



Star  
Manufacturing  
International, Inc.

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Installation and  
Operating  
Instructions

2M-Z1346 Rev. E 11/18/02

# **STAR-MAX ELECTRIC GRIDDLES**

**MODELS  
515TGA, 524TGA, 536TGA, 548TGA**

# **CHROME-MAX ELECTRIC GRIDDLES**

**MODELS  
524CHSA, 536CHSA, 548CHSA**



524CHSA





## **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.





## 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.

## INSTALLATION

The griddles are equipped for the voltage indicated on the nameplate mounted on the front panel. They will operate on alternating current (AC) only.



## CAUTION

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

The installation of the electric griddle 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 griddle. He should be familiar with electrical installations and all electric 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 the temperature indicated on the wiring diagram, and of a proper size to carry the load. The supply circuit should be properly fused and equipped with a means of disconnecting, as required by local electrical code. **THE BODY OF THE GRIDDLE SHOULD BE GROUNDED (DO NOT GROUND TO A GAS SUPPLY LINE).**

## GENERAL OPERATING PROCEDURES

The Chrome-Max and Star-Max series electric griddles may be wired for operation in the field for either 1-phase or 3-phase power supplies by making line connections at the junction box(es) located at the rear of the unit. Model 536TG should be wired for 3-phase power supply only. Two junction boxes are provided on the 548TG for making line connections. These may be connected in parallel to one 16KW 3-phase line or on two separate 8KW lines.

### **CONNECTING POWER SUPPLY**

Detach cover on junction box at rear of unit. There are pigtail leads for wire nut connection in the junction box.

### **LOCATING AND LEVELING THE UNIT**

Do not install the unit closer than 1-inch from a side wall and/or closer than 1-inch from a rear wall. Level unit by adjusting the (4) feet which have an adjustment of 1-3/4" (43.75mm) for accurate leveling and perfect line-up with other Star-Max series units.

### **SEASONING THE GRIDDLE HEATING SURFACE (NON CHROMIUM SURFACE)**

Clean the griddle surface thoroughly. After the griddle has been thoroughly cleaned, it should be seasoned to prevent food from sticking. Before using and after each thorough scouring, season the griddle heating surface in the following manner.

1. Turn temperature control dials to 350° F (177°C).
2. Using a clean cloth, not a spatula, spread a thin film of cooking oil or fat over the griddle cooking surface. This film should remain on the hot griddle surface for half an hour.
3. Remove the excess fat and wipe clean.
4. Apply another film of cooking oil over the hot cooking area for another half hour and again remove excess fat and wipe clean. The griddle surface should now be ready for use.

Even with careful seasoning, food may, to some extent, stick to the griddle cooking surface until the griddle plate is broken in.



## TEMPERATURE CONTROL

The temperature controls are combination "ON/OFF" switches and thermostats. Turning the dial knob automatically maintains the selected heat range.

The Star-Max/Chrome-Max electric griddle line has one thermostat for every 12" (30cm) section of griddle which operate independently of one another. Each thermostat controls the section of the griddle above it and may be set at different temperatures as desired.

## COOKING

Set the thermostat dial knob at the temperature desired. After a short pre-heating period, the thermostat will automatically maintain the selected temperature.

## IDLING

During idle periods, to save on operating costs, lower the temperature setting of the thermostat to about 250°F (121°C). It is not necessary to maintain cooking temperature during idle periods, as the griddle can quickly be reheated to the desired temperature.

## SIGNAL LIGHTS

Each thermostat has its own signal light which indicates when the unit's control knob is not in the off position.

## GRIDDLE CARE (NON-CHROMIUM SURFACES)

It takes very little time and effort to keep the griddle attractive and performing at top efficiency. If grease is permitted to accumulate, it will form a gummy cake and then carbonize into a hard substance which is extremely difficult to remove. To prevent this condition, the following suggestions for cleanliness should be followed:

1. After each use, scrape the griddle with a scraper or flexible spatula to remove excess fat and food. A waste drawer is provided for the scrapings. If there is an accumulation of burned on fat and food, the griddle should be thoroughly scoured and reseasoned. Use pumice or griddle stone while the griddle is warm. Do not use steel wool because of the danger of steel slivers getting into the food.

2. Daily, use a clean cloth and a good non-abrasive cleaner to clean the stainless steel body of the griddle. Wipe the polished front with a soft cloth.
3. At least once a day, remove the waste grease drawer and wash in the same way as an ordinary cooking utensil. The drawers are removed by pulling forward until they are released from their track.

