

CONGRATULATIONS ON THE PURCHASE OF YOUR NEW GAS APPLIANCE MANU-FACTURED BY LENNOX HEARTH PRODUCTS.

When you purchased your new gas fired heater, you joined the ranks of thousands of concerned individuals whose answer to their home heating needs reflects their concern for aesthetics, efficiency and our environment. We extend our continued support to help you achieve the maximum benefit and enjoyment available from your new gas fired heater. It is our goal at Lennox Hearth Products to provide you, our valued customer, with an appliance that will ensure you years of trouble free warmth and pleasure.

Thank you for selecting a Lennox Hearth Products gas fired heater as the answer to your home heating needs.

Sincerely,

All of us at Lennox Hearth Products

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This installation manual will help you obtain a safe, efficient, dependable installation for your appliance and vent system.

Please read and understand these instructions before beginning your installation.

These Millivolt appliances are listed by OMNI-Test Laboratories Inc. for installation in bedrooms and manufactured (mobile) homes.

PACKAGING LIST

The assembled vented gas insert heater is packaged with:

 One accessory package containing a literature package (installation and operation instruction manuals) is located on top of the appliance.

2 - One log set, one bag of embers, one bag of vermiculite, one propane conversion kit (if needed to run on LP gas).

3 - One Warranty Certificate.

4 - One Fireplace Warning Label.

SURROUND ASSEMBLY SOLD SEPARATELY

Model: EDVI25

SKS-25 Surround Kit, Small (40 1/4" W x 26 1/4" H) SKM-25, Surround Kit, Medium (44 1/8" W x 28 1/8" H)

Model: EDVI30

SKS-30, Surround Kit, Small (40 1/4" W x 27 1/2" H) SKM-30, Surround Kit, Medium (45 3/4" W x 30 1/4" H) SKL-30, Surround Kit, Large (49 1/4"" W x 32" H)

Model: EDVI35

SKM-35, Surround Kit, Medium (48 1/16" W x 34 1/16")

INTRODUCTION

The Insert models covered in this manual are Direct-Vent sealed combustion gas heaters designed for residential application for installion into an existing masonry or factory built solid fuel burning fireplace. The required liners for the air intake and exhaust are as follows:

• Air Intake: Use 3" diameter UL 1181 or UL 1777 listed liner only.

• Exhaust: Use 3" diameter UL1777 listed gas vent liner only. DO NOT USE UL 1181 LISTED LINER.

These vent systems must be routed through the existing fireplace flue system to the vent termination. These appliances comply with National Safety Standards and are tested and listed by OMNI-Test Laboratories Inc.; Beaverton, Oregon (Report No. 116-F-14-5) to ANSI Z21.88 (in Canada, CSA-2.33), and CAN/ CGA-2.17-M91 in both USA and Canada, as vented gas heaters.

Installation must conform to local codes. In the absence of local codes, installation must comply with the current National Fuel Gas Code, ANSI Z223.1. (In Canada, the current CAN-1 B149 installation code.) Electrical wiring must comply with the National Electrical Code ANSI/ NFPA 70 - latest edition. In Canada, the current CSA C22-1 Canadian Electrical Code - latest edition.

When installed in a manufactured home (mobile home), these appliances must be installed in accordance with the current Standard for Mobile Homes, CAN/CSA Z240 MH, or with the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280, or when such a standard is not applicable, the current Standard for Fire Safety Criteria for Manufactured Home Installations, Sites and Communities, ANSI/NFPA 501A.

These heaters are designed to be installed into an existing masonry fireplace (built to UBC 37 or ULC S628 standards) or factory built solid fuel, wood, burning fireplace (listed to UL 127 or ULC S610) only. All exhaust gases must be vented outside the structure. Combustion air is drawn from outside the structure.

DO NOT ATTEMPT TO ALTER OR MODIFY THE CONSTRUCTION OF THE APPLIANCE OR ITS COMPONENTS. ANY MODIFICATION OR ALTERA-TION MAY VOID THE WARRANTY, CERTIFICATION AND LISTINGS OF THIS UNIT.

These millivolt appliances are designed to operate on natural or propane gas only. Units are factory set for use with Natural Gas and will require field conversion for use with Propane (a propane conversion kit is located inside the firebox). The use of other fuels or combination of fuels will degrade the performance of this system and may be dangerous.

These appliances use a millivolt type control system consisting of a gas control valve with regulator (control to adjust for flame appearance and heat output), a standing pilot burner assembly, a thermopile, thermocouple, a piezo igniter, and ON/OFF switch. THE GAS BURNER SYSTEM ON THESE APPLIANCES DO NOT REQUIRE 120 VOLT POWER TO OPERATE.

These appliances are designed as supplemental heaters. Therefore, it is advisable to have an alternate heat source when installed in a dwelling. The millivolt appliances are manually controlled and feature a spark igniter (piezo) that allows the appliance's pilot gas to be lit without the use of matches or batteries. This system provides continued service in the event of a power outage. However, the heat circulation blower requires 120 volt power (the appliance can be safely used with the blower turned off). The blower operation is controlled by avariable speed rheostat located on the left side surround panel (if optional surround is installed) and temperature switch located underneath of firebox bottom on the front left side.

GENERAL INFORMATION

The appliance installation, repair and annual inspection should be performed by a qualified service person. It is imperative that the control compartment, burner and circulating air passage way of the appliance be kept clean.

S'assurer que le brùleur et le compartiment des commandes sont propres. Voir les instructions d'installation et d'utilisation qui accompagnent l'appareil.

Provide adequate clearances and adequate accessibility clearance for service and proper operation (see table 5 on page 7).

Table 1 shows the BTU input for each model:

Millivolt Models with Manually-Modulated Gas Valves			
	Natural Gas	Propane	
Model #	Input rate	Input rate	
	(BTU/HR)	(BTU/HR)	
EDVI25	17,000 to	19,000 to	
EDVIZS	25,000	25,000	
EDVI30	21,500 to	22,000 to	
	30,000	28,000	
	25,500 to	26,000 to	
EDVI35	35,000	34,000	
Table 1			

Tables 2 and 3 show the units' gas pressure requirements for all models:

Inlet Gas Supply Pressure (all models)			
Fuel Minimum Maximum			
Natural Gas	4.5" WC	10.5" WC	
Natural Gas	(1.12 kPa)	(2.61 kPa)	
Propane	11.0" WC	13.0" WC	
Topane	(2.73 kPa)	(3.23 kPa)	
Table 2			

Manifold Gas Supply Pressure (all models)			
Fuel Low High			
Natural Gas	(LO) 1.6" WC (.40 kPa)	(HI) 3.5" WC (.87 kPa)	
Propane	(LO) 6.3" WC (1.57 kPa)	(HI) 10" WC (2.49 kPa)	
Table 3	•	•	

Test gauge connections are provided on the front of the millivolt gas control valve (identified IN for the inlet and OUT for the manifold side). See Figure 36a & 36b on page 14.

Table 4 shows the units gas orifice size for the elevations indicated.

Main Burner Orifice Size			
Model #	Nat.	Pro-	Elevation
	Gas	pane	Feet (meters)
EDVI25	#41	#53	0-4500'
	(.096'')	(.0595'')	(0-1370 meters)
EDVI30	#37	1/16"	0-4500'
	(.104'')	(.0625")	(0-1370 meters)
EDVI35	#33	#51	0-4500'
	(.113")	(.067")	(0-1370 meters)
Table 4	•	•	•

These appliances and their individual shut-off valves *must be disconnected* from the gas supply piping system during any pressure testing of that system at pressures **greater than** 1/2 psig (3.5 kPa).

