



General Information

- Keep grill area clear and free from combustible materials, gasoline, and other flammable vapors.
- When the outdoor grill is not in use, the gas supply must be turned off at the LP gas supply cylinder.
- The pressure regulator and hose assembly supplied with the outdoor grill must be used. Replacement pressure regulators and hose assemblies must be those specified by the manufacturer.
- Finding a leak is not a “do-it-yourself” procedure. Some leaks can only be found with the burner control in the on position and this must be done by a qualified technician.
- The LP supply cylinder to be used 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 Standard of Canada, CAN/CSA-B339, Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods.
- Use only extension cords with a 3-prong grounding plug, rated for the power of the equipment, and approved for outdoor use with a W-A marking.
- Gas Manifold Pressure–
Natural gas - 4.0” W.C.P.
LP/Propane - 10.0” W.C.P.

 **WARNING**

If the following instructions are not followed exactly, a fire causing death or serious injury may occur:


- Do not store a spare LP gas cylinder under or near this appliance.
- Never fill the cylinder beyond 80 percent full.

 **WARNING**


This outdoor gas grill is not intended to be installed inside a home or on recreational vehicles and/or boats.

 **WARNING**

Keep electrical supply cord and the fuel supply hose away from heated surfaces.

 **WARNING**

This appliance is not fused. Installer must install a ground fault interrupt.

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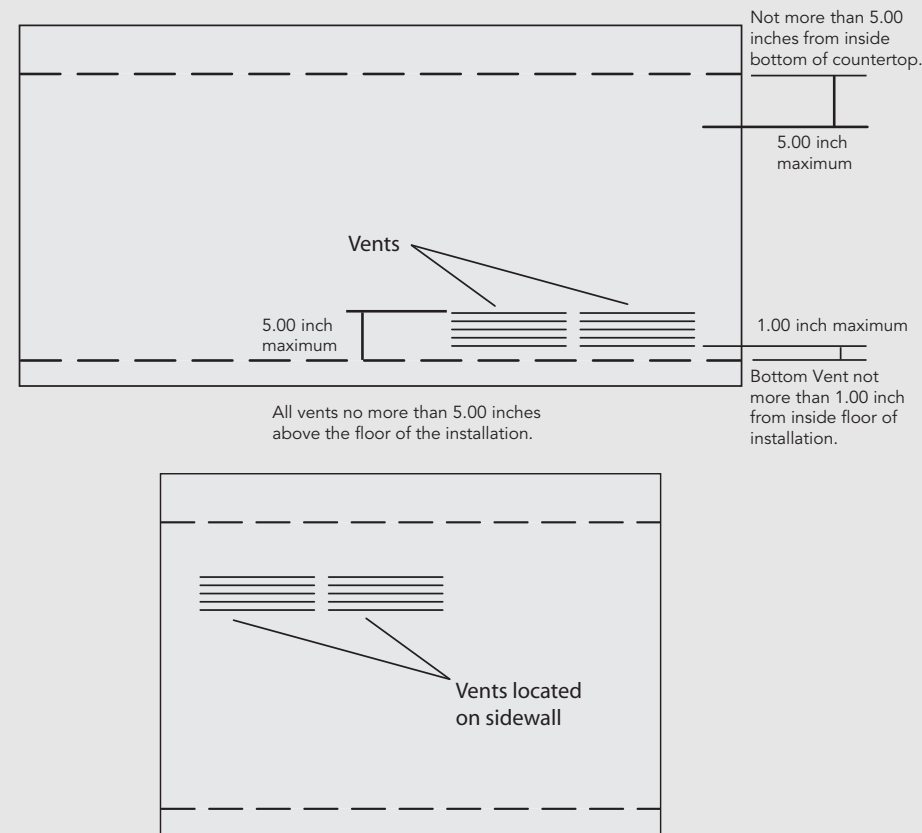
- A minimum of 6” (15.2 cm) from the sides, or a minimum of 8” (20.3 cm) from the right side if there is a rotisserie motor and a minimum of 24” (61.0 cm) from the back must be maintained from the grill above the cooking surface to adjacent vertical **combustible** construction. The grill is not to be located under overhead unprotected combustible construction.
NOTE: An insulated jacket (INJK- purchased separately) is required when installing either a 100 or 300 series grill in combustible type material.
- Note that the grill exhausts combustion products and cooking greases to the back. **NEVER** locate the grill in a location where the exhaust is directed at a window, less than 24” (61.0 cm) to combustible material or any surface that is difficult to clean.
- A minimum of 3” (7.6 cm) clearance from the back of the grill with a canopy and a minimum of 6” (15.2 cm) from the back of the grill without a canopy to **non-combustible** construction is required for the purpose of allowing the lid to open fully and for proper ventilation. It is desirable to allow at least 6” side clearance to non-combustible construction above the cooking surface for counter space. If using the rotisserie option, the space is essential for motor and skewer clearance. The grill can be placed directly adjacent to combustible and/or non-combustible construction below the cooking surface. However, clearances from non-combustible materials are not part of the ANSI Z21.58 scope and are not certified by CSA. Clearances to non-combustible materials must be approved by the authority having jurisdiction.
- When determining a suitable location for the grill, take into account concerns such as exposure to wind, proximity to traffic paths and keeping gas supply lines as short as possible. Locate the grill only in a well-ventilated area. Never locate the grill in a building, garage, shed or other such fully enclosed areas. During heavy use, the grill will produce a lot of smoke. Ensure there is adequate area for it to dissipate.

