Gas Pressure Fryer

MODELS FKG-TC with Training Central™
Installation and Operation Manual



BKI

SS-OM-061.04

Revised 09/01/2020

BKI LIMITED WARRANTY

42 Allen Martin Drive, Essex Junction, VT 05452 • USA
(802) 658-6600 • Fax: (802) 864-0183

WHAT IS COVERED

This warranty covers defects in material and workmanship under normal use, and applies only to the original purchaser providing that:

- The equipment has not been accidentally or intentionally damaged, altered or misused;
- The equipment is properly installed, adjusted, operated and maintained in accordance with national and local codes, and in accordance with the installation and operating instructions provided with this product.
- The serial number rating plate affixed to the equipment has not been defaced or removed.

WHO IS COVERED

This warranty is extended to the original purchaser and applies only to equipment purchased for use in the U.S.A.

COVERAGE PERIOD

- Warranty claims must be received in writing by BKI within one (1) year from date of installation or within one (1) year and three (3) months from date of shipment from the factory, whichever comes first.
- Warranty period begins the date of dealer invoice to customer or ninety (90) days after shipment date from BKI, whichever comes first.

WARRANTY COVERAGE

This warranty covers on-site labor, parts and reasonable travel time and travel expenses of the authorized service representative up to (100) miles round trip and (2) hours travel time and performed during regular, weekday business hours.

EXCEPTIONS

Any exceptions must be pre-approved in advance and in writing by BKI. The extended door warranty on convection ovens years 3 through 5 is a parts only warranty and does not include labor, travel, mileage or any other charges.

EXCLUSIONS

- Negligence or acts of God,
- Thermostat calibrations after (30) days from equipment installation date,
- Air and gas adjustments,
- Light bulbs,
- Glass doors and door adjustments,
- Fuses,
- Adjustments to burner flames and cleaning of pilot burners,
- Tightening of screws or fasteners,
- Failures caused by erratic voltages or gas suppliers,
- Unauthorized repair by anyone other than a BKI Factory Authorized Service Center,
- Damage in shipment,
- Alteration, misuse or improper installation,
- Thermostats and safety valves with broken capillary tubes,
- Freight – other than normal UPS charges,
- Ordinary wear and tear,
- Failure to follow installation and/or operating instructions,
- Events beyond control of the company.

INSTALLATION

Leveling, as well as proper installation and check out of all new equipment - per appropriate installation and use materials – is the responsibility of the dealer or installer, not the manufacturer.

REPLACEMENT PARTS

BKI genuine Factory OEM parts receive a (90) day materials warranty effective from the date of installation by a BKI Factory Authorized Service Center.

Warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on the manufacturer's part. BKI shall in no event be liable for any special, indirect or consequential damages, or in any event for damages in excess of the purchase price of the unit. The repair or replacement of proven defective parts shall constitute a fulfillment of all obligations under the terms of this warranty.

Table of Contents

Table of Contents **1**
Introduction **2**
Safety 2
Safety Signs and Messages 2
Specific Precautions 3
Equipotential ground plane 3
Full Disconnection 3
Safe Work Practices 4
Safety Labels 9
Installation **10**
Unpacking and Handling 10
Preparation 10
Location and Clearance 11
Installation Procedure 11
Initial Test and Adjustment 13
Gas Conversion Instructions 14
Care of the Shortening 14
Operation **15**
Start-Up (FKG-TC with Training Central™) 15
Cooking (FKG-TC with Training Central™) 18
Product Programming 21
Set Oil Temp 25
Set Clock 26
Settings 27
Frying Log 28
Machine Log 29
Import/Export 30
Change Code 33
Touchscreen 34
Operation after Gas or Power Outage 35
Normal Shutoff 35
Maintenance **36**
Scheduled Maintenance 36
Safety Pop Valve Procedure 37
Filtering Procedure 38
Basic Filter 40
Filter with Rinse Hose 45
Boil Out 50
Filter Pad Replacement 55
Troubleshooting 58
Gas Alarm 59
Filter Pump Reset 59
Notes **61**

Introduction

The FKG-TC series fryer with Training Central™ is compact, attractive and functional in design. The built in Training Central™ program allow employees to manage virtually every operation—programming, cooking, cleaning, filtering, boiling out, and more—simply by following intuitive, step-by-step screen instructions that provide instant feedback. FKG fryers are constructed with a stainless steel fryer pot for easy cleaning. Exclusive BKI patented features and safety devices offer flexibility, efficiency and reliability plus **PERFECTION IN PRESSURE FRYING!**

The BKI name and trademark on this unit assures you of the finest in design and engineering -- that it has been built with care and dedication -- using the best materials available. Attention to the operating instructions regarding proper installation, operation, and maintenance will result in long lasting dependability to insure the highest profitable return on your investment.

NOTICE PLEASE READ THIS ENTIRE MANUAL BEFORE OPERATING THE UNIT. If you have any questions, please contact your BKI Distributor. If they are unable to answer your questions, contact the BKI Technical Service Department (802) 658-6600..

Safety

Always follow recommended safety precautions listed in this manual. Below is the safety alert symbol. When you see this symbol on your equipment, be alert to the potential for personal injury or property damage.



Safety Signs and Messages

The following Safety signs and messages are placed in this manual to provide instructions and identify specific areas where potential hazards exist and special precautions should be taken. Know and understand the meaning of these instructions, signs, and messages. Damage to the equipment, death or serious injury to you or other persons may result if these messages are not followed.

⚠ DANGER This message indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING This message indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

⚠ CAUTION This message indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE This message is used when special information, instructions or identification are required relating to procedures, equipment, tools, capacities and other special data.

Specific Precautions

⚠WARNING Risk of fire exists if the oil level drops below 5mm of the maximum oil level.

⚠WARNING Use of oil/shortening older than the manufacturer's recommendations for life of the oil is prone to surge boiling and flash fires. Follow the oil manufacturer's guidelines for the life cycle of oil/shortening.

⚠WARNING Do not open the drain valve or the fill valve while the fryer is under pressure. Serious burns may result.

⚠WARNING The appliance and its individual shutoff valve must be disconnected from the gas supply system during any pressure testing of that system at test pressures in excess of ½ psi (3.5 kPa).

⚠WARNING

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

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

⚠WARNING

California Residents Only

This product can expose you to chemicals including chromium, and lead which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

⚠CAUTION Follow instructions regarding effects of surge boiling of over-wet foods and proper load size.

⚠CAUTION

Equipotential ground plane

When a high current flows through a conductor, differences in potential appear between the conductor and nearby metallic surfaces near the appliance. As a result, sparks may be produced between the appliance and surrounding metal surfaces. These sparks could cause serious injury, damage, or fire.

BKI provides an Equipotential ground terminal for the connection of a bonding conductor after the installation of the appliance per IEC60417-1. This terminal is located on the inside of the Power Entry Supply box near the Earth connection and is marked with this symbol.



NOTICE

Full Disconnection

In accordance with Local and/or National wiring codes, the installer must provide a means of full disconnection under over voltage Category III conditions. An IEC approved cord and plug combination will meet this requirement.

Units not provided with a cord and plug do not meet this requirement. In accordance with Local and/or National wiring codes, the installer must provide the means of full disconnection.

NOTICE The fryer is designed to hold a maximum of 75lbs (34KG) of oil/shortening.

NOTICE The purchaser must post, in a prominent location, instructions to be followed in the event the user smells gas. This information shall be obtained by consulting the local gas supplier.

Safe Work Practices



Do Not Store or Use Anything Flammable Near The Fryer

Your pressure fryer is powered by either natural gas or LP gas. Do not store or use gasoline or any flammable liquids or vapors near this or any other appliance. Flammable materials will burn easily. Letting any flammable liquid or vapor get too close to the fryer could cause an explosion or fire. Serious injury could result. Examples of flammables that you should not store near the fryer are gasoline, paint, thinners or removers, gas tanks, and cleaning materials.

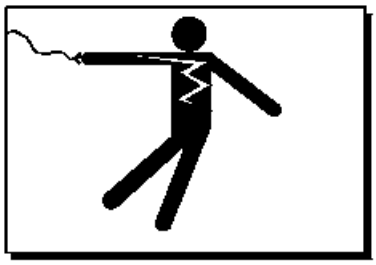


Use Gas Safely-- Avoid Danger

Gas can be a dangerous fuel if not handled safely.

Make sure to ventilate the fryer properly. If the fryer is not properly ventilated, carbon monoxide can be released around the fryer. Asphyxiation or suffocation can occur if gas is not ventilated properly.

Before using this appliance for the first time, contact your local gas supplier for instructions about what to do if you smell gas. Post those instructions somewhere near the fryer, so that everyone who uses or works near the fryer knows what to do if they smell gas.



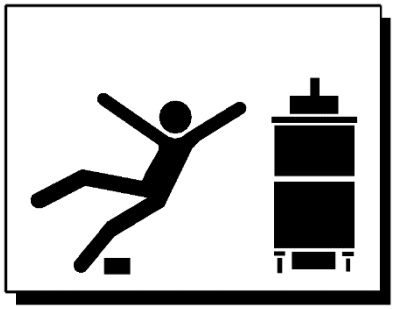
Beware of High Voltage

This equipment uses high voltage. Serious injury can occur if you or any untrained or unauthorized person installs, services, or repairs this equipment. Always Use an Authorized Service agent to Service Your Equipment.



Use the Fryer on Noncombustible Floors Only

Make sure your floor is noncombustible. Do not operate your fryer on floors that are wood, carpeted or have rubber mats. Placing your fryer on a combustible floor could cause a fire. Serious injury could result. Examples of noncombustible floors where you can safely place your fryer are concrete, tile, and ceramic.



Keep the Area Around Your Fryer Uncluttered

Make sure to keep the area around your fryer clear of any obstacles. Serious injury can occur if you trip or fall near the fryer. You could be burned by hot shortening that splashes out of the fryer or by falling against the hot metal of the fryer.



Keep the Floor Around Your Fryer Clean Of Shortening

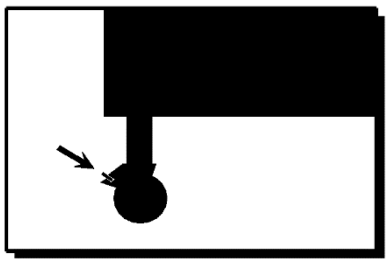
Make sure to keep the floor around your fryer clean of shortening and other liquids. Serious injury can occur if you slip near your fryer. You could be burned by hot shortening that splashes out of the fryer or by falling against the hot metal of the fryer.



Keep the Lid Closed When The Fryer Is Not In Use

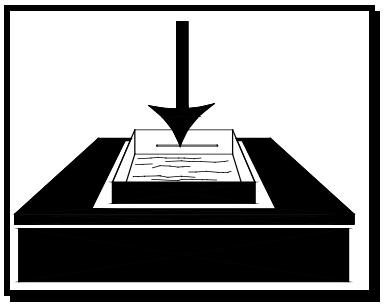
Hot shortening can splash if someone moves the fryer or bumps into it. Serious injury can occur if hot shortening splashes out of the fryer.

Do not lean, sit or stand on the fryer or perform any maintenance or cleaning duties while the fryer or the shortening is hot. You could be burned.



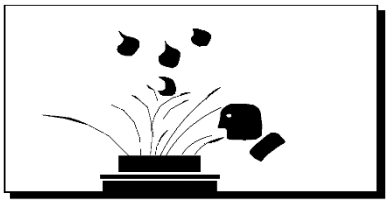
Keep the Casters Locked

To avoid spilling shortening, keep the casters locked. If any shortening spills near your fryer, clean it up immediately.



Do Not Overfill the Fryer with Shortening

Hot shortening and steam may escape and burn you if you put too much shortening in the fryer. Fill the fryer to the fill marks that are inside the fryer pot. Heat the shortening.



