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

REDUCED OIL VOLUME RACK FRYING SYSTEM

Covering Models

SELVRF



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 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 or 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 commercial/professional use only and should be operated by fully trained and qualified personnel. It is not intended for continuous mass production of food.

WARNING

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

WARNING

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

WARNING

If the power supply 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. In Europe, supply cords must be oil resistant, sheathed flexible cable not lighter than ordinary polychloroprene or other equivalent synthetic elastomer-sheathed cord. (Code designation 60245 IEC 57).

WARNING

This appliance is intended for indoor use only.

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 to 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, work shelf, 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

Potential fire danger exists if the cooking oil level is below the minimum indicated level. The cooking oil level should NOT be allowed to fall below the minimum indicated level line at any time. The use of old cooking oil can be dangerous as it will have a reduced flash point and be more prone to foaming over.

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

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. THEORY OF OPERATION

The Pitco Reduced Oil Volume fryer works very similarly to the Pitco standard electric fryer. Other than rotating elements (for cleaning), the appliance functions nearly the same. The Reduced Oil Volume Fryer has a reduced cold zone to significantly reduce oil usage and extend oil life. This smaller zone may require more frequent filtering depending on the product being fried.

Upon turning the fryer on, the high limit closes the (side on) safety contactor which stays closed until the fryer is turned off. If the oil temperature exceeds 450 °F, the high limit opens and pre- vents further operation until the cooking oil has reached a safe cooking temperature. This places a minimum duty cycle on the safety (side on) contactor to insure its proper operation when needed. The “heat demand” contactor opens and closes on demand from the primary control to maintain the desired cooking temperature. When the “heat demand” contactor closes, it energizes the heating elements in the fry pot. Near the fryer heating elements, the temperature and high limit sensor probes can be found. The temperature probe provides a signal to the primary control, sensing the oil temperature in the fry pot.

Optional Automatic Top Off: The fryer (only when operating at desired temperature) senses the oil level and replenishes consumed oil only between cook cycles. There are no programming options for the operator or service technician, the control functions like any other Pitco electric fryer computer control. The operator can use the manual “ADD OIL” button as needed to replenish any oil consumed in the cooking process. It is recommended that oil only be added when the fry pot is at the desired temperature, and that the “ADD OIL” function not be used to fill an empty fry pot from the JIB.

2. INSTALLATION

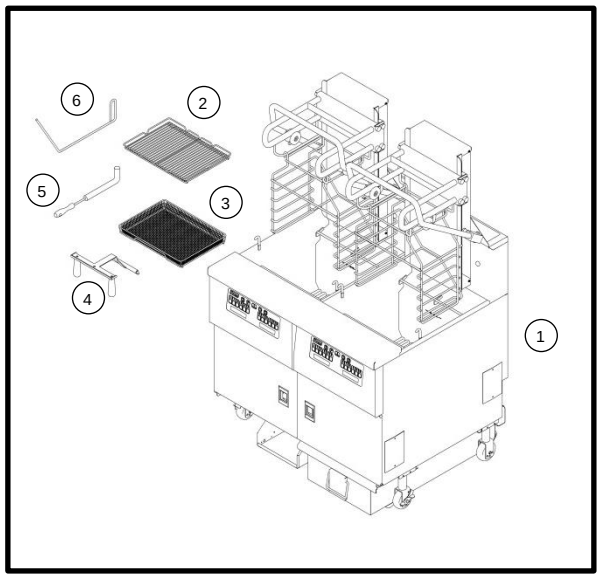
2.1. CHECKING AND UNPACKING YOUR NEW APPLIANCE

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. Pitco does not assume responsibility for damage or loss incurred in transit.

1. Upon Delivery, inspect for visible shipping damage in the presence of the trucking operator. If something appears damaged, file a claim for damages regardless of extent.
2. Unpack and inspect unit for damage. Contact the shipper within 15 days and file a concealed damage claim; the shipper is only responsible for concealed dam age for 15 days after delivery.
3. Remove the unit from the shipping pallet:

   Remove the filter pan, and JIB pan (if equipped) from unit before attempting to dismount the unit from the shipping base.
4. Do not allow the full weight of the unit to rest on the legs or caster when removing the appliance from the shipping pallet. The casters can be bent or damaged if too much weight or force is applied to them from improper handling.
5. Check the packing list enclosed with your appliance to ensure that you have received all the parts to the appliance. Refer to figure 1 for accessory identification. If you are missing any parts, contact the dealer from whom the appliance was purchased.
6. Using the front cover of this manual, record the following for warranty service or future reference: 1. Your Pitco model number. 2. Fryer serial numbers (Found on the inner door of each fryer). 3. The date purchased from your dealer invoice.

Once you have completed the above, the appliance is ready to be installed.



FRYER ACCESSORIES

Item #	Part #	Description	Qty
1	Various	Dual SELVRF	1
2	B5009201	Accessory Product Racks	5*
3	B5055201	Accessory Tender Racks	4*
4	B5055702	Accessory Rack Handle	1*
5	PP10056	Nylon Cleaning Brush	1
6	A3381001	Clean Out Rod	1

* Quantity per fry pot.

CAUTION

It is important that you read and understand this manual before installing, operating or servicing this appliance. Be sure to retain this manual for future reference.



2.2. GENERAL INSTALLATION REQUIREMENTS

The installation of this appliance must be performed by an authorized service professional. A qualified professional will ensure that the installation is safe and meets local or national building, electrical, and fire codes.

Where conflict exists between instructions in this manual, and local, or national codes or regulations, installation and operation shall comply with the codes or regulations of the locale in which the appliance is installed.

