

HENNY PENNY™
Global Foodservice Solutions

**Henny Penny
Open Fryer Electric
Model OE-100**

OPERATOR 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 CONSEQUENTIAL DAMAGES) SHALL BE AVAILABLE.

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

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Henny Penny Distributor List (Domestic and International)

SECTION 1. INTRODUCTION

1-1. OPEN FRYER WITH DUAL TIMER

The Henny Penny Open Fryer with Dual Timer is a basic unit of food equipment designed to cook foods better and easier. Micro-computer based design helps make this possible.

1-2. FEATURES

- Easily cleaned.
- 65 lb. shortening capacity.
- 15 lb. product capacity.
- Microcomputer controls.
- Stainless steel construction.
- Manual reset high limit control.
- Self-diagnostic system built into controls.
- Built-in melt cycle.
- Digital display - continuous countdown of time during cook cycle or display of fry pot temperature.
- Dual timers for independently controlled cook cycles.
- Built-in filtering system.

1-3. PROPER CARE

As in any food service equipment, the Henny Penny OE-100 does require care and maintenance. Suggestions for the proper day-to-day care and maintenance are contained in this manual. For your convenience, this manual consists of the following sections:

Table of Contents	Programming
Introduction	Distributor List
Installation	Glossary
Operation	

The conscientious use of the recommended procedures, coupled with regular maintenance, results in fewer repairs to the equipment. When such repairs become necessary, they may be accomplished by following the repair steps contained in the Technical Manual. The Technical Manual is available for downloading from our Website and contains sections covering Troubleshooting, Maintenance, Wiring Diagram, and Parts List.

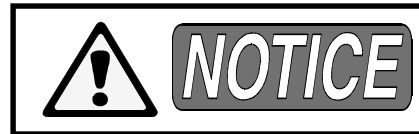
1-4. ASSISTANCE

Should you require assistance, just call your local independent Henny Penny distributor (refer to distributor list in rear of this manual).

In addition, feel free to contact our corporate headquarters in Eaton, Ohio. Dial 1-800-417-8405 toll free, or 1-937-456-8405 or visit our Website at: www.hennypenny.com.

1-5. SAFETY

The only way to ensure safe operation of the Henny Penny OE-100 is to fully understand the proper installation and operation procedures. The instructions in this manual have been prepared to aid you in learning the proper procedures. Where information is of particular importance or is safety related, the words NOTICE, CAUTION, WARNING or DANGER are used. Their usage is described below.



The word NOTICE is used to highlight especially important information.



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



The word WARNING is used to alert you to a procedure that, if not performed properly, may cause personal injury.



THE WORD DANGER INDICATES AN IMMINENT HAZARD WHICH WILL RESULT IN HIGHLY SERIOUS INJURY SUCH AS SECOND OR THIRD DEGREE BURNS.

SECTION 2. INSTALLATION

2-1. INTRODUCTION

This section provides the installation instructions for the Henny Penny OE-100.



Installation of this unit should be performed only by a qualified service technician.



Do not puncture the open fryer with any objects such as drills or screws as component damage or electrical shock could result.

2-2. UNPACKING

The unit is bolted to a wooden skid and then packed inside a heavy cardboard carton with sufficient padding to withstand normal shipping treatment.



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

1. Carefully cut bands from cardboard.
2. Lift carton from fryer.
3. Tilting unit, remove leg bolts holding skid to unit.



Care should be taken when tilting unit to prevent personal injury.

4. Remove packing and casters from frypot and thread into leg inserts.

2-2. UNPACKING
(Continued)



5. Remove filter drain pan and filter screen assembly from box and slide underneath fryer. Connect filter union to the standpipe assembly.
6. Remove baskets (if present) and brush set from box and install baskets into the fryer pot.
7. Unit is now ready for location and set-up.

2-3. FRYER LOCATION

The proper location of the fryer is very important for operation, speed, and convenience. Choose a location which provides easy loading and unloading of product without interfering with the final assembly of food orders. Operators have found that frying from raw to finish, and holding the product in warmers, provides fast continuous service. Keep in mind the best efficiency will be obtained by a straight line operation, i.e. raw in one side and finished out the other side. Order assembly can be moved away with only a slight loss of efficiency.

2-4. LEVELING OF FRYER

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

2-5. VENTILATION

The fryer should be located with provision for venting into an adequate exhaust hood or ventilation system. This is essential to permit efficient removal of the frying odors. We recommend you consult a local ventilation or heating company to help in designing an adequate system.



*Ventilation must conform to local, state, and national codes.
Consult your local fire department or other authorities.*

2-6. ELECTRICAL REQUIREMENTS

The OE-100 is available from the factory wired for 208 or 480 volts, three phase, 50 or 60 hertz service. Refer to the table below for supply wiring and fusing.

