

# DESA<sup>TM</sup> INSTALLATION INSTRUCTIONS FOR NCDM-42C CONVERSION KIT

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## CONVERTING FROM PROPANE/LP GAS TO NATURAL GAS For Use When Converting Model (V)K42P Series

**This conversion kit must be installed by a qualified service agency.**

Read these instructions completely before installing this conversion kit.

Before proceeding, make sure the gas control valve is in the OFF position, all electrical power to the appliance is off, and the fireplace is cool to the touch.

**⚠ CAUTION:** The gas supply shall be shut off prior to disconnecting the electrical power before proceeding with the conversion.

Parts included with this kit:

Part No.	Description	Quantity
111981-01	Instruction Sheet	1
108085-01	Pilot Orifice, NG (51)	1
104506-27	Main Burner Orifice, NG (305, #31)	1
14593	Gas Valve Regulator, NG	1
111983-15	Conversion Label, English	1
111984-15	Conversion Label, French	1
56060	Conversion Information Label	1
106739-01	Registration, Gas Conversion	1

Tools Required

- 7/8" Open End Wrench or Adjustable Wrench
- 3/4" Open End Wrench or Adjustable Wrench
- Torx T20 or Slotted Screwdriver
- 5/32" Allen Wrench
- #2 Short Phillips Screwdriver
- Thread Sealant (Resistant to Propane/LP)

### ACCESSING FIREPLACE

The gas control valve and main burner orifice are located under the firebox floor of the appliance and are accessed by removing the lower louver panel. The pilot orifice is located in the pilot burner and is accessed by opening the glass door and removing the logs.

### Removing Louver Panels

Remove the top and bottom louver panels by simultaneously pulling both top end spring latches towards the center of the appliance until they are disengaged from the locating holes (see Figure 1). Repeat for bottom spring latches and pull the louvers outward. To install or replace items removed, simply reverse the procedures above.

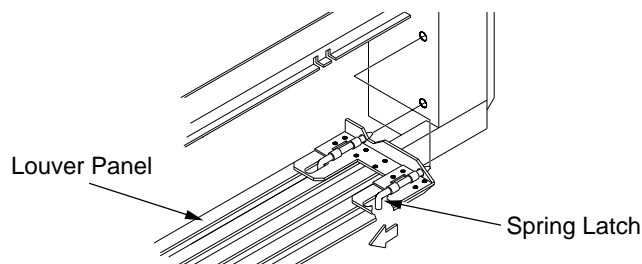


Figure 1 - Removing Louver Panel

### Opening Glass Door

1. Remove screen assembly by pushing the rod either left or right and then down and forward. Set assembly aside.
2. Lift up on latches of door to unlock. There are two on top of firebox and two below firebox that hold glass door in place (see Figure 2).
3. Remove log set from firebox. Refer to *Installing Logs, Lava Rock and Glowing Embers* in owner's manual.

