SECTION 3. OPERATION

3-1. OPERATING COMPONENTS

POWER/PUMP Switch — A three way switch with center OFF position; move the switch to the position marked POWER to operate the fryer; move the switch to the position marked PUMP to operate the filter pump; certain conditions must be met prior to operation of the filter pump; these conditions are covered later in this section

Frypot — This reservoir holds the cooking shortening, and is designed to accommodate the heat exchanger, 6 head of product and an adequate cold zone for collection of cracklings

Carrier — This stainless steel carrier consists of five racks which contain the food product during and after frying

Drain Valve — A two-way ball valve, normally in the closed position; turn the handle to drain the shortening from the frypot into the filter drain pan

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 switch is in the POWER position; the switch is designed to automatically shut off the heat when the drain valve is opened

Shortening Mixing System — A shortening mixing capability to help ensure shortening is properly mixed to prevent an accumulation of moisture and hence boiling action in the pot; the filter pump is activated by the controls, at preset intervals, to mix the shortening

Lid Latch — A mechanical catch on the front of the lid which engages a bracket on the front of the frypot, when lid is lowered

Air Valve — Pumps air into the shortening, periodically, to keep the shortening at a uniform temperature; this only functions when the unit has been sitting idle for a period of time, and when heating up from a cold start

3-1. OPERATING COMPONENTS (Continued)

High Limit

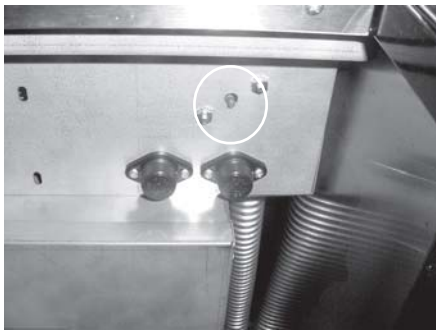


Figure 3-1

This high temperature control senses the temperature of the shortening; if the temperature of the shortening exceeds 450°F (230°C), this control will open and shut 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, in the right, front of the fryer

Filter Drain Pan

The removable pan that houses the filter and catches the shortening when it is drained from the frypot; also used to remove and discard old shortening

When hot shortening is in this pan, use extreme care to avoid burns.

Filter Union

Connects the filter to the filter pump, and allows easy removal of the filter and drain pan

Fuses

A protective device which breaks the circuit when the current exceeds the rated value

3-2. LID OPERATION

To close lid:

1. Lower the lid until latch comes into contact with the pot.

To open lid:

1. Unlatch the front lid latch.

2. Lift up on handle to raise lid.

3-3. MELT CYCLE OPERATION

If the shortening is below 185°F (77°-85°C) with the POWER/PUMP switch in the POWER position, the fryer enters the Melt Cycle. The shortening is heated slowly to prevent scorching of the shortening. The heat cycles on and off to ensure slow melting of shortening. At 185°F (85°C) the heat stays on until the Cool Mode is reached, which is 250°F (121°C). The controls maintains this temperature until the COOL button is pressed.

See Filling and Adding Shortening Section.

3-4. SWITCHES AND INDICATORS

Refer to image at end of this section.

Product Selection Buttons

Select the number of heads, or product, to be cooked by pressing the button below the menued item; shortening will then heat to drop temperature of that item

Pressing the same button again begins the Cook Cycle; the display changes from "DROP" to counting down the cook time in minutes and seconds

At the end of the Cook Cycle, the alarm sounds and the display reads "DONE"; press the cycle button that is flashing, to stop the alarm ; the fryer then resets to the Cool Mode

NOTICE

A Cook Cycle can be aborted at any time by pressing and holding the product button.

Time/Temperature Display

A four digit LED type display which shows the remaining cook time during Cook Cycles and also the shortening temperature on demand from the operator

Heat Indicator

Illuminates whenever the control calls for heat; when shortening temperature has been reached, the heat light goes off

HI Temperature Indicator

The display reads "HI" if the shortening temperature is 40° F above the setpoint

Drop Indicator

The display reads "DROP" when the shortening has reached the setpoint temperature (will read "DROP" 2° before setpoint and 4° above setpoint)

Done Indicator

The display reads "DONE" at the end of the Cook Cycle

Temperature Button

Press this button to read the temperature of the shortening during a Cook Cycle

SCAN Button

Pressing this button toggles through the items being programmed

FUNCTION Button

Used in the programming of the controls

EXIT FILL Button

After filtering the fryer, if in the filter lockout mode, the display reads "FILL", and the EXIT FILL button must be pressed.