300 and 500 Series Grills:

- When using a rear wall, locate a 110/120 volt supply outlet on the bottom left hand side beneath the solid bottom support at a maximum distance of 2 feet. This connection is to be used for the ignition system and canopy lights. In addition, the rotisserie motor requires a separate 110/120 volt supply to be located on the right hand side of the grill. Both the power supply cords for the ignition/lights and the rotisserie motor are equipped with a 3-prong (grounded) plug for protection against shock hazard. Do not cut or remove the grounding from the plug. The electrical service must be equipped with a properly grounded 3-prong receptacle as required by the National Electrical Code ANSI/NFPA 70- latest edition. Installation in Canada must be in accordance with the Canadian Electrical Code, CSA 22.1 and local codes.

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

Ventilation for Built-In Installations



An enclosure for an LP-gas cylinder shall be ventilated by openings at both the upper and lower levels of the enclosure. The effectiveness of the opening(s) for purposes of ventilation shall be determined with the LP-gas supply cylinder in place. This shall be accompanied by one of the following:

- One side of the enclosure shall be completely open; or
- For an enclosure having four sides, a top and a bottom:
 - At least two ventilation openings (See Part IV, Definitions) shall be provided in the side walls of the enclosure, located within 5 in. (217 mm) of the top of the enclosure, equally sized, spaced at a minimum of 90 degrees (1.57 rad), and unobstructed. The opening(s) shall have a total free area of not less than 1 in²/lb (1.42 cm²/kg) of stored fuel capacity.
 - Ventilation opening(s) shall be provided at floor level at rear of the enclosure and shall have a total free area of not less than 1/2 in²/lb (7.1 cm²/kg) of stored fuel capacity. The bottom of the openings shall be 1 in. (25.4 mm) or less from the floor level and the upper edge no more than 5 in. (127 mm) above the floor level. The openings shall be equally sized, spaced at a minimum of 90 degrees (1.57 rad) and unobstructed.
 - Every opening shall have minimum dimensions so as to permit the entrance of a 1/8 inch (3.2 mm) diameter rod.
 - Ventilation openings in the side walls shall not communicate directly with other enclosures of the outdoor cooking gas appliance.

Note: It is strongly recommended to follow the same ventilation requirements when using Natural Gas.

Gas and Electrical Connection

Gas Connection

Verify the type of gas supply to be used, either natural or LP, and make sure the marking on the grill rating plate agrees with that of the supply. Never connect an unregulated gas line to the appliance. An installer supplied gas shut-off valve must be installed in an easily accessible location. All installer supplied parts must conform to local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70 and the National Fuel Code, ANSI Z223.1/NFPA 54.

In Canada: Installation must be in accordance with the current CSA-B149.1, Natural Gas Installation Code or CSA-B149.2, Propane Installation Code and/or local codes. All pipe sealants must be an approved type and resistant to the actions of LP gas. Never use pipe sealant on flare fittings. All gas connections should be made by a competent technician and in accordance with local codes and or ordinances. In the absence of codes, the installation must comply with the National Fuel Gas Code ANSI Z223.1/NFPA 54. The gas grill and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 PSIG (3.5 kPa). The gas grill must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of that system at test pressures equal to or less than 1/2 psi (3.5 kPa). Built-in installations must be plumbed using a fixed/hard line if the unit is going to be operated at a distance exceeding 3 feet (0.91 meters) from the fuel supply per ANSI Z21.24 CSA.


Gas Conversion


To convert a grill from natural to LP/Propane or LP/Propane to natural, you **MUST** use conversion kit sold seperately.

**CAUTION**

Conversions should only be performed by an authorized service technician.

Electrical Connection

**WARNING**

ELECTRICAL SHOCK HAZARD
 This appliance is equipped with a 3' (91.4 cm) 3-prong power cord with a grounding plug for your protection against shock hazard and should be plugged directly into a properly grounded receptacle. Do not cut or remove the grounding prong from this plug. This unit is not fused and installer must install a GFI. Unit must be grounded in accordance with local codes or with the National Electrical Code ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.1.

