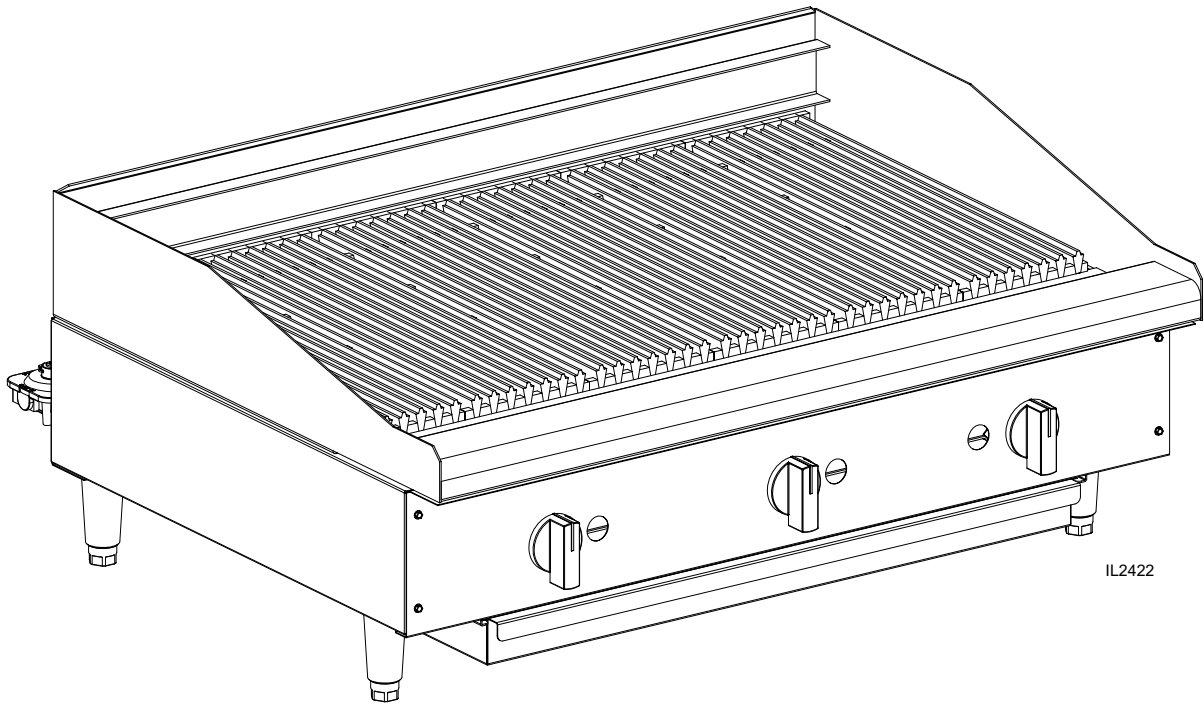


# Central<sup>®</sup>

## RESTAURANT PRODUCTS



## **GAS CHARBROILER**

MODEL

Radiant; CPRB24, CPRB36, CPRB48

**Installation, Operation & Parts Manual**

2M-Z17578 Rev. - 11/13/13

## 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** [Service@star-mfg.com](mailto:Service@star-mfg.com)

### Service Help Desk

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

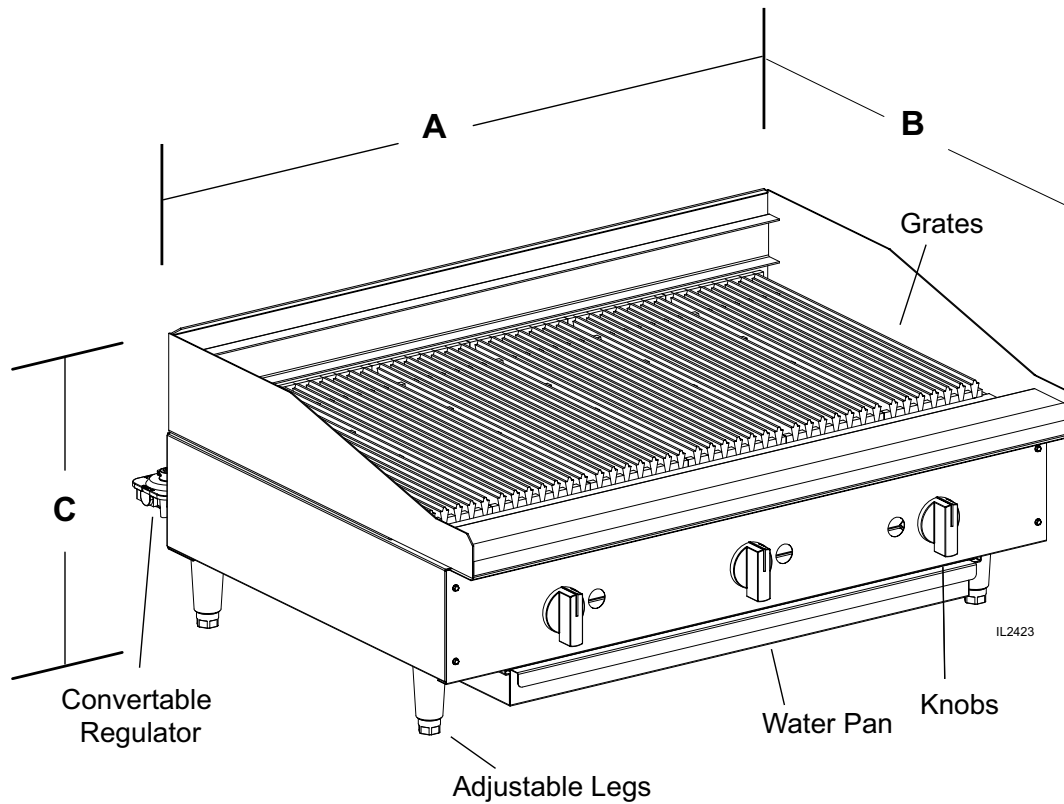
**Telephone:** (314) 678-6303

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

**E-mail** [Parts@star-mfg.com](mailto:Parts@star-mfg.com)  
[Service@star-mfg.com](mailto:Service@star-mfg.com)  
[Warranty@star-mfg.com](mailto:Warranty@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



Gas Radiant Charbroilers Specifications						
Model	Height x Width x Depth	Grid Area	Controls	NAT / LP	Weight	
					Installed	Shipped
CPRB24	15.5" x 24" x 29"	480 sq. in	2	NAT: 60,000 BTU/HR	140 lbs	155 lbs
	48cm x 61cm x 65.4cm	3097 sq. cm		LP: 60,000 BTU/HR	63.5 kg	70.3 kg
CPRB36	15.5" x 36" x 29"	720 sq. in	3	NAT: 90,000 BTU/HR	220 lbs	240 lbs
	48cm x 91.4cm x 65.4cm	4645 sq. cm		LP: 90,000 BTU/HR	100 kg	109 kg
CPRB48	15.5" x 48" x 29"	960 sq. in	4	NAT: 120,000 BTU/HR	300 lbs	325 lbs
	48cm x 122cm x 65.4cm	6194 sq. cm		LP: 120,000 BTU/HR	136 kg	147.7 kg

- Gusto Gas Char-Broilers are designed for the most demanding foodservice applications. These char-broilers deliver maximum performance and provide years of operation.
- Available in 24", 36" and 48" widths to fit many foodservice operation space requirements.
- Designed with high performance 30,000 BTU.
- Heavy-duty cast iron grates can be individually positioned (flat or slanted) to accommodate a variety of broiling needs. Grates are reversible with a thin side for searing and a thick side for more delicate menu items.
- Stainless steel, 2-3/4" high tapered splash guard provides maximum protection against grease and spills.
- Large capacity stainless steel water pan for easy clean up.
- Cool to the touch stainless steel bull nose front provides knob protection and comfortable work zone.
- Gas convertible in the field with conversion kit supplied with each char-broiler. Units are shipped Natural Gas.
- Heavy-duty 4" inch adjustable legs.



## GENERAL INSTALLATION DATA

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.

The GUSTO series gas charbroiler is equipped for the type of gas indicated on the nameplate mounted on the front panel. All units are shipped from the factory for use with natural gas. The unit can easily be converted for use with propane gas: see propane gas.

