



HEARTH PRODUCTS

HEARTH PRODUCTS  
KITS AND ACCESSORIES

775,238M  
Rev. A, 12/2007

RAVENNA™ GAS CONVERSION INSTRUCTIONS LP TO NG  
CAT. NO. H5434, MODEL RDV-CK-LP TO NG

INSTALLATION INSTRUCTIONS FOR CONVERTING FROM PROPANE GAS (LP) TO  
NATURAL GAS (NG). FOR USE WITH THE RAVENNA™ DIRECT VENT GAS FIREPLACE INSERTS

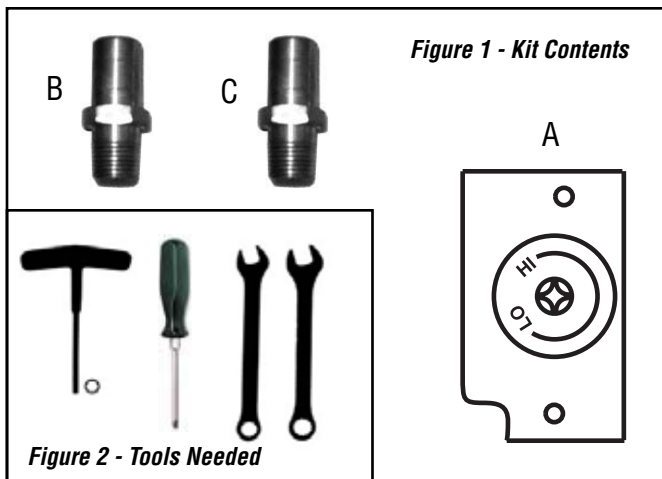
ELITE™ SERIES

**KIT CONTENTS (See Figure 1):**

- 1 ea. Robertshaw NG Regulator Kit (A)
- 1 ea. 1/8" NG main burner orifice (40,000 BTU's) (B)
- 1 ea. #36 NG main burner orifice (33,000 BTU's) (C)
- 1 ea. RDV 33 Sticker
- 1 ea. Instruction Sheet

**TOOLS NEEDED (See Figure 2):**

- 5/32" Allen Wrench Or T-Handle Wrench
- Phillips Screwdriver
- 1/2" Open End Wrench
- 7/16" Open End Wrench



**⚠ 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 équipement. L'installation n'est pas propre et complète jusqu'à l'opération de l'appareil converti est chèque 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 .

**⚠ 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.

**⚠ IMPORTANT**

The burner orifices 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.

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

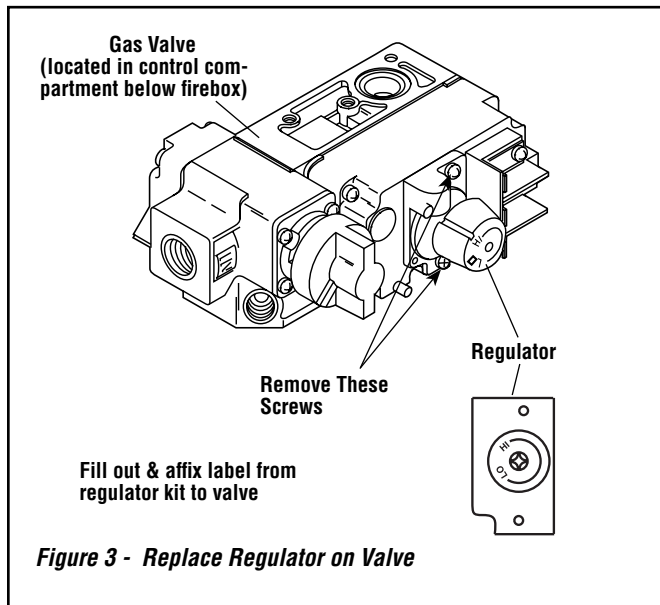
This kit contains components required to convert this appliance from using Propane Gas to using Natural Gas as the only fuel. All of these components must be replaced in order for the unit to operate safely on Natural Gas.

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).

