P/N 900861-06
Rev. NC, 10/2017

ECOFLOW GAS CONVERSION KITS

GAS CONVERSION KIT FOR FIREPLACES WITH ELECTRONIC IGNITION - NATURAL GAS TO PROPANE GAS

[FOR USE IN FIREPLACE MODELS BARCELONA LIGHTS™ AND VRE4600 SERIES]

KIT CONTENTS

(1) OAS-LP# (Brass orifice) and
(1) ECO-LSS# (Brass low rate set screw),
(1) LP Conversion label (placed next to blank space on rating label,
(1) Installation Instruction Sheet



Main Burner Orifice
(OAS-LP#)



Low Rate Set Screw
(ECO-LSS-#)

Figure 1 - Kit Contents

Gas Conversion Kits, Natural Gas (NG) to Propane Gas (LP)		
Cat. No.	**Model**	**Ecoflow Electronic Model Fireplaces**
F3502	LPK 1	BarcelonaLights36ZEN & VRE4636ZEN
F3503	LPK 2	BarcelonaLights48ZEN & VRE4648ZEN
F3504	LPK 3	BarcelonaLights60ZEN & VRE4660ZEN
F3505	LPK 4	BarcelonaLights72ZEN & VRE4672ZEN

Table 1

REQUIRED TOOLS AND SUPPLIES

Flat Bladed Screwdriver
Needle Nose Pliers
Pipe Joint Compound or Teflon Tape
Gas Leak Test Solution

TURN OFF THE GAS SUPPLY TO THE APPLIANCE. DISCONNECT ELECTRICAL POWER SUPPLY.

READ ALL THE STEPS BEFORE STARTING THE CONVERSION. INSTALLER NOTICE: THESE INSTRUCTIONS MUST BE LEFT WITH THE APPLIANCE.

When installing gas components use pipe joint compound or Teflon tape on all pipe fittings before installing (Do not use pipe joint compounds on flare fittings).

THE APPLIANCE MUST BE OFF AND COLD BEFORE PERFORMING THE GAS CONVERSION.

ALL WARNINGS, PRECAUTIONS AND INSTRUCTIONS IN THE INSTALLATION AND OPERATION MANUAL PROVIDED WITH THE APPLIANCE APPLY TO THESE INSTRUCTIONS.

⚠ 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 performing this installation is responsible for the proper installation of this kit and assumes responsibility for this conversion. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturers instructions supplied with the kit.

⚠ AVERTISSEMENT

Cet équipement de conversion sera installé par une agence qualifiée de service conformément aux instructions du fabricant et toutes exigences et codes applicables de l'autorisés avoir la juridiction. Si l'information dans cette instruction n'est pas suivie exactement, un feu, explosion ou production de protoxyde de carbone peut résulter le dommages causer de propriété, perte ou blessure personnelle de vie. L'agence qualifiée de service est esponsable de l'installation propre de cet équipment. L'installation n'est pas propre et compléte jusqu'à l'opération de l'appareil converti est chéque suivant les critères établis dans les instructions de propriétaire provisionnées avec l'équipement.

⚠ IMPORTANT CANADA

The conversion shall be carried out in accordance with the requirements of the provincial authorities having jurisdiction and in accordance with the requirements of the CAN/CSA B149.1 Installation code.

⚠ IMPORTANT LE CANADA SEULEMENT

La conversion devra être effectuée conformément aux recommandations des autorités provinciales ayant juridiction et conformément aux exigences du code d'installation CAN/CSA B149.1.

GENERAL INFORMATION

Gas conversion kits are available to adapt the fireplace from the use of one type of gas to the use of another. These kits contain all the necessary components needed to complete the task including labeling that must be affixed to ensure safe operation.

