

GAS CONVERSION INSTRUCTIONS

“B-VENT” FIREPLACES

Model	Conversion Kit Model (Part Number)
(A)BVD34FP3 SERIES	BVCK34P (19160)
(A)BVD36FP3 SERIES	BVCK36P (19161)
(A)BVP42FP3 SERIES	BVCK42P (19162)

FOR CONVERSION TO LIQUEFIED PETROLEUM GAS

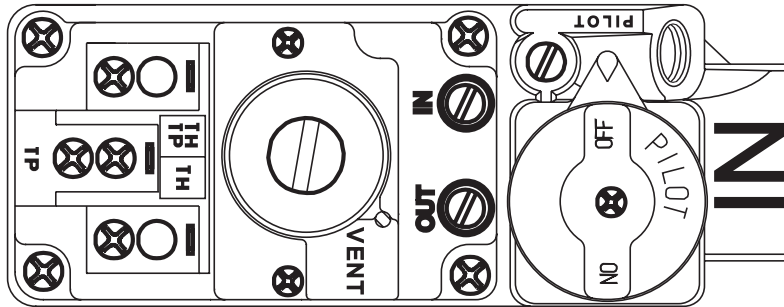
WARNING

This conversion kit is to be installed by an Empire Comfort Systems, Inc. dealer (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.

¹ National Fuel Gas Code Z223.1 (Latest Edition), Natural Gas and Propane Installation Code, CSA B149.1

*The term “qualified agency” means any 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.

Valve



CHECK SAFETY SHUTDOWN PERFORMANCE

WARNING

Perform the safety shutdown test any time 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

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 3 minutes. Safety shutoff of pilot gas proves complete shutdown since safety shutoff valve blocks flow of gas to main burner and pilot.
3. Wait 5 minutes, then relight pilot burner and operate system through one complete cycle to make sure all controls operate properly.

PARTS LIST				
Conversion Kit Model	BVCK34P	BVCK36P	BVCK42P	
Part Description	Kit No. 19160	Kit No. 19161	Kit No. 19162	Quantity. Supplied
Fireplace	(A)BVD34FP3 SERIES	(A)BVD36FP3 SERIES	(A)BVP42FP3 SERIES	
Pilot Orifice	#35 (R-7658)	#35 (R-7658)	#35 (R-7658)	1
Main Burner Orifice	P-289 1.35mm	P-208 1.45mm	P-250 1.65mm	1
Dexen 10" w.c. Regulator	R-7548	R-7548	R-7548	1
Gas Conversion Label	2139	2139	2139	1

Gas input for "B-Vent" fireplace converted to Liquefied Petroleum Gas:

(A)BVD34FP3 SERIES	21,000 BTU per hour
(A)BVD36FP3 SERIES	25,000 BTU per hour
(A)BVP42FP3 SERIES	30,000 BTU per hour

The "B-Vent" fireplace when converted to LP Gas will have manifold pressure of 10.0" w.c. at the valve outlet with the inlet pressure to the valve from a minimum of 10.8" w.c., for the purpose of input adjustment, to a maximum of 14.0" w.c.

INSTRUCTIONS FOR CONVERSION

1. If the fireplace is installed, turn off gas and electric supply before making the gas conversion.
2. Identify the fireplace model to be converted, and read all instruction steps prior to converting the gas valve.
3. Remove all logs from the burner assembly.
4. Open the sliding valve access door.
5. Depress and turn the gas cock dial to the "OFF" position.

VALVE CONVERSION

6. Remove two (2) screws, regulator, and gasket from gas valve control body.
7. Install the new gasket, regulator marked 10.0, and two (2) screws. Tighten screws securely.

BURNER ORIFICE CONVERSION - Tube style burners

- 8a. On models (A)BVD(34,36)FP3 series fireplaces, you will have a U-shaped burner tube. To gain access to the main orifice, simply bend over the small retainer tab located at the front right end of the tube using pliers.
- 9a. Remove the 1/4" long screw from the air shutter at the left end of the tube.
- 10a. Pull up on the back of the burner and rotate forward to gain access to the main orifice. Remove the orifice and replace with the LP orifice designated in the orifice reference chart. Secure the new orifice.
- 11a. Pivot the burner tube back down in its original position mating with the air shutter, and reinstall the 1/4" long screw. Set the air shutter opening in accordance with the dimension shown in the reference chart for the appropriate model fireplace.