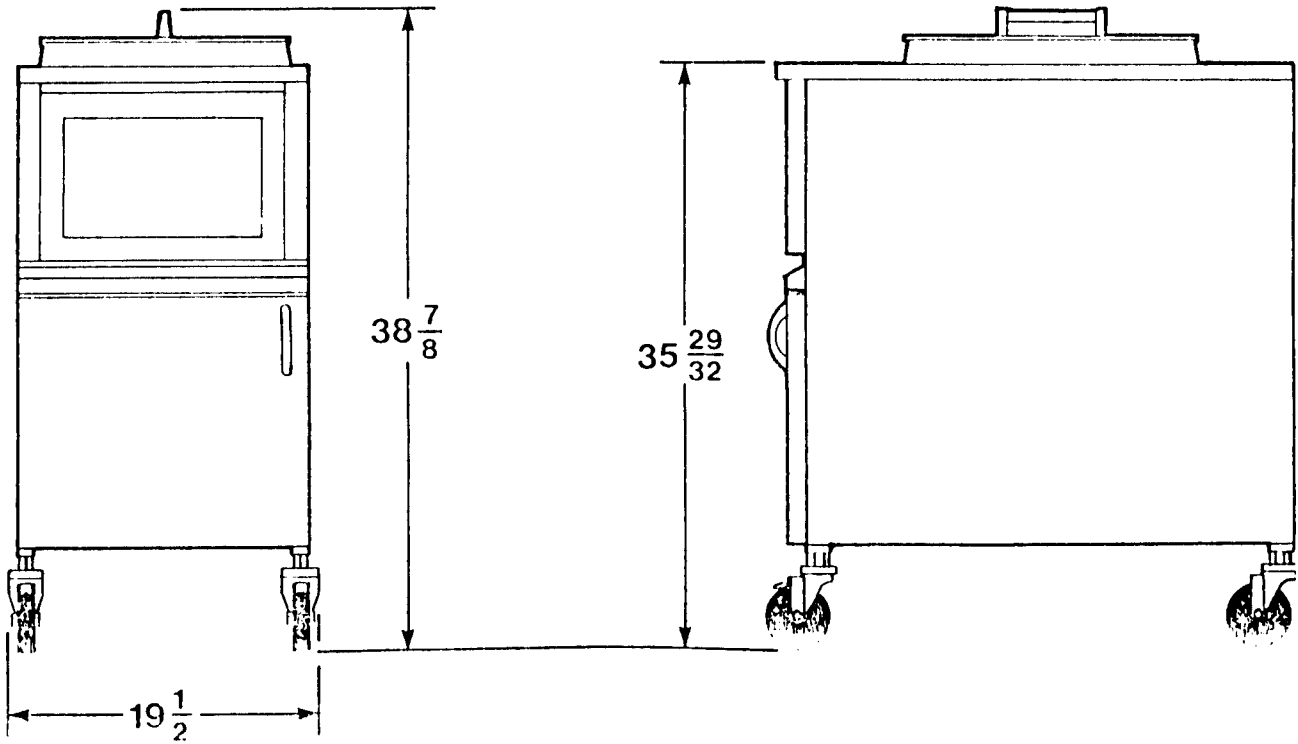
Volts	Phase	KW	Amps	Fuse
480	3	13.5	18	30A
415	3	13.5	20	30A
380	3	13.5	15	30A
240	3	13.5	15	30A
208	3	13.5	39	50A
480	3	22	28	40A
415	3	22	33	40A
380	3	22	35	50A
240	3	22	58	70A
208	3	22	61	90A



This fryer must be adequately and safely grounded. Refer to local electrical codes for correct grounding procedures. If fryer is not adequately grounded, electrical shock could result.

A separate disconnect switch with proper capacity fuses or breakers must be installed at a convenient location between the fryer and the power source.

2-7. FRYER DIMENSIONS



SECTION 3. OPERATION

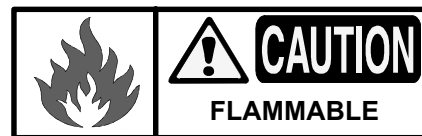
3-1. INTRODUCTION

This section provides operating procedures for the Henny Penny OE-100. Read sections 1, 2, and 3 and all instructions before operating the fryer.

3-2. OPERATING CONTROLS

Figures 3-1 through 3-8 identify and describe the function of all operating controls and components.

Page No.	Fig. No.	Item No.	Description	Function
3-6	3-1	1	Cook/Off/Pump Switch	This three position rocker type switch controls the power to the fryer when in the cook position. When in the pump position, power is then applied to the filter pump motor.
3-6	3-1	2	Filter Heaters	This machine is equipped with an optional strip heater that the operator must manually turn on and off. The indicator will illuminate when power is applied and will melt any solidified shortening that may have accumulated in the filter pump lines.



Use filter heater only long enough to melt the solidified shortening in lines. The heater must not be left unattended or fire could result.

3-6	3-1	3	Digital Display	The digital display shows the shortening temperature, as well as the timer countdown in the cook cycle. The temperature of the shortening can be determined by depressing the temperature button. If the temperature is below 250°F, the digital display will read "LO". If the temperature exceeds 390°F, the display will read "HI". Any temperature between these two settings will be displayed.
3-6	3-1	4	Timer Button	The right timer can be activated or reset by gently pressing the timer button. The same holds true for the left timer button. The left display shows the left timer information and the right display shows the information for the right timer.

3-2. OPERATING CONTROLS
(Continued)

Page No.	Fig. No.	Item No.	Description	Function
3-6	3-1	5	Set Button	The set button is used to set the cook cycles and to enter the special program modes.
3-6	3-1	6	Exit Melt Button	The exit melt button is used to bypass the melt cycle. By pressing and holding the exit melt button for 5 seconds, the heat comes on continuously.
3-6	3-1	7	Temperature Button	By pressing the temperature button (indicated by thermometer), the actual shortening temperature will show on the left display and the setpoint temperature on the right display.
3-6	3-1	8	Melt LED	When the melt LED is flashing, the fryer is in the melt cycle. When the temperature of the shortening reaches approximately 250° F, the melt LED will go off and automatically switch to the cook cycle.



When using new shortening, it is recommended to melt the shortening on an outside source before placing shortening in the frypot. Unless elements are completely covered in shortening, fire or damage to the frypot could result.

3-6	3-1	9	Ready LED	The ready LED illuminates when the temperature of the shortening is near the setpoint temperature. (It flashes if the temperature is 5° F more than the setpoint temperature.)
3-6	3-1	10	Heat LED	The heat LED illuminates when the heat comes on.
3-6	3-1	11	Usage LED	The usage LED flashes slowly when the set button is pressed and held for 2 seconds. The number of loads cooked of a selected product can be obtained at this time. If the set button is pressed and held for 10 seconds the usage LED flashes at a fast rate and the usage can be reset to 0 by pressing the timer button for the desired side.
3-6	3-1	12	Product LED	The product LED flashes while in the program modes, and a new product can be selected at this time.

