

### **MANUAL**

### IMPORTANT:

THIS MANUAL PROVIDES SPECIFIC OPERATING INSTRUCTIONS FOR YOUR MODEL. USE THE INSTANT RECOVERY® ELECTRIC FRYER ONLY AS INSTRUCTED IN THIS MANUAL.

### KEEP A COPY OF YOUR BILL OF SALE.

The date on the bill establishes the warranty period should service be required. If service is performed, it is in your interest to obtain and keep all receipts.

### KEEP THIS MANUAL FOR TRAINING NEW PERSONNEL.

Record the Serial number and Model number of this Instant Recovery® Electric Fryer in the spaces provided. **Keep these numbers for future reference.** 

SERIAL NUMBER	
MODEL NUMBER	

Keating commercial fryers are not intended for household use.

As continuous product improvement occurs, specifications may be changed without notice.

1-800-KEATING | keatingofchicago.com

### **NOTE:**

### PURCHASER SHOULD POST IN A PROMINENT LOCATION.



### **AWARNING**

Improper installation, adjustment, 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 YOUR SAFETY:

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

THE EQUIPMENT IS TO BE INSTALLED TO COMPLY WITH THE BASIC PLUMBING CODE OF THE BUILDING OFFICIALS AND CODE ADMINISTRATORS INTERNATIONAL, INC. (BOCA) AND THE FOOD SERVICE SANITATION MANUAL OF THE FOOD AND DRUG ADMINISTRATION (FDA).







### **■ TABLE OF CONTENTS**

Important Safety Instructions	i	Oil Breakdown	8
INTRODUCTION	1	Limited Calibration	8 - 9
INSTALLATION		Thermostat Bulb Positioning	9
Damage During Shipment	1	SERVICE DIAGNOSIS	
Standard Features	2	Troubleshooting Chart	10 - 11
Safety Precautions	2	ORDERING PARTS	
Drop-In Fryer Counter Cut-Out/Installation	3	Service Parts Ordering	11
FIRST STEPS		Warning and Operating Plates	11
Positioning	3	PARTS LIST	12 - 20
Leveling	3	Electric Fryer Parts List & Assembly	12
Restraining Devices	4	BB Control Panel Parts List	13
Electrical Connection	4	TS Control Panel Parts List	14
OPERATING		CPU Control Panel Parts List	16 - 18
Filling	4	Basket-Lift Housing and Roller Guide Parts	19 - 20
Melting	5	WIRING DIAGRAMS	21 - 35
Cooking	5 - 6	Single Basket Lift Power Supply Box	21
Shutdown	6	BB Wiring Diagram	22 - 27
Draining	6	TS Wiring Diagram	27 - 34
Cleaning and Boil-Out	7	CPU Wiring Diagram	34 - 35
Electronic Timers	8	FRYER SPECIFICATIONS	
PREVENTATIVE MAINTENANCE		BB Models	36
Warranty Repairs	8	TS Models	37
Preventive Maintenance Chart	8	Warranty Information	38

### INTRODUCTION

Instructions in this manual should be read thoroughly before attempting to operate this Keating Electric Fryer. All installation and service on Keating equipment must be performed by qualified, certified, licensed and/or authorized installation or service personnel.

Operating information for Keating equipment has been prepared for use by qualified and/or authorized personnel. Keating equipment is made in the USA and has American sizes of hardware. All metric conversions are approximate.

### ■ INSTALLATION INSTRUCTIONS

Proper installation will assure top performance. Alterations of any kind to your equipment will void the warranty. Before uncrating, check equipment carefully for damage.

### IF EQUIPMENT ARRIVES DAMAGED

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

### **IMPORTANT**

This merchandise has been thoroughly inspected and carefully packed before leaving our plant. Responsibility for its safe delivery was assumed by the carrier at the time of shipment. Claims for loss or damage to the contents should, therefore, be made upon the carrier, as follows:

### **CONCEALED LOSS OR DAMAGE**

Concealed loss or damage means loss or damage which does not become apparent until the merchandise has been unpacked. The contents may be damaged in transit due to rough handling even though the carton may not show external damage. When the damage is discovered upon unpacking, make a written request for inspection by the carrier's agent within fifteen days of the delivery date. Then file a claim with the carrier since such damage is the carrier's responsibility. By following these instructions carefully, we guarantee our full support of your claims to protect you against loss from concealed damage.

### **VISIBLE LOSS OR DAMAGE**

Any external evidence of loss or damage must be noted on the freight bill or express receipt, and signed by the carrier's agent. Failure to adequately describe such external evidence of loss or damage may result in the carrier refusing to honor a damage claim. The form required to file such a claim will be supplied by the carrier.

DO NOT RETURN DAMAGED MERCHANDISE TO **KEATING. FILE YOUR CLAIM AS STATED ABOVE.** 

### **STANDARD FEATURES**

- · Highly polished stainless steel fryer vessel
- · Highly polished stainless steel front
- · Highly polished stainless steel elements
- · Highly polished stainless steel thermostat bulb
- · Highly polished stainless steel Hi-Limit sensor
- True Cold Zone for proper sedimentation
- · Grid screen over elements
- · Melt cycle
- 1" full port front drain valve on 10x11 and 14; 1-1/4" for 18 and larger
- · High temperature limit control with manual reset
- Patented accurate temperature control system +7°F
- · Ideal 35" working height
- One pair of split baskets or one full-size basket (18" model only)
- Circuit breaker protection for 208-240V 10×11 to  $34\times24$  Models

### STANDARD ACCESSORIES

- · Keating Klenzer Sample
- Drain clean out rod

### STANDARD FRYERS

- Sizes: 10×11 to 34×24
- · Oil capacity 30 to 210 pounds
- · NSF, ETL and ETLS listed

### **MODEL VARIATIONS**

**BB Model:** BB Model Fryers feature Power On indicating light, a melt cycle and an electric stainless steel thermostat. The 14BB model can cook up to 72 lbs. of frozen fries or 75 lbs. of chicken per hour.

**TS Model:** TS Model Fryers have the highest input of all Keating fryers. The TS Model features a melt cycle, an electric stainless steel thermostat, two electronic timers and three indicating lights which display the status of the fryer's operation. The 14TS Model can cook up to 90 lbs. of frozen fries or 75 lbs. of chicken per hour.

**TS Basket-Lift Model:** TS Basket-Lift Model Fryers come with all the same features as the TS Model. The Basket-Lift mechanism lowers the baskets of food into the oil when the timer button is pressed and raises the baskets when the cooking cycle is complete. Split baskets are used for all models.

**CM Model:** BB and TS Counter Model Fryers are equipped with all of the same features as the BB and TS Models respectively, but take up less than three square feet of counter space. The 10x11CM Model can cook up to 36 lbs. of frozen fries per hour and the 14CM Model can cook up to 72 lbs. per hour.

**CPU Model:** CPU Model Fryers have the same input as the TS Models. The panel of switches and indicating lights are also the same. A programmable computer replaces the two timers and thermostat. A secondary thermostat, located in the fryer's cabinet, permits frying without the computer.

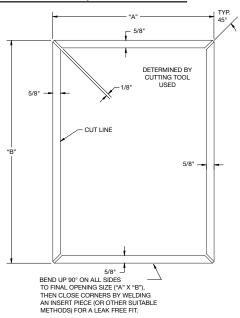
### **SAFETY PRECAUTIONS**

### **AWARNING**

THIS SYMBOL WARNS YOU THAT SERIOUS BURNS OR OTHER INJURIES MAY RESULT IF SAFETY INSTRUCTIONS ARE NOT FOLLOWED.

- This service manual should be retained in a safe place for future reference. The installation of your new fryer must conform to current codes, with the current National Electrical Codes and regulations as applicable.
- Your ventilation hood, when installed, must conform to the current standards.
- You must maintain this appliance free and clear from combustibles.
- Adequate clearance for servicing and proper operation must be maintained. Your fryer is designed to be serviced from the front.
- Keating commercial fryers are not intended for household use.
- ALWAYS instruct new employees on proper fryer operation.
- · ALWAYS turn fryer off each night.
- ALWAYS turn fryer off at customer power panel before servicing.
- NEVER leave a fryer unattended during operation.
- NEVER move a fryer when full of hot oil.
- NEVER introduce objects or liquids into fryer, while operational, which are not designed or made for cooking.
- THIS FRYER MAY NOT BE ALTERED, MODIFIED OR CHANGED IN ANY WAY.

### **DROP-IN FRYER COUNTER CUTOUT/INSTALLATION**



FRYER	"A"	"B"
10x11 DI ELECTRIC	13"	22"
14 DI ELECTRIC	16"	23 1/2"
18 DI ELECTRIC	20"	29"

### **INSTALLATION NOTES**

- 1. All Drop-In Fryers must be 16" from any open flame.
- 2. Fryer must be located no more than 5" from counter top front.
- 3. Cabinet must be reinforced to support full weight of fryer in use (Fryer, oil, food, etc.).
- 4. Fryers must be properly ventilated and located under an exhaust hood.

### **DROPPING THE FRYER** INTO THE COUNTER TOP

It is only necessary to place the fryer in such a position that the front edge overlaps the front raised edge of the opening.

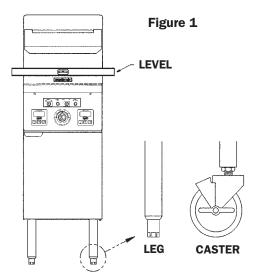
Push the fryer forward as far as it will go holding the fryer on approximately a 15° angle, and then drop the rear of the fryer into its proper position lowering it down gently so you do not deform the table or equipment stand.

### **■ FIRST STEPS**

### **POSITIONING**

The fryer must be placed under an exhaust hood with a fire retardant system. Your ventilation hood, when installed, must conform to the current standards. ALL connections and placement must comply with current local and national codes. It is the responsibility of the owner and local installer to comply with these regulations when installing the fryer.

Counter model and floor model frvers must be re**strained to prevent tipping** when installed in order to avoid splashing, spilling, etc. of hot liquid. The restraining method may be a manner of installation or by separate means.



### **LEVELING**

The fryer will operate at its highest efficiency when properly leveled. Place a level on fryer vessel from side to side. For fryers on legs, the bottom foot of the leg is adjustable. Looking from the bottom of the foot, turn clockwise to decrease height or counter clockwise to increase height until level. For fryers on casters, the casters are adjustable by loosening the jam nut and turning the caster in or out. When the desired level is reached, tighten the jam nut. Adjustments of more than 3/4" are not recommended on any caster. The same procedure should be followed to level the fryer from front to back.

### Restraining devices required.

### **RESTRAINING DEVICES**

1. 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.

Fryer must also be restrained to prevent tipping when installed so that

hot liquid splashing is avoided.

2. The restraint means must be attached to the rear of the Keating Electric Fryer within 2" of the center line width and approximately 1-5/8" from the bottom of the cabinet back to allow the restraining bolt to be anchored to the cabinet back between the cabinet bottom and inner liner.

If disconnection of the restraint is necessary, it must be reconnected when the Keating Electric Fryer is returned to its originally installed position.

### **ELECTRICAL CONNECTION**

The Keating Instant Recovery® Electric fryer is equipped with a three wire terminal block for customer connections. The terminal block is located behind the fryer door on the right side behind a panel (held in place by two screws). Compare the fryer terminal connections to the appropriate wiring diagram for the fryer (see pages 21 thru 35) to see if the fryer is connected three phase or single phase. All wires/cords, plugs, receptacles and circuit breakers must be sized adequately for the full load rating of the fryer as specified by local codes, or in the absence of local codes, by the current National and Canadian Electrical Codes as applicable.

The Keating Electric Fryer is also equipped with a grounding lug next to the terminal block. For proper grounding procedures, see local codes or, in the absence of local codes, by the current National and Canadian Electrical Codes as applicable.

**NOTE:** A copy of your wiring diagram is shipped with your equipment.

**NOTE:** For fryers rated at 208-240 volts, the amperage ratings marked on the nameplates of the fryers are listed at 240 volts as required by ETL. If your fryer is to be fed by a 208 or 220 volt system, consult the Keating Fryer Specifications on pages 36 and 37 to determine the full load rating of the fryer.

**NOTE:** Fryers with Safe & Easy® Filters (Model BBSE or TSSE) or Central Filters will have separate 120 volt control circuit connections.

**NOTE:** A copy of your wiring diagram is located on the inside of the door.

**NOTE:** A hole has been punched in the rear of the fryer cabinet for a cord or conduit exit. If a cord is used, the National Electrical Code, ETL standards and most local codes require a bushing or strain relief (not provided by Keating) to protect the cord.

### **WIRE SIZE TABLE**

Conductor Current (Amps up to)	Recommended Wire Size (AWG)
15	14*
20	12*
30	10*
40	8
55	6
70	4
95	2
125	0
145	2/0
165	2/0**
190	2/0**

<sup>\*</sup>For runs greater than 75' up to 125', use the next wire size larger to keep the voltage drop to less than 3%. For runs greater than 125', consult the National Electrical Code Handbook to help determine the proper wire size.