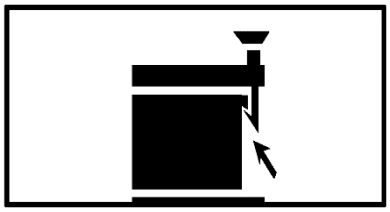
Do Not Let Any Water Get into The Fryer

Always remove excess moisture from food before placing it into the fryer basket. Water will cause the hot shortening to spatter. You could be burned.



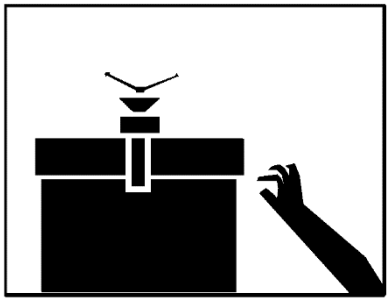
Do Not Overload the Basket With Food

Hot shortening and steam may escape and burn you if you place too much food in the basket.



Always Make Sure the Lid Hook Is Latched When Closing The Fryer

To make sure the lid hook is latched properly, press down the lid until the hook snaps shut. Hot shortening and steam can escape if the lid hook is not latched properly. You could be burned.

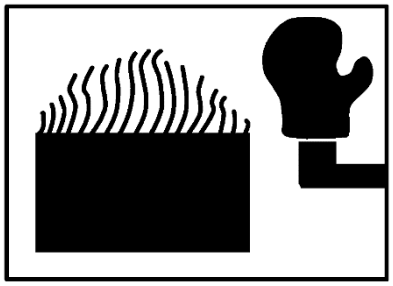


Always Tighten the Spin Handle When Closing The Fryer

Hot shortening and steam can escape if you do not tighten the spin handle properly. You could be burned. Line up the orange knobs on the fryer lid handle and the front hook when tightening.

Do Not Over-Tighten the Spin Handle

You could damage the fryer.



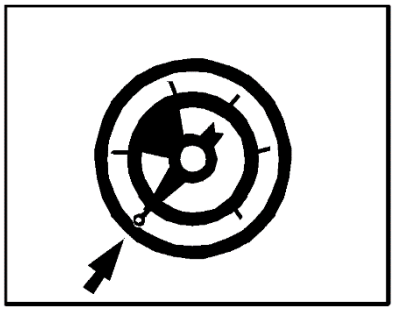
Wear Safe Clothing Appropriate To Your Job

Always wear your insulated mitts when handling the fryer basket or touch any hot metal surfaces. You received a pair of insulated mitts with your fryer. If you lose or damage your mitts, you can buy new ones at your local restaurant equipment supply store or from your local ***BKI*** Distributor.

Always wear non-skid shoes when working around the fryer or any other equipment that uses shortening. Never wear loose clothing such as neckties or scarves while operating your fryer. Keep loose hair tied back or in a hair net while operating your fryer.

Always wear appropriate personal protection equipment during the filtering process to guard against possible injury from hot oil.

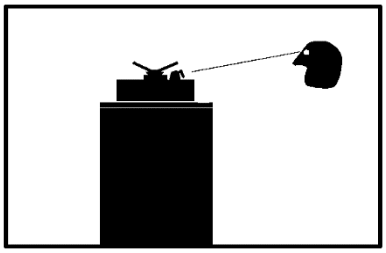
Always wear appropriate personal protection equipment during the boil-out process to guard against possible injury from hot cleaning solution.



Never Loosen the Spin Handle Until The Pressure Gauge Is At Zero

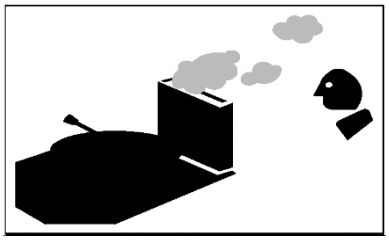
Steam may escape suddenly if you loosen the spin handle before the gauge is at zero. If steam escapes suddenly, you could be burned.

After the pressure gauge is at zero, wait 5 seconds. Then loosen the spin handle slowly to open the lid of the fryer. By doing this, the steam will escape slowly and you will not be burned.



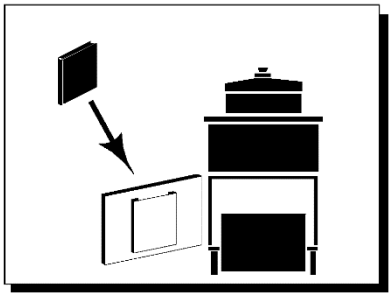
Seal the Safety Valve Properly

To seal the safety valve, lift the arm on the side of the valve. Then release it. The valve should snap closed. Hot steam can escape from the valve and you could be burned if you do not seal the valve properly.



Keep Away From the Vent

Hot steam escapes from the vent continuously when you are using your fryer. You could be burned if you get too close to the vent.



Keep this manual with the Equipment

This manual is an important part of your equipment. Always keep it near for easy access.

If you need to replace this manual, contact:

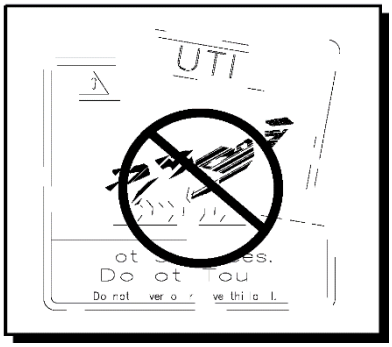
BKI
Technical Services Department
42 Allen Martin Drive
Essex Junction, VT 05452
(802) 658-6600



Protect Children

Keep children away from this equipment. Children may not understand that this equipment is dangerous for them and others.

NEVER allow children to play near or operate your equipment.

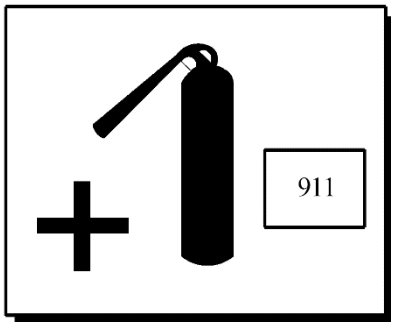


Keep Safety Labels Clean and in Good Condition

Do not remove or cover any safety labels on your equipment. Keep all safety labels clean and in good condition. Replace any damaged or missing safety labels. Refer to the Safety Labels section for illustration and location of safety labels on this unit.

If you need a new safety label, obtain the number of the specific label illustrated on page 9, then contact:

BKI
Technical Services Department
42 Allen Martin Drive
Essex Junction, VT 05452
(802) 658-6600

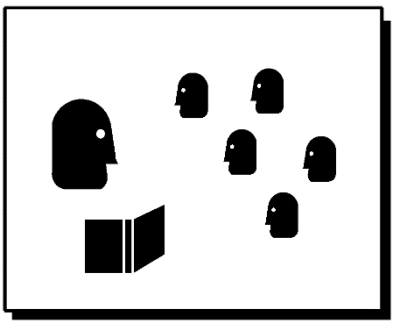


Be Prepared for Emergencies

Be prepared for fires, injuries, or other emergencies.

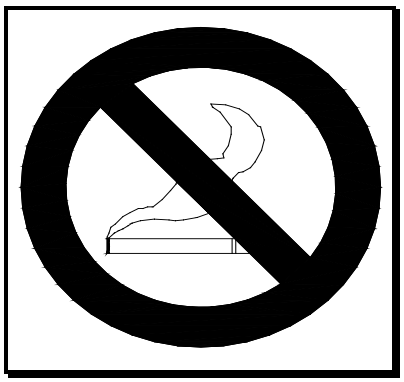
Keep a first aid kit and a fire extinguisher near the equipment. You must use a 40-pound Type BC fire extinguisher and keep it within 25 feet of your equipment.

Keep emergency numbers for doctors, ambulance services, hospitals, and the fire department near your telephone.



Know your responsibilities as an Employer

- Make certain your employees know how to operate the equipment.
- Make certain your employees are aware of the safety precautions on the equipment and in this manual.
- Make certain that you have thoroughly trained your employees about operating the equipment safely.
- Make certain the equipment is in proper working condition. If you make unauthorized modifications to the equipment, you will reduce the function and safety of the equipment.



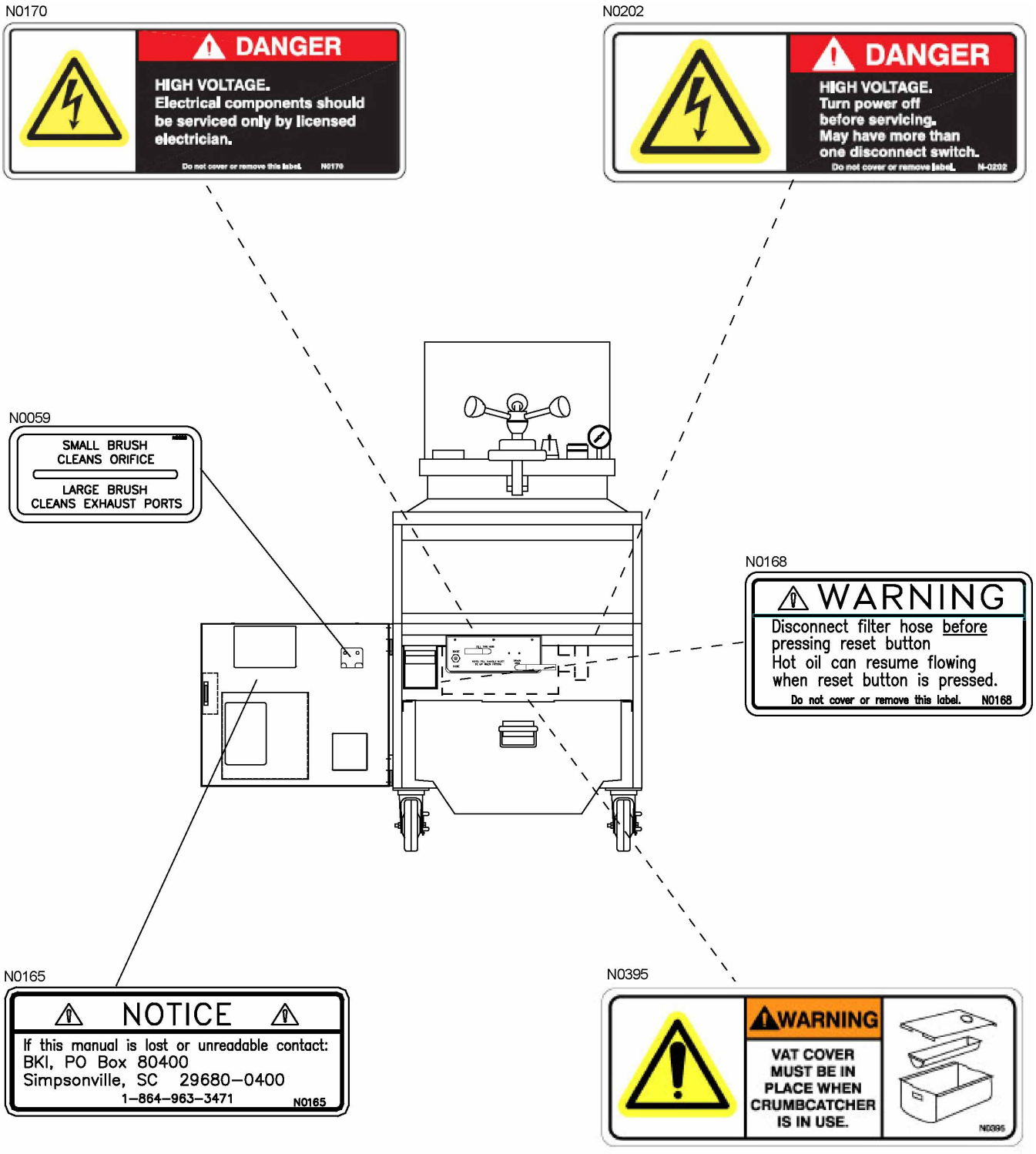
Do Not Smoke Near The Fryer.

