



**Henny Penny
Pressure Fryers
Model 500
Model 561
Model 600**

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 rear shroud cover of the control panel.

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

The Model 600 Fryer is equipped with a continuous pilot. But Fryer cannot be operated without electric power. Fryer will automatically return to normal operation when power is restored.

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.

CAUTION FIRE HAZARD

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



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.



DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE. FIRE OR EXPLOSION COULD RESULT.

Technical Data for CE Marked Products

Nominal Heat Input: (Net)	Natural (I_{2H}) = 21.1 KW (72,000 Btu/h) Natural (I_{2E}) = 21.1 KW (72,000 Btu/h) Natural (I_{2E+}) = 21.1 KW (72,000 Btu/h) Natural (I_{2L}) = 21.1 KW (72,000 Btu/h) Liquid Propane (I_{3p}) = 21.1 KW (72,000 Btu/h)
Nominal Heat Input: (Gross)	Natural (I_{2H}) = 23.4 KW (80,000 Btu/h) Natural (I_{2E}) = 23.4 KW (80,000 Btu/h) Natural (I_{2E+}) = 23.4 KW (80,000 Btu/h) Natural (I_{2L}) = 23.4 KW (80,000 Btu/h) Liquid Propane (I_{3p}) = 22.9 KW (78,000 Btu/h)
Supply Pressure:	Natural (I_{2H}) = 20 mbar Natural (I_{2E}) = 20 mbar Natural (I_{2E+}) = 20/25 mbar Natural (I_{2L}) = 25 mbar Liquid Propane (I_{3p}) = 30 mbar Liquid Propane (I_{3p}) = 37 mbar Liquid Propane (I_{3p}) = 50 mbar
Test Point Pressure:	Natural (I_{2H}) = 8.7 mbar Natural (I_{2E}) = 8.7 mbar Natural (I_{2E+}) = 8.7/10 mbar Natural (I_{2L}) = 10 mbar Liquid Propane (I_{3p}) = 25 mbar
Injector Size:	Natural (I_{2H}) = 1.04 mm Natural (I_{2E}) = 1.04 mm Natural (I_{2E+}) = 1.04 mm Natural (I_{2L}) = 1.04 mm Liquid Propane (I_{3p}) = 0.66 mm
Restrictor Size:	Natural (I_{2E+}) = 4.1 mm

This appliance must be installed in accordance with the manufacturer's instructions and the regulations in force and only used in a suitably ventilated location. Read the instructions fully before installing or using the appliance.

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LIMITED WARRANTY FOR HENNY PENNY EQUIPMENT

Subject to the following conditions, Henny Penny Corporation makes the following limited warranties to the original purchaser only for Henny Penny appliances and replacement parts:

NEW EQUIPMENT: Any part of a new appliance, except baskets, lamps, and fuses, which proves to be defective in material or workmanship within two (2) years from date of original installation, will be repaired or replaced without charge F.O.B. factory, Eaton, Ohio, or F.O.B. authorized distributor. Baskets will be repaired or replaced for ninety (90) days from date of original installation. Lamps and fuses are not covered under this Limited Warranty. To validate this warranty, the registration card for the appliance must be mailed to Henny Penny within ten (10) days after installation.

FILTER SYSTEM: Failure of any parts within a fryer filter system caused by the use of the non-OEM filters or other unapproved filters is not covered under this Limited Warranty.

REPLACEMENT PARTS: Any appliance replacement part, except lamps and fuses, which proves to be defective in material or workmanship within ninety (90) days from date of original installation will be repaired or replaced without charge F.O.B. factory, Eaton, Ohio, or F.O.B. authorized distributor.

The warranty for new equipment covers the repair or replacement of the defective part and includes labor charges and maximum mileage charges of 200 miles round trip for a period of one (1) year from the date of original installation.

The warranty for replacement parts covers only the repair or replacement of the defective part and does not include any labor charges for the removal and installation of any parts, travel, or other expenses incidental to the repair or replacement of a part.

EXTENDED FRYPOT WARRANTY: Henny Penny will replace any frypot that fails due to manufacturing or workmanship issues for a period of up to seven (7) years from date of manufacture. This warranty shall not cover any frypot that fails due to any misuse or abuse, such as heating of the frypot without shortening.

0 TO 3 YEARS: During this time, any frypot that fails due to manufacturing or workmanship issues will be replaced at no charge for parts, labor, or freight. Henny Penny will either install a new frypot at no cost or provide a new or reconditioned replacement fryer at no cost.

3 TO 7 YEARS: During this time, any frypot that fails due to manufacturing or workmanship issues will be replaced at no charge for the frypot only. Any freight charges and labor costs to install the new frypot as well as the cost of any other parts replaced, such as insulation, thermal sensors, high limits, fittings, and hardware, will be the responsibility of the owner.

Any claim must be presented to either Henny Penny or the distributor from whom the appliance was purchased. No allowance will be granted for repairs made by anyone else without Henny Penny's written consent. If damage occurs during shipping, notify the sender at once so that a claim may be filed.

THE ABOVE LIMITED WARRANTY SETS FORTH THE SOLE REMEDY AGAINST HENNY PENNY FOR ANY BREACH OF WARRANTY OR OTHER TERM. BUYER AGREES THAT NO OTHER REMEDY (INCLUDING CLAIMS FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES) SHALL BE AVAILABLE.

The above limited warranty does not apply (a) to damage resulting from accident, alteration, misuse, or abuse; (b) if the equipment's serial number is removed or defaced; or (c) for lamps and fuses. THE ABOVE LIMITED WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS, AND ALL OTHER WARRANTIES ARE EXCLUDED. HENNY PENNY NEITHER ASSUMES NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT ANY OTHER OBLIGATION OR LIABILITY.

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, re-check the installation per Section 2 of the Operator's Manual.

Before troubleshooting, always recheck the operating procedure per Section 3 of the Operator's Manual.

1-2. SAFETY

The Henny Penny Pressure Fryer has many safety features incorporated. However, the only way to ensure a safe operation is to fully understand the proper installation, operation, and maintenance procedures. The instructions in this manual have been prepared to aid you in learning the proper procedures. Where information is of particular importance or safety related, the words DANGER, WARNING, CAUTION, and NOTICE are used. Their usage is described below.



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 indicates a potentially hazardous situation which, if not avoided, may 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.



Refer to the maintenance procedures in Section 2 of this manual to safely and properly make the checkout and repair needed. If maintenance procedures are not followed correctly, injuries and/or property damage could result.

1-3. TROUBLESHOOTING (Continued)

PROBLEM	CAUSE	CORRECTION
COOKING SECTION		
Product Color Not Correct:		
A. Too Dark	• Temperature too high • Shortening too old • Shortening too dark • Dip solution too strong for product • Breeding product too far in advance	• Reduce thermostat setting • Remove and replace defective thermostat per Thermostat Replacement section • Change shortening • Filter shortening • Shortening taste test, see Operator Manual • Change shortening • Use correct dip solution or shorten product immersion time • Bread product closer to actual frying period
B. Too Light	• Temperature too low • Dip solution too weak for product • Incorrect preheat procedures • Frypot overloaded with product • Slow fryer heatup/recovery	• Increase temperature • Remove and replace defective thermostat per Thermostat Replacement section • Correct dip solution • Allow proper preheat time • Stir shortening prior to dropping product into frypot • Reduce cooking load • Refer to burner or heating elements in Maintenance section

1-3. TROUBLESHOOTING (Continued)

PROBLEM	CAUSE	CORRECTION
COOKING SECTION (Continued)		
C. Product Greasy	• Shortening old • Temperature too low • Frypot overloaded • Product not removed from frypot immediately after depressurization	• Replace shortening • Increase thermostat settings • Temperature not recovered when product was dropped in frypot basket • Replace thermostat if needed • Reduce cooking load • Remove product immediately after depressurization of the frypot
D. Spotted Product	• Improper separation of the product • Product was incorrectly dipped in water before breading • Breading not uniform on product • Product sticking together	• Refer to Operator's Manual • Agitate product during the dipping procedure • Sift breading regularly • Separate product during breading • Refer to Operator Manual • Burned breading particles on product • Filter the shortening more frequently • Separate product prior to pressure cooking; refer to Operator's Manual
E. Dryness of Product	• Moisture loss prior to cooking • Over cooking the product	• Use fresh products • Keep product covered with a moist cloth to reduce evaporation • Reduce cooking time • Reduce cooking temperature

1-3. TROUBLESHOOTING (Continued)

PROBLEM	CAUSE	CORRECTION
COOKING SECTION (Continued)		
E. Dryness of Product (Continued)	• Low operating pressure • Product load too small	• Check pressure gauge reading; check for pressure leaks • Increase quantity to obtain correct operating pressure and product quality
Product Flavor (Taste):		
A. Salty taste	• Breeding mixture is too salty • Marination mixture too concentrated • Incorrect choice of breeding	• Sift breeding after each use • Incorrect breeding mixture • Discard old breeding • Reduce the concentration of the marination mixture • Use breeding designed for the desired product
B. Burned taste	• Burned shortening flavor • Shortening needs filtering • Frypot not properly cleaned	• Replace shortening • Filter shortening more frequently • Drain and clean frypot
C. Bland taste	• Raw product not fresh • Breeding mixture incorrect for product (spice content too low) • Cooking temperature too high (spice flavors lost) • Breeding does not adhere to product	• Use fresh raw products • Use breeding designed for desired product • Use correct temperature for breeding used • Use correct dip and breeding, and use correct procedure for the product

1-3. TROUBLESHOOTING (Continued)

PROBLEM	CAUSE	CORRECTION
COOKING SECTION (Continued)		
D. Rancid taste	• Shortening too old • Noncompatible products cooked within the same shortening • Infrequent filtering • Raw product not fresh	• Replace shortening, and follow recommended care and use of shortening; refer to Operator's Manual • Replace shortening • Use compatible products, and follow recommended care and use of shortening; refer to Operator's Manual • Replace shortening, and follow recommended care and use of shortening; refer to Operator's Manual • Use fresh product
General:		
A. Meat separation from bone	• Incorrect meat cut • Overcooking • Raw product contains too much water • Product not fresh	• Use correct meat cutting procedures • Reduce cooking time • Allow product to drain after marinating • Use fresh product
B. Bone color not proper	• Using frozen product (black bone) • Improper handling of product (black bone) • Product not thoroughly cooked (red bone)	• Use fresh product • Use proper handling procedures for product • Increase cooking time

1-3. TROUBLESHOOTING (Continued)

PROBLEM	CAUSE	CORRECTION
COOKING SECTION (Continued)		
C. Breading falls off	• Incorrect breading procedures • Product partially frozen during breading • Improper handling of cooked product • Excessive stirring of product prior to closing the lid	• Use correct breading procedure; refer to Operator's Manual • Thoroughly thaw the product, before breading • Handle cooked product carefully • Separate the product; refer to Operator's Manual
D. Product sticking together	• Product breaded too long prior to cooking • Improper separation procedures prior to closing the lid • Frypot overloaded with product • Improper loading procedure	• Refer to breading & frying instructions • Separate the product; refer to Operator's Manual • Reduce the cooking load • Load product properly into frypot; refer to Operator's Manual
POWER SECTION		
With switch in POWER position, the fryer is completely inoperative (NO POWER)	• Open circuit	• Check to see that unit is plugged in • Check breaker or fuse at supply box • Check control panel fuses per Electrical Components section (electric model only) • Check voltage at wall receptacle • Check MAIN POWER switch per Electrical Components section; replace if defective • Check cord and plug per Electrical Components section • Check circuit breaker on single phase fryers

1-3. TROUBLESHOOTING (Continued)

PROBLEM	CAUSE	CORRECTION
PRESSURE SECTION		
Pressure will not exhaust at end of cook cycle	- Exhaust line from solenoid valve to expansion tank clogged - Solenoid valve clogged	- Release pressure from frypot; clean all pressure lines, exhaust stacks, and expansion tank on gas model - Check and clean solenoid valve per Pressure Regulation/Exhaust section
Operating pressure too high	- Deadweight clogged - Exhaust line to stack clogged	- Place proper quantity of moist product within frypot to generate steam - Clean exhaust line to stack
Pressure does not build	- Not enough product in fryer or product not moist - Metal shipping spacer not removed from deadweight - Lid open or not latched - Solenoid valve leaking or not closing. - Deadweight valve leaking - Main timer not closing solenoid - Lid gasket leaking - Safety relief valve leaking	- Place proper quantity of moist product into frypot to generate steam - Remove shipping spacer per Operator's Manual - Close and latch lid - Check or clean solenoid valve per Pressure Regulation/Exhaust section - Repair per Pressure Regulation/Exhaust section - Check main timer per Timing Control section - Adjust lid limit stop; if this does not correct the problem, reverse the lid gasket; if this fails to correct the problem, replace the lid gasket - Check and replace, if necessary, per Pressure Regulation/Exhaust section

1-3. TROUBLESHOOTING (Continued)

PROBLEM	CAUSE	CORRECTION
FILTER SYSTEM SECTION		
Filter motor runs but pumps shortening slowly	• Filter valve not open • Pump clogged • Filter frame not properly assembled • Filter line connections loose • Solidified shortening in lines • Charcoal filter clogged (if applicable)	• Open filter valve • Remove and clean pump per Filtering System section • Handles must put pressure on filter • Tighten all filter line connections • Clear all filter lines of solidified shortening • Change charcoal filter (if applicable)
Pump switch ON, motor does not run	• Defective switch • Defective motor • Motor thermal protector tripped	• Check/replace switch per Electrical Components section • Check/replace motor per Filtering System section • Reset thermal switch per Filtering System section

1-3. TROUBLESHOOTING (Continued)

PROBLEM	CAUSE	CORRECTION
FILTER SYSTEM SECTION (Continued)		
Motor hums but will not pump	• Clogged lines or pump	• Remove and clean pump and lines per Filtering System section • Replace pump seal, rotor and rollers per Filtering System section
HEATING OF SHORTENING SECTION		
Shortening will not heat (Electric Model)	• Blown fuse or tripped circuit breaker at supply box or control panel • Blown fuse at control panel • Faulty main switch • No power • Faulty contactor • High limit control switch open • Faulty thermostat • Faulty high limit control switch	• Reset breaker or replace fuse • Check fuse per Electrical Components section • Check main switch per Electrical Components section • Check cord and plug and power at wall receptacle per Electrical Components section • Check contactor per Heating Contactors section • Press red high limit reset button per High Temperature Limit Control section • Check thermostat per Thermostat Replacement section • Check high limit control switch per High Temperature Limit Control section
Heating of shortening too slow (Electric Model)	• Low or improper voltage • Weak or burnt out element(s) • Points in contactor bad • Wire(s) loose • Burnt or charred wire connection	• Use a meter and check the receptacle against data plate • Check heating element(s) per Heating Elements section • Check contactor per Heating Contactors section • Tighten • Replace wire and clean connectors

1-3. TROUBLESHOOTING (Continued)

PROBLEM	CAUSE	CORRECTION
HEATING OF SHORTENING SECTION		
Shortening overheating (electric model)	• Check thermostat • Check faulty contactor per Heating Contactors section	• Check faulty thermostat per Thermostat Replacement section • Check contactor for not opening
Shortening will not heat (gas model)	• Pilot not lit • Plugged pilot orifice, and/or pilot supply tube • Gas supply off • Faulty gas control valve • Air in gas supply line	• Light pilot per Gas Pilot Lighting Procedure section in Operator's Manual • Unplug pilot orifice and/or pilot supply tube • Turn ON gas supply • Replace gas control valve • Bleed air from supply line
A. Pilot will not light		
B. Pilot will not stay lit	• Faulty thermocouple • Pilot magnetic plug	• Replace thermocouple per Thermocouple section • Replace gas control valve per Gas Control Valve section
C. Burner will not light, pilot lit (gas model)	• Drain valve open • High limit control switch open • Faulty high limit control switch • Possible faulty gas control valve	• Close drain valve • Press red high limit reset per High Temperature Limit Control section • With power removed from fryer, check across high limit switch terminals with ohmmeter; replace if no reading is indicated on meter • With power removed from fryer, check across electrical leads of gas control valve with ohmmeter, and gas control valve in ON position; Ohm reading should be 350 ohms resistance; replace the control valve if not within 10%

1-3. TROUBLESHOOTING (Continued)

PROBLEM	CAUSE	CORRECTION
HEATING OF SHORTENING SECTION (Continued)		
C. Burner will not light, pilot lit (gas model) (continued)	• Possible faulty thermostat	• Check thermostat per Thermostat Replacement section; replace thermostat if found to be faulty
Heating of shortening too slow (gas model)	• Supply line too small - low gas volume • Incorrect jet size • Improper ventilation system	• Increase supply line size. Refer to installation instructions in Operator's Manual • Replace with proper size jet for type of gas, and altitude (contact factory) • Refer to Section 1 of Operator's Manual
Shortening overheating (gas model)	• Possible faulty thermostat	• Check thermostat per Thermostat Replacement section; replace thermostat if found to be faulty

SHORTENING FOAMING/DRAINING

Foaming or boiling over of shortening (gas/electric models)	• Water in shortening • Condensation line stopped up • Improper or bad shortening • Improper filtering • Improper rinsing after cleaning the fryer	• At end of cook cycle, drain shortening and clean frypot, add fresh shortening, and check procedure for raising lid • Remove and clean condensation line • Use recommended shortening • Refer to the procedure covering filtering the shortening • Clean and neutralize the frypot; rinse with vinegar to remove the alkaline then rinse with hot water, and dry frypot
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1-3. TROUBLESHOOTING (Continued)

PROBLEM	CAUSE	CORRECTION
SHORTENING FOAMING/DRAINING (Continued)		
Shortening will not drain from frypot (all models)	• Drain valve clogged with crumbs • Drain valve will not open by turning handle	• Open valve - force cleaning brush through drain opening • Replace cotter pins in valve coupling
MAIN TIMER SECTION		
Timer fails to run	• No power input	• Check timer switch • Check timer motor
Buzzer continues to buzz	• Timer set at zero • Faulty microswitch	• Set timer indicator to a setting other than zero • Check and replace faulty microswitch per Electrical Components section
Buzzer will not buzz	• Possible faulty buzzer • Timer indicator not returning to zero	• Check buzzer per Timing Control section • Replace timer per Timing Control section
Timer will not reset	• Faulty timer	• Replace timer
Timer light out	• Faulty lamp	• Replace lamp per Timing Control section
LID SECTION		
Gasket coming out of lid liner	• Crumbs under gasket	• Remove gasket and clean per Pressure Regulation/Exhaust section • Clean top rim of frypot • Replace worn or damaged gasket per Pressure Regulation/Exhaust section
Lid spindle will not turn or turns hard with lid open	• Spindle dry • Worn acme nut	• Lubricate spindle per Pressure Regulation/Exhaust section • Replace acme nut per Pressure Regulation/Exhaust section

1-3. TROUBLESHOOTING (Continued)

PROBLEM	CAUSE	CORRECTION
LID SECTION (Continued)		
Lid will not unlatch from closed position	Lid gasket not seated properly or idle nut not adjusted	- To check the problem, perform the following procedures: - Remove pressure from frypot. - Turn main switch to off position. - Drain shortening from frypot. <i>The next procedure must be performed while holding the lid closed until the lid latch is free from the crossarm. Failure to hold down the lid will result in the lid springing back to a full open position. Personal injury, or damage to the hinge may result.</i> - Remove Tru-Arc ring. Drive latch pin out. Lid will open. - Raise lid slowly. - Reinstall latch. - Adjust limit stop, per Pressure Regulation/Exhaust section. - Lid gasket should be properly seated in lid liner.

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 Section 1, Troubleshooting. It will aid you in determining the cause of the malfunction.

2-2. MAINTENANCE HINTS

1. You may use two test instruments to check the electric components.
 - A continuity light
 - An ohmmeter
2. When the manual refers to the circuit being closed, the continuity light will be illuminated or the ohmmeter should read zero unless otherwise noted.
3. When the manual refers to the circuit being open, the continuity light will not illuminate or the ohmmeter will read 1 (one).

NOTICE

A continuity tester cannot be used to check coils or motors.

2-3. PREVENTIVE MAINTENANCE SCHEDULE

To ensure a long life of the fryers and their components, regular maintenance should be performed. Refer to the chart below.

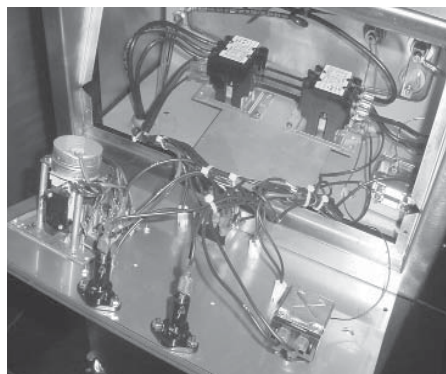
Frequency	Action
Daily (3-4 loads)	Filter shortening
Daily	Clean deadweight valve cap, weight, and orifice
30 Days	Lubricate spindle threads and ball seat
90 Days	Reverse lid gasket
90 Days	Check limit stop adjustment
90 Days	Check and tighten element spreader bars
Once a year	Remove and clean safety relief valve

2-4. REMOVING THE CONTROL PANEL

To replace parts inside the fryer you will often need to remove the control panel. The following steps provide the correct procedure:



Step 3



Step 4

Removal

1. Place the main power switch to the OFF position.
(This switch is labeled POWER/OFF/PUMP.)



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 two screws from the bottom of the control panel.
3. Carefully slide the control panel upward until it lifts off the metal hangers.
4. With the fryer door closed, place the lower edge of the control panel in the slot between the door and the frame of the fryer.

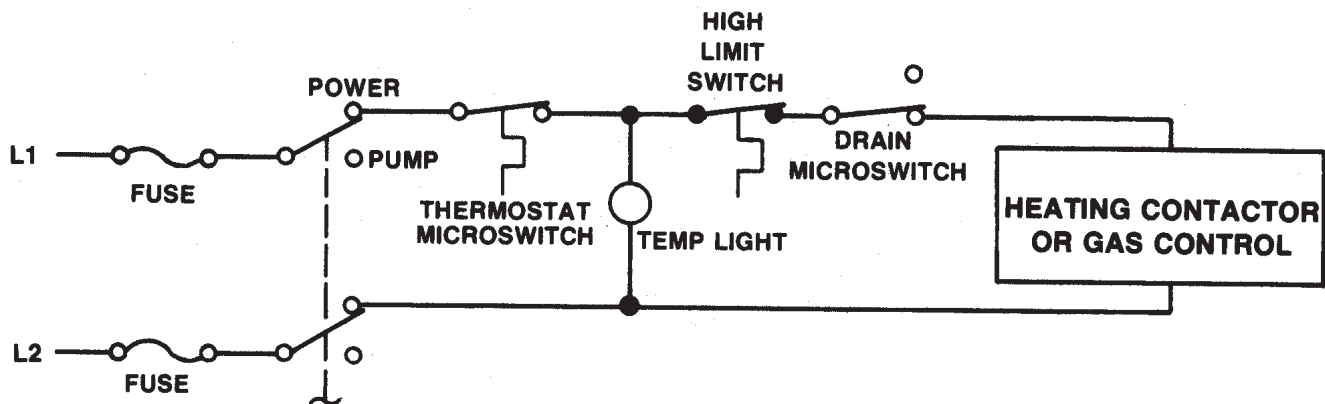
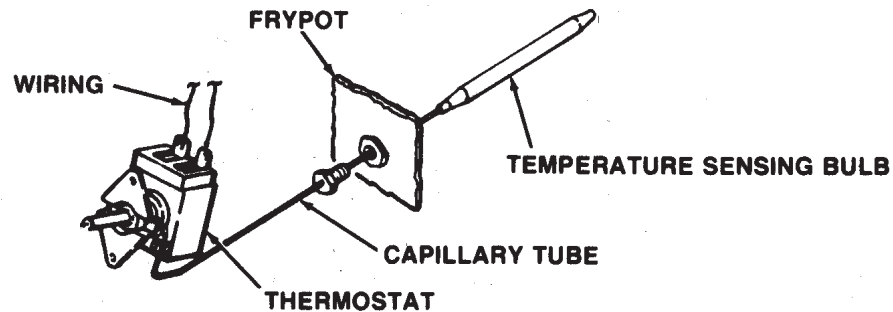
Installation

1. To install the control panel, hook it on the metal hangers that hold the top of the panel in place.
2. Install the two screws in the bottom of the panel.
3. Reconnect power to the fryer.

2-5. TEMPERATURE REGULATION (SINGLE STAGE)

Description

The cooking temperature is controlled by the front panel thermostat and monitored by its sensing bulb mounted just inside the frypot. Various thermostats are available, but all work on the same principle.



2-5. TEMPERATURE

REGULATION

(SINGLE STAGE)

(Continued)

Internal Operation

The thermostat bulb is connected to the thermostat by a thin capillary tube. When the temperature rises, the fluid inside the bulb expands (as in a thermometer) and pushes fluid through the tube into the control panel thermostat. When the frypot temperature is lower than the thermostat setting, the TEMP light is illuminated and frypot is being heated. When the temperature setting is reached, a switch inside the thermostat opens the circuit to the heat source and turns off the TEMP light. When the frypot starts to cool, the switch closes the circuit to the heat source.

Drain Microswitch

This interlock provides protection for the frypot in the event an operator inadvertently drains the shortening with the switch in the power position. The heat will automatically shut off when the drain valve is opened.

High Limit Temperature Control

The high limit temperature provides the safety feature of interrupting the heat if the temperature ever exceeds the safe operating limits. On electric models it must be manually reset when the frypot cools. Refer to High Temperature Limit Control section for maintenance of the high limit temperature control.

2-6. CALIBRATING THE STANDARD SINGLE STAGE THERMOSTAT

Henny Penny does not recommend that a field calibration be performed on the thermostats mentioned above. The reasons for this are as follows:

- The thermostat is calibrated in a controlled environment from the factory. The thermostat manufacturers do not recommend any adjustments to the thermostat in the field, as this will affect the factory calibration.
- The difference between a hand-held thermometer and an installed thermostat can be quite large due to shortening temperature variation.
- The adjustment of a thermostat is not precise, since the dial reads only in 25 degrees F increments. The accuracy of a thermostat needs to be less than 5 degrees F.

If a thermostat is not reading accurately and suspected to be faulty, Henny Penny suggests that the thermostat be replaced. If you have any questions, please do not hesitate to call the Technical Services Department.

2-7. TESTING THE THERMOSTAT

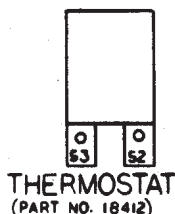
Procedure

If the thermostat fails to work properly, perform the following checks before replacing the thermostat:

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.



2. Remove the control panel.
3. With an ohmmeter or continuity light, check for continuity as follows.
4. On a standard (single temperature) thermostat, check between terminals 52 and 53. Move the temperature knob from OFF to maximum.
 - At OFF, the circuit should be open.
 - At maximum, the circuit should be closed.

2-8. THERMOSTAT REPLACEMENT (ALL MODELS)

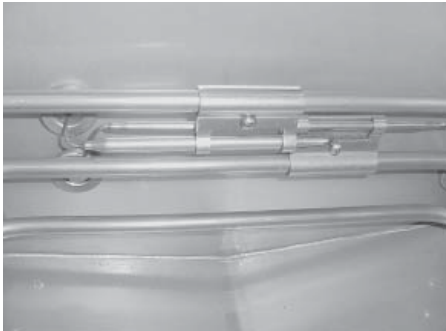
1. Remove electrical power supplied to the fryer.



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

2. Drain the shortening from the frypot.

ELECTRIC



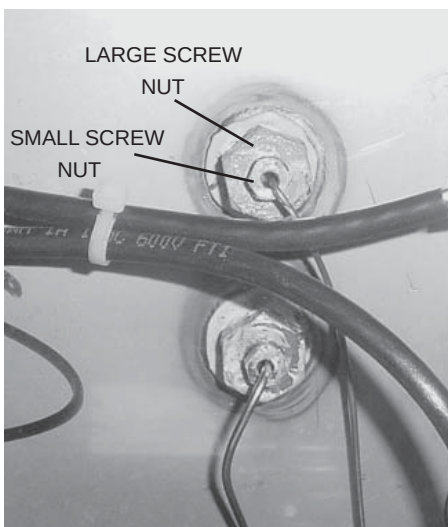
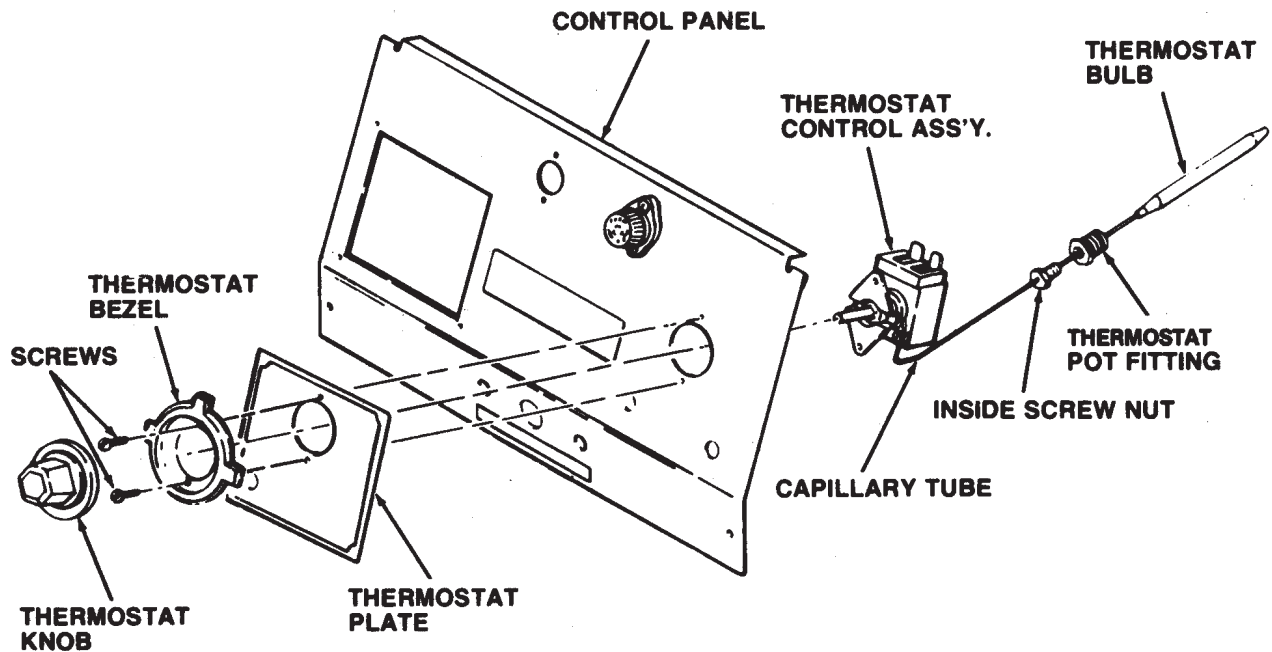
GAS



Step 3

3. Remove the thermostat sensing bulb from the bulb holder inside the frypot.
4. Place your thumb at the bend in the capillary tube, where it comes into the frypot, and straighten the bulb. The bulb should be extending out into the frypot.
5. Remove the two screws which secure the control panel to the frame of the fryer.
6. Lift the panel up and off the metal flanges.

**2-8. THERMOSTAT
REPLACEMENT
(ALL MODELS)
(Continued)**



7. With the door of the fryer closed, put the bottom edge of the control panel in the slot between the door and the frame of the fryer.
8. Locate the thermostat on the back of the panel.
9. Remove the thermostat knob on the front of the control panel.
10. Remove the two screws which secure the thermostat to the back of the panel. Remove the thermostat bezel.
11. Remove the small inside screw nut which holds the capillary line.
12. Remove the large screw nut.
13. Label the wire connections to the thermostat for correct identification when the new thermostat is installed.
14. Disconnect the wires.
15. Remove the defective thermostat.
16. Install the new thermostat.

**2-8. THERMOSTAT
REPLACEMENT
(ALL MODELS)
(Continued)**

17. Connect the wires to the new thermostat.



Be careful not to cross the wires or thermostat will not operate properly.

18. Uncoil the capillary tube.
19. Insert the bulb through the wall of the frypot.



To avoid electrical shock or other injury, the capillary line must run under and away from all electrical power wires. The tube must never be in contact with the electrical power wires or terminals.

20. Install the thermostat pot fitting into the wall of the frypot and tighten.
21. Replace the thermostat sensing bulb into the mounting bracket.



Do not bend the capillary tube where it connects to the sensing bulb, or damage to capillary will result.

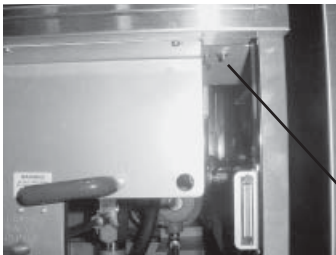
22. ELECTRIC only: slip the bulb holder in place. With bulb in place, tighten the clamp screw.
23. Pull the excess capillary tube from the inside of the frypot.
24. Insert and tighten the inside screw nut into the thermostat pot fitting.
25. Install the two screws on the front of the control panel which secure the thermostat to the back of the panel. Install the thermostat bezel.
26. Install the thermostat knob.

**2-8. THERMOSTAT
REPLACEMENT
(ALL MODELS)
(Continued)**

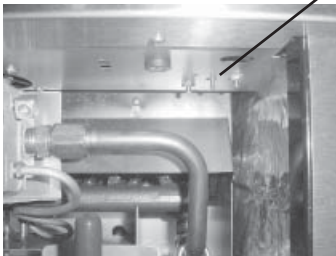
27. Secure the control panel with the 4 screws.
28. Reconnect power to the fryer.
29. Calibrate the thermostat per paragraph 2-6.

**2-9. HIGH TEMPERATURE
LIMIT CONTROL
(ELECTRIC AND
GAS MODELS)**

Electric



Gas



Red Reset
Button

Description

This high temperature control is a manual reset control which senses the temperature of the shortening. If the shortening temperature exceeds the safe operating limit, this control switch will open and shut off the heat to the frypot. When the temperature of the shortening drops to the safe operating limit, the control must manually be reset.

To locate the high limit reset button, open the door to the drain pan. Look up under the controls and to the right of the filter handle for a red reset button. (On the left for single phase units.)

Checkout

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

NOTICE

The shortening temperature must be below 380° F to accurately perform this check.

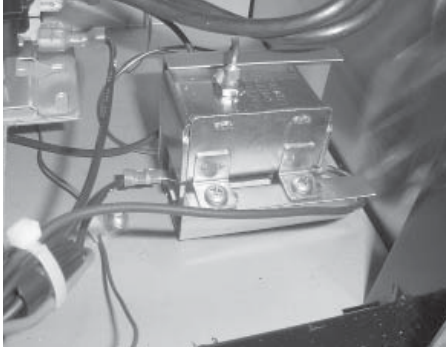
1. Remove electrical power supplied to the fryer.



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

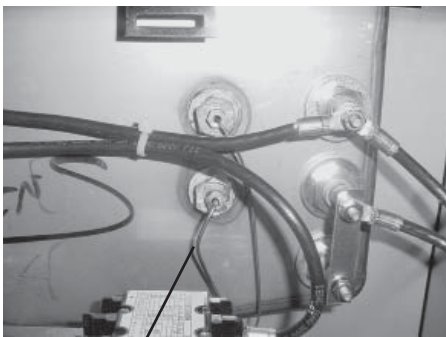
2. Remove the control panel and insert it in the slot above the door. Refer to paragraph 2-4.

**2-9. HIGH TEMPERATURE
LIMIT CONTROL
(ELECTRIC AND
GAS MODELS)
(Continued)**



Step 3

Electric



High Limit Capillary Tube

Gas



Step 1

3. Remove the two electrical wires from the high temperature limit control.
4. 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. Reconnect 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.

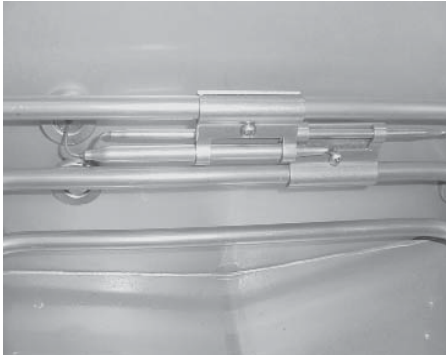
1. If the capillary tube is broken or cracked, the control will open, shutting off electrical power. The control cannot be reset.
2. Drain shortening from the frypot.
3. Remove control panel.
4. Loosen small inside screw nut on capillary tube.
5. Remove capillary bulb from bulb holder inside the frypot.
6. Straighten the capillary tube.
7. Remove larger outside nut that threads into pot wall.
8. Remove the two screws that secure the high limit to the high limit bracket.
9. Remove defective control from control panel area.
10. Insert new control and replace screws.
11. Uncoil capillary line, starting at capillary tube, and insert through frypot wall.



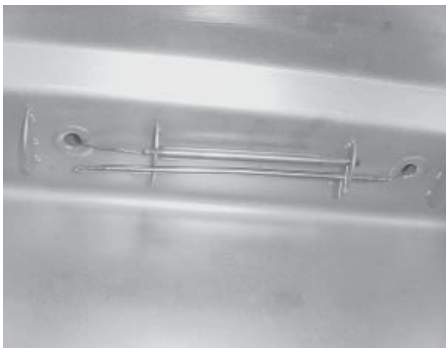
To avoid electrical shock or other injury, the capillary line must run under and away from all electrical power wires. The tube must never be in contact with the electrical power wires or terminals.

2-9. HIGH TEMPERATURE
LIMIT CONTROL
(ELECTRIC AND
GAS MODELS)
(Continued)

Electric



Gas



Step 13

12. Carefully bend the capillary bulb and tube toward bulb holder on heating elements, and on electric units, toward the welded clips on gas units.
13. Slip capillary bulb into bulb holder located on heating elements, on electric units, and snap the bulb in place in the welded clips, on gas units. 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.

14. With excess capillary line pulled out, tighten smaller nut.
15. Replace front panel.
16. Refill with shortening.

2-10. HEATING ELEMENTS **(ELECTRIC MODELS)**

Description

Each electric fryer uses three heating element assemblies.

NOTICE

Heating elements are available for 208, 220/240, or 440/480 voltage. Check the data plate inside the door to determine the correct voltage.

Maintenance Hint

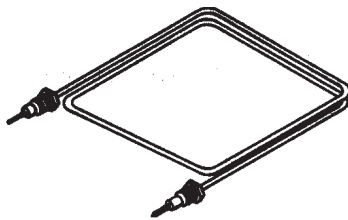
If the shortening's temperature recovery is very slow, or at a slower rate than required, this may indicate defective heating element(s). An ohmmeter will quickly indicate if the elements are shorted or open.

Checkout

1. Remove electrical power supplied to the fryer.



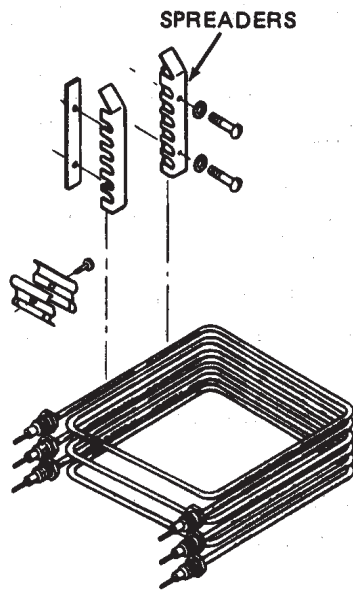
To avoid electrical shock or property damage, move the power switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.



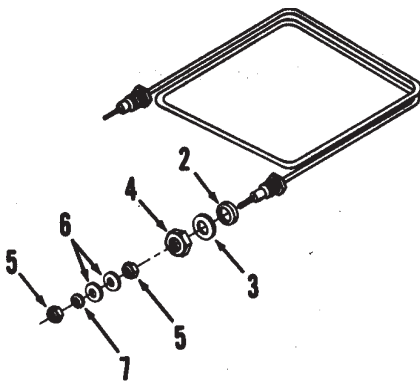
2. Remove the control panel and insert it in the slot above the door. Refer to paragraph 2-4.
3. Perform an ohm check on one heating element at a time, with wires disconnected from element. If the resistance is not within tolerance, replace the element.

HEATER P/N	POWER	VOLTAGE	RESISTANCE IN OHMS (COLD)
18233-1	4500W	208VAC	9±1
18233-2	4500W	230VAC	11±1.5
18233-4	3750W	208VAC	11±1.5
18233-5	3750W	220VAC	12±2
18233-6	3750W	480VAC	60±5
18233-7	4500W	480VAC	50±4
18233-8	4500W	380VAC	32±3.5

2-10. HEATING ELEMENTS **(ELECTRIC MODELS)** **(Continued)**



(Reference Figure 3-16)



Replacement

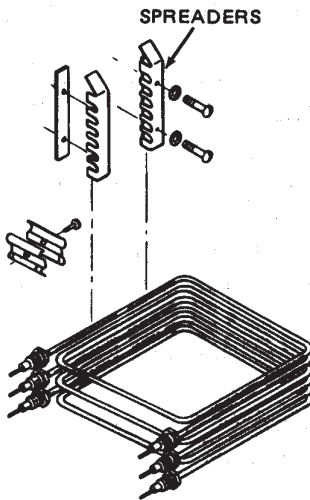
1. Drain the shortening.
2. Remove the thermostat bulb holder from the heating element inside the frypot.
3. Remove the heating element wires from the terminals by removing nuts (5) and washers (6 and 7). Label each so it can be replaced in the same position on the new element.
4. Loosen the bolts on the four element spreaders.
5. Slide the element spreaders to the center of the heating element.
6. Remove the brass nuts (4) and washers (3), which secure the ends of the elements through the frypot wall.
7. 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 (2) when installing heating elements.

8. Install new heating elements with new rubber O-rings (2) mounted on terminal ends, and spreaders loosely mounted in the center of the stacked elements.
9. Replace the heating elements, terminal end first at approximately 45° angle, slipping the terminal ends through the front wall of the frypot.

2-10. HEATING ELEMENTS
(ELECTRIC MODELS)
(Continued)



10. Replace the brass nuts (4) and washers (3) on the heating element terminals. Tighten the brass nuts to 30 foot lbs of torque.
11. Move the element spreaders from the center of the element, into a position which will spread each element apart evenly on all four sides, and tighten.
12. Replace the thermostat bulb holder on the top element, and position the bulb between the top and second element midway from side to side, and tighten screw which holds the bulb in place.
13. Reconnect the wires to the appropriate terminal as labeled when they were removed.
14. Replace the front control panel.
15. 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 elements could result.

16. Check the heating elements as described in paragraph 2-17 of Operator's Manual.
17. Replace the shortening in the frypot.

2-11. HEATING

CONTACTORS

(ELECTRIC MODELS)

Description

Each electric fryer requires two switching contactors. One is the primary contactor and the second in line is the heat contactor. When open, the primary contactor allows no power to flow to the heat contactor. When closed, the primary contactor completes the timer circuit and the high limit (heat) circuit. It also supplies power to the heat contactor which is controlled by the thermostat.

Checkout (power removed)

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.

PRIMARY CONTACTOR

22		
23		29
24		28
25		27
26		

HEAT CONTACTOR

		33
30		34
31		35
32		36
		37

2. Remove the control panel and insert it in the slot above the door. Refer to Removing the Control Panel section.
3. Perform a check on the contactor as follows:

Test Points

Results

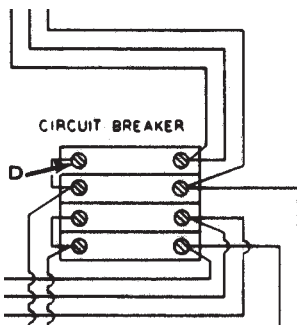
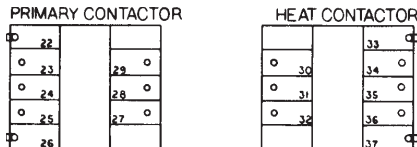
from 23 to 29	open circuit
from 24 to 28	open circuit
from 25 to 27	open circuit
from 30 to 34	open circuit
from 31 to 35	open circuit
from 32 to 36	open circuit
from 22 to 26	ohm reading 415
from 33 to 37	ohm reading 415

2-11. HEATING
CONTACTORS
(ELECTRIC MODELS)
(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. With power re-applied, set the thermostat to its maximum temperature.
2. On fryers using single phase power, check voltage as follows:

Test Points

from pin D on
circuit breaker to:
terminal 34
terminal 35
terminal 36
(If voltage is not
present, check out-
put of primary
contactor at
terminals 27, 28,
and 29.)

Results

The voltage
should read
the same at
each terminal.
It should
correspond to
the voltage
rating stated
on the data
plate.

2-11. HEATING
CONTACTORS
(ELECTRIC MODELS)
(Continued)

PRIMARY CONTACTOR

22	
23	29
24	28
25	27
26	

HEAT CONTACTOR

33	
34	
35	
36	
37	

3. On fryers using three-phase power, check voltage as follows:

<u>Test Points</u>	<u>Results</u>
Heat contactor from terminal 34 to 35 from terminal 35 to 36 from terminal 34 to 36	The voltage should read the same at each terminal.
Primary contactor from terminal 27 to 28 from terminal 28 to 29 from terminal 27 to 29	It should correspond to the voltage rating stated on the data plate.

Replacement

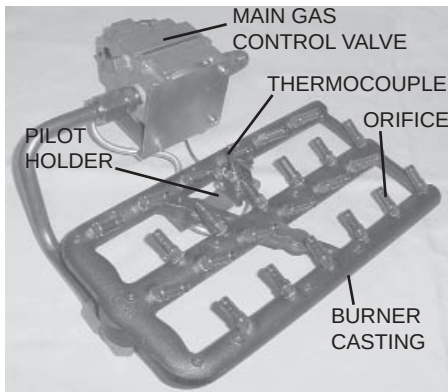
If either contactor is defective it must be replaced as follows:



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

1. Remove only those wires directly connected to the contactor being replaced. Label the wires.
2. Remove the two mounting screws on the base plate and remove contactor.
3. Install the new contactor and tighten the two mounting screws.
4. Connect the labeled wires to their respective positions.
5. Install the control panel per paragraph 2-4.
6. Reconnect power to the fryer and test the fryer for proper operation.

2-12. GAS BURNER ASSEMBLY (GAS MODELS)



Description

The gas model fryer has a gas burner assembly consisting of a burner casting, orifices, thermocouple, pilot holder, and main gas control valve.

Safety Precautions

NOTICE

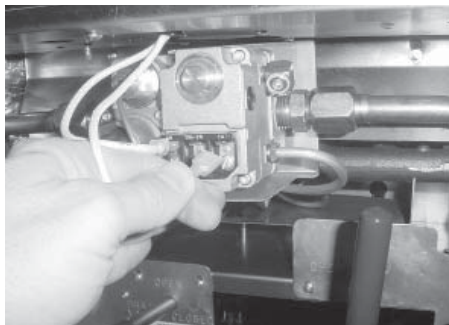
If converting from natural gas to propane gas or from propane gas to natural gas, conversion must be done by a qualified service technician.



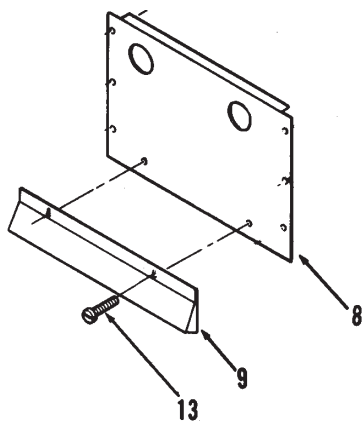
TO AVOID PERSONAL INJURY OR PROPERTY DAMAGE, BEFORE STARTING THIS PROCEDURE, MOVE THE MAIN POWER SWITCH TO THE OFF POSITION. DISCONNECT THE MAIN CIRCUIT BREAKERS AT THE CIRCUIT BREAKER BOX OR UNPLUG SERVICE CORD FROM WALL RECEPTACLE. TURN OFF THE MAIN GAS SUPPLY TO THE FRYER AND DISCONNECT AND CAP THE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

1. Remove the control panel per paragraph 2-4.
2. Place the control panel back in upright position, in the metal flanges.

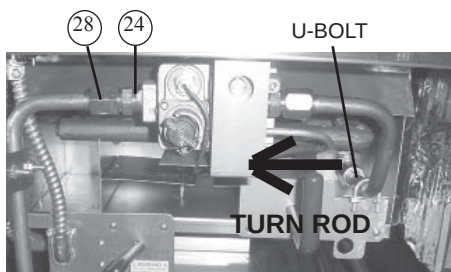
2-12. GAS BURNER
ASSEMBLY
(GAS MODELS)
(Continued)



Step 4



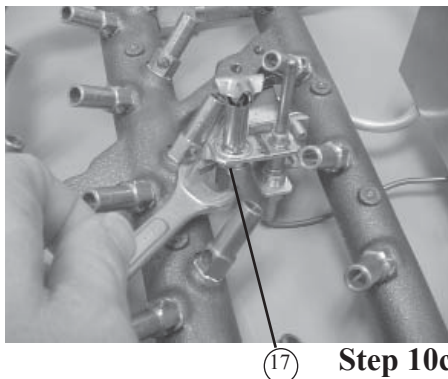
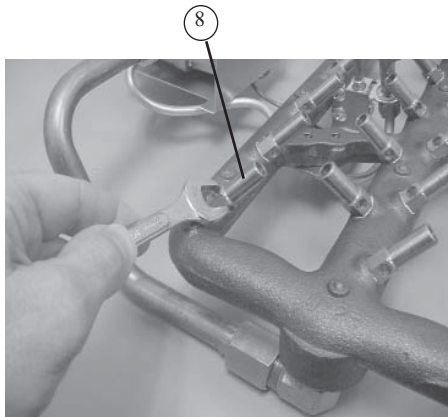
Step 6 and 7



Step 5, 8 and 9

3. Remove wires from the gas control valve.
4. Disconnect gas supply line (28) from the connector (24) at control valve. (Refer to photo below.)
5. Loosen the two screws (13) on the heat shield deflector (9), on the firebox and flue assembly and raise the deflector to its highest position.
6. Retighten screws (13) to hold the heat shield deflector in the high position.
7. Turn the filter valve rod to the OPEN position.
8. Remove u-bolt from rinse hose bracket.

2-12. GAS BURNER
ASSEMBLY
(GAS MODELS)
(Continued)



Step 10c

9. Remove entire gas burner assembly, by lifting and pulling toward front of fryer.
 - a. Replace thermocouple (19) as required, per paragraph 2-13.
 - b. Repair or replace gas control valve (20) as required, per paragraph 2-14.
 - c. Replace orifices (8 and 17) as required.

NOTICE

There are 23 brass orifices and 1 stainless steel orifice. The stainless steel orifice is to be mounted adjacent to the pilot light.

10. Make other repairs or replacements as required.
11. Install entire gas burner assembly.
12. Install u-bolt to rinse hose bracket and gas line.
13. Turn the filter valve handle to the CLOSED position.
14. Loosen the two screws (13) which are holding the heat shield deflector (9) in the high position, and lower it to the normal operating position.
15. Tighten the two screws (13) on the heat shield.
16. Connect gas supply line (28) to the gas control valve connector (24).
17. Install the wires onto gas control valve.

2-12. GAS BURNER
ASSEMBLY
(GAS MODELS)
(Continued)

19. Remove control panel and install it in the slot above door.
20. Connect the gas control valve wires to the thermostat and high temperature limit control as labeled.
21. Install control panel per paragraph 2-4.
22. Uncap and reconnect the main gas supply line to the fryer.
Turn on the main gas supply



**LEAKING GAS MAY CAUSE AN EXPLOSION.
CHECK FOR LEAKS PER OPERATOR'S MANUAL
PARAGRAPH 2-8.**

23. Connect the service cord to the wall receptacle, or close circuit breakers.
24. Relight the gas pilot per the instructions in paragraph 2-10 of the Operator's Manual.

2-13. THERMOCOUPLE
(GAS MODELS)



The thermocouple controls the gas control valve. It generates voltage in the millivolt. This voltage signals the gas control valve to remain open to the pilot and burner. When the voltage is not generated, the gas control valve will shut off, not allowing gas to the pilot and main burner.

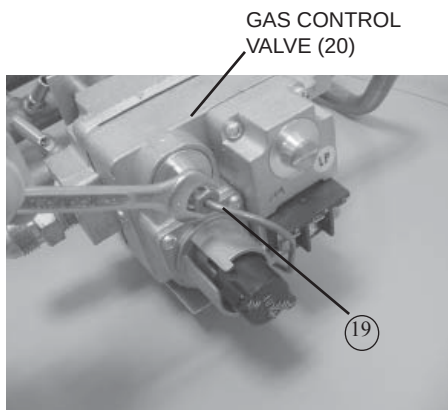


If converting from natural gas to propane gas or from propane gas to natural gas, conversion must be done by a qualified technician.

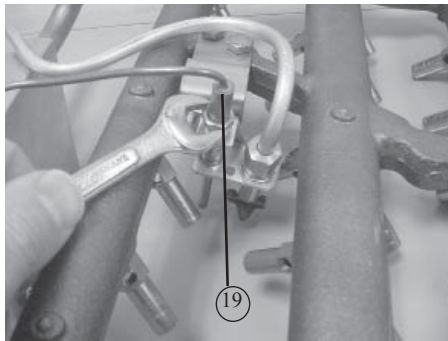


TO AVOID INJURY OR PROPERTY DAMAGE, BEFORE STARTING THIS PROCEDURE, MOVE THE MAIN POWER SWITCH TO THE OFF POSITION. DISCONNECT THE MAIN CIRCUIT BREAKER AT THE CIRCUIT BREAKER BOX OR UNPLUG THE SERVICE CORD AT THE WALL RECEPTACLE. TURN OFF THE MAIN GAS SUPPLY TO THE FRYER. DISCONNECT AND CAP THE SUPPLY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

2-13. THERMOCOUPLE
(GAS MODELS)
(Continued)

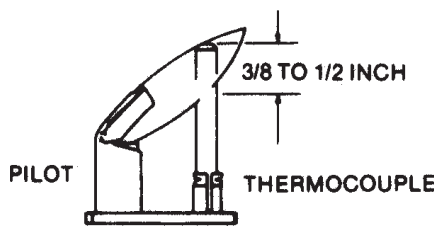


Step 1



Step 2

(Refer to exploded view,
Figure 3-30)



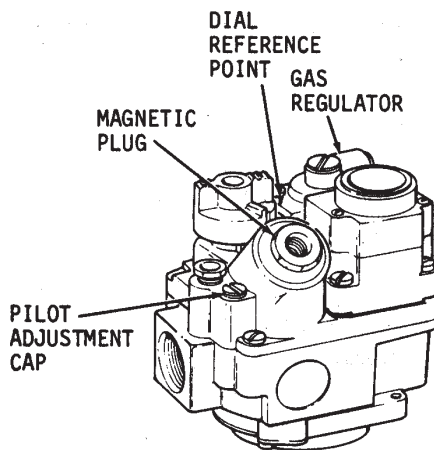
Step 3

Replacement of Thermocouple

Removal of the thermocouple is accomplished with the main gas supply shut off. The main burner may remain inside the fryer, but the work is more easily performed with the burner removed.

1. Using a 3/8" wrench, remove the nut securing the thermocouple (19) in the gas control valve (20).
2. Remove the nut securing the thermocouple in the pilot holder.
3. Install the new thermocouple, being careful not to create sharp bends in the tubing. When the pilot is lit, the flame must surround the top of the thermocouple.
4. Turn on the main gas supply and reconnect the electrical power.
5. Light the pilot per paragraph 2-10 of the Operator's Manual and test the fryer for proper operation.

2-14. GAS CONTROL VALVE



Description

The gas control valve regulates the flow of gas to the pilot and the main burner. The valve consists of: gas regulator, magnetic plug, pilot gas tube, gas valve knob, pilot adjustment cap and screw, gas outlet and inlet ports, thermocouple connector, and electrical connection. The gas control valve also has a dial reference point - OFF/PILOT/ON.

The components of the gas control valve can be serviced without removing the complete valve from the fryer.

Safety Precautions

NOTICE

If converting from natural gas to propane gas or from propane gas to natural gas, conversion must be done by a qualified technician.

! DANGER **EXPLOSION RISK**

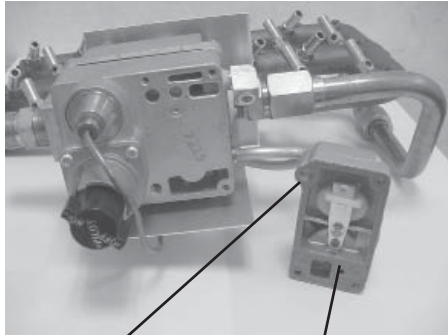
TO AVOID INJURY OR PROPERTY DAMAGE, BEFORE STARTING THIS PROCEDURE, MOVE THE MAIN POWER SWITCH TO THE OFF POSITION. DISCONNECT THE MAIN CIRCUIT BREAKER AT THE CIRCUIT BREAKER BOX OR UNPLUG THE SERVICE CORD AT THE WALL RECEPTACLE. TURN OFF THE MAIN GAS SUPPLY LINE TO FRYER. DISCONNECT AND CAP THE SUPPLY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

If the gas control valve must be replaced, remove per para. 2-12.

Operator Replacement

1. Depress the gas valve knob and turn to the OFF position.
2. Remove control panel per paragraph 2-4.
3. Label and remove the gas control valve wires.

2-14. GAS CONTROL **VALVE (Continued)**



Step 5

Gasket

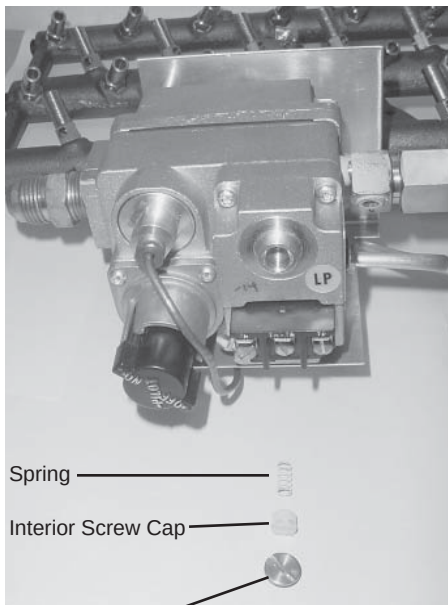
Operator

Operator Replacement (continued)

4. Using a T20 “star” screwdriver, remove the four screws securing the operator and gasket.
5. Secure the new operator and gasket with the four screws provided.
6. Reconnect the gas control valve wires.
7. Install the control panel per paragraph 2-4.

Check Procedures:

120 volt - 50/60 Hz	2350 ohms
208-240 volt - 50/60 Hz.....	880 ohms
24 volt - 50/60 Hz	7 ohms



Spring

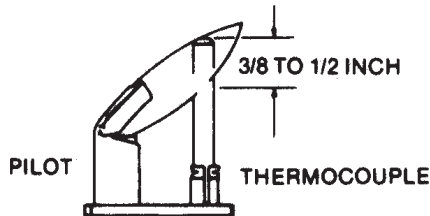
Interior Screw Cap

Exterior Screw Cap

Regulator Spring Replacement

1. Remove the screw cap to the regulator.
2. Remove the plastic interior screw cap and spring.
3. Use the gas control valve manufacturer’s instructions from the envelope containing the regulator spring, and follow the directions.

2-14. GAS CONTROL **VALVE (Continued)**



Adjusting Pilot Burner

NOTICE

The following two procedures must be performed with the gas supply reconnected and turned on. The service cord must be plugged into the receptacle and the circuit breaker on.

1. The pilot burner is preset at the factory. It may require resetting at the time of installation.
 - a. Remove the pilot adjustment cap.
 - b. Use a small flat screwdriver and rotate the adjustment screw counterclockwise to increase the size of the flame. Rotate clockwise the adjustment screw to decrease the size of the flame.

NOTICE

The flame should be set high enough to surround the top of the thermocouple.

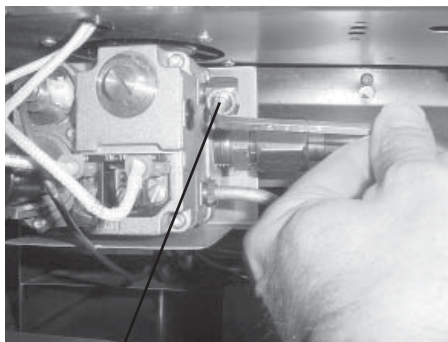
Adjusting Regulator

1. The pressure regulator is preset at the factory. It may require resetting at the time of installation.
 - a. Turn gas valve knob to OFF position.
 - b. Attach a manometer to the gas control valve at the pressure tap.
 - c. Turn gas valve knob to PILOT, light, and turn to ON.
 - d. Remove the regulator adjustment screw cap.
 - e. Rotate the adjustment screw counterclockwise to increase the column indicated on the manometer or rotate clockwise to lower the column indicated.
 - f. Turn gas valve knob to OFF and remove manometer.
 - g. Replace the regulator adjustment screw cap.
 - h. Turn gas valve knob to PILOT and relight. Leak test with soap and water solution.

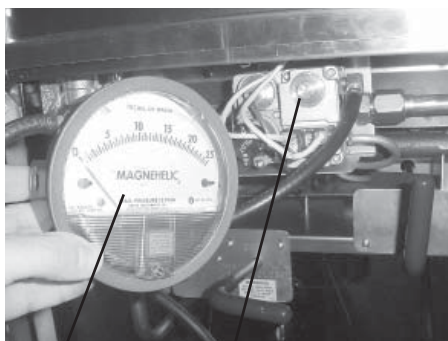
NOTICE

Natural gas regulator is factory preset at 3 1/2 inches water column.

Propane gas regulator is factory preset at 10.0 inches water column.



PRESSURE TAP



MANOMETER

REGULATOR
ADJUSTING
SCREW

Step 1a

2-15. ELECTRICAL COMPONENTS

Safety Precautions

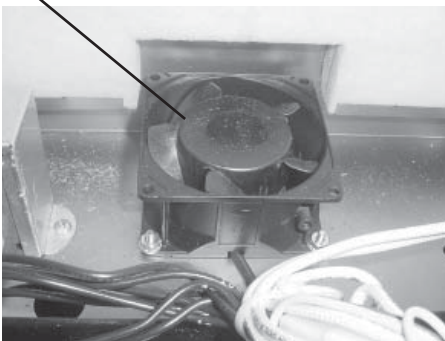


Do not disconnect the ground (Earth) plug. This fryer **MUST** be adequately and safely grounded (Earthed) or electrical shock could result. Refer to local electrical codes for correct grounding (Earthing) procedures or in absence of local codes, with The National Electrical Code, ANSI/NFPA No. 70-(the current edition). In Canada, all electrical connections are to be made in accordance with CSA C22.1, Canadian Electrical Code Part 1, and/or local codes.

NOTICE

Electric motor bearings are permanently lubricated and do not require attention during normal service life of this fryer.

FAN



Fan (Gas Models)

The gas model fryers have a fan in the circuit. This fan operates only with the Main Power switch in the ON position. The fan helps keep the control panel cool by pulling out heat, from between the control panel and frypot.

The replacement of a faulty fan is accomplished using the following procedure:

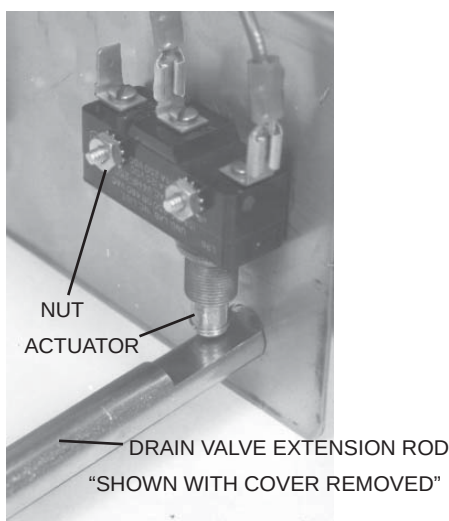
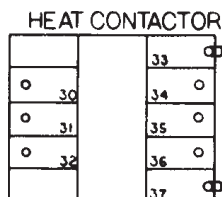
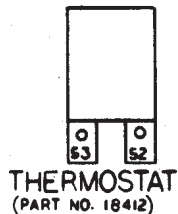


To avoid electrical shock or property damage, move the power switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

1. Remove control panel per Removing Control Panel section.
2. Label and disconnect fan motor wires.
3. Remove the four cap screws, washers and nuts securing the fan to the heat shield.
4. Remove the fan from the heat shield.
5. Install the new fan on the heat shield and secure with the four screws, washers, and nuts.
6. Reconnect the fan motor wires.
7. Install control panel per Removing Control Panel section.

2-15. ELECTRICAL COMPONENTS **(Continued)**

(See Wiring Diagrams paragraph 2-21)



Step 2

Drain Switch **(electric models)**

All fryer models have a drain microswitch in line with the gas control valve or heat contactor and thermostat. When the drain valve is opened to drain the shortening, this causes drain switch to open, shutting off electrical power to the heating elements.



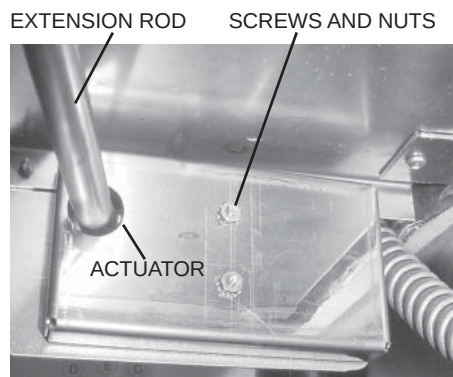
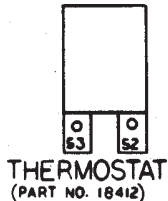
To avoid electrical shock or property damage, move the power switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

1. The following check should be made to determine if the drain switch is defective. All checks should be made with the drain valve in the closed position, with the actuator pushed in.
 - a. Fryers with standard thermostat part number 18412, the continuity check must be made between terminal 52 on the thermostat, and terminal 33 on the heat contactor. If circuit is open, the drain switch is bad and needs to be replaced.
2. To replace the drain switch, remove the two screws and nuts securing switch and switch cover.
3. Label and disconnect wires.
4. Connect wires to new drain switch.
5. Position actuator and attach drain switch and switch cover with two screws and nuts. Tighten nuts to 3 - 4 inch-pounds of torque.
6. Test to see if drain valve extension rod actuates the switch.

NOTICE

Listen for an audible click of switch while rotating drain valve extension rod.

2-15. ELECTRICAL COMPONENTS **(Continued)**



"SHOWN WITH COVER IN PLACE" **Step 3**

Drain Switch (gas models)

1. The following check should be made to determine if drain switch is defective. All checks should be made with drain switch in the closed position and the power off.



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

- a. For fryers with standard thermostat part number 18412, continuity check shall be made between terminal 52 on thermostat and wire nut between drain switch and gas control valve. If the circuit is open, the drain switch is bad and needs to be replaced.
2. If the circuit is open, the drain switch is bad and needs to be replaced.
3. To replace the drain switch, remove the two screws and nuts securing the switch and switch cover.
4. Label and disconnect the wires.
5. Connect the wires to the new drain switch.
6. Position the actuator and attach the drain switch, and switch cover with the two screws and nuts.
7. Secure with the two screws and nuts.
8. Test to see if the drain valve extension rod actuates the switch.



Listen for an audible click of switch while rotating drain valve extension rod.

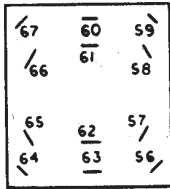
2-15. ELECTRICAL **COMPONENTS** **(Continued)**

Main Power Switch (all models)

The Main Power switch is a three way switch with a center OFF position. With the switch in the POWER position, the fryer will operate. With the switch in the PUMP position, the filter pump will operate but the heating unit will not.



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



Continuity Check Procedure

OFF POSITION

Test Points

#60 to #59 then #60 to #67
#61 to #58 then #61 to #66
#62 to #57 then #62 to #65
#63 to #56 then #63 to #64
#60 to #61
#62 to #63

Results

open circuit
open circuit
open circuit
open circuit
closed circuit
closed circuit

POWER POSITION

Test Points

#60 to #59
#61 to #58
#62 to #57
#63 to #56

Results

closed circuit
closed circuit
closed circuit
closed circuit

PUMP POSITION

Test Points

#60 to #67
#61 to #66
#62 to #65
#63 to #64

Results

closed circuit
closed circuit
closed circuit
closed circuit

2-15. ELECTRICAL COMPONENTS **(Continued)**



Step 3

Replacement

1. Remove control panel per Replacing Control Panel section.
2. Label wires at the Main Power switch and disconnect wires at switch.
3. Remove faulty switch and install new switch.
4. Reconnect wires to switch in the same position as noted on the labels.
5. Replace control panel per Replacing Control Panel section.

Indicator Lights (all models)

The indicator lights for HEAT-PUMP-POWER, are identical assemblies consisting of a neon light and mounting clip, and are replaced as assemblies.



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. Remove control panel per Replacing Control Panel section.
2. Disconnect indicator light wires from the individual power source.
3. Squeeze the retaining clip while removing the indicator light and discard the light.
4. Install the new indicator light.
5. Connect the wires from the new indicator light.
6. Replace control panel per Replacing Control Panel section.

2-15. ELECTRICAL COMPONENTS **(Continued)**

Fuse Holder(s) **(electric models)**

There are two fuse holders on each model of the electric fryers. There are no fuse holder assemblies for the gas models other than that at the main power source.



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

Checking Procedure for Fuses

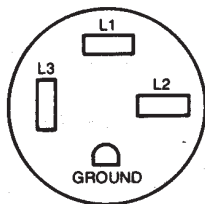
CONTROL PANEL FUSES 3 Phase

Check from #54 to #55 and #68 to #69 on fuse assembly. The circuit should be closed. If not, replace the fuse (HP# EF02-007).

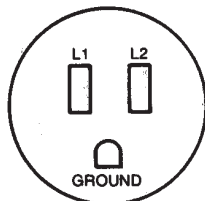


Cord and Plug Check

Perform a check on the cord and plug as follows. Test from each plug prong to the corresponding wire lead on the other end of the cord at junction box. The result should be a closed circuit on each line tested.



Electric Fryer



Gas Fryer

Wall Receptacle (voltage check) **(electric models)**

Check the voltage across the following lines: L1-L2; L2-L3, L1-L3.

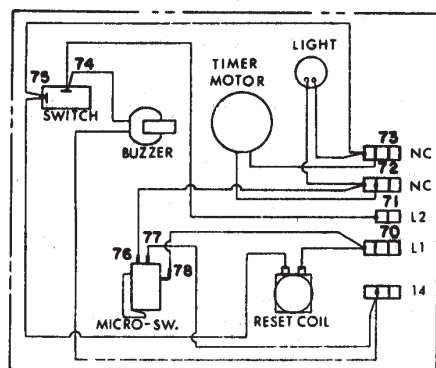
The voltage should read the same for each line test. It should correspond to the voltage shown on the data plate.

(gas models)

Check the voltage across line L1 and L2.

The voltage should correspond to the voltage shown on the data plate.

2-16. TIMING CONTROL



The TIMER CONTROL consists of a microswitch, indicator light, buzzer, reset timer and timer motor.



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

Checking Procedure

Test Points

Results

ON/OFF SWITCH

Switch in OFF position

Check from #74 to #75

open circuit

Switch in ON Position

Check from #74 to #75

closed circuit

BUZZER COIL

Switch in OFF position

Check from #14 to #74

120 volt 50/60 Hz.....1550 ohms

208-240 volt 50/60 Hz5880 ohms

MICROSWITCH

Timer set at 10 Min.

Check from #70 to #72

closed circuit

Check from #70 to #14

open circuit

Timer set at 0 Min.

Check from #70 to #72

open circuit

Check from #70 to #14

closed circuit

MOTOR

Check from #72 to #73

120 volt 50/60 Hz..... 290 ohms

208-240 volt 50/60 Hz3990 ohms

RESET COIL

Check from #70 to #75

120 volt 50/60 Hz..... 280 ohms

208-240 volt 50/60 Hz3950 ohms

2-16. TIMING CONTROL **(Continued)**

Replacement

1. Remove control panel per Removing Control Panel section.
2. Label the wires and remove them from the timer.
3. Remove four screws securing the timer to the control panel.

NOTICE

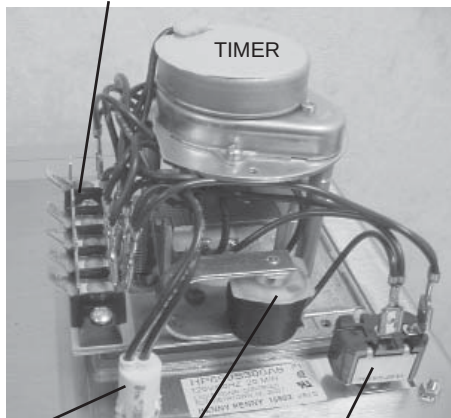
Replacement of timer may not be necessary if lamp is burned out, if buzzer coil is burned open, or if on-off switch is bad.

Timer motor & timer microswitch can be replaced separately.

Timer Light

1. Disconnect light wires from terminal board.
2. Remove and discard the bad light assembly.
3. Install new light assembly allowing retainers to snap into place.

TERMINAL BOARD



LIGHT BUZZER COIL ON/OFF SWITCH

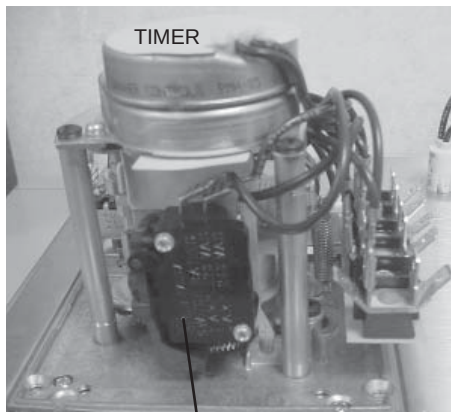
Buzzer Coil

1. Remove buzzer and coil from timer.
2. Disconnect buzzer coil wires from terminal board of timer.
3. Install new buzzer and coil to timer.
4. Connect coil wires to terminal board of timer.
5. Install new or repaired timer on control panel and secure with four screws.
6. Attach wires to the timer in accordance with the labels attached.

7. Install control panel per Removing Control Panel section.

Timer Switch

1. Connect light leads to terminal board of timer.
2. Remove switch nuts and remove switch from panel.
3. Disconnect switch wires from terminal board.
4. Install new switch on panel and secure with switch nut.
5. Connect switch wires to the terminal board of the timer.



MICROSWITCH

2-17. PRESSURE REGULATION/ EXHAUST

Solenoid Valve

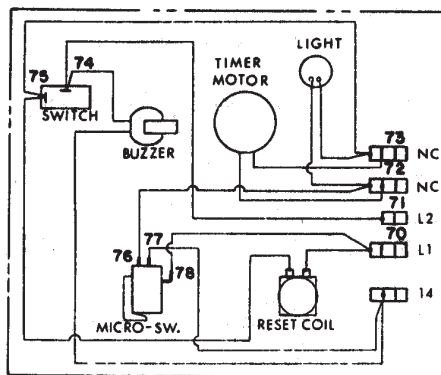
This is an electromechanical device that causes pressure to be held in the frypot. The solenoid valve closes at the beginning of the cook cycle and is opened automatically by the timer at the end of the cook cycle. If this valve should become dirty or the teflon seat nicked, pressure will not build up. The solenoid valve used on all models is the same with the exception of the coil. The gas model fryer uses a 120 volt, 60 Hz, coil. The electric model fryer uses a 208/240 volt 60 Hz coil. The 440/480 volt electric model uses a transformer to drop voltage to 220/240 volts.



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

Coil Check Procedure

1. Remove wires from terminals 73 and 72 and check across solenoid wires.

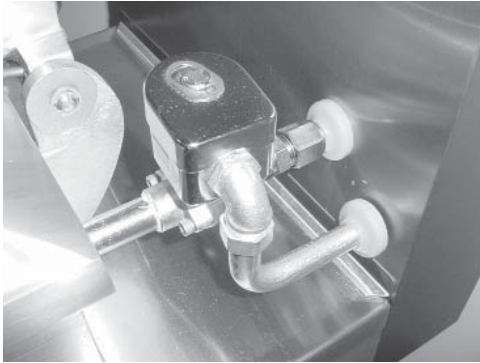


<u>Test Volts/Phase</u>	<u>Results</u>
120 volt 60 Hz	50 ohms
208-240 volt 60 Hz	150 ohms
208-240 volt 50 Hz	245 ohms

**2-17. PRESSURE REGULATION/
EXHAUST (Continued)**

Replacement

Solenoid Valve Assembly



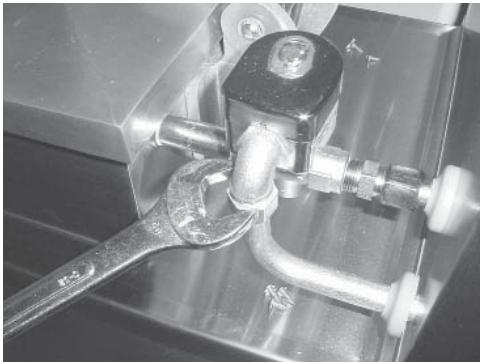
1. Remove Tru-Arc retaining clip on top of the coil housing.