### OPERATING

### **FILLING**

**NOTE:** Before filling the fryer make certain the fryer vessel is sanitized, dry and the drain valve is completely closed. Refer to figure 4 or 5 on page 6 for location of drain valve.

### **AWARNING**

BE SURE THE HEATING ELEMENTS ARE COM-PLETELY COVERED WITH OIL BEFORE SWITCHING THE FRYER ON. IF OIL LEVEL DROPS BELOW TOP OF HEATING ELEMENTS, SEVERE DAMAGE TO FRYER AND INJURY TO OPERATOR MAY RESULT.

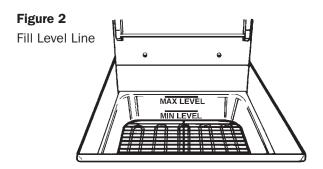
### **ACAUTION**

WATER IN ANY FORM AND HOT OIL DON'T MIX!

### **ACAUTION**

OIL EXPANDS WHEN HEATED. THE MAX LEVEL LINE HAS BEEN PROVIDED TO ENSURE OPTIMUM COOKING WHILE ENSURING THE SAFETY OF THE OPERATOR. DO NOT OVERFILL THE FRYER VESSEL.

<sup>\*\*2/0</sup> wire ambient temperature must be kept at less than 104°F (40°C).



### BB & TS, CPU and Basket-Lift Models

- 1. Fill the fryer vessel with oil up to the "Max Level" line.
- 2. If using solid shortening, remove screen and firmly pack solid shortening between the heating elements. Proceed to Melting section for instructions on use of the melt cycle.

### **MELTING**

The Keating Melt Cycle safely melts solid shortening in the fryer vessel without scorching.

### AWARNING

BEFORE APPLYING POWER TO THE FRYER, MAKE SURE THE ELECTRIC CONNECTIONS ARE SECURE AND THE FRYER HAS BEEN PROPERLY FILLED WITH OIL.

### A. BB. TS and Basket-Lift Models

- 1. Set the thermostat to the desired temperature.
- 2. If using solid shortening, set Melt-Fry switch to the "MELT" position. Stay in the "MELT" cycle until the shortening has melted completely and is at the "Max Level" line before switching to the "FRY" position for cooking.

### **B. CPU Models**

\*See separate computer instructions or call 1-800-KEATING.

**NOTE:** During the "MELT" cycle, the elements are on for approximately 5-7 seconds and off for approximately 50 seconds.

### **COOKING**

Keating Instant Recovery® Electric Fryers are designed to provide maximum production efficiency and deliver high quality food products. Low-temperature cooking, highly polished stainless steel and a true COLD ZONE mean extended oil life. Follow cooking procedures for your model.

### AWARNING

**OPERATION OF THIS FRYER SHOULD BE LIMITED** TO PERSONNEL WHO HAVE BEEN THOROUGHLY TRAINED IN OPERATING PROCEDURES.

**USE ONLY KEATING APPROVED BASKETS IN YOUR** FRYER. NEVER OVERFILL FRY BASKETS. DO NOT BANG BASKETS ON BASKET HANGERS OR FRYER VESSEL.

CARE SHOULD BE TAKEN WHEN LOWERING BAS-KETS INTO FRYER TO PREVENT SPLASHING HOT OIL FROM FRYER VESSEL.

**NEVER LIFT BASKETS DIRECTLY OUT OF THE FRYER VESSEL WITHOUT DRAINING AS SEVERE INJURY** MAY RESULT.

NOTE: For safety purposes, all Hi-Limit controls are manually reset. Always check the Hi-Limit reset button before attempting to use the frver. If the Hi-Limit has tripped, the frver will not operate.

**NOTE:** For a fryer with a Central or Safe & Easy® Filter, always check the rear drain operating handle before attempting to use the fryer. A safety switch prevents the fryer from operating if the handle is not pushed in completely and locked into place.

### A. BB Models

- 1. Fill fryer as described on page 4-5 FILLING.
- 2. Set Power switch to the "On" position. "POWER ON" light will be illuminated.
- 3. Set the Melt-Fry switch to "FRY."
- 4. Set thermostat to the desired frying temperature (between 325°F and 335°F).
- 5. When the oil reaches the desired frying temperature, lower filled basket(s) slowly into the hot oil.
- 6. When cooking cycle is complete, carefully lift basket(s) out of oil. Place them on basket hanger (on splashback of fryer) to allow draining of excess oil.

### **B. TS Model**

- 1. Fill fryer as described on pages 4-5 FILLING.
- 2. Set Power switch to the "On" position. "POWER ON" light will be illuminated.
- 3. Set the Melt-Fry switch to "FRY."
- 4. Set thermostat to the desired frying temperature (between 325°F and 335°F).
- 5. When the oil reaches the desired frying temperature, the "READY TO COOK" light will illuminate.
- 6. Lower filled basket(s) slowly into the hot oil.
- 7. Set timer for left or right side basket, whichever is being lowered into oil. For programming instructions, see page 8.

8. When timer sounds, lift basket out of oil. Place on basket hanger (on splashback of fryer) to allow draining of excess oil.

### C. Basket-Lift Models

- 1. Fill fryer as described on page 4 FILLING.
- 2. Set Power switch to the "On" position. "POWER ON" light will be illuminated.
- 3. Set the Melt-Fry switch to "FRY."
- 4. Set thermostat to the desired frying temperature (between 325°F and 335°F).
- 5. When the oil reaches the desired frying temperature, the "READY TO COOK" light will illuminate.
- 6. Fill basket(s) to proper level and place on upper bar of lift rod(s).
- 7. Set timer(s) to desired cooking time. For programming timers see page 8.
- 8. Push "T1," "T2" or "T3" buttons on timer(s). Basket(s) will automatically lower into fryer vessel.
- 9. When cooking cycle is complete, an audible alarm will sound and the basket(s) will raise automatically. Allow oil to drain before removing baskets.

### D. CPU Model

\*See separate computer instructions or call 1-800-KEATING.

### **SHUTDOWN**

### A. BB, TS and Basket-Lift Models

1. Turn fryer Power switch to "OFF" position.

### **B. CPU Model**

1. Set Main Power On/Off switch to the "OFF" position.

### **DRAINING**

### **AWARNING**

ALWAYS SHUT THE FRYER OFF COMPLETELY BE-FORE DRAINING. THE FRYER SHOULD BE DRAINED ONLY UNDER THE SUPERVISION OF PROPERLY TRAINED PERSONNEL. A DRAIN PIPE AND COV-ERED CONTAINER SUITABLE FOR USE WITH HOT OIL SHOULD BE USED TO ENSURE THE SAFETY OF THE OPERATOR.

- 1. Operator should be outfitted with proper attire including:
- Oil and heat resistant gloves
- Oil and heat resistant apron
- Safety goggles
- Oil and heat resistant footwear

**Figure 3**Operator in Safety Gear



- 2. Turn off the fryer and open the door.
- 3. For front drain fryers, put approved container under drain valve. For fryers with a central filter, slide filter drawer in completely.
- 4. For front drain fryers, slowly turn handle forward to avoid splashing. The drain valve will be completely open after 1/4 turn.
- 5. For units with rear drain valves, slowly pull drain valve operating handle straight out (unhook from metal latch first). See Safe & Easy operator's manual for instructions on how to filter.

**Figure 4**Front Drain Valve

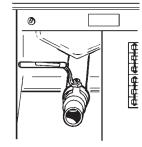
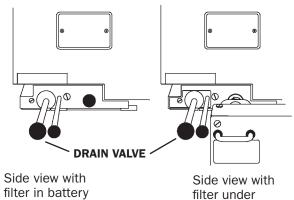


Figure 5
Safe & Easy® Filter



### AWARNING

**UNDER NO CIRCUMSTANCES SHOULD YOU PERMIT** HOT OIL TO COME IN CONTACT WITH WATER OR ICE. ALL DRAINING SHOULD BE DONE UNDER THE SUPERVISION OF PROPERLY TRAINED PERSONNEL. A DRAIN PIPE AND COVERED CONTAINER SUITABLE FOR USE WITH HOT OIL SHOULD BE USED WHENEV-ER A FRYER IS DRAINED. ALWAYS DRAIN OIL INTO A **COVERED RECEPTACLE APPROVED FOR THE TRANS-**PORTATION OF HOT OIL.

### **CLEANING AND BOIL OUT**

When cleaning and boiling out your fryer use Keating Sea Powder and Keating Klenzer to keep your fryer in top condition. Keating Sea Powder dissolves any grease build up - even carbonized grease in fryer vessels - one of the leading causes of premature oil breakdown. And once your fryer vessel is clean, use Keating Klenzer, the finest dry stainless steel polish available, to restore your Keating Instant Recovery® Electric fryers' exterior to its original luster.

### **ACAUTION**

To avoid damaging the frver, do not power wash. spray or hose down unit while cleaning.

Figure 6 Keating Klenzer and Sea Powder



- 1. Put on safety attire. See page 6 DRAINING.
- 2. Turn the fryer off.
- 3. Drain oil from fryer, see page 6. Filtering may be done at this step.
- 4. Remove oil container to a secure area to prevent accidental spillage.
- 5. Fill fryer vessel to "Max Level" line with water.

### AWARNING

**UNDER NO CIRCUMSTANCES SHOULD THE FRYER** BE LEFT UNATTENDED DURING BOIL-OUT. TRAINED PERSONNEL MUST BE PRESENT DURING THE PRO-CEDURE TO PREVENT BOIL OVER OR TO TURN OFF THE POWER IF WATER DROPS BELOW HEATING ELE-MENTS.

- 6. Set thermostat and turn fryer on to bring water to a gentle boil.
- 7. Once boil has been reached, turn fryer off.

8. Dissolve 2/3 cup of Keating Sea Powder for every five gallons of water and let soak for 1/2 hour. If there is a large build-up of carbonized grease, allow fryer to soak overnight.

### **ACAUTION**

DO NOT DAMAGE OR REMOVE THERMOSTAT BULB AS THIS MAY AFFECT THE ACCURACY OF THE FRYER.

- 9. While soaking, a natural fiber brush may be used to scrub the inside walls of fryer.
- 10. Drain the water and Sea Powder into a dry, suitable receptacle and remove from cooking area.
- 11. Spread Keating Klenzer liberally on sides of fryer vessel.
- 12. At this point, a non-abrasive scouring pad may be used to remove the now softened carbonized grease.
- 13. Thoroughly rinse fryer vessel with potable water to remove all Klenzer.
- 14. Prior to refilling with oil, wipe the inside of the fryer vessel making sure all water and Klenzer has been removed.

### **ACAUTION**

WATER IN ANY FORM AND HOT OIL DON'T MIX!

15. Close drain valve.

### AWARNING

FAILURE TO CLOSE DRAIN VALVE BEFORE REFILLING THE FRYER MAY RESULT IN SERIOUS INJURY.

### AWARNING

WHEN YOUR FRYER IS BEING USED IN CONJUNC-TION WITH A CENTRAL FILTER. DISCONNECT POWER SUPPLY BEFORE RESETTING MOTOR TO PREVENT SERIOUS INJURY WHEN RESET SWITCH IS ENGAGED (SEE FILTER MANUAL).

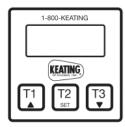
- 16. Check thermostat bulb positioning see page 9.
- 17. Refill the fryer with new or filtered oil.

NOTE: MSDS Sheets for Keating Klenzer, Sea Powder & Acidox are available on-line at www.keatingofchicago.com.

### **ELECTRONIC CONTROL TIMERS**

The electronic timers provide a clearly visible and accurate display and are very easy to use.

Figure 7
Electric Timer



### **PROGRAMMING**

To program the timers, the unit must be in the idle mode. Press and hold the set button for approximately two seconds. The display will show "SEt". Press T1, T2, or T3 for the cook time to be programmed. The display will show the current setting for that cook time. Use the up or down button to increment or decrement the setting. When the setting is correct, press and hold the set button again for approximately two seconds. The display will show "StO" for approximately two seconds and the timer will return to normal operation. Repeat the process as necessary for the other timers.

### **OPERATING LOGIC**

When the timer is powered up, the display will show the time setting for the cook time that was operated last and the relay output contacts will be open. To start a cycle, press the desired cook time button (T1, T2, T3). The display will begin to countdown from the preset time setting and the relay output contacts will close. During the countdown the colon will flash at a one-second rate. When the countdown has reached "00:00" the relay output contacts will open, the display will flash, and the audible alarm will sound. To cancel the audible alarm, press any button.

### **PAUSE FEATURE**

To pause a cycle in progress, press any button. The relay output contacts will open, the display will flash, and the countdown will pause. To resume the countdown, press any button. The display will resume the normal countdown and the relay output contacts will close.

