

INSTALLATION AND OPERATION INSTRUCTIONS

STRAUBELSTONE STEELMAN GAS BARBECUE SIDE GRILL

CONGRATULATIONS, on the purchase of your new STRAUBELSTONE STEELMAN GAS BARBECUE SIDE GRILL. This unit is designed and intended for outdoor use only.

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GENERAL INFORMATION

These instructions are intended as a general guide and do not supersede national or local codes in any way. Authorities having jurisdiction should be consulted before installation.

Installation and provision for combustion and ventilation air must conform to the *National Fuel Gas Code, ANSI Z223.1*, or *CAN/CGA-B149.1, Natural Gas Installation Code*, or *CAN/CGA-B149.2, Propane Installation Code*. This barbecue has been tested to, and complies with, *ANSI Z21.58* and *CAN/CGA 1.6 (1995), STANDARDS FOR OUTDOOR COOKING GAS APPLIANCES*.

!!! IMPORTANT !!!

Read these instructions carefully before installing or operating this gas barbecue. These instructions should be left with the homeowner for future reference.

!!! WARNING !!!

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.



Do not store combustible materials or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

A liquid propane tank, not connected for use with this gas barbecue, shall not be stored in the vicinity of this or any other appliance.

Installation and service must be performed by a: Qualified technician, service agency, or the gas supplier.

!!! WARNING !!!

Gas supply system must be installed in accordance with the U.S. National Fuel Gas Code.

This appliance and its individual shut off valve must be disconnected from the gas supply piping system during any system pressure test in excess of ½ PSI (3.5 KPA).

Use a system manual shut off valve to shut off the gas supply to this gas appliance before continuing with installation procedures.



GAS-FIRED OUTDOOR COOKING APPLIANCE IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) STANDARD FOR OUTDOOR COOKING GAS APPLIANCES Z21.58-1995 83EK

WHAT TO DO IF YOU SMELL GAS:

- Shut off gas supply to the appliance.
- Extinguish any open flames.
- Open barbecue lid.
- If odor continues, immediately call your gas supplier. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

SHIPPING AND PACKING LIST

SHIPPING CARTON CONTAINS:

- 1- StraubelStone Steelman Gas Barbecue Side Grill
- 1- Gas Barbecue Cooking Grate
- 1- Side Grill Searing Grate
- 1- Side Grill Flame Cone
- 1- Piezo Igniter & Mounting Nut
- 1- Gas Manifold Control Knob
- 1- Side Grill Manual Pack
- 1- LP tank, regulator, and hose assembly
Liquid Propane models only
- 1- Side Grill Mounting Screw
- 1- Side Grill Mounting Clip
- 2- Gas Manifold Mounting Screws

OPTIONAL ACCESSORIES:

(included with some models)

- 1- Side Grill Griddle
- 1- Side Grill Deep Fryer
- 1- Side Grill Deep Fryer Basket
- 1. Side Grill Vegetable Steamer



SIDE GRILL ASSEMBLY



SIDE GRILL INSTALLED

SAFETY INFORMATION

- THIS GAS APPLIANCE IS DESIGNED FOR OUTDOOR USE ONLY. IT IS NOT INTENDED FOR INSTALLATION IN ANY BUILDING, GARAGE, OR ENCLOSED STRUCTURE. IT IS NOT INTENDED FOR INSTALLATION IN OR ON RECREATIONAL VEHICLES OR BOATS.
- **WARNING:** Follow all gas leak check procedures in this manual, prior to operation.
- **WARNING:** Fuels used in gas or oil – fired appliances, and the products of combustion of such fuels, contain chemicals known to the State of California to cause cancer, birth defects, and/or other reproductive harm. This warning is issued pursuant to California Health & Safety Code Sec. 25249.6.
- Liquid Propane tanks must be stored outdoors, out of reach of children and must not be stored in any building, garage, or other enclosed structure.
- While this appliance is not in use, the gas must be turned off at the gas supply.
- **DO NOT ATTEMPT TO DISCONNECT THE GAS OR ANY GAS FITTING WHILE THIS APPLIANCE IS IN OPERATION.**
- Inspect the hose and gas connections of this outdoor cooking gas appliance prior to each use. Do not operate the unit if there is a gas leak present. If the hose shows wear or is cut, it must be replaced before barbecue operation.
- **DO NOT** put a barbecue cover or anything flammable on or in the tank area beneath the barbecue.

PROPER CLEARANCES FROM COMBUSTIBLE CONSTRUCTION AND MATERIALS MUST BE MAINTAINED FROM ALL SIDES, TOP, AND BOTTOM OF THIS APPLIANCE.

THIS APPLIANCE SHOULD NEVER BE PLACED NEAR ANY COMBUSTIBLE SURFACE.

THIS APPLIANCE SHOULD NEVER BE PLACED UNDER ANY COMBUSTIBLE CONSTRUCTION OR MATERIALS.

