



**Ultrafryer Electric Fryer  
Model F-E21-14  
Operation Instructions**



**FOR YOUR SAFETY**

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

**WARNING**

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.

302 Spencer Lane • P.O. Box 5369

(800) 525-8130 • (210) 731-5000 • Fax: (210) 731-5099

[www.ultrafryer.com](http://www.ultrafryer.com)

San Antonio, Texas 78201

## PREFACE

This Manual was written and published by the Engineering Department, Ultrafryer Systems for use by personnel who will operate a Model FM-E-21 Electric Fryer in a commercial cooking environment.

**This appliance is intended for professional use and is to be operated by qualified personnel.**

Throughout this manual, NOTES, CAUTIONS, and WARNINGS are used to alert the operator to items of special circumstances. These items are identified as follows:

NOTE:

**CAUTION:** To assure producing a quality product while prolonging the life expectancy of the fryer, ensure that the boil-out, and cleaning instructions are strictly followed.

**WARNING:** Do not allow any cleaning solution or water to splash into a vessel of hot cooking oil, as it will contaminate the oil and may cause the oil to splatter, causing severe burns.

*This manual is intended as a guide for all Basic Model Fryers, regardless of configuration and controllers. It is to be used in conjunction with the applicable controller manual that is included with the fryer.*

## TABLE OF CONTENTS

<b>GENERAL INFORMATION</b>	
Warranty . . . . .	5
Safety . . . . .	6
Description/ Specifications. . . . .	6
Dimensions and Operational Requirements . . . . .	7
Operating Controls . . . . .	7-8
Automatic Safety Features. . . . .	9
<b>PRE-INSTALLATION</b>	
General . . . . .	11
Standards . . . . .	11
Air Supply and Ventilation . . . . .	11
<b>RECEIVING AND INSTALLING</b>	
Unpacking . . . . .	13
Installing . . . . .	13
Leveling . . . . .	13
Electrical Connection . . . . .	13
Ultrastat 25 Cooking Computer . . . . .	14
<b>INITIAL START-UP</b>	
Initial Cleaning . . . . .	16
Start-up. . . . .	16
Initial Fryer Boil-out . . . . .	16
<b>PREVENTIVE MAINTENANCE AND TROUBLESHOOTING</b>	
Preventive Maintenance. . . . .	18
Troubleshooting . . . . .	19
Troubleshooting Chart . . . . .	19
<b>Cleaning</b>	
General . . . . .	21
Daily . . . . .	21
Weekly. . . . .	21
<b>FRYER OPERATION</b>	
General . . . . .	23-24
Ultrastat 25 Cooking Computer . . . . .	25
Shortening Installation . . . . .	25
Start-Up and Cooking . . . . .	25
Shortening Disposal . . . . .	25
Fryer Boil-out . . . . .	26
Fryer Shut Down Procedure . . . . .	26
<b>TECHNICAL ASSISTANCE &amp; ORDERING INFORMATION</b>	
Technical Assistance . . . . .	28
Ordering Information . . . . .	28
<b>RECOMMENDED SPARE PARTS. . . . .</b>	
<b>PARTS IDENTIFICATON . . . . .</b>	
Parts Identification . . . . .	32-33
<b>WIRING DIAGRAM</b>	
Wiring Diagram . . . . .	35
<b>ACCEPTABLE ALTERNATE AND REQUIRED HI-LIMIT CONSTRUCTION</b>	
U.S. Fryer. Acceptable Alternate . . . . .	37
Required for Canada Fryer Only. . . . .	37

## **GENERAL INFORMATION**



ULTRAFRYER® LIMITED WARRANTY  
PAR-3 GAS, ELECTRIC

Ultrafryer Systems warrants to the original purchaser of a gas or electric Ultrafryer® sold within the United States, its territories and Canada, that it will be free of defects in material and workmanship for the periods listed below:

**STAINLESS STEEL FRYER VAT** – Stainless Steel fryer vats are warranted for (10) ten years upon the terms hereinafter described. The (10) ten year warranty coverage applies ONLY to the Stainless Steel fryer vat and does not apply to the other components such as controls, fire boxes, gaskets, mounting hardware, or the heat shield weldment. The (10) ten year limited warranty coverage for the Stainless Steel fryer vats are as follows: (1) Vats that fail due to faulty workmanship or materials within the first twelve (12) months from the date of initial start up will be exchanged at no cost. Standard delivery ground freight will be prepaid by Ultrafryer Systems for first year failures only. The cost of labor to install the replacement vat will be covered by Ultrafryer Systems for vats, which fail within twelve (12) months from the date of initial start up. Labor for vat replacements after the first year is the responsibility of the owner. (2) Vats that fail within the second year will be exchanged at \$150.00 FOB San Antonio. (3) Vats that fail within the third through fifth year will be exchanged at \$200.00 FOB San Antonio. (4) Vats that fail within the sixth through eighth year will be exchanged at 50% of current selling price of said vat FOB San Antonio. (5) Vats that fail within the ninth through tenth year will be exchanged at 70% of the current selling price of said vat FOB San Antonio. (Example: If the current selling price for a particular vat is \$1000.00, then a failure during the sixth through eighth year would be exchanged for \$500.00; if the failure occurred in the ninth or tenth year it would be exchanged for \$700.00.) Proper credit issue for vat failures is contingent upon receipt, by Ultrafryer Systems, of the serial number identification tag for any failed vat.

**ULTRAFRYER PARTS** – All parts on the Ultrafryer® are covered for a period of one (1) year from the initial date of start up. This is to include computers, gas valves, switches, thermostats, etc. Ultrafryer Systems reserves the right to charge for certain parts such as computers, filter pumps and motors or any item over the amount of \$100.00 until Ultrafryer Systems receives the defective part back. After inspection, credit for the part will be issued to the purchaser provided the part is deemed defective and that defect is not the result of neglect or abuse by the user. The shortening filtration system, (hoses) are warranted for ninety (90) days from the initial date of start up.

**PROCESSING WARRANTY CLAIMS** – The equipment owner must promptly notify Ultrafryer Systems Warranty Department of any alleged defects as soon as they are discovered by calling 1-800-525-8130. After such notice, the Warranty Department will perform its obligation under this warranty within a commercially reasonable period of time. If alleged defects develop after normal business hours, on weekends or on holidays the owner must call Ultrafryer Systems first at the above number. This number is monitored 24 hours a day, 7 days a week. Ultrafryer Systems will notify an authorized service agent to make repairs during normal hours or after hours. Any parts that need to be shipped back to Ultrafryer Systems will be shipped back prepaid by the customer marked with the processing number and to the attention of the WARRANTY DEPARTMENT.

**NON WARRANTY COVERAGE** – This warranty does not include coverage for any consequential cost of damages including, but not limited to, any loss in store sales, spoiled food products, transportation, duty or custom cost. This warranty does not cover the Ultrafryer® exported to countries outside the United States and its territories. This warranty does not cover original installation and adjustments such as leveling, calibrations and electrical and gas connections. This warranty does not cover travel over 100 miles or 2 hours driving time from the location of the Ultrafryer® or overtime or holiday charges unless the Warranty Department granted prior approval. This warranty does not cover damage due to misuse, abuse, alteration or accident. This Warranty does not cover improper or unauthorized repair or installation, damage in shipment, normal maintenance items such as gaskets, hoses, and exterior finishes. Ultrafryer Systems reserves the right to void component part warranty on any Ultrafryer that is stored more than six (6) months after shipment from Ultrafryer Systems and not put into service.

