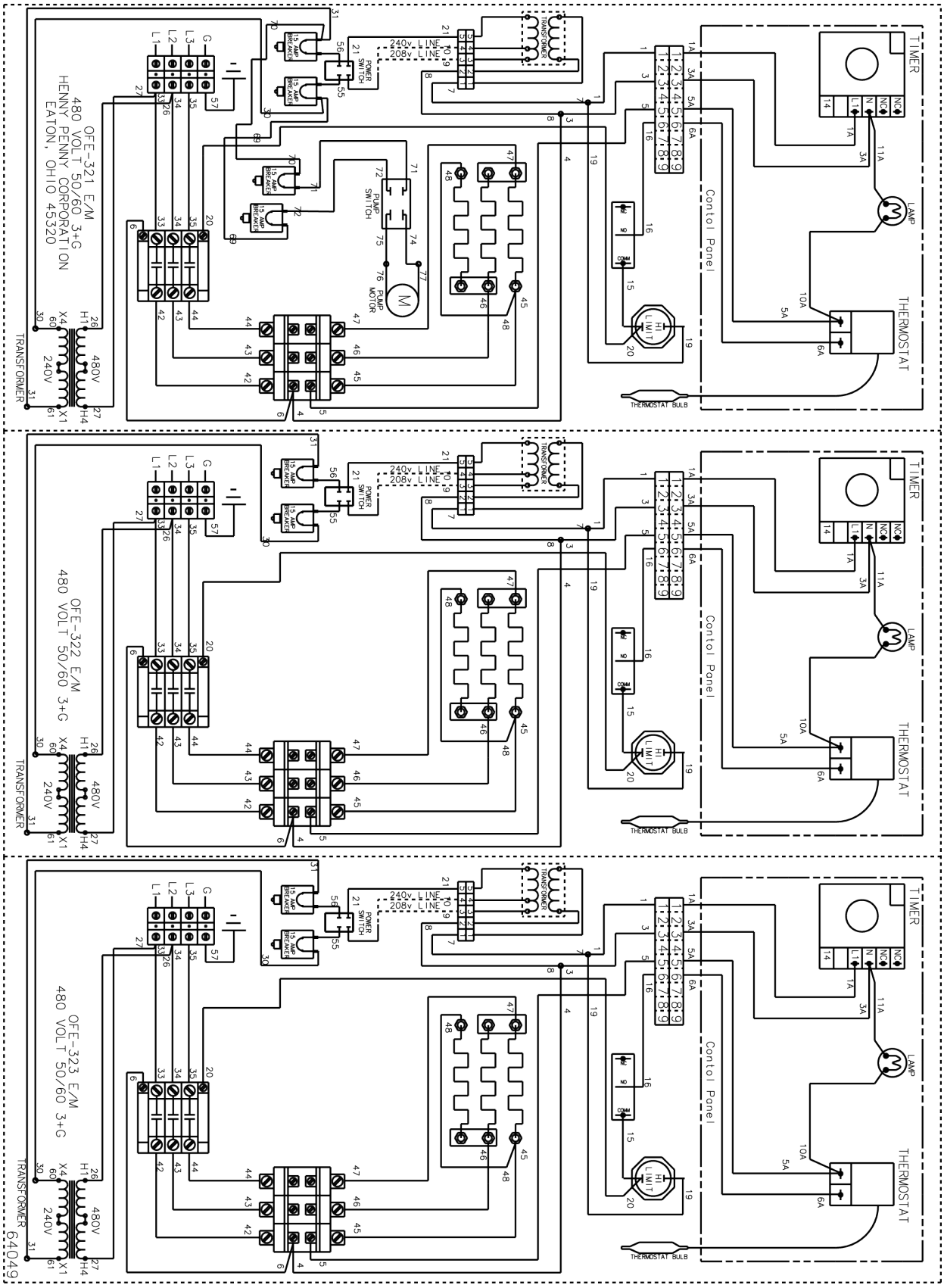

MODEL OFG-321 E/M
OPEN FRYER
120V 60 Hz 1 PH
MODEL OFG-322 E/M
OPEN FRYER
120V 60 Hz 1 PH
MODEL OFG-323 E/M
OPEN FRYER
120V 60 Hz 1 PH
60830
REV. L
ALTERNATE GAS VALVE
GAS VALVE
IGNITION MODULE
SPARK IGNITION
FLAME SENSOR
PUMP SWITCH
JUNCTION BOX
PUMP MOTOR
POWER SWITCH
HI-LIMIT
DRAIN SWITCH
BLOWER
TRANS-FORMER
VACUUM
TIMER
Control Panel
THERMOSTAT

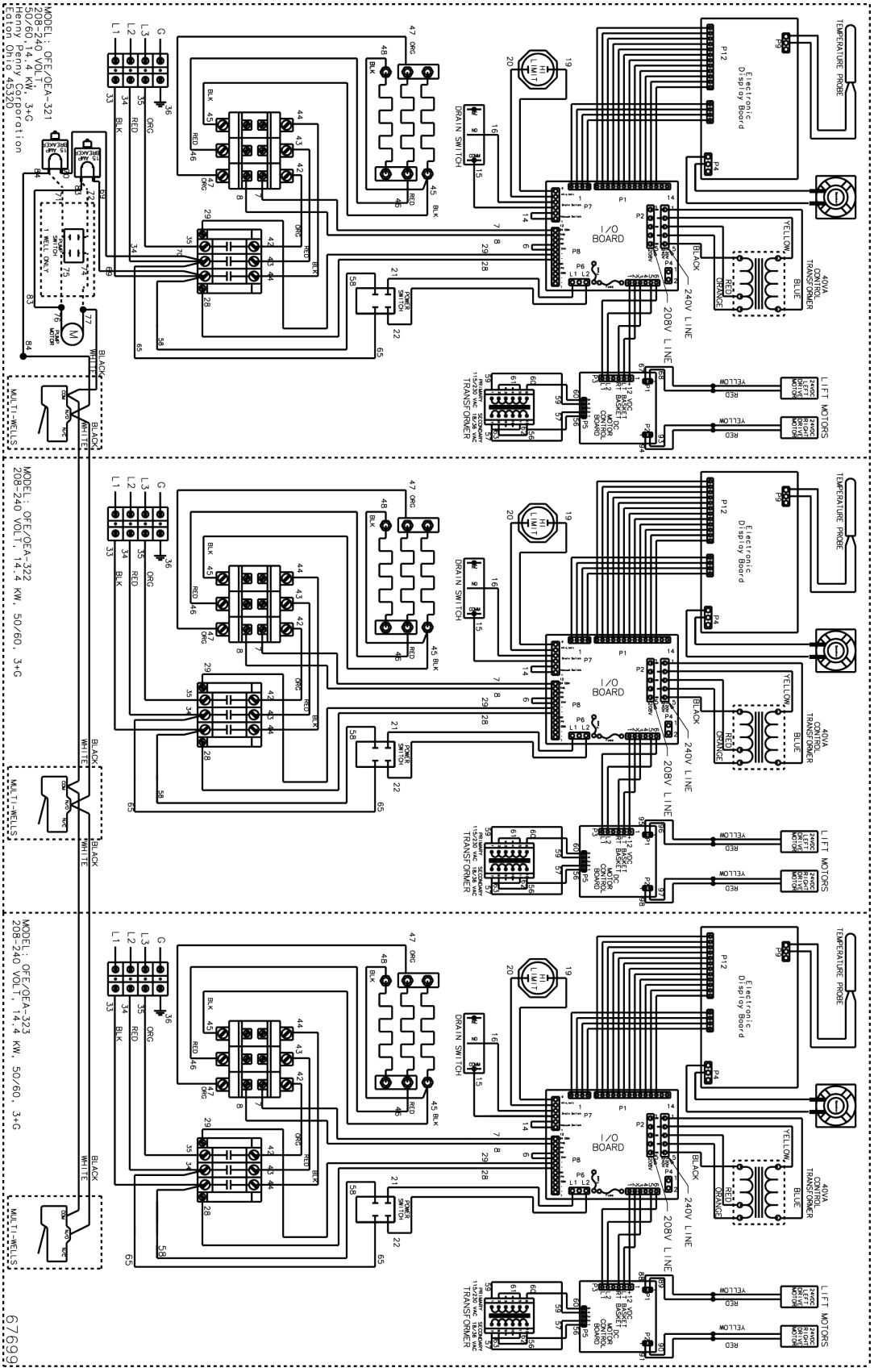


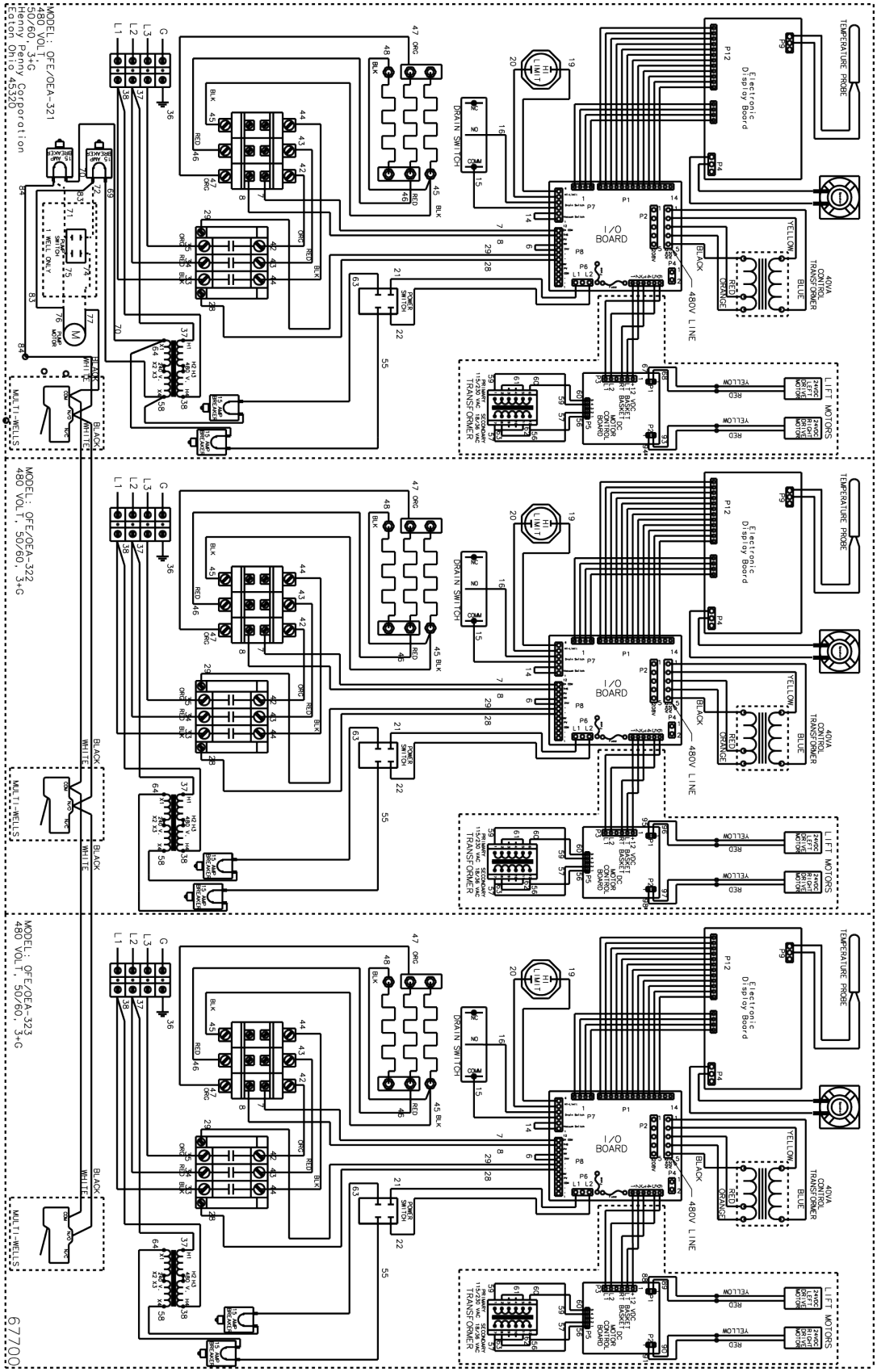
ELECTRO - MECHANICAL OFG
CIRCUIT DESCRIPTION