THIS APPLIANCE SHOULD NEVER BE PLACED CLOSER THAN TWENTY-FOUR (24) INCHES FROM ANY SIDE OR BACK, TO ANY COMBUSTIBLE CONSTRUCTION OR MATERIALS. (SEE FIGURE 1)

- **NEVER** leave the barbecue unattended while in operation.
- **NEVER** allow children to operate this barbecue.
- **NEVER** lean over an open barbecue, or place hands or fingers on the front edge of the cooking basin.
- Should a grease fire occur, turn off all burners, and stay away from the barbecue until the fire is out.
- **NEVER** use liquid propane gas in a natural gas unit, or natural gas in a liquid propane unit. **GAS CONVERSIONS SHOULD ONLY BE DONE BY A QUALIFIED SERVICE TECHNICIAN.**

- Use heat-resistant barbecue mitts or gloves when operating this barbecue.
- **DO NOT** use charcoal briquettes or lighter fluid in any gas barbecue.
- While this appliance is not in use, it should be covered with the included cover to protect it from weather and other adverse elements.
- **WARNING:** **DO NOT** operate the Side Grill and rotisserie (optional) simultaneously.
- If rotisserie (optional) is to be used, the external electrical source must be grounded in accordance with the *National Electrical Code, ANSI/NFPA 70*, or the *Canadian Electrical Code, CSA C22.1*. **KEEP ANY ELECTRICAL SUPPLY CORD AWAY FROM ANY HEATED SURFACES.**
- Storage of this appliance indoors is permissible only if the LP cylinder (tank) is disconnected and removed from the appliance. Never move unit with LP tank installed.

STRAUBELSTONE STEELMAN GAS BARBECUE CART SPECIFICATIONS

NATURAL GAS - RATED PRESSURE - 7.0" W.C.

MINIMUM GAS PRESSURE	MAXIMUM GAS PRESSURE	ORIFICE SIZE	BTU/HR INLET
7.0" W.C.	10.5" W.C.	#52	30,000
With optional Side Grill		#52	45,000

LIQUID PROPANE - RATED PRESSURE – 11.0" W.C.

MINIMUM GAS PRESSURE	MAXIMUM GAS PRESSURE	ORIFICE SIZE	BTU/HR INLET
11.0" W.C.	13.0" W.C.	#59	30,000
With optional Side Grill		#59	45,000

HIGH ALTITUDE DERATE

In the U.S.A., input BTU shall be de-rated 4% (1 orifice size) per 1000 ft. for altitudes above 2000 ft.. In Canada, input BTU shall be de-rated 10% (2 orifice sizes) at altitudes from 2000 ft. to 4500 ft..

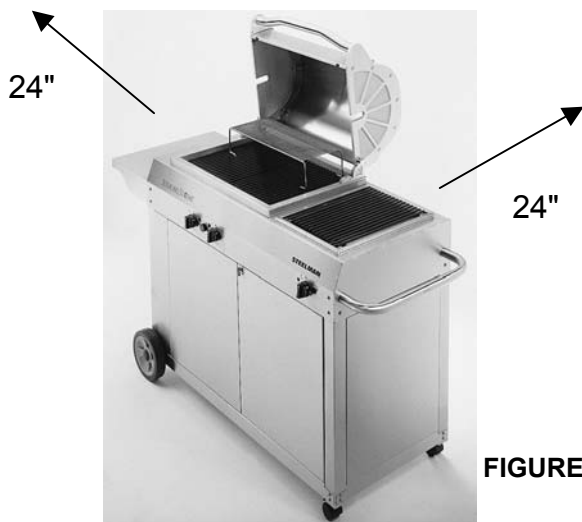


FIGURE 1

INSTALLATION

LOCATION

Your StraubelStone Gas Barbecue can be installed on any flat, stable surface away from any combustible materials or construction. See " CLEARANCES FOR COMBUSTIBLE CONSTRUCTION AND MATERIALS " on Page 4. (SEE FIGURE 1)

When selecting a location for the unit, **DO NOT** OBSTRUCT THE FLOW OF COMBUSTION AND VENTILATION AIR.

SET UP AND INSTALLATION

Your StraubelStone Steelman Gas Barbecue Cart Side Grill comes assembled, ready for the gas connection, with the exception of installation into the cart chassis.

!!! WARNING !!!

DO NOT attempt any assembly operation with the Liquid Propane tank installed. Remove LP tank from unit before attempting any assembly operation.

!!! WARNING !!!

For Natural Gas models, with Side Grill applications, both Barbecue and Side Grill must be converted to Natural Gas. Call the StraubelStone Customer Service Center for information on how to convert the Side Grill and Barbecue for Natural Gas applications.

SIDE GRILL INSTALLATION

1. **TURN OFF THE GAS SUPPLY!** **NEVER** attempt any assembly operation while the appliance is in operation or is HOT.
2. Disconnect and remove the Liquid Propane Tank.

Natural Gas models - disconnect the gas supply. As StraubelStone can not anticipate the various methods, fittings, and local applications for Natural Gas, see your installer for the correct installation method for your application.

SUGGESTION: Some type of " T " arrangement with pipe and fittings, or quick release hoses may be possible. Check with your installer.