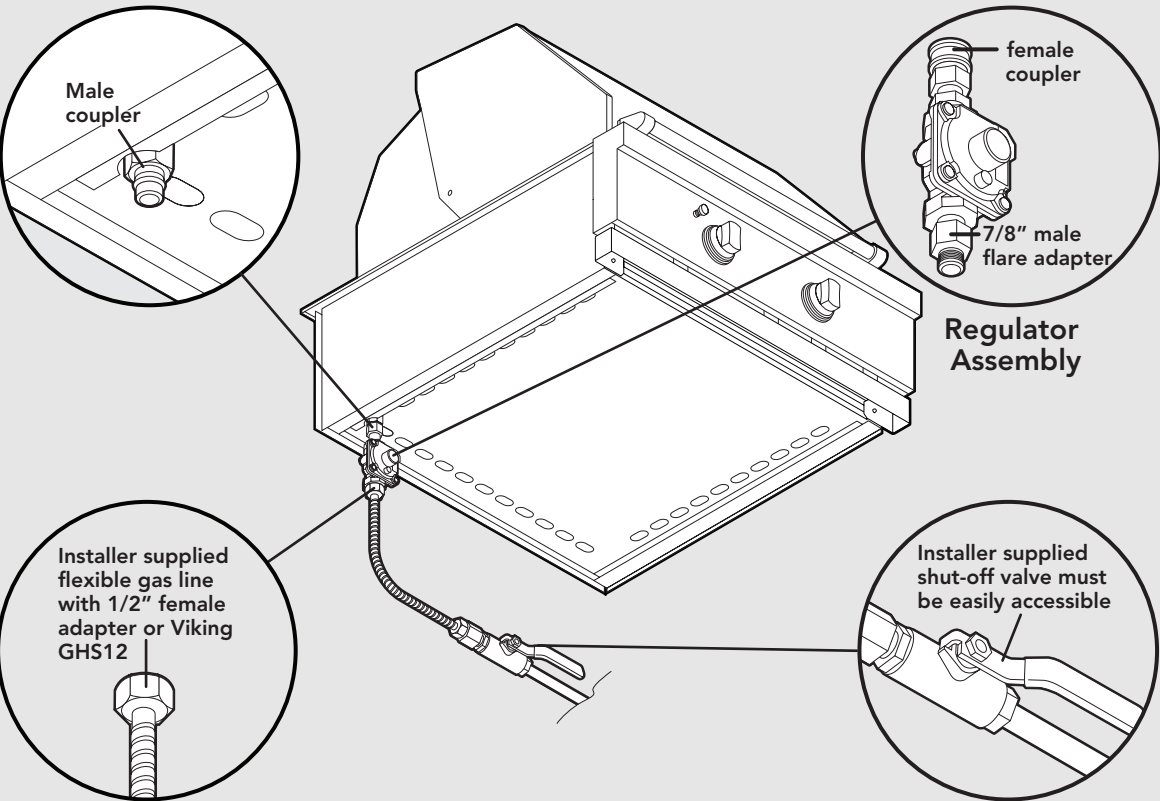
Natural Fixed Piping Connection

Check with your local gas utility company or with local codes for instructions on installing gas supply lines. Be sure to check on type and size of run and how deep to bury the lines. If the gas line is too small, the grill will not function properly.

To connect the supplied regulator assembly to the incoming flexible gas line, attach with a 7/8" (2.2 cm) female flare adapter to the 7/8" (2.2 cm) male flare adapter on the regulator assembly. Ensure that the regulator arrow points in the direction of the gas flow towards the unit and away from the supply. Attach the regulator

assembly to the grill unit by pulling back the female coupler sleeve towards the regulator. Insert the coupler into the male coupler fitting on the grill until the sleeve snaps forward securing the connection. **Do not forget to place the installer supplied gas valve in an accessible location.**

Note: If using a Viking GSH12 flexible hose, remove the 1/2" flare adapter and attach hose to the 7/8" (2.2 cm) male flare on the regulator assembly.



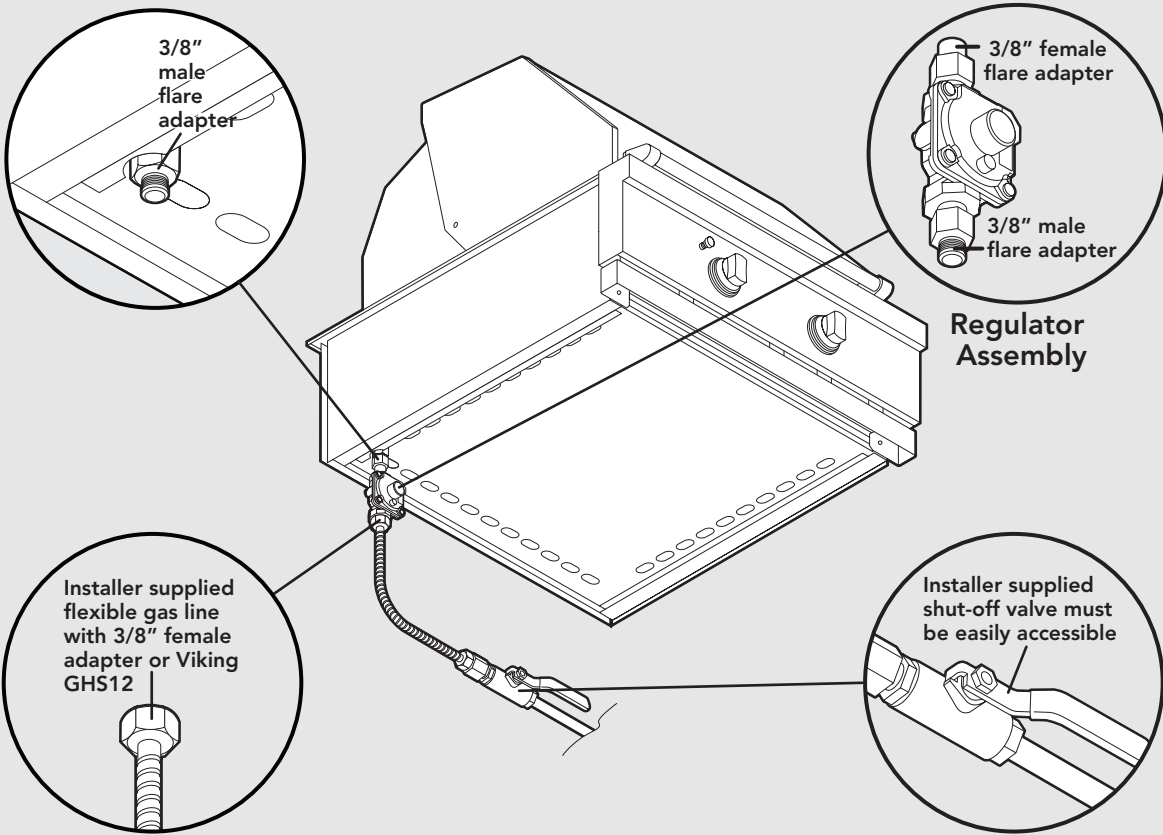
Connection	Operating Pressure	Supply Pressure
Standard Residential 1/2" ID gas service line - 1/2" NPT male with 7/8" (2.2 cm) flare adapter.	4.0" W.C.P. Nat.	6" to 10" W.C.P. Nat. If in excess of 10" W.C.P., a step-down regulator is required.

