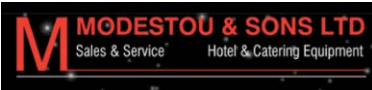


# CY Q&A

**HENNY PENNY**  
Engineered to Last

PERSON RESPONSIBLE:



TECHNICAL MANAGER - CHARALAMBOS MODESTOU





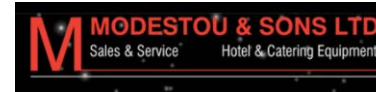
# Goal

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1. CORRECT OPERATION USING PFG-690, PFG-692 , PFG-600 , HHC-900 & HCW 5-8
2. EASY MAINTAIN UNITS
3. SAFETY OF OPERATION

# Content

1. OIL
2. HEATING
3. SAFETY
4. ERRORS
5. FILTERING
6. INSPECTS



PGF-600



HWCW-5



HHC-90X



PGF-690

# PFG-690 & 692 8H PRESSURE FRYER

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# OIL LOW LEVEL

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

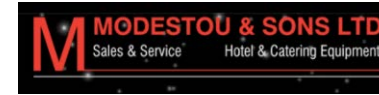
**BE CERTAIN THE SHORTENING IS NEVER ABOVE THE UPPER LEVEL INDICATOR LINES. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SHORTENING OVERFLOWING THE FRYPOT CAUSING SERIOUS BURNS, PERSONAL INJURY, FIRE AND/OR PROPERTY DAMAGE.**

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

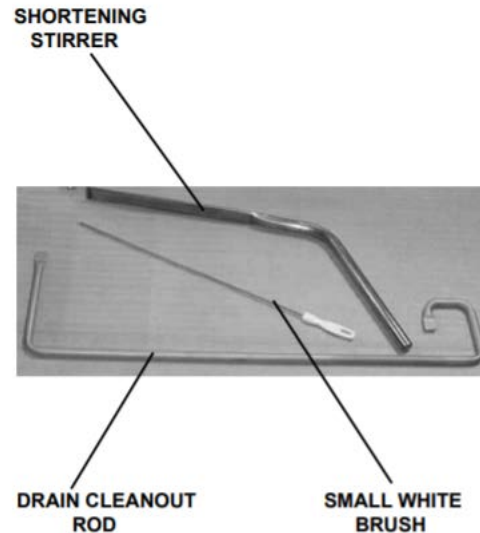


# OIL LOW LEVEL

## FILTERING OF SHORTENING



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.



**⚠ DANGER**  
OVERFLOW RISK

**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.

**CAUTION**

*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.

**⚠ DANGER**  
BURN RISK

**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.**

# HEATING- DO NOT CHANGE THE PROGRAM

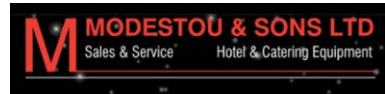
## DISPLAY MESSAGES

There are messages shown on the digital display during operation. Some of the most common messages are described in the table below:

Message	Description
HI	The display reads “HI” if the shortening temperature is 40° F above the setpoint
DROP	The display reads “DROP” when the shortening has reached the setpoint temperature (will read “DROP” 2° before setpoint and 4° above setpoint).
DONE	The display reads “DONE” at the end of the Cook Cycle.

# SAFETY-GOUGE-CLEAN

## 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.**

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.



ORIFICE CAP DEADWEIGHT



### 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.



# ERRORS-PUMB

## OPERATING COMPONENT

### 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

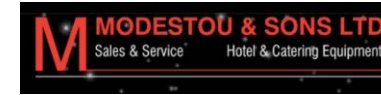
A two-way ball valve, normally in the closed position; turn the handle to drain the shortening from the frypot into the filter drain pan



**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



High limit reset

### 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

# ERRORS-PUMB

## CLEANING THE FRYPOT, FILTER PUMP MOTOR PROTECTORMANUAL RESET

### 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.

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.**

As in all food service equipment, the Henny Penny Pressure Fryer does require care and proper maintenance. The annual preventive maintenance checklist is shown in Appendix A. Annual preventive maintenance should be performed yearly by a qualified technician.