3. Open the shipping container.
4. Remove all contents from the shipping container.
5. Check the contents of the shipping container against the shipping and packing list. Report any missing or damaged parts to your retailer.
6. Using two (2) adjustable wrenches, remove the original hose and regulator assembly from the gas

manifold, and set it aside. This may be accomplished by holding one (1) adjustable wrench on the hex fitting, on the gas manifold, and the other adjustable wrench, turned in a counter-clockwise direction, on the hex brass fitting, attached to the hose. (Side Grill comes with new hose and regulator assembly)

7. Using a 5/32" male hex driver, remove the two (2) Button Head Screws that attach the " StraubelStone " logo plate, to the right hand side of the cart chassis, and set it aside.
8. Remove the cutting board and set it aside.
9. Locate the Piezo Igniter and remove the mounting nut from the shaft.
10. Install the Piezo Igniter by, placing the shaft through the hole in the cart face marked " **Press to Ignite** " (SEE FIGURE 5, PAGE 10), and replacing the mounting nut on the shaft. Tighten with an adjustable wrench, but do not over tighten.
11. **Important!** Locate and install the Side Grill Mounting Clip, by sliding the clip, over the hole, centered at the rear of the cutting board opening.
12. Attach the electrode wire, with round connector, protruding from the face of the Side Grill, to the round brass positive tip of the Piezo Igniter.
13. Attach the ground wire, with the rectangular connector, protruding from the face of the Side Grill, to the rectangular brass negative clip, on the side of the Piezo Igniter shaft.
14. Carefully, place the Side Grill into the cutting board opening, by positioning the side grill, with the gas manifold towards the front of the cart, dropping the attached hose and regulator through the cutting board opening, and placing the Side Grill into position, allowing the valve stem to protrude through the opening on the front of the cart. (Natural Gas models do not use hose and regulator)
15. Using a 5/32" male hex driver, attach the rear of the Side Grill to the cart chassis, by using one (1) Side Grill Mounting Screw. The screw should fit into the Side Grill Mounting Clip already installed. Do not over tighten.
16. Using a #2 Phillips screw driver, attach the gas manifold, to the face of the cart chassis, with the two (2) Gas Manifold Mounting Screws. Do not over tighten.
17. Slide the Gas Manifold Control Knob over the valve stem.
18. Using two (2) adjustable wrenches, connect the new hose and regulator assembly to the original barbecue gas manifold. This may be accomplished by holding one (1) adjustable wrench on the hex fitting, on the gas manifold, and the other adjustable wrench, turned in a clockwise direction, on the hex brass fitting, attached to the hose.

ONCE YOU HAVE COMPLETED THE INSTALLATION STEPS LISTED ABOVE, GO TO " FINAL SET UP " SECTION OF THIS MANUAL.

FINAL SET UP

BURNER COVER PAN

Remove the protective wrapping from the burner cover pan and place it evenly over the burner, on the bottom step of the barbecue basin. The two (2) v-shaped bends should point upwards.

COOKING GRATES

Remove the protective wrapping from the cooking grates and place them, appropriately; for the searing grate, on the second step of the barbecue basin; for the top cooking grate, on the top step of the barbecue basin. The support bars should face down.

FLAME CONE

The Flame Cone is an included accessory that may be used to focus heat convection to a central area of the top grate, for boiling water or steaming vegetables in a pot, or for focusing heat convection to a central area of the optional griddle. Remove the Burner Cover Pan, and place Flame Cone on the bottom step of the grill, when in use.

FOR UNITS REQUIRING ANY OTHER ACCESSORY ASSEMBLY

See the instructions that come with the accessory kit.

LIQUID PROPANE TANK HOOK ASSEMBLY

Once all assemblies have been completed, and the Liquid Propane tank has been filled, place the LP tank into the Liquid Propane tank mount, located on the bottom left side of the cart chassis base frame. Attach the LP tank hook (located on the bottom left side of the cart chassis, above the LP tank) through the tank handle, and tighten tank hook nuts. Tank hook is adjustable.

!!! IMPORTANT !!!

Barbecue units are shipped with the appropriate gas connections for each type of gas, i.e., Natural Gas or Liquid Propane. If you have purchased an inappropriate unit for your application, gas conversion kits are available. Call the StraubelStone Service Center. Gas conversions must be performed by a qualified installer.

FOR LIQUID PROPANE GAS APPLICATIONS - GO TO THE LIQUID PROPANE GAS SECTION OF THIS MANUAL ON PAGE 7.

FOR NATURAL GAS APPLICATIONS - GO TO THE NATURAL GAS SECTION OF THIS MANUAL ON PAGE 8.

LIQUID PROPANE TANK INFORMATION

Liquid Propane units are designed for, and can only be used, with a standard twenty pound (20 LB) LP gas cylinder (tank). **DO NOT** use this appliance with any LP cylinder (tank) exceeding this capacity. The LP cylinder (tank) used with this appliance must be constructed and marked in accordance with the specifications for LP gas cylinders of the U.S. Department of Transportation (DOT) or the National Standards of Canada, *CAN/CSA-B339, Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods.*

The LP cylinder (tank) used with this appliance must also be equipped with:

1. A collar to protect the cylinder valve.
2. A shutoff valve terminating an LP gas cylinder valve outlet QCV-TYPE 1 as specified in the American National Standards for Compressed Gas Cylinder Valve Outlet and Inlet Connections, *ANSI Z21.58.*
3. A safety relief valve having direct communication with the vapor space of the cylinder.
4. An arrangement for vapor withdrawal.
5. A bottom rim with holes for securing tank support assembly.

Liquid Propane gas is safe to use when properly handled. Careless handling of the LP gas cylinder could result in a fire and/or an explosion. Therefore:

1. Keep the ventilation opening(s) of the LP cylinder enclosure free and clear from debris.
2. Keep the LP cylinder upright and secure in its mounting within the cylinder enclosure.
3. Avoid tipping the LP cylinder on its side when connected to a regulator - this may cause damage to the diaphragm in the regulator.
4. Handle LP tank valves with care.
5. **Never** connect an unregulated LP gas cylinder to this appliance.
6. Close the gas shut-off valve on the LP gas cylinder after each use.

