







## SECTION 3. OPERATING INSTRUCTIONS

### 3-1. OPERATING COMPONENTS

### C1000 Controls - Reference Figure 3-1.

Fig. No.	Item No.	Description	Function
3-1	1	Digital Display	Shows the shortening temperature, the timer countdown in the Cook Cycle, and the selections in the Program Mode; the temperature of the shortening can be shown by pressing  once, or twice to view set-point temperature; if shortening temperature exceeds 425°F (218°C), the display reads “E-5, FRYER TOO HOT”
3-1	2		This LED lights when the shortening temperature is within 5° of the setpoint temperature, signaling the operator that the shortening temperature is now at the proper temperature for dropping product into the frypot
3-1	3		The timer buttons are used to start and stop Cook Cycles
3-1	4		The idle buttons are used to start an Idle Mode which reduces the temperature of the shortening during non-use periods; press and hold to exit the Idle Mode
3-1	5		The program button is used to access the Program Modes; also, once in the Program Mode, it is used to advance to the next parameter
3-1	6 & 7		Used to adjust the value of the currently displayed setting in the Program Mode and to change set-point temperature of the shortening

**3-1. OPERATING COMPONENTS**  
**(Continued)**

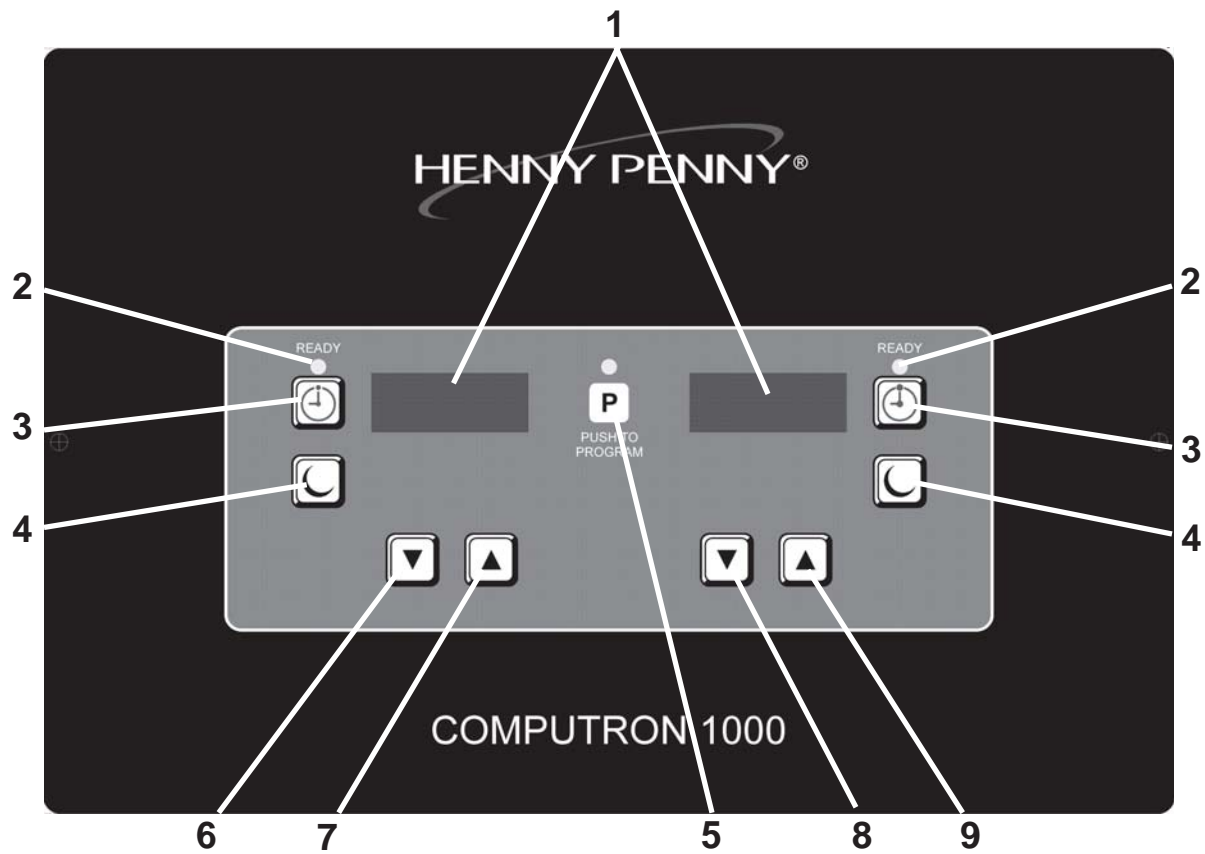


Figure 3-1

### **3-1. OPERATING COMPONENTS**

#### **(Continued)**


<b>Fig. No.</b>	<b>Item No.</b>	<b>Description</b>	<b>Function</b>
3-3	8	Frypot	Holds the cooking shortening and an adequate cold zone for collection of cracklings
3-3	9	Lid Spring	Assists in raising the lid, and then holding it open (it is covered with a shield)
3-3	10	Condensation Drain Channel	This channels the moisture, that collects on the lid liner when the lid is opened, into the drain line and prevents the moisture droplets from falling into the shortening
3-3	11	Lid Gasket	Provides the pressure seal for the frypot chamber
3-2	12	Lid Latch	A spring loaded latch that provides a positive latch to hold the lid closed; this latch, along with the spindle assembly and lid gasket, provides a pressure sealed frypot chamber
3-2	13	Spindle Assembly	An assembly that is tightened after the lid is latched, and applies pressure to the top of the lid; the lid gasket then applies pressure against the frypot rim; after building one pound of internal pressure, the lid liner pushes a locking pin up into the locking collar, preventing the spindle from being turned while the frypot is pressurized
3-2	14	Lid Limit Stop	A threaded adjustable collar used to obtain the proper tightness between the lid gasket and the frypot rim; done by controlling the number of clockwise rotations of the spindle
3-2	15	Deadweight Assembly	This deadweight style, pressure relief valve maintains a constant level of steam pressure within the frypot; excess steam is vented through the exhaust stack



**Failure to clean the deadweight assembly daily could result in the fryer building too much pressure. Severe injuries and burns could result.**



