

LRG3001/3601/4807 NATURAL GAS KIT (LP)

Instructions for Converting Range to Operate on Liquefied Petroleum Gas

INSTALLATION AND SERVICES MUST BE PERFORMED BY A QUALIFIED INSTALLER IMPORTANT:

SAVE INSTRUCTION MANUAL FOR THE LOCAL INSPECTOR'S USE.

READ AND SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

WARNING

This conversion kit must be installed by a qualified service technician in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction.

Failure to follow instructions may result in fire, explosion or production of carbon monoxide causing property damage, personal injury, or loss of life. The qualified service agency is responsible for the proper installation of this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with this kit.

WARNING

Before proceeding with the conversion, shut off the gas supply before disconnecting electrical power to the range. Be sure power supplies are off before installing the conversion kit. Failure to do so could cause serious bodily injury.

Determine the combination of top burners that are featured on your range. Identify the parts you need from this kit to complete the LP conversion. When burners are converted from NG. to LP the BTU ratings are as follows:

Note: For operation at elevations above 2000ft., appliance rating shall be reduced at the rate of 4% for each 1000 ft. above sea level.

LP-Kit	Top Burner							Simmer * burner	Griddle Burner	Bake Burner		Broil Burner	
BTU	18,000	12,000	Oval 9,000	9,000	8,000	6,000	4,000	15000	22,000	14,000	10,000	185,000	
Orifice Size(mm)	1.24MM	1.0MM	0.88mm	0.9MM	0.84MM	0.72MM	0.62MM	1.16MM	1.33MM	1.12MM	0.9MM	1.24MM	
LRG3001U	1	NA	1	NA	1	1	1	NA	NA	NA	1	1	
LRG3601U	2	2	NA	2	NA	NA	NA	NA	NA	NA	1	1	
LRG4807U	1	5	NA	NA	NA	NA	NA	1	1	1	1	NA	

ATTENTION**

FOR THESE THREE MODELS, NO NEED TO CHANGE BYPASS

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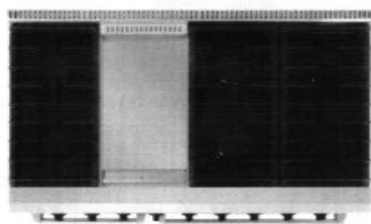
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Flat Screwdriver ϕ 2.0*130 (Not Available with the LP Conversion Kit Package) – Bypass Adjustment Adjustable Wrench *2
(Not Available with the LP Conversion Kit Package) – Orifice Adjustment

Rear Left Burner (12K BTU 1.0mm
Rear Middle Burner (12K BTU 1.0mm
Rear Right Burner (12K BTU 1.0mm
Front Left Burner (12K BTU 1.0mm
Front Middle Burner (18K BTU 1.24mm
Front Left Burner (12K BTU 1.0mm
Griddle 15k BTU 1.16 mm
Bake Oven 22k 1.33mm
Small Oven 14k 1.12mm
Broil oven 10k 0.9mm

Large Oven Broil Burner Orifice, Griddle Orifice, Small Oven Bake Burner Orifice, Large Oven Bake Burner Orifice

LRG4807U LP Conversion



BURNER PERFORMANCE	
Total Number of Range Top Burners	6 Burners
Front Right (Single)	12,000 BTU
Front Left (Single)	12,000 BTU
Front Middle (Single)	18,000 BTU
Rear Right (Single)	12,000 BTU
Rear Left (Single)	12,000 BTU
Rear Middle (Single)	12,000 BTU
Griddle Burner	15,000 BTU
Tube Broil burner	10,000 BTU
U-shape burner (30" Oven)	22,000 BTU
Tube burner (18" Oven)	14,000 BTU

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Front Left 18000 BTU 1.24mm Center

