



SUMMIT™ 450 & 650 LP Gas Barbecues

Operating Guide

Read before assembly



⚠ DANGER

If you smell gas:

1. Shut off gas to the appliance.
2. Extinguish any open flames.
3. Open lid.
4. If odor continues, keep away from the appliance and immediately call your gas supplier or your fire service. Leaking gas may cause a fire or explosion which can cause serious bodily injury or death, or damage to property.

⚠ WARNING:

1. Do not store or use petrol or other flammable vapors and liquids in the vicinity of this or any other appliance.
2. A gas supply cylinder not connected for use should not be stored in the vicinity of this or any other appliance.



⚠ WARNING: Follow all leak-check procedures carefully in this manual prior to barbecue operation. Do this even if barbecue was dealer assembled.

⚠ WARNING: Do not try to light the Weber Gas Barbecue without first reading the “Lighting” instructions in this manual.

INFORMATION FOR THE INSTALLER:
This manual must remain with the owner, who should keep it for future use.

OUTDOOR USE ONLY.

⚠ DANGER

Failure to follow the Dangers, Warnings and Cautions contained in this Owner's Manual may result in serious bodily injury or death, or in a fire or an explosion causing damage to property.

⚠ WARNINGS

- ⚠ Do not store a spare or disconnected liquid propane cylinder under or near this barbecue.
- ⚠ Improper assembly may be dangerous. Please carefully follow the assembly instructions in this manual.
- ⚠ After a period of storage, and/or non-use, the Weber Gas Barbecue should be checked for gas leaks and burner obstructions before use. See instructions in this manual for correct procedures.
- ⚠ Do not operate the Weber gas barbecue if there is a gas leak present.
- ⚠ Do not use a flame to check for gas leaks.
- ⚠ Combustible materials should never be within 24 inches of the top, bottom, back or sides of your Weber gas barbecue.
- ⚠ Do not put a barbecue cover or anything flammable on, or in the storage area under the barbecue.
- ⚠ Your Weber Gas Barbecue should never be used by children. Accessible parts of the barbecue may be very hot. Keep young children away while it is in use.
- ⚠ You should exercise reasonable care when operating your Weber gas barbecue. It will be hot during cooking or cleaning and should never be left unattended, or moved while in operation.
- ⚠ Should the burners go out while in operation, turn all gas valves off. Open the lid and wait five minutes before attempting to relight, using the lighting instructions.
- ⚠ Do not use charcoal or lava rock in your Weber gas barbecue.
- ⚠ Never lean over open grill or place hands or fingers on the front edge of the cooking box.
- ⚠ Should a grease fire occur, turn off all burners and leave lid closed until fire is out.
- ⚠ Do not enlarge valve orifices or burner ports when cleaning the valves or burners.
- ⚠ The Weber Gas Barbecue should be thoroughly cleaned on a regular basis.
- ⚠ Liquid propane gas is not natural gas. The conversion or attempted use of natural gas in a liquid propane unit or liquid propane gas in a natural gas unit is dangerous and will void your warranty.
- ⚠ Do not attempt to disconnect any gas fitting while your barbecue is in operation.
- ⚠ Use heat-resistant barbecue mitts or gloves when operating barbecue.
- ⚠ Combustion by-products produced when using this product contain chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

LIQUID PROPANE GAS UNITS ONLY:

- ⚠ Use the regulator that is supplied with your Weber Gas Barbecue.
- ⚠ Do not attempt to disconnect the gas regulator or any gas fitting while your barbecue is in operation.
- ⚠ A dented or rusty liquid propane cylinder may be hazardous and should be checked by your liquid propane supplier. Do not use a liquid propane cylinder with a damaged valve.
- ⚠ Although your liquid propane cylinder may appear to be empty, gas may still be present, and the cylinder should be transported and stored accordingly.
- ⚠ If you see, smell or hear the hiss of escaping gas from the liquid propane cylinder:
 1. Move away from liquid propane cylinder.
 2. Do not attempt to correct the problem yourself.
 3. Call your fire department.

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WARRANTY

Weber-Stephen Products Co. (Weber) hereby warrants to the ORIGINAL PURCHASER of this Weber Gas Grill that it will be free of defects in material and workmanship from the date of purchase as follows:

Aluminum Castings, lifetime, 1 year paint
Cooking Grates, 7 years no rust through
Flavorizer Bars, 7 year no rust through
All Remaining Parts, 5 years,

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

Weber may require reasonable proof of your date of purchase. THEREFORE, YOU SHOULD RETAIN YOUR SALES RECEIPT OR INVOICE.

This Limited Warranty shall be limited to the repair or replacement of parts that prove defective under normal use and service and which on examination shall indicate, to Weber's satisfaction, they are defective. Before returning any parts, contact the Customer Service Representative in your region using the contact information sheet provided with your manual. If Weber confirms the defect and approves the claim, Weber will elect to replace such parts without charge. If you are required to return defective parts, transportation charges must be prepaid. Weber 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.

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 warrants 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 regions do not allow limitation on how long an implied warranty lasts, so this limitation may not apply to you.

Weber is not liable for any special, indirect or consequential damages. Some regions do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you.

Weber 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 Weber.

This Warranty applies only to products sold at retail.

WEBER-STEPHEN PRODUCTS CO.

Customer Service Center
250 South Hicks Road
Palatine, IL 60067-6241
USA

A WORD OF THANKS

Thank you for choosing a Weber Barbecue. Our family here at Weber has worked hard to produce the highest quality products for your satisfaction. While we give much attention to our products, an occasional error may occur. Our knowledgeable Customer Service staff is prepared to help you with any problems with parts or assembly. Call our toll free number. For quicker service, please have your owner's manual and serial number available for reference. We also welcome any comments or suggestions you might have regarding our products. We wish you the best in outdoor cooking enjoyment.

GENERAL INSTRUCTIONS

Your Weber Gas Barbecue is a portable outdoor cooking appliance. With the Weber Gas Barbecue you can grill, barbecue, roast and bake with results that are difficult to duplicate with indoor kitchen appliances. The closed lid and Flavorizer® Bars produce that “outdoor” flavor in the food.

The Weber Gas Barbecue is portable so you can easily change its location in your yard or on your patio. Portability means you can take your Weber Gas Barbecue with, if you move.

Liquid Propane (LP) gas supply is easy to use and gives you more cooking control than charcoal fuel.

