



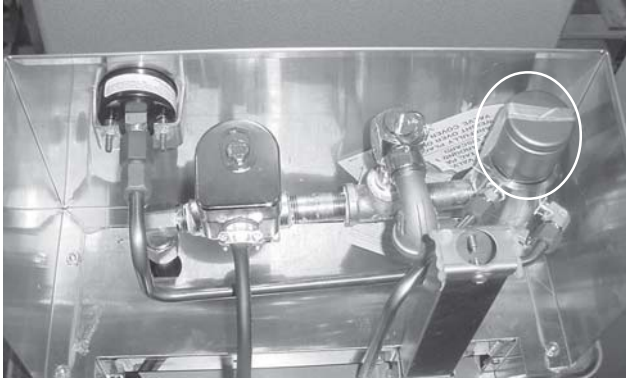
SECTION 3. OPERATION

3-1. OPERATING CONTROLS

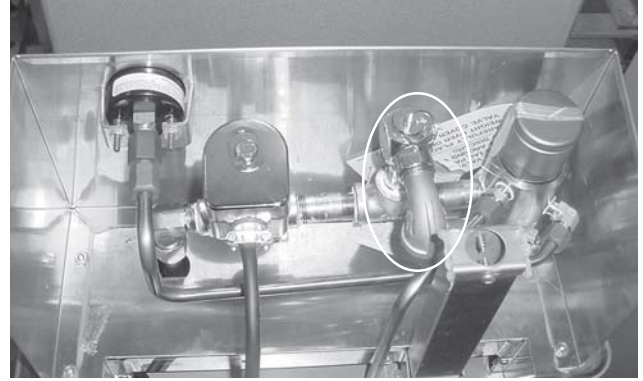
Item	Description	Function
1	Main Power Switch with Built- In Indicator Lights	A three way rocker switch with a center off position. Pressing the left side of the rocker switch (COOK position) operates the fryer, and the amber light illuminates. No light is visible when the switch is in the OFF position. 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	<p>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.</p> <p>A. Set gray knob to desired time.</p> <p>B. Push red button to start timing cycle and build pressure.</p> <p>C. When red arrow reaches zero (0), it resets to preset time and pressure is released.</p>
5	End of Cooking Cycle	<p>A. The timer buzzer sounds, the solenoid valve opens to release pressure, and the timer resets.</p> <p>B. Move the timer switch to the OFF position.</p>
6	Dead Weight Valve Assembly	<p>Maintains a constant level of steam pressure within the frypot. Excessive steam pressure is vented through the exhaust stack.</p> <p>NOTE</p> <p>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.</p>

Item	Description	Function
7	Safety Relief Valve	<p>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.</p>  <p>DO NOT pull the Safety Relief Valve Ring, or severe burns will result.</p>
8	Pressure Gauge	<p>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.</p>
9	Solenoid Valve	<p>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.</p>
10	Drain Valve	<p>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.</p>  <p>DO NOT open the drain valve while frypot is under pressure. Hot shortening exhausts from this valve. Severe burns will result.</p>
11	Drain Interlock Switch	<p>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.</p>
12	Filter Valve	<p>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.</p>

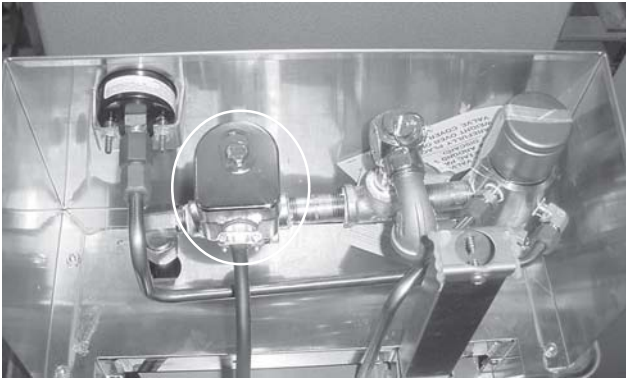
Item	Description	Function
13	High Temperature Control	<p>The high temperature thermostat is a manual reset control which senses the temperature of the shortening. If the shortening temperature exceeds the safe operating limit, this control will remove power from the contactors, thus removing heat to 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.</p>
14	Lid/Locking Assembly	<p>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.</p> <div data-bbox="940 802 1193 895" style="border: 2px solid black; padding: 5px; text-align: center; margin: 10px 0;"> WARNING </div> <p>DO NOT place your free hand on top of the lid during the latching procedure. The surface may be hot and burns could result.</p> <p>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).</p>
15	Condensate Drain Pan	<p>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.</p>



