

Viking Installation Guide



Viking Range Corporation

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or visit the Viking Web site at

vikingrange.com



BQCO "T" Series Cart with Outdoor Oven

IMPORTANT: PLEASE READ AND FOLLOW

1. Before beginning, please read these instructions completely and carefully.
2. Do not remove permanently affixed labels, warnings, or plates from product. This may void the warranty
3. Please observe all local and national codes and ordinances.
4. The installer should leave these instructions with the consumer who should retain for local inspector's use and for future reference

Installation must conform with local codes or in the absence of codes, the National Fuel Gas Code, ANSI Z223.1. In **Canada:** Installation must be in accordance with the current CAN/CGA-B149.1, Natural Gas Installation Code or CAN/CGA-B149.2, Propane Installation Code and/or local codes.

NOTE: THE BQCO "T" SERIES CART WITH OUTDOOR OVEN CANNOT BE INSTALLED IN A BUILT-IN APPLICATION.

WARNING

EXCESSIVE WEIGHT HAZARD
Use two or more people to move and install this unit. Failure to follow this instruction can result in back or other injury.

FOR YOUR SAFETY

If you smell gas:

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

FOR YOUR SAFETY

1. Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
2. Any LP cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.

WARNING

If not installed, operated and maintained in accordance with the **manufacturer's** instructions, this product could expose you to substances in fuel or fuel combustion which can cause death or serious illness and which are known to cause cancer, birth defects or other reproductive harm.

For example, benzene is a chemical which is part of the gas supplied to the cooking product. It is consumed in the flame during combustion. However, exposure to a small amount of benzene is possible if a gas leak occurs. Formaldehyde and soot are by-products of incomplete combustion. Properly adjusted burners with a bluish rather than yellow flame minimize incomplete combustion.

Specifications

Description	BQCO53T1
Overall width	With shelves extended - 85-1/4" (216.5 cm)
Overall height	37-5/8" (95.6 cm)
Overall depth	To edge of side- 28-9/16" (72.5 cm) To end of handle bracket - 31-1/16" (78.9 cm) With door open - 51-7/8" (131.8 cm)
Gas requirements	Natural: Standard residential 1/2" (1.3 cm) ID gas service line LP/Propane: Equipped with high capacity hose/regulator assembly for connection to standard 5gal, 20 lb. Propane gas cylinder with Type 1, QCC-1 connection or standard residential 1/2" (1.3 cm) ID gas service line Units are ordered either Natural or LP. Gas Conversion kits are required to convert from one gas to another. Contact dealer for proper conversion kit. Gas conversions should only be done by an authorized service technician.
Bake burner rating	20,000 BTU Nat/LP
Oven interior Dimensions	Width - 18-1/8" (46.1 cm) Height - 12-7/16" (31.6 cm) Depth- 18-3/4" (47.6 cm) Overall- 2.45 cu. ft.
Approximate shipping wt.	319 lbs. (143.5 kg)

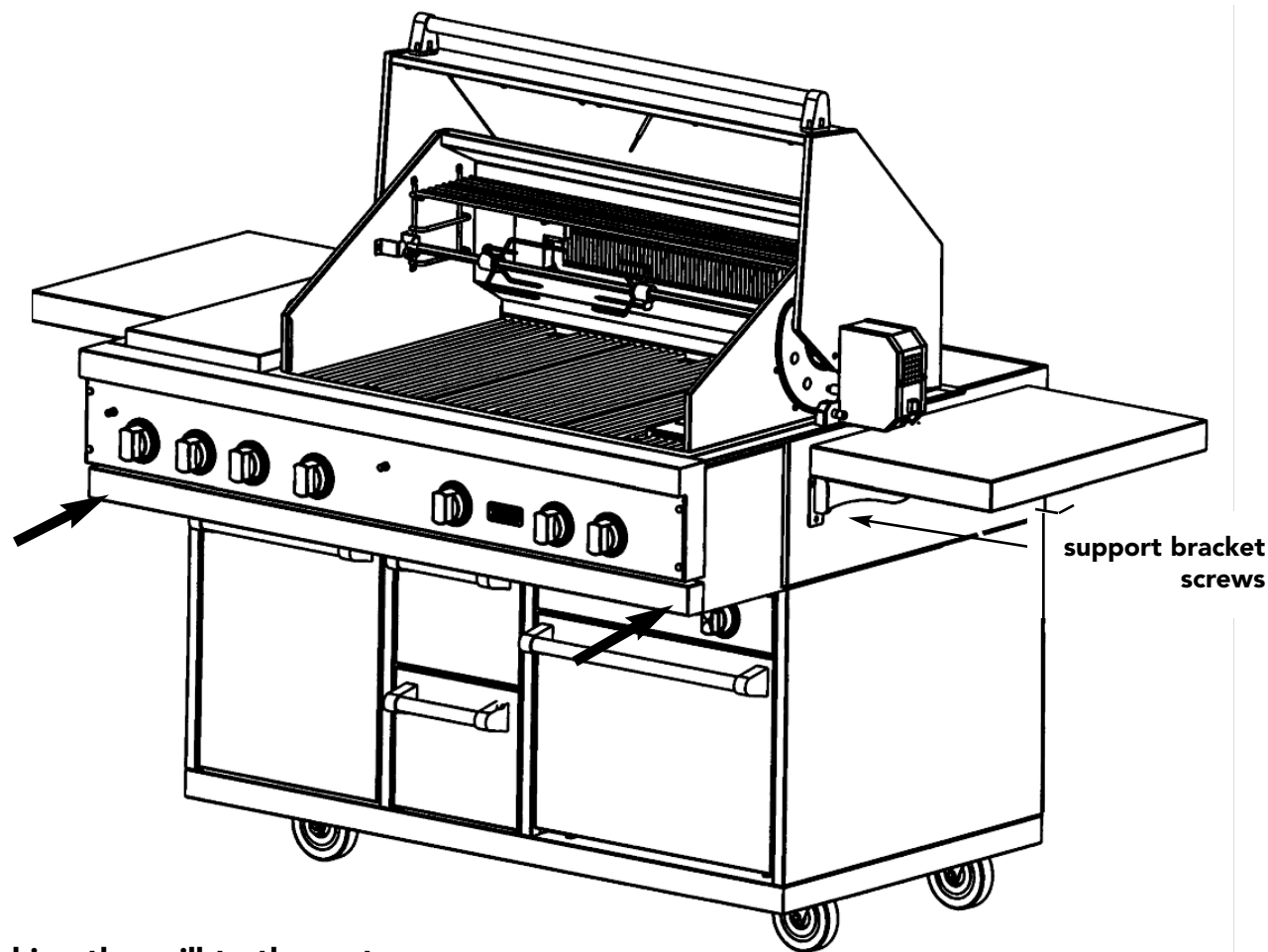
BEFORE INSTALLING GRILL TO CART: Remove drip tray, grill grates, flavor grids, and warming racks from the grill.