**LABOR COVERAGE** – The cost for labor to replace parts are covered for one (1) year after the initial start up. This warranty will include the labor involved in the twelve (12) month fryer inspection recommended by the manufacturer for the first year after initial startup. The Warranty Department must be promptly notified of any defects within the first year of operation. The labor warranty does not include the cost to repair or clear dirty filter systems or perform any adjustments that would normally fall under the tasks associated with a proper start up and/or demonstration. Labor is covered by Ultrafryer Systems for repairs by an AUTHORIZED service agent. Owner is responsible for all costs associated with fryer installation and start up unless prior arrangements have been made with Ultrafryer Systems.

**DISCLAIMER OF WARRANTIES**

Other than as stated herein, ULTRAFRYER SYSTEMS makes no warranty of any kind, express or implied, including but not limited to any warranty of merchantability of fitness for a particular purpose, including trade usage. Ultrafryer Systems' sole obligation, and purchaser's sole remedy, under this warranty is repair or replacement, at the discretion of Ultrafryer Systems, of any part or component that proves to be defective in materials or workmanship. In no event shall Ultrafryer Systems be liable for consequential, incidental, or special loss or damages arising from the use of, or inability to use, the ULTRAFRYER®. This limited warranty is the only and complete statement with respect to warranties of NEW Ultrafryer® PAR-3 Gas and Electric ULTRAFRYERS® sold after June 1st, 2000. There are no other documents or oral statements for which Ultrafryer Systems will be responsible.

## **SAFETY**

The major safety concern associated with the Ultrafryer Electric Fryer is burns from hot shortening. In order to prevent serious burns, good housekeeping habits are required. The floor in front of and the area around the fryer should be kept clean and dry. Whenever anything is placed into a fryer vat, care should be used not to splash the hot shortening. Product should always be **“PLACED”** into the shortening, not thrown. Safety goggles, neoprene insulated gloves, and an apron must be worn while boiling-out a fryer vat. Electrical controls used in the electric fryer operate off of the 208 or 240 volts three phase electrical power, and no adjustments or replacement of electrical controls or parts should ever be attempted without first disconnecting **ALL** electrical power. **FAILURE** to do so can result in serious electrical shock or death. It should be determined that **ALL** electrical power has been removed prior to beginning a repair. The fryer and its controls should never be operated with wet hands or while standing in water. To do so can result in serious electrical shock or death.

Fire in liquid shortening should always be a constant concern of team members operating or working nearby the Electric Fryer. The fryer should be equipped with a Fire Suppression system, that automatically **OPENS** the shunt trip circuit breakers, removing electrical power from the fryer if a fire occurs. In addition, this system **MUST** be inspected by a licensed distributor each six (6) months to assure it is operational.

## **DESCRIPTION / SPECIFICATIONS**



### **ULTRAFRYER 14" (356 mm) ED14 ELECTRIC FRYER**

The Ultrafryer 14" (356 mm) ED electric fryer was designed by Ultrafryer Systems® and is design-certified by the Underwriters Laboratories (UL) and the National Sanitation Foundation (NSF). The fryer is shipped without the power cord installed. The fryer is shipped assembled with the accessories packed inside the fryer vat, and each fryer has been adjusted, tested and inspected prior to shipment. This electric fryer is designed to be used in a commercial food preparation environment after it is properly installed as outlined in this manual.

## SPECIFICATIONS

### MODEL 14" (356 mm) ED14 ELECTRIC FRYER OPERATIONAL REQUIREMENTS

<u>SPECIFICATION ITEM</u>	<b>14" ED</b>
Overall Width	14.836" (377mm)
Overall Depth	31.686" (807mm)
Work Height	36" (914mm)
Oil Capacity High Level Low Level	63 lbs (28.6 liters) 37 lbs (16.8 liters)
Vat Container Size	13.918" x 17.375" (354mm x 441mm)
Shipping Cube	23" x 42" x 54" (59mm x 107mm x 138mm)
Shipping Weight	175 lbs (79.4 kgs)
Electrical Requirement	208 / 240 Volt 3 Phase 21 KW / Vat

#### NOTE:

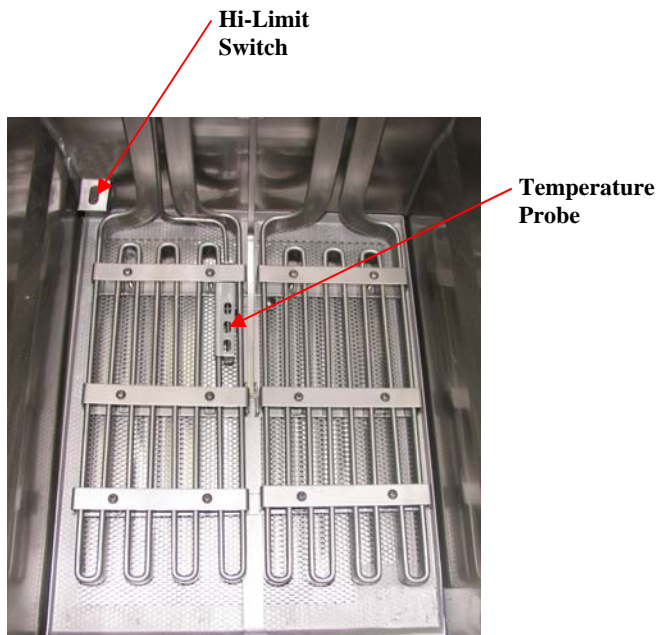
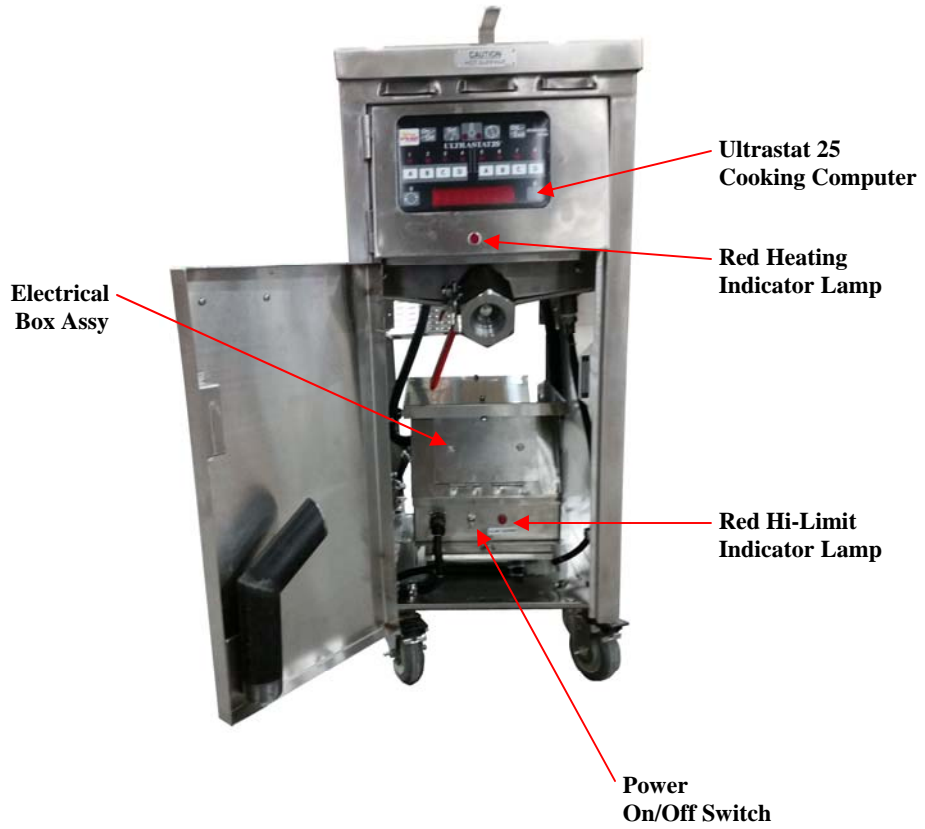
**Test Start-Up, Operation, Cooking, Filtering and Boil Out Procedures of a 14" Model ED Electric Fryer in the manual are based on the Ultrastat 25 Cooking Computer. Refer to Manual P/N 30A051 to perform these functions in a fryer equipped with this controller.**

#### OPERATING CONTROLS

The fryer is equipped with an Ultrastat 25 Cooking Computer as shown below. Operating instructions for the Ultrastat 25 Cooking Computer (P/N 30A051) will be provided with the fryer. Operating controls on the fryer include the Ultrastat 25 Cooking Computer and the Red Heating Indicator Lamp, these controls are mounted on the Controller Door;. The Temperature Probe and Hi-Limit Switch, these controls are located inside the vat. The Drain Ball Valve, On/Off Power Switch and Red Hi-Limit Indicator Lamp, these controls are located behind the Service Access Door. These controls were identified in the illustrations shown on the next page.

