

PACKAGED UNITS KITS AND ACCESSORIES

508873-01
04/2026

NATURAL TO LP (PROPANE) GAS CHANGEOVER KIT

INSTALLATION INSTRUCTIONS FOR LP KIT USED ON LG/LD 024-074 PACKAGED ROOFTOP UNITS

⚠ WARNING

This conversion kit is to be installed by a qualified service agency in accordance with the manufacturer’s instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, a fire, an explosion or production of carbon monoxide may result 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 supplies with the kit.

connection, installation, repair or servicing of gas utilization equipment or accessories, who is experienced in such work, familiar with all precautions required, and has complied with all the requirements of the authority having jurisdiction.

Canadian installations only - The conversion shall be carried out in accordance with the requirements of the Provincial authorities having jurisdiction and in accordance with the requirements of the CAN/CGA-B149.1 and .2 Installation Code.

⚠ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional installer (or equivalent), service agency or the gas supplier.

Shipping and Packing List

Package 1 of 1 contains:

- 7 - Orifices (3 in 39H79)
- 1- Spring kit
- 1- Jumper kit
- 1- J/P21 Harness
- 1- Pressure tubing kit
- 1- Bag assembly containing:
 - 1- Instructions
 - 1- Dealer conversion label
 - 1- Conversion plate

Application

The LP/propane gas changeover kit is required for gas conversion as shown in table 1. The 10th character on the unit nameplate determines the type of gas valve. For example, LGT060H5EX1Y would contain high gas heat with two stage gas valve.

Installation

- 1 - Shut off gas supply to unit.
- 2 - Set thermostat to lowest setting or “Off”.
- 3 - Turn off all electrical power to the unit.
- 4 - Open the Compressor Access and Blower/Heat Access panels (Refer to Figure 1).
- 5 - Remove the mullion between the open access panels.

Requirements

This conversion kit shall be installed by a qualified service agency. A qualified service agency is any individual, firm, corporation or company which either in person or through a representative is engaged in and is responsible for the

TABLE 1– KIT APPLICATION

Unit	Cat. No.	Part No.	10th Character	Heating Type
LG/LD 024-074S/H/U	39H78	614839-11	Q, X	Two-Stage Medium & High
			K, R	Modulating Medium & High
LG/LD 024-074S/H/U	39H79	614839-12	B	Two-Stage Standard
			P	Modulating Standard



⚠ CAUTION

As with any mechanical equipment, personal injury can result from contact with sharp sheet metal edges. Be careful when you handle this equipment.

- 6 - Remove and retain four screws securing manifold to burner box; remove manifold. See Figure 2.
- 7 - Remove orifices from manifold and install the orifices provided in kit. Unit will have 3, 5, or 7 burners. Replace only the orifices which have a burner installed.

CAUTION - Tighten orifices with pipe threads to 6.25 ft.lbs. Do not overtighten.

IMPORTANT - Do not use thread compound on gas orifices.

- 8 - Replace the manifold and secure with retained screws.
- 9 - For 36J54 valves (Two-Stage), locate the Spring Kit specifically for 36J54 combination valve. Kit package should have manufacturer's part number, F92-1008, on label. Follow the manufacturer's instructions for installing the spring(s) and LP labels.
- 10 - For 36J27 valves (Modulating), locate the Jumper Kit specifically for the 36J27 combination valve. Kit package should have manufacturer's part number, F92-1021, on label. Follow the manufacturer's instructions for installing the jumper plug and LP labels.
- 11 - Reinstall the mullion between the Compressor and Blower/Heat access panels.