To remove side shelves:

The side shelves on the cart can be removed if needed. This **must** be done before installing the grill on the cart. With the shelf in the up position, remove the screws in the shelf support bracket. This will allow you to remove both the brackets and the shelf.

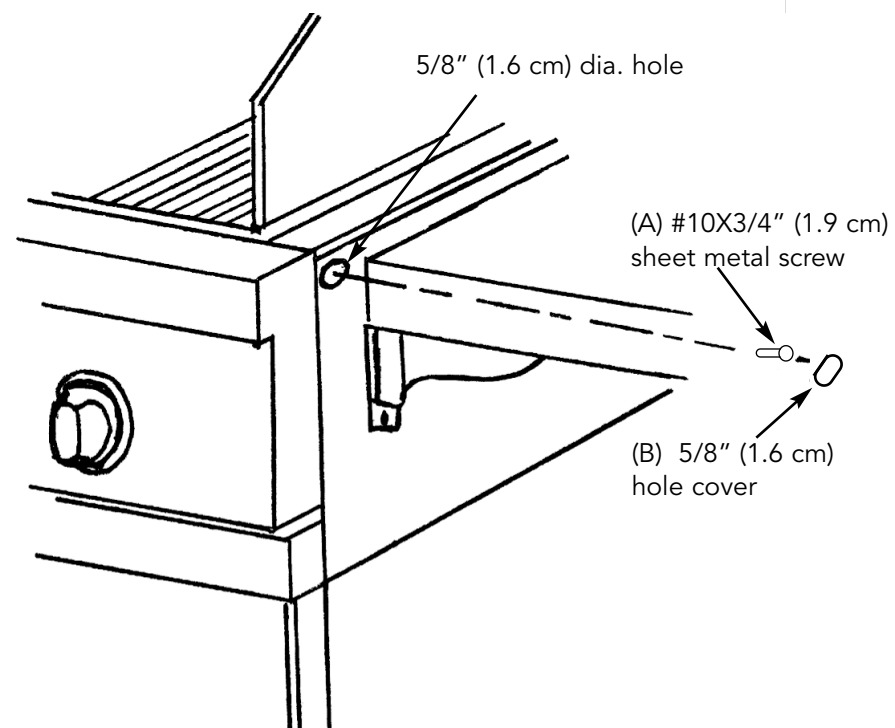
To mount grill to cart:

Always wear gloves when handling the gas grill. Although the grill is deburred prior to shipment, some edges may still be sharp enough to cause injury during handling. With a minimum of two (2) people, place the grill in the cart with about 3 to 4 inches hanging out the front making sure that the male fitting on the bottom of the grill is inside the cart. Push the grill back until the front sides of the cart are flush with the back of the landing ledge on the grill. **Be careful: the grill unit is very heavy!**



