

SUNSTONE DOUBLE SIDE BURNER LIQUID PROPANE TO NATURAL GAS CONVERSION INSTRUCTION

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 gases 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 possibly 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.

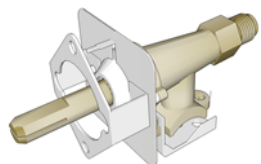
To consumer: Keep this manual for future reference.

Conversions Between Natural Gas and Propane

The following illustrated conversion can be used for when converting either from Liquid Propane to Natural Gas. This example is shown with the Barkman Double Side Burner. For converting gas types, it is extremely important to follow these instructions step by step, we always recommend a Licenced Plumber or Installer perform any maintenance or gas conversion on your grill.

This Gas Conversion requires the following Parts

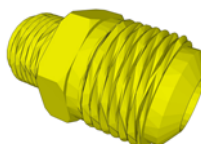
2CSB Gas Valve



#50 Size Drill Bit



1/2" Flare Adapter



Natural Gas Regulator



This Gas Conversion requires the following tools (Not Provided)

Screw Driver



Adjustable Wrench



Hand Drill



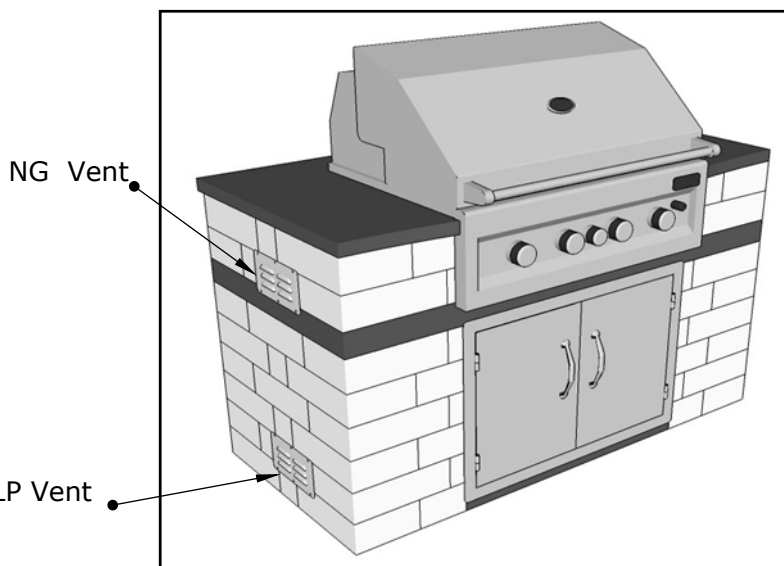
Island Safety Vent Installation for either Liquid Propane or Natural Gas

For Natural Gas

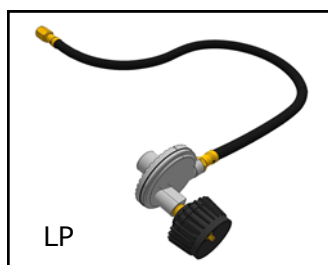
Natural Gas (NG) is Lighter and will raise to upper end of structure upon leak. Outdoor Kitchen Islands housing Natural Gas Appliance must have several vents located at the approximate level as the Appliance Control Panel, where Knobs are located.

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 must have several vents located within 4" to 6" from ground level.

