

BARKMAN BBQ GRILL LIQUID PROPANE TO NATURAL GAS CONVERSION INSTRUCTIONS



Understanding Gas Appliance Conversions

Making changes to an appliance so that it can utilize a different fuel is known as appliance conversion. The inner valves and orifices are designed to work with a particular gas that has a specific pressure. Natural gas is a much lower pressure gas than propane and converting the appliance to one or the other gas requires that the differing pressure is compensated for. In other words, connecting a natural gas appliance to a propane piping system will result in appliance malfunction and possible danger. The reason for this is because natural gas orifices are larger than propane orifices strictly because of gas service pressure. In this case, the higher pressure gas flowing through a larger orifice will result in more gas through the burner and likely, more flame...an unnecessarily large flame. Conversely, trying to use a propane appliance with natural gas will likely result in a very small flame or no burner flame at all because of the lower pressure gas and the smaller orifice. This is the underlying purpose of an appliance conversion from propane to natural gas or from natural gas to propane.



To installer or person assembling grill: Leave this manual with grill for future reference.

To consumer: Keep this manual for future reference.

GAS GRILL CONVERSION INSTRUCTIONS

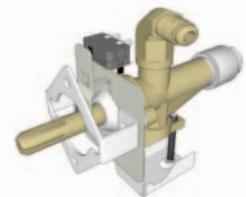
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Conversions from Propane to Natural Gas

The following illustrated conversion can be used for when converting from Liquid Propane to Natural Gas. This example is shown with the Barkman Harvest Grove BBQ Grill 4 Burner with Infra Red Burner. Other Grills without a IR Burner, can also follow this instructions. The only difference is you are not required to change any Safety Valve or IR Orifice. For converting gas types, it is extremely important to follow these instructions step by step. We always recommend a Licensed Plumber/Gas Fitter or Installer perform any maintenance or gas conversion on your grill.

This Gas Conversion requires the following Parts

(NG) Safety Valve



#50 Size Drill Bit



1/2" Flare Adapter
(supplied by gas fitter)



Natural Gas Regulator



This Gas Conversion requires the following tools (Not Provided)

Phillips Head Screw Driver



Adjustable Wrench



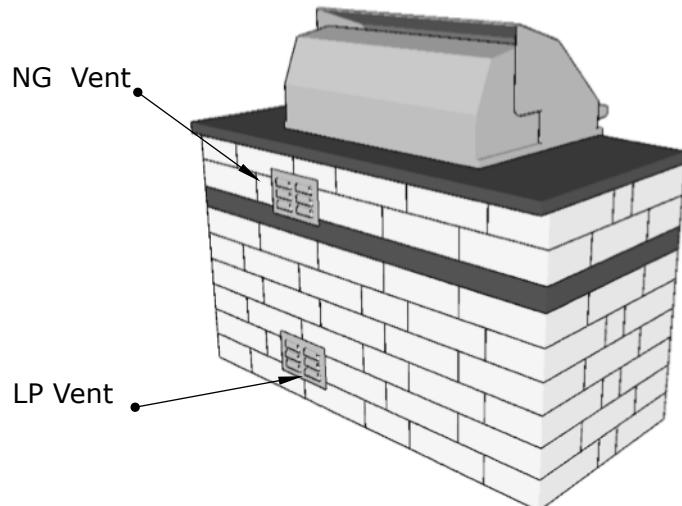
Hand Drill



Island Safety Vent Installation for either Liquid Propane or Natural Gas

For Natural Gas

Natural Gas (NG) is Lighter and will raise to upper end of structure upon leak. Outdoor kitchen islands housing Natural Gas appliance will be vented at the approximate level as the Appliance Control Panel, where knobs are located.



For Propane Gas

Liquid Propane Gas (LP) is heavier and will lower to base of structure upon leak. Outdoor kitchen islands housing Propane Gas appliance will be vented within 4" to 6" from ground level.

WARNING: The above step should be done during assembly.

IMPORTANT!! - USE CORRECT GAS REGULATOR FOR EACH GAS TYPE



For Liquid Propane

Your new Grill is set as Liquid Propane (LP), which uses the Medium Pressure Regulator supplied by your gas grill appliance, designed for portable tanks.

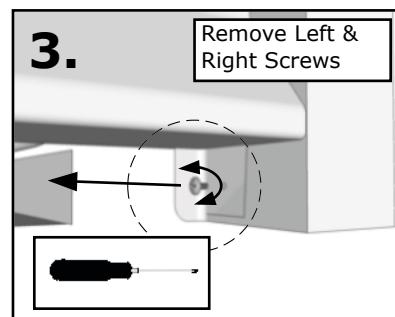
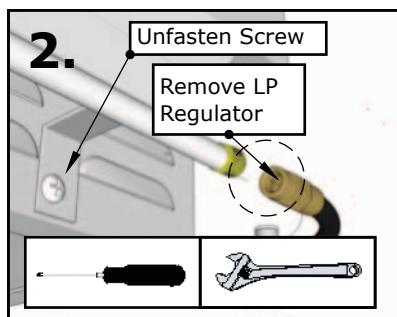
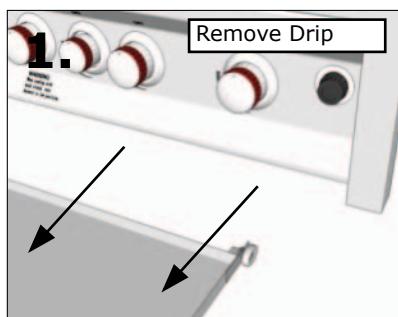


For Natural Gas

When converting your grill to Natural Gas, be sure to remove the LP Regulator, and install this NG Regulator in its place. We recommend to have a licensed plumber/gas fitter make final gas connections.

Before proceeding, make sure you have cleared away from grilling area any loose debris and secure a small box to place each screw in as you remove them. Locate a chair that has arm supports or other platform, and place this in front of grill, giving you an elevated position to set the grills control panel after removal. This way you do not need to remove any wires, or other hoses. In step 4, there are two pins that are holding the control panel in place. You will need to wiggle the control panel for it to drop down. Sometimes angling it then pulling down will also release it where the valves are inserted in burners.

IMPORTANT!!! - BEFORE BEGINNING CONVERSION, GAS MUST BE TURNED OFF

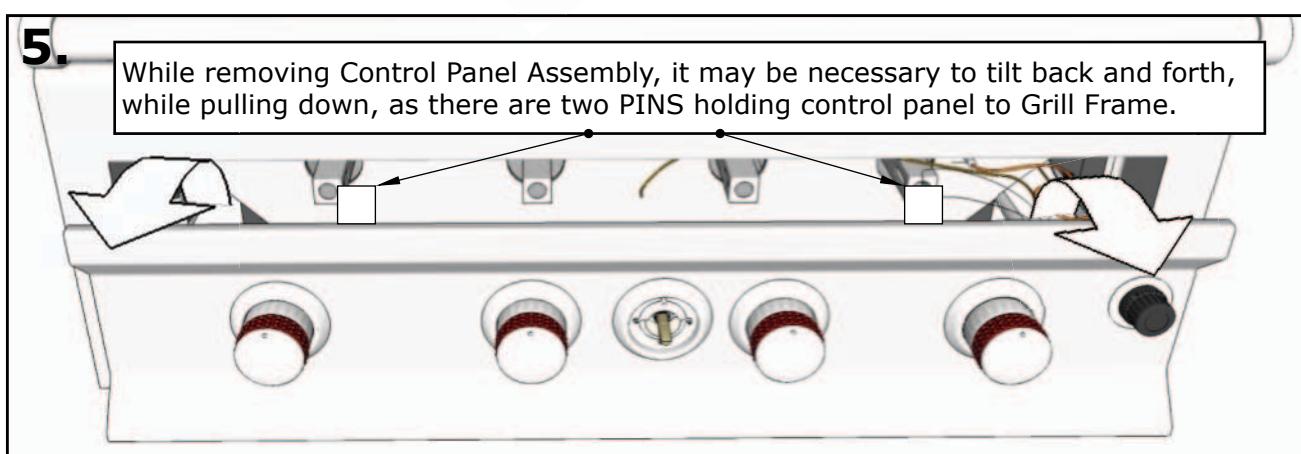


4. Remove the Small Center Knob

After removing the center small knob, the same one for the back Infra-red Burner, remove ONLY the Top and Bottom Screws. This will release valve from control panel, but still keep it affixed to the gas manifold pipe.

