

## SECTION 2. INSTALLATION

### 2-1. INTRODUCTION

This section provides the installation instructions for the Henny Penny pressure fryer.

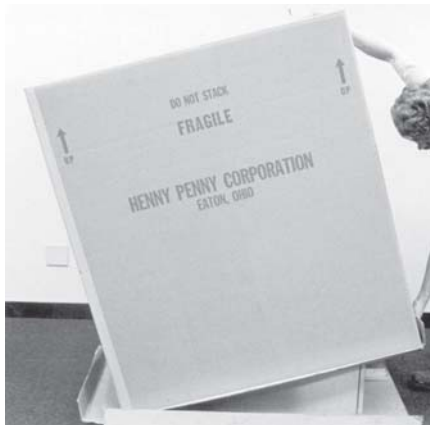
#### NOTICE

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



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

### 2-2. UNPACKING INSTRUCTIONS



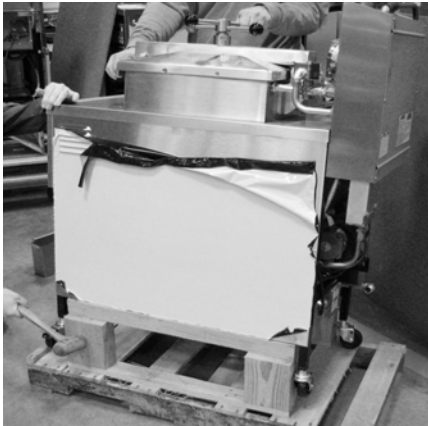
#### NOTICE

**Any shipping damage should be noted in the presence of the delivery agent and signed prior to their departure.**

1. Cut the bands from around the carton.
2. Lift the main carton off the fryer.
3. Remove the inside packing from the fryer.
4. Open fryer lid and remove the basket plus all the accessories.
5. Open front door and remove the condensation drain pan.
6. Unscrew the filter union and remove the filter drain pan.



## **2-2. UNPACKING** **INSTRUCTIONS** **(Continued)**

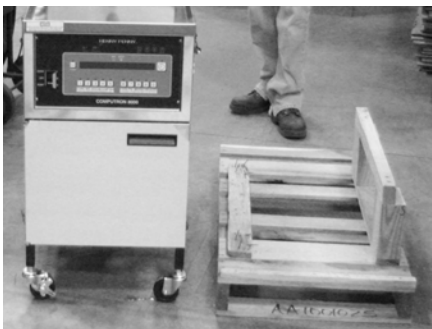
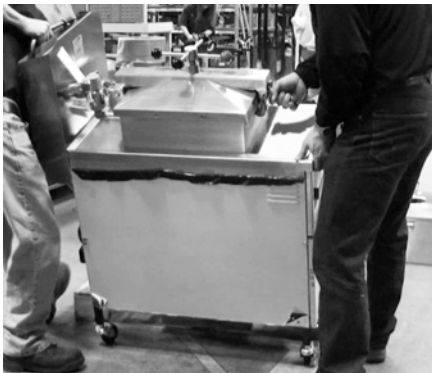


7. Close the front door.



**Take care when moving the fryer to prevent personal injury. The fryer weighs approximately 300 lb (136 kg).**

8. Tilt the fryer to one side so one side of the fryer frame is raised up off of the skid.
9. While one person holds the unit, another person hits the vertical wooden supports with a hammer pushing them under the fryer.
10. Return the fryer to fully upright.
11. Open front door, remove two vertical supports and a horizontal support and close the front door.
12. Unlock all 4 casters.
13. Lift fryer up so casters are above the skid, move the fryer off the skid, and set the fryer on the floor.