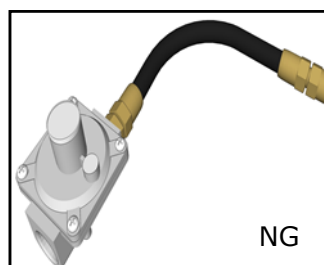


IMPORTANT!! - USE CORRECT GAS REGULATOR FOR EACH GAS TYPE



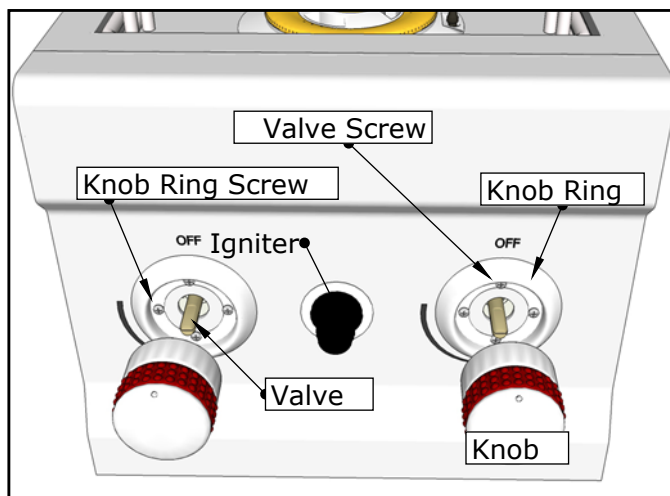
For Liquid Propane

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

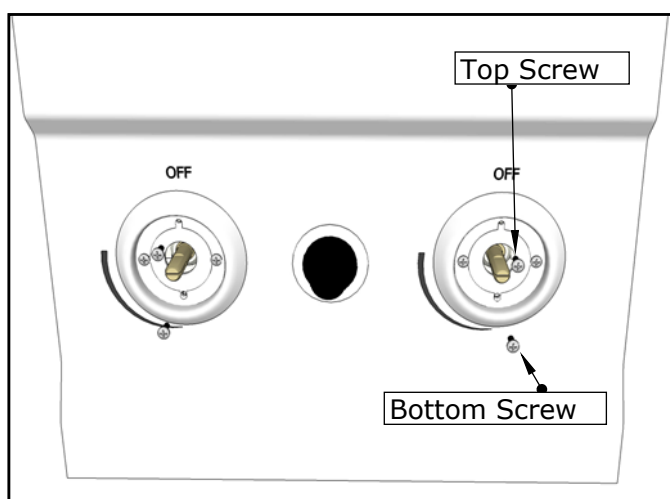


For Natural Gas

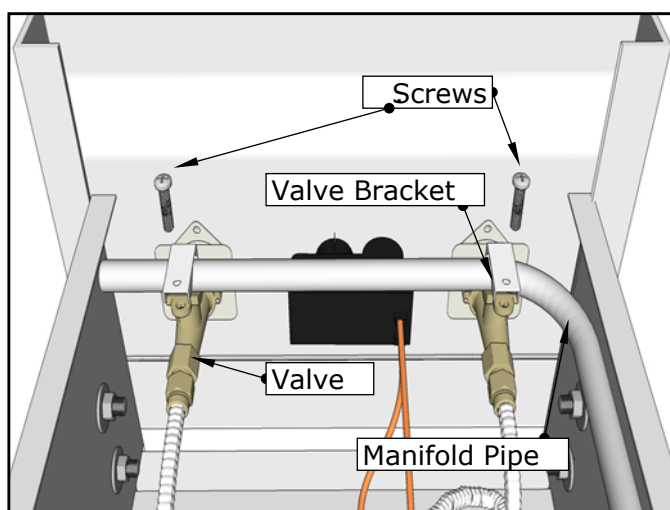
When converting your grill to Natural Gas, be sure to remove the LP Regulator, and install this NG Regulator in it's place, recommend to have licenced plumber make final gas connections.

IMPORTANT!!! - BEFORE BEGINING CONVERSION, GAS MUST BE TURNED OFF**1. Remove Both Knobs**

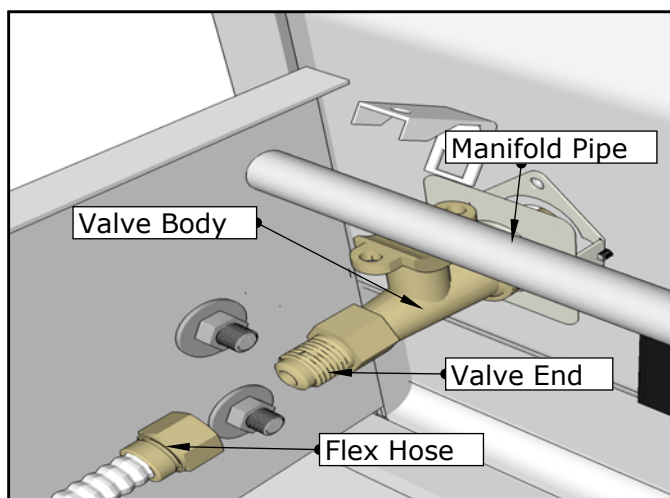
After removing both Left and Right knob, notice the Four small Screws on the inside of Knob Ring.

**2. Remove Top & Bottom Screws**

Notice the Top and Bottom Screws, Remove these on both Left & Right Knob positions. Do Not Remove the screws on the Left or Right of each Knob position.