5. Slide out Control Panel

Grip base of control panel firmly, and pull down and out releasing the two pins inserted into grill control panel frame. (See illustration below)



Disassemble Valve Hose and Wires

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While pulling out the Control Panel Assembly, and noting the Flex Hose attached to Center IR-Valve, use pliers to remove this from Valve Fitting. Also remove the Two Orange Ignition Wires from the top of the Valve. Try to keep the wires on the right valve connected.

6.

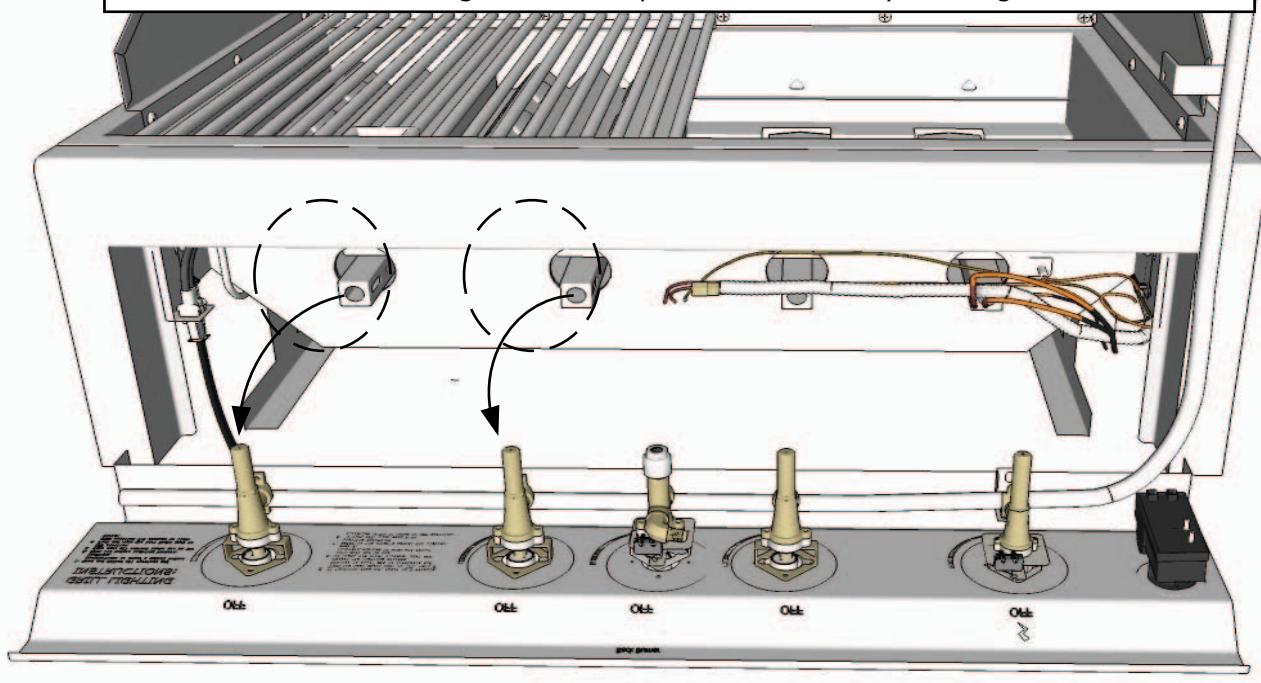
Ignition Wires • Flex Hose

• IR-Valve



7.

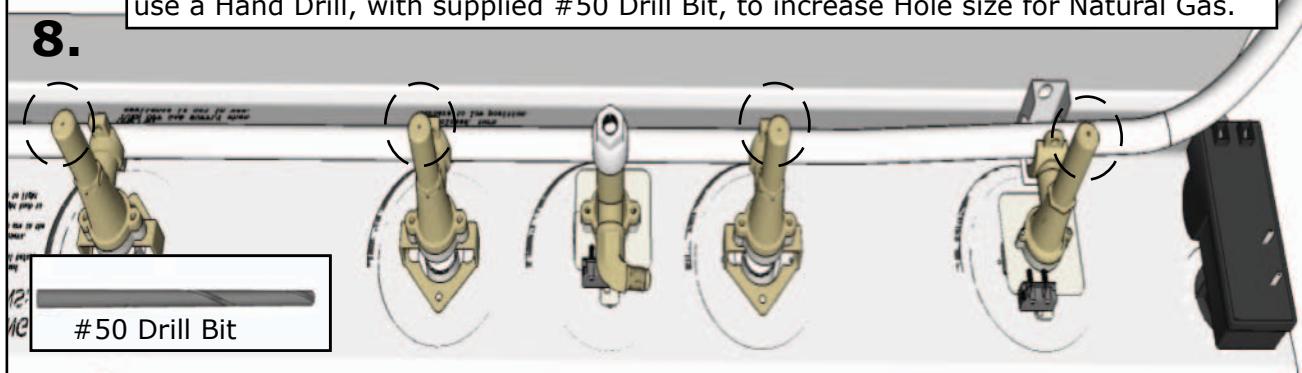
Turn upright, so valve Orifices are facing upward. Some wires will have to be removed. Pay close attention to their positions. It may be a good idea to take a photo of the inside grill, before removing control panel, so you have a quick reference when reinstalling the control panel into the body of the grill.



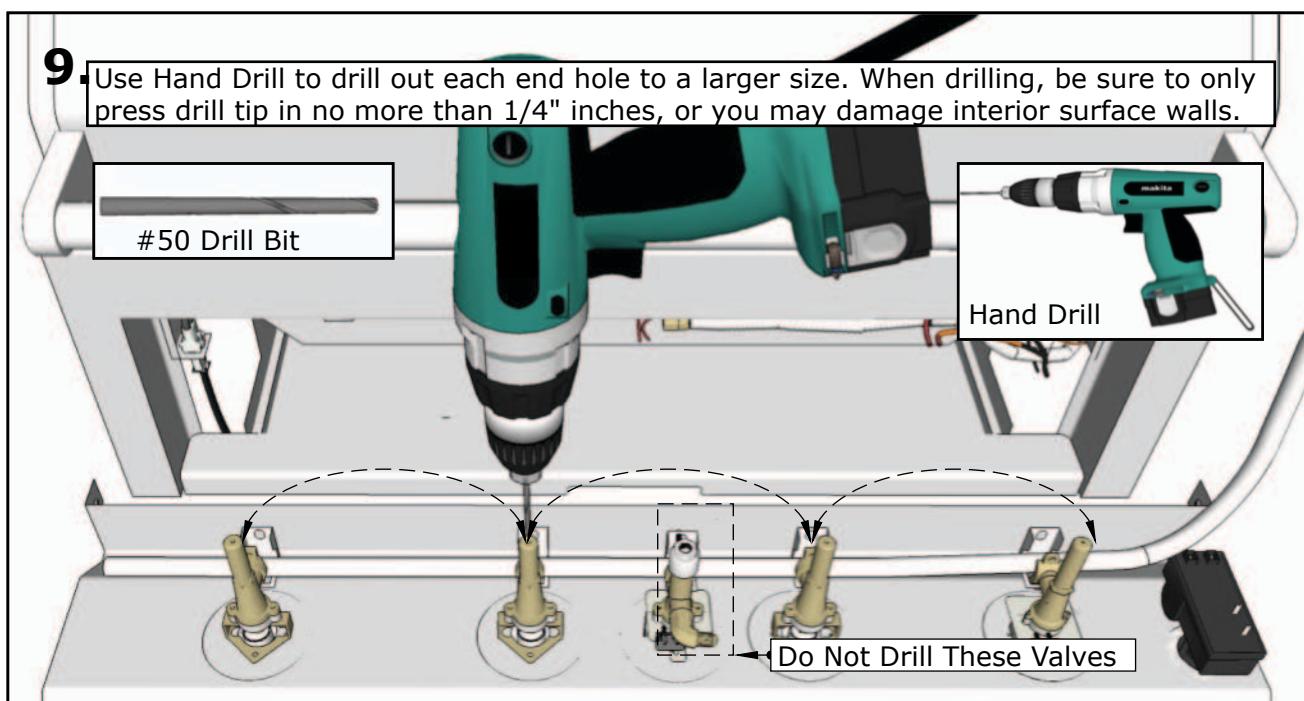
Pay attention to each Orifice Hole at the tip of the Valve. This is where you need to use a Hand Drill, with supplied #50 Drill Bit, to increase Hole size for Natural Gas.

