EP Series

Electric Fryer

Installation & Operation Manual

EP14 ROV/CZ; EP18 CZ



150-000049_R0 November 2025

TO THE PURCHASER, OWNER AND STORE MANAGER

Please review these warnings prior to use and post them in a prominent location for reference.

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 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

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, C22.2, as applicable.

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 companies, this warranty will be void. In addition, Pitco and its affiliates will not be liable for any claims, damage or expenses incurred by the customer which arise 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

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

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

WARNING

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

WARNING

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

WARNING

The appliance is NOT water jet stream approved. DO NOT clean the appliance with a water jet or steam cleaner. Do not immerse appliance. If electrical connectors become wet, dry completely before use.

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, 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

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.

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

If the power supply cord is damaged, it must be replaced by a Pitco Authorized Service and Parts 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

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.

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SECTION 1: General Information

1.1 Description

PITCO EP Series fryers provide perfect cooking performance on every product. With cold zone designed vat, the fryer collects the crumbs to protect the oil from damage and can support longer peak hours without a filter request. Furthermore, fryers are designed to be durable and provide years of dependable and trouble-free operation under minimum care.

This manual includes instructions for installation, operating and cleaning procedures, and covers all configurations of EP Series electric models.

Read this manual thoroughly before you start your new journey with our fryers.

1.2 Controller Information

EP Series fryers equipped with the MIC003 smart computer controller provide high precision electronic temperature and process control. The control includes 8 programmable menu keys with separate status windows for real-time monitoring.

1.3 Qualified and/or Authorized Personnel

Qualified installation personnel are individuals, firms, corporations, and/or companies which, either in person or through a representative, are engaged in and are responsible for the installation of electrical appliances. Qualified personnel must be experienced in such work, be familiar with all electrical precautions involved, and have complied with all requirements of applicable national and local codes.

Qualified service personnel are those who are familiar with PITCO equipment and who have been authorized by Middleby Corporation to perform service on the equipment. All authorized service personnel are required to be equipped with a complete set of service and parts manuals, and to stock a minimum number of parts for equipment.



Failure to use qualified service personnel will void the warranty on your fryer.

1.4 Warranty Statement

ORIGINAL STANDARD EQUIPMENT LIMITED WARRANTY

How to Access Your General Warranty Terms & Conditions

If you have any questions regarding warranty coverage, please feel free to contact us via email at techservice@pitco.com. We are glad to assist you and provide necessary information.

How to Obtain Warranty Service

To request warranty service, please contact your Authorized Distributor and/or Service Provider. Before your service call, we recommend gathering the appliance information, such as full model name, serial numbers, and description of the issue.

How to Keep Your Warranty in Force

- Ensure any transit-related damages are reported immediately. Damages of this nature are the responsibility of the carrier and must be reported by the receiver upon delivery.
- Ensure that installation and/or repair service of the appliance is conducted by Pitco authorized personnel. This warranty does not cover any damage resulting from installation or repair services performed by anyone other than Pitco or its authorized service personnel.
- Proper installation in accordance with the manual, applicable regulations and rules, and requirements and operating standards of the manufacturer is required to maintain warranty coverage; any improper installation will void the warranty.
- The product is not intended for home or residential use. Use as intended. Any damage resulting from abuse, misuse or unintended applications is not covered under the warranty.
- Follow maintenance guidelines provided by Pitco as well as the manufacturer's requirements. This is the responsibility of the user of the appliance, and the procedures are outlined in the manual. Damages caused by negligence or failure to provide normal or regular maintenance are not covered by the warranty. Proper maintenance records must be kept and made available upon request. Failure to provide complete maintenance documentation will void this warranty. This warranty does not cover routine maintenance or any service that would reasonably be classified as a maintenance activity.
- Adjustments, such as calibration, leveling, tightening of fasteners or plumbing or electrical connections are normally associated with initial installation. These procedures are outlined in the manual and post-installation adjustments are not covered under warranty.
- Damages due to accidents, government expropriation, falls, natural disaster, flood, fire or other acts of God are not covered under this warranty.
- Ensure that the appliance has the correct utilities required, including proper voltage, gas supply and/or good quality water. Failures and damage due to poor water quality, harsh chemical action, erratic voltage or gas supplies are not covered under the warranty.
- Do not alter or modify the product from its factory condition. Unauthorized modifications void the warranty.
- Do not obliterate, remove or alter the serial number or rating plate.
- Use only Genuine OEM parts from Pitco Frialator, LLC or its Authorized Parts and Service Distributors. Damages due to use of parts and accessories not provided by Pitco are not covered by the warranty.
- This warranty expressly excludes damage to or failure of consumable or quick-wearing parts, including but not limited to seals, gaskets, light bulbs, fuses, circuit breakers (including resetting), indicator lights, and glass components.
- If any other failure occurs which is not attributable to a defect in materials or workmanship or other reasons that are not related to quality problems, it is not covered by the warranty.

- If a defect or fault is caused as a result of negligence by Buyer or a Third Party, including but not limited to willful damage, accidents, force majeure, etc., it is not covered by the warranty.
- Consequential damage or loss as a result of the failure of the goods is not covered by the warranty.
- Travel expenses, labor costs, and other service charges related to repairs are excluded from warranty coverage unless expressly authorized in writing by Pitco Frialator, LLC.
- The warranty only applies to fully paid goods.

This warranty specifically excludes deliberate damage, natural deterioration of the appliance and normal wear and tear of parts, including, but not limited to, electric lamps, fuses, interior or exterior finishes and gaskets.

Limitations of Liability

Pitco Frialator's sole obligation for any valid quality assurance or warranty claim shall be limited to, at our discretion, either the repair of the defective appliance or component, or replacement with new or functionally equivalent parts. All warranty repairs/replacements will be performed at Pitco's expense, subject to this warranty's terms. Any repair or replacement service under this warranty does not extend the original warranty period. Parts covered under this warranty will be repaired or replaced, at Pitco's discretion, with new or functionally operative parts. Pitco Frialator, LLC shall not be liable for, and the purchaser expressly waives any right to claim special, incidental, consequential or other damages of any kind, including, but not limited to, injuries to persons, damage to property, loss of profits or anticipated loss of the use of this appliance, regardless of legal theory (warranty, express or implied contract, negligence, strict liability or any other legal theories). In no event shall Pitco Frialator, LLC be liable for a sum in excess of the purchase price of the item. If any provision of this warranty is unenforceable under the law of any jurisdiction, only that provision will be invalid, and the remaining warranty terms will remain fully effective. The unenforceable provision shall be modified to the maximum extent permitted by law.

SECTION 2: Installation

2.1 General Requirements

NOTICE Follow these installation instructions carefully. Proper installation is important for the operation of the appliance.

Qualified and/or authorized installation personnel perform proper installation, which is essential for the safe, efficient, trouble-free operation of this appliance.

