COMMERCIAL SERIES Char-Broil

NATURAL GAS CONVERSION KIT

Model # 4984619

For use with Commercial Series Dual Fuel™ Grills only.

FOR OUTDOOR USE ONLY

This Natural Gas Conversion Kit can be used ONLY with Dual Fuel™ grills.

WARNING

CALIFORNIA PROPOSITION 65

1. 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.
2. This product contains chemicals, including lead and lead compounds, known to the State of California to cause cancer, birth defects or other reproductive harm.
   Wash your hands after handling this product.

DANGER

If you smell gas:

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

WARNING

1. Failure to follow all manufacturer's instructions could result in serious personal injury and/or property damage.
2. Grill installation must conform with local codes, regulations or in their absence with National Fuel Gas Code, NFPA 54/ANSI Z223.1 (In Canada must conform to CSA B 149.1).

CAUTION

1. Read and follow all safety statements, assembly instructions, and use and care directions before attempting to assemble and cook.
2. Some parts may contain sharp edges-especially as noted in the manual! Wear protective gloves if necessary.



CONSUMER:

Keep this manual for future reference.

INSTALLER/ASSEMBLER:

Leave this manual with consumer.

If you have questions or need assistance during assembly, please call 1-800-241-7548 (USA) or 1-800-387-6057 (Canada)

To insure your satisfaction and for follow-up service, **register your grill online at www.grillregistration.com**

EX1025
HARBOR FREIGHT TOOLS
IPR2025-01463

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Call Grill Service Center for Help and Parts

- If you need assistance with your product or warranty parts call **1-800-241-7548 (USA)** or **1-800-387-6057 (Canada) Hours of Service Center Operation are 8:00 A.M. To 6:00 P.M. EST Monday - Friday.**
- To order non-warranty replacement parts or accessories please visit us on the web at **www.charbroil.com** or call 1-800-241-7548 (USA) or 1-800-387-6057 (Canada) and one of our friendly and knowledgeable agents will be glad to assist you.

Safety Symbols

The symbols and boxes shown below explain what each heading means. Read and follow all of the messages found throughout the manual.

DANGER

DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION: Indicates a potentially hazardous situation or unsafe practice which, if not avoided, may result in minor or moderate injury.

Installation Safety Precautions

- This kit converts your grill for natural gas use at 7 inch water column supply pressure. Verify supply pressure with your local gas company. If supply pressure is different than 7 inch water column pressure, contact a certified plumber for assistance. **Not for use with LP gas.**
- If grill is certified for use in Canada, this conversion kit **Does Not** nullify that certification.

USE AND CARE

Natural Gas Connections and Service Regulators Above 1/2 psi.

Prior to 1998, all residual gas service regulators were set with an outlet pressure of 7 inches water column.

In the 1998 edition of NFPA 54, the National Fuel Gas Code, a change was made allowing service regulators of 2 and 5 psi.

With this change it was also required that an in line regulator be connected between the service regulator and the appliance regulator if the 2 or 5 psi system is used. This additional regulator is not supplied with the product.

It is possible for a consumer, making the connection themselves, or a plumber, not checking, to tap into a 2 or 5 psi line. If a pressure of 2 psi or greater is supplied to the appliance regulator on certain grills it will shut down and not deliver any gas to the grill. Other concerns are the quick disconnect socket and hose which are only rated to 1/2 psi.

If the quick disconnect socket, hose, and grill are properly connected and still not getting gas, deliv pressure needs to be verified. If pressure is grea than 1/2 psi, make sure that an in line regulator is present.

Once the grill has been over-pressured, the regulator may or may not have been damaged. The best practice is to replace the regulator.

WARNING

Do not attempt to repair or alter this conversion kit for any assumed defect. Any modification to this assembly will void your warranty and create the risk of a gas leak and fire. Use only authorized replacement parts supplied by manufacturer.

DANGER

Incorrect connection can result in a gas leak with possibility of fire.

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This unit should be hard plumbed using components that meet National Fuel Gas Code.

WARNING

Do not use flexible gas hose supplied for Drop-in Models.

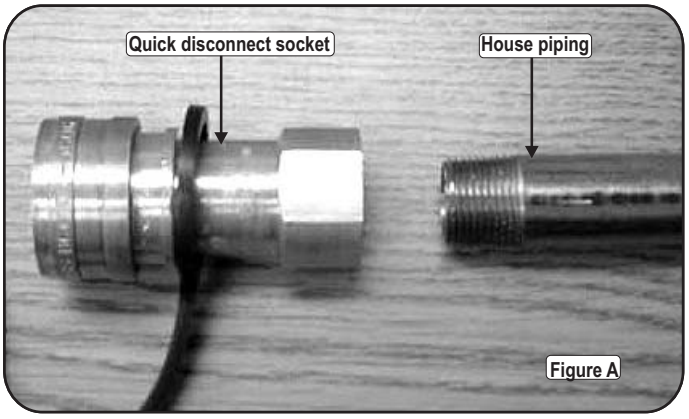
Connecting Your Grill to the Natural Gas Source.

1. A professionally-installed shut-off valve between the supply piping and the socket is recommended, but not required, by the National Fuel Gas Code. Socket connection must be made outdoors.

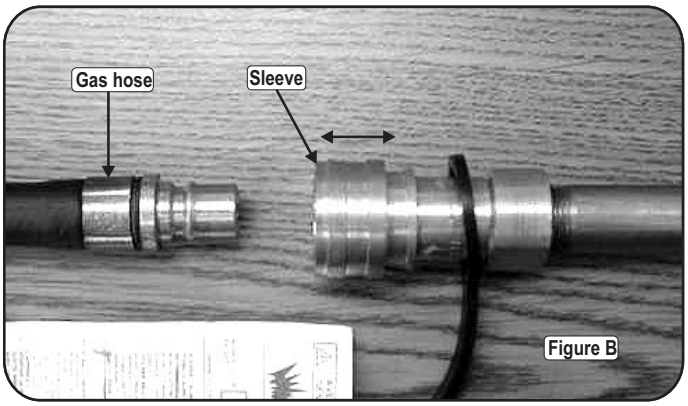
2. Coat the gas supply pipe nipple with gas resistant pipe dope or approved teflon tape. Screw socket onto gas supply pipe (house gas source) as shown in **Figure A** below, and wrench-tighten.

CAUTION

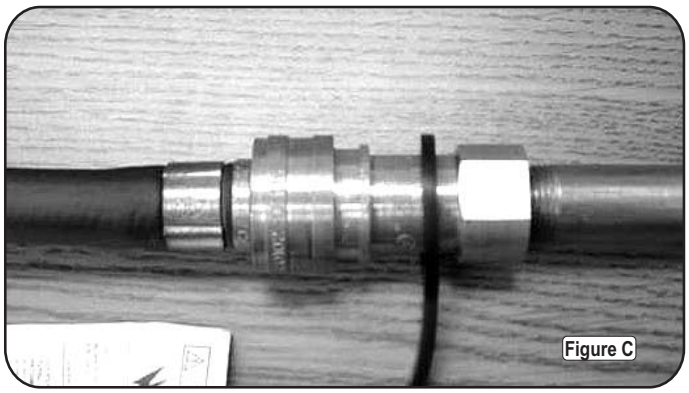
The quick disconnect socket should never be connected to the grill. Direction of gas flow is indicated on the socket.



3. Pull back the sleeve on the quick disconnect socket and insert the unattached end of the gas hose into the socket. Release the sleeve and continue pushing the hose into the socket until the sleeve snaps into the locked position. See **Figure B**.



4. When the quick disconnect socket and the gas hose are connected, a valve in the socket opens automatically to permit full gas flow. When the gas hose is disconnected, the valve in the socket instantly and positively shuts off the flow of gas. Because the valve in the socket positively shuts off the flow of gas, the grill can be disconnected from the gas source by disconnecting the gas hose from the quick disconnect socket. The socket should be left attached to the gas source (house piping). **Figure C**, below, shows properly connected hose and socket.



With proper assembly, the gas hose cannot be removed without pushing the quick disconnect sleeve back. To disconnect, push sleeve back and pull plug out of sleeve (this automatically shuts off gas).

Please Note: Hose and assembly are C.S.A. listed for natural gas, manufactured gas, mixed gas and for liquefied petroleum and for LP Gas-Air mixtures on basis of 0.64 specific gravity for 1000 BTU's per cubic foot of gas at 0.3 in. water column pressure drop. Only ANSI Z21.54 approved hoses should be used with this grill.

The appliance and its individual shut off valve must be disconnected from the gas supply piping system during any pressure testing on that system at test pressures in excess of 1/2 psig (3.5kPa).

The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psi (3.5kPa).

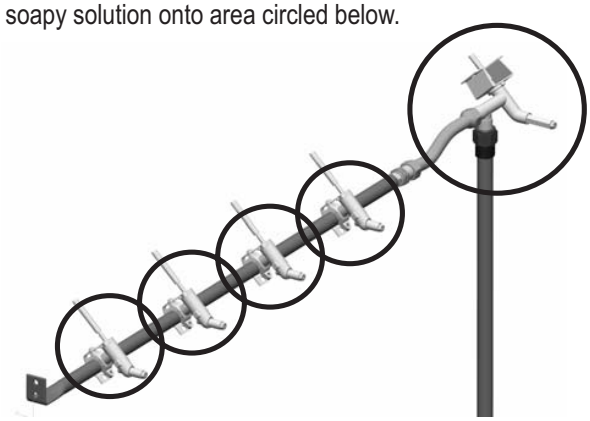
WARNING

Do not use hard metal piping of any kind to connect this type of grill to natural gas source. Use only hose specified by manufacturer. Using hard metal piping or convoluted metal tubing is an unsafe practice. Movement of the grill can cause breakage of metal pipe.

