

BROASTER[®]
EQUIPMENT

OPERATION MANUAL
PRESSURE FRYER

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



BROASTER[®] *G* SERIES 18

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Broaster Company
2855 Cranston Road, Beloit, WI 53511-3991
608/365-0193 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. The means of restraint may be the manner of installation, such as connection to a battery of appliances or installing the fryer in an alcove, or by 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.

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™ 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.
- Insure 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.
- **Gas Fryer:** Keep burner area free and clear of all combustible materials.
- **Gas Fryer:** DO NOT obstruct exhaust flue or open area around bottom of unit at the front, back and sides which would restrict the flow of combustion and ventilation air.

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

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

This information enables the Broaster Company to better serve you and keep you informed of changes in equipment, condiments, 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 10 - 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. 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.

Gas Fryers:

WARNING Electrical Grounding Instructions - The Model 18G 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.

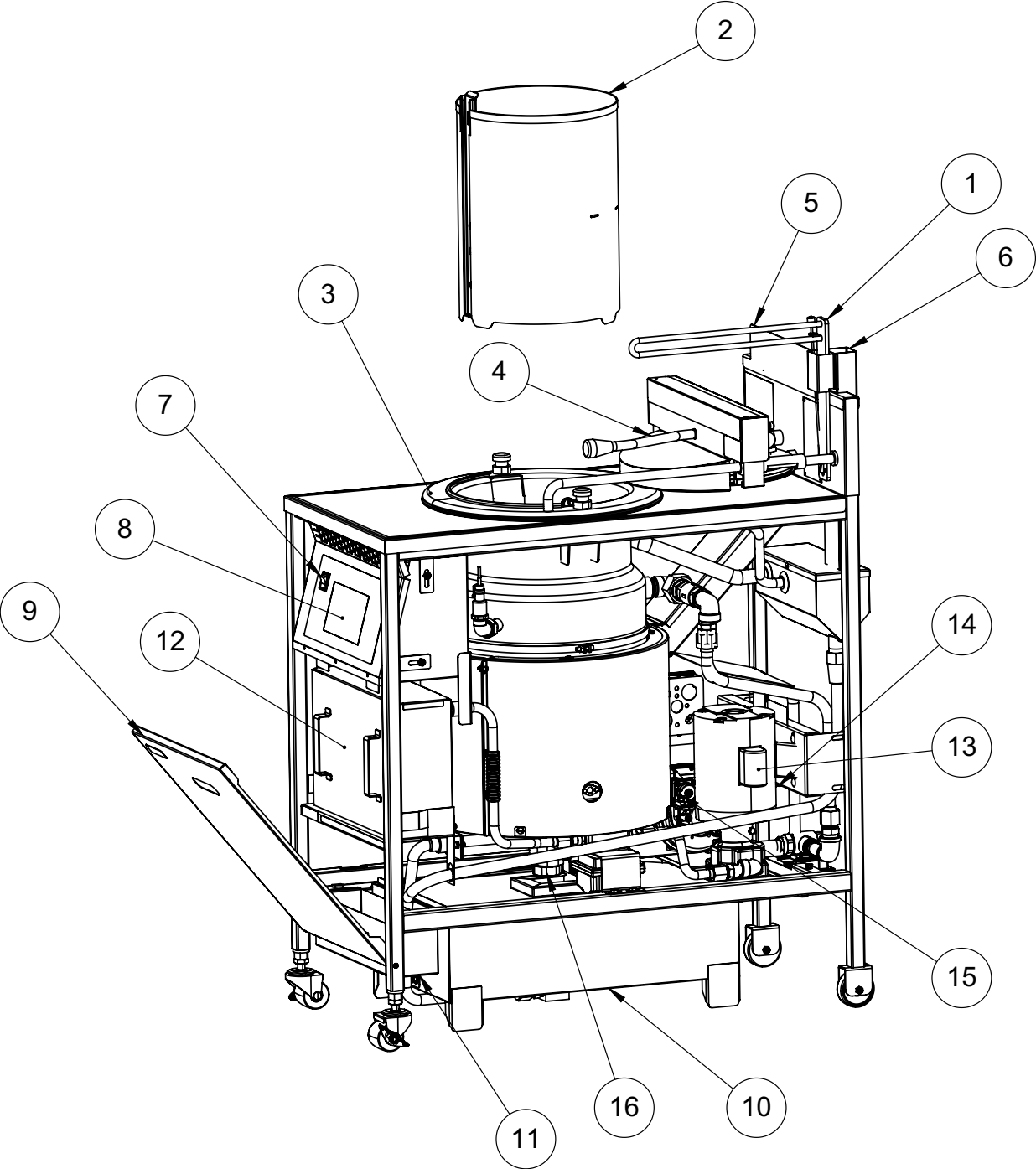
Gas Conversion: Contact your local Broaster Company representative for converting from one type of gas to another.

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

Model 18G:



Model 18

1. **Basket Lifter Holder:** Holds basket lifter when not in use.
2. **Cooking Basket:** Allows retrieval of food from the fryer.
3. **Cooking Well:** Holds cooking oil. Normal operating pressure is 12-14 PSI.
4. **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.

5. **Combustion Exhaust Stack:** Safely conducts combustion exhaust products into a vented hood area.
6. **Cooking Well Exhaust Stack:** Safely conducts steam from the cooking process into a vented hood area.
7. **ON/OFF Switch:** Applies and removes electrical power to and from the appliance.
8. **Smart Touch Touchscreen Control:** Provides a human machine interface for all fryer operations.
9. **Cabinet Door:** Allows access to the fryer cabinet for filter tray removal and access to the manual drain valve.

10. **Filter Housing:** Allows capture and efficient removal of crumbs produced during the cooking process.

⚠ WARNING Never operate the pressure fryer without the filter housing in place and the piping securely connected. Hot oil may spill out or leak as a result.

⚠ CAUTION Surfaces may be extremely HOT! during filtering operation. Always wear protective gloves and clothing to prevent burns when accessing the filter housing. Allow the filter housing 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.

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

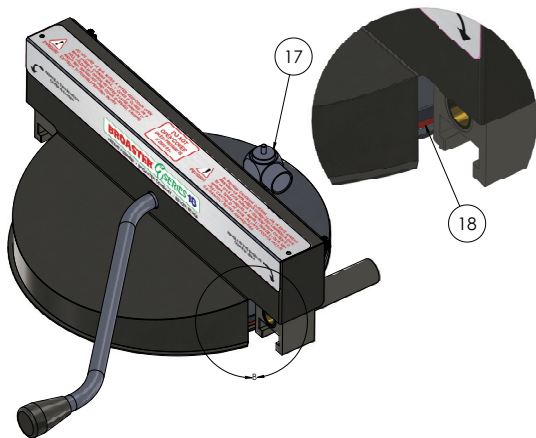
⚠ WARNING Water and hot oil DO NOT mix. DO NOT pour contents of condensate pan into cooking well or filter pan. Hot oil could splash causing serious burns.

12. **Oil Replenishment reservoir:** (Optional equipment) Stores fresh oil for automatic replenishment of the oil when it is low.

⚠ WARNING Hot oil! DO NOT use this container to transport hot oil. Hot oil could splash causing serious burns.

- 13. **Oil Management Pump:** Allows for safe filtering, replenishment (if equipped), and discharge of the oil (if so equipped).
- 14. **Gas Shutoff Valve:** (Gas units only) Allows isolation of the appliance from the gas utility.
- 15. **Combustion Blower and Gas Valve Assembly:** Allows for safe mixing of air and gas to supply to the burner.
- 16. **Drain Valve:** Used to drain cooking oil from cooking well into filter pan or container made for handling hot oil.

⚠ DANGER Never drain oil unless the power switch is OFF. Hot oil could spray out under pressure causing serious burns.