⚠WARNING

Electrical Grounding Instructions:

This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.

Safety Labels



Installation

Unpacking and Handling

It is the owners' responsibility to file all freight claims with the delivering truck line. Inspect all cartons and crates for damage as soon as they arrive. If damage to cartons or crates is found, or if a shortage is found, note this on the bill of lading (all copies) prior to signing.

If damage is found when the equipment is opened, immediately call the delivering truck line and follow up the call with a written report indicating concealed damage to your shipment. Ask for an immediate inspection of your concealed damage item. Packaging material **MUST** be retained to show the inspector from the truck line.

Preparation

There are several things the installer must know before installing the fryer. These are listed below:

- The fryer installation must conform with city or county standards for gas appliances and gas piping. If your area does not have local codes, consult the *National Fuel Gas Code, ANSI Z223.1/NFPA 54*, or the *Natural Gas and Propane Installation Code, CSA B149.1*.

⚠WARNING Do not attempt to test the gas pressure of your fryer. Pressure testing should be done only by an authorized Service Agent.

- During any pressure testing of the gas supply system, the fryer must be protected. The fryer and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of ½ psi (3.5 kPa). The fryer must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ psi (3.5 kPa).

- The fryer must be electrically grounded to conform with the local code of your city or county. If your area does not have local codes, consult the latest version of the *National Electrical Code ANSI/NFPA 70*, or the *Canadian Electrical Code, CSA C22.2*.

- A schematic diagram of the unit is glued to the back of either the left or right side panel.

- The Authorized Service Agent that installs your fryer must connect the cord set at the rear of the fryer to an electrical source with a voltage matching that stamped on the name and rating tag. Refer to the wiring diagrams in this manual.

- Make sure a connector is used that complies with the Standard for *Connectors for Movable Gas Appliances, ANSI Z21.69 • CSA 6.16*.

- Make sure a quick-disconnect device is used that complies with the Standard for *Quick-Disconnect Devices for Use With Gas Fuel, ANSI Z21.41 • CSA 6.9*.

- Make sure a restraining device is used that complies with the Standard for *Commercial Gas Ranges, ANSI Z83.11/CGA 1.8* (such as BKI part number FT0279) to guard against transmission of strain to the connector.

- Retain the manual for future reference.

Location and Clearance

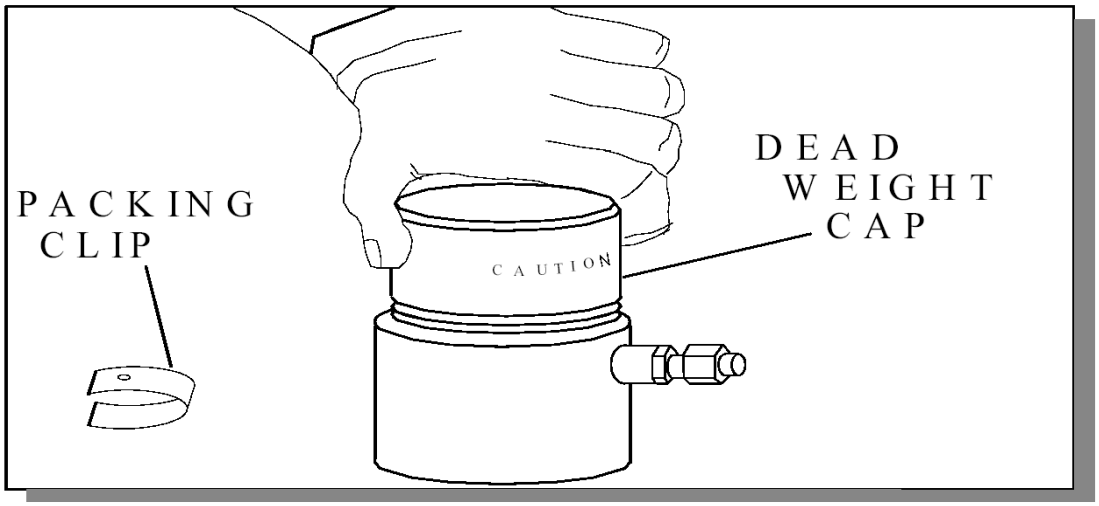
Install your fryer in a well-ventilated area. This will ensure that the gas burns properly and will help prevent any fires. When deciding on a location for your fryer, remember the following:

- All gas-burning appliances need enough fresh air for combustion.
- Locate the fryer where it can be vented into an adequate exhaust hood. Your local gas utility must approve your ventilation system. Consult a ventilation or heating company to help you design an adequate system that meets ventilation codes and standards for your city or county. In Europe, install according to local codes.
- Keep the fryer away from any combustibles such as curtains, wood paneling, boxes, or towels. The flue riser at the rear of the fryer should also be kept away from any flammable material.
- Use this fryer on non-combustible flooring only. Examples of non-combustible floors where you can safely locate your fryer are concrete, tile, and ceramic. Minimum clearance from combustible and non-combustible construction is 0 inches from the sides and 6 inches from the rear. **DO NOT** locate your fryer on floors that are wood, have rubber mats, or, are carpeted.
- Keep the work area around the fryer free of objects that might block fresh air or that might cause a fire.
- Do not attach an extension to the exhaust stack. This may stop the burner from operating properly, cause the burner to go off, or, cause other dangerous malfunctions. It may also cause a strong draft in the room. A draft can interfere with the burner.
- Do not locate the fryer near strong drafts. Keep the fryer away from doors that are opened and closed frequently.

Installation Procedure

⚠WARNING Ensure that an authorized BKI service agent installs the fryer. An authorized BKI service agent should be a qualified gas service technician and a licensed electrician.

1. Remove the shipping packing materials from the interior and exterior of the fryer.
2. Remove the shipping packing clip from underneath the dead weight cap.



3. Replace the dead weight and cover.

⚠ DANGER Failure to restrain the fryer could allow it to move, causing hot shortening to spill out, or a possible break in the gas line causing an explosive condition.

4. Install an ANSI Z83.11/CGA 1.8 compliant restraining device (such as BKI part number FT0279) per the instructions below:

    - Mount the wall attachment according the restraining device manufacturer instructions.
    - Attach the spring-loaded hook on the restraining device to the eye-bolt mounted to the fryer then attach the other spring-loaded hook to the wall attachment.



⚠ WARNING Use appliance connectors and quick-disconnect devices that are in compliance with the applicable ANSI and CSA standards.

5. Connect the gas supply to the fryer.
6. Lock the casters so the fryer does not move. Every time you use the fryer, make sure the casters are locked so the fryer cannot move. (In Canada: refer to caster codes CAN 1-6.10 M88 and CAN 1-6.9 M79.)
7. Turn on the gas at the gas supply valve.
8. Check for gas leaks from the gas supply to the fryer gas valve using a soap and water solution. If a leak is detected, tighten the connection where the leak occurs.
9. Apply power to the fryer.
10. Clean the fryer pot before filling with shortening. See boil out procedure.
11. Place the DRAIN handle in the CLOSED position.

Initial Test and Adjustment

1. Turn on the gas at the gas supply valve.
2. Place the DRAIN handle in the CLOSED position.
3. Fill pot with shortening to just below the oil level mark.

⚠WARNING Risk of fire exists if the oil level drops below the minimum oil level. The level of oil within the pot must not fall below 5mm of the maximum oil level.

⚠WARNING Use of oil/shortening older than the manufacturers recommendations for life of the oil is prone to surge boiling and flash fires. Follow the oil manufacturers guidelines for lifecycle of oil/shortening.

⚠CAUTION Overfilling the fryer pot with shortening could lead to serious injury. Ensure that the fryer pot is filled with shortening only to the fill mark when shortening is hot. Do not use any shortening other than what is specified in this manual and do not overfill the fryer pot.

⚠CAUTION The fryer has a maximum temperature setting of 375º F/191º C. Do not use oil/shortening with a flashpoint less than 554º F/290º C

NOTICE Use only high-quality shortening that has low moisture content, a high smoke point and no additives.



4. Before you turn on the gas, wait at least five minutes to allow any gas that may have accumulated in the burner compartment to escape.
5. Turn fryer on by touching the **ON** button for 3 seconds. Follow the startup instruction below. Add more shortening as required to reach the fill mark. Refer to the troubleshooting section if this does not occur.

Gas Conversion Instructions

To convert the gas system from a Natural Gas to LP Gas application or vice versa, contact the BKI Technical Service Department (802) 658-6600.

Care of the Shortening

To extend the life of your shortening, for the best possible flavor in your products, and for economy and efficiency of operation, we urge you to follow these recommendations:

1. Use only high-quality frying shortening without additives, of low moisture content and with a high smoke point.

2. Press excess moisture from products before breading. The more moisture released in the shortening, the quicker it will break down.

3. Filter at least once a day or once every three loads during frequent cooking.

4. Clean any residue or crust formations from the sides and bottom of the pot each time you filter the shortening.

5. Add fresh shortening as needed to maintain the proper shortening level ***TO THE FILL MARK ON THE POT WALL***.

6. ***DO NOT HOLD SHORTENING AT HIGH TEMPERATURE*** when the fryer is not in use. If you expect an elapsed time of one hour or more between cooking, close the lid, and let the fryer go into setback. The idle time and setback temperature can be programmed.

7. Shortening changes are determined by the quantity and type of food prepared. Excessive boiling and foaming are definite signs of shortening breakdown.

8. After you have finished frying for the day, filter the shortening and replace the filter pad. Also, thoroughly clean the pot of sediment and crumbs and empty the condensate pan.

9. **IMPORTANT!** Before the first cooking operation each day, stir the shortening freely while it is heating to provide a balanced shortening temperature for excellent results with the first cooking. Failure to do this can result in a crusty skin on the product surface with an undercooked product internally. In addition, in some cases, failure to stir the shortening while it is initially heating may cause the HI-LIMIT safety to disable the power due to a false overshoot condition.

Operation

Start-Up (FKG-TC with Training Central™)



1. Turn fryer on by touching the **ON** button for 3 seconds.



2. Make sure the main drain valve is closed.



3. Fill pot with shortening to just below the oil level mark.

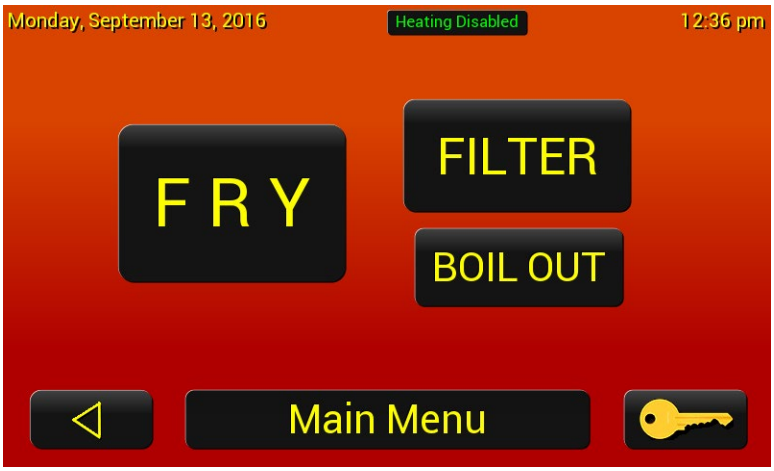
⚠WARNING Risk of fire exists if the oil level drops below the minimum oil level. The level of oil within the pot must not fall below 5mm of the maximum oil level.

⚠WARNING Use of oil/shortening older than the manufacturers recommendations for life of the oil is prone to surge boiling and flash fires. Follow the oil manufacturers guidelines for lifecycle of oil/shortening.