2.3. 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 (15.24)	0.0 (0.0)
Sides	6.0 (15.24)	0.0 (0.0)
Aisle	35.0 (88.9)	35.0 (88.9)

WARNING

DO NOT obstruct the flow of ventilation 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.

WARNING

DO NOT install this appliance next to a water cooker, or use in any way in which water can come in contact with the hot oil. Splash over of water into hot oil may result in a steam eruption, potentially causing hot oil to be ejected from the fryer, and creating a burn hazard.

2.4. LEVELING THE FRYER- LEGS/CASTERS

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.

WARNING

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

WARNING

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

When you receive your appliance, it is completely assembled with legs or optional casters. This appliance must be installed with legs or casters; it cannot be curb mounted, or sealed to a base. Curb mounting will seriously inhibit this appliance's ability to effect proper component ventilation. The supplied legs or casters provide the necessary height to meet sanitation requirements and assure adequate air supply for electrical component ventilation. To level the fryer, use the following procedure.

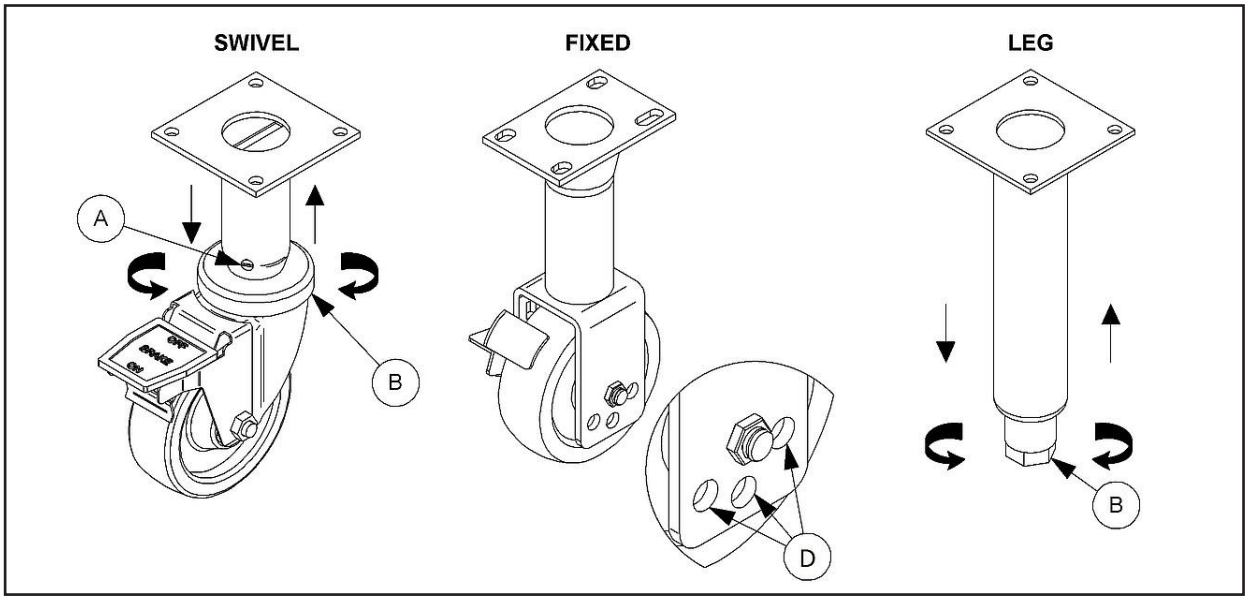
Required tools: A large pair of water pump pliers, a medium sized flat blade screwdriver and a 12" (30.5 cm) long level.

1 Position appliance in final installed location.

2 Apply level across front, and then the left and right side of unit, determine lowest point and distance to level.

3 Add the distance determined in step 2 to caster or leg on the lowest corner of appliance.
   a. Swivel casters- loosen 2 set screws (A)
   b. Legs and swivel casters-. Adjust the height of the leg / caster by turning adjustment collar/ foot (B) with water pump pliers until desired change in height is achieved.
   c. Swivel casters only: Retighten set screws (A).
   d. Fixed casters- Adjust height by moving wheel and axle to alternate holes (D) in wheel bracket as needed. Refer to "FIXED" type caster as shown below.

4 Adjust remaining casters or legs as needed to insure the appliance is supported evenly at each caster/leg contact point.



2.5. ELECTRICAL CONNECTIONS

It is advised that this appliance be connected to a power supply that is controlled by the ventilation system. This will prevent the appliance from being operated without the ventilation hood on. If your appliance is single phase, it requires a hardwired, flexible conduit electrical connection, using conductors sized appropriately for the power requirements listed below. Hardwired units require installation of a restraint device mounted to a safe and substantial element of the building's structure.

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)			
Model	KW	200	208	220	230	240	440	200	208	220	230	240	440	346/200	380/220	400/230	415/240
SELVRF	17	79	82	78	74	71	33	46	48	45	43	41	19	27	26	25	24
Notes: 1. 200V Units will operate at 92% of rated power. 2. 440V Units will operate at 84% of rated power. 3. Supply Power for Filter is wired into the fryer's high																	

CAUTION

Connecting the appliance to the wrong power supply may damage the appliance and void the warranty.

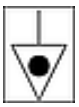
WARNING

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 connect the appliance to an electrical supply other than that indicated on the data plate. Electrical connection should be performed by a qualified electrician.

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.

The appliance must be grounded in accordance with local code, comply with the NEC and ANSI/NFPA No. 70 latest edition (for US and Canada). In all other cases, refer to local and national codes and regulations. To comply with EU 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 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)

CAUTION

Leakage current of this appliance may exceed 10 mA. When permanently connected, a high integrity protective system employing an RCD rated at 30 mA must be used with this appliance.

