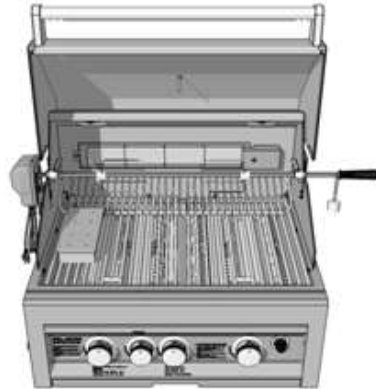




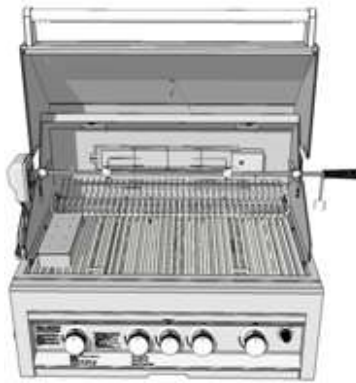
SUN 3 Burner 28"



SUN Infrared 3 Burner 28"



SUN 4 Burner 34"



SUN Infrared 4 Burner 34"



SUN Infrared 5 Burner 42"

**Read all instructions before you operate your grill.
Save these instructions!**



Conforms to ANSI
STD Z21.58a-2008
Certified to CSA
STD 1.6a-2008

For Residential Outdoor Use Only

To installer or person assembling grill: Leave this manual with grill for future reference.

To consumer: Keep this manual for future reference.

www.sunstonegasgrills.com

Welcome & Congratulations

Congratulations on your purchase of a new grill! We are very proud of our product and we are completely committed to providing you with the best service possible. Your satisfaction is our #1 priority. Please read this manual carefully to understand all the instructions about how to install, operate and maintain for optimum performance and longevity. We know you'll enjoy your new grill and thank you for choosing our product. We hope you consider us for future purchases.

How to Obtain Service

Before you call

Is there Gas supplied to the Grill?

Is the battery inserted into igniter box?

Have you recently refilled the LP Tank?

Please make sure you have the following information:

Model Number | Date of Purchase | Serial Number. (The serial number can be located on the rating plate, which is located on the right under side of grill, above gas manifold pipe.)

For warranty service, contact SUNSTONE Customer Service Department at (888)-934-9449 or email service@texasbbqwholesalers.com, we will response back within 24 hours.

Must keep copy of your sales slip for proof of purchase.

YOUR NAME _____ DATE OF PURCHASE _____

ADDRESS _____

MODEL NO _____ SERIAL NO _____

COMPANY THAT YOU PURCHASED FROM _____

Unpacking and Assembly

Your grill arrives nearly ready to use and requires little assembly. Carefully follow these steps, unpack the grill, removing all packing material and protective film.

1. Cut black plastic straps and lift grill from pallet (WARNING: Grill is very heavy, you will need help), and position grill near your island where the grill is being installed.
2. Remove the green straps from around the grill box carton.
3. Lift the cardboard box up and off, be sure to tilt it back then turn it upside down so the Rotisserie Rod and any other packaging materials are retained in box. (It may require two people). Or open top of box first and remove rotisserie rod, and other packaging material.
4. Remove the plastic wrap that protects the grill.
5. Raise hood and unpack all parts
6. Cut plastic ties that hold the warming rack, side shelves and spit rod.
7. Remove warming rack at the back of grill by lifting up and sliding out.
8. Remove rotisserie motor plus care and use manual
9. Reposition the warming rack at the back of the grill

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⚠ ATTENTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate personal injury, or property damage.

⚠ WARNING: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ VOLTAGE: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate electrical shock.

⚠ EXPLOSION: Indicates an imminently hazardous situation which, if not avoided, will result in possible explosion and cause death or serious injury.

⚠ BODILY INJURY: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate personal injury, or property damage.

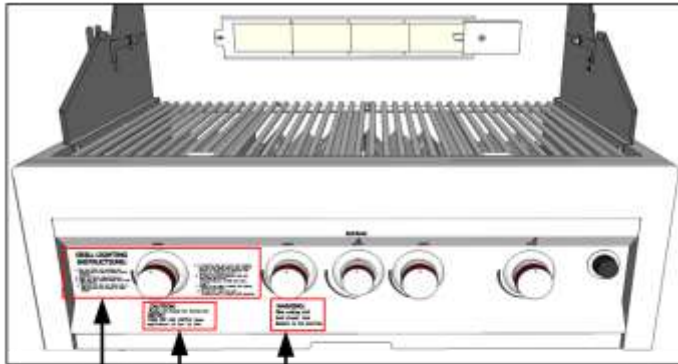
⚠ HOT SURFACE: Indicates an imminently hazardous hot surface which, if not avoided, will result in serious burn or injury.

⚠ LIVE CIRCUIT: Indicates a potentially hazard from Live electrical current that if extreme caution is not used, may result in minor or moderate personal injury, or property damage.

⚠ OPEN FLAME: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

INSTALLATION AND ASSEMBLY - Grill Safety

⚠ ATTENTION: Sunstone™ safety instructions are located on the front control panel face panel. Always read all instructions and warnings before proceeding, or serious safety hazards can occur. Read all instructions in this manual and front face of grill control panel before use. We recommend that a licensed contractor install your Sunstone™ grill.



⚠ CAUTION:
When cooking Hood Closed,
Turn Burners to Low Heat

⚠ CAUTION:
Handle can become hot
during use. NOTE: TURN
OFF GAS SUPPLY when
appliance is not in use.

⚠ WARNING:
When Lighting the Grill,
Hold the Knob in until
Burner Ignites. DO NOT
RELEASE KNOB, GAS
WILL CONTINUE TO
FLOW.

⚠ CAUTION:

IF YOU SMELL GAS:

1. Shut off gas to the appliance.
2. Extinguish any open flame.
3. Open Lid.
4. If odor continues, keep away from the appliance and immediately call your gas supplier or your fire department.

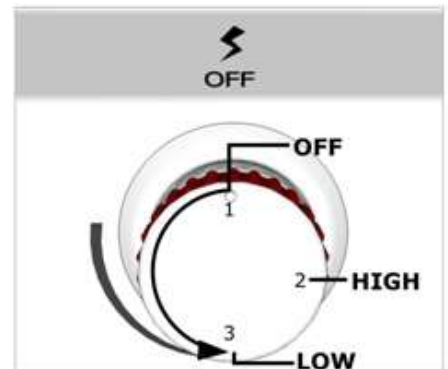
⚠ WARNING:

When Lighting the Grill, Hold the Knob in until Burner Ignites. DO NOT RELEASE KNOB, GAS WILL CONTINUE TO FLOW.

Turn In, and turn
knob to Left to
allow gas to flow

First Position: OFF
Second Position: HIGH
Third Position: LOW

For Ignition, Hold
Knob in, to hear
clicking sound



⚠ WARNING:

Failure to open the lid while igniting the barbecue's burners, or not waiting 5 minutes to allow the gas to clear if the barbecue does not light, may result in an explosive flame-up which can cause serious bodily injury or death.

1. Open Lid Before Lighting Burners.
2. Make sure all Control Knobs are in OFF position.
3. Push and Turn Last Right Knob (next to the Black ignition cap) to HIGH position 3-5 seconds to light burner.
4. If ignition does not occur in 5 seconds, turn the last Right Knob to OFF, wait 5 minutes to allow gas to dissipate and repeat the lighting process.
5. To light the other burners, push and turn knob one by one counterclockwise to HIGH position to allow gas to flow.
6. To turn OFF, turn each knob clockwise until it locks in OFF position. Be sure to Push In to turn Knob.

INSTALLATION AND ASSEMBLY - Grill Safety

CAUTION

Do Not close grill hood for more than 3-5 minutes with burners set to HIGH temperature, or damage may occur to grill that is not covered under manufacture warranty.

CAUTION

When using your Sunstone™ Grill, always cook with hood up when knobs are on HIGH HEAT setting. NEVER close the hood and walk away. Always turn burners to LOW HEAT when hood is in down position

Grill Operation.

Do not use grill for other than intended use. In the event that a burner goes out, turn burner knobs to full OFF position, fully open the grill hood and let any gasses out. Do not attempt to use the grill until the gas has had time to dissipate.

Never use the grill if the drip pan is not properly installed. Drip pan should be pushed all the way into the rack located just under the grill. Fire or explosion can result from an improperly installed drip pan. Keep all electrical supply cords and the rotisserie motor cord away from the heated areas of the grill. Never use the grill or side burner in windy conditions. If used in a consistently windy area a windbreak will be required. Always adhere to the specified clearances listed in this manual.

Never allow clothing, pot holders or other flammable materials come in contact with or be close to any grate, burner or hot surface until it has fully cooled. Never wear loose fitting or hanging garments while using your grill.

Fabric may ignite and result in personal injury. Do not heat any unopened glass or metal container of food on the grill. Pressure may build up and cause the container to burst, possibly resulting in serious personal injury or damage to the grill. Do not reach over your grill or any other surfaces when hot or in use.

Do not use water on grease fires. Never pick up a flaming pan. Turn the appliance off and smother the flaming pan with a tight-fitting lid, a cookie sheet or a flat tray. For flaming grease outside of the pan, smother it with baking soda or use a dry chemical or foam-type fire extinguisher. When your gas grill is not in use, turn off the gas at the supply cylinder. Storage of a grill indoors is permissible only if the supply cylinder is disconnected and removed. We recommend commercial quality aluminum pans and utensils.

Never leave the grill and side burners unattended when in use. When using pots and pans, boil- overs will cause smoking and greasy boil-overs may ignite.



Spiders and other insects can nest in the burners of the grill and block the gas and airflow to the burner ports. This creates a dangerous condition that can result in a fire behind the valve panel. Inspect and clean the burners periodically and follow the guidelines in the Cleaning and Maintenance section of this manual.

INSTALLATION AND ASSEMBLY - Island Safety



ATTENTION: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

Placement and Location

- Never locate this island in an enclosed room, under any sealed overhead structure, or any type of enclosed area such as a garage, shed, or breezeway, and keep clear of trees and shrubs.
- Do not build or place island under or near windows or vents that can be opened into your home.
- Maintain sufficient distance as to not overheat any overhead combustible material such as a patio cover.
- The area surrounding your island should be kept clean and free from flammable liquids and other combustible materials such as mops, rags or brooms, as well as solvents, cleaning fluids, and gasoline.
- Do not use the island cabinet for storage of flammable or plastic items.
- Do not store the liquid propane (LP) cylinder in the vicinity of the grill or other appliance when it is not being used.
- Do not block any island vent in such a way that will cause ventilation issue. Fresh air must be able to pass through installed vents to safeguard against residual gas accumulation.



WARNING: Either for Modular or Built-in island installation, you MUST install proper air ventilation at the upper side and lower side of island face wall, if adequate air ventilation is not installed, risk of fire, injury or explosion may result.

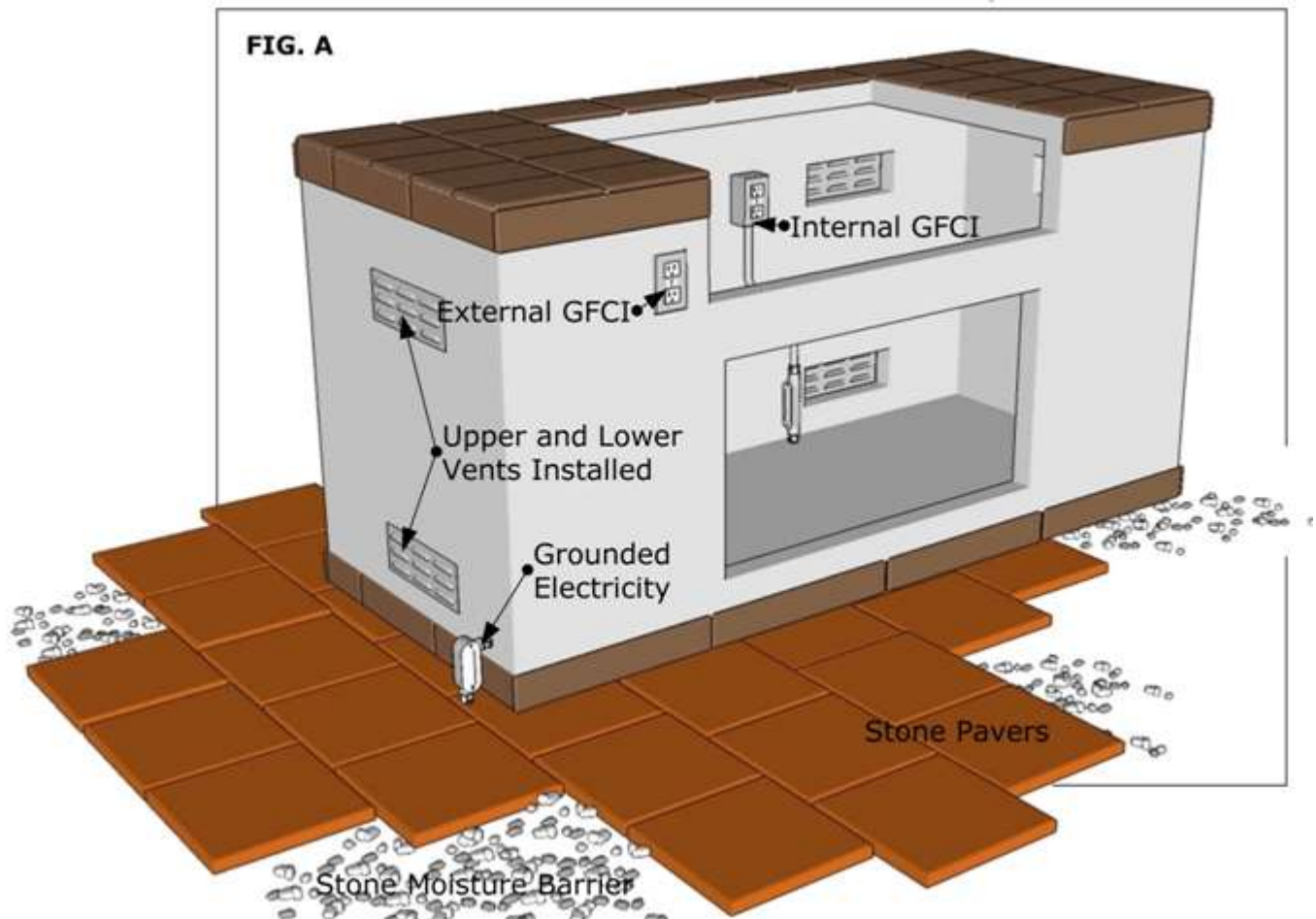
For Built-in Installations

Outdoor Kitchen Island should be built with NON-Combustible applications, including masonry stone or brick. Never build deck below grill; grill is supported by counter edge. It is recommended that the enclosure have several ventilation holes or vents to prevent gas build-up in the event of a leak. (See Fig. A-page 7) The deck ledges and counter should be flat and level in reference to the floor. If your grill is equipped with a rotisserie or lights, electrical service should be provided. GFCI electrical plugs are required for outdoor use. If your grill is equipped with a rotisserie, a minimum of 24" (609.6mm) of clearance is needed on each side of the grill for the motor and skewer.

For Modular Installations

Outdoor Kitchen Island should be built with Non-Combustible applications, including Steel Welded Frame, or Steel Stud Frame finished with Cement Board. For modular installations, a moisture barrier is recommended, using pressure treated composite board under base of island. Interior should be lined with ABS plastic liner as additional protection. No deck below grill is required; grill is supported by counter edge. It is recommended that the enclosure have several ventilation holes or vents to prevent gas build-up in the event of a leak. (See Fig. A-page 7) The deck ledges and counter should be flat and level in reference to the floor. If your grill is equipped with a rotisserie or lights, electrical service should be provided. GFCI electrical plugs are required for outdoor use. If your grill is equipped with a rotisserie, a minimum of 24" (609.6mm) of clearance is needed on each side of the grill for the motor and skewer.

INSTALLATION AND ASSEMBLY - Island Safety



⚠ ATTENTION: Upper and lower air vents (20 sq. in. minimum each) **MUST BE PROVIDED** on both sides of built-in construction. The height from upper air vent to top surface of island is 5", and the height from lower air vent to the bottom is 5".

Island units must have vents cut into the island sides regardless of whether the grill is kept as NG or is converted to LP. If no vent openings are made in the island unit, the grill will overheat and cause a fire hazard! If you have an L.P. model with a 20lb cylinder stored in the enclosure, ensure that there at least two air ventilation openings of 20sq inches 180 degrees apart and they are level with the cylinder valve. Another two openings with the same dimensions and distance are required to be level with the base of the cylinder.

- Do not use an extension cord to supply power to your island, or appliance. Such use may result in a fire, Electrical shock or other personal injury.
- Do not install a fuse in the neutral or ground circuit. A fuse in the neutral or ground circuit may result in an Electrical shock hazard.
- Use only Ground Fault Interrupter (GFI) protected circuit with this outdoor kitchen island.
- Keep all electrical components covered and secured away from any water or other liquids.
- Use only extension cords with a 3 prong grounding plug, rated for power of equipment, and approved for outdoor use with a W-A marking.

INSTALLATION AND ASSEMBLY - Island Safety



CAUTION: Wind blowing into or across the rear oven lid vent (see fig. B page 9) can cause poor performance and/or dangerous overheating. Orient the grill so that the prevailing wind blows toward the front of grill. (See fig. A page 9)

Windy Conditions

Your Sunstone™ grill is specially designed to draw fresh air in through the front, and in direct to the bottom burners. When grilling the hot gases are then released through the back of grill through a venting system. Using your grill in windy conditions may disrupt the front-to-back air flow.

If, while the hood is closed and you fail to see the hood temperature gauge rise, use extreme caution, turn gas flow to OFF position, if knobs are very hot, turn gas off at source.

- For breezy days, be careful not to leave the front hood down for more than 15 minutes, when the burners are on. (Never leave grill unattended when in operation)
- If you suspect the grill is overheating, using an oven mitt, open the front hood. Then adjust the burner control knob to off position.
- Orient the grill so the Prevailing winds are not blowing into the rear or side of grill. (See figure A Correct Way, and figure B Wrong Way . Page 9)



CAUTION: Any damage resulting from windy conditions causing overheating, including melted knobs or igniter wires and impulse igniter box. Also any discoloration from heat buildup, is excluded from warranty coverage.



NOTICE: Ensure grill is installed with proper air flow for correct combustion air and cooling airflow. Airflow **MUST** be maintained for the grill to perform as it was designed. If airflow is blocked, overheating will occur and poor combustion will result.

Location

Locate the grill only in a well ventilated area. Never locate the grill in a building, garage, breezeway, shed or other such enclosed areas without an approved ventilation system. During heavy use, the grill will produce a lot of smoke. Ensure there is adequate area for it to dissipate.

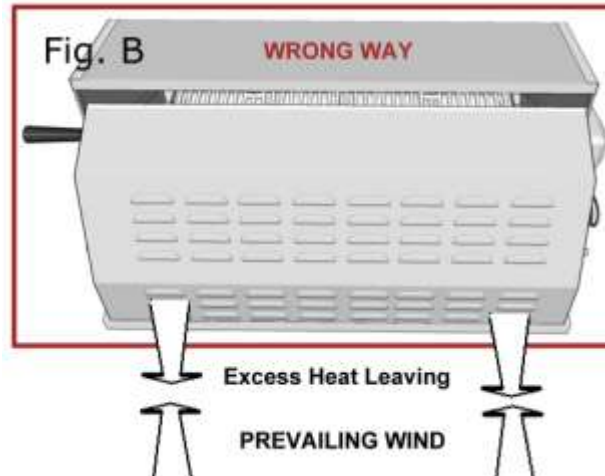
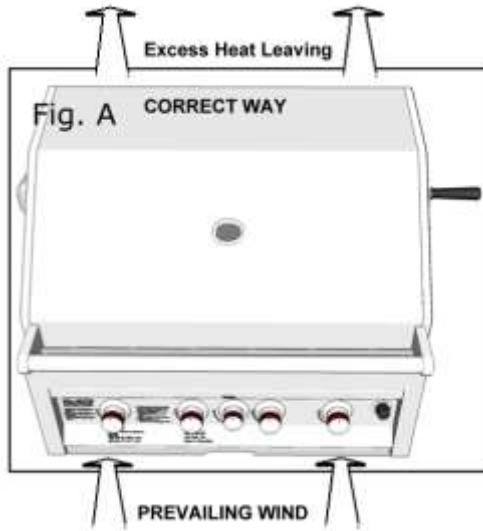
IMPORTANT: Gas fittings, regulator, and installer supplied shut-off valves must be easily accessible.



ATTENTION: Check your local building codes for the proper method of installation. In the absence of local codes, this unit should be installed in accordance with the National Fuel Gas Code No. 223.1-1998 USA or CAN/CGA-B149.1/.2 Natural Gas/Propane Code (Canada) latest edition or the National Electrical Code ANSI/NFPA No. 70 or the Canadian Electrical Code CSA C22.1, 1990 or latest version.

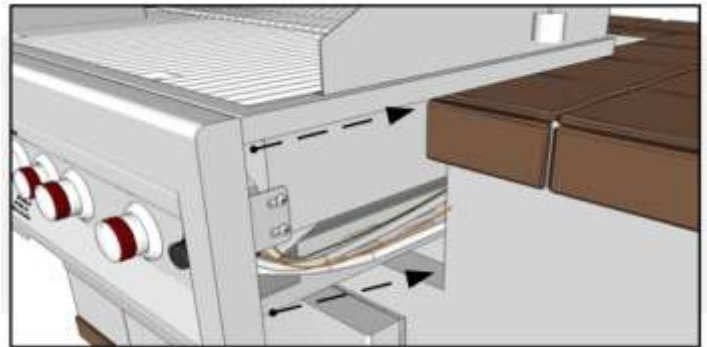
INSTALLATION AND ASSEMBLY - Locating Grill

In **FIG. B**, Excess heat leaves through back of grill, but is blocked by Prevailing Wind, causing overheating of grill.



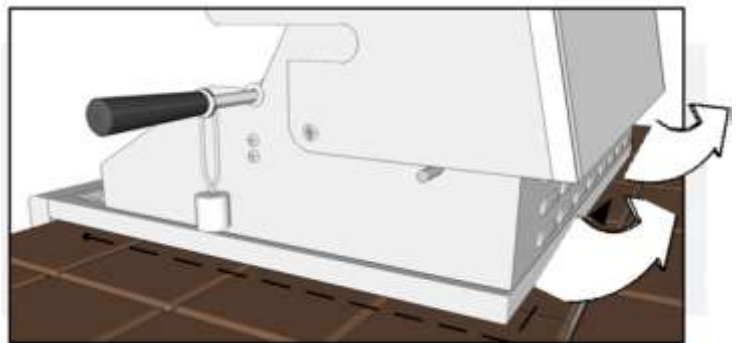
1. Slide Grill in Place

Your Sunstone™ grill is specially designed with an internal built in hanger lip located at the Right, Left and Back sides. The grill lip allows it to hang by the three supported edges on the right, left and back. The front control panel requires no supporting edge; it is designed to hang down the front of your cut-out.



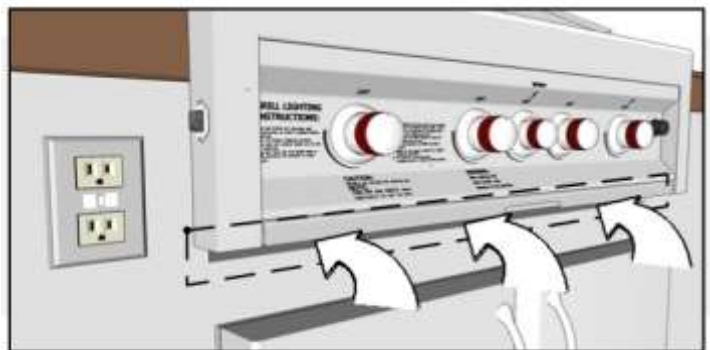
2. Allow for Ventilation

Your Sunstone™ grill is engineered with special vents on the back of unit, which allow proper airflow out of the back of grill, also increased airflow into Infra-red Burner gas chamber. Be sure you allow a minimum of 4" behind grill for proper air ventilation. Slide grill all the way into cut-out, so there are no gaps present to inside of island frame.



3. Securing in Place

The control panel is designed to sit flush against the island face. If counter top extends beyond the islands face, creating a countertop overhang, it must be cut flush with the island face where the width of the control panel or a gap will be created exposing the forward portions of the left and right side firewalls. **Also be sure to allow at least a 1" of clearance below grills drip pan, for proper airflow ventilation.**



INSTALLATION AND ASSEMBLY – Locating Grill



NOTICE: Ensure grill is installed with proper air flow for correct combustion air and cooling airflow. Airflow **MUST** be maintained for the grill to perform as it was designed. If airflow is blocked, overheating will occur and poor combustion will result. **DO NOT INSTALL PLATFORM DIRECTLY UNDER GRILL.**

Minimum Clearances

When installing the grill in any area was an exterior wall, or overhead structure is nearby, pay close attention to the minimum distance requirements. For installations with a wall behind grill, it is especially important to allow enough room for adequate airflow, or issues may occur. For islands that are built using combustible materials, you must not surround same materials around any appliance, or risk fire. You **MUST** use Non-Combustible building materials within 24" around all sides of appliance, ie. Stone blocks, steel studs. Never locate the grill where the exhaust will be difficult to clean. If you wish to use the rotisserie option, the space is essential for motor and skewer clearance.

Minimum Requirements	
TOP VIEW See Diagram (Page 11) to Right	
From Back Cut-Out Grill Line to Wall	8" Min. Clearance
From Counter to Outdoor Vent Hood	36" Min. Clearance
From Floor to Counter Top	38" Min. Clearance
From Grill to Vent Hood Width	4"-6" Min. Clearance
From Appliance to Appliance	12" Min. Clearance
From Appliance to Combustible Material	24" Min. Clearance



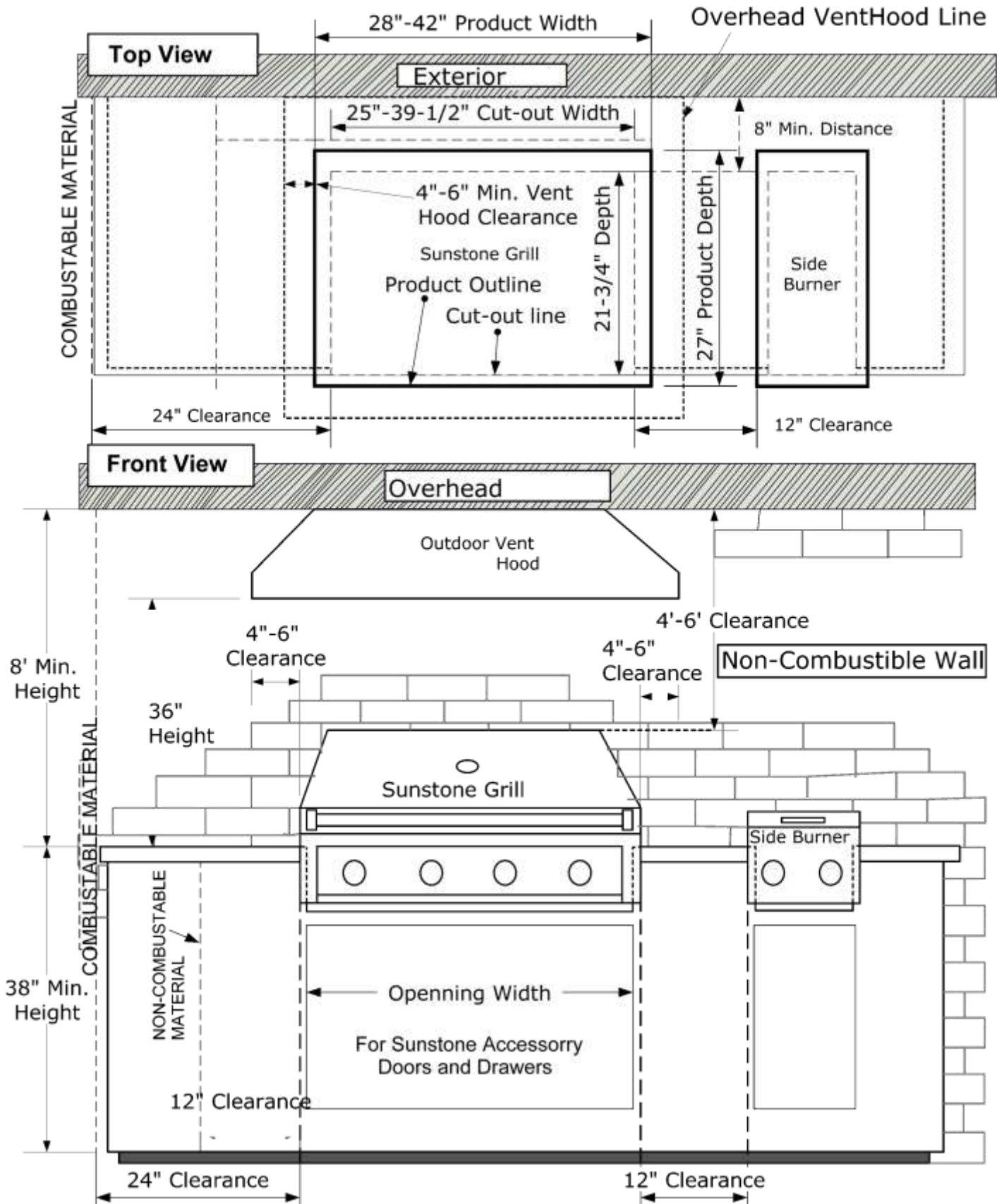
ATTENTION: This grill **MUST NOT** be located in any fully enclosed area of any kind. There should be a minimum of 4-6 feet clearance from the top hood of grill and any overhead combustible structure.

Vent Hood Exhaust

If installed or used under a patio roof, the cooking grid area must be fully covered by an exhaust hood with a vent. An exhaust fan with a rating of a minimum 1,000 CFM (cubic feet per minute) (472 liters per second) or more may be necessary to effectively remove smoke and other cooking by-products from the area under the unprotected overhead combustible construction.

Minimum Requirements	
FRONT VIEW See Diagram (Page 11) to Right	
From Counter to Overhead Structure	8' ft. Min. Clearance
From Counter to Outdoor Vent Hood	36" Min. Clearance
From Floor to Counter Top	38" Min. Clearance
From Grill to Vent Hood Width	4"-6" Min. Clearance
From Appliance to Appliance	12" Min. Clearance
From Appliance to Combustible Material	24" Min. Clearance

INSTALLATION AND ASSEMBLY – Locating Grill



INSTALLATION AND ASSEMBLY –Cooking Zones

ENTERTAINMENT ZONE:

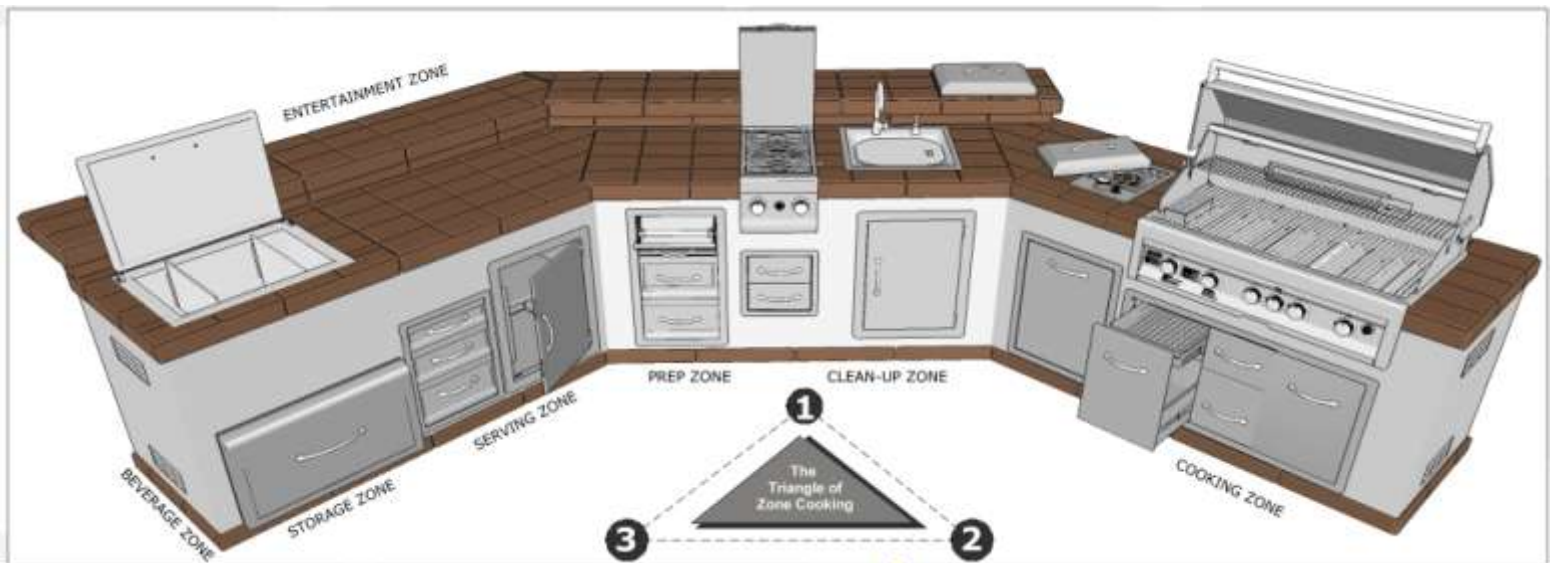
The best location for your entertainment zone is on one end of the island, far away from your cooking zone, but right next to your beverage zone. Make sure you have plenty of comfy chairs situated here.

