



**Star  
Manufacturing  
International Inc.**

10 Sunnen Drive  
St. Louis, MO 63143

Phone: (314) 781-2777  
Fax: (314) 781-3636

**Installation  
and  
Operating  
Instructions**

2M-Z1422 Rev. C 2/18/04

# DEEP FAT FRYER

## MODELS

### 530T

### 530TE



530T



## **SAFETY SYMBOL**



This symbol is intended to alert the user to the presence of important operating and maintenance instructions in the manual accompanying the appliance.

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## **RETAIN THIS MANUAL FOR FUTURE REFERENCE**

### **NOTICE**

Using any part other than genuine Star factory supplied parts relieves the manufacturer of all liability.

### **NOTICE**

Star reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.

## **MAINTENANCE AND REPAIRS**

Contact your local authorized service agent for service or required maintenance. Refer to the authorized service center listing provided with the unit. The Star Service Help Desk (1-800-807-9054) is available during normal business hours to answer any questions that may arise. Please have your model number and serial number for faster service.

## GENERAL INSTALLATION DATA



### CAUTION

This equipment is designed and sold for commercial use only by personnel trained and experienced in its operation and is not sold for consumer use in and around the home nor for use directly by the general public in food service locations. For equipment to be used by the general public, please contact the factory.

**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 the equipment.

This fryer is equipped for the voltage and wattage indicated on the nameplate mounted on the lower right corner of the element housing. It is designed for use on alternating current (AC) only. It is intended for use by properly trained personnel only.



### CAUTION

### DO NOT CONNECT TO DIRECT CURRENT (DC)

The installation of the appliance should conform to the:

NATIONAL ELECTRIC CODE AND ALL LOCAL ELECTRIC CODES AND ORDINANCES AND THE LOCAL ELECTRIC COMPANY RULES AND REGULATIONS

For your protection we recommend that a qualified electrician install this appliance. He should be familiar with electrical installations and all electrical codes. Proper connections and power supply are essential for efficient performance. The external wiring should be in conduit or an approved type of flexible cable suitable for operation at 90° C (194° F) and of a proper size to carry the load. The supply circuit should be properly fused and equipped with a means of disconnection, as required by local electrical code. THE BODY OF THE APPLIANCE SHOULD BE GROUNDED - DO NOT GROUND TO A GAS SUPPLY LINE. Four legs are provided and should be installed for ease of cleaning. Level unit by adjusting the (4) feet which have an adjustment of 1-3/8" (34.92 mm) for accurate leveling and perfect line-up with other units.

### POWER SUPPLY

Models 530T and 530TE are wired at the factory for operation on a single phase power supply. For specific wiring, check the wiring diagram.

### OPERATING INSTRUCTIONS

#### CLEAN KETTLE BEFORE USING

Take out baskets, push and hold element catch, lift up on element lift handle until elements lock in a vertical position, and remove kettle. The kettle can be cleaned in a sink like any other pot or container.

#### ADDING FAT

Replace kettle and swing the element down, making fryer ready for use. Add fat. Each kettle has a 15 lb. fat capacity. A fat level line on the rear of the kettle will guide you in determining the minimum cold fat level. A higher fat level can be used when frying bulky foods, such as chicken or fish cakes. The fat level should be chosen carefully so that the foaming action of the fat does not spill out of the kettle. If solid shortening is used, pack carefully around the elements.

## CONTROLS

1. **ON/OFF TWO-POLE SWITCH** - Located on the front panel is a two-pole switch which turns power on or off. An indicator light (Power On) is located on the control housing.
2. **THERMOSTAT CONTROL** - Located on the Control Housing, this control allows you to select the desired frying temperature. A signal light "Heating" indicates when the element is on. When the light goes off, the desired temperature has been reached.
3. **HI-LIMIT THERMOSTAT** - Should fat temperatures reach 450° F (230° C), this control will shut off the power. Both lights on the control panel will go out. The fat temperature must cool to 400° F (202.4° C) and the manual reset button located on the back panel of the control housing must be pressed to restore operation. Should the hi-limit control activate twice in succession, the primary thermostat should be checked for malfunction by a qualified service technician.