3-4. SWITCHES AND INDICATORS Continued)

EXIT COOL Button

After cooking, or filtering the shortening, the temperature automatically goes into the Cool Mode, which keeps shortening at a lower temperature; this temperature extends the shortening life and minimizes the time to heat the shortening for the next Cook Cycle; EXIT COOL button must be pressed to heat up to setpoint temperature

ALTHOUGH THE DISPLAY WILL READ "COOL" DURING THE STANDBY MODE, THE SHORTENING IS HOT AND WILL CAUSE BURNS.

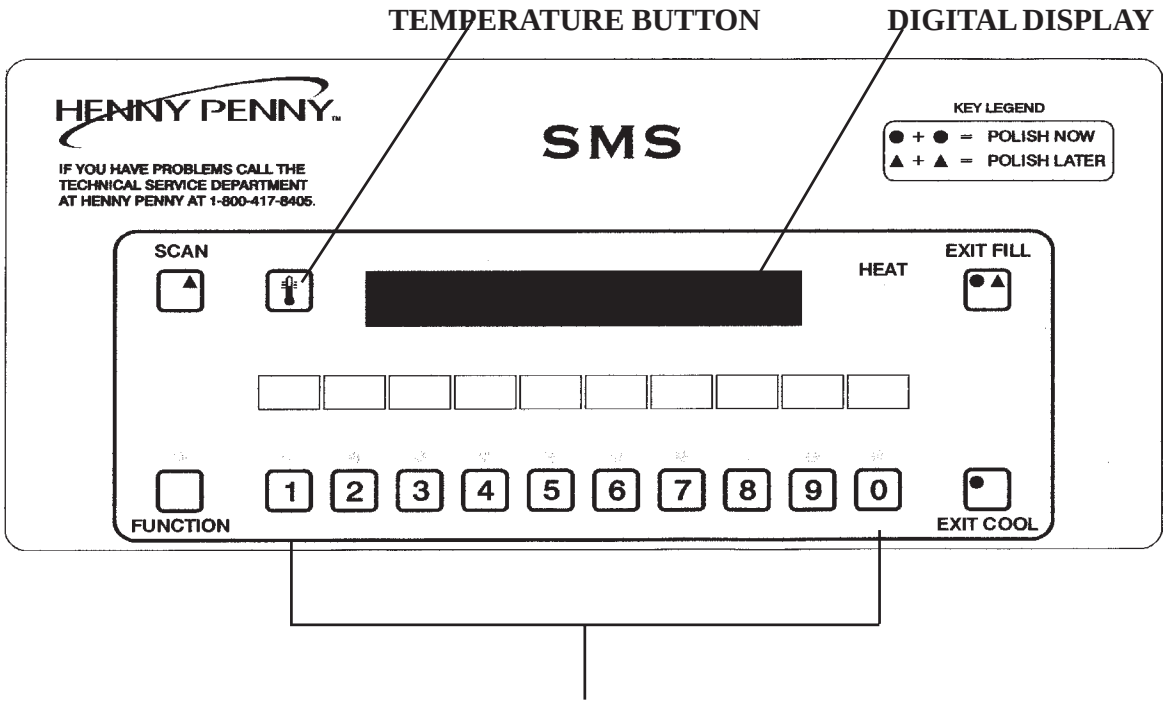


Figure 3-2

3-5. FILLING OR ADDING SHORTENING

CAUTION

The shortening level must always be above the heating elements when the fryer is heating and at the frypot level indicators on the rear of the frypot (Figure 3-3). 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 burner tubes must be completely submerged in shortening. Fire or damage to the frypot could result.

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

WARNING

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

Figure 3-3

2. The electric model requires 100 lbs. (45 Kg.) of shortening. The frypot has 2 level indicator lines inscribed on the rear wall of the frypot which show when the heated shortening is at the proper level. Figure 3-3.

3. Cold shortening should be filled to the lower indicator.

DANGER
OVERFLOW RISK

BE CERTAIN THE SHORTENING IS NEVER ABOVE THE UPPER LEVEL INDICATOR LINE. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SHORTENING OVERFLOWING THE FRYPOT CAUSING SERIOUS BURNS, PERSONAL INJURY, FIRE AND/OR PROPERTY DAMAGE.

For complete instructions, refer to KFC's Standards Library.