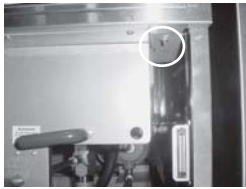
### **3-1. OPERATING COMPONENTS**

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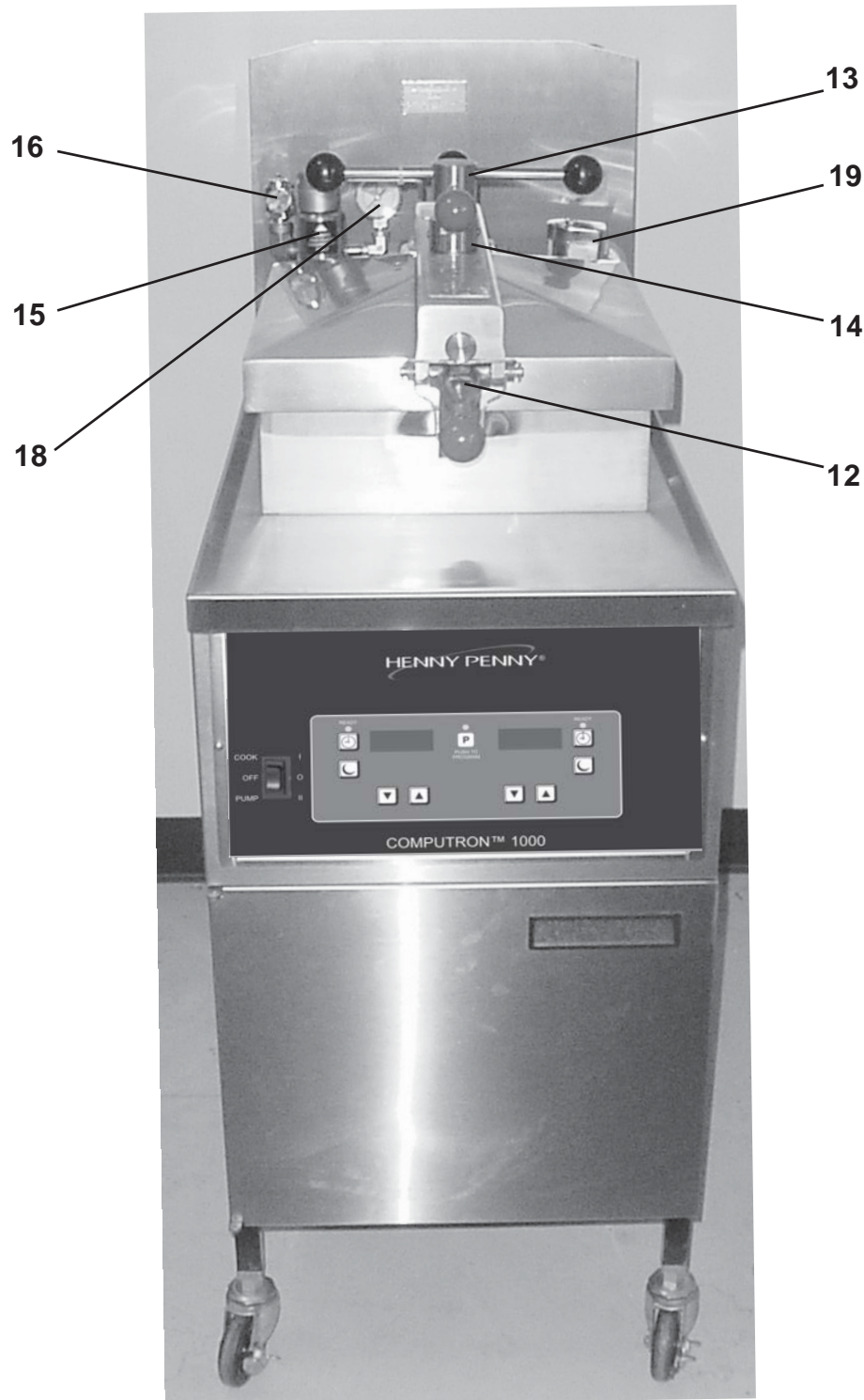
<b>Fig. No.</b>	<b>Item No.</b>	<b>Description</b>	<b>Function</b>
3-2	16	Safety Relief Valve	This is an ASME approved spring loaded valve, set at 14.5 psi; if the deadweight assembly is clogged, this safety valve releases excess pressure, keeping the frypot chamber at 14.5 psi (999 mbar); if this occurs, turn the main power switch to OFF to release all pressure from the frypot
 <p><b>If safety relief valve activates, turn main power switch to the OFF position. To avoid serious burns and injuries, have fryer serviced before next use.</b></p>			
3-2	17	Safety Relief Valve Ring	
 <p><b><u>DO NOT PULL THIS RING. SEVERE BURNS FROM THE STEAM WILL RESULT.</u></b></p>			
3-2 3-5	18	Pressure Gauge	Indicates the pressure inside the frypot
3-2	19	Solenoid Valve	An electromechanical device that causes pressure to be held in the frypot; the solenoid valve closes at the beginning of the Cook Cycle and is opened automatically by the controls at the end of the Cook Cycle; if this valve becomes dirty or the teflon seat nicked, pressure will not build up and it must be repaired
3-3	20	Drain Valve (Only the Handle is Shown)	A two-way ball valve that is normally close; turn the handle to drain the shortening from the frypot, into the filter drain pan
 <p><b><u>DO NOT OPEN THE DRAIN VALVE WHILE FRYPOT IS UNDER PRESSURE. HOT SHORTENING WILL EXHAUST AND SEVERE BURNS WILL RESULT.</u></b></p>			
3-3	21	Drain Interlock Switch	A microswitch that provides protection for the frypot in the event an operator inadvertently drains the shortening from the frypot while the main power switch is on; the switch automatically shuts off the heat when the drain valve is opened

### 3-1. OPERATING COMPONENTS

#### (Continued)

Fig. No.	Item No.	Description	Function
3-3	22	Filter Drain Pan	The removable pan that houses the filter and catches the shortening when it is drained from the frypot; it is also used to remove and discard old shortening
<div style="text-align: center;">  <p><b>WARNING</b> <b>BURN RISK</b></p> <p>When moving filter drain pan containing hot shortening, use extreme care to avoid burns from hot surfaces or splashing.</p> </div>			
3-3	23	Filter Union	Connects the filter to the filter pump, and allows easy removal of the filter and drain pan
3-3	24	Filter Valve	When the power switch is in the PUMP position, this two-way valve directs filtered shortening from the drain pan, back into the frypot
3-3	25	Condensation Drain Line	A hose used to route the condensation collected within the steam exhaust system, to the condensation pan
3-3	26	Condensation Drain Pan	The collection point for the condensation, formed within the steam exhaust system; remove and empty periodically
3-3 3-8	27	Rinse Hose (Optional)	A hand-held hose used to rinse food particles from the frypot into the filter pan; attaches to a quick disconnect fitting
3-3	28	Gas Control Valve (Gas Models Only)	Controls the gas flow to the burner
3-6 3-7	29	High Temperature Limit	A control that senses the temperature of the shortening; if the temperature of the shortening exceeds the safe operating limit, this control opens and shuts off the heat to the frypot; when the temperature of the shortening drops to a safe operation limit, the control must be manually reset by pressing the red reset button, located under the control panel, behind the door
		<div style="display: flex; justify-content: space-around;">   </div>	
		<span><b>Gas</b></span> <span><b>Electric</b></span>	
3-4	30	Breakers-Push Button Reset (Electric Models Only)	Protective devices which break the circuit when the current exceeds the rated value
3-7	31	Contactors (Electric Models Only)	Relays that route power to the heating elements; one relay is in series with the high limit, the other one is in series with the controls; the standard unit uses 2 electromechanical contactors, while the computer controlled units have one electromechanical and one mercury contactor
3-9	32	Circuit Breaker (Single Phase Only)	Opens the electrical circuit, and removes power to elements