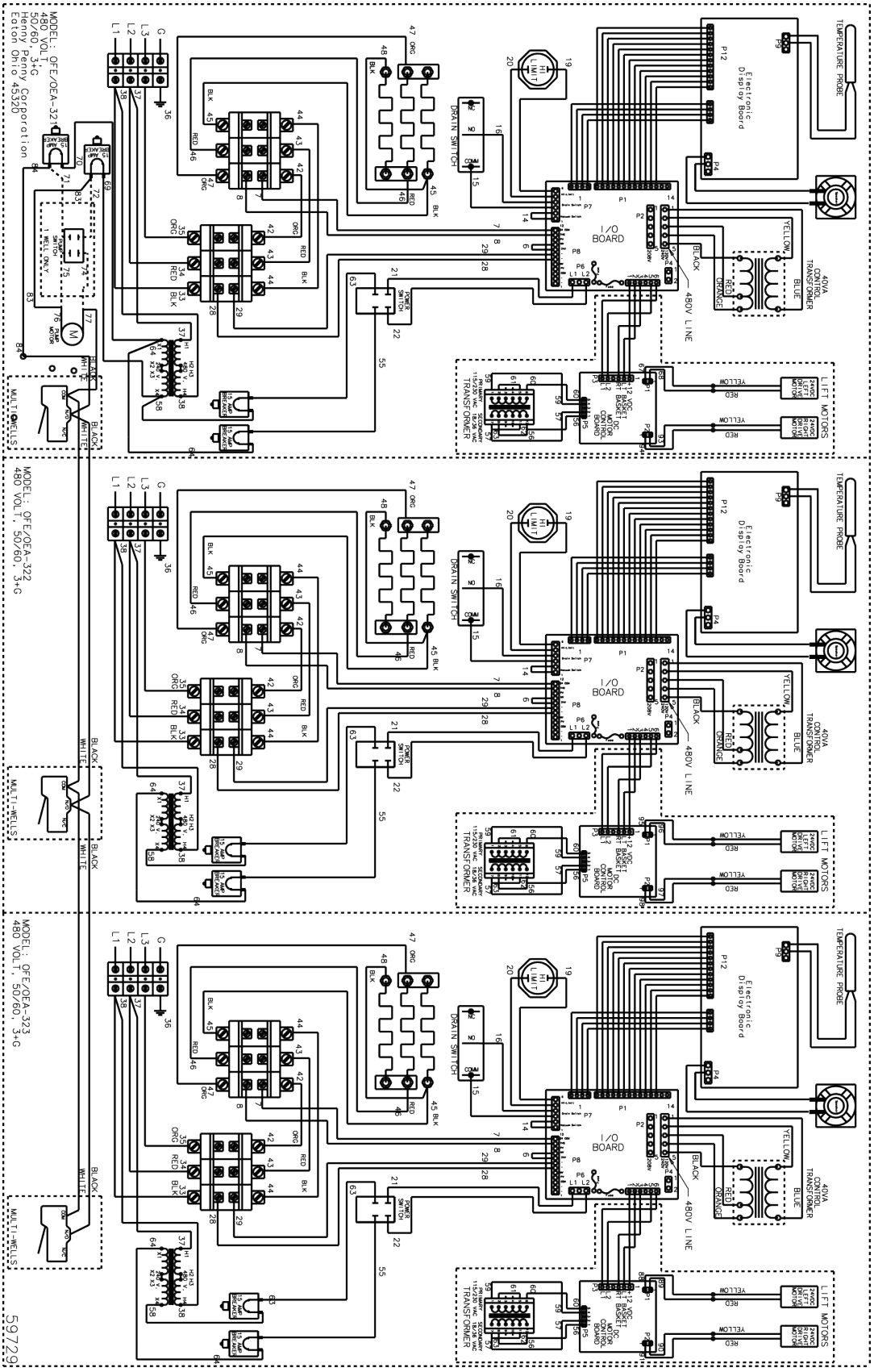
1) Reference: Diagrams 60830 and 60879.
2) Power energized through power switch.
3) Blower starts through contact RL1 N.C. contact.
4) Drain switch closed, hi-limit closed.
5) **Through closed interlock switches, TD1 energizes and time out in 0.5 seconds. TD1 contact opens before pressure switch closes
6) Pressure switch closes due to blower on pressurizing ducts.
7) RL1 does not energize.
8) TD2 energizes. TD2 contact closes after 20 seconds.
9) Ignition module receives power, ignition sequence starts.
10) **If pressure switch fails in the closed mode, RL1 gets energized through TD1 contact and RL1 locks out the blower and the ignition module.
11) TD1 - Verifies that vacuum switch is not stuck in the closed mode.
12) TD2 - Allows system to be purged for 20 seconds before ignition.
13) RL1 - locks out Ignition and blower if vacuum switch fails in closed mode.

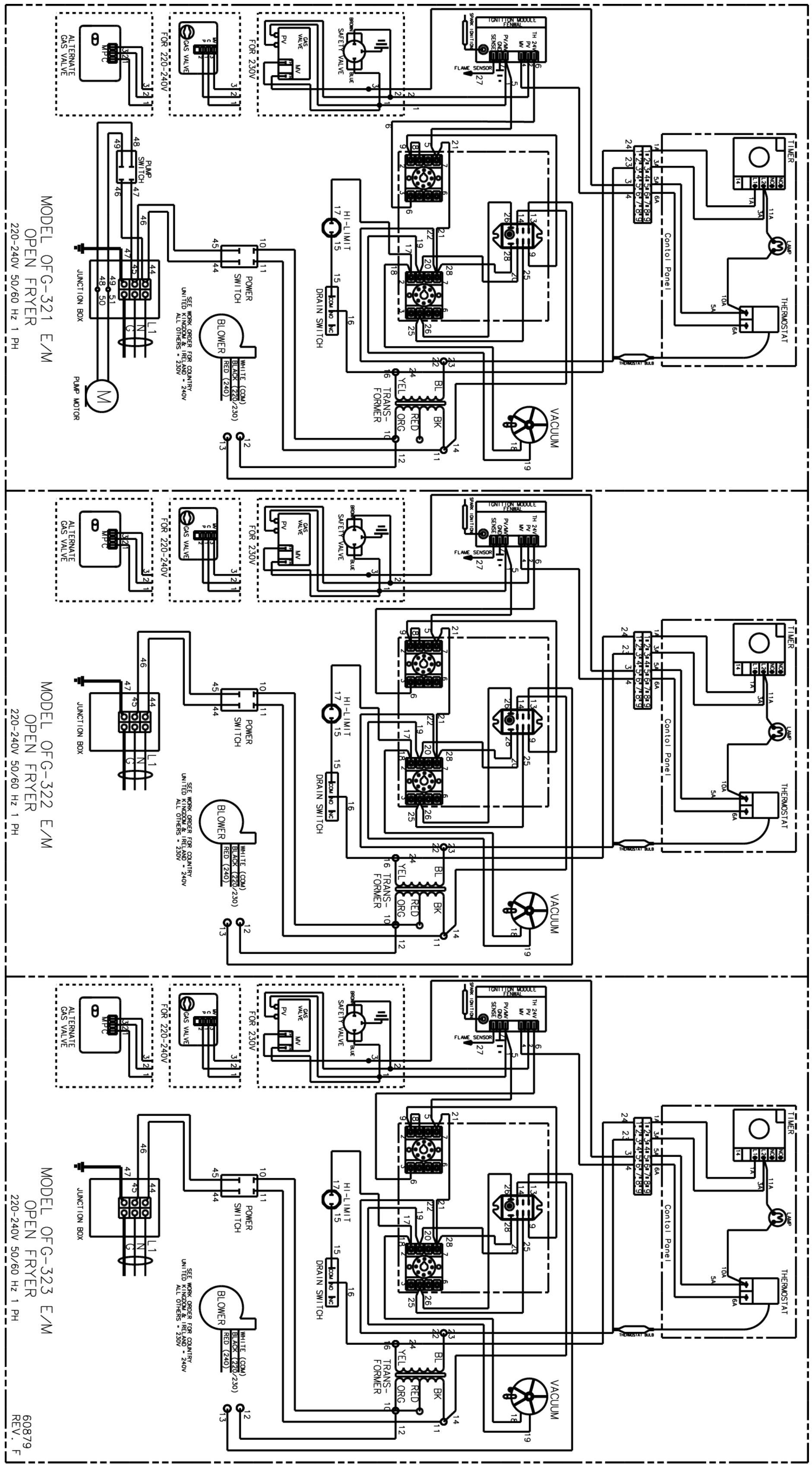

MODEL: OFE-321
400 VOLT, 3 Phase 3N ~
Henny Penny Corporation
Eaton Ohio 45320
MODEL: OFE-322
400 VOLT, 3 Phase 3N ~
MODEL: OFE-323
400 VOLT, 3 Phase 3N ~
60751
L1
L2
L3
N
G
PRIMARY
SECONDARY
CONTACTOR
SEE REFERENCE A
FOR CE WIRING
REFERENCE A
FOR CE ONLY
DRAIN SWITCH
HI LIMIT
I/O BOARD
POWER SWITCH
400 LINE V.
TRANSFORMER
TEMPERATURE PROBE
Electronic Display Board
RTD
P1
P2
P4
P6
P7
P8
P9
P12