8.

#50 Drill Bit



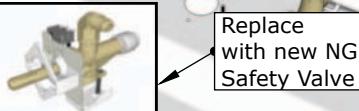
- 9.** Use Hand Drill to drill out each end hole to a larger size. When drilling, be sure to only press drill tip in no more than 1/4" inches, or you may damage interior surface walls.

**10.**

Remove
Valve Bracket
Screw, and
unhinge
valve

11.

Gas Manifold
Open Hole

**12.**

Secure Valve Bracket on,
but do not tighten down.

Secure new valve in place. Insert
valve base into Gas Manifold Hole

13.

Turn Control Panel back upright, and insert back to grill body. Then reattach the Flex Line and Wires to Valve. Reattach any other wires to other valve and Igniter Box.

Ignition Wires

Flex Hose

Be sure to tighten this down.

Other Ignition Valve

Igniter Box

14.

Locate NG Regulator &
1/2" Flare Adapter

15.

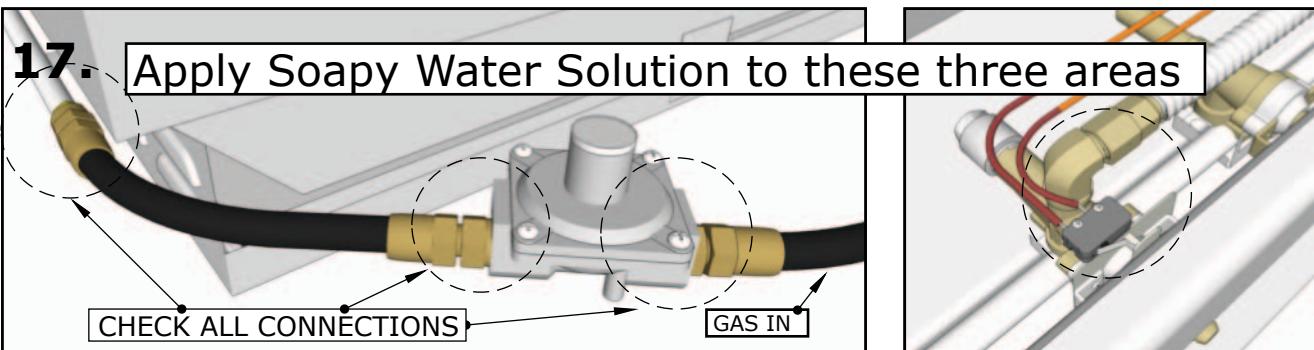
Remove current 3/8"
flare from end of Gas
Pipe, and replace with
new 1/2" flare fitting.

**16.**

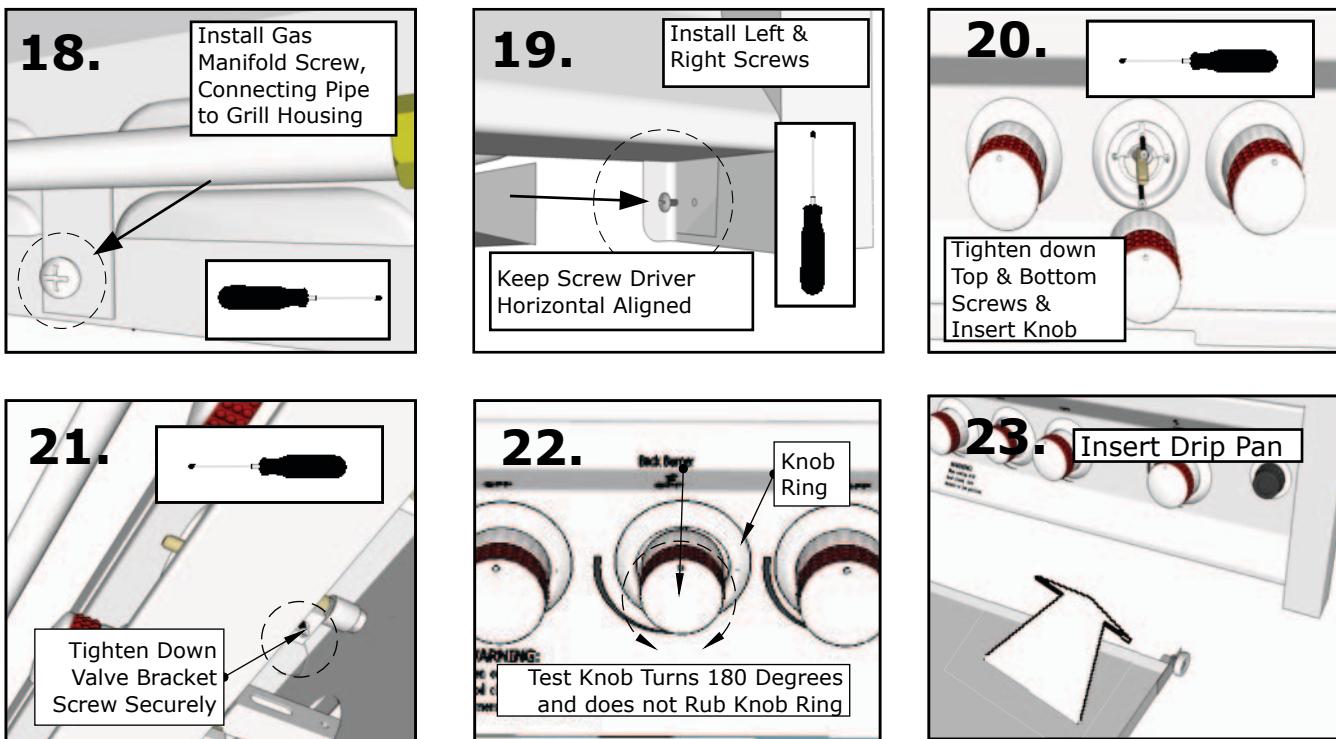
Connect NG Regulator
& make final connection
to your Gas Line Stub-Up



Mix some soapy water in a bowl. Use a sponge to apply solution to these three areas illustrated. Afterwards, turn gas flow on, and check if you see any bubbling, or smell any gas. Also make sure all that Valves are turned OFF. If either is the case, tighten down all connections once more and test again until there are zero gas smells or bubbling effects.