LP/Propane Fixed Piping Connection

Check with your local gas utility company or with local codes for instructions on installing gas supply lines. Be sure to check on type and size of run and how deep to bury the lines. If the gas line is too small, the grill will not function properly.

To connect the supplied regulator assembly to the incoming flexible gas line, attach with a 3/8" female flare adapter to the 3/8" male flare

adapter to the regulator assembly. Ensure that the regulator arrow points in the direction of the gas flow towards the unit and away from the supply. Attach the regulator assembly to the grill unit with the 3/8" female flare adapter on the regulator assembly to the 3/8" male flare adapter on the grill. **Do not forget to place the installer supplied gas valve in an accessible location**



Connection	Operating Pressure	Supply Pressure
Standard Residential 1/2" ID gas service line - 1/2" NPT male with 3/8" flare adapter.	10.0" W.C.P. LP/Propane	11" to 14" W.C.P. LP. If in excess of 14" W.C.P., a step-down regulator is required.

LP/Propane Tank Requirements

A dented or rusty LP/Propane tank may be hazardous and should be checked by your tank supplier. Never use a cylinder with a damaged valve. All tanks should be equipped with an OPD (overfilling protection device). This is a DOT requirement for all tanks purchased after October 1, 1998 and will ensure that the tank is not overfilled. The LP/Propane tank should be a standard 5-gal, 20 lb. gas cylinder tank approximately 12" in diameter and 18" high which must be constructed and marked in accordance with the Specifications for LP/Propane Gas Cylinders of the U.S. Department of Transportation (D.O.T.) or the National Standard of Canada, CAN/CSA-B339, Cylinders, Spheres and Tubes for Transportation of Dangerous Goods; and Commission. The cylinder connection device must be compatible with the Type 1, QCC-1 connector on the outdoor cooking appliance.

All LP/Propane tanks must be mounted in a vertical position for proper ventilation. The cylinder must be provided with a shut-off valve terminating in an LP/Propane gas supply cylinder valve outlet specified. The cylinder supply system must be arranged for vapor withdrawal and provided with a listed overfilling prevention device. If the appliance is stored indoors the cylinder must be disconnected and removed from the appliance. Each tank is supplied with a dust cap. Place dust cap on cylinder valve outlet whenever the cylinder is not in use. Only install the type of dust 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. The cylinder used must include a collar to protect the cylinder valve. Cylinders must be stored outdoors in a well-vented area out of the reach of children.