CAUTION **This equipment is manufactured for the use on a particular voltage and phase which is specified on the rating plate located on the inside of the door.**

CAUTION **All installations must conform to all local and national codes.**

Where conflicts exist between instructions and information in this manual and local or national codes or regulations, installation and operation shall comply with the codes or regulations in force in the country in which the equipment is installed.

2.2 Environment & Power Supply

2.2.1 Environment

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

The fryer must be kept free and clear of combustible material.

Minimum clearance of 6" (15cm) must be maintained from combustible construction on each side and the rear of the equipment. This equipment may be installed on combustible floors with a minimum clearance of 6" (15cm).

Maintain a minimum of 24"(61cm) clearance in front of the fryer to provide for proper operation, maintenance and servicing.

CAUTION **Do not block the area around the casters and under the fryers.**

NOTICE A proper ventilation system is also an important part of the installation.

2.2.2 Power Supply

CAUTION **This appliance must be connected to a power supply having the same voltage and phase as specified on the rating plate. Electrical connection should be performed by a qualified electrician.**

WARNING **DO NOT attempt to connect the appliance to an electrical supply other than that indicated on the data plate. Connecting the appliance to the wrong power supply may**

damage the appliance and void the warranty.

POWER REQUIREMENT of SINGLE BATTERY

Model	Voltage	Power Supply	Rated kW	Nominal Amps
EP14 Single Battery	380V/50Hz(60Hz)	3NPE	14	21A
	400V/50Hz(60Hz)		16	23A
	415V/50Hz(60Hz)		17	24A
EP18 Single Battery	380V/50Hz(60Hz)	3NPE	16	24A
	400V/50Hz(60Hz)		18	26A
	415V/50Hz(60Hz)		19	27A

NOTICE All units (cord connected or permanently connected) should be connected to a grounded power supply system.

NOTICE The equipotential grounding lug allows all the equipment in the same location to be electrically connected to ensure there is no electrical potential difference between the units, which could be hazardous.

CAUTION **This equipment should be well connected (grounded) to the equipotential terminals to prevent personal injury or death from electric shock.**

CAUTION **If this equipment is wired directly into the electrical power supply, a means for disconnection from the supply having a contact separation of at least 3-mm in all poles must be incorporated in the fixed wiring.**

CAUTION **If the power cord is damaged, it must be replaced by a Pitco Authorized Service and Parts company technician, or qualified personnel to avoid hazard.**

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.**

2.3 Receive Your Fryers

When your fryers arrive, inspect them carefully, noting any damage on the freight bill.

Please note that this equipment was carefully inspected and packed by skilled personnel before leaving the factory. Pitco does not assume responsibility for damage or loss incurred in transit. The freight company assumes full responsibility for safe delivery upon acceptance of the equipment.

If visible loss or damage is found, be sure this is noted on the freight bill or express receipt and is signed by the person making the delivery.

If concealed damage is found after you have accepted the equipment, report it to the carrier immediately as all claims must be filled within 15 days of the receipt of the shipment. Also, be sure to keep all packing materials as

these will be necessary to make any claim.

2.4 Install

2.4.1 Positioning & Leveling

WARNING **DO NOT install this appliance next to a water cooker or use it 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.**

Once the fryer has been positioned at the frying station, use a carpenter's level placed across the top of the fry pot to verify that the unit is level, both side-to-side and front-to-back.



To level fryers equipped with legs, the bottom of the legs can be screwed out for leveling.



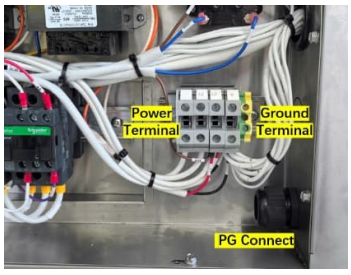
To level fryers equipped with casters, loosen the two set screws on the caster stem. Rotate the collar of the caster to raise or lower the height of the unit. Tighten set screws to lock the adjustment.

CAUTION **If the fryer is equipped with only casters, the brake at the front casters must always be locked on after positioning & leveling to prevent movement.**

NOTICE If needed to relocate a fryer installed with legs, remove all weight from each leg before moving. If a leg becomes damaged, contact your service agent for immediate repair or replacement.

2.4.2 Power Connection

Connect power cord to fryer terminals in accordance with the wiring diagram(s) furnished with the appliance.



Connect the other end of power cord to plug of fixed wiring in accordance with power configuration.

CAUTION **Electrical connection must be performed by a qualified electrician.**

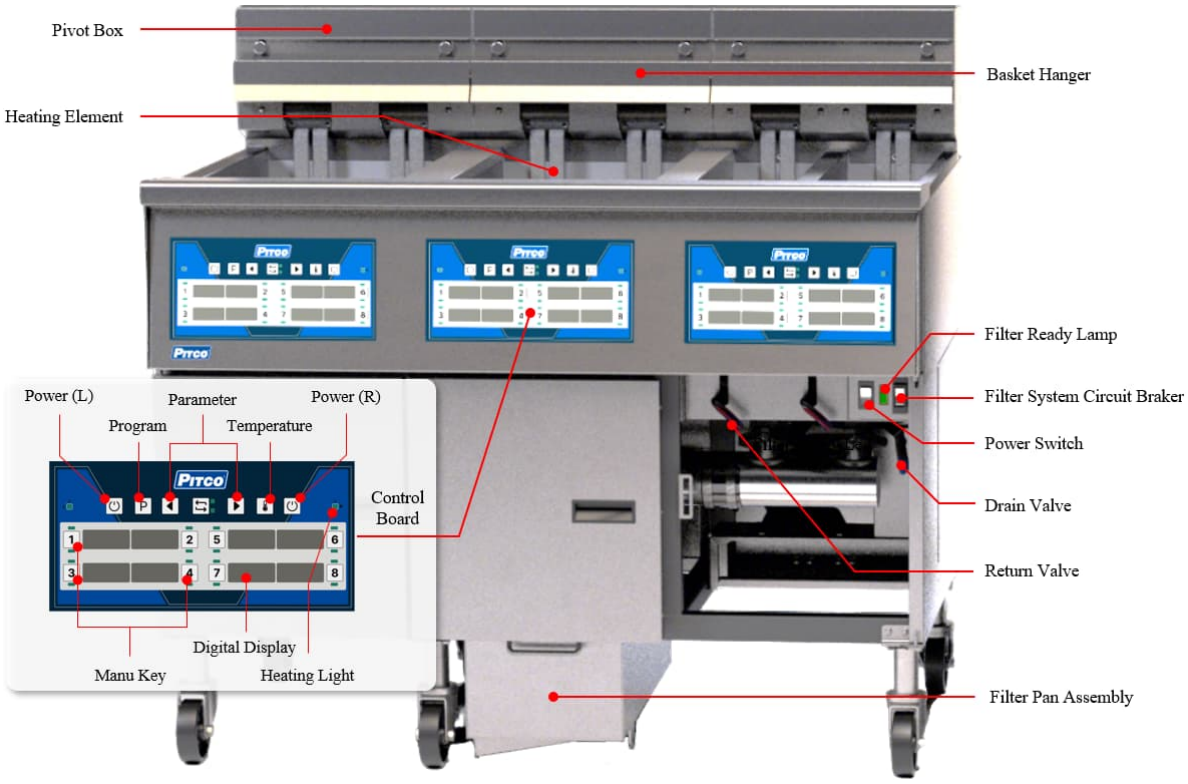
CAUTION **If this appliance is permanently connected to fixed wiring, it must be connected by means of copper wires having a temperature rating of not less than 167°F (75°C) and have a local means of disconnection from all poles from the mains included in the fixed wiring in**

accordance with local codes.