## FRYING

After fat has been added, turn the switch on and set the thermostat at 200° F (92.4° C). After the fat has melted, turn the thermostat to the desired setting. Included in this instruction booklet is a frying chart and some helpful hints on fat use. After the selected fat temperature has been reached, slowly lower half filled baskets into the fat. Do not overload baskets as this causes foods to be improperly fried.

**NOTE:** Baskets should be allowed to drain after frying cycle. The kettle handles serve as basket hangers.

## IDLING

During idle periods turn thermostat control to approximately 200° F (92.4° C). The fast recovery fryers can be brought up to frying temperature in a matter of minutes. Lowering the temperature during idle periods saves energy costs and prolongs fat life.

## DRAINING KETTLE

Turn switch to "OFF". Raise element to the first stop and allow to drain. Raise the element to the vertical position and siphon the oil out of the kettle.



## CAUTION

**DO NOT ATTEMPT TO REMOVE THE KETTLE FILLED WITH HOT OIL. CONTACTING HOT OIL CAN RESULT IN SEVERE INJURIES OR DEATH.**

If you do not have a siphon, order one from your dealer or dip the oil out and strain into a container. After oil has been removed, remove the kettle and clean.

## CLEANING THE EXTERIOR

The exterior surfaces can be cleaned by regularly wiping with a soft cloth. Any discoloration can be removed with a non-abrasive cleaner.

## MAINTENANCE AND REPAIRS

Contact the factory or one of its representatives or a local service company for service or maintenance if required.

# CAUTIONS FOR ALL DEEP FAT FRYERS

NEVER LEAVE AN OPERATING FRYER UNATTENDED

## REMEMBER HOT OIL IS DANGEROUS - RESPECT IT!

1. Hot oil is dangerous - Severe burns can result when hot oil contacts the skin.
2. Locate your fryer in a protected place so it cannot be knocked over or off its support.
3. Keep your floors clean and free of grease so no one slips accidentally and contacts the hot fryer.
4. Hot oil is flammable - Keep open flames away from it and its vapors.
5. Keep areas and filters clean above your fryer - Oil soaked lint or dust can ignite easily and flames will spread rapidly.
6. Install an automatic fire extinguisher over the fryer and in the exhaust duct.
7. Have your equipment checked regularly to insure its safe and proper functioning.
8. If your fryer starts to smoke or boil abnormally, cut off the energy supply immediately and determine the reason for the smoking or boiling before attempting to use it again.
9. Be sure your energy supply is installed properly and in accordance with the local and national codes. There should be a convenient switch or gas valve, readily available, close to the fryer for such a shut-off procedure.
10. See that all of your help understand the hazards of hot fat. Instruct them on the proper action to take if something does not seem to be acting properly.
11. Instruct your personnel on what to do if there is a fat fire. Do not use water on an oil fire! Use only fire extinguishers of the approved type and never direct such extinguishers so as to blow the oil out of the oil container.
12. Never allow water to get in hot fat.  
**It can explode!**

## CARE OF FAT

In three to six months you may spend as much for fat as you paid for your kettle. So fat is an item you want to know all about; how to select it; how to manage it. The more production you can get from each pound of fat, the more profitable your frying operation will be.

To get a high rate of production per pound of fat you have to avoid two things. One is early breakdown and spoilage of the compound so that you have to throw it away before it does enough work to "earn its keep." The other is excessive sponging up of fat by the food being fried.

The main cause of fat breakdown is excessive heat. On the other hand abnormal absorption is caused by frying too long at too low temperatures. One answer to both problems is exact control of heat — so that fat neither smokes up nor soaks up.

Of course, no fat "keeps" forever. Not only heat, but air and moisture, salt particles and crumbs of food work to break it down. But you can slow up fat deterioration by maintaining proper temperatures and by draining your kettle, filtering or straining the fat once or twice a day and by keeping the kettle itself absolutely clean.

A number of commercial devices and materials are available to aid in eliminating fat impurities. There are several excellent models of pressure filters as well as strainer-type filters, which, if used regularly, will prolong life of fat.

However, no purification device will renew broken down or rancid fat or put new life into it. Once you have allowed fat to break down it becomes unsuitable for frying — in fact browning is impossible.