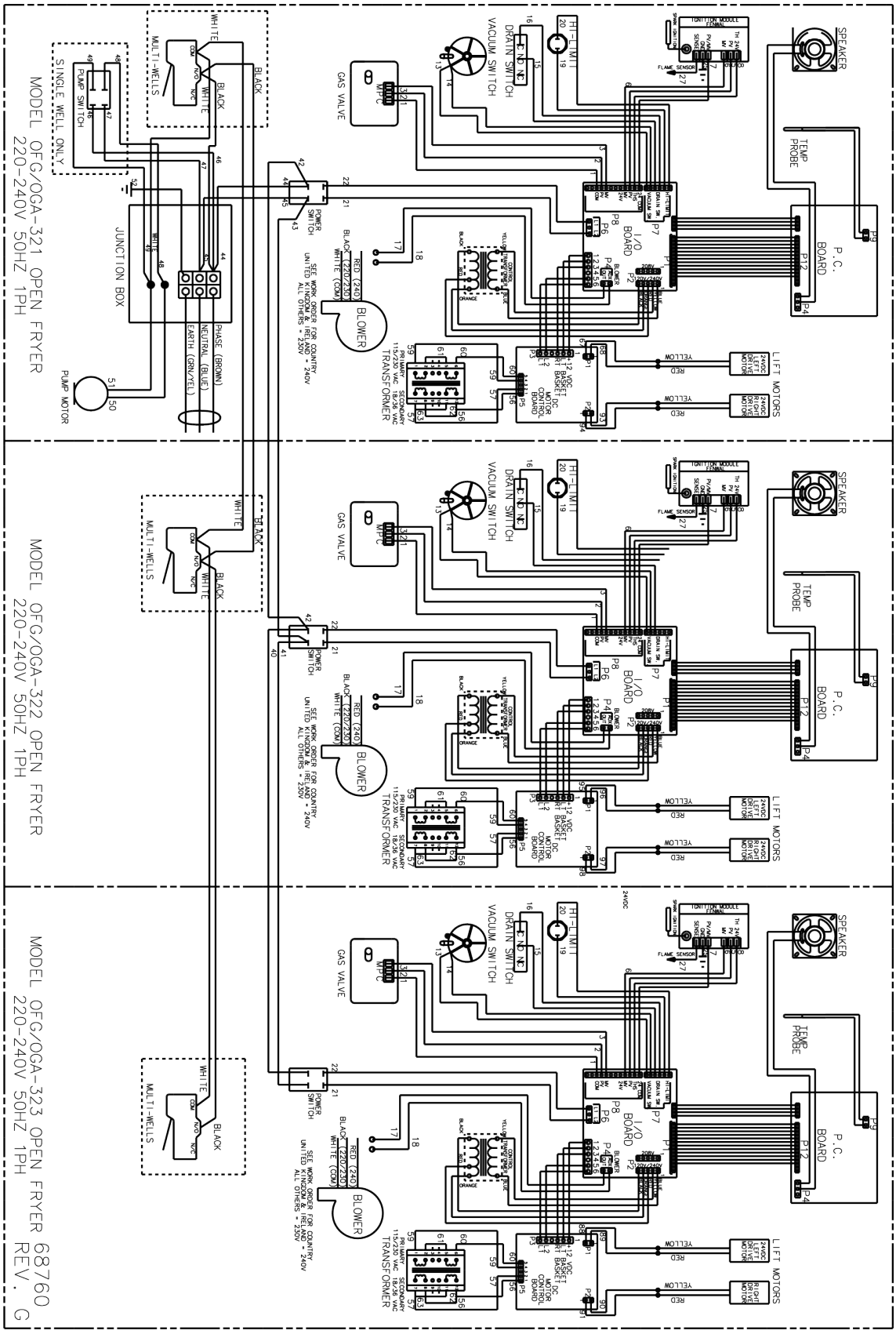

OFE-321 E/M
480 VOLT 50/60 3+G
HENNY PENNY CORPORATION
EATON, OHIO 45320
OFE-322 E/M
480 VOLT 50/60 3+G
OFE-323 E/M
480 VOLT 50/60 3+G
TRANSFORMER
480V
240V
TIMER
Contol Panel
LAMP
THERMOSTAT
THERMOSTAT BULB
HI LIMIT
POWER SWITCH
PUMP SWITCH
PUMP MOTOR
15 AMP BREAKER
240v LINE TO LINE
208v LINE TO LINE
64049

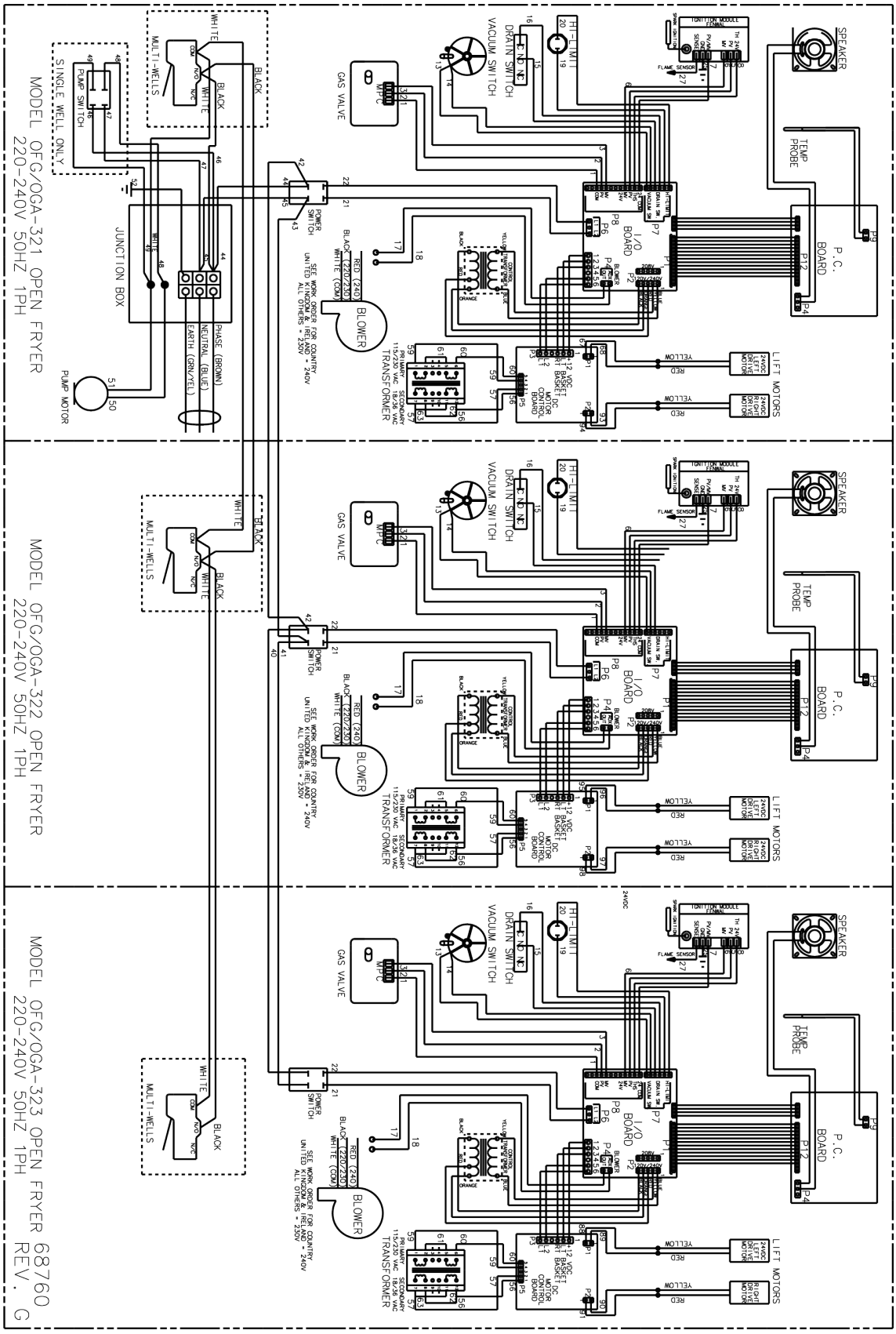

MODEL: OFE/OFA-321
208-240 VOLT, 14.4 KW, 50/60, 3+G
Henny Penny Corporation
Eaton Ohio 45320
MODEL: OFE/OFA-322
208-240 VOLT, 14.4 KW, 50/60, 3+G
MODEL: OFE/OFA-323
208-240 VOLT, 14.4 KW, 50/60, 3+G
TEMPERATURE PROBE
Electronic Display Board
I/O BOARD
DRAIN SWITCH
HI LIMIT
40VA CONTROL TRANSFORMER
240V LINE
208V LINE
LIFT MOTORS
MULTI-WELLS
BLACK
WHITE
YELLOW
BLUE
ORANGE
RED
BLK
ORG
67699