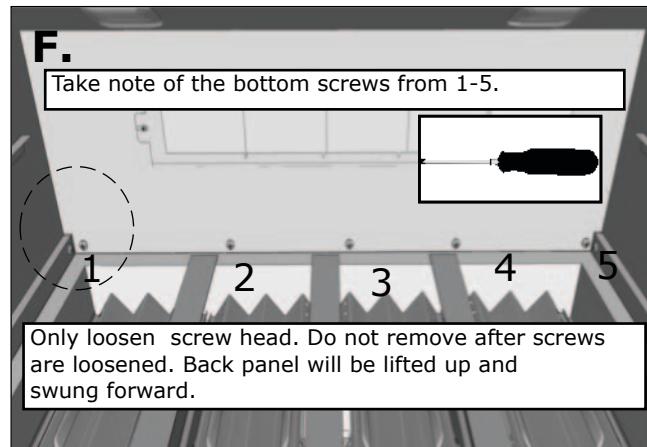
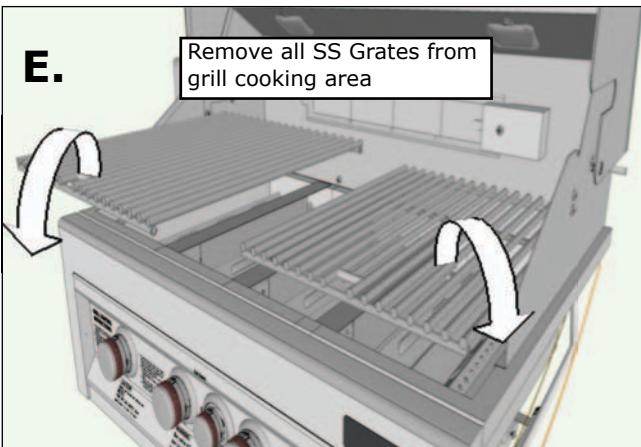
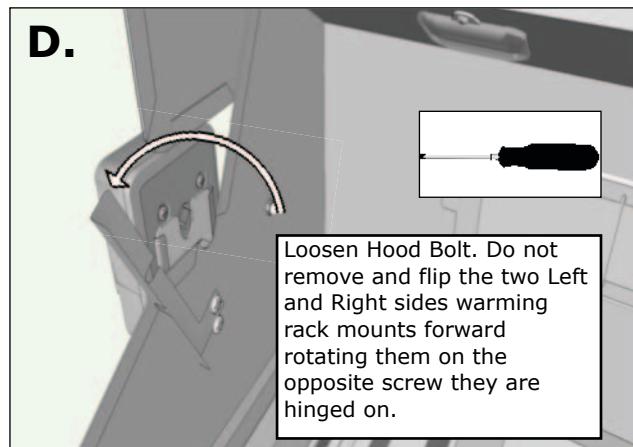
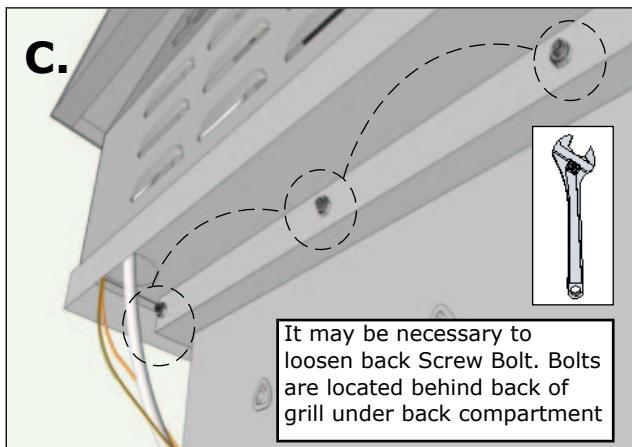
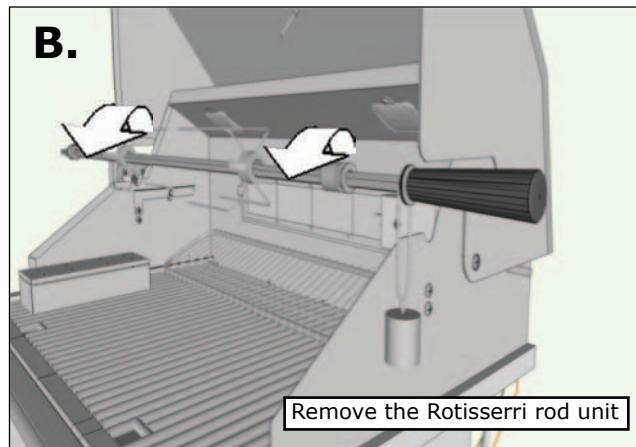
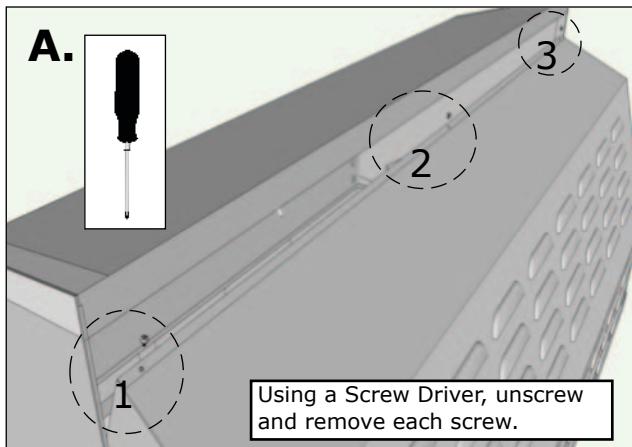
Re-Install Control Panel



24. Converting the Infrared Burner

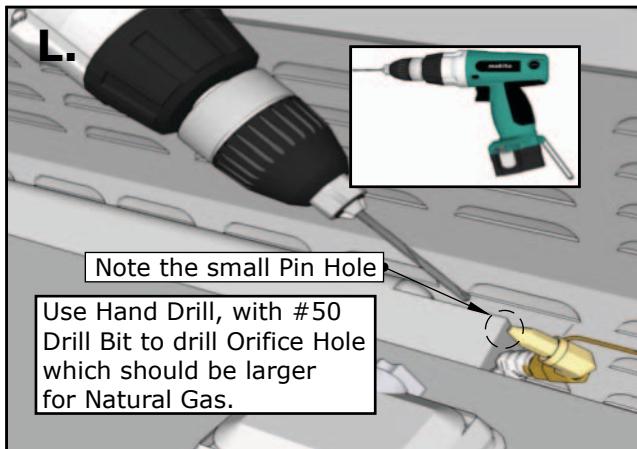
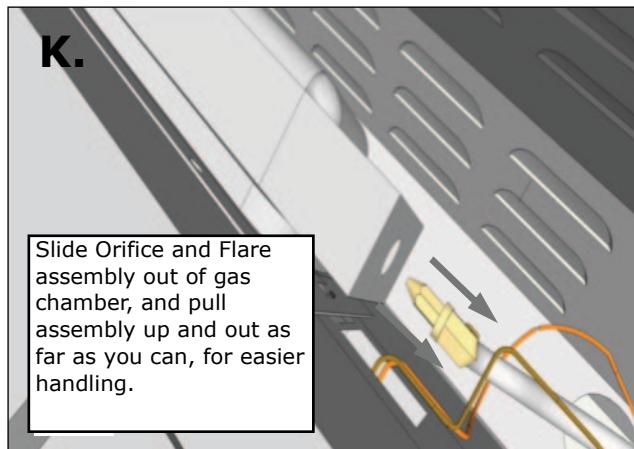
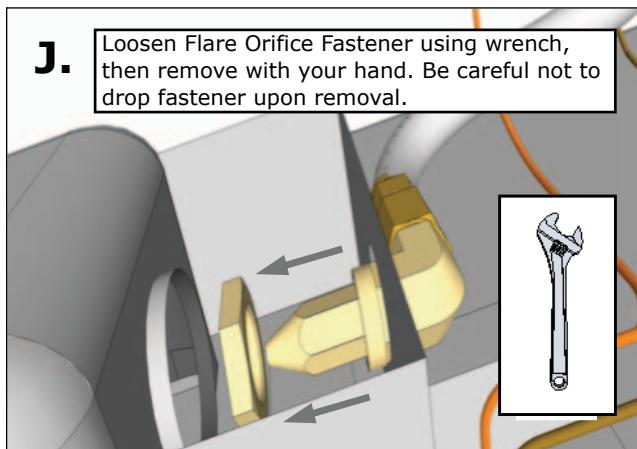
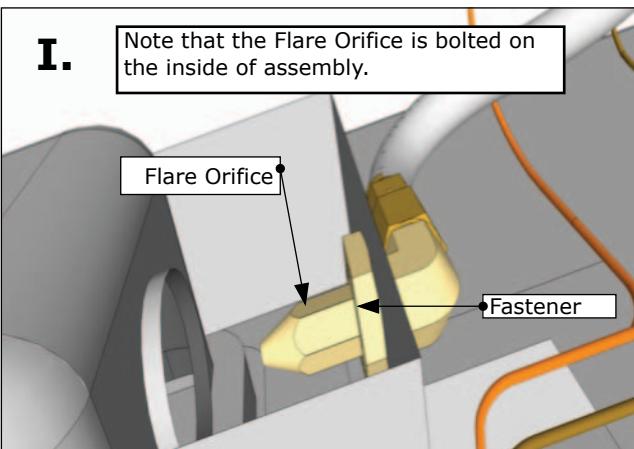
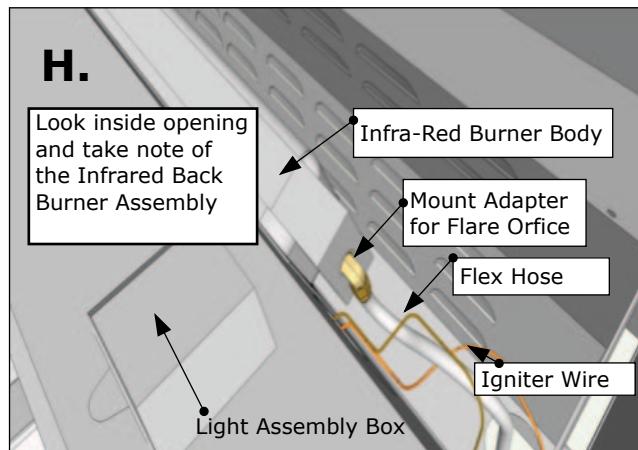
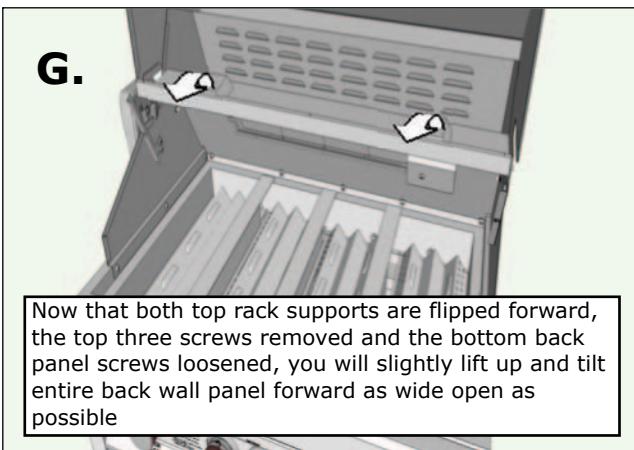
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Converting the burner is important if you want high heat capabilities when using the rotisserie, or searing your meat. If you do not use this burner, and are not concerned if the heat from it is less, it is also not required to convert this burner. The burner will still function and be safe to use. This is your option if you decide to convert this burner from LP to NG gas type.