In addition to filtration, you can prolong the usefulness of fat by sweetening it with fresh compound every day - replacing about 15% of the bulk you started with. If you do enough frying so that normal absorption of fat in food amounts to 15% to 20% of the capacity of your kettle every day - then you can call that your turn-over food. It means you can add the recommended 15% of fresh fat without discarding any of the old.

### 10 POINT PROGRAM TO PRESERVE FAT AND PRODUCE THE FINEST FRIED FOODS

1. Choose a fat that does not break down quickly. Hydrogenated shortening, corn, and peanut oils are less likely to break down under high temperatures.
2. Do not fry foods at temperatures above those recommended. The higher the fat temperature, the more rapid the rate of fat deterioration. Above 400°F fats quickly deteriorate.
3. During short intervals between frying, turn the heat down. Do not keep heat on for long periods between batches.
4. Keep fat clean. Strain or filter daily or at end of each shift. Add at least 15% fresh fat to your kettle daily.
5. At least once a day, cool a small amount of fat and taste it to see if it has picked up foreign flavors.
6. Discard fat that tends to bubble excessively before food is added.
7. Do not overload baskets-pieces should not touch when frying. Shake baskets to prevent food from sticking together. Fry similar sizes together.
8. Never salt foods directly over fat, salt in fat reduces its life.
9. Raw, wet foods, such as potatoes and oysters, should be drained or wiped dry before frying to extend the life of the frying fat. Have foods to be fried at room temperature.
10. Keep fat temperatures below smoking point to minimize frying odors.