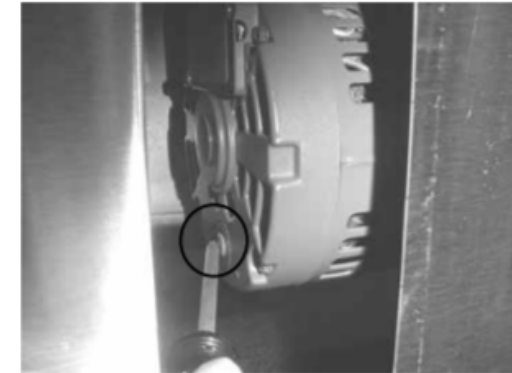
The table below provides a summary of scheduled maintenance. The following paragraphs provide preventive maintenance procedures to be performed by the operator.

#### 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  
Inspect Counter-weight cables

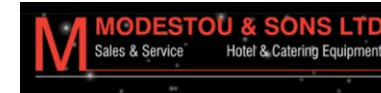
#### Frequency

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



# ERRORS-PUMB

## ERROR CODES

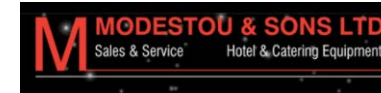


Display	Cause	Panel Board Correction
"E-4"	Control board overheating	Turn switch to OFF position, then turn switch back to ON; if display still shows "E-4", the board is getting too hot; check for signs of overheating behind the control panel; once panel cools down the controls should return to normal; if "E-4" persists, have control panel replaced
"E-5"	Shortening overheating	Turn switch to OFF position, then back to ON; if display shows "E-5", the heating circuits and temperature probe should be checked; once the unit cools down, the controls should return to normal; if "E-5" persists, have control panel replaced
"E-6"	Temperature probe failure	Turn switch to OFF position, then back to ON; if the display shows "E-6", the temperature probe should be checked; once the probe is repaired, or replaced, the controls should return to normal; if "E-6" persists, have control panel replaced
"E-41"	Programming failure	Turn switch to OFF position, then back to ON; if display shows "E-41", the control should be re-initialized (See Programming Section) if the error code persists, have control panel replaced



# ERRORS-PUMB

## ERROR CODES



"E-71"	Pump motor relay failure or wiring problem	Pump motor relay failure or Replace relay if contacts are stuck closed; check wiring on POWER/PUMP switch, or at wall receptacle; L1 and N may be reversed
"E32, FAN FAIL ERROR, CHECK BLOWER, CLEAN DILUTIONBOX, CALL HENNY PENNY SERVICE"	Air pressure switch open; clogged dilution box or faulty blower; open drain switch; open high limit	Clean dilution box or replace blower if necessary; have drain switch checked; reset high limit or have high limit checked



# ERRORS-PUMB

## ERROR CODES

Display	Cause	Panel Board Correction
"E-10"	High limit	Reset the high limit by manually pushing up on the red reset button; if the high limit does not reset, the high limit must be replaced
"E-15"	Drain switch	Close the drain, using the drain valve handle; if display still shows "E-15", have the drain microswitch checked
"E-20A"	Air pressure switch failure	Press the timer button to try the ignition process again, and if "E-20A" persists, call Henny Penny's Service (stuck closed) Department
"E-20B"	Draft fan or air pressure switch failure (stuck open)	Press the timer button to try the ignition process again, and if "E-20B" persists, call Henny Penny's Service Department
"E-20C"	Left gas module failure	Press the timer button to try the ignition process again, and if "E-20C" persists, call Henny Penny's Service Department
"E-20D"	Right module failure	Press the timer button to try the ignition process again, and if "E-20D" persists, call Henny Penny's Service Department

# ERRORS-PUMB

"E-20E"	Both modules failure	Press the timer button to try the ignition process again, and if "E-20E" persists, call Henny Penny's Service Department
"E-20F"	Left module no flame sense	Press the timer button to try the ignition process again, and if "E-20F" persists, call Henny Penny's Service Department
"E-20G"	Right module no flame sense	Press the timer button to try the ignition process again, and if "E-20G" persists, call Henny Penny's Service Department
"E-20H"	Both modules no flame sense	Press the timer button to try the ignition process again, and if "E-20H" persists, call Henny Penny's Service Department