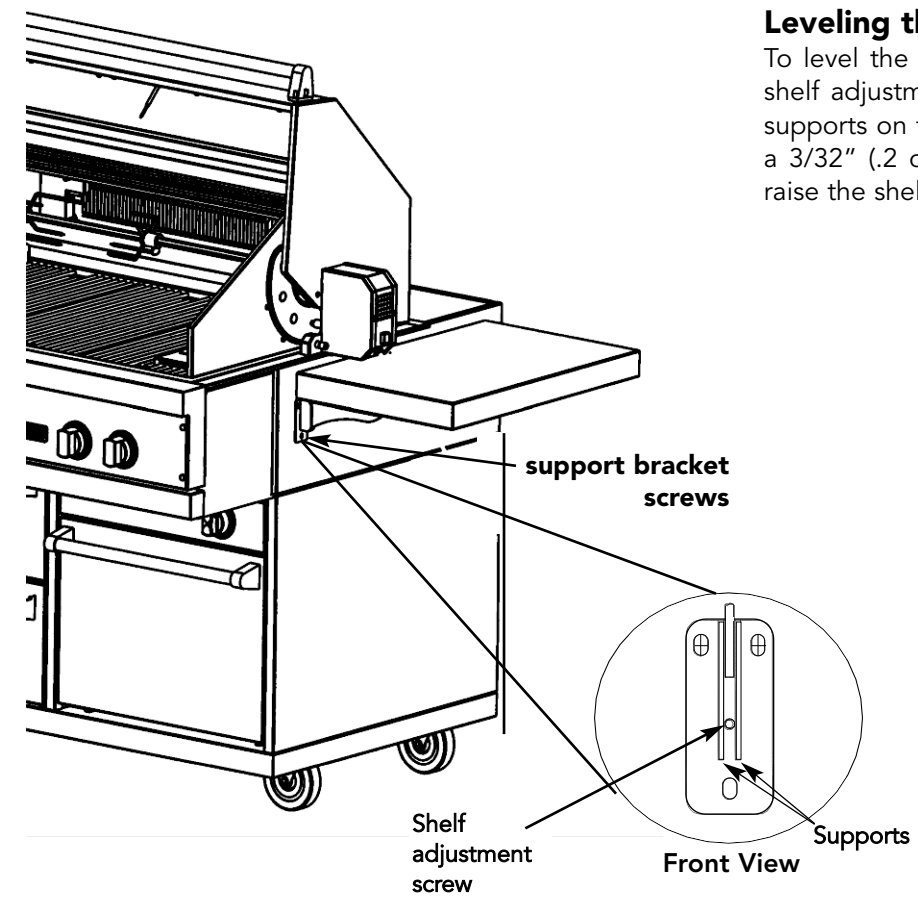
Attaching the grill to the cart

Once the grill has been mounted on the cart, the back of the landing ledge should be flush with the front sides of the cart. The 5/8" (1.6 cm) hole on the top front corners of the cart should be aligned with the receiving holes in the grill heat shields. If your grill does not have the receiving holes in the heat shield, you will need to drill them out with a 9/64" (.14 cm) drill bit. With the grill and cart mounted together, place the drill bit in the 5/8" hole and center in the 1/4"x3/8" slot. Drill through the heat shield. Take the #10X3/4" (1.9 cm) sheet metal screws (A) supplied with the cart and attach the cart sides to the grill. After securing the grill to the cart, snap the hole covers (B) supplied with the cart into the 5/8" (1.6 cm) holes in the cart corners.



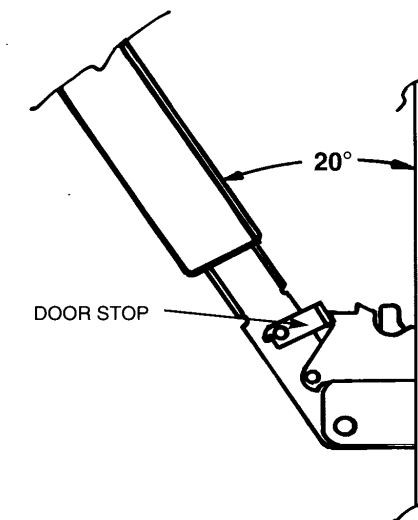
Leveling the Side Shelves

To level the side shelves, lift the shelf so that the shelf adjustment screw is visible between the two supports on the shelf brackets. Turn the screw with a 3/32" (.2 cm) allen wrench counter clockwise to raise the shelf and clockwise to lower the shelf.



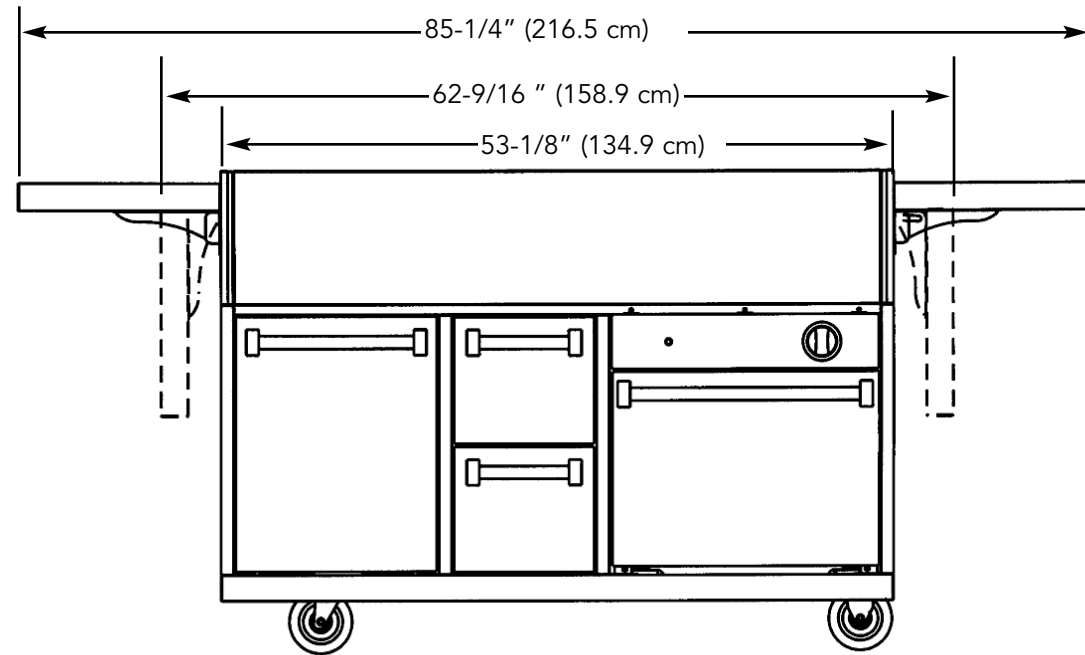
Door Removal

1. Open the door approximately 20° then slowly pull upward until the door stop pops out of the door socket. Gently close the door until the door rests against one of the stop notches. Slide the door completely from the hinge arms.
2. To replace the door, place the hinge arms into the door sockets. Slide the door down close to the hinge stops and release the pressure from the stop notches. Slowly slide the door down completely allowing the hinge stops to retract into the door socket.