SERVING ZONE:

The best location for your serving zone is in the center or heart of the island, adjacent from the entertainment zone, and easily accessible to all your many guests at once.

PREP ZONE:

The best location for your food preparation zone is the longest counter space that is near the sink and your grill top or near the ice chest.



CLEAN-UP ZONE:

The best location for your cleanup zone is as close to your sink as possible. Items located near your cleanup zone will include not only items you'll use to clean up your outdoor kitchen and dishes, below access storage, and trash drawer for easy clean-up.

COOKING ZONE:

For the best cooking zone location, position it nearest to the 'triangle' as possible either on one end, or opposite of entertainment zone. It's always best to give this area its own space, so the chef can be more focused on cooking great food.

BEVERAGE ZONE:

The best location for your beverage zone is on one end of the island, far away from your cooking zone, but right next to your entertainment zone. This makes it far more ease of use for your many guests.

STORAGE ZONE:

The best location for your storage zone is the either on one end of the island or right in the middle. This zone should always be in an area that is easily accessible, when multiple people are using the same space.

GAS INSTALLATION & MAINTENANCE –Tools & Parts

Tools and Parts

Gather the required tools and parts before starting installation. Read and follow the instructions provided with any tools listed here.

Tools Needed		
1) Tape Measure	4) Wrench or pliers	7) Level
2) Small, flat-blade	5) #2 and #3 Phillips screwdriver	8) Pipe wrench
3) Flat-blade screwdriver	6) Scissors or cutting pliers	9) Noncorrosive leak-test

LP Gas Models

Parts Needed

- 1) 20 lb LP gas fuel tank - approximately 18" (45.7 cm) Height and 12" (30.5 cm) diameter

Parts supplied

- 1) LP Regulator with 21" Hose
- 2) Flare Adaptor

NG Gas Models

Parts Needed

- 1) Gas line shutoff valve long hose
- 2) Gas-resistant pipe-joint compound
- 3) CSA design-certified outdoor flexible stainless Steel appliance Connector

Parts supplied

- 1) NG Regulator
- 2) $\frac{1}{2}$ " -19" hose

Gas Pipe Requirements

- A pressure regulator must be installed on all gas equipment. All local codes require that a pressure regulator be installed. Removing or failing to install the pressure regulator can result in fire and serious bodily harm.
- An installer supplied gas shut-off valve must be installed in an easily accessible location for all hard-plumbed natural gas and liquid propane applications.
- In order for a Sunstone Grill to perform properly you must have adequate gas plumbing.

Please see the guidelines below to help ensure that you have the appropriate gas plumbing with respect to gas pipe diameter, length of pipe run and the grills BTU requirements.

Natural Gas Pipe Size Chart

Pipe Size	10 FT.	20 FT.	30 FT.	40 FT.	50 FT.	60 FT.
1/2"	170,000	118,000	95,000 BTU	80,000 BTU	71,000 BTU	64,000 BTU
3/4"	360,000	245,000	198,000	169,000	150,000	135,000 BTU

Water Column Requirements

- **Natural Gas Supply pressure** = 7" water column (17.8 cm) min. and pressure under full load = 4" water column (10.2 cm) minimum.
- **Liquid Propane Supply Pressure** = 11-14" water column (27.9 - 35.5 cm), not to exceed 14" water column and pressure = 11" water column (27.0 cm) minimum.

Note: All BTU and water column requirements are approximations.

GAS INSTALLATION & MAINTENANCE –Tools & Parts



Recommended connections and Adaptors for Grill Installation

Parts List				
Description	Part No.	Description	Part No.	
1 Universal Gas Line Adapter	P-UGL-14"	6 Elbow Connection Adapter	P-2FEA	
2 Safety Shut-Off Valve	P-SSV	7 Three Way Connection Adapter	P-3FA	
3 Male to Male Flare Adapter	P-MMA	8 Rubber Flex Hose Adapter	P-UGL-12"	
4 Female to Male Flare	P-LPA	9 NG Regulator	P-NGRG	
5 Four Way Connection	P-4FA	10 LP Regulator and 21" Hose	P-LPRG-21"	
		11 Gas Quick Connect 12' Hose	P-QCAH-12'	

Propane Gas Appliance Service Connections

Appliance service connections are the last line of delivery in a gas system. Gas users are familiar with gas flex lines and fittings used to connect other appliances to an LP or NG Gas system and the proper connections must be made for these appliances to operate safely. These appliance connections should be inspected by licensed service personnel such as an appliance technician or propane company representative. Additionally, propane or natural gas appliances must be connected to gas plumbing by way of a valve. Appliances connected directly to building gas plumbing (without a gas valve) constitute illegal installations and cannot be serviced. (SEE FIG. A Page 15)

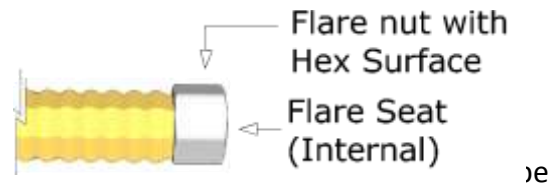
⚠ CAUTION: Do not use pipe thread sealant or Teflon® tape on Brass flare ends. You will not obtain a leak-free seal. Pipe Seal or Teflon® tape is only used on Black Pipe. Keep flare end of fitting and flare seats of connector nut free of grease, oil, pipe thread sealant and Teflon® tape.

⚠ CAUTION: Do not use a pipe wrench or channel lock pliers on the connector flare nut. The nut can be damaged or you will not achieve sufficient tightening torque which will result in leaking gas. Use open-end or adjustable wrenches only.

GAS INSTALLATION & MAINTENANCE –Configuring Adaptors

Glossary

Flare: Tapered (beveled) surface of connector nut or fitting where the seal occurs. **Pipe thread sealant or Teflon® tape should never be applied to a flare surface.**

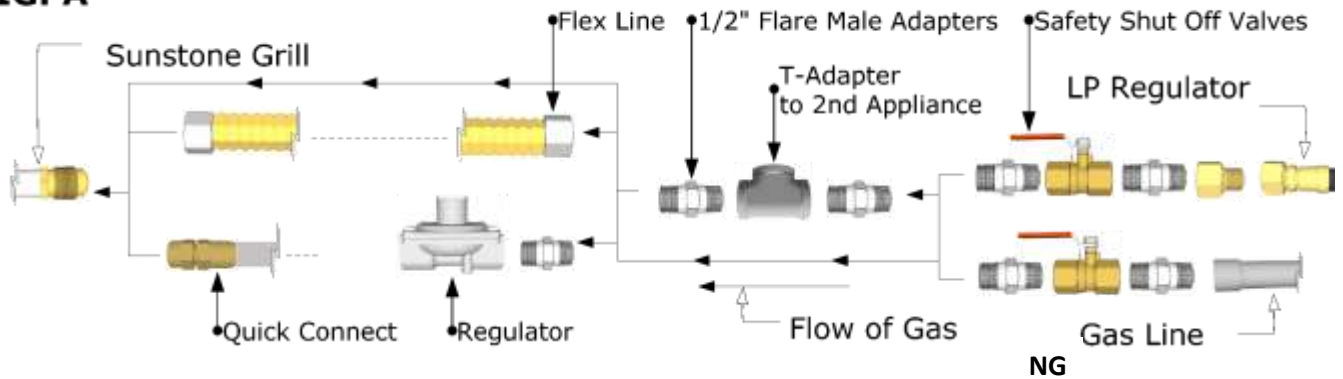


Male Pipe Threads- the external pipe thread that protrudes from the fitting and fits into a female pipe thread. (Also referred to as MIP - Male Iron Pipe).

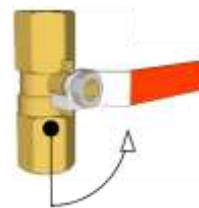
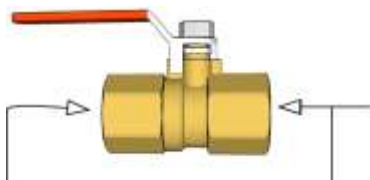
Flare end - insert into the connector flare nut
- do not apply pipe thread sealant or Teflon® tape to this end



FIG. A

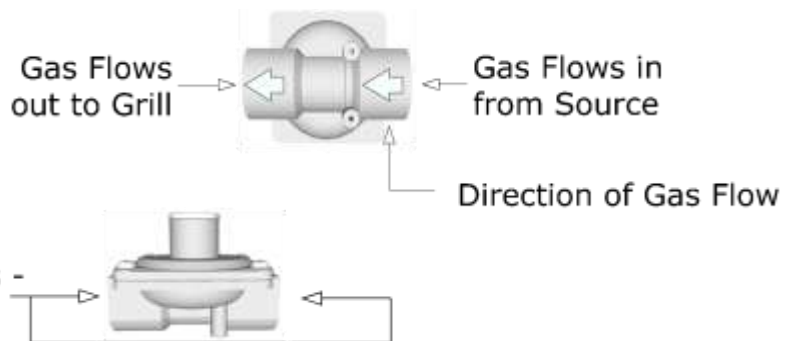


Shut off the gas with the shut-off valve near the appliance on the gas supply line. If a shut-off valve is not present on the gas line, it is recommended that *you consult a licensed plumber for proper installation* before completing connector installation.




Natural Gas Regulator normalizes the gas pressure by sensing the gas pressure downstream of the regulator and adjusting its spring valve accordingly to deliver a constant flow of gas. It is recommended to use a regulator for each appliance since natural gas is often delivered at a higher pressure than needed, the pressure may also fluctuate.

Be sure to install Regulator with the correct gas flow direction. Not installing the Regulator correctly will cause serious overheating issues.



GAS INSTALLATION & MAINTENANCE– Propane Tank Safety

 **WARNING:** Never attach an unregulated gas line to the appliance. Connection to an unregulated gas line can cause excessive heat or fire. When the unit is not in use, be sure to turn off the gas at the LP tank.

IMPORTANT: Before connecting grill to gas source, make sure BBQ Grill control knobs are in “OFF” position. Verify the type of gas supply to be used, either natural or LP, and make sure the marking on the appliance rating label agrees with that of the supply.

All pipe sealants must be an approved type and resistant to the actions of LP gas. Never use pipe sealant on flare fittings. The installation of this appliance must conform with local codes or, in the absence of local codes, with either National Fuel Gas Code, ANSI Z223.1/ NFPA 54, Natural Gas and Propane Installation Code, CSA B149.1, or Propane Storage and Handling Code, B149.2, or the Standard for Recreational Vehicles, ANSI A 119.2/ NFPA 1192M, and CSA Z240 RV Series, Recreational Vehicle Code, as applicable.

LP Tank Removal, Transport and Storage

- Turn OFF all control knobs and LP tank valve. Turn coupling nut counterclockwise by hand only - do not use tools to disconnect. Lift LP tank wire upward off of LP tank collar, then lift LP tank up and off of support bracket. Install safety cap onto LP tank valve. Always use cap and strap supplied with valve. Failure to use safety cap as directed may result in serious personal injury and/or property damage.
- A disconnected LP tank in storage or being transported must have a safety cap installed. Do not store an LP tank in enclosed spaces such as a carport, garage, porch, covered patio or other building. Never leave a LP tank inside a vehicle which may become overheated by the sun.

The cylinder must be arranged for vapor withdrawal. It must also include a collar to protect the cylinder valve. A safety relief device having direct communication with the vapor space of cylinder must be provided. This will expel high pressure gas if the cylinder is overfilled or overheated which could result in fire or explosion.

- All L.P. gas cylinders used with this appliance shall be constructed and marked in accordance with the specifications for L.P. gas cylinders of the U. S. Department of Transportation (DOT) or the National Standard of Canada, CAN/CSA-B339, Cylinders, Spheres and Tubes for Transportation of Dangerous Goods; and Commission, as applicable; and shall be provided with a listed overfilling prevention device.
- Read labels on the L.P. Gas Supply Cylinder.
- New cylinders are always shipped empty for safety.
- Allow only qualified L.P. gas dealers to fill or repair your L.P. gas supply cylinder.
- Inform the gas dealer if it is a new or used cylinder to be filled.
- After filling, have the gas dealer check for leaks and to see that the relief valve remains free to function.

Propane vapors are heavier than air. For this reason, they may accumulate in low-lying areas such as basements, crawl spaces, and ditches, or along floors. However, air currents can sometimes carry propane vapors elsewhere within a building

GAS INSTALLATION & MAINTENANCE– Propane Tank Safety

Hose and Regulator

The Type 1 connection system has the following features:

- The system will not allow gas to flow until a positive connection has been made.
NOTE: The cylinder control valve must be turned off before any connection is made or removed.
- The system has a thermal element that will shut off the flow of gas in the event of a fire.
- The system has a flow limiting device which, when activated, will limit the flow of gas to 10 cubic feet per hour.
- NEVER use grill without leak testing.

LP Tank Connection

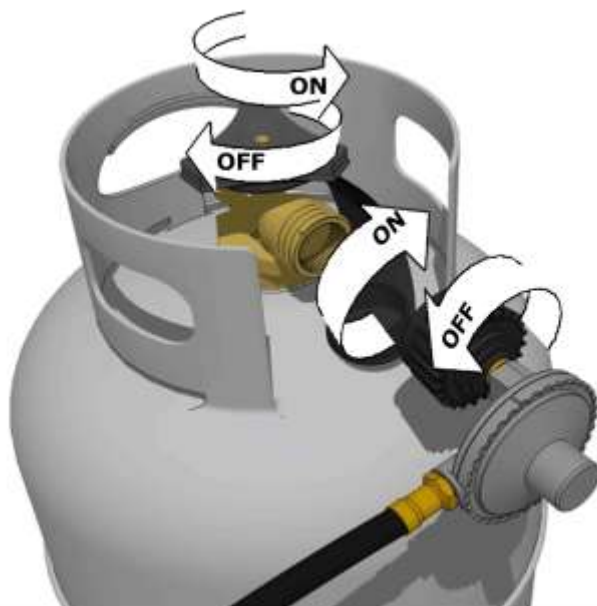
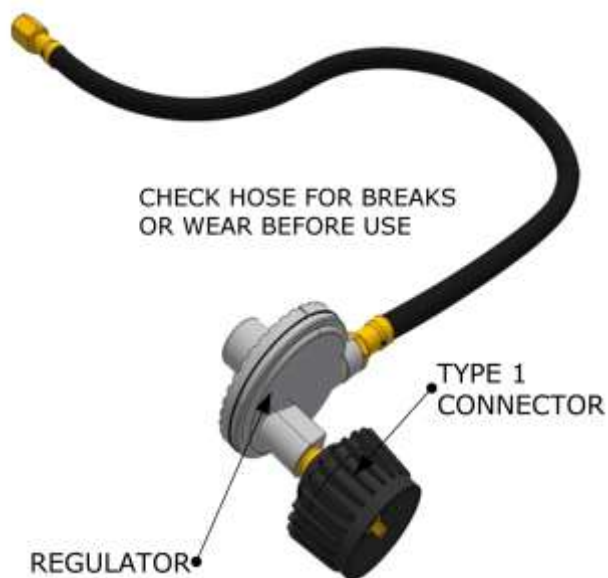
1. The tank valve should be in the “OFF” position. If not, turn the knob clockwise until it stops.
2. Make sure all burner valves are in the “OFF” position.
3. Always connect the gas supply regulator as follows: Insert the regulator inlet into the tank valve and turn the coupling nut clockwise until the coupler tightens up (see picture). Do not over tighten the coupler. Turn the main tank valve on and turn the burner control valves on the unit to the “HIGH” position for about 20 seconds to allow the air in the system to purge before attempting to light the burners.

For any adjustments to the LP Tank, always turn the Grill Knobs to complete OFF position.

LP Tank Disconnection

1. Turn the burner valves off.
2. Turn the tank valve off. (Turn clockwise to stop).
3. Detach the regulator assembly from the tank valve by turning them quick coupling nut Counterclockwise.

LP (Propane) Gas Supply Connection & Disconnection



GAS INSTALLATION & MAINTENANCE – Propane Tank Types

Types of Propane Tanks: Propane tanks are mainly used alongside stoves, water heaters, grills, generators, and welding equipment. These bottles or metal cylinders contain propane, a type of alkaline gas that has been compressed and transformed into liquid form. Transporting, storing, and using propane safely can only be possible if it is held inside tanks or containers. Since propane has various applications, many types of tanks are being used as propane containers. Below are some common examples.

Large Capacity Tanks: Propane is delivered to your home as a very cold liquid and is pumped into a specially designed storage tank (Fig.A). The liquid changes to gas before it leaves the tank. Propane tanks are typically painted white or silver to reflect heat and prevent the pressure inside the tank from getting too high.

If you have an underground tank, only the cover (Fig.B) will be visible above ground.

- The cover on top of the tank protects several components from weather and physical damage, including: (See Fig C Page 20.)
- The tank shut-off valve, which you can close to stop the flow of propane to your home in case of a leak or other emergency.
- The regulator, which controls the pressure of the propane gas coming out of the tank.
- The safety relief valve, which will pop open automatically if the pressure inside the tank gets too high. The valve will close again when the pressure returns to normal.
- The tank gauge, which shows the percentage of propane in the tank.

Fig. A



Fig. B



Propane flows from your tank to your home through pipes, most of which run underground. You may also have a secondary pressure regulator on an outside wall of your home to further adjust gas pressure. A shut-off valve in each pipe can be closed to stop gas flow to an individual appliance. An appliance connector is the final segment in the gas piping system. This specially designed flexible tube typically two or three feet long-carries gas from a pipe to the back of an appliance.

Medium Capacity Tanks

Any L.P. gas supply cylinder used with this grill must be approximately 12 inches diameter and 18 inches high. The maximum fuel capacity is 80% and is approximately 20 pounds of propane. The L.P. cylinder must have a shut-off valve terminating in a Type 1 L.P. A Type 1 compatible cylinder with a Type 1 cylinder valve has a back-check valve which does not permit gas flow, until a positive seal has been obtained.

LP Tank Filling

- Use only licensed and experienced dealers.
- LP dealer must purge tank before filling.
- Dealer should NEVER fill LP tank more than 80% of LP tank volume. Volume of propane in tank will vary by temperature.
- A frosty regulator indicates gas overfill. Immediately close LP tank valve and call local LP gas dealer for assistance.
- Do not release liquid propane (LP) gas into the atmosphere. This is a hazardous practice.
- To remove gas from LP tank, contact an LP dealer or call a local fire department for assistance.
- Check the telephone directory under “Gas companies” for nearest certified LP dealers.

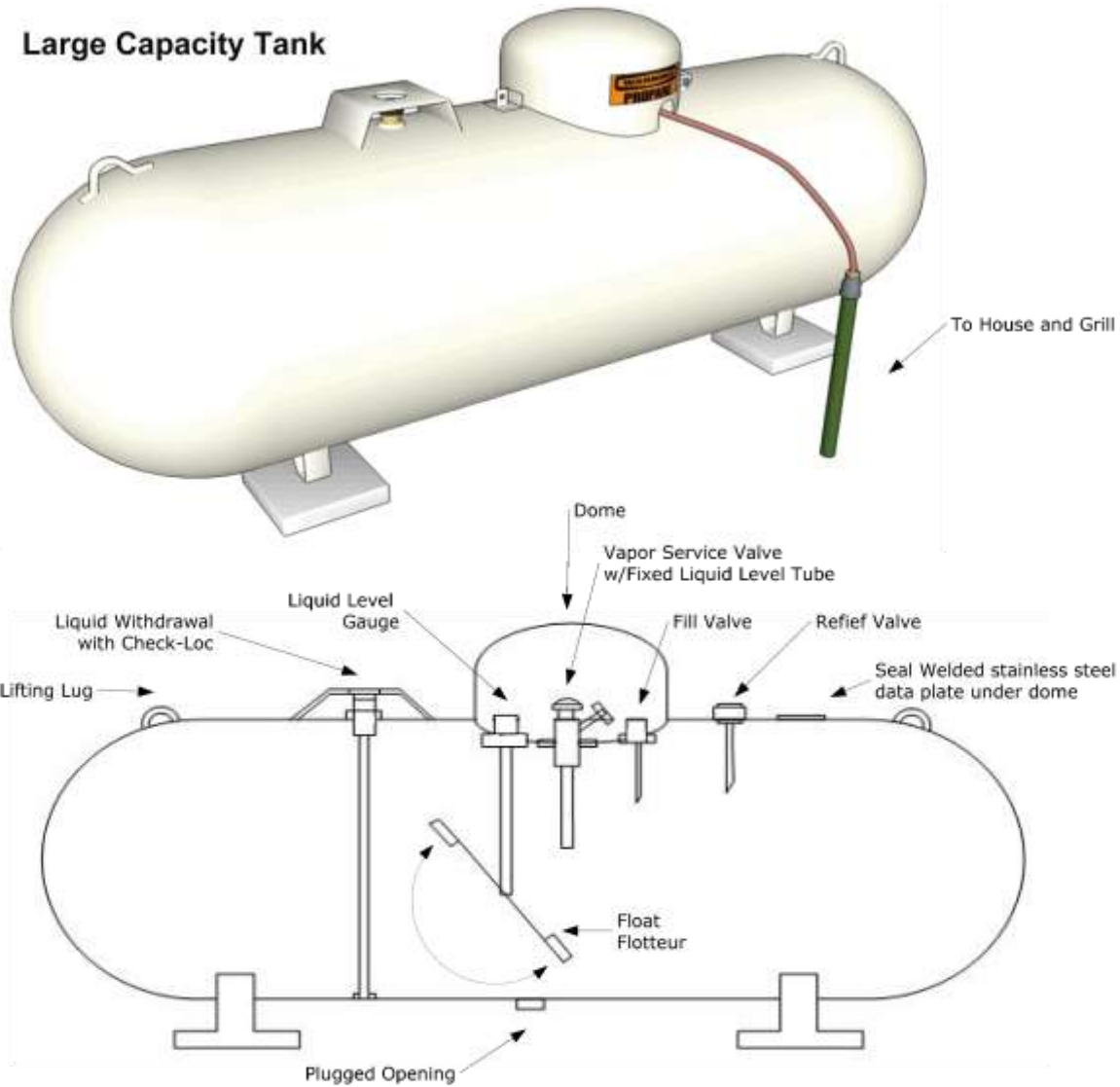
GAS INSTALLATION & MAINTENANCE – Propane Tank Types

LP Tank Exchange

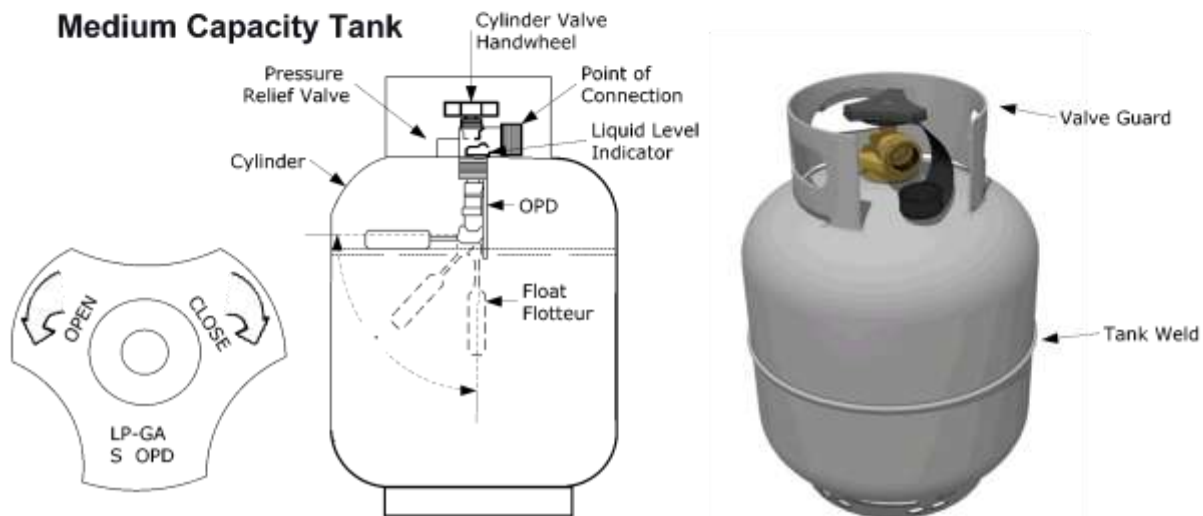
- Exchange your Type 1 cylinder with OPD safety feature-equipped ONLY.
- Always keep new and exchanged LP tanks in upright position during use, transit or storage. Leak test new and exchanged LP tanks BEFORE connecting to grill

Fig.C

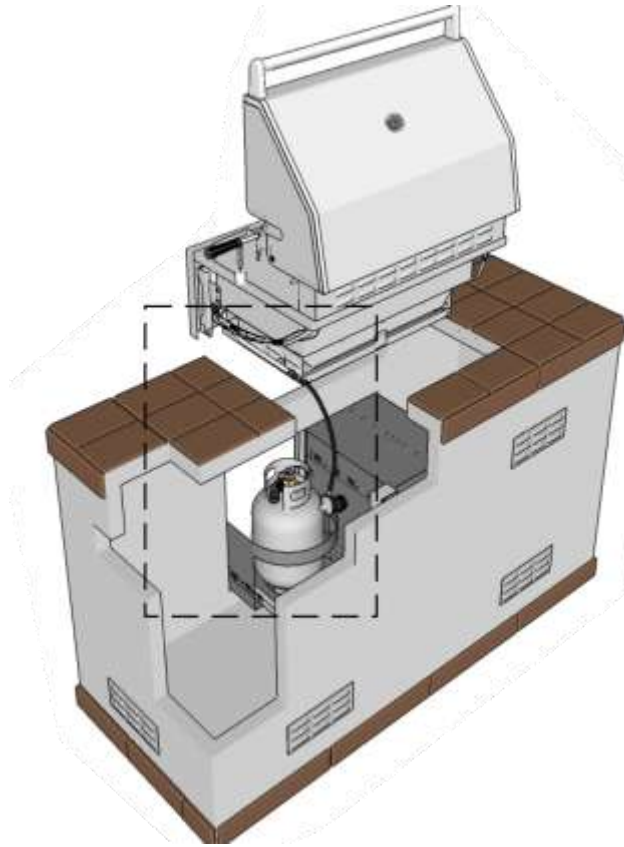
Large Capacity Tank



Medium Capacity Tank



GAS INSTALLATION & MAINTENANCE – Propane Tank Connection



LP Gas Hook-up

This liquid propane grill is designed to operate on Liquid Propane ONLY. The LP gas grill is designed to be used with a standard 20 lbs gas cylinder and must be constructed and marked in accordance with specifications of the US Department of Transportation for propane gas cylinders. Always keep cylinder securely fastened in an upright position. Never connect an unregulated propane gas cylinder to the grill. Do not subject propane cylinders to excessive heat.



CAUTION: It is recommended you use a Propane Tank Pull-Out Drawer. It is severely hazardous to move propane tanks in and out of Island enclosure without assistance of drawer. See below for Sunstone's Combo Tank Tray Pull-Out Drawers available.

