

ACCESSORY KIT INSTALLATION INSTRUCTIONS

Propane Conversion Accessory Model 1NP0418
for 240 thru 400 MBH Gas-Fired Central Heating Furnaces with
15, 17.5, 20 and 25 Ton (Mechanical) Cooling



▲ 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must be made in accordance with American National Standard National Fuel Gas Code, ANSI Z223.1 – latest edition, unless superseded by local codes.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

The intended use of this kit is for the conversion of new equipment from natural gas to propane for installation below 2,000 feet altitude. Installation in higher elevations requires an additional kit (1HA0408).

This instruction covers the conversion only. Use the Installation Instruction supplied with the unit 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 connecting the gas and electrical power supplies to the unit, remove the manifold/burner assembly as follows:

1. Remove access panel to the gas heat compartment.
2. Disconnect the ignitor 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 unit.
5. Carefully remove the complete manifold/burner assembly from the unit.
6. Remove the screws holding the right side support to burner support. Carefully move both manifolds away from 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 the 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 that the proper size burner and pilot orifices from this accessory are installed 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 gas. Use compound sparingly, making sure that excess compound does not plug orifices. Install orifices in manifolds and tighten. After installing an orifice in each location, discard any leftover orifices.
11. Install the appropriate gas pilot orifices from this kit. Reconnect and tighten pilot tubing at the pilots.
12. Replace natural gas valve regulator spring with propane gas valve regulator spring supplied with the respective valve conversion parts.
13. Replace assembly into the unit. Make sure the burners are properly aligned.
14. Re-connect the ignitor sensor cables and wiring to gas valves at the same location as they were disconnected in Steps 2 and 3, or refer to wiring diagram.
15. Under " Rating After Conversion " , write the following:
 - a. Orifice size, as stamped on orifice - #46
 - b. Maximum inlet pressure- 13" WC.
 - c. Minimum inlet pressure - 11" WC
 - d. Manifold pressure - 10" WC
 - e. Input, same as Rating Plate.
16. Under " Changes After Conversion " , write the following:
 - a. Kit number, 1NP0418
 - b. Unit model number, replace letter " N" with " P" .
 - c. Stamp or write name of organization making conversion, address, city, state, month, and year.
17. Mark the appropriate data (burner orifice size, manifold pressure and heat exchanger input capacity) on propane gas conversion labels provided and install them adjacent to unit data plate.
18. Refer to the gas heat section of the unit installation instruction for proper installation and start-up procedures.

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.

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.

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.

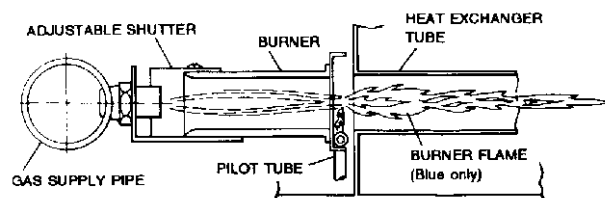


FIGURE 1 - MAIN BURNER, PILOT TUBE, GAS MANIFOLD AND ADJUSTABLE SHUTTERS

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.

12. Remove jumpers and replace all access panels.

TABLE 1: PARTS IN KIT 1NP0418

ITEM	QTY.	PART NO.	DESCRIPTION
1	8	9594	Burner Orifice, #46
2	2	9577	Pilot Orifice, #72
3	2	9580	Pilot Orifice, #76
4	2	7614	Propane Conversion Kit F92-0923
5	1	10561	Conversion / Modification Label
6	1	10407	Accessory Instruction Form

TABLE 2: ORIFICE DATA

	Recommended Orifice					
	Altitude (Ft. Above Sea Level)					
	0	2,000	3,000	4,000	5,000	6,000
	Burner/Pilot	Burner/Pilot	Burner/Pilot	Burner/Pilot	Burner/Pilot	Burner/Pilot
6 cell	46/76	46/76	46/76	47/76	48/77	48/77
8 cell	46/72	46/72	47/73	47/73	48/73	48/73

NOTE: In Canada, all conversions of units between 2,000 and 4,500 ft. of elevation should use the #48 burner orifice and #76 pilot orifice for the 6 cell and #48 burner orifice and #73 pilot orifice for the 8 cell.