WARNING

This equipment must be installed so that the plug (if used) is accessible unless other means for disconnection from the power supply (e.g.: circuit breaker) is provided.

2.6. FIXED WIRING and RESTRAINT CABLE

If your appliance was not equipped with an optional cord set and plug, fixed connection to the electrical power supply will be required. This must be performed by a licensed electrician. A licensed electrician will properly size the wiring and ensure that the installation meets all local or national codes and warnings in force when making field connections to mains.

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), and have a local means of disconnection from all poles from the mains included in the fixed wiring in accordance with local codes.

WARNING

All power connection wiring for this appliance must be made in accordance with the wiring diagrams(s) located on the appliance.

Fixed wiring connection procedure:

1 Remove the fryer entrance box cover, Figure 2.6.1.

2 Insert power cable/conduit through hole in fryer cabinet, Figure 2.6.2. Use care when routing power cable/conduit through the fryer to not interfere with actuator movement.

3 Referring to figure 2.6.3, Install cable strain relief in housing cutout (1). Attach power cable wires to terminal block (2) per connection diagram on fryer door.

4 Attach a movement restraint cable assembly to any fryer that is not connected with a cord and plug, Figure 2.6.4.

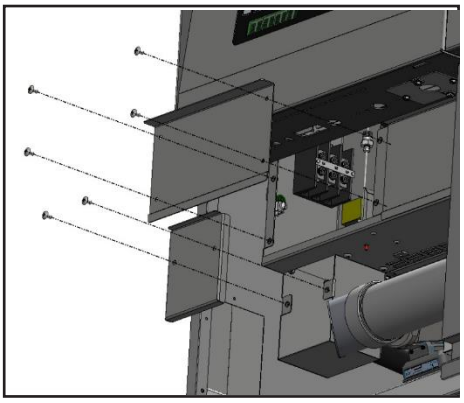


Figure 2.6.1 - (Drain line removed for clarity).

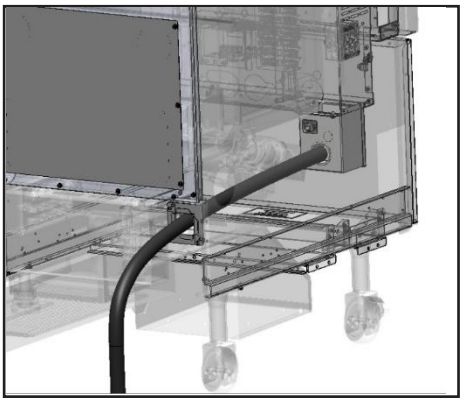


Figure 2.6.2 - Insert flexible conduit through cabinet as shown to prevent contact with moving parts.

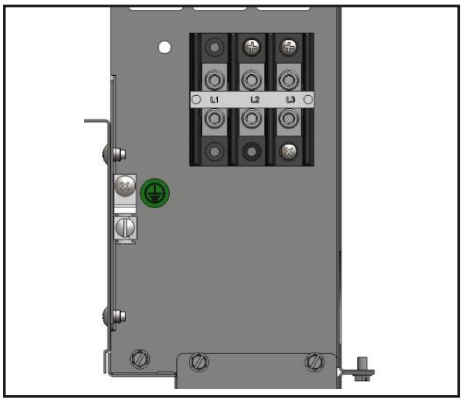


Figure 2.6.3 - Wire housing strain relief hole: 2” or 1.75” diameter.

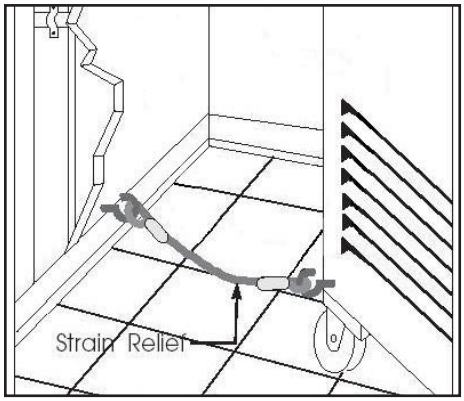


Figure 2.6.4 - Fryers on casters, and/or installed with flexible conduit must have a restraint cable installed between the fryer and substantial structural element to prevent strain on conduit.

2.7. 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.

2.8. 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 and stable. Any additional leveling that is necessary can be performed as previously described in “Leveling the Fryer”. (Refer to section 2.4)

√ Ensure that high temperature limit probe(s), item 2 in figures 2.8.1 below are in place and secure as shown below. Ensure the temperature control probe(s) (item 1) is positioned properly as shown.

√ Review the installation portion of this manual and ensure that all steps have been followed and executed properly.