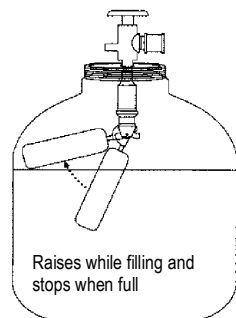


FIGURE 2

The Liquid Propane cylinder (tank) designed for use with this appliance is equipped with an **OPD** (Overfilling Prevention Device) **Type 1 - LP TANK CONNECTOR** (SEE FIGURE 2). The OPD is a secondary device that prevents the overfilling of you LP gas tank. The Type - 1 LP TANK CONNECTOR permits connection to the tank without the use of tools and will not permit the flow of gas unless a proper connection is made.

!!! WARNING !!!

Never store an extra LP gas cylinder within or near the barbecue cart. Failure to observe this condition may result in a fire or explosion.

TRANSPORTATION, STORAGE AND RE-FILL OF LIQUID PROPANE GAS CYLINDERS

1. Transport only one (1) cylinder at time.
2. Keep the cylinder in an upright, secure position with the valve turned off.
3. **DO NOT** transport the cylinder in the passenger compartment of an automobile.
4. **DO NOT** leave cylinders in direct sunlight or in high heat areas. Store in a cool, well-ventilated area.
5. Use the cylinder gas cap during transportation of LP cylinder or whenever cylinder is not in use.
6. An LP cylinder may appear to be empty, however, gas may still be present. Always take great care when transporting or storing LP cylinder tanks.
7. A dented or rusty LP cylinder may be hazardous and should be checked by a qualified service technician.

Proper LP re-fill methods are standardized by weight or volume. Take time to insure that your Liquid Propane supplier fills the LP gas cylinder according to established procedures. Ask your supplier to read purging and filling instructions on the LP gas cylinder before attempting filling procedures. **DO NOT OVERFILL!** When re-fill operation is complete, ask your supplier to check for leaks and verify the relief valve is working properly.

!!! IMPORTANT !!!

Do not exchange the LP gas cylinder provided with your barbecue, unless the exchange LP gas cylinder is equipped with an OPD and QCV-TYPE 1 connection. Other types of LP gas cylinders will not connect with the QCC-1 hose and regulator furnished with this appliance.

The manufacturer of the Liquid Propane tank is responsible for the materials, workmanship, and performance of the LP tank. If the tank has a defect, malfunctions, or you have a question regarding the tank, please call the tank manufacturer's customer service center. If the tank manufacturer does not resolve any issue to your satisfaction, please call the StraubelStone Customer Service Center.

LIQUID PROPANE HOSE & REGULATOR INFORMATION

Liquid Propane gas is highly flammable, is heavier than air, and when vaporized, collects in low areas. Always check for leaks to verify a safe condition.

WARNING: DO NOT ATTEMPT TO ADJUST THE REGULATOR. The regulator supplied with this appliance has been pre-set to operate with Liquid Propane gas at a regulated pressure of an eleven inch water column (11" W.C.) with a minimum tank pressure of an eleven inch water column (11" W.C.). Use only the hose and regulator furnished with this appliance or a StraubelStone approved replacement. (SEE FIGURE 3).

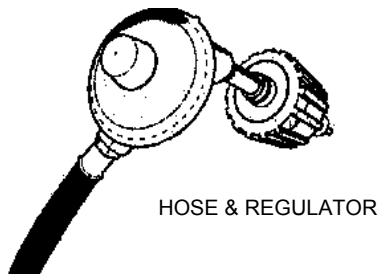


FIGURE 3

The hose and regulator assembly furnished with this appliance contains a system protection device (QCC-1) that:

- 1- WILL NOT permit the flow of gas until a positive connection has been established.
- 2- Has a thermal element that will stop the flow of gas between 240 degrees and 300 degrees Fahrenheit.
- 3- Has a flow limiting device which, when activated, will limit the flow of gas to ten (10) cubic feet per hour.

The QCC-1 protection device must be protected when disconnected from the LP gas cylinder. If the fitting is allowed to drag on the ground, nicks and scratches may result in a leak when reconnected to the tank. Retain and use the plastic protector cap provided.

TO INSURE TROUBLE FREE OPERATION:

- 1- Keep the regulator vent clean and dirt free.
- 2- Consult LP gas supplier if regulator does not operate properly.
- 3- Keep the LP gas supply hose at least three (3) inches away from hot surfaces.
- 4- DO NOT attempt to alter the hose and regulator assembly.

LIQUID PROPANE GAS CONNECTION

The hose connection comes pre-assembled to the valve/burner manifold from the factory, however, check the connection to insure that it is snug and has not loosened during shipping.

NOTE: Brass to brass connections do not require Teflon tape or pipe dope.