**3-1. OPERATING COMPONENTS**  
**(Continued)**



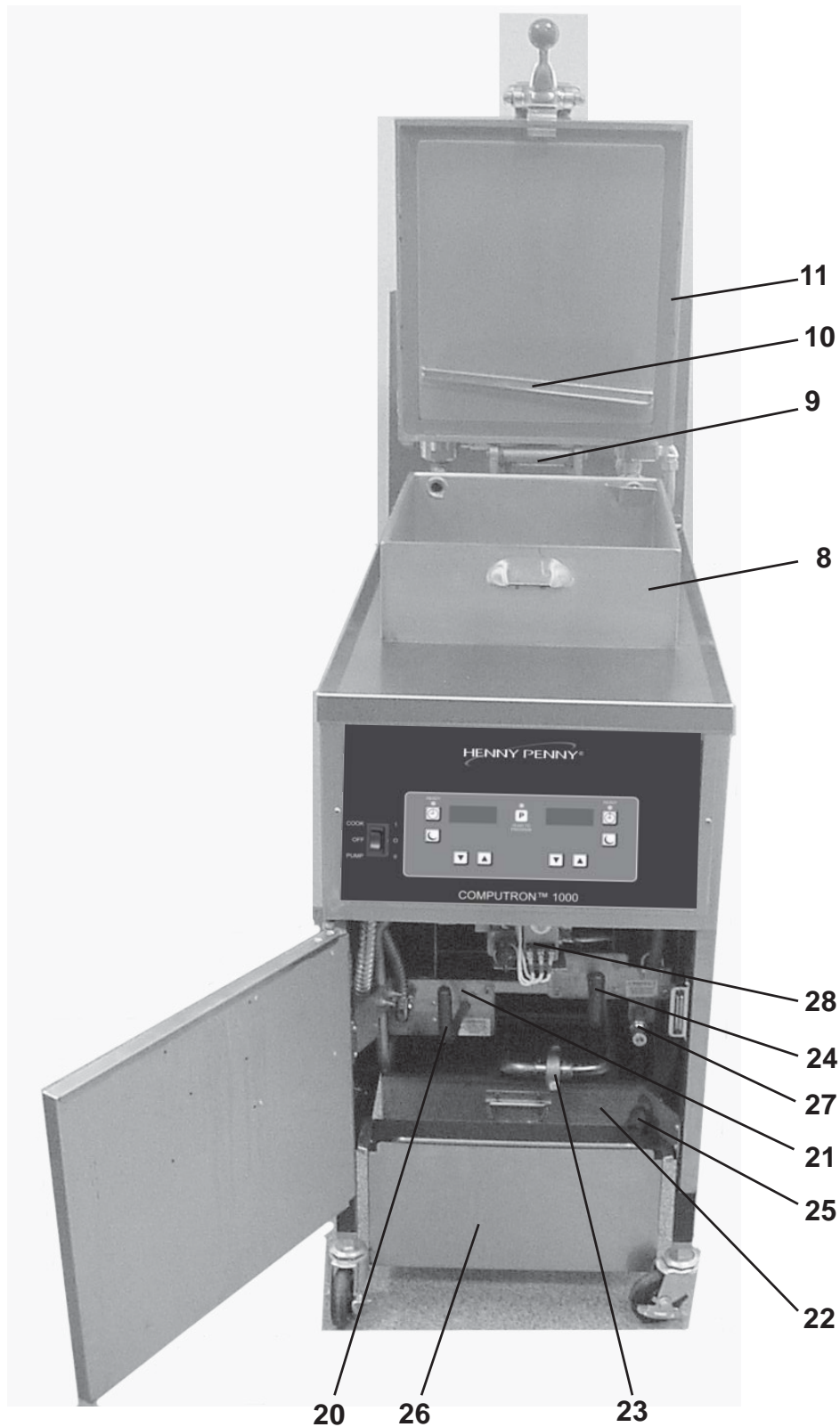
**ELECTRIC MODEL**

**Figure 3-2. Operating Controls**



### **3-1. OPERATING COMPONENTS**

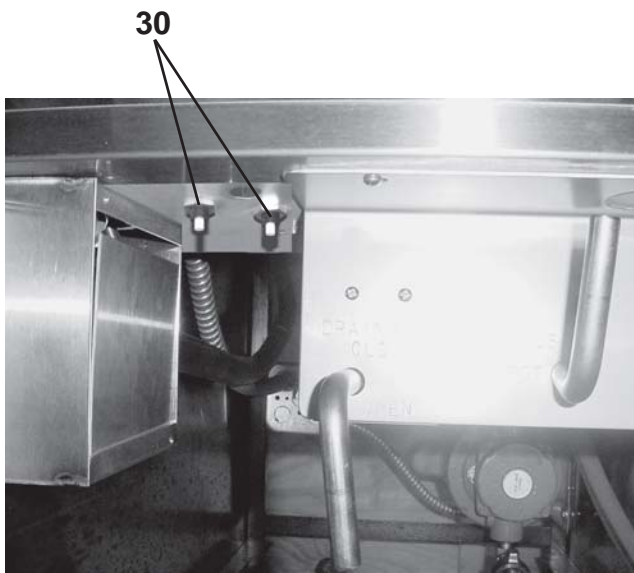
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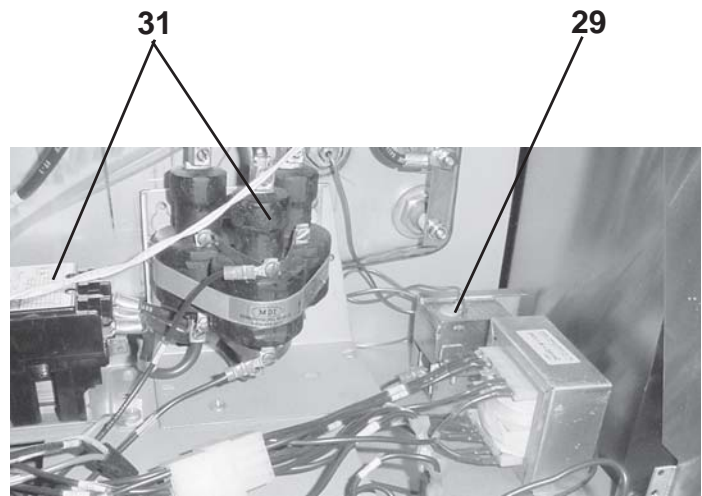
**GAS MODEL**

**Figure 3-3. Operating Controls**

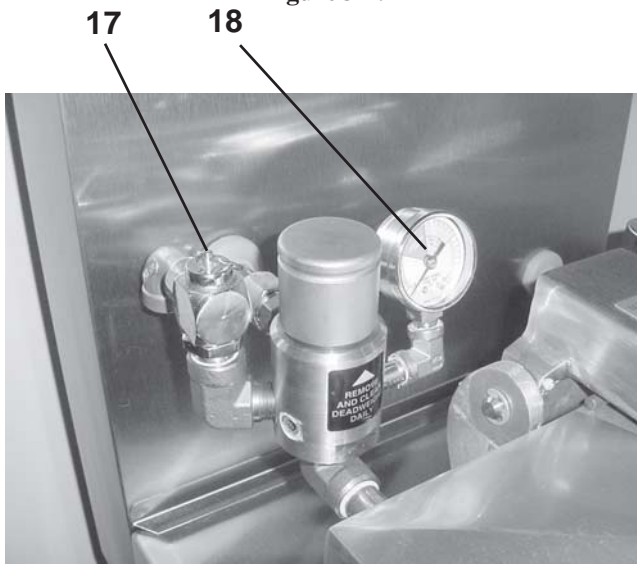
### **3-1. OPERATING COMPONENTS** **(Continued)**



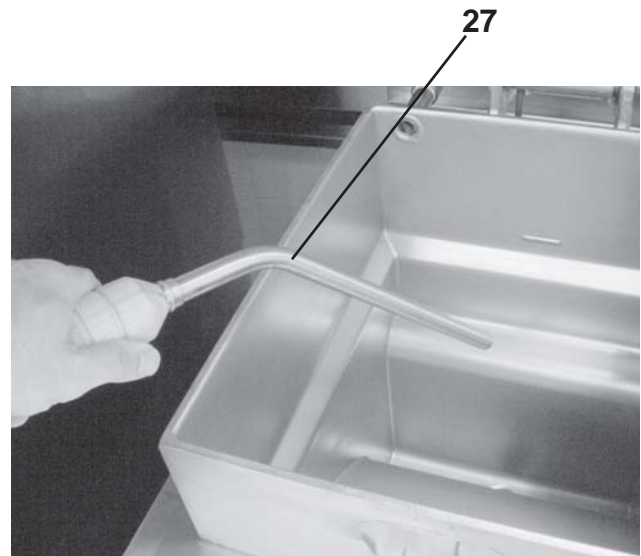
**Figure 3-4.**



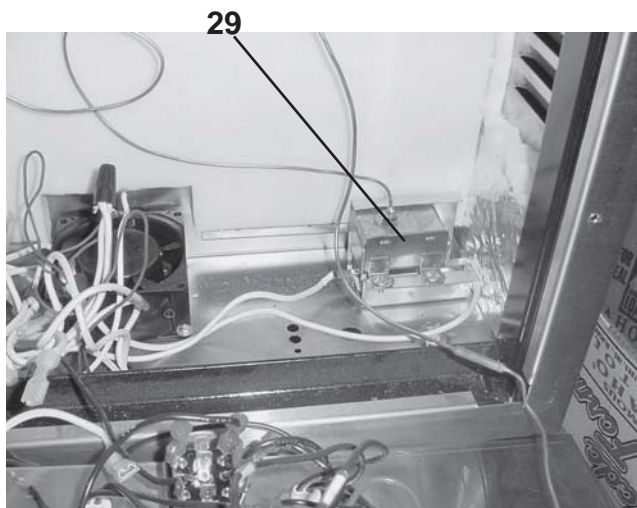
**Figure 3-7.**



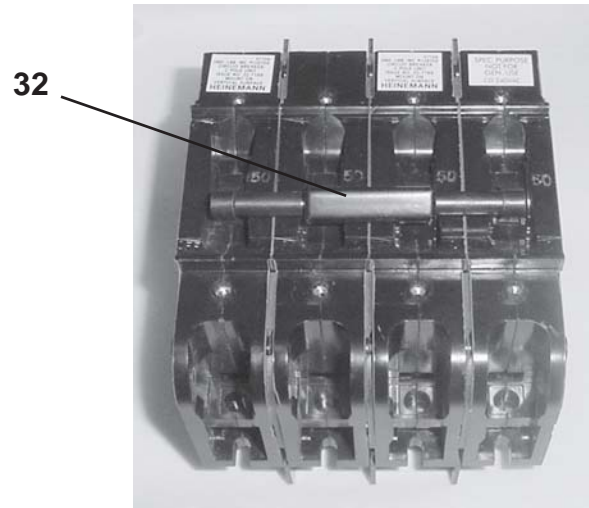
**Figure 3-5.**



**Figure 3-8.**



**Figure 3-6.**



**Figure 3-9.**



### **3-2. FILLING OR ADDING SHORTENING**

## **NOTICE**

Before the actual cooking operation and adding shortening to the frypot, be sure frypot, filter screen assembly, and drain pan are cleaned. Filter screen assembly and drain pan should be cleaned with soap and hot water and thoroughly dried before reassembling. At this time, the frypot should also be cleaned. Refer to Cleaning the Frypot Section.

## **CAUTION**

*The shortening level must always be at the frypot level indicator on the rear of the frypot (see photo on next page). Failure to follow these instructions could result in a fire and/or damage to the fryer.*

*When using solid shortening, it is recommended to melt the shortening on an outside heating source before placing it in the frypots. The elements on electric fryers, or the frypot surface on gas fryers, must be completely submerged. Fire or damage to the frypot could result.*

1. It is recommended that a high quality frying shortening be used in the fryer. Some low grade shortenings have a high moisture content and will cause foaming and boiling over.

## **WARNING** **BURN RISK**

**To avoid severe burns when pouring hot shortening into frypot, wear gloves and take care to avoid splashing.**




2. The electric model 500 requires 48 lbs. (21.8 kg) of liquid shortening, and the model 561 requires 65 lbs. (29.5 kg). The gas model requires 43 lbs. (19.5 kg). Model 500 fryers have 2 level indicator lines inscribed on the rear wall of the frypot, whereas the models 561 & 600 have only 1 level indicator. The level indicator lines show the proper shortening levels.
3. Cold shortening should be filled to 1/2-inch (12.7 mm) below a single level indicator line, and frypots with 2 level indicator lines, cold shortening should be even with the lower level indicator line. The shortening expands when heated and should be at the level indicator line when the shortening is hot, or the top level indicator line on model 500s.

