

Installation Instructions

Natural Gas High Altitude Conversion Instructions for WB28X29254

For Ranges Operating on Natural Gas at Elevations More than 6,000 Feet Above Sea Level

⚠ WARNING This conversion must be performed by a qualified installer or gas supplier in accordance with the manufacturer's instructions and all codes and requirements of the authority having jurisdiction. Failure to follow instructions could result in serious injury or property damage. The qualified agency performing this work assumes responsibility for the conversion.

IMPORTANT: This kit is designed for ranges equipped for use with Natural Gas. Use only the specific orifices called out in these instructions. Additional orifices may be present.

TOOLS YOU NEEDED FOR CONVERSION



Small Pliers



Safety Glasses



1/4" and 7mm Nutdrivers



1/2" wrench

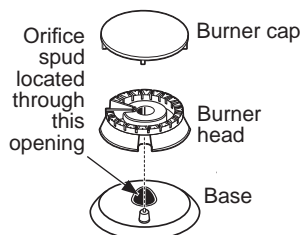


Phillips Screwdriver

1 REMOVE TOP BURNER ORIFICES

The orifice spuds needed to enable the top burners to operate correctly at high altitude are in this kit.

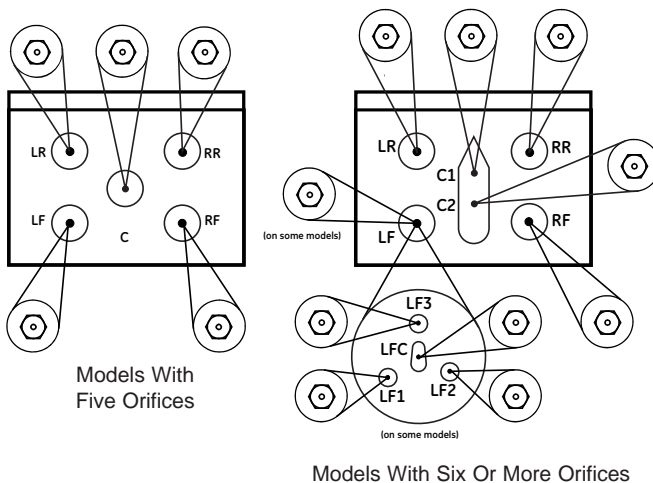
- Remove the top grates, burner caps and burner heads.
- Using a 7 mm (9/32") nut driver, remove the top burner orifice spuds. These are accessed through the burner opening in the cooktop.
- Keep all orifices that are removed for possible future use.



Burner construction

2 INSTALL HIGH ALTITUDE BURNER ORIFICES

- Find your model in the table on page 4. Read the size stamped on each orifice in the kit and determine its proper location from the table for your model. Place each orifice on the maintop next to the burner opening where it belongs. Not all orifices will be used.



Models With Five Orifices

Models With Six Or More Orifices

3 CHECK SURFACE BURNERS

Push and turn a knob to the LITE position. A clicking sound indicates proper operation of the ignition system. When lighting any burner, sparks will appear at all burners but gas flows from only the one selected. Once air is purged from the supply line, burner should light within 4 seconds. After burner lights, rotate the knob out of the LITE position. Try each burner in succession until all burners have been checked.

Quality of Flames

Determine the quality of flames visually. Normal burner flames should look like (A) or (B).



(A) Soft blue flames—
Normal for natural gas

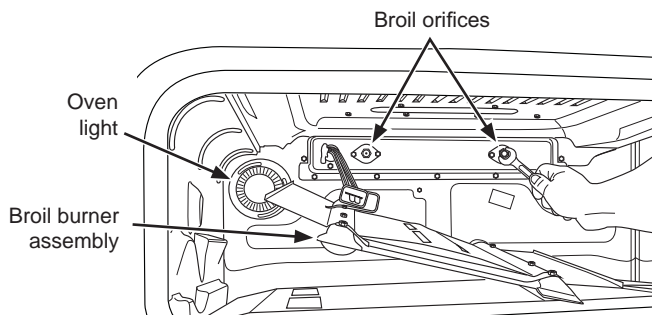


(B) Yellow tips on
outer cones—
Normal for propane gas

Long, bright yellow flames are not normal. Normal flames may show signs of an orange tint when well heated or signs of flickering orange due to particles in the gas or air.

