Installation Safety Precautions

• Use grill, as purchased, only with LP (propane) gas and the regulator/valve assembly supplied. If your grill is Dual Fuel ready, a conversion kit must be purchased for use with natural gas.

• Grill installation must conform with local codes, or in their absence of local codes, with either the 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.

• All electrical accessories (such as rotisserie) must be electrically grounded in accordance with local codes, or National Electrical Code, ANSI / NFPA 70 or Canadian Electrical Code, CSA C22.1. Keep any electrical cords and/or fuel supply hoses away from any hot surfaces.

• This grill is safety certified for use in the United States and/or Canada only. Do not modify for use in any other location. Modification will result in a safety hazard.

USE AND CARE

LP Cylinder Removal, Transport and Storage

• Turn OFF all control knobs and LP cylinder valve. Turn coupling nut counterclockwise by hand only - do not use tools to disconnect. Loosen cylinder screw beneath bottom shelf or disconnect other retention means, then lift LP cylinder up and out of cart. Install safety cap onto LP cylinder 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 cylinder in storage or being transported must have a safety cap installed (as shown). Do not store an LP cylinder in enclosed spaces such as a carport, garage, porch, covered patio or other building. Never leave an LP cylinder inside a vehicle which may become overheated by the sun.

• Do not store an LP cylinder in an area where children play.

LP Cylinder

• The LP cylinder used with your grill must meet the following requirements:

  • Use LP cylinders only with these required measurements: 12” (30.5cm) (diameter) x 18” (45.7 cm) (tall) with 20 lb. (9 kg.) capacity maximum.

  • LP cylinders must be constructed and marked in accordance with specifications for LP cylinders of the U.S. Department of Transportation (DOT) or for Canada, CAN/CSA-B339, cylinders, spheres and tubes for transportation of dangerous goods, Transport Canada (TC). See LP cylinder collar for marking.

  • LP cylinder valve must have:

    • Type 1 outlet compatible with regulator or grill.
    • Safety relief valve.
    • UL listed Overfill Protection Device (OPD). This OPD safety feature is identified by a unique triangular hand wheel. Use only LP cylinders equipped with this type of valve.

• LP cylinder must be upright for vapor withdrawal and include collar to protect LP cylinder valve. Always keep LP cylinders in upright position during use, transit or storage.

LP (Liquefied Petroleum Gas)

• LP gas is nontoxic, odorless and colorless when produced. For Your Safety, LP gas has been given an odor (similar to rotten cabbage) so that it can be smelled.

• LP gas is highly flammable and may ignite unexpectedly when mixed with air.

LP Cylinder Filling

• Use only licensed and experienced dealers.

• LP dealer must purge new cylinder before filling.

• Dealer should NEVER fill LP cylinder more than 80% of LP cylinder volume. Volume of propane in cylinder will vary by temperature.

• A frosty regulator indicates gas overfill. Immediately close LP cylinder 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 cylinder, contact an LP dealer or call a local fire department for assistance. Check the telephone directory under “Gas Companies” for nearest certified LP dealers.
LP Cylinder Exchange

- Many retailers that sell grills offer you the option of replacing your empty LP cylinder through an exchange service. Use only those reputable exchange companies that inspect, precision fill, test and certify their cylinders. **Exchange your cylinder only for an OPD safety feature-equipped cylinder as described in the “LP Cylinder” section of this manual.**

- Always keep new and exchanged LP cylinders in upright position during use, transit or storage.

- **Leak test new and exchanged LP cylinders BEFORE connecting to grill.**

- Place safety cap on cylinder valve outlet whenever the cylinder is not in use. Only install the type of safety cap on the cylinder valve outlet that is provided with the cylinder valve. Other types of caps or plugs may result in leakage of propane.

LP Cylinder Leak Test

**For your safety**

- Leak test must be repeated each time LP cylinder is exchanged or refilled.

- Do not smoke during leak test.

- Do not use an open flame to check for gas leaks.

- Grill must be leak tested outdoors in a well-ventilated area, away from ignition sources such as gas fired or electrical appliances. During leak test, keep grill away from open flames or sparks.

