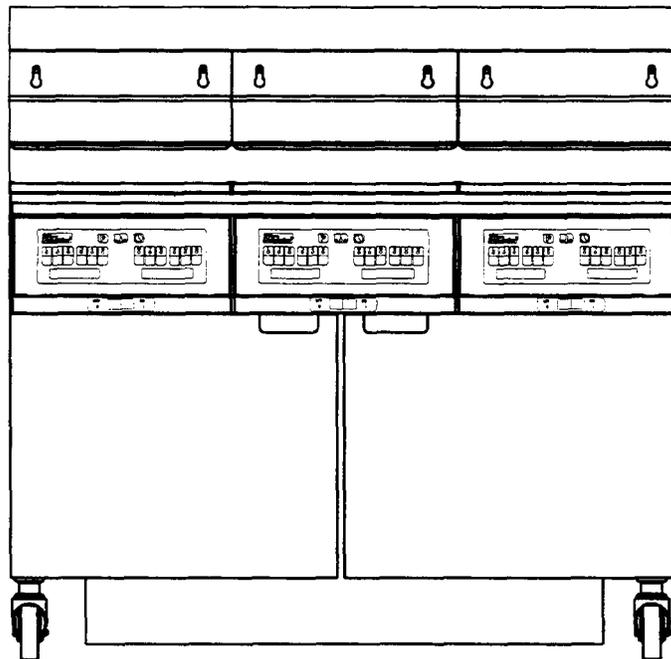


# Pitco Frialator<sup>®</sup>

*There's Always Something Cooking!*

Installation, Operation, and Maintenance Manual  
For Wendy's Gas Fryers

Model:  
W14S-3 WF



## NOTICES

There are three different types of notices that you should be familiar with, a NOTICE, CAUTION, and WARNING. A NOTICE is a special note used to call attention to a particularly important point. CAUTION is used to point out a procedure or operation which may cause equipment damage. The WARNING notice is the most important of the three because it warns of an operation that may cause personal injury. Please familiarize yourself with your new cooker before operating it and heed the notices throughout this manual. The WARNINGS are listed below and on the following page for your review prior to operating the unit.

### **FOR YOUR SAFETY**

**DO NOT store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.**

**WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance thoroughly before installing or servicing this equipment.**

### **TO THE PURCHASER**

**POST IN A PROMINENT LOCATION INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THAT AN OPERATOR SMELLS GAS. OBTAIN THIS INFORMATION FROM YOUR LOCAL GAS SUPPLIER.**

**THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE**

**SAFETY**

**SAFETY**

**SAFETY**

**SAFETY**

**SAFETY**

**WARNING**

There is an open flame inside the fryer. The unit may get hot enough to set near by materials on fire. Keep the area around the fryer free from combustibles.

**WARNING**

DO NOT supply the fryer with a gas that is not indicated on the data plate. If you need to convert the fryer to another type of fuel, contact your dealer.

**WARNING**

DO NOT use an open flame to check for gas leaks!

**WARNING**

Wait 5 minutes before attempting to relight the pilot to allow for any gas in the fryer to dissipate.

**WARNING**

Never melt blocks of shortening on top of the burner tubes. This will cause a fire, and void your warranty.

**WARNING**

Water and shortening DO NOT mix. Keep liquids away from hot shortening. Dropping liquid frozen food into the hot shortening will cause violent boiling.

**WARNING**

At operating temperature the shortening temperature will be greater than 300°F. Extreme care should be exercise when working with hot shortening to avoid personnel injury.

**WARNING**

Ensure that the fryer can get enough air to keep the flame burning correctly. If the flame is starved for air it can give off a dangerous carbon monoxide gas. Carbon Monoxide is a clear odorless gas that can cause suffocation.

**WARNING**

In the event of a oil fire in the fryer, use ONLY a dry chemical extinguisher. The extinguisher should be a B/C or A/B/C type extinguisher that contains sodium bicarbonate or potassium bicarbonate.

**SAFETY**

**SAFETY**

**SAFETY**

**SAFETY**

**SAFETY**

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## CHAPTER 1: GENERAL INFORMATION AND INSTALLATION

Congratulations on the purchase of your new Pitco Model W1 4S-3 WF gas fryer. This unit has been specially designed to suit the needs of your establishment and will give you many years of reliable service if you follow the simple operation and maintenance procedures in this manual. Contained in this manual are the general installation, operation, and maintenance procedures for the Model W1 4-3 WF gas fryer.

### 1.1 FRYER SPECIFICATIONS

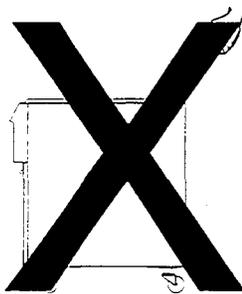
This unit has been designed to fit the need of the Wendy's chain of stores. The table below lists the characteristics and specifications associated with this unit:

Table 1-1 Fryer Characteristics

Description	Specification (US)	Specification (Metric)
Height, Overall	48"	121.9cm
Height, Working	35"	88.9 cm
Width (Unit)	48-3/8	122.9cm
Depth (Unit)	34"	86.4 cm
Number of Tanks/Unit	3	3
Frying Area/Tank	14" x 14"	35.6 x 35.6 cm
Frying Depth	4"	10.2 cm
Aisle space (minimum)	21"	53.3 cm
Oil Capacity/Tank	40 - 42 Lbs	18.1 -19.1 Kg
Input/Tank (BTU/Hr)	122,000 (per tank)	30,744KCal
Gas Type	LP or Natural	LP or Natural
Input Voltage	120 VAC Single Phase	120 VAC Single Phase
Current Requirements/Unit	9 Amps	6 Amps
Filter Media	Filter Paper	Filter Paper
Pump Rate	5.0 GPM	18.9LPM

## 1.2 CHECKING YOUR NEW FRYER

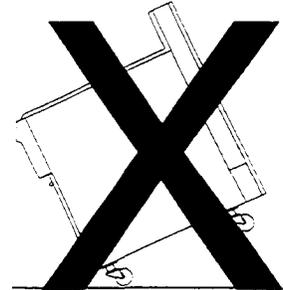
Your new fryer and its filter components have been carefully packed into one crate. Every effort has been made to ensure that your fryer will be delivered to you in perfect condition. As you unpack your new fryer, inspect each of the pieces for damage. If something is damaged, DO NOT sign the bill of lading. Contact the shipper immediately, the shipper is only responsible for 15 days after delivery. Check the packing list enclosed with your fryer to ensure that you have received all of the parts to the fryer. If you are missing any parts, contact the dealer from whom the fryer was purchased. As you unpack the fryer and its accessories be careful to keep the weight of the fryer evenly distributed.



Flue Vents

### **CAUTION**

To prevent equipment damage, don't tilt the fryer onto any two of its casters or pull the unit by the flue vents.



You will find the model and serial numbers on the plate inside the doors. Make note of these numbers for future reference

### 1.2.1 Check Your Order

The crate containing the fryer unit will also contain the following:

- (2) Fry baskets per fryer
- (1) Fry Basket Hanger per fryer
- (2) Pitco Cleaner Sample
- (1) Drain Clean Out Rod

The filter tools and components are very important and MUST be retained for future use. A complete description of each component is contained in the Oil Filter Procedure in Chapter 2.

- (1) Precoat Filter Aid
- (1) Filter Screen
- (1) Cleaning Brush (Fryer)
- (1) Fryer Crumb Scoop
- (1) Filter Crumb Scoop

## 1.3 INSTALLATION

Although it is possible for you to install and set up your new fryer, it is **STRONGLY** recommended that you have it done by qualified professionals. The professionals that install your new fryer will know the local building codes and ensure that your installation is safe.

### WARNING

The fryer must be properly restrained to prevent movement or tipping. This restraint must prevent the fryer from movements that would splash hot liquids on personnel. This restraint may be any means (alcove installation, adequate ties, or battery installation).

### WARNING

DO NOT obstruct the flow of combustion/ventilation or air openings around the fryer. Adequate clearance around the fryer is necessary for servicing and proper burner operation. Ensure that you meet the minimum clearances specified in the installation instructions.

### 1.3.1 Installation Clearances

The fryer needs clearance around it for proper operation. Adequate clearances allow for servicing and proper burner operation. The clearances shown below are for cooker installation in combustible and non-combustible construction.

	Combustible Construction	Non-Combustible Construction
Back	6"	6"
Sides	6"	6"
Floor – Combustible	--	--

In addition to the clearances required for proper fryer operation, there must be at least 21 inches of aisle space in front of the fryer to remove/install the filter pan/module.

#### 1.3.1.1 Leveling

When you receive your fryer it is completely assembled. The fryer will need to be leveled once it is in place. Leveling the fryer is done with a large pair of water pump pliers. The casters provide the necessary height to meet sanitation requirements and assure adequate air supply to the burner.

- a. Adjust the height and level the fryer by adjusting the leveling devices on the caster with the water pump pliers.

- b. Move the fryer to the desired location and lock the wheels using the locking devices on the sides of the casters.
- c. Once the unit is in place, check and readjust the levelness as necessary.

### 1.3.2 Gas Connection

Your fryer will give you peak performance when the gas supply line is of sufficient size to provide the correct gas flow. The gas line must be installed to meet the local building codes or National Fuel Gas Code (NFPA 54-1984) and ANSI Z223.1-1988 Latest Edition. In Canada, install the fryer in accordance with CAN/CGA-B 149.1 or .2 and local codes. Gas line sizing requirements can be determined by your local gas company by referring to National Fuel Gas Code, Appendix C, Table C-4 (natural gas) and Table C-16 (propane). The gas line needs to be large enough to supply the necessary amount of fuel to all appliances without losing pressure to any appliance. Other factors that are used to determine the piping requirements are BTU requirements of the appliances being connected and the length of pipe between the meter (main shut off) and the appliances.

#### **WARNING**

NEVER supply the fryer with a gas that is not indicated on the data plate. Using the incorrect gas type will cause improper operation. If you need to convert the fryer to another type of fuel, contact your dealer.

#### 1.3.2.1 Fuel Types

Each fryer is equipped to work with one type of fuel. The type of fuel with which the appliance is intended to operate is stamped on the data plate attached to the inside of the door.

#### **WARNING**

DO NOT use an open flame to check for gas leaks!

#### 1.3.2.2 Gas Line Connection

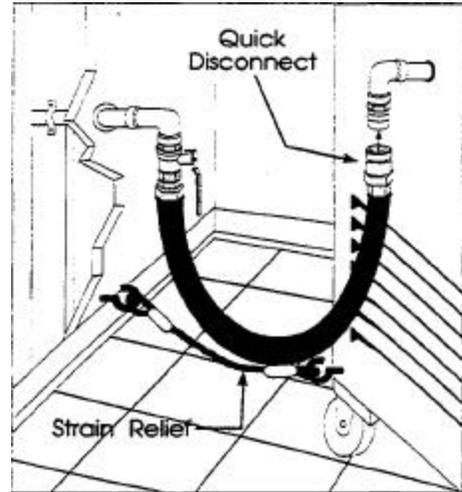
Connect the fryer to the gas supply line with a connector that complies with the Standard for Connectors for Movable Gas Appliances (ANSI Z21.69-1987). If you are installing a fryer with casters using a quick disconnect refer to the Quick Disconnect installation instruction, 1.3.2.3. Connect the gas line to the fryer using a pipe joint sealant that is resistant to liquefied petroleum. If the fryer was disconnected during the fuel line testing, use a solution of soap and water to leak test the new connection.

#### **NOTICE**

NEVER use an adaptor to make a smaller gas supply line fit the cooker connection. This may not allow proper gas flow for optimum burner operation, resulting in poor cooker performance.

### 1.3.2.3 Quick Disconnect Gas Connection

Gas fryers equipped with casters must be installed with connectors that comply with the Standard for Connectors for Movable Gas Appliances, ANSI Z21.69-1987, and Addenda Z21.69A-1989. This connection should include a quick disconnect device that complies with the Standard for Quick Disconnect Devices for Use With Gas Fuel, ANSI Z21.41-1989. When installing a quick disconnect you must also install a means for limiting the movement of the fryer. This device will prevent the gas line or the quick disconnect from being strained. The restraining device should be attached to the cooker on the back panel as shown in the illustration. The quick disconnect, hose, and restraining device can be obtained from your dealer.



### 1.3.2.4 Fuel Supply Line Leak and Pressure Testing

The fuel supply system must be tested before the fryer is used. If the fuel line is going to be tested at a pressure greater than ( $>$ ) 1/2 PSIG (3.45 kPa), make sure that the fryer is disconnected from the fuel line. If the fuel line is to be tested at a pressure equal to or less than ( $<$ ) 1/2 PSIG (3.45 kPa), the fryer can be connected but *the* unit's gas valve must be shut. Test all gas line connections for leaks with a solution of soap and water when pressure is applied.

### 1.3.3 Electrical Connection

The electrical service used by the fryer must comply with local codes. If there are no local codes that apply, refer to the National Electrical Code (NEC) to install the service. In Canada refer to CSA Standard C22.1 and local codes. Wiring diagrams are provided inside the fryer control box. The power requirements for the fryer are shown below.