**Operating Control Locations**

**MODEL 14" (356 mm) ED14 ELECTRIC FRYER**





## **AUTOMATIC SAFETY FEATURES**

1. Hi-Limit Thermostat Switch with Auto Reset
2. Red Hi-Limit Indicator Lamp to indicate hi-limit has been exceeded
3. Ultrastat 25 Controller will power off when hi-limit has been exceeded

## **PRE-INSTALLATION**

- A. **GENERAL:** Safe and satisfactory operation of a Model F-E21-14 Electric Fryer depends on its proper installation. Installation must conform to local codes or, in the absence of local codes, with the current National Electrical Code ANSI NFPA 70 (latest edition). In Canada, electrical installation shall be in accordance with the current Canadian Electrical Code CSA C22.1 and/or local codes. Each Model F-E21-14 fryer should be installed as follows:
1. Power cord should be installed on the fryer electrical box assy
  2. Placed beneath a properly designed exhaust hood
  3. Installed by a licensed electrician.
  4. Connected to the voltage type for which the unit was fabricated as indicated on the fryer.
  5. Restrained by use of a restraining device to avoid splashing of hot liquid and to assure tension cannot be placed on the flexible power cable or connectors. **CLEARANCES:** The appliance must be kept free and clear of all combustibles. The minimum clearance from combustible and non-combustible construction is 6" (152 mm) from the sides, and 6" (152 mm) from rear. The fryer may be installed on combustible floors.

**NOTE:** Adequate clearances must be provided for servicing and proper operation.

**B. STANDARDS:** Installation must be planned in accordance with all applicable state and local codes, taking into account the following standards:

1. When installed the fryer must be electrically grounded in accordance with local codes, or in the absence of local codes, in accordance with the current National Electrical code ANSI/NFPA 70 (latest edition). In Canada electrical installation must be in accordance with the current Canadian Electrical Code CSA C22.1 and CSA 22.1 as applicable and/or local codes.
2. Other applicable nationally recognized installation standards such as:
  - a. NFPA Standards #54, #94 and #221 (latest edition)  
National Fire Protection Association  
470 Atlantic Avenue  
Boston, MA 02110
  - b. ANSI Z21.69/CAN/CGA-6.16 AND Z21.41/CAN1 6.9
5. Exhaust vent hood, when installed must conform to the current NFPA 54-1 and Canadian CAN/CGA-1.11 (latest edition)

**NOTE:** Local building codes will usually not permit a fryer with its open tank of hot oil to be installed immediately next to an open flame of any type, whether a broiler or an open burner or range. Check local codes before beginning installation.

**C. AIR SUPPLY AND VENTILATION:** The area around the appliance must be kept clear of any combustible or flammable products and avoid any obstruction to the flow of ventilation air as well as for ease of maintenance and service. **NOTHING** is to be stored in the interior of the fryer's cabinet.

1. A means must be provided for any commercial, heavy duty-cooking appliance to exhaust combustion wastes outside of the building. It is essential that a fryer be set under a powered exhaust vent hood or that an exhaust fan be provided in the wall above the unit
2. The open tank of hot oil, makes the storage of anything on shelving over or behind the fryer unsafe.
3. Filters and drip troughs should be part of any industrial hood, but consult local codes before constructing and installing any hood.
4. Provisions must be made for an adequate supply of fresh air and adequate clearance must be maintained for air openings

**RECEIVING AND INSTALLING**

## UNPACKING

Check that the container is upright. Use an outward prying motion – **DO NOT USE A HAMMER** - to remove the carton. Check the fryer for visible damage; if such damage has occurred do not refuse shipment, but contact the carrier and file the appropriate freight claims.

**WARNING: 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.**

## INSTALLING

Roll the assembled fryer into the building, to its operating location.

## LEVELING

1. When the fryer is placed in its operating location check to be sure it is level. If not, loosen the casters and insert the appropriate number of shim plates between leg and caster plates then retighten the caster bolts.
2. If the floor is smooth and level, adjust to the high corner and measure with a spirit level. If the floor is uneven or has a decided slope, level the unit with metal shims.
3. Leveling will assure that each vat contains the same amount of shortening when checked at the shortening level mark on the rear wall of the fryer vat.

**NOTE:** A caster may not return exactly to the same position after being moved, which may require re-leveling after each move.

## ELECTRICAL CONNECTION

Each Model F-E21-14 Electric Fryer is wired internally to operate on 208 or 240 volt 3 phase electrical power as shown on the fryer. The 208 or 240 volt 3 phase circuit of the fryer is internally wired to the Fryer Electrical Box Assy which is to be used to connect to the building power source. It is **ESSENTIAL** that the 208 or 240 volt electrical receptacle is located within 8 feet of the fryer location and that provisions are made so that the fryer can be moved to service fryer from the rear. Electrical connections to the fryer should be made by a licensed electrician and they must conform to the **NATIONAL ELECTRICAL CODE** as well as to local electrical codes and/or ordinances.

To avoid electrical hazards and assure proper operation of the electric fryer, the following precautions should be observed during installation:

### **MATCH VOLTAGE**

Before connecting electrical power, insure the line voltage matches the voltage rating on the fryer.

### **CIRCUIT BREAKERS**

The fryer must be connected to a circuit having shunt-trip circuit breakers sized in accordance with requirements of the National Electrical Code as well as local codes and ordinances.

### **GROUNDING**

The fryer **MUST** be grounded to the building ground system according to the National Electrical Code and local codes/ordinances.

### **FIRE PROTECTION**

The fryer should be installed beneath a powered exhaust hood which complies with NFPA96 standards that is equipped with an approved Fire Suppression System designed to automatically shut-off all sources of electrical power to the fryer in case of a vat fire.

### **CLEARANCES**

The Model F-E21-14 Electric Fryer **MUST** be kept free and clear of all combustibles. The **MINIMUM** clearances from combustible and non-combustible construction is 6" (152 mm) from the sides and 6" (152 mm) from the rear of the fryer. The fryer may be installed on combustible floors.

**ULTRASTAT 25 COOKING COMPUTER**

The Ultrastat 25 Cooking Computer is a high performance, micro-processor based electronic controller designed for use in commercial appliance temperature and timing control applications. Utilizing a microcontroller board, membrane switch front panel with a digital LED readout, and display board, the Ultrastat 25 Cooking Computer has been customized for Ultrafryer Systems applications by the addition of up to (10) stage cooking profiles for each of the (8) product keys, exit melt feature, optional temperature setback and filtering prompt, and can be programmed to cook products under "Flex" or "Straight" timing modes. Operation of the Ultrastat 25 Cooking Computer is covered in the ULTRASTAT 25 Computer Operation Instructions PN 30A051 provided with Fryers Equipped with that computer.



**INITIAL START-UP**

**INITIAL CLEANING**

New Electric Fryers are wiped clean with solvents at the factory to remove any visible signs of dirt, oil, grease, etc. remaining from the manufacturing process, then given a light coat of oil. Each fryer should be **THOROUGHLY** washed with **HOT** sanitizer solution to remove film residue, installation dust or debris and then wiped dry prior to placing the fryer into operation.