3-6. BASIC OPERATION

Follow the procedure below on the initial start-up of the fryer, and each time the fryer is brought from a cold, or shut down condition, back into operation. These are basic, general instructions. Be sure to follow KFC's Standards Library when operating the fryer.

1. Make sure the shortening is filled to the proper level in the frypot; to the lower indicator.

DO NOT OVERLOAD, OR PLACE PRODUCT WITH EXTREME MOISTURE CONTENT INTO THE RACKS. 21 LBS. (9.5 KG.) IS THE MAXIMUM AMOUNT OF PRODUCT PER FRYPOT. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RE SULT IN SHORTENING OVERFLOWING THE FRYPOT WHICH COULD CAUSE SERIOUS BURNS, PERSONAL INJURY, FIRE AND/OR PROPERTY DAMAGE.

2. Turn the POWER/PUMP switch to the POWER position and press the appropriate product button to select the amount of product to be cooked.

3. Stir the shortening as it's heating up from a cold start. Be sure to stir down into the cold zone.

DO NOT STIR THE SHORTENING AT ANY OTHER TIME EXCEPT AT MORNING START-UP. FAIL- URE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SHORTENING OVERFLOWING THE FRYPOT WHICH COULD CAUSE SERIOUS BURNS, PERSONAL INJURY, FIRE, AND/OR PROPERTY DAMAGE.

3-6. BASIC OPERATION (Continued)

4. Allow fryer to heat until digital display shows “DROP”. (Press the EXIT COOL button if the display shows COOL”)

NOTICE

The heat cycles on and off approximately 10 degrees before the setpoint temperature, to help prevent overshooting the setpoint temperature. (proportional control)

5. Slide racks of breaded product into carrier on the lid, starting with the bottom rack, to prevent damaged product.

NOTICE

Before loading product onto the racks, lower the racks into the hot shortening to prevent the product sticking to the racks.

6. Lower and latch the lid down and press the appropriate product button.

7. At the end of the cycle, an alarm sounds, and the display shows “DONE”. At this time, press the appropriate product button.

8. Unlatch and raise the lid cautiously.

9. Using the rack handles, remove the racks of product from the carrier, starting with the top rack to prevent damaged product.

3-7. 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 the shortening when the fryer is not in immediate use, the fryer should be put into the Cool Mode.

2. Frying breaded products requires filtering to keep the shortening clean. The shortening should be filtered at least twice a day; after lunch rush and at the end of the day.

3. Maintain the shortening at the proper cooking level. Add fresh shortening as needed.

4. Do not overload the racks with product (21 lbs. (9.5 kgs.) maximum), or place product with extreme moisture content into racks.

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

3-8. FILTERING INSTRUCTIONS

The Henny Penny gas 6 head open fryer, Model 290, must be cleaned and the shortening must be cleaned and polished at least twice daily; after lunch rush and at the end of the day. Refer to KFC's Standards Library.

Filter shortening immediately following a Cook Cycle when the shortening temperature is in the Cool Mode; 250° F (121° C) or less.

Drain the shortening at 250° F (121° C) or less. The higher temperatures cause cracklings to burn on the steel frypot surfaces after the shortening has drained.

3-8. FILTERING INSTRUCTIONS (continued)

DANGER
OVERFLOW RISK

ONLY FILTER WHEN "COOL" IS DISPLAYED. FAILURE TO DO SO CAN RESULT IN SHORTENING OVERFLOWING THE FRYPOT, CAUSING SERIOUS BURNS, PERSONAL INJURY, FIRE,AND/OR PROPERTY DAMAGE.

High volume cooking could cause the cold zone to fill quicker with cracklings and cleaning may be required more often. Part of the process involves removing cracklings from the cold zone of the frypot.

1. Turn POWER/PUMP switch to OFF position.

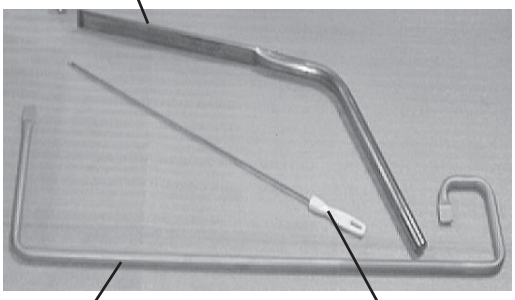
2. Make sure filter drain pan is under fryer and the filter union is fastened to the filter standpipe, coming out of the pan.

WARNING

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.