	North America	International
Input Voltage	120VAC,60Hz	220 (or 240) VAC, 50Hz
Current per fryer	0.5 Amps	0.5 Amps
UFM Filter System	7.0 Amps	4.0 Amps

### **WARNING**

The fryer is equipped with an oil proof, three prong (grounding) plug for your protection against electrical shock hazard in the event of equipment malfunction. DO NOT cut or remove the grounding (third) prong from this plug. This plug must be plugged into a properly grounded three prong receptacle.

The fryer must be grounded in accordance with local code; if there is not a local code, comply with NECANSI/NFPANo. 70-1990. It is advised that this power supply be plugged into a wall receptacle that is controlled by the ventilation control. This will prevent the fryer from being operated without the ventilator on.

### 1.3.3.1 Electrical System with UFM Filter System

The fryer has one power supply for the controls and the filter module.

### 1.3.4 Ventilation and Fire Safety Systems

Your new fryer must have proper ventilation to function safely and properly. Exhaust gas temperatures can reach as high as 1200°F. Therefore, it is very important to install a fire safety system. Your ventilation system should be designed to allow for easy cleaning. Frequent cleaning of the ventilation system and the fryer will reduce the chances of fire. Table 1-2 provides a list of reference documents that provide guidance on ventilation and fire safety systems. This table is not necessarily complete. Additional information can be obtained from the American Gas Association, 8501 East Pleasant Valley Road, Cleveland, OH 44131.

Table 1 -2 Ventilation and Fire Safety References

Topic	Underwriters Laboratory Document	National Fuel Gas Code Document
Grease Extractor	ANSI/UL710-1981	ANSI/NFPA 96-1987
Ventilation Hood	ANSI/UL 705-1984	ANSI/NFPA 96-1987
Filter Unit	ANSI/UL 586-1985 ANSI/UL 900-1987	ANSI/NFPA 96-1987
Types of Fire Extinguishers and Detection Equipment		
CO <sub>2</sub>	ANSI/UL 154-1983	ANSI/NFPA 12-1989
Dry Chemical	ANSI/UL 299-1984	ANSI/NFPA 17-1985
Water	ANSI/UL 626-1984	ANSI/NFPA 13-1989
Foam		ANSI/NFPA 11-1988
Sprinklers	ANSI/UL 199-1982	ANSI/NFPA 13-1989 ANSI/NFPA 13-1989
Smoke Detectors	ANSI/UL 268-1981	ANSI/FPA72B-1986
Fire Detection Thermostats	ANSI/UL 521-1987	ANSI/FPA72B-1986

Excessive ventilation causes drafts, which will interfere with the proper operation of the pilot and the burner. Leave at least 18 inches of open space between the fryer's flue vent opening and the intake of the exhaust hood.

### **WARNING**

In the event of an oil fire in the fryer, use **ONLY** a dry chemical extinguisher. The extinguisher should be a B/C or A/B/C type extinguisher that contains sodium bicarbonate or potassium bicarbonate.

### **CAUTION**

Ensure that your ventilation system does not cause a down draft at the fryer's flue opening. Down drafts will not allow the fryer to exhaust properly and will cause overheating which may cause permanent damage. Damage caused by down drafts will not be covered under equipment warranty. **NEVER** allow anything to obstruct the flow of combustibles or ventilation exiting from the fryer flue. **DO NOT** put anything on top of the flue area.

### **NOTICE**

**NEVER** connect the blower directly to the flue openings. The direct flow of air will cause poor temperature recovery, poor ignition, inefficient operation of the fryer, and could extinguish the pilot.

## **1.4 INITIAL ADJUSTMENTS**

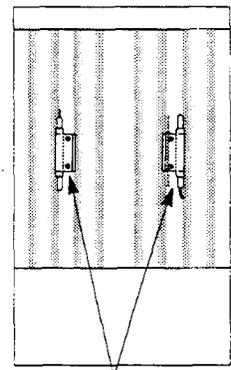
After your fryer has been installed as described in section 1.4, it needs to be adjusted to ensure that it will perform as designed. These adjustments must be performed by a **qualified person**. To perform these adjustment the following tools will be needed:

- Manometer (low pressure gauge)
- Digital Thermometer (Temperature probe)
- DC Millivolt Meter

### **1.4.1 Visual Checks**

Before you begin filling and adjusting the fryer, perform the following visual checks:

- After the fryer is in its permanent location, lock the casters and check for levelness. Any additional leveling that is necessary can be performed as described in section 1.3.
- Check the temperature bulbs (computer/high-limit), located in the fryer tank to ensure that the mounting screws are tight. The figure shows the probe typical location. Look down inside each fryer tank to see the probes.



Ensure that these parts are not loose.

## 1.4.2 Burner Ignition Systems

The unit has a manual (standing flame) pilot ignition system. The pilot light must be lit manually before fryer operation.

### **CAUTION**

Before going any further, fill the fryer with WATER. Water is used for the installation adjustments because the temperature will never exceed 212°F (100°C) thereby allowing plenty of adjustment time. Never let the water level go below the MIN LEVEL mark on the rear of the tank.

### **WARNING**

There is an open flame inside the fryer. The unit may get hot enough to set near by materials on fire. Keep the area around the fryer free from combustibles.

## 7.4.2.1 Lighting Instructions for Manual Pilot Lights

To light the pilot light refer to these instructions and. The numbers in parenthesis refer to Figure 1-2 callouts.

### **WARNING**

Wait 5 minutes before attempting to relight the pilot to allow for any gas in the fryer to dissipate.

- a. Open the gas supply valves to the fryer.
- b. Open the fryer's door (1) to gain access to the controls.
- c. Turn the Unitrol valve knob (2) to the PILOT position for the fryer being started, and push in on the knob. Hold the knob in for approximately one minute to purge the air out of the line. Hold a flame to the pilot light (3) until the pilot ignites. This may take a little while the first time you light the fryer because of air in the lines. Once lit, hold the knob in for approximately 60 seconds and then release.
- d. If the pilot goes out wait 5 minutes and repeat step c. If after three tries the pilot will not remain lit, refer to the operator troubleshooting section of this manual.
- e. Turn the Unitrol valve knob counterclockwise to the ON position.



- f. Turn the fryer OFF/ON switch (4) to the ON position. The computer display will change from OFF to MELT (the display may indicate a different condition of the fryer depending on fryer temperature).
- g. The main burner (5) will light and be controlled by the computer. The pilot burner will remain lit regardless of the switch position or computer operation.
- h. Refer to the computer operation section for fryer control information.

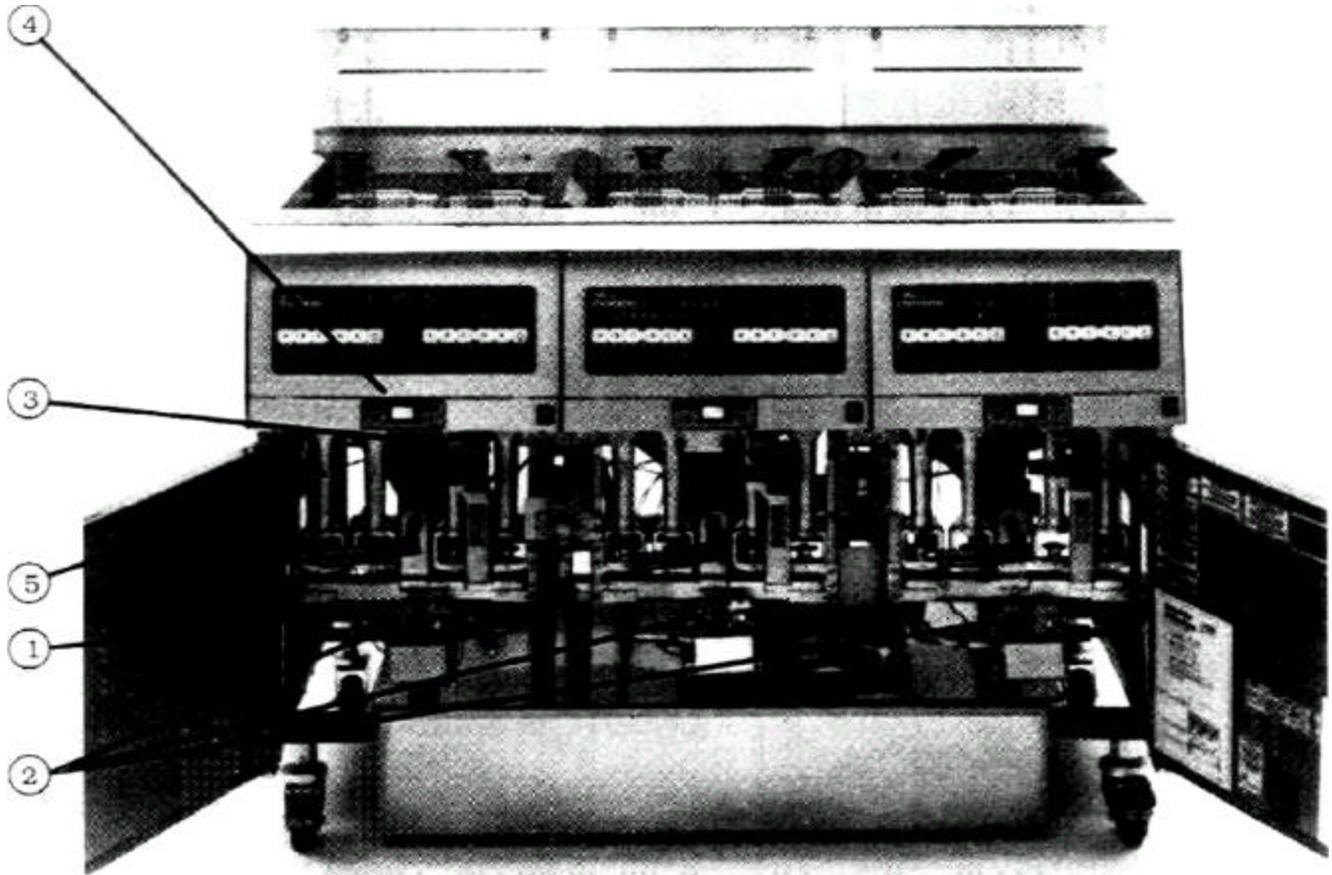


Figure 1-1 Inside View of Fryer

### 1.4.3 Pilot Flame Adjustment

The pilot flame should be adjusted to produce the proper millivolt output from the pilot sensing device. Millivolt output for the thermopile should be between 300 and 500 millivolts. Figure 1-3 shows the pilot assembly with examples of the incorrect and correct pilot size. Example A illustrates a pilot flame size that is too small to produce sufficient millivolt output. Example B is the correct size for proper millivolt output.



Figure 1 -2 Pilot Assembly, Flame Adjustment

- a. This test requires a DC millivolt meter set to a scale of 0-1000mv.
- b. Locate the thermopile wires coming from the thermostat/High Limit box going to the gas shut off valve. The wire insulation size decreases near the gas valve connections.
- c. Connect the negative (-) test probe to pilot bracket.
- d. Connect the positive (+) test probe to one of the High Limit terminal connections

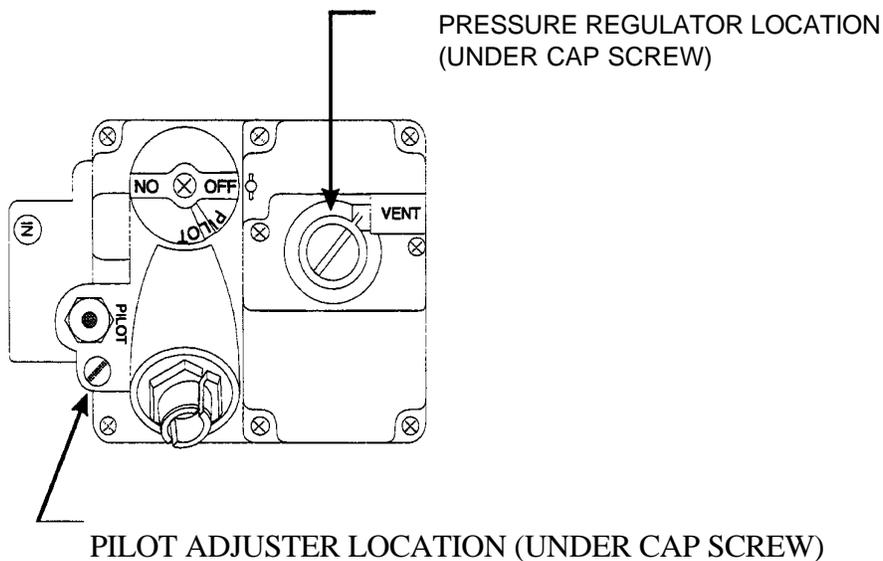


Figure 1-3 Gas Valve Showing Location of the Pressure Regulator and Pilot Adjusters

- e. Light the pilot.
- f. Remove the pilot flame adjustment cover.
- g. Turning the flame adjusting screw clockwise lowers the flame and the millivolt output. Turning the screw counterclockwise increases flame size and millivolt output.
- h. Rotate the screw in the direction to achieve a reading of  $400 \pm 50$  mv for thermopiles.