3-2. OPERATING CONTROLS
(Continued)

Page No.	Fig. No.	Item No.	Description	Function
3-6	3-1	13	Time LED	The time LED flashes while in the program mode and a new fry time can be programmed.
3-6	3-1	14	Temperature LED	The temperature LED flashes while in the program mode and the setpoint temperature can be programmed.
3-6	3-1	15	Alarm LED	The alarm LED flashes while in the program mode. Up to four alarms can be programmed in a cook cycle.
3-6	3-1	16	Other LED	The other LED flashes while in the high level program mode and special program modes only. Several parameters can be programmed at this time.
3-6	3-1	17	Idle LED	The idle LED illuminates when the right timer up and down button is pressed for 2 seconds. The indicator passes through the other product LEDs to the idle LED. The control will then regulate the shortening temperature at a lower programmed temperature.
3-6	3-1	18	Up and Down Buttons	2 sets of up and down buttons (denoted as triangles) are on the control. These buttons are used in programming and product selection. A product is selected by pressing and holding either the up or down button for 2 seconds. To select both the right and left products at the same time the programmed setpoint temperatures must be the same.
3-7	3-2	19	Fuses	The fuses, located on the panel behind door, are protective devices that break the circuit when the current exceeds the rated value. The fuses provide overload protection for the control panel.
3-7	3-2	20	High Limit Reset Lever	This manual reset lever, located on the panel behind door, must be pushed down in the event the high limit trips. This lever will manually reset the high limit.
3-7	3-3	21	Contactors	The contactors are the relays that route power to the heating elements. One relay coil is in series with the high limit temperature control, and the other relay coil is in series with the heat control circuit.
3-7	3-3	22	Fan	The fan's function is to eliminate any heat build-up behind the control panel.

3-2. OPERATING CONTROLS
(Continued)

Page No.	Fig. No.	Item No.	Description	Function
3-7	3-3	23	Temperature probe	The temperature probe, located behind the control panel, determines the shortening temperature.
3-7	3-4	24	Drain Interlock Switch	The drain interlock switch is a microswitch that provides protection for the heating elements in case an operator drains shortening from the frypot while the power switch is on. The drain switch is designed to automatically shut off the control system when the drain valve is opened.



Is is recommended to turn all power off before opening drain valve, or fire could result.

3-8	3-5	25	Drain Valve	The drain valve is a 2-way ball valve and is normally in the closed position. Turn the handle to the open position to drain the shortening from the frypot.
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Open the drain valve slowly to eliminate splashing of hot shortening. Severe burns could result.

3-8	3-5	26	Filter Valve	The filter valve is a 2-way ball valve which operates in conjunction with the filtering system. With the handle in the open position and the main power switch in the pump position, this valve directs the filtered shortening from the filter drain pan back into the frypot.
3-8	3-6	27	Filter Union	The filter union connects the filter assembly to the filter pump. It is easily disconnected to allow removal of the filter and filter drain pan.

**3-2. OPERATING
CONTROLS
(Continued)**

Page No.	Fig. No.	Item No.	Description	Function
3-8	3-7	28	Filter Drain Pan	The removable filter drain pan houses the filter and catches the shortening when it is drained from the frypot. It is used to remove and discard the shortening when the shortening needs to be replaced.



Use protective gloves or cloth to prevent burns. The drain pan will be hot.

3-8	3-8	29	Filter Rinse Hose and Quick-Disconnect	The filter rinse hose is used to rinse food particles from the frypot into the filter drain pan. This hand-held hose is attached to a quick-disconnect.
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Use extreme caution when operating the filter rinse hose. Refer to "Filtering Procedures" in this manual for proper operation, or burns could result.