These appliances must be isolated from the gas supply piping system (*by closing their individual manual shut-off valve*) during any pressure testing of the gas supply piping system at test pressures equal to or **less than** 1/2 psig (3.5 kPa).

These appliances may be installed in an aftermarket permanently located, manufactured home (USA only) or mobile home, where not prohibited by local codes.

Cet appareil peut être installé dans un maison préfabriquée (É.-U. seulement) ou mobile déjà installée à demeure si les réglements locaux le permettent.

THESE APPLIANCES MUST NOT BE CON-NECTED TO A CHIMNEY OR FLUE SERV-ING A SEPARATE SOLID FUEL BURNING APPLIANCE.

WARNING: THESE APPLIANCES MUST BE PROPERLY CONNECTED TO A VENTING SYSTEM. OPERATION OF THESE GAS APPLIANCES WHEN NOT CONNECTED TO A PROPERLY INSTALLED AND MAINTAINED VENTING SYSTEM CAN RESULT IN CARBON MONOXIDE (CO) POISONING AND POSSIBLE DEATH. CARBON MONOXIDE POISONING: EARLY SIGNS OF CARBON MONOXIDE POISONING ARE SIMILAR TO THE FLU WITH HEAD-ACHES, DIZZINESS AND/OR NAUSEA. IF YOU HAVE THESE SIGNS, OBTAIN FRESH AIR IMMEDIATELY. TURN OFF THE GAS SUPPLY TO THE APPLIANCE AND HAVE IT SERVICED BY A QUALIFIED PROFES-SIONAL, AS IT MAY NOT BE OPERATING CORRECTLY.

WARNING: DO NOT PLACE CLOTHING OR Other flammable materials on or Near These Appliances.

WARNING: FAILURE TO COMPLY WITH THE INSTALLATION AND OPERATING INSTRUCTIONS PROVIDED IN THIS DOCUMENT WILL RESULT IN AN IMPROPERLY INSTALLED AND OPERAT-ING APPLIANCE, VOIDING ITS WARRANTY. ANY CHANGE TO THESE APPLIANCES AND/OR OPERATING CONTROLS IS DANGEROUS. IMPROPER INSTALLATION OR USE OF THESE APPLIANCES CAN CAUSE SERIOUS INJURY OR DEATH FROM FIRE, BURNS, EXPLOSION OR CARBON MONOXIDE POISONING.

WARNING: CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURES. USE CAUTION AROUND THE APPLIANCE TO AVOID BURNS OR CLOTHING IGNITION. YOUNG CHILDREN SHOULD BE CAREFULLY SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THE APPLIANCE.

AVERTISSEMENT: SURVEILLER LES ENFANTS. GARDER LES VÊTEMENTS, LES MEUBLES, L'ESSENCE OU AUTRES LIQUIDES À VAPEUR INFLAMMABLES À COTE DE L'APPAREIL.

DO NOT USE THESE APPLIANCES IF ANY PART HAS BEEN UNDER WATER. IMMEDI-ATELY CALL A QUALIFIED, PROFESSIONAL SERVICE TECHNICIAN TO INSPECT THE APPLIANCES AND TO REPLACE ANY PARTS OF THE CONTROL SYSTEM AND ANY GAS CONTROLS WHICH HAVE BEEN UNDER WATER.

NE PAS SE SERVIR DE CET APPAREIL S'IL A ÉTÉ PLONGÉ DANS L'EAU, COMPLÈTEMENT OU EN PARTIE. APPELER UN TECHNICIEN QUALIFIÉ POUR INSPECTER L'APPAREIL ET REMPLACER TOUTE PARTIE DU SYSTÈME DE CONTRÔLE ET TOUTE COMMANDE QUI ONT ÉTÉ PLONGÉS DANS L'EAU.

QUESTIONS TO ASK LOCAL BUILDING OFFICIAL

These appliances must be installed per manufacturers' instructions. Installations must conform to appropriate local codes and applicable state and federal requirements. Familiarity with these requirements before installation is essential. Some important considerations to discuss with local building officials include:

1. Applicable codes (i.e. Uniform Mechanical Code, State or Regional Gas Codes, National Fuel Gas Code).

2. Local amendments

3. Recognized testing lab: OMNI-Test Laboratories Inc.; Beaverton, Oregon

4. Is a permit required - cost?

5. In some states or municipalities, a licensed gas fitter or plumber may be required to install these appliances. Check with your local building official for requirements in your area (i.e. Is a license required for installation of gas supply line)? 6. Maximum amount of gas pipe without a pressure test - type of test required?

7. Are below grade penetrations of the gas line allowed?

8. Is concealed gas piping allowed?

9. Specific requirements of concealed fittings?

10. Is rigid pipe to appliance required?

11. Allowed piping materials?

12. Shut-off valve required within 4 feet of the firebox?

13. May the shut-off valve be concealed?

14. Rooms where the installation is not allowed?

In the absence of local codes, installation should conform to National Fuel Gas Code, ANSI Z223.1 / NFPA 54-Latest Edition in the USA or National Fuel Gas Code, CAN/CGA-B149-Latest Edition in Canada.

HIGH ALTITUDE

Installations at Altitudes of 0 to 4500 feet:

These appliances have been tested and approved for elevations of 0 to 4500 feet (0 to 1370 meters).

Installations at Altitudes above 4500 feet:

For elevations above 4500 feet (1370 meters), install these appliances according to the regulations of the local authorities having jurisdiction and, in the USA, the latest edition of the National Fuel Gas Code (ANSI Z223.1) or, in Canada, the latest edition of the CAN-B149.1 and CAN-B149.2 codes.

FIREPLACE REQUIREMENTS

IMPORTANT: When installing these appliances into a factory built fireplace or heatform, the air flow within and around the fireplace shall not be altered by the installation of the insert (i.e. DO NOT BLOCK louvers or cooling air inlet or outlet ports, circulating air chambers in a steel fireplace liner or metal heat circulator).

CAUTION: The factory built firebox must accept

the insert without modification other than removing bolted or screwed together pieces such as smoke shelf / deflectors, ash lips, screen or doortracks, log grates, refractory and damper assemblies. Any fireplace component, which is removed, must be retained so they can be reinstalled to restore the fireplace to its original operating condition. The removal of any part must not alter the integrity of the outer shell of the pre-engineered fireplace cabinet in any way.

If any components are removed from (or altered) from the existing fireplace, a Warning Label (see below) must be affixed inside the fireplace firebox, so that it shall be visible upon removal of the fireplace insert. Note: RTV high temperature silicone is an approved adhesive.

> Fireplace Warning Label (Provided in Accessory Package)

WARNING

THIS FIREPLACE HAS BEEN ALTERED TO ACCOMMODATE A FIREPLACE INSERT AND SHOULD BE INSPECTED BY A QUALIFIED PERSON PRIOR TO RE-USE AS A CONVENTIONAL FIREPLACE.