# 4 COOKS MAX



PFG-690 & 692

# INSPECTS

## 8-Head Pressure Fryer Annual Inspection Checklist

INSPECTION #		OK	CLEAN	REPLACE
	<b>Assess Frypot and Frame (remove rear cover and both side panels)</b>			
1 *	Inspect fry pot for leakage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Inspect that the fryer sits level. Inspect casters and ensure fryer frame is not cracked or bent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Rear of Fryer and Pressure System</b>			
3 *	Inspect electrical cord and plug.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 *	Inspect gas line, quick disconnect and tether (690 only).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 *	Inspect the lid cables following all instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Check that the counterweight frame hangs level. Clean and adjust lid magnet (580 only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Inspect and lubricate lid carriage rollers and cable pulleys (rear of fryer). Lid should move up and down freely.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Remove and clean blower wheel (690 only)			
9	Check Dilution Box, clean as needed (690 only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Clean Nylatron slides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# INSPECTS

11	Check that the condensation box drain line, dead weight tube, pressure release tubing is free and clear from clogs. Also that each is not damaged or leaking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Remove solenoid valve, clean and reassemble (rear of fryer, 580, 590 and 690s newer than Feb 2008. Above counter top for 690s older than February 2008).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Disassemble condensation box and clean, seal seams w/silicone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Inspect Deadweight including orifice, O-ring, cap, and weight) ensure they are in good working condition.			
15	Verify the existing pressure gauge rests at zero and is free and clear from obstructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Clean Safety Relief Valve –			
17	Inspect the steam exhaust stack / hose.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



STICK WITH THE EXPERTS

# INSPECTS

	<b>Filter Components and Drain Oil</b>			
18	Clean air solenoid valve near filter pump motor - 690 only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Verify the drain valve handle microswitch is in working condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Inspect that the drain pan is empty, all components present (filter screen, clips, crumb catcher, standpipe, lid) and it is assembled correctly.			
21	Test filter pump motor to ensure operation			
22	Drain oil to drain pan. Ensure no drain obstructions.			
	<b>Heat System</b>			
23	Tighten heating element spreader bars and high limit bracket – 580 and 590 only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	Inspect temperature probe, verify it is not bent or damaged. Check the insertion depth of the probe with a gauge – adjust if necessary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	Clean Burners (690 only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26	Inspect and clean pilot assemblies. Adjust pilots if necessary (690 only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	Inspect for excessive oil migration behind the control board	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28 *	Inspect the high limit following all instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# INSPECTS

Pump Oil / Heat Oil				
29	Test filtration system when pumping oil back up – no obstructions, leaks or excessively slow pumping.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30	Check amp draw of heating elements are consistent and when added up, match the amp draw listed on the data plate. 580 and 590 only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31	Check that manifold pressure matches the data plate and gas type of the fryer (690 only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pressure system				
32 *	Inspect Lid Handle Rollers following all instructions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33	Inspect cam slide fillers (each side of lid cover)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34	Inspect front lid latch – adjust if necessary			
35 *	Remove lid cover and inspect lid components – Make sure lid components are not damaged, missing or in disrepair. – Remove and clean excessive oil from lid and components, clean vent holes and Lubricate Lid Locking Mechanism.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36	Inspect pressure pads. Rotate if excessively worn, replace if both sides excessively worn			
37	Inspect the lid gasket. Reverse if wear is acceptable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# INSPECTS

	Pressure test			
38 *	<p>Perform a pressure test with at least 4-Head OR following all instructions. Verify lid locks under at pressures less than 3psi and then unlocks only when pressure drops below 1.7 psi</p> <p><i>Verify in this test if pressure is regulating in the green zone. Verify that all pressure releases prior to the timer reaching 0:00. This will help to identify if there is still any pressure release and deadweight tubing obstructions.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>During Pressure Test</b>			
39	Verify pressure gauge is functioning in a similar range as the calibrated test fixture.			
40	Inspect the oil return check valve for leaks while under pressure. <i>Verify there is no oil leaking back through the oil return plumbing to the drain pan while under pressure.</i>			
41	Inspect the drain valve for leaks while under pressure.			
	<b>General Fryer</b>			
42	Verify all labels are in place and legible on fryer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What are the tools required prior to doing this job

