

# StarMax<sup>®</sup>

## ELECTRIC COUNTER CHAR-BROILER

MODEL

5124CF & 5136CF

### Installation and Operation Instructions

2M-Z16003 Rev. A 5/09/13



5124CF



## SAFETY SYMBOL



These symbols are 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.

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.

Due to periodic changes in designs, methods, procedures, policies and regulations, the specifications contained in this sheet are subject to change without notice. While Star International Holdings Inc., Company exercises good faith efforts to provide information that is accurate, we are not responsible for errors or omissions in information provided or conclusions reached as a result of using the specifications. By using the information provided, the user assumes all risks in connection with such use.

## MAINTENANCE AND REPAIRS

Contact your local authorized service agent for service or required maintenance.

Please record the model number, serial number, voltage and purchase date in the area below and have it ready when you call to ensure a faster service.

Model No. \_\_\_\_\_  
Serial No. \_\_\_\_\_  
Voltage \_\_\_\_\_  
Purchase Date \_\_\_\_\_

### Authorized Service Agent Listing

Reference the listing provided with the unit

or

for an updated listing go to:

**Website:** [www.star-mfg.com](http://www.star-mfg.com)  
**E-mail** [customerservice@star-mfg.com](mailto:customerservice@star-mfg.com)

### Service Help Desk

**Business Hours:** 8:00 am to 4:30 p.m. Central Standard Time

**Telephone:** (314) 678-6303

**Fax:** (314) 781-2714

**E-mail** [customerservice@star-mfg.com](mailto:customerservice@star-mfg.com)

**Website:** [www.star-mfg.com](http://www.star-mfg.com)

**Mailing Address:** Star International Holdings Inc., Company  
10 Sunnen Drive  
St. Louis, MO 63143  
U.S.A

Specifications													
Model	Voltage	kW	Amps 1PH	Amps 3Ph			Infinite Controls	Cooking Surface	Dimensions			Weight	
				x	y	z			Width	Depth	Height	Installed	Shipped
5124CF	208V	6.6	31.8	21.8	21.8	13.8	2	396 sq in (2555 sq cm)	24"	25 5/8"	14 1/4"	98 lb (45 kg)	145 lb (66 kg)
	240V		27.5	18.8	18.8	11.9			(61cm)				
5136CF	208V	9.9	47.6	27.6	27.6	27.6	3	594 sq in (3832 sq cm)	36"	36"	36 cm	175 lb (80 kg)	215 lb (98 kg)
	240V		41.3	23.9	23.9	23.9			(91cm)				

## GENERAL INSTALLATION INSTRUCTIONS

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.

Before using your new equipment, read and understand all the instructions & labels associated with the unit prior to putting it into operation. Make sure all people associated with its use understand the units operation & safety before they use the unit.

All shipping containers should be checked for freight damage both visible and concealed. This unit has been tested and carefully packaged to insure delivery of your unit in perfect condition. If equipment is received in damaged condition, either apparent or concealed, a claim must be made with the delivering carrier.

Concealed damage or loss - if damage or loss is not apparent until after equipment is unpacked, a request for inspection of concealed damage must be made with carrier within 15 days. Be certain to retain all contents plus external and internal packaging materials for inspection. The carrier will make an inspection and will supply necessary claim forms.

These Electric Char-broilers are equipped for the voltage and wattage indicated on the nameplate mounted on the front panel. These units are designed to operate on alternating current (AC) only. **DO NOT CONNECT TO DIRECT CURRENT (DC).**

