



Cool Zone Series Electric Fryers Installation & Operation Manual

Models 714E, 1414E, 1818E & 2020E



DEAN



Dean, a member of the Commercial Food Equipment Service Association, recommends using CFESA Certified Technicians.

24-Hour Service Hotline 1-800-551-8633

**Price: \$6.00
819-5867**

PLEASE READ ALL SECTIONS OF THIS MANUAL AND RETAIN FOR FUTURE REFERENCE.

This product has been certified as commercial cooking equipment and must be installed by professional personnel as specified.

We suggest installation, maintenance and repairs should be performed by your local Factory Authorized Service Center.

INSTRUCTIONS TO BE FOLLOWED IN CASE THE USER SMELLS GAS ARE TO BE POSTED IN A PROMINENT LOCATION. THIS INFORMATION SHALL BE OBTAINED BY CONTACTING THE LOCAL GAS COMPANY OR GAS SUPPLIER.

FOR YOUR SAFETY, DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER GAS APPLIANCE.

**IMPORTANT
SAFE AND SATISFACTORY OPERATION OF YOUR EQUIPMENT DEPENDS ON IT'S PROPER INSTALLATION. INSTALLATION MUST BE PLANNED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES.**

**WARNING
Safety labels are a required component of this unit. If missing, or not legible, they must be replaced. Inspect periodically and replace if necessary. Replacement labels are available free of charge from the factory.**

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1. DESCRIPTION AND SPECIFICATIONS

The Dean Industries Electric Deep Fat Fryers are energy-efficient, electrically heated units, listed by the Underwriter's Laboratory, and manufactured to the following basic performance and application specifications. All units are shipped complete assembled, with any accessories packed inside the fryer tank. All units are adjusted, tested and inspected at the factory prior to crating for shipment.

MODEL	714E	1414E	1818E	2020E
FRYING VESSEL				
Frying Area:	6-3/4x14	14x 14"	18x18"	20x20
Oil Capacity	25#	40#	70#	80#
ELECTRICAL REQUIREMENTS:				
Wattage:	18KW			
Amperage:	208V, 3hp, 49.9		ALL	
	MODELS			
	208V, 1hp, 86.5			
	240V, 3hp, 45.7			
	240V, 1hp, 75.0			
APPROX. SHIPPING	115#	153#	190#	200#
Note: 1818E and 2020E are also available in 13.5 KW models.				

VESSEL CONSTRUCTION:

Welded, heavy gauge stainless steel; three heater elements fixed inside the vessel with an inner chromed wire mesh protective crumb screen over the elements. Drain tapped into center of vessel with front-controlled manual ball valve.

BODY CONSTRUCTION:

Welded steel base, with visible surfaces of brushed Series 300 stainless steel or painted steel. Frame supported by 6" adjustable legs or 5" casters on line-ups of multiple units.

OPERATING CONTROLS:

Unit is shipped standard with a liquid bulb filled thermostat or an optional solid state temperature controller. Either temperature control is mounted in the cabinet behind the

front door on or near the cabinet floor. Optional panel-mounted main power switch, rocker-type reset switch, melt cycle switch, and instant power switch are mounted on control panel.

Melt Cycle:

This feature pulses the heating elements on and off at a controlled rate. This should be used when the fryer is being used with solid shortening.

Instant power:

Except on bulb and capillary type thermostats, this feature by-passes the temperature controller for a pre-set period of time to provide maximum heating power into frying compound and to allow the operator to anticipate heavy use.

AUTOMATIC SAFETY FEATURES:

- a) High temperature detection to shut off power to the heating elements should the controlling thermostat fail.
- b) Optional safety switch built into the drain valve prohibits element operation with the drain valve even partially open.

RATING PLATE:

This is riveted to the inside right-hand corner of the fryer door.

Information on this plate includes the model and serial numbers; when communicating with the factory about a unit or requesting special parts or information, this data is essential for proper identification. Other information on this plate is the kW output of the heaters and electrical requirements.

ALL DEAN INDUSTRIES DEEP FAT FRYERS MUST BE CONNECTED ONLY TO THE TYPE OF ELECTRICAL SERVICE IDENTIFIED ON THIS RATING PLATE!

2. PRE-INSTALLATION

GENERAL:

Installation of any heavy-duty electrical appliance should be made by a licensed electrician.

STANDARDS:

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

- a) Nat'l Electrical Code ANSI/NFPA #70-1984:
American National Standards Institute
1430 Broadway
New York, NY 10018
- b) NFPA Standards #96 and #211:
National Fire Protection Association
470 Atlantic Avenue
Boston, MA 02110

CAUTION

Local building codes will usually not permit a deep fat fryer with its open tank of hot oil to be installed beside an open flame of any type, whether a broiler or the open burner of a range. Check local codes before beginning installation.

AIR SUPPLY & VENTILATION:

The area around the appliance must be kept clear to avoid obstruction to the flow of ventilation air as well as for ease of maintenance and service. Under no conditions is the interior of the fryer's cabinet to be used for storage.

- a) Means must be provided for any commercial heavy-duty cooking appliance to exhaust cooking vapors to the outside of the building.
- b) Filters and drip-throughs should be part of any industrial hood, but consult local codes before constructing and installing any hood.

3. RECEIVING & INSTALLING THE FRYER

UNPACKING:

Check that the container is upright. Use outward prying - no hammering - to remove the carton. Check the fryer(s) for visible damage; if such damage has occurred, do not refuse shipment, but contact the carrier and file the appropriate freight claims. Do not contact the factory, as the responsibility for shipping damage is between the shipper and the dealer or end-user.

Remove, unwrap, wash, and temporarily set aside any accessories shipped in the fryer vessel. These may include:

- Basket hanger with baskets
- Wire crumb screen
- Goofer rod (clean-out rod)
- Drain pipe extension
- Lifters, scoops
- Vessel cover
- Teflon cleaning brush
- Legs

LEGS:

Legs should be installed near where the appliance is to be used. After unpacking, raise the unit about a foot to permit the legs to be screwed into their couplings, and lower it gently to keep any undue strain from the legs and internal mounting hardware. It is strongly recommended that a pallet or lift jack be used rather than tilting.

POSITIONING:

Do not push against any of the edges of the unit in an attempt to adjust its position. Lift it slightly and place it where it is to be installed. Although all metal parts are deburred during manufacture, accidents could occur if the fryer (or a line-up) should move suddenly while being pushed into position by hand. Pushing a unit (rather than using a lift jack) also increases the probability of bending the leg spindles or the internal coupling connectors.

LEVELING:

- a) A carpenter's spirit level should be placed across the top of the fryer and the unit leveled both front-to-back and side-to-side. If it is not level, the unit may not function efficiently, the oil may not drain properly for filtering, and in a line-up it may not match adjacent units.
- b) If the floor is smooth and level, level the unit with the screw thread of the legs; adjust to the high corner and measure with the spirit level. If the floor is uneven or has a decided slope, level the unit with metal shims; the adjustment required may exceed the thread available in the leg.