## 2-2. UNPACKING INSTRUCTIONS

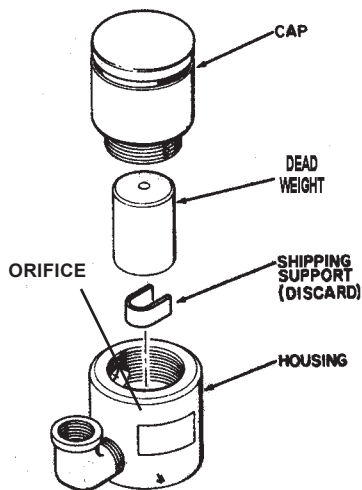


Figure 2-1

## 2-3. SELECTING THE FRYER LOCATION

14. Prepare deadweight valve assembly for operation.

### **NOTICE**

A metal shipping support is installed inside the deadweight valve assembly and must be removed prior to installation and startup, or unit will NOT build pressure.

15. Unscrew the deadweight cap.
16. Remove the deadweight.
17. Remove and discard the shipping support.
18. Clean the deadweight orifice with a dry cloth.
19. Replace the deadweight and secure the deadweight cap.
20. Remove the protective paper from the fryer exterior and clean with the surfaces with a cloth, soap and water.

The proper location of the fryer is very important for operation, speed, and convenience. Choose a location which provides 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 warmers, 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 finished 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.

### **CAUTION** **FIRE HAZARD**

*To avoid a fire, install the 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.*

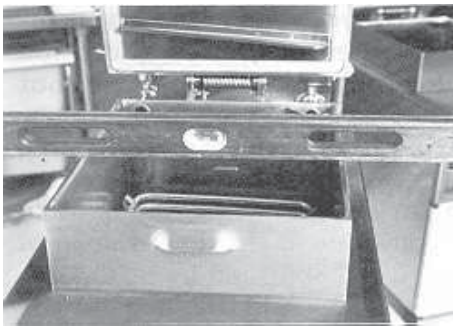
*To avoid fire and ruined supplies, the area under the fryer should not be used to store supplies.*

### **2-3. SELECTING THE FRYER LOCATION (Continued)**



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

### **2-4. LEVELING THE FRYER**



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



**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.**

### **2-5. VENTILATION OF FRYER**

The fryer must be located with provision for venting into adequate exhaust hood or ventilation system. This is essential to permit efficient removal of the flue gases and frying odors. Take special precautions in designing an exhaust canopy to avoid interference with the operation of the fryer. We recommend you consult a local ventilation or heating company to help in designing an adequate system.