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Leak Testing

1. **Turn all grill control knobs to OFF.**
2. Be sure gas hose is tightly connected to gas source.
3. Completely open gas source. 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 area circled below.



5. **If "growing"** bubbles appear, there is a leak. Close gas source immediately and tighten connection. **If leaks cannot be stopped do not try to repair.** Call for replacement parts. Order new parts by giving the serial, model number and name of items needed to the Grill Service Center at 1-800-241-7548 (USA) or 1-800-387-6057 (Canada).
6. Always close gas source after performing leak test.

Safety Tips

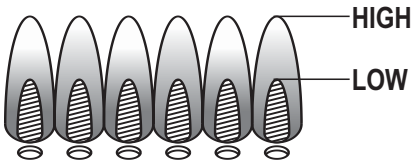
▲ When grill is not in use, turn off all control knobs and gas source.

CAUTION

CAUTION: Sideburner lid must be open when sideburner is in operation, if so equipped.

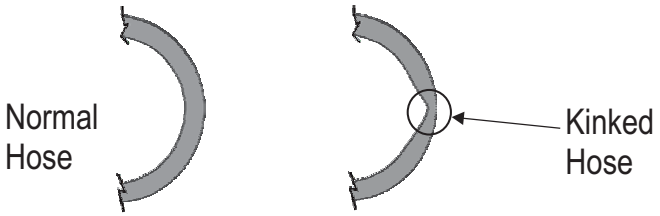
Burner Flame Check

- Remove cooking grates and flame tamers. 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 sideburner 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*.



Hose Check

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



PARTS LIST/DIAGRAM

Note: Illustrations are not to scale.

Key	Qty.	Description	Part No.
A	5	Main Burner and Sideburner Natural Gas Bezel	80004350
B	1	Stove and Griddle Natural Gas Bezel	80004352
C	1	Orifice Removal Tool	80004378
D	1	10 ft., 3/8" Natural Gas Hose	3496263
E	1	Rotisserie Burner Orifice (Light Blue Dot-1.15mm)	80006910



A



B



C



D



E

Tools required for assembly:

Orifice Removal Tool - Provided Adjustable Wrench - Not provided

Estimated assembly time: 30-45minutes

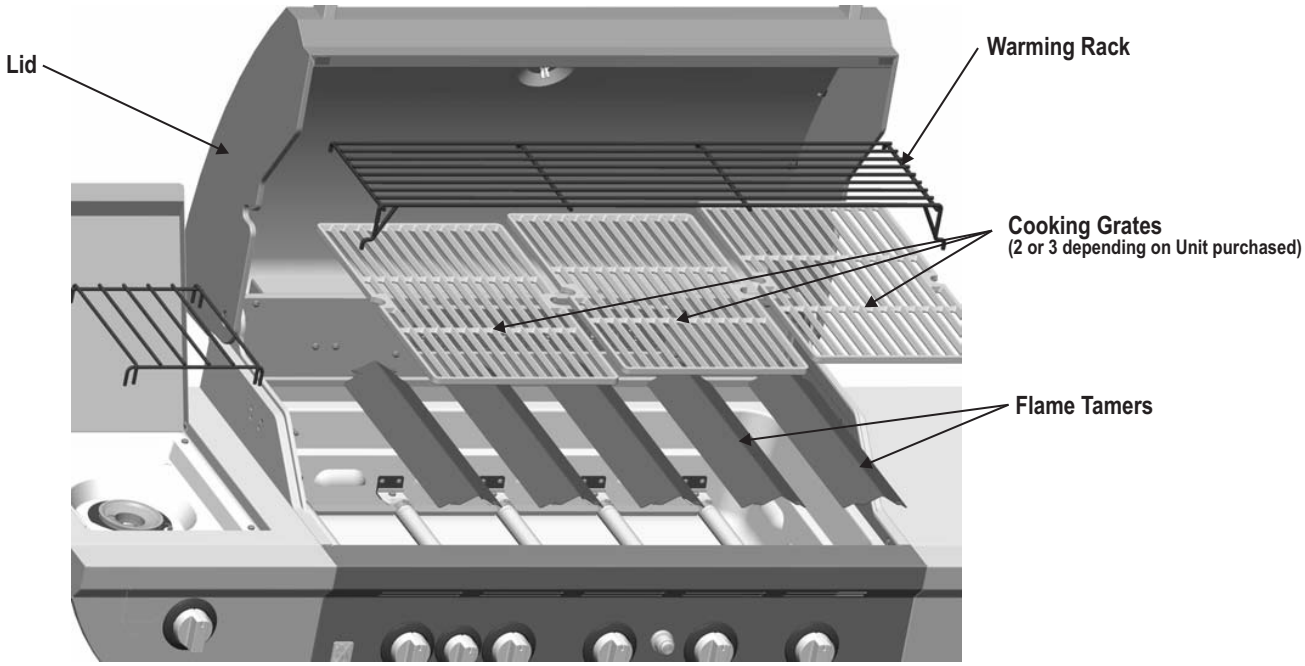
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Tube Burner Conversion

1

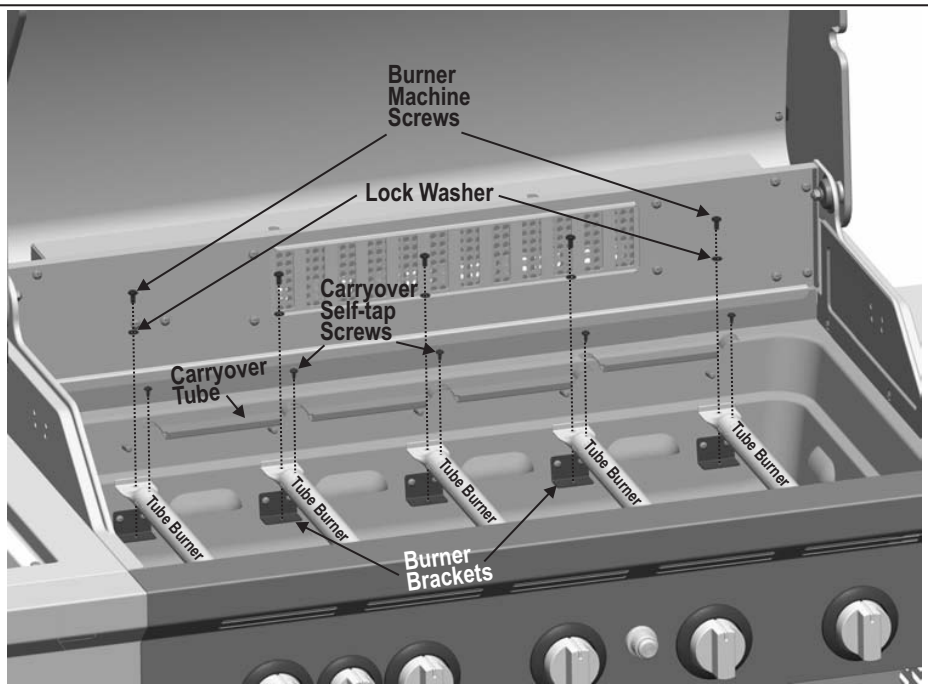
- **First, make sure all control knobs are in the OFF position, LP tank valve is closed, and tank is disconnected from regulator and removed from grill.**
- Next, open Lid and remove Warming Rack, Cooking Grates, and Flame Tamers.

Your Grill may differ from illustrations shown. This manual covers a variety of grills styles, use pictures as reference only. Not all steps will apply to your grill conversion.



2

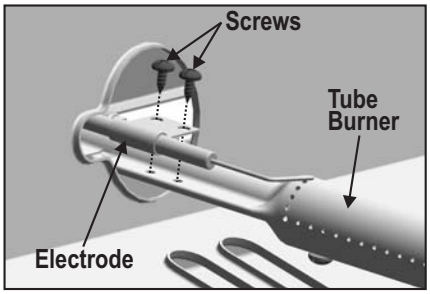
- Remove Self-tap screws and remove Carryover tubes.
- Remove screws and washers at back of burners to detach Tube Burners from Burner Brackets.