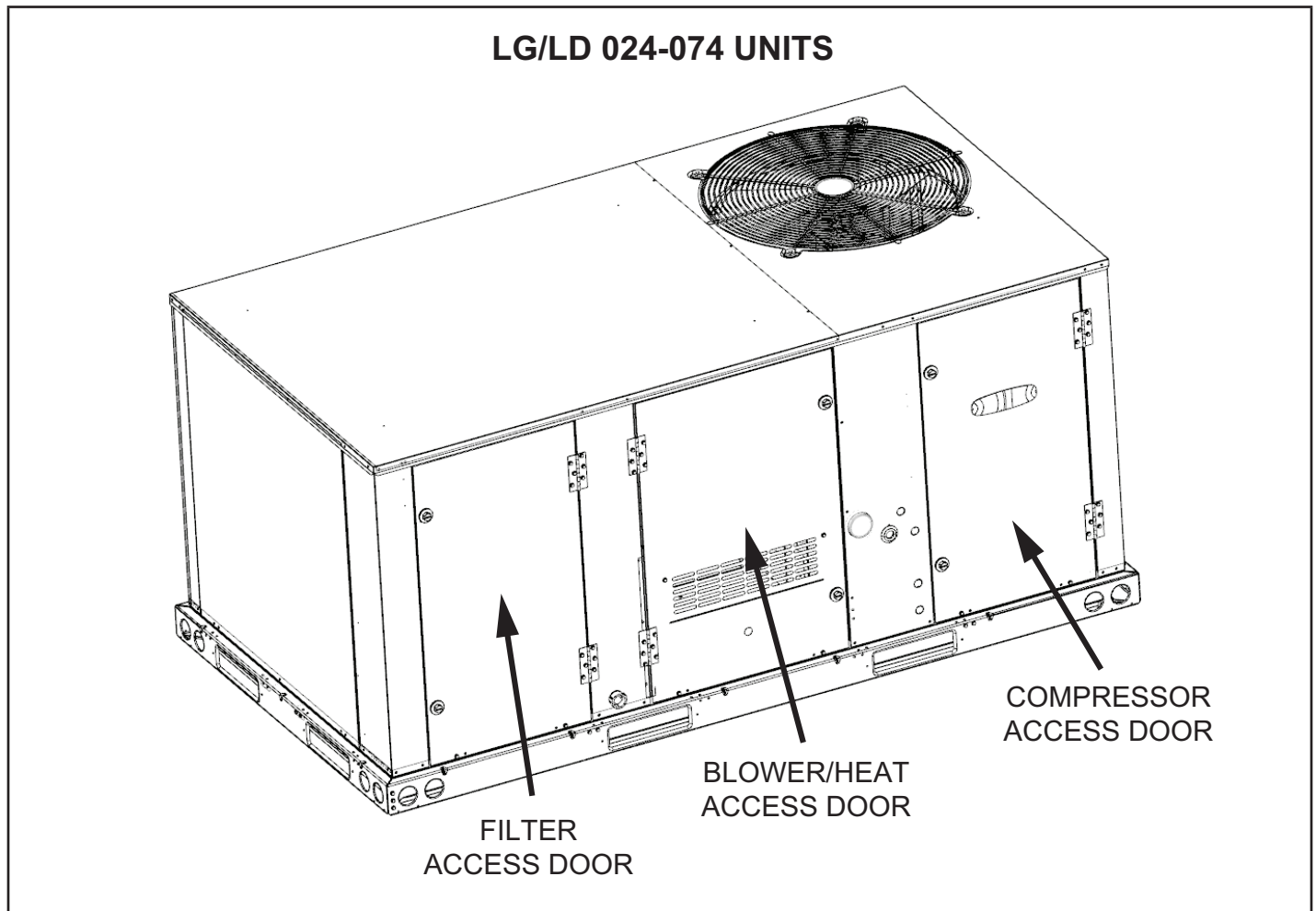


Figure 1

BURNER BOX ASSEMBLY - LG/LD 024-074

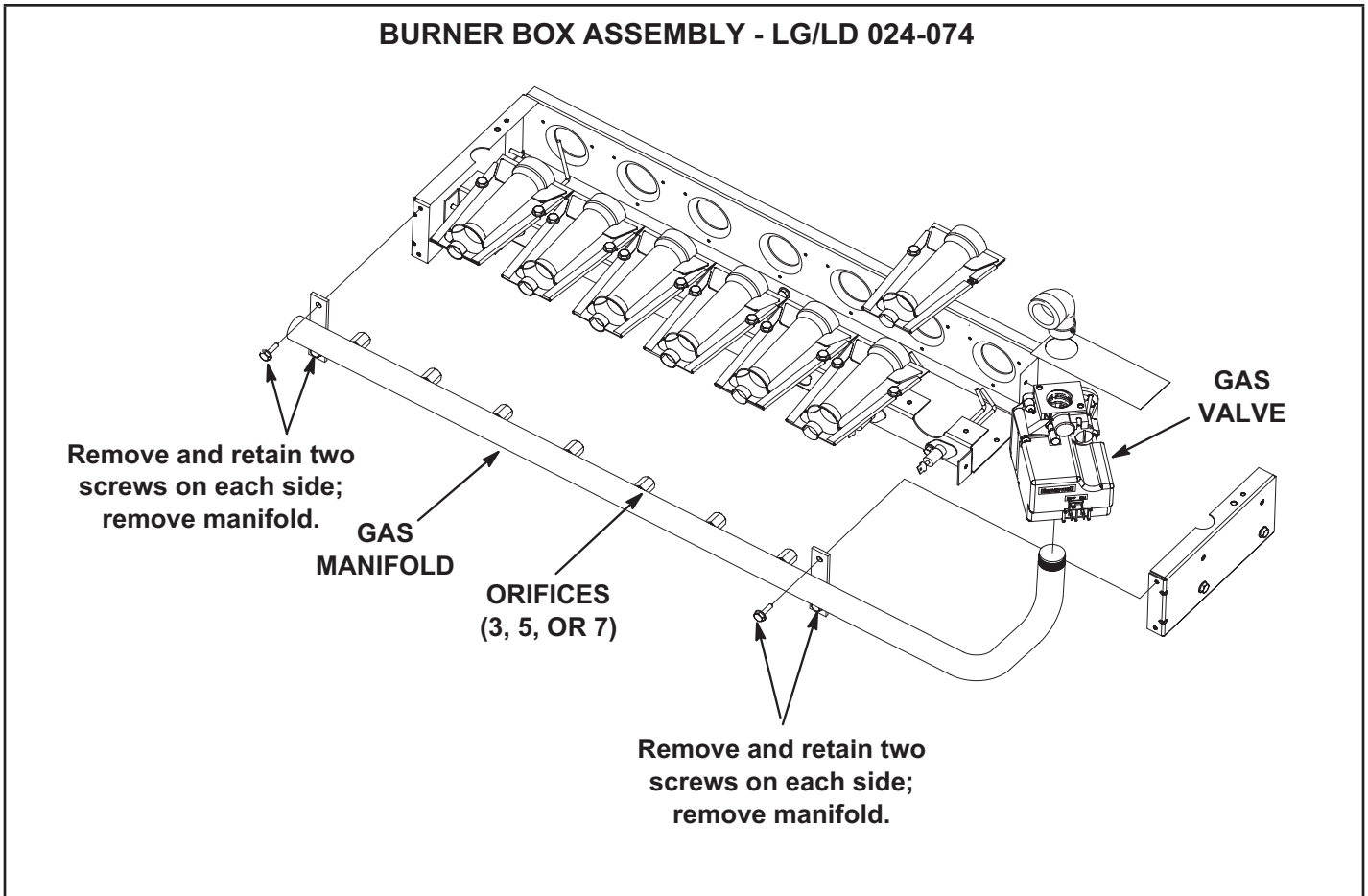


Figure 2

Install J/P21 Jumper Harness

- 1 - Locate the Combustion Air Blower (CAB) in the heating section.
- 2 - Disconnect the CAB motor's 4-position plug from the unit's 4-position jack.

NOTE - To verify correct connection has been unplugged, the wires on unit side of connection are stamped P442-P19.

- 3 - Install the kit harness between the motor plug and unit jack. Refer to Figure 3.