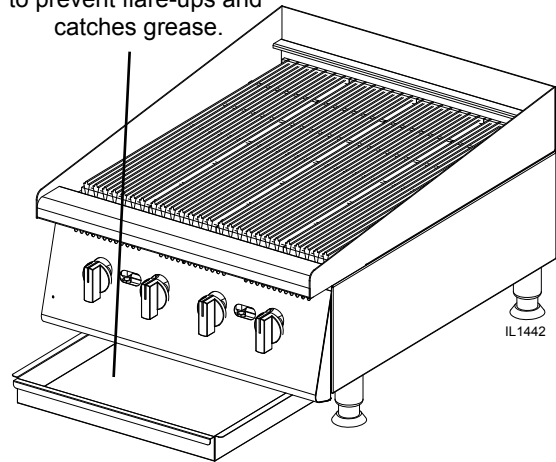
## INSTALLATION

The installation of this appliance should conform to the national electric code and 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. The electrician should be familiar with electrical installations and local electrical requirements. The external wiring should be in conduit or an approved type of flexible cable suitable for operation at 90° C and sized to carry the load. Use copper wire only. The supply circuit should be properly fused and equipped with a means of disconnecting as required by local electrical code. The body of the appliance should be grounded (Do not ground to a gas supply pipe).

1. Locate the unit: Do not install the unit closer than 12 inches from a side wall and/or closer than 9 inches from a rear wall.
2. Level the char-broiler by adjusting the feet, which have provision for 1 inch of adjustment. This adjustment also allows a perfect alignment to be achieved with other Star-Max™ units.
3. The pigtail leads can be accessed by removing the cover plate from the back of the broiler.
4. Fill the water pan on the broiler prior to use. Water should be flush with the bottom of the splash baffles. Make sure water is present in the pan at all times.  
Note: The pan is easily removable for cleaning.

**Water Pan / Drip Tray**  
Fill with water before operating  
to prevent flare-ups and  
catches grease.



### CAUTION CARE MUST BE TAKEN WHEN OPENING PAN TO PREVENT SPILLING.

5. The charbroiler is equipped with modular grates that are readily removable for cleaning. Each heated section is controlled by a separate heat control switch.
6. Seasoning - Set the heat control switch to the low position and preheat for about 15 to 20 minutes. Using a cloth, spread a thin film of cooking oil over the top of the grate surface. Allow the film to remain on the grate for about 5 minutes. Wipe the surface clean and apply another film of cooking oil. Wipe the surface clean again. The broiler is now ready for use. The oil may tend to smoke - this is normal.
7. Approximate grilling temperatures range from 350° F (with no product on the grill) on low setting to 570° F on high.

## CLEANING

1. Clean with a clean soft cloth daily. Any discoloration can be removed with a non-abrasive cleaner.
2. Remove the water pan and cooking grates. Wash them in a sink.
3. To clean heating element, first remove the grates. Swing the element housing to a vertical position and lock it in place with the support located in the center. Clean the elements with a stiff wire brush or equivalent.
4. Heat baffles are located directly below the heating elements and are removable for cleaning in a sink.

### THOROUGHLY INSPECT YOUR UNIT ON ARRIVAL

This unit has been tested for proper operation before leaving our plant to insure delivery of your unit in perfect condition. However, there are instances in which the unit may be damaged in transit. In the event you discover any type of damage to your product upon receipt, you must immediately contact the transportation company who delivered the item to you and initiate your claim with same. If this procedure is not followed, it may affect the warranty status of the unit.

### LIMITED EQUIPMENT WARRANTY

All workmanship and material in Star products have a one (1) year limited warranty on parts & labor in the United States and Canada. Such warranty is limited to the original purchaser only and shall be effective from the date the equipment is placed in service. Star's obligation under this warranty is limited to the repair of defects without charge, by the factory authorized service agency or one of its sub-agencies. Models that are considered portable (*see below*) should be taken to the closest Star service agency, transportation prepaid.