2. Remove the nameplate and cover.

3. If only the coil is replaced, disconnect two coil wires at the wire nuts in the coil housing, and remove the coil from the housing. Then replace nameplate, cover, and Tru-Arc clip.

If the complete solenoid, or seals are being replaced, continue on to step 4.

Conduit Connector



Step 4

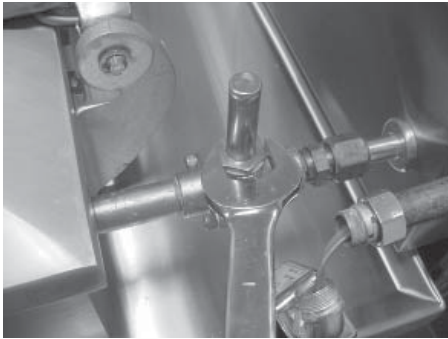
NOTICE

The wires may be connected in any order.

4. Loosen the nut on the 1/2 inch connector and pull piping conduit from the valve case. Leave enough slack to remove the coil housing and yoke.

**2-17. PRESSURE
REGULATION/
EXHAUST (Continued)**

5. If the core-disc assembly is sticking due to buildup of shortening, breadding and food particles proceed with the following steps.



Step 5a

- a. Unscrew the solenoid bonnet assembly from the solenoid valve body.



Step 5b

- b. Remove the solenoid bonnet assembly and the bonnet gasket.



Step 5c

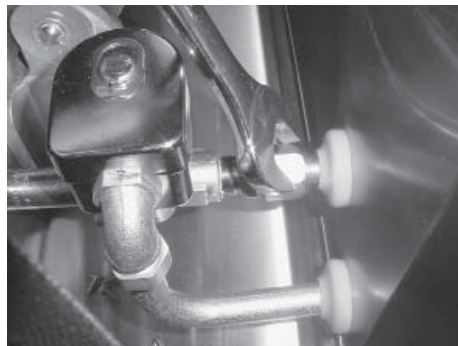
- c. Remove the core-disc assembly, core spring retainer, and the core spring.

**2-17. PRESSURE
REGULATION/
EXHAUST (Continued)**



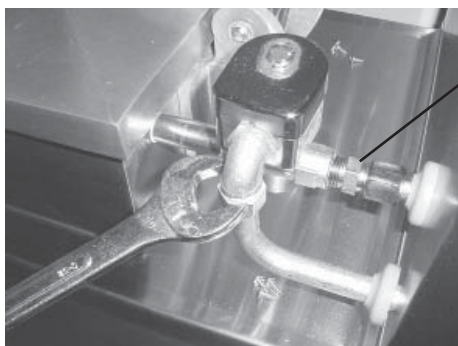
Rear Cover

Step a



Exhaust Fitting

Step b



Conduit Fitting

Step b

- d. Wash all parts in soap and hot water.

NOTICE

If replacing Teflon seals, or complete valve, proceed to step 6, otherwise, assemble in reverse order of disassembly.

Assemble valve core and blade (6), with the smooth side of the hole towards the disc spring guide (9).
(See drawing on next page)

6. A repair kit (Part No. 17120) is available if any of the seals need to be replaced. If any one seal is defective, all seals should be replaced.

NOTICE

Remove the solenoid body from fryer to replace seals. Refer to exploded view of solenoid in figure 3-14 to help identify all parts.

- a. Remove back cover.

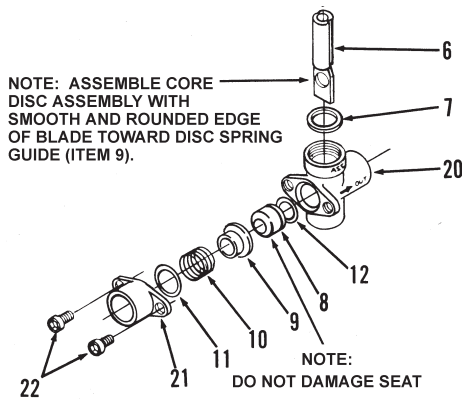
- b. Loosen both conduit and exhaust fittings.

- c. Remove nipple from solenoid body.

- d. Unthread body from fryer.

- e. A new solenoid can now be placed on the fryer, and reassembled in reverse order of previous steps, or continue onto step 7 to change the seals.

**2-17. PRESSURE
REGULATION/
EXHAUST (Continued)**



7. To change seals:

- a. Remove the two adapter screws (22) which attach the pipe adapter (21) to the solenoid body (20).
- b. Remove the disc spring (10), guide (9), and seat (8).
- c. Clean the valve body.
- d. Wet O-ring (12) around seat with water and insert O-ring assembly (flat side first) in valve, through IN side of body. Use a pencil eraser, and press in Teflon seat until it snaps into place. Be careful not to mark or nick the seat.

NOTICE

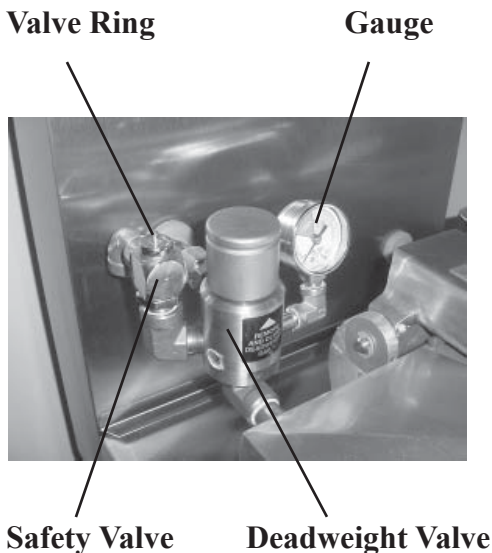
The smallest nick can cause a pressure leak. Replace all O-ring seals, found in the parts kit, and reassemble valve.

**2-17. PRESSURE
REGULATION/
EXHAUST (Continued)**

Deadweight Valve



DO NOT ATTEMPT TO REMOVE THE VALVE CAP WHILE THE FRYER IS OPERATING. SEVERE BURNS, OR OTHER INJURIES COULD RESULT.



The deadweight valve and safety relief valve are located side-by-side at the back of the unit. The valve next to the pressure gauge is the operating control valve, and the other valve is a 14 1/2 lb. safety relief valve.

Valves are working properly, when OPERATING ZONE is indicated on the gauge by the pointer. The gauge pointer should not normally exceed the operating zone. At 14 1/2 psi, the safety relief valve opens to release steam pressure from the frypot.

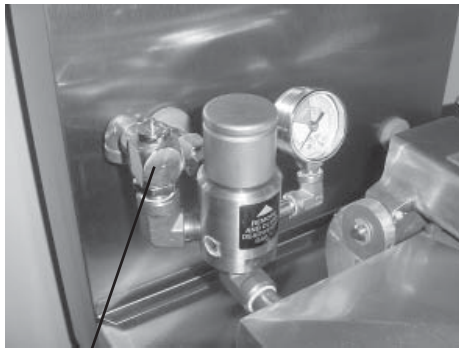


DO NOT MANUALLY ACTIVATE THE SAFETY RELIEF VALVE. HOT STEAM RELEASES FROM THE VALVE WHEN THE RING IS PULLED. KEEP BODY PARTS AWAY FROM SAFETY VALVE EXHAUST, OR SEVERE BURNS COULD RESULT.

Cleaning Steps

1. Clean the deadweight valve, at the end of each day. Turn the fryer OFF and release all the pressure. Open the lid and then remove the deadweight valve cap and deadweight.
2. Place both the cap and weight in hot detergent water and clean. Make certain to thoroughly clean inside cap, the weight seat, and around the deadweight orifice.
3. Rinse thoroughly with hot water. Dry parts and replace immediately to prevent damage or loss.

**2-17. PRESSURE
REGULATION/
EXHAUST (Continued)**



Safety Valve

**Removal and Cleaning
of Safety Relief Valve**

The safety relief valve should be cleaned once a year.



**DO NOT ATTEMPT TO REMOVE VALVE WHILE
FRYER IS OPERATING. SEVERE BURNS OR OTHER
INJURIES COULD RESULT.**

1. Open the lid and then remove the deadweight valve cap and deadweight.
2. Use a wrench to loosen the valve from the pipe elbow, turn counterclockwise to remove.
3. Clean the inside of the pipe elbow with hot detergent.
4. Immerse the safety relief valve in a soap water solution for 24 hours. Use a 1:1 dilution rate. The valve cannot be disassembled. It is factory preset to open at 14 1/2 pounds of pressure. If it does not open or close it must be replaced.



TO AVOID PERSONAL INJURY, DO NOT DISASSEMBLE OR MODIFY THIS VALVE. TAMPERING WITH THIS VALVE WILL VOID AGENCY APPROVALS AND THE APPLIANCE WARRANTY, AND COULD CAUSE SERIOUS INJURIES.



Step 2

ADJUSTING
SCREW

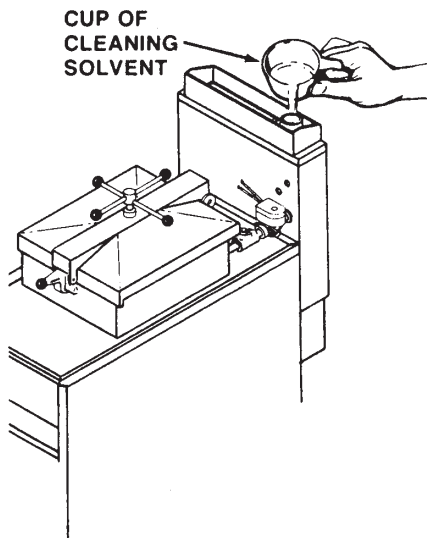
Pressure Gauge

The pressure gauge can be recalibrated should it be out of adjustment.

Calibration Steps

1. Remove the rim and glass.
2. If the indicating hand shows a pressure or vacuum reading when it should stand at "0", turn the recalibrator screw in the same direction in which the indicating hand is to be moved until the hand stands at proper "0" position.
3. Replace the rim and glass.

2-17. PRESSURE REGULATION/ EXHAUST (Continued)



Pressure Gauge Cleaning Steps

1. Remove gauge and check inside the pipe fittings from dead-weight body. Make certain fittings are clean and open.
2. Clean and reinstall the gauge.

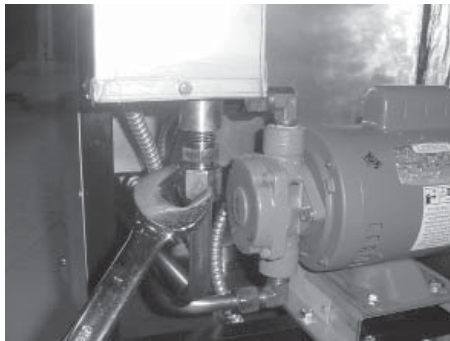
Condensation Box Assembly

The deadweight valve and solenoid exhausts are directed into a condensation box, located in the rear of the fryer. Should this box become clogged, water would spew from the top of the box. The box can be cleaned by running a wire or long brush from the top of the box, through the hole in bottom of the box, or the bottom of the box can be removed to clean.

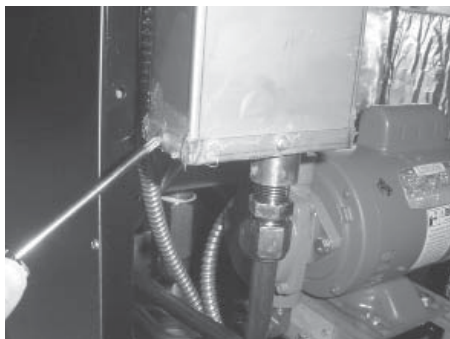
Condensation Box Bottom Removal

NOTICE

When cleaning the frypot, pour a cup of cleaning solution into the large exhaust hose at the top of the exhaust tank (see figure at left). This helps prevent the box from getting clogged.



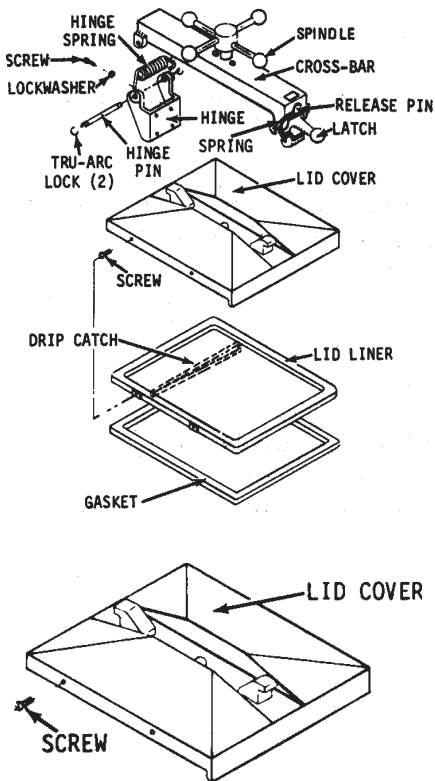
Condensation Box Fitting Step 1



Condensation Box Bottom Step 2

1. Loosen fitting at the bottom of the box.
2. Using Phillips head screwdriver, remove 4 screws securing the bottom of the box and pull bottom from assembly.
3. Clean outlet hole in box bottom and check condensation tube for clogs, and clean, if necessary.
4. Reinstall box bottom and condensation line.
5. Seal box bottom with silicone sealant and unit is now ready for operation.

2-17. PRESSURE REGULATION/ EXHAUST (Continued)



Lid Cover Assembly

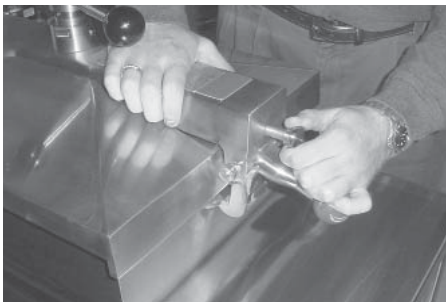
Description

In general, the lid spindle, the limit stop, the cover, the hinge, the inner and the reversible gasket comprise the lid cover assembly.

Lid Cover Removal

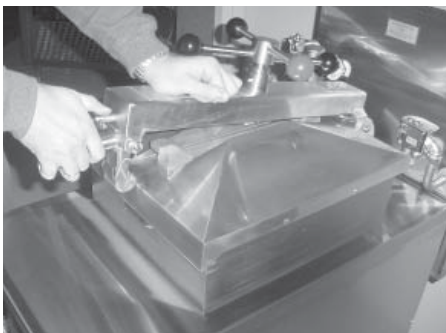
The lid cover is easily removable for cleaning or service.

1. Close the lid cover and turn the spindle counterclockwise until it stops.



Step 2

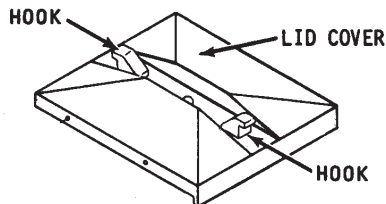
2. Pull the lid release pin on front of crossbar, lift the latch, and raise the crossbar.



Step 3

3. The cover can now be removed from frypot.

2-17. PRESSURE REGULATION/ EXHAUST (Continued)



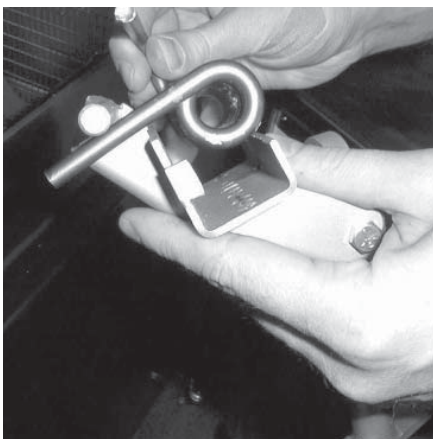
Lid Cover Installation

1. Place the lid cover on the frypot.
2. Thread the spindle counterclockwise until it is completely extended.
3. Align the rear retaining hook on lid cover in the center slot of the crossbar. Push the cross bar down and pull out on lid release pin.
4. Push the lid to rear of frypot and latch the cross bar to the lid cover. Release the pin.
5. Check that lid cover is fastened properly before raising.

Lid Hinge Spring

The hinge spring needs to be replaced if it is broken, cracked or otherwise loses its tension. A special spring installation tool which greatly simplifies this procedure is available from the factory. (Henny Penny part number 14960)

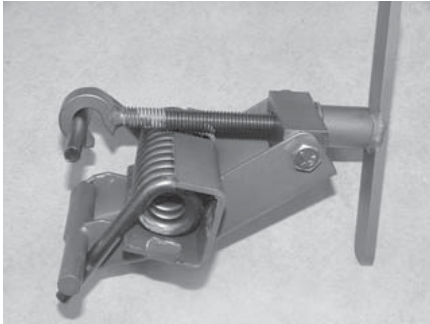
1. Pull out on the retaining pin knob on the front of the cross bar to release lid cover. (Refer to lid cover removal instructions.)
2. Lift the cross bar up and away from the lid.
3. Remove tru-arc locks and hinge pin if the spring is broken. If the spring is not broken, use spring tool as described in steps 5, 6, and 7, then remove Tru-Arc lock and hinge pin.
4. Remove the broken spring.
5. The new spring is placed in the loading tool so that the spring coil is laying in the u-shaped center of the tool. The perpendicular shaft is placed in the stationary hook of the tool, and the parallel shaft is placed so the adjustable hook will tighten it down.



Step 5

**2-17. PRESSURE
REGULATION/
EXHAUST (Continued)**

**Lid Hinge Spring
(Continued)**



Step 6



Step 7

6. Tighten the handle on the tool as far as it will go.

7. Place the spring (loaded in the tool) into position so that the u-shaped center of the tool is toward the front of fryer and the tool handle is toward the top of the fryer.

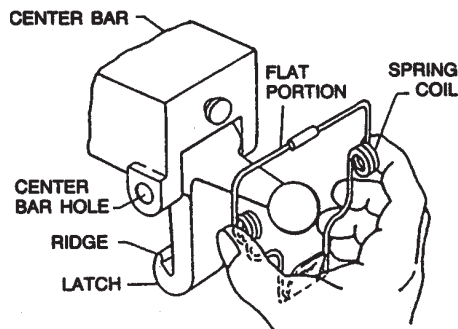
8. Replace hinge pin and Tru-Arc locks. Loosen and remove the tool.

9. Refer to the lid installation procedure and reinstall the lid.

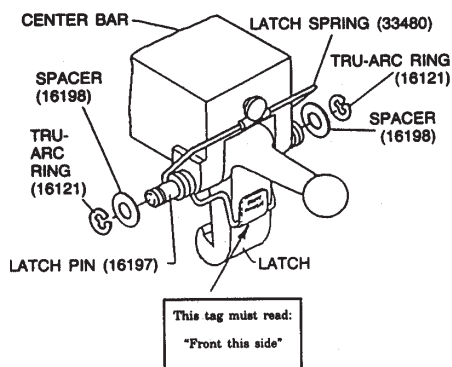
2-17. PRESSURE REGULATION/ EXHAUST (Continued)

Latch Spring Installation

The latch on the crossbar must have the external coil-type latch spring mounted on latch pin. If a latch spring is weak or broken, it must be replaced with a new spring, part number 33480.

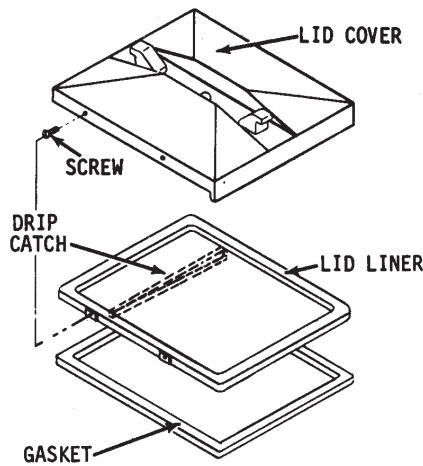


To avoid severe burns and injuries make sure the lid is secure during a cook cycle. The latch spring must be in good working order and properly installed. (Refer to illustrations at left.) If the latch spring is weak, broken, or mounted backwards, it will provide little force against the latch.



1. Replace the crossbar from the lid. (Refer to previous steps on Lid Cover Removal.)
2. With the crossbar in the upright position, remove one of the two Tru-Arc rings from latch pin.
3. Tap out pin from latch while grasping latch, and remove latch and latch spring.
4. Install new latch spring with the coils of spring extending forward. (Refer to illustrations at left.)
5. Secure spring in place with Tru-Arc ring.

2-17. PRESSURE REGULATION/ EXHAUST (Continued)



Lid Liner

1. Remove the four lid liner screws.
2. Use a thin blade screwdriver to pry lid liner from the cover.
3. Clean the liner and the inside of the cover. Replace the liner and screws.

Reversing the Lid Gasket

The gray rubber gasket surrounding the inside of lid is designed to be reversed. Henny Penny recommends that this be done on a quarterly basis.

Purpose

Because of heat expansion and the pressure used for the cooking process, the gasket is constantly under extreme stress. Reversing the lid gasket on a quarterly basis will help to assure that the fryer will not lose pressure through leakage.

2-17. PRESSURE
REGULATION/
EXHAUST (Continued)

Reversing the Lid Gasket
(Continued)



Step 1

1. There are two lid liner screws on either side of the lid cover. Back these four screws out about 1/2 inch.



Step 2

2. Open lid and, using a thin blade screwdriver, pry out the gasket at the corners. Remove the gasket.
3. Clean the gasket and gasket seat with hot water and cleaning detergent. Rinse with clean hot water.
4. Install the gasket with the good side facing out. Tighten the four screws.

**2-17. PRESSURE
REGULATION/
EXHAUST (Continued)**



**Reversing the Lid Gasket
(Continued)**

NOTICE

Begin the installation by installing the four corners of the lid gasket.

Lid Limit Stop Adjustment

The lid limit stop, with proper adjustment, prevents unnecessary overtightening of the spindle, and as a result, extends the life of the lid gasket.



Step 1



Step 2

1. Loosen the Allen set screws on the bottom of the collar of the limit stop assembly.
2. Turn the inner collar of the limit stop clockwise as far as possible. Find the small hole in the inner collar and use a small Allen wrench or Phillips head to help in turning the collar.
3. Close lid and turn spindle until lid gasket meets the top of the frypot rim.
4. From this position, turn spindle at least 3/4 of a turn, but not over one full turn.
5. After rotating spindle to this point, slightly extend the spindle past this position. The spindle should then be at the seven o'clock position.

NOTICE

The seven o'clock position is only to allow slight additional turning of the spindle to relieve any side pressure that could hold the locking pin in the locking collar after all pressure has been released from the frypot.

**2-17. PRESSURE
REGULATION/
EXHAUST (Continued)**

**Lid Limit Stop
Adjustment (Continued)**

It may be necessary to remove knobs and change their position in order to align the red knob with the red knob on the lid cover lid latch. When in the normal operating position, both red knobs should be aligned.

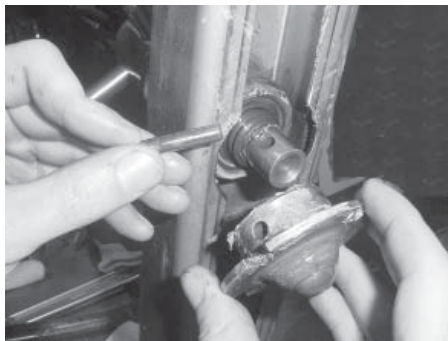
6. Adjust the limit stop by turning it counterclockwise until it stops against the bottom hub of the spindle.
7. Tighten Allen set screws.
8. If the lid cover fails to seal properly, steam will escape around the gasket during the frying operation. The limit stop should be readjusted. This time turn the spindle screw one full turn after the initial contact of the lid gasket against top of the frypot rim.

Spindle Screw Assembly

This assembly is used to tighten the lid cover against the frypot flange.



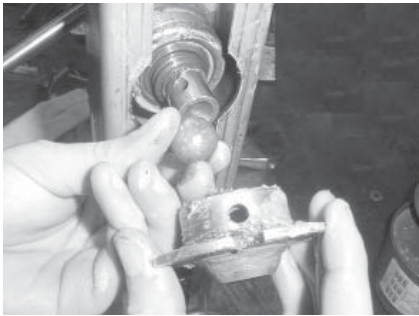
Step 3



Step 4

1. Loosen the set screw in the limit stop collar and loosen the limit stop.
2. Disengage the crossbar from the lid cover as described in the "Lid Cover Removal". Leave the lid cover in position on the frypot rim with the crossbar in the upright position.
3. Turn the spindle so the pin in the locking collar will be exposed.
4. Remove pin and locking collar. Use a small diameter punch and a hammer to drive out the pin from the locking collar. Remove the locking collar.

**2-17. PRESSURE
REGULATION/
EXHAUST (Continued)**



Step 5

5. Remove the ball from the locking collar. In some cases, lightly tapping the steel ball with a hammer may be needed.



Step 6

6. Remove and inspect the idle nut.



Step 7

7. Thread the spindle out of the acme nut.



Step 8

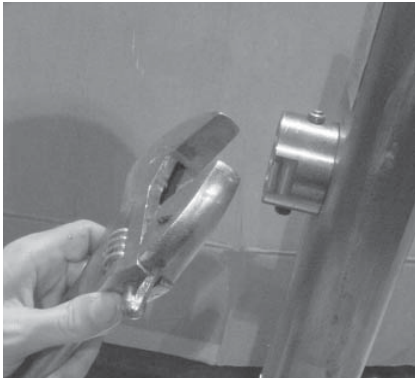
8. Loosen the Allen set screw in the outer ring of limit stop. Thread the inside portion up and down several times to check for ease of operation. If thread feels tight or must be forced, threads may be damaged. Discard and replace with new limit stop assembly.

**2-17. PRESSURE
REGULATION/
EXHAUST (Continued)**

NOTICE

The acme nut must be changed when there is excessive play and movement between the spindle and the acme nut.

9. Using a nylon tape type wrench unthread the limit stop collar from the acme nut.



Step 9

10. Gently tap the acme nut from the center crossbar. Inspect the acme nut for thread damage. If the threads are thin and sharp or worn, replace with a new acme nut.



Step 10



Step 11

11. Use an Allen wrench and ratchet to remove the retainer.



Step 11

**2-17. PRESSURE
REGULATION/
EXHAUST (Continued)**



Step 12

12. Remove the locking pin and spring. Inspect and replace, if necessary.

NOTICE

When reinstalling the locking pin, be certain it is put back in its original position. The angled side of the pin should be to the right.



Step 13

13. Use a magnet to remove the ball seat. Inspect and replace if necessary.



Step 13

14. Install the acme nut and limit stop collar. Lubricate the acme nut with special grease (our part number 12124).

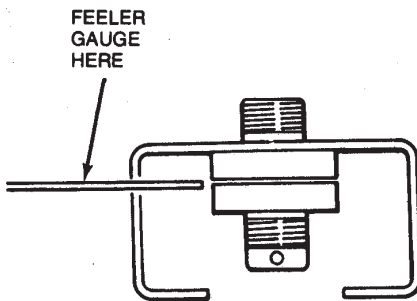
15. Thread the limit stop assembly into the limit stop collar.



Step 16

16. Lubricate the spindle with special grease (our part number 12124) every 30 days.

2-17. PRESSURE REGULATION/ EXHAUST (Continued)



2-18. FILTERING SYSTEM



Step 3

17. Slip the spindle through the limit stop, hold the idle nut against the acme nut, and thread spindle through both. There should be 20 to 60 thousandths between the acme nut and the idle nut. To increase dimension turn the idle nut counterclockwise; to decrease turn clockwise.
18. Install the locking collar, locking pin and ball. Install the ball seat in the lid. Install the retainer and spring.
19. Reassemble the crossbar to the lid cover according to the "Lid Cover Installation" procedure.
20. Readjust the lid limit stop during the test cook cycle.

Filter Rinse Hose

The filtering system consists of the filter valve, motor and filter pump assembly, filter screen assembly, and tubing.



SHORTENING WITH TEMPERATURE IN EXCESS OF 200°F FLOWS THROUGH THIS FILTER RINSE HOSE. HEAT CAUSES THE RUBBER HOSE TO AGE AND DETERIORATE. SEVERE BURNS WILL RESULT IF THIS RINSE HOSE ASSEMBLY LEAKS OR RUPTURES. THE HOSE AND FITTINGS SHOULD BE CHECKED DAILY. IF AGING OR DISCOLORATION IS SEEN, THE HOSE SHOULD NOT BE USED.

Removal

1. Close the filter valve.
2. Turn the pump switch to the OFF position.
3. Detach the hose.

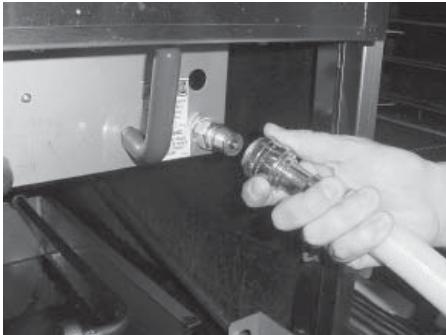


THE HOSE AND FITTING WILL BE HOT. USE PROTECTIVE GLOVES OR CLOTH WHEN FOLLOWING THIS PROCEDURE, OR SEVERE BURNS COULD RESULT.



This hose is not connected to fryer during normal operation.

2-18. FILTERING SYSTEM **(Continued)**



Step 1

Installation

1. Attach the filter rinse hose with its quick disconnect female fitting to the other half male fitting inside the door, next to the filter valve handle.
2. To do this slide back the spring ring on the female end of the quick disconnect fitting and let it snap into place over the other half male fitting.
3. With a quick tug on the hose, insure the quick disconnect is locked into position.

Filter Valve Description

The filter valve is a 3/8 inch two-way stainless steel ball valve. If this valve should develop leaks the entire valve must be replaced.



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

Removal

1. Drain the shortening from the frypot.
2. Remove the filter drain pan from the fryer.
3. Remove the cotter pin, handle, and extension rod.
4. Remove the pipe from between the filter pump and valve.

NOTICE

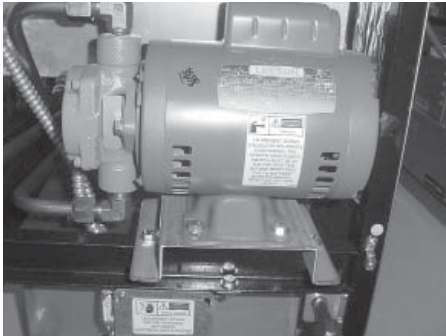
If fryer is equipped with optional filter rinse hose attachment, disconnect pipe from filter valve.

5. Use an adjustable wrench and remove the valve.
6. Replace the valve and reassemble in reverse order.

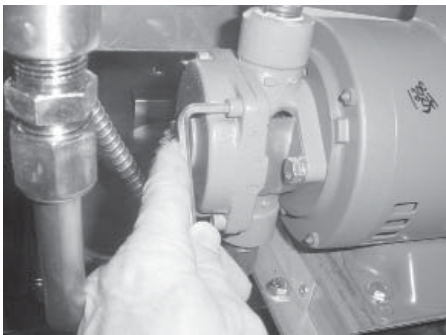
2-18. FILTERING SYSTEM **(Continued)**

Filter Pump Repair

The two most common causes for a fryer's inability to pump shortening is that the pump is clogged with breadings or solid shortening has cooled and solidified in the lines and pump.



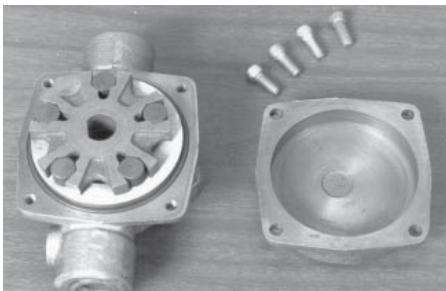
To avoid electrical shock or property damage, move the power switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.



Step 1

Cover Removal

1. Loosen the four Allen head screws on the end of pump and remove the cover.
2. The inside is now exposed leaving a rotor and five teflon rollers. Clean the rotor and rollers.



Step 2

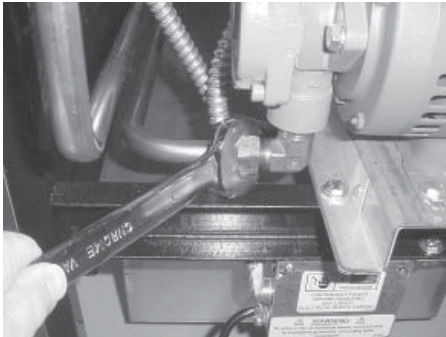
3. To reassemble, place rotor on drive shaft, and place roller into rotor.



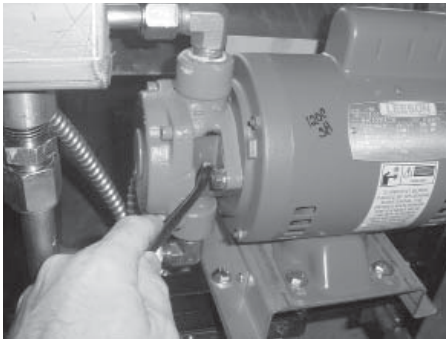
A small amount of grease might be needed to hold the bottom roller into place until cover plate is put on. Make sure O-ring is in proper position on plate.

2-18. FILTERING SYSTEM **(Continued)**

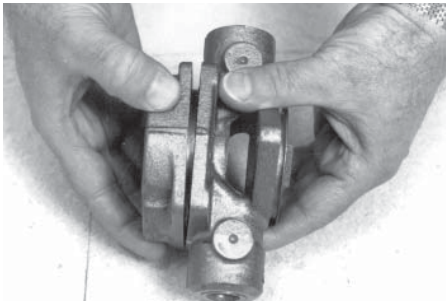
Pump Removal



Step 1



Step 2



1. If the pump needs to be replaced, loosen one inch nuts from the outflow and inflow lines. Then remove the two bolts holding the pump to the motor with a 1/2 inch wrench.
2. Shaft seal should remain on the motor shaft, or if leaking, could be replaced at this time.
3. To replace the pump, remove the four Allen screws, front plate, rotor, and rollers from pump. Place the pump onto shaft and against the shaft seal. Place the two 1/2 inch bolts through the pump and into the motor and tighten. Then replace rotor, rollers, front plate and tighten Allen screws.

CAUTION

When removing a pump from a motor, note the positions of the inlet and outlet parts. Installation of the pump on the motor in any other position could cause damage to the fryer. There is an indicator on the side of the two halves of the pump, this mark must be together and face to the front of the fryer.

2-18. FILTERING SYSTEM **(Continued)**

Pump Removal (Continued)

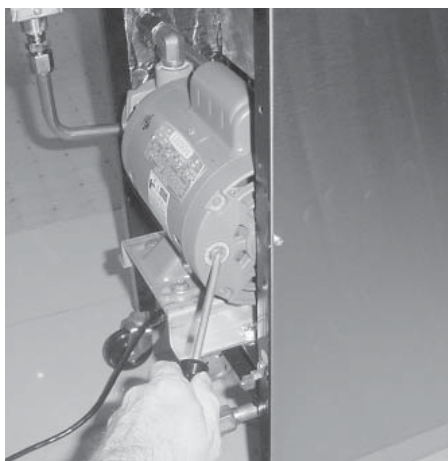
4. To replace the pump and motor assembly, insure the main power has been removed from the fryer.



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

5. Remove the cover from the junction box and remove the wire nuts attaching wires leading into the flexible conduit going to the motor.
6. Loosen the two screws securing the flexible conduit to the 90° conduit connector (8). (Refer to Figure 3-6.)
7. Remove tubing to the pump. (Refer to Figures 3-17 and 3-18.)
8. Remove hardware attaching the motor to the motor base bracket and remove motor and pump assembly.

Filter Pump Motor Protector - Manual Reset



The filter pump motor is equipped with a manual reset button in the event the motor's thermal protector actuates. This reset button is located on the rear of the motor. Wait approximately 5 minutes before attempting to reset this protector device.



To prevent burns caused by splashing shortening, the unit's main power switch must be in the OFF position before resetting the filter pump motor's manual reset protection device.

2-19. GAS CONVERSION

Gas model fryers are factory available for either natural gas or propane gas. Factory conversion kits for natural gas and propane gas are available that require the burner jets, pilot jet and regulator assembly to be changed.

Refer to the Technical Manual illustrated parts breakdown for kit identification.



Conversion must be accomplished by an authorized Henny Penny dealer or service representative, or personal injury could result.

Service Hints

On natural gas installation, the gas pressure regulator on the automatic gas control valve is factory set at 3.5 inch water column.

On propane gas installations, the gas pressure regulator on the automatic gas control valve is factory set at 10.0 inch water column.

After converting the fryer, turn on the gas supply and check for leaks. A simple method is to brush all the connections with soapy water, and watch for bubbles which indicate escaping gas.



NEVER USE AN OPEN FLAME TO TEST FOR LEAKS. ESCAPING GAS COULD CAUSE AN EXPLOSION, AND PERSONAL INJURY OR PROPERTY DAMAGE COULD RESULT.

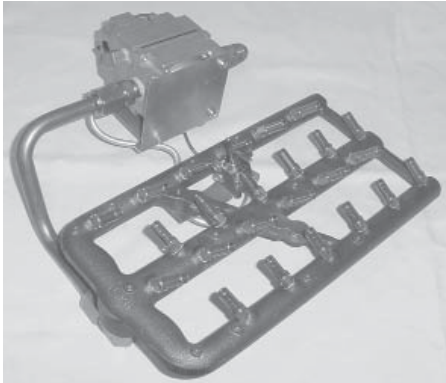
2-19. GAS CONVERSION **(Continued)**

Maintenance

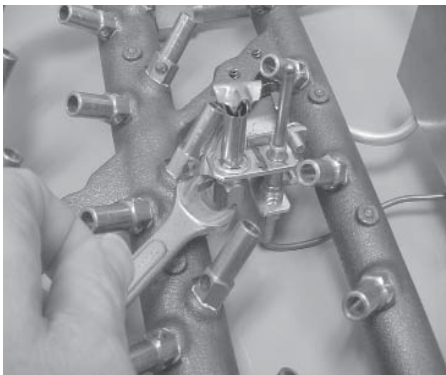


To avoid electrical shock or property damage, move the power switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

To convert from one type of gas to another, follow the procedure below:



Step 3



Step 5

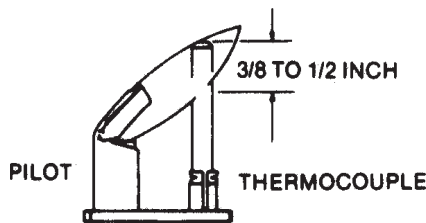
1. Turn the gas valve knob to the OFF position.
2. Close the gas control valve and disconnect fryer supply line.
3. Refer to Figure 3-30 and remove gas control valve and burner assembly per Gas Burner Assembly section.
4. Remove the burner orifices (24 each), and replace with orifices in gas conversion kit.
5. Remove the pilot holder assembly and replace with the one from the kit.
6. Remove the gas control valve manufacturer's instructions from the envelope containing the regulator spring, and follow the directions for converting the gas control valve.

NOTICE

Outlet pressure is stated on the enclosed label.

7. Attach the pressure sensitive data plate label to the data plate, covering up the old rating and pressure information.
8. Install converted gas control valve and burner assembly per Gas Burner Assembly section.
9. Connect the gas supply to the fryer.
10. Insure the power switch is in the OFF position, gas control valve in the OFF position.
11. Connect the electrical power to the fryer.

2-19. GAS CONVERSION **(Continued)**



2-20. ELECTRICAL CONVERSIONS

12. Check for gas leak at supply line as per Service Hints in this section.
13. Turn the gas control valve on and turn the gas control valve to the pilot position.
14. Check for gas leak at the gas control valve and main gas valve per step 12 of this section. If there are no leaks, continue to step 15.



IF A LEAK IS DETECTED, SHUT OFF GAS CONTROL VALVES AND REPAIR LEAK. ESCAPING GAS COULD CAUSE AN EXPLOSION, AND/OR PERSONAL INJURY AND PROPERTY DAMAGE COULD RESULT.

15. With the gas valve knob at PILOT, depress the dial and light the pilot burner per Operator's Manual.

On occasion, it may be necessary to make electrical conversion to a fryer. Factory conversion kits are available and should be used. The following procedures describe these conversions.

Procedures

208 Volts to 220/240 Volts:

The only change necessary is to remove the 208 volt heating elements and replace them with 220/240 volt heating elements. Delay timers must be changed on variable temperature models.

220/240 Volts to 208 Volts:

The only change necessary is to remove the 220/240 volt heating elements and replace them with 208 volt heating elements. Delay timers must be changed on variable temperature models.

Single Phase to Three Phase:

A factory conversion kit (part number 14034) is available for this conversion. This kit includes all necessary components and a wiring diagram.

Three Phase to Single Phase:

A factory conversion kit (part number 14033) is available for this conversion. This kit includes all necessary components and a wiring diagram.

Refer to the proper figure in the illustrated parts listing (Section 3), and Section 2 for maintenance assistance for the fryer being converted to and from.

2-21. WIRING DIAGRAMS

Illustrations of the wiring diagrams for HENNY PENNY Models 500, 561, and 600 Pressure Fryers are on the following pages.

If there is any doubt about which wiring diagram to use, please contact your distributor. As with all contacts to the distributor, include the model number & serial number from the data plate on your unit.

NOTICE

The legend for **NON-C1000 & C2000** wiring diagrams, explaining the wire naming system for April 1, 2006 & after, is found on page 2-63.

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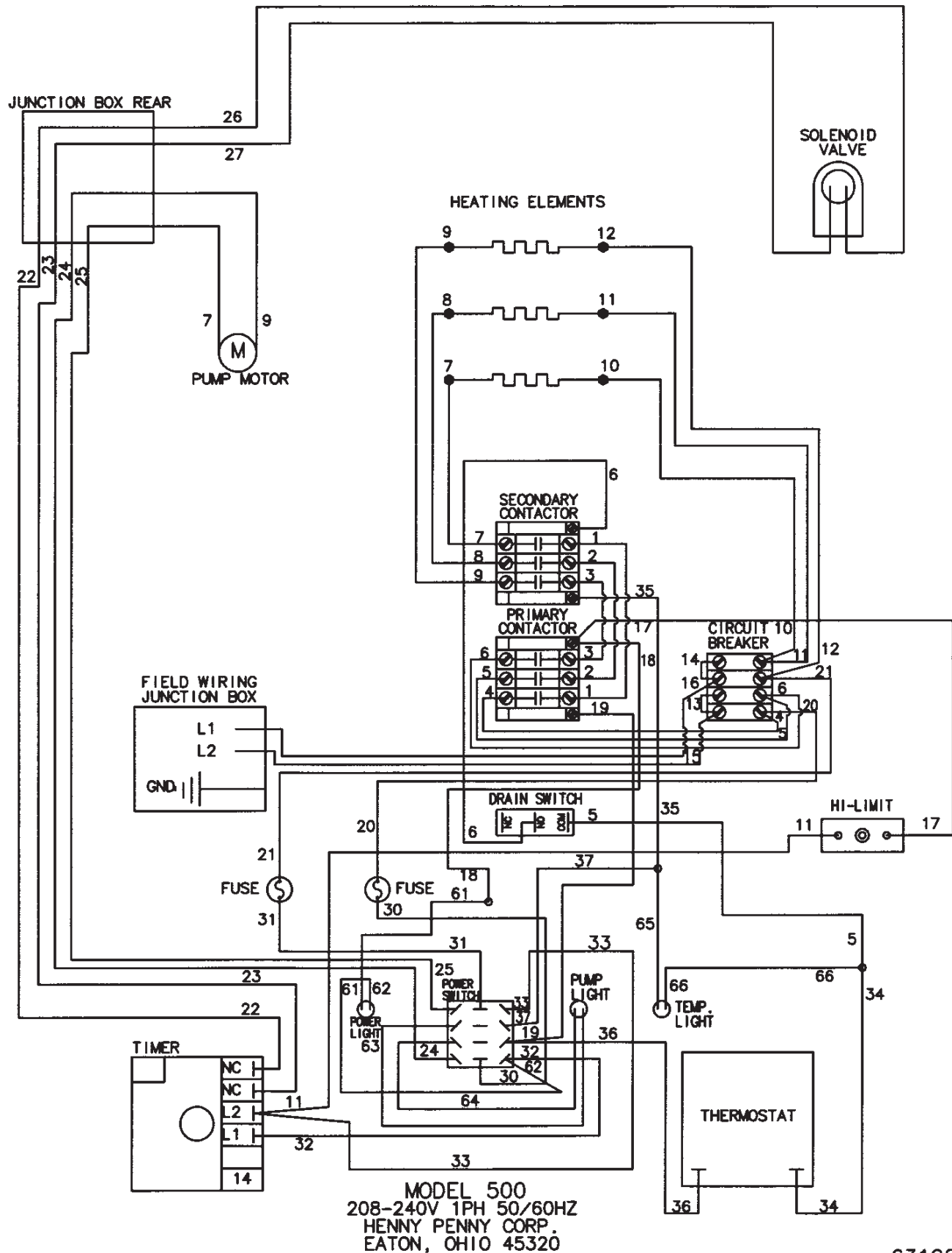
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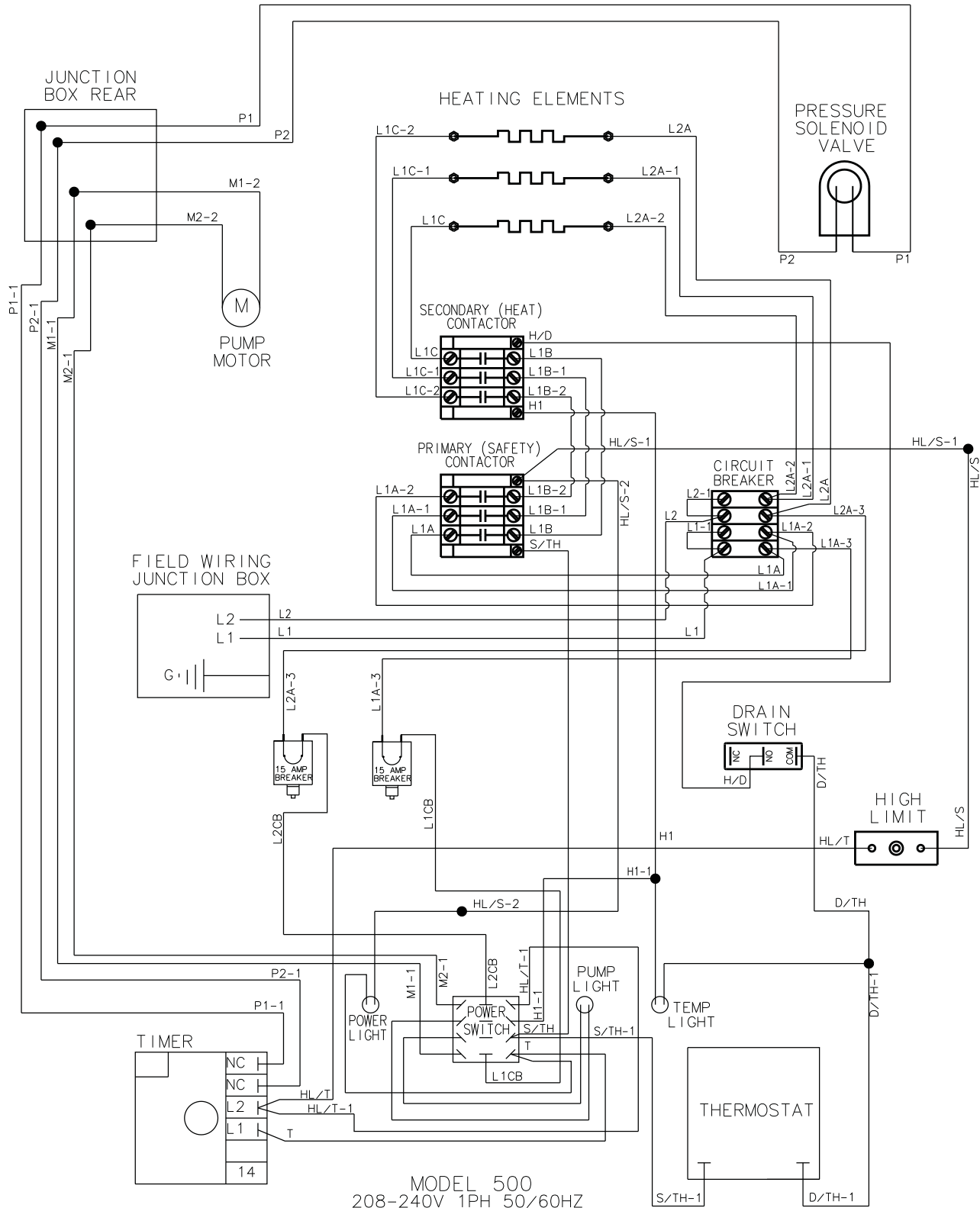
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WIRING DIAGRAMS LEGEND

ABBREVIATION	DEFINITION
C	CONTROL
CB	CIRCUIT BREAKER
D	DRAIN
DS	DRAIN SWITCH
F	FUSE
G	GROUND
H	HEAT
HL	HIGH LIMIT
HS	HEAT & SAFETY
L1	LINE 1
L2	LINE 2
L3	LINE 3
M	MOTOR
P	PRESSURE
PB	PROBE
R	RELAY
S	SAFETY
T	TIMER
TH	THERMOSTAT
TR	TRANSFORMER
/	TWO COMPONENTS TOGETHER
-	EXTENSION OF THE SAME SIGNAL

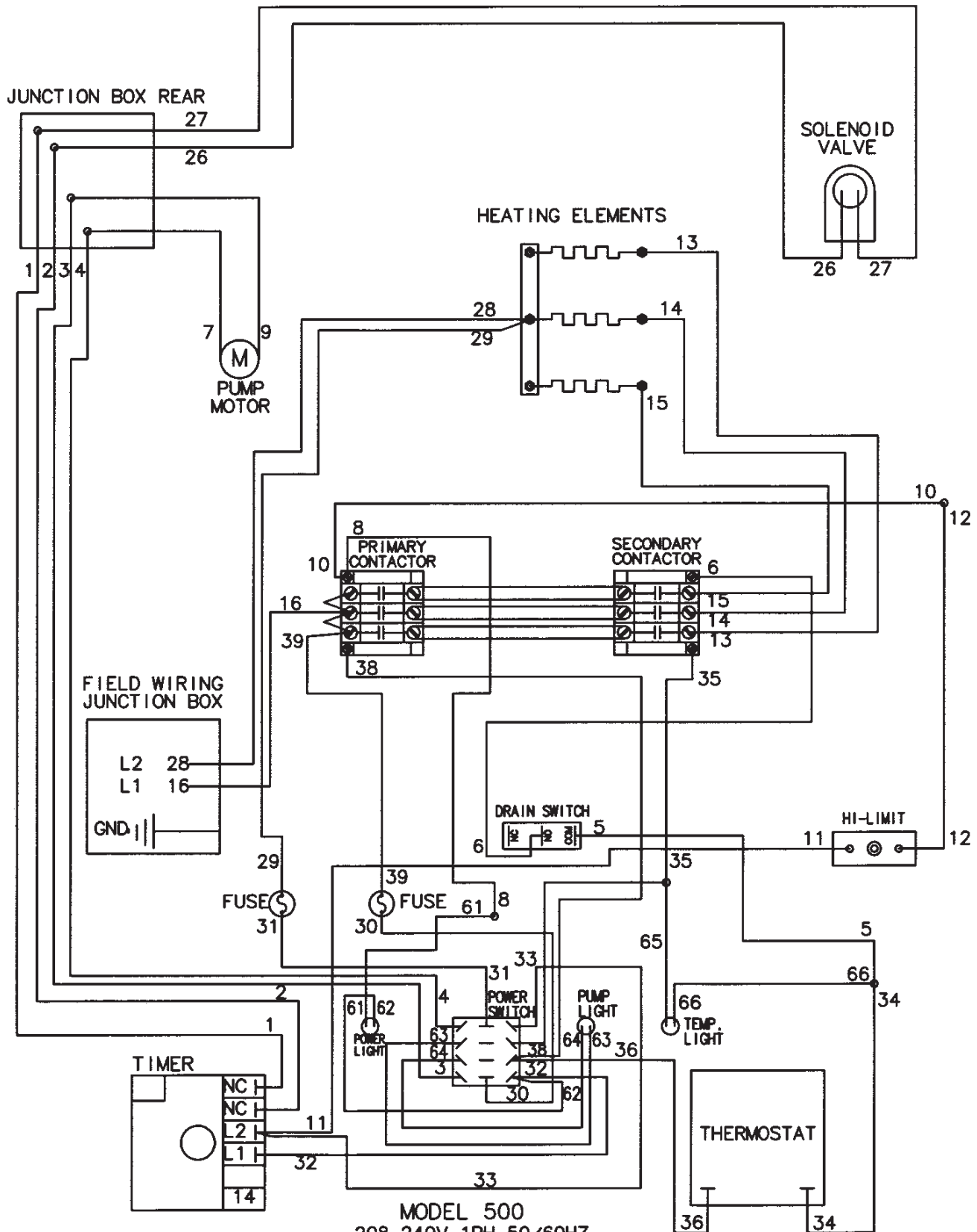


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71995

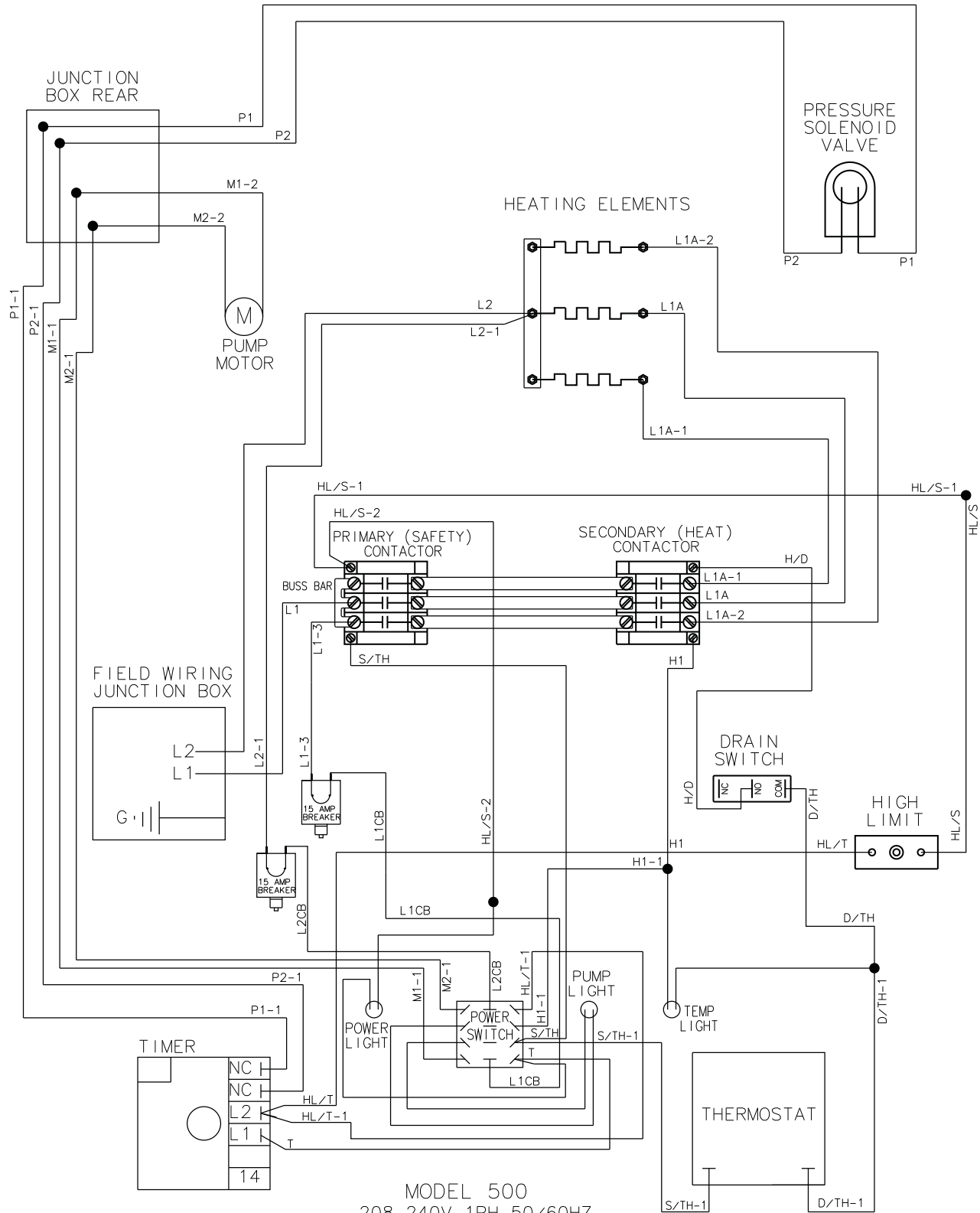
April 1, 2006 & After



MODEL 500
208-240V 1PH 50/60HZ
HENNY PENNY CORP.
EATON, OHIO 45320

63199

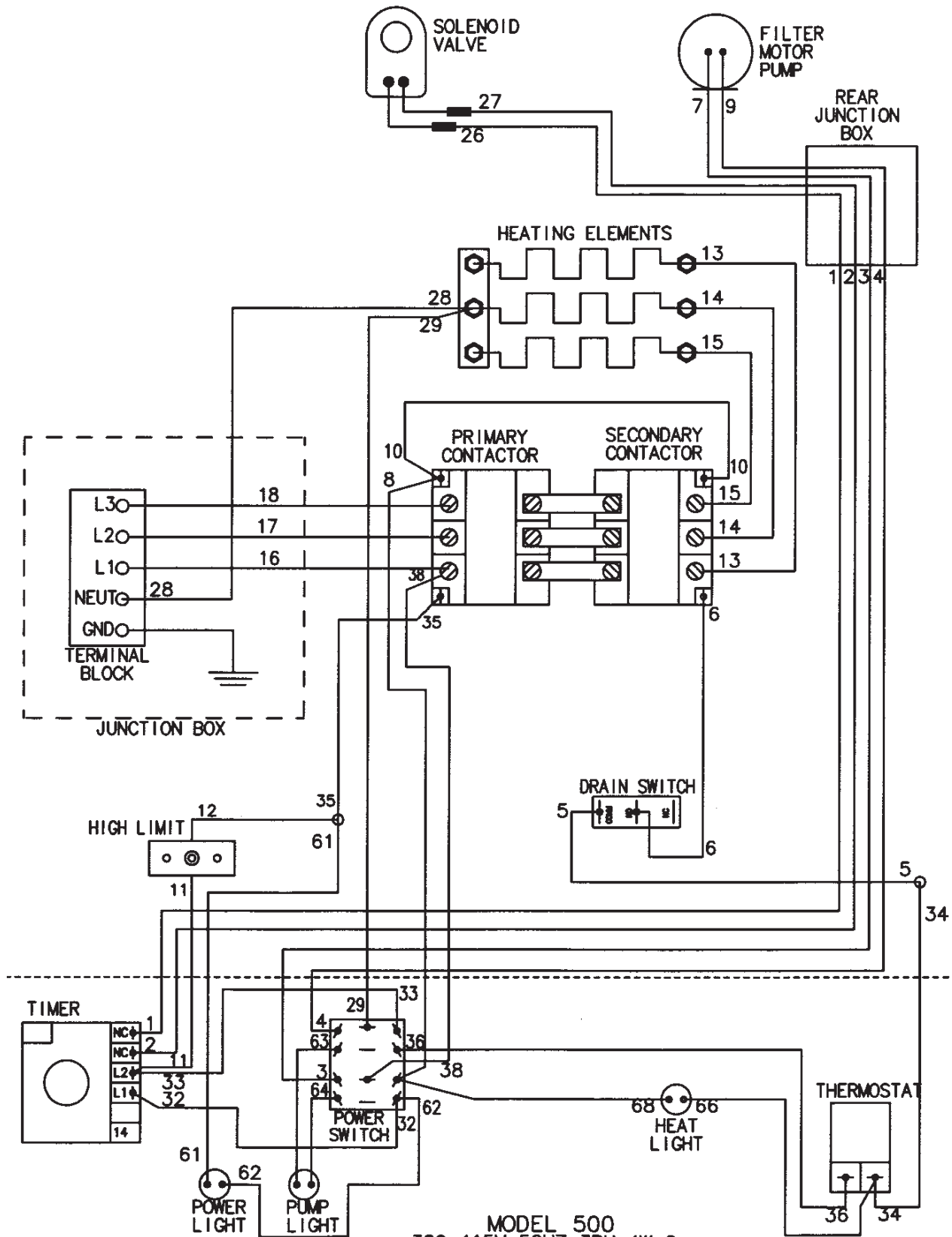
Before April 1, 2006



MODEL 500
208-240V 1PH 50/60HZ
HENNY PENNY CORP.
EATON, OHIO 45320

71988_D

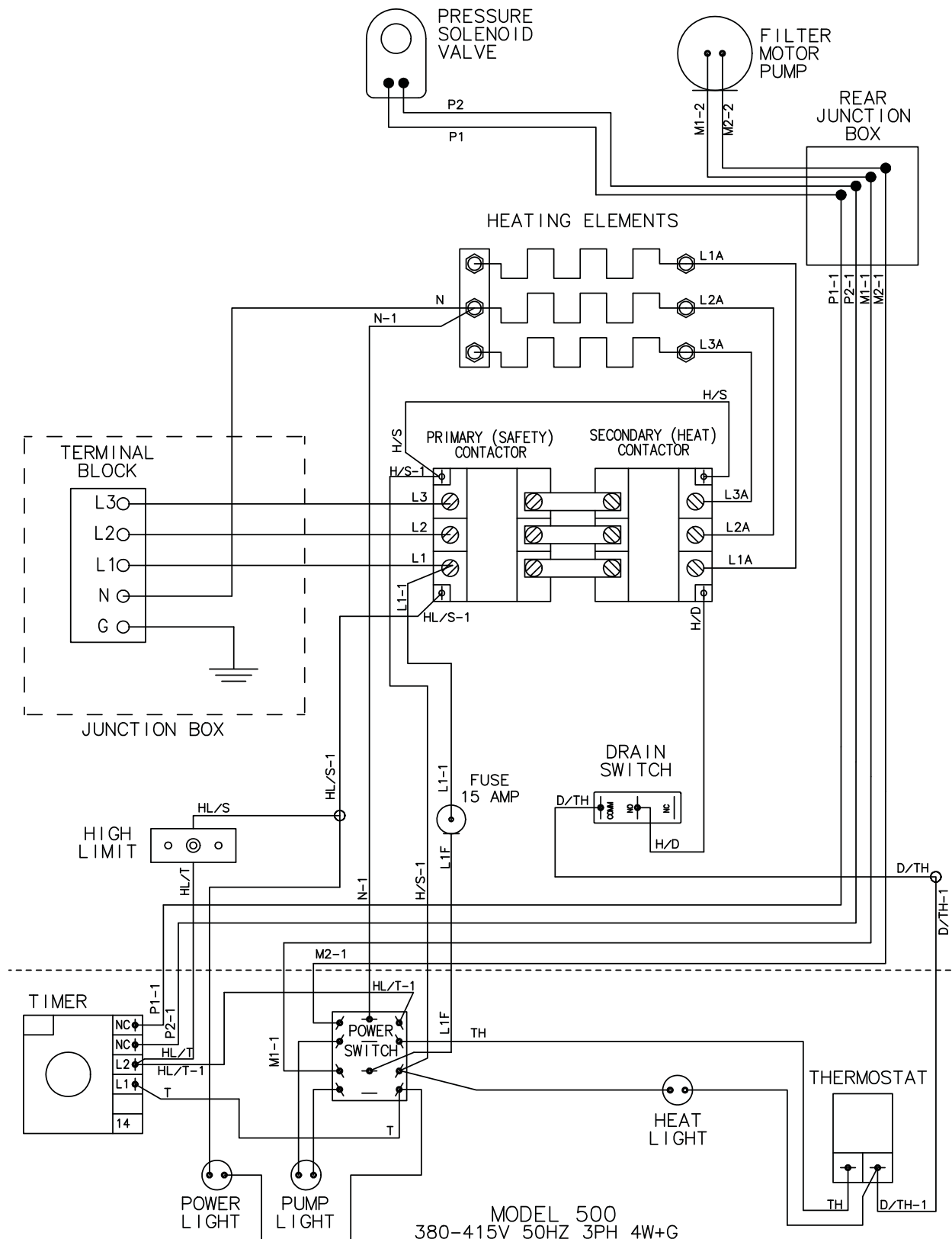
April 1, 2006 & After



MODEL 500
380-415V 50HZ 3PH 4W+G
HENNY PENNY CORP.
EATON, OHIO 45320

63197

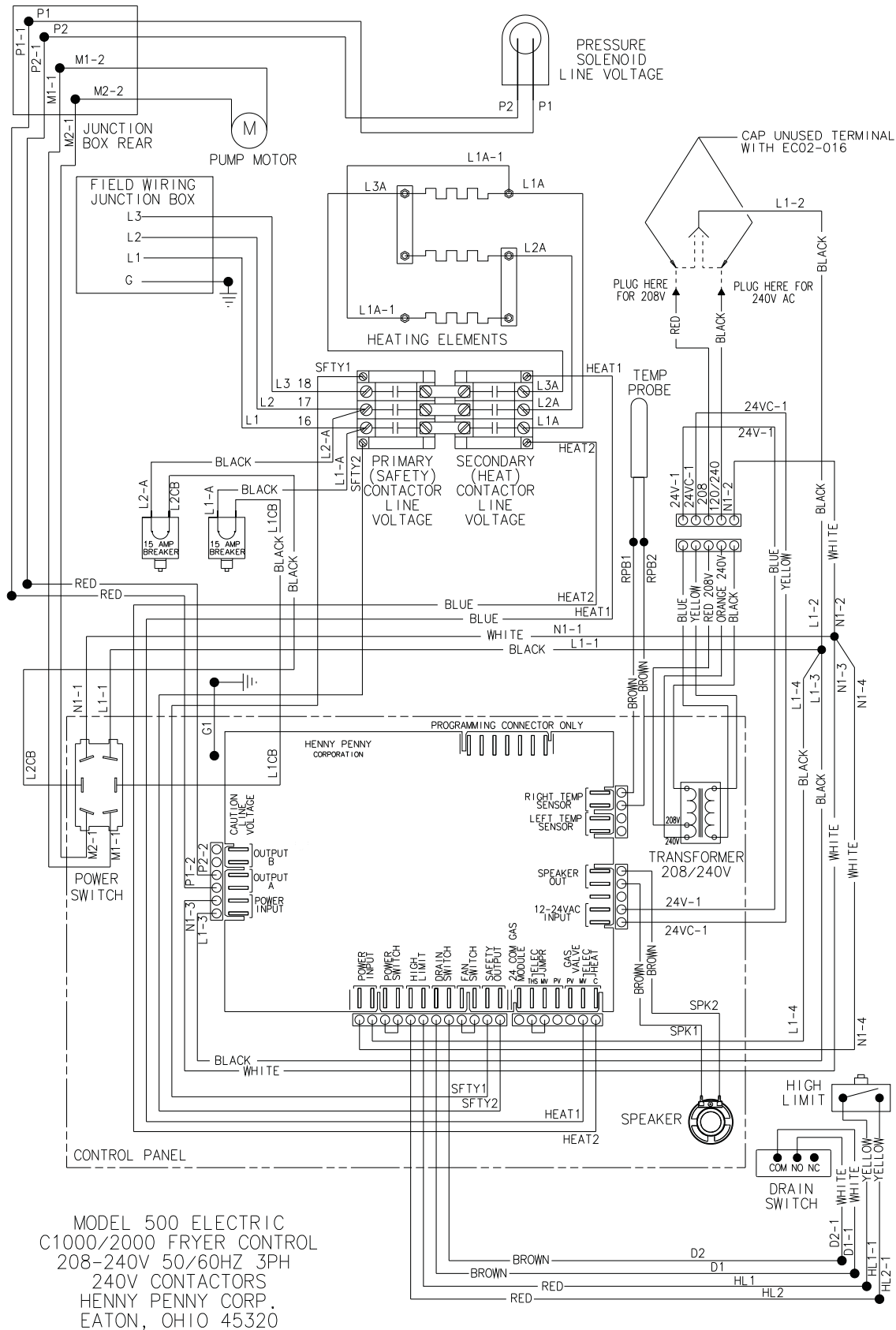
Before April 1, 2006



MODEL 500
380-415V 50HZ 3PH 4W+G
HENNY PENNY CORP.
EATON, OHIO 45320

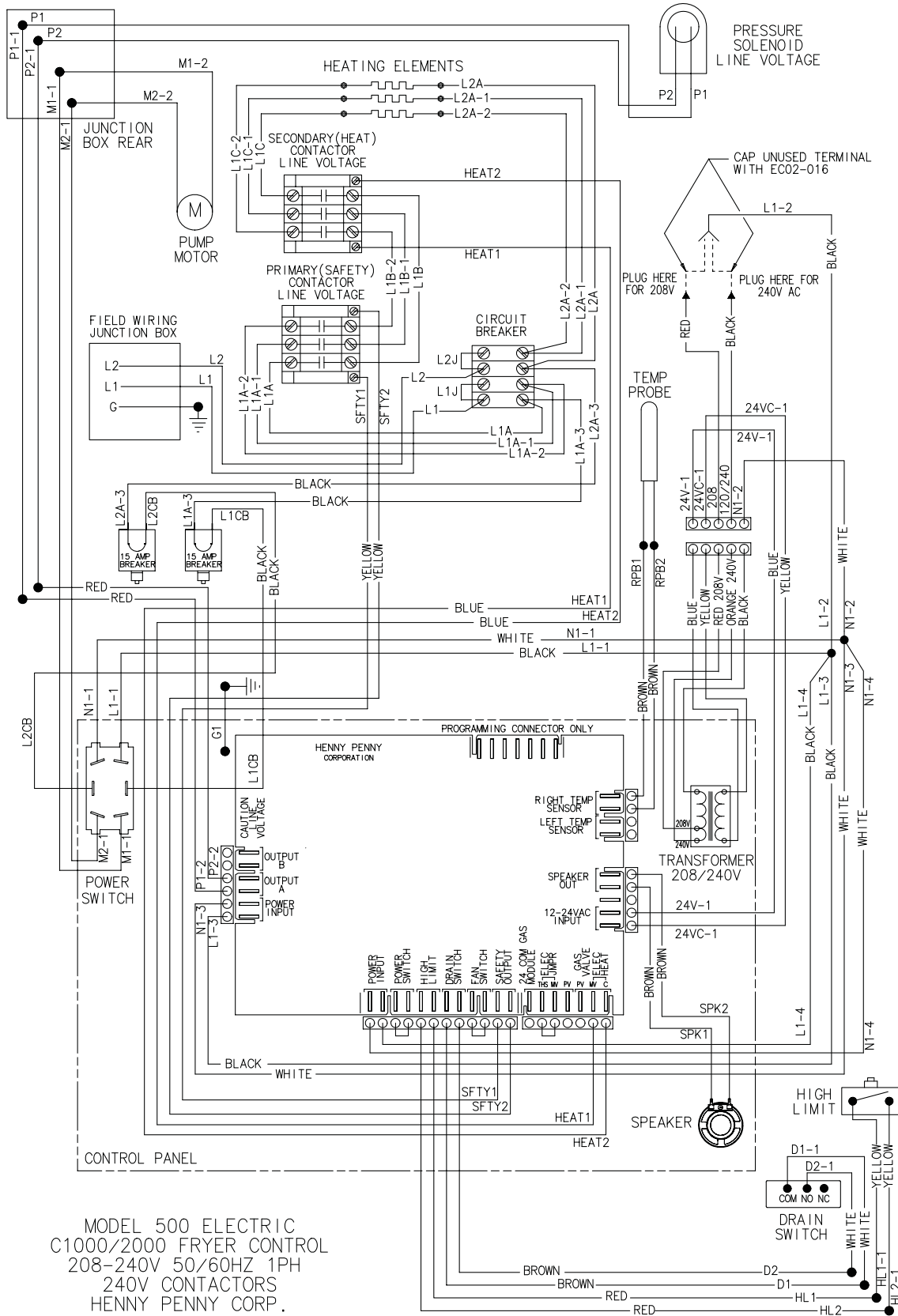
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April 1, 2006 & After