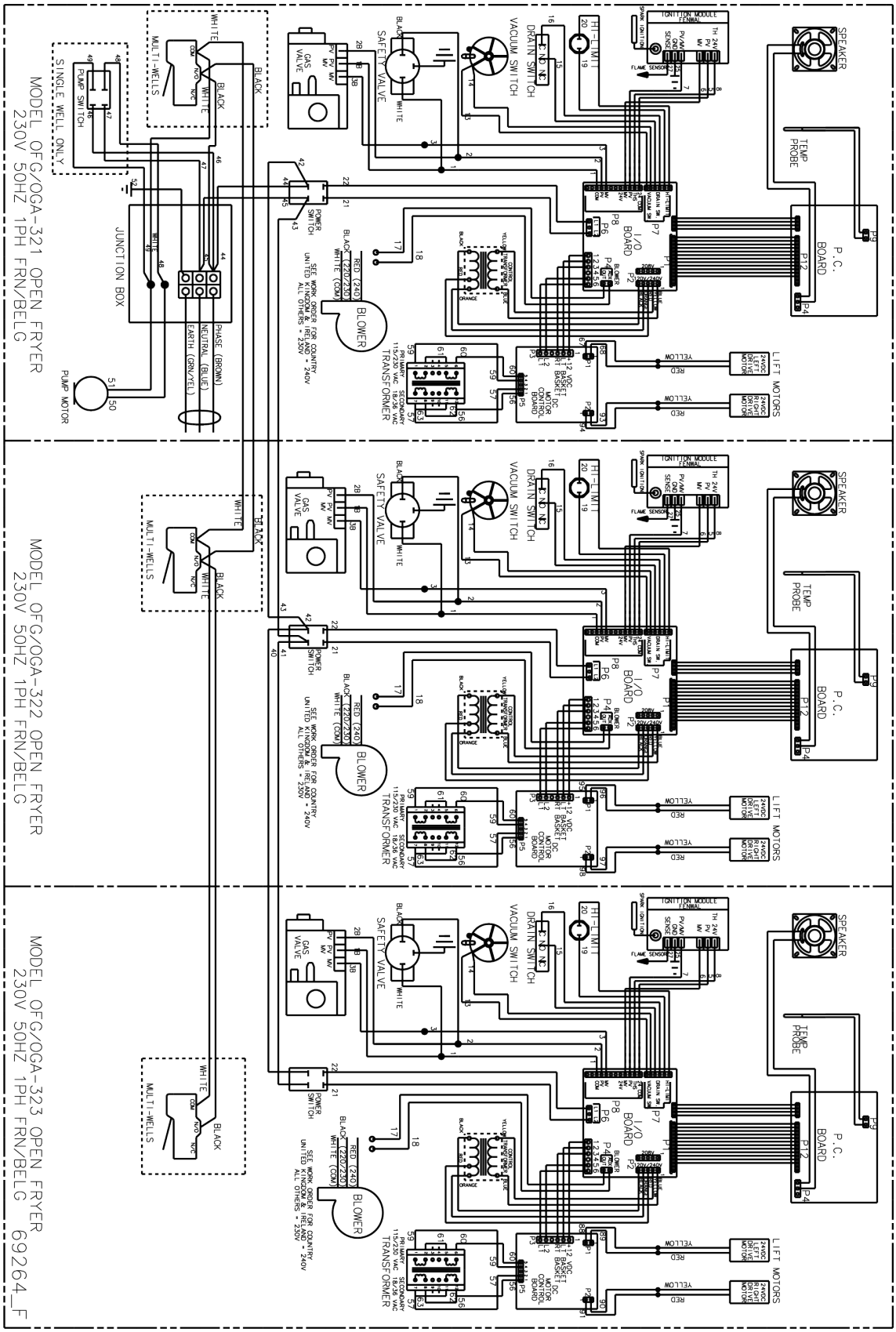

MODEL: OFE/OEA-321
480 VOLT, 1, 50/60, 3+G
Henny Penny Corporation
Eaton Ohio 45320
MODEL: OFE/OEA-322
480 VOLT, 50/60, 3+G
MODEL: OFE/OEA-323
480 VOLT, 50/60, 3+G
I/O BOARD
Electronic Display Board
TEMPERATURE PROBE
DRAIN SWITCH
480V LINE
40VA CONTROL TRANSFORMER
LIFT MOTORS
MULTI-WELLS
67700


MODEL: OFE/OEA-321
480 VOLT, 50/60, 3+G
Henny Penny Corporation
Eaton Ohio 45320
MODEL: OFE/OEA-322
480 VOLT, 50/60, 3+G
MODEL: OFE/OEA-323
480 VOLT, 50/60, 3+G
L1
L2
L3
G
I/O BOARD
Electronic Display Board
TEMPERATURE PROBE
DRAIN SWITCH
HI LIMIT
480V LINE
40VA CONTROL TRANSFORMER
LIFT MOTORS
MULTI-WELLS
BLACK
WHITE
59729


MODEL OFG-321 E/M
OPEN FRYER
220-240V 50/60 Hz 1 PH
MODEL OFG-322 E/M
OPEN FRYER
220-240V 50/60 Hz 1 PH
MODEL OFG-323 E/M
OPEN FRYER
220-240V 50/60 Hz 1 PH
60879
REV. F

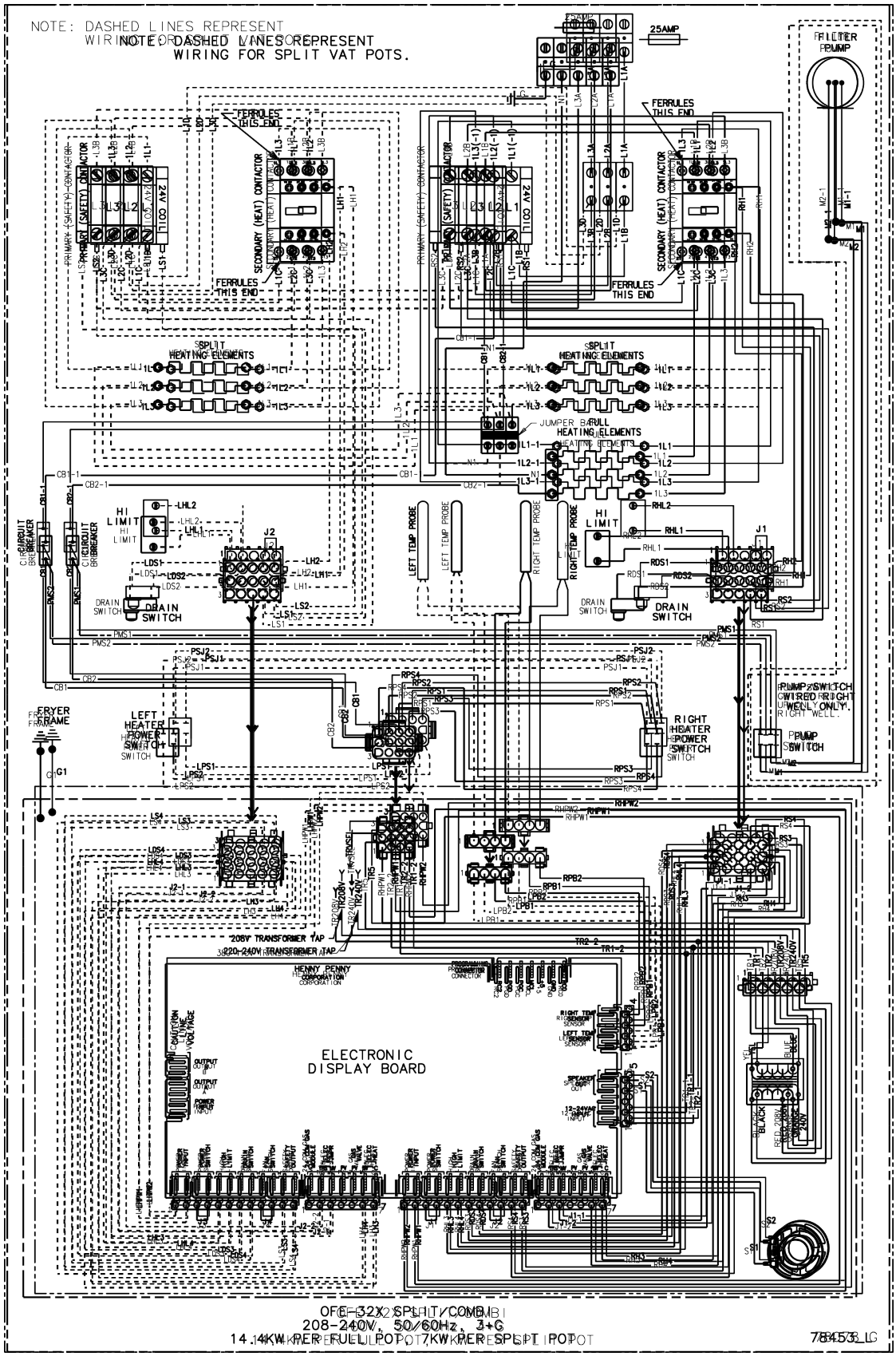

MODEL OFG/OGA-321 OPEN FRYER
220-240V 50HZ 1PH
SINGLE WELL ONLY
PUMP SWITCH
JUNCTION BOX
PUMP MOTOR
MULTI-WELLS
WHITE
BLACK
PHASE (BROWN)
NEUTRAL (BLUE)
EARTH (GRN/YEL)
POWER SWITCH
GAS VALVE
VACUUM SWITCH
DRAIN SWITCH
HI-LIMIT
IGNITION MODULE
FLAME SENSOR
SPEAKER
TEMP PROBE
P.C. BOARD
I/O BOARD
BLOWER
TRANSFORMER
LIFT MOTORS
MODEL OFG/OGA-322 OPEN FRYER
220-240V 50HZ 1PH
MODEL OFG/OGA-323 OPEN FRYER
220-240V 50HZ 1PH
68760
REV. G