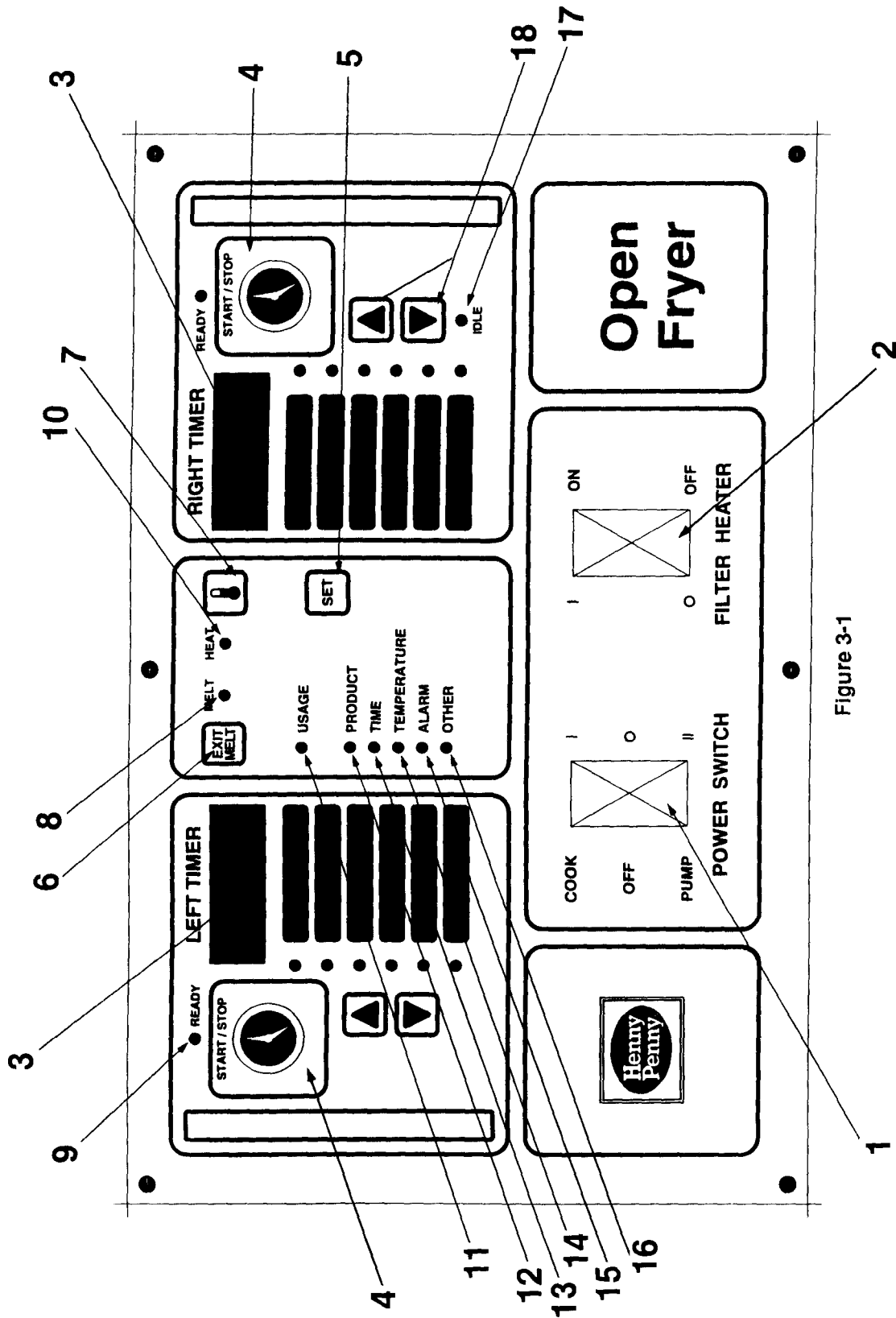


Figure 3-1

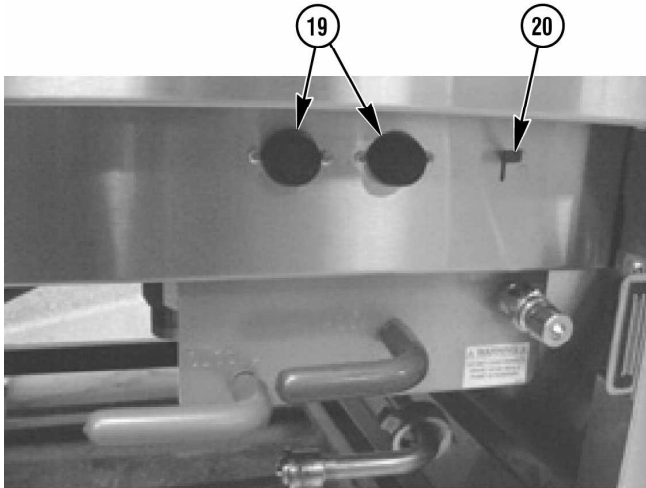


Figure 3-2

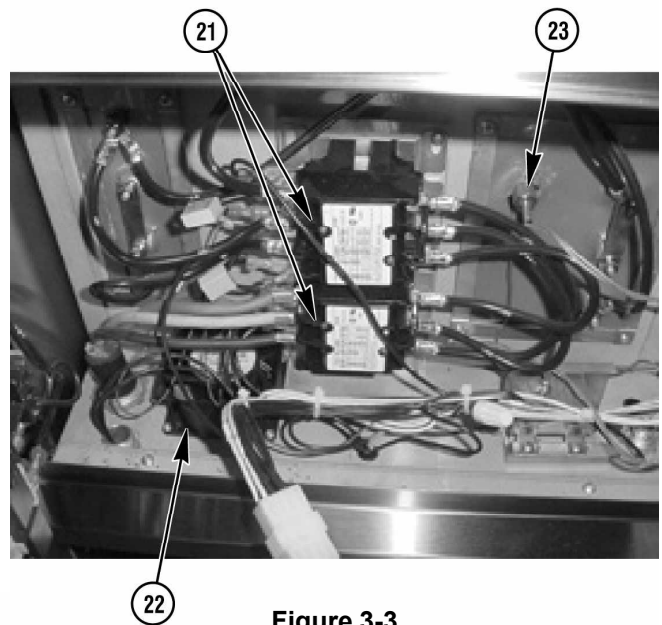


Figure 3-3

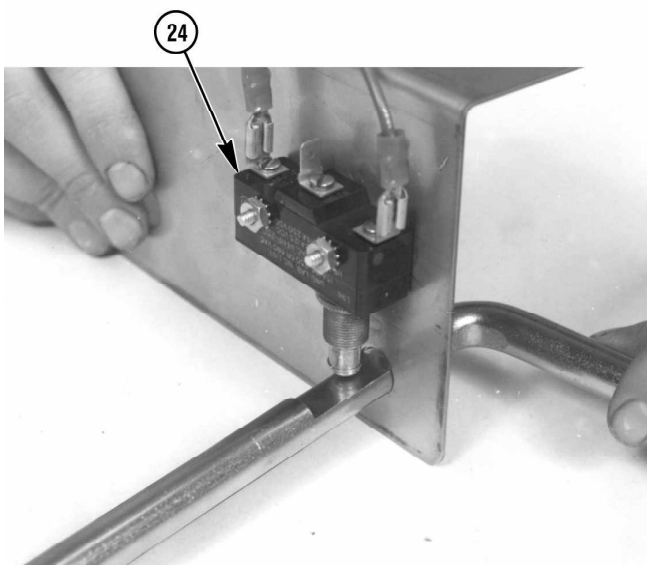


Figure 3-4

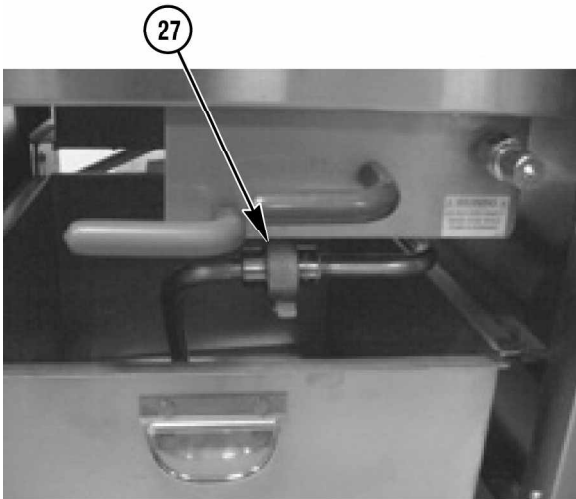


Figure 3-6

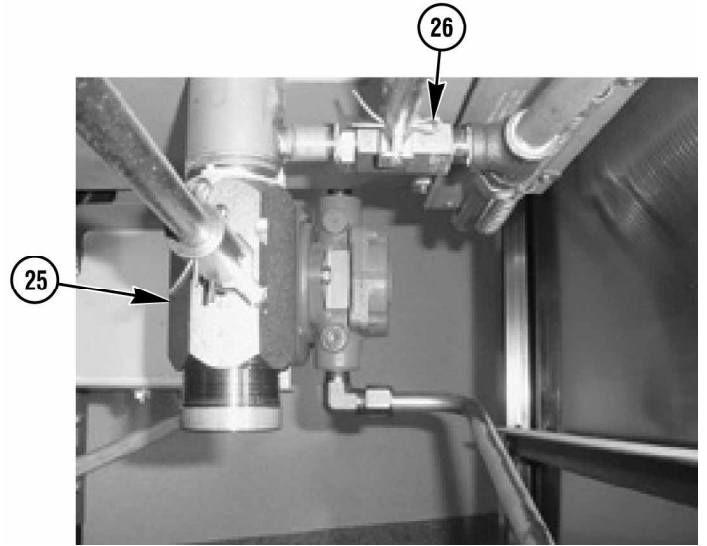


Figure 3-5



Figure 3-8



Figure 3-7

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



It is recommended that a high quality frying shortening be used in the OE-100. Some low grade shortenings have a high moisture content and will cause foaming and boiling over.

