



IMPORTANT FOR FUTURE REFERENCE

Please complete this information and retain this manual for the life of the equipment:

Model #: _____

Serial #: _____

Date Purchased: _____

ENGLISH

Installation & Operation Manual



Pizza Hut Fryer

For Electric Fryers Covering
PH-SEF184 Models



TO THE PURCHASER, OWNER AND STORE MANAGER

Please review these warning prior to posting them in a prominent location for reference.

WARNING

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

WARNING

Improper installation, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this appliance.

WARNING

Installation, maintenance and repairs should be performed by a Pitco Authorized Service and Parts (ASAP) company technician or other qualified personnel. Installation, maintenance or repairs by an unauthorized and unqualified personnel will void the warranty.

WARNING

Installation and all connections must be made according to national and local regulations and codes in force.

WARNING

A country approved all pole circuit breaker with a minimum open contact gap of 3mm must be used for proper installation. (CE countries)

WARNING

During the warranty period if a customer elects to use a non-original part or modifies an original part purchased from Pitco and/or its Authorized Service and Parts (ASAP) companies, this warranty will be void. In addition, Pitco and its affiliates will not be liable for any claims, damages or expenses incurred by the customer which arises directly or indirectly, in whole or in part, due to the installation of any modified part and/or received from an unauthorized service center.

WARNING

This appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.2, as applicable.

WARNING

Adequate means must be provided to LIMIT the movement of this appliance without depending on the electrical cord connection. Single appliances equipped with legs must be stabilized by installing anchor straps. All appliances equipped with casters must be stabilized by installing restraining chains.

WARNING

DO NOT alter or remove structural material on the appliance to accommodate placement under a ventilation hood.

WARNING

This appliance is intended for professional use only and should be operated by fully trained and qualified personnel.

WARNING

If the supplied power cord is damaged, it must be replaced by a Pitco Authorized Service and Parts (ASAP) company technician, or a similarly qualified person in order to avoid a hazard.

WARNING

The power supply must be disconnected before servicing, maintaining or cleaning this appliance.

WARNING

The appliance is NOT jet stream approved. DO NOT clean the appliance with a water jet.

WARNING

DO NOT attempt to move this appliance or transfer hot liquids from one container to another when the unit is at operating temperature or filled with hot liquids. Serious personal injury could result if skin comes in contact with the hot surfaces or liquids.

WARNING

DO NOT sit or stand on this appliance. The appliance's front panel, tank, splash back, tank cover, workshelf, drain board is not a step. Serious injury could result from slipping, falling or contact with hot liquids.

WARNING

NEVER use the appliance as a step for cleaning or accessing the ventilation hood. Serious injury could result from slips, trips or from contacting hot liquids.

WARNING

The oil/shortening level should NOT fall below the minimum indicated level line at any time. The use of old shortening can be dangerous as it will have a reduced flash point and be more prone to surge boiling.

WARNING

The contents of the crumb catch and/or filter pan of any filter system must be emptied into a fireproof container at the end of each day. Some food particles can spontaneously combust if left soaking in certain types of oil or shortening.

WARNING

Completely shut the appliance down when shortening/oil is being drained from the appliance. This will prevent the appliance from heating up during the draining and filling process. Serious injury can occur.

WARNING

This appliance is intended for indoor use only.

WARNING

DO NOT operate appliance unless all panels and access covers are attached correctly.

WARNING

It is recommended that this appliance be inspected by a qualified service technician for proper performance and operation on a yearly basis.

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1 INSTALLATION

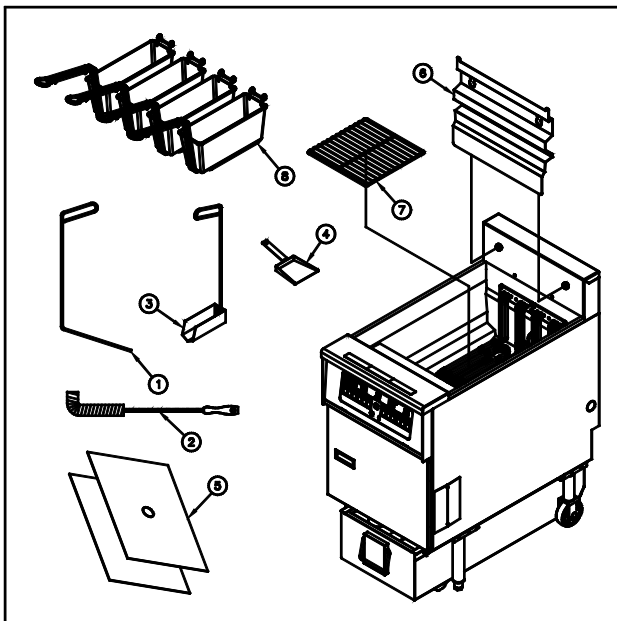
1.1 CHECKING YOUR NEW APPLIANCE

Your new Pitco appliance has been carefully packed into one crate. Every effort has been made to ensure that it is delivered to you in perfect condition. As you unpack your new appliance, 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 appliance to ensure that you have received all the parts to the appliance. If you are missing any parts, contact the dealer from whom the appliance was purchased. As you unpack the appliance and its accessories be careful to keep the weight of the appliance evenly distributed. Refer to the table below to identify which accessories should be included with your appliance.

Locate your Pitco model number and serial number on the inner door of the appliance and the find the date purchased. Write this information on the front cover of this manual for future reference.

If you have completed the above steps that are applicable to the appliance you purchased, the appliance is now ready to be installed. Although it may be possible for you to install and set up your new appliance, it is STRONGLY recommended that you have this done by qualified professionals. A qualified professional will ensure that the installation is safe and meets local building and fire codes.

#	Description	SE184
1	Fry pot drain clean out rod	Standard
2	Fry pot cleaning brush	Standard
3	Fry pot crumb scoop	Standard
4	Filter shovel scoop	Standard
5	Masterfil® Cloth Filter 14" x 22" (2/pack)	Standard
6	Removable tall basket hanger	Standard
7	Element rack	Standard
8	14 Series Triple fry baskets (Qty 4)	Standard



WARNING

DO NOT sit or stand on this appliance. The appliance's front panel, tank, splash back, tank cover, work shelf, drain board is not a step. Serious injury could result from slipping, falling or contact with hot liquids.

1.2 INSTALLATION CLEARANCES

The clearances shown below are for combustible and non-combustible installations and will allow for safe and proper operation of your appliance.

	Combustible Construction Inches (centimeters)	Non Combustible Construction Inches (centimeters)
Back	6.0" (15.24cm)	0.0" (0.0cm)
Sides	6.0" (15.24cm)	0.0" (0.0cm)
Floor	6.0" (15.24cm)	6.0" (15.24cm)

In addition to the above clearances there must also be at least **31.2 inches (79.5cm)** of aisle space in front of the unit.

<p style="text-align: center;">WARNING</p> <p>DO NOT obstruct the flow of ventilation, or air openings around the appliance. Adequate clearance around the appliance is necessary for servicing and proper component ventilation. Ensure that you meet the minimum clearance requirements specified in this manual.</p>	<p style="text-align: center;">WARNING</p> <p>DO NOT install this appliance next to a water cooker. A splashover of water into the hot oil may cause a flash fire.</p>
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CAUTION

To prevent equipment damage and/or personal injury, do not tilt the appliance onto any two of its casters or legs, or pull the appliance by the splash back.

1.3 LEG/CASTER INSTALLATION AND LEVELING

When you receive your appliance it is completely assembled with the possible exception of the legs (or casters). This appliance must be installed with the legs or casters provided; it cannot be curb mounted. Curb mounting will seriously inhibit this appliance's ability to effect proper component ventilation. The legs/casters must be installed before connecting the appliance to the power supply. The legs provide the necessary height to meet sanitation requirements and assure adequate air supply for electrical component ventilation. Use the following procedure.

WARNING

This appliance must be installed with the legs or casters provided by the manufacturer.

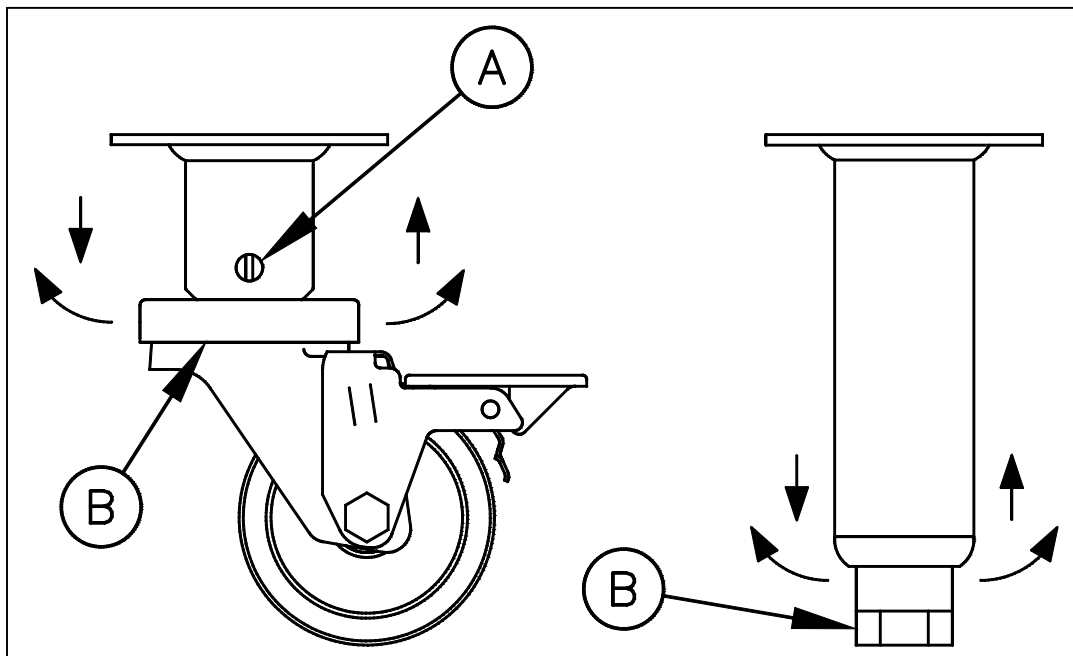
Required tools: 7/16 " wrench and socket and a large pair of water pump pliers.