78541

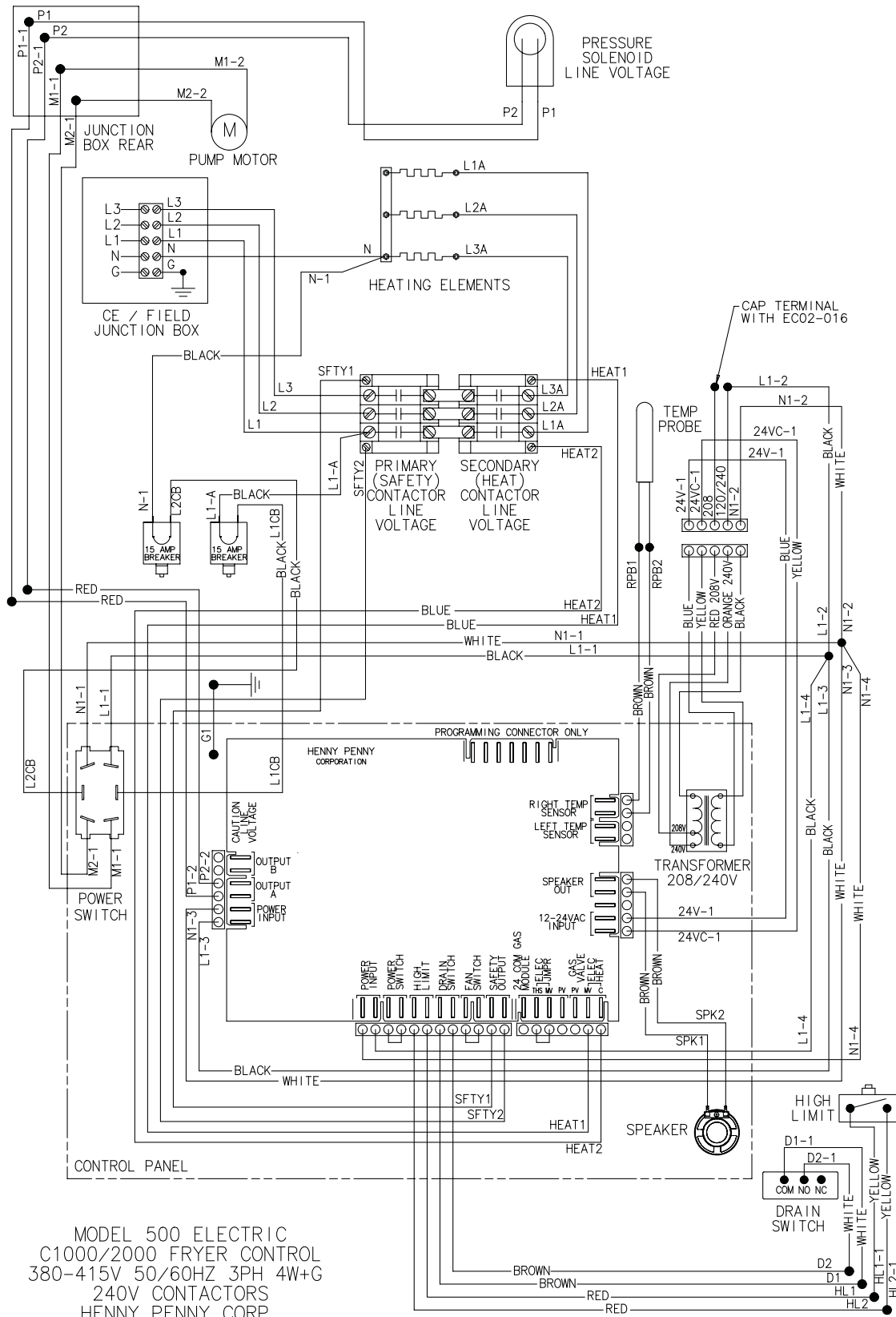
Serial Number AN0807051 & Above



79421

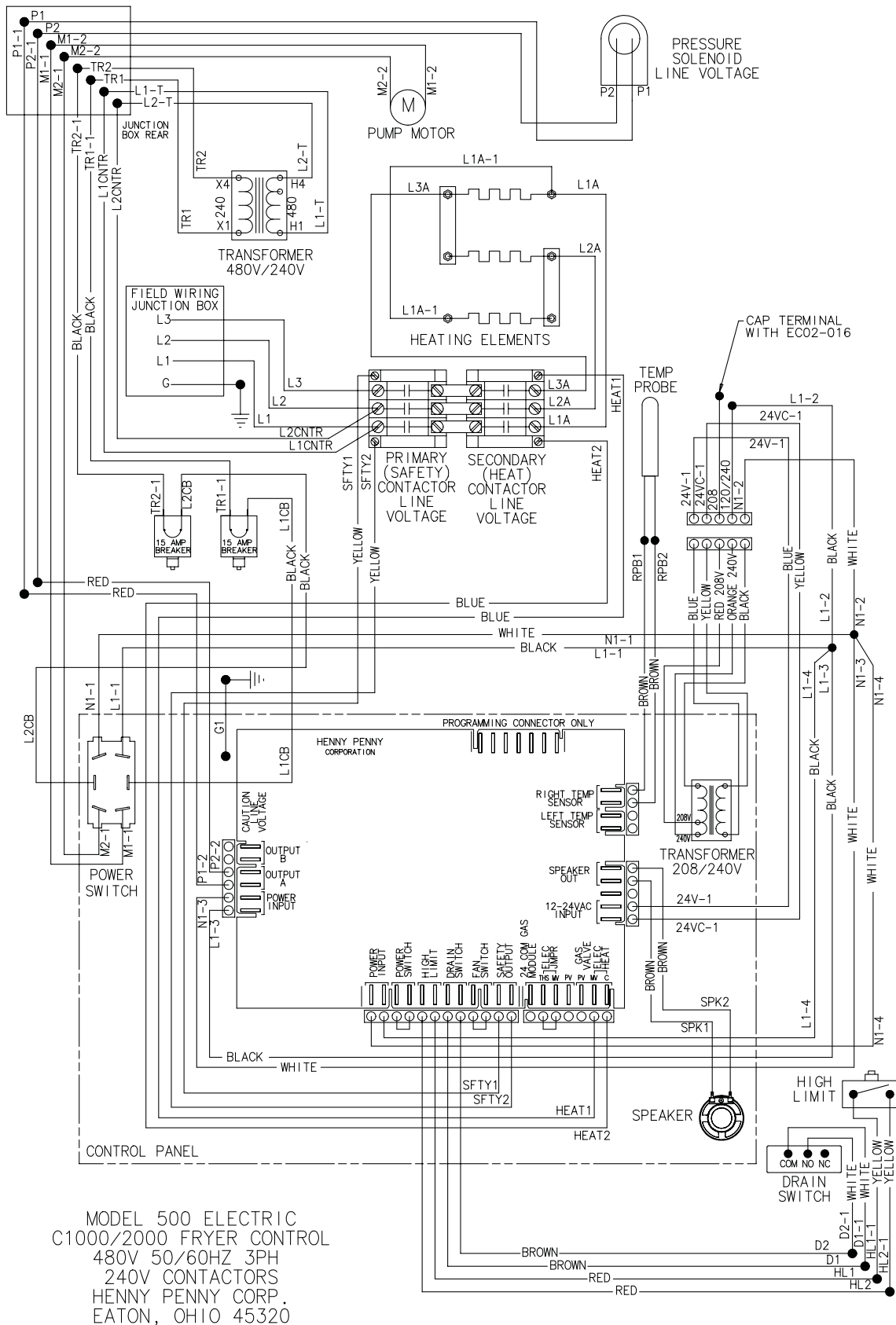
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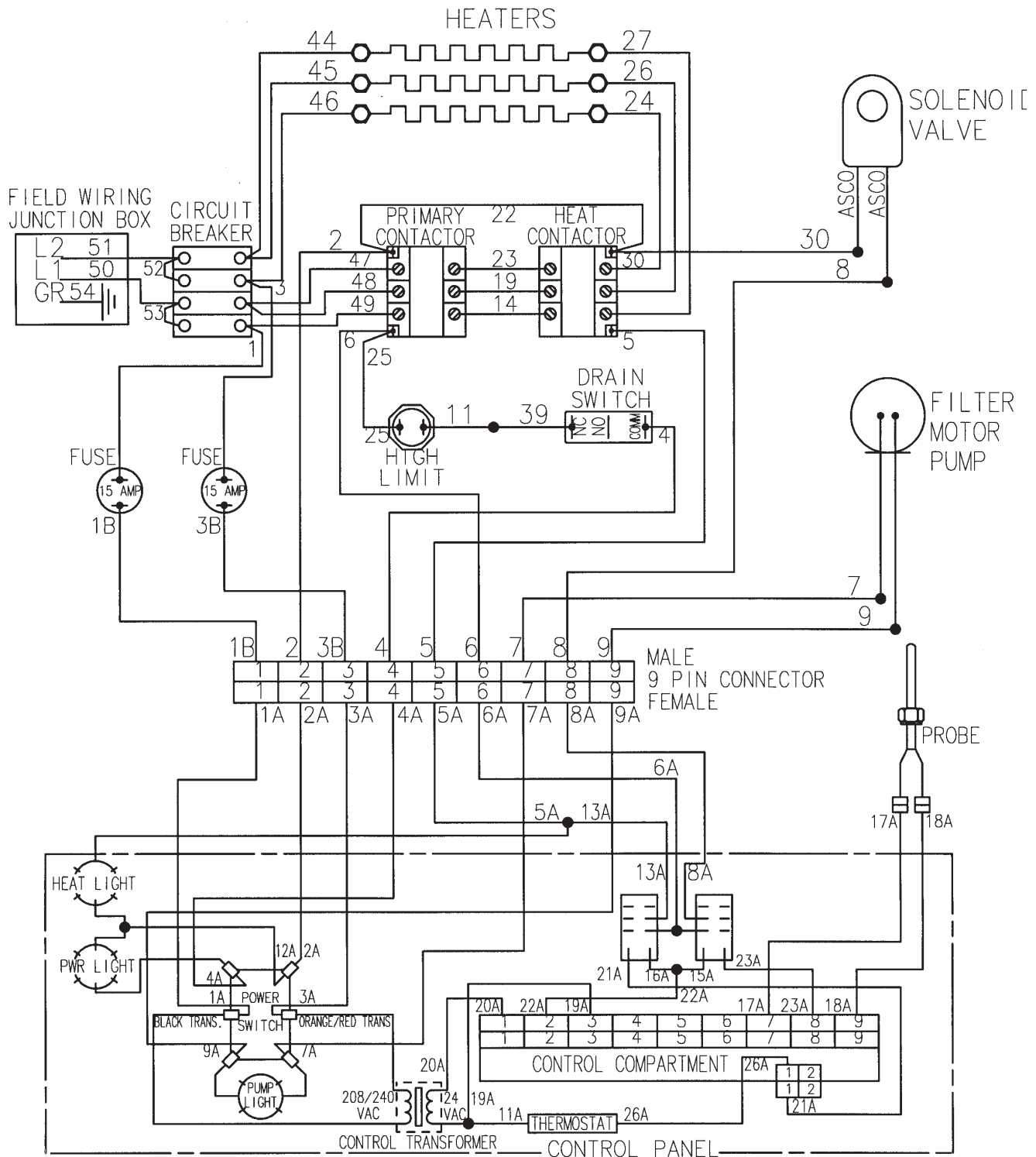
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Serial Number AN0807051 & Above



79415

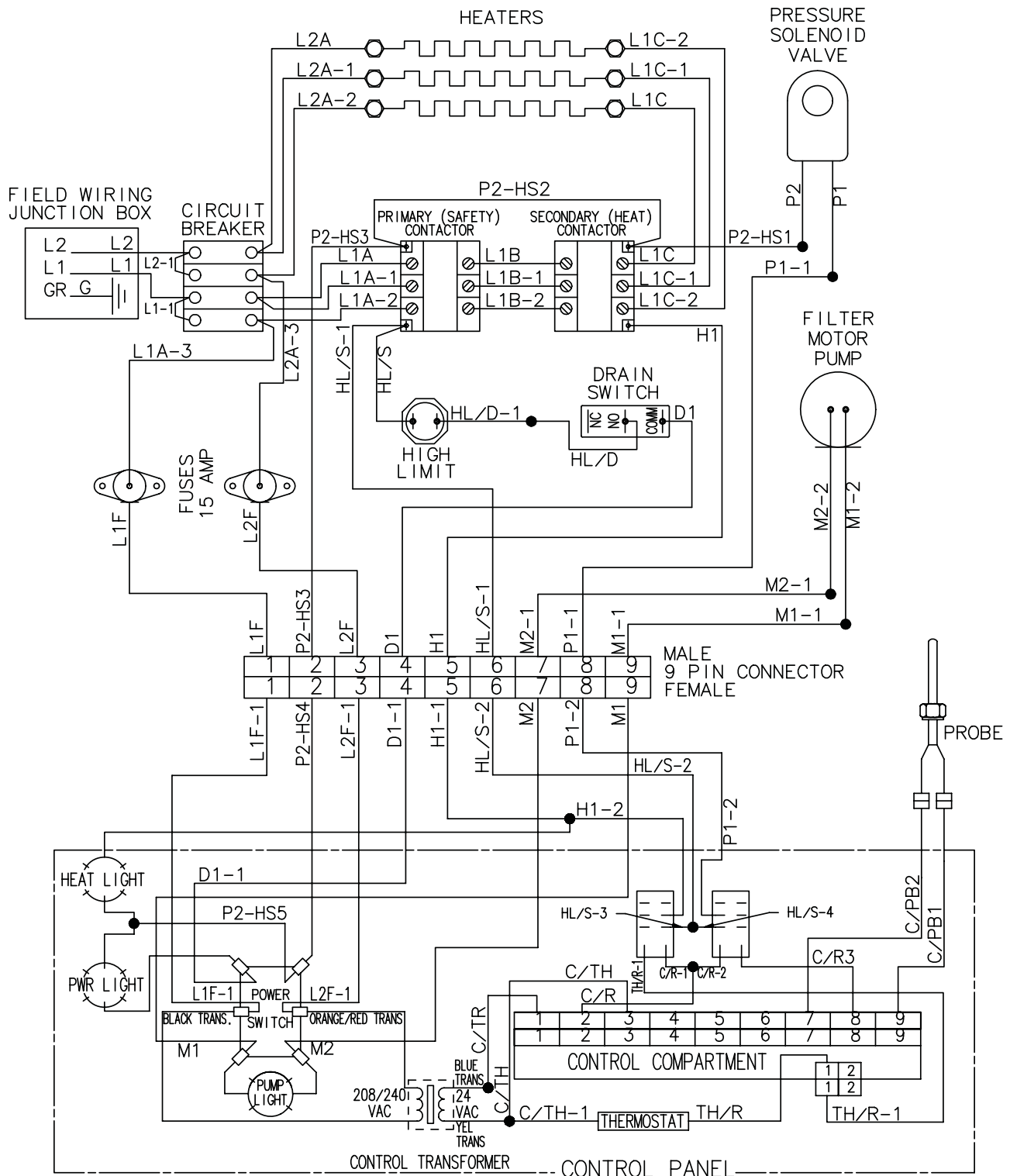
Serial Number AN0807051 & Above



MODEL 500F
208-240V 50/60HZ 1PH
HENNY PENNY CORP.
EATON, OH 45320

51672

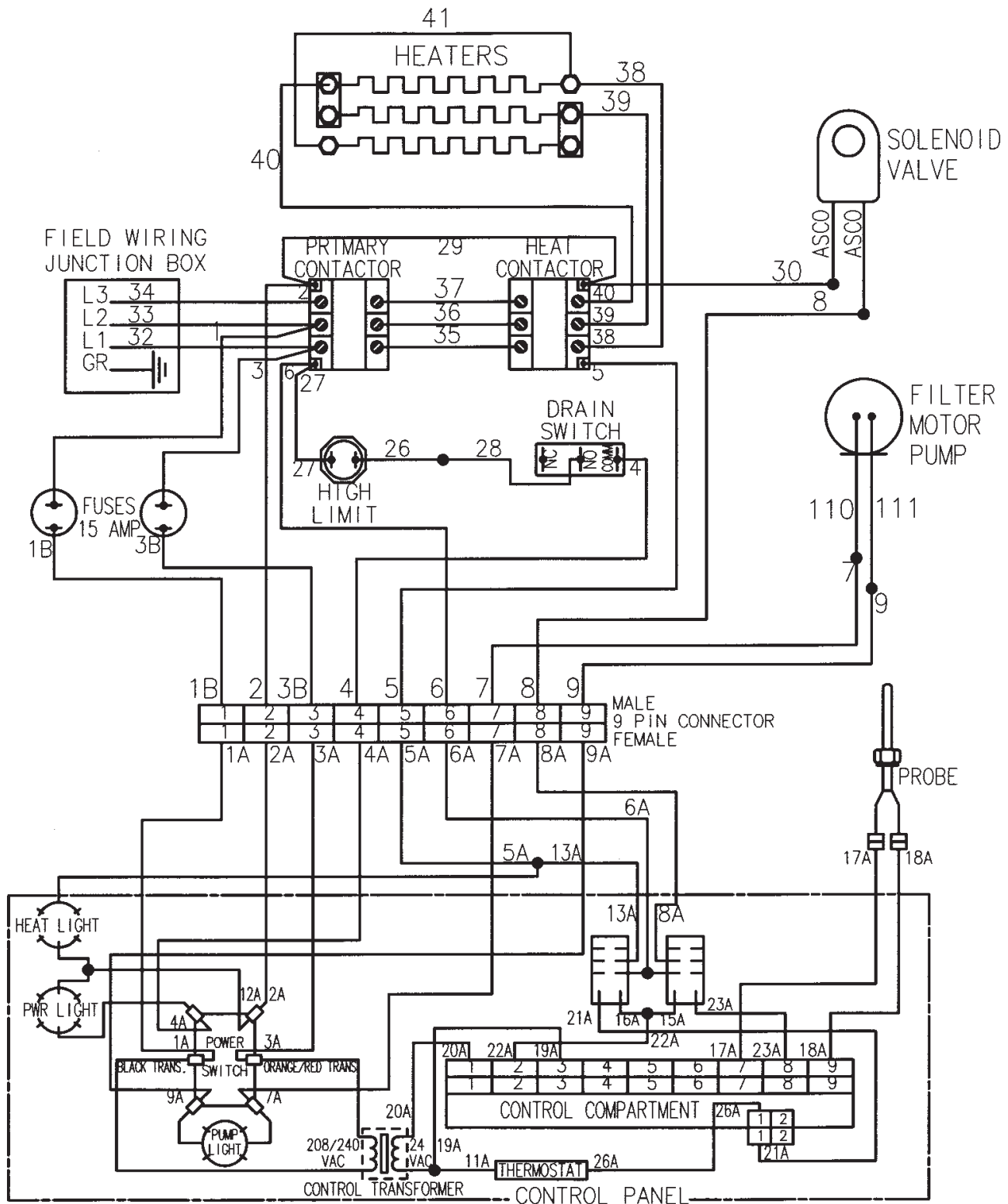
Before April 1, 2006



MODEL 500F
208-240V 50/60HZ 1PH
HENNY PENNY CORP.
EATON, OH 45320

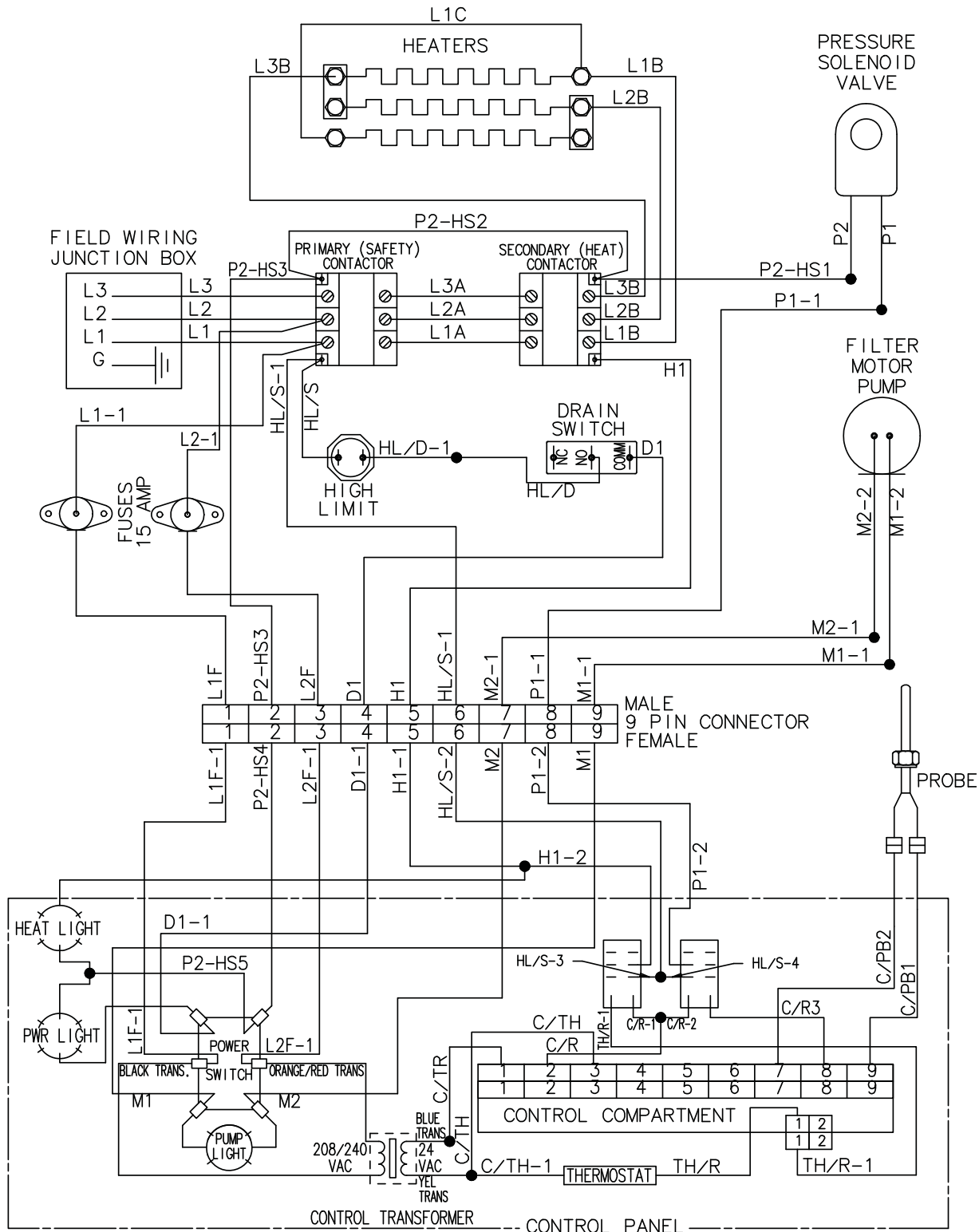
69647

April 1, 2006 & After



MODEL 500F
208-240V 50/60HZ 3PH
HENNY PENNY CORP.
EATON, OHIO 45320
Before April 1, 2006

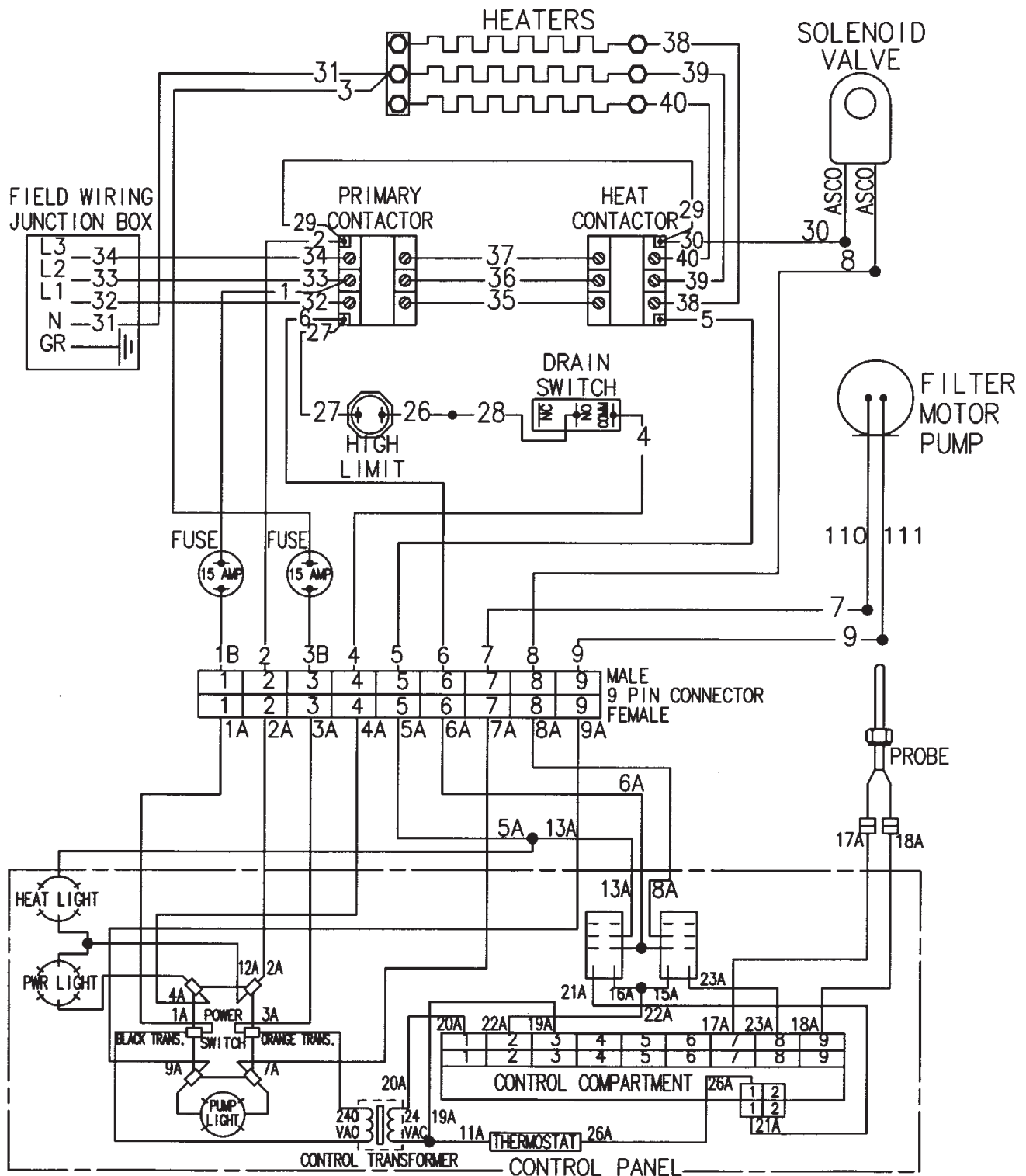
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MODEL 500F
208-240V 50/60HZ 3PH
HENNY PENNY CORP.
EATON, OHIO 45320

69624

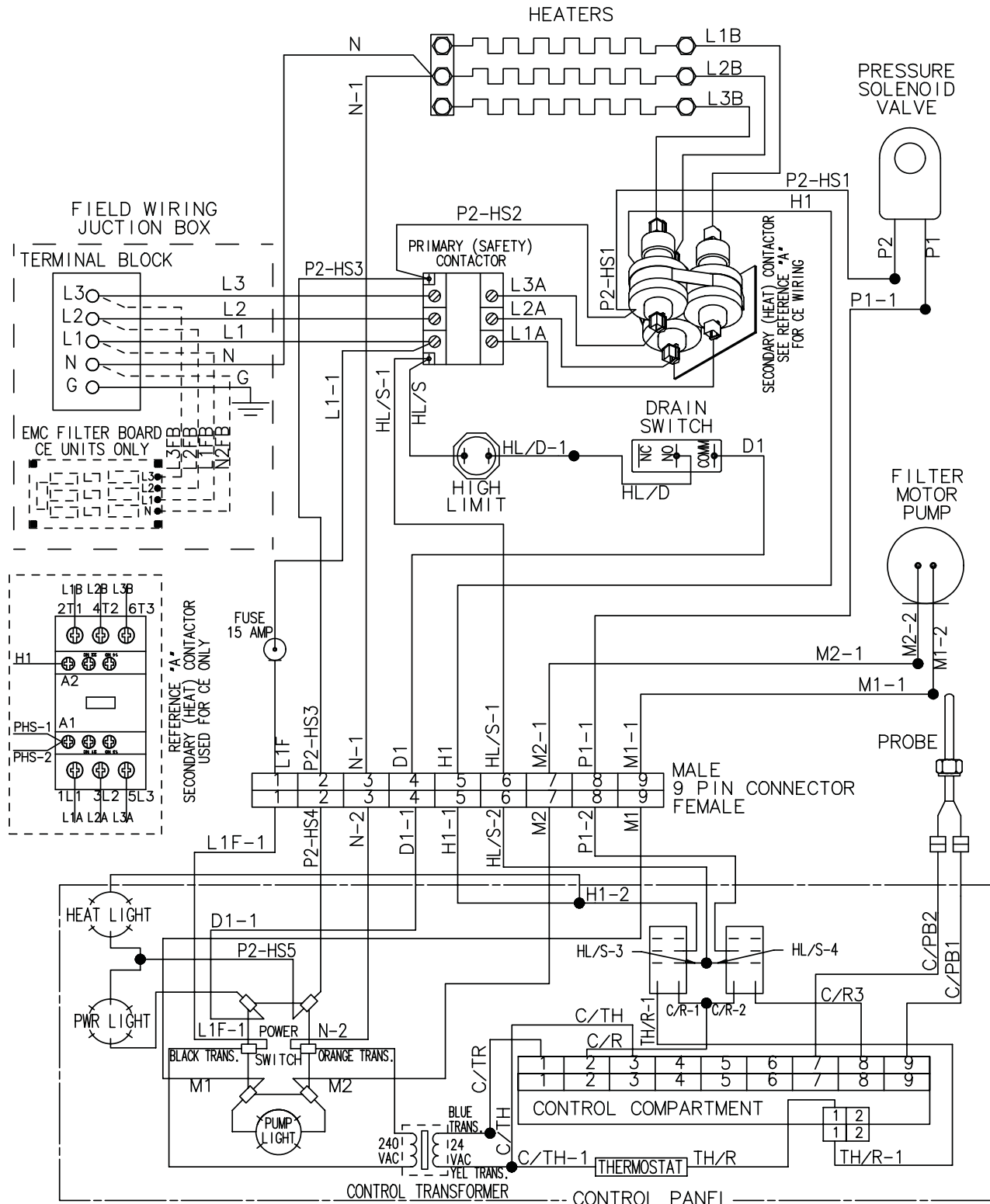
April 1, 2006 & After



MODEL 500F
380-415 3PH 50/60Hz 4 WIRE + GND
HENNY PENNY CORP., EATON, OHIO 45320

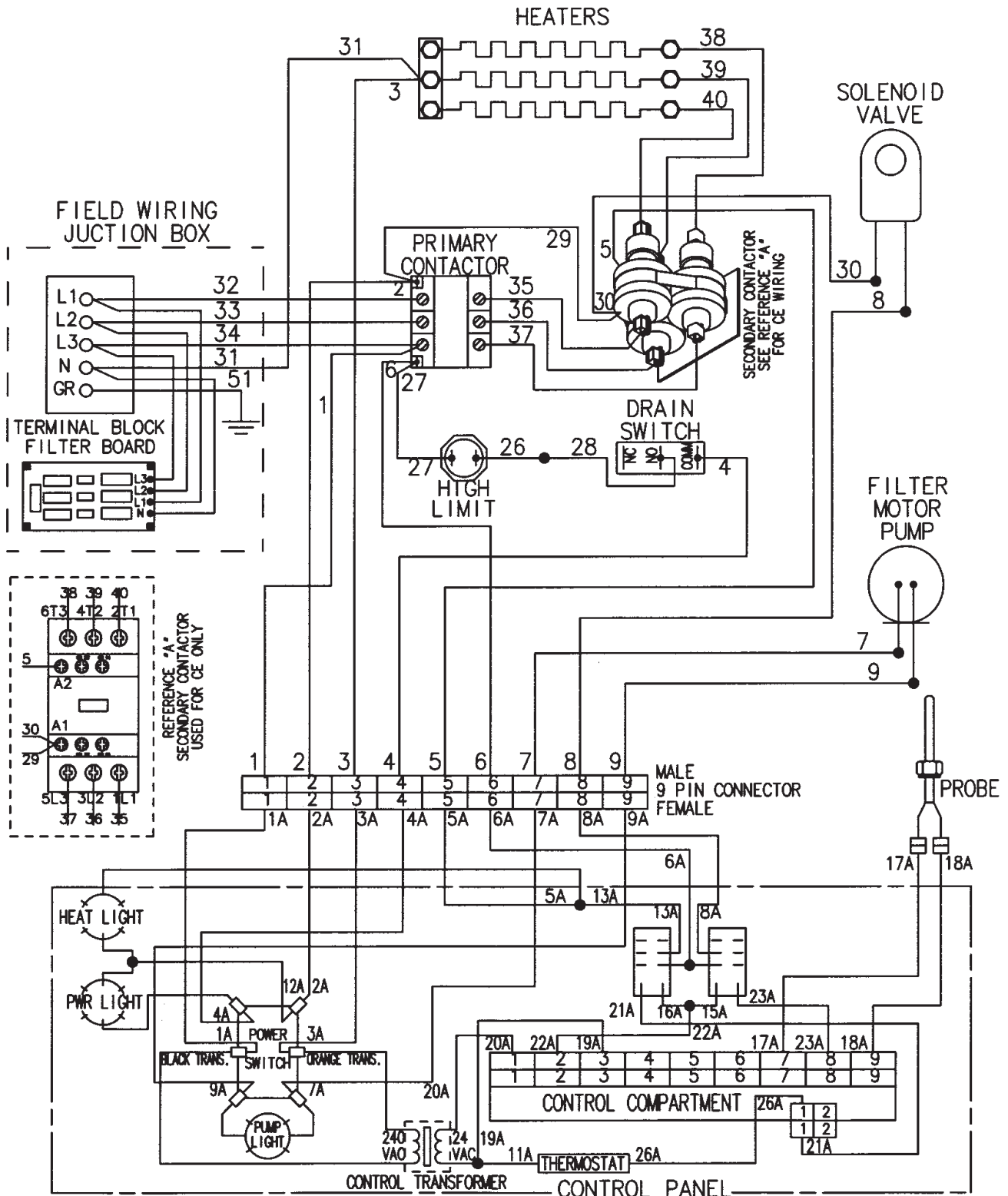
63355

Before April 1, 2006



MODEL 500F
380-415V 50/60HZ 3PH 4 WIRE & GND
HENNY PENNY CORP., EATON, OHIO 45320 69449

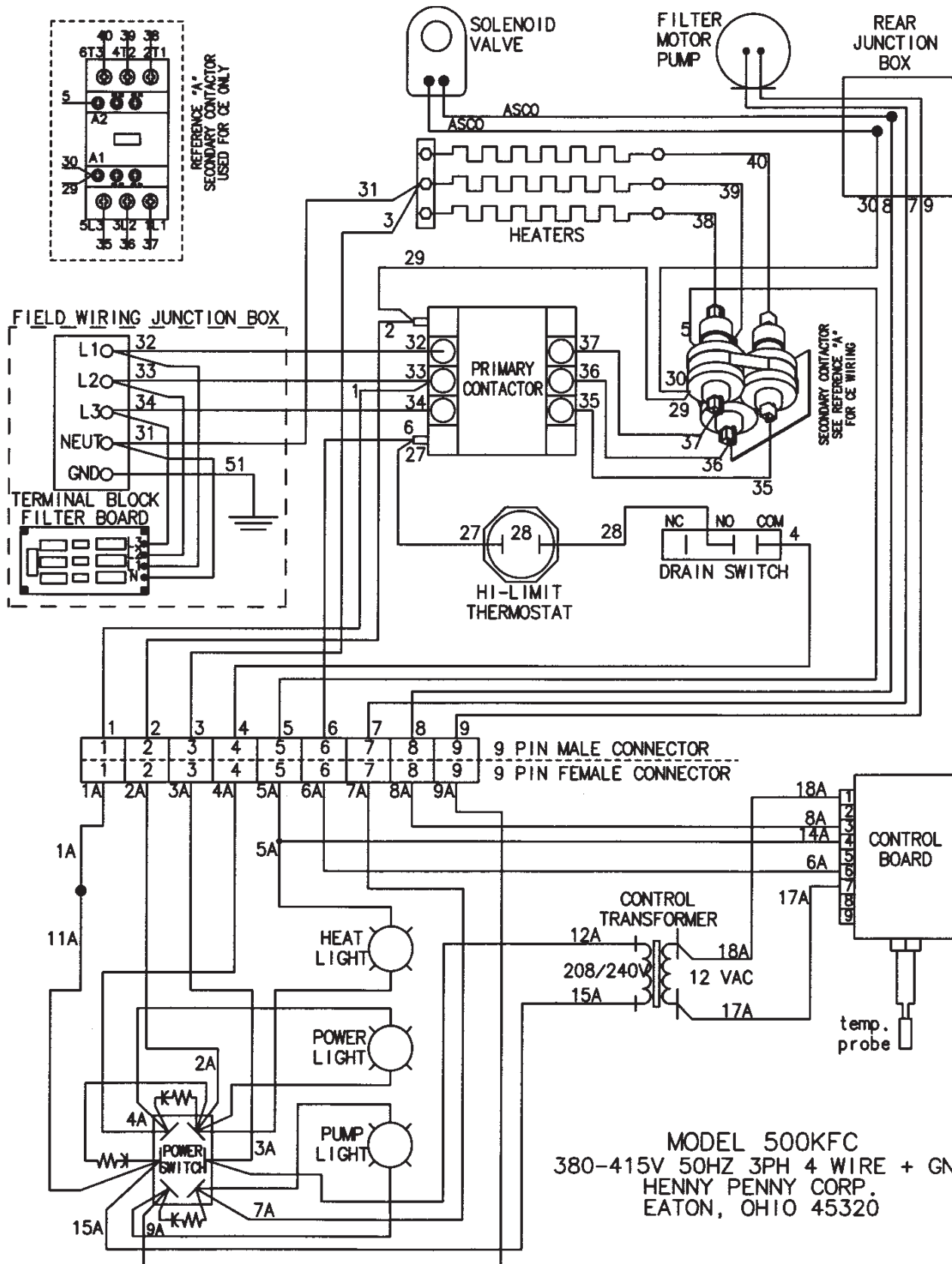
April 1, 2006 & After



MODEL 500F
400V 50HZ 3PH 4 WIRE & GND
HENNY PENNY CORP.
EATON, OHIO 45320

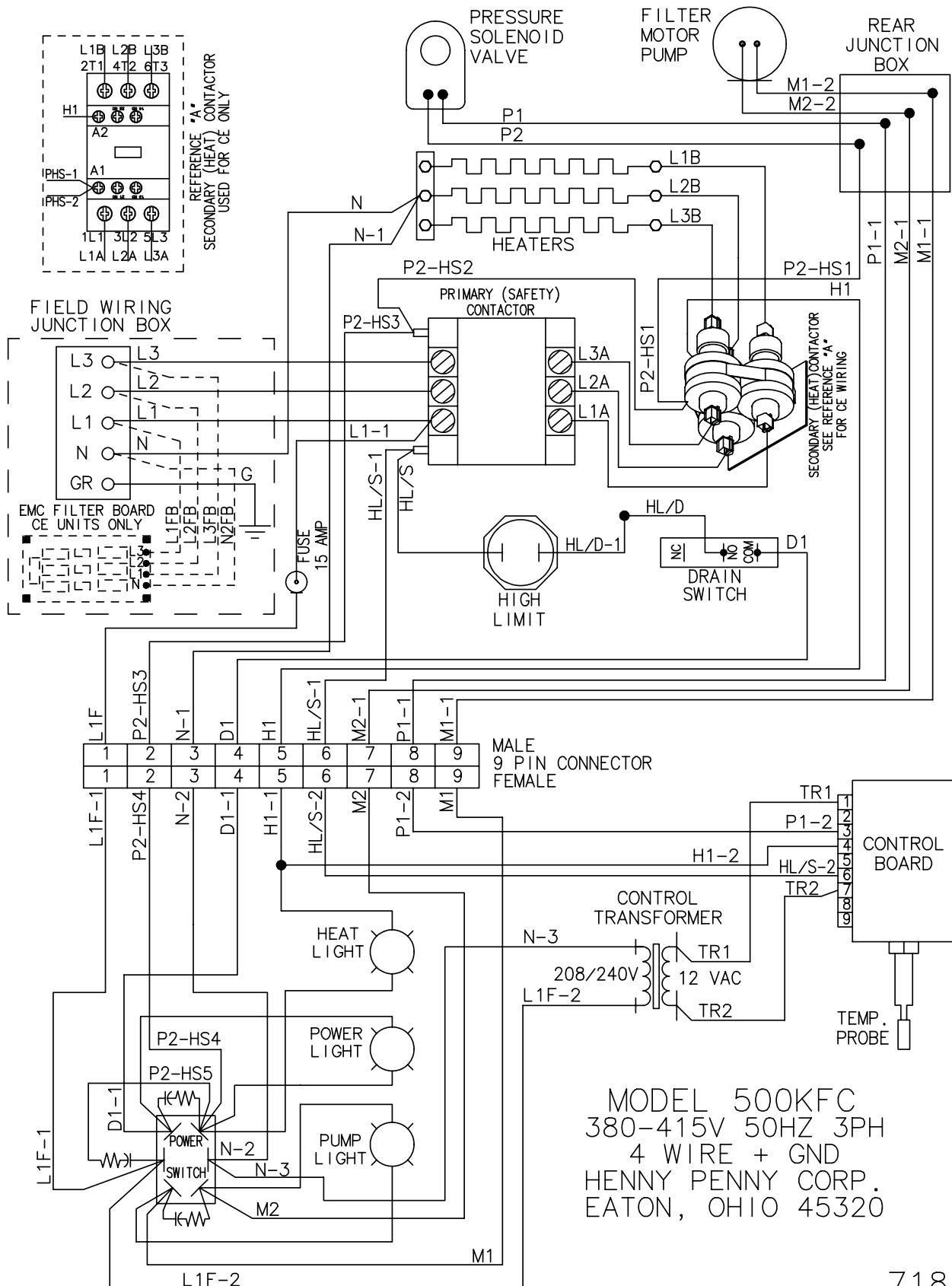
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Before April 1, 2006 (See 69449 for April 1, 2006 & After)



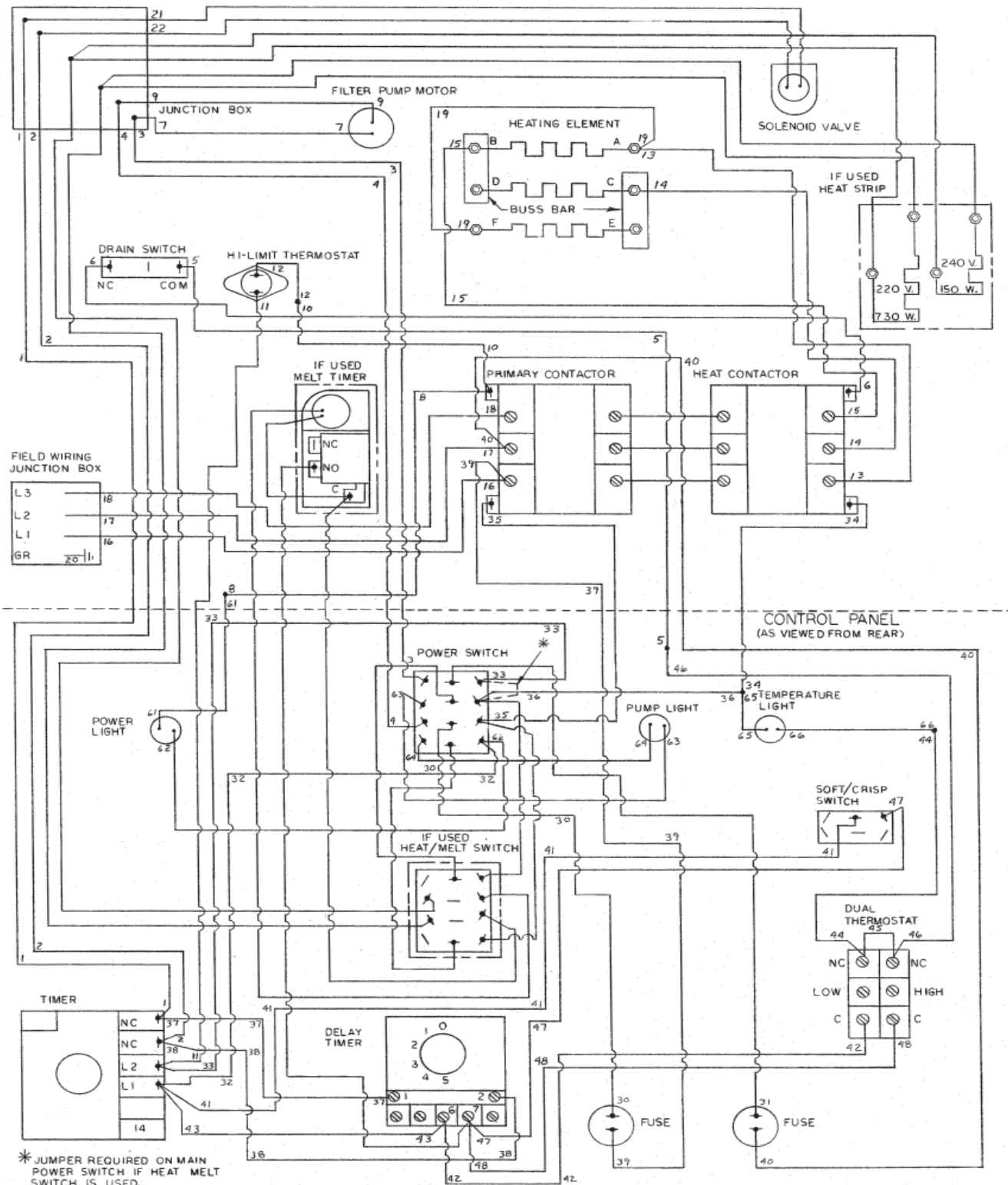
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Before April 1, 2006



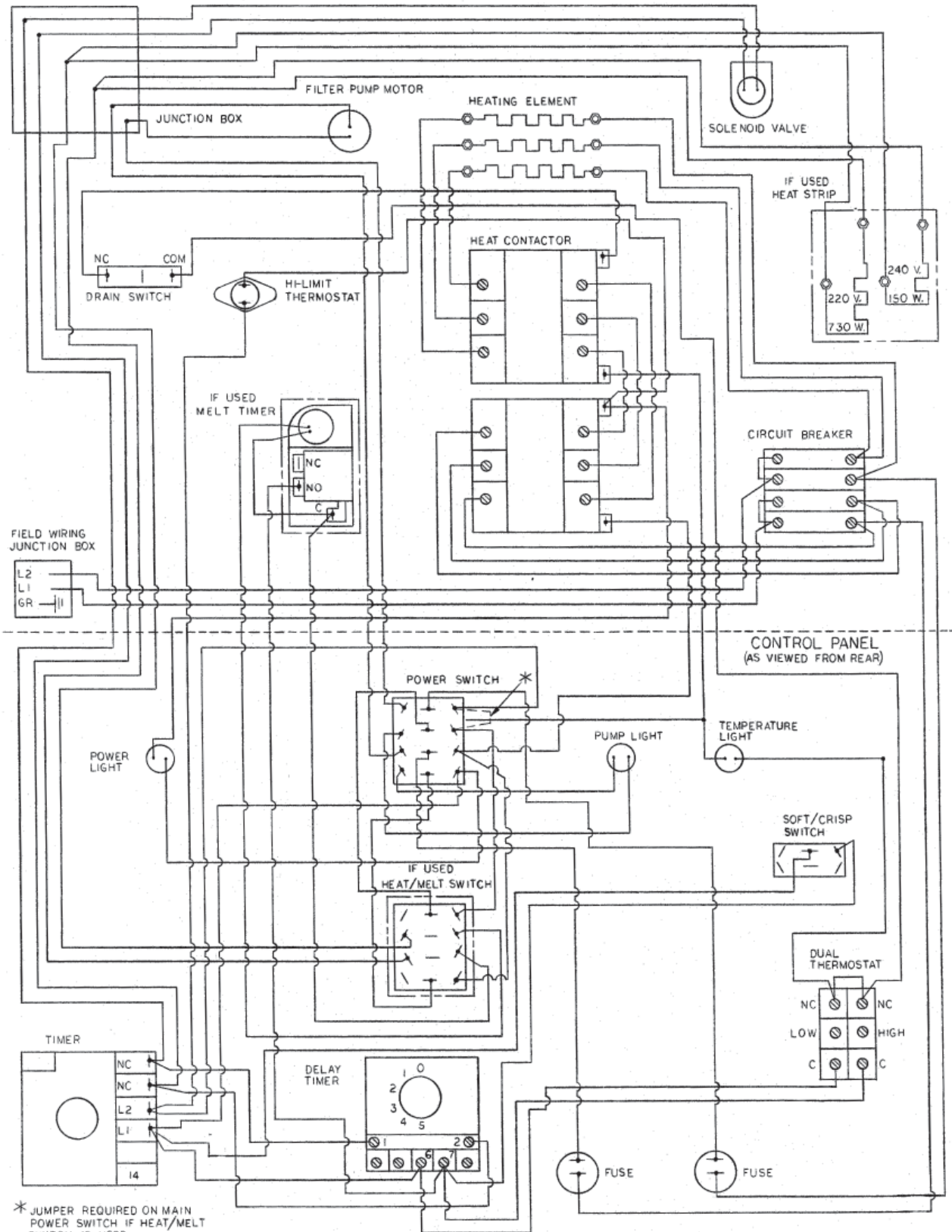
April 1, 2006 & After

71819



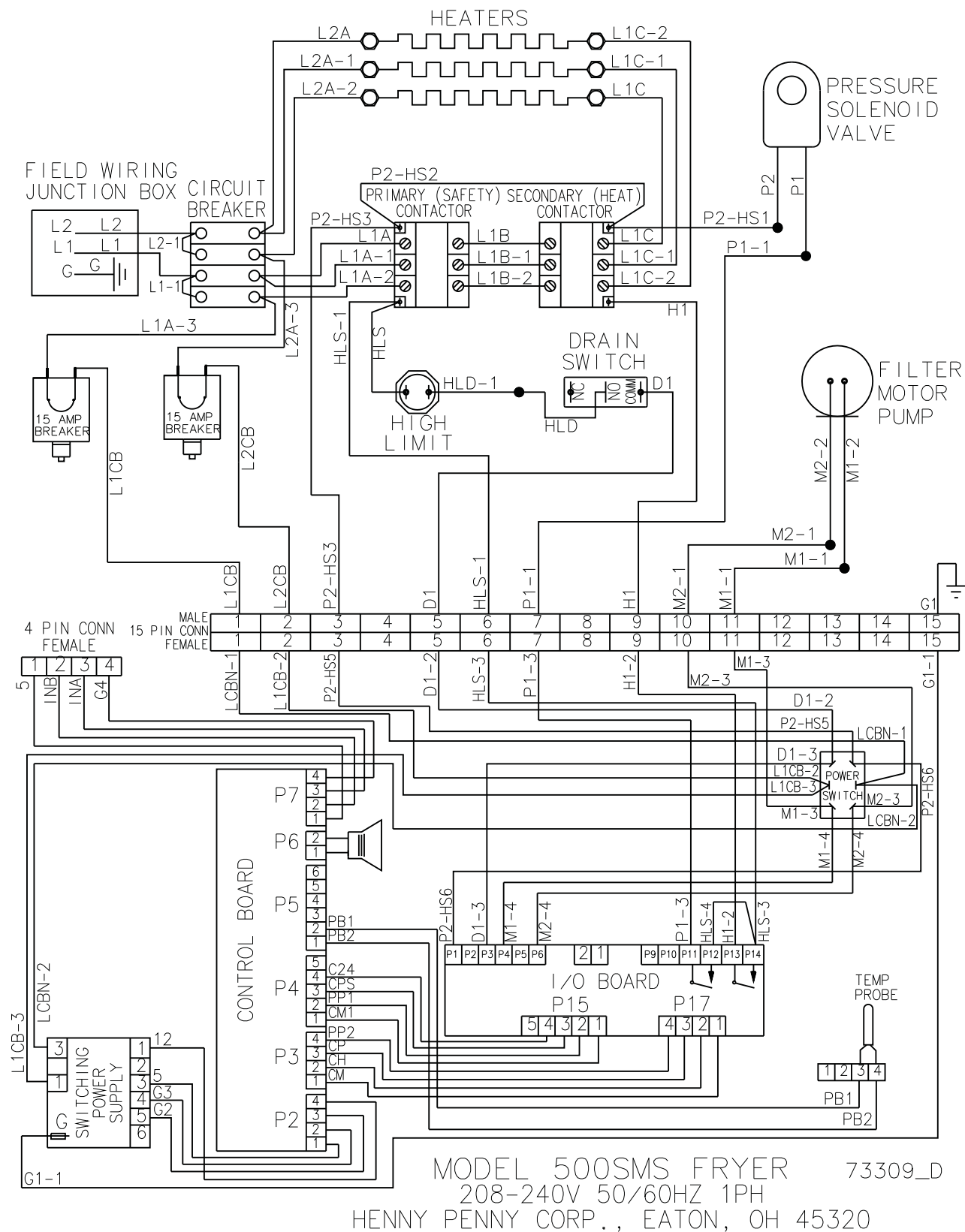
MODEL 500 FRYER SC VARIABLE
208/240 VOLT 50/60 HZ 3 PHASE E55

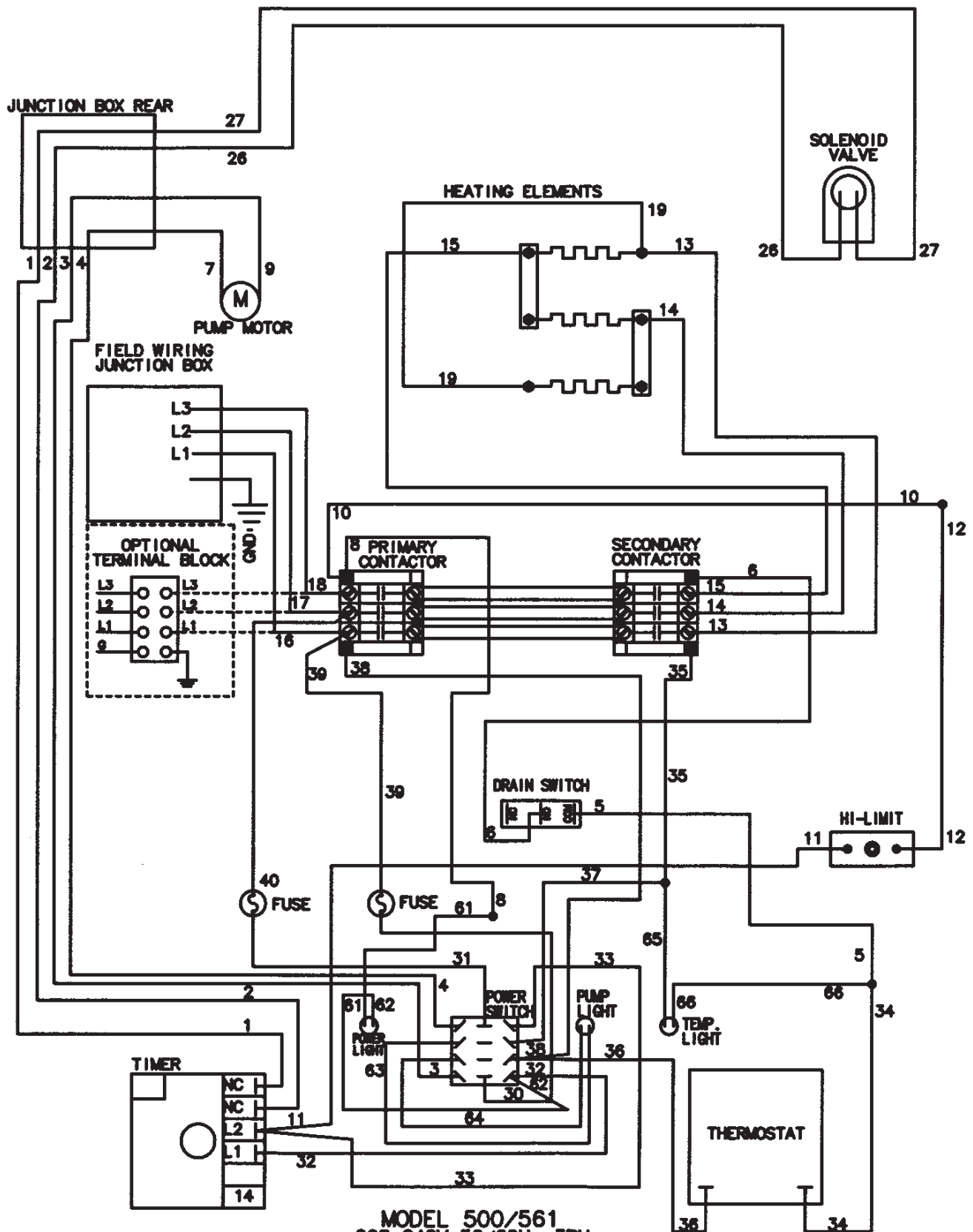
18311



MODEL 500 FRYER SC VARIABLE TEMPERATURE
208/240 VOLT 50/60 HZ SINGLE PHASE E55 THERMOSTAT

18309

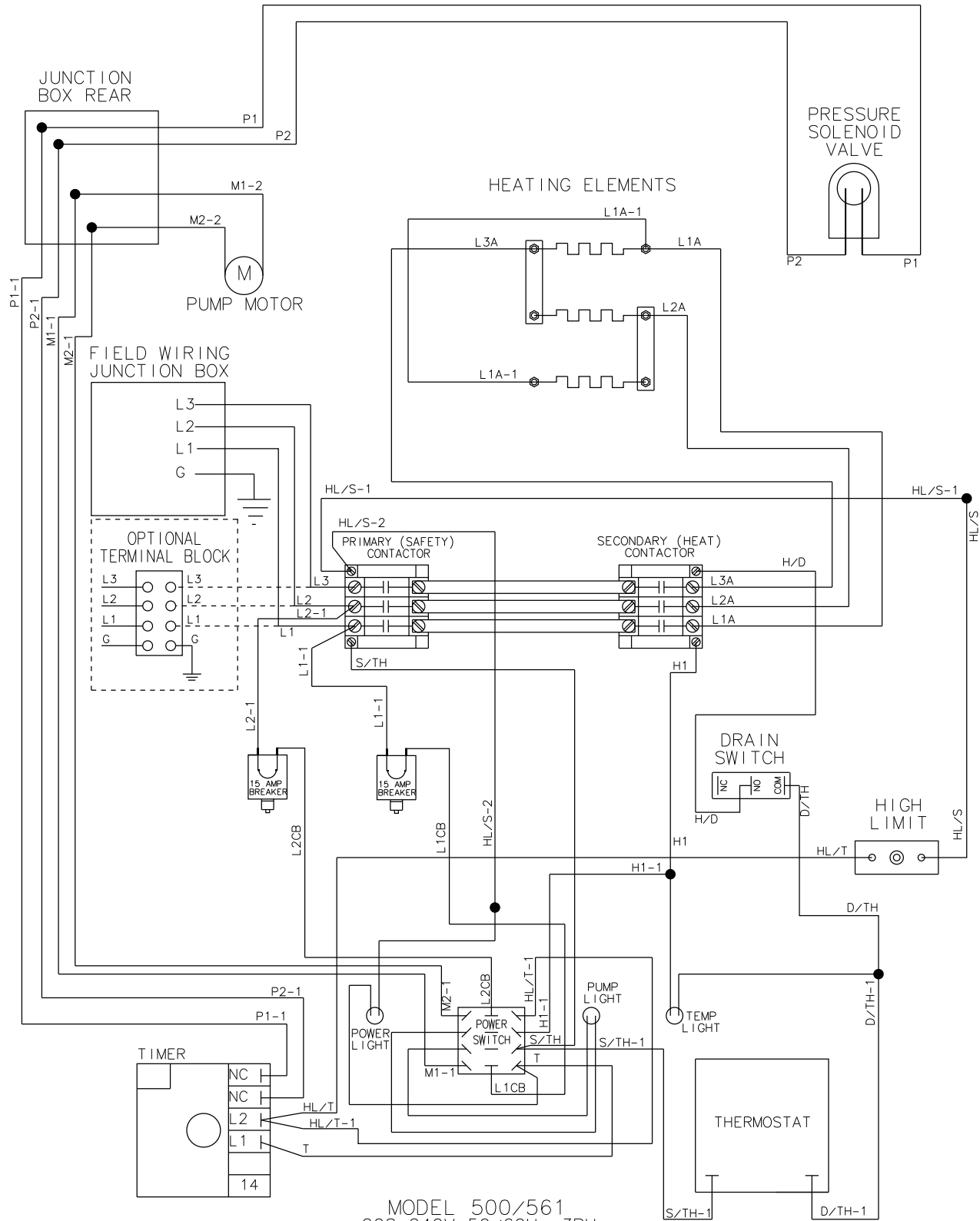




MODEL 500/561
208-240V 50/60Hz 3PH
HENNY PENNY CORP.
EATON, OHIO 45320

63131

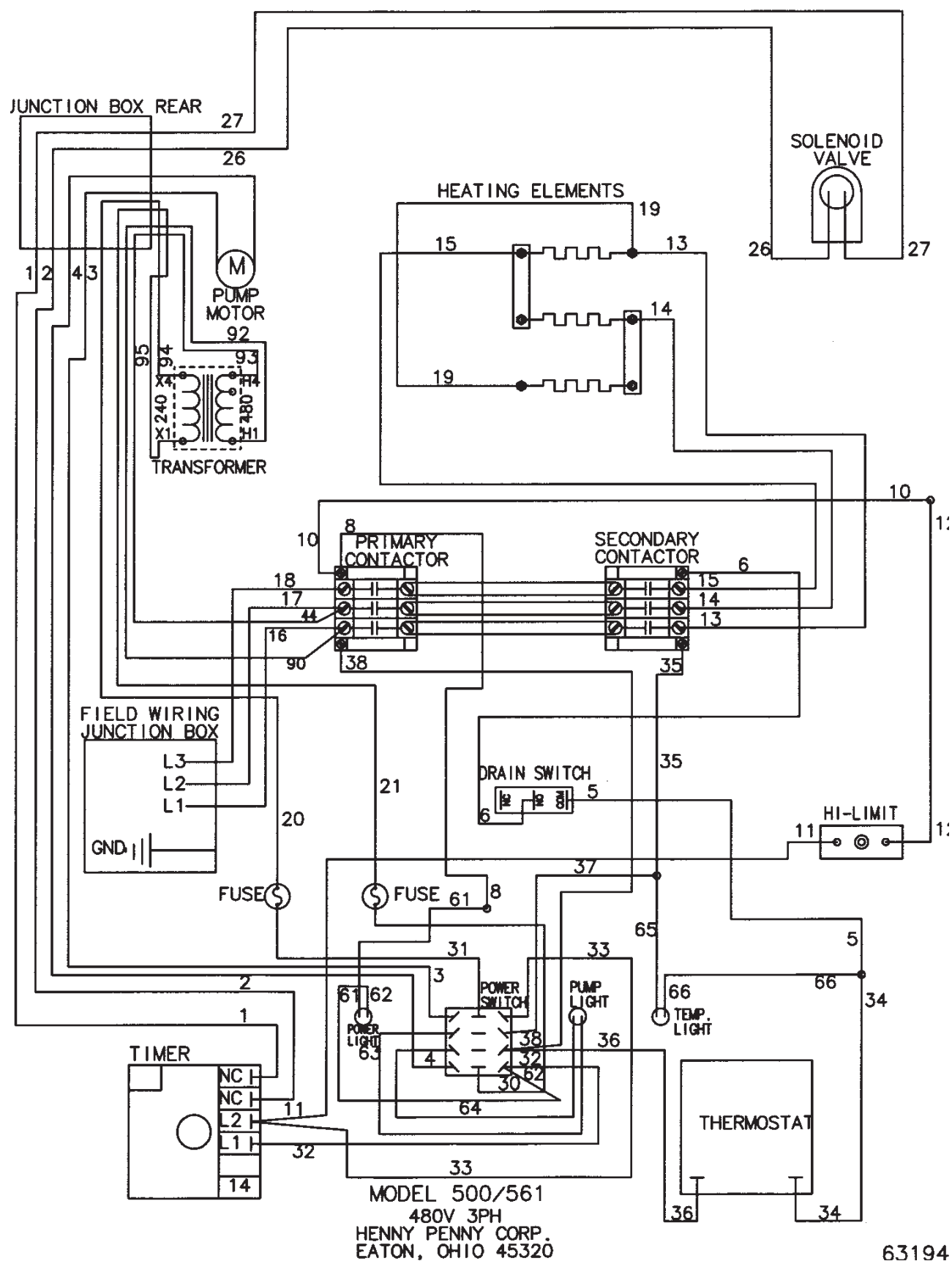
Before April 1, 2006



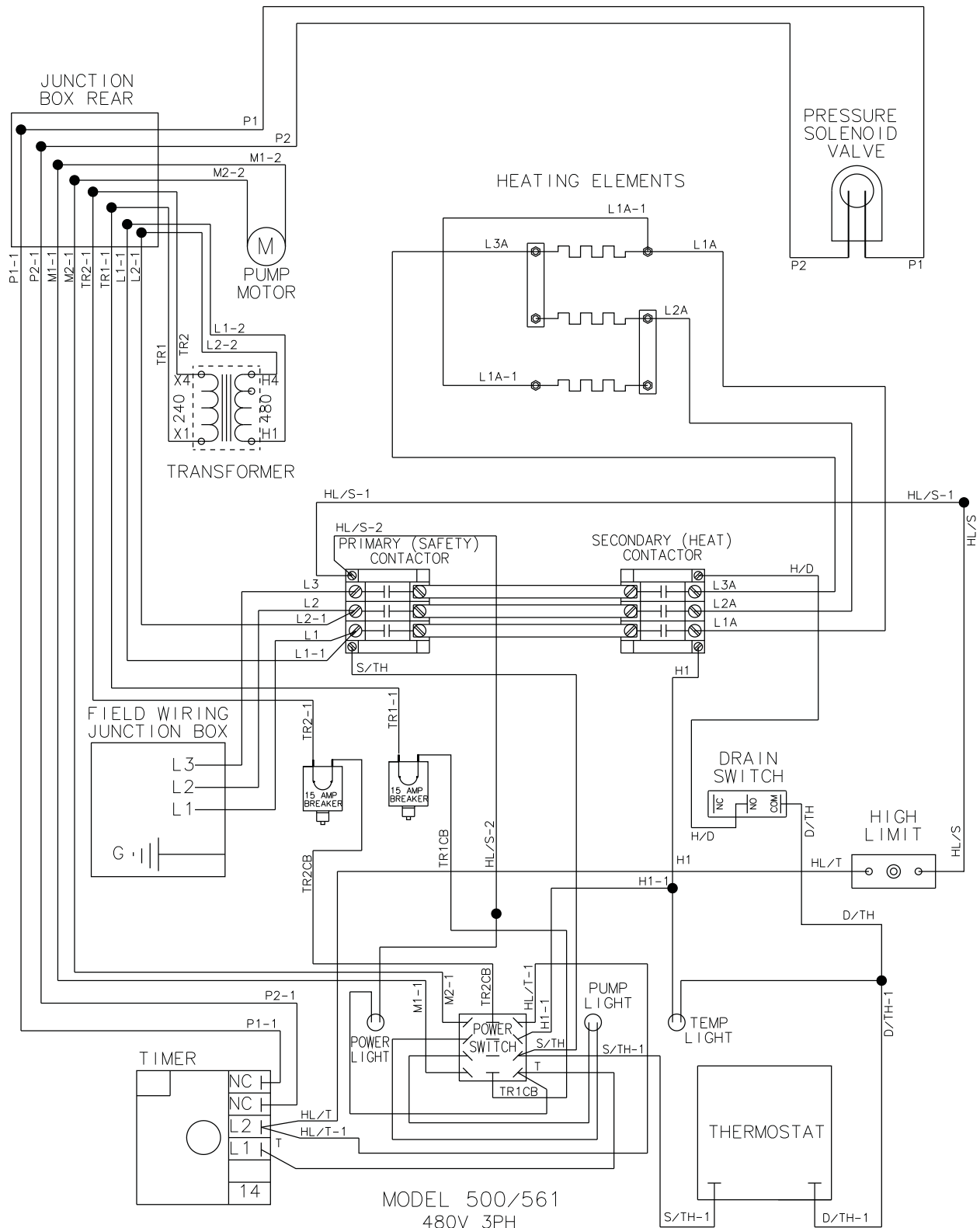
MODEL 500/561
208-240V 50/60Hz 3PH
HENNY PENNY CORP.
EATON, OHIO 45320

71998

April 1, 2006 & After



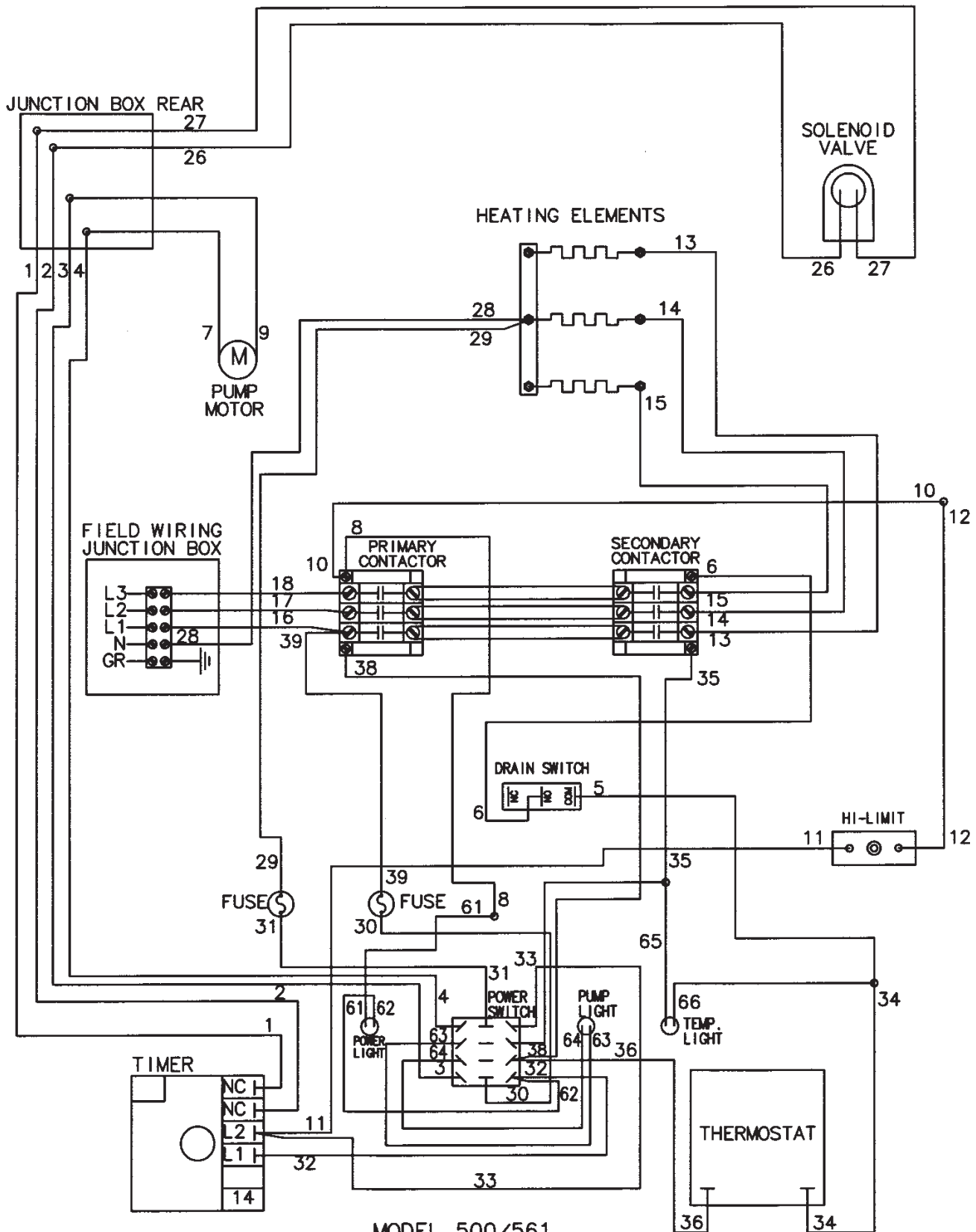
Before April 1, 2006



MODEL 500/561
480V 3PH
HENNY PENNY CORP.
EATON, OHIO 45320

71994

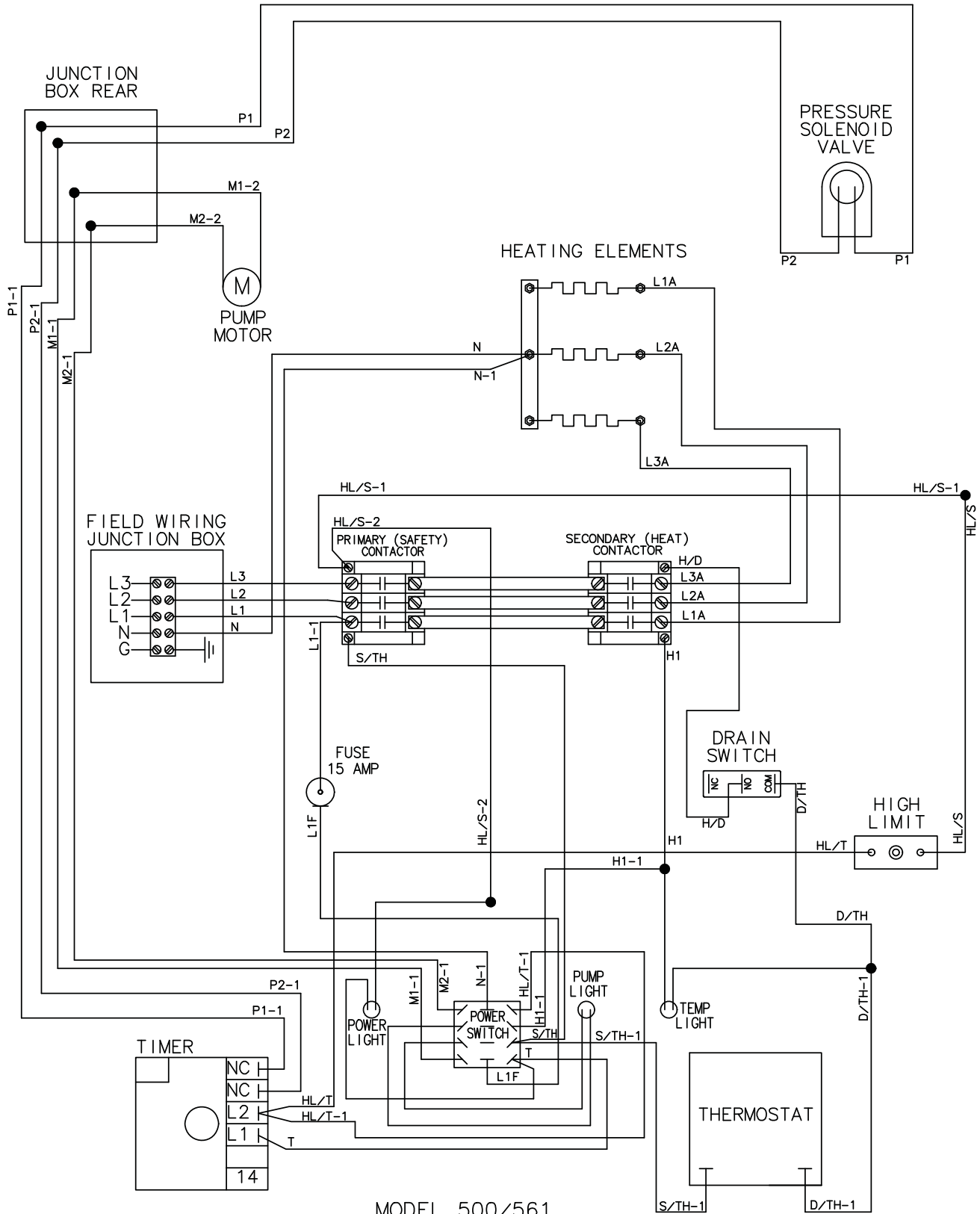
April 1, 2006 & After



MODEL 500/561
380-415V 50/60HZ 3PH 4W+G
HENNY PENNY CORP.
EATON, OHIO 45320

63200

Before April 1, 2006



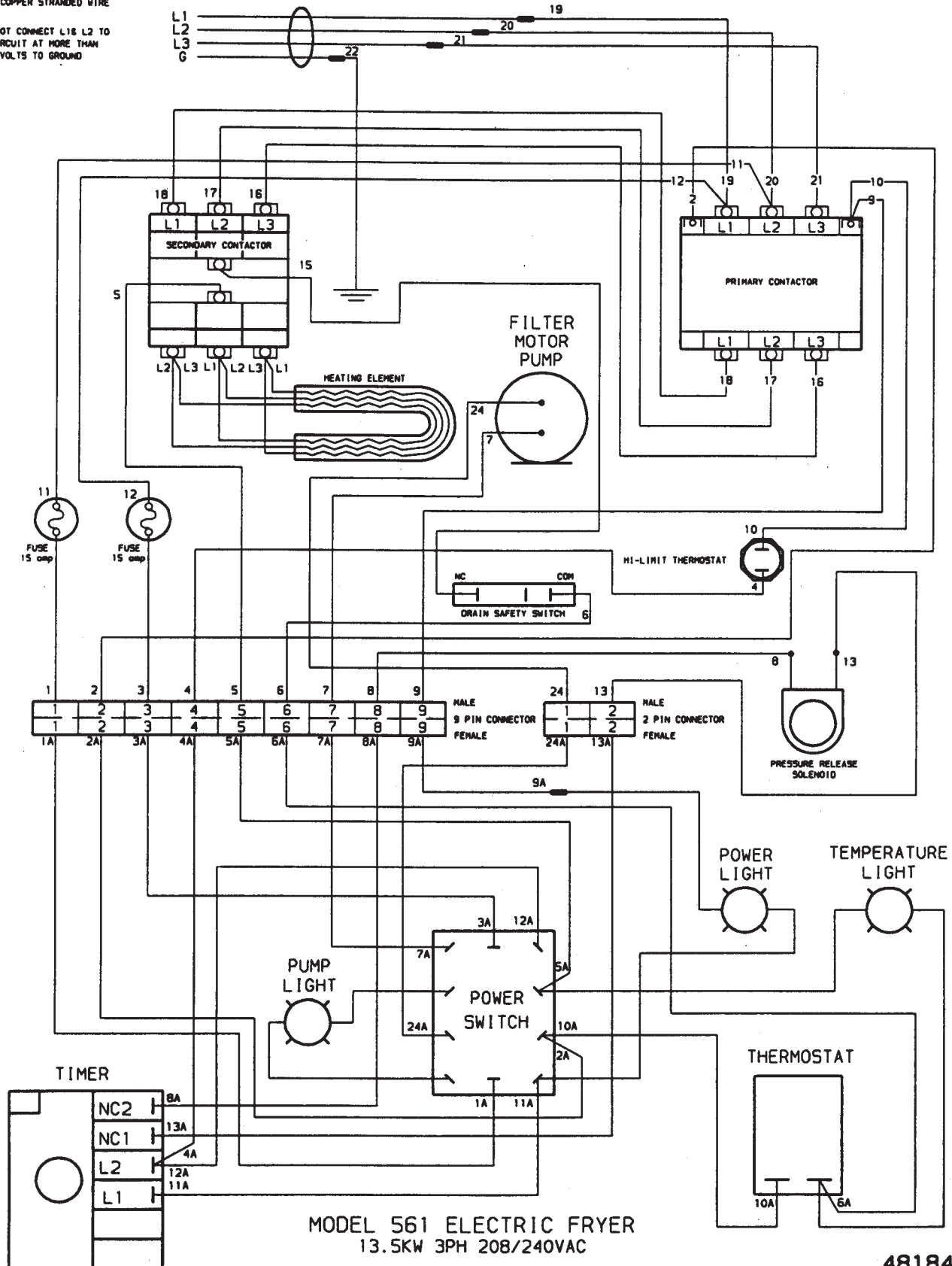
MODEL 500/561
380-415V 50/60HZ 3PH 4W+G
HENNY PENNY CORP.
EATON, OHIO 45320