The Henny Penny OE-100 requires 65 pounds of shortening. It has a level indicator line marked on the rear of the pot wall, which shows the heated shortening at the proper level. Cold shortening should be below the bottom of the level indicator. The shortening will expand when heated.



Maintain hot shortening at level indicator line or fire could result.

Shortening and all metal parts that are in contact with the shortening are extremely hot. We recommend using protective gloves when in contact with metal parts.

**3-4. OPERATING
CONTROLS AND
PROCEDURES**

The Henny Penny Open Fryer with dual timers contains a solid state control of both cooking temperature and time. The following is a brief description of the operating procedure.

1. Be sure the drain valve and filter valve are in the closed position.
2. Fill frypot with shortening.



When using new shortening, it is recommended to melt the shortening on an outside source before placing shortening in the frypot. Unless elements are completely covered in shortening, fire or damage to the frypot could result.

3. Move power switch to the POWER position. Unit will automatically go into the melt cycle. When shortening temperature has reached approximately 250°F, melt light will extinguish and unit will go into cook cycle.

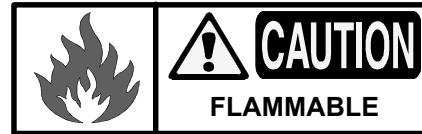


At the end of each day, the cover must be on frypot when not in operation to avoid shortening contamination.

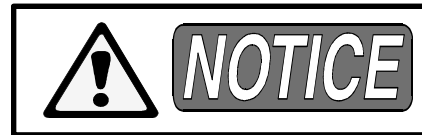
**3-4. OPERATING
CONTROLS AND
PROCEDURES**



The melt cycle may be bypassed, if desired, by pressing and holding the Exit Melt button for 5 seconds. The control will go directly to the cook cycle.



Do not bypass the melt cycle unless enough shortening has melted to completely cover all of the heating elements. If melt cycle is bypassed before all heating elements are covered, excessive smoking of the shortening or a fire will result.



The temperatures and times are preset from the factory and the two timers operate independently. They may be set, started, or stopped without affecting each other.

4. Completely stir shortening to stabilize the temperature throughout the frypot.
5. When shortening temperature has reached set point, ready light will illuminate, indicating to the operator they may drop product.
6. Lower basket with product into frypot and lightly depress timer button. Countdown will begin.
7. When cook cycle is complete, an alarm will sound and the display will flash "done". Press timer button to stop alarm.
8. Lift basket to allow product to drain.
9. If a hold time is programmed, and the timer button is pushed, the timers will automatically start counting down in a hold cycle.
10. At the end of the hold cycle an alarm sounds. Press the timer button to stop the alarm.

3-5. USAGE REVIEW OPERATION

Usage review enables the operator to review the number of loads of the products cooked, either daily or accumulated count.

1. Push the Set button for 2 seconds until the Usage LED flashes.
2. The LED beside the selected product shows the operator which product to be reviewed. To select a product, press the up and down buttons. When all LEDs are lit, all product usages are shown.
3. The left display shows either "daily" or "accu". The right display shows the usage. Push the Set button to change between daily or accumulated.
4. Push and hold Set button to exit usage review.

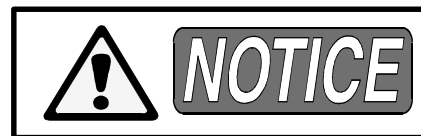
3-6. USAGE REVIEW RESET

1. Press and hold the Set button for ten seconds. The control will beep 3 times and the Usage LED will flash at a fast rate.
2. Select product and daily, or accumulated type, as described above. Push right timer button to clear displayed usage count. Daily usage is automatically cleared when power is turned off.
3. Push and hold Set button to exit usage review.

3-7. FILTERING OF SHORTENING

Frying breaded food requires frequent filtering. Taste the cold shortening every day for flavor. Watch the shortening for foaming during cook 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.



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

3-7. FILTERING OF SHORTENING
(Continued)

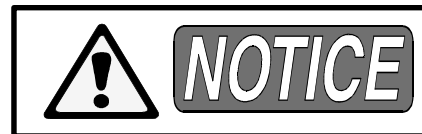
2. Use a metal spatula to scrape any build-up from the sides of the frypot. Do not scrape heating element.



Position the filter drain pan properly under the drain valve to prevent splashing of hot shortening.

Use protective gloves or cloth when draining hot shortening from frypot, or severe burns could result.

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 brushes to clean the sides of the frypot and the heating elements.
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. Move the main power switch to the PUMP position. Fill frypot 1/3 full, then turn off pump.



If there are air bubbles coming up in the shortening, it is possible that the filter union on the filter tube line is not tightened properly. If so, turn off the pump and use protective gloves to tighten the union.



Use protective glove or cloth when tightening filter union. This union will be hot, and severe burns could result.

- d. Wash down and scrub the sides of the frypot.
- e. After the sides and bottom are cleaned, open the drain valve.

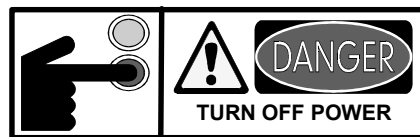
**3-7. FILTERING OF
SHORTENING
(Continued)**

7. When using the filter rinse hose 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.
 - b. Make sure the hose nozzle is pointed down into the bottom of the frypot. Close the filter valve and move the main power switch to the PUMP position.



Hold nozzle carefully to avoid excessive splashing of hot shortening, or burns could result.

- c. Rinse the frypot interior. Especially work on hard-to-clean areas, like the frypot bottom. 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. FAILURE TO DO THIS WILL RESULT IN SEVERE BURNS FROM HOT SHORTENING SPRAYING FROM THE MALE FITTING. ALSO, USE A DRY CLOTH OR PROTECTIVE GLOVE TO AVOID BURNS.