- These instructions will give you the minimum requirements for assembling your Weber Gas Barbecue. Please read the instructions carefully before using your Weber Gas Barbecue. Improper assembly can be dangerous.
- Not for use by children.
- If there are local codes that apply to portable gas grills, you will have to conform to them. If there are no local codes, you must conform to the latest edition of the National Fuel Gas Code: ANSI Z 223.1.
- The pressure regulator supplied with the Weber Gas Barbecue must be used. This regulator is set for 10.5 inches of water column (pressure).
- This Weber Gas Barbecue is designed for use with liquid propane (LP) gas only. Do not use with natural (piped in city) gas. The valves, orifices, hose and regulator are for LP gas only.
- Do not use with charcoal fuel.
- Check that the area under the control panel and the bottom tray are free from debris that might obstruct the flow of combustion or ventilation air.
- The areas around the LP cylinder must be free and clear from debris.

For Installation in Canada

These instructions, while generally acceptable, do not necessarily comply with the Canadian Installation codes, particularly with piping above and below ground. In Canada the installation of this appliance must comply with local codes and/or Standard CAN/CGA-B149.2 (Installation Code for Propane Burning Appliances and Equipment).

Storage

- The gas must be turned OFF at the LP cylinder when the Weber Gas Barbecue is not in use.
- When the Weber Gas Barbecue is stored indoors, the gas supply must be disconnected and the LP cylinder stored outdoors in a well-ventilated space.
- LP cylinders must be stored outdoors in a well-ventilated area out of the reach of children. Disconnected LP cylinders must not be stored in a building, garage or any other enclosed area.
- When the LP cylinder is not disconnected from the Weber Gas Barbecue, the appliance and LP cylinder must be kept outdoors in a well-ventilated space.

Operating

- ⚠ **WARNING: This appliance is intended for outdoor use only and should never be used in garages and roofed or enclosed porches or verandas.**
- ⚠ **WARNING: The Weber Gas Barbecue must never be used under an unprotected combustible roof or overhang.**
- ⚠ **WARNING: The barbecue should not be used when combustible materials are within 60 cm. of the top, bottom, back or sides of the grill.**
- ⚠ **WARNING: Your Weber Gas Barbecue is not intended to be installed in or on caravans and/or boats.**
- ⚠ **WARNING: When in use, the entire barbecue gets hot. Never leave it unattended.**
- ⚠ **WARNING: Keep any electrical supply cord and the fuel supply hose away from any heated surface.**
- ⚠ **WARNING: Keep the cooking area clear of flammable vapors and liquids, such as petrol, alcohol, etc., and combustible materials.**
- ⚠ **WARNING: Never store an extra (spare) gas supply cylinder near the Weber Gas Barbecue.**
- ⚠ **WARNING: This appliance gets very hot. Take special care when children or elderly people are present**
- ⚠ **WARNING: Do not move the appliance while it is alight.**

REFER TO YOUR STEP-BY-STEP GUIDE AT THIS TIME FOR BARBECUE ASSEMBLY

- ⚠ **WARNING: Make sure your barbecue is set up properly and leak checked before attempting to operate.**

LIGHTING

EACH HEAT ZONE OPERATES INDEPENDENTLY

Summary lighting instructions are on the control panel.

⚠ DANGER

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 flare-up which can cause serious bodily injury or death.

Crossover Ignition® System

Note - The Crossover Ignition System ignites the front burner with a spark from the igniter electrode inside the Gas Catcher™ Ignition Chamber. You generate the energy for the spark by pushing the Crossover Ignition Button until it clicks.

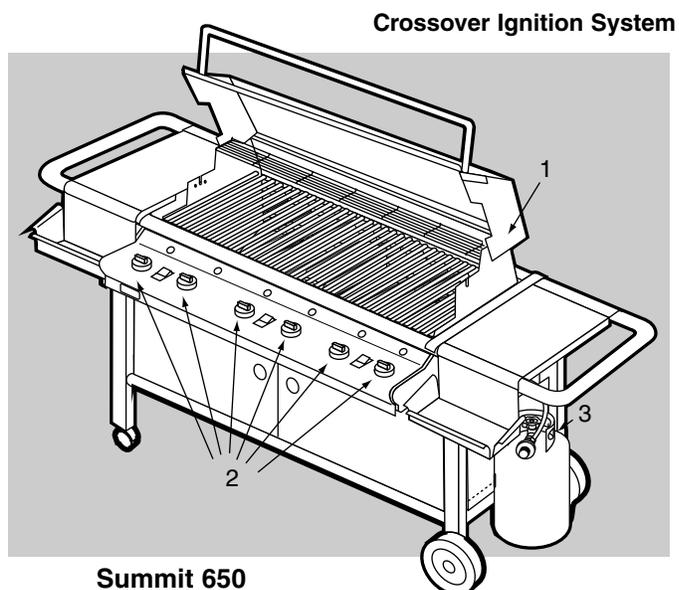
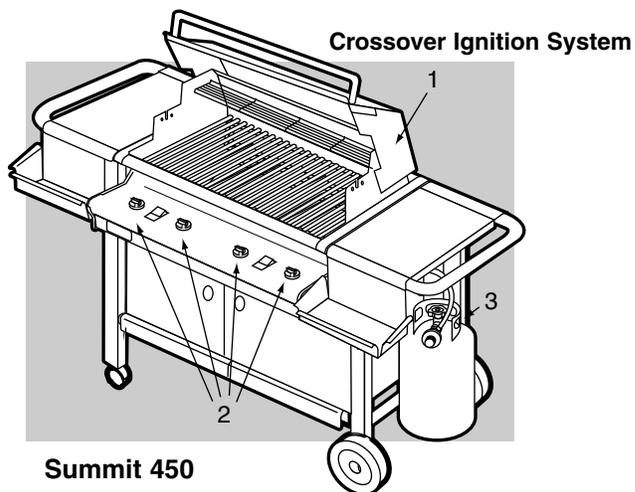
⚠ **WARNING:** Check hose before each use of barbecue for nicks, cracking, abrasions or cuts. If the hose is found to be damaged in any way, do not use the barbecue. Replace using only Weber authorized replacement hose. Contact the Customer Service Representative in your region using the contact information sheet provided with your manual.

- 1) Open the lid.
- 2) Make sure all burner control knobs are turned OFF. (Push control knob down and turn clockwise to ensure that it is in the OFF position.)
- 3) Turn the cylinder on by turning the cylinder valve counterclockwise.

⚠ **WARNING:** Do not lean over the open barbecue. Keep your face and body at least one foot away from the matchlight hole when lighting the barbecue.