- > Star will not assume any responsibility for loss of revenue.
- > On all shipments outside the United States and Canada, see International Warranty.
- \* The warranty period for the Ultra-Max, Hot Plates, Griddles, Charbroilers is (3) years parts & labor.
- \* The warranty period for the Star-Max, Charbroilers, Griddles, Hot Plates, Fryers & Finishing Oven is (2) years parts & labor.
- \* The warranty period for the JetStar six (6) ounce & Super JetStar eight (8) ounce series popcorn machines is two (2) years.
- \* The warranty period for the Chrome-Max Griddles is five (5) years on the griddle surface. See detailed warranty provided with unit.
- \* The warranty period for Dura-Tec coatings is one year under normal use and reasonable care. This warranty does not apply if damage occurs to Dura-Tec coatings from improper cleaning, maintenance, use of metallic utensils, or abrasive cleaners, abrasive pads, product identifiers and point-of-sale attachments, or any other non-food object that comes in continuous contact with the roller coating. This warranty does not apply to the "non-stick" properties of such materials.
- > This warranty does not apply to "Special Products" but to regular catalog items only. Star's warranty on "Special Products" is six (6) months on parts and ninety (90) days on labor.
- > This warranty does not apply to any item that is disassembled or tampered with for any purpose other than repair by a Star Authorized Service Center or the Service Center's sub-agency.
- > This warranty does not apply if damage occurs from improper installation, misuse, wrong voltage, wrong gas or operated contrary to the Installation and Operating instructions.
- > This warranty is not valid on Conveyor Ovens *unless* a "start-up/check-out" has been performed by a Factory Authorized Technician.

### PARTS WARRANTY

Parts that are sold to repair out of warranty equipment are warranted for ninety (90) days. The part only is warranted, the labor to replace the part is **NOT** warranted.

### SERVICES NOT COVERED BY WARRANTY

1. Travel time and mileage rendered beyond the 50 mile radius limit
2. Mileage and travel time on portable equipment (*see below*)
3. Labor to replace such items that can be replaced easily during a daily cleaning routine, ie; removable kettles on fryers, knobs, grease drawers on griddles, etc.
4. Installation of equipment
5. Damages due to improper installation
6. Damages from abuse or misuse
7. Operated contrary to the Operating and Installation Instructions
8. Cleaning of equipment
9. Seasoning of griddle plates
10. Voltage conversions
11. Gas conversions
12. Pilot light adjustment
13. Miscellaneous adjustments
14. Thermostat calibration and by-pass adjustment
15. Resetting of circuit breakers or safety controls or reset buttons
16. Replacement of bulbs
17. Replacement of fuses
18. Repair of damage created during transit, delivery, & installation OR created by acts of God

### PORTABLE EQUIPMENT

Star will not honor service bills that include travel time and mileage charges for servicing any products considered "Portable" including items listed below. These products should be taken to the Service Agency for repair:

- \* The Model 510FD, 510FF Fryer.
- \* The Model 526TOA Toaster Oven.
- \* The Model J4R, 4 oz. Popcorn Machine.
- \* The Model 518CMA & 526CMA Cheese Melter.
- \* The Model 12MC & 15MC & 18MCP Hot Food Merchandisers.
- \* The Model 12NCPW & 15NCPW Nacho Chip/Popcorn Warmer.
- \* All Hot Dog Equipment **except Roller Grills & Drawer Bun Warmers.**
- \* All Nacho Cheese Warmers **except Model 11WLA Series Nacho Cheese Warmer.**
- \* All Condiment Dispensers **except the Model HPD & SPD Series Dispenser.**
- \* All Specialty Food Warmers **except Model 130R, 11RW Series, and 11WSA Series.**
- \* All QCS/RCS Series Toasters **except Model QCS3 & RCS3 Series.**
- \* All Fast Steamer Models **except Direct Connect Series.**

### ALL:

- \* Pop-Up Toasters
- \* Butter Dispensers
- \* Pretzel Merchandisers  
(Model 16PD-A Only)
- \* Pastry Display Cabinets
- \* Nacho Chip Merchandisers
- \* Accessories of any kind
- \* Sneeze Guards
- \* Pizza Ovens  
(Model PO12 Only)
- \* Heat Lamps
- \* Pumps-Manual

The foregoing warranty is in lieu of any and all other warranties expressed or implied and constitutes the entire warranty.