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

**3-7. FILTERING OF
SHORTENING
(Continued)**

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 in the frypot. Add fresh shortening if necessary, until it reaches the level indicator line on the rear wall of the frypot.



*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 bread-
ing used, and the amount of crumb accumulation left inside the filter drain pan. When the filter screen assembly and filter paper become clogged and the pumping flow rate slows down, clean the filter screen assembly and change the filter envelope.*

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

**3-8. FILTER PUMP
PROBLEMS**

The following steps will help prevent filter pump problems:

1. Make certain the filter paper envelope is properly installed over the filter screens. Make sure the open end of the envelope is properly folded over and clamped in place with the retaining clips so that the envelope is sealed and crumbs cannot enter.
2. Make sure the filter valve is kept closed at all times during frying.
3. Make sure all the shortening has been pumped from the filter lines and the pump by allowing the filter pump motor to run until the shortening in the frypot appears to be bubbling or boiling.

3-8. FILTER PUMP
PROBLEM (Continued)



Reset Button

3-9. CHANGING THE
FILTER ENVELOPE

4. If the filter pump motor overheats, a thermal protector shuts the motor off. Wait about 5 minutes, then manually reset the button on the rear of the motor. This button takes some effort to reset. A screwdriver can be used to press against the button to reset.



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

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. Disconnect the filter union and remove the filter drain pan from beneath the frypot.



The filter union may be hot. Use protective gloves or cloth to prevent burns.

To avoid burns caused by splashing of hot shortening, use protective gloves or cloth.

3. Lift the filter screen assembly from the filter drain pan.
4. Wipe the shortening and crumbs from the filter drain pan. Clean the filter drain pan with soap and water. Thoroughly rinse with hot water.
5. Unthread the standpipe from the filter screen assembly.
6. Remove the crumb catcher and clean thoroughly with soap and water. Rinse thoroughly with hot water.

**3-9. CHANGING THE
FILTER ENVELOPE**
(Continued)

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



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

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

**3-10. 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:



Melt bypass should be in operation. Refer to paragraph 3-4, "Operating Controls and Procedures", on bypassing the melt cycle.

**3-10. CLEANING
THE FRYPOT
(Continued)**

1. Turn the main power switch to OFF.



Position the filter drain pan properly under the drain valve to prevent splashing of hot shortening.

Use protective gloves or cloth when draining hot shortening from frypot, or severe burns could result.

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. Discard the shortening in the filter drain 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 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 HIGH IN ALKALINE. SPLASHING OR OTHER CONTACT WITH THE SOLUTION WILL RESULT IN BURNS TO EYES OR SKIN.

BEFORE USE, CAREFULLY READ THE INSTRUCTIONS ON THE CLEANER. IF THE SOLUTION COMES IN CONTACT WITH YOUR EYES, RINSE THOROUGHLY WITH COOL WATER AND SEE A PHYSICIAN IMMEDIATELY.

5. Turn the main power switch to the POWER position and set the temperature to 200°F. The melt bypass must be used.
6. When the cleaning solution starts a rolling boil, immediately move the main power switch to OFF.

**3-10. CLEANING
THE FRYPOT
(Continued)**



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

7. Repeat steps 5 and 6 and bring the solution to a boil. Repeat at least 5 times.
8. Let the cleaning solution stand for 15 to 20 minutes with the power off.
9. Using the fryer brush (never use steel wool), scrub the inside of the frypot.
10. After boiling and cleaning, turn off the main power switch. Open the drain valve and drain the cleaning solution from the frypot into the filter drain pan and discard.
11. Replace the empty filter drain pan, close the drain valve, and refill the frypot with plain hot water to proper level.
12. Add approximately 8 ounces of distilled vinegar and bring the solution to a boil.
13. Using a clean brush, scrub the interior of the frypot. This will neutralize the alkaline left by the cleaning compound.
14. Drain the vinegar rinse water and discard.
15. Rinse down the frypot using clean, hot water.
16. Completely dry the filter drain pan and the frypot interior.



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, because water dissolves the filter paper.

17. Replace the clean filter screen assembly in the filter drain pan and install under fryer.
18. Refill the fryer with fresh shortening.

3-11. PREVENTIVE MAINTENANCE

The cooling fan on the OE-100 reduces the amount of heat behind the control panel. If the PC board gets too hot, "E-4" shows on the display, and shuts the heat off to the fryer.

Too much heat can damage the PC boards on the control panels so it's important that the cooling fan operates properly and has good air flow.

To prevent an "E-4" reading, clean the fan guard as follows:

ONCE A MONTH:

1. Turn power switch to the "OFF" position.
2. Open door to bottom of fryer.
3. Locate metal fan guard situated in the left front, under the control panel.
4. Clean any lint and dirt from fan guard.

3-12. ERROR CODES

Display	Cause	Correction
E4	PC board too hot. Clogged or faulty cooling fan.	Check fan guard per section 3-11, or replace faulty cooling fan.
E5	Shortening too hot	Unplug unit, or turn off circuit breaker to unit. If display still shows E5, have the heating and high limit circuits checked.
E6	Temperature probe failure	Unplug unit, or turn off circuit breaker to unit. If display still shows E6, check temperature probe connection at board. If connection is good, have temperature probe replaced.
E10	High temperature limit tripped or faulty	Reset high temperature limit by manually pushing lever, behind door. (see Figure 3-2). If high limit does not reset, replace high limit.
E41, E50, E51, E53	Control errors	Unplug unit, or turn off circuit breaker to unit. If display still shows an error, reinitialize the control (see Section 4-4). If error still persists, change the control panel.

SECTION 4. PROGRAMMING

The controls have three programming levels: a low level mode, a high level mode, and a special program mode. In each level, pressing the Set button advances through the programmable items. Program mode can be entered any time except during an alarm. The left display describes the item being programmed. The right display shows the item setting and can be changed by pressing the right Up and Down buttons.

4-1. LOW LEVEL PROGRAM MODE

The Low Level Program Mode allows the operator to program the time, temperature, and set up to 4 alarms for the selected product.