9000 BTU 0.88mm

Front Right 8000 BTU 0.84mm

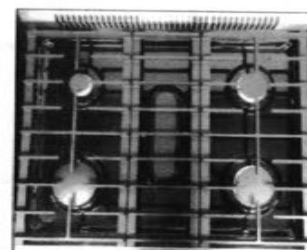
Rear Right 6000 BTU 0.72mm

Rear Left 4000 BTU 0.62mm

10000BTU 0.9mm Oven Broiler

18500BTU 1.24mm Oven Bake

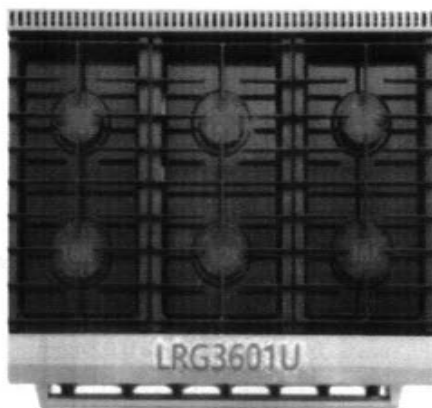
LRG3001U LP Conversion



BURNER PERFORMANCE	
Number of Burners	5 Burners
Front Left	18,000 BTU Single Burner
Front Right	8,000 BTU Single Burner
Center	9,000 BTU Oval Burner
Rear Left	4,000 BTU Single Burner
Rear Right	6,000 BTU Single Burner
OVEN PERFORMANCE	
Oven Capacity	4.55 Cu. Ft.
Oven Tube Burner BTU	18,500
Oven Broil Burner BTU	10,000

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18000 BTU 1.24mm

9000 BTU 0.9mm

12000 BTU 1.0mm

10,000 BTU 0.9mm Oven Broil

185,000 BTU 1.24mm Oven Bake

IMPORTANT: After replacing the LP to NG orifices, be sure to keep the orifices for future range conversion back to LP

Tools for LP Conversion

7mm Tool – Top Burner Orifice Replacement

Flat Screwdriver ϕ 2.0*130 (Not Available with the NG Conversion Kit Package) – Bypass Adjustment Adjustable

Wrench *2 (Not Available with the NG Conversion Kit Package) – Orifice Adjustment

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1. Convert the Pressure Regulator

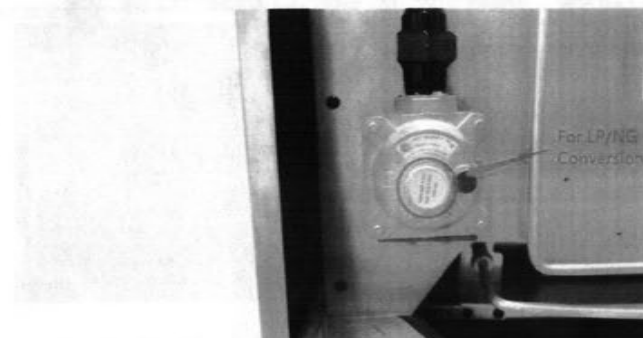
For 30", 36" and 48" Gas Range, you could find your regulator on the back left of the range's back panel.

LRG30,36,48"

NG, LP Conversion

1. Convert the Pressure Regulator

You could find your regulator on the back left of the range's back panel. The NG/LP conversion cap is having a sign of "Do not open this. It is not a gas inlet". This part is only used for LP/NG conversion.



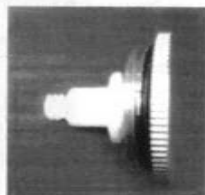
****IMPORTANT**** Pay attention that the NG and LP are in different direction. All the gas ranges are initially designed with LP position, please have it changed into NG position.

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LP Position: Plastic Ring is away from the Cap



NG Position: Plastic Ring is next to the Cap

2. Convert Top Burner for NG

Save the LP orifices removed from the appliance for possible future conversions to natural gas. You should rely on the following process when converting unit back to LP. Take extra care when handling orifice parts, making sure the orifice is not

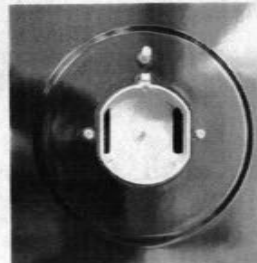
- Remove top grates, burner caps and inner burner rings.
- Lift off outer burner heads and burner bases.
- Remove the factory installed natural gas orifices from the center of the orifice holders using a 7mm nut driver. Remember to keep the LP orifices for future conversions back. "IMPORTANT" to identify their markings.

- Replace the 18000BTU burner orifice in each with orifice size 1.85 mm.
- Replace the 12000BTU burner orifice in each with orifice size 1.5 mm. Please remember not to over tighten the orifice and keep the orifice clean.