- 1 Lay the appliance on its back, being careful not to damage the splash back by pulling on it. Protect the outside of the appliance with cardboard or a drop cloth when laying it down.
- 2 Attach each leg/caster with the hex head screws and nuts supplied. Each leg/caster requires four ¼-20 x 5/8" hex head screws and nuts. Insure that all screws are tight.
- 3 Mount the screws from the inside of the appliance with the nut on the outside (bottom) of the appliance. The nuts have lock washers attached to them, therefore it is not necessary to use separate lock washers.

WARNING

DO NOT install legs or casters, or perform leveling procedure when appliance is in operation or full of hot liquids. Serious injury could result.

- 4 When all four legs/casters are securely mounted, stand the unit up, being careful not to put too much weight on any one leg. Adjust the height and level the appliance by adjusting the leveling device (B) with water pump pliers. On casters, loosen 2 screws (A) before leveling, make your height adjustments, then retighten.




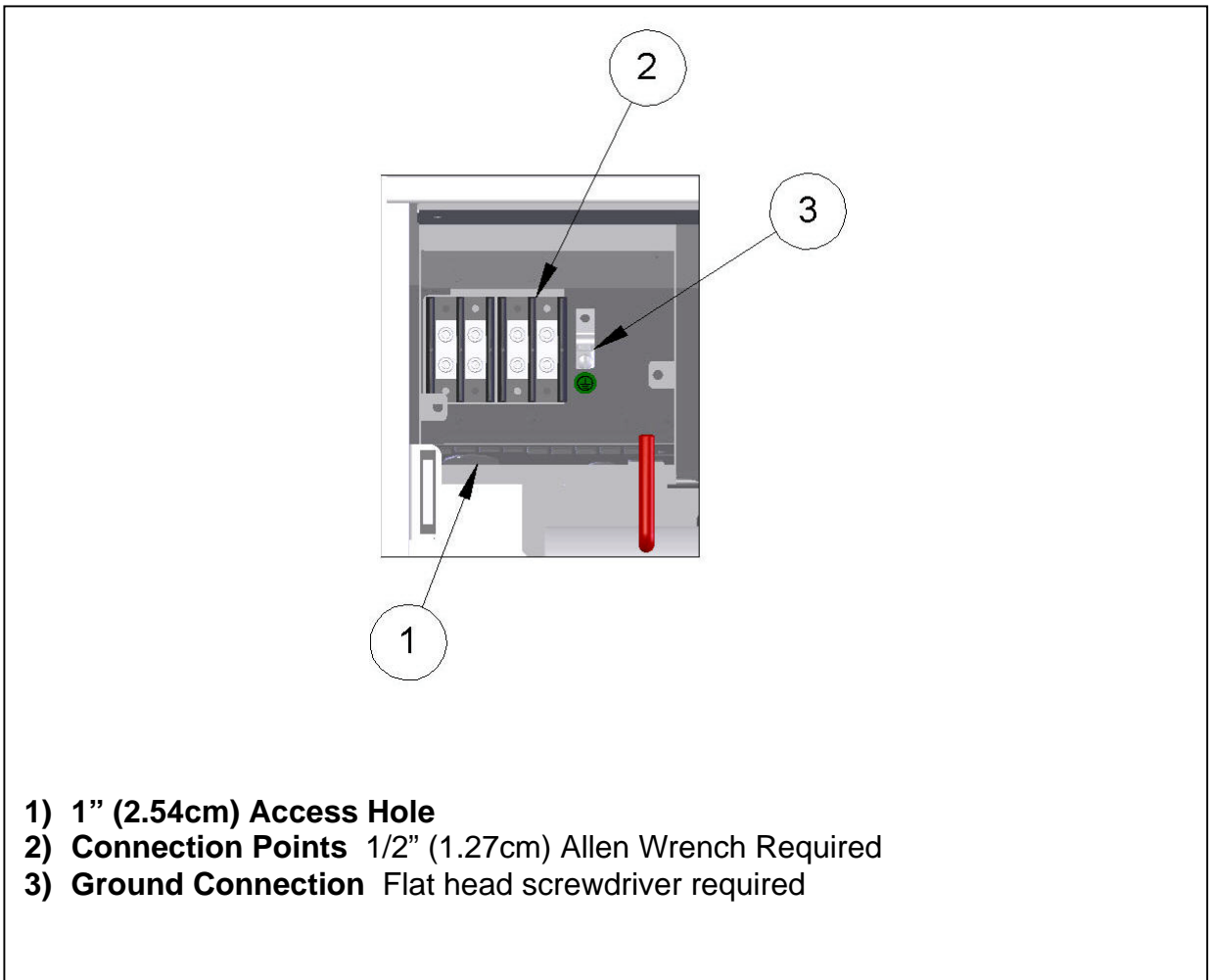
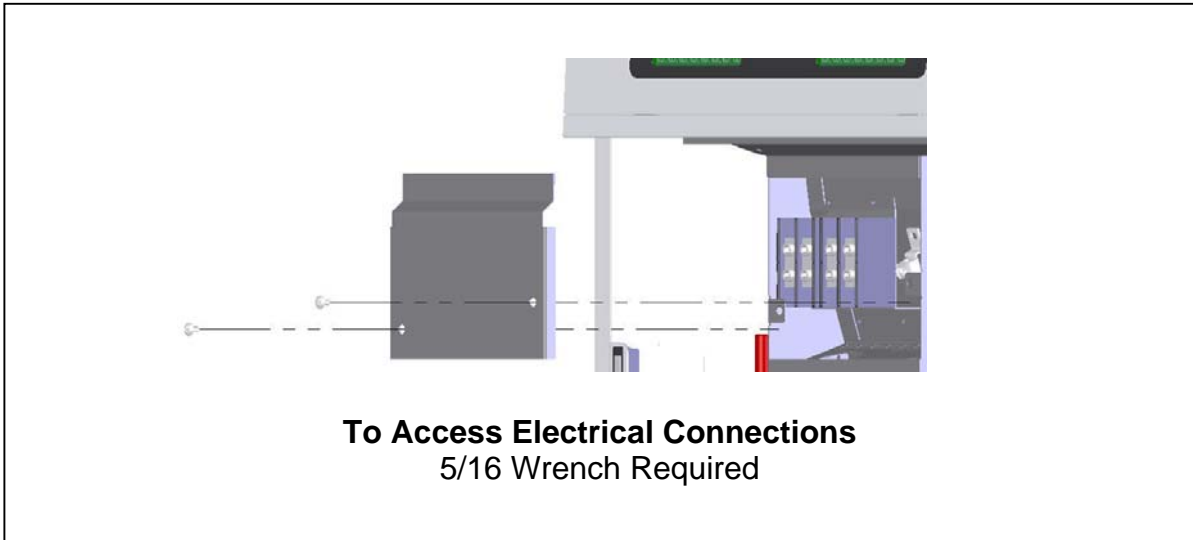
1.4 ELECTRICAL CONNECTIONS

It is advised that this power supply be plugged into a wall receptacle that is controlled by the ventilation control. This will prevent the appliance from being operated without the ventilator on. If your appliance requires an electrical connection, the power requirements are listed below.

ELECTRICAL REQUIREMENTS	Nominal Amps Per Line (50/60 HZ)											
	Single Phase (2 wire + ground)					3 Phase (3 wire + ground)				3 Phase "Y" (4 wire + ground)		
KW/Hr	208	220	230	240	480*	208	220	240	480*	380/220	400/230	415/240
17	82	78	74	71	36	48	45	41	21	26	25	24

* Supply Power for Filter is wired into the fryer's high voltage line terminal block, except for 480V, which requires a separate supply cord hook up to the unit.

CAUTION
Connecting the appliance to the wrong power supply may damage the appliance and void the
WARNING
This appliance must be connected to a power supply having the same voltage and phase as specified on the data plate located on the inside of the appliance door. DO NOT attempt to connect the appliance to an electrical supply other than that indicated on the data plate. Electrical connection should be performed by qualified personnel.
WARNING
The electrical connection used by this appliance must comply with local codes. If there are no local codes that apply, refer to the National Electrical Code (NEC), ANSI/NFPA 70 for installation in the US. In Canada, refer to CSA Standard C22.2 and local codes. In all other cases, refer to local and national codes and regulations.
WARNING
The appliance must be grounded in accordance with local code; if there is no local code, comply with the NEC and ANSI/NFPA No. 70 latest edition (for US and Canadian installations). In all other cases, refer to local and national codes and regulations. To comply with European requirements, European models are equipped with an equalization-bonding clamp. An equalization bonding lead must be connected to this clamp to provide sufficient protection against potential difference. This clamp, located on the rear of the appliance is marked with the following universal symbol. 
WARNING
A country approved all pole circuit breaker with a minimum open contact gap of 3mm must be used for proper installation. (CE countries)
WARNING
This equipment must be installed so that the plug is accessible unless other means for disconnection from the power supply (e.g. a circuit breaker) is provided.
WARNING
If this appliance is permanently connected to fixed wiring, it must be connected by means of copper wires having a temperature rating of not less than 167°F (75°C).
WARNING
All copper wiring for this appliance must be made in accordance with the wiring diagram(s) located on the appliance.