ELECTRICAL CONNECTIONS:

Standards:

The information in this manual is for reference only. Installation must be planned and carried out in accordance with local codes.

Connections to the terminal block and grounding lug should be made through the hole provided for this purpose in the junction box.

The wiring diagram is attached to the inside of the fryer door and all diagrams are included in the centerfold of these instructions. Amperage for each unit depends on the type of installation and accessories supplied with the unit. See detailed instructions packaged with the line-up.

4. INITIAL START-UP

CLEANING:

New units 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. They should be washed thoroughly with hot, soapy water to remove film residues and any installation dust or debris before being used for food preparation, then rinsed out and wiped dry. Wash also any accessories shipped with the unit.

Close the drain-valve completely and remove the crumb screen.

Make sure the screws holding the thermostat and limit control sensing bulbs into the vessel are tight.

HEATING THE VESSEL:

Fill the fryer vessel with hot or cold water to the "oil level" line scribed into the back of the tank. This step will check the heating element operation, initial thermostat calibration, and cleans the vessel for initial production.

- a) Set the operating thermostat dial to 225°F, just above that of boiling water.
- b) Turn on the power switch on the left side of the control panel.
- c) When the water starts to boil, turn the dial to below 212°F. The elements will turn off and the water will stop boiling.
- d) When satisfied that the heaters and thermostat are operating properly, drain the vessel of water and dry thoroughly. Refill it with shortening as directed below.

FINAL PREPARATION:

- a) When using a liquid shortening (cooking oil), fill the fryer to the "oil level" line scribed into the back of the vessel.
- b) When using solid shortening, either melt it first or cut it into small pieces and pack it thoroughly around the heating elements, leaving no air spaces around the elements and being careful not to disturb the sensing bulbs. Melt this shortening either with the "melt cycle" control or by turning the heaters "ON" for about five to ten seconds, "OFF" for a minute, "ON" for five to ten seconds, "OFF" for a minute, etc., until the shortening is melted. If you see smoke coming from the oil while melting this way, shorten the "ON" cycle and lengthen the "OFF" cycle, as smoke indicates that you are scorching the shortening and reducing its usual life.

- c) When the fryer vessel is filled and the shortening melted, replace the crumb screen.
- d) Before starting operation, turn the operating thermostat to the probable working temperature, wait for the temperature to stabilize, then check with a high-quality immersion thermometer.

WARNING:

The fryer must not be operated without enough cooking compound in the vessel to cover the heating elements.

Do not move a fryer filled with a hot liquid.

Always wear oil-proof, insulated gloves when working with the fryer filled with hot oil

Always drain hot oil into a metal container...hot oil can melt plastic buckets and crack glass on containers.

5. DAILY OPERATION

OPENING:

At opening time, always visually check the fryer for:

- a) Power switch "off".
- b) Temperature controller dial "OFF".

GENERAL TURN-ON PROCEDURE:

- a) If the fryer is empty, pour enough frying compound into the fryer to at least cover the heating elements, or fill the vessel to the "oil level" line scribed on the rear wall. If solid shortening is to be used, melt enough in a separate container to cover the heating elements in the bottom of the vessel, then melt the rest in the vessel by turning the power switch off and on.
- b) Turn the power switch on; turn the temperature controller to 350°F (recommended). In less than 30 minutes,

the frying compound temperature will stabilize and be ready for production.

USE OF THE FRYER:

For optimum results, the following general information is offered.

- a) For consistent product quality, convenience, and long-term savings, use a high-quality liquid frying compound.
- b) If using solid shortening, never attempt to melt a block of shortening by setting it whole in the fryer vessel. This is inefficient and dangerous.
- c) Temperature of frying compound. Although 350°F is the usual temperature recommended for most cooking operations, frying should be carried out at the lowest temperature which will produce a high quality and product while ensuring maximum life of the frying compound.

When the fryer is not in use, the temperature controller or operating thermostat should be set lower than that used during cooking. Light loads, too, may be cooked at lower temperatures. A good operator will experiment to determine the optimum temperature and load conditions for the various food items to be cooked.

- d) Salting. Operators sometimes salt the food over the frying vessel. This practice should be avoided, as salt deteriorates the frying compound quickly and flavors everything being cooked, not just the batch being salted.

FILTERING:

The frying compound should be filtered at least daily, or even more frequently if cooking is heavy. This assures the longest life possible for the frying compound, gives a better taste to the food being prepared, and minimizes flavors being transferred from batch to batch.

When completing a filter cycle, always close the return valve(s) at the fryer(s) to avoid siphoning oil out of the fryer into the filter, and open the

valve at the filter to promote draining of the return lines into the filter pan.

If using solid shortening, always make sure the return lines are clear before turning off the filter motor, and hang any flexible lines up to drain. Solid shortening will solidify as it cools and clog the lines.

CLOSING:

When closing at night, filter the oil in all fryers and drain the filter lines. Cover the open tanks of oil. Turn the power switch on the fryer panel "off".

SHUT-DOWN:

When shutting down for longer than just overnight, drain the frying compound, clean the vessel thoroughly, either discard the frying compound or return it filtered to the vessel and then cover it.

6. CLEANING & MAINTENANCE

GENERAL:

Any piece of equipment works better and lasts longer when maintained properly and kept clean. Cooking equipment is no exception. your electric Deep Fat Fryer must be kept clean during the working day and thoroughly cleaned at the end of each day.

DAILY:

- a) Remove and wash all removable parts and accessories.
- b) Clean all exterior surfaces of the body. Do not use cleansers, steel wool, or any other abrasive material on stainless steel (see "Stainless Steel" section below).
- c) Filter the cooking oil and replace if necessary. The oil should be filtered more often than daily under heavy use.
- d) Do not run water through the filter as part of the cleaning process; the filter pump is not designed to handle water.

This will void the warranty for your filter, hasten filter pump failure, and could cause accidents if water mixes with hot oil.

WEEKLY:

- a) Completely drain the fryer vessel into either the filter or a steel container. Do not use a plastic bucket or glass container.
- b) Clean the vessel with a good grade of cleaner or hot water and a strong detergent.
- c) Close the drain valve and refill with either the cleaning solution or water and detergent.
- d) Bring to a rolling boil, turn the heat down, and let the mixture stand until deposits and/or carbon spots can be rubbed off with the Teflon brush.
- e) Scrub the tank walls, bottom, and heating elements, then drain the vessel and rinse in clear water.
- f) Refill with clear water and boil again.
- g) Drain, rinse, and dry thoroughly.
- h) Refill with cooking oil or frying compound as directed above.

PERIODIC:

Your electric Deep Fat Fryer should be checked and adjusted periodically by qualified service personnel as part of a regular kitchen maintenance program.

STAINLESS STEEL:

All stainless steel body parts should be wiped regularly with hot, soapy water during the day and with a liquid cleaner designed for this material at the end of each day.

WARNING!!!
Do not let water splash into the tank of hot oil...it will splatter and can cause severe burns.