### **CANCELING A CYCLE**

To cancel a cycle in progress press and hold any button for approximately two seconds. The relay output contacts will open and the display will show the time setting for the cook time last used.

### **■ MAINTENANCE**

### **WARRANTY REPAIRS**

Keating's warranty begins with the date of installation. In the event that your Instant Recovery® Fryer, under warranty, needs repairs other than routine maintenance or cleaning, you are required to contact Keating of Chicago (at 1-800-KEATING) before calling a local service company.

### PREVENTIVE MAINTENANCE

Preventive maintenance should be done in daily, weekly, monthly and yearly intervals as necessary. Following preventive maintenance procedures will help keep your fryer working efficiently. Proper care and servicing will lead to years of quality performance.

TIME FRAME	OPERATOR/OWNER
AT LEAST DAILY*	<ul><li>Check that the oil is up to "Max Level" line.</li><li>Clean all baskets.</li><li>Drain, strain or filter oil.</li></ul>
AT LEAST WEEKLY*	<ul><li>Drain and clean fryer.</li><li>Boil-out fryer.</li></ul>
AT LEAST MONTHLY*	<ul><li>Check lights and controls.</li><li>Verify Thermostat settings.</li><li>Test Hi-Limit control.</li><li>Verify wire connections.</li></ul>
TIME FRAME	QUALIFIED SERVICE PERSONNEL
AT LEAST YEARLY*	Calibrate thermostat.

<sup>\*</sup>High production facilities should be checked more often. Contact the factory or a local service company to perform maintenance and repairs.

### Oil Breakdown

As part of a "Preventive Maintenance Program", the oil in your fryer needs to be filtered regularly to avoid breakdown. The initial investment in the frying system is less than the total overall costs of oil during the life of the fryer, and with regular filtering, you can realize substantial savings in oil costs as well as maintenance charges.

### **LIMITED CALIBRATION**

(Less than 15° difference)

Thermostat knob removed to reveal calibration screws



You will need: One standard flat blade screwdriver One accurate fryer thermometer

- 1. Set thermostat to desired frying temperature.
- 2. Allow thermostat to cycle three times.
- 2. Allow fryer to cycle three times.
- 3. Place an accurate thermometer in the oil.
- 4. If temperature of fryer is found to be more or less than 15°F off, remove the thermostat knob. There are (4) screws holding the dial plate in place. Loosen the screws and reset the dial plate to match the thermometer reading.

### **AWARNING**

### DO NOT ADJUST THE THERMOSTAT SET SCREW - IT **VOIDS ANY WARRANTY ON PART.**

**NOTE:** Locate thermometer in same position for every calibration. Position next to upper heating element is recommended.

### **Thermostat Bulb Positioning**

Keating's patented thermostat application is accurate within ±7°F of the dial setting between 250°F and 350°F. This accuracy is attained only if the thermostat bulb is placed properly against the top element using element clamps. If the bulb is too far away from the element, the fryer will overshoot.

Overshoot: The thermostat takes a long time to cycle and then misses its preset temperature by 20°F -40°F yielding a poor quality product.

### ■ SERVICE DIAGNOSIS

The following diagnosis is only to be used as a guide to qualified service personnel. Keating recommends that you use a qualified & licensed service company. (Equipment still under warranty requires it.) Call 1-800-KEATING if you need assistance in locating a qualified service company.

A properly adjusted Keating Instant Recovery® Electric Fryer, with no load, will cycle "on" approximately every 2 1/2 to 3 minutes. Each cycle will last 15-25 seconds, ensuring that the temperature setting is held within a narrow band.

**NOTE:** To correctly and quickly diagnose the system, the chart below should be followed in sequential order.

### TROUBLE SHOOTING CHART

PROBLEM	PROBABLE CAUSE	SOLUTION
Fryer won't heat	a. No electricity to fryer ("POWER ON" switch is off).	a. Connect fryer to an approved source of power.
	b. No electricity to control circuit (models with Basket-Lift or Central Filter).	b. Connect 120V terminal block to an approved source of power.
	c. Fryer circuit breakers have tripped.	c. Reset circuit breakers.
	d. Hi-Limit has been activated.	d. Push in Hi-Limit Reset button located behind fryer door. Check calibration of thermostat and operation of Hi-Limit and contactor.
	e. Rear drain valve handle has not been fully closed (fryers with filter only).	e. Fully close and latch rear drain valve handle. Turn fryer OFF and then ON to restart.
	f. ON/OFF is faulty.	f. Replace ON/OFF switch.
	g. MELT/FRY switch is faulty.	g. Replace MELT/FRY switch.
	h. Contactor is faulty.	h. Replace contactor.
	i. Thermostat is faulty.	i. Replace thermostat.
Fryer has poor recovery or runs cold	a. Over-filling baskets.	a. Don't overfill baskets.
	b. Fryer vessel overfilled with oil.	b. Fill fryer up to "Max Level" line as oil expands when heated.
	c. Thermostat out of calibration.	c. Calibrate thermostat. (See Calibration).
	d. Carbon coating on elements.	d. Boil-out fryer. (See Cleaning and Boil-Out).
	e. Element is faulty.	e. Replace Element.
	f. Thermostat is faulty.	f. Replace thermostat.
	g. Contactor is faulty.	g. Replace contactor.
	h. Low incoming voltage.	h. Verify proper incoming voltage.
Fryer is overheating	a. Thermostat bulb improperly placed.	a. Adjust bulb position. (See Thermostat Bulb Positioning).
	b. Thermostat out of calibration.	b. Calibrate thermostat (See Calibration).

PROBLEM	PROBABLE CAUSE	SOLUTION
Oil in fryer vessel smokes	a. Oil has begun to break down.	a. Replace oil.
	b. High carbon content in oil.	b. Filter oil completely, replace if necessary.
	c. Dirty fryer vessel.	c. Boil-out fryer. See Cleaning and Boil-Out.
	d. Inferior grade of oil.	<ul> <li>d. Check with oil supplier for higher grade of oil needed for your cooking applications.</li> </ul>
	e. Fryer is overheating.	e. Check calibration of thermostat (See Calibration) and replace if necessary. Check if Hi-Limit trips at 425°F. If not, replace Hi-Limit.
Oil in fryer vessel boils over	a. Baskets are overfilled.	a. Don't overfill baskets.
	b. Fryer vessel overfilled with oil.	b. Fill fryer up to "Max Level" line as oil expands when heated.
	c. Oil is breaking down and foaming.	c. Replace oil.
	d. Water in cold zone.	d. Stir oil with a paddle until water boils off. Filter oil. If water remains, let oil cool and drain a quart of it.
Contactor chatters	a. Voltage is low to fryer.	a. Contact your electrician or the local power company and have the incoming power checked.
	b. Contactor coil faulty.	b. Replace contactor.
	c. Connections are loose.	c. Tighten connections.
	d. Thermostat contacts do not close properly.	d. Replace thermostat.
	TS MODELS	•
Basket-Lift mechanism will not operate	a. Connections are loose or timer is faulty.	a. Tighten connections. Replace timer if it will not operate.
	b. Actuator is faulty.	b. Replace actuator.
	c. Control circuit breaker has tripped.	c. Reset circuit breaker.
	d. Relay is faulty.	d. Replace relay.

### **■ ORDERING PARTS**

Parts may be ordered by calling 1-800-KEATING or your local Keating service company. We recommend using genuine Keating Replacement Parts - engineered and manufactured specifically to meet exact specifications and requirements for Keating equipment.

Refer to the Keating Electric Fryer Limited Warranty for complete service and ordering information.

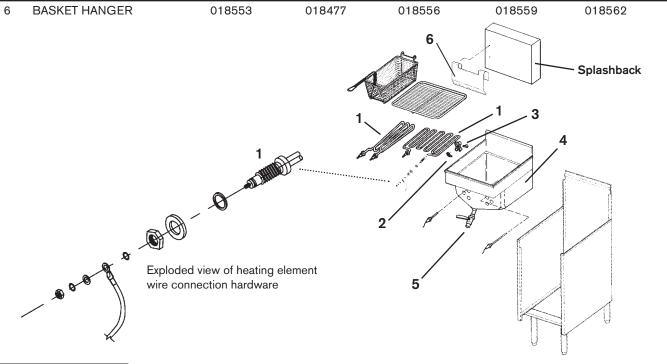
The model/serial plate is attached to the inside of the front door. The serial and model numbers are necessary when ordering.

### **WARNING AND OPERATING PLATES**

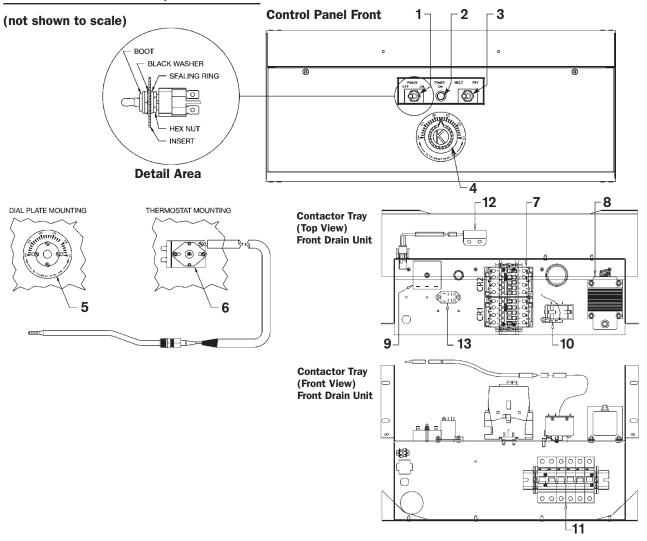
All warning and operating plates on the Instant Recovery® Electric Fryer should be in place at all times. If plates are damaged or lost, replace them immediately.

### ■ PARTS LIST - ELECTRIC FRYER

ITEM	DESCRIPTION	MODEL	P/N 220V ELEMENT	P/N 440V ELEMENT	10x11	14	18	20	24	34x24
IIEIVI	DESCRIPTION	MODEL	ELEWIENI	ELEWIENI	IUXII		ntity Pe			34X24
	LIEATING ELEMENT					Qua	illity FC	Would		
1	HEATING ELEMENT	DD	004045		0					
	2500 W	BB	004347	000040	3					
		BB		006342	3					
	3800 W	TS	005623	004348	3					
	4350 W	BB	004349	004350		3				
	6000 W	BB	004353	004352			3	3		
		TS	004353	004352			4	4		
		BB	004355	022287					4	5
		TS	004355	022287					5	6
	6500 W	TS	014493	019256		3				
	TEFLON RING	BB, TS	004318	004318		2 P	er Elen	nent		
	5/8" FLAT WASHER	BB, TS	004319	004319		2 P	er Elen	nent		
	5/8" - 16 BRASS LOCKNUT	BB, TS	004323	004323		2 P	er Elen	nent		
	LCKWSHR, INT #10 H-TEMP	BB, TS	011562	011562		2 P	er Elen	nent		
	RING TERM #10 HI-TEMP	BB, TS	011881	011881		2 P	er Elen	nent		
	FLAT WASHER #10 HI-TEMP	BB, TS	059502	059502		2 P	er Elen	nent		
	NUT 10-32	BB, TS	000361	000361		2 P	er Elen	nent		
ITEM	DESCRIPTION	MODEL	P/N	10x11	14	18	3 2	20	24	34x24
					Qı	antity P	er Mode	el		
2	ELEMENT CLAMP	ALL	004167	2	2	2	:	2	2	2
3	ELEMENT SPACER	ALL	004145			4		4		
4	FRYER VESSEL		CALL 1-800-KE	ATING 1	1	1		1	1	1
5	DRAIN VALVE, FRONT 1"	BB, TS	004553	1	1					
	DRAIN VALVE, REAR 1"	BB, TS	016341	1	1					
	DRAIN VALVE, FRONT 1 1/4"	BB, TS	004554			1		1	1	2
	DRAIN VALVE, REAR 1 1/4"	BB, TS	016342			1		1	1	2
	DRAIN VALVE, FRONT 2"	OPTIONAL	019722			1		1	1	2
6	BASKET HANGER	273	SEE BELO	W	1	1		1	1	_
ITEM	DESCRIPTION	10x11	14	18	}	2	0		24	
	DASKET HANGED	019552	010477	0105	EC	010	EEO		11056	<u> </u>