**START-UP**

The fryers are tested and adjusted prior to being shipped: however adjustments may be necessary on installation to meet local conditions and to correct possible problems caused by rough handling or vibration during shipment. Initial adjustments are the responsibility of the customer and will not be covered by the Ultrafryer Systems warranty.

**NOTE:** Adjustments must be performed by qualified personnel.

**INITIAL FRYER BOIL-OUT**

To test operate an Ultrafryer Electric Fryer equipped with an Ultrastat 25 Cooking Computer

1. Ensure the Fryer’s Power ON/OFF Switch is in the ON position
2. Ensure the Computer’s ON/OFF Button is in the OFF position
3. Ensure the Drain Ball Valve Lever is CLOSED
4. Fill the fryer vat with hot or cold water to the applicable shortening level mark on the rear of the vat

<u>STEP</u>	<u>ACTION</u>	<u>RESPONSE</u>
1	Ensure the Drain Ball Valve Lever is in the closed position and the water is at the proper level	

**CAUTION:**  
**PRIOR TO PROCEEDING TO STEP 2, VISUALLY CHECK THAT THE HEATING**

2	Turn the computer ON by pressing the computer ON/OFF Button, then place the computer in the BOIL MODE by press the TEMPERATURE Button and the number 2, 1, 2 Buttons	BOIL 30:00 will appear in the computer display  The HEAT DEMAND LED on the computer and the RED Heating Indicator Lamp on the fryer will cycle ON and OFF to heat the water to 192 Deg F (89 Deg C)
3	When the water begins to BOIL, press the computer ON/OFF Button to exit the BOIL MODE	The Computer Display will go BLANK
4	After the water in the vat and the metal surfaces of the fryer have COOLED, drain the water into a floor drain	

**CAUTION:**  
**TURN OFF FRYER POWER BEFORE LIFTING HEATING ELEMENTS OUT OF WATER OR SHORTENING**



**PREVENTIVE MAINTENANCE AND  
TROUBLESHOOTING**

## PREVENTIVE MAINTENANCE

Minimal maintenance is required on a 14" (356 mm) electric fryer because of its design and materials used in the manufacturing process. However some preventive maintenance and inspection must be performed periodically to prevent breakdowns which could curtail food sales. Any preventive maintenance or inspection should be accomplished with **CAUTION** while the fryer is in operation since **HOT** liquid shortening could cause severe burns. If service or repair is required, all electrical power **MUST BE TURNED OFF PRIOR TO** performing that service or repair.

### PREVENTIVE MAINTENANCE SCHEDULE

#### DAILY

##### ITEM

##### INSPECT FOR

Grease Filters

Clean grease filters in the exhaust vet hood every evening and allow them to dry overnight

#### WEEKLY

##### ITEM

##### INSPECT FOR

Drain Valve Handle

Determine the Drain Valve Handle is securely attached to the drain valve and that the valve can be easily opened and closed

Temperature Sensing Probes

During boil-out of the fryer, inspect the temperature and hi-limit sensing probes for any visual damage

<p><b>CAUTION: TURN OFF FRYER POWER BEFORE LIFTING HEATING ELEMENTS OUT OF WATER OR SHORTENING</b></p>
----------------------------------------------------------------------------------------------------------------

**TROUBLESHOOTING**

**A. GENERAL:** The problems and possible solutions listed in the troubleshooting chart below are typical problems that are frequently encountered. **ONLY** qualified repairmen are to use the troubleshooting chart to repair this fryer. In the event a main burner malfunction occurs, perform the following checks **PRIOR** to contacting a repairman:

1. Ensure high voltage circuit breakers are in the proper position
2. Ensure the applicable Circuit Breaker is in the **ON** position and that the fryer power toggle ON/OFF switch is in the **ON** Position and the computer is "Powering Up"

**B. TROUBLESHOOTING CHART:** Should a problem occur that cannot be corrected after performing the above CHECKS, contact an **AUTHORIZED** repairman and/or Ultrafryer Systems Customer Service 1-800-525-8130 and provide the information acquired while performing these checks.

**CAUTION: ENSURE REPAIRMEN ARE ADVISED THAT FRYER RESTRAINTS MUST BE DISCONNECTED/ CONNECTED. IF A FRYER IS TO BE MOVED DURING MAINTENANCE OR REPAIR, AND THAT ELECTRICAL POWER AND GAS MUST BE TURNED OFF PRIOR TO PERFORMING ANY MAINTENANCE OR REPAIR.**

<u>ITEM</u>	<u>PROBLEMS</u>	<u>POSSIBLE SOLUTIONS</u>
1	Excessive smoke from the shortening.	A. Check the Computer Program to ensure the Pre-Set Cook Temperature is correct B. Shortening break down has occurred . Replace shortening
2	Process Contactor chatters.	A. Check and/ or tighten the Contactor Coil connections B. Defective Contactor. Replace the contactor
3	Excessive time is required to raise the shortening to cooking temperature. Temperature recovery is slow.	A. Check 3 phase 208/ 240 Voltage applied to Heating Element B. Defective Heating Element.

## **CLEANING**

## **GENERAL**

Any item of equipment operates better and lasts longer when it is kept clean and properly maintained, and the 14" (356 mm) electric fryer is no exception. In order for this fryer to provide years of trouble-free service, it must be CLEANED and MAINTAINED according to the instructions as listed below:

### **DAILY**

1) Clean the fryer surface periodically during operating hours with a solution of sanitizer and hot water, and at closing with stainless steel cleaner. If necessary, use a dampened type 7447 RED or 7440 BROWN (heavy duty) Scotch brite pad to remove encrusted material. DO NOT use steel wool, abrasive cloths, cleaners, powders, metal knife, spatula or any other metal object to scrape stainless steel! Scratches on stainless steel are almost impossible to remove!

2) Filter shortening in each fryer once a day according to Company Policy.

#### **CAUTION:**

**DO NOT ALLOW ANY CLEANING SOLUTION / WATER TO SPLASH INTO A VESSEL OF HOT COOKING OILS AS IT WILL CONTAMINATE THE OIL AND MAY CAUSE THE OIL TO SPLATTER, CAUSING SEVERE BURNS**

### **WEEKLY**

1) BOIL OUT the fryer vat using Boil Out Compound according to procedures in the cleaning manual provided by the chemical provider