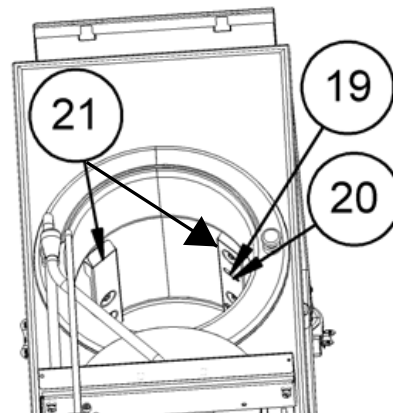


- 17. **Safety Relief Valve:** This valve will open in the event pressure in the cooking well meets relief pressure of valve. A properly installed valve has the outlet facing toward rear corner of the countertop. **DO NOT** use valve to release pressure at the end of a cooking cycle. If valve leaks during 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.

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.

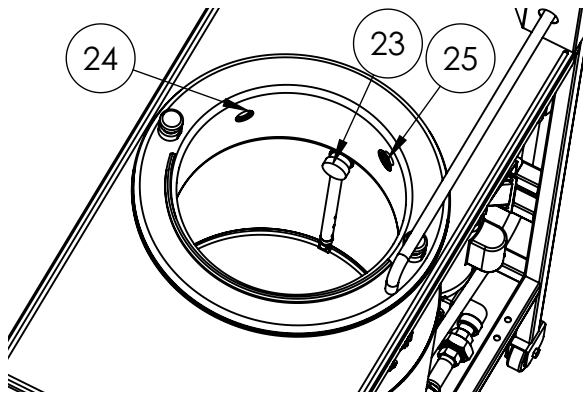
- 18. **Cover O-Ring:** Forms a seal when cover is lowered into the cooking well.



- 19. **Hot Oil Level:** Indicates proper level when oil is at operating temperature.
- 20. **Cold Fill Oil Level:** Indicates proper level when oil is at room temperature.

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

- 21. **Capillary Guard:** This guard protects temperature sensor probe and hi-limit sensor probe from damage.



23. **Basket Rest:** Holds and tilts basket for draining when removing cooked product from oil or loading uncooked product.

CAUTION DO NOT rest basket on top flange of cooking well. Damage to area in contact with O-ring can cause leaking under pressure or O-ring failure.

24. **Pressure Port:** When cover is CLOSED while cooking, all steam passes through this port into the pressure regulating valve.
25. **Exhaust Valve Port:** When cover is CLOSED while cooking, all steam passes through this port into the exhaust housing and out the exhaust stack.

5 - PRE-COOKING PREPARATION

O-RING LUBRICATION

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

COVER CHECK

To OPEN cover, push down on cover handle then rotate handle clockwise. Slide assembly to the rear of the unit. To CLOSE, pull assembly toward the front and rotate handle counterclockwise.

- Always fully rotate handle OPEN or CLOSED.
- Never use force to OPEN cover. OPEN only when no pressure is present in the cooking well.
- If cover will not OPEN easily turn the power switch OFF. DO NOT operate unit until it has been serviced by an authorized Broaster Company representative.

COOKING OIL

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

CAUTION

Check oil level before turning cook/filter switch to COOK.

WARNING

Use care when handling hot oil. Oil could splash causing serious burns.

Fill cooking well using one of the following methods:

Liquid Oil:

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

Solid Shortening: (Any cooking medium that is solid at room temperature)

WARNING

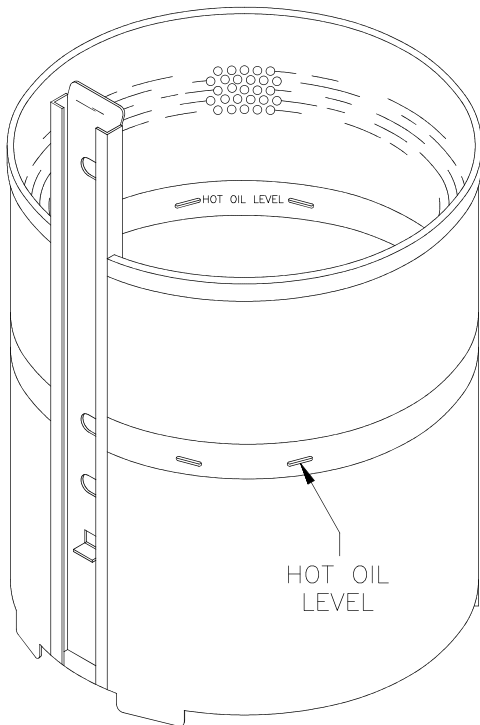
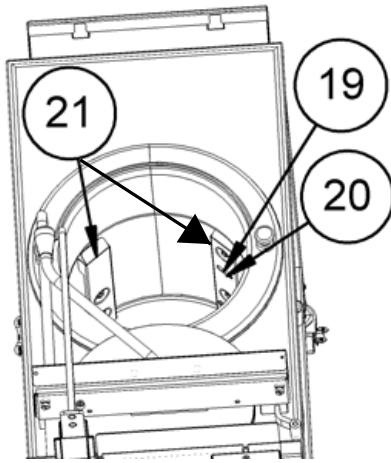
DO NOT heat solid shortening on a stove or other appliance prior to placing in cooking well. Hot shortening could splash causing serious burns.

DO NOT leave unit unattended when melting solid shortening. HOT OIL LEVEL must be maintained. Solid shortening must be soft enough to be packed around and completely cover heating elements on the 18E and sides and bottom of cooking well on the 18G. If not, there will be places on heating elements and cooking well not covered with shortening. During the heating period, these bare spots will be hot spots. They could discolor the cooking well, damage a heating element scorch or burn shortening, reducing its useful life.

OIL LEVEL

Ensure the drain valve is closed. Fill the cooking well with oil approximately 1/2" below HOT OIL LEVEL. Oil will expand when heated.

⚠ WARNING Be sure hot oil is at **HOT OIL LEVEL (20)**. Be sure top heating element is covered before turning cook/filter switch to **COOK**.



FOOD AND CONDIMENTS

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

A wide variety of Broaster® Company monosodium glutamate-free condiments are available. They have all been tested for the best possible results in the unit. By using Genuine Broaster® condiments, you can obtain a Trademark Authorization allowing the use of the Broaster® Company trademarks in your advertising.

18G LIGHTING INSTRUCTIONS

Start Up:

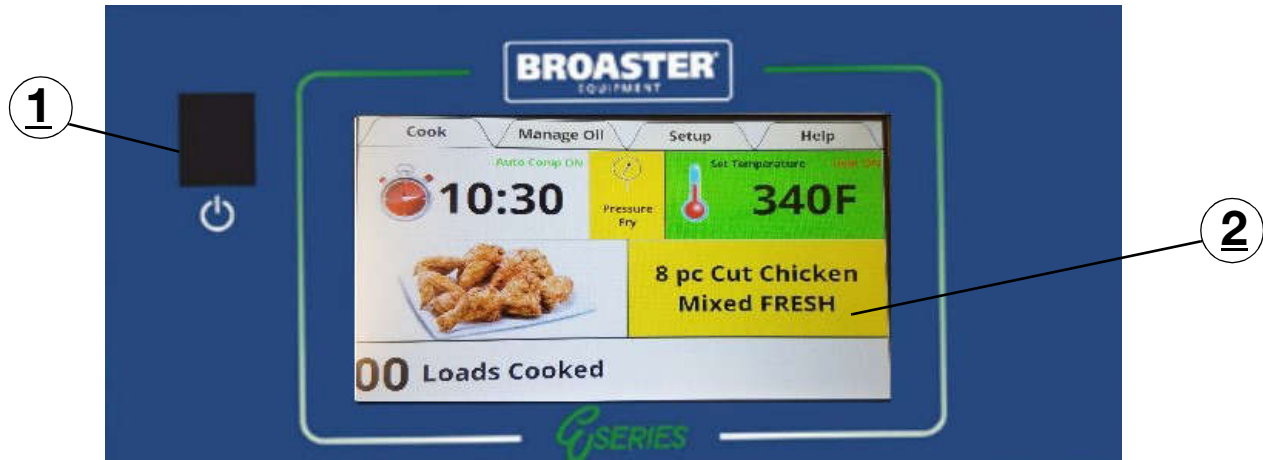
1. Turn gas shut-off valve ON.
2. See OIL LEVEL.
3. Turn power switch ON.