## INSTALLATION INSTRUCTIONS

**Step 1. TURN OFF THE GAS SUPPLY TO THE APPLIANCE.**

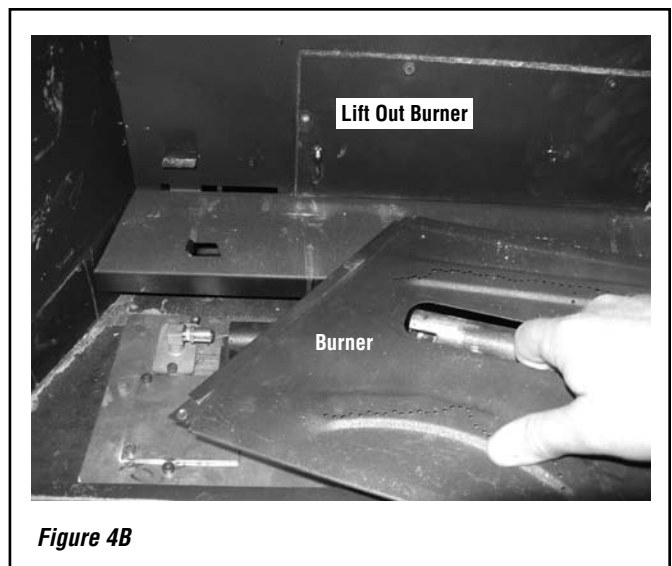
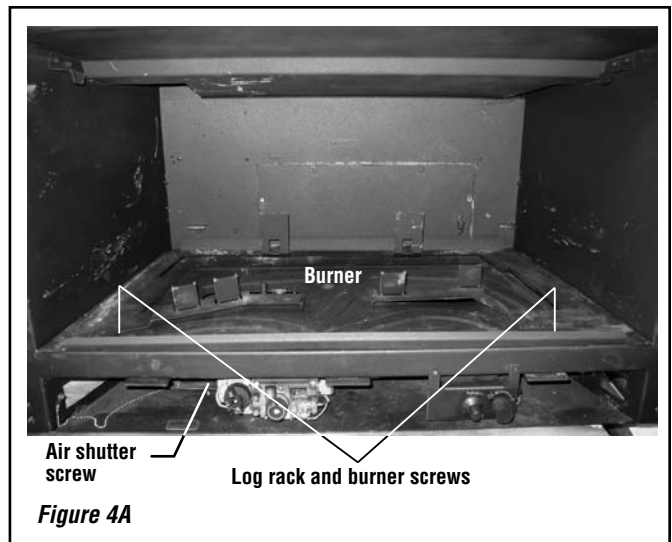
**Step 2.** Using a phillips screwdriver, remove and discard the two pressure regulator mounting screws (see *Figure 3*). Remove the pressure regulator and rubber gasket. Discard all removed components. Install the new regulator. Ensure the rubber gasket on the back of the pressure regulator is properly positioned when installing the new pressure regulator using the new screws supplied with this kit. Locate the label provided in the regulator kit. Write in the required information, then affix it to the valve.



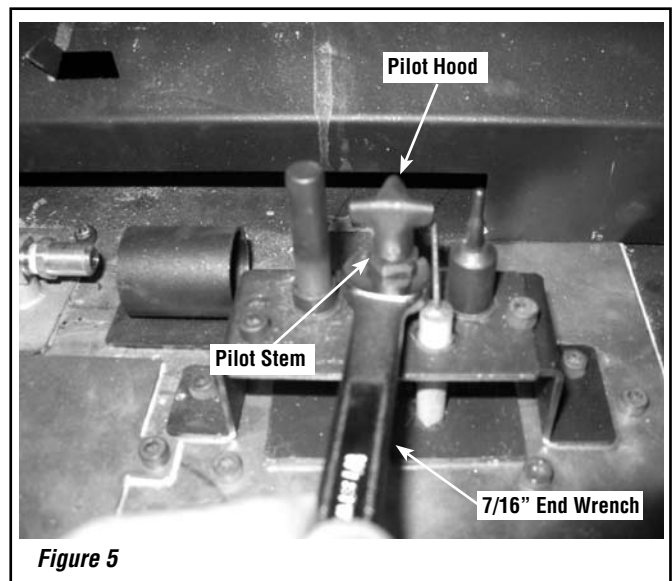
**Step 3.** Remove the glass door by releasing the two upper spring latches, and lifting up, out of the lower latches (see *Page 18* of the *Installation and Operation Manual*). Carefully remove the logs. Exercise care so as not to break the logs. Set aside in a safe place.