- 4) Select Heat Zone.
 - 5) Push LEFT burner control knob down and turn to START/HI.
 - 6) Push the Crossover Ignition Button several times, so it clicks each time.
 - 7) Check that the burner is lit by looking through the matchlight hole above the burner control knob.
- ⚠ **WARNING:** If the burner does not light, turn the LEFT burner control knob to OFF and wait 5 minutes to let the gas clear before you try again or try to light with a match.
- 8) After the LEFT burner is lit you can turn on the RIGHT burner.

Note - Always light the LEFT burner first. The RIGHT burner ignites from the LEFT burner.



TO EXTINGUISH

Push down and turn each burner control knob clockwise to OFF position. Turn gas supply OFF at the source.

- 1) Open the lid.
- 2) Make sure all burner control knobs are turned OFF. (Push each burner control knob down and turn clockwise.)

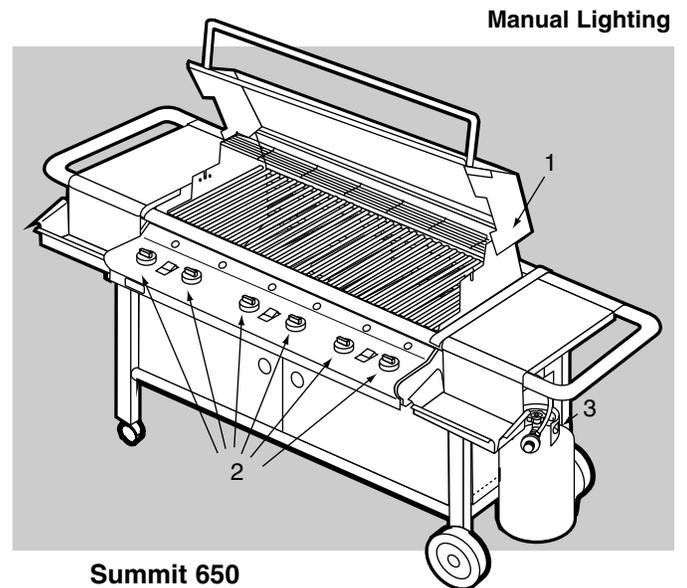
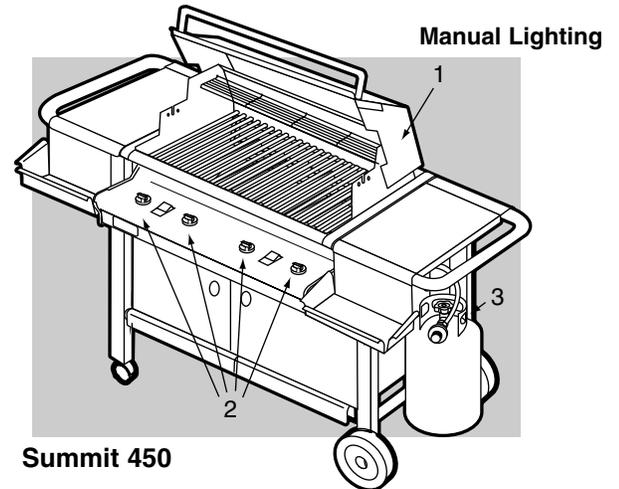
⚠ **WARNING:** The storage space under the cooking module is intended for storage of nonflammable items only.

MANUAL LIGHTING

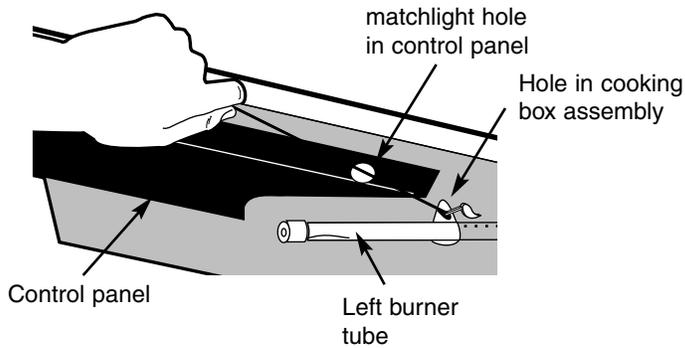
EACH HEAT ZONE OPERATES INDEPENDENTLY.

⚠ DANGER

Failure to open lid while igniting the barbecue, 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.



- 3) Turn the tank on by turning the tank valve counterclockwise.
 - 4) Select heat zone.
 - 5) Put a match in the match holder and strike the match.
 - 6) Insert match holder and lit match through matchlight hole to ignite LEFT burner.
- ⚠ WARNING: Do not lean over open barbecue. Keep your face and body at least one foot away from the matchlight hole when lighting the barbecue.**
- 7) Push LEFT burner control knob down and turn to H (high).



- 9) Observe if LEFT burner has ignited by looking through matchlight hole.

⚠ WARNING: If LEFT burner fails to ignite turn LEFT burner control knob to OFF and wait 5 minutes before attempting to ignite again.

- 10) After the LEFT burner is lit you can turn on the RIGHT burner.

Note: Always light the LEFT burner first. The RIGHT burner ignites from the LEFT burner.

TO EXTINGUISH

Push down and turn each burner control knob clockwise to OFF position. Turn gas supply OFF at the source.

COOKING

⚠ WARNING: Do not move the Weber Gas Barbecue when operating or hot.

NOTE: If barbeque loses heat while cooking refer to the troubleshooting section of this manual.

You can adjust the LEFT and RIGHT burners as desired. The control settings High (H), Medium (M), Low (L), or Off (O) are described in your Weber cookbook. The cookbook uses these notations to describe the settings of the LEFT and RIGHT burners.

Note: Cooking conditions may require the adjustment of the burner controls.

If burners go out during cooking, turn off all burners and wait 5 minutes before relighting.

⚠ WARNING: Check the bottom tray for grease build-up before each use. Remove excess grease to avoid a grease fire in the bottom tray.

STORAGE

- The gas must be turned off at the LP cylinder when the Weber Gas Barbecue is not in use.
- When the Weber Gas Barbecue is stored indoors, the gas supply must be DISCONNECTED and the LP cylinder stored outdoors in a well-ventilated space.
- LP cylinder must be stored outdoors in a well-ventilated area out of reach of children. Disconnected LP cylinder must not be stored in a building, garage or any other enclosed area.
- When the LP cylinder is not disconnected from the Weber Gas Barbecue, the appliance and LP tank must be kept outdoors in a well-ventilated space.
- The Weber Gas Barbecue should be checked for gas leaks and any obstructions in the burner tubes before using. (See Sections: “General Maintenance and Annual Maintenance.”)
- Check that the areas under the control panel and the slide out bottom tray are free from debris that might obstruct the flow of combustion or ventilation air.
- The Spider/Insect screens should also be checked for any obstructions. (Refer to “General Maintenance.” section)

CLEANING

⚠ WARNING: Turn your Weber Gas Barbecue OFF and wait for it to cool before cleaning.