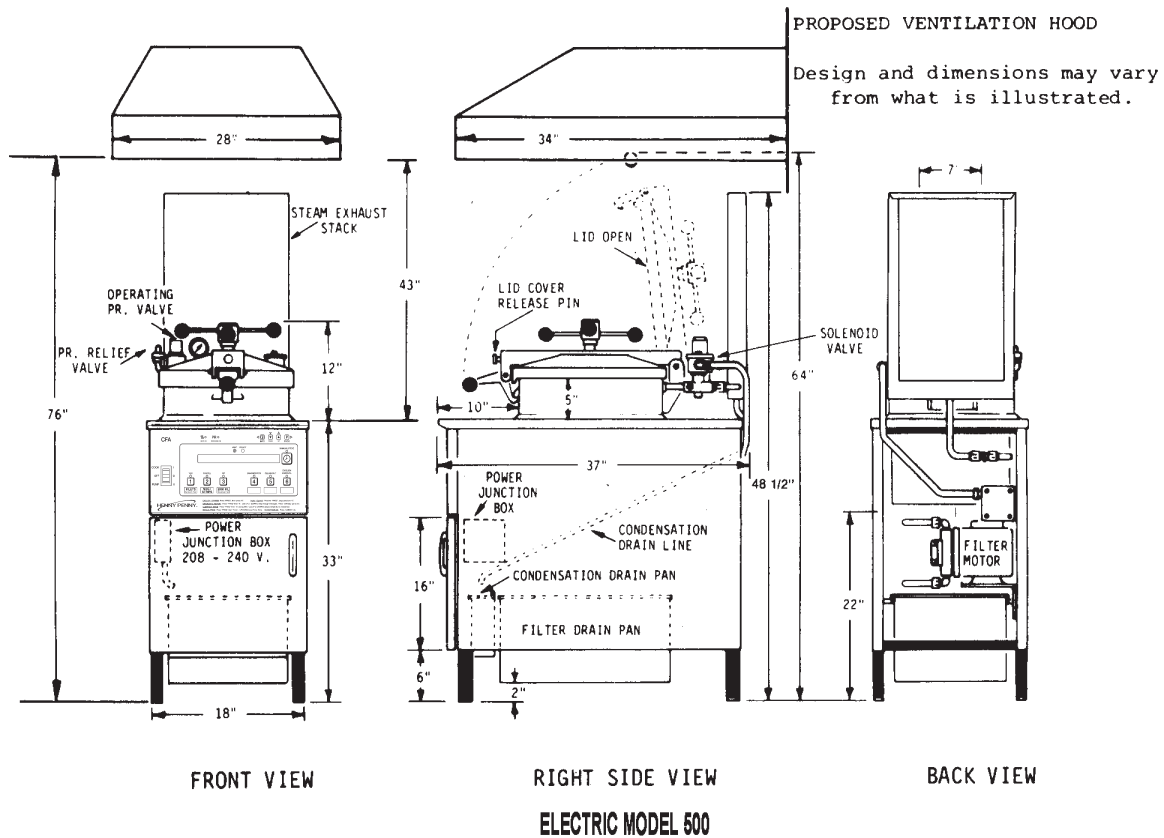
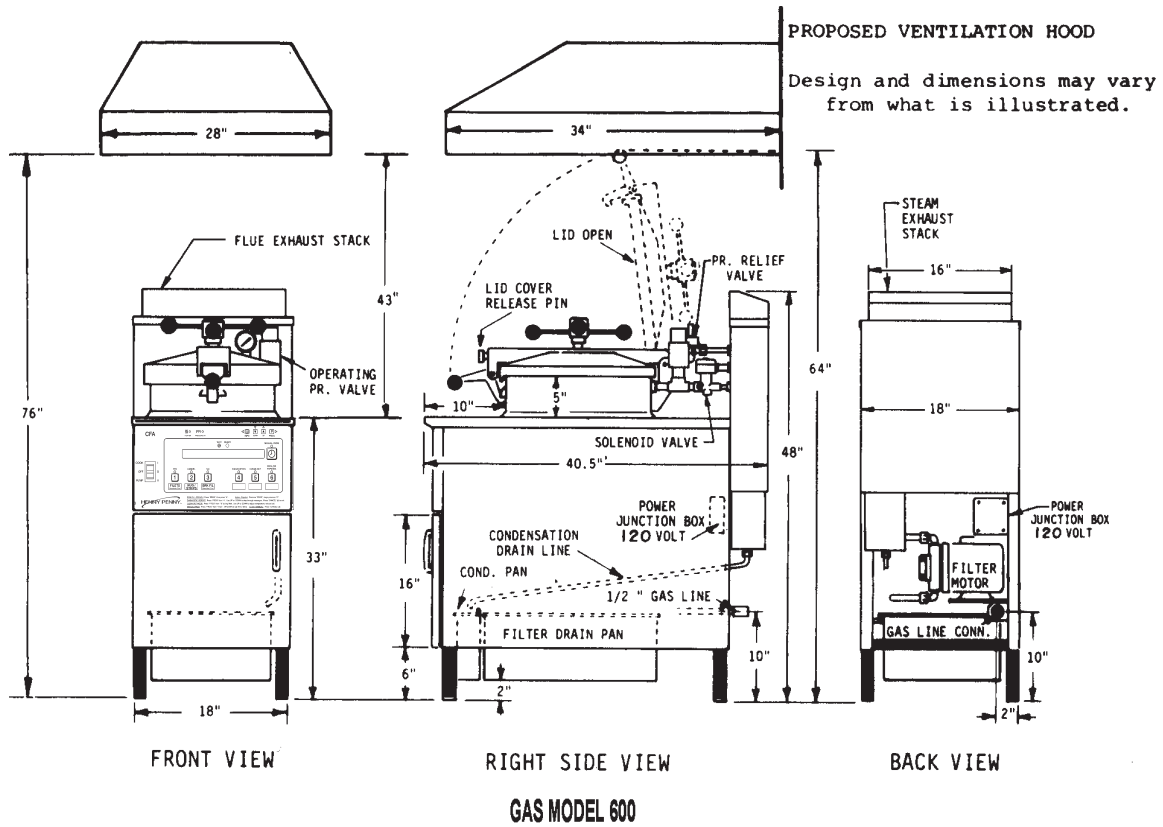