**Step 4.** Remove log rack by first removing the two 5/32" allen head screws. Note: Screws secure log rack and front of burner. After screws are removed you can pull the log rack straight out making sure it's held high enough to clear over the pilot assembly. See *Figure 4A*.

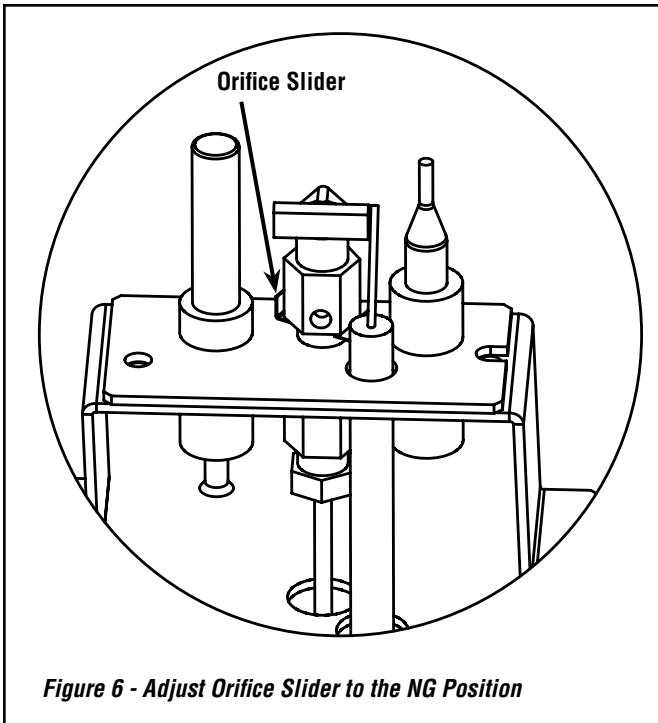
**Step 5.** Remove burner by shifting it to the right until it releases from air shutter. Air shutter may need to be shifted to the left before burner will release. Remove 5/32" air shutter screw before moving air shutter. See *Figures 4A and 4B*.



**Step 6.** Using a 7/16" open-end wrench, loosen the stem of pilot hood assembly with a 1/4 turn counterclockwise (see *Figures 5 & 6*).



**Step 7.** Slide the pilot orifice into the NG position by pushing it toward the opposite side of the pilot stem. The top side of the orifice slider should appear silver and read NG. The gas supply is now lined up with the NG orifice. See **Figure 6**.



**Figure 6 - Adjust Orifice Slider to the NG Position**

**Step 8.** Tighten the pilot stem by turning it clockwise, making sure the orifice slider stays pushed into the NG position.