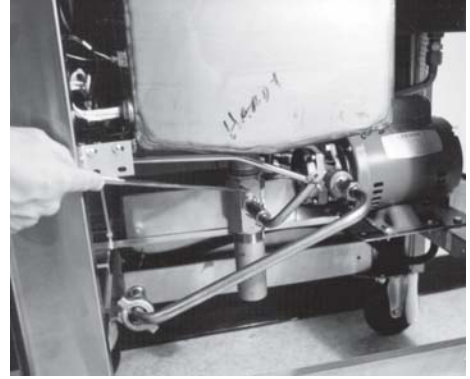
Item 6



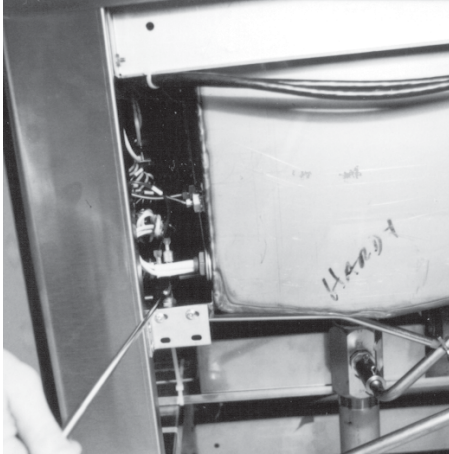
Item 7



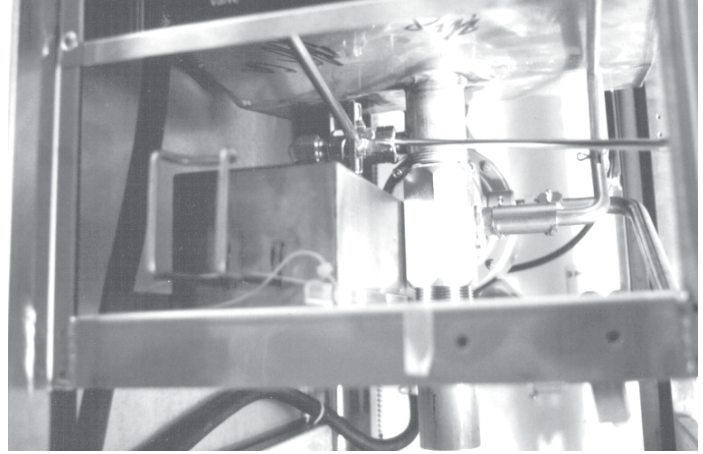
Item 9



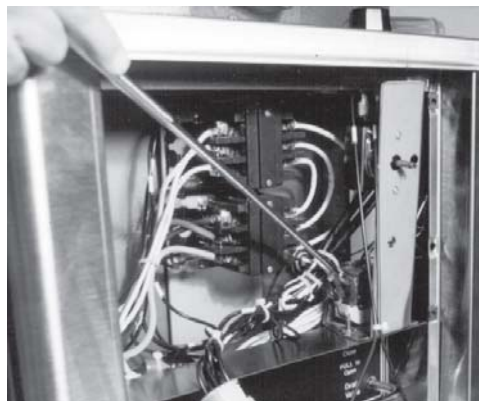
Item 10



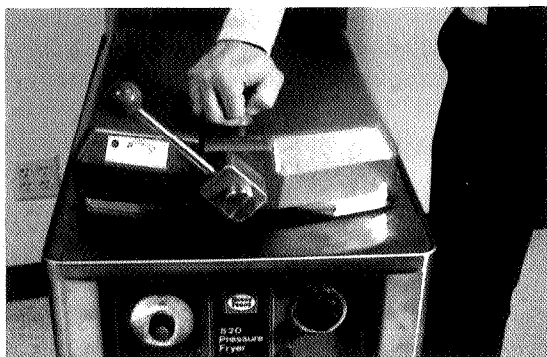
Item 11



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.