WARNING

The appliance must be grounded in accordance with local code, comply with the NEW 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… 

SECTION 3: Operating Instruction



NOTICE The appearance of your fryer may differ slightly from that shown depending upon configuration and date of manufacture

3.1 Prepare for first Use

Before the fryer is first used, it should be boiled out to ensure that residue from the manufacturing process has been eliminated.

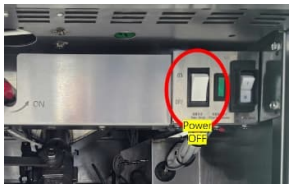
NOTICE It suggested to perform boil out on the fryer before bringing it back into operation from storage status.

NOTICE After the fryer has been in use for a period of time, a hard film of caramelized oil will form on the inside of the fry pot and heat element . This film should be periodically removed by following the boil out procedure.

CAUTION **Boil out procedure must be followed and operated by qualified and/or authorized operating or service personnel.**

CAUTION **To prevent injury, ensure adjacent vats that contain oil are OFF and covered properly before performing boil out.**

3.1.1 Boil Out Procedure



1. Make sure the fryer is POWER OFF and the drain valve & return valve are all closed. Empty the frypot and fill with a mixture of cold water and detergent. Follow instructions on detergent container when mixing.



2. Power on the fryer by pressing the power rocker switch and computer will show “OFF” on the screen, then press button [P] for 3 seconds to type code “4321” to enter Manager Function







3. Switch the program page by pressing button [P] to “EXECUTE BOIL OUT” page and press button [🌡] to type password “2645” to confirm.





4. Press button [◀] to start boil out. If your fryer is equipped with split vat, press button [▶] to start boil out for the right tank.



5. Fryer will start heating until the temperature reaches target value 92°C(197°F). The boil out procedure will last for 60mins with the mixture holding at the target temperature.





6. When the countdown is finished, press button ⏻ for 3 seconds to exit the boil out.



7. Switch off the power and remove the filter pan and position a METAL container with a sealable cover under the fryer drainpipe to drain the boil out solution and clean the fry pot(s) thoroughly. The METAL container must be able to withstand the heat of the hot liquids.

WARNING **Never leave the fryer unattended during this process. If the solution overflows, press the Power Rocker Switch to the OFF position immediately.**

WARNING **NEVER drain cleaning solution into the filter pan or pump through the filter return system. These units are not intended for this purpose and will be damaged by the solution, voiding the warranty.**

WARNING **Ensure that the frypot is completely free of water before filling with oil. When the oil is heated to cooking temperature, water in the frypot will cause splattering.**

3.2 Setup, program, cooking & shut down

WARNING **Never operate the appliance with an empty frypot. The frypot must be filled to the fill line with oil before energizing the elements. Failure to do so will result in irreparable damage to the elements and may cause a fire.**

3.2.1 Fill the frypot

WARNING **Remove all drops of water from the frypot before filling with oil. Failure to do so will cause spattering of hot liquid when the oil is heated to cooking temperature.**

CAUTION **Always fill both sides of a split-pot vat when heating for any purpose, testing, cooking or boiling out the vat.**



1. Make sure the frypot is well cleaned up and without any drops of water before filling the cooking oil.

2. Fill the cooking oil to MIN level. It is very important to make sure the oil level is correct before attempting to heat shortening in your Pitco fryer

NOTICE When adding solid shortening into an empty fry tank, first remove the baskets and support racks and fill the bottom of the tank with shortening. Lower the heating elements into the tank and continue to

pack the remaining shortening into the tank. Place the basket support rack on top of the shortening before turning the unit ON.

CAUTION **For solid shortening, the shortening must be cut into small blocks about 1" (2.54 Cm) in size. These small blocks must be placed under and around the heating elements.**

WARNING **Never set a complete block of solid shortening on top of the heating elements.**

WARNING **Never cancel the solid melt-cycle mode when using solid shortening. Doing so will result in damage to the elements and increase the potential for a flash fire.**

3.2.2 Setup

NOTICE Please read the Operating instructions thoroughly before attempting to operate this equipment.

NOTICE SETBACK function lets the fryer enter energy saving mode when the fryer has not cooked product for a period of time. Energy is saved by running the fryer at a lower temperature.

NOTICE Hold button to change numbers faster when setting parameters

Manager level setup





1. Power on the fryer system by pressing the power rocker switch located behind the door of the rightmost fryer. Computer will show “OFF” on the screen. Press key [P] for 3 seconds and type code “4321” to enter Manager Level Programming Mode

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Setup SETBACK function





2. After showing the message of “MANAGER LEVEL”, controller will display “SETBACK TIME”. Press [◀] and [▶] keys to set the time. (Range 1~99 min)
   Setting the time to “0” means the setback only activates by pressing [🌡] for 3 seconds manually
   When the time is set, press [P] to go to “SETBACK TMP” page

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3. At “SETBACK TMP” page, use [◀] and [▶] to set the setback temperature. Default value is 121℃ / 250℉.

   Press key [P] to go to next page.

Select melt type



4. At “MELT TYPE” page , press ◀ and ▶ to select correct melt mode from “SOLID”, “LIQUID” and “NO MELT”.
   If you are using a solid shortening, “SOLID” melt type MUST be selected.

Finish setup





5. Press P two times to go to the “EXIT” page; press 🌡 to confirm the settings and exit setting mode.
   If you press P , you can go through and check all the setting values again.

3.2.3 Program for cooking

Operator level setup





1. Power on the fryer system by pressing the power rocker switch located behind the door of the rightmost fryer. Computer will show “OFF” on the screen. Press key P for 3 seconds and type code “1234” to enter Operator Level Programming Mode

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Set cooking temperature







2. After displaying “OPERATOR LEVEL”, controller will turn to “COOK TMP” page. Press keys ◀ or ▶ to set the cooking temperature. (Range 90~191℃ / 194~375℉)

   If your fryer is equipped with split vat, press P to set the temperature for the right tank.