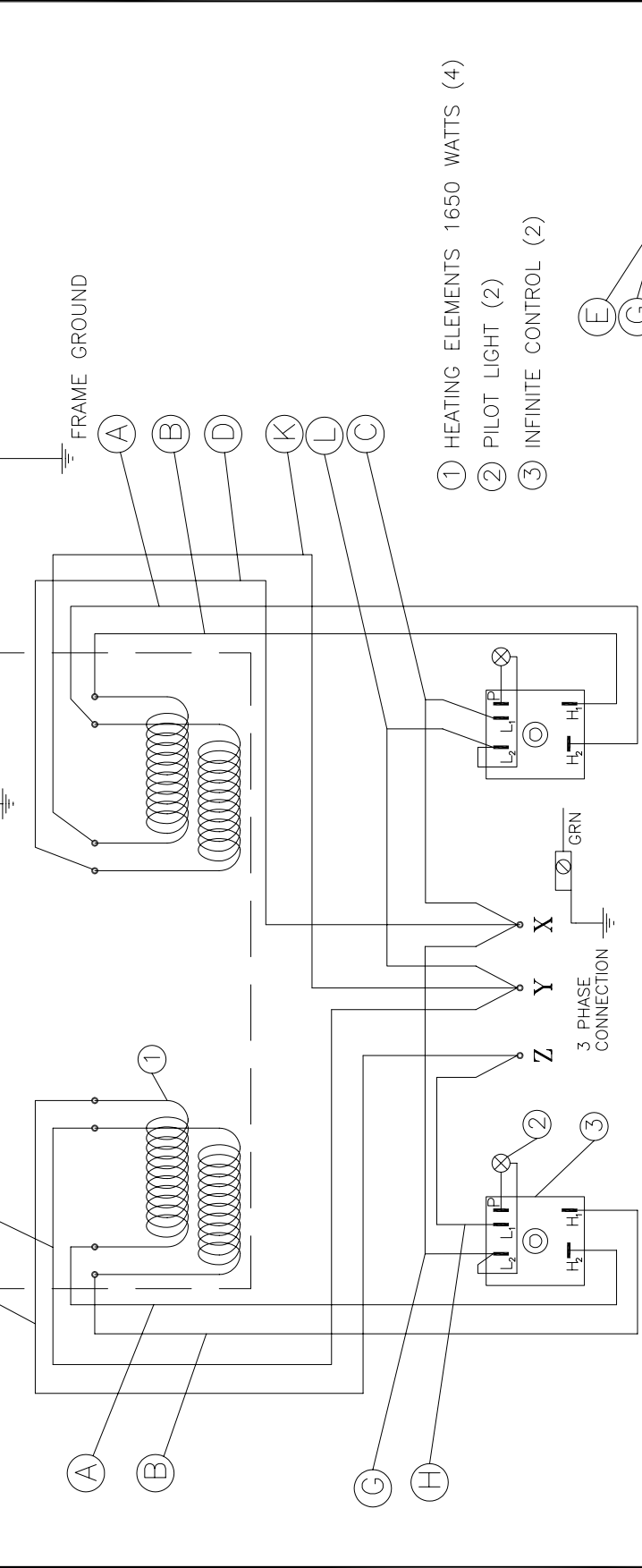
### FOR ASSISTANCE

Should you need any assistance regarding the Operation or Maintenance of any Star equipment; write, phone, fax or email our Service Department. In all correspondence mention the Model number and the Serial number of your unit, and the voltage or type of gas you are using.

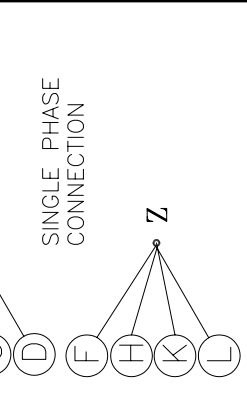

**STAR MANUFACTURING INTERNATIONAL INC.**  
 #10 SUNNEN DRIVE, ST. LOUIS, MO. 63143, USA  
 MATERIAL ~ MODEL NO. **5124CD** PART NO. **SK-1924**  
 FINISH ~ TITLE **WIRING DIAGRAM**

DR. TH	CK.	DATE	LTR	DATE	DESCRIPTION OF CHANGE	DR
		<b>2-20-03</b>	A	5-8-03	PICTORIAL CHANGE	TH

TOLERANCES UNLESS OTHERWISE NOTED  
 FRACTIONS ± 1/64 DECIMALS ± .005  
 THIS DRAWING CONTAINS INFORMATION CONFIDENTIAL TO STAR MFG. INT'L. INC.  
 NO REPRODUCTION OR DISCLOSURE OF ITS CONTENTS IS PERMITTED.