### **-IMPORTANT-**

**INSTALL IN NON-COMBUSTIBLE LOCATIONS ONLY! Clearance from non-combustible construction must be 6" from back and sides.**

**The installation of the Appliance must conform to the NATIONAL FUEL GAS CODE "ANSI Z223.1 - LATEST EDITION" AND ALL LOCAL GAS COMPANY RULES AND REGULATIONS.**

**IN CANADA INSTALLATION SHALL BE IN ACCORDANCE WITH THE CURRENT CAN/CGA-B149.1 NATURAL GAS INSTALLATION CODE OR CAN/CGA-B149.2 PROPANE INSTALLATION CODE AND LOCAL CODES WHERE APPLICABLE.**

**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.**

### **FOR YOUR SAFETY**

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance. Keep the appliance area clear and free from combustibles.

**For your protection, we recommend a qualified installing agency install this appliance. They should be familiar with gas installations and your local gas requirements. In any case, your gas company should be called to approve the final installation. In addition, there should be posted, in a prominent location, detailed instructions to be followed in the event the operator smells gas. Obtain the instructions from the local gas supplier.**

This appliance, its pressure regulator and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 PSIG. This appliance and its pressure regulator must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 PSIG.

### **EXHAUST CANOPY**

Open hearth broilers inherently create a good deal of heat and smoke and should be installed under an efficient exhaust hood with flame proof filters. A vertical distance of not less than 48" shall be provided between the top of the appliance and filters or any other combustible material. Exhaust installation must conform to local codes.

### **AIR SUPPLY**

Provisions for adequate air supply must be provided.

### **LEVELING UNIT**

This charbroiler is supplied with 4 feet which must be screwed into the body. Level unit by adjusting the (4) feet which have an adjustment of 1-3/4" for accurate and perfect line-up with other units.



**DO NOT INSTALL WITHOUT ATTACHING FEET - DO NOT REMOVE FEET.**

## **GAS PIPING**

Gas piping shall be of such size and so installed as to provide a supply of gas sufficient to meet the full gas input of the appliance. If the appliance is to be connected to existing piping, it shall be checked to determine if it has adequate capacity. Joint compound shall be used sparingly and only on the male threads of the pipe joints. Such compounds shall be resistant to the action of L.P. gases.

**WARNING:** Any loose foreign material, debris, or metal particles allowed to enter the gas lines on this appliance will damage the valve and affect its operation. When installing this appliance, all pipe and fittings must be free from all internal loose dirt.

## **GAS PRESSURE REGULATOR**

A convertible pressure regulator is provided with each charbroiler. It should be connected to the inlet pipe at the rear of the unit. The gas supply is then connected to it. It is shipped set for 6" water column manifold pressure for use with natural gas, and 10" water column manifold pressure for use with propane gas. Allow 6" clearance from back of unit to wall for servicing and installation.

## **MANUAL SHUT OFF VALVE**

A manual shut off valve should be installed upstream from the manifold and within six feet of the charbroiler.

## **CONNECTING GAS SUPPLY LINE**

The gas inlet of the charbroiler is sealed at the factory to prevent entry of dirt. Do not remove this seal until the actual connection is made to the gas supply line.

## **CONVERT TO PROPANE GAS**

If your charbroiler is equipped with fixed orifice hoods and is shipped from the factory for use with natural gas, and you wish to convert to propane gas. Follow these steps, install the burner orifice hoods, included with the unit, as follows:

1. Remove grill, radiants and burners.
2. Remove the burner orifice hoods and install the orifice hoods supplied.
3. Replace the burners, radiants, and grill.
4. Set manifold pressure to (10) inch water column. A 1/8" pipe plug on the burner manifold can be removed for attaching a pressure gauge. Remove the slotted, or hex-threaded plug from the pressure regulator. Invert the plug and re-install. The letters "LP" should now be visible on the plug. The regulator is now set for 10" (25.4 cm) water column. Attach the conversion label, supplied with the unit, close to the nameplate.

## **CONVERT TO NATURAL GAS**

If your charbroiler is equipped with fixed orifice hoods and is shipped from the factory for use with propane gas, and you wish to convert to natural gas. Follow these steps, install the burner orifice hoods, located in the grease drawer, as follows:

1. Remove grill, radiants and burners.
2. Remove the burner orifice hoods and install the orifice hoods (not supplied).
3. Replace the burners, radiants, and grill.
4. Set manifold pressure to (6) inch water column. A 1/8" pipe plug on the burner manifold can be removed for attaching a pressure gauge. Remove the slotted, or hex-threaded plug from the pressure regulator. Invert the plug and re-install. The letters "NAT" should now be visible on the plug. The regulator is now set for 6" (15.24 cm) water column.