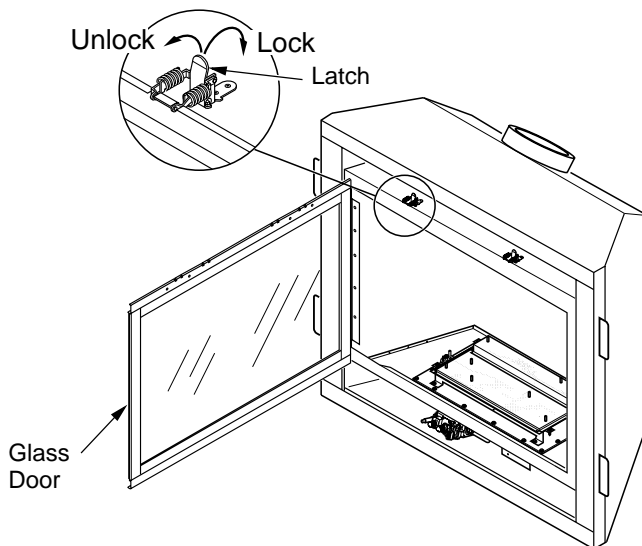


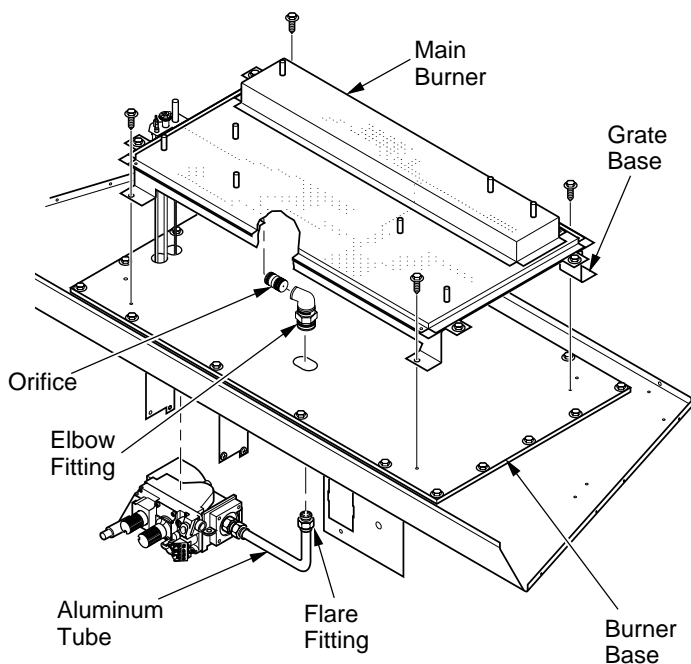
Figure 2 - Opening Glass Door

Save this manual for future reference.



## BURNER ORIFICE CONVERSION

1. Inside the control compartment under the firebox floor, locate the aluminum tube with flare fitting and elbow fitting. Loosen flare fitting and disconnect aluminum tube from elbow fitting. Use a 3/4" open end wrench (see Figure 3).
2. Carefully cut away RTV silicone from elbow fitting where it passes through the firebox bottom.
3. Remove grate base from burner base by removing 4 screws (see Figure 3).
4. Remove the LP orifice from elbow fitting. Apply a light amount of propane/LP resistant sealant to short threaded end of NG orifice (305, #31) supplied with kit. Thread NG orifice into elbow and tighten.
5. Locate air shutter at end of burner tube. Loosen screw and adjust air shutter to 3/16" open position.
6. Apply a light amount of propane/LP resistant sealant to long threaded end of orifice. Thread elbow fitting with orifice into burner inlet by turning clockwise. Make sure flare end of elbow faces down.
7. Reinstall grate base to burner base with four screws removed in step 3.
8. Apply RTV silicone to elbow fitting where it passes through the firebox bottom.
9. Connect aluminum tube to elbow fitting and tighten flare fitting. Use a 3/4" open end wrench.

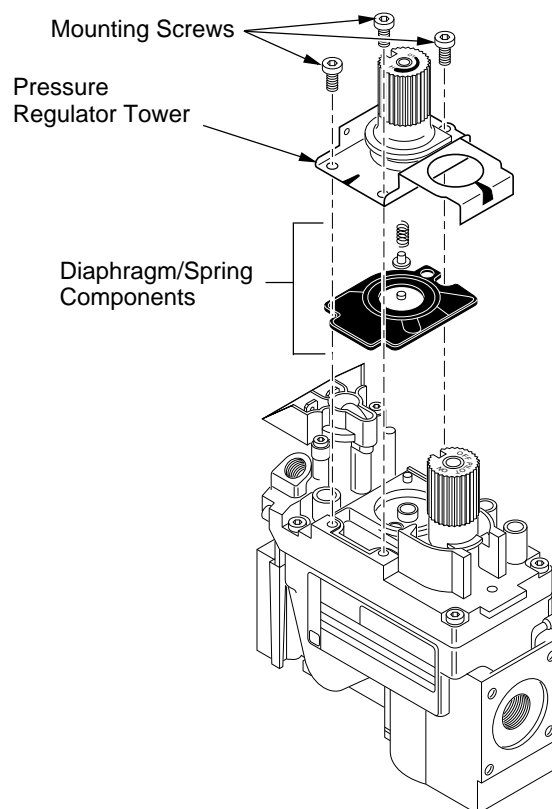


**Figure 3 - Removing Orifice for Conversion (Valve Shown Removed from Base for Clarity)**

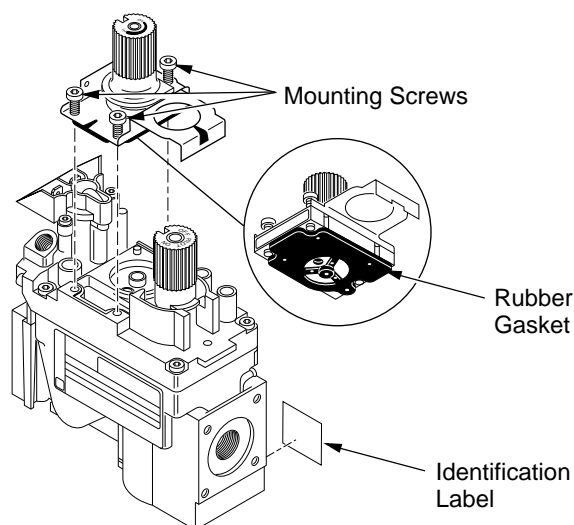
## GAS CONTROL VALVE CONVERSION

Convert the gas control valve by swapping out the valve regulator portion of the gas valve.