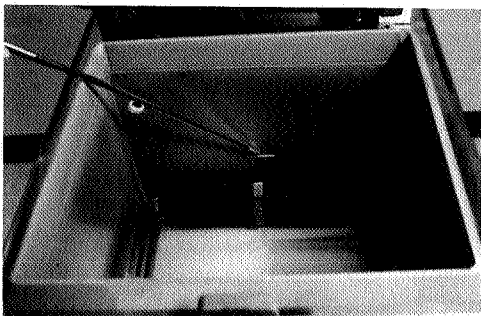
1. Check to see that all control switches are turned OFF.
2. Be sure that the drain valve and filter valve are closed.
3. Remove the wire basket from the cook pot and leave the lid open.
4. Fill the cook pot with shortening to level indicated. The level indication is the maximum shortening level when 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

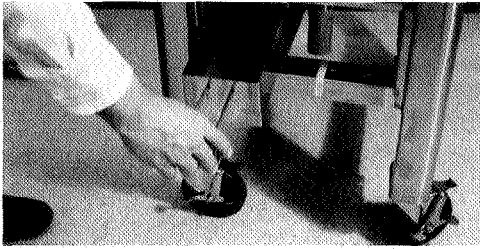
The filter envelope should be changed after 10-12 filterings or whenever it becomes clogged with crumbs. Proceed as follows:

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

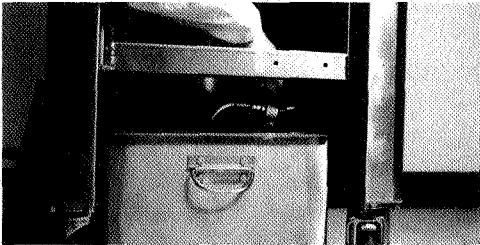
2. Remove and empty the condensation drain pan.

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.

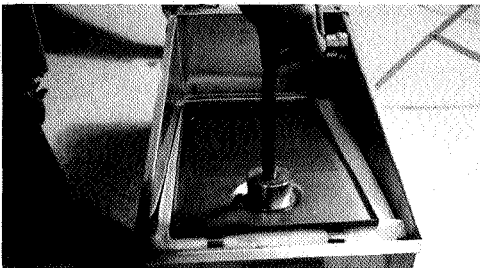
3-7. CHANGING THE FILTER ENVELOPE (Continued)



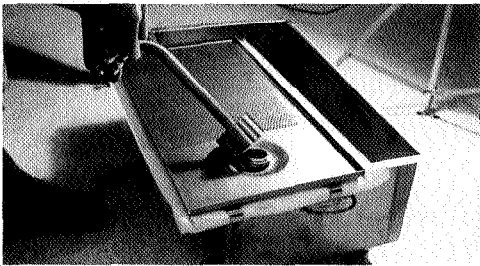
Step 2



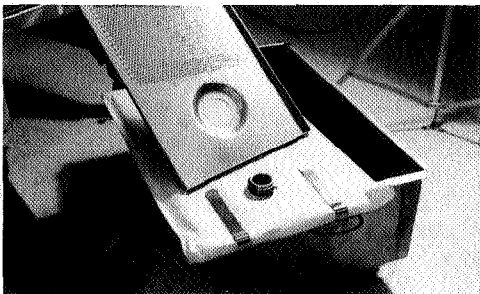
Step 3



Step 4



Step 6



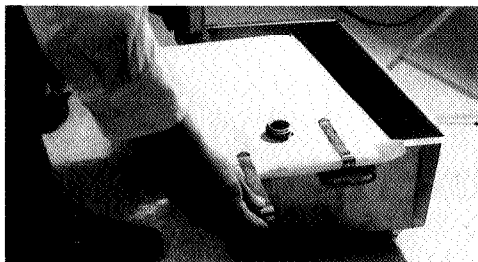
Step 7



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)



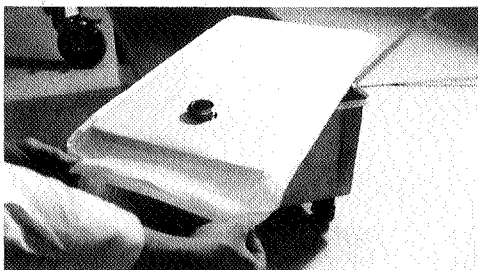
Step 8



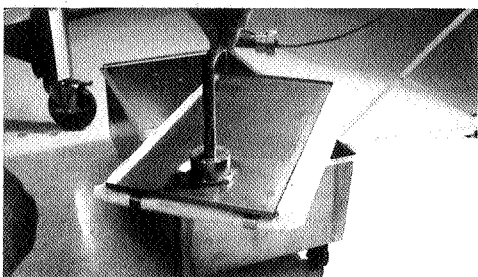
Step 10



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.

WARNING

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.