42" Multi-Storage-Tank Tray Slide Out



Item No. A-LPCDD42

32" Premium Multi-Storage-Tank Tray Slide Out



Item No. C-LPDC

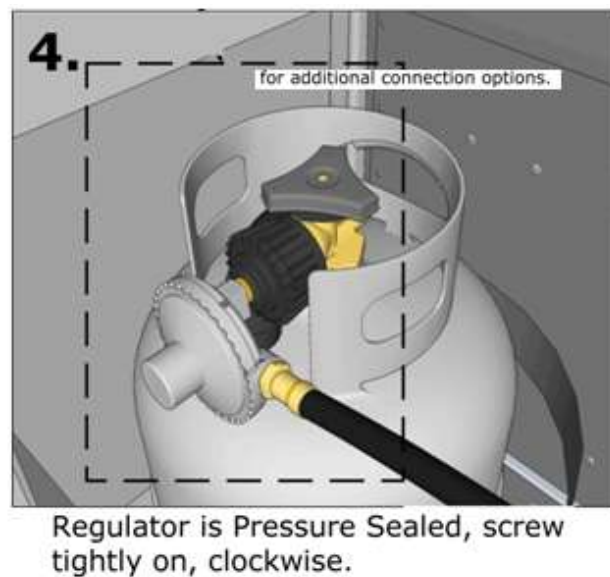
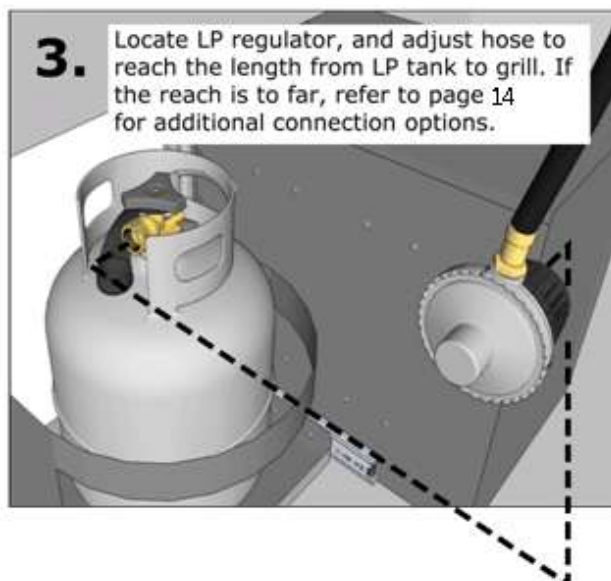
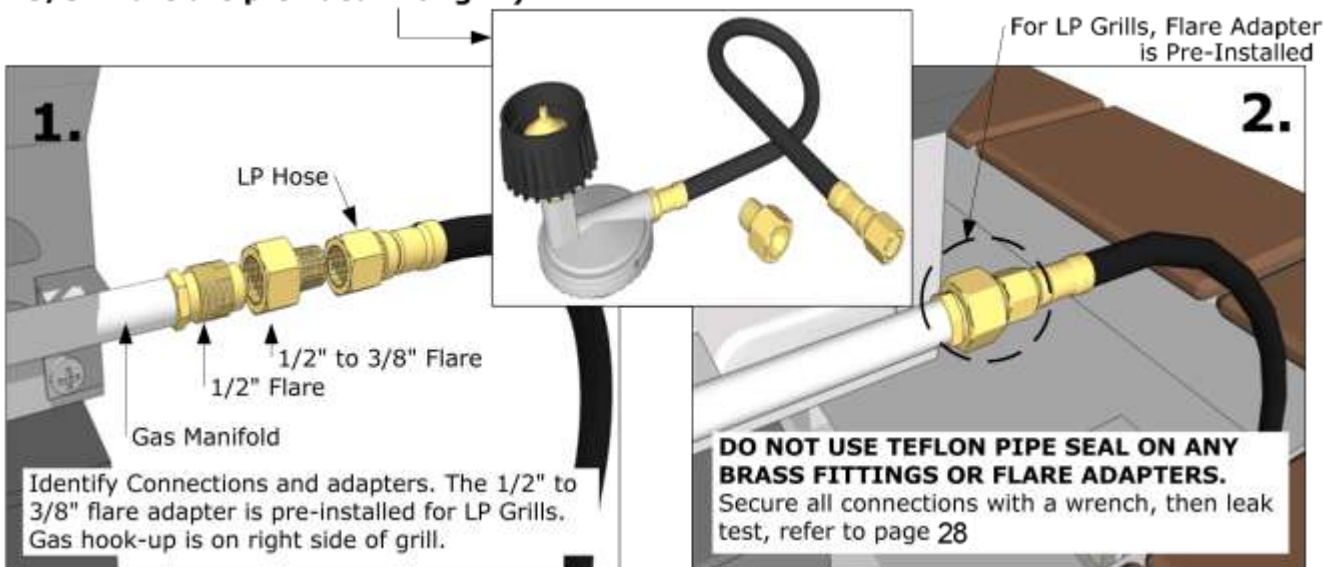
32" Multi-Storage-Tank Tray Slide Out



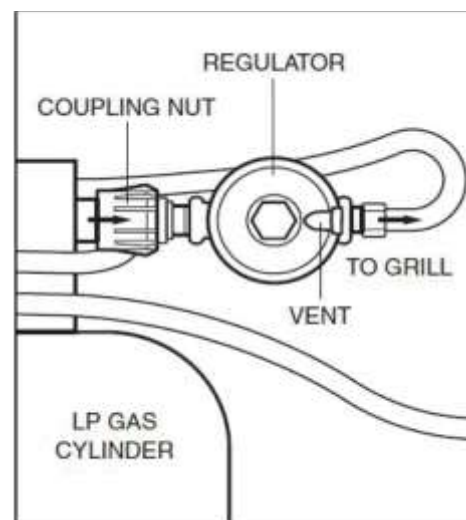
Item No. A-LPDC

GAS INSTALLATION & MAINTENANCE – Propane Tank Connection

(LP Hose/Regulator and 1/2" to 3/8" Flare are provided with grill)



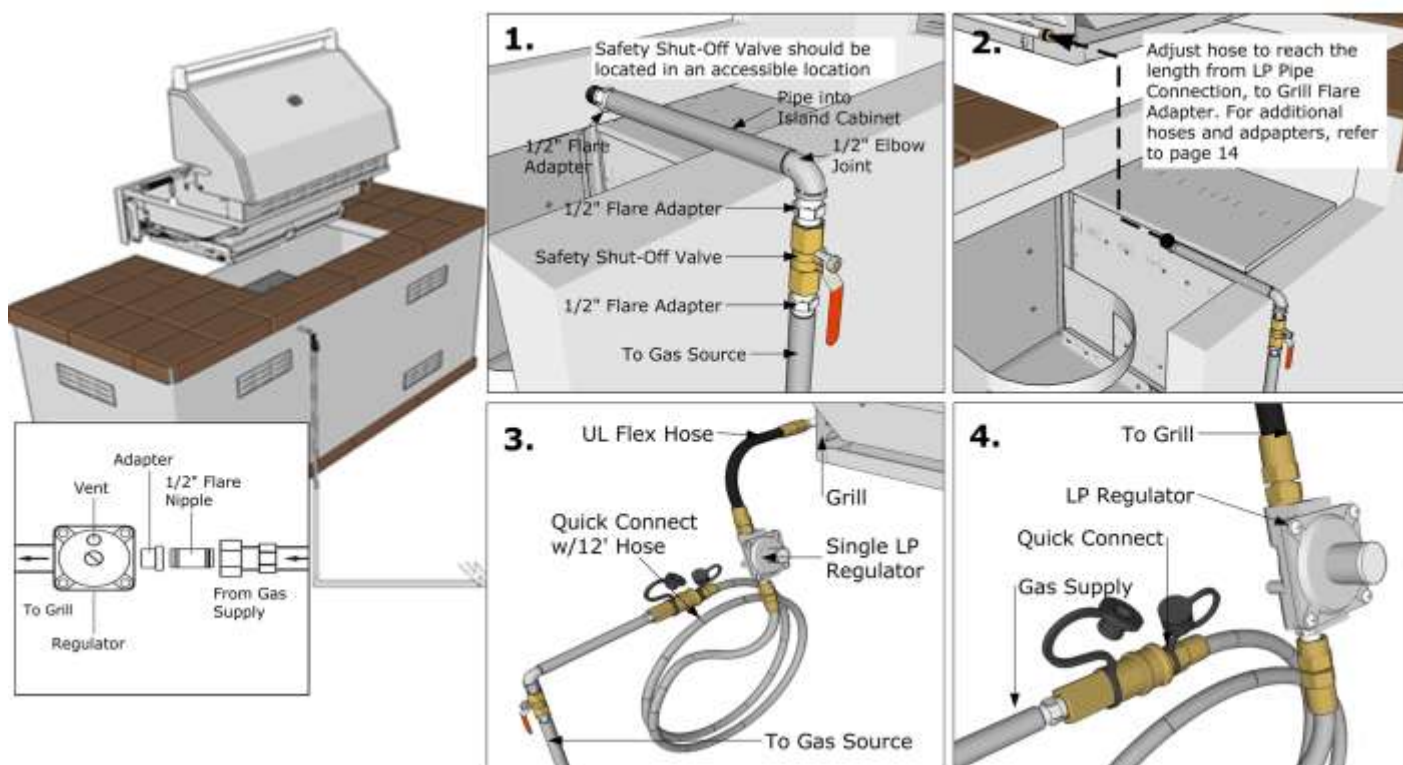
⚠ WARNING: Always do a leak test before lighting the grill to prevent a possible fire or explosion. Never store a spare propane cylinder in the vicinity of this Grill, or in the vicinity of any other potential heat source. Never store a LP gas cylinder inside a building or in the vicinity of any gas-burning appliance.



GAS INSTALLATION & MAINTENANCE – LP Gas Line Connections

This propane gas grill is designed to operate on propane gas ONLY, at a pressure regulated at 11 ” water column (W.C.) when equipped with the correct propane orifices on the valves and a LP regulator on the supply line regulated at the residential meter. For this type of propane installation, the Propane Supply Tank is typically located in the side yard, either above or below ground, it is important to have a licensed plumber or installer do this installation, since specific adjustments sometimes are required to the supply tanks pressure regulator.

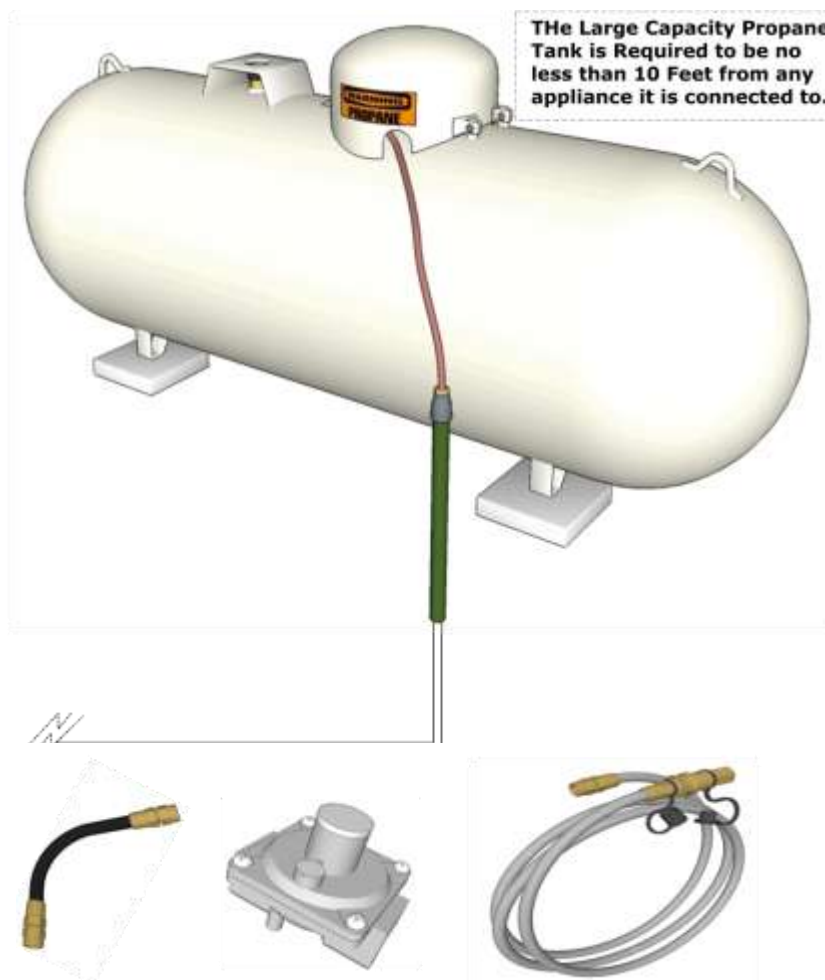
⚠ ATTENTION: For Large Capacity Propane tanks are typically located in your side yard, and sometimes underground function with Propane Type Grills. This type of gas installation can easily be mistaken for Natural Gas type, since the installation method is similar to Natural Gas. Be sure to confirm your gas type, with an Licensed Plumber before proceeding



⚠ WARNING: Always take a leak test before lighting the grill to prevent a possible fire or explosion. Never store a spare propane cylinder in the vicinity of this Grill, or in the vicinity of any other potential heat source. Never store a LP gas cylinder inside a building or in the vicinity of any gas-burning appliance.

GAS INSTALLATION & MAINTENANCE – LP Gas Line Connections

1. For this type of installation, it is most similar to the NG gas installation method, only the regulator is set for liquid propane. First you will install a gas pipe, coming into island from outside, be sure the Safety Shut-Off valve is easily accessible. See Box 1 (page 23). for illustrated parts.
2. Next, locate the gas manifold on grill, for this type of installation; the 1/2" to 3/8" flare adapter, and LP Regulator Hose that comes with your LP Grill is not needed. Gas connections are made with all 1/2" flare adapters, and UL Gas Hoses. See page 14, for detailed lists of adapters and connections.
3. A LP REGULATOR is required for this type of installation, even if the LP Tank is installed with one already. LP regulator for grill should be set for a minimum of 120,000 BTU's with Medium Pressure. This LP grill does not come with an independent LP regulator for this type of installation. Contact the company you purchased from, or your local plumber to locate one, that is made for commercial style grills.
4. For easier connections, we recommend the Quick Connect Gas hose, to make final connection.



NOTE: for Large Capacity Propane Tank hook up Individual LP regulator is NOT provided, (the one provided with grill is for Medium Propane Tank)

GAS INSTALLATION & MAINTENANCE – Natural Gas Tank Connection

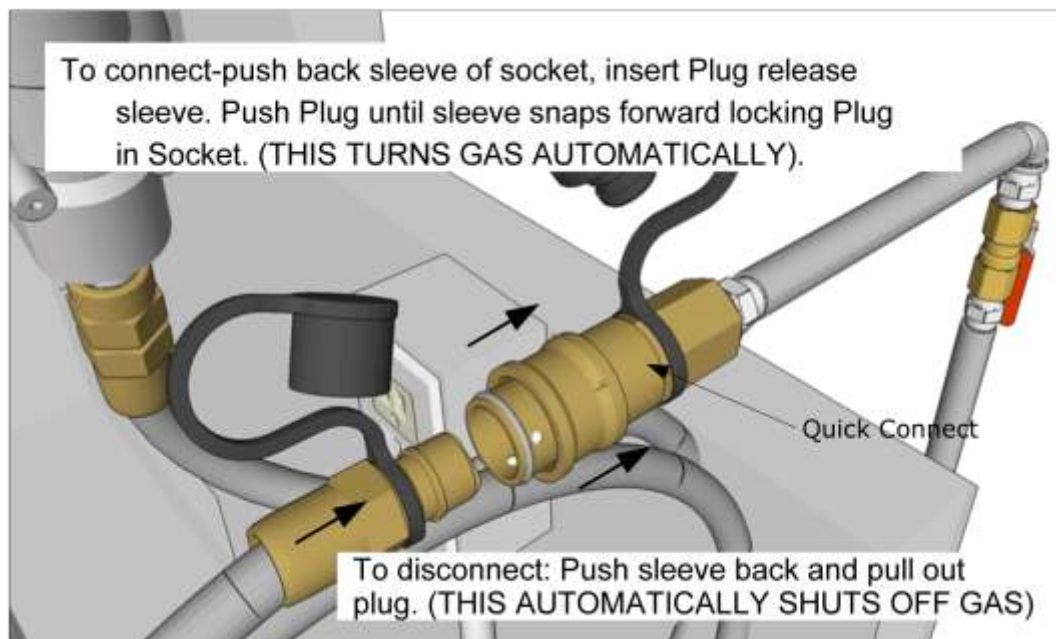
NG Gas Hook-up

This Natural Gas grill is designed to operate on Natural Gas ONLY, at a pressure regulated at 7” water column (W.C.) when equipped with the correct natural gas orifices on the valves and a NG regulator on the supply line regulated at the residential meter.

⚠ ATTENTION: Always turn grill knobs OFF, before installing gas lines, or making any connections and dis-connections of supply hoses.

⚠ WARNING: Always take a leak test before lighting the grill to prevent a possible fire or explosion..

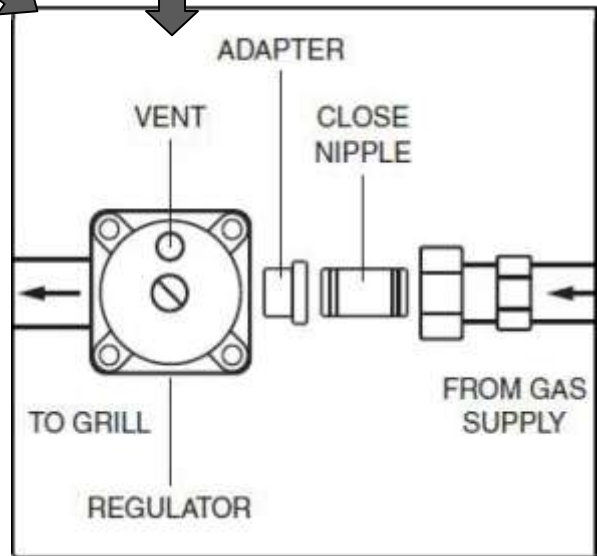
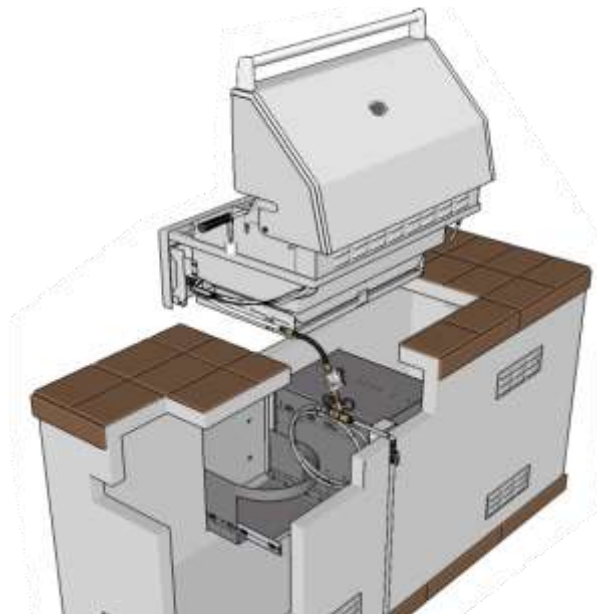
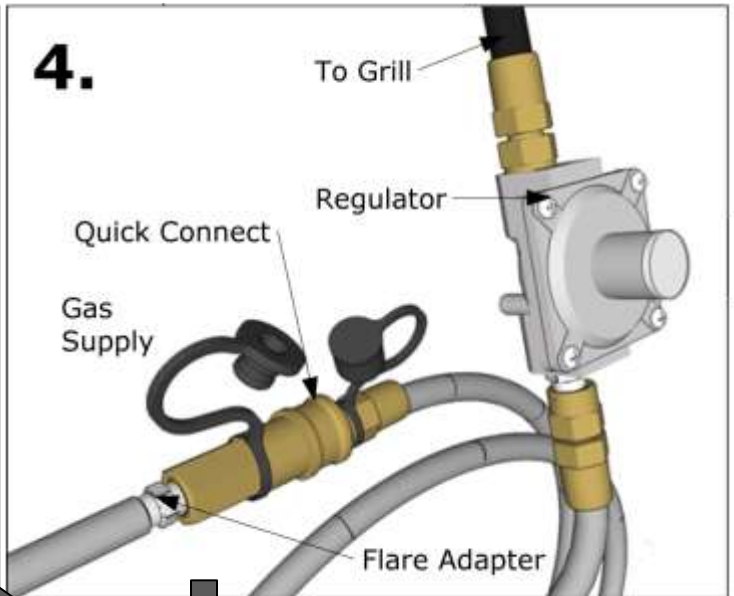
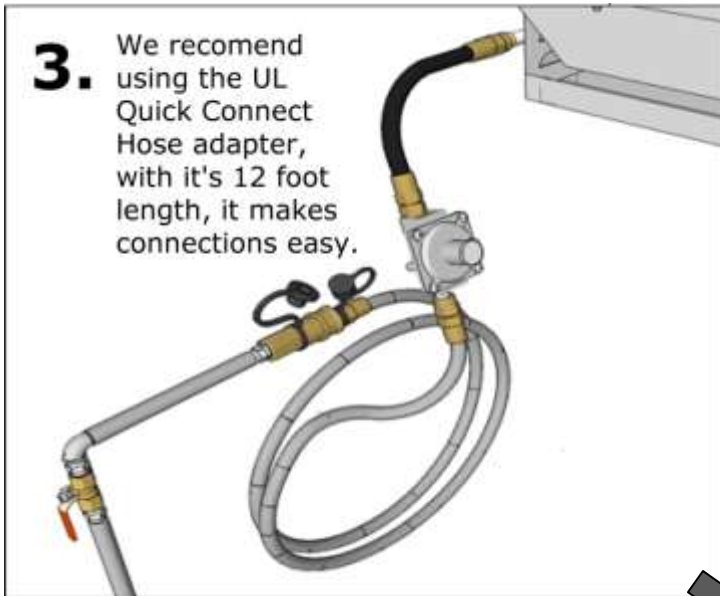
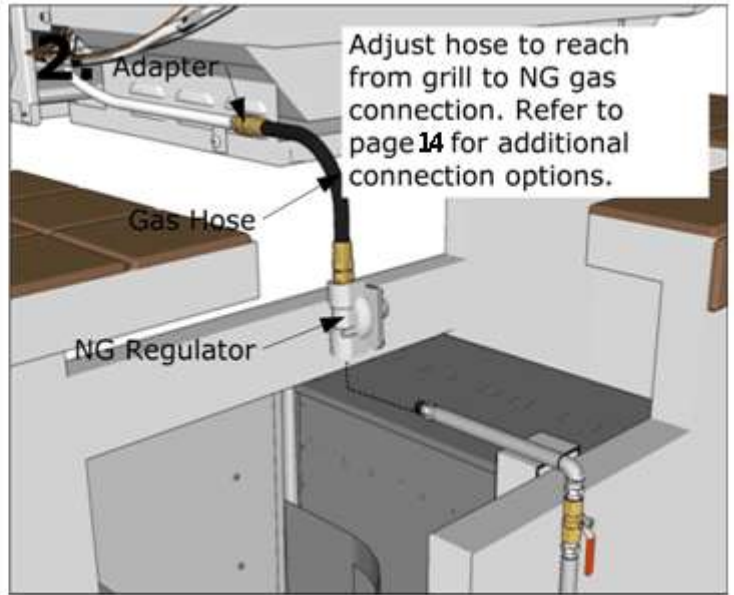
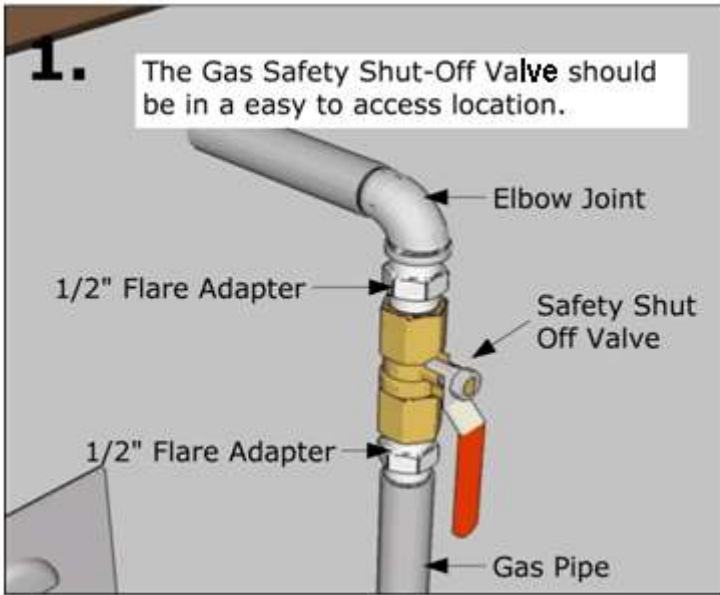
NG Quick Connect Hose Operation



(NG Adapters, Small Flexible Hose and Regulator are pre-installed on grill)



GAS INSTALLATION & MAINTENANCE – Natural Gas Tank Connection



GAS START-UP & SAFETY CHECKS –Pre-Operation Leak Test

DANGER

1. Do not insert any tool into the valve outlet or safety relief valve. You may damage the valve and cause a leak. Leaking propane may result in explosion, fire, severe personal injury, or death.
2. If a leak is detected at any time or you cannot stop a gas leak, immediately close pipeline valve and call LP gas supplier or you fire department!
3. Check all gas supply fittings before each use and each time the gas supply cylinder is connected to the regulator. Have a qualified service technician leak test the grill any time a part of the gas system is replaced.



WARNING: Always take a leak test before lighting the grill to prevent a possible fire or explosion. Never store a spare propane cylinder in the vicinity of this Grill, or in the vicinity of any other potential heat source. Never attempt to attach this grill to the self-contained LP gas system. Do not use grill until leak testing.



Before Testing

DO NOT smoke while leak testing. Extinguish all open flames. Never leak test with an open flame or risk of serious harm to self or others.



Mix Solution

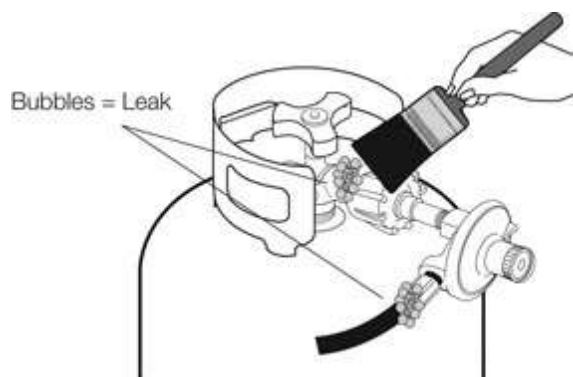
Prepare a leak testing solution of soapy water by mixing in a spray bottle one part liquid soap to one part water. You can also use mild detergent or liquid soap and water.

Leak Testing Procedure

Perform a leak test at least once a year whether the gas supply cylinder has been disconnected or not. In addition, whenever the gas cylinder is connected to the regulator or whenever any part of the gas system is disconnected or replaced, perform a leak test.

As a safety precaution, remember to always leak test your grill outdoors in a well-ventilated area. Never smoke or permit sources of ignition in the area while doing a leak test. Do not use a flame, such as a lighted match to test for leaks. Use a solution of soapy water.

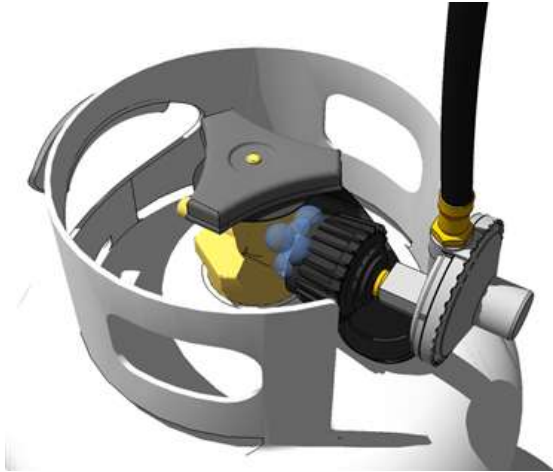
- a. Make sure all the control knobs are in the OFF position.
- b. Turn on the gas.
 - i. On natural gas systems, turn the shut off valve to the grill.
 - ii. On LP systems, turn the propane tank valve knob counter clockwise one turn to open.
- c. Apply the leak-testing solution by spraying it on joints of the gas delivery system. Blowing bubbles in the soap solution indicates that a leak is present.
- d. Stop a leak by tightening the loose joint or by replacing the faulty part with a replacement part recommended by the manufacturer. Do not attempt to repair the cylinder valve if it is damaged. The cylinder must be replaced.
- e. Turn all control knobs back to the full OFF position.



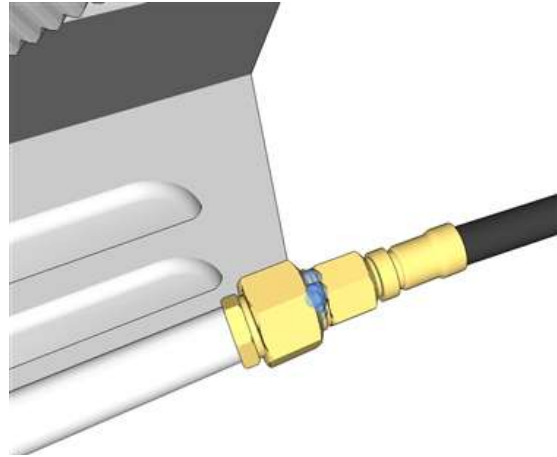
GAS START-UP & SAFETY CHECKS –Pre-Operation Leak Test

Liquid Propane Leak Testing Procedure

Test connection from LP Tank to Regulator



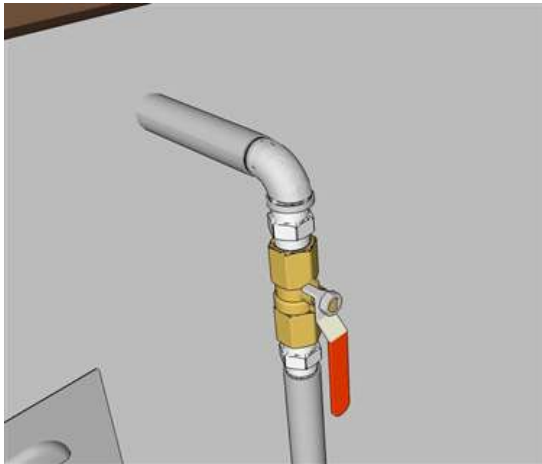
Test connection from grill to LP Hose



Natural Gas Leak Testing Procedure

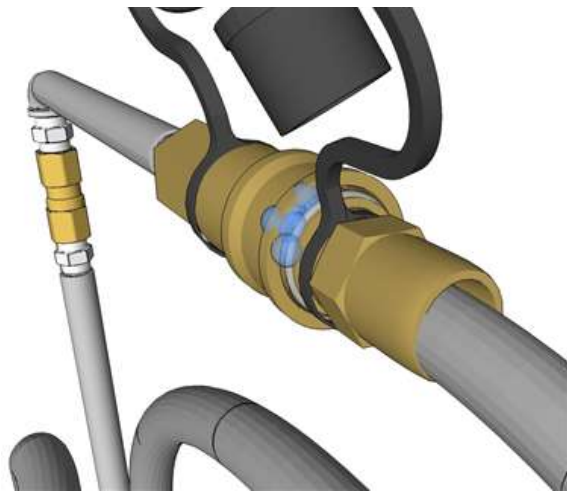
If unable to stop gas leak, turn gas off

Test connection next to NG regulator



Test connection from gas line to adapter

Test Quick Disconnect



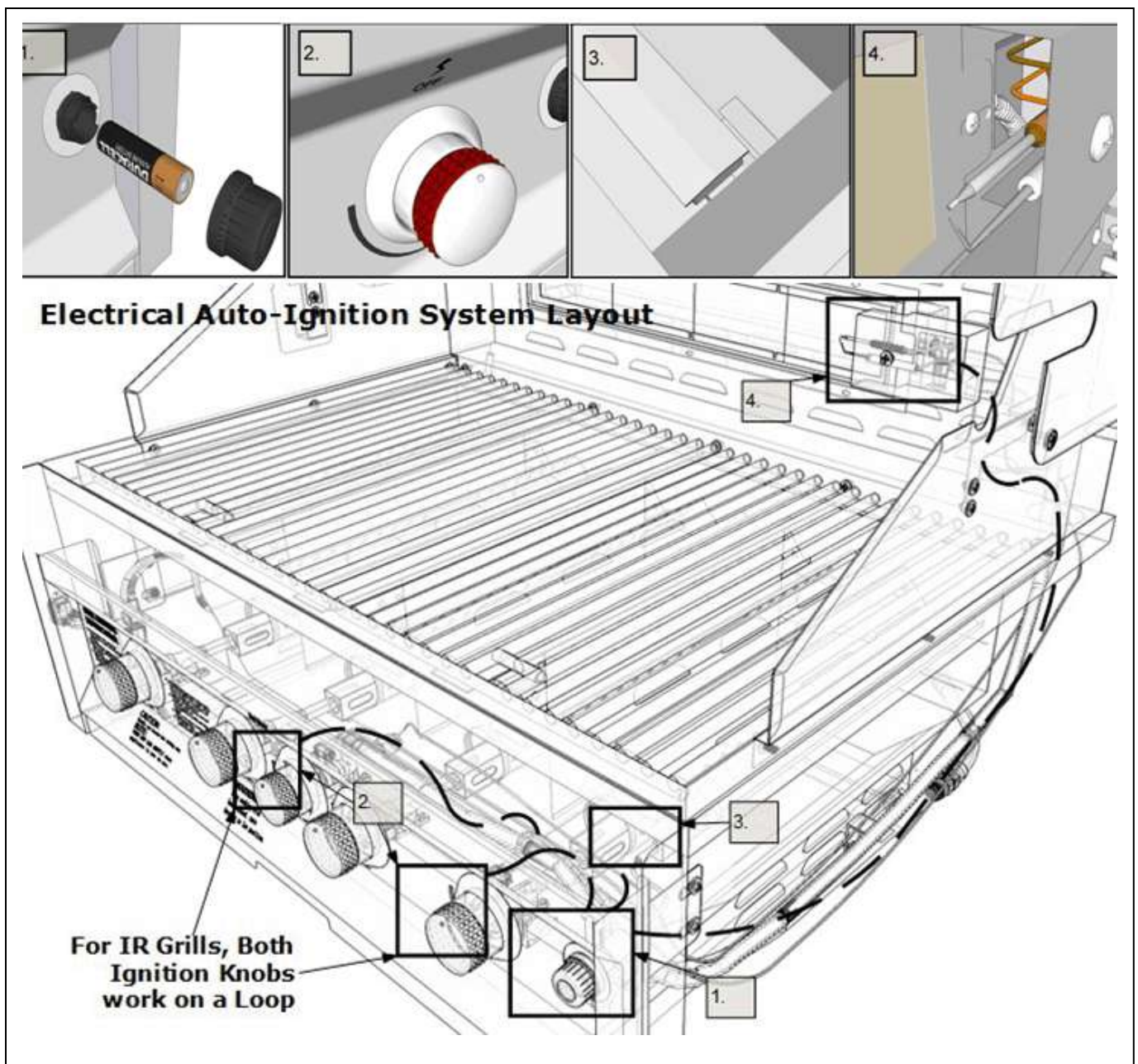
GAS START-UP & SAFETY CHECKS –Pre-Grilling Checklist

Start Up

Before you start cooking, clean the entire grill thoroughly with hot, soapy water. This is necessary to remove residual solvents, oil and grease used, you can also Burn-OFF any heavy solvents by closing hood, and heating grill up to High temperature, for 2-5 minutes.

