

GAS CONVERSION INSTRUCTIONS

OUTDOOR TRADITIONAL FIREPLACE

APPLIANCE MODEL NUMBER	NAT TO LP CONVERSION KIT NUMBER	LP TO NAT CONVERSION KIT NUMBER
OP36FP32M, ONR24	31996	31997
OP42FP32M, ONR30	31998	31999

WARNING

This conversion kit is to be installed by an Empire Comfort Systems, Inc., distributor (or other qualified agency¹)*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.

¹National Fuel Gas Code Z223.1 (Latest Edition)

*The term "qualified individual, firm, corporation or company which either in person or through a representative is engaged in and is responsible for (a) the installation of gas piping or (b) the connection, installation repair, or servicing of equipment, who is experienced in such work, familiar with all precautions required, and has complied with all the requirements of the authority having jurisdiction.

CHECK SAFETY SHUTDOWN PERFORMANCE

WARNING

Perform the safety shutdown test anytime work is done on a gas system to avoid the possibility of fire or explosion with property damage, personal injury or loss of life.

SAFETY SHUTDOWN SYSTEM

Continuous Ignition Systems (Standing Pilot)

1. Place gas control knob in PILOT position. Main burner should go off and pilot should remain lit.
2. Extinguish pilot flame. Pilot gas flow should stop within 30 seconds. Safety shutoff of pilot gas proves complete shutdown since safety shutoff valve blocks flow of gas to main burner and pilot.
3. Re-light pilot burner and operate system through one complete cycle to make sure all controls operate properly.

PARTS LIST					
DESCRIPTION	31996 (NAT to LP)	31997 (LP to NAT)	31998 (NAT to LP)	31999 (LP to NAT)	QUANTITY SUPPLIED
Model Number	OP36FP32M	OP36FP32M	OP42FP32M	OP42FP32M	
Main Burner Orifice	P-276 (# 45)	P-280 (# 29)	P-276 (# 45)	P-280 (# 29)	1
Regulator Assy.	R-7550	R-7549	R-7550	R-7549	1
Pilot Injector orifice	R-1205	R-1206	R-1205	R-1206	1
Gas Conversion Label	23442-2139	23442-2139	23442-2139	23442-2139	1

Gas input for outdoor fireplaces:

OP36FP32M - 50,000 BTU/hr

OP42FP32M - 50,000 BTU/hr

- The gas fireplace when converted to Natural gas will have a manifold pressure of approximately 3.5" w.c. (.871kPa) at the valve outlet with the inlet pressure to the valve from a minimum 4.5" w.c. (1.120kPa) for the purpose of input adjustment to a maximum of 14.0" w.c. (3.484kPa).
- The gas fireplace when converted to Propane gas will have a manifold pressure approximately 10.0" w.c. (2.49kPa) at the valve outlet with the inlet pressure to the valve from a minimum of 10.8" w.c. (2.68kPa) for the purpose of input adjustment to a maximum of 14.0" w.c. (3.48kPa).

1. If the fireplace is installed, turn OFF gas and the electric supply to the fireplace before making gas conversion.
2. Open the screen curtains, or remove the glass doors if installed.
3. Remove the concrete hearth ledges and set aside.
4. Remove all logs from the burner and set in a safe location.
5. Remove the Rear Log support shelf by simply lifting off the pins on the burner leg brackets and set aside.
6. Remove (4) # 10 x 1/2" hex head screws securing the Right and Left burner support legs to the firebox bottom.
7. Disconnect the gas supply line near the gas valve so the burner can be removed.
8. Remove the complete burner assembly from the firebox cavity.
9. To change out the pilot injector orifice, carefully support the pilot assembly using a 1/2" wrench while using a 7/16" wrench to loosen the pilot tubing nut located under the pilot assembly. Lift the pilot upward off of the tubing, then remove the small pilot injector orifice.
10. Replace the small pilot injector orifice with the required one included in the conversion kit, for the gas type being converted to. Check that the orifice size matches the ones listed in the parts list chart above.
11. With the new injector inserted up into the pilot assembly, re-install the pilot tubing to the pilot assembly, then tighten the fitting to the pilot to complete the pilot conversion.
12. Disconnect the manifold tubing at the orifice holder using a 7/16" wrench, then turn the orifice holder counter-clockwise out of the air shutter.
13. To remove the main burner orifice from the orifice holder, use a 3/8" wrench on the orifice while at the same time hold a 5/8" wrench on the orifice holder.
14. Install the correct main burner orifice for the gas type being converted to. Verify that the orifice number included in the conversion kit matches the size specified for the fireplace model, and the gas type being converted to. Refer to the parts list chart above.
15. Re-install the orifice holder into the air shutter, then re-attach the manifold tubing to the orifice holder.

16. Adjust the air shutter setting. The air shutter is located on the end of the venture tube under the burner assembly. Using a 1/4" nut driver, adjust the air shutter opening in accordance with the following settings:

OP36FP32MN 1/8" open

OP36FP32MP Full open

OP42FP32MN 1/8" open

OP42FP32MP Full open

17. Once the air shutter setting is made, re-tighten the air shutter screw.
18. Locate the gas valve. Using a small Philips screwdriver, carefully remove (2) screws that secure the HI/LO regulator to the valve body and set aside.
19. Find the conversion regulator included in the Conversion kit and install it to the valve body with the (2) Philips screws removed in step 17.
20. Re-install the complete burner assembly into the firebox.
21. Re-install the (4) # 10 x 1/2" screws that secure the Right and Left burner brackets to the firebox bottom.
22. Re-connect the gas supply line near the gas valve.
23. Before replacing the Rear Log shelf and Log set, test fire the burner for proper operation.
24. Check all gas connections for leaks.
25. Verify the proper gas line and manifold pressures are correct. Natural gas manifold pressure to be at 3.5" WC, and LP (propane) gas manifold pressure to be at 10.0" WC.
26. Replace the Rear Log support shelf.
27. Replace the Log set. Refer to the fireplace Installation instructions for proper positioning and placement.

The main burner flame and pilot burner flame must be checked for proper flame characteristics, as outlined in the Installation Instructions and Owner's Manual.

Verifying Input Rate of Converted Fireplace

The input of the fireplace must be checked as follows:

1. Turn off all other gas appliances. Clock the gas meter and determine the number of seconds required to consume one cubic foot of gas.
2. $3600 \div \text{time (in seconds)} = \text{cu. Ft. per hour.}$
3. Then $\text{cu. Ft. per hour} \times \text{heating value of gas} = \text{input rate (Btuh)}$. On installation without gas meters, check manifold for proper pressure.

If fireplace or fireplace insert is not installed or warranty card has not been returned to Empire Comfort System's, Inc., check off type of gas converted to on card. Also, indicate conversion by adding "Conv." behind type of gas.



Empire Comfort Systems Inc.
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If you have a general question about our products, please e-mail us at info@empirecomfort.com.

If you have a service or repair question, please contact your dealer.

www.empirecomfort.com