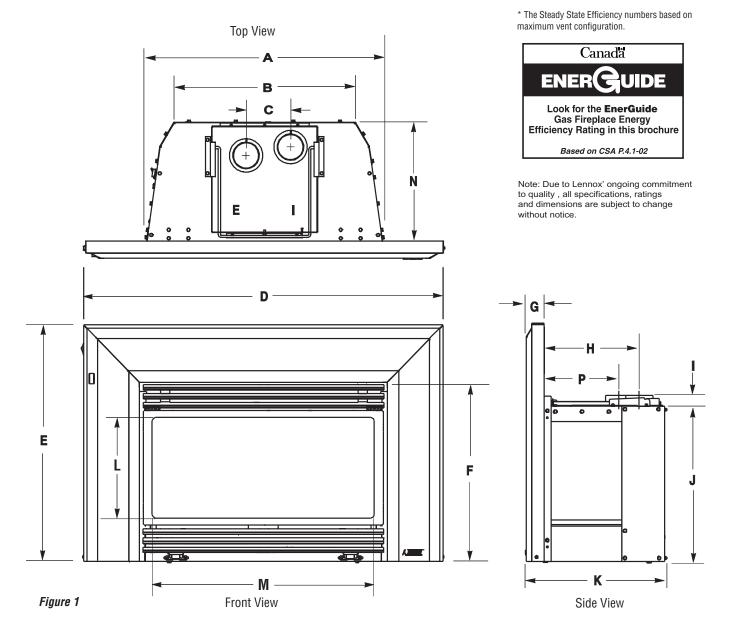
SPECIFICATIONS: EDVI25

	DIMENSIONS			
EDVI25				
	Inches (millimeters)			
Α	26 5/8" (676 mm)			
В	20 1/2" (521 mm)			
C	5" (127 mm)			
D	SM.= 41 1/16" (1043 mm) & MED.= 44 1/8" (1121 mm)			
E	SM.= 26 1/16" (662 mm) & MED.= 27 5/8" (702 mm)			
F	19 1/2" (483 mm)			
G	1 15/16" (49 mm)			
Н	10 9/16" (268 mm)			
I	1 1/4" (32 mm)			
J	17 1/4" (438 mm)			
K	15 15/16" (405 mm)			
L **	10 7/8" (276 mm)			
M **	24 7/8" (632 mm)			
Ν	14" (356 mm)			
Р	9 5/8" (224 mm)			

SPECIFICATIONS			
EDVI25			
Min. / Max. BTU hr Input - NG	17,000 to 25,000		
Min. / Max. BTU hr Input - LP	19,000 to 25,000		
Co-linear DV Vent Size	3" Dia. Liner (exhaust & intake)		
Room Blower CFM	110 cfm		

EFFICIENCIES		
EDVI25		
ENERGUIDE	65 % (NG)	
ENERGOIDE	66 % (LP)	
Steady State	86 % (NG)	
Efficiency *	89 % (LP)	

** The total glass viewing area equals approx. 270 1/2 Sq. In.



NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

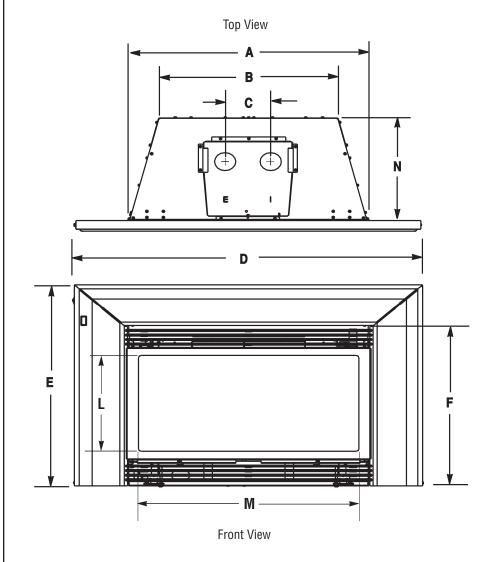
SPECIFICATIONS: EDVI30 & EDVI35

	DIMENSIONS				
	EDVI30	EDVI35			
	Inches (millimeters)	Inches (millimeters)			
Α	25 15/16" (659 mm)	32 1/16" (814 mm)			
В	22 1/4" (578 mm)	24 3/16" (614 mm)			
C	5" (127 mm)	5" (127 mm)			
D	40 1/4" (1022 mm)Sm.				
	45 3/4" (1162 mm) Med.	48 1/16" (1221 mm) Med.			
	49 1/4" (1251 mm) Lg.				
E	27 1/2" (699 mm) Sm.				
	30 1/4" (768 mm) Med.	34 1/16"(865 mm) Med.			
	30" (762 mm) Lg.				
F	20 7/8" (530 mm)	26 11/16" (678 mm)			
G	1 13/16" (46 mm)	1 13/16" (46 mm)			
Н	9 15/16" (252 mm)	9 7/8"(251 mm)			
I	1 7/16" (37 mm)	1 5/8" (41 mm)			
J	20 1/4" (514 mm)	24" (610 mm)			
K	15 1/4" (387 mm)	18 3/8" (467 mm)			
L**	11 3/16" (284 mm)	15 5/8" (397 mm)			
M**	23 1/4" (591 mm)	29 7/16" (748 mm)			
Ν	13 7/16" (341 mm)	16 7/8" (427 mm)			

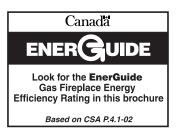
SPECIFICATIONS			
	EDVI30	EDVI35	
Min. / Max. BTU/hr Input - NG	21,500 to 30,000	25,500 to 35,000	
Min. / Max. BTU/hr Input - LP	22,000 to 28,000	26,000 to 34,000	
Co-linear DV Vent	3" Dia. Liner	3" Dia. Liner	
Size	(exhaust & intake)	(exhaust & intake)	
Room Blower CFM	130 cfm	130 cfm	

EFFICIENCIES			
	EDVI30	EDVI35	
(based on CSA P.4.1)	69% (NG) 70% (LP)	66% (NG) 70% (LP)	
Steady State Efficiency *	87% (NG) 89% (LP)	86% (NG) 88% (LP)	

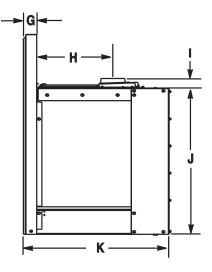
** The total glass viewing area equals approx.: EDVI30 = 290 Sq. In. & EDVI35 = 460 Sq. In.



* The Steady State Efficiency numbers based on maximum vent configuration.



Note: Due to Lennox' ongoing commitment to quality , all specifications, ratings and dimensions are subject to change without notice.



Side View

Figure 2

6

MINIMUM CLEARANCES TO COMBUSTIBLES: EDVI25, EDVI30 & EDVI35

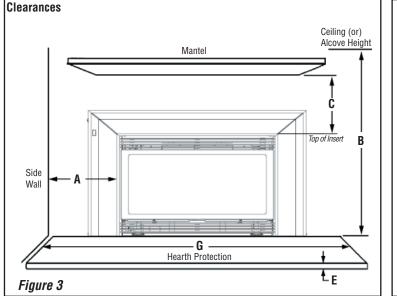
These appliances can be installed in most residential fireplace configurations. If installed close to an adjacent wall, ensure that the minimum clearances to combustible surfaces are maintained. A local building inspector should review your plans prior to installation.

Refer to Figures 3, 4a, 4b and 5 for Clearances to Combustibles. Minimum clearances include spacers/standoffs or surfaces to combustible construction.

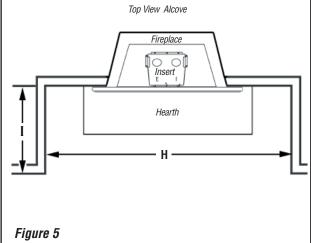
Notes for Table 5:

- * This includes any projections such as shelves, window sills, mantels, spacers/standoffs or surfaces to combustible construction etc. above the appliance. Paint or lacquer used to finish the mantel must be heat resistant in order to avoid discoloration.
- ** If hearth is elevated, subtract 1 inch of hearth extension required for every 2 inches of height (see Figure 6).