Safety Checks

1. Check the battery that it is free from defect and functions properly.
2. Turn each knob, make sure each one rotates easily, does not stick and is free from defect.
3. Check the spark igniters next to burner, make sure they are free from debris, with proper spacing from burner, so adequate ignition is performed.
4. For Grills with a IR back burner, check the igniter, that it has proper spacing, and functions properly



GAS START-UP & SAFETY CHECKS –Pre-Grilling Checklist



PRE-GRILLING CHECKLIST



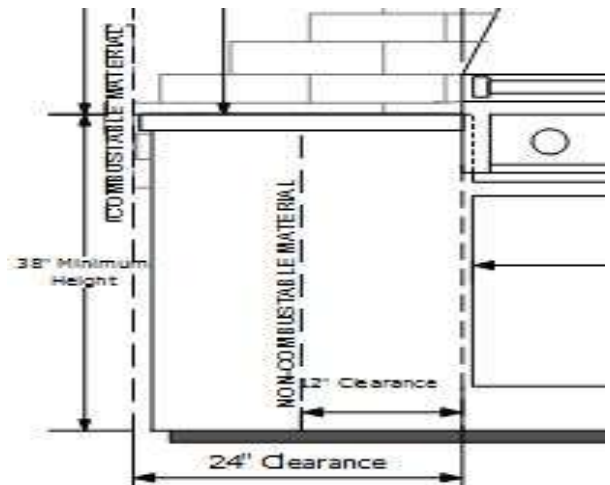
Insert Battery

Insert AA Battery into right side Igniter box. Unscrew black cap counter clockwise; be careful the external caps spring does not drop from its position. Insert Battery with Male side facing out, and tighten down igniter cap, **DO NOT FORCE THE CAP ON PAST THE TIGHTENED POSITION.** (See Page 29)



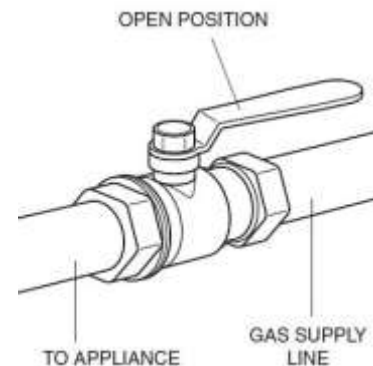
Maintain clearance to combustibles

Your Sunstone™ grill, performs well at HIGH temperatures, and because of this, it is especially important to keep combustible material away from grilling area, by at least 24" inches. Remember also not to store combustible items near or under the grill, for risk of Fire. Always keep adequate airflow into and out of island cabinet. (See Page 10,11)



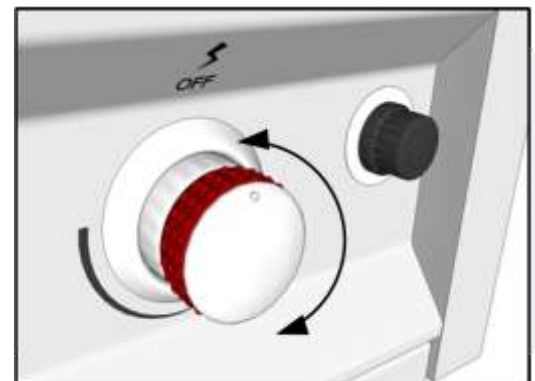
Gas Supply Shut off Valve location

It is important to know where your shut-off valves are located. If you ever have overheating, or gas leaks, this is an important safety issue. Your shut-off valve should always be in an area that is accessible, if you already have one inside your island cabinet; it is a good idea to have one outside as well. (See Page 23,26)




Knobs turn freely

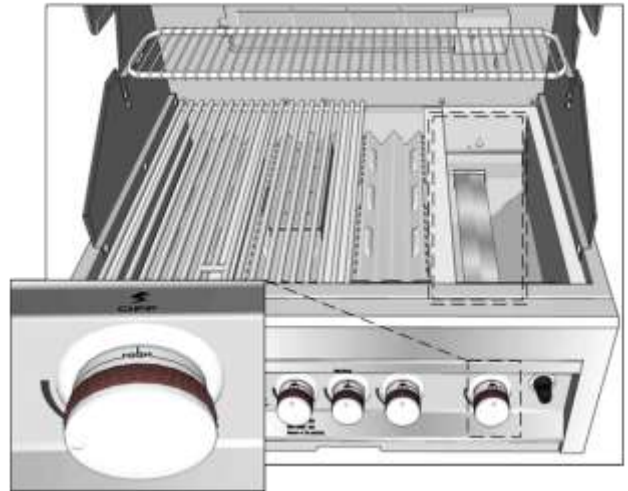
Since your ignition system works by pressing in your knob, it is important to keep your knob in good working condition. This is also important for turning the gas flow on and off, and keeping a good knob to valve connection. First with the gas flow in OFF position, turn the knob ON, OFF, push in and release, and check to see if knob is either rubbing Knob Ring, or is difficult to turn. (See Page 73)





GAS START-UP & SAFETY CHECKS –Lighting the Grill


 **WARNING:** When Lighting the Grill, Hold the Knob in until Burner Ignites. DO NOT RELEASE KNOB, GAS WILL CONTINUE TO FLOW.


1. Open Lid Before Lighting Burners.
2. Make sure all Control Knobs are in OFF position.
3. Push and Turn Last Right Knob to HIGH position 3-5 seconds to light burner.
4. If ignition does not occur in 5 seconds, turn the last Right Knob to OFF, wait 5 minutes to allow gas to dissipate and repeat the lighting process.
5. To light the other burners, push and turn knob one by one counterclockwise to HIGH position to allow gas to flow.
6. To turn OFF, turn each knob clockwise until it locks in OFF position. Be sure to Push In to turn Knob.





 **WARNING:** Keep any electrical supply cords and the fuel supply hose away from any heated surfaces.

 **WARNING:** Failure to open the lid while igniting the barbecue's burners, or not waiting 5 minutes to allow the gas to clear if the barbecue does not light, may result in an explosive flame-up which can cause serious bodily injury or death.

 **WARNING:** Never stand with your head directly over the Grill when preparing to light the Rotisserie burner, to prevent possible bodily injury.

 **CAUTION:** Inspect the hose before using the grill. If there is excessive abrasion or wear, or if the hose is cut, it must be replaced prior to the outdoor cooking gas appliance being put into operation. The replacement hose assembly shall be that specified by the manufacturer. Ensure the area around the barbecue is clear of flammable substances such as gasoline, yard debris, wood, etc. Ensure there is no blockage of the airflow through the vent space located below the face of the unit.

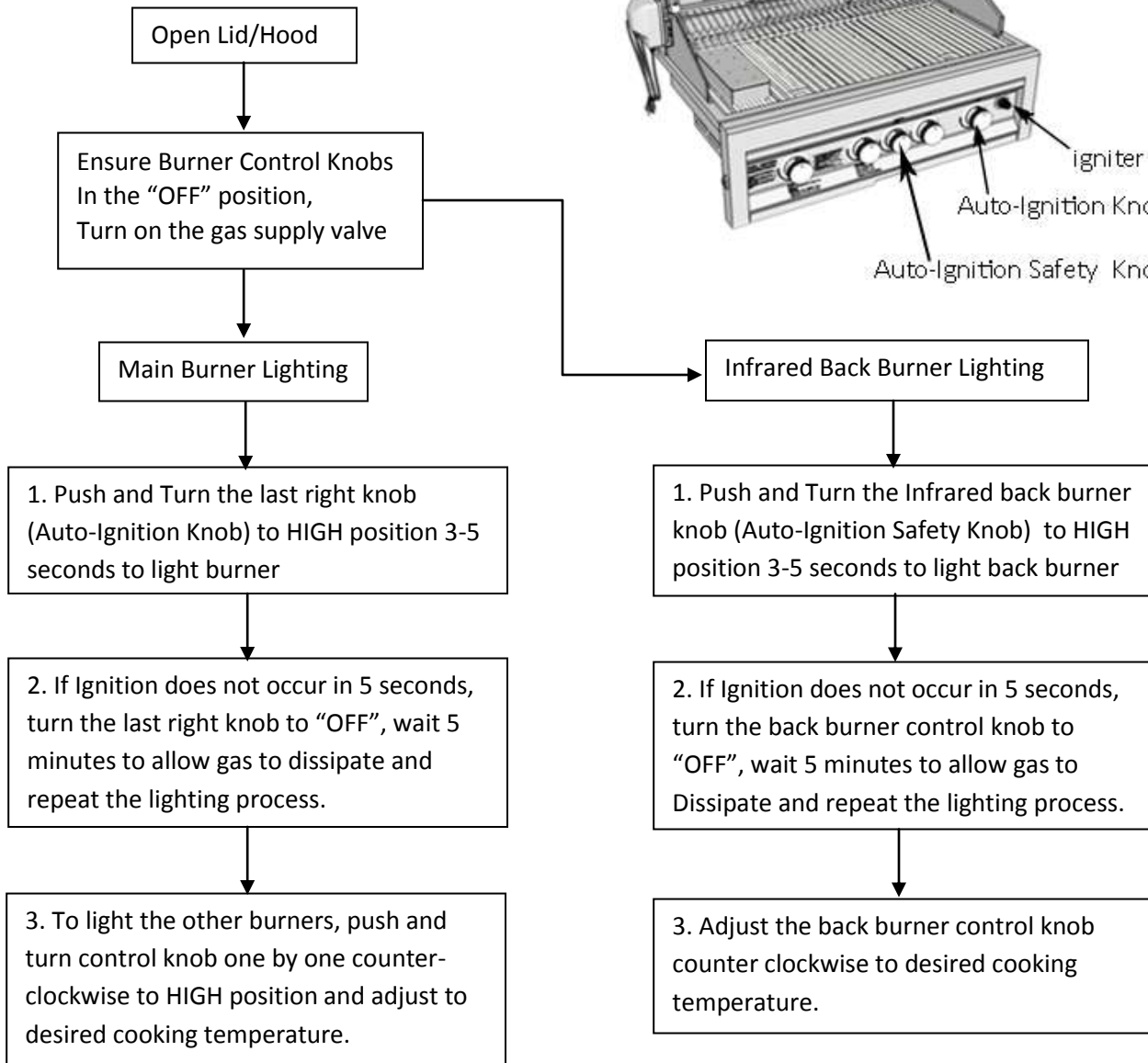
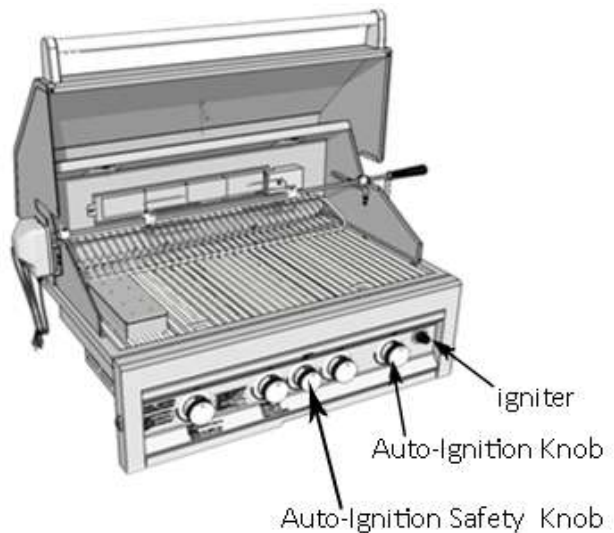
 **WARNING:**
OUTDOOR USE ONLY:
NEVER operate grill in enclosed areas, as this could lead to gas accumulating from a leak, causing an explosion or a carbon monoxide buildup which could result in injury or death. DO NOT use your grill in garages, breezeways, sheds or any enclosed area. NOT FOR USE BY CHILDREN. If these instructions are ignored, a hazardous fire or explosion could result in physical injury, death or property damage!

 **WARNING:**

1. DO NOT Store or use gasoline or other flammable liquids or vapors in the vicinity of this or any other appliance.
2. An LP cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.

GAS START-UP & SAFETY CHECKS –Lighting the Grill

Lighting Instructions



NOTE: To light gas grill with a gas lighter, make sure the grill has been leak tested and burners be properly located. Remove the cooking grid and flame tamer from burner you wish to light. Insert long-necked gas lighter placing near to burner ports. Press in the last right control knob (Auto-Ignition Knob) and rotate left to “HIGH” setting to release gas. Turn on the button on gas lighter, burner should light immediately. Place back the cooking grid and flame tamer. Adjust burners to desired cooking temperature.



NOTE: If for some reason, igniters fail to light, burners can be lit with a gas lighter.

INSTALLING COMPONENTS – Rotisserie Installation

⚠ WARNING: Never stand with your head directly over the Grill when preparing to light the Rotisserie burner, to prevent possible bodily injury. Never operate Rotisserie Burner with main (other) burner(s) “ON” . Warming Rack must be removed when Rotisserie Burner is ON.

Rotisserie is mostly used to cook large pieces of meat and poultry to assure slow, even cooking. The constant turning provides a self-basting action, making food cooked on a rotisserie exceptionally moist and juicy. Rotisserie cooking generally requires 1 ½ to 4½ hrs to cook depending on the size and type of meat being cooked. You can have rotisserie cooking with indirect heat with infrared rotisserie burner. Preferred by professional chefs over other methods, the intense heat is ideal for searing in the natural juices and nutrients found in quality meats. For successful rotisserie, the meat should be centered and balanced as evenly as possible on the spit rod to avoid overworking the rotisserie motor. (Refer to the illustrations on page 34 box 1-6)

1. Attach Motor Bracket Assembly to the side of the barbecue frame (can be mounted on either left or the right side of the frame) using two screws and two nuts.
2. Insert Rotisserie Motor onto Motor Bracket Assembly.
3. Slide Prong Forks with the prongs facing away from the handle onto the Spit Rod. So that any food item will be in the center between the two four prong forks.
4. Assemble Key Washer, Counter-balance and handle to Spit Rod. Slide Shaft Collar with long end towards handle.
5. Insert motor extension cord three prong plug into an adjacent grounded GFCI receptacle outlet.
6. Before placing food item on forks when the rotisserie is being operated exclusively, it is strongly recommended that a pan be placed on the grilling grids, beneath the food to catch the meat drippings. This will prevent excessive build up of drippings on the grids and facilitate cleaning. When food item is placed on rotisserie, be sure that all Bolts are tightened securely.

NOTE: Close hood carefully and align Motor Bracket and Shaft Mounting Bracket so that Rotisserie Rod is in between the hood openings.

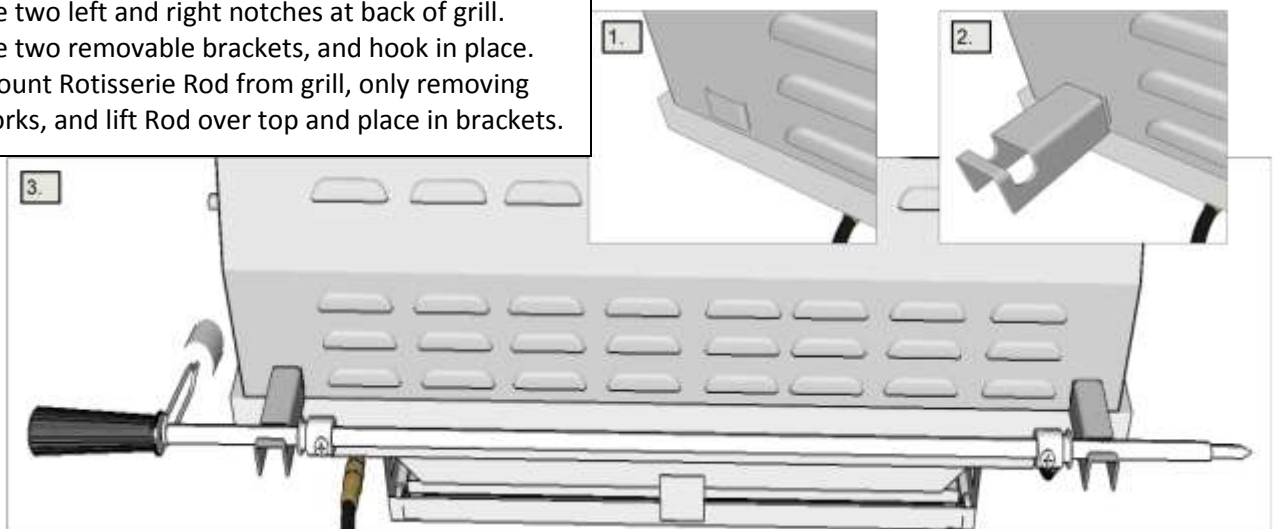
Lighting the rotisserie burner

See (Page 32) for Lighting Instructions

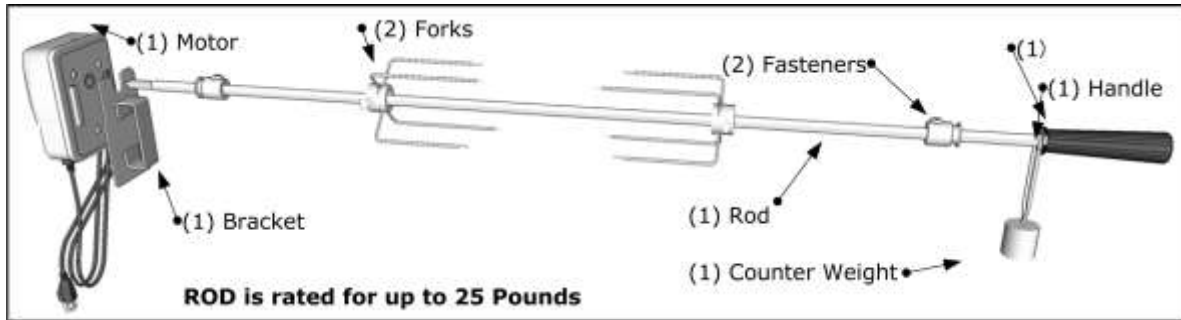
1. **Grill surface burners should be off for rotisserie cooking**
2. Make sure Rotisserie motor is plugged in to GFCI outlet and turn it on.
3. Meat should be centered and balanced on the rotisserie spit rod for efficient cooking.
4. Use a drip pan under the meat to catch any juices
5. Keep hood closed when cooking with the rotisserie

Optional Rotisserie Rod Stow-Away

1. Locate two left and right notches at back of grill.
2. Locate two removable brackets, and hook in place.
3. Un-mount Rotisserie Rod from grill, only removing the Forks, and lift Rod over top and place in brackets.

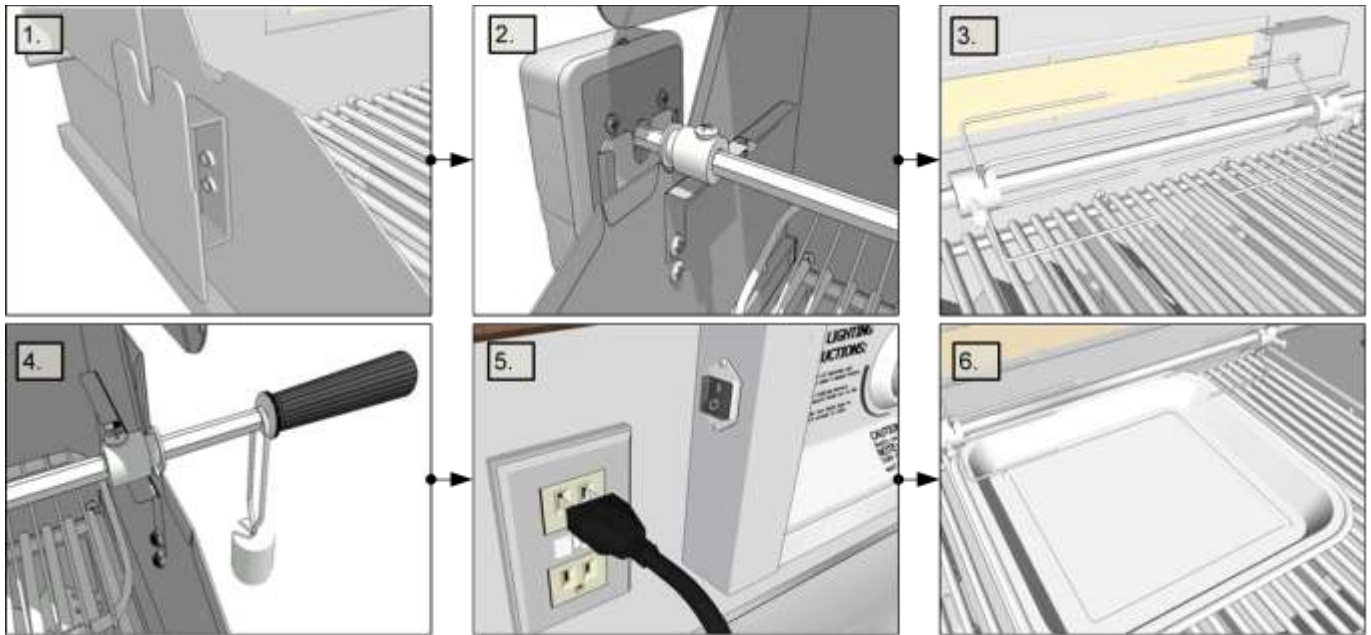


INSTALLING COMPONENTS- Rotisserie Rod Assembly



Rotisserie assembly can be purchased individually either by individual item, or in a complete set, for your size of grill. The rotisserie assembly can also be used with or without an infra-red back burner.

Name	Qty.	Part No.
3 Burner Rotisserie set	1	P--RK-3B
4 Burner Rotisserie set	1	P--RK-4B
5 Burner Rotisserie set	1	P--RK-5B



Electrical Grounding Instructions:

The rotisserie motor is equipped with a three-prong grounding plug for your protection against electric shock. This plug must be inserted directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.

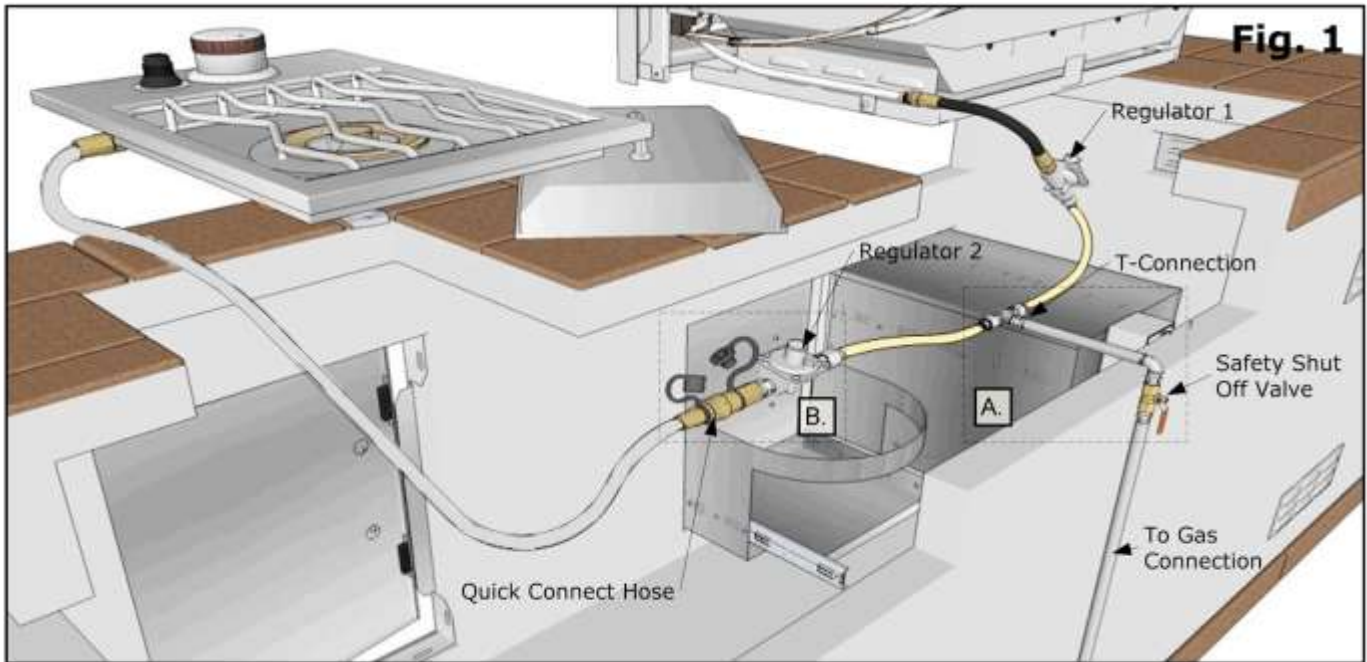
The rotisserie motor must be electrically grounded in accordance with local codes or, in the absence of local codes, in accordance with the National Electrical Code, ANSI/NFPA 70-1990 or Canadian Electrical Code, CSA C22.1.

Do not use an extension cord to supply power to your grill. Such use may result in fire, electrical shock or other personal injury. Do not install a fuse in the neutral or ground circuit. A fuse in the neutral or ground circuit may result in an electrical shock hazard. Do not ground this appliance to a gas supply pipe or hot water pipe.

INSTALLING COMPONENTS- Side Burners Installation

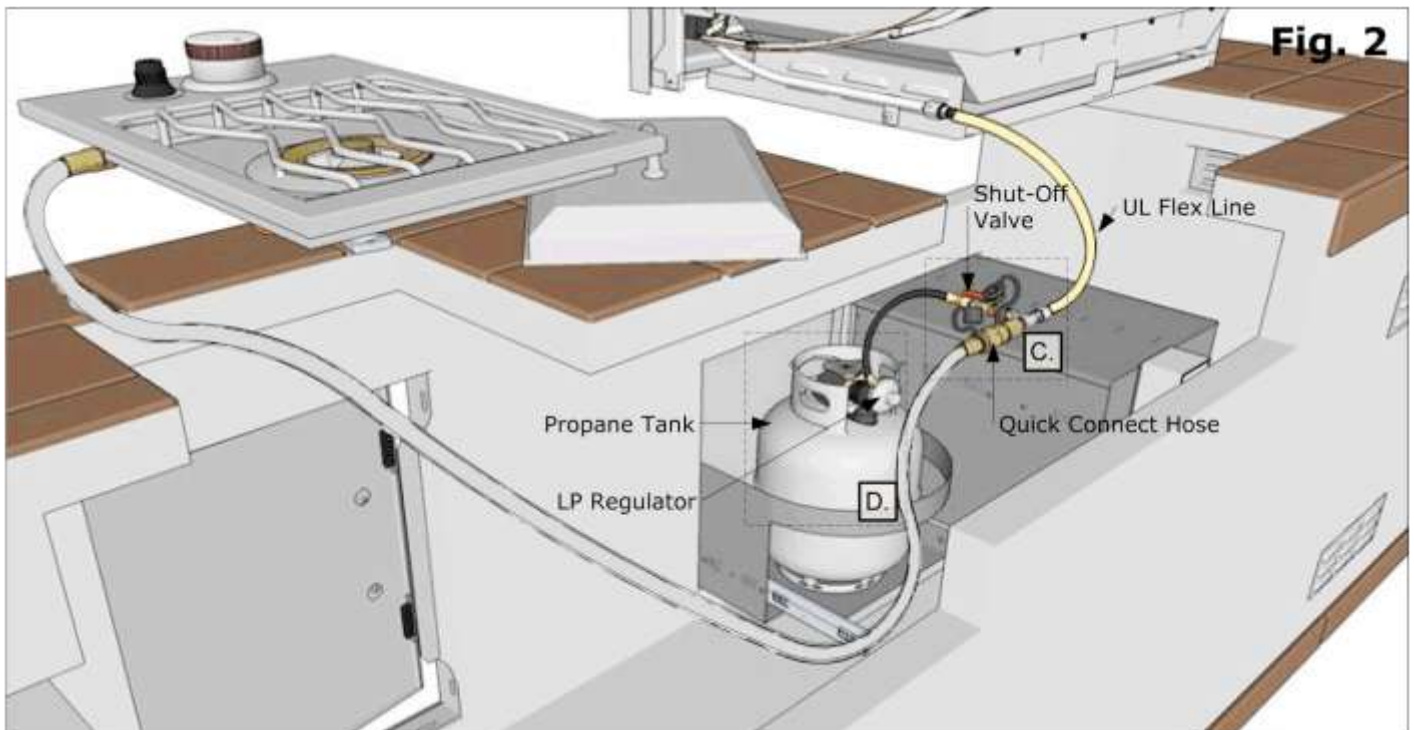
Side Burner Setup for Natural Gas

For Natural Gas installation, when installing an extra appliance like a side burner. You will first need to configure a T-Connection Adapter Kit, as shown in **A.**, Consisting of a Safety Shut-Off Valve, Several Flare Adapters, and two or more Universal Flex Lines; you can also use a Quick Connect Hose, which is especially useful if your connecting appliance is a further reach. For natural gas, anytime you are extending to another appliance, it's always a good idea to install an additional regulator per appliance, as shown in **B.**



Side Burner Setup for Liquid Propane

For Liquid Propane, when installing an extra appliance like a side burner you will need to configure a T-Connection Adapter Kit, as shown in **C.** Consisting of a Safety Shut-Off Valve, Several Flare Adapters, one Universal Flex Line, you can also use a Quick Connect Hose, which is especially useful if your connecting appliance is a further reach.



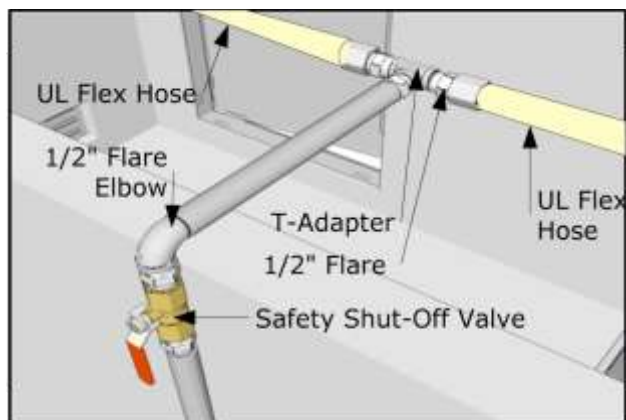
INSTALLING COMPONENTS- Side Burners Installation

Natural Gas Installation

A

T-Connection Configuration

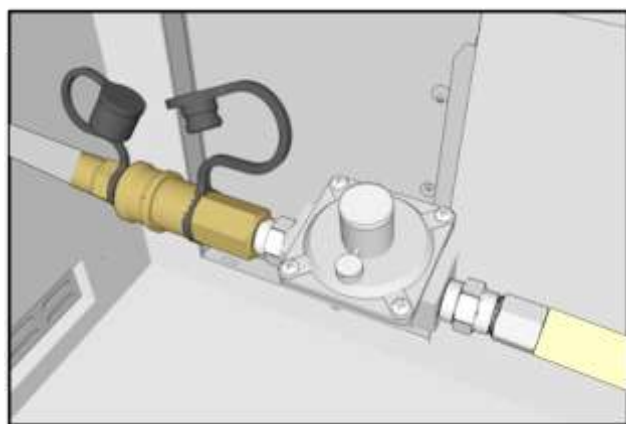
For Natural Gas installation, when installing an extra appliance like a side burner, you will need to configure a T-Connection Adapter Kit, as shown. Consisting of a Safety Shut-Off Valve, Several Flare Adapters, and two or more Universal Flex Lines, you can also use a Quick Connect Hose, which is especially useful if your connecting appliance is a further reach. Extending from Safety Shut Off Valve, is the Gas connection pipe.



B

Safety Precautions

As a safety precaution, install the provided NG regulator for each additional appliance you have. Whenever extending gas through long hoses, gas pressure can change, depending on the length and size of hose. Also always use an additional safety shut off valve, or quick connect hose between appliances, for quick gas shut off, if hazard arises.