1. Press and hold Set and Temp buttons for at least 5 seconds. A tone will sound, and the left display shows "Slct" and the right display shows "Prod". The Product LED also flashes.
2. Press either the left or right Up and Down buttons to select a product to program, and the LED next to the desired product will be lit.
3. Press the Set button and the Time LED flashes. The left display shows "Fry" and the right display shows the cook time. Pressing the right Up and Down buttons adjusts the cook time.
4. Press the Set button and the Time LED continues to flash. The left display shows "Hold", the right display shows the hold time and can be adjusted with the right Up and Down buttons.
5. Press the Set button and the Temperature LED flashes. The left display shows "Fry", the right display shows the setpoint, and can be adjusted with the right Up and Down buttons.
6. Press the Set button and the Alarm LED flashes. The left display shows "AL 1", the right display shows the alarm time and can be adjusted with the right Up and Down buttons.
7. Repeat step 6 for alarms 2, 3, and 4.

**4-1. LOW LEVEL
PROGRAM MODE
(Continued)**

8. Press the Set button and the Alarm LED flashes. The left display shows "HdAl" and the right display shows the hold alarm setting, and can be adjusted with the right Up and Down buttons.
9. Press Set button and the Product LED flashes. Push either Up or Down buttons to select another product to program, or press and hold the Set button to exit program mode.

**4-2. HIGH LEVEL
PROGRAM MODE**

The High Level Program Mode allows the operator to program load compensation, load anticipation, proportional control, filter cycle for the selected product, and the idle parameters.

1. While in the low level mode, push and hold the Set and Exit Melt buttons for 5 seconds. The beeper will sound and the left display will show "Slct" and the right display will show "Prod". The Product LED also flashes.
2. Press either the right or left Up and Down buttons to select a product to program.
3. Press Set button and the Other LED flashes. The left display shows "LdCo", and the right display shows load compensation setting, and can be adjusted with the right Up and Down buttons.
4. Press the Set button and the Other LED continues to flash. The left display shows "PC", the right display shows the proportional control setting, and can be adjusted with the right Up and Down buttons.
5. Press the Set button and the Other LED continues to flash. The left display shows "LdAn", and the right display shows load anticipation setting, and can be adjusted with the right Up and Down buttons.
6. Press the Set button and the Other LED continues to flash. The left display shows "Filtr", and the right display shows filter cycles setting, and can be adjusted with the right Up and Down buttons.

**4-2. HIGH LEVEL
PROGRAM MODE
(Continued)**

7. Press the Set button and the Product LED flashes. Press either right or left Up and Down buttons to select another product to program. Press and hold the Set button to exit the program mode.
8. Also, with the Product LED flashing, pressing the right Up and Down buttons accesses the Idle Mode parameters. The idle LED flashes, the left display shows "Auto", and the right display shows the auto idle time. Adjust the idle parameters with the right Up and Down buttons, or disable the auto idle to "OFF" (see Section 6-3).

4-3. IDLE PROGRAMMING

The Idle Mode must be enabled for the operator to access this mode.

1. While in the high level program mode, and the Product LED is flashing, press the right Up and Down buttons to select the idle mode items. The Idle LED will be flashing.
2. Press Set button and the Time LED flashes. The left display shows "Auto", and the right display shows auto idle time. Adjust the auto idle time with the right Up and Down buttons, and to disable the auto idle feature, set time to "OFF".
3. Press Set button and the Temperature LED flashes. The left display shows "F" or "C", and the right display the idle temperature setpoint, which can be adjusted with the right Up and Down buttons.
4. Press Set button and the Product LED flashes. Press either the left or right Up and Down buttons to select another product to program, or press and hold the Set button to exit program mode.

4-4. SPECIAL PROGRAM MODE

The Special Program Mode allows the operator to program Fahrenheit or Celsius, temperature probe calibration, alarm duration, hold duration, to initialize the program, or to put the control through an 1/0 test.

1. While in high level program mode, press and hold Exit Melt and Temp buttons until the buzzer sounds, and the left display shows "SPCL" and the right display shows "Prog". Then release the buttons and the display will show software version, then "deg."
2. Also, the Special Program Mode can be accessed by pressing and holding the Set button and turning the power switch on.
3. Once in the Special Program Mode, press the right Up and Down buttons to select Fahrenheit (°F) or Celsius (°C).
4. Press Set button and the left display shows "Prob", and then "calib". The temperature probe calibration then can be adjusted with the right Up and Down buttons.
5. Press the Set buttons and the left display shows "AL", then "dur". The timer alarm duration can be adjusted with the right Up and Down buttons. The duration shows in right display.
6. Press Set button and the left display shows "Hold", then "dur". The hold alarm duration can be adjusted by the right Up and Down buttons. The right display shows the duration.
7. Press Set button and the left display shows "init", and the right display shows "sys". Push and hold the right Up and Down buttons for 5 seconds to initialize all settings. Special Program Mode is automatically exited if initialization is done.
8. Press Set button to skip setting initialization and the left display shows "10", right shows "test". The displays will then go blank and by pressing all buttons, enables all LEDs and displays. Pressing TEMP button turns on heat.
9. Press and hold Set button to exit Special Program Mode.

GLOSSARY

HENNY PENNY OPEN FRYERS

air valve	a valve on the eight head fryer that allows air into the filter lines when the pump is on in the mixing mode on eight head fryers
airflow switch <i>(gas fryers only)</i>	a switch on the eight head fryer that senses the amount of airflow coming from the blower; if the airflow falls below a certain level, the switch cuts power to the gas control valve that shuts down the burners
blower <i>(gas fryers only)</i>	located on the rear of a gas fryer, the blower pulls flue gases out of the flue and provides the proper amount of air to the burner tubes for efficient combustion
breadcrumbing	a flour and seasoning mixture used to coat the product prior to frying
burner assembly <i>(gas fryers only)</i>	an assembly on gas fryers that houses the pilot light which ignites the gas that heats the fryer
burner tubes <i>(gas fryers only)</i>	the tubes through which heated air is forced to heat the shortening
carrier	a wire frame inside the eight head frypot that holds five racks of product during the cook cycle
casters	the wheels on bottom of the fryer that allow the unit to roll; casters should be locked when unit is in use and not being moved; casters may be adjusted to help level the fryer
cleaning solution	an agent used to clean the frypot; see recommended cleaning procedures
cold zone	an area in the bottom of the frypot where shortening is cooler than the area above; the zone allows the crumbs to settle without burning
cook cycle	a programmed cycle that cooks a particular product at a preselected temperature and for a preselected time
cooking load	the amount of product cooked during a cook cycle
counterweight	the weights shipped with the fryer that, when installed in the counterweight assembly, enable the eight head fryer lid to lift easily
counterweight assembly	an assembly of weights and cables that enable the eight head fryer lid to lift easily
cover	a protective lid for the frypot when fryer is not in use
cracklings	the crumbs of breadcrumbing that come off the product during a cook cycle
crumb catcher	the part of the filter assembly on four head fryers that filters crumbs out of the shortening before the shortening is pumped back into the frypot