- 1- Remove protective plastic cap from LP tank valve.
- 2- Align the TYPE 1 - LP TANK CONNECTOR with the valve threads.
- 3- Turn the fitting clock-wise until snug. DO NOT OVER TIGHTEN! (SEE FIGURE 4)

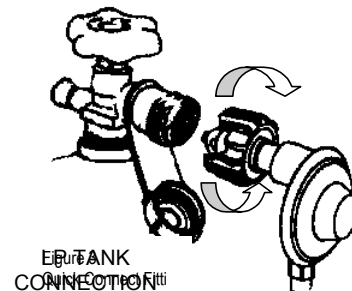


FIGURE 4

- 4- Slowly turn on the LP tank gas supply by rotating the tank valve in a counter-clockwise direction.
- 5- **CHECK FOR LEAKS!** Apply soapy water to each connection and watch for bubbles. If bubbles are seen, turn off the LP gas supply valve, re-tighten the connections and **CHECK AGAIN!** DO NOT use a lighted match or other source of ignition to check for leaks. Repeat this procedure until you are sure that there are no leaks in the gas connections.

WHEN YOU ARE ASSURED THAT THERE ARE NO GAS LEAKS PRESENT - GO TO THE SECTION: " OPERATION " IN THIS MANUAL.

NATURAL GAS APPLICATIONS

Natural Gas units are designed for, and should only be operated with Natural Gas. **Never** attempt to operate this appliance with gases other than the type specified.

Installation of the gas supply must be performed by a qualified technician, service agency, or the gas supplier.

Natural Gas units are designed for operation using standard household Natural Gas at a pressure of a seven inch water column (7" W.C.). NOTE: In some areas, Natural Gas pressures as supplied by utility companies, do not achieve this rated pressure. A regulated Natural Gas kit may be purchased by calling the StraubelStone Customer Service Center.

This appliance comes assembled from the factory using a 3/8" NPT male flare fitting on the valve/burner manifold for gas connection. Some brass adapter fittings (not included) may be required depending on your gas supply system.

This appliance is shipped ready for gas connection.

WHEN YOU ARE ASSURED THAT THERE ARE NO GAS LEAKS PRESENT - GO TO THE SECTION: " OPERATION " IN THIS MANUAL.

NOTE: ON NEW OR RETRO-FIT CONSTRUCTION OF GAS SYSTEM, AIR IN THE PIPING WILL HAVE TO BE BLED BEFORE IGNITION CAN TAKE PLACE.

OPERATION

FOR YOUR SAFETY – READ BEFORE LIGHTING

!!! WARNING !!!

Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the barbecue and replace any part of the control system and any gas control that has been under water.

This appliance, depending on model, has an electronic ignition that uses a Triple A battery (AAA - 1.5v), (Battery should be checked periodically), or an electronic piezo igniter. Units can also be lit by long hearth match, hand fire starter, or book match clip extender (included with unit), via the FLAME VIEW or inserted between the grill grates. Follow these instructions exactly when lighting the barbecue. BEFORE LIGHTING, smell around the appliance area for gas. Be sure to smell next to the ground, as LP gas is heavier than air and will settle to the ground.

BATTERY CHECK

BATTERY COMPARTMENT IS LOCATED:

- 1- FOR AAA (1.5v) TYPES, BENEATH THE ELECTRONIC IGNITER PUSH BUTTON, ON THE CONTROL PANEL. DEPRESS THE PUSH BUTTON AND ROTATE THE PUSH BUTTON COUNTER-CLOCKWISE TO EXPOSE THE BATTERY COMPARTMENT.

WHEN REPLACING BATTERY, BE SURE TO ATTACH POSITIVE AND NEGATIVE TERMINALS APPROPRIATELY.

CHECK THE IGNITER BY PUSHING THE BUTTON. YOU SHOULD HEAR A " CLICKING SPARK " SOUND.

!!! WARNING !!!

All gas burning appliances produce smoke and carbon monoxide gas during operation. These fumes can be harmful if the appliance is used in any other than an open air, fully vented area.

LIGHTING INSTRUCTIONS

1. For Liquid Propane units, make sure the LP gas cylinder contains Liquid Propane.
2. Make sure the burner control knob is in the OFF position. Push the knob down and turn in a clockwise direction until the knob stops.

WARNING: The burner control knob must be in the OFF position before opening the LP gas cylinder valve. If the valve is opened with the burner control knob in the ON position, the excess flow of gas will activate the QCC-1, limiting the flow of gas from the LP gas cylinder. IF THIS OCCURS, TURN OFF the LP gas cylinder valve and burner control knob. Wait five (5) minutes for gas to dissipate, and then begin again.

3. For Liquid Propane units, open the LP gas cylinder valve in a counter-clockwise direction until it stops. DO NOT FORCE THE VALVE!

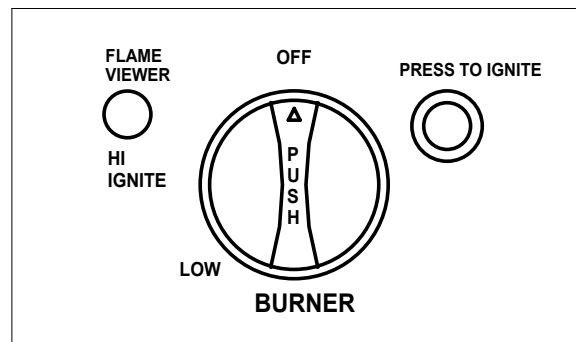


FIGURE 5

4. For Natural Gas units, make sure that you have line valve(s) open, delivering gas to the appliance.

WARNING: DO NOT LEAN OVER THE BARBECUE!

5. While pushing the burner control knob down (SEE FIGURE 5) and turning the knob counter-clockwise to the HIGH position.
6. Press the electronic or piezo igniter button (you should hear a clicking sound). Burner should ignite.