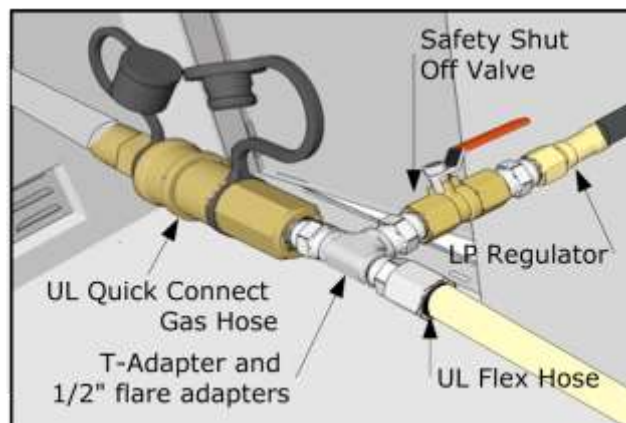


Liquid Propane Installation

C

T-Connection Configuration

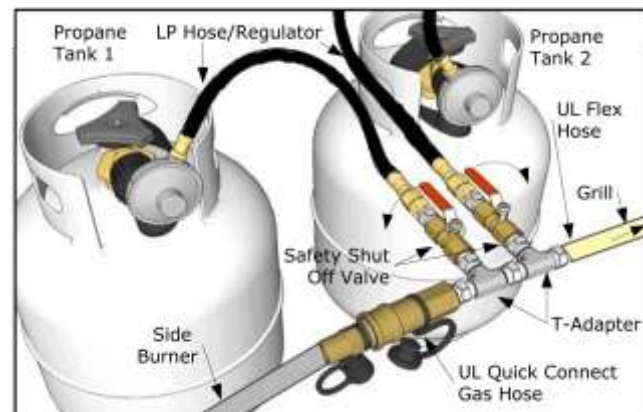
For Liquid Propane installation, when installing an extra appliance like a side burner, you will need to configure a T-Connection Adapter Kit, as shown, Consisting of a Safety Shut-Off Valve, Several Flare Adapters, and two or more Universal Flex Lines, you can also use a Quick Connect Hose, which is especially useful if your connecting appliance is a further reach. Extending from Safety Shut-Off Valve, is the Propane tank.



D

Dual Propane Tank Setup

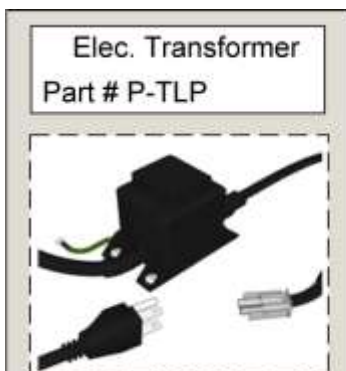
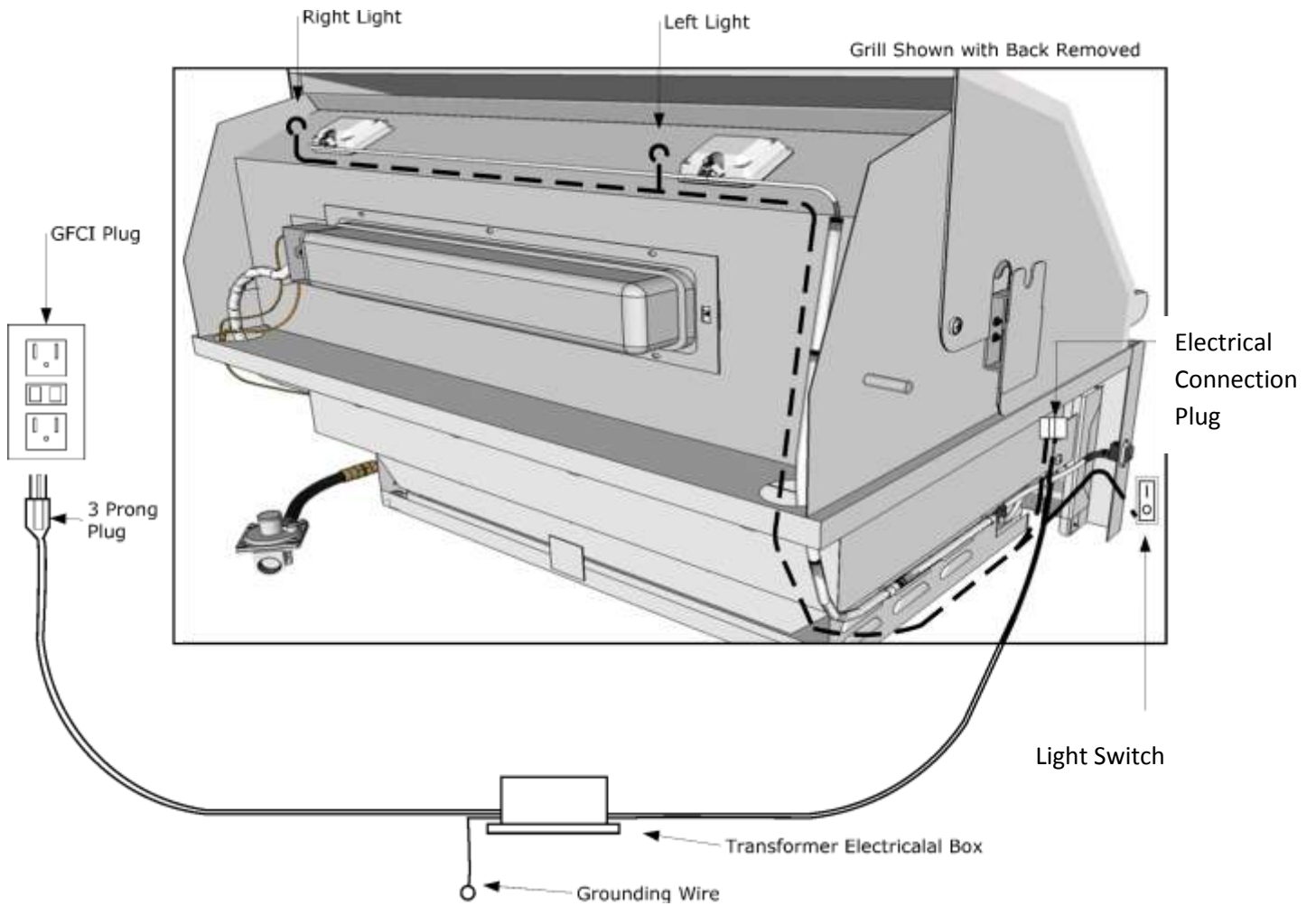
When using an additional appliance, like a side burner with liquid propane many customers prefer to modify their installation for Dual Propane Tanks. Configure a Double T Connection; each propane tank is required to have its own safety shut-off valve, for interchanging multiple tanks at once. This is to be used as an informational purpose only.



INSTALLING COMPONENTS- Transformer Installation

Installing the Transformer

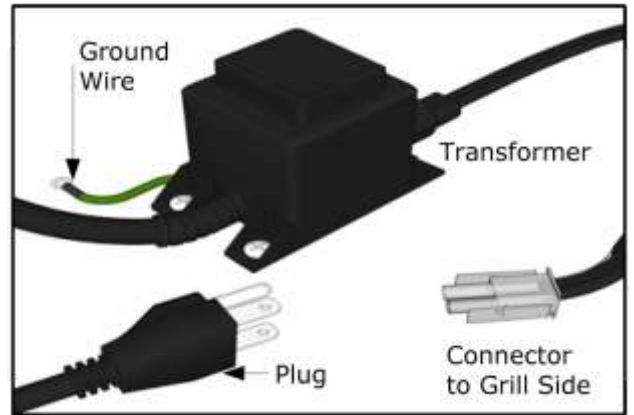
All grills with electrical components such as lights will require the transformer to be installed and plugged in before you can use it. This needs to be done before the grill is inserted in the island. When the transformer is attached to the island frame cabinet inner wall, use care in placing the grill in the island cutout to avoid hitting the transformer, or rubbing electrical wires.



INSTALLING COMPONENTS- Transformer Installation

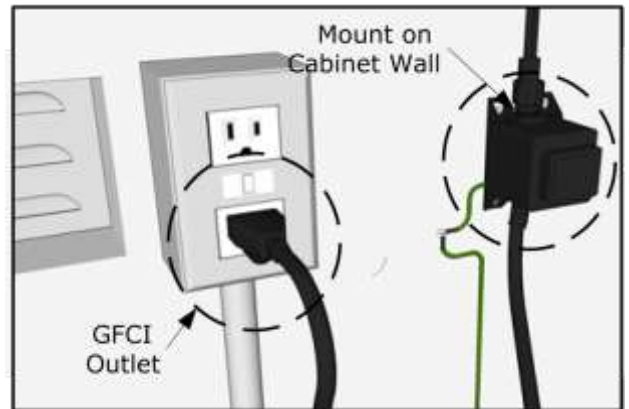
1. Locate the transformer

Remove the transformer from the plastic bag located in the interior of grill. Make sure the Transformer is complete, and double check the grill light plug cord is properly secured to transformer, and all wires are firmly fixed into plastic clip plug.



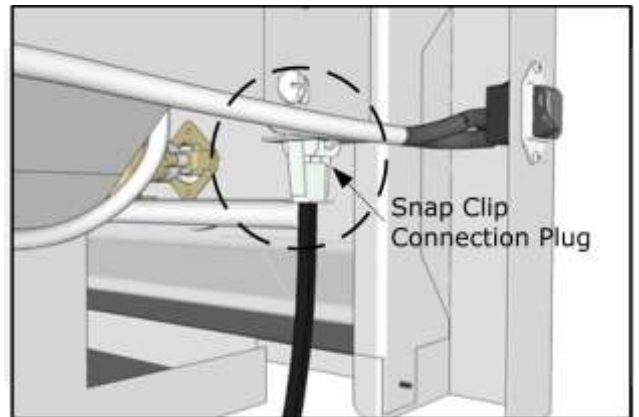
2. Mount Transformer

Using metal screws and attach the transformer to the back inner wall of your islands cabinet wall, somewhere near the already installed GFCI electrical outlet. When you plug the transformer in, double check then GFCI breaker switch, that the outlet has power.



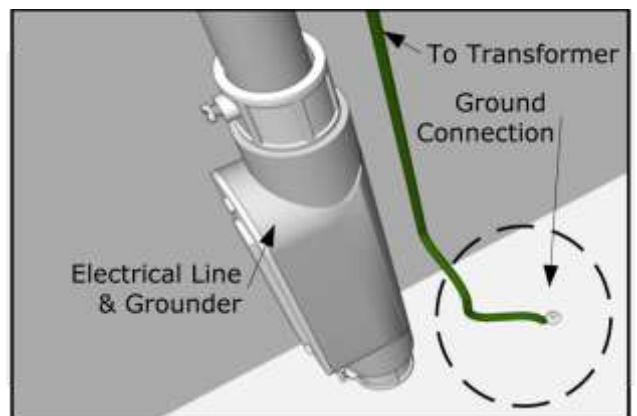
4. Make Connections

Locate the Light Switch on Left side of grill control panel. The Transformer's electrical connection to grill is located behind control panel, next to light switch. The connection clips together, to form a secure connection. Double check that all wires are tightly pushed into plug sockets, so all wires make proper connections. You can tuck wire into body of grill or island frame, so it's up and out of the way.



3. Install the Ground Wire

The short green wire extending from off the transformer electrical adapter is required to be grounded. Depending on the location you decide to install transformer, it may be necessary to extend the wire so that it can reach a grounding structure. A grounding structure is any solid structure that makes direct contact with the ground.

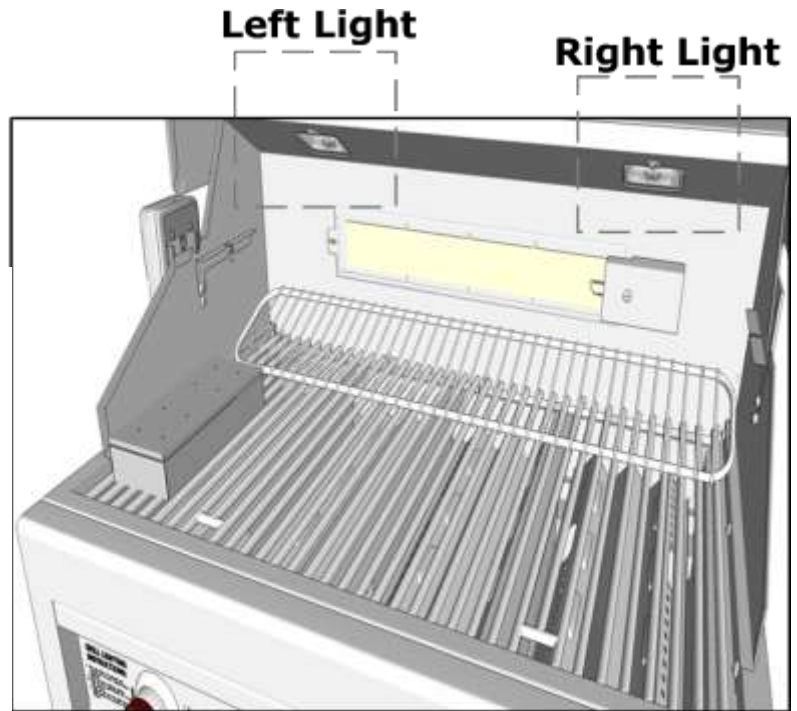
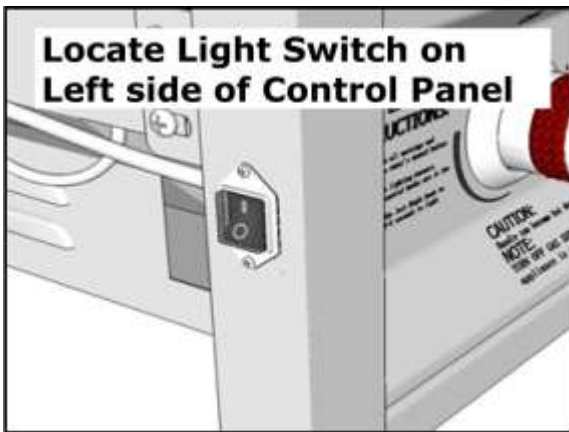


INSTALLING COMPONENTS-Changing the Light Bulbs

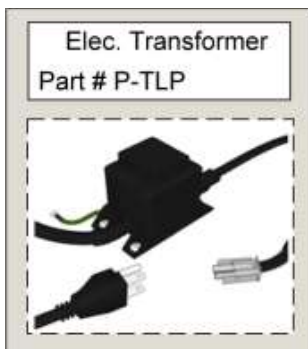
⚠️ WARNING: Never attempt to replace light bulb when grill is in use. Serious Burn will result. Never touch halogen bulbs with your bare fingers. Use a tissue or a small piece of paper to handle bulbs. Oils from your hands will damage halogen bulbs.

Changing the Light Bulbs

Locate the two Lights at the back of grill enclosure. Then follow steps 1 thru 4, to safely remove light bulbs and install new working ones. **DO NOT USE BARE HAND WHEN INSTALLING NEW LIGHTS** as you may leave grease, or dust on light bulb and can damage protective glass.



⚠️ CAUTION: Be sure that when removing light bulb covers, to place cover in safe place where they will not be chipped or harmed in any way.



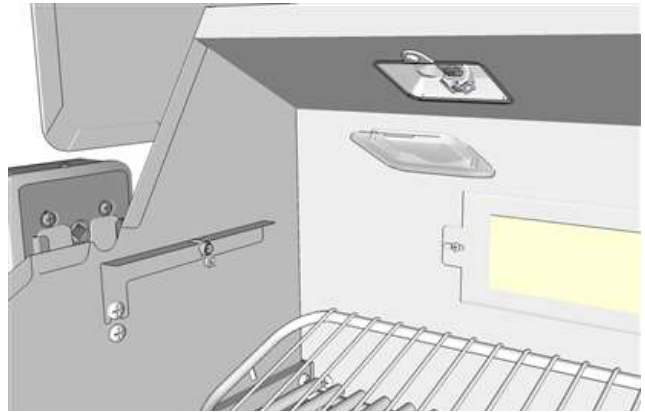
INSTALLING COMPONENTS-Changing the Light Bulbs

LIGHT REMOVAL AND REPLACEMENT

1. Remove the cover

The light covers are supported by a clip mechanism on the light fixture. Simply cup the palm of your hand over the light cover from left or right sides, and pry light cover off.

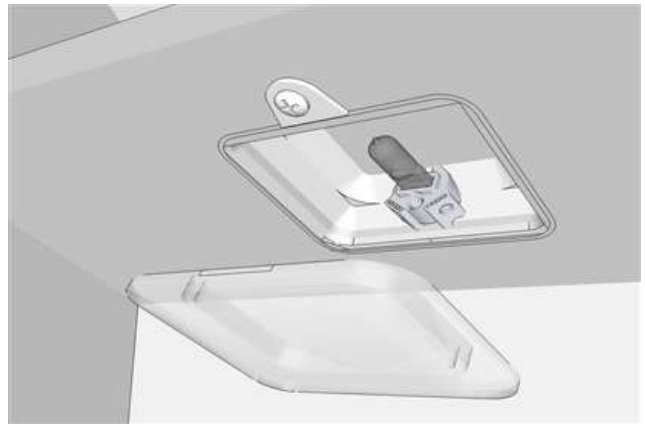
DO NOT USE ANY TOOLS as you might chip the tempered glass cover.



2. Removing the bulb

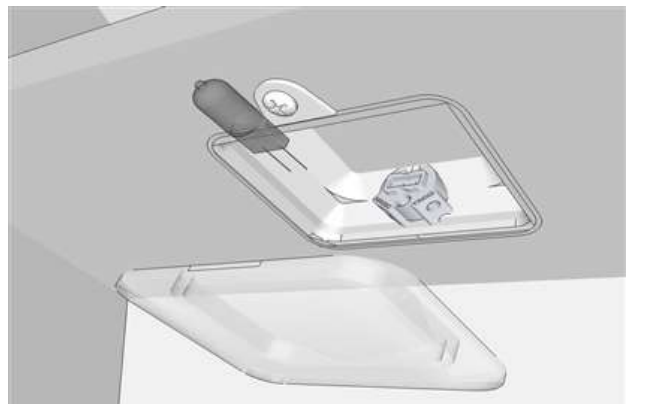
Reaching in using your fingers only, grip the two outside edges of light bulb, **DO NOT** grip the top or bottom of bulb, as it might break. Pull the bulb straight out, so that the two electrodes wires are completely removed with bulb.

BE SURE TO PLACE BULB IN TRASH, do not leave around where it could break, and leave shards of glass.



3. Installing new light bulb

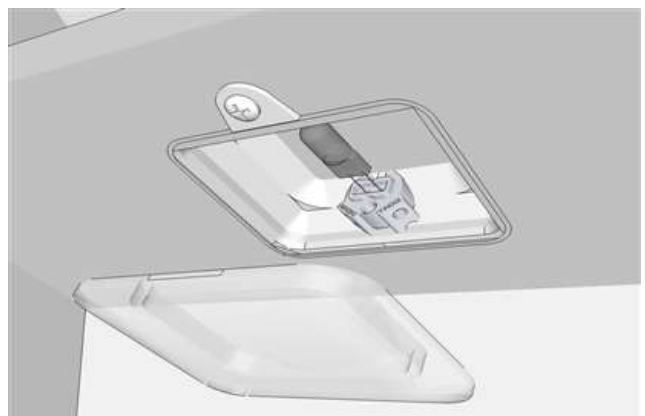
When handling your new bulb, be sure to use a soft clean cloth (cotton or paper towels). Always keep halogen lights free of fingerprints and grease when operating. Because the light bulb's very high operating temperature, grease or fingerprints left on the bulb might reduce the bulb's life.



4. Inserting bulb into position

Insert the new light bulb using your clean cloth in hand, very little effort is required for the bulb to "SNAP" and lock in place. Look at the bulb and verify that no fingerprints are left on it. Wipe off any fingerprints and or grease that might have accidentally come in contact with glass of the light bulb.

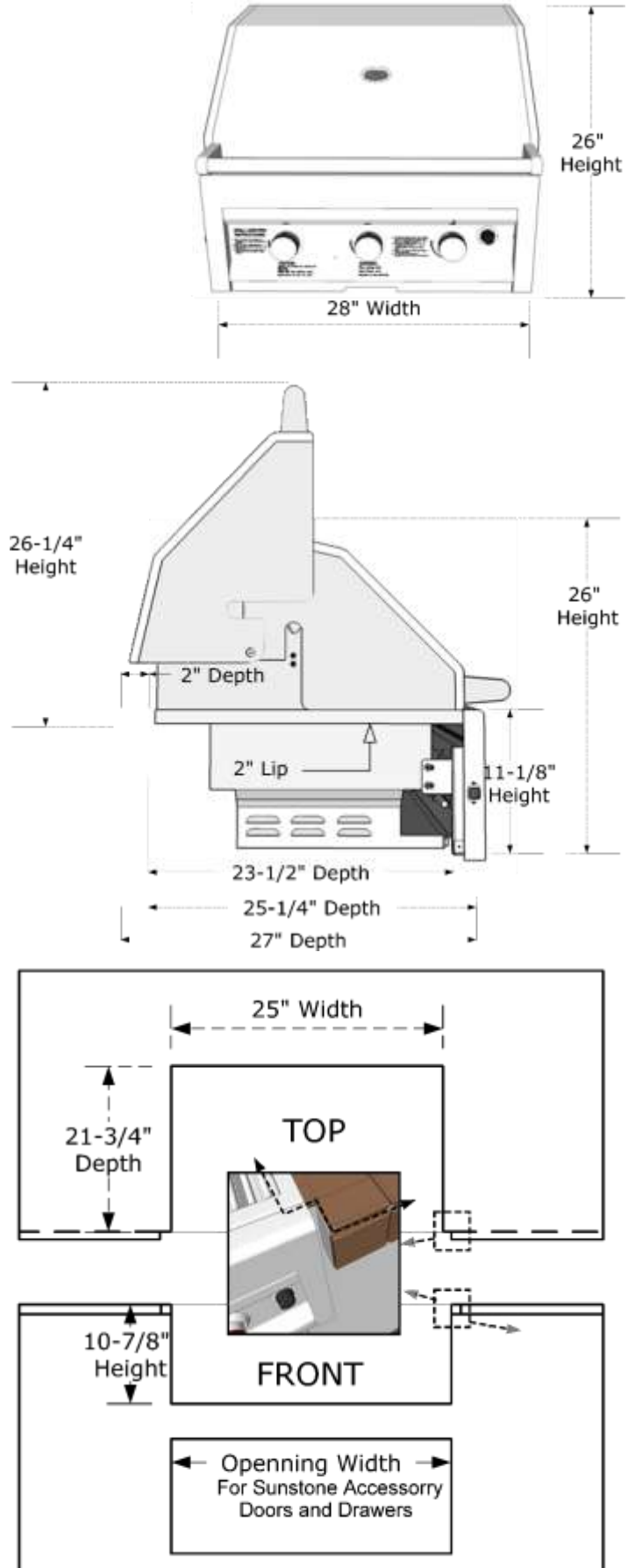
CHECK ALL LIGHTS WIRES AND CONNECTION THEN FLIP THE SWITCH ON



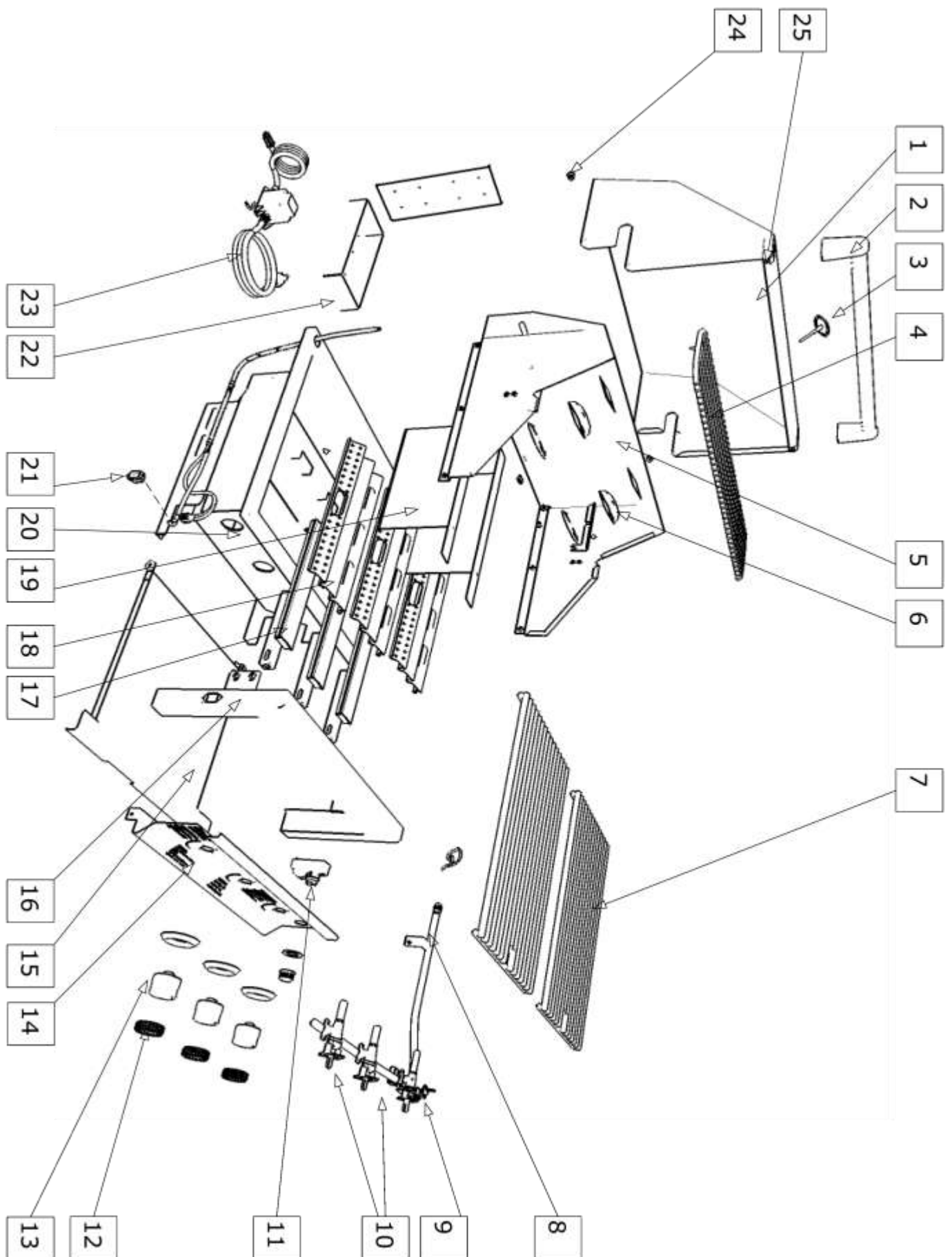
GRILL INSPECIFICATION AND PARTS LIST- SUN 3 Burner 28"

Model Options	
NATURAL GAS-----	SUN3B-NG
LIQUID PROPANE GAS (LP)-----	SUN3B-LP
<p>Material Specifications: 304 Stainless Steel for Entire Structure, 16 Gauge for External Hood Layer, 20 Gauge for Internal Hood Layer, 11 Gauge Cast Stainless Steel Burner, 18 Gauge for Firebox, 18 Gauge for Front Face Panel, 18 Gauge for Drip Tray, 20 Gauge for Flavor Systems.</p>	
Product Specifications	
Hood Closed	
Overall Width-----	28"
Overall Height-----	26"
Overall Depth-----	25-1/4"
Control Panel Height-----	11-1/8"
Hood Open Size	
Counter to Top-----	26-1/4"
Overall Depth-----	27"
Hood Overhang-----	2"
Burning Rating-----	Up To 60,000 Btu
Cooking Space-----	624 Sq. Inch
Electrical-----	60 Hz, 15 amp circuit 110/120 V AC
Power Cord-----	6' cord with grounded plug
Product Weight-----	116 LBS
Cut out Size	
Width-----	25"
Depth-----	21-3/4"
Height-----	10-7/8"

PRODUCT SPECIFICATIONS



GRILL INSPECIFICATION AND PARTS LIST- SUN 3 Burner 28"



GRILL INSPECIFICATION AND PARTS LIST- SUN Infrared 3 Burner 28"

Model Options

NATURAL GAS-----SUN3B-IR-NG

LIQUID PROPANE GAS (LP)-----SUN3B-IR-LP

Material Specifications:

304 Stainless Steel for Entire Structure, 16 Gauge for External Hood Layer, 20 Gauge for Internal Hood Layer, 11 Gauge Cast Stainless Steel Burner, 18 Gauge for Firebox, 18 Gauge for Front Face Panel, 18 Gauge for Drip Tray, 20 Gauge for Flavor Systems.