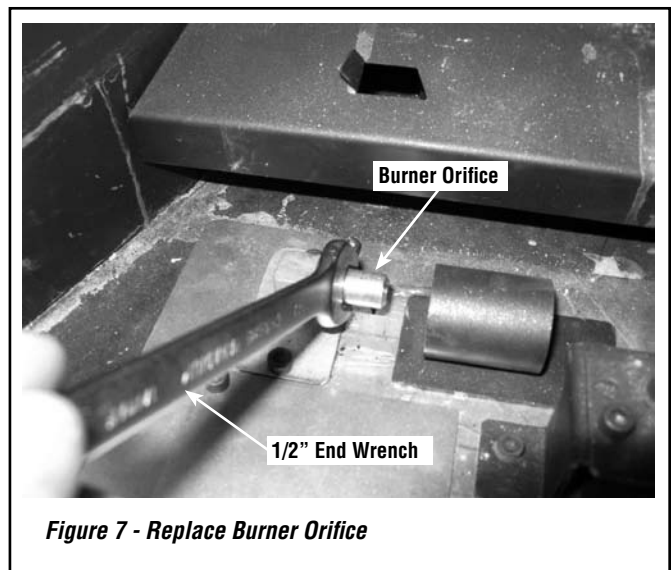
**STEP 9.**

**40,000 BTU**

Using a 1/2" open-end wrench, remove burner orifice. Replace with 1/8" NG orifice that is supplied in this kit. Make sure to use pipe sealing compound on threads of new orifice (see **Figure 7**). **IMPORTANT NOTE:** When this appliance is installed with the 1/8" orifice (40,000 BTU's), increased mantel clearances are required. See **Page 8** of the *Installation and Operation Manual*.

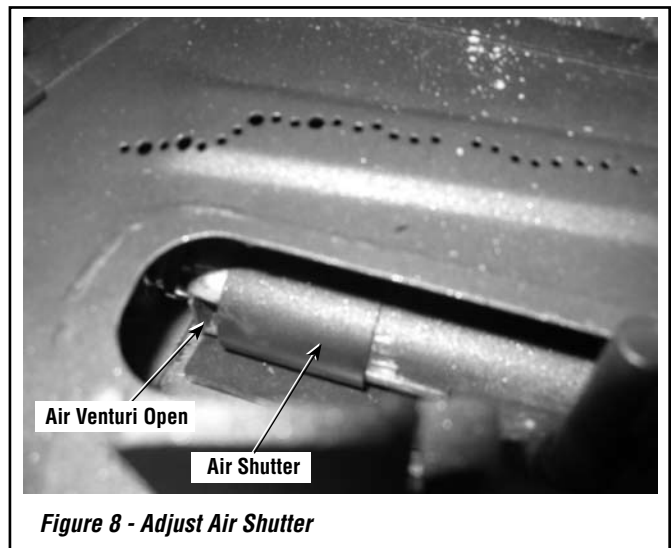
**33,000 BTU**

Using a 1/2" open-end wrench, remove burner orifice. Replace with #36 NG orifice that is supplied in this kit. Make sure to use pipe sealing compound on threads of new orifice (see **Figure 7**).



**Figure 7 - Replace Burner Orifice**

**Step 10.** Install burner and log rack, and make sure air shutter is 1/8" open.



**Figure 8 - Adjust Air Shutter**

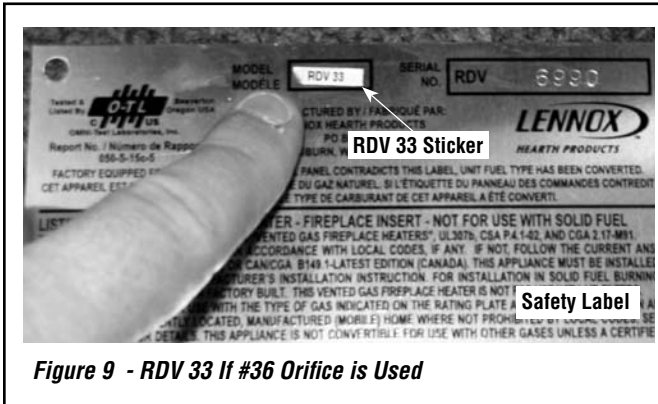
**Step 11.**

**33,000 BTU**

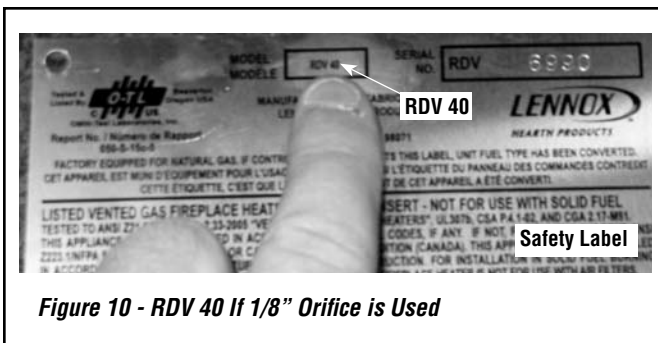
If you are using the #36 orifice, adhere the RDV 33 sticker (provided) in place on the safety label as shown in **Figure 9**. The safety label is located in the control compartment.