Shut Down:

1. Turn power switch OFF.
2. Turn gas shut-off valve OFF.

6 - SOLID STATE CONTROL PANEL

SMART TOUCH FAMILIARIZATION



1. Power Switch: This switch has two positions: ON or OFF.

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

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, Seconds, 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.

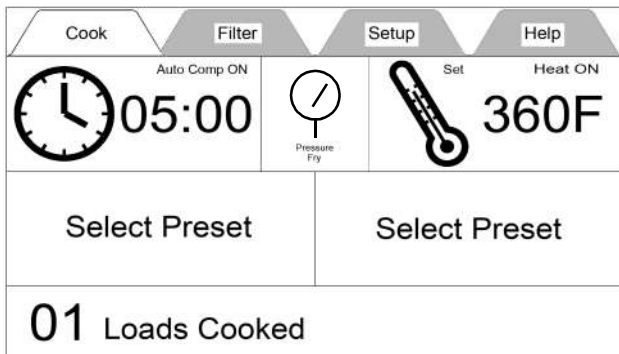
You will then see a display asking you to verify the serial number of your fryer. Enter the serial number using the keyboard and press enter.

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.

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

COOK TAB



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 is opened by turning the small handle on the countertop from "CLOSED" to "OPEN".

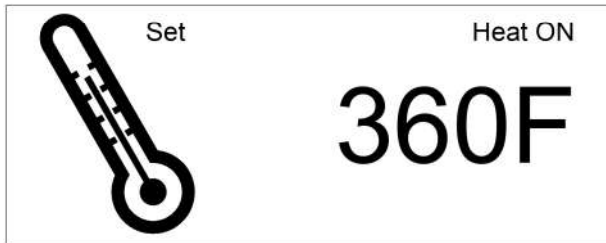
Auto Comp

In the upper right corner of the cook time display is the Auto Comp indicator. It will be black 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.

Our recommendation is that 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;

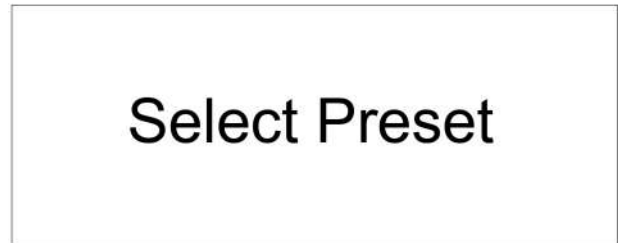
1. Anytime the temperature is changed.
2. After a filtering cycle.
3. When a preset is selected and the oil temperature is not at the preset temperature.

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 anywhere in the 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 either 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 to start a cook cycle until the temperature is green.

When the temperature is green. Load the product as recommended and move the small handle on the top of the fryer from open to close. This will start the cycle timer counting down. When the load is done an

alert will signal that the cooking cycle is complete.

Automatic Oil Replenish:

Replenishing Oil

Thirty seconds after the cook cycle has ended, the fryer will determine if the oil level needs to be replenished. If the sensor indicates it needs to be replenished, the message above will be displayed. The replenish valve will open and the pump will run for 10 seconds.

Automatic Oil Filtering

Filtering Oil

After the oil replenishment sequence, the isolation valve will open and the pump will begin circulating the oil through the filter housing for the preprogrammed amount of time. The display will show the message above. The filtration cycle will finish automatically after an evacuation sequence that occurs for a preprogrammed amount of time. The length of filtering time and the evacuation sequences can be changed as required. Refer to the SETUP tab instructions.

Loads Cooked:

01 Loads Cooked

This box indicates how many cook cycles have been completed while automatically filtering. The value may be reset to zero by tapping the box twice. This should be reset after removing crumbs from the filter housing. It serves as a reminder of how full the filter housing may be with crumbs. After

using the fryer for a while it will become apparent how many loads will fill the filter to the point that it needs to be emptied.

Cycles Since Last Filtered (Automatic Filtering Disabled):

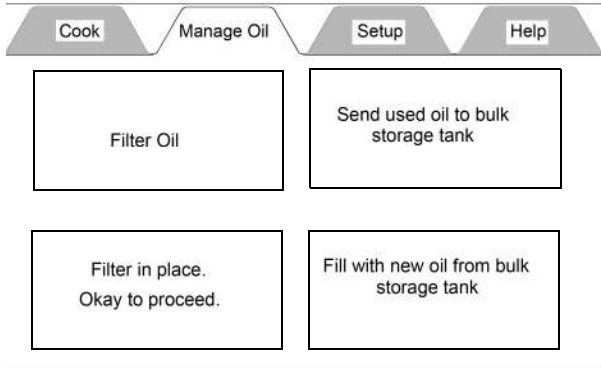
01 Cycles Since Last Filtered

It is recommended the oil should be filtered every 5 loads.

This box indicates how many cook cycles have been completed since the last time the oil was filtered. It is active and can be pressed at any time to go to the filter display except during a cooking cycle. Once you reach a preset number of cycles, you will be shown a filter options screen. If a filter cycle is bypassed the next cycle will turn red and start flashing.

This number can be changed and the procedure will be explained in the Setup Tab section.

MANAGE OIL TAB



This tab is the manage oil tab and has three buttons; a Filter Oil button, a Send used oil to bulk storage tank button, and a Fill with new oil from bulk storage tank button.

Filter Oil

There are also two reminders to observe before filtering the oil. SEE SECTION 9 - COOKING OIL CARE AND FILTERING before starting the pump motor.

When the Start Pump button is pressed the filter running display appears as shown below. Press Open Drain Valve to allow the oil to recirculate. The button will change to say Close Drain Valve.



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



Press Close Drain Valve after the oil is filtered to your satisfaction.

Press STOP PUMP to end filtering after all the oil has returned to the cooking well.



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 when the filter pan is not in place. Press Close Drain Valve to close the drain valve.

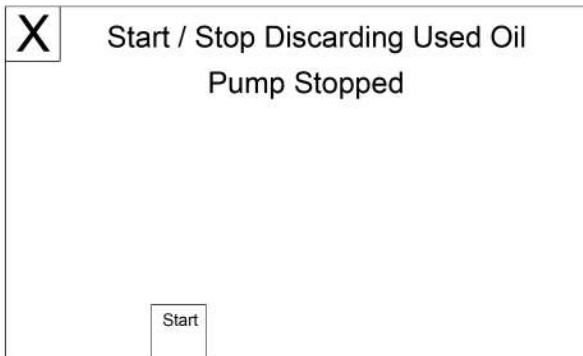
The above procedure is intended for the purpose of draining cleaning fluid from the cooking well. Draining hot oil from the cooking well should be avoided for safety reasons.

To return to the Cook Tab, press the button indicated by the X 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.

Send Used Oil to Bulk Storage Tank



Upon entry to the screen, the valves will move to the discard positions.



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.

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

Fill with new oil from bulk storage tank (or on board storage tank).

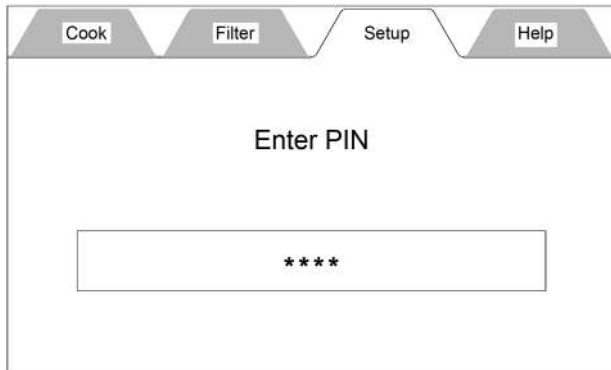
Filling with new oil from the on board storage tank is accomplished in the same manner as sending used oil to bulk storage tank.