Ventilation must conform to local, state, and national codes. Consult your local fire department or building authorities.



*When installing the gas fryer do not attach an extension to the gas flue exhaust stack. This may impair proper operation of the burner, causing malfunctions and possible negative backdraft.*

**2-4. VENTILATION OF  
FRYER  
(Continued)**



## **2-6. GAS SUPPLY**

The gas fryer is factory available for either natural or propane gas. Check the data plate behind the front door of the fryer to determine the proper gas supply requirements.



**Do not attempt to use any gas other than that specified on the data plate. Conversion kits can be installed by your distributor if required. Incorrect gas supply could cause an explosion or fire resulting in severe injuries and/or property damage.**

Please refer below for the recommended hookup of the fryer to main gas line supply.



**To avoid possible serious personal injury:**

- **Installation must conform with American National Standard Z223.1 - (the latest edition) National Fuel Gas Code and the local municipal building codes. In Canada, installation must be in accordance with Standard CSA B149-& 2, Installation Codes Gas Burning Appliances, and local codes.**
- **The fryer and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 PSIG (3.45 KPA)(34.47 mbar).**
- **The fryer must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 PSIG (3.45 KPA) (34.47 mbar).**
- **A standard 3/4 inch, black steel pipe and malleable fittings should be used for gas service connections.**
- **Do not use cast iron fittings.**
- **Although 3/4 inch size pipe is recommended, piping should be of adequate size and installed to provide a supply of gas sufficient to meet the maximum demand without undue loss of pressure between the meter and the fryer. The pressure loss in the piping system should not exceed 0.3 inch water column (0.747 mbar).**



## 2-6. GAS SUPPLY (Continued)

Provisions should be made for moving the fryer for cleaning and servicing. This may be accomplished by:

1. Installing a manual gas shut off valve and disconnect union, or
2. Installing a heavy duty design A.G.A. certified connector which complies with the Standard for Connectors for Moveable Gas Appliances, ANSI Z21.6, or CAN/CSA 6.16, with a quick-disconnect coupling (Henny Penny Part No. 19921), which complies with ANSI standard Z21.41, or CAN 1-6.9. Also adequate means must be provided to limit the movement of the fryer without depending on the connector and quickdisconnect device or its associated piping to limit the fryer movement.
3. See the illustration on the following page for the proper connections of the flexible gas line and cable restraint.

### NOTICE

The cable restraint limits the distance the fryer can be pulled from the wall. For cleaning and servicing the fryer, unsnap the cable from the unit, and disconnect the flexible gas line. This allows better access to all sides of the fryer. The gas line and cable restraint must be reconnected once the cleaning or servicing is complete.

## 2-7. GAS LEAK TEST

### NOTICE

Prior to turning the gas supply on, be sure the gas valve knob on the gas control valve is in the OFF position.

After the piping and fittings have been installed, check for gas leaks. A simple checking method is to turn on the gas and brush all connections with a soap solution. If bubbles occur, it indicates escaping gas. In this event, the piping connection must be redone.