**40,000 BTU (standard from factory)**

If you are using the (standard) 1/8" orifice, the label will read RDV 40 on the safety label as shown in **Figure 10**. The safety label is located in the control compartment.



**Figure 9 - RDV 33 If #36 Orifice is Used**



**Figure 10 - RDV 40 If 1/8" Orifice is Used**

**Step 12.** Turn on gas supply and test for gas leaks using a gas leak test solution (see *Test Procedure* on **Page 12** of the *Installation and Operation Manual*).

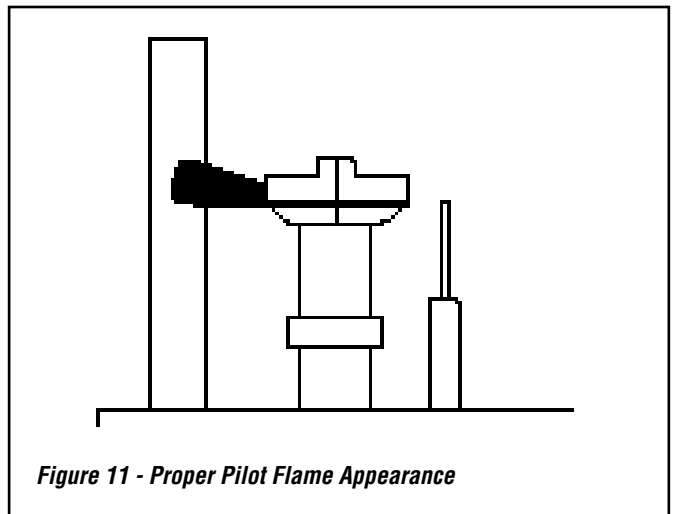
**Step 13.** Using a manometer, test the inlet and manifold gas pressure per instructions in the *Installation and Operation Manual* (**Page 12**) and as shown in the following 2 tables.

Inlet Gas Supply Pressure			
Fuel #	Minimum	Maximum	Desired
Nat. Gas	5" WC/po. C.E (1.24 kPa)	10.5" WC/po. C.E (2.61 kPa)	7" WC/po. C.E (1.74 kPa)

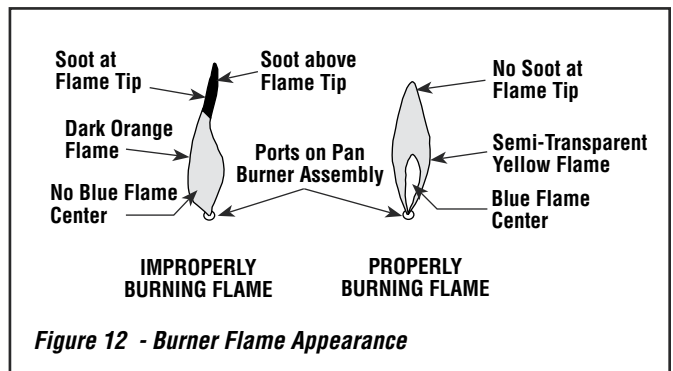
Manifold Gas Supply Pressure		
Fuel #	Low	High
Natural Gas	(Lo) 1.7" WC/po. C.E (0.42 kPa)	(Hi) 3.5" WC/po. C.E (0.87 kPa)

**Step 14.** Reinstall the the log set and glass door assembly. See **Pages 10 and 11** (*Log Set Installation*) and **Page 18** (*Door Assembly Installation*) in the *Installation and Operation Manual*.

**Step 15.** Light the appliance per the lighting instructions label on appliance (located below glass door) or lighting instructions on **Page 13** in the *Installation and Operation Manual*. Inspect for proper pilot and burner flame appearances. See **Figures 11 and 12** or refer to **Pages 15 and 17** of the *Installation and Operation Manual*.



**Figure 11 - Proper Pilot Flame Appearance**



**Figure 12 - Burner Flame Appearance**

NOTE: DIAGRAMS AND ILLUSTRATIONS ARE NOT TO SCALE.

Lennox 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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