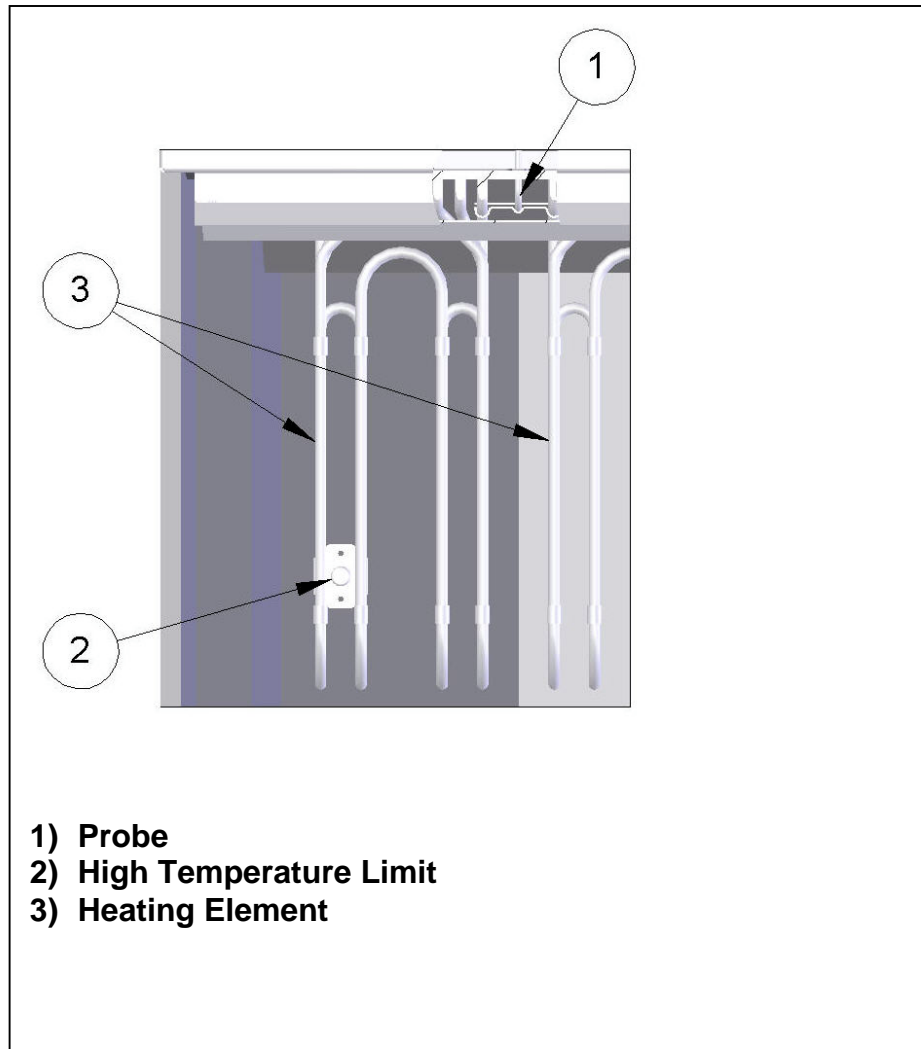
1.5 VENTILATION AND FIRE SAFETY SYSTEMS

Your new appliance must have proper ventilation to function safely and properly. It is very important to install a fire safety system. Your ventilation system should be designed to allow for easy cleaning. Frequent cleaning and proper maintenance of the ventilation system and the appliance will reduce the chances of fire. Ventilation and fire safety systems must comply with local and national codes. Refer to ANSI 83.11 for a list of reference documents that will provide guidance on ventilation and fire safety systems.

1.6 INSPECTION

Before you begin filling and operating the appliance, perform the following visual checks:

- ✓ After the appliance is in its permanent location, check to make sure it is level. Any additional leveling that is necessary can be performed as previously described.
- ✓ Ensure that the heating element and high temperature limit is in place and secure. Check the high limit bulb mounting screws to ensure that they are tight.
- ✓ Review the installation portion of this manual and ensure that all steps have been followed and executed properly.



CAUTION

Be careful not to disturb the probe and high temperature limit during operation and cleaning of this appliance.

1.7 FILLING THE APPLIANCE

Refer to the following procedure to fill the cook tank prior to operation.

1. Verify the tank interior is clean and free of any construction debris.
2. Rinse the tank and drain line with a small amount of clean cooking oil.
3. Ensure that the drain valve is closed.
4. Fill the tank with oil/shortening until the oil/shortening reaches the level line(s). Never let the oil/shortening level go below the MIN LEVEL mark stamped on the tank.

WARNING

Oil/shortening must completely cover the heat elements at all times while appliance is on.

CAUTION

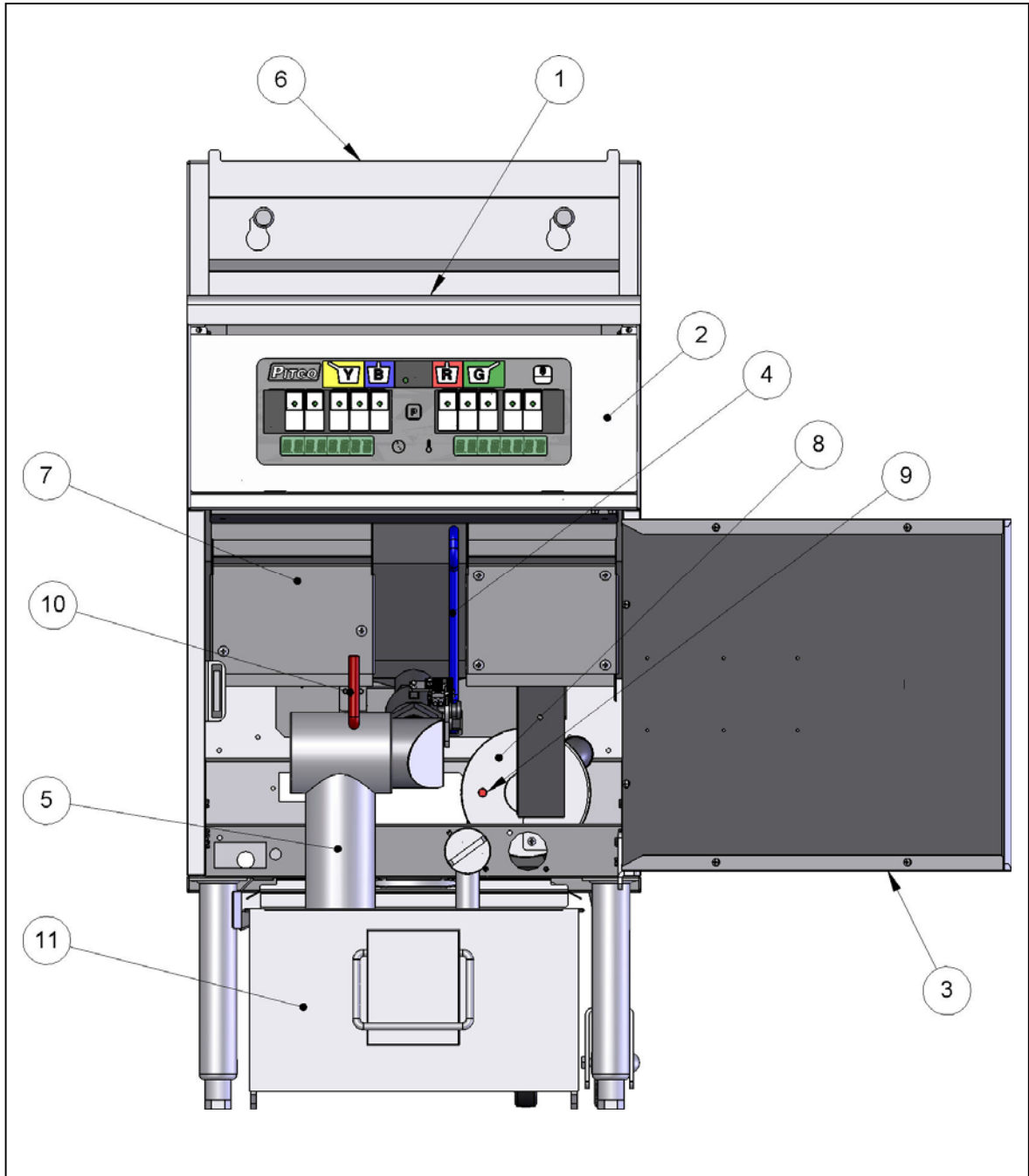
This appliance is not designed for cooking with water. Fill with oil/shortening only.

2 OPERATION

An operator's manual for your appliance's specific control type should be included with this manual. Refer to that manual prior to operating this appliance.

2.1 OPERATIONAL FEATURES

The diagram below outlines some of the key operational components of your appliance. Refer to the following sections of this manual to learn more about these features.



2.2 BASIC OPERATIONAL FEATURES

1. Cook Tank

2. Front Panel

The appliance is equipped with a computer controller located on the front panel.

3. Door (*Shown Open*)

Provides access to, the drain valve handle, tank drain outlet and high temperature reset button.

Electric Models: entrance box and electrical control.

Filter models: Filter pump and oil/shortening return handle.

4. Drain Valve Handle (*Blue*) (*Shown in the closed position*)

Opens the drain valve so oil/shortening can be drained from the cook tank.

The drain valve interlock feature will stop the appliance from heating if the drain valve is opened.

5. Tank Drain Outlet

Oil/shortening exits the cook tank through the drain outlet when draining.

6. Basket Hanger

For hanging and/or draining baskets when they are outside of the cook tank.

7. Electrical Control Box

DANGER: High voltage present. Do NOT open.

Electrical components that control the heating elements are located inside this box.

8. Filter Pump

The filter pump is used to pump oil/shortening from the filter pan back into the cook tank.

9. Filter Pump Reset Button

This button may need to be pressed in the event that the filter pump circuit breaker has tripped.