Product Specifications

Hood Closed

Overall Width-----	28"
Overall Height-----	26"
Overall Depth-----	25-1/4"
Control Panel Height-----	11-1/8"

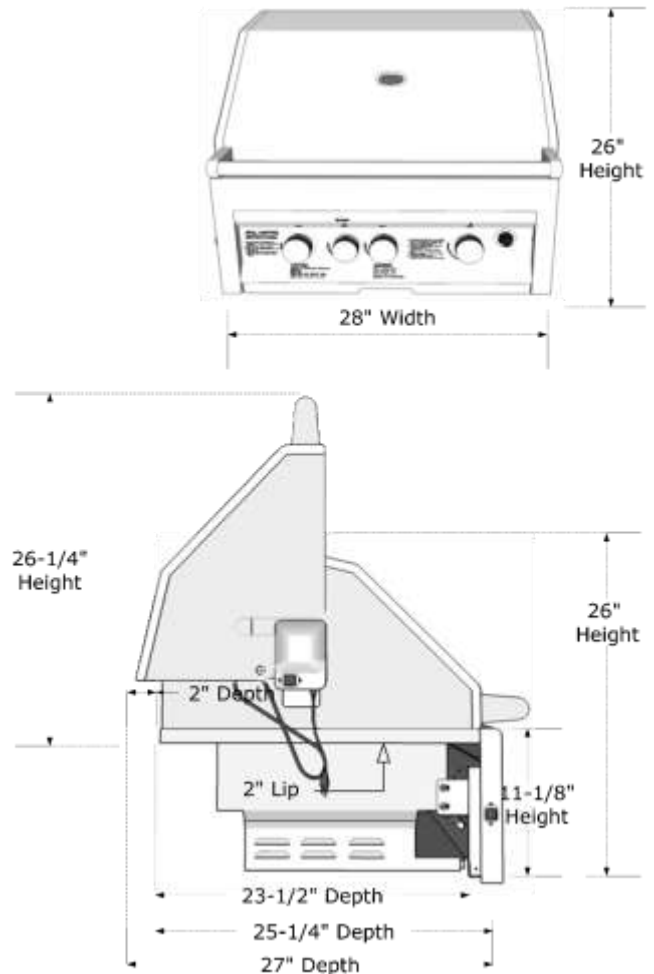
Hood Open Size

Counter to Top-----	26-1/4"
Overall Depth-----	27"
Hood Overhang-----	2"
Burning Rating-----	Up To 60,000 Btu
IR Burning Rating-----	Up To 20,000 Btu
Cooking Space-----	624 Sq. Inch
Electrical-----	60 Hz, 15 amp circuit 110/120 V AC
Power Cord-----	6' cord with grounded plug
Product Weight-----	126 LBS

Cut out Size

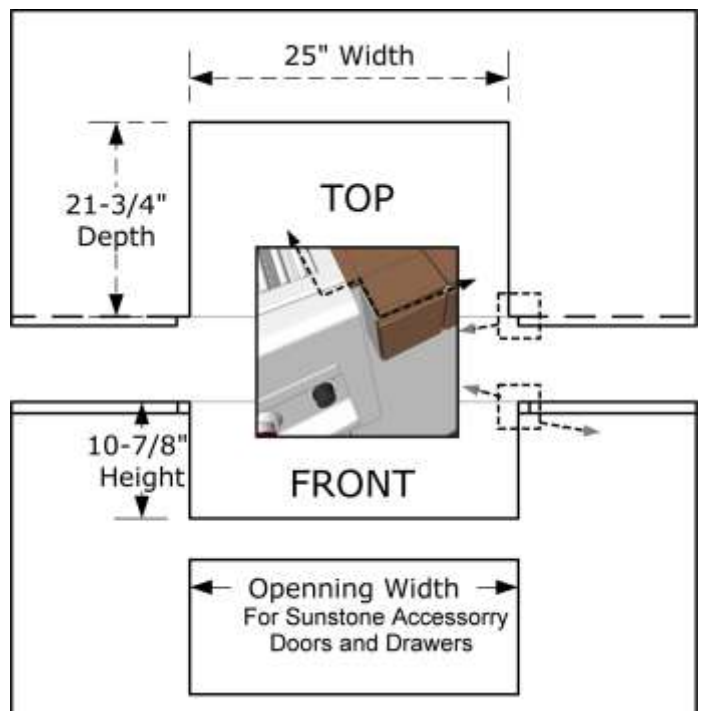
Width-----	25"
Depth-----	21-3/4"
Height-----	10-7/8"

PRODUCT SPECIFICATIONS

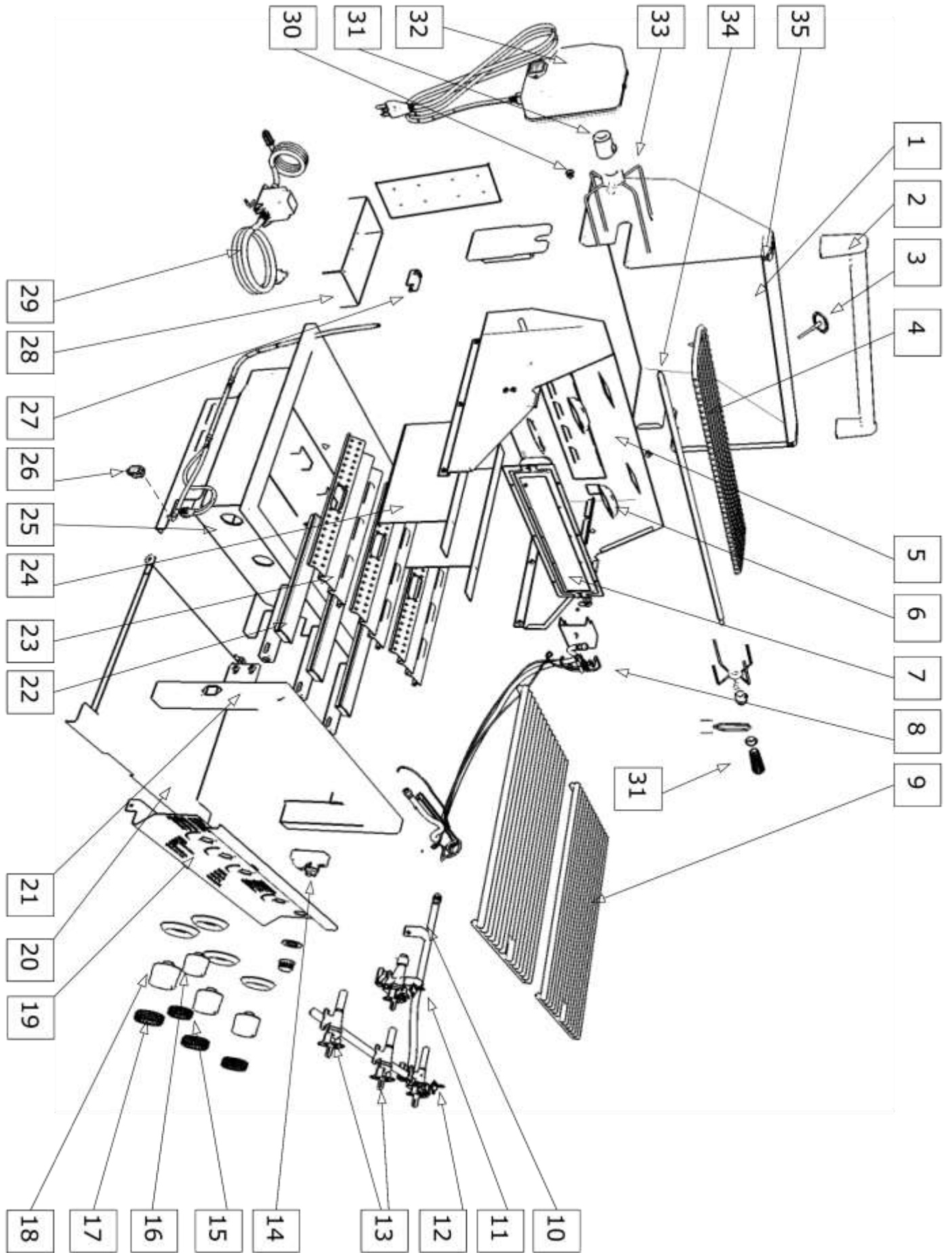


INSTALLATION SPECIFICATIONS

Non-Combustible Enclosure



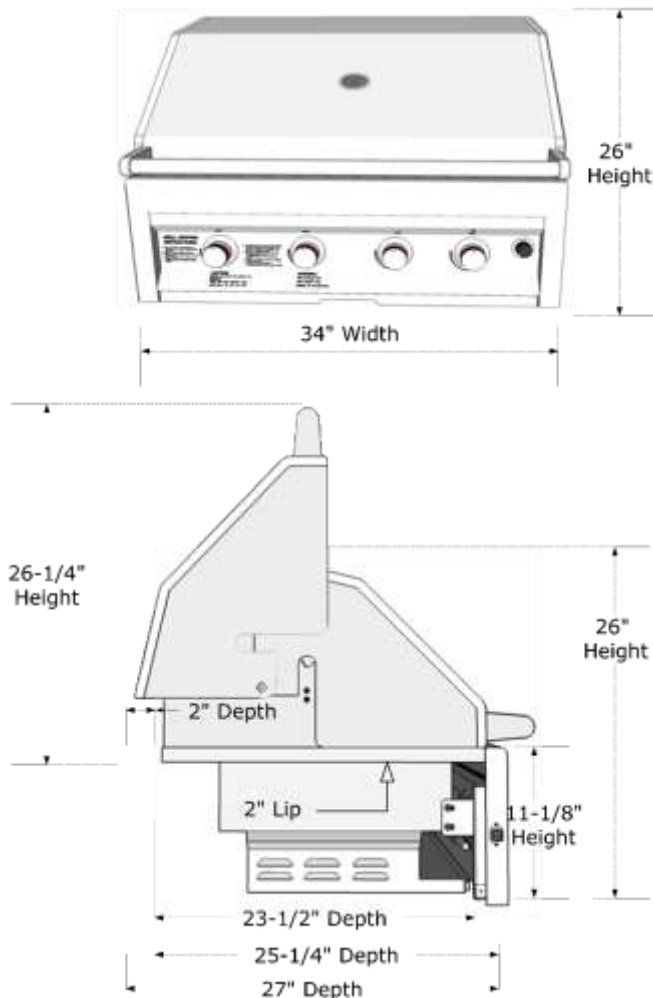
GRILL INSPECFICATION AND PARTS LIST- SUN Infrared 3 Burner 28"



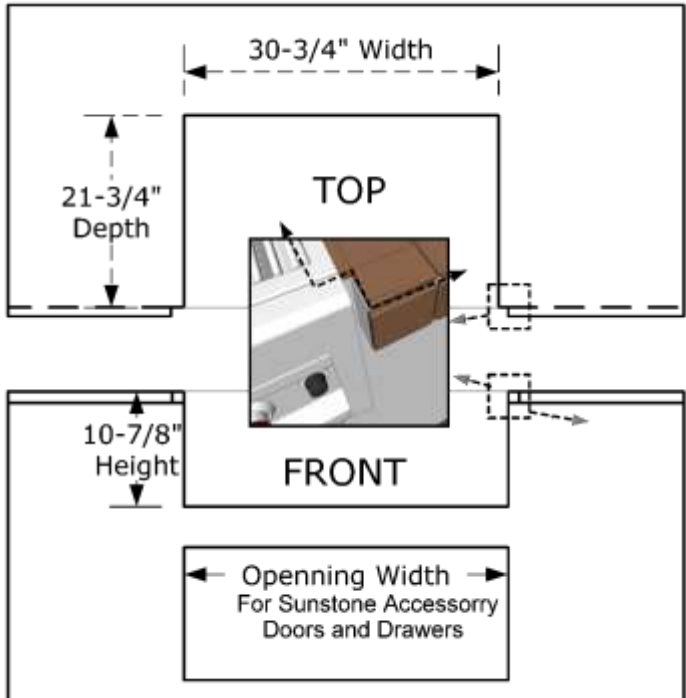
GRILL INSPECIFICATION AND PARTS LIST- SUN 4 Burner 34"

Model Options	
NATURAL GAS-----	SUN4B-NG
LIQUID PROPANE GAS (LP)-----	SUN4B-LP
<p>Material Specifications: 304 Stainless Steel for Entire Structure, 16 Gauge for External Hood Layer, 20 Gauge for Internal Hood Layer, 11 Gauge Cast Stainless Steel Burner, 18 Gauge for Firebox, 18 Gauge for Front Face Panel, 18 Gauge for Drip Tray, 20 Gauge for Flavor Systems.</p>	
Product Specifications	
Hood Closed	
Overall Width-----	34"
Overall Height-----	26"
Overall Depth-----	25-1/4"
Control Panel Height-----	11-1/8"
Hood Open Size	
Counter to Top-----	26-1/4"
Overall Depth-----	27"
Hood Overhang-----	2"
Burning Rating-----	Up To 80,000 Btu
Cooking Space-----	768 Sq. Inch
Electrical-----	60 Hz, 15 amp circuit 110/120 V AC
Power Cord-----	6' cord with grounded plug
Product Weight-----	138 LBS
Cut out Size	
Width-----	30-3/4"
Depth-----	21-3/4"
Height-----	10-7/8"

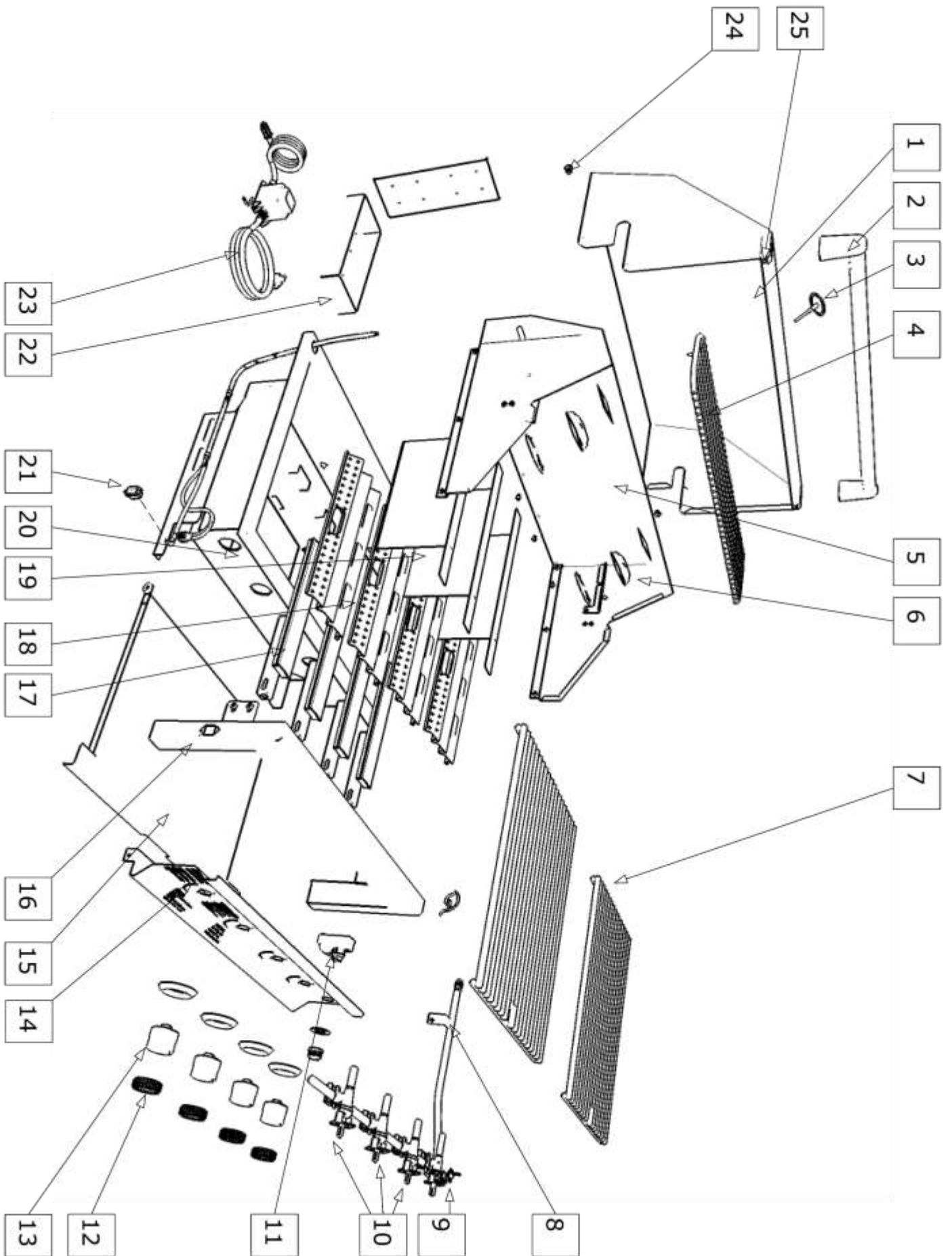
PRODUCT SPECIFICATIONS



INSTALLATION SPECIFICATIONS Non-Combustible Enclosure



GRILL INSPECIFICATION AND PARTS LIST- SUN 4 Burner 34"



GRILL INSPECIFICATION AND PARTS LIST- SUN Infrared 4 Burner 34"

Model Options

NATURAL GAS-----SUN4B-IR -NG

LIQUID PROPANE GAS (LP)-----SUN4B-IR-LP

Material Specifications:

304 Stainless Steel for Entire Structure, 16 Gauge for External Hood Layer, 20 Gauge for Internal Hood Layer, 11 Gauge Cast Stainless Steel Burner, 18 Gauge for Firebox, 18 Gauge for Front Face Panel, 18 Gauge for Drip Tray, 20 Gauge for Flavor Systems.

Product Specifications

Hood Closed

Overall Width----- 34"

Overall Height----- 26"

Overall Depth----- 25-1/4"

Control Panel Height----- 11-1/8"

Hood Open Size

Counter to Top----- 26-1/4"

Overall Depth----- 27"

Hood Overhang----- 2"

Burning Rating----- Up To 80,000 Btu

IR Burning Rating----- Up To 20,000 Btu

Cooking Space----- 768 Sq. Inch

Electrical-----60 Hz, 15 amp circuit110/120 V AC

Power Cord-----6' cord with grounded plug

Product Weight----- 148 LBS

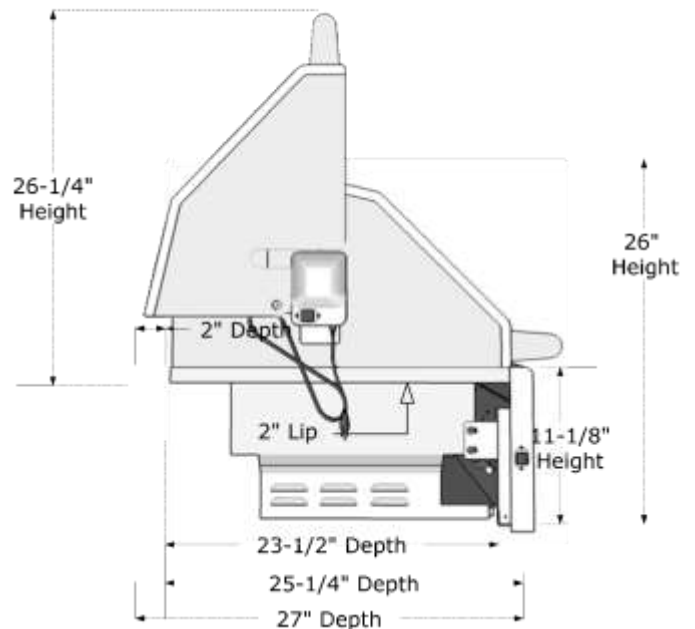
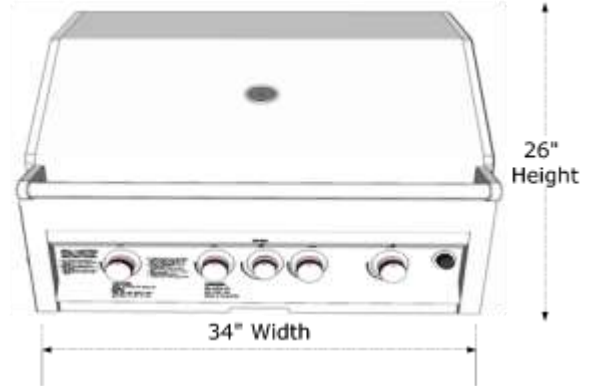
Cut out Size

Width----- 30-3/4"

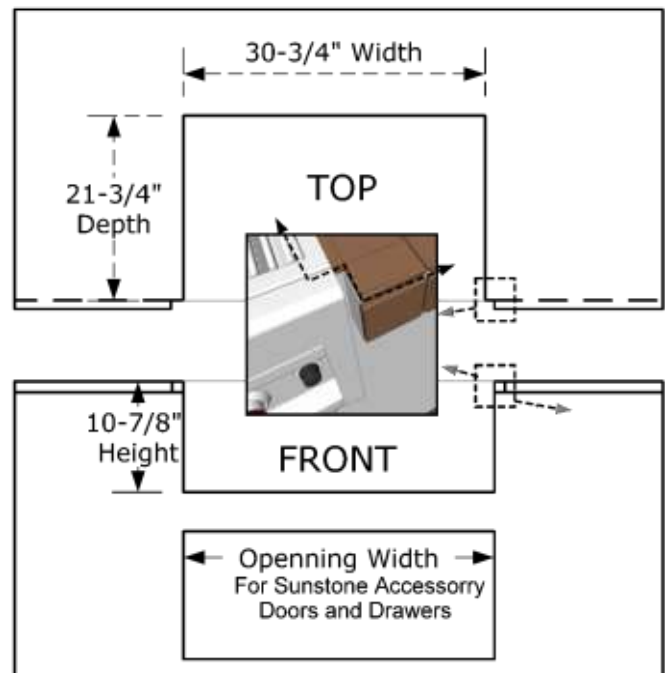
Depth----- 21-3/4"

Height----- 10-7/8"

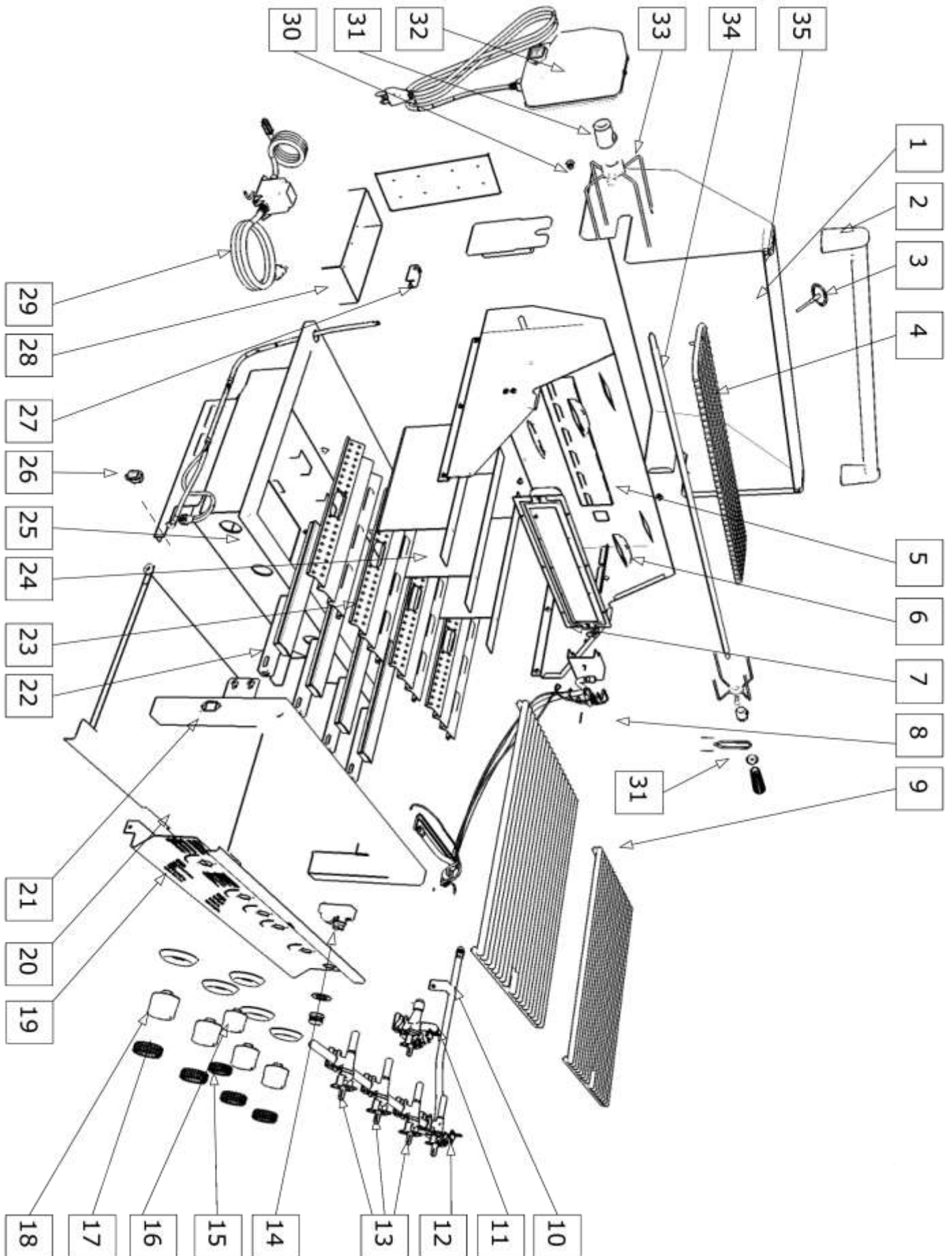
PRODUCT SPECIFICATIONS



INSTALLATION SPECIFICATIONS Non-Combustible Enclosure



GRILL INSPECIFICATION AND PARTS LIST- SUN Infrared 4 Burner 34"



GRILL INSPECIFICATION AND PARTS LIST- SUN Infrared 5 Burner 42"

Model Options

NATURAL GAS-----SUN5B-IR -NG

LIQUID PROPANE GAS (LP)-----SUN5B-IR-LP

Material Specifications:

304 Stainless Steel for Entire Structure, 16 Gauge for External Hood Layer, 20 Gauge for Internal Hood Layer, 11 Gauge Cast Stainless Steel Burner, 18 Gauge for Firebox, 18 Gauge for Front Face Panel, 18 Gauge for Drip Tray, 20 Gauge for Flavor Systems.

Product Specifications

Hood Closed

Overall Width-----	42"
Overall Height-----	26"
Overall Depth-----	25-1/4"
Control Panel Height-----	11-1/8"

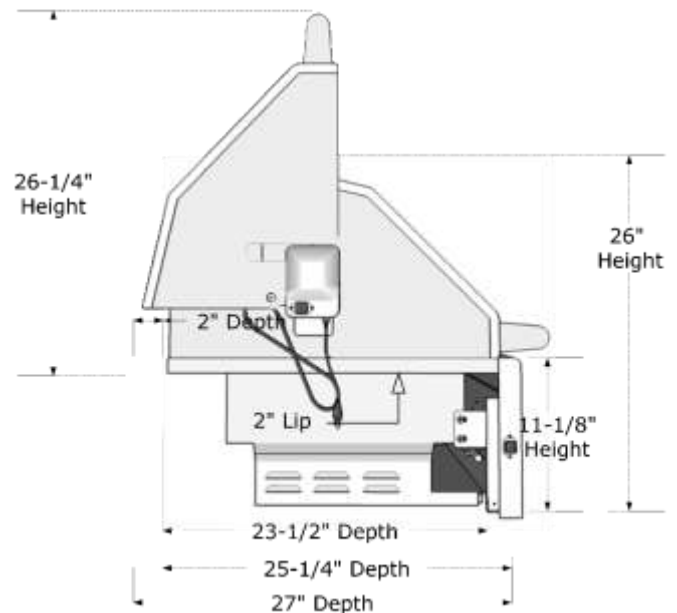
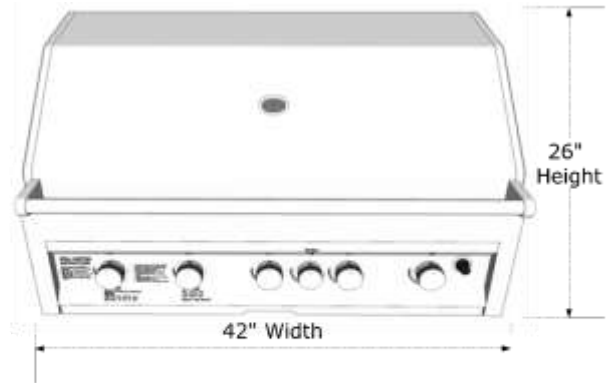
Hood Open Size

Counter to Top-----	26-1/4"
Overall Depth-----	27"
Hood Overhang-----	2"
Burning Rating-----	Up To 100,000 Btu
IR Burning Rating-----	Up To 20,000 Btu
Cooking Space-----	960 Sq. Inch
Electrical-----	60 Hz, 15 amp circuit 110/120 V AC
Power Cord-----	6' cord with grounded plug
Product Weight-----	177 LBS

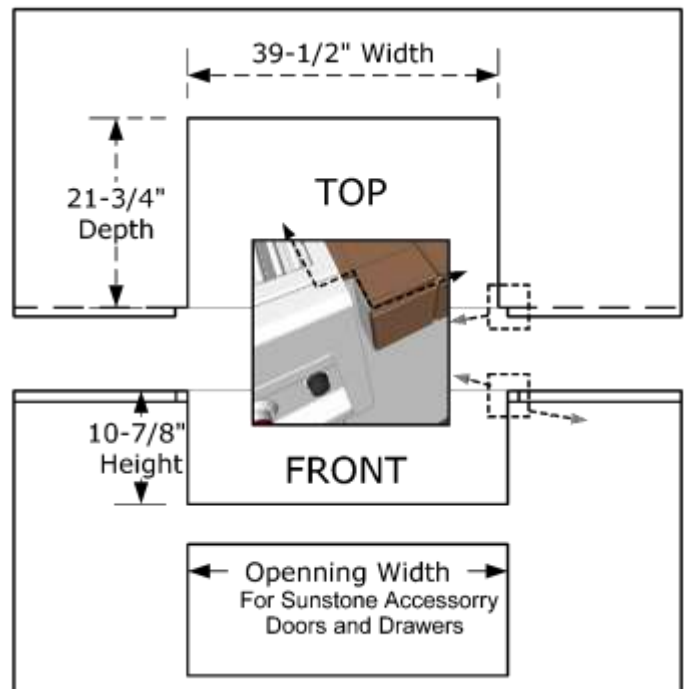
Cut out Size

Width-----	39-1/2"
Depth-----	21-3/4"
Height-----	10-7/8"

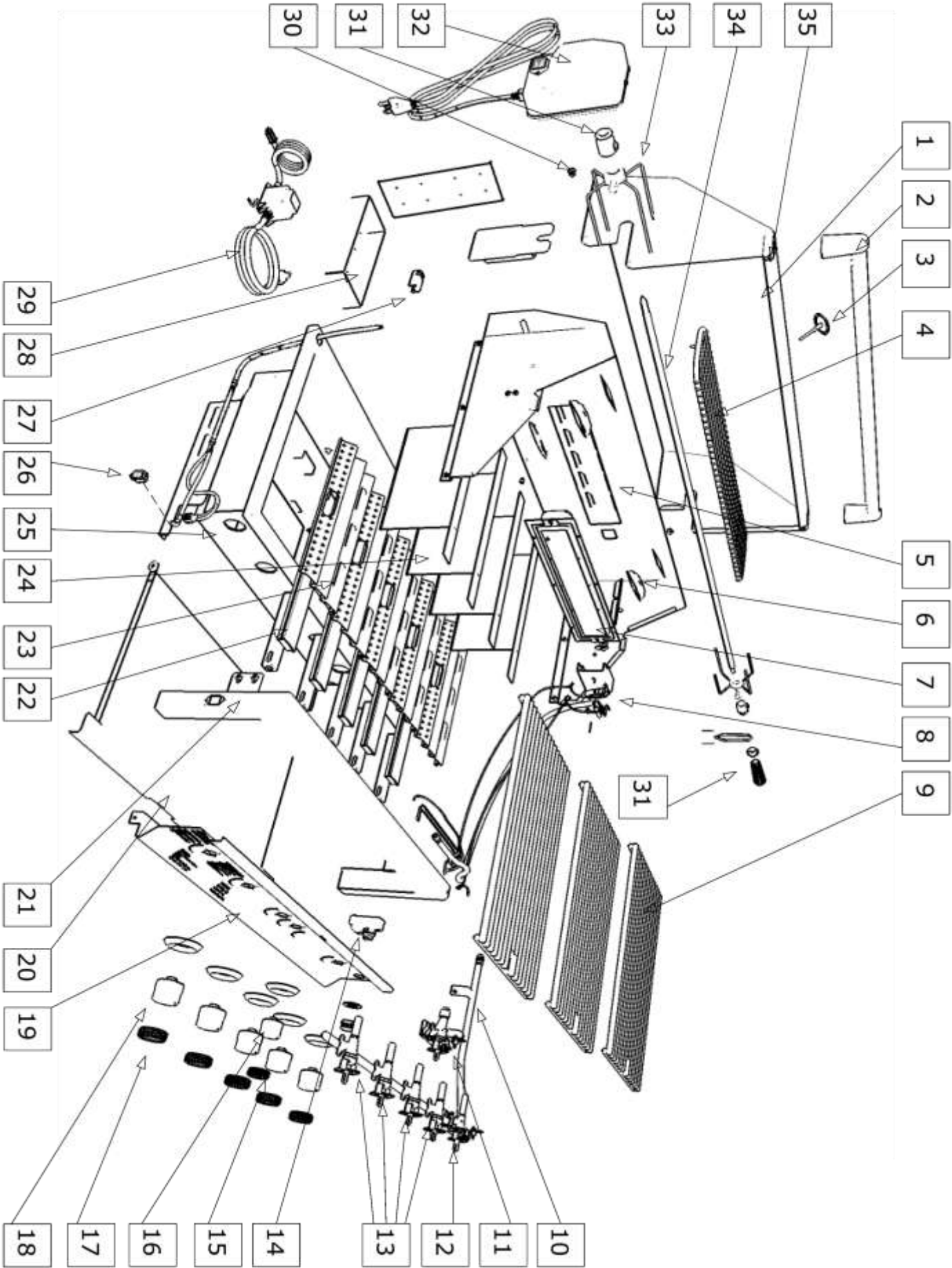
PRODUCT SPECIFICATIONS



INSTALLATION SPECIFICATIONS Non-Combustible Enclosure



GRILL INSPECIFICATION AND PARTS LIST- SUN Infrared 5 Burner 42"



USING YOUR GRILL- Types of Cooking

Cooking Zones

Your Sunstone Grill is divided into three to five individual cooking zones, depending on the number of burners you have. Burners are numbered starting at one (1) on the right, going to as much as five (5) on the left, and the last cooking zone is above for either the warming rack, or rotisserie unit. Each cooking zone is designed to be controlled individually by the burner control knob. Specific zones are better suited to specific types cooking



Heat Distribution

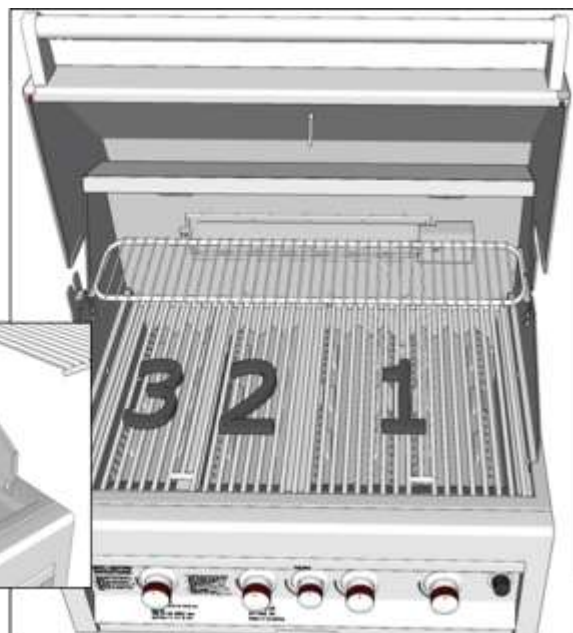
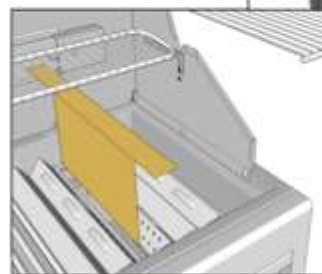
The heat level at each part of the grill has been engineered for specific purposes. Knowing the heat distribution for each burner will allow you the very best possible food positioning when grilling. The front of the grill is designed, for safety reasons, to be the coolest part of the grill. From the front of the grill and moving back, the heat rises gradually until just above the burner's front edge, where it rises rapidly to a medium to high temperature. The heat continues to rise to searing heat amount towards the back of grill burners.



