

HEARTH PRODUCTS KITS AND ACCESSORIES

GAS CONVERSION KITS

INSTALLATION INSTRUCTIONS FOR GAS CONVERSION KITS FOR USE WITH MONTEBELLO® DLX DIRECT-VENT GAS FIREPLACES [FIREPLACE MODELS MDLX40, MDLX45]

P/N 506019-99

Rev. NC 06/2012

DAVE LENNOX P COLLECTION

HOT GLASS WILL CAUSE BURNS. DO NOT TOUCH GLASS UNTIL COOLED. NEVER ALLOW CHILDREN TO TOUCH GLASS. • Install only when fireplace is OFF and COLD.

- Fireplace surfaces get EXTREMELY HOT!
- The glass on the front of the fireplace reaches EXTREMELY HIGH temperatures and can cause severe burns if touched. Even after the gas is turned off, fireplace surfaces remain extremely hot.
- Keep children away from an operating fireplace. Closely supervise children in any room where a fireplace is operating to prevent contact with glass.

NOTICE

- READ ALL STEPS BEFORE STARTING INSTALLATION.
- LEAVE THESE INSTRUCTIONS WITH THE APPLIANCE.
- All warnings, precautions, and instructions in the Installation Instructions and Care and Operation Instructions provided with the appliance also apply to these instructions.
- If you encounter any problems, need clarification of these instructions, or are not qualified to properly install this kit, contact your local distributor or dealer.

A CAUTION

RISK OF PERSONAL INJURY OR PROPERTY DAMAGE.

- Never operate fireplace without liner panels installed.
- These appliances are NOT approved for operation without liner panels.
- Do NOT abuse glass doors by striking or slamming shut.
- Never operate fireplace with glass door assembly removed.
- Handle glass door assembly with extreme care. Replace damaged glass door assembly with approved replacement assembly only.
- Use only media approved for use with these fireplaces (as applicable). Failure to use approved media may result in sooting, delayed ignition, or other improper fireplace operation, and may void the warranty.

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. The qualified service agency performing this installation assumes responsibility for this conversion.

AVERTISSEMENT

Cette trousse de conversion doit être installée par un technicien agréé, selon les instructions du fabricant et selon toutes les exigences et tous les codes pertinents de l'autorité compétente. Assurez-vous de bien suivre les instructions dans cette notice pour réduire au minimum le risque d'incendie, d'explosion ou la production de monoxyde de carbone pouvant causer des dommages matériels, des blessures ou la mort. Le tecnicien agréé est responsable de l'installation de cette trousse. L'installation n'est pas adéquate ni complète tant que le bon fonctionnement de l'appareil converti n'a pas été vérifié selon les instructions du fabricant fournies avec la trousse. Le fournisseur de service qualifié ayant réalisé l'installation assume les responsabilités liées à la conversion.

General Information

Gas conversion kits are available to adapt your appliance from the use of natural gas to propane, or propane to natural gas. These kits contain all the necessary components needed to complete the task including labeling that must be affixed to ensure safe operation. The information provided must be used in conjunction with the Care and Operation Instructions (P/N 506025-07). Please read the instructions completely before performing the procedures detailed in this document.

Deration

These appliances are tested and approved for installations at elevations of 0-4500 ft (0-1372 m) above sea level using the standard burner orifice sizes (see *Table 1*).

At higher elevations, the amount of BTU fuel value delivered must be reduced by either using gas that has been derated by the gas company or by changing the burner orifice to a smaller size as regulated by the local Authorities Having Jurisdiction and by the (USA) National Fuel Gas Code NFPA 54/ANSI Z223.1latest edition or, in Canada, the CAN/CSA-B149.1 codeslatest edition.

Model	Natural Gas	Propane
MDLX40	0.1405 in. (#28)* • H2286	0.086 in. (#44)* • H2287
MDLX45	0.154 in. (#23)* • H8808	0.093 in. (#42)* • H4816
* Standard aiza installed at featory		

Standard size installed at factory • Part /Catalog Number

Table 1: Burner Orifice Sizes, Elevation 0–4500 ft (0–1372 m)

NOTE: Turn off the appliance and allow it to completely cool before proceeding.