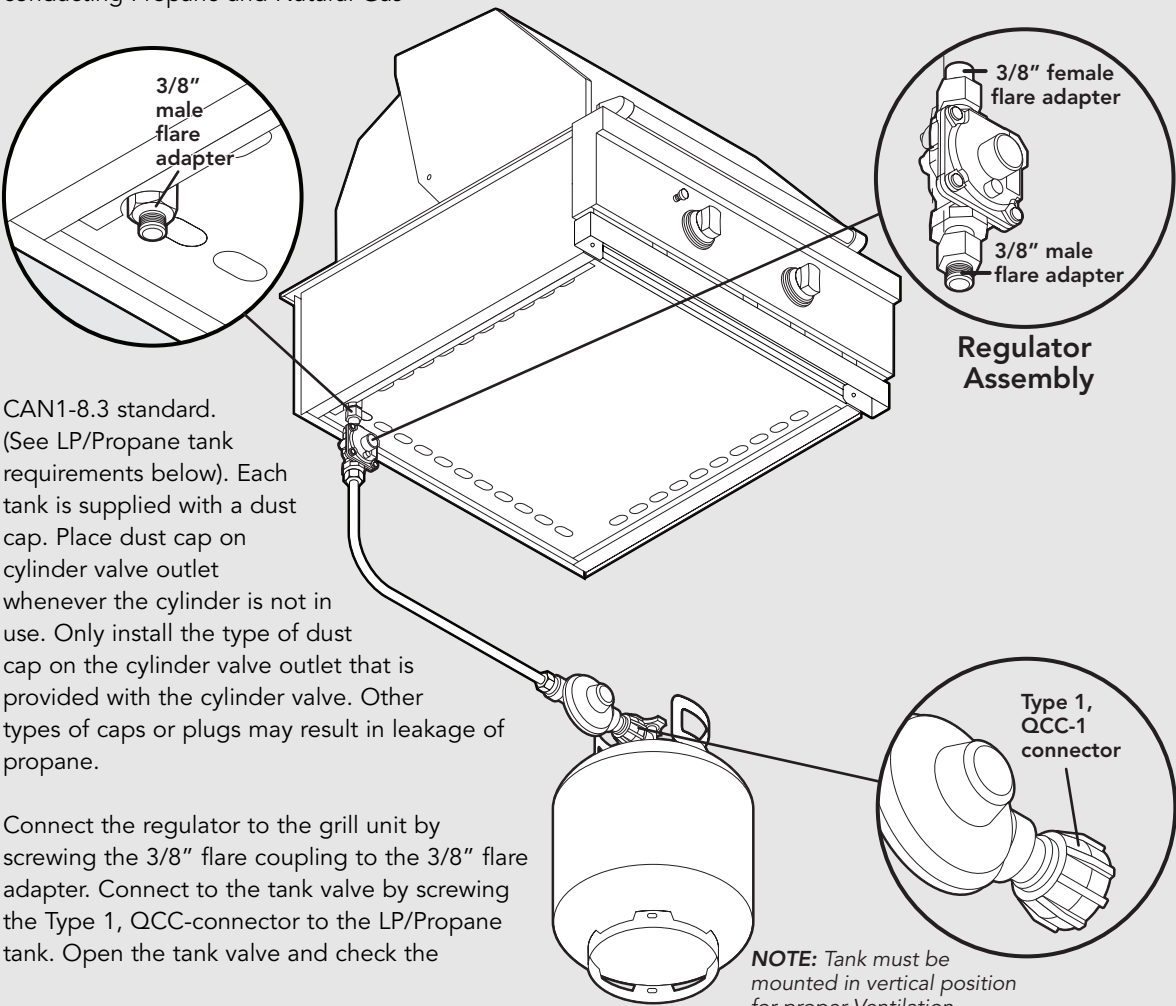
Built-In Installations

Built-in installations must be plumbed using a fixed/hard line if the unit is going to be operated at a distance exceeding 3 feet (0.91 meters) from the fuel supply per ANSI Z21.24 CSA. Also, in a built-in construction where an LP/Propane tank is going to be used, there **MUST** be some type of support (braces, cutout, etc.) to prevent tank from moving within the installation. The support must also allow the LP/Propane tank to withstand a horizontal tipping force equal to the weight of the tank without tipping over. The tank can not tip over or deflect more than 1.00 inch when a 8 lb. horizontal force is applied to a 20 lb. LP/Propane tank

LP/Propane Tank Connection

Outdoor grills orificed for use with LP/Propane gas come equipped with a high capacity hose/regulator assembly for connection to a standard 20 lb. LP/Propane cylinder equipped with a Type 1, QCC-1 connector. Hose assembly must comply with Elastomeric Composite Hose and Couplings for conducting Propane and Natural Gas, CAN/CGA-8.1 standard or the Thermoplastic Hose and Hose Couplings for conducting Propane and Natural Gas

connection between the regulator and the Type 1, QCC-1 fitting for leaks with a soapy water solution. If bubbles appear, tighten the connection. Repeat until all leaks have been stopped. ALWAYS CHECK FOR LEAKS AFTER EVERY LP/PROPANE TANK CHANGE. Any joint sealant used must be an approved type and be resistive to the actions of LP/Propane gas.



CAN1-8.3 standard. (See LP/Propane tank requirements below). Each tank is supplied with a dust cap. Place dust cap on cylinder valve outlet whenever the cylinder is not in use. Only install the type of dust 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.

Connect the regulator to the grill unit by screwing the 3/8" flare coupling to the 3/8" flare adapter. Connect to the tank valve by screwing the Type 1, QCC-connector to the LP/Propane tank. Open the tank valve and check the

Connection	Operating Pressure
1/2" (1.3 cm) NPT male with a 3/8" (.95) flare adapter	10.0" W.C.P. LP/Propane.

Leak Testing

Although all gas connections on the grill are leak tested at the factory prior to shipment, a complete gas tightness check must be performed at the installation due to possible mishandling in shipment or excessive pressure unknowingly being applied to the unit. Periodically check the whole system for leaks, or immediately check if the smell of gas is detected.