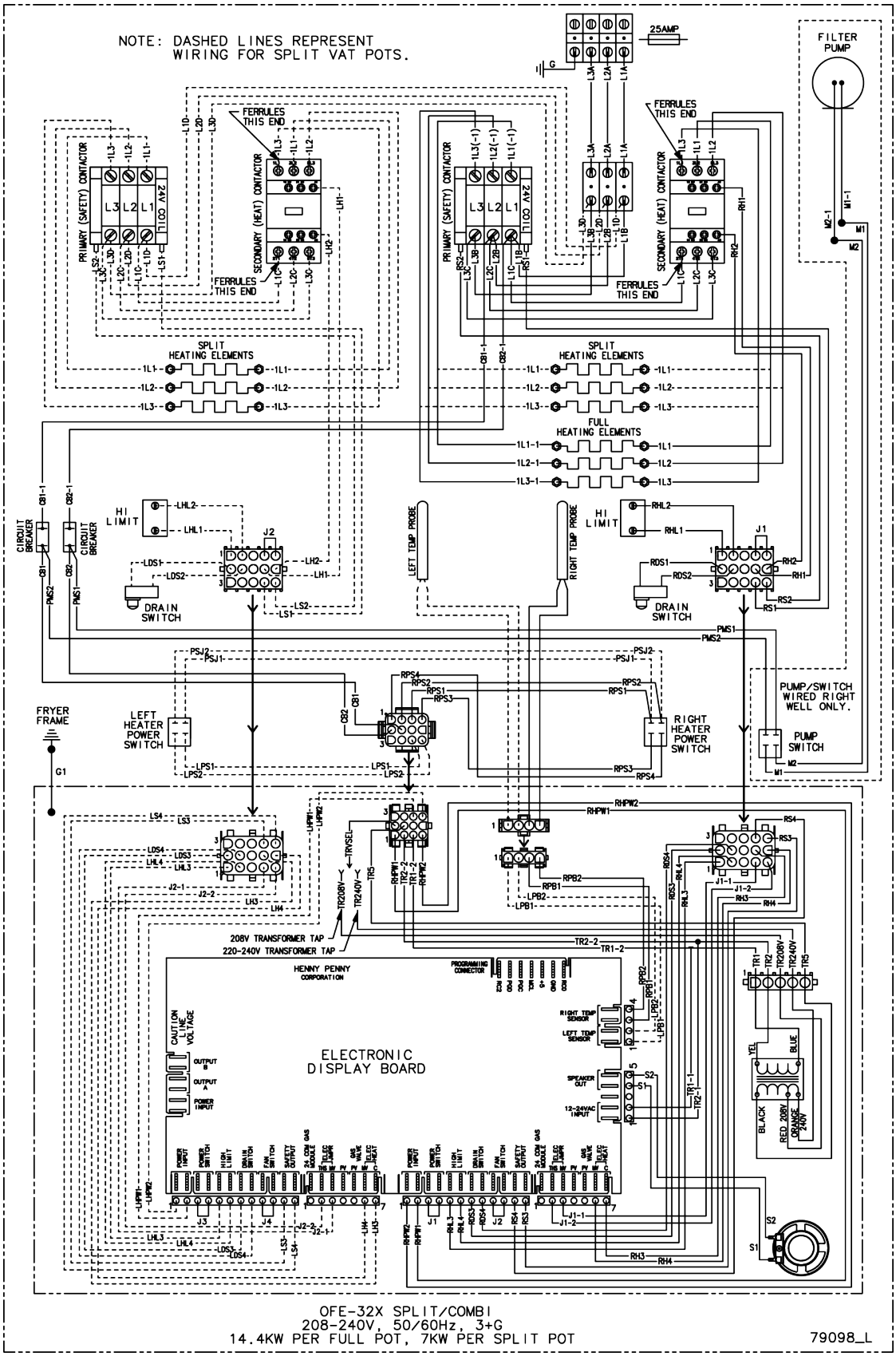

MODEL OFG/OGA-321 OPEN FRYER
220-240V 50HZ 1PH
SINGLE WELL ONLY
PUMP SWITCH
JUNCTION BOX
PUMP MOTOR
MULTI-WELLS
WHITE
BLACK
PHASE (BROWN)
NEUTRAL (BLUE)
EARTH (GRN/YEL)
POWER SWITCH
GAS VALVE
VACUUM SWITCH
DRAIN SWITCH
HI-LIMIT
IGNITION MODULE
FLAME SENSOR
SPEAKER
TEMP PROBE
P.C. BOARD
I/O BOARD
BLOWER
TRANSFORMER
LIFT MOTORS
MODEL OFG/OGA-322 OPEN FRYER
220-240V 50HZ 1PH
MODEL OFG/OGA-323 OPEN FRYER
220-240V 50HZ 1PH
68760
REV. G

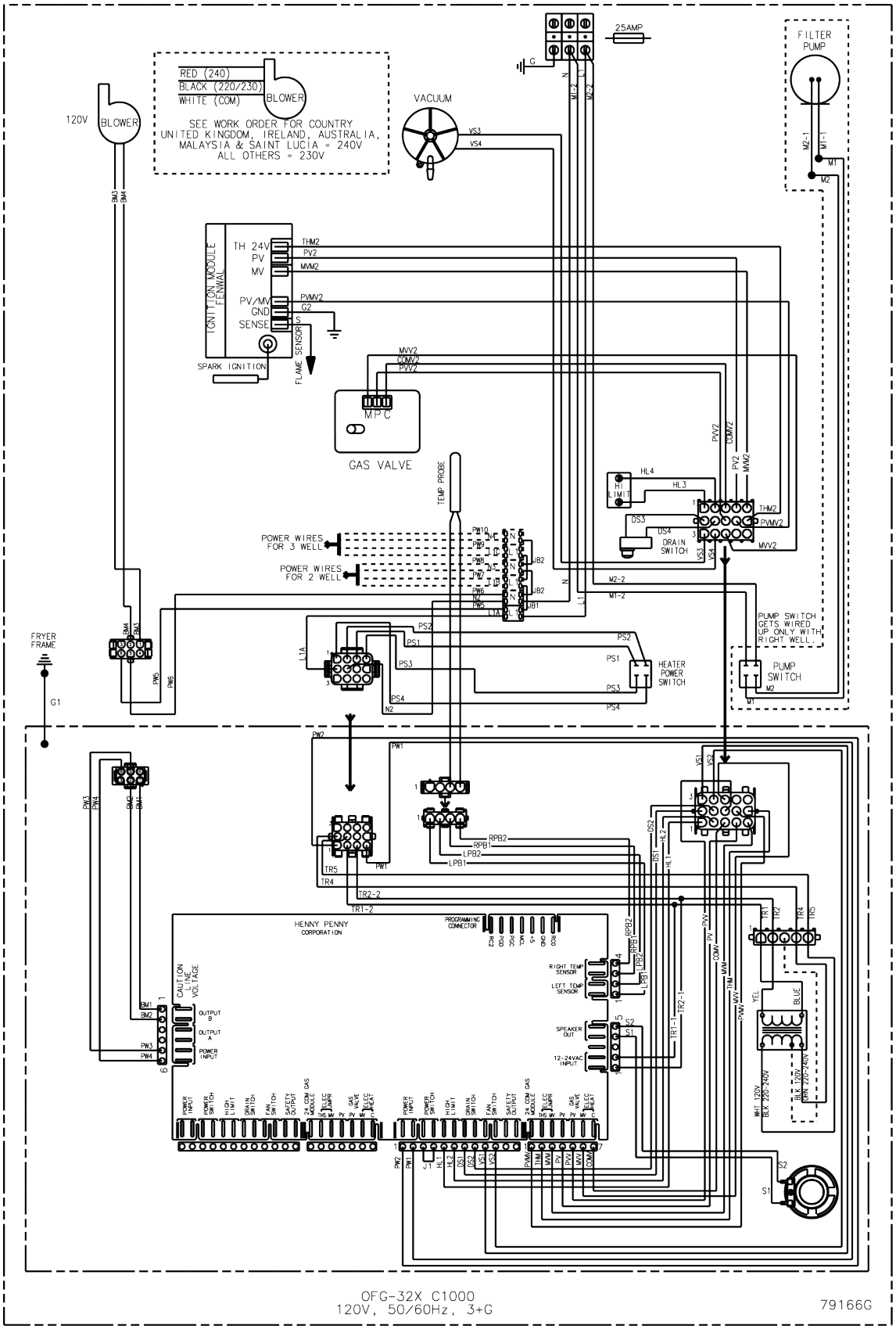

MODEL OFG/OGA-321 OPEN FRYER
230V 50HZ 1PH FRN/BELG
SINGLE WELL ONLY
PUMP SWITCH
JUNCTION BOX
PUMP MOTOR
MULTI-WELLS
GAS VALVE
SAFETY VALVE
VACUUM SWITCH
DRAIN SWITCH
HI-LIMIT
IGNITION MODULE
FENWAL
FLAME SENSOR
SPEAKER
TEMP PROBE
P.C. BOARD
I/O BOARD
POWER SWITCH
BLOWER
TRANSFORMER
LIFT MOTORS
MODEL OFG/OGA-322 OPEN FRYER
230V 50HZ 1PH FRN/BELG
MODEL OFG/OGA-323 OPEN FRYER
230V 50HZ 1PH FRN/BELG
69264_F