WARNING: If the burner does not light, turn the burner control knob to the OFF position and wait five (5) minutes. A long hearth match, hand fire starter, or book match clip extender (included with your original unit), may also be inserted through the FLAME VIEW, or between the grill grates to achieve ignition. If, after repeated attempts the burner does not light, call the StraubelStone Customer Service Center or your installer.

NOTE: All StraubelStone Gas Barbecues are test fired at the factory before shipping.

7. Once the barbecue has been preheated, adjust the control knob for proper cooking temperature (SEE FIGURE 5). **DO NOT LEAVE THE BURNER ON THE HIGHEST SETTING FOR AN EXTENDED PERIOD - THIS CONDITION MAY DAMAGE YOUR BARBECUE.**

WARNING: Should the burner go out during operation, **TURN ALL GAS VALVES OFF!** Wait five (5) minutes before attempting to re-light the barbecue.

8. To shut off the barbecue after use, turn burner control knob clockwise to the OFF position. (SEE FIGURE 5) After the flame goes out, turn off the gas supply at either the LP gas cylinder or the Natural Gas line valve.

COOKING OPERATION

BURNER CONTROL SETTINGS

The highest control setting is normally too hot for direct cooking. Use the highest control setting as preheat, minimum five (5) minutes; for quick searing of meat, and at the end of each cooking cycle to burn off excess grease and food.

Medium settings should be used for cooking steaks, pork chops, grilled fowl parts, and burgers.

Lower settings should be used for roasts and rotisserie use, and for finish cooking after searing at higher setting.

GREASE DRIPPINGS

Your StraubelStone Gas Barbecue was designed to " carbonize " grease and fat drippings before they drip below the burner plate onto the burners or inside the unit. Cooking some high fat foods may cause excessive grease drippings. A grease collection cup is located beneath the barbecue basin, and may be accessed beneath the cart chassis. It should be removed periodically and cleaned. The following steps may also help:

- 1- Make sure that the unit is level.
- 2- Preheat the appliance on HIGH control settings for at least ten to fifteen (10 to 15) minutes. This will insure cooking surfaces are hot enough to " carbonize " fats when burner control settings are lowered. This is especially important if you are using indirect cooking methods, i.e., cooking on one side of the grill by using heat from the burners on the opposite side.
- 3- Use lava rock or ceramic briquettes in an even, single layer, covering the burner plate. This will provide an added layer of evenly heated cooking surface to dissipate and " carbonize " grease.

!!! GREASE FIRE WARNING !!!

SHOULD A GREASE FIRE OCCUR

- 1- Turn off the gas at the burner control panel or gas supply.
- 2- Allow the fire to burn itself out.
- 3- Allow the unit to cool.
- 4- Make sure that the gas supply is OFF.
- 5- Clean the appliance and inspect all parts for damage.
- 6- Replace any parts that are damaged before using the appliance.

NEVER THROW WATER ON A GREASE FIRE!!!

MAINTENANCE

Your StraubelStone Gas Barbecue should be thoroughly cleaned on a regular basis. Remove the cooking grates and burner plate to collect or vacuum ashes and food debris.

Visually check the burner flames on a regular basis. Flames should appear blue in color and approximately one inch (1") in height. (SEE FIGURE 6)

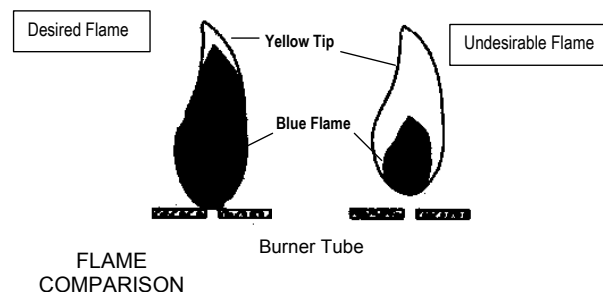


FIGURE 6

If flames are excessively yellow and/or irregular, burners may need to be cleaned of oil or fat residue. In some conditions (high altitude), primary air mixer openings, at the entrance to each burner, may need to be adjusted to

control the mixture of primary air with gas (Air mixture is pre-set at the factory for gas conditions at sea level.) Disassembly of the barbecue is required to adjust the air mixer openings. (SEE BURNER ASSEMBLY - AIR MIXTURE ADJUSTMENT)

Visually check the burners for insects and insect nests on a regular basis. Obstructions in the burners may lead to a fire beneath the barbecue basin. If obstructions are found in the burners, remove burners and clean thoroughly. Use mild detergent, hot water, a wire brush, paper clip, nylon cleaning pad, or similar items to clean burners and other parts of the barbecue. (SEE BURNER ASSEMBLY)

DO NOT enlarge valve orifices or burner ports when cleaning valves or burners.

BURNER ASSEMBLY

1. TURN OFF THE GAS SUPPLY!
2. NEVER attempt any maintenance operation while the appliance is in operation or is HOT.
3. You may wish to remove the hood, however, it is not necessary. (SEE COOKING OPERATION)
4. Remove cooking grates.
5. Remove lava rock and ceramic briquettes.
6. Remove burner plate to expose burners.
7. Carefully lift burner from rear burner guide so that it clears the guide.
8. Lift outside of burner in a clockwise direction until it is perpendicular to its original position.
9. Carefully pull the burner away from you, towards the rear of the barbecue basin. This will expose the igniter wire and igniter electrode.
10. Using a #2 Phillips screwdriver, remove the igniter wire mounting screw. This will free the burner from its mounting, for removal, inspection and cleaning. DO NOT remove the igniter wire!