⚠ IMPORTANT

The burner orifice provided in this kit are only for use at elevations of 0 to 2,000 feet (610 M) in the USA and 0 to 4,500 feet (0-1372 M) in Canada. At higher elevations the BTU input must be de-rated by 4% for every 1,000 feet (305 M) to maintain the proper ratio of gas to air. If the installer must convert the unit to adjust for varying altitudes, a deration information sticker must be filled out by the installer and adhered to the appliance at the time of the conversion. Contact your local gas supplier for deration requirements for your area.

⚠ CAUTION

The gas supply shall be shut OFF prior to disconnecting the electrical power, before proceeding with the conversion.

⚠ ATTENTION

Avant d'effecteur la conversion, coupez d'abord l'alimentation en gaz, ensuite, coupez l'alimentation electrique.

GAS CONVERSION INSTRUCTIONS

IMPORTANT NOTE: When installing gas components use pipe joint compound or Teflon tape on all pipe fittings before installing (ensure propane resistant compounds are used, do not use pipe joint compounds on flare fittings).

Step 1. TURN OFF THE GAS SUPPLY TO THE FIREPLACE and disconnect power supply at the circuit breaker. Ensure fireplace is cold.

Step 2. Remove the burner pan from the fireplace to enable conversion access. See installation manual if necessary.

Step 3. Disconnect the flex line at the main burner orifice. Then remove the orifice and flared fitting from the orifice. Re-tape the flared fitting with the new OAS-LP orifice per ***Table 2***. Ensure to use gas rated Teflon tape around the threads or pipe compound. Check for leaks after conversion is complete.

Model	Main Burner Orifice	Low Rate Set Screw
LPK1 (36" Fireplace)	OAS-LP52	ECO-LSS-52
LPK2 (48" Fireplace)	OAS-LP48	ECO-LSS-46
LPK3 (60" Fireplace)	OAS-LP44	ECO-LSS-42
LPK4 (72" Fireplace)	OAS-LP42	ECO-LSS-35

Table 2 - Reference Information

Step 4. Locate the gas regulator on the opposite side of the valve box. Using a regular size flat bladed screwdriver remove the aluminum cap and washer from the regulator. See ***Figure 2***.

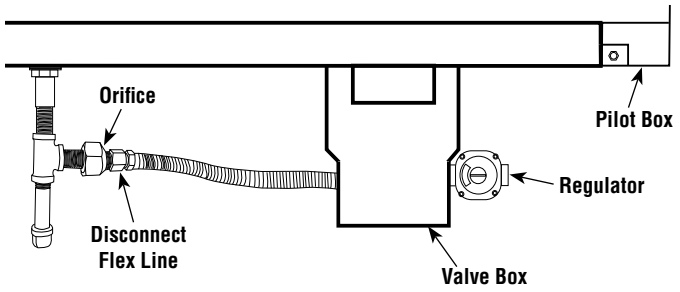


Figure 2 - Changing Main Burner Orifice

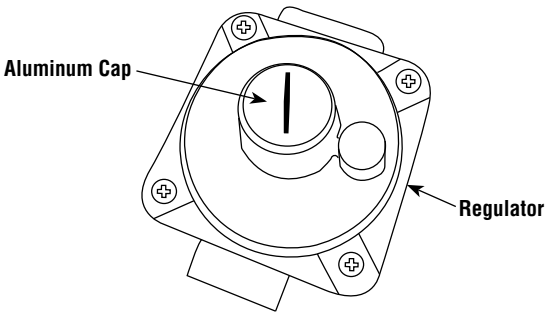


Figure 3 - Regulator Cap Location

Step 5. On the underneath side of the aluminum cap is a plastic stem. Using a 6mm wrench remove the stem, unscrew the stem (counter-clockwise), turn it over and install the opposite end back into the cap. See ***Figure 4***.