**NOTE**

Allow 3 to 5 minutes between flame adjustments to allow the reading to settle.

- i. Replace the pilot flame adjusting screw cover.

### 1.4.4 Main Burner System

For the burners to work the gas supply valve must be open and the main power switch must be on. The main burner receives gas from the main gas supply through the thermostatically controlled valve. When the computer calls for flame the gas control valve opens and the pilot light ignites the burners. After the burner system is operating, perform the burner adjustments in the following procedure. Figure 1-5 illustrates the different conditions possible for the main burner.

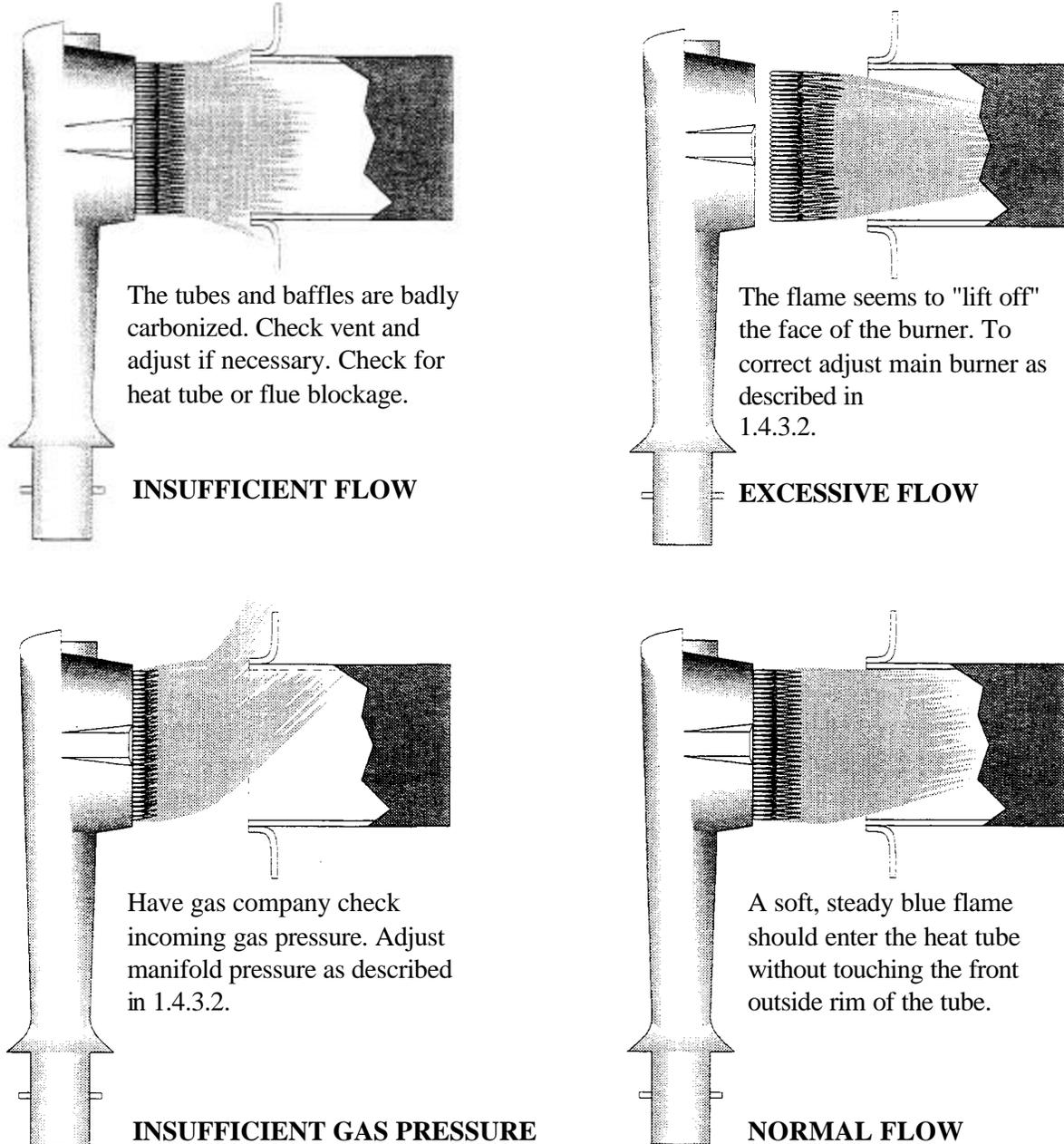


Figure 1-4 Main Burner Conditions

### 1.4.4.1 Gas Line Requirements

A properly installed gas supply system will deliver 7.0  $\pm$ 2.0" w.c. natural gas (11.0  $\pm$ 2.0" w.c. LP) to all appliances connected to the line, operating at full demand.

### 1.4.4.2 Burner Adjustment

The burners must be adjusted to deliver optimum flame. Adjust the burner flame using the following procedure.

- a. Ensure that the gas control valve is in the OFF position. Remove the manifold pressure tap plug and connect an accurate pressure gauge (range of 0-16" w.c. in 0.1" increments) or manometer.
- b. Light the pilot burner (see 1.4.2) for the unit being tested and adjust the thermostat to light the main burners.
- c. The installed pressure gauge reading should be the same,  $\pm$ 0.1", as that marked on the data plate inside the door. If the pressure is correct go to step e, if not, adjust the pressure.
- d. To adjust the pressure, remove the regulator adjustment screw cover. Use a flat tip screwdriver to adjust the screw until the proper pressure is reached. Turning the screw clockwise will increase the pressure, counterclockwise will decrease the pressure.
- e. When the pressure is correct, install the regulator adjustment screw cover.
- f. To remove the pressure gauge, turn gas control valve to OFF. Remove the gauge and install the pressure tap plug.

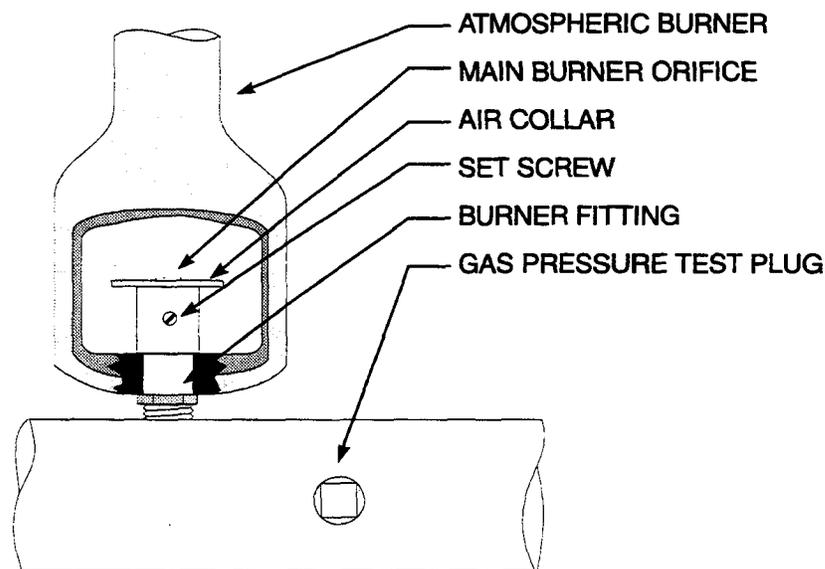


Figure 1-5 Air Collar

- g. Now that the pressure is set for proper operation, set the main burner flame. Unlock the air collars (see Figure 1 -5) by loosening the set screw for the collars. Turn the gas control valve to ON and set the computer to light the main burners.
- h. Adjust the shape and size by raising or lowering the air collars to achieve a soft blue flame with well defined inner cones (see Figure 1-4).
- i. When the flames have been properly adjusted, lock the collars in place with the set screw provided.

## **1.5 INITIAL CLEANING**

When the fryer is shipped, many of its parts are covered with a thin coat of oil for protection. Before the fryer is ready for cooking it must be cleaned. This will remove the oil coating and any foreign matter that may have accumulated during storage and shipment. Perform the cleaning as described below.

- a. Fill the tank with water and add one packet of Pitco fryer cleaner or a mild detergent.
- b. Turn the fryer on and allow the computer to bring the water to a boil automatically. Allow the fryer to heat for 15 minutes.

### **NOTE**

Do not leave the fryer unattended during cleaning. Never let the water level go below the "Min Level" mark on the back of the tank.

- c. Using the fryer cleaning brush, scrub the inside of the fryer to remove protective coating.
- d. When cleaning is complete, turn off the fryer main burners and turn gas valve knob to the PILOT position. Drain the water into a container suitable for hot water and dispose of it.
- e. When the tank has cooled, rinse it thoroughly with cool water. Continue to rinse the tank until the cleaner has been rinsed, thoroughly from the tank.
- f. Using a clean dry cloth, wipe out all of the water. Be very thorough removing the water, | because any residual water will cause hot oil to splatter out of the fryer.

### **CAUTION**

Mild steel tanks must be wiped down/coated with oil to keep the tank from rusting.

- g. Now that the tank is clean, you are ready to fill and operate the fryer. Refer to 2.1 for instructions on adding shortening to the fryer.

## CHAPTER 2: OPERATING INSTRUCTIONS

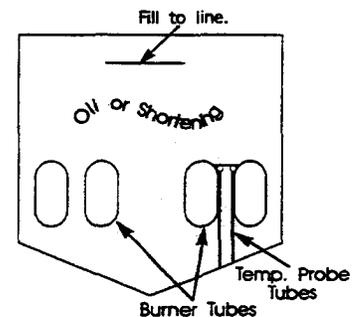
This chapter describes how to operate your fryer to obtain the best performance. Included in this chapter are filling, operating, and cleaning instructions for gas fryers.

### 2.1 FILLING THE FRYER

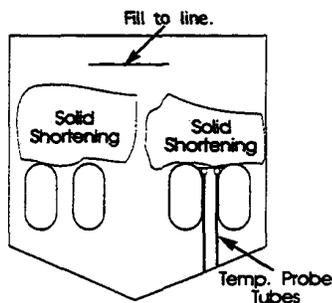
Both liquid and solid shortening can be used in the fryer, but liquid is preferred. If solid shortening is used, it is recommended that you use the solid melt cycle feature built into the computer to melt the shortening.

#### 2.1.1 Filling the Fryer With Liquid Shortening

- a. Make sure the drain valve is completely closed.
- b. Fill the fryer with oil to the "Oil Level" line marked on the back of the tank.



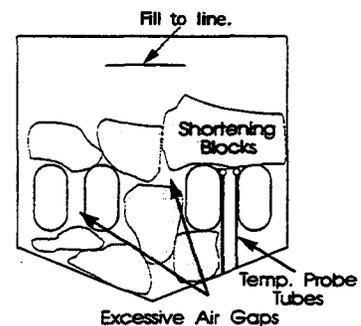
#### 2.1.2 Filling the Fryer With Solid Shortening



### WARNING

Never melt blocks of solid shortening on top of the burner tubes. This will cause a fire, and will void your warranty.

- a. Make sure the drain valve is completely closed.
- b. Remove the screen covering the tubes.
- c. Cut the shortening into cubes no larger than 1". ALWAYS pack the shortening below, between, and on top of the burner tubes. DO NOT leave any large air gaps. Use care when packing the solid shortening in the tank. DO NOT bend or break the temperature sensor probes. If these are damaged the fryer will not function properly.
- d. Once the fryer is packed with shortening, the shortening must be melted. Shortening melt cycles are controlled completely by the Intellifry computer. Refer to Fryer Operating procedures for computer operation.



## 2.2 FRYER OPERATING INSTRUCTIONS

Always observe the safety precautions described in the front of this manual before operating this fryer. Because fryer operation is controlled by the computer, start-up and operation is very easy. The instructions below describe how to operate the fryer to perform daily fryer operation. Detailed programming instructions are provided later in this chapter in section 2.3. Figure 2-1 illustrates the Intellifry computer.