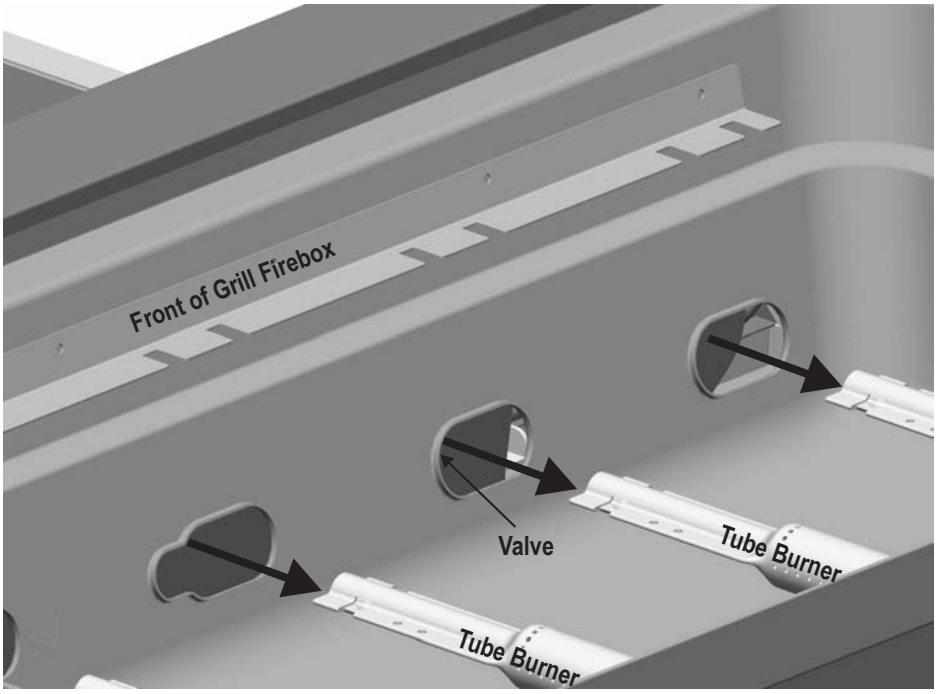


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3

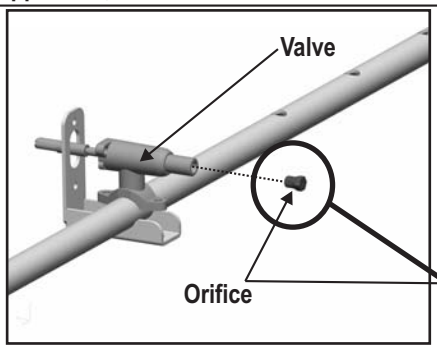
- Remove two screws that secure each Electrode to Tube Burner (Electrode remains in Firebox).
- Lift back end of burner while sliding Tube Burner out of Firebox, disengaging burners from Valves.

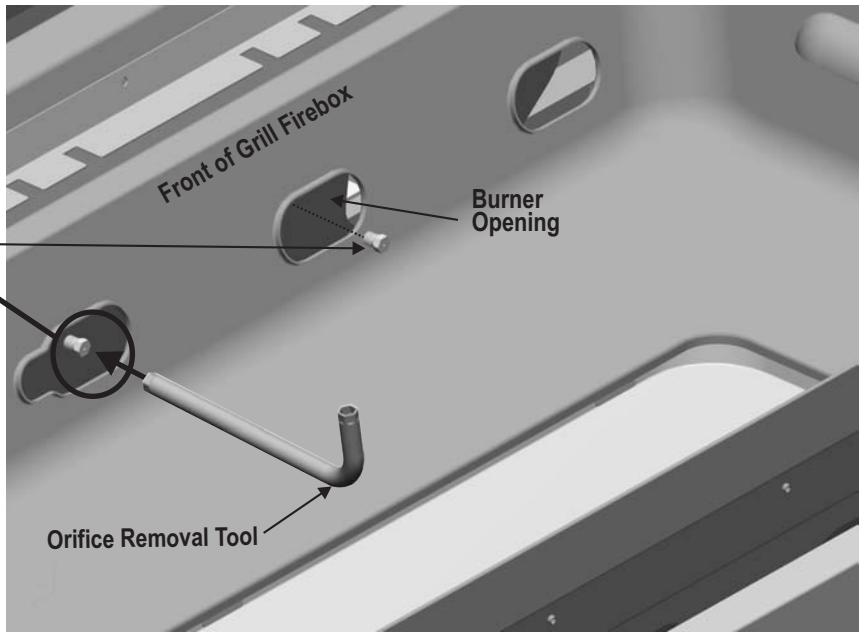




4

- Insert Orifice Removal Tool provided with Kit into Firebox Burner openings and unscrew Orifices from ends of Valves. Save removed Orifices for converting back to LP Tank Gas. These grill valves are designed to work with Natural Gas once Orifices are removed. Do not replace any Orifices when using Natural Gas. **Note: This gas conversion kit comes with replacement Orifices for the Rotisserie Burner ONLY, if applicable, do not use on Tube Burner valves. See later steps for Rotisserie conversion.**





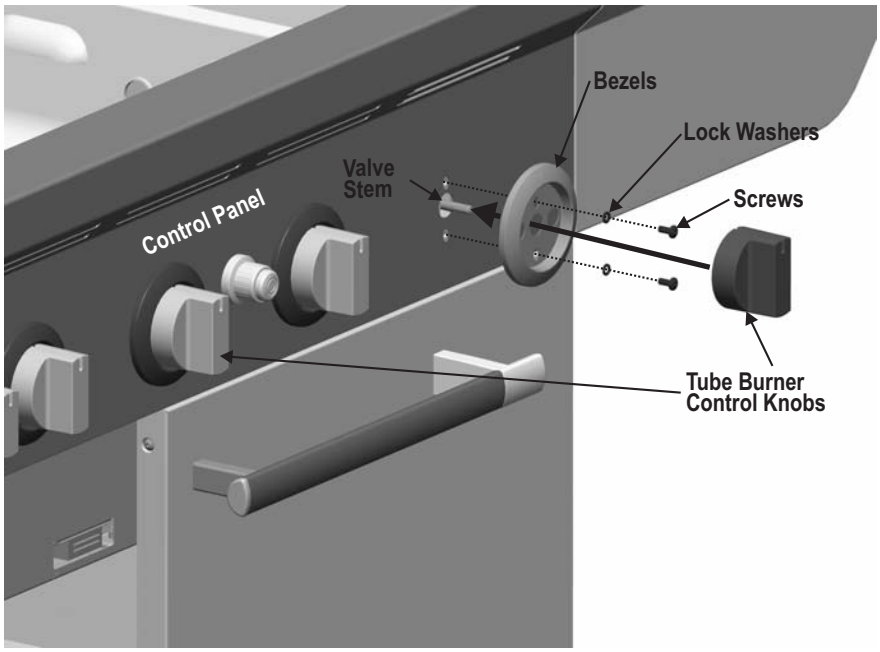
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5

- Pull the Tube Burner Control Knobs off of Valve Stems.
- Remove screws and washers that secure each Bezel to the Control Panel. Save removed Bezels for converting back to LP Tank Gas.
- Install new Natural Gas Bezels provided with Kit (see illustration below) in place of old Bezels onto Control Panel, and secure using previously removed screws and washers. Assure proper alignment with control knob before fully tightening. **Note: New bezels will change the rotation for the control knob to properly control ignition and flames for your grill.**
- Press Control Knobs back onto Valve Stems. Make adjustments needed to Bezels for free movement of Control Knobs.



Natural Gas Bezel
80004350

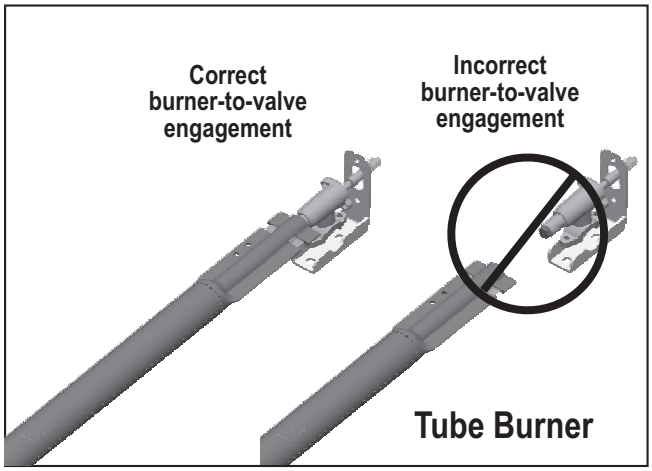


6

Reinstall Tube Burners

- Attach Electrodes to Tube Burners with previously removed screws. Reference illustration Step 3
- Insert Tube Burners into Firebox Burner holes over Valves with port holes upward, making sure Tube Burner engages Valve properly, See Below Diagram.
- Secure Tube Burners to Burner Brackets with previously removed screws and washers. Replace Carryover tubes and secure with screws previously removed. Reference illustration Step 2.

Reinstall Flame Tamers, Cooking Grates, and Warming Rack, reference illustration Step 1 for reinstallation.



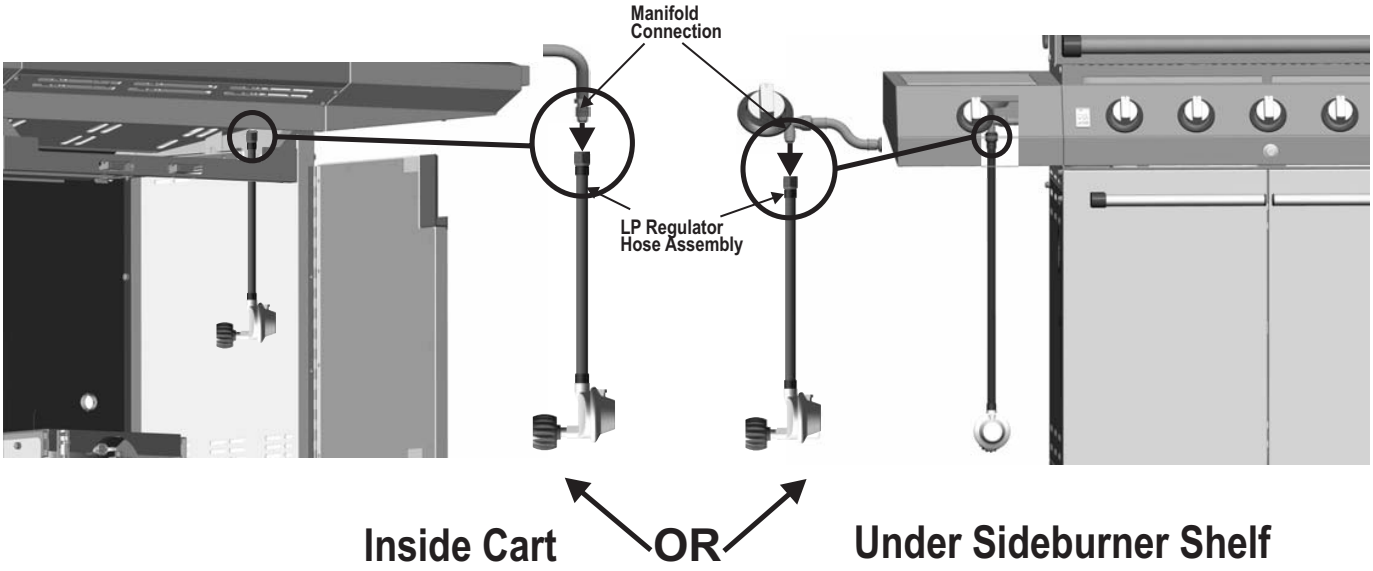
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Natural Gas Hose Conversion