① HEATING ELEMENTS 1650 WATTS (4)  
 ② PILOT LIGHT (2)  
 ③ INFINITE CONTROL (2)




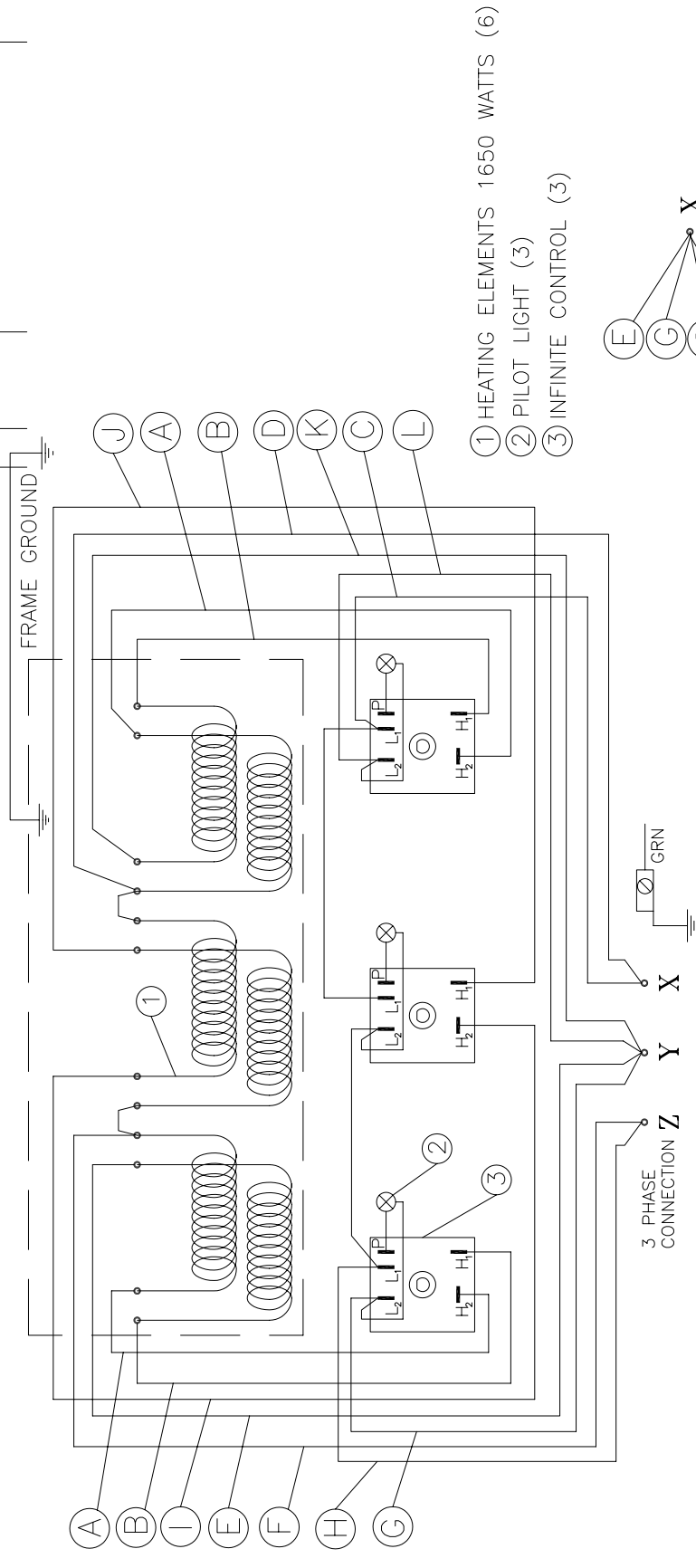
INTERNAL WIRES: 14GA AWG

RATED WATTAGE 6600W	3 PHASE LOADING KW PER PHASE		NOMINAL AMPERES PER LINE			
	X-Y	Y-Z	X-Z	208V 3 PH	240V 3 PH	SINGLE PHASE
	3.3	1.65	1.65	21.8	21.8	21.8
				AWG # 10	AWG # 10	AWG # 10
				13.8	18.8	11.9
				AWG # 12	AWG # 10	AWG # 12
				18.8	18.8	31.8
				AWG # 10	AWG # 10	AWG # 8
				21.8	21.8	27.5
				AWG # 10	AWG # 10	AWG # 8

FOR SUPPLY CONNECTIONS USE COPPER WIRE ONLY 90°C