April 1, 2006 & After

72002

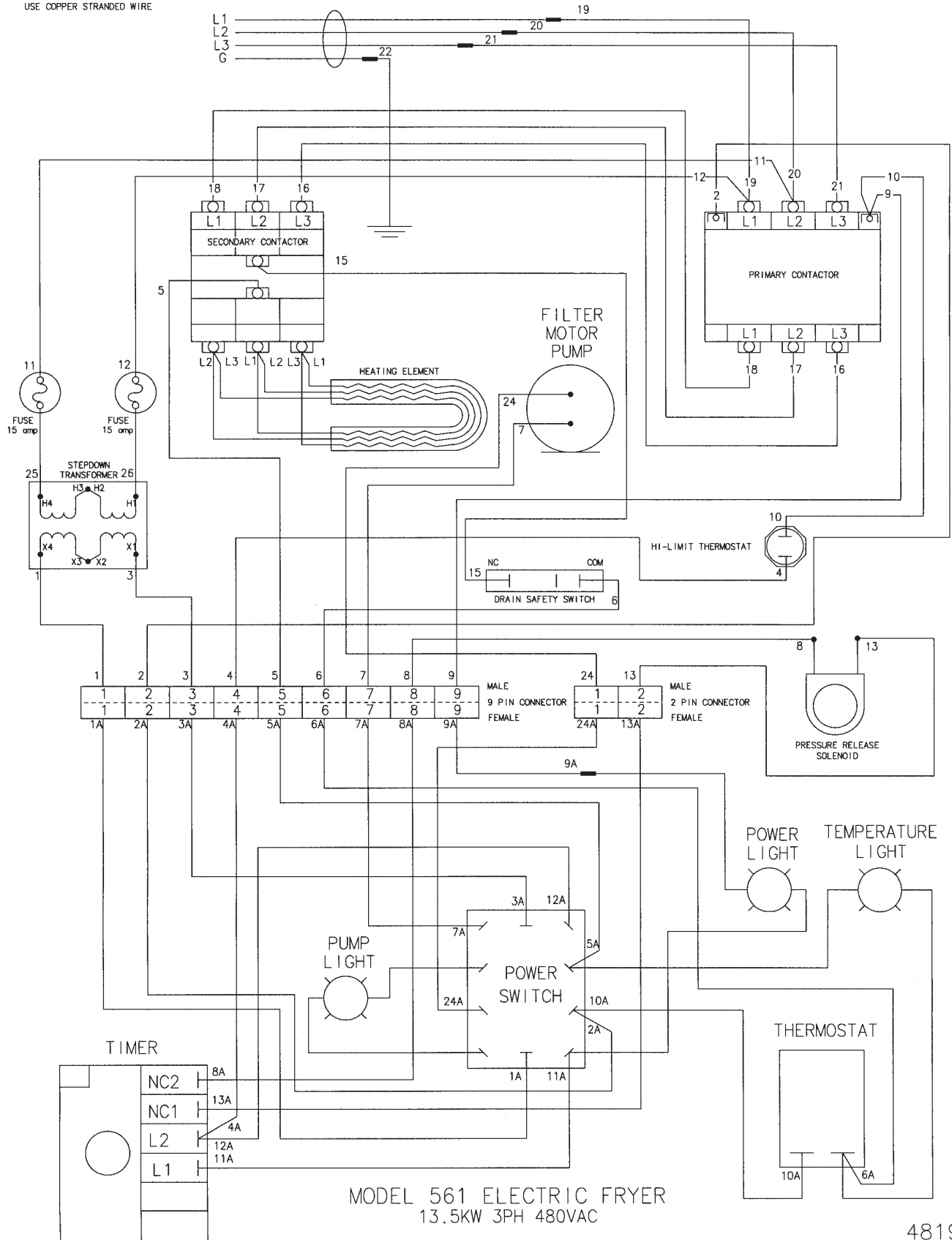
NOTE: FOR SUPPLY CONNECTIONS
USE COPPER STRANDED WIRE

DO NOT CONNECT L1& L2 TO
A CIRCUIT AT MORE THAN
150 VOLTS TO GROUND



48184

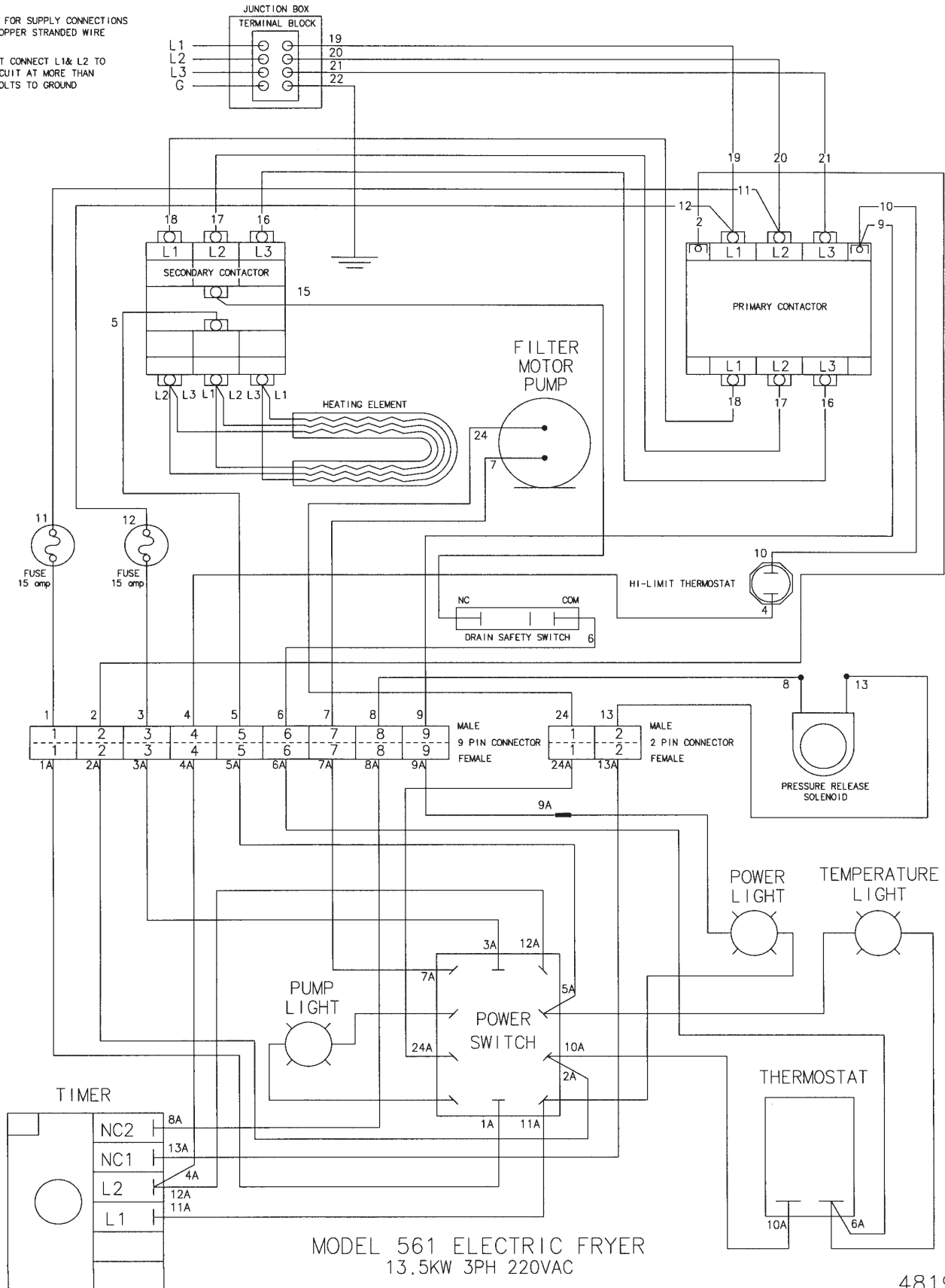
NOTE: FOR SUPPLY CONNECTIONS
USE COPPER STRANDED WIRE



48193

NOTE: FOR SUPPLY CONNECTIONS
USE COPPER STRANDED WIRE

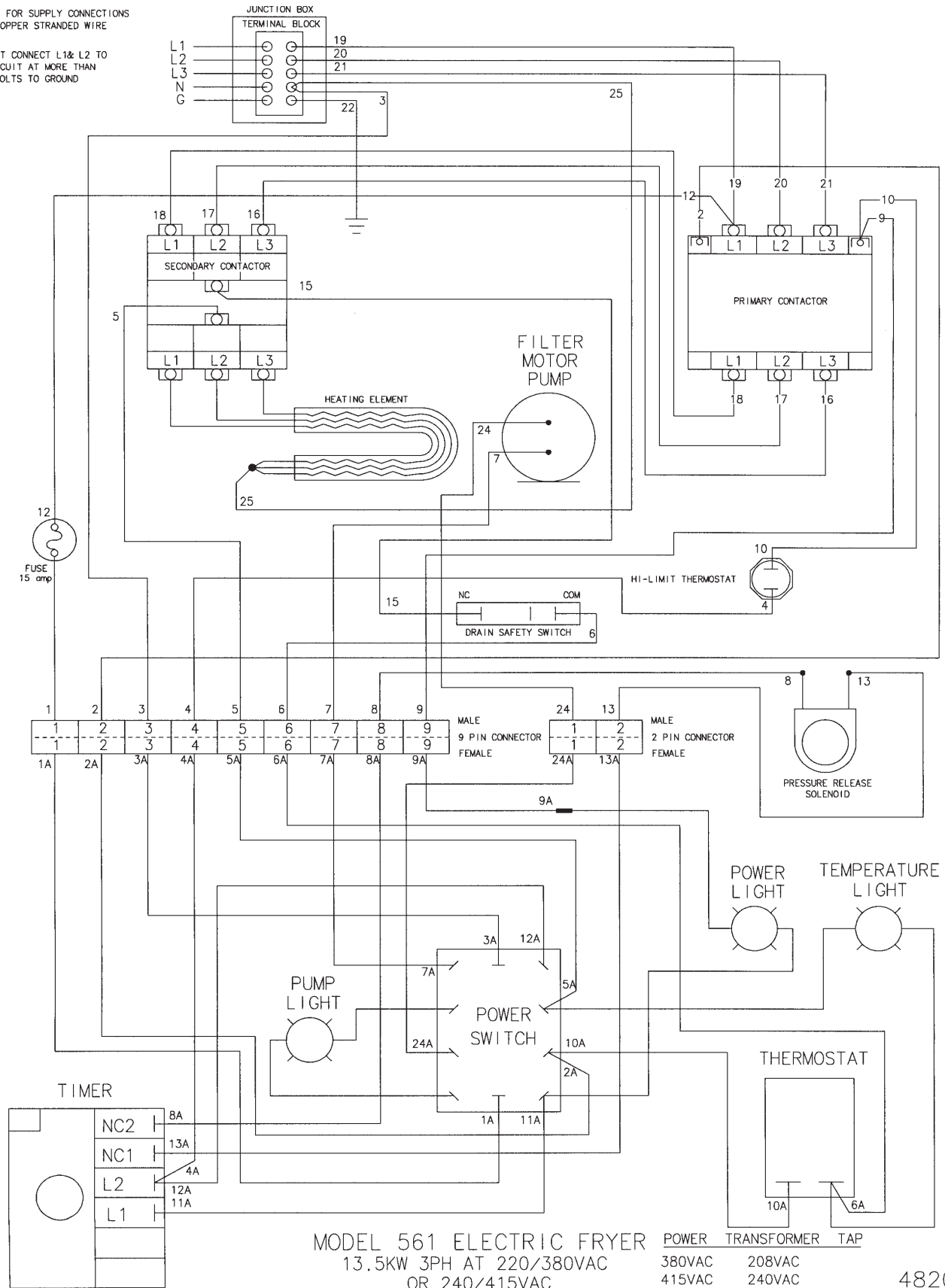
DO NOT CONNECT L1& L2 TO
A CIRCUIT AT MORE THAN
150 VOLTS TO GROUND



48198

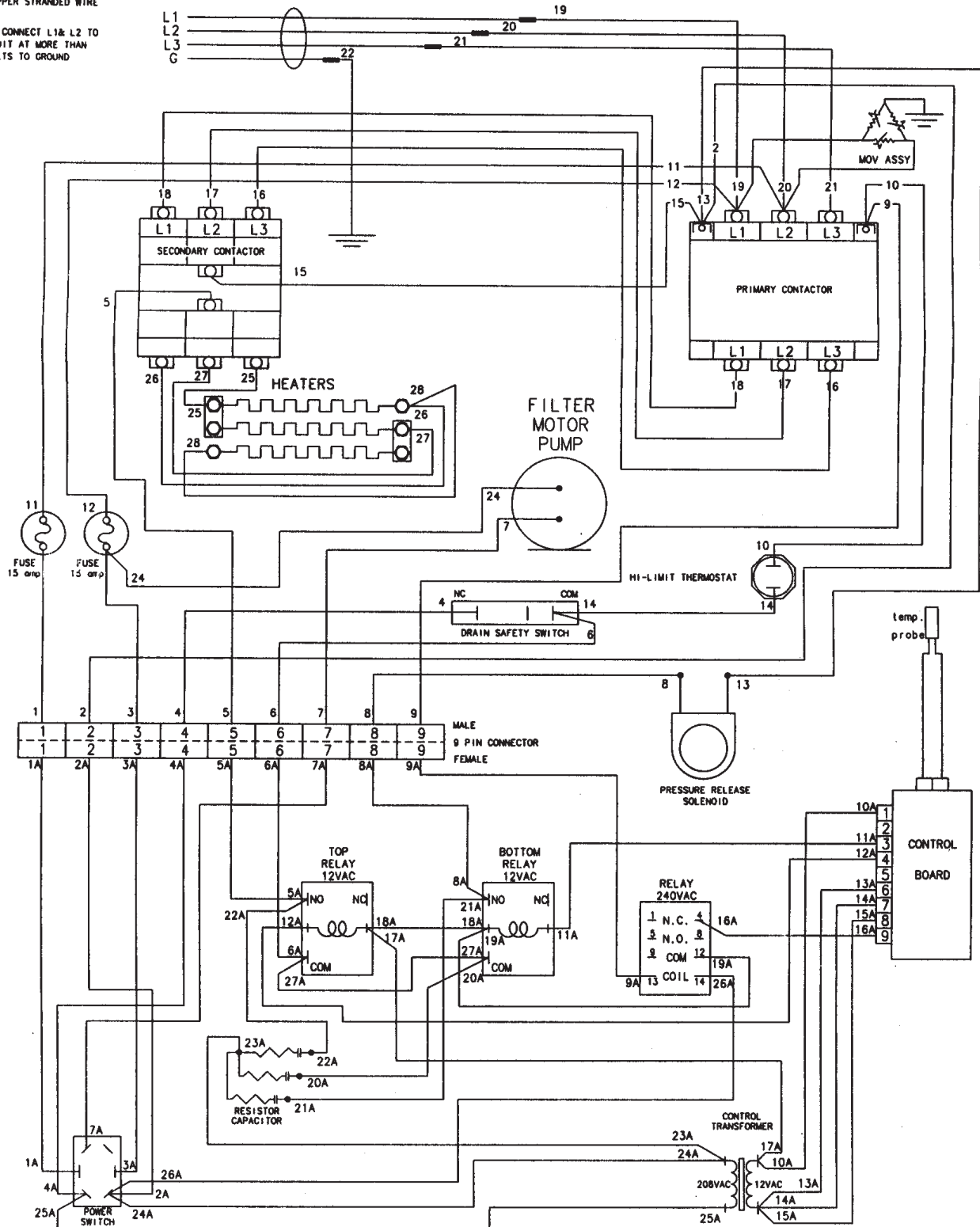
NOTE: FOR SUPPLY CONNECTIONS
USE COPPER STRANDED WIRE

DO NOT CONNECT L1& L2 TO
A CIRCUIT AT MORE THAN
150 VOLTS TO GROUND



NOTE: FOR SUPPLY CONNECTIONS
USE COPPER STRANDED WIRE

DO NOT CONNECT L1& L2 TO
A CIRCUIT AT MORE THAN
150 VOLTS TO GROUND

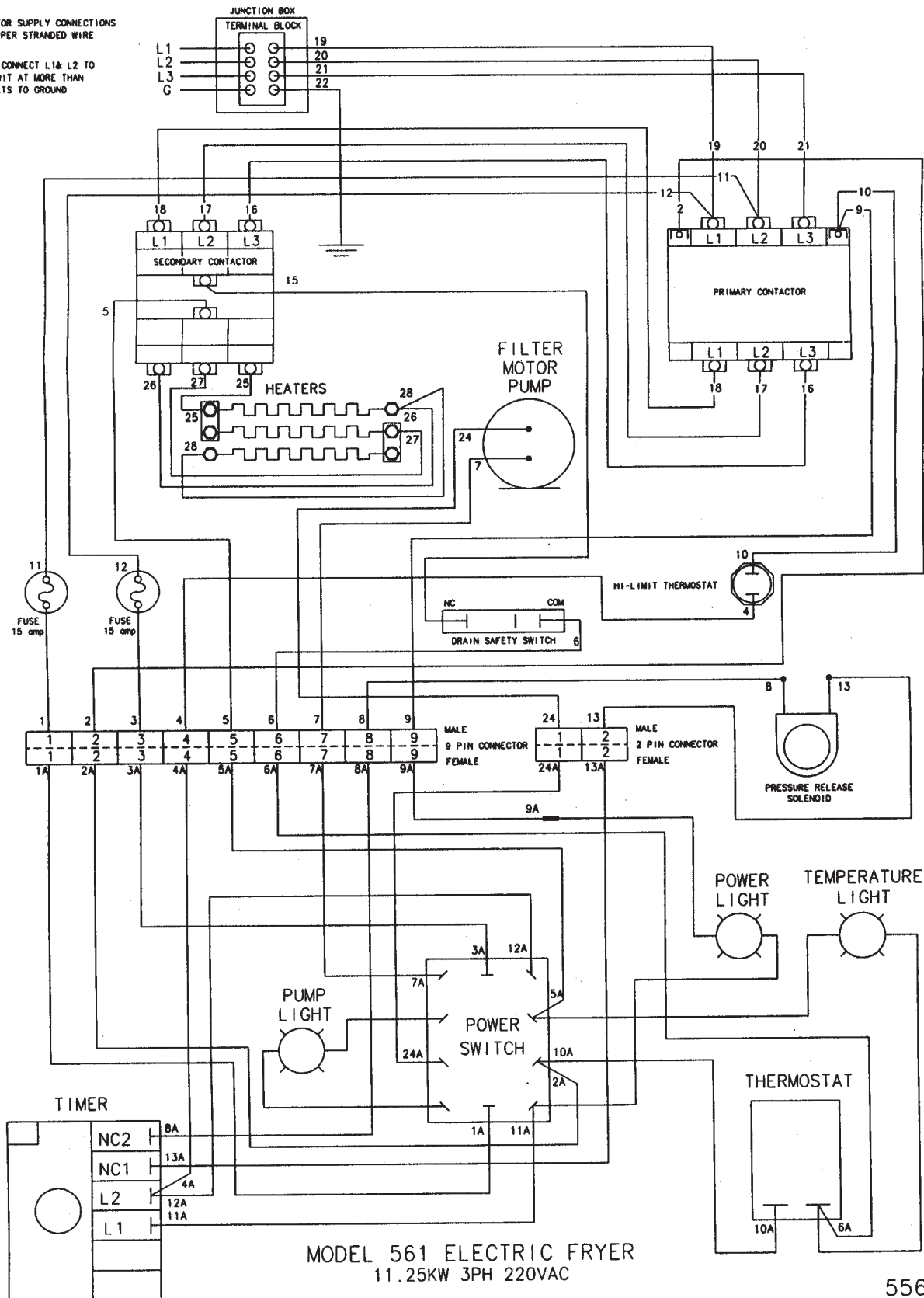


MODEL 561 ELECTRIC FRYER
11.25KW 3PH 208/240VAC

55653

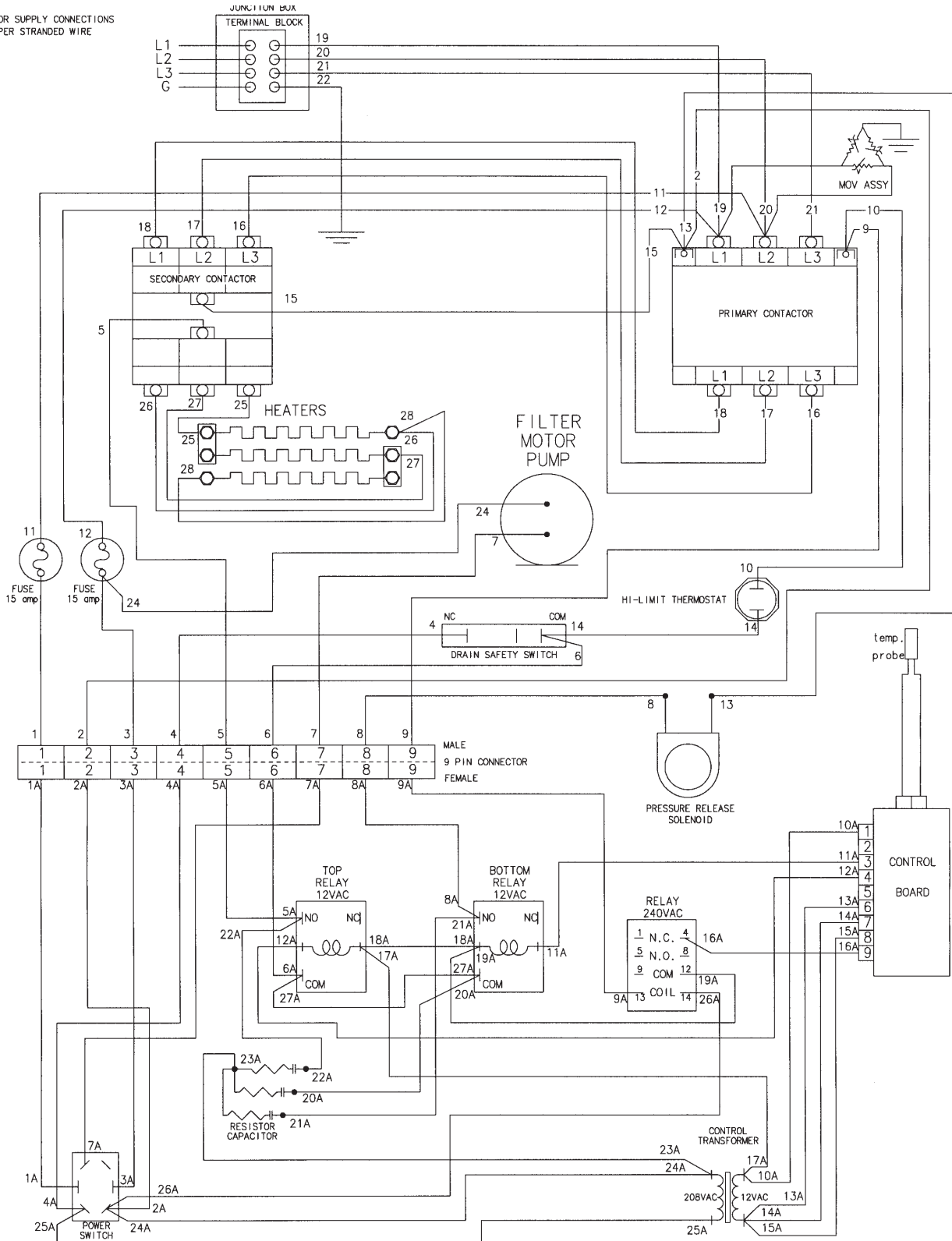
NOTE: FOR SUPPLY CONNECTIONS
USE COPPER STRANDED WIRE

DO NOT CONNECT L1& L2 TO
A CIRCUIT AT MORE THAN
150 VOLTS TO GROUND



55652

NOTE: FOR SUPPLY CONNECTIONS
USE COPPER STRANDED WIRE

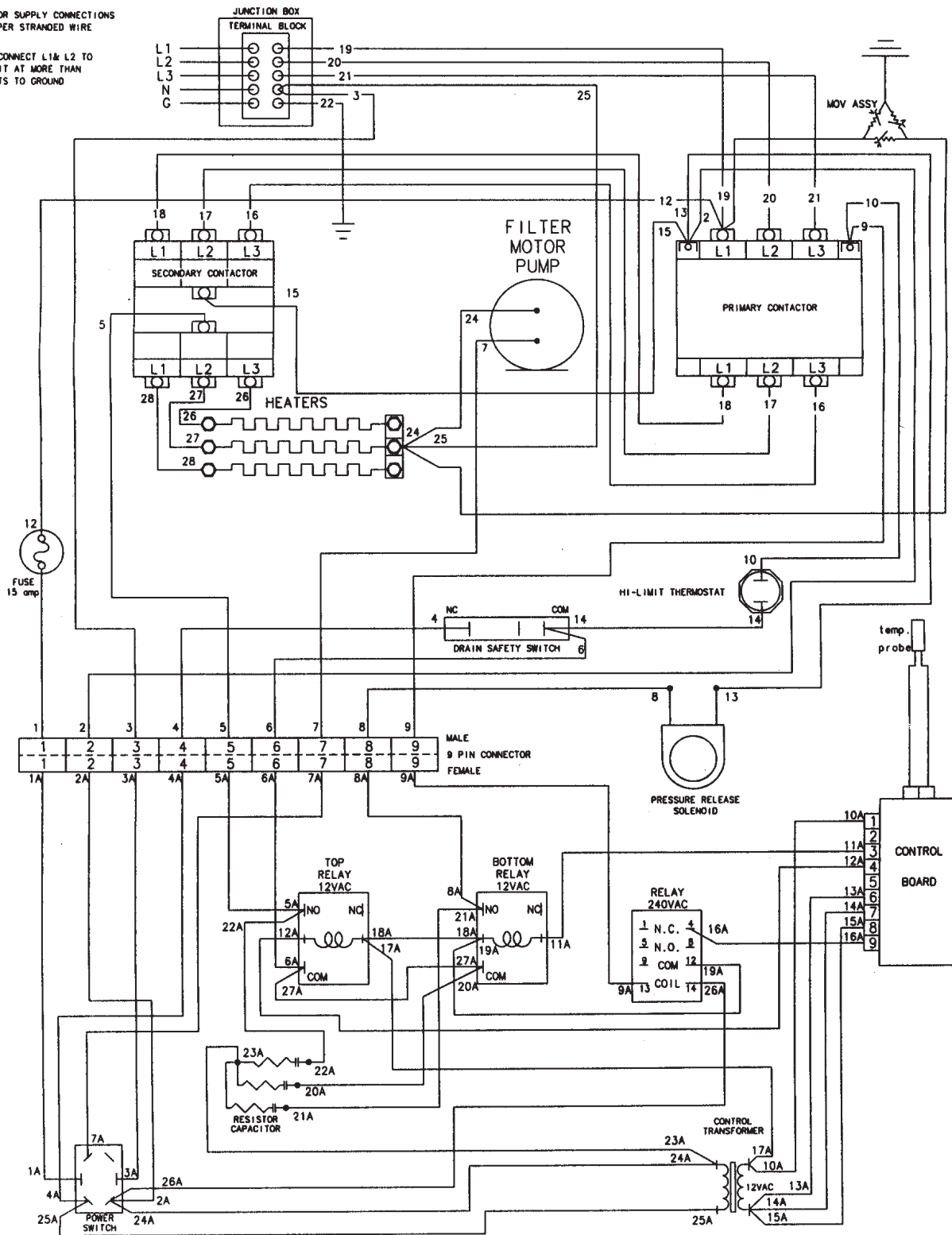


MODEL 561 ELECTRIC FRYER
11.25KW 3PH 220VAC

55650

NOTE: FOR SUPPLY CONNECTIONS
USE COPPER STRANDED WIRE

DO NOT CONNECT L1& L2 TO
A CIRCUIT AT MORE THAN
150 VOLTS TO GROUND

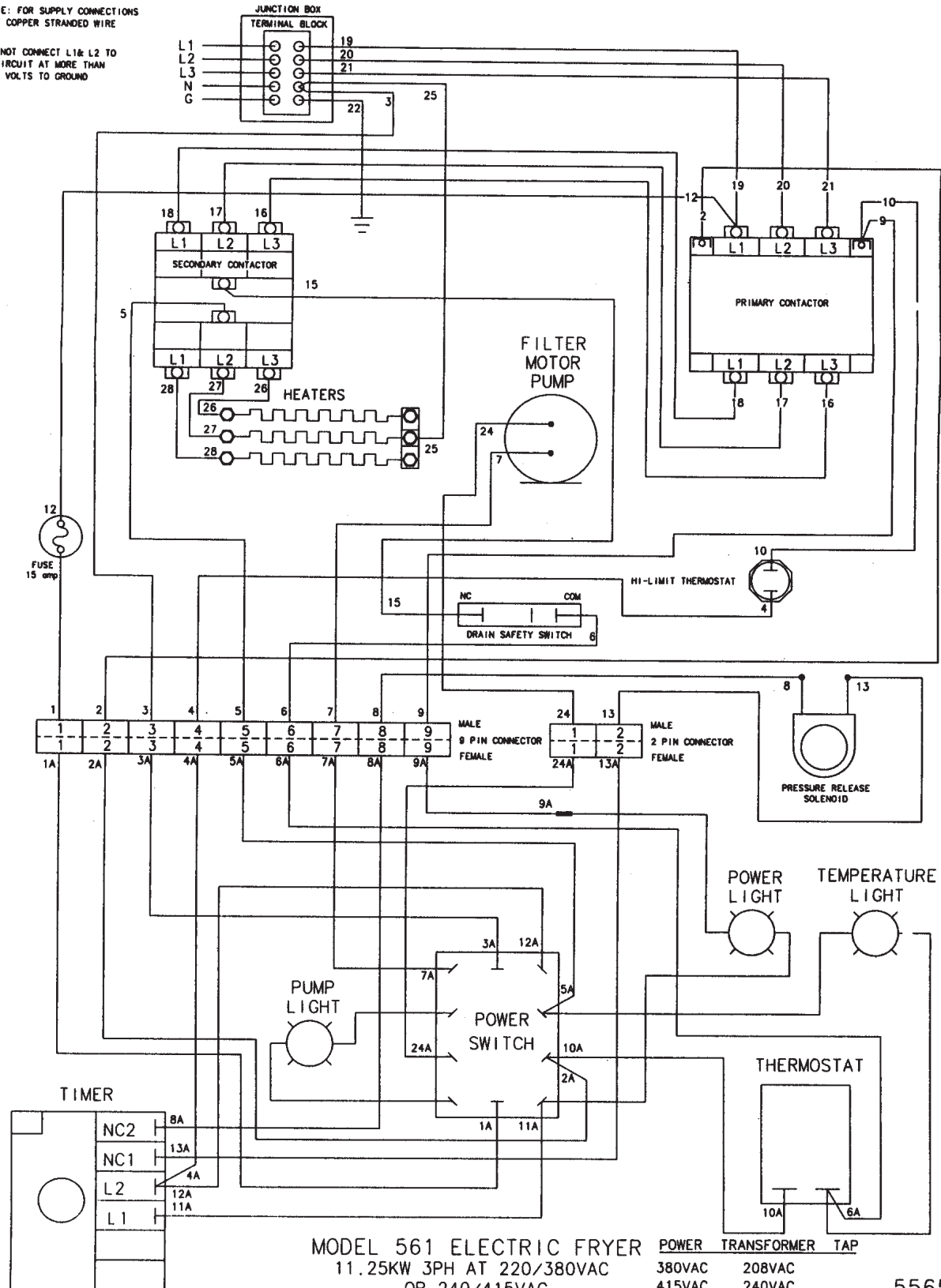


MODEL 561 ELECTRIC FRYER POWER TRANSFORMER TAP
11.25KW 3PH AT 220/380VAC 380VAC 208VAC
OR 240/415VAC 415VAC 240VAC

55661

NOTE: FOR SUPPLY CONNECTIONS
USE COPPER STRANDED WIRE

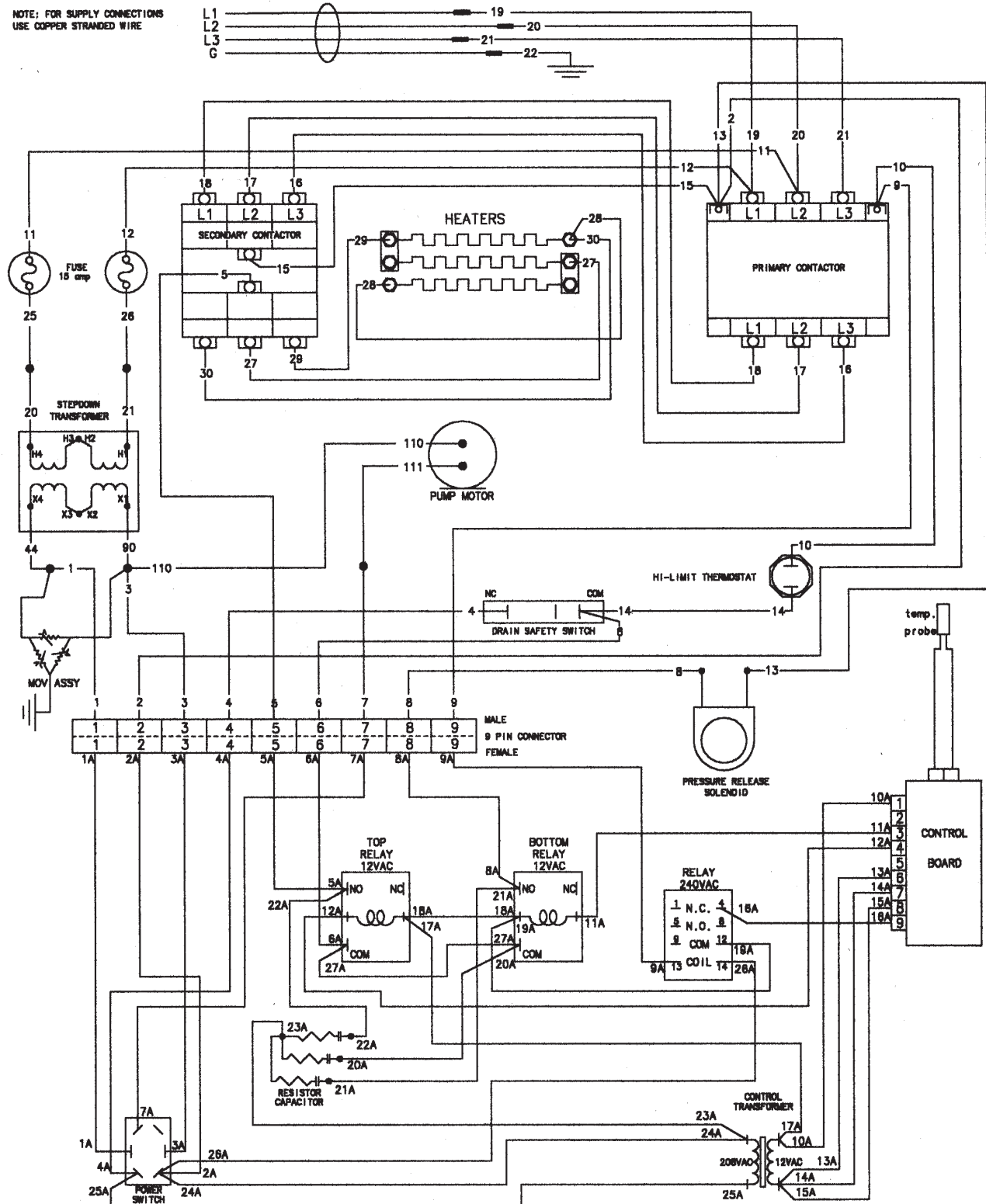
DO NOT CONNECT L1& L2 TO
A CIRCUIT AT MORE THAN
150 VOLTS TO GROUND



MODEL 561 ELECTRIC FRYER
11.25KW 3PH AT 220/380VAC
OR 240/415VAC

55659

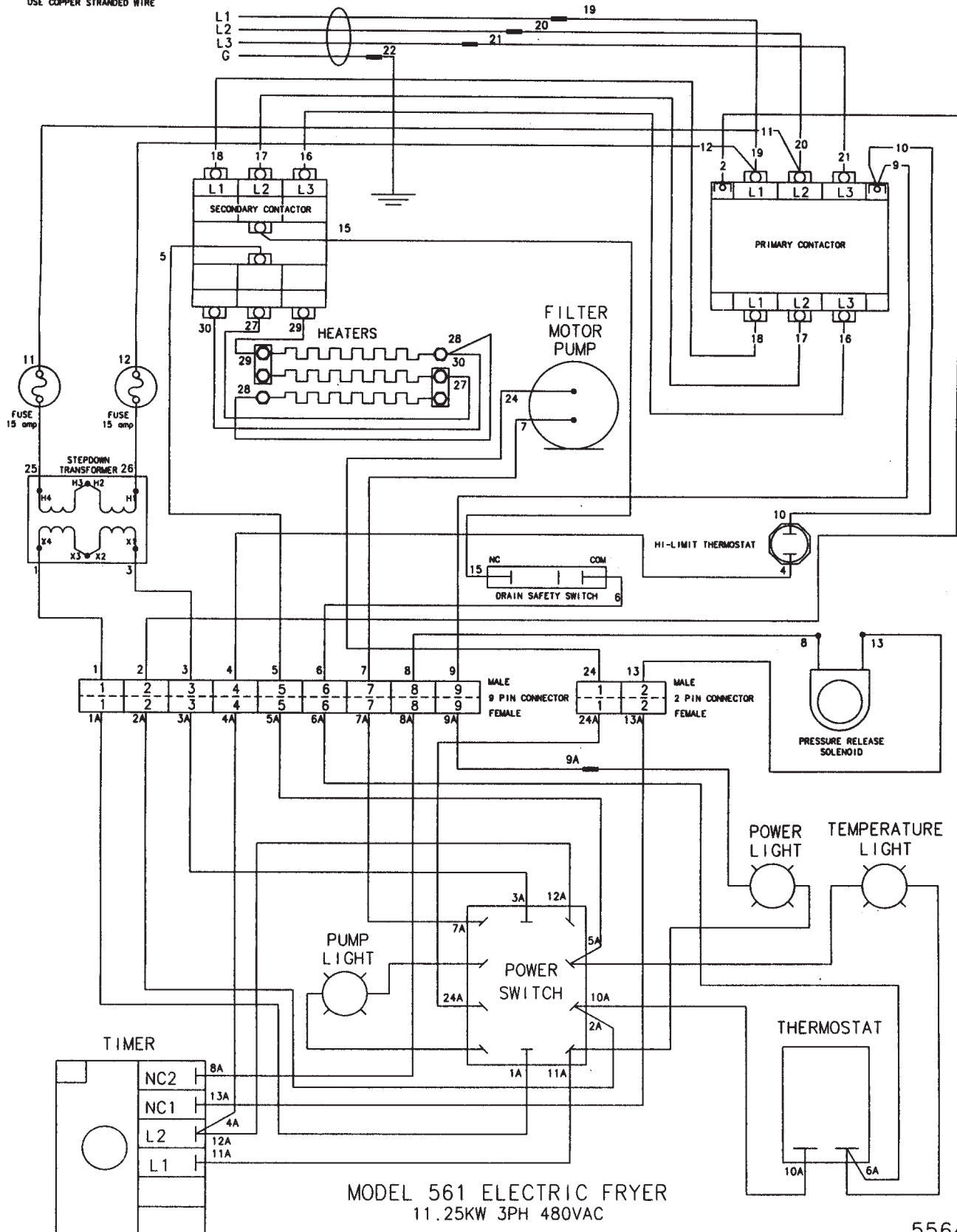
NOTE: FOR SUPPLY CONNECTIONS
USE COPPER STRANDED WIRE



MODEL 561 ELECTRIC FRYER
11.25KW 3PH 480VAC

55651

NOTE: FOR SUPPLY CONNECTIONS
USE COPPER STRANDED WIRE

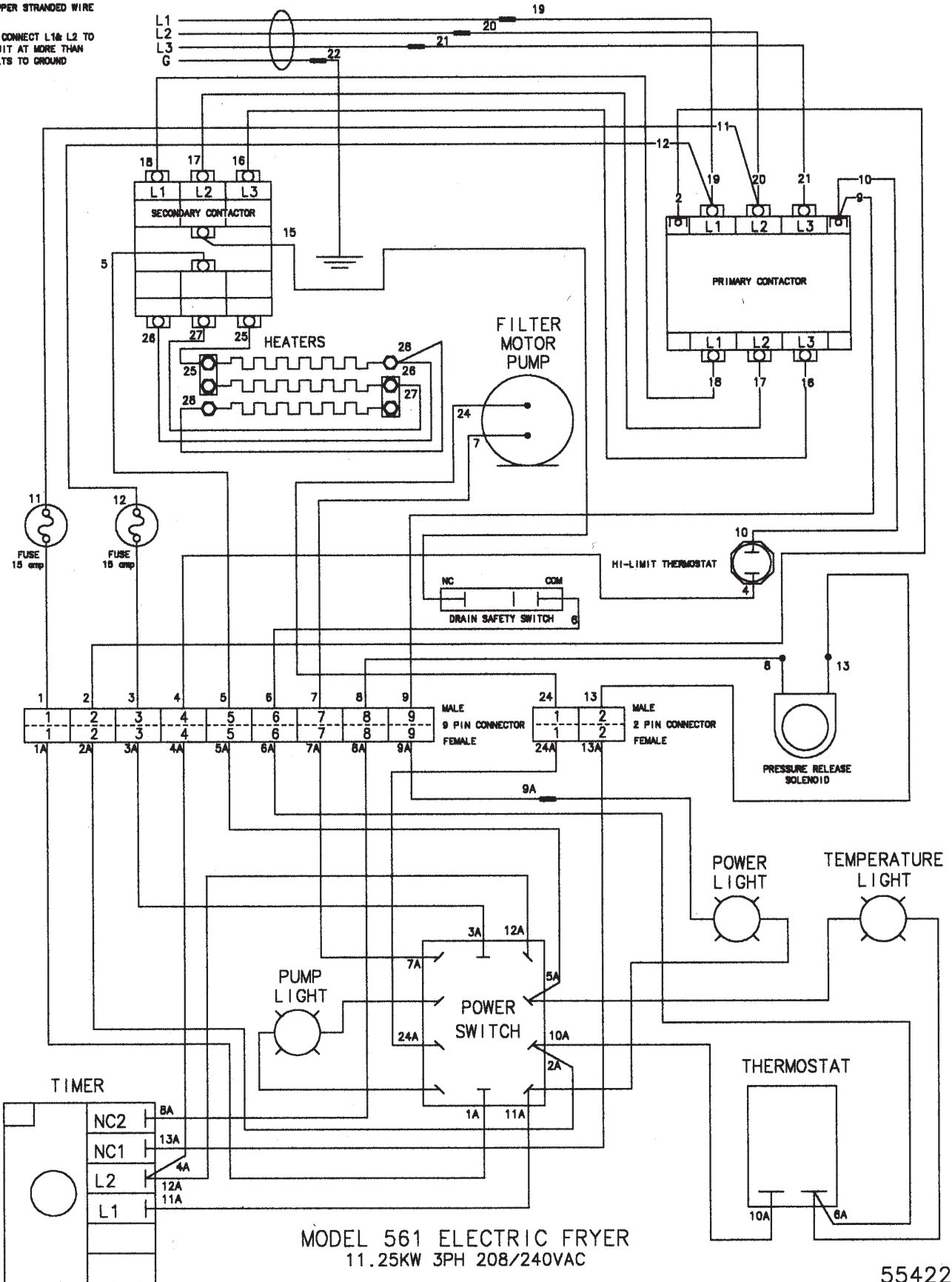


MODEL 561 ELECTRIC FRYER
11.25KW 3PH 480VAC

55649

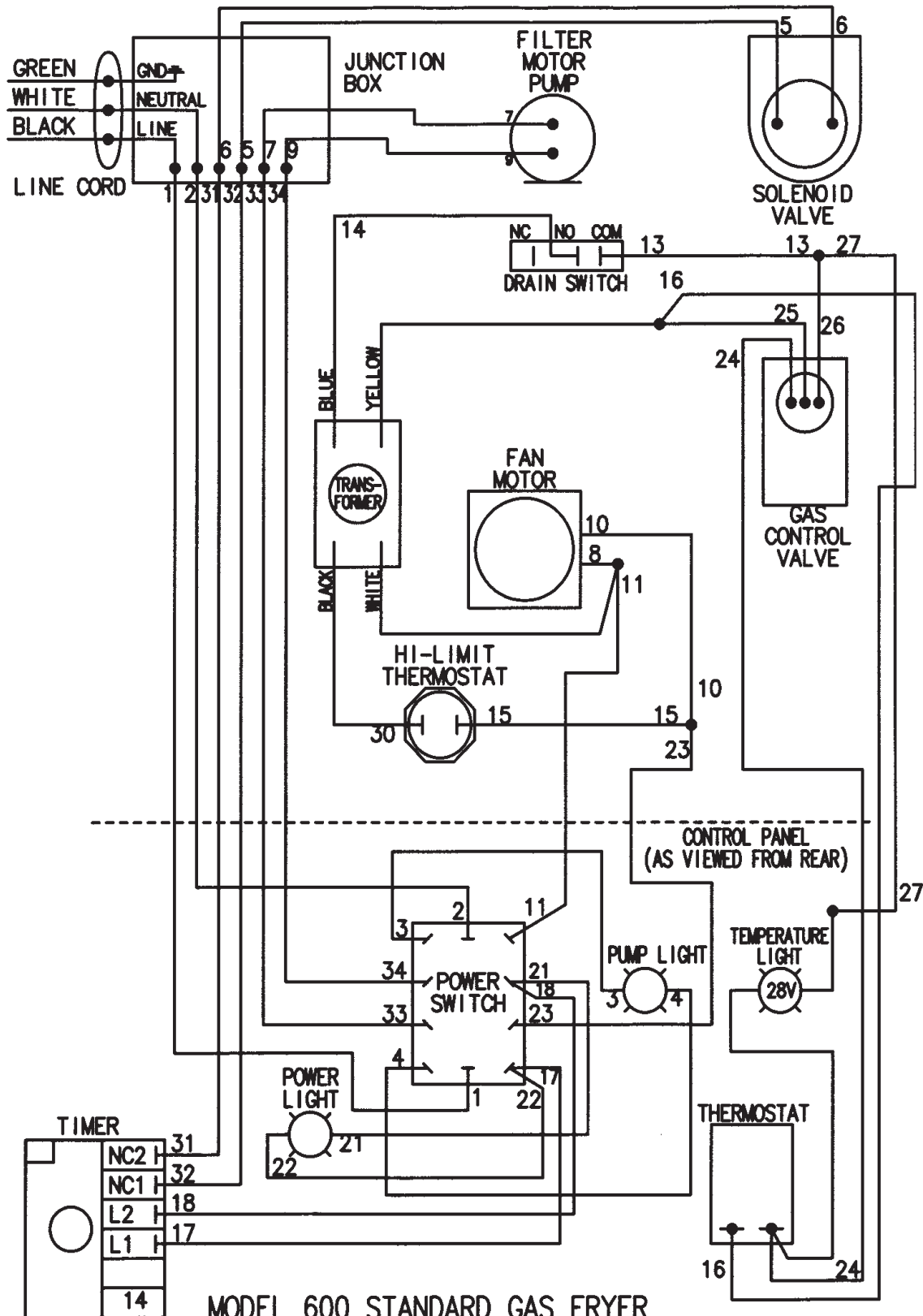
NOTE: FOR SUPPLY CONNECTIONS
USE COPPER STRANDED WIRE

DO NOT CONNECT L1& L2 TO
A CIRCUIT AT MORE THAN
150 VOLTS TO GROUND

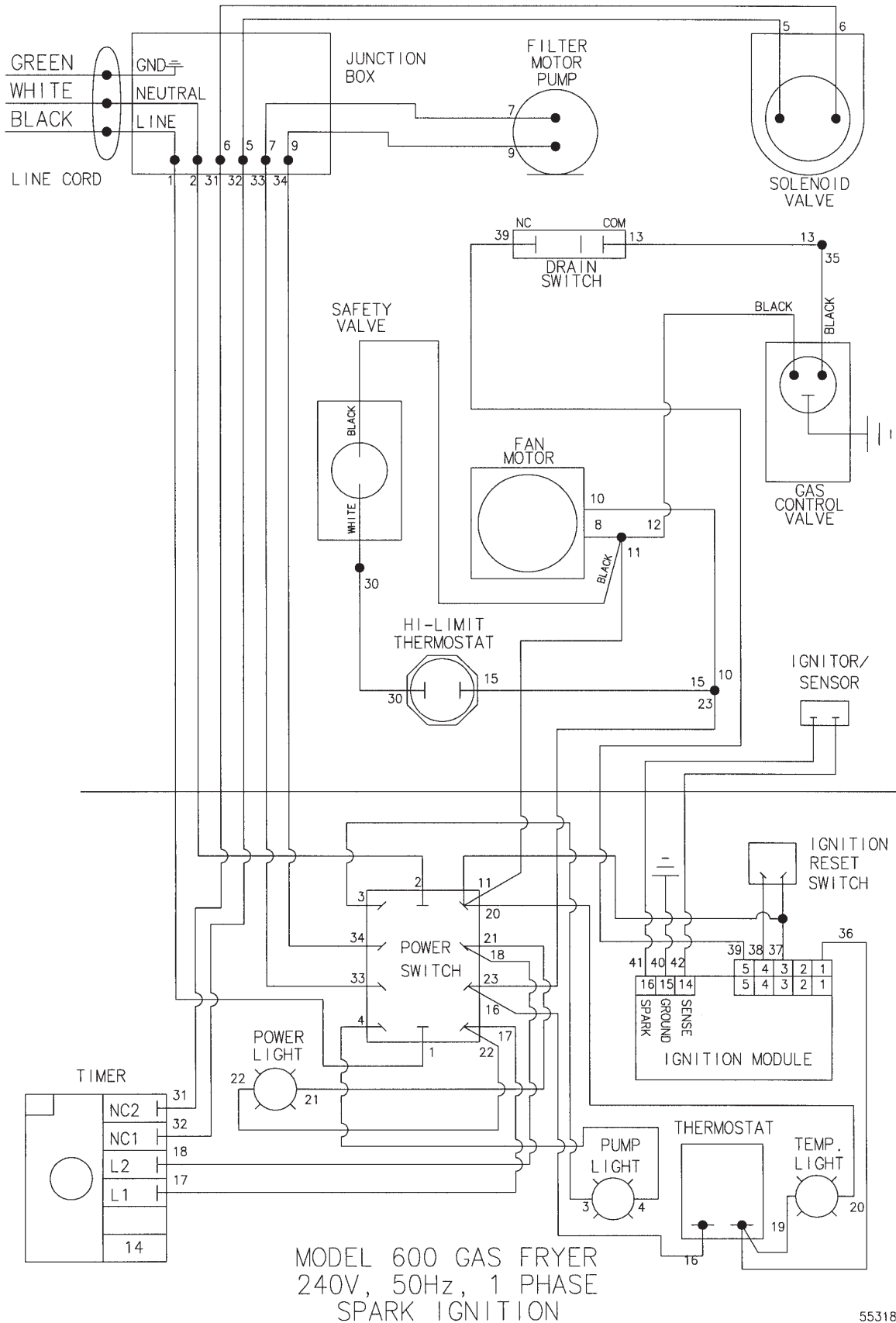


MODEL 561 ELECTRIC FRYER
11.25KW 3PH 208/240VAC

55422

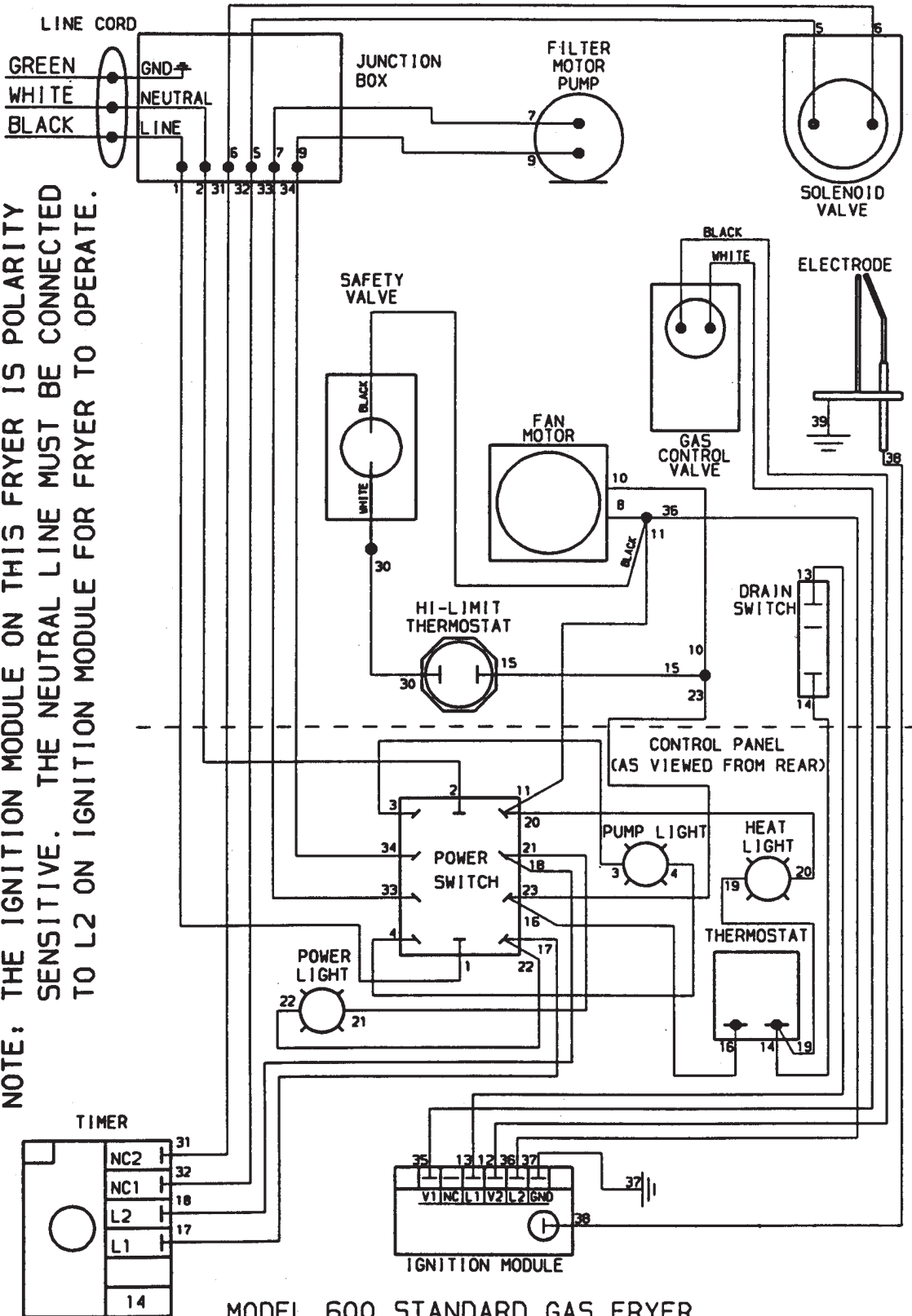


MODEL 600 STANDARD GAS FRYER
120V 60Hz 1PH
STANDARD IGNITION
HENNY PENNY CORP., EATON, OHIO 45320 63240



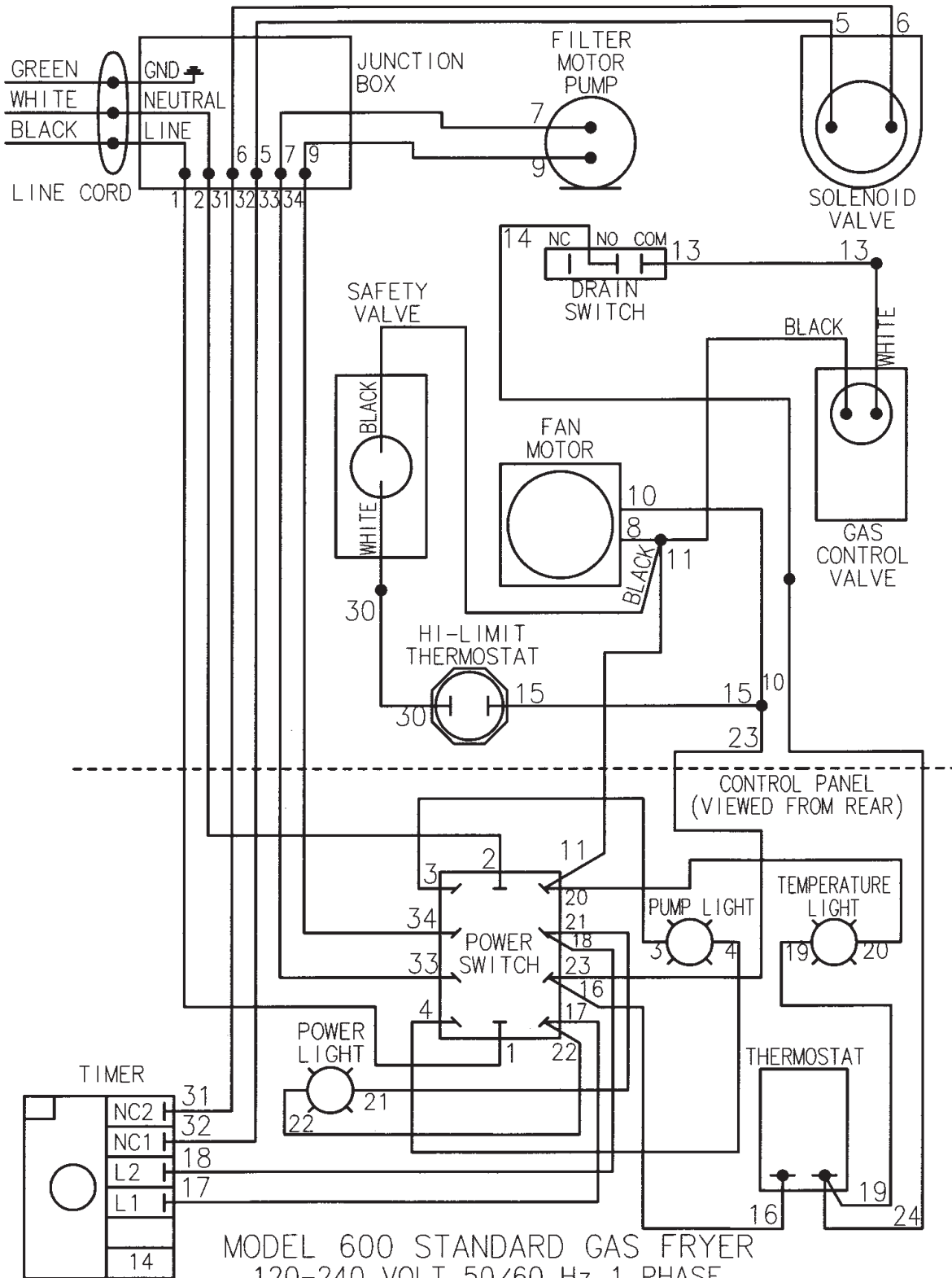
55318

NOTE: THE IGNITION MODULE ON THIS FRYER IS POLARITY SENSITIVE. THE NEUTRAL LINE MUST BE CONNECTED TO L2 ON IGNITION MODULE FOR FRYER TO OPERATE.



MODEL 600 STANDARD GAS FRYER
120 VOLT 60 HZ 1 PHASE
ELECTRONIC IGNITION

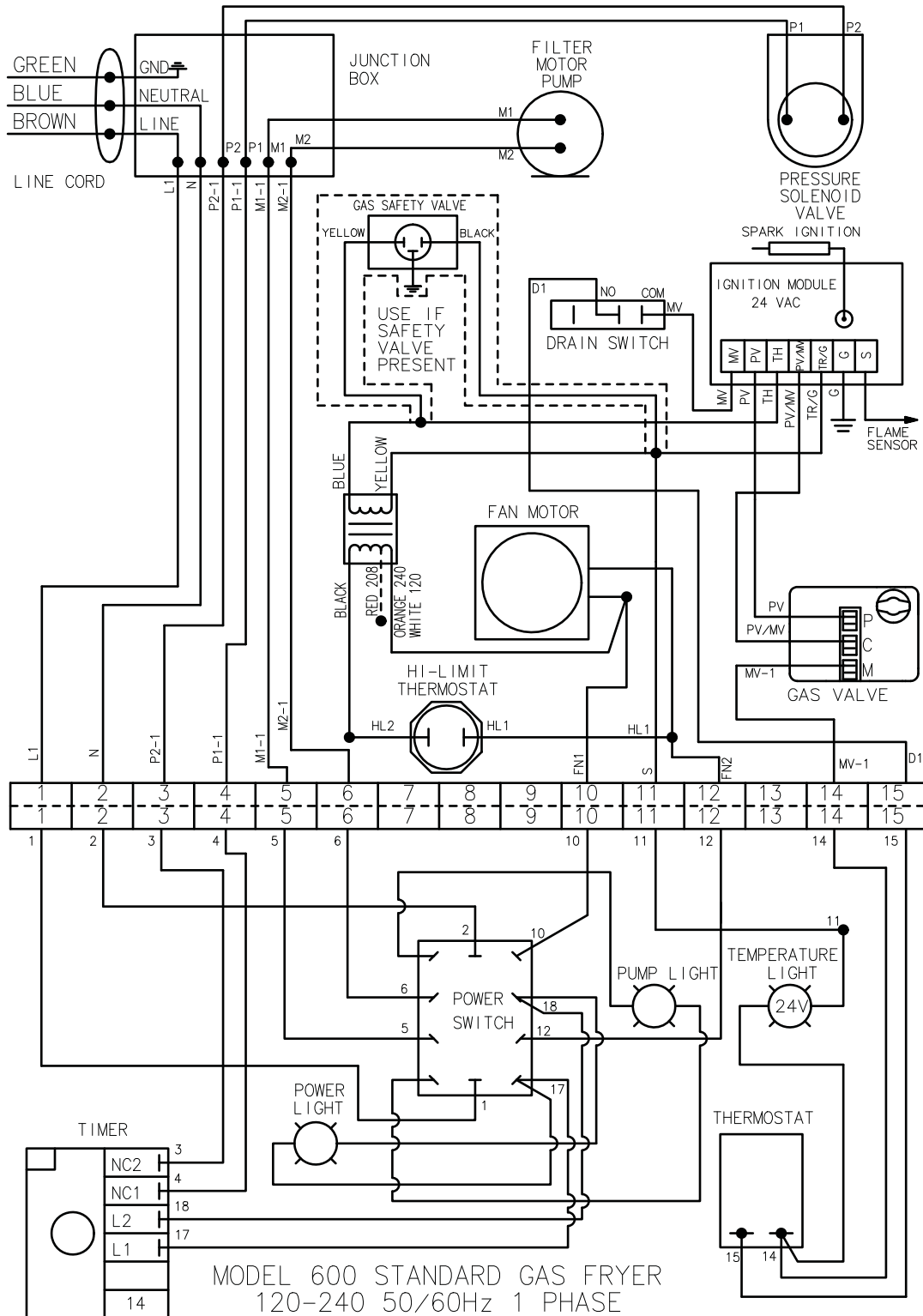
34389



MODEL 600 STANDARD GAS FRYER
120-240 VOLT 50/60 Hz 1 PHASE
STANDARD IGNITION

63694

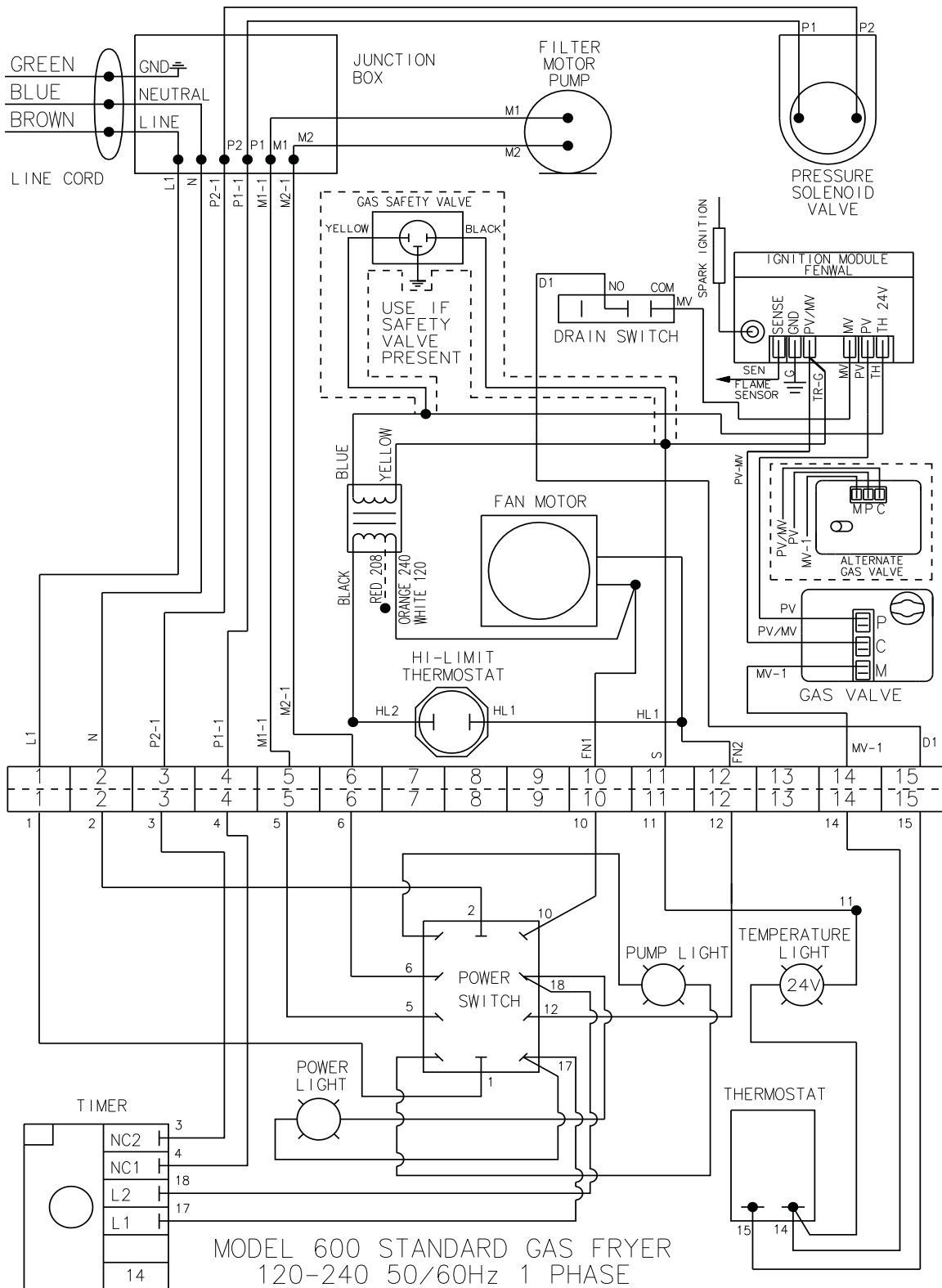
SN: AN0702112 & below



MODEL 600 STANDARD GAS FRYER
120-240 50/60Hz 1 PHASE
HENNY PENNY CORP.
EATON, OHIO 45320
ELECTRONIC SPARK IGNITION

75555

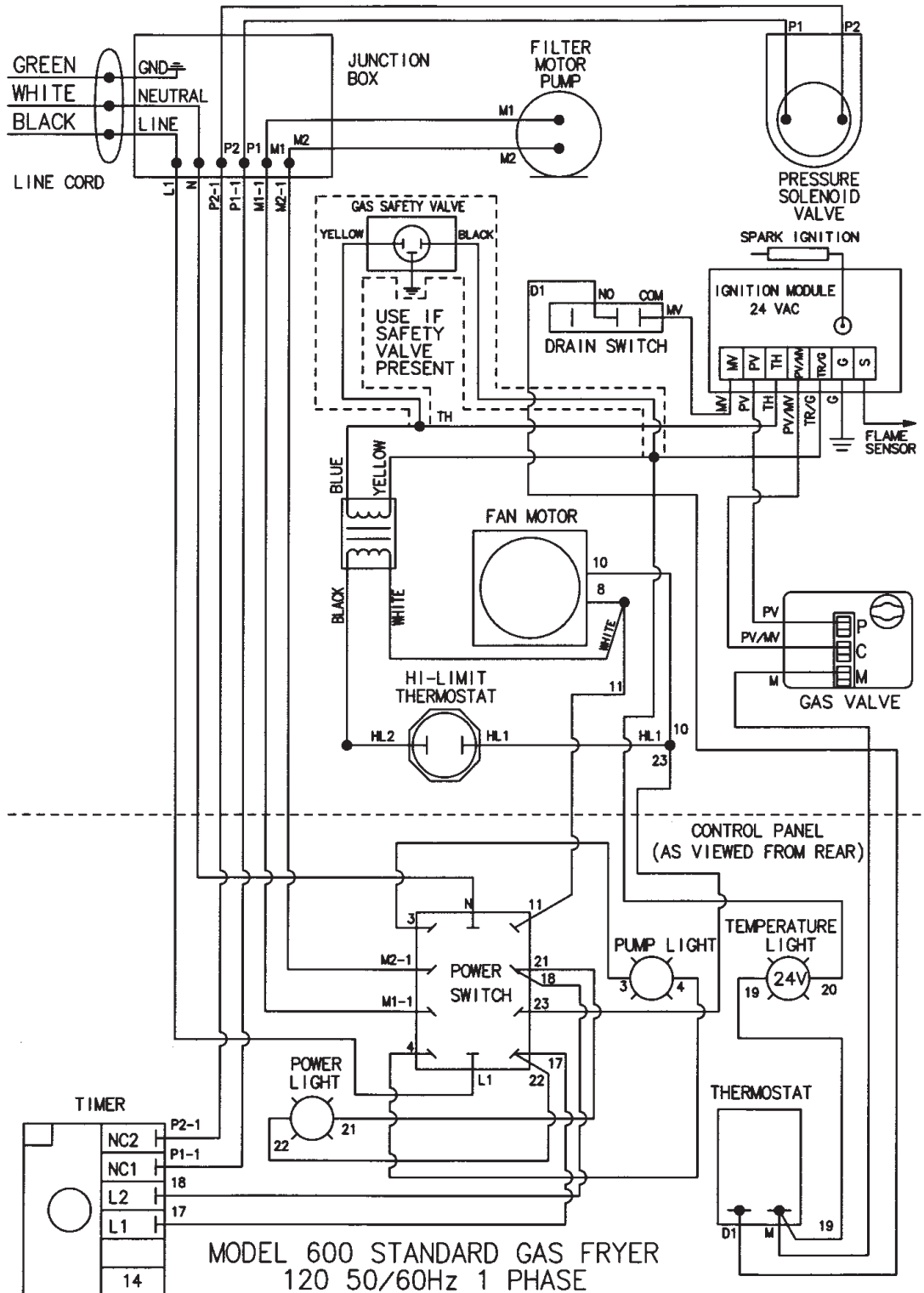
SN: AN0703021 to AN0711029 (Robertshaw Module)



MODEL 600 STANDARD GAS FRYER
120-240 50/60Hz 1 PHASE
HENNY PENNY CORP.
EATON, OHIO 45320
ELECTRONIC SPARK IGNITION

75555

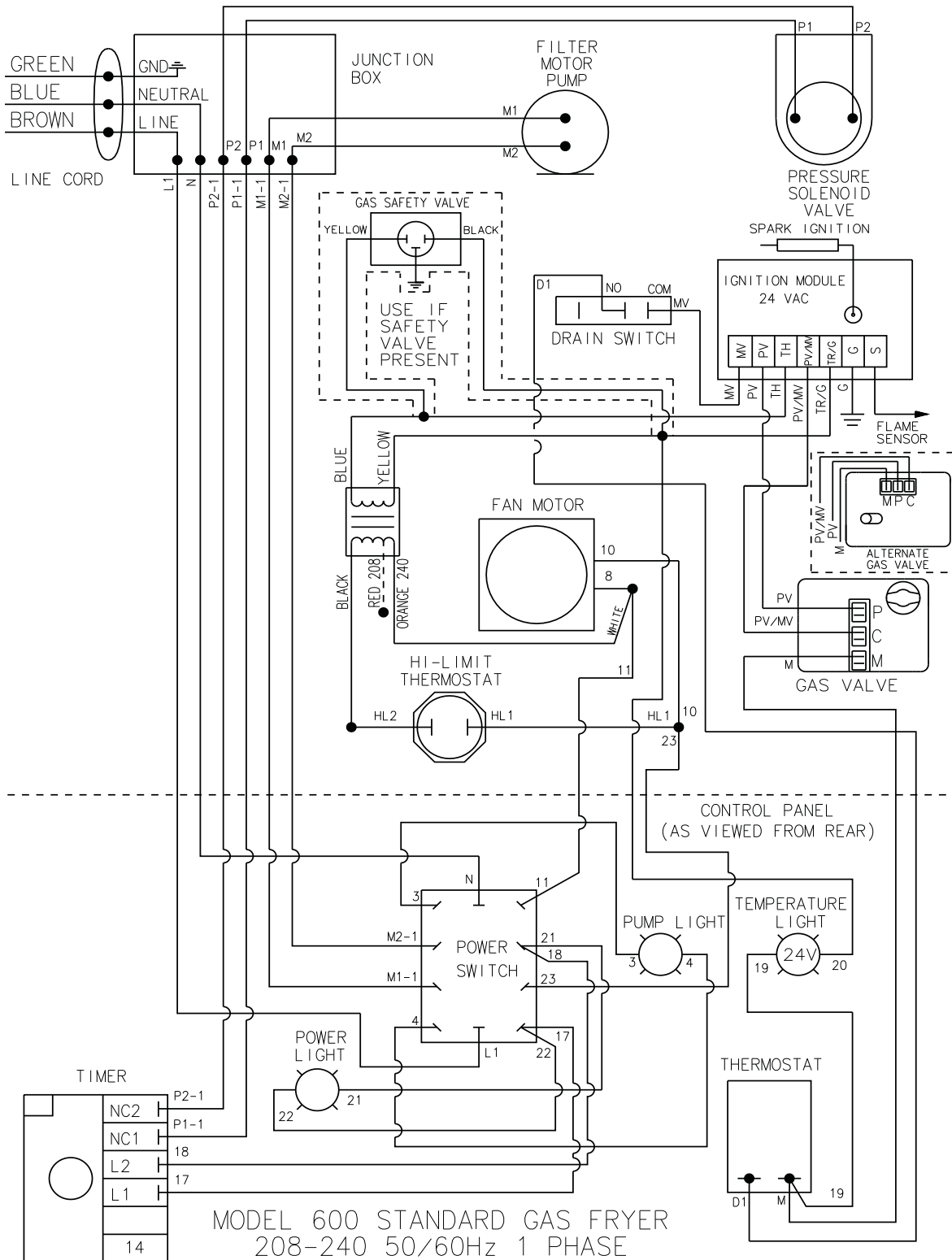
SN: AN0711030 & Above (Fenwal Module)