7

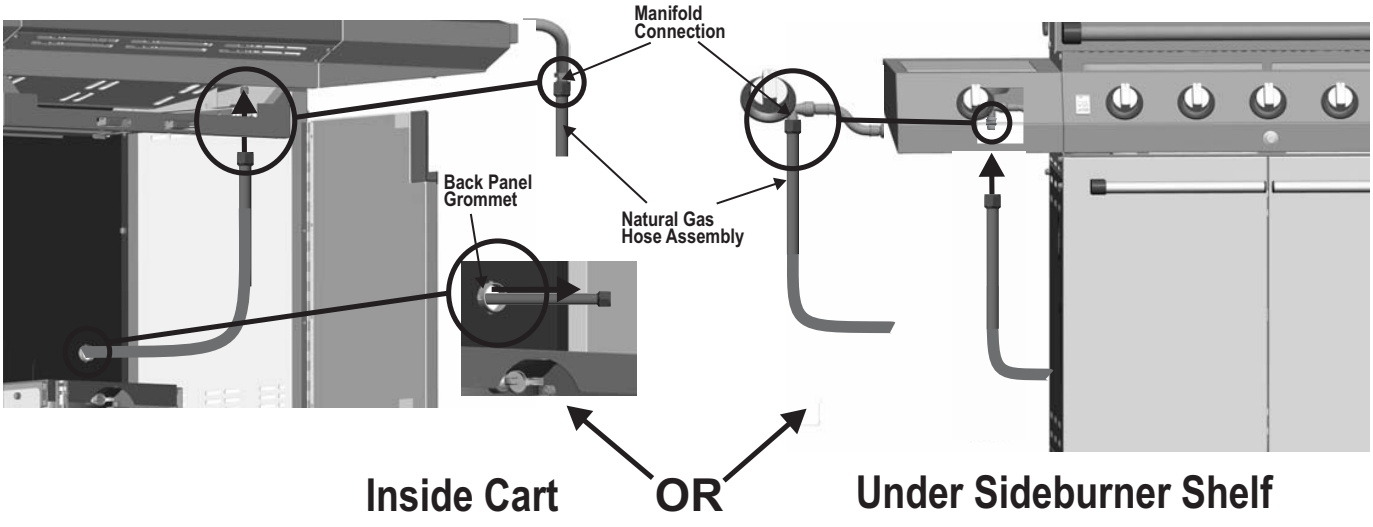
- Using a wrench, not provided, remove LP Regulator Hose Assembly from Manifold Connection. Saved removed LP Manifold Connection for converting back to LP Tank Gas. Your LP Regulator hose will be located either inside the cart or under the sideburner shelf depending on what grill model you have.

Your Grill may differ from illustration shown.



8

- If Manifold connection is located inside cart, insert Natural Gas Hose (end opposite of Quick Disconnect) provided with Kit through rear side of Back Panel Grommet and up to Manifold Connection. If sideburner connection, position hose behind cart up to Manifold Connection.
- Secure the Natural Gas Hose Assembly using a wrench, not provided, to Manifold Connection.



If you have a model with a sideburner proceed to "Sideburner Conversion" page 9

If you have a model with outdoor stove and griddle proceed to "Sideburner Conversion Outdoor Stove and Griddle" page 12

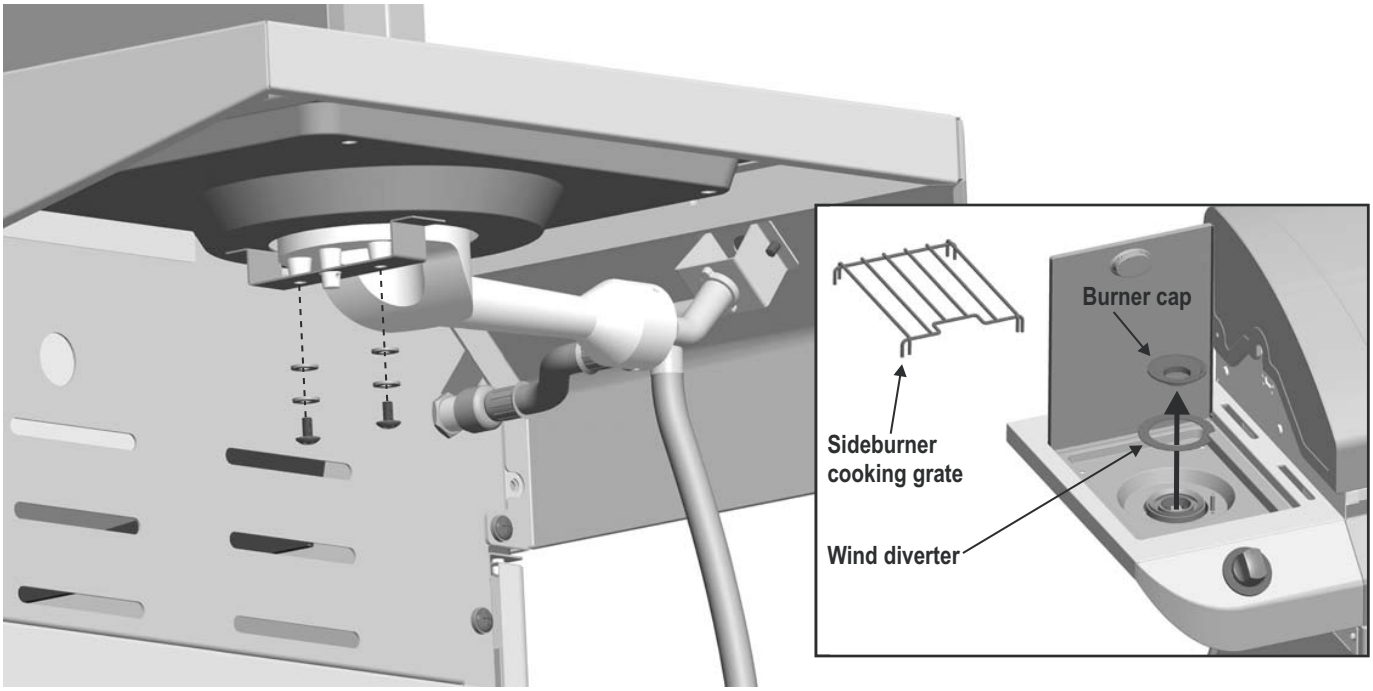
If you have a model with a rotisserie burner proceed to "Rotisserie Burner Conversion" page 15

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Sideburner Conversion

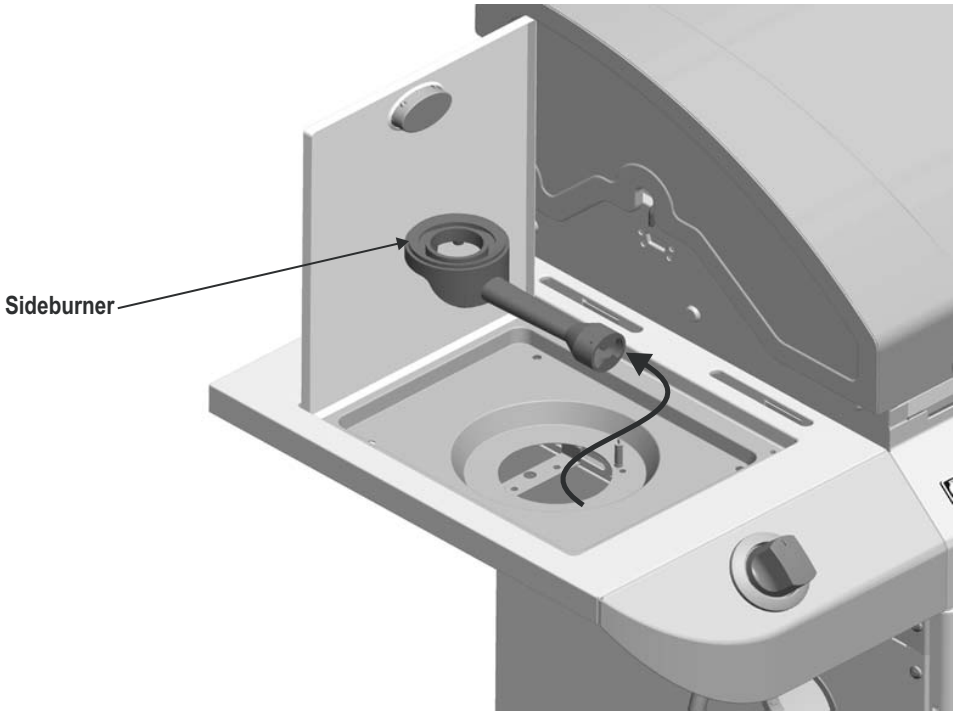
9

- Open sideburner lid and remove the sideburner cooking grate, burner cap and wind diverter.
- Beneath sideburner shelf, remove the two screws, lock washers and flat washers that secure sideburner to shelf.