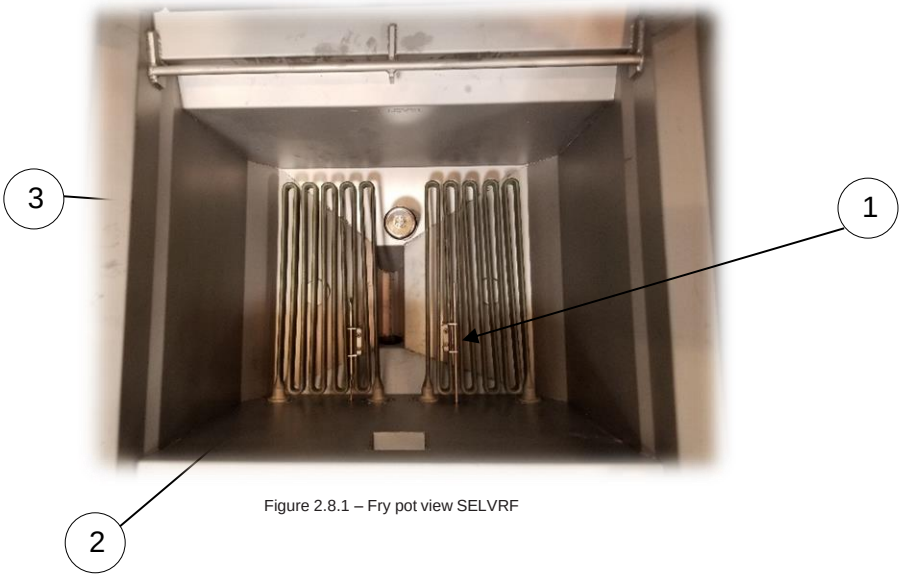


Figure 2.8.1 – Fry pot view SELVRF

2.9. INITIAL CLEANING

When your appliance is shipped, many of its parts are covered with a thin coat of oil for protection. Before the appliance is ready for cooking, all transit material must be removed and the appliance must be cleaned. This will remove the oil coating and any foreign matter that may have accumulated during storage and shipment. Refer to the following procedure to clean the appliance.

WARNING

Wear protective gloves and clothing when cleaning and draining the appliance and when disposing of water. The water is extremely hot and can cause severe injuries.

CAUTION

DO NOT leave the appliance unattended during cleaning. NEVER let the liquid level go below the oil level line.

NOTICE

DO NOT run water through the filter return system. This will damage the pump and void your warranty.

1. Read the “operation” section of this manual prior to filling or operating the appliance.
2. The following steps should be followed using a food grade cleaner.

WARNING

Use a commercial grade cleaner formulated to effectively clean and sanitize food contact surfaces. Read the directions and precautionary statements before use. Particular attention must be paid to the concentration of cleaner and the length of time the cleaner remains on the food contact surfaces.

3. Following the cleaning directions in this manual to clean the tank interior and all other food contact surfaces.
4. When cleaning is complete, rinse the inside of the tank thoroughly with cool water. Continue to rinse the tank until the cleaner has been completely and thoroughly rinsed from the tank.
5. Using a clean dry cloth, wipe out all of the water in the fry tank.
6. Using a clean cloth and food grade cleaner, clean the bread and batter station and/or filter pan, if equipped.
7. For additional functions, please refer to cooking control manual.

If the appliance can’t be adjusted to operate properly contact a qualified service person or contact the factory using the contact information on the back of this manual.

3. OPERATION

3.1. OPERATIONAL FEATURES

The figures below outline some of the key operational components of your appliance. Refer to the following sections of this manual to learn more about these and other features.



ITEM #	DESCRIPTION	FUNCTION
1	COOKING COMPUTER	A programmable cooking computer that controls oil temperature and provides cook time tracking.
2	OIL TOP OFF JUG	Supplied by others, provides on board storage of fresh cooking oil for topping of fry tanks in between cooks.
3	FILTER PUMP CIRCUIT BREAKER	Protects pump motor from damage in the event of overcurrent.
4	HI-LIMIT RESET	Resets Hi-Limit Switch.
5	FILTER PAN ASSEMBLY	Holds oil during fry pot cleaning and filter operations. Contains filter pickup assembly.
6	FILTER PUMP STRAINER	Helps prevent debris from clogging the filter pump if filter paper rips or is poorly installed.
7	DRAIN OUTLET	Directs cooking oil into the filter pan when drain is opened. Swivels up to make cleaning easier. Caution! May be HOT!

3.2. FILLING THE FRY POT

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

CAUTION
Solid shortening must not be used, or clogged pump lines, and pump damage are possible.

OIL CAPACITY

Fryer Model	TANK (OIL) CAPACITY* LBS (KG)
SELVRF	76 (35)

* Per Tank

It is recommended that a high-quality liquid frying oil be used. DO NOT use solid shortening. Use of solid shortening may result in clogged pump/filter lines or pump damage.

1. Verify that 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. You may fill the tank to slightly below the nominal level mark: the oil will expand slightly when it heats up, raising the level slightly.

WARNING
THE PUSH BUTTON TOP OFF SYSTEM IS NOT INTENDED TO FILL FRY POTS.

WARNING
Replace oil that is smoking, or foams when cooking. Old, heavily used oil have a reduced flash point and are prone to surge boiling. Cooking with old oil may create dangerous conditions.

WARNING
Do not overload the rack fryer baskets, or allow the oil level to exceed the MAX line while cooking. Wet product, or too much oil in the fry pot can lead to surge boiling, and over topping the fry pot. Overtopping may create hazards such as burns or slippery floors.

CAUTION
This appliance is NOT designed for cooking with water. Severe equipment damage will occur if a fryer is used as a water bath for rethermalizing foods. Damage of this type is not covered under the warranty.

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

3.3. 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. (See section 2.9 “Filling the Cook Tank”).
3. Press the ⏻ button to turn the controller on.
4. The appliance is now on and heating the oil in the cook tank.

WARNING
NEVER operate the appliance with an empty fry tank. It will void the warranty.

WARNING
Dry firing the elements could cause a fire or other unsafe situation. Dry fired elements are extremely hot, may damage the element and could void your warranty. Never allow a dry fired element to come into contact with cooking oil.

WARNING
Oil/shortening level should NOT be allowed to fall below the minimum indicated level line at any time. Dry firing of the elements may cause a fire, and can shorten element service life. Evidence of dry firing will void your warranty.