Do not use steel wool, abrasive cloths, cleansers, or powders! If it is necessary to scrape stainless steel to remove encrusted materials, soak the area with hot cloths to loosen the material, then use a wood or nylon scraper. Do not use a metal knife, spatula, or any other metal tool to scrape stainless steel! Scratches are almost impossible to remove.

7. TROUBLESHOOTING

These troubleshooting procedures must be carried out only by a Factory Authorized Service Agent or a local service company specializing in hotel and restaurant cooking appliances.

FACTORY APPROVAL MUST BE OBTAINED PRIOR TO ANY WARRANTY WORK BEING DONE OR DEAN INDUSTRIES CANNOT BE HELD RESPONSIBLE.

7.1 If the elements will not turn on and there is no evidence of heating the vessel even when cold, check the following:

- a) With the proper ON/OFF switch "ON", manually reset the high temperature limit switch (push the red button behind the access door).
- b) Check that the branch or main circuit breakers or fuses are not tripped or blown.
- c) Check that correct line voltage exists across block terminals L1-L2, L2-L3, and L3-L1 (three-phase connection), or L1-L2 (single-phase connection).
- d) Check that correct line voltage exists on all terminals on the load side of the circuit breakers.
- e) If the panel indicator light is glowing but contactors are not actuated, check continuity of the two holding coil circuits, from the indicator light to L2.

f) If the panel indicator light is not glowing, first check that line voltage does not exist across the lamp, then:

- 1) Check the fuse for line voltage between the load side and L2.
- 2) Check the power on/off switch for line voltage between the load side and L2.
- 3) Check the high limit thermostat for line voltage between the load side and L2; if resetting does not produce results, replace the device.
- 4) Check the operating thermostat for line voltage between the load side and terminal L2; if defective, replace the part.
- 5) Check the wiring to the temperature controller.

7.2 Poor temperature control on the cold side; warm-up time excessive; slow or inadequate temperature recovery when vessel loaded; uneven heating.

- a) Check temperature controller adjustment: Place the sensing bulb of a high quality immersion thermometer about 1-1/2 inches above the thermostat sensing bulb or RTD probe and set the controller dial for 350°F. Wait at least 20 minutes for the oil temperature to stabilize. If the temperature is not within +/-10°F of the dial setting, see "Probe Test" below for the solid state "Theratron" controller or call for service for an operating thermostat.
- b) With the panel indicator light glowing, check that both holding coil circuits or contactors are energized and contactors are actuated.
- c) Check the load side of the contactors to the heating element terminals. Each element should draw about 30 amps (208V) or 26 amps (240V).

7.3 Poor temperature control on the hot side; excessive temperature overshoot during warm-up; over heating, scorching; high-limit switch must be reset often.

- a) Check temperature controller [see item (a) in section 7.2].
- b) Check RTD probe (see section 7.4).
- c) Check that the thermostat bulb or RTD probe in the vessel has not been knocked loose from its operating position. It should be clamped to the element with 1/16" spacing.

7.4 PROBE TEST:

The Thermatron controller is equipped with a built-in probe test. This is located adjacent to the temperature adjustment on the control, and is marked "probe test". This test can help diagnose several problems:

- a) If the fryer turns off at some point below the dial setting and will not come back on until the oil temperature drops very low, there may be an intermittent open in the probe or the temperature controller may be out of calibration. Test as follows:

Push the "probe test" button all the way down and turn the thermostat dial back and forth past 350°F. If the indicator light in the power switch turns off and on within 10°F of that setting, the probe is defective and must be replaced. If the indicator light does not come on within 10°F, call for service, as the problem could be in the temperature controller.

- b) If the indicator light and heating elements do not come on at all, but will when the probe test button is pushed and the thermostat dial is turned past 350°F, then the probe is bad and must be replaced.

7.5 TEMPERATURE ADJUSTMENT:

An additional feature of the "Thermatron" controller is a temperature fine-tune adjustment. If the actual temperature of the cooking oil varies from the reading on the controller dial, it may be adjusted as much as $\pm 10^{\circ}\text{F}$ by simply turning the adjustment screw, located to the right of the control dial clockwise to increase or counterclockwise to decrease the temperature.

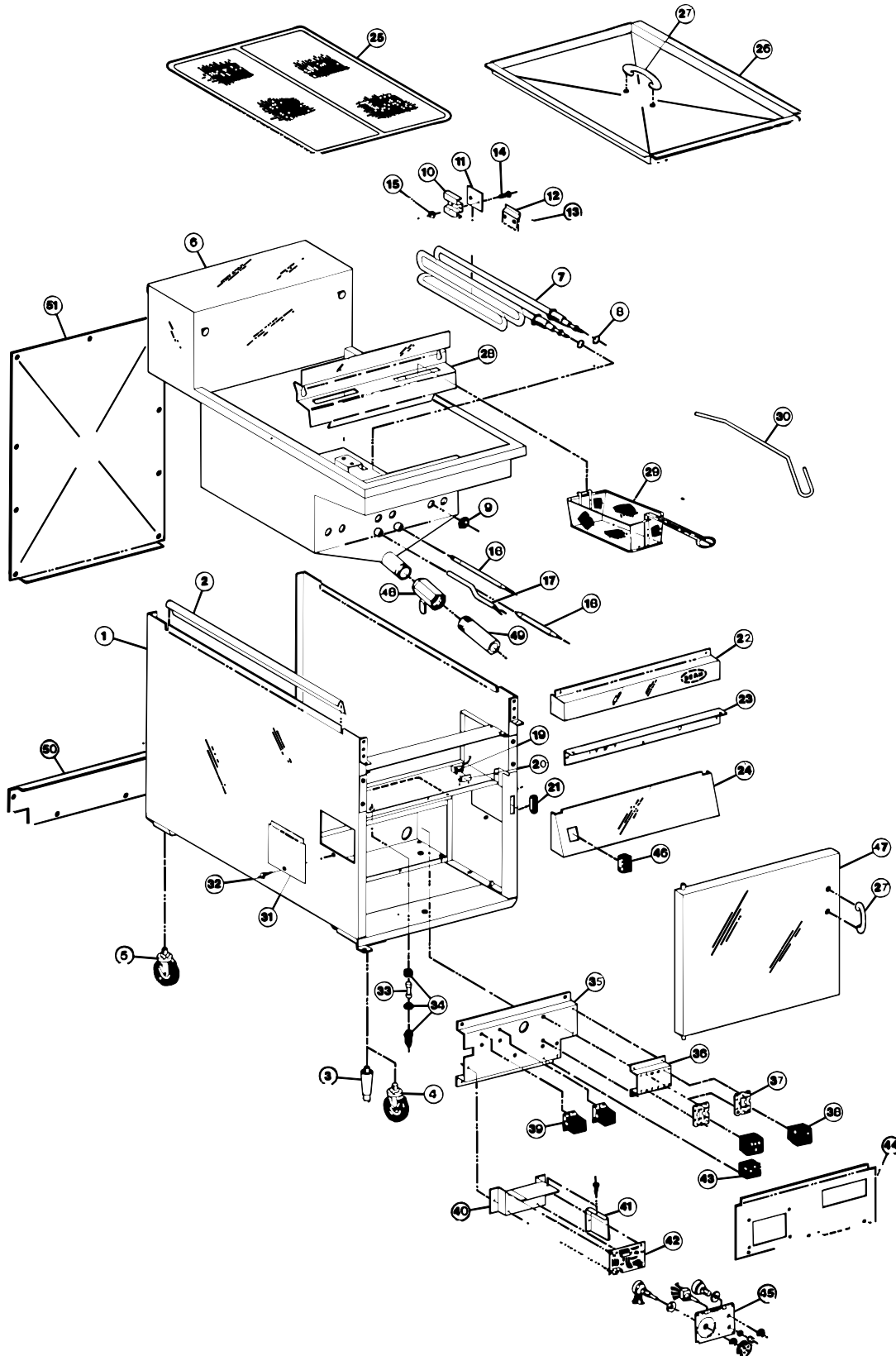
Do not attempt to turn this adjustment past the stops or the controller will be damaged!

