

Instructions for Converting Range Top 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 L.P. conversion. When burners are converted from natural to L.P. 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.

	Top Burner					Simmer burner	Griddle Burner	Oven Burner		Broil Burner		Bypass Jet
BTU	18000	15000	12000	9000	6000		15000	22000	14000	16500	13000	
Orifice Size	1.22mm/ 1.24mm	1.07mm/ 1.10mm	1.0mm m	0.8mm m	0.72mm	0.34mm m	1.16mm/ 1.22mm	1.32mm m	1.10mm m	1.18mm m	1.05mm m	
HRT3003U(original)	2	NA	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
HRT3003U(new-LED)	2	1	1	NA	NA	1	NA	NA	NA	NA	NA	5
HRT3618U(original)	1	2	3	NA	NA	2	NA	NA	NA	NA	NA	8
HRT3618U(new-LED)	2	1	3	NA	NA	1	NA	NA	NA	NA	NA	7
HRT4806U	3	3	NA	NA	NA	3	1	NA	NA	NA	NA	9

IMPORTANT: After replacing the natural gas to LP orifices, be sure to keep the original factory installed natural gas orifices for future range conversion back to natural gas.

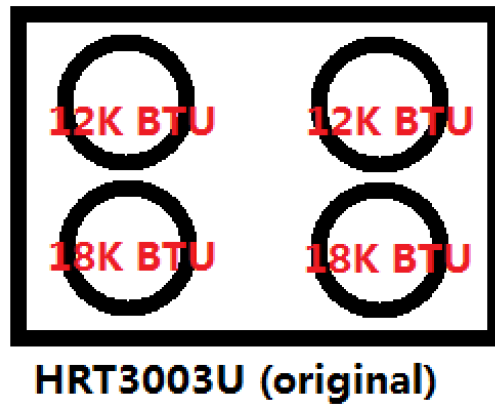
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Important

Please verify your Thor Range Top design since we are two types of HRT3003U (30-inch range top) and HRT3618U (36-inch range top). Verify your design and make sure you are purchasing the correct LP conversion kit. Please reach Thor customer service department 877-288-8099 if there's any part related issue.

1. *HRT3003U Original Design (no LED, ABS knob, thermocouple ignition system, no bypass jet is needed to be replaced)

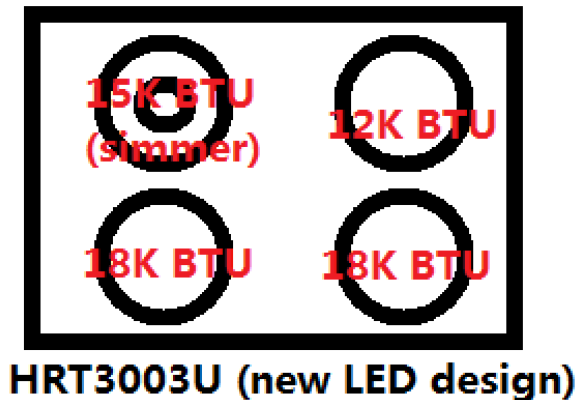
Serial number starts from HRT3003U000001;



HRT3003U Original Design

2. *HRT3003U New LED Design (LED, Metal Knob, auto-ignition system, bypass jet is needed to be replaced)

Serial number starts from HRT3003U1700001

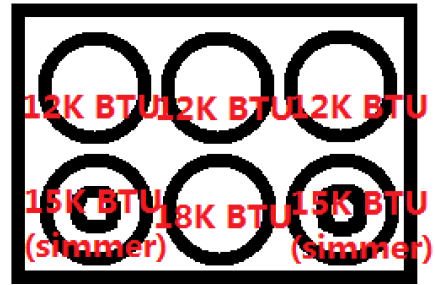


HRT3003U new LED Design

- 3* HRT3618U original Design (ABS knob, auto-ignition system, bypass jet is needed to be replaced)

Serial number starts from HRT3618U000001 to HRT3618U01020

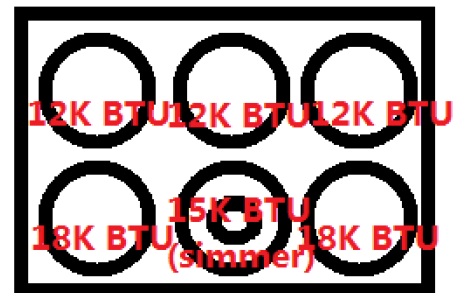
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HRT3618U (original)

4* HRT3618U New LED Design (LED, Metal Knob, auto-ignition system, bypass jet is needed to be replaced)