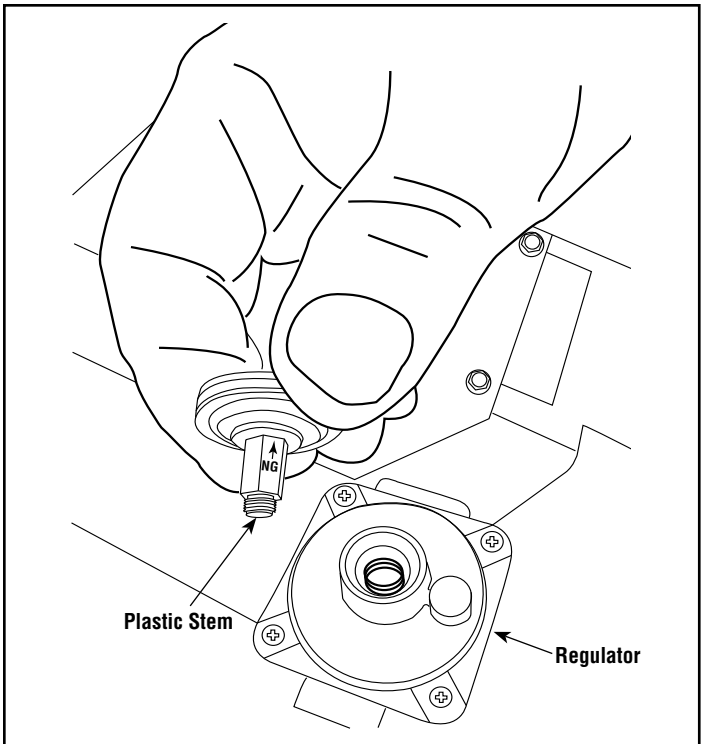


Figure 4 - Regulator Stem Shown in NG Setting

***NOTE**: The plastic stem has a marking on it with an arrow. Look carefully on the stem, it may be difficult to read.*

The gas type is determined with the arrow pointing at the aluminum cap as seen in ***Figures 4 and 5***.

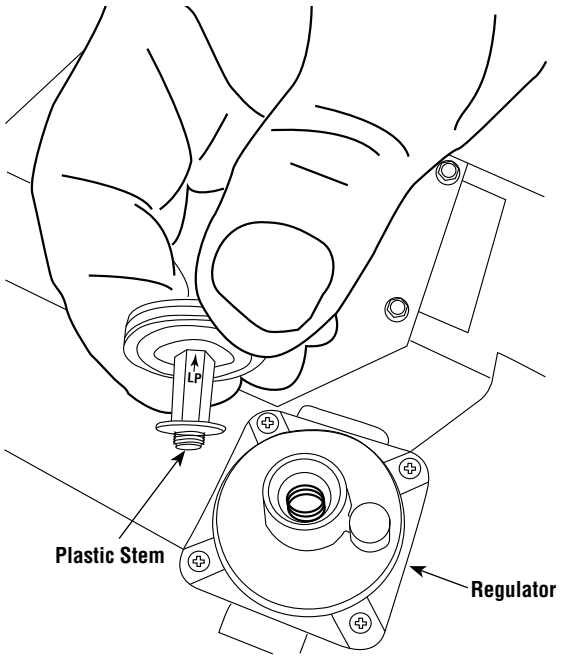


Figure 5 - Regulator Stem Shown in LP Setting

CAUTION: ENSURE THE ALUMINUM CAP IS INSTALLED WITH THE PLASTIC STEM SEATED COMPLETELY INTO THE CAP AND THE METAL WASHER IS INSTALLED WITH THE ALUMINUM CAP.

Step 6. Secure the aluminum cap with a screwdriver.

Step 7. On the end of the burner pan where the pilot is located *(see **Figure 6**)*, remove the four (4) 1/4" hex head screws securing the metal pilot box. Two screws are located inside the burner pan, one on each side of the igniter box screen mesh hood and the other two are securing a metal tab on each side of the pilot box. See ***Figure 6*** for screw locations.