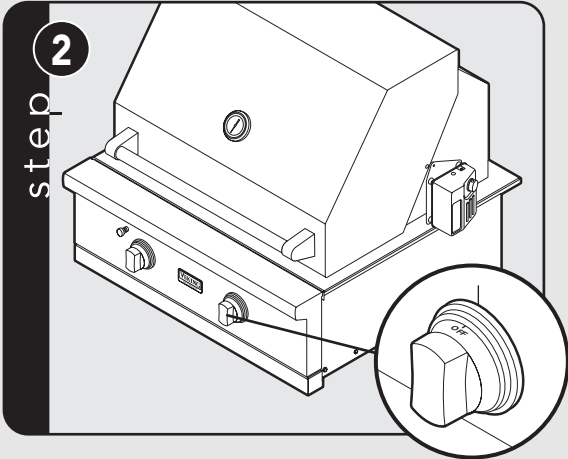
- Do not smoke while leak testing.
- Extinguish all flames.
- Never leak test with an open flame

CAUTION

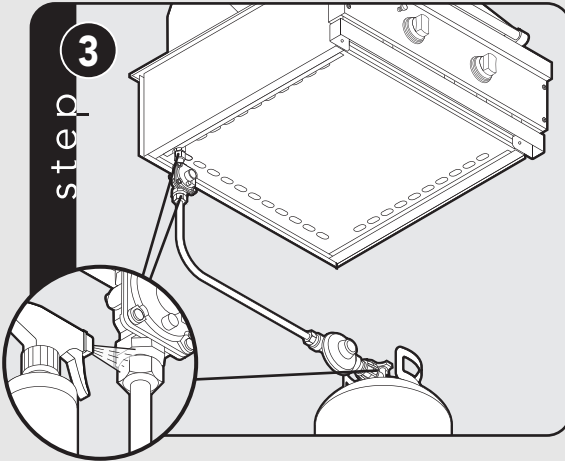
Before placing into operation, always check for gas leaks with a soapy water solution. **DO NOT** USE AN OPEN FLAME TO CHECK FOR LEAKS.



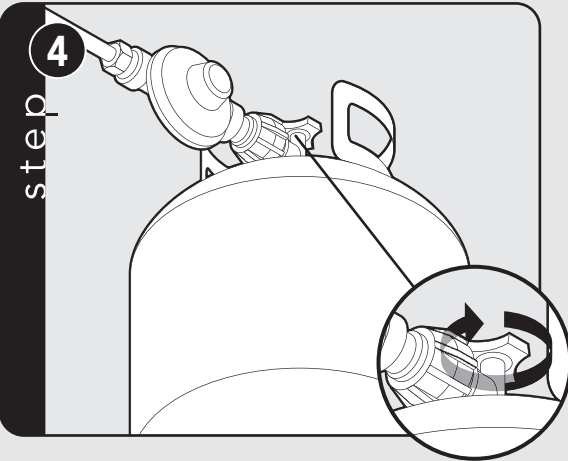
Make a soap solution of one part liquid detergent and one part water. You will need a spray bottle, brush or towel to apply the solution to the fittings.
Note: For LP/Propane units, check with a full cylinder.



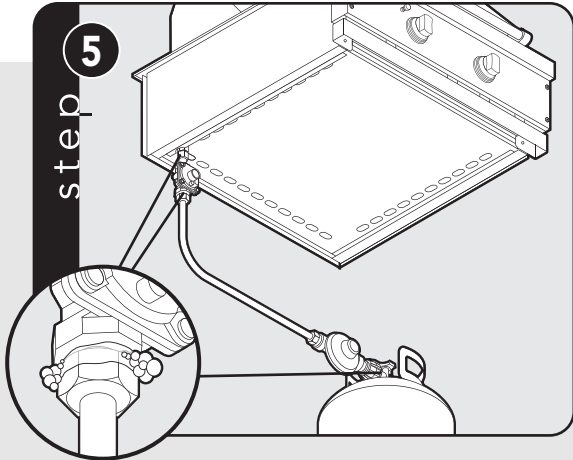
Check that all control knobs are in the "OFF" position.



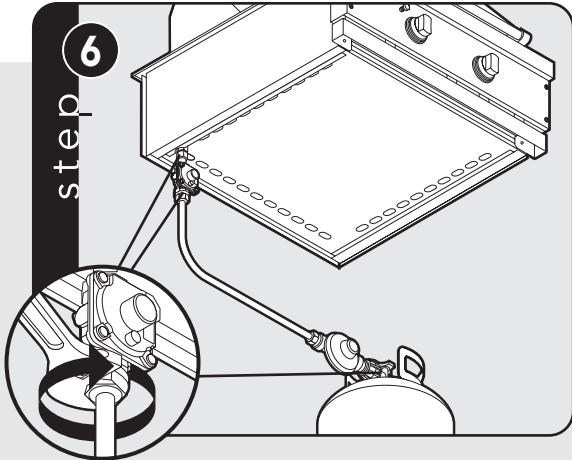
Apply the soap solution to fittings.