10

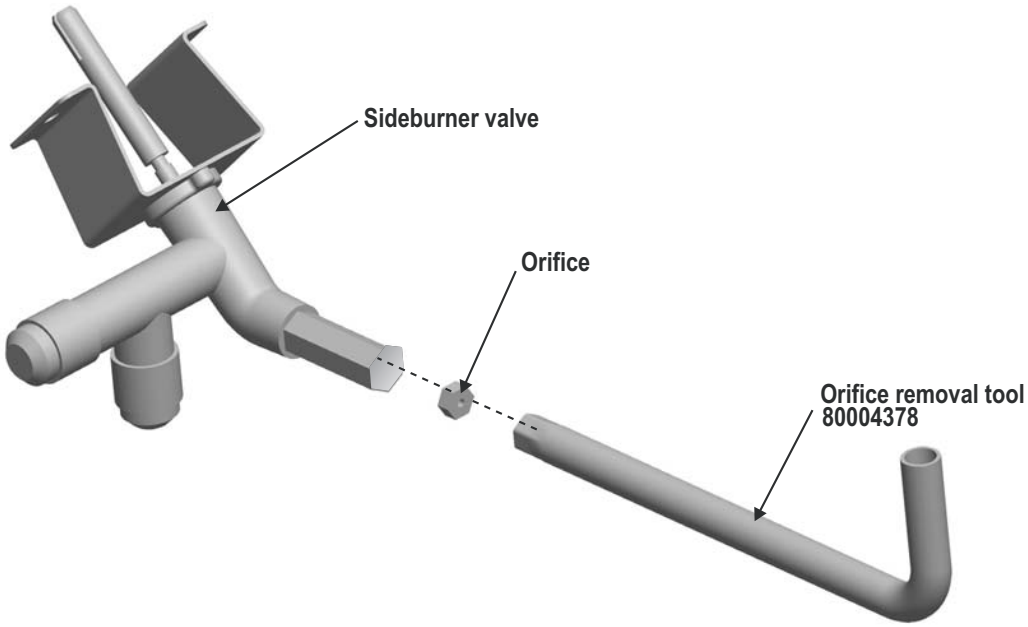
- Remove sideburner from shelf.



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11

- Using the provided orifice removal tool, unscrew the orifice from the end of the sideburner valve. Save removed orifice for converting back to LP Tank Gas. No replacement orifice is required.

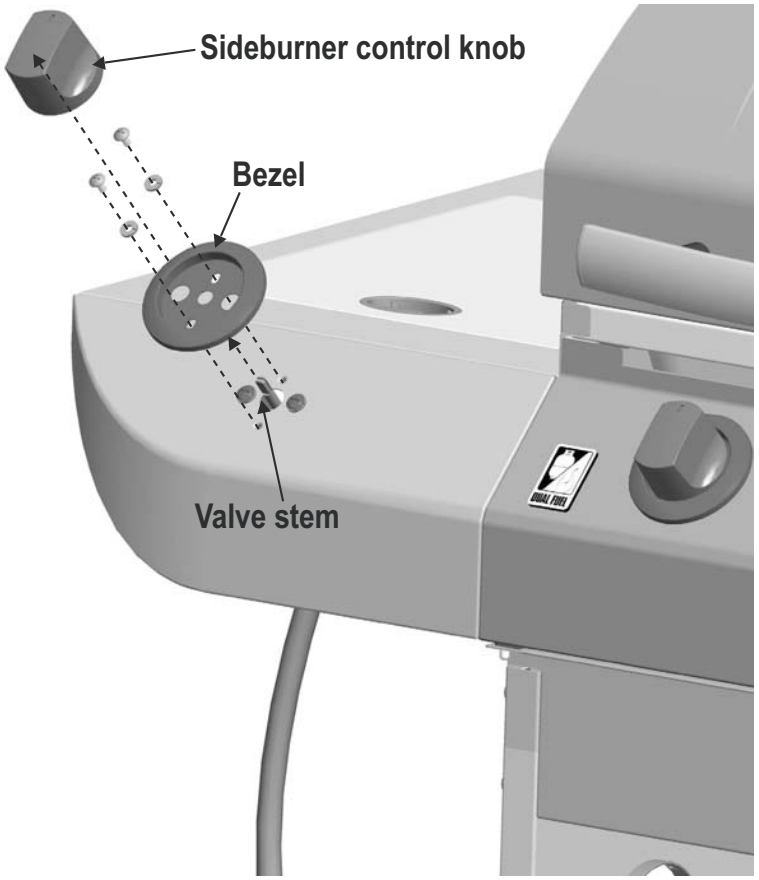


12

- Pull the sideburner control knob off of valve stem. Remove the existing bezel by removing the two screws and washers securing bezel to shelf fascia. Save removed bezel for converting back to LP Tank Gas.
- Install new natural gas bezel (see illustration below) and press control knob back onto valve stem.



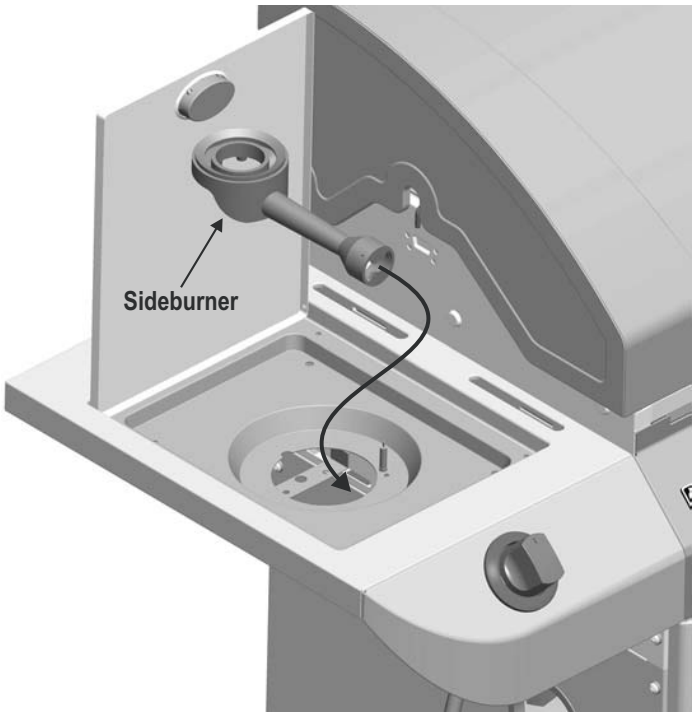
Natural gas bezel
80004350

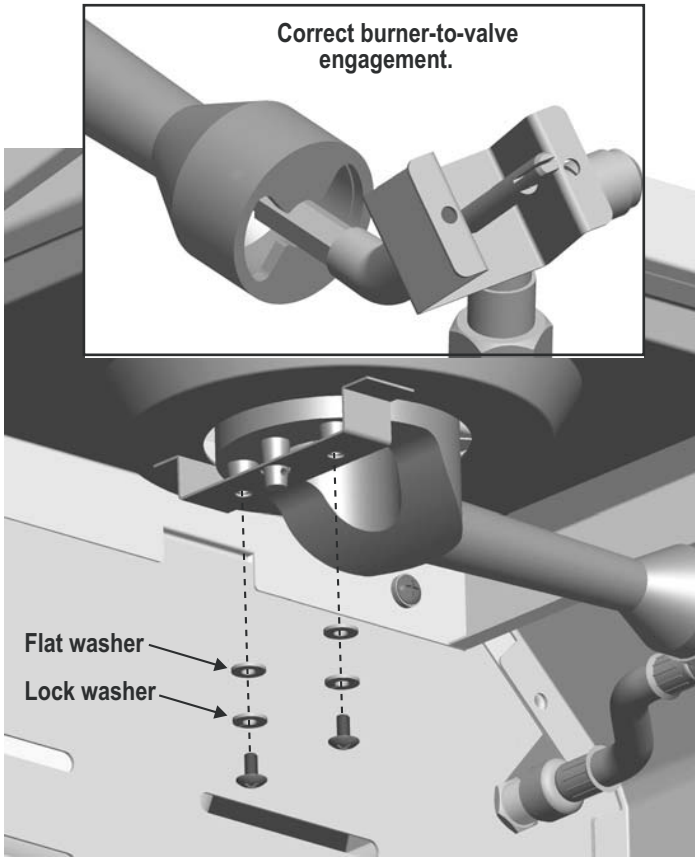


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13

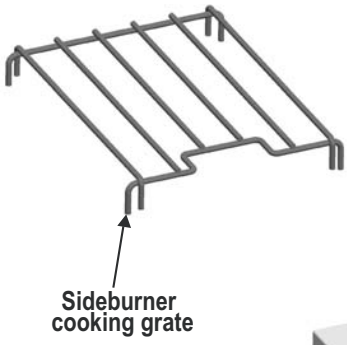
- Return sideburner to shelf. Make sure burner engages sideburner valve. See illustration below for correct burner-to-valve engagement. Secure burner to shelf bracket with two screws, lock washers and flat washers.

