

# StarMax<sup>®</sup>

## ELECTRIC COUNTER CHAR-BROILER

MODEL

5124CF & 5136CF

**Installation and  
Operation  
Instructions**

2M-Z16003 Rev. B 03/21



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.

---

## 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)

### Service Help Desk

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

**Telephone:** 1-800-264-7827

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

**Mailing Address:** Star Manufacturing International Inc.  
265 Hobson Street  
Smithville, TN 37166  
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" (65 cm)	14 1/4" (36 cm)	98 lb	145 lb
	240V		27.5	18.8	18.8	11.9			(61cm)			(45 kg)	(66 kg)
5136CF	208V	9.9	47.6	27.6	27.6	27.6	3	594 sq in (3832 sq cm)	36"			175 lb	215 lb
	240V		41.3	23.9	23.9	23.9			(91cm)			(80 kg)	(98 kg)

## 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).**

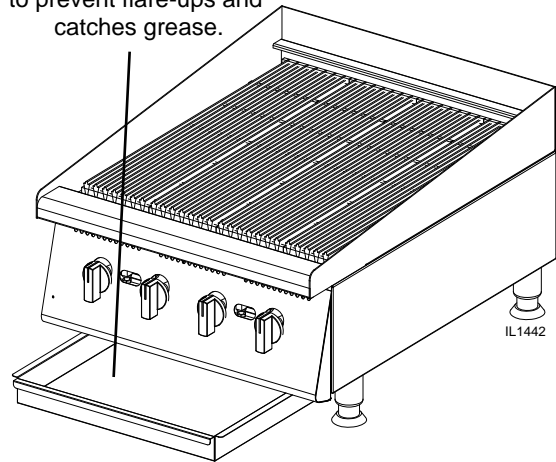
## INSTALLATION

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.

**LIMITED EQUIPMENT WARRANTY**

Star Manufacturing [as well as its subsidiaries] warrants to the original purchaser of new Star products to be free from defects in material or workmanship, under normal and proper use and maintenance service as specified by Star and upon proper installation and start-up in accordance with the instructions supplied with each Star unit. Star’s obligation under this warranty is limited to a period of one [1] year from the date of original installation, or eighteen [18] months from original invoice date, whichever occurs first. Defects that occur as a result of normal use, within the time period and limitations defined in this warranty, will at Star’s discretion have the parts replaced or repaired by Star or a Star-authorized service agency.

**THIS WARRANTY IS SUBJECT TO ALL LISTED CONDITIONS**

Repairs performed under this warranty are to be performed by a Star authorized service agency. Star will not be responsible for charges incurred or service performed by non-authorized repair agencies. In all cases, the nearest Star-authorized service agency must be used. Star will be responsible for normal labor charges incurred in the repair or replacement of a warranted product within 50 miles (80.5 km) of an authorized service agency. Time and expense charges for anything beyond that distance will be the responsibility of the owner. All labor will need to be performed during regular service hours. Any overtime premium will be charged to the owner. For all shipments outside the U.S.A. and Canada, please see the International Warranty for specific details. It is the responsibility of the owner to inspect and report any shipping damage claims, hidden or otherwise, promptly following delivery. No mileage or travel charges will be honored on any equipment that is deemed portable. In general, equipment with a cord and plug weighing less than 50 lb. (22.7 kg) is considered portable and should be taken or shipped to the closest authorized service agency, transportation prepaid.

**CONTACT**

Should you require any assistance regarding the operation or maintenance of any Star Manufacturing; phone, email or fax our service department. In all correspondence provide the model number and serial number of the unit needing service; include the voltage or gas type.

Normal Business Hours: 8:00 a.m. to 4:30 p.m. Central

Telephone: 800-264-7827 Tech Service Option 2

Email: [TechService@partstown.com](mailto:TechService@partstown.com)

[www.Star-Mfg.com](http://www.Star-Mfg.com)

**WARRANTY EXCLUSIONS**

**THE FOLLOWING WILL NOT BE COVERED UNDER WARRANTY.**

Star’s sole obligation under this warranty is limited to either repair or replacement parts, subject to the additional limitations detailed below. This warranty neither assumes nor authorizes any person to assume obligations other than those expressly covered by this warranty.