Required Tools

•	Torx	T20	Drive

- 1/2 in. Deep socket or
- 5/32 in. Allen wrench
- Manometer
- open ended wrench

- 5/16 in. Hex-head nut driver
 - 5/8 in. Open ended wrench

Injector, Pilot Orifice (1)

Label, Conversion (1)

Kit Contents

- Orifice, Brass (1)
- · SIT Regulator LP or NG Conversion Kit (1)
- Label, Valve Identification (1)

Fireplace Model No.	Conversion Kit Model No.	Conversion Kit Cat. No.
MDLX40IN	GCK-MDLX40NP	H8668
MDLX45IN	GCK-MDLX45NP	H8669

Table 2: Natural Gas to Propane Gas Conversion Kits

Fireplace Model No.	Conversion Kit Model No.	Conversion Kit Cat. No.
MDLX40IP	GCK-MDLX40PN	H8670
MDLX45IP	GCK-MDLX45PN	H8671
Table 3: Propane Gas to Natural Gas Conversion Kits		

NOTE: For contemporary LP burner setups, use the orifice and conversion label shipped with the burner kit.

Before Installing the Kit

- Step 1. Turn off the gas supply to the appliance and disconnect the power supply at the circuit breaker.
- **Step 2.** Remove the kit contents from the packaging carefully to prevent breakage.
- Step 3. Remove the modesty shield above the appliance front door to expose the door screws.
- **Step 4.** Remove the fireplace screen and screen rod, if installed.
- Step 5. Remove the appliance front door before installing the gas conversion kit. Refer to the appliance Installation Instructions (P/N 506023-15).
- Step 6. Carefully remove the logs and the grate assembly / contemporary media, if installed.

CAUTION: THE GAS SUPPLY SHALL BE SHUT OFF PRIOR TO DISCONNECTING THE ELECTRICAL POWER, BEFORE PROCEEDING WITH THE CONVERSION.

ATTENTION. AVANT D'EFFECTUER LA CONVERSION. COUPEZ D'ABORD L'ALIMENTATION EN GAZ. ENSUITE, COUPEZ L'ALIMENTATION ÉLECTRIQUE.

Kit Installation Instructions

NOTE: In 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/CGA-B149.1 installation code.

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

- Step 1. Ensure all steps of "Before Installing the Kit" have been completed, and that the appliance is cold.
- Refer to Figure 1. Remove the two (2) 5/16 in. Step 2. hex-head screws securing the burner to the burner brackets. Carefully slide the burner to the left to clear the venturi from the orifice. Set aside the screws and burner assembly in a secure location for later reinstallation.



Figure 1: Burner / Gas Assembly Removal

- Step 3. Using a 5/16 in. hex-head nut driver, remove the two (2) screws securing the control compartment door to the right side of the appliance.
- **Step 4.** Rotate the control compartment door into the control compartment and lift it away from the appliance. Set aside the screws and control compartment door in a secure location for later reinstallation.

NOTE: For Step 6 through Step 8, refer to the instructions provided with the SIT valve for more information.

Step 5. Using a Torx T20 driver, remove and discard the two pressure regulator mounting screws, the stepper motor pressure regulator tower, the spring, and the diaphragm assembly. Properly dispose of all removed components.



Figure 2: SIT Electronic Valve

- Step 6. Confirm the rubber gasket is firmly attached and properly positioned on the back of the replacement stepper motor pressure regulator. Install the new stepper motor pressure regulator assembly using the supplied screws. Securely tighten the screws (25 lb-in).
- **Step 7.** Attach the enclosed valve identification label to the valve body where it can be easily seen.
- **Step 8.** Make stepper motor pressure regulator and valve electrical connections.
- Step 9. Refer to *Figure 3* and remove the pilot hood assembly to access the hex-head pilot orifice. Pull up sharply on the pilot hood to remove it.