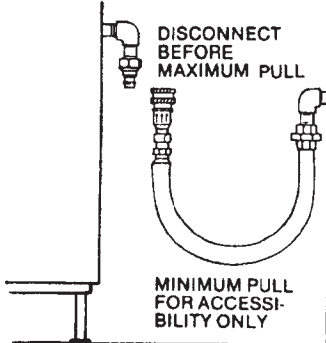


**To avoid fire or explosion, never use a lighted match or open flame to test for gas leaks. Ignited gas could result in severe personal injury and/or property damage.**

## GAS PIPING

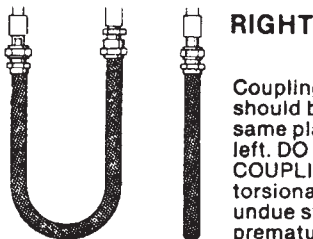
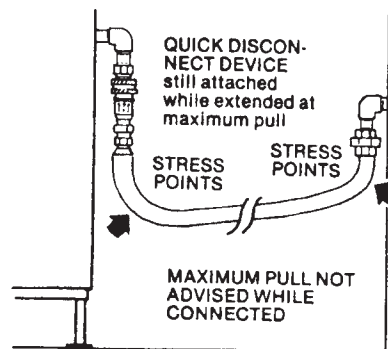
### RIGHT

MINIMUM PULL of equipment away from wall permissible for accessibility to Quick Disconnect Device.

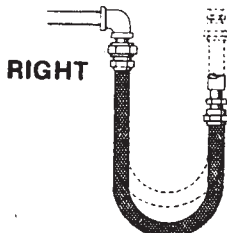
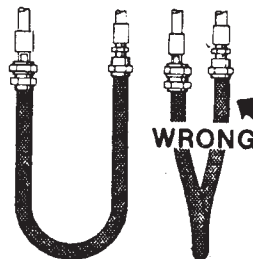


### WRONG

AVOID SHARP BENDS AND KINKS when pulling equipment away from wall. (Maximum pull will kink ends, even if installed properly, and reduce Connector life.)

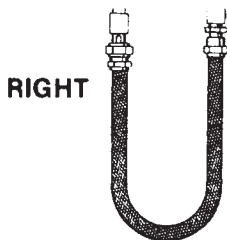
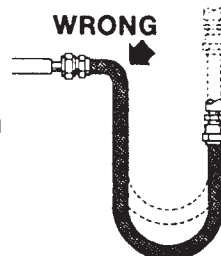


Couplings and hose should be installed in the same plane as shown at left. DO NOT OFFSET COUPLINGS—this causes torsional twisting and undue strain causing premature failure.



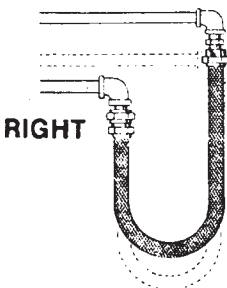
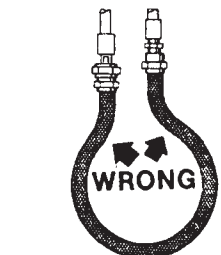
This is the correct way to install metal hose for vertical traverse. Note the single, natural loop.

Allowing a sharp bend, as shown at right, strains and twists the metal hose to a point of early failure at the coupling.



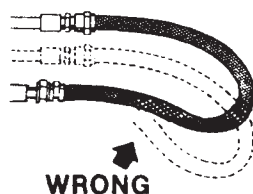
Maintain the minimum or larger bending diameter between the couplings for longest life.

Closing in the diameter at the couplings, as shown at right, creates double bends causing work fatigue failure of the fittings.



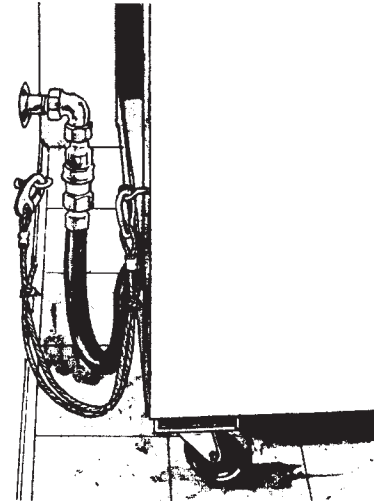
In all installations where "self-draining" is not necessary, connect metal hose in a vertical loop.