### **BB CONTROL PANEL 208/240V & 480V**



ITEM	DESCRIPTION	P/N	10x11	14	18	20	24	34x24
				Quant	ity Per M	odel		
1	SWITCH TOGGLE SEALED ON-OFF	059141	1	1	1	1	1	1
2	INDICATING LIGHT CLEAR ROUND 28V	057863	1	1	1	1	1	1
3	SWITCH TOGGLE SEALED MELT-FRY	059143	1	1	1	1	1	1
4	THERMOSTAT KNOB, BLACK	060612	1	1	1	1	1	1
5	THERMOSTAT DIAL PLATE FRYER 250°-375°	058037	1	1	1	1	1	1
6	THERMOSTAT	031099	1	1	1	1	1	1
7	CONTACTOR 3 POLE 30 AMP	033896	2 <sup>(208-</sup> 480V)	2 <sub>(480V)</sub>	2(480V)	2 <sub>(480V)</sub>		4 (480V)
	CONTACTOR 3 POLE 40 AMP	033898		2				
	CONTACTOR 3 POLE 50 AMP	033899			2	2		4
	CONTACTOR 4 POLE 40 AMP	053383					2(480)	")
8	TRANSFORMER STEP DOWN	056037	1	1	1	1	1	1
9	FAT MELT INFINITE CONTROL	037470	1	1	1	1	1	1
10	HIGH LIMIT RESETTABLE	060806	1	1	1	1	1	1
11	CIRCUIT BREAKER 16 AMP 1 POLE (208-240V)	057338	3					
	CIRCUIT BREAKER 32 AMP 1 POLE (208-240V)	033885		6				
	CIRCUIT BREAKER 40 AMP 1 POLE (208-240V)	033881			6	6	8	10
	CIRCUIT BREAKER 10 AMP 1 POLE (480V)	057336	3					
	CIRCUIT BREAKER 16 AMP 1 POLE (480V)	057338		6				
	CIRCUIT BREAKER 20 AMP 1 POLE (480V)	033920			6	6	8	10
12	MAGNETIC REED SWITCH (Rear Drain Fryers Only)	053777	1	1	1	1	1	2
13	RELAY (Rear Drain Fryers Only)	030844	1	1	1	1	1	1
						4.000		uo 140

### TS CONTROL PANEL 208/240V & 480V with ROCKER SWITCHES

### (not shown to scale) **Control Panel Front** - 1 2 3 4 DIAL PLATE MOUNTING THERMOSTAT MOUNTING 8 (EAINE T1 T2 T3 T [2] [3] └ 5 6 └ 5 10 11 0000000 **0**000 14 12

ITEM	DESCRIPTION	P/N	10x11	14	18	20	24	34x24
				Quant	ity Per M			
1	SWITCH ROCKER ON-OFF DPST	035030	1	1	1	1	1	1
2	SWITCH ROCKER SPDT WHITE	025726	1	1	1	1	1	1
3	INDICATING LIGHT GREEN 28V	021255	1	1	1	1	1	1
4	INDICATING LIGHT RED 28V	021209	1	1	1	1	1	1
5	TIMER DIGITAL 24V/120VAC	056921	2	2	2	2	2	2
6	THERMOSTAT KNOB, BLACK	060612	1	1	1	1	1	1
7	THERMOSTAT DIAL PLATE FRYER 250°-375°P	058037	1	1	1	1	1	1
8	THERMOSTAT	031099	1	1	1	1	1	1
9	FAT MELT INFINITE CONTROL	037470	1	1	1	1	1	1
10	CONTACTOR 3 POLE 30 AMP	033896	2 <sup>(208-</sup> 480V)	2 (480V)			<b>4</b> (480V)	4 (480V)
	CONTACTOR 3 POLE 50 AMP	033899		2			4	4
	CONTACTOR 4 POLE 30 AMP	053385			<b>2</b> (480V)	2 (480V)		
	CONTACTOR 4 POLE 40 AMP	053383			2	2		
11	TRANSFORMER STEP DOWN 24VAC 75VA	056037	1	1	1	1	1	1
12	HIGH LIMIT RESETTABLE	060806	1	1	1	1	1	1
13	CIRCUIT BREAKER 16 AMP 1 POLE (208-240V)	057338						
	CIRCUIT BREAKER 25 AMP 1 POLE (208-240V)	033525	3					
	CIRCUIT BREAKER 32 AMP 1 POLE (208-240V	033885						
	CIRCUIT BREAKER 40 AMP 1 POLE (208-240V)	033881		6	8	8	10	
	CIRCUIT BREAKER 13 AMP 1 POLE (480V)	057337	3					
	CIRCUIT BREAKER 20 AMP 1 POLE (480V)	033920		6	8	8	10	12
14	RELAY	030844	1	1	2	2	1	1
15*	MAGNETIC REED SWITCH	053777	1	1	1	1	1	2
16*	CIRCUIT BREAKER BASKET LIFT 4AMP 1 POLE	058219		1	1	1	1	
*Not Sho	own, Rear Drain Fryers Only							

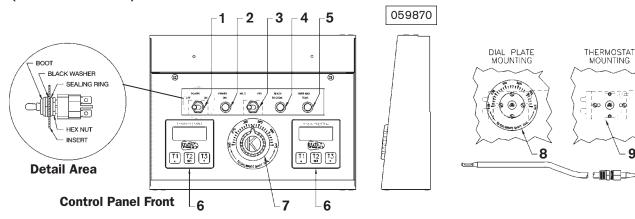
**Contactor Tray (Front View) Front Drain Unit** 

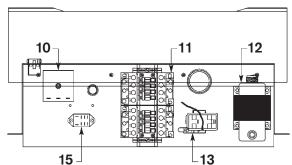
Contactor Tray (Top View) Front Drain Unit

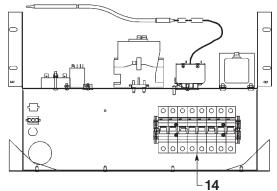
<sup>14 |</sup> keatingofchicago.com

### TS CONTROL PANEL 208/240V & 480V with TOGGLE SWITCHES

### (not shown to scale)





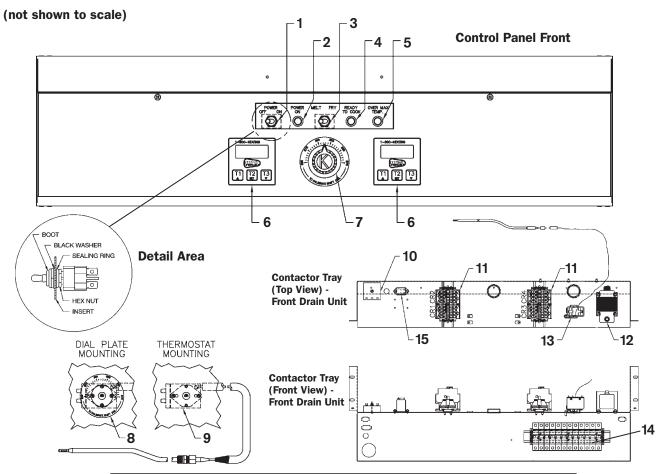


Contactor Tray (Front View) - Front Drain Unit

ITEM	DESCRIPTION	P/N	10x11	14	18	20	24	
				Quantity Per Model				
1	SWITCH TOGGLE SEALED ON-OFF	059141	1	1	1	1	1	
2	INDICATING LIGHT CLEAR ROUND 28V	057863	1	1	1	1	1	
3	SWITCH TOGGLE SEALED MELT-FRY	059143	1	1	1	1	1	
4	INDICATING LIGHT GREEN ROUND	056587	1	1	1	1	1	
5	INDICATING LIGHT RED ROUND	057861	1	1	1	1	1	
6	TIMER DIGITAL 24V/120V	056921	2	2	2	2	2	
7	THERMOSTAT KNOB, BLACK	060612	1	1	1	1	1	
8	THERMOSTAT DIAL PLATE FRYER 250°-375°	058037	1	1	1	1	1	
9	THERMOSTAT	031099	1	1	1	1	1	
10	FAT MELT INFINITE CONTROL	037470	1	1	1	1	1	
11	CONTACTOR 3 POLE 30 AMP	033896	2 (208- 480V)	2 (480V)			<b>4</b> (480V)	
	CONTACTOR 3 POLE 50 AMP	033899		2			4	
	CONTACTOR 4 POLE 30 AMP	053385			2 (480V)	<b>2</b> (480V	)	
	CONTACTOR 4 POLE 40 AMP	053383			2	2		
12	TRANSFORMER STEP DOWN 24VAC 75VA	056037	1	1	1	1	1	
13	HIGH LIMIT RESETTABLE	060806	1	1	1	1	1	
14	CIRCUIT BREAKER 16 AMP 1 POLE (208-240V)	057338						
	CIRCUIT BREAKER 25 AMP 1 POLE (208-240V)	033525	3					
	CIRCUIT BREAKER 32 AMP 1 POLE (208-240V)	033885						
	CIRCUIT BREAKER 40 AMP 1 POLE (208-240V)	033881		6	8	8	10	
	CIRCUIT BREAKER 13 AMP 1 POLE (480V)	057337	3					
	CIRCUIT BREAKER 20 AMP 1 POLE (480V)	033920		6	8	8	10	
15	RELAY	030844	1	1	2	2	1	
16*	MAGNETIC REED SWITCH	053777	1	1	1	1	1	
17*	CIRCUIT BREAKER BASKET LIFT 4AMP 1 POLE	058219		1	1	1	1	
	CIRCUIT BREAKER BASKET LIFT 4AMP 1 POLE	058219		1	1	1	1	

<sup>\*</sup>Not Shown, Rear Drain Fryers Only

### 34x24 TS CONTROL PANEL 208/240V & 480V with TOGGLE SWITCHES

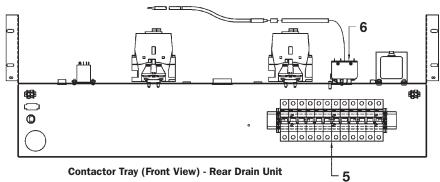


	DESCRIPTION	P/N	34x24
1	SWITCH TOGGLE SEALED ON-OFF	059141	1
2	INDICATING LIGHT CLEAR ROUND 28V	057863	1
3	SWITCH TOGGLE SEALED MELT-FRY	059143	1
4	INDICATING LIGHT GREEN ROUND	056587	1
5	INDICATING LIGHT RED ROUND	057861	1
6	TIMER DIGITAL 24V/120V	056921	2
7	THERMOSTAT KNOB, BLACK	060612	1
8	THERMOSTAT DIAL PLATE FRYER 250°-375°	058037	1
9	THERMOSTAT	031099	1
10	FAT MELT INFINITE CONTROL	037470	1
11	CONTACTOR 3 POLE 30 AMP	033896	<b>4</b> (480V)
	CONTACTOR 3 POLE 50 AMP	033899	4
	CONTACTOR 4 POLE 30 AMP	053385	
	CONTACTOR 4 POLE 40 AMP	053383	
12	TRANSFORMER STEP DOWN 24VAC 75VA	056037	1
13	HIGH LIMIT RESETTABLE	060806	1
14	CIRCUIT BREAKER 16 AMP 1 POLE (208-240V)	057338	
	CIRCUIT BREAKER 25 AMP 1 POLE (208-240V)	033525	
	CIRCUIT BREAKER 32 AMP 1 POLE (208-240V)	033885	
	CIRCUIT BREAKER 40 AMP 1 POLE (208-240V)	033881	
	CIRCUIT BREAKER 13 AMP 1 POLE (480V)	057337	
	CIRCUIT BREAKER 20 AMP 1 POLE (480V)	033920	12
15	RELAY	030844	1
16*	MAGNETIC REED SWITCH	053777	2
17*	CIRCUIT BREAKER BASKET LIFT 4AMP 1 POLE	058219	

### 34x24 CPU CONTROL PANEL 208/240V with TOGGLE SWITCH

(not shown to scale)

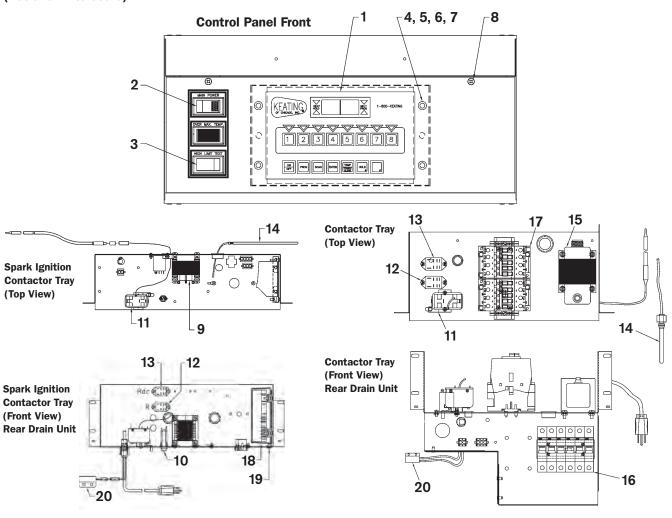
### **Control Panel Front** - 2 **⊢** 3 © KEATING X 0 0 10 воот BLACK WASHER SEALING RING **Detail Area Contactor Tray** HEX NUT (Top View) -INSERT **Rear Drain Unit** 11-7-8\_ 6 -