24. Converting the Infrared Burner

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Finish Gas Grill Conversion

Re-Assemble your grill following in the opposite direct section 15 A thru L. Be sure to properly secure any screws and bolts back in place, some pressure needs to be applied sometimes to insert screws back in. If you have question during this conversion, please call Texas BBQ Wholesalers at 888-934-9449 or email them at service@sunstonemetalproducts.com.

Natural Gas BBQ Grill Instructions

Refer to these instructions for installing your barkman BBQ grill if you're using a natural gas conversion kit. Materials needed are the same as the propane-based grill.

Materials Included:

12" standard quarry stone - 57 pieces
8" standard quarry stone - 3 pieces
4" standard quarry stone - 9 pieces
4" x 12" x 6" quarry stone - 6 pieces
4" x 8" x 6 1/8 " quarry stone - 9 pieces
4" x 8" x 2 1/8" quarry stone - 8 pieces
4-piece ebony accent band
3-piece ebony countertop
4 burner grill 34in IR (liquid propane ready)
stainless steel vent box
tank and drawer frame
double door tank holder and dual drawers
concrete screws with drill & driver bits
Sunstone manual for grill
plastic shims
1 tube of landscape glue
gloves
instruction guide
landscape design plan

*This kit has one or two extra pieces of quarry stone.

Notes:

If installing your BBQ grill on an unstructured base, please ensure to follow these steps:

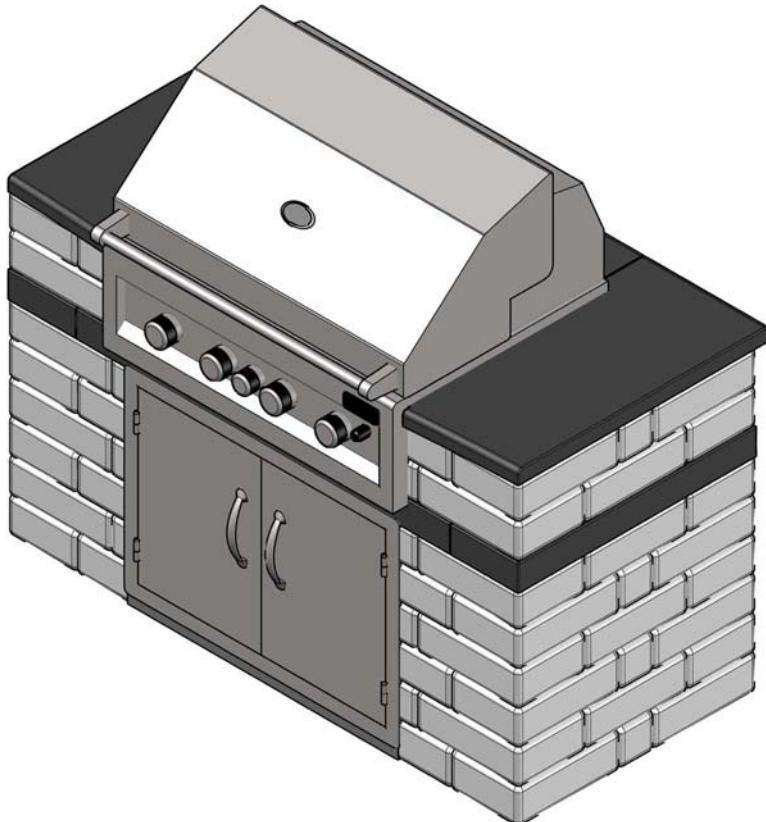
- Excavate area approx. 9" below grade
- Excavate approx. 6" larger than your actual kit dimensions to ensure a stable base.
- Fill with ¾" down limestone and compact firmly
- Level out ½" of sand and install kit as per the instruction guide.
- If you are installing on a solid base such as an existing patio and/or base prep is not necessary, then you can proceed to the first step.

These instructions may not refer to all base conditions. Base prep will greatly depend on existing ground conditions and may require alternate techniques.

For the use of propane or natural gas with this product, consult your local building code and/or bylaws for regulations. Natural gas conversion kit is available for purchase separately.

