CAUTION: READ ALL SAFETY GUIDES BEFORE YOU BEGIN INSTALLATION.

SAVE THIS MANUAL

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This conversion kit requires installation by a qualified service agency in accordance with the manufacturer 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 agency performing this work assumes responsibility for the proper conversion of this appliance with this kit.

For U.S. units, installation must comply with the National Fuel Gas Code, ANSI Z223.1 - latest edition, unless superseded by local codes. For Canadian installations, the conversion must comply with the requirements of the Provincial authorities having jurisdiction and in accordance with the CSA-B149.1 installation codes.

WARNING

ISO 9001
Certified Quality Management System

CSA
US

GAMA

ISO 14001
Certified Quality Management System
GENERAL

This accessory provides the parts to operate a propane gas furnace at elevations between 2,000 and 6,000 feet (610 and 1829 meters). Conversion is CSA certified for 2,000 to 4,500 feet only. This instruction covers Propane High Altitude Conversion Accessory Only.

Propane Conversion Accessory Model 1NP0418 is required to convert a natural gas furnace to propane.

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

If a Propane High Altitude Accessory 1HA0408 and a Propane Conversion Accessory Model 1NP0418 are being installed at the same time, follow the instructions in the Propane Conversion Accessory Model 1NP0418, but use the proper main burner and pilot orifices from this accessory. If the Propane conversion has already been completed use the following instructions.

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

1. Remove access panel to the gas heat compartment.
2. Disconnect the ignitors and sensor cables from each of the two ignition control modules.
3. Disconnect the wiring from both gas valves.
4. Remove screws holding the complete manifold/burner assembly to the unit.
5. Carefully remove the complete manifold/burner assembly from the unit.
6. Remove the screws holding right side support to front burner support. Carefully move both manifolds away from the front burner support until the main burner orifices can be removed.
7. Disconnect the pilot tubing at both pilots. Remove the existing gas pilot orifices and discard them.
8. Remove existing burner orifices from manifolds and discard them.
9. Refer to the Orifice Label (035-07981) on the outside of the blower access panel to verify installation of the proper size burner and pilot orifices from this accessory with the respective heating section.
10. Coat threads of the new burner orifices from this kit with pipe compound that is resistant to the action of propane gases. Use compound sparingly, making sure that excess compound does not plug orifices. Install orifices in manifolds and tighten them. After installing an orifice in each location, discard any leftover orifices.
11. Install the appropriate propane gas pilot orifices from this kit. Reconnect and tighten pilot tubing at the pilots.
12. Replace the manifold/burner assembly into unit; make sure burners are properly aligned.
13. Re-connect ignitors, sensor cables and wiring to the gas valves to the same locations as were disconnected in Steps 2 and 3, or refer to unit wiring diagram.
14. Under “Rating After Conversion”, write the following:
   a. Orifice size, as stamped on orifice - #47, #48.
   b. Maximum inlet pressure - 13” WC.
   c. Minimum inlet pressure - 11” WC.
   d. Manifold pressure - 10” WC
   e. Input, same as Rating Plate.
15. Under “Changes After Conversion”, write the following:
   a. Kit number, 1HA0408.
   b. Unit model number, replace the letter “N” with “P”.
   c. Stamp or write the name of the organization making conversion, address, city, state, month, and year.
16. Mark the appropriate data (burner orifice size, manifold pressure and heat exchanger input capacity) on propane gas conversion labels and install them adjacent to unit data plate.
17. Refer to the gas heat section of the unit installation instructions for proper installation and start-up procedures.

TESTS AND ADJUSTMENTS

All adjustments and testing must be performed at the time of conversion. Since the units contain a two-stage heating system, each system requires testing per the following procedures.

WARNING

If the furnace is connected to gas and power supplies, ensure 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 natural gas supply. 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 or switch, 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 the required IWG with gas supplied to the unit at a pressure of 11 to 13 inches WC.

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 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.

Remove jumpers and replace all access panels.

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**CAUTION**

Manifold pressure for the respective BTU/HR input or output must be adjusted to the IWG as specified on the orifice label (035-07981) located on the inside of the unit gas heat access panel.

**TABLE 1: PARTS SUPPLIED WITH ACCESSORY**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>9595</td>
<td>Burner Orifice #47</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>9596</td>
<td>Burner Orifice #48</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>9578</td>
<td>Pilot Orifice #73</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>9581</td>
<td>Pilot Orifice #77</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>10433</td>
<td>High Altitude Conversion Label (to 4,500 ft.)</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>10434</td>
<td>High Altitude Conversion Label (to 6,000 ft.)</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>10423</td>
<td>Accessory Instruction Form</td>
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