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.

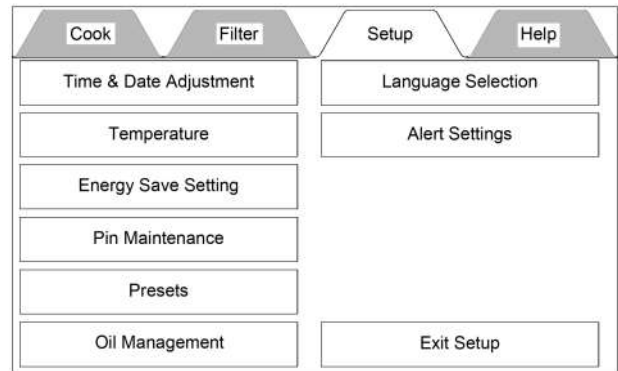


If this tab is secured the Enter Pin display will appear as shown below.



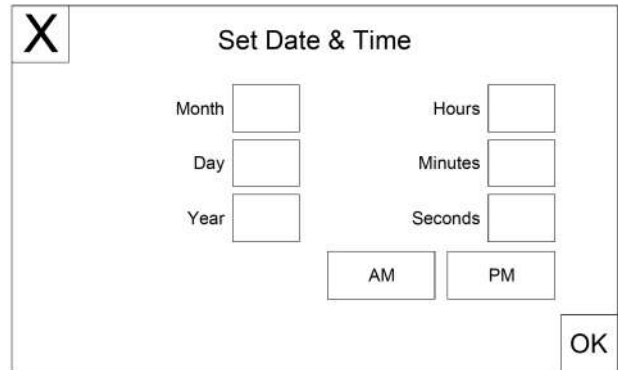
If the Pin number is known, press the box and a keypad will appear. Enter the PIN number and press Enter.

Setup Display:



Time & Date Adjustment:

Pressing this option opens the Set Date & Time display.

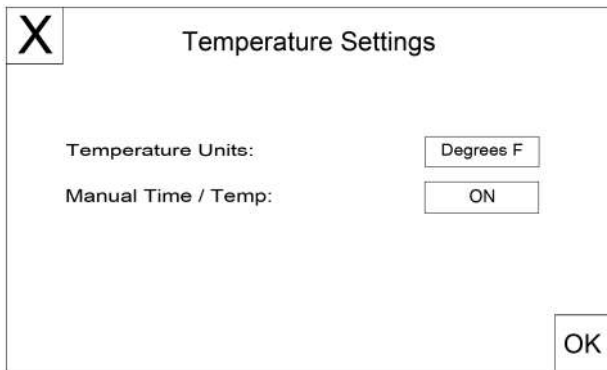


To set the date and time, press the box after "Month" and a keypad will appear. Enter the number of the month and press the enter key. Repeat this action for the Day, Year, Hours, Minutes, Seconds, AM and PM boxes. When finished press the green OK button. To leave this display without making a change press the red X 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).



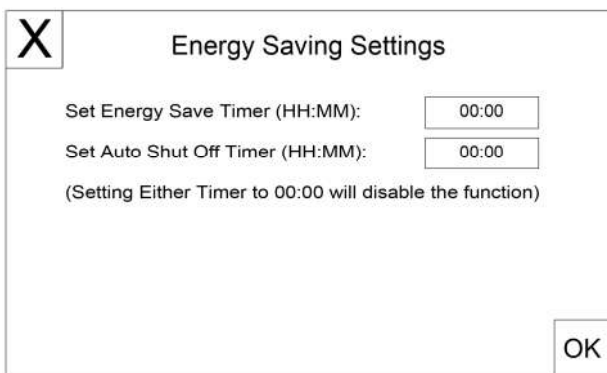
Pressing the Degrees box switches the units.

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.

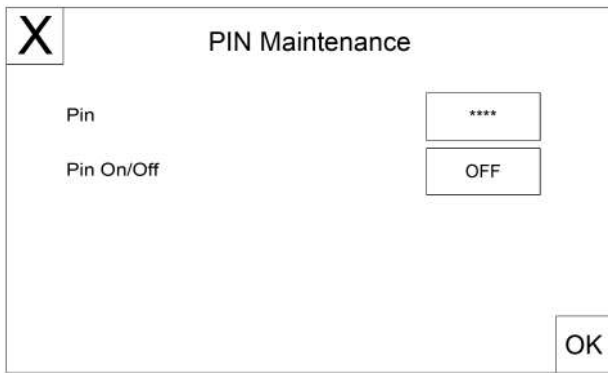


Follow the instructions on the screen to resume use of the fryer.

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:

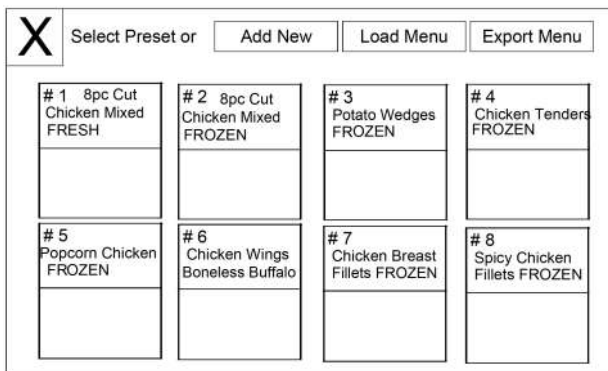
Pressing this option opens the PIN Maintenance display.



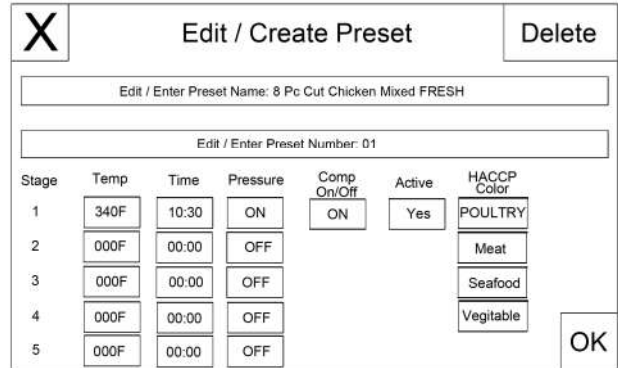
Presets:

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

This is where the product preset is either shown or not shown as a preset on the Cook Tab.



By default all products will be shown. To turn any product off, press the item once and the Edit/Create Preset display will appear.



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.

Creating a new product or deleting a product on the list will be described later.

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:

Most of the cooking will be done on stage 1. 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 greyed out.

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.

| Stage | Temp | Time | Pressure | Comp On/Off | Active | HACCP Color |
|-------|------|-------|----------|-------------|--------|-------------|
| 1 | 000F | 00:00 | ON | ON | Yes | POULTRY |
| 2 | 000F | 00:00 | OFF | | | Meat |
| 3 | 000F | 00:00 | OFF | | | Seafood |
| 4 | 000F | 00:00 | OFF | | | Vegetable |
| 5 | 000F | 00:00 | OFF | | | |

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.

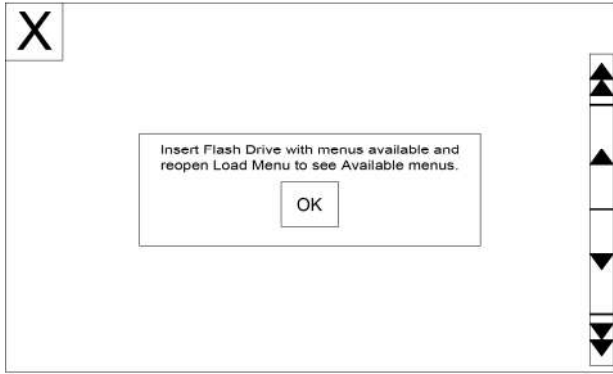
Set the cook temperature, cook time, and pressurized / non-pressurized the same way as when editing a preset.

Set Auto Comp and Activity accordingly.