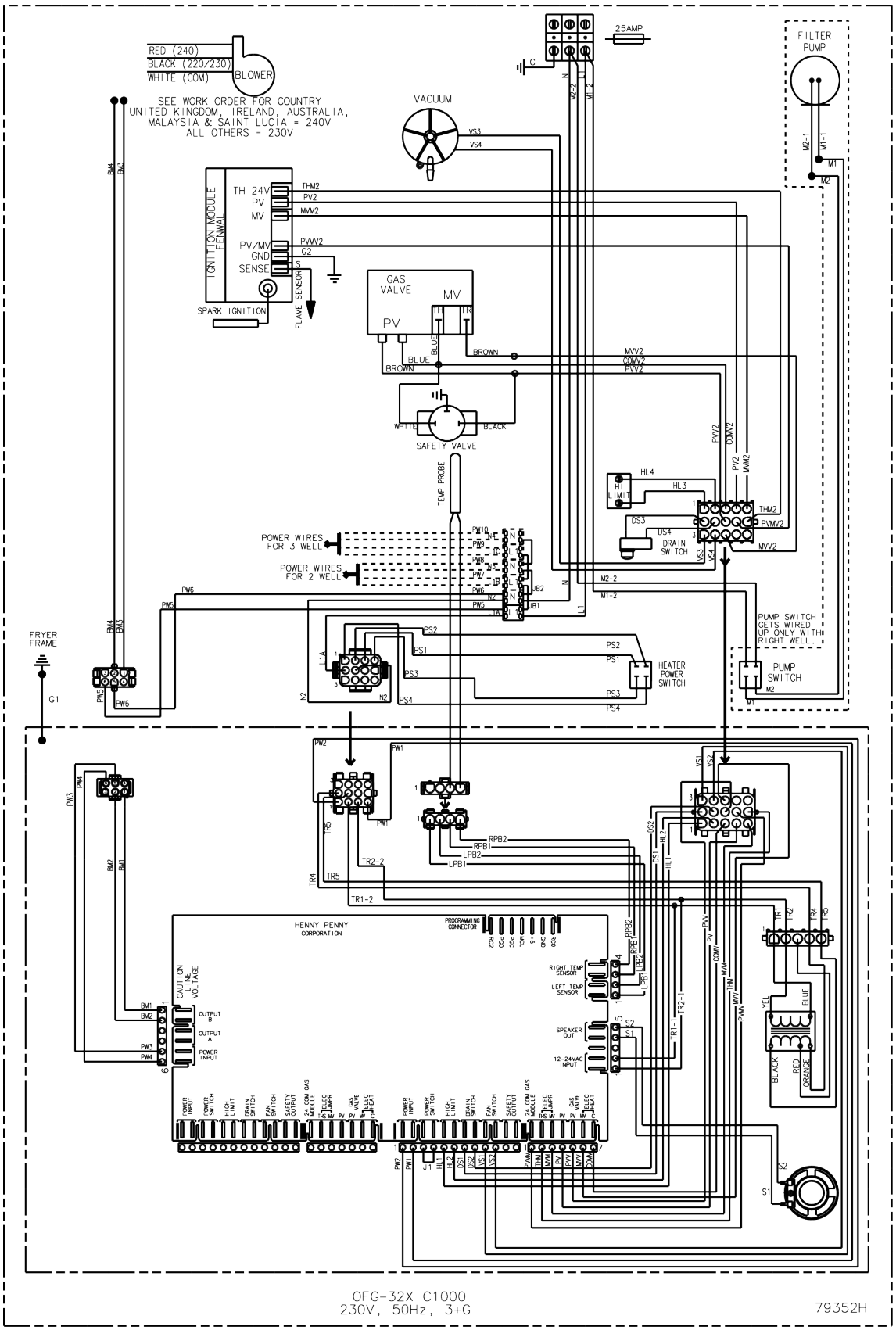
Computron 1000
Wiring Diagrams

OFE-32X – SN: BA0804018 & above
OFG-32X – SN: BN0804044 & above

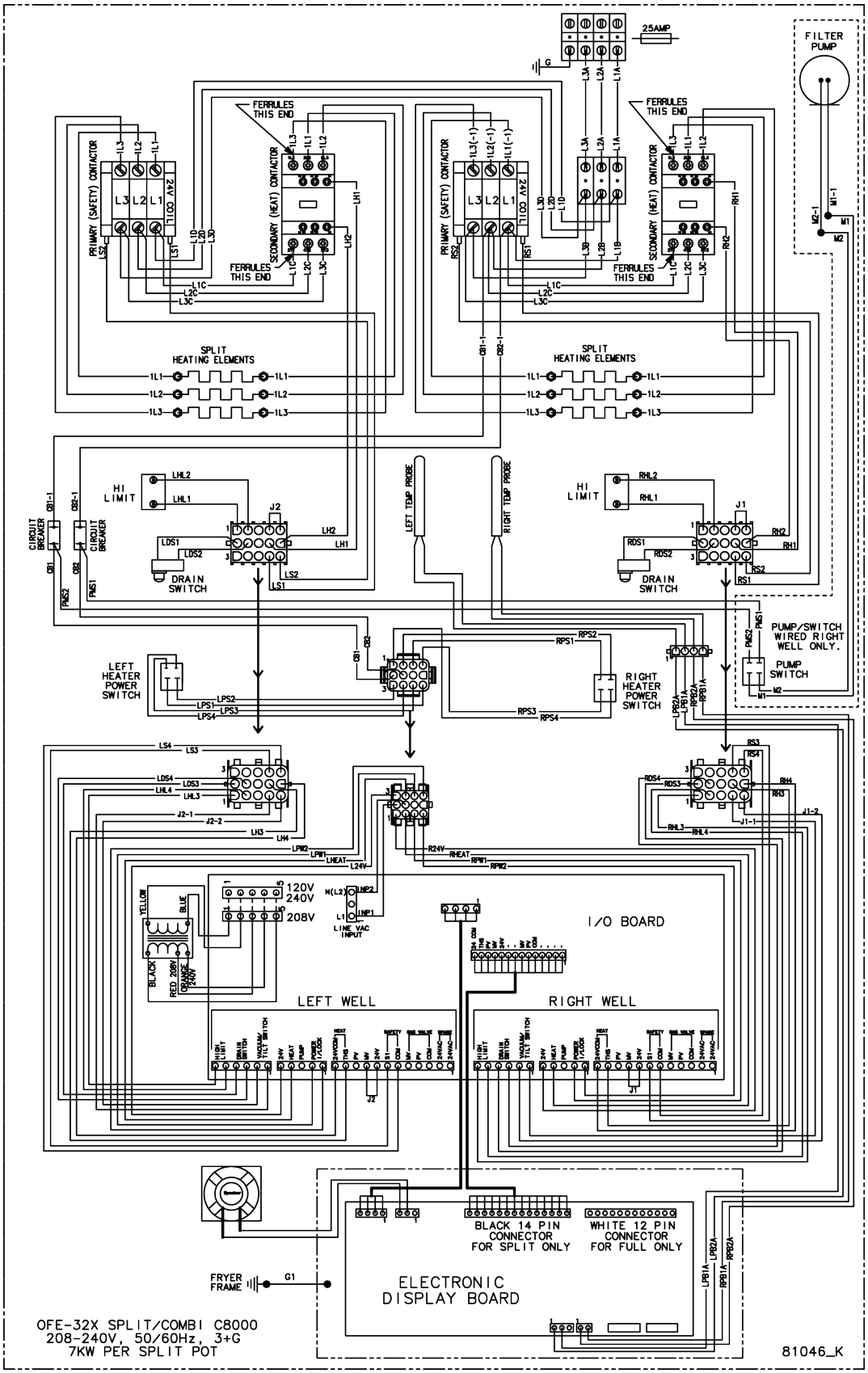

NOTE: DASHED LINES REPRESENT WIRING FOR SPLIT VAT POTS.
25AMP
FILTER PUMP
FERRULES THIS END
SECONDARY (HEAT) CONTACTOR
PRIMARY (SAFETY) CONTACTOR
24V COIL
SPLIT HEATING ELEMENTS
FULL HEATING ELEMENTS
JUMPER BAR
HI LIMIT
LEFT TEMP PROBE
RIGHT TEMP PROBE
DRAIN SWITCH
CIRCUIT BREAKER
FRYER FRAME
LEFT HEATER POWER SWITCH
RIGHT HEATER POWER SWITCH
PUMP SWITCH
208V TRANSFORMER TAP
220-240V TRANSFORMER TAP
ELECTRONIC DISPLAY BOARD
OFE-32X SPLIT/COMBI
208-240V, 50/60Hz, 3+G
14.4KW PER FULL POT 7KW PER SPLIT POT

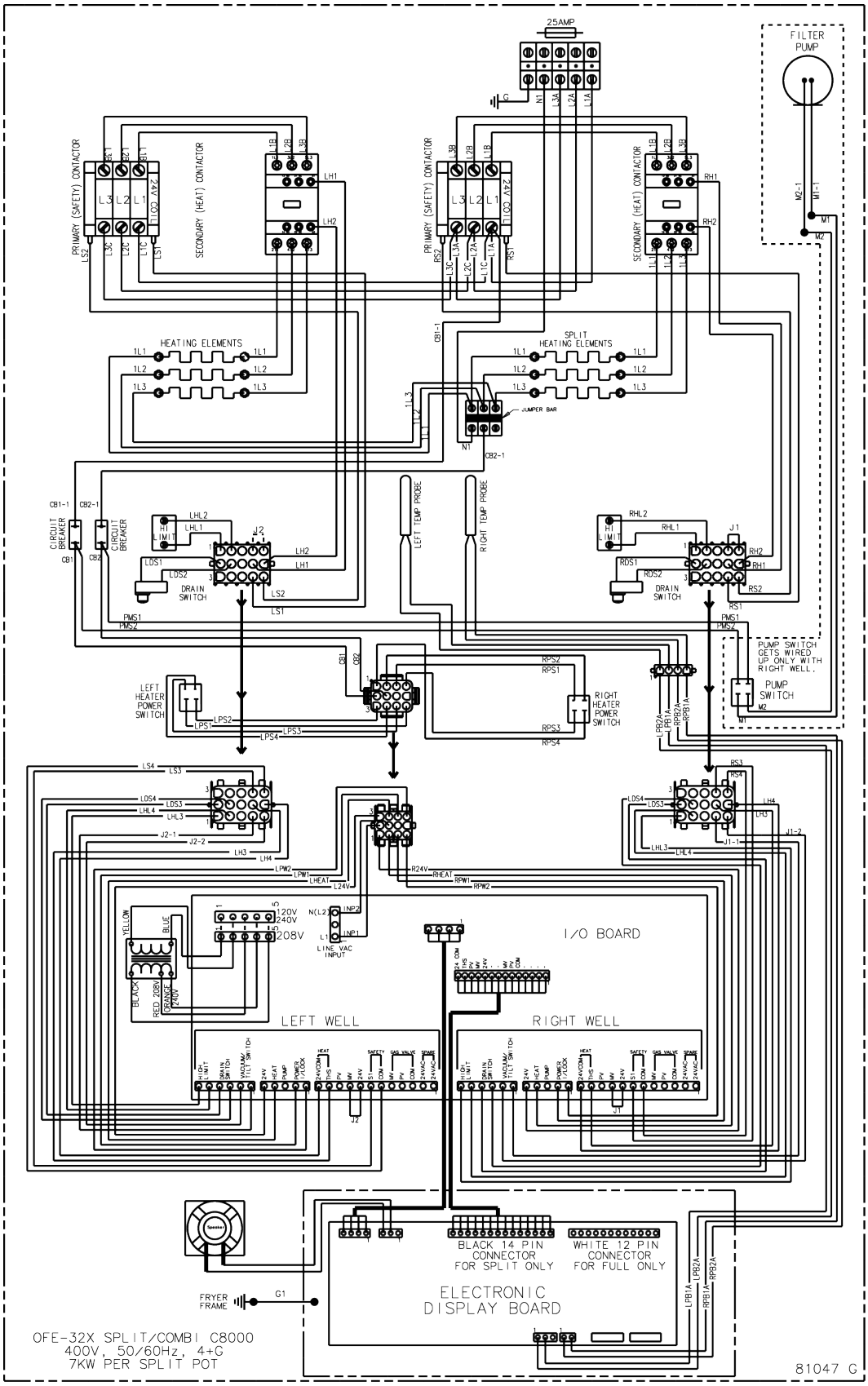

NOTE: DASHED LINES REPRESENT WIRING FOR SPLIT VAT POTS.
25AMP
FILTER PUMP
FERRULES THIS END
PRIMARY (SAFETY) CONTACTOR
SECONDARY (HEAT) CONTACTOR
24V COIL
SPLIT HEATING ELEMENTS
FULL HEATING ELEMENTS
HI LIMIT
DRAIN SWITCH
LEFT TEMP PROBE
RIGHT TEMP PROBE
CIRCUIT BREAKER
FRYER FRAME
LEFT HEATER POWER SWITCH
RIGHT HEATER POWER SWITCH
PUMP SWITCH
PUMP/SWITCH WIRED RIGHT WELL ONLY.
208V TRANSFORMER TAP
220-240V TRANSFORMER TAP
HENNY PENNY CORPORATION
PROGRAMMING CONNECTOR
ELECTRONIC DISPLAY BOARD
CAUTION LINE VOLTAGE
OUTPUT B
OUTPUT A
POWER INPUT
RIGHT TEMP SENSOR
LEFT TEMP SENSOR
SPEAKER OUT
12-24VAC INPUT
YEL
BLUE
BLACK
RED 208V
ORANGE 240V
OFE-32X SPLIT/COMBI
208-240V, 50/60Hz, 3+G
14.4KW PER FULL POT, 7KW PER SPLIT POT
79098_L