### **3-3. CARE OF THE SHORTENING**



**FOLLOW THE INSTRUCTIONS BELOW TO AVOID SHORTENING OVERFLOWING THE FRYPOT, WHICH COULD RESULT IN SERIOUS BURNS, PERSONAL INJURY, FIRE, AND/OR PROPERTY DAMAGE.**

1. To protect, and get the maximum life out of the shortening, press  to lower the temperature to 250° F (135° C) when the fryer is not in immediate use. Deteriorated shortening smokes badly, even at lower temperatures.
2. Frying breaded food products requires frequent filtering to keep the shortening clean. The shortening should be filtered after every 3 to 6 Cook cycles. For the best quality product, Do not exceed 6 Cook Cycles without filtering. Refer to Filtering of Shortening Section.
3. Maintain the shortening at the proper cooking level. Add fresh shortening as needed.
4. Do not overload the baskets with product (12 lbs. (5.4 kg.) for model 600 fryers; 14 lbs (6.4 kg.) for model 500 fryers and 18 lbs. (8.2 kg.) for the model 561) or place product with extreme moisture content into baskets.



**WITH PROLONGED USE, THE FLASHPOINT OF SHORTENING IS REDUCED. DISCARD THE SHORTENING IF IT SHOWS SIGNS OF EXCESSIVE SMOKING OR FOAMING, OR SERIOUS BURNS, PERSONAL INJURY, FIRE, AND/OR PROPERTY DAMAGE COULD RESULT.**

### **3-4. PRODUCT COOKING GUIDELINES**

The following table provides the suggested frying times and temperatures for single-stage cooking, using the Henny Penny Pressure Fryer combined with our special blends of PHT Fryer Breeding Mixes.

#### **NOTICE**

All the suggested time and temperature settings are for a 10 pound (4.5 kg) load.

<b>Product (size per piece)</b>	<b>Temperature</b>	<b>Time(Min.)</b>
<b>Chicken</b> (2-1/4 lbs (1 kg), 8 or 9 pieces)	315°F (157°C)	10-11
<b>Fish</b> (4 ozs (.11 kg))	315°F (157°C)	3.5
<b>Shrimp</b>	315°F (157°C)	2
<b>Trout</b> (10 to 16 ozs (.28-.45 kg))	315°F (157°C)	5
<b>Pork Chops</b> (4 to 5 ozs, (.11-.14 kg), 1/2 to 3/4 ins (12.7-19 mm) thick)	315°F (157°C)	5
<b>Ribs</b> (2-1/2 lb (1.13 kg) rack)	275°F (135°C)	14
<b>Cubed Steak</b> (6 to 10 ozs, (.17-.28 kg), 1/4 to 1 in (6.4-25.4 mm) thick)	315°F (157°C)	5
<b>Veal Cutlet</b> (4 ozs (.11 kg))	315°F (157°C)	4
<b>Potatoes</b> (10 lbs (4.5 kg), cut in wedges)	315°F (157°C)	8


### **3-5. CHICKEN FRYING PROCEDURES**

The following is a description of the operating procedures for fryers with the Computron 1000 controls.

1. Check to see that all control switches are off and the drain and filter valves are in the closed position.
2. Remove the basket from the frypot and leave lid open.
3. Make sure frypot is filled with shortening to the proper level. Refer to filling and Adding Shortening Section.
4. Make sure electrical power is connected to fryer. Gas units, make sure gas lines are connected to fryer and gas valve is turned on - See GAS PILOT & BURNER LIGHTING AND SHUT DOWN PROCEDURE Section.
5. Display shows “OFF” until power switch is turned to the ON position. Display now shows the cook time and the unit automatically goes into the Melt Cycle until the shortening temperature reaches 230°F (110°C). The control then automatically exits the Melt Cycle.

#### **NOTICE**

The PFG-600 series pressure fryer has several safety devices which shuts-down the gas supply when they are activated. The above procedures should be followed to restart the open fryer and if the shut down is repeated, a qualified technician should be notified.


The Melt Cycle may be bypassed, if desired, by pressing and holding  for 3 seconds.

#### **CAUTION**

*Do not bypass the Melt Cycle unless enough shortening has melted to completely cover the curved surface of the gas frypots and elements on electric fryers. If Melt Cycle is bypassed before all gas frypot or elements are covered, excessive smoking of the shortening, or a fire will result.*



**Step 6**

5. Once out of the Melt Cycle, the shortening is heated until lights and the cook time is displayed. 
6. Using the basket handle, thoroughly stir shortening to stabilize the temperature throughout the frypot.
7. Once the shortening temperature has stabilized at the setpoint temperature, lower the basket into the frypot.

**3-5. CHICKEN FRYING**  
**PROCEDURES (Continued)**



**Step 8**

8. Take the chicken parts, either 4 or 5 cut-up chickens, from the cooler and place in a scullery sink. Wash the chicken and, at this point, break the thigh from the joint of the backbone.



**Step 9**

9. Remove any excess fat from the thigh.
10. Remove the chicken from the water and drain slightly, but allow the parts to remain moist.



**Step 11**

11. If a breading machine is used, fill the breading drum with approximately 8 to 10 pounds of PHT Breading Mix. Feed the moist but drained pieces into the chute at one end of the breader.



**Step 12**

12. Allow the breaded pieces to fall onto a tray as they come out of the breader drum.



### **3-5. CHICKEN FRYING** **PROCEDURES (Continued)**




**Step 13**



**Step 17**

13. If a breading machine is not used, the food should be placed in the dry mix and hand tumbled so that each piece of food is completely covered.
14. Knock off any excess breading and place the breaded product on a tray for cooler storage. Place a damp cloth over the breaded food to retain moisture. The breaded food should be held for a minimum of 30 minutes before frying so that it can absorb spices from the breading and so that breading can better adhere to the product.
15. Determine the time and temperature settings according to the type of product to be fried.
16. Set the controls to the desired temperature and time. See C1000 Programming Instructions Section.

## **NOTICE**

Before placing the product into the basket, make certain that the shortening is at the correct frying temperature for the type of product. Also check that  is on.

17. Place the food into the submerged basket by first putting in the largest pieces (thighs and drumsticks). This gives the large and more difficult pieces time to fry a few extra seconds in the shortening. Leave the lid open.

## **WARNING** **BURN RISK**

Use care to prevent splashing hot shortening. Severe burns can result.

**Do not overload, or place product with extreme moisture content into the basket. The maximum load size is 12 lbs. (5.4 kg.) for model 600 fryers; 14 lbs (6.4 kg.) for model 500 fryers and 18 lbs. (8.2 kg.) for the model 561. Failure to follow these directions can result in shortening overflowing the frypot. Serious burns, fire, or damage to the unit could result.**

18. 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.

### **3-5. CHICKEN FRYING** **PROCEDURES (Continued)**



**Step 19**



**Step 20**

19. Remove the basket handle and close the lid quickly.  
Latch the lid with the lid latch.
20. Tighten the lid spindle clockwise to properly secure and seal the lid. Align the red knob on the spindle with the red knob on the lid latch.



**LID MUST BE LATCHED PROPERLY OR PRESSURIZED SHORTENING AND STEAM MAY ESCAPE FRYPOT. SEVERE BURNS WILL RESULT.**


21. Press  .

22. Within a few minutes, the pressure gauge should increase to the OPERATING ZONE. If it does not recheck the procedures and then refer to the Troubleshooting Section.



During operation, perform the following checks:

- Make sure the pressure gauge indicator needle reads in the Operating Zone. A full load must be placed in frypot upon using new shortening, or not enough steam will be generated to obtain full cooking pressure.
- if pressure does not build, check Troubleshooting Section or call your local Henny Penny service agent if need be
- Check the drain and filter valve for leaks

23. At the end of the Cook Cycle (the timer reaches zero), the fryer automatically depressurizes, the timer buzzer sounds, and the display flashes “DONE”. Press  button to turn off alarm.



**DO NOT LIFT HANDLE OR FORCE LID LATCH OPEN BEFORE PRESSURE GAUGE READS “0” PSI. ESCAPING STEAM AND SHORTENING WILL RESULT IN SEVERE BURNS.**

**3-5. CHICKEN FRYING**  
**PROCEDURES (Continued)**



**Step 26**

24. After the pressure drops to zero, turn the spindle counterclockwise approximately one turn.

**CAUTION**

*Do not spin or flip the spindle cross arm when opening the lid. Damage to the acme nut inside the cross bar could result.*


25. Raise the lid promptly to allow most of the condensation on the lid to drain down and out through the drain channel and not back into the shortening.

**CAUTION**

*To avoid damage to the hinge, do not let the lid slam up against its backstop.*

26. Insert the handle into the basket. Lift the basket and hang it on the side of the frypot to drain. Allow the product to drain approximately 15 seconds before dumping it onto a tray.

