

## **SECTION 3. OPERATION INSTRUCTIONS**

### **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 burner tubes, 8 head of product, and an adequate cold zone for collection of cracklings

#### **Carrier**

This stainless steel carrier consists of five racks, containing the food product during and after frying (4 cook racks and 1 cover rack)

#### **Lid Gasket**

Provides the pressure seal for the frypot chamber

#### **Deadweight Assembly**

The deadweight style operating pressure relief valve is used to maintain a constant level of steam pressure within the frypot; any excess steam pressure is vented through the exhaust stack; remove the deadweight cap, and clean the cap, deadweight, and dead weight orifice once a day; see Preventive Maintenance Section



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

#### **Safety Relief Valve**

An ASME approved spring loaded valve set at 14.5 psi (999 mbar); in the event the operation valve becomes obstructed, this safety valve will release excess pressure, keeping the frypot chamber at 14.5 psi (999 mbar); if this occurs, turn the COOK/ PUMP switch to the OFF position to release all pressure from the frypot



**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.**

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

#### **Safety Relief Valve Ring**



**DO NOT PULL THIS RING. SEVERE BURNS FROM THE STEAM WILL RESULT.**

#### **Pressure Gauge**

Indicates the pressure inside the frypot

#### **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 opens automatically at the end of the Cook Cycle; if this valve becomes dirty or the teflon seat nicked, pressure will not build and it must be repaired per the Maintenance Section of the Technical Manual

#### **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



**DO NOT OPEN THE DRAIN VALVE WHILE FRYPOT IS UNDER PRESSURE. HOT SHORTENING WILL EXHAUST, AND SEVERE BURNS WILL RESULT.**

#### **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 COOK position; the switch is designed to automatically shut off the heat when the drain valve is opened

#### **Condensation Drain Pan**

The collection point for the condensation formed within the steam exhaust system; it must be removed and emptied periodically, usually daily

#### **Shortening Mixing System**

The unit is equipped with a shortening mixing capability to ensure the shortening is properly mixed to prevent an accumulation of moisture, causing boiling action in the frypot; the filter pump is activated by the controls, at preset intervals, to mix the shortening

#### **Lid Latch**

The fryer lid is equipped with a mechanical catch on the front of the lid which engages a bracket on the front of the frypot; this device holds the lid down while the lid is being locked into place, but is not meant to hold pressure in the frypot

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

#### **High Temperature Limit**



This is a safety component that senses the temperature of the shortening; if the temperature of the shortening exceeds 420°F (216°C), 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, in the right, front of the fryer

#### **Ignition Modules**

The two ignition modules send 24 volts to the gas control valve and high voltage to the ignitors

#### **Spark Ignitors**

When the pilots are being lit, the spark ignitors are electrically energized and the tip of the ignitors spark to ignite the pilot lights

#### **Flame Sensors**

Sense the pilot lights when the power switch is turned on; if the pilots go out, or do not light, the flame sensors shut the gas off, via the modules

#### **Gas Control Valve**

A dual controller in which one side of the valve controls the pilot light and the other side controls the main burner

#### **Airflow Switch**

Senses the flow of air coming from the blower; if the airflow is reduced below a set amount, the switch cuts power to the gas control valve, which shuts down the burners

### **CAUTION**

*To avoid property damage, do not tamper with or disassemble this component. It is set and sealed from the factory and is not to be adjusted.*

#### **Blower**

Adds the proper amount of air into the burner tubes, so an efficient combustion takes place, and also, pulls the flue gases out to the flue

#### **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

### **3-2. LID OPERATION**

To close lid:

1. Lower the lid until gasket comes into contact with the pot and lock the lid in place with the lid latch.
2. Pull lid handle forward until it stops.
3. Lift up on the lid handle until it stops.
4. Bring lid handle out towards you until it stops.
5. Push lid handle down, locking lid in place.



**LID MUST BE LATCHED PROPERLY, OR PRES-SURIZED SHORTENING AND STEAM MAY ESCAPE FRYPOT. SEVERE BURNS WILL RESULT.**

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

**TO AVOID SERIOUS PERSONAL INJURY, DO NOT OPERATE WITHOUT LID COVER IN PLACE AND ALL COMPONENTS INSTALLED.**

**TO AVOID SERIOUS PERSONAL INJURY, DO NOT TAMPER WITH ANY COMPONENT OF LID LOCKING MECHANISM.**

To open lid:

1. Gently raise handle until it stops.
2. Push handle back until it stops.
3. Lower handle.



*Lower the handle before attempting to raise the lid, or damage to the lid could result.*

4. Push handle back.
5. Unlatch the front lid latch.

### **3-3. MELT CYCLE OPERATION**

If the shortening is below 185°F (85°C) with the POWER/PUMP switch in the POWER position, the fryer will enter the Melt Cycle. The shortening is heated slowly to prevent scorching of the shortening. The heat will cycle on and off to ensure slow melting of shortening. At 185°F (85°C), the heat stays on until 250°F (121°C), the Cool Mode is reached. To exit the Cool Mode, press the EXIT COOL button.