- Any product which has not been used, maintained, or installed in accordance with the directions published in the appropriate installation sheet and/or owner’s manual, including incorrect gas or electrical connection. Star is not liable for any unit which has been mishandled, abused, misapplied, subjected to harsh chemicals, modified by unauthorized personnel, damaged by flood, fire, or other acts of nature [or God], or which have an altered or missing serial number.
- Installation, labor, and job checkouts, calibration of heat controls, air and gas burner/bypass/pilot adjustments, gas or electrical system checks, voltage and phase conversions, cleaning of equipment, or seasoning of griddle surface.
- Replacement of fuses or resetting of circuit breakers, safety controls, or reset buttons.
- Replacement of broken or damaged glass components, quartz heating elements, and light bulbs.
- Labor charges for all removable and consumable parts in gas charbroilers and hotplates, including but not limited to burners, grates, and radiants.
- Any labor charges incurred by delays, waiting time, or operating restrictions that hinder a service technician’s ability to perform service.
- Replacement of parts that fail or are damaged due to normal wear or labor for replacement of parts that can be replaced during a daily cleaning routine, such as but not limited to silicone belts, PTFE non-stick sheets, control labels, knobs, bulbs, fuses, quartz heating elements, baskets, racks, and grease drawers.
- Any economic loss of business or profits.
- Non-OEM parts. Use of non-OEM parts without Star’s approval will void the warranty.
- Units exceeding one [1] year from original installation date, or more than eighteen [18] months from original purchase date, whichever comes first.

**ADDITIONAL WARRANTIES**

- Specific/chain-specific equipment may have additional and/or extended warranties.

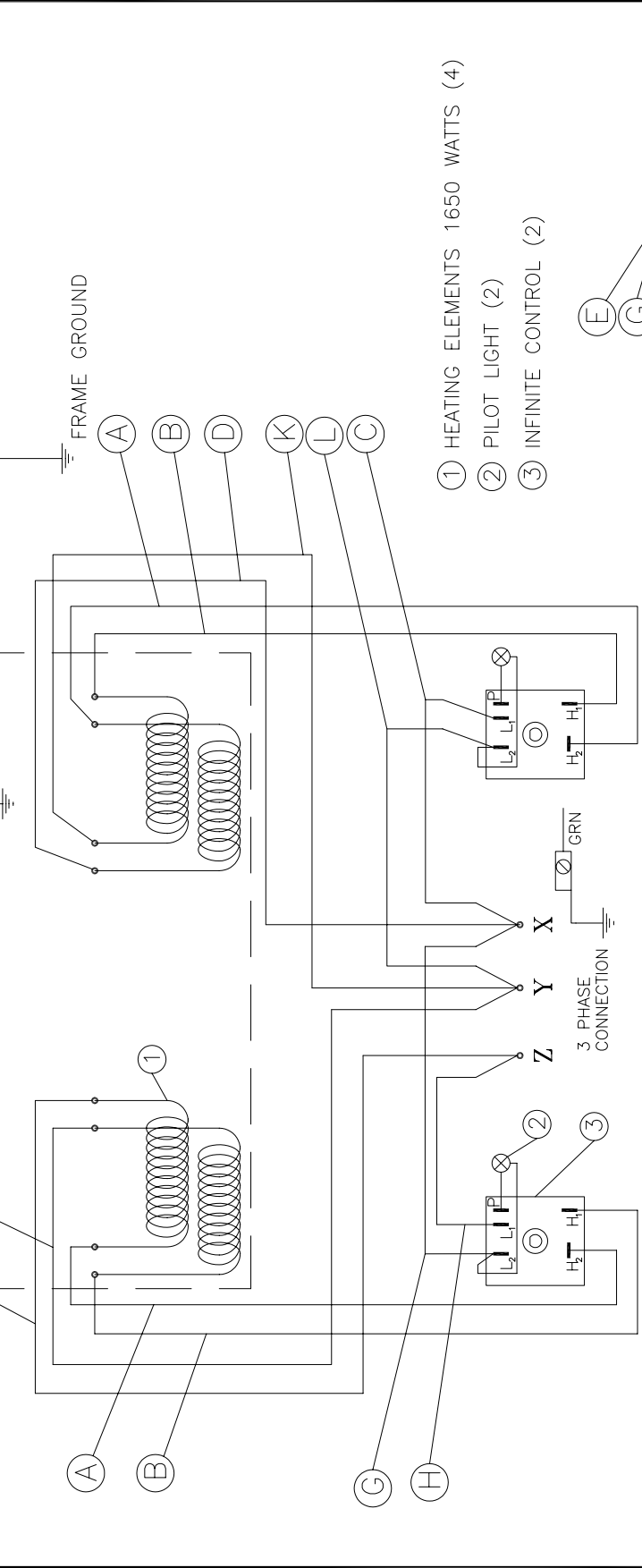
PRODUCTS	PARTS	LABOR
Star Ultra Max ® fryers, griddles, charbroilers and hotplates	2 years	2 years
Star Max ® fryers, griddles, charbroilers and hotplates	2 years	2 years
Staltek™ roller grill coatings	5 years	
Cast iron grates, burners and burner shields	1 year	
Original Star, Toastmaster or Holman parts sold to repair equipment	90 days	