2) Perform steps 1 and 2 listed above under Daily Cleaning

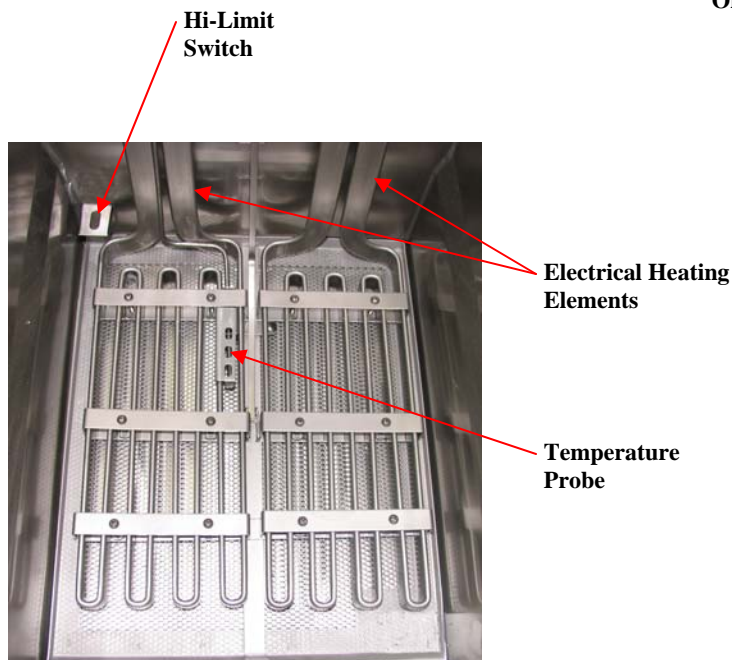
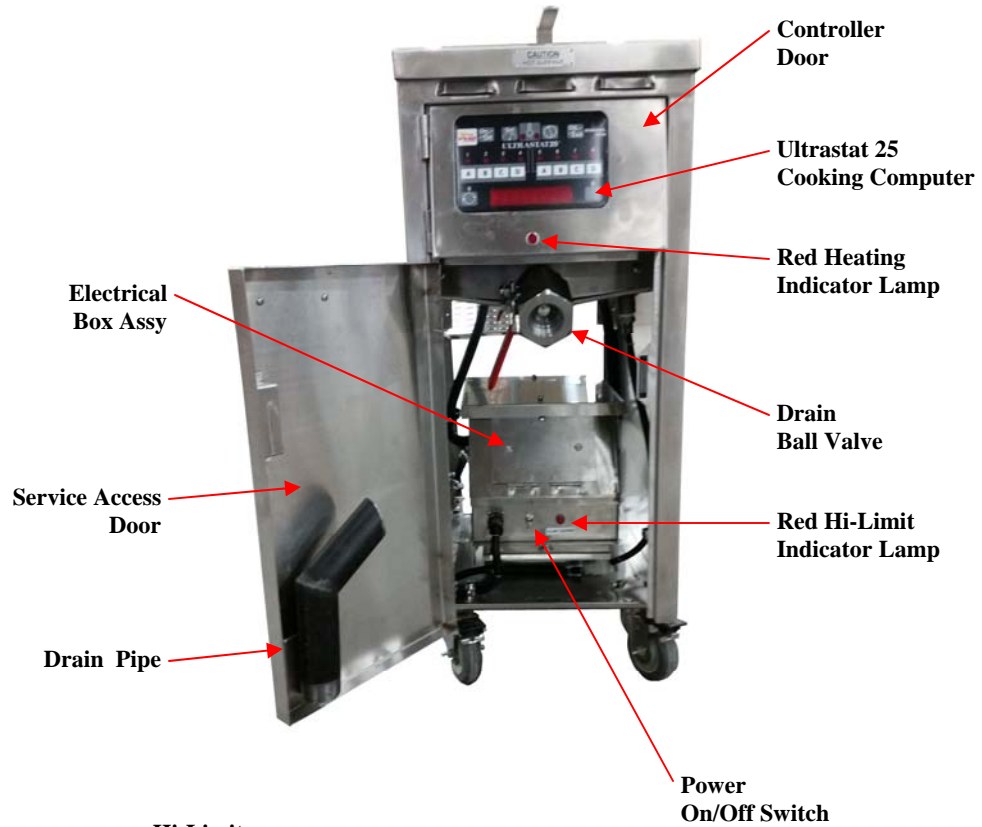
#### **CAUTION:**

**TURN OFF FRYER POWER BEFORE LIFTING HEATING ELEMENTS OUT OF WATER OR SHORTENING**

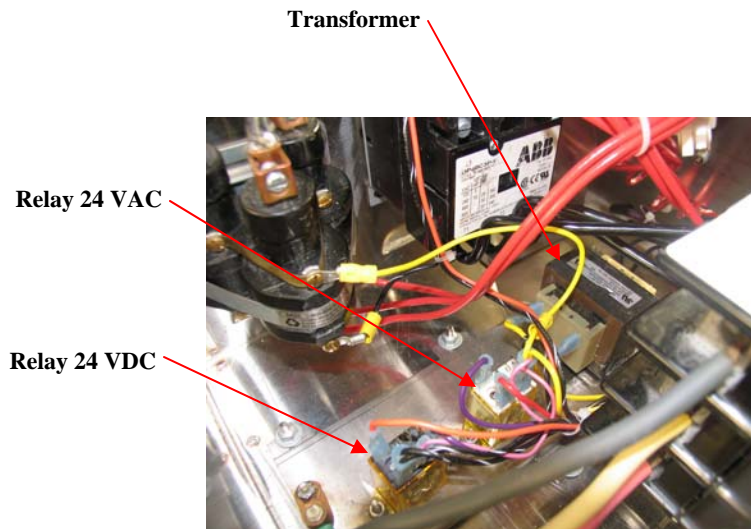
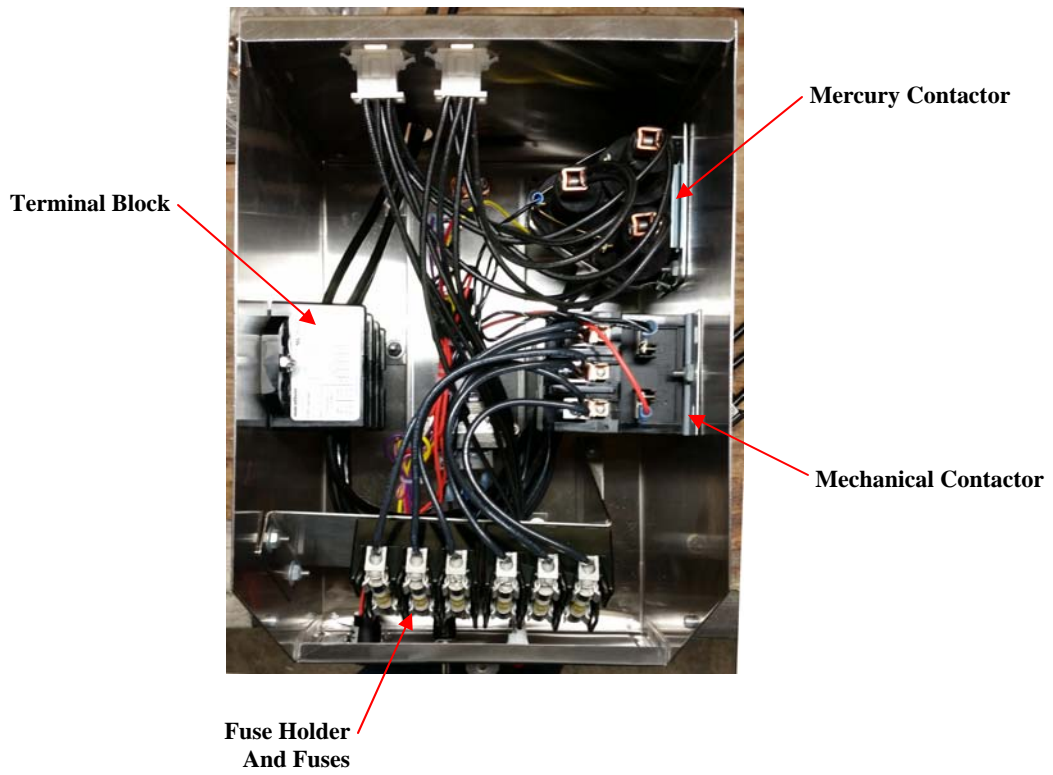
## **FRYER OPERATION**

**GENERAL**

The ED14 Electric Fryer is equipped with a Ultrastat 25 Cooking Computer which turns the fryer ON and OFF, automatically places the fryer in the SHORTENING MELT MODE each time it is turned ON and controls the COOK CYCLES of each product



**Electrical Box Assembly**



**Wires removed from Electrical Box for clarity**



## **Ultrastat 25 Cooking Computer**

The Ultrafryer 14" (356 mm) ED Electric Fryer is equipped with an Ultrastat 25 Cooking Computer which is connected to the fryer's electrical system to serve as its ON/OFF switch and Thermostat as well as providing heat control, status information and product cook timer.

For Operating Instructions for the Ultrastat 25 Cooking Computer reference manual (P/N 30A051) provided with the fryer.