- Temperature probe depth gauges
- Pipe snake
- Manometer
- Amp Clamp
- Imperial size Socket Set
- Imperial size set of hex key wrenches
- Full range pliers set from needle nose to 12" large slip joint
- Phillips and flat blade screwdriver set
- Pipe wrenches 8 – 12"
- wire stripping tool
- wire cutter
- crimping tool
- Adjustable wrench set 8 – 12"
- Open end wrench set (imperial sizes)



\*Critical Item - Take fryer out of service until repaired



# PFG-600

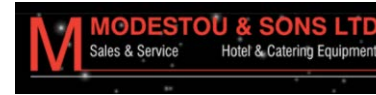
## 4H Pressure Fryer

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# OIL LOW LEVEL

FILLING OR ADDING SHORTENING, CARE OF THE SHORTENING



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



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

2. The electric model 500 requires 48 lbs. (21.8 kg) of liquid shortening, and the model 561 requires 65 lbs. (29.5 kg). The gas model requires 43 lbs. (19.5 kg). Model 500 fryers have 2 level indicator lines inscribed on the rear wall of the frypot, whereas the models 561 & 600 have only 1 level indicator. The level indicator lines show the proper shortening levels.

3. Cold shortening should be filled to 1/2-inch (12.7 mm) below a single level indicator line, and frypots with 2 level indicator lines, cold shortening should be even with the lower level indicator line. The shortening expands when heated and should be at the level indicator line when the shortening is hot, or the top level indicator line on model 500s.

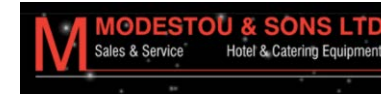


**FOLLOW THE INSTRUCTIONS BELOW TO AVOID SHORTENING OVERFLOWING THE FRYPOT, WHICH COULD RESULT IN SERIOUS BURNS, PERSONAL INJURY, FIRE, AND/OR PROPERTY DAMAGE.**



# OIL LOW LEVEL

## CARE OF THE SHORTENING



1. To protect, and get the maximum life out of the shortening, lower the temperature to 275° F (135° C) or below, when the fryer is not in immediate use. Deteriorated shortening smokes badly, even at lower temperatures.
2. Frying breaded food products requires frequent filtering to keep the shortening clean. The shortening should be filtered after every 3 to 6 Cook cycles. For the best quality product, Do not exceed 6 Cook Cycles without filtering. Refer to Filtering of Shortening Section.
3. Maintain the shortening at the proper cooking level. Add fresh shortening as needed.





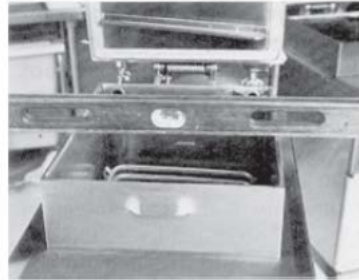
# SAFETY-GOUGE-CLEAN

The proper location of the fryer is very important for operation, speed, and convenience. Choose a location which will provide easy loading and unloading without interfering with the final assembly of food orders. Operators have found that frying from raw to finish, and holding the product in a warmer provides fast continuous service. Landing or dumping tables should be provided next to at least one side of the fryer. Keep in mind the best efficiency will be obtained by a straight line operation, i.e., raw in one side and finish out the other side. Order assembly can be moved away with only a slight loss of efficiency. To properly service the fryer, 24 inches (60.96 cm) of clearance is needed on all sides of the fryer. Access for servicing can be attained by removing a side panel. Also, at least 6 inches (15.24 cm) around the base of the gas units is needed for proper air supply to the combustion chamber.



*To avoid a fire, install the gas fryer with minimum clearance from all combustible and noncombustible materials, 6 inches (15.24 cm) from side and 6 inches (15.24 cm) from back. If installed properly, the gas fryer is designed for operation on combustible floors and adjacent to combustible walls.*

## 2-4. LEVELING THE FRYER



*To avoid fire and ruined supplies, the area under the fryer should not be used to store supplies.*



**To prevent severe burns from splashing hot shortening, position and install fryer to prevent tipping or movement. Restraining ties may be used for stabilization.**

For proper operation, level the fryer from side to side and front to back, using level on the flat areas around the frypot collar.