27. Place the product into a warming cabinet immediately.

28. Before frying the next load, wait until  is on, indicating the shortening has reheated.







**IF THE SHORTENING TEMPERATURE EXCEEDS 420°F (216°C), IMMEDIATELY SHUT OFF THE POWER AT THE MAIN CIRCUIT BREAKER AND HAVE THE FRYER REPAIRED. IF SHORTENING TEMPERATURE EXCEEDS ITS FLASHPOINT, FIRE WILL OCCUR, RESULTING IN SEVERE BURNS AND/OR PROPERTY DAMAGE.**

### **3-6. C1000 PROGRAMMING INSTRUCTIONS**



#### **Timer Programming**

1. Anytime the cook time is displayed, press under the appropriate display to change the cook time.

#### **Set-Point Temperature Programming**

1. Press  once to view the actual shortening temperature and press  again to view the set-point temperature.
2. While the set-point temperature is in the display, press   to change the set-point temperature.





### **NOTICE**


If “LOCK” shows in display when pressing   , the controls are locked and must be unlocked before changing the time or set-point temperature. See C1000 Special Programming Section.







### **3-7. C1000 SPECIAL PROGRAMMING**

Special Programming is used to set the items below:





- Fahrenheit or Celsius
- Initialize System
- Lock or Unlock Controls
- Fryer Type – Open or Pressure
- Heat Source – Electric; Gas w/electronic ignition
- Vat Type - Full or Split
- Oil Type - Solid or Liquid

1. To enter Special Programming, turn off power switch (either side). Press and hold  and turn the power switch back on.
2. “SPEC” “PROG” followed by, “DEG” “°F” or “°C”. Use   to choose “°F” or “°C”.
3. Press  and “INIT” shows in the display.

Press and hold  and display shows “In-3”, “In-2”, “In-1” followed by “Init Sys” “DONE DONE”. The controls now are reset to factory parameters, the time set to 0:00 and temperature 190°F or 88°C.

4. Press  and “LOCK” or “UNLOCK” shows in the displays. Use   to choose “LOCK” or “UNLOCK”.
5. Press  and “FRYR” shows in left display and the right display should show “PRES”. Use   to change from “OPEN” to “PRES” if needed.

**3-7. C1000 SPECIAL**  
**PROGRAMMING**  
**(Continued)**

6. Press **P** and “HEAT” shows in the display. Use   to change the heat source: “ELEC” for electric models; “GAS” for units with standing pilot; SSI for units with solid state ignition.
7. Press **P** and “VAT” and “FULL” should show in the displays if controls are set to “PRES” in step 5.
8. Press **P** and “MELT” and “Solid” or “LIQD” shows in the displays. Use   to choose “Solid”, if using solid shortening, or “LIQD”, if using liquid shortening.
9. Press and hold **P** to exit Special Programming at any time.



### **3-8. REGULAR MAINTENANCE SCHEDULE**

As in all food service equipment, the Henny Penny pressure fryer does require care and proper maintenance. The table below provides a summary of scheduled maintenance.

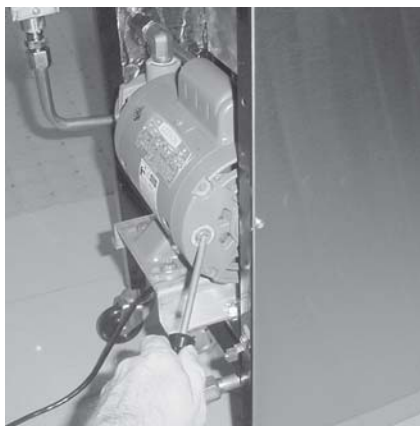
<b>Procedure</b>	<b>Frequency</b>
Filter pump motor protector-manual reset	As required
Filtering of shortening	Every 3 to 6 frying cycles
Cleaning the Optional Crumb pan	As required
Filter pump problem prevention	As required
Changing of shortening	As required
Changing the filter envelope	As required
Changing the charcoal filter	As required
Cleaning the frypot	Before changing the shortening
Cleaning the deadweight valve	Daily
Night closing procedures	Daily
Check optional rinse hose for deterioration	Weekly
Reversing the lid gasket	Quarterly
Lid lubrication	Quarterly
Limit stop adjustment	Quarterly
Check tightness of spreader bars	Quarterly
Clean safety relief valve	Annually

### **3-9. FILTER PUMP**

#### **MOTOR PROTECTOR-MANUAL RESET**

The filter pump motor is equipped with a manual reset button, located on the rear of the motor, in case the motor overheats. Wait about 5 minutes before attempting to reset this protective device to allow motor to cool. The filter motor is on the rear of the fryer. It takes some effort to push the reset, and a screwdriver can be used to help reset the button.

Electric fryers with serial numbers of HB013JB & below, and gas fryers with serial numbers of GA085JB & below, can push the reset button, by removing the access panel on the left side panel of the unit.



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

### **3-10. FILTERING OF SHORTENING**

Frying breaded food requires frequent filtering. Taste the cold shortening every day for flavor. Watch the shortening for foaming during frying cycles. Discard the shortening as soon as it shows signs of foaming. Clean the frypot as follows each time the shortening is changed or filtered:

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

#### **NOTICE**

The best results are obtained when the shortening is filtered at the normal frying temperature.



**Step 2**

2. Use a metal spatula to scrape any build-up from the sides of the frypot. Do not scrape heating element on electric units, or the curved portion of the gas frypot.

#### **CAUTION**

*Scraping the electric fryer elements, or the curved portion of the gas frypot, produces scratches in these surfaces causing breading to stick and burn.*

*Do not bang the pot scraper, or other cleaning utensil, on the frypot rim. Damage to the frypot rim could result and the lid may not seal properly during a cook cycle.*



**The filter drain pan must be as far back under fryer as it will go, and the cover in place. Be sure the hole in the cover lines up with the drain before opening the drain. Failure to follow these instructions causes splashing of shortening and could result in personal injury.**



**Step 4**

**Surfaces of fryer and basket will be hot. Use care when filtering to avoid getting burned.**

3. Open the drain valve very slowly, half a turn at first and then slowly to the full open position. This will prevent excessive splashing of the hot shortening as it drains into the filter drain pan.
4. As the shortening drains from the frypot, use fryer brushes (Henny Penny part number 12105 includes both brushes) to clean the side of the frypot and the heating elements (if electric unit). If the drain fills with breading, use the white brush to push the breading into the filter pan.

### **3-10. FILTERING OF SHORTENING (Continued)**



**Step 6e**



**Step 7a**

5. When all of the shortening has drained, scrape or brush the sides and the bottom of the frypot.
6. Rinse the frypot as follows:
  - a. Close the drain valve.
  - b. Open the filter valve.
  - c. Lower lid and hold closed.
  - d. Move the main power switch to the PUMP position. Carefully open the lid to see if the shortening is returning properly. Fill frypot 1/3 full, then turn off pump.



**FAILURE TO HOLD THE LID CLOSED SO THAT THE FIRST SURGE OF THE RETURNING SHORTENING WILL NOT SPLASH OUT OF THE FRYPOT, WILL RESULT IN SEVERE BURNS.**

**IF THERE ARE AIR BUBBLES COMING UP IN THE SHORTENING, IT'S POSSIBLE THAT THE FILTER CONNECTION AT THE UNION ON THE FILTER TUBE IS NOT TIGHTENED PROPERLY. IF SO, TURN OFF THE PUMP AND USE PROTECTIVE CLOTH OR GLOVE WHEN TIGHTENING THE UNION. THIS UNION WILL BE HOT AND SEVERE BURNS COULD RESULT.**

- e. Wash down and scrub the sides of the frypot. Use "L" brush to clean the heating elements.
- f. After the sides and bottom are cleaned, open the drain valve.
7. If an optional filter rinse hose is available on your fryer, the following cleaning procedure may be used.
  - a. Attach the filter rinse hose with its quick disconnect fitting to the male fitting inside the door next to the filter valve handle. To do this, slide back the spring ring on the female side of the quick disconnect fitting and let it snap into place over the male half of the fitting.

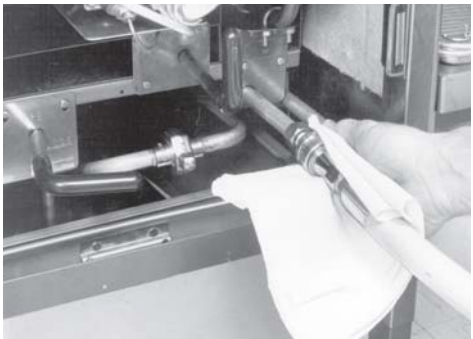
### **3-10. FILTERING OF SHORTENING (Continued)**



**Step 7b**



**Step 7c**



**Step 7f**

- b. While holding the wooden handle, make sure the hose nozzle is pointed down into the bottom of the frypot. Pull the lid down over the nozzle, close the filter valve, and move the main power switch to the PUMP position. Hold nozzle carefully to avoid excessive splashing.