See Filling or Adding Shortening Section.

### **3-4. SWITCHES AND INDICATORS**

Refer to the images on the following pages. The 690 has three possible different decals for the controls - SMS, Non-SMS, and CE.

#### **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 SHORTEN-  
ING IS HOT AND WILL CAUSE BURNS.**

#### **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



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

**3-4. SWITCHES AND  
INDICATORS (Continued)**

**Time/Temperature Display**

A 4 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 is 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**

Allows the operator to read the temperature of the shortening while in a Cook Cycle

**SCAN Button**

Allows the operator to toggle through any running multiple timers

**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

**Multiple Timers**

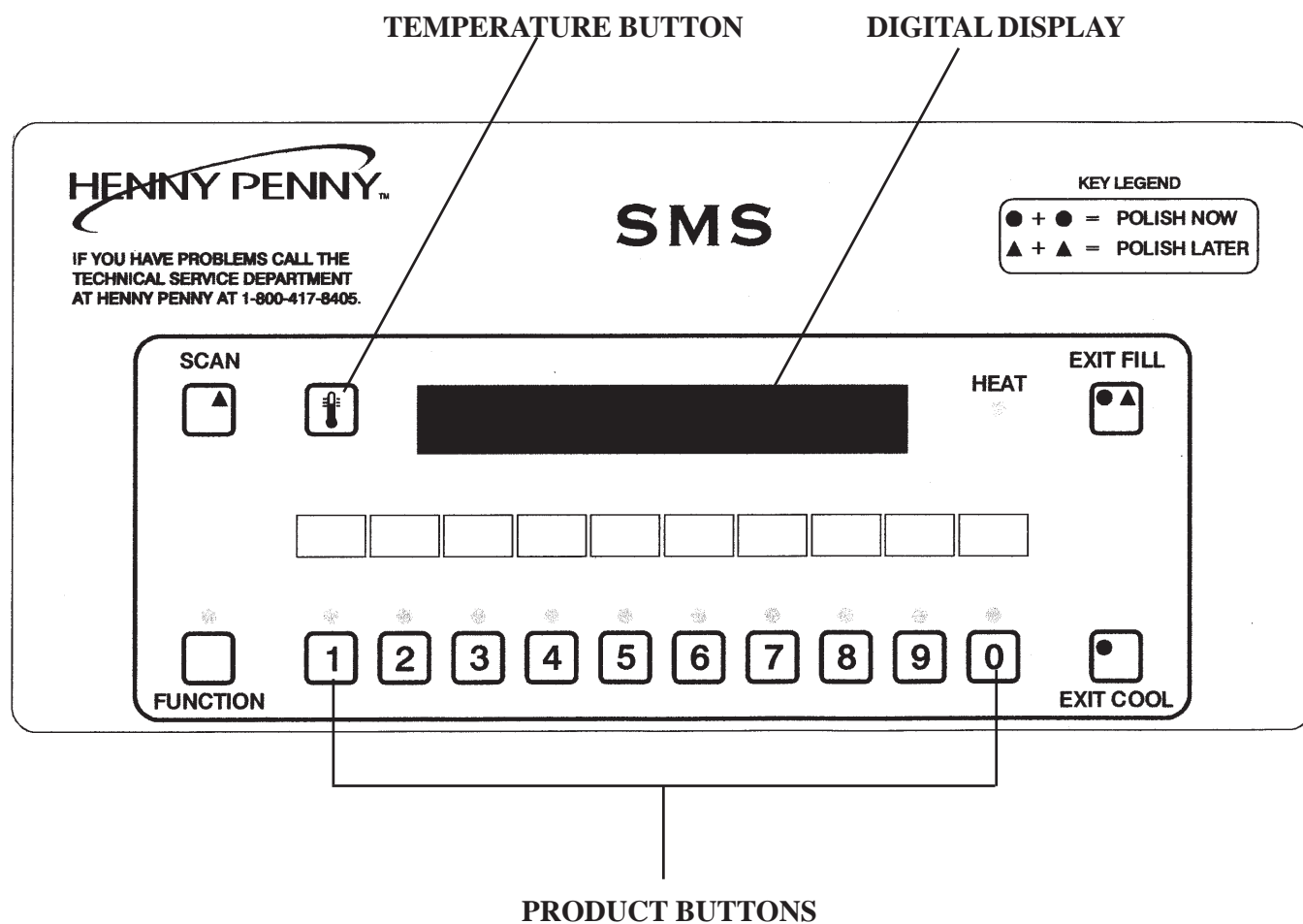
The control has the capability to run multiple timers; if more than one product is being cooked, a timer can be started by pressing more than one product button per Cook Cycle

