HENNY PENNY™

Global Foodservice Solutions

Henny Penny Compact Pressure Fryer Model 520

SERVICE MANUAL

LIMITED WARRANTY FOR HENNY PENNY APPLIANCES

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 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. To validate this warranty, the registration card for the appliance must be mailed to Henny Penny within ten (10) days after installation.

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 and 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 represented 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 CONSQUENTIAL 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.

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

Section **Page**

SECTION 1. INTRODUCTION

1-1. PRESSURE FRYER

The Henny Penny Pressure Fryer Model 520 is a basic unit of food processing equipment. It has found wide application in institutional and commercial food service operations.

P-H-T

A combination of Pressure, Heat, and Time is automatically controlled to produce the optimum in a tasty, appealing product.

Pressure

Pressure is basic to this method of food preparation. The pressure is developed from the natural moisture of the food. The patented lid traps this moisture and uses it as steam. Because the steam builds rapidly, the greater part of the natural juices are retained within the food. An operation valve vents excess steam from the pot and maintains constant live steam pressure.

Heat

Heat generated is another important factor of the pressure fryer. Energy savings is realized due to the unit's short frying time, low temperature, and heat retention of the stainless steel cookpot.

Time

Time is important because the shorter time involved in frying foods results in additional economies for the user. Foods are table ready in less time than it would take to fry them in a conventional open-type fryer.

1-2. PROPER CARE

As in any unit of food service equipment, the Henny Penny Pressure Fryer Model 520 does require care and maintenance. Requirements for the maintenance and cleaning are contained in this manual and must become a regular part of the operation of the unit at all times.

1-3. FEATURES

- Easy to use timer and thermostat controls set in recessed panel to protect from spills.
- Pump switch for optional built-in automatic filter system.
- Easy access to drain valve and filter valve handles for manual filtering.

1-3. FEATURES (Continued)

- One piece cast aluminum lid with stainless steel liner for easy cleaning.
- Single-action front lid latch allows one-handle opening and closing.
- Latch mechanism locks lid in closed position when under pressure.
- Automatic pressure release valve.
- Removable side panels provide easy access for servicing.

1-4. SAFETY

The Henny Penny Pressure Fryer has many safety features incorporated. However, the only way to ensure 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 NOTE are used. Their usage is described below.

The word DANGER indicates an imminent hazard which will result in highly serious injury such as second or third degree burns, loss of sight, and other permanent injuries.

WARNING

The word WARNING is used to alert you to a procedure, that if not performed properly, might cause personal injury, such as burns and/or loss of sight, and damage to the fryer.

CAUTION

The word CAUTION is used to alert you to a procedure that, if not performed properly, may damage the fryer, or product.

NOTE

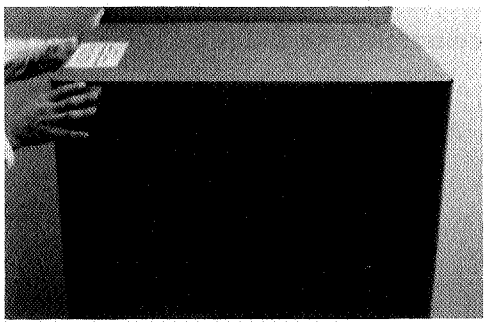
The word NOTE is used to highlight especially important information.

SECTION 2. INSTALLATION

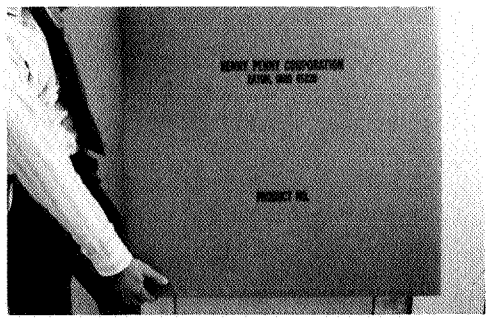
2-1. INTRODUCTION

This section provides the installation instructions for the Model 520 Electric Henny Penny Pressure Cooker.

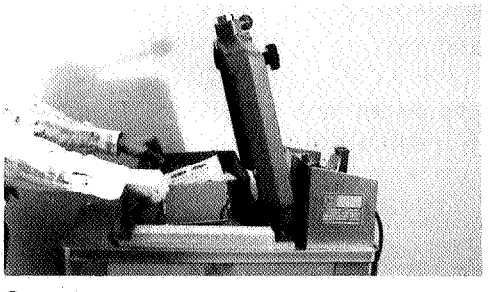
2-2. UNPACKING



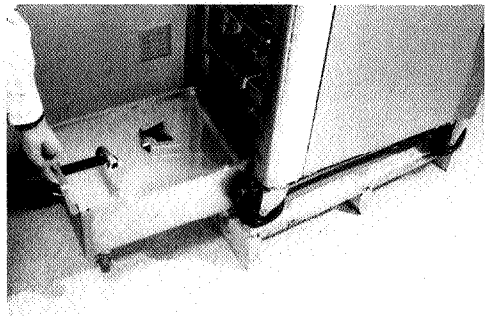
Step 1



Step 2



Step 3



Step 4

The Henny Penny Model 520 has been tested, inspected, and expertly packed to insure arrival at its destination in best possible condition. The unit is packed inside a heavy cardboard carton with sufficient padding to withstand normal shipping treatment.

NOTE

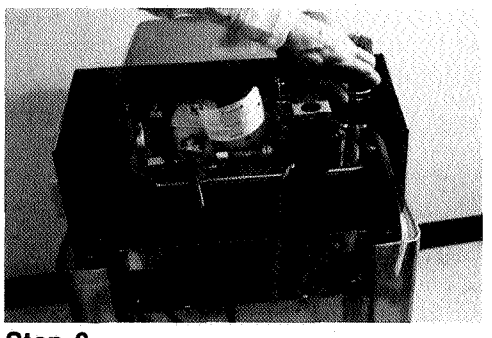
Any shipping damages should be noted in the presence of the delivery agent and signed prior to his or her departure.

To remove the Henny Penny Model 520 from the carton, you should:

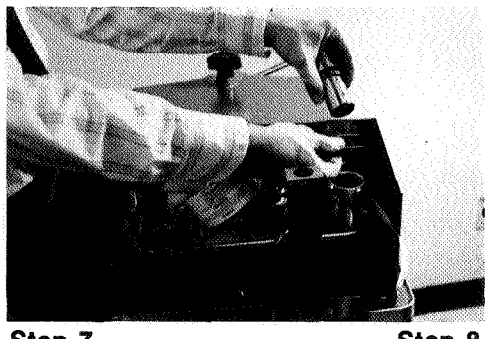
1. Cut the bands from the carton.
2. Lift the carton from the cooker.
3. Open the lid of the unit and remove the basket and all accessories.
4. Remove the filter drain pan and remove all accessories.

2-2. UNPACKING (Continued)

Step 5



Step 6



Step 7

Step 8

5. Slide cooker from skid.

WARNING

The cooker weighs approximately 275 pounds (124.9 kg). Care should be taken when lifting to prevent personal injury.

6. Unthread the cap from the operating valve.

NOTE

A metal shipping support is placed within the operating valve housing to protect the orifice and weight during shipment. This support must be removed prior to installation and start-up.

7. Remove the weight.
8. Remove and discard the metal shipping support.
9. Clean the orifice with a dry cloth.
10. Replace the weight and cap.
11. Remove any protective paper and cardboard from the cooker and clean with a soft cloth and detergent water.

2-3. LEVELING THE COOKER

For proper operation, the cooker should be level from side to side and front to back. Using a level placed on the flat areas around the cookpot collar, adjust the leveling bolts or casters until the unit is level.

2-4. VENTILATION OF FRYER

The fryer should be located with provisions for venting into an adequate exhaust hood or ventilation system. This is essential to remove frying odors and steam exhaust.

NOTE

Ventilation must conform to local and national codes. Consult your local building authority and building codes.

2-5. ELECTRICAL REQUIREMENTS

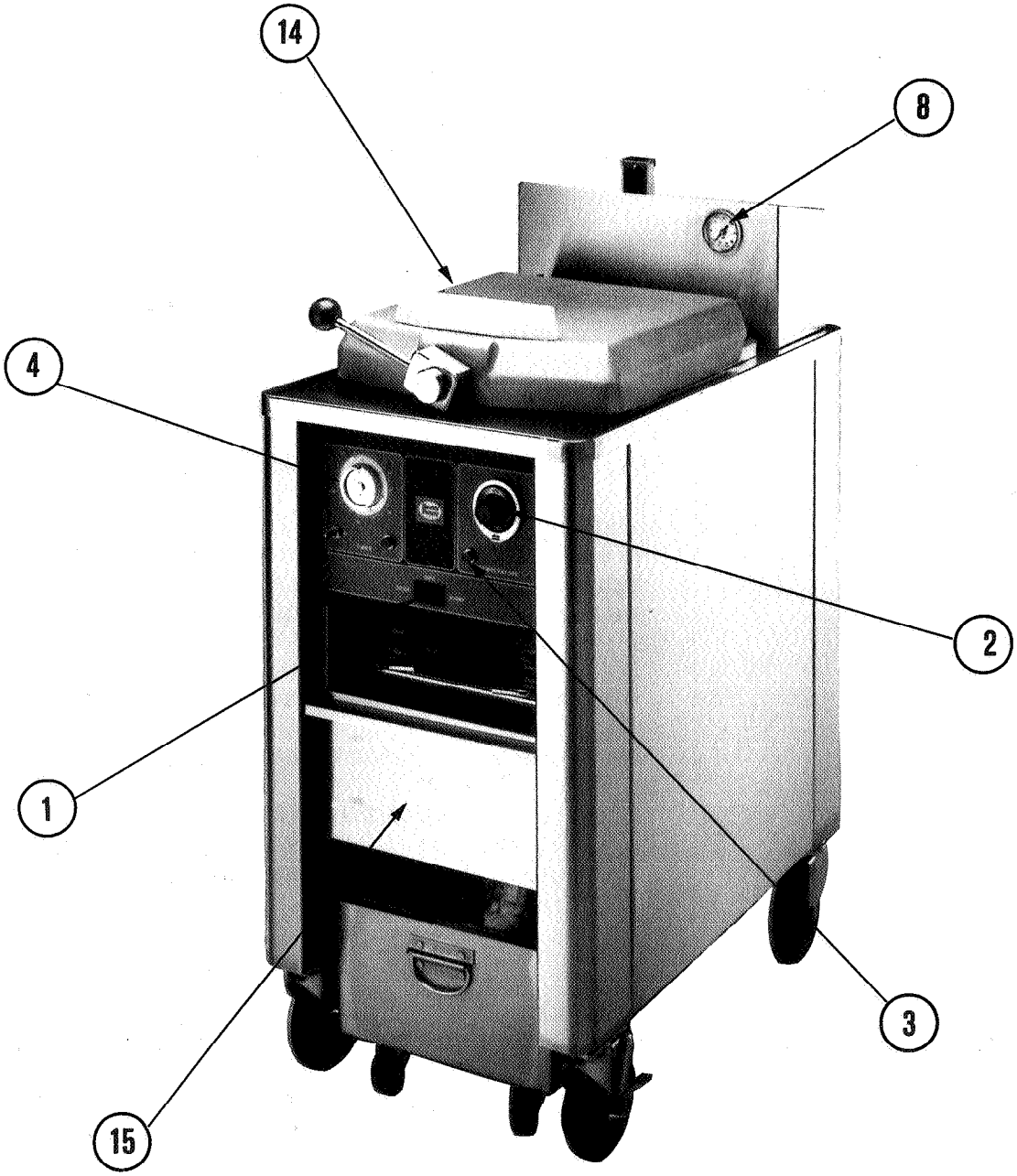
Each fryer is provided with either a 12 AWG (3.3 mm), 4 or 5 conductor power supply cord, 6 feet (1.8 meters) long or a junction box. The power supply cord is not provided with an attachment plug for connection to the power point. An attachment plug conforming to local electrical requirements is to be provided by the installer. Installation of the attachment plug to the power supply cord conductors should be as follows:

1. Line conductors - color code black/red/white/blue.
2. Grounding conductor - green or green with yellow stripes.
3. Fryers are wired for installation on three phase 208 or 240 volts, three phase source of supply, 20 amps minimum ampacity. Refer to the data plate installed on the left side of the fryer for electrical ratings.

2-6. ELECTRICAL

Model 520 Electric fryer with built-in filtering system.

1. 240 VACs - 3 phase, 6,000 watts - 12.5 amps
   208 VACs - 3 phase, 6,000 watts - 16.6 amps
2. Product capacity 8 lbs. (3.6 kg)
   Shortening capacity 30 lbs., 4 gallons or 15 liters
3. Operating pressure 12 PSI (82.7 KPa)
   Safety relief - 14.5 PSI (99.9 KPa)


14
8
4
2
1
3
15

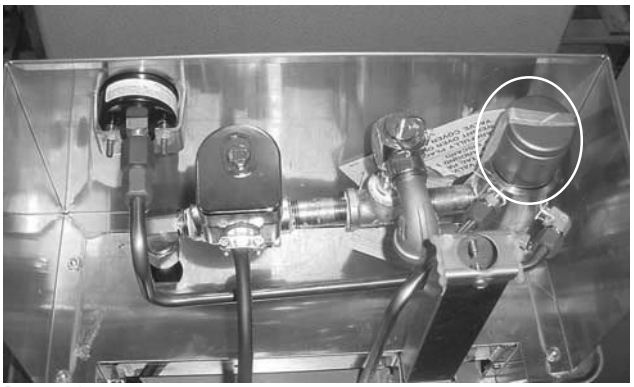
SECTION 3. OPERATION

3-1. OPERATING CONTROLS

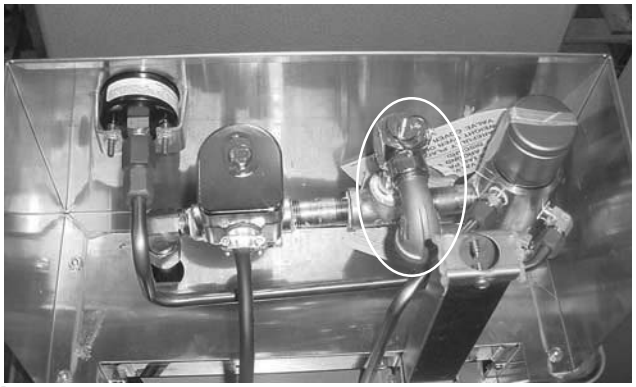
Item	Description	Function
1	Main Power Switch with Built- In Indicator Lights	A three way rocker switch with a center off position. Pressing the left side of the rocker switch (COOK position) operates the fryer, and the amber light illuminates. No light is visible when the switch is in the OFF position. To filter, press the right side of the rocker switch (PUMP position) to operate the pump motor, and the red light illuminates.
2	Single Stage Thermostat	An electromechanical device used to regulate temperature. To set the desired cooking temperature, turn the thermostat knob clockwise.
3	Temperature Light	Illuminates when the shortening temperature is below the set-point temperature. The light goes off when the shortening reaches the set-point temperature.
4	Timer	An electromechanical device that controls the length of the cooking cycle. The timer controls the operation of the solenoid valve and automatically resets at the end of the cooking time. Set the desired cooking time by turning the gray knob clockwise until the arrow points at the desired cooking time. Pushing on the red button, activates the timing cycle and closes the solenoid. The red arrow times down to zero (0), while the black arrow remains at the preset time. When the red arrow reaches zero (0), it automatically goes back to the preset time. Also, the solenoid opens, releasing the pressure inside the frypot. A. Set gray knob to desired time. B. Push red button to start timing cycle and build pressure. C. When red arrow reaches zero (0), it resets to preset time and pressure is released.
5	End of Cooking Cycle	A. The timer buzzer sounds, the solenoid valve opens to release pressure, and the timer resets. B. Move the timer switch to the OFF position.
6	Dead Weight Valve Assembly	Maintains a constant level of steam pressure within the frypot. Excessive steam pressure is vented through the exhaust stack. **NOTE** Remove the dead weight cap, and clean the cap, weight, and orifice once a day to prevent over-pressurization inside the frypot. See section 5-16.

Item	Description	Function
7	Safety Relief Valve	The safety relief valve is set at 14.5 PSI (99.9 KPa). In the event that the dead weight valve becomes clogged, the safety valve releases excessive pressure, keeping the frypot at a maximum of 14.5 PSI (99.9 KPa). If this occurs, turn the main power switch to the OFF position to release all pressure from the frypot. Also, clean the dead weight valve at this time.  DO NOT pull the Safety Relief Valve Ring, or severe burns will result.
8	Pressure Gauge	Indicates nominal pressure within the frypot. This gauge is not used to calibrate the dead weight assembly. Operating pressure of the dead weight assembly is preset at the factory .The gauge is used as an indication of pressure build up within the frypot.
9	Solenoid Valve	An electromechanical device that causes pressure to be held in the frypot. The solenoid valve closes at the beginning of the cooking cycle and automatically opens at the end of the cooking cycle.
10	Drain Valve	A two way ball valve, normally in the CLOSED position. To open the drain, pull the handle slowly outward, away from the fryer. This releases the oil from the frypot into the filter drain pan. Push it back in to close the valve.  DO NOT open the drain valve while frypot is under pressure. Hot shortening exhausts from this valve. Severe burns will result.
11	Drain Interlock Switch	A microswitch that provides protection for the frypot in case the operator drains shortening from the frypot while the main switch is in the POWER position. The switch is designed to automatically remove power from the heating elements when the drain valve is open.
12	Filter Valve	A two way ball valve which operates in conjunction with the filtering system. With the handle in the open position (handle facing vertical by turning it counterclockwise) and the main power switch in the PUMP position, this valve directs the filtered shortening from the drain pan back to the frypot. To close the filter valve, turn it clockwise to the horizontal position.

