

Firing Rate Conversion Kit #1009821 & 1009822

INSTALLATION INSTRUCTIONS

For Model Series CMF3 70-PG Convertible and CMF3 70-PO Convertible Furnaces

⚠ WARNING

FIRE OR EXPLOSION HAZARD

Failure to follow safety warnings exactly could result in serious injury or property damage.

– Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Leave the building immediately.
- Immediately call your gas supplier from a neighbors phone. Follow the gas suppliers instructions.
- If you cannot reach your gas supplier, call the fire department.

– Installation and service must be performed by a qualified installer, service agency or the gas supplier.

DO NOT DESTROY THIS MANUAL. READ ALL INSTRUCTIONS IN THIS MANUAL AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

⚠ WARNING

Shut off the gas supply at the manual gas shutoff valve, before disconnecting the electrical power. A fire or explosion may result causing property damage, personal injury or loss of life. Failure to follow the safety warnings exactly could result in serious injury, death or property damage.

ATTENTION INSTALLERS:

These instructions are primarily intended to assist qualified individuals experienced in the proper installation of this equipment. Some local codes require licensed installation/service personnel. All installations must be in accordance with these instructions and with all applicable national and local codes and standards.

Please read all instructions carefully before starting the installation. Return these instructions to the customer's package for future reference.

- Follow all precautions in the literature, on tags, and on labels provided with the equipment. Read and thoroughly understand the instructions provided with the equipment

prior to performing the installation and operation of the equipment.

- Use caution when handling this appliance or removing components. Personal injury can occur from sharp metal edges present in all sheet metal constructed equipment.

GENERAL INFORMATION

This conversion kit can be used to change the rated firing rate (input) of a CMF3 70 (PG or PO) convertible furnace from the factory set rate of 70,000 BTU/H. The input can be decreased to 60,000 BTU/H with the appropriate conversion kit. This set of instructions assumes the installer is familiar with and has the Installation Instructions delivered with the CMF3 furnace.

Check the kit components and make sure all of the necessary items are enclosed. The components of each kit are listed in Table 1.

CONVERSION KIT FOR CMF3 70 PG CONVERTIBLE 70 TO 60 KBTU/H INPUT	QTY
Main Burner Orifice (Natural Gas)	1
Main Burner Orifice (Liquid Propane)	1
Conversion Kit Label	1
Main Air Limit Switch	1
Installation Instructions	1

CONVERSION KIT FOR CMF3 70 PO CONVERTIBLE 70 TO 60 KBTU/H INPUT	QTY
Oil Burner Nozzle	1
Conversion Kit Label	1
Main Air Limit Switch	1
Installation Instructions	1

Table 1. Conversion Kit Items

TURNING OFF GAS TO THE APPLIANCE

1. Set the thermostat to "OFF" or to its lowest setting.
2. Turn off all electrical power to the appliance.
3. Turn the latch and open the furnace door.
4. Push in the gas control lever (or knob) and move to OFF. DO NOT FORCE LEVER.

CONVERTING THE FIRING RATE OF CMF3 70 PG SERIES FURNACES

Change the Main Burner Orifice

1. Follow instructions in the "Turning Off Gas To The Appliance" section.
2. Shut off gas supply at meter.
3. Disconnect gas burner electric cord, gas piping to burner, and thermostat leads.
4. Remove three (3) fasteners holding burner in place.
5. Remove burner assembly from unit.
6. Disconnect the two wires leading to gas control valve.
7. Remove 3 fasteners from U-shaped manifold plate and orifice assembly.

DESCRIPTION	LIMIT SWITCH	GAS TYPE	ORIFICE SIZE
CMF3 70 PG Convertible Fired at 60 KBTU/H	165-30	LP	#43
		Nat. Gas	#27
CMF3 70 PG Convertible Fired at 70 KBTU/H	170-40	LP	#41
		Nat. Gas	#22

NOTE: 0-2000' Above Sea Level

Table 2. Orifice Sizes

IMPORTANT NOTE:

Both propane (LP) and natural gas orifices are included with this kit. Make sure the proper orifice is installed and the old orifices are discarded (both Nat. and LP).

- Remove the main orifice and replace it with the alternate fuel orifice supplied in this kit. See Table 2.
- Reconnect the manifold plate using the fasteners that were removed in step 2.
- Connect the 2 wires to the gas control valve.
- Reposition the burner back into the furnace and secure with 3 fasteners removed in step 2.
- Reconnect the gas piping to the burner making sure of no leaks.
- Reconnect electric cord and thermostat leads.

Set the Blower Speed & Check Operation

- Open the electric box underneath the vestibule divider (left-hand side of the furnace) by removing the single screw in the center of the plate.
 - The blower speed must be set to the one associated with the firing rate change. Connect the low-speed blower wire (red) for 70 to 60 KBTU/H firing rate conversions.
 - The kit includes 2 labels. The first label must be applied near the rating label. The other label must be applied over the corresponding label on the burner to update that information. If the burner labels are dirty clean them with water and mild detergent.
- Disconnect the terminals from the main air limit and remove the 2 fasteners holding the limit in place.
- Replace the main air limit with the alternate limit supplied in the kit. See Table 2. Secure with fasteners and reconnect the terminals.
- Adjust the air setting of the burner as described in the "Adjusting the Burner" section of the furnace Installation Instructions.
- Open the manual shut-off valve. Follow the "Operating Instructions" as outlined in the CMF3 furnace Installation Instructions provided with furnace.

TURNING OFF OIL TO THE APPLIANCE

- Set the thermostat to "OFF" or to its lowest setting.
- Turn off all electrical power to the appliance.
- Turn the latch and open the furnace door.
- Shut off the oil supply at the tank.

CONVERTING THE FIRING RATE OF THE CMF3 70 PO CONVERTIBLE SERIES

Replace the Oil Nozzle

- Follow instructions in the "Turning Off Oil To The Appliance" section.
- Disconnect electric cord, oil piping & thermostat leads.
- Remove 3 fasteners holding burner in place.
- Remove burner from furnace.
- Remove the Oil Nozzle and Replace it with the Nozzle from the Kit. See Table 3.

INPUT (BTU/H)	NOZZLE TYPE	LIMIT SWITCH	PUMP PRESSURE
60,000	.40 GPH, °80, A	145-30	150 psi
70,000	.50 GPH, °80, A	150-40	120 psi

Table 3. CMF3 Nozzle Type and Pump Pressure

- Reposition the burner back into the furnace and secure with three (3) fasteners removed earlier. (Refer to step B-3).
- Reconnect the oil piping to the burner. **NOTE:** Visually inspect connection and make sure there are no leaks.
- Reconnect electric cord and thermostat leads.

Set the Blower Speed & Check Operation

- Open the electric box underneath the vestibule divider (left-hand side of the furnace) by removing the single screw in the center of the plate.
 - The blower speed must be set to the one associated with the firing rate change. Connect the low-speed blower wire (red) for 70 to 60 KBTU/H conversions.
 - The kit includes 2 labels. The first label must be applied near the rating label. The other label must be applied over the corresponding label on the burner to update that information. If the burner labels are dirty clean them with water and mild detergent.
- Disconnect the terminals from the main air limit and remove the 2 fasteners holding the limit in place.
- Replace the main air limit with the alternate limit supplied in the kit. See Table 3. Secure with fasteners and reconnect the terminals.
- Adjust the air setting of the burner as described in the "Adjusting the Burner" section of the furnace Installation Instructions.
- Adjust oil pump pressure.
- Open the manual shut-off valve & follow the "Operating Instructions" as outlined in the CMF3 Furnace Installation Instructions.