Flame Directors

Your Sunstone Grill is designed for an exquisite cooking experience with the use of flame directors, which are wall dividers that fit between each burner compartment. The flame directors help to insulate each cooking zone to give maximum heat isolation so that you are able to achieve separate heat zones, with very little impact on

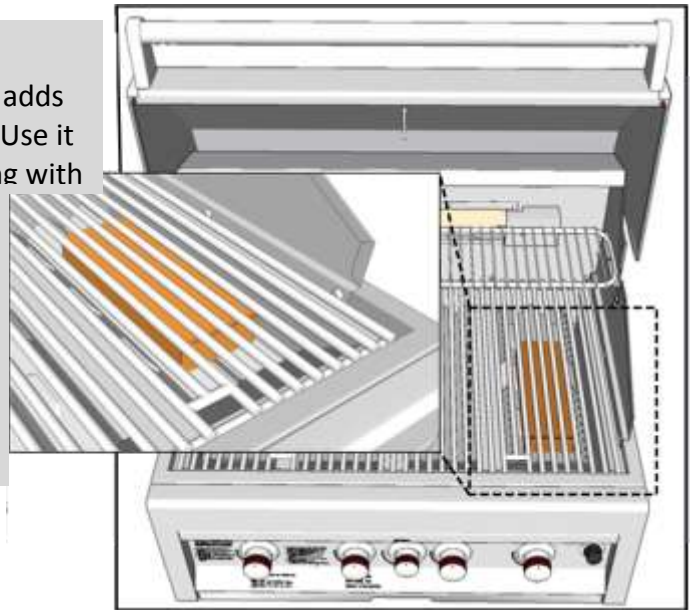
other zones used for low heat cooking while others for high heat searing. Simply lift grate up and pull divider up and out of position. You can customize your cooking experience to your own preference and zone configuration either large or small.



USING YOUR GRILL- Types of Cooking

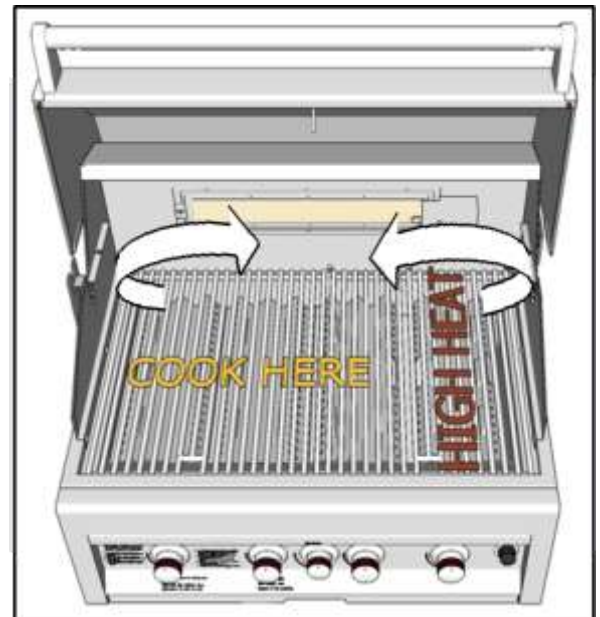
Smoker/Steamer Box

Adding the smoker box to your cooking experience adds unique flavor to your food, you will come to enjoy. Use it for either a smoker box with wood chips, or by filling with Water it becomes a steamer box. While in use, remember to close the hood, with the knobs set to LOW, for maximum results. There are many different wood chips available on the market, the most common are mesquite and hickory. Just remember to soak the chips for 30 minutes prior, for best results.



Indirect Cooking

Indirect cooking is the process of cooking your food without the heat source directly under your food. You can sear meats over a high flame on one side of the grill while slow cooking on the other side of the grill. It is like cooking in a oven and is generally used for larger cuts of meats, but can also be used for cooking foods that are prone to flare ups. Indirect Cooking will result in tender foods every time you grill. BE SURE TO REMOVE FLAME DIRECTORS FOR HEAT TO PROPERLY FLOW.



Sear Cooking

Sear cooking is the process of cooking your food directly on top of burner on HIGH heat. It is best associated with Searing your food with High Heat. Sear cooking is recommended for most grilling applications, and the best place to sear is in the back of burner. Searing locks in flavor and juices while allowing the outer surface to absorb smoke and food aroma that is produced as grease and drippings are vaporized by the burner. The result is a crisp, flavorful outside with a tender, juicy inside. (see Page 60 Fig. B)



USING YOUR GRILL- Rotisserie Cooking

The first step is to identify if your grill includes a specialized rotisserie burner or not.

If your grill does include a rotisserie burner, make sure to use only the IR burner - DO NOT use it in conjunction with the main burners of the grill. If your grill does not come equipped with a specialized rotisserie burner, you will use the main burners to create heat for the rotisserie. When using the main burners for heat, typically it is best to either turn the far Left and Right burners on only, for true Convection style cooking.

When grilling/rotisserie cooking large cuts of meat or extremely fatty meats, place an aluminum foil pan with approximately $\frac{1}{2}$ " - 1" of water below the cooking grids and under the food, (Fig. A page 59). The cooking grates are not required to be removed when cooking smaller meats. The lower pan will serve to catch grease drippings which will prevent flare ups and also serves to provide moisture to the food being cooked. Take care to fill up the pan with water while cooking as needed. Always wait for the grill to cool completely before trying to remove the pan. Note: water can be substituted with wine, beer, juice or other liquids for enhanced flavor.

Please note: it may be necessary to remove the cooking grids and flame directors, as illustrated in (Fig. A page 59) from your grill in order to allow enough room for the rotisserie to properly rotate with the food. Rest spit rod onto grooves in left and right side of grill head. Allow the spit rod to rotate freely so that the heaviest part of the poultry/meat is facing down.

Your Sunstone grill is included with a counterbalance, set the counterbalance so that its weight is directly opposite of the heaviest part of the poultry/meat (The counterbalance will be facing straight up at this point). Tighten the counterbalance in position by turning the axle. Fine adjustments can be made by sliding the weight up and down the axle and securing it with the thumb screw (Fig. B page 59).

Note: Position the counterbalance so it does not interfere with the side bucket.

- 1) Insert the pointed end of the spit rod into the motor
- 2) Attach spit collar to the other end of the spit rod and position into the groove on side of the casting (or universal rotisserie bracket).



WARNING: Do Not close grill hood for more than 3-5 minutes with Burners set to HIGH Temperature, or Damage may occur to grill that is not covered under manufacture warranty.

Using the Rotisserie

Preheat the grill by setting all the burners on high, once hot, turn off all but the rear burner. The spit hangs over the front or center burner, so that the meat is not directly over the heat. If your grill has burners on each side, preheat the grill, then turn the burners to low. Place a drip pan on the grill below the meat. Add about 1/2 inch of water to the drip pan.

Place the first pair of prongs onto the spit, then push the meat onto the spit and into the prongs. Add the other set of prongs and push them into the meat securely anchoring it onto the spit. Tighten the wing nut that holds the prongs in place and attach the spit to the brackets on either side of the rotisserie.

The rotisseries rod comes with a counter balance weight, adjust it as needed. Start the motor and make sure the meat is balanced on the spit so that it turns evenly. You may need to adjust the grate and drip pan if your meat is large. Make sure the meat can turn with no obstructions.

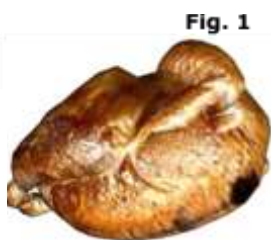
Close the lid while the rotisserie does its job. The rotation evenly melts the fat in the meat and naturally bastes the meat, but you may wish to baste with a mop sauce occasionally during grilling. Check the meat with a meat thermometer for doneness before turning off the heat. When done, remove the spit using insulated oven mitts. Place the meat on a clean platter and cover it with foil while it rests.

USING YOUR GRILL- Rotisserie Cooking

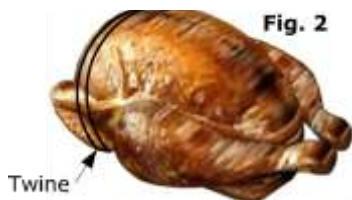
Using Direct Heat

Small or thin cuts of meat can be placed on the rotisserie directly over the heat source. The meat cooks faster and is more like grilled meat. The crisp cooked outside is then sliced off for serving and the remaining meat is returned to the grill.

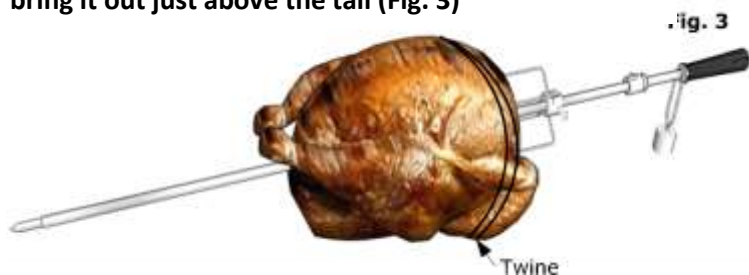
With breasts down, bring neck and skin up over cavity. Fold under edges of skin, skewer to keep in place (Fig. 1)



Turn breast side up, tie wings to body with twine (Fig. 2)



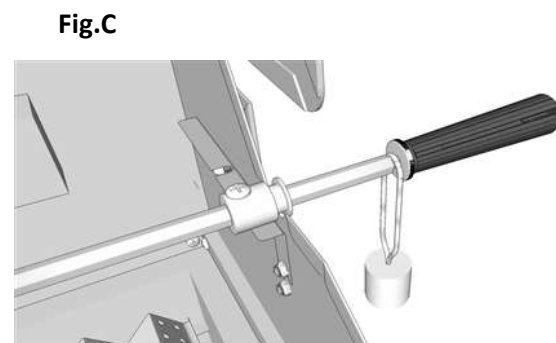
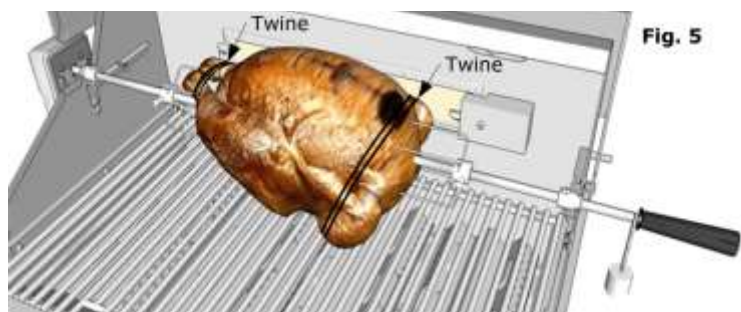
Slide a meat fork on to spit rod and tighten. Insert the spit rod in neck skin parallel to the backbone, bring it out just above the tail (Fig. 3)



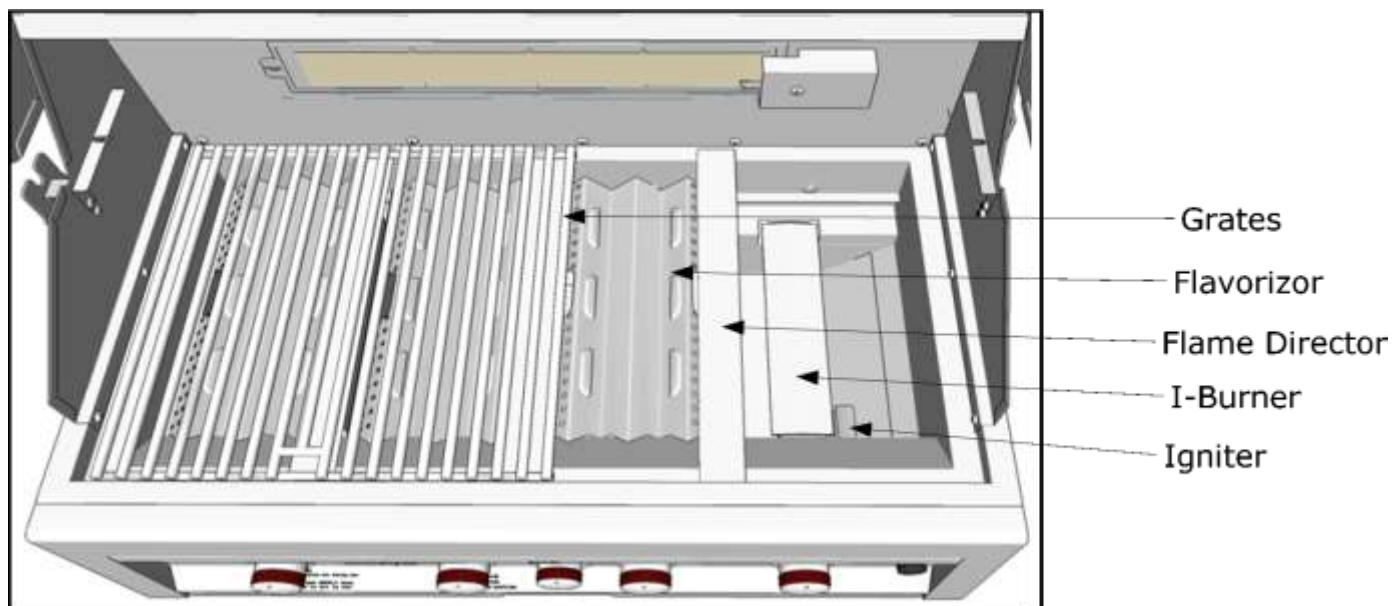
Insert second meat fork on opposite side of spit rod and secure. Make sure the bird is centered on the spit rod. Tighten wing bolts Securely on meat forks (Fig. 4)



Cross the legs to tail and tie to the spit rod with twine (Fig 5)



USING YOUR GRILL-Burner Configuration



Preheating the Grill (I-BURNERS):

Preheating the grill is important for best performance. To preheat the grill when cooking with the burners, close the hood after lighting the burners as described above. Set the grill control knobs on “HIGH” for 2 minutes, or allow 5 minutes for a very high grill temperature.

Each grill burner is tested and adjusted at the factory prior to shipment; however, variations in the local gas supply, elevation and other factors might make it necessary to adjust the burners.

Controlling Flare-ups

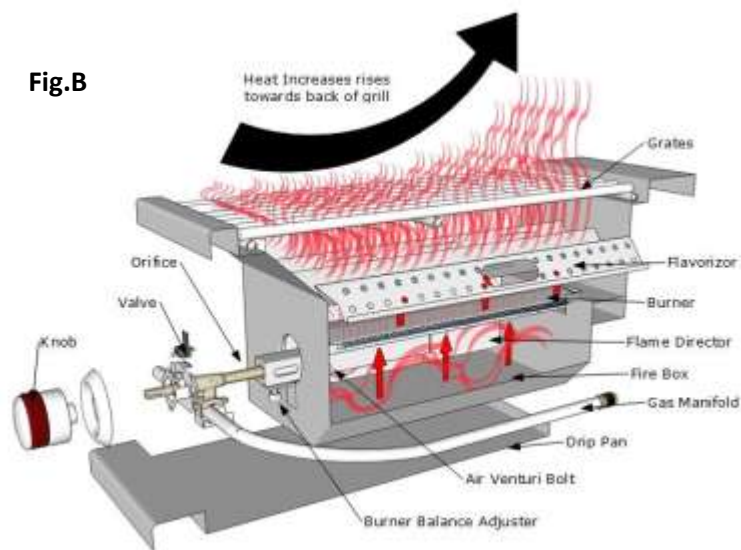
Flare-ups are a part of cooking meats on a gas grill. This adds to the unique flavor of cooking on a gas grill. Excessive flare-ups resulting from the build-up of grease in the bottom of the grill can over-cook the food and cause a dangerous situation for you and your grill. If this should occur, DO NOT pour water onto the flames, which can cause the grease to splatter and could result in serious burns or bodily harm.

If grease fire occurs, close the hood and turn off the main burners until the grease burns out. Use caution when opening the hood as sudden flare-ups may occur.

Burner Configuration

Your Sunstone grill is engineered to perform with peak performance, and allowing you to have Searing temperatures in any burner location. With a Fully Enclosed Firebox, and Flame Directors, that help to insure all heat is Directed Upward, with very little heat loss.

Fig.B



USING YOUR GRILL-Burner Adjustments

Correct Flame Color and Height

Flames should be blue and stable with no yellow tips, excessive noise or lifting. If any of these conditions exist, check if the air shutter or burner ports are blocked by dirt, debris, or spider webs. If needed, proceed with air shutter adjustment.

The amount of air which enters a burner is governed by an adjustable bolt at the inlet called an air shutter. It is locked in place by a set screw which must be loosened prior to lighting the burner for adjustment. **Flames should be blue and stable with no yellow tips, Excessive noise or lifting.**

Figure 1

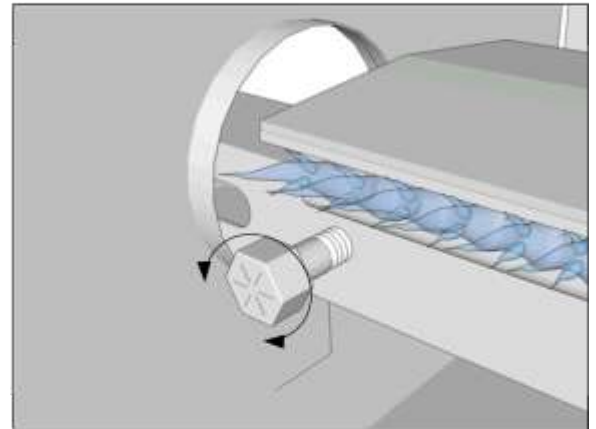


FLAME SIZE

Combustion Chamber Balance

The bolt on the Right side of each burner called is called the "AIR VENTURI" and it regulates the amount of air that enters into the burner for combustion. The air venturi adjustment screw are accessible by using your hand, be sure burner is not hot.

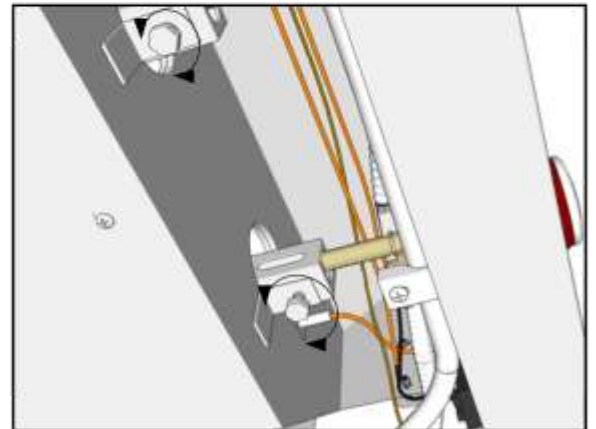
- If the flame is yellow, indicating insufficient air, turn the air venturi bolt counterclockwise to allow more air to the burner.
- If the flame is noisy and tends to lift away from the burner, indicating too much air, turn the air venturi bolt clockwise.



Burner Balance Adjustment

Sunstone grills are specially designed with Burner Balance Adjustment Bolts, in order to fine tune your cooking experience. For minor changes to the burner overall performance, and achieving the perfect amount of Air and Gas mixture.

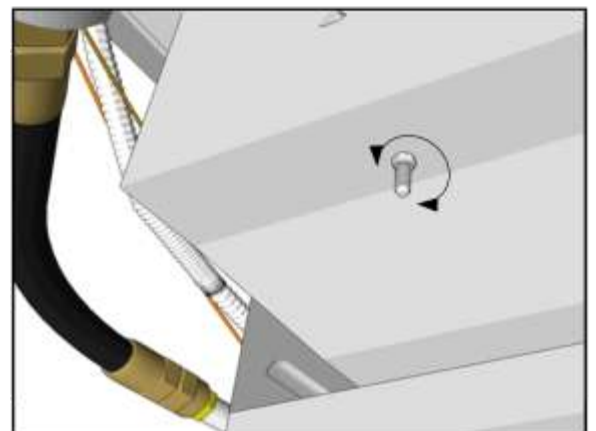
- Remove Drip Pan, and peer under grill front control panel to view the underside of grill structure. See the burner Balance Bolt.
- Adjust bolt using a wrench, either clockwise or counter-clockwise.




Burner Removal

For general cleaning, or other maintenance, you can remove the burner by removing the burner bolt nut. It is a good idea to clean your burners if you are not achieving the desired results. Insects, dust, or other debris could be blocking proper Air and Gas flow to Burner.

- Locate the bolt from underneath the grill, in the far back, behind the grill box wall. You will be required to use a wrench to adjust this bolt.
- Remove the bolt nut, and remove the burner from grill for closer inspection.



USING YOUR GRILL-Grilling Tips

 **WARNING:** Always observe safe food-handling and safe food-preparation practices when using this Grill, to prevent food-borne illnesses.

General Temperature Settings

"**High**" - Intended for fast pre-heating of the appliance, searing steaks and other cuts of meat, rotisserie cooking and for burning food residue from the interior of the appliance.

"**Medium**" - For most grilling, baking and roasting.

"**Low**" - Intended for cooking fish and other lean foods and for all smoke cooking.

SEAR COOKING TIPS

Even for the most experienced chef, sear grilling can, at first, present a bit of a challenge. By following these simple tips, you will soon be producing juicier, more flavorful foods than you have ever experienced before. As a general rule, foods will cook in less time than they would take on an ordinary grill. By turning food frequently (approximately every 2 minutes), excessive charring is simply avoided.

SEARING IS KEY:

Sunstone grill allow you to sear in any burner location, so long it's on HIGH HEAT setting, and it will produce intense heat which will quickly sear all your meats. Searing locks in flavor and juices while allowing the outer surface to absorb smoke and food aroma that is produced as grease and drippings are vaporized by the burner. The result is a crisp, flavorful outside with a tender, juicy inside. Just the result you want with most grilled foods.

1. If you pre-cook meat or poultry, do so immediately before grilling.
2. Never defrost meat at room temperature or on a countertop.
3. Refrigerate leftovers within 2 hours of taking food off the grill.
4. Never let the tray boil dry. That could be hazardous, as grease from fatty foods that have collected in the tray could ignite and possibly cause bodily injury or property damage.
5. Use a meat thermometer to be sure food has reached a safe internal temperature.
6. Always trim excess fat from your foods to reduce the occurrence of flare-ups during cooking.
7. Apply a light coating of cooking oil to the cooking grids before grilling, to prevent foods from sticking.
8. Cook similar portion sizes together, so that they all cook evenly.
9. Use tongs to turn foods on the Grill.
10. Never pierce foods while they are cooking on the Grill, as this will dry them out.
11. Turn foods infrequently. Some chefs say that a good steak should never be turned more than once.
12. Apply sugar-based sauces such as commercial barbecue sauces only during the latter stages of cooking, to prevent charring.
13. Soak the string you use to tie up roasts and poultry on the Rotisserie spit to protect it from burning.
14. Use a disposable aluminum tray filled with water, fruit juice, wine or a marinade to add extra flavor and moisture to slow-cooked foods like roasts, whole chickens, turkeys or ducks.
15. Always cook foods adequately. Undercooked foods can retain bacteria, especially if thawed or exposed to warm conditions prior to cooking.
16. Always use separate plates and utensils for the handling of raw food. Never place raw food and cooked food on the same plate, and never place cooked food on a plate that was used for handling raw food.

USING YOUR GRILL-Grilling Tips

17. Always carefully wash all plates and utensils used to handle raw food before using them to handle cooked food.
18. Always use a meat thermometer to confirm that foods have been fully cooked.
19. Always wash all vegetables, seafood and poultry before cooking.
20. Always leave uncooked foods in the refrigerator until you are ready to start cooking.
21. Always marinate meat in the refrigerator. Dispose of the excess marinade, and never reuse it.
22. Always preheat your Grill for 2 to 5 minutes before cooking, and clean off all grease and food residue before using the cooking grids.
23. The US Department of Agriculture recommends the minimum temperature be reached for the following food items:

Chops	145 degrees F (62.8°C)	Ground Meat	160 degrees F (71°C)
Pork	160 degrees F (71°C)	Poultry	180 degrees F (82°C)
Roasts.....	145 degrees F (62.8°C)	Seafood	140 degrees F (60°C)

WOOD CHIP SMOKER:

By using real wood chips in the smoker box of your SUNSTONE™ grill, you can add extra flavor to all of your grilled foods. For good smoke performance, soak the wood chips for not less than 30 minutes, drain excess liquid and fill the smoker box completely.

HOW TO SMOKE:

- Fill the smoker box with thoroughly soaked and drained wood chips.
- Place the smoker box on the burner.

Replace the smoker box into the grill, close the hood and set the smoker burner to high. Smoke should begin in about 5-7 minutes.



One tray of wood chips will usually last about one hour. During extended grilling, chips may need to be added several times. Lift the box only partially out of the grill to add chips while in use. Never remove the hot smoker tray completely from the grill. To improve smoke performance, keep the hood closed as much as possible while food is grilling, turn heat to Med-Low setting with hood closed.

NOTE: If not thoroughly soaked, the wood chips will flare up during grilling. To extinguish flames, lift the smoker box slowly a few inches out of the grill front and add a small amount of water. The smoker box can also be filled with water to produce steam which can help keep delicate foods moist during grilling.

TYPES OF WOOD CHIPS TO USE:

- **Alder:** Medium, tart smoke flavor. Excellent on fish, chicken or game.
- **Maple:** Sweet, hearty smoke flavor. Best with fish, jerky or bacon.
- **Apple:** Light, sweet smoke flavor. Superb with poultry, ham or sausage.
- **Hickory:** Heavy smoke flavor. Best with beef, pork or game.
- **Mesquite:** Light smoke flavor. Excellent on fish, poultry or beef.
- **Oak:** Heavy smoke flavor. Best with beef, lamb or pork.
- **Pecan:** Rich, sweet, versatile flavor. Good with any grilled foods.
- **Grapevine:** Strong smoke flavor. Best with beef or poultry.

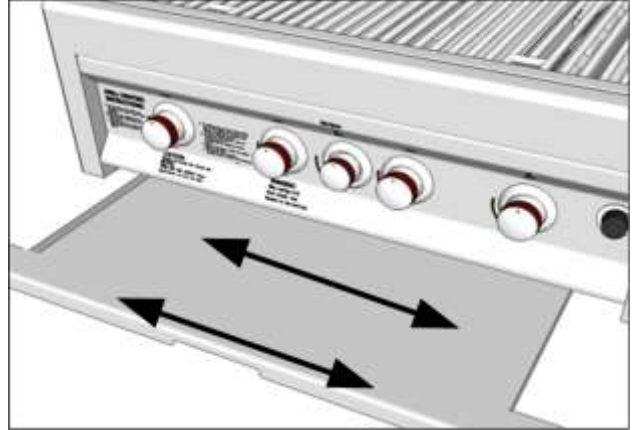
APPENDIX- Care and Maintenance

⚠ CAUTION: All cleaning and maintenance should be done only when grill is cool & with the fuel supply turned off at the cylinder. If your grill is set up for use with Natural Gas, turn off gas supply at the system manual shut off valve.

DRIP TRAY

The drip tray located below the grill should be cleaned periodically to prevent heavy buildup of debris. **NOTE: Allow the drip tray to cool before attempting to clean.** **IMPORTANT:** Do not leave the grill outside during inclement weather unless it is covered (cover sold separately). Rain water can collect inside the grill, the grill cart or the drip tray if left uncovered. If the drip tray is not cleaned after use and the grill is left uncovered, the drip tray will fill with water causing grease and water to spill into the grill cart. We recommend cleaning and storing the drip tray after every use.

WIPE IN THIS DIRECTION, OR WITH THE GRAIN



COOKING GRATES

The cooking grates can be cleaned immediately after cooking is completed and after turning off the grill. Wear a barbecue mitt and scrub the cooking grates with a damp cloth. If the grill is allowed to cool down, cleaning the grates will be easier if removed from the grill and cleaned with a mild detergent.

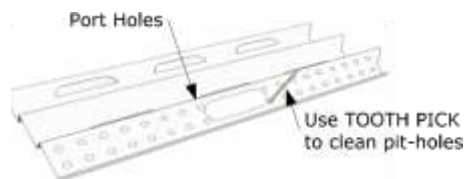
SCRUB IN THIS DIRECTION



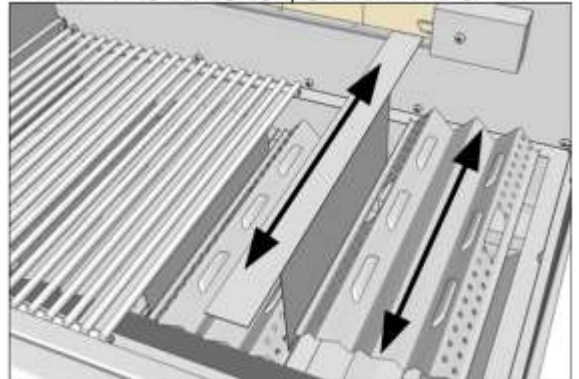
FLAVORIZORS

Washing the flavorizers after every use is not necessary but periodically it is suggested you wash them in a soap and warm water solution. Use a wire brush to remove stubborn burned on cooking residue. Dry flavorizers & flame dividers thoroughly before you reinstall them in the cooking insert.

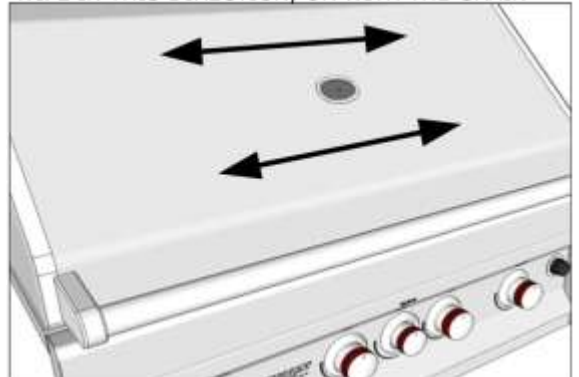
Clear any clogged port holes (the holes where gas/flame exits the burner) with a stiff wire or tooth pick).



WIPE IN THIS DIRECTION, OR WITH THE GRAIN



WIPE IN THIS DIRECTION, OR WITH THE GRAIN



STAINLESS STEEL

After initial usage, areas of the grill may discolor from the intense heat given off by the burners. This is normal, use a mild stainless steel cleaner and rub in the direction of the grain of the metal. Specks of grease can gather on the surface of the stainless steel and bake on to the surface and give a worn appearance. For removal, use a nonabrasive oven cleaner in conjunction with a stainless cleaner.

NOTE: Always scrub in the direction of the grain.

APPENDIX- Care and Maintenance

ANNUAL CLEANING OF GRILL HOUSING

Burn-off the grill after use will keep it ready for instant use, however, once a year you should give the entire grill a thorough cleaning to keep it in top operating condition.

1. Shut off gas supply at source and disconnects fuel line. Protect fuel line fitting.
2. Remove and clean the cooking grids, flavorizers and burners.
3. Remove warming rack and wash with mild detergent and warm water.
4. Cover the gas valve orifices with a piece of aluminum foil.
5. Brush the inside and bottom of the grill with a stiff wire brush, and wash down with a mild soap and warm water solution. Wash thoroughly and let it dry.
6. Remove aluminum foil from orifices and check orifices for obstruction.
7. Check electrode.
8. Reinstall flavorizers, cooking grids, and warming rack.
9. Reconnect to gas source and observe burner flame for correct operation.