BURNER ORIFICE CONVERSION - Slope style burners

- 8b. On model (A)BVP42FP3 series fireplaces, you will have a rectangular slope style burner. To gain access to the main orifice, disconnect the gas supply tubing at the air shutter.
- 9b. Remove the orifice holder from the air shutter, then remove the NG orifice.
- 10b. Replace the removed NG orifice with the new LP orifice designated in the orifice reference chart for your fireplace model. Secure the new orifice and replace the orifice/orifice holder back into the air shutter and secure.
- 11b. Loosen the air shutter screw and reset the air shutter opening in accordance with the dimension shown in the reference chart for the appropriate model fireplace.

PILOT ORIFICE CONVERSION

12. Locate the pilot assembly.
13. Pull upward on the round pilot flame hood to remove.
14. Using a 5/32" Hex Allen wrench, remove the pilot orifice, then replace with the new pilot orifice marked #35.

IMPORTANT: Failure to install the correct orifice will result in unit over-firing that could overheat the appliance and result in a fire.

15. Refer to log placement found in your fireplace installation manual to place logs onto the burner assembly.
16. Loosen screw and attach a manometer or pressure gauge to the outlet pressure tap of the control valve.
17. Turn on the gas supply. Turn on the electrical supply to the appliance. Check for gas leaks using a soap and water solution or leak detection solution. Bubbles indicate a leak that MUST be corrected. Do not use an open flame to test for gas leaks.

INSTRUCTIONS FOR CONVERSION (cont.)

18. Check the air shutter opening. See chart and illustration below.
19. Relight the main burners and verify proper burner ignition and operation.
20. With the main burner burning, read the pressure on the manometer or pressure gauge. The pressure on the gauge should read between 9.8" and 10.2" w.c.
21. Turn off the gas supply. Turn off the electrical supply to the appliance.
22. Remove the manometer or pressure gage. Tighten the screw in the pressure tap.
23. Turn on the gas supply. Turn on the electrical supply to the appliance.
24. Immediately test all gas line connections and the control valve for gas leaks using a soap and water solution or gas detection solution. Bubbles indicate a leak that **MUST** be corrected. Do not use an open flame to check for gas leaks.
25. Using a ball point pen, fill out the conversion label that is supplied with the conversion kit. Place the conversion label adjacent to the rating plate.
26. Test operation of fireplace once again. Allow the fireplace to operate for at least 10 minutes and check flame coloration. Flame on rear of burner should be yellow without any orange-colored tip. Minor adjustment of the air shutter may be necessary to "tune in" the proper flame color.

The burner flame and pilot 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.

Note: The rate noted on the data plate is measured after 45 minutes of continuous operation and adjusted for test conditions such as temperature, and barometric pressure. The above procedure is a check for correct conversion only.

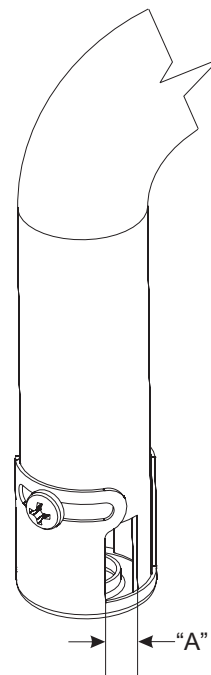
PLACEMENT OF GAS CONVERSION LABEL

Conversion label 2139 is to be filled out completely and placed with the data plate attached near the valve.

If the appliance has not been installed, or a warranty card has not been returned to Empire Comfort Systems, Inc., check off type of gas converted to on card (for reference once the unit is installed). Also, indicate conversion by adding "Conv." behind gas.

MODEL	AIR SHUTTER SETTINGS	BURNER ORIFICE
	Opening "A"	Propane/LP
(A)BVD34	5/16" (7.9 mm)	1.35 mm P-289
(A)BVD36	5/16" (7.9 mm)	1.45 mm P-208
(A)BVP42	FULL OPEN	1.65 mm P-250

Air shutter settings shown are factory settings. Some venting configurations may require minor air shutter adjustments for optimum performance.





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