8. RECOMMENDED SPARE PARTS

To insure minimum downtime of the fryer in case the replacement of a part is required, it is recommended that one each of the following parts be kept in local stock:

Operating thermostat (if so equipped)
Temperature High-limit control
5 amp cartridge fuse

PARTS LIST
COOL ZONE ELECTRIC FRYERS
MODELS 714E, 1414E, 1818E, 2020E



**PARTS LIST
COOL ZONE ELECTRIC FRYERS
MODELS 714E, 1414E, 1818E, 2020E**

ITEM NO.	DESCRIPTION	714E	1414E	1818E	2020E
1	Structural panel, L/H	12-0160-1 (P) 12-0159-1 (S/S)	07-0031	N/A	20-0065
*	Structural panel, R/H	12-0160-2 (P) 12-0159-2 (S/S)	07-0032	N/A	20-0064
2	Vessel top spacer	N/A	14-0598	N/A	07-0024
3	Leg	1731-2	1731	1731	1731
4	Caster, w/brake	1942	1942	1942	1942
5	Caster, w/o brake	1943	1943	1943	1943
6	Vessel, Cooking	SEE VESSEL REPLACEMENT KITS			
7	Heating Elements	SEE HEATING ELEMENT CHART			
8	O-Ring, Viton	1902	1902	1902	1902
9	Element retainer Nut	2189	2189	2189	2189
10	Heating Element spacer	18-0031	18-0031	18-0031	18-0031
11	Heater Support Plate	N/A	18-0061	18-0061	18-0061
12	Thermostat Clamp	18-0041	18-0041	18-0041	18-0041
13	Clamp, high limit & sensor	18-0040	18-0040	18-0040	18-0040
14	Retainer bolt	1032	1032	1032	1032
15	Retainer nut	2184	2184	2184	2184
16	High-limit capillary bulb	Furnished With High-Limit Switch			
17	Temperature sensor, Thermatron	14-0693	14-0693	1374	1374
18	Temperature sensor, Robershaw	Furnished With Thermostat			
*	Operating thermostat	2557	2557	2557	2557
*	Thermostat knob	1205-1	1205-1	1205-1	1205-1
19	High-limit switch	1365	1365	1365	1365
20	High-limit mounting bracket	07-0138	11-0171	18-0040	11-0171
21	Magnetic door catch	1503	1503	1503	1503
22	Canopy	07-0060	07-0034	24-0092	20-0014
23	Wireway front cover	07-0135	14-0617	18-0037	20-0056
24	Control panel	N/A	14-0627	24-0076	20-0015
25	Grid	07011-SC	14-0179	18012	20000
26	Vessel cover	07027	14-0494	24164	20022
*	Vessel cover, w/basket lift	07-0089	14-0382	44-0420	20-0050
27	Cover or door handle, w/screws	1039	1039	1039	1039
28	Basket hanger	07-0212	14-0580	18-0067	18-0067
29	Fry basket	1362	1362	1954	1954
30	Goofer rod (declogger)	14-0193	14-1093	14-1093	14-1093
31	Side access cover	11-0140-1 (P) ALL 11-0140-2 (S/S) ALL			
32	Retainer screw	1025	1025	1025	1025
33	Fuse, 5 amp	N/A	1693	1693	1693
*	Fuse, 2 amp	1131	1131	1131	1131
34	Fuse holder, 5 amp, w/leads	N/A	1692	1692	1692
*	Fuse holder, 2 amp, w/leads	1130	1130	1130	1130
35	Control box mounting plate	N/A	14-0452	24006	24006
36	Circuit breaker bracket support	N/A	14-0097	14-0097	14-0097

* Not Illustrated (P=Painted; S/S=Stainless Steel)

**PARTS LIST
COOL ZONE ELECTRIC FRYERS
MODELS 714E, 1414E, 1818E, 2020E**

ITEM NO.	DESCRIPTION	714E	1414E	1818E	2020E
37	Circuit breaker mounting plate	1594	1594	1594	1594
38	Circuit breaker	N/A	1593	1593	1593
39	Contactora	1368	1368	1368	1368
40	Thermatron mounting plate	07-0127	14-0453	24-0129	24-0129
41	Thermatron barrier	N/A	14-0454	N/A	N/A
42	Thermatron PC board	2337-1	2337-1	2337-1	2337-1
*	Relay, 24V	N/A	1932	1932	1932
*	Transformer, 208V – 240V	N/A	2110	2110	2110
43	Terminal block	1501	1501	1501	1501
44	Thermatron control box cover	07-0133	14-0456	24-0030	24-0030
45	Control Plate Assembly	N/A	11226	11226	11226
46	Power Switch	2025	2025	2025	2025
47	Door Assembly	07015	14231	24019	20008
*	Door lower hinge bracket	07-0036	N/A	24-0004	24-0004
48	Drain valve, 1"	07083	N/A	N/A	N/A
*	Drain valve, 1-1/4"	N/A	2066-1	2066-1	2066-1
*	Optional mercury switch	N/A	1936	1936	1936
49	Drain Valve extension	N/A	14-0178	14-0178	14-0178
50	Lower structural back	07-0140	07-0026	N/A	N/A
51	Upper structural back	07-0139	14-0424	N/A	N/A
*	Structural back, one piece	N/A	N/A	24-0075	20-0057

* Not Illustrated

Heating Elements:

HEATING ELEMENT CHART				
DESCRIPTION	714E	1414E	1818E	2020E
Heating Element, 208V, 4.5kW	N/A	N/A	18-0026-6SK	18-0026-6SK
Heating Element, 208V, 6.0kW	N/A	14-0592-1SK	18-0026-3SK	18-0026-3SK
Heating Element, 208V, 8.0kW	07-0144-1SK	N/A	N/A	N/A
Heating Element, 240V, 4.5kW	N/A	N/A	18-0026-5SK	18-0026-5SK
Heating Element, 240V, 6.0kW	N/A	14-0592-2SK	18-0026-1SK	18-0026-1SK
Heating Element, 240V, 8.0kW	07-0144-2SK	N/A	N/A	N/A
Heating Element, 380V, 8.0kW	07-0144-3SK	N/A	N/A	N/A
Heating Element, 415V, 6.0kW	N/A	14-0592-3SK	N/A	N/A
Heating Element, 480V, 6.0kW	N/A	14-0592-7SK	N/A	N/A