10. Oil Return Handle (*Red*)

Pulling out the oil return handle will open the cook tank's return valve and energize the filter pump to return the oil to the cook tank.

11. Filter Pan

Oil drained from the cook tank goes into the filter pan.

Filter media is located inside the filter pan.

2.3 FILLING THE COOK TANK

Both liquid and solid shortening can be used in this appliance, but liquid is preferred. If solid shortening is used it is recommended that you melt the shortening before adding it to the appliance. You can melt solid shortening in the appliance, but you must be very careful not to scorch the shortening.

Tank Capacity	
Model	Capacity
PH-SEF184	60 lbs (28 kg)

CAUTION
 This appliance is NOT designed for cooking with water. Fill with oil or shortening only.

2.4 FILLING THE TANK WITH LIQUID SHORTENING

To fill the tank with liquid shortening refer to the following procedure.

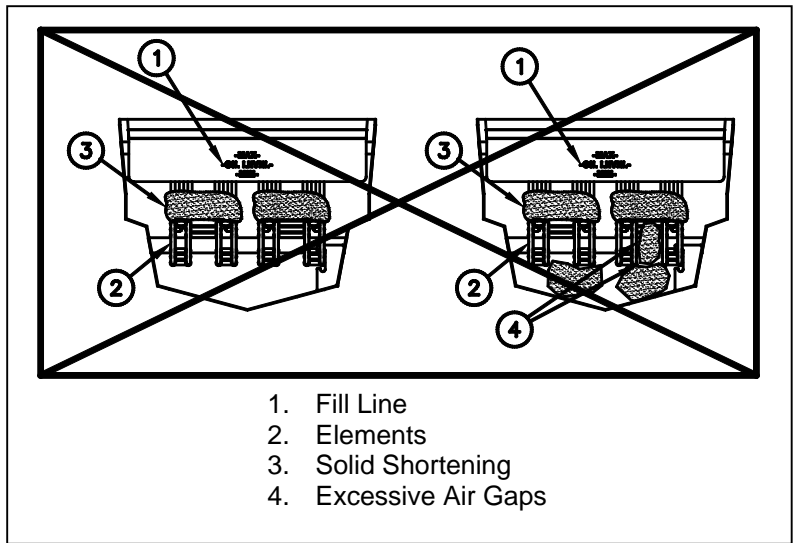
1. Ensure that the drain valve is completely closed and that there is no residual moisture in the tank.
2. Fill the tank with oil. You may fill the tank to the "MIN LEVEL" mark or slightly below the nominal level mark: the oil will expand slightly when it heats up, raising the level slightly.

2.5 FILLING THE TANK WITH SOLID SHORTENING

To fill the tank with solid shortening refer to the following procedure.

WARNING
 NEVER melt blocks of solid shortening on top of the elements. This will cause a fire and could result in personal injury.

1. Remove the element rack.
2. Cut the solid shortening into cubes no larger than one inch. ALWAYS pack the shortening below, between, and on top of the elements. Do NOT leave any large air gaps. Use care when packing the solid shortening into the tank. Do NOT bend or break the temperature or high limit sensor probes. If these are damaged the appliance will not function properly.
3. Once the appliance tank is firmly packed with shortening, the shortening must be melted. The melt cycle incorporated into the computer control will cycle the heat on and off to slowly melt the shortening in the cook tank.



WARNING
 Oil/shortening must completely cover the heating elements at all times while appliance is on.

2.6 APPLIANCE START UP

Refer to the following procedure to start the appliance prior to operation.


1. Ensure that the drain valve is closed.
2. Fill the cook tank with oil/shortening. (See section 2.3 "Filling the Cook Tank")

WARNING

Oil/shortening level should NOT be allowed to fall below the minimum indicated level line at any time. Dry firing of the elements will shorten tank service life and will void your warranty.

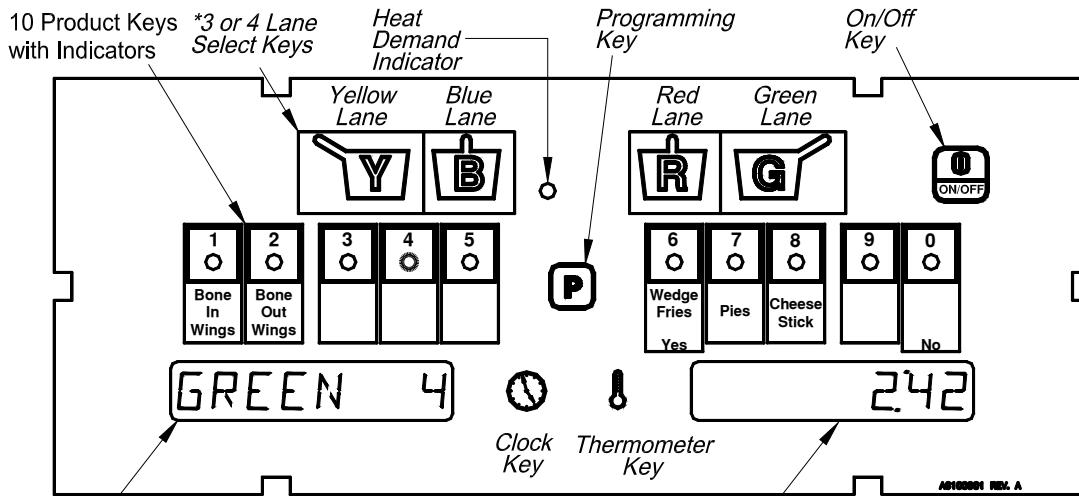
3. Computer Control:



Press the  button to turn the controller on.

4. The appliance is now on and heating the oil/shortening in the cook tank.

2.7 COMPUTER CONTROLLER OPERATION



Displays show the current operation. Throughout this text, a left only display will be printed as [GREEN 4], or be shown as a graphic . When both left and right displays should be interpreted together, this text will show them as [GREEN 4] [2:42] or show them as a graphic .

*Note: The clear overlay and panel outline shown above is for the 4 lane (4 basket) set up. The default factory settings for this control is 3 lanes colored Yellow, Blue, and Red as shown on the front cover of this manual. With the exception of the lane selection, both setups are identical in operation.

2.7.1 TO TURN THE APPLIANCE ON

If power is applied to the appliance, the displays will show [OFF]. Press the [I/O] key. Display will show one of the normal displays: [HEATING],[MELTING] [SOLID][LIQUID], or [READY]. Some messages may show in both left and right displays. Wait for the appliance to heat up to the [READY] condition before cooking.

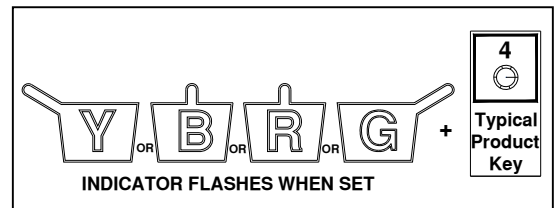


2.7.2 TO TURN THE APPLIANCE OFF

Press the [I/O] key. Display will momentarily show the software version number and then [OFF].

2.7.3 TO START A COOK

When displays are showing [READY] the appliance has reached set temperature and is ready to cook. Press a basket key then press the desired product key. The indicator above the product key will flash. The left display will show the basket color and the product key, while the right display shows the time remaining in the cook. In the example above, RED lane is cooking product 4 (left display) with 1 minute and 7seconds remaining (right display).




Up to four cooks may run together. While cooks are running, the display will always show the cook with the least time remaining. Cook times remaining in other lanes may be checked by momentarily pressing a lane basket key.


2.7.4 TO CANCEL A COOK

Press and hold the basket key to cancel a cook. If no other cooks are pending, controller displays will return to [READY].


2.8 TO VIEW VAT TEMPERATURE:

To view the actual vat temperature, press the  key. The display will show **ACT 347F** or **ACT 175C**, where “F” is Fahrenheit, and “C” is Celsius. After a few moments, the display will return to [HEATING],[MELTING] [SOLID]/[LIQUID], or [READY], if no cooks are running.

2.9 TO VIEW COOKING SET TEMPERATURE:

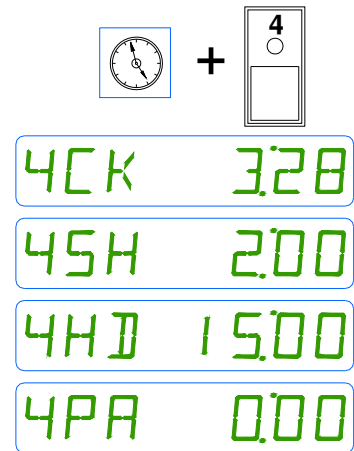
To view the set temperature, press the  key *twice*. The display will show **SET 350F** or **SET 177C**, where “F” is Fahrenheit, and “C” is Celsius. After a few moments, the display will return to [HEATING],[MELTING] [SOLID]/[LIQUID], or [READY], if no cooks are running.

2.10 TO VIEW CURRENT SETTINGS FOR COOK, SHAKE, HOLD, AND HOLD PRE-ALARM:

To view the current settings for any product key, press the  key, followed by the desired product key. The display will show [nCK mm:ss], followed by [nSH mm:ss], then [nHD mm:ss], ending with [nPA mm:ss]. Where “n” is the key number, and “mm:ss” is the time setting. After a few moments, the display will return to [READY], [MELT] or [HEATING] when no cooks are running. If cooks are running, the least time remaining will be displayed.

