

# INSTALLATION INSTRUCTION

## PROPANE CONVERSION ACCESSORY MODEL 1NP0440

Supersedes: Nothing

530.46-N1.29V (297)

035-15353



**FOR SINGLE PACKAGE  
GAS/ELECTRIC UNITS  
3 THRU 6 TONS**



**WARNING: This conversion kit is to be installed by a Unitary Products Group distributor or other qualified agency in accordance with the manufacturer's instructions and all codes and requirements of the authority having jurisdiction. Failure to follow instructions could result in serious injury or property damage. The qualified agency performing this work assumes responsibility for this conversion.**

**WARNING: 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must be made in accordance with American National Standard National Fuel Gas Code, ANSI Z223.1 - latest edition, unless superseded by local codes.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 Provincial authorities having jurisdiction and in accordance with the CAN1-B149.1 and .2 installation codes.**

### GENERAL

This kit, 1NP0440, is intended for the conversion of new equipment from natural gas to propane for installations below 2,000 feet altitude. For high elevations, an additional kit (1HA0423) will be required.

This instruction covers the conversion only; the Installation Instruction supplied with the unit is to be used for all other aspects of the installation.

*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.*

### FURNACE CONVERSION

Before the gas and electrical power supplies are connected to the unit, remove the manifold/burner assembly as follows:

1. Remove the access panel to the gas heat compartment.
2. Disconnect the wiring from the gas valve and disconnect the red high tension wire with the spark ignitor and sensor located in the burner bracket.
3. Using a screw driver or ratchet, remove the screws holding either end of the manifold/burner assembly to the supports.
4. Carefully remove the manifold/burner assembly with gas valve attached by grasping the manifold with two hands lifting up and then pulling out of the unit.
5. Set the manifold/burner assembly up-side down and disconnect the pilot tubing at the pilot. Remove the natural gas pilot orifice and discard it.
6. Remove the main burner orifices from the manifold and discard them.
7. Refer to Table 1 to verify that the proper size burner and pilot orifices from this accessory are installed with the respective heating section.
8. Install the propane orifices in the manifold, and tighten them. After installing a propane orifice in each location, any leftover orifices may be discarded.
9. Make sure the manifold is mounted tightly with the support for burners, manifold and orifices.

10. Install the appropriate propane gas pilot orifice from this kit. Reconnect and tighten the pilot tubing at the pilot.
11. Turn assembly right-side up and replace the natural gas regulator spring, located under the high fire adjustment screw on the gas valve, with the appropriate propane gas regulator spring included in this kit. Discard the unused regulator spring.
12. Verify that all screws are secured and then replace the assembly into the unit, making sure that the burners are seated at the front of the heat exchanger.
13. Re-connect wiring which was disconnected in Step 2.

### PROPERLY FILLING OUT THE CONVERSION LABEL

1. Remove label 035-11635-000 from the shipping box. Check the box that states the unit has been converted from natural to propane and fill in the name of the organization making the conversion (if in Canada, the respective conversion station) and address.
2. Under "Rating After Conversion", write in the following:
  - a. Orifice size, as stamped on the orifice.
  - b. Maximum inlet pressure - 13.0 IWC.
  - c. Minimum inlet pressure - 11.0 IWC.
  - d. Manifold pressure - 9.4 IWC.
  - e. Input, this will be the input on the data plate.
  - f. Output rating, this will be the output from the data plate.

**TABLE 1 - RATING/ORIFICE DATA**

This appliance equipped only for altitudes 0 - 2000 feet.			
Gas Heat Input BTU/HR.	Gas Heat Output BTU/HR.	Manufacturer's Recommended Orifice Size (pressure I.W.C.)	
		Burner Propane	Pilot Propane
50,000	40,000	53 (9.4)	74 (6.0)
75,000	60,000	53 (9.4)	74 (6.0)
100,000	79,000	53 (9.4)	69 (5.1)
125,000	99,000	53 (9.4)	69 (5.1)

3. Under "Changes After Conversion", write in the following:
  - a. Kit number, located on the outside of the box.
  - b. Unit model number.
  - c. Name and address of the organization making the conversion and date.
4. Remove the label backing and affix label adjacent to the unit data plate along with the laminate overlay.