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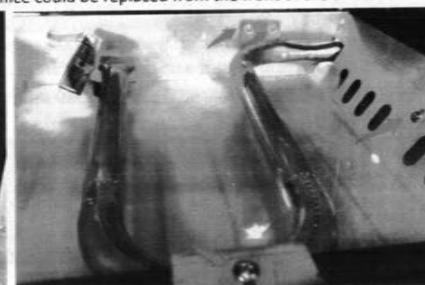
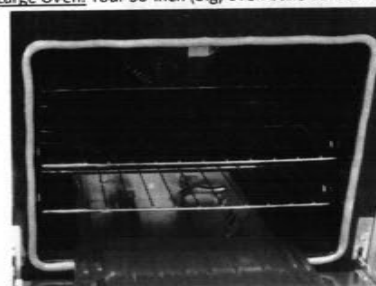
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Put the burner flame ring back to the main burner bases. Put back the inner burner rings, burner caps and grates.



3. Convert Oven Bake Burner Orifice (Large Oven and Small Oven) for LP/Propane Gas

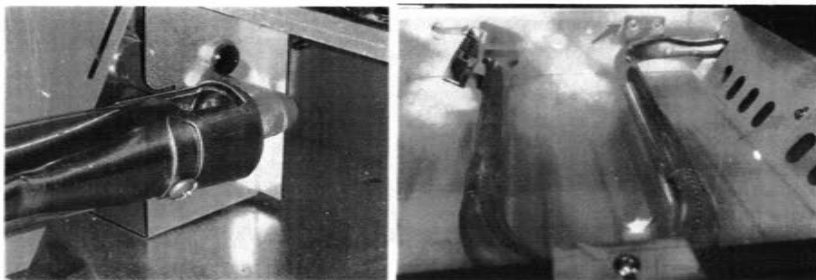
Large Oven: Your 30-inch (big) oven bake burner orifice could be replaced from the front of the unit.



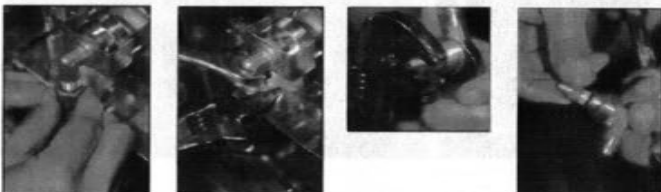
- Open the door of the big oven. Remove 2 pcs oven rack and take out the oven floor cover. You will see the bottom U-shape Bake Burner underneath. Take out the 4 screws shown in the picture above (one holding the U-Shape burner on the front, two holding the burner to the back wall and 1 screw holding the cover on the side), so that you should get access to the bake burner orifice.

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- b. Locate the orifice holding on the orifice bracket. Slightly take out the U-shape burner to get access to the bake burner orifice.
- c. Remove the (2) screws holding the orifice bracket and locate the orifice. Remove orifice using an adjustable wrench. Replace with oven burner orifice, size 2.11 mm (for 22,000 BTU Big Oven U-Shape Burner) and tighten it. Replace the orifice bracket, aligning the new orifices into the air shutter of the oven burner.



Small Oven: Your 18-inch (small) oven bake burner orifice could be replaced from the back of the unit.

- a. Remove the Back Panel. This might take some time since you need to remove all the screws shown from the back (for the one with yellow circles you could just loose them but not fully take them out so that it will help to hold the back panel when putting it back.)

