

# **BROASTER®** E-SERIES 24

## **OPERATION MANUAL** BROASTER® E-SERIES 24 PRESSURE FRYER

**Be sure ALL installers read, understand, and have access to this manual at all times.**



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608/365-0193 [broaster.com](http://broaster.com)



**FOR YOUR SAFETY**

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

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

For the sake of safety and clarity, the following words used in this manual are defined as follows:

**⚠ DANGER** Indicates an imminently hazardous situation which, if not avoided, could result in serious injury or death.

**⚠ WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.

**⚠ CAUTION** Indicates a potentially hazardous situation which, if not avoided, could result in minor injury, property damage or both.

All adjustments and repairs shall be made by an authorized Broaster Company representative.

If there is a power failure, turn the power switch OFF. DO NOT attempt to operate unit during a power failure.

**⚠ WARNING** Failure to read and understand this manual completely could result in serious injury or death. Be sure ALL operators read, understand and have access to this manual at all times.

**⚠ WARNING** Rags or paper containing cooking oil can catch fire if exposed to heat. Laundering will not remove the oil. Dispose of all oil-soiled papers and rags in a trash container that is in a ventilated area away from all cooking equipment or other heat sources such as direct sunlight.

**⚠ WARNING** DO NOT operate the unit without the filter pan in its proper position and the piping securely connected.

**⚠ WARNING** Make sure Pressure Relief Valve port in the cover and Pressure Transducer port in the cooking well are clear of any oil or grease buildup.

**Gas Fryers:**

Post, in prominent locations, instructions to be followed in the event that the user smells gas. This information can be obtained from your local gas supplier.

**⚠ WARNING** The installation shall be made with a restraining device that complies with the Standard for Connectors for Movable Gas Appliances, ANSI Z21.69 • CSA 6.16, and a quick-disconnect device that complies with the Standard for Quick-Disconnect Devices for Use With Gas Fuel, ANSI Z21.41 • CSA 6.9. Adequate means must be provided to limit the movement of the appliance without depending on the connector and the quick-disconnect device or its associated piping to limit the appliance movement. The restraining device shall be attached to the appliance according to the manufacturer's instructions.

**⚠ DANGER** Failure to restrain the fryer could allow it to move or tip, causing hot oil to splash or spill out, or a possible break in the gas line causing an explosive condition. Always lock front castors. Other means of restraint may be the manner of installation, such as connection to a battery of appliances, installing the fryer in an alcove, by a restraining cable to the back of the fryer or separate means, such as adequate ties.

**⚠ WARNING** The installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/ NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1, as applicable, including;

i) The appliance 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 1/2 psi (3.5 kPa).

ii) The appliance 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 1/2 psi (3.5 kPa).

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

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# 1 - LIMITED WARRANTY - Parts and Labor

Subject to the terms and conditions of this warranty, The Broaster Company (Company) warrants that all equipment and parts manufactured or sold by the Company and purchased new from an authorized Company distributor are free from defects in material and workmanship. The warranty begins on the date of installation, or one year from the date of manufacture, whichever occurs earlier. The term of the warranty is **one year for all non-wearable parts, two years on Solid State controllers, and ten years on the Welded Stainless Steel Cooking Well**. To qualify for warranty coverage, all units must be installed by a qualified installer under supervision by an authorized distributor in accordance with applicable laws and regulations. Warranty coverage is extended to the original purchaser only and is void if the equipment is resold or relocated. If an authorized Company distributor is notified of a warranty claim during the warranty period, the Company will at its option replace, recondition, or repair at its factory any part or parts of the equipment which the Company judges defective, provided the equipment has been subjected to normal usage, properly installed, operated and serviced in accordance with Company operating instructions, and there is no evidence of accident, alteration or abuse of the equipment or the use of unauthorized repair methods. All parts replaced under this warranty carry only the unexpired term of the warranty.

Extended cooking well warranty will cover the cooking well only and does not include any parts attached to the cooking well, including: probe guards, basket guides, latch columns, latch column blocks, insulation, splash shield interlock, drain valve, filter lines and fittings, high limit, thermostat, temperature sensor probe, combustion chamber and flue, elements, burner, all mounting hardware. The aforementioned excluded parts are covered under the 1-year parts warranty. The extended warranty does not cover any cooking well that fails due to any misuse or abuse.

Any warranty claim on the cooking well must be presented to The Broaster Company or authorized Broaster Distributor from whom the pressure fryer was purchased. Repairs will be made by The Broaster Company only. Any freight charges and distributor labor costs to install the repaired cooking well, as well as the cost of any other parts replaced will be the responsibility of the equipment owner.

Service under this warranty shall be furnished only by an authorized Company distributor. The Company does not send service representatives to furnish warranty service. Your authorized Company distributor should be contacted for warranty service.

This warranty covers **on-site labor charges only**, at a fixed rate, for one year, on new equipment only. The warranty period begins on the date of installation or one year from the date of manufacture, whichever occurs earlier. Transportation charges, trip charges, zone fees, or other expenses in connection with warranty service are the obligation of the owner.

This warranty shall be void unless genuine Broaster® parts & filter paper, Bro-Clean Lite filtering compound, and Broaster Cooking Well Cleaner is used in conjunction with the equipment.

This warranty does not apply to consumable items and supplies such as O-rings, food baskets, bulbs, gaskets and lamps.

The foregoing warranty is made in lieu of all other warranties, express or implied, and the Company specifically disclaims any implied warranties of merchantability or fitness for a particular purpose. The Company's full obligation under this warranty, and the purchaser's sole remedy, shall be limited to replacement, reconditioning or repair as specified above.

IN NO EVENT SHALL THE COMPANY BE LIABLE TO THE ORIGINAL OWNER OR ANY OTHER PERSON FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM THE USE OR INABILITY TO USE THE EQUIPMENT COVERED HEREBY, WHETHER ARISING FROM BREACH OF WARRANTY, STRICT LIABILITY OR OTHERWISE.

The Company reserves the right to change or improve its products in any way without obligation to alter products previously manufactured.

**Used Company equipment or Company equipment not purchased from an authorized distributor carries no warranty.**



## 2 - OWNERS RESPONSIBILITY

### It is the owner's responsibility to:

- Ensure the Broaster® Pressure Fryer is properly maintained.
- Ensure all safety devices and warning signs are in their original location and are legible.
- Allow only properly trained personnel to operate, clean and maintain a Broaster® Pressure Fryer.
- Retain this manual for future reference.
- Ensure main power supply is disconnected before the unit is serviced.
- When you sell, trade, dispose of or give away your Broaster® Pressure Fryer, you must make sure that all safety devices and warning signs are intact and legible and the operation manual is included with the unit.
- **ES24G:** Keep burner area free and clear of all combustible materials.
- **ES24G:** DO NOT obstruct exhaust flue or open area around gas valve blower intake.

If you need replacement warning signs or manuals, contact an authorized Broaster Company representative or the Broaster Company at 608/365-0193 or toll free at 800/365-8278.

The Customer Service Department at the Broaster Company should be contacted at the time of sale or disposal of the Broaster® Pressure Fryer so records may be updated.

If you are a new owner of a used unit or have relocated your Broaster Pressure Fryer, please take a minute to notify us by completing the Pre-Owned Equipment Registration page on our website. It is NOT a warranty registration.  
[broaster.com/preowned-registration.htm](http://broaster.com/preowned-registration.htm)

This information enables the Broaster Company to better serve you and keep you informed of changes in equipment, conditions, or service bulletins.



## 3 - INSTALLATION INSPECTION

Before operating unit, be sure installation meets all requirements in the Installation Manual provided with your unit.

**CAUTION** Follow cleaning instructions as outlined in this manual before operating the first time. See section 9 - CLEANING.

- A remote circuit breaker or fuse should be installed in the main power supply located in a path of exit and clearly identified.
- To avoid splashing of hot liquid, unit must be restrained to prevent tipping. Always lock front casters. This can be done by installing the unit in a battery of appliances, in an alcove or with adequate ties.
- See **Safety Relief Valve** under GETTING TO KNOW YOUR BROASTER® PRESSURE FRYER (Section 4). **DO NOT** install unit where traffic area's are on either side or in back of unit.

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

ES24G:

**WARNING** Electrical Grounding Instructions - The Model ES24G 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 grounding prong from this plug.