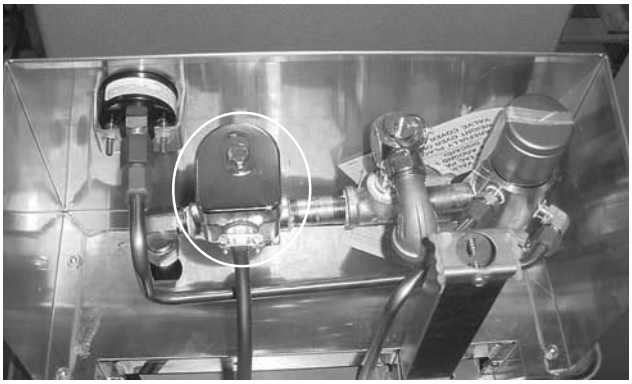
Item	Description	Function
13	High Temperature Control	The high temperature thermostat is a manual reset control which senses the temperature of the shortening. If the shortening temperature exceeds the safe operating limit, this control will remove power from the contactors, thus removing heat to the cook pot. When the temperature of the shortening drops to preset safe operating limit, the control must be manually reset. The reset button is located on the upper surface of the recess in the front panel below the regulating thermostat.
14	Lid/Locking Assembly	Before pressure will build in the cook pot, the lid must be closed and locked. To close the lid, push the lid down with one hand by using the plastic handle on top of the lid. While holding the lid closed with one hand, turn the handle on the latch counterclockwise 160° (until it contacts the stop) to lock the lid. **WARNING** DO NOT place your free hand on top of the lid during the latching procedure. The surface may be hot and burns could result. The lid will not latch or pressure build unless the handle is fully latched. As pressure builds within the cook pot, the handle will be locked in place. As long as the locking assembly is engaged, it will prevent the handle from being moved clockwise and opening the lid. The locking assembly disengages when the internal pressure falls below 1 PSI (6.8 KPa).
15	Condensate Drain Pan	The condensate drain pan is located behind the panel, below the drain and filter valve handles. Remove the panel and the condensate pan is located on the left. It can be easily removed by grasping the handle and pulling out carefully. The condensation pan should be emptied daily.



Item 6

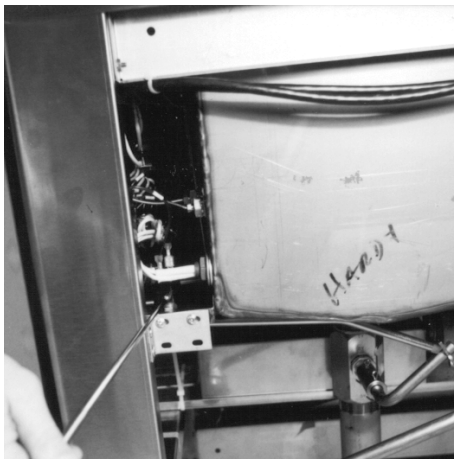


Item 7

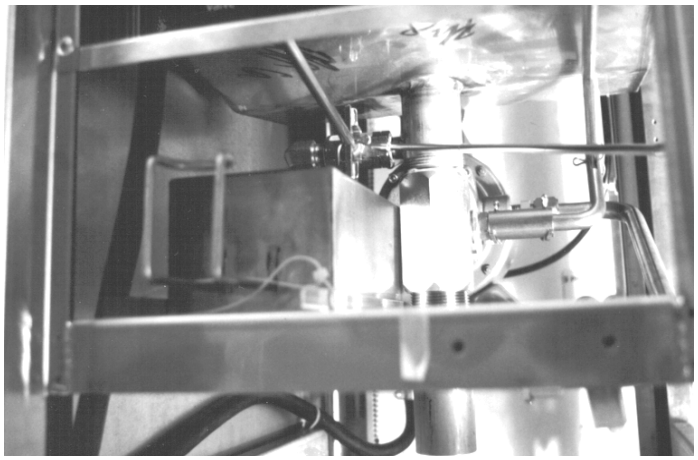


Item 9

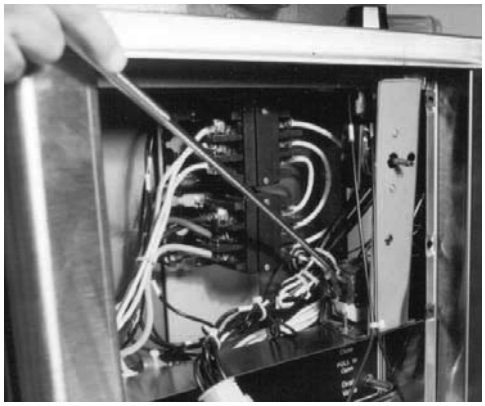
Item 10



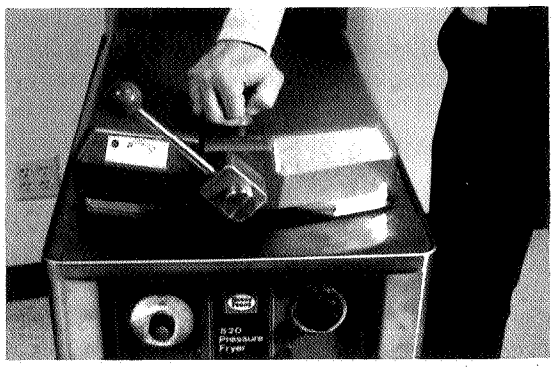
Item 11



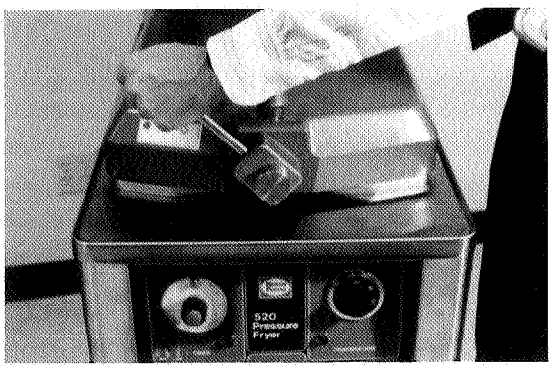
Item 12



Item 9

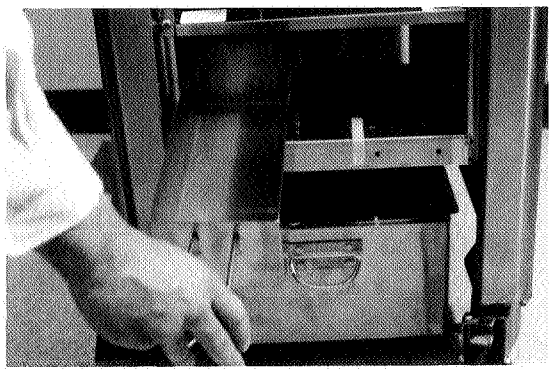


Item 14A



Item 14B

Item 15A



Item 15B

3-2. OPERATING PROCEDURES

The first step in the use of the Henny Penny Model 520 is to learn the controls. Next, determine the time and temperature settings. The following will assist you in determining these settings but are approximate and will vary with the size and quantity of the raw product.

Chicken - 9 piece fresh; 1 head, 2 1/2 - 2 3/4 lbs. (1.13 kg - 1.24 kg)

Quantity	Thermostat Setting	Cooking Time
1 head	325°F (163°C)	11 minutes
2 head	325°F (163°C)	12 minutes
Max Load 8 lbs. (3.62 kg)	325°F (163°C)	13 minutes

Chicken - 9 piece frozen; 1 head 2 3/4 lbs. (1.24 kg)

Quantity	Thermostat Setting	Cooking Time
1 head	325°F (163°C)	17 1/2 minutes
2 head	325°F (163°C)	18 minutes
Max Load 8 lbs. (3.62 kg)	325°F (163°C)	19 minutes

3-3. START-UP

The following procedures should be followed in the initial start-up of the fryer and each time the fryer is brought from a cold or shut down condition back into operation.

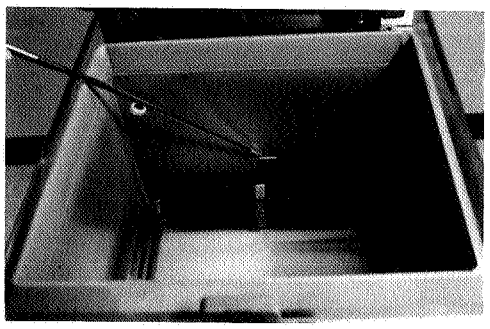
1. Check to see that all control switches are turned OFF.
2. Be sure that the drain valve and filter valve are closed.
3. Remove the wire basket from the cook pot and leave the lid open.
4. Fill the cook pot with shortening to level indicated. The level indication is the maximum shortening level when hot.
5. Connect the power to the fryer.
6. Move the main power switch to the COOK position.
7. Turn the thermostat knob to the desired cooking temperature. The temperature light will go on.
8. When the shortening has reached the desired cook temperature, the temperature indicating light will be off.
9. Thoroughly stir the shortening to stabilize the temperature throughout. Make sure that the shortening at the bottom of the pot is agitated and evenly heated.
10. After the shortening temperature has stabilized for a minimum of 30 minutes, check the shortening temperature using a good deep fat thermometer (Henny Penny part no. 121006).
11. Lower the empty basket into the cook pot (food will be added later).
12. Select the desired cooking time. You are ready to start cooking.

NOTE: The overall operation of the 520 Fryer is no different than our present Model 500 or Model 600 Pressure Fryers.

3-4. FILLING OR ADDING SHORTENING

1. It is recommended that a high quality liquid frying shortening be used in the pressure fryer. Some low grade shortenings have a high moisture content and will cause foaming and boiling over.
2. If a solid shortening is used, it must be melted to a liquid first, then poured into the frypot. Attempting to melt a shortening in the frypot may cause burning or scorching of the fresh shortening.

3-4. FILLING OR ADDING SHORTENING (Continued)



Step 3

WARNING

Gloves should be worn and care must be taken when pouring hot shortening into the unit. Severe burns could result. Also, when adding fresh shortening to existing shortening, care must be taken to avoid splashing.

3. Cold shortening should be filled approximately 1/2 inch below the bottom level of the level indicator line. The shortening will expand when heated.

3-5. COOKING PROCEDURES

1. Before dropping the product into the basket, make certain that the shortening is at the correct cooking temperature for the type of product. Also, check that the temperature light is OFF. Once the product has been prepared, you are ready to cook. Place the basket in the cook pot a few seconds before placing the product in the basket.

2. Place the product into the submerged basket by first dropping in the larger pieces. This gives the larger and more difficult pieces a few extra seconds to cook in the shortening. Continue to place the remaining product in the basket.

3. Lift the basket slightly out of the shortening and shake it, causing the pieces to separate. Return the basket to the shortening. Doing this will prevent white spots on the finished product.

4. Remove the basket handle and close the lid quickly. Latch the lid as previously described.

5. Activate the time as previously described. Within a few minutes, the pressure gauge will increase to the operating zone.

6. At the end of the cooking cycle, the fryer will automatically depressurize. Also the timer light will go off and the timer will automatically reset.

7. After the pressure drops to 0, open the lid latch assembly by turning the handle clockwise 160°.

3-5. COOKING PROCEDURES (Continued)

8. Raise the lid promptly to allow most of the condensation on the lid to drain down and out through the drain channel.

CAUTION

Do not let the lid slam up against the back stop. This could damage the hinge assembly. This will also allow condensation to drop back into the shortening.

NOTE: The condensation opening behind the pot needs to be kept clear of obstructions. Failure to do so will cause the moisture to back up onto the countertop.

9. Insert the handle into the basket, lift the basket out of the shortening, and hang it on the side of the cook pot to drain. Allow the product to drain approximately 15 seconds before placing it into the tray.

10. The fryer will automatically recover to the preset cooking temperature. Once the thermostat indicator light goes out, you can begin the next cook cycle. If filtering of shortening is desired at this time, refer to the next section.

NOTE: When no additional cooking is intended within 30 minutes of the previous cook cycle, it is recommended to reduce the shortening temperature (by turning the thermostat knob counterclockwise) to 275°F (135°C).
Four product controls, use the "C" (up and down) buttons and select **Idle**. The controls will automatically reduce the temperature to 250°F (121°C).

3-6. FILTERING THE SHORTENING

Cooking breaded products requires frequent filtering to keep the shortening clean. The shortening should be filtered after every three to six cooking cycles. For the best quality product, do not exceed six cook cycles without filtering.

1. Turn the thermostat and the main power switch to the OFF position. Remove and clean the fry basket in soap and water. Rinse thoroughly.

NOTE: For best results, filter shortening at normal cooking temperature.

2. Use a metal spatula to scrape build up from sides of the frypot.

CAUTION

When using the pot scraper, do not damage the capillary line on the thermostat, or the high limit control. Also, do not scrape the heating elements, or damage to elements could result.

3-6. FILTERING THE SHORTENING (Continued)

The filter pan must be in the proper position beneath the drain valve. This will prevent the splashing of the hot shortening as it drains into the filter drain pan which would cause burns.

3. Open the drain valve by pulling it forward slowly. This will prevent excessive splashing of the hot shortening as it drains into the filter drain pan.

4. As the shortening drains from the fry pot, use bushes (Henny Penny part no. 12105) to scrape and clean the sides of the fry pot and the heating elements. If the drain fills with breading, use the white brush to push the breading into the filter pan.

5. When all of the shortening has drained, scrape or brush the sides and the bottom of the cook pot.

6. Rinse the cook pot as follows:

   A. Close the drain valve by pushing the handle inward.

   B. Open the filter valve by turning the handle counter-clockwise.

Hold the lid closed so that the very first surge of the shortening will not splash up or over the top of the cook pot. Severe burns will result.

   C. Move the main power switch to the PUMP position. Carefully open the lid to see if shortening is returning properly. Fill cook pot 1/3 full, then turn off the pump.

If there are air bubbles coming up in the shortening, it is possible that the filter connecting union on the filter tube line is not tightened properly. If so, turn off the pump and use gloves to tighten the union. This union will be hot and severe burns will result.

3-6. FILTERING THE SHORTENING (Continued)

D. Wash down and scrub the sides of the cook pot. Use "L" brush to clean the heating elements.

E. After the sides and bottom are cleaned, open the drain valve.

7. Pump all the shortening out of the filter pan and back into the cook pot. Close the lid during the first surge of pumping.

8. When the pump is pumping air only, the shortening in the fry pot will appear to be boiling. Close the filter valve first and then move the main power switch from PUMP to OFF. This will keep the filter pump and lines from filling up with shortening.

Note: When the appearance of boiling occurs, immediately close the filter valve, then turn the pump off. This will prevent aeration of the shortening, therefore increasing shortening life.

9. Check the level of the shortening in the cook pot. Add fresh shortening, if necessary, until it reaches the level indicator line on the rear wall of the cook pot.

NOTE: Approximately 10 to 12 filterings can be made with one filter paper envelope, depending on several conditions; the quantity and type of product fried and filtered, the type of breading used, and the amount of crumb accumulation left inside the filter drain pan. When the filter screen assembly and filter paper become clogged and pumping flow rate slows down, clean the screen assembly and change the filter envelope. See procedure on page 3-11.

10. After completing the filtering operation, empty and replace the condensation drain pan.

11. If cooking is to be continued at this time, move the main power switch back to the COOK position and allow time for reheating of the shortening.

3-7. CHANGING THE FILTER ENVELOPE

Step 1

The filter envelope should be changed after 10-12 filterings or whenever it becomes clogged with crumbs. Proceed as follows:

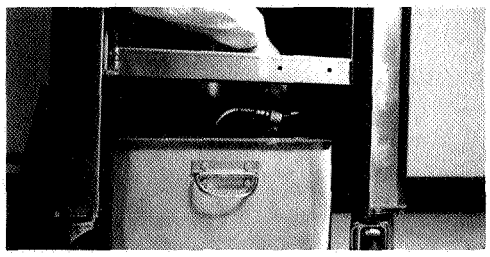
1. Move the main power switch to the OFF position.

2. Remove and empty the condensation drain pan.

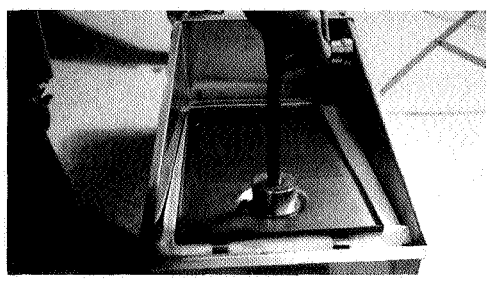
3. Disconnect the filter union and remove the filter drain pan from beneath the fry pot. The filter drain pan is provided with casters for ease of movement.

3-7. CHANGING THE FILTER ENVELOPE (Continued)

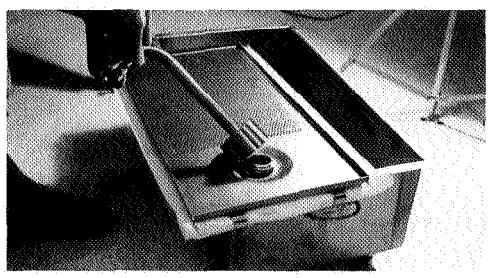
Step 2



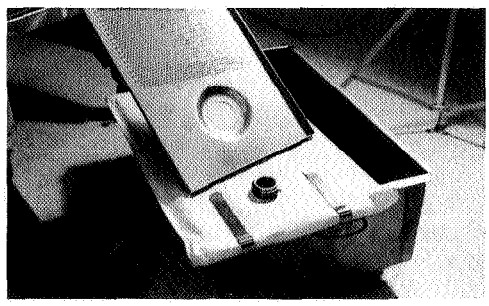
Step 3



Step 4



Step 6



Step 7

This union will be hot. Use protective glove or cloth to prevent burns.

4. Lift the screen assembly from the drain pan.

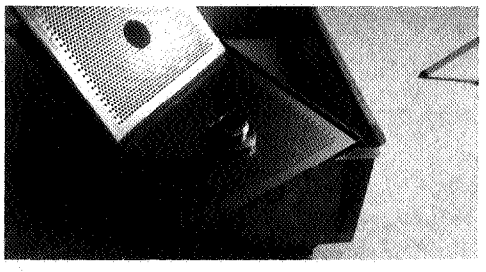
5. Wipe the shortening and crumbs from the drain pan. Clean the drain pan with soap and water. Thoroughly rinse with hot water.