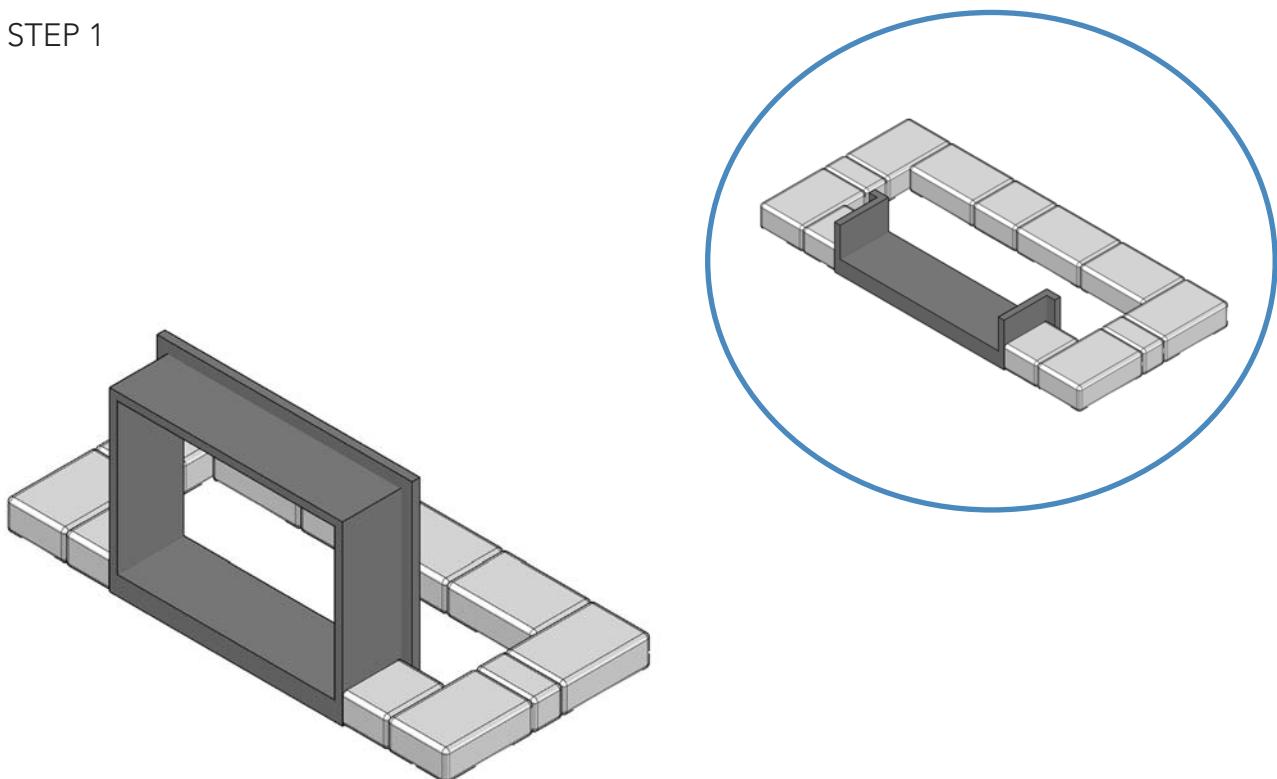
Other Items Needed:

drill
caulking gun
measuring tape/ruler



Note that certain steps indicate the use of landscape glue. This is for added stability but it's optional and at the discretion of the user.

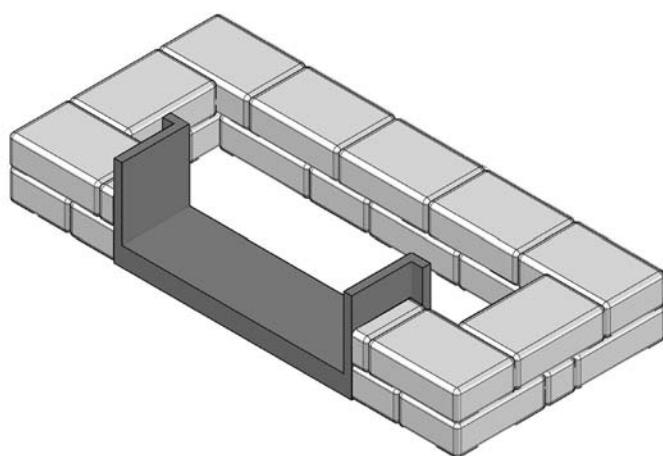
STEP 1



Lay down the stone pattern shown using 12", 8", 4" standard and 4"x8"x6¹/₈" pieces along with the tank and drawer frame. Glue the cut ends of the blocks to the tank and drawer frame for this and future layers. Measure at every step to ensure the remaining space between the stone and top of frame is 24" minus 4" for every layer of stone.

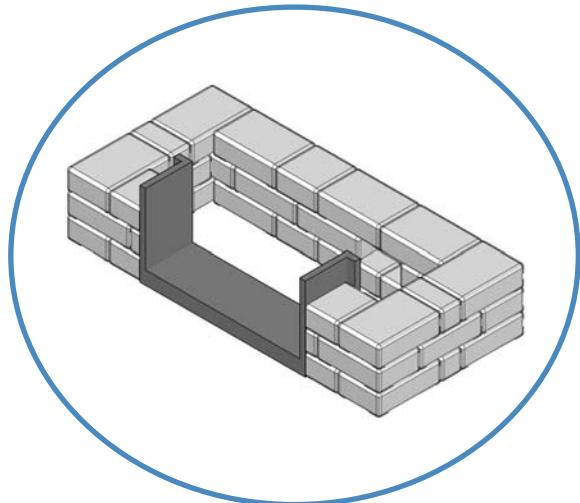
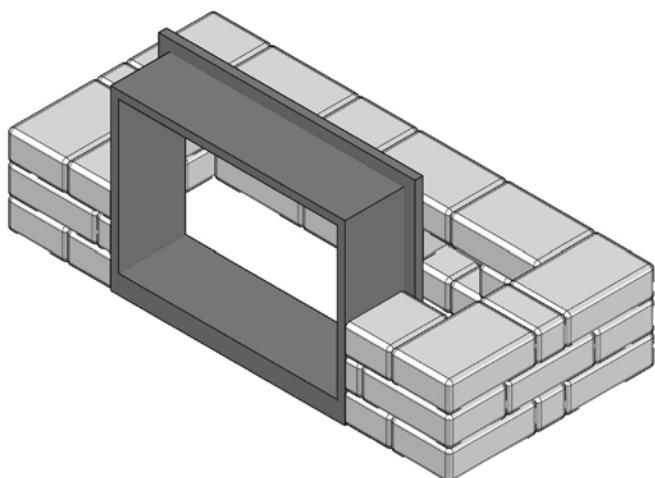
Check that stones are level at every step. Use included shims for adjustments.

STEP 2



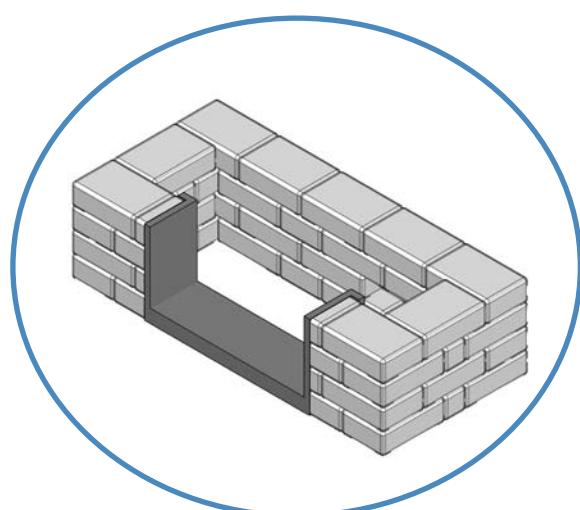
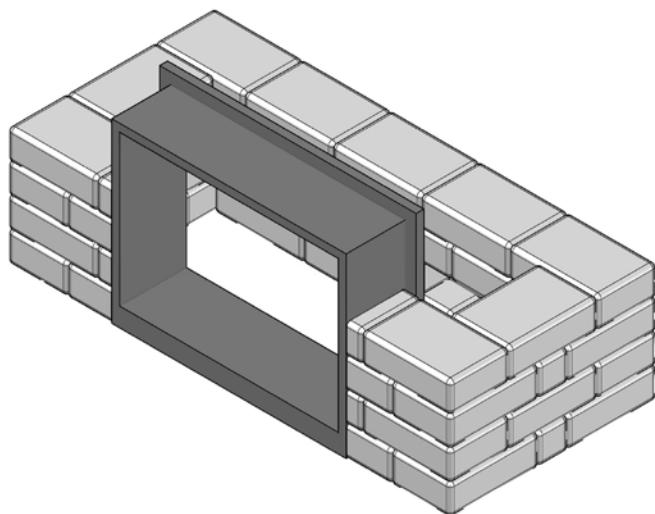
Lay down the stone pattern shown using 12" standard and 4"x8"x2¹/₈" pieces.