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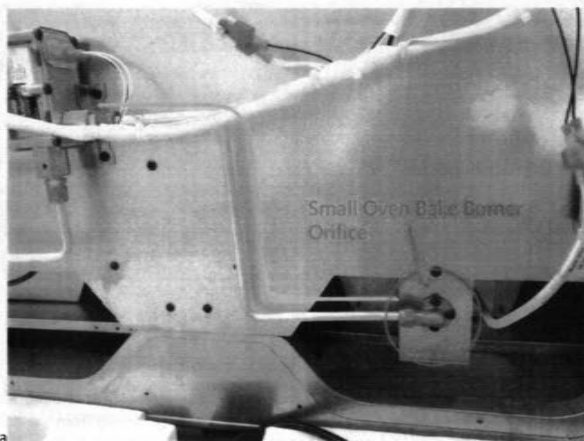
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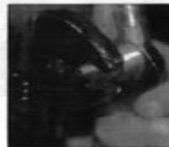
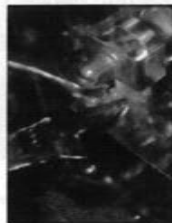
- b. Locate the small oven bake burner orifice at the bottom right of the range seeing from the back.
- c. Remove the aluminum pipe from safety valve to small oven orifice (see the pipe in yellow shown below) first before replacing small bake oven burner orifice.
- c. You will then see the orifice coming into the small oven bake burner. Remove the orifice using an adjustable wrench. There is an aluminum pipe connecting safety valve and orifice, be careful so that you won't break the pipe.

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d. Remove the screws holding the orifice bracket and locate the orifice. Remove orifice using an adjustable wrench. Replace with oven burner orifice, size 1.58 mm (for 14,000 BTU Small Oven Bake Burner) and tighten it. Replace the orifice bracket, aligning the new orifices into the air shutter of the oven burner.



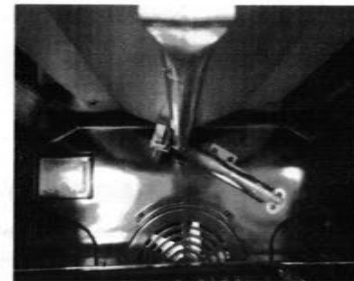
4. Convert Broil Burner Orifice

Your 30-inch (big) oven broil burner orifice could be replaced from the front of the unit.

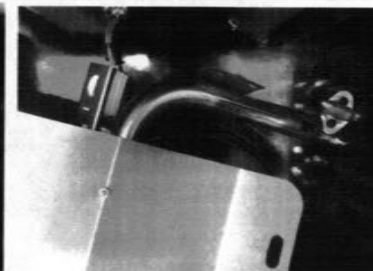
a. Locate the screws connecting the top broiler L-shape burner, there are two on the oven back panel and on the front of the broiler L-shape burner. Take out these three screws, hold the broiler burner to make sure it is not falling. Screw out the four screws holding the flame tamer so that the burner could be taken out and the broiler orifice is accessible.

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1. Broiler Burner is connected to Flame Tamer; 2. Two screws on the back holding the burner to back oven panel.



3. One screw on the front holding the broiler burner; 4. Loose the four screws on flame tamer to get access to broiler orifice.

- c. You will then see the orifice coming into the bake burner. Remove the orifice using an adjustable wrench. There is an aluminum pipe connecting safety valve and orifice, be careful so that you won't break the pipe.
- d. Use adjustable wrench to lose the orifice nut with the orifice, then screw out the screws on the bracket so that you could get access to the orifice, at last screw out the orifice and replace with the LP Broil Orifice (1.35mm 10,000 BTU top Big oven).
- e. Make sure the bake burner it put back correctly. Make sure the orifice must be dead center of the burner or it will create a vortex.

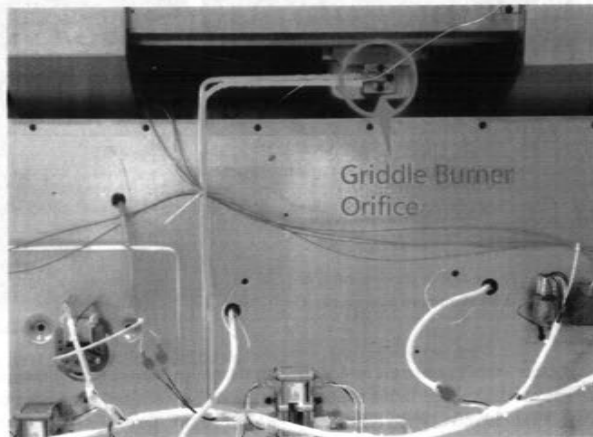
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5. Convert the Griddle Orifice.

Your Griddle orifice needs to be replaced from the front of the unit.