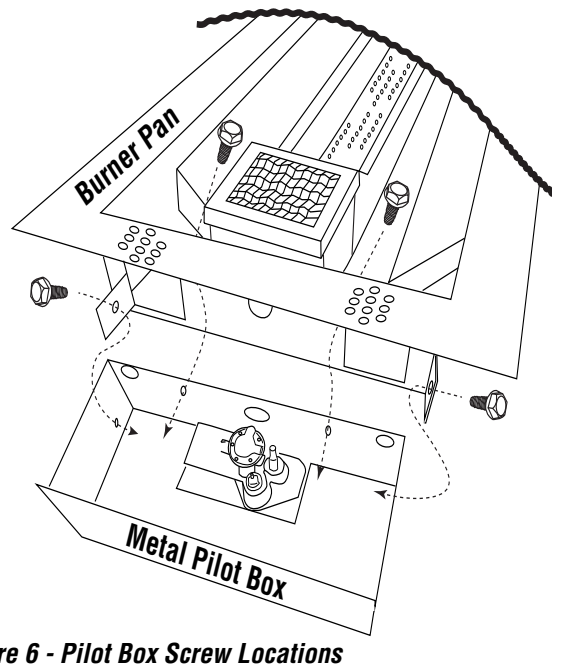


Figure 6 - Pilot Box Screw Locations

Step 8. Once the pilot box is loosen and exposes the pilot assembly then proceed to removing the pilot hood.

The pilot hood will lift straight up and out of the pilot assembly after removing the wire clip with a small screwdriver or needle-nose pliers. See ***Figure 7***.

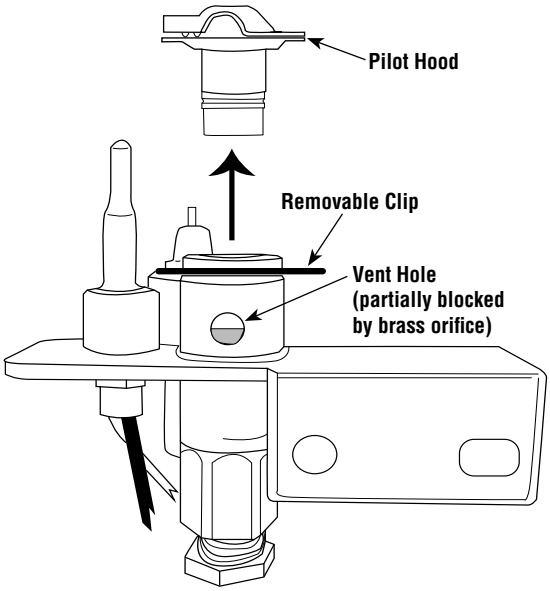


Figure 7 - Pilot Hood Removal

Step 9. Insert a small flat bladed screwdriver into the slot of the brass orifice inside the pilot assembly and turn clockwise ↷ until it stops (approximately 2 full revolutions). See ***Figure 8***.

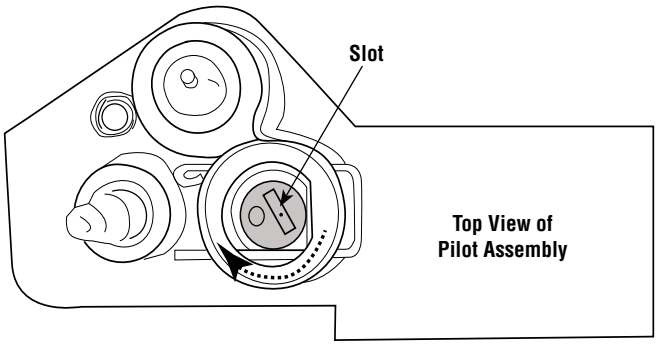


Figure 8 - Shows Slot Inside Pilot Orifice

Once the orifice has been converted to LP then re-install the pilot hood, ensure the clip is in place (if removed) and mount the metal pilot box back into place ins the same manner you removed it from the burner pan. See ***Figure 6*** as a reference.