**NOTICE**

The products must have the same setpoints, and the pressure must be programmed off. See Programming Section.

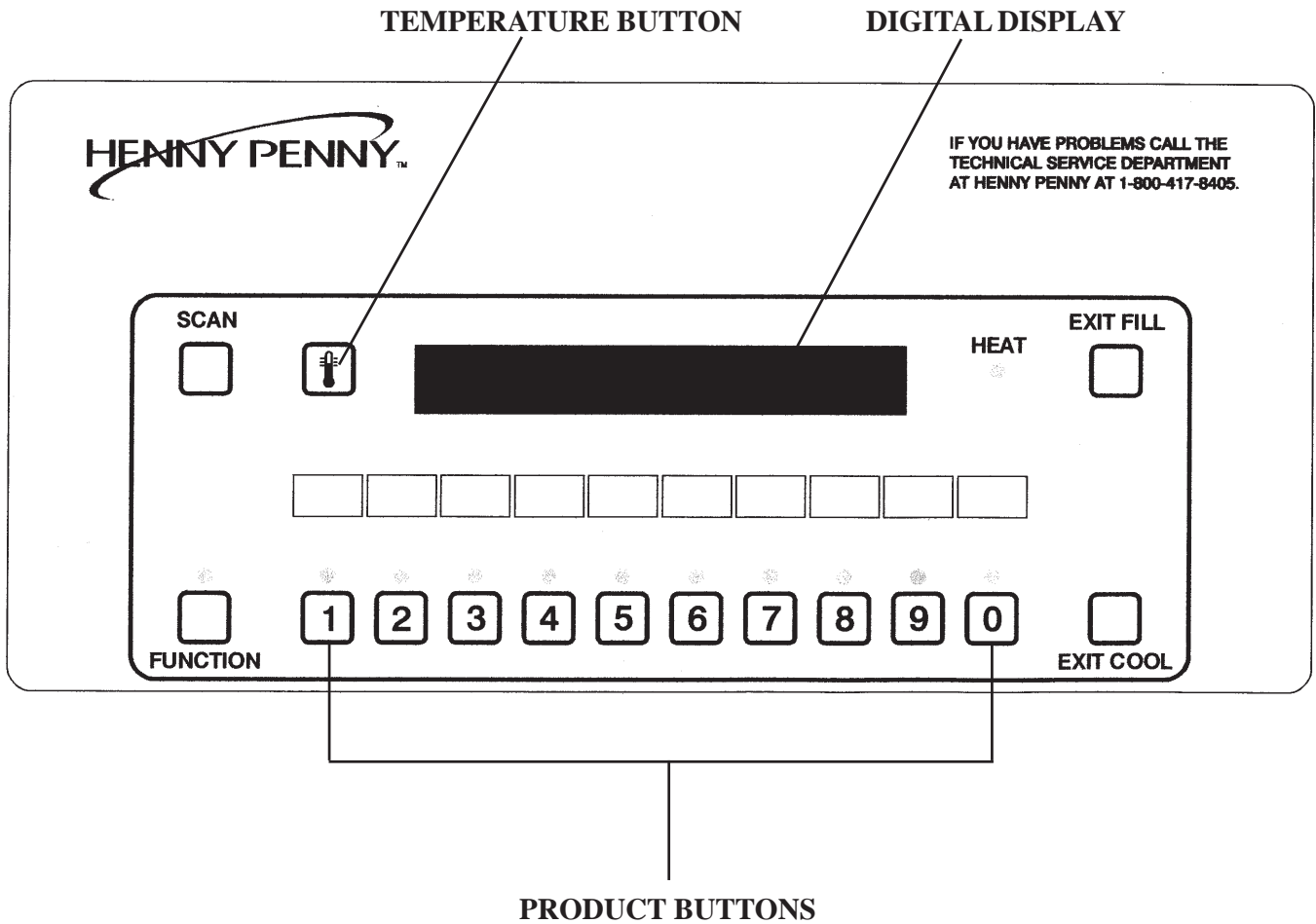
**3-4. SWITCHES AND  
INDICATORS (Continued)**