**PARTS LIST
COOL ZONE ELECTRIC FRYERS
MODELS 714E, 1414E, 1818E, 2020E**

Thermatron Controllers:

THERMATRON CONTROLLER CHART				
DESCRIPTION	714E	1414E	1818E	2020E
Thermatron Retro Kit, 208V	14714-1	14715-1	18149-3	18149-3
Thermatron Retro Kit, 240V	14714-2	14715-2	18149-4	18149-4
Thermatron Retro Kit, 208V with boil-out	N/A	14715-3	N/A	N/A
Thermatron Retro Kit, 240V with boil-out	N/A	14715-3	N/A	N/A

Miscellaneous Switches:

Miscellaneous Switches	
Rocker switch, blk, Carling (power on)	2025
Rocker switch, wht, Carling (reset)	2028
Rocker switch, red, Carling (instant power)	2027
Rocker switch, blk, w/o light (melt cycle)	2026
Switch hold plug	2048

Vessel Assemblies:

VESSEL REPLACEMENT KITS				
VESSEL DESCRIPTION	714E	1414E	1818E	2020E
Mild Steel WIP	07078-3SK	14248-3SK	18024-3SK	N/A
Stainless Steel WIP	07078-4SK	14248-4SK	18024-4SK	20028SK
Mild Steel WIP, with Computer	N/A	14290-3SK	18125-3SK	N/A
Stainless Steel WIP, with Computer	N/A	14290-4SK	18125-4SK	N/A
Mild Steel WIP, with Basket Lift	07120-3SK	14284-3SK	18051-3SK	N/A
Stainless Steel WIP, with Basket Lift	07120-4SK	14284-4SK	18051-4SK	N/A
Mild Steel WIP, with Basket Lift & Computer	N/A	14289-3SK	18087-3SK	N/A
Stainless Steel WIP, with Basket Lift & Computer	N/A	14289-4SK	18087-4SK	N/A
Swivel	N/A	14090-2SK	N/A	N/A

9. FACTORY SERVICE & PARTS ORDERING

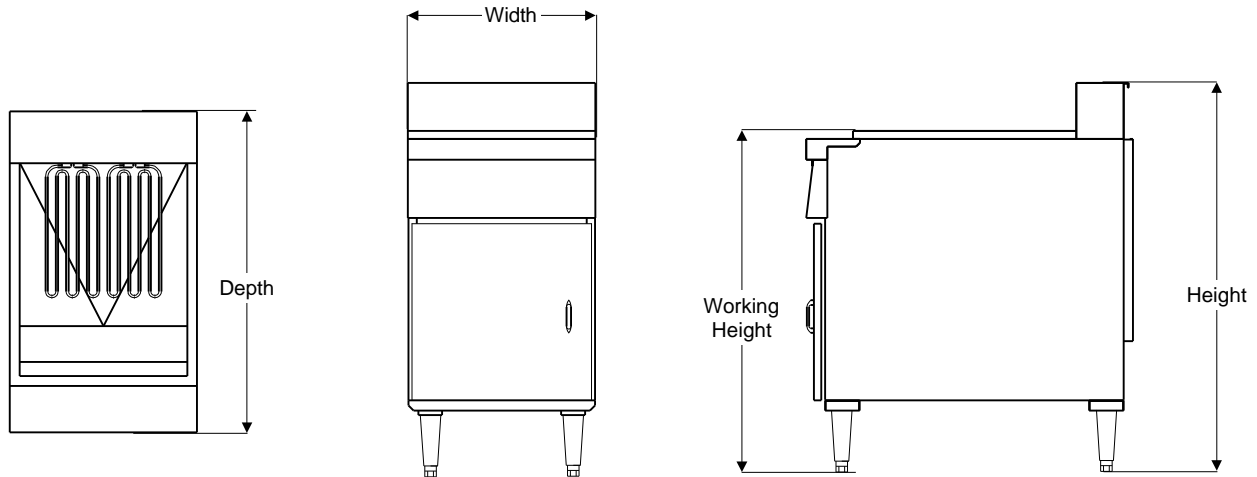
SERVICE PROBLEMS:

Call the number on the cover of this booklet for the location of your nearest Maintenance & Repair Center or contact the factory direct. Always give the model and serial number of your fryer.

ORDERING PARTS:

Customers may order parts directly from their local Authorized Parts Distributor. For this address and phone number, contact your Maintenance & Repair Center or call the factory. Factory address and phone numbers are on the cover of this booklet.

10. SPECIFICATIONS



SPECIFICATIONS:

MODEL	MIN/MAX Oil Cap.	SIZE (MM)				Drain Valve	Drain Valve Height	Frying Area	Shipping lbs/cu.ft.
		Width	Depth	Height	Wrk. Hgt.				
714E	25-28 lbs	7-3/4" (197)	29-1/4" (1143)	45" (1143)	35" (889)	1"	20"	6-3/4x14"	115/15
1414E	40-55 lbs	15-1/2" (394)	29-1/4" (1143)	45" (1143)	35" (889)	1-1/4"	20"	14"x14"	153/15
1818E	70-85 lbs	20" (508)	33" (838)	45" (1143)	35" (889)	1-1/4"	20"	18"x18"	190/28
2020E	95-110 lbs	21" (533)	33" (838)	45" (1143)	35" (889)	1-1/4"	20"	20"x20"	200/35

POWER REQUIREMENTS:

MODEL	INPUT	SINGLE PHASE		THREE PHASE	
		208V/60Hz/1PH-38.5A	240V/60Hz/1ph-33.3A	N/A	N/A
714E	8 KW	208V/60Hz/1PH-38.5A	240V/60Hz/1ph-33.3A	N/A	N/A
1414E	18 KW	208V/60Hz/1PH-86.5A	240V/60Hz/1ph-75.0A	208V/60Hz/3ph-50.0A	240V/60Hz/3ph-43.3A
1818E	13,5 KW	208V/60Hz/1PH-65.0A	240V/60Hz/1ph-56.3A	208V/60Hz/3ph-37.5A	240V/60Hz/3ph-32.5A
	18 KW	208V/60Hz/1PH-86.5A	240V/60Hz/1ph-75.0A	208V/60Hz/3ph-50.0A	240V/60Hz/3ph-43.3A
2020E	13,5 KW	208V/60Hz/1PH-65.0A	240V/60Hz/1ph-56.3A	208V/60Hz/3ph-37.5A	240V/60Hz/3ph-32.5A
	18 KW	208V/60Hz/1PH-86.5A	240V/60Hz/1ph-75.0A	208V/60Hz/3ph-50.0A	240V/60Hz/3ph-43.3A

STANDARD FEATURES:

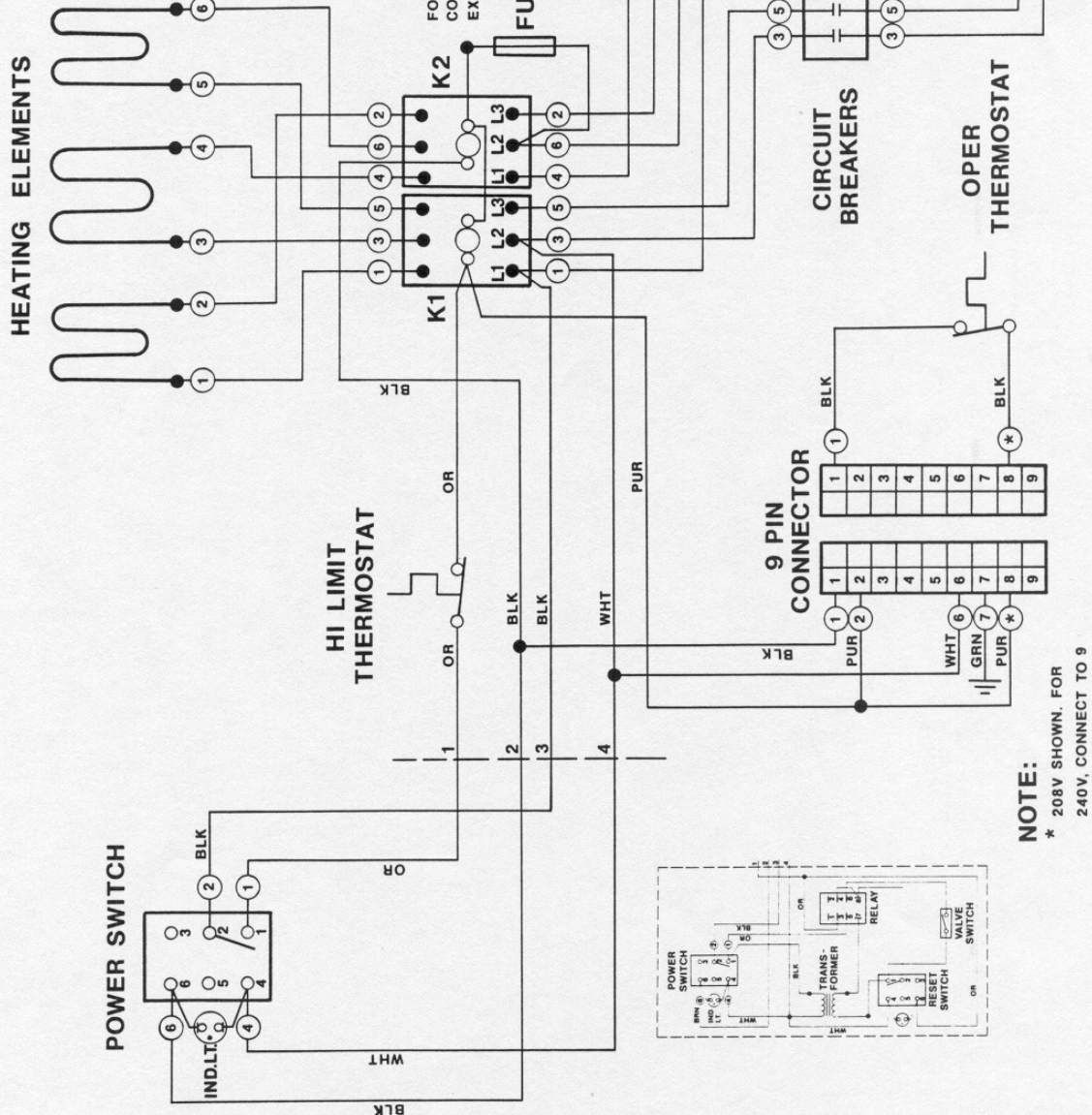
- ✓ Mild steel fry vessel
- ✓ Stainless steel front, door, and sides
- ✓ Stainless steel basket hanger & 2 1/2 size baskets (714E - 1 basket)
- ✓ Cool zone fry vessel construction
- ✓ Thermatron solid state controls
- ✓ Easily removable door for cleaning or servicing
- ✓ 6" adjustable steel legs

11. WIRING DIAGRAMS

WIRING DIAGRAM

FRYER w/THERMOSTAT

240 volts



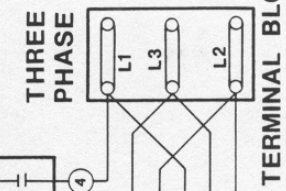
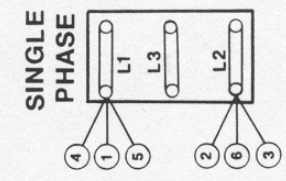
FOR FIRE SAFETY SHUT OFF,
CONNECT TO SWITCH AT
EXTINGUISHER HEAD

FUSE

CIRCUIT
BREAKERS

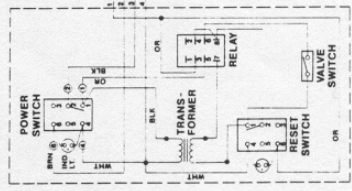
OPER
THERMOSTAT

TERMINAL BLOCK



NOTE:

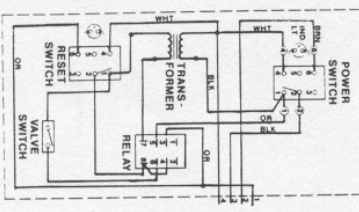
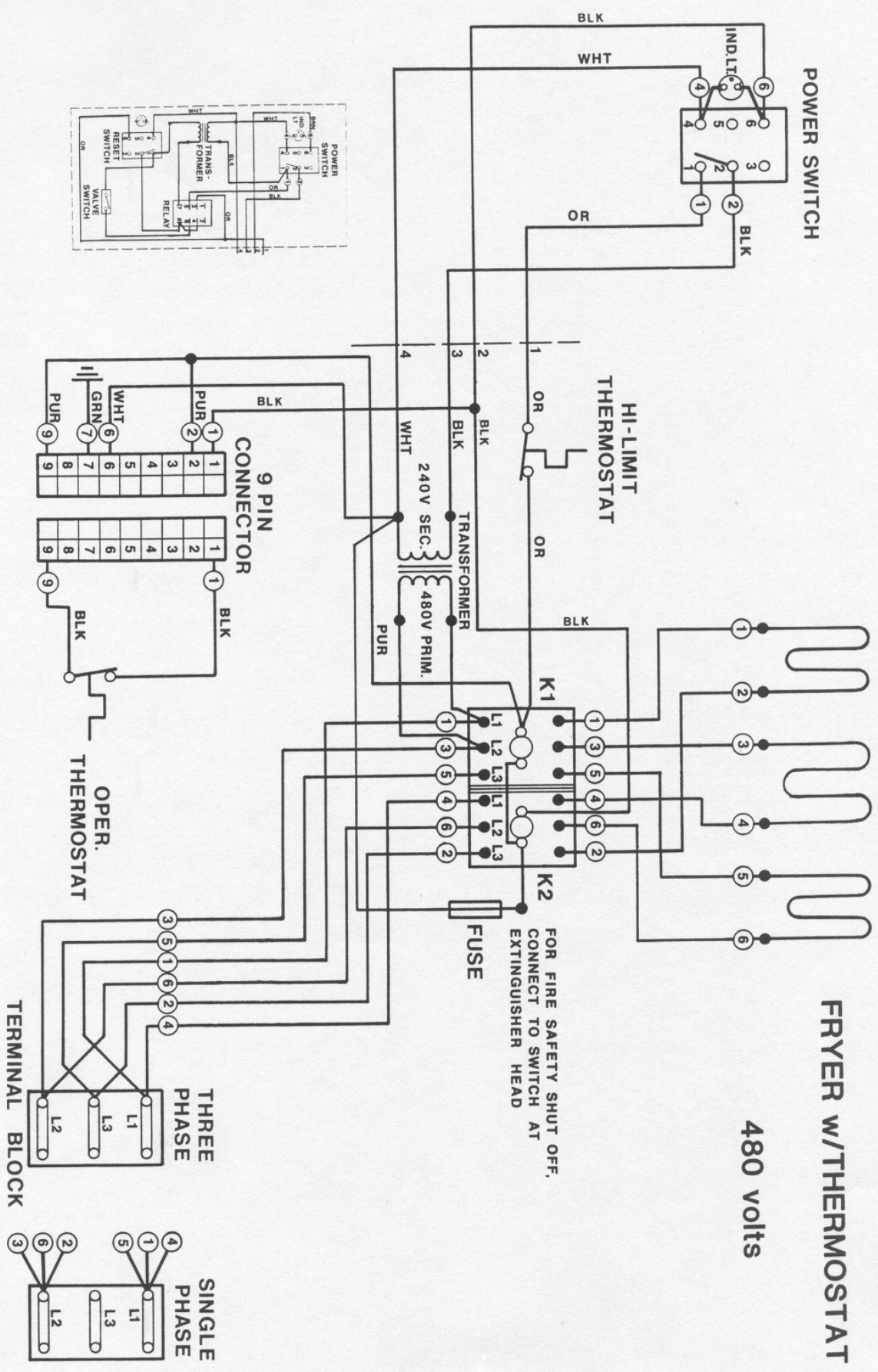
* 208V SHOWN. FOR
240V, CONNECT TO 9