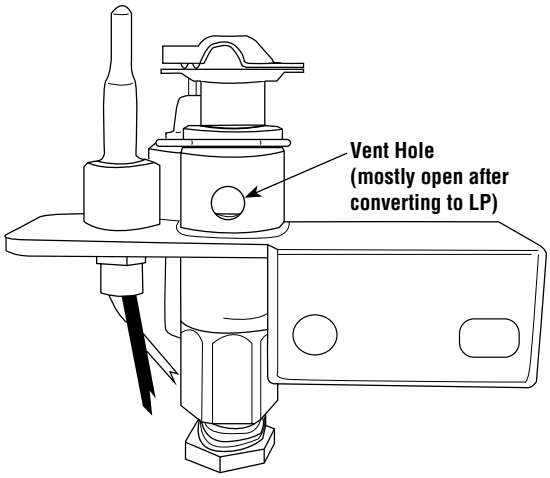


Figure 9 - Pilot Assembly Converted to LP

***NOTE**: **Figures 51 and 52** provide a visual reference of the pilot orifice from Natural gas to LP gas through the vent hole of the pilot assembly.*

Step 10. Look for the low rate set screw in the gas valve box. There is a cutout (window) area that allows access to the low rate set screw. ***Figure 10*** shows the side view of the burner pan and a close-up detail.

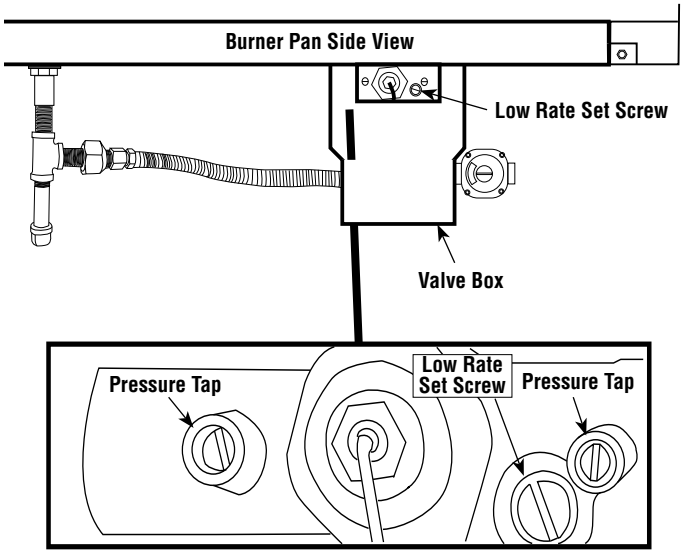


Figure 10 - Detailed Location of Low Rate Set Screw

Step 11. Remove the low rate set screw with a flat bladed screwdriver turning the screw counter-clockwise ↶. The set screw has a rubber "O" ring on the outer portion of the screw, as a result the screw will rotate only 3-4 revolutions and not unscrew any farther.

***NOTE**: If you drop the low rate screw inside the valve area you can retrieve it through the access door of the valve box.*

Step 12. Remove the low rate set screw using a small pair of needle-nose pliers. Grab the outer edge of the screw and pull outward.

Step 13. Insert the correct new low rate screw from ***Table 3*** with the needle-nose pliers. Secure the new low rate set screw (clockwise ↷) with screwdriver until it is tight and now longer spins.

CAUTION: DO NOT REMOVE OR LOOSEN THE SMALL SET SCREWS ON EACH SIDE OF THE V-WIRE. THESE ARE PRESSURE TEST PORTS. IF THESE ARE LOOSENED THEY MUST BE RE-TIGHTENED TO ENSURE NO GAS LEAKS OCCUR.

Step 14. Ensure you test the burner pan after it is installed into the fireplace. Turn on gas supply and test for gas leaks, using a gas leak test solution—also known as bubble leak solution.

***NOTE**: Using a soapy water solution is an effective leak test solution but it is not recommended, because the soap residue that is left on the pipes/fittings can result in corrosion over time.*

A. Light the fireplace (refer to the lighting instructions label on the appliance).
B. Brush all joints and connections with the gas leak test solution to check for leaks. If bubbles are formed, or gas odor is detected, turn off the appliance. Either tighten or refasten the leaking connection, and then retest as described above.
C. When the gas lines are tested and leak free, rinse off the leak testing solution.