Press the green OK button to save the new product.

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.



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.

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.

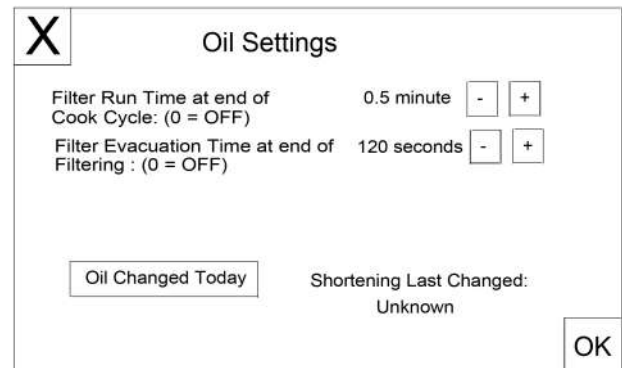
When the display appears there may be more than one menu. Press the bar for the menu you want loaded and a "Loading Menu..." box will appear with a progress bar.

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.

OIL MANAGEMENT:

Pressing this option opens the Oil Management Display.



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

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.

| Setting | Value | Adjustment | Setting | Value | Adjustment |
|------------------------|-------|------------|----------------------------------|-------|------------|
| Filter Reminder Cycles | 05 | - + | Pressure Release at end of Cycle | 20 | - + |
| Alert Volume | 05 | - + | Drain Plugged Warning | | ON |
| Keypad Volume | 02 | - + | Incomplete Evac. Warning | | ON |
| Tone | 03 | - + | Stir / Agitate Reminder | | OFF |

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.

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.

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 fryers 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.

Pressure Release at end of Cycle: This setting allows the pressure to release before the cooking time reaches zero.

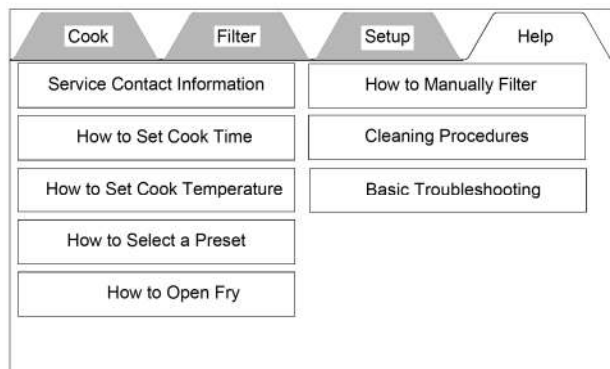
Drain Plugged Warning: This controls whether the unit warns the operator that the drain may be clogged.

Incomplete Evac. 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.

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 - COOKING WEIGHT, TEMPERATURE AND TIME

FRESH PRODUCTS

⚠ WARNING 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 product's internal temperature before cooking. Times indicated below assume 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

6.4 Kg (14 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.

⚠ WARNING

| PRODUCT | WEIGHT/THICKNESS | TEMPERATURE | TIME |
|-----------------------------------|--------------------------------------|-----------------|--------------------|
| Fresh Chicken 8 or 9 Piece Cut | 0.90 - 1.02 Kgs (2.00 - 2.25 lbs.) | 182° C (360° F) | 7:15 - 7:45 min. |
| | 1.02 - 1.13 Kgs (2.25 - 2.50 lbs.) | 182° C (360° F) | 7:45 - 8:15 min. |
| | 1.13 - 1.25 Kgs (2.50 - 2.75 lbs.) | 182° C (360° F) | 8:15 - 9:00 min. |
| | 1.25 - 1.36 Kgs (2.75 - 3.00 lbs.) | 182° C (360° F) | 9:00 - 9:30 min. |
| | 1.36 - 1.47 Kgs (3.00 - 3.25 lbs.) | 182° C (360° F) | 9:30 - 10:00 min. |
| | 1.47 - 1.59 Kgs (3.25 - 3.50 lbs.) | 182° C (360° F) | 10:00 - 10:30 min. |
| Whole Chicken | 1.02 - 1.13 Kgs (2.25 - 2.50 lbs.) | 182° C (360° F) | 12:00 - 13:00 min. |
| Potatoes | Quartered | 182° C (360° F) | 7:00 - 8:00 min. |
| Pork Ribs | 0.90 Kgs (2.00 lbs.) and Under | 182° C (360° F) | 6:00 - 7:00 min. |
| Pork Chops | 19.05 mm (3/4 In) Thick | 182° C (360° F) | 5:00 min. |
| Liver | 6.35 mm (1/4 In) Thick | 182° C (360° F) | 1 1/2 min. |
| Fish | 0.09 Kgs (3 oz.) Filets | 182° C (360° F) | 3:00 - 4:00 min. |
| Onion Rings | 9.53 - 12.70 mm (3/8 - 1/2 In) Thick | 182° C (360° F) | 2:00 - 3:00 min. |

FROZEN IQF CHICKEN



ALWAYS COOK ALL BROASTER RECIPE 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

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

Maximum Load Size:

4 chickens (32 pieces)

| PRODUCT | MAXIMUM LOAD | TEMPERATURE | TIME |
|------------|--------------|-----------------|--------------------|
| Thighs | 20 pcs. | 168° C (335° F) | 15:00 - 17:00 min. |
| Legs | 32 pcs. | 168° C (335° F) | 15:00 - 17:00 min. |
| Breasts | 16 pcs. | 168° C (335° F) | 17:00 - 19:00 min. |
| Wings | 40 pcs. | 168° C (335° F) | 12:00 - 14:00 min. |
| Mixed Load | 32 pcs. | 168° C (335° F) | 17:00 - 19:00 min. |

ES18G BROASTER RECIPE PRODUCTS COOKING CHART

All cook times are approximate and will vary depending on load size, etc.