MODEL 600 STANDARD GAS FRYER
120 50/60Hz 1 PHASE
HENNY PENNY CORP.
EATON, OHIO 45320
ELECTRONIC SPARK IGNITION

67152

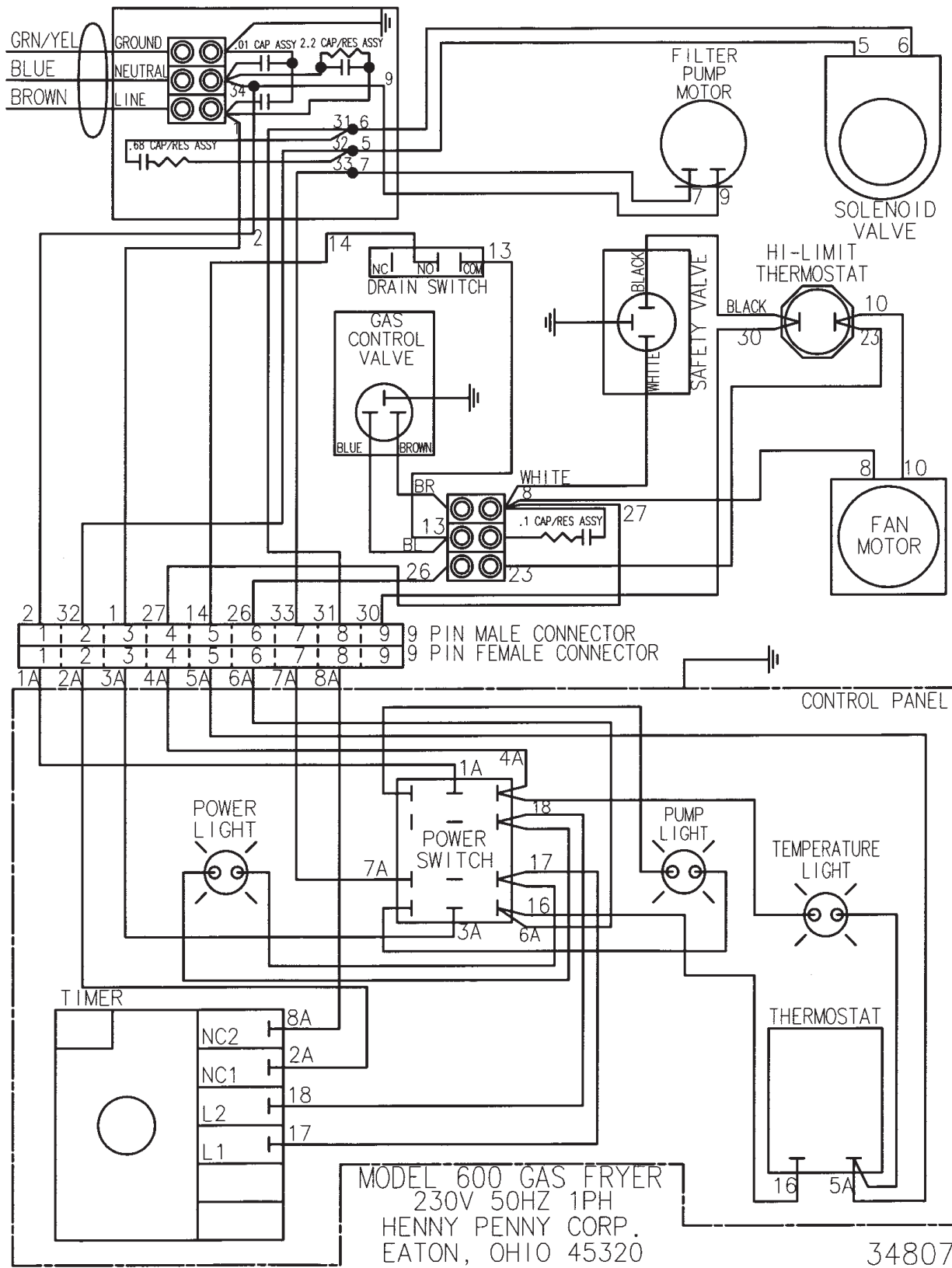
SN: AN0702112 & below
(SN: AN0703021 & above use 75555)



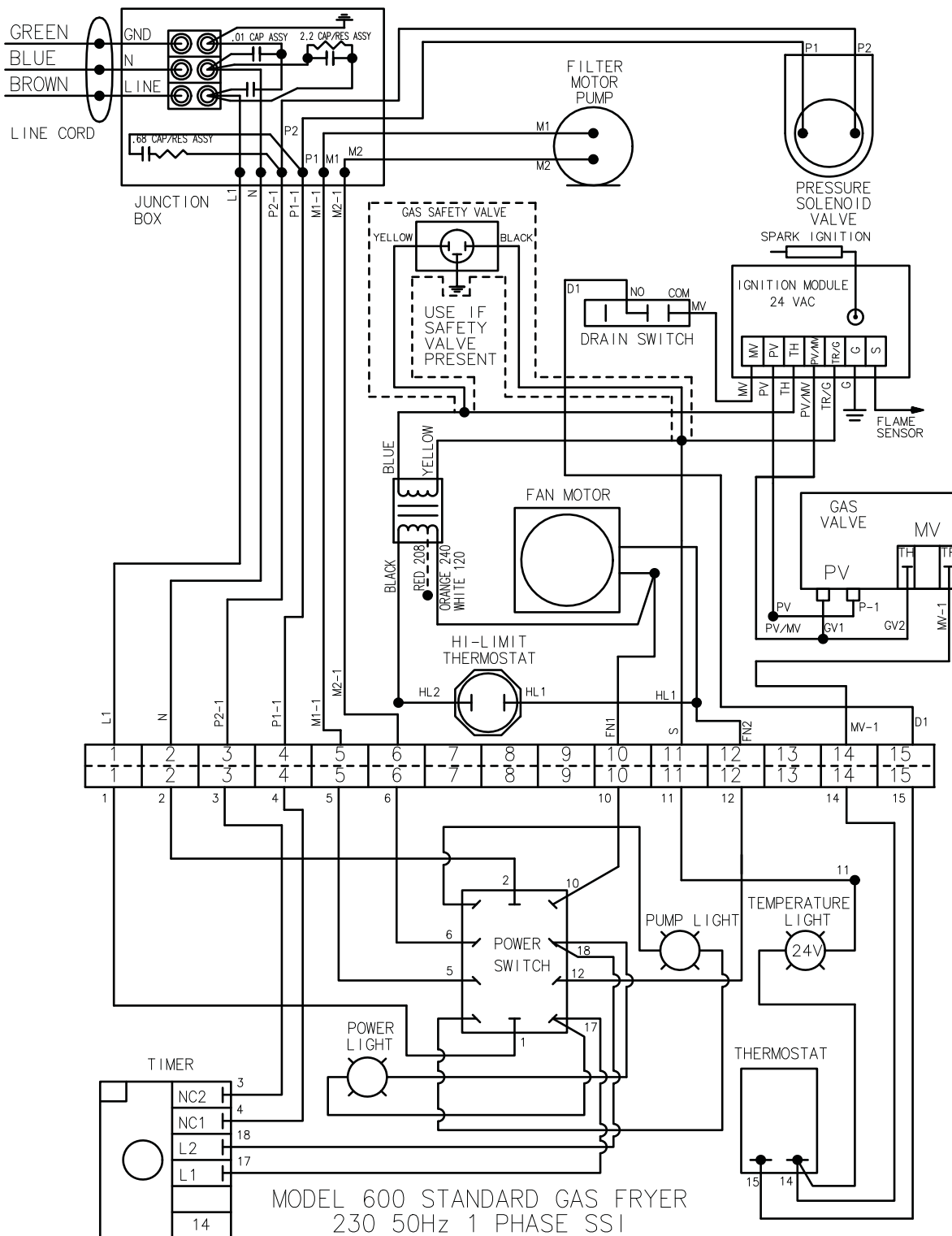
MODEL 600 STANDARD GAS FRYER
208-240 50/60Hz 1 PHASE
HENNY PENNY CORP.
EATON, OHIO 45320
ELECTRONIC SPARK IGNITION

69076

SN: AN0702112 & below
(SN: AN0703021 & above use 75555)

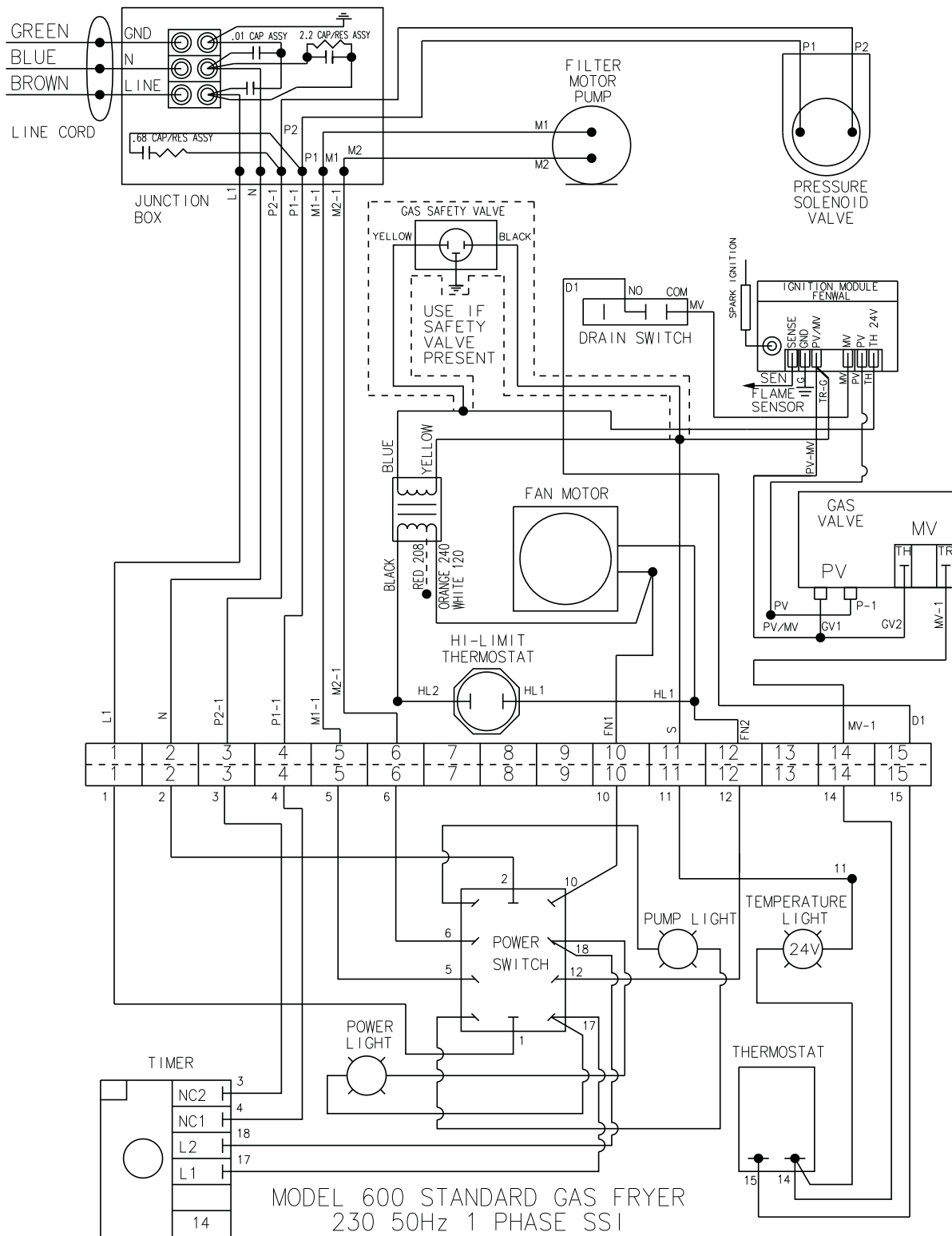


SN: AN0702112 & below



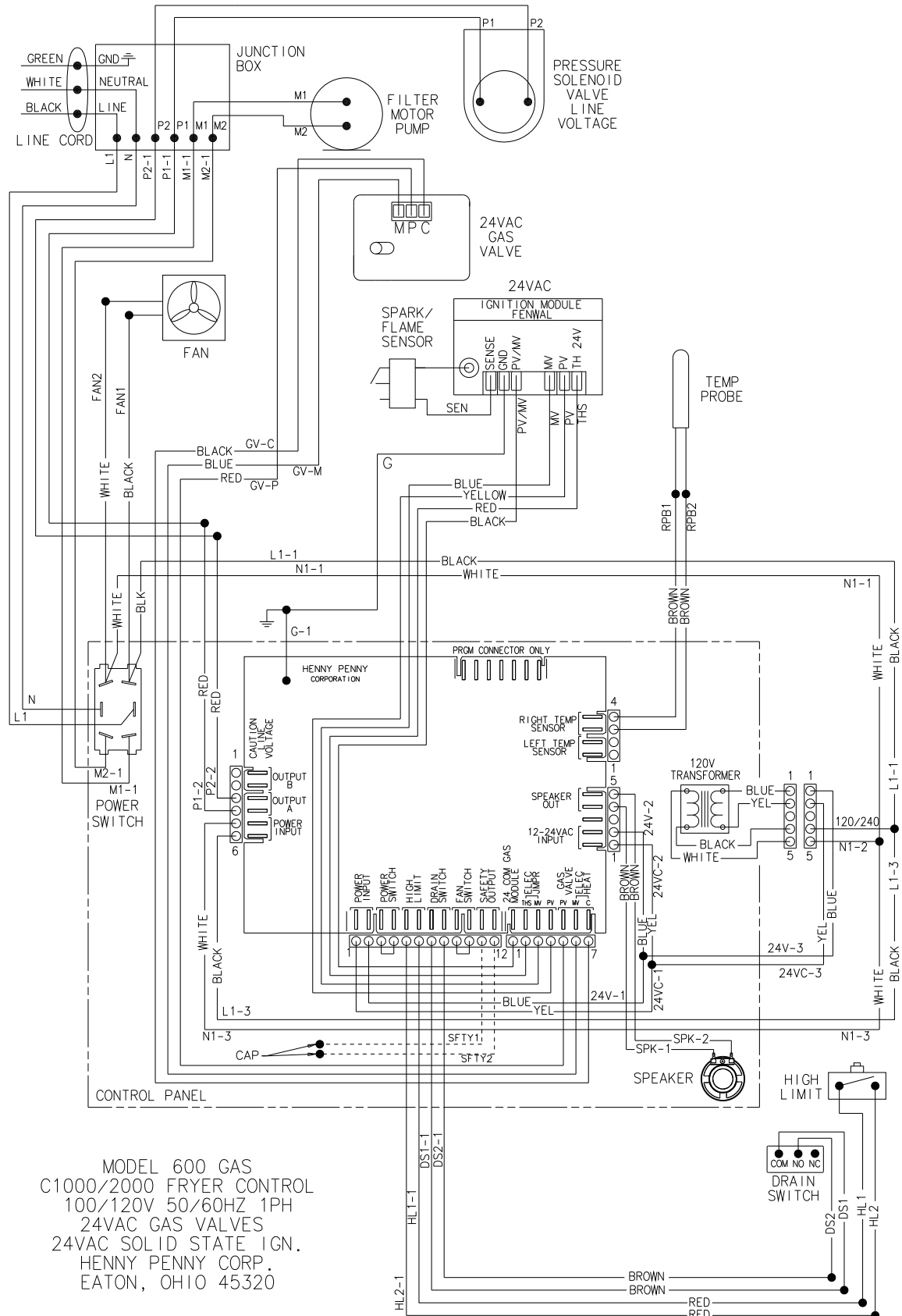
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SN: AN0703021 to AN0711029 (Robertshaw Module)



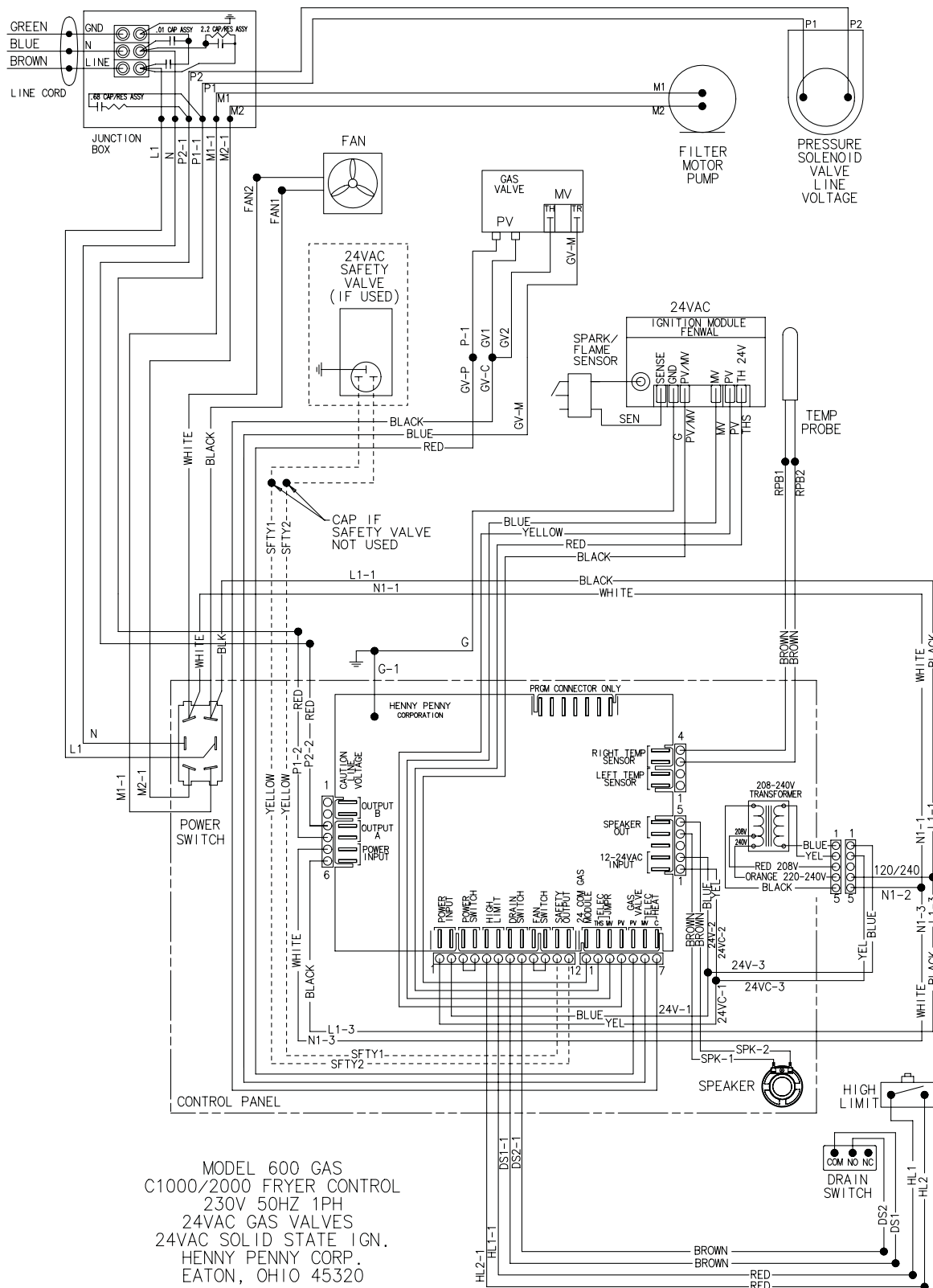
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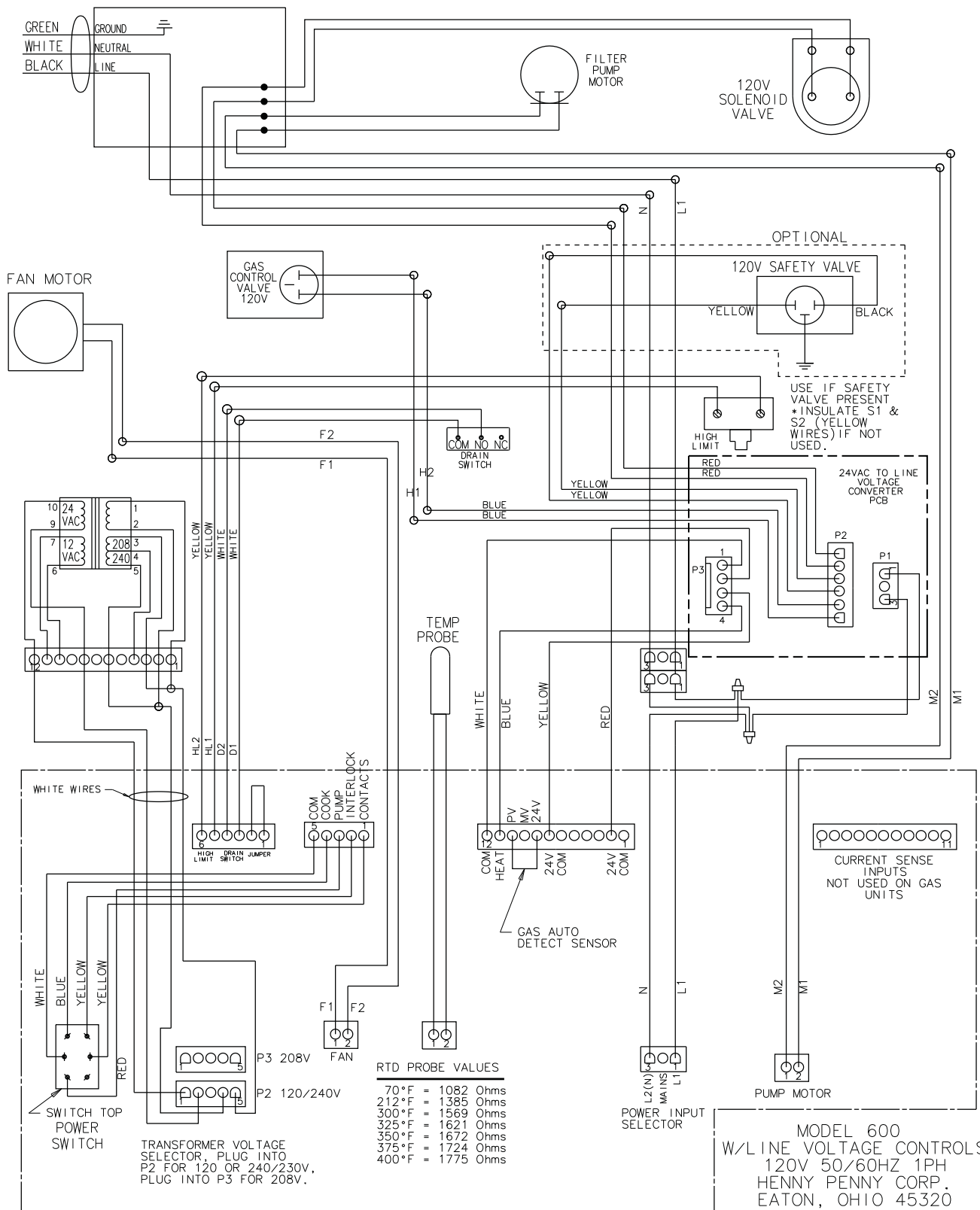
SN: AN0711030 & Above (Fenwal Module)



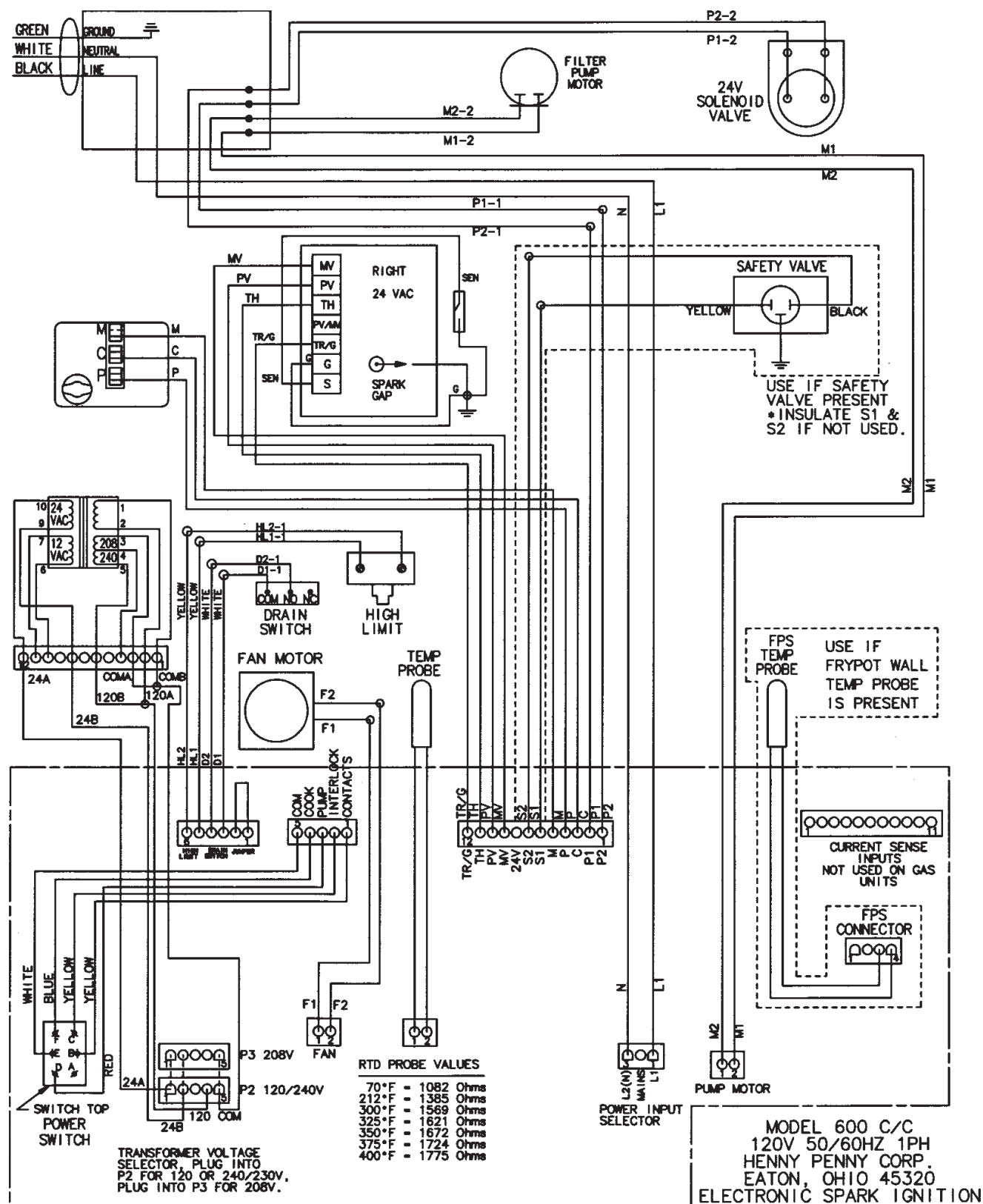
78558

Serial Number AN0807053 & Above



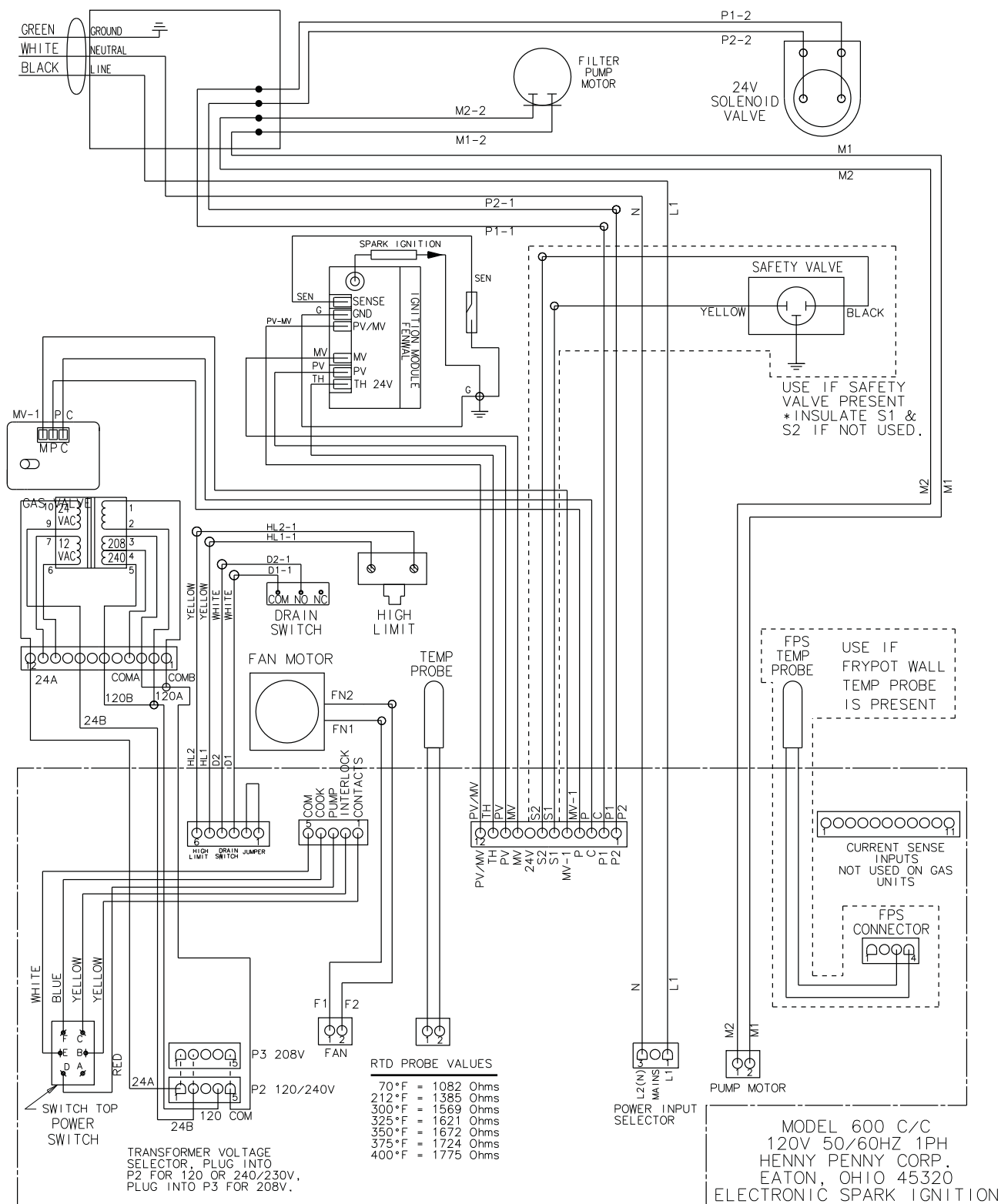


68598



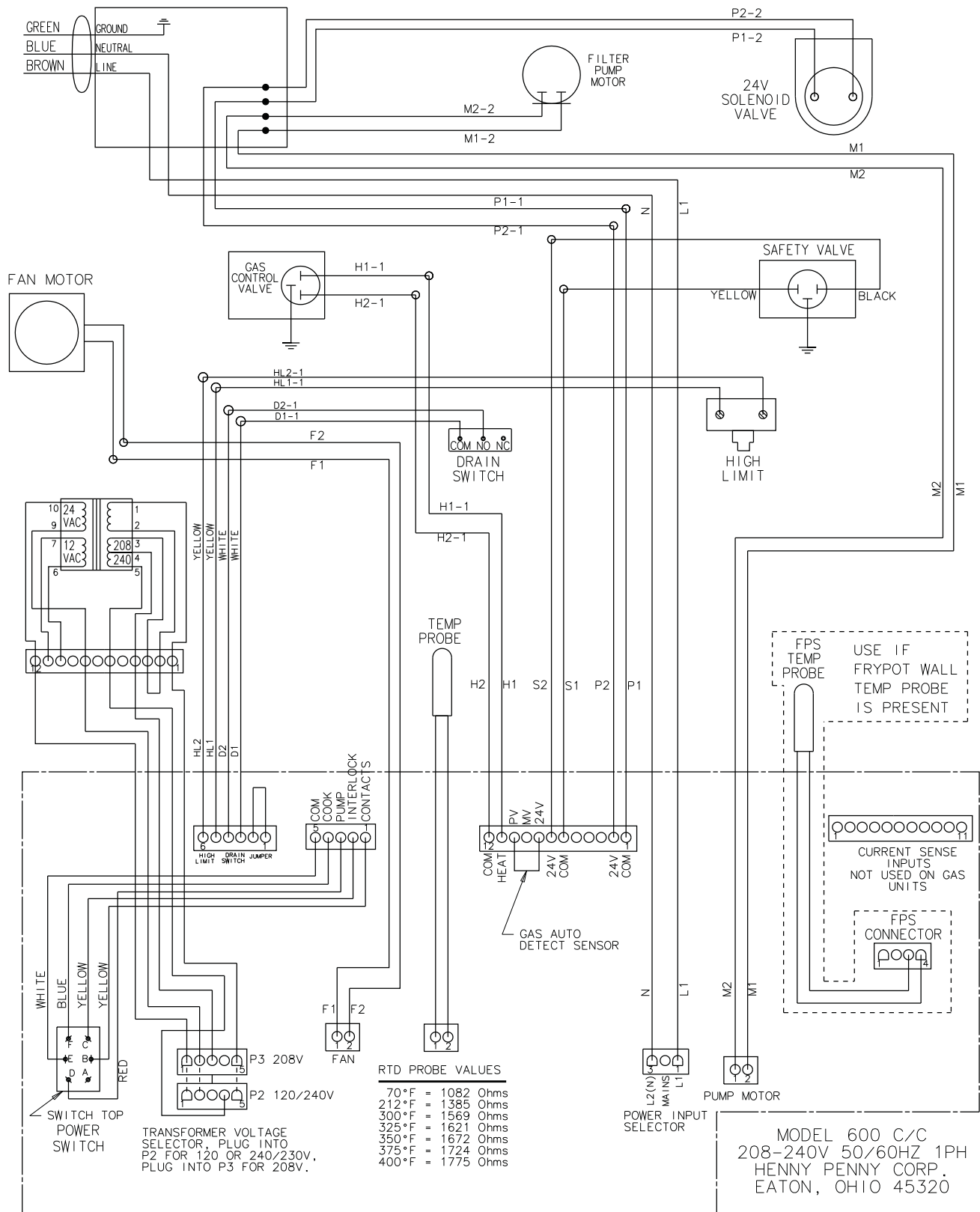
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SN: AN0703021 to AN0711029 (Robertshaw Module)

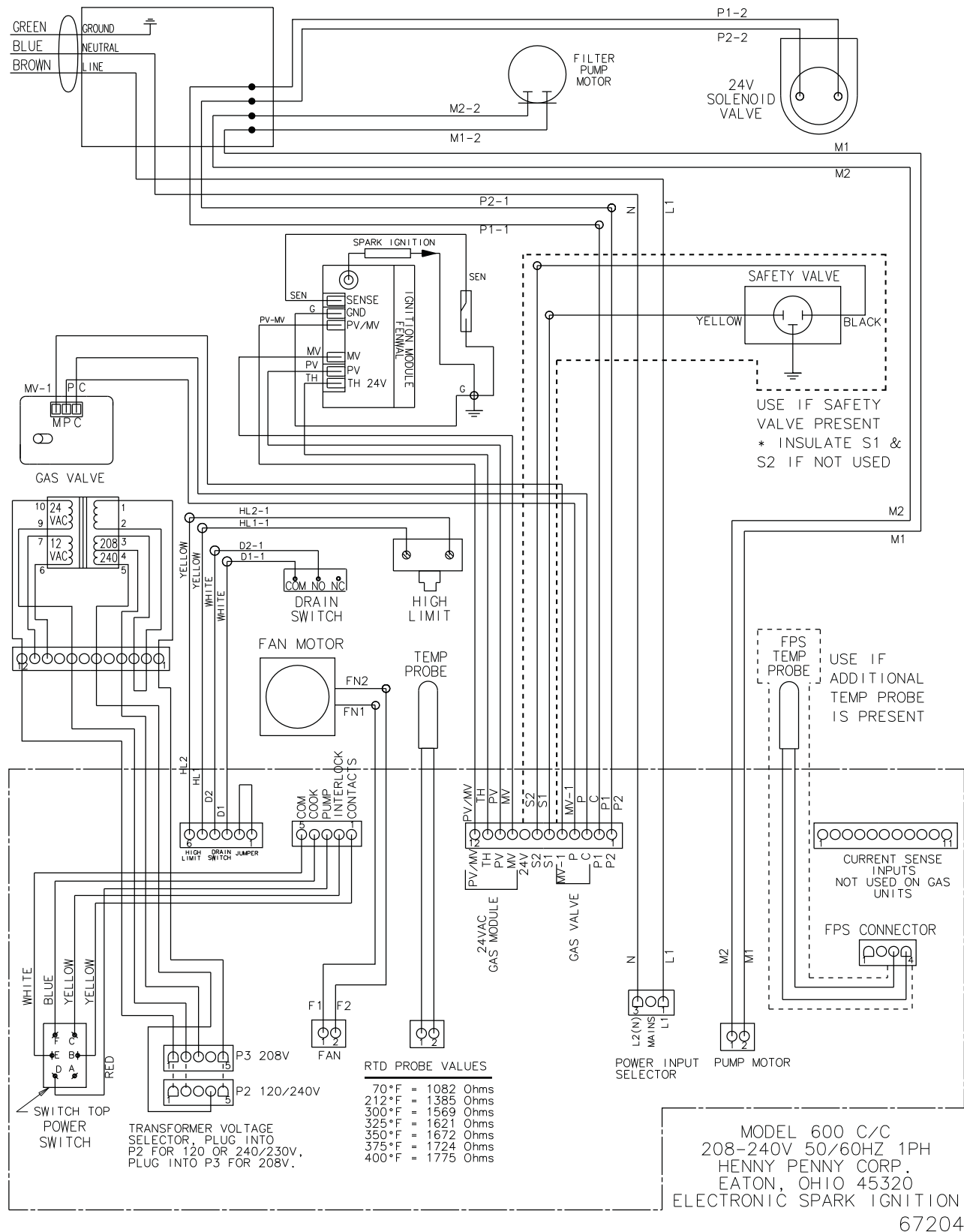


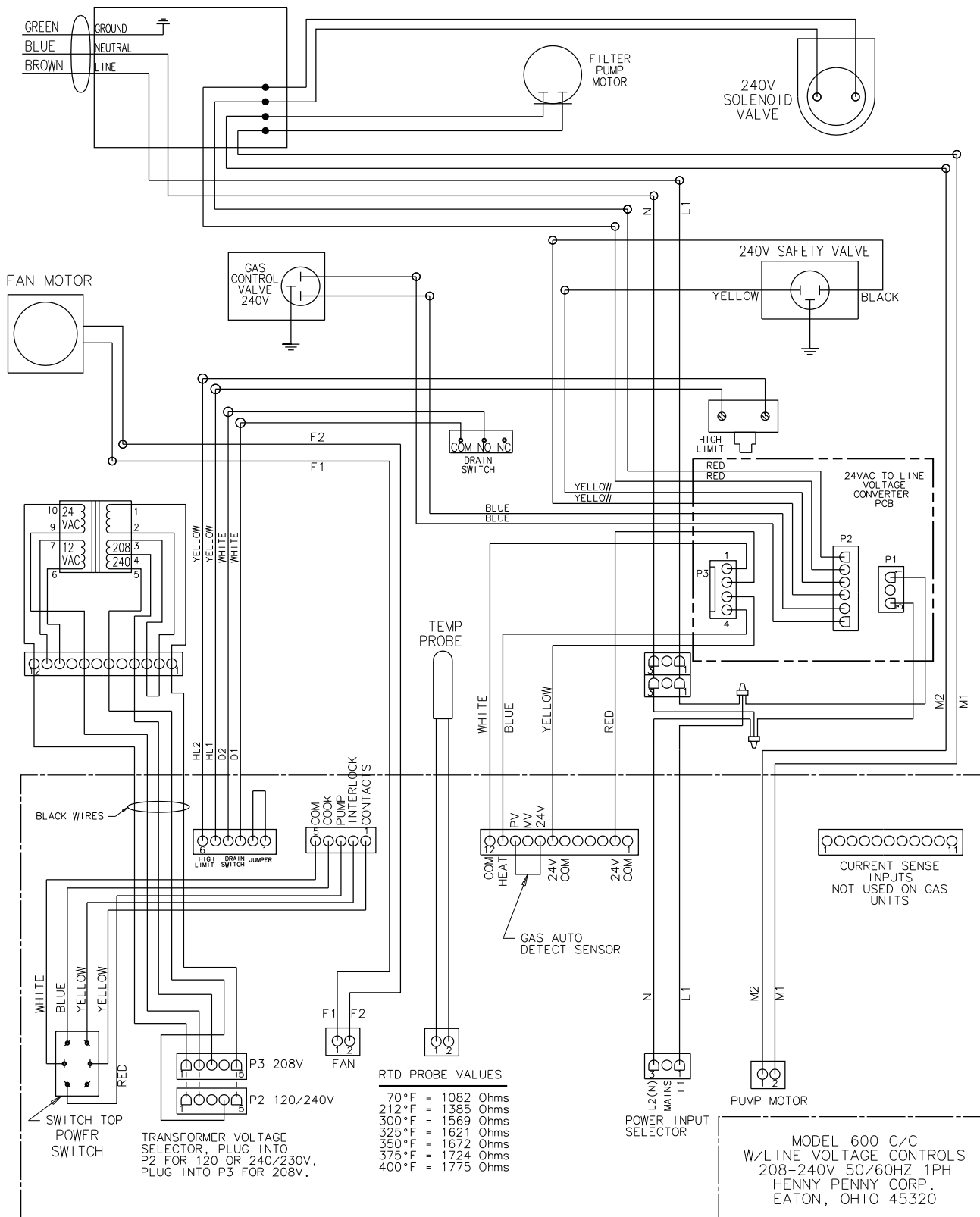
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SN: AN0711030 & Above (Fenwal Module)

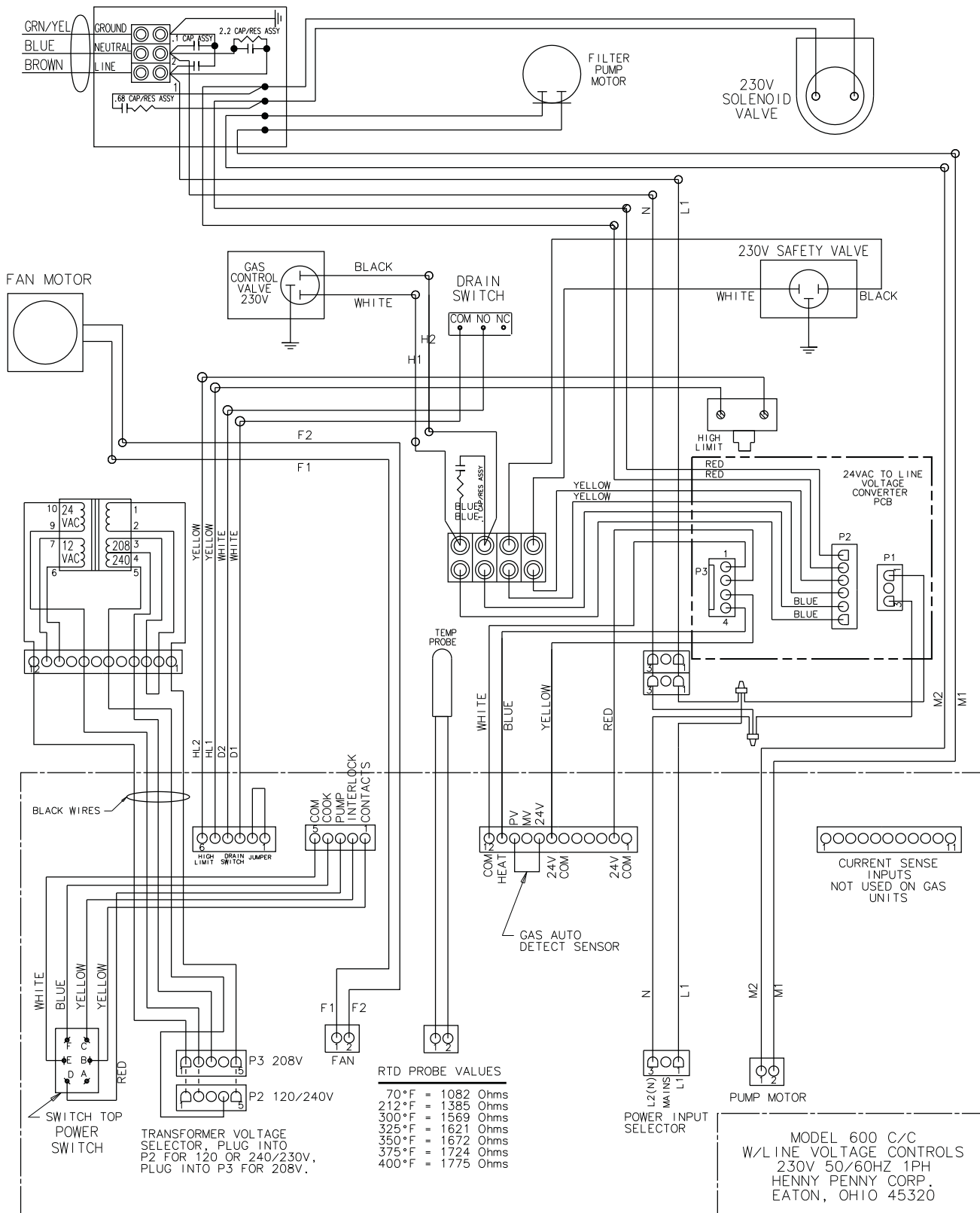


32759

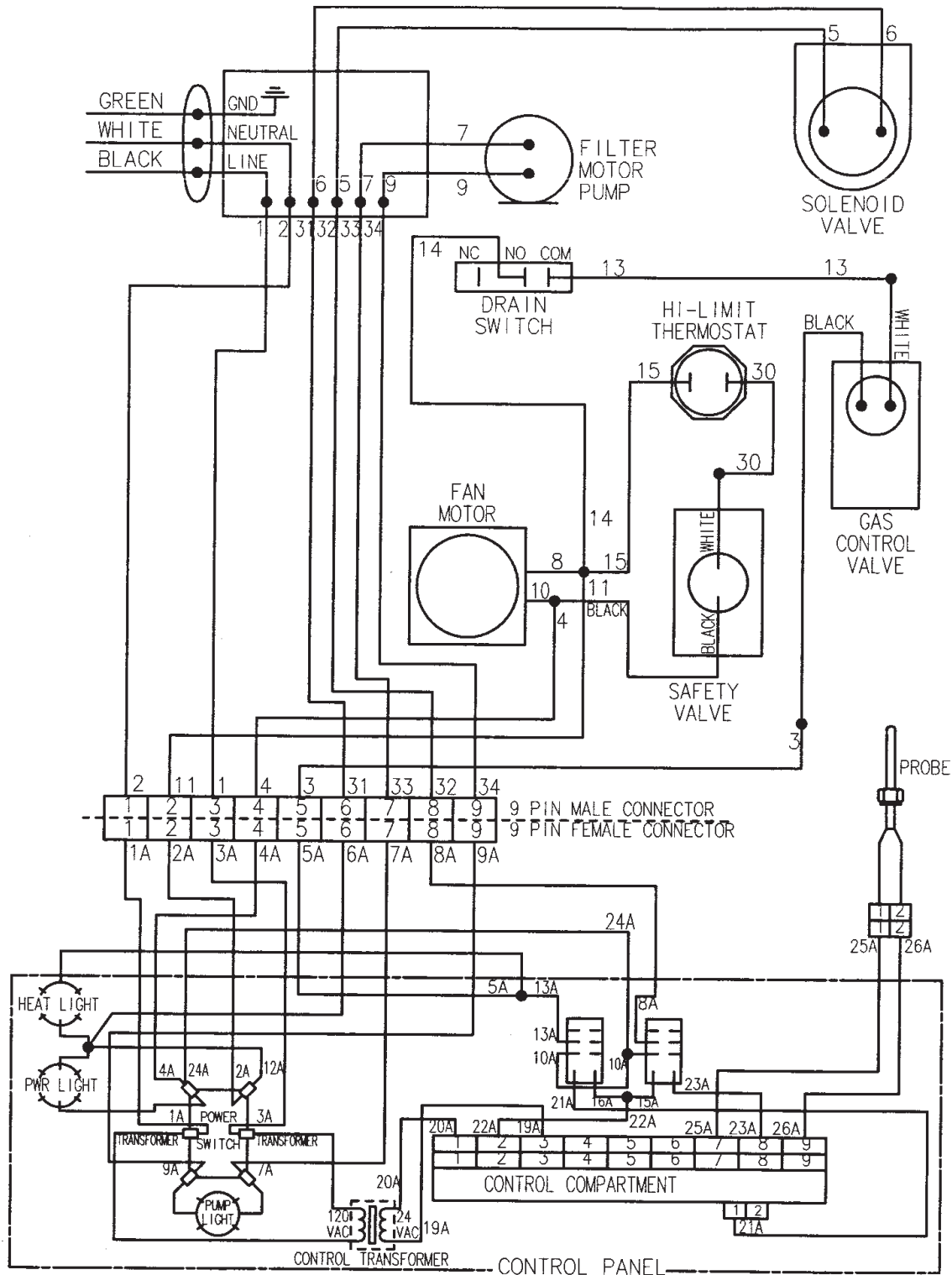




68614



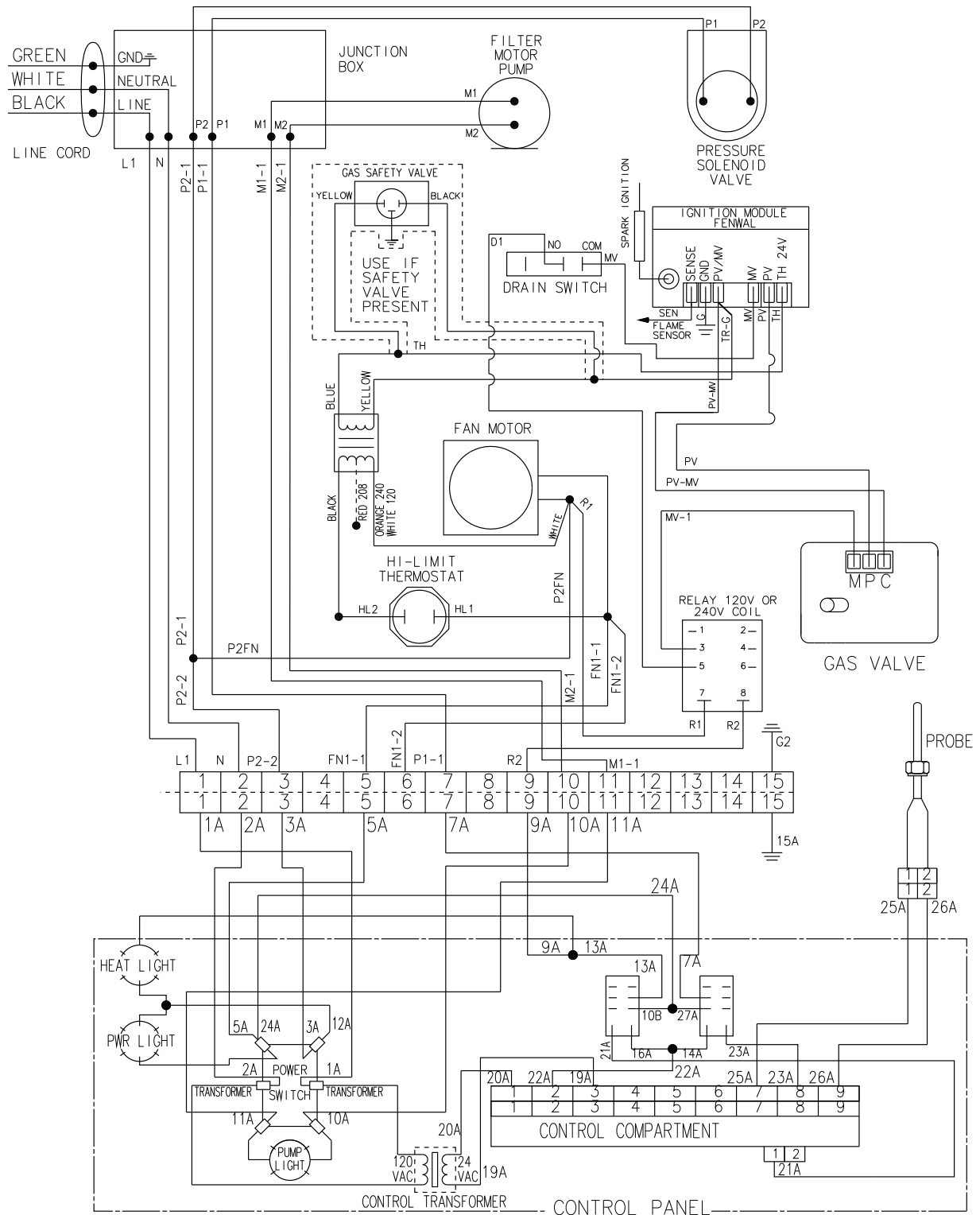
68615



MODEL 600F
100-240V 50/60Hz 1PH
HENNY PENNY CORP., EATON, OHIO 45320

63357

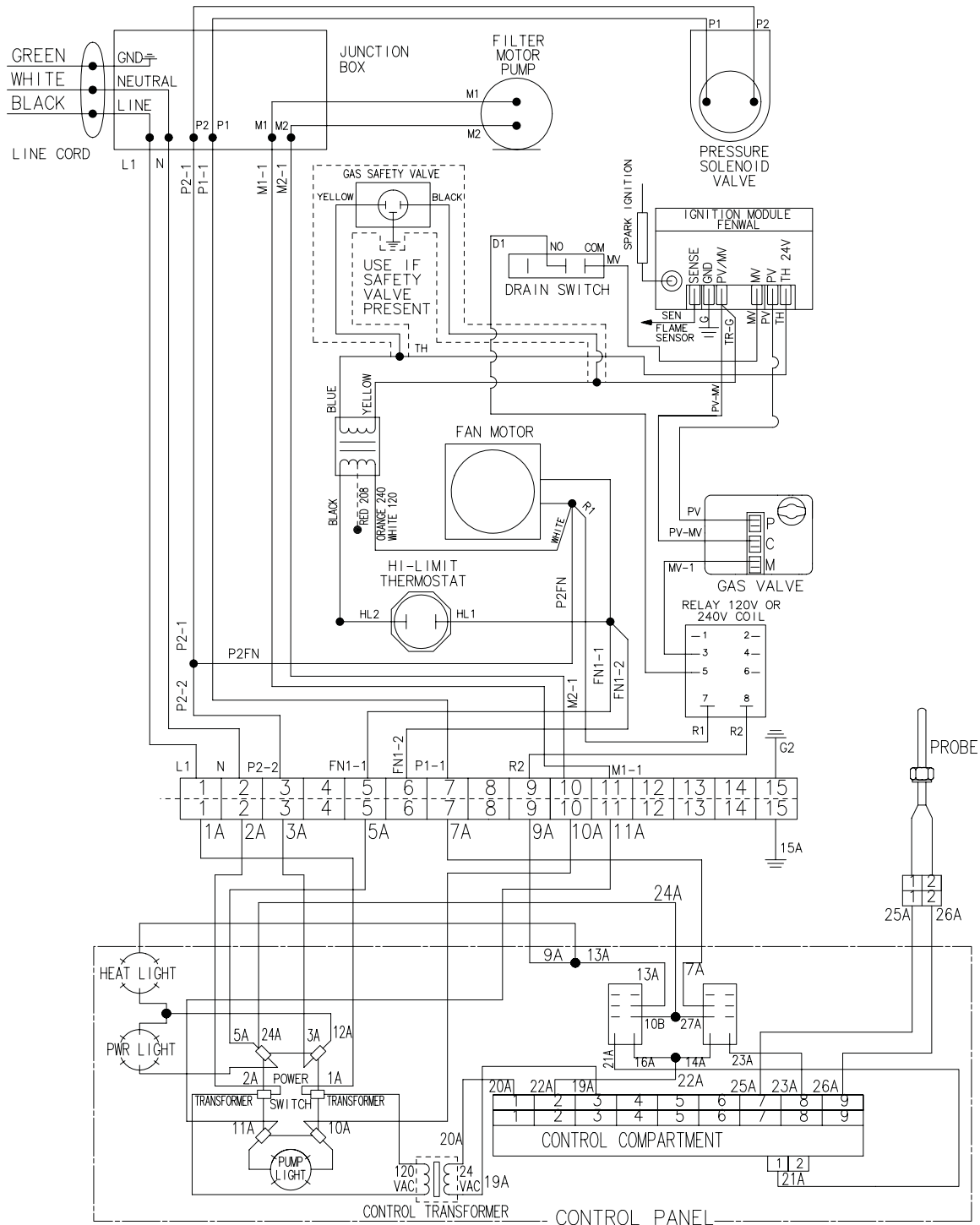
SN: AN0702112 & below



MODEL 600F
100-240V 50/60Hz 1PH SSI
HENNY PENNY CORP., EATON, OHIO 45320

75510

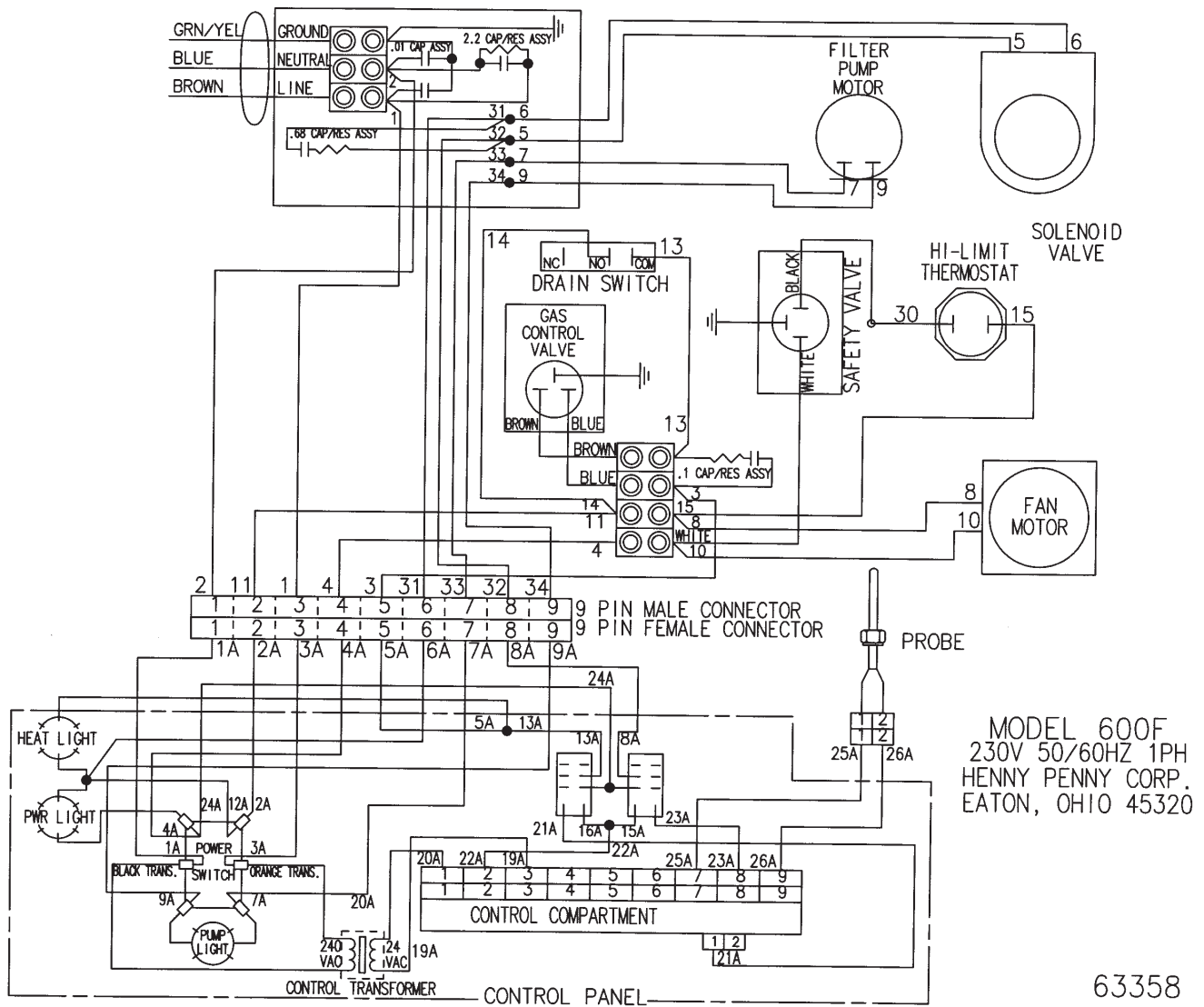
SN: AN0703021 to AN0711029 - (Robershaw Module)



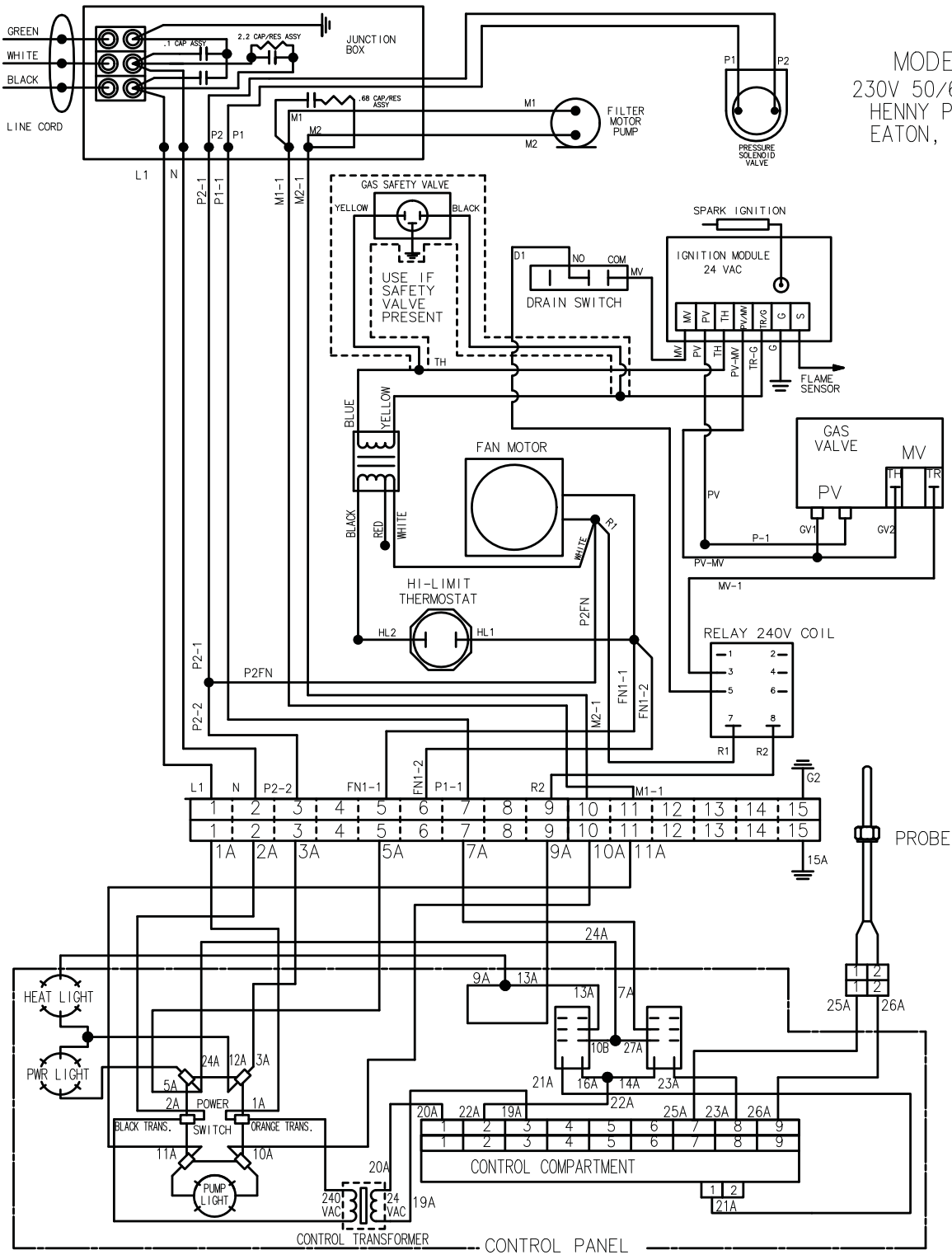
MODEL 600F
100-240V 50/60Hz 1PH SSI
HENNY PENNY CORP., EATON, OHIO 45320

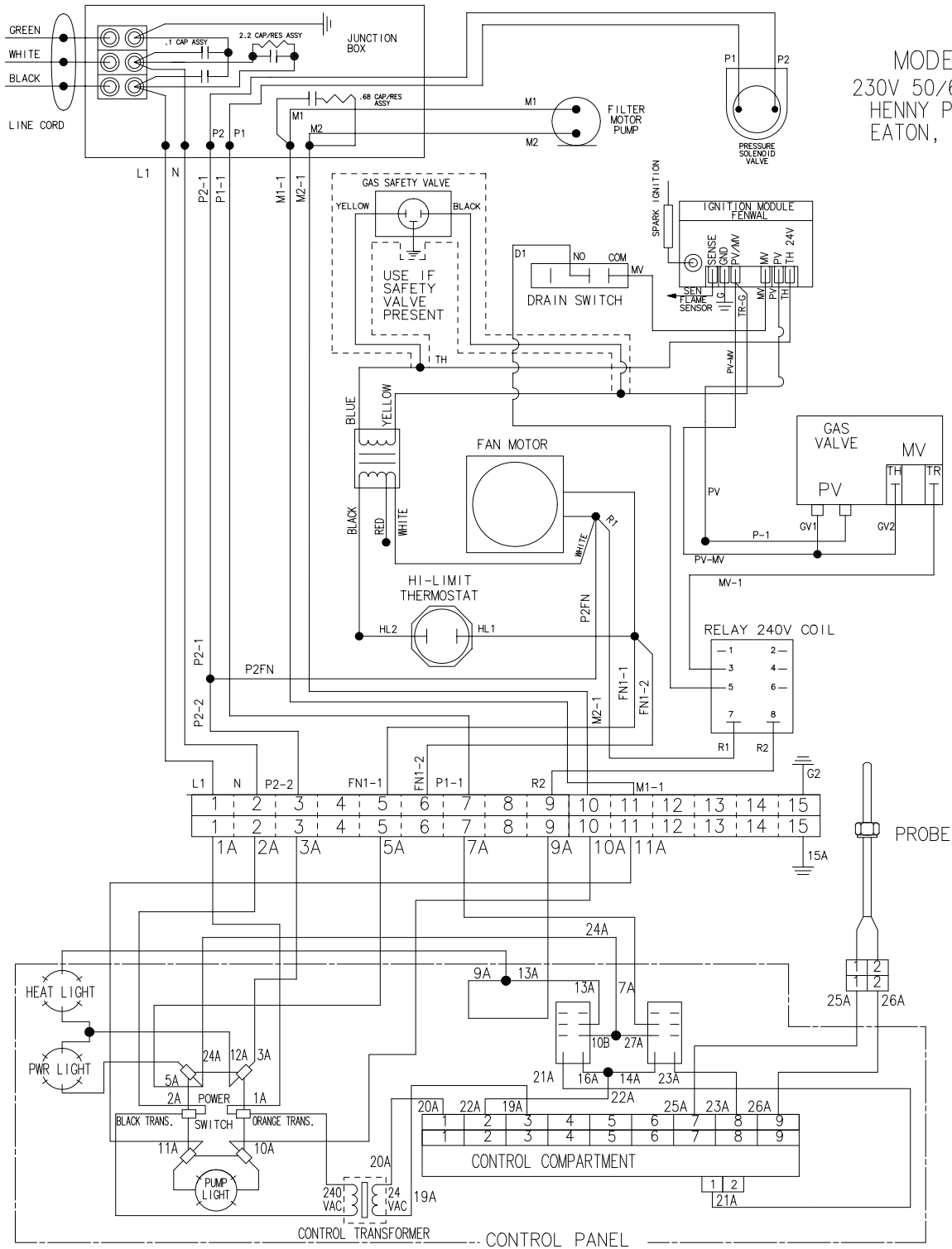
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SN: AN0711030 & Above - (Fenwal Module)



SN: AN0702112 & below

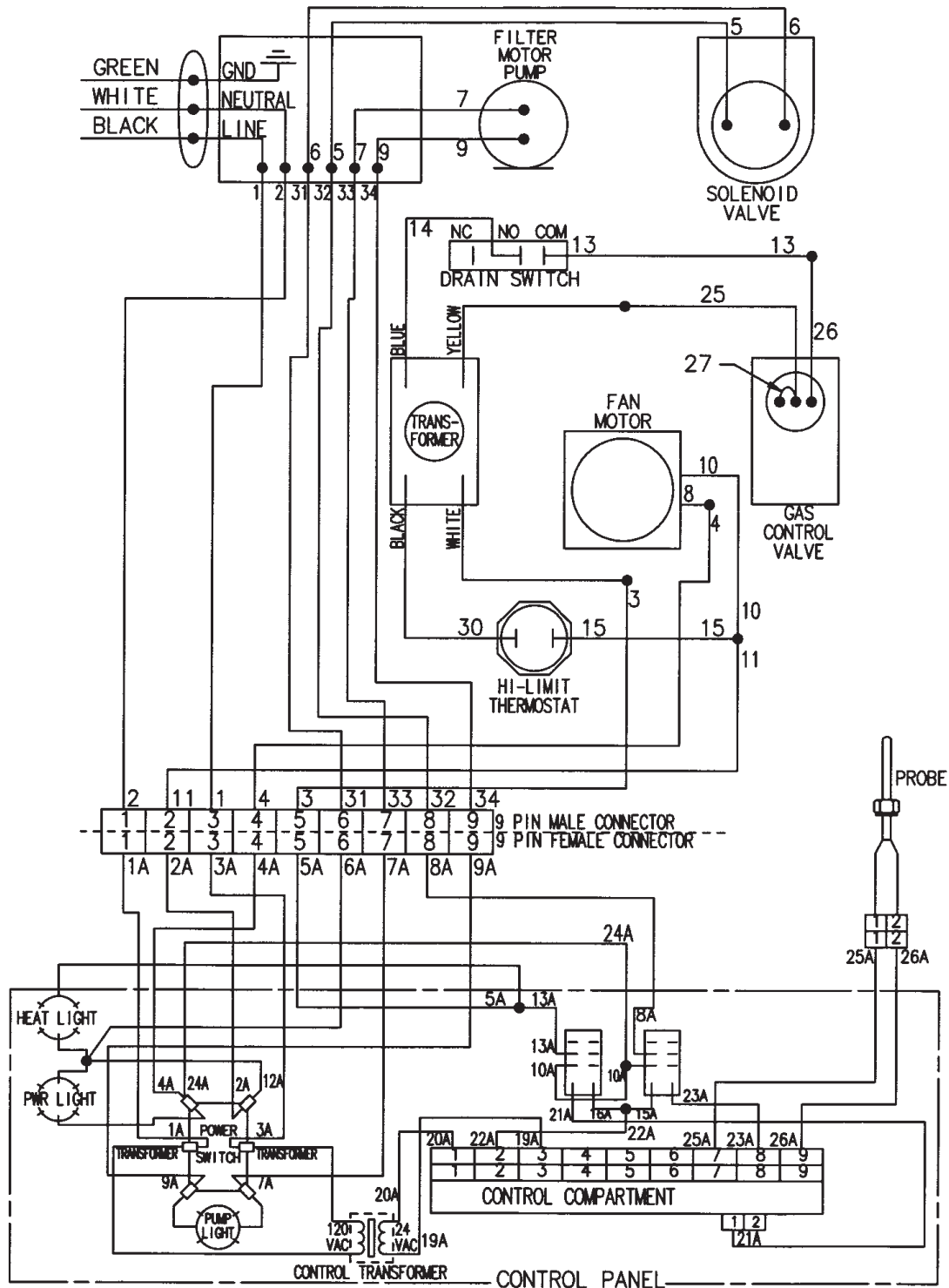




MODEL 600F
230V 50/60HZ 1PH SSI
HENNY PENNY CORP.
EATON, OHIO 45320

75511

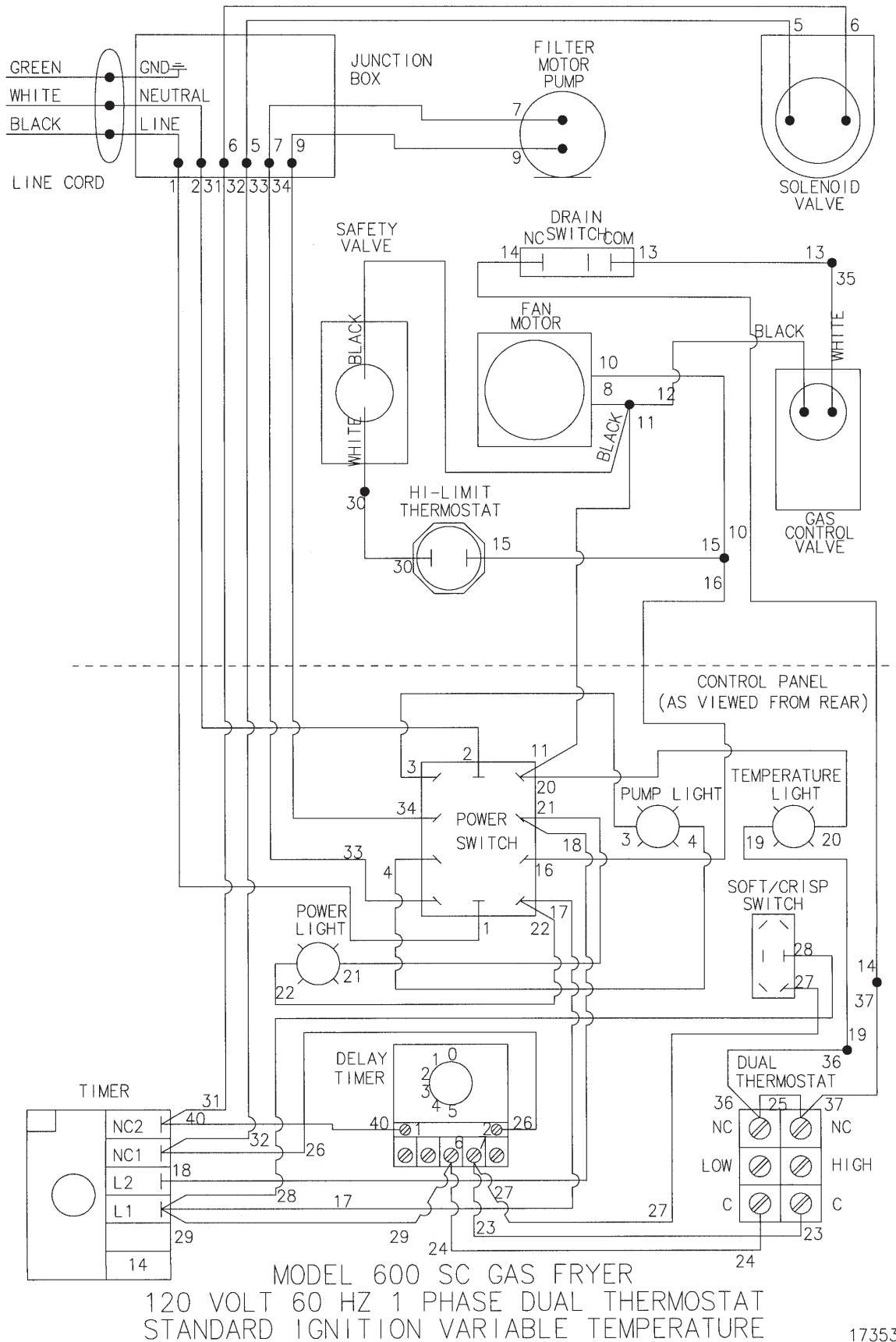
SN: AN0711030 & Above (Fenwal Module)



MODEL 600F
120V 50/60Hz 1PH
HENNY PENNY CORP., EATON, OHIO 45320

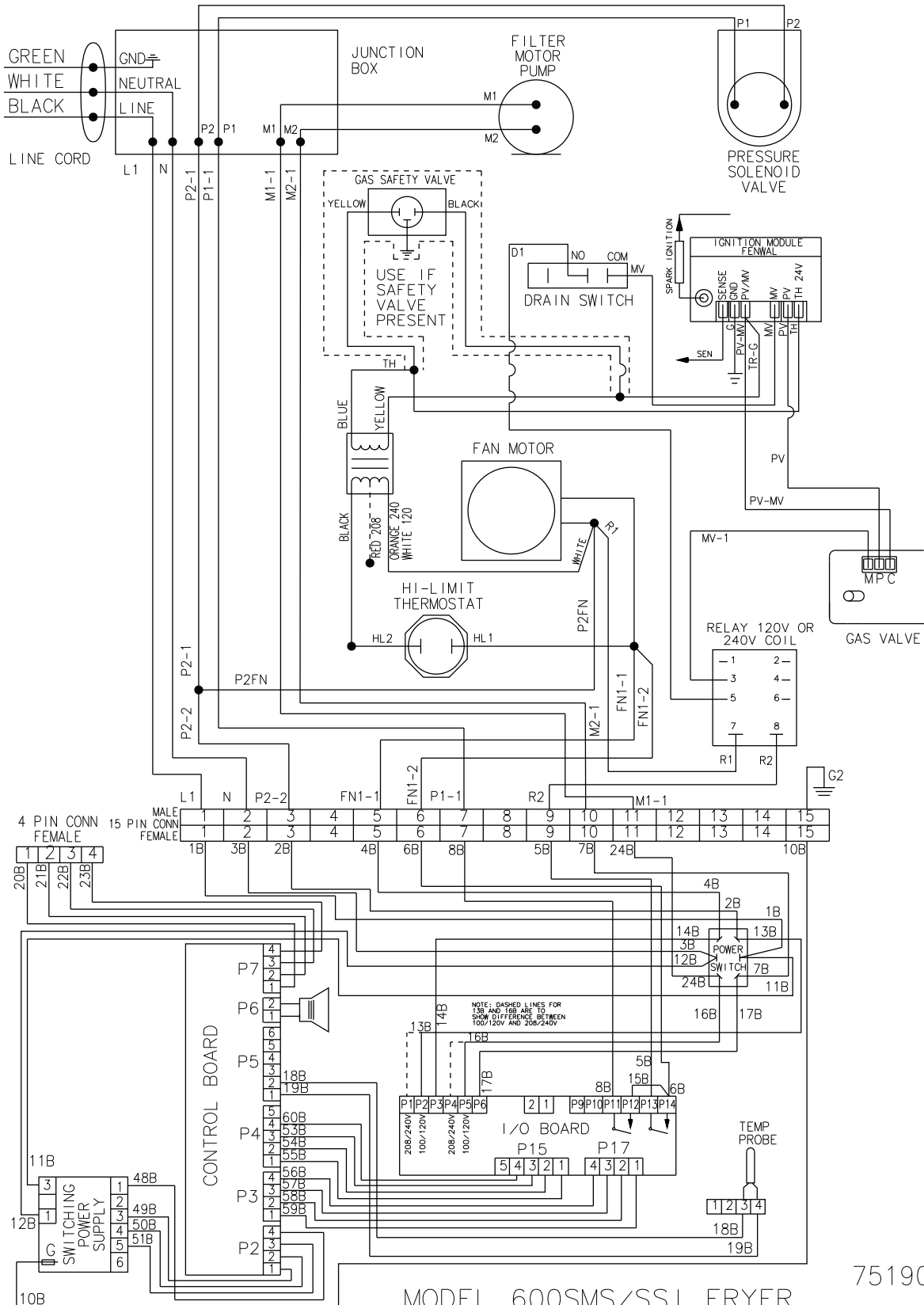
23457

SN: AN0702112 & below
(SN: AN0703021 & above use 75510)



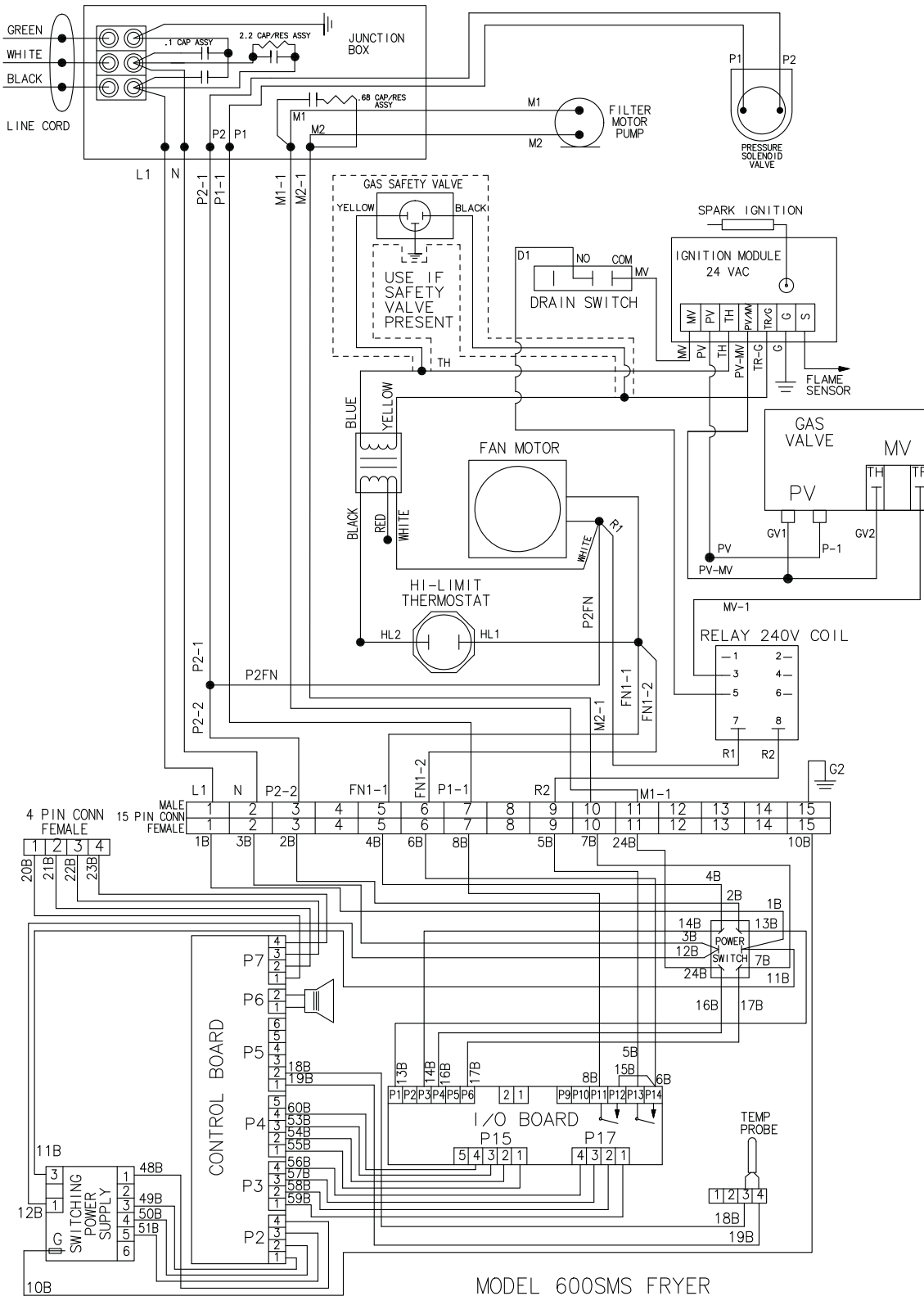
MODEL 600 SC GAS FRYER
120 VOLT 60 HZ 1 PHASE DUAL THERMOSTAT
STANDARD IGNITION VARIABLE TEMPERATURE

17353



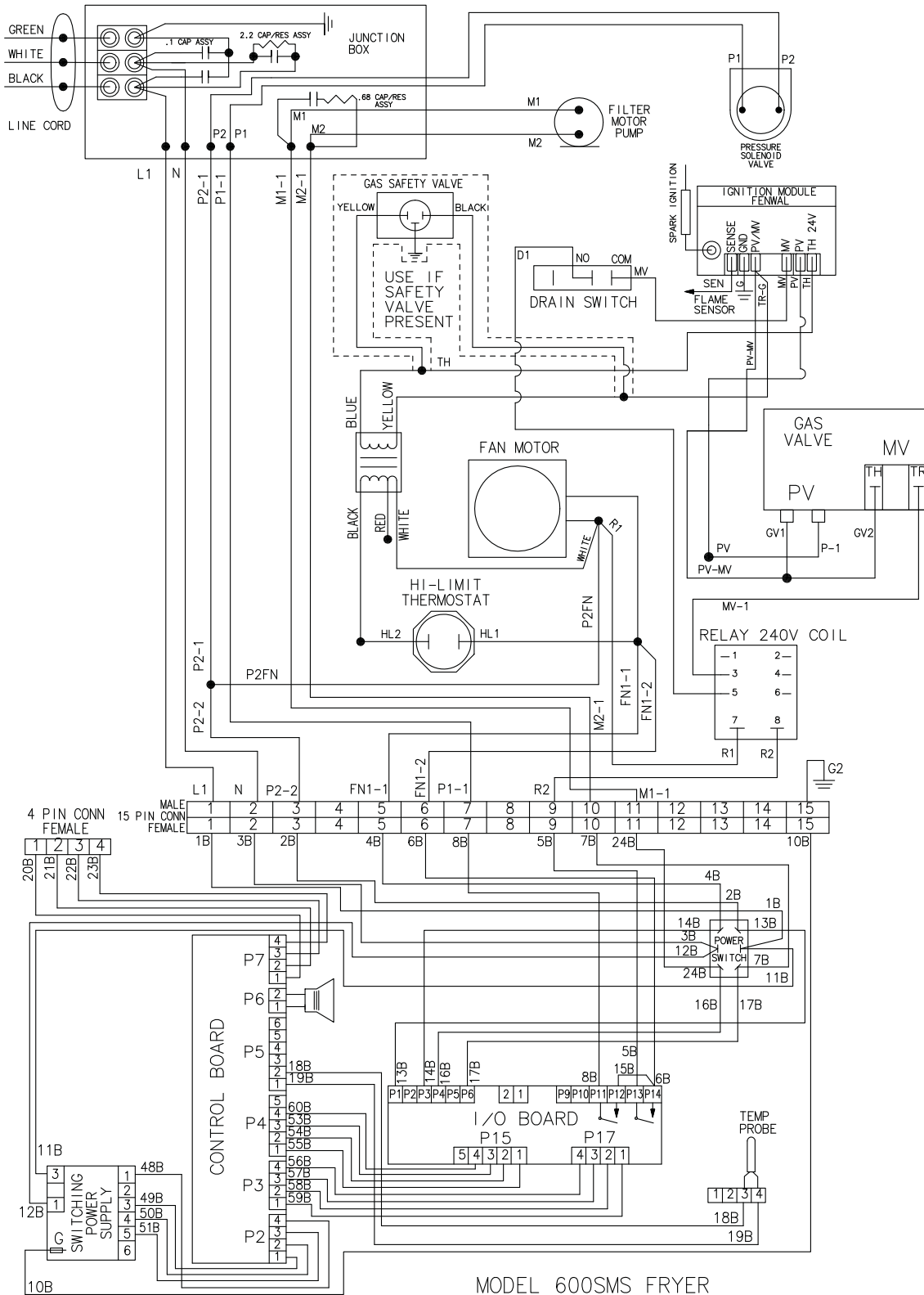
MODEL 600SMS/SSI FRYER
100-240V 50/60HZ 1PH SMS/SSI CONTROL
HENNY PENNY CORP., EATON, OHIO 45320

75190



MODEL 600SMS FRYER
230V 50HZ 1PH SMS SSI CONTROL
HENNY PENNY CORP., EATON, OHIO 45320 75512

SN: AN0703021 to AN0711029 (Robertshaw Module)



MODEL 600SMS FRYER
230V 50HZ 1PH SMS SSI CONTROL
HENNY PENNY CORP., EATON, OHIO 45320 75512

SN: AN0711030 & Above (Fenwal Module)

SECTION 3. PARTS INFORMATION

3-1. INTRODUCTION

This section lists and illustrates the replaceable parts of Henny Penny Model 500, 561 and 600 pressure fryers built after November 6, 2000. If your unit was built prior to that date, some differences may exist. If you have any doubts, please contact your distributor. As with all contacts to your distributor, include the model number and serial number from the nameplate on your unit.