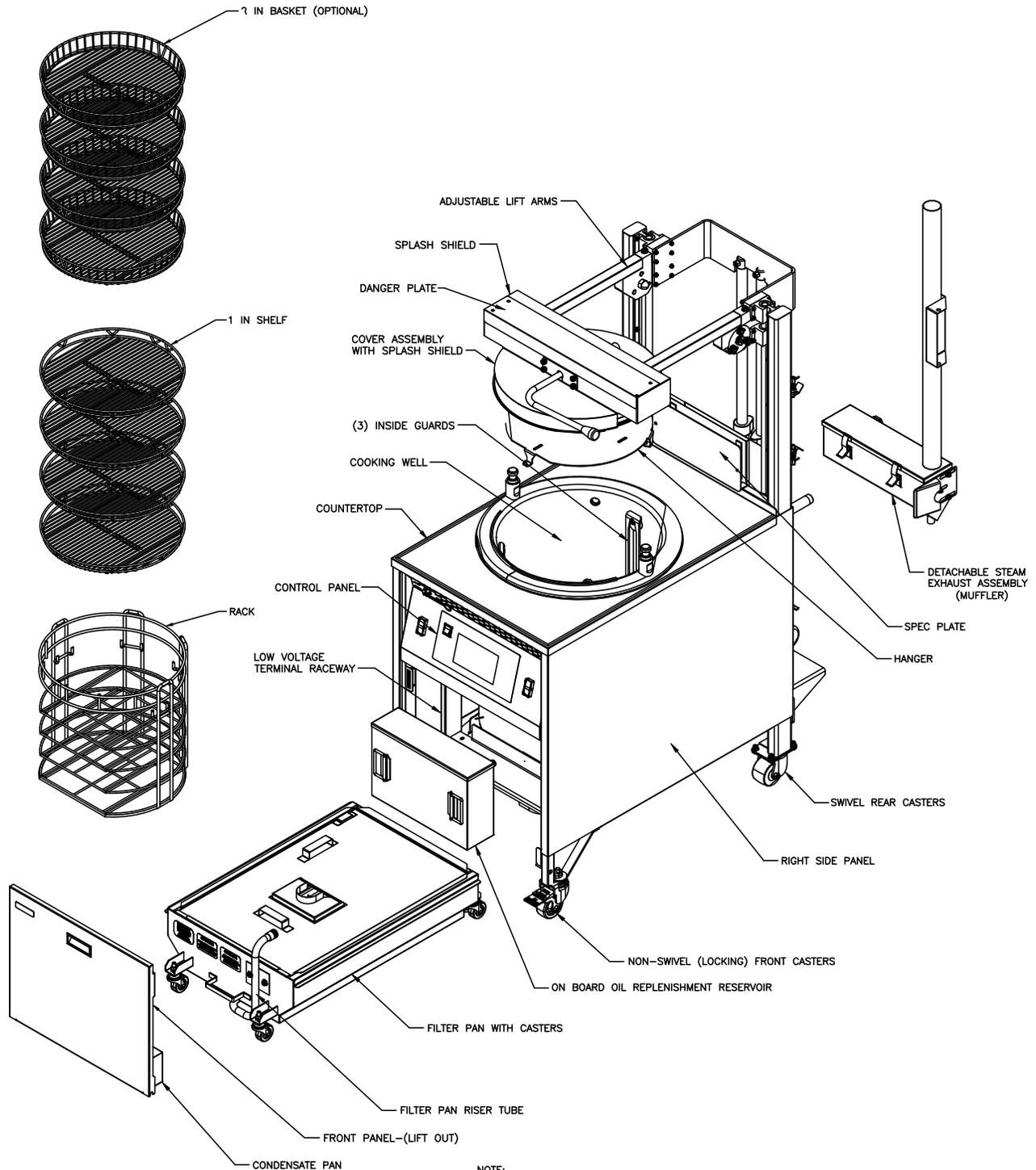
- A gas shutoff valve, installed in gas supply line, should be located in a path of exit and clearly identified.

**Gas Conversion:** Contact your local Broaster Company representative for converting from one type of gas to another.

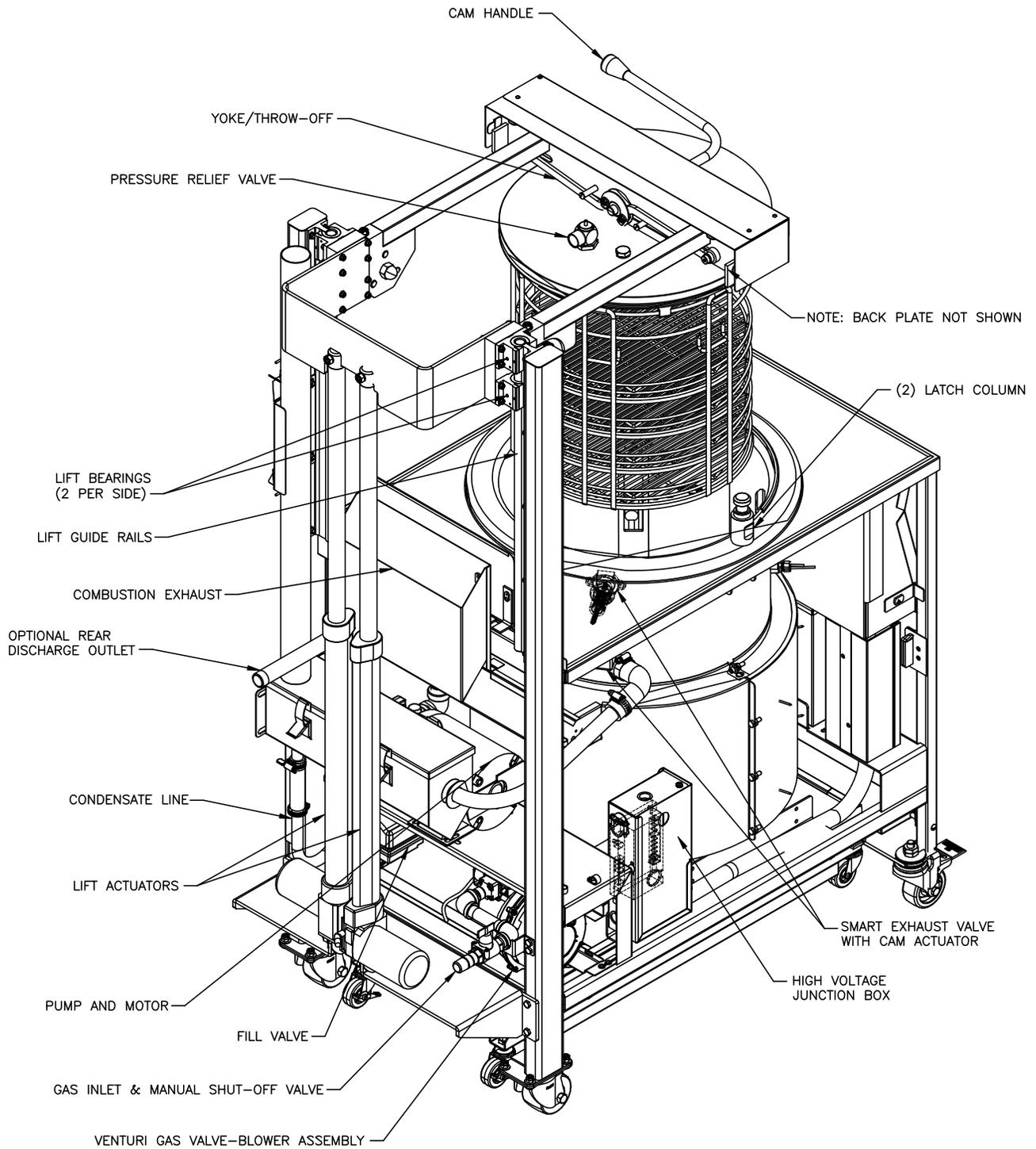
**WARNING** The installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/ NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1, as applicable, including;

- i) The appliance 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 1/2 psi (3.5 kPa).
- ii) The appliance 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 1/2 psi (3.5 kPa).

# 4 - GETTING TO KNOW YOUR BROASTER® PRESSURE FRYER



NOTE:  
 ALL ELECTRICAL RUNS DOWN LEFT HAND SIDE OF UNIT.  
 ALL PLUMBING RUNS DOWN RIGHT HAND SIDE OF UNIT.



## Model ES24

1. **Cooking Well:** Holds 70# cooking oil. Normal operating pressure is 12-14 psi.
2. **Handle and Cover Assembly:** Seals the cooking well during pressure frying. Safely locks the cover in place while pressure is in the cooking well. Safely diverts steam toward the rear of the appliance in the event the O-ring leaks.

**⚠ WARNING** Never operate the pressure fryer with a damaged or defective cover assembly. It is recommended that the cover assembly and its operation be inspected routinely by an authorized service representative.

3. **Combustion Exhaust Flue:** Safely conducts combustion exhaust products into a vented hood area.
4. **Cooking Well Exhaust Stack:** Safely conducts steam from the cooking process into a vented hood area.
5. **ON/OFF Switch:** Applies and removes electrical power to and from the appliance.
6. **Smart Touch Touchscreen Control:** Provides a human machine interface for all fryer operations.
7. **Front Cabinet Door:** Allows access to the fryer cabinet for condensate pan, filter pan and oil reservoir tank removal.
8. **Filter Pan:** Holds filter components and filtering compound used to filter hot oil and allows capture and efficient removal of crumbs produced during the cooking process.

**⚠ WARNING** Never operate the pressure fryer without the filter pan in place and the piping securely connected. **HOT OIL** may spill out or leak as a result. This unit has integrated sensors to indicate if filter pan is installed completely.

**⚠ CAUTION** Surfaces may be extremely **HOT** during filtering operation. Always wear protective gloves and clothing to prevent burns when accessing the filter pan. Allow the filter pan to cool to room temperature before removing its contents at every possible opportunity.

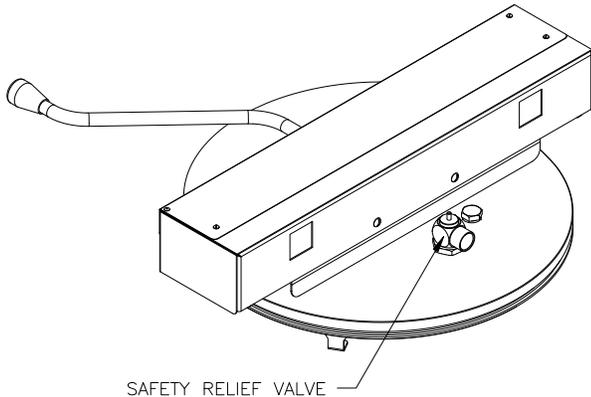
**⚠ WARNING** **HOT OIL! DO NOT** use this container to transport **HOT OIL**. **HOT OIL** could splash causing serious burns.

9. **Condensate Pan:** Holds condensation drained from the exhaust tank. Check liquid level several times daily. Empty as needed.

**⚠ WARNING** **Water and HOT OIL DO NOT mix. DO NOT** pour contents of condensate pan into cooking well or filter pan. **HOT OIL** could splash causing serious burns.

10. **Oil Replenishment Reservoir:** Stores fresh oil for automatic replenishment of the oil when it is low.
11. **Oil Management Pump:** Allows for safe filtering, replenishment and discharge of the oil.
12. **Gas Shutoff Valve:** (Gas units only) Allows isolation of the appliance from the gas utility.

13. **Combustion Blower and Gas Valve Assembly:** Allows for safe mixing of air and gas to supply to the burner.
14. **Automatic Drain Valve:** Used to drain cooking oil from cooking well into filter pan or container made for handling **HOT OIL**.