IMPORTANT: You should NOT line the bottom of the grill housing with aluminum foil, sand or any other grease absorbent substance. Grease will not be able to drip into the drip tray and a grease fire may occur.

MAINTENANCE GUIDELINES

1. Keep outdoor cooking gas appliance area clear and free from combustible materials, gasoline and other flammable vapors and liquids.
2. Do not obstruct the flow of combustion and ventilation air.
3. Keep the ventilation opening(s) of the cylinder enclosure free and clear from debris.
4. Visually check burner flames. Burner flames should be blue and stable with no yellow tips, excessive noise, or lifting.
5. Clean outdoor cooking gas appliance, including special surfaces, with recommended cleaning agents, if necessary.
6. Check and clean burner for insects and insect nests. A clogged tube can lead to a fire beneath the grill.

RUST-BROWN MARKS:

When this type of staining occurs it is unlikely that rusting of the stainless steel itself causes the marks. Similar marks can be found with both porcelain and plastic sinks. The rust marks are the result of small particles of “ordinary-steel” which have become attached to the surface; these have subsequently rusted in the damp environment. The most common source of such particles is from “wirewool” scouring pads, but contamination may also occur from carbon steel utensils and old cast iron water supply pipes. These brown marks are only superficial stains, which will not harm the Grill; they should be removable using a soft damp cloth and a multi-purpose cream cleanser. Occasionally, it may be necessary to resort to a proprietary stainless steel cleanser, to return the surface of the Grill to its original condition. To avoid re-occurrence of any “rust-staining” it is essential that the source of the contamination be eliminated.

PITTING:

Another form of corrosion, which occasionally occurs in stainless steel, is pitting of the surface. The reason for this corrosive attack can usually be attributed to certain household products. Such as .

BLEACHES:

Most common domestic bleaches & sterilizing solutions contain chlorine in the form of sodium hypochlorite. If used in concentrated form, bleaches can attack the stainless steel, causing pitting of the surface. They should always be used to the strengths prescribed by the manufacturer and should be thoroughly rinsed off with clean water immediately after use. All cleaning agents containing hypochlorite are unsuitable for long term contact with stainless steel and, even when used in the highly diluted form, they can give pitting under certain conditions.

FOODSTUFFS:

In general stainless steel is fully resistant to all foodstuffs in common use. Only in isolated cases, such as when concentrated salt and vinegar mixtures are allowed to remain in contact with the steel for a long period can any surface marking result.

APPENDIX- Troubleshooting

See page 27,28

QUESTION

When I turn on my grill, I smell gas. What should I do?

Propane and Natural Gas have an additive scent known as “mercaptan,” an acrid chemical, to the gas so that you will recognize it immediately, should there ever be a leak. Mercaptan makes gas smell like sulphur, or rotten eggs. .

ANSWER

Shut off the propane gas cylinder or natural gas service valve immediately! Do not use the grill until the leak is fixed. Any time you smell gas when operation grill, you should immediately perform the “Leak Test” to identify the leak and fix it

Please note that if you are using propane tank which includes a magnetic flow limiting device, this safety mechanism may have been triggered. The flow limiting device acts to limit the flow of gas if a leak is detected between the regulator and the burner valve(s). If the burner valve(s) is open prior to the LP gas cylinder service valve being opened, the connection will interpret this free flow of gas to be a leak. The connections safety feature will reduce gas flow from the regulator to the appliance to a minimal level. Be sure that all burner valves are closed prior to opening the LP gas cylinder service valve to ensure that the connection flow limiting device is not triggered mistakenly. If the connection flow limiting device is triggered mistakenly, close the LP gas cylinder service valve and the burner valves, wait 10 seconds to allow the device to reset, open the cylinder service valve, then open the burner valves and light the grill as per lighting instructions.

See page 9,13,60,61

QUESTION

My grill is has Low Heat, even when on High Setting?

ANSWER

Ensure that adequate preheat time has elapsed. I-burners should preheat for at least 5 minutes with the hood closed (2 minutes for high heat); IR burners should be allowed to preheat for at least five minutes with the hood open. If adequate preheat time was allowed, check the gas supply for a damaged and/or kinked supply line. Replace if necessary. On LP units, a mostly empty tank may not have sufficient pressure to run the grill at high heat. Replace with a full tank. Make sure that the regulator/hose assembly being used is the unit supplied with the grill. On NG units, ensure that the flexible supply line is at least 1/2” diameter. Check the gas supply pressure to ensure at least 7” W.C. for NG and 11” W.C. for LP. If gas supply is adequate, check burners for blockages according to the procedure described above. Check flame characteristics according to the procedure on page 61 and adjust air shutter if needed. Check that there is no pressure being applied to the regulator attached to the back of the grill. This regulator contains a flexible diaphragm and should not touch the grill body or any surrounding objects. Check to make sure that the burners and the drip tray are clean and free from obstructions. Clean if necessary.

APPENDIX- Troubleshooting

See page 29-32

QUESTION

When I push in the knob, my grill does not ignite?

ANSWER

First determine if the spark igniters are functioning properly. You should hear a rapid snapping sound when the igniter button is depressed. If no sound is heard, try replacing the igniter battery. If the battery is good, ensure that the proper gap exists between the burner and electrode wire. If the spark igniters are working correctly, next determine if gas is reaching the burners.

Check to see if any there are any signs of melted plastic around igniter box. If you discover any bubbles or melted plastic, you need to replace igniter box. Ensure the gas supply is turned on, and that there are no leaks. Attempt to match-light a burner.

If the burner will light with a match, then the spark igniter may not be functioning correctly, or may not be adjusted correctly. If the burner will not match light, and the gas supply has been confirmed, then check the burner for blockages.

See page 73

QUESTION

When I turn my grill burners on medium to low, my grill blows out?

ANSWER

First determine if the problem is being caused by location. If location is subject to high winds, reposition grill to provide some protection by placing the front of the grill toward the prevailing wind. Check the gas supply and flame characteristic according to the procedure under Low / Insufficient Heat. Correctly installed burners should be seated firmly with no side-to-side movement.

Adjust the Air Venturi Bolt, on right side of burner. The bolt can be adjusted, so more air flows into burner gas chamber, for increased flame height. Check the burner knob, that it is correctly turning the grill valve, and check to see if it is loose on valve. Try pulling the knob directly off, and manually turn the valve stem with your hand, see if it turns gas flow on properly and ignition works. If this works, use a small flat-head screw driver and very-gently push it into the slip between the two pins at the tip of the valve stem. This will slightly push the valve stem pins apart to create a stronger grip on control knob.

See page 29-32

QUESTION

My Rotisserie burner will not light. What should I do?

ANSWER

This is a tremendous safety feature on your Sunstone grills, but it may cause some delays as grillers become familiar with the particular workings of these advanced "safety valves". The largest potential problem is in lighting the grill. The "safety valve" requires heat at the rotisserie burner in order to send a signal to the valve to allow gas to flow to the burner. What this means is that when lighting such rotisserie burners, the griller must push in, turn to HIGH and hold the rotisserie burner control knob until it reaches a sufficient temperature to hold the valve "open". This generally will occur in approximately 5 seconds, but in some Instances (particularly in colder weather), it may take longer. You should follow the Lighting instructions to light the burner and ensure that the rotisserie burner is indeed lit before leaving the grill. In addition to the "safety valve" described above, there are a variety of other reasons that any burner will not light properly.

APPENDIX- Gas Conversions

Understanding Gas Appliance Conversions

Making changes to an appliance so that it can utilize a different fuel is known as appliance conversion and involves the replacement of gas orifices, valves and or regulators. These internal connections and gas utilization fittings are designed to work with a particular gas that has a specific pressure. Natural gas is a much lower pressure gas than propane and converting the appliance to one or the other gases requires that the differing pressure is compensated for. In other words, connecting a natural gas appliance to a propane piping system will result in appliance malfunction and possibly danger. The reason for this is because natural gas orifices are larger than propane orifices strictly because of gas service pressure. In this case, the higher pressure gas flowing through a larger orifice will result in more gas through the burner and likely, more flame...an unnecessarily large flame. Conversely, trying to use a propane appliance with natural gas will likely result in a very small flame or no burner flame at all because of the lower pressure gas and the smaller orifice. This is the underlying purpose of an appliance conversion from propane to natural gas or from natural gas to propane. Additionally, appliances cannot be converted from electricity to propane, or vice-versa.

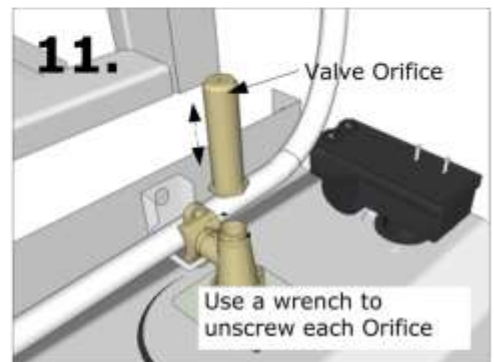
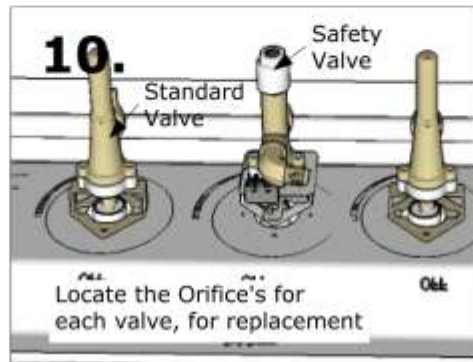
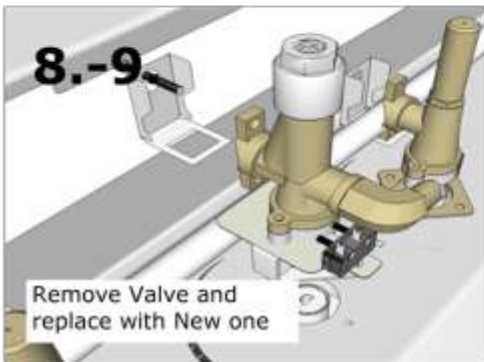
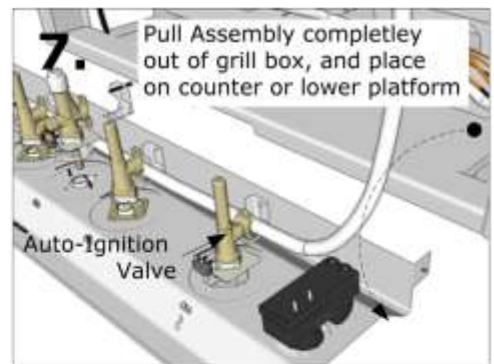
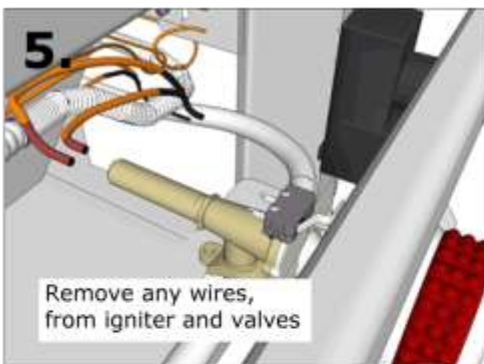
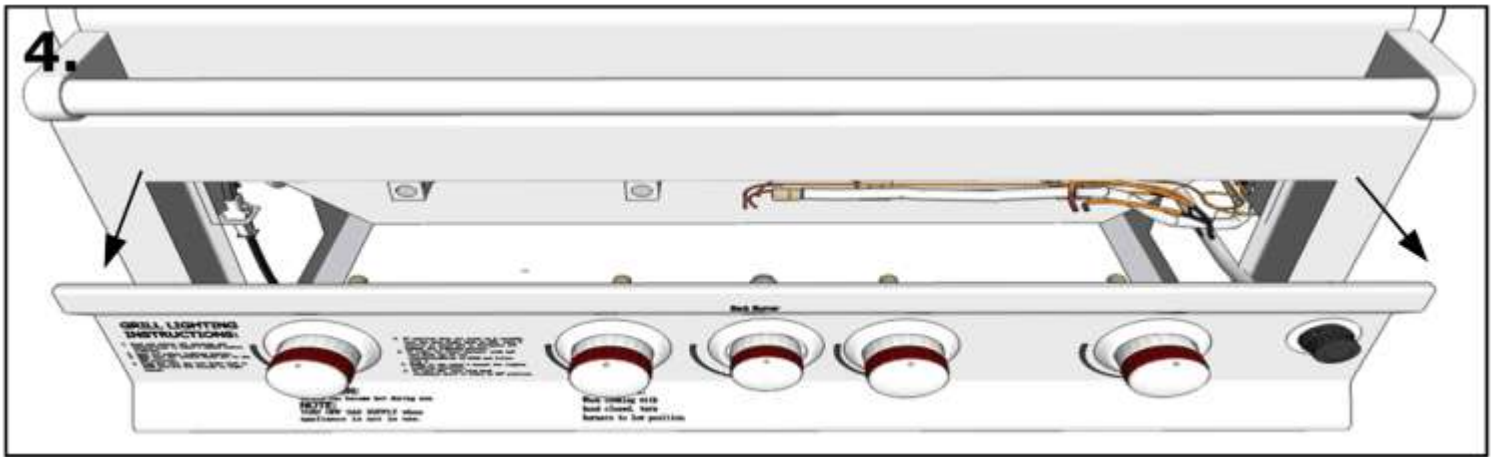
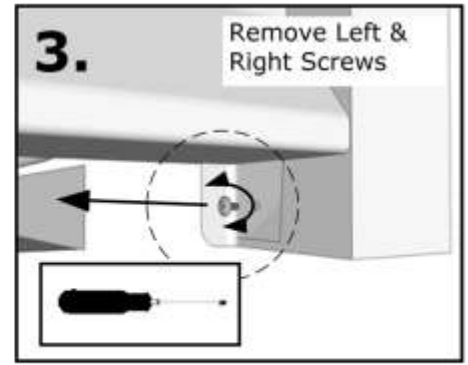
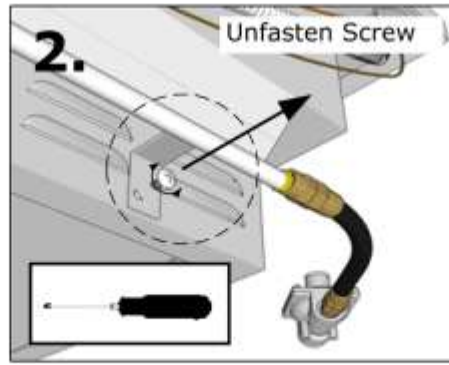
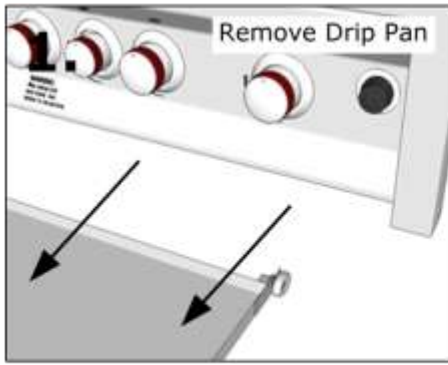
Conversions between Natural Gas and Propane

The following illustrated conversion can be used for when converting either from LP to NG or NG to LP. This example is shown with the Sunstone 4 Burner with Infra Red Burner. Other Grills without a IR Burner, can also follow this instructions, the only difference is you are not required to change any "Safety Valve" or "IR Orifice". For converting gas types, it is extremely important to follow these instructions step by step, we always recommend a Licensed Plumber or Installer perform any maintenance or gas conversion on your grill.

Step by Step Instructions

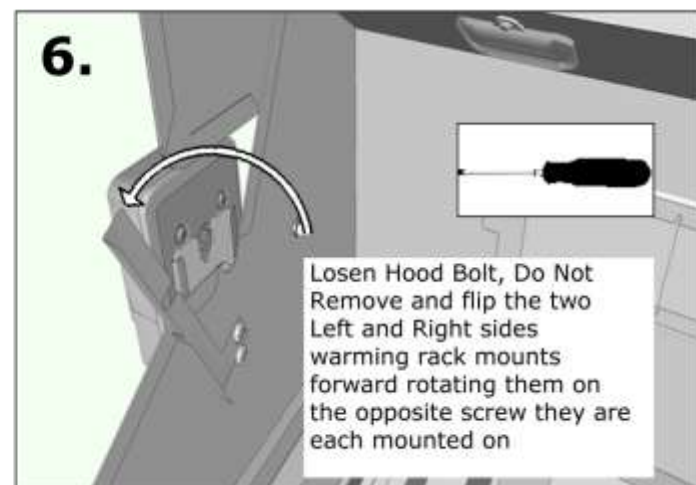
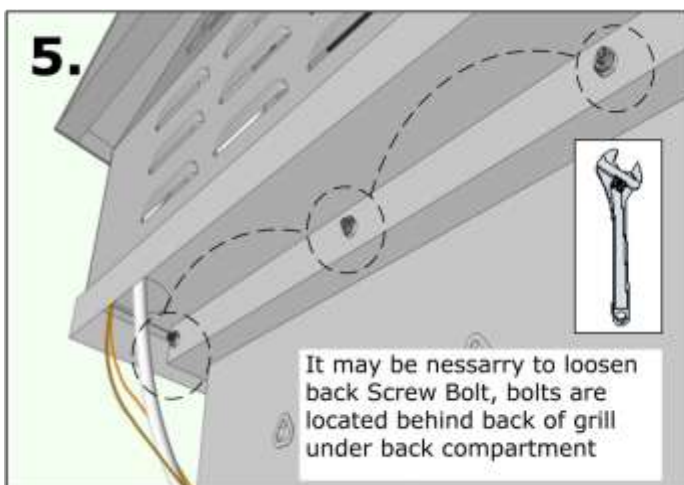
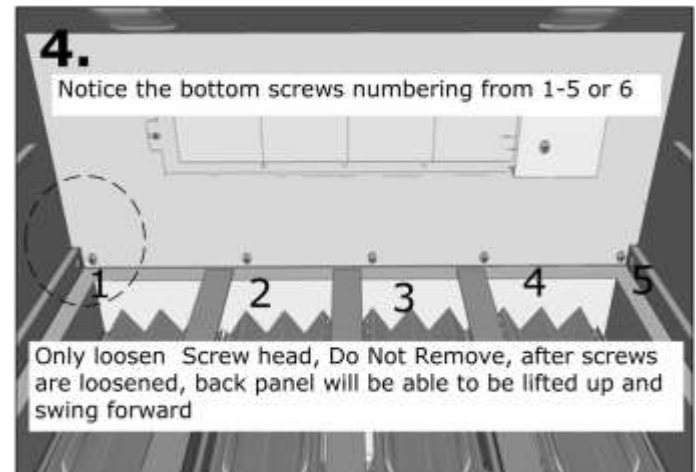
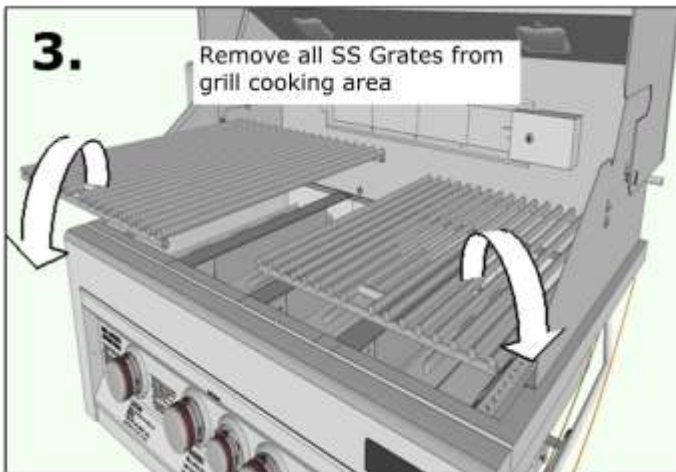
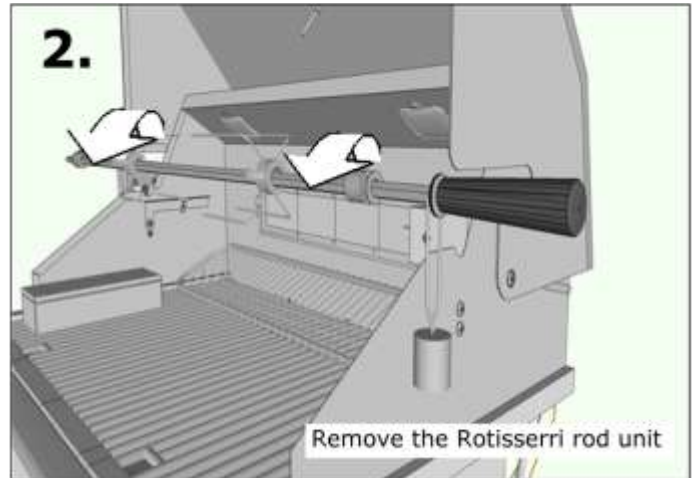
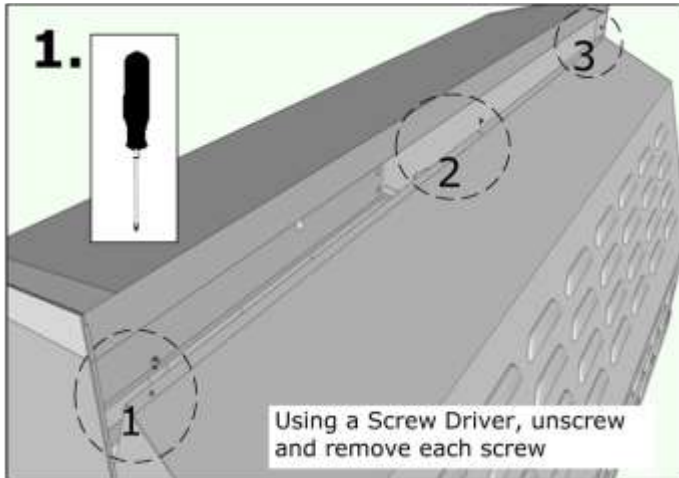
1. Remove Drip Pan
2. Unscrew bolt connecting manifold pipe to grill body, located at right back side of grill base.
3. Unscrew the Left and Right small screws located below the control panel, where drip pan was removed.
4. Slide entire Control Panel and Valve assembly out from grill body.
5. Disconnect all wires, and flex lines from valves and igniter, pay close attention to where they are all located.
6. **IR GRILLS ONLY** - Remove center knob, unscrew Top and Bottom screws only.
7. Flip control panel over, on side so you have easy access to valves.
8. **IR GRILLS ONLY** - Unscrew base bracket, hold center valve to gas manifold pipe, and remove valve.
9. **IR GRILLS ONLY** - Install new Safety Valve in correct gas type, follow the instructions in reverse.
10. Locate the valve orifice at the ends of each valve; it is either a small screw at the tip of valve or a long cylinder, as shown in illustration.
11. Unscrew each orifice one by one, replacing with the correct gas type orifice.

APPENDIX- Gas Conversions

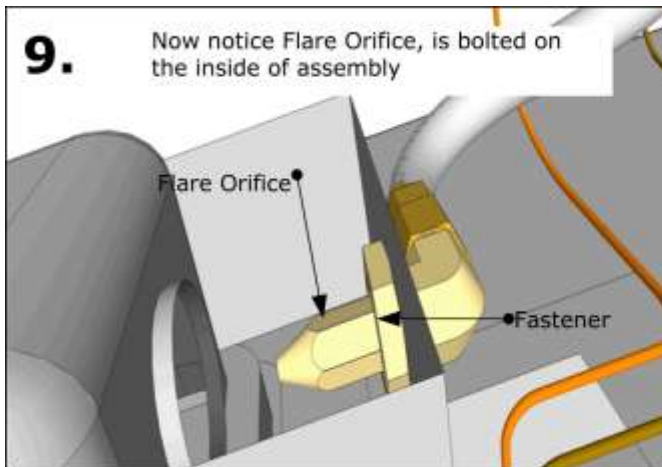
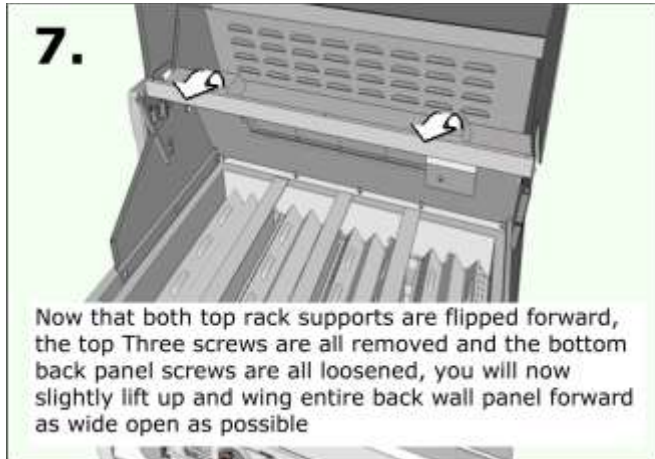


APPENDIX- Gas Conversions

The following instructions are required only for grills with Infra-Red Back Burner. Grills with this type of back burner come with the Rotisserie rod and motor. It is necessary when converting your gas type, to change the small orifice situated behind the thermal coupler and igniter in gas chamber of IR-Burner. Not changing this orifice will cause to much or not enough gas flow through, and will be to hot or not hot enough, depending on your gas type.



APPENDIX- Gas Conversions



SPIDER AND INSECT WARNING



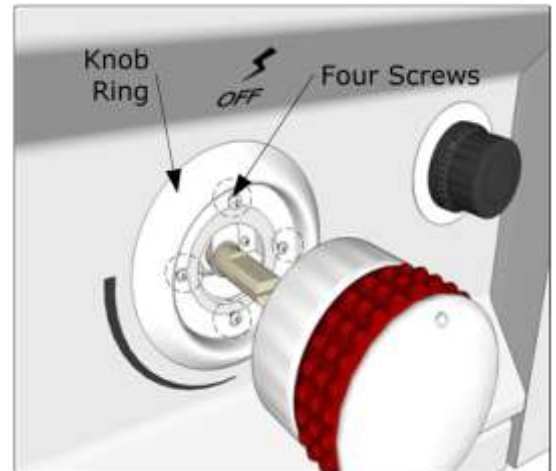
INSECT WARNING : Spiders and insects can nest in the burners of this and other grills, which could disrupt gas flow. This dangerous condition could cause a fire behind and beneath the valve panel, damaging the grill and making it unsafe to operate. We recommend you check the grill and remove any spiders, insects and webs at least once a year to reduce this risk.

APPENDIX - Knob & Valve Adjustment

Knob & Ring Adjustment

While turning any of the knobs and you notice any one sticking or rubbing, Follow these steps.

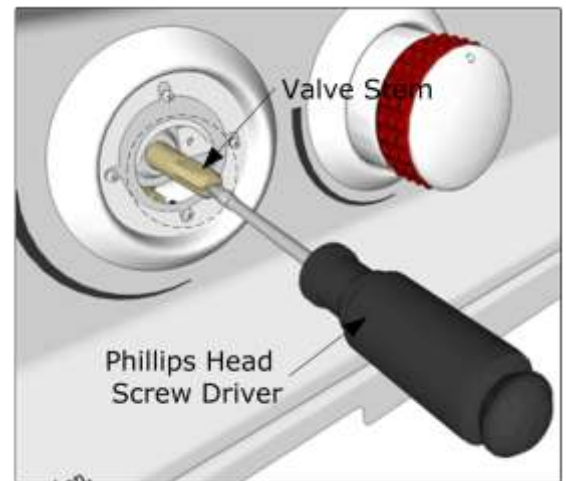
1. Turn each knob for any issues
2. For knob that rubs or sticks when either turned or pushed in, remove knob and unscrew the four screws slightly, so ring is loosened. **(DO NOT REMOVE SCREWS COMPLETELY)**
3. Replace Knob back on, Move Knob Ring Left, Right, Up, and Down, till it is Centered around Knob, then remove knob, while holding ring in place.
4. Fasten all four screws tightly in place, and replace knob back on valve stem. Do this until knob turns freely, and when pushed in, releases properly.



Knob & Valve Adjustment

While turning any of the knobs, and you notice any are loose, and does not either turn gas on, or turn off properly and or either one Auto-Ignition Knob does not ignite burner, follow these steps.

1. Turn each knob for any issues
2. For knob that is loose, remove knob, and check to see if the inside black plastic guts are partially damaged. **(IF DAMAGE TO KNOB IS NOTICED, CONTACT SUNSTONE FOR KNOB REPLACEMENT BEFORE PROCEEDING)**
3. With Knob removed, use Phillips Flat-Head Screw Driver, and very slightly push tip into valve slit at the head of Valve Stem, to separate two sides, and push them further apart. **(DO NOT PUSH TOO HARD, OR VALVE STEM WILL SNAP, ONLY 1/16" TO 1/8" IN IS USUALLY NEEDED)**
4. Replace Knob back on Valve Stem, you should notice Knob is much tighter on Valve, and turns gas flow on/off properly.



APPENDIX - Warranty

SUNSTONE OUTDOOR GAS GRILL & COMPONENT WARRANTY

LIFETIME WARRANTY

SUNSTONE Stainless steel burner, and side burner Brass Burners, to be from defects in material and workmanship when subjected to normal domestic use and service for the lifetime of the original purchaser. This warranty does not include discoloration, surface corrosion, and scratches which may occur during regular use.

LIMITED LIFETIME WARRANTY

Sunstone Stainless Rod Cooking Grids and Stainless Steel Housings (including liners, frames, ovens and barbecue faces) are warranted for as long as you own you're Sun Barbecue Grill.

LIMITED THREE YEAR WARRANTY

Sunstone Side burners and all other Sunstone Barbecue components including doors, drawers, Cocktail Station, Ice Chest, are warranted to be free from defects in material and workmanship for a period of three years from the original date of purchase.

LIMITED ONE-YEAR WARRANTY

All other grill components including igniters, knobs, valves, tubing, rotisserie motor, light assembly, and covers are warranted to be free from defects in material and workmanship for a period of one year from the original date of purchase.

LIMITATIONS & EXCLUSIONS

- 1. SUNSTONE warranty applies only to the original purchaser and may not be transferred.*
- 2. SUNSTONE warranty is in lieu of all other warranties expressed or implied and all other obligations or liabilities related to the sale or use of its grill products.*
- 3. SUNSTONE warranty shall not apply and SUNSTONE is not responsible for damage resulting from misuse, abuse, alteration of or tampering with the appliance, accident, hostile environment, flare-up fires, improper installation, or installation not in accordance with the instructions contained in the User Manual, or the local codes.*
- 4. SUNSTONE shall not be liable for incidental, consequential, special or contingent damages resulting from its breach of this written warranty or any implied warranty.*
- 5. Some states do not allow limitations on how long an implied warranty lasts, or the exclusions of or limitations on Consequential damages. This warranty gives you specific legal rights and you may have other rights, which vary from state to state.*
- 6. No one has the authority to add to or vary SUNSTONE warranty, or to create for SUNSTONE any other obligation or liability in connection with the sale or use of its products.*

WHAT IS NOT COVERED. & INTERNET PURCHASE DISCLAIMER

- 1. SUNSTONE shall not be responsible for and shall not pay for the following Installation or start-up.*
- 2. Service by an unauthorized service provider;*
- 3. Damage or repair due to service by an unauthorized service provider or use of unauthorized parts.*
- 4. Damage caused by accidents, abuse, alteration, misuse, installation that is not in accordance with the instructions contained in the User Manual, or local codes.*
- 5. To correct normal adjustments or settings, due to improper installation, commissioning or local gas supply properties.*
- 6. Shipping and handling costs, export duties, or installation cost.*
- 7. The cost of service calls to diagnose trouble; or Removal or re-installation cost.*

This warranty applies to the original purchaser with invoice or proof of purchase and covers Sun products intended for personal, family or household usage only. It does not apply to rust, corrosion, oxidation or discoloration, which may occur due to moisture or overheating, unless the affected component becomes inoperable. This warranty does not cover parts becoming defective by misuse, accidental damage, improper handling and/or installation. It does not cover labor or labor related charges. It specifically excludes liability for indirect, incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you. This warranty gives you specified legal rights and you may have other rights which may vary from state to state. For additional information regarding this warranty, or information on how to place a warranty claim, contact your authorized Sun dealer or Texas BBQ Wholesalers.



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