⚠ WARNING

Never use an open flame to check for leaks.

Step 15. Fill out the label "This fireplace has been converted to LP gas" and affix it to the blank area on the rating plate.

Step 16. Conversion is now complete.

REFERENCE INFORMATION

Model:	LP Orifice	LP BTU's High	LP BTU's Low	LP Low Rate Screw
BarcelonaLights36ZEN and VRE4636ZEN	#52	30,000 (8.79 kWh)	19,500 (5.72 kWh)	#52
BarcelonaLights48ZEN and VRE4648ZEN	#48	42,500 (12.46 kWh)	29,000 (8.50 kWh)	#46
BarcelonaLights60ZEN and VRE4660ZEN	#44	50,000 (14.65 kWh)	36,000 (10.55 kWh)	#42
BarcelonaLights72ZEN and VRE4672ZEN	#42	60,000 (17.58 kWh)	45,000 (13.19 kWh)	#35

Table 3 - Fireplace Input Specifications

Inlet Gas Pressure	
	Propane (LP)
Minimum Inlet	10.5" WC (2.61 kPa)
Maximum Inlet	13.0" WC (3.23 kPa)
Normal Inlet	11.0" WC (2.74 kPa)
Manifold Gas Pressure	
	Propane (LP)
Normal Manifold	10.0" WC (2.49 kPa)

Table 4 - Gas Pressures

REFERENCE INFORMATION (continued)

Proper Flame Height

Proper flame height *(**Figure 11**)* should be at the top edge of glass windshield (peaking above at times) while on HI setting. The LO setting will be at least half of the height of HI or maybe lower. There can be a variance in flame height between Natural gas and Liquid Propane (LP) gas models.

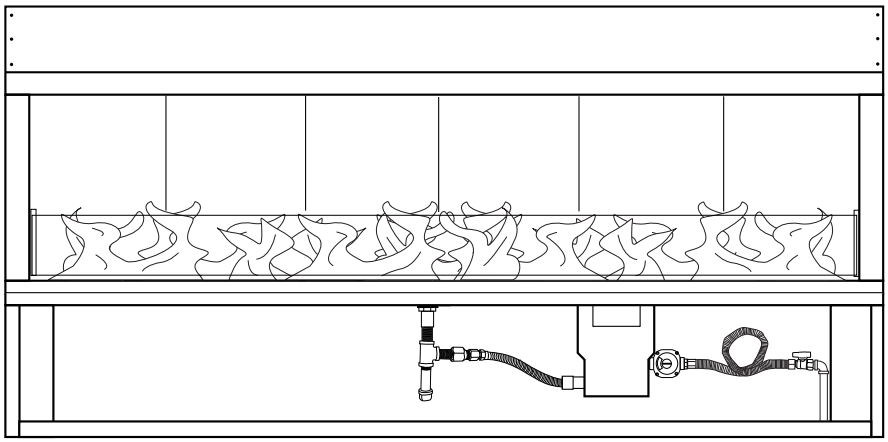


Figure 11 - Proper Flame Height

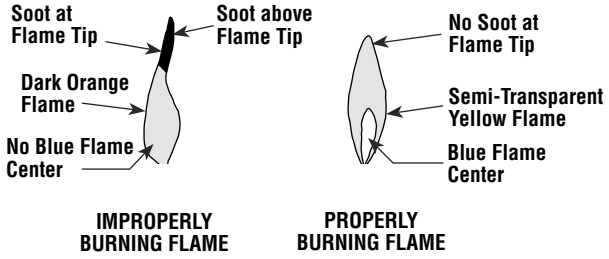


Figure 12 - Burner Flame Appearance

IHP reserves the right to make changes at any time, without notice, in design, materials, specifications, prices and also to discontinue colors, styles and products. Consult your local distributor for fireplace code information.

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