## GRIDDLE CARE (CHROMIUM SURFACES)

It takes very little time and effort to keep this Industrial Chromium griddle surface sparkling clean and performing at top efficiency. **DO NOT** allow grease to accumulate as it will carbonize and become difficult to remove. To prevent this condition the following cleaning suggestions should be followed:

1. Remove excess oil and food regularly with a 4" (100mm) wide **Razor Sharp** type scraper and wipe surface with a damp cloth if desired.
2. Following the scraping, for end of the day cleaning, a damp cloth and a non-silicated, non-abrasive, non-chlorinated cleaner such as Bon-Ami may be used to wipe surface clean, followed by wiping with a clean wet cloth.
3. Follow steps 2 and 3 from Griddle Care (Non-Chromium Surfaces) above.



## CAUTION

1. **Never** use pumice, griddle stones, or abrasives on the surface.
2. **Never** strike griddle surface with sharp instrument or spatula edge.
3. **Never** use steel wool.
4. **Never** use commercial liquid grill cleaner on the griddle surface.
5. **Abusing** surface voids the warranty.



## **MAINTENANCE AND REPAIRS**

Contact the factory, a service representative, or a local service company for service or required maintenance.

## **CHROME-MAX GRIDDLE SURFACE LIMITED WARRANTY EXCLUSIONS**

Your Chrome-Max griddle has been designed to give you many years of cooking reliability and requires minimum maintenance to keep the chrome surface in its original condition. All Chrome-Max griddle surfaces are warranted for a period of 5 years against manufacturing defects to the original owner from the date of installation. This limited warranty is void if it is determined by Star Manufacturing International Incorporated or one of its authorized representatives that the chrome surface has been misused or abused or subjected to the following situations:

1. Improperly installed.
2. By-pass adjustments not set properly on gas units allowing the appliance to overheat and discolor the chrome surface. (See by-pass adjustment in instruction manual supplied with unit).
3. Incorrect voltage applied to electric Chrome-Max units allowing the surface to overheat and discolor.
4. The misuse of any instrument or tool which scratches or makes indentations in the surface which could cause the surface to peel, flake, or chip off.
5. The use of any chemical or abrasive cleaning solution, griddle brick, stone, screen or other cleaning products which could damage and affect the performance of the chrome surface.
6. The neglect of daily routine maintenance to the chromium surface.



### 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 JetStar series six (6) ounce 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 Teflon/Dura-Tec coatings is one year under normal use and reasonable care. This warranty does not apply if damage occurs to Teflon/Dura-Tec coatings from improper cleaning, maintenance, use of metallic utensils, or abrasive cleaners. 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. Labor to replace the part is chargeable to the customer.

### SERVICES NOT COVERED BY WARRANTY

- |  |   |
|--|---|
| 1. Travel time and mileage rendered beyond the 50 mile radius limit  | 10. Voltage conversions   |
| 2. Mileage and travel time on portable equipment ( <i>see below</i> )  | 11. Gas conversions   |
| 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. | 12. Pilot light adjustment  |
| 4. Installation of equipment   | 13. Miscellaneous adjustments   |
| 5. Damages due to improper installation  | 14. Thermostat calibration and by-pass adjustment   |
| 6. Damages from abuse or misuse  | 15. Resetting of circuit breakers or safety controls  |
| 7. Operated contrary to the Operating and Installation Instructions  | 16. Replacement of bulbs  |
| 8. Cleaning of equipment   | 17. Replacement of fuses  |
| 9. Seasoning of griddle plates   | 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 510F Fryer.  | <b>ALL:</b>                |
| * The Model 526TO Toaster Oven.  | * Pop-Up Toasters          |
| * The Model J4R, 4 oz. Popcorn Machine.  | * Butter Dispensers        |
| * The Model CFS Series Food Steamer.   | * Pretzel Merchandisers    |
| * The Model 526WO Warming Oven.  | * Pastry Display Cabinets  |
| * The Model 518CM & 526CM Cheese Melter.   | * Nacho Chip Merchandisers |
| * The Model 12MC & 15MC & 18MCP Hot Food Merchandisers.                                    | * Accessories of any kind  |
| * The Model 12NCPW & 15NCPW Nacho Chip/Popcorn Warmer.                                     | * Sneeze Guards            |
| * All Hot Dog Equipment <b>except Roller Grills &amp; Drawer Bun Warmers.</b>              | * Pizza Ovens              |
| * All Nacho Cheese Warmers <b>except Model 11WLA Series Nacho Cheese Warmer.</b>           | * Heat Lamps               |
| * All Condiment Dispensers <b>except the Model CSD &amp; HPD Series Dispenser.</b>         | * Hot Cups                 |
| * All Specialty Food Warmers <b>except Model 130R, 500, 11RW Series, and 11WSA Series.</b> | * Pumps                    |

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.