## SMS Controls



**3-4. SWITCHES AND  
INDICATORS (Continued)**

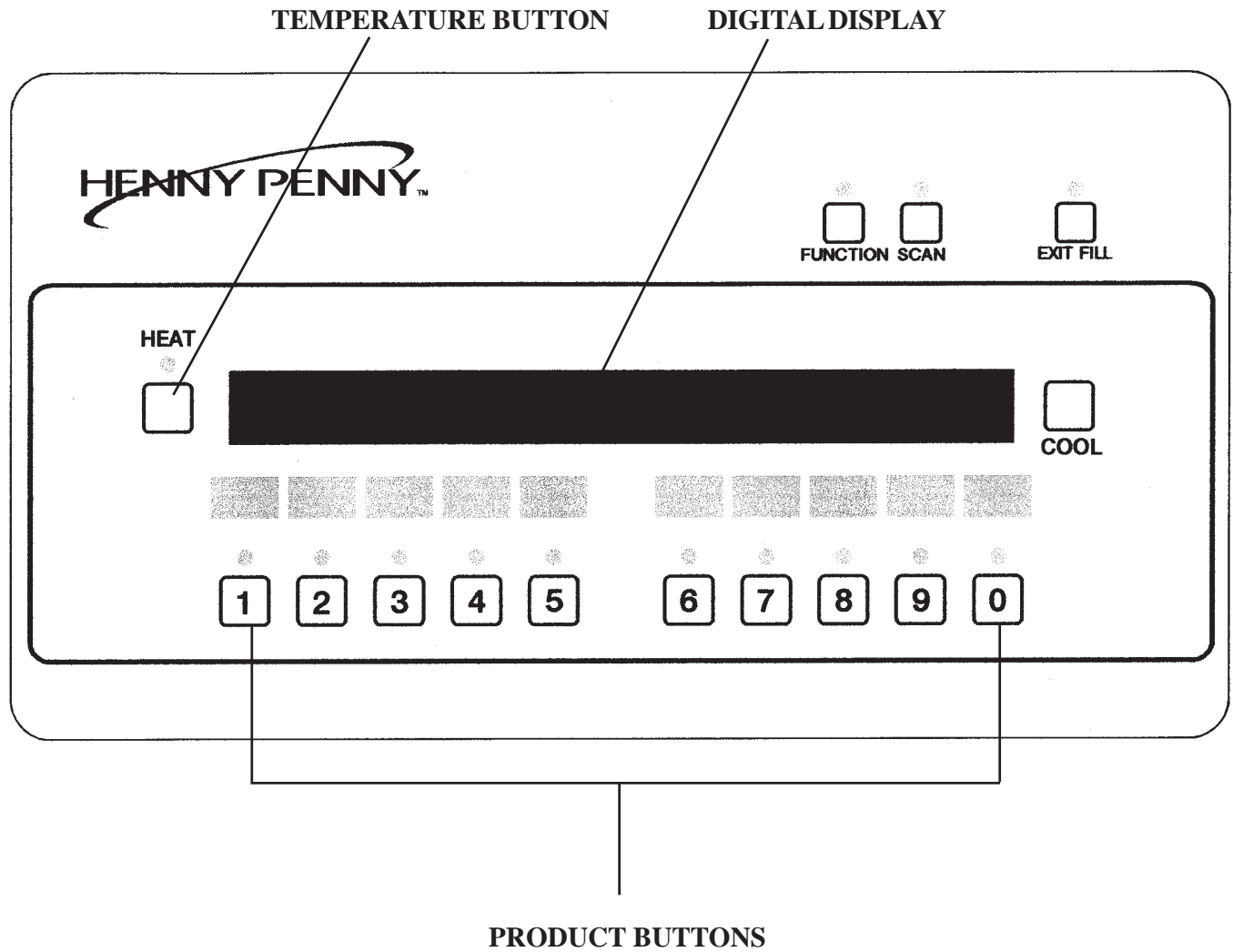
**Non-SMS Controls**





**3-4. SWITCHES AND  
INDICATORS (Continued)**

**CE Controls**



### **3-5. FILLING OR ADDING SHORTENING**

## **CAUTION**

*The shortening level must always be above the burner tubes when the fryer is heating and at the frypot level indicators on the rear of the frypot (See photo below). 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 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 gas model requires 130 lbs. (59 kg) of shortening. The frypot has 4 level indicator lines inscribed on the rear wall of the frypot which show when the heated shortening is at the proper level. See photo at left.
3. Cold shortening should be filled to the lower indicators.