   When the temperature is set, press P to go to the program page.

Program cooking recipe



3. After displaying “ *RECIPE SETTING* / *SELECT BUTTON* ”, controller will turn to the button select page automatically.



Eight recipes “P-1” to “P-8” are available to program by pressing the menu buttons [1] ~ [8]

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4. Program the recipe for button [1] as an example.



a) Press the button [1], the controller will then guide you through setting each recipe parameter for “P-1”.



b) Set cooking time: Use [◀] and [▶] to set the cooking time. Press [P] to confirm and go to next parameter.



c) Set shake alarm time 1: Use [◀] and [▶] to set the 1st alarm time, press [P] to confirm and go to next parameter. “0:00” means no alarm set.



d) Set shake alarm time 2: Use [◀] and [▶] to set the 2nd alarm time, press [P] to confirm and go to next parameter.



e) Set shake alarm time 3: Use [◀] and [▶] to set the 3rd alarm time, press [P] to confirm and go to next parameter.



f) Select “flexible time” function: Use [◀] and [▶] to select between “FLEX” and “STRAIGHT”. Press [P] to confirm and go to next parameter.



If select “FLEX”, flexible sensitivity level needs to be set by using [◀] and [▶]. Range is 1~15. Larger values result in more compensation (7 as default value is suitable for most cooking). Press [P] to confirm and go to next parameter.

“Product load size, moisture content, age and other factors are

accounted for automatically adjusting the cook time to ensure optimum cooking performance."



g) Set instant on heating time: Use ◀ and ▶ to set the instant on heating time, press P to confirm and go to next parameter. *"The instant heating function allows the device to start heating immediately upon cook startup, regardless of its current temperature."*



h) Once the instant on heating parameters are configured, all recipe settings are complete. Screen will display "EXIT". Press P to go back to "Recipe Setting" page to program additional recipes settings or press 🌡 to save and exit Operator Level Programming Mode.



5. Once you complete your recipe programming, return to EXIT page and press 🌡 to save and exit Operator Level Setting Mode.

3.2.4 Cooking



1. Once you have completed all the above settings, you can start using your fryer for cooking. Before powering it on, double-check that the oil has been properly filled to the MIN level in each frypot.



2. Power on the fryer system by pressing the power rocker switch located behind the rightmost fryer's door. Press the corresponding ⏻ to start heating.





3. The fryer automatically melts oil and heats to your set temperature. From room temperature, this can take up to 30 minutes. If resuming after a short power off, melt cycle will be bypassed when possible. DO NOT proceed until the heating cycle completes.



4. When ready, fryer will show up “P-1” ~ “P-8”. You can begin cooking by pressing the corresponding menu button 1 ~ 8

3.2.5 Shut down



1. Press the corresponding ⏻ for 3 seconds to turn the fryer OFF. The computer will show “off” and all heating functions will cease.



2. Use power rocker switch located behind the rightmost fryer’s door to power off the system.

NOTICE Recommended cooking batch is 1-½ - 2 lbs. (0.7-0.9kg) per twin basket. Maximum cooking batch should not exceed 2.5lbs (1.1 kg) per14” twin basket, or 4.0 lbs. (1.8 kg) per 18” twin basket.

⚠ CAUTION **Overloading the fry basket or frying very wet food can cause sudden boiling over. Lower food gradually and do not exceed recommended quantities.**

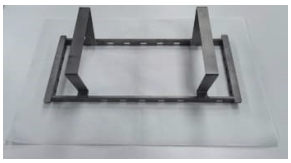
SECTION 4: Filtration



4.1 Prepare filter pan



1. Put filter paper support screen at the bottom of the filter pan with the holes over alignment pins.



2. Place the hold down ring in the middle of the filter paper.



Lower them together into the filter pan.



Make sure the paper is folded evenly around the hold down inside the pan.



3. Evenly distribute the correct amount of filter powder across the filter paper.



4. Install the filter pan cover.





5. Position the filter pan beneath the fryer, aligning its connector with the fryer's oil return port. Insert firmly until fully seated.

4.2 Filter the oil

NOTICE It’s recommended to filter after each peak period, normally 2 times per day.

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

CAUTION **Be careful when using the clean out rod. Damage to the drain valve may result.**

WARNING **NEVER run the filter system without filter paper installed.**

WARNING **NEVER drain the oil from the fryer before turning OFF the fryer.**

WARNING **Opening the drain will lead to the draining of the hot contents of the fryer.**

WARNING **NEVER store the Filter Unit anywhere other than in the fryer filter cavity.**

WARNING **This filter pan is only large enough to hold the contents of one (1) tank at once, during the filter process.**

WARNING **Hot shortening can cause severe injury. Take care when filtering or disposing of hot shortening. Protective gear such as oil-proof gloves with sleeves, aprons and face shield should be worn.**



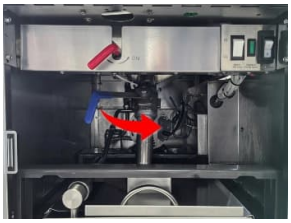




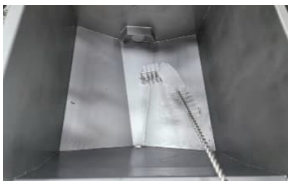
1. Press key ⏻ to turn off the fryer. Press the power switch located behind the rightmost fryer's door to turn computer power off.



2. Verify that the filter pan is properly prepared and securely connected to the fryer.



3. Open the drain valve slowly to avoid splattering.



Raise the elements to access the vat bottom. Clean the frypot and element with brush.



If the drain valve becomes clogged with sediment, use the clean out rod to clear the blockage from the drain opening in the vat.

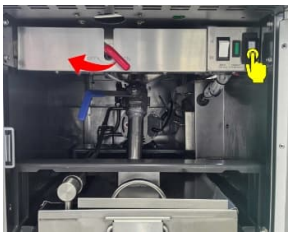


4. Switch on the filter system circuit breaker. Once the "Filter Ready" lamp is lit, open the return valve to start the pump and return the oil to the vat.

   Allow the returning oil to rinse the crumbs down the fryer's drain. Use the brush to help loosen the crumbs and direct them down the drain.



5. Close the drain valve and fill the frypot.



6. After bubbles appear from the oil return port for approximately 15 seconds, close the return valve to stop the pump.

4.3 Disposal of waste oil

When the oil has reached the end of its usable life and requires changing, drain the oil into an oil discard shuttle or an appropriate METAL container for transport to the disposal container.





1. Press key ⏻ to turn off the fryer and press the power switch to turn computer power off.



2. Remove the filter pan by pulling it out by the handle.



3. Place an oil discard shuttle or appropriate container under the drain outlet pipe. Open the drain valve slowly to avoid splashing.

4. When draining is finished, close the fryer drain valve securely.

SECTION 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 operation, oil/shortening may spill and splatter and requires immediate attention. During the cooking process, particles, crumbs and cracklings collect inside the fry 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.