⚠ CAUTION: Do not clean your Flavorizer® Bars or cooking grates in a self-cleaning oven. For availability of replacement cooking grates and Flavorizer Bars contact the Customer Service Representative in your region using the contact information sheet provided with your manual.

Outside surfaces - Use a warm soapy water solution to clean, then rinse with water.

⚠ CAUTION: Do not use oven cleaner, abrasive cleansers (kitchen cleansers) cleaners that contain citrus products, or abrasive cleaning pads on barbecue or cart surfaces.

Slide out Bottom tray - Remove excess grease, then wash with warm soapy water, then rinse

Flavorizer® Bars and Cooking Grates - Clean with a suitable brass bristle brush. As needed, remove from grill and wash with warm soapy water, then rinse with water.

Catch pan - Disposable foil trays are available, or you can line the catch pan with aluminum foil. To clean the catch pan, wash with warm soapy water, then rinse.

Thermometer - Wipe with warm soapy water; clean with plastic scrub ball. Do not put in dishwasher or submerge in water.

Inside cooking module - Brush any debris off of burner tubes. DO NOT ENLARGE BURNER PORTS (OPENINGS). Wash inside of cooking box with warm soapy water and a water rinse.

Inside Lid - While lid is warm, wipe inside with paper towel to prevent grease build-up. Flaking built-up grease resembles paint flakes.

Stainless steel surfaces - Wash with a soft cloth and a soap and water solution.

Plastic surfaces - Wash with a soft cloth and a soap and water solution.

Do not use cleaners that contain acid, mineral spirits or xylene. Rinse well after cleaning.

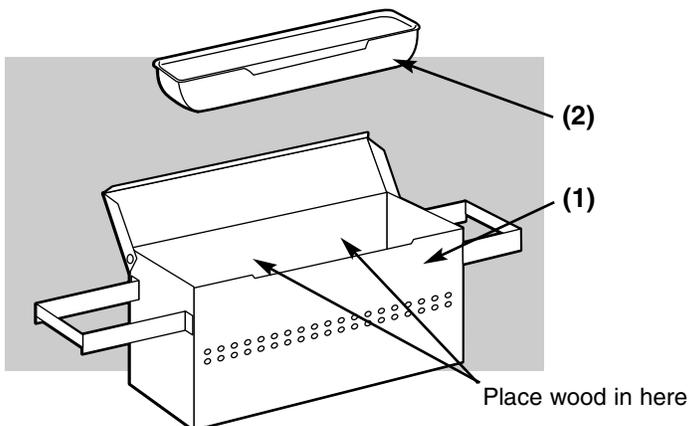
Plastic work surfaces are not to be used as cutting boards.

USING THE STEAM-N-CHIPS SMOKER

The Steam-N-Chips Smoker cooks with both Weber FireSpice Wood Chips and Chunks. For best results with faster cooking foods like steaks, burgers and chops, etc., we recommend using the FireSpice Chips because they ignite and create smoke faster. For longer cooking foods such as roasts, chicken and turkeys, etc., we recommend using FireSpice Chunks because they ignite slowly and provide smoke for a longer period of time. As you gain experience in using your Steam-N-Chips Smoker, we encourage you to experiment with different combinations of FireSpice Chips and Chunks to find the smoke flavor that best suits your taste.

To use the Steam-N-Chips Smoker

As a starting point, place a handful of FireSpice Chips or a few FireSpice Chunks in the bottom of the smoker body(1). Since the chunks vary in size, place as many as you can in the smoker allowing room for the water pan(2). As you gain experience in smoking, increase or decrease the amount of wood to suit your taste. Fill water pan, place it in the smoker and close the smoker lid.



Light the barbecue and preheat with all burners on HIGH, lid down, for 10 minutes or until the thermometer registers 260°C - 288°C. Adjust the burners for cooking; MM or LL will be your best settings for long duration smoking. Smoke will start in approximately 10 minutes and last as long as 45 minutes. If you require more smoke flavor, refill the smoker with FireSpice Chips and/or Chunks and refill the water pan with water. The Steam-N-Chips Smoker may be used to enhance any of the meat, poultry and fish recipes in the gas barbecue cookbook. Cook with the lid down according to the times indicated in charts or recipes.

Note - After refilling smoker, smoke will take about 10 to 15 minutes to start again.

⚠ DANGER

Do not use any flammable fluid in the Steam-N-Chips Smoker to ignite the wood. This will cause serious bodily injury.

Cleaning the Steam-N-Chips Smoker

Before each use, empty the Steam-N-Chips Smoker of ash to allow proper air flow.

Note - Smoking will leave a "smoke" residue on the surface of the smoker. This residue cannot be removed and will not affect the function of the Steam-N-Chips Smoker. To a lesser degree a "smoke" residue will accumulate on the inside of your Weber Gas Barbecue. This residue need not be removed and will not adversely affect the function of your Weber Gas Barbecue.

Note - Remove the Steam-N-Chips Smoker when it is not in use. If it is left in the barbecue, grease and cooking debris can accumulate on the cover.

REFILLING THE LIQUID PROPANE CYLINDER

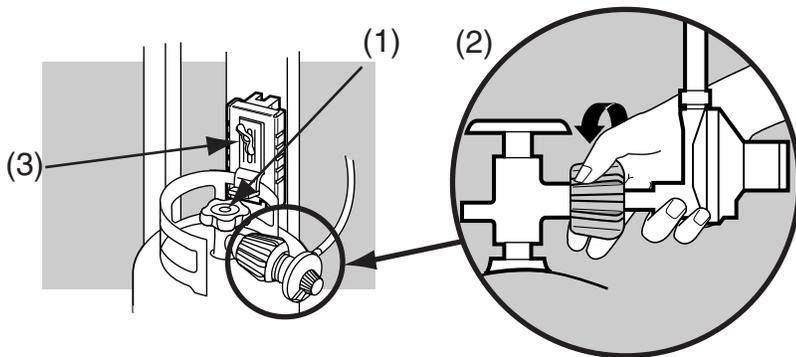
We recommend that you refill the LP cylinder before it is completely empty.