515TG

PART NO.

SK 1895

FINISH

TITLE WIRING DIAGRAM 15" ELEC. GRIDDLE

DR. PMR

CK.

DATE 5/21/02

REVISIONS

LTR

DATE

DESCRIPTION OF CHANGE

DR

TOLERANCES UNLESS OTHERWISE NOTED  
FRACTIONS  $\pm 1/64$  DECIMALS  $\pm .005$  ANGLES  $\pm 1^\circ$

THIS DRAWING CONTAINS INFORMATION CONFIDENTIAL TO STAR MFG. INT'L. INC.  
NO REPRODUCTION OR DISCLOSURE OF ITS CONTENTS IS PERMITTED.

FOR SUPPLY CONNECTIONS  
USE GAUGE SHOWN OR  
LARGER

NOMINAL AMPS PER LINE WIRE

3,004 WATTS

4,000 WATTS

208V-1 PHASE

240V-1 PHASE

14.44

16.66

AWG

#14

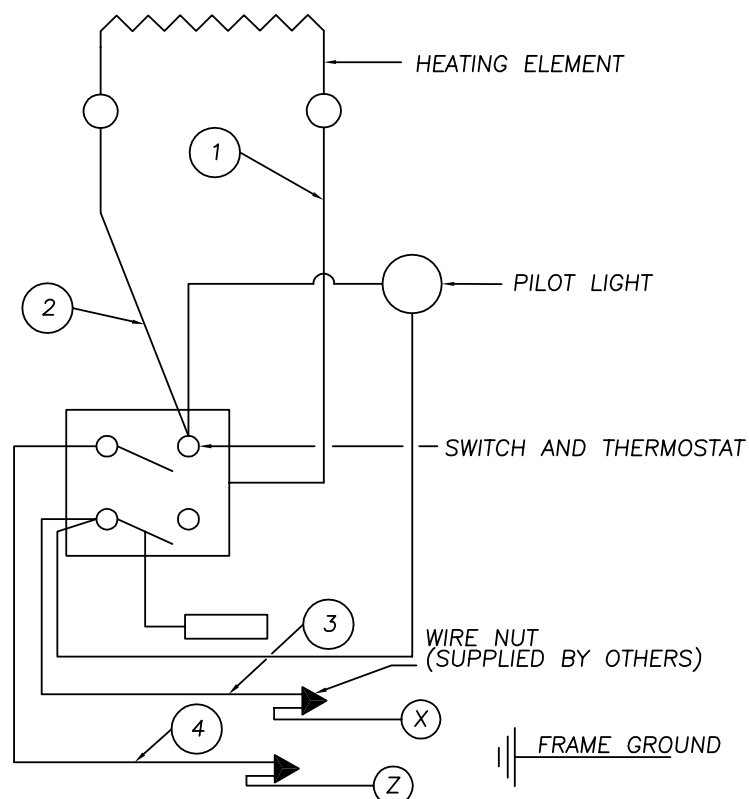
AWG

#14

NOTE:

1) FOR SUPPLY CONNECTIONS  
USE COPPER WIRE ONLY,  
SUITABLE FOR AT LEAST 90°C  
(194°F).

2) FOR REFERENCE: ALL  
INTERNAL WIRING IS #12 GA.



SINGLE PHASE CONNECTION





STAR MANUFACTURING INTERNATIONAL INC.  
#10 SUNNEN DRIVE, ST. LOUIS, MO. 63143, USA

MATERIAL

MODEL NO.

524TG/CHS

PART NO.

SK 1896

FINISH

TITLE WIRING DIAGRAM 24" ELEC. GRIDDLE

DR. PMR

CK.