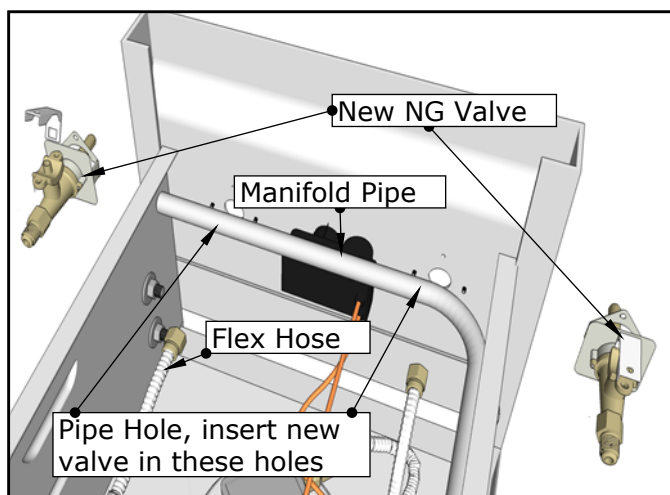
**3. Beneath Burner, Remove Screws**

You may need to rotate burner Upside-Down, make sure when you do this, to brass top side burners, so they do not fall out of position. Remove Both Left and Right Screws from Valve Bracket. Valve will loosen on Manifold Pipe.



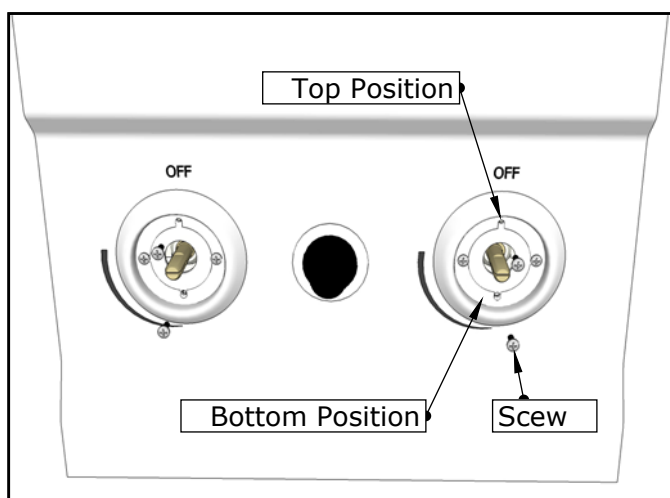
4. Remove Valve Flex Hose

After removing each Valve from Manifold Pipe, Use Wrench to remove Flex Hose from end of Valve



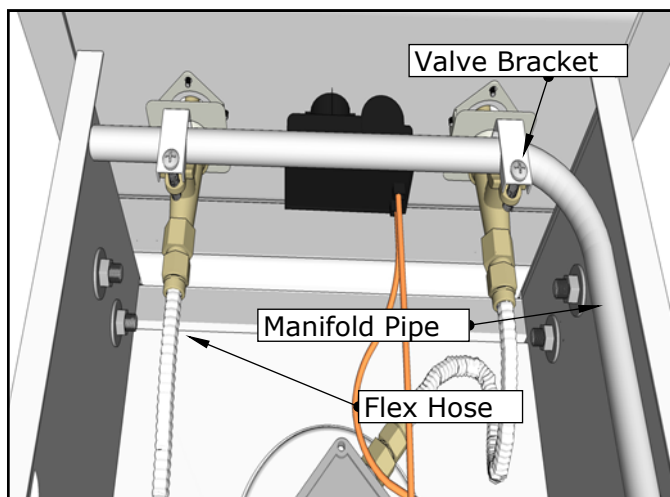
5. Replace with New NG Valves

Now that both left and right Flex Hose's and LP Valves are removed. Replace with NG Valves, and fasten in place following the same steps in reverse securing in place.
DO NOT TIGHTEN IN PLACE YET.



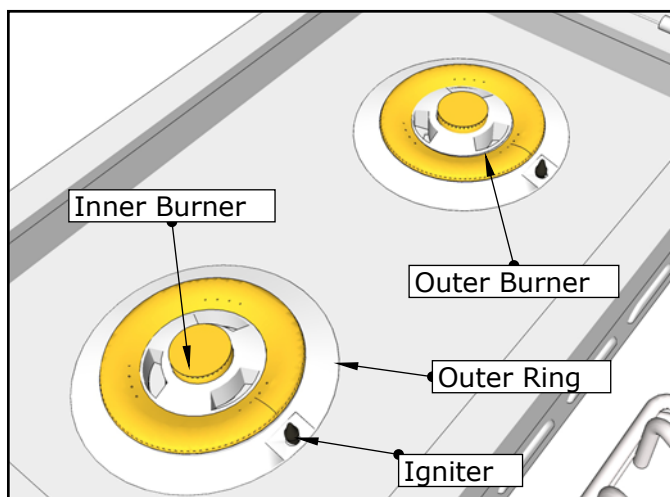
6. Fasten in Top & Bottom Screws

Now that both left and right LP Valves are secured on Manifold Pipe, re-insert the Top and Bottom screws for Left and Right Valve Positions from front face of Control Panel. Tighten these screws in all the way, so Valves are aligned straight, and valve stem is centered.