Removal of the LP cylinder

- 1) Close cylinder valve (turn clockwise).
- 2) Unscrew regulator coupling by turning counterclockwise, by hand only.
- 3) Loosen cylinder lock wing nut and turn cylinder lock up out of the way.
- 4) Lift cylinder off. To refill, take LP cylinder to a "Gas Propane" dealer.

⚠ **WARNING:** We recommend that your LP cylinder be filled at an authorized LP gas dealer, by a qualified attendant, who fills the cylinder by weight. **IMPROPER FILLING IS DANGEROUS.**

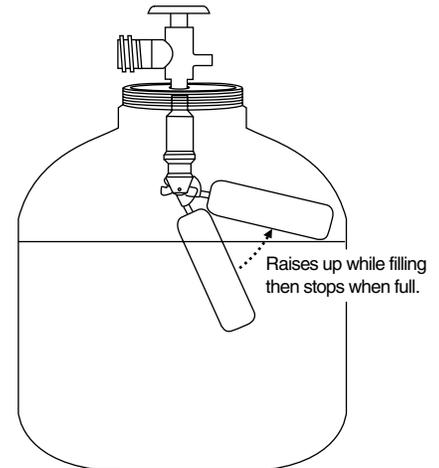
⚠ **CAUTION:** When transporting the LP cylinder make sure the plastic dust cover is in place over the valve. This will keep dust and dirt from the threaded portion of the valve.



The LP cylinder supplied with your barbecue is equipped with an OPD (Overfilling Prevention Device) and a QCC1 or Type 1 (CGA810) cylinder connection. The cylinder connection is compatible with the barbecue connection.

This is a secondary device to prevent the overfilling of your LP cylinder. The proper filling methods for the filling of your cylinder are by weight or volume, as described in NFPA 58. Please make sure your filling station fills your LP cylinder by weight or volume. Ask your filling station to read purging and filling instructions on the LP cylinder before attempting to fill.

⚠ **WARNING:** Do not exchange the LP tank provided with your barbecue, unless the exchange LP tank is equipped with an OPD. Otherwise you will lose the OPD (Overfilling Prevention Device) feature. If there is not an LP tank available for exchange equipped with an OPD, we recommend that you have your LP tank filled at an authorized LP gas dealer by a qualified attendant.



IMPORTANT LP CYLINDER INFORMATION

Failure to follow these **DANGER** statements exactly may result in a fire causing death or serious injury.

⚠ DANGER

- ⚠ **NEVER** store a spare LP Cylinder under or near this barbecue.
- ⚠ **NEVER** fill the tank beyond 80% full.

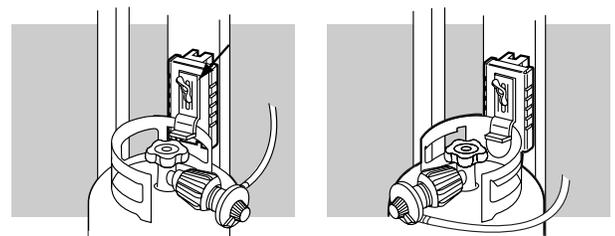
Your Weber gas grill is equipped with a cylinder supply system designed for vapor withdrawal.

⚠ **WARNING:** Only use this grill outdoors in a well-ventilated area. Do not use in a garage, building, breezeway or any other enclosed area.

CONNECT FILLED LIQUID PROPANE CYLINDER

⚠ **WARNING:** Make sure that the cylinder valve is closed. Close by turning clockwise.

We utilize various LP tank manufacturers. Some of the tanks have differing top collar assemblies. (The top collar is the metal protective ring around the valve.) One series of tanks mount with the valve facing front. The other tanks mount with the valve facing away from the fuel scale. These types of tanks are illustrated below.



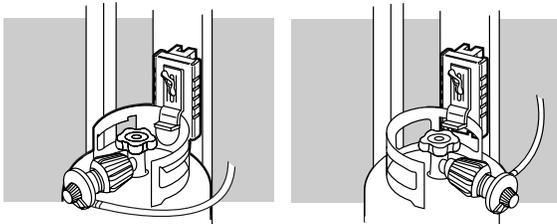
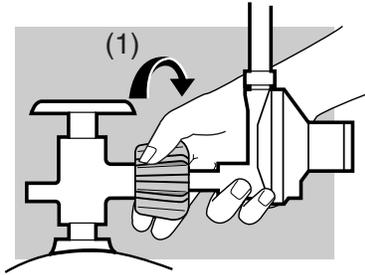
Hook the liquid propane cylinder onto the fuel gauge. Loosen the cylinder lock wing nut. Swing the cylinder lock down. Tighten the wing nut.

Remove plastic dust cover from the fuel cylinder valve.

Screw the regulator coupling onto the cylinder valve(1), clockwise, or to the right. Hand tighten only.

Note: This is a new type of connection. It tightens clockwise and will not allow gas to flow unless the connection is tight. The connection requires tightening by hand only.

⚠ WARNING: Do not use a wrench to tighten the connection. Using a wrench could damage the regulator coupling and could cause a gas leak.



SAFE HANDLING TIPS FOR LIQUID PROPANE GAS CYLINDERS

- Liquid Propane (LP) gas is a petroleum product as are gasoline and natural gas. LP gas is a gas at regular temperatures and pressures. Under moderate pressure, inside a cylinder, LP gas is a liquid. As the pressure is released, the liquid readily vaporizes and becomes gas.
- LP gas has an odor similar to natural gas. You should be aware of this odor.
- LP gas is heavier than air. Leaking LP gas may collect in low areas and prevent dispersion.
- To fill, take the LP cylinder to an RV center, or look up "gas-propane" in the phone book for other sources of LP gas.

⚠ WARNING: We recommend that your LP cylinder be filled at an authorized LP gas dealer, by a qualified attendant, who fills the tank by weight. IMPROPER FILLING IS DANGEROUS.

⚠ WARNING: If you exchange your LP cylinder, make sure you get a similar tank in return. Your LP cylinder is equipped with a quick closing coupling or type 1 valve and an OPD (Overfilling Prevention Device). Other LP cylinders may not be compatible with your barbecue connection.

- Air must be removed from a new LP cylinder before the initial filling. Your LP dealer is equipped to do this.
- The LP cylinder must be installed, transported and stored in an upright position. LP cylinders should not be dropped or handled roughly.
- Never store or transport the LP cylinder where temperatures can reach 125°F (too hot to hold by hand—for example: do not leave the LP cylinder in a car on a hot day).