## **DANGER OVERFLOW RISK**

**BE CERTAIN THE SHORTENING IS NEVER ABOVE THE UPPER LEVEL INDICATOR LINES. 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 back into operation from a cold, or shutdown condition, . 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 two lower level indicators in the frypot.



**DO NOT OVERLOAD, OR PLACE PRODUCT WITH EXTREME MOISTURE CONTENT INTO THE RACKS. 32 LBS. (14.5 KG) IS THE MAXIMUM AMOUNT OF PRODUCT PER FRYPOT. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT 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.



The controls have a 45-second delay from when the power switch is turned on to when the burners ignite.

All safety devices shut off the gas supply to the burner. Follow the above procedures to restart the fryer. Notify a qualified service technician if the shutdown is repeated.

3. Stir the shortening as it is 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. FAILURE 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”.)



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

5. Before loading product onto the racks, lower racks into the hot shortening to keep the product from sticking to the racks.
6. Slide racks of breaded product into carrier on the lid, starting with the bottom tier, to prevent damaged product.
7. Lower and lock the lid down and press the appropriate product button (2, 4, 6, or 8 head).



**To avoid property damage do not leave fryer unattended.**

8. At the end of the cycle, pressure begins venting automatically, alarm sounds, and the display shows “DONE”. At this time, press the appropriate product button (2, 4, 6, or 8 head).
9. Wait for the pressure gauge to show zero (0) pressure in the pot before attempting to open the lid.



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

10. Unlock and raise the lid cautiously.
11. Using the rack handles, remove the racks of product from the carrier, starting with the top rack.



In the event of a power failure, no attempt should be made to operate the fryer. The fryer is equipped with an automatic ignition system and cannot be operated without electrical power.

### **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 (24 lbs. (10.9 kg) 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 OF SHORTENING**

The Henny Penny 8 Head Gas Fryer, Model PFG-690, should be thoroughly cleaned and the shortening must be filtered 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.

## **CAUTION**

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



**ONLY FILTER WHEN “COOL” IS DISPLAYED.  
FAILURE TO DO SO CAN RESULT IN SHORTEN-  
ING 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 filtering process involves removing cracklings from the cold zone of the frypot.

1. Turn COOK/PUMP switch to OFF position.
2. Make sure filter drain pan is under fryer and the filter quick disconnect is fastened to the filter standpipe, coming out of the pan.

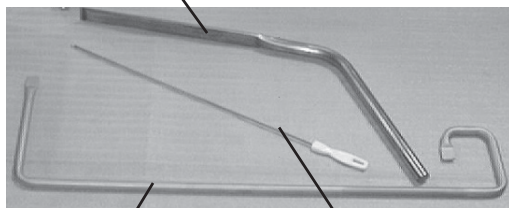


**The filter drain pan must be as far back under fryer as it will go, and the cover in place. Be sure the hole in the cover lines up with the drain before opening the drain. Failure to follow these instructions causes splashing of shortening and could result in personal injury.**

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

### **3-8. FILTERING OF SHORTENING** **(Continued)**

**SHORTENING  
STIRRER**



**DRAIN CLEANOUT  
ROD**

**SMALL WHITE  
BRUSH**

3. Remove cooking racks and 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 the large white brush to clean cracklings from the burner tubes and from sides and bottom of frypot as shortening drains. Use the drain cleanout rod to push cracklings through drain in bottom of frypot, if necessary. Using the small straight white brush, clean between the burner tubes and the frypot wall.



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

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 into the frypot.



*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.*

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, turn POWER/PUMP switch to OFF.



**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.**



### **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. LIGHTING AND SHUTDOWN OF THE BURNERS**

To light burner:

1. Turn POWER/PUMP switch to the OFF position.
2. Rotate gas control valve knob clockwise to OFF position and wait at least five (5) minutes before continuing to next step.
3. Rotate gas control valve knob counterclockwise to ON position.
4. Place electrical POWER/PUMP switch to POWER position. The burners light and operate in a melt cycle mode until shortening reaches a preset temperature.
5. Press cycle selection switch after temperature is displayed on front of control panel.

To shut down burner:

1. Turn POWER/PUMP switch to the OFF position.
2. Rotate gas control valve knob to the OFF position.

This fryer is equipped with a grounded (earthed) cord and plug for your protection against shock and should be plugged into a three-prong grounded (earthed) receptacle. Do not cut or remove grounding prong.