**FAILURE TO FOLLOW THESE LEVELING INSTRUCTIONS CAN RESULT IN SHORTENING OVERFLOWING THE FRYPOT WHICH COULD CAUSE SERIOUS BURNS, PERSONAL INJURY, FIRE, AND/OR PROPERTY DAMAGE.**



# SAFETY-GOUGE-CLEAN



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

9. Close the lid. Be sure the lid has been securely latched.
10. Turn the spindle clockwise until the lid is securely sealed. The two red knobs should line up in front.
11. Turn main timer on.

You have completed the steps to start the cooking process. The following operations should be observed.

1. Check to see that the indicator needle in the pressure gauge is reading in the Operating Zone.
  - If pressure does not build, contact your local Henny Penny service office.
2. Check the drain valve and filter valve for leaks.
3. At the end of eight minutes:
  - The timer buzzer will sound.



**Step 9**



**Step 10**

# SAFETY-GOUGE-CLEAN

4. Clean the deadweight cap and weight in hot detergent water.  
Make certain to thoroughly clean the inside of the valve cap and the deadweight.
5. Clean the deadweight orifice and the inside of the deadweight assembly body with a clean lint-free cloth.
6. Dry the deadweight and deadweight assembly cap.
7. Replace deadweight and deadweight assembly cap. Finger tighten the cap.



Step 6

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

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

## CAUTION

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



# SAFETY-GOUGE-CLEAN

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

## NOTICE

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



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

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



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

## NOTICE

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

4. Immerse the safety relief valve in a soapy water solution for 24 hours. Use a 1 to 1 dilution rate. The valve cannot be disassembled. It is factory preset to open at 14-1/2 pounds of pressure (999 mbar). If it does not open or close, it must be replaced.

# ERRORS-PUMB

<b>Item</b>	<b>Description</b>	<b>Function</b>
24	Filter Union	Connects the filter to the filter pump, and allows easy removal of the filter and drain pan
25	Filter Valve	When the power switch is in the PUMP position, this two-way valve directs filtered shortening from the drain pan, back into the frypot
26	Condensation Drain Line	A hose used to route the condensation collected within the steam exhaust system, to the condensation pan
27	Condensation Drain Pan	The collection point for the condensation, formed within the steam exhaust system; remove and empty periodically
28	Rinse Hose (Optional)	A hand-held hose used to rinse food particles from the frypot into the filter pan; attaches to a quick disconnect fitting
29	Gas Control Valve (Gas Models Only)	Controls the gas flow to the burner; the pilot is lit manually



# ERRORS-PUMB

## 30 High Temperature Limit



Gas

Electric

A control that senses the temperature of the shortening; if the temperature of the shortening exceeds the safe operating limit, this control opens and shuts off the heat to the frypot; when the temperature of the shortening drops to a safe operation limit, the control must be manually reset by pressing the red reset button, located under the control panel, behind the door

## 31 Fuses (Electric Models Only)

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

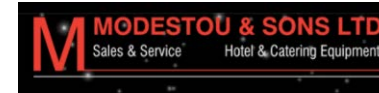
## 32 Contactors (Electric Models Only)

Relays that route power to the heating elements; one relay is in series with the high limit, the other one is in series with the controls; the standard unit uses 2 electromechanical contactors, while the computer controlled units have one electromechanical and one mercury contactor

## 33 Circuit Breaker (Single Phase Only)

Opens the electrical circuit, and removes power to elements

# FILTERING – 4 COOKS MAX



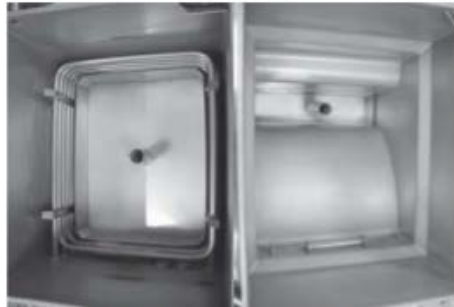
The crumb pan allows improved filtration process because finer, hard to filter particles are now retained within the pan. Crumb accumulation within the filter pan is reduced, and it is quicker to pump the shortening back into the frypot. Also, cracklings can be taken out of the crumb pan and used for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

See crumb pan removal procedure below:

1. Drain shortening from frypot to access pan.
2. Insert provided handle at angle to get by support nubs on shaft.



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



Electric Gas



Electric Gas



Electric Gas

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



Electric Gas

4. Lift crumb pan out of frypot.

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

# HHC-900

## Heated Holding Cabinets

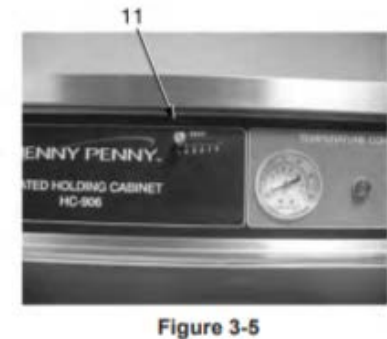
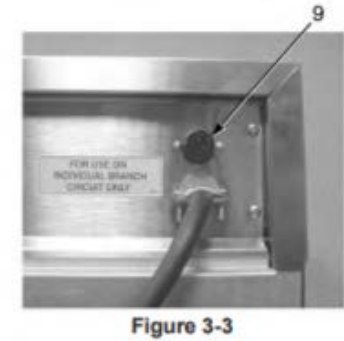
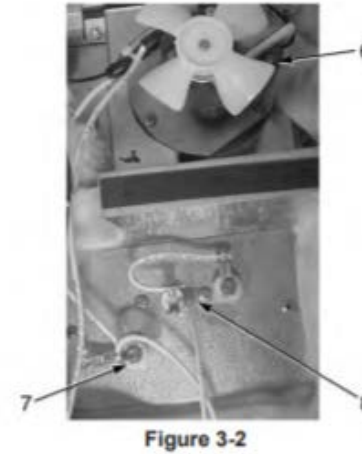
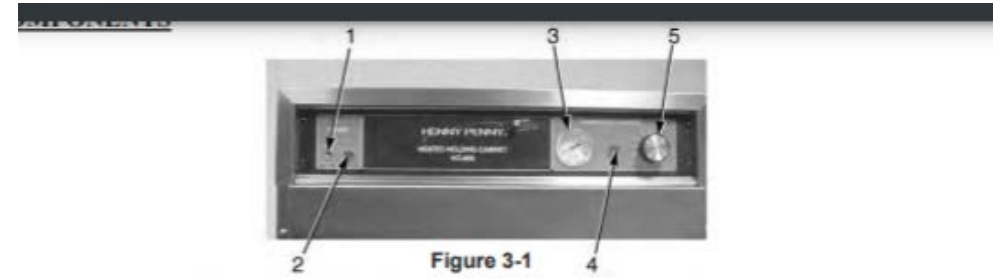
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# ERRORS-PUMB

This section provides operating procedures for the heated holding cabinets. The Introduction, Installation and Operation Sections should be read, and all instructions should be followed before operating the cabinet.

Figures 3-1 through 3-5 identify and describe the function of all the operating controls and the major components of the cabinet.





# ERRORS-PUMB

Display	Cause	Panel Board Correction
"E-4"	Control board overheating	Turn switch to OFF position, then turn switch back to ON; if display still shows "E-4", the board is getting too hot; check for signs of overheating behind the control panel; once panel cools down the controls should return to normal; if "E-4" reappears, replace control board
"E-5"	Unit overheating	Turn switch to OFF position, then turn bake to ON; if "E-5" reappears, the heating and blower circuits should be checked, along with the temperature probe; once the unit cools down, the controls should return to normal; if "E-5" reappears, replace control board
"E-6"	Temperature probe failure	Turn switch to OFF position, then bake to ON; if "E-6" reappears, the temperature probe should be checked; once the temperature probe is repaired, or replaced, the controls should return to normal; if "E-6" reappears, replace control board
"E-41"	Programming failure	Turn switch to OFF position, then back to ON; if "E-41" reappears, the control should be reinitialized (see Operating Controls - Countdown Timer Section); if "E-41" reappears, replace control board

# ERRORS-PUMB

"E-50"	RAM failure	Turn switch to OFF position, then back to ON; if "E-50" reappears, replace control board
"E-51"	NOVRAM failure	Turn switch to OFF position, then bake to ON; if "E-51" reappears, replace control board
"E-53"	EPROM failure	turn switch to Off position, then bake to ON; if "E-53" reappears, replace control board

# INSPECTS

1. Place the hot product on bun pans and insert between the cabinet racks.
2. Serve the product first that has been in the cabinet the longest.
3. In order to maintain a constant temperature, open the doors only as necessary to load and unload product.