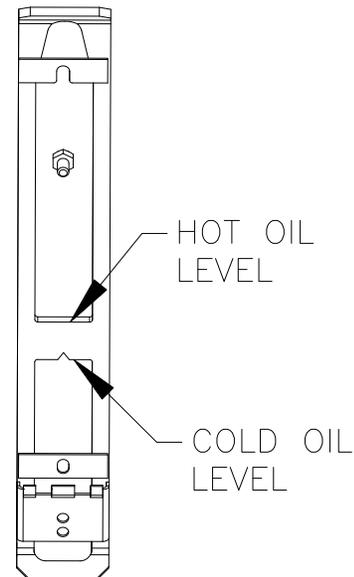


15. **Safety Relief Valve:** This valve will open in the event pressure in the cooking well meets the relief pressure of valve. A properly installed valve has the outlet facing toward rear corner of the countertop. **DO NOT** use valve to release pressure at the end of a cooking cycle. If valve leaks during normal operation, **DO NOT** operate the unit until valve is replaced by an authorized Broaster Company representative.

**WARNING** Keep away from safety relief valve opening unless wearing heat and steam protective apparel. Escaping steam could cause serious burns.

**NOTICE** Test valve once a month. Also test before and after an extended shutdown. Using a hot mitt, lift valve handle during a cook cycle until pressure is released from cooking well. Allow valve to snap closed.

16. **Cover O-Ring:** Forms a seal when cover is lowered into the cooking well.



17. **Hot Oil Level:** Indicates proper level when oil is at operating temperature. HOT OIL level is indicated by top line and cold oil fill is indicated by lower line on all 3 inner well guards.

**CAUTION** Check oil level before turning on the power switch.

18. **Probe Guards:** There are 3 guards, rear fill tube, front left upper temp probes and front right vat temp probe and pressure transducer. These guards protect these components from damage.

19. **Cover Lift Switches (2):** Use the rocker switches on the front panel to raise and lower the cover to get access to the shelves and rack. To raise cover, push the top half of either the LH or RH switch. To lower cover, push and hold the bottom half of both switches at the same time.

**WARNING** Never attempt to operate the lift switch mechanism while the cover is closed and locked and the fryer is under pressure. Severe injury or damage to the fryer may result.



## 5 - PRE-COOKING PREPARATION

### O-RING LUBRICATION

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Lubricate oil reservoir riser line O-ring and cover O-ring with cooking oil (see COVER instructions one through three under CLEANING).

### COVER CHECK

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**CAUTION** Never use force to OPEN cover. OPEN only when no pressure is present in the cooking well.

**TO OPEN:** Push down on cover handle then rotate handle clockwise. After cover handle is fully at the open position, push the top half of either the LH or RH cover lift switch to raise the cover.

**TO CLOSE:** Push and hold the bottom half of both cover lift switches simultaneously to lower cover onto latch pins.

If cover does not move up or down, turn the power off. DO NOT operate unit until it has been serviced by an authorized Broaster Company representative.

### COOKING OIL

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The words “oil” and “shortening” are used to describe a high quality cooking medium manufactured for deep frying.

**CAUTION** Check oil level before turning power switch on.

**WARNING** Use care when handling HOT OIL. Oil could splash causing serious burns.

#### Liquid Oil:

Use Broaster® liquid oils or a high quality liquid oil manufactured for deep frying.

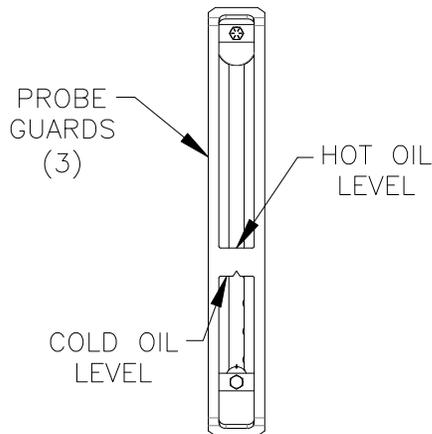
## OIL LEVEL

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Ensure the drain valve is closed. Fill the cooking well with 70# of oil to the cold oil fill line. When the oil is at the set temperature, the oil should be at the hot oil line.

**⚠ WARNING** Be sure **HOT OIL** is at **HOT OIL** level before starting a cooking cycle.

There are 3 probe guards. The hot oil level is the same on all three.



## FOOD AND CONDIMENTS

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Make sure the food you purchase is high quality. For best results, chicken should be fresh, trimmed for portion control and uniform in size.

Broaster Company offers a wide variety of marinades and coatings under the Broaster Foods® brand name.

In order to use Broaster Company trademark terms, marks & logos on your menu, merchandising or in any other materials you must adhere to all policies and procedures and have a licensed operator trademark agreement on file at Broaster Company. Contact your local authorized Broaster Distributor to obtain a copy of the agreement for review or to update your agreement on file.

You may not at any time use Broaster®, Broasted®, Broaster Chicken®, Broasted Chicken or any variation therein without prior and proper authorization.

## ES24G LIGHTING INSTRUCTIONS

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The manual gas shut-off valve is located at the back of the fryer.

### Start Up:

1. Open manual gas shut-off valve.
2. Turn power switch ON.
3. Check OIL LEVEL if low, add oil to bring up to cold oil level.

### Shut Down:

See NIGHTLY SHUTDOWN page 10-1

# 6 - SOLID STATE CONTROL PANEL

## SMART TOUCH FAMILIARIZATION



**1. Power Switch:** This switch has two positions: ON (UP) or OFF (DOWN).

**2. Touch Control Screen:** Touching this screen controls the many options of the fryer.

**3. Dual Cover Lift Switches:** These switches control the cooking well cover. Both for down, one for up.

### INITIAL SETUP:

On initial power up you may be asked to enter the current date and time, and verify the Serial Number. Or the screen will have the word CAUTION flashing on the screen. If the date and time entry screen appears press the box after “Month” and a keypad will appear. Enter the number of the month and press the enter key. Repeat this action for the Day, Year, Hours, Minutes, AM and PM boxes. When finished press the green OK button in the bottom right corner of the screen. The next display will ask you if this date should be used to establish the warranty start date. Press the green OK button.

You will then see a display asking you to verify the serial number of your fryer. Enter the serial number using the keyboard and press enter.

### NOTICE

**The date/time display and the serial number display will not appear again when the power switch is turned off and back on.**

A CAUTION screen will appear to remind you to check the oil level before the heating elements or burner are activated. If the oil is at the proper level, press the green OK button in the bottom right corner of the screen.



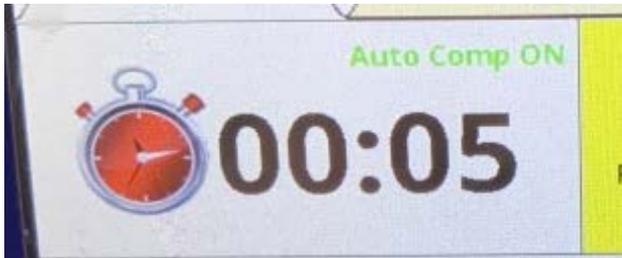
# COOK TAB

Along the top of the screen are four tabs (Cook, Manage Oil, Setup and Help) to help you setup and use your fryer.



This tab is the main working screen. From this screen you can set the Cook Cycle Time, Cook Temperature, or select a Product Preset.

## CookTime Display:



The cook time is indicated in the box next to the clock face. To change the time press the time display twice and a keypad will appear.

Enter the cook time for the product you are cooking, as you enter the time it will appear above the keypad. To save this time press the enter key the new time will be entered and the keypad will disappear. If no entry is made or the enter key is not pressed within 25 seconds, no change is made to the time.

When a cooking cycle is started the box below the cook time turns yellow and shows the amount of time remaining in the cycle. The right box displays “CUSTOM”.

The word “CUSTOM” also replaces the tabs across the top of the display. “CUSTOM” indicates you are in manual cooking mode.

At the end of the cycle the left box alternates between red and white, the alert sounds and continues until the exhaust valve opens automatically.

## Auto Comp

In the upper right corner of the cook time display is the Auto Comp indicator. It will be blank if Auto Comp is off and green if Auto-Comp is on.

To turn Auto Comp on or off press the cook time display twice. When the keypad appears the Auto Comp toggle switch is in the upper right corner of the keypad. If the button is red Auto Comp is off, if it is green Auto Comp is on. Press the Auto Comp button to change it then press the enter key.

The Broaster Company recommends Auto Comp should be on when cooking a load of product.

## **Temperature Display:**



The temperature is indicated next to the thermometer.

When the fryer is turned on in the morning this box will be yellow and “Heat On” will be displayed. The temperature will alternate between “LOW” and the set temperature until the oil temperature reaches the set temperature.

There are other times when this will occur;

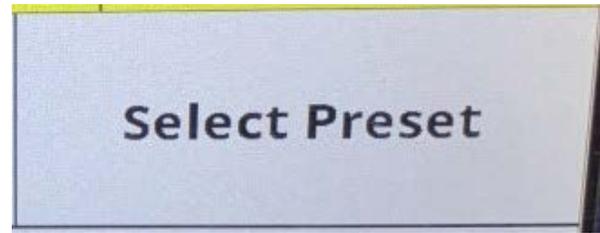
1. Anytime the temperature is changed.
2. After a filtering cycle.
3. When a preset is selected and the oil temperature is not at the preset temperature.

In any of these cases when the oil temperature reaches the set temperature the box turns green indicating the oil is up to the set temperature.

The temperature shown in this box can be either the “Set” temperature or the “Actual” temperature as indicated above the thermometer. To change from one to the other press and hold anywhere in the temperature box for 3 seconds. An alert will sound when you press the box and a second alert will sound when the change is made.

To set the temperature, press the temperature box twice and a keypad will appear. Enter the temperature for the product you want to cook, as you enter the temperature, it will appear above the keypad. To save this temperature press the enter key.

## **Select Preset Display:**



There are 2 “Select Preset” boxes.

All of Broaster Company’s products are pre-loaded into the memory of the control and can be selected when you want to cook that product. The cook time and cook temperature for that product will be automatically entered in the Time and Temperature displays.