NOTE: Use care to avoid damaging the igniter assembly. The pilot hood is secured with a spring clip; do not remove this spring clip.



Step 10. Using a 5/32 in. Allen wrench, remove the pilot orifice from the pilot burner and replace it with the pilot orifice provided in the kit.



- **Step 11.** Reinstall the pilot hood by orienting it over the pilot orifice and pressing down until it snaps into place.
- Step 12. Using a 1/2 in. deep socket or open ended wrench, remove the main burner orifice.

NOTE: Use a 5/8 in. open ended wrench to secure the orifice holder while removing the main burner orifice.

- Step 13. Verify the proper burner orifice size needed (see *Table 1*).
- **Step 14.** Using a small amount of pipe thread joint compound and a 1/2 in. deep socket / open ended wrench, install the new burner orifice.

NOTE: Ensure propane resistant compounds are used in propane applications. Do not use pipe joint compounds on flare fittings. Do not get any pipe joint compound in the burner orifice.

- Step 15. Replace the burner assembly, and ensure the venturi tube slides onto the main burner orifice.
- Step 16. Reinstall the two 5/16 in. screws removed in Step 2.

Testing

- Step 1. Reconnect the power supply at the circuit breaker.
- Step 2. Return gas to the system and relight the appliance.
- **Step 3.** With the main burner "ON", test the new pressure regulator assembly and all gas line joints for leaks using a gas leak test solution.

NOTE: The lighting instructions can be found on the lighting label in the control compartment or in the Care and Operation Instructions provided with the appliance.

- **Step 4.** Inspect the pilot system for proper flame appearance. The pilot flame should engulf the flame sensor as shown in *Figure 4*.
- **Step 5.** Inspect the burner for proper flame appearance (*Figure 5*).



Figure 5: Burner Flame Appearance

Step 6. Using a manometer, test the inlet and manifold gas pressures by cycling the appliance with the remote control. Refer to *Table 4* and *Table 5* for optimal gas supply pressures.

NOTE: Always test pressures with the valve regulator control at the highest setting.

Fuel #	Minimum	Maximum
Natural Gas	5.5 in. WC (1.37 kPa)	10.5 in. WC (2.61 kPa)
Propane	11.0 in. WC (2.74 kPa)	13.0 in. WC (3.23 kPa)
Table 4: Inlet Gas Supply Pressure		

Fuel #	Low	High
Natural Gas	1.6 in. WC (0.4 kPa)	3.5 in. WC (0.87 kPa)
Propane	6.3 in. WC (1.57 kPa)	10.0 in. WC (2.49 kPa)
Table 5: Manifold Gas Supply Pressure		

Step 7. Adjust the air shutter as necessary.

NOTE: Refer to the Care and Operation Instructions provided with the appliance for more information.

Amount of Primary Air	Flame Color	Air Shutter Adjustment
If air shutter is closed too far	Flame will be orange	Air shutter gap should be increased
If air shutter is open too far	Flame will be blue	Air shutter gap should be decreased
Table 6: Air Shutter Adjustment Guidelines:		

After Installing the Kit

- **Step 1.** Reinstall the logs and the grate assembly / contemporary media, if applicable.
- **Step 2.** Reinstall the appliance front door. Refer to the appliance Installation Instructions (P/N 506023-15).
- **Step 3.** Reassemble the remaining components by reversing the procedures outlined in the preceding steps.
- **Step 4.** Attach the conversion label provided in the conversion kit to the rating plate on the appliance.
- **Step 5.** The BTU input for these appliances is shown in *Table 7*.

Model No.	Input (BTU/Hr)		
Natural Gas			
MDLX40IN	32,000 to 50,000		
MDLX45IN	38,500 to 60,000		
Propane Gas			
MDLX40IP	32,000 to 50,000		
MDLX45IP	38,500 to 60,000		
Table 7: Input (BTU/HrR)			

Lennox Hearth Products 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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