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

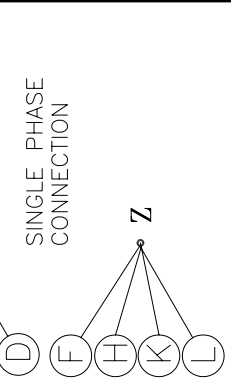

**STAR MANUFACTURING INTERNATIONAL INC.**  
 #10 SUNNEN DRIVE, ST. LOUIS, MO. 63143, USA  
 MATERIAL ~ MODEL NO. **5124CD** PART NO. **SK-1924**  
 FINISH ~ TITLE **WIRING DIAGRAM**

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)




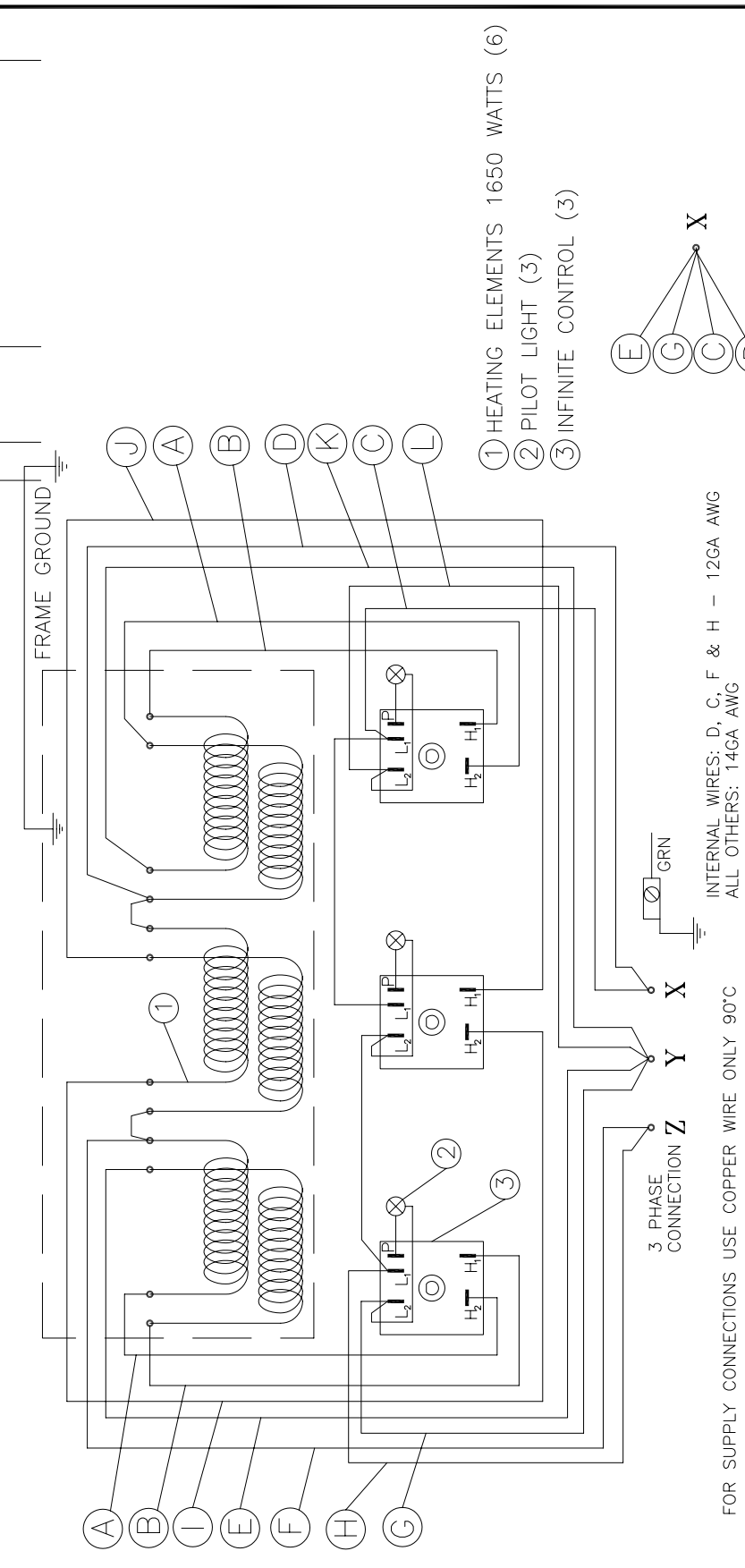
FOR SUPPLY CONNECTIONS USE COPPER WIRE ONLY 90°C