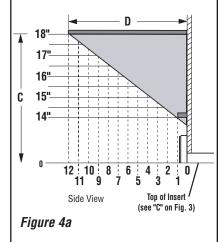
Clearances to Combustibles		Inches (millimeters)				
010		EDVI25	EDVI30	EDVI35	Min. Max.	
A	Side Wall	8" (203 mm)	8" (203 mm)	8" (203 mm)	Min.	
В	Ceiling or Alcove Height	64" (1626 mm)	64" (1626 mm)	64" (1626 mm)	Min.	
C *	Mantel Height	See Fig. 3 & 4b	See Fig. 3 & 4a	See Fig. 3 & 4a	Min.	
D *	Mantel Projection from Wall	See Fig. 4b	See Fig. 4a	See Fig. 4a	MAX.	
Ε	Clearance to Floor	0" (0 mm)	0" (0 mm)	0" (0 mm)	Min.	
F **	Hearth Protection	**16" (106 mm)	**10" (400 mama)	**10" (400 meme)	N.4.	
	(from Fireplace Face)	**16" (406 mm)	**16" (406 mm)	**16" (406 mm)	Min.	
G	Hearth Protection Width	44" (1118 mm)	49" (1245 mm)	48" (1219 mm)	Min.	
H	Alcove Width	45" (1143 mm)	50" (1270 mm)	49" (1245 mm)	Min.	
Ι	Alcove Depth	36" (914 mm)	36" (914 mm)	36" (914 mm)	MAX.	
Tab	Table 5					



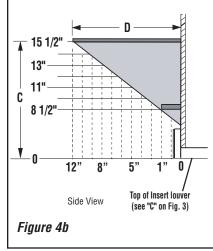
Alcove Minimum Width: The specified minimum width of the alcove cannot be reduced with the use of wall protection.



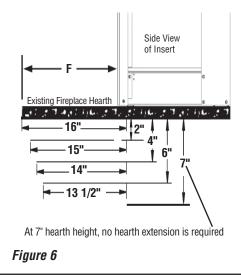
Mantel Clearance, Models: EDVI30 & EDVI35: The mantel should be located in the shaded area (light gray) shown below.



Mantel Clearance, Model: EDVI25: The mantel should be located in the shaded area (light gray) shown below.



Hearth Protection: For every 2" of hearth height, subtract 1" of hearth extension required.



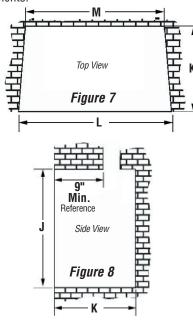
NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

MINIMUM FIREPLACE DIMENSIONS

Refer to Figures 7 and 8 for Minimum Fireplace Clearance Dimensions. See pages 5 & 6 for actual insert body dimensions.

Consult your local authority having jurisdiction for requirements in your area.

Before the fireplace insert is assembled and installed, you must consider whether the appliance must be converted for use with propane gas (see step 7 on Page 9). You must also consider the vent length requirements.



Mi	n. Fireplace	Inches (millimeters)		
Clearance Dimensions		EDVI25	EDVI30	EDVI35
J	Height	19" (483 mm)	22" (559 mm)	25" (635 mm)
К	Depth	14 1/2" (368 mm)	14" (356 mm)	17" (432 mm)
L	Width/Front	27" (686 mm)	26 1/2" (673 mm)	32 1/4" (819 mm)
Μ	Width/Rear	23 1/4" (591 mm)	22 1/2" (572 mm)	25" (635 mm)

Table 6

DETAILED INSTALLATION STEPS

Step 1: CLEAN FIREPLACE (If necessary) Thoroughly clean the masonry or factory built fireplace.

CAUTION: The fireplace in which this gas insert is to be installed must be thoroughly cleaned if it has been used to burn wood or synthetic logs. Have the chimney and all inside surfaces of the fireplace brushed and vacuumed so that no soot, embers, or loose combustion deposits can be drawn into the heat circulation blower and blown into the living area. CAUTION: If any portion of the chimney system shows signs of structural or mechanical weaknesses, such as: cracks, leaky joints, corroded or warped surfaces, the faulty portion must be repaired or replaced prior to installing this appliance.

Step 2: PREPARATION - Plan and install gas line. These appliances are provided with an opening on the left hand side of the control compartment. A 3/8" NPT gas supply pipe must be brought near this inlet hole.

Gas Supply Line - We recommend that a qualified individual such as a plumber or gas fitter be used to correctly size and route the gas supply line to the appliance. Installing a gas supply line from the fuel supply to the appliance involves numerous considerations of materials, protection, sizing, locations, controls, pressure, sediment, and more. Certainly no one unfamiliar and unqualified should attempt sizing or installing gas piping.

The gas supply line should be plumbed from the fuel source to the area where the appliance is to be installed per requirements outlined in NFPA 54 - latest edition (USA) or B149 - latest edition (Canada).

The proper gas line diameter must be used to run from the supply regulator (at the gas company meter) to the appliance. Never use galvanized or plastic pipe. Refer to table 7 for suggested sizing of the gas supply line if black iron pipe is being used.

The gas supply line should be connected to the appliance at step 9 (page 11).

Suggested Sizing of Black Iron Pipe Schedule 40 - Pipe Supply Line

Schedule 40 Pipe Length (Feet)	Schedule 40 Pipe Inside Diameter (Inches)		
Lengin (Feel)	Natural Gas	Propane Gas	
0-10	1/2	3/8	
10-40	1/2	1/2	
40-100	1/2	1/2	
100-150	3/4	1/2	
150-200	3/4	1/2	

Table 7

IMPORTANT NOTE: If propane is used, be aware that if the tank size is too small (i.e. under 100-lbs, if this is the only gas appliance in the dwelling. Ref. NPFA 58), there may be loss of pressure, resulting in insufficient fuel delivery (which can result in sooting or other malfunctions). Any damage resulting from an improper installation, such as this, is not covered under the limited warranty.

Step 3 UNPACK THE INSERT - Remove the top and side cartons. Remove all the inner packages and packing materials and discard.

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

Step 4 LIFT INSERT INTO POSITION (read *Fireplace Requirements* on page 4 first) Lift insert into position in front of the fireplace where unit is to be installed. Discard bottom carton.

Step 5: REMOVE STANDARD GLASS DOOR ASSEMBLY.

WARNING: HANDLE GLASS DOOR WITH EXTREME CARE! THE GLASS DOOR ASSEMBLY IS SUSCEPTIBLE TO DAMAGE. DO NOT SCRATCH WHILE HANDLING OR WHILE REINSTALLING.

Remove Front Glass Enclosure as Follows:

1) Locate the spring hook under the glass door assembly (see Figure 9). Pull hook forward until it releases out of the bottom door frame.



Figure 9 Door hook is located below glass door

2) Swing the bottom of the door outward (see Figure 10) and lift it off of firebox top. Set door aside in a safe place.

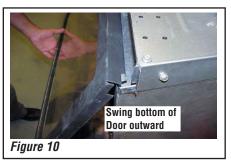




Figure 11

WARNING: NEVER OPERATE UNIT WITH-OUT THE FRONT GLASS DOOR PANEL IN PLACE AND SECURE.

STEP 6: REMOVE PACKAGED MATERIALS FROM INSIDE FIREBOX AND

SET ASIDE (log set, bag of embers, bag of vermiculite, propane conversion kit - if needed to run on LP gas).

Step 7: INSTALL LP CONVERSION KIT (IF NECESSARY) - Install the LP conversion kit per instructions provided with kit.