ITEM	DESCRIPTION	P/N	34x24
1	SWITCH TOGGLE SEALED ON-OFF	059141	1
2	COMPUTER	031125	1
3	INDICATING LIGHT RED ROUND	057861	1
4	TRANSFORMER STEP DOWN 24VAC 75VA	056037	1
5	CIRCUIT BREAKER 40 AMP 1 POLE (208-240V)	033881	12
6	HIGH LIMIT RESETTABLE	060806	1
7	RELAY DPDT 24 VAC	030844	1
8	RELAY DPDT 24 VDC	017673	1
9	MAGNETIC REED SWITCH	053777	2
10	COMPUTER PROBE	004776	1
11	CONTACTOR 50 AMP 3 POLE	033899	4

### CPU CONTROL PANEL 208/240V with ROCKER SWITCHES

### (not shown to scale)

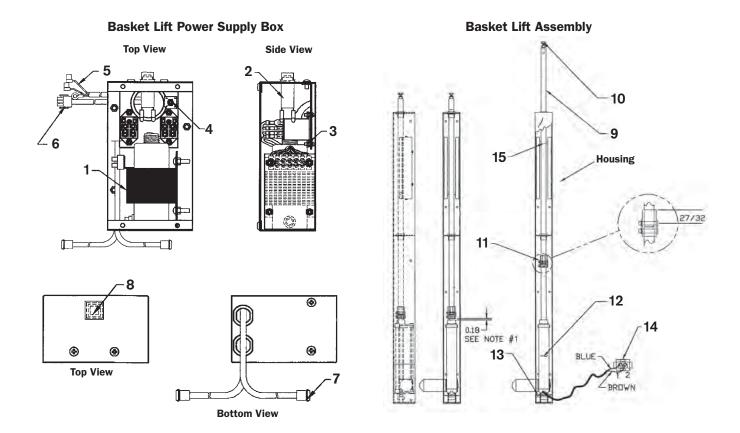


MPUTER  /ITCH ROCKER ILLUMINATED GREEN  /ITCH ROCKER MOMENTARY  REW CARRIAGE 10 - 24 x 1/2"  ASHER INTERNAL TOOTH LOCK #10  ASHER .190 I.D. X .563 O.D.  T HEX #10 - 24  REW PAN HEAD PHILLIPS 10 - 24 x 1/2"	031125 032242 015384 027490 011562 013217 009053	1 1 1 4 4 4
VITCH ROCKER MOMENTARY REW CARRIAGE 10 - 24 x 1/2" ASHER INTERNAL TOOTH LOCK #10 ASHER .190 I.D. X .563 O.D. T HEX #10 - 24	015384 027490 011562 013217	1 4 4
REW CARRIAGE 10 - 24 x 1/2" ASHER INTERNAL TOOTH LOCK #10 ASHER .190 I.D. X .563 O.D. T HEX #10 - 24	027490 011562 013217	4
SHER INTERNAL TOOTH LOCK #10 SHER .190 I.D. X .563 O.D. T HEX #10 - 24	011562 013217	4
SHER .190 I.D. X .563 O.D. T HEX #10 - 24	013217	=
T HEX #10 - 24		4
	009053	
REW PAN HEAD PHILLIPS 10 - 24 x 1/2"		4
1. E 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	030850	2
ANSFORMER STEP DOWN 24VAC 80VA	024032	1
RCUIT BREAKER 3 AMP 1 POLE (250V)	053338	1
GH LIMIT MANUAL RESET	060806	1
LAY DPDT 24VAC	030844	2
LAY DPDT 24VDC	017673	2
MPUTER PROBE	004776	1
ANSFORMER STEP DOWN 24VAC 75VA	056037	1
RCUIT BREAKER 40 AMP 1 POLE (208-240V)	033881	6
NTACTOR 50 AMP 1 POLE	033899	2
ARK IGNITION MODULE 24VAC	058439	1
ACKET SPARK IGNITION MODULE	056000	1
	053777	1
	NTACTOR 50 AMP 1 POLE ARK IGNITION MODULE 24VAC	ARK IGNITION MODULE 24VAC 058439 ACKET SPARK IGNITION MODULE 056000 GNETIC REED SWITCH 053777

Spark Ignition Model Only

<sup>\*\*</sup>Rear Drain Fryers Only

### **BASKET LIFT POWER SUPPLY BOX & BASKET LIFT ASSEMBLY**



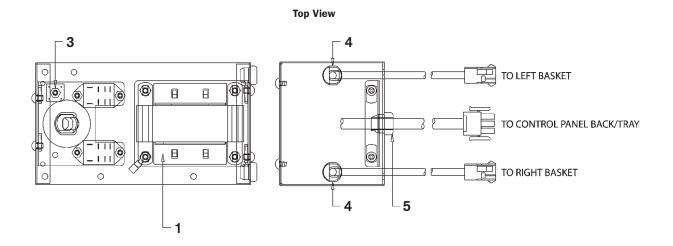
**NOTES:** 1. A minimum distance of 3/16" and maximum distance of 1/4" should be maintained when actuator is at full downward stroke. Item 11 should never be bottomed on item 12 when in this location.

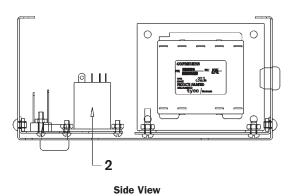
- 2. Actuator shaft should travel 6 1/2" upward from lowest position.
- 3. Distance is to be measured when actuator is powered.
- 4. Apply light coating of food grade grease to Item 9 on entire shaft inside housing.

ITEM	DESCRIPTION	P/N	QTY
1	TRANSFORMER 120/208/240/480V	056036	1
2*	CIRCUIT BREAKER 3A/250V	053338	1
3	RELAY DPDT 24V AC	030844	2
4	RECTIFIER	018321	1
5	POWER CORD	021289	1
6	CONNECTION 3 CIRCUITS PLUG	032210	1
	CONNECTOR CONTACT PIN MALE	028309	3
7	CONNECTOR 2 CIRCUIT CAP	032207	2
	CONNECTOR CONTACT PIN FEMALE	028308	2
8	COVER FOR CIRCUIT BREAKER	054664	1
9	PUSH ROD	018096	1
10	SCREW 1/4"-20" X 11/4"	021091	1
	HEX NUT 1/4-20	016383	1
11	COUPLER ACTUATOR BL	054525	1
	RETAINING RING	054540	2
	PIN COUPLER ACTUATOR BL	054503	2
12	ACTUATOR 24V DC	054510	1
13	SHAFT ACTUATOR LOWER BL S/S	054522	1
14	CONNECTOR 2 CIRCUIT PLUG	032208	1
	CONNECTOR CONTACT PIN MALE	028309	2
15	PIN BASKET LIFT NON ROTATIONAL	054760	1

<sup>\*</sup>This circuit breaker can be found under the control panel on newer units.

### BASKET LIFT POWER SUPPLY BOX 2007 (CPU & NON-CPU)



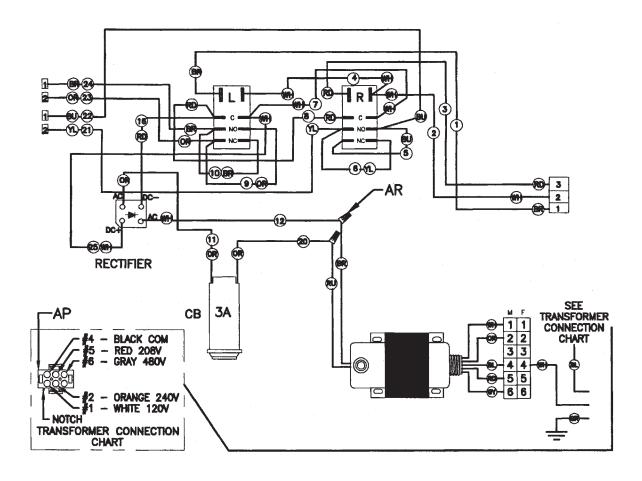


ITEM	DESCRIPTION	P/N	QTY		
1	TRANSFORMER STEPDOWN 24VAC 100VA	058359	1		
2	RELAY DPDT 24VAC	030844	2		
	RELAY DPDT 24VDC (CPU MODEL)	017673	2		
3	RECTIFIER 24VDC	018321	1		
4	BUSHING STRAIN RELIEF 5/8" HOLE	000470	2		
5	BUSHING STRAIN RELIEF 3/4" HOLE	033800	1		
NOTE: Circuit breaker is located under the control panel.					

### **■ WIRING DIAGRAMS**

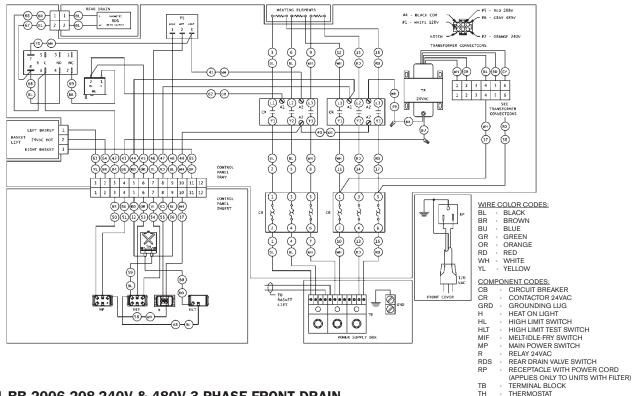
**NOTE:** A separate wiring diagram has been included with this manual and should be saved for troubleshooting and maintaining the fryer. The wiring diagrams in this section cover standard fryers which may or may not match the diagram sent with the fryer. CPU models on pages 34 & 35.

### SINGLE BASKET LIFT POWER SUPPLY BOX

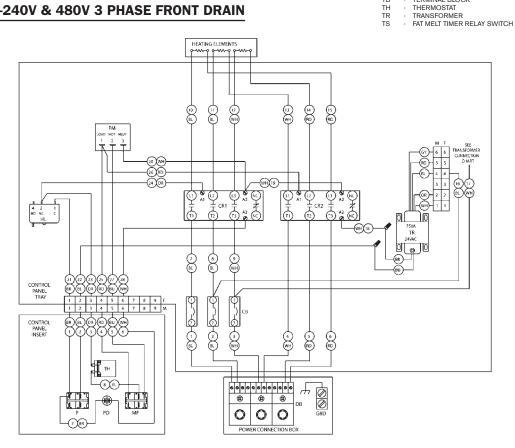


ITEM	DESCRIPTION	P/N	QTY
1	AR WIRENUT GRAY	027134	2
2	AP CONNECTOR 6 CIRCUIT PLUG	028302	1
3	CONNECTOR CONTACT PIN MALE	028309	5

### 10x11, 14, 18 & 20 BB 2000 208240V & 480V 3 PHASE with REAR DRAIN & SAFE & EASY® FILTER



### 10x11 BB 2006 208-240V & 480V 3 PHASE FRONT DRAIN



NOTCH TRANSI ORMER CONNECTION CHAR WIRE COLOR CODES:

### BLACK

BR BROWN

BU GR OR GREEN

ORANGE

RED WHITE

- YELLOW YL

COMPONENT CODES:
CB - CIRCUIT BREAKER
CR - CONTACTOR 24VAC
DB - POWER DISTRIBUTION

POWER DISTRIBUTION BLOCK

FAT MELT TIMER SWITCH GROUNDING LUG HEAT ON LIGHT

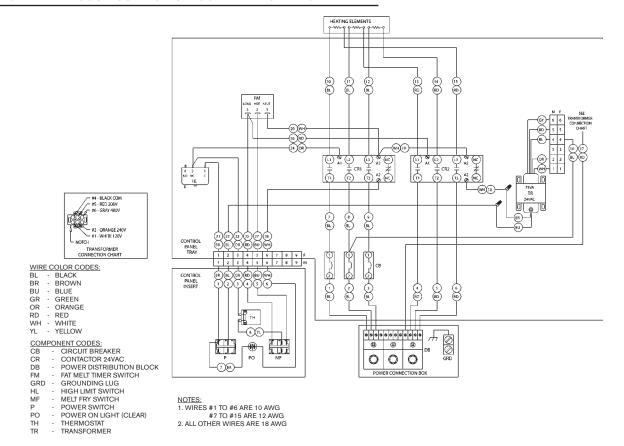
HIGH LIMIT SWITCH
MELT FRY SWITCH
POWER SWITCH
POWER ON LIGHT (CLEAR)