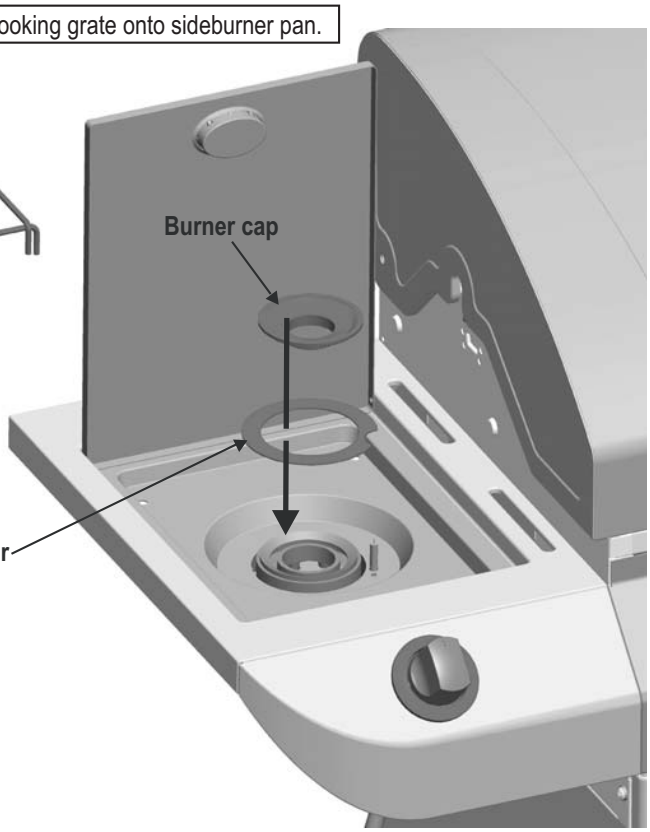




14

- Place wind diverter and burner cap onto sideburner, then place sideburner cooking grate onto sideburner pan.



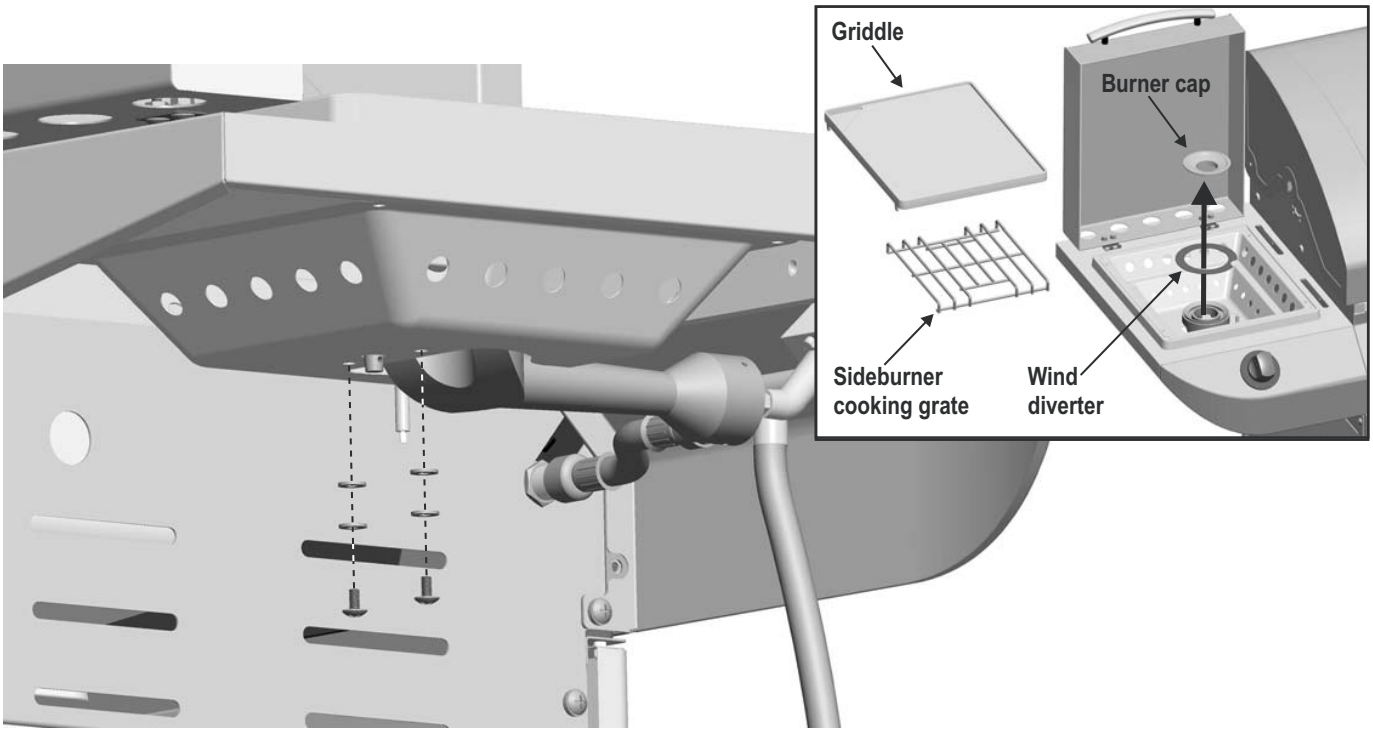


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Sideburner Conversion (Outdoor Stove & Griddle)

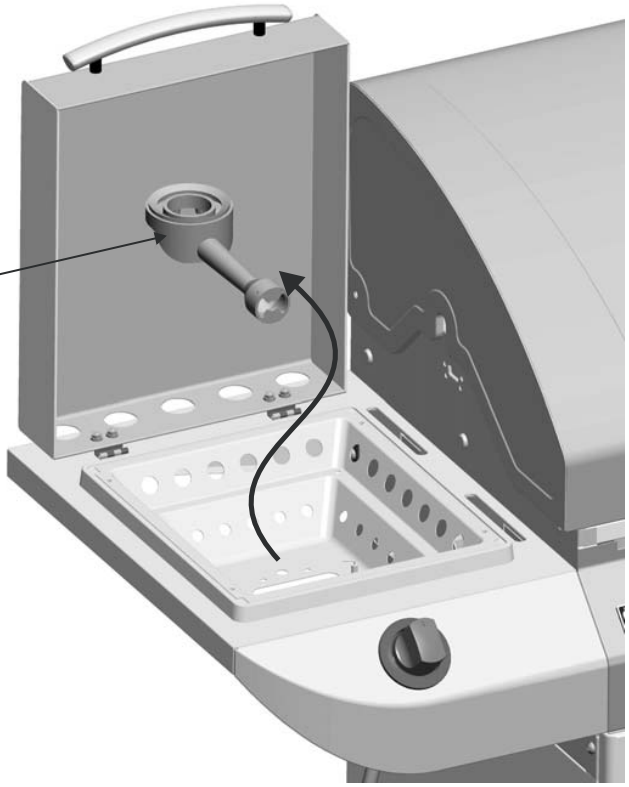
15

- Open sideburner lid and remove the sideburner cooking griddle, burner cap and wind diverter.
- Beneath sideburner shelf, remove the two screws, lock washers and flat washers that secure sideburner to shelf.



16

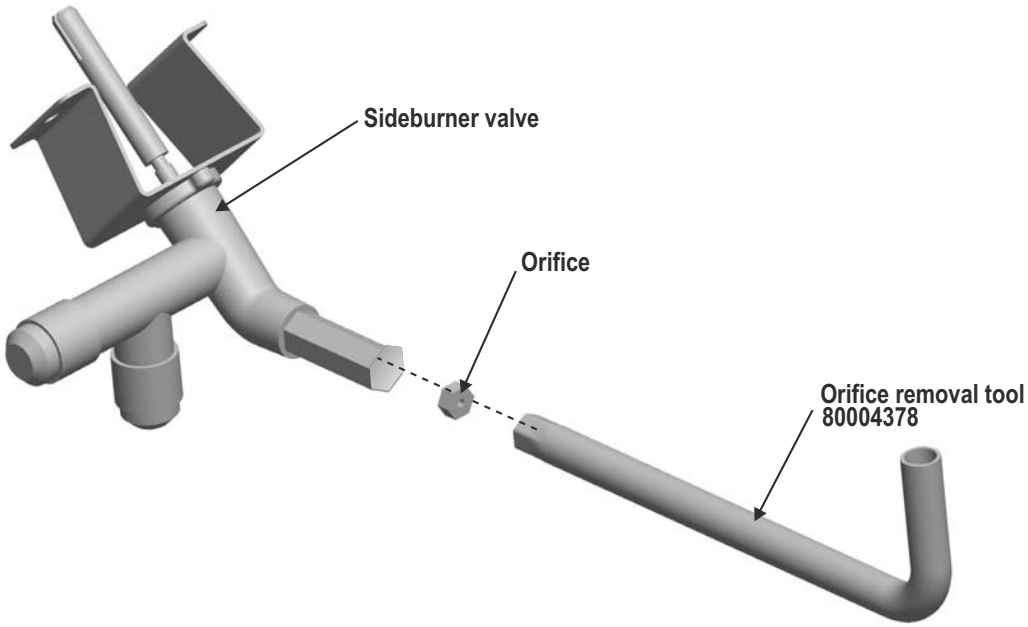
- Remove sideburner from shelf.



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17

- Using the provided orifice removal tool, unscrew the orifice from the end of the sideburner valve. Save removed orifice for converting back to LP Tank Gas. No replacement orifice is required.