OIL TEMPERATURE
Keep the oil temperature in the fryer to a maximum of 190°C (374°F). Higher temperatures will cause rapid breakdown of the oil and give you no faster cooking. At 205°C (401°F) to 210°C (410°F) the life of the oil is only one third of its life at 190°C (374°F). In addition, increased decomposition causes the oil to smoke badly even if the temperature is lowered to 190°C (374°F) again. High temperatures give you no advantage, cost you money and increase the fire danger.

3.4. APPLIANCE SHUTDOWN

Refer to the following procedure to shut down the appliance.

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

4. OIL MANAGEMENT

4.1. COOKING

To ensure the quality of the food you cook in this appliance, follow the preparation instructions from the food manufacturer. When the appliance is not in use, the oil should be cooled and covered to prevent contamination.

4.2. COOKING GUIDELINES

- Always use a recipe timer (L – R) when cooking product.
- Always follow the food manufacturer's directions concerning oil temperature and cook time.
- The lower the oil temperature, the longer the cook time and the greater the oil absorption into the food.
- Don't over fill baskets. Filling baskets more than half full by volume may result in foaming over the top of the fryer.
- Over filling baskets can cause uneven cooking, yield soggy, greasy food product and result in oil foaming over the top of the fryer.
- Do not load the fry baskets over the fry pot. Removing the baskets from the fryer to load food reduces the need to filter.
- After removing the baskets from the fry pot, shake gently to remove excess oil.
- Never leave baskets containing cooked product over the fry pot. The heat from the hot oil will continue to cook the product.
- Oil/shortening quality can affect product quality. Keep salt and moisture away from oil/shortening to help maintain its quality. Filtering the oil/ shortening removes crumbs which will help maintain quality and can extend its life.

4.3. FRESH OIL TOP OFF FUNCTION

To add fresh oil to the fry tank on demand, press and hold the  key. Release the  key when the desired oil level is reached in the tank.

Use the Left or Right key to top off the Left or Right vat, respectively for split vat models. Manual top offs are not permitted while there is an active cook in process.

4.4. AUTOMATIC OIL TOP OFF SYSTEM (OPTION)



Pitco offers the "Automatic Oil Level Control" option to maintain the optimal oil level in your Pitco fryer. This optional system minimizes the need for the operator's attention during busy cooking hours. The system maintains oil levels in the frying vat by adding small amounts of fresh oil when appropriate. Replenishment oil is drawn from a Jug In Box (JIB) located in one of the cabinets in a multiple vat build. Alternately, the JIB can be remotely located within nine feet of the fryer. The system can also accommodate a bulk oil system if equipped. There are specific conditions during which fresh oil cannot be added to the vat by the automatic system:

1) Cook Cycle
2) Heating Cycle
3) Melt Cycle
4) Filtering Cycle
5) Control in the "OFF" state

4.5. QUICK STRAIN FILTERING

When the controller indicates the need to perform a “Quick Filtering” as soon as business levels permit. For more thorough filtering/cleaning operations refer to the Preventative maintenance section of this document or the separate controller manual that was provided with your appliance.







4.5.1. AUTO FILTER MODELS

WARNING: Before filtering ensure that filter pan is in place and empty. Wear proper personal protective equipment while filtering.

1. Ensure that oil temperature is above Filter Temperature. Press the Filter button on the controller to initiate auto-filter prompting.
2. Choose a desired filter operation. See control manual for additional information
3. Wait until the auto filter process completes.
4. If prompted by the controller, verify that the oil in the fry pot has reached an appropriate level. If the filter pan is empty, press the ‘YES’ key to complete the filter process. If there is still oil in the filter pan, press the ‘NO’ key to run the pump for an additional 20 seconds.

NOTE: ‘NO’ may be selected for ‘Is vat full’ a maximum of three times. The fourth time that ‘NO’ is selected the fryer will turn OFF and display ‘POSSIBLE FILTER ISSUE – CHECK AND RESOLVE’. Press the ‘YES’ key to acknowledge.

5. PREVENTATIVE MAINTENANCE

5.1. DAILY PREVENTATIVE MAINTENANCE

Performing the preventative maintenance steps below daily will keep your equipment safe and at peak performance. During the cooking process, oil/shortening may spill and splatter and requires immediate attention. During the cooking process, particles, crumbs and crackling collect inside the fry tank reducing product quality and de- creasing oil/shortening life. If you are producing high quantities of fried food and/or frying heavily battered food, it will 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.

5.1.1. DAILY FILTERING

At least daily, a complete filter cycle is required, preferably two. Make sure a clean filter is installed every day.

Ensure that the oil temperature is above allowable filter temperature and that the filter pan is properly in place and empty before performing this procedure.

1. Turn the fryer 'OFF'.
2. Verify pan is installed properly and empty
3. Push and hold the key  to enter the Fryer Control Menu.
4. Press the #1 key. The control will display "DRAIN" / "TOGL OPN"
5. Press the #6 key (YES). The drain valve will open and the oil will drain from the tank into the filter pan and the control will display "DRAIN" / "TOGL CLS"
6. With the oil drained into the filter pan you may clean the fry tank. Using a water dampened clean cloth, wipe the insides of the fry pot to remove crumbs and debris. Scrub crumb ring in fry pot with abrasive pad if needed. REMOVE ALL MOISTURE from the tank before proceeding to the next step.
7. When cleaning has been completed, press the #6 key to close the drain valve. The control will display "DRAIN" / "TOGL OPN"
8. To return the oil to the fry tank, press the L key. The control will display "RETURN" / "TOGL ON".
9. Press the #6 key (YES) to turn the filter motor on and begin returning the oil to the fry tank. The control will display "RETURN" / "TOGL OFF"
10. When the tank is full press the #6 key (YES) to turn the filter pump OFF. The control will display "RETURN" / "TOGL ON".