As mentioned in the Operating Controls and Component Section, the vent system limits the humidity level of the cabinet. The vent adjustments are very easy to follow.

The vent setting corresponds to the number of trays of product. With one tray of product, set the vent at No. 1. With two trays of product, set the vent at No. 2 and so on.



## 3-6. CLEANING PROCEDURES



Step 3

# INSPECTS

## Daily:

Aluminum sheet pans slowly wear as they slide in and out of stainless steel holding rails to access product. As the pan slides against the rail, it can leave behind small traces of aluminum dust or small aluminum shavings. It is important that daily cleaning is performed to prevent aluminum dust/shavings from getting into the product being held in the unit.

1. Turn all controls to the OFF position.
2. Disconnect the electrical supply to the cabinet.



To avoid burns, allow the unit to cool before cleaning.

3. Open the doors and remove all trays from the cabinet.



## 3-6. CLEANING PROCEDURES



Step 3



# INSPECTS

4. Discard all warped or bent pans.

**CAUTION**

*Failure to discard warped and/or bent pans may result in metal shavings/dust contaminating food products.*



**Step 7**

5. Take the trays to a sink and clean them thoroughly.
6. Remove the water pan and clean it with a soft cloth, soap, and water
7. Wipe the control panel with a damp cloth. Do not splash water around the controls.
8. Clean the exterior of the cabinet with a damp cloth.

# INSPECTS



Step 9

8. Clean the exterior of the cabinet with a damp cloth.

## 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 failure could result.*

9. Open the doors and remove side racks. Clean the racks with soap and water.
10. Clean the interior of the cabinet thoroughly with a cloth and soap water.
10. Put the side racks and water pan back into the cabinet.
11. Leave at least one door open over night to allow the unit to thoroughly dry out.

# HCW-5-8

## Heated Counter Display Cabinet With Humidity

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# INSPECTS

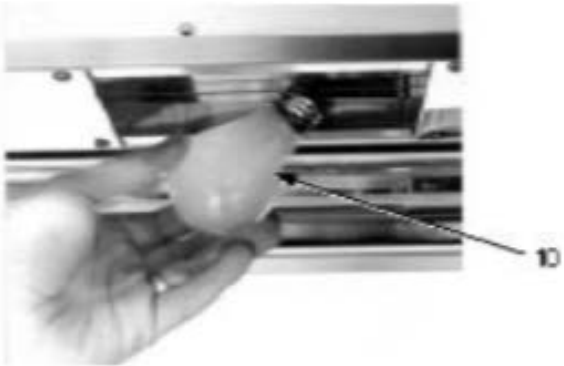


Figure 3-7



Figure 3-8



Figure 3-9

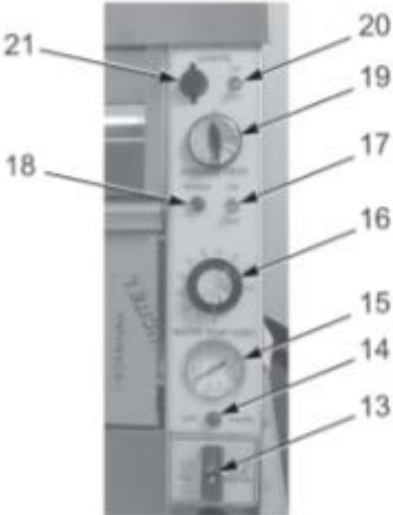


Figure 3-10



Figure 3-11

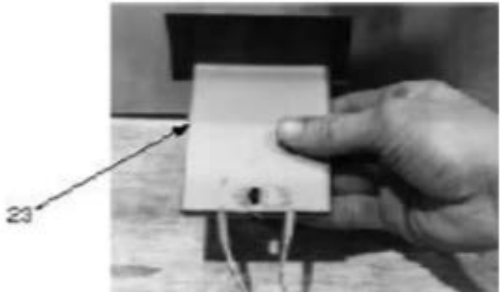


Figure 3-12



# INSPECTS

Fig. No.	Item No.	Description	Function
3-11	22	Float Switch	An electro-mechanical sensing device used to automatically control the water level in the water pan; the float switch can be inactivated by the water control switch; the float switch illuminates the low water light when it senses a low water condition
3-12	23	Water Heater	Two flat strip heaters, attached to the bottom of the water pan, which measure approximately 3" wide by 25" long, and are rated at 1020 watts each



Step 2

Before using, the Henny Penny Heated Display Cabinet should be thoroughly cleaned as indicated in the Shut-Down and Cleanup section of this manual.