### **SHORTENING INSTALLATION**

#### **LIQUID SHORTENING**

When using liquid shortening fill the fryer with cold shortening 1/2" (13mm) BELOW the SHORTENING LEVEL MARK. When the shortening is heated, ensure it is even with the SHORTENING LEVEL MARK.

#### **WARNING TO AVOID INJURY**

**DO NOT MOVE THE FRYER FILLED WITH HOT LIQUID**

**ALWAYS WEAR OIL-PROFF INSULATED GLOVES WHEN WORKING WITH A FRYER FILLED WITH HOT OIL**

**ALWAYS DRAIN HOT OIL INTO A METAL TUB, POT OR CAN.  
HOT OIL CAN MELT PLASTICBUCKETS OR SHATTER GLASS**

### **START-UP**

To operate an Ultrafryer Electric Fryer equipped with an Ultrastat 25 Cooking Computer

1. Ensure the Fryer's Power ON/OFF Switch is in the ON position
2. Ensure the Computer's ON/OFF Button is in the OFF position
3. Ensure the Drain Ball Valve Lever is CLOSED
4. Safely start up the 14" (356 mm) electric fryer equipped with an Ultrastat 25 Cooking Computer

### **COOKING**

Most products should be cooked with a shortening temperature about 350 degrees F (177 Degrees C), however each product should be cooked at the LOWEST temperature that produces a high quality product while obtaining maximum usage of the shortening

**DO USE A HIGH QUALITY SHORTENING TO ACHIVE A CONSISTENT QUALITY PRODUCT AND LONG TERM SAVINGS**

**DO NOT SALT PRODUCTS OVER THE FRYER AS SALT QUICKLY DETERIORATES THE SHORTENING AND FLAVORS OTHER PRODUCTS COOKED IN THE SAME SHORTENING**

**RECCOMENDED TO FILTER SHORTENING AFTER LUNCH AND DINNER RUSH AND MORE OFTEN IN A HIGH SALE VOLUME STORE AND BOIL-OUT THE FRYER EVERY 7 DAYS**

<p><b>CAUTION: TURN OFF FRYER POWER BEFORE LIFTING HEATING ELEMENTS OUT OF WATER OR SHORTENING</b></p>
----------------------------------------------------------------------------------------------------------------

### **SHORTENING DISPOSAL**

Dispose of oil per company procedures.

## **FRYER BOIL-OUT**

**BOIL-OUT** each fryer following cleaning instructions contained in the Cleaning Manual provided by your approved chemical supplier. The following are generic procedures:

1) Ensure Drain Lever is in the closed position, then add water to vat until it reaches a point 2" (51 mm) BELOW the middle of the UPPER shortening level mark on the rear wall of the vats.

### **WARNING**

**ONLY USE A COMMERCIAL GRADE "NON CHLORINE" BOIL-OUT COMPOUND !!**

2) Add the amount of **BOIL-OUT COMPOUND** in the fryer vat as prescribed in the Cleaning Manual provided by the Chemical Supplier.

3) Turn the Power ON/OFF switch for the fryer to the **ON** position; then depress the Computer ON/OFF Button to the **ON** position.

4) Place the computer in the **BOIL MODE** by pressing the TEMPERATURE Button and the number 2, 1, 2 Buttons

### **NOTE**

BOIL 30:00 will appear in the computer display

The HEAT DEMAND LED on the computer and the RED Heating Indicator Lamp on the fryer will cycle ON and OFF to heat the water to 192 Deg F (89 Deg C)

5) Frequently scrub the sides, front and rear of the fryer vat with a long handled synthetic bristle scrub brush.

6) After the boil-out solution has **BOILED** for 30 minutes and the alarm sounds, press the ON/OFF key to **EXIT BOIL MODE**.

7) Turn the Power ON/OFF Switch for the fryer to the OFF position and CAREFULLY dispose of the boil-out solution in a floor drain.

8) Use a scrubbing pad to remove carbon buildup from the Electric Elements until all encrusted material has been removed.

9) Rinse the vat with hot water until the water coming out of the drain valve is clear.

10) Mix a solution of ONE PART vinegar to 25 PARTS of water. Place this mixture into a one gallon garden pressure sprayer; and THOROUGHLY spray this solution onto the SIDES, ELECTRIC ELEMENTS, and BOTTOM of each vat to neutralize the Boil-Out Compound.

### **NOTE**

Boil-Out Compound will cause shortening to break down rapidly if it is not neutralized.

11) **THOROUGHLY** wipe the sides, electric element, and bottom of the vat with clean, lint-free, dry towels to remove any remaining water; then fill each fryer with **NEW** shortening following shortening installation procedures in this manual.

12) After the fryer has been filled with new shortening, place the computer in the **FEATURE PROGRAMMING MODE** and set the **DISPOSAL HIT COUNT ( DHC #####)** to "0" to clear the **DISPOSE PROMPT**, then press the **SET** key on the computer to exit the programming mode and return to normal operation.

**CAUTION:**  
**TURN OFF FRYER POWER BEFORE LIFTING HEATING ELEMENTS OUT OF WATER OR SHORTENING**

## **SHUT DOWN PROCEDURES**

1. Ensure the Computer's ON/OFF Button is in the OFF position
2. Ensure the Fryer's Power ON/OFF Switch is in the OFF position

**TECHNICAL ASSISTANCE, ORDERING INFORMATION**

**TECHNICAL ASSISTANCE** - Contact an authorized service agent or the Customer Service Department, Ultrafryer Systems at 1-800-525-8130 for technical assistance.  
E-Mail technical assistance at: techserv@ultrafryer.com

**ORDERING INFORMATION:**

1. **REPLACEMENT PARTS** - Provide the following information when ordering replacement parts by phone, fax or mail:

Your company name and phone number  
Your company purchase order number  
Bill-to address  
Ship-to address  
Quantity desired  
Part number and description of the desired-item Your name or signature of authorized-buyer

Phone in order to: 1-888-331-5013  
FAX order to: 1-210-731-5061  
Mail order to: Ultrafryer Systems  
Order Entry Office  
P.O. Box 5369  
San Antonio, TX 78201  
E-Mail your order to: custserv@ultrafryer.com

2. **TERMS** - Net 30 days for customers on approved accounts. Past due balances will be charged 1% per month (12% per annum) until full balance is paid.
3. **DAMAGES** - Ultrafryer Systems is not responsible for damage occurring in transit. All deliveries must be inspected for damage to shipping containers prior to departure of the delivering carrier. Any damage must be notated on the receiving document to facilitate filing of freight claims. Carriers must be notified immediately and freight inspections must be requested from the carrier. Ultrafryer Systems can and will gladly assist you in preparing and processing of the necessary claims only if proper notification has been accomplished on the carrier delivery document. Damaged equipment and or containers must be available for the claims inspector to inspect.
4. **RETURNS** - Ultrafryer Systems cannot guarantee credit for items returned without proper authorization. All returns must have prior Ultrafryer Systems Customer Service or Warranty department approval. An assigned number will be issued by the approval authority. Please print the assigned number on all returned packages and corresponding paperwork. Returned goods are subject to a 15% restocking charge. Ultrafryer Systems is not responsible for freight charges on returned goods unless authorized by Customer Service and or Warranty personnel. Ultrafryer Systems does not receive freight collect or C.O.D. shipments.