| Product Description | Package Description | Product Number | Lbs/Case | Cooking Time | Cooking Temperature | Approx. Load - Kgs (Lbs.) | |
|--|---------------------|----------------|----------|------------------------|---------------------|---------------------------|-------------------|
| | | | | | | MIN | MAX |
| Jumbo Popcorn Chicken | 2/5# bags | 96262 | 10 | 4 - 4.5 Min. | 182°C (360°F) | .45 Kgs (1 lb.) | 3.63 Kgs (8 lbs) |
| Cajun Jumbo Popcorn Chicken | 2/5# bags | 96277 | 10 | 4 - 4.5 Min. | 182°C (360°F) | .45 Kgs (1 lb.) | 3.63 Kgs (8 lbs) |
| Chicken Tenders | 2/5# bags | 96641 | 10 | 5 - 6 Min. | 182°C (360°F) | .45 Kgs (1 lb.) | 3.63 Kgs (8 lbs) |
| Zesty Home Style Chicken Tenders | 2/5# bags | 96349 | 10 | 5 - 6 Min. | 182°C (360°F) | .45 Kgs (1 lb.) | 3.63 Kgs (8 lbs) |
| Chicken Fillets | 2/5# bags | 96638 | 10 | 6 - 7 Min. | 182°C (360°F) | .45 Kgs (1 lb.) | 3.63 Kgs (8 lbs) |
| Traditional Wings | 2/5# bags | 96261 | 10 | 8 - 10 Min. | 182°C (360°F) | .45 Kgs (1 lb.) | 3.63 Kgs (8 lbs) |
| Hot 'N Spicy Wings | 4/5# bags | 96639 | 20 | 8 - 10 Min. | 182°C (360°F) | .45 Kgs (1 lb.) | 3.63 Kgs (8 lbs) |
| Boneless Buffalo Wings | 2/5# bags | 96318 | 10 | 5 - 6 Min. | 182°C (360°F) | .45 Kgs (1 lb.) | 3.63 Kgs (8 lbs) |
| Fully-Cooked Oven Roasted Chicken Wings | 2/5# bags | 96351 | 10 | 6 - 7 Min. | 182°C (360°F) | .23 Kgs (0.5 lb.) | 2.72 Kgs (6 lbs) |
| Chicken Gizzards | Bulk Packed | 96271 | 10 | 4 - 6 Min. | 182°C (360°F) | .45 Kgs (1 lb.) | 3.63 Kgs (8 lbs) |
| Jumbo Corn Dogs | Bulk Packed | 96661 | 10 | Thawed 6 - 7 Min. | 182°C (360°F) | .45 Kgs (1 lb.) | 3.63 Kgs (8 lbs) |
| Jumbo Corn Dogs | Bulk Packed | 96661 | 10 | Thawed 7 - 8 Min. | 168°C (335°F) | .45 Kgs (1 lbs.) | 3.63 Kgs (8 lbs) |
| Jumbo Corn Dogs | Bulk Packed | 96661 | 10 | Frozen 13 - 14 Min. | 168°C (335°F) | .45 Kgs (1 lbs.) | 3.63 Kgs (8 lbs) |
| Pork Tenderloin | Bulk Packed | 96313 | 9.75 | 3 - 3.5 Min. | 182°C (360°F) | .45 Kgs (1 lbs.) | 3.63 Kgs (8 lbs) |
| Deluxe Pizza Burritos | 48 in 7 trays | 96316 | 15 | 6.5 - 7.5 Min. | 182°C (360°F) | .45 Kgs (1 lbs.) | 1.13 Kgs (2.5 lb) |
| Deluxe Beef 'n Bean Burritos | 48 in 7 trays | 96317 | 15 | 5.5 - 6.5 Min. | 182°C (360°F) | .45 Kgs (1 lbs.) | 1.13 Kgs (2.5 lb) |
| Deluxe Breakfast Burritos | 48 in 7 trays | 96323 | 15 | 6.5 - 7.5 Min | 182°C (360°F) | .45 Kgs (1 lbs.) | 1.13 Kgs (2.5 lb) |
| Catfish Tender Strips | Bulk Packed | 96340 | 10 | 3.5 - 4 Min | 182°C (360°F) | .45 Kgs (1 lbs.) | 3.63 Kgs (8 lbs) |
| Hand-Breaded Style Catfish Fillets | Bulk Packed | 96354 | 10 | 4 - 5 Min | 182°C (360°F) | .45 Kgs (1 lbs.) | 3.63 Kgs (8 lbs) |
| Premium Cod Fillets (2 oz. Natural Cut) | 2/5# bags | 96329 | 10 | 4 - 5 Min. | 182°C (360°F) | .23 Kgs (0.5 lb.) | 2.72 Kgs (6 lbs) |
| Premium Cod Fillets (4 oz. Natural Cut) | 2/5# bags | 96295 | 10 | 5 - 6 Min. | 182°C (360°F) | .23 Kgs (0.5 lb.) | 2.72 Kgs (6 lbs) |
| Premium Beer-Battered Recipe Shrimp (tail-off) | Bulk Packed | 96286 | 8 | 2.5 - 3 Min. | 182°C (360°F) | .23 Kgs (0.5 lb.) | 2.72 Kgs (6 lbs) |
| Potato Wedges | 6/5# bags | 96698 | 30 | 4 - 4.5 Min. | 182°C (360°F) | .45 Kgs (1 lbs.) | 3.63 Kgs (8 lbs) |
| Potato Slices | 6/5# bags | 96258 | 30 | 3 - 3.5 Min. | 182°C (360°F) | .45 Kgs (1 lbs.) | 3.63 Kgs (8 lbs) |
| Italian-Style 3-Cheese Mozzarella Sticks | 4/3# bags | 96279 | 12 | 1¼ - 1½ Min. | 182°C (360°F) | .45 Kgs (1 lbs.) | 3.63 Kgs (8 lbs) |
| Beer Battered Onion Rings | 20/8 oz. bags | 96287 | 10 | 1¼ - 1½ Min. | 182°C (360°F) | .45 Kgs (1 lbs.) | 3.63 Kgs (8 lbs) |
| Natural Cheddar Nuggets | Bulk Packed | 96324 | 7 | 1¼ - 1½ Min. | 182°C (360°F) | .45 Kgs (1 lbs.) | 3.63 Kgs (8 lbs) |
| Jalapeno Peppers | 4/3# bags | 96325 | 12 | 1¼ - 2¼ Min. | 182°C (360°F) | .45 Kgs (1 lbs.) | 3.63 Kgs (8 lbs) |

ALWAYS COOK ALL BROASTER RECIPE PRODUCTS UNTIL THE INTERNAL TEMPERATURE REACHES THE FOLLOWING MINIMUMS:
Chicken, White - 170°F; Chicken, Dark - 180°F; Corn Dogs/Pork - 160°F to 170°F; Fish - 155°F

9 - 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.

⚠ DANGER Use care when handling hot oil. 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.

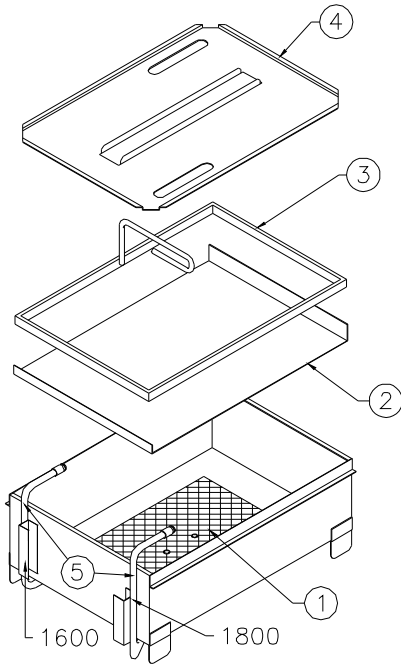
Using a built in filter, Broaster® filter paper and Broaster® filtering compounds, you can increase useful oil life up to 200%.

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.

MANUAL FILTERING

Filter oil after cooking approximately 65 lbs. of product, between rush periods and always at the end of each day. Filter oil at 360°F.

⚠ 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, two cups of Bro-Clean filter media on top of filter paper and/or 10 oz. of XL filtering compound to cooking well, and (4) Filter Cover. For best results change paper after each filter cycle.

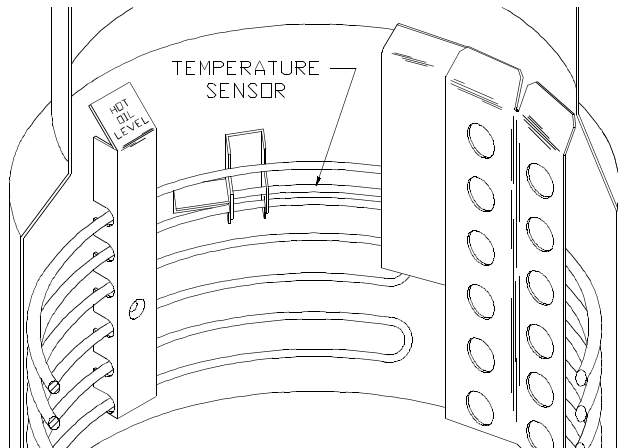
1. Be sure filter pan, with components, is installed under unit properly. Make sure O-ring is installed on (5) Riser Line. Ensure that riser line is fully inserted into suction line. Turn cook/filter switch OFF and OPEN cooking well cover.
2. Using a ram rod, stir oil in a circular motion. This will aid in draining

crumbs. Pull cover over cooking well and Open drain valve slowly. If valve becomes obstructed with crumbs, use ram rod to unblock valve.

⚠ CAUTION **DO NOT** allow ramrod point to hit bottom of filter pan. Point of ramrod can penetrate filter paper allowing crumbs and filter compound to pass through filter lines.

3. When oil is drained, pull cover over cooking well completely but **DO NOT CLOSE**. Turn cook/filter switch to FILTER. When oil is flowing out of drain, close drain valve and pump approximately 8 inches of oil into 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 heating elements. Be sure no crumbs cover temperature sensor.