6. Unthread the suction standpipe from the screen assembly.

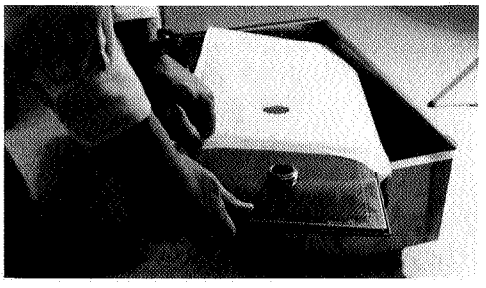
7. Remove the crumb catcher. Clean thoroughly with soap and water. Rinse thoroughly with hot water.

3-7. CHANGING THE FILTER ENVELOPE (Continued)

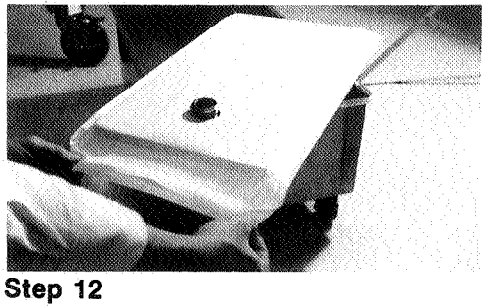
Step 8



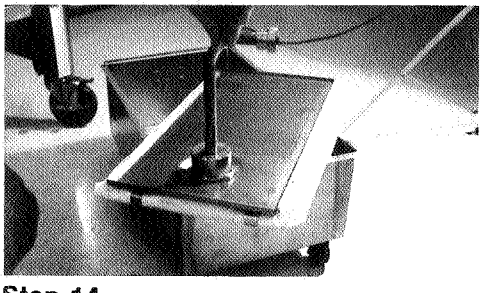
Step 10



Step 11



Step 12



Step 14

8. Remove filter clips and discard the filter envelope.
9. Clean the top and bottom filter screen with soap and water. Rinse thoroughly with hot water.

CAUTION

Be sure that the filter screens, crumb catcher, filter clips, and the suction standpipe are thoroughly dry before assembly of filter envelope, as water will dissolve the filter paper.

10. Assemble the top filter screen to the bottom filter screen.
11. Slide the screens into a clean filter envelope.
12. Fold the corners in and then double fold the open end.
13. Clamp the envelope in place with two filter retaining clips.
14. Replace the crumb catcher screen on top of the filter paper. Screw on the suction standpipe assembly.
15. Place complete filter screen assembly back into filter drain pan. Slide pan back into place beneath the fryer.
16. Connect the filter union by hand. Do not use a wrench to tighten.
17. Slide the condensation drain pan back into place. The fryer is now ready to operate.

3-8. CLEANING THE FRYPOT

Taste the cold shortening every day for flavor. Watch the shortening for foaming during the cook cycle. Discard the shortening as soon as it shows signs of foaming. Drain and clean the frypot as follows:

1. Turn the power switch to OFF.

   Place the filter drain pan under the drain valve to prevent splashing or spilling of hot liquids. Failure to do so, results in splashing and severe burns.

2. Pull out drain valve handle to drain hot shortening from frypot.

3. Close the drain valve, and discard the shortening in filter pan. Install the filter drain pan under the fryer, leaving out the filter screen assembly.

4. Fill the frypot to the level line with hot water. Add 2 to 4 ounces (6 to 12 ml) of fryer cleaner (Henny Penny part no. 12101) to the water and mix thoroughly. The fry basket can be placed inside the frypot for cleaning.

   Always wear safety goggles or face shield and rubber gloves when cleaning the frypot. The highly alkaline cleaning solution should not contact eyes or skin, or severe burns will result. Carefully read the instructions on the cleaner. If solution contacts your eyes, rinse thoroughly with cool water and see a physician immediately.

5. **Standard Controls:** Set thermostat to 195° F (91° C) and turn the power switch to POWER position.
   Electronic Controls: Use the up and down buttons to select the Clean mode. The controls will automatically heat the solution up to 190° F (88° C).

   NEVER PRESSURIZE TO CLEAN. Leave the lid open. Water under pressure is super heated and causes severe burns.

3-8. CLEANING THE FRYPOT (Continued)

6. When the set temperature is reached, turn unit off.

CAUTION

Watch cleaning solution constantly to make sure it does NOT boil over causing damage to controls.

WARNING

If the cleaning solution starts to foam and boil over, DO NOT CLOSE THE FRYER LID, severe burns could result.

7. Let the cleaning solution stand for 15 to 20 minutes, with the unit turned off.

8. Use fryer brush (Henny Penny part no.12105), to scrub the inside of the frypot, the lid liner, and the counter top of the fryer. Never use steel wool, it deteriorates the stainless steel.

CAUTION

Do not use the cleaning solution on the lid or the lid hinge. These aluminum parts will corrode if the PHT cleaner contacts them. Also, **Do not** use abrasive cleaners, or cleaner containing chlorine, bromine, iodine, or ammonia chemicals on the stainless steel. Deterioration of the stainless steel will result.

9 Open the drain valve and drain the cleaning solution from the frypot into the drain pan and discard.

10. Replace the empty drain pan, close the drain valve, and refill the frypot with hot water to proper level.

11. Add approximately 4 ounces of distilled vinegar and reheat the vinegar solution to 195° F (91° C), or use the Clean mode on electronic controls.

12. Using a clean brush, scrub the interior of the frypot and lid liner. This neutralizes the alkaline left by the cleaning compound.

13. Drain the vinegar rinse water and discard.

14. Rinse down the frypot, using clean hot water .

15. Thoroughly dry the drain pan, and the frypot interior .

NOTE: Make sure the inside of the frypot, the drain valve opening, and all the parts that will come in contact with the new shortening, are as dry as possible.

16. Replace the clean filter screen assembly in the drain pan and install under fryer .

17. Refill the fryer with fresh shortening.

SECTION 4. TROUBLESHOOTING

4-1. INTRODUCTION

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

If a problem occurs during the first operation of a new fryer, recheck the installation section of this manual.

Before troubleshooting, always recheck the operating procedures.

4-2. TROUBLESHOOTING

To isolate a malfunction, proceed as follows:

1. Clearly define the problem (or sympton) 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.

WARNING

Refer to the maintenance procedures section to safely and properly make the checkout and repair needed. If maintenance procedures are not followed correctly, injuries and/or property damage could result.

Problem	Cause	Correction
	COOKING SECTION	
Product Color Not Correct:		
A. Too Dark	• Temperature too high.	• Reduce thermostat setting. • Check thermostat calibration. • Remove and replace defective thermostat.
	• Shortening too old.	• Change shortening.
	• Shortening too dark.	• Filter shortening. • Taste shortening. • Change shortening.
	• Dip solution too strong for product.	• Use correct dip solution or shorten product immersion time.
	• Breading product too far in advance.	• Bread product closer to actual frying period.
B. Too Light	• Temperature too low.	• Increase temperature. • Check calibration of thermostat. • Remove and replace defective thermostat.
	• Dip solution too weak.	• Correct dip solution.
	• Fryer incorrect preheat.	• Allow proper preheat time. • Stir shortening prior to dropping product into frypot.
	• Frypot overloaded with product.	• Reduce cooking load.
	• Slow fryer heatup/recovery.	• Refer to heating elements in the maintenance section.
C. Product Greasy	• Shortening old.	• Replace shortening.
	• Temperature too low.	• Increase thermostat setting. • Temperature not recovered when product was dropped in frypot basket. • Check thermostat calibration. • Replace thermostat if needed.
	• Frypot overloaded.	• Reduce cooking load.
	• Product not removed from frypot immediately after depressurization.	• Remove product immediately after depressurization of the fryer.

Problem	Cause	Correction
	COOKING SECTION (Continued)	
D. Spotted Product	• Improper separation of the product.	• Drop product into basket properly and shake basket before closing lid.
	• Product was incorrectly dipped.	• Agitate product during the dipping procedure.
	• Breading not uniform on the product.	• Sift breading regularly. • Separate product during breading.
	• Burned breading particles on product.	• Filter the shortening more frequently.
	• Product sticking together.	• Separate product prior to pressure cooking.
E. Dryness of Product	• Moisture loss prior to cooking.	• Use fresh product. • Keep product covered with a moist cloth to reduct evaporation.
	• Over cooking the product.	• Reduce cook time. • Reduce cook temperature.
	• Low operating pressure.	• Check pressure gauge reading, check, for pressure leaks.
	• Too small of a load being cooked.	• Increase quantity to obtain correct operating pressure and product quality.
Product Flavor (Taste):		
A. Salty taste	• Breading mixture is too salty.	• Sift breading after each use. • Incorrect breading mixture. • Discard old breading.
	• Marination mixture too concentrated.	• Reduce the concentration of the marination mixture.
	• Incorrect choice of breading.	• Use breading designed for the desired product.
B. Burned Taste	• Burned shortening flavor.	• Replace shortening.
	• Shortening needs filtering.	• Filter shortening more frequently.
	• Frypot not properly cleaned.	• Drain and clean frypot.

Problem	Cause	Correction
	COOKING SECTION (Continued)	
C. Bland Taste	• Raw product not fresh.	• Use fresh raw products.
	• Breading mixture incorrect for product (spice content too low).	• Use breading designed for desired product.
	• Cooking temperature too high (spice flavor lost).	• Use correct temperature for breading used.
	• Breading does not adhere to product.	• Use correct dip and breading and use correct procedure for the product.
D. Rancid Taste	• Shortening too old.	• Replace shortening and follow recommended care and use of shortening.
	• Non compatible products cooked within the same shortening.	• Replace shortening. • Use compatible products and follow recommended care and use of shortening.
	• Infrequent filtering.	• Replace shortening and follow recommended care and use of shortening.
	• Raw product not fresh.	• Use fresh product.
General:		
A. Meat separation from bone	• Incorrect meat cut.	• Use correct meat cutting procedures.
	• Overcooking.	• Reduce cooking time.
	• Raw product contains too much water.	• Allow product to drain after marinating.
	• Product not fresh.	• Use fresh product.
B. Bone color not proper	• Using frozen product (black bone).	• Use fresh product.
	• Improper processing of product (black bone).	• Use proper processing procedure for product.
	• Product not thoroughly cooked (red bone).	• Increase cooking time.

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. • Thoroughly thaw the product before breading. • Handle cooked product carefully. • Separate the product.
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 and frying instructions. • Separate the product. • Reduce the cooking load. • Load product in frypot.
	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 for fuse at supply box. • Check control panel fuses. • Check voltage at wall receptacle. • Check MAIN POWER switch. Replace if defective. • Check cord and plug. • Check circuit breaker.

Problem	Cause	Correction
	PRESSURE SECTION	
Pressure will not exhaust at end of frying cycle	• Exhaust line from solenoid valve to expansion tank clogged.	• Release pressure from frypot; clean all pressure lines.
	• Solenoid valve clogged.	• Check and clean solenoid valve.
Operating pressure too high	• Dead weight clogged.	• Release pressure from frypot; remove dead weight and clean.
	• Exhaust line to stack clogged.	• Clean exhaust line to stack.
Pressure does not build	• Not enough product in fryer or product not moist.	• Place proper quantity of moist product within frypot to generate steam.
	• Metal shipping spacer not removed from dead weight.	• Remove shipping spacer.
	• Lid open or not latched.	• Close and latch lid.
	• Solenoid valve leaking or not closing.	• Check or clean solenoid valve.
	• Dead weight valve leaking.	• Repaid dead weight valve, per maintenance section.
	• Main timer not closing solenoid.	• Check main timer.
	• Safety relief valve leaking.	• Check and replace if necessary.
	FILTER SYSTEM SECTION	
Filter motor runs but pumps shortening slowly	• Filter valve not open.	• Open filter valve.
	• Pump clogged.	• Remove and clean pump.
	• Filter screens not properly assembled.	• Reassemble filter screens.
	• Filter line connections loose.	• Tighten all filter line connections.
	• Solidified shortening in lines.	• Clear all filter lines of solidified shortening.
	• Filter paper clogged.	• Change filter paper.

Problem	Cause	Correction
	FILTER SYSTEM SECTION (Continued)	
Pump switch ON motor does not run	• Defective switch. • Defective motor. • Motor thermal protector tripped.	• Check/replace switch. • Check/replace motor. • Reset thermal switch.
Motor hums but will not pump	• Clogged lines or pump.	• Remove and clean pump lines. • Replace pump seal, rotor and rollers.
	HEATING OF SHORTENING SECTION	
Shortening will not heat	• Blown fuse or tripped breaker at supply box or control panel. • Blown fuse at control panel. • Faulty main switch. • Check cord and plug. Check power at receptacle. • Faulty contactor. • Faulty thermostat. • Faulty high limit control switch.	• Reset breaker or replace fuse. • Check fuse. • Check main switch. • Check cord and plug and power at wall receptacle. • Check contactor. • Check thermostat. • Check high limit control switch.
Heating of shortening too slow	• Low or improper voltage. • Weak or burnt out elements. • Points in contactor bad. • Wires loose. • Burnt or charred wire connection.	• Use a meter and check the receptacle against data plate. • Check heating elements. • Check contactor. • Tighten. • Replace wire and clean contactors.
Shortening overheating	• Check thermostat • Check contactor for not opening.	• Calibrate thermostat • Check faulty thermostat • Check faulty contactor.

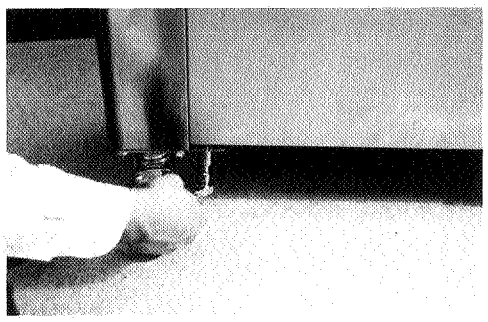
Problem	Cause	Correction
	SHORTENING FOAMING/DRAINING SECTION	
Foaming or boiling over of shortening	• Water in shortening.	• At the end of frying cycle, drain shortening and clean frypot. Add fresh shortening and check procedure for raising lid.
	• Condensation line stopped up.	• Remove and clean condensation line.
	• Improper or bad shortening.	• Use recommended shortening.
	• Improper filtering.	• Refer to the procedure covering filtering the shortening.
	• Improper rinsing after cleaning the fryer.	• Clean and neutralize the frypot. Rinse with vinegar to remove the alkaline then rinse with hot water and dry frypot.
Shortening will not drain from frypot.	• Drain valve clogged with crumbs.	• Open valve - force cleaning brush through drain opening.
	• Drain valve will not open by turning handle.	• 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.	• Set timer indicator to a setting other than zero.
	• Faulty microswitch.	• Check and replace faulty microswitch.
Buzzer will not buzz	• Possible faulty buzzer.	• Check buzzer, replace if faulty.
	• Timer indicator not returning to zero.	• Replace timer.
Timer will not reset	• Faulty timer.	• Replace timer.
Timer light out	• Faulty lamp.	• Replace lamp.
	LID SECTION	
Gasket coming out of lid liner	• Crumbs under gasket.	• Remove gasket and clean. • Clean top rim of frypot. • Replace worn or damaged gasket.

SECTION 5. MAINTENANCE

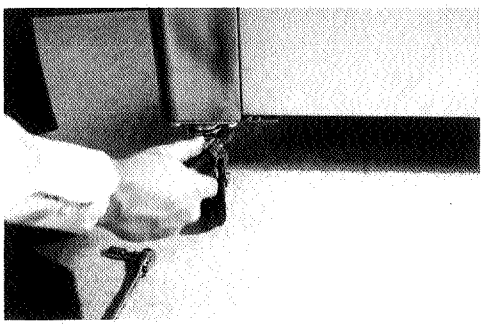
5-1. INTRODUCTION

This section provides procedures for the replacement of the various parts used within the pressure fryer. Before replacing parts, refer to the troubleshooting section of this manual. It will aid you in determining the cause of the malfunction.

5-2. REMOVAL OF SIDE PANEL



Step 1



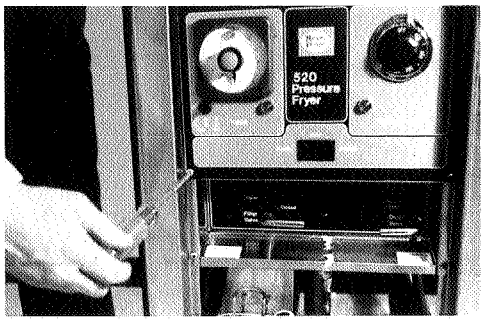
Step 2

WARNING

Place power switch in the OFF position, shut off power at the fuse or breaker box. Failure to do so could result in electrical shock.

1. Remove two 3/8" nuts from bottom of side panel.
2. Using a straight blade screwdriver, gently pry side panel straight up.
3. Slide side panel from unit.

5-3. REMOVAL OF CONTROL PANEL

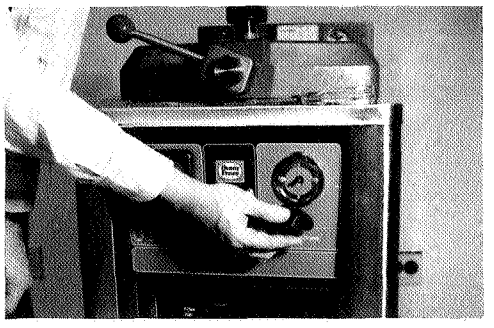


Step 1a

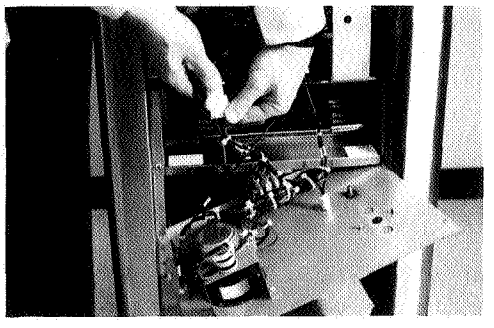
WARNING

Place power switch in the OFF position, shut off power at the fuse or breaker box. Failure to do so could result in electrical shock.

