

Installation Instructions

LP Conversion Kit Voyager™ Light and Large Commercial 12 ½ - 50 Ton Packaged Rooftop Units

Model Number: Used With:
BAYLPKT018* YS*150-300F YZ*150-210F
YH*150-300F YC*330-600



ACCSVN143BEN0

SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

July 2014

ACC-SVN143B-EN

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1 Cautions, Warnings and Notices

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury

CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

Indicates a situation that could result in equipment or property-damage only accidents.

Important: Environmental Concerns! Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants-including industry replacements for CFCs such as HCFCs and HFCs.

Important: Responsible Refrigerant Practices! Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified. The Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

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WARNING

Personal Protective Equipment Required!

Installing/servicing this unit could result in exposure to electrical, mechanical and chemical hazards. Before installing/servicing this unit, technicians MUST put on all Personal Protective Equipment (PPE) recommended for the work being undertaken. ALWAYS refer to appropriate MSDS sheets and OSHA guidelines for proper PPE. When working with or around hazardous chemicals, ALWAYS refer to the appropriate MSDS sheets and OSHA guidelines for information on allowable personal exposure levels, proper respiratory protection and handling recommendations. If there is a risk of arc or flash, technicians MUST put on all necessary Personal Protective Equipment (PPE) in accordance with NFPA70E for arc/flash protection PRIOR to servicing the unit. Failure to follow instructions could result in death or serious injury.

WARNING

Proper Field Wiring and Grounding Required!

All field wiring MUST be performed by qualified personnel. Improperly installed and grounded field wiring poses FIRE and ELECTROCUTION hazards. To avoid these hazards, you MUST follow requirements for field wiring installation and grounding as described in NEC and your local/state electrical codes. Failure to follow code could result in death or serious injury.

General Information

This accessory L.P. conversion kit is designed to allow the listed units to operate using liquefied petroleum gas.

Parts List

- 1 x orifice (#9 drill size)
- 2 x orifices (R drill size)
- 1 x orifice (H drill size)
- 1 x LP conversion label
- 1 x orifice (O drill size)
- 1 x Label overlay

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Installation

WARNING

Hazardous Voltage and Gas!

Turn off the gas supply and disconnect all electric power, including remote disconnects before servicing unit. Follow proper lockout/tagout procedures to ensure the power can not be inadvertently energized. Failure to turn off gas or disconnect power before servicing could result in an explosion or electrocution which could result in death or serious injury.

1. Place the thermostat selector switch in the OFF position.
2. Open and lock the unit electrical disconnect switch.
3. Shut off the gas supply to the unit at the manual valve outside the unit.
4. Remove the access panel from the burner and gas control section of the unit.
5. Unscrew the ground union joint outside the unit, then remove the supply pipe connected to the gas train.
6. Disconnect the wires from the gas valve.
7. Remove the clamp on the gas line below the gas valve.
8. Remove the six bolts around the air orifice plate at the combustion housing.
9. Remove the gas valve and orifice assembly from the unit. (see Figure 1).

WARNING

Proper LP Orifice Required!

Do not install an L.P. orifice that will provide a gas input rate different than the input specified on the unit nameplate. Installing the incorrect gas orifice could cause an explosion or fire, which could result in death or serious injury.

10. Replace the natural gas orifice with the correct L.P. orifice from the kit. See for the correct orifice size for altitude of 0 to 4,500 feet. The input rating of each furnace is stamped on the air orifice plate.

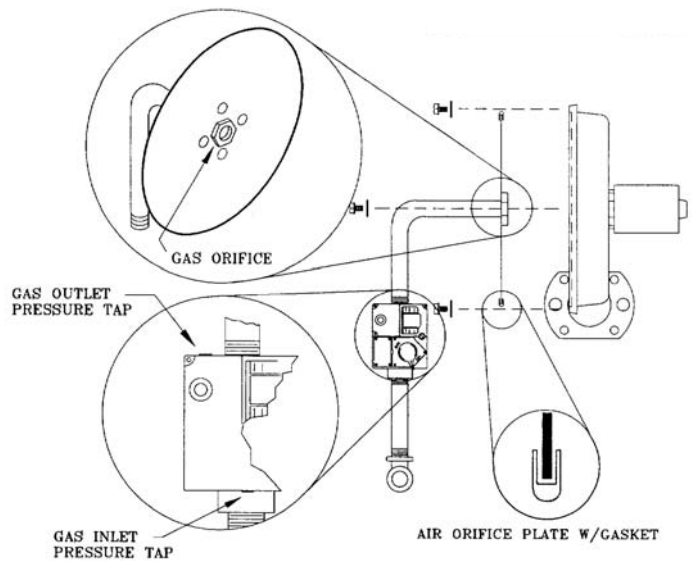
Notes:

- On units with 600 Mbh capacity, make sure the 'H' drill size orifice is installed on the 250Mbh burner, and the 'O' drill size is installed on the 350Mbh burner.
- On units with 800 Mbh capacity, install the 'R' drill size orifice on both burners.

Table 1. Orifice size

Units	Gas input rating MBH	LP gas orifice size
YS/YH/YZ*150F*RL	150,000	9 drill (0.196 dia.)
YS/YH/YZ*150F*RH	250,000	H drill (0.266 dia.)
YS/YH/YZ*180F*RL, YS*155F*RL	250,000	H drill (0.266 dia.)
YS/YH/YZ*180F*RH, YS*155F*RH	350,000	O drill (0.316 dia.)
YS/YH/YZ*210F*RL	250,000	H drill (0.266 dia.)
YS/YH/YZ*210F*RH	350,000	O drill (0.316 dia.)
YS/YH*240/200F*RL	250,000	H drill (0.266 dia.)
YS/YH*240/200F*RH	400,000	R drill (0.339 dia.)
YS/YH*300/250F*RL	250,000	H drill (0.266 dia.)
YS/YH*300/250F*RH	400,000	R drill (0.339 dia.)
YC*330-420B*L	350,000	O drill (0.316 dia.)
YC*330-420B*H	600,000	O drill (0.316 dia.) H drill (0.266 dia.)
YC*480B*L	400,000	R drill (0.339 dia.)
YC*480B*H	800,000	R drill (0.339 dia.) R drill (0.339 dia.)
YC*600B*L	400,000	R drill (0.339 dia.)
YC*600B*H	800,000	R drill (0.339 dia.) R drill (0.339 dia.)

* Horizontal and downflow units, all voltages.

Figure 1. Gas valve and orifice assembly

11. Reinstall the gas valve and orifice assembly by replacing the six bolts removed from the air orifice plate, then reinstall the clamp on the gas line below the gas valve.

WARNING**Excessive Pressure!**

Do not rely on any gas shut off valve to isolate the unit. These valves could expose unit gas valve to excessive pressure. Conduct a supply line pressure/leak test before connecting unit gas piping to gas supply line. Exposing unit to gas line pressure exceeding 14 inches water column could cause an explosion and fire which could result in death or serious injury.

12. Reconnect the supply line to the gas train and then to the main gas pipe with the ground union.

WARNING**Hazard of Explosion!**

Never use an open flame to detect gas leaks. It could result in an explosion. Use a leak test solution for leak testing. Failure to follow recommended safe leak test procedures could result in death or serious injury or equipment or property-only-damage.

13. Leak check all gas piping joints that were disconnected during the installation of the LP kit.
 14. Record the conversion information onto the conversion label provided with the LP kit.
 15. Apply the LP conversion label next to the unit's nameplate.
- Important:** Do not remove the original unit nameplate!
16. Place the clear laminate over the LP conversion label.
 17. Reconnect the wiring to the gas valve by referring to the unit's wiring diagram.
 18. Turn on the gas supply to the unit and purge all air from the supply line using the inlet pressure tap on the gas valve (see Figure 1).
 19. Check the entering supply gas pressure at the gas valve (see Figure 1). The pressure should be between 8.0" w.c. minimum to 14" w.c. maximum (1/2 PSIG) when the burner is off.
 20. Close the unit disconnect switch. Set the zone sensor to the heating mode and check the furnace operation.

WARNING**Hot Flue Gases!**

Flue gases are exhausted at the front of the unit above the heater access panel. Stay clear of the flue area during the ignition process and while servicing the furnace. Failure to do so could result in death or serious injury.

21. Check the manifold pressure at the gas valve using the 1/8" NPT pressure tap marked 'outlet'. The pressure should be (negative) -0.2" w.c. when the burner is operating.
22. After proper operation has been obtained, set the zone sensor to the desired temperature setpoint. Unit should now operate automatically.
23. Replace all access panels.

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