To select a product, press the preset box and a menu of the products will be displayed. Tap the product you wish to select. If the wrong product comes up, don’t worry! Tap the preset box again and the menu will reappear.

When the item has been selected a picture of the item will appear in the left box and a description of the item will appear in the right box. When a cook cycle is started the left box turns yellow and the time remaining in the cycle is displayed. The picture moves to the right box.

If the menu item to be cooked uses a different temperature the temperature box will either remain green meaning it is all right to start a cook cycle or it will turn yellow meaning the temperature is too low to start a load. Wait until the temperature display turns green before starting a cook cycle.

When the temperature box is green. Load the product into the well and close the cover for auto start of pressure cook or touch start for open fry. This will start the cycle timer counting down. When the load is done an alert will signal that the cooking cycle is complete.

## Loads Cooked:

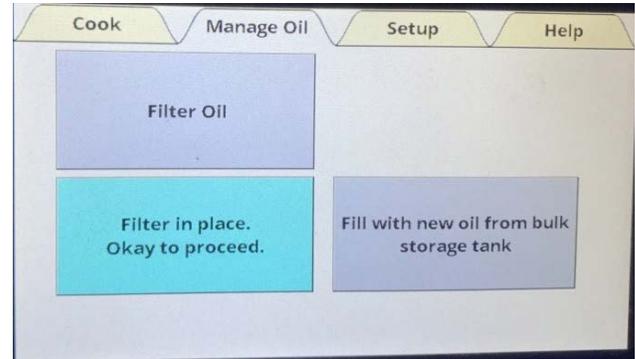
06 Loads Cooked

This indicates how many cook cycles have been completed since the last time the counter was reset, or the oil was filtered if the Auto Filter feature is turned on. The maximum cook cycles between filter cycles is 10.

After filtering, this number can be reset to 0 by tapping the box twice.

## MANAGE OIL TAB

This tab has three rectangular areas with the following designations; **Filter Oil**, **Filter in place. Okay to proceed**, and **Fill with new oil from bulk storage tank**.

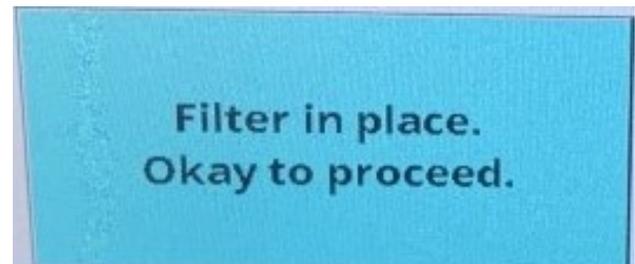


### NOTICE

When the Manage Oil tab is selected and the filter pan is not in place, the only screen you can see is the manual filter screen with the Oil Pan Not in Place warning flashing red and yellow.



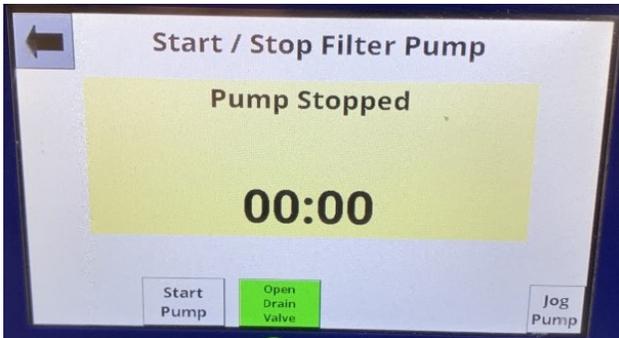
If the filter pan is in place, the Filter in Place, Okay to proceed field will be highlighted.



SEE SECTION 8 - COOKING OIL CARE AND FILTERING before starting the pump motor.

### **Filter Oil**

When this area is pressed the Start/Stop Filter Pump screen appears.



#### **NOTICE**

A CAUTION message will appear whenever the filter pan is not in place. For safety purposes, the drain valve can only be opened by pressing and holding the Open Drain Valve button for 3 seconds.

Press and hold the green **Open Drain Valve** button to drain the cooking oil into the filter pan. When the cooking oil is completely drained from the cooking well, press the Start Pump button.

When the **Start Pump** button is pressed the filter running display appears as shown. The **Start Pump** button changes to **Stop Pump** and the **Open Drain Valve** button will change from green to red and will say **Close Drain Valve**.



The timer in the middle of the screen starts counting up. When the timer reaches 5:00 minutes an alert sounds and a reminder flashes. To silence the alert, press the button with the speaker on it.

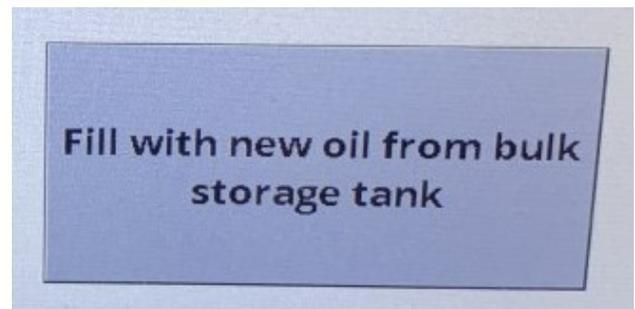
Press the **Close Drain Valve** button to return the filtered oil to the cooking well.

Allow the filter pump to run until it is pumping bubbles into the cooking well for 20-30 seconds. Press the **Stop Pump** button to stop the pump.

To return to the Cook Tab, press the back arrow button in the upper left corner. The Caution Display will appear advising the oil level be checked. If the oil level is OK press the green OK button.

### **Fill with new oil from bulk storage tank**

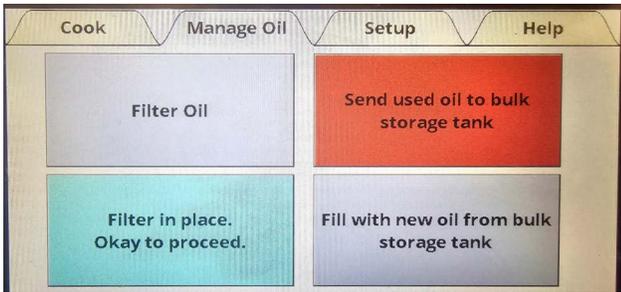
1. Select "Fill with new oil from bulk storage tank"



2. Screen will display "Initializing Fill Valve" you will hear the Fill Valve moving.

3. Press and hold Start Pump, release when a the desired oil level.

## Send Used Oil to Bulk Storage Tank.



When the red field is touched, the drain and rear disposal valves will open and the pump start screen will appear.

Press Start to begin pumping oil to the bulk disposal system.

The pump will start and a timer will count up to a maximum of 5:00. Press Stop when all the oil has been removed from the cooking well. Check when complete to make sure filter pan is completely empty of oil.

Press the button indicated by the X in the upper left corner to exit to the Manage Oil tab. The valves will close and the Manual Oil tab screen will appear.

## SETUP TAB

This tab may or may not be secured. If it is unsecured the Pin Disabled display will appear as shown below. Press the OK button to continue.



If this tab is secured the Enter Pin display will appear as shown below.



If the Pin number is known, press the box and a keypad will appear. Enter the PIN number and press Enter.



## **Setup Display:**



### **Time & Date Adjustment:**

Pressing this option opens the Set Date & Time display.

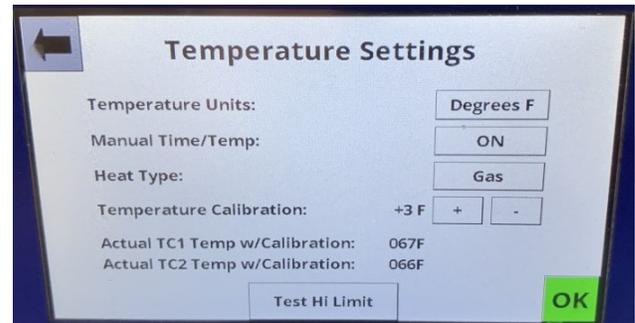


To set the date and time, press the box after "Month" and a keypad will appear. Enter the number of the month and press the enter key. Repeat this action for the Day, Year, Hours, Minutes, AM and PM boxes. When finished press the green OK button or the changes will not be saved.

To leave this display without making a change press the arrow in the upper left corner or the green OK.

### **Temperature:**

Pressing this option opens the Temperature Settings Display.



The temperature scale can be set in this display to either Degrees F (Fahrenheit) or Degrees C (Celsius).

Pressing the Degrees box switches the units.

When Manual Time / Temp is set to ON, it allows changing the time, temperature, and pressure state of the recipe to a custom recipe.

When Manual Time / Temp is set to OFF, the time, temperature, and pressure state cannot be changed and only the preset menu item recipes are available.

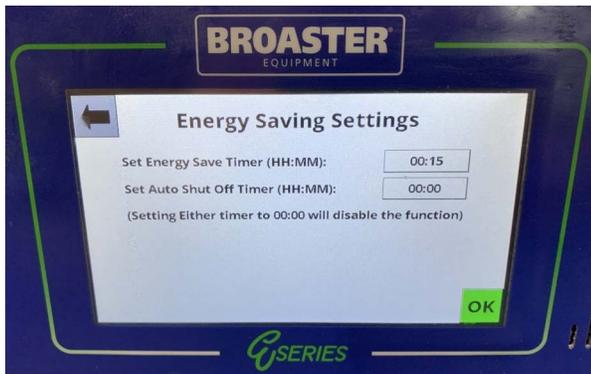
### **Energy Save Setting:**

Pressing this option opens the Energy Saving Settings display.