**Use care to prevent burns caused by splashing of hot shortening.**

- c. Rinse the frypot interior. Especially work on hard to clean areas, like the frypot bottom. On electric models clean around heating elements.
- d. After sufficient rinsing with shortening, close the drain valve.
- e. Turn the main power switch to the OFF position.



**ONLY CONNECT AND DISCONNECT THE FILTER RINSE HOSE WHEN THE MAIN POWER SWITCH IS IN THE OFF POSITION. ALSO, USE A DRY CLOTH OR GLOVE TO AVOID BURNS. FAILURE TO DO THIS COULD RESULT IN SEVERE BURNS FROM HOT SHORTENING SPRAYING FROM THE MALE FITTING.**

- f. Detach the hose. Raise the fitting end of hose high for a minute to allow the remaining shortening in the hose to drain into the frypot.
8. Pump all the shortening out of the filter pan and back into the frypot. Close lid during first surge of pumping.

**3-10. FILTERING OF  
SHORTENING  
(Continued)**



**Step 9**

**NOTICE**

When bubbling occurs, immediately close the filter valve. This prevents aeration of the shortening, therefore increasing shortening life.

9. When the pump is pumping air only, the shortening in the frypot 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.

10. Check the level of the shortening if necessary, until it reaches the level indicator line on the rear wall of the frypot, or the top level indicator line on model 500s..

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



**Step 11**

12. If frying is to be continued at this time, move the main power switch back to the ON position, and allow time for reheating of the shortening.



### **3-11. CLEANING THE OPTIONAL CRUMB PAN**



**Electric**

**Gas**

The crumb pan allows improved filtration process because finer, hard to filter particles are now retained within the pan. Crumb accumulation within the filter pan is reduced, and it is quicker to pump the shortening back into the frypot. Also, cracklings can be taken out of the crumb pan and used for gravy.

See crumb pan removal procedure below:

1. Drain shortening from frypot to access pan.



**Electric**

**Gas**

2. Insert provided handle at angle to get by support nubs on shaft.



**Use protective cloth or gloves when removing the crumb pan. The crumb pan and frypot surfaces may be hot and burns could result.**



**Electric**

**Gas**

3. Turn handle until notches in handle are below support nubs on shaft.



**Electric**

**Gas**

4. Lift crumb pan out of frypot.

5. Clean frypot of all crumbs before reinstalling crumb pan and returning shortening to frypot.

### **3-12. FILTER PUMP** **PROBLEM** **PREVENTION**

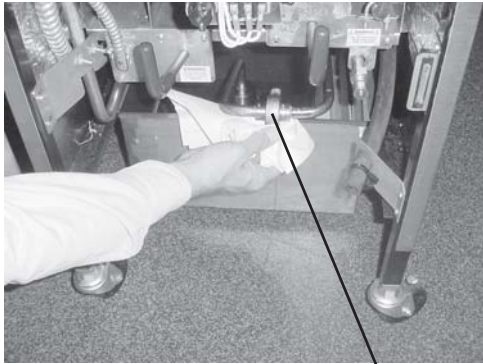
The following steps will help prevent filter pump problems:

1. Make certain the charcoal filter is installed with the smooth side down and the arms on the frame are clamped down over the protrusions on the outside of the frame.
2. The filter valve is to be closed at all times during frying.
3. Pump all the shortening from the filter lines by running the filter pump motor until the shortening in the frypot appears to be bubbling or boiling.

### **3-13. CHANGING THE** **FILTER ENVELOPE**

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 drain pan from under the frypot. If available, a drain pan may have casters under it, allowing easy transport of filter pan and filter assembly.



**Step 3**

**Filter Union**



**This union could be hot! Use protective cloth or glove, or severe burns could result.**

**If the filter pan is moved while full of shortening, use care to prevent splashing, or burns could result.**



**Step 4**

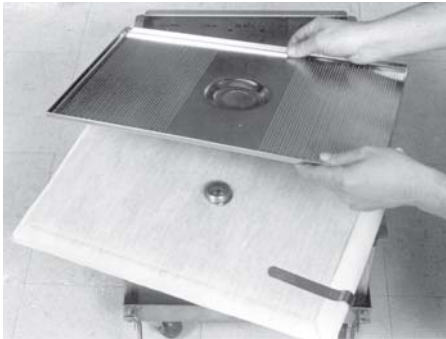
4. Lift the screen assembly from the drain pan.
5. Wipe the shortening and crumbs from the drain pan. Clean the drain pan with soap and water, then thoroughly rinse with hot water.

**3-13. CHANGING THE  
FILTER ENVELOPE  
(Continued)**



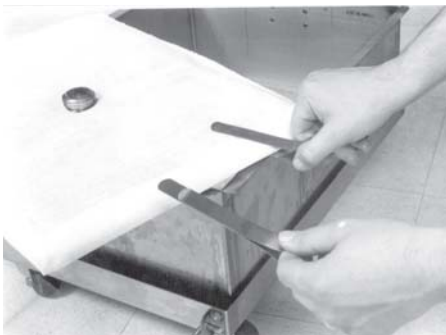
**Step 7**

6. Unthread the suction standpipe from the screen assembly.



**Step 8**

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



**Step 9**

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

**NOTICE**

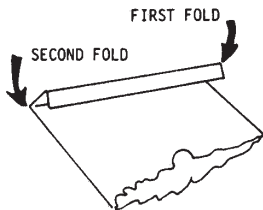
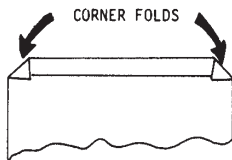
Be sure that the filter screens, crumb catcher, filter clips, and the suction standpipe are thoroughly dry before assembly of filter envelope as water will dissolve the filter paper.

10. Assemble the top filter screen to the bottom filter screen.

**3-13. CHANGING THE  
FILTER ENVELOPE  
(Continued)**



**Step 12**

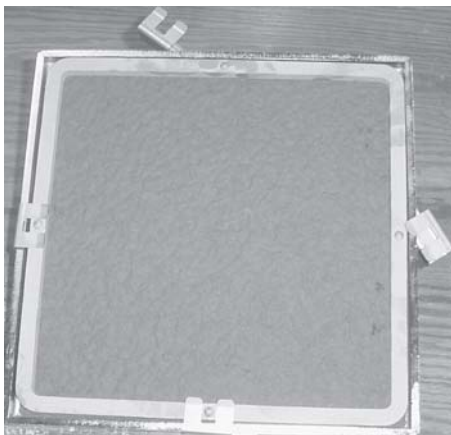


11. Slide the screens into a clean filter envelope.
12. Fold the corners in and then double fold the open end.
13. Clamp the envelope in place with the two filter retaining clips.
14. Replace the crumb catcher screen on top of the filter paper.  
Screw on the suction standpipe assembly.
15. Place complete filter screen assembly back into filter drain pan  
and 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.

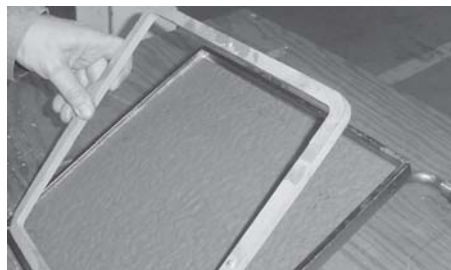
### **3-14. CHANGING THE CHARCOAL FILTER**



**Step 3**



**Step 7**



**Step 7**

The charcoal filter should be changed every day 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 frypot.



**Use protective cloth or glove when disconnecting the filter union and removing the charcoal filter assembly, or severe burns could result.**

**If the filter pan is moved while full of shortening, use care to prevent splashing, or severe burns could result.**

4. An optional filter pan dolly can be used to safely transport filter pan filled with hot shortening.
5. Discard shortening, or pump shortening back into frypot.
6. Wearing protective gloves or using a cloth, remove the charcoal filter assembly from drain pan.
7. Set charcoal filter assembly on a counter or table and turn the 4 clips securing the charcoal pad frame, and pull frame from assembly.



### **3-14. CHANGING THE CHARCOAL FILTER (Continued)**



**Step 9**

8. Remove and discard old filter pad. Clean and dry pan, frame, and grid thoroughly.

9. Place grid, frame and new charcoal filter pad in assembly with smooth side facing the grid and secure with clips.

10. Slide the drain pan back into place under the fryer and connect the filter union by hand. Do not use a wrench to tighten.

11. Slide the condensation drain pan back into place. The fryer is now ready to operate.

### **3-15. CLEANING THE FRYPOT**

After the initial installation of the fryer, as well as before every change of shortening, the frypot should be thoroughly cleaned as follows:

1. Turn the main power switch to OFF, and unplug unit from the wall receptacle.



**Moving either the frypot, or filter pan, while containing hot shortening is not recommended. Hot shortening can splash out. Severe burns could result.**

**The filter drain pan must be as far back under the fryer as it will go, and the cover in place. Be sure the hole in the cover lines up with the drain before opening the drain. Failure to follow these instructions causes splashing of shortening and could result in personal injury.**

**3-15. CLEANING**  
**THE FRYPOT**  
**(Continued)**

2. If hot shortening is present in the frypot, it must be drained by slowly opening the drain valve handle one half turn. Leave for a few minutes, then slowly open the valve to the full open position.
3. Close the drain valve and discard the shortening in the filter pan. Then install the filter drain pan under the fryer, leaving out the filter screen assembly.
4. Fill the frypot to the level indicator with hot water. Add 4 to 6 ounces of fryer cleaner (Henny Penny part number 12101) to the water and mix thoroughly. The fry basket can be placed inside frypot for cleaning.