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 proper 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. Wipe the area clean with a clean damp cloth and food grade detergent.

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) and push the fryer back under the hood.

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

Following 3.1.1 perform the boil out procedure for the fryer.

5.3.2 Temperature check

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

Check that the controller's set point and the thermometer reading are within +/- 10°F (5°C). If the 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 to 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 surfaces, oil/water condensate can drip onto appliance.

√ Check drain/filtration system (if equipped) 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 that Drain Valve Interlock(DVI) drops out controller.

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

√ Check Temperature Calibration.

5.4.4 Filter system

√ Check electrical connections and harnesses.

√ Check that power cords are fully engaged and secure.

√ Check for any air or shortening leaks and for excessive oil build-up.

√ Check O-Rings on filter pickup tube and replace as needed.

√ 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.

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. Look for grease build up and oily surfaces and clean accordingly.

√ Verify amp-draw is within range as compared to the information on the data plate.

5.4.6 Control box & electrical component

√ 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.

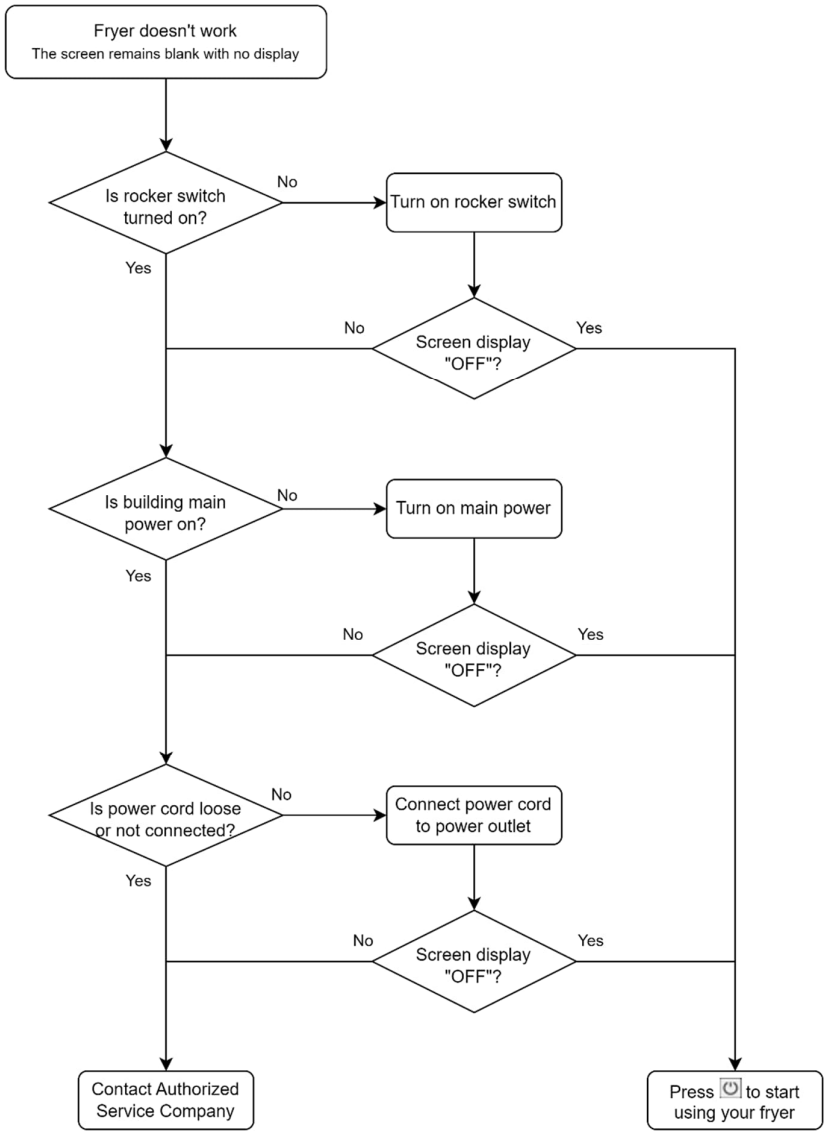
√ Verify that the covers and panels are intact and provide a safe condition. Check for loose parts.

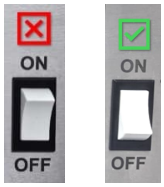
√ Verify power cord is in good condition. Check for frayed or exposed wires. Verify that the insulation is in good condition and the attachment to the appliance is tight.

SECTION 6: Trouble Shooting

6.1 Troubleshooting

6.1.1 Fryer doesn’t work





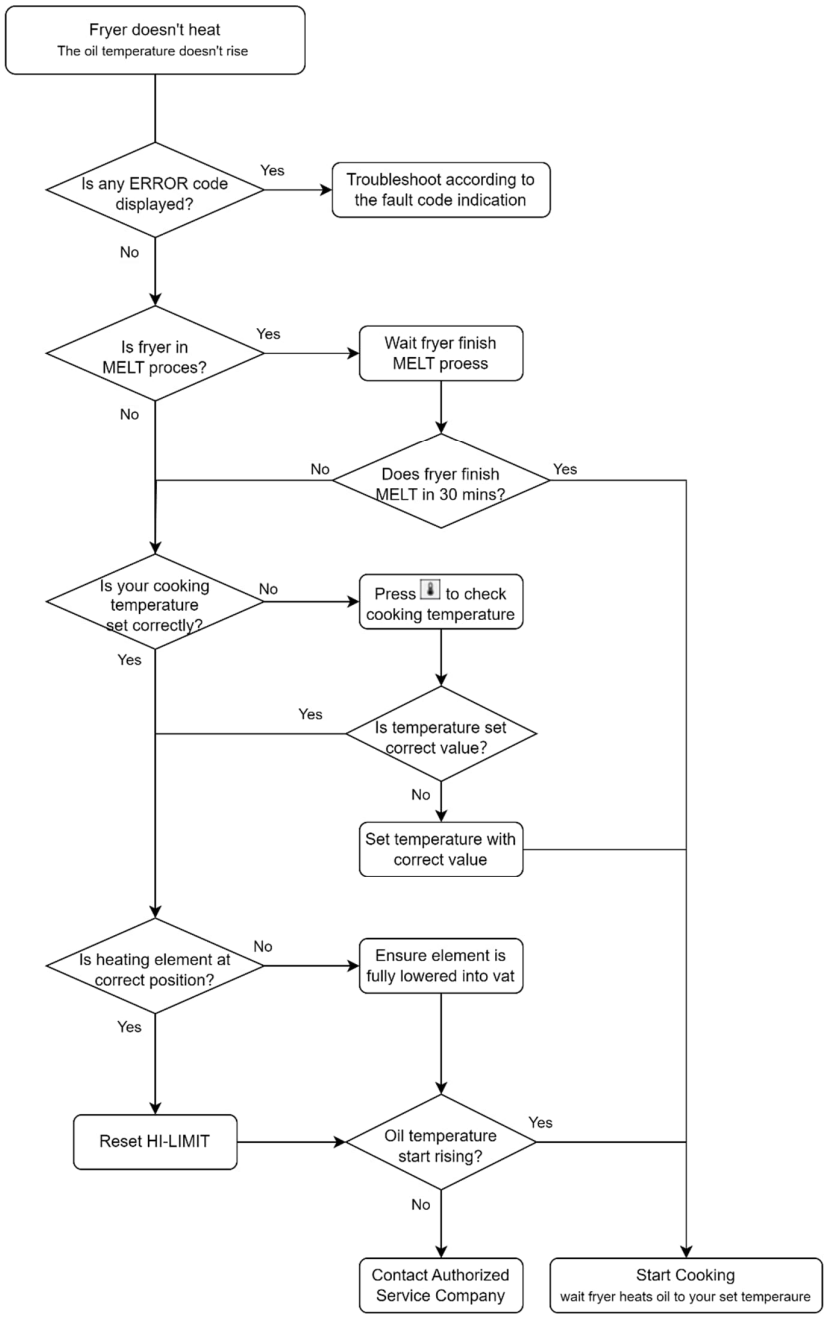
Main power can be:

Circuit breaker in distribution cabinet

Toggle switch on the wall



6.1.2 Fryer doesn’t heat



MELT PROCESS:

Wait until fryer finishes MELT process.

Cooking temperature:

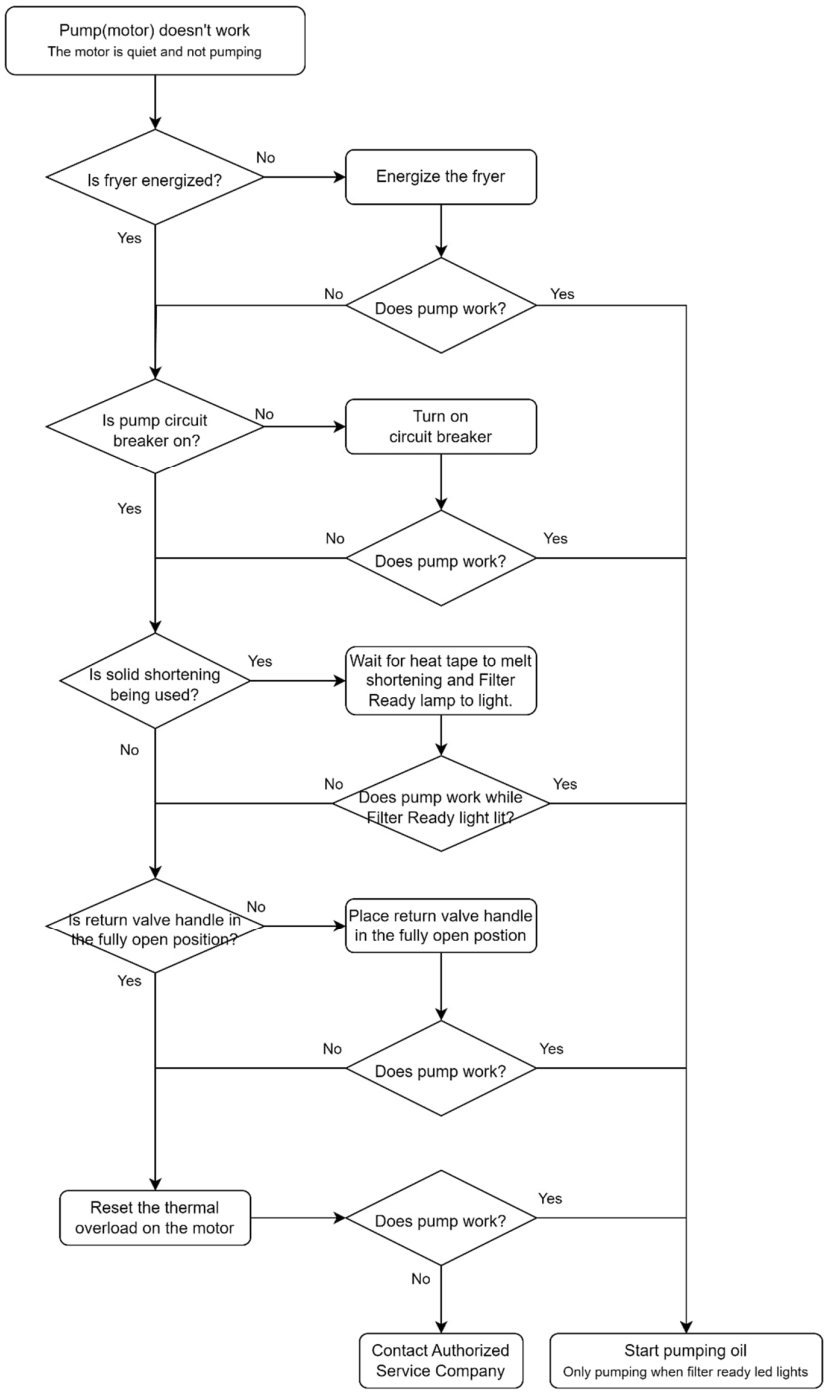
Set cooking temperature correctly by following instruction 3.2.3

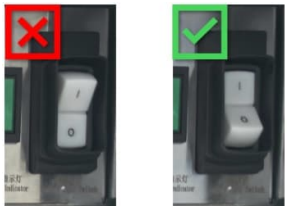
Element position:

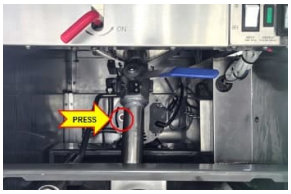
Remove anything below the element

If the heating element is not at bottom position, the heating will be refused

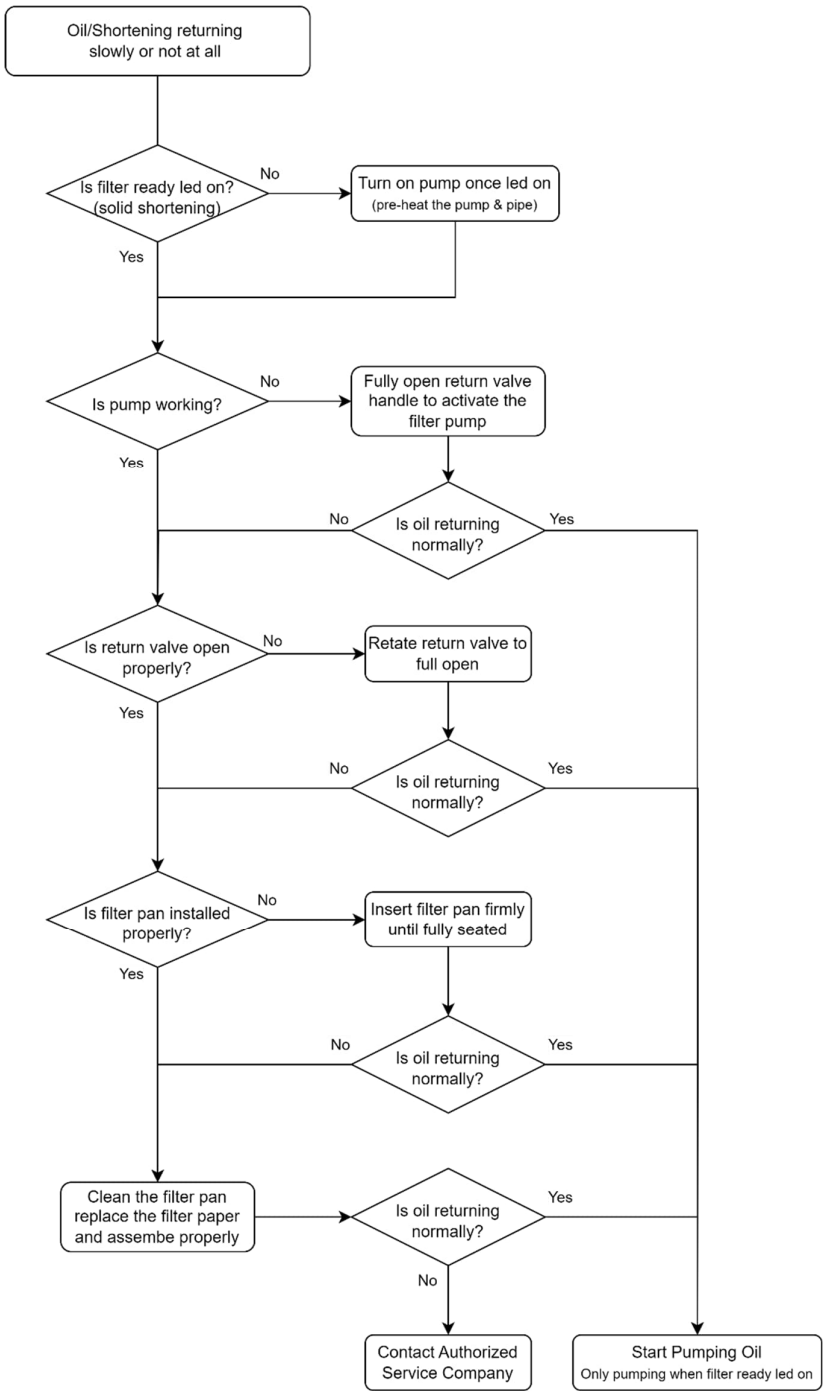
6.1.3 Filter pump doesn’t work





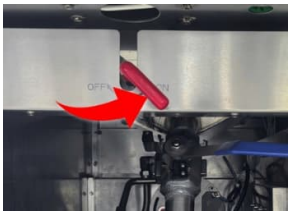


6.1.4 Oil doesn’t return to frypot



Solid shortening:

Solid shortening can solidify in the pump and return pipe. It needs to be pre-heated prior to pumping