You have two options on this display:

#### **OPTION 1: Energy Saving Option.**

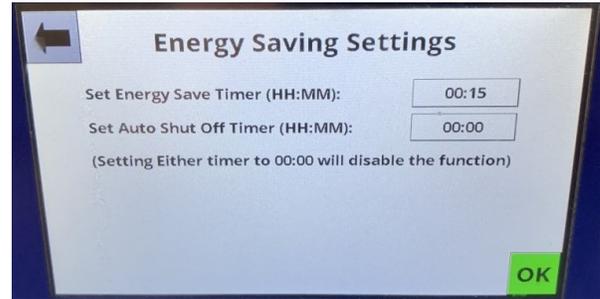
The fryer will go into this mode when the specified idle time has passed. When the fryer goes into the energy saving mode the oil temperature will drop to 270° F (132° C) and remain there until the fryer is prompted by pressing the green OK button, to resume the normal cooking temperature. When the fryer enters the energy saving mode the display shown below appears.



When the OK button is pressed the display returns to the normal Cook Tab display and the temperature will be yellow and Low and the set temp will be alternating. **DO NOT** start cooking until the temp display is green.

#### **OPTION 2: Auto Shut Off Timer.**

When this option is set, the control will shut off all heaters after the specified time, and the display shown below will appear.



Follow the instructions on the screen to resume use of the fryer.

For either of these options set the desired time by pressing the time button. A keypad will appear. Enter the desired time. As you enter the hours and minutes they will appear above the keypad. When the time is entered press the green OK button.

### **Pin Maintenance:**

Pressing this option opens the PIN Maintenance display.

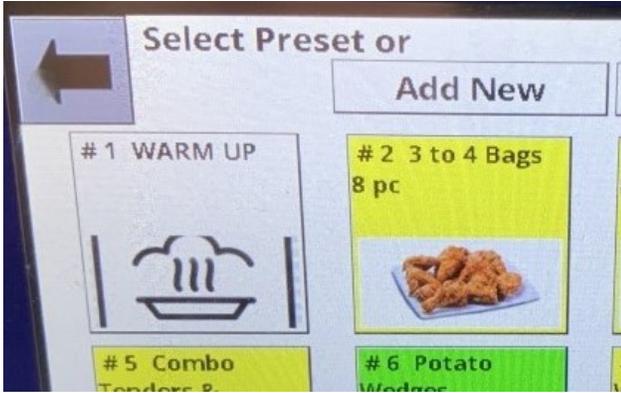


When the unit is installed there is no PIN set. To set a pin press the box next to PIN and the key pad screen will appear. Set the 4 digit pin you want and press enter. Press the box next to PIN on/off to turn the PIN on.

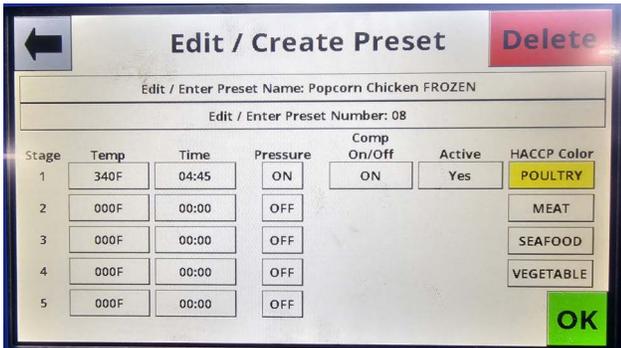
## Presets:

Pressing this option opens a list of products with a picture of the product and the recipes pre-loaded.

### Add new



Pressing this button opens a display to enter a new product to the menu list. This display is similar to the Edit display except all information must be added.



To enter the name press the Edit / Enter Preset Name bar and enter the name of the new product.

The Preset Number automatically defaults to the next number after the last item on the list. This can be changed by pressing the Edit / Enter Preset Number bar and entering the number where you want this item to appear.

Set the cook temperature, cook time, and pressurized / non-pressurized the same way as when editing a preset.

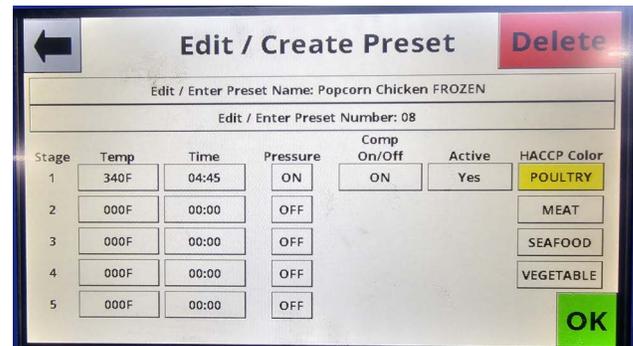
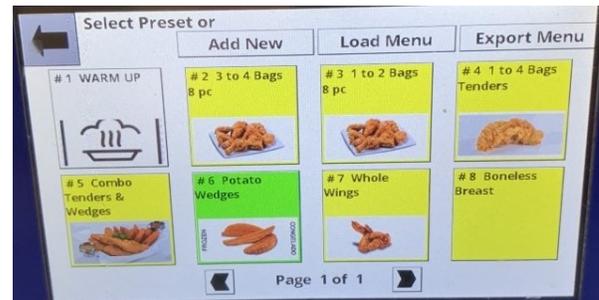
To enter up to five cooking stages, repeat steps above for each desired cooking stage.

Set Auto Comp and Activity accordingly. Press the green OK button to save the new product.

Set the HACCP color to the type of product being added.

Press the green OK button to save the product.

To edit any of the products, press the item once and the Edit/Create Preset display appears.



Here you can edit the name of the product, change its position on the list, set the cook time and temperature, set Auto Comp to be on or off during the cooking cycle, whether or not this item should be active as a preset on the Cook Tab, and whether its a pressure or non-pressure recipe.

**Name Edit:**

To edit the name of the current product press the Edit / Enter Preset Name bar and a typewriter keyboard will appear. The cursor will be at the end of the name. To change the name press the BACK button and the cursor will delete the name one letter each time the BACK button is pressed.

Delete the letters until you get to the place where you want to start making the change. To get the numbers and symbols to come up press the Symbol key.

When you have completed entering the changed name press the ENTER key.

**Position Edit:**

To change the position of this item on the menu list, press the Edit / Enter Preset Number bar and a number pad will appear. Enter the number of the position you want this item to appear at then press the ENTER key.

**Time & Temperature Edit:**

To edit this feature press the button and a number pad will appear. Enter the desired cooking temperature or time and press the ENTER button. If a number is entered and the ENTRY button is not pressed within 30 seconds the number pad will disappear and no changes will be saved.

**Comp On / Off:**

This button toggles Auto Comp on or off.

**Active:**

This button allows the item to be shown in the preset menu list of the Cook Tab. If the button says Yes the item appears on the list if No it does not.

You can quickly tell when a product is not active because the name and number of the item will be grayed out.

**Menu Transfer:**

The Smart Touch control allows a revised menu to be transported from one fryer to other fryers which also have a Smart Touch control. This is done from the Preset tab using the Load Menu and Export Menu buttons along the top of the display.

**Load menu:**

Menu changes that have been downloaded to a flash drive can be loaded onto fryer. Plug the flash drive into the USB port in the front panel above the control panel. Press the Load Menu button on the Preset menu display.

When the display appears there may be more than one menu. Press the bar for the menu you want loaded and a "Loading Menu..." box will appear with a progress bar.

When the menu is loaded a box will appear saying "Menu Loaded". Press the OK button and the Preset display will appear.

Remove the flash drive from the USB port.

**Export menu:**

When you make changes to the menu on one fryer and want to put the same menu on other fryers with the Smart Touch Control you can export the revised menu from this fryer to the flash drive and load it onto the other fryers.

Plug the flash drive into the USB port in the front panel above the control panel. Press the Export Menu button on the Preset menu display.

Press the Export Menu button once and the control will ask you for a filename. Press the Enter Menu File Name bar and a keyboard will appear. Enter a name you will recognize then press the ENTER Button.

**NOTICE**

The file name can only be 8 characters long.

When the ENTER key is pressed a box will appear that says Exporting Menu... with a progress bar.

When the export is complete the box will say "Menu Exported". Press the OK button and the Preset display will appear. Remove the flash drive from the USB port.

**Oil management:**

Pressing this option opens the Oil Management Display.



The recirculation time for the auto-filter feature can be adjusted here in 10 second intervals. The filter evacuation time at the end of auto-filtering can also be adjusted in 30 second intervals.

Pressing the "Oil Changed Today" bar enters today's date and time as a reminder when the oil was last changed. This also resets the "Cycles Since Last Filtered" counter to 00 on the Cook Tab.

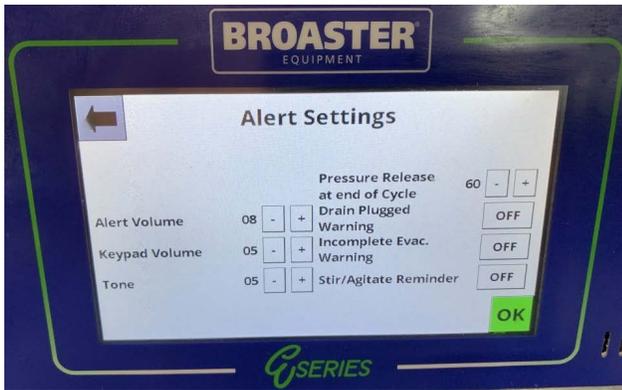
**Language selection:**

Pressing this option will allow you to change the language used in all displays.



### **Alert settings:**

Pressing this option allows you to set conditions for several features.



The numbers left of the boxes indicate the current setting. They can be changed by pressing the “-” or “+” buttons.

**Filter Reminder Cycles:** This sets the number of cook cycles between each oil filter cycle. The Broaster Company recommends 5 cook cycles, however, you can set it as you desire. A setting of “0” will disable the filter reminder screen. This setting is only present if Auto Filter is disabled.

**Alert Volume:** This should be set loud enough to be able to hear it above any other noises in the kitchen.

**Keypad Volume:** It should be loud enough to hear while making changes in front of the fryer or when operating the fryer.

**Tone:** There are a range of tones from low to very high. Chose the one that suits your operation.

**Pressure Release at End of Cycle:** This setting allows the pressure to release before the cooking time reaches zero. This should be 30 seconds minimum.

**Drain Plugged Warning:** This controls whether the unit warns the operator that the drain may be clogged.

**Incomplete Evacuation Warning:** This controls whether the unit warns the operator that the oil may not have fully returned to the cooking well after the auto-filter evacuation time has expired.