**Always wear chemical splash goggles or face shield and protective rubber gloves when cleaning the frypot as the cleaning solution is highly alkaline. Avoid splashing or other contact of the solution with your eyes or skin. Severe burns and possible blindness can result. Care fully read the instructions on the cleaner. If solution comes in contact with your eyes, rinse thoroughly with cool water and see a physician immediately.**



**CHEMICAL  
SPASH  
GOGGLES**



**CHEMICAL  
RESISTANT  
GLOVES**

5. Turn main power switch to the POWER position set controls to 195°F (90.5° C).



**DO NOT CLOSE LID WITH WATER AND/OR CLEANER IN FRYPOT. WATER UNDER PRES-SURE BECOMES SUPERHEATED. WHEN LID IS OPENED, ESCAPING WATER AND STEAM WILL RESULT IN SEVERE BURNS.**



Henny Penny has the following cleaners available:

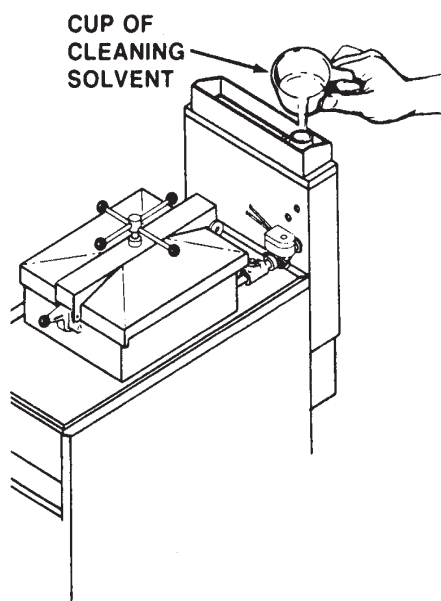
Foaming Degreaser - Part no. 12226

PHT Liquid Cleaner - Part no. 12135

PHT Dry Powder Cleaner - Part no. 12101

See your local distributor for details.

### **3-15. CLEANING** **THE FRYPOT** **(Continued)**



6. When  comes on and solution temperature is at 195°F (90.5° C), immediately move the main power switch to OFF.

## **CAUTION**

*Watch the cleaning solution constantly to make sure it does not boil over causing damage to controls.*

## **WARNING** **BURN RISK**

**If the cleaning solution in the frypot starts to foam and boil over, immediately turn the power switch to OFF and do not try to contain it by closing the fryer lid or severe burns could result.**

## **NOTICE**

Pour a cup of hot cleaning solution (taken from the frypot) into the condensation tower to keep it free and clean.

7. Let the cleaning solution stand for 15 to 20 minutes with the unit off.
8. Using the fryer brush (Henny Penny part number 12105), scrub the inside of the frypot, the lid liner, and around the countertop of the fryer.

## **CAUTION**

*Do not use the cleaning solution on the lid or the lid hinge. These parts are aluminum and will corrode if the PHT cleaner comes in contact with them.*

*Do not use steel wool, other abrasive cleaners, or cleaners/sanitizers containing chlorine, bromine, iodine, or ammonia chemicals as these will deteriorate the stainless steel material and shorten the life of the unit.*

*Do not use a water jet (pressure sprayer) to clean unit or component damage could result.*

9. After cleaning, 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 plain hot water to proper level.

### **3-15. CLEANING** **THE FRYPOT** **(Continued)**

11. Add approximately 8 ounces of distilled vinegar and bring the solution to 195° F (90.5° C).
12. Using a clean brush, scrub the interior of the frypot and lid liner. This will neutralize 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.

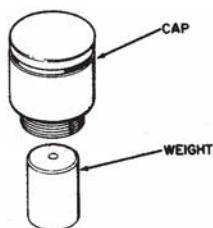
## **NOTICE**

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 assembly in the drain pan and install under fryer.
17. Refill the fryer with fresh shortening.

### **3-16. CLEANING THE** **DEADWEIGHT ASSEMBLY**

At the end of each day, the deadweight assembly valve must be cleaned as follows:



**DO NOT ATTEMPT TO REMOVE DEADWEIGHT CAP WHILE FRYER IS OPERATING. SEVERE BURNS OR OTHER INJURIES WILL RESULT.**



Step 3



1. Turn the main power switch to the OFF position. Be sure all pressure has been released and open the lid.
2. Unscrew the deadweight cap and remove the cap and dead weight.



**Deadweight cap may be hot. Use protective cloth or glove, or burns could result.**

**Failure to clean the deadweight assembly daily could result in the fryer building too much pressure. Severe injuries and burns could result.**

3. Clean the exhaust tube with stainless steel brush (Henny Penny part number 12147).

**3-16. CLEANING THE  
DEADWEIGHT  
ASSEMBLY (Continued)**



**Step 6**

4. Clean the deadweight cap and weight in hot detergent water. Make certain to thoroughly clean the inside of the valve cap and the deadweight.

5. Clean the deadweight orifice and the inside of the deadweight assembly body with a clean lint-free cloth.

6. Dry the deadweight and deadweight assembly cap.

7. Replace deadweight and deadweight assembly cap. Finger tighten the cap.

**3-17. NIGHT CLOSING  
PROCEDURES**

At the end of each day or shift, perform the following procedures:

1. Filter the shortening per Filtering of Shortening Section.
2. Move the main power switch to the OFF positions.
3. Place the fryer basket in a sink for cleaning.
4. Clean the deadweight assembly per Cleaning the Deadweight Assembly Section.
5. Dump the water from the condensation drain pan.

**CAUTION**

*If disconnection of the cable restraint is necessary, be sure to reconnect the restraint after the fryer has been returned to its originally installed position.*

### **3-18. OPERATING INSTRUCTIONS FOR OPTIONAL DIRECT-CONNECT SHORTENING SYSTEM**



**Figure 1**



**Figure 2**

1. Connect the female quick disconnect, that is attached to the hose in the rear of the fryer, to the correct male quick disconnect at the wall. Once attached, the hose can remain connected unless the fryer is moved. Figure 1.

## **CAUTION**

*In order for the system to work properly, attach the hose to the shortening return line only.*

2. Open the drain valve and drop the shortening from the desired frypot, into the drain pan.
3. Once all shortening is gone from frypot, turn the red handle counterclockwise, into the down position and hold. Figure 2.
4. While holding the handle down, turn the POWER/PUMP switch to the PUMP position. Shortening is now pumped from the drain pan.
5. Once all the shortening is out of the drain pan, turn the POWER/PUMP switch to the OFF position.
6. Turn red handle back to original position.
7. Frypot is now ready for fresh shortening.



### **3-19. REVERSING THE LID GASKET**



Reversing the lid gasket helps to prevent early failure of lid gasket and the loss of pressure during a cook cycle.

1. Back the 4 lid liner screws (2 on each side) out about 1/2 inch (12.7 mm).



## **NOTICE**

Check the gasket for any tears or nicks. If the gasket is damaged, it needs to be replaced.

3. Clean the gasket and gasket seat with hot water and cleaning detergent. Rinse with clean hot water.



4. Install the gasket with the “good” side out and tighten the 4 screws.

## **NOTICE**

Install the four corners of the lid gasket. Smooth the gasket into place, working from the corners towards the middle of each side.

### **3-20. LID LUBRICATION**

To extend the life of lid components, lubricate the ball seat and spindle, following the steps below.



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



2. Press down on the front of the cross bar, pull out the release pin, lift the latch, and raise the cross bar.



3. Using spindle lube (part no. 12124), lubricate the ball seat in the center of the lid cover.



4. Turn spindle clockwise until it stops and then lubricate the threads on the spindle using the spindle lube.
5. Turn the spindle counterclockwise until it stops, line up the lid cover with the cross bar, pull the release pin out, and firmly press the cross bar back into place.
6. The fryer is now ready for use.

### **3-21. LIMIT STOP ADJUSTMENT**



**Step 2**



**Step 3**

To extend the life of the lid gasket and help prevent steam leakage, check the limit stop adjustment quarterly, following the steps below.

1. Close and latch lid, and turn spindle counterclockwise until it stops.
2. Using a 3/16" Allen wrench, loosen the 2 set screws on the outer collar of the limit stop.
3. Turn the inner collar clockwise until it stops.

## **NOTICE**

Insert a small screwdriver or Allen wrench in the hole in the inner collar to assist you in turning the collar.