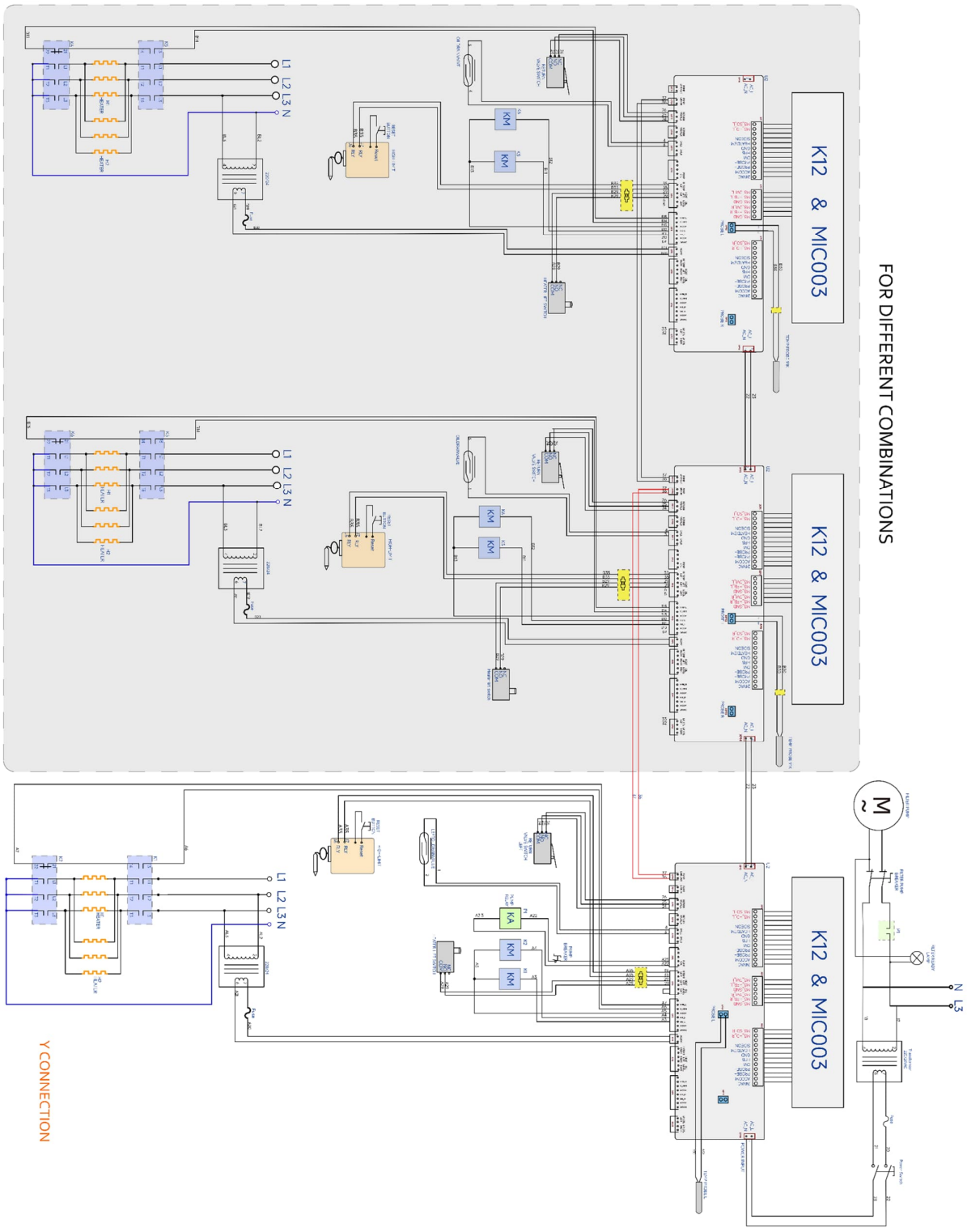




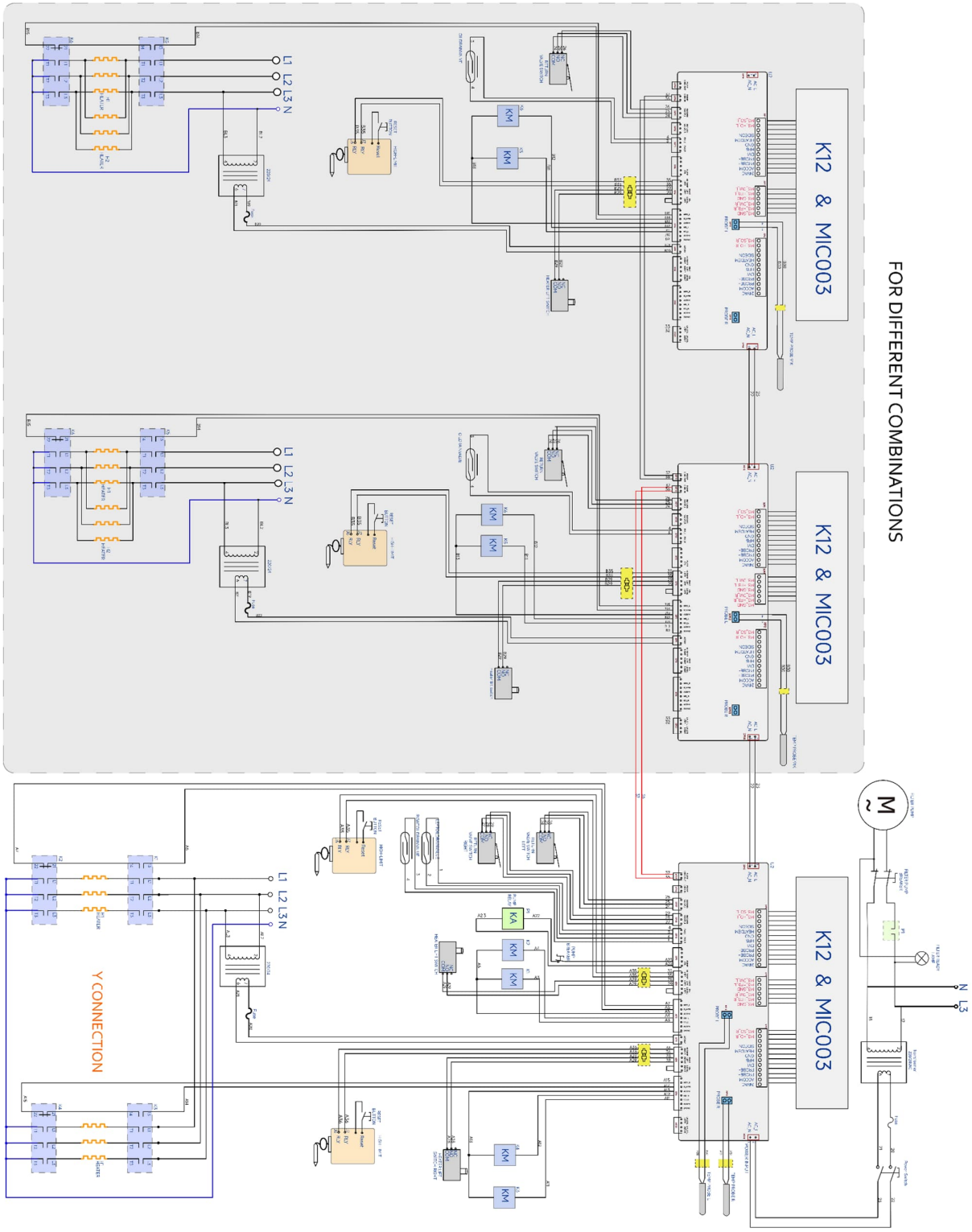
6.2 Error codes

Fault Code	Description	Perform Action
	Oil temperature probe is open	Check whether the oil temperature probe and wiring are normal. If so, and the error persists, contact a qualified service technician to troubleshoot.
	Oil drain valve switch detected open in non-OFF state	Check whether the oil drain valve and limit switch/wiring are not in position or theissue is corrected.. If the circuit is normal and the fault remains,contact a qualified service technician to troubleshoot..
	Over-temperature alarm	Turn off the fryer to cool down. If the fault recurs, contact a qualified service technician to troubleshoot.
	No heating feedback	Reset the high limit by pressing the reset button behind the basket hanger. If this doesn't resolve the issue, contact a qualified service technician to troubleshoot.
	Heat contactor fault (Control detects heating without heating output signal.)	Turn the control off. Contact an authorized service technician to troubleshoot.

Appendix 1：Diagram – Full Vat (380v~415v / Y wiring)



Appendix 2：Diagram – Split Vat (380v~415v / Y wiring)



Appendix 3： Recommended Spare Parts List

EP Series fryer - Recommended Spare Parts List					
#	Name	Part No.	EP14	EP18	Suggested Qty. per 10 units
1	MIC003 CONTROL	30302.0002	✓	✓	1
2	HI-LIMIT	11303.0021	✓	✓	2
3	MOTOR	10601.0011	✓	✓	1
4	PUMP POWER SWITCH, BREAKER	10105.0029	✓	✓	2
5	POWER SWITCH	10105.0027	✓	✓	2
6	PROXIMITY SWITCH ACTUATOR	10105.0026	✓	✓	2
7	MICRO SWITCH, PIVOT BOX	10105.0024	✓	✓	2
8	DRAIN VALVE INTERLOCK SWITCH	10105.0023	✓	✓	2
9	PUMP CONTROL RELAY	10102.0044	✓	✓	1
10	PROBE, TEMPERATURE	10108.0062	✓	✓	2
11	TRANSFORMER, UL	10104.0019	✓	✓	2
12	CONTACTOR, 32A	10102.0045	✓	✓	3
13	UNIVERSAL INTERFACE BOARD	11301.0100	✓	✓	1
14	MICRO SWITCH, RETURN VALVE	10105.0051	✓	✓	2
15	LAMP 250V GRN RECT	10107.0007	✓	✓	2
16	OIL PUMP, 4GPM	10603.0005	✓	✓	1
17	O-RING,OIL FILTER CART RETURN HOSE	10701.0249	✓	✓	20
18	FUSE, 4A	10101.0122	✓	✓	5
19	HEAT ELEMENT, FLAT BAR E14, 7KW	10901.0037	✓	—	1
20	HEAT ELEMENT, FLAT BAR E18, 8KW	10901.0036	—	✓	1



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