Typical displays using key 4 as an example:

- Key 4 **Cook** Time [4CK] is set for 3 minutes and 28 seconds.
 - Key 4 **Shake** Time [4SH] is set for 2 minutes and :00 seconds before the end of the Cook. *Default value is 00:00, or inactive.*
 - Key 4 **Hold** Time [4HD] is set for 15:00 minutes. This is the amount of time cooked product may sit in holding bins before a new batch is started. *Default value is 00:00, or inactive.*
 - Key 4 **Hold Pre-Alarm** [4PA] is set for 00:00 and is inactive (*default setting*). When activated his alarm warns the operators that the Hold Time is about to run out.
- In a few moments, the display will return [HEATING],[MELTING] [SOLID]/[LIQUID], or [READY],



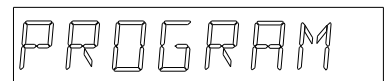
2.11 PROGRAMMING LEVEL 1 (FOR THE STORE MANAGER)

Note: The factory default setting for this control does not require password entry. However, the password requirement and value, may be changed in section 2.9.2. This text assumes the password is enabled. Entry of a password when NOT required will not interfere with the programming process.

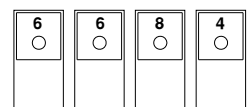
With no cook timers running, displays will show one of the following displays: [HEATING], [MELTING] [SOLID]/[LIQUID], or [READY].

Press the [P] program key.

Left display will show [PROGRAM]. Right display will be blank. Enter password 6684 using the product keys as numeric keys for entry.



Level 1 Password



Display still shows [PROGRAM].

From the [PROGRAM] display, continue with this section or go to section 2.9.

2.11.1 TO SET COOK TEMPERATURE

Press the thermometer key once.

Display shows [SET xxxF] [TEMP] or [SET xxxC] [TEMP], where "xxx" is the temperature setting.

Use the product keys for numeric entry, to adjust the current setting.

Press the [P] key to save setting.

Display shows [PROGRAM]; go to any other 2.8 or 2.9 sections for other adjustments.

**2.11.2 TO CHANGE A PRODUCT KEY—COOK, SHAKE, HOLD, AND HOLD PRE-ALARM TIMES**

For each product key Cook, Shake, and Hold times are set in this section.

With display showing [PROGRAM], continue with the following section for each product key to change.

**2.11.2.1 COOK TIME**

Cook Time is set to the desired cooking time for this product key. To deactivate this product key enter a zero value.

Press the [Clock] key.

Display shows [SELECT] [PRODUCT].

Press the desired product key to change.

Display shows [nCK mm:ss] [TIME] where "n" is the key number, "CK" means Cook, and "mm:ss" is minutes and seconds.

Use the product keys for numeric entry, to adjust the current setting.

Press the [Clock] key to save cook time and continue setup for this product key.

**2.11.2.2 SHAKE TIME**

Shake time is an alarm that sounds during Cook Time to prompt operators to shake the basket. Default for this value is zero, meaning the Shake Time is inactive.

Display shows [nSH mm:ss] [TIME] where "n" is the key number, "SH" means Shake, and "mm:ss" is minutes and seconds.

Use the product keys for numeric entry, to adjust the current setting.

Press the [Clock] key to save shake time and continue setup for this product key.

**2.11.2.3 HOLD TIME**

After cooking, product may stand in holding trays for a period of time. This timer produces an alarm to inform operators to discard old product and start a new cook. Default for this value is zero, meaning the Hold Time is inactive.

Display shows [nHD mm:ss] [TIME] where “n” is the key number, “HD means HOLD, and “mm:ss” is minutes and seconds.

Use the product keys for numeric entry, to adjust the current setting.

Press the [Clock] key to save hold time and continue setup for this product key.



2.11.2.4 HOLD PRE-ALARM

Hold Pre-Alarm is a timer setting that is used to warn operators that the Hold Time is about to expire.

To use Hold Pre-Alarm, Hold Time must be set to a non-zero value, and Hold Pre-Alarm must be set to a value less than Hold Time. Default value is zero, meaning the Hold Pre-Alarm is inactive.

Display shows [nPA mm:ss] [TIME] where “n” is the key number, PA means Pre-Alarm, and “mm:ss” is minutes and seconds.

Use the product keys for numeric entry, to adjust the current setting.

Press the [Clock] key to save cook time and continue setup for this product key.



Displays show [SELECT] [TIME]. Repeat steps from section 2.8.2.1 to make changes to any other product keys or continue.

2.11.3 TO EXIT LEVEL 1 PROGRAMMING

Display shows [SELECT] [TIME].

Press the [P] key.

Display shows [PROGRAM]. Continue to section 2.9 to change options, or, exit here in the next step.

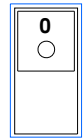
To exit Level 1 programming, press the [P] key again.

Displays will show [HEATING], [MELTING] [SOLID]/[LIQUID], or [READY].



2.12 OPTIONS PROGRAMMING

Display must show [PROGRAM] from section 2.8 to change options. When the product key [0] is pressed, display will show [SELECT] [OPTIONS]. Indicator lights above product keys will illuminate to represent options that may be changed. Each option below uses the product key [0] to scroll or toggle through available choices in the display. When the correct value is displayed, press the [P] key to save choice. Display will again show [PROGRAM].



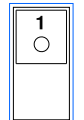
2.12.1 FAHRENHEIT OR CELSIUS DISPLAY

The Controller will display temperatures in the Fahrenheit or Celsius scales. The default scale is °F. With display showing [PROGRAM], press the product key [0].

Display shows [SELECT] [OPTIONS].

Press product key 1, display shows [DEGREE n] [F OR C], where “n” is the current setting.

Use the product key [0] to scroll through choices (F or C). Press [P] key to save choice. Display shows [PROGRAM].



2.12.2 PASSWORD CHANGE OR REQUIRED

With factory settings, a password is not required to enter programming Level 1. The password may be activated or changed in this section.

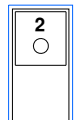
With display showing [PROGRAM], press the product key [0]. Display will show [SELECT] [OPTIONS].

Press product key 2, display shows [SET PAS] [NEW PASS]. Use the product key [0] to scroll through choices [NO PASS] or [PASS REQ]. Press [P] key to save choice.

If [NO PASS] is selected Display returns to [PROGRAM].

If [PASS REQ] is selected, display shows [PASSnnnn] [NEW PASS]. Displayed value “nnnn” is the current password. Use the product keys for numeric entry, to change password. Press [P] key to save choice. Display shows [PROGRAM].

Note: The factory default password (6684) will always work even if a different password is selected above.



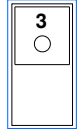
2.12.3 BEEPER VOLUME AND TONE

Volume and Tone of the beeper alarm may be changed in this section. Volume ranges are 1,2 and 3, where 3 is the loudest setting. Later model controls have an additional selection for tones.

With display showing [PROGRAM], press the product key [0].

Display will show [SELECT] [OPTIONS]. Press product key 3, display shows [VOLUME n] [BEEPER]. Use the product key [0] to scroll through choices (n= 1,2,3, or T). Beeper volume will change as each selection is made.

If "T" is selected an additional display is shown; [TONE n] [BEEPER]. Use the product key [0] to scroll through choices (n= 1,2,3). Beeper tone will change as each selection is made. Press [P] key to save choice. Display shows [PROGRAM].

**2.12.4 LANGUAGE SELECTION**

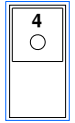
With display showing [PROGRAM], press the product key [0].

Display shows [SELECT] [OPTIONS].

Press product key 4, display shows [ENGLISH] [LANGUAGE].

Use the product key [0] to scroll through choices (ENGLISH, ESPANOL, FRANCAIS, DEUTSCH, HOLLANDS).

Press [P] key to save choice. Display shows [PROGRAM].

**2.12.5 MELT CYCLE TYPE**

This section allows selection of the melt cycle type or disabling the melt cycle requirement when starting the appliance from a cold start.

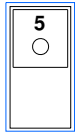
With display showing [PROGRAM], press the product key [0].

Display shows [SELECT] [OPTIONS].

Press product key 5; display shows [LIQUID], the default setting.

Use the product key [0] to scroll through choices (liquid, solid, no melt).

Press [P] key to save choice. Display shows [PROGRAM].

**2.12.6 RECOVERY TEST VALUE**

This controller maintains a record of heat up times for the appliance. A poorly running appliance will have increased recovery times stored in this display. There is no selection done here, just the display of recovery time values.

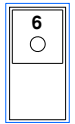
With display showing [PROGRAM], press the product key [0].

Display shows [SELECT] [OPTIONS].

Press product key 6; display will show [RECOVERY] [TEST].

Press the product key [0]. Display will show [FnnnLyyy], where nnn is the factory recovery value, and yyy is the last warm- up recovery value.

After recording these values, press the [P] key. Display returns to [PROGRAM].

**2.12.7 CONTROL OR TIMER**

With display showing [PROGRAM], press the product key [0].

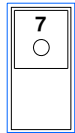
Display shows [SELECT] [OPTIONS].

Press product key 7; display will show [CONTROL].

Use the product key [0] to scroll through choices (Control, Timer).

Press [P] key to save choice. Display shows [PROGRAM].

Note: If timer is selected, heat control outputs are disabled, leaving only the timer functions active. Do not make this selection on Solstice fryer models.

**2.13 FILTER DATA FUNCTION (FDF) FEATURES:**

The FDF features allow store managers, and regional managers, to track oil usage and filtering events by operators. These features can be incorporated into an overall oil management strategy to extend oil life through an enforced filtering regimen. As shipped from the factory, this feature is enabled.

The histories for polish and filter events are saved for later viewing by Restaurant Managers.

2.13.1 START UP POLISH EVENTS

Turn on the cooking control. From the cold start condition, melt cycling is entered, followed by heating. When the vat is heated to above Polish Temperature (300°F), a polish prompt is displayed [POLISH] [YES - NO], and a single repeating beep sequence. Until this prompt is answered, no additional heat will be applied to the appliance.

The operator presses either key 6 (YES) to Polish Now, or, key 0 (NO) to defer to a later time.