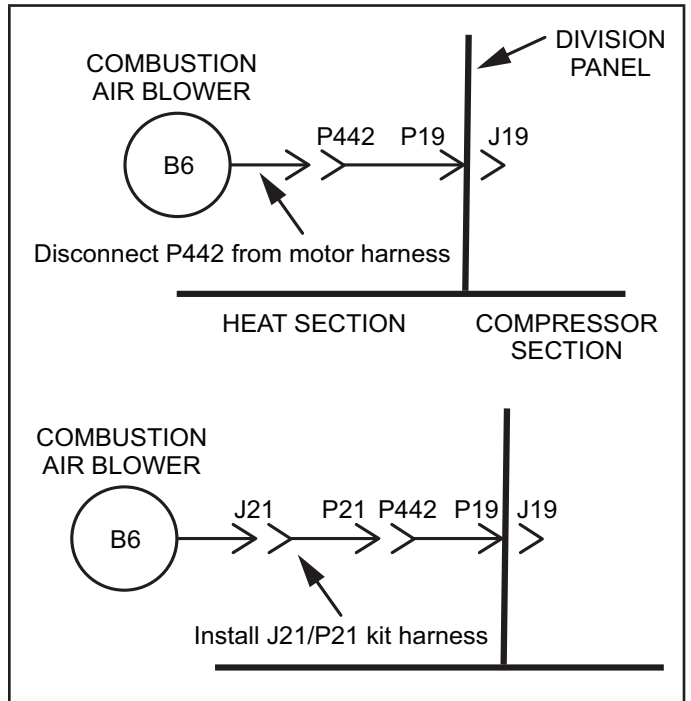


Figure 3

Gas Heat Start-Up

FOR YOUR SAFETY READ BEFORE LIGHTING

⚠ WARNING



Electric shock hazard. Can cause injury or death. Do not use this unit if any part has been under water. Immediately call a qualified service technician to inspect the unit and to replace any part of the control system and any gas control which has been under water.

⚠ WARNING



Danger of explosion. Can cause injury or product or property damage. If over heating occurs or if gas supply fails to shut off, shut off the manual gas valve to the appliance before shutting off electrical supply.

⚠ WARNING



Electric shock hazard. Can cause injury or death. Before attempting to perform any service or maintenance, turn the electrical power to unit OFF at disconnect switch(es). Unit may have multiple power supplies.

BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

The gas valve may be equipped with either a gas control lever or gas control knob. Use only your hand to push the lever or turn the gas control knob. Never use tools. If the the lever will not move or the knob will not push in or turn by hand, do not try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.

⚠ WARNING



Danger of explosion. Can cause injury or death. Do not attempt to light manually. Unit has a direct spark ignition system.

This unit is equipped with an automatic spark ignition system. There is no pilot. In case of a safety shutdown, move thermostat switch to **OFF** and return the thermostat switch to **HEAT** to reset ignition control.

⚠ WARNING



Danger of explosion and fire. Can cause injury or product or property damage. You must follow these instructions exactly.

A-Turning On Gas to Unit

- 1 - Set thermostat to lowest setting.
- 2 - Turn off all electrical power to appliance.
- 3 - This appliance is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
- 4 - Open or remove the control access panel.