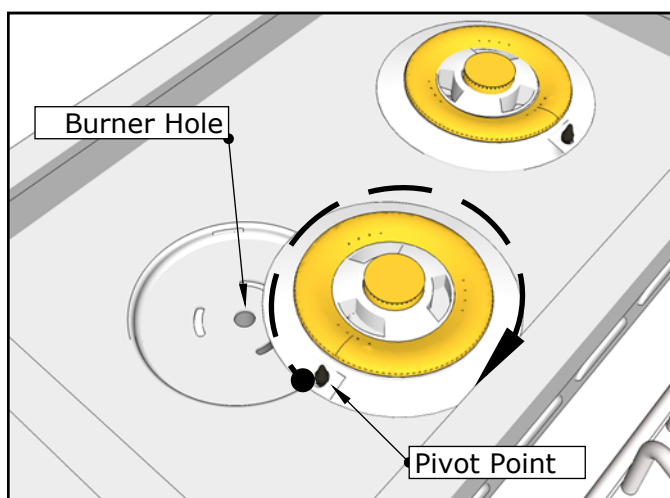
7. Finalize new Valve's in Place

Be sure both Flex Hoses are securely fastened, now Tighten in Place both Left and Right Valve Bracket Screws. Valves should now be Tight on Manifold Pipe.



8. Locate Burners on Top

Remove Both Front and Back Cooking Grates, so both burners are fully exposed. Notice the individual components that make up the burners.



9. Rotate each Burner

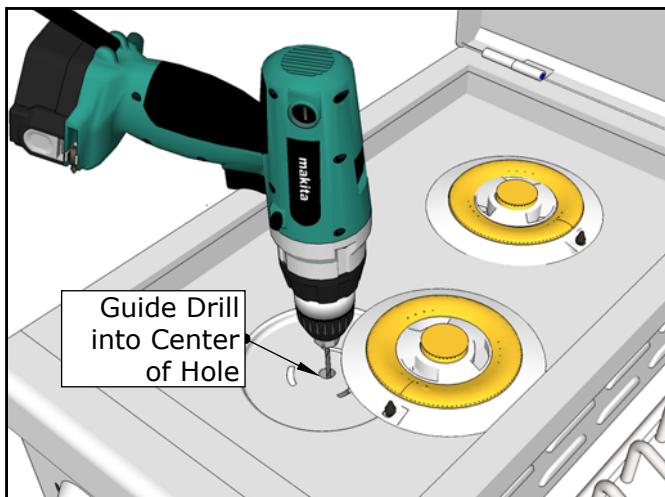
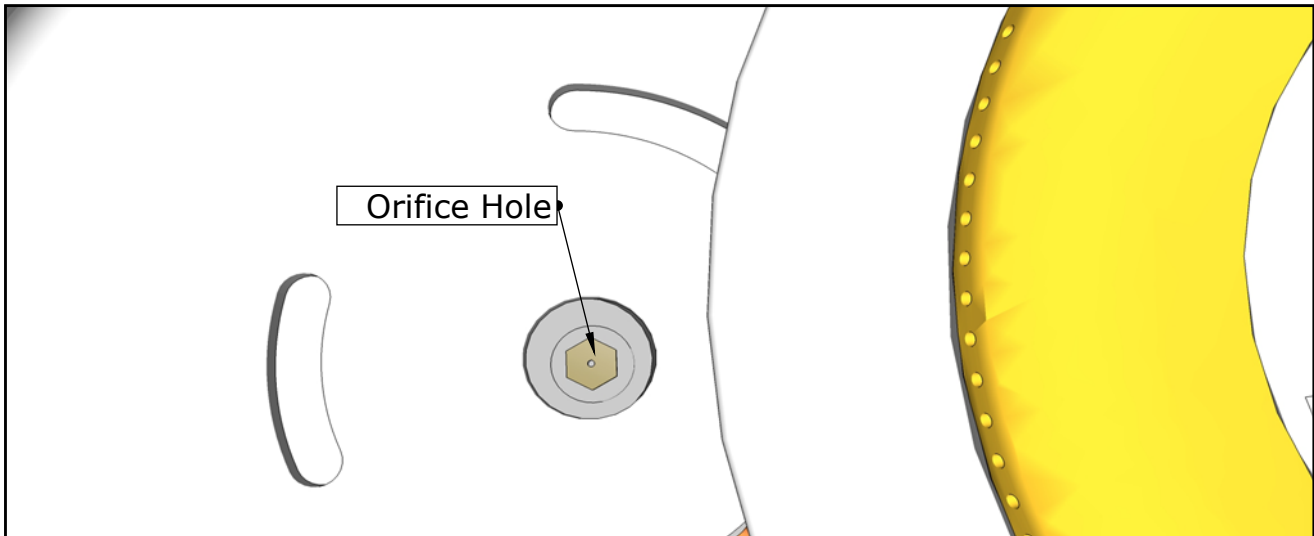
Cup hand over Entire Burner, gripping from outer rim of "Outer Burner". Lift slightly upward, then Rotate Clockwise, using the Igniter as the Pivoting Point. Rotate as far as required so that you will see a visible Hole below the Center of Burner.