2.13.1.1 Polish Now (YES)-

Display shows [POLISH] [NOW]. When the operator opens the drain valve, the display changes to [DRAINING] [TMR MM:SS], alternating with [POLISH] [TMR MM:SS], a 30 minute countdown begins. The drain valve must remain open until the polish timer counts down to zero.

- ❑ If the drain valve is prematurely closed, operator will be prompted [CONFIRM][EXIT Y-N].
- ❑ **If the answer is YES**, the polish routine exits with an incomplete status. Polish counts are not incremented. When control is turned off, then back on, Polish now will result (2.13.1.1 above).
- ❑ **If the answer is NO**, Operators will be prompted to re-open the drain. When open, the polish routine continues to completion with the current polish timer count.
- ❑ If operator turns the control off to circumvent the polish event, the control will retain “incomplete polish” status. When power is restored, the control will resume at the [DRAINING] [TMR MM:SS] / [POLISH] [TMR MM:SS], reset to 30 minutes.

When the polish timer counts down to zero, the beeper will sound until the operator closes the drain valve. The beeper stops. The display changes to [DONE] [TURN OFF], as the vat refills with polished oil . When full, the return valve is closed. Operator must turn control off then back on to restore normal operation.

2.13.1.2 Deferring the Polish(NO)-

The operator has deferred the polish event by 2 hours. An internal timer will count down 2 hours. When zero, and no cooks are running, the display will show [POLISH] [YES - NO] to prompt operators. IF operator responds with “YES” operation continues per section 2.13.1.1 above.

Operators may defer the polish event only 2 times. At the end of the last deferral, and when no cooks are running, the display will show [POLISH] [NOW]. Operation per section 2.13.1.1 above is the only course of operation after the last deferral.

2.13.2 START-UP AFTER A DISPOSE EVENT

If the prior drain open event was a dispose event, the control will skip the Polish event on the next cold start up, as fresh oil needs no polishing.

2.13.3 WHEN THE DRAIN VALVE IS OPENED:

When the drain valve is opened, the control will prompt the operator for a series of questions to identify the reason for drain opening.

2.13.3.1 Polish events:

When a deferral is running, [POLISH] [Y OR N] is displayed. If the operator selects YES, this drain open even will be counted as a polish. This prompting is skipped if the deferral is not running.

2.13.3.2 Filter events:

If the answer to the above question was no, or skipped, the display shows [FILTER] [Y OR N]. If the operator selects yes, the display will show [FILTER] [TMR M:SS]. Operators begin filter operations in the normal manner.

When the timer counts down to zero, a momentary beep will sound. When the drain switch is closed, the display will change to [DONE] [TURN OFF].

- To be counted as a filter event, the drain valve must remain open for more than 2 minutes.
- If the drain valve is prematurely closed, the filter timer will be reset to 2 minutes. Count down starts again when the drain valve is re-opened.
- When the operation is complete, a Filter counter is updated in memory for later viewing by the RGM.

2.13.3.3 Dispose events:

If the answer to the above questions was NO, the display then shows [DISPOSE] If the answer to the above questions was NO the display then shows [DISPOSE] [Y OR N]. If the operator selects yes, the display changes to [DISPOSE] [<BLANK>]. When the drain closes the operation is complete. Display will show [DONE] [TURN OFF]. Polish and Filter counts are saved for this batch of oil. Data saved at prior disposal events is moved as follows:

- Current saved values of the Polish 2, Filter2, and Oil Life Hours2 are transferred to Polish 3, Filter3, and Oil Life Hours3. Old counts here are lost (overwritten).
- Current saved values of the Polish 1, Filter1, and Oil Life Hours1 are transferred to Polish 2, Filter2, and Oil Life Hours2.
- Values for Polish 1, Filter 1, and Oil Life Hours1 are cleared to zero for the new batch of oil.

2.13.4 ROGUE OR MAINTENANCE DRAINS:

If the answer to all three prompts above is NO, the open drain is considered a Filter, however the Filter count is not changed. This drain activity is intended for the service technician, who might need to drain the vat for service, without affecting the saved data for the current batch of oil.

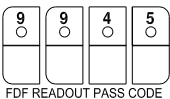
2.14 FILTER DATA READOUT (RESTAURANT MANAGER):

This control will maintain counts for Polish, Filter events, and, oil life hours for the current oil as well as the 2 prior oil changes. These counts can be displayed by the Restaurant Manager to collect quality data on oil usage and operator performance concerning oil management.

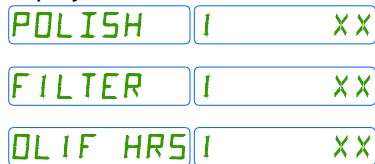
2.14.1 TO ENTER THE FDF READOUT SCREENS:

With no cook timers running, displays will show one of the following displays: [READY], [MELTING] or [HEATING]

- Press the **P** key. The left display will show [PROGRAM]. The right display will be blank.

- Enter pass code  using the product keys as a numeric keypad for entry

Display will show collected data on the current batch of oil. Note the “1” in the first digit of the right display.



This is the number of polish events completed (xx) for the current batch of oil. After recording the count, Press “P” key to continue.

This is the number of filter events completed (xx) for the current batch of oil. Record the counts, then Press “P” key to continue.

This is the number of hours the current batch of oil has been in operation above the polish temperature (sect 5.3). Press “P” key to continue.

Display now shows data for the prior disposed batch of oil. Note the “2” in the first digit of the right display.



This is the number of polish events completed (xx) for the last batch of oil. After noting the count, Press “P” key to continue.

This is the number of filter events completed (xx) for the last batch of oil. Press “P” key to continue.

This is the number of hours (xx) the last batch of oil had been in operation above the polish temperature (sect 5.3). Press “P” key to continue.

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Display now shows data for the second prior disposal of oil. Note the “3” in the first digit of the right display.

POLISH 3 XX

This is the number of polish events completed (xx) for the second prior disposal of oil. After noting the count, Press “P” key to continue.

FILTER 3 XX

This is the number of filter events completed (xx) for second prior disposal of oil. Press “P” key to continue.

OLIF HRS 3 XX

This is the number of hours (xx) the second prior disposal of oil had been in operation above the polish temperature (sect 5.3). Press P” key to continue.

PREVENTATIVE MAINTENANCE



2.15 APPLIANCE SHUTDOWN

Refer to the following procedure to shutdown the appliance.

Press and hold the computer control  button to turn the controller OFF.

3 PREVENTATIVE MAINTENANCE

3.1 DAILY PREVENTATIVE MAINTENANCE

Performing the preventative maintenance steps below on a daily basis will keep your equipment safe and at peak performance. During the cooking process, oil/shortening may spill and splatter and requires immediate attention. Furthermore, during the cooking process, particles, crumbs and crackling collect inside the cooker tank reducing product quality and decreasing oil/shortening life. If you are producing high quantities of fried food and/or frying heavily battered food, it may be necessary to perform these steps more than once a day.

WARNING

Serious injury could result from direct contact with hot surfaces and/or oil. Always wear apron, heat resistant gloves for skin protection and goggles for eye protection

3.2 START OF DAY

Fryer filter units let you filter the shortening in each fryer. Shortening drains into the filter tank, and a pump moves the shortening back into the fryer. Change filter for start up.

1. Assemble filter unit

- Make sure the unit is dry.
- If replacing filter envelope
 - Slide new filter envelope over screen.
 - Fold open end of envelope and attach envelope clip.
 - Turn locknut (clockwise) to tighten assembly.
- Lower filter screen pickup assembly into filter pan.
- Sprinkle Magnesol® evenly over filter envelope.
(Add filter powder to the filter envelope once a day during the start-up – Use one (6.4 oz.) package)
- Swing pickup tube down to meet with filter screen.

2. Turn ON

- Turn the fryer that is to be polished ON.

3. When 300°F turn OFF

- Be sure shortening is above heating tubes. If not, add shortening
- When fryer reaches 300°F, turn fryer OFF.

4. Drain shortening

- Pull BLUE valve handle down to drain shortening.

5. Turn pump ON

- Pull RED valve handle out to turn pump ON.

6. POLISH

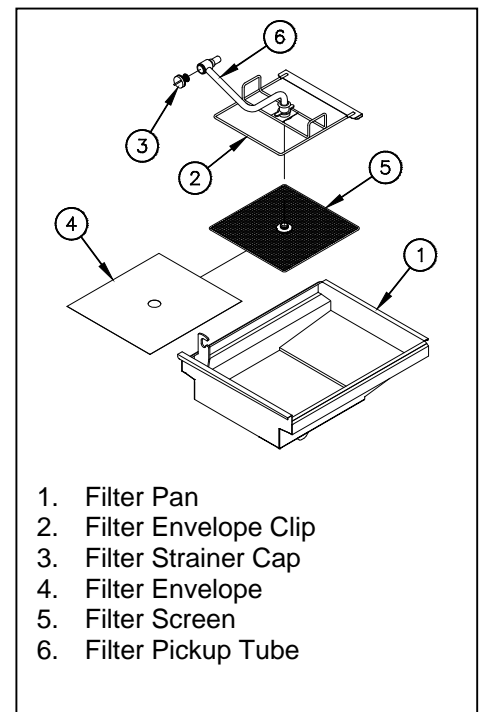
- Let pump run and polish shortening for 30 minutes.
(Polish shortening for 30 minutes (once in the morning). Always filter shortening in the afternoon and at night.)

NOTE: The filter pan is only large enough to hold the contents of the one fryer tank at a time.

7. Fill Fryer

- Lift BLUE drain valve handle
- Fill fryer.

8. Turn pump OFF and fill fryer



- After bubbles are seen coming out of the shortening return spout for 15 seconds, push the RED valve handle in to turn the pump OFF
- Turn the fryer ON and let it heat until the display reads “READY.”
- If shortening is below .MIN. fill line, add more shortening to the fryer slowly until it reaches the .MAX. fill line. Do not overfill
- The fryer is now ready for use.