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

Shortening Stirrer



Drain Cleanout Rod

Small White Brush

3. Remove cooking racks, carrier and wipe bottom of lid. Tilt lid out of the way to clean frypot.

4. Pull drain handle towards you to open drain valve. The handle should point straight out to the front of the fryer. Use large white brush to clean cracklings from the elements and from sides and bottom of frypot as shortening drains. Use the drain cleanout rod to push cracklings through drain opening in bottom of frypot if necessary. Using the small straight white brush, clean between the elements and the frypot wall.

DANGER
OVERFLOW RISK

BRUSH ALL CRACKLINGS FROM FRYPOT SURFACES AND THE COLD ZONE DURING THE FILTE TERING PROCESS. FAILURE TO DO SO CAN RESULT IN SHORTENING OVERFLOWING THE FRYPOT, WHICH COULD CAUSE SERIOUS BURNS, PERSONAL INJURY, FIRE AND/OR PROPERTY DAMAGE.

3-8. FILTERING INSTRUCTIONS (Continued)

5. Scrape cracklings and crackling ring from frypot and discard. Do not let cracklings drain into filter drain pan. These cracklings can cause a burned taste in gravy. Wipe all surfaces with a clean damp towel. If water drops into cold zone, dry with towel before pumping shortening back into the frypot.

6. Return drain handle to the closed position to close the drain.

7. Turn POWER/PUMP switch to PUMP, and when all shortening has been pumped into frypot swing drain handle to the closed position to close the drain.

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 WILL RESULT.

3-9. CHANGING THE FILTER ENVELOPE

The filter envelope should be changed after 10-12 filterings, or whenever it becomes clogged with crumbs. Refer to KFC's Standards Library.

Use protective cloth or glove when disconnecting the filter union 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.

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

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:

1. Turn the POWER/PUMP switch to OFF positioin, and unplug unit from wall receptacle.

WARNING

Moving the fryer or filter drain pan while containing hot shortening is not recommended. Hot shortening can splash out and severe burns could result.

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.

2. If hot shortening is present in the frypot, it must be drained by slowly pulling the drain handle out towards you.

3. Close the drain valve and discard the shortening.

4. Raise lid, remove the racks and carrier from lid, and tilt lid back, so that the lid won't interfere with cleaning.

5. Refer to KFC's Standard's Library on cleaning instructions.

CAUTION

If the cleaning solution in the frypot starts to foam and boil over, immediately turn the POWER Switch to OFF or damage to components could result.

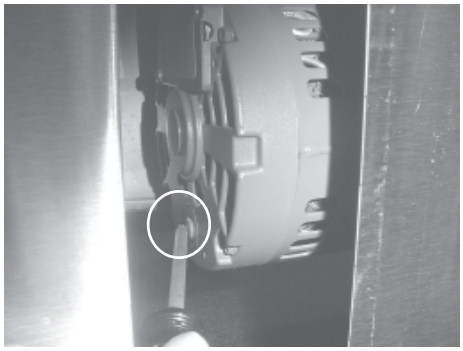
Do not use steel wool, other abrasive cleaners or cleaners/ sanitizers containing chlorine, bromine, iodine or ammonia chemicals, as these will deteriorate the stainless steel material and shorten the life of the unit.

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

NOTICE

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

3-11. 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. If motor won't run, wait about 5 minutes before attempting to reset this protective device to allow motor to cool. Remove the access panel on the left side panel of the unit to reset the button. It takes some effort to reset, and a screwdriver can be used to help reset the button.

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.

3-12. REGULAR MAINTENANCE

The Henny Penny open fryer does require care and proper maintenance. The table below provides a summary of scheduled maintenance. The following paragraphs provide step-by-step preventive maintenance procedures to be performed by the operator.

Procedure	Frequency
Filtering of shortening	See KFC's Standards Library
Changing of shortening	See KFC's Standards Library
Changing the filter envelope	See KFC's Standards Library
Cleaning the frypot	See KFC's Standards Library
Cleaning Nylattrons	Monthly-see below
Lubricate lid rollers	Annually-see below

3-13. PREVENTIVE MAINTENANCE

Cleaning Nylatrons

1. Spray Henny Penny biodegradable, food safe, foaming degreaser (part no. 12226) on Nylatrons.
2. Raise lid up and down several times to spread the degreaser.
3. Wipe Nylatrons to remove food soil, grease, and degreaser residue.