DATE 5/21/02

REVISIONS

LTR

DATE

DESCRIPTION OF CHANGE

DR

TOLERANCES UNLESS OTHERWISE NOTED

FRACTIONS  $\pm 1/64$  DECIMALS  $\pm .005$  ANGLES  $\pm 1^\circ$

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NOMINAL AMPS PER LINE WIRE

208V-3 PHASE

240V-3PHASE

208V

240V

6008 WATTS

8000 WATTS

1 PH

1 PH

X

Y

Z

X

Y

Z

FOR SUPPLY CONNECTIONS USE  
GAUGE SHOWN OR LARGER

14.44

24.98

14.44

16.66

28.86

16.66

28.88

33.3

AWG  
#16

AWG  
#12

AWG  
#16

AWG  
#14

AWG  
#10

AWG  
#14

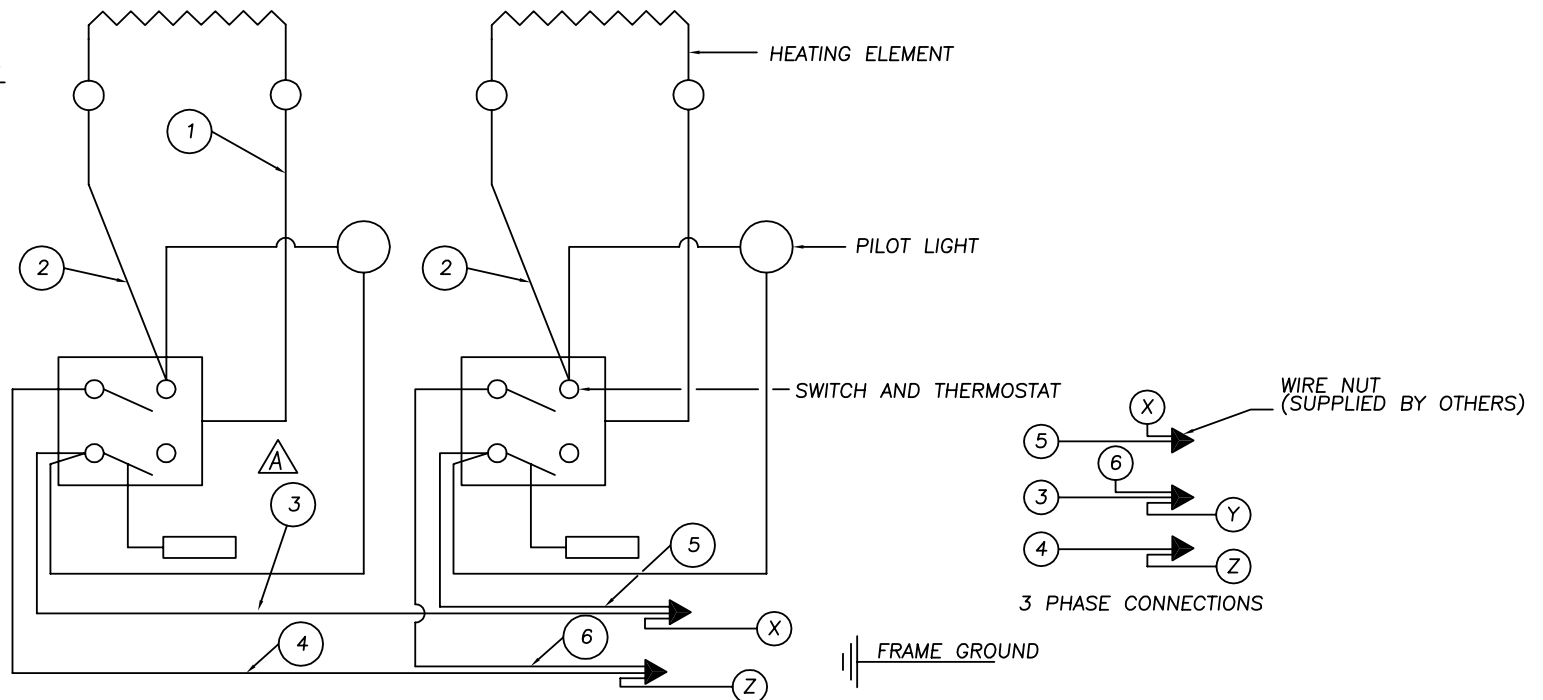
#10

AWG  
#8

NOTE:

1) FOR SUPPLY CONNECTIONS USE  
COPPER WIRE ONLY, SUITABLE FOR  
AT LEAST 90°C (194°F).

2) FOR REFERENCE: ALL INTERNAL  
WIRING IS #12 GA.



SINGLE PHASE CONNECTIONS





STAR MANUFACTURING INTERNATIONAL INC.  
#10 SUNNEN DRIVE, ST. LOUIS, MO. 63143, USA

MATERIAL

MODEL NO.

536TG/CHS

PART NO.

SK 1897

FINISH

TITLE WIRING DIAGRAM 36" ELEC. GRIDDLE

DR. PMR

CK.