AIR MIXTURE ADJUSTMENT

The air mixer sleeve for each burner has been pre-set at the factory for gas conditions at sea level. However, if the burner flame is to yellow (this may occur at higher altitudes - high altitude de-rate may also be necessary), open the air mix sleeve slightly until the flame turns blue.

TO REINSTALL BURNER: Reverse the above order of operations.

GAS VALVE MANIFOLD ASSEMBLY

Should it become necessary to dis-assemble the gas valve manifold, or perform gas conversions, the following instructions are for qualified technicians only.

1. TURN OFF THE GAS SUPPLY!

2. NEVER attempt any maintenance operation while the appliance is in operation or is HOT!
3. **For LP units:** Disconnect the TYPE 1 - LP TANK CONNECTOR by turning the fitting in a counter-clockwise direction. Remove LP gas cylinder from cart chassis base frame. Remove regulator and hose assembly.
For Natural Gas units: Disconnect the gas supply at the 3/8" male flare fitting on the gas valve manifold, beneath the cart chassis.
4. Remove burner control knob by gripping firmly and pulling away from control plate.
5. Using a #2 Phillips screw driver, remove the two (2) control plate mounting screws.
6. Remove burner assembly. (See Burner Assembly)
7. Remove the igniter wires from the back of the push button igniter (mark the locations of the wires).
8. Using a 7/16" nut driver, socket, or end wrench, remove the 7/16" flange nuts from the base of the gas valve manifold. (This may be accomplished by reaching beneath the face of the barbecue cart)
9. Carefully, push the gas valve manifold away from the cart face until the valve stems clear the holes. Rotate the gas manifold downward, and pull clear of the cart face.

TO REINSTALL GAS VALVE MANIFOLD: Reverse the above order of operations.

GENERAL CARE AND MAINTENANCE

STAIN REMOVAL

DO NOT allow food or liquid spills to accumulate on the barbecue cart. Wipe up any drippings or spills immediately. If the barbecue becomes stained, you may scrub it with normal strength household cleaners, or a mild solution of ammonia, vinegar, and water. Stainless steel parts may be cleaned and polished with stainless steel cleaners and stainless steel polish.

WEATHER PROTECTION

While this appliance is not in use, it should be covered with the included cover to protect it from weather and other adverse elements.

CARE OF BARBECUE GRILL - METAL PARTS

When the barbecue is not in use, KEEP it CLEAN! DO NOT allow food or liquid spills to accumulate.

Cooking grates should be cleaned before each use by: removal, brushing or scrubbing with any ordinary barbecue brush, then washed with any dishwashing detergent and water.

Barbecue basin may be wiped down with mild detergent and water. DO NOT USE ABRASIVE!

STRAUBELSTONE STEELMAN CART SIDE GRILL PARTS LIST

ITEM	DESCRIPTION	QUANTITY
Q13-BS	BBQ 13 BASIN - STAINLESS STEEL	1
Q24-GC	BBQ 24 - GREASE CUP	1
Q24-QB/L	BBQ 24 - Q BURNER LEFT WITH ELECTRODE MOUNT, AIR MIXER, & SCREW	1
Q24-IE/L	BBQ 24 IGNITION ELECTRODE - LEFT	1
Q13-BPS/1014	BBQ 13 BURNER PLATE - STAINLESS - 10" X 13 "	1
Q24-G/1612	BBQ 24 GRATE - PORCELAIN - 16" X 12 "	1
Q13-SG/1510	BBQ 13 SEARING GRATE - 15" X 10"	1
MSS-832/58	MACHINE SCREW - 8/32 X 5/8" ELECTRODE MOUNTING SCREW	1
MNS-832/6M	MACHINE NUT - 8/32 X 6MM ELECTRODE MOUNTING NUT	1
Q13N-GVM/A	BBQ 13 NATURAL GAS MANIFOLD ASSEMBLY	1
Q13P-GVM/A	BBQ 13 LIQUID PROPANE MANIFOLD ASSEMBLY	1
OR-7M/N	BBQ 24 ORIFICE - NATURAL GAS	1
OR-7M/P	BBQ 24 ORIFICE - LIQUID PROPANE	1
Q13-GM	BBQ 13 GAS MANIFOLD WITH MOUNTS	1
MFNS-1420/716	MACHINE FLANGE NUT SERRATED - 1/4 20 X 7/16"	2
MSS-2P4M/12	MACHINE SCREW STAINLESS- #2 PHILLIPS - 4MM X 1/2 - CONTROL PANEL MOUNTING SCREW	2
Q13-CONE	BBQ 13 FLAME CONE	1
Q13-AG	BBQ 13 ALUMINUM GRIDDLE	1
Q13-DF	BBQ 13 DEEP FRYER	1
Q13-DFB	BBQ 13 DEEP FRYER BASKET	1
Q13-VS	BBQ 13 VEGTABLE STEAMER	1
Q24-CP/PI	BBQ 24 CONTROL PANEL - PIEZO IGNITER	1
Q24-CP/K	BBQ 24 CONTROL PANEL - KNOB	1
Q13N-REG/A	BBQ 13 NATURAL GAS REGULATOR & HOSE ASSEMBLY	1
Q13P-REG/A	BBQ 13 LIQUID PROPANE REGULATOR & HOSE ASSEMBLY	1
Q13-RHC	BBQ 13 REGULATOR HOSE CLIPS	2
Q13-NGC	BBQ 13 NATURAL GAS CONVERSION KIT	1