## **RECOMMENDED SPARE PARTS**

## RECOMMENDED SPARE PARTS

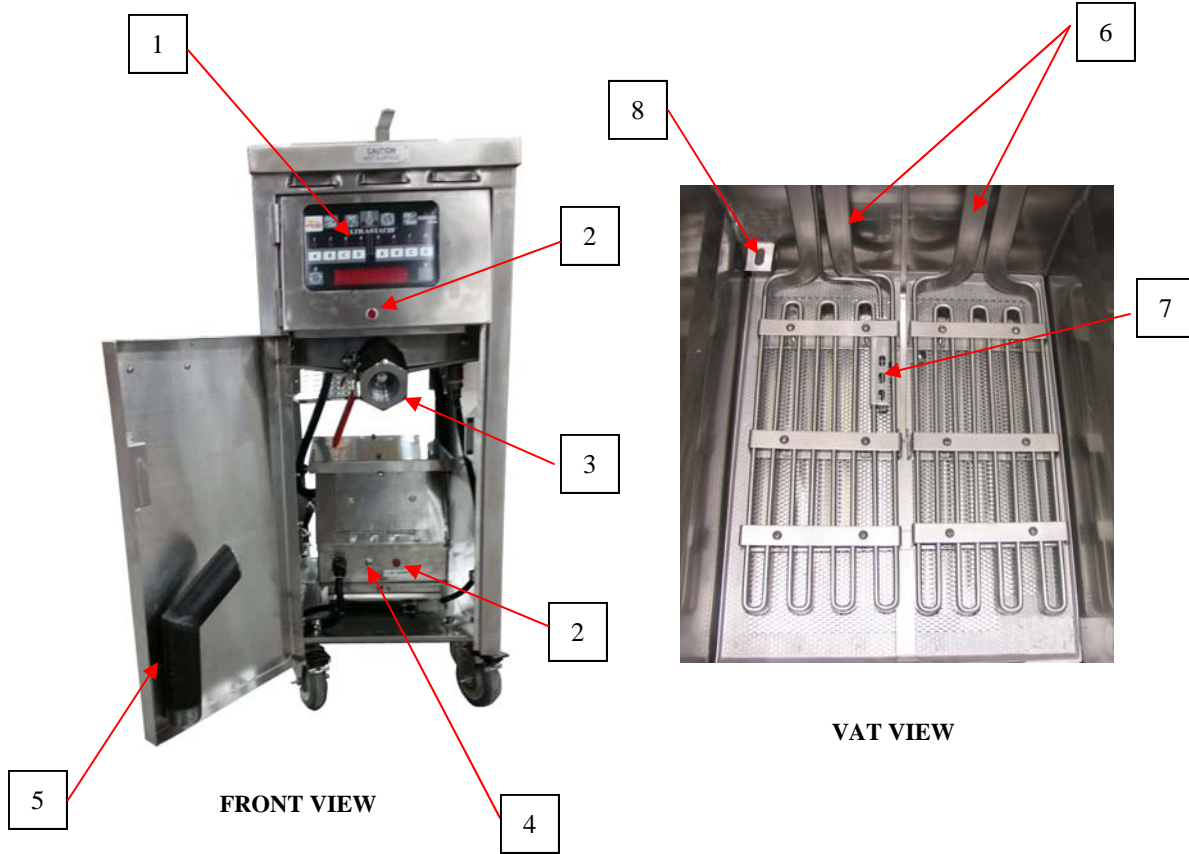
To minimize downtime on the Electric Fryer upon failure of a component part, at least one (1) of the following items should be kept as a spare part in the local area

Description	P/N
U25 Controller	22A621
Hi-Limit Switch	18A364
Mechanical Contactor	18A103
Mercury Contactor	18A026
Relay 24 VDC	18A301
Relay VAC	18A034
Fuse	23A278
Transformer	18A368
Temp Sensor	18A367
Push Nut	27A087

## **PARTS IDENTIFICATION**

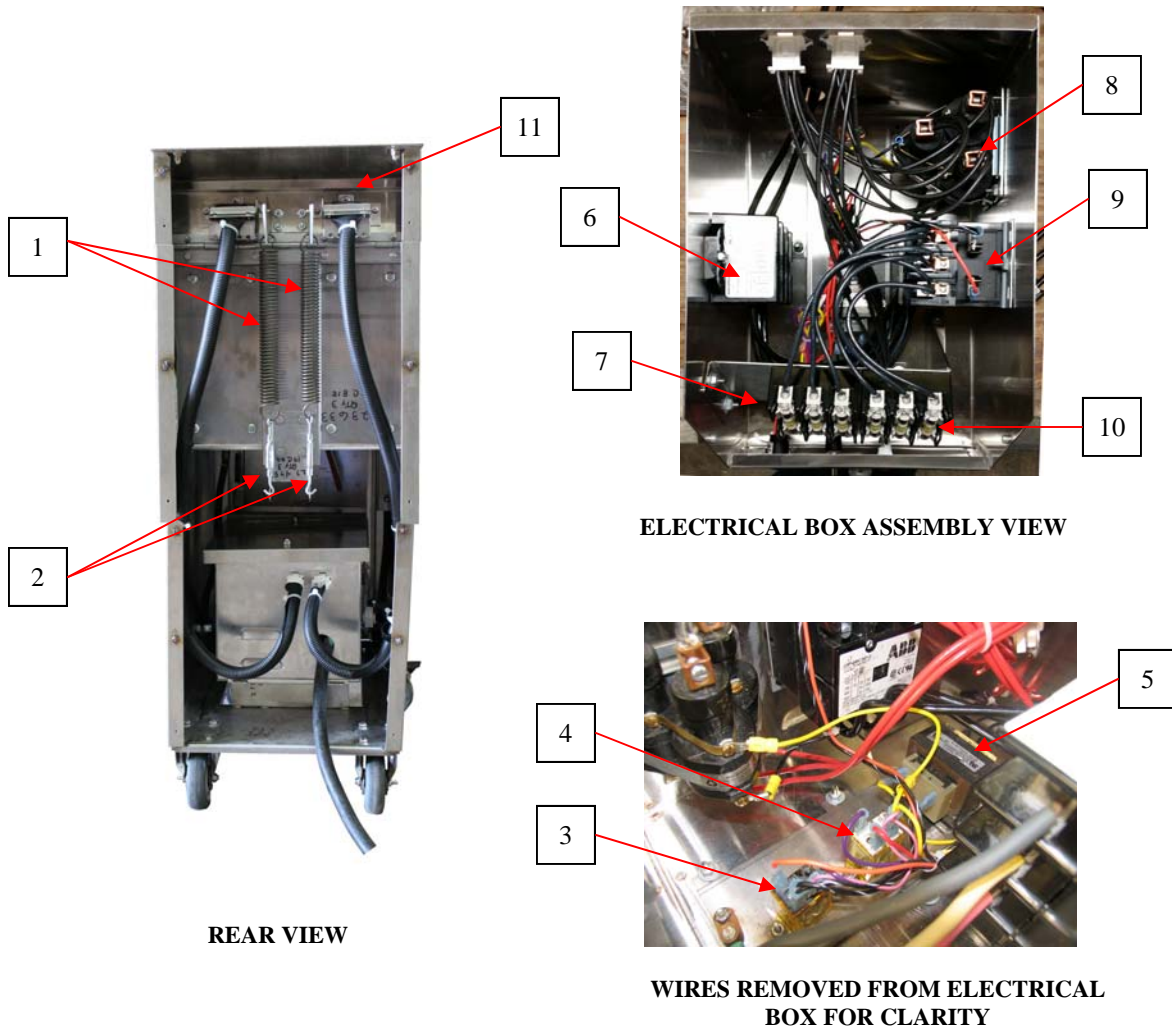
**PARTS IDENTIFICATION**

Locate the part on the following sheets and note the Item Number, then obtain the description and part number. Use that part number when ordering a replacement part



<u>ITEM</u>	<u>DESCRIPTION</u>	<u>PN</u>
1	U25 Controller	22A621
2	Snap Light (Red)	23A103
3	Drain Ball Valve	24A204
4	Toggle Switch	18-204
5	Drain Pipe	12B089
6	Heating Element	18A365
7	Temp Sensor	18A367
8	Hi-Limit Switch	18A364