DO NOT CONNECT METAL HOSE HORIZONTALLY... unless "self-draining" is necessary, then use support on lower plane as shown at left.



## CABLE RESTRAINT

Please refer to the illustration below when installing cable restraint on all moveable gas fryers.



I-bolt is to be secured to the building using acceptable building construction practices.

## CAUTION

### DRY WALL CONSTRUCTION

Secure I-bolt to a building stud. Do not attach to dry wall only. Also, locate the I-bolt at the same height as the gas service. Preferred installation is approximately six inches to either side of service. Cable restraint must be at least six inches shorter than flexible gas line.

## CAUTION

Utilize elbows when necessary to avoid sharp kinks or excessive bending. For ease of movement, install with a "lazy" loop. Gas appliance must be disconnected prior to maximum movement. (Minimum movement is permissible for hose disconnection).



## **2-8. GAS PRESSURE REGULATOR SETTINGS**

The gas pressure regulator on the automatic gas valve is factory set as follows:

Natural: 3.5 inches water column

Propane: 10.0 inches water column

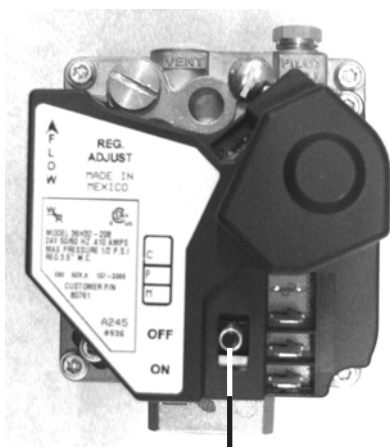
### **NOTICE**

The gas pressure regulator has been set by Henny Penny and is not to be adjusted by the user.

## **2-9. GAS PILOT & BURNER LIGHTING AND SHUTDOWN PROCEDURE**

### **Lighting Procedure - Solid State Ignition**

1. Turn main power switch to OFF position.
2. Move “ON/OFF” selector on gas control valve to OFF position.
3. Wait a sufficient length of time to allow any gas which may have accumulated in the burner compartment to escape (at least 5 minutes).
4. Move “ON/OFF” selector on gas control valve to ON position.
5. Turn main power switch to ON position.
6. Wait about 45 seconds for the burner to light.
7. Listen for the gas burner ignition.
  - It will be an audible sound due to the gas igniting at the gas jets within the burner.
8. The burner lights and operates until the shortening temperature reaches a preset temperature, and when temperature light goes out, set timer for desired length of time.



**Gas Control Valve  
“ON/OFF” Selector**

### **CAUTION**

*Do not leave the thermostat on for more than 10 seconds without shortening in the frypot or damage to the frypot may result.*

9. The frypot should be cleaned per the instructions in Section 3.
10. The frypot must be filled to the proper level with shortening. Refer to Filling or Adding Shortening Section.

### **Shutdown Procedure**

1. Move “ON/OFF” selector on gas control valve to OFF position.
2. Turn main power switch to OFF position.

**2-9. GAS PILOT & BURNER**  
**LIGHTING AND SHUT**  
**DOWN PROCEDURES**  
**(Continued)**

**Lighting Procedure - Standard (Manual) Ignition**

1. The gas valve knob has a dual function.
  - a. Complete control of gas to the pilot and main burner.
  - b. When in the pilot position, it is the reset mechanism for the automatic pilot.
2. Partially press and turn the gas valve knob to the OFF position.
3. Wait at least 5 minutes to allow any gas to escape that may have accumulated in the burner compartment.
4. Turn the COOK/PUMP switch to OFF.
5. Turn the gas valve knob to the PILOT position.
6. Press and hold the gas valve knob while lighting the pilot. Allow the pilot to burn about 30 seconds before releasing the knob.