After making the adjustments on this display press the green OK button to save the entries.

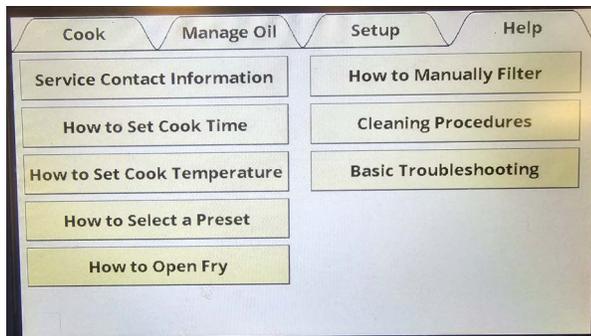
**Stir/Agitate Reminder:** This alert appears when 3 conditions occur.

1. When the fryer is first turned on in the morning, this reminder will appear after the oil comes up to the set temperature.
2. After a filter cycle has been completed this reminder will appear after the oil comes up to the set temperature.
3. If the fryer has been setting idle for 2 hours or longer this reminder will appear to alert you to stir the oil to get it to a uniform temperature.

After making the adjustments on this display press the green OK button to save the entries.

To go back to the Cook display either press the “Exit Setup” button or the Cook Tab.

# HELP TAB



This display provides instructions for the items in the boxes. They are available at any time to help you set up the control to cook product.



# 7 - RACK & SHELF STAGING

## ASSUMES 3.5# CHICKENS

	BOTTOM	4	3	2	TOP
2 HEADS	EMPTY	CHICKEN	COVER	EMPTY	EMPTY
4 HEADS	EMPTY	CHICKEN	CHICKEN	COVER	EMPTY
6 HEADS	CHICKEN	CHICKEN	CHICKEN	COVER	EMPTY
8 HEADS	CHICKEN	CHICKEN	CHICKEN	CHICKEN	COVER

	BOTTOM	4	3	2	TOP
STRIPS	12-3 OZ STRIPS	12-3 OZ STRIPS	12-3 OZ STRIPS	12-3 OZ STRIPS	COVER

## FRESH PRODUCTS



**ALWAYS COOK ALL BROASTER PRODUCTS UNTIL THE INTERNAL TEMPERATURE REACHES THE FOLLOWING MINIMUMS:**

- Chicken, White - 170° F;
- Chicken, Dark - 180° F;
- Corn Dogs/Pork - 160 to 170° F;
- Fish - 155° F

The charts below give suggested temperature and time settings. Actual cook times may vary depending on a products internal temperature before cooking. Times indicated below assumes automatic time compensation is ON.

### NOTICE

Increase cook time when cooking frozen or oversized product.

Use our methods of food preparation and cooking procedures for the best possible results.

### MAXIMUM LOAD:

Fresh bone-in chicken  
11.3 Kg (26 lbs)



Placing more than the recommended weight of fresh product or product that is over-wet in the cooking basket will increase the amount of surge boiling in the cooking well.

## FROZEN IQF CHICKEN



**ALWAYS COOK ALL BROASTER RECIPE PRODUCTS UNTIL THE INTERNAL TEMPERATURE REACHES THE FOLLOWING MINIMUM TEMPERATURES.**

- Chicken, White - 170° F;
- Chicken Dark - 180° F;
- Corn Dogs/Pork - 160 - 170° F
- Fish - 155° F

Keep uncooked product frozen at 0° F or below at all times



## 8 - COOKING OIL CARE AND FILTERING

### OIL CARE IMPORTANT

- Store cooking oil at room temperature: 65° - 75° F.
- Do not reuse the oil container.
- Keep oil away from heat and flames.
- Do not store oil near oxidizing agents.



**HOT OIL! Use care when handling. Oil could splash causing serious burns.**

Maximum oil life depends on proper care. See FILTERING and CLEANING. It is very important if the finished product is to be presentable and edible. Useful oil life can be affected by many things:

**Oil Quality:** Poor quality oil will require replacement more often.

**Temperature:** Lowering oil temperature setting during slow periods or between business rushes will extend useful oil life.

**Volume:** The more product cooked, the more often oil will need filtering and replacing.

**Type of Coating and Seasoning Used:** Ingredients in some coatings can effect the appearance of end product and shorten the useful oil life.

### Amount of Care and Filtering Oil

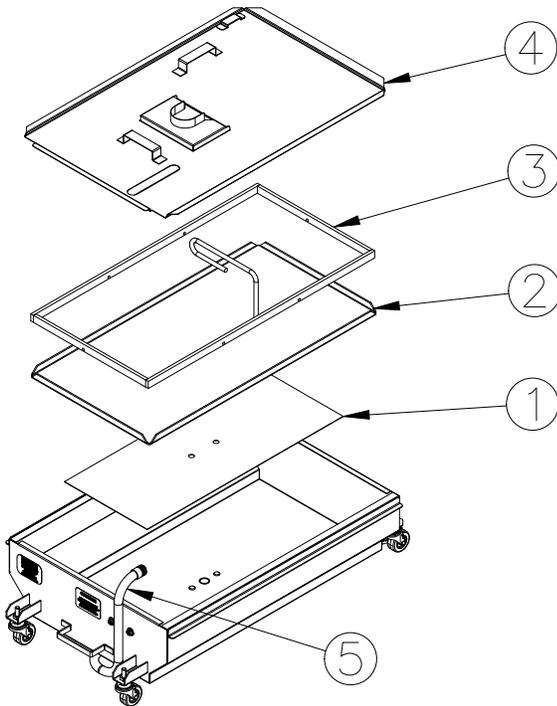
**Receives: DO NOT** leave any crumb build up in oil, on cooking well or on food basket. See FILTERING. Oil will need replacing more often if improperly maintained. Straining methods only remove crumbs. Using a built in filter, Broaster® filter paper and Broaster® filtering compounds, you can increase useful oil life up to 200%.

How can you tell if oil should be replaced? It will show signs of increased smoking or foaming. If not discarded, safety and product quality could be sacrificed.

## FILTERING

The E Series is equipped with an auto filter feature. Broaster Company recommends this feature be enabled to filter after each cook cycle, not to exceed 3 cook cycles.

**WARNING** DO NOT use filter pan to transport HOT OIL. HOT OIL could splash causing serious burns.



Be sure filter components are assembled correctly. Correct order is (1) Filter Screen on bottom of filter pan, (2) Filter Paper, (3) Filter Hold Down, 3 cups of Bro-Clean filtering media on top of filter paper and/or add 15 oz. of XL filtering compound to cooking well, and (4) Filter Cover. For best results change paper after each filter cycle.

1. Be sure filter pan, with components, is installed under unit properly. Make sure O-ring is installed on Riser Line (5). Ensure that riser line is fully inserted into suction line.

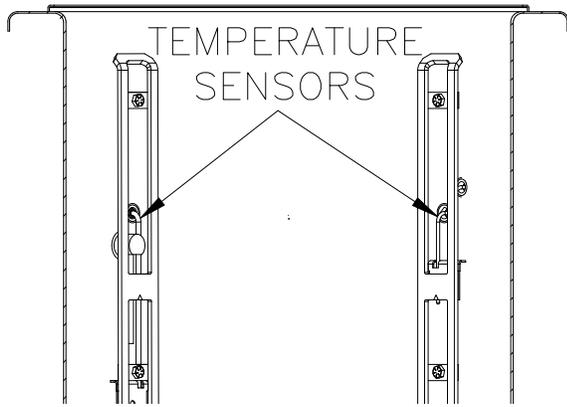
**WARNING** DO NOT open drain valve while the controller is displaying the Cook Screen.

2. In the event a manual filter is conducted, go to the Filter Tab of the controller and press the green Open Drain Valve button and completely drain the oil into the filter pan below. When there is approximately 8" of oil left in the well press the red Close Drain Valve button and using the ramrod stir the oil in the well to help prevent the crumbs from obstructing the drain valve. While the oil is moving open the drain valve and completely drain the oil into the filter pan below.

NOTE: The E Series has a drain clog notification feature to indicate the drain is clogged. If the drain valve becomes obstructed with crumbs, use ram rod to unblock valve.

3. When the oil is completely drained from the well, press the Close Drain Valve button then the Start Pump button and pump about 8" of clean oil into the cooking well.
4. Being careful of **HOT OIL** and cooking well components, use bottom brush to scrub cooking well starting at the top and cleaning downward. On electric units, clean inside and between heating elements. Use element brush to clean between cooking well and probe guards. Be sure no crumbs cover temperature sensor.

## Temperature Sensor Location:



5. Slowly agitate brush in oil to dislodge any crumbs caught in it. Rinse cooking well using oil remaining in brush when dipped in oil. Drain remaining oil and crumbs. Lower cover over cooking well but **DO NOT CLOSE**. Press the Start Pump button. After 5 minutes, raise cover. Close drain valve.
6. When air bubbles appear press STOP PUMP, then press the red X to exit the FILTER TAB. The CHECK OIL LEVEL screen will appear as a reminder to check the oil level in the cooking well.

**WARNING** Be sure hot oil is at **HOT OIL LEVEL** and top heating element is covered before starting another cooking cycle.

7. When filter pan has cooled, remove and discard filter paper and filtering compound. Using a clean cloth or paper towel, wipe crumbs from filter hold down ring, filter pan interior. Completely clean the filter pan cover. Never use soap and water.

**WARNING** Rags or paper containing cooking oil can catch fire if exposed to heat. Laundering will not remove the oil. Dispose of all oil-soiled papers and rags in a trash container that is in a ventilated area away from all cooking equipment or other heat sources such as direct sunlight.

**WARNING** **DO NOT** operate unit without filter pan and filter pan cover in its proper position. Filter pan cover must be wiped clean after each filtering cycle.

8. Return clean Filter Pan (equipped with all necessary clean filter components including cover) under the fryer before operation.