2M-Z16003: Star-Max Electric Charbroiler

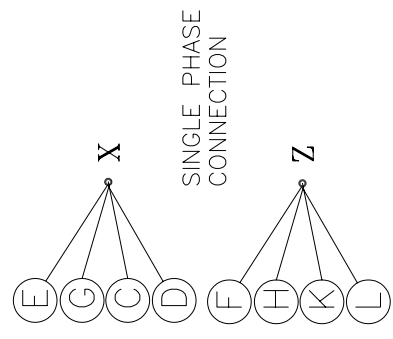
 STAR MANUFACTURING INTERNATIONAL INC. #10 SUMMEN DRIVE, ST. LOUIS, MO. 63143, USA		MATERIAL ~ FINISH ~		MODEL NO. 5136CD	PART NO. SK1985
DR. TH	CK.	DATE	TITLE <b>WIRING DIAGRAM</b>		
TOLERANCES UNLESS OTHERWISE NOTED FRACTIONS ± 1/64 DECIMALS ± .005		4-9-03	REVISIONS	LTR	DATE
THIS DRAWING CONTAINS INFORMATION CONFIDENTIAL TO STAR MFG. INT'L. INC. NO REPRODUCTION OR DISCLOSURE OF ITS CONTENTS IS PERMITTED.		A	5-8-03	DESCRIPTION OF CHANGE	DR TH
				PICTORIAL CHANGE	