STRAUBELSTONE GAS BARBECUE TROUBLESHOOTING

PROBLEM OBSERVED	POSSIBLE CAUSE	CORRECTIVE MEASURE
Gas odor during set up	Gas leak	See " What to do if you smell gas " page 1 Check all gas connections
Gas odor before first ignition	Gas leak	See " What to do if you smell gas " page 1 Check all gas connections
When ignition button is pressed, there is no spark at burner electrode	Igniter electrode or switch wires not connected Broken electrode or switch wires Electrode positioned improperly Faulty electronic igniter Batteries dead or missing Electronic ignition is wet	Reconnect igniter electrode or wires Replace broken electrode or wires Reposition electrode - 3/16" clearance Replace electronic igniter Replace batteries Keep ignition system dry
When igniter button is pressed, there is spark at the electrode, but no ignition	Gas supply not turned on Control knob not in HIGH ON position Air in gas lines not fully bled from system Low gas pressure Faulty Regulator Electrode positioned improperly	Turn on gas supply Follow Operational Instructions Bleed air from system Check gas supply pressure Replace regulator Reposition electrode - 3/16" clearance
Delayed ignition	Low gas pressure Clogged or dirty burner ports Blocked orifice Faulty valve	Check gas supply pressure Clean burner ports - see manual section Check orifice opening Replace valve
Burner lights but does not stay lit	Low gas pressure Faulty valve Clogged or dirty burner ports Faulty Regulator Windy conditions	Check gas supply pressure Replace valve Clean burner ports - see manual section Replace regulator Shield from wind
Incorrect burner flame	Incorrect gas supply or pressure Incorrect primary air mix Blocked orifice Clogged or dirty burner ports Faulty valve Faulty Regulator High altitude	Check gas supply pressure Adjust air mixer - see manual section Check orifice opening Clean burner ports - see manual section Replace valve Replace regulator Adjust orifice size for altitude
Backfire of burner	Blocked orifice Clogged or dirty burner ports Incorrect primary air mix	Check orifice opening Clean burner ports - see manual section Adjust air mixer - see manual section

STRAUBELSTONE GAS GRILLS LIMITED WARRANTY

StraubelStone™ hereby warrants to the ORIGINAL PURCHASER of this StraubelStone™ Gas Barbecue, that it will be free from defects in material and workmanship from the date of purchase as follows:

Steel & Aluminum castings -	15 years
Cooking Grates -	2 years
Burners -	3 years
Electronic Piezo -	1 year
Spark igniters -	1 year
All Remaining Parts -	15 years

When assembled and operated in accordance with the accompanying printed instructions.

StraubelStone may require reasonable proof of your date of purchase. **YOU SHOULD RETAIN YOUR SALES SLIP OR INVOICE AND RETURN THE WARRANTY REGISTRATION CARD OR REGISTER ONLINE WITHIN 10 DAYS OF PURCHASE.**

This Limited Warranty shall be limited to the repair and/or replacement of parts that prove defective under normal use and service and which on examination shall indicate, to StraubelStone's satisfaction, that they are defective. Before returning any parts, contact StraubelStone Customer Service Center. If StraubelStone confirms the defect and approves the claim, StraubelStone will replace such parts without charge. If you are required to return defective parts, transportation charges must be prepaid. StraubelStone will return parts to the purchaser, freight or postage prepaid.

This Limited Warranty does not cover any failures or operating difficulties due to accident, abuse, misuse, alteration, misapplication, vandalism, improper installation or improper maintenance or service, or failure to perform normal and routine maintenance, including but not limited to, damage caused by insects within the burner tubes, as set out in this owner's manual warranty section.

Deterioration or damage due to severe weather conditions such as hail, hurricanes, earthquakes, or tornadoes, discoloration due to exposure to chemicals either directly or in the atmosphere, is not covered by this Limited Warranty.

There are no other express warranties except as set forth herein and any applicable implied warranties of merchantability and fitness are limited in duration to the period of coverage of this express written Limited Warranty. Some states do not allow limitation on how long an implied warranty lasts, so this limitation may not apply to you.

StraubelStone is not liable for any special, indirect or consequential damages. StraubelStone's liability is limited to the purchase price of this StraubelStone Gas Barbecue. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you.

StraubelStone does not authorize any person or company to assume for it any other obligation or liability in connection with the sale, installation, use, removal, return, or replacement of its equipment; and no such representations are binding on StraubelStone.

This Warranty applies only to products sold at retail and manufactured by:

STRAUBELSTONE™

16781 Noyes Ave.
Irvine, CA 92606

(800) 640-7687

(949) 296-0121

(949) 296-0127 fax

e-mail - www.straubelstone.com

The manufacturer of the Liquid Propane tank is responsible for the materials, workmanship, and performance of the LP tank. If the tank has a defect, malfunctions, or you have a question regarding the tank, please call the tank manufacturer's customer service center. If the tank manufacturer does not resolve any issue to your satisfaction, please call the StraubelStone Customer Service Center.