DATE 5/21/02

REVISIONS

LTR

DATE

DESCRIPTION OF CHANGE

DR

TOLERANCES UNLESS OTHERWISE NOTED  
FRACTIONS  $\pm 1/64$  DECIMALS  $\pm .005$  ANGLES  $\pm 1^\circ$

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NOMINAL AMPS PER LINE WIRE

208V-3 PHASE

240V-3PHASE

9,012 WATTS

12,000 WATTS

X

Y

Z

X

Y

Z

25.0

25.0

25.0

28.9

28.9

28.9

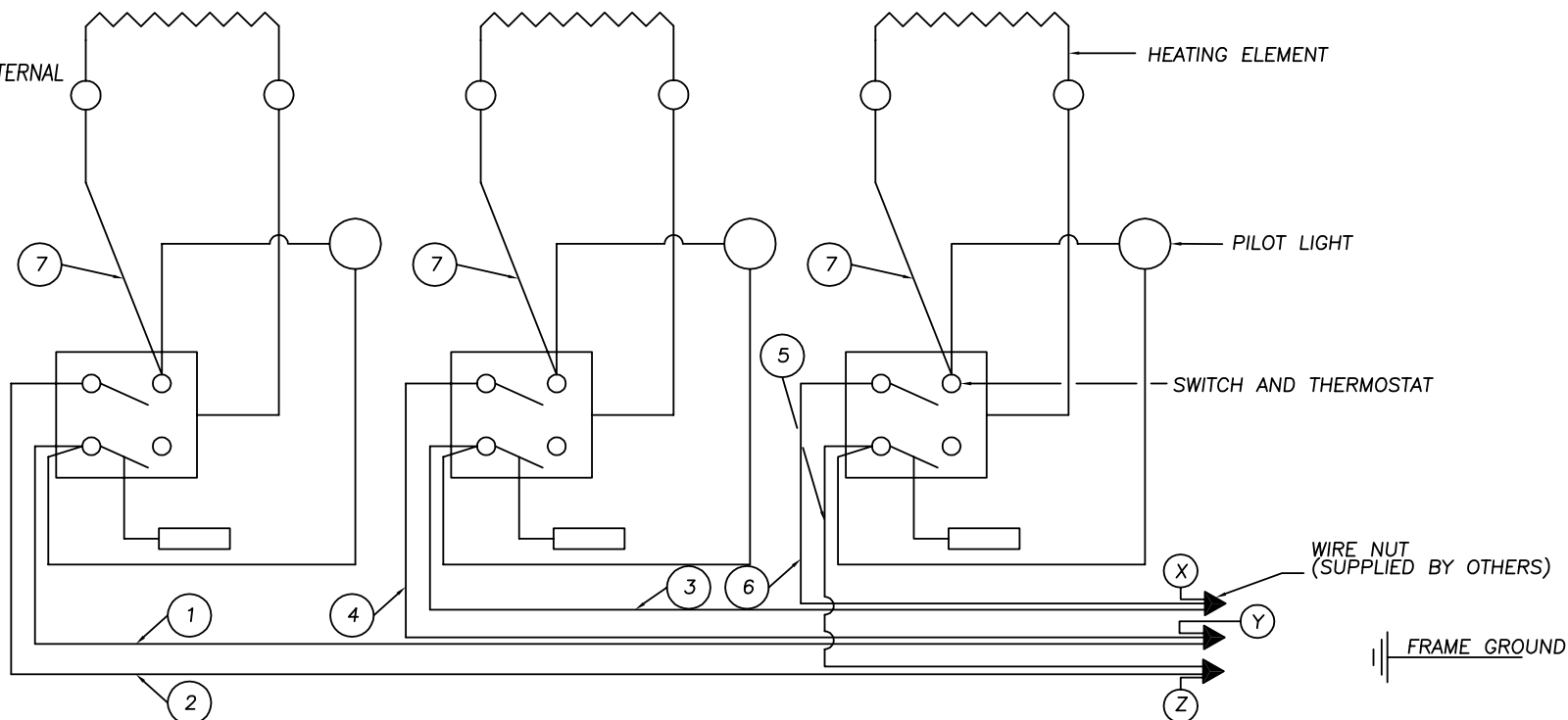
AWG  
#12

AWG  
#10

NOTE:

1) FOR SUPPLY CONNECTIONS USE  
COPPER WIRE ONLY, SUITABLE FOR  
AT LEAST 90°C (194°F).

2) FOR REFERENCE: ALL INTERNAL  
WIRING IS #12 GA.