## FILTERING HINTS

1. Never allow solid shortening to solidify in filter pan or lines.
2. For maximum filtration, recirculate oil. When **HOT OIL** is drained into filter pan, start the filter pump and let motor run for five minutes with drain valve open. This could extend useful oil life.

**NOTICE** Ensure filter pump is off to avoid splashing of oil if motor protector reset button is used.

**WARNING** **DO NOT** tap brush or scraper on the rim of the cooking well to knock loose oil and crumbs. Tap on the latch column instead.

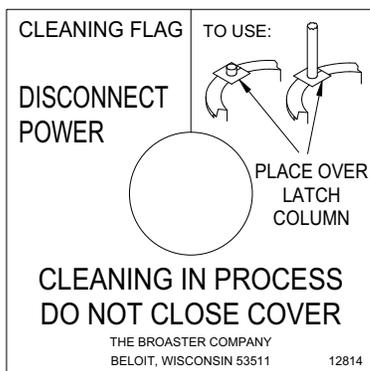


## 9 - CLEANING

**⚠ DANGER** DO NOT heat or boil water in a pressure fryer. Disconnect main power supply. Keep cover and pressure regulating valve OPEN when cooking well contains water. If cover is CLOSED on a well holding hot or boiling water, a large quantity of scalding water could spray out when cover is opened causing serious burns.

**⚠ CAUTION** Broaster® cooking well cleaner is an irritant. DO NOT take internally. Prolonged skin contact may cause irritation and dryness. Direct eye contact can cause irritation, redness and temporary blurred vision. Ingestion could cause nausea, diarrhea, mucosal and gastric irritation. See first aid instructions on container.

**⚠ WARNING** When cleaning with water, use Broaster® cooking well cleaner #99500. DO NOT use soaps and detergents. Cooking well cleaner removes unwanted contaminants while also neutralizing harmful acids. These acids, if not removed, may damage cooking well and filter system. To ensure cover remains OPEN when cleaning, install cleaning flag #12814 over latch column. Cleaning flag is supplied with each new unit and in cooking well cleaner. Additional cleaning flags can be ordered.

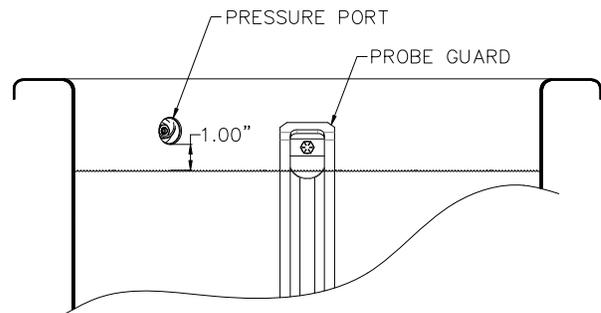


### COOKING WELL

1. Navigate to the manual filtering screen in the control panel or to the Discard Used Oil screen if equipped.
2. Remove filter pan from under unit.
3. Drain and discard used oil into a suitable container by selecting the Open Drain Valve button.
4. Open cover and raise fully. Install cleaning flag #12814 over latch column.

**NOTICE** Quarterly cleaning of Probe Guard should be done at this point. See PROBE GUARD CLEANING on page 9-4.

5. Close drain valve. Fill a separate container with 2 gallons of hot water and thoroughly dissolve 2 cups Broaster® cooking well cleaner (use 93624 - BROASTER WELL CLEANER CUP to measure proper amount) in hot water. Add to cooking well then finish filling well to 1" below pressure release port.



6. Soak with cover OPEN for a minimum of 15 minutes. Alternate method: soak overnight up to 12 hours.

7. Drain and discard cleaning mixture. Place pail back under drain valve, connect main power supply and turn on pump for 10 seconds to purge the filter lines.
8. Clean cooking well using a non-metallic heavy duty commercial scouring pad that is USDA approved.
9. Rinse cleaning utensils and cooking well with water. Turn pump on again for 10 seconds to purge the filter lines. Drain and discard rinse water.
10. Close drain valve. Wipe inside of cooking well dry before filling with new oil.

### **FOOD BASKETS and SHELVES**

Clean the food baskets and shelves daily. **DO NOT** put food baskets and shelves in a dishwasher. Use warm water and a low suds organic household dish cleanser. Rinse with vinegar and water solution (1/2 cup vinegar per gallon of water). Rinse with clear water and completely dry before returning to oil.

### **UNIT SURFACES**

Frequently wipe off excess oil and crumbs with a clean cloth or paper towel. **DO NOT** use harsh abrasives and chemicals.

**WARNING** Rags or papers containing cooking oil can catch fire if exposed to heat. Laundering will not remove the oil. Dispose of all oil-soiled papers and rags in a trash container that is in a ventilated area away from all cooking equipment or other heat sources such as direct sunlight.

### **CONDENSATE PAN**

Check liquid level several times daily. Empty as needed.

**WARNING** Water and HOT OIL DO NOT mix. DO NOT pour contents into cooking well or filter pan. HOT OIL could splash causing serious burns.

### **COVER**

**NOTICE** Keep a spare O-ring on hand in case of accidental damage.

1. Raise cover to the fully open position.
2. Rotate cover handle to CLOSED position. Using O-ring tool #12791 or a small dull tool such as a spoon handle, remove cover O-ring.
4. Clean O-ring using warm water only. DO NOT use detergents. Hold wet rag around O-ring and pull through several times.
5. Clean O-ring groove and cover top and bottom. Use O-ring tool #12791 to clean O-ring groove. Use a non-metallic heavy duty commercial scouring pad that is USDA approved to clean cover.
6. Remove any oil or grease build-up from Pressure Relief Valve port on bottom of cover.
7. After cleaning, completely dry. Lubricate O-ring with clean liquid shortening. Install O-ring in O-ring groove.

## SPLASH SHIELD

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**⚠ WARNING** Allow cover assembly to cool before cleaning. Hot surfaces could cause serious burns.

Clean the splash shield according to the following instructions:

1. Raise cover 3 - 5" above cooking well.
2. Rotate cover handle to a centered position.
3. Loosen four front thumb screws attaching splash shield to articulating collar inside.
4. Slide splash shield forward to first bend of the cover handle (1).
5. Clean the top and underside of splash shield and top of the cover.
6. Assemble in reverse order.

**NOTICE** Make sure back splash shield and splash shield are assembled correctly after cleaning. The cover may not close correctly if they are not.

## FILTER PAN & COVER

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Wipe all oil off the outside of the filter pan and both sides of the filter pan cover.

**⚠ WARNING** Rags or papers containing cooking oil can catch fire if exposed to heat. Laundering will not remove the oil. Dispose of all oil-soiled papers and rags in a trash container that is in a ventilated area away from all cooking equipment or other heat sources such as direct sunlight.

## COVER LIFT

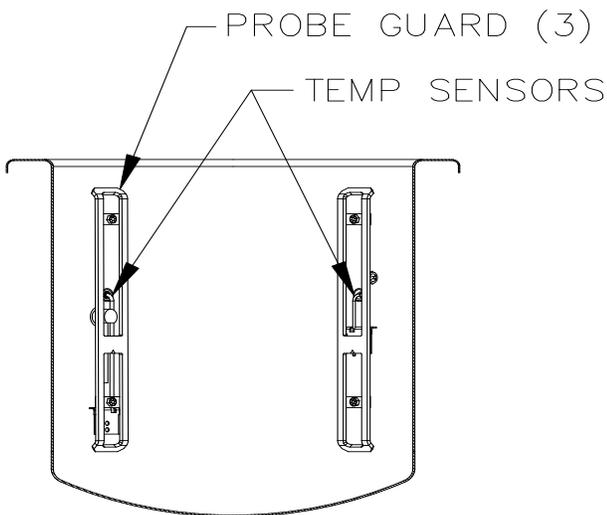
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Clean daily. Wipe with a clean cloth or paper towel. No lubrication is necessary.

## PROBE GUARDS

At least once every 3 months, while cleaning the cooking well, the probe guard and basket guides need to be removed so that any build-up that collects behind them can be cleaned.

1. After emptying the oil and before filling with cleaning solution, remove the probe guard using a 7/16" box end wrench or socket. Remove the probe guards. (See illustrations below)
2. Very carefully remove any debris that is caked on/or around the temperature sensing probes.



**CAUTION** Using too much force in this area could result in damage to the temperature sensor probe. If either of these components are damaged, the unit will be inoperable until the component is replaced.

3. Leaving the probe guards off, fill the cooking well with cleaning solution and clean normally. The probe guards can be placed in the cooking well while soaking.
4. After draining the solution, carefully clean area around the probes, and inside of the probe guard with a non-metallic scouring pad to completely remove any build-up. Rinse and dry the cooking well.
5. Reinstall the probe guards with the appropriate hardware using medium (blue) threadlock on screw threads.

**CAUTION** It is very important to periodically check the screws fastening the probe guards to ensure that they do not loosen. If you find that they are coming loose, tighten them immediately.

## **MINIMUM PREVENTIVE MAINTENANCE REQUIREMENTS**

**CAUTION** Never clean the fryer with a water jet type cleaning machine.

	<b>DAILY</b>	<b>WEEKLY</b>	<b>QUARTERLY</b>	<b>YEARLY</b>
Clean Cooking Well		X		
Clean Condensate Pan	X			
Clean Oil Build-up under unit				X
Clean Pressure Relief Valve port		X		
Clean Cover and Splash Guard		X		
Clean Food rack & shelves	X			
Clean Temperature Sensors			X	
Clean Filter Pan Cover	After each filtering cycle			
Filter Cooking Oil	See FILTERING			
Clean and Lubricate O-Ring		X		
Vertical Lift Guides	X			
Probe Guards			X	

**NOTICE** If cooking volume is high, perform above requirements more frequently.



# 10 - SHUTDOWN

**WARNING** Rags or papers containing cooking oil can catch fire if exposed to heat. Laundering will not remove the oil. Dispose of all oil-soiled papers and rags in a trash container that is in a ventilated area away from all cooking equipment or other heat sources such as direct sunlight.