Lubricating Lid Rollers

The lid rollers, in the back of the fryer, should be lubricated at least once a year, to allow the lid easy movement.

1. Remove the back shroud of the fryer.
2. Using spindle lube, part number 12124, place a small amount of lube on both top and bottom rollers. Make sure to lube both left and right rollers.

3-14. PROGRAMMING

1. Press and hold the FUNCTION button for two seconds. "REG PROGRAM" shows in the display, followed by "CODE".

2. Press the code1-2-3. "SELECT PRODUCT" scrolls across the display.

NOTICE

If no buttons are pressed, within approximately 1 minute while in the Program Mode, the controls will revert back to the Cook Mode.

3. Press the appropriate product button, (1-0), to identify what product you want to program.

4. "INT1" and "TIME" flashes on the left side of the display. The right side shows the starting time of the Cook Cycle and can be changed by pressing the appropriate numbers. Ex: Press 1,0,0,0 and 10:00 flashes on the right side of the display, setting the start time at 10 minutes.

5. After setting the time, press and release the FUNCTION button and "INT1" and "TEMP" flashes on the left side of the display. The right side shows the starting temperature and can be changed by pressing the appropriate numbers. Ex: Press 2,5,0 and "250° F" shows on the right side of the display, setting the start temperature at 250° Fahrenheit.

6. After setting the temperature, press and release the FUNCTION button and "INTI", "LOAD", and "COMP" flashes on the left side of the display. The factory preset load compensation value shows in the right side of the display.

3-14. PROGRAMMING (Continued)

7. After the load compensation, press and release the FUNCTION button. “PROP” and “CONTROL” shows on the left side of the display and the factory preset proportional control temperature shows on the right side of the display.

8. After the proportional control, press and release the FUNCTION button. “ALM 1” and “TIME” flashes in the left side of the display, and the first alarm time shows on the right side of the display. To change the time the alarm sounds, press the appropriate product buttons to set the time. Ex: Press 1,0,0,0. 10:00 flashes on the right side of the display, which means when the timer counts down to 10 minutes, an alarm sounds.

9. After alarm is set, press and release the FUNCTION button. “ALM 1”, “SELF-”, and “CANCEL” flashes in the left side of the display and “YES” or “NO” shows on the right side of the display. The yes and no can be toggled by pressing any of the product buttons, (l -0). “YES” means the alarm tone automatically stops after several beeps. “NO” means some one must manually press the appropriate product button to stop the alarm tone.

10. Repeat steps 9 and 10 for alarms 2 and 3.

11. After alarm 3 is set, press and release the FUNCTION button. “FILTER” and “CYCLES” show on the left side of the display and the Filter Cycle value is on the right side of the display. The value is the number of Cook Cycles that must completed before the control signals the operator that the shortening needs filtered.

12. After the filter value is set, press and release the FUNCTION button. “EOC” and “EXIT” flashes on the left side of the display and “COOL” shows on the right side of the display. The end-of-cycle, (EOC), exit point can be set to COOL, SETP, or FLTR, by pressing any of the product buttons (EOC). At the end of a Cook Cycle the controls can be set to return to Cool Mode, the setpoint temperature, or to signal the operator to filter the shortening.

3-14. PROGRAMMING (continued)

13. After the end-of-cycle point is set, press and release the FUNCTION button. "HEAD" flashes on the left side of the display and a number shows on the right side of the display. The number on the right, is the number of head of chicken to be cooked at one time, when that product button is pressed. The number can be changed by pressing the appropriate product button. The control can then accumulate the head count (usage) of that product, based on counting the number of Cook Cycles.

NOTICE

Another product can be programmed while in the program mode by following these procedures:

Press and hold the SCAN button at any time while in the Program Mode and the display will scroll "SELECT PRODUCT". Then press any of the product buttons, (1-0), and now that product can be programmed.

14. To program second interval, press and release the SCAN button while in the Time Mode of the first mode. "INT2" and "TIME" will flash on the left side of the display. Then follow the steps above, starting with step 4.

3-15. SPECIAL PROGRAM MODE

Review Usage

1. Press and hold the FUNCTION button for two seconds until "REG PROGRAM" shows in the display. As soon as "REG PROGRAM" shows in the display, press and release the FUNCTION button 1 time until "REVIEW USE" shows in the display.

2. "DAILY" shows in the display. Press any of the product buttons to view the usage of that product. Press and hold the FUNCTION button to exit Special Program mode.