Note - A refill will last about 20 hours of cooking time at normal use. The fuel scale will indicate the propane supply so you can refill before running out. You do not have to run out before you refill.

- Treat "empty" LP cylinders with the same care as when full. Even when the LP tank is empty of liquid there still may be gas pressure in the cylinder. Always close the cylinder valve before disconnecting.

⚠ CAUTION: When transporting the LP cylinder make sure the plastic dust cover is in place over the valve. This will keep dust and dirt from the threaded portion of the valve.

- Do not use a damaged LP cylinder. Dented or rusty LP cylinders or LP cylinders with a damaged valve may be hazardous and should be replaced with a new one immediately.

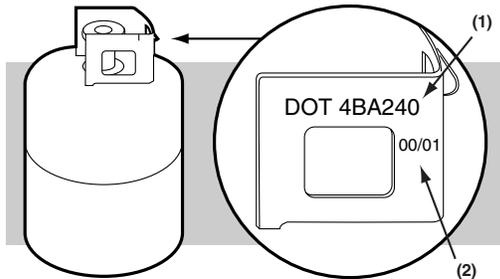
Liquid Propane (LP) Cylinder(s)

- The joint where the hose connects to the LP cylinder must be leak tested each time the LP cylinder is reconnected. For example, test each time the LP cylinder is refilled.
- Be sure the regulator is mounted with the small vent hole pointed downward so that it will not collect water. This vent should be free of dirt, grease, bugs etc.
- The LP cylinder and connections supplied with your Weber Gas Barbecue have been designed and tested to meet government, American Gas Association, and Underwriters Laboratories requirements.

Liquid Propane Cylinder requirements

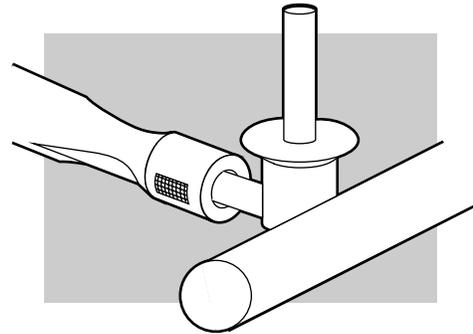
- Replacement LP cylinders supplied by Weber satisfy the above requirements. Check to be sure other cylinders have a D.O.T. certification(1), and date tested(2) is within five years. Your LP gas supplier can do this for you.

If you have questions about spare LP cylinders contact the Customer Service Representative in your region using the contact information sheet provided with your manual.



- All LP tank supply systems must include a collar to protect the cylinder valve.
- The LP cylinder must be a 20-lb. size (18¼ inches high, 12¼ inches in diameter).
- The LP cylinder must be constructed and marked in accordance with the specifications for LP gas cylinders of the U.S. Department of Transportation (D.O.T.).

The burner tube air shutter is fitted with a stainless steel screen(1) to prevent spiders and other insects access to the burner tubes through the air shutter openings.



We recommend that you inspect the Spider/Insect screens at least once a year. Also inspect and clean the Spider/Insect screens if any of the following symptoms should ever occur.

1. The smell of gas in conjunction with the burner flames appearing yellow and lazy.
2. Barbecue does not reach temperature.
3. Barbecue heats unevenly.
4. One or more of the burners do not ignite.

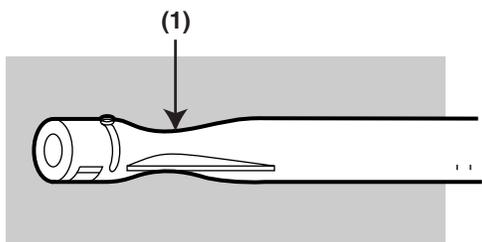
⚠ DANGER

Failure to correct these symptoms may result in a fire which can cause serious bodily injury or death and cause damage to property.

GENERAL MAINTENANCE

Spider/Insect screens

Your Gas Barbecue, as well as any outdoor gas appliance, is a target for spiders and other insects. They can nest in the venturi section Venturi(1) of the burner tubes. This blocks the normal gas flow, and can cause the gas to flow back out of the air shutter. Figure 5. This could result in a fire in and around the air shutters, under the control panel, causing serious damage to your barbecue.



Inspection and cleaning of the Spider/Insect screens

To inspect the spider/insect screens, remove the control panel. If there is dust or dirt on the screens, remove the burners for cleaning the screens. Refer to **Maintenance, Replacing Main Burners**. Brush the spider/inspect screens, lightly, with a soft bristle brush (i.e. an old toothbrush).

⚠ Caution: Do not clean the spider/insect screens with hard or sharp tools. Do not dislodge the spider/insect screens or enlarge the screen openings.

Lightly tap the burner to get debris and dirt out of the burner tube. Once the spider/insect screens and burners are clean replace the burners.

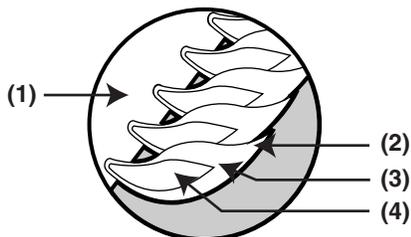
If the spider/insect screen becomes damaged or cannot be cleaned, call Weber-Stephen Products Customer Service for replacement parts.

GENERAL MAINTENANCE

Main Burner Flame Pattern

The Weber Gas Barbecue burners have been factory set for the correct air and gas mixture. The correct flame pattern is shown.

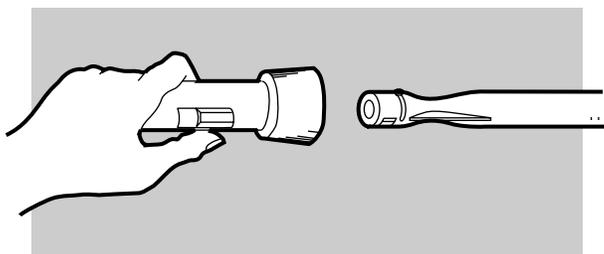
- 1) Burner tube
- 2) Tips occasionally flicker yellow
- 3) Light blue
- 4) Dark blue



If the flames do not appear to be uniform throughout the burner tube, follow the burner cleaning procedures.

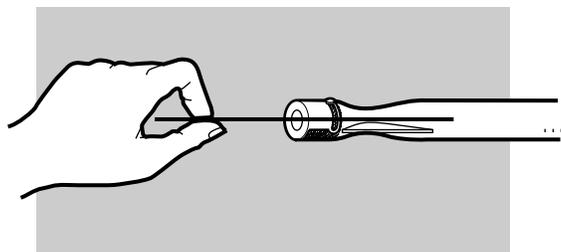
Main Burner Cleaning Procedure

Turn off the gas supply. Remove the manifold. Look inside each burner with a torch.