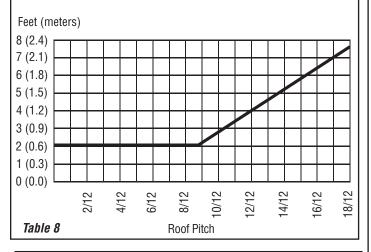
Step 8: VENTING SYSTEM INSTALLATION (Refer to Vent Manufacturer Installation Instructions)

This appliance is designed to using 3" diameter UL1181 listed aluminum liner for the Air Intake and 3" diameter UL1777 listed gas vent liner for the Exhaust (see Figures 14 & 15). See Table 8 for miniumum distances from roof to termination cap inlet/outlet.

Under no circumstances, may separate sections of concentric flexible vent pipe be joined together.

Vertical Termination Height Minimum (Factory Built and Masonry Fireplaces)

The vent/air intake termination clearances above the high side of an angled roof is as follows:



WARNING: Do not substitute the heat-rated flex liner (UL1777) for the Exhaust with any other type liner or a fire may result causing property damage, personal injury or loss of life.

IMPORTANT NOTES:

 Adjust Leveling Bolts if Necessary: Two leg leveling bolts are installed into existing holes in the bottom rear of appliance. Turn the leveling bolts to adjust for correct height.

• Refer to Vent Manufacturer Installation Instructions.

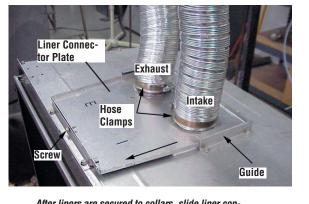
Direct Vent System Components

The following "Security Secure Vent[™]" or "Simpson Dura-Vent" brand Collinear Direct-Vent components may be safely used with these appliances (see Figures 14 & 15).

Lennox Hearth Products – Collinear Direct-Vent Kits					
Cat. No. Model		Description			
H0908	TKDVI	Termination Kit, DVI			
H0909	FKDVI	Flex Kit, DVI 3" X 35'			
Table 9a					

Simpson Dura Vent Components				
Part No. Description				
980	Termination Cap, Standard			
991	Termination Cap, High Wnd			
923GK	Chimney Liner Term. Kit			
2280 Liner, Flex, 3" Dia. /. 35 feet.				
Table 9b				



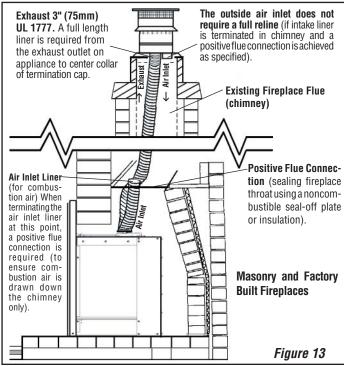


After liners are secured to collars, slide liner connector plate forward and secure with screw.

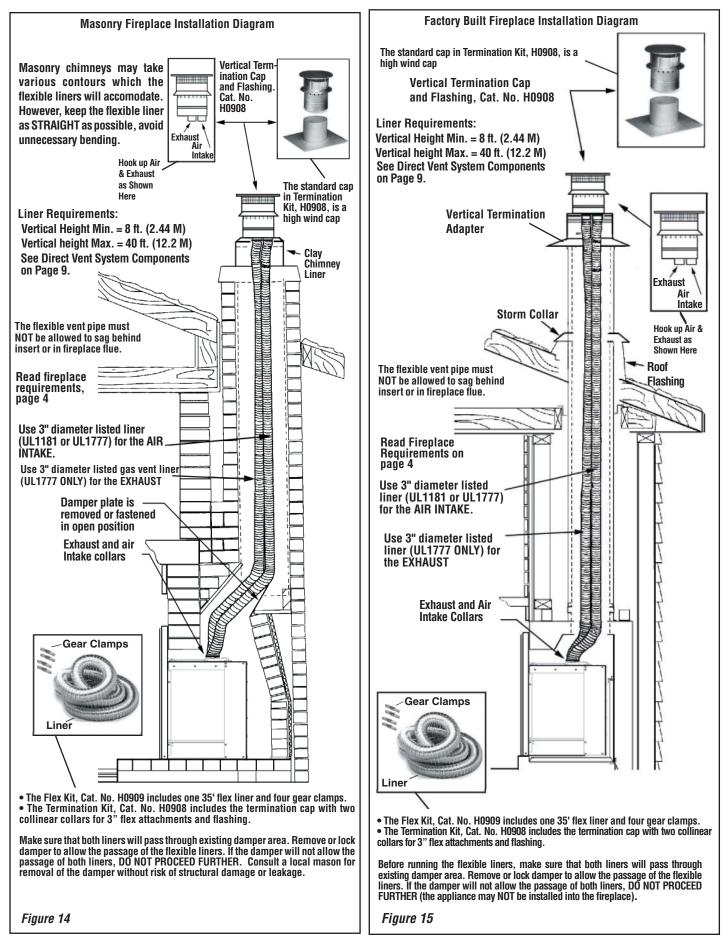
Figure 12

Positive Flue Connection (acceptable methods for sealing chimney throat) Masonry and Factory Built Fireplaces

A qualified installer should evaluate the existing fireplace to determine the best method for achieving a positive flue connection between the vent and intake liners and the chimney. The most common method is to secure a noncombustible seal-off plate (i.e. 22-gage sheet steel) in the fireplace throat using masonry screws. Other acceptable methods include packing noncombustible material (i.e. rockwool) around the liners. Whichever "seal off" method is used must effectively seal the area to prevent room air passage to the chimney of the fireplace.



NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.



Flex Liner Installation (see Figure 14 for Masonry Fireplace Installations and Figure 15 for Factory Built Fireplaces):

Note: Refer to Vent Manufacturer Installation Instructions.

1) Cut the flex liners as required (<u>mark both</u> ends of one of the flexible liners as INLET).

2) Connect the liner marked INLET to the inlet side of the termination adaptor. Connect the other liner to the exhaust side. Secure liner to INLET collar with hose clamp.

3) Install flashing.

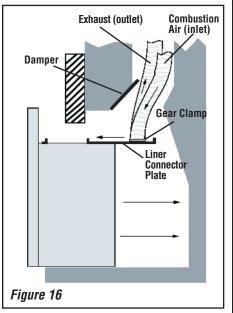
4) Insert both liners into chimney, passing through the damper opening.

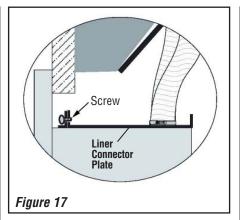
5) Install termination cap.

6) Remove the liner connector plate from the insert top (by removing the screw shown in Figure 17, then sliding plate backward until it clears the retaining breackets). Liners should be streched just enough to prevent the possibility of sagging or coiling in the flue. Cut off excess liner (see collar locations on pages 5 & 6).

7) Connect the liner marked INLET to the inlet collar on the liner connector plate (marked with an "I"). Connect the remaining liner to the exhaust collar (marked with an "E") on the liner connector plate. Note: Both connections should be secured to collars using gear clamps.

8) Slide the liner connector plate all the way forward and secure into place with a screw (provided) as shown in Figure 16 & 17.





Notes:

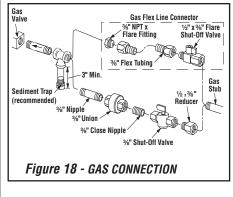
• Final gas connection should be made after unit is in place to avoid damage to line when pushing the unit into position.

• Mill-pac, high temperature silicone and/or screws may also be used to secure the liners to the collars (gear clamps must also be used).

Step 9. CONNECTING GAS LINE

Make gas line connections. All codes require a shut-off valve mounted in the supply line. Figure 18 illustrates two methods for connecting the gas supply. The flex-line method is acceptable in the U.S., however, Canadian requirements vary depending on locality. Installation must be in compliance with local codes.