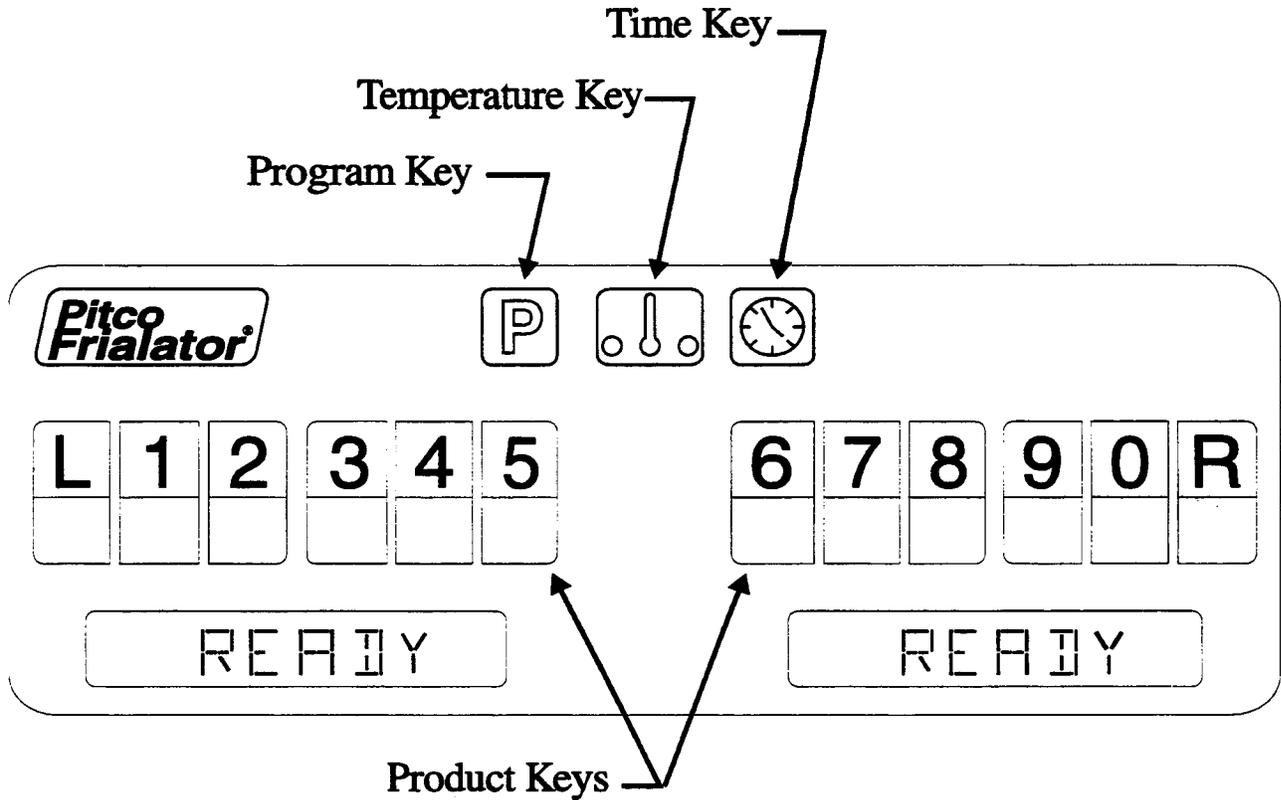


Figure 2-1 Intellifry Computer

### 2.2.1 Fryer Start-up

Start up the fryer as described in Chapter 1. The computer will come on and display the status of the fryer. If the shortening temperature is below the set point of the melt cycle the computer will go into one of the preset melt cycles. When the main burners are on the LEDs in the temperature key will light. If the fryer is operating in the melt cycle, the temperature key lights will cycle on and off at the preset times. Below is a sequence of displays that will occur when the fryer is started up with the shortening at room temperature:

1. Turn the fryer on. If a melt cycle is programmed to run, the display will show Melt L or Melt S. Refer to the programming section 2.3 for selection details.

Melt L indicates that you have the liquid melt cycle programmed to run. Although you do not need to "melt" liquid shortening, it is a very good idea to heat up all shortening slowly. This will prolong the life of the shortening and lessen the thermal stress on the fryer tank.

Melt S indicates that the solid shortening melt cycle has been programmed to run. This program will melt solid shortening and bring the liquefied shortening up to cooking temperature without scorching the shortening. Refer to the fryer operation manual for solid shortening loading information.

2. When the shortening is above the melt range but below the cooking range the display will read "Heating". This indicates that the main burners are on steady and heating the shortening.



3. Once the shortening has reached the cook temperature (Setpoint) the main burners will turn off and the display will indicate Ready. Ready will be displayed, even when the main burners are on, as long as the fryer remains in the cooking temperature range.



\* OVER TEMPERATURE - If the temperature of the shortening exceeds the cooking setpoint by 40°F the display will flash "Hi-Temp" and the alarm will be sounding. Shut down the fryer and allow it to cool down.

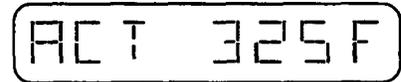
### 2.2.2 Displaying Temperatures

There are two temperatures that the user can select from the computer. Actual and Set. The actual temperature is the temperature of the shortening and the set temperature is the setpoint that the fryer will cook at. To display these temperatures perform the following:

#### 2.2.2.1 Shortening Actual Temperature:

1. Press and release the "Temperature" key  once to display the temperature of the shortening.

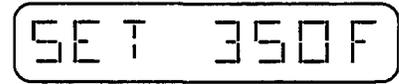
2. The display will show the shortening temperature for three seconds then return to displaying the fryer status.



3. To continuously display the shortening temperature, press and hold the temperature key. Computers controlling a single fryer will display the shortening temperature as long as the key is pressed.

### 2.2.2.2 Cooking Setpoint:

To view the cooking setpoint of the fryer press the Temperature key twice within one second. The display will change to show the cooking setpoint for the fryer. The display will hold the setpoint for three seconds then return to displaying the fryer status.



### 2.2.3 Display Product Times

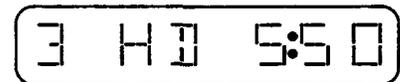
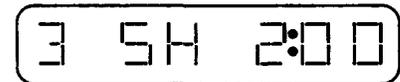
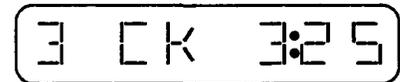
Each product button has three times associated with it, cook, shake, and hold. Cook time is the total time the product is to be cooked. The shake time is the length of time before the end of the cook cycle that the beeper will sound to indicate you should shake the product. After the product has finished cooking it can be held for a certain amount of time before it should be replaced with fresh product. This time is called the hold time. To view the times associated with each product key perform the following:

#### NOTE

You can only perform this procedure when the product key is not in a cook or hold cycle.

#### 2.2.3.1 Viewing Product Times:

1. View the product times by first pressing the Time key and then the product key you want to check.
2. The display will change to show the time for each of the three changeable times. The illustrations show how the product times will be displayed. Each time setting will be displayed for three seconds before changing to the next one. After the last time is displayed for three seconds the display will return to fryer status display.

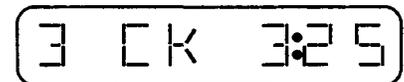


- CK Indicates Cook Time (Product key LED blinks rapidly during cook cycle)
- SH Indicates Shake Time
- HD Indicates Hold Time

### 2.2.4 Cooking Product

Cooking with the computer is very easy. Select the product button to use and press it. The computer does the rest. The discussion below shows each step in the cooking process.

1. Press the product key for the product being cooked. The product key LED will blink rapidly and the display will show the product cook time and start counting down.

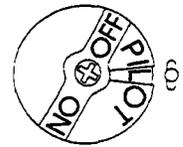


2. When the shake time is reached the buzzer will sound and the display will display shake. The buzzer (beeps slowly) will sound for a short time and then cancel itself.
3. The product will continue to cook until the cook time has run out. When the cook time is up the buzzer will sound again (rapid beeping) and the product key LED will blink slower to indicate that the product is finished cooking. Press the product key to silence the buzzer and lift the product out of the shortening.
4. The product key LED blinks slowly during the hold time and the display will show the remaining hold time.
5. When the Hold time is up the buzzer will sound again (beep very slowly). After a short time the product key light will go out and the buzzer will stop.

### 2.2.5 Shutdown

There are two shutdown modes of fryer operation, STANDBY and COMPLETE. The standby mode removes the ability for the fryer's main burners to cycle. Complete shutdown turns off the gas supply to the fryer. Shut down the fryer by:

**STANDBY** Turn fryer switch to OFF. The computer display will indicate OFF. Turn the gas valve knob clockwise to the PILOT position. The fryer is now in Standby and can remain this way for only brief periods of time. NEVER leave the cooker in standby overnight.



**COMPLETE** To completely shut down the cooker, turn the gas valve knob clockwise to the PILOT position. Depress the knob slightly and turn it to the OFF position. The fryer is now completely shut down and can be cleaned and filtered.



### 2.2.4 Power Failure

#### NOTE

No Attempts should be made to operate the fryer during power outages.

If power is removed from the fryer for any reason during operation, the unit will shutdown. Wait five minutes after power is restored before restarting the fryer. This will give any gas fumes in the burner time to dissipate. To restart the unit, follow the Start-up procedure as you normally would.

## 2.3 PROGRAMMING THE INTELLIFRY COMPUTER

There are three levels of programming for the new computer, user, service, and factory. Each level allows for different degrees of computer control. Only the user level of programming is discussed in detail in this section. The service and factory levels of programming deal with the configuration of the computer and require an additional password to enter. The user programming section is broken down into two sections: basic and infrequent.

### 2.3.1 Basic Programming

There are only two items that will be changed on a routine basis, shortening temperature and product times. If a password is programmed you must enter the password to change the program in the computer.

#### 2.3.1.1 Programming Shortening Temperature

##### NOTE

Skip step one if you are still in the program mode from a previous procedure. By remaining in the program mode you will not need to reenter the password.

1. Press the Program key . If no password is programmed the display will indicate PROGRAM. If a password is required the display will change to PASS\_ \_ \_ indicating that you must enter the password. Enter the password to access the user level programming mode.
2. Press the Temperature key . The current set temperature will be displayed. If the current temperature setting is correct press the Program key  return to the programming mode.
3. Enter the new shortening temperature by pressing the product number keys for the desired temperature. For instance if you want the new temperature to be 350°F, you would press the 3, 5, and 0 product keys.
4. The new temperature will be shown in the display. To exit the temperature program and save the new setting press the Program key . You will still be in the user programming mode.



You can go to the next item to be changed or exit the programming mode. To exit the programming mode press the Program key again.

### 2.3.1.2 Programming Product Times

#### NOTE

Skip step one if you are still in the program mode from a previous procedure. By remaining in the program mode you will not need to reenter the password.

1. Press the Program key. The display will change to PASS\_ \_ \_ indicating that you must enter the password. Enter the password to access the user level programming mode.

#### NOTE

You can review the set times without making changes by pressing the time key  advance through the settings after a product key is selected. You can return to the programming mode any time by pressing the Program key .

2. Press the Time key . All of the product key LEDs will light up. Press the product key that is to be changed and the display will show the cook time for the product. Enter the new cook time using the product number keys. A maximum of 99:99 can be entered. After entering the desired time press the Time key  to accept the new setting. To set the shake time go to step 3. To exit the time set program press the Program key  to return to the program mode.
3. Press the Time key  to set the shake time. The display will change to show the current shake time. Enter the new shake time using the product number keys. A maximum of 99:99 can be entered. After entering the desired time press the Time key  to accept the new setting. To set the hold time go to step 4. To exit the time set program press the Program key  to return to the program mode.
4. Press the Time key  to set the hold time. The display will change to show the current hold time. Enter the new hold time using the product number keys. A maximum of 99:99 can be entered. After entering the desired time press the Time key  to accept the new setting. When the Time key  is pressed you will be returned to the  beginning of the time set program. To set another product key repeat steps 1 through 4. To exit the time set program press the Program key  to return to the program mode.

## 2.3.2 Low Level Programming

In addition to the basic programs there are a number of low level programs. These functions are used to set the features of the computer that do not need to be changed often. These functions are:

- Temperature System °C or °F
- Password
- Volume
- Language
- Melt Cycle Setting
- Recovery Test
- Computer Control Mode

To enter the lower level programming level and change the desired function, use the procedure for the function to be changed.

### 2.3.2.1 Temperature display

To toggle between °C and °F use the following procedure:

1. Press the Program key  and enter the password (if a password is programmed). If you are still in the low level programming mode from a previous procedure you will not need to enter the password.
2. Press the zero (0) product key. The display will change to show "SELECT".
3. Next press the one (1) product key to enter the temperature program. The display will indicate the current temperature units "DEGREE F" (DEGREE C).
4. To change the temperature units press the zero (0) product key. The display will alternate between "DEGREE F" and "DEGREE C" each time the zero (0) key is pressed.
5. To exit the temperature display setting program press the Program key  to return to the program mode. To exit programming mode press the Program key  again.

### 2.3.2.2 Password

To set a new password or remove the password follow the procedure below:

1. Press the Program key  and enter the password (if a password is programmed). If you are still in the low level programming mode from a previous procedure you will not need to enter the password.

2. Press the zero (0) product key. The display will change to show "SELECT".
3. Next press the two (2) product key. The display will indicate "SET PASS".
4. To turn the password requirement on or off press the zero (0) product. When the display indicates "NO PASS" a password is not required to enter the program mode. A display of "PASS RERQ" indicates that a password is required to enter the programming mode.
5. To enter a new password (or display the current password), press the Program key  the display will change to display the current password "PASS#####" where the current password would display in the place of the #####.
6. While the "PASS#####" is being displayed you can change the password. Use the key pad to enter any four numbers. After the new password has been entered (or to exit viewing the current password) press the program key  to return to the program mode.
7. To exit the programming mode press the program key  in.

### 2.3.2.3 Beeper Volume

To set beeper volume, follow the procedure below:

1. Press the program key  and enter the password (if a password is programmed). If you are still in the low level programming mode from a previous procedure you will not need to enter the password.
2. Press the zero (0) product key. The display will change to show "SELECT".
3. Next press the three (3) product key. The display will change to indicate "VOLUME #". The # will be replaced with the current setting for the beeper. There are three settings for beeper volume, one (1) being the softest and three (3) the loudest.
4. To toggle through the beeper volumes press the zero (0) product key. Each of the volume settings will be displayed as the zero (0) key is pressed and the beeper will sound to provide an example the volume.
5. After selecting the desired volume, (or to exit viewing the current volume setting) press the program key  to return to the program mode.
5. To exit the programming mode press the program key  gain.