3-2. GENUINE PARTS

Use only genuine Henny Penny parts in your fryer. Using a part of lesser quality or substitute design may result in fryer damage or personal injury.

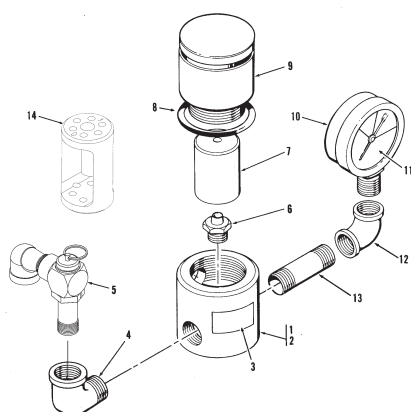
3-3. MODEL VARIATIONS

This section covers model variations due to options, different applications (gas or electric), and to cover the latest design improvements. When you order replacement parts, be sure to check for model variations as stated in the figure title and in the DESCRIPTION column of the parts list.

3-4. HOW TO FIND PARTS

To find the items you want to order, proceed as follows:

1. Use the index of illustrations, paragraph 3-11, to find the page number of the proper illustration.
2. Referring to the illustration, find the part desired and its item number.



(SAMPLE)

HENNY PENNY®
Global Foodservice Solutions

Model 500/561/600

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-3		DEADWEIGHT VALVE ASSEMBLY	
1	16924	VALVE ASSEMBLY, Deadweight	1
2	56305	BODY, Deadweight Valve	1
3	16912	DECAL, DEADWEIGHT VALVE	1
4	PP01-127	1/2 x 1/2 90 Degree Street El	1
5	59742	VALVE ASSEMBLY, Relief	1
6	16918	DEADWEIGHT ORIFICE	1
7	16901	DEADWEIGHT	1
8	16902	RING, Cap	1
9	56307	CAP, Deadweight Valve	1
10	16910	GAUGE, Pressure	1
11	16914	GLASS, Pressure Gauge	1
12	16909	ELBOW	1
13	56336	NIPPLE	1

(SAMPLE)

3-5. SUBASSEMBLIES

In some cases, items in the parts list can be purchased in groups (called subassemblies) instead of purchasing individual parts. The parts list shows these subassemblies by indenting the description of the parts included within the subassembly. For example:

TIMER, Automatic Reset
SWITCH, Timer
LIGHT, Timer Indicator
COIL, Timer Buzzer

The items can be ordered separately (switch, light, or coil), or order the timer, and all three parts are included.

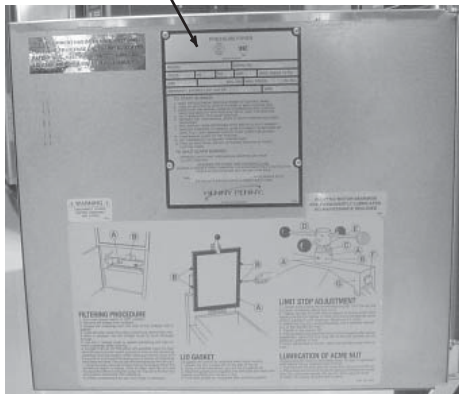
3-6. HOW TO ORDER PARTS

Once you have found the parts to be ordered, write down the following information:

1. From the parts list: (SAMPLE)

Figure number	<u>3-3</u>
Item number	<u>6</u>
Part number	<u>16918</u>
Description	<u>DEADWEIGHT ORIFICE</u>
Page number	<u>3-11</u>
Page date code	<u>401</u>

DATA PLATE



2. From the data plate on your unit: (SAMPLE)

Model number	<u>500</u>
Serial number	<u>10133</u>

3. The following table has been provided as a sample format for you to use in preparing your spare parts orders. By providing all the entries, your distributor will be able to send you the correct parts. Also, prepayment expedites your order.

From Parts List					Your Order		
Figure & Item No.	Part Number	Description	Page No.	Page Date Code	Quantity Ordered	Price Each	Total Price
(SAMPLE)							
3-1-16	16706	KNOB, Thermostat	3-7	1001	2	2.00	4.00
3-2-47	16102	KNOB, Spindle, Red	3-9	401	1	2.00	2.00
MODEL NO. <u>500</u> SERIAL NO. <u>10133</u>					TOTAL ORDER		6.00

3-7. PRICES

Your distributor has a priced parts list and will be glad to inform you of the cost of your parts order.

3-8. DELIVERY

Commonly replaced items are stocked by your distributor and are shipped when your order is received. Other parts are ordered, by your distributor, from Henny Penny Corporation. Normally, these are sent to your distributor within 3 working days.

3-9. WARRANTY

All replacement parts (except lamps and fuses) are warranted for 90 days against manufacturing defects and workmanship. If damage occurs during shipping, notify the sender and the carrier at once, so that a claim is properly filed. Refer to warranty in the front of this manual for other rights and limitations.

3-10. RECOMMENDED SPARE PARTS FOR DISTRIBUTORS

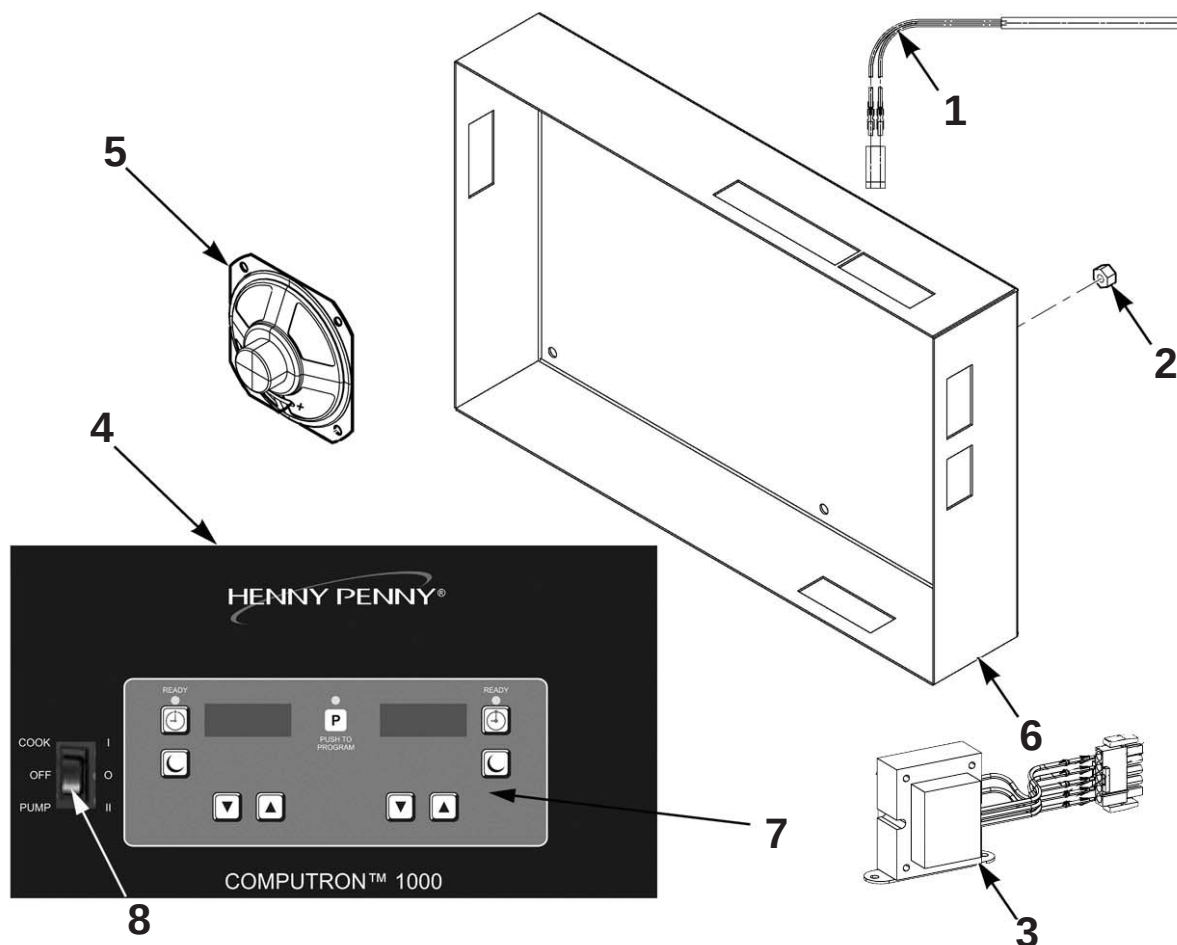
Recommended replacement parts, stocked by your distributor, are indicated with √ in the parts lists. Please use care when ordering recommended parts, because all voltages and variations are marked. Distributors should order parts based upon common voltages and equipment sold in their territory.

3-11. INDEX OF PARTS LIST ILLUSTRATIONS

Title	Fig. No.	Page No.
AUTOMATIC RESET TIMER ASSEMBLY	3-5	3-13
COMPUTRON C1000 CONTROL	3-1	3-6
COMPUTRON C2000 CONTROL	3-2	3-7
CONTACTOR and FRAME ASSEMBLY (Single Phase Electric Model)	3-25	3-56
CONTACTOR and FRAME ASSEMBLY (Three Phase Electric Model)	3-26	3-58
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DEADWEIGHT VALVE ASSEMBLY	3-13	3-31
DIRECT-CONNECT ASSEMBLY - MODEL 500	3-20	3-48
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DRAIN VALVE ASSEMBLY (Electric Model)	3-15	3-35
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ELECTRIC CONDUIT ASSEMBLY	3-6	3-15
ELECTRONIC IGNITION ASSEMBLY	3-29	3-64
EXHAUST STACK ASSEMBLY	3-12	3-27
FAN and HIGH TEMPERATURE LIMIT CONTROL (Gas Model)	3-28	3-62
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FILTER MOTOR and PUMP	3-19	3-46
FIREBOX and FLUE ASSEMBLY (Gas Model)	3-34	3-74

3-11. INDEX OF PARTS LIST ILLUSTRATIONS (continued)

Title	Fig. No.	Page No.
FIREBOX INSULATION ASSEMBLY (Gas Model).....	3-35	3-76
FRAME and CABINET ASSEMBLY	3-7	3-17
FRY BASKET (Gas or Electric Model).....	3-9	3-23
FRYPOT and GAS BURNER ASSY - NON-CE, DOMESTIC, & ELECTRONIC IGNITION	3-30	3-66
GAS CONTROL VALVE	3-32	3-70
GAS LINE and BURNER ASSEMBLY - CE, INT'L, and ELECTRONIC IGNITION.....	3-31	3-68
HEATING ELEMENT and HIGH LIMIT ASSEMBLY (Electric Model).....	3-27	3-60
LID ASSEMBLY	3-8	3-21
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SOLENOID VALVE ASSEMBLY (Gas or Electric Model)	3-14	3-33
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SUPERSORB FILTER ASSEMBLY - Before 3-1-02	3-23	3-53
SUPERSORB FILTER ASSEMBLY - 3-1-02 & After.....	3-24	3-55
UPPER FILTER PLUMBING COMPONENTS.....	3-18	3-43
3 TIER WIRE BASKET (Gas Model).....	3-10	3-25
4 TIER WIRE BASKET (Electric Model).....	3-11	3-26



**Figure &
Item No.**

3-1

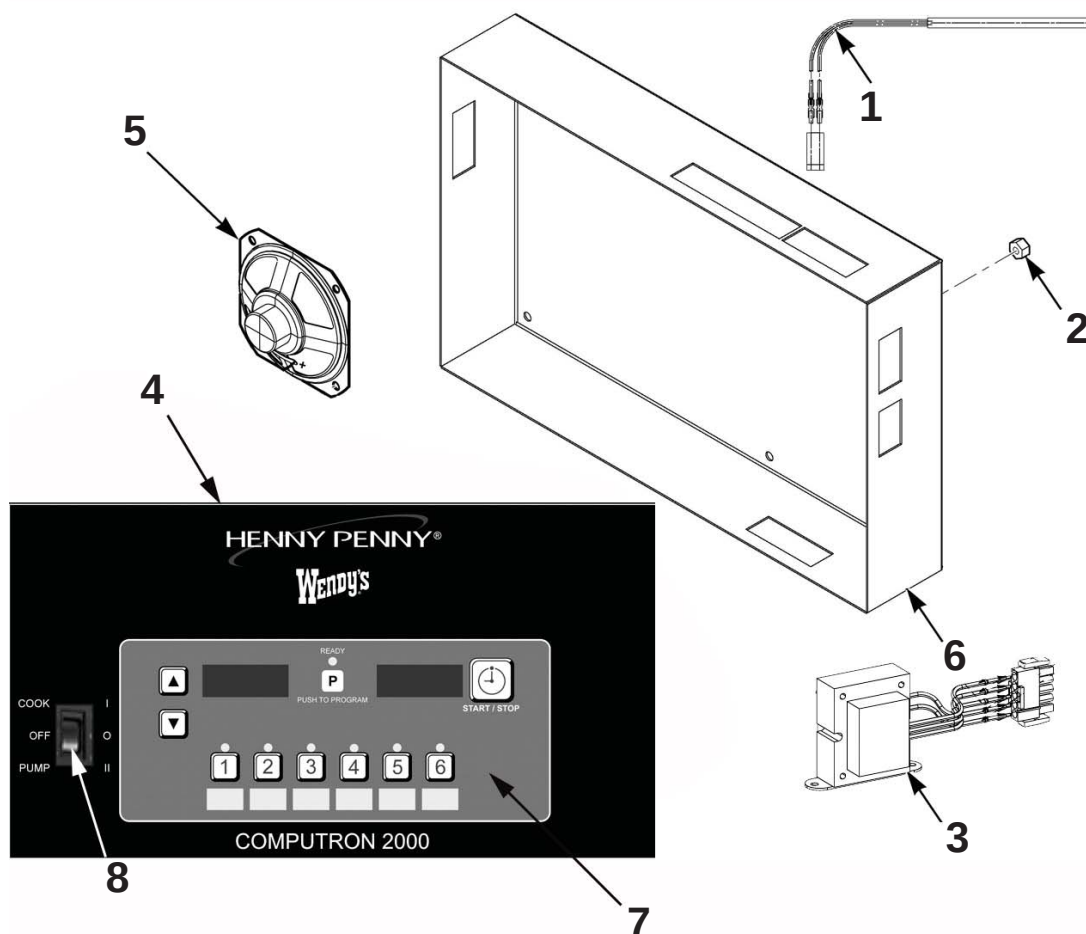
Part No.

Description

Qty.

		COMPUTRON C1000 CONTROL	
	14952	KIT - 500/561 E/M TO C1000 RETROFIT	1
	14953	KIT - 600 E/M TO C1000 RETROFIT	1
	14956	KIT - 600 E/M TO C1000 RETROFIT-CANADA	1
	14957	KIT - 500/561 E/M TO C1000 RETROFIT-CANADA	1
	140013	KIT - C1000 120V 600SSI TO C8000	1
	140014	KIT - C1000 240V 600SSI TO C8000	1
√ 1	14993	KIT - PROBE - 6 INCH (GAS)	1
√ 1	14992	KIT - PROBE - 3 INCH (ELEC)	1
2	NS02-005	NUT - HEX KEPS - #6-32 C	11
√ 3	60536	ASSY - TRANSFORMER - 24V/230V	1
√ 3	60207	ASSY - TRANSFORMER - 24V/120V	1
√ 4	14954	ASSY - CONTROL - C1000	1
√ 4	14955	ASSY - CONTROL - C1000 - CANADA	1
√ 5	ME70-005	SPEAKER - 16 OHM - 2 INCH	1
6	78269	COVER - PCB	1
7	80275	DECAL - C1000 - CONTROL - GM	1
√ 8	29898	SWITCH - POWER	1
9*	53669	GUARD-POWER SWITCH	1

√ Recommended Parts / * not shown -- Starting SNs: Gas - AN0807053 and Electric - AA0807051



**Figure &
Item No.**
3-2

	Part No.	Description	Qty.
	14896	COMPUTRON C2000 CONTROL	
	14934	KIT-500/600 E/M to C2000 WENDY'S RETROFIT.....	1
	14934	KIT-500/600 E/M to C2000 WENDY'S RETRO-CAN....	1
✓ 1	14993	ASSY - PROBE - 6 INCH (GAS).....	1
✓ 1	14992	ASSY - PROBE - 3 INCH (ELEC).....	1
2	NS02-005	NUT - HEX KEPS - #6-32 C.....	11
✓ 3	60536	ASSY - TRANSFORMER - 24V/230V.....	1
✓ 3	60207	ASSY - TRANSFORMER - 24V/120V.....	1
✓ 4	14958	CONTROL - 500/600 C2000 WENDY'S FRYER.....	1
✓ 4	14959	CONTROL-500/600 C2000 WENDY'S-CANADA....	1
✓ 5	ME70-005	SPEAKER - 16 OHM - 2 INCH.....	1
6	78269	COVER - PCB.....	1
7	72123	DECAL - C2000 - WENDY'S	1
7	78962	DECAL - C2000 - WENDY'S - FRENCH	1
✓ 8	29898	SWITCH - POWER.....	1
9*	53669	GUARD - POWER SWITCH	1
✓ 10*	75820	MENU CARD - WENDY'S - C2000.....	1

✓ Recommended Parts / * not shown -- **Starting SNs:** **Gas - AN0801038 and Electric - AA0802059**

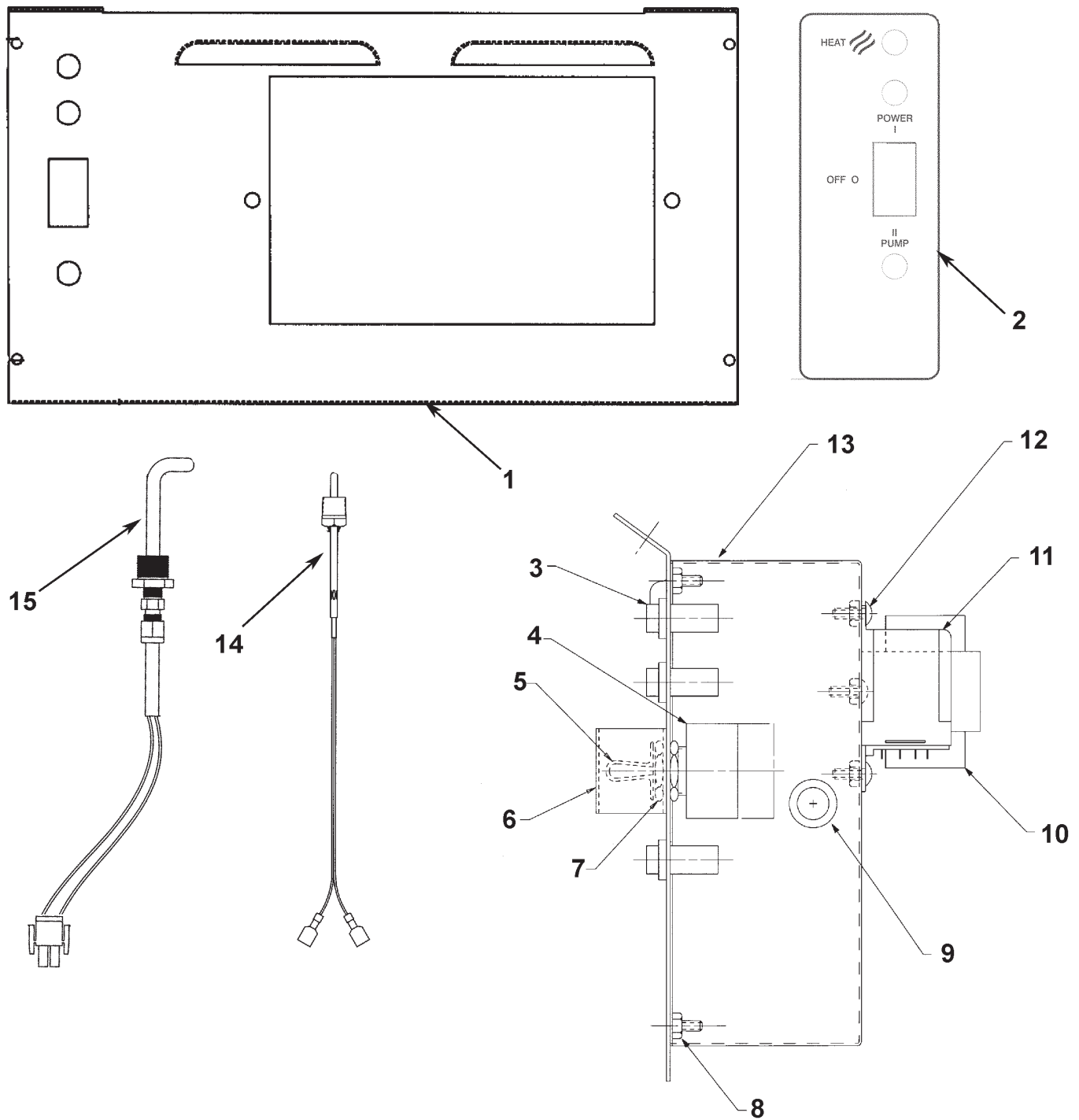


Figure 3-3. FAST Control Panel

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-3		FAST CONTROL PANEL	
1	51617	FAST CONTROL PANEL - 500 - 208-240V (KB020JJ & below)....	1
1	29938	FAST CONTROL PANEL - 500 - 380-415V (KB020JJ & below)....	1
1	63751	FAST CONTROL PANEL - 600-120V (KA021JJ to GA085JB).....	1
1	63224	FAST CONTROL PANEL - 500/600-240V (KB021JJ to HB013JB) (KA021JJ to GA085JB)	1
1	63225	FAST CONTROL PANEL CE- 500/600 (KB021JJ to HB013JB) (KA021JJ to GA085JB).....	1
1	27472	FAST CONTROL PANEL-600-100-120V (GA086JB & above).....	1
1	27423	FAST CONTROL PANEL-500/600-240V (HB014JB & above) (GA086JB & above)	1
1	27424	FAST CONTROL PANEL- CE-500/600 (HB014JB & above)..... (GA086JB & above)	1
2	44559	DECAL - FAST CONTROL - 500 (KB020JJ & below).....	1
2	61722	DECAL - FAST CONTROL - 500/600 (KB021JJ & above)..... (KA021JJ & above).....	1
√ 3	54085	LIGHT - CE INDICATOR, GREEN.....	3
√ 3	16624	LIGHT - INDICATOR, RED	3
√ 4	16640	SWITCH MAIN ASSY - 4 PDT (KB020JJ & below)	1
√ 4	29898	SWITCH - POWER (KB021JJ & above)	1
		(KA021JJ & above).....	
5	48369	SWITCH COVER - CE.....	1
6	18450	GUARD - SWITCH FRYER	1
7	NS03-018	NUT - 3/4-32 JAM	2
8	NS02-005	NUT HEX KEPS #6-32 C.....	10
9	EF02-002	BUSHING 33/64 P	1
√ 10	30614	TRANSFORMER - 208/240V PRI-24 VS.....	1
√ 10	35916	TRANSFORMER - 120V - 50/60 Hz	1
√ 11	30429	RELAY, 24V COIL - 15A@120V, 10A@240V (Shown)	1
√ 11*	60818	RELAY, 24V COIL - 10A@120V, 12A@240V	1
12	SC01-049	SCREW #6-32 X 3/8 PH PHD C	6
13	29921	BOX - SHIELD (KB020JJ & below).....	1
13	63336	COVER - CONTROL PANEL FAST(KB021JJ & above)..... (KA021JJ & above).....	1
√ 14	29948	ASSY - PROBE FAST - ELECTRIC	1
√ 15	29383	ASSY - PROBE FAST - GAS	1
16*	14908	KIT - 600 CONV FAST TO SMS INT	1

√ Recommended Parts

*not shown

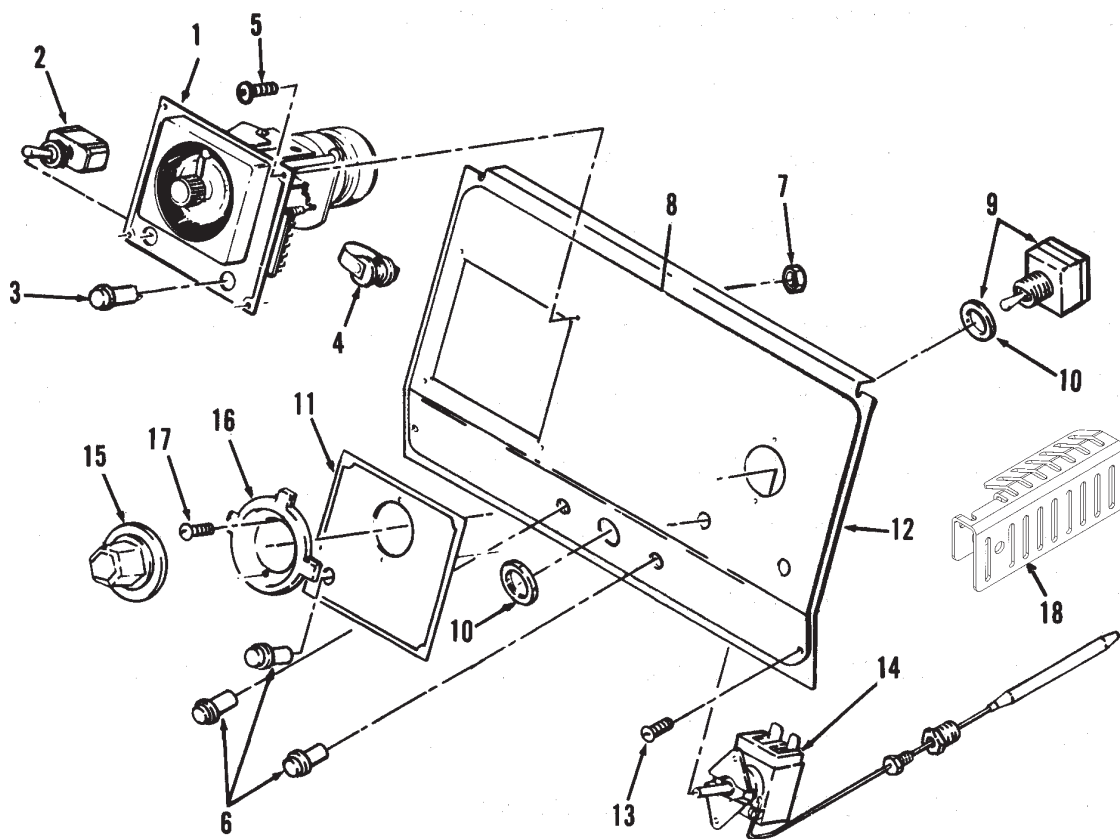


Figure 3-4. Standard Control Panel

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-4		STANDARD CONTROL PANEL	
	18425	ASSY, Control Panel Complete-Bent Panel - 500.....	1
	48185	ASSY, Control Panel Complete-Bent Panel - 561.....	1
	16675	ASSY, Control Panel Complete-Bent Panel - 600.....	1
√ 1	16602	TIMER ASSY, Automatic Reset, 115 Volt, 60 Hz.....	1
√ 1	16596	TIMER ASSY, Automatic Reset, 115 Volt, 50 Hz.....	1
√ 1	18301	TIMER ASSY, Automatic Reset, 208-240 Volt, 60 Hz.....	1
√ 1	18304	TIMER ASSY, Automatic Reset, 208-240 Volt, 50 Hz.....	1
√ 1	17366	TIMER ASSY, Automatic Reset, 208-240 Volt, 50 Hz - CE.....	1
√ 2	22195	SWITCH, Timer.....	1
√ 3	16624	LIGHT, Timer Indicator.....	1
√ 4	16659	COIL, Timer Buzzer, 115 Volt.....	1
√ 4	18302	COIL, Timer Buzzer, 220 Volt.....	1
4	14283	KIT, 600, Cont. 120 EM Buzzer.....	1
4	14284	KIT, 500/600, Cont. 230 EM Buzzer.....	1
4	14419	KIT, 500, Cont. 24 EM Buzzer.....	1
5	SC01-073	SCREW, Timer.....	4
√ 6	16624	LIGHT, Indicator.....	3
√ 6	63609	LIGHT, Indicator, Temperature - 48 Volt - Gas Models.....	1
√ 6	54086	LIGHT, Indicator, Green-CE and Australia - Gas Models.....	3
7	NS02-009	NUT, Timer.....	4
8		DECAL, Control - See chart on next page.....	1
√ 9	16640	SWITCH, Main.....	1
10	NS03-018	NUT, Main Switch.....	2
11	16745	PLATE, Thermostat.....	1
12		PANEL, Stud Assy - Control - See chart on next page.....	1
13	SC04-003	SCREW, Control Panel.....	2
√ 14a	18382	THERMOSTAT only, RS KX 365F Max.-CE-500/600.....	1
√ 14b	14293	KIT, Thermostat Control-600 (Includes items 15, 16, & 17).....	1
√ 14c	14648	KIT, Thermostat Control-500/561(Includes items 15, 16, 17, 18)..	1
15	16706	KNOB, Thermostat (Included in item 14b & 14c).....	1
16	16704	BEZEL, Thermostat (Included in item 14b & 14c).....	1
17	SC01-023	SCREW, Thermostat (Included in item 14b & 14c).....	2
18	65183	ASSY, Pot Capillary Guard - 500/561(Included in item 14c)..	1
19*	32927	WRAP, Thermostat Capillary.....	1
		FAST Controls (Also see pgs. 3-8 & 3-9 for exploded view & details)	
20*	61722	Decal - FAST Controls.....	1
√ 21*	29898	Power Switch.....	1
22*	18450	Guard - Power Switch.....	1
√ 23*	30429	Relay - 15A-125VAC, 10A-250VAC.....	1
√ 11	60818	Relay - 24V COIL (120V).....	1
√ 24*	30614	Transformer - 208/240 V - Pri 24 VS.....	1
√ 25*	54085	Indicator Light - Green - CE.....	3
26*	27472	Control Panel Assy. - FAST - 600 - 100-120V.....	1
26*	27423	Control Panel Assy. - FAST - 500/600 - 240V.....	1
√ 27*	29948	Temperature Probe - FAST - 500.....	1
√ 27*	29383	Temperature Probe - FAST - 600.....	1

√ Recommended Parts/* Not shown

Standard Control Panel

Serial Number	Description	500	561	600
KB020JJ & Below	Control Decal	64427	-	-
	Control Decal-Wendy's	61570	-	-
	Control Decal-Pollo Campero	61572	-	-
	Control Panel Stud Assy	18439	-	-
KB029JJ & Below	Control Decal	-	64428	-
	Control Panel Stud Assy	-	17524	-
KA020JJ & Below	Control Decal	-	-	64429
	Control Decal-Wendy's	-	-	61571
	Control Decal-Pollo Campero	-	-	61580
	Control Decal-Pollo Campero-CE	-	-	61754
	Control Panel Stud Assy	-	-	16701
KB021JJ to HB013JB	Control Decal	61554	-	-
	Control Decal-Wendy's	61570	-	-
	Control Decal-Pollo Campero	61572	-	-
	Control Panel Stud Assy	63230	-	-
KB030JJ to HB016JB	Control Decal	-	61709	-
	Control Panel Stud Assy	-	63230	-
KA021JJ to GA085JB	Control Decal	-	-	61555
	Control Decal-Wendy's	-	-	61571
	Control Decal-Pollo Campero	-	-	61580
	Control Panel Stud Assy	-	-	63230
	Control Decal-Pollo Campero-CE	-	-	61754
HB014JB & Above	Control Decal	61554	-	-
	Control Decal-Wendy's	61570	-	-
	Control Decal-Pollo Campero	61572	-	-
	Control Panel Stud Assy	27396	-	-
HB017JB & Above	Control Decal	-	61709	-
	Control Panel Stud Assy	-	27396	-
GA086JB & Above	Control Decal	-	-	61555
	Control Decal-Wendy's	-	-	61571
	Control Decal-Pollo Campero	-	-	61580
	Control Decal-Pollo Campero-CE	-	-	61754
	Control Panel Stud Assy	-	-	27396

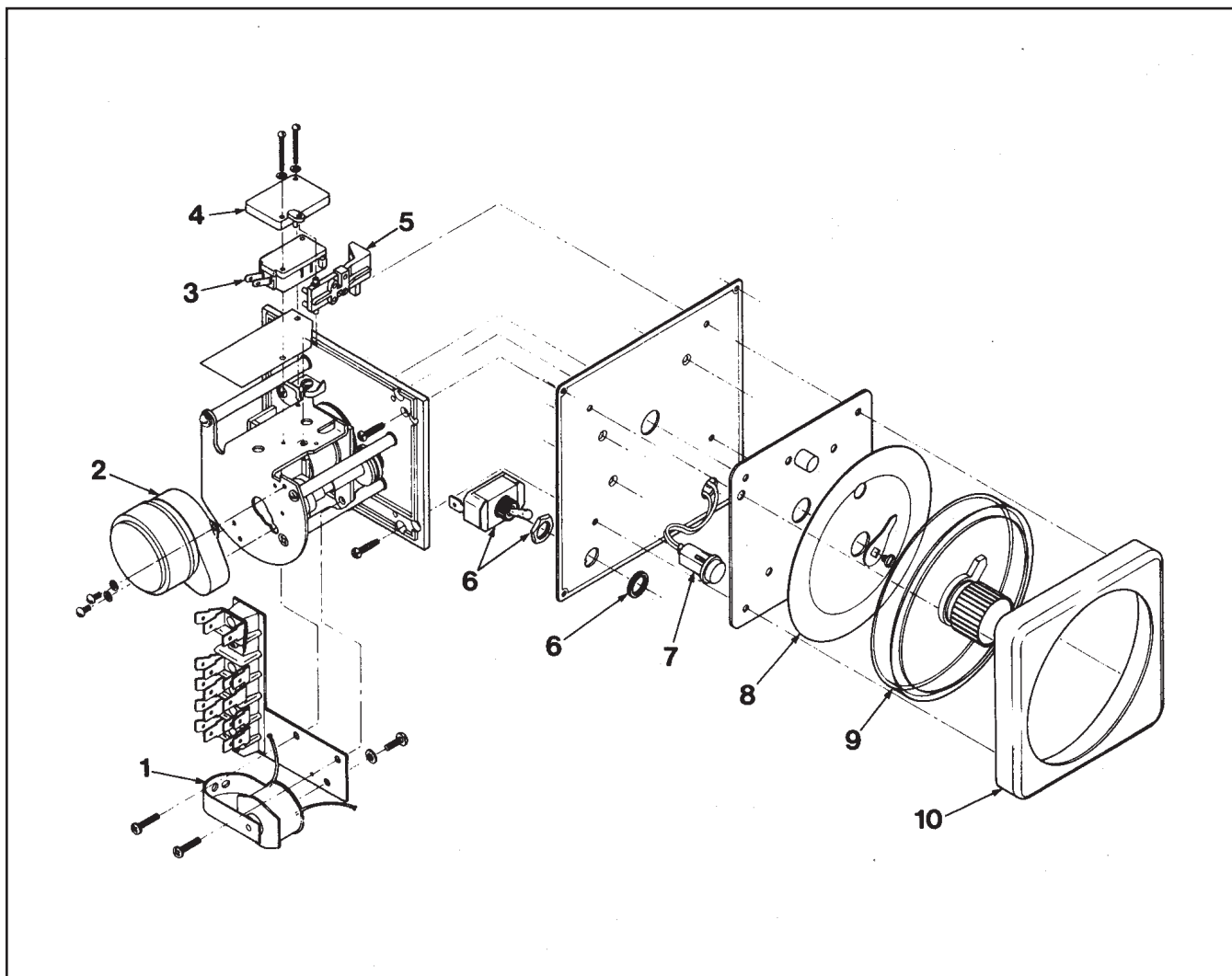


Figure 3-5. Automatic Reset Timer Assembly

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-5		AUTOMATIC RESET TIMER ASSEMBLY	
√ 1	16659	BUZZER COIL ASSY, 120 V	1
√ 1	18302	BUZZER COIL ASSY, 208-240 V	1
√ 2	16673	TIMER MOTOR, 120 V	1
√ 2	18303	TIMER MOTOR, 208-240 V	1
√ 3	16671	TIMER MICROSWITCH	1
√ 4	18771	MICROSWITCH MOUNTING PLATE	1
√ 5	18772	MICROSWITCH ACTUATOR ARM	1
√ 6	22195	ON/OFF SWITCH (includes nut)	1
√ 7	16624	INDICATOR LIGHT	1
√ 9	16371	KNOB & POINTER ASSY	1
√ 10	16657	BEZEL	1

√ Recommended Parts

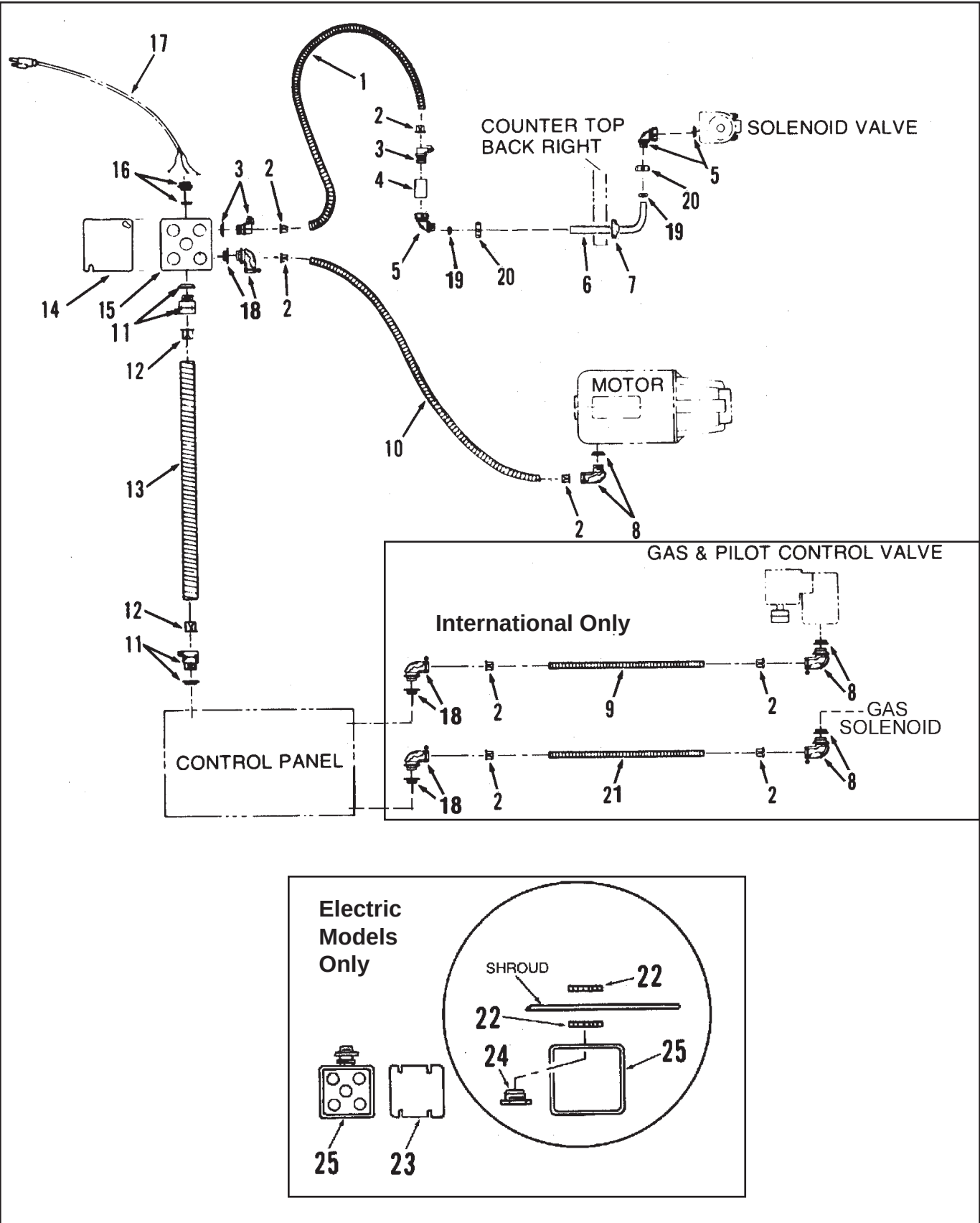


Figure 3-6. Electric Conduit Assembly

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-6		ELECTRIC CONDUIT ASSEMBLY	
1	18527	CONDUIT, Flexible.....	1
2	18105	BUSHING, Anti Short	8
3	18111	CONNECTOR, Conduit	2
4	FP01-018	COUPLING, Pipe	1
5	18113	CONNECTOR, Conduit, 90°	2
6	59218	TUBE, Conduit - Solenoid.....	1
7	16804	GROMMET, Umbrella	1
8	18107	CONNECTOR, Conduit, 90°	1
9	17221	CONDUIT, Flexible	1
9	33866	CONDUIT, Flexible-CE and Australia	1
10	30291	CONDUIT, Flexible	1
11	18104	CONNECTOR, Conduit	2
12	18108	BUSHING, Anti Short	2
13	33628	CONDUIT, Flexible	1
14	18101	COVER, Junction Box	1
15	18102	BOX, Junction	1
15	54965	BOX, Junction w/cover-Splash Proof - CE and Australia ..	1
16	18103	CONNECTOR, Power Cord	1
17	53656	CORD, Power, With Grounded Plug - Gas Models only...	1
17	34823	CORD, Power-CE and Australia - Gas Models only	1
18	18644	CONDUIT CONNECTOR	1
19	16817	SLEEVE, Teflon.....	2
20	16809	NUT, Fitting.....	2
21	44814	CONDUIT, Flexible.....	1
22	19617	NUT, Lock, 3/4 inch	2
23	19708	COVER, Junction Box.....	1
23	44485	COVER, Junctn. Box, Water Tight, CE & Australia (500).	1
23	32779	COVER, Junction Box, Water Tight, CE (600)	1
24	19616	NIPPLE, 3/4 inch Chase	1
25	19707	BOX, Main Power Junction.....	1
25	48437	BOX, Junction, Water Tight -CE (model 500).....	1
25	32740	BOX, Junction, Water Tight -CE (model 600).....	1
√26*	51390	EMC Filter Assy.-CE and Australia	1
27*	19923	TRANSFORMER, Large - 480 Volt.....	1

√ Recommended Parts

*not shown

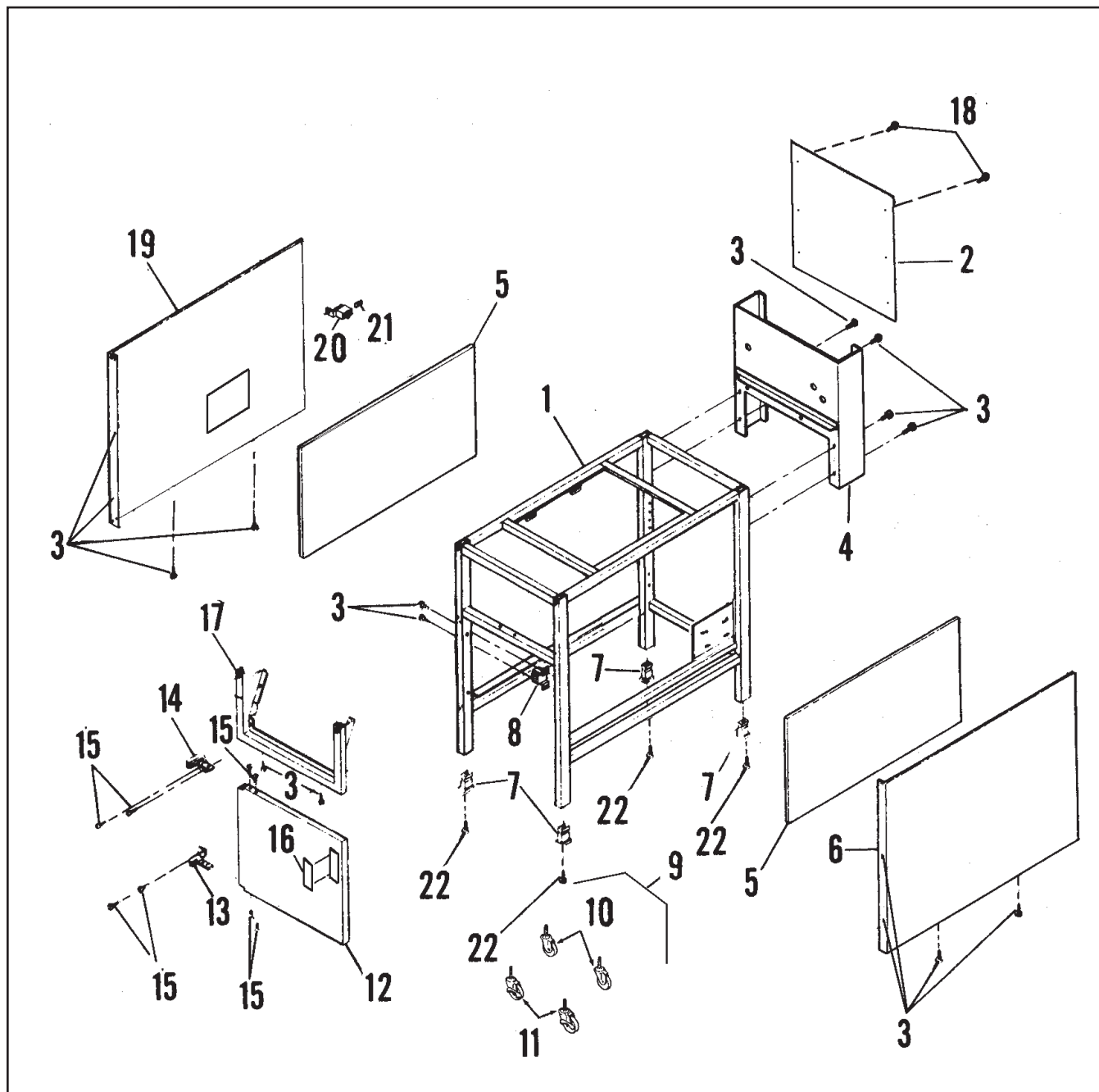


Figure 3-7. Frame and Cabinet Assembly

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-7		FRAME AND CABINET ASSEMBLY	
1		FRAME ASSEMBLY- See chart on next page	1
2		COVER, Back Shroud- See chart on next page	1
3	SC03-005	SCREW, Panels and Bracket, Sheet Metal	22
4		SHROUD ASSEMBLY- See chart on next page	1
5	59730	INSULATION, Side Panel, (Gas only)	2
5	59732	INSULATION, Side Panel - CE (Gas only)	2
6		PANEL, Right Side, SS - See chart on next page	1
6	24255	PANEL, Right Side, - CE and Australia (Gas only) (KA021JJ & above)	1
7	54225	INSERT, Aluminum Feet - 1 in. x 1 in.	4
7	17612	INSERT, Aluminum Feet - 1 in. x 1-1/2 in.	4
8	59230	BRACKET, Magnetic Catch	1
8	17002	MAGNET	1
9	03007	CASTER, Assembly	1
10	17630	CASTER, Less Brake	2
11	17629	CASTER, w/Brake	2
12	17639	DOOR ASSY, Complete (KB020JJ & below-elec)	1
		(KA020JJ & below-gas)	
12	58849	DOOR ASSY, Complete (KB021JJ & above-elec)	1
		(KA021JJ & above-gas)	
13	17620	HINGE, Bottom Door	1
14	17618	HINGE, Top Door	1
15	SC01-072	SCREW, Door Hinge	8
16	41836	HANDLE, Door	1
17		PANEL, Frt, SS - See chart on next page	1
18	SC04-003	SCREW, Back Shroud	6
19		PANEL, Side Left, SS- See chart on next page	1
19	24254	PANEL, Side Left,- CE and Australia (Gas only)	1
		(KA021JJ & above)	
20	17627	LUG, Grounding	1
21	17611	SCREW, Grounding Lug	1
22	SC01-143	5/8-18x4 Hex Hd (bright finish) (adjust. legs)	4
22	SC01-067	5/8-18x3-1/4 Hex Hd (black finish) (adjust. legs)	4
23*	NS03-050	NUTSERT, #8-32 Steel CAD Plated (hinge nutserts) ..	4
24*	SC01-234	SCREW, #8-32x1/2 PH Flat Hd (Door to Frame)	4

* not shown

Frame and Cabinet Assembly

Serial Number	Description	500	561	600
KB020JJ & Below	Front Panel	17602	-	-
	Frame Assy(short)	N/A	-	-
	Frame Assy(long)	N/A	-	-
	Right Side Panel	17606	-	-
	Left Side Panel	17604	-	-
KB029JJ & Below	Front Panel	-	17602	-
	Frame Assy(short)	-	N/A	-
	Frame Assy(long)	-	N/A	-
	Right Side Panel	-	48047	-
	Left Side Panel	-	17604	-
KA020JJ & Below	Front Panel	-	-	17602
	Back Shroud Cover	-	-	17346
	Shroud Assy	-	-	18740
	Frame Assy(short)	-	-	N/A
	Frame Assy(long)	-	-	N/A
	Right Side Panel	-	-	17606
	Left Side Panel	-	-	17604
KB021JJ to HB013JB	Back Shroud Cover	64255	-	-
	Shroud Assy	67900	-	-
	Front Panel	56974		
	Frame Assy(long)	64018	-	-
	Frame Assy(short)	64017		
	Right Side Panel	56972	-	-
	Left Side Panel	56973	-	-
KB030JJ to HB016JB	Back Shroud Cover	-	64255	-
	Shroud Assy	-	67900	-
	Front Panel	-	56974	-
	Frame Assy(long)		64018	
	Frame Assy(short)		64017	
	Right Side Panel	-	56972	
	Left Side Panel	-	56973	
KA021JJ to GA085JB	Back Shroud Cover	-	-	64255
	Shroud Assy	-	-	67900
	Front Panel	-	-	56974
	Frame Assy(long)			64018
	Frame Assy(short)			64017
	Right Side Panel	-	-	56972
	Left Side Panel		-	56973

(Continued on following page)

Frame and Cabinet Assembly

Serial Number	Description	500	561	600
HB014JB & Above	Back Shroud Cover	24534	-	-
	Shroud Assy	67900	-	-
	Front Panel	83195	-	-
	Frame Assy(short)	23679	-	-
	Frame Assy(long)	26854	-	-
	Right Side Panel	56972	-	-
	Left Side Panel	56973	-	-
HB017JB & Above	Back Shroud Cover	-	24534	-
	Shroud Assy	-	67900	-
	Front Panel	-	83195	-
	Frame Assy(short)	-	23679	-
	Frame Assy(long)	-	26854	-
	Right Side Panel	-	56972	-
	Left Side Panel	-	56973	-
GA086JB & Above	Back Shroud Cover	-	-	24534
	Shroud Assy	-	-	67900
	Front Panel	-	-	83195
	Frame Assy(short)	-	-	23679
	Frame Assy(long)	-	-	26854
	Right Side Panel	-	-	56972
	Left Side Panel	-	-	56973

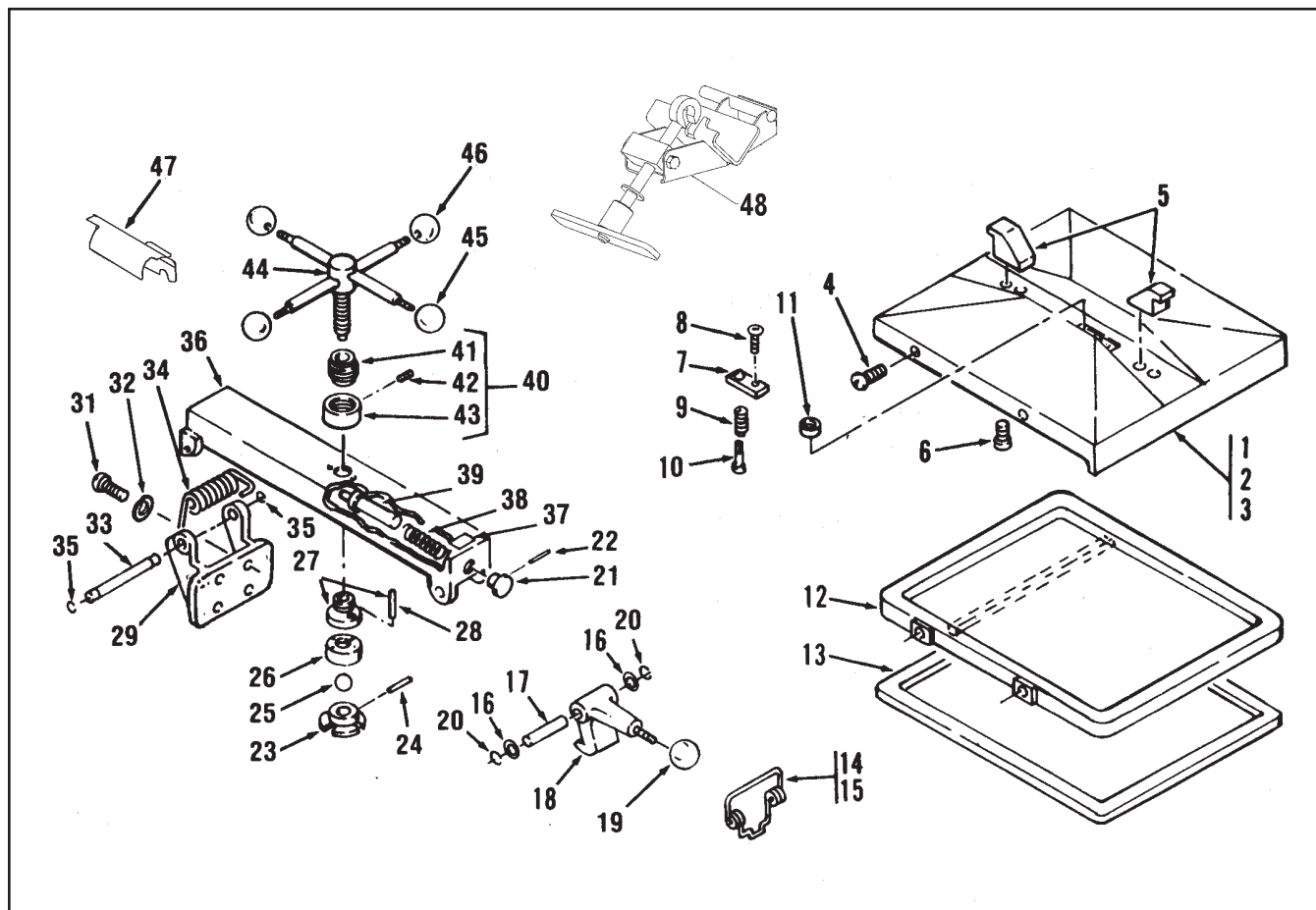


Figure 3-8. Lid Assembly

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-8		LID ASSEMBLY	
1	16170	LID ASSEMBLY	1
2	16169	COVER ASSEMBLY	1
3	16155	COVER, Lid	1
4	SC01-083	SCREW, Lid Cover	4
5	16133	HOOK, Cover Retaining	2
6	SC06-027	SCREW, Retaining Hook	4
7	16166	RETAINER	1
8	SC06-010	SCREW, Retaining Hook (Allen Head)	1
9	16165	SPRING, Return	1
10	16164	PIN, Locking	1
11	16163	BALL, Seat	1

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-8 Cont'd.			
12	16119	LINER, Inner Lid.....	1
√ 13	16120	GASKET, Reversible, Inner Lid Liner.	1
√ 14	16199	KIT, Latch Spring	1
15	33480	SPRING	1
16	16198	SPACER.....	2
17	16197	PIN, Latch.....	1
√ 18	16116	LATCH, Lid	1
19	16102	KNOB, Latch	1
20	16121	RING, Tru-Arc Latch.....	2
21	16137	KNOB, Retaining Pin	1
22	16138	PIN, Knob Roll	1
23	16157	COLLAR, Locking	1
23	27325	COLLAR, Locking - CE.....	1
24	16158	PIN, Locking Collar.....	1
24	27351	PIN, Locking Collar - CE	1
25	16159	BALL, Thrust.....	1
26	27326	NUT, Idle	1
27	27329	NUT, Acme	1
28	16162	PIN, Acme Nut	2
√ 29	16112	HINGE, Lid Assembly.....	1
31	SC01-081	SCREW, Lid Hinge.....	4
32	LW01-010	WASHER, Lock, Lid Hinge	4
33	16110	PIN, Lid Hinge.....	1
√ 34	75293	HINGE, Lid Spring.....	1
35	16111	RING, Retainer, Tru-Arc, Hinge.....	2
36	16154	BAR, Center Cross	1
36	26884	BAR, Center Cross - CE	1
37	36099	DECAL, DANGER.....	1
38	16136	SPRING, Retaining Pin	1
39	16135	COVER, Retaining Pin	1
40	16171	STOP, Limit Assembly.....	1
41	16153	STOP, Limit	1
42	16156	SCREW, Set, Limit Stop Collar.....	2
43	16152	COLLAR, Limit Stop	2
44	16168	SPINDLE ASSEMBLY.....	1
44	26911	SPINDLE ASSEMBLY - CE	1
45	16102	KNOB, Spindle, Red.....	1
46	16101	KNOB, Spindle, Black.....	3
47	29587	COVER, Spring	1
√ 48	14960	KIT, Spring Loading Tool.....	1

√ Recommended Parts

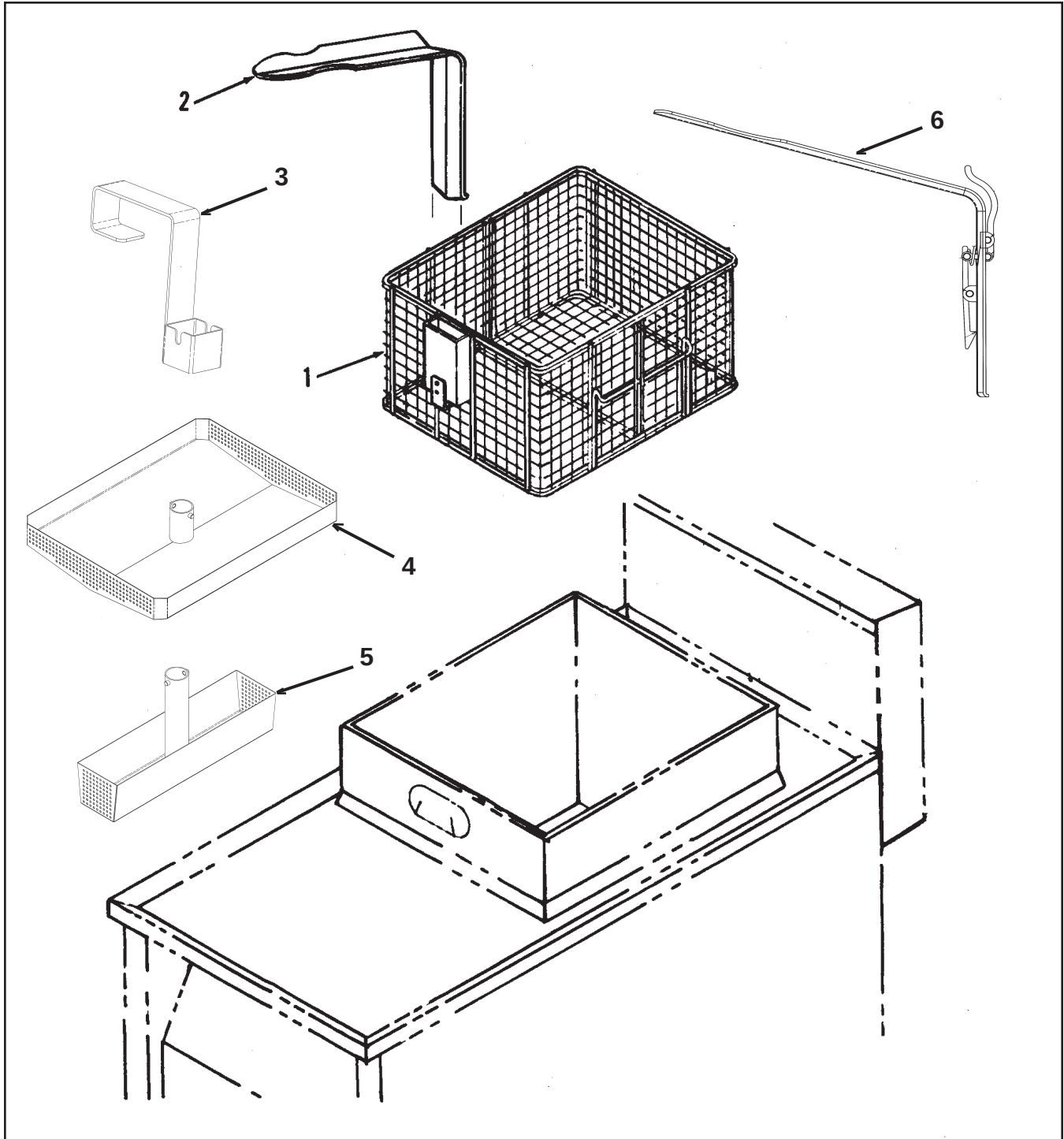


Figure 3-9. Fry Basket (Gas or Electric Model)

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-9		FRY BASKET (Gas or Electric Model)	
1	56075	BASKET, Model 561	1
1	55424	BASKET, Full Basket w/Bail Handle - Model 561	1
1	17801	BASKET, Without Legs, Gas Model Only	1
1	19501	BASKET, With Legs, Electric Model Only	1
1	19507	BASKET, Expanded - PFE500	1
2	19502	HANDLE	1
2	48115	HANDLE, Basket - Model 561	1
3	24438	ASSY, Weld-Crumb Basket Handle	1
4	03357	ASSY, Weld-Crumb Pan/Tube-PFE-500 w/Handle	1
4	03363	ASSY, Weld-Crumb Pan/Tube-PFE-561 w/Handle	1
5	03397	ASSY, Weld-Crumb Pan/Tube-PFG-600 w/Handle	1
6	64071	HANDLE, Locking Assembly	1
7*	19535	1/2 SIZE BASKET Support - Model 500/600	1
7*	73037	1/2 SIZE Basket Support - Model 500	1
8*	19509	1/2 SIZE Basket - Model 500/600	2
8*	73025	1/2 SIZE Basket - Model 500	2
8*	71371	BASKET, Chicken Filet (McDs) - Model 500	1
8*	72009	BASKET, Chicken Filet (McDs) - Model 600	1
9*	72294	INSERT, Drop-in Fillet Basket (McDs)	1

* not shown

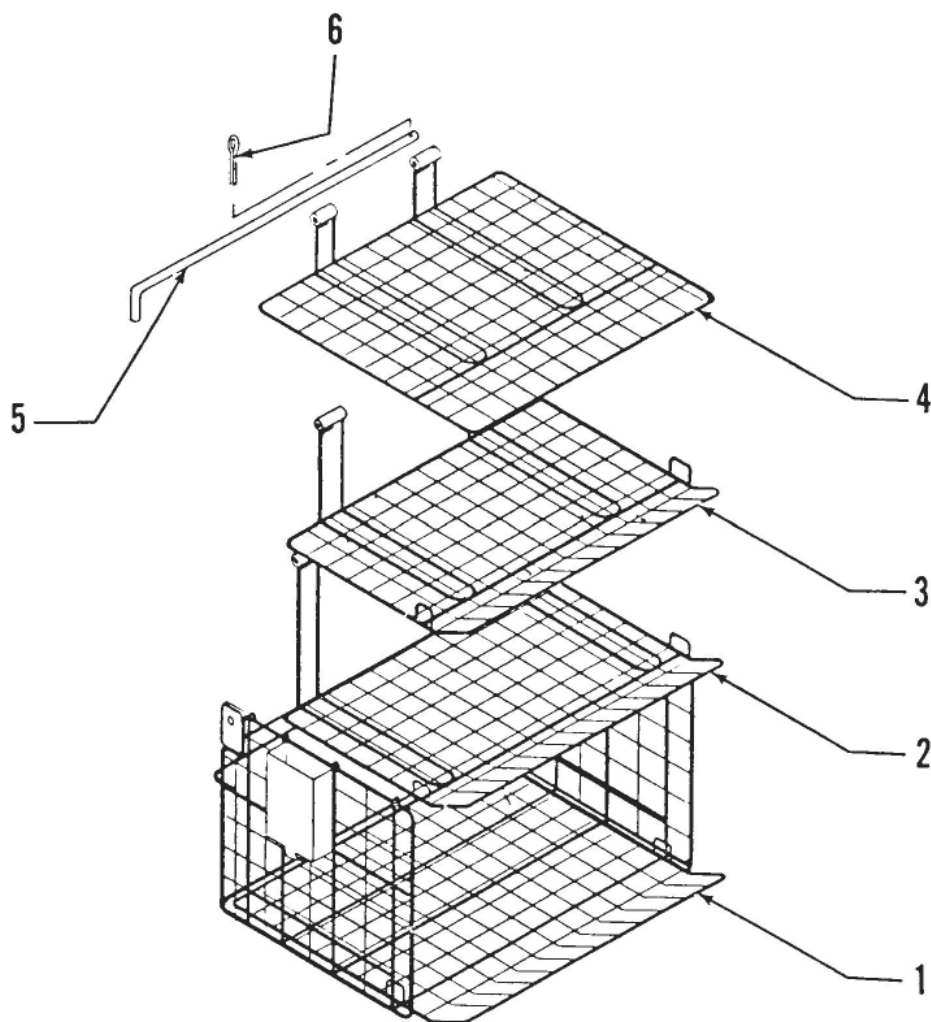


Figure 3-10. 3 Tier Wire Basket (Gas Model)

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
3-10	64058	STAINLESS STEEL BASKET.....	1
1	64059	FRAME & 1st Shelf Assembly	1
2	64060	SHELF, 2nd	1
2	64061	SHELF, 3rd.....	1
4	64062	COVER.....	1
5	19536	ROD, Pivot	1
6	PN01 -001	PIN, Cotter.....	1