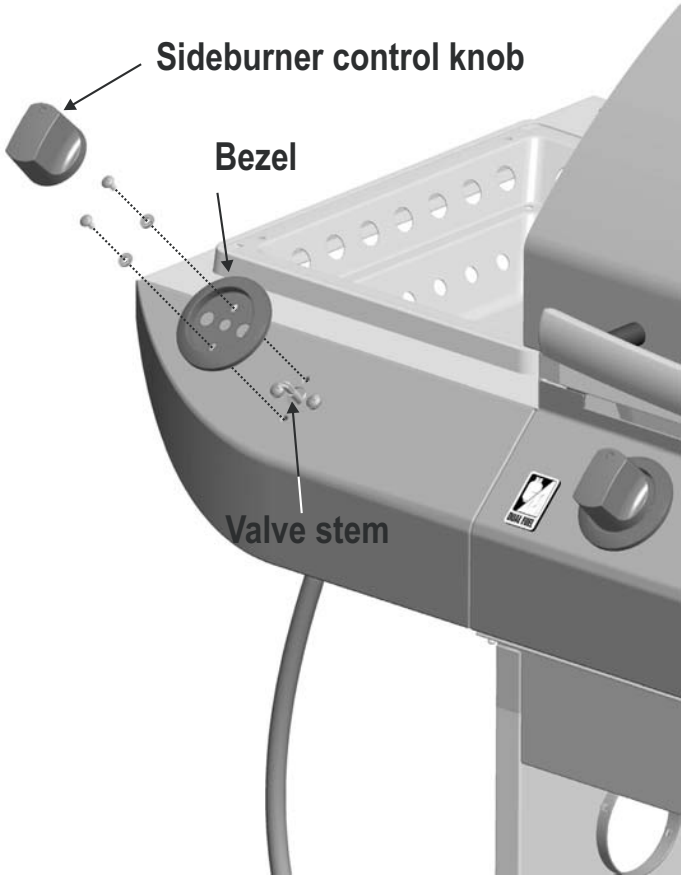


18

- Pull the sideburner control knob off of valve stem. Remove the existing bezel by removing the two screws and washers securing bezel to shelf fascia. Save removed bezel for converting back to LP Tank Gas.
- Install new natural gas bezel (see illustration below) and press control knob back onto valve stem.



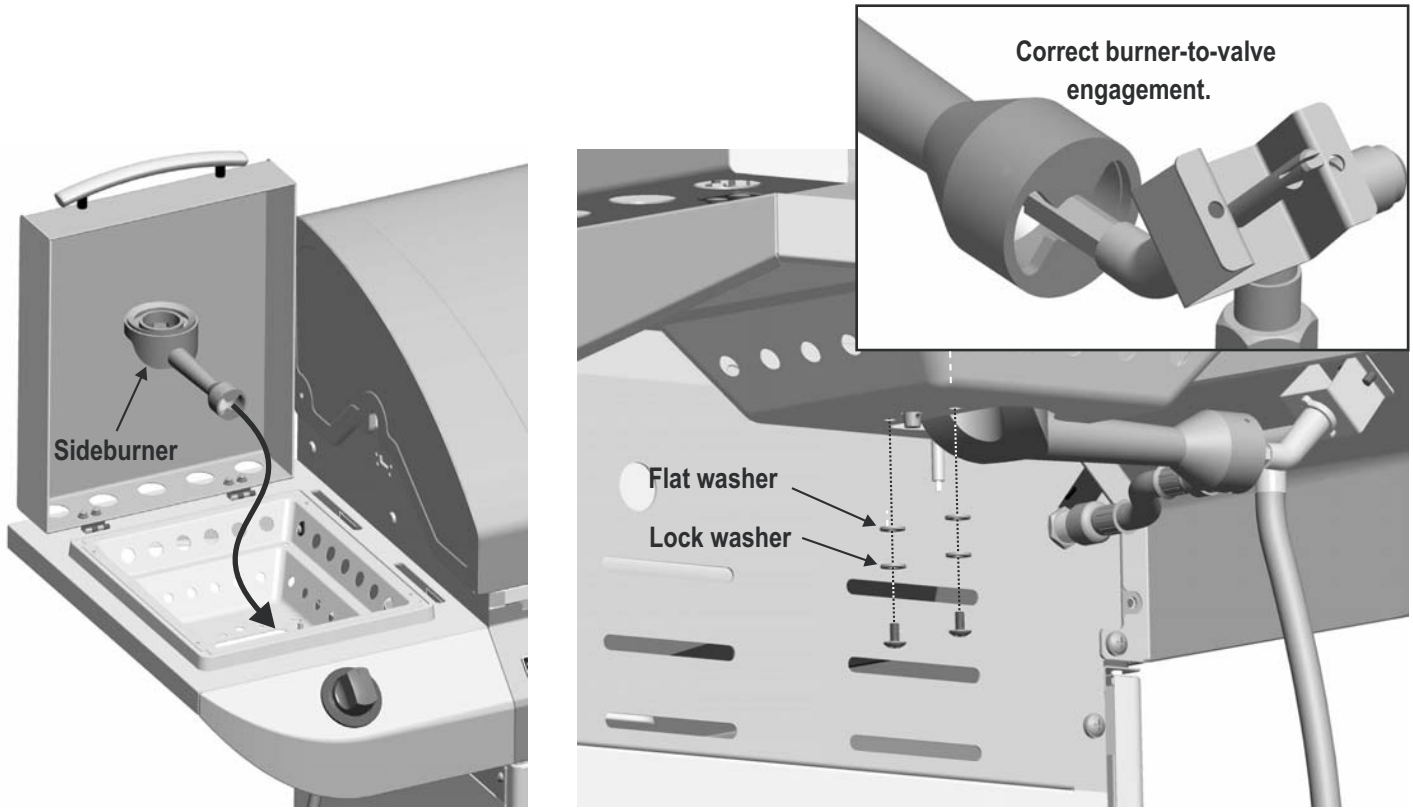
Natural gas bezel
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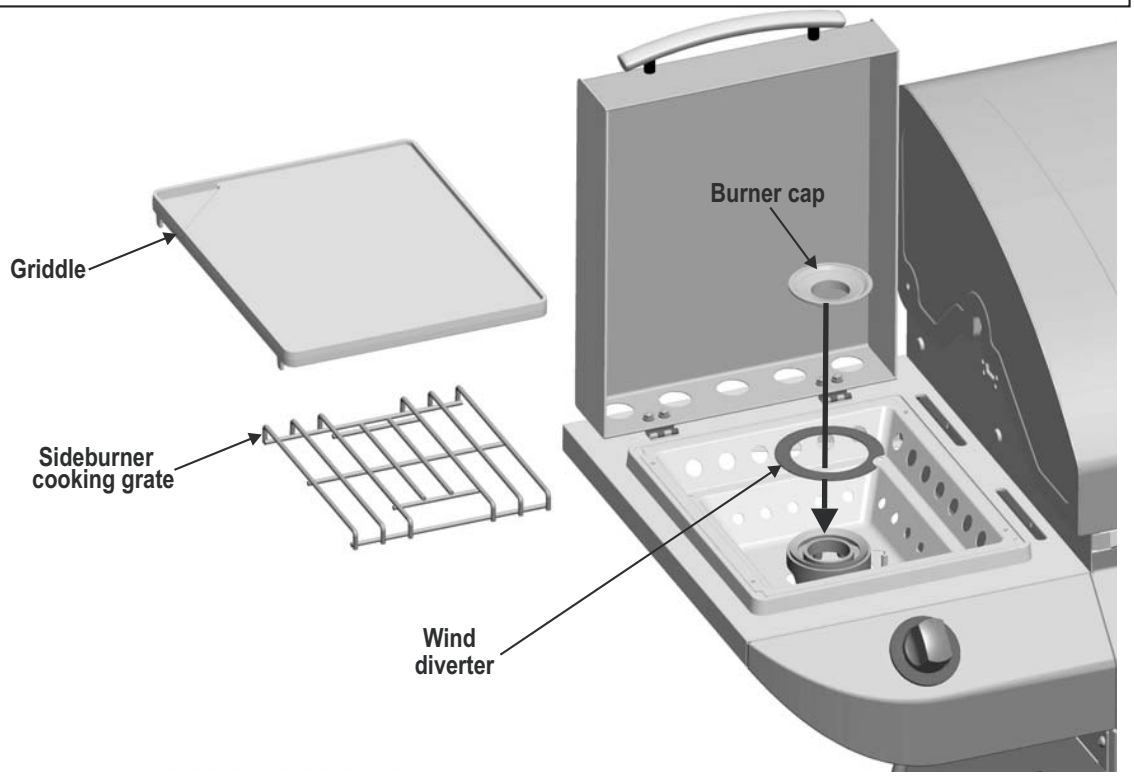
19

- Return sideburner to shelf. Make sure burner engages sideburner valve. See illustration below for correct burner-to-valve engagement. Secure burner to shelf bracket with two screws, lock washers and flat washers.



20

- Place wind diverter and burner cap onto sideburner, then place sideburner cooking grate and griddle onto sideburner pan.