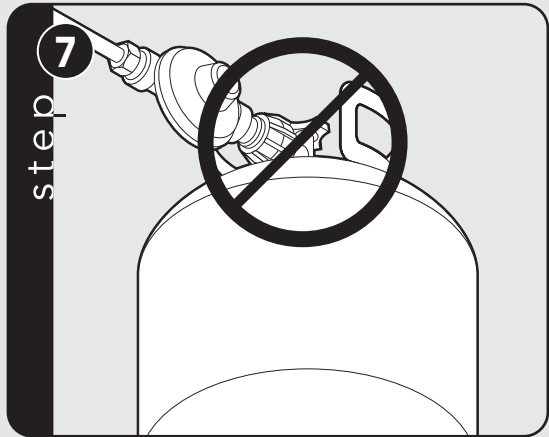
Turn cylinder valve knob counter clockwise one turn to open.



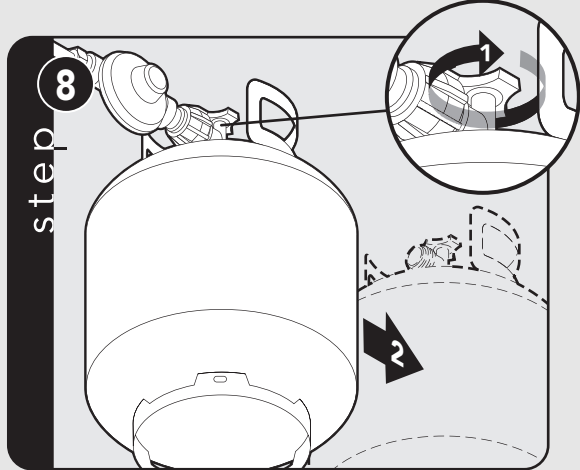
Bubbling bubbles in the soap solution indicates that a leak is present.



Stop a leak by tightening the loose joint or by replacing the faulty part with a replacement part recommended by the manufacturer.



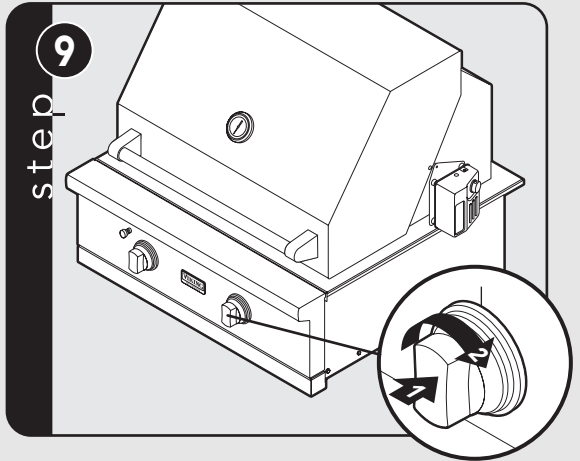
Do not attempt to repair the cylinder valve if it should become damaged. The cylinder must be replaced.



If you are unable to stop a leak, shut off the gas at the cylinder valve. Remove the cylinder from the grill.

Call an authorized gas appliance service technician or LP/Propane gas dealer.

Do not use the grill until the leak is corrected.



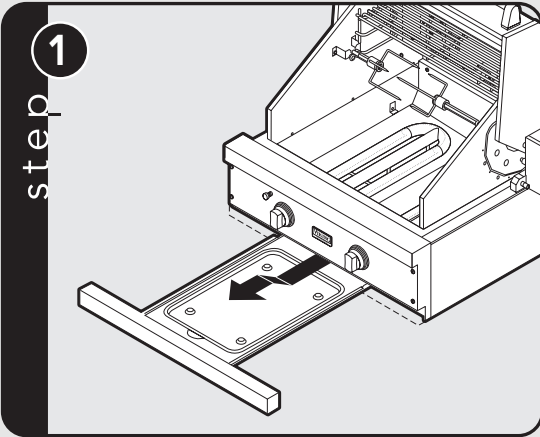
After checking for leaks, push in and turn any control knob to release the pressure in the hose and manifold. Turn off the control knob.

Burner Adjustment

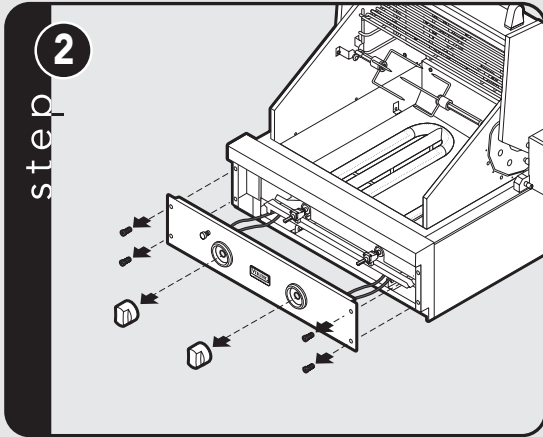
A qualified installer should perform the following burner adjustments. Each burner is tested and adjusted at the factory prior to shipment; however, variations in the local gas supply may make it necessary to adjust the burners. The flames of the burners (except the rotisserie infrared burner) should be visually checked and compared with the following illustrations.