PO TH TR THERMOSTAT TRANSFORMER

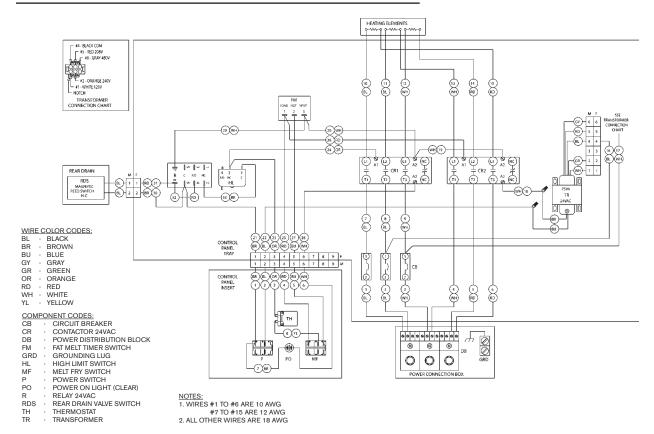
1. WIRES #1 TO #6 ARE 10 AWG

#7 TO #15 ARE 12 AWG 2. ALL OTHER WIRES ARE 18 AWG

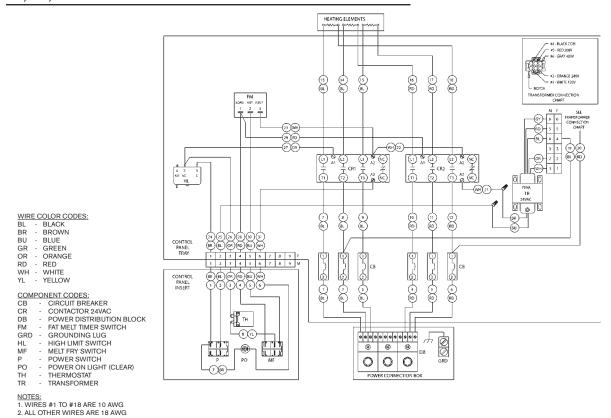
### 10x11 BB 2006 208-240V & 480V 1 PHASE FRONT DRAIN



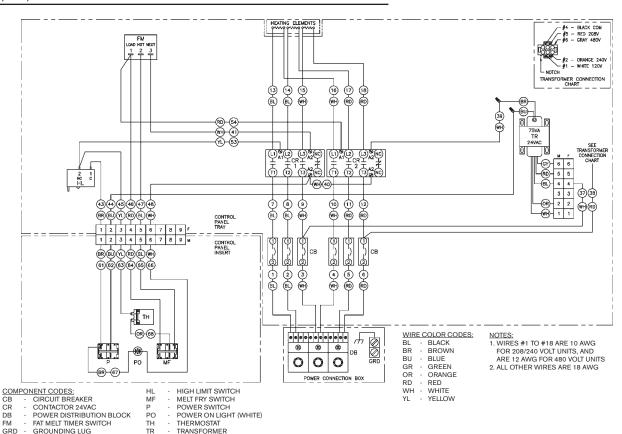
### 10x11 BB 2006 208-240V & 480V 3 PHASE with REAR DRAIN



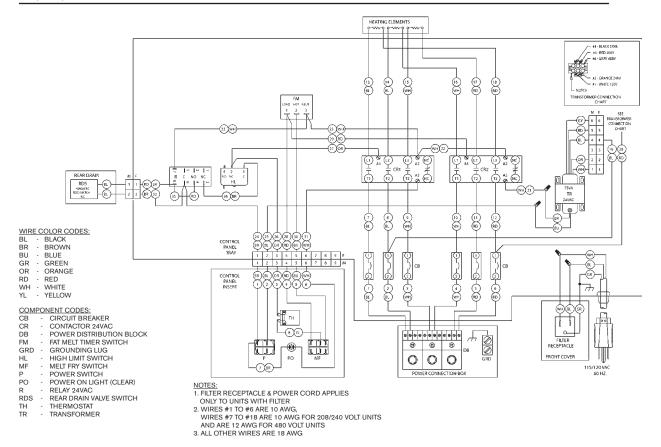
### 14, 18, 20 BB 2006 208-240V & 480V 1 PHASE FRONT DRAIN



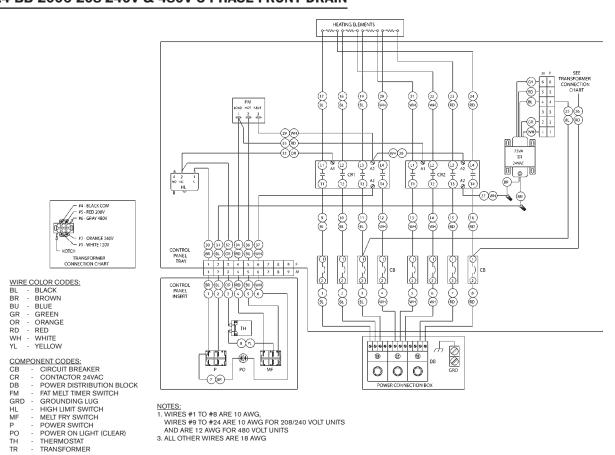
### 14, 18, 20 BB 2006 208-240V & 480V 3 PHASE FRONT DRAIN



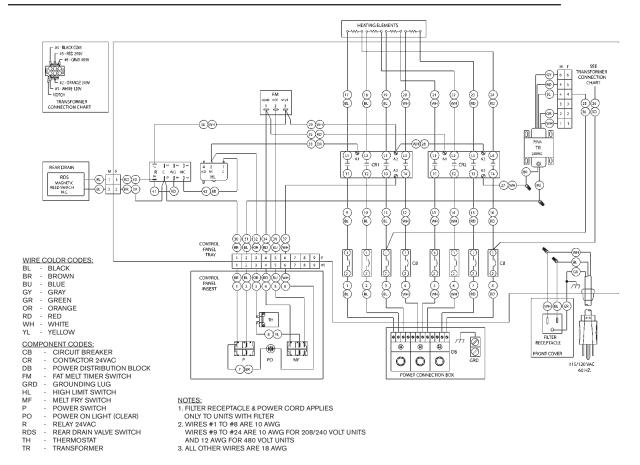
### 14, 18, 20 BB 2006 208-240V & 480V 3 PHASE with REAR DRAIN & SAFE & EASY® FILTER



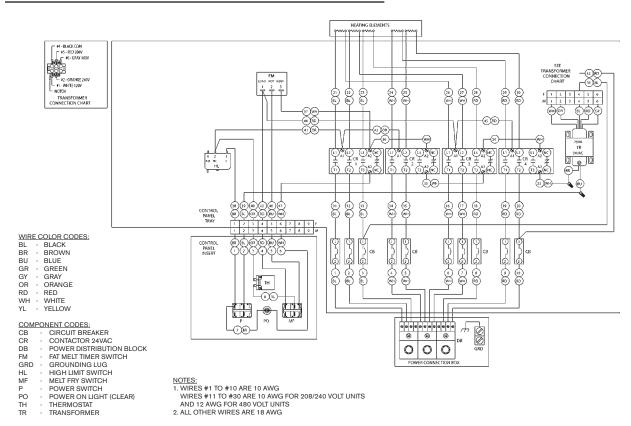
### 24 BB 2006 208-240V & 480V 3 PHASE FRONT DRAIN



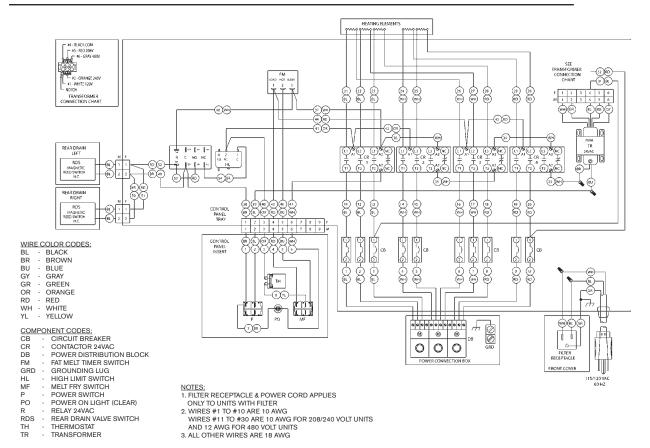
### 24 BB 2006 208-240V & 480V 3 PHASE with REAR DRAIN and SAFE & EASY® FILTER



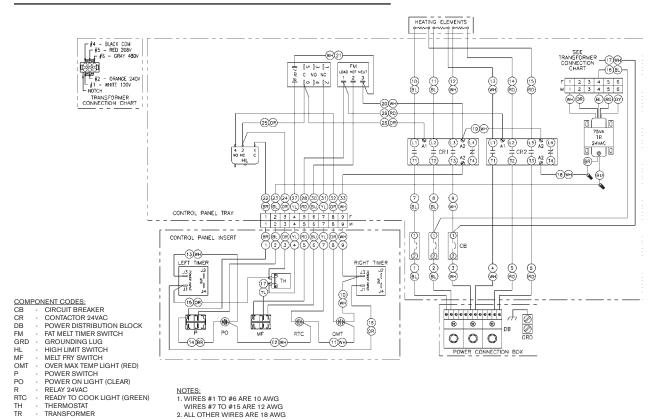
### 34x24 BB 2006 208-240V & 480V 3 PHASE FRONT DRAIN



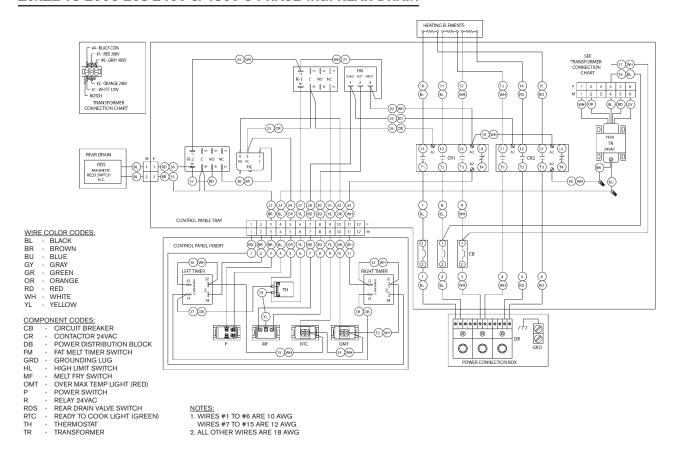
### 34x24 BB 2006 208-240V & 480V 3 PHASE with REAR DRAIN & SAFE & EASY® FILTER



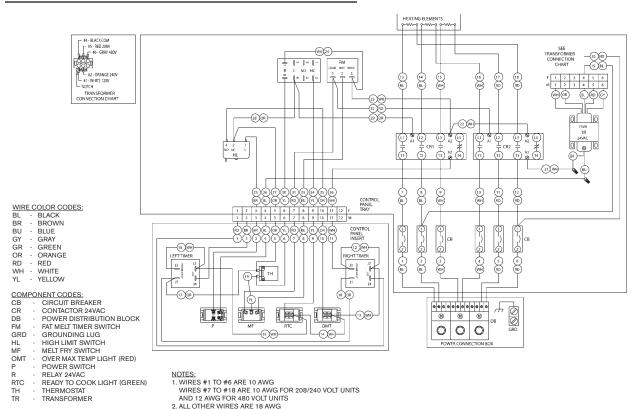
### 10x11 TS 2006 208-240V & 480V 3 PHASE FRONT DRAIN



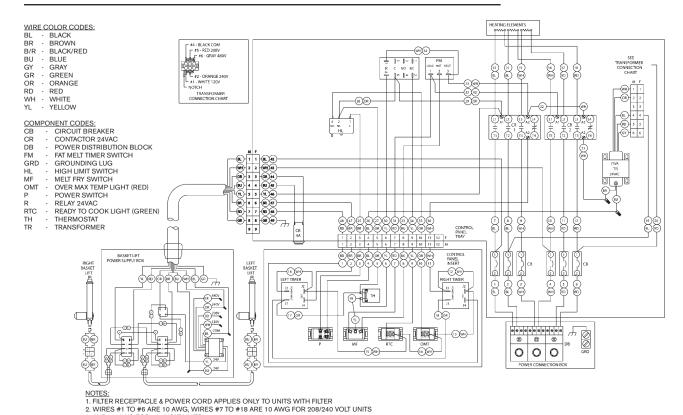
### 10x11 TS 2006 208-240V & 480V 3 PHASE with REAR DRAIN



### 14 TS 2006 208-240V & 480V 3 PHASE FRONT DRAIN



### 14 TS 2006 WITH BASKET-LIFT 208-240V & 480V 3 PHASE FRONT DRAIN



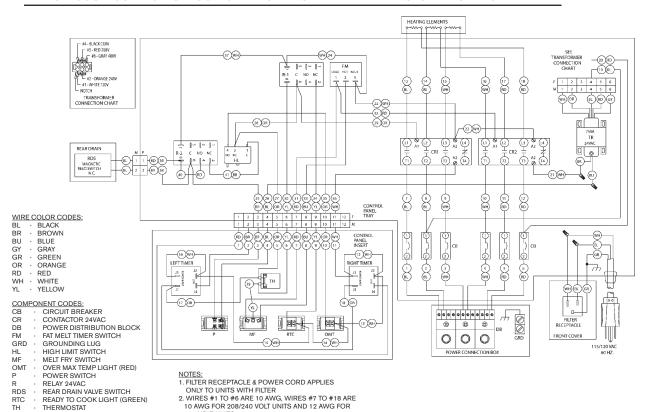
### 14 TS 2006 208-240V & 480V 3 PHASE with REAR DRAIN & SAFE & EASY® FILTER