These appliances are equipped with a gas flex line for use (where permitted) in connecting the unit to the gas line. A gas flex line is provided to aid in attaching the appliance to the gas supply. The gas flex line can only be used where local codes permit. See Figure 18 for flex line description. The flex line is rated for both natural and propane gas. A manual shut off valve is also provided with the flex line. The gas control valve is located in the lower control compartment. The millivolt control valve has a 3/8" (10 mm) NPT thread inlet port fitting.



Step 10. PURGING AIR

AIR PURGING PROCEDURES MUST BE PERFORMED BY A QUALIFIED TECHNICIAN ONLY.

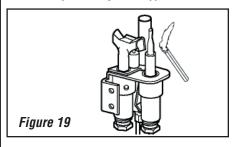
Purging Air from Supply Line

- a. Turn gas supply line valve off.
- b. Loosen setscrew at inlet pressure tap on control valve (see Figure 36).
- c. Turn gas supply line valve on.
- d. When gas flows, turn supply valve off.
- e. Close the inlet pressure tap.

Purging Air from Appliance

Purge air from appliance by holding gas control valve down in the pilot position until pilot will light (see Figure 19). **DO NOT LIGHT A MATCH IF YOU SMELL GAS.** Light a match then allow gas flow to pilot. If the Match "blows", there is air in the line (purge line). If the flame is straight and tall, there is no gas pressure.

When first lighting the appliance, it will take a few minutes for the line to purge air from the appliance. Once purging is complete, the pilot and burner will light and operate as indicated in the instruction manual. Subsequent lightings of the appliance will not require such purging. Inspect the pilot flame (remove logs, if necessary, handling carefully).



Step 11. INSTALLING LOGS, VERMICU-LITE AND EMBERS

The packaged log set, vermiculite and embers are located within the firebox of the insert. Note: The EDVI25/EDVI30 log set is shown in figures 20-28 and the EDVI35 log set is shown in figures 29-34.

Installation Instructions:

WARNING: If logs are not installed according to the directions shown here, flame impingement and improper combustion could occur and result in soot and/or excessive production of carbon monoxide (CO), a colorless, odorless, toxic gas.

Note: If an optional Brick Liner Kit was purchased, intall it now, per instructions provided in kit. LOGS, VERMICULITE AND EMBERS - Models EDVI25 & EDVI30 (For EDVI35 Log Installation Instructions, see Page 13).

The packaged log set, vermiculite and embers are located within the firebox of the insert.

Installation Instructions:

WARNING: IF LOGS ARE NOT INSTALLED ACCORDING TO THE DIRECTIONS SHOWN HERE, FLAME IMPINGEMENT AND IMPROPER COMBUSTION COULD OCCUR AND RESULT IN SOOT AND/OR EXCES-SIVE PRODUCTION OF CARBON MONOXIDE (CO), A COLORLESS, ODORLESS, TOXIC GAS.

Notes:

• If an optional Brick Liner Kit was purchased, intall it now, per instructions provided in kit.

• Place some vermiculite around the burner as shown in Figure 28 before installing the logs (the entire bag of vermiculite will NOT be used).

Carefully install the seven-piece log set into the firebox as shown in these instructions. All logs should fit onto corresponding pins and/or log stoppers. This will ensure a proper flame and safe combustion.

1. Place the largest log onto the 2 corresponding locating pins at the back of the firebox as shown in Figure 20.

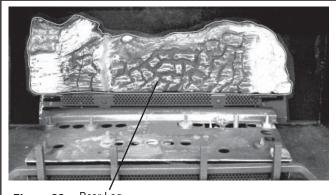


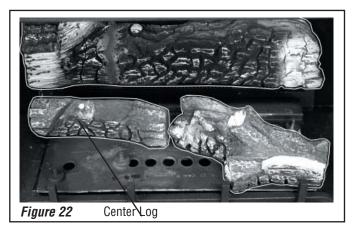
Figure 20 Rear Log

2. Place the Front Right Log onto the 2 corresponding locating pins as shown in Figure 21.

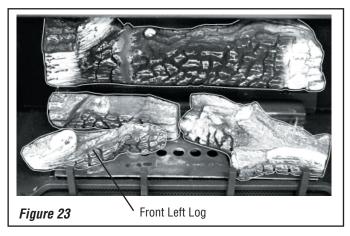


Figure 21 Front Right Log

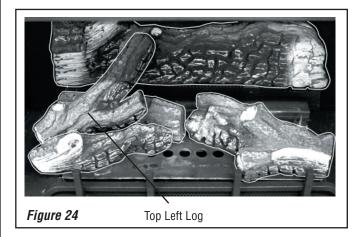
3. Place the Center Log onto the 2 corresponding locating pins as shown in Figure 22.



4. Place the Front Left Log onto the 2 corresponding locating pins as shown in Figure 23.

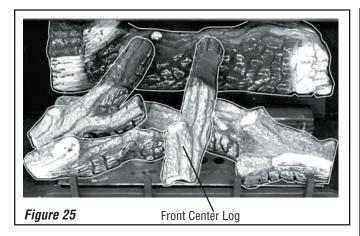


5. Install the Top Left Log onto the corresponding locating pin and indentation on Center Log as shown in Figure 24.

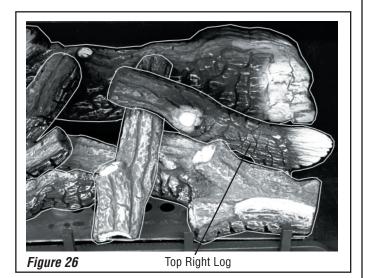


6. Install the Front Center Log over the Front Right Log . The front of log will rest on the burner and the back of log will rest on rear log as shown in Figure 25.

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.



7. Install the Top Right Log into the corresponding indentations on Front Center Log and front right twig as shown in Figure 26.



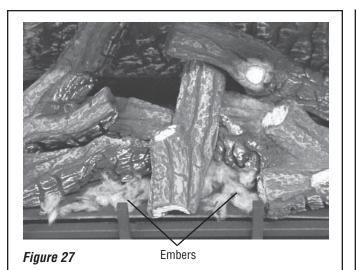
8. Place the glowing embers on the burner as shown in Figure 27.

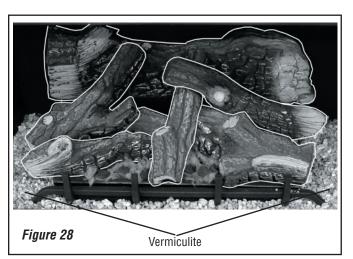
One package of ember material has been included with this log set You will not need to use the entire bag.

IMPORTANT: The quantity and placement of the ember material can affect insert performance therefore it is very important that it be placed as shown in Figure 27.

a. Unpackage and divide the fine ember material (mineral wool) into dime-sized fluffy pieces.

b. Distribute the pieces over the top of the front burner ports, filling the area in front of the forward logs.





LOGS, VERMICULITE AND EMBERS - Model EDVI35

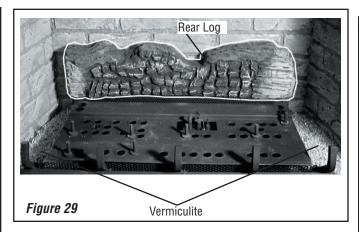
WARNING: IF LOGS ARE NOT INSTALLED ACCORDING TO THE DIRECTIONS SHOWN HERE, FLAME IMPINGEMENT AND IMPROPER COMBUSTION COULD OCCUR AND RESULT IN SOOT AND/OR EXCES-SIVE PRODUCTION OF CARBON MONOXIDE (CO), A COLORLESS, ODORLESS, TOXIC GAS.