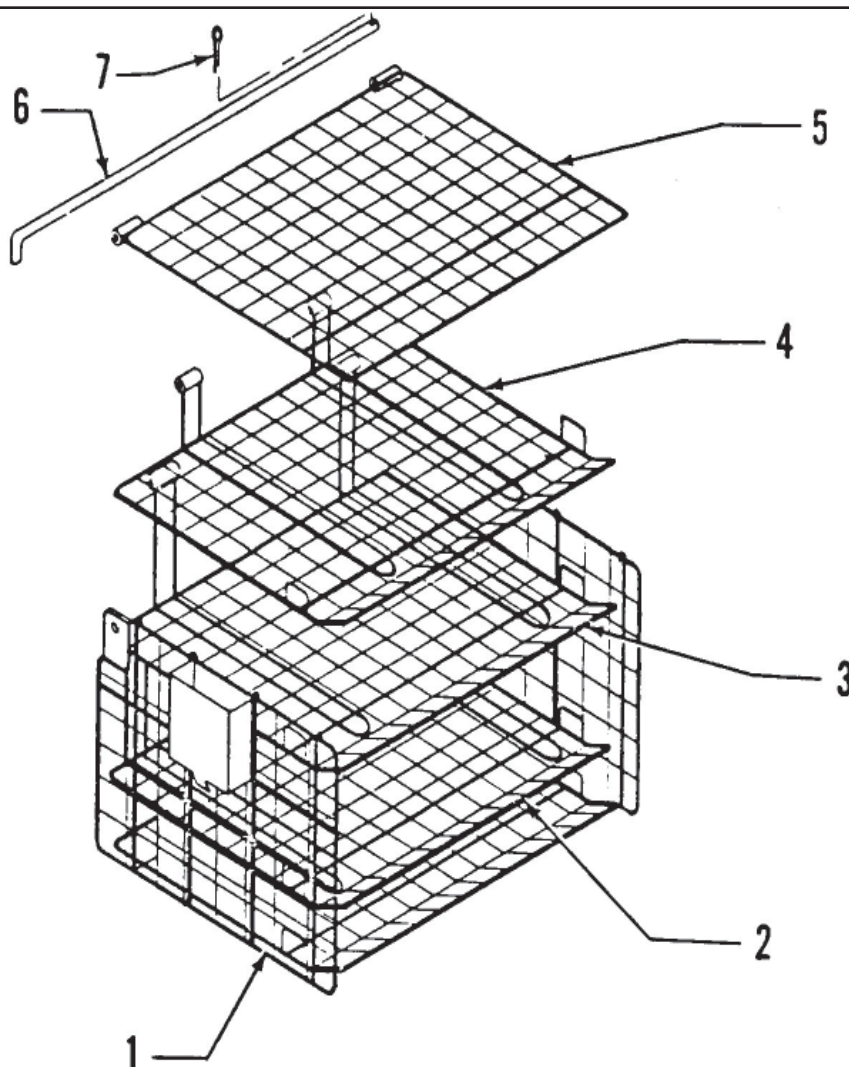


Figure 3-11. 4 Tier Wire Basket (Electric Model)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
3-11	63039	STAINLESS STEEL BASKET	1
1	63041	FRAME & 1st. Shelf Assembly	1
2	63043	SHELF, 2nd	1
3	63044	SHELF, 3rd	1
4	63045	SHELF, 4th	1
5	63047	COVER.....	1
6	19536	ROD, Pivot.	1
7	PN01 -001	PIN, Cotter.....	1
8*	24900	BASKET-TIER - 3.375 Hook Height (Malaysia)	1

* not shown

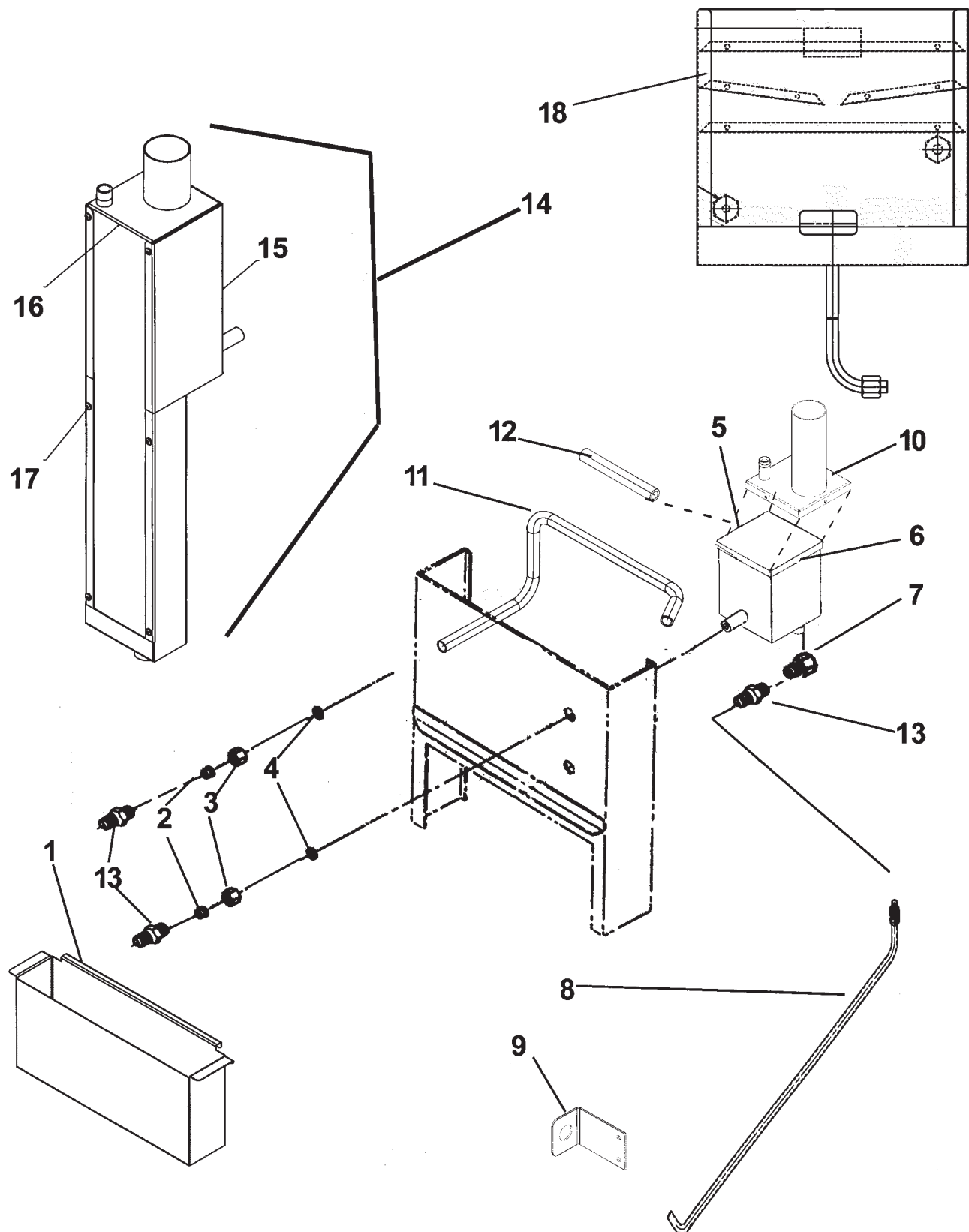


Figure 3-12. Exhaust Stack Assembly

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-12		EXHAUST STACK ASSEMBLY	
1	68086	PAN, Condensate Drain	1
1	64274	PAN, Condensate Drain-Short (CFA-SN: JB095JA to HB013JB)	1
2	16817	FITTING, Teflon Sleeve	2
3	16809	NUT, Fitting.....	2
4	16804	UMBRELLA GROMMET	2
5	58852	CONDENSATE BOX - Bottom- See chart on next page.....	1
6	SC02-016	SCREW, #8-32-AB x 1/2 PH PHD S	4
7	FP01-122	REDUCER, 3/8 to 1/2 BI.....	1
8		TUBE, Condensation Assembly- See chart on next page.....	1
9	63992	BRACKET, Condensation Hose	1
10	64013	CONDENSATE BOX - Top- See chart on next page.....	1
11		TUBE, Deadweight- See chart on next page	1
12		HOSE, Deadweight to Steam Box- See chart on next page	1
13	16807	CONNECTOR, Male.....	3
14	65724	ASSY, Condensate Box- See chart on next page.....	1
15	65725	WELD ASSY, Steam Box - Outer	1
16	65726	WELD ASSY, Steam Box - Inner	1
17	SC04-003	SCREW, #8-32 x 3/8 PH PHD S	6
18	21302	ASSY, Exhaust Stack - 500/561 - SN: KB020JJ & Below	1

Exhaust Stack Assembly

Item No.	Serial Number	Description	500	561	600
8	KB020JJ & Below	Condensation Line Assy	18506	-	-
8	KB029JJ & Below	Condensation Line Assy	-	55432	-
8	KA020JJ & Below	Condensation Line Assy	-	-	16838
11		Dead Weight Tube SS	-	-	16854
8	KB021JJ to BB016JA	Condensation Line Assy	14320	-	-
10		Condensate Box Top	64013	-	-
11		Dead Weight Tube SS	59221	-	-
12		Flex Hose To Cond. Box	63195	-	-
14		Condensate Box	58852	-	-
8	KB030JJ to BB055JA	Condensation Line Assy	-	14320	-
10		Condensate Box Top	-	64013	-
11		Dead Weight Tube SS	-	59221	-
12		Flex Hose To Cond. Box	-	63195	-
14		Condensate Box	-	58852	-
8	KA021JJ to BA026JA	Condensation Line Assy	-	-	14320
10		Condensate Box Top	-	-	64013
11		Dead Weight Tube SS	-	-	59221
12		Flex Hose To Cond. Box	-	-	63195
14		Condensate Box	-	-	58852
8	BB017JA to EB015JB	Condensation Line Assy	64016	-	-
10		Condensate Box Top	64013	-	-
11		Dead Weight Tube SS	59221	-	-
12		Flex Hose To Cond. Box	63195	-	-
14		Condensate Box	58852	-	-
8	BB056JA to EB019JB	Condensation Line Assy	-	64016	-
10		Condensate Box Top	-	64013	-
11		Dead Weight Tube SS	-	59221	-
12		Flex Hose To Cond. Box	-	63195	-
14		Condensate Box	-	58852	-
8	BA027JA to EA014JB	Condensation Line Assy	-	-	64016
10		Condensate Box Top	-	-	64013
11		Dead Weight Tube SS	-	-	59221
12		Flex Hose To Cond. Box	-	-	63195
14		Condensate Box	-	-	58852

(Continued on following page)

Exhaust Stack Assembly

Item No.	Serial Number	Description	500	561	600
8	EB016JB to HB013JB	Condensation Line Assy	24998	-	-
10	(except EB018JB & EB019HB)	Condensate Box Top	use 65724	-	-
11		Dead Weight Tube SS	65621	-	-
12		Flex Hose To Cond. Box	52124	-	-
5		Condensate Box Bottom	use 65724	-	-
14		Condensate Box	use 65724	-	-
8	EB020JB to HB016JB	Condensation Line Assy	-	24998	-
10		Condensate Box Top	-	use 65724	-
11		Dead Weight Tube SS	-	65621	
12		Flex Hose To Cond. Box	-	52124	-
5		Condensate Box Bottom	-	use 65724	-
14		Condensate Box	-	use 65724	-
8	EA015JB to GA085JB	Condensation Line Assy	-	-	24998
10		Condensate Box Top	-	-	use 65724
11		Dead Weight Tube SS	-	-	65621
12		Flex Hose To Cond. Box	-	-	52124
5		Condensate Box Bottom	-	-	use 65724
14		Condensate Box	-	-	use 65724
8	HB014JB & Above	Condensation Line Assy	69009	-	-
11		Dead Weight Tube SS	65621	-	-
12		Flex Hose To Cond. Box	52124	-	-
14		Condensate Box	65724	-	-
8	HB017JB & Above	Condensation Line Assy	-	69009	-
11		Dead Weight Tube SS	-	65621	-
12		Flex Hose To Cond. Box	-	52124	-
14		Condensate Box	-	65724	-
8	GA086JB & Above	Condensation Line Assy	-	-	69009
11		Dead Weight Tube SS	-	-	65621
12		Flex Hose To Cond. Box	-	-	52124
14		Condensate Box	-	-	65724

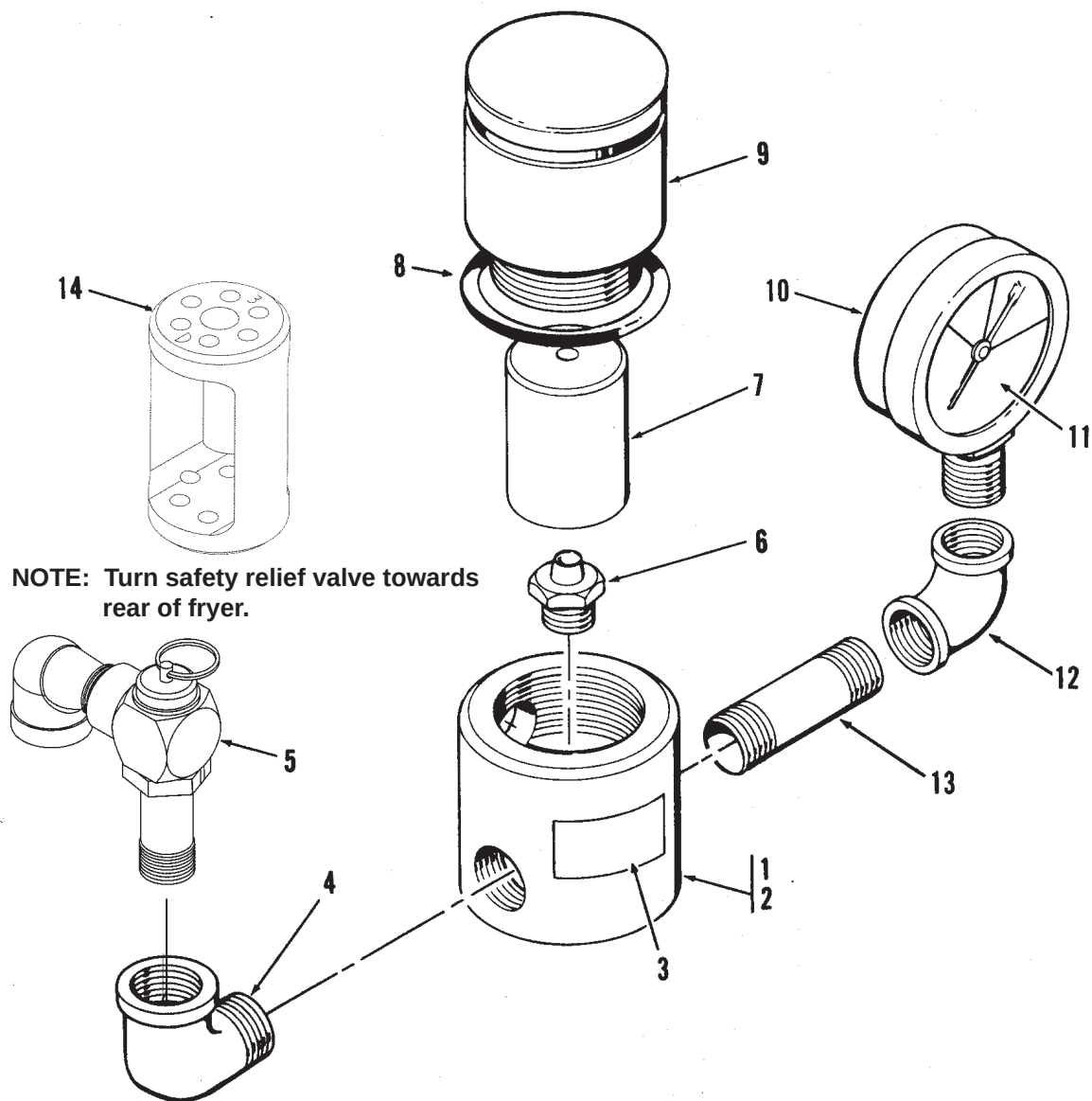


Figure 3-13. Deadweight Valve Assembly

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-13		DEADWEIGHT VALVE ASSEMBLY	
1	16924	VALVE ASSEMBLY, Deadweight	1
2	56305	BODY, Deadweight Valve	1
3	16912	DECAL, DEADWEIGHT VALVE.....	1
4	FP01-127	1/2 x 1/2 90 Degree Street L	1
√ 5	59742	VALVE ASSEMBLY, Relief.....	1
6	16918	DEADWEIGHT ORIFICE	1
6	27910	DEADWEIGHT ORIFICE - 3 lb. (use w/28922)	1
7	16903	DEADWEIGHT - 12 lb.....	1
7	81343	DEADWEIGHT - 11 lb (Malaysia).	1
7	28922	DEADWEIGHT - 3 lb (use w/27910).....	1
7	32729	DEADWEIGHT - 7 lb.....	1
8	16902	RING, Cap.....	1
9	56307	CAP, Deadweight Valve	1
√ 10	16910	GAUGE, Pressure	1
11	16914	GLASS, Pressure Gauge.....	1
12	16909	ELBOW	1
13	56636	NIPPLE	1
14	65449	DEADWEIGHT - 3 lb.	1

√ Recommended Parts

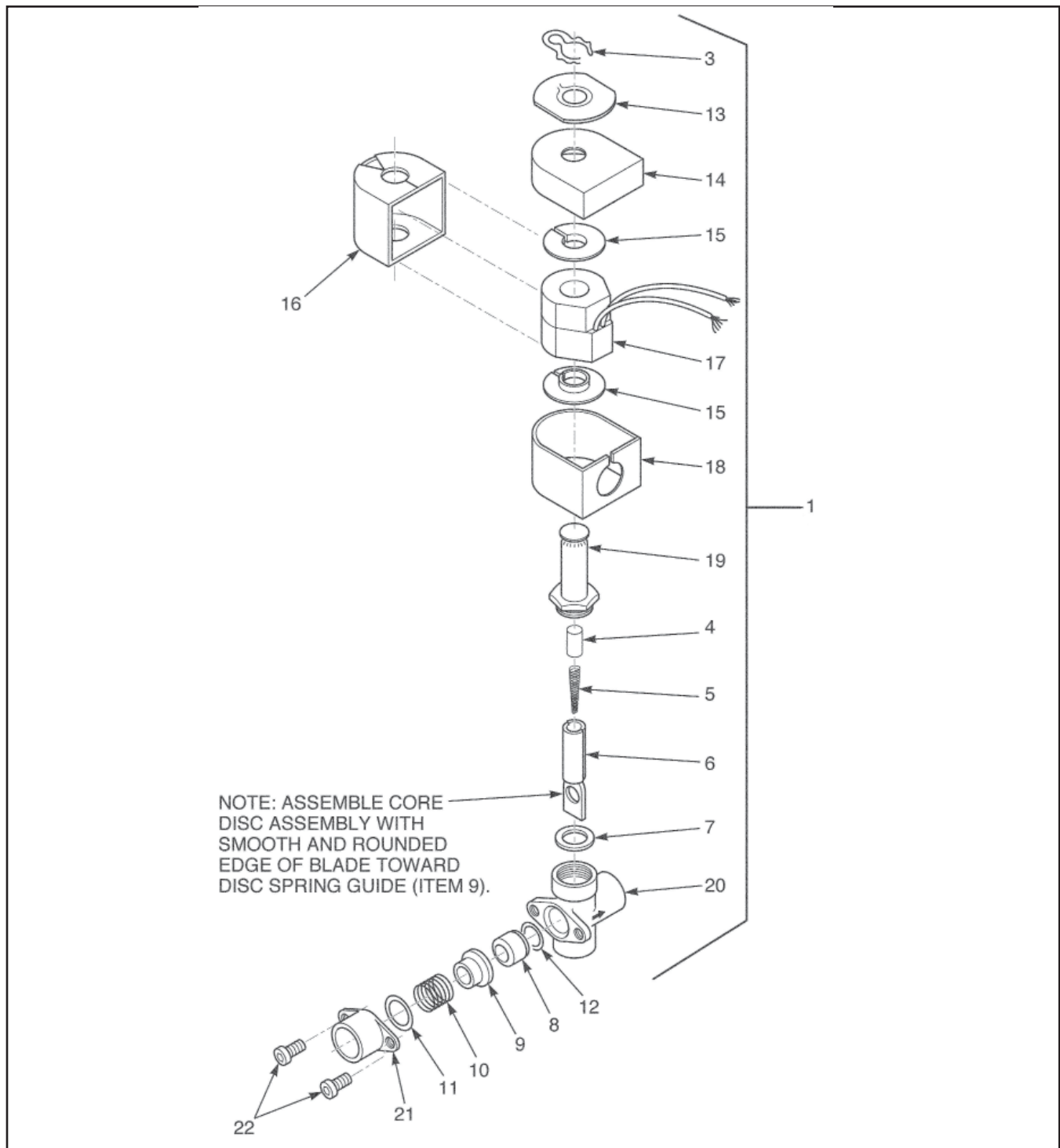


Figure 3-14. Solenoid Valve Assembly (Gas or Electric Model)

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-14		SOLENOID VALVE ASSEMBLY (Gas or Electric Model)	
1	17121	VALVE, Solenoid, 120 Volt, 60 Cycle.....	1
1	18724	VALVE, Solenoid, 208-240 Volt, 50 Cycle	1
1	18721	VALVE, Solenoid, 208/240 Volt, 60 Cycle	1
1	29515	VALVE, Solenoid, 24 Volt, 60 Cycle.....	1
1	29698	VALVE, Solenoid, 24 Volt, 50 Cycle.....	1
1	54945	VALVE, Solenoid, 208-240 Volt, 50 Cycle-CE	1
1	54971	VALVE, Solenoid, 24 Volt, 50 Cycle-CE	1
√ 2	17120	KIT, Solenoid Valve Repair	1
3	17101	CLIP, Retaining	1
4	17109	RETAINER, Spring	1
5	17110	SPRING, Core	1
6	17111	CORE, Disc Assembly	1
7	17112	GASKET, Bonnet	1
8	17114	SEAT, Teflon	1
9	17115	GUIDE, Disc Spring.....	1
10	17116	SPRING, Disc	1
11	17117	RING, Spring Retainer.....	1
12	17122	SEAT, O-Ring Seal	1
√ 13	17102	PLATE, Solenoid Name	1
√ 14	17103	COVER, Coil Housing.....	1
√ 15	17104	WASHER, Coil	2
√ 16	17105	YOKE, Coil.....	1
√ 17	17106	COIL, 120 Volt, 60 Cycle.....	1
√ 17	18706	COIL, 208/240 Volt, 60 Cycle.....	1
√ 17	18726	COIL, 208-240 Volt, 50 Cycle	1
√ 17	29547	COIL, 24 Volt, 60 Cycle.....	1
√ 17	29575	COIL, 24 Volt, 50 Cycle.....	1
√ 18	17123	HOUSING, Coil	1
√ 19	17108	BONNET, Solenoid.....	1
√ 20	17113	BODY, Solenoid Valve.....	1
√ 21	17118	ADAPTER, Pipe	1
√ 22	SC01-132	SCREW, Adapter.....	2

√ Recommended Parts

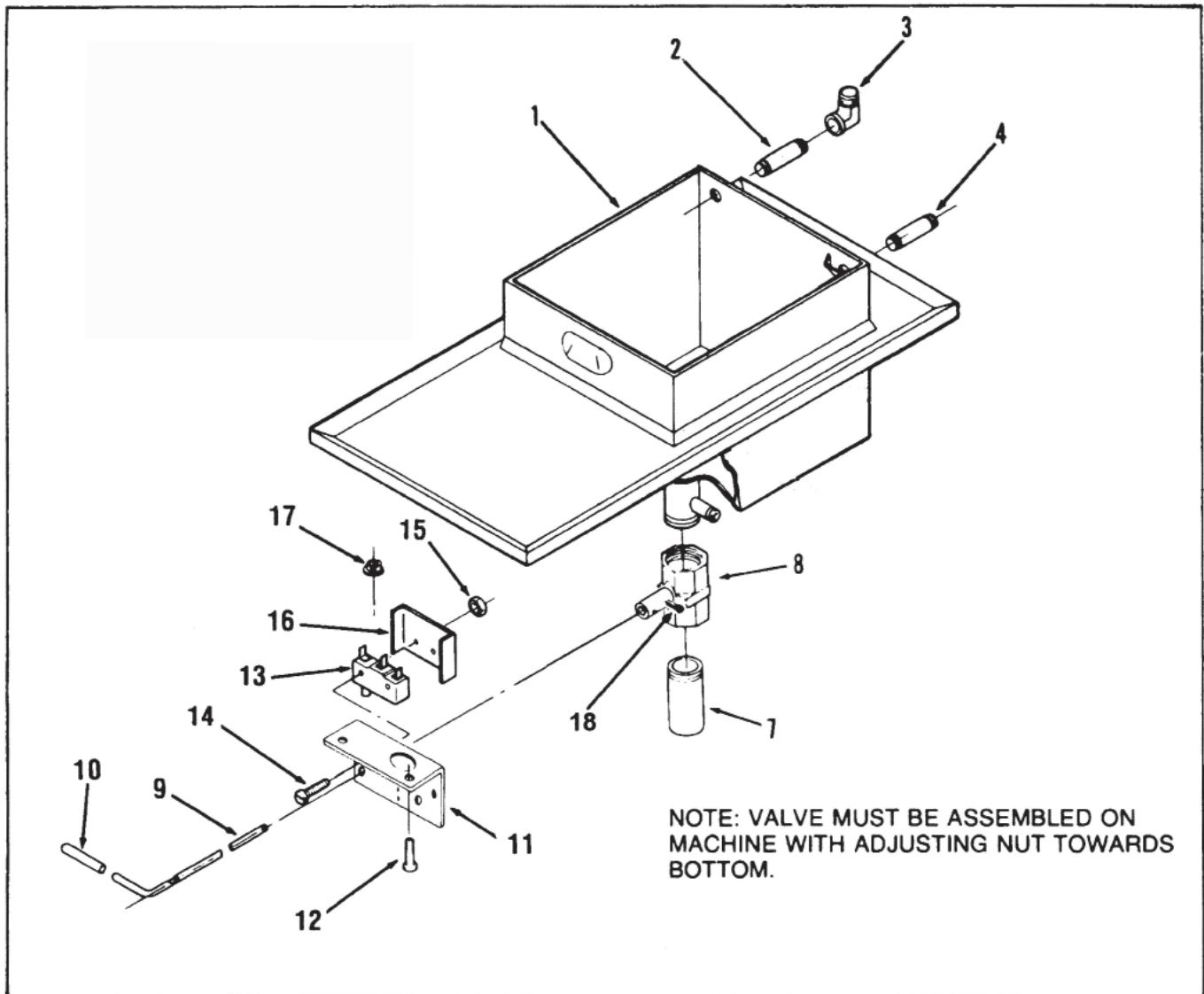


Figure 3-15. Drain Valve Assembly (Electric Model)

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-15		DRAIN VALVE ASSEMBLY (Electric Model)	
1		TOP ASSEMBLY, Pot and Counter- See chart on next page	1
2	18816	NIPPLE, Pipe	1
3	16239	ELBOW	1
4	18816	NIPPLE, Pipe	1
7		NIPPLE, Drain Extension- See chart on next page.....	1
8	17261	BODY, Drain Valve (SN: FB099IH and above).....	1
8	55152	ASSY, Drain Valve and Coupling (SN: FB098IH and below)	1
9	18818	ROD, Drain Valve Extension - Normally Closed	1
9	66123	ROD, Drain Valve Extension - Normally Open	1
9	44907	ROD, Drain Valve Extension - 561 (Before 11-12-02)	1
10	16293	COVER, Valve Handle	1
11		BRACKET, Filter & Drain Rod - See chart on next page ..	1
12	SC03-005	SCREW, Drain Valve Bracket	2
√ 13	18227	MICROSWITCH	1
14	SC01-058	SCREW, Microswitch	2
15	NS02-005	NUT, Microswitch	2
16	18528	COVER, Microswitch	1
16		COVER, Microswitch - 561 - See chart on next page	1
17	EF02-004	BUSHING, Snap	1
18	17255	PIN, Cotter.....	2
19*	59964	INSULATION, Front Panel - 561 (500 elements).....	1
20*	59956	INSULATION, Right Side Panel - 561 (500 elements)	2
21*	55412	INSULATION, Rear Panel - 561 (500 elements).....	1
22*	59955	SHROUD, Control Panel-Rear - 561 (500 elements)	1
23*	55417	INSULATION, Rear Panel - 561 (500 elements).....	1
24*	59957	INSULATION, Side Panel - 561 (500 elements)	2
25*	63339	INSULATION, Front Panel - 561 (500 elements).....	1
√ 26*	14653	KIT, PFE500 Norm Open Drain Switch.....	1

√ Recommended Parts

*not shown

Frypot & Drain Valve Assembly

Serial Number	Description	500	561
KB020JJ & Below	Bracket - Drain Rod	18419	-
	Drain Extension	18817	-
	Pot & Countertop	18921	-
KB029JJ & Below	Bracket - Drain Rod	-	44847
	Pot & Countertop	-	56071
	Pot & Countertop w/Firebar	-	44455
	Drain Switch Cover	-	48033
KB021JJ to HB013JB	Bracket - Drain Rod	63193	-
	Drain Extension	18817	-
	Pot & Countertop	65025	-
	Pot & Countertop(Pollo Campero)	65027	
KB030JJ to HB016JB	Bracket - Drain Rod	-	59958
	Pot & Countertop	-	65198
	Front Panel	-	56974
	Drain Switch Cover	-	59954
HB014JB & Above	Bracket - Drain Rod	23917	-
	Drain Extension & Deflector	24633	-
	Pot & Countertop	65025	-
	Pot & Countertop(Pollo Campero)	65027	
	Frame Assy(short)	23679	-
	Frame Assy(long)	26854	-
HB017JB & Above	Bracket - Drain Rod	-	23756
	Drain Extension & Deflector	-	24638
	Pot & Countertop	-	65024
	Frame Assy(short)	-	23679
	Frame Assy(long)	-	26854
	Drain Switch Cover	-	23757

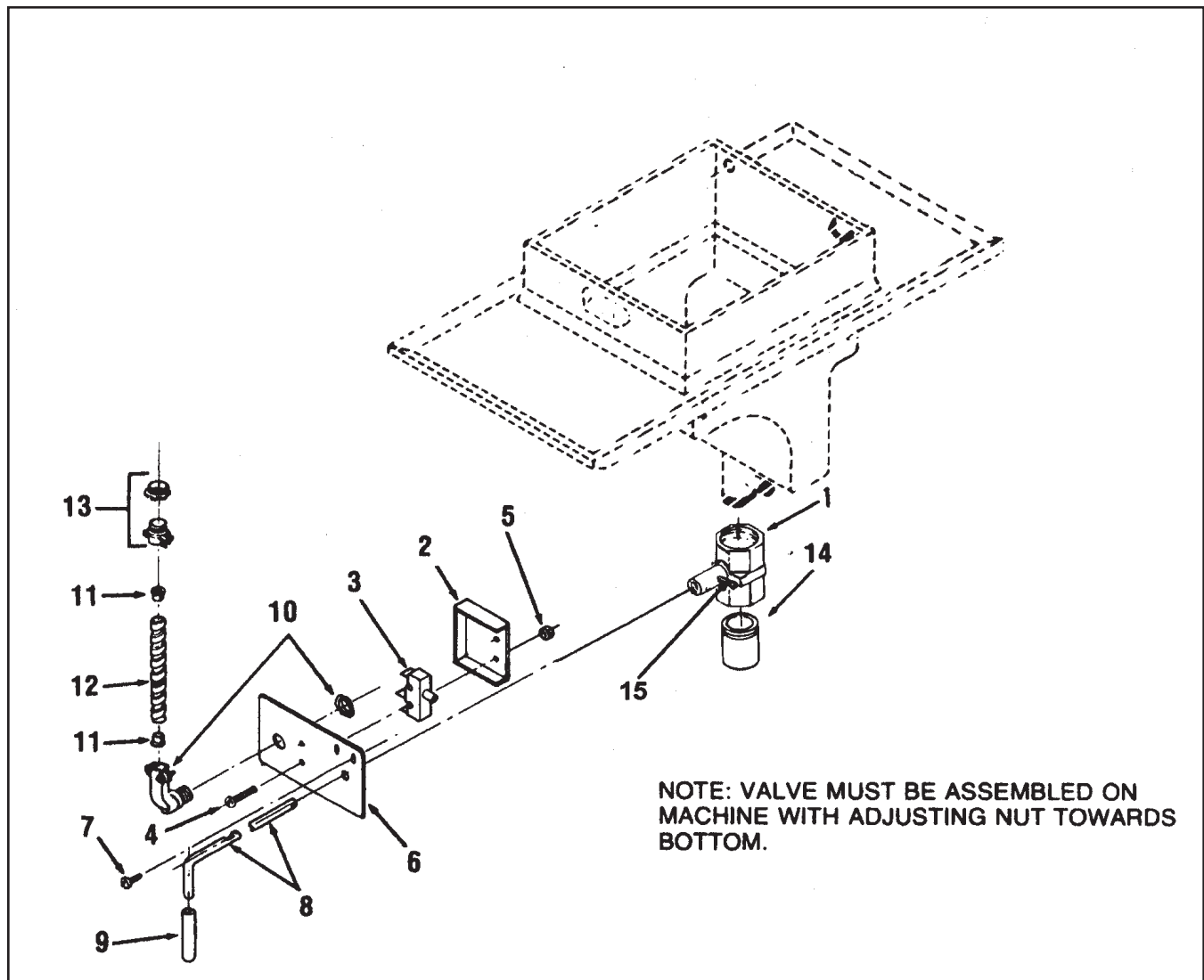


Figure 3-16. Drain Valve Assembly (Gas Model)

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-16		DRAIN VALVE ASSEMBLY (Gas Model)	
1	17261	BODY, Drain Valve (June 1998 and above)	1
1	55152	ASSY, Drain Valve & Coupling (May 1998 & below).	1
2	17210	COVER, Microswitch	1
√ 3	18227	MICROSWITCH	1
4	SC01-058	SCREW, Microswitch	2
5	NS02-005	NUT, Microswitch	2
6	17211	BRACKET, Drain, Valve Rod	1
7	SC03-005	SCREW, Drain Bracket	2
8	17254	ROD, Drain Valve - Normally Closed	1
8	67661	ROD, Drain Valve - Normally Open	1
9	16293	COVER, Valve Handle	1
10	18644	CONNECTOR, 90° Flexible Conduit	1
		(Includes Nut)	
11	18105	INSULATOR	2
12	17214	CONDUIT, Flexible	1
13	18111	CONNECTOR, Flexible Conduit	1
		(Includes Nut)	
14	18819	EXTENSION NIPPLE (SN: KA020JJ and below) ...	1
14	18817	EXTENSION NIPPLE (SN: KA021JJ to GA085JB)	1
14	24647	EXTENSION & DEFLECTOR.....	1
		(SN: GA086JB and above)	
15	17255	PIN, Cotter	2
√ 16*	14652	KIT, PFG600 Norm Open Drain Switch.....	1

√ Recommended / * not shown

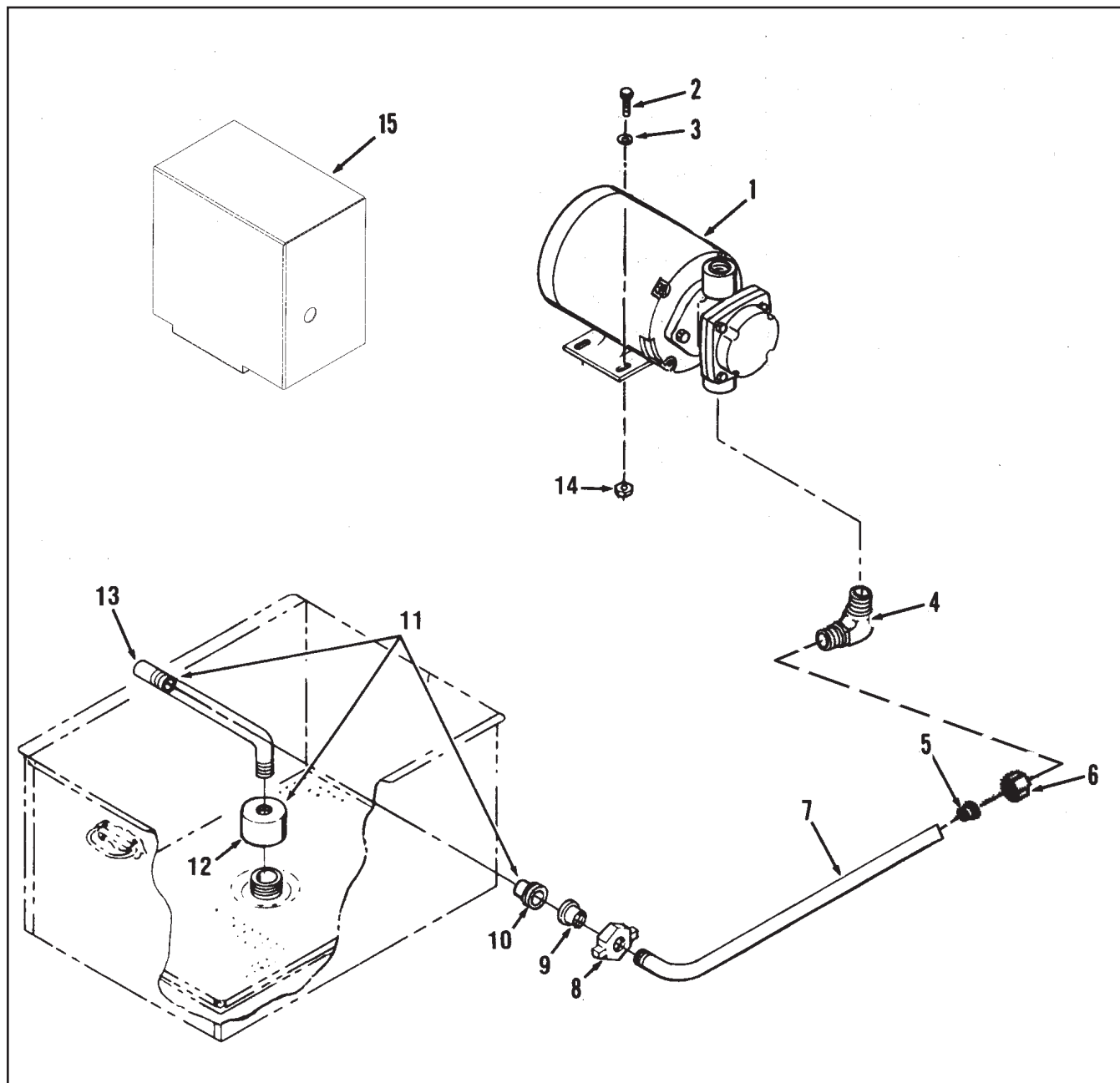


Figure 3-17. Lower Filter Plumbing Components (Gas or Electric Model)

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-17		LOWER FILTER PLUMBING COMPONENTS (Gas or Electric Model)	
1	67589	MOTOR AND PUMP, Filter.....	1
√	67583	MOTOR Only - 1/2 Horse Power.....	1
	17437	PUMP Only.....	1
√	17476	SEAL KIT, Pump.....	1
2	SC01-022	SCREW, Motor	8
3	WA01-002	WASHER	8
4	17407	CONNECTOR, Male Elbow	1
5	16808	FITTING, Sleeve	1
6	16809	NUT Fitting.....	1
7		PUMP RETURN TUBE- See chart next page	1
√ 8	17432(use 69289)	FITTING, Union Handle	1
√ 9	17431(use 69289)	FITTING, Male Union.....	1
√ 10	17430(use 69289)	FITTING, Female Union (Also included with item 11)	1
11		STANDPIPE ASSY, Filter Screen- See chart next page	1
12	65208	NUT, Filter Screen.....	1
13		TUBING- See chart next page	1
14	NS02-002	NUT, Motor.....	4
15		SHIELD, Motor Splash-CE- See chart next page	1
16*	14064	KIT, KFC Filter	1
	17225	GRID, KFC Filter	1
	17226	CLIP, Filter	1
	17228	FITTING, Male Filter	1
	17229	FITTING, Female Filter	1

√ Recommended Parts

*not shown

Lower Filter Plumbing Components

SN	Description	500	561	600
KB020JJ &	Standpipe Assy	19102	-	-
Below	Standpipe Tube	19101	-	-
	Pump Return Tube Assy	16812 (includes 16808 & 16809)	-	-
	Pump Return Tube	64331 (use if pan has cover)	-	-
	Motor Splash Shield-CE	55281	-	-
KB029JJ &	Standpipe Assy	-	19102	-
Below	Standpipe Tube	-	19101	-
	Pump Return Tube Assy	-	16812 (includes 16808 & 16809)	-
	Pump Return Tube	-	64331 (use if pan has cover)	-
KA020JJ &	Standpipe Assy	-	-	17433
Below	Standpipe Tube	-	-	55367
	Pump Return Tube Assy	-	-	16812 (includes 16808 & 16809)
	Pump Return Tube	-	-	64331 (use if pan has cover)
	Motor Splash Shield-CE	-	-	55281
KB021JJ to	Standpipe Assy	14732	-	-
HB013JB	Standpipe Tube	70061	-	-
	Pump Return Tube	58877	-	-
	Motor Splash Shield-CE	59731	-	-
KB030JJ to	Standpipe Assy	-	14732	-
HB016JB	Standpipe Tube	-	70061	-
	Pump Return Tube	-	58877	-
KA021JJ to	Standpipe Assy	-	-	14732
GA085JB	Standpipe Tube	-	-	70061
	Pump Return Tube	-	-	58877
	Motor Splash Shield-CE	-	-	59731
HB014JB &	Standpipe Assy	14659	-	-
Above	Standpipe Tube	23951	-	-
	Pump Return Tube Assy	23800 (includes 16808 & 16809)	-	-
	Motor Splash Shield-CE	24644	-	-
HB017JB &	Standpipe Assy	-	14659	-
Above	Standpipe Tube	-	23951	-
	Pump Return Tube Assy	-	23800 (includes 16808 & 16809)	-
GA086JB &	Standpipe Assy	-	-	14664
Above	Standpipe Tube	-	-	24284
	Pump Return Tube Assy	-	-	23800 (includes 16808 & 16809)
	Motor Splash Shield-CE	-	-	24644

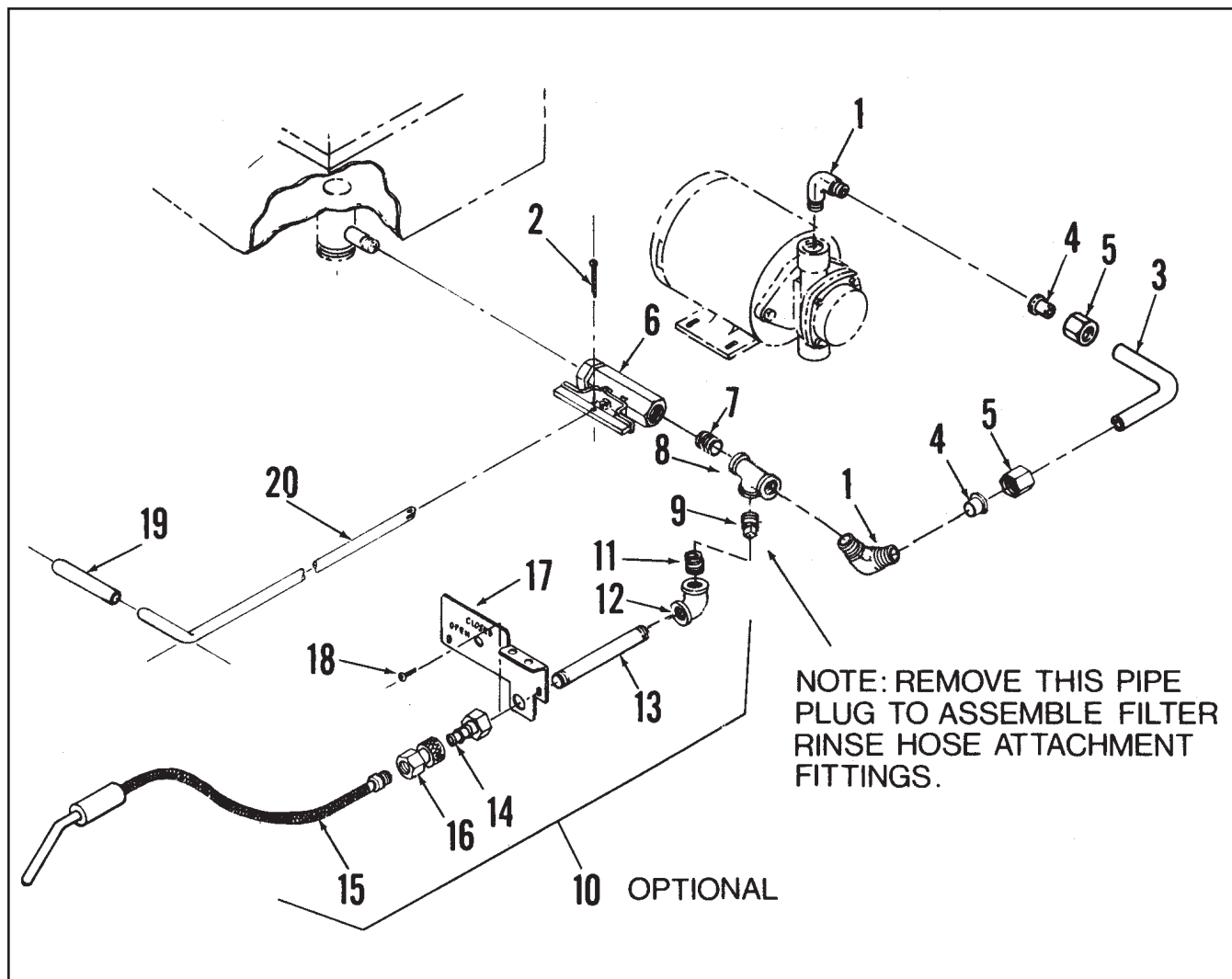


Figure 3-18. Upper Filter Plumbing Components

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-18		UPPER FILTER PLUMBING COMPONENTS	
1	17407	CONNECTOR, Male Elbow	2
2	17255	PIN, Cotter, Valve	1
3		TUBING, Stainless Steel- See chart next page	1
4	16808	FITTING, Sleeve	2
5	16809	NUT, Fitting.....	2
√ 6	17308	VALVE ASSEMBLY, Filter	1
7	FP02-001	NIPPLE, Close.....	1
8	17306	TEE, Pipe	1
9	FP01-015	PLUG, Pipe	1
10	03001	HOSE ASSY, Filter Rinse Optional (models 500/561) ...	1
10	03002	HOSE ASSY, Filter Rinse Optional (models 600).....	1
11	FP02-007	NIPPLE, Pipe.....	1
12	17319	ELBOW, Pipe.....	1
13		NIPPLE, Rinse Hose Pipe- See chart next page	1
14	17334	FITTING, Rinse Hose Disconnect, Male	1
15	03003	HOSE, Filter Rinse	1
16	17333	FITTING, Rinse Hose Disconnect - Female.....	1
17		BRACKET, Rinse Hose- See chart next page	1
18	SC03-005	SCREW, Rinse Hose Bracket	2
19	16293	COVER, Valve Rod	1
20	17311	ROD, Filter Valve Extension (model 600).....	1
20	18911	ROD, Filter Valve Extension (models 500/561)	1
20	50646	ROD, Filter Valve Extension	1
		(model 561 SN: HB013JB & below)	
21*	03601	KIT, Shuttle Conversion - model 500	1
22*	03602	KIT, Shuttle Conversion - model 600	1

√ Recommended Parts

*not shown

Pump to Valve Tube

SN	Description	500	561	600
KB020JJ & Below	Pump to Valve Tube	18904	-	-
	Rinse Hose Pipe Nipple	17320	-	-
	Filter Valve & Rinse Hose Brkt	18419		
KB029JJ & Below	Pump to Valve Tube	-	44911	-
	Rinse Hose Pipe Nipple	-	17320	
	Filter Valve & Rinse Hose Brkt		44847	
KA020JJ & Below	Pump to Valve Tube	-	-	17329
	Rinse Hose Pipe Nipple	-	-	17320
	Filter Valve & Rinse Hose Brkt			17224
KB021JJ to HB013JB	Pump to Valve Tube	63134	-	-
	Rinse Hose Pipe Nipple	17320	-	-
	Filter Valve & Rinse Hose Brkt	63193		
KB030JJ to HB016JB	Pump to Valve Tube	-	63134	-
	Rinse Hose Pipe Nipple	-	17320	-
	Filter Valve & Rinse Hose Brkt		59958	
KA021JJ to GA085JB	Pump to Valve Tube	-	-	63246
	Rinse Hose Pipe Nipple	-	-	17320
	Filter Valve & Rinse Hose Brkt			17224
HB014JB & Above	Pump to Valve Tube	27405	-	-
	Rinse Hose Pipe Nipple	24982	-	-
	Filter Valve & Rinse Hose Brkt	23917		
HB017JB & Above	Pump to Valve Tube	-	26217	-
	Rinse Hose Pipe Nipple	-	24982	-
	Filter Valve & Rinse Hose Brkt		23756	
GA086JB & Above	Pump to Valve Tube	-	-	27456
	Rinse Hose Pipe Nipple	-	-	24982
	Filter Valve & Rinse Hose Brkt			24958

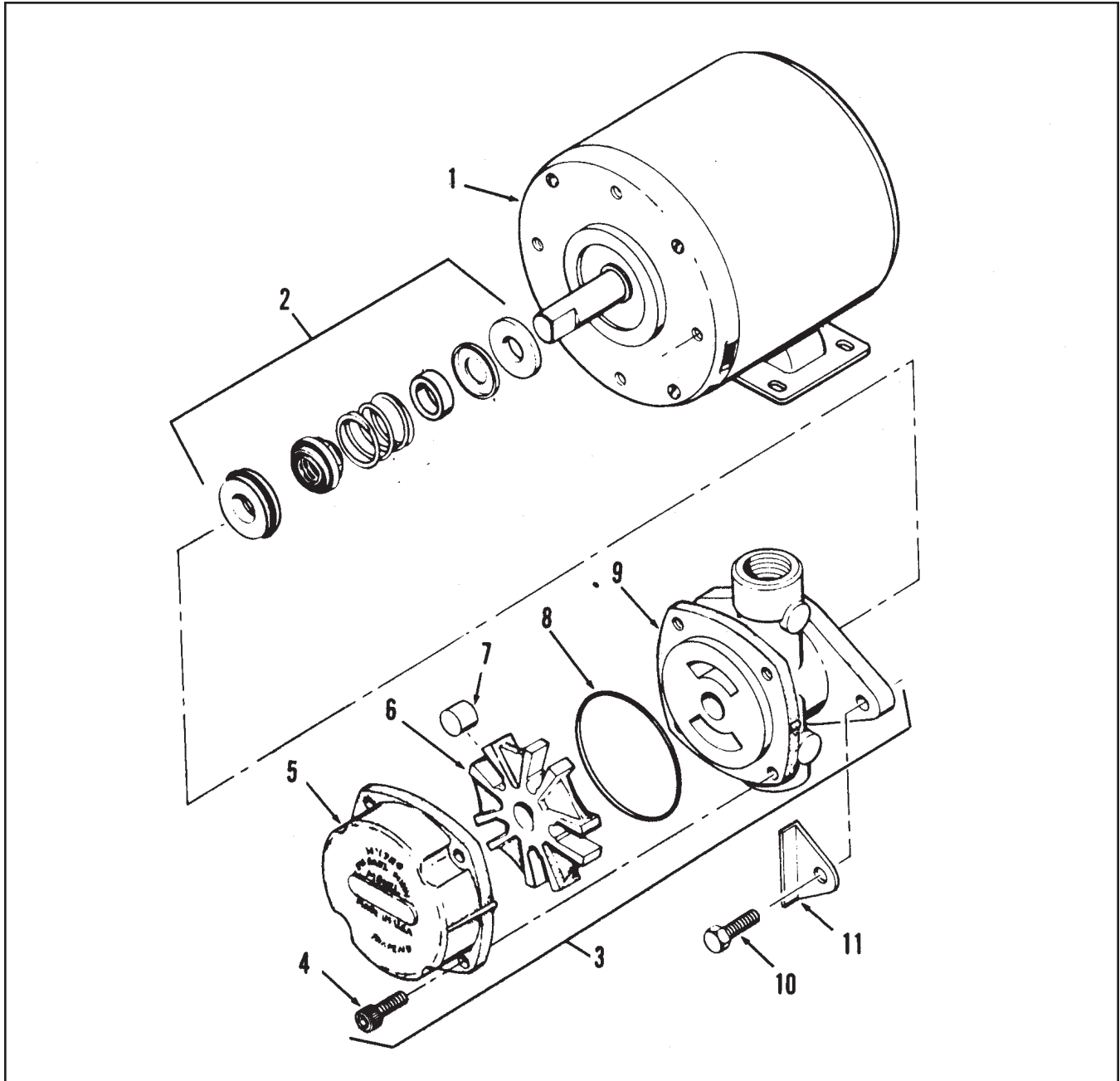


Figure 3-19. Filter Motor and Pump

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-19		FILTER MOTOR AND PUMP	
√ 1	67583	MOTOR, 1/2 HP - 50/60 Hz	1
√ 2	17476	SEAL KIT	1
3	17437	PUMP ASSEMBLY.....	1
√ 4	SC01-132	SCREW, Pump Cover	1
√ 5	17451	COVER, Pump	1
√ 6	17447	ROTOR, Pump	1
√ 7	17446	ROLLER, Pump	5
√ 8	17453	O-RING	1
√ 9	17454	BODY, Pump.....	1
√ 10	17456	SHIELD, Pump	2
√ 11	SC01-026	SCREW, Pump Shield.....	1

√ Recommended Parts

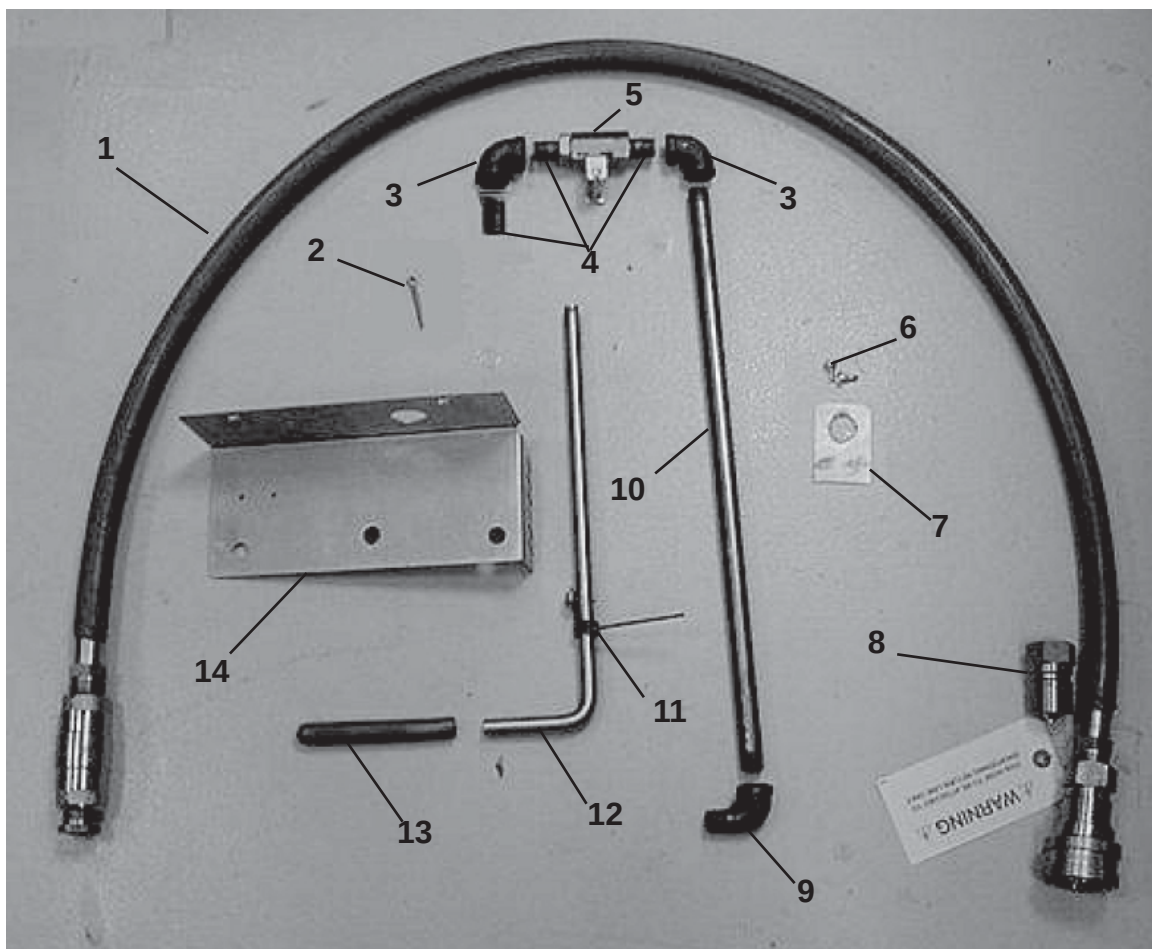


FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-20		DIRECT-CONNECT ASSEMBLY - MODEL 500	
1	65139	ASSY, Direct-Connect Hose	1
2	17255	PIN, Cotter	1
3	17319	ELBOW, Pipe.....	2
4	FP02-024	NIPPLE, 3/8 NPT Close BI	3
✓ 5	17308	VALVE, Filter	1
6	SC03-005	SCREW, SD #8 x 1/2 PH PHD.....	2
7	32504	ASSY, Shortening Mgt. Brkt.....	1
8	21611	DISCONNECT, Male	1
9	FP01-114	ELBOW, Street - 3/8 NPT BI.....	2
10	FP02-055	NIPPLE, - 3/8 x 18 LG BI	1
11	21874	SPRING, Shortening Mgt.	1
12	32723	ROD, Direct-Connect - 500	1
13	29769	GRIP, Fryer Handle.....	1
14	32526	BRACKET, Drain Rod - 500	1
15*	14369	KIT, Direct-Connect (SN: KB020JJ & below)	1
15*	14365	KIT, Direct-Connect (SN: KB021JJ to HB013JB	1
15*	14425	KIT, Direct-Connect (SN: HB014JB & above)	1
15*	14696	KIT, Direct-Connect-No Hose (SN: HB014JB & above).....	1

✓ Recommended Parts/*not shown

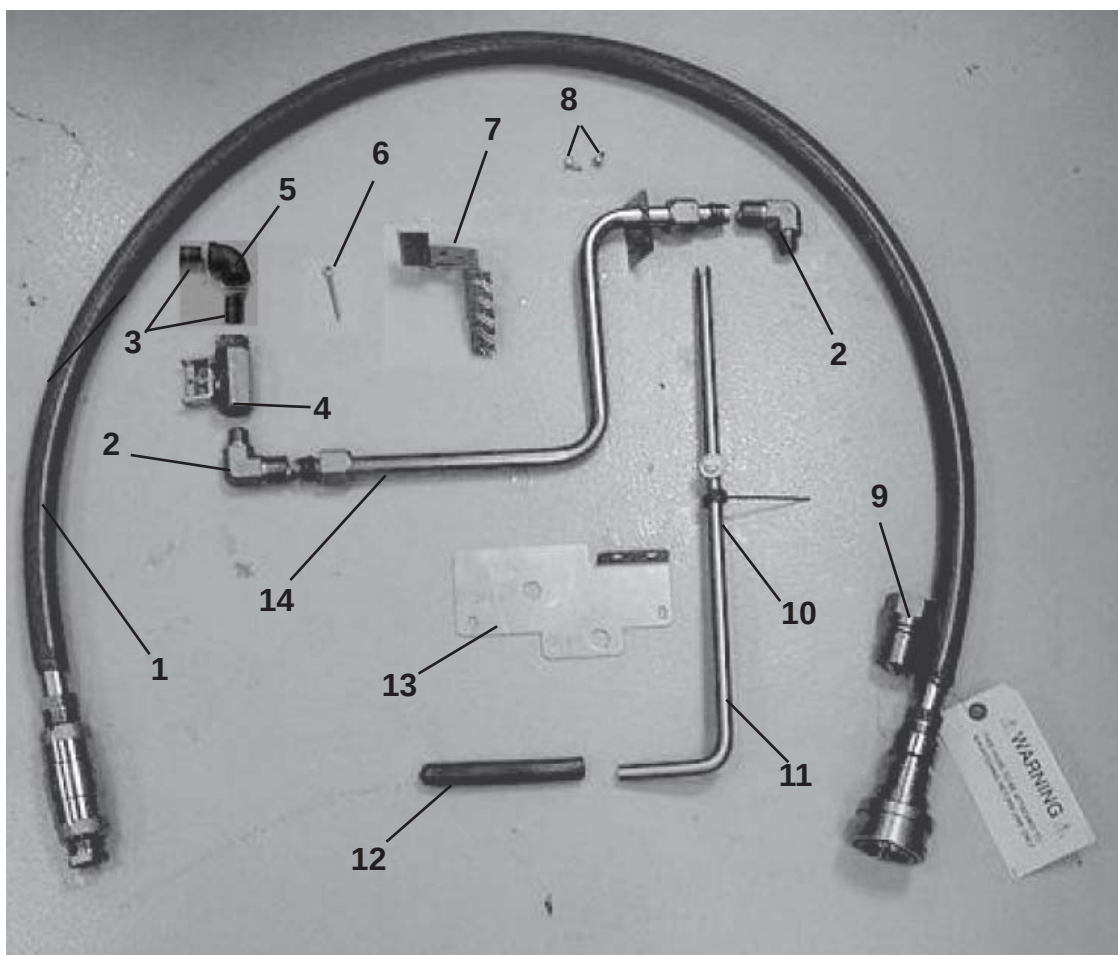


FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-21		DIRECT-CONNECT ASSEMBLY - MODEL 600	
1	65139	ASSY, Direct-Connect Hose	1
2	FP01-079	ELBOW, 5/8 Tube - 3/8 NPT Male.....	2
3	FP02-024	NIPPLE, 3/8 NPT Close B. I.	2
√ 4	17308	VALVE, Filter	1
5	17319	ELBOW, Pipe.....	1
6	17255	PIN, Cotter	1
7	24641	ASSY, Shortening Mgt. Brkt.....	1
8	SC03-005	SCREW, SD #8 x 1/2 PH PHD	2
9	21611	DISCONNECT, Male	1
10	21874	SPRING, Shortening Mgt.	1
11	32722	ROD, Direct-Connect - 600	1
12	29769	GRIP, Fryer Handle.....	1
13	32557	BRACKET, Drain Rod - 600	1
14	32648	ASSY, Direct-Connect Tube - 600	1
15*	14370	KIT, Direct-Connect (SN: KA020JJ & below).....	1
15*	14366	KIT, Direct-Connect (SN: KA021JJ to GA085JB	1
15*	14426	KIT, Direct-Connect (SN: GA086JB & above)	1

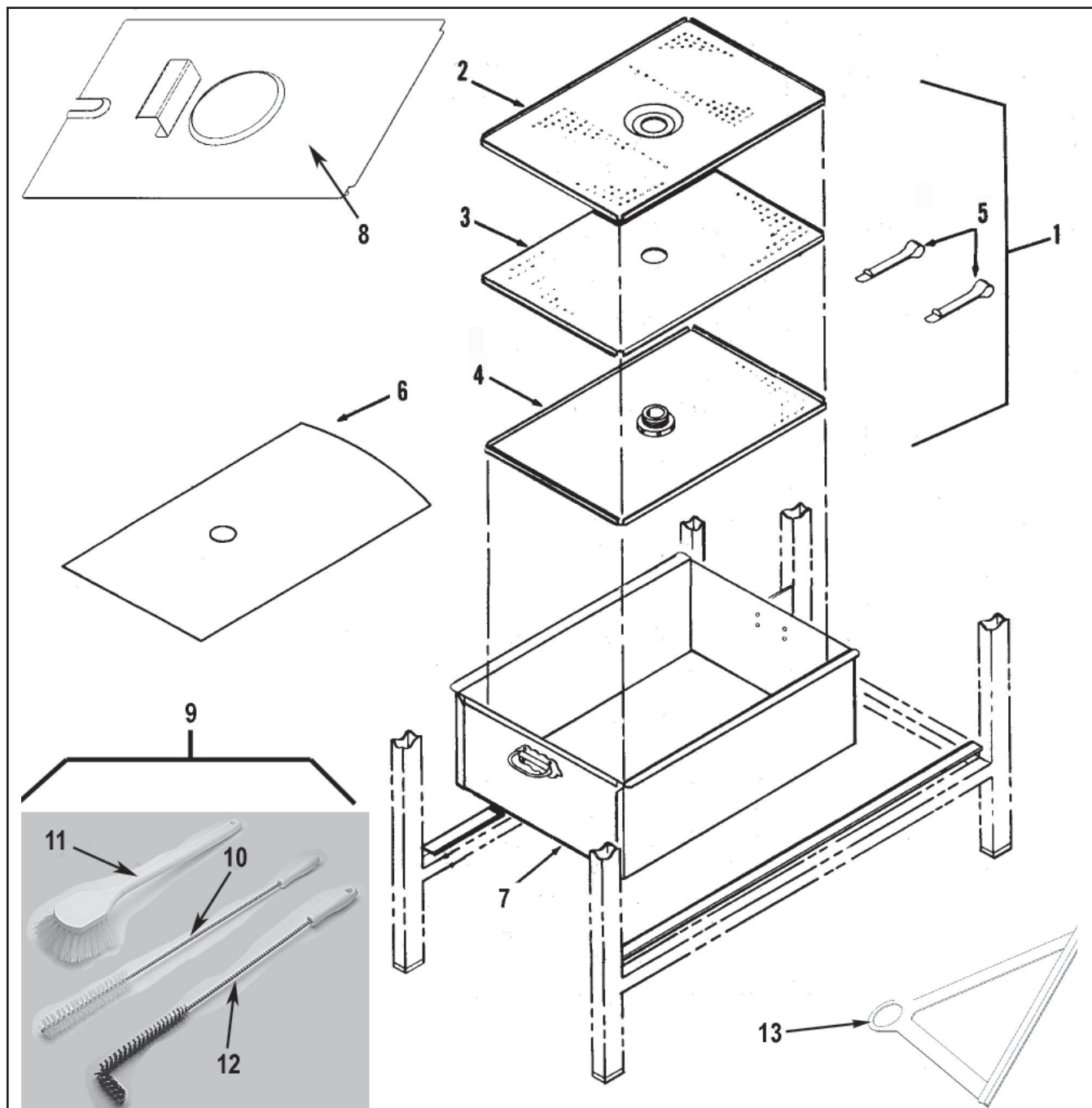


Figure 3-22. Filter Drain Pan and Filter Screen Assembly

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-22		FILTER DRAIN PAN AND FILTER SCREEN ASSEMBLY	
1	14671	KIT, GM Filter Screens- See chart on next page	1
1	14672	KIT, Wendy's Filter Screens- See chart on next page	1
2	65211	CATCHER, Crumb - SS	1
3	NLA	SCREEN, Top Filter	1
4	use 14671 or 14672	SCREEN, Bottom Filter(SN: AA0503097 & below-500/561) (SN: AN0503086 & below-600)	1
4	65447	SCREEN, Bottom Filter - SS (SN: AA0503098 & above-500/561) (also see #16 below) (SN: AN0503087 & above-600)	1
5	17505	CLIPS, Filter Envelope	2
√ 6	12102	FILTER, Envelope Paper (100 per carton)	1
√ 6	24262	CARBON PAD, Filter Envelope (30 per carton)	1
√ 6	24263	CARBON, Filter Envelope (30 per carton)	1
7		PAN, Filter Drain Assembly- See chart on next page	1
7	23499	PAN, Filter Drain Assy. (CFA- SN: JB095JA to HB013JB) ..	1
8		COVER, Filter Drain Pan- See chart on next page	1
8	32627	COVER, Filter Drain Pan-Malyasia	1
8	69294	COVER, Storage - PFE-500	1
8	69296	COVER, Storage - PFG-600	1
8		KIT, Cover/Drain Extension- See chart on next page	1
√ 9	14461	KIT, Brush Set	1
10	12112	BRUSH, Straight White	1
11	12116	BRUSH, Fryer - Gong - Long Handle.....	1
12	12126	BRUSH, Black L Tipped	1
13	63102	Sealer Bar - Wendy's	1
13	62116	Sealer Bar - Gen. Market	1
14*		FILTER PAN DOLLY- See chart on next page	1
15*	14895	KIT - SPCL SHORT FLTR KFC/FALCON	1
16*	65208	NUT - FILTER - FEMALE (Use with item 4 above).....	1

√ Recommended Parts

*not shown

NLA - No Longer Available

Filter Screen Kits

	65211	65447	17505	65208	63102
14671-GM	1	1	2	1	-
14672-Wendy's	-	1	-	1	1

Standard Filter Pan & Cover Assys.