## HANDY FRYING CHART

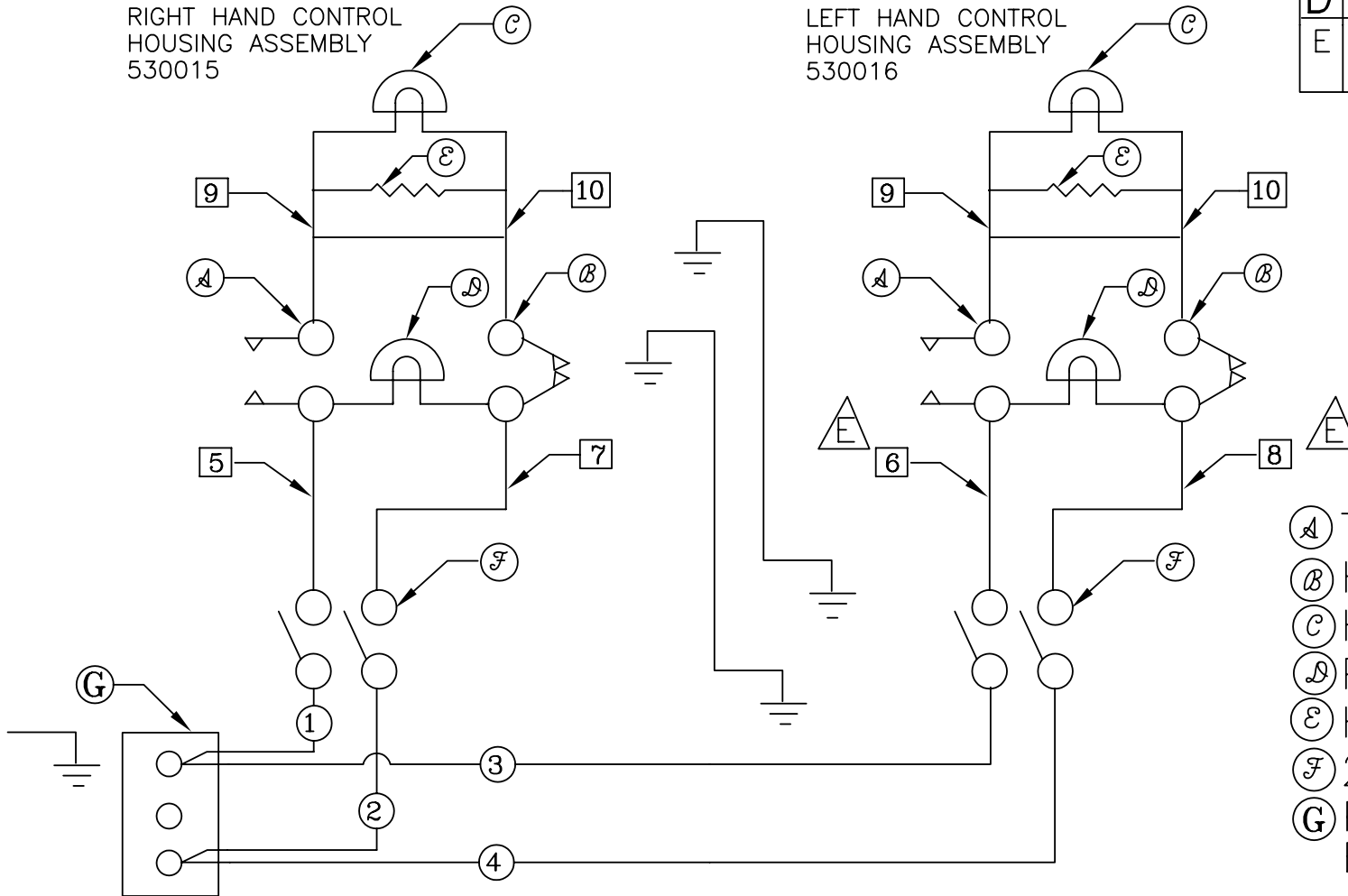
FOOD	COATING	PROCEDURE	TEMP	TIME IN MINUTES
<b>POTATOES</b>				
Standard French Fries		Cut in uniform pieces 1/2" square the long way	350	5-7
Blanch Only			350	3-1/2
Brown Only			350	3-1/2
Long Branch		Cut in uniform pieces 3/4" square the long way	350	7-10
Julienne (shoe string)		Cut in uniform pieces 1/8" to 1/4" square the long way	350	3-6
Chips		Soak in cold running water until water does not run milky	350	2-3
<b>CHICKEN</b>				
Large Pieces	Batter or	Some prefer rolling in	325	9-11
Small Pieces	Breading	seasoned flour, dipping in egg wash, and frying	340	7-10
Pre-cooked			350	3-4
<b>FISH</b>				
Fillets (Large)	Breading	Select fillets of uniform size, skin out and dry.	350	4
Fillets (Small)	or Batter		350	3
Oysters	Breading or Batter	Use Oyster liquor in batter or breading	350	5
Clams	Batter		350	1
Scallops	Breading		350	4
Shrimp	Batter	Some prefer soaking 1/2 hour in cold seasoned milk	350	3
Smelts	Breading	Cut spinal cord several places to prevent curling	350	4
<b>MEATS</b>				
Chicken Fried Steak	Breading	Sever all connecting membranes at one inch intervals to prevent curling	360	3-4
Cutlets	Breading		350	3-4
Chops	Breading		340	3-4
Meat Balls	Breading or rolled in flour		340	4-6
Brains	Breading		340	3-5
<b>VEGETABLES</b>				
Asparagus	Batter or crumbs	Pre-cook in salted water	350	3
Cauliflower	Batter or crumbs	Pre-cook and separate flowers	350	3
Egg Plant	Crumb Breading	Peel, cut cross-wise into 1/4" slices	350	3
Onions	Light batter	Slice thin, soak in milk for two hours	350	3
<b>FRITTERS</b>				
Fruit (bananas, pineapples, apricots, berries)		Serve with fruit juice	350	3-5
Corn	Batter	Serve with syrup or jelly	350	3-5
Vegetable (peas, green beans)		Serve with tomato cheese sauce	350	5-8
<b>MISCELLANEOUS</b>				
Croquettes	Breading		360	3
Chinese Noodles			375	1-2
French Toast			375	1
<b>DOUGHNUTS</b>				
Cake			375	1-1/2 - 2
Yeast, raised			375	1

MATERIAL			FINISH		MODEL NO. 530T,TE		PART NO. SK1239			
DR. DM	CK.	DATE 12-18-91	STAR MFG. INTERNATIONAL, INC.			TITLE <b>WIRING DIAGRAM</b>				
LIMITS UNLESS OTHERWISE NOTED FRACTIONS $\pm 1/64$ DECIMALS $\pm .005$			9325 OLIVE BOULEVARD ST. LOUIS, MO 63132			CHANGES	LTR	DATE	CHANGE	DR