- Use a clean paintbrush and a 50/50 mild soap and water solution. Brush soapy solution onto areas indicated by arrows in figure below.

- **Do not use household cleaning agents.** Damage to gas train components can result.

![LP Cylinder Diagram](image)

Connecting Regulator to the LP Cylinder

1. LP cylinder must be properly secured onto grill. (Refer to assembly section.)

2. Turn all control knobs to the OFF position.

3. Turn LP cylinder OFF by turning hand-wheel clockwise to a full stop.

4. Remove the safety cap from LP cylinder valve. Always use cap and strap if supplied with valve.

5. **Hold regulator and insert nipple into LP cylinder valve. Hand-tighten the coupling nut, holding regulator in a straight line with LP cylinder valve so as not to cross-thread the connection.**

6. **Turn the coupling nut clockwise and tighten to a full stop. The regulator will seal on the back-check feature in the LP cylinder valve, resulting in some resistance. An additional one-half to three-quarters turn is required to complete the connection. Tighten by hand only – do not use tools.**

**NOTE:**

If you cannot complete the connection, disconnect regulator and repeat steps 5 and 6. If you are still unable to complete the connection, do not use this regulator!

![Regulator Diagram](image)

**WARNING**

If “growing” bubbles appear, do not use or move the LP cylinder. Contact an LP gas supplier or your fire department!

**DANGER**

- Do not insert any tool or foreign object 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.
Leak Testing Valves, Hose and Regulator

1. Turn all grill control knobs to OFF.
2. Be sure regulator is tightly connected to LP cylinder.
3. Completely open LP cylinder valve by turning hand wheel counterclockwise. If you hear a rushing sound, turn gas off immediately. There is a major leak at the connection. Correct before proceeding.
4. Brush soapy solution onto areas circled below, or other similar fittings on your grill.

5. If “growing” bubbles appear, there is a leak. Close LP cylinder valve immediately and retighten connections. If leaks cannot be stopped do not try to repair. Call for replacement parts.
6. Always close LP cylinder valve after performing leak test by turning hand wheel clockwise.

NOTE: Sideburner shelf fascia and other parts not shown for clarity.

NOTE: Your grill may NOT be equipped with a sideburner.

Safety Tips

• Before opening LP cylinder valve, check the coupling nut for tightness.
• When grill is not in use, turn off all control knobs and LP cylinder valve.
• Never move grill while in operation or still hot.
• Some surfaces will be hot during use. Use long-handled barbecue utensils and oven mitts to avoid burns and splatters.
• Maximum load for sideburner and side shelf is 10 lbs.
• The grease tray or cup must be installed during use and emptied after each use. Do not remove grease tray or cup until grill has completely cooled.
• Clean grill often, preferably after each cookout. If a bristle brush is used to clean any of the grill cooking surfaces, ensure no loose bristles remain on cooking surfaces prior to grilling. It is not recommended to clean cooking surfaces while grill is hot.
• If you notice grease or other hot material dripping from grill onto valve, hose or regulator, turn off gas supply at once. Determine the cause, correct it, then clean and inspect valve, hose and regulator before continuing. Perform a leak test.
• Keep ventilation openings in cylinder enclosure (grill cart) free and clear of debris.
• Do not store objects or materials inside the grill cart enclosure that would block the flow of combustion air to the underside of either the control panel or the firebox bowl.
• The regulator may make a humming or whistling noise during operation. This will not affect safety or use of grill.
• If you have a grill problem see the “Troubleshooting” Section.
• If the regulator frosts, turn off grill and LP cylinder valve immediately. This indicates a problem with the cylinder and it should not be used on any product. Return to supplier!
WARNING

For Safe Use of Your Grill and to Avoid Serious Injury:
• Do not let children operate or play near grill.
• Keep grill area clear and free from materials that burn.
• Do not block holes in sides or back of grill.
• Check burner flames regularly.
• Use grill only in well-ventilated space. NEVER use in enclosed space such as carport, garage, porch, covered patio, or under an overhead structure of any kind.
• Do not use charcoal or ceramic briquets in a gas grill.
• Do not cover grates with aluminum foil or any other material. This will block burner ventilation and create a potentially dangerous condition resulting in property damage and/or personal injury.
• Use grill at least 3 ft. from any wall or surface. Maintain 10 ft. clearance to objects that can catch fire or sources of ignition such as pilot lights on water heaters, live electrical appliances, etc.