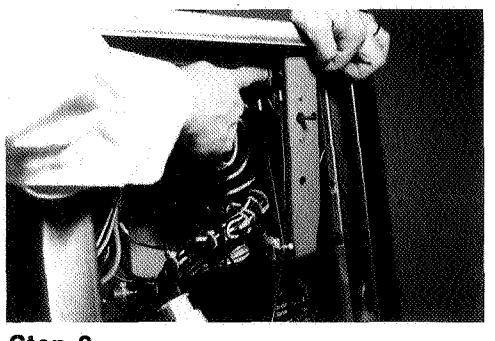
5-3. REMOVAL OF CONTROL PANEL (Continued)



Step 1b



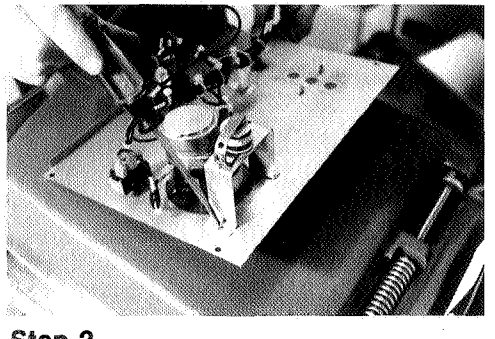
Step 2



Step 3

1. Remove four screws securing control panel to unit and also thermostat knob.
2. Unplug the nine pin connector.
3. Remove two wires from thermostat (wire number 13 & 16) and remove control panel.

5-4. REPLACEMENT OF TIMER BUZZER COIL



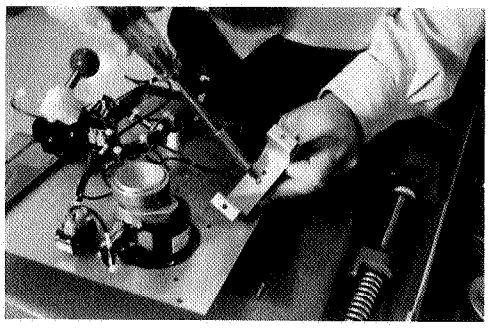
Step 2

WARNING

Place power switch in the OFF position, shut off power at the fuse or breaker box. Failure to do so could result in electrical shock.

1. Follow steps 1, 2 and 3 in Removal of Control Panel.
2. Remove two screws from the buzzer coil bracket.

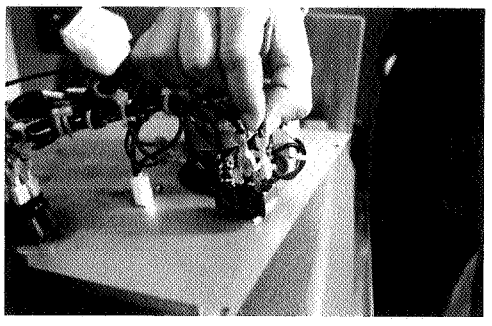
5-4. REPLACEMENT OF TIMER BUZZER COIL (Continued)



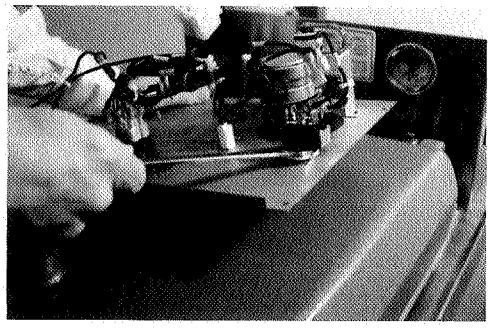
Step 3

3. Remove screw mounting buzzer coil to bracket.
4. Cut wires on old buzzer. (Note: Mark wires before cutting.)
5. Install new buzzer and splice cut wires.

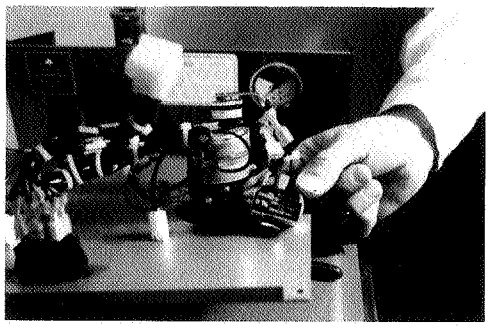
5-5. REPLACEMENT OF TIMER SWITCH



Step 2



Step 3



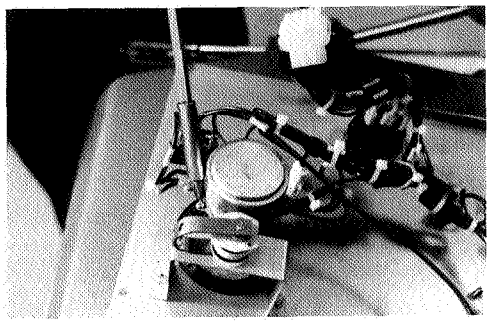
Step 4

WARNING

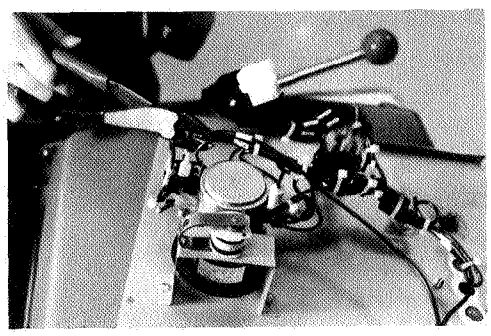
Place power switch in the OFF position, shut off power at the fuse or breaker box. Failure to do so could result in electrical shock.

1. Follow steps 1, 2 and 3 in Removal of Control Panel.
2. Unplug wires from old timer switch. (Note: Mark wires before unplugging.)
3. Loosen the 9/16" retainer nut behind timer switch.
4. Remove front retainer nut of timer switch and install new switch.

5-6. REPLACEMENT OF TIMER MOTOR



Step 2



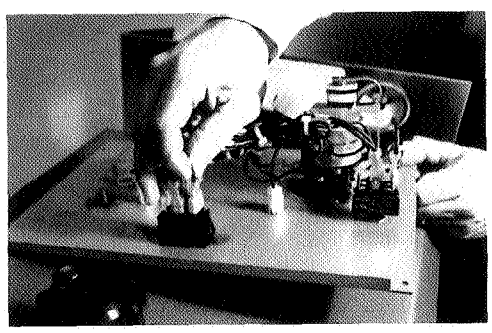
Step 3

WARNING

Place power switch in the OFF position, shut off power at the fuse or breaker box. Failure to do so could result in electrical shock.

1. Follow steps 1, 2 and 3 in Removal of Control Panel.
2. Remove the two screws securing motor to timer.
3. Cut wires on old motor. (Note: Mark wires before cutting.)
4. Install new motor and splice cut wires.

5-7. REPLACEMENT OF POWER SWITCH



Step 2

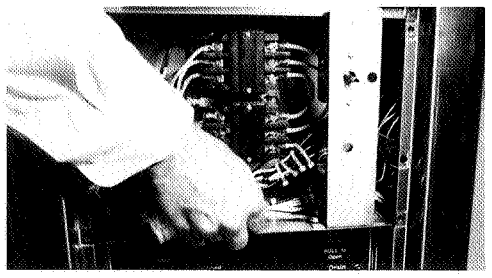
Step 3

WARNING

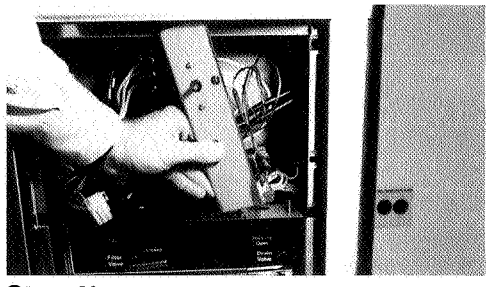
Place power switch in the OFF position, shut off power at the fuse or breaker box. Failure to do so could result in electrical shock.

1. Follow steps 1, 2 and 3 in Removal of Control Panel.
2. Unplug wires from old power switch. (Note: Mark wires before removing.)
3. Depress retainers on rear of switch and push switch out towards front of control panel.
4. Install new power switch.

5-8. REPLACEMENT OF THERMOSTAT

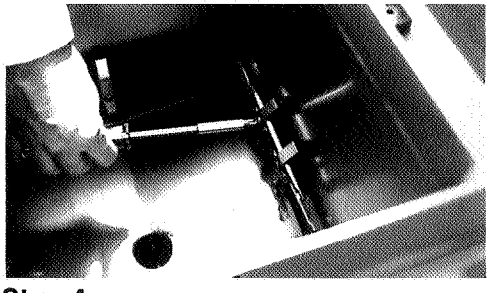


Step 2a

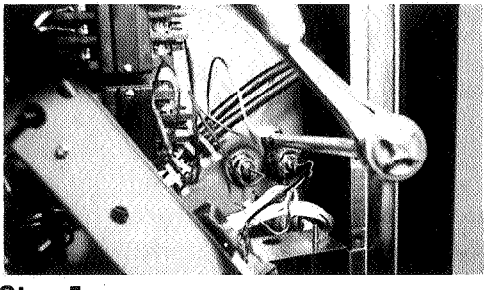


Step 2b

Step 3



Step 4



Step 5

WARNING

Place power switch in the OFF position, shut off power at the fuse or breaker box. Failure to do so could result in electrical shock.

1. Follow steps 1, 2 and 3 in Removal of Control Panel.
2. Remove two 3/8" nuts securing thermostat bracket to control area.
3. Remove two screws holding thermostat to bracket.
4. On the inside of pot, loosen screws on bracket securing thermostat bulb.
5. Remove 11/16" nut from pot wall and remove thermostat.
6. Install new thermostat in reverse order.

5-9. CALIBRATING THE THERMOSTAT

WARNING

Place power switch in the OFF position, shut off power at the fuse or breaker box. Failure to do so could result in electrical shock.

Whenever the thermostat fails to maintain the selected temperature within ±5°F (−15°C) of the thermostat setting, it should be calibrated.

To calibrate the thermostat, it is necessary to perform step increases in the temperature of shortening. Follow this procedure:

1. Place the main power switch in the POWER position. Be sure there is shortening in the frypot.
2. Set the thermostat knob to 250°F (121° C).
3. Allow enough time for the shortening to heat. When the shortening reaches the set temperature on the thermostat, the indicator light will go off. Usually, it will take no longer than 15 minutes for the shortening to heat to the set temperature.
4. Remove the fry basket from the shortening.
5. Stir the shortening with the basket handle.
6. Measure the temperature of the shortening using an accurate, mercury tube type, deep fat thermometer capable of measuring temperatures in the 250°F to 400°F (121°C to 204°C) range. (Henny Penny part number 12106.)
7. Insert the thermometer near the center of the frypot to a depth of about 3 inches below the level of shortening.
8. Carefully stir the shortening with the thermometer.
9. Allow the mercury in the thermometer to rise to the temperature of the shortening. Hold the thermometer straight up and down.

NOTE

The temperature reading is to be taken just as the TEMP indicator light goes off. This will give the correct temperature rather than an override temperature.

10. If the temperature is within 5°F (−15°C) of the temperature set on the thermostat, increase the thermostat setting approximately 25°F (−4°C). Wait until the indicator light goes off, then again check the temperature

5-9. CALIBRATING THE THERMOSTAT (Continued)

of the shortening. If it is again within 5°F (−15°C), the thermostat does not require calibration.

If the thermometer is accidentally broken, and mercury and pieces of broken glass fall into the shortening, discard the shortening and clean the frypot thoroughly. Mercury is highly poisonous.

11. If the temperature indicated on the thermometer differs more than 5°F (−15°C), remove the thermostat knob by pulling it off its stem.

NOTE

Do not rotate the knob while removing it.

12. Turn the adjustment screw in the center of the hollow stem, using a small blade screwdriver. If the thermometer reading was higher than the setting, rotate the screw clockwise. If lower, counter-clockwise. For example:

setting:	250°F (121°C)
reading:	275°F (135°C)
adjustment:	1/4 turn clockwise.

13. After adjusting the screw, install the knob and reset the thermostat to 250°F (121°C). Again, measure the temperature of the shortening with the deep fat thermometer. Wait a few moments for the shortening to reach the 250°F (121°C) temperature setting, indicated on the thermometer. The indicator light should go off when the temperature reaches 250°F (121°C). Readjust screw if necessary.

14. Set the thermostat to 275°F (135°C).

15. Check the temperature of the shortening when the indicator light goes off.

16. If the temperature measured on the thermometer is not within 5°F (−15°C) of the thermometer setting, adjust for the correct temperature as in steps 12 and 13 of this procedure.

NOTE

Once the thermostat has been calibrated and set at the desired cooking temperature, do not use the thermostat to turn the fryer off. Use the ON-OFF switch.

5-10. REPLACEMENT OF HIGH LIMIT

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.

Checkout

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

NOTE

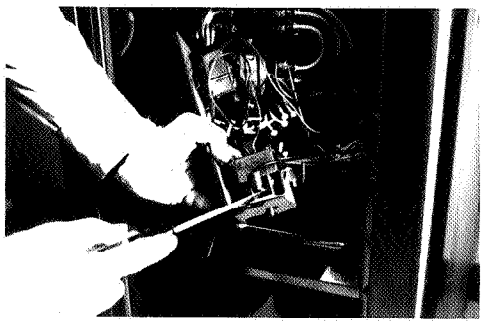
The shortening temperature must be below 380°F (192°C) to accurately perform this check.

1. Remove electrical power supplied to the fryer.

WARNING

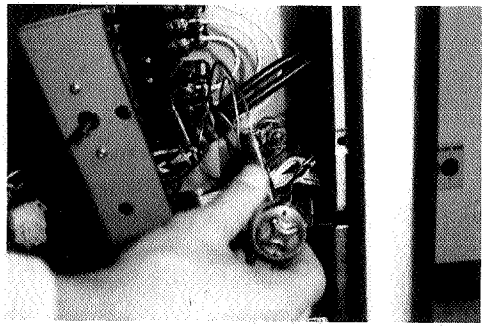
Place POWER/OFF/PUMP switch in the OFF position, and unplug the power cord or open the wall circuit breaker, or electrical shock could result.

2. Remove the control panel.



Step 3

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



Step 4

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.)

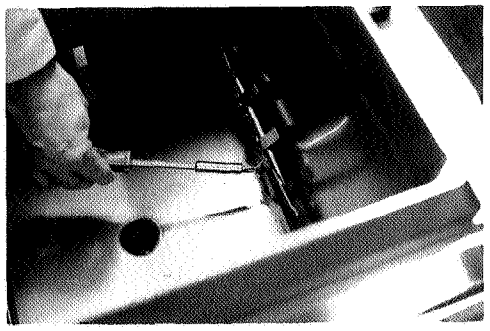
WARNING

Before following these steps, place POWER/OFF/PUMP switch in the OFF position, and unplug the power cord or open the wall circuit breaker, or electrical shock could result.

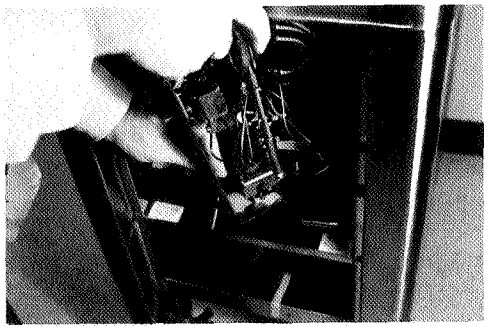
Replacement

1. If the tube is broken or cracked, the control will open, shutting off electrical power. The control cannot be reset.

5-10. REPLACEMENT OF HIGH LIMIT (Continued)



Step 5



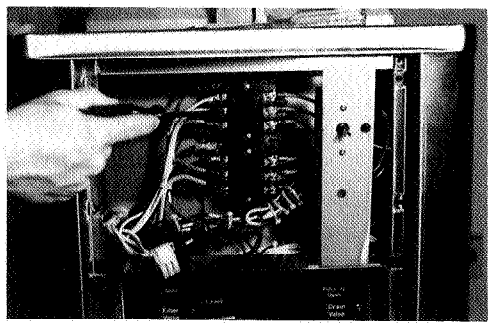
Step 8

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.

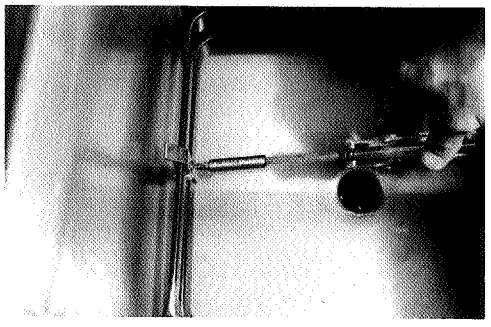
WARNING

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

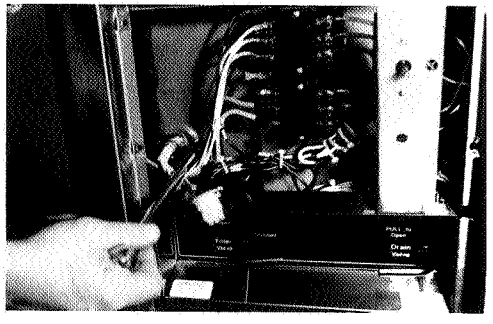
5-11. REPLACEMENT OF HEATING ELEMENT



Step 3



Step 4



Step 5

WARNING

Place power switch in the OFF position, shut off power at the fuse or breaker box. Failure to do so could result in electrical shock.

1. Drain the shortening.
2. Remove the thermostat and high limit bulb holder from the heating element inside the frypot.
3. Remove the heating element wires from the contactor. Label each so it can be replaced in the same position on the new element.
4. Slide the element spreaders to the center of the heating element.
5. Remove the brass nut and washer, which secure the ends of the element through the frypot wall.
6. Remove the heating element from the frypot by lifting the far end and sliding it up and out toward the rear of the frypot.

NOTE

Always install new rubber O rings (2) when installing heater elements.