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
				Y	X	Z
				AWG # 10	AWG # 10	AWG # 12
				21.8	18.8	11.9
				AWG # 10	AWG # 10	AWG # 8
				21.8	18.8	11.9
				AWG # 10	AWG # 10	AWG # 8

INTERNAL WIRES: 14GA AWG

2M-Z16003: Star-Max Electric Charbroiler

 STAR MANUFACTURING INTERNATIONAL INC. #10 SUMMEN DRIVE, ST. LOUIS, MO. 63143, USA		MATERIAL ~		MODEL NO. 5136CD		PART NO. SK1985	
DR. TH	CK.	DATE	TITLE WIRING DIAGRAM		REVISIONS	LTR	DATE
TOLERANCES UNLESS OTHERWISE NOTED FRACTIONS ± 1/64 DECIMALS ± .005		4-9-03	DESCRIPTION OF CHANGE DR TH		A	5-8-03	PICTORIAL CHANGE

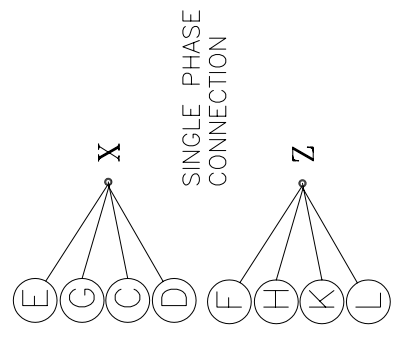


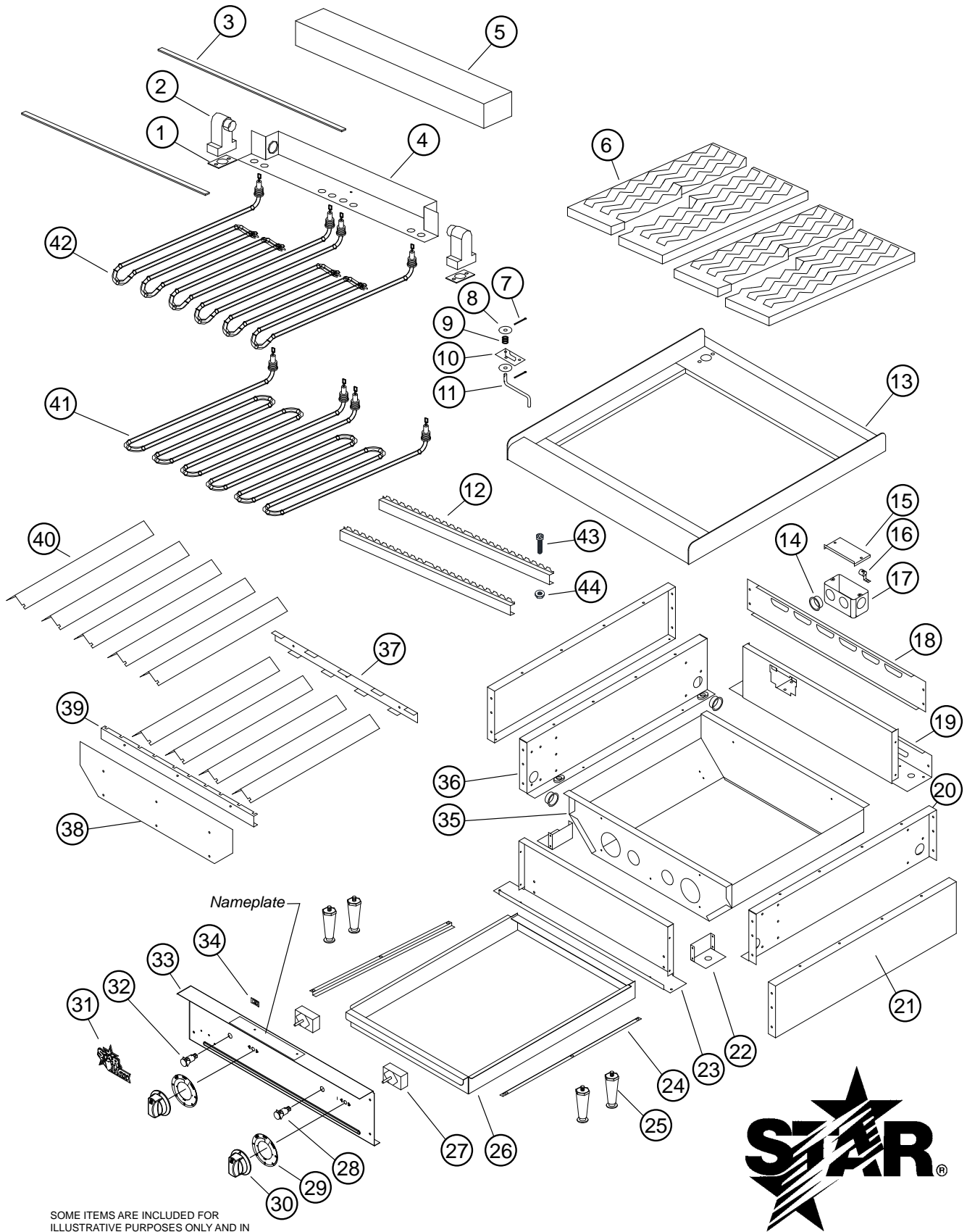
FOR SUPPLY CONNECTIONS USE COPPER WIRE ONLY 90°C

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

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

FOR SUPPLY CONNECTIONS USE GA SHOWN OR LARGER

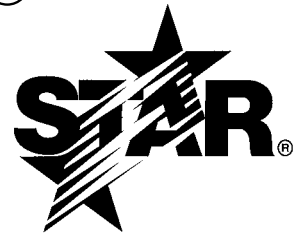




SOME ITEMS ARE INCLUDED FOR ILLUSTRATIVE PURPOSES ONLY AND IN CERTAIN INSTANCES MAY NOT BE AVAILABLE

MODEL - 5124CF

STAR MANUFACTURING INTERNATIONAL, INC.  
SK2591 Rev. A 03/2021



2M-Z16003: Star-Max Electric Charbroiler

# PARTS LIST

March 24, 2021, Rev. B

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	G3-624330	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**

PAGE 1  
OF 2

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



**Star Manufacturing International, Inc.**

# PARTS LIST

March 24, 2021, Rev. B

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
43	2C-9704	12	#10-24 HEX HEAD NUT 1" LONG	5124CF / 5136CF
44	2C-08-07-0207	12	#10-24 HEX NUT W/ LOCK WASHER	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

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



**Star Manufacturing International, Inc.**

2M-Z16003: Star-Max Electric Charbroiler

**STAR MANUFACTURING INTERNATIONAL INC.**

Star - Holman - Lang - Wells - Toastmaster  
265 HOBSON ST. SMITHVILLE, TN 37166  
(800) 264-7827  
[www.star-mfg.com](http://www.star-mfg.com)