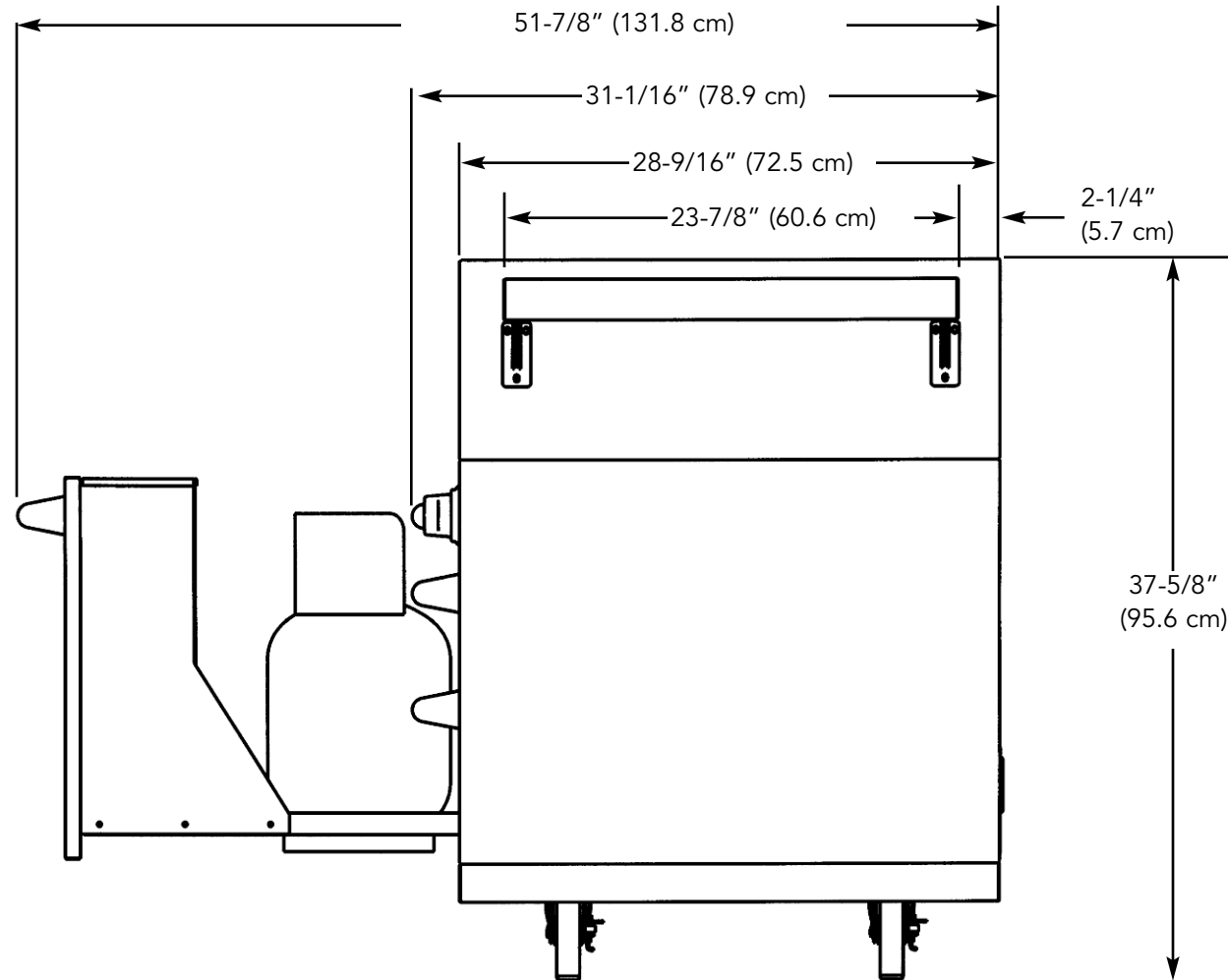


CART DIMENSIONS

53" W. Cart - Front



53" W. Cart - Side



GENERAL INFORMATION

- ⚠ WARNING:** This outdoor gas grill is not intended to be installed in or on recreational vehicles and/or boats.
- ⚠ WARNING:** Keep electrical supply cord and the fuel supply hose away from heated surfaces.
- 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*.
- Gas Manifold Pressure - Natural gas - 4.0" W.C.P. LP/Propane - 10.0" W.C.P.
- 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.

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. **In Canada:** Installation must be in accordance with the current CAN/CGA-B149.1, Natural Gas Installation Code or CAN/CGA-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.

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).

GAS CONVERSION

To convert the grill or oven from natural to LP/Propane or LP/Propane to natural, you **MUST** use the designated conversion kit supplied by the manufacturer.

For the T- Series grill:

- Use conversion kit TLPK-VGBQ to convert the unit from natural to LP.
- Use conversion kit TNK-VGBQ to convert the unit from LP to natural.

For the T- Series grill with TruSear™ Infrared Grill Burner:

- Use conversion kit TLPK-VGIQ to convert the unit from natural to LP.
- Use conversion kit TNK-VGIQ to convert the unit from LP to natural.

For the outdoor oven:

- Use conversion kit TLPK-BQCO to convert the unit from natural to LP.
- Use conversion kit TNK-BQCO to convert the unit from LP to natural.



WARNING: Conversions should only be done by an authorized service technician.