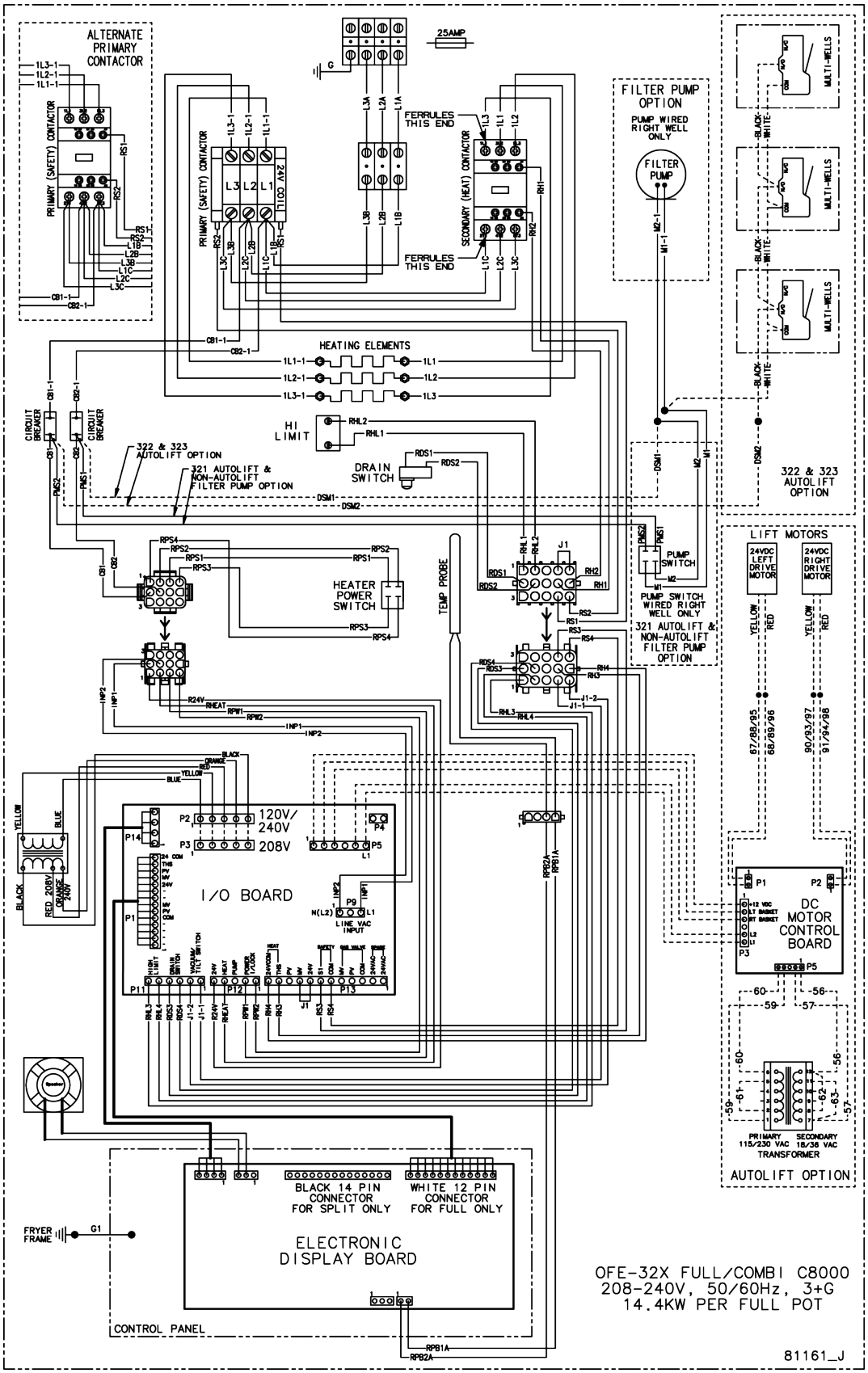

25AMP
FILTER PUMP
120V
BLOWER
RED (240)
BLACK (220/230)
WHITE (COM)
BLOWER
SEE WORK ORDER FOR COUNTRY
UNITED KINGDOM, IRELAND, AUSTRALIA,
MALAYSIA & SAINT LUCIA = 240V
ALL OTHERS = 230V
VACUUM
IGNITION MODULE
FENWAL
TH 24V
PV
MV
PV/MV
GND
SENSE
SPARK IGNITION
FLAME SENSOR
MPC
GAS VALVE
TEMP PROBE
HI LIMIT
DRAIN SWITCH
POWER WIRES FOR 3 WELL
POWER WIRES FOR 2 WELL
PUMP SWITCH GETS WIRED UP ONLY WITH RIGHT WELL
HEATER POWER SWITCH
PUMP SWITCH
FRYER FRAME
HENNY PENNY CORPORATION
PROGRAMMING CONNECTOR
RIGHT TEMP SENSOR
LEFT TEMP SENSOR
SPEAKER OUT
12-24VAC INPUT
CAUTION LINE VOLTAGE
OUTPUT B
OUTPUT A
POWER INPUT
OFG-32X C1000
120V, 50/60Hz, 3+G
79166G

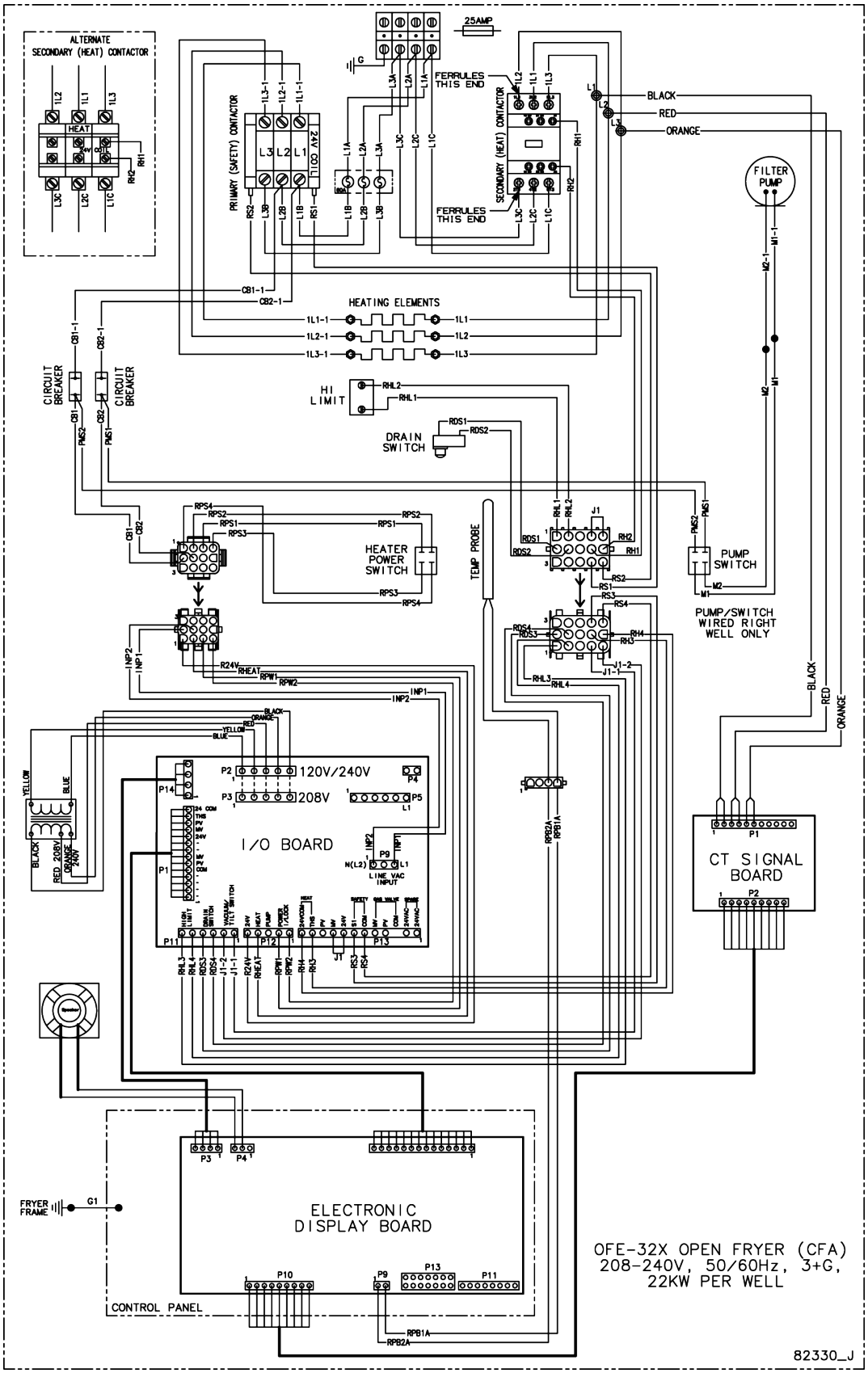

RED (240)
BLACK (220/230)
WHITE (COM)
BLOWER
SEE WORK ORDER FOR COUNTRY
UNITED KINGDOM, IRELAND, AUSTRALIA,
MALAYSIA & SAINT LUCIA = 240V
ALL OTHERS = 230V
25AMP
FILTER PUMP
VACUUM
IGNITION MODULE FENWAL
TH 24V
PV
MV
PV/MV
GND
SENSE
SPARK IGNITION
FLAME SENSOR
GAS VALVE
MV
PV
SAFETY VALVE
TEMP PROBE
POWER WIRES FOR 3 WELL
POWER WIRES FOR 2 WELL
HI LIMIT
DRAIN SWITCH
PUMP SWITCH GETS WIRED UP ONLY WITH RIGHT WELL
HEATER POWER SWITCH
PUMP SWITCH
FRYER FRAME
HENNY PENNY CORPORATION
PROGRAMMING CONNECTOR
RIGHT TEMP SENSOR
LEFT TEMP SENSOR
SPEAKER OUT
12-24VAC INPUT
CAUTION LINE VOLTAGE
OUTPUT B
OUTPUT A
POWER INPUT
OFG-32X C1000
230V, 50Hz, 3+G
79352H