STEP 3



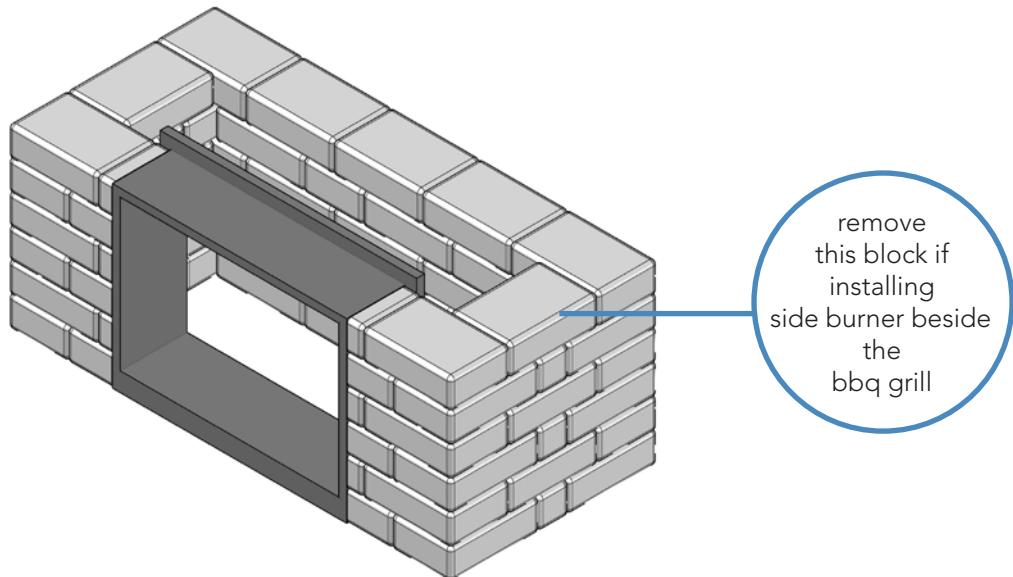
Repeat the pattern from Step 1.

STEP 4



Repeat the pattern from Step 2.

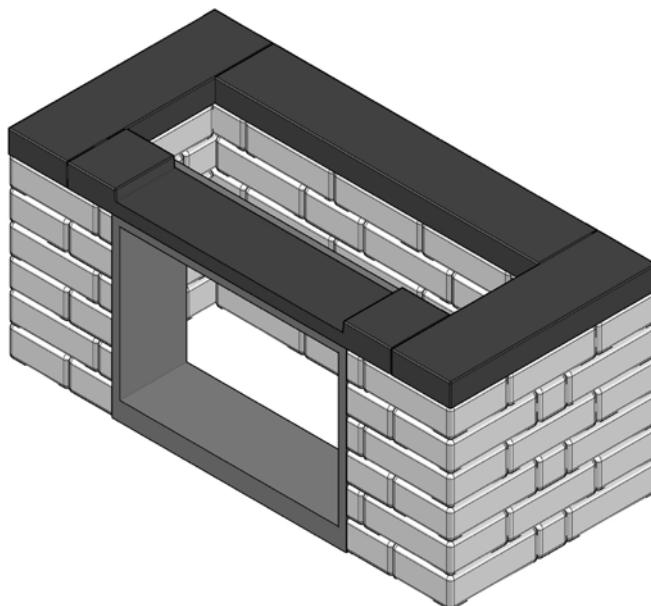
STEP 5



Repeat patterns from Steps 3 & 4. Make sure this layer is flush with the top of the frame.

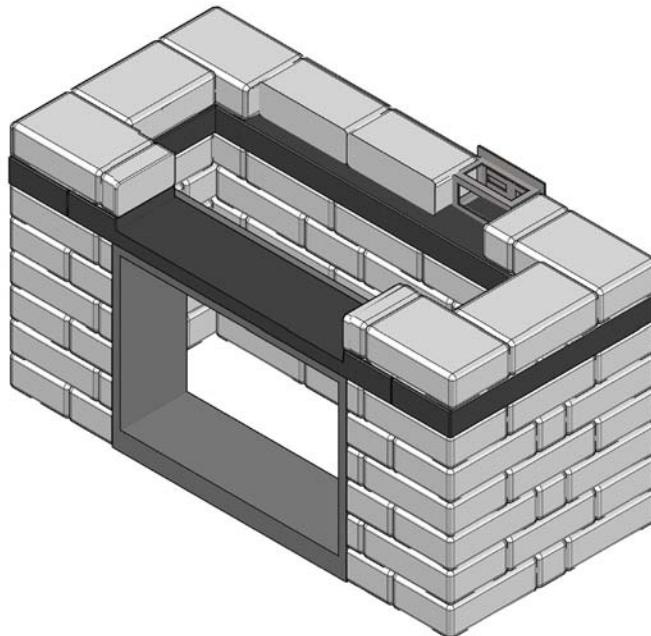
If installing with the side burner, do so on the right-hand side of the BBQ grill.

STEP 6



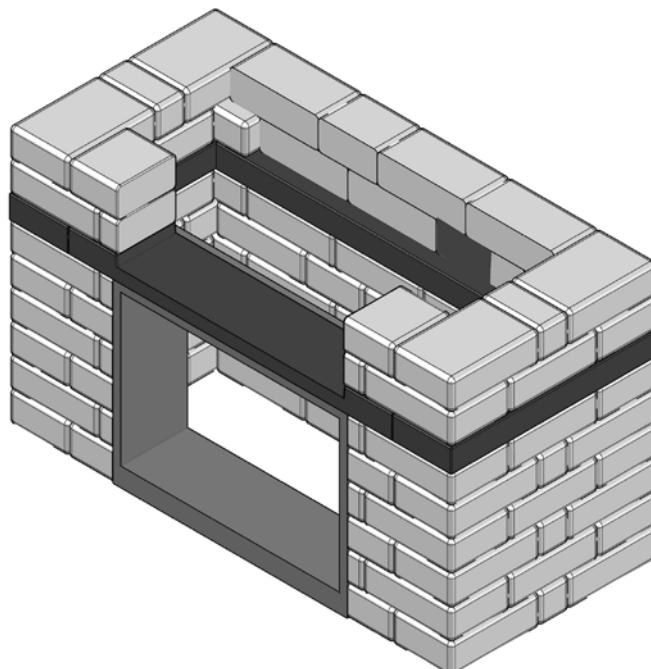
Lay down the 4-piece accent band as shown. Make sure all 4 pieces are level. Glue this down to the tank and drawer frame and quarry stone below.

STEP 7



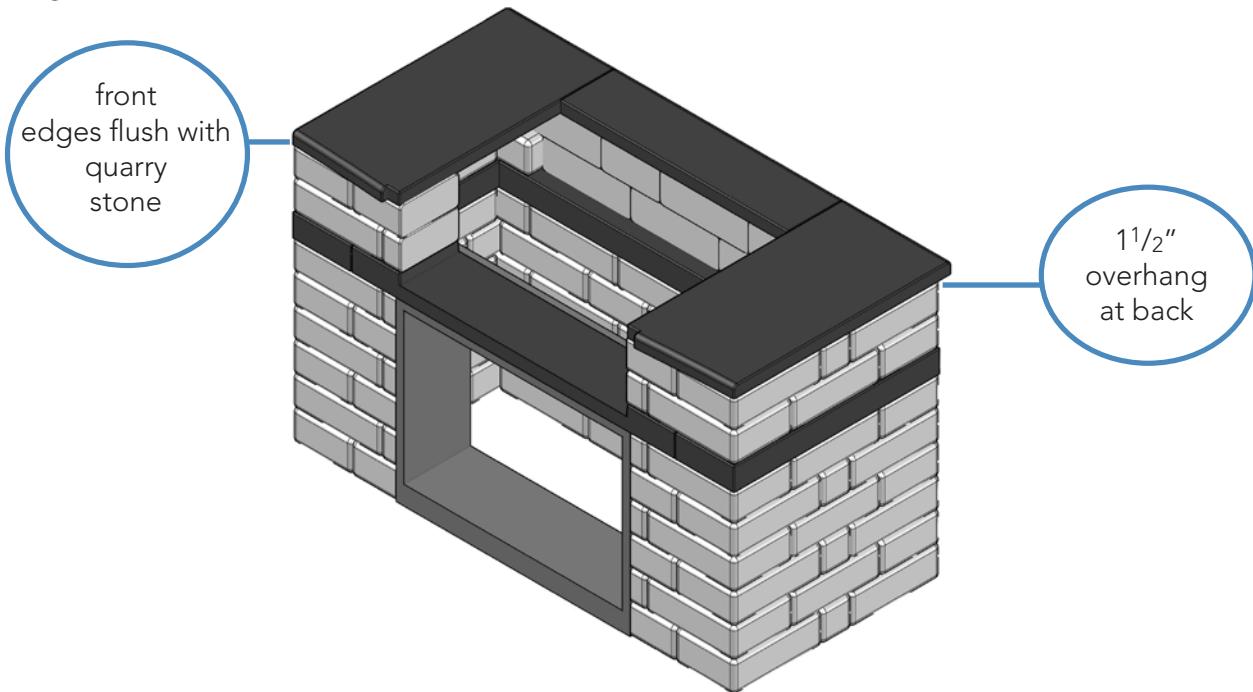
Lay down the stone pattern shown using 12", 4" standard and 4"x8"x $2\frac{1}{8}$ " pieces along with the vent box. Glue this layer down to the bottom layer.