Serial number starts from HRT3618U1700001

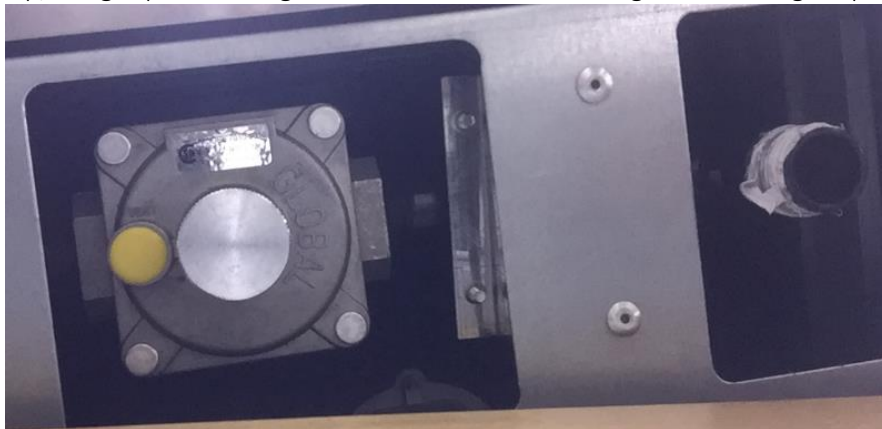


HRT3618U (new LED design)

===LP Conversion Procedures===

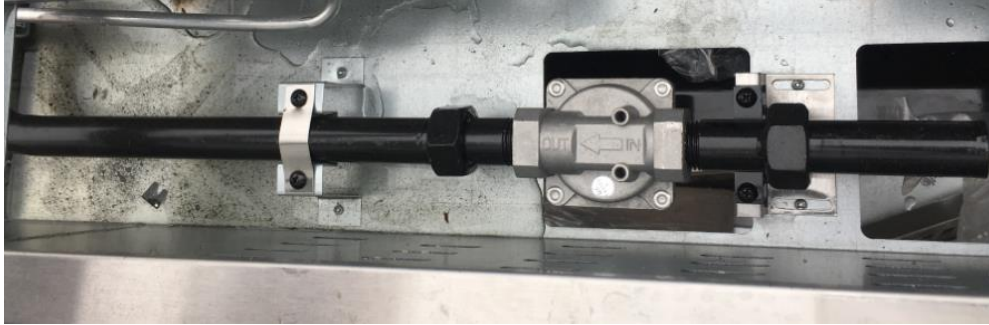
1. Convert the Pressure Regulator

For the Range Top, the gas pressure regulator is located at bottom right of the range top.



(From Bottom of the Range Top)

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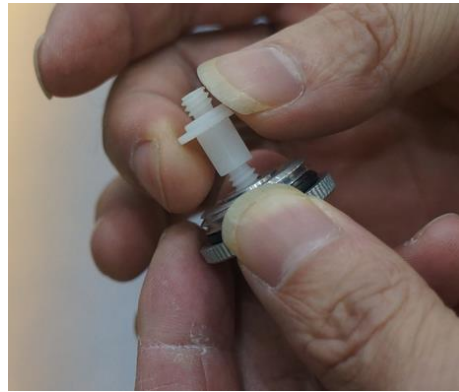


(From the top of the Range Top)

- Electrical shock hazard can occur and result in injury or death. Disconnect electrical power to the range before servicing. Do not remove regulator or allow it to turn during servicing.
- Unscrew the cap from the regulator. Do not remove the spring from the regulator.
- Unscrew the plastic insert from the cap and turn it over, so the longer stem is facing the cap. To see the difference between NG and LP, please check the detailed pictures shown below:



Positon for NG



Positon for LP

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

2.Convert Top Burner for LP/ Propane Gas

A. HRT3003U (original)

HRT3003U (old design): Left front burner 18K BTU, right front burner 18K BTU, left rear burner 12K BTU, right rear burner 12K BTU.

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- Remove cooking grates, burner caps and inner flame ring base,
- Check the burner Orifice and use 7mm hexagonal Socket to screw out the NG orifice and screw it in with LP orifice. For 18K Burner, the orifice is 1.22mm/1.24mm; for 12K Burner, the orifice is 1.00mm.
- For the burner valve part, HRT3003U (original) valve design is available for both NG and LP gas, so no bypass is needed for LP conversion.



B.HRT3003U (new-LED-design)

HRT3003U (old design): Left front burner 18K BTU, right front burner 18K BTU, left rear burner 15K BTU (with simmer function), right rear burner 12K BTU.

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C. HRT3618U (original)



D. HRT3618U (new-LED-design)



HRT3618U: Left front burner 18K BTU Single Burner, right front burner 18K BTU Single Burner, Middle front burner 15K BTU Dual Burner, left rear burner 12K BTU, right rear burner 12K BTU, middle rear burner 12K BTU.