Carefully install the seven-piece log set into the firebox as shown in these instructions. All logs should fit onto corresponding pins and/or log stoppers. This will ensure a proper flame and safe combustion.

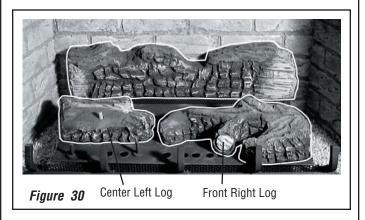
1. Place some vermiculite around the burner as shown in Figure 29 (the entire bag of vermiculite will NOT be used).

2. Place the Rear Log onto the 2 corresponding locating pins at the back of the firebox as shown in Figure 29.

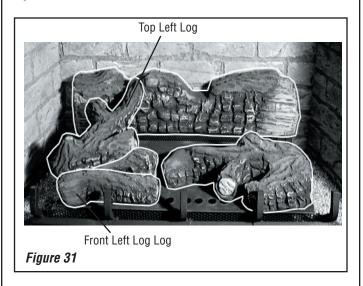
NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.



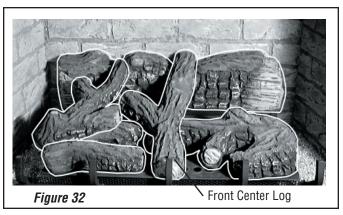
3. Place the Front Right Log and the Center Left Log onto the 2 corresponding locating pins (each) as shown in Figure 30.



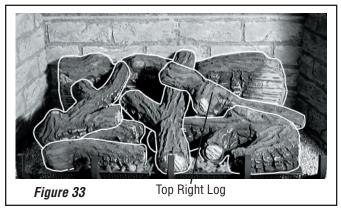
4. Place the Front Left Log onto the 2 corresponding locating pins, then place the Top Left Log onto the locating pin on the Left Center Log (the log will rest in the corresponding indent on Rear Log). See Figure 31.



5. Place the Front Center Log in place as shown in Figure 32. The back of the log fits into the corresponding indent on Rear Log.



6. Install the Top Right Log into the corresponding indentations on Front Center Log and Front Right Log as shown in Figure 33.



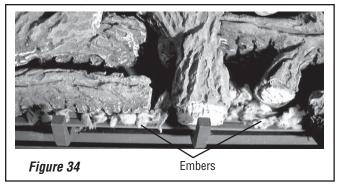
7. Place the glowing embers on the burner as shown in Figure 34.

One package of ember material has been included with this log set You will not need to use the entire bag.

IMPORTANT: The quantity and placement of the ember material can affect stove performance therefore it is very important that it be placed as shown in Figure 34.

a. Unpackage and divide the fine ember material (mineral wool) into dime-sized fluffy pieces.

b. Distribute the pieces over the top of the front burner area in front of the forward logs (see Figure 34).



VERIFY THAT THE GAS LINE HAS BEEN PURGED OF AIR (See Step 10, page 11) .

Step 12. TEST ALL CONNECTIONS FOR LEAKS (FACTORY AND FIELD).

Test For Gas Leaks

A. Mix a 50% dish soap, 50% water solution (or use a gas leak detection solution).

B. Light the appliance (refer to the lighting instructions provided in the insert control compartment and the Homeowner's Care and Operation Instructions).

C. Brush all joints and connections with the soapy water or leak detection solution to check for leaks. If bubbles are formed, or gas odor is detected, turn the gas control knob to the "OFF" position and close the gas shut-off valve. Either tighten or refasten the leaking connection and retest as described above.

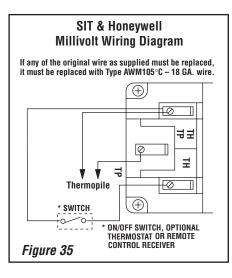
D. When the gas lines are tested and leak free, observe the individual tongues of flame on the burner. Make sure all ports are open and producing flame evenly across the burner. If any ports are blocked, or partially blocked, turn off unit, allow it to cool, then clean out the ports.

E. Turn on gas supply and test for gas leaks using a soapy water or gas leak detection solution. Never use an open flame to check for leaks.

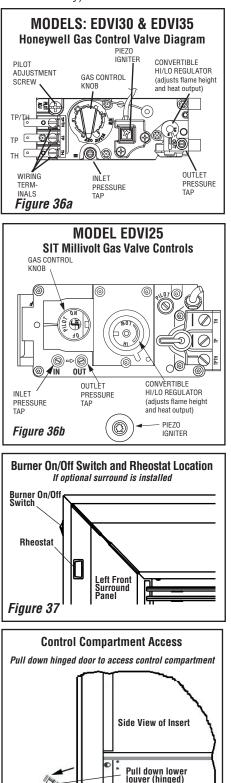
Step 13. INSTALL SURROUND KIT OR CON-TROL KIT (see pages 12 & 13 in Homeowners Manual).

Step 14. INSTALL WALL THERMOSTAT AND REMOTE CONTROL (if purchased)

If an optional Wall Thermostat or Remote Control Kit was purchased, intall it now, per instructions provided in kit. See Figure 35. If a wall-mounted thermostat is selected, mount it in a convenient location on a wall near the insert. Wire the thermostat within the millivolt control circuit using a maximum of 25 feet of 18 gage, 2 conductor wire. Caution: Do not connect the optional wall thermostat, gas control valve or control wiring system of the unit to a 120 volt power supply (residential line voltage).



Step 15. CHECKING APPLIANCE OPERA-TION With gas line installed run initial system checkout before closing up the front of the unit. Follow the pilot lighting instructions provided in the Homeowner's Care and Operation Instructions (or pull out the instruction label located in control compartment below glass door assembly).

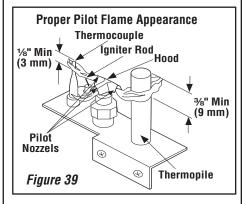


Millivolt Appliance Checkout

The pilot flame should be steady, not lifting or floating. Flame should be blue in color with traces of orange at the outer edge. The top 3/8" (10 mm) at the pilot generator (thermopile) and the top 1/8" minimum (tip) of the quick drop out thermocouple should be engulfed in the pilot flame. The flame should project 1" (25 mm) beyond the hood at all three ports (Figure 39).

Replace logs if removed for pilot inspection.

To light the burner, rotate the gas valve control knob counterclockwise to the "ON" position then turn "ON" the on/off switch mounted on the surround assembly (see Figure 37) or operate the burner with the optional remote control, wall thermostat or control switch.



Step 16. REINSTALL FRONT GLASS DOOR ASSEMBLY.

To reinstall glass door assembly panel, reverse instructions on Step 5 (page 8).

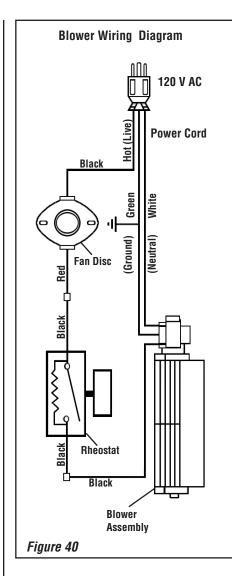
Step 17. CHECK BLOWER SYSTEM OPERATION

WARNING: THE POWER CORD MUST BE PLUGGED DIRECTLY INTO A PROPERLY GROUNDED, 120 VOLT, 60 HZ, 3-PRONG RECEPTACLE ELECTRICAL OUTLET. DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THIS PLUG. IT MUST BE ROUTED TO AVOID CONTACT. DO NOT ROUTE POWER CORD UNDER OR IN FRONT OF APPLIANCE.