SN	Description	500	561	600
KB020JJ & Below	Pan Cover	18915	-	-
	Pan	19206	-	-
	Pan Dolly	03387	-	-
KB029JJ & Below	Pan Cover	-	18915	-
	Pan	-	19206	-
	Pan Dolly	-	03387	-
KA020JJ & Below	Pan Cover	-	-	17512
	Pan	-	-	17506
	Pan Dolly	-	-	03352
KB021JJ to BB016JA	Pan Cover	64024	-	-
	Pan	58848	-	-
	Pan Dolly	03389	-	-
	Cover/Drain Ext. Kit	14414		
KB030JJ to BB055JA	Pan Cover	-	64025	-
	Pan	-	63203	-
	Pan Dolly	-	03390	-
	Cover/Drain Ext. Kit		14414	
KA021JJ to BA026JA	Pan Cover	-	-	64023
	Pan	-	-	58848
	Pan Dolly	-	-	03389
BB017JA to HB013JB	Pan Cover	64021	-	-
	Pan	64014	-	-
	Pan Dolly	03391	-	-
	Cover/Drain Ext. Kit	14415		
BB056JA to HB016JB	Pan Cover	-	64022	-
	Pan	-	64015	-
	Pan Dolly	-	03392	-
	Cover/Drain Ext. Kit		14415	
BA027JA to GA085JB	Pan Cover	-	-	64020
	Pan	-	-	64014
	Pan Dolly	-	-	03391
HB014JB & Above	Pan Cover	68065	-	-
	Pan	24702	-	-
	Pan Dolly	03343	-	-
HB017JB & Above	Pan Cover	-	68065	-
	Pan	-	24702	-
	Pan Dolly	-	03343	-
GA086JB & Above	Pan Cover	-	-	68066
	Pan	-	-	17506
	Pan Dolly	-	-	03352

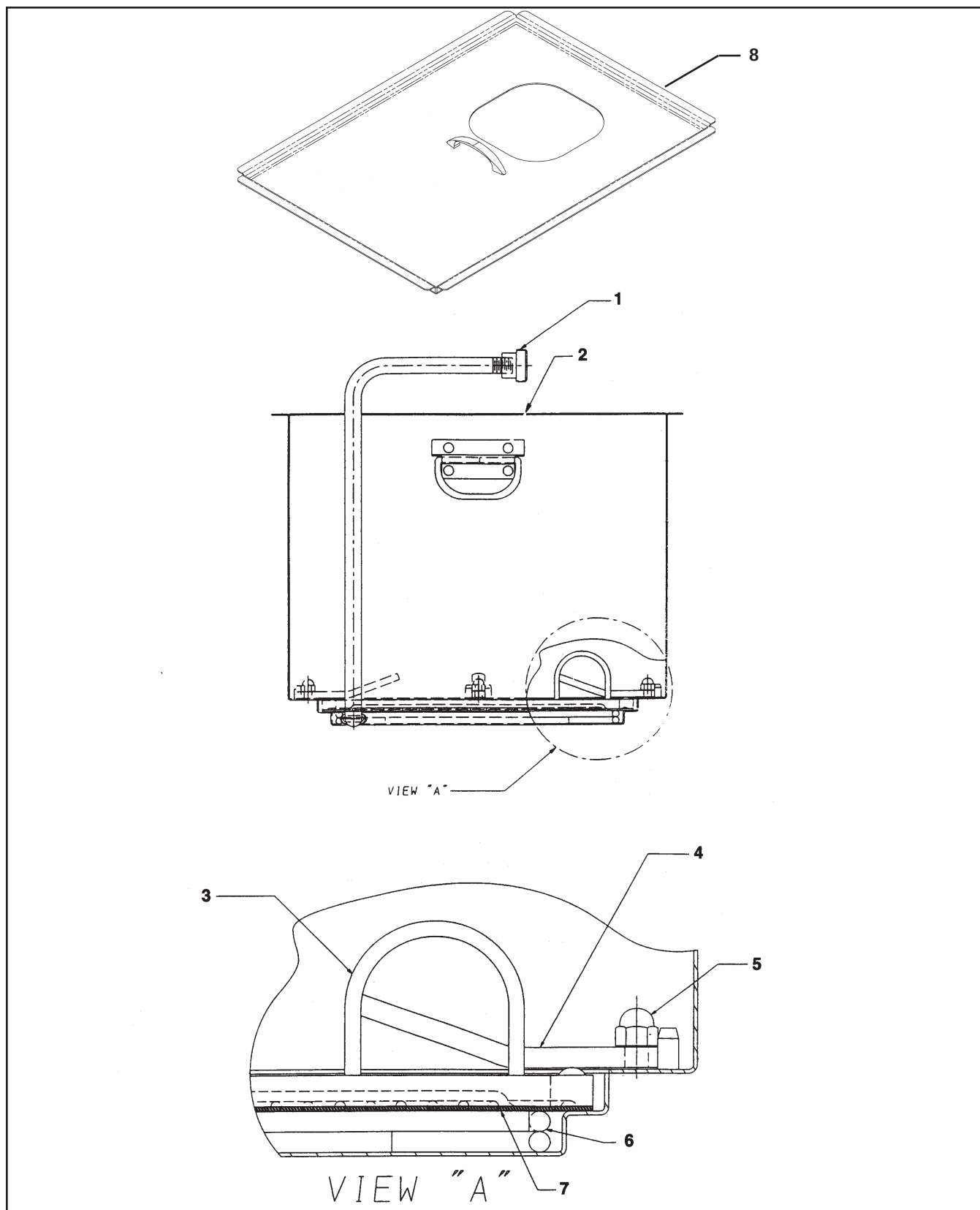


Figure 3-23. Supersorb Filter Assembly - Before 3-1-02

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-23		Supersorb Filter Assembly - Before 3-1-02	
√ 1	17430(use 69289)	UNION, Female Fitting.....	1
2		FILTER PAN ASSEMBLY -See chart below	1
3	70561	FILTER CLAMP RING w/Screw	1
4	36596	HANDLE, Filter Lock.....	4
5	NS03-023	NUT, 1/4-20 Acorn Cap	4
6	30944	SUPPORT, Filter Pad	1
√ 7	12186	CHARCOAL FILTER PAD	1
8		COVER - FILTER PAN ASSY-See chart below.....	1
9*		FILTER PAN DOLLY (4 & 6 hd)-See chart below	1
10*	19004	Casters	4

√ Recommended Parts / *not shown

SN	Description	500	561	600
KB020JJ & Below	Pan Dolly	03388	-	-
	Pan Cover	54008	-	-
	Pan Assy	140028	-	-
KB029JJ & Below	Pan Dolly	-	03388	-
	Pan Cover	-	54008	-
	Pan Assy	-	140028	-
KA020JJ & Below	Pan Dolly	-	-	03388
	Pan Cover	-	-	54538
	Pan Assy	-	-	140034
KB021JJ to BB016JA	Pan w/Casters	NLA	-	-
	Pan w/o Casters	140035	-	-
KB030JJ to BB055JA	Pan w/Casters	-	NLA	-
	Pan w/o Casters	-	140036	-
KA021JJ to BA026JA	Pan w/Casters	-	-	NLA
	Pan w/o Casters	-	-	140035
BB017JA to HB013JB	Pan w/Casters	NLA	-	-
	Pan w/o Casters	140037	-	-
BB056JA to HB016JB	Pan w/Casters	-	NLA	-
	Pan w/o Casters	-	140038	-
BA027JA to GA085JB	Pan w/Casters	-	-	NLA
	Pan w/o Casters	-	-	140037
HB014JB & Above	Pan Dolly	03343	-	-
	Pan Cover	24627	-	-
	Pan Assy	24702	-	-
HB017JB & Above	Pan Dolly	-	03343	-
	Pan Cover	-	24627	-
	Pan Assy	-	24702	-
GA086JB & Above	Pan Dolly	-	-	03352
	Pan Cover	-	-	68066
	Pan Assy	-	-	17506

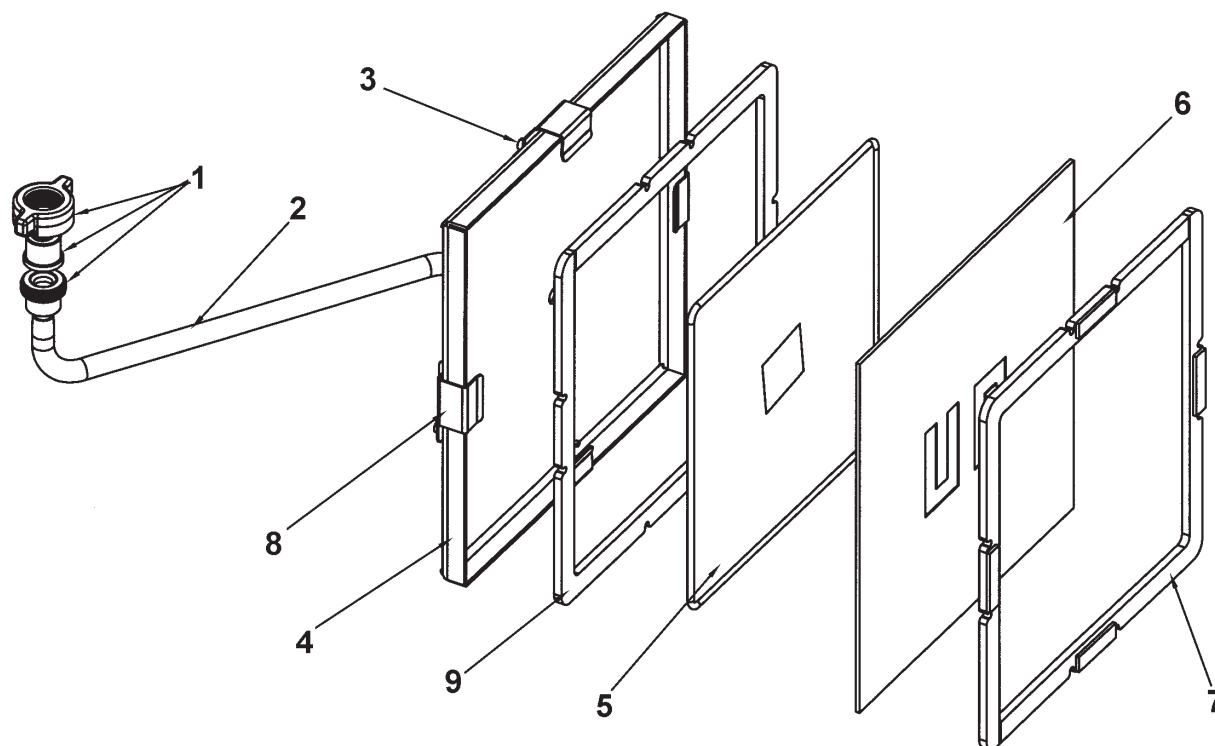
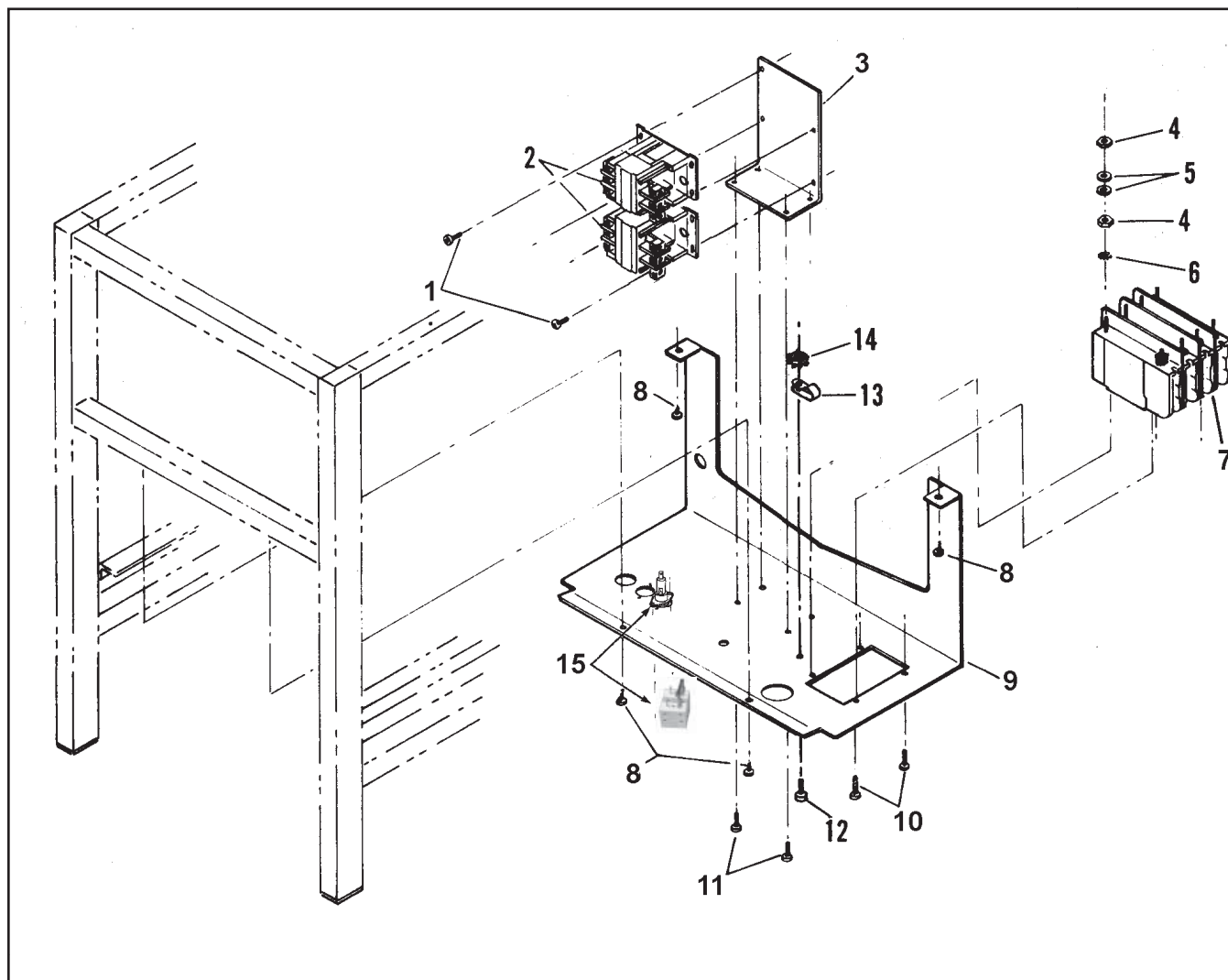


FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-24		Supersorb Filter Assembly - 3-1-02 and After	
	14423	KIT, 500/561 Supersorb Assy (Includes 1, 2A, 3-7, 8B, & 9)	1
	14424	KIT, 600 Supersorb Assy (Includes 1, 2B, 3-7, 8B, & 9)	1
√ 1	69289	ASSY, Filter Union	1
2A	23951	TUBE D.U.to Filter-Electric	1
2B	24284	TUBE D.U.to Filter-Gas	1
3	SC01-249	SCREW, 8-32 x 3/16 TH SHOULDER	4
4	67948	WELD ASSY, Drain Filter.....	1
5	66202	WELD ASSY, Filter Section.....	1
6	12186	CHARCOAL FILTER PAD (carton of 30).....	1
7	70585	FILTER CLAMP RING w/o Screw	1
8A	32851	CLIP, Drain Filter (SN: AN0507125 & below-600)..... (SN: AA0507115 & below-500/561-below SN: AB0508001)	4
8B	67952	CLIP, Short Drain Filter (SN: AN0507126 & above-600)	4
		(SN: AA0507116 & above-500/561-SN: AB0508001 & above)	
9	70721	RING, Filter Retainer Whole (SN: AN0507126 & above-600) (SN: AA0507116 & above-500/561-SN: AB0508001 & above)	1

√ Recommended Parts

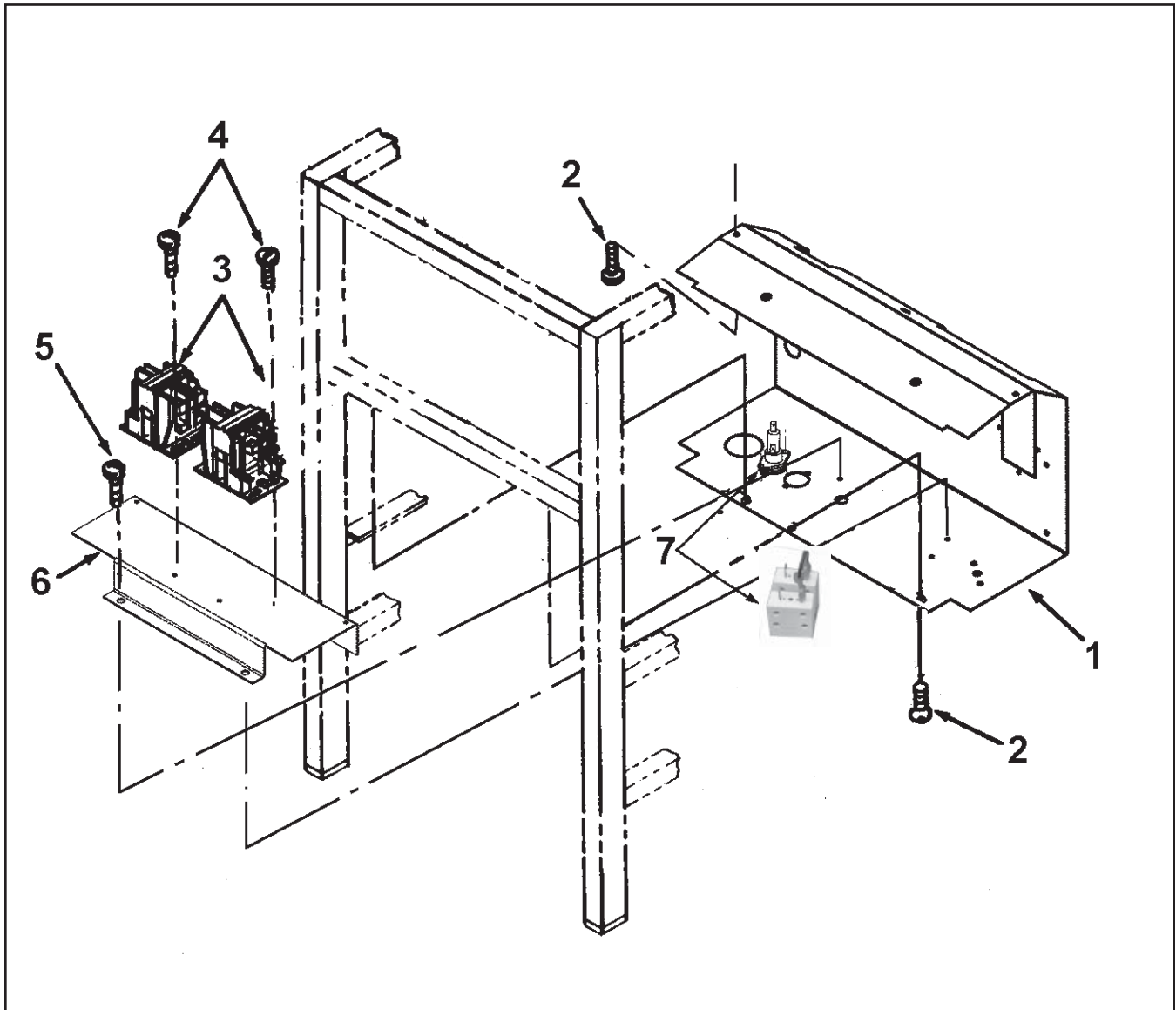


**Figure 3-25. Contactor and Frame Assembly
(Single Phase Electric Model)**

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-25		CONTACTOR AND FRAME ASSEMBLY, (Single Phase Electric Model)	
1	SC04-003	SCREW	4
√ 2	19405	CONTACTOR	2
2	29942	CONTACTOR, Mercury 208-240 VAC	1
		(Before SN: AA0909048 - 500 or AB0909007 - 561)	
√ 2	65075	CONTACTOR, E/M Heat - Non-CE - 240V	1
		(After SN: AA0909047 - 500 OR AB0909006 - 561)	
√ 2	65074	CONTACTOR - 230 Volt - CE	2
3	18243	BRACKET, Contactor	1
4	NS01-014	NUT, Hex	16
5	WA01-007	WASHER	16
6	LW02-005	LOCKWASHER	8
7	18242	BREAKER, CIRCUIT 50 amp	1
8	SC03-005	SCREW	4
9	18244	SHROUD, Single Phase (KB020JJ & below)	1
9	63226	SHROUD, Single Phase (KB021JJ to HB013JB)	1
9	27418	SHROUD, Single Phase (HB014JB & above)	1
10	SC01-072	SCREW	4
11	SC04-002	SCREW	4
12	SC01-010	SCREW	1
13	EF02-030	CAPILLARY CLAMP	1
14	NS02-005	NUT	1
√ 15	EF02-125	BREAKER, Push-Button Reset (10-23-06 & after)	2
√ 15	18364	ASSY, Fuse Holder - 15 Amp (before 10-23-06)	2
√ 15	EF02-007	FUSE, 15 Amp	2
√ 15	EF02-006	HOLDER, Fuse	2
16*	14033	KIT - 3 Phase to 1 Phase Conversion (KB020JJ & below) ...	1
16*	14677	KIT - 3 Phase to 1 Phase Conversion (KB021JJ to HB013JB)	1
16*	14882	KIT - 3 Phase to 1 Phase w/ Fuses (HB014JB to AA0611084)	1
16*	14678	KIT - 3 Phase to 1 Phase Conversion (AA0611085 & above)	1

√ Recommended Parts

*not shown



**Figure 3-26. Contactor and Frame Assembly
(Three Phase Electric Model)**

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-26		CONTACTOR AND FRAME ASSEMBLY (Three Phase Electric Model)	
1	18514	SHROUD, Three Phase (KB020JJ & below)	1
1	59233	SHROUD, Three Phase (KB021JJ to HB013JB)	1
1	65864	SHROUD, Three Phase - 500 (HB014JB & above)	1
1	65863	SHROUD, CE-Three Phase (HB014JB-AA0605138)	1
1	65269	SHROUD, Three Phase (AA0605139 & above)	1
1	24800	SHROUD, Three Phase - 561 (HB014JB & above)	1
2	SC03-005	SCREW, Shroud	4
√ 3	19405	CONTACTOR - 208-240 Volt	2
3	29942	CONTACTOR, Mercury 208-240 VAC..... (Before SN: AA0909048 - 500 or AB0909007 - 561)	1
√ 3	65075	CONTACTOR, E/M Heat - Non-CE - 240V	1
		(After SN: AA0909047 - 500 OR AB0909006 - 561)	
√ 3	65074	CONTACTOR - 230 Volt - CE	2
4	SC04-002	SCREW, Contactor	4
5	SC01-052	SCREW, 1/4-20 x 3/8 Hex Hd C	2
6	58850	BRACKET, Double Contactor (KB021JJ & Above).....	1
√ 7	EF02-125	BREAKER, Push-Button Reset (10-23-06 & after-domestic) (AA0809149 & after - CE)	2
√ 7	18364	ASSY, Fuse Holder - 15 Amp (before 10-23-06).....	2
√ 7	EF02-007	FUSE, 15 Amp	2
√ 7	EF02-006	HOLDER, Fuse.....	2
√ 7	EF02-105	FUSE, 15 Amp - CE (AA0605139 to AA0809148)	2
√ 7	EF02-104	HOLDER, Fuse - CE (AA0605139 to AA0809148)	2
8*	14034	KIT - 1 Phase to 3 Phase Conversion (KB020JJ & below) ...	1
8*	14679	KIT - 1 Phase to 3 Phase Conversion (KB021JJ to HB013JB)	1
8*	14883	KIT - 1 Phase to 3 Phase w/ Fuses (HB014JB to AA0611084)	1
8*	14680	KIT - 1 Phase to 3 Phase Conversion (AA0611085 & above)	1
8*	140068	KIT - 500 C8000 - 3 Phase to 1 Phase Conversion	1

√ Recommended Parts

*not shown

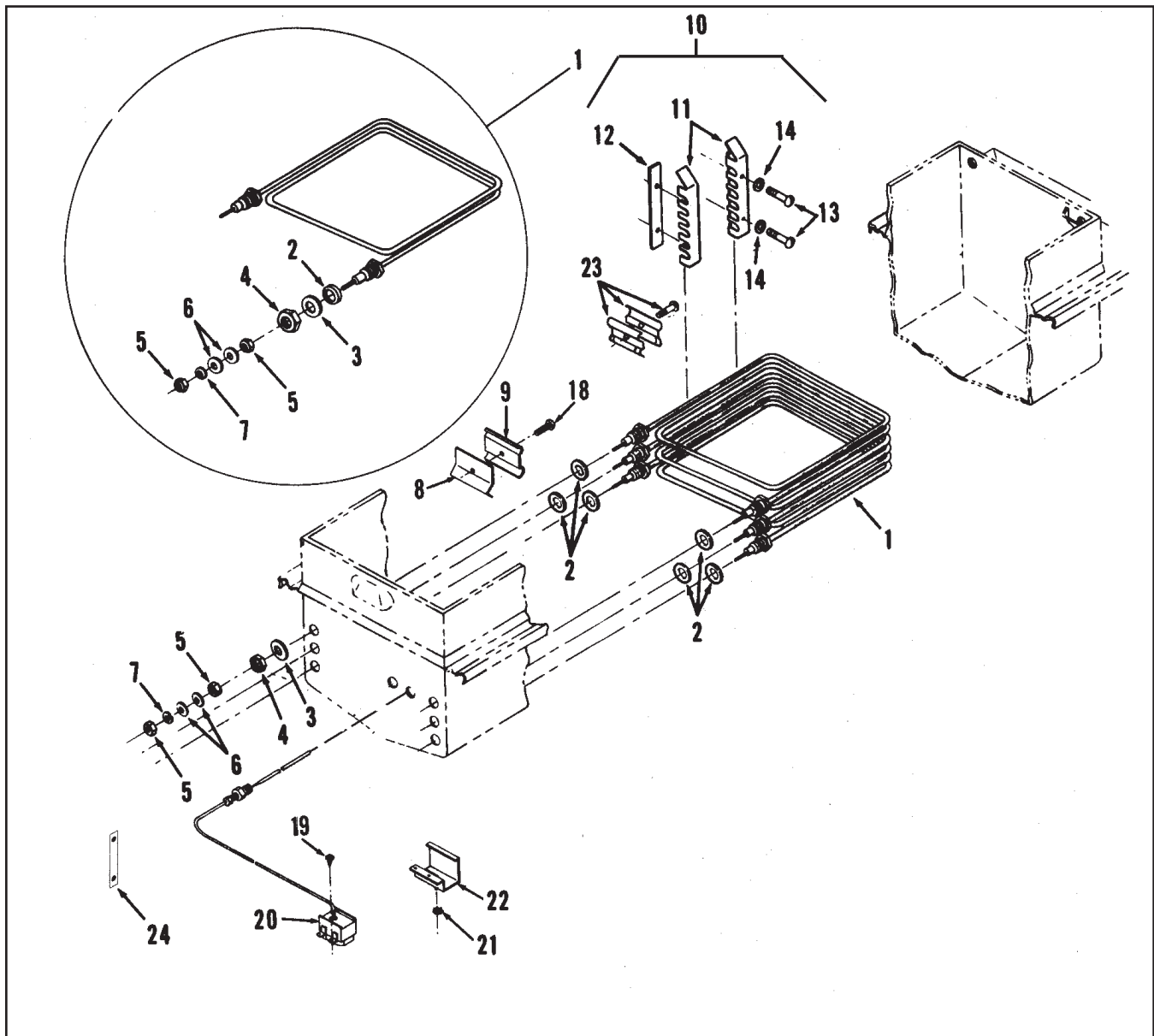


Figure 3-27. Heating Element and High Limit Assembly (Electric Model)

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-27		HEATING ELEMENT AND HIGH LIMIT ASSEMBLY, (Electric Model)	
√ 1	18233-1	ELEMENT COMPLETE, Heating 208 Volts, 4500 Watts	3
√ 1	44756	ELEMENT - 208V-13.5kw-561 (units w/Firebars only)	1
√ 1	18233-2	ELEMENT COMPLETE, Heating 230 Volts, 4500 Watts	3
√ 1	18233-5	ELEMENT COMPLETE, Heating 230 Volts, 3750 Watts	3
√ 1	18233-4	ELEMENT COMPLETE, Heating 208 Volts, 3750 Watts	3
√ 1	45268	ELEMENT - 240V-13.5kw-561 (units w/Firebars only)	1
√ 1	48169	ELEMENT - 220V-13.5kw-561 (units w/Firebars only)	1
√ 1	18233-6	ELEMENT COMPLETE, Heating 480 Volts, 3750 Watts	3
√ 1	48159	ELEMENT - 480V-13.5kw-561 (units w/Firebars only)	1
√ 1	18233-7	ELEMENT COMPLETE, Heating 480 Volts, 4500 Watts	3
2	16855	SEAL O-RING.....	6
3	WA01-005	WASHER, Heating Element, Metal.....	6
4	NS01-017	NUT, Heating Element, Brass.....	6
5	NS01-014	NUT, Heating Element.....	12
6	WA01-007	WASHER, Heating Element	12
7	LW01-008	WASHER, Lock, Heating Element	6
8	29295	HI Limit Bracket - Rear-561 (Firebars)	2
8	18720	CLAMP, Rear-Hi Limit.....	1
9	29297	HI Limit Bracket - Front-561 (Firebars)	2
9	18248	CLAMP, Front-Hi Limit.....	1
√ 10	14685	KIT, Spreader Module.....	4
11	18225	SPREADER, Element	4
12	18226	BAR, Spreader Lock	4
13	SC01-055	SCREW, Element Spreader (including Firebars).....	8
14	LW02-005	WASHER, Lock, Element Spreader.....	8
15*	44914	SPREADER, Element (inner) - 561 (Firebars).....	4
16*	44915	SPREADER Element (outer) - 561 (Firebars).....	4
17*	SC01-201	SCREW, Element Spreader-561 (Firebars).....	8
18	SC01-053	SCREW, 8-32 x 1/2 PH RD SS.....	2
19	SC02-018	SCREW, Thread Forming #8	2
√ 20	16738	CONTROL, Hi Limit Temperature	1
21	NS02-001	NUT, #10-32 Hex Keps.....	2
22	17216	BRACKET ASS'Y, Hi Limit Thermostat	1
23	18211	HOLDER, Thermostat Bulb.....	1
24	19604	BUSS BAR, 2-Hole	2
25*	63339	INSULATION, Pot Front-561.....	1

√ Recommended Parts/*not shown

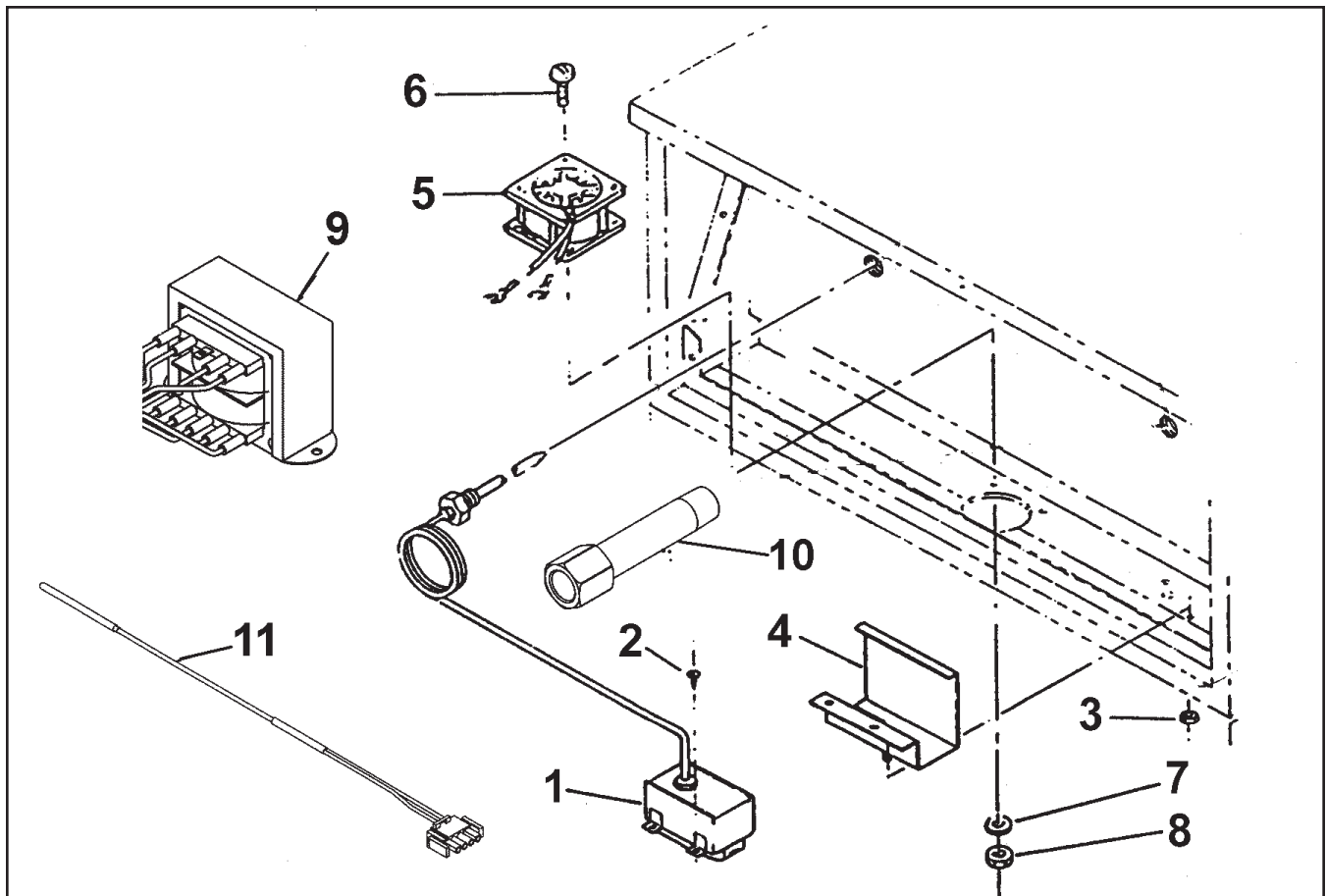


Figure 3-28. Fan and High Temperature Limit Control (Gas Model)

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-28		FAN AND HIGH TEMPERATURE LIMIT CONTROL (Gas Model)	
√ 1	16738	CONTROL, High Temperature Limit.....	1
√ 1	60241	CONTROL, High Temp. Limit-E.G.O.-CE and Australia..... SN: CA012JJ and above	1
√ 1	14267	KIT, High Limit - CE SN: CA011JJ and below.....	1
2	SC02-018	SCREW, Thread Forming #8	2
3	NS02-001	NUT, #10-32 Hex Keps	2
4	17216	BRACKET ASSY, High Limit Thermostat	1
√ 5	81208	FAN, 120 Volt	1
√ 5	16688	FAN, 240 Volt (SN: AN0810093 & Below)	1
√ 5	81117	FAN, 240 Volt (SN: AN0810094 & Above)	1
6	SC01-266	SCREW, Fan, 6-32 X1-3/4"	4
7	WA01-006	WASHER, Fan	4
8	NS02-005	NUT, Fan.....	4
√ 9	35916	TRANSFORMER, 120V-Pri./24V-Sec.....	1
√ 9	30614	TRANSFORMER, 208/240V-Pri./24V-Sec.....	1
10	51071	FITTING, Thermostat - SN: KA020JJ & Below	2
√ 11	68078	ASSY, FPS Temperature Probe (when applicable)	1
12*	36097	PROBE GUARD	1

√ Recommended Parts

*not shown

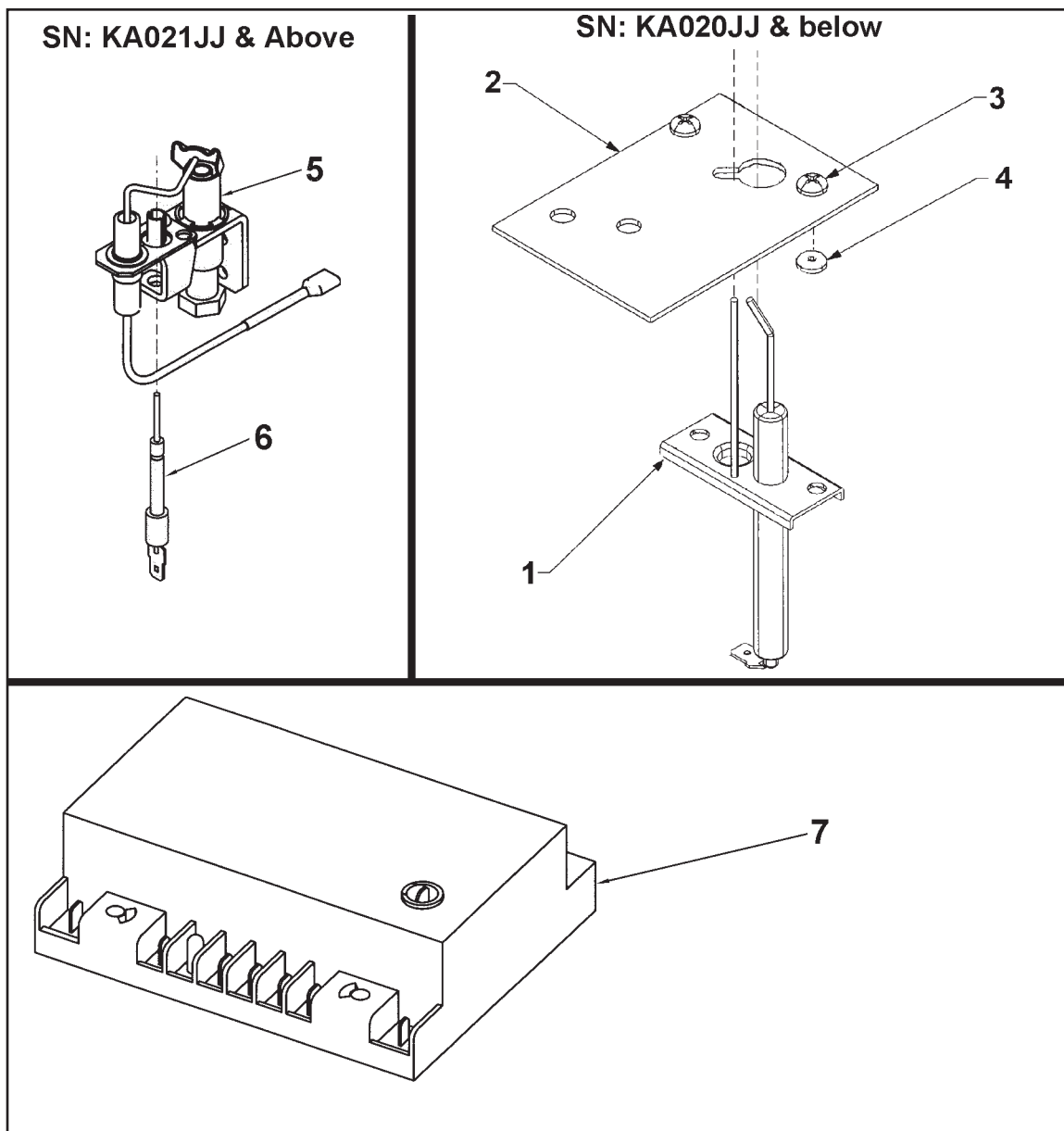


Figure 3-29. Electronic Ignition Assembly

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-29		ELECTRONIC IGNITION ASSEMBLY (only where applicable)	
✓ 1	34380	ELECTRODE, Spark/Sense - SN: KA020JJ & below	1
2	34376	IGNITOR BRACKET - SN: KA020JJ & below	1
2	21522	IGNITOR BRACKET SN: KA021JJ & above.....	1
2	21325	IGNITOR BRACKET (Int'l) SN: KA020JJ & below	1
3	SC01-021	SCREW.....	2
3	SC01-076	SCREW (International) SN: KA020JJ & below	2
4	NS02-007	KEPS NUT.....	2
✓ 5	79132	ASSY, 600 SSI Pilot/Wire-NAT-SN: KA021JJ & above.	1
✓ 5	14931	KIT, 600 SSI Pilot Assy-LP - SN: KA021JJ & above	1
6	14899	KIT - 600 SENSOR FLM HARN FLM	1
✓ 6	60292	SENSOR-FLAME, Pilot - SN: KA021JJ & above.....	1
✓ 7	34384	IGNITION MODULE - SN: KA020JJ & below	1
✓ 7	21318	IGNITION MODULE (Int'l) SN: KA020JJ & below	1
✓ 7	14919	KIT-IGNITION MODULE-NON-CE-SN: KA021JJ to AN0711029	1
✓ 7	77839	IGNITION MODULE-NON-CE-SN: AN0711030 & above	1
✓ 7	14937	KIT-IGNITION MODULE -CE-SN: KA021JJ to AN0711029.....	1
✓ 7	77602	IGNITION MODULE-CE - SN: AN0711030 & above....	1
✓ 8*	21317	MOMENTARY RESET SWITCH SN: KA020JJ & below	1
9*	54472	POWER RELAY - 15A 120V.....	1
9*	56394	POWER RELAY - 10A 240V CE.....	1
10*	80854	BRACKET - IGNITION MODULE.....	1

✓ Recommended Parts

*not shown

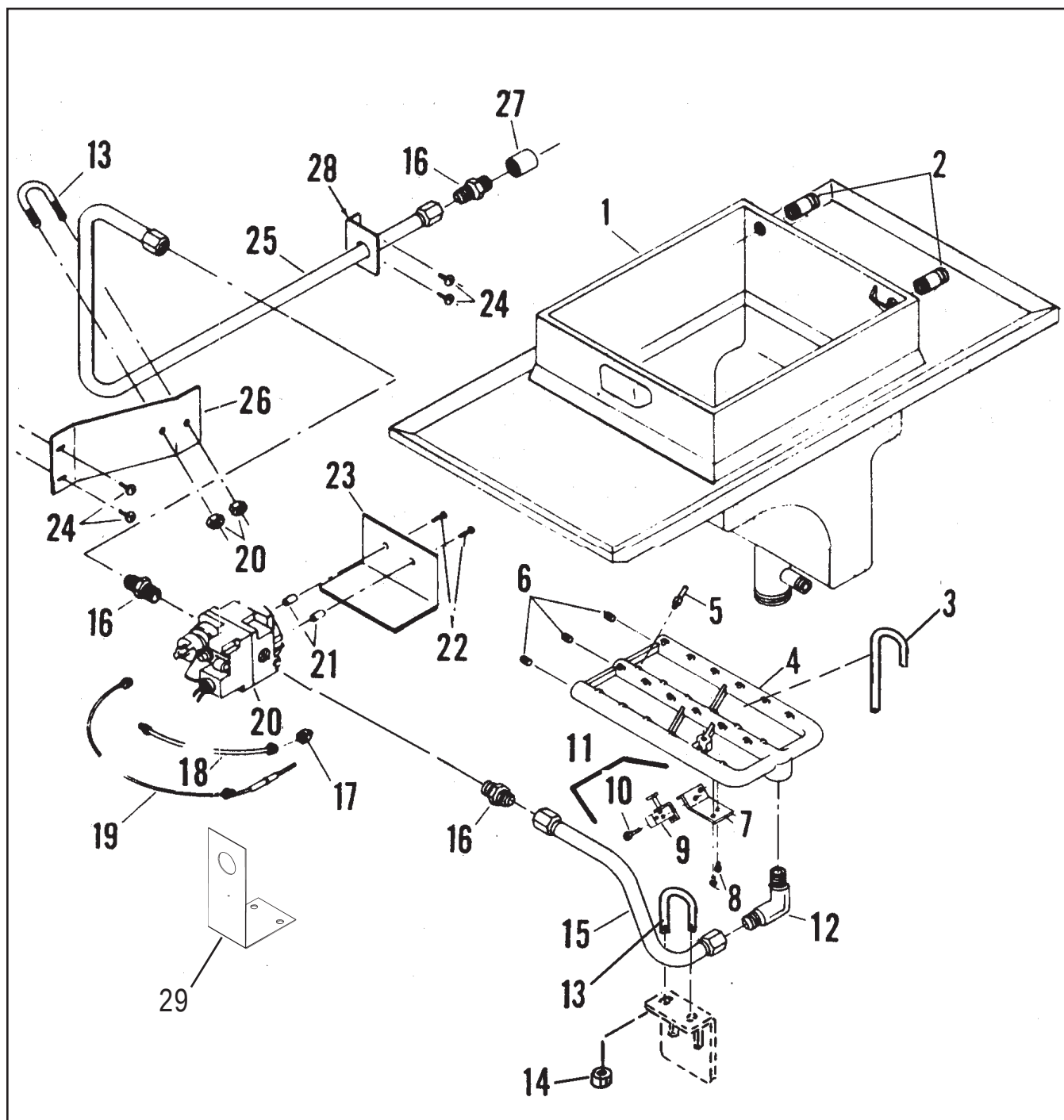


Figure 3-30. Frypot & Gas Burner Assy-Non-CE, Domestic, & Electronic Ignition

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-30		FRYPOT & GAS BURNER ASSY- NON-CE, DOMESTIC, AND ELECTRONIC IGNITION	
1	16889	TOP ASSY, Pot & Counter (SN: KA020JJ & below)	1
1	65007	TOP ASSY, Pot & Counter (SN: KA021JJ & above)	1
1	68568	TOP ASSY, Pot & Counter - FPS	1
1	65010	TOP ASSY, Pot & Counter-Pollo Campero (SN: KA021JJ & above)	1
1	65011	TOP ASSY, Pot & Counter-CE(SN: KA021JJ & above; use 16889 prior).....	1
2	18816	NIPPLE, Pipe S.S	2
3	53834	J-BOLT, Burner Hold Down	1
4	16205	CASTING Burner	1
5	17013-1	SET, Orifice, Natural Gas	1
5	16561-1	ORIFICE, Natural Gas, S.S.....	1
5	16562-1	ORIFICE, Natural Gas, Brass	23
5	17013-3	SET, Orifice, Propane Gas.....	1
5	16561-3	ORIFICE, Propane Gas, S.S	1
5	16562-3	ORIFICE, Propane Gas, Brass	23
6	FP01-020	PLUG, Burner Casting	3
7	29969	BRACKET, Pilot Holder	1
8	SC01-184	SCREW, Pilot Holder Bracket	2
9	Use #11	PILOT & ORIFICE ASSEMBLY	1
10	SC01-047	SCREW, Pilot Holder	1
11	30904	PILOT & BRACKET ASSY, LP (SN AN0703021 & below).....	1
11	30913	PILOT & BRACKET ASSY, Nat (SN AN0703021 & below)	1
12	16336	ELBOW, Male	1
12	FP01-014	ELBOW 1/8" (SN: AN0901029 & Above).....	1
13	SC06-013	BOLT, U, Gas Line	2
14	NS02-002	NUT, Gas Supply Line Bolt	4
15	16333	LINE, Gas Burner to Control	1
15	67202	ASSY, Burner to Valve Tube - Solid State Ign.....	1
15	79239	ASSY, Burner to Valve Tube (SN: AN0901029 & Above).....	1
16	16335	NIPPLE, Close	3
17	29820	ORIFICE, Pilot, Natural Gas.....	1
17	32407	ORIFICE, Pilot, Propane Gas	1
18	69450	PILOT ASSEMBLY, Gas Tube	1
√ 19	16219	THERMOCOUPLE	1
√ 20	-----	VALVE, Gas Control - See Figure 3-32	1
21	16221	SPACER, Heat Shield	2
21	ME50-066	SPACER, Heat Shield (SN: AN0901029 & Above)	2
22	SC01-054	SCREW, Heat Shield.....	2
22	SC02-045	SCREW, Heat Shield (SN: AN0901029 & Above).....	2
23	58866	SHIELD, Heat, Aluminum (SN: KA020JJ & below)	1
23	67111	SHIELD, Valve Heat - SSI (SN: KA021JJ to SN:AN0901028)	1
23	79197	SHIELD, Valve Heat (SN: AN0901029 & Above)	1
24	SC02-006	SCREW, Bracket	4
25	40304	LINE, Gas Supply (SN: KA020JJ & below).....	1
25	16326	LINE, Gas Supply	1
26	16331	GAS LINE BRACKET	1
27	FP01-007	COUPLING, Pipe	1
28	16328	BRACKET, Gas Line	1
-	16329	Nut 3/7 Flare for 5/8 OD	2
-	16330	Sleeve 3/7 Flare for 5/8	2
29	24687	GUARD, Gas Valve Adjustment Screw	1
30*	14484	KIT, 3/4 in. x 5 ft. Gas Line w/quick-disconnect	1

√ Recommended Parts / * not shown

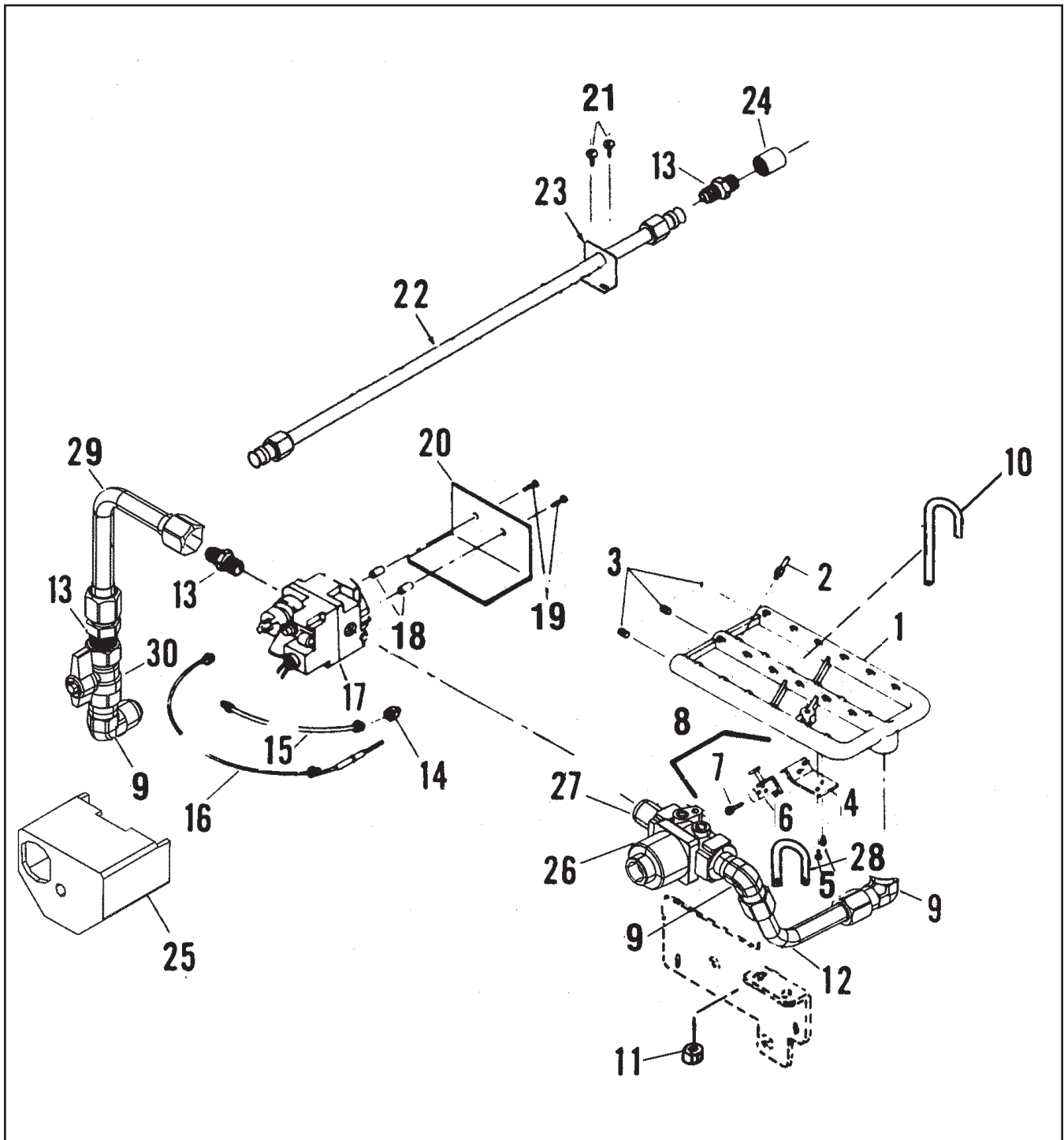
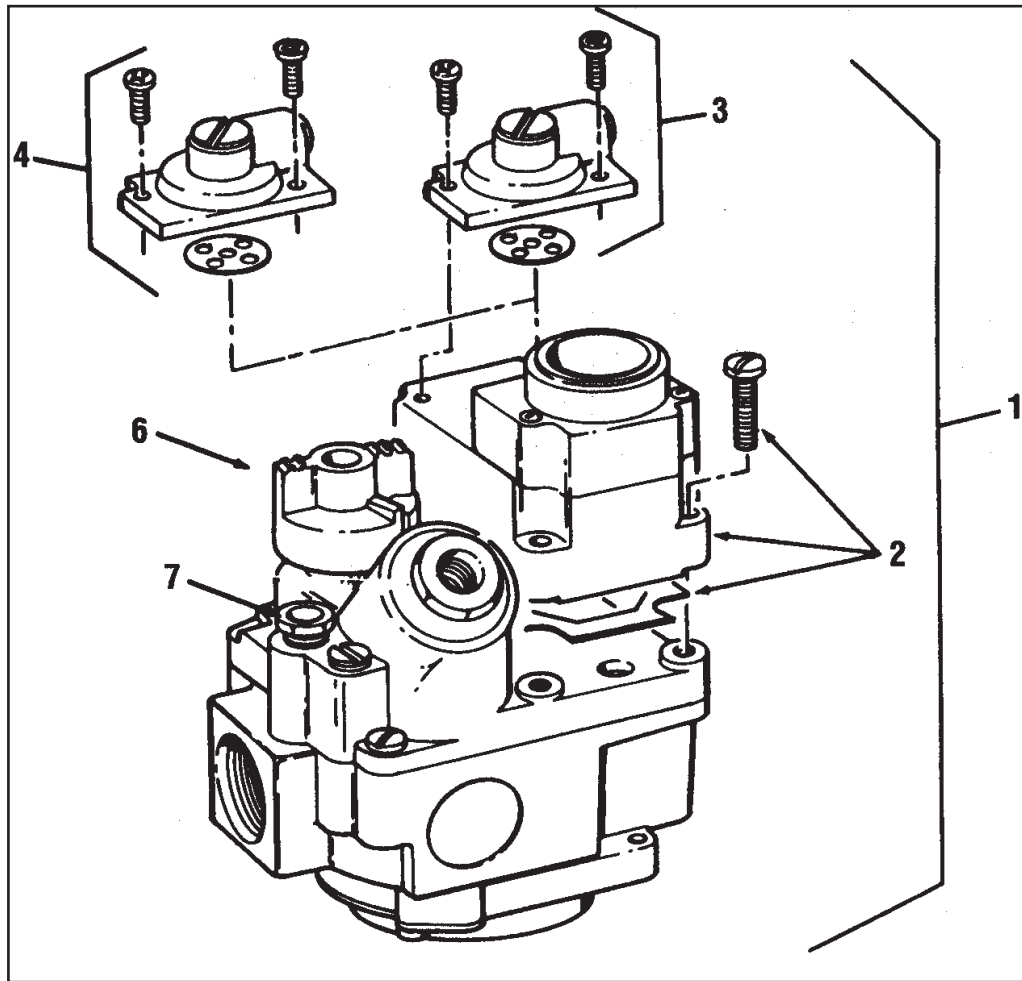


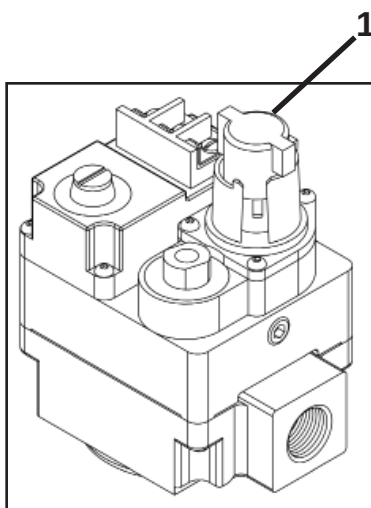
Figure 3-31. Gas Line and Burner Assembly - CE, Int'l, and Electronic Ignition

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-31		GAS LINE & BURNER ASSY-CE, INTERNATIONAL, & ELECTRONIC IGNITION	
1	16205	CASTING Burner	1
2	17013-1	SET, Orifice, Natural Gas	1
2	16561-1	ORIFICE, Natural Gas, S.S	1
2	16562-1	ORIFICE, Natural Gas, Brass	23
2	17013-3	SET, Orifice, Propane Gas	1
2	16561-3	ORIFICE, Propane Gas, S.S	1
2	16562-3	ORIFICE, Propane Gas, Brass	23
3	FP01-020	PLUG, Burner Casting	3
4	29969	BRACKET, Pilot Holder	1
5	SC01-184	SCREW, Pilot Holder Bracket	2
6	Use #8	PILOT & ORIFICE ASSEMBLY	1
7	SC01-047	SCREW, Pilot Holder	1
8	30904	PILOT & BRACKET ASSY, LP (SN AN0703021 & below)	1
8	30913	PILOT & BRACKET ASSY, Nat (SN AN0703021 & below)	1
9	16336	ELBOW, Male	1
10	53834	J-BOLT, Burner Hold Down	1
11	NS02-002	NUT, Gas Supply Line Bolt	4
12	38464	LINE, Gas Burner to Control	1
13	16335	NIPPLE Close	2
14	29820	ORIFICE, Pilot, Natural Gas	1
14	32407	ORIFICE, Pilot, Propane Gas	1
15	69450	PILOT ASSEMBLY, Gas Tube	1
√ 16	16219	THERMOCOUPLE	1
√ 16	34820	THERMOCOUPLE -CE	1
√ 17	-----	VALVE, Gas Control - See Figure 3-32	1
18	16221	SPACER, Heat Shield	2
19	SC01-054	SCREW, Heat Shield	2
20	16222	SHIELD, Heat, Aluminum	1
21	SC02-006	SCREW, Bracket	4
22	51429	LINE, Gas Supply-CE and Australia	1
23	16328	BRACKET, Gas Line	1
24	FP01-007	COUPLING, Pipe	1
25	56229	WIRE COVER, Gas control valve - CE	1
√ 26	38446	SOLENOID, Gas - 120V	1
√ 26	38467	SOLENOID, Gas - 240V	1
√ 26	38468	SOLENOID, Gas - 24V	1
√ 26	34801	SOLENOID, Gas - 240V - CE and Australia	1
√ 26	34802	SOLENOID, Gas - 24V - CE and Australia	1
27	FP02-062	NIPPLE, 1/2 NPT x 1.75L BI	1
28	SC06-013	BOLT U, Gas Line	1
29	51428	TUBE, Gas Valve Supply	1
30	45401	VALVE, 1/2 Gas Ball	1
31*	FP01-014	ELBOW, 1/8 inch - Z	1
32*	FP01-200	FITTING - Gas Inlet BSPT	1
33*	16355	NIPPLE, PRESSURE TEST	1

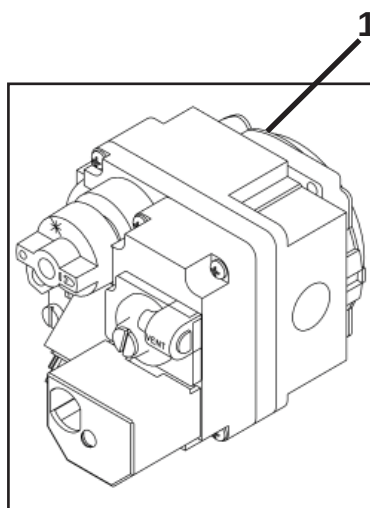
√ Recommended Parts/*not shown



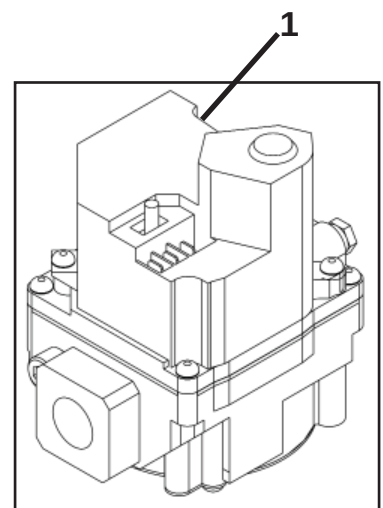
Style 1



Style 2



Style 3



Style 4

Figure 3-32. Gas Control Valve

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-32		GAS CONTROL VALVE	
√ 1	-----	VALVE, Gas Control - See Table 1 Below	1
√ 2	16254	ACTUATOR, Gas Control Valve, 120 Volt, Natural	1
2	16710	ACTUATOR, Gas Control Valve, 208-240 Volt, Natural	1
√ 2	16386	ACTUATOR, Gas Control Valve, 120 Volt, Propane	1
√ 2	16384	ACTUATOR, Gas Control Valve, 208-240 Volt, Propane	1
√ 3	16253	REGULATOR, Gas Control Valve, Natural Gas	1
√ 4	16352	REGULATOR, Gas Control Valve, Propane Gas	1
√ 6	16267	KNOB, Gas Control Valve	1
√ 7	16373	FITTING, Compression - Pilot Tube	2
8*	16247	KIT, Nat. to LP Conversion - See Table 2 Below	1
8*	16248	KIT, LP to Nat. Conversion - See Table 2 Below	1
8*	14324	KIT, Nat. to LP Conversion - See Table 2 Below	1
8*	14325	KIT, LP to Nat. Conversion - See Table 2 Below	1
8*	14723	KIT, 600SSI - Nat. to LP Conversion-SN: KA021JJ & above	1
8*	14724	KIT, 600SSI - LP. to Nat. Conversion-SN: KA021JJ & above	1

√ Recommended Parts / *not shown

Table 1

Voltage	Nat. Electronic Ign.	LP Electronic Ign.	Nat. Std. Ign.	LP Std. Ign.	Town Gas
120V	†34439 (SN: KA020JJ and Below)	-----	†16216	†16217	Use 16262 and 16254
240V	-----	†21316	†16380	†16381	†16262
24V	◇140043 (SN: KA021JJ to AN0901028)	◇140043 (SN: KA021JJ to AN0901028)	#29614 (SN: KA020JJ and Below)	#29728 (SN: KA020JJ and Below)	-----
24V	◇80761 (SN: AN0901029 and Above)	◇80858 (SN: AN0901029 And Above)	‡58863 (SN: KA021JJ and Above)	‡64036 (SN: KA021JJ and Above)	-----
24V/50Hz	-----	-----	#34806	#34805	-----
240V/50Hz	-----	-----	#34804	#34803	-----

† - Style 1, Integral lead wires

‡ - Style 2, 3 screw terminals

- Style 3, 2 screw terminals and/or cover

◇ - Style 4, 3 spade terminals and ON/OFF switch

NOTE: Part # 16216 and 16380 consist of items 2 and 3 and part # 16217 and 16381 consist of items 2 and 4.

Table 2

(Pilot lit Manually)		(Pilot lit Manually)
SERIAL NUMBER	Std. USA 120V/60Hz Power	Std. European & Non-Std. Power
KA020JJ & Below	16247 & 16248	16247 & 16248
KA021JJ & Above	14324 & 14325	16247 & 16248

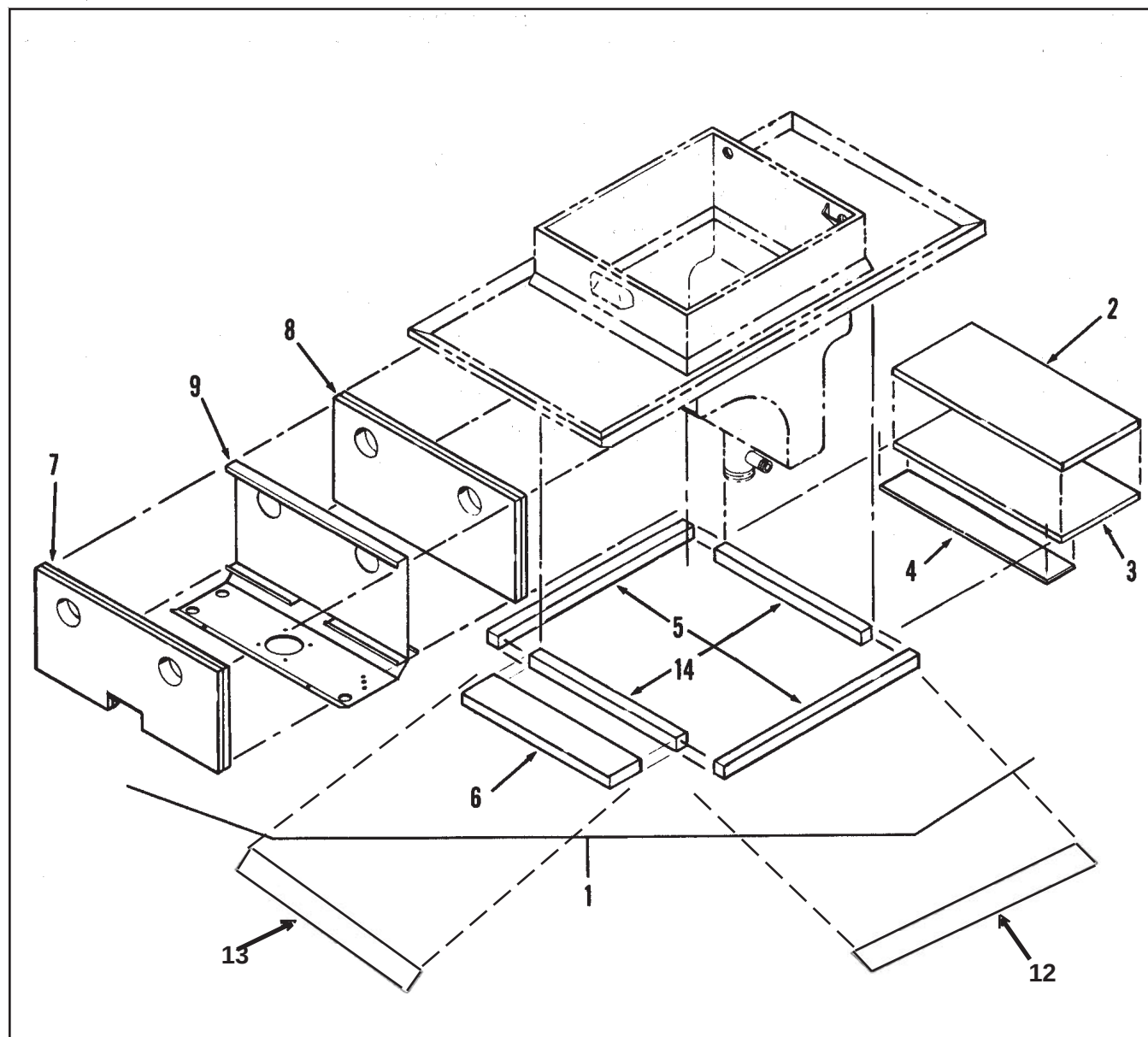


Figure 3-33. Countertop Insulation Assembly (Gas Model)

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-33		COUNTERTOP INSULATION ASSY (Gas Model)	
1	14698	KIT, Complete Set - SN: KA021JJ & Above.....	1
1	16518	INSULATION, Complete Set - SN: 35886 to KA020JJ.....	1
1	16310	INSULATION, Complete Set - SN: 35885 and Below (Includes Part Nos. 16505,17605,16872, MS01-180, Bulk Cerefelt Insulation For Around Thermocouple, Pot Fittings, and Glue.)	1
1	14211	INSULATION, Complete Set-CE and Australia	1
2	63301	INSULATION, Fiberglass	1
2	63326	INSULATION-CE and Australia	2
3	63302	INSULATION, Cerefelt - Flue Top	1
3	63326	INSULATION, Cerefelt - Flue Top - CE	1
4	16308	BOARD, Aircell	1
4	54862	BOARD, Aircell-CE and Australia	1
5	53807	INSULATION, Countertop-sides	2
6	16303	INSULATION, Fiberglass	1
7	63699	INSULATION, Fiberglass Notched	2
7	68070	ASSY, Front Panel Insulation - SSI/FPS	1
8	63623	INSULATION, Heat Shield, Inner.....	1
9	59232	HEAT SHIELD	1
10*	53802	HEAT SHIELD, Middle-CE & Australia (SN:AN0810093 and Below)	1
11*	80861	HEAT SHIELD-CE & Australia (SN:AN0810094 & Up).....	1
11*	85512	HEAT SHIELD-240V SSI/FPS (SN:AN0810093 & Below)	1
11*	85518	HEAT SHIELD-240V SSI/FPS (SN:AN0810094 & Up).....	1
12	59965	INSULATION, Countertop Side.....	2
13	59966	INSULATION, Countertop Front	1
14	53808	INSULATION, Countertop-Front/Rear	2

* not shown

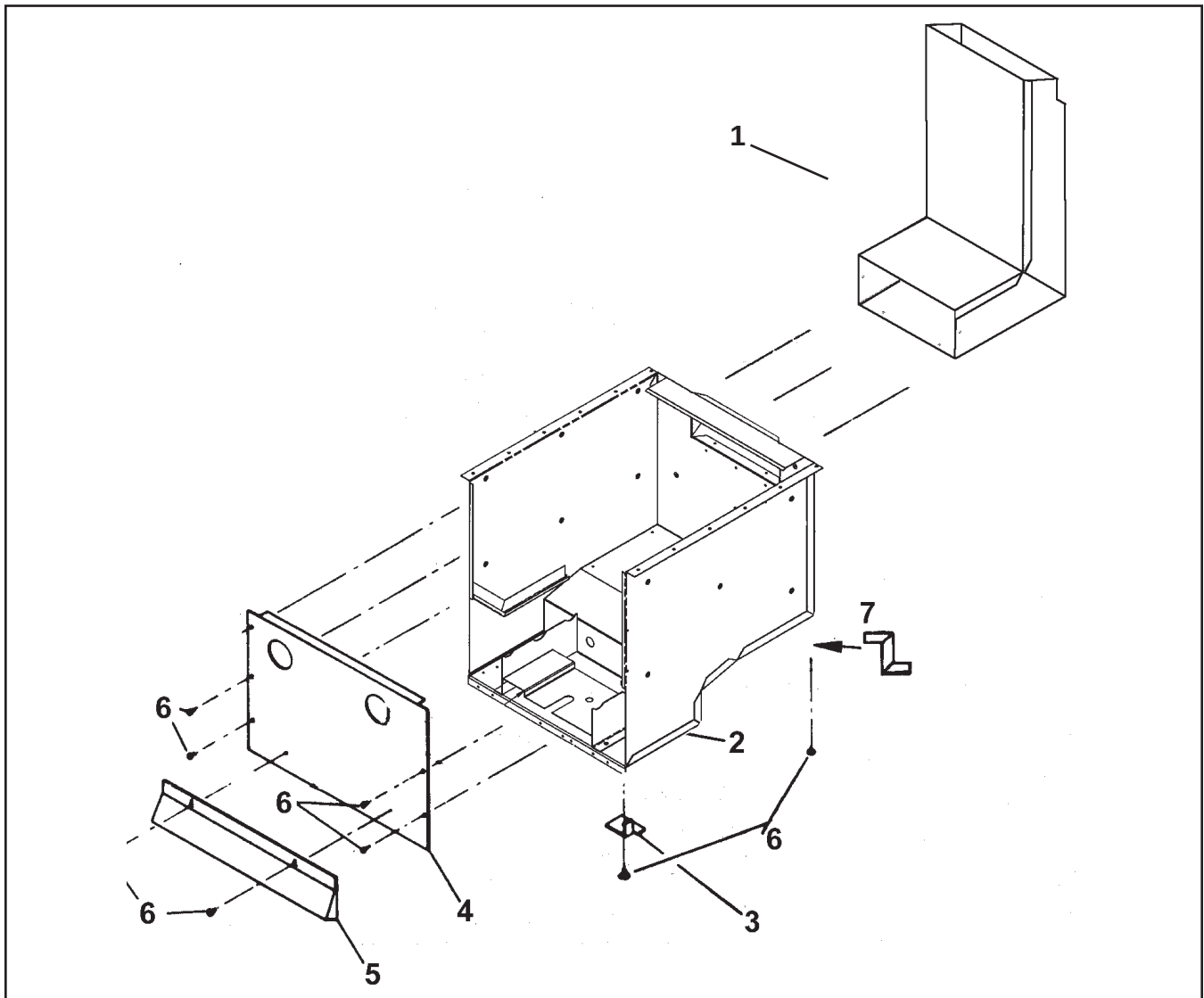


Figure 3-34. Firebox and Flue Assembly (Gas Model)

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-34		FIREBOX AND FLUE ASSEMBLY (Gas Model)	
1	59728	STACK, Flue Exhaust - SN: KA021JJ & Above.....	1
1	54865	STACK, Flue Exhaust - SN: KA020JJ & Below.....	1
2	59223	CABINET ASSEMBLY, Firebox - SN: KA021JJ & Above	1
2	29679	CABINET ASSEMBLY, Firebox - SN: KA020JJ & Below	1
3	18625	BRACKET, Side Panel Insulation	2
4	87448	PANEL, Firebox Front	1
5	16406	DEFLECTOR, Heat Shield	1
6	SC03-005	SCREW, Sheet Metal	20
7	18626	BRACKET, Side Panel Insulation, Rear	2
8	63330*	FIREBOX ASSY, w/Insul-Japan-(SN: AN0902073 & Below)	1
8	63311*	FIREBOX ASSY, w/Insul-Japan-(SN: AN0902074 & Above)	1
8	63331*	FIREBOX ASSEMBLY, w/Insulation - CE and Australia.....	1
9	30857*	FRONT PANEL INSULATION ASSEMBLY (Export only)	1
10	53812*	INSULATION, Front Bracket, Firebox - CE and Australia...	2
11	53814*	INSULATION, Leg - CE and Australia	1
12	53816*	INSULATION, Outer Rear Firebox - CE and Australia	1
13	24239*	INSULATION, Outer Firebox, Side - CE and Australia	1

* not shown

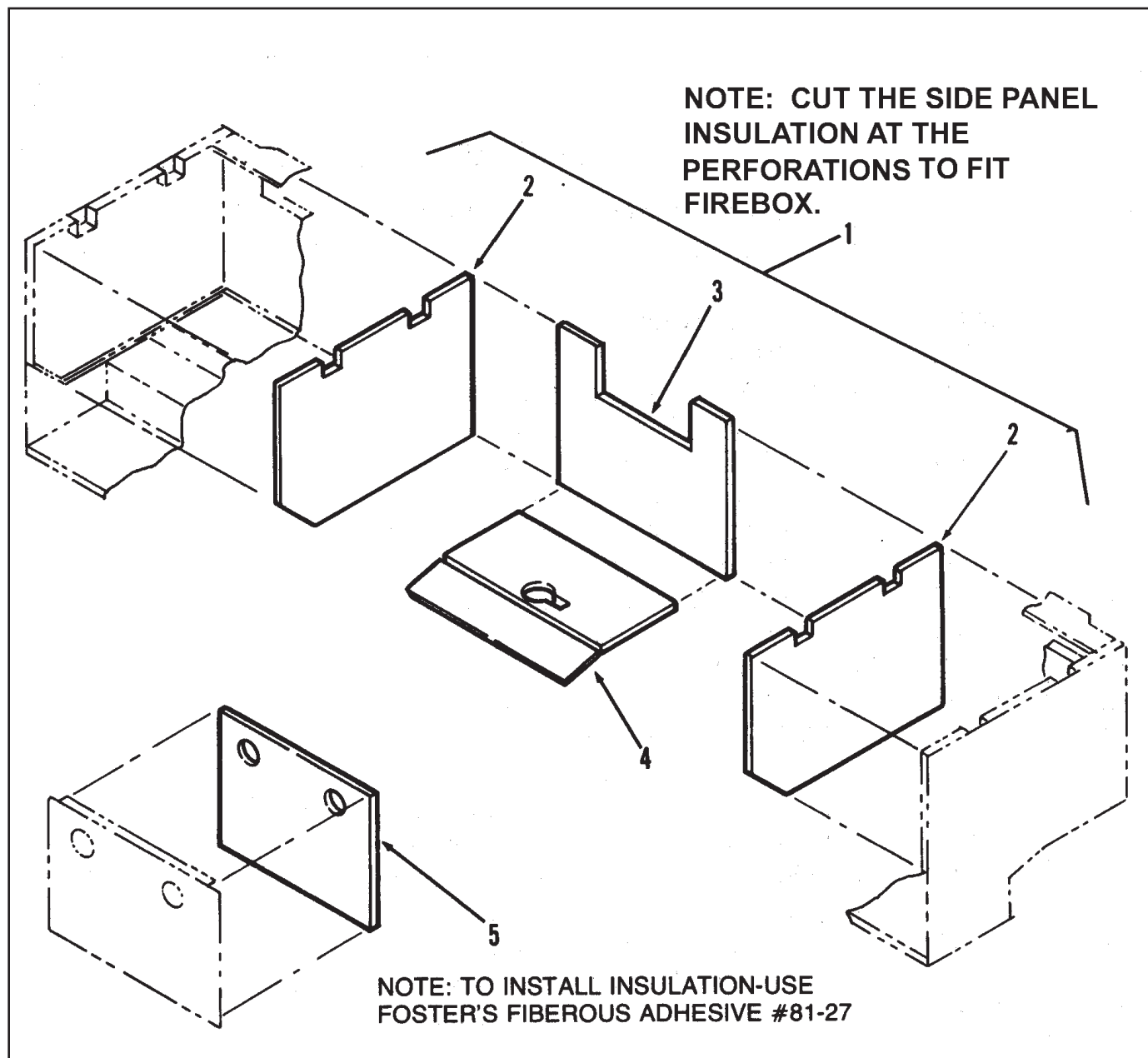


Figure 3-35. Firebox Insulation Assembly (Gas Model)

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
3-35		FIREBOX INSULATION ASSY (Gas Model)	
1	16505	INSULATION, Firebox - Complete Set Cerefelt, Inside Firebox	1
2	63111	INSULATION, Side Panel , Cerefelt	2
3	16502	INSULATION, Back Panel, Cerefelt	1
4	16503	INSULATION, Bottom Panel, Cerefelt	1
5	29690	INSULATION, Front Panel, Cerefelt	1
6	24238*	INSULATION, Countertop, Sides - Japan - (SN: AN0902074 & Up)	2

* not shown

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
None		PFE-500 KFC SMS & NON-SMS CONTROLS & SPARE PARTS	
1	16624	LIGHT, Indicator, red	1
2	28979	TRANSFORMER.....	1
3	29382	DECAL, Membrane, Switch	1
4	29887	CARD, Menu (rectangular)	1
5	29898	SWITCH, Power.....	1
6	29901	ASSY - Capacitor/Resistor	1
7	30094	FITTING, Compression	1
8	30560	ASSY - Capacitor/Resistor	1
9	30971	ASSY - MOV	1
10	36210	BEEPER, Replaceable.....	1
11	43649	ASSY - Probe (Non-SMS)	1
12	54085	LIGHT, Indicator - Green (CE)	1
13	73799	ASSY - Probe, 3 inch (SMS).....	1
14	74865RB	ASSY - CONTROL-500 SMS Dom (8-18-06 & after) (Units with wiring diagram 24853, 24718 or 63211).....	1
14	73897RB	ASSY - CONTROL-500 SMS Dom (8-18-06 & after) (Units with wiring diagram 72860, 72831, or 71819).....	1
14	74864RB	ASSY - CONTROL-500 SMS Intl (8-18-06 & after) (Units with wiring diagram 24853, 24718 or 63211).....	1
14	73896RB	ASSY - CONTROL-500 SMS Intl (8-18-06 & after) (Units with wiring diagram 72860, 72831, or 71819).....	1
15	24513	CARD, Menu (long & narrow)	1
16	51877	ASSY - Speaker and Wire.....	1
17	14789	KIT, SMS Conversion Dom. (SN: KA020JJ & Below) (Units with wiring diagram 24853, 24718 or 63211).....	1
17	14792	KIT, SMS Conversion Dom. (SN: KA020JJ & Below) (Units with wiring diagram 72860, 72831, or 71819).....	1
17	14795	KIT, SMS Conversion Dom. (SN: KA021JJ to BA026JA) (Units with wiring diagram 24853, 24718 or 63211).....	1
17	14799	KIT, SMS Conversion Dom.(SN: KA021JJ to BA026JA) (Units with wiring diagram 72860, 72831, or 71819).....	1
17	14801	KIT, SMS Conversion Dom. (SN: BA026JA GA085JB) (Units with wiring diagram 24853, 24718 or 63211).....	1
17	14804	KIT, SMS Conversion Dom. (SN: BA026JA GA085JB) (Units with wiring diagram 72860, 72831, or 71819).....	1
17	14819	KIT, SMS Conversion Int'l (SN: KA020JJ & Below) (Units with wiring diagram 24853, 24718 or 63211).....	1
17	14822	KIT, SMS Conversion Int'l (SN: KA020JJ & Below) (Units with wiring diagram 72860, 72831, or 71819).....	1
17	14825	KIT, SMS Conversion Int'l (SN: KA021JJ to BA026JA) (Units with wiring diagram 24853, 24718 or 63211).....	1
17	14828	KIT, SMS Conversion Int'l (SN: KA021JJ to BA026JA) (Units with wiring diagram 72860, 72831, or 71819).....	1
17	14831	KIT, SMS Conversion Int'l (SN: BA026JA GA085JB) (Units with wiring diagram 24853, 24718 or 63211).....	1
17	14834	KIT, SMS Conversion Int'l (SN: BA026JA GA085JB) (Units with wiring diagram 72860, 72831, or 71819).....	1

√ Recommended Parts/*not shown

FIGURE & ITEM NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY
None		PFG-600 KFC SMS & NON-SMS CONTROLS & SPARE PARTS	
1	14332	KIT - Temperature Probe (Non-SMS)	1
2	14428	KIT - 6 Inch Probe (600 SMS)	1
3	17365	LIGHT, Indicator	1
4	29887	CARD, Menu (rectangular)	1
5	29898	SWITCH, Power	1
6	29901	ASSY - Capacitor/Resistor	1
7	30094	FITTING, Compression	1
8	30978	TRANSFORMER	1
9	36097	FITTING, Protector, Pot	1
10	36210	BEEPER, Replaceable	1
11	51426	FILTER - EMC (CE)	1
12	54085	LIGHT, Indicator - Green (CE)	1
13	56528	DECAL, Membrane, Switch	1
14	71933	RELAY - 24V (CE)	1
15	ME90-009	RELAY - 240V (CE)	1
16	73889RB	ASSY - CONTROL-600 SMS Domestic (8-18-06 & after)	1
16	73888RB	ASSY - CONTROL-600 SMS International (8-18-06 & after)	1
17	24513	CARD, Menu (long & narrow)	1
18	51877	ASSY - Speaker & Wire	1
19	14807	KIT, SMS Conversion Dom. (SN: KA020JJ & Below)	1
19	14811	KIT, SMS Conversion Dom. (SN: KA021JJ to BA026JA)	1
19	14815	KIT, SMS Conversion Dom. (SN: BA027JA to GA085JB)	1
20	14837	KIT, SMS Conversion Int'l (SN: KA020JJ & Below) (Units with wiring diagram 29895)	1
20	14838	KIT, SMS Conversion Int'l (SN: KA020JJ & Below) (Units with wiring diagram 63748)	1
20	14839	KIT, SMS Conversion Int'l (SN: KA020JJ & Below) (Units with wiring diagram 29900)	1
20	14840	KIT, SMS Conversion Int'l (SN: KA020JJ & Below) (Units with wiring diagram 34809)	1
20	14841	KIT, SMS Conversion Int'l (SN: KA021JJ to BA026JA) (Units with wiring diagram 29895)	1
20	14842	KIT, SMS Conversion Int'l (SN: KA021JJ to BA026JA) (Units with wiring diagram 63748)	1
20	14843	KIT, SMS Conversion Int'l (SN: KA021JJ to BA026JA) (Units with wiring diagram 29900)	1
20	14844	KIT, SMS Conversion Int'l (SN: KA021JJ to BA026JA) (Units with wiring diagram 34809)	1
20	14845	KIT, SMS Conversion Int'l (SN: BA026JA GA085JB) (Units with wiring diagram 29895)	1
20	14846	KIT, SMS Conversion Int'l (SN: BA026JA GA085JB) (Units with wiring diagram 63748)	1
20	14847	KIT, SMS Conversion Int'l (SN: BA026JA GA085JB) (Units with wiring diagram 29900)	1
20	14848	KIT, SMS Conversion Int'l (SN: BA026JA GA085JB) (Units with wiring diagram 34809)	1
√ Recommended Parts/*not shown			