Ignitor Lighting
• Do not lean over grill while lighting.
1. Turn gas burner control valves to (off).
2. Open lid during lighting or re-lighting.
3. Turn ON gas at LP cylinder.
4. To ignite, push and turn IGNITION BURNER knob to HIGH. Immediately, push and hold ELECTRONIC IGNITOR button until the burner lights.
5. If ignition does NOT occur in 5 seconds, turn the burner controls OFF, wait 5 minutes and repeat the lighting procedure.
6. To ignite remaining burners, push and turn knob to the HIGH position starting with the burners closest to the IGNITION BURNER first.

CAUTION

If ignition does NOT occur in 5 seconds, turn the burner controls OFF, wait 5 minutes and repeat the lighting procedure. If the burner does not ignite with the valve open, gas will continue to flow out of the burner and could accidently ignite with risk of injury.

Match-Lighting
• Do not lean over grill while lighting.
1. Turn gas burner control valves to (off).
2. Open lid during lighting or re-lighting.
3. Turn ON gas at LP cylinder.
4. Place match into match holder (hanging from side panel of grill). Light match; then light burner by placing match through the match light hole on side of grill. Immediately push in and turn burner knob to the HIGH position. Be sure burner lights and stays lit.
5. Light adjacent burners in sequence by pushing knobs in and turning to the HIGH position.

WARNING

Turn controls and gas source or tank OFF when not in use.
NOTE: Your grill may NOT be equipped with a Sideburner!

Sideburner Ignitor Lighting
- Do not lean over grill while lighting.
  1. Turn gas burner control valves to (off).
  2. Open lid during lighting or re-lighting.
  3. Turn ON gas at LP cylinder.
  4. Turn sideburner knob to the \( \text{HIGH} \) position, push and hold ELECTRONIC IGNITOR button.
  5. If sideburner does NOT light within 5 seconds, turn knob to (off), wait 5 minutes, then repeat lighting procedure.

Sideburner Match Lighting
- Do not lean over grill while lighting.
  1. Turn gas burner control valves to (off).
  2. Open lid during lighting or re-lighting.
  3. Turn ON gas at LP cylinder.
  4. Place lit match near burner. Immediately turn sideburner knob to the \( \text{HIGH} \) position. Be sure burner lights and stays lit.

Burner Flame Check
- Remove cooking grates and heat tents. Light burners, rotate knobs from HIGH to LOW. You should see a smaller flame in LOW position than seen on HIGH. Perform burner flame check on side burner, also. Always check flame prior to each use. If only low flame is seen refer to "Sudden drop or low flame" in the Troubleshooting Section.

Turning Grill Off
- Turn all knobs to the (off) position. Turn LP cylinder off by turning hand-wheel clockwise to a full stop.

Ignitor Check
- Turn gas off at LP cylinder. Press and hold electronic ignitor button. "Click" should be heard and spark seen each time in each collector box or between burner and electrode. See "Troubleshooting" if no click or spark.

Valve Check
- Important: Make sure gas is off at LP cylinder before checking valves. Knobs lock in off position. To check valves, first push in knobs and release, knobs should spring back. If knobs do not spring back, replace valve assembly before using grill. Turn knobs to LOW position then turn back to off position. Valves should turn smoothly.

Hose Check
- Before each use, check to see if hoses are cut or worn or kinked. Replace damaged hoses before using grill. Use only valve/hose/regulator specified by manufacturer.

Storing Your Grill
- Clean cooking grates.
- Store in dry location.
- When LP cylinder is connected to grill, store outdoors in a well-ventilated space and out of reach of children.
- Cover grill if stored outdoors. Choose from a variety of grill covers offered by Char-Broil at charbroil.com.
- Store grill indoors ONLY if LP cylinder is turned off and disconnected, removed from grill and stored outdoors.
- When removing grill from storage, follow “Cleaning the Burner Assembly” instructions before starting grill.