You can now exit the Fryer Control Menu by pressing the  ON/OFF. Additional filtering procedures, settings and control functions can be found in the Control manual that was shipped with your fryer.

5.1.2. FLUSH HOSE OPERATION (if equipped)

The cooker tank can be rinsed cleaned by using a filter flush hose (if equipped). Refer to the previous section in this document to turn the fryer off and drain the oil into the filter pan. During step # 2 for manual models or step #5 for automatic models use the following procedure to operate the filter flush hose.

WARNING

Resetting either the filter pump circuit breaker or the filter pump motor thermal overload may cause unexpected hot oil discharge if a refill switch or flush hose valve (if equipped) is left in the ON position. Always verify the appliance is turned OFF and that the filter return switches, or the flush hose valves (if equipped) are OFF and safely positioned before resetting the breaker or thermal overload.

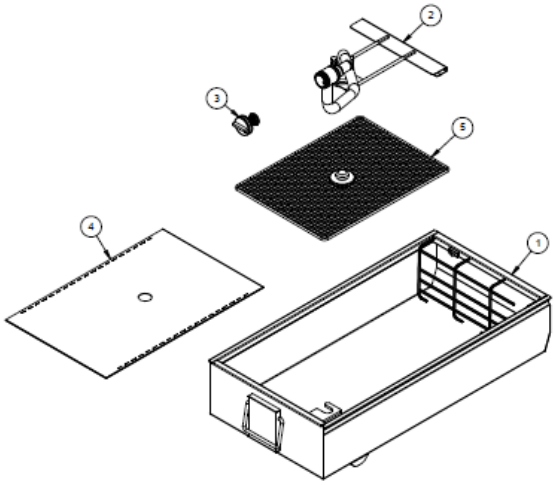
WARNING
ALWAYS use Personal Protective Equipment when working with the Flush Hose Option. Contact with hot oil can cause serious injury.

1. Connect the filter flush hose to the quick connecting fitting.
2. **Point the filter hose nozzle outlet into the empty frypot.**
3. Pull the yellow handle to turn the pump on and allow oil/shortening to flow through the flush hose.
4. Use the flush hose to rinse cooking debris from sides and bottom of the fry pot, flushing it through the drain and into the filter pan.
5. When the tank has completed filling, push the yellow handle to deactivate the pump.

5.1.3. REPLACING THE FILTER MEDIA (if equipped)

Refer to the following procedure to replace the filter media if the appliance is equipped with a filter drawer. The diagram below shows a filter pan and associated parts.

1. Detach the pickup tube from the filter pickup assembly by unscrewing it (counterclockwise), at the knurled fitting, from the threaded fitting on the filter screen.
2. Slide off the filter paper clip and remove used filter paper from filter screen. Clean and completely dry pan and pan components. Replace with new filter paper, ensuring that the hole in the paper is on the top, so that threaded fitting in filter screen protrudes through it.
3. Fold filter paper to the underside of the filter screen and replace filter paper clip.
4. Re-attach filter pickup tube to the filter screen by screwing it (clockwise) into the threaded fitting in filter screen.
5. Reinstall the filter pickup assembly into the filter system by placing the newly covered screen portion of the assembly into the filter pan and connecting the quick disconnect on the filter pickup assembly into white donut fitting on the left-hand side of the appliance. Ensure that it snaps tightly and securely into donut fitting.



1. Filter Pan Assembly
2. Filter Pickup Assembly
3. Filter Strainer Cap
4. Filter Paper
5. Filter Screen

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

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 the frying operation each day. Some food particles can spontaneously combust into flames if left soaking in certain oil/shortening materials.

5.1.4. CLEANING THE CABINET

1. Wipe any spilled oil/shortening, dust and lint from the cabinet exterior with a clean damp cloth and a mild food grade detergent. Be careful not to get any water or detergent in the oil/shortening. Use a nonabrasive pad for tougher stains if needed.
2. Remove detergent from all surfaces.
3. 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.

5.1.5. FILTER CLEANING (If Equipped)

1. Unscrew filter strainer cap from pickup tube and remove any crumbs from the slots. Use a clean cloth to remove any remaining crumbs and reattach.
2. Scrape all loose debris and crumbs from filter pickup assembly and filter pan with the filter scoop shovel.
3. Remove filter pickup and place in pot sink, power soak sink or dishwasher for cleaning. Be sure to rinse thoroughly and dry all surfaces before re-assembly.
4. Wipe the filter pan with clean damp cloth and a food grade detergent. If necessary, place pan in pot sink to rinse all the detergent from the surfaces.
5. **CAUTION** - Ensure that all parts and surfaces are completely dry before re-assembling and using.

5.1.6. APPLIANCE INSPECTION

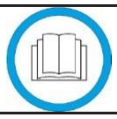
√ Check that the high temperature limit and temperature probe are in the correct position and secured in place. (Refer to illustration on page 11 of this manual).
√ Check that wires and cords are not frayed or loose in and out of the cabinet.
√ Check around the appliance for loose parts or accessories 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 inside and outside of the cabinet and around the appliance.