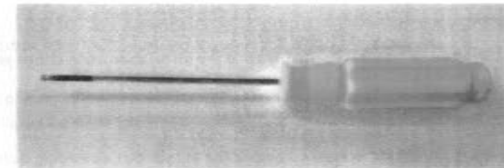
- Remove the backsplash and back panel.
- Locate the Griddle Orifice at the middle top of the back-panel layout.
- Remove the aluminum pipe from safety valve to griddle orifice (see the pipe in yellow) first before replacing griddle orifice.
- Use a 14mm or adjustable wrench to hold the Orifice holder and use the 17mm wrench to loosen the nut connecting aluminum tube (from safety valve to griddle burner orifice) and orifice holder. Loosen the nut connecting safety valve outlet to the aluminum tube. Remove the aluminum tube burner.
- Use Phillips-head screwdriver to remove three screws on the Orifice Holder and use 10mm wrench to remove the orifice from the Griddle Orifice Holder. Exchange the LP Griddle Orifice (1.7 mm) and put the holder and aluminum pipe back. Check the gas tightness.
- Put back the back panel and backsplash.



5. Convert Burner Valves for LP/Propane Gas

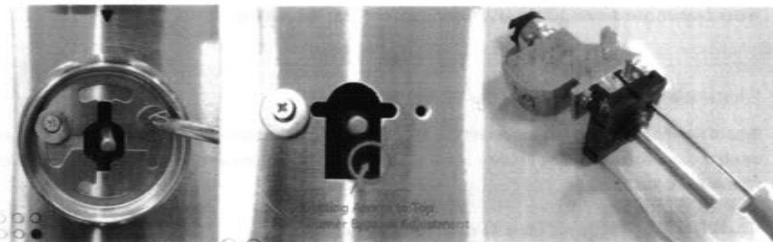
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One 5/64" flat screwdriver is needed for the Bypass Adjustment on Burner Valve (Not included in LPK Package),

- Please take off the top burner knobs to get access to the burner valve part. There is a hole located at bottom right of the burner valve, providing access to the adjustment of burner valve bypass orifice. Take out the bezel if needed.



The hole is part of the micro-switch (the black part) sticking to the burner valve. Use the screwdriver to go across the micro-switch and reach the bypass orifice on the burner valve. Bypass orifice could help to control the flame.

- Put the knob back, adjust the flame by rotating the knob. The original location of bypass is for LP. If converted to NG, the bypass needs to be screwed in (in clockwise direction) to tightest position. Originally, the Bypass is located at NG Position and it is not screwed to the bottom (tightest)

For LP conversion of bypass, not bypass orifice needs to be changed.

Screw the Bypass Orifice to bottom (clockwise).

- Save the main bypass jets, in the plastic bag labeled main jets and simmer bypass jets in the bag for simmer jets.

When you are using your top burners, if the flame needs to be adjusted accordingly to fit your need, please adjust the bypass orifices on the burner valve.

Put back the knob on and adjust the flame by rotating the bypass via a small flat screwdriver. Check the flame's condition to get the best performance.

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6. Reconnect Gas and Electrical Supply to Range.

Leak testing of the appliance shall be conducted according to the installation instructions provided with the range.

Checking for Manifold Gas Pressure

If it is necessary to check the manifold gas pressure, remove the burner cap, inner ring, outer burner head and burner base of the right front top burner and connect a manometer (water gauge) or another pressure test device to the burner orifice. Use a rubber hose with inside diameter of approximately $\frac{1}{8}$ " and hold the end of the tube tight over the orifice. Turn the gas valve on. For a more accurate pressure check, have at least two other top burners burning. Be sure that the gas supply (inlet) pressure is at least one inch above the specified manifold pressure. The gas supply pressure should never be over 14" water column. When properly adjusted the manifold water column pressure is 10" for LP/Propane gas or 5" for Natural Gas.

7. Installation of New NG / Natural Gas Rating / Serial Plate

Record the model and serial number on the NG / Gas Rating serial plate provided in this kit. The information can be obtained from the existing Rating / Serial plate. Place the new plate as close as possible to the existing Rating / Serial plate on the range.



CAUTION Do not use a flame to check for gas leaks

- a. Disconnect the range and its individual shut-off valve from the gas supply piping system during any pressure

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of that system at test pressures greater than 14" of water column pressure (approximately $\frac{1}{2}$ " psig) b. The appliance must be isolated from the gas supply piping system by closing its individual manual shut-off valve