1. Move all switches and controls on the cabinet to the OFF position.
2. Turn on power supply for the cabinet at the main circuit breaker.



Step 3

3. Place the grids in the water pan.

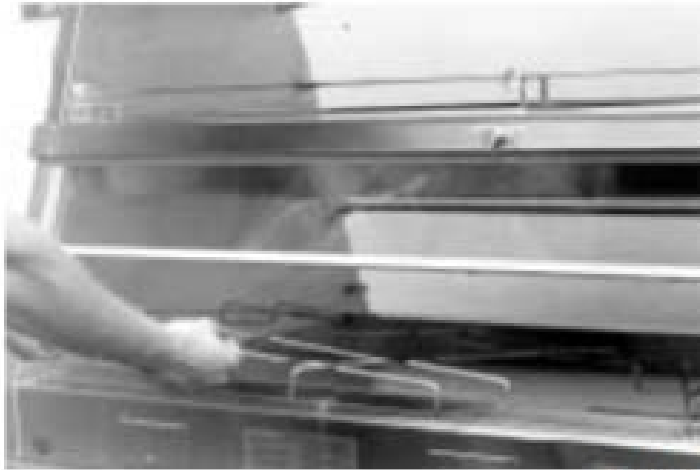
# INSPECTS



**Step 2**

Before using, the Henny Penny Heated Display Cabinet should be thoroughly cleaned as indicated in the Shut-Down and Cleanup section of this manual.

1. Move all switches and controls on the cabinet to the OFF position.
2. Turn on power supply for the cabinet at the main circuit breaker.
3. Place the grids in the water pan.



**Step 3**

# INSPECTS



**Step 4**

## NOTICE

4. Install the perforated bun pans over the water well. This will help in a more rapid heat up of the water.
5. Close the doors.
6. Turn the power switch to the ON position.
7. Turn the light switch to the ON position.
8. Turn the radiant heat switch to the desired setting. We recommend starting at "6" for the lower radiant. If you have upper radiant, start at "4". These settings are adjustable and may change as you become familiar with the food product in this unit.
9. Turn the water control switch to AUTOMATIC.
10. After approximately one minute, turn the water thermostat to the desired setting. We recommend about 3.5 to 4 or a water temperature of 150°F.

# INSPECTS

1. Place product on wire grids in the pans.
2. Serve product from the outside edges first. The product closest to the door opened often will cool fastest.
3. Only leave the doors open when demand requires. During slow periods, keep the doors closed.

## NOTICE

When checking the HCW to make sure it's holding the product properly, use a temperature probe or pocket thermometer on the product and the water in the bottom of the unit. The product is kept warm by radiant heat and checking the air temperature inside the HCW will NOT indicate if the product is holding at the proper temperature. Also, even though the unit has a thermometer on the controls for the water temperature, it may not accurate.



# INSPECTS



Drain Standpipe

Step 6

1. Turn the water thermostat to OFF.
2. Turn the radiant heat to OFF.
3. Turn the water control switch to OFF.
4. Open the doors.
5. Remove all the pans.
6. Remove the drain standpipe.
7. Remove the grids from the water pan and clean with soap and water at sink.
8. If cleaning a five-pan unit (HCW-5), or eight-pan unit (HCW-8), remove wire pan support from top section and clean with soap and water at sink.

# INSPECTS

## 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 spray the unit with water, such as, with a garden hose. Failure to follow this caution could cause component failure.*

9. Clean all surfaces with a soft cloth, soap, and water.
10. Clean around electrical controls with a damp cloth.
11. Install the drain standpipe.
12. Turn off the lights and power switch.
13. Leave the doors open until ready to use again.

**THANK YOU FOR YOUR ATTEND**