Solid State Temperature Sensor Location:



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. Pull cover over cooking well but **DO NOT CLOSE**. Turn cook/filter switch to **FILTER**. After 5 minutes, push cover assembly toward the rear of the unit. Close drain valve.

5. When air bubbles appear turn cook/filter switch **OFF**.

WARNING Be sure hot oil is at **HOT OIL LEVEL**. Be sure top heating element is covered before turning cook/filter switch to **COOK**.

6. 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, filter pan interior and top & bottom of filter pan cover. Never use soap and water.

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.

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.

7. 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, turn cook/filter switch to **FILTER**. Let motor run for five minutes with drain valve open. This could extend useful oil life.

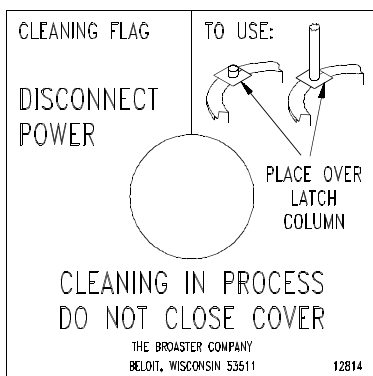
NOTICE Ensure cook/filter switch is **OFF** to avoid splashing of oil if motor protector reset button is used.

10 - 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.
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 install cleaning flag #12814 over latch column.

NOTICE Quarterly cleaning of Probe Guard (gas & electric) should be done at this point. See PROBE GUARD & BASKET GUIDE CLEANING.

5. Close drain valve. Fill a separate container with 2 gallons of hot water and thoroughly dissolve Broaster® cooking well cleaner (use 93624 - CUP-BROASTER WELL CLEANER for appropriate amount). 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 BASKET

Clean the food basket daily. DO NOT put food basket in a dishwasher. Use warm water and a low suds organic household dish cleanser. Rinse basket 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

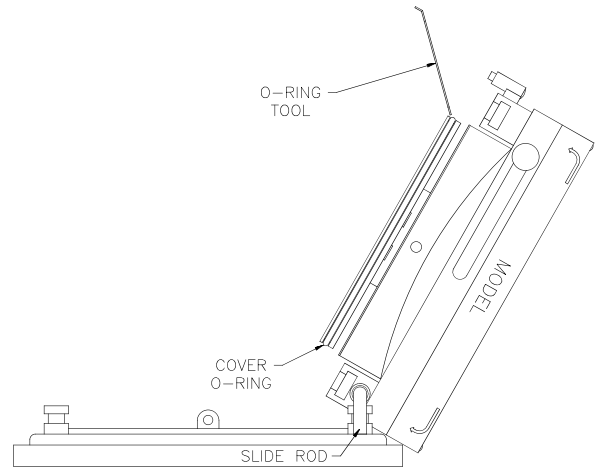
Check liquid level several times daily. Empty as needed.

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.

SLIDE ROD

Clean daily along with the cover, see COVER. Wipe with a clean cloth or paper towel. No lubrication is necessary.

COVER



NOTICE

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

1. OPEN cover and slide back 2 to 3 inches.
2. Lift up on left side and pivot assembly to an upright position. DO NOT drop assembly.
3. Rotate cover handle to CLOSED position and push in on center of cover bottom to lock cover and handle. 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.

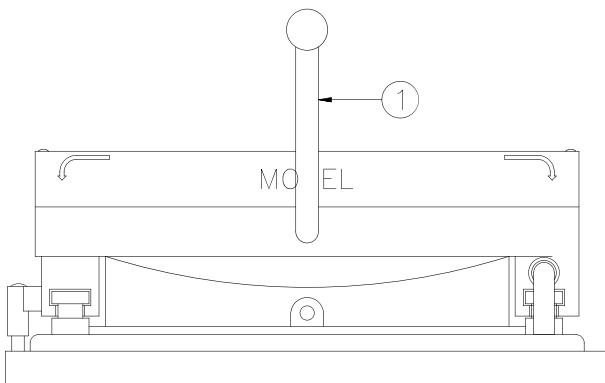
5. Clean O-ring groove and cover top and bottom. Use O-ring tool #12791 to clean O-ring groove. Use a non-metallic heavy duty commercial scouring pad that is USDA approved to clean cover.
6. Remove any oil or grease build-up from Pressure Relief Valve and Pressure Gauge Ports on bottom of cover.
7. After cleaning, completely dry. Lubricate O-ring with clean liquid shortening. Install O-ring in O-ring groove.

SPLASH SHIELD

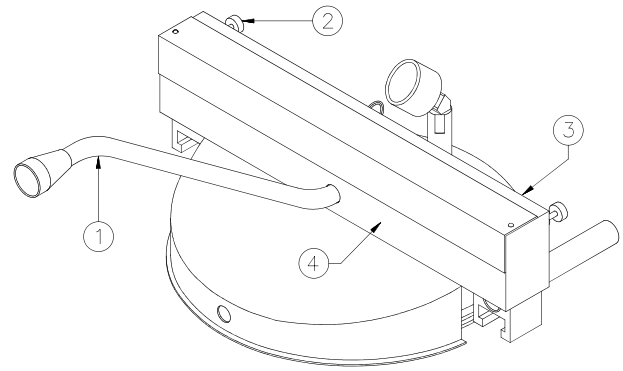
⚠ WARNING Allow cover assembly to cool before cleaning. Hot surfaces could cause serious burns.

If your unit is equipped with a two piece splash guard, clean it according to the following instructions:

1. OPEN cover and slide back 2 to 3 inches.
2. Rotate cover handle (1) to a centered position.



3. Loosen screws (2) attaching back splash shield (3) to splash shield (4).



4. Slide splash shield (4) forward and up towards the end of the cover handle (1).
5. Clean the top and underside of splash shield and top of the cover.

NOTICE Make sure back splash shield (3) and splash shield (4) are assembled correctly after cleaning. The cover may not close correctly if they are not.

6. Assemble in reverse order.

Filter Pan & Cover

Wipe all oil off 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.

Probe Guard & Basket Guides

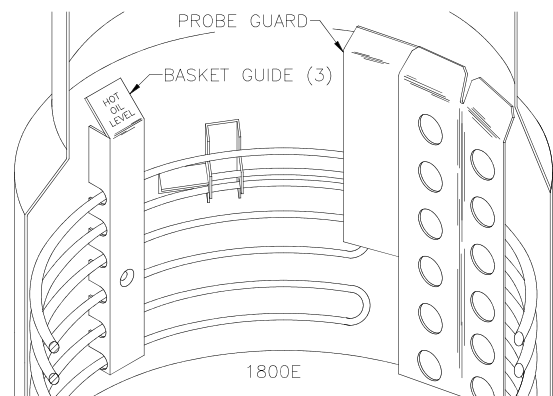
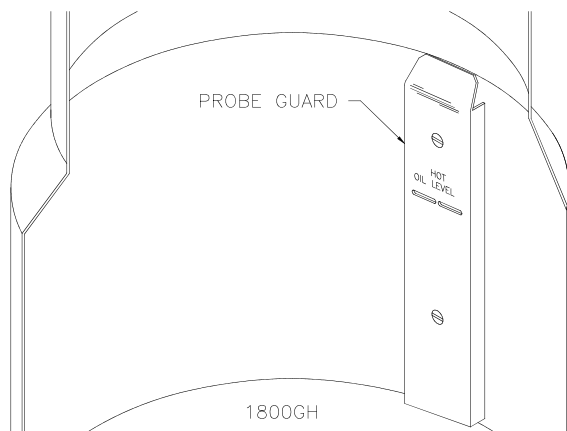
At least once every 3 months, while cleaning the cooking well, the probe guard and basket guides need to be removed so that any build-up that collects behind them can be cleaned.

1. After emptying the oil and before filling with cleaning solution, remove the probe guard using a flat screwdriver, for Models 1600 and 1800GH, or a 7/16" wrench for the Model 1800E. Remove the probe guard. (See illustrations below)
2. Very carefully remove any debris that is caked on/or around the temperature sensor probe and the hi-limit capillary.
3. On electric fryers, remove the 3 basket guides using a flat screwdriver. Leave the element spacers in place. Carefully clean any build-up that has collected behind the basket guides.