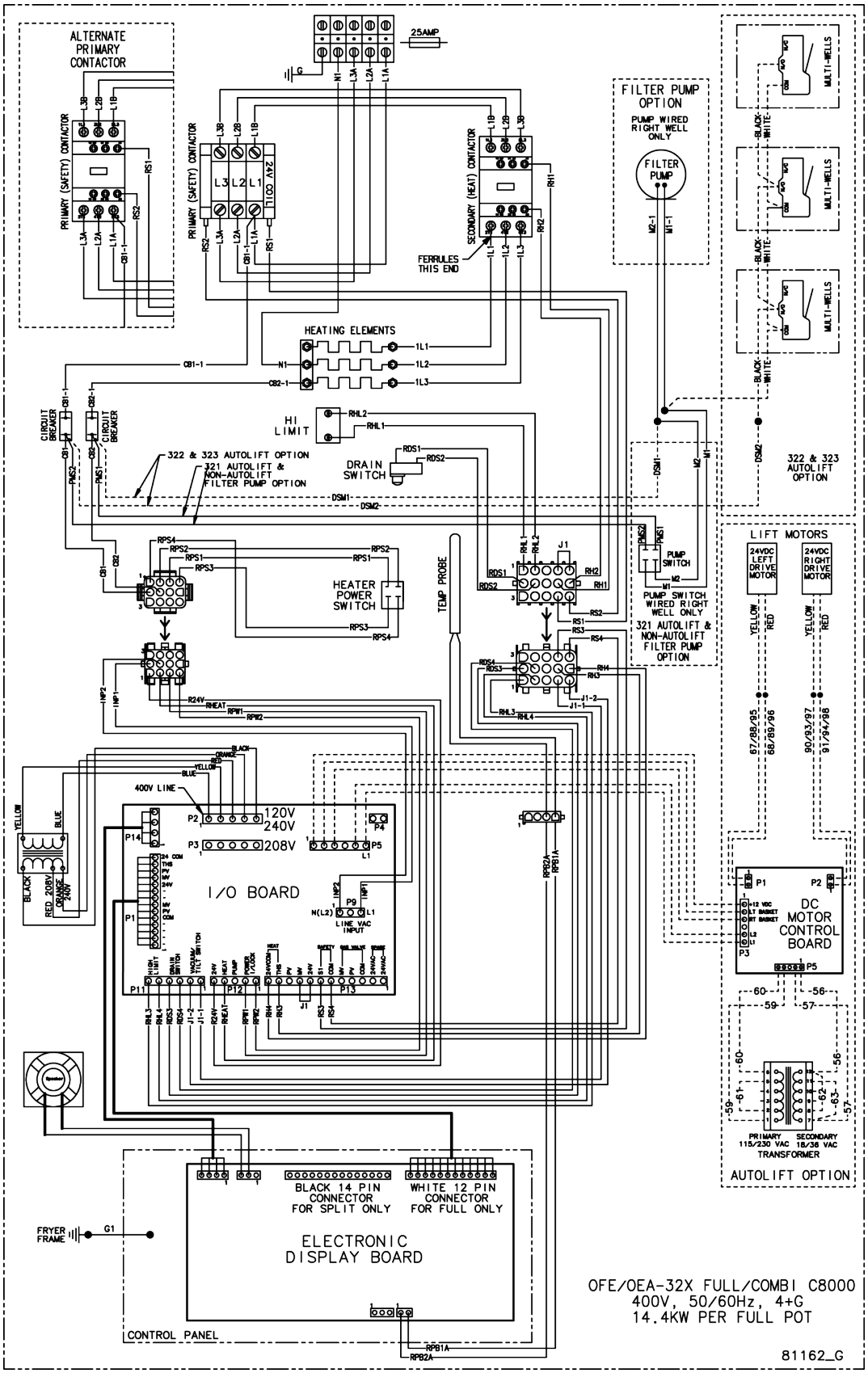
Computron 8000
Split-Vat Wiring Diagrams


25AMP
FILTER PUMP
FERRULES THIS END
PRIMARY (SAFETY) CONTACTOR
SECONDARY (HEAT) CONTACTOR
24V COIL
SPLIT HEATING ELEMENTS
HI LIMIT
CIRCUIT BREAKER
DRAIN SWITCH
LEFT TEMP PROBE
RIGHT TEMP PROBE
PUMP/SWITCH WIRED RIGHT WELL ONLY.
PUMP SWITCH
LEFT HEATER POWER SWITCH
RIGHT HEATER POWER SWITCH
120V
240V
208V
LINE VAC INPUT
I/O BOARD
LEFT WELL
RIGHT WELL
BLACK 14 PIN CONNECTOR FOR SPLIT ONLY
WHITE 12 PIN CONNECTOR FOR FULL ONLY
FRYER FRAME
ELECTRONIC DISPLAY BOARD
OFE-32X SPLIT/COMBI C8000
208-240V, 50/60Hz, 3+G
7KW PER SPLIT POT
81046_K


25AMP
FILTER PUMP
PRIMARY (SAFETY) CONTACTOR
SECONDARY (HEAT) CONTACTOR
HEATING ELEMENTS
SPLIT HEATING ELEMENTS
JUMPER BAR
CIRCUIT BREAKER
HI LIMIT
DRAIN SWITCH
LEFT TEMP PROBE
RIGHT TEMP PROBE
PUMP SWITCH GETS WIRED UP ONLY WITH RIGHT WELL.
PUMP SWITCH
LEFT HEATER POWER SWITCH
RIGHT HEATER POWER SWITCH
LINE VAC INPUT
I/O BOARD
LEFT WELL
RIGHT WELL
BLACK 14 PIN CONNECTOR FOR SPLIT ONLY
WHITE 12 PIN CONNECTOR FOR FULL ONLY
ELECTRONIC DISPLAY BOARD
FRYER FRAME
OFE-32X SPLIT/COMBI C8000
400V, 50/60Hz, 4+G
7KW PER SPLIT POT
81047 G


ALTERNATE PRIMARY CONTACTOR
25AMP
FERRULES THIS END
FILTER PUMP OPTION
PUMP WIRED RIGHT WELL ONLY
FILTER PUMP
MULTI-WELLS
HEATING ELEMENTS
CIRCUIT BREAKER
HI LIMIT
322 & 323 AUTOLIFT OPTION
321 AUTOLIFT & NON-AUTOLIFT FILTER PUMP OPTION
DRAIN SWITCH
322 & 323 AUTOLIFT OPTION
LIFT MOTORS
24VDC LEFT DRIVE MOTOR
24VDC RIGHT DRIVE MOTOR
HEATER POWER SWITCH
TEMP PROBE
PUMP SWITCH
PUMP SWITCH WIRED RIGHT WELL ONLY
321 AUTOLIFT & NON-AUTOLIFT FILTER PUMP OPTION
120V/ 240V
208V
I/O BOARD
LINE VAC INPUT
DC MOTOR CONTROL BOARD
PRIMARY 115/230 VAC SECONDARY 18/36 VAC TRANSFORMER
AUTOLIFT OPTION
BLACK 14 PIN CONNECTOR FOR SPLIT ONLY
WHITE 12 PIN CONNECTOR FOR FULL ONLY
ELECTRONIC DISPLAY BOARD
FRYER FRAME
CONTROL PANEL
OFE-32X FULL/COMBI C8000
208-240V, 50/60Hz, 3+G
14.4KW PER FULL POT
81161_J


ALTERNATE SECONDARY (HEAT) CONTACTOR
HEAT
25AMP
FERRULES THIS END
PRIMARY (SAFETY) CONTACTOR
SECONDARY (HEAT) CONTACTOR
BLACK
RED
ORANGE
FILTER PUMP
HEATING ELEMENTS
CIRCUIT BREAKER
HI LIMIT
DRAIN SWITCH
HEATER POWER SWITCH
TEMP PROBE
PUMP SWITCH
PUMP/SWITCH WIRED RIGHT WELL ONLY
120V/240V
208V
I/O BOARD
LINE VAC INPUT
CT SIGNAL BOARD
FRYER FRAME
ELECTRONIC DISPLAY BOARD
CONTROL PANEL
OFE-32X OPEN FRYER (CFA)
208-240V, 50/60Hz, 3+G,
22KW PER WELL
82330_J


ALTERNATE PRIMARY CONTACTOR
25AMP
PRIMARY (SAFETY) CONTACTOR
SECONDARY (HEAT) CONTACTOR
FERRULES THIS END
FILTER PUMP OPTION
PUMP WIRED RIGHT WELL ONLY
FILTER PUMP
MULTI-WELLS
HEATING ELEMENTS
HI LIMIT
CIRCUIT BREAKER
322 & 323 AUTOLIFT OPTION
321 AUTOLIFT & NON-AUTOLIFT FILTER PUMP OPTION
DRAIN SWITCH
HEATER POWER SWITCH
TEMP PROBE
PUMP SWITCH
PUMP SWITCH WIRED RIGHT WELL ONLY
LIFT MOTORS
24VDC LEFT DRIVE MOTOR
24VDC RIGHT DRIVE MOTOR
400V LINE
120V
240V
208V
I/O BOARD
LINE VAC INPUT
DC MOTOR CONTROL BOARD
PRIMARY 115/230 VAC
SECONDARY 18/36 VAC
TRANSFORMER
AUTOLIFT OPTION
BLACK 14 PIN CONNECTOR FOR SPLIT ONLY
WHITE 12 PIN CONNECTOR FOR FULL ONLY
ELECTRONIC DISPLAY BOARD
FRYER FRAME
CONTROL PANEL
OFE/OEA-32X FULL/COMBI C8000
400V, 50/60Hz, 4+G
14.4KW PER FULL POT
81162_G