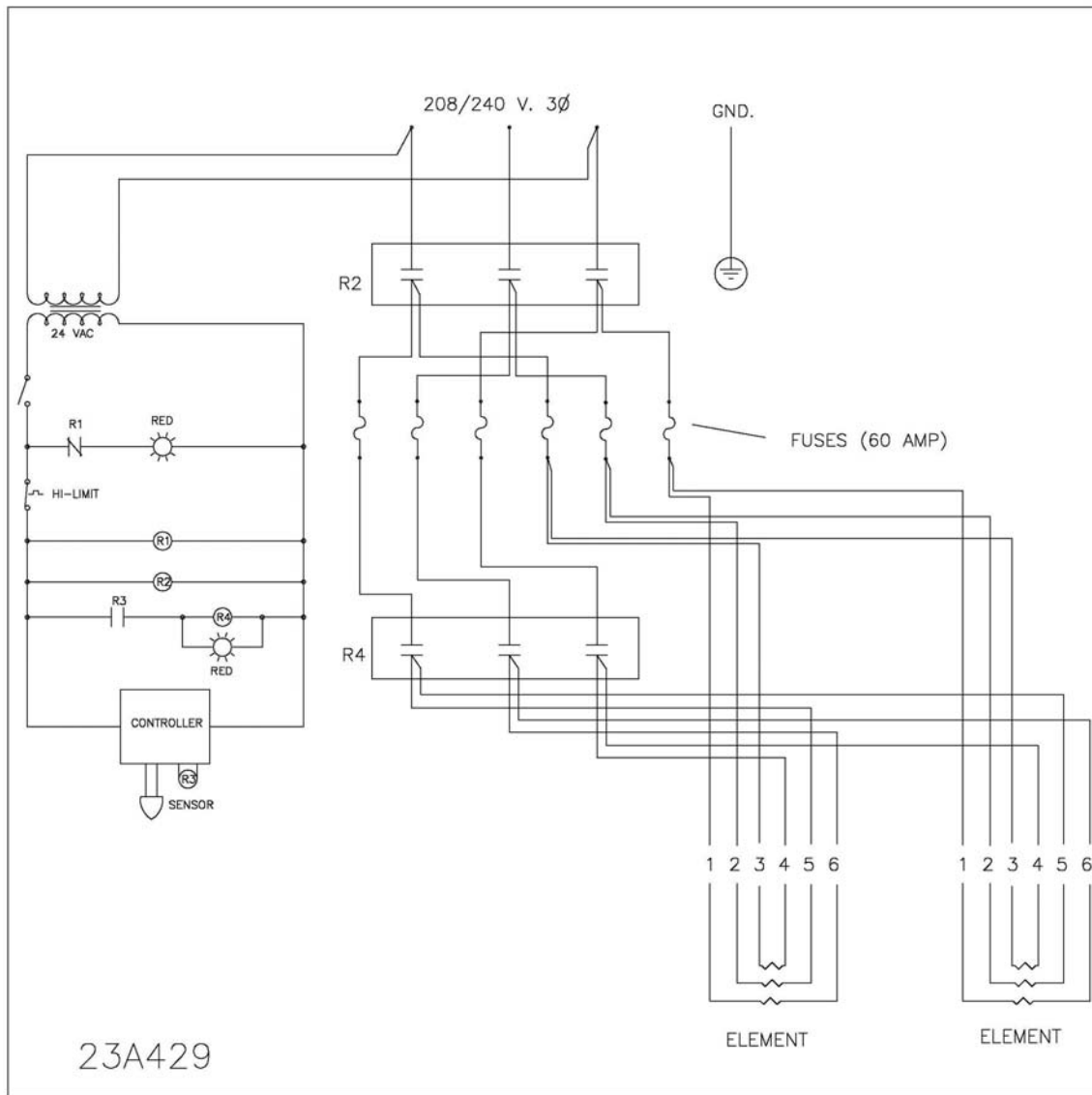
**REAR VIEW**

**ELECTRICAL BOX ASSEMBLY VIEW**

**WIRES REMOVED FROM ELECTRICAL BOX FOR CLARITY**

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>PN</u>
1	Element Spring	22A763
2	Turn Buckle	22A764
3	Relay 24 VDC	18A301
4	Relay 24 VAC	18A034
5	Transformer	18A368
6	Terminal Block	23A428
7	Fuse Holder	23A277
8	Mercury Contactor	18A026
9	Mechanical Contactor	18A103
10	Fuse	23A278
11	Push Nut	27A087

## **WIRING DIAGRAM**



**ACCEPTABLE ALTERNATE AND REQUIRED HI-LIMIT CONSTRUCTION**

**ACCEPTABLE ALTERNATE AND REQUIRED HI-LIMIT CONSTRUCTION**

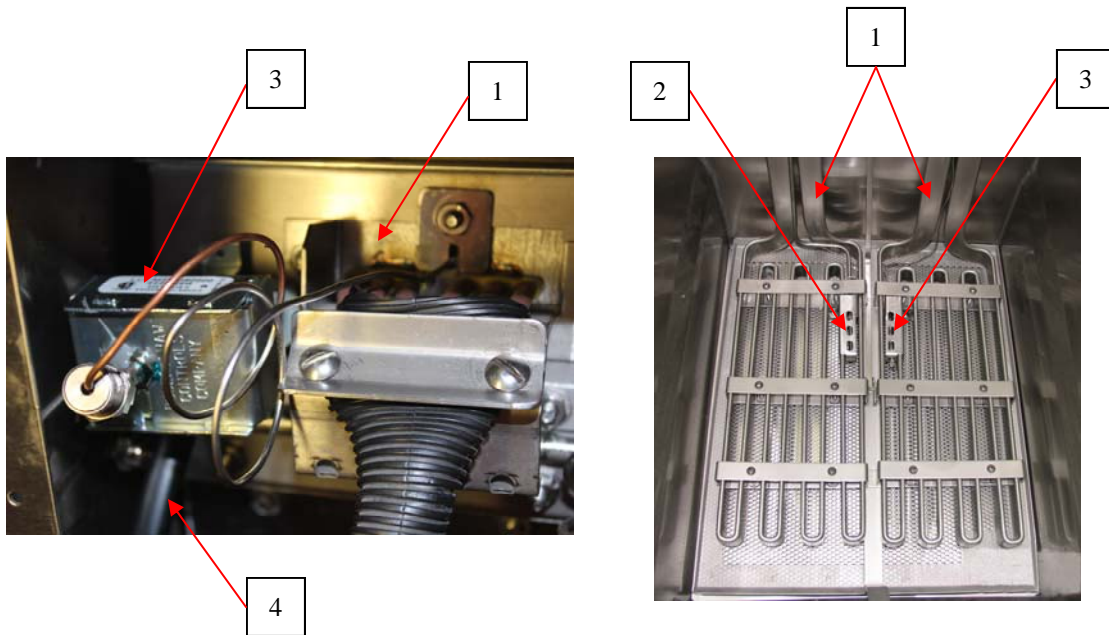
**U.S. Fryer**

The 18A371 Hi-Limit described below is an acceptable alternate for the U.S. Fryer when an 18A364 Hi-Limit is not available

**Canada Fryer**

For this fryer configuration it will be constructed like the U.S. Fryer on the previous pages with the exception of a Hi-Limit. The 18A371 Hi-Limit described below is the ONLY Hi-Limit to be used to meet the requirements for a Canada Fryer

Locate the part below and note the Item Number, then obtain the description and part number. Use that part number when ordering a replacement part



**REAR VIEW OF ELEMENT BRACKET**

**VAT VIEW**

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>PN</u>
1	Heating Element	18A365
2	Temp Sensor	18A367
3	Hi-Limit Switch	18A371
4	Hi-Limit Cable	22A779