AND 12 AWG FOR 480 VOLT UNITS

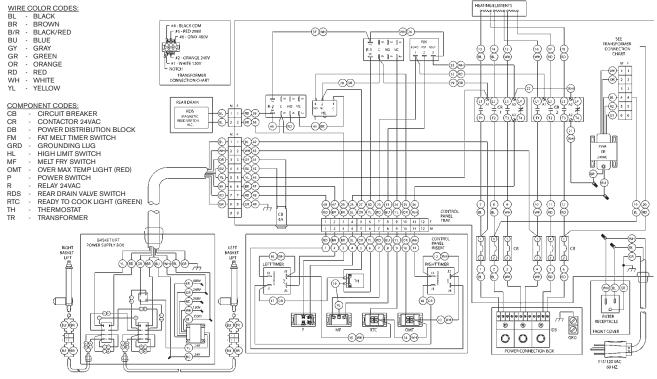
TRANSFORMER

A. ALL OTHER WIRES ARE 18 AWG
 THIS DIAGRAM SHOWS 240 VAC SUPPLY VOLTAGE FOR THE PRIMARY SIDE OF THE TRANSFORMER FOR THE BASKET-LIFT POWER SUPPLY BOX

480 VOLT UNITS 3. ALL OTHER WIRES ARE 18 AWG



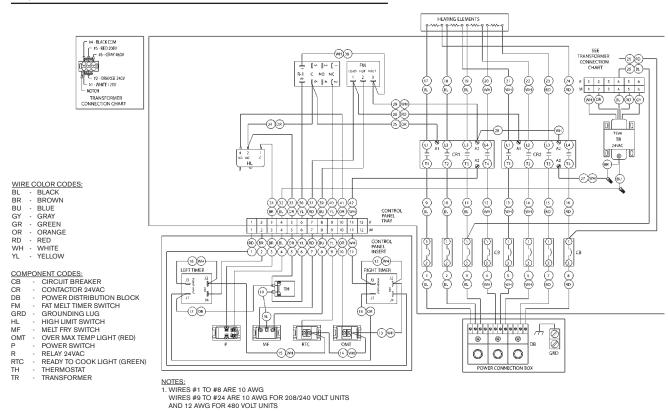
### 14 TS 2006 with BASKET-LIFT 208-240V & 480V 3 PHASE with REAR DRAIN & SAFE & EASY® FILTER



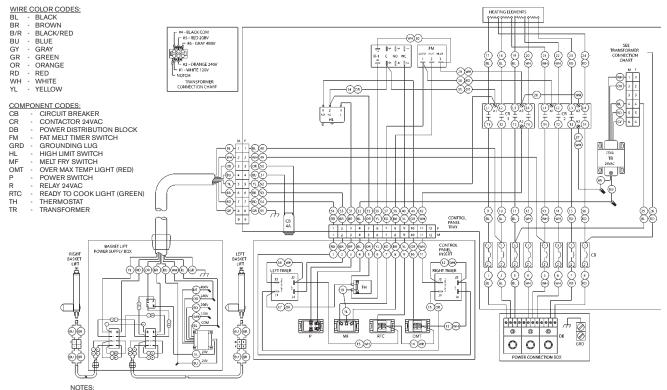
- NOTES: 1. FILTER RECEPTACLE & POWER CORD APPLIES ONLY TO UNITS WITH FILTER 2. WIRES #1 TO #6 ARE 10 AWG, WIRES #7 TO #18 ARE 10 AWG FOR 208/240 VOLT UNITS AND 12 AWG FOR 480 VOLT UNITS
- 3. ALL OTHER WIRES ARE 18 AWG
  4. THIS DIAGRAM SHOWS 240 VAC SUPPLY VOLTAGE FOR THE PRIMARY SIDE OF THE TRANSFORMER FOR THE BASKET-LIFT POWER SUPPLY BOX

### 18. 20 TS 2006 208-240V & 480V 3 PHASE FRONT DRAIN

2 ALL OTHER WIRES ARE 18 AWG



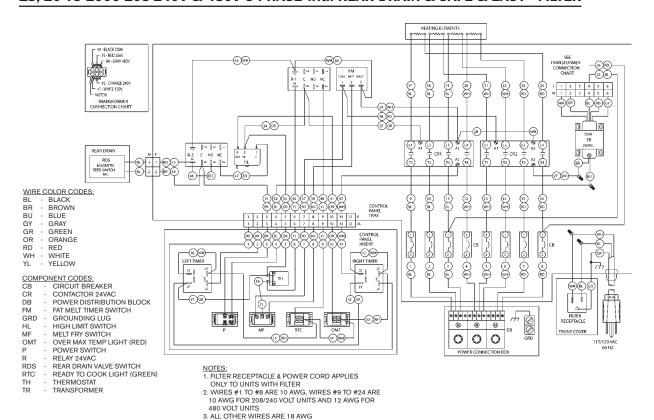
### 18, 20 TS 2006 208-240V & 480V 3 PHASE with BASKET-LIFT FRONT DRAIN



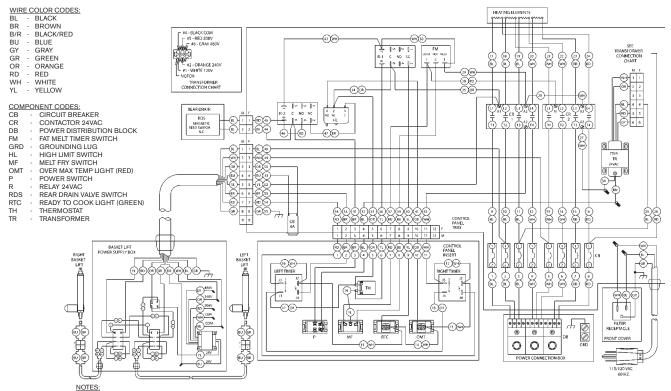
- NOTES:

  1. WIRES #1 TO #8 ARE 10 AWG, WIRES #9 TO #24 ARE 10 AWG FOR 208/240 VOLT UNITS AND 12 AWG FOR 480 VOLT UNITS
- 2. ALL OTHER WIRES ARE 18 AWG
  3. THIS DIAGRAM SHOWS 240 VAC SUPPLY VOLTAGE FOR THE PRIMARY SIDE OF THE TRANSFORMER FOR THE BASKET-LIFT POWER SUPPLY BOX

### 18, 20 TS 2006 208-240V & 480V 3 PHASE with REAR DRAIN & SAFE & EASY® FILTER



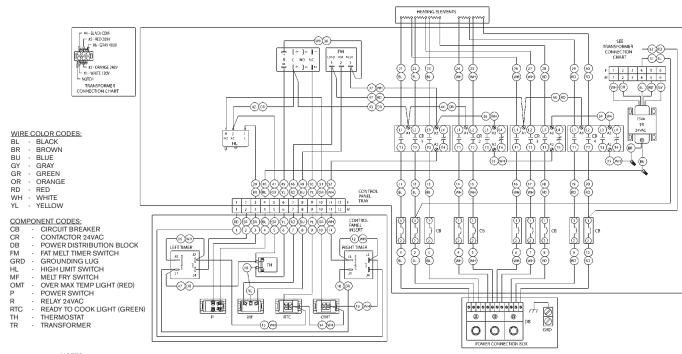
### 18, 20 TS 2006 with BASKET-LIFT 208-240V & 480V 3 PHASE with REAR DRAIN & SAFE & EASY® FILTER



1. FILTER RECEPTACLE & POWER CORD APPLIES ONLY TO UNITS WITH FILTER

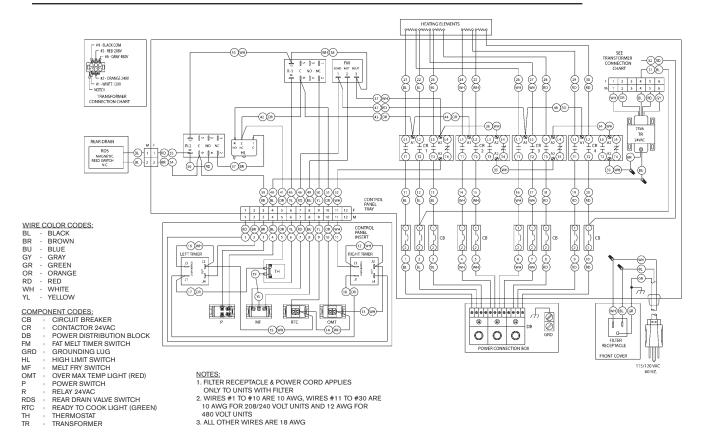
- 2. WIRES #1 TO #8 ARE 10 AWG, WIRES #9 TO #24 ARE 10 AWG FOR 208/240 VOLT UNITS AND 12 AWG FOR 480 VOLT UNITS
  3. ALL OTHER WIRES ARE 18 AWG
- 4. THIS DIAGRAM SHOWS 240 VAC SUPPLY VOLTAGE FOR THE PRIMARY SIDE OF THE TRANSFORMER FOR THE BASKET-LIFT POWER SUPPLY BOX

### 24 TS 2006 208-240V & 480V 3 PHASE FRONT DRAIN

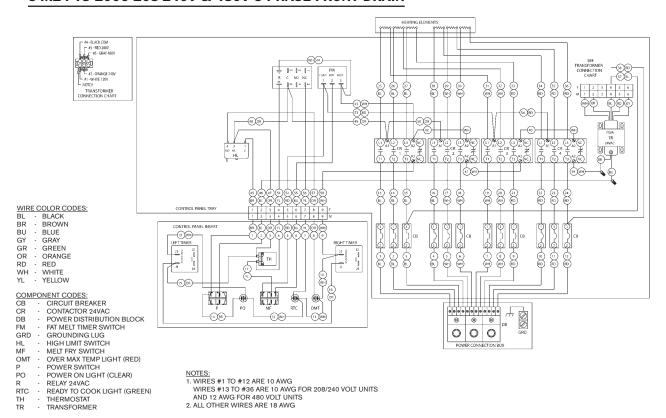


- NOTES: 1. WIRES #1 TO #10 ARE 10 AWG, WIRES #11 TO #30 ARE 10 AWG FOR 208/240 VOLT UNITS AND 12 AWG FOR 480 VOLT UNITS
- 2. ALL OTHER WIRES ARE 18 AWG

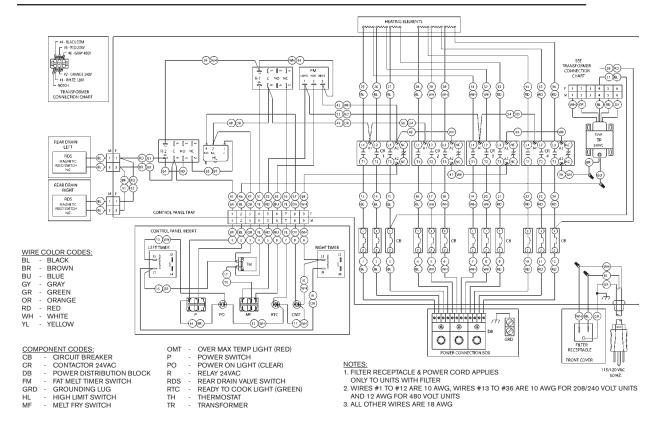
### 24 TS 2006 208-240V & 480V 3 PHASE with REAR DRAIN and SAFE & EASY® FILTER



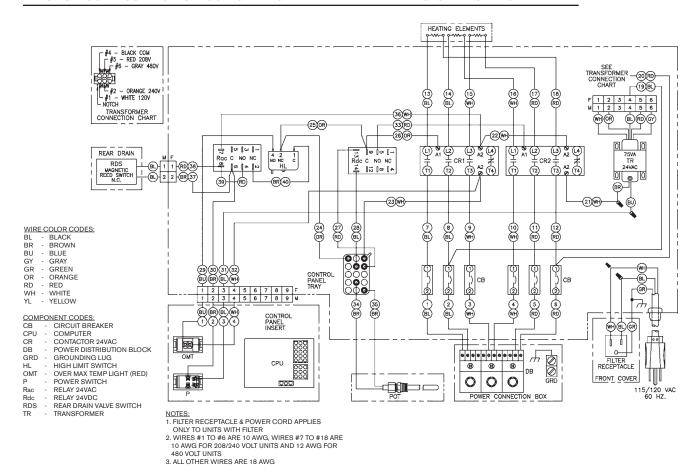
### 34x24 TS 2006 208-240V & 480V 3 PHASE FRONT DRAIN