Reset Usage

1. Press and hold the FUNCTION button for two seconds until "REG PROGRAM" shows in the display. As soon as "REG PROGRAM" shows in the display, press and release the FUNCTION button 2 times until "RESET USE" shows in display.

2. When "CODE" shows in the display, press 1-3-5. "DAILY will show in the display, and press any of the Product buttons to reset them to 0.

3-15. SPECIAL PROGRAM MODE (Continued)

Factory Presets (F/C, Gas/Electric, Speaker Volume, Speaker Frequency, Codes, Initialize System)

1. Press and hold the FUNCTION button for two seconds until "REG PROGRAM" shows in the display. As soon as "REG PROGRAM" shows in the display, press and release the FUNCTION button 3 times until "FAC PRESET" shows in the display.

2. When "CODE" shows on the display, enter 2957. "DEG" and "MODE" flashes in the display. Press any of the product buttons to toggle from ºF to ºC, and vice versa.

3. Press and release the FUNCTION button and "TYPE" and "FRYR" flashes in the display. Press any of the product buttons to toggle from "GAS" to "ELEC", or vice versa.

4. Press and release the FUNCTION button twice, and "SPKR" and "VOL" flashes in the display. The volume can be changed from 01 to 10, 10 being the loudest.

5. Press and release the FUNCTION button 3 times, and "SPKR" and "FREQ" will flash in the display. The frequency can be set from 100 to 2000.

6. Press and release the FUNCTION button 10 times, and "INITIALIZE SYSTEM" scrolls across the display. Press and hold any of the product buttons and the display will count down from 5. Once the display counts down, release the product button, and the control will set factory preset parameters into the controls.

Before attempting to change the other modes in the Factory Preset Mode, please call the Henny Penny Technical Service Department at 1-800-417-8405, or 1-937-456-8405.

3-15. SPECIAL PROGRAM MODE (Continued)

Tech I/O Mode

1. Press and hold the FUNCTION button for two seconds until "REG PROGRAM" shows in the display. As soon as "REG PROGRAM" shows in the display, press and release the FUNCTION button 4 times until "TECH I-O" shows in the display.

2. When "CODE" shows in the display, press 2-4-6 (1-7-7-6 for CE units). "HEAT', and "PUMP" shows alternately in the display. Also, the LEDs over 1 and 3 flashes alternately.

3. To test the heat circuit, press and hold the 1 button.

4. To test the pump system, press and hold the 3 button.

Appliance Test

Press and hold the FUNCTION button for two seconds until "REG PROGRAM" shows in the display. As soon as "REG PROGRAM" shows in the display, press and release the FUNCTION button 5 times until "APPL TEST" shows in the display.

With the power switch on, the display will show "CURR=", along with the time it took the unit to heat from 250º to 300º F (121º to 149º C) . This is normally recorded from the initial heat up in the morning.

3-16. SPECIAL PROGRAM MODE (Continued)

Heat Control

1. Press and hold the FUNCTION button for two seconds until "REG PROGRAM" shows in the display. As soon as "REG PROGRAM" shows in the display, press and release the FUNCTION button 6 times until "HEAT CNTRL" shows in the display.

2. When "CODE" shows in the display, press 1-2-3-4. "MELT", "EXIT", and "TEMP" flashes in the display, along with the shortening temperature at which the unit will exit the melt cycle. This should be set at 180º F (82º C), and should not be changed until the factory is consulted.

3. Press and release the FUNCTION button and "MELT", "CYCLE", and "100s" shows alternately in the display, along with the period (pulse) length of 4000. This should not be changed until the factory is consulted.

4. Press and release the FUNCTION button twice and "MELT", "ON-", "TIME", and "100s", shows alternately in the display, along with the length of time the heat is on. This should be set at 1700, and should not be changed until the factory is consulted.

5. Press and release the FUNCTION button three times and "COOL", "SET-", and "POINT" shows alternately in the display, along with the temperature at which the control exits the melt cycle. This is set at 250º F (121º C), and should not be changed until the factory is consulted.

6. Press and release the FUNCTION button four times and "AUTO", and "IDLE" shows alternately in the display, along with "OFF". This should not be changed until the factory is consulted.

7. Press and release the FUNCITON button five times and "AUTO", "IDLE", and "MMSS" shows alternately in the display, along with "0:00". This should not be changed until the factory is consulted.

8. The last 3 functions in the Heat Control Mode are used by the factory only, and should not be changed.