3 INSTALL HIGH ALTITUDE BURNER ORIFICES (Cont.)

- B.** Install the orifices from the kit in their correct locations using a 7mm (9/32") nut driver. To prevent leakage, make sure the orifice spuds are securely screwed into the gas supply tube. Check the LO flame setting of cooktop burners by first turning all burners to a MEDIUM setting. With the other burners operating, turn the burner to be checked to its LO setting and observe the flame. If the flame is unstable or goes out while opening or closing the oven door, refer to the Propane Conversion Instructions attached to the back of your range for how to adjust the low flame setting. Repeat for all burners.
- C.** If your model has a Dual Broil burner (a burner with two tubes in the top of the oven), follow steps 1 through 5 below to replace the broil burner orifices. If not, go to Step D.
1. Remove the oven door for easy access to the broil burner. See Owner's Manual for instructions.
 2. Remove the two 1/4" hex screws securing the broil burner and slide forward to expose the broil orifices on the rear wall. Allow burner to hang down clear of the broil orifices.
 3. Apply a 1/2" open-end wrench or socket to the hex base of an orifice. Loosen the orifices by turning counter-clockwise and remove.



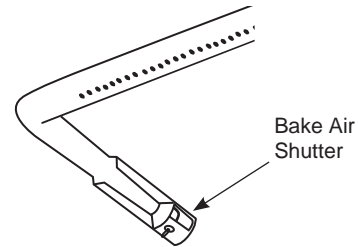
4. Find the two large orifice hoods in the kit. Install them on the two broil fittings and tighten until snug.
 5. Replace the broil burner over the orifices and replace screws securing the burner in place. Replace oven door.
- D.** Place the old orifice spuds in the plastic bag along with these instructions and save for possible future use.

4 ADJUSTING THE BAKE AND BROIL BURNERS IF NECESSARY

No replacement of orifices for bake and broil burners (except as noted in 2C) is required to maintain proper and safe operation of the oven. It is not likely that adjustment to the back and broil burner air shutters is necessary unless flames appear excessively soft or yellow or soot is being deposited on the interior surfaces of the oven. If these conditions are present, make adjustments to the air shutters as follows.

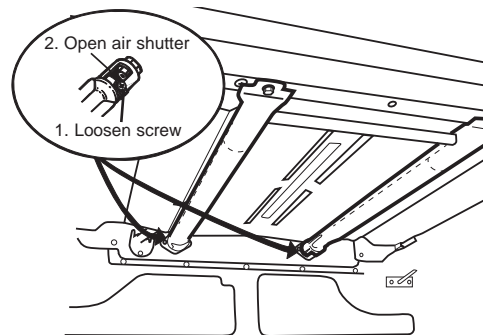
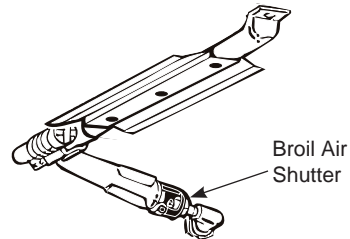
ACCESSING THE BAKE BURNER AIR SHUTTER

Remove the oven door and storage/warming drawer. Remove the oven bottom. See Owner's Manual for instructions. The bake burner air shutter is located at the head of the burner where it fits over the orifice. Some single oven models have a metal cover that must be removed to access the bake burner air shutter. Double oven models will require removal of the oven bottom and flame spreader.



ACCESSING THE BROIL BURNER AIR SHUTTER

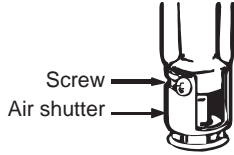
The broil burner air shutter is located in the upper right rear corner of the oven. Models with a dual broil burner have two shutters.



4 ADJUSTING THE BAKE AND BROIL BURNERS IF NECESSARY (Cont.)

ADJUSTING THE AIR SHUTTER SETTINGS FOR BAKE AND BROIL BURNERS

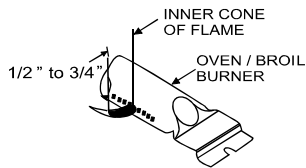
1. Loosen the air shutter screw with a Phillips screwdriver.



2. Rotate the shutter to increase the open area as required. Your final setting will vary.
3. Retighten the air shutter screw.
4. Reinstall the oven door.

NOTE: Bake and broil flames should be observed with the door closed to properly check flame characteristics.

5. Turn on the bake or broil burner and let it operate for about a minute.
6. As you watch the flame through the oven door window, check the following:
 - a. If the flames are soft and yellow, open the air shutter more.
 - b. If the flames blow away from the burner, close the air shutter more.
7. The inner cone of the flame should be approximately $\frac{1}{2}$ " to $\frac{3}{4}$ " long for the bake and broil burners. The combustion quality of the burner flames must be determined visually.



WARNING

If you attempt to measure the inner cone of the flame, please use caution: burns could result.

8. After all adjustments are made and the results are satisfactory, replace the flame spreader, oven bottom and the storage/warming drawer.



(A) Yellow flames:
Further Adjustment Required



(B) Yellow tips on outer cones:
Normal for Propane Gas



(C) Soft blue flames:
Normal for Natural Gas

IN SOME CASES:

- Dust particles in the gas line may cause an orange flame at first, but this will soon disappear.
- With propane, some yellow tipping on the outer cones is normal, especially as burner becomes warm.