4. Turn spindle clockwise until it stops. The lid gasket is now touching the frypot rim.
5. From the front of the fryer, turn the spindle at least 3/4 of a turn, but not over 1 turn. One of the spindle arms should be lined up with the red ball of the latch, at this time.
6. Slightly turn the spindle past this position, so it should show in about the 7 o'clock position.

## **NOTICE**

The 7 o'clock position is only to allow slight additional turning of the spindle to relieve any side pressure against the locking pin. Side pressure holds the pin in the locked position, even after all the pressure has released.

When adjustment is complete, if a black ball on the spindle is lined up with the red ball on the latch, unscrew the black ball and the red ball on the spindle and change places on the spindle. The red ball on the spindle should now line up with the red ball on the latch.

**3-21. LIMIT STOP  
ADJUSTMENT  
(Continued)**

7. Turn the inner collar counterclockwise until it stops against the bottom hub of the spindle.
8. Tighten Allen screws.

**NOTICE**

If the lid cover fails to seal properly, steam escapes from around the gasket during frying. Readjust the limit stop, this time turning the spindle 1 full turn after the initial contact of the lid gasket with the frypot rim (step 5).

**3-22. CLEANING THE  
SAFETY RELIEF  
VALVE**



**DO NOT ATTEMPT TO REMOVE THE SAFETY VALVE WHILE FRYER IS OPERATING, OR SEVERE BURNS OR OTHER INJURIES WILL RESULT.**

**DO NOT DISASSEMBLE OR MODIFY THIS SAFETY RELIEF VALVE. TAMPERING WITH THIS VALVE COULD CAUSE SERIOUS INJURIES AND WILL VOID AGENCY APPROVALS AND APPLI-  
ANCE WARRANTY.**

**SAFETY VALVE**



1. Remove deadweight cap and deadweight.
2. Use a wrench to loosen the valve from the pipe elbow, turn counterclockwise to remove.
3. Clean the inside of the pipe elbow with hot water.

**NOTICE**

Turn the safety relief valve towards the rear of the fryer when reinstalling the relief valve.

4. 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 (999 mbar). If it does not open or close, it must be replaced.

**3-23. CHECK & TIGHTEN  
ELEMENT SPREADER  
BARS (Model 500 only)**

To extend the life of the temperature probe, high limit, and elements, every 90 days check the tightness of the element spreader bar screws, following the steps below:



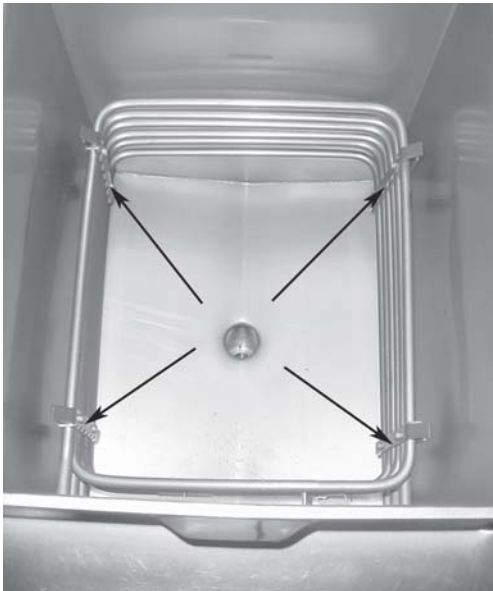
**Drain shortening and allow fryer to cool before proceeding with the following steps. Surfaces of the fryer will be hot and burns could result.**

1. Check that all spreader bars are in place (4 sets), and using a 5/16" socket or wrench, tighten all the element spreader screws.



If the bolts or spreaders are missing or damaged, order kit no. 14685 from your nearest Henny Penny distributor.

2. Pump shortening back into frypot and unit is now ready for use.



### **3-24. SEASONAL SHUTDOWN**

1. Drain and clean the frypot per Cleaning the Frypot Section.
2. Turn the main circuit breaker OFF and unplug the electrical cord, if possible.
3. On gas models turn the gas valve to OFF. Shut off the gas valve on the main gas supply line.
4. Close the lid but do not tighten the spindle.
5. Remove and clean the condensation drain pan.
6. Clean the inside of the steam exhaust tank on gas models.

### **3-25. CUT-UP FRIED CHICKEN**

1. Cut 2 1/2 to 2 3/4 pound (1.13-1.3 kg) net weight birds into 8 or 9 pieces. Nine pieces allows you to serve 3 three-piece dinners from each bird.
2. Wash the chicken parts and drain thoroughly. Break the thigh bone from the front of the backbone and remove excess fat from the thigh.
3. Bread the pieces in advance (if using Henny Penny Fryer Breeding Mix) so that the breaded chicken will be held at least 30 minutes before frying. Breading in advance will give the breading an opportunity to permeate the meat and adhere better to the product. The pieces can be breaded and held refrigerated for as long as 24 hours before frying. This procedure eliminates continuous breading and will save labor.
4. Frying temperature for best results is 320°F (160°C) for 10 to 11 minutes.



**3-26. CHICKEN  
QUARTERS**

Follow the “Cut-up Fried Chicken” procedure above, allowing an additional 2 to 3 minutes for frying. The portions are larger and will need the additional frying time.

**3-27. BARBECUED  
CHICKEN**

1. Whole halves (2 to 2-1/2 lbs. (.9-1.13 kg) less giblets): Prepare the birds by washing and draining thoroughly.
2. Place them into the fryer whole or cut into halves.
3. The frying temperature is 310°F (154°C) for 12 minutes for halves. The whole birds should be fried at 310°F (154°C) for 15 minutes.
4. After the frying has been completed, place the halves or whole birds into a pan of warm barbecue sauce. For best results, allow a minimum of 30 minutes in barbecue sauce before serving.

**3-28. FRIED  
PORK CHOPS/  
VEAL CUTLETS**

1. Wash and drain the chops thoroughly.
2. Bread the pork chops (4 oz. portion, 1/2-inch to 3/4-inch (.11 kg, 12.7-19 mm) thick) with the Henny Penny Fryer Mix.
3. Fry at 315°F (157°C) for 5 minutes. If the chops are larger, allow an additional minute for each 2 ounce (.06 kg) increase per portion.

**3-29. BARBECUED  
PORK CHOPS**

1. Fry the chops (4 oz. (.11 kg) portion) for 5 minutes at 305°F (152°C).
2. After frying has been completed, place the chops in warm barbecue sauce.
3. The chops should remain in the barbecue sauce for 30 minutes prior to serving at 150°F (66°C) minimum.

**3-30. BARBECUED RIBS**

1. Prepare racks of ribs (racks of 2-1/2 pounds (1.13 kg) and under) by trimming excessive fat.
2. Cut the ribs into proper portions for serving before preparing. (Ribs lightly breaded with Henny Penny Fryer Mix before frying gives additional flavor.)

**3-30. BARBECUED RIBS**

**(Continued)**

3. The ribs should be fried for 13 minutes at 275°F (135°C).
4. Ribs should then be brushed well on both sides with barbecue sauce, or placed in a pan of warm sauce.
5. Hold ribs in a sauce at 150°F (66°C), for 30 minutes so flavor can permeate.
6. Racks of ribs that exceed 2-1/2 pounds (.9 kg) will need additional time for frying. Use approximately 15 minutes for 3-pound (1.4 kg) racks.

**3-31. TOP SIRLOIN  
STEAK AND  
FILET MIGNON**

1. For steak (6 to 8 oz. (.17-.23 kg) portions, normal thickness) that is to be served brown outside with pink inside, fry for 4 minutes at 315°F (157°C).
2. To serve a steak with brown outside and no pink inside, fry for 7 to 8 minutes at 315°F (157°C).

**3-32. FISH FILLETS**

1. Clean, wash and drain. Use 4 oz. (.11 kg) size pieces.
2. Marinate or bread.
3. Fry for 3-1/2 minutes at 315°F (157°C).

**3-33. FROG LEGS**

1. Clean, wash, and drain.
2. Marinate or bread.
3. Fry for 7 minutes at 315°F (157°C).

**3-34. OYSTERS**

1. Clean, wash, and drain. Remove shell particles.
2. Bread.
3. Fry at 2 minutes at 315°F (157°C).

**3-35. SHRIMP**

1. Clean, wash, and drain.
2. Bread.
3. Fry for 3 minutes at 315°F (157°C).

**3-36. ROCK**  
**LOBSTER TAIL**

1. Clean, wash, and drain.
2. Fry for 6 minutes at 315°F (157°C).

**3-37. POTATOES**

1. Use U.S. No. 1 grade Idaho potatoes, unpeeled.  
Wash and cut into 8 wedges. Drain and bread.
2. Fry for 8 minutes at 315°F (157°C). If smaller potatoes are used, time may be reduced.

**3-38. CORN ON THE COB**

1. Clean, wash, and drain.
2. Fry for 4 minutes at 315°F (157°C).

**3-39. CAULIFLOWER**

1. Clean, wash, and drain.
2. Cut into 1 inch (25.4 mm) pieces.
3. Bread.
4. Fry for 2 minutes at 315°F (157°C).