### 2.3.2.4 Languages

To set the language that will be displayed follow the procedure below:

1. Press the program key  and enter the password (if a password is programmed). If you are still in the low level programming mode from a previous procedure you will not need to enter the password.
2. Press the zero (0) product key. The display will change to show "SELECT".
3. Next press the four (4) product key to enter the language program. The display will change to indicate "ENGLISH" or the current language.
4. To toggle through the available language settings press the zero (0) product key.
5. To exit the language setting program press the program key . To exit the low level programming menu press the program key  gain.

### 2.3.2.5 Melt Cycle

To select the melt cycle desired follow the procedure below:

1. Press the program key  and enter the password (if a password is programmed). If you are still in the low level programming mode from a previous procedure you will not need to enter the password.
2. Press the zero (0) product key. The display will change to show "SELECT".
3. Next press the five (5) product key to enter the melt cycle program. The display will change to indicate "SOLID" or the current melt setting.
4. To toggle through the three available melt cycle settings press the zero (0) product key. Each of the settings (NO MELT, LIQUID, or SOLID) will be displayed as the zero (0) key is pressed.
5. After selecting the desired melt cycle, (or to exit viewing the current setting) press the program key  to return to the program mode.
6. To exit the programming mode press the program key  gain.

### 2.3.2.6 Recovery Test

To view the recovery test data follow the procedure below:

1. Press the program key  and enter the password (if a password is programmed). If you are still in the low level programming mode from a previous procedure you will not need to enter the password.
2. Press the zero (0) product key. The display will change to show "SELECT".
3. Next press the six (6) product key to enter the recovery test program. The display will change to indicate "RECOVERY".
4. To display the recovery test data press the six (6) key again. The display will change to display the recovery test data (F####L####).
5. The display indicates the time it took the fryer to heat up from 250°F to 300°F at the factory and the last time the recovery test was performed. The F#### portion of the display indicates the time in seconds that the fryer took to heat up at the factory. The L#### indicates the heat up time in seconds the fryer took the last time the test was performed.
6. After viewing the recovery test data press the program key  to return to the program mode.
7. To exit the programming mode press the program key  again.

### 2.3.2.7 Computer Control Mode

The computer can be switched from control mode to timer mode. In timer mode the computer does not control the fryer. To change the computer mode from control to timer follow the procedure below:

1. Press the program key  and enter the password (if a password is programmed). If you are still in the low level programming mode from a previous procedure you will not need to enter the password.
2. Press the zero (0) product key. The display will change to show "SELECT".
3. Next press the seven (7) product key to enter the computer control program. The display will change to indicate "CONTROL" or "TIMER".
4. To toggle between the two modes of control press the zero (0) product key. Each of the settings (CONTROL or TIMER) will be displayed as the zero (0) key is pressed.

5. When "CONTROL" is displayed the computer has complete control of the fryer. When "TIMER" is displayed, the computer acts only as a timer.

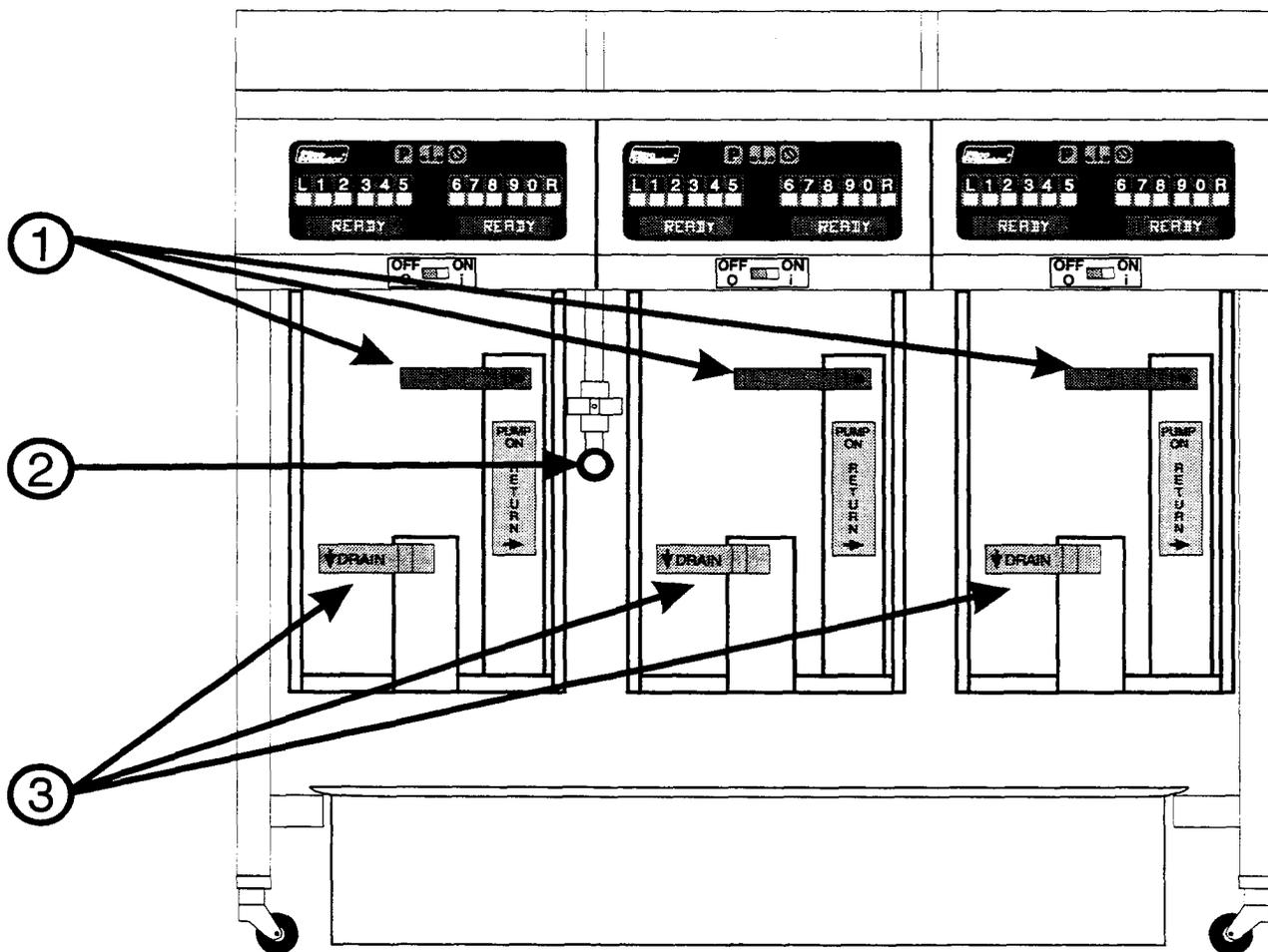
NOTE

When the computer is in TIMER mode the display will indicate "TIMER" during normal operation of the fryer.

5. After selecting the desired control mode, (or to exit viewing the current setting) press the program key  to return to the program mode.
6. To exit the programming mode press the program key  in.

## 2.4 SHORTENING FILTER PROCEDURES

This section describes the procedures used to filter the fryer. Figure 2-2 shows the locations of the components used in the filter process. The filter accessories and tools you should have to perform normal filtering operations are described after Figure 2-2. The illustrations used with the filter procedures are provided to show where the oil is going and which valves are open. Frequent filtering of your shortening will prolong the shortening's usable life. Daily shortening filtering is strongly recommended.



**NOTE**  
See Maintenance Section for Filter Operational Information.

Figure 2-2 Fryer Illustrating Filter Components

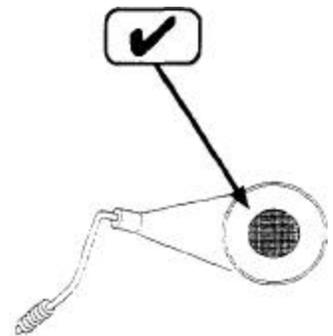
- (1) **Return Valve(s) RED** - When open, with the filter pump on, allows the shortening to return to the fryer tank.
- (2) **Unit Drain Connection YELLOW** - Quick disconnect and valve for optional flush hose.
- (3) **Drain Valve(s) GREEN** - Drain the oil from the fryer tanks to the filter pan.
- (4) **Oil Return Connection** - Quick disconnect for return oil from the filter unit to the fryer. Simply push down on fitting to connect. Lift up lower black collar to disconnect.
- (5) **Filter Media** - Long lasting filter media. Filter paper envelopes.
- (6) **Filter Crumb Scoop** - Short handle wide pan design, this scoop is used to remove the debris from the filter pan.
- (7) **Cleaner** - Used during fryer boil-out cleaning.
- (8) **Drain Clean Out Rod** - Long handled design, this tool is used to clean out the drain openings.
- (9) **Precoat Filter Aid** - Coarse Diatomaceous earth used to enhance the filter ability of the filter media.
- (10) **Cleaning Brush** - This long handled stiff bristle brush is used to brush down the crumbs inside the fryer tank during shortening filtering.
- (11) **Fryer Crumb Scoop** - A specially designed long handle scoop for scooping out the fryer. The scoop section is narrow enough to fit down between the fryer burner tubes.
- (12) **Precoat Measuring Cup** - Marked in ounces for correctly measuring precoat to be added to the shortening prior to filtering.

**WARNING**

At operating temperature the shortening temperature will be greater than 300F. Extreme care should be used when filtering operating temperature shortening to avoid personal injury.

### 2.4.1 General Filter Hints

1. Ensure that all oil in the filter pan is returned before it cools and hardens. This is very important if you are using solid shortening.
2. Always use **Pitco Precoat®** for fastest filtrations, maximum labor saving, and cleanest/clearest shortening possible. Impaired filter performance will result without the use of a filter aid.
3. The longevity of your oil is related to how clean you keep it. With a Pitco built in system, it is easy to do a quick drain/refill anytime. By removing suspended particles often, it prevents them from burning.
4. When the time it takes to refill the fryer after filtering exceeds 3:00 minutes per tank, scrape the filter media. If scraping does not bring the refill time back down to less than 3:00 minutes, thoroughly clean the filter media and replace as necessary.
5. **The filter pump is protected from clogging by a special screen in the pickup tub. Clean this screen thoroughly each time the filter is cleaned or new filter media is installed (see Chapter 3).**
6. If you have filter system problems refer to section 3.7.3.
7. Always check to ensure that the oil return line is connected securely before filtering.



## 2.4.2 Filter Procedures

Numbers in parenthesis refer to Figures 2-1 and associated text.

### NOTE

- When working with hot oil ALWAYS wear oil-proof, insulated gloves.

### NEVER

- Run the filter system without a filter bag/paper.
  - Empty the oil from the fryer before turning OFF the fryer burners.
  - Store the UFM Filter Unit anywhere other than in the fryer filter cavity.
- a. Disconnect the filter pan, slide it out. Scrape previously filtered residue off the filter media. Examine the filter media for clogged or torn areas. Refer to 3.1.1 for filter media replacement instructions. Reinstall the pan.
  - b. Turn the fryer that is to be filtered OFF (See Standby Shutdown). Remove the baskets from the fryer tank(s). Use the clean out rod (8) to lift out the tube screens. If there are excess crumbs in the fryer tank, remove them with the crumb scoop(11).
  - c. If you have replaced or scraped the filter media, stir in Precoat Filter Aid (9) to the oil in fryer (2 packets per fry tank being filtered). After cleaning out the excess debris with the fryer scoop (11) sprinkle the powder into the first fry tank to be filtered and stir the powder into the oil.
  - d. Check the drain spout to ensure that it is over the filter cover opening. Adjust the cover or slide the filter pan as necessary to line up the drain and the cover opening.
  - e. Slowly open the green handled drain valve (2) for the tank being filtered. If necessary use the clean-out rod (8) to clear the crumbs from the drain. Use the long handled brush (10) to clean the sides of the tank as the oil drains.

### NOTE

This filter pan is large enough to filter all three tanks at once.

- f. When the tank is empty, close the green handled drain valve. Open the red handled return valve (1) to the tank you are filtering. This will start the pump and return the oil to the bottom of the fry tank. As the tank fills, brush the inside of the tank to remove crumbs.
- g. When bubbles are seen coming out of the oil return spout, close the red handled valve to turn the pump off. Open the green handled drain valve (2) and allow the tank to drain again. Repeat steps b through d until the tank is clean.

- h. When the tank is clean, drain the shortening by opening the green handled drain valve (2). With the drain valve open, open the red handled return valve (1) and allow the shortening to circulate for approximately 2 minutes. This ensures that all impurities are removed from the shortening.
- i. Close the red handled return valve to turn off the pump. Close the green handled drain valve and replace the tube screen in the fry tank.
- j. Open the red handled return valve (1) and turn on the pump to refill the fryer with the filtered oil. Continue to run the filter pump until bubbles come out the oil return opening. Close the red handled valve to turn the pump off. If necessary add more oil to the tank to return the oil level to the fill mark. The fryer is now ready for use.