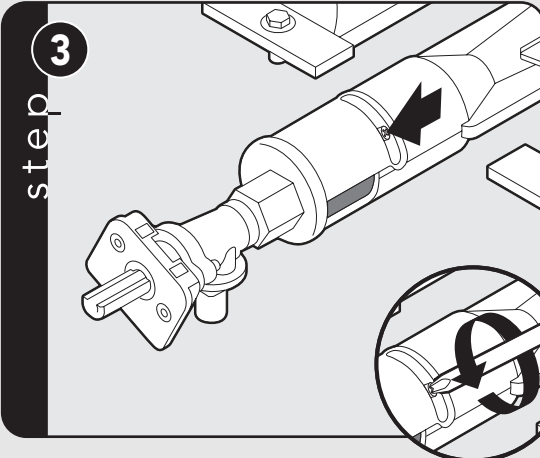
Flames should be blue and stable with no yellow tips, excessive noise or lifting. If any of these conditions exist, check if the air shutter or burner ports are blocked by dirt, debris, spider webs, etc. With a proper flame height, adjust the air shutter to obtain a blue flame with no yellow tipping that sits on the burner at the burner ports. The air shutter is locked in place by a set screw which must be loosened prior to lighting the burner for adjustments.



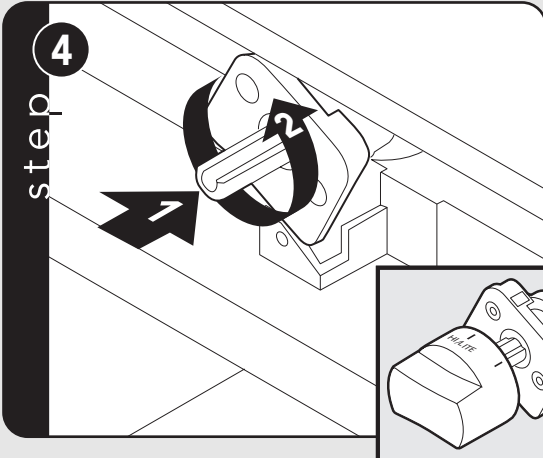
To access the air shutter on the grill burners, remove the drip tray.



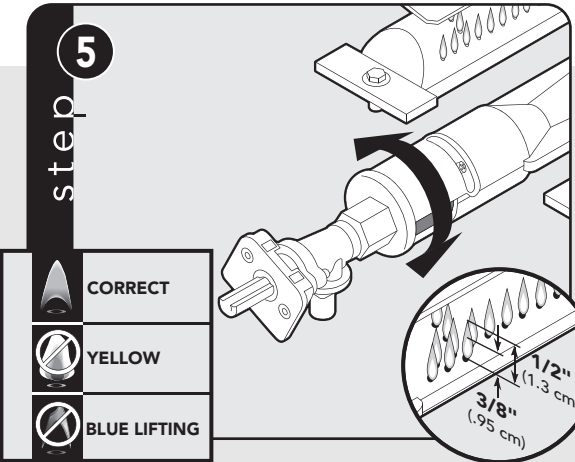
Remove the knobs and valve panel.
Note: Leave wires connected to switches on valve panel.



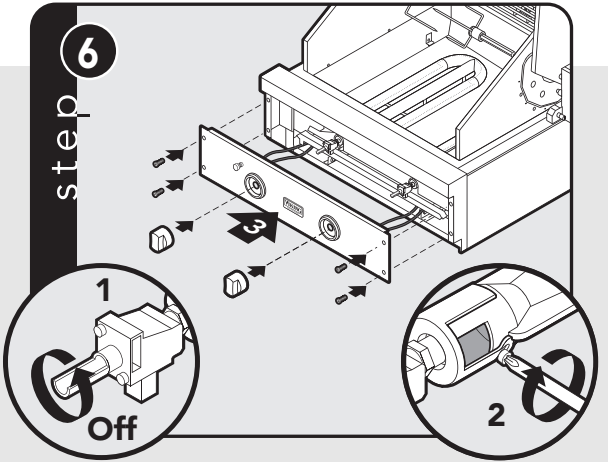
With a screw driver, loosen the lock-screw on the face of the air shutter.



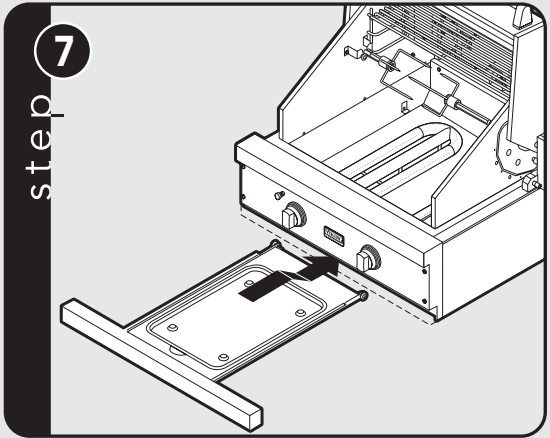
Push and turn the the valve to light the burner and adjust according to the directions following. Must push ignition button on 100 Series.
Note: By replacing the knob, it may be easier to light the burner.



If the flame is yellow, turn the air shutter counter clockwise to allow more air to the burner. If the flame is noisy and lifting away from the burner, turn the air shutter clockwise to reduce the amount of air to the burner.



Once adjusted, turn the burner off, tighten the set screw on the air shutter. For grill burners, replace the valve panel and knobs.



Replace the drip tray