3 PHASE CONNECTIONS





STAR MANUFACTURING INTERNATIONAL INC.  
#10 SUNNEN DRIVE, ST. LOUIS, MO. 63143, USA

MATERIAL

FINISH

MODEL NO.

548TG/CHS

PART NO.

SK 1898

DR. PMR

CK.

DATE 5/21/02

TITLE WIRING DIAGRAM 48" ELEC. GRIDDLE

REVISIONS

LTR

DATE

DESCRIPTION OF CHANGE

DR

TOLERANCES UNLESS OTHERWISE NOTED  
FRACTIONS  $\pm 1/64$  DECIMALS  $\pm 0.005$  ANGLES  $\pm 1'$

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9-20-00

REDRAWN ON CAD

SO

B

11/13/02

SUPPLY CONNECTIONS WERE NOT  
TRANSFERRED CORRECTLY WHEN  
REDRAWN ON CAD. CORRECTED TO  
208V, 1 PH, IS #4 AWG.  
240V, 1 PH, IS #4 AWG.

PR

NOMINAL AMPS PER LINE WIRE

208V-3 PHASE

240V-3PHASE

208V

240V

12,016 WATTS

16,000 WATTS

1 PH

1 PH

X

Y

Z

X

Y

Z

57.8

66.7

FOR SUPPLY CONNECTIONS,  
USE GAUGE SHOWN OR  
LARGER.