## NIGHTLY

1. Filter cooking oil. See COOKING OIL CARE AND FILTERING.
2. **ES24G:** Turn manual gas shut off valve, on back of unit, to OFF.
3. Wipe oil and crumbs from unit surfaces with a clean cloth.
4. Clean food rack and shelves.
5. Clean condensate pan.
6. Turn unit off.

**WARNING** When turning the power off on the ES24E a C1 FAULT may appear. Unplug electrical cord and contact your Broaster Service dealer immediately before trying to use this fryer again.

## SEASONAL

1. See COOKING OIL CARE AND FILTERING. Discard cooking oil.
2. See CLEANING.
3. Turn manual gas shut off valve and main gas supply OFF.
4. Clean condensate pan.
5. Wipe oil and crumbs from unit surfaces with a clean cloth.
6. Lubricate cover O-ring and food rack and shelves with olive oil.
7. CLOSE cover and pressure regulating valve.
8. Turn main circuit breaker OFF and unplug electrical cord.



# 11 - TROUBLESHOOTING

All adjustments and repairs shall be made by an authorized Broaster Company representative.

## SMART TOUCH CONTROLLER TIPS

		ES24E	ES24G
COMPLAINT	CAUSE	REMEDY	REMEDY
<b>Display reads HEATER FAULT</b>	Oil temperature not rising properly	* Call for service	* Check that gas line is connected. * Check that manual shutoff valve is open. * Call for service
<b>Display is blank</b>	Unplugged Hi Limit Tripped	Plug in Cycle power, monitor, call Service if it repeats.	
<b>Display doesn't respond when touched</b>	Screen not calibrated	* With unit off, place finger on screen and hold while turning unit on. Touch the small box in the upper left corner until it moves to the upper right corner, then touch it again until it moves to the lower left corner, then touch it again until it disappears. Controller will reboot. * Call for Service.	
<b>Display reads PROBE FAULT</b>	* Probe circuit is open or shorted * Probe wires are connected in reverse * Temperature changes more than 100F in two seconds	* Call for service	* Call for service
<b>Display reads HI TEMP FAULT</b>	Temp reaches 415F	* Call for service	* Call for service
<b>Display reads INTERNAL FAULT</b>	Internal fault detected	* Call for service	* Call for service
<b>Display reads C1 FAULT</b>	C1 contactor is stuck in the closed position	* Call for service	* Call for service
<b>Display reads Valve Initializing</b>	Valve may be out of proper position.	* Call for service	* Call for service

## ES24G GAS TIPS

COMPLAINT	CAUSE	REMEDY
<b>Burner won't ignite</b>	1. Gas shut-off valve OFF 2. Gas line disconnected	1. See MODELES24G LIGHTING INSTRUCTIONS 2. Turn ON 3. Call for service.

## COVER AND YOKE TIPS

COMPLAINT	CAUSE	REMEDY
<b>Cover hard to CLOSE</b>	<ol style="list-style-type: none"> <li>1. O-ring dry or dirty</li> <li>2. O-ring groove dirty</li> <li>3. Hard O-ring</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean and lubricate</li> <li>2. Clean</li> <li>3. Replace</li> </ol>
<b>Cover won't OPEN</b>   <b>WARNING</b> Never use force to OPEN cover.	<ol style="list-style-type: none"> <li>1. O-ring dry or dirty</li> <li>2. O-ring groove dirty</li> <li>3. Hard O-ring</li> <li>4. Pressure not released</li> <li>5. Pressure regulating valve out of adjustment</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean and lubricate</li> <li>2. Clean</li> <li>3. Replace</li> <li>4. Contact service person</li> </ol>
<b>O-ring Break</b>   <b>CAUTION</b> DO NOT rest rack on top flange of cooking well. Damage to area in contact with o-ring can cause leaking under pressure or O-ring failure.	<ol style="list-style-type: none"> <li>1. O-ring groove dirty</li> <li>2. Nicks in cooking well or cover</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean</li> <li>2. Remove</li> </ol>

## **PRESSURE SYSTEM TIPS**



**DO NOT attempt to tighten, repair or replace any fitting, line or component when there is pressure in the cooking well. Hot oil could spray out under pressure causing serious burns.**

<b>COMPLAINT</b>	<b>CAUSE</b>	<b>REMEDY</b>
<b>No pressure</b>	<ol style="list-style-type: none"><li>1. Pressure regulating valve dirty or blocked open</li><li>2. Leaks around cover O-ring</li></ol>	<ol style="list-style-type: none"><li>1. Contact service person</li><li>2. Replace O-ring</li></ol>
<b>Excess pressure</b>		<ol style="list-style-type: none"><li>1. Turn cook/filter switch OFF. Contact service person.</li></ol>

# PRODUCT TIPS

## Fresh Chicken:

<b>COMPLAINT</b>	<b>CAUSE</b>	<b>REMEDY</b>
<b>Product too light</b>	<ol style="list-style-type: none"><li>1. Low oil temperature</li><li>2. No coating</li><li>3. Not done</li><li>4. Food Basket overloaded</li></ol>	<ol style="list-style-type: none"><li>1. Check cook temperature</li><li>2. Check procedures</li><li>3. Increase cook time</li><li>4. Decrease load</li></ol>
<b>Product too dark</b>	<ol style="list-style-type: none"><li>1. High oil temperature</li><li>2. Wrong coating</li><li>3. Breaded too long</li><li>4. Old oil</li></ol>	<ol style="list-style-type: none"><li>1. Check cook temperature</li><li>2. Check procedures</li><li>3. Discard</li><li>4. Change oil</li></ol>
<b>Product not done</b>	<ol style="list-style-type: none"><li>1. Low oil temperature</li><li>2. Food basket overloaded</li><li>3. Cook time too short</li></ol>	<ol style="list-style-type: none"><li>1. Check cook temperature</li><li>2. Decrease load</li><li>3. Increase cook time</li></ol>
<b>No flavor</b>	<ol style="list-style-type: none"><li>1. Improper marination</li></ol>	<ol style="list-style-type: none"><li>1. Check procedures</li></ol>
<b>White spots</b>	<ol style="list-style-type: none"><li>1. Product stuck together</li><li>2. Food Basket overloaded</li></ol>	Decrease load size
<b>Dark spots</b>	<ol style="list-style-type: none"><li>1. Dirty oil</li></ol>	<ol style="list-style-type: none"><li>1. Filter or replace</li></ol>

## Frozen IQF Chicken

<b>COMPLAINT</b>	<b>CAUSE</b>	<b>REMEDY</b>
<b>Product too light</b>	<ol style="list-style-type: none"><li>1. Low oil temperature</li><li>2. Not done</li><li>3. Food Basket overloaded</li></ol>	<ol style="list-style-type: none"><li>1. Check cook temperature</li><li>2. Increase cook time</li><li>3. Decrease load</li></ol>
<b>Product too dark</b>	<ol style="list-style-type: none"><li>1. High oil temperature</li><li>2. Overcooked</li><li>3. Oil old</li><li>4. Thawed and refrozen</li></ol>	<ol style="list-style-type: none"><li>1. Check cook temperature</li><li>2. Decrease cook time</li><li>3. Change oil</li><li>4. Keep product at 0°F or below</li></ol>
<b>Product not done</b>	<ol style="list-style-type: none"><li>1. Low oil temperature</li><li>2. Food basket overloaded</li><li>3. Cook time too short</li></ol>	<ol style="list-style-type: none"><li>1. Check cook temperature</li><li>2. Decrease load</li><li>3. Increase cook time</li></ol>
<b>No flavor</b>	<ol style="list-style-type: none"><li>1. Overcooked</li><li>2. Old product</li></ol>	<ol style="list-style-type: none"><li>1. Check cook time</li><li>2. Discard</li></ol>
<b>White spots</b>	<ol style="list-style-type: none"><li>1. Product stuck together</li><li>2. Food Basket overloaded</li></ol>	Decrease load size
<b>Dark spots</b>	<ol style="list-style-type: none"><li>1. Dirty oil</li></ol>	<ol style="list-style-type: none"><li>1. Filter or replace</li></ol>

## FILTERING TIPS

COMPLAINT	CAUSE	REMEDY
<p><b>Motor will not start</b></p> <p><b>⚠ WARNING</b> Turn cook/filter switch to OFF position to avoid splashing of oil when motor protector reset button is pushed.</p>	<ol style="list-style-type: none"> <li>1. Overload tripped</li> </ol>	<ol style="list-style-type: none"> <li>1. Wait for overload to cool. Push red motor protector reset button located on rear of motor.</li> </ol>
<p><b>Motor hums but will not start</b></p>	<ol style="list-style-type: none"> <li>1. Solidified shortening in pump</li> <li>2. Crumbs in pump</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn cook/filter switch OFF. Contact service person.</li> <li>2. Turn cook/filter switch OFF. Contact service person.</li> </ol>
<p><b>Motor starts but will not pump</b></p>	<ol style="list-style-type: none"> <li>1. Filter pan not completely installed</li> <li>2. O-ring on riser line not installed</li> <li>3. Solidified shortening in piping or filter pan</li> </ol>	<ol style="list-style-type: none"> <li>1. Firmly push filter pan in</li> <li>2. See FILTERING</li> <li>3. Turn cook/filter switch OFF. Contact service person.</li> </ol>
<p><b>Motor starts but will not pump or stops at any level</b></p>	<ol style="list-style-type: none"> <li>1. Filter paper or hold down improperly installed</li> <li>2. Not using enough Broaster<sup>®</sup> filtering compound</li> </ol>	<ol style="list-style-type: none"> <li>1. See COOKING OIL CARE AND FILTERING</li> <li>2. Next filtering cycle, make sure proper amount of Broaster<sup>®</sup> filtering compound is used</li> </ol>
<p><b>Motor starts but stops pumping when oil is level with top of hold down, approximately 1 inch of oil in bottom</b></p>	<ol style="list-style-type: none"> <li>1. Filter paper improperly installed or crumbs under filter paper or hold down</li> </ol>	<ol style="list-style-type: none"> <li>1. See COOKING OIL CARE AND FILTERING</li> </ol>



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