## **CHECKING FOR GAS LEAKS**

Check entire piping system for leaks. Soap and water solution or other material acceptable for the purpose shall be used in locating gas leakage.

**Matches, candle flame or other sources of ignition shall not be used for this purpose.**



## **PILOT LIGHTING INSTRUCTIONS**

The unit is equipped with standing pilots, and should be lit immediately after the gas is turned on.

1. Turn off main valve to unit.
2. Turn off all knobs and pilot valves and wait 5 minutes to clear gas.
3. Turn on main valve and light all pilots. The best access to the pilot is obtained from the bottom with the grease drawer removed.
4. Adjust pilot light flames as small as possible, but high enough to light burner immediately when burner valve is turned on high.
5. Turn burner knobs to desired setting.
6. To turn burners off, turn knobs off.

## **SHUTTING DOWN INSTRUCTIONS**

Turn the burner valve knobs to the off position to turn burners off.

## **BURNER IGNITION AND ADJUSTMENT**

1. To ignite burners turn burner valve knob to "HI" position.
2. Slowly decrease openings of air shutters on burners to give a soft blue flame having luminous tips, then slowly increase openings to a point where the yellow tips disappear and a hard blue flame is obtained.

## **PLACING RADIANTS**

After the unit is unpacked and installed, place 2 radiants above each burner. Install each radiant engaging the notches on the top assembly. Refer to the exploded view in this manual for orientation of the radiants.

## **BURNER OPERATION**

Each burner is controlled by an individual high-low, on-off valve. An infinite number of broiling temperatures may be obtained by turning the burner valve knob to any position between high and low. It is possible through this arrangement to have a high heat or searing section, while having a low heat finishing or holding section. For the searing operation, set the valves for the section at a position of "HI" or close to it. For holding or finishing, set the valves closer to the "LOW" position on the dial. You select the heat pattern you like, and set the valves accordingly.

## GENERAL OPERATING INSTRUCTIONS

### WATER PAN / DRIP TRAY

The water pan is located at the bottom of the unit, and is easily removed from the front of the unit. Water should be added to the water pan and replaced as necessary. The water pan helps prevent flare ups and catches grease.

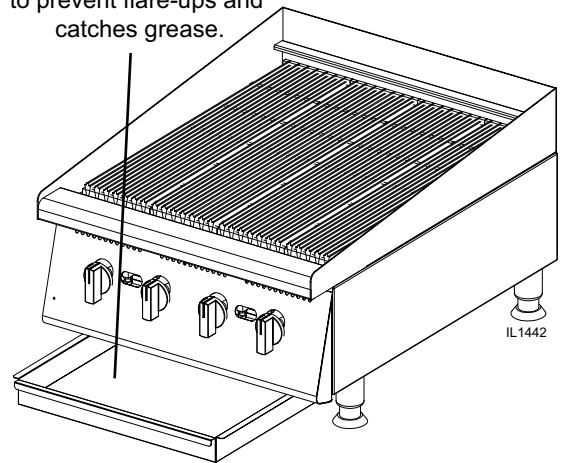
### LIGHTING

When broiler is first lit, it will smoke for approximately 20-30 minutes until the preservation oils and impurities are burned off.

### SEASONING THE COOKING GRATES

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.

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



### BROILING

Turn valves on and pre-heat unit on "HI" before attempting to broil. You will have to experiment with the grill settings and the valve settings for your particular food products. We recommend that you set the grate at the full tilt position to start. This position allows the grease to run down the grate into the grease tray, reducing flare ups. Check water pans frequently and add a sufficient amount of water when necessary. Hot water vapors rising from the water pans and through the combustion chamber helps reduce flare ups. Exercise care when using your broiler.

### TILTING THE GRATE

Raise or lower the grate to the next step by lifting the grate at the back of the charbroiler where the grate rests. Use potholders or gloves to reposition.