### **3-11. 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, and unplug unit from wall receptacle.



**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 the lid back, so that the lid won't interfere with cleaning.
5. Refer to KFC's Standards Library on cleaning instructions.



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



**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.**

### **3-11. CLEANING THE FRYPOT** **(Continued)**

## **CAUTION**

*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.

### **3-12. 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 approximately 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.**

### **3-13. 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. The following paragraphs provide preventive maintenance procedures to be performed by the operator.

#### **Procedure**

Filtering of shortening  
Changing of shortening  
Changing the filter envelope  
Cleaning the deadweight assy.  
Cleaning the frypot  
Cleaning the Nylatrons  
Reversing lid gasket  
Checking/cleaning dilution box  
Cleaning blower  
Lubricate rear lid rollers  
Cleaning safety relief valve

#### **Frequency**

See KFC's Standards Library  
See KFC's Standards Library  
See KFC's Standards Library  
Daily-see Preventive Maint. Section  
See KFC's Standards Library  
Monthly-see Preventive Maint. Section  
Every 90 Days-see Preventive Maint. Section  
Annually-see Preventive Maint. Section  
Annually-see Preventive Maint. Section  
Annually-see Preventive Maint. Section  
Annually-see Preventive Maint. Section

### 3-14. PREVENTIVE MAINTENANCE



If moving fryer to perform preventive maintenance:

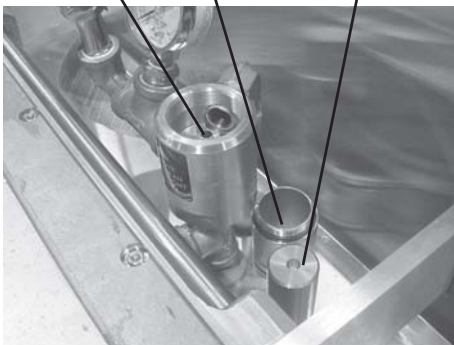
- Gas supply should be turned off to avoid fire or explosion.
- Electrical supply should be unplugged or wall circuit breaker turned off to avoid electrical shock.

#### Cleaning Deadweight Assembly - Daily



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

ORIFICE    CAP    DEADWEIGHT



1. At the end of each day's usage of the fryer, the deadweight assembly must be cleaned. The fryer must be off and the pressure released. Open the lid and then remove the deadweight cap and deadweight.



**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.**

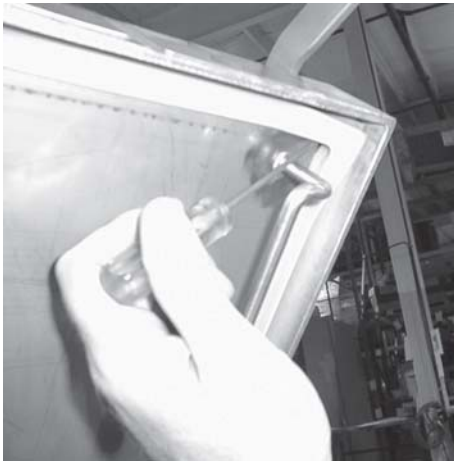
2. Wipe both the deadweight cap and deadweight with a soft cloth. Make certain to thoroughly clean inside the cap, the deadweight seat, and around the deadweight orifice.
3. Clean the exhaust tube with stainless steel brush (Henny Penny part number 12147).
4. Dry the parts and replace them immediately to prevent damage or loss.

#### Cleaning Nylatrons - Monthly

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.



### 3-14. PREVENTIVE MAINTENANCE (Continued)



#### Reversing Lid Gasket - Every 90 Days

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

1. Raise the lid and remove the racks and carrier.
2. Grasping the lid handle, lift the front of the lid up until it stops in an upright position.



**Be sure the metal arm on the left side of the lid is in the vertical position holding the lid upright, or severe injuries could result. (See photo at left.)**

3. Using a thin blade screwdriver, pry out the gasket at the corners. Remove the gasket.



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

4. Clean the gasket and gasket seat with hot water.
5. Rotate the gasket with the opposite side facing out.



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

#### Checking/Cleaning Dilution Box - Annually

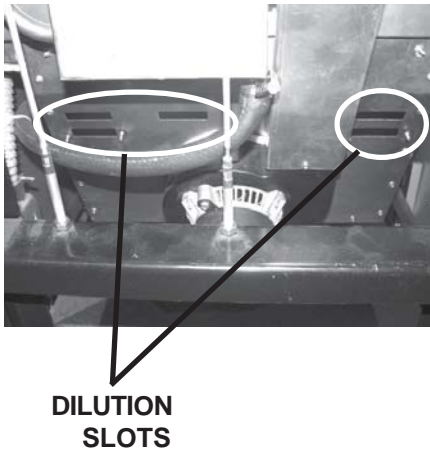
Cleaning the dilution box helps to ensure the unit operates efficiently and with few failures.