⚠CAUTION Overfilling the fryer pot with shortening could lead to serious injury. Ensure that the fryer pot is filled with shortening only to the fill mark when shortening is hot. Do not use any shortening other than what is specified in this manual and do not overfill the fryer pot.

⚠CAUTION The fryer has a maximum temperature setting of 375º F/191º C. Do not use oil/shortening with a flashpoint less than 554º F/290º C.

NOTICE Use only high-quality shortening that has low moisture content, a high smoke point and no additives.



4. Once the fryer is filled with shortening, press the **FRY** button.



5. Confirm the oil level by pressing the green check mark.

6. The fryer will start heating up by going into a melt cycle. It will pulse the elements until the oil gets to 225° F (107° C) and then goes into heat mode until it reaches the setpoint temperature. The recipes will be greyed out and inaccessible until the fryer reaches setpoint temperature. (If the burner does not light and you get a **Gas Alarm**, see the Gas Alarm instructions in the Troubleshooting section.)



7. When the fryer is ready to cook the recipes will be activated

   IMPORTANT! Before the first cooking operation each day, stir the shortening freely while it is heating to provide a balanced shortening temperature for excellent results with the first cooking. Failure to do this can result in a crusty skin on the product surface with an undercooked product internally. In addition, in some cases, failure to stir the shortening while it is initially heating may cause the HI-LIMIT safety device to disable the power due to a false overtemperature condition.

Cooking (FKG-TC with Training Central™)

⚠WARNING Do not open the drain valve or the fill valve while the fryer is under pressure. Serious burns may result.

1. Ensure that the Start-Up procedures have been performed.
2. Press the menu item button for the desired cook.



3. When frying chicken, lower the basket into the shortening in the fryer pot.

⚠WARNING Hot shortening may splash out of the pot causing severe injury when dropping chicken into pot. Carefully drop pieces of chicken into pot to prevent shortening splashes.

4. Carefully drop the chicken in the shortening one piece at a time starting with thighs and breasts. The fryer is designed to accommodate 48-50 pieces of chicken.

⚠DANGER Failure to use the insulated mitts will result in severe injury. Always use the insulated mitts when handling the hot fry basket.

5. Lift the basket and shake it. This keeps the food from sticking together and causing white spots on the cooked food.

⚠WARNING Hot shortening may splash out of the pot causing severe injury when lowering basket into pot. Carefully lower basket into pot to prevent shortening splashes.

6. Slowly lower the fryer basket into fryer pot.
7. Close the lid. Make sure the lid snaps shut. Make sure the lid hook latches securely under the catch.
8. Tighten the spin handle until the lid is firmly sealed. Then line up the orange knob on the spin handle with the orange knob at the front of the fryer.



9. Activate the recipe by pressing the **START** button. The timer will begin the count down and indicator bar will advance.



(To cancel the recipe press and hold the back button  for 3 seconds.)

10. At the end of the frying cycle, the digital timer beeper will sound and the fryer will automatically release pressure into the baffle box. Press the green check mark button.



11. When the pointer on the pressure gauge is at zero, wait 5 seconds then slowly turn the spin handle counterclockwise to break the seal around the lid. The fryer has a locking pin that prevents turning the spin handle until the pressure drops to zero. Do not force the spin handle to open the lid.

12. Slowly open the lid.

⚠ DANGER Failure to use the insulated mitts will result in injury. Always use the insulated mitts when handling the hot fry basket.

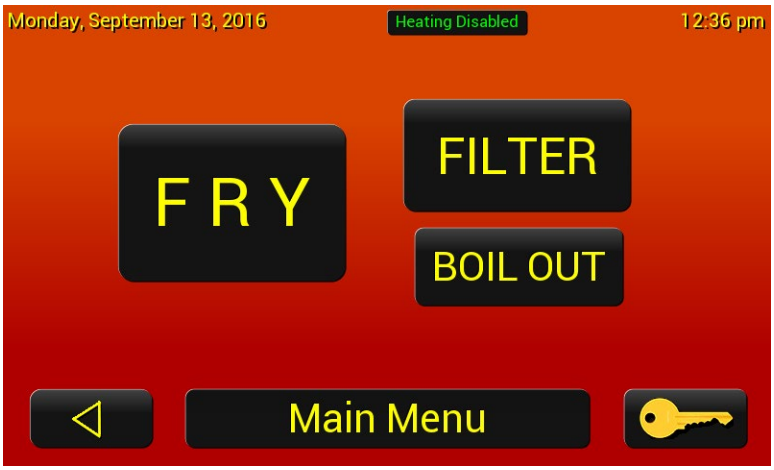
13. Lift the basket and hang it on the front of the fryer pot to drain.

14. Empty the basket.

15. Remember to filter the shortening at least every third frying cycle load. Refer to the procedure in this manual. Also filter the shortening and clean the fryer at the end of each day.

16. When you have finished frying for the day turn fryer off by touching the **OFF** button for 3 seconds.

Product Programming



1. Press the Key button to get into the settings menus.



2. Enter code **1234** and then pres the green check mark.



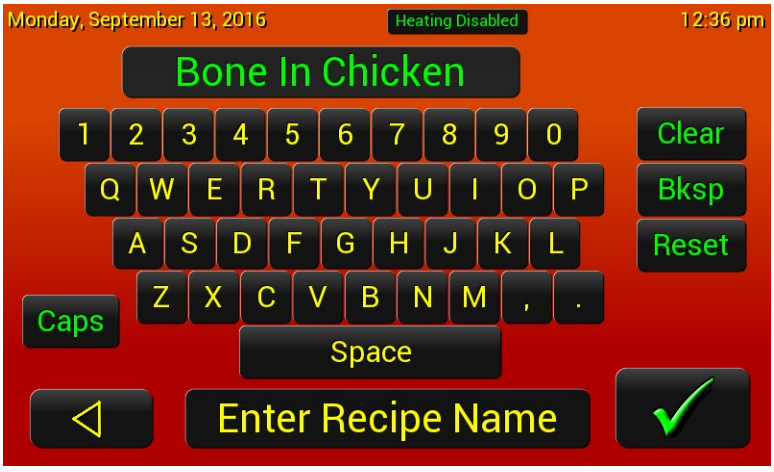
3. Select the **Edit Recipe** button



4. Select the Recipe that needs edited.



5. In the Edit Recipe screen the name, cook time, temperarture, timing type, & picture can be edited.



6. Select **Name** to change the name and press the green check mark to save.



7. Select **Frying** to edit the time and temperature of the recipe. Press the green check mark to save.



8. Pressing the **Next** button will bring you to the second page where the shake/stir, alarm, if the program is active, and the filter weight can be edited.



9. Press the S**hake/Stir** time to edit the time & numer of beeps. Press the green check mark to save.



10. Press the alarm time to edit the time. Press the green check mark to save.



11. Make sure the program is active and set the filter weight (1.0-12.0 by 0.5 increments, if using global filtering).
12. When done, press the **SAVE** button to save the program.

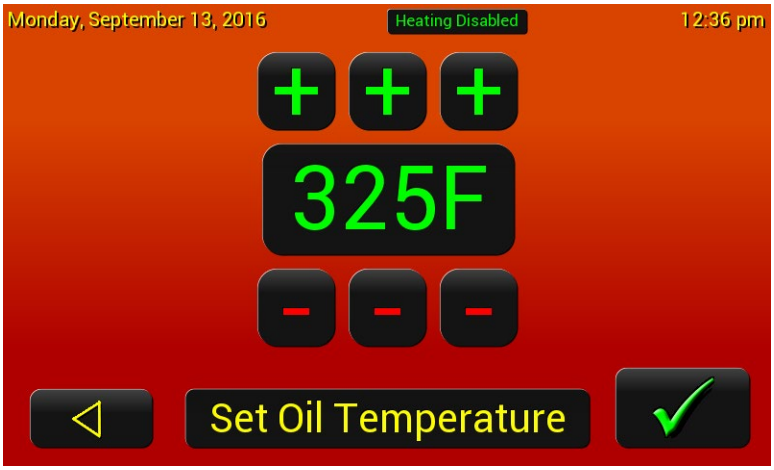


13. If you want to cancel the recipe or accidently press the back button, the message above will display. You can save by pressing the SAVE or cancel by pressing the back arrow.

Set Oil Temp



1. Get into the supervisor menu and select the **Set Oil Temp** button



2. Set the oil temperature to the desired ready to cook temperature between 250° F and 375° F.
3. Press the green check mark to save.

Set Clock



1. Get into the supervisor menu and select the **Set Clock** button



2. Set the date & time.
3. Press the green check mark to save.

Settings



1. Get into the supervisor menu and select the **Settings** button



2. Set the Beeper Volume (Low or High), Pattern (1, 2, or 3), the Filter Lockout* can be turned off & on, the Filter Lockout Value can be set (2-20), and the Temperature Units can be set (C or F).

   *The filter lockout is a global counter used to determine when to force filter. Set the total filter value in settings and then in the recipes, the weight of each recipe can be set. (i.e. Fresh breaded product can have a value of 3 and french fries a value of 1.) When the values of the recipes cooked adds up to the global value (or over), the control will require a filter.

3. Press the green check mark to save.

Frying Log



1. Get into the supervisor menu and select the **Frying Log** button



2. The frying log will record the following events:
    - Recipe Cooked with elapsed time and average temperature
    - Basic Filter with filtering time, refill time, and number of pump lockouts
    - Filter With Rinse Hose with filtering time, refill time, and number of pump lockouts
    - Boil Out with heating time

3. Press the back button  to exit.

Machine Log



4. Get into the supervisor menu and select the **Machine Log** button



5. The machine log will record the following events:
    - Touchscreen Error
    - Probe Error
    - Nonvolatile Memory read, write, or data errors
    - Factory Reset
    - Touchscreen Calibration
    - Configuration Change
    - Password Error
    - Password Reset
    - Password Change
    - Recipe Saved
    - Recipes Imported
    - Recipes Exported
    - Configuration Import
    - Configuration Export
    - Frying Log Export
    - Machine Log Export
    - USB Drive read, write, and file open errors
    - Touch Configuration Change
    - Fryer Options Changed
    - Firmware Update
6. Press the back button  to exit.

Import/Export



1. Get into the supervisor menu and select the **Import/Export** button



2. Insert a USB drive.



3. Press the import/export recipes button to save the recipes to a USB or copy to the fryer.



1. To add up to 8 additional Recipe Icons, press the **Import Icons** button with the USB inserted.

2. Importable Image Requirements:
   a. JPG images only, standard 24 bit color with any amount of image compression.
   b. Recipe icons must be 64 pixels wide and 64 pixels tall.
   c. The maximum file size is 54k bytes.
   d. File names can be any combination of letters and numbers up to a maximum of 8 characters, the extension must be ".jpg". The name is case insensitive.

3. Touch the **Find Files …** button, the controller will look through the entire USB drive and find all jpg files which are 64x64 pixels and below the maximum file size, displays the file name and image of the first file found meeting those criteria, and shows the number of files found in the **Find Files …** button. The 8 locations to the right will now be available, locations which already have an icon stored in them will display the stored image. Use the up and down arrows to scroll through all the files the controller found until the file wanted is displayed.

4. Select the location in which they want to store the icon, they can choose any of the eight locations including those which are already in use, that location will be overwritten. The selected location button turns green and the green check button is now available. Touching the green check button stores the selected image into that location in the controller image format along with the name and size of the file and the original jpg file data so it can be exported at some other time.

5. When the import is completed the controller chirps twice indicating that it has stored that icon. Select other icon files and other icon locations and store as many of the images as desired.

6. Press the green check mark to save.



1. To copy any or all 8 Recipe Icons, press the **Export Icons** button with the USB inserted.

2. The eight button on the left side display all the imported user icons. Select or deselect any of the 8 images to be exported just by touching the icon buttons. Touch once to select, touch again to deselect. The **Select All** button can be used tol select all imported icons.