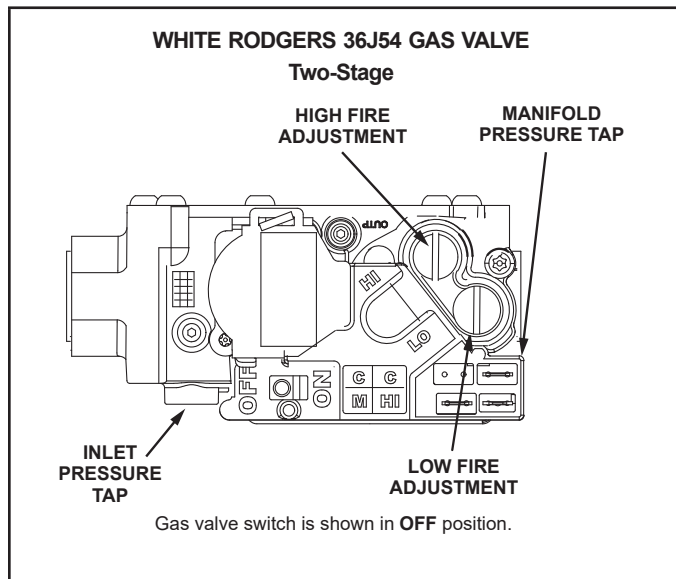


FIGURE 4

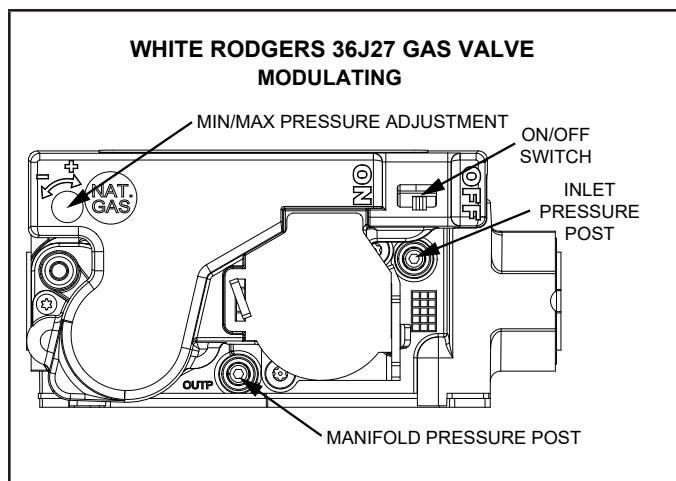


FIGURE 5

- 5 - Move gas valve switch to **OFF**. See FIGURE 4 and FIGURE 5.
- 6 - Wait five (5) minutes to clear out any gas. If you then smell gas, **STOP!** Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions. If you do not smell gas, go to the next step.
- 7 - Move gas valve switch to **ON**. See FIGURE 4 and FIGURE 5.
- 8 - Close or replace the control access panel.
- 9 - Turn on all electrical power to appliance.
- 10 -Set thermostat to desired setting.

NOTE - When unit is initially started, steps 1 through 10 may need to be repeated to purge air from gas line.

- 11 - The ignition sequence will start.
- 12 - If the furnace does not light the first time (gas line not fully purged), it will attempt up to two more ignitions before locking out.
- 13 - If lockout occurs, repeat steps 1 through 10.
- 14 - If the appliance will not operate, follow the instructions "Turning Off Gas to Appliance" and call your service technician or gas supplier.

Turning Off Gas to Unit

- 1 - If using an electromechanical thermostat, set to the lowest setting.
- 2 - Before performing any service, turn off all electrical power to the appliance.
- 3 - Open or remove the control access panel.
- 4 - Move gas valve switch to **OFF**.
- 5 - Close or replace the control access panel.

 WARNING	
	Danger of explosion. Can cause injury or death. Do not attempt to light manually. Unit has a direct spark ignition system.

Gas Heating Checks and Adjustments

A-Gas Flow

To check for proper gas flow, determine the Btu input from the unit rating plate. Divide this input rating by the Btu per cubic feet of available gas. Result is the required number of cubic feet per hour. Determine the flow of gas through the gas meter for two minutes and multiply by 30 to get the hourly flow of gas.

B-Supply Gas Pressure

Supply pressure should be checked with unit firing at maximum rate. For Natural Gas, supply pressure should be maintained in accordance with the specified minimum and maximum supply pressures on the unit rating plate.

For LP/propane, a natural gas to LP/propane gas changeover kit is required to convert the unit in the field. Refer to installation instructions provided with changeover kit for conversion procedure along with propane minimum and maximum supply pressures.

NOTE - On multiple unit installations, each unit should be checked separately, with and without other units operating. Supply pressures on both single and multiple unit installations must fall within range listed on the rating plate.

C-Supply Gas Pressure Measurement

- 1 - Shut off the manual main supply valve (field furnished) when installing or removing the measuring device (Steps 2 and 5).
- 2 - Connect the measuring device based upon type of gas valve.
For White Rodgers 36J54 valve (FIGURE 4), supply pressure is accessed by removing 1/8" hex screw. Remove the 1/8" hex screw and install a 1/8" fitting with hose barb. Connect tubing from the barbed fitting and route to measuring device to measure supply pressure.
For White Rodgers 36J27 valve (FIGURE 5), locate the 5/16" inlet pressure post on top of the valve. Using a 3/32" hex wrench, rotate pressure tap screw one rotation counter-clockwise. Connect a piece of 5/16" I.D. tubing over the post and route to measuring device. Open manual main supply valve.
- 3 - Ignite unit and let run for 5 minutes to allow for steady state conditions.
- 4 - After allowing unit to stabilize for 5 minutes, record supply pressure.
- 5 - Shut unit off and remove measuring device, tubing, or fittings as soon as an accurate reading has been obtained.

For White Rodgers 36J54 valve (FIGURE 4), remove supply pressure barbed fitting and reinstall the 1/8" hex screw.

For White Rodgers 36J27 valve (FIGURE 5), remove tubing from the post. Then using 3/32" hex wrench, rotate the inlet pressure tap screw clockwise to seal the pressure port.