38.2

24.99

38.2

44.18

28.9

44.18

AWG  
#6

AWG  
#8

AWG  
#6

AWG  
#6

AWG  
#10

AWG  
#6

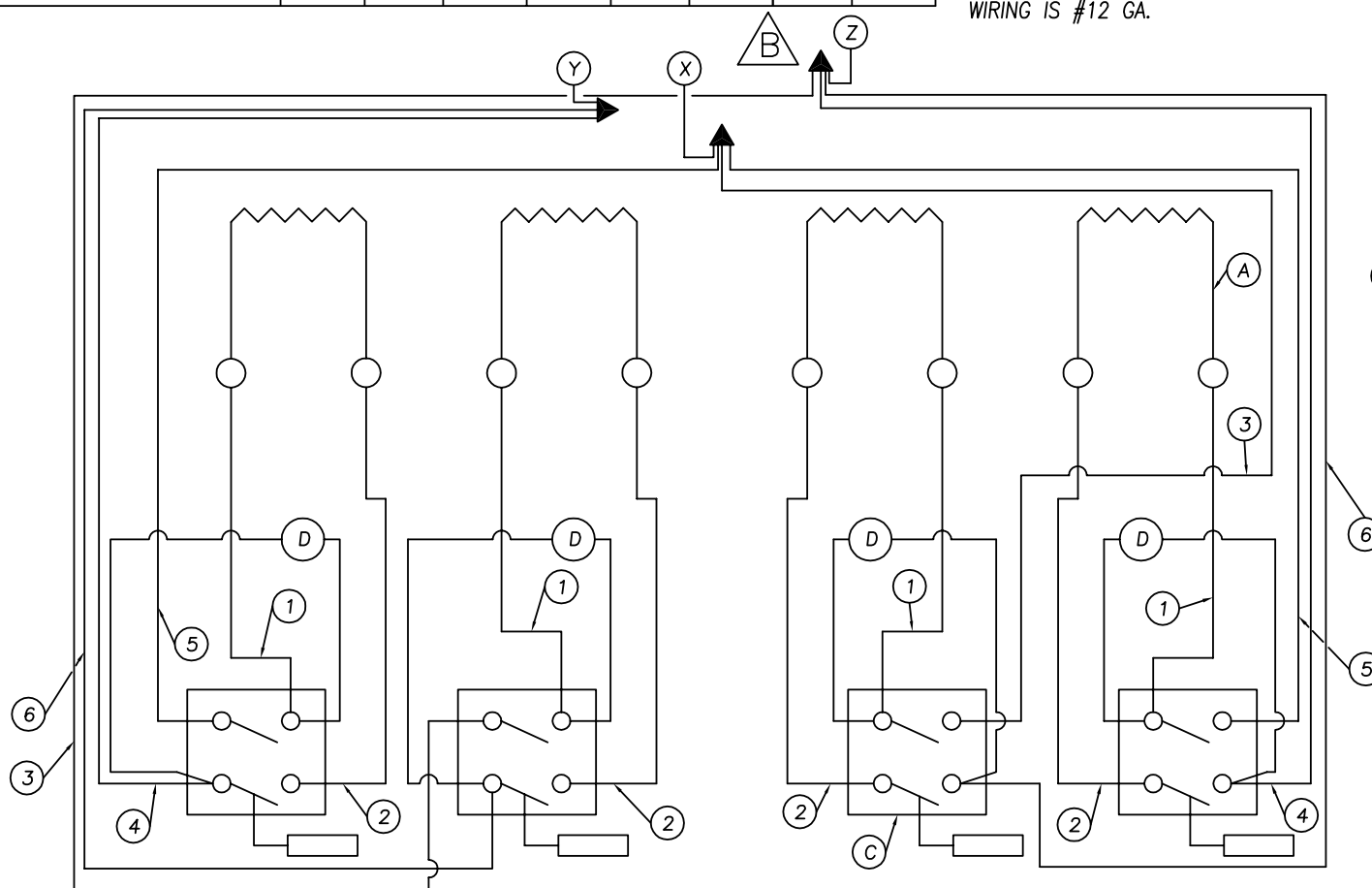
AWG  
#4

AWG  
#4

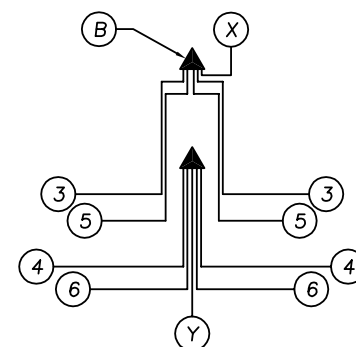
NOTE:

1) FOR SUPPLY CONNECTIONS USE  
COPPER WIRE ONLY, SUITABLE FOR  
AT LEAST 90°C (194°F).

2) FOR REFERENCE: ALL INTERNAL  
WIRING IS #12 GA.