3. Touch the green check button to export all of the selected icons with their original file names and data to the USB drive. NOTE: Files already on the flash drive which have the same name as the original files will be overwritten with the stored image data.

4. Press the green check mark to save.

Change Code



1. Get into the supervisor menu and select the **Change Code** button

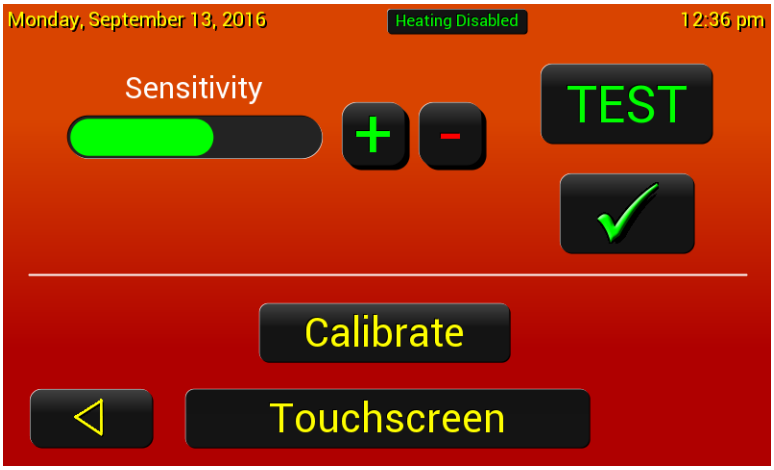


2. Enter the new 4 digit access code. We recommend an easy to remember number, like the store number.
3. Press the green check mark to save.

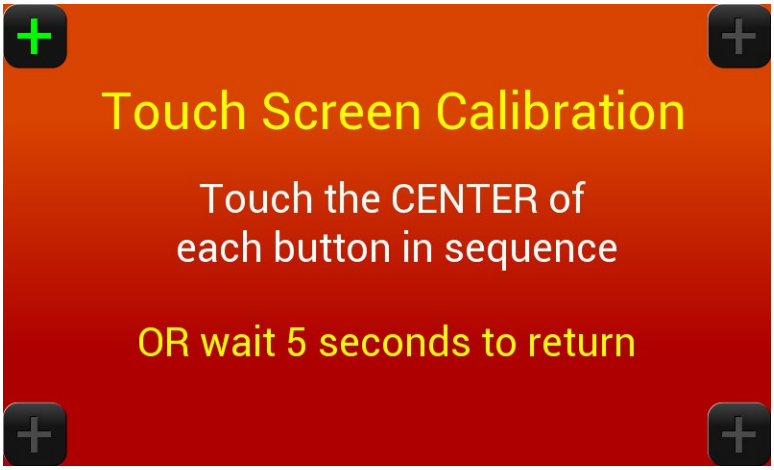
Touchscreen



1. Get into the supervisor menu and select the **Touchscreen** button



2. Press the + or - buttons to adjuste the screen sensitivity. Press the **TEST** button to verify the senitivity level.



3. Press the **Calibrate** button to re-calibrate the touchscreen

4. Press the green check mark to save.

Operation after Gas or Power Outage

The fryer may shut off automatically if the gas supply is interrupted or the power goes out. If either of these conditions occur, you should perform the following procedure:

⚠WARNING For your safety, if the gas supply stops, or, if the power goes out, make sure to wait for at least five minutes before restarting your fryer. This allows time for any unburned gas to dissipate. (LP gas may take longer than five minutes.) If you smell gas, do not start your fryer.

1. Turn fryer off by touching the **Off** button for 3 seconds.
2. Wait at least five minutes to allow any gas that may have accumulated in the burner compartment to escape.
3. Follow normal operating procedures once the power or gas is restored.

Normal Shutoff

1. Turn fryer off by touching the **Off** button for 3 seconds.
2. Wait at least five minutes to allow any gas that may have accumulated in the burner compartment to escape.

Maintenance

⚠CAUTION

Failure to comply with the maintenance below could result in a serious accident.

Do not over-tighten the spindle assembly. (Only tighten to hold pressure.)

Your fryer will need periodic maintenance and servicing. We strongly suggest that you use only a service company that is authorized by BKI to do this work.

The FKG appliance is not intended to be cleaned with a water jet.

The restraining device must always be connected when the appliance is in service. Disconnect for movement, such as servicing or cleaning. Reconnect the restraint when fryer has been returned to its normal position.

Scheduled Maintenance

Use the following table to help manage scheduled maintenance activities.

FREQUENCY	PERFORMED BY	PART	ACTIVITY
Each Fry Cycle	User	Pressure Gauge	Check for proper display of cooking vat pressure. Contact authorized BKI service agent if adjustment or replacement is required.
	User	Lid Gasket	Check for unusual wear such as cracks and deformation, and pressure leaks. Contact authorized BKI service agent if adjustment or replacement is required.
Daily	User	Dead Weight Assembly	Clean weight and orifices daily and check for wear.
	User	Filter Pad	Replace filter pad. Refer to the procedure in this manual.
	User	Condensation Pan	Remove and drain.
	User	Filter system	Filter the shortening using the procedure in this manual.
Weekly	User	Safety Pop Valve	Check for release of pressure and proper seal. Refer to the procedure in this manual.
	User	Fryer Pot	Perform the boil-out procedure in this manual.
Every 6 Months	Authorized BKI service agent	Acme Screw and Nut	Check for wear on the threads.
	Authorized BKI service agent	Solenoid Valve	Check that the valve is holding and releasing pressure when the timer or computer activates it.
	Authorized BKI service agent	Hook, Catch, Spring	Check for wear and ease of operation.
	Authorized BKI service agent	Connections, Fittings	Check for leakage while oil is pumping.

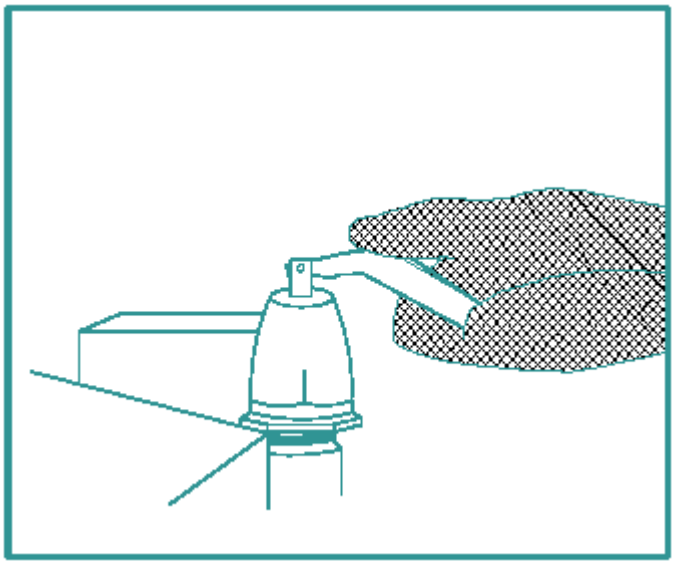
FREQUENCY	PERFORMED BY	PART	ACTIVITY
	Authorized BKI service agent	Fryer Pot Fittings/Connections	Check for leakage around fry pot top deck and fittings (heaters, hi-limit, thermostat, etc.).

Safety Pop Valve Procedure

The safety pop valve should be blown under pressure periodically to prevent the seat from sticking.

⚠ DANGER Failure to use the insulated mitts will result in injury. Always use the insulated mitts when handling the arm on the safety valve.

1. After the pressure is up during a cooking cycle, use the insulated glove to lift the arm on the edge of the safety valve and let some steam escape. This will clean the valve.



2. Release the lever on the valve, and let it slam shut to seal the valve.

Filtering Procedure

Breaded foods require frequent filtering. An excess amount of breading left in the fryer pot will reduce the life of the shortening. We recommend the shortening be filtered after every three frying cycle loads. When the shortening starts to show signs of foaming and has a bad taste, do not use it. The fryer pot should be cleaned before refilling with new shortening. Best results for filtering are obtained while the shortening is hot. You should filter at the end of every business day. You should also remove and drain the condensation pan daily. (If the filer pump overheats and you get a **Pump Too Hot**, see the Filter Pump Reset instructions in the Troubleshooting section.)

If Filter Lockout is ON, then once the value has been reached the following screen will appear and filtering will be required.



⚠WARNING Always wear appropriate personal protection equipment during the filtering process to guard against possible injury from hot oil.

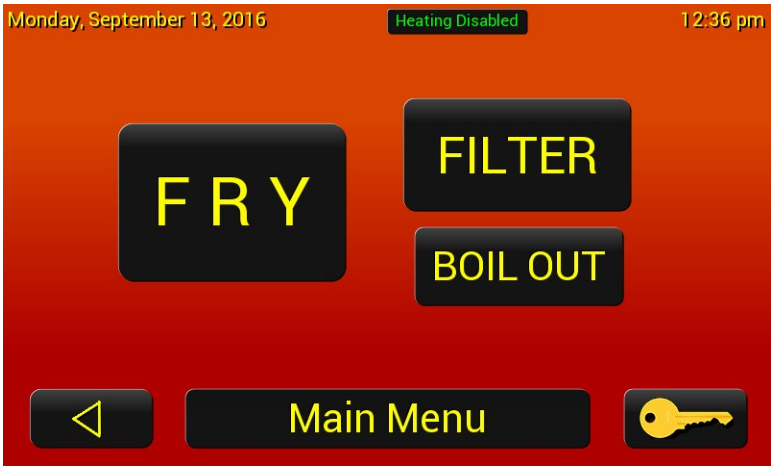
⚠WARNING Do not open the drain valve or the fill valve while the fryer is under pressure. Serious burns may result.

1. Remove the fryer basket.
2. Make certain that the filter pad is clean and not torn.

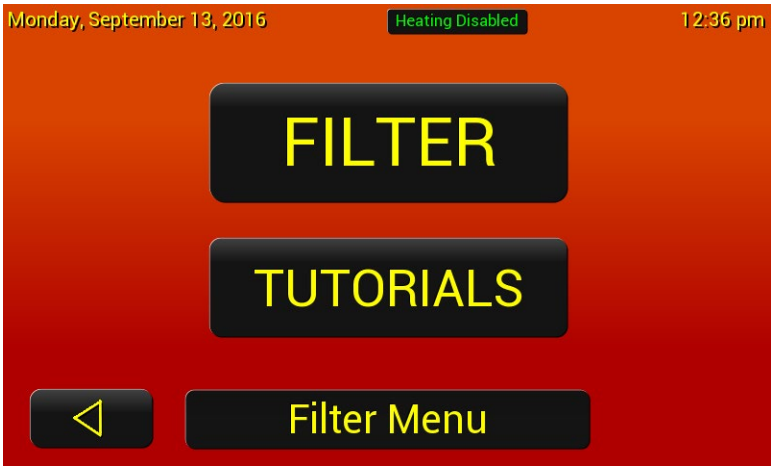
   IMPORTANT: Make certain the vat cover is properly positioned underneath the drain valve. Also make certain the filter vat and filter screen is under the main drain valve before starting