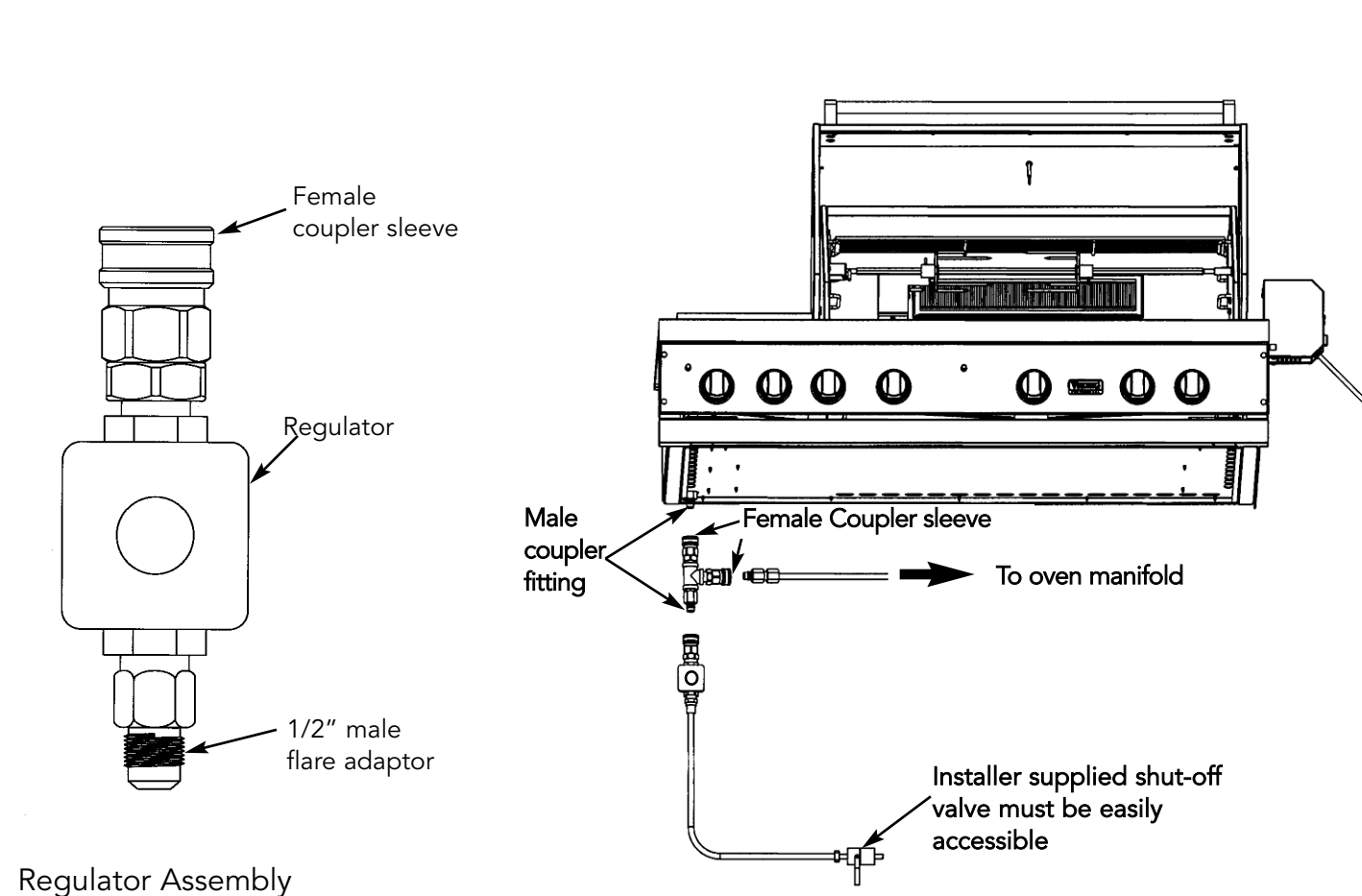
Natural Fixed Piping Connection

Connection: Standard Residential 1/2" ID gas service line - 1/2" NPT male with 1/2" flare adaptor.
 Operating Pressure: 4.0" W.C.P. Nat.
 Supply Pressure: 6" to 14" W.C.P. Nat. If in excess of 14" W.C.P., a step-down regulator is required.

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 1/2" (1.3 cm) female flare adaptor to the 1/2" (1.3 cm) male flare adaptor 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 3/8" flare adaptor and attach hose to the the 1/2" (1.3 cm) male flare on the regulator assembly.