**NOTE:** Refer to the gas heat section of the unit installation instructions for proper installation and start-up procedures.

## TESTS AND ADJUSTMENTS

The following tests must be performed at the time of conversion:

**WARNING:** If the furnace is connected to gas and power supplies, make sure both are shut off before proceeding.

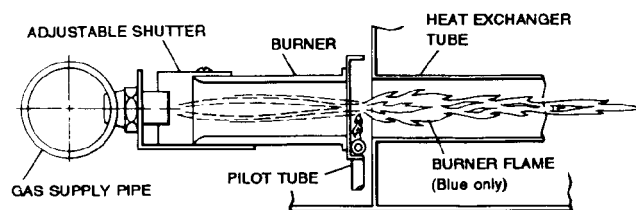
1. Connect a manometer to the pressure tap in the manifold. Connect a power supply and a propane gas supply to the unit, if not already connected.
2. Turn on the propane gas supply, and bleed air from the gas supply lines at a point as close to the inlet of the gas valve as is practical. Turn gas valve knob to the ON position.
3. Connect a jumper between terminals "R" and "W" on the circuit board to simulate a call for heat.
4. Make sure unit electrical disconnect switch is in the OFF position, then energize the power supply to the disconnect switch.
5. Turn unit electrical disconnect switch ON. The combustion blower should start and the pilot electrode should start sparking.
6. After air has been purged from the pilot supply line, pilot ignition should occur. Shortly after pilot ignition, the main gas valve will open as indicated by the manometer. Main burner ignition may be delayed on the first ignition cycle due to air in the gas manifold.

7. Observe several ignition cycles. The pilot burner and all main burners must ignite without delayed ignition or burning at the orifices. If delayed ignition is observed, verify that pilot flame is adjusted correctly (refer to Pilot Flame Adjustment section of the unit Installation Instruction), and that the pilot is properly mounted (not loose or crooked on bracket, bracket not bent or loose on main burner).

8. Adjust the manifold pressure to 9.4 IWG with gas supplied to the unit at a pressure of 11 to 13 inches WC.

**CAUTION:** Manifold pressure for the respective BTU/HR input or output must be adjusted to 9.4 IWG.

9. If burning at the orifices, excessive yellow tipping, or excessive noise is observed during any phase of main burner operation, adjust the main burner air shutters (see Figure 1) to eliminate the problem(s).
10. With main burners ignited, check for gas leaks, especially



**FIG. 1 - MAIN BURNERS, PILOT TUBE, GAS MANIFOLD AND ADJUSTABLE SHUTTERS**

in the following locations: pilot tubing connection at the pilot, pilot tubing connection at the gas valve, gas valve inlet and outlet connections, manifold union in the burner compartment, and main burner orifices where they thread into the manifold. Repair any leaks found, and recheck. **DO NOT CHECK WITH OPEN FLAME.**

11. With main burners off, disconnect the manometer and replace the manifold plug. Check for gas leaks at this plug.
12. Remove jumpers and replace all access panels.

## PARTS SUPPLIED WITH THIS ACCESSORY

ITEM	QTY.	PART NO.	DESCRIPTION
1	5	029-20423-053	Burner Orifice, #53
2	1	029-20422-069	Pilot Orifice, #69
3	1	029-20422-074	Pilot Orifice, #74
4	1	025-25429-000	Valve Conversion Parts (Honeywell Valve, VR8204) Includes LP Regulator Spring
5	1	035-11635-000	Propane Gas Conversion Label
6	1	035-15353-000	Accessory Instruction Form
7	1	025-25463-000	Valve Conversion Parts (White Rodgers 36E36) Includes LP Regulator Spring
8	1	035-15364-000	Accessory Instruction Form (French)