WARNING

Serious injury could result from direct contact with hot surfaces and/or oil. Always wear apron, heat resistant gloves for skin protection and goggles for eye protection

Per WingStreet® procedures, do not use any water, cleaners, or soaps to clean fryers.

3.3 AFTERNOON CLEANING**1. Turn fryer OFF**

- Fryer must be OFF before frying oil is drained.

2. Clean fry tank

- Use saucepan filled with shortening to rinse crumbs from top, all sides, and bottom of fryer.

3. Drain shortening

- Pull BLUE valve handle down to drain shortening.

4. Turn pump ON

- Pull RED valve handle out to turn pump ON.
- Let pump run and filter frying oil for 1-2 minutes.

5. Fill Fryer

- Lift BLUE drain valve handle
- Fill fryer

6. Turn pump OFF and fill fryer

- After bubbles are seen coming out of the shortening return spout for 15 seconds, push the RED valve handle in to turn the pump OFF
- Turn the fryer ON and let it heat until the display reads “READY.”
- If shortening is below .MIN. fill line, add more shortening to the fryer slowly until it reaches the .MAX. fill line. Do not overfill
- The fryer is now ready for use.

WARNING

Serious injury could result from direct contact with hot surfaces and/or oil. Always wear apron, heat resistant gloves for skin protection and goggles for eye protection

Per WingStreet® procedures, do not use any water, cleaners, or soaps to clean fryers.

3.4 CLEANING FRYERS – END OF DAY

1. **Turn fryer OFF**
 - Turn fryer OFF.
2. **Drain shortening**
 - Pull BLUE valve down to drain shortening.
3. **Remove fryer screen**
 - Remove fryer screen with tongs.
4. **Scrub sides**
 - Use fryer brush to clean between and under elements.
 - Use green scrub pad to scrape all sides to remove frying residue.
5. **Fill Fryer**
 - Lift BLUE valve handle up to fill fryer.
6. **Turn pump ON**
 - Pull RED valve out to turn pump ON and use saucepan filled with shortening to rinse crumbs from top, all sides, and bottom of fryer.
7. **Turn pump OFF**
 - Push RED valve handle in to turn pump OFF.
8. **Drain shortening**
 - Pull BLUE valve handle down to drain shortening
10. **Replace fryer screen**
 - Replace fryer screen with tongs.
11. **Fill Fryer**
 - Lift BLUE drain valve handle up.
 - Fill fryer
12. **Turn pump OFF and fill fryer**
 - When bubbles are seen coming out of the shortening return spout for 15 seconds, push the RED valve handle in to turn the pump OFF
 - Wipe all edges with a clean sanitized towel.
 - Remember to make sure the fryer is OFF and covered with an appropriate cover.
 - If shortening is below MIN fill line add more shortening to the fryer slowly until it reaches the OIL LEVEL line. Do not overfill.
13. **Cool Filter unit prior to cleaning**
 - Pull out filter unit and let it cool for at least 30 minutes

3.5 CLEANING THE FILTER UNIT

The filter tank 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

WARNING

At operating temperature, the shortening in the fryer may be hotter than 375°F. This hot, melted shortening will cause severe burns. Do not let the hot shortening touch your skin or clothing. Always wear insulated shortening-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.

1. Cool unit

- Pull out filter unit and let it cool for at least 30 min
- Using scraper, carefully scrape debris off the filter envelope and discard debris into trash can.
- Once cool, swivel the pickup tube to remove it from the filter pickup assembly.
- Remove filter pickup assembly from pan and place on a clean sheet pan.
- If filter envelope has a hole or tear, replace it.
(Otherwise do not change filter envelope until you are changing the frying oil.)

2. Discard debris

- Scrape everything out of filter pan into trash can and clean. Use clean towel and hot water only.

3. Clean parts

- Take filter pan to sink and clean. **Use hot water only. Let parts air dry overnight.**
Note: DO NOT wash the filter envelope
Note: It is very important to thoroughly dry the pans before reassembling. Water and shortening do not mix. Water in hot shortening will cause the shortening to spatter and causes shortening to break down.

- Dry the filter pan with a clean towel.

4. Push (dried) filter pan in place under fryer

5. If changing filter envelope, separate filter.

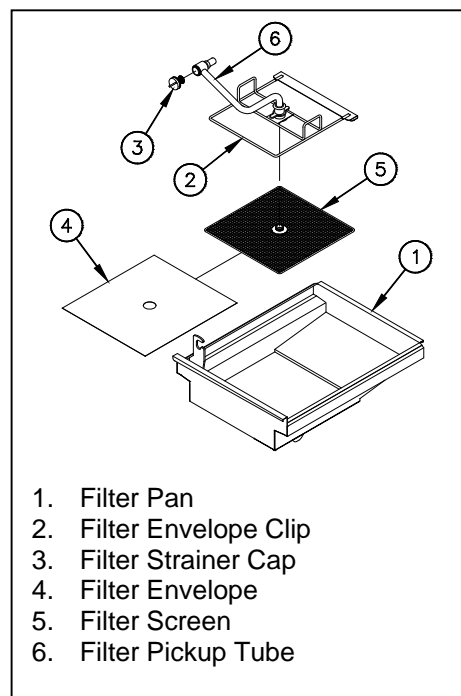
Note: DO NOT discard/change filter envelope until you change the frying oil, unless the envelope has a hole or tear.

- Unscrew the lock nut (counterclockwise) from the threaded fitting on the filter screen.
- Slide off the filter envelope clip and remove used filter envelope from filter screen.
- Clean parts using hot water. Let parts air dry overnight.

6. Clean around fryer

- Sweep and mop under and around fryer(s).

7. Turn (OFF) fryers



1. Filter Pan
2. Filter Envelope Clip
3. Filter Strainer Cap
4. Filter Envelope
5. Filter Screen
6. Filter Pickup Tube

3.6 APPLIANCE INSPECTION

- ✓ Check that the high temperature limit and temperature probe are in the correct position and secured in place.
- ✓ Check that wires and cords are not frayed or loose in and out of the cabinet.
- ✓ Check around the appliance for loose parts or accessories that need to be secured or other foreign items (ex: Aerosol cans) that should be removed from the area.
- ✓ Check for oil/shortening leaks around the in and out of the cabinet and around the appliance.

3.6.1 CLEANING THE CABINET

1. Wipe any spilled oil/shortening, dust and lint from the cabinet exterior with a clean cloth. Use a nonabrasive envelope for tougher stains if needed.
2. Cleaning the interior cabinet requires a clean cloth to remove any oil/shortening, dust, lint or filter powder (i.e.: Magnesol®) from the interior of the cabinet.

3.7 WEEKLY PREVENTATIVE MAINTENANCE

Performing the preventative maintenance steps above on a daily basis will keep your equipment clean and safe. On a weekly basis these additional steps should be performed.

1. Turn the fryer off. Allow the oil/shortening to cool to before pulling the fryer away from the hood. Hint: This maintenance may be ideal to perform on the day the oil/shortening is being changed so no oil/shortening is present in the tank or filter.
2. Disconnect the power cord(s) and retention lanyard.
3. Wearing your protective gear, pull the fryer away from the hood.
4. Check that vent hood drip cup is empty and not dripping oil/shortening onto the appliance.
5. Check that the hood baffles are clean and not dripping oil/shortening onto the appliance.
6. Clean the fryer sides, back and the splash back, it may be necessary to use a non-abrasive envelope to scour and a putty knife to scrape the oil/shortening buildup. With a clean damp cloth and food grade detergent wipe the area clean.
7. Wipe up any excessive oil/shortening on the power cord(s) with a dry cloth.
8. Reattach power cord(s), and retention lanyard and push fryer back under the hood.

3.8 MONTHLY PREVENTATIVE MAINTENANCE

3.8.1 TEMPERATURE CHECK

1. Use a high-grade pyrometer or digital thermometer suitable for temperature up to 380°F. Place the thermometer in the oil above the tip of the fryer's temperature probe with in 1". Be sure not to touch the elements since this will measure incorrect temperatures
2. Check that the controller's setpoint and thermometer is within +/- 5°F. If your measurement are off, re-measure again before contacting an Authorized Service Company for further assistance.

3.9 ANNUAL/PERIODIC PREVENTATIVE MAINTENANCE AND INSPECTION

This section should ONLY be performed by a qualified service technician as part of a regular kitchen maintenance program. This inspection should take place a minimum of once a year by an Authorized Service Technician recommended by Pitco. It may be necessary perform this inspection more than once a year.

WARNING

The power supply must be disconnected before cleaning and servicing this appliance!

3.9.1 SAFETY EVALUATION

- ✓ Check power cord and plug.
- ✓ Check all exposed wiring connections, switches, and indicator lights.
- ✓ Check legs, casters, wheels, plate welds and ensure all nuts and bolts are secured.

3.9.2 MECHANICAL INSPECTION

- ✓ Check fry tank for shortening leaks and excessive oil build up
- ✓ Check for oil migration (Clean as required)
- ✓ Check hood drain cup, ensure it is empty and not dripping onto the appliance.
- ✓ Check hood baffle for clean surface, oil/water condense can drip onto appliance.
- ✓ Check drain/filtration system (if equipped) for leaks
- ✓ Check for missing fryer parts.
- ✓ Check for missing fasteners

3.9.3 TEMPERATURE CONTROL SYSTEM

- ✓ Check electrical connections and harnesses
- ✓ Check temperature probes and limits for carbon build up and plating. Clean as required
- ✓ Check proper mounting of probes and sensors and verify all fasteners are secure.
- ✓ Check DVI Drain Valve Interlock drops out controller.
- ✓ Check Controller/thermostat features to ensure they are functioning.
- ✓ Check Temperature Calibration

3.9.4 FILTER SYSTEM (IF EQUIPPED)

- ✓ Check electrical connections and harnesses.
- ✓ Check IEC power cords are fully engaged and secure.
- ✓ Check for any air or shortening leaks and for excessive oil build-up.
- ✓ Check O-Ring on filter pickup tube and replace as needed.
- ✓ Check filter strainer on pickup tube.
- ✓ Check operation of drain valve and DVI drain valve interlock.
- ✓ Check operation of return oil valve and its pump switch.
- ✓ Check all hardware in filter pan.
- ✓ Check filter operation by filtering the fryers.
- ✓ Check pump motor amp draw compare to nameplate amperage.
- ✓ Check pump and motor; clean any excess oil from pump assembly.
- ✓ Check all filter hoses for leaks and integrity.