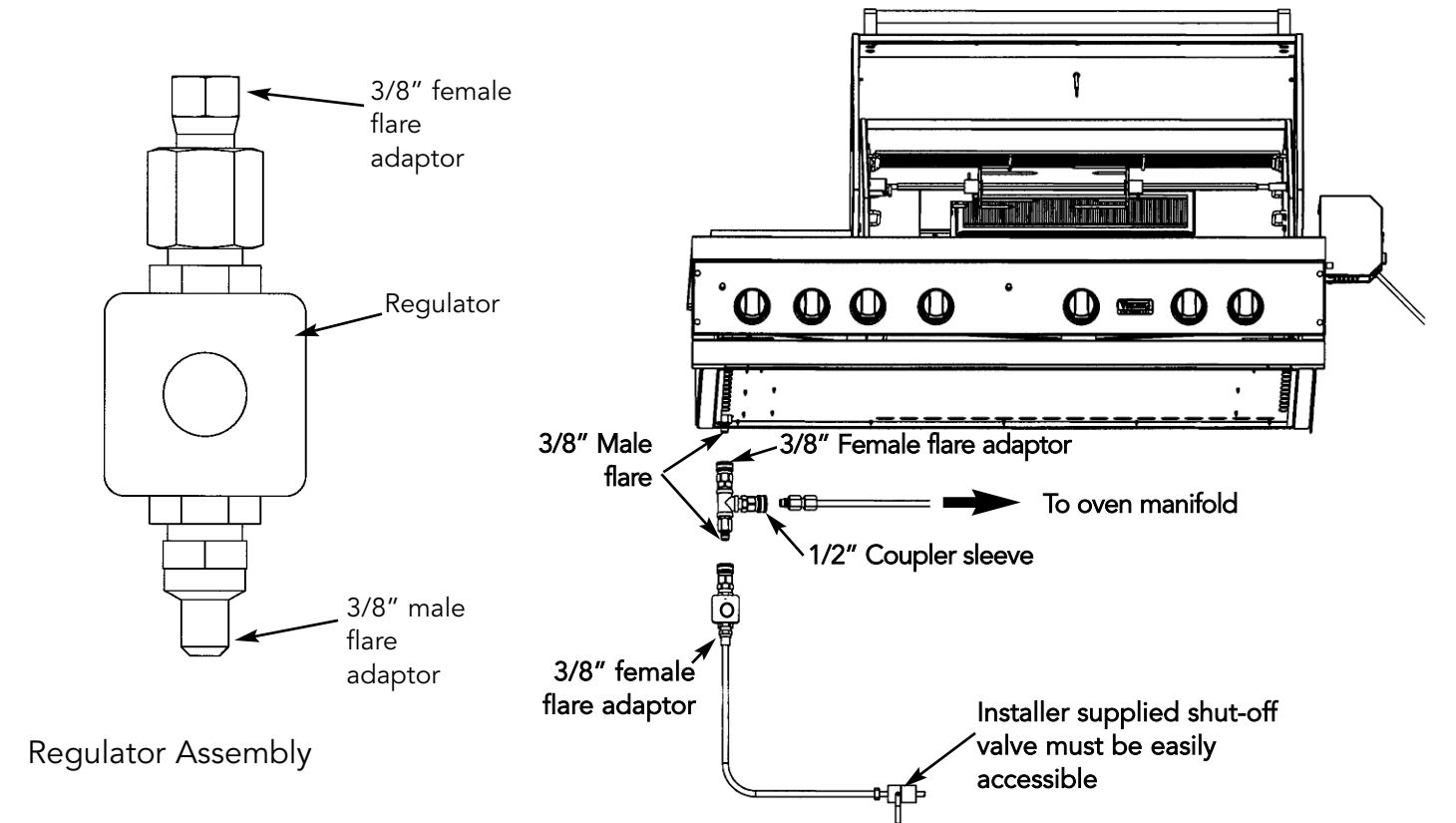


LP/Propane Fixed Piping Connection

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

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 adaptor to the 3/8" male flare adaptor 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 with the 3/8" female flare adaptor on the regulator assembly to the 3/8" male flare adaptor on the grill. **DO NOT forget to place the installer supplied gas valve in an accessible location.**



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.** (See LP/Propane tank requirements on page 7).

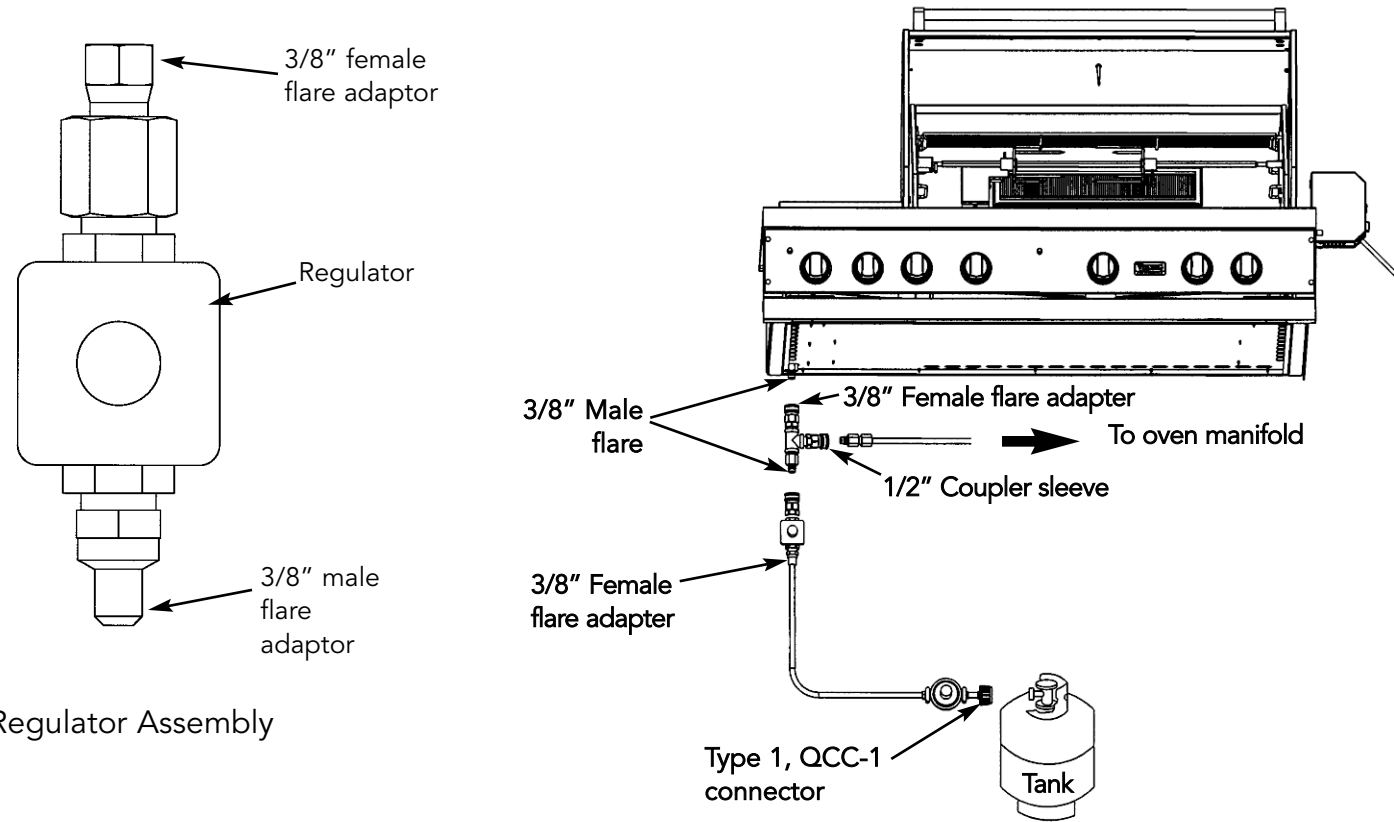
Connection: 1/2" (1.3 cm) NPT male with a 3/8" (.95) flare adaptor
Operating Pressure: 10.0" W.C.P.