7. Install new heating element with new rubber O rings (2) mounted on terminal ends, and spreaders loosely mounted in the center of the stacked elements.
8. Replace the heating elements, terminal end first at approximately 45° angle, slipping the terminal ends through the front wall of the frypot.
9. Replace the brass nut and washer on the heating element terminals. Tighten the brass nuts to 30 foot lbs. of torque.
10. Move the element spreaders from the center of the element, and tighten.
11. Replace the thermostat and high limit bulb holder and tighten screw which holds the bulb in place.
12. Reconnect the wires to the appropriate terminal as labeled when they were removed.
13. Replace the front control panel.

5-11. REPLACEMENT OF HEATING ELEMENT (Continued)

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

CAUTION

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

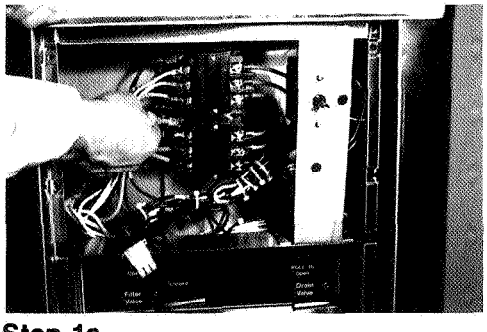
15. Replace the shortening in the frypot.

5-12. REPLACEMENT OF CONTACTORS

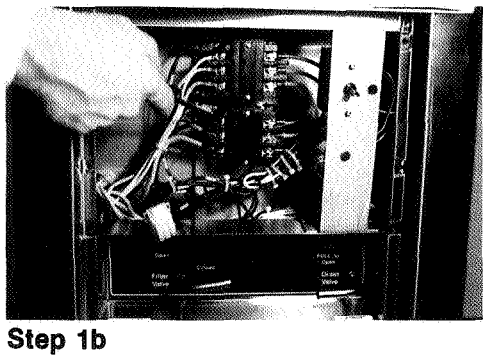
If either contactor is defective it must be replaced as follows:

WARNING

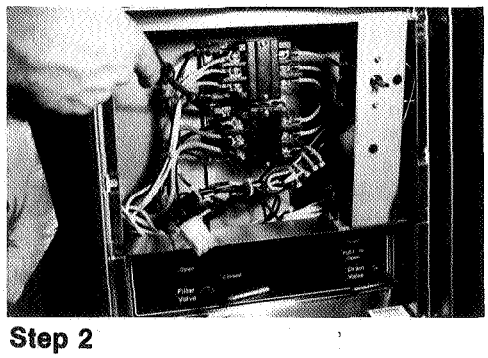
Remove electrical power supplied to the fryer, by unplugging or opening the wall circuit breaker, or electrical shock could result.



Step 1a



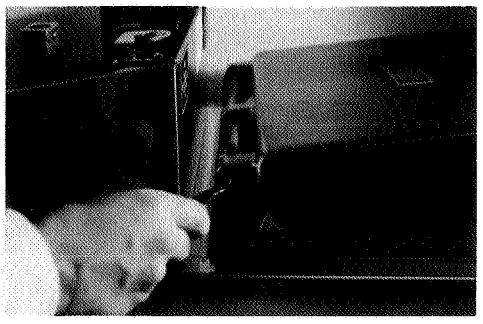
Step 1b



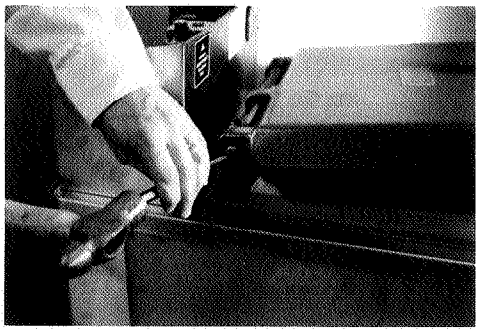
Step 2

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.
6. Reconnect power to the fryer and test the fryer for proper operation.

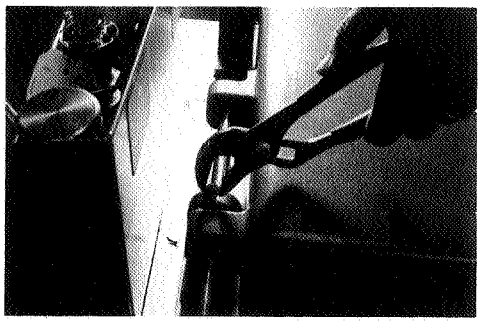
5-13. REPLACEMENT OF LID HINGE SPRING



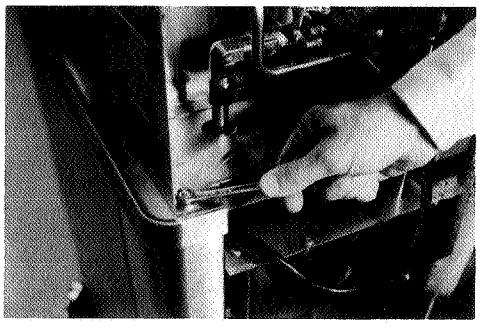
Step 1



Step 2



Step 4



Step 5a

WARNING

Place power switch in the OFF position, shut off power at the fuse or breaker box. Failure to do so could result in electrical shock.

1. Remove retaining ring from hinge pin.

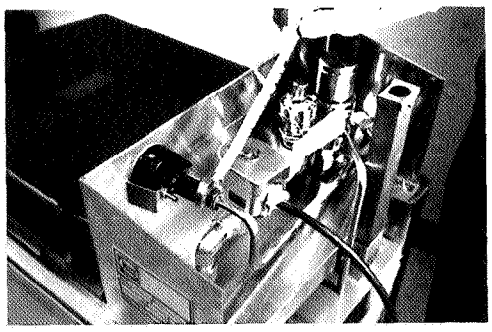
2. Using a punch and hammer, drive hinge pin out from spring.

3. Remove old spring.

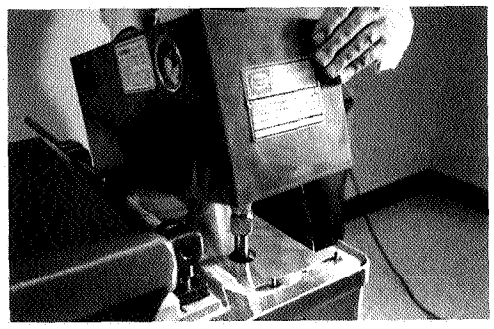
4. Remove stops from cam.

5. Loosen 3/8" nuts from rear shroud, remove nut from pressure gauge, and remove shroud.

5-13. REPLACEMENT OF LID HINGE SPRING (Continued)



Step 5b

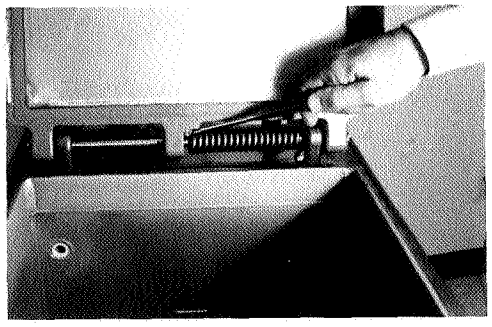


Step 5c

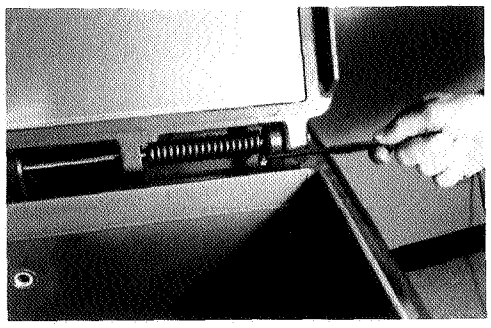
6. Position new spring as shown in illustration at left.

NOTE

Spring must be in this position to accurately install lid hinge spring.



Step 6a

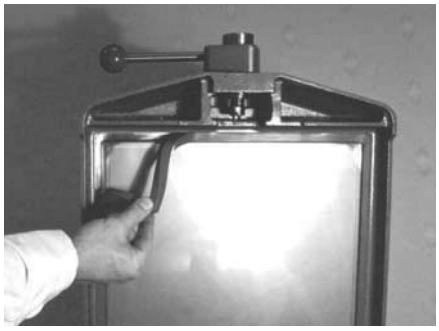


Step 6b

7. Open lid to rear of unit as far as possible.
8. Using a punch and hammer, drive hinge pin back into lid and spring.
9. Reattach lid stops and rear shroud.

5-14. REPLACEMENT OF LID GASKET

Step 1



Step 2

WARNING

Place power switch in the OFF position, pull fuse or turn off wall circuit breaker, or electrical shock could result.

1. Using a straight blade screwdriver, pry one corner of gasket out from liner.
2. Pull gasket from lid.
3. Clean gasket and gasket seat with soap and hot water.
4. Reinstall lid gasket with "good" side facing out, or install new gasket.

NOTE

Reverse lid gasket every 90 days to keep gasket in good condition.

5-15. LID LATCH LUBRICATION

Figure 1

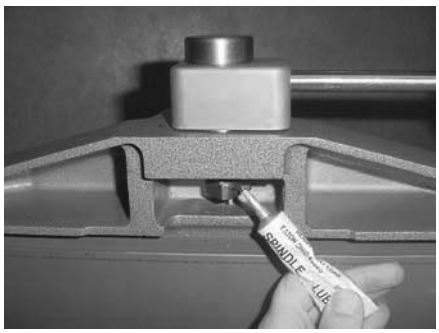
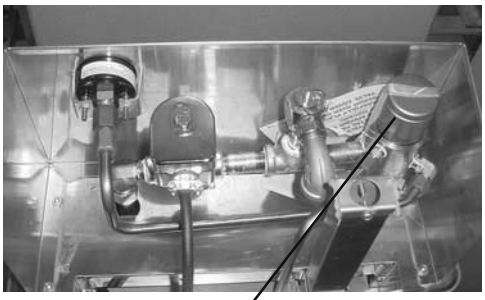


Figure 2

The cam shaft and latch plate should be lubricated every 90 days to prevent early wear and failure of latch parts.

1. Using spindle lube, part number 12124, place a small amount of spindle lube in the top portion of the latch plate. See Figure 1.
2. Using spindle lube, part number 12124, place a small amount of spindle lube on the cam shaft. See Figure 2.

5-16. DEADWEIGHT VALVE ASSEMBLY



Deadweight Valve

DANGER

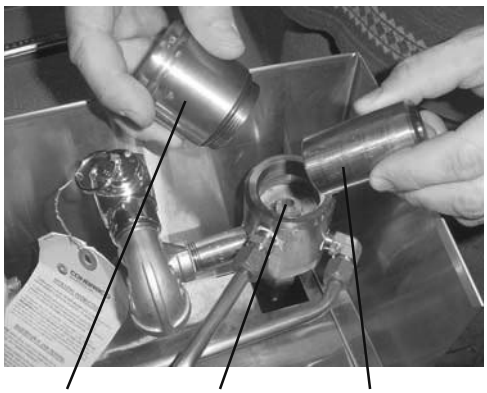
Do not attempt to remove the valve cap while the fryer is in operation, or severe burns or other injuries could result.

The deadweight valves are located behind the lid. The valve, left of the pressure gauge, is a 14 1/2 lb. (999 mbar) safety relief valve, and the one on the right is the operating valve.

Valves are working properly, when the pointer on the gauge is in the "OPERATING ZONE" (green area). The gauge pointer should not normally exceed the operating zone. If the pressure builds to 14-1/2 lbs.(999 mbar), the safety relief valve will open to release steam pressure from inside cookpot.

DANGER

DO NOT MANUALLY ACTIVATE THE SAFETY RELIEF VALVE. Hot steam will be released from valve when ring is pulled. Keep away from safety valve exhaust, or severe burns could result.



CAP ORIFICE WEIGHT

1. AT THE END OF EACH DAY'S USAGE OF THE FRYER, THE OPERATING VALVE MUST BE CLEANED. The fryer must be OFF and the pressure released. Open the lid and then remove the dead weight valve cap and dead weight.

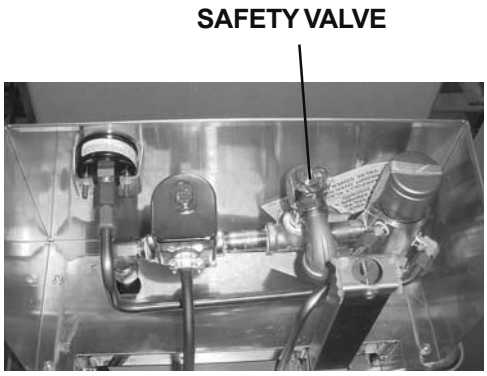
   WARNING

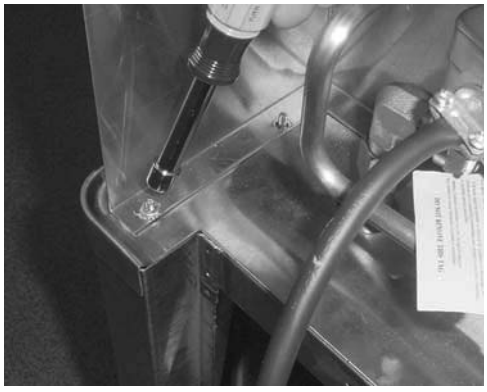
   Failure to clean the operating control valve daily could result in the fryer building too much pressure. Severe injuries and burns could result.

2. Wipe both the cap and weight with a soft cloth. Make certain to thoroughly clean inside cap, the weight seat, and around valve orifice.

3. Dry the parts and replace immediately to prevent damage or loss.

5-17. REMOVAL & CLEANING OF SAFETY RELIEF VALVE





Step 1

Step 2

Step 3

The safety relief valve should be cleaned once a year.

DANGER

DO NOT ATTEMPT TO REMOVE VALVE WHILE FRYER IS OPERATING, or severe burns or other injuries could result.

1. Using 3/8” socket, remove the 4 nuts securing back shroud.
2. Loosen nut on pressure gauge, and pull the back shroud from fryer.
3. Unscrew Deadweight cap and remove cap and weight.
4. Use a wrench to loosen the valve from the pipe tee, turn counterclockwise to remove.
5. Clean the inside of the pipe tee with hot water.
6. Immerse the safety relief valve in a soapy water solution for 24 hours. Use a 1 to 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.