STEP 8



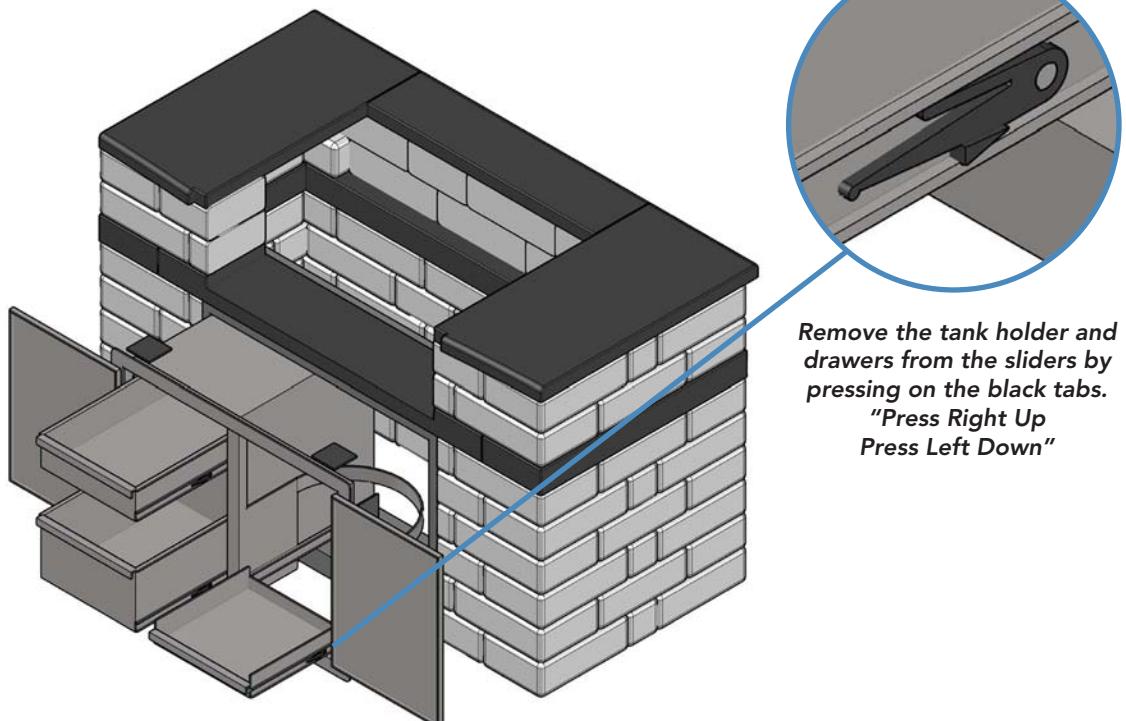
Lay down the stone pattern shown using 12", 4" standard, 4"x12"x6", and 4"x8"x $6\frac{1}{8}$ " pieces. Make sure that all pieces on this layer are level to receive the countertop.

STEP 9



Lay down the 3-piece ebony countertop as shown. Make sure all 3 pieces are level. Glue this down to the quarry stone below.

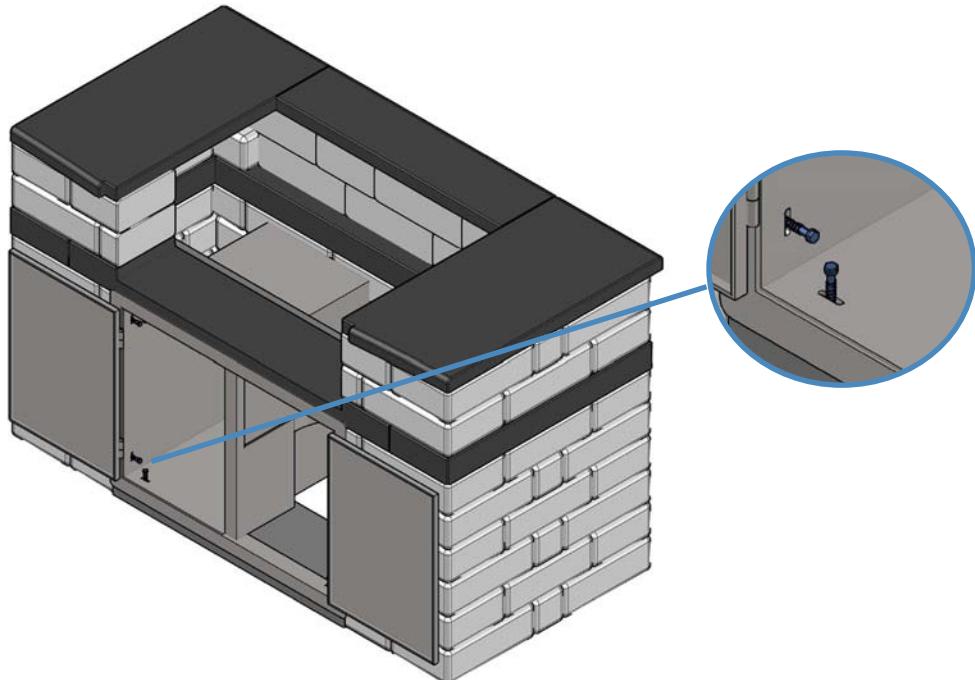
STEP 10



Insert the double door tank holder and dual drawers into the tank and drawer frame. Use the included shims to ensure it fits snug and remains square.

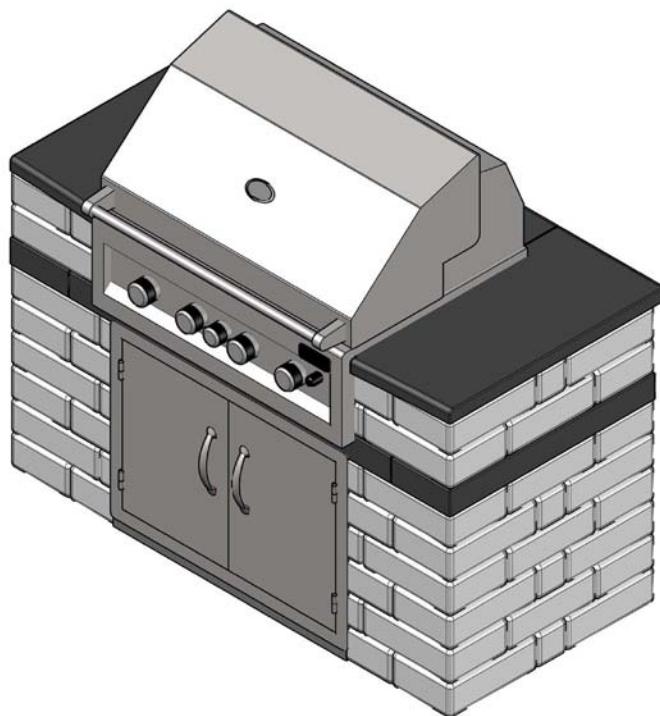
Remove the tank holder and drawers from the sliders by pressing on the black tabs.

STEP 11



Pre-drill holes into the *tank and drawer frame* through openings in the *double door tank holder and dual drawers* with the drill bit provided. Fasten in place with the provided concrete screws (do not overtighten). Reinsert the drawers and tank holders thereafter.

STEP 12



Place the *4-burner grill 34in IR* into the space provided.

Refer to the Sunstone manual included with the 4-burner grill 34in IR for proper use and installation.