To connect to LP/Propane regulator/hose assembly:

Although the flow of gas is stopped when the quick disconnect system is disconnected as part of its safety feature, you should always turn the LP/Propane tank main valve "OFF" after each use and during transport of the tank or unit. Connect the regulator assembly to the grill unit by pulling back the coupler sleeve towards the regulator. Insert the fitting into the coupler until the sleeve snaps forward securing the connection.

Connect to the tank valve by screwing the Type 1, QCC-1 connector to the LP/Propane tank. Open the tank valve and check the 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.



Regulator Assembly

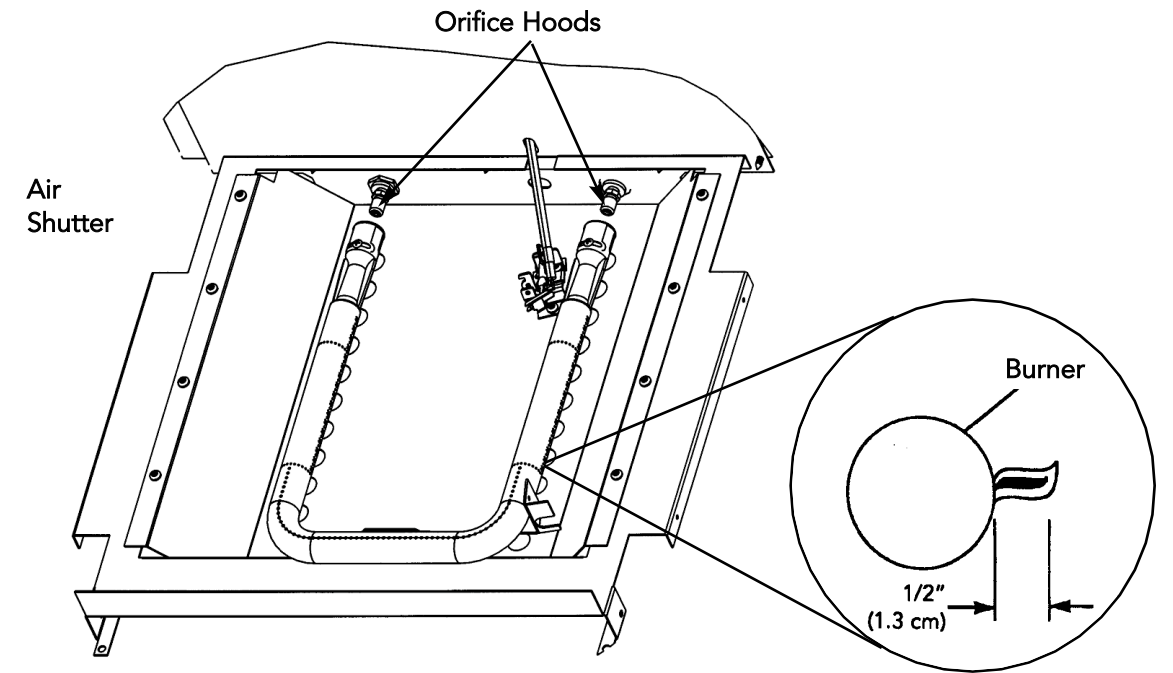
LP/Propane Tank Requirements

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 (DOT) and designed for use with a 5LP-A quick disconnect system only. The cylinder must be provided with a shut-off valve terminating in an LP/Propane gas supply cylinder valve outlet specified, as applicable, for a 5LP-A connection. 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. Cylinders must be stored outdoors in a well-vented area out of the reach of children.

Gas Bake Burner Adjustments for the Outdoor Oven

A properly adjusted burner should be stable and quiet. The flame should have sharp, well defined blue inner cone with no yellow tipping. The flame should also be stable and uniform with no flames lifting off the burner ports.

1. Located the air shutter (1) and loosen the set screw (2) that holds the air shutter in place.
2. Adjust the air shutter (1) to obtain a blue flame with no yellow tipping that contacts the burner at the burner ports.
 - a. Open the air shutter gap (1) to eliminate yellow tipping.
 - b. Close the air shutter gap (1) to prevent a noisy flame that lifts off the burner.
3. Light the burners by rotating the thermostat to a baking temperature. If the flame is not stable with a blue inner cone and no yellow tipping. Turn the burner off and repeat step 2.
4. Once a stable flame is achieved, tighten the air shutter set screws. The burner flame cone should be 1/2" long when the air shutter is correctly adjusted. NOTE: Both air shutters should be set to the same opening.
5. Replace the bottom pan and racks.