3. To get to the filter menu, press the back button  .



4. Press the **FILTER** button to get the Filter Menu.



5. Press the **FILTER** or **TUTORIALS** button.

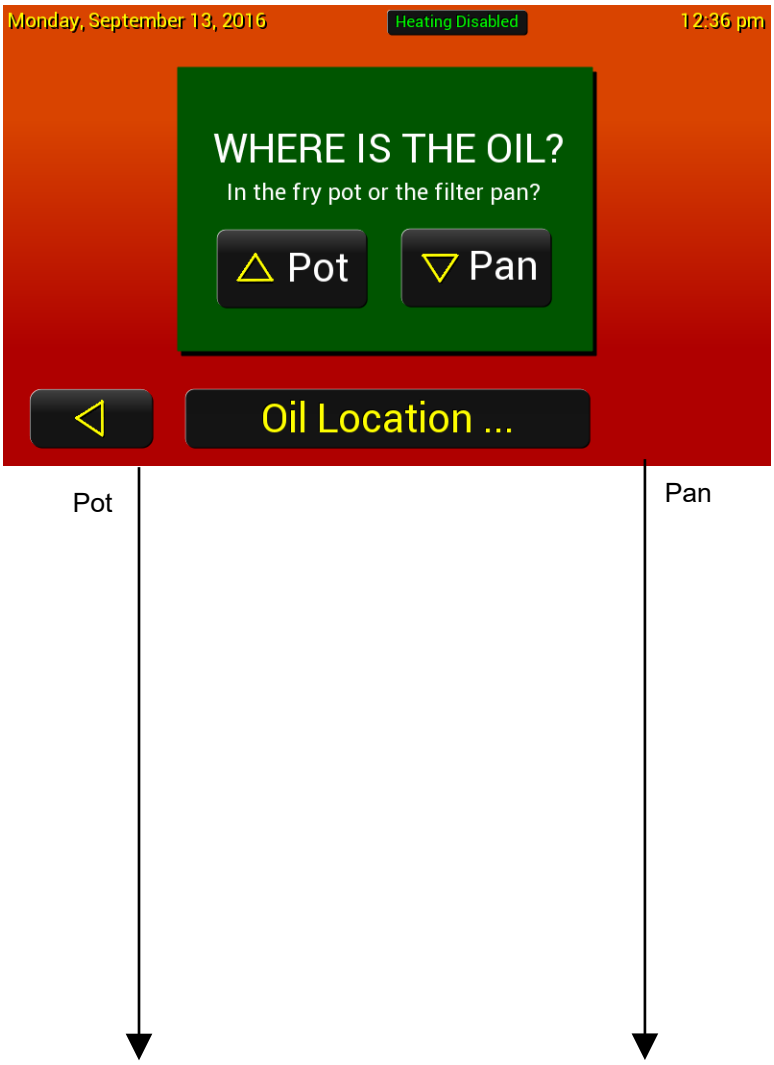


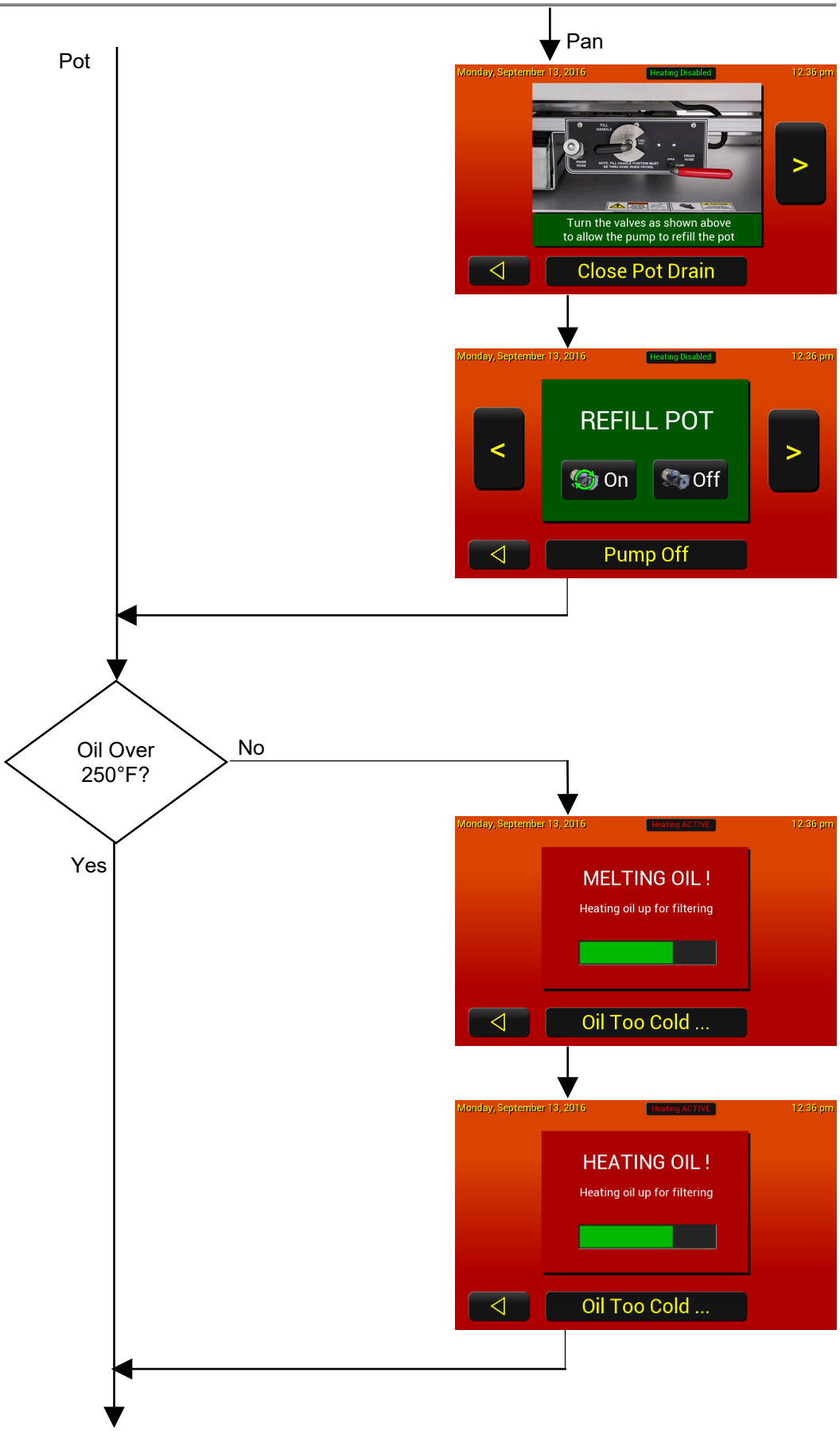
6. If you press the **TUTORIALS** button you can go through how to assemble the filter, how to do basic filter and how to filter with the rinse hose. None of the pump fuctions will operate in the tutorials.

Basic Filter



7. If you press the **FILTER** button you can do a basic filter or a filter with rinse hose. Below we will go through a basic filter.




Pan
Pot
Monday, September 13, 2016
Heating Disabled
12:36 pm
Turn the valves as shown above
to allow the pump to refill the pot
Close Pot Drain
REFILL POT
On
Off
Pump Off
Oil Over
250°F?
No
Yes
Heating ACTIVE
MELTING OIL !
Heating oil up for filtering
Oil Too Cold ...
HEATING OIL !



8. Open the pot drain slowly so that the shortening starts to flow evenly. This is to prevent excessive splashing of hot shortening.



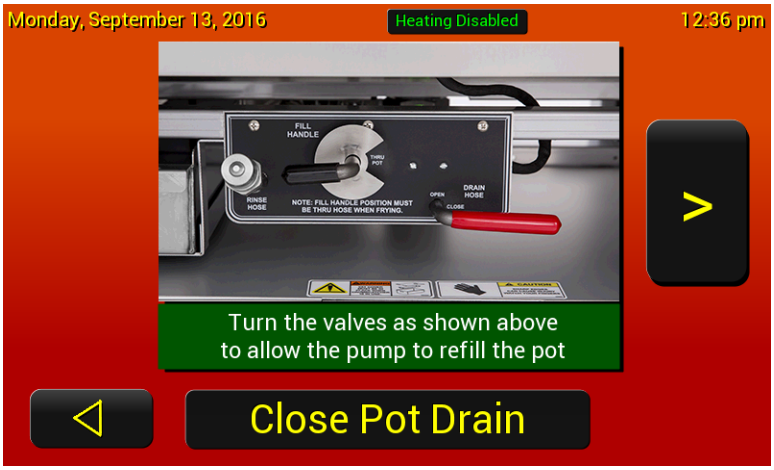
9. Clean the pot, elements, & drain with the supplied brushes as the oil drains.



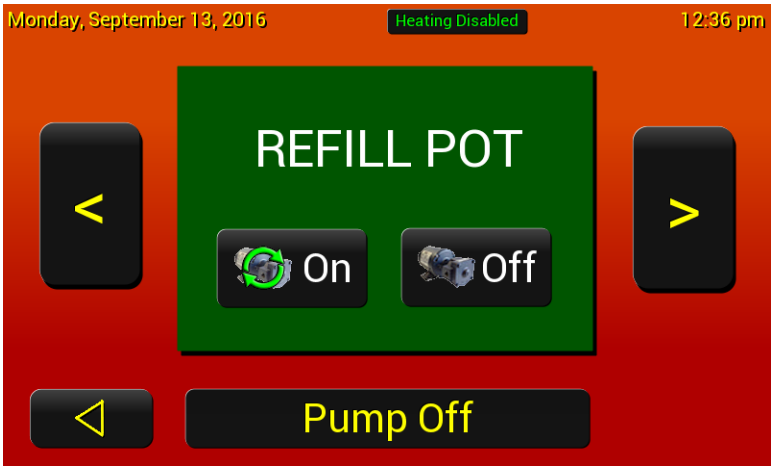
10. If polishing the shortening is desired make sure the fill handle is THRU POT and press the **On** button, otherwise press the right arrow.



11. The display will count up the time the pump is on to indicate the duration of the polishing. When done press the **Off** button to stop the pump and press the right arrow button.

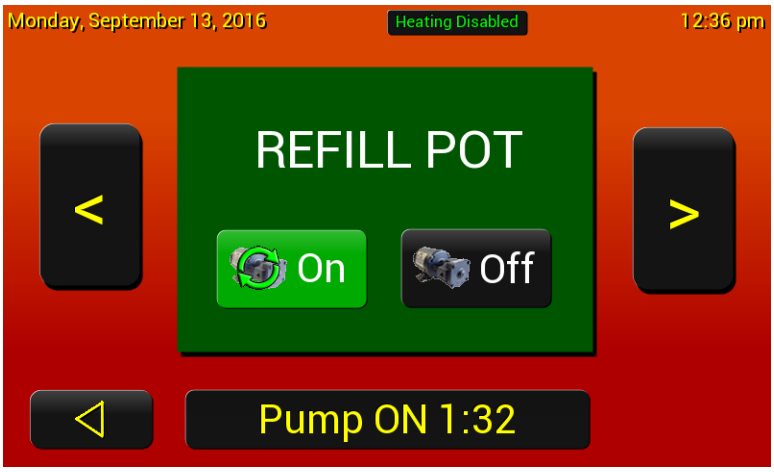


12. To refill the pot close the pot drain and make sure the fill handle is THRU POT.



⚠WARNING Hot shortening may splash out of the pot causing severe injury when filling the pot.

13. Press the **On** button to start the pump and refill the pot.



14. The display will count up the time the pump is on to indicate the duration of refilling of the pot. Let the filter continue to pump the shortening until air starts bubbling through the shortening. When done press the **Off** button to stop the pump and press the right arrow button.