**NOTICE**

If the pilot does not stay lit, repeat steps 5 and 6, allowing a longer period of time before releasing the gas valve knob.

7. Turn the gas valve knob to the ON position.
8. Turn the COOK/PUMP switch to COOK.
9. With the lid open, select a product on control panel, and listen for the gas burner ignition (no longer than 10 seconds) and then turn COOK/PUMP switch OFF.

**CAUTION**

*Do not leave unit on, without peanut oil, for more than 10 seconds or damage to the frypot could result.*

10. Clean the frypot per the instructions in the Cleaning the Frypot Section.
11. Fill the frypot with peanut oil to the proper level.
12. The fryer is now ready for operation.

**NOTICE**

The pilot flame is preset at the factory. If adjustment is necessary, contact your local independent Henny Penny distributor.

**Shutdown Procedure**

1. Turn main power switch to OFF.
2. Depress the gas control valve knob lightly and turn to the OFF position.

**2-10. PRESSURE  
REGULATOR  
ADJUSTMENT  
(GAS ONLY)**

The gas regulator is preset at the factory at 3.5 inch water column (0.87 kPa) for natural gas (10.0 inch (2.49 kPa) for propane). If adjustment is necessary, contact your local independent Henny Penny distributor.

**2-11. ELECTRICAL  
REQUIREMENTS  
(GAS FRYER)**

The gas fryer requires 120 single phase, 60 Hertz, 10 or 5 amp, 2 wire + ground service. The gas fryer is factory equipped with a grounded cord and plug for your protection against shock and should be plugged into a 3 prong grounded receptacle. A wiring diagram is located behind the front door.



**Do not disconnect the ground (earth) plug.** This fryer **must** be adequately and safely grounded (earthed) or electrical shock could result. Refer to local electrical codes for correct grounding (earthing) procedures or in absence of local codes, with The National Electrical Code, ANSI/NFPA No. 70-(the current edition). In Canada, all electrical connections are to be made in accordance with CSA C22.1, Canadian Electrical Code Part 1, and/or local codes.

To avoid electrical shock, this appliance must be equipped with an external circuit breaker which will disconnect all ungrounded (unearthed) conductors. The main power switch on this appliance does **not** disconnect all line conductors.

## **2-12. ELECTRICAL REQUIREMENTS (ELECTRIC FRYER)**

The electric fryer requires 208 or 240 volt, three phase, 50/60 Hertz service. The power cord may be already attached to the fryer or provided at installation. Check the data plate behind the front door to determine the correct power supply.



**This fryer must be adequately and safely grounded (earthed) or electrical shock could result. Refer to local electrical codes for correct grounding (earthing) procedures or in absence of local codes, with The National Electrical Code, ANSI/NFPA No. 70-(the current edition). In Canada, all electrical connections are to be made in accordance with CSA C22.1, Canadian Electrical Code Part 1, and/or local codes.**

**To avoid electrical shock, this appliance must be equipped with an external circuit breaker which will disconnect all ungrounded (unearthed) conductors. The main power switch on this appliance does not disconnect all line conductors.**

A separate disconnect switch with proper capacity fuses or breakers must be installed at a convenient location between the fryer and the power source. It should be an insulated copper conductor rated for 600 volts and 90°C. For runs longer than 50 feet (15.24 m), use the next larger wire size.

### **Supply Wiring and Fusing for Electric Fryer**

<b>Volts</b>	<b>Phase</b>	<b>KW</b>	<b>Amps</b>	<b>Supply Wire Size</b>	<b>Min. Fuse Size</b>
208	Single	13.50	65	2	90
208	Three	13.50	38	6	50
240	Single	13.50	61	3	70
240	Three	13.50	35	6	50