5.2. WEEKLY PREVENTATIVE MAINTENANCE

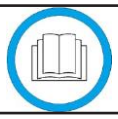
Performing the preventative maintenance steps above on a daily basis will keep your equipment clean and safe. On a weekly basis these additional steps should be performed. **Wear personal protective gear when performing preventative maintenance!**

1. Turn the fryer off. Allow the oil/shortening to cool to room temperature 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), retention lanyard and bulk oil line (if present).
3. Wearing your protective gear, pull the fryer away from the hood.
4. Check that vent hood drip cup is empty and not dripping onto the floor or the appliance.
5. Check that the hood baffles are clean and not dripping oil/shortening onto the floor or the appliance.
6. Clean the fryer exterior area, it may be necessary to use a non-abrasive pad 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) and retention lanyard with a dry cloth.
8. Reattach power cord(s), retention lanyard and bulk oil connection (if present) push fryer back under the ventilation hood.

WARNING
Serious injury could result from direct contact with hot surfaces and/or oil. ALWAYS wear suitable personal protective equipment.



WARNING
Read and understand this manual before using this appliance.



5.3. MONTHLY PREVENTATIVE MAINTENANCE

Food debris and oil/shortening can build up inside the tank. Performing the monthly preventative maintenance steps below will keep your equipment safe and at peak performance. If you are producing high quantities of fried food and/or frying heavily battered food, it may be necessary to clean these components more than once a month.

5.3.1. BOIL OUT PROCEDURE

Wear protective gloves and clothing when cleaning and draining the appliance. Oil may spatter and will cause injury to personnel.

1. Read the “operation” section of this manual prior to filling or operating the appliance.
2. Turn the appliance off. Drain all the oil from the tank and allow the tank to cool. The container must also be able to withstand 400°F (205°C) temperatures. For instructions on how to open drain. See control manual.
3. Remove baskets, tank rack and basket hanger for cleaning.
4. Remove and discard any large debris inside the tank.
5. Close the drain valve and fill the tank with potable water to the “oil level” line.
6. Place the appliance into boil mode:

Turn the appliance ON. The controller will recognize that there is water in the tank and automatically enter boil mode. To enter boil mode manually, press the Temp Key then keys 2, 1, 2 for degrees F or 1, 0, 0. for degrees C.

7. Once the water reaches a simmer, add 8 to10 oz. (227 to 283 g) of Pitco cleaner for every 25 lbs. (11.3 kg) of oil/shortening your fryer is rated to hold.
8. Simmer for 1 minute. (The water should never be allowed to boil as this may splash over the tank side and cause permanent damage to the components.)
9. Turn the appliance OFF and allow the fryer to soak for 15 to 30 minutes, allowing the cleaner to soften the oil/shortening deposits and carbon.
10. Scrub the inside of the tank using a cleaning brush safe for hot water. Care must be taken to remove all the foreign material on the tank, heating elements, sidewalls and other components in the tank.
11. Drain and dispose of the cleaning solution. CAUTION: Cleaning Solution is HOT.
12. Once the tank has cooled, rinse with clean potable water thoroughly.
13. Remove all remaining water and residue with a clean dry cloth.
14. Clean and dry product rack and rack carriage before re-installing
15. Close the drain valve and fill the cooker tank with oil.

5.3.2. TEMPERATURE CHECK

Use a high-grade pyrometer or digital thermometer suitable for temperature up to 380°F (182°C). Place the thermometer in the oil above the tip of the fryer’s temperature probe with in 1” (2.54 cm) 25.4 mm). Be sure not to touch the heat elements since this will measure incorrect temperatures.

Check that the controllers set point and thermometer is within +/- 5°F (2.8°C). If your measurement is off, re-measure again before contacting an Authorized Service Company for further assistance.

5.4. 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.

5.4.1. 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.

5.4.2. 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 that it is not dripping onto the appliance. Empty as necessary.
√ Check hood for clean surface, oil/water condense can drip onto appliance.
√ Check drain/filtration system for leaks
√ Check for missing fryer parts.
√ Check for missing fasteners

5.4.3. 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 Controller/thermostat features to ensure they are functioning.
√ Check Temperature Calibration

5.4.4. FILTER SYSTEM

√ 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.
√ 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 compared to nameplate amperage.
√ Check pump and motor; clean any excess oil from pump assembly.
√ Check all filter hoses for leaks and integrity.

5.4.5. 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.

5.4.6. 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, 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.

6. TROUBLESHOOTING

6.1. 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 the previous sections of this manual

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

6.2. HIGH TEMPERATURE LIMIT

This appliance is equipped with a high temperature limit switch. The high temperature limit switch will stop the appliance from heating if the oil in the fry pot has reached an unsafe temperature. In the event that the high temperature limit has tripped, refer to the following procedure to reset the switch

a. Turn the appliance off.
b. Allow the appliance time to cool to room temperature.
c. Add oil to the cook tank as needed.
d. Remove the access screw located under the basket support. Refer to Picture 1.
e. The high limit switch is now reset and the appliance is ready for start-up.
f. If the reset becomes tripped again, discontinue using the fryer, and call for service.

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

6.3. DRAIN VALVE INTERLOCK

Your appliance is equipped with a drain valve interlock circuit; the appliance will stop heating if the tank drain valve is opened. The appliance will turn off, and scroll a message DRAINING TURN OFF. Refer to the following procedure to resume operation after the drain valve interlock is tripped.

1. Turn the computer OFF (if not already OFF).
2. Close the tank drain valve:

   This system is managed by the controller. If you see this message on the control it is likely due to a fault condition. Call Pitco Technical Support at the number provided in this manual.

   Otherwise, to exit the Fryer Control Menu, press the ON/OFF key  or the Filter key .
3. Fill the tank with oil.
4. Turn the computer ON and resume normal operation.