Note: While you Turn Burner Body, you will Hear Snapping Noise, this is normal - it is the small Spring and Clip holding Igniter in position pivoting in their position.

10. Locate the Visible Orifice Hole

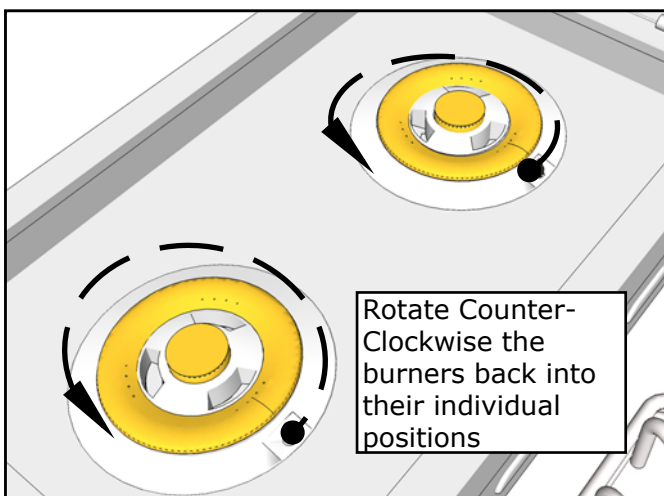
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Look down the Center Hole below Burner, and notice the Small Hexagon Bolt, with a Small Center Hole on top of its surface. This is the LP Orifice, and we need to Drill this out, using your supplied #50 Drill Bit, and your personal power drill.



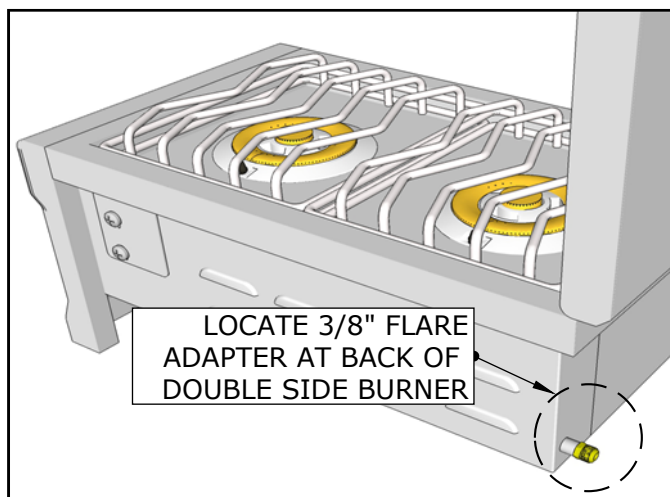
11. Drill Both Orifice Holes

Take special precaution while inserting drill bit into hole, as to align tip of drill bit to center of Orifice Hole. Only once your drill is properly positioned, do you turn on power. Keeping tight hold of Power Drill, press in approx. 1/8" to 1/4" MAX, only slight pressure is needed to drill Orifice Hole out. Too much and you may damage Orifice Bolt.