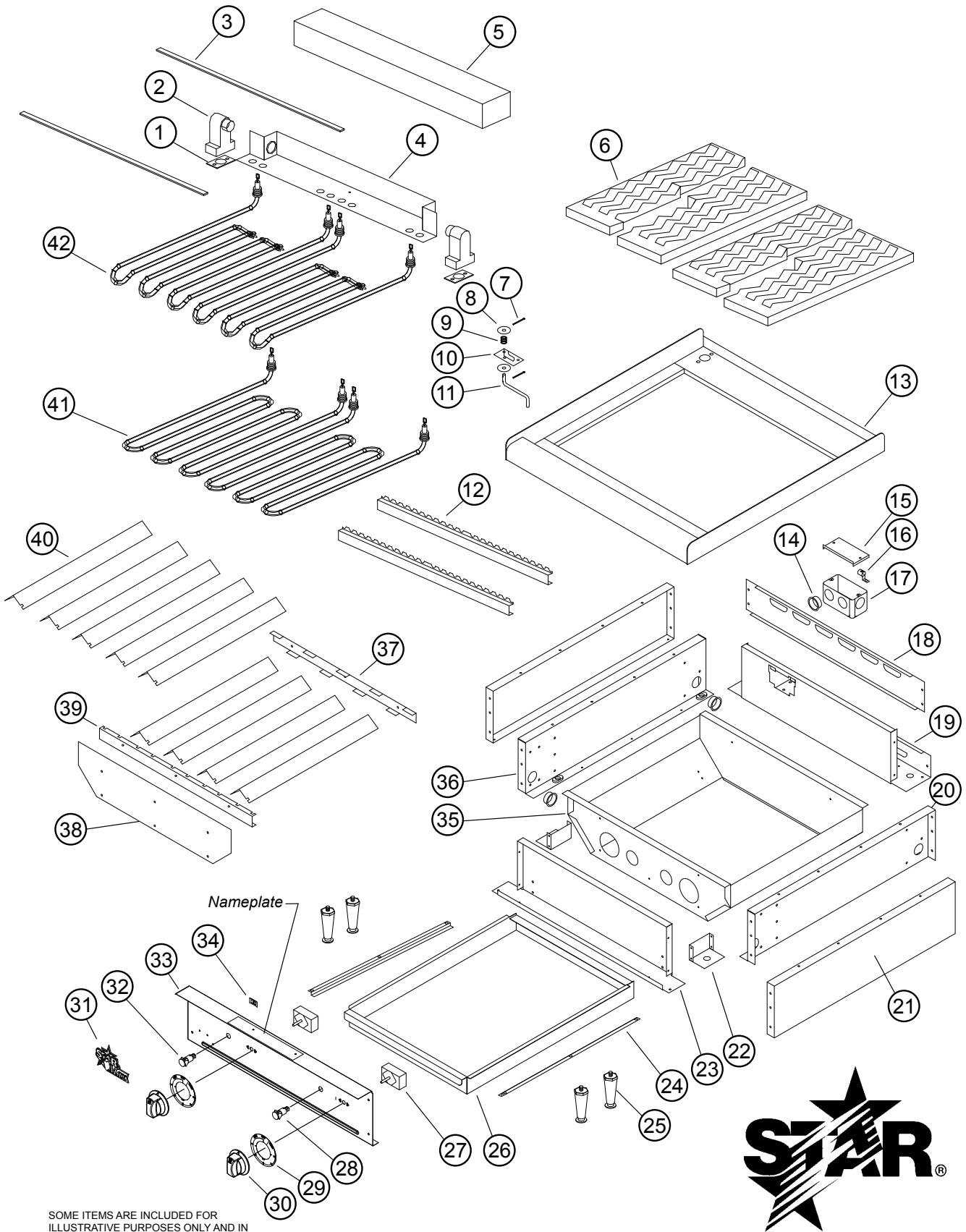


FOR SUPPLY CONNECTIONS USE COPPER WIRE ONLY 90°C

RATED WATTAGE 9900W	3 PHASE LOADING KW PER PHASE			NOMINAL AMPERES PER LINE							
	X-Y	Y-Z	X-Z	208V 3 PH		240V 3 PH		SINGLE PHASE			
3.3	3.3	3.3	3.3	X	Y	Z	X	Y	Z	208V	240V
				27.6	27.6	27.6	23.9	23.9	23.9	47.6	41.3
				AWG # 8	AWG # 8	AWG # 8	AWG # 10	AWG # 10	AWG # 10	AWG # 4	AWG # 6