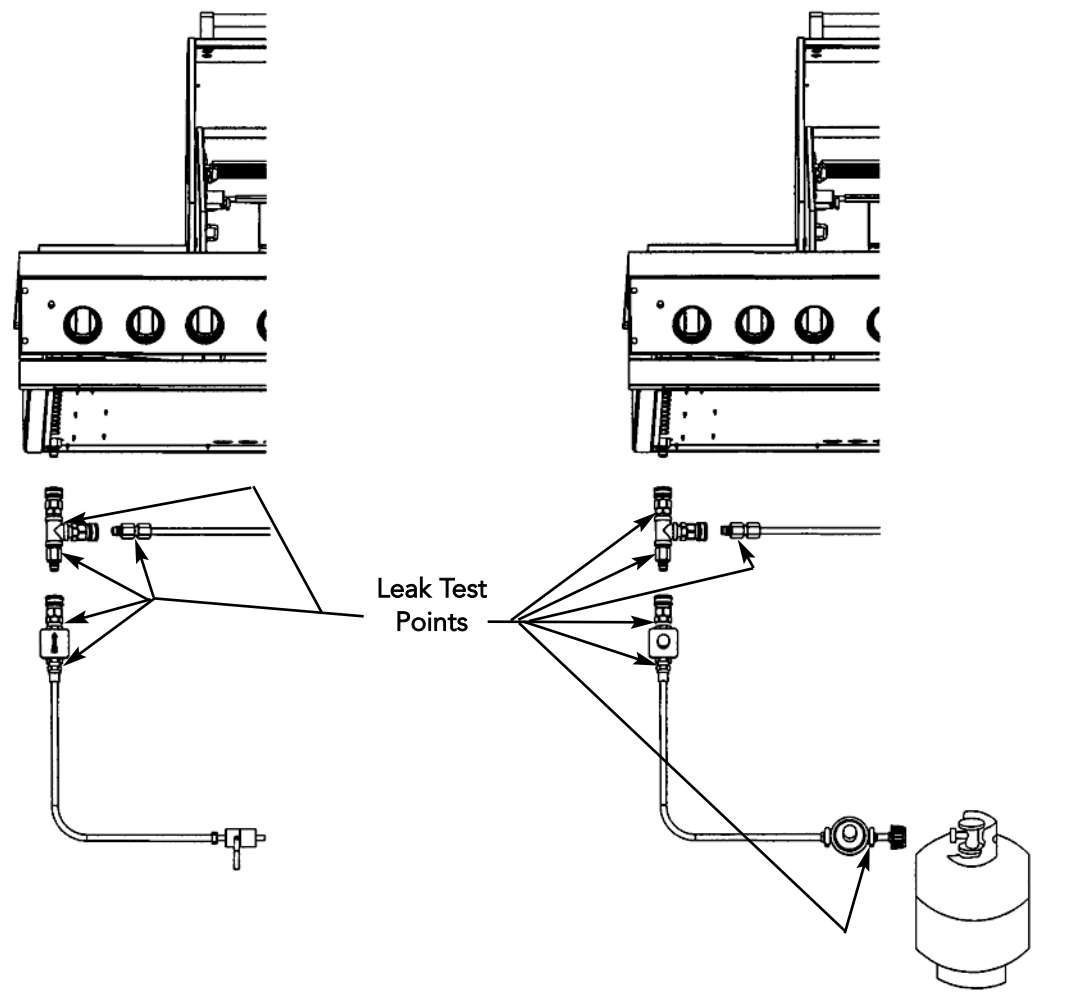
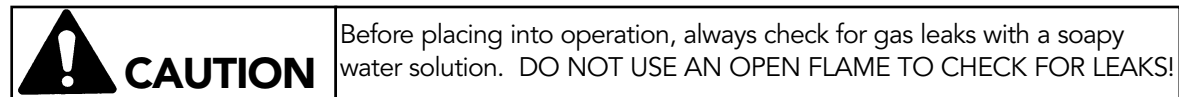
IMPORTANT! Conditions that cause odors:

1. Floating flames are lazy looking and do not have well defined cones. They are long, ill-defined, quiet flames that sometimes lift completely off the ports and cause a strong and pungent odor.
2. Lifting flames are well defined, hard and noisy that lift completely off the ports.
3. An orifice that is out of line with the burner venturi.

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.

1. Do not smoke while leak testing. Extinguish all flames.
2. Never leak test with an open flame.
3. 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. For LP/Propane units, check with a full cylinder.
4. Check that all control knobs are in the "OFF" position.
5. Turn cylinder valve knob counter clockwise one turn to open.
6. Blowing bubbles in the soap solution indicates that a leak is present.
7. 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.
8. If you are unable to stop a leak, shut off the gas supply 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.
9. 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.



Performance Checklist

The installer should carry out the following performance checks. Refer to instructions below.

1. Check oven ignition, bake, and broiler burners.
2. Check air shutter adjustment; sharp blue flame, no yellow tipping, no sooting, no flame lifting.
3. Visually check tubular burner reignition to be sure both sides are relighting each time.
4. Visually check for glowing infrared broiler screen.
5. Check for gas leaks (odor) at all gas connections.
6. Check convection fan switch and fan operation.
7. Check light switch and light operation.
8. Check for proper fit of door seals.

Final Preparation

1. Some stainless steel parts may have a plastic protective wrap which must be removed. The interior of the oven should be washed thoroughly with hot, soapy water to remove film residues and any installation dust or debris before being used for food preparation, then rinsed and wiped dry. Solutions stronger than soap and water are rarely needed.
2. All stainless steel body parts should be wiped with hot, soapy water and with a liquid cleaner designed for this material. If buildup occurs, do not use steel wool, abrasive cloths, cleaners, or powders! If it is necessary to scrape stainless steel to remove encrusted materials, soak with hot, wet cloths to loosen the material, then use a wood or nylon scraper. Do not use a metal knife, spatula, or any other metal tool to scrape stainless steel! Scratches are almost impossible to remove.

Replacement Parts

Only authorized replacement parts may be used in performing service on the oven. Replacement parts are available from factory authorized parts distributors. Contact Viking Range Corporation, (888) 845-4641, for the nearest parts distributor in your area.

NOTE: These installation instructions should remain with the unit for future reference.