**CHARBROILERS ARE HOT! NEVER ATTEMPT TO CHANGE THE GRATE POSITION WHILE FOOD PRODUCTS ARE COOKING. FLARE UPS CAN OCCUR UNEXPECTEDLY. TURN OFF THE CHARBROILER AND ALLOW IT TO COOL.**

### CLEANING

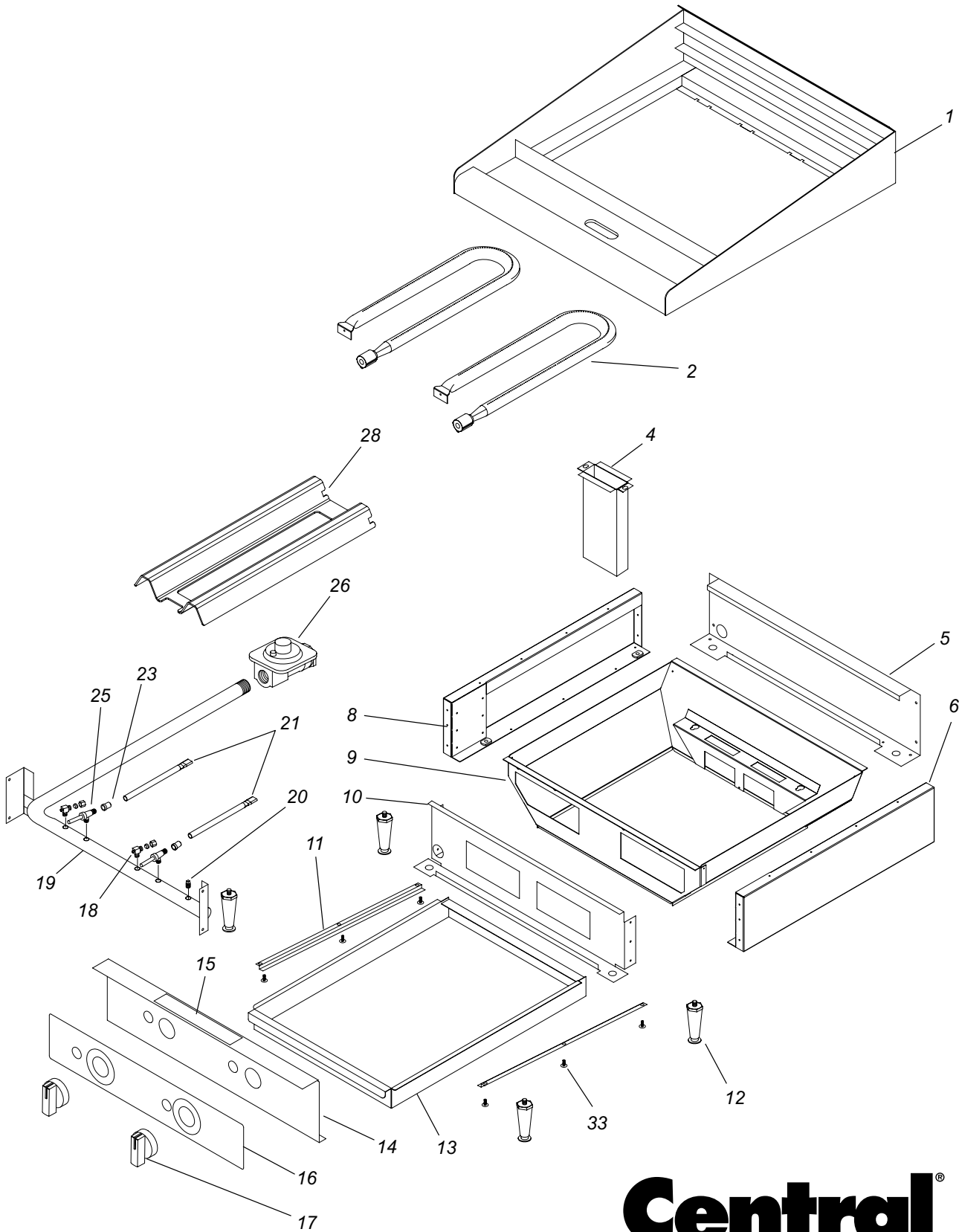
Clean regularly. Remove grate section to sink for washing. Brush out carboned particles. Remove and wash water pan. Wipe exterior surfaces with detergent and a cloth. A non-abrasive cleaner can be used on caked areas.