1. Make sure unit is off, and close and lock the lid.



**Lid should be in locked down position. Failure to do so could result in personal injury.**

### **3-14. PREVENTIVE MAINTENANCE (Continued)**



2. Remove the back shroud of the fryer.
3. Clean the dilution box with a cloth or brush. Make sure the slots are free of debris. Replace the back shroud when finished.

### **NOTICE**

Depending on the breeding location and conditions within the kitchen area, the dilution slots may need to be cleaned more often. See example below:



### **Cleaning Safety Relief Valve - Annually**



**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 VALVE. TAMPERING WITH THIS VALVE COULD CAUSE SERIOUS INJURIES AND WILL VOID AGENCY APPROVALS AND APPLIANCE WARRANTY.**

1. Use a wrench to remove pressure gauge.
2. Use a wrench to loosen the valve from the pipe tee, turn counterclockwise to remove.
3. Clean the inside of the pipe tee 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 1:1 dilution rate. The valve cannot be disassembled. It is factory preset to open at 14-1/2 pounds of pressure. If it does not open or close, it must be replaced.



### **3-14. PREVENTIVE MAINTENANCE (Continued)**



#### **Lubricating Lid Rollers - Annually**

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.

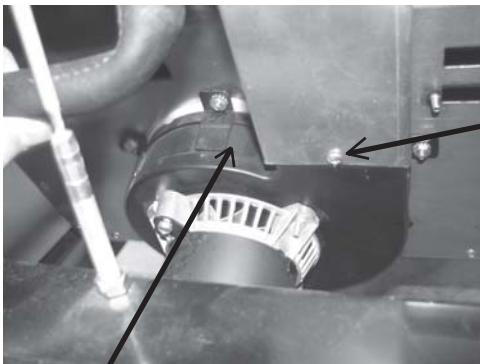
#### **Cleaning Blower Wheel - Annually**

The blower wheel must be cleaned annually to ensure the unit operates efficiently and without failures.

Make sure unit is off, and close and lock the lid.



**Lid should be in locked down position. Failure to do so could result in personal injury.**



**Blower Motor**

2. Remove the back shroud of the unit.
3. Using a Phillip's-head screwdriver, remove the screw securing the flue to the blower.
4. Using a 3/8" socket or wrench, remove the 5 nuts securing the blower motor and pull motor from unit.
5. Clean the fins of the blower wheel, using a brush or straight blade screwdriver. Make sure the fins are clean of any debris.



Depending on the breading location and conditions within the kitchen area, cleaning the blower wheel may need to be done more frequently.

### **3-15. PROGRAMMING**

#### **NOTICE**

For gas fryers, when the power is interrupted to the control it re-starts the lighting sequence. Failure to re-light would result in a error which would require the user to turn the unit off and then back on.

1. Press and hold the FUNCTION button for 2 seconds. “REG PROGRAM” will show in the display, followed by “CODE”.
2. Press the code 1,2,3. “SELECT PRODUCT” will scroll 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” will flash on the left side of the display. The right side will show 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” will flash on the right side of the display, setting the start time at 10 minutes.
5. After the time is set, press and release the FUNCTION button and “INT1” and “TEMP” will flash on the left side of the display. The right side will show the starting temperature and can be changed by pressing the appropriate numbers. Ex: Press 2,5,0 and “250° F” will show on the right side of the display, setting the start temperature at 250° Fahrenheit.
6. After the temperature is set, press and release the FUNCTION button; and “INT1” and “PRESS” will flash on the left side of the display. Press any of the product buttons (1-0) to turn the pressure on or off.
7. After the pressure is set, press and release the FUNCTION button; and “INT1”, “LOAD”, and “COMP” will flash on the left side of the display. The factory preset load compensation value shows in the right side of the display.