CAUTION
- Putting out grease fires by closing the lid is not possible. Grills are well ventilated for safety reasons.
- Do not use water on a grease fire. Personal injury may result. If a grease fire develops, turn knobs and LP cylinder off.
- Do not leave grill unattended while preheating or burning off food residue on HI. If grill has not been regularly cleaned, a grease fire can occur that may damage the product.
General Grill Cleaning
• Do not mistake brown or black accumulation of grease and smoke for paint. Interiors of gas grills are not painted at the factory (and should never be painted). Apply a strong solution of detergent and water or use a grill cleaner with scrub brush on insides of grill lid and bottom. Rinse and allow to completely air dry. Do not apply a caustic grill/oven cleaner to painted surfaces.
• Plastic parts: Wash with warm soapy water and wipe dry.
  • Do not use citrisol, abrasive cleaners, degreasers or a concentrated grill cleaner on plastic parts. Damage to and failure of parts can result.
• Porcelain surfaces: Because of glass-like composition, most residue can be wiped away with baking soda/water solution or specially formulated cleaner. Use nonabrasive scouring powder for stubborn stains.
• Painted surfaces: Wash with mild detergent or nonabrasive cleaner and warm soapy water. Wipe dry with a soft nonabrasive cloth.
• Stainless steel surfaces: To maintain your grill’s high quality appearance, wash with mild detergent and warm soapy water and wipe dry with a soft cloth after each use. Baked-on grease deposits may require the use of an abrasive plastic cleaning pad. Use only in direction of brushed finish to avoid damage. Do not use abrasive pad on areas with graphics.
• Cooking surfaces: If a bristle brush is used to clean any of the grill cooking surfaces, ensure no loose bristles remain on cooking surfaces prior to grilling. It is NOT recommended to clean cooking surfaces while grill is hot.

Cleaning the Burner Assembly
Follow these instructions to clean and/or replace parts of burner assembly or if you have trouble igniting grill.
1. Turn gas off at control knobs and LP cylinder.
2. Remove cooking grates and heat tents.
3. Remove carryover tubes and hardware securing burners.
4. Detach electrode from burner.
   NOTE: Removal/Detachment method will depend on the burner configuration. See different configurations in illustrations below.
5. Carefully lift each burner up and away from valve openings. We suggest three ways to clean the burner tubes. Use the one easiest for you.
   (A) Bend a stiff wire (a light weight coat hanger works well) into a small hook. Run the hook through each burner tube several times.
   (B) Use a narrow bottle brush with a flexible handle (do not use a brass wire brush). Run the brush through each burner tube several times.
   (C) Wear eye protection: Use an air hose to force air into the burner tube and out the burner ports. Check each port to make sure air comes out each hole.
6. Wire brush entire outer surface of burner to remove food residue and dirt.
7. Clean any blocked ports with a stiff wire such as an open paper clip.
8. Check burner for damage due to normal wear and corrosion, some holes may become enlarged. If any large cracks or holes are found, replace burner.
   VERY IMPORTANT: Burner tubes must reengage valve openings. See illustrations at right.

Correct burner-to-valve engagement
9. Attach electrode to burner.
10. Carefully replace burners.
11. Attach burners to brackets on firebox.
12. Reposition carryover tubes and attach to burners. Replace heat tents and cooking grates.
13. Before cooking again on grill, perform a “Leak Test” and “Burner Flame Check”.

SPIDER ALERT!
If your grill is getting hard to light or the flame is weak, check and clean the venturis and burners.
Spiders or small insects are known to create “flashback” problems by building nests and laying eggs in the grill’s venturi or burner, obstructing the flow of gas. The backup gas can ignite behind the control panel. This flashback can damage your grill and cause injury. To prevent flashbacks and ensure good performance the burner and venturi tube assembly should be removed and cleaned when ever the grill has been idle for an extended period of time.