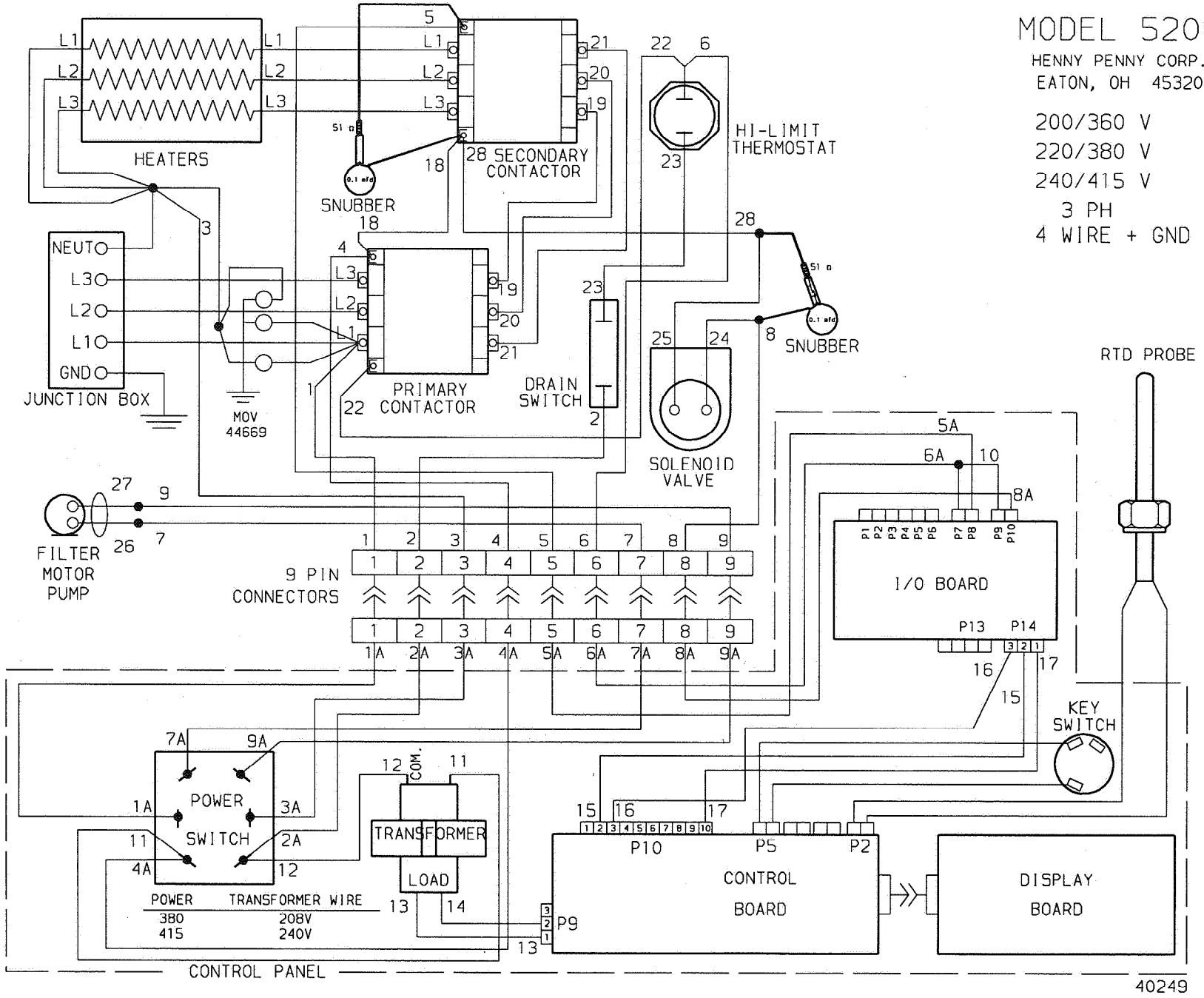
DANGER

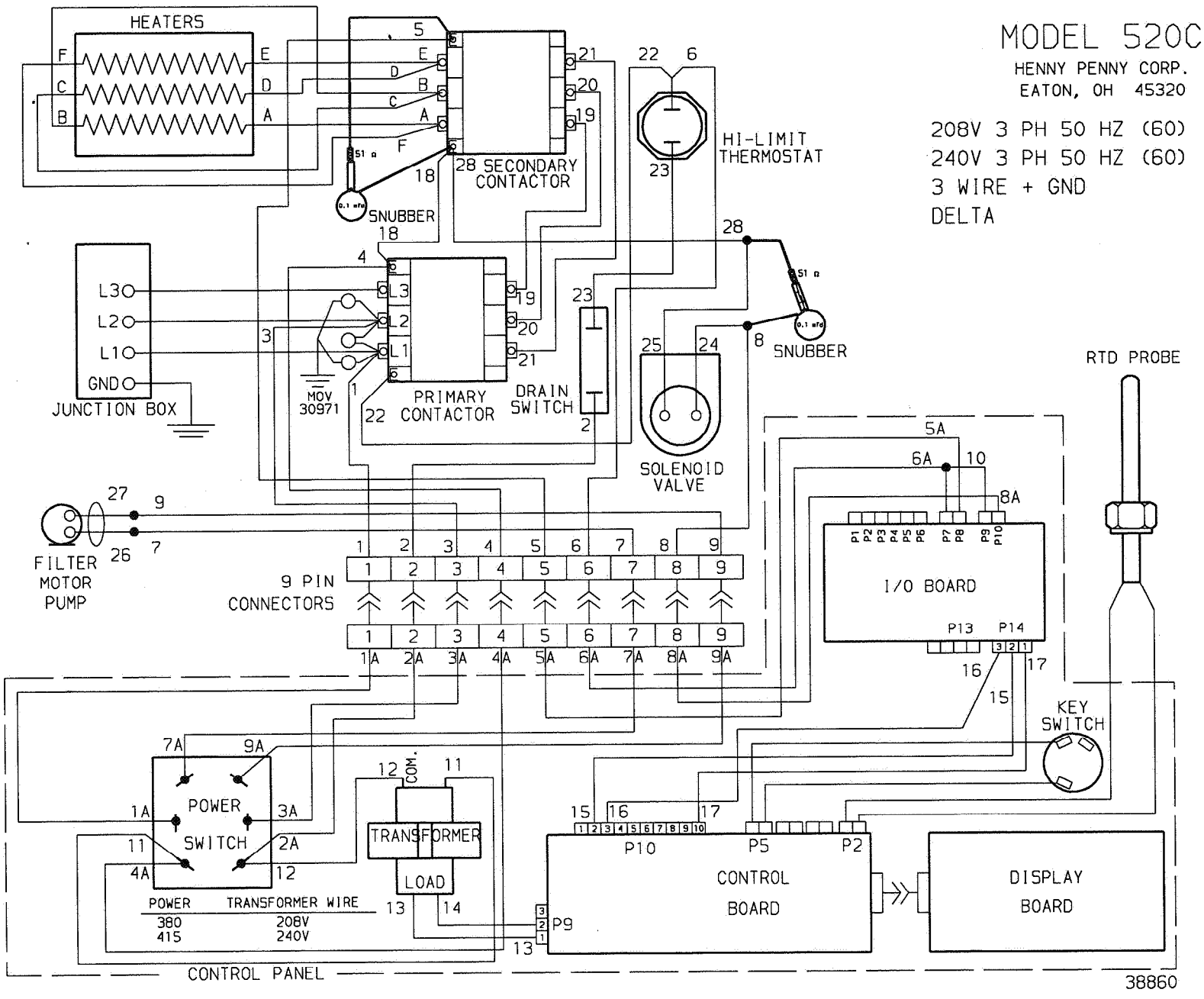
DO NOT DISASSEMBLE OR MODIFY THIS VALVE. Tampering with this valve could cause serious injuries and also voids agency approvals and appliance warranty.

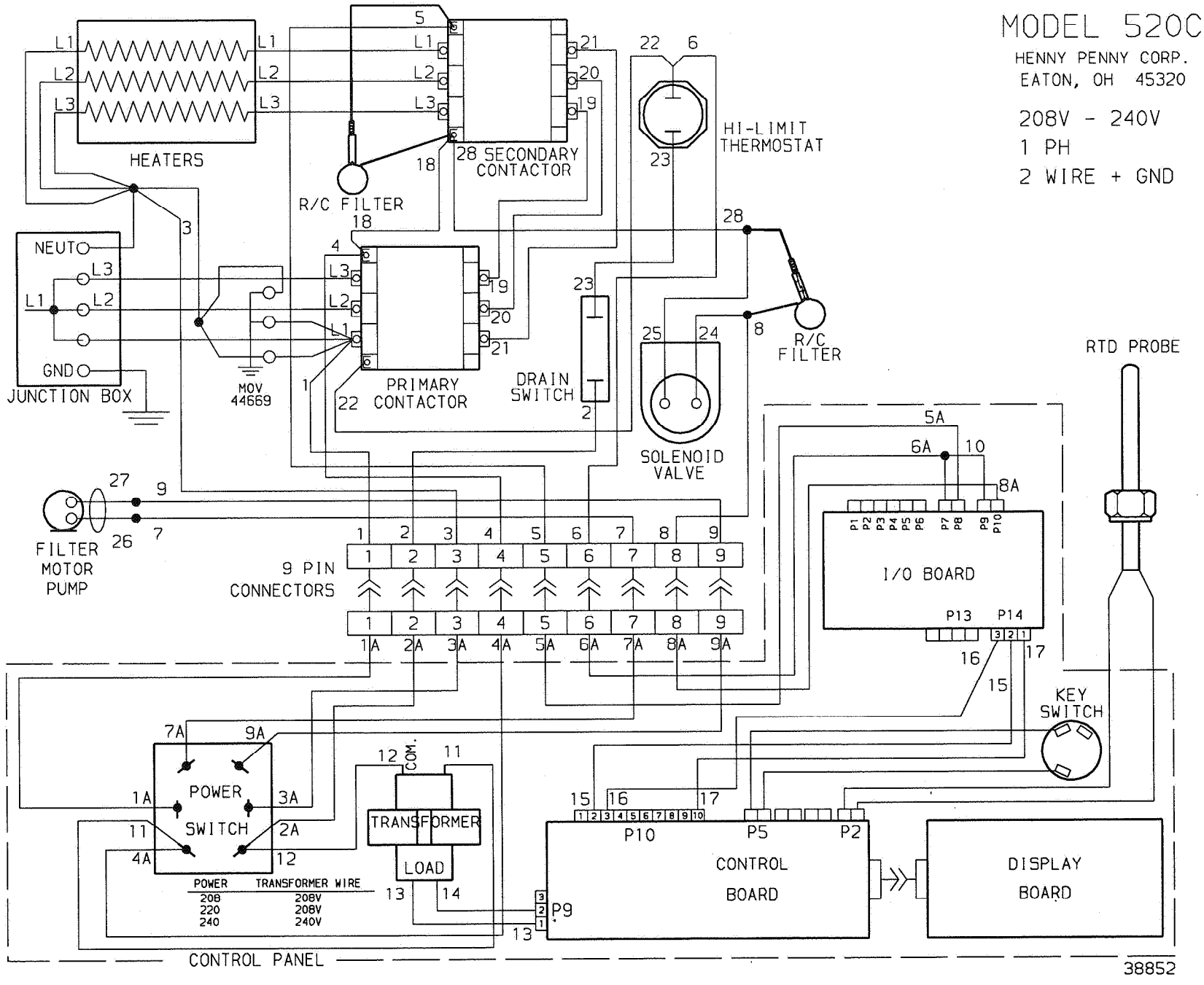
MODEL 520C

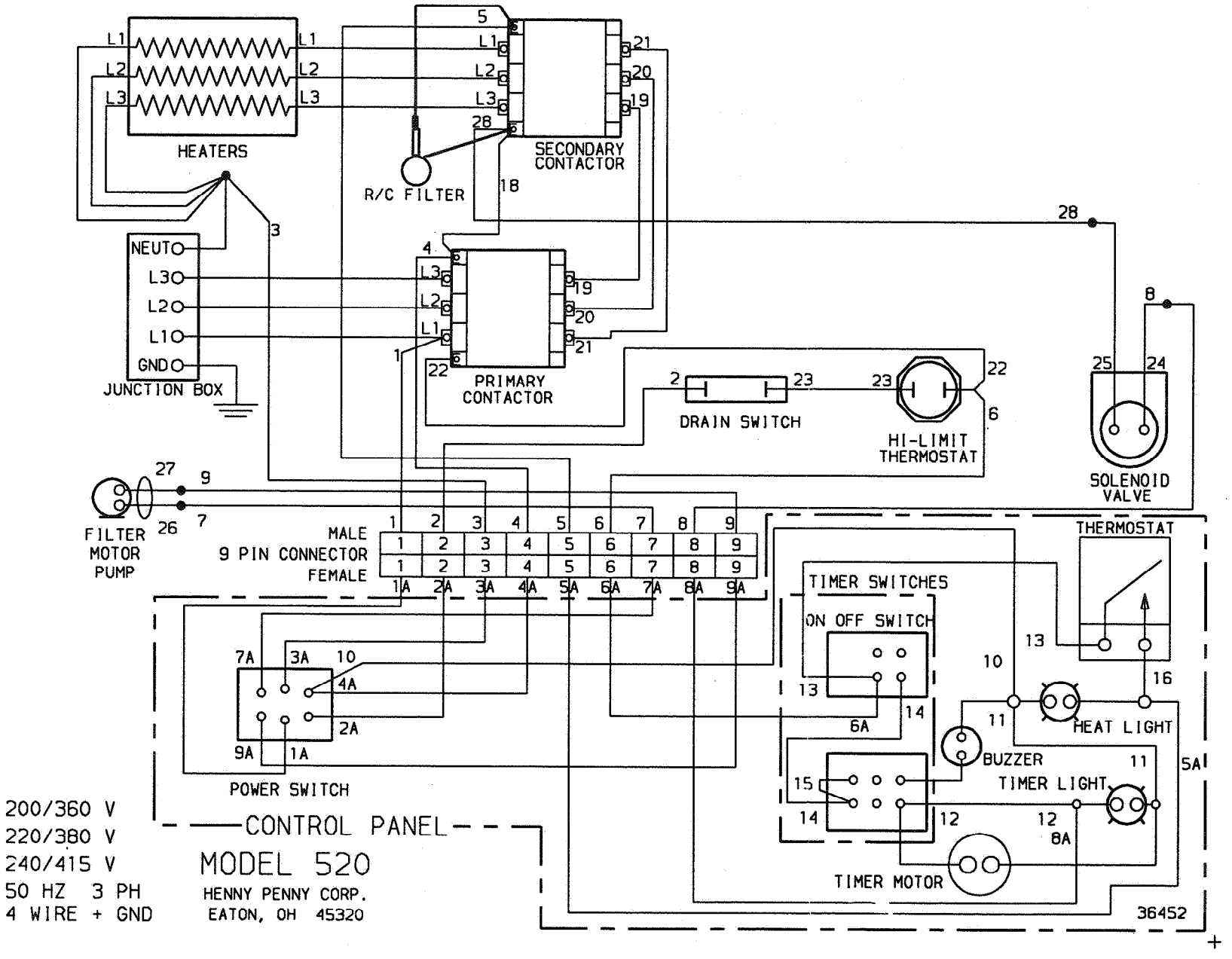
HENNY PENNY CORP.
EATON, OH 45320

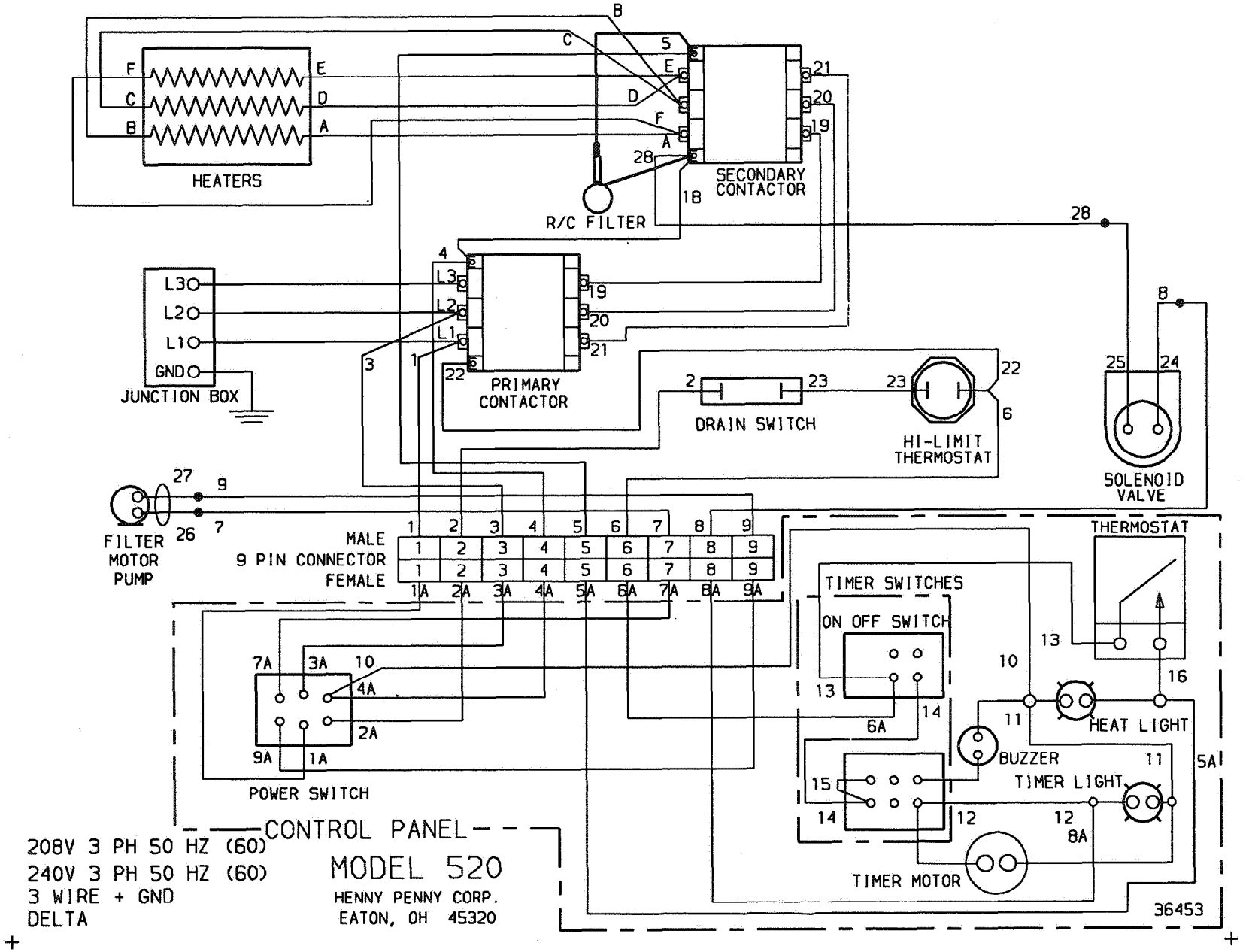
200/360 V
220/380 V
240/415 V
3 PH
4 WIRE + GND




MODEL 520C
HENNY PENNY CORP.
EATON, OH 45320
208V 3 PH 50 HZ (60)
240V 3 PH 50 HZ (60)
3 WIRE + GND
DELTA
HEATERS
HI-LIMIT THERMOSTAT
SECONDARY CONTACTOR
SNUBBER
JUNCTION BOX
MOV 30971
PRIMARY CONTACTOR
DRAIN SWITCH
SOLENOID VALVE
RTD PROBE
FILTER MOTOR PUMP
9 PIN CONNECTORS
I/O BOARD
KEY SWITCH
POWER SWITCH
TRANSFORMER
LOAD
CONTROL BOARD
DISPLAY BOARD
CONTROL PANEL
POWER
380
415
TRANSFORMER WIRE
208V
240V
38860


MODEL 520C
HENNY PENNY CORP.
EATON, OH 45320
208V - 240V
1 PH
2 WIRE + GND
HEATERS
L1
L2
L3
NEUTO
GND
JUNCTION BOX
MOV
44669
R/C FILTER
28 SECONDARY
CONTACTOR
PRIMARY
CONTACTOR
DRAIN
SWITCH
HI-LIMIT
THERMOSTAT
SOLENOID
VALVE
R/C
FILTER
RTD PROBE
FILTER
MOTOR
PUMP
9 PIN
CONNECTORS
I/O BOARD
P13
P14
KEY
SWITCH
POWER
SWITCH
TRANSFORMER
LOAD
COM.
CONTROL
BOARD
DISPLAY
BOARD
P10
P5
P2
P9
POWER
TRANSFORMER WIRE
208
220
240
208V
208V
240V
CONTROL PANEL
38852


L1
L2
L3
HEATERS
5
L1
L2
L3
28
21
20
19
SECONDARY CONTACTOR
R/C FILTER
18
3
NEUTO
L3O
L2O
L1O
GNDO
JUNCTION BOX
4
L3
L2
L1
1
22
19
20
21
PRIMARY CONTACTOR
28
8
2
23
DRAIN SWITCH
23
22
6
HI-LIMIT THERMOSTAT
25
24
SOLENOID VALVE
27
9
26
7
FILTER MOTOR PUMP
MALE
9 PIN CONNECTOR
FEMALE
1 2 3 4 5 6 7 8 9
1A 2A 3A 4A 5A 6A 7A 8A 9A
THERMOSTAT
TIMER SWITCHES
ON OFF SWITCH
13
10
16
13
14
6A
11
HEAT LIGHT
BUZZER
11
5A
TIMER LIGHT
15
14
12
12
8A
TIMER MOTOR
7A
3A
10
4A
2A
9A
1A
POWER SWITCH
36452
200/360 V
220/380 V
240/415 V
50 HZ 3 PH
4 WIRE + GND
CONTROL PANEL
MODEL 520
HENNY PENNY CORP.
EATON, OH 45320


HEATERS
R/C FILTER
SECONDARY CONTACTOR
JUNCTION BOX
PRIMARY CONTACTOR
DRAIN SWITCH
HI-LIMIT THERMOSTAT
SOLENOID VALVE
FILTER MOTOR PUMP
MALE 9 PIN CONNECTOR FEMALE
THERMOSTAT
TIMER SWITCHES
ON OFF SWITCH
HEAT LIGHT
BUZZER
TIMER LIGHT
TIMER MOTOR
POWER SWITCH
CONTROL PANEL
208V 3 PH 50 HZ (60)
240V 3 PH 50 HZ (60)
3 WIRE + GND
DELTA
MODEL 520
HENNY PENNY CORP.
EATON, OH 45320
36453

SECTION 6. PARTS INFORMATION

6-1. INTRODUCTION

This section lists the replaceable parts of Henny Penny Model 520 Compact Pressure Fryer.