D	1/9/92	REDRAWN	DM
E	8/25/98	(6) WAS (5) (8) WAS (7)	TL

RIGHT HAND CONTROL  
HOUSING ASSEMBLY  
530015

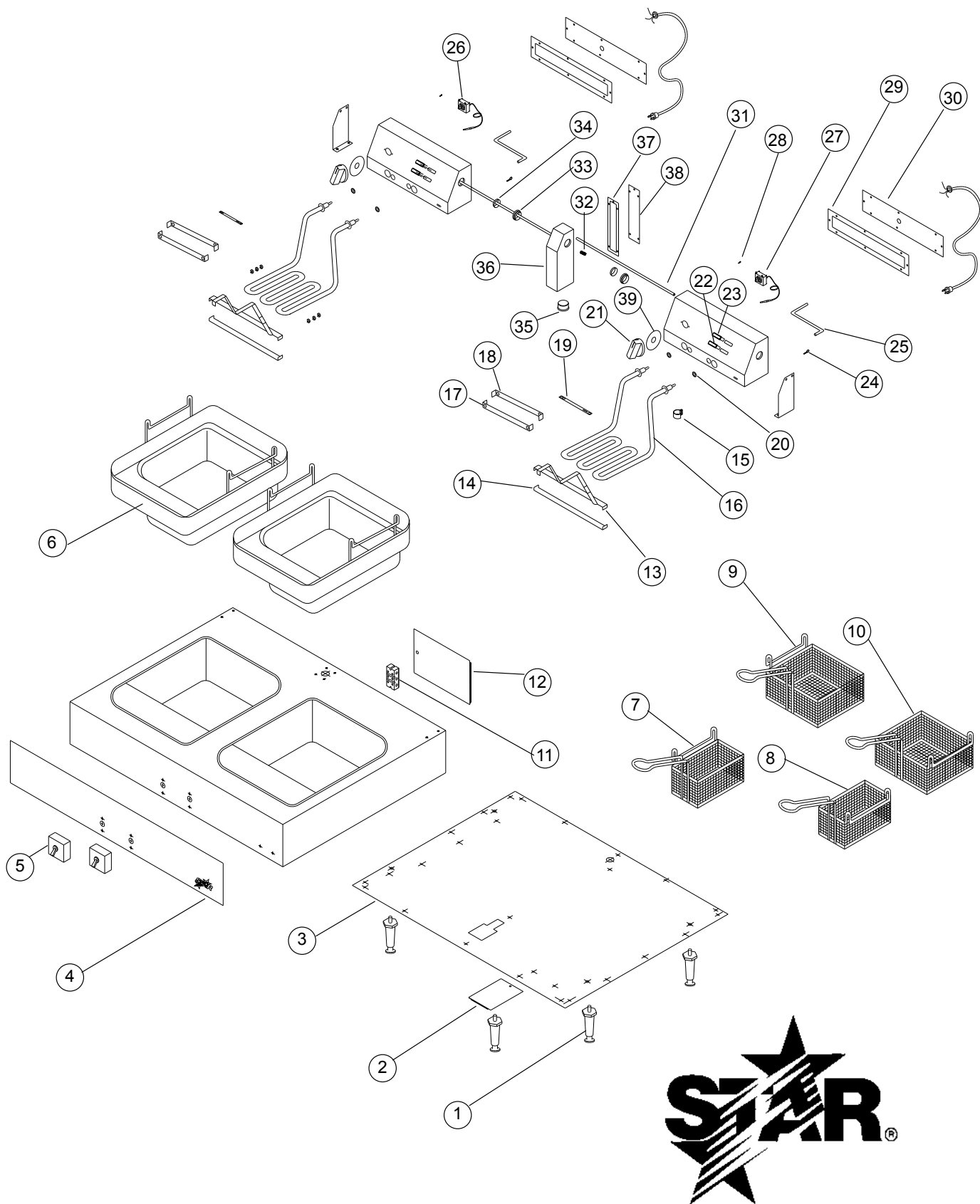
LEFT HAND CONTROL  
HOUSING ASSEMBLY  
530016



- (A) THERMOSTAT
- (B) HIGH LIMIT
- (C) HEATING LIGHT
- (D) POWER ON LIGHT
- (E) HEATING ELEMENT
- (F) 2-POLE SWITCH
- (G) POWER SUPPLY BLOCK

FOR SUPPLY CONNECTION USE COPPER WIRE RATED AT LEAST 90°C.