Clean the inside of the burners with a wire (a straightened-out coat hanger will work). Check and clean the air shutter opening at the ends of the burners. Check and clean the valve orifices at the base of the valves. Use a brass bristle brush to clean outside of burners. This is to make sure all the burner ports are fully open.

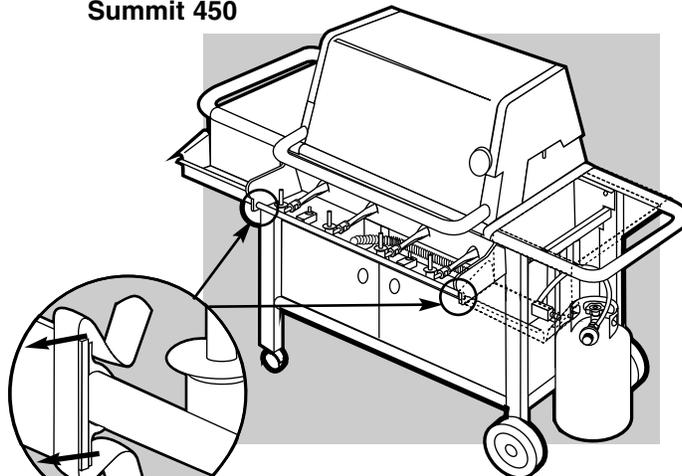
⚠ CAUTION: Do not enlarge the burner ports when cleaning.



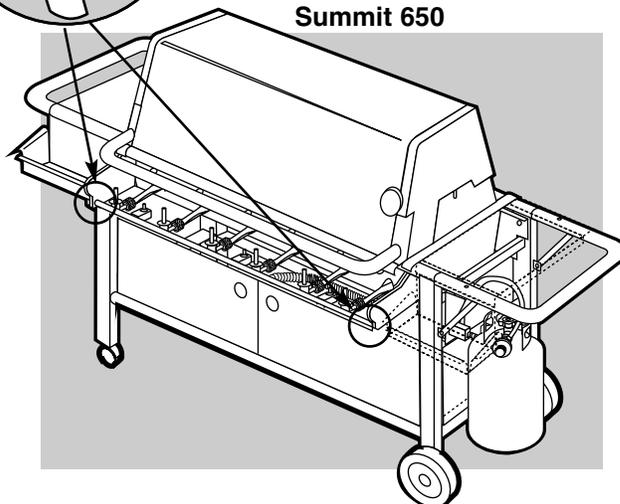
Replacing Main Burners

1. Your Weber Gas Barbecue must be OFF and cool.
2. Turn OFF gas at source.
3. Disconnect regulator.
4. To remove control panel refer to "Remove the control panel and the front panel" in the Step-By-Step Guide.
5. Remove cooking grates.
6. Remove Flavorizer bars.
7. Remove the manifold by unsnapping the clips at the right and left front of the cooking box.

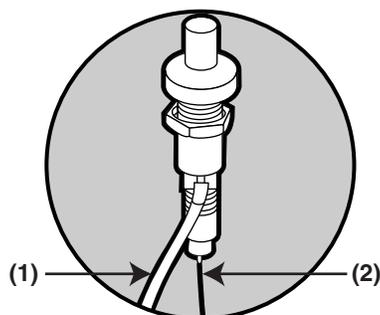
Summit 450



Summit 650

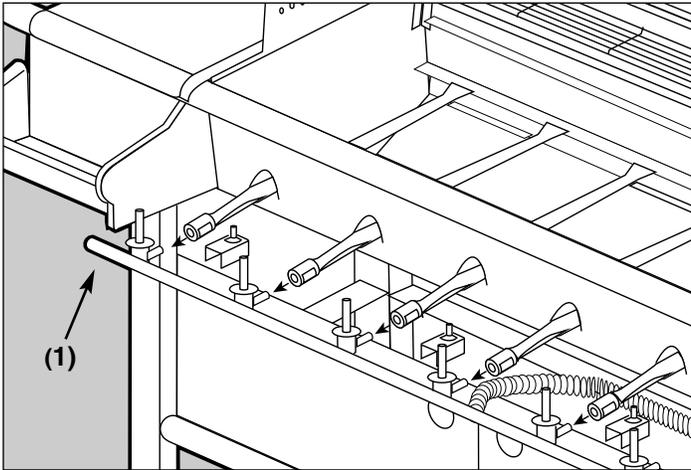


8. Disconnect white(1) and black(2) wire from each igniter.



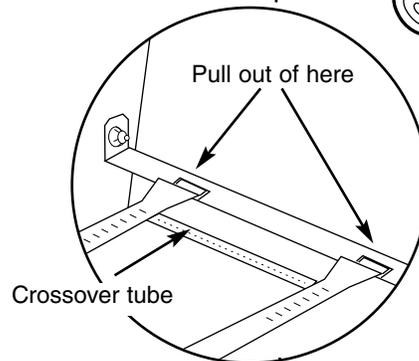
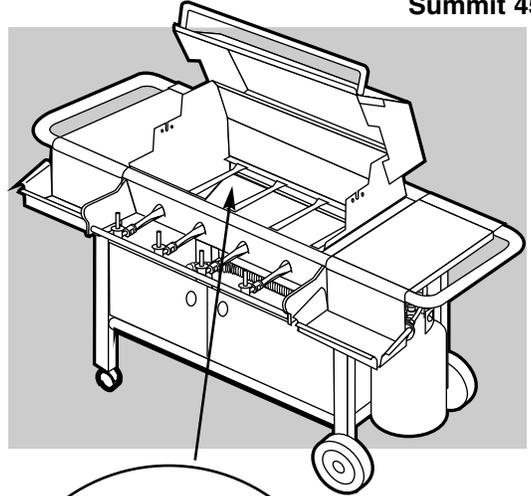
GENERAL MAINTENANCE