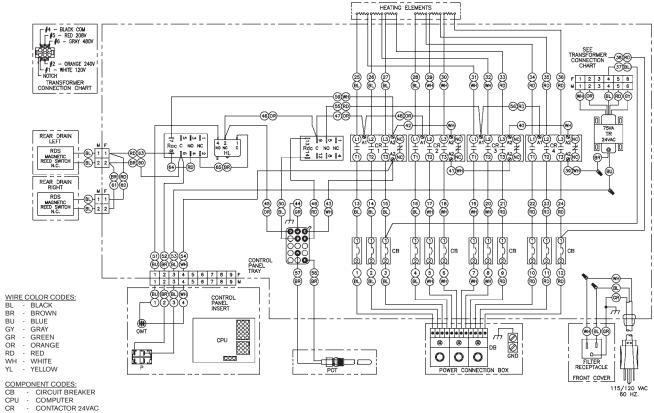
### 34x24 TS 2006 208-240V & 480V 3 PHASE WITH REAR DRAIN & SAFE & EASY® FILTER



### 14 CPU 2007 208-240V & 480V 3 PHASE WITH REAR DRAIN & SAFE & EASY® FILTER



### 34x24 CPU 2007 208-240V & 480V 3 PHASE with REAR DRAIN & SAFE & EASY® FILTER



POWER DISTRIBUTION BLOCK GROUNDING LUG HIGH LIMIT SWITCH OVER MAX TEMP LIGHT (RED) DB GRD

OMT P

POWER SWITCH RELAY 24VAC RELAY 24VDC Rdc

RDS TR REAR DRAIN VALVE SWITCH

TRANSFORMER

- NOTES:

  1. FILTER RECEPTACLE & POWER CORD APPLIES
  ONLY TO UNITS WITH FILTER

  2. WIRES #1 TO #12 ARE 10 AWG, WIRES #13 TO #36 ARE
  10 AWG FOR 208/240 VOLT UNITS AND 12 AWG FOR
  480 VOLT UNITS

  3. ALL OTHER WIRES ARE 18 AWG

### **■ KEATING FRYER SPECIFICATIONS**

### **BB MODELS:**

10x11 BB

VOLTS	kW		S PER L REE PHA L2		AMPS SINGLE PHASE
208	6.7	19	19	19	32
220	7.5	20	20	20	34
240	8.9	21	21	21	37
480	8.9	11	11	11	19

<sup>• 3</sup> ELEMENTS (2500W EACH)

### 18/20 BB

VOLTS	kW		S PER L REE PHA L2		AMPS SINGLE PHASE
208	16.1	45	45	45	77
220	18.0	47	47	47	82
240	21.4	52	52	52	89
480	21.4	26	26	26	45

<sup>• 3</sup> ELEMENTS (6000W EACH)

### 34x24 BB

VOLTS	kW	AMPS PER LINE - THREE PHASE			AMPS SINGLE
		L1	L2	L3	PHASE
208	28.6	68	89	68	129
220	30.0	72	95	72	136
240	35.7	79	103	79	149
480	35.7	39	52	39	74

<sup>• 5</sup> ELEMENTS (6000W EACH)

### 14 BB

VOLTS	kW		S PER L REE PHA L2		AMPS SINGLE PHASE
208	11.7	33	33	33	56
220	13.1	34	34	34	59
240	15.5	37	37	37	65
480	15.5	19	19	19	32

<sup>• 3</sup> ELEMENTS (4350W EACH)

### 24 BB

VOLTS	kW		S PER L REE PH <i>A</i> L2		AMPS SINGLE PHASE
208	21.5	68	68	45	103
220	24.0	72	72	47	109
240	28.6	79	79	52	119
480	28.6	39	39	26	60

<sup>• 4</sup> ELEMENTS (6000W EACH)

<sup>\*</sup> RATINGS ARE THE SAME FOR FLOOR MODELS AND COUNTER MODELS

### **TS MODELS:**

### **10x11 TS**

VOLTS	kW		S PER L REE PHA L2		AMPS SINGLE PHASE
208	10.2	28	28	28	49
220	11.4	30	30	30	52
240	13.6	33	33	33	57
480	13.6	16	16	16	28

• 3 ELEMENTS (3800W EACH)

### 18/20 TS

VOLTS	kW		S PER L REE PHA L2		AMPS SINGLE PHASE
208	21.5	68	68	45	103
220	24.0	72	72	47	109
240	28.6	79	79	52	119
480	28.6	39	39	26	60

• 4 ELEMENTS (6000W EACH)

### 34x24 TS

VOLTS	kW	AMPS PER LINE - THREE PHASE			AMPS SINGLE	
		L1	L2	L3	PHASE	
208	32.2	89	89	89	155	
220	36.0	95	95	95	164	
240	42.8	103	103	103	179	
480	42.8	52	52	52	89	

• 6 ELEMENTS (6000W EACH)

### **14 TS**

VOLTS	kW	AMPS PER LINE - THREE PHASE L1 L2 L3			AMPS SINGLE PHASE
208	17.4	48	48	48	84
220	19.5	51	51	51	89
240	23.2	56	56	56	97
480	23.2	28	28	28	48

• 3 ELEMENTS (6500W EACH)

### 24 TS

VOLTS	kW	AMPS PER LINE - THREE PHASE L1 L2 L3			AMPS SINGLE PHASE	
208	26.8	68	89	68	129	
220	30.0	72	95	72	136	
240	35.7	79	103	79	149	
480	35.7	39	52	39	74	

• 5 ELEMENTS (6000W EACH)



### LIMITED WARRANTY

Keating of Chicago, Inc. ("Keating") warrants to the original purchaser. ("Customer"), all new Keating Fryers, Filter Systems, Griddles, Keep Krisp®, Custom Pasta Systems, Top-Side™ Cookers, Computer Timers, Fryer & Pasta Vessels and Keating replacement parts ("products") installed after June 1, 1994 to be free to defects in material or workmanship, subject to the following terms and conditions.

## LENGTH OF WARRANTY

All products other than Fryer & Pasta Vessels and replacement parts shall be warranted for a period of one yearfrom the date of original equipment installation. Keating replacement parts are warranted for a period of ninety days from the date of installation. Fryer & Pasta Vessels are warranted as described below.

# FRYER & PASTA VESSEL WARRANTY

Fryers purchased after June 1, 1994 carry a prorated vessel warranty on defects in materials or workmanship to the Customer based on the following scale:

Fryer Vessel Warranty Credit	100%	80%	%09	40%	20%	10%
Time from Installation Date	13-60 months	61-72 months	73-84 months	85-96 months	97-108 months	109-120 months

The credit for the defective fryer & pasta vessel shall be applied against the cost of the replacement vessel, utilizing Keating's then current price, upon return of the vessel to Keating only during the first 60 months, subject to the limitations described below.

## LIMITATIONS OF LIABILITY

In the event of warranty claim or otherwise, the sole obligation of Keating shall be the repair and / or replacement at the option of Keating of the product or component or part thereof. Such repair or replacement shall be at the expense of Keating except that the Customer shall pay the following expenses: all freight and labor expense for Keating replacement parts; for all other products, mileage exceeding 50 miles or travel more than one hour, labor costs of more than one person, overtime rates, truck charges, difference between ground and other mode of transportation, and holiday charges. Any repair or replacement under this Limited Warranty does not constitute an extension of the original warranty for any period for the product or for any component or part thereof. Parts to be replaced under this Limited Warranty will be repaired at the option of Keating with new or functionally operative parts. Keep Krisps and Computer Timers must be returned to Keating for warranty repair or replacement. Field repairs of those items are not authorized.

THE LIABILITY OF KEATING ON ANY CLAIM OF ANY KIND, INCLUDING CLAIMS BASED ON WARRANTY, EXPRESSED OR IMPLIED, CONTRACT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORIES SHALL BE SOLELY AND EXCLUSIVELY THE REPAIR OR REPLACEMENT OF THE PRODUCT AS STATED HEREIN, AND SUCH LIABILITY SHALL NOT INCLUDE, AND CUSTOMER SPECIFICALLY RENOUNCES ANY RIGHTS TO RECOVER, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR OTHER INJURIES TO PERSONS OR DAMAGE TO PROPERTY, LOSS OF PROFITS OR ANTICIPATED PROFITS, OR LOSS OF USE OF THE PRODUCT.

If any oral statements have been made regarding the Keating products, such statements do not constitute warranties and are not part of the contract sale. This Limited Warranty constitutes the complete, final and exclusive statement with regard to warranties.

INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE OR WARRANTY AGAINST

LATENT DEFECTS.

THIS LIMITED WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES WHETHER WRITTEN, ORAL, STATUTORY OR IMPLIED,

### **EXCLUSIONS**

The warranties provided by Keating of Chicago, Inc. do not apply in the following instances:

- Defects arising out of or resulting from improper installation or maintenance, abuse, misuse, modification
  or alteration by unauthorized service personnel, or any other condition not attributable to a defect in
  material or workmanship. Proper installation and maintenance are the responsibility of the installer and
  Customer, respectively. Proper installation and maintenance procedures are prescribed by the Keating
  Service Manual.
- In the event that the product was damaged after leaving the factory due to flood, fire, other acts of God or
  accident, damageduring shipment should be reported to the carrier and is not the responsibility of Keating.
- 3. In the event the serial number or rating plate has been removed from the product or altered.
- 4. On parts which would normally be worn or replaced under normal conditions, including but not limited to electric bulbs, fuses, interior and exterior finishes, gaskets and radiants.
- With regard to adjustments and calibrations such as leveling, tightening of fasteners or plumbing connections, improper gas pressure or improper electrical supply, the checking of and changes in adjustment and calibrations are the responsibility of the installer. Proper installation procedures are prescribed by the Keating Service Manual.
- 6. In the event of unauthorized repairs or alterations to the Keating product.
- 7. With the use of sodium chloride in pasta vessels or harsh chemicals in fryer or pasta vessels.

# 8. Installation in Household. OTHER TERMS AND CONDITIONS

The Customer must provide proof of purchase from Keating.

This Limited Warranty is valid in the 50 United States, its territories, and Canada, and is void elsewhere. Keating products are sold for commercial use only. If any Keating product is sold as a component of another

product or used as a consumer product, such Keating product is sold As Is without any warranty.

If any provision of this Limited Warranty is held to be unenforceable under the law of any jurisdiction, such provision shall be inapplicable in such jurisdiction, and the remainder of the warranty shall remain unaffected. Further in such event, the maximum exclusion or limitation allowable under applicable law shall be deemed substituted for the unenforceable provision.

This Limited Warranty shall be governed by and construed in accordance with the laws of the State of Illinois.

# TO SECURE WARRANTY SERVICE

All repair services under this Limited Warranty must be authorized by Keating or performed at Keating. Authorization may be obtained by calling 1-800-KEATING within the Continental United States, Alaska, Hawaii, Puerto Rico and Canada during normal business hours (8 a.m. through 5 p.m. Central Time, Monday through Friday). When calling, please have the following information available: (1) name, address and telephone number of the Customer; (2) location of product, if different; (3) name, model number and serial number of the product; (4) installation date, and (5) description of defect. Keating will then issue a service authorization work order number to one of its approved independent servicing organizations, or request the product or part be shipped to Keating for repair or replacement, as appropriate. Any defective part subject to a claim underthis Limited Warranty must be shipped freight prepaid to Keating shall be final.

KEATING OF CHICAGO, INC. | 1-800-KEATING | WWW.KEATINGOFCHICAGO.COM

### **■ SERVICE INFORMATION:**

If you have a service related question call **1-800-KEATING**. Please state the nature of the call; it will ensure speaking with the appropriate person.

Have your serial and model number available when ordering parts.					
As continuous product improvement occurs, specifications may be changed without notice.					
KEATING LIMITED WAR	RANTY CARD				
PLEASE COMPLETE AND MAIL AT ONCE-WARRANTY IS NOT IN EFFECT UNTIL CARD IS RETURNED, OR COMPLETE THE WARRANTY CARD ON OUR WEBSITE FOR YOUR CONVENIENCE.					
COMPANY:					
ADDRESS:					
CITY:	STATE:	ZIP CODE:			
DEALER NAME:					
DATE OF PURCHASE:	INVOICE #:				
SERIAL #:	MODEL:				
FRYER  FILTER SYSTEM	☐ GRIDDLE ☐ TOP-SIDE COOKER	CUSTOM PASTA HOTPLATE			
I HAVE READ THE INSTALLATION AND OPERATING INSTRUCTIONS.					
SIGNED:		DATE:			



**KEATING OF CHICAGO, INC.** 8901 West 50th Street McCook, IL 60525-6001 1-800-KEATING PHONE: 708-246-3000 FAX: 708-246-3100