3 PHASE CONNECTIONS

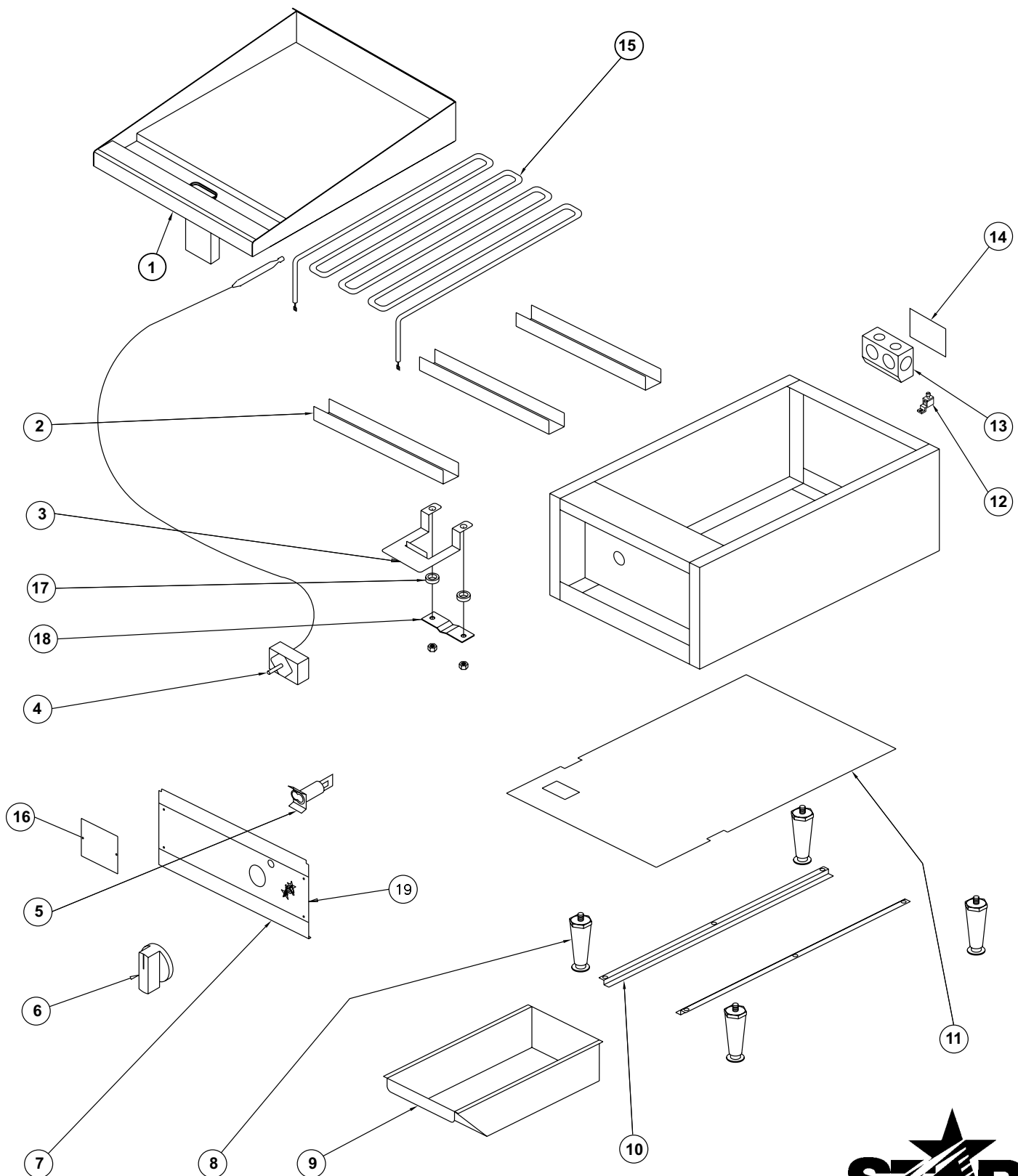


SINGLE PHASE CONNECTION

- (A) HEATING ELEMENT
- (B) WIRE NUT  
(SUPPLIED BY OTHERS)
- (C) SWITCH & THERMOSTAT
- (D) PILOT LIGHT

||| FRAME GROUND





**MODEL: 515A, 524A, 536A, 548A**

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**STAR MANUFACTURING INTERNATIONAL INC.**

SK1539

Rev A

09/05/1997



# PARTS LIST

515TGA, 524TGA, 524CHSA, 536TGA, 536CHSA, 548TGA, 548CHSA  
MODEL 15", 24", 36" and 48" Star-Max/Chrome-Max Electric Griddles

Key Number	Part Number	Number Per Unit	Description
1	G3-515052	1	GRIDDLE PLATE ASSEMBLY 515TGA
	G3-524001	1	GRIDDLE PLATE ASSEMBLY 524TGA
	G3-524002	1	GRIDDLE PLATE ASSEMBLY (CHROME) 524CHSA
	G3-536001	1	GRIDDLE PLATE ASSEMBLY 536TGA
	G3-536002	1	GRIDDLE PLATE ASSEMBLY (CHROME) 536CHSA
	G3-548001	1	GRIDDLE PLATE ASSEMBLY 548TGA
	G3-548002	1	GRIDDLE PLATE ASSEMBLY (CHROME) 548CHSA
2	G3-Y7059	3/6/9/12	ELEMENT CLAMP 515TGA/524/536/548
3	G3-Z5047	1/2/3/4	CAPILLARY BRACKET 515TGA/524/536/548
4	2T-Y2313	1/2/3/4	THERMOSTAT 515TGA/524/536/548
5	2J-Y7114	1/2/3/4	PILOT LIGHT 515TGA/524/536/548
6	2R-Z1274	1/2/3/4	KNOB-CONTROL 515TGA/524/536/548
7	G3-Z1319	1	FRONT PANEL 515TGA
	G3-Z1534	1	FRONT PANEL 524
	G3-Z1536	1	FRONT PANEL 536
	G3-Z1538	1	FRONT PANEL 548
8	2A-Z0314	4	LEG
9	G3-Y7046	1	GREASE DRAWER GRIDDLE
10	G3-Y7047	2	DRAWER SLIDE
11	G3-Y7561	1	BOTTOM 515TGA
	G3-Y7204	1	BOTTOM 524
	G3-Y7205	1	BOTTOM 536
	G3-Y7206	1	BOTTOM 548
12	2C-Y2344	1	TERMINAL GROUND
13	2E-Y7327	1	BOX-JUNCTION
14	G3-Y7788	1	COVER-JUNCTION BOX
15	2N-Y7115	1/2/3/4	ELEMENT 515TGA/524/536/548
16	----	1	NAMEPLATE
17	2A-Z5049	2/4/6/8	SPACER 515TGA/524/536/548
18	G3-Z5048	1/2/3/4	PLATE - BULB RETAINER 515TGA/524/536/548
19	2M-Z1533	1	FACE PLATE 515TGA
	2M-Z1535	1	FACE PLATE 524TGA
	2M-Z1537	1	FACE PLATE 536TGA
	2M-Z1539-1	1	FACE PLATE - LEFT 548TGA
	2M-Z1539-2	1	FACE PLATE - RIGHT 548TGA

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

PAGE 1  
OF 1

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



Star Manufacturing International, Inc.