When the insert heats up, the blower will automatically be turned on by the fan disc, located under the firebox bottom on the front left side. It will come on at the speed determined by the rheostat, located on left surround panel (see Figure 37). To adjust the blower speed, dial the rheostat to the desired speed setting. Rotate the dial down (clockwise), just past the click (the first ON position) for the highest speed setting. Turning the knob further clockwise will provide slower blower speeds. Note: If the rheostat is not turned "on", the blower will not operate.

Figure 38

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE.

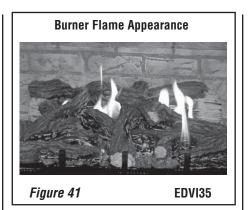


Step 18. BURNER ADJUSTMENT

Flame Appearance and Sooting

Proper flame appearance is a flame which is blue at the base and becomes yellow / orange in the body of the flame. When the appliance is first lit, the entire flame may be blue and will gradually turn yellow/orange during the first 6-8 minutes of operation. If after 6-8 minutes the flame stays lowered blue, or if the flame is orange with evidence of sooting (black tip), the air shutter may require adjustment.

Appliances operated with air shutter openings that are too large will exhibit flames that are blue and transparent. These weak, blue and transparent flames are termed anemic. If the air shutter openings are too small, sooting may develop



Sooting is indicated by black puffs developing at the tips of very long orange flames. Sooting results in black deposits forming on the logs, appliance inside surfaces and on exterior surfaces adjacent to the vent termination. Sooting is caused by incomplete combustion in the flames and lack of combustion air entering the air shutter opening. To achieve a warm yellow to orange flame that does not soot, the shutter opening must be adjusted between these two extremes.

No smoke or soot should be present. Reposition the logs if flames impinge on any of them. If the logs are properly positioned and sooting conditions exist, the air shutter opening on the main burner tube should be adjusted.

IMPORTANT: ENSURE THAT THE FRONT Glass Panel IS in Place and Sealed During Adjustment.

Burner Adjustment Procedure

AIR SHUTTER ADJUSTMENT SHOULD ONLY BE PERFORMED BY AN AUTHO-RIZED INSTALLER AT THE TIME OF THE INSTALLATION OR SERVICE.

CAUTION: THE ADJUSTMENT ROD AND NEARBY APPLIANCE SURFACES ARE HOT. EXERCISE CAUTION TO AVOID INJURY WHILE ADJUSTING FLAME APPEARANCE.

Initially, always position the air shutter to the factory setting as shown in Figure 42 (adjustment rod is located in the lower control area). This can be done by moving the adjustment rod up or down accordingly. Allow the burner to operate for at least 15 minutes. Observe the flame continuously. If it appears weak or sooty as previously described, adjust the air shutter to a more open position until the proper flame appearance is achieved.

Adjusting Set Screw Adjustment Rod Up (1/8" Open Position) **Burner Tube** Air Shutter Adjustment Rod Down (full open position) FACTORY AIR SHUTTER SETTING **INCHES (MILLIMETERS)** Models Gas Type Air Shutter Gap Natural Gas 3/16" (4.76 mm) EDVI25 Propane 3/8" (9.52 mm) Natural Gas 5/16" (7.94 mm) EDVI30 1/2" (12.7 mm) Propane 3/8" (9.52 mm) Natural Gas EDVI35 1/2" (12.7 mm) Propane Figure 42

Burner Air Shutter Adjustment

CAUTION: CARBON WILL BE PRODUCED IF THE AIR SHUTTER IS CLOSED TOO MUCH. Any damage due to carboning resulting from improperly setting the air shutter is NOT covered under the warranty.

The following chart (Table 10) is provided to aid you in achieving the correct air shutter adjustment for your installation.

Air Shutter Adjustment Guidelines:

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

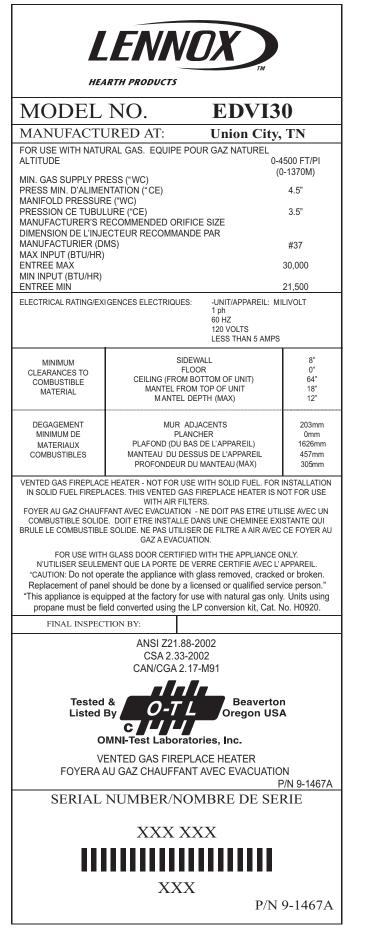
Table 10

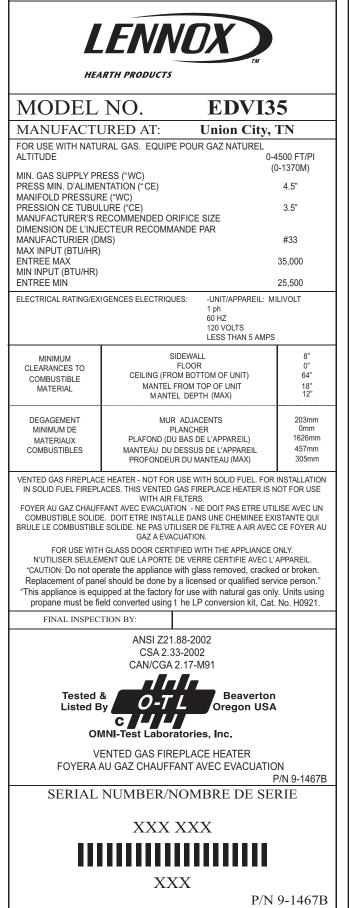
When satisfied that the appliance operates properly, proceed to finish the installation. Leave the control knob in the ON position and the on/off switch in the OFF position.

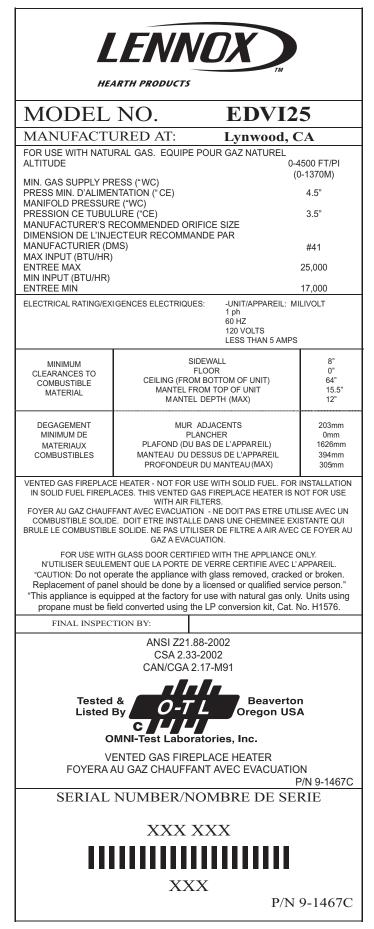
STEP 19. INSTALL LOUVER KIT

Install louver kit per the instructions provided with the kit.

SAFETY / LISTING LABELS - MODELS: EDVI30 & EDVI35







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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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