### AIR INTAKES IN BOTTOM

Air for combustion enters from the bottom of the unit.

**Do not obstruct this area.**



**Central**<sup>®</sup>  
**RESTAURANT PRODUCTS**

Model: CPRB Gas Charbroiler  
 SK2706 Rev. - 11/13/13

Model: Gas Radiant Charbroiler				
Fig No.	Part No.	Qty	Description	Application
1	H3-612407	1	TOP ASSEMBLY, 24" CHAR	CPRB24
	H3-613607		TOP ASSEMBLY, 36" CHAR	CPRB36
	H3-614807		TOP ASSEMBLY, 48" CHAR	CPRB48
2	2F-Z5949	2/3/4	BURNER	ALL 24-INCH / 36-INCH / 48-INCH
4	G3-624304	1	CHUTE ASSEMBLY	CPRB24, CPRB36, CPRB48
5	H4-Z12869	1	COVER, REAR 24"	CPRB24
	H4-Z12832		COVER, REAR 36"	CPRB36
	H4-Z12877		COVER, REAR 48"	CPRB48
6	H4-Z12828	1	SIDE PANEL ASSEMBLY RIGHT	ALL
8	H4-Z12829	1	SIDE PANEL ASSEMBLY LEFT	ALL
9	H4-TC0003	1	LINER ASSEMBLY	CPRB24
	H4-TC0001			CPRB36
	H4-TC0005			CPRB48
10	G4-Z12976	1	CENTER WALL, 24"	CPRB24
	G4-Z12974		CENTER WALL, 36"	CPRB36
	G4-Z12975		CENTER WALL, 48"	CPRB48
11	G3-Z6036	2	DRAWER SLIDE	CPRB24, CPRB36
		4		CPRB48
12	2A-Z0314	4	FOOT, 4 IN DIE CAST	ALL
13	H3-Z6482	1/1/2/2	WATER PAN / GREASE DRAWER	CPRB24 , CPRB48
	H3-Z6483	1		CPRB36
14	G3-Z5976	1	FRONT PANEL	CPRB24,
	G3-Z5978			CPRB36
	G3-Z5980			CPRB48
15	VARIOUS	1	NAMEPLATE	ALL
16	2M-Z17559	1	GRAPHIC PANEL, 24" CHAR/GRD	CPRB24
	2M-Z17560		GRAPHIC PANEL, 36" CHAR/GRD	CPRB36
	2M-Z17561		GRAPHIC PANEL, 48" CHAR/GRD	CPRB48
17	2R-Z13014	2/3/4	KNOB, MANUAL GAS	ALL 24-INCH / 36-INCH / 48-INCH
18	2V-6671	2/3/4	PILOT VALVE	ALL 24-INCH / 36-INCH / 48-INCH
19	2K-Z5962	1	MANIFOLD, 24"	CPRB24
	2K-Z5964		MANIFOLD, 36"	CPRB36
	2K-Z5966		MANIFOLD, 48"	CPRB48
20	2P-1453	1	PIPE PLUG	ALL
21	2V-Z6647	2/3/4	PILOT BURNER	ALL 24-INCH / 36-INCH / 48-INCH
22	I5-Z5463	2/3/4	PILOT BRACKET	ALL 24-INCH / 36-INCH / 48-INCH
23	2J-Z12961	2/3/4	ORIFICE NATURAL #42	ALL 24-INCH / 36-INCH / 48-INCH
	2J-Z12962		ORIFICE PROPANE #52	ALL 24-INCH / 36-INCH / 48-INCH
25	2V-Y8832	2/3/4	MANUAL VALVE	ALL 24-INCH / 36-INCH / 48-INCH
26	2J-Z0792	1	PRESSURE REGULATOR	ALL
28	H4-Z13775	2/3/4	U-BURNER RADIANT SERIES	CPRB24, CPRB36, CPRB48
32	2F-Y8830	4/6/8	GRATE CHARBROILER, 20 5/16" LENGTH	ALL 24-INCH / 36-INCH / 48-INCH
33	2C-8823	Various	SCREW #8 x 3/8 HEX	ALL





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