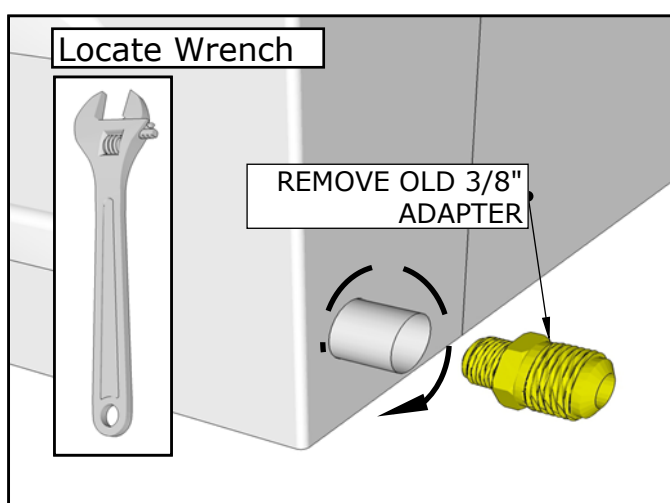
12. Reset Both Burners

Rotate back each burner, so they are aligned back into their correct positions. Be sure you are lifting enough that you are not scratching the surface.



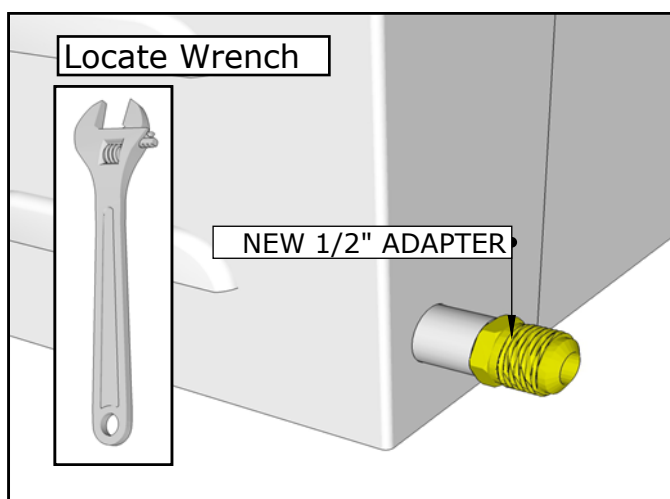
13. Locate Brass Adapter

Turn the Double Burner around to locate the Brass Flare Adapter, where Gas Line installs to. The current size for Liquid Propane Double Burner is 3/8" Inch size, and needs to be changed to 1/2" Inch size.



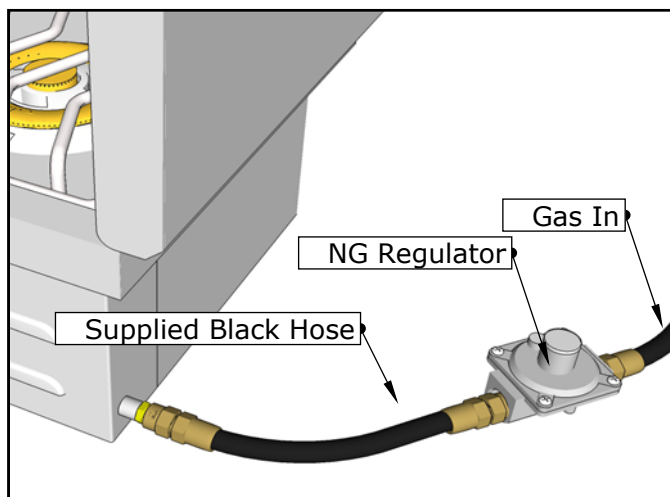
14. Unscrew Brass Adapter

Remove the current 3/8" Inch Brass Adapter with Adjustable Wrench and locate supplied 1/2" Inch Brass Adapter. This part has adhesive in thread, so you will need to apply stronger pressure while removing current 3/8" Adapter.



15. Install new 1/2" Adapter

Again using Adjustable Wrench, install new 1/2" Inch Brass Adapter to Gas Manifold Pipe. Be sure to Tighten on as much as possible.



16. Install NG Regulator

Locate new Natural Gas Regulator, with black hose connected. Fasten black hose on end of new 1/2" Brass Adapter, and connect other end of Regulator to Gas Hose going to house connection.

IMPORTANT!!!!

17. Perform Leak Test for all Gas Connections

Mix some Soapy Water in a Bowl, use a Sponge to apply solution to all components you removed. Afterward, turn gas flow on, and see if you see any Bubbling, or Smell any Gas, also make sure all 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.