WIRING DIAGRAM

FRYER w/THERMOSTAT

480 volts

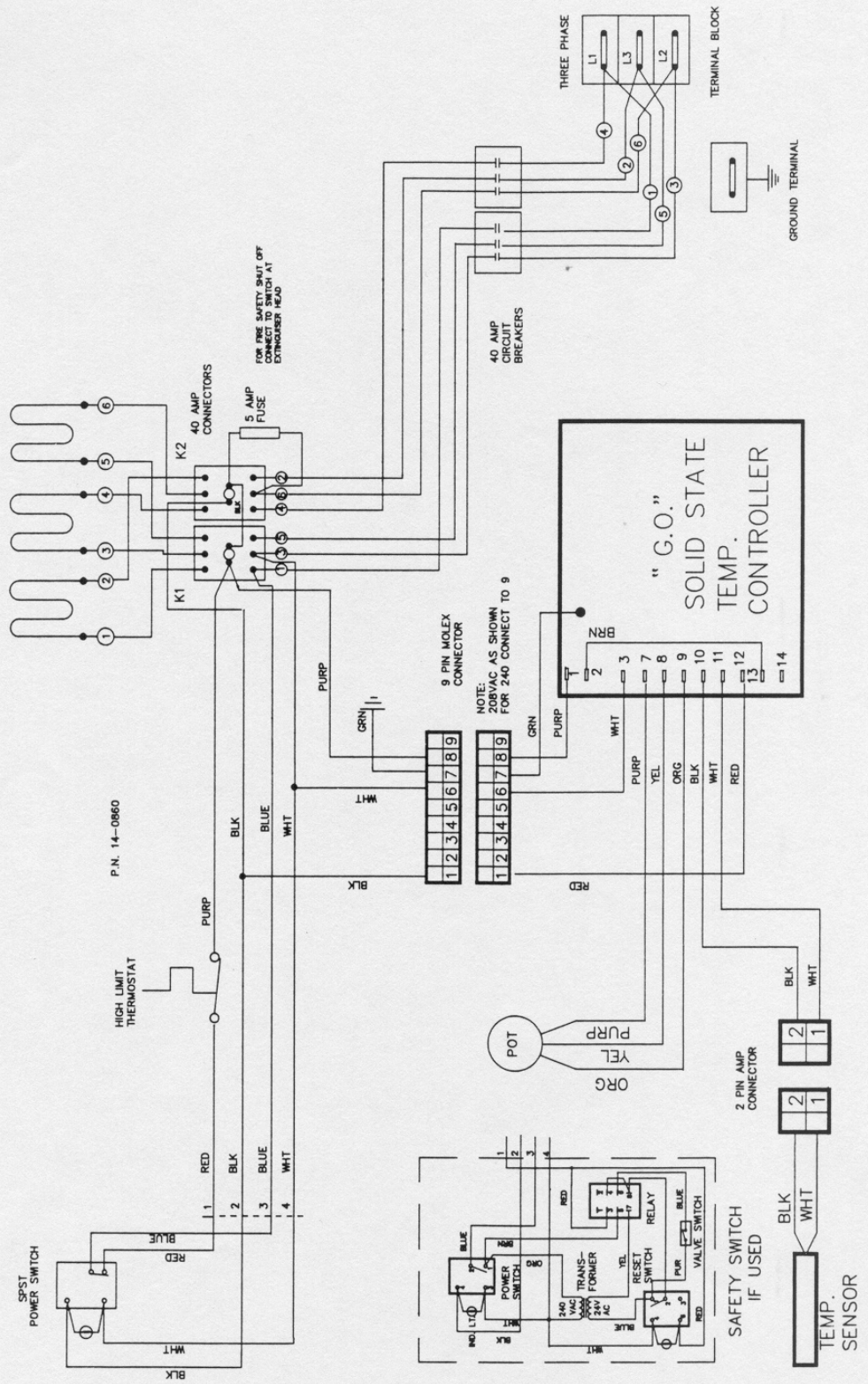


WIRING DIAGRAM

FRYER W/THERMATRON CONTROLLER

240 volts

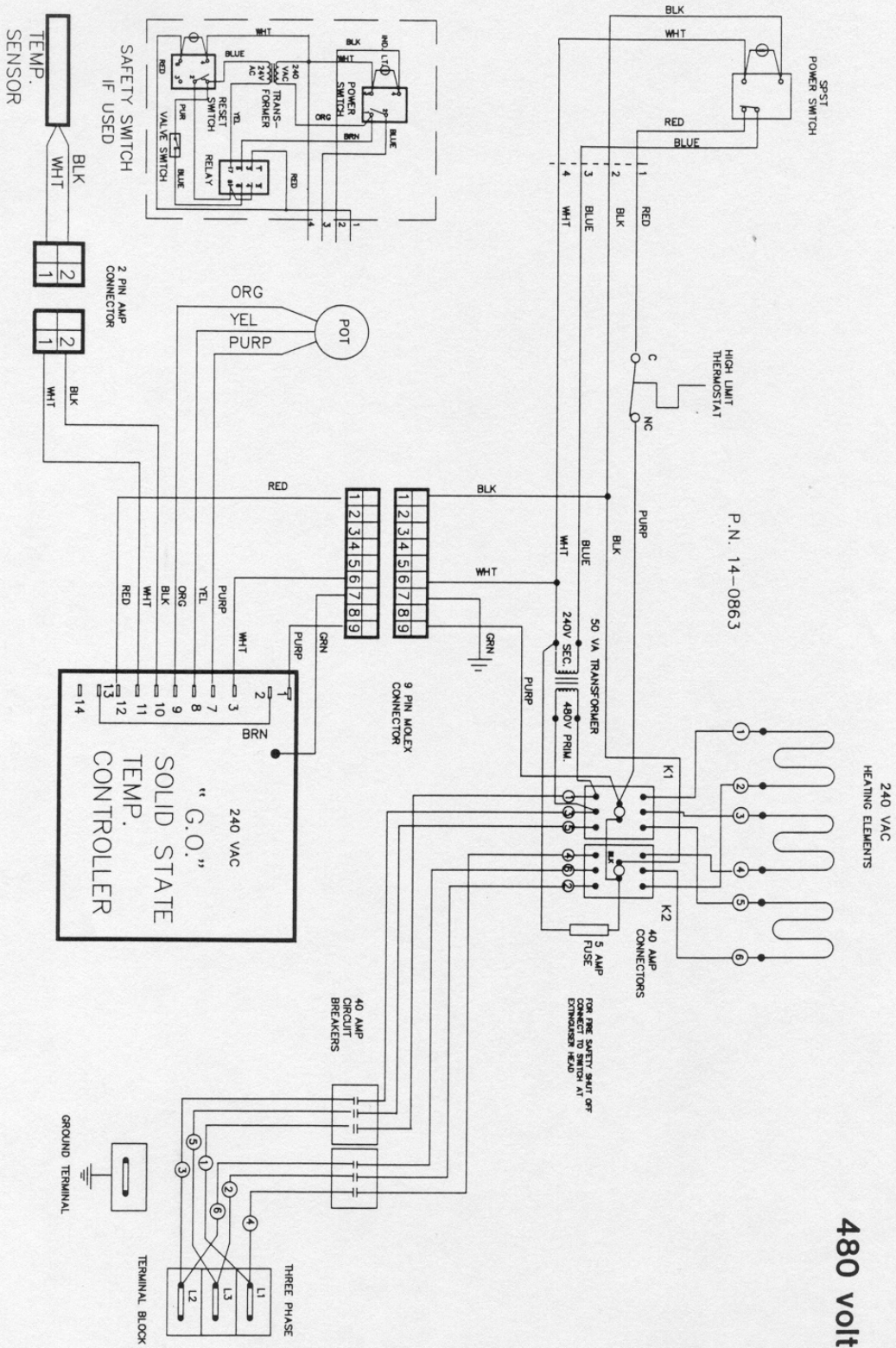
208 VAC/240VAC
HEATING ELEMENTS



WIRING DIAGRAM

FRYER W/THERMATRON CONTROLLER

480 volts



LIMITED WARRANTY

1. WARRANTY AND REMEDY

A. NEW EQUIPMENT. Dean Industries warrants its fryers and equipment to be free from defects in materials and workmanship. Dean's obligation under this warranty shall be limited to replacing or repairing, at the Company's discretion, without charge to Buyer any part found to be defective, and expenses incurred for freight and materials for the installation or repair of such part for a period of one (1) year from the date of Buyer's purchase, initial start-up of the equipment or eighteen (18) months from the date of shipment from the factory, whichever is sooner. The following conditions must be met to exercise this warranty

1. Buyer must promptly notify the Company of any such defect(s) in writing;
2. Notification must occur during the first (1st) year from the date of purchase or initial equipment start-up, or eighteen (18) months from the date of shipment from the factory, whichever is sooner;
3. Warranty work must be performed by a factory authorized service company;
4. Factory authorization must be obtained before work is performed (non-stocking Maintenance & Repair Centers);
5. Factory pays freight one way only'
6. Factory pays straight time service rates only.

Dean's obligation to pay for labor shall only be provided to buyers within the continental United States, Alaska, Hawaii and Canada. Dean's one (1) year labor warranty includes authorized service agent travel time up to three (3) hours and mileage up to 100 miles. Any travel time or mileage in excess of the above shall be Buyer's responsibility. The Factory shall make no allowance for repairs or alterations made by Buyer unless made with Factory's prior written consent.

B. REPLACEMENT PARTS. Any replacement part, except lamps and fuses, which proves to be defective in material or workmanship within ninety (90) days from the date of replacement part installation will be repaired or replaced without charge, FOB Authorized Distributor. This warranty covers only the repair or replacement of the defective part and does not include any labor charges for the removal and installation of any part or travel or other expense incidental to the repair or replacement of a part. Dean will not be responsible for problems found to be caused by use of a non-OEM part or replacement of a defective part with other than a factory OEM part.

2. LIMITATION OF COMPANY'S LIABILITY. This warranty does not cover any defect due to, or resulting from handling, improper installation, abuse, misuse, or harsh chemical action, nor shall it extend to any unit from which the serial number has been removed or altered, or modifications made by unauthorized service personnel or damage by flood, fire or other acts of God. Adjustment such as calibrations, leveling, tightening of fasteners or plumbing or electrical connections normally associated with original installation are the responsibility of the dealer, the owner/user, or the installer and not that of the Company.

The Company shall not be liable, directly or indirectly, under any circumstances for consequential or individual damages, including, but not limited to: (i) any loss of business or profits; and (ii) labor, material or other changes, claims, losses or damages incurred or suffered from, in connection with or in consequence of a claimed defective product or parts or the working upon, alterations, or repair of any such claimed defective product or parts by persons or firms other than the Company.

3. LIMITATION OF ACTIONS. Any action for any loss or damage with respect to the good or services covered herein must be commenced by Buyer within one (1) year after Buyer's cause of action has occurred.

4. THIS WARRANTY APPLIES TO ORIGINAL BUYER ONLY AND IS NOT TRANSFERABLE.

5. INFORMATION ON WARRANTY PROCEDURES. For further information on warranty procedures, please contact Dean Industries at (310) 353-5000; Toll Free (800) 995-1210.

6. FRY VESSEL WARRANTY

SM35	1 Year Mild Steel
	5 Year Stainless Steel Prorated
Flat Bottom	3 Year Prorated
All other Cool Zone Fryers	10 Year Stainless Steel



Dean, 8700 Line Avenue, Shreveport, Louisiana 71135

TEL 1-318-865-1711

FAX (Parts) 1-318-219-7140

(Tech Support) 1-318-219-7135

PRINTED IN THE UNITED STATES

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1-800-551-8633**

**Price: \$6.00
819-5867**