6-2. GENUINE PARTS

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

6-3. HOW TO FIND PARTS

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

1. Referring to the illustration in this section, find the part item number of the part needed.

2. Find the item number in the parts list, which shows the Henny Penny part number, a description of the part, any model or usage limitations, and the quantity of parts used.

6-4. HOW TO ORDER

Once the parts you want to order have been found in the Parts List, write down the following information:

Example:

Item number	31
Part number	17308
Description	Filter Valve

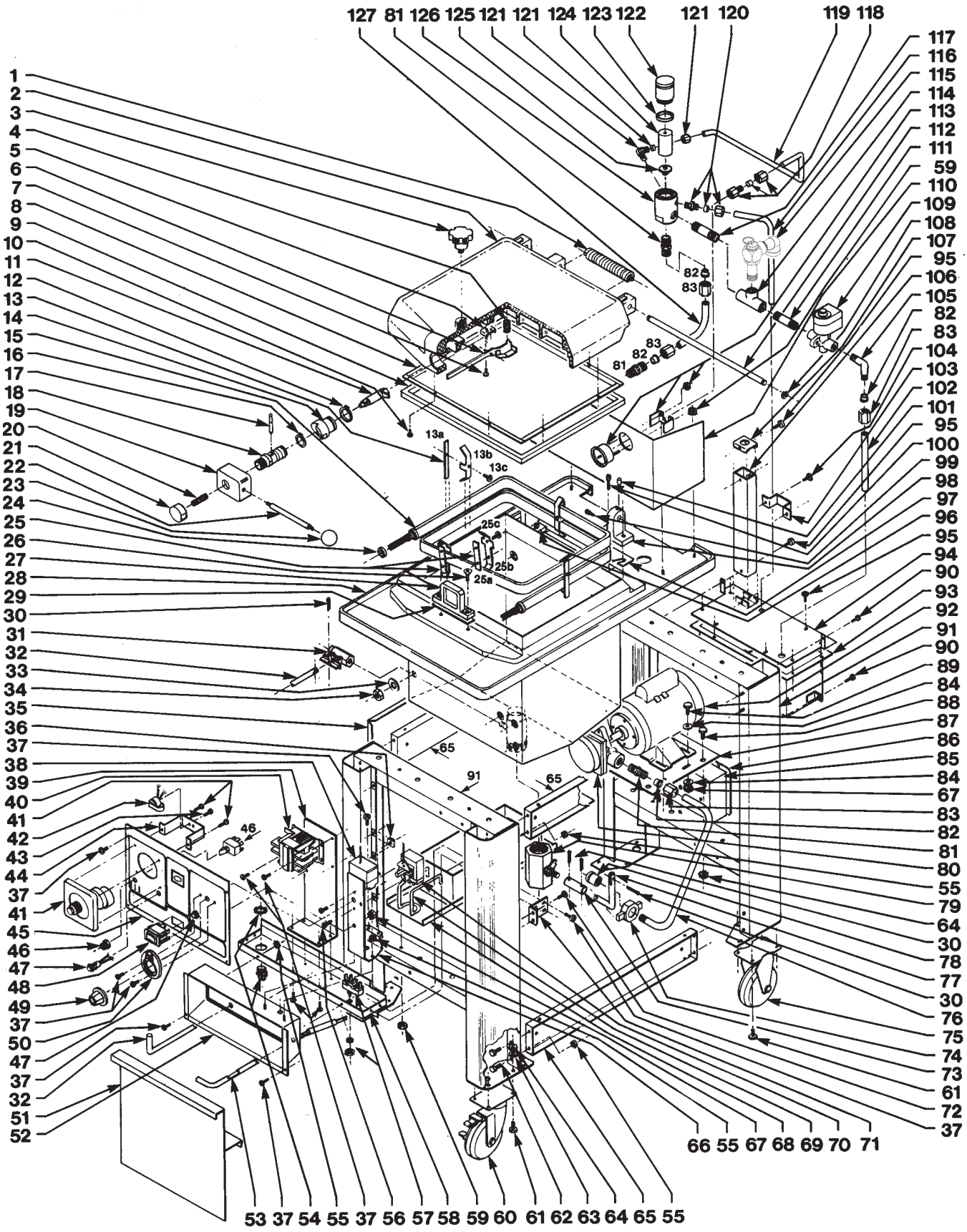
From the date plate list the following information:

Example:

Product number	02571
Serial number	00179
Phase	3
Voltage	208

6-5. 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.


127 81 126 125 121 121 124 123 122 121 120 119 118
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 37 41 45 46 47 48 49 37 50 47 37 32 51 52
117 116 115 114 113 112 111 59 110 109 108 107 95 106 105 82 83 104 103 102 101 95 100 99 98 97 96 95 94 90 93 92 91 90 89 84 88 87 86 85 84 67 83 82 81 80 55 79 64 30 78 77 30 76 75 74 73 61 72 37
66 55 67 68 69 70 71
53 37 54 55 37 56 57 58 59 60 61 62 63 64 65 55
13a 13b 13c
25c 25b 25a
65 91 65
46
82 83 83 82 81

520 FRYER PARTS LIST

NO.	PART NUMBER	DESCRIPTION	Qty.
	37956	LID ASSEMBLY, Complete	1
√ 1	19475	TORSION SPRING, Lid	1
2	37955	LID, Machined Casting	1
3	32227	KNOB	1
4	16165	SPRING, LockPin	1
5	37505	RETAINER, Pin.	2
6	37751	LOCKING LEVER ARM ASSEMBLY	1
7	SC01-049	SCREW #6-32 x 3/8 PH-RHD C	6
8	19471	LINER, Lid	1
√ 9	19472	GASKET, Lid	1
10	SC01-152	SCREW #6-32 x 3/8 PH-FHD SS	8
11	36146	CAMSHAFT, Machined	1
12	RR01-008	RING, Ret.1 1/2 Shaft	1
13a	29070	ELEMENT SPREADER-BAR	3
13b	29359	ELEMENT SPREADER	3
13c	SC01-055	ELEMENT SPREADER-SCREW	3
14	36177	EXTRACTION CAM	1
√ 15	29224	HEATING ELEMENT, 6KW, 208V	1
√	36072	HEATING ELEMENT, 6KW, 220V	1
√	48436	HEATING ELEMENT, 6KW, 230V	1
16	RR01-009	RING, Ret. 1 1/8 Shaft	1
17	36562	PIN, Cam	1
18	29339	SLEEVE, Fryer	1
19	36094	HANDLE, Finished	1
20	29397	SPRING	1
21	29341	NUT, Handle	1
22	38231	SHAFT, Handle (units built before 1993 use 38231 & 36094)	1
23	16102	KNOB, Spindle (Red)	1
24	16855	SEAL, “O” Ring	2
25a	29295	BRACKET, High Limit Thermocouple - BAR	2
25b	29297	BRACKET, High Limit Thermocouple	2
25c	SC01-055	BRACKET, High Limit Thermocouple -SCREW	6
26	36079	SCREW, 5/16-24 x 1 Flat HD	2
27	36145	LATCHPLATE, Machined	1
28	36163	POT & COUNTERTOP WELDMENT	1
29	36056	SHIM, Latch .005	1
30	17255	COTTER PIN	4
√ 31	17308	FILTER VALVE	1
32	19739	ROD, Filter Valve Extension	1

√ recommended parts

520 FRYER PARTS LIST (Continued)

NO.	PART NUMBER	DESCRIPTION	Qty.
33	WA01-005	WASHER, AM. Std. 10 x 1-5/16 OD, Type A, Series N ..	2
34	NS01-017	NUT, Hex 5/8-18 Brass I	2
35	19193	SIDE PANEL ASSEMBLY	2
36	NS03-031	#8 TINNERMAN FASTENER	*
37	SC04-002	SCREW, #8-32 X 3/8 PH THD C	*
√ 38	16738	TEMPERATURE CONTROL, High Limit	1
39	29285	BRACKET, Contactor	1
√ 40	19405	CONTACTOR	2
√ 41	36067	TIMER, 240 v, 60 HZ	1
42	26462	BUZZER, 208/240 V	1
43	SC01-023	SCREW, #6-32 X 1/4 PH RHD C	1
44	29607	BRACKET, Contactor	1
45	36082	CONTROL PANEL, w/Weld Stud	1
45	29333	DECAL, Control Panel	1
√ 46	17664	SWITCH, Power	1
√ 47	16624	LIGHT, Indicator	2
√ 48	30261	SWITCH, On-Off-On	1
49	16706	THERMOSTAT KNOB	1
50	16704	THERMOSTAT BEZEL	1
51	29982	COVER, Lower Front	1
52	29407	RECESS PANEL & DECAL ASSY	1
53	19743	ROD, Drain Valve	1
54	EF02-016	STRAIN RELIEF, SQUEEZE, 3/8	1
55	NS02-006	NUT, #10-24, Hex Keps C	*
56	SC01-152	NUT, #6-32 x 3/8 PH FHD SS	2
√ 57	18227	MICROSWITCH	1
58	29287	BRACKET	1
59	NS01-007	NUT, #10-24 Hex Std. S	2
60	27154	CASTER, 5” Swivel & Locking	2
61	SC01-026	SCREW, 5/16-18 x 3/4 Hex HD C	*
62	SC01-038	SCREW, #10-24 x 3/8	*
63	LW02-014	LOCKWASHER, 5/16 Int. Star	*
64	NS02-008	NUT, 5/16-18 Hex Keps	*
65	29355	CHANNEL, Side	4
66	29813	BRACKET, High Limit Therm	1
67	NS02-002	NUT, 1/4-20 Hex Keps C	*
68	29992	CONDENSATE PAN SUPPORT ASSY	1
69	29983	CONDENSATE WELD ASSY	1
√ 70	18402	THERMOSTAT CONTROL	1

recommended parts

* as required

520 FRYER PARTS LIST (Continued)

NO.	PART NUMBER	DESCRIPTION	Qty.
71	36427	BRACKET, Support	2
72	SC04-003	SCREW, #8-32 x 3/8 PH PHD S	*
73	52621	COUPLING, Drain Valve	1
√ 74	69289	UNION, Handle Fitting	1
75	28170	CASTER, 5" Non Swivel & Non Locking	2
76	19596	TUBING, Pump to Filter	1
77	19747	PIVOT ROD, DrainValve (Below SN: GD001IH)	1
77	55165	LEVER Weld Assy (SN: GD001IH and Above)	1
√ 78	69289	UNION, Male Fitting	1
79	17260	DRAIN VALVE	1
80	17437	PUMP-Filter L-S	1
81	16807	FITTING CONNECTOR, Male	*
82	16808	FITTING SLEEVE, Steel	*
83	16809	NUT FITTING	*
84	WA01-002	WASHER, 1/4 Type B, Series 2	*
85	19707	BOX, Junction	1
86	19708	COVER, Junction Box	1
87	29332	PLATE, Mounting Motor	1
88	SC01-040	SCREW, 5/16-18 x 1/2 Hex HD C	*
89	SC01-022	SCREW, 1/4-20 x 3/4 Hex HD C	*
90	SC02-023	SCREW, #8-B x 3/8 PH THD S	*
91	29394	CORNER POST ASSEMBLY	2
√ 92	67583	MOTOR, Filter Pump 50/60 HZ - 1/2 Horse	1
93	36134	STEAM BOX WELDMENT	1
94	36137	TOP, Steam Box	1
95	SC02-012	SCREW, #10-AB x 3/8 P THD	*
96	36339	HINGE BLOCK, L.H., Machined	1
97	36085	SHIM, Hinge .005	*
98	36338	HINGE BLOCK, R.H., Machined	1
99	SC01-154	SCREW, 5/16-18 x 1/2 SOC HD CAP	1
100	36080	SCREW, 5/16-24 x l SOC HD CAP	4
101	36089	STOP, Lid	2
102	19734	TUBING, Solenoid to Steam Box	1
103	36509	BRACKET, Steam Box Stack	1
104	SC04-006	SCREW, 1/4-20 x 1/2 Hex HDC	*
105	17407	CONNECTOR, 1/2 Male Elbow	1
106	29589	STACK	1
107	29591	CAP, Stack	1
108	RR01-011	RING, Ret. 1/2" Shaft, Heavy Duty	2

recommended parts

* as required

520 FRYER PARTS LIST (Continued)

	NO.	PART NUMBER	DESCRIPTION	Qty.
√	109	18721	VALVE, Solenoid	1
	110	29309	SHIELD, Front	1
	111	FP01-061	NIPPLE, 1/2"	1
	112	36205	PIN, Hinge Lid	1
√	113	29974	GAUGE, Pressure	1
	114	FP01-011	1/2 NPT PIPE TEE, 304 SS	1
√	115	59742	VALVE, Relief Assembly	1
	116	19733	TUBING, Dead Weight to Steam Box	1
	117	FP01-061	NIPPLE, 1/2"	1
	118	FP01-065	CONNECTOR, 3/8 Tube, 1/4 NPT, Female	1
	119	19732	TUBING, Dead Weight to Pressure Gauge.	1
	120	FP01-056	CONNECTOR, 3/8 Tube, 1/4 NPT, Male	1
	121	FP01-058	ELBOW, 1/4 Tube, 1/4 NPT, Male.	1
	122	16926	CAP, Dead Weight Valve	1
	123	16902	SEAL, “O” Ring	1
	124	16903	DEAD WEIGHT, 14 PSI	1
	125	16918	ORIFICE, 12 PSI	1
	126	19736	BODY, Valve	1
	127	19735	TUBING, Pot to Dead Weight	1
√	128	51066	EMC Filter Board Assy.-CE (not shown)	1
	129	48434	JUNCTION BOX Assy.-CE (not shown)	1
	130	63095	ADJUSTABLE LEG (not shown)	4
			Electronic Controls Parts (not shown)	
		38665	CONTROL PANEL ASSY.- Complete.	1
		40301	DECAL - Control Panel	1
	√	40302	CONTROL BOARD ASSEMBLY	1
	√	40262	DISPLAY BOARD ASSEMBLY	1
	√	40300	INPUT/OUTPUT BOARD	1
	√	40500	REPLACEABLE BEEPER	1
	√	30261	POWER SWITCH	1
	√	29523	PROBE.	1
	√	28979	TRANSFORMER	1
	√	38855	KEYSWITCH	1
		54791	BOOT, Switch	1

recommended parts

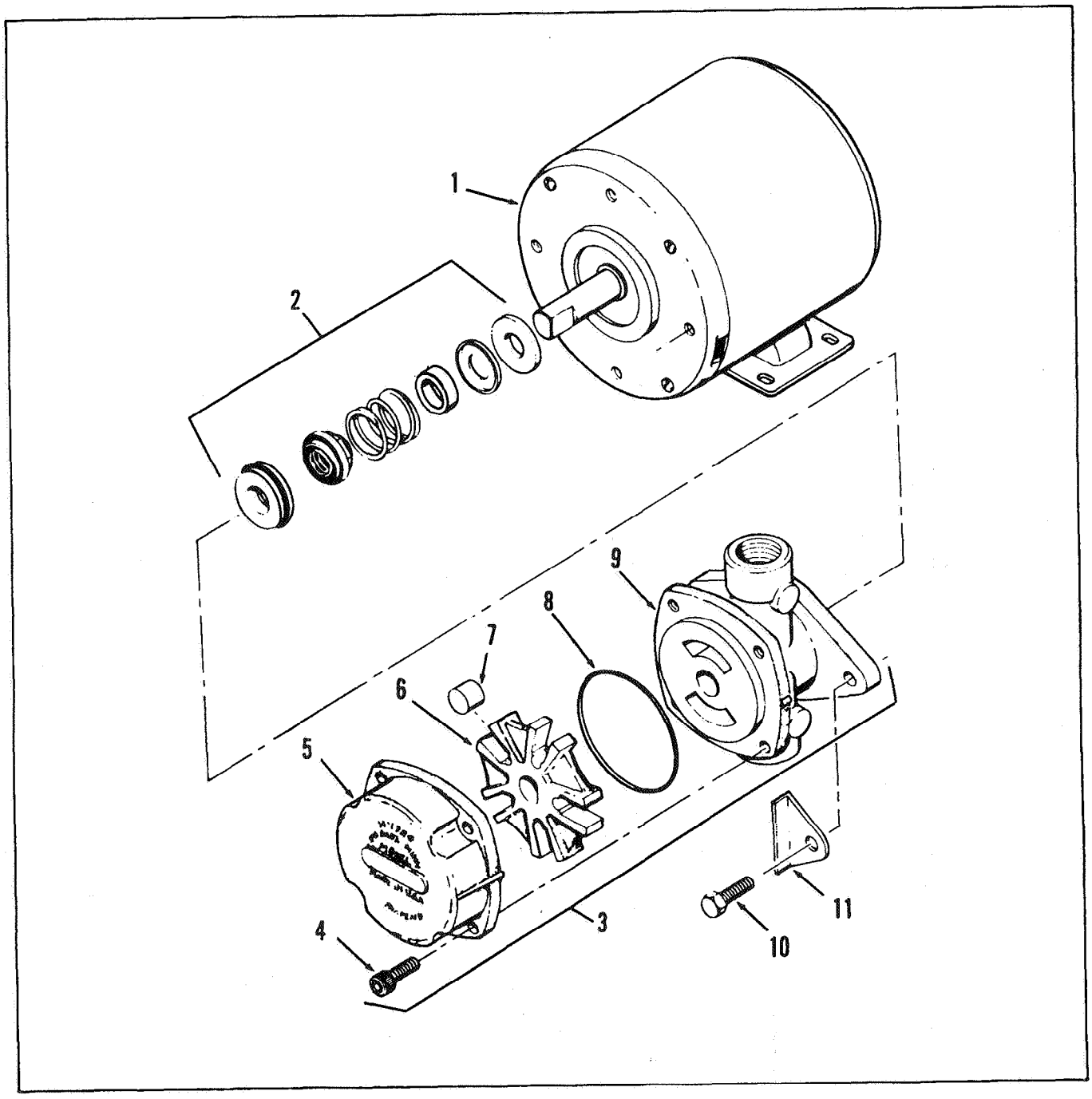


Figure 6-29. Roller Pump (Gas and Electric Models)

520 FRYER PARTS LIST (Continued)

NO.	PART NUMBER	DESCRIPTION	Qty.
√ 1	67583	MOTOR, 50/60 Hz	1
2	17476	SEAL KIT	1
3	17437	PUMP ASSEMBLY	1
√ 4	SC01-132	1/4-20 X 5/8 SOC HD CAP SCREW	4
√ 5	17451	COVER - PUMP	1
√ 6	17447	ROTOR - PUMP	1
√ 7	17446	ROLLER - TEFLON SET(OF 5)	1
√ 8	17453	PUMP O RING GASKET	1
√ 9	17454	BODY - PUMP	1
√ 10	17456	PUMP SHIELD	2
√ 11	SC01-026	SCREW 5/16-18 X 3/4 HEX HD C	2
		FILTER ASSEMBLY(not shown)	
	45079	FILTER DRAIN PAN ASSEMBLY	1
	19764	FILTER SCREEN, Bottom	1
	36100	STANDPIPE ASSEMBLY	1
	29081	TUBE, Filter Union to Filter Nut	1
	65208	NUT, Filter	1
√	69289	FILTER UNION	1
	19761	FILTER SCREEN, Top	1
	19767	CRUMB CATCHER	1
	36113	COVER, Drain Pan Weldment	1
	17505	CLIPS, Filter	1

√recommended parts

SECTION 7. ELECTRONIC CONTROLS

7-1. INTRODUCTION

The Henny Penny Pressure Fryer Model 520 can come equipped with electronic controls. These controls allow for a consistent product, and displays temperature and timing cycles.