NOTICE:

Once the conversion is complete and confirmed, fill out the High Altitude sticker and include your name, organization and date conversion was made. Apply the sticker to the range near the rating label to alert others in the future that this appliance has been converted for High Altitude.

ORIFICE SPUD PLACEMENT BY MODEL

Model	Burner Location	High Altitude Natural Gas		
		Nominal Rate	Orifice Size (mm)	Markings
JGB660	RF	9,500	1.33	H133
JGB700	RR	12,000	1.44	H144
JGB860	C	10,000	1.33	H133
JGB735	LF	18,000	1.85	185N
	LR	5,000	0.94	H94
JGB720	RF	15,000	1.78*	178N*
	RR	9,500	1.33	H133
	C	8,000	1.27*	127N*
	LF	18,000	1.85	185N
	LR	5,000	0.94	H94
PGB911	RF	18,000	1.85	185N
	RR	9,500	1.33	H133
	C	10,000	1.33	H133
	LF	18,000	1.85	185N
	LR	5,000	0.94	H94
PGB960	RF	18,000	1.85	185N
	RR	9,500	1.33	H133
	C1	9,500	1.33	H133
	C2	8,800	1.29	H129
	LF	18,000	1.85	185N
	LR	5,000	0.94	H94
PGB930	RF	18,000	1.85	185N
P2B940	RR	9,500	1.33	H133
	C1	9,500	1.33	H133
	C2	8,800	1.29	H129
	LF	20,000		
	LF1		0.99	H99
	LF2		0.99	H99
	LF3		0.99	H99
	Center		0.66	H66
	LR	5,000	0.94	H94
PGB940	RF	18,000	1.85	185N
PGB980	RR	9,500	1.33	H133
	C1	9,500	1.33	H133
	C2	8,800	1.29	H129
	LF	20,000		
	LF1		0.99	H99
	LF2		0.99	H99
	LF3		0.99	H99
	Center		0.66	H66
	LR	5,000	0.94	H94
	Broil (2)	16,500	0.046 (in)	046N
JGBS66	RF	9,500	1.33	H133
JGBS86	RR	12,000	1.44	H144
	C	10,000	1.33	H133
	LF	15,000	1.78*	178N*
	LR	5,000	0.94	H94
PGB935	RF	18,000	1.85	185N
P2B935	RR	9,500	1.33	H133
	LF	20,000		
	LF1		0.99	H99
	LF2		0.99	H99
	LF3		0.99	H99
	Center		0.63	63N*
	LR	5,000	0.94	H94
	C	10,000	1.33	H133

Model	Burner Location	High Altitude Natural Gas		
		Nominal Rate	Orifice Size (mm)	Markings
JGB645	RF	12,000	1.44	H144
	RR	9,500	1.33	H133
	LF	15,000	1.78*	178N*
	LR	5,000	0.94	H94
AGBS45	RF	13,000	1.44	H144
RGB526	RR	5,000	0.94	H94
RGB530	LF	9,500	1.33	H133
RGB780	LR	9,500	1.33	H133
JGBS60				
JGBS61				
JGB450				
JGB635				
RGBS100				
RGBS200				
RGBS300				
RGBS400				
JGBS10				
JGBS30				
RGAS200	RF	15,000	1.78*	178N*
RGAS300	RR	5,000	0.94	H94
JGAS640	LF	9,500	1.33	H133
QGAS740	LR	9,500	1.33	H133
JGSS66	RF	15,000	1.78*	178N*
	RR	9,500	1.33	H133
	C	10,000	1.33	H133
	LF	15,000	1.78*	178N*
	LR	5,000	0.94	H94
JGS760	RF	15,000	1.78*	178N*
CGB500	RR	9,500	1.33	H133
CGB550	C	10,000	1.33	H133
JGSS86	LF	18,000	1.85	185N
	LR	5,000	0.94	H94
PGS930	RF	15,000	1.78*	178N*
P2S930	RR	9,500	1.33	H133
PGS960	C1	9,500	1.33	H133
	C2	6,800	1.17	117N
	LF	21,000		
	LF1		1.09	109N
	LF2		1.09	109N
	LF3		1.09	109N
	Center		0.63*	63N
	LR	5,000	0.94	H94
CGS986	RF	15,000	1.78*	178N*
CGS995	RR	12,000	1.44	H144
C2S986	C1	9,500	1.33	H133
C2S995	C2	9,500	1.33	H133
CGS700	LF	21,000		
CGS750	LF1		1.09	109N
C2S900	LF2		1.09	109N
C2S950	LF3		1.09	109N
	Center		0.63*	63N
	LR	5,000	0.94	H94
QGSS740	RF	15,000	1.78*	178N*
	RR	9,500	1.33	H133
	LF	15,000	1.78*	178N*
	LR	5,000	0.94	H94

* Use natural gas orifice shipped with range.