

Installation Instructions

PACKAGE CONTENTS AND USAGE


ACCESSORY PART NO.	USAGE	CONTENTS
CRNGHIAT001A00	48PD05–06, 48PG03-14	11 Burner Orifices, Drill Size No. 44, 0.086 in. 11 Burner Orifices, Drill Size No. 45, 0.082 in. 11 Burner Orifices, Drill Size No. 47, 0.079 in. 8 Burner Orifices, Drill Size No. 48, 0.076 in.

SAFETY CONSIDERATIONS

Installation and servicing of air-conditioning equipment can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair, or service air-conditioning equipment.

When working on equipment, observe precautions in the literature, tags and labels attached to the unit, and other safety precautions that may apply.

Follow all safety codes. Wear safety glasses and work gloves.

Recognize safety information. This is the safety-alert symbol . When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies a hazard which **could** result in personal injury or death. CAUTION is used to identify unsafe practices which **may** result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury and/or death.

Before beginning any modification, close the main gas supply shutoff valve. Be certain that the main line electrical disconnect switch is in the OFF position and lockout tag is installed. Tag disconnect switch and gas valve with suitable warning labels.

GENERAL

The High Altitude Conversion Kit is used to install natural gas units at elevations from 2000 ft to 7000 ft. Recommended orifice sizes will derate the heating input by approximately 4% per 1000 ft of elevation. For elevations above 7000 ft, contact the factory for availability of alternate orifice sizes. (See Table 1.)

Table 1 – Altitude Compensation*

ELEVATION (ft)	48PD, 48PG03–07 NATURAL GAS ORIFICE†	48PG08–14 NATURAL GAS ORIFICE†
0-1,999	45	43
2,000	47	44
3,000	47	44
4,000	47	44
5,000	48	45
6,000	48	45
7,000	48	47
8,000	49	47
9,000	49	47
10,000	50	48
11,000	51	49
12,000	51	50
13,000	52	50
14,000	52	51

*As the height above sea level increases, there is less oxygen per cubic foot of air. Therefore, heat input rate should be reduced at higher altitudes. Includes a 4% input reduction per each 1000 ft.

†Orifices available through your Carrier dealer.

INSTALLATION

Step 1 — Remove Gas Manifold Pipe

1. Close the manual shutoff valve on the gas supply piping.
2. Open gas section access door. (See Fig. 1.)
3. Set the switch on the main gas valve to the OFF position. (See Fig. 2.)
4. Shut off power to unit and install lockout tag.

5. Disconnect gas piping at unit gas valve.

NOTE: Use a backup wrench to avoid twisting the gas manifold pipe.

6. Remove wires connected to gas valve. Mark each wire to ensure proper reassembly.
7. Remove wires connected to the flame rollout switch. Mark wires.

8. Remove wires connected to igniter and flame sensor. Mark wires.

9. Remove the four screws that attach the gas manifold pipe to the burner bracket and rotate the pipe away from the unit. The pipe should NOT be removed from the wire bundle connecting to the IGC (integrated gas controller) board. (See Fig. 3.)