6.4. FRYER TROUBLESHOOTING CHART

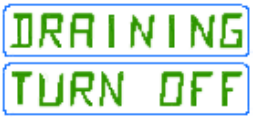
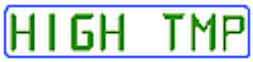
PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTIONS
Computer Controller Display does not illuminate.	No power to appliance	Check main building power supply.
	Circuit breaker has tripped.	Reset circuit breaker at panel.
	Power cord loose or not connected	Connect power cord to power outlet.
	Fuse blown.	Contact Authorized Service Company.
	Defective Transformer.	Contact Authorized Service Company.
	Defective Controller.	Contact Authorized Service Company.
Controller is on, appliance will not heat oil.	Computer is in Melt Cycle.	Allow time for appliance to slowly heat up (melt cycle).
	High Temperature Limit Switch has tripped.	Allow appliance to cool and reset switch.
Appliance will not maintain temperature properly.	Faulty temperature probe.	Contact Authorized Service Company.
	Faulty High Temperature Limit Switch.	Contact Authorized Service Company.
Controller display shows OFF and cannot be turned on.	Faulty Controller.	Contact Authorized Service Company.
Oil temperature is hotter or cooler than controller displays.	Improper temperature calibration.	Calibrate per procedure in this manual.
	Defective temperature probe.	Contact Authorized Service Company.
Controller displays “Draining Turn Off”.	Blue drain valve handle is not completely closed (manual models).	Completely close blue drain valve handle.
	Improperly adjusted drain switch	Contact Authorized Service Company.
	Hardware or Comm Fault.	Contact Authorized Service Company.
Controller displays “Probe Op” or “ Open”.	Defective temperature probe.	Contact Authorized Service Company.

6.5. FILTER TROUBLESHOOTING CHART

PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTIONS
Filter pump does not activate	The filter pump circuit breaker has tripped.	Reset the filter pump circuit breaker.
	The thermal overload on the pump motor has tripped.	Reset the thermal overload on the motor. *
Oil/shortening is draining slowly or not at all from the fry pot.	Drain valve is closed.	Follow the procedures in this manual to open drain valve through user interface on the controller.
	Defective drain valve.	Contact Authorized Service Company.
	Drain is plugged with debris.	Use the clean out rod to clear the debris from the drain opening. *
Oil/shortening is returning to the fry pot slowly or not at all.	Excessive debris in the filter pan/ dirty filter envelope.	Clean the filter pan/replace the filter envelope. *
	Pump strainer is clogged.	Turn the pump off and remove and clean the pump strainer. *
	Filter pan assembly is not properly installed/filter pickup assembly is not completely pushed in.	Check filter pan for proper installation/push filter pickup in completely. *
	O-rings not sealing on pickup tube	Check and replace O-rings as needed. *
Excessive bubbling occurs in fry pot while oil is being returned.	Pick up tube screen in the filter pan is not tight.	Tighten the tube screen on the filter pickup assembly. *
	Pump strainer cap is loose or missing.	Tighten/replace the pump strainer cap.*
	Filter pan is not properly installed/ filter pickup is not completely pushed in.	Check filter pan for proper installation/push filter pickup in completely. *
Oil/shortening is cloudy when re-turned to tank.	Filter envelope is torn/damaged.	Replace the filter envelope.
	Low oil/shortening temperature	Cloudiness should disappear when oil/shortening is heated.
Drain valve is closed, controller displays “Draining”.	Blue drain valve is not completely pushed in.	Push blue drain valve handle in completely (manual models only).
	Improperly adjusted or defective drain switch.	Contact Authorized Service Company.

6.6. CONTROLLER DISPLAYS

Below is a list of common computer controller displays and guidance. For additional computer controller displays and information concerning them, refer to the controller manual that was shipped with your appliance.

Display	Meaning	Action.
	The Controller is OFF.	Press the I/O key to turn the controller on.
	Fryer is in MELT mode for liquid cooking medium.	Wait for the appliance to heat up.
	Fryer is in MELT mode for solid shortening.	Wait for the appliance to heat up.
	Oil/Shortening temperature is low. Fryer is heating.	Wait for the appliance to heat oil.
	Oil/Shortening is at temperature.	Perform cooking activities as needed.
	The drain valve is open while the appliance is ON.	Turn the appliance OFF. Close drain valve before turning appliance back ON.
	Float switch (if equipped) is in the down position.	Fill tank with oil/shortening/dislodge the float switch, if stuck.
	Incorrect probe reading/damaged probe.	Contact Authorized Service Company.
	Oil/Shortening has reached an unsafe temperature.	Turn off the appliance. Allow time for appliance to cool before restarting.
	Incorrect probe reading/damaged probe.	Contact Authorized Service Company.
	Temperature probe is shorted	Contact Authorized Service Company.
	Indicates that the oil in the vat is in need of polishing.	Operators may, depending on settings, polish now or defer the polish operation for a later time.
	Shows when the number of cooks since the last filter operation exceeds the Cook Counts Allowed Value.	Perform a filter operation as soon as business levels permit.
	The JIB is low or empty.	Replace the JIB if it is empty. Refer to the control manual shipped with your appliance to clear this message.
	Indicates the computer has lost communication with the auto filter control board. Oil management operations are suspended.	Contact Authorized Service Company.

In the event of problems with or questions about your order, please contact the Pitco Frialator factory at: (603) 225-6684 World Wide, or, at our Website Address: www.pitco.com	In the event of problems with or questions about your equipment, please contact the Pitco Frialator Authorized Service and Parts representative (ASAP) covering your area, or contact Pitco at the numbers listed to the left.
MAILING ADDRESS – P.O. BOX 501, CONCORD, NH 03302-0501	