### 2.4.3 Draining a Tank

The filter system is also used to drain the fryers. You will need the Shortening Shuttle® that came with the fryer to perform this procedure. This procedure can be used in conjunction with the filter procedure (2.6.2). Instead of performing step (j) of the filter procedure perform the procedures below.

**WARNING**

The Shortening Shuttle® only hold enough oil to accommodate one fry tank at a time.

- a. Move the Shortening Shuttle® to the front of the fryer close enough to connect the hose to the drain outlet.
- b. Connect the male quick disconnect fitting of the Shortening Shuttle® to the female quick disconnect of the fryer. There is a yellow handled valve associated with the fryer drain quick disconnect. Ensure that the hose is firmly connect to the fryer.
- c. Open the green handled drain valve for the tank to be drained. The oil will drain to the filter pan. When the fry tank is empty close the green handled drain valve.
- d. Open the yellow handled discharge valve. This will start the pump and pump the oil from the filter pan to the Shortening Shuttle®.
- e. When the filter pan has been pumped out, close the yellow handled discharge valve. Disconnect the Shortening Shuttle® hose from the fryer. Fill the fry tank with fresh oil and restart the fryer.

## CHAPTER 3: OWNER MAINTENANCE AND ADJUSTMENTS

This chapter provides you with the information and procedures necessary to perform maintenance, adjustments, and service on the Wendy's W 14S-3 WF fryer. If after performing maintenance on your fryer it does not perform properly, contact your authorized service center.

### WARNING

The power supply must be disconnected before servicing or cleaning the appliance.

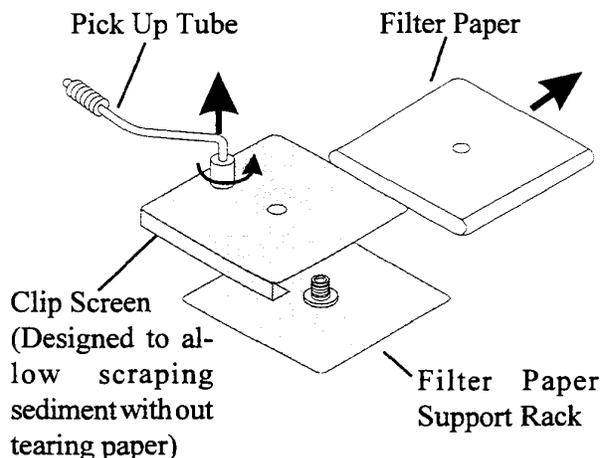
### 3.1 FILTER MEDIA REPLACEMENT

The filter module stores neatly under the fryer when not in use. The unit is very easy to use and allows for quick installation and filtration, even under the busiest conditions. Follow the procedures below to change the filter media.

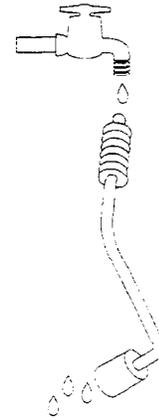
### WARNING

At operating temperature, the shortening in the fryer may be hotter than 375°F (190°C). This hot, melted shortening will cause severe burns. Do not let the hot shortening touch your skin or clothing. Always wear insulated oil-proof gloves when working on the filter system. It will be easier and safer if the filter assembly has cooled to room temperature before handling any filter parts.

- a. To remove the filter media, disconnect the filter tube pick-up from the fryer. This is done by unscrewing the pick-up tube connector from the fryer connector.
- b. Grasp the filter pan handle and gently pull the assembly toward the front of the fryer. When the pan is clear of the fryer, remove the filter pan cover.
- c. Discard any debris that may be in the crumb catch.
- d. Lift up on the filter paper assembly and remove from the filter pan. Unscrew the suction tube from the filter paper support rack. Remove the clip screen and slide the filter paper support rack assembly out of the filter bag.

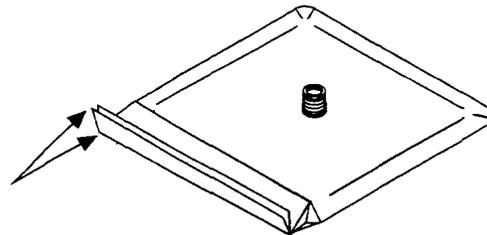


- e. All of the filter pick up assembly parts can be washed in a dish washer or a pot sink. Flush out the suction tube assembly with hot water. The pick up tube screen keeps grit and solid material from binding the pump. After flushing the pick up tube screen check to ensure that the screen is free of debris. After cleaning, it is very important to thoroughly dry the parts before re-assembling. Water and oil do not mix. Water in hot oil will cause the oil to splatter.

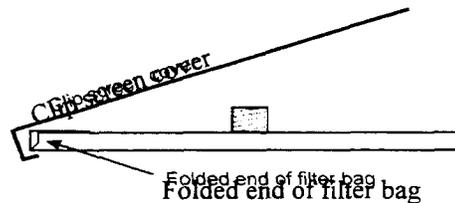


- f. Start re-assembling the filter pick up assembly by sliding the new filter paper on to the filter paper support rack. Ensure that the hole in the filter paper goes over the pick up tube assembly threaded connector.

- g. Fold the open end of the bag in two folds. The first fold should be approximately 1 inch from the end and the second should be over the edge of the rack assembly. Approx. One Inch



- h. Slide the clip screen over the folded end of the filter paper. Ensure the opening of the clip screen goes over the pick up tube connection. Screw the suction tube assembly onto the threaded connection.



- i. Slide the filter pan assembly back into the filter unit and attach the pick up tube connector to the filter unit connection.

## 3.2 FRYER CLEANING

### 3.2.1 Daily

Your fryer should be clean every day to maintain peak performance and appearance. Perform the procedures below every day.

- a. Wipe up any shortening that spills onto the exterior of the fryer. This should be done with a clean soft cloth while the oil is still warm.
- b. Use warm water with a mild detergent to clean surfaces. Be careful not to get water in the shortening and to remove any detergent from the fry tank.
- c. Use a nonabrasive scouring powder or pad to clean stains if necessary.

### 3.2.2 Weekly (Boilout)

The fryer should be thoroughly cleaned once a week. This cleaning should include a complete draining of the fryer and a boil out. This would also be a good time to check the filter media for damage.

#### **CAUTION**

Completely shut down the fryer when the oil is to be replaced by water, and when the heating portion of the cleaning is complete. This will prevent the heating system from coming on during the oil draining and water filling procedure.

- a. Drain the oil from the fryer using the fryer drain procedures in chapter 2. When the oil has been pumped into the oil shuttle, disconnect the filter pan and remove from the fryer.

#### **WARNING**

Do not use the filter pan to drain cleaning water into. The only way to remove liquid from the filter pan is via the filter pump. Do not use the filter pump to pump water. Water can remain in the filter lines and mix with hot oil during filter procedures creating a problem.

- b. Remove tube rack/mesh tube screens and remove any large debris from the bottom of the fry tank. Close the drain valve and fill the fry tank with water and noncaustic detergent. For best results use Pitco Fryer Cleaner part number P6071397.
- c. Place a large pan under the drain. This pan will be used to catch the cleaning water. The pan must be of sufficient size to hold all of the water.

- d. Restart your fryer as described in 2.3. When the water temperature reaches 212°F the computer will automatically go into Boil mode. To get the fryer out of BOIL mode you must turn the fryer power off.
- e. After the water has reached a slow boil, turn the fryer off. Allow the fryer to soak for 20 minutes to soften shortening deposits and carbon. Use fryer brush to remove any residue from tank, heating tubes, and side walls. Perform the daily cleaning procedure described in section 2.5.
- f. Drain the water into the pan by slowly opening the green handled drain valve.
- g. Wipe the tank dry with clean cloth wipes. Close the drain valve and remove the large container.
- h. Refer to section 2.1 to refill the fryer.

### **3.3 FLUE AND BAFFLE INSPECTION**

It is recommended that once every six months, with the cooker cooled down, you examine the flue area. Check for corrosion or blockage of the flue. Ensure that the cooker is shutdown and do not turn it on during the examination. Examination of the flue area during cooking may cause bodily injury.

### **3.4 SERVICE**

This chapter provides the qualified technician with the replacement and troubleshooting procedures necessary to service the Pitco fryer.

#### **3.4.1 Replacement Procedures**

These procedures are provided to the qualified technician as a guide to removal and replacement of various fryer components. If a test is required to verify component operation after installation, it will be referenced.

#### **WARNING**

To prevent burns, always ensure the fryer is completely SHUT DOWN and COOLED down before working on the fryer. Do not break any fryer gas connections while the unit is connected to a gas supply line.

#### **WARNING**

The power supply must be disconnected before servicing or cleaning the appliance.

### **3.4.1.1 Main Burner Removal and Replacement**

- a. Loosen the set screw in the base of the burner casing.
- b. Unscrew and remove the two hex head screws at the top of the burner.
- c. Loosen the set screw on the air collar. Lift the burner and air collar up to clear the top of the burner fitting. Remove the burner from the fryer.
- d. To re-install the burner, reverse the procedure.

### **3.4.1.2 Changing the Main Burner Orifice**

- a. Unscrew the orifice with a 3/8" wrench and remove the orifice.
- b. Insert the new orifice and tighten with the 3/8" wrench. Ensure the orifice is tight enough to prevent gas leakage around the orifice.

### **3.4.1.3 Replacing the Heat Baffles**

- a. Remove the Main Burner as described in 3.4.1.1.
- b. The heat baffles are located inside the heat tubes. They are attached to the rear of the baffle supported by tack welds. Using a chisel, break away the baffle support and remove the old baffles. Be careful not to puncture the heat tubes because this will require complete tank replacement.
- c. Insert the new baffles in the tubes in the original position. The new baffles sit in position and do not require welding.
- d. Install the main burners.

### **3.4.1.4 Pilot Burner Removal and Replacement**

- a. Unscrew the tubing nut from the pilot tubing connection at the gas valve. Disconnect the thermopile from the connection on the gas valve.
- b. Unscrew and remove the two screws that attach the pilot assembly to the fryer tank. Lift the entire pilot assembly out of the fryer.
- c. To replace the pilot assembly, reverse the procedure.

### **3.4.1.5 Pilot Orifice Replacement**

- a. Remove the pilot assembly as described in 3.4.1.4.

- b. Unscrew the tubing nut from the pilot tubing connection at base of the pilot burner. The pilot orifice is located inside the tubing connection.
- c. Remove the orifice and replace with the new orifice. Ensure the orifice is tight enough to prevent gas leakage around the orifice.
- d. Replace the tubing nut in the pilot tubing connection and tighten enough to prevent gas leakage.
- e. Replace the pilot assembly and adjust the pilot flame as described in 1.5.2.

#### **3.4.1.6 Thermopile Replacement**

- a. Remove the pilot assembly as described in 3.4.1.4.
- b. Unscrew and remove the thermopile from the pilot assembly.
- c. Remove from gas valve magnet.
- d. Insert the new thermopile in the pilot assembly.
- e. Replace the pilot assembly and adjust the pilot flame as described in 1.5.2.

#### **3.4.1.7 Limit Control Replacement**

The limit control includes a temperature sensor inside the fryer tank, control unit inside the fryer cabinet, and connecting capillary tubing. The high limit control temperature sensor looks like the thermostat temperature sensor, so ensure you are removing the correct temperature sensor clamp.

#### **CAUTION**

The limit control capillary tubing is very delicate. Be VERY CAREFUL when working with the capillary tubing. If the tubing is kinked or broken the limit control is no longer usable.

- a. Drain the oil from the fryer and remove the heat tube screens.
- b. The limit control probe (heat sensor) is clamped to the heat tube inside the tank. Unscrew and remove the two screws in the probe clamp.
- c. Remove the probe from the clamp and straighten the capillary tubing. Unscrew the small hex nut inside the cabinet at the bottom of the tank for the limit control.
- d. Unscrew the large connector nut from the tank and pull the probe and capillary tubes through the opening.

## **3.5 TROUBLESHOOTING**

This section is provided to aid you in the event of fryer or filter troubles. If these troubleshooting procedures do not correct your problem contact a qualified technician or the factory. The troubleshooting procedures are in a flowchart format.

### **3.5.1 Fryer Troubleshooting**

Refer to this section to correct common problems that may be encountered in equipment operation.

