

# ACCESSORY KIT INSTALLATION INSTRUCTIONS

**Propane High Altitude Conversion Accessory Model 1HA0443  
for Single Package Gas/Electric Air Conditioners 6-1/2 Ton through 12-1/2 Ton**



## ⚠ WARNING

This conversion kit shall 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, 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 supplied with the kit.

For U.S. units, installation must be made in accordance with American National Standard National Fuel Gas Code, ANSI Z223.1 – latest edition, unless superseded by local codes. For Canadian installations, the conversion shall be carried out in accordance with the requirements of the provisional authorities having jurisdiction and in accordance with the CAN1-B149.1 and .2 installation codes.

## GENERAL

This accessory provides the parts to operate a propane furnace between 2,000 and 6,000 feet for U.S. installation. In Canada, this kit is certified for installations from 2,000 to 4,500 feet (610 to 1829 meters). This kit assumes the unit has already been converted to propane using kit 1NP0441. The installation instruction supplied with the unit is to be used for all other aspects of the installation including setting the input rate.

**TABLE 1: PARTS IN KIT 1HA0443**

ITEM	QTY.	PART NO.	DESCRIPTION
1	8	9600	Burner Orifice, #53
2	8	9601	Burner Orifice, #54
3	1	10561	Conversion Label
4	1	11452	Accessory Instruction
5	1	11005	Overlay, Laminate

## ⚠ WARNING

Improper installation, adjustment, service or maintenance can cause injury or property damage. Therefore, only a qualified installer or qualified service personnel should perform this conversion.

**TABLE 2: ORIFICE DATA**

	Recommended Orifice					
	Altitude (Ft. Above Sea Level)					
	0	2,000	3,000	4,000	5,000	6,000
	Burner	Burner	Burner	Burner	Burner	Burner
4 cell	53	54	54	54	54	54
6 cell	53	54	54	54	54	54
8 cell	53	54	54	54	54	54

NOTE: In Canada, all conversions of units between 2,000 and 4,500 ft. of elevation should use the #54 orifice.

**▲WARNING**

If the unit is connected to power sources, make sure that all electrical power to the unit has been disconnected and the gas supply to the unit has been shut off before proceeding.

1. Open the access door to the gas heat section.
2. Disconnect the piping to the inlet side of the gas valve.
3. Disconnect the wiring from the gas valve as well as the wiring to the spark igniter and flame sensor.
4. Remove the four screws (two on each side of the gas manifold) holding the manifold to the burner tray.
5. Carefully remove the manifold assembly from the unit.
6. Remove the main burner orifices from the manifold and discard them. If your unit does not have eight burners, the manifold will have plugs in the orifice holes on each side of the manifold.

**▲WARNING**

Do not remove the plugs! Gas will be released into unit and may result in damage to unit, installer and property.

7. From Table 2, select the orifice size necessary for your elevation.
8. Remove the orifices from the kit and install them in the gas manifold. Make sure they are very tight. The kit contains eight of each size orifice. If your unit has four or six burners, you will have orifices left over. These should be discarded.
9. Replace the manifold in the unit securing the assembly to the burner tray with the four screws removed earlier. The burner orifices should fit inside the orifice retention ring in the back of each burner. If the orifices are not seated deeply enough, the manifold will not secure properly and burner misalignment may result.
10. Reconnect the gas piping to the inlet of the gas valve.
11. Reattach the wiring to the gas valve. In addition, reconnect the wires to the spark igniter and flame sensor.
12. Mark the appropriate data (burner orifice size, manifold pressure and input capacity) on the conversion label provided in the kit and install it adjacent to the unit nameplate.

13. Apply the laminate overlay included in the kit over the conversion label.
14. Turn on the gas supply.
15. Check for leaks at all gas fittings. Repair all leaks and recheck for leaks.

**▲WARNING**

Do not check for leaks with an open flame! Damage to unit, building and installer could result.

**TESTS AND ADJUSTMENTS**

All adjustments and testing must be performed at the time of conversion.

**▲WARNING**

If the unit is connected to power sources, make sure that all electrical power to the unit has been disconnected and the gas supply to the unit has been shut off before proceeding.

1. Connect a manometer to the manifold side of the gas valve in order to measure manifold pressure.
2. Turn on the propane supply to the unit and bleed the air from the gas supply lines at a point as close to the inlet of the gas valve as possible. Turn the gas valve to the ON position.
3. Connect a jumper between terminal "R" and "W1" on the circuit board and another jumper from "R" to "W2" on the circuit board to simulate a call for heat on high fire.
4. Make sure the electrical disconnect switch is in the OFF position, then energize the power supply to the disconnect switch.
5. Turn the unit electrical disconnect switch to ON. The combustion blower should start and, after the pre-purge cycle, the igniter should begin sparking. Because there may still be some air in the gas supply line, the unit may require several attempts to light.
6. Once the unit lights, adjust the manifold pressure to 10.0 IWC by turning the adjustment screw on the valve adjacent to the "HI" marking on the valve. Always adjust the high fire setting prior to adjusting the low fire setting.
7. Check for gas leaks, especially in the following locations: gas valve inlet and outlet, gas supply union, and main burner orifices where they screw into the manifold.

**▲ WARNING**

Do not check for leaks with an open flame! Damage to unit, building and installer could result.

A soap and water solution is ideal.

8. Observe several ignition cycles. The burners should light without delayed ignition or flashback and there should be no impingement of the flame on the metal panel surrounding the entrance to the heat exchanger tubes.
9. Turn off electrical power to the unit.
10. Remove the jumper between "R" and "W2". This will simulate a call for first stage heat.
11. Restore electrical power to the unit.
12. At the end of the pre-purge period, The unit should light on high fire. It will stay on high fire for approximately one minute. At the end of this time period the unit will switch to low fire.
13. Set the low fire manifold pressure to 4.3 I.W.C. by turning the screw adjacent to the "LO" marking on the valve.
14. Shut off the gas supply and electrical supply to the unit.
15. Turn the gas valve knob to "OFF".
16. Remove the pressure tap on the outlet side of the valve and replace the plug.
17. Remove the jumper and secure all access panels.

**NOTE:** The manifold pressures listed above should not be used as a substitute for properly rating the unit. To set the rate on the unit, consult the installation instructions supplied with the unit.

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