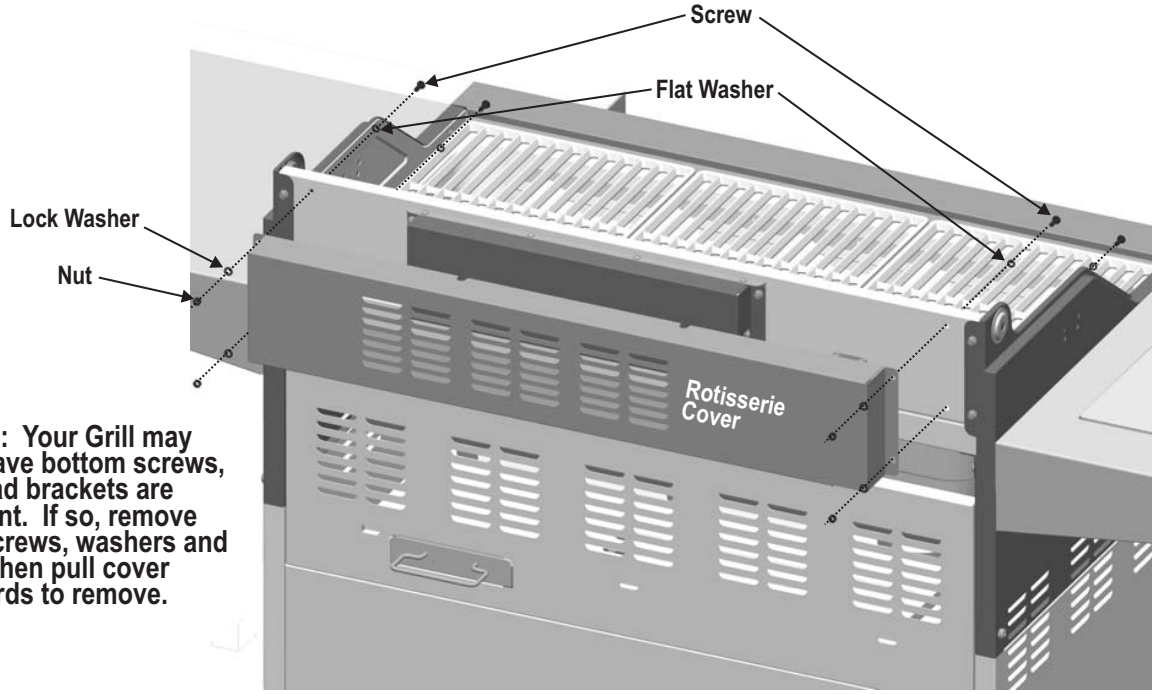
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Rotisserie Burner Conversion

21

- Remove screws, washers, and nuts that secures Rotisserie Cover to back of grill Firebox.
- Remove Rotisserie Cover, if applicable.

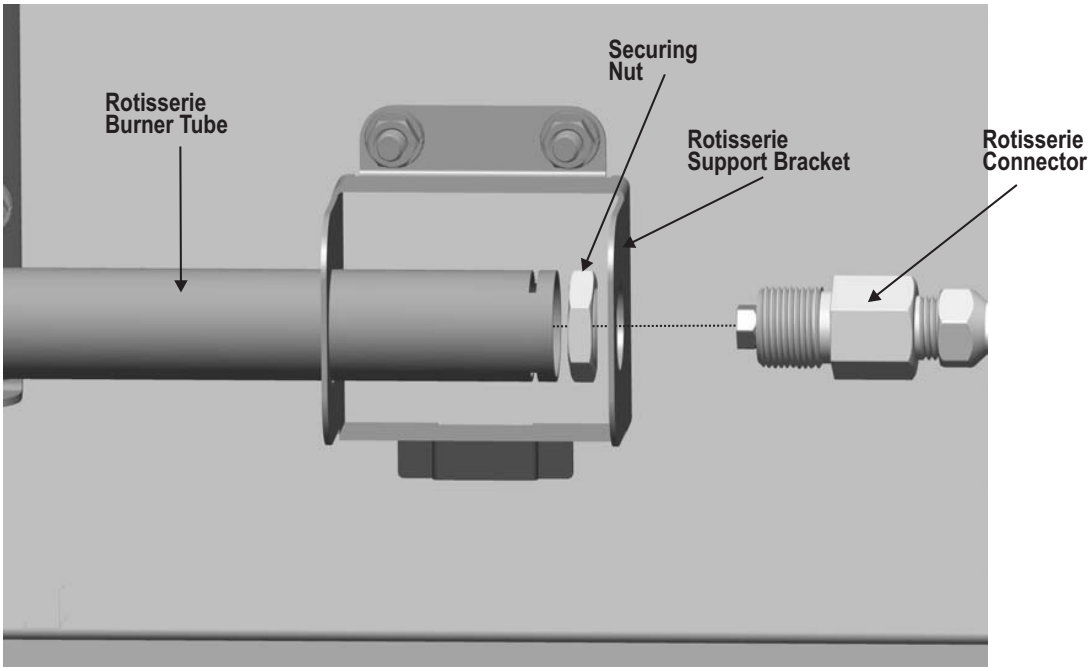
Your Grill may differ from illustration shown, it may not have a Rotisserie Cover.



NOTE: Your Grill may not have bottom screws, instead brackets are present. If so, remove top screws, washers and nuts then pull cover upwards to remove.

22

- Using a wrench, not provided, remove Securing Nut from Rotisserie Connector. Slide Rotisserie Connector out from Rotisserie Support Bracket.

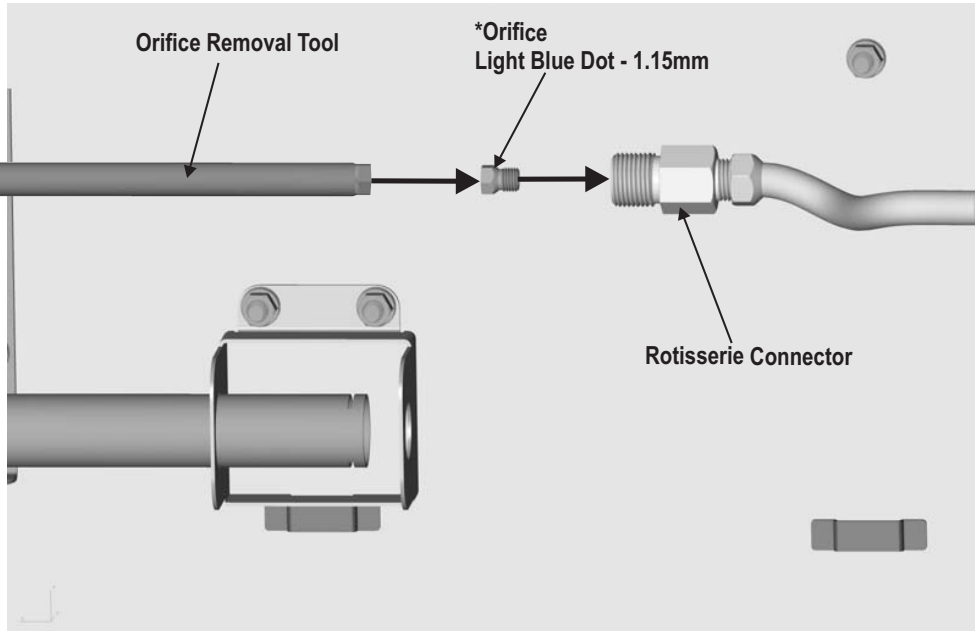


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23

- Using Orifice Removal Tool provided with Kit, unscrew Orifice from Rotisserie Connector. Save Orifice for converting back to LP Tank Gas.
- Replace with Natural Gas Orifice provided with this supplement and secure tightly to Rotisserie Connector.

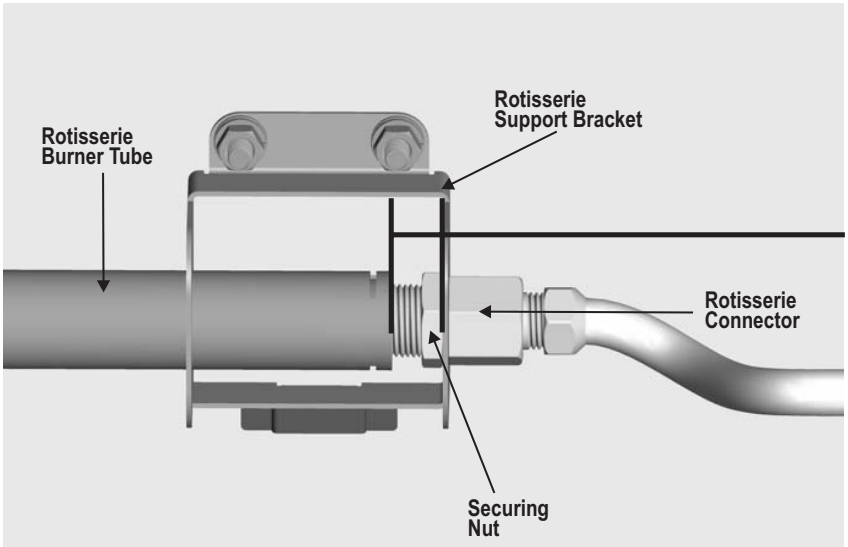
*** Light Blue dot - 1.15mm Orifice**



24

Reinstall Rotisserie Burner

- Insert Rotisserie Connector through cut-out of Rotisserie Support Bracket and tighten flush against bracket using previously removed Securing Nut. Rotisserie Connector with Orifice should engage in Rotisserie Burner Tube. Reference illustration Below.
- Replace Rotisserie Cover, if applicable. Reference illustration Step 1.



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EMERGENCIES: If a gas leak cannot be stopped, or a fire occurs due to gas leakage, call the fire department.

Emergencies	Possible Cause	Prevention/Solution
Gas leaking from cracked/cut/burned hose.	• Damaged hose.	• Turn off gas at at source. If anything but burned, replace parts. If burned, discontinue use of product until a plumber has investigated cause and corrections are made.

Troubleshooting

Problem	Possible Cause	Prevention/Solution
	GAS ISSUES:	
Burner(s) will not light using ignitor.	• No gas flow.	• Make sure gas hose is properly connected to grill. If hose is properly connected, make sure gas source is turned on.
Burner(s) will not match light.	• See **"GAS ISSUES:"** .	
	• Match will not reach.	• Use long-stem match (fireplace match).
	• Improper method of match-lighting.	• See "Match-Lighting" section of Grill Use and Care.
Flames blow out.	• Natural gas valve not fully open.	• Open Natural Gas Valve to full open position.
	• Inadequate gas pressure.	• Call gas company.

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