D-Manifold Pressure Measurement and Adjustment

- 1 - Shut off the manual main supply valve (field furnished) when installing or removing the measuring device (Steps 2 and 7).
- 2 - Connect the measuring device based upon the type of gas valve.
For White Rodgers 36J54 valve (FIGURE 4) manifold pressure, remove the 1/8" hex screw, install 1/8" fitting with hose barb, connect hose from barb to "+" side of measuring device.
For White Rodgers 36J27 valve (FIGURE 5) manifold pressure, locate the 5/16" manifold pressure post on top of the valve. Using a 3/32" hex wrench, rotate the outlet pressure tap screw one rotation counter-clockwise. Place 5/16" I.D. tubing over post and route to measuring device.
- 3 - Ignite unit and let run for 5 minutes to allow for steady state conditions. If unit has 2 heating inputs, start on higher input.
- 4 - After allowing unit to stabilize for 5 minutes, record manifold pressure. Compare measurement to the unit nameplate values.

NOTE - For elevations higher than 2001 feet above sea level, see High Altitude Adjustment section for details.

- 5 - If necessary, adjust manifold pressure. FIGURE 4 and FIGURE 5 show adjustment screw(s) locations.
- 6 - Repeat steps 3, 4 and 5 on lower input.
- 7 - Shut unit off and remove measuring device as soon as accurate reading has been obtained.

For White Rodgers 36J54 valve (FIGURE 4), remove 1/8" fitting with hose barb and reinstall 1/8" hex screw.

For White Rodgers 36J27 valve (FIGURE 5), remove tubing from the post. Then using 3/32" hex wrench, rotate the manifold pressure tap screw clockwise to seal the pressure port.

- 8 - Start unit and perform leak check. Seal leaks if found.

NOTE - White Rodgers offers a Pressure Check Kit (69M1701) which includes 5/16" ID tubing, 3/32" hex wrench, and 1/4" to 5/16" tubing connector.

E-High Altitude Adjustments

Units in Canada and US may be fired at full input up to 2000 feet (610m) above sea level. Above 2000 feet (610m), manifold pressures must be adjusted.

In Canada, certification for installation at altitudes over 4500 feet (1372m) above sea level is the jurisdiction of local authorities. Lennox recommends reducing input (de-rate) by two percent for each additional 1000 feet above 4,500 feet. Refer to TABLE 1 for guidance.

In US, the heating input shall be reduced (de-rated) by two percent per 1000 feet above sea level. Refer to TABLE 2 for guidance.

Once any high-altitude adjustments have been completed, locate the high-altitude conversion sticker in the unit literature bag. Fill out the conversion sticker and affix next to the unit nameplate.

NOTE - For heating values above 2500 Btu/cu. ft., Lennox recommends verifying the reduced input rate using local heating values and gas flow rate as details in section A-Gas Flow.

TABLE 1
CANADA – LP GAS MANIFOLD PRESSURES
[inch w.c. (kPa)]

Altitude in Feet (Meters)	Low (Minimum) Input Rate	High (Maximum) Input Rate
0 - 2000 (0 - 610)	5.9 (1.47)	10.5 (2.62)
2001 - 4500 (610 - 1372)	5.1 (1.27)	9.0 (2.24)
4501 - 5500 (1372 - 1676)"	4.8 (1.20)	8.5 (2.12)
5501 - 6500 (1676 - 1981)"	4.5 (1.12)	8.1 (2.02)
6501 - 7500 (1981 - 2286)"	4.4 (1.10)	7.8 (1.94)
Fuel heating value = 2500 btu/cu ft		

TABLE 2
US – LP GAS MANIFOLD PRESSURES
[inch w.c. (kPa)]

Altitude in Feet (Meters)	Low (Minimum) Input Rate	High (Maximum) Input Rate
0 - 2000 (0 - 610)"	5.9 (1.47)	10.5 (2.62)
2001 - 4500 (610 - 1372)"	5.1 (1.27)	9.0 (2.24)
4501 - 5000 (1372 - 1524)"	5.1 (1.27)	9.0 (2.24)
5001 - 6000 (1524 - 1829)"	4.8 (1.20)	8.5 (2.12)
6001 - 7000 (1829 - 2134)"	4.5 (1.12)	8.1 (2.02)
7001 - 8000 (2134 - 2438)"	4.4 (1.10)	7.8 (1.94)
Fuel heating value = 2500 btu/cu ft		

Identifying Unit As LP Converted

- 1 - Locate the LP conversion label showing the conversion kit number and heater input size. Affix this label near unit nameplate.
- 2 - Locate and fill in the installer conversion label and affix near unit nameplate.