

# Converting Gas Grills from LP to NG

## NG Orifice Kit BBQ08101046

Applies to Cal Flame grills and carts built in 2008 and later



**WARNING!** You must have an authorized service technician perform this procedure. If these instructions are not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life. Lloyd's Material Supply (L.M.S.) will not be held responsible for an improperly converted gas grill.

All Cal Flame grills are manufactured as standard liquid propane (LP) grills and can be converted to burn natural gas (NG). There are two steps required to convert a grill from LP to NG.

### **You must perform both steps.**

#### **Step 1: Switching the regulator behind the grill**

#### **Step 2: Changing the burner orifices**

The conversion kit provided with your grill may include **some or all** of the parts shown at right, depending on the size and model of your grill.

The kit contains orifices to convert main burners, rear infrared burners, and the large infrared burner. Your kit will have only the parts you need to convert your grill.






Before you begin, make certain the LP gas source has been disconnected from the grill.

To gain access to the NG regulator, tilt the grill forward.

#### **Step 1: Switching the regulator behind the grill**

The regulator in the image below has been removed from a grill to illustrate this procedure.

1. Remove the LP gas line.
2. Remove the cap fitting from the end of the NG gas regulator.
3. Place the cap fitting over the LP gas inlet.
4. Insert a male flared fitting (**not provided**) in the NG gas regulator.

-  1.9 mm orifices for main burners (two to five pieces)
-  1.75 mm orifices for side burners (one to two pieces)
-  #50 orifice for large infrared burner (one piece) (for grills made before 2010)
-  #52 orifice for large infrared burner (one piece) (for grills made 2010 and later)
-  #54 orifices for dual infrared burners (two pieces)

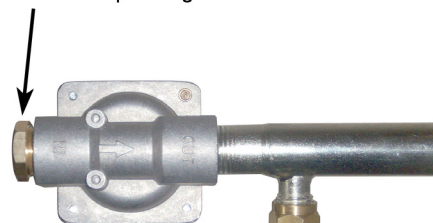
#### **NOTE: A flared fitting is NOT included with your grill.**

If you are attaching a flex hose to the regulator, you will need a fitting. The fitting requires a male flare on the input end with a 1/2" MPT on the output end. The flared male input end needs to be the size of your flex tubing. You can also connect the regulator directly to your NG gas service, which will not require a flared fitting.

#### You will need:

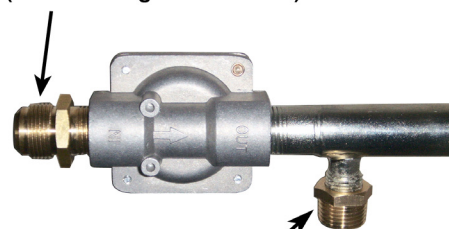
- 13mm open end wrench
- Male flared fitting (**not provided**)
- Pipe compound suitable for natural gas

Remove Cap Fitting



Remove LP Gas Line

Insert Flared Fitting in NG Regulator  
(Flared Fitting Not Provided)



Place Cap Fitting on LP Inlet

## Step 2: Changing the burner orifices

### 1. Replace the infrared burner orifices

- a. Using a wrench, remove the orifice for the infrared burner.
- b. Apply pipe compound to the fitting threads where you will place the new orifice.
- c. Screw on the correct orifice for your grill until it is finger tight.
- d. Tighten the orifice with the wrench.
- e. If you have dual infrared burners, repeat the previous steps for the second burner.
- f. Replace the back cover.

#### You will need:

- Either a 13mm or 10mm open end wrench
- One #50 orifice (for single infrared burner)  
OR
- Two #54 orifices (for dual infrared burners)  
OR
- One #52 orifice (for single infrared burner)
- Pipe compound suitable for natural gas

### 2. Replace the side burner orifices

- a. Remove the grate, burner cap and burner diffuser from the side burner.
- b. Using a 7mm wrench, remove the orifice for the burner.
- c. Apply a small amount of pipe compound to the orifice threads.
- d. Screw in the orifice until it is finger tight.
- e. Tighten the orifice with the 7mm wrench.
- f. If you have dual side burners, repeat the previous steps for the second burner.

#### You will need:

- 7mm wrench, socket, or nut driver
- One or two 1.75mm orifices (depending on your side burner)
- Pipe compound suitable for natural gas

### 3. Replace the main burner orifices

- a. Remove the grates, flame tamers, and drip tray from the grill.
- b. Remove the cotter pins from the end of the burners. The cotter pins are accessible from underneath the grill in the back in the accessory cabinet.
- c. Carefully remove the burner.
- d. Using a 6mm socket or nut driver, remove the orifice for the burner.
- e. Apply a small amount of pipe compound to the orifice threads.
- f. Screw in the orifice until it is finger tight.
- g. Tighten the orifice with the 6mm wrench.
- h. Repeat the above steps for the remaining burners.
- i. Replace the burners, cotter pins, flame tamers, drip tray, and grates.

#### You will need:

- 6mm socket or nut driver
- Two to five 1.9mm orifices (depending on your grill)
- Pipe compound suitable for natural gas

### 4. Mark the rating plate

After conversion has been completed, mark the rating plate as NG with an indelible marker.



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