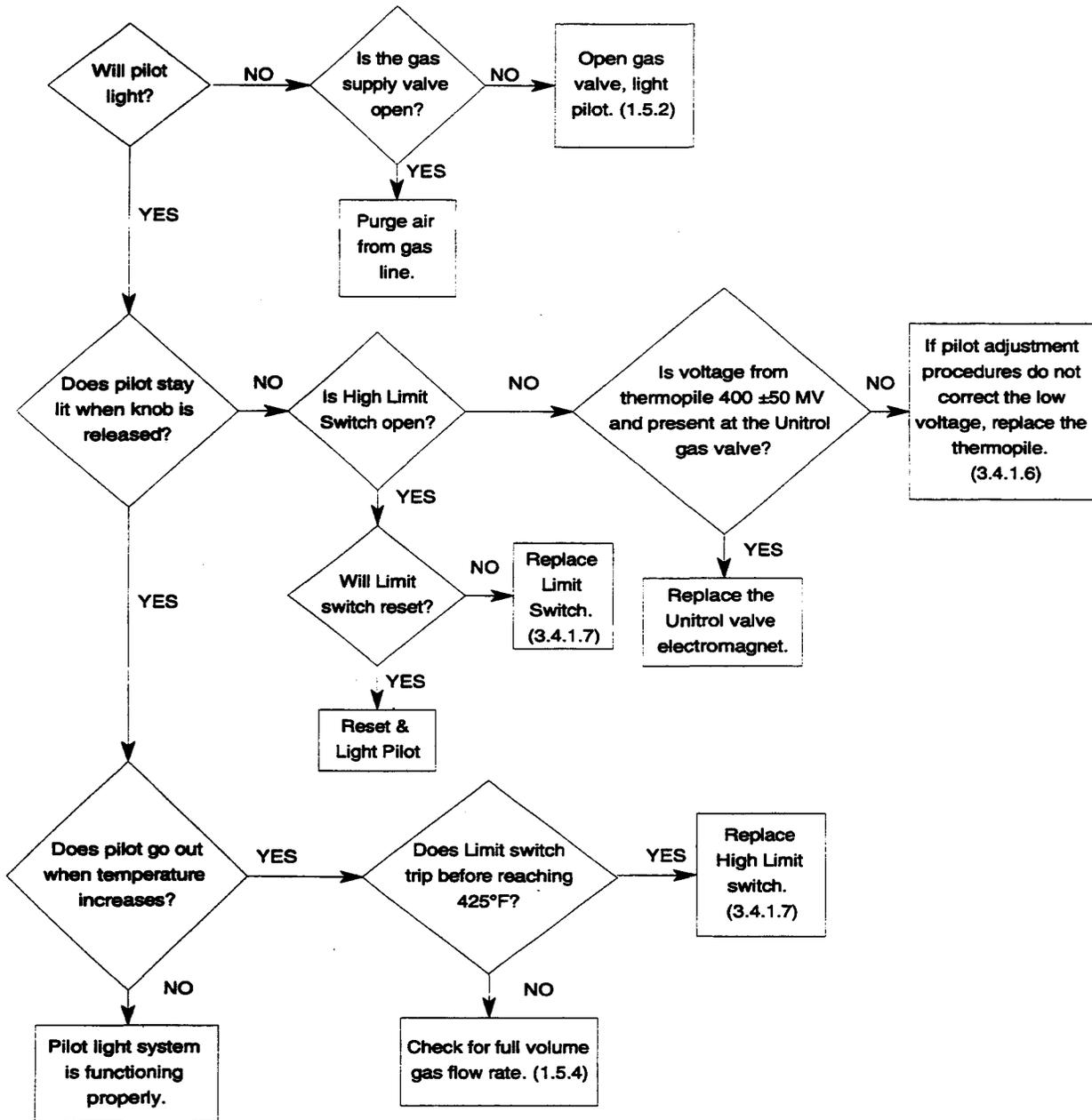
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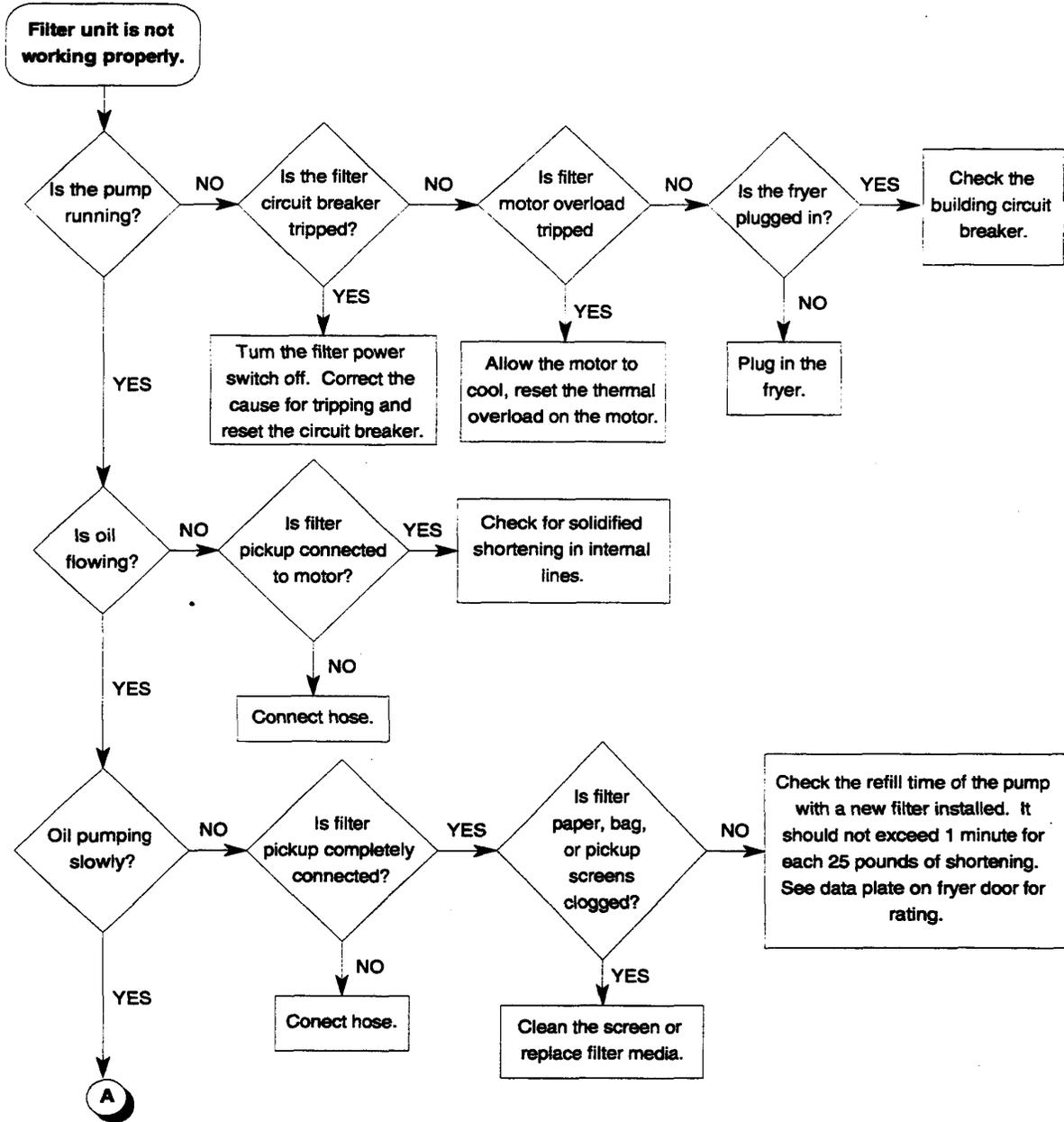
### **3.5.1 Fryer Troubleshooting**

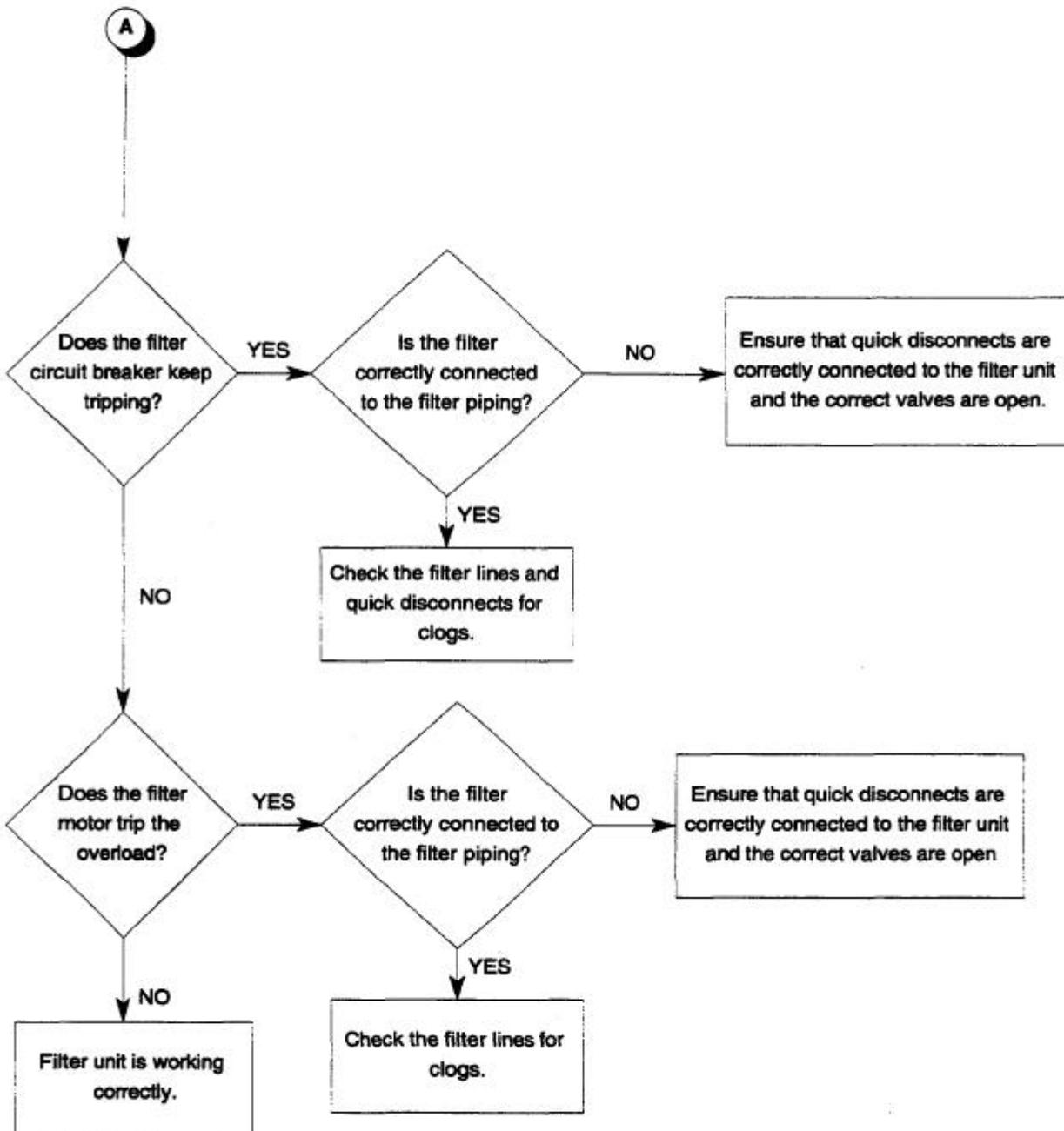
Refer to this section to correct common problems that may be encountered in equipment operation.

### 3.5.2 Pilot Troubleshooting



### 3.5.3 Filter Troubleshooting





## **CHAPTER 4: PARTS**

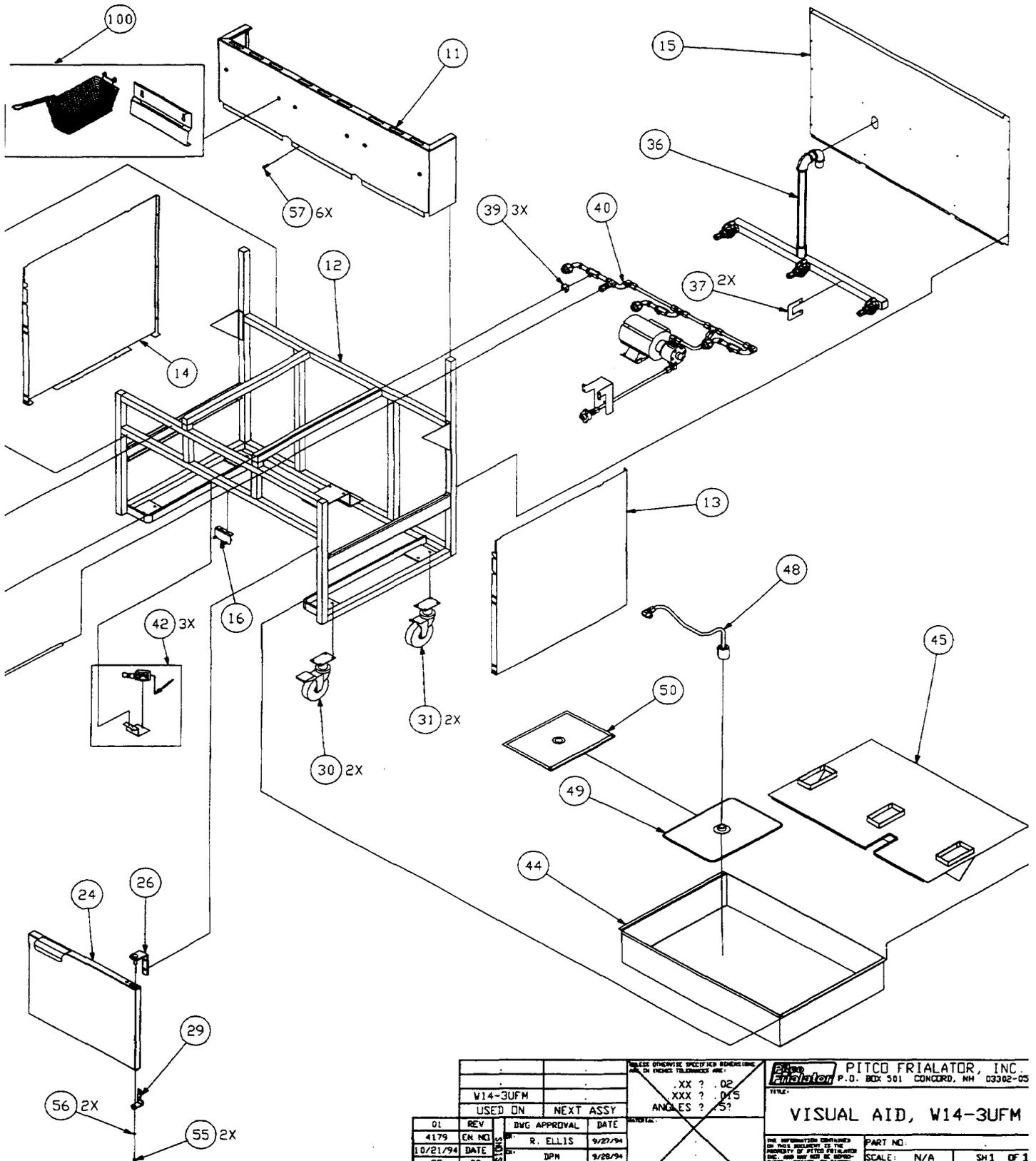
This chapter contains listings of the components used in the Wendy's model W14S-3 WF fryer. These components are listed in two places, with the illustration and in ordered part lists. The illustrations in this chapter are provided to show relative location of component of the fryer. With each illustration there is a table of components in numerical order by illustration number. The illustration has numbered lines pointing to components which are listed in the table.