7-2. CONTROL PANEL LAYOUT

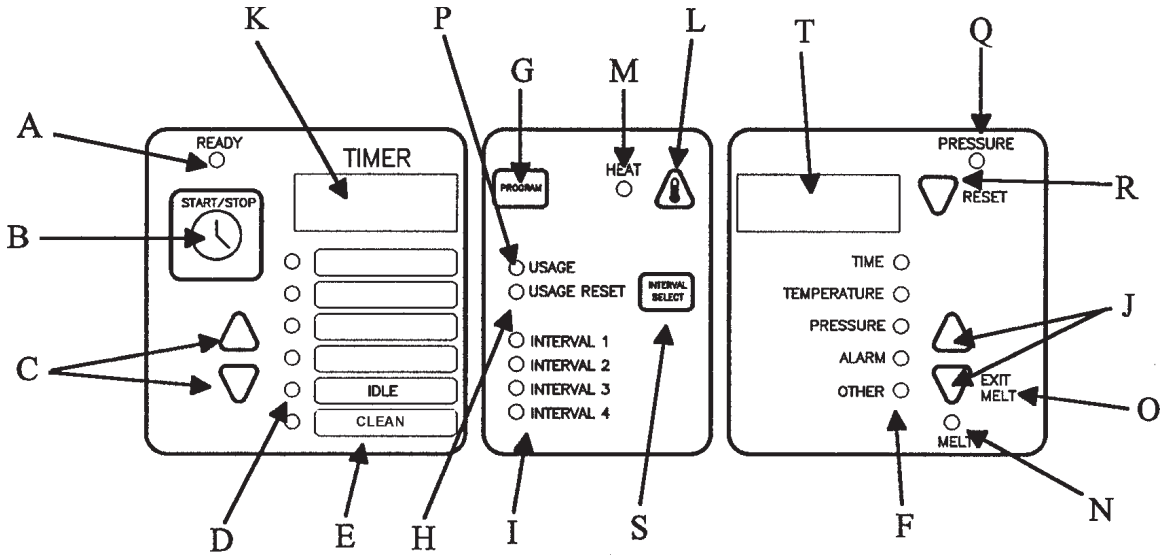


Figure 7-1
Four Product Control

A. Turns on when shortening temperature is in ready range.
B. Push to start timer. Push and hold to abort running timer. Push at end of cook cycle to stop alarm.
C. Push to select product, Idle or Clean modes.
D. Shows the selected item.
E. Slide menu card in and out from inside of panel.
F. One of these flashes during program mode to show which item is being programmed.
G. Push and hold to display usage. Push to toggle between Daily and Total usage. Push and hold to exit usage mode.
H. Flashes during usage reset.
I. Shows intervals in Program mode.
J. Push to scroll parameters in program mode.
K. Shows **temperature** in standby mode, "**CLn**", in Clean mode, and **time** during a cook cycle.
L. Push to show temperature in right display, and acts as an increase switch in Program mode.
M. Turns on when heat is on.
N. Flashes during melt.
O. Push and hold for 5 seconds to bypass melt cycle.
P. Flashes during review usage.
Q. Turns on with pressure solenoid.
R. Push to reset usage, and acts as a decrease button in Program mode.
S. Push to select interval in Program mode.
T. Shows temperature when temperature button is depressed during a cook cycle, and shows "**CLn**", in Clean mode.

7-2. CONTROL PANEL LAYOUT (Continued)

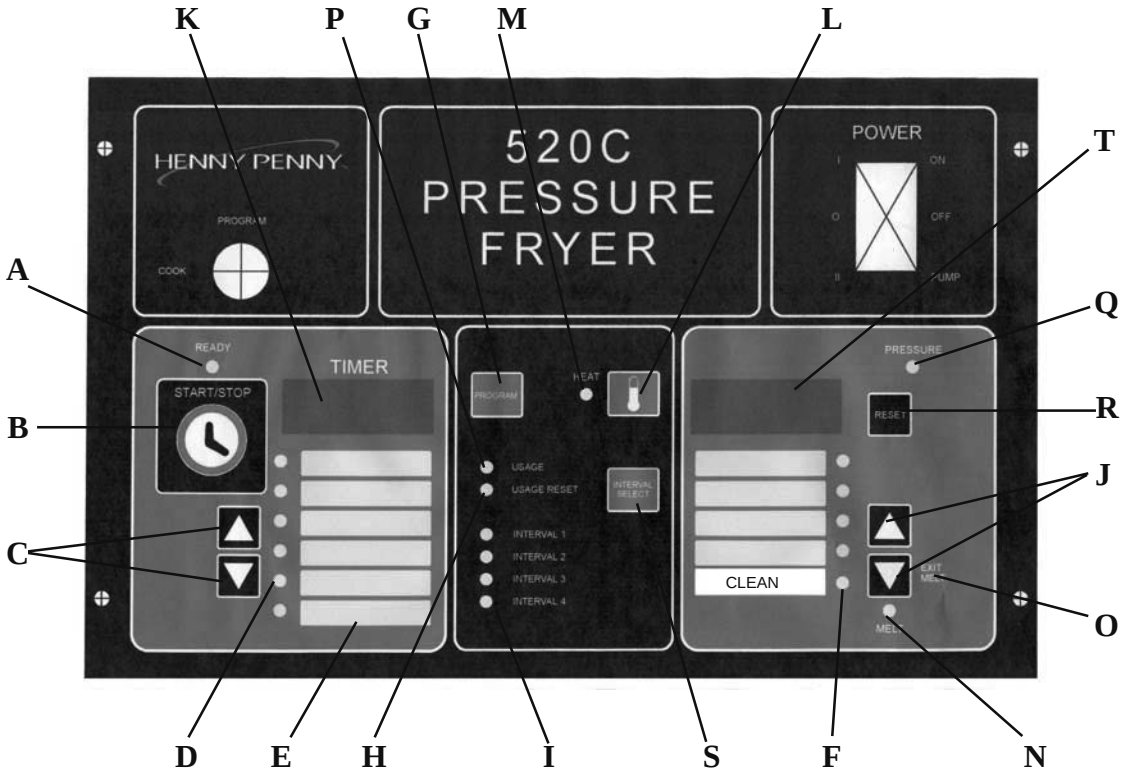


Figure 7-2
Ten Product Control

A. Turns on when shortening temperature is in ready range.
B. Push to start timer. Push and hold to abort running timer. Push at end of cook cycle to stop alarm.
C. Push to select product, or the Clean mode.
D. Shows the selected product. (left and right)
E. Slide menu cards in and out from inside of panel.
F. Turns on when the Clean mode has been selected.
G. Push and hold to display usage. Push to toggle between Daily and Total usage. Push and hold to exit usage mode. Push to scroll parameters in program mode.
H. Flashes during usage reset.
I. Shows intervals in program mode.
J. Sets parameter increments in Program mode.
K. Shows "CLn" during Clean mode, and shows time remaining in cook cycle.
L. Turns on when heat is on.
M. Push to display temperature in right display.
N. Flashes during melt.
O. Push and hold for 5 seconds to bypass melt cycle.
P. Flashes during review usage.
Q. Turns on with pressure solenoid.
R. Push to reset usage.
S. Push to select interval (in program mode), or to enter Reset Usage.
T. Shows temperature when temperature button is depressed during a cook cycle, and shows "**CLn**", in Clean mode

7-3. USAGE REVIEW OPERATION

1. Push PROGRAM button (G) 2 seconds, until "USAGE" LED (P) flashes. First product is selected.
2. Left display shows usage type for selected product. Type is "daily" or "total". Right display shows usage for selected product. Push PROGRAM button to change between daily and total displays.
3. If timer alarms occur during usage review, push TIMER button (B) to acknowledge alarm. Usage review resumes.
4. Push change buttons (C) to select products. When all product LEDs (D) turn on, total usage of all products is shown.
5. Push and hold PROGRAM button to exit usage review.

7-4. USAGE REVIEW/ RESET OPERATION

1. While in usage review, press and hold INTERVAL SELECT button (S) for 5 seconds; the buzzer beeps three times and the "USAGE RESET" LED will flash.
2. Select product and product type as described above. Push RESET button (R) to clear displayed usage count.
3. Push and hold PROGRAM button to exit usage review.

7-5. PROGRAMMING IN GENERAL

1. The two programming levels are: regular program mode and special program mode. To enter regular program mode, turn the key switch to the "Program" position, except during a cook cycle. To enter special program mode, hold the PROGRAM button (G) for 10 seconds, while in regular program mode.
2. The left display always describes the item being programmed, and the right display always shows the item setting. Push the change buttons, (L & R)-4 product controls; (J)-10 product controls, to change the item shown in the right display. Push and hold the change button to change the item more quickly.
3. If timer alarms occur while programming, push the TIMER button (B) to acknowledge the alarm and resume programming.
4. Turn the key switch back to the "Cook" position when done programming.

7-6. REGULAR PROGRAM MODE

Function	Four Product Control	Ten Product Control
Enter Regular Program	1. Turn key switch to "Program".	1. Turn key switch to "Program".
	2. Buzzer sounds and right display shows total cook time.	2. Buzzer sounds and right display shows total cook time.
	3. First product and first interval, LEDs lights.	3. First product and first interval, LEDs lights.
	4. The TIME LED flashes.	
Select a Product	5. Push the change buttons (C) to select a product, and the LED (D) next to that product lights.	4. Push the change buttons (C) to select a product, and the LED (D) next to that product lights.
Cook Time	6. Adjust cook time with change buttons (L & R).	5. Adjust cook time with change buttons (J).
Cook Temperature	7. Push scroll buttons (J) to select temperature, and the temperature LED flashes.	6. Push Program button (G) to select temperature.
	8. The set temperature shows on the right, with the time interval on the left.	7. The set temperature shows on the right, with the time interval on the left.
	9. Change buttons (L & R), changes the temperature.	8. Change buttons (J), changes the temperature.
Pressure	10. Push scroll buttons (J) to select PRESSURE, and the Pressure LED flashes.	9. Push Program button (G) to select PRESSURE.
	11. "on" or "off" shows on the right and the time interval shows on the left.	10. "on" or "off" shows on the right and "Press" shows on the left.
	12. Change buttons (L & R) selects "on' or "off".	11. Change buttons (J) selects "on" or "off".
Alarm	13. Push scroll buttons (J) to select ALARM, and Alarm LED flashes.	12. Push Program button (G) to select ALARM.
	14. Left display shows "AL 1", and right display shows the alarm time.	13. Left display shows "AL 1", and right display shows the alarm time.

7-6. REGULAR PROGRAM MODE (Continued)

Function	Four Product Control	Ten Product Control
Alarm	15. Change buttons (L & R), adjusts the alarm time.	14. Change buttons (J), adjusts the alarm time.
	16. Repeat steps 13, 14, and 15 alarms 2, 3 and 4.	15. Repeat steps 13, 14, and 15 for alarms 2, 3 and 4.
Other	17. Push the scroll buttons (J) to select OTHER, and the Other LED flashes.	16. Push the Program button (G) to select OTHER.
PC Factor	18. "PC" shows in the left display and the PC factor shows in the right display.	17. "PC" shows in the left display and the PC factor shows in the right display.
	19. Change buttons (L & R), adjusts the PC factor.	18. Change buttons (J), adjusts the PC factor.
Load Compensation	20. Push the scroll buttons (J) to select LOAD COMP.	19. Push the Program button (G) to select LOAD COMP.
	21. Left display shows "LdCo", the right shows the load compensation factor.	20. Left display shows "LdCo", the right shows the load compensation factor.
	22. Change buttons (L & R), adjusts load comp. factor.	21. Change buttons (J), adjusts load comp. factor.
Filter Cycle	23. Push the scroll buttons (J) to select FILTER.	22. Push the Program button (G) to select FILTER.
	24. Left display shows "Filtr", the right shows "OFF" to "10".	23. Left display shows "Filtr", the right shows "OFF" to "10".
	25. Change buttons (L & R), adjusts the no. of cook cycles before shortening needs filtered.	24. Change buttons (J), adjusts the no. of cook cycles before shortening needs filtered.
	26. Push the scroll buttons (J) to return to cook time.	25. Push the Program button (G) to return to cook time.
Next Cook Interval	27. Push the INTERVAL SELECT (S) button to program the next cook interval.	26. Push the INTERVAL SELECT (S) button to program the next cook interval.
Program Next Product	28. Push the Product Select buttons (C) to program next product.	27. Push the Product Select buttons (C) to program next product.
Exit Program Mode	29. Turn key to Cook.	28. Turn key to Cook.

7-6. SPECIAL PROGRAM MODE

Function	Four Product Control	Ten Product Control
Enter Special Program	1. Turn key switch to "Program"	1. Turn key switch to "Program"
	2. Press and hold the "Program" button for 10 seconds.	2. Press and hold the "Program" button for 10 seconds.
	3. Display shows revision level and then "SPCL Prog".	3. Display shows revision level and then "SPCL Prog".
°F or °C	4. Left display shows "deg", right display shows °F or °C	4. Left display shows "deg", right display shows °F or °C
	5. Push change buttons (L or R) to select °F or °C.	5. Push change buttons (J) to select °F or °C.
Probe calibration	6. Push PROGRAM button (G)	6. Push PROGRAM button (G)
	7. Left display shows "Prob" then "Calib".	7. Left display shows "Prob" then "Calib".
	8. Adjust calibration settings with change buttons (L or R)	8. Adjust calibration settings with change buttons (J).
Initialize Controls	9. Push PROGRAM button (G)	9. Push PROGRAM button (G)
	10. Left display shows "init", right display shows "SYS".	10. Left display shows "init", right display shows "SYS".
	11. Push and hold change buttons (L or R) for 5 seconds.	11. Push and hold change buttons (J) for 5 seconds.
	12. Special Program is automatically exited. **NOTE** This programs factory settings to controls.	12. Special Program is automatically exited. **NOTE** This clears all settings to 0 or minimum value.
Inputs/Outputs	13. Push PROGRAM button (G) to skip Initialize Controls.	13. Push PROGRAM button (G) to skip Initialize Controls.
	14. Left display shows "I O", right display shows "test".	14. Left display shows "I O", right display shows "test".
	15. Push each button to test displays and LEDs, and INTERVAL SELECT (S) button to turn on heat and pressure.	15. Push each button to test displays and LEDs, and Temp button (K) to turn on heat and pressure.
Exit Program Mode	16. Turn key to "COOK" position.	16. Turn key to "COOK" position.

7-7. BASIC OPERATIONS

These are simplified procedures on using the controls. Refer to Section 3-5 for more detailed instructions on cooking procedures.

1. Turn Power Switch to "COOK" position.
2. Push "C (up and down buttons), to desired product. ("C" or "J" buttons on ten product controls.) See Figures 7-1, or 7-2
3. Allow unit to heat until "READY" light is lit.
4. Drop product into basket and close lid.
5. Push the "START/STOP" button to start a timing cycle.

NOTE

To abort a timing cycle, push and **hold** "START/STOP" button.

6. Push the "START/STOP" when the display flashes "done" and the alarm sounds.
7. When pressure reaches "0" on the pressure gauge, open lid and remove basket,.

Check the pressure gauge reading. Do not attempt to turn the spindle or open the lid until the pressure drops to zero. To open the lid when the frypot is pressurized, allows hot shortening and moisture to escape from the frypot, resulting in severe burns to the operator.

CAUTION

Do not let the lid slam up against the back stop. This could damage the hinge assembly. This will also allow condensation to drop back into the shortening, deteriorating the shortening.

CLEAN MODE

Select this mode when cleaning the frypot. See Section 3-8, Cleaning the Frypot.

IDLE MODE

Four product controls only. Select this mode to reduce the shortening temperature when the fryer is not being used, to extend the life of the shortening. See Section 3-5, Cooking Procedures, page 3-8.