### **3-15. PROGRAMMING** **(Continued)**

8. After the load compensation, press and release the FUNCTION button. “PROP” and “CONTROL” show on the left side of the display, and the factory preset proportional control temperature shows on the right side of the display.
9. After the proportional control, press and release the FUNCTION button. “ALM 1” and “TIME” flash on 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” will flash on the right side of the display, which means when the timer counts down 10 minutes, an alarm will sound.
10. After the alarm is set, press and release the FUNCTION button. “ALM 1”, “SELF-”, and “CANCEL” flash on 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 (1-0). YES means the alarm tone will automatically stop after several beeps. NO means someone must manually press the appropriate product button to stop the alarm tone.
11. Repeat steps 9 and 10 for alarms 2 and 3.
12. 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 be completed before the control signals the operator that the shortening needs filtered.



### **3-15. PROGRAMMING** **(Continued)**

13. After the filter value is set, press and release the FUNCTION button. “EOC” and “EXIT” flash 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 FITR by pressing any of the product buttons (EOC). At the end of a cook cycle, the controls can be set to return to: COOL, the setpoint temperature, or to signal the operator to filter the shortening.
14. After the end-of-cycle setpoint is set, press and release the FUNCTION button. “HEAD” and “COUNT” 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 headlocks looked when that product button is pressed. The number can be changed by pressing the appropriate product button.

**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 that product can be programmed.

15. To program a 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.

### **3-16. SPECIAL PROGRAM MODE**

#### **Review Usage**

1. Press and hold the FUNCTION button for 2 seconds until “REG PROGRAM” shows in the display. As soon as “REG PROGRAM” shows in the display, press and release the FUNCTION button one 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.

**3-16. SPECIAL PROGRAM MODE**  
**(Continued)**

**Reset Usage**

1. Press and hold the FUNCTION button for 2 seconds until “REG PROGRAM” shows in the display. As soon as “REG PROGRAM” shows in the display, press and release the FUNCTION button two times until “RESET USE” shows in display.
2. When “CODE” shows in the display, press 1,3,5. “DAILY” will show in the display; then press any of the product buttons to reset them to 0.

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

1. Press and hold the FUNCTION button for 2 seconds until “REG PROGRAM” shows in the display. As soon as “REG PROGRAM” shows in the display, press and release the FUNCTION button three times until “FAC PRESET” shows in the display.
2. When “CODE” shows on the display, enter 2,9,5,7. “DEG” and “MODE” flash in the display. Press any of the product buttons to toggle from “°F” to “°C”, and vice versa.
3. Press and release the FUNCTION button, and “TYPE” and “FRYR” flash 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” flash in the display. The volume can be changed from 01 to 10, 10 being the loudest.
5. Press and release the FUNCTION button three 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.

**NOTICE**

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

**3-16. SPECIAL PROGRAM MODE**  
**(Continued)**

- Tech I/O Mode**
1. Press and hold the FUNCTION button for 2 seconds until “REG PROGRAM” shows in the display. As soon as “REG PROGRAM” shows in the display, press and release the FUNCTION button four 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”, “PRESSURE”, and “PUMP” will show alternately, in the display. Also, the LEDs over 1, 2, and 3 will flash alternately.
  3. To test the heat circuit, press and hold the 1 button.
  4. To test the pressure system, press and hold the 2 button.
  5. To test the pump system, press and hold the 3 button.
- CE Only:**
6. To test the blower, press and hold the 4 button.
  7. To test the module, press and hold the 5 button.

**NOTICE**

To test the heat output on CE units, the blower and modules must first be turned on.

**Appliance Test**

Press and hold the FUNCTION button for 2 seconds until “REG PROGRAM” shows in the display. As soon as “REG PROGRAM” shows in the display, press and release the FUNCTION button five 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 250° to 300° F (121° to 149° 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 2 seconds until “REG PROGRAM” shows in the display. As soon as “REG PROGRAM” shows in the display, press and release the FUNCTION button six times until “HEAT CNTRL” shows in the display.
2. When “CODE” shows in the display, press 1,2,3,4. “MELT”, “EXIT”, and “TEMP” will flash in the display, along with the shortening temperature at which the unit will exit the melt cycle. This should be set at 180°F (82°C), and should not be changed until the factory is consulted.
3. Press and release the FUNCTION button, and “MELT”, “CYCLE”, and “100s” show 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” show 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” show alternately in the display, along with the temperature at which the control exits the melt cycle. This is set at 250°F (121°C), and should not be changed until the factory is consulted.
6. Press and release the FUNCTION button four times, and “AUTO” and “IDLE” show alternately in the display, along with “OFF”. This should not be changed until the factory is consulted.
7. Press and release the FUNCTION 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 three functions in the Heat Control mode are used by the factory only, and should not be changed.