1. Using a Torx T20 or slotted screwdriver, remove and discard the three mounting screws, pressure regulator tower, and diaphragm/spring components (see Figure 4).
2. Insure that the rubber gasket is properly positioned on the new pressure regulator assembly. Install the NG pressure regulator assembly to the valve using the new mounting screws supplied with the kit. Tighten screws securely (approximately 25 in-lbs.) (see Figure 5, page 3).
3. Install the identification label enclosed with the gas valve regulator to the valve body where it can easily be seen (see Figure 5, page 3).



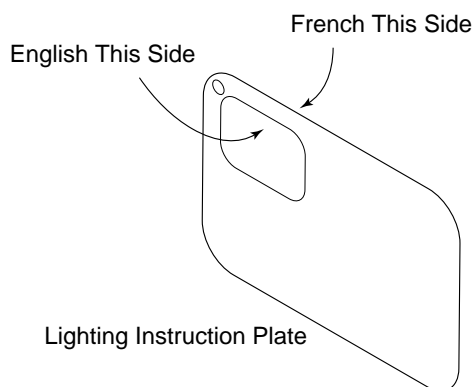
**Figure 4 - Removing Mounting Screws, Pressure Regulator Tower, and Diaphragm/Spring Components**



**Figure 5 - Installing Pressure Regulator Assembly**

## CONVERSION LABELING AND PLACEMENT

1. Apply the English and French conversion labels over the top of the existing certification labels (see Figure 6). Existing certification labels are located on the lighting instruction plate inside the gas valve compartment area. With permanent ink, print the previous model number on the label in the space provided (see Figure 7).
2. After filling in the data required on the conversion information label (see Figure 8), affix it to the floor of the appliance where it is easily seen when the lower louver is removed.



**Figure 6 - Applying English and French Conversion Labels over Existing Certification Labels on Lighting Instruction Plate**

VENTED GAS FIREPLACE	
Conversion Kit Model	_____
Type of Gas	_____
_____	_____
_____	_____
_____	_____
_____	_____
Previous Model #	_____

**Figure 7 - Print Previous Model Number on Conversion Labels**

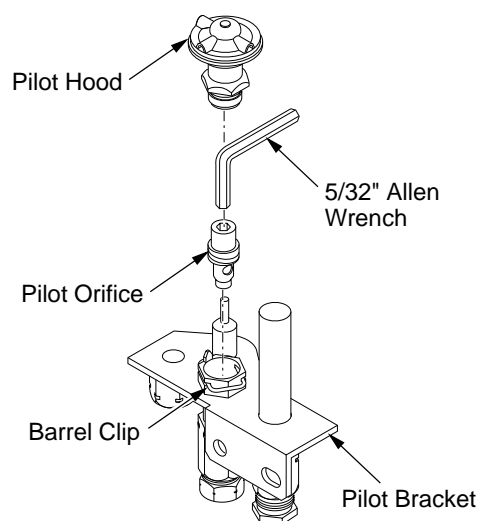
CONVERSION INFORMATION LABEL	
This appliance was converted on _____ to _____ gas	
Day	Month Year
with Kit No. _____	
by _____	
_____	
(name and address of organization making this conversion), which accepts the responsibility that this conversion has been properly made.	
56060	106090-01

**Figure 8 - Conversion Information Label**

## PILOT ORIFICE CONVERSION

1. Remove the pilot hood by pulling up until it disengages from the barrel. Do not remove the retainer clip (see Figure 9).
2. Remove the pilot orifice from inside the barrel using a 5/32" allen wrench to unscrew the orifice.
3. Replace pilot orifice with NG orifice supplied with this kit. The number 51 is stamped on the sleeve for identification. Insert the small end of the new pilot orifice into the barrel and thread until tight with the allen wrench.
4. Line up the notch on pilot hood to the positioning tab on the barrel receiver and snap back into position.

**IMPORTANT:** Be careful not to bend or kink the aluminum tubing during conversion. Make sure the pilot hood and orifice are properly mated and aligned after finishing this conversion.



**Figure 9 - Converting Pilot Orifice**

## FINAL PREPARATION

1. Reinstall logs. Refer to *Installing Logs, Lava Rock and Glowing Embers* in owner's manual.
2. Leak check the gas control and any connections you've made before operating the appliance. Refer to *Checking Gas Connections* in owner's manual.
3. Close and latch door.
4. Replace screen and reinstall louver panels.

The conversion is now complete.

To operate your fireplace, refer to *Operating Fireplace* in your appliance owner's manual.

**⚠ WARNING: Test all gas piping and connections, internal and external to unit, for leaks after installing or servicing. Correct leaks at once.**

**⚠ WARNING: Never use an open flame to check for a leak. Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak. Correct all leaks at once.**

**⚠ 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 instruction 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 is responsible for the proper installation of this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.**

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