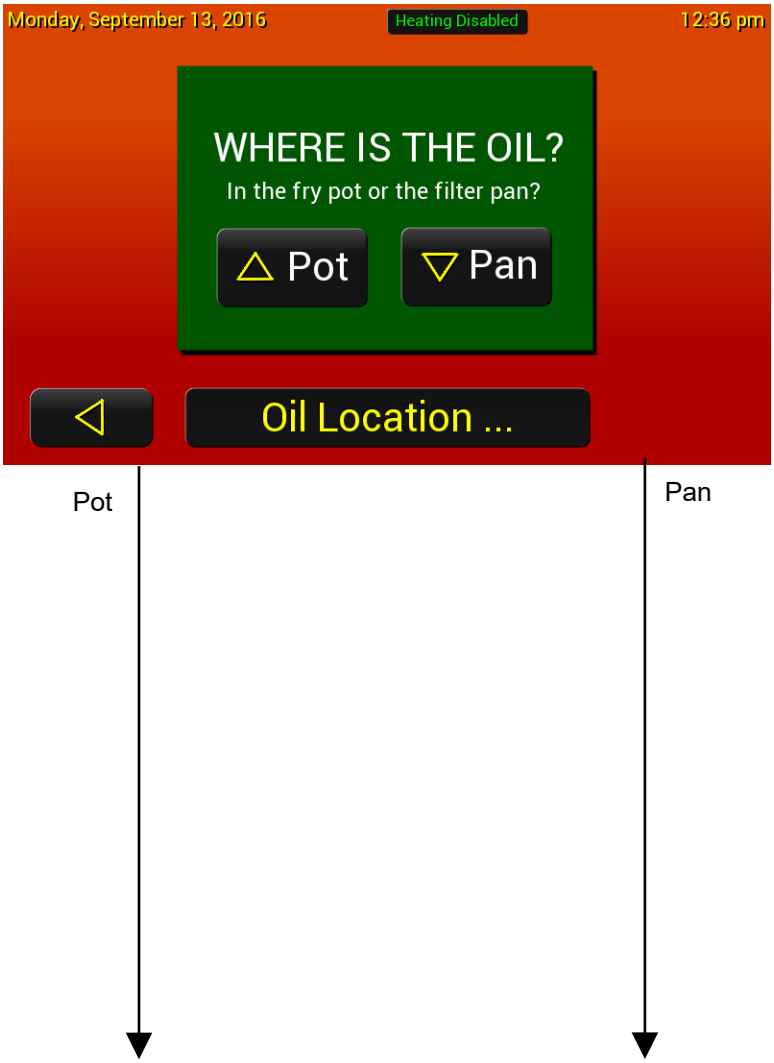


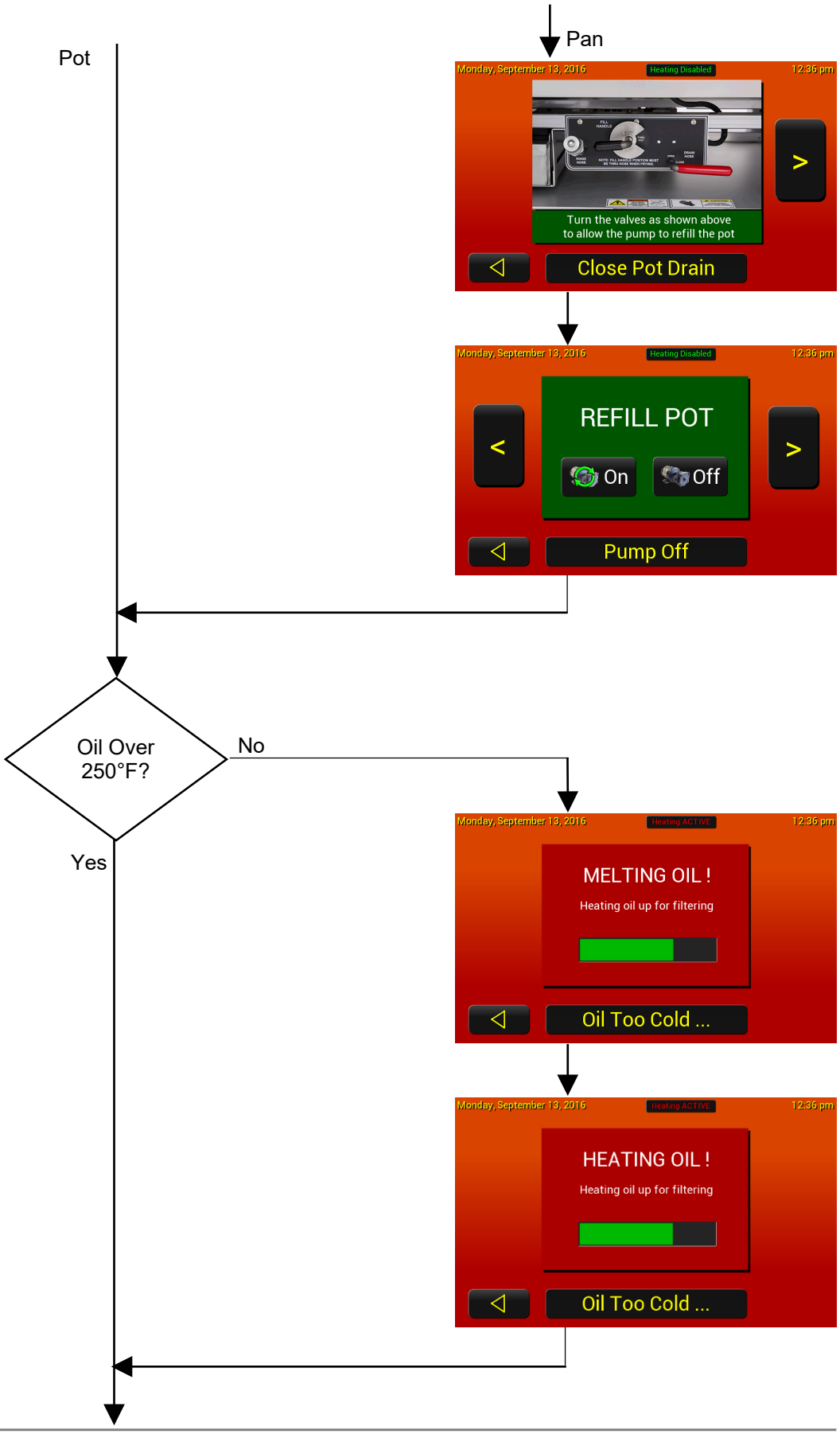
15. Add new shortening if the fill mark has not been reached.

Filter with Rinse Hose



1. If you press the **FILTER** button you can do a basic filter or a filter with rinse hose. Below we will go through a filter with rinse hose.




Pot
Pan
Monday, September 13, 2016
Heating Disabled
12:36 pm
Turn the valves as shown above
to allow the pump to refill the pot
Close Pot Drain
REFILL POT
On
Off
Pump Off
Oil Over
250°F?
No
Yes
Heating ACTIVE
MELTING OIL !
Heating oil up for filtering
Oil Too Cold ...
HEATING OIL !



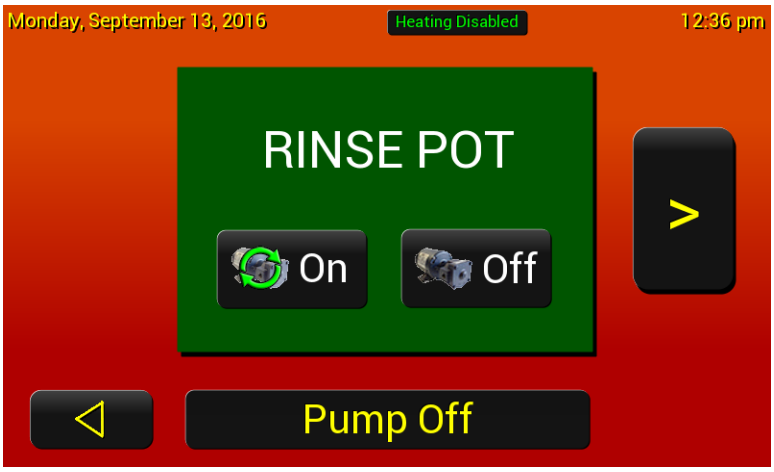
2. Open the pot drain slowly so that the shortening starts to flow evenly. This is to prevent excessive splashing of hot shortening.



3. Clean the pot, elements, & drain with the supplied brushes as the oil drains.



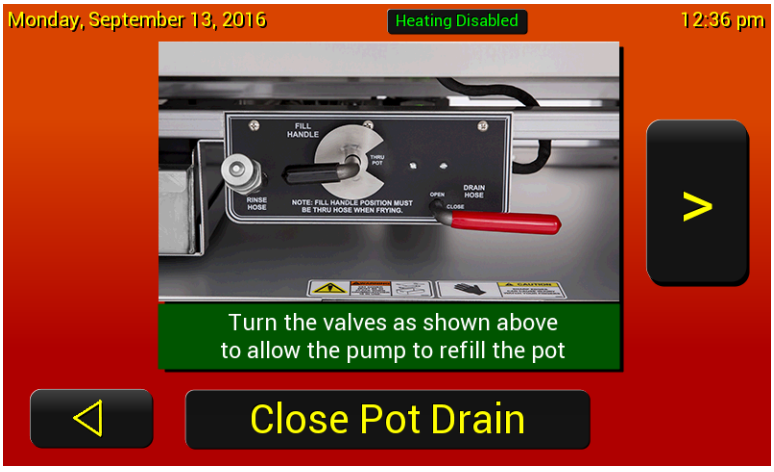
4. Make certain that the rinse hose is connected to rinse hose connector and the valve is turned to the THRU HOSE position.



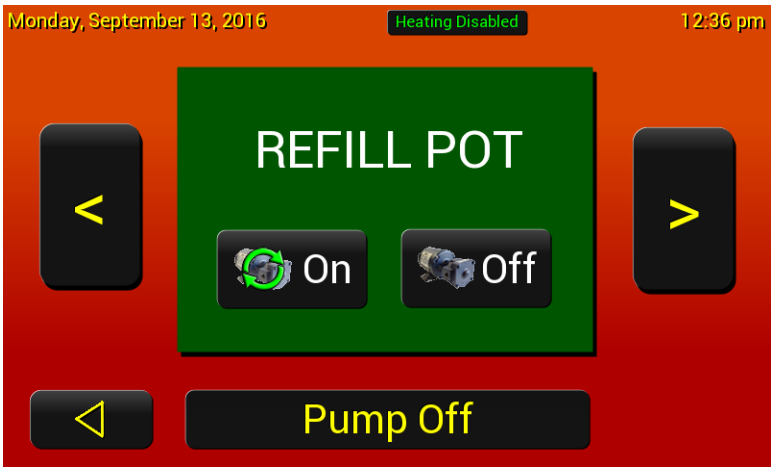
5. Holding the hose by the handle, place hose nozzle inside the pot and press the **ON** button to start the pump.



6. Rinse the inside of the pot with the hose, press **Off** button when done.

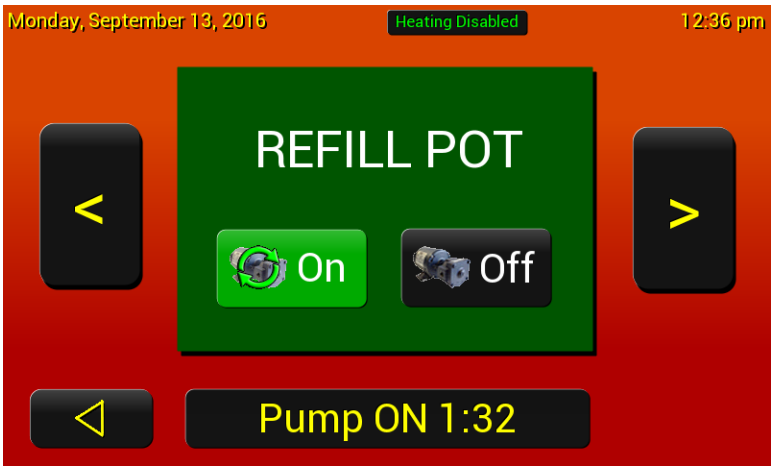


7. To refill the pot, disconnect the hose, close the pot drain, and make sure the fill handle is THRU POT.



⚠WARNING Hot shortening may splash out of the pot causing severe injury when filling the pot.

8. Press the **On** button to start the pump and refill the pot.



9. The display will count up the time the pump is on to indicate the duration of refilling of the pot. Let the filter continue to pump the shortening until air starts bubbling through the shortening. When done press the **Off** button to stop the pump and press the right arrow button.