At the end of this chapter there are alphabetical and numerical listings of all parts used in the fryer. The alphabetical part list is arranged in alphabetical order according to the part name. Each part name also has the Pitco Frialator part number. The numerical list is in Pitco Frialator part number order. A brief description of each component is provided for each part.

Table 4-1 Wendy's Model W14-3UFM Exploded View (Index)

Index Number	Description	Index Number	Description
1	Tank, Weldment W/RR NIP	52	Handle, Valve Weldment
2	Clamp, Probe Temperature	53	Aces, Switch Drain Valve Interlock
3	Clamp, Bulb Limit Pasta	54	PG, Bracket Manifold Sprt 14
4	Tank Fitting, NIP Drain Ext	55	Screw, 10-24 x 1/2 HHC SS
5	Tank, Bracket Spacer Overflow	56	Washer, Flat #10
6	Valve, Ball 1-1/4" Drain Full Port	57	Screw, 10-24 x 1/2 Thumb W/S
7	Tank, Overflow Tubing Weldment	58	Connector, Thermocouple SS
8	Clamp, U-Bolt 1/4-20 x 1-1/8	59	PG, Cir Air, 7,12,12D,14,14C+,14R,18
9	Probe, Thermistor Gas	60	Switch, Rocket SPST W/BK (1-1)
10	FL, Weldment 14 HRPO	61	Handle, Drain Spacer
11	Tank, BK SPLH Weldment	62	Cabinet Bk, Bracket Relief Valve
12	Cabinet, Frame Weldment	63	Entrance Box, Assy Left
13	Cabinet, Side, Right Hand	64	Entrance Box, Assy Middle
14	Cabinet, Side, Left Hand	65	Entrance Box, Assy Right
15	Cabinet, Back, Top	66	Label, Sheet Gas 7,14,18,14R,14C+
16	Cabinet, DR Bumper Assy	67	Label, Overlay Pump Circuit Breaker
17	Front Panel, Rail Bottom	68	Label, Drain Handle
18	Front Panel, Cap End Left Hand	69	Label, Discharge Valve
19	Front Panel, Cap End Right Hand	70	Label, Return Valve Handle
20	Front Panel, Intermediate SPRT Weldment	71	Label, Quick Filter Instruction
21	Front Panel, Bezel Weldment	72	Label, Switch ON-OFF
22	Cabinet, DK Front Weldment	73	Label, A-F
23	Computer, EP 3600 14 Single (TDI)	74	Schem, Label
24	DR, Assy, Right Hand	75	Handle, Valve 24R.18WKS, E147UFM
25	DR, Assy, Left Hand	76	Pin, Clevis 1/4 x 2-1/4
26	Hinge, Pivot Vertical Bracket Top RH	77	Pin Cotter 1/16 x 3/4 ZN
27	Hinge, Pivot Vertical Bracket Bottom LH	78	Grommet 0-19 ID x 1.13 OD x 0.88 GRV
28	Hinge, Pivot Vertical Bracket Top LH	79	Screw, 1/4-20 x 1 HHC SS Full Thread
29	Hinge, Pivot Vertical Bracket Bottom RH	80	Nut, Hex (KEP) 1/4-20 ZN
30	Caster, Swivel, 7" Locking Polyu	81	Electric Assy, Power Cord
31	Caster, Swivel, 7" Nonlocking Polyu	82	Clip, U, Spring Steel 0.10-0.16
32	Burner, Pitco 4"	83	Screw, 10-32 x 1/2 PHN ZN TF
33	PG, Manifold Assy, Nat	84	Box, Electrical 4 x 2-1/8 x 1-7/8
34	PG, Pilot Assy Nat	85	Cover, Box, 4x2
35	PG, Sprt Flush Hose	86	Screw, 1/4-20 x 2-1/4 HHC ZN
36	PG, Sply Gas RR	87	Screw, 1/4-20 x 1/2 HHC SS
37	PG, Brkt Sprt Gas Manifold	88	Screw, 5/16-18 x 3/4 HHC SSBB
38	Filter, Handle Return Assembly	89	Washer, Lock 5/16 ZN (Split)
39	Filter, Bracket Handle Actuator	90	Screw, 10-32 x 1/4 Set SH Cup Pt
40	Filter, PG Return Assy	91	Wrg, Valve 24V GBB Non-EI
41	PG, Out Discharge Assy	92	Nut, Hex (KEP) 10-24 ZN
42	Hi-Limit Switch Assy	93	Screw, 10-24 x 5/8 RDH Phillips SS
43	Gasket, Drain Line (Sleeve)	94	Nutsert 10-24 (AVDEL)
44	Filter, Pan Weldment	95	Label, Overlay P/Matic 14 Clear Prot
45	Filter, Lid Weldment	96	Tank, Shield, Burner Bracket, Heat 14 L
46	Filter, Bracket SW	97	Tank, Shield, Burner, Bracket Heat 14 R
47	Front Panel, Intrmed Sprt Weldment L	98	Label, Caution Yellow
48	Filter, Tube Suction Assy	99	Label, Reset Button Horizontal
49	Filter, Rack Weldment	100	Ship Kit, W1'4-3UFM Wendy's (N/S)
50	Filter, Screen, Clip	101	Filter Envelope 20.5 x 14.344 Center Hole
51	Filter, Air RLF Assy		





W14-3UFM				USED ON		NEXT ASSY	
01	REV	BY	DATE	APP'D	DATE	REVISIONS	
4179	EN	R. ELLIS	9/27/94				
10/21/94	DR	DPH	9/28/94				
	CK	4125	9/27/94				
	APP'D	DPH	9/28/94				

<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:</small> .XX ? .02 XXX ? .015 ANGLES ? 5°		<b>PITCO</b> <b>FRIALATOR</b> <b>INC.</b> P.O. BOX 501 CONCORD, NH 03302-05	
<b>VISUAL AID, W14-3UFM</b>			
<small>THE INFORMATION CONTAINED ON THIS DRAWING IS THE PROPERTY OF PITCO FRIALATOR INC. AND MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF PITCO FRIALATOR INC. CONCORD, NH U.S.A.</small>		PART NO: SCALE: N/A SH 1 OF 1 FILE NO: <b>VA140006 0</b>	

## ALPHABETICAL PART LIST

Part Description	Pitco Frialator Part Number
BRUSH, FRYER CLEANING	PP10056
BURNER, MAIN "A" 4"	P6071050
CASTER, 7" LOCKING	PP10883
CASTER, 7" NON-LOCKING	PP10884
CLAMP, U-BOLT	PP10891
CLEANER, FRYER SAMPLE PACKET	P6071400
COLLAR, AIR - SET SCREW TYPE	A8001001
COMPUTER, EPS 600, 14 SINGLE (TDI)	PP10804
DOOR ASSEMBLY - LH	B2301902
DOOR ASSEMBLY - RH	B2301902
DRAIN VALVE HANDLE	B4000801
FILTER PAN	B6632701
FILTER PAN LID	B6632801
FILTER RACK ASSEMBLY	B6620002
FILTER SCREEN CLIP	B6617002
FILTER TUBE SUCTION ASSEMBLY	B6633801
FLUE HEAT DEFLECTOR 14/14B/14R/P14/PR14/RTG14	A3 519905
FLUE HEAT DEFLECTOR 14/14B/14R/P14/PR14/RTG14 - SS	A3519906
FUSE, 15 AMP, 125V	P5045727
HANGER, BASKET #14/14R/PM14/PR14 C/R	A1100107
HANGER, BASKET #14/14R/PM14/PR14 S/S	A1100108
HI-LIMIT SWITCH ASSEMBLY	B7550401
HIGH LIMIT BULB CLAMP	A1402202
HINGE, DOOR - BOTTOM LEFT	PP10894
HINGE, DOOR - BOTTOM RIGHT	PP10893
HINGE, DOOR - TOP LEFT	PP10895
HINGE, DOOR - TOP RIGHT	PP10896
KNOB, UNITROL	P6071267
MAGNET, DOOR - ALL MODELS	P6071300
PILOT ASSY, W/ HEAT SHIELD	B3302501
PROBE, THERMOSTAT	PP10882
RETURN VALVE HANDLE (RED)	B6634101
ROD, FRYER CLEAN OUT	A3301001
SCOOP, FILTER CRUMB	B7404801
SCOOP, FRYER CRUMB	B7490701
TANK BACKSPLASH	B3312801
TANK BRACKET, OVERFLOW	A3322002
TANK FITTING, DRAIN	A2511501
TANK, STAINLESS STEEL	B3312902
TEMPERATURE PROBE CLAMP	A1402302

## ALPHABETICAL PART LIST

Part Description	Pitco Frialator Part Number
TEMPERATURE PROBE CLAMP	A1402202
VALVE, DRAIN 1-1/4"	P6071785

## NUMERICAL PART LIST

Pitco Frialator Part Number	Part Description
A1100107	HANGER, BASKET #14/14R/PM14/PR14 C/R
A1100108	HANGER, BASKET #14/14R/PM14/PR14 S/S
A1402202	HIGH LIMIT BULB CLAMP
A1402202	TEMPERATURE PROBE CLAMP
A1402302	TEMPERATURE PROBE CLAMP
A2511501	TANK FITTING, DRAIN
A3301001	ROD, FRYER CLEAN OUT
A3322002	TANK BRACKET, OVERFLOW
A3519905	FLUE HEAT DEFLECTOR 14/14B/14R/P14/PR14/RTG14
A3 519906	FLUE HEAT DEFLECTOR 14/14B/14R/P14/PR14/RTG14 - SS
A8001001	COLLAR, AIR - SET SCREW TYPE
B2301902	DOOR ASSEMBLY - LH
B2301902	DOOR ASSEMBLY - RH
B3302501	PILOT ASSY, W/ HEAT SHIELD
B3312801	TANK BACKSPLASH
B3312902	TANK, STAINLESS STEEL
B4000801	DRAIN VALVE HANDLE
B6617002	FILTER SCREEN CLIP
B6620002	FILTER RACK ASSEMBLY
B6632701	FILTER PAN
B6632801	FILTER PAN LID
B6633801	FILTER TUBE SUCTION ASSEMBLY
B6634101	RETURN VALVE HANDLE (RED)
B7404801	SCOOP, FILTER CRUMB
B7490701	SCOOP, FRYER CRUMB
B7550401	HI-LIMIT SWITCH ASSEMBLY
P5045727	FUSE, 15 AMP, 125V
P6071050	BURNER, MAIN "A" 4"
P6071267	KNOB, UNITROL
P6071300	MAGNET, DOOR - ALL MODELS
P6071400	CLEANER, FRYER SAMPLE PACKET
P6071785	VALVE, DRAIN 1-1/4"
PP10056	BRUSH, FRYER CLEANING
PP10804	COMPUTER, EP3600, 14 SINGLE (TDI)
PP10882	PROBE, THERMOSTAT
PP10883	CASTER, 7" LOCKING
PP10884	CASTER, 7" NON-LOCKING
PP10891	CLAMP, U-BOLT
PP10893	HINGE, DOOR - BOTTOM RIGHT
PP10894	HINGE, DOOR - BOTTOM LEFT

## NUMERICAL PART LIST

Pitco Frialator Part Number	Part Description
PP10895	HINGE, DOOR - - TOP LEFT
PP10896	HINGE, DOOR - - TOP RIGHT

**CHAPTER 5: SCHEMATICS**

<b>Schematic Description Number</b>	<b>Schematic</b>
SCHEMATIC, W14S-WF	700177