INTERNAL WIRES: D, C, F & H - 12GA AWG  
 ALL OTHERS: 14GA AWG





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

**MODEL - 5124CF**

**STAR MANUFACTURING INTERNATIONAL, INC.**

SK2591

Rev. -

6/01/12

2M-Z16003: Star-Max Electric Charbroiler





# PARTS LIST

May 9, 2013, Rev. A

Model; 5124CF & 5136CF Electric Counter Char-Broiler				
Fig No	Part No	Qty	Description	Application
1	2I-7370	2	GASKET	
2	2F-Z6858	2	SUPPORT WITH BUSHING	
3	H1-Y3115	2	ELEMENT STRAP	5124CF
	H1-Y3266			5136CF
4	H1-Z6115	1	ELEMENT HOUSING	5124CF
	H1-Z6116			5136CF
5	H1-Z6117	1	ELEMENT HOUSING COVER	5124CF
	H1-Z6118			5136CF
6	2F-Y3107	4	TOP GRATE	5124CF
		6		5136CF
7	2A-5401	2	COTTER PIN	
8	2C-1811	2	WASHER	
9	2P-7969	1	SPRING	
10	H1-Z6122	1	PROP ROD BRACKET	
11	2A-Z6121	1	PROP ROD	
12	H1-Z6119	2	ELEMENT CLAMP	5124CF
	H1-Z6120			5136CF
13	H1-512400	1	TOP ASSEMBLY	5124CF
	H1-513600			5136CF
14	2K-Z6183	3	BUSHING	5124CF
		5		5136CF
15	G3-Y7788	1	BOX COVER	
16	2C-Y2344	1	GROUND LUG	
17	2E-Y7327	1	ELECTRICAL BOX	
18	H1-Z6054	1	REAR PANEL	5124CF
	H1-Z6056			5136CF
19	H1-Z6059	1	REAR ENCLOSURE	5124CF
	H1-Z6060			5136CF
20	G3-624303	1	SIDE LINER ASSEMBLY RIGHT	
21	G3-Z5945	2	SIDE PANEL	
22	H1-Z6123	2	FOOT SUPPORT	
23	H1-Z6045	1	FRONT HOUSING	5124CF
	H1-Z6046			5136CF
24	G3-Z6036	2	DRAWER SLIDE	
25	2A-Z5942	4	FOOT	
26	H3-Z6482	1	GREASE DRAWER	5124CF
	H3-Z6483			5136CF
27	2J-6403	2/3	INFINITE CONTROL	5124CF / 5136CF
29	2M-Z15452	2/3	LABEL ELECT INF LG	5124CF / 5136CF
30	I4-Z15487	2/3	KNOB ASSY LG E-F KEYT	5124CF / 5136CF
31	2M-Z15804	1	STAR-MAX LOGO	ALL
32	2J-Y6690	2/3	PILOT LIGHT	5124CF / 5136CF
33	G3-Z5911	1	FRONT PANEL	5124CF
	G3-Z5921			5136CF

2M-Z16003: Star-Max Electric Charbroiler

**IMPORTANT: WHEN ORDERING, SPECIFY VOLTAGE OR TYPE GAS DESIRED  
INCLUDE MODEL AND SERIAL NUMBER**

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OF 2

Some items are included for illustrative purposes only and in certain instances may not be available.



**Star Manufacturing International, Inc.**

# PARTS LIST

May 9, 2013, Rev. A

Model; 5124CF & 5136CF Electric Counter Char-Broiler				
Fig No	Part No	Qty	Description	Application
34	2C-8477	3	TINNERMAN CLIPS	ALL
35	H3-612400	1	LINER ASSEMBLY	5124CF
	H3-613600			5136CF
36	G3-624302	1	SIDE LINER ASSEMBLY LEFT	
37	H1-Z6173	1	BAFFLE FRAME REAR	5124CF
	H1-Z6085			5136CF
38	H1-Z6082	1	LINER COVER	5124CF
	H1-Z6083			5136CF
39	H1-Z6084	1	BAFFLE FRAME FRONT	5124CF
	H1-Z6533			5136CF
40	H1-Z6086	9	BAFFLE	5124CF
	H1-Z6086	15		5136CF
41	2N-Y3085	2/3	HEATING ELEMENT 240V	5124CF / 5136CF
	2N-Y3086		HEATING ELEMENT 208V	5124CF / 5136CF
42	2N-Y3083	2/3	HEATING ELEMENT BENT 240V	5124CF / 5136CF
	2N-Y3084		HEATING ELEMENT BENT 208V	5124CF / 5136CF
NA	2E-Z6113	1	WIRE KIT, 24" ELEC CHAR	5124CF
NA	2E-Z6114		WIRE KIT, 36" ELEC CHAR	5136CF

2M-Z16003: Star-Max Electric Charbroiler

**IMPORTANT: WHEN ORDERING, SPECIFY VOLTAGE OR TYPE GAS DESIRED  
INCLUDE MODEL AND SERIAL NUMBER**

PAGE 2  
OF 2

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**Star Manufacturing International, Inc.**

2M-Z16003: Star-Max Electric Charbroiler

**STAR INTERNATIONAL HOLDINGS INC. COMPANY**

Star - Holman - Lang - Wells - Bloomfield - Toastmaster

10 Sunnen Drive, St. Louis, MO 63143 U.S.A.

(314) 678-6303

[www.star-mfg.com](http://www.star-mfg.com)