3.9.5 HEATING ELEMENT

- ✓ Check if the element is mechanically strong and in good condition. Look for scale build up and inspect for signs of dry firing.
- ✓ Verify element wires are in good working condition. Look for damage to wires or frayed insulation. Check that the insulation is dry.
- ✓ Verify that bulkhead connections/nut is tight and leak free. Look for grease build up and oily surfaces.
- ✓ Verify amp-draw is within range as compared to the information on the data plate.

3.9.6 CONTROL BOX & ELECTRICAL COMPONENTS

- ✓ Verify that heating contactors are in good condition. Check for worn or pitted contacts. Verify that wires are tight and in good condition.
- ✓ Verify that all components (transformer, terminal block, relays, drain switches, etc...) are in good condition. Verify that wires are tight and in good condition.
- ✓ Verify enclosures are free of leaks. Check for water stains and wet surfaces.
- ✓ Verify that the covers and panels are intact and provide a safe condition. Check for loose parts.
- ✓ Verify power cord is in good condition. Check for frayed or exposed wires. Verify that the insulation is in good condition and the attachment to the appliance is tight.

4 TROUBLESHOOTING

4.1 POWER FAILURE

If electric power is removed for any reason, the appliance will shut down.

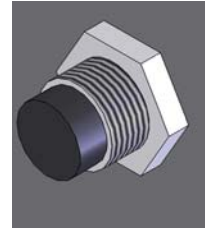
To restart the appliance, follow the appliance start up procedure in section 2.6.

CAUTION
DO NOT attempt to operate this appliance during a power outage.

4.2 HIGH TEMPERATURE LIMIT

This appliance is equipped with a high temperature limit switch. The high temperature limit switch will stop the appliance from functioning if the internal cook tank reaches an unsafe temperature. In the event that the high temperature limit has tripped, Please refer to the following procedure to reset the switch.

- a. Turn the appliance off.
- b. Allow the appliance ample time to cool to room temperature.
- c. Add oil/shortening to the cook tank as needed.
- d. Press the high temperature reset button if equipped. (CE Units Only)
- e. The high limit switch is now reset and the appliance is ready for start up.



High Temperature Reset Button
(CE Units Only)

WARNING
DO NOT add oil/shortening to the tank until it has been given ample time to cool down.
 Failure to do so may result in damage to the appliance and/or injury to the operator.

4.3 DRAIN VALVE INTERLOCK

Your appliance is equipped with a drain valve interlock circuit the appliance from heating if the tank drain valve is opened. Refer to the following procedure to resume operation after the drain valve interlock is tripped.

1. Turn the appliance OFF (if not already OFF).
2. Close the tank drain valve and fill the tank with oil/shortening.
3. Turn the appliance ON.

4.4 TROUBLESHOOTING CHARTS

4.4.1 FRYER TROUBLESHOOTING CHART

Problem	Probable Causes	Corrective Actions
Computer Controller display doesn't light.	No power to appliance.	Check main building power supply.
	Circuit Breaker tripped.	Reset circuit breaker.
	Power Cord loose or not connected.	Connect power cord. Check power cord where it enters the rear of the fryer's entrance box. Verify that it is plugged all the way into the receptacle.
	Fuse blown.	Contact Authorized Service Company.
	Transformer Defective.	Contact Authorized Service Company.
	Defective Controller.	Contact Authorized Service Company.
Controller is on and appliance will not heat up.	Computer is in Melt Cycle	Allow time for unit to heat up.
	High temperature limit has tripped.	Allow appliance to cool and reset High temperature limit.
Appliance will not maintain temperature properly.	Faulty temperature probe.	Contact Authorized Service Company.
	Faulty High temperature limit.	Contact Authorized Service Company.
Computer display shows off and can not be turned on.	Faulty computer	Contact Authorized Service Company.
Oil Temperature is hotter, or cooler than shown by Computer Controller	Temperature Calibration	Refer to section 3.8
	Defective Temperature Probe	Contact Authorized Service Company.
Computer Controller displays "DRAINING" or "TURN OFF"	Blue drain valve is not completely closed.	Close blue drain valve handle.
	Improperly adjusted or defective drain switch.	Contact Authorized Service Company.
Computer Controller displays "PROBE OP" "OPEN"	Open temperature probe	Contact Authorized Service Company.

4.4.2 FILTER TROUBLESHOOTING

Problem	Probable Causes	Corrective Actions
Drain Valve is open; the oil is draining slowly or not at all.	Drain valve is not fully open	Press down on the drain valve handle and verify that it is fully open.
	Drain is plugged with debris.	Use the clean out rod to clear the drain valve opening. If this doesn't clear the blockage, close the drain valve and contact a qualified service technician.
Pump return handle is pulled out, but no pumping sound can be heard.	Red return valve handle is not completely open.	Pull on the red return valve handle to make sure it is completely open.
	Filter circuit breaker is tripped or in the off position.	Reset the circuit breaker or press it to the on position.
	Filter motor thermal overload is tripped.	Push the red reset button on the end of the filter pump motor.
	Filter power cord is unplugged or loose.	Check the power cord at the rear of the fryer entrance box, and at the rear of the pump box and verify that the power cords are pushed all the way into their receptacles.
Oil/shortening is returning to the tank slowly or not at all.	Loose or defective sensor switch.	Contact Authorized Service Company.
	Dirty filter envelope	Change filter envelope.
	Pickup tube screen clogged.	Remove and clean pickup tube screen cap.
	Filter pan not pushed in completely.	Push filter pan in.
Excessive air bubbles are in the oil being returned to the tank.	O-rings not sealing on pickup tube.	Check and replace o-rings as needed.
	Pickup tube screen not tight.	Tighten pickup tube screen cap.
	Pickup tube screen cap missing	Locate and install pickup tube screen cap.
Oil/Shortening is cloudy when returned to fry tank.	Filter pan not pushed in completely	Push filter pan in to complete connection.
	Filter envelope torn or damaged.	Change filter envelope.
Drain valve is closed, but the computer controller still displays "DRAINING"	Low shortening temperature	Cloudiness should disappear when oil/shortening is heated.
	Blue drain valve handle not completely closed	Verify that drain valve handle is completely closed.
	Improperly adjusted or defective drain switch.	Contact Authorized Service Company.

TROUBLESHOOTING



4.4.3 COMPUTER & DIGITAL CONTROLLER DISPLAYS

If your appliance is equipped with a computer or digital controller it may display the following messages on its display.

Display	Problems	Action
OFF	Controller is OFF	Press [I/O] key to turn controller ON
MELTING LIQUID	Oil/shortening temperature is low. Fryer is slowly heating.	Wait for appliance to heat up.
MELTING SOLID	Oil/shortening temperature is low. Fryer is slowly heating.	Wait for appliance to heat up.
HEATING	Oil/shortening temperature is low. Fryer is heating.	Wait for appliance to heat up.
READY	Oil/shortening is at temperature and ready to cook.	Perform cooking activities as needed.
DRAINING TURN OFF	Drain valve is open while controller is on.	Turn off appliance. Close drain valve before turning appliance back on.
HEAT FAILURE	Ignition system has locked out.	Refer to Fryer Troubleshooting section
PROBE OP OPEN	Incorrect probe reading.	Contact a qualified service technician.
HIGH TMP	Oil/shortening has reached an unsafe temperature.	Turn off appliance. Allow time for appliance to cool before turning on.
	Incorrect probe reading.	Contact a qualified service technician.
SYSTEM FAILURE	Temperature probe is shorted.	Contact a qualified service technician.
POLISH NOW	This message indicates that oil in the vat is in need of polishing.	Operators may (depending on settings) polish now, or defer the polish filter operation for a later time.

4.4.4 PROBLEM-SOLVING SHORTENING

Frying oil - Problem-Solving		
Problem	Possible Cause	Solution
Fried Product greasy:	Old or broken down frying oil.	Change frying oil.
	Frying oil temperature not at 350°F when product was fried.	Be sure frying oil temperature is at 350°F when product is fried.
	Fried product not drained after frying.	Drain product properly after frying.
Product too dark or burnt taste:	Old or broken down frying oil.	Change frying oil.
	Breaded product not at frozen temperature when fried.	Fry product immediately out of freezer.
	Cook time too long.	Verify correct product button was pressed. Verify cook time setting for product is correct.
	Frying oil temperature is too hot, above 350° F.	Use a temperature probe to measure frying oil temperature. Temperature should be 350° F., +/- 5°F. If temperature is above 350° F., contact a qualified service technician.
	Temperature probe is damaged.	Use a thermometer to measure frying oil temperature. Temperature should be 350° F., +/- 5° F. Contact a qualified service technician.
Product is too light or product not fully cooked:	Cook time too short.	Verify correct product button was pressed. Verify cook time setting for product is correct.
	Removed product before cook time complete.	Wait for fryer to beep to signal completed cook time.
	Temperature probe is damaged.	Use a thermometer to measure frying oil temperature. Temperature should be 350° F. +/- 5° F.
	Frying oil temperature is not hot enough – below 350° F.	If temperature is below 350° F., contact a qualified service technician.



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