9. Pull the manifold(1) out of the burners.



10. Slide the burner assembly from each Heat Zone. The left and right burners are connected by the Crossover tube.

Summit 450



Summit 650

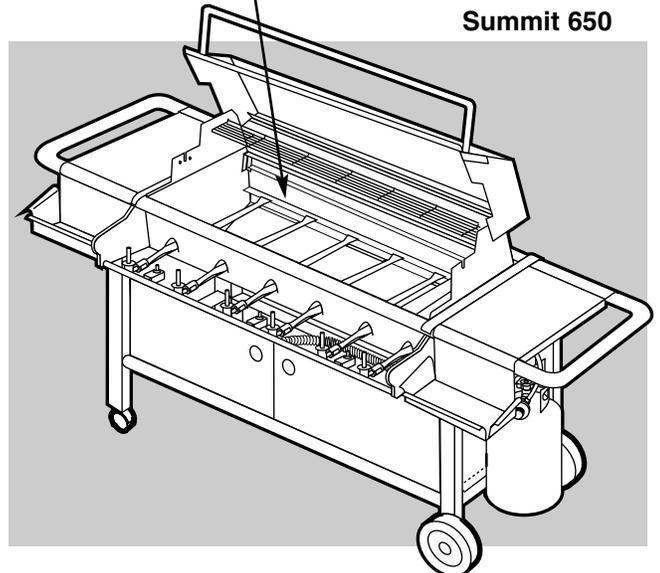
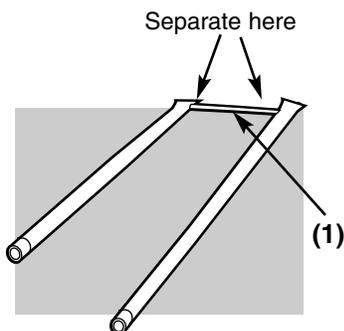


Figure 13

GENERAL MAINTENANCE

11. Lift and twist the burner assembly slightly to separate the crossover tube(1) from the burners. Remove the burners from the cooking box.



12. To reinstall the burners, reverse steps 3 through 11.

⚠ CAUTION: The burner openings must be positioned properly over the valve orifices. Figure 15 (a).

Check proper assembly before fastening manifold in place. Figure 15 (b).

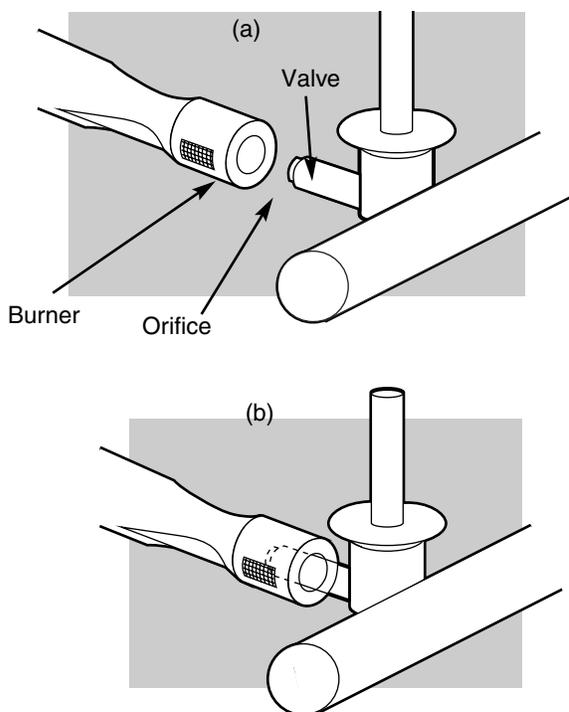
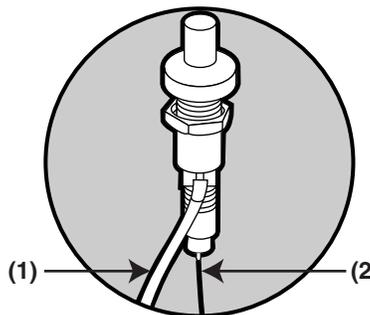


Figure 15

Crossover® Ignition System Operations

If the Crossover Ignition System fails to ignite the Left burner, light the Left burner with a match. If the Left burner lights with a match, then check the Crossover Ignition System.

- Check that both the white(1) and black(2) ignition wires are attached properly.



- Check that the Crossover Ignition button pushes the igniter (button) down, and returns to the up position.
- Check to see if the igniter is loose in the frame. Tighten if necessary; See Step "Install igniter" for correct procedure.

If the Crossover Ignition System still fails to light, Contact the Customer Service Representative in your region using the contact information sheet provided with your manual.

TROUBLESHOOTING

Problem	Check	Cure
Burners burn with a yellow or orange flame, in conjunction with the smell of gas.	Inspect Spider/Insect Screens for possible obstructions. (Blockage of holes.)	Clean Spider/Insect Screens and inspect burners. (See Maintenance Section.)
Burner does not light, or flame is low in HIGH position.	Is LP fuel low or empty?	Refill LP tank.
	Is fuel hose bent or kinked?	Straighten fuel hose.
	Does the Left burner light with a match?	If you can light the Left burner with a match, then check the Crossover Ignition System.
Experiencing flare-ups:	Are you preheating barbecue in the prescribed manner?	All burners on high for 10 to 15 minutes for preheating.
	Are the cooking grates and Flavorizer Bars heavily coated with burned-on grease?	Clean thoroughly. (See Cleaning Section.)
⚠ CAUTION: Do not line the bottom tray with aluminum foil.	Is the bottom tray “dirty” and not allowing grease to flow into catch pan?	Clean bottom tray.
Burner flame pattern is erratic. Flame is low when burner is on HIGH. Flames do not run the whole length of the burner tube.	Are burners clean?	Clean burners. (See Maintenance Section.)
Inside of lid appears to be “peeling.” (Resembles paint peeling.)	The lid is porcelain-on-steel, not paint. It cannot “peel.” What you are seeing is baked on grease that has turned to carbon and is flaking off. THIS IS NOT A DEFECT.	Clean thoroughly. (See Cleaning Section.)
Barbecue seems to lose heat when cooking in cold weather temperatures 50°F or colder. (The liquid propane in the cylinder turns to vapor too slowly to supply the burners with gas. This is due to the air temperature cooling the LP cylinder which slows the vaporization process.)	Is there frost/ice on the outside of the LP cylinder?	Turn off burner control knobs and the LP cylinder. Replace with a spare LP cylinder and resume cooking. ⚠ WARNING: The spare or disconnected LP cylinder must be stored outdoors in a well ventilated area out of the reach of children. The spare or disconnected LP cylinder must never be stored under or near your Weber Gas Barbecue.

PATENTS & TRADEMARKS

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Summit Series Gas Barbecues are covered by U.S. Patent Nos. 4,677,964; 4,727,853; 4,777,927; 4,829,978; 4,860,724; 4,941,817; and 4,966,125; and, Canada patent Nos. 1,283,586 and 1,300,995. Printed in the U.S.A.