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

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

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



MINIMUM PREVENTIVE MAINTENANCE REQUIREMENTS

| | DAILY | WEEKLY | QUARTERLY | YEARLY |
|--|----------------------------|--------|-----------|--------|
| Clean Cooking Well | | X | | |
| Clean Condensate Pan | X | | | |
| Clean Oil Build-up under unit | | | | X |
| Clean Pressure Relief Valve port & Pressure Gauge Port | | X | | |
| Clean Cover and Splash Guard | | X | | |
| Clean Food Basket | X | | | |
| Clean Temperature Sensor | | | X | |
| Clean Filter Pan Cover | After each filtering cycle | | | |
| Filter Cooking Oil | See FILTERING | | | |
| Clean and Lubricate O-Ring | | X | | |
| Slide Rod | X | | | |
| Probe Guard & Basket Guides | | | X | |

NOTICE

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

11 - 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

⚠ WARNING *Solid State Controls:* If at any time the **POWER ON** light does not turn off when the cook/filter switch is moved to the **OFF** position, contact your local Broaster Company representative for service immediately.

1. Filter cooking oil. See COOKING OIL CARE AND FILTERING.
2. **ES18G:** Turn gas valve and manual gas shut off valve to OFF.
3. Wipe oil and crumbs from unit surfaces with a clean cloth.
4. Clean food basket.
5. Clean condensate pan.

SEASONAL

1. See COOKING OIL CARE AND FILTERING. Discard cooking oil.
2. See CLEANING.
3. Turn main circuit breaker OFF and unplug electrical cord.
4. **ES18G:** Turn gas valve, manual gas shut off valve and main gas supply OFF.
5. Clean condensate pan.
6. Wipe oil and crumbs from unit surfaces with a clean cloth.
7. Lubricate cover O-ring and food basket with olive oil.
8. CLOSE cover and pressure regulating valve.

12 - TROUBLESHOOTING

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



SMART TOUCH CONTROLLER TIPS

| COMPLAINT | CAUSE | 1800E REMEDY | 1800GH REMEDY |
|---|---|--|---|
| Display reads HEATER FAULT | Oil temperature not rising properly | * Call for service | * Remove anything causing a draft by the unit (like a fan). * Turn on the gas valve. * Call for service |
| Display is blank | 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 | |
| Display doesn't respond when touched | | | |
| Display reads PROBE FAULT | * 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 |
| Display reads HI TEMP FAULT | Temp reaches 415F | * Call for service | * Call for service |
| Display reads INTERNAL FAULT | Internal fault detected | * Call for service | * Call for service |
| Display reads C1 FAULT | C1 contactor is stuck in the closed position | * Call for service | * Call for service |

1800GH GAS TIPS

| COMPLAINT | CAUSE | REMEDY |
|----------------------------------|--|---|
| Pilot burner won't ignite | <ol style="list-style-type: none"> 1. Gas valve OFF 2. Air in pilot gas line 3. Gas shut-off valve OFF | <ol style="list-style-type: none"> 1. Slide switch to ON 2. See MODEL 1800GH LIGHTING INSTRUCTIONS 3. Turn ON |
| Main burner won't ignite | <ol style="list-style-type: none"> 1. Pilot burner not lit 2. Gas control OFF 3. Controller in program mode 4. Cook/filter switch OFF 5. Hi-limit tripped | <ol style="list-style-type: none"> 1. See MODEL 1800GH LIGHTING INSTRUCTIONS 2. Turn ON 3. Exit program mode 4. Turn to COOK 5. Turn cook/filter switch OFF. Contact service person. |

COVER AND YOKE TIPS

| COMPLAINT | CAUSE | REMEDY |
|---|--|--|
| Cover hard to CLOSE | <ol style="list-style-type: none"> 1. O-ring dry or dirty 2. O-ring groove dirty 3. Hard O-ring | <ol style="list-style-type: none"> 1. Clean and lubricate 2. Clean 3. Replace |
| Cover won't OPEN  WARNING Never use force to OPEN cover. | <ol style="list-style-type: none"> 1. O-ring dry or dirty 2. O-ring groove dirty 3. Hard O-ring 4. Pressure not released 5. Pressure regulating valve out of adjustment | <ol style="list-style-type: none"> 1. Clean and lubricate 2. Clean 3. Replace 4. OPEN pressure regulating valve 3. Contact service person |
| O-ring Break  CAUTION DO NOT rest basket 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"> 1. O-ring groove dirty 2. Nicks in cooking well or cover | <ol style="list-style-type: none"> 1. Clean 2. Remove |
| Pressure Gauge does not indicate rising pressure when exhaust valve is closed. | <ol style="list-style-type: none"> 1. Port is plugged 2. Pressure gauge is damaged | <ol style="list-style-type: none"> 1. Clean port on bottom of cover 2. Replace pressure gauge |

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.

| COMPLAINT | CAUSE | REMEDY |
|-----------------|---|--|
| No pressure | <ol style="list-style-type: none">1. Pressure regulating valve OPEN2. Pressure regulating valve dirty or blocked open3. Leaks around cover O-ring | <ol style="list-style-type: none">1. CLOSE2. Contact service person3. Replace O-ring |
| Excess pressure | | <ol style="list-style-type: none">1. Turn cook/filter switch OFF. Contact service person. |

PRODUCT TIPS

Fresh Chicken:

| COMPLAINT | CAUSE | REMEDY |
|--------------------------|--|--|
| Product too light | <ol style="list-style-type: none">1. Low oil temperature2. No coating3. Not done4. Food basket overloaded | <ol style="list-style-type: none">1. Check cook temperature2. Check procedures3. Increase cook time4. Decrease load |
| Product too dark | <ol style="list-style-type: none">1. High oil temperature2. Wrong coating3. Breaded too long4. Old oil | <ol style="list-style-type: none">1. Check cook temperature2. Check procedures3. Discard4. Change oil |
| Product not done | <ol style="list-style-type: none">1. Low oil temperature2. Food basket overloaded3. Cook time too short | <ol style="list-style-type: none">1. Check cook temperature2. Decrease load3. Increase cook time |
| No flavor | <ol style="list-style-type: none">1. Improper marination | <ol style="list-style-type: none">1. Check procedures |
| White spots | <ol style="list-style-type: none">1. Product stuck together2. Food basket overloaded | <ol style="list-style-type: none">1. Float basket while loading2. Decrease load size |
| Dark spots | <ol style="list-style-type: none">1. Dirty oil | <ol style="list-style-type: none">1. Filter or replace |

Frozen IQF Chicken

| COMPLAINT | CAUSE | REMEDY |
|--------------------------|---|---|
| Product too light | <ol style="list-style-type: none">1. Low oil temperature2. Not done3. Food basket overloaded | <ol style="list-style-type: none">1. Check cook temperature2. Increase cook time3. Decrease load |
| Product too dark | <ol style="list-style-type: none">1. High oil temperature2. Overcooked3. Oil old4. Thawed and refrozen | <ol style="list-style-type: none">1. Check cook temperature2. Decrease cook time3. Change oil4. Keep product at 0°F or below |
| Product not done | <ol style="list-style-type: none">1. Low oil temperature2. Food basket overloaded3. Cook time too short | <ol style="list-style-type: none">1. Check cook temperature2. Decrease load3. Increase cook time |
| No flavor | <ol style="list-style-type: none">1. Overcooked2. Old product | <ol style="list-style-type: none">1. Check cook time2. Discard |
| White spots | <ol style="list-style-type: none">1. Product stuck together2. Food basket overloaded | <ol style="list-style-type: none">1. Float basket while loading2. Decrease load size |
| Dark spots | <ol style="list-style-type: none">1. Dirty oil | <ol style="list-style-type: none">1. Filter or replace |

FILTERING TIPS

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



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