	MODEL 530TE		MODEL 530T	
	208V 1 PH.	240V 1 PH.	208V 1 PH.	240V 1 PH.
WATTS	6910	9200	8638	11500
AMPS	33.2	38.3	41.5	47.9
SUPPLY MIN AWG	#8	#8	#8	#6



SOME ITEMS ARE INCLUDED FOR ILLUSTRATIVE PURPOSES ONLY AND IN CERTAIN INSTANCES MAY NOT BE AVAILABLE



STAR MANUFACTURING INTERNATIONAL, INC.

SK2057 REV. -- 02/18/04

MODEL 530TA & 530TEA

# PARTS LIST

July 16, 2013

Model: 530T & 530TE Electric Fryer			
KEY NO	PART NO	DESCRIPTION	APPLICATION
1	2R-Y5092	BLACK PLASTIC LEG	
2	E1-Y5083	PANEL SMALL INSPECTION	
3	E1-Y5098	BOTTOM	
4	E1-Y7259	PANEL FRONT,VINYL	
4	E1-Y5091	PANEL FRONT TRIM	
5	2E-Y5166	SWITCH-2 POLE 30 AMP	
5	2R-8229	SHIELD-KNOB PLATED	
5	2C-1512	SCREW 10-24X3/8 RHP STL	
6	E1-115714	KETTLE ASSEMBLY COMPLETE	
7	2B-115774	BASKET ASSEMBLY LEFT	
8	2B-115775	BASKET ASSEMBLY RIGHT	
9	2B-Y8847	BASKET LEFT	
10	2B-Y8846	BASKET RIGHT	
11	2E-Y2849	BLOCK TERMINAL	
12	E1-Y5084	PANEL-INSPECTION	
13	E1-115719	ELEMENT HANDLE ASSEMBLY	
14	E1-Y1669	CLAMP-ELEMENT UPPER	
14	2C-1516	SCREW 10-24X1 STL RH NP	
14	2C-2560	NUT 10-24 HEX STL NP	
14	2C-1827	WASHER #10 EXT STL NP	
15	2P-5737	CLIP- CAPILLARY TUBE	
16	2N-Y5168	ELEMENT-240V 5750W	530T
16	2N-Y5169	ELEMENT-240V 4600W	530TE
17	E1-Y1889	BRACE-ELEMENT	
18	E1-Y1890	BRACE-ELEMENT (SMALL)	
19	E1-7363	CLAMP-THERMOSTAT BULB	
20	2I-5659	9061 GROMMET DRILL#55	
21	2R-9263	KNOB-THERMOSTAT	
22	E1-116314	SIGNAL LIGHT ASSEM	
23	E1-116313	SIGNAL LIGHT ASSEM	
24	2A-5401	PIN-COTTER 3/32DX3/4 SS	
25	E1-Y5108	ROD-CATCH RELEASE-PLATED	
26	2T-Z7208	THERMOSTAT 375F, OPERATING	
27	2T-Y1668	THERMOSTAT-ROBERTSHAW LC, SAFETY / HI-LIMIT	
28	2A-7435	PIN COTTER 1/16DX3/8 STK	
29	2I-Y5097	GASKET-ELEMENT HOUSING	
30	E1-Y5087	BLACK-ELEMENT HOUSING	
30	2K-Y5165	BUSHING-HEYCO B-875-750	
31	E1-Y5109	ROD-CATCH-PLATED	
32	2P-7969	SPRING 11/321DX7/8LG#18	
33	E1-Y5090	BUSHING-PIVOT-PLATED	
33	2C-Y5094	RING-RETAINING-1.000 ID	
34	2I-Y5088	GASKET-PIVOT 1.37 X 1.4	
35	2K-Y5093	BUSHING-SNAP #SB-1000-12	
36	E1-515005	WIRE HOUSIGN ASSEMBLY	
37	2I-Y5095	GASKET-WIRE HOUSING	
38	E1-Y5086	BACK-WIRE HOUSING	
38	2P-Y3406	WIRE SPACER .287 DIA.	
38	2P-Y3453	WIRE SPACER - .350 DIA.	