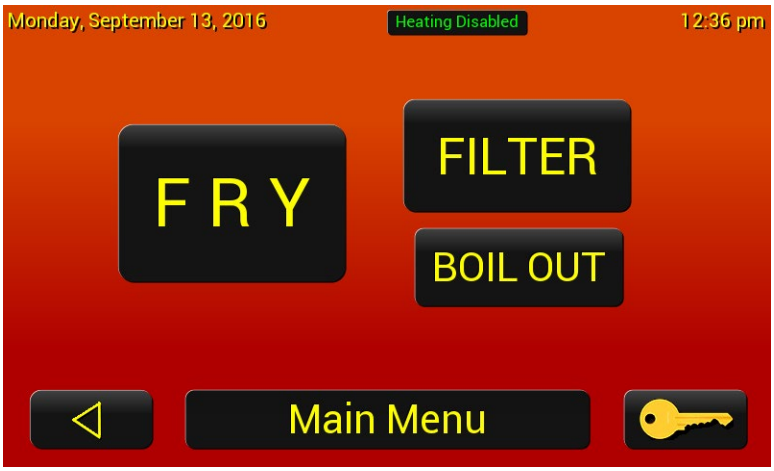


10. Add new shortening if the fill mark has not been reached.

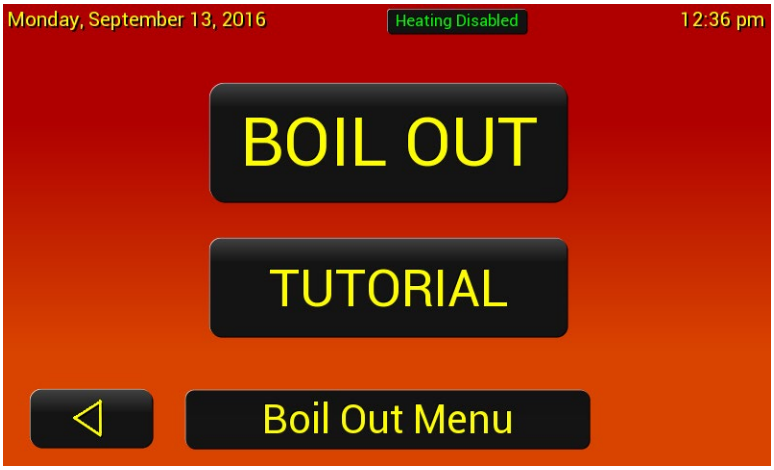
Boil Out

Boil-outs remove microscopic particles of carbon that build up on the walls of the fryer pot. To avoid eventual carbon build-up, off flavors, and shortening breakdown, boil-outs should be done once a week on each fryer following these procedures. BKI recommends BKI Cleaner (P/N LC0006) or equivalent.

⚠WARNING Always wear appropriate personal protection equipment during the boil-out process to guard against possible injury from hot cleaning solution.



1. Press the **BOIL OUT** button to get the Boil Out Menu.



2. Press the **BOIL OUT** or **TUTORIAL** button



3. Open the pot drain slowly so that the shortening starts to flow evenly. This is to prevent excessive splashing of hot shortening.



4. Close the pot drain, fill the pot with water to the fill line, & add the cleaning product.



5. Confirm the water level and press the **START** button.



6. The water will heat up to 190° F.



7. Once the water has reached temperature and 2 minutes have passed the control will beep until the green check mark is pressed. Clean the pot and lid with the brushes provided.



8. Let sit for a little bit and repeat the cleaning with the brushes. Continue till the pot is clean.



9. ***Before draining the cleaning solution****,* remove the filter bag, screen and pipe connections from the filter vat. This must be done before draining the cleaning solution. ***NEVER*** pump water or detergent through the filter system.

10. Drain the solution into the filter vat and discard.

11. Rinse the pot with hot water, using the pot brush to remove remaining sediment, drain and discard.

12. Close the drain and refill the fryer pot with hot water to the proper level.

13. Add approximately 4 to 6 ounces of distilled (white) vinegar to develop a neutralizing solution. Stir the solution briefly. Leave in the pot for three to five minutes and discard. **NOTE: Foaming of shortening after boil-outs is caused by failure to follow proper neutralizing procedures.**

14. Repeat steps 11 through 13 as needed to remove all traces of cleaning solution.

15. Rinse the pot again with Cool water, drain and discard.

⚠CAUTION Damage to the fryer could result if the fryer pot is not completely dry before filling with shortening. Refill the fryer pot with shortening ONLY when it is completely dry.

16. Dry the fryer pot, lid, and filter vat ***COMPLETELY****.*

17. Close the main drain and fill with new shortening to the proper level.



18. Confirm the oil level.

Filter Pad Replacement

The filter pad must be replaced daily. If the shortening has a milky color when it is pumped into the pot, the filter pad should be replaced immediately.

⚠CAUTION If the filter pad is not properly closed, breading crumbs will get through the pad opening and clog the pump. Ensure that the filter pad is properly closed upon replacement.



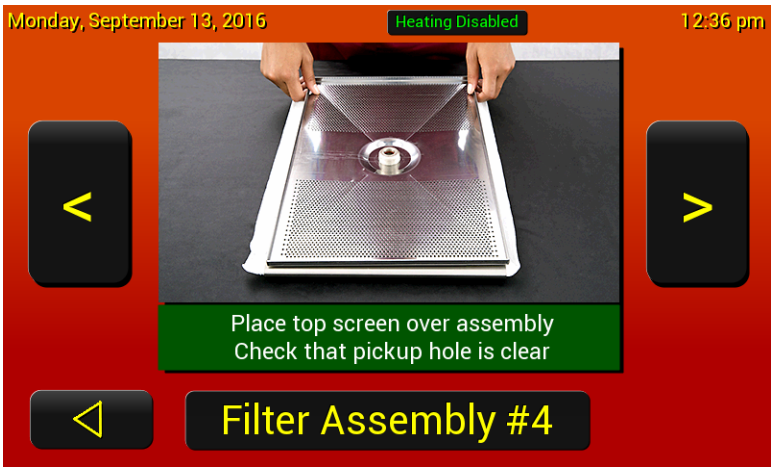
1. Clean all the filter screens and tubing and get a new filter envelope.



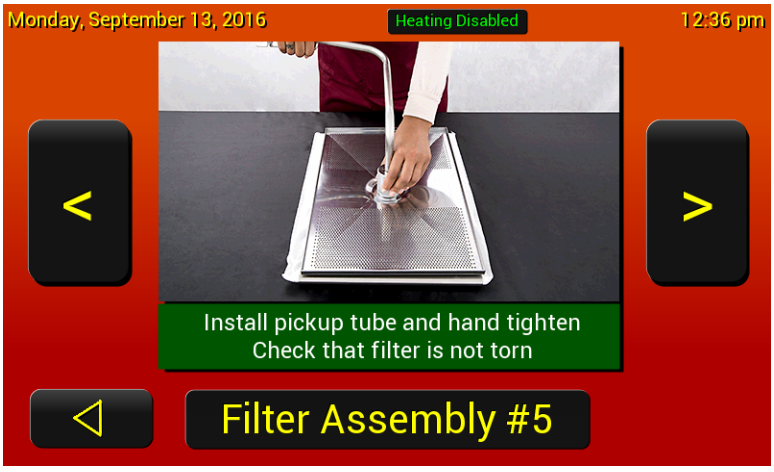
2. Slide the filter into the filter envelope. Be careful to not tear or puncture the envelope.



3. Fold the open end of the envelope over and install the retaining clip.



4. Place the top screen over the assembly and check that the pickup hole is clear.



5. Install the pickup tube and hand tighten. Make sure the filter envelope is not torn.



6. Install the filter assembly into the filter vat. Place the filter vat lid on and slide the filter vat back into fryer.

Troubleshooting

Refer to the table below for troubleshooting information.

Problem	Cause	Possible Solution
Pressure Loss or Not Releasing Pressure	Dead Weight Valve Leaking	Clean the weight and orifice. If problems persist, contact an authorized BKI service agent for corrective action.
	Lid Gasket Leaking	Contact an authorized BKI service agent for corrective action.
	Solenoid Valve Leaking or Stuck	After a period of time, it is possible that the valve seat and/or plunger may stick or wear. Activate the valve by starting a cook cycle. You should hear a solid metallic CLICK sound from the solenoid valve. If you should hear no sound (or a slow BUZZING CLICK), contact an authorized BKI service agent for corrective action.
	Safety Valve not seating	Contact an authorized BKI service agent for corrective action.
Shortening Heating Too Slowly	Gas pressure is low or isn't adjusted properly	Contact an authorized BKI service agent for corrective action.
	Bad thermostat or loose wires	Contact an authorized BKI service agent for corrective action.
Filter System Not Working	Uncertain	Press the hi-limit reset button under control panel. If problems persist, contact an authorized BKI service agent for corrective action.
	Connections not tight	Tighten the connections. If problems persist, contact an authorized BKI service agent for corrective action.
	Filter valve not open	Contact an authorized BKI service agent for corrective action.
	Filter paper on screen clogged with crumbs	Change filter paper. If problems persist, contact an authorized BKI service agent for corrective action.
	Motor hums, but does not pump	Check for clogged pump. If problems persist, contact an authorized BKI service agent for corrective action.
	Motor and pump coupling worn	Contact an authorized BKI service agent for corrective action.
	No power to control panel	Make sure drain valve is completely closed. If problems persist, contact an authorized BKI service agent for corrective action.
Computer Hangs	Computer malfunction.	Turn the power **OFF** then back **ON**. If problems persist, contact an authorized BKI service agent for corrective action.

Gas Alarm

If the fryer tries 3 times to light the burner without success the gas control system will lock out and a Gas Alarm will pop up on the screen. Press the green **RESET** button to reset the gas control system and try to light again. If the problem persists, contact an authorized BKI service agent for corrective action.

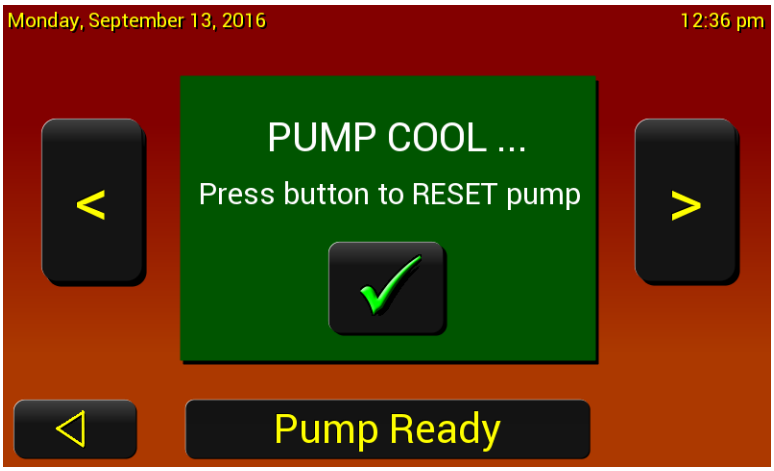


Filter Pump Reset

If the filter pump overheats a PUMP TOO HOT alert will pop up and a timer will start to count up.



Once the pump has cooled, the screen will indicate that the pump is ready. Press the green Check Mark to start the pump back up.



Notes

42 Allen Martin Drive, Essex Junction, VT 05452, USA
http://www.bkideas.com

Made and printed in the U.S.A

SS-OM-061.04 Revised 09/01/2020

REVISION HISTORY

REVISION	DATE	REVISED BY	DESCRIPTION
01	04/03/18	JDS	Initial Release-Supersedes all previous releases
02	05/14/18	JDS	Added Recipe Icon Import/Export (LCO 18-004)
03	09/18/18	JDS	Added additional Team Central info, updated filter process, and required Warning for California residents. (LCO 18-007)
049/1/2020	9/1/2020	CG	Change warranty