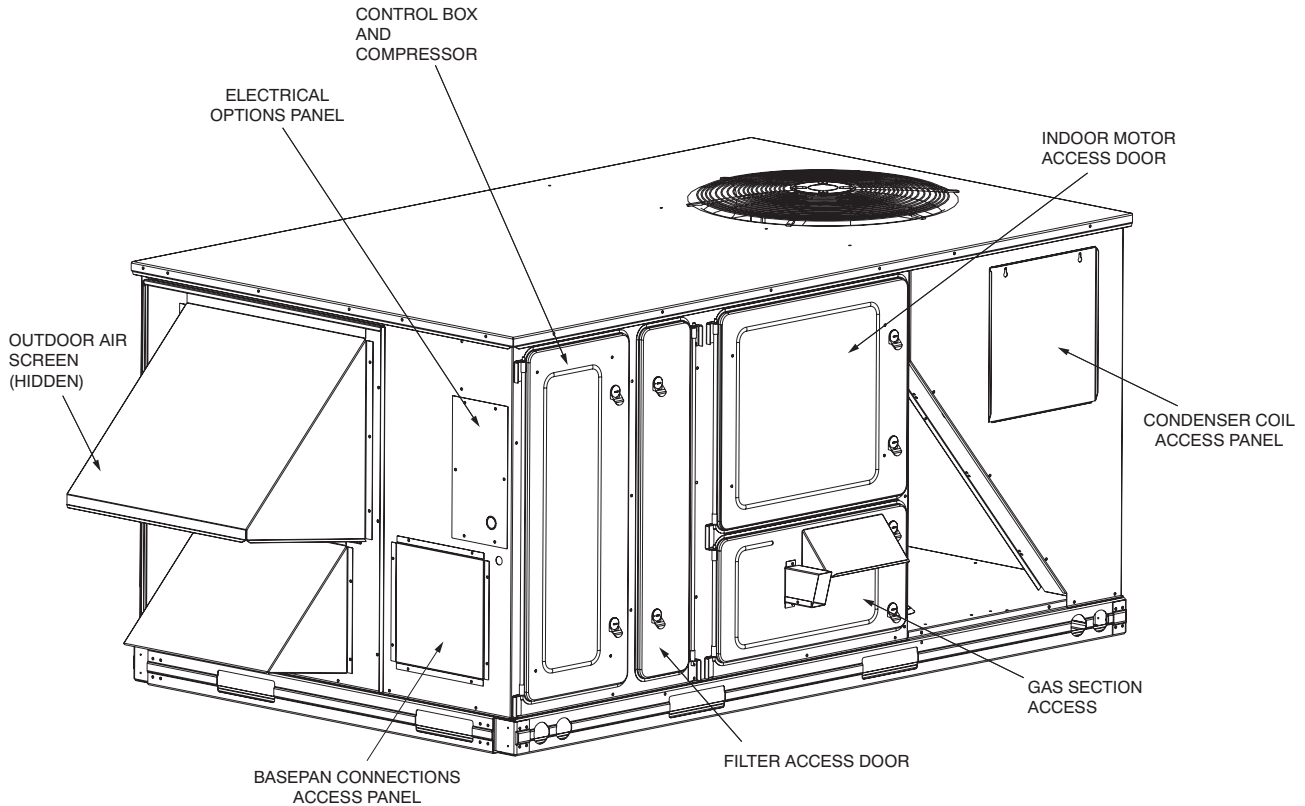


Fig. 1 - Panel and Filter Locations (48PG03-07 Unit Shown)

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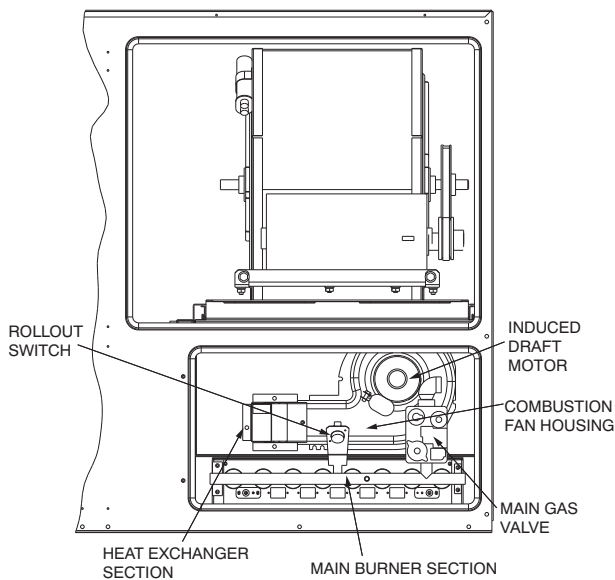


Fig. 2 - Typical Gas Heating Section

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Step 2 — Replace Orifice Fittings

1. Remove standard orifice fittings from the manifold pipe.
2. Select the correct orifice size based on local elevation. Refer to Table 1.

3. Install new orifice fittings.

NOTE: Pipe sealant is not required. Never use Teflon tape on fitting threads since loose pieces may plug gas orifices.

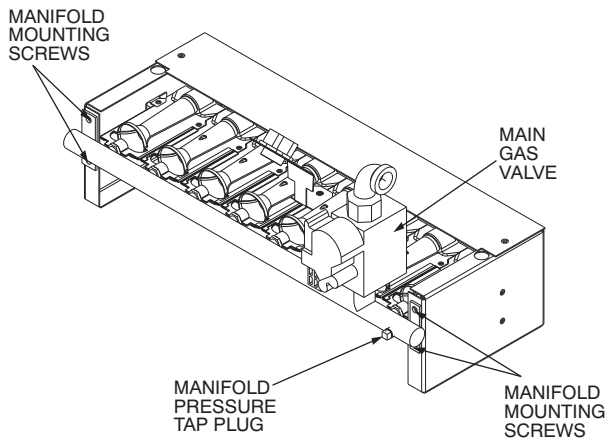
Step 3 — Reinstall Manifold Pipe

1. Attach manifold pipe to the burner bracket using four screws. (See Fig. 3.) Make sure that all orifice fittings are properly seated in the burner inlets.
2. Reconnect wires to the igniter, flame sensor, flame rollout switch, and gas valve.
3. Reconnect gas piping to the gas valve.

Step 4 — Check Unit Operation and Make Necessary Adjustments

NOTE: Gas pressure must not be less than 5-in. wg or greater than 13-in. wg at the unit connection.

1. Remove pressure tap plug from manifold pipe and connect a pressure gauge or manometer.
2. Turn on electrical supply.
3. Open the manual shutoff valve on the gas supply piping. Check pipe connection to main gas valve for leaks.
4. Set the switch on the main gas valve to the ON position.
5. Call for high stage heat (W2 energized). The unit may require several ignition attempts due to trapped air in the manifold pipe.
6. When main burners ignite check orifice fittings for leaks. Repair if necessary.



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Fig. 3 - Main Burner Section (48PG03-07 Shown)

⚠ WARNING

FIRE HAZARD

Failure to follow this warning could result in personal injury and/or death.

Never use a match or other open flame to check for leaks. Use a soap and water solution.

⚠ WARNING

EXPLOSION HAZARD

Failure to follow this warning could result in personal injury and/or death.

If unit is equipped with a 2-stage gas valve, ensure valve has energized second stage (high fire) before adjusting manifold pressure.

7. Verify that manifold pressure is between 3.2 and 3.5-in. wg while in high fire (W2 energized). Readjust pressure if necessary.

⚠ WARNING

EXPLOSION HAZARD

Failure to follow this warning could result in personal injury and/or death.

This unit is designed to operate at 3.5-in.wg (± 0.3 -in. wg) manifold pressure.

8. Shut down unit by turning down thermostat, shutting off manual gas valve, and shutting down power to unit.
9. Remove pressure gauge or manometer and replace manifold pressure tap plug.
10. Start up unit. With burners ignited, check pressure tap plug for gas leaks. Repair if necessary.
11. Close and secure gas section access door.
12. Set thermostat to desired temperature.
13. Remove warning tags from disconnect switch and gas supply shutoff valve.