data plate	a label or plate located on the right side panel of the fryer that indicates the fryer type, serial number, warranty date, and other information
drain handle	the handle used to open and close the drain valve
drain interlock switch	a microswitch that automatically shuts off the fryer heat in the event the drain valve is inadvertently opened while the fryer power switch is in the ON position
drain valve	a valve that allows the shortening to drain from the frypot into the filter drain pan; the fryer power switch should be in the OFF position before the drain valve is opened; the drain valve should remain closed at all other times
dumping table	a table onto which the cooked product is dumped after removal from the fryer frypot
fill lines	the four lines marked on the interior rear wall of the frypot that show the proper shortening level <i>(also referred to as level indicator lines)</i>
filter clips	the clips are the part of the filter screen assembly that holds the filter envelope closed
filter drain pan	a pan that slides under the fryer into which shortening is drained
filter envelope	a fiber envelope into which the filter screen is placed; the end of the envelope is folded and held closed with filter clips; a part of the filter screen assembly
filter heater switch	control panel switch that activates the strip heater <i>(Model OE-100 only)</i>
filter pan dolly	an optional transport cart for the filter drain pan
filter pump motor	the motor that powers the filtering system
filter screen assembly	an assembly that filters the shortening as it is pumped from the frypot; the assembly is made up of two filter screens, a filter envelope, two filter clips, and a crumb catcher <i>(Note: eight head fryers have two filter screens with no crumb catcher)</i>
filter union	the threaded connection between the fryer and the filter system that can be connected or released without tools
filter valve	the valve that must be opened to pump shortening back into the frypot during the filter cycle <i>(Models OE-100, 320, and 340)</i>
flame sensors <i>(gas fryers only)</i>	the sensors that shut off the gas supply to gas fryers if the pilot lights go out or do not light
fryer brush	a brush included with the fryer used to scrub the inside of the frypot
frypot	the interior portion of the fryer that holds the shortening and the product while cooking
frypot collar	the top flat surface area around the fryer lid

gas control valve (<i>gas fryers only</i>)	an automatic dual controller that controls gas to both pilot lights and gas pressure to burners on fryers; if either pilot light goes out, the controller shuts off the gas to the other pilot light
gas valve knob (<i>gas fryers only</i>)	the knob that opens and closes the gas control valve
gas pressure regulator (<i>gas fryers only</i>)	a device located on the gas control valve that regulates the gas pressure; the pressure specifications are preset at the factory
heat indicator	the light that illuminates when the shortening is being heated; the light goes off when the preset shortening temperature has been achieved
heating elements	the coils located inside the frypot on electric fryers that heat the shortening
high limit	a temperature control that opens and shuts off the heat to the frypot if it senses shortening temperature in excess of 420°F (212°C)
ignition modules	two modules that send electrical energy to the spark igniters that ignite the pilot lights on gas fryers
L-shaped brush	a brush included with the fryer that is used to clean around the burner tubes and heating elements
landing table	another name for a dumping table (<i>see dumping table</i>)
level indicator lines	the lines marked on the interior rear wall of the frypot that show the proper shortening level (<i>also referred to as fill lines</i>)
lid assembly	an assembly comprised of lid, lid handle, and lid latch which raises and lowers product into shortening on eight head fryers
lid handle	a handle that is attached to the lid and is used to lower the lid into contact with the frypot; the handle is then pulled forward and pushed down to lock the lid in place (<i>see lid latch</i>)
lid latch	a mechanical catch on the front of the fryer lid that engages a bracket located on the front of the frypot; the latch holds the lid down
manual reset lever	resets high limit (<i>OE-100 only</i>)
manual shutoff valve (<i>gas fryers only</i>)	a valve located between the fryer and the wall that shuts off the flow of gas from the supply line; this is not the main shutoff valve for the store
melt cycle	a heat mode that cycles on and off to slowly melt the shortening when the power switch is on and the shortening temperature is below a certain temperature; the melt cycle prevents scorching of the shortening
pilot orifice (<i>gas fryers only</i>)	a controlled opening for the pilot light located on the burner assembly
pilot light (<i>gas fryers only</i>)	a small flame that remains burning even when the fryer is not in use; the flame ignites the gas when the fryer is turned on

power/pump switch	a three-way switch located on the front control panel of the fryer that serves as an off/on switch and a filter switch
product	a food item cooked in the fryer
rack	the wire grid that slides into the carrier to hold product during the cook cycle
setpoint	a preset cooking temperature; the setpoint is a programmable feature
shortening mixing system	an automatic system on eight head fryers that periodically uses the filter pump to mix the shortening in the frypot to prevent an accumulation of moisture to minimize the boiling action in the frypot
shortening shuttle	optional equipment used for shortening disposal
sift breading	the process of removing clumps from breading
spark igniters (gas fryers only)	the igniters that create a spark to ignite the pilot lights on gas fryers (see ignition modules)
standpipe	the pipe through which oil is pumped back into the frypot after the filtering process is complete
standpipe assembly	the pipe and fittings that are part of the shortening filtering process
straight brush	a brush that is included with the fryer that is used to clear the drain in the bottom of the frypot
strip heater	keeps the filter lines free of solidified shortening when the filter heater switch is turned on (Model OE-100 only)
temperature probe	a round probe that is located in the inside of the frypot that measures the temperature of the oil in the frypot; the probe communicates with the control panel
thermal protector	overheat protection switch for the filter motor that must be manually reset if tripped