(For old version for our HRT3618U serial number **HRT3618U00001 - HRT3618U01020U**, the front left/right burner are 15K dual burner, while the front center burner is 18K single burner)

E. HRT4806U

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HRT4806: Left front burner 18K BTU dual burner, right front burner 18K BTU dual burner, middle front burner 18K BTU single burner; left rear burner 15K BTU, right rear burner 15K BTU, middle rear burner 15K BTU, Griddle.

- a. Remove cooking grates, burner caps and inner flame ring base,
 - b. Check the burner Orifice and use 7mm hexagonal Socket to screw out the NG orifice and screw it in with LP orifice. For 18K Burner, the orifice is 1.22mm/1.24mm; for 12K Burner, the orifice is 1.00mm. For 15K dual burner Main orifice, it's 1.07/1.1mm; Use 6mm hexagonal Socket to screw out the 15K dual burner simmer orifice. For simmer orifice, it's 0.34mm. ** A small folded piece of scotch tape (sticky side out) inserted in to the socket will help hold the orifice in place**.
 - c. For the burner valve part, HRT3003U model's valve design is available for both NG and LP gas, so no bypass is needed for LP conversion
- “IMPORTANT” to identify their markings.
- c.1. Replace the main orifice for dual burner 15000BTU with orifice size 1.07mm/1.10mm (they are both working fine with the LP 15000BTU burner main orifice).
 - c.2. Replace the 18000BTU burner orifice in each with orifice size 1.22/1.24mm (they are both working fine with the LP 18000BTU burner).
 - c.3 Replace the 12000BTU burner orifice in each with orifice size 1.0mm. Please remember not to over tighten the orifice and keep the orifice clean.
- d. Put the outer burner heads back to the main burner bases. Put the inner burner rings, burner caps and cooking grate back as well.

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3. Griddle Orifice install (only for 4806 Range Top)



- Remove back panel and backsplash by removing 6 screws inside the ventholes, 4 screws 2 on each side of the back panel and bottom row screws on the back panel which should be about 4 to 5
- Once having access to back you would remove the black screws with screwdriver
- Remove brass fitting by using a wrench to untighten the nut to put in 1.16/1.22 orifice
- You can now put everything back together.

4. Convert Burner Valves for LP/Propane Gas (for HRT3618U/HRT4806 Range Top)

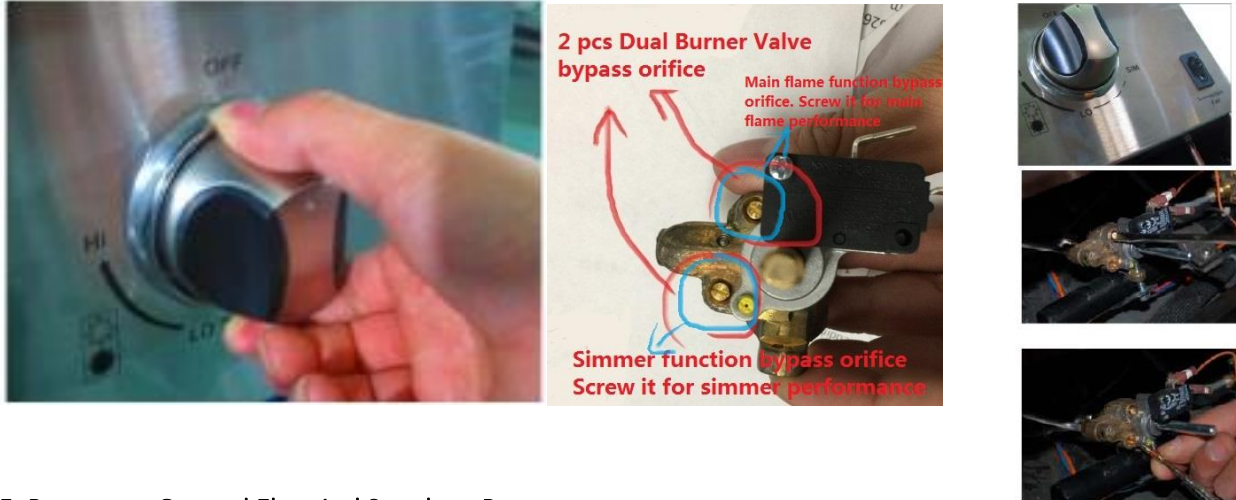
- Remove control knobs, bezel and control panel
- Using a flat screwdriver, replace gas valve bypass jets with bypass jets for LP, ***Tighten the bypass completely until bottom out and then back off a whole 360°.***
- Save the main bypass jets, in the plastic bag labeled main jets and simmer bypass jets 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 screw driver. Check the flame's condition to get the best performance.

For single valve, it has one bypass orifice; For Dual valve, it has two bypass orifices: left bottom one for simmer adjustment and right front one for main burner adjustment.

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5. 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 $\frac{1}{4}$ " 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.



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 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 during any pressure testing of